

RECORDING REQUESTED BY  
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OF THE CITY AND COUNTY OF SAN FRANCISCO

AND WHEN RECORDED MAIL TO:

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Clerk of the Board of Supervisors  
City Hall, Room 244  
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San Francisco, CA 94102

(Exempt from Recording Fees Pursuant to  
Government Code Section 27383)

**DEVELOPMENT AGREEMENT**

**BY AND BETWEEN**

**THE CITY AND COUNTY OF SAN FRANCISCO  
AND RESERVOIR COMMUNITY PARTNERS, LLC**

**FOR THE BALBOA RESERVOIR PROJECT**

Block \_\_\_\_\_ Lots \_\_\_\_\_

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## **EXHIBITS AND SCHEDULES**

### **Exhibits**

- A Project Site Legal Description
- B Project Description
- B-1 Site Plan
- C Project Open Space
- C-1 Open Space Plan
- C-2 Open Space Rules and Regulations
- C-3 Declaration Of Public Access Covenants And Restrictions
- C-4 Rules and Regulations for Privately Owned Streets
- D Affordable Housing Program
- D-1 Affordable Housing Site Plan
- E List of Approvals
- F MMRP
- G Form of Assignment and Assumption Agreement
- H Notice of Completion and Termination
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- J Transportation Plan
- J-1 Transportation Demand Management Plan
- K Schedule Template for Later Approvals
- L Child Care Program
- M Master Infrastructure Plan
- N Development Phase Application Process
- O Financing Plan

### **Schedules**

- 1 Phasing Plan and Community Benefits Linkages Schedule
- 2-1 Schedule of Impact Fees
- 2-2 Schedule of Code Waivers and Amendments

**DEVELOPMENT AGREEMENT**  
**BY AND BETWEEN**  
**THE CITY AND COUNTY OF SAN FRANCISCO**  
**AND RESERVOIR COMMUNITY PARTNERS, LLC**

THIS DEVELOPMENT AGREEMENT dated for reference purposes only as of this \_\_\_\_ day of \_\_\_\_\_, 2020, is by and between the CITY AND COUNTY OF SAN FRANCISCO, a municipal corporation (the “**City**”), acting by and through its Planning Department, and RESERVOIR COMMUNITY PARTNERS, LLC, a Delaware limited liability company (“**Developer**”), pursuant to the authority of Section 65864 *et seq.* of the California Government Code and Chapter 56 of the Administrative Code. The City and Developer are also sometimes referred to individually as a “**Party**” and together as the “**Parties**”. Capitalized terms not defined when introduced have the meanings given in Article 1.

**RECITALS**

This Agreement is made with reference to the following facts:

A. The City, through the San Francisco Public Utilities Commission (“**SFPUC**”), is the owner of an approximately 17 acre site located generally north of the Ocean Avenue commercial district, west of the City College of San Francisco Ocean Campus, east of the Westwood Park neighborhood, and south of Archbishop Riordan High School, in San Francisco, California, as described in greater detail in Exhibit A (the “**Project Site**”).

B. The Developer proposes a mixed income housing development of up to approximately 1,100 housing units, including approximately 550 units affordable to low and moderate income households, approximately 4 acres of publicly accessible open spaces (including property immediately adjacent to the south of the Project Site that contains an SFPUC underground pipeline and will remain under the ownership of the City and the jurisdiction and control of SFPUC (the “**SFPUC Retained Fee Area**”)), a childcare center serving approximately 100 children, a community room, approximately \_\_\_\_ square feet of commercial space, 550 parking spaces for use by residents and up to 450 parking spaces for use by the general public, in addition to new streets, sidewalks, sewer, power and water infrastructure, including an Auxiliary Water Supply System, and bicycle and pedestrian facilities, located on the Project Site , as described in greater detail in Exhibit B (the “**Project**”). .

C. The Project is anticipated to generate an annual average of approximately 460 construction jobs during construction and approximately 30 net new permanent on-site jobs upon completion, and an approximately \$1.7 Million annual increase in general fund revenues to the City.

D. In order to strengthen the public planning process, encourage private participation in comprehensive planning, and reduce the economic risk of development, the Legislature of the State of California adopted Government Code Section 65864 *et seq.* (the “**Development Agreement Statute**”), which authorizes the City to enter into a development agreement with any person having a legal or equitable interest in real property regarding the development of such property. Pursuant to Government Code Section 65865, the City adopted Chapter 56 of the Administrative Code (“**Chapter 56**”) establishing procedures and requirements for entering into a development agreement pursuant to the Development Agreement Statute. The Parties are entering into this Agreement in accordance with the Development Agreement Statute and Chapter 56.

E. In addition to the significant housing, jobs, and economic benefits to the City from the Project, the City has determined that as a result of the development of the Project in accordance with this Agreement, additional clear benefits to the public will accrue that could not be obtained through application of existing City ordinances, regulations, and policies. Major additional public benefits to the City from the Project include: (i) an increase in affordable housing that exceeds amounts otherwise required and will equal approximately fifty percent (50%) of the total number of housing units for the Project, of which Developer will be responsible for approximately sixty-seven percent (67%) of the gap financing for the affordable housing units, and City will be responsible for approximately thirty-three percent (33%) of the gap financing for the affordable housing units; (ii) construction and maintenance of new parks, pedestrian pathways, and landscape areas for a total of approximately 4 acres of publicly accessible open areas; and (iii) street and infrastructure improvements, each as further described in this Agreement.

F. It is the intent of the Parties that all acts referred to in this Agreement shall be accomplished in a way as to fully comply with the California Environmental Quality Act (California Public Resources Code Section 21000 *et seq.*; “**CEQA**”), the CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 *et seq.*; “**CEQA Guidelines**”), the Development Agreement Statute, Chapter 56, the Planning Code, the Enacting Ordinance and all other applicable Laws in effect as of the Effective Date. This Agreement does not limit the City's

obligation to comply with applicable environmental Laws, including CEQA, before taking any discretionary action regarding the Project, or the Developer's obligation to comply with all applicable Laws in connection with the development of the Project.

G. The Final Environmental Impact Report (“**FEIR**”) prepared for the Project and certified by the Planning Commission on \_\_\_\_\_, together with the CEQA findings (the “**CEQA Findings**”) and the Mitigation Measures adopted concurrently therewith and set forth in the MMRP, comply with CEQA, the CEQA Guidelines, and Chapter 31 of the Administrative Code. The FEIR thoroughly analyzes the Project and Project alternatives, and the Mitigation Measures were designed to mitigate significant impacts to the extent they are susceptible to feasible mitigation. On \_\_\_\_\_, 2020, the Board of Supervisors, in Motion No. [\_\_\_\_], affirmed the decisions of the Planning Commission to certify the FEIR. The information in the FEIR and the CEQA Findings were considered by the City in connection with approval of this Agreement.

H. On or about the Effective Date of this Agreement, the Parties anticipate entering into a Purchase and Sale Agreement (“**PSA**”) pursuant to which the City will convey title to the Project Site to Developer (except for the SFPUC Retained Fee Area), and, pursuant to an agreement with SFPUC, grant Developer such other rights of access and use of the Project Site as are necessary for the development of the Project Site (the “**Infrastructure License Agreement**”), as contemplated by this Agreement. In addition, the Parties anticipate entering into a separate license agreement with SFPUC pursuant to which Developer may access, construct, and maintain certain open space improvements on the SFPUC Retained Fee Area (the “**SFPUC Retained Fee License Agreement**”)

I. On \_\_\_\_\_, 2020, the Planning Commission held a public hearing on this Agreement and the Project, duly noticed and conducted under the Development Agreement Statute and Chapter 56. Following the public hearing, the Planning Commission adopted the CEQA Findings and determined among other things that the FEIR thoroughly analyzes the Project, and the Mitigation Measures are designed to mitigate significant impacts to the extent they are susceptible to a feasible mitigation, and further determined that the Project and this Agreement will, as a whole, and taken in their entirety, continue to be consistent with the objectives, policies, general land uses and programs specified in the General Plan, as amended, and the policies set forth in Section 101.1 of the Planning Code (together the “**General Plan Consistency Findings**”).

The information in the FEIR and the CEQA Findings has been considered by the City in connection with this Agreement.

J. On \_\_\_\_\_, 2020, SFPUC held a duly noticed public hearing on this Agreement, the PSA, the Infrastructure License Agreement, and the SFPUC Retained Fee License Agreement. Following the public hearing, SFPUC made the CEQA Findings required by CEQA, and adopted Resolution No. [\_\_\_\_], consenting to this Agreement, approving the PSA, the Infrastructure License Agreement, and the SFPUC Retained Fee License Agreement, and incorporating by reference the General Plan Consistency Findings.

K. On \_\_\_\_\_, the Board of Supervisors, having received the Planning Commission's recommendations, held a public hearing on this Agreement pursuant to the Development Agreement Statute and Chapter 56. Following the public hearing, the Board made the CEQA Findings required by CEQA, approved this Agreement, the PSA, the Infrastructure License Agreement, the SFPUC Retained Fee License Agreement, incorporating by reference the General Plan Consistency Findings, and adopted Resolution No. \_\_\_\_\_ in connection with the Project.

L. On \_\_\_\_\_, the Board adopted Ordinance Nos. [\_\_\_\_], [\_\_\_\_], and [\_\_\_\_], amending the Planning Code, the Zoning Map, and the General Plan to create the Balboa Reservoir Special Use District (“**Project SUD**”), approving this Agreement (File No. [\_\_\_\_]), and authorizing the Planning Director to execute this Agreement on behalf of the City (the “**Enacting Ordinance**”). The Enacting Ordinance took effect on \_\_\_\_\_.

Now therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

## **AGREEMENT**

### **1. DEFINITIONS**

In addition to the definitions set forth in the above preamble paragraph, Recitals and elsewhere in this Agreement, the following definitions shall apply to this Agreement:

1.1. “**Administrative Code**” means the San Francisco Administrative Code.

1.2. “**Affordable Housing Program**” means the Affordable Housing Program attached hereto as Exhibit D.

1.3. “**Affordable Units**” has the meaning set forth in the Affordable Housing Program attached as Exhibit D.

1.4. “**Agreement**” means this Development Agreement, the Exhibits which are expressly incorporated herein and any amendments thereto.

1.5. “**AMI**” has the meaning set forth in the Affordable Housing Program attached as Exhibit D.

1.6. “**Annual Review Date**” has the meaning set forth in Section 8.1.

1.7. “**Applicable Laws**” has the meaning set forth in Section 5.2 (where not capitalized, “applicable Law” has its plain meaning and refers to Laws as otherwise defined herein).

1.8. “**Approvals**” means the City approvals, entitlements, and permits listed on Exhibit E, including any Later Approvals at the time and to the extent they are included pursuant to Section 5.1.

1.9. “**Assignment and Assumption Agreement**” has the meaning set forth in Section 12.2.

1.10. “**Associated Community Benefit**” is defined in Section 4.1.

1.11. “**Board of Supervisors**” or “**Board**” means the Board of Supervisors of the City and County of San Francisco.

1.12. “**Building**” or “**Buildings**” means each of new buildings to be constructed on the Project Site, as described in the Project description attached as Exhibit B.

1.13. “**CEQA**” has the meaning set forth in Recital F.

1.14. “**CEQA Findings**” has the meaning set forth in Recital G.

1.15. “**CEQA Guidelines**” has the meaning set forth in Recital F.

1.16. “**Chapter 56**” has the meaning set forth in Recital D.

1.17. “**Child Care Program**” means the child care facility program attached as Exhibit L.

1.18. “**City**” means the City as defined in the opening paragraph of this Agreement. Unless the context or text specifically provides otherwise, references to the City means the City acting by and through the Planning Director or, as necessary, the Planning Commission or the Board of Supervisors.

1.19. “**City Agency**” or “**City Agencies**” means the City departments, agencies, boards, commissions, and bureaus that execute or consent to this Agreement, or are controlled by persons or commissions that have executed or consented to this Agreement, that have



subdivision or other permit, entitlement or approval authority or jurisdiction over development of the Project or any improvement located on or off the Project Site, including, without limitation, the City Administrator, Planning Department, SFPUC, MOHCD, OEWD, SFMTA, PW, DBI, together with any successor City agency, department, board, or commission. Nothing in this Agreement shall affect the jurisdiction under the City's Charter of a City department that has not approved or consented to this Agreement in connection with the issuance of a Later Approval. The City actions and proceedings subject to this Agreement shall be through the Planning Department, as well as affected City Agencies (and when required by applicable Law, the Board of Supervisors).

1.20. **"City Attorney's Office"** means the Office of the City Attorney of the City and County of San Francisco.

1.21. **"City Costs"** means the actual and reasonable costs incurred by a City Agency in preparing, adopting or amending this Agreement, in performing its obligations or defending its actions under this Agreement or otherwise contemplated by this Agreement, as determined on a time and materials basis, including reasonable attorneys' fees and costs but excluding work, hearings, costs or other activities contemplated or covered by Processing Fees; provided, however, City Costs shall not include any costs incurred by a City Agency in connection with a City Default or which are payable by the City under Section 9.6 when Developer is the prevailing party, and shall not include any of the City's Affordable Funding Share, as defined in the Affordable Housing Program.

1.22. **"City Parties"** has the meaning set forth in Section 4.7.

1.23. **"City Report"** has the meaning set forth in Section 8.2.2.

1.24. **"City-Wide"** means all real property within the territorial limits of the City and County of San Francisco, not including any property owned or controlled by the United States or by the State of California and therefore not subject to City regulation.

1.25. **"CMA"** is defined in Section 12.1.

1.26. **"Commence Construction", "Commenced Construction" or "Commencement of Construction"** means groundbreaking in connection with the commencement of physical construction of horizontal infrastructure or, when used in reference to any Building, the applicable Building foundation, but specifically excluding the demolition or partial demolition of existing structures.

- 1.27. **“Community Benefits”** has the meaning set forth in Section 4.1.
- 1.28. **“Community Benefits Program”** has the meaning set forth in Section 4.1.
- 1.29. **“Costa Hawkins Act”** has the meaning set forth in Exhibit D.
- 1.30. **“Default”** has the meaning set forth in Section 9.3.
- 1.31. **“DBI”** means the Department of Building Inspection of the City and County of San Francisco.
- 1.32. **“Developer”** has the meaning set forth in the opening paragraph of this Agreement, and shall also include (i) any Transferee as to the applicable Transferred Property, and (ii) any Mortgagee or assignee thereof that acquires title to any Foreclosed Property but only as to such Foreclosed Property.
- 1.33. **“Development Agreement Statute”** has the meaning set forth in Recital D, as in effect as of the Effective Date.
- 1.34. **“Development Parcel”** means a parcel within the Project Site on which a Building or other improvements will be constructed, as set forth in a Subdivision Map.
- 1.35. **“Development Phase Application”** has the meaning set forth in Section 3.1.
- 1.36. **“Effective Date”** has the meaning set forth in Section 2.1.
- 1.37. **“Enacting Ordinance”** has the meaning set forth in Recital K.
- 1.38. **“Engineering Design”** has the meaning set forth in Section 5.4.2.
- 1.39. **“Excusable Delay”** has the meaning set forth in Section 11.5.2.
- 1.40. **“Existing Standards”** has the meaning set forth in Section 5.2.
- 1.41. **“Existing Uses”** means all existing lawful uses of the existing land and improvements (and including, without limitation, pre-existing, non-conforming uses under the Planning Code) on the Project Site as of the Effective Date, as the same may be modified by the Approvals and any Later Approvals.
- 1.42. **“Federal or State Law Exception”** has the meaning set forth in Section 5.8.1.
- 1.43. **“FEIR”** has the meaning set forth in Recital G.
- 1.44. **“First Construction Document”** is defined in San Francisco Building Code Section 107A.13.1(a)(8).

1.45. **“Finally Granted”** means (i) any and all applicable appeal periods for the filing of any administrative or judicial appeal challenging the issuance or effectiveness of any of the Approvals, this Agreement or the FEIR shall have expired and no such appeal shall have been filed, or if such an administrative or judicial appeal is filed, the Approvals, this Agreement or the FEIR, as applicable, shall have been upheld by a final decision in each such appeal without adverse effect on the applicable Approval, this Agreement or the FEIR and the entry of a final judgment, order or ruling upholding the applicable Approval, this Agreement or the FEIR and (ii) if a referendum petition relating to this Agreement is timely and duly circulated and filed, certified as valid and the City holds an election, the date the election results on the ballot measure are certified by the Board of Supervisors in the manner provided by the Elections Code reflecting the final defeat or rejection of the referendum.

1.46. **“Foreclosed Property”** is defined in Section 10.5.

1.47. **“General Plan Consistency Findings”** has the meaning set forth in Recital I.

1.48. **“Gross Floor Area”** has the meaning set forth in Planning Code as of the applicable date of determination of such area.

1.49. **“Impact Fees and Exactions”** means any fees, contributions, special taxes, exactions, impositions, and dedications charged by the City, whether as of the date of this Agreement or at any time thereafter during the Term, in connection with the development of Projects, including but not limited to transportation and transit fees, child care requirements or in-lieu fees, housing (including affordable housing) requirements or fees, dedication or reservation requirements, and obligations for on-or off-site improvements. Impact Fees and Exactions shall not include the Mitigation Measures, Processing Fees, taxes or special assessments or school district fees, SFPUC Capacity Charges, and any fees, taxes, assessments impositions imposed by any Non-City Agency, all of which shall be due and payable by Developer as and when due in accordance with applicable Laws.

1.50. **“Infrastructure License Agreement”** has the meaning set forth in Recital H.

1.51. **“Later Approval”** or **“Later Approvals”** means (i) any other land use approvals, entitlements, or permits from the City or any City Agency, other than the Approvals, that are consistent with the Approvals and necessary or advisable for the implementation of the

Project, including without limitation, demolition permits, grading permits, site permits, building permits, lot line adjustments, sewer and water connection permits, major and minor encroachment permits, street and sidewalk modifications, street improvement permits, permits to alter, certificates of occupancy, transit stop relocation permits, subdivision maps, improvement plans, lot mergers, lot line adjustments, and re-subdivisions. A Later Approval shall also include any amendment to the foregoing land use approvals, entitlements, or permits, or any amendment to the Approvals that are sought by Developer and approved by the City in accordance with the standards set forth in this Agreement.

1.52. **“Law(s)”** means the Constitution and laws of the United States, the Constitution and laws of the State of California, the laws of the City and County of San Francisco, and any codes, statutes, rules, regulations, or executive mandates thereunder, and any State or Federal court decision (including any order, injunction or writ) thereunder. The term **“Laws”** shall refer to any or all Laws as the context may require.

1.53. **“Law Adverse to City”** is defined in Section 5.8.4.

1.54. **“Law Adverse to Developer”** is defined in Section 5.8.4.

1.55. **“Litigation Extension(s)”** has the meaning set forth in Section 11.5.1.

1.56. **“Losses”** has the meaning set forth in Section 4.7.

1.57. **“Material Change(s)”** means any modification that (i) would materially alter the rights, benefits or obligations of the City or Developer under this Agreement, (ii) is not consistent with the Project SUD, (iii) extends the Term, (iv) changes the permitted uses of the Project Site, (v) decreases the Community Benefits, (vi) increases the maximum height, density, bulk or size of the Project, (vii) increases parking ratios, or (viii) changes the Impact Fees and Exactions.

1.58. **“Mitigation Measures”** means the mitigation measures (as defined by CEQA) applicable to the Project as set forth in the MMRP or that are necessary to mitigate adverse environmental impacts identified through the CEQA process as part of a Later Approval.

1.59. **“MMRP”** means that certain mitigation monitoring and reporting program attached hereto as Exhibit F.

1.60. **“MOHCD”** means the Mayor’s Office of Housing and Community Development.

1.61. **“Mortgage”** means a mortgage, deed of trust or other lien on all or part of the Project Site to secure an obligation made by the applicable property owner.

1.62. **“Mortgagee”** means (i) any mortgagee or beneficiary under a Mortgage, and (ii) a person or entity that obtains title to all or part of the Project Site as a result of foreclosure proceedings or conveyance or other action in lieu thereof, or other remedial action.

1.63. **“Municipal Code”** means the San Francisco Municipal Code. All references to any part of the Municipal Code mean that part of the Municipal Code in effect on the Effective Date, as the Municipal Code may be modified by changes and updates that are adopted from time to time in accordance with Section 5.4 or by permitted New City Laws as set forth in Section 5.6.

1.64. **“New City Laws”** has the meaning set forth in Section 5.6.

1.65. **“Non-City Agency”** means Federal, State, and local governmental agencies that are independent of the City and not parties to this Agreement.

1.66. **“Non-City Approval(s)”** means any permits, agreements, or entitlements from Non-City Agencies as may be necessary for the development of the Project.

1.67. **“OEWD”** means the San Francisco Office of Economic and Workforce Development.

1.68. **“Official Records”** means the official real estate records of the City and County of San Francisco, as maintained by the City's Assessor-Recorder's Office.

1.69. **“Party”** and **“Parties”** has the meaning set forth in the opening paragraph of this Agreement and also includes any party that becomes a party to this Agreement, such as a Transferee.

1.70. **“Phasing Plan and Community Benefits Linkages”** means the schedule attached to this Agreement as Schedule 1.

1.71. **“Planning Code”** means the San Francisco Planning Code.

1.72. **“Planning Commission”** means the Planning Commission of the City and County of San Francisco.

1.73. **“Planning Department”** means the Planning Department of the City and County of San Francisco.

1.74. **“Planning Director”** means the Director of Planning of the City and County of San Francisco.

1.75. **“Processing Fees”** means the standard fee imposed by the City upon the submission of an application for a permit or approval, which is not an Impact Fee or Exaction, in accordance with City practice on a City-Wide basis.

1.76. **“Project”** means the mixed-income development project as described in Recital B, Exhibit B, and the Approvals, together with Developer's rights and obligations under this Agreement.

1.77. **“Project Open Space”** means the privately owned, publicly accessible open space described in Exhibits C and C-1, C-2, and C-3, including Reservoir Park, Gateway Landscape, Brighton Paseo, and San Ramon Paseo.

1.78. **“Project Site”** has the meaning set forth in Recital A, and as more particularly described in Exhibit A.

1.79. **“Project SUD”** means Planning Code Section \_\_\_\_\_ as adopted by the Board in Ordinance No. [\_\_\_\_\_].

1.80. **“PSA”** has the meaning set forth in Recital H.

1.81. **“Public Health and Safety Exception”** has the meaning set forth in Section 5.8.1.

1.82. **“Public Improvements”** means the facilities, both on- and off-site, to be improved, constructed and dedicated by Developer and, upon completion in accordance with this Agreement, accepted by the City. Public Improvements include the streets within the Project Site shown on Exhibit \_\_, and all infrastructure and public utilities within such streets (such as electricity, water and sewer lines but excluding any non-municipal utilities), including sidewalks, landscaping, bicycle lanes, bus boarding island, street furniture, and paths and intersection improvements (such as curbs, medians, signaling, traffic controls devices, signage, and striping) as specified in the Master Infrastructure Plan. The Public Improvements also include the SFPUC Infrastructure and the SFMTA Infrastructure, as specified in the Master Infrastructure Plan. The Public Improvements do not include Publicly Accessible Private Improvements or, if any, privately owned facilities or improvements in the public right of way. All Public Improvements will be constructed in accordance with all City standards and at Developer’s sole expense.

1.83. **“Publicly Accessible Private Improvements”** has the meaning set forth in Exhibit C.

1.84. **“PW”** means San Francisco Public Works.

1.85. “**SFMTA**” means the San Francisco Municipal Transportation Agency.

1.86. “**SFPUC**” means the San Francisco Public Utilities Commission.

1.87. “**SFPUC Capacity Charges**” means all water and sewer capacity and connection fees and charges payable to the SFPUC, as and when due in accordance with the applicable City requirements.

1.88. “**SFPUC Retained Fee Area**” has the meaning set forth in Recital B.

1.89. “**SFPUC Retained Fee License Agreement**” has the meaning set forth in Recital H.

1.90. “**Streetscape Improvements**” means the streets, sidewalks, curbs, gutters, bicycle pathways, and associated landscaping, , all as set forth in the Master Infrastructure Plan attached to this Agreement as Exhibit M.

1.91. “**Subdivision Code**” means the San Francisco Subdivision Code.

1.92. “**Subdivision Map**” means any map that Developer submits for the Project Site with respect to the Project under the Subdivision Map Act and the Subdivision Code, which may include, but not be limited to, tentative or vesting tentative subdivision maps, final or vesting final subdivision maps and any tentative or final parcel map, or transfer map, including phased final maps to the extent authorized under an approved tentative subdivision map.

1.93. “**Subdivision Map Act**” means the California Subdivision Map Act, California Government Code Section 66410 *et seq.*

1.94. “**Term**” has the meaning set forth in Section 2.2.

1.95. “**Third-Party Challenge**” means any administrative, legal or equitable action or proceeding instituted by any party other than the City or Developer challenging the validity or performance of any provision of this Agreement, the Project, the Approvals or Later Approvals, the adoption or certification of the FEIR or other actions taken pursuant to CEQA, or other approvals under Laws relating to the Project, any action taken by the City or Developer in furtherance of this Agreement, or any combination thereof relating to the Project or any portion thereof.

1.96. “**Transfer,**” “**Transferee**” and “**Transferred Property**” have the meanings set forth in Section 12.1, and in all events excludes (1) a transfer of ownership or

membership interests in Developer or any Transferee, (2) grants of easement or of occupancy rights for existing or completed Buildings or other improvements (including, without limitation, space leases in Buildings), and (3) the placement of a Mortgage on the Project Site.

1.97. “**Transportation Demand Management**” benefits are described in Exhibit \_\_\_\_.

1.98. “**Vested Elements**” has the meaning set forth in Section 5.1.

1.99. “**Workforce Agreement**” means the Workforce Agreement attached hereto as Exhibit I.

## **2. EFFECTIVE DATE; TERM**

2.1 Effective Date. This Agreement shall take effect on the first date upon which both of the following have occurred: (i) the full execution and delivery of this Agreement by the Parties; and (ii) the date the Enacting Ordinance is effective and operative (“**Effective Date**”). The Parties shall execute this Agreement within thirty (30) days of the date the Enacting Ordinance is effective and operative.

2.2 Term. The term of this Agreement shall commence upon the Effective Date and shall continue in full force and effect for twenty-five (25) years thereafter unless extended or earlier terminated as provided herein (“**Term**”); provided, however, that (i) the Term shall be extended for each day of a Litigation Extension and (ii) Developer shall have the right to terminate this Agreement with respect to a legal parcel upon completion of the Building within that parcel and the Associated Community Benefits for that Building, as set forth in Section 7.1. The term of any conditional use permit, planned unit development, any tentative subdivision map shall be for the longer of (a) the Term (as it relates to the applicable parcel) or (b) the term otherwise allowed under the Subdivision Map Act or conditional use/planned unit development approval, as applicable.

## **3. GENERAL RIGHTS AND OBLIGATIONS**

3.1 Development of the Project. Developer shall have the vested right to develop the Project in accordance with and subject to the provisions of this Agreement, and the City shall consider and process all Later Approvals for development of the Project in accordance with and subject to the provisions of this Agreement. The Project will be developed in phases (each, a “**Phase**”). Prior to Commencing any Construction on the Project Site, Developer will prepare a “**Development Phase Application**” substantially as set forth in Exhibit N, for City’s



review and approval. The Development Phase Application will set forth the detailed scope and work plan for each development phase, including the Associated Community Benefits required in connection with each Phase. The Parties acknowledge that Developer (i) has obtained all Approvals from the City required to Commence Construction of the Project, other than any required Later Approvals, including but not limited to approval of a Development Phase Application for each Phase, and (ii) may proceed in accordance with this Agreement with the construction and, upon completion, use and occupancy of the Project as a matter of right, subject to the terms and conditions of the PSA, the Infrastructure License Agreement, the SFPUC Retained Fee License Agreement, the Project SUD, and subject to the attainment of any required Later Approvals and any Non-City Approvals.

3.2 Workforce. Developer shall require project sponsors, contractors, consultants, subcontractors and subconsultants, as applicable, to undertake workforce development activities in both the construction and end use phases of the Project in accordance with the Workforce Agreement attached as Exhibit I.

3.3 Public Power. Within sixty (60) days after the Effective Date, Developer will provide the SFPUC with all Project information the SFPUC requires to determine the feasibility of providing electric service to the Project Site (the “Feasibility Study”). The SFPUC will complete the Feasibility Study within six (6) months after the date that Developer provides to the SFPUC all Project information needed to complete the Feasibility Study. Developer agrees that if the SFPUC determines it is feasible to provide electricity for the Project Site, then the SFPUC will be the exclusive power provider to the Project Site. The SFPUC power will be provided under the SFPUC’s Rules and Regulations Governing Electric Service and at rates that are comparable to rates in San Francisco for comparable service from other providers.

#### **4. PUBLIC BENEFITS; DEVELOPER OBLIGATIONS AND CONDITIONS TO DEVELOPER'S PERFORMANCE**

4.1 Community Benefits Exceed Those Required by Existing Ordinances and Regulations. The Parties acknowledge and agree that the development of the Project in

accordance with this Agreement provides a number of public benefits to the City beyond those achievable through existing Laws, including, but not limited to, those set forth in this Article 4 (the “**Community Benefits**”). The City acknowledges and agrees that a number of the Community Benefits would not be otherwise achievable without the express agreement of Developer under this Agreement. Developer acknowledges and agrees that, as a result of the benefits to Developer under this Agreement, Developer has received good and valuable consideration for its provision of the Community Benefits, and the City would not be willing to enter into this Agreement without the Community Benefits. Payment or delivery of each of the Community Benefits is tied to a specific Building or other development milestone in connection with implementation of the Project, as described in the Phasing Plan and Community Benefits Linkages Schedule attached as Schedule 1 to this Agreement or as described elsewhere in this Agreement (each, an “**Associated Community Benefit**”). Upon Developer’s Commencement of Construction of a Building, the Associated Community Benefits tied to that Building shall survive the expiration or termination of this Agreement to the date of completion of the Associated Community Benefit. Time is of the essence with respect to the completion of the Associated Community Benefits.

4.1.1 Community Benefits. Developer shall provide the following Community Benefits (collectively, the “**Community Benefits Program**”) at the times specified in Schedule 1, the Phasing Plan and Community Benefits Linkages Schedule:

- (a) the Project Open Space, as further described in Exhibit C;
- (b) the Affordable Housing Program benefits, as further described in Exhibit D and Schedule 1;
- (c) the transportation and other infrastructure improvements as described in Exhibit J and Exhibit M; and
- (d) the Child Care Program benefits, as further described in Exhibit L.

4.2 Performance of Community Benefits. Whenever this Agreement requires completion of an Associated Community Benefit at or before the completion of or receipt of temporary or final certificate of occupancy for a Building, the City may withhold a temporary or final certificate of occupancy for that Building until the required Associated

Community Benefit is completed or Developer has provided the City with adequate security for completion of such Associated Community Benefit in a commercially reasonable form (*e.g.*, a bond or letter of credit) as approved by (i) the Planning Director in the Director's reasonable discretion (following consultation with the City Attorney), and (ii) the MOHCD Director in the Director's reasonable discretion if the subject Associated Community Benefit is construction of Affordable Units. In determining the need for and reasonableness of any such security, the Planning Director and MOHCD Director (in consultation with the City Attorney) shall consider (i) any existing or proposed security, such as any bonds required under the Subdivision Map Act, and (ii) payment and performance bonds provided to a construction lender if the subject Associated Community Benefit is construction of Affordable Units and construction financing for the Affordable Units has closed.

4.3 No Additional CEQA Review Required; Reliance on FEIR for Future Discretionary Approvals. The Parties acknowledge that the FEIR prepared for the Project complies with CEQA. The Parties further acknowledge that (a) the FEIR contains a thorough analysis of the Project and possible alternatives, (b) the Mitigation Measures have been adopted to eliminate or reduce to an acceptable level certain adverse environmental impacts of the Project, and (c) the Board of Supervisors adopted CEQA Findings, including a statement of overriding considerations in connection with the Approvals, pursuant to CEQA Guidelines Section 15093, for those significant impacts that could not be mitigated to a less than significant level. Accordingly, the City does not intend to conduct any further environmental review or mitigation under CEQA for any aspect of the Project vested under this Agreement. The City shall rely on the FEIR, to the greatest extent possible in accordance with applicable Laws, in all future discretionary actions related to the Project; provided, however, that nothing shall prevent or limit the discretion of the City to conduct additional environmental review in connection with any Later Approvals to the extent that such additional environmental review is required by applicable Laws, including CEQA.

4.3.1 Compliance with CEQA Mitigation Measures. Developer shall comply with all Mitigation Measures imposed as applicable to the Project except for any Mitigation Measures that are expressly identified as the responsibility of a different party or entity. Without limiting the foregoing, Developer shall be responsible for the completion of all Mitigation Measures identified as the responsibility of the "owner" or the "project sponsor". The Parties

expressly acknowledge that the FEIR and the associated MMRP are intended to be used in connection with each of the Later Approvals to the extent appropriate and permitted under applicable Law. Nothing in this Agreement shall limit the ability of the City to impose conditions on any new, discretionary permit resulting from Material Changes as such conditions are determined by the City to be necessary to mitigate adverse environmental impacts identified through the CEQA process and associated with the Material Changes or otherwise to address significant environmental impacts as defined by CEQA created by an approval or permit; provided, however, any such conditions must be in accordance with applicable Law.

4.4 Nondiscrimination. In the performance of this Agreement, Developer agrees not to discriminate against any employee, City employee working with Developer's contractor or subcontractor, applicant for employment with such contractor or subcontractor, or against any person seeking accommodations, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations, on the basis of the fact or perception of a person's race, color, creed, religion, national origin, ancestry, age, height, weight, sex, sexual orientation, gender identity, domestic partner status, marital status, disability or Acquired Immune Deficiency Syndrome or HIV status (AIDS/HIV status), or association with members of such protected classes, or in retaliation for opposition to discrimination against such classes.

4.5 City Cost Recovery.

4.5.1 Developer shall timely pay to the City all Impact Fees and Exactions applicable to the Project or the Project Site as set forth in Section 5.7.

4.5.2 Developer shall timely pay to the City all Processing Fees applicable to the processing or review of applications for the Approvals and Later Approvals.

4.5.3 Developer shall pay to the City all City Costs incurred in connection with the drafting and negotiation of this Agreement, defending the Approvals and Later Approvals, and in processing and issuing any Later Approvals or administering this Agreement (except for the costs that are covered by Processing Fees), within sixty (60) days following receipt of a written invoice complying with Section 4.5.4 from the City.

4.5.4 OEWD shall provide Developer on a quarterly basis (or such alternative period as agreed to by the Parties) a reasonably detailed statement showing costs incurred by OEWD, the City Agencies and the City Attorney's Office, including the hourly rates

for each City staff member at that time, the total number of hours spent by each City staff member during the invoice period, any additional costs incurred by the City Agencies and a brief non-confidential description of the work completed (provided, for the City Attorney's Office, the billing statement will be reviewed and approved by OEWD but the cover invoice forwarded to Developer will not include a description of the work). OEWD will use reasonable efforts to provide an accounting of time and costs from the City Attorney's Office and each City Agency in each invoice; provided, however, if OEWD is unable to provide an accounting from one or more of such parties, then OEWD may send an invoice to Developer that does not include the charges of such party or parties without losing any right to include such charges in a future or supplemental invoice but subject to the eighteen (18) month deadline set forth below in this Section 4.5.4. Developer's obligation to pay the City Costs shall survive the termination of this Agreement. Developer shall have no obligation to reimburse the City for any City Cost that is not invoiced to Developer within eighteen (18) months from the date the City Cost was incurred. The City will maintain records, in reasonable detail, with respect to any City Costs and upon written request of Developer, and to the extent not confidential, shall make such records available for inspection by Developer.

4.5.5 If Developer in good faith disputes any portion of an invoice, then within sixty (60) days following receipt of the invoice Developer shall provide notice of the amount disputed and the reason for the dispute, and the Parties shall use good faith efforts to reconcile the dispute as soon as practicable. Developer shall have no right to withhold the disputed amount. If any dispute is not resolved within ninety (90) days following Developer's notice to the City of the dispute, Developer may pursue all remedies at law or in equity to recover the disputed amount.

4.6 Prevailing Wages. As set forth in the Workforce Agreement (Exhibit I), Developer agrees that the Project Site is sold by the City for a Housing Development, as defined in Section 23.61(a) of the Administrative Code, and that therefore all persons performing labor in construction work on the Project Site shall be paid not less than the highest prevailing rate of wages for the labor so performed consistent with the requirements of Article VII of Chapter 23 and Section 6.22(e) of the Administrative Code (including those requirements applicable to a "Housing Development" as defined in Section 23.61 of the Administrative Code), shall be subject to the same hours and working conditions, and shall receive the same benefits as in each case are provided for similar work performed in San Francisco, California, and Developer shall

include this requirement in any construction contract entered into by Developer for any such public improvements. Upon request, Developer and its contractors will provide to City any workforce payroll records as needed to confirm compliance with this Section. Without limiting the foregoing, Developer shall comply with all applicable state law requirements relating to the payment of prevailing wages, and to the extent there is any difference between the requirements of such state law requirements and the Administrative Code, the stricter requirements shall apply.

4.7 Indemnification of City. Developer shall indemnify, reimburse, and hold harmless the City and its officers, agents and employees (the “**City Parties**”) from and, if requested, shall defend them against any and all loss, cost, damage, injury, liability, and claims (“**Losses**”) arising or resulting directly or indirectly from (i) any third party claim arising from a Default by Developer under this Agreement, (ii) Developer's failure to comply with any Approval, Later Approval or Non-City Approval, (iii) the failure of any improvements constructed pursuant to the Approvals or Later Approvals to comply with any Federal or State Laws, the Existing Standards or any permitted New City Laws, (iv) any accident, bodily injury, death, personal injury, or loss of or damage to property occurring on the Project Site (or the public right of way adjacent to the Project Site) in connection with the construction by Developer or its agents or contractors of any improvements pursuant to the Approvals, Later Approvals or this Agreement, (v) a Third-Party Challenge instituted against the City or any of the City Parties, (vi) any dispute between Developer, its contractors or subcontractors relating to the construction of any part of the Project, and (vii) any dispute between Developer and any Transferee or any subsequent owner of any of the Project Site relating to any assignment of this Agreement or the obligations that run with the land, or any dispute between Developer and any Transferee or other person relating to which party is responsible for performing certain obligations under this Agreement, each regardless of the negligence of and regardless of whether liability without fault is imposed or sought to be imposed on the City or any of the City Parties, except to the extent that any of the foregoing indemnification obligations is void or otherwise unenforceable under applicable Law, and except to the extent such Loss is the result of the negligence or willful misconduct of the City Parties. The foregoing indemnity shall include, without limitation, reasonable attorneys' fees and costs and the City's reasonable cost of investigating any claims against the City or the City Parties. All indemnifications set forth

in this Agreement shall survive the expiration or termination of this Agreement, to the extent such indemnification obligation arose from an event occurring before the expiration or termination of this Agreement. To the extent the indemnifications relate to Developer's obligations that survive the expiration or termination of this Agreement, the indemnifications shall survive for the term of the applicable obligation plus four (4) years.

## **5. VESTING AND CITY OBLIGATIONS**

5.1 Vested Rights. By the Approvals, the City has made a policy decision that the Project, as described in and as may be modified in accordance with the Approvals, is in the best interests of the City and promotes the public health, safety and welfare. Developer shall have the vested right to develop the Project as set forth in the Approvals and this Agreement, including without limitation with the following vested elements: the locations and numbers of Buildings proposed, the land uses, height and bulk limits, including the maximum density, intensity and gross square footages, the permitted uses, the provisions for open space, vehicular access, and parking (collectively, the “**Vested Elements**”; provided the Existing Uses on the Project Site shall also be included as Vested Elements). The Vested Elements are subject to and shall be governed by Applicable Laws. The expiration of any building permit or Approval shall not limit the Vested Elements, and Developer shall have the right to seek and obtain subsequent building permits or approvals, including Later Approvals, at any time during the Term, any of which shall be governed by Applicable Laws. Each Later Approval, once granted, shall be deemed an Approval for purposes of this Section 5.1.

5.2 Existing Standards. The City shall process, consider, and review all Later Approvals in accordance with (i) the Approvals, (ii) the San Francisco General Plan, the Municipal Code (including the Subdivision Code), and all other applicable City policies, rules and regulations, as each of the foregoing is in effect on the Effective Date (“**Existing Standards**”), as the same may be amended or updated in accordance with permitted New City Laws as set forth in Section 5.6, (iii) California and Federal law, as applicable, and (iv) this Agreement (collectively, “**Applicable Laws**”). The Enacting Ordinance includes express waivers and amendments to Chapter 56 consistent with this Agreement.

5.2.1 Code Waivers. Pursuant to the Enacting Ordinance and this Agreement, certain provisions of the San Francisco Municipal Code are waived, as set forth in Schedule 2-3 (Schedule of Code Waivers).

5.2.2 No Implied Waiver of Codes. Except as expressly set forth in Schedule 2-3, nothing in this Agreement constitutes an implied waiver or exemption of the Subdivision Code or the Public Works Code. For any waiver or exemption, Developer shall comply with the City's existing processes to seek any necessary waivers or exemptions. The City's failure to enforce any part of the Subdivision Code or Public Works Code shall not be deemed a waiver of its right to do so thereafter, but it shall not override the Approvals standards set forth in Sections 5.2, 5.3, and 5.4.

5.2.3 General Plan Consistency Findings. The Parties acknowledge the Project is consistent with the City's General Plan and the General Plan Consistency Findings are intended to support all Later Approvals that are consistent with the Approvals. To the maximum extent practicable, the Planning Department shall rely exclusively on the General Plan Consistency Findings when processing and reviewing all Later Approvals, including proposed Subdivision Maps and any other actions related to the Project requiring General Plan determinations; provided Developer acknowledges that the General Plan Consistency Findings do not limit the City's discretion in connection with any Later Approval that (a) requires new or revised General Plan consistency findings because of Material Changes or amendments to any of the Approvals or (b) is analyzed in the context of a future General Plan amendment that is a non-conflicting New City Law.

5.3 Criteria for Later Approvals. Developer shall be responsible for obtaining all required Later Approvals before the start of any construction, and timely providing project schedules to OEWD as described in Exhibit K. The City, in granting the Approvals and vesting the Project through this Agreement, is limiting its future discretion with respect to Later Approvals to the extent that they are consistent with the Approvals and this Agreement. The City shall not disapprove applications for Later Approvals based upon an item or element that is consistent with the Approvals, and shall consider all such applications in accordance with its customary practices (subject to the requirements of this Agreement). The City may subject a Later Approval to any condition that is necessary to bring the Later Approval into compliance with Applicable Laws. For any part of a Later Approval request that has not been previously reviewed or considered by the applicable City Agency (such as additional details or plans), the City Agency shall exercise its discretion consistent with the Municipal Code and the Approvals and otherwise in accordance with the City's customary practice. Nothing in this Agreement



shall preclude the City from applying New City Laws for any development not within the definition of the “Project” under this Agreement.

#### 5.4 Strict Building Code Compliance.

5.4.1 City-Wide Building Codes. Notwithstanding anything in this Agreement to the contrary, except as otherwise provided in Schedule 2 (Code Waivers and Impact Fee Waivers Schedule) and Section 5.4.2, when considering any application for a Later Approval, the City or the applicable City Agency shall apply the then-applicable provisions, requirements, rules, or regulations that are contained in the San Francisco Building Codes, including the Public Works Code (which includes the Stormwater Management Ordinance), Subdivision Code, Mechanical Code, Electrical Code, Green Building Code, Housing Code, Plumbing Code, Fire Code, or other uniform construction codes applicable on a City-Wide basis.

5.4.2 Sidewalks, Streets and Infrastructure. By entering into this Agreement, the City's Board of Supervisors and the City Agencies have reviewed and approved (i) the Streetscape Improvements and the Publicly Accessible Private Improvements, including sidewalks, pathways, street widths, and general right of way configurations with respect to location and relationship of major elements, curbs, bicycle facilities, parking, loading areas, as set forth in the Approvals described in Exhibit E (including but not limited to the Master Infrastructure Plan attached to this Agreement as Exhibit M and the Project Open Space described in Exhibit C) and the Project SUD, as consistent with the City's central policy objective to ensure street safety for all users while maintaining adequate clearances, including for fire apparatus vehicles and utilities. No City Agency with jurisdiction may object to a Later Approval for any of the Buildings, Streetscape Improvements, or Publicly Accessible Private Improvements due to the proposed width of a sidewalk, pathway, or street, unless such objection is based upon the applicable City Agency's reserved authority to review Engineering Design for compliance with Applicable Laws or other authority under State law. In the case of such objection, then within five (5) business days of the objection being raised (whether raised formally or informally), representatives from Developer, PW, the Planning Department and the objecting City Agency shall meet and confer in good faith to attempt to find a mutually satisfactory resolution to the objection. If the matter is not resolved within fourteen (14) days following the objection, then the Planning Director shall notify the Clerk of the Board of Supervisors and the members of the Board of Supervisors' Land Use and Transportation Committee. The City Agencies and Developer agree to act in good faith to resolve

the matter quickly and in a manner that does not conflict with the City policy, Approvals, this Agreement, or applicable Law. As used in this Agreement, “**Engineering Design**” means professional engineering work as set forth in the Professional Engineers Act, California Business and Professions Code Sections 6700 *et seq.*

5.5 Denial of a Later Approval. If the City denies any application for a Later Approval that implements a Building, such denial must be consistent with Applicable Laws, and the City must specify in writing the reasons for such denial and suggest modifications required for approval of the application. Any such specified modifications shall be consistent with Applicable Laws, and City staff shall approve the application if it is subsequently resubmitted for City review and corrects or mitigates, to the City's reasonable satisfaction, the stated reasons for the earlier denial in a manner that is consistent and compliant with Applicable Laws and does not include new or additional information or materials that give the City a reason to object to the application under the standards set forth in this Agreement.

5.6 New City Laws. All future changes to Existing Standards and any other Laws, plans or policies adopted by the City or adopted by voter initiative after the Effective Date (“**New City Laws**”) shall apply to the Project and the Project Site except to the extent they conflict with this Agreement or the terms and conditions of the Approvals. In the event of such a conflict, the terms of this Agreement and the Approvals shall prevail, subject to the terms of Section 5.8.

5.6.1 New City Laws shall be deemed to conflict with this Agreement and the Approvals if they:

(a) limit or reduce the density or intensity of the Project, or any part thereof, or otherwise require any reduction in the square footage or number of proposed Buildings or change the location of proposed Buildings or change or reduce other improvements from that permitted under the Approvals;

(b) limit or reduce the height or bulk of the Project, or any part thereof, or otherwise require any reduction in the height or bulk of individual Buildings or other improvements that are part of the Project under the Approvals;

(c) limit, reduce or change the location of vehicular access, parking or loading from that permitted under the Approvals;

(d) limit any land uses for the Project from that permitted under

the Approvals or the Existing Uses;

- (e) change or limit the Approvals or Existing Uses;
- (f) materially delay, limit or control the rate, timing, phasing, or sequencing of the Project, including the demolition of existing buildings at the Project Site, except as expressly set forth in this Agreement;
- (g) require the issuance of permits or approvals by the City other than those required under the Existing Standards, except for permits or approvals that are required on a City-Wide basis, relate to the construction of improvements, and do not prevent construction of the Project as intended by this Agreement;
- (h) limit or control the availability of public utilities, services or facilities, or any privileges or rights to public utilities, services, or facilities for the Project;
- (i) materially and adversely limit the processing or procuring of applications and approvals of Later Approvals that are consistent with Approvals;
- (j) increase the percentage of required affordable or Affordable Units, change the AMI percentage levels for the affordable housing pricing or income eligibility, change the requirements regarding unit size or unit type, or increase the amount or change the configuration of required Project Open Space; or
- (k) impose new or modified Impact Fees and Exactions on the Project (as is expressly prohibited in Section 5.7.2).

5.6.2 Developer shall have the right, from time to time and at any time, to file Subdivision Map applications (including phased final map applications and development-specific condominium map or plan applications) with respect to some or all of the Project Site and subdivide the Project Site as may be necessary or desirable in order to develop a particular part of the Project as shown generally in Exhibit B. The specific boundaries of Development Parcels shall be set by Developer and approved by the City during the subdivision process. Nothing in this Agreement shall authorize Developer to subdivide or use any of the Project Site for purposes of sale, lease or financing in any manner that conflicts with the Subdivision Map Act or with the Subdivision Code. Nothing in this Agreement shall prevent the City from enacting or adopting changes in the methods and procedures for processing subdivision and parcel maps so long as such changes do not conflict with the provisions of this Agreement or with the Approvals. Developer shall cause any Mortgagee to provide its authorized signature on any final subdivision map with

respect to the Project, which shall include consent and acknowledgement of the Affordable Unit requirements, with specified AMI levels, for the life of the Project, in accordance with the Affordable Housing Program and this Agreement.

#### 5.7 Fees and Exactions.

5.7.1 Generally. The Project shall only be subject to the Processing Fees and Impact Fees and Exactions as set forth in this Section 5.7 and Schedule 2-1 (Schedule of Impact Fees), and the City shall not impose any new Processing Fees or Impact Fees and Exactions on the development of the Project or impose new conditions or requirements for the right to develop the Project (including required contributions of land, public amenities or services) except as set forth in this Agreement. The Parties acknowledge that the provisions contained in this Section 5.7 are intended to implement the intent of the Parties that Developer have the right to develop the Project pursuant to specified and known criteria and rules, and that the City receive the benefits which will be conferred as a result of such development without abridging the right of the City to act in accordance with its powers, duties and obligations, except as specifically provided in this Agreement.

5.7.2 Impact Fees and Exactions. During the Term, as extended by the any Litigation Extensions, no Impact Fees and Exactions shall apply to the Project or components thereof except for (i) those Impact Fees and Exactions specifically set forth on Schedule 1, (ii) the SFPUC Capacity Charges, and (iii) New City Laws that do not conflict with this Agreement as set forth in Section 5.6, and (iv) as expressly set forth below in this Section. The Impact Fees and Exactions and SFPUC Capacity Charges will be calculated and determined at the time payable in accordance with the City requirements on that date, and the parties acknowledge and agree that the Impact Fees and Exactions are subject to the Planning Department's final confirmation once the applicable final land uses and Gross Floor Area are determined. Accordingly, Developer will be subject to any increase or decrease in the fee amount payable and any changes in methodology of calculation (e.g., use of a different index to calculate annual increases) but will not be subject to any new types of Impact Fees and Exactions or modification to existing Impact Fees and Exactions after the Effective Date except as described in Section 5.6 and this Section. Developer agrees that any new impact fee or exaction enacted after the Effective Date that (i) is of City-Wide applicability (e.g., applies to all retail development in the City), (ii) does not pertain to affordable housing, open space, child care, transportation, parking, or community improvements (for which

this Agreement reflects the full extent of the required Developer contributions), and (iii) would otherwise apply to the Project, shall apply to the Project or the applicable portion thereof.

5.7.3 Processing Fees. Developer shall pay all Processing Fees in effect, on a City-Wide basis, at the time that Developer applies for a Later Approval for which such Processing Fee is payable in connection with the applicable part of the Project.

5.8 Changes in Federal or State Laws.

5.8.1 City's Exceptions. Notwithstanding any provision in this Agreement to the contrary, each City Agency having jurisdiction over the Project shall exercise its discretion under this Agreement in a manner that is consistent with the public health and safety and shall at all times retain its respective authority to take any action that is necessary to protect the physical health and safety of the public (the “**Public Health and Safety Exception**”) or reasonably calculated and narrowly drawn to comply with applicable changes in Federal or State Law affecting the physical environment (the “**Federal or State Law Exception**”), including the authority to condition or deny a Later Approval or to adopt a new Law applicable to the Project so long as such condition or denial or new regulation (i)(a) is limited solely to addressing a specific and identifiable issue in each case required to protect the physical health and safety of the public, or (b) is required to comply with a Federal or State Law and in each case not for independent discretionary policy reasons that are inconsistent with the Approvals or this Agreement and (ii) is applicable on a City-Wide basis to the same or similarly situated uses and applied in an equitable and non-discriminatory manner. Developer retains the right to dispute any City reliance on the Public Health and Safety Exception or the Federal or State Law Exception.

5.8.2 Changes in Federal or State Laws. If Federal or State Laws issued, enacted, promulgated, adopted, passed, approved, made, implemented, amended, or interpreted after the Effective Date have gone into effect and (i) preclude or prevent compliance with one or more provisions of the Approvals or this Agreement, or (ii) materially and adversely affect Developer's or the City's rights, benefits or obligations under this Agreement, then such provisions of this Agreement shall be modified or suspended as may be necessary to comply with such Federal or State Law. In such event, this Agreement shall be modified only to the extent necessary or required to comply with such Law, subject to the provisions of Section 5.8.4, as applicable.

5.8.3 Changes to Development Agreement Statute. This Agreement has been entered into in reliance upon the provisions of the Development Agreement Statute. No

amendment of or addition to the Development Agreement Statute that would affect the interpretation or enforceability of this Agreement or increase the obligations or diminish the development rights of Developer hereunder, or increase the obligations or diminish the benefits to the City hereunder shall be applicable to this Agreement unless such amendment or addition is specifically required by Law or is mandated by a court of competent jurisdiction. If such amendment or change is permissive rather than mandatory, this Agreement shall not be affected.

5.8.4 Effect on Agreement. If any of the modifications, amendments or additions described in this Section 5.8 would materially and adversely affect the construction, development, use, operation, or occupancy of the Project as currently contemplated by the Approvals, or any material portion thereof, such that the Project, or the applicable portion thereof, becomes economically infeasible (a “**Law Adverse to Developer**”), then Developer shall notify the City and propose amendments or solutions that would maintain the benefit of the bargain (that is this Agreement) for both Parties. If any of the modifications, amendments or additions described in Section 5.8 would materially and adversely affect or limit the Community Benefits (a “**Law Adverse to the City**”), then the City shall notify Developer and propose amendments or solutions that would maintain the benefit of the bargain (that is this Agreement) for both Parties. Upon receipt of a notice under this Section 5.8.4, the Parties agree to meet and confer in good faith for a period of not less than ninety (90) days in an attempt to resolve the issue. If the Parties cannot resolve the issue in ninety (90) days or such longer period as may be agreed to by the Parties, then the Parties shall mutually select a mediator at JAMS in San Francisco for nonbinding mediation for a period of not less than thirty (30) days. If the Parties remain unable to resolve the issue following such mediation, then either party shall have the right to seek available remedies at law or in equity to maintain the benefit of the bargain or alternatively to seek termination of this Agreement if the benefit of the bargain cannot be maintained in light of the Law Adverse to Developer or Law Adverse to the City.

5.9 No Action to Impede Approvals. Except and only as required under Section 5.8, the City shall take no action under this Agreement nor impose any condition on the Project that would conflict with this Agreement or the Approvals. An action taken or condition imposed shall be deemed to be in conflict with this Agreement or the Approvals if such actions or conditions result in the occurrence of one or more of the circumstances identified in Section 5.6.1.

5.10 Estoppel Certificates. Developer may, at any time, and from time to time, deliver notice to the Planning Director requesting that the Planning Director certify to Developer, a potential Transferee, or a potential lender to Developer, in writing that to the best of the Planning Director's knowledge: (i) this Agreement is in full force and effect and a binding obligation of the Parties; (ii) this Agreement has not been amended or modified, and if so amended or modified, identifying the amendments or modifications and stating their date and providing a copy or referring to the recording information; (iii) Developer is not in Default in the performance of its obligations under this Agreement, or if in Default, to describe therein the nature and amount of any such Defaults; and (iv) the findings of the City with respect to the most recent annual review performed pursuant to Section 8. The Planning Director, acting on behalf of the City, shall execute and return such certificate within thirty (30) days following receipt of the request.

5.11 Existing, Continuing Uses and Interim Uses. The Parties acknowledge that the Existing Uses are lawfully authorized uses and may continue as such uses may be modified by the Project, provided that any modification thereof not a component of or contemplated by the Project is subject to Planning Code Section 178 and the applicable provisions of Section 5. Developer may install interim or temporary uses on the Project Site, which uses must be consistent with those uses allowed under the Project Site's zoning and the Project SUD.

5.12 Taxes. Nothing in this Agreement limits the City's ability to impose new or increased taxes or special assessments, or any equivalent or substitute tax or assessment, provided (i) the City shall not institute, on its own initiative, proceedings for any new or increased special tax or special assessment for a land-secured financing district (including the special taxes under the Mello-Roos Community Facilities Act of 1982 (Government Code Section 53311 *et seq.*) but not including business improvement districts or community benefit districts formed by a vote of the affected property owners) that includes the Project Site unless the new district is City-Wide or Developer gives its prior written consent to or requests such proceedings, and (ii) no such tax or assessment shall be targeted or directed at the Project, including, without limitation, any tax or assessment targeted solely at all or any part of the Project Site. Nothing in the foregoing prevents the City from imposing any tax or assessment against the Project Site, or any portion thereof, that is enacted in accordance with Law and

applies to all similarly-situated property on a City-Wide basis.

## **6. NO DEVELOPMENT OBLIGATION**

There is no requirement under this Agreement that Developer initiate or complete development of the Project, or any Phase or portion thereof. There is also no requirement that development be initiated or completed within any period of time or in any particular order, subject to the requirement to complete Associated Community Benefits as set forth in Section 4.1 and the Phasing Plan and Community Benefits Linkages Schedule (Schedule 1). The development of the Project is subject to numerous factors that are not within the control of Developer or the City, such as availability of financing, interest rates, access to capital, and similar factors. Except as expressly required by this Agreement, the City acknowledges that Developer may develop the Project in such order and at such rate and times as Developer deems appropriate within the exercise of its sole and subjective business judgment. In *Pardee Construction Co. v. City of Camarillo*, 37 Cal.3d 465 (1984), the California Supreme Court ruled that the failure of the parties therein to provide for the timing of development resulted in a later adopted initiative restricting the timing of development and controlling the parties' agreement. It is the intent of the Parties to avoid such a result by acknowledging and providing for the timing of development of the Project in the manner set forth herein. The City acknowledges that such a right is consistent with the intent, purpose and understanding of the Parties to this Agreement, and that without such a right, Developer's development of the Project would be subject to the uncertainties sought to be avoided by the Development Agreement Statute, Chapter 56 and this Agreement. Notwithstanding the foregoing, the City retains authority to reject any Developer request for temporary or interim Public Improvements or deferral of the construction of the permanent Public Improvements and can require permanent Public Improvements with each Development Phase.

## **7. MUTUAL OBLIGATIONS**

7.1 Notice of Completion, Revocation or Termination. Within thirty (30) days after any early revocation or termination of this Agreement (as to all or any part of the Project Site), the Parties agree to execute a written statement acknowledging such revocation or termination, signed by the appropriate agents of the City and Developer, and record such instrument in the Official Records. In addition, within thirty (30) days after Developer's request, when a Building and all of the Associated Community Benefits tied to that Building have been completed, the City and Developer shall execute and record a notice of completion in the form



attached as Exhibit H for the applicable Building property.

7.2 General Cooperation; Agreement to Cooperate. The Parties agree to cooperate with one another to expeditiously implement the Project in accordance with the Approvals, any Later Approvals and this Agreement, and to undertake and complete all actions or proceedings reasonably necessary or appropriate to ensure that the objectives of this Agreement, the Approvals and any Later Approvals are implemented. Except for ordinary administrative costs of the City, nothing in this Agreement obligates the City to spend any sums of money or incur any costs other than City Costs or costs that Developer reimburses through the payment of Processing Fees. The Parties agree that the Planning Department will act as the City's lead agency to facilitate coordinated City review of applications for the Project.

7.3 Third-Party Challenge. Developer shall assist and cooperate with the City at Developer's own expense in connection with any Third-Party Challenge. The City Attorney's Office may use its own legal staff or outside counsel in connection with defense of the Third-Party Challenge, at the City Attorney's sole discretion. Developer shall reimburse the City for its actual costs in defense of the action or proceeding, including but not limited to the time and expenses of the City Attorney's Office (at the non-discounted rates then charged by the City Attorney's Office) and any consultants; provided, however, Developer shall have the right to monthly invoices for all such costs.

7.3.1 To the extent that any such action or proceeding challenges or a judgment is entered limiting Developer's right to proceed with the Project or any material portion thereof under this Agreement (whether the Project commenced or not), including the City's actions taken pursuant to CEQA, Developer may elect to terminate this Agreement. Upon any such termination (or, upon the entry of a judgment terminating this Agreement, if earlier), the City and Developer shall jointly seek to have the Third-Party Challenge dismissed and Developer shall have no obligation to reimburse City defense costs that are incurred after the dismissal (other than, in the case of a partial termination by Developer, any defense costs with respect to the remaining portions of the Project). Notwithstanding the foregoing, if Developer conveys or transfers some but not all of the Project, or a party takes title to Foreclosed Property constituting only a portion of the Project, and, therefore, there is more than one party that assumes obligations of "Developer" under this Agreement, then only the Party holding the interest in such portion of the Project shall have the right to terminate this Agreement as to such portion of the Project (and only as to such

portion), and no termination of this Agreement by such Party as to such Party's portion of the Project shall effect a termination of this Agreement as to any other portion of the Project.

7.3.2 The filing of any Third Party Challenge shall not delay or stop the development, processing or construction of the Project or the issuance of Later Approvals unless the third party obtains a court order preventing the activity.

7.4 Good Faith and Fair Dealing. The Parties shall cooperate with each other and act in good faith in complying with the provisions of this Agreement and implementing the Approvals and any Later Approvals.

7.5 Other Necessary Acts. Each Party shall use good faith efforts to take such further actions as may be reasonably necessary to carry out this Agreement, the Approvals and any Later Approvals, in accordance with the terms of this Agreement (and subject to all applicable Laws) in order to provide and secure to each Party the full and complete enjoyment of its rights and privileges hereunder.

## **8. PERIODIC REVIEW OF DEVELOPER'S COMPLIANCE**

8.1 Annual Review. Pursuant to Section 65865.1 of the Development Agreement Statute and Section 56.17 of the Administrative Code (as of the Effective Date), at the beginning of the second week of each January following final adoption of this Agreement and for so long as the Agreement is in effect (the “**Annual Review Date**”), the Planning Director shall commence a review to ascertain whether Developer has, in good faith, complied with the Agreement. The failure to commence such review in January in any calendar year shall not waive the Planning Director's right to do so later in the calendar year. The Planning Director may elect to forego an annual review if no significant construction work occurred on the Project Site during that year, or if such review is otherwise not deemed necessary.

8.2 Review Procedure. In conducting the required initial and annual reviews of Developer's compliance with this Agreement, the Planning Director shall follow the process set forth in this Section 8.2.

8.2.1 Required Information from Developer. Within sixty (60) days following request by the Planning Director, Developer shall provide a letter to the Planning Director explaining, with appropriate backup documentation, Developer's compliance with this Agreement for the preceding calendar year, including, but not limited to, the status of subsequent development applications and approvals and compliance with the requirements regarding

Community Benefits, payments and fees, the Affordable Housing Program, the Workforce Agreement, the Transportation Demand Management Program, and the environmental mitigation measures identified in the FEIR. The burden of proof, by substantial evidence, of compliance is upon Developer. The Planning Director shall post a copy of Developer's submittals on the Planning Department's website.

8.2.2 City Report. Within sixty (60) days after Developer submits such letter, the Planning Director shall review the information submitted by Developer and all other available evidence regarding Developer's compliance with this Agreement, and shall consult with applicable City Agencies as appropriate. All such available evidence, including final staff reports, shall, upon receipt by the City, be made available as soon as possible to Developer. The Planning Director shall notify Developer in writing whether Developer has complied with the terms of this Agreement (the "**City Report**"), and post the City Report on the Planning Department's website. If the Planning Director finds Developer not in compliance with this Agreement, then the City may pursue available rights and remedies in accordance with this Agreement and Chapter 56. The City's failure to initiate or to timely complete the annual review shall not be a Default and shall not be deemed to be a waiver of the right to do so at a later date. All costs incurred by the City under this Section shall be included in the City Costs.

8.2.3 Effect on Transferees. If a Developer has effected a Transfer so that its interest in the Project Site is divided among multiple Developers at the time of an annual review, then that annual review shall be conducted separately with respect to each Developer, each Developer shall submit the materials required by this Article 8 with respect to the portion of the Project Site owned by such Developer, and the City review process will proceed as one for the entire Project. Notwithstanding the foregoing, the Planning Commission and Board of Supervisors shall make its determinations and take its action separately with respect to each Developer pursuant to Chapter 56. If there are multiple Developers and the Board of Supervisors terminates, modifies or takes such other actions as may be specified in Chapter 56 and this Agreement in connection with a determination that a Developer has not complied with the terms and conditions of this Agreement, such action by the Planning Director, Planning Commission, or Board of Supervisors shall be effective only as to the Party to whom the determination is made and the portions of the Project Site in which such Party has an interest.

8.2.4 Default. The rights and powers of the City under this Section 8.2

are in addition to, and shall not limit, the rights of the City to terminate or take other action under this Agreement on account a Default by Developer.

## **9. ENFORCEMENT OF AGREEMENT; DEFAULT; REMEDIES**

9.1 Enforcement. As of the date of this Agreement, the only Parties to this Agreement are the City and Developer. Except as expressly set forth in this Agreement (for successors, Transferees and Mortgagees), this Agreement is not intended, and shall not be construed, to benefit or be enforceable by any other person or entity whatsoever.

9.2 Meet and Confer Process. Before sending a notice of default in accordance with Section 9.3, the Party which may assert that the other Party has failed to perform or fulfill its obligations under this Agreement shall first attempt to meet and confer with the other Party to discuss the alleged failure and shall permit such Party a reasonable period, but not less than ten (10) days, to respond to or cure such alleged failure; provided, however, the meet and confer process shall not be required (i) for any failure to pay amounts due and owing under this Agreement, or (ii) if a delay in sending a notice pursuant to Section 9.3 would impair, prejudice or otherwise adversely affect a Party or its rights under this Agreement. The Party asserting such failure shall request that such meeting and conference occur within three (3) business days following the request and if, despite the good faith efforts of the requesting Party, such meeting has not occurred within seven (7) business days of such request, then such Party shall be deemed to have satisfied the requirements of this Section and may proceed in accordance with the issuance of a notice of default under Section 9.3.

9.3 Default. The following shall constitute a “**Default**” under this Agreement: (i) the failure to make any payment within sixty (60) days following notice that such payment was not made when due and demand for compliance; and (ii) the failure to perform or fulfill any other material term, provision, obligation, or covenant of this Agreement and the continuation of such failure for a period of sixty (60) days following notice and demand for compliance. Notwithstanding the foregoing, if a failure can be cured but the cure cannot reasonably be completed within sixty (60) days, then it shall not be considered a Default if a cure is commenced within said 60-day period and diligently prosecuted to completion thereafter. Any notice of default given by a Party shall specify the nature of the alleged failure and, where appropriate, the manner in which said failure satisfactorily may be cured (if at all). Notwithstanding any other provision in this Agreement to the contrary, if Developer conveys

or transfers some but not all of the Project or a party takes title to Foreclosed Property constituting only a portion of the Project, and, therefore there is more than one Party that assumes obligations of “Developer” under this Agreement, there shall be no cross-default between the separate Parties that assumed Developer obligations. Accordingly, a default by one “Developer” shall not be a Default by any other “Developer” that owns or controls a different portion of the Project Site.

#### 9.4 Remedies.

9.4.1 Specific Performance. Subject to, and as limited by, the provisions of Sections 9.4.3, 9.4.4, and 9.5, in the event of a Default, the remedies available to a Party shall include specific performance of this Agreement in addition to any other remedy available at law or in equity.

9.4.2 Termination. Subject to the limitation set forth in Section 9.4.4, in the event of a Default, the non-defaulting Party may elect to terminate this Agreement by sending a notice of termination to the other Party, which notice of termination shall state the Default. Any such termination shall be effective upon the date set forth in the notice of termination, which shall in no event be earlier than sixty (60) days following delivery of the notice. Consistent with Sections 9.3 and 12.3, there are no cross-defaults under this Agreement, and therefore if there is more than one “Developer” (as it relates to different parts of the Project Site), then any termination of this Agreement for Default will be limited to the Developer that sent or received the termination notice.

9.4.3 Limited Damages. The Parties have determined that except as set forth in this Section 9.4.3, (i) monetary damages are generally inappropriate, (ii) it would be extremely difficult and impractical to fix or determine the actual damages suffered by a Party as a result of a Default hereunder, and (iii) equitable remedies and remedies at law, not including damages but including specific performance and termination, are particularly appropriate remedies for enforcement of this Agreement. Consequently, Developer agrees that the City shall not be liable to Developer for damages under this Agreement, and the City agrees that Developer shall not be liable to the City for damages under this Agreement, and each covenants not to sue the other for or claim any damages under this Agreement and expressly waives its right to recover damages under this Agreement, except as follows: (1) either Party shall have the right to recover actual damages only (and not consequential, punitive or special damages, each of which is hereby

expressly waived) for a Party's failure to pay sums to the other Party as and when due under this Agreement, (2) the City shall have the right to recover actual damages for Developer's failure to make any payment due under any indemnity in this Agreement, (3) to the extent a court of competent jurisdiction determines that specific performance is not an available remedy with respect to an unperformed Associated Community Benefit, the City shall have the right to monetary damages equal to the costs that the City incurs or will incur to complete the Associated Community Benefit as determined by the court, (4) either Party shall have the right to recover reasonable attorneys' fees and costs as set forth in Section 9.6, and (5) the City shall have the right to administrative penalties or liquidated damages if and only to the extent expressly stated in an Exhibit to this Agreement or in the applicable portion of the San Francisco Municipal Code incorporated into this Agreement. For purposes of the foregoing, “**actual damages**” means the actual amount of the sum due and owing under this Agreement, with interest as provided by Law, together with such judgment collection activities as may be ordered by the judgment, and no additional sums.

9.4.4 City Processing/Certificates of Occupancy. The City shall not be required to process any requests for approval or take other actions under this Agreement during any period in which payments due the City from Developer are past due; provided, however, if Developer has conveyed or transferred some but not all of the Project or a party takes title to Foreclosed Property constituting only a portion of the Project, and, therefore, there is more than one party that assumes obligations of “Developer” under this Agreement, then the City shall continue to process requests and take other actions as to the other portions of the Project so long as the applicable Developer as to those portions is current on payments due the City. The City shall have the right to withhold any temporary or final certificate of occupancy for a Building until all of the Associated Community Benefits tied to that Building have been completed in accordance with Section 4.2. For a Building to be deemed completed, all of the Community Benefits described in Schedule 1, or a Later Approval, tied to that Building must be complete; provided, if the City issues a temporary or final certificate of occupancy before such items are completed, then Developer shall work diligently and use commercially reasonable efforts to complete or cause completion of such items following issuance.

9.5 Time Limits; Waiver; Remedies Cumulative. Failure by a Party to insist upon the strict or timely performance of any of the provisions of this Agreement by the other

Party, irrespective of the length of time for which such failure continues, shall not constitute a waiver of such Party's right to demand strict compliance by such other Party in the future. No waiver by a Party of any condition or failure of performance, including a Default, shall be effective or binding upon such Party unless made in writing by such Party, and no such waiver shall be implied from any omission by a Party to take any action with respect to such failure. No express written waiver shall affect any other condition, action or inaction, or cover any other period of time, other than any condition, action or inaction and/or period of time specified in such express waiver. One or more written waivers under any provision of this Agreement shall not be deemed to be a waiver of any subsequent condition, action or inaction, and the performance of the same or any other term or provision contained in this Agreement. Nothing in this Agreement shall limit or waive any other right or remedy available to a Party to seek injunctive relief or other expedited judicial and/or administrative relief to prevent irreparable harm.

9.6 Attorneys' Fees. Should legal action be brought by either Party against the other for a Default under this Agreement or to enforce any provision herein, the prevailing Party in such action shall be entitled to recover its reasonable attorneys' fees and costs. For purposes of this Agreement, “**reasonable attorneys' fees and costs**” means the reasonable fees and expenses of counsel to the Party, which may include printing, duplicating and other expenses, air freight charges, hiring of experts and consultants, and fees billed for law clerks, paralegals, librarians, and others not admitted to the bar but performing services under the supervision of an attorney. The term “**reasonable attorneys' fees and costs**” shall also include, without limitation, all such reasonable fees and expenses incurred with respect to appeals, mediation, arbitrations, and bankruptcy proceedings, and whether or not any action is brought with respect to the matter for which such fees and costs were incurred. For the purposes of this Agreement, the reasonable fees of attorneys of City Attorney's Office shall be based on the fees regularly charged by private attorneys with the equivalent number of years of experience in the subject matter area of the Law for which the City Attorney's Office's services were rendered who practice in the City of San Francisco in law firms with approximately the same number of attorneys as employed by the City Attorney's Office.

## **10. FINANCING; RIGHTS OF MORTGAGEES**

10.1 Developer's Right to Mortgage. Nothing in this Agreement limits the

right of Developer to mortgage or otherwise encumber all or any portion of the Project Site for the benefit of any Mortgagee as security for one or more loans once Developer is the fee owner of such encumbered portion of the Project Site.

10.2 Mortgagee Not Obligated to Construct. Notwithstanding any of the provisions of this Agreement (except as set forth in this Section and Section 10.5), a Mortgagee, including any Mortgagee who obtains title to the Project Site or any part thereof as a result of foreclosure proceedings, conveyance or other action in lieu thereof, or other remedial action shall in no way be obligated by the provisions of this Agreement to construct or complete the Project or any part thereof or to guarantee such construction or completion. The foregoing provisions shall not be applicable to any party who, after a foreclosure, conveyance or other action in lieu thereof, or other remedial action obtains title to some or all of the Project Site from or through the Mortgagee, or any other purchaser at a foreclosure sale other than the Mortgagee itself, on which certain Associated Community Benefits must be completed as set forth in Section 4.1. Nothing in this Section or any other Section or provision of this Agreement shall be deemed or construed to permit or authorize any Mortgagee or any other person or entity to devote the Project Site or any part thereof to any uses other than uses consistent with this Agreement and the Approvals, and nothing in this Section shall be deemed to give any Mortgagee or any other person or entity the right to construct any improvements under this Agreement (other than as set forth above for required Community Benefits or as needed to conserve or protect improvements or construction already made) unless or until such person or entity assumes Developer's obligations under this Agreement.

10.3 Copy of Notice of Default and Notice of Failure to Cure to Mortgagee. Whenever the City shall deliver any notice or demand to the Developer with respect to any breach or default by the Developer in its obligations under this Agreement, the City shall at the same time forward a copy of such notice or demand to each Mortgagee having a Mortgage on the real property which is the subject of the breach or default who has previously made a written request to the City therefor, at the last address of such Mortgagee specified by such Mortgagee in such notice. In addition, if such breach or default remains uncured for the period permitted with respect thereto under this Agreement, the City shall deliver a notice of such failure to cure such breach or default to each such Mortgagee at such applicable address. A delay or failure by the City to provide such notice required by this Section shall extend for the number of days



until notice is given, the time allowed to the Mortgagee for cure. In accordance with Section 2924b of the California Civil Code, the City requests that a copy of any notice of default and a copy of any notice of sale under any Mortgage be mailed to the City at the address for notices under this Agreement. Any Mortgagee relying on the protections set forth in this Article 10 shall send to the City a copy of any notice of default and notice of sale.

10.4 Mortgagee's Option to Cure Defaults. After receiving any notice of failure to cure referred to in Section 10.3, each Mortgagee shall have the right, at its option, to commence within the same period as the Developer to remedy or cause to be remedied any Default, plus an additional period of: (a) thirty (30) days to cure a monetary Default; and (b) sixty (60) days to cure a non-monetary event of default which is susceptible of cure by the Mortgagee without obtaining title to the applicable property. If an event of default is not cured within the applicable cure period, the City nonetheless shall refrain from exercising any of its remedies with respect to the event of default if, within the Mortgagee's applicable cure period: (i) the Mortgagee notifies the City that it intends to proceed with due diligence to foreclose the Mortgage or otherwise obtain title to the subject property; and (ii) the Mortgagee commences foreclosure proceedings within sixty (60) days after giving such notice, and thereafter diligently pursues such foreclosure to completion; and (iii) after obtaining title, the Mortgagee diligently proceeds to cure those events of default: (A) which are required to be cured by the Mortgagee and are susceptible of cure by the Mortgagee, and (B) of which the Mortgagee has been given notice by the City. Any such Mortgagee or Transferee of a Mortgagee who shall properly complete the improvements relating to the Project Site or applicable part thereof shall be entitled, upon written request made to the Agency, to a Certificate of Completion.

10.5 Mortgagee's Obligations with Respect to the Property. Notwithstanding anything to the contrary in this Agreement, no Mortgagee shall have any obligations or other liabilities under this Agreement unless and until it acquires title by any method to all or some portion of the Project Site (referred to hereafter as “**Foreclosed Property**”). A Mortgagee that, by foreclosure under a Mortgage, acquires title to any Foreclosed Property shall take title subject to all of the terms and conditions of this Agreement, to the extent applicable to the Foreclosed Property, including any claims for payment or performance of obligations which are due as a condition to enjoying the benefits of this Agreement and shall have all of the rights and obligations of Developer under this Agreement as to the applicable Foreclosed Property,

including completion of the Associated Community Benefits under Section 4.1. Upon the occurrence and continuation of an uncured default by a Mortgagee or Transferee in the performance of any of the obligations to be performed by such Mortgagee or Transferee pursuant to this Agreement, the City shall be afforded all its remedies for such uncured default as provided in this Agreement.

10.6 No Impairment of Mortgage. No default by Developer under this Agreement shall invalidate or defeat the lien of any Mortgagee. No foreclosure of any Mortgage or other lien shall defeat, diminish, render invalid or unenforceable or otherwise impair Developer's rights or obligations under this Agreement or constitute a default under this Agreement.

10.7 Cured Defaults. Upon the curing of any event of default by any Mortgagee within the time provided in this Article 10 the City's right to pursue any remedies with respect to the cured event of default shall terminate.

## **11. AMENDMENT; TERMINATION; EXTENSION OF TERM**

11.1 Amendment or Termination. This Agreement may only be amended with the mutual written consent of the City and Developer; provided, however, that following a Transfer, the City and Developer or any Transferee may amend this Agreement as it affects Developer or the Transferee and the portion of the Project Site owned by Developer or the Transferee without affecting other portions of the Project Site or other Transferees. Other than upon the expiration of the Term and except as provided in Sections 2.2, 7.2.2, 9.4.2, and 11.2, this Agreement may only be terminated with the mutual written consent of the Parties. Any amendment to this Agreement that does not constitute a Material Change may be agreed to by the Planning Director (and, to the extent it affects any rights or obligations of a City department, with the approval of that City department). Any amendment that is a Material Change will require the approval of the Planning Director, the Planning Commission and the Board of Supervisors (and, to the extent it affects any rights or obligations of a City department, after consultation with that City department). The determination of whether a proposed change constitutes a Material Change shall be made, on City's behalf, by the Planning Director following consultation with the City Attorney and any affected City Agency.

11.2 Early Termination Rights. Developer shall, upon thirty (30) days prior notice to the City, have the right, in its sole and absolute discretion, to terminate this Agreement

in its entirety at any time if Developer does not Commence Construction on any part of the Project Site by the date which is five (5) years following the Effective Date as such five (5) year date may be extended by any Litigation Extension. Thereafter, the City shall, upon sixty (60) days prior notice to Developer, have the right, in its sole and absolute discretion, to terminate this Agreement if the Developer has not Commenced Construction; provided Developer can prevent any such termination by the City by providing to the City notice, within the above sixty (60) day period, of Developer's intent to start construction and the Developer thereafter Commences Construction within one hundred twenty (120) days following delivery of Developer's notice to the City, or, if unable to actually Commence Construction within said time period, demonstrates reasonable, good faith and continuing efforts to Commence Construction, such as by pursuing all necessary Later Approvals, and thereafter promptly Commences Construction upon receipt of the Later Approvals.

11.3 Termination and Vesting. Any termination under this Agreement shall concurrently effect a termination of the Approvals with respect to the terminated portion of the Project Site, except as to any Approval pertaining to a Building that has Commenced Construction in reliance thereon. In the event of any termination of this Agreement by Developer resulting from a Default by the City and except to the extent prevented by such City Default, Developer's obligation to complete the Associated Community Benefits shall continue as to the Building that has Commenced Construction and all relevant and applicable provisions of this Agreement shall be deemed to be in effect as such provisions are reasonably necessary in the construction, interpretation or enforcement to this Agreement as to any such surviving obligations. The City's and Developer's rights and obligations under this Section 11.3 shall survive the termination of this Agreement.

11.4 Amendment Exemptions. No issuance of a Later Approval, or amendment of an Approval or Later Approval, shall by itself require an amendment to this Agreement. And no change to the Project that is permitted under the Project SUD shall by itself require an amendment to this Agreement. Upon issuance or approval, any such matter shall be deemed to be incorporated automatically into the Project and vested under this Agreement (subject to any conditions set forth in the amendment or Later Approval). Notwithstanding the foregoing, if there is any direct conflict between the terms of this Agreement and a Later Approval, or between this Agreement and any amendment to an Approval or Later Approval,

then the Parties shall concurrently amend this Agreement (subject to all necessary approvals in accordance with this Agreement) in order to ensure the terms of this Agreement are consistent with the proposed Later Approval or the proposed amendment to an Approval or Later Approval. The Planning Department and the Planning Commission, as applicable, shall have the right to approve changes to the Project as described in the Exhibits in keeping with its customary practices and the Project SUD, and any such changes shall not be deemed to conflict with or require an amendment to this Agreement or the Approvals so long as they do not constitute a Material Change. If the Parties do not amend this Agreement as set forth above when there is a direct conflict, however, then the terms of this Agreement shall prevail over any Later Approval or any amendment to an Approval or Later Approval that conflicts with this Agreement.

11.5 Extension Due to Legal Action or Referendum; Excusable Delay.

11.5.1 Litigation and Referendum Extension. If any litigation is filed challenging this Agreement or any of the Approvals described on Exhibit E (the “**Initial Approvals**”) and it directly or indirectly delays this Agreement or any such Initial Approval, or if this Agreement or any of the Initial Approvals is suspended pending the outcome of an electoral vote on a referendum, then the Term of this Agreement and the effectiveness of the Initial Approvals (starting from the date of the initial grant of the Initial Approval) shall be extended for the number of days equal to the period starting from the commencement of the litigation or the suspension to the end of such litigation or suspension (a “**Litigation Extension**”). The Parties shall document the start and end of a Litigation Extension in writing within thirty (30) days from the applicable dates.

11.5.2 “**Excusable Delay**” means the occurrence of an event beyond a Party’s reasonable control which causes such Party’s performance of an obligation to be delayed, interrupted or prevented, including, but not limited to: changes in Federal or State Laws; strikes or the substantial interruption of work because of labor disputes; inability to obtain materials; freight embargoes; civil commotion, war or acts of terrorism; inclement weather, fire, floods, earthquakes, or other acts of God; epidemics or quarantine restrictions; litigation; unforeseen site conditions (including archaeological resources or the presence of hazardous materials); or the failure of any governmental agency, public utility or communication service provider to issue a permit, authorization, consent or approval required to permit construction within the standard or customary

time period for such issuing authority following Developer's submittal of a complete application for such permit, authorization, consent or approval, together with any required materials. Excusable Delay shall not include delays resulting from failure to obtain financing or have adequate funds, changes in market conditions, or the rejection of permit, authorization or approval requests based upon Developer's failure to satisfy the substantive requirements for the permit, authorization or approval request. In the event of Excusable Delay, the Parties agree that (i) the time periods for performance of the delayed Party's obligations impacted by the Excusable Delay shall be strictly limited to the period of such delay, interruption or prevention and the delayed Party shall, to the extent commercially reasonable, act diligently and in good faith to remove the cause of the Excusable Delay or otherwise complete the delayed obligation, and (ii) following the Excusable Delay, a Party shall have all rights and remedies available under this Agreement, if the obligation is not completed within the time period as extended by the Excusable Delay. If an event which may lead to an Excusable Delay occurs, the delayed Party shall notify the other Party in writing of such occurrence as soon as possible after becoming aware that such event may result in an Excusable Delay, and the manner in which such occurrence is likely to substantially interfere with the ability of the delayed Party to perform under this Agreement.

## **12. TRANSFER OR ASSIGNMENT; RELEASE; CONSTRUCTIVE NOTICE**

12.1 Permitted Transfer of this Agreement. Except as provided in Section 12.1.1 and 12.1.2, at any time, Developer shall have the right to convey, assign or transfer all of its right, title and interest in and to all or part of the Project Site (a “**Transfer**”) without the City's consent, provided that it also transfers to such party (the “**Transferee**”) all of its interest, rights or obligations under this Agreement with respect to such portion of the Project Site together with any portion required to complete the Associated Community Benefits for such portion (the “**Transferred Property**”). Developer shall not, by Transfer, separate a portion of the Project Site from the Associated Community Benefits tied to that portion of the Project Site without the prior written consent of the Planning Director. Notwithstanding anything to the contrary in this Agreement, if Developer Transfers one or more parcels such that there are separate Developers within the Project Site, then the obligation to perform and complete the Associated Community Benefits for a Building shall be the sole responsibility of the applicable Developer (*i.e.*, the person or entity that is the Developer for the Development Parcel on which the Building is located), subject to the limitation and requirements set forth in the Phasing Plan

and Community Benefits Linkages Schedule; provided, however, that any ongoing obligations (such as open space operation and maintenance) may be transferred to a residential, commercial or other management association (“CMA”) on commercially reasonable terms so long as the CMA has the financial capacity and ability to perform the obligations so transferred. Developer acknowledges and agrees that a failure to complete an Associated Community Benefit may, if not completed, delay or prevent a different party’s ability to obtain a temporary or final certificate of occupancy for a specific Building or improvement under this Agreement if and to the extent the completion of the Associated Community Benefit is a condition to such temporary or final certificate of occupancy pursuant to the Phasing Plan and Community Benefits Linkages Schedule, and Developer and all Transferees assume this risk.

12.1.1 Prior to subdivision of the Project Site, Developer may only Transfer the entire Project Site with the Planning Director’s prior written consent and pursuant to an assignment and assumption agreement in recordable form, in substantially the form attached as Exhibit H-1.

12.1.2 Other than in connection with a Transfer of all of Developer’s interest in the Project Site, Developer may only Transfer the portions of the Project Site identified on the Site Plan as Parcel C, Parcel D, or Parcel G (individually and collectively, the “**Market Rate Parcels**”) with the Planning Director’s prior written consent and pursuant to an assignment and assumption agreement in recordable form, in substantially the form attached as Exhibit H-2 the “**Market Rate Parcel Assignment**”). In connection with a Transfer of the Market Rate Parcels, the Market Rate Parcel Assignment must include (i) a minimum payment of \$\_\_\_\_\_ in connection with the first assignment of Market Rate Parcels located within the first Phase of development of the Project, (ii) a minimum payment of \$\_\_\_\_\_ in connection with the first assignment of Market Rate Parcels located within the second Phase of development of the Project, and (iii) assurance reasonably satisfactory to the Planning Director that such payments will be applied towards Project development costs.

12.2 Notice of Transfer. Developer shall provide not less than thirty (30) days’ notice to the City before any proposed Transfer of its interests, rights and obligations under this Agreement, together with a copy of the assignment and assumption agreement for that parcel (the “**Assignment and Assumption Agreement**”). The Assignment and Assumption Agreement shall be in recordable form, in substantially the form attached as Exhibit H

(including the indemnifications, the agreement and covenant not to challenge the enforceability of this Agreement, and not to sue the City for disputes between Developer and any Transferee) and any material changes to the attached form will be subject to the review and approval of the Director of Planning, not to be unreasonably withheld or delayed. The Director of Planning shall use good faith efforts to complete such review and grant or withhold approval within thirty (30) days after the Director of Planning's receipt of such material changes. Notwithstanding the foregoing, any Transfer of Community Benefit obligations to a CMA as set forth in Section 12.1 shall not require the transfer of land or any other real property interests to the CMA.

12.3 Release of Liability. Upon recordation of any Assignment and Assumption Agreement (following the City's approval of any material changes thereto if required pursuant to Section 12.2 above), the assignor shall be released from any prospective liability or obligation under this Agreement related to the Transferred Property, as specified in the Assignment and Assumption Agreement, and the assignee/Transferee shall be deemed to be “**Developer**” under this Agreement with all rights and obligations related thereto with respect to the Transferred Property. Notwithstanding anything to the contrary contained in this Agreement, if a Transferee Defaults under this Agreement, such default shall not constitute a Default by Developer or any other Transferee with respect to any other portion of the Project Site and shall not entitle the City to terminate or modify this Agreement with respect to such other portion of the Project Site, except as otherwise provided herein. Additionally, the annual review provided by Section 8 shall be conducted separately as to Developer and each Transferee and only as to those obligations that Developer or such Transferee has under this Agreement.

12.4 Responsibility for Performance. The City is entitled to enforce each and every such obligation assumed by each Transferee directly against the Transferee as if the Transferee were an original signatory to this Agreement with respect to such obligation. Accordingly, in any action by the City against a Transferee to enforce an obligation assumed by the Transferee, the Transferee shall not assert as a defense against the City's enforcement of performance of such obligation that such obligation (i) is attributable to Developer's breach of any duty or obligation to the Transferee arising out of the Transfer or the Assignment and Assumption Agreement or any other agreement or transaction between Developer and the Transferee, or (ii) relates to the period before the Transfer. The foregoing notwithstanding, the Parties acknowledge and agree that a failure to complete a Mitigation Measure may, if not

completed, delay or prevent a different party's ability to start or complete a specific Building or improvement under this Agreement if and to the extent the completion of the Mitigation Measure is a condition to the other party's right to proceed, as specifically described in the Mitigation Measure, and Developer and all Transferees assume this risk.

12.5 Constructive Notice. Every person or entity who now or hereafter owns or acquires any right, title or interest in or to any portion of the Project Site is, and shall be, constructively deemed to have consented to every provision contained herein, whether or not any reference to this Agreement is contained in the instrument by which such person acquired an interest in the Project Site. Every person or entity who now or hereafter owns or acquires any right, title or interest in or to any portion of the Project Site and undertakes any development activities at the Project Site, is, and shall be, constructively deemed to have consented and agreed to, and is obligated by all of the terms and conditions of this Agreement (as such terms and conditions apply to the Project Site or applicable portion thereof), whether or not any reference to this Agreement is contained in the instrument by which such person acquired an interest in the Project Site.

12.6 Rights of Developer. The provisions in this Section 12 shall not be deemed to prohibit or otherwise restrict Developer from (i) granting easements or licenses to facilitate development of the Project Site, (ii) encumbering the Project Site or any portion of the improvements thereon by any Mortgage, (iii) granting an occupancy leasehold interest in portions of the Project Site, (iv) entering into a joint venture agreement or similar partnership agreement to fulfill its obligations under this Agreement, or (v) transferring all or a portion of the Project Site pursuant to a foreclosure, conveyance in lieu of foreclosure, or other remedial action in connection with a Mortgage, and none of the foregoing shall constitute a Transfer for which the City's consent is required.

### **13. DEVELOPER REPRESENTATIONS AND WARRANTIES**

13.1 Interest of Developer; Due Organization and Standing. Developer represents that it has the right and authority to enter into this Agreement. Developer is a limited liability company, duly organized and validly existing and in good standing under the Laws of the State of Delaware. Developer has all requisite power to own its property and authority to conduct its business as presently conducted.

13.2 No Inability to Perform; Valid Execution. Developer represents and



warrants that it is not a party to any other agreement that would conflict with Developer's obligations under this Agreement and it has no knowledge of any inability to perform its obligations under this Agreement. The execution and delivery of this Agreement and the agreements contemplated hereby by Developer have been duly and validly authorized by all necessary action. This Agreement will be a legal, valid and binding obligation of Developer, enforceable against Developer in accordance with its terms.

13.3 Conflict of Interest. Through its execution of this Agreement, Developer acknowledges that it is familiar with the provisions of Section 15.103 of the City's Charter, Article III, Chapter 2 of the City's Campaign and Governmental Conduct Code, and Section 87100 *et seq.* and Section 1090 *et seq.* of the California Government Code, and certifies that it does not know of any facts which constitute a violation of said provisions and agrees that it will immediately notify the City if it becomes aware of any such fact during the Term.

13.4 Notification of Limitations on Contributions. Through its execution of this Agreement, Developer acknowledges that it is familiar with Section 1.126 of the San Francisco Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City, whenever such transaction would require approval by a City elective officer or the board on which that City elective officer serves, from making any campaign contribution to (1) the City elective officer, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual or candidate, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for that contract or twelve (12) months after the date that contract is approved. San Francisco Ethics Commission Regulation 1.126-1 provides that negotiations are commenced when a prospective contractor first communicates with a City officer or employee about the possibility of obtaining a specific contract. This communication may occur in person, by telephone or in writing, and may be initiated by the prospective contractor or a City officer or employee. Negotiations are completed when a contract is finalized and signed by the City and the contractor. Negotiations are terminated when the City and/or the prospective contractor end the negotiation process before a final decision is made to award the contract.

Developer acknowledges that (i) the prohibition on contributions applies to Developer, each member of Developer's board of directors, Developer's chief executive officer, chief financial officer and chief operating officer, any person with an ownership interest of more

than ten percent (10%) in Developer, any subcontractor listed in the contract, and any committee that is sponsored or controlled by Developer, and (ii) within thirty (30) days of the submission of a proposal for the contract, the City department seeking to enter into the contract must notify the Ethics Commission of the parties and any subcontractor to the contract. Additionally, Developer certifies it has informed each of the persons described in the preceding sentence of the prohibitions contained in Section 1.126 by the time it submitted a proposal for the contract to the City, and has provided the names of the persons required to be informed to the City department seeking to enter into that contract within thirty (30) days of submitting its contract proposal to the City department receiving that submittal, and acknowledges the City department receiving that submittal was required to notify the Ethics Commission of those persons.

13.5 Other Documents. To the current, actual knowledge of Developer, after reasonable inquiry, no document furnished by Developer to the City with its application for this Agreement nor this Agreement contains any untrue statement of material fact or omits a material fact necessary to make the statements contained therein, or herein, not misleading under the circumstances under which any such statement shall have been made.

13.6 No Bankruptcy. Developer represents and warrants to the City that Developer has neither filed nor is the subject of any filing of a petition under the federal bankruptcy law or any federal or state insolvency laws or Laws for composition of indebtedness or for the reorganization of debtors, and, to the best of Developer's knowledge, no such filing is threatened.

#### **14. MISCELLANEOUS PROVISIONS**

14.1 Entire Agreement. This Agreement, including the preamble paragraph, Recitals and Exhibits, and the agreements between the Parties specifically referenced in this Agreement, constitutes the entire agreement between the Parties with respect to the subject matter contained herein.

14.2 Incorporation of Exhibits. Except for the Approvals which are listed solely for the convenience of the Parties, each Exhibit to this Agreement is incorporated herein and made a part hereof as if set forth in full. Each reference to an Exhibit in this Agreement shall mean that Exhibit as it may be updated or amended from time to time in accordance with the terms of this Agreement.

14.3 Binding Covenants; Run With the Land. Pursuant to Section 65868 of

the Development Agreement Statute, from and after recordation of this Agreement, all of the provisions, agreements, rights, powers, standards, terms, covenants and obligations contained in this Agreement shall be binding upon the Parties and, subject to the provisions of this Agreement, including without limitation Section 12, their respective heirs, successors (by merger, consolidation, or otherwise) and assigns, and all persons or entities acquiring the Project Site, any lot, parcel or any portion thereof, or any interest therein, whether by sale, operation of law, or in any manner whatsoever, and shall inure to the benefit of the Parties and their respective heirs, successors (by merger, consolidation or otherwise) and assigns. Subject to the provisions of this Agreement, including without limitation Section 12, all provisions of this Agreement shall be enforceable during the Term as equitable servitudes and constitute covenants and benefits running with the land pursuant to applicable Law, including but not limited to California Civil Code Section 1468.

14.4 Applicable Law and Venue. This Agreement has been executed and delivered in and shall be interpreted, construed, and enforced in accordance with the Laws of the State of California. All rights and obligations of the Parties under this Agreement are to be performed in the City and County of San Francisco, and the City and County of San Francisco shall be the venue for any legal action or proceeding that may be brought, or arise out of, in connection with or by reason of this Agreement.

14.5 Construction of Agreement. The Parties have mutually negotiated the terms and conditions of this Agreement and its terms and provisions have been reviewed and revised by legal counsel for both the City and Developer. Accordingly, no presumption or rule that ambiguities shall be construed against the drafting Party shall apply to the interpretation or enforcement of this Agreement. Language in this Agreement shall be construed as a whole and in accordance with its true meaning. The captions of the paragraphs and subparagraphs of this Agreement are for convenience only and shall not be considered or referred to in resolving questions of construction. Each reference in this Agreement to this Agreement or any of the Approvals shall be deemed to refer to this Agreement or the Approvals as amended from time to time pursuant to the provisions of this Agreement, whether or not the particular reference refers to such possible amendment. In the event of a conflict between the provisions of this Agreement and Chapter 56, the provisions of this Agreement will govern and control.

14.6 Project Is a Private Undertaking; No Joint Venture or Partnership. The

development proposed to be undertaken by Developer on the Project Site is a private development. The City has no interest in, responsibility for, or duty to third persons concerning any of said improvements. Developer shall exercise full dominion and control over the Project Site, subject only to the limitations and obligations of Developer contained in this Agreement. Nothing contained in this Agreement, or in any document executed in connection with this Agreement, shall be construed as creating a joint venture or partnership between the City and Developer. Neither Party is acting as the agent of the other Party in any respect hereunder. Developer is not a state or governmental actor with respect to any activity conducted by Developer hereunder.

14.7 Recordation. Pursuant to the Development Agreement Statute and Chapter 56, the Clerk of the Board of Supervisors shall have a copy of this Agreement recorded in the Official Records within ten (10) days after the Effective Date of this Agreement or any amendment thereto, with costs to be borne by Developer.

14.8 Obligations Not Dischargeable in Bankruptcy. Developer's obligations under this Agreement are not dischargeable in bankruptcy.

14.9 Survival. Following expiration of the Term, this Agreement shall be deemed terminated and of no further force and effect except for any provision which, by its express terms, survive the expiration or termination of this Agreement.

14.10 Signature in Counterparts. This Agreement may be executed in duplicate counterpart originals, each of which is deemed to be an original, and all of which when taken together shall constitute one and the same instrument.

14.11 Notices. Any notice or communication required or authorized by this Agreement shall be in writing and may be delivered personally or by registered mail, return receipt requested. Notice, whether given by personal delivery or registered mail, shall be deemed to have been given and received upon the actual receipt by any of the addressees designated below as the person to whom notices are to be sent. Either Party to this Agreement may at any time, upon notice to the other Party, designate any other person or address in substitution of the person and address to which such notice or communication shall be given. Such notices or communications shall be given to the Parties at their addresses set forth below:

To City:	Rich Hillis
	Director of Planning
	San Francisco Planning Department

1650 Mission Street, Suite 400  
San Francisco, California 94102

with a copy to:

Dennis J. Herrera, Esq.  
City Attorney  
City Hall, Room 234  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102  
Attn: Real Estate/Finance,  
Balboa Reservoir Project

To Developer:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

14.12 Limitations on Actions. Pursuant to Section 56.19 of the Administrative Code, any decision of the Board of Supervisors made pursuant to Chapter 56 shall be final. Any court action or proceeding to attack, review, set aside, void, or annul any final decision or determination by the Board of Supervisors shall be commenced within ninety (90) days after such decision or determination is final and effective. Any court action or proceeding to attack, review, set aside, void or annul any final decision by (i) the Planning Director made pursuant to Administrative Code Section 56.15(d)(3) or (ii) the Planning Commission pursuant to Administrative Code Section 56.17(e) shall be commenced within ninety (90) days after said decision is final.

14.13 Severability. Except as is otherwise specifically provided for in this Agreement with respect to any Laws which conflict with this Agreement, if any term, provision, covenant, or condition of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions of this Agreement shall continue in full force and effect unless enforcement of the remaining portions of this Agreement would be unreasonable or grossly inequitable under all the circumstances or would frustrate the purposes of this Agreement.

14.14 MacBride Principles. The City urges companies doing business in Northern Ireland to move toward resolving employment inequities and encourages them to abide by the MacBride Principles as expressed in San Francisco Administrative Code Section

12F.1 *et seq.* The City also urges San Francisco companies to do business with corporations that abide by the MacBride Principles. Developer acknowledges that it has read and understands the above statement of the City concerning doing business in Northern Ireland.

14.15 Tropical Hardwood and Virgin Redwood. The City urges companies not to import, purchase, obtain or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood, or virgin redwood wood product, except as expressly permitted by the application of Sections 802(b) and 803(b) of the San Francisco Environment Code.

14.16 Sunshine. Developer understands and agrees that under the City's Sunshine Ordinance (Administrative Code, Chapter 67) and the California Public Records Act (California Government Code Section 250 *et seq.*), this Agreement and any and all records, information, and materials submitted to the City hereunder are public records subject to public disclosure. To the extent that Developer in good faith believes that any financial materials reasonably requested by the City constitutes a trade secret or confidential proprietary information protected from disclosure under the Sunshine Ordinance and other Laws, Developer shall mark any such materials as such. When a City official or employee receives a request for information that has been so marked or designated, the City may request further evidence or explanation from Developer. If the City determines that the information does not constitute a trade secret or proprietary information protected from disclosure, the City shall notify Developer of that conclusion and that the information will be released by a specified date in order to provide Developer an opportunity to obtain a court order prohibiting disclosure.

14.17 Non-Liability of City Officials and Others. Notwithstanding anything to the contrary in this Agreement, no individual board member, director, commissioner, officer, employee, official or agent of City or other City Parties shall be personally liable to Developer, its successors and assigns, in the event of any Default by City, or for any amount which may become due to Developer, its successors and assigns, under this Agreement.

14.18 Non-Liability of Developer Officers and Others. Notwithstanding anything to the contrary in this Agreement, no individual board member, director, officer, employee, official, partner, employee, or agent of Developer or any affiliate of Developer shall be personally liable to City, its successors and assigns, in the event of any Default by Developer, or for any amount which may become due to City, its successors and assigns, under this Agreement.

14.19 No Third Party Beneficiaries. There are no third party beneficiaries to this Agreement.

[REMAINDER OF PAGE INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the day  
and year first above written.

CITY:

Approved as to form:

CITY AND COUNTY OF SAN FRANCISCO,  
a municipal corporation

DENNIS J. HERRERA, City Attorney

By: \_\_\_\_\_  
Rich Hillis  
Director of Planning

By: \_\_\_\_\_  
Elizabeth A. Dietrich  
Deputy City Attorney

RECOMMENDED:

By:

\_\_\_\_\_  
Eric Shaw  
Director, MOHCD

Approved on \_\_\_\_\_, 20\_\_\_\_  
Board of Supervisors Ordinance No. \_\_\_\_\_



DEVELOPER:

\_\_\_\_\_

a \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
County of San Francisco )

On \_\_\_\_\_, before me, \_\_\_\_\_, a Notary Public, personally appeared \_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
County of San Francisco )

On \_\_\_\_\_, before me, \_\_\_\_\_, a Notary Public, personally appeared \_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_

**EXHIBIT A**  
**PROJECT SITE LEGAL DESCRIPTION**

*(To be provided)*

## **EXHIBIT B**

### **PROJECT DESCRIPTION**

The Project Site is located on an approximately 17 acre site in the West of Twin Peaks area of south central San Francisco. The Project Site is north of the Ocean Avenue commercial district, west of the City College of San Francisco Ocean Campus, east of the Westwood Park neighborhood, and south of Archbishop Riordan High School. The Project would develop the site with approximately 1,100 mixed-income housing (approximately 1.3 million gross square feet (gsf)), open space, a childcare facility/community room available for public use, on- and off-street parking, and new streets, utilities, and other infrastructure. A Site Plan is attached to this Exhibit B as Exhibit B-1.

The buildings comprising the Project will range in height from 25 to 78 feet. 50 percent of the new units comprising the Project will be designated affordable to persons earning between 55 and 120 percent of the area median income, with the final affordability levels determined as described in the Affordable Housing Program attached to this Agreement as Exhibit D. Developer will be responsible for providing gap financing for 67% of the affordable housing in the Project, with the City providing the remaining 33%. Affordable housing will be distributed throughout the site. The Affordable Housing Program is described in greater detail in Exhibit D to the Agreement.

In addition to the development of residential units, the Project includes an approximately 1,000 gsf community room for public use, and a childcare facility to serve approximately 100 children. The Child Care Program is described in greater detail in Exhibit L to the Development Agreement.

The Project includes up to 550 residential parking spaces, and up to 450 parking spaces that will be available to the general public, including the students, faculty, and staff of the City College of San Francisco, at market rates. The parking plan is discussed in greater detail in the Transportation exhibit attached to this Agreement as Exhibit J.

Approximately 4 acres on the Project Site will be devoted to publicly accessible open space. The open spaces include pedestrian and bicycle pathways, or paseos, and an approximately 2 acre park in the center of the Project Site called Reservoir Park. The open space also includes an approximately 80-foot-wide parcel located along the southern edge of the Project Site where an underground water transmission pipeline is located, and that will remain under the ownership of SFPUC. The open spaces are described and depicted in greater detail in Exhibit C to the Agreement.

The Project includes transportation and circulation changes, including the extension of existing north-south Lee Avenue across the site, and a new internal street network. The project would include a roadway network that would be accessible for people walking, including people with disabilities, bicycling, and driving. The project would also include new utility infrastructure to supply the site with potable water, wastewater collection, stormwater collection and treatment, electricity, natural gas, and communications. The street and infrastructure improvements are described in greater detail in the Master Infrastructure Plan attached to the Agreement as Exhibit M.

**EXHIBIT B1**  
**SITE PLAN**

## **EXHIBIT C**

### **PROJECT OPEN SPACE**

This Exhibit C (the “Project Open Space Exhibit”) describes the Project Open Space. All capitalized terms used in this Project Open Space Exhibit and not specifically defined herein will have the meanings ascribed to them in the Development Agreement by and between the City and County of San Francisco, a municipal corporation, and Reservoir Community Partners LLC, a California Delaware limited liability company (the “Agreement”). The Project will provide the following open space, in accordance with Exhibit C-1 (Open Space Site Plan), Exhibit C-2 (Open Space Rules and Regulations), Exhibit C-3 (Public Access Declaration), Exhibit C-4 (Regulations for Privately-Owned Streets) and Schedule 1 (Community Benefits Linkages) to the Agreement:

1. Publicly Accessible Private Improvements. The Project includes the construction, operation, and maintenance of the “**Publicly Accessible Private Improvements**” as identified in the Open Space Plan. Developer will construct the Publicly Accessible Private Improvements substantially as described in the Project SUD and Design Standards and Guidelines (“**DSG**”), as follows:
  - a. Reservoir Park: An approximately 2-acre park located at the center of the project site, generally surrounded by the residential buildings proposed for the Project. Potential programming will include a multi-use lawn and terraces, a playground, community garden, picnic area, dog facility, and stormwater gardens and a terrace overlooking the park from the community room (anticipated to be provided as part of the building on Parcel E.)
  - b. Gateway Landscape: An approximately 0.15-acre landscaped area, potentially programmed with dog facilities, and located at the Project site’s entrance east of the Lee Avenue and South Street intersection.
  - c. Brighton Paseo: An approximately [XX]-acre pedestrian and slow bike only shared path connecting the Project, including Reservoir Park, to the adjacent neighborhood across Ocean Avenue to the south.
  - d. San Ramon Paseo: An approximately [XX]-acre pedestrian and slow bike only shared path connecting the Project’s open space network to San Ramon Way at the west. The landscaped area will include pedestrian and bike amenities, creating a garden-like passage for residents and community members.

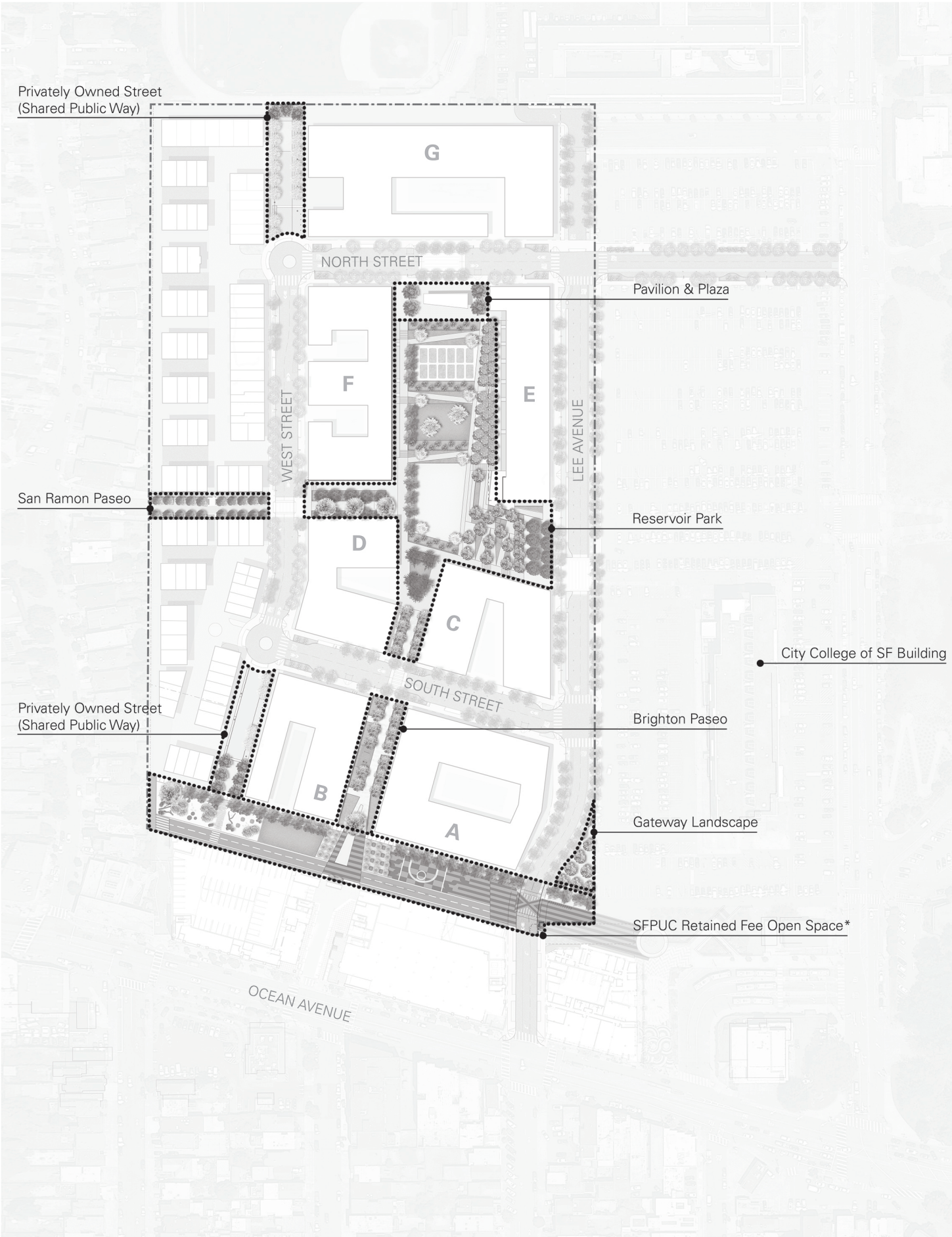
The Publicly Accessible Private Improvements will be privately owned but accessible to the public on the terms described in Exhibit C-2 and Exhibit C-3. The Publicly Accessible

Private Improvements, depicted in Exhibit C-1, will be provided substantially as described in the Project SUD and DSG, constructed in accordance with the terms of the Development Agreement, Exhibit C-2 and Schedule 1, and operated and maintained on the terms of Exhibit C-2 and Exhibit C-3.

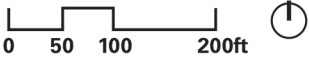
SFPUC Open Space. An approximately [XX]-acre, 80-foot wide parcel abutting the south side of Project site that contains a large underground water transmission pipeline. The City, through the SFPUC, will continue to own the space for utility use. The space will be improved to serve as an active flexible urban recreation space subject to a license from the SFPUC. The space may be used for temporary programming, subject to the terms of the SFPUC Retained Fee License Agreement and additional permits required for such temporary uses issued by the SFPUC.



**EXHIBIT C-1**  
**OPEN SPACE PLAN**



OPEN SPACE PLAN



**EXHIBIT C-2**  
**OPEN SPANCE RULES AND REGULATIONS**

*(To be provided)*

**EXHIBIT C-3**  
**DECLARATION OF PUBLIC ACCESS COVENANTS AND RESTRICTIONS**

WHEN RECORDED MAIL TO:

Real Estate Division  
City and County of San Francisco  
25 Van Ness Avenue, Suite 400  
San Francisco, CA 94102  
Attn: Director of Property

The undersigned hereby declares this instrument to be exempt from Recording Fees (Govt. Code § 27383) and from Documentary Transfer Tax (CA Rev. & Tax. Code § 11922 and SF Bus. and Tax Reg. Code § 1105)

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

[Balboa Reservoir]  
[APN 3180-190]

**DECLARATION OF PUBLIC ACCESS COVENANTS AND RESTRICTIONS**

This Declaration of Public Access Covenants and Restrictions ("**Declaration**") is made as of \_\_\_\_\_, 2019, by [\_\_\_\_\_] ("**Declarant**"), in favor of the CITY AND COUNTY OF SAN FRANCISCO, a municipal corporation ("**City**").

**RECITALS**

A. Declarant owns that certain parcel in the City and County of San Francisco comprised of approximately [\_\_\_\_\_] acres (approximately [\_\_\_\_\_] square feet), and further described in the attached Exhibit A (the "**Project Site**").

B. Declarant intends to redevelop the Project Site as a residential mixed-use development that will include residential, retail, child care, open space, parking, and related uses (the "**Project**"), under a Development Agreement between Declarant and City dated \_\_\_\_\_, 2020 (the "**Development Agreement**"), approved by the City's Board of Supervisors by Ordinance No. \_\_\_\_\_ on May \_\_, 2020 and recorded in Official Records of San Francisco County on \_\_\_\_\_ as under Recorder's Serial Number \_\_\_\_\_, a Special Use District approved by the City's Board of Supervisors by Ordinance No. \_\_\_\_\_ on May \_\_, 2020, and amendments to the City's Planning Code, Zoning Map, and Height Map adopted by the Board of Supervisors under Ordinance No. \_\_\_\_\_ on May \_\_, 2020.

C. Declarant's proposed Project buildings (each a "**Building**") are described in the attached Exhibit B-1 and depicted in the attached Exhibit B-2. As part of the Project and pursuant to the Development Agreement, if Declarant constructs any Building during the term of the Development Agreement ("**DA Term**"), Declarant will develop certain publicly-accessible open spaces on the Project Site and operate and maintain such open space in accordance with the terms and conditions of this Declaration.

## AGREEMENT

Now, therefore, in consideration of the City's approval and execution of the Development Agreement, Declarant declares as follows on behalf of itself and all future owners of the Project Site:

### 1. Construction.

(a) Timing. If Declarant constructs any Building during the DA Term, Declarant shall build the applicable Dedicated Open Spaces (as defined in the attached Exhibit C) specified in the attached Exhibit C.

(b) Conceptual Plans; Changes. If Declarant is obligated to construct a Dedicated Open Space pursuant to Section 1(a) above, then Declarant shall construct that Dedicated Open Space substantially as described in the Design Standards and Guidelines in the City's Planning Department docket for Case No. \_\_\_\_\_, as the same may be modified pursuant to conditions of approval for the Project adopted by the City's Planning Commission on \_\_\_\_\_, 2020 (the "**DSG**"). The improvements described in the DSG, as may be modified pursuant to this subsection (b), are referred to herein as the "**Open Space Improvements**".

2. Maintenance and Modifications. Following the completion of the Open Space Improvements for a Dedicated Open Space, Declarant shall maintain that Dedicated Open Space in a clean and litter-free condition, and shall maintain the Open Space Improvements in that Dedicated Open Space in good condition for the life of the last remaining Building at the Project Site. Notwithstanding the foregoing, after the substantial completion of the Open Space Improvements for a Dedicated Open Space, Declarant shall have the right to modify, renovate, replace and/or update the Open Space Improvements or other improvements installed in a Dedicated Open Space (each, "Change") subject to the provisions of this Declaration. Before submitting any permit application for a Change that could materially alter the Open Space Improvements or that could materially impact the public's ability to access any Dedicated Open Space or to use the Dedicated Open Space or use the Open Space Improvements as initially constructed or subsequently Changed (each, a "Material Change"), Declarant shall conduct a design review process pursuant to the Project SUD.

In addition to the foregoing paragraph, Declarant shall give the Planning Director at least thirty (30) days advance notice of any proposed Change that is not a Material Change if the hard cost of such proposed modification is anticipated to exceed the Threshold Amount (defined as follows), but the Planning Director shall have no consent rights with respect to such modification. The "Threshold Amount" means an amount equal to One Hundred Thousand

Dollars (\$100,000), which shall be increased by three percent (3%) on each anniversary of the recordation of the Development Agreement in the Official Records of San Francisco County.

3. City Regulatory Approvals. Prior to commencing the construction or maintenance of any Open Space Improvements, Changes, or Material Changes, Declarant shall obtain all City approvals Declarant is required to obtain from City for such activities in its regulatory capacity.

4. Use; Operation. On substantial completion of the Open Space Improvements for a Dedicated Open Space, Declarant shall maintain and make that Dedicated Open Space available for the use, enjoyment and benefit of the public for open space and recreational purposes (the "**Permitted Public Use**") in accordance with the regulations reasonably approved by City's Director of Planning ("**Regulations**"). If, pursuant to the Regulations, Declarant closes any Dedicated Open Space for maintenance and repairs or for an emergency, Declarant shall keep records of such closures and regularly disclose them in the Maintenance and Operation Report pursuant to the Regulations.

5. Notice and Cure Rights. Except as provided in this Section, City shall provide written notice to the Declarant of any actual or alleged violation of the covenants or restrictions set forth in this Declaration before taking any enforcement action. Such notices shall be given to Declarant at the address last furnished to the City. Declarant shall have (i) a period of five (5) business days after receipt of such notice to cure any violation in making a Dedicated Open Space available for the Permitted Public Use as required in this Declaration ("**Public Access Violations**") and (ii) a period of thirty (30) days after receipt of such notice to cure any other violation, provided that if the violation is not capable of cure within such 30-day period, Declarant shall have such additional time as shall be reasonably required to complete a cure as long as Declarant promptly undertakes action to commence the cure within the 30-day period and thereafter diligently prosecutes the same to completion. The time in which Declarant may cure is herein called the "**Declarant Cure Period**," and except for any Public Access Violations, City shall not exercise any legal or equitable remedies during the Declarant Cure Period (or the Lender Cure Period, as defined in Section 6 below) as long as Declarant (or any applicable Lender, as defined in Section 6 below) is diligently pursuing such cure. Notwithstanding anything to the contrary herein, in no event shall the Declarant Cure Period exceed six (6) months.

Any notices required or permitted to be given under this Declaration shall be in writing and shall be delivered (a) in person, (b) by certified mail, postage prepaid, return receipt requested, or (c) by U.S. Express Mail or commercial overnight courier that guarantees next day delivery and provides a receipt, and such notices shall be addressed as follows, or such other address as either party may from time to time specify in writing to the other party:

Declarant: [TBD]

City: Planning Director  
City and County of San Francisco  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

with a copy to: Real Estate Division  
City and County of San Francisco  
25 Van Ness Avenue, Suite 400  
San Francisco, CA 94102  
Attn: Director of Property

and to: Office of the City Attorney  
City Hall, Room 234  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102  
Attn: Real Estate/Finance Team

6. Lender Notice and Cure Rights. As long as any deed of trust encumbering any portion of the Project Site made in good faith and for value (each, an "**Encumbrance**") shall remain unsatisfied of record, the City shall give to the beneficiary of such Encumbrance (each, a "**Lender**") a copy of each notice the City gives to Declarant from time to time of the occurrence of a violation under this Declaration if that Lender has given to the City a written request for such notices. Copies of such notices shall be given to any requesting Lender at the address that requesting Lender last furnished to the City. Nothing in this Section shall be construed to mean that City must provide a Lender with a copy of any Self-Help Notices (as defined in Section 7 below).

Each Lender shall have the right, but not the obligation, to do any act or thing required of Declarant hereunder, and to do any act or thing which may be necessary and proper to be done in the performance and observance of the agreements, covenants and conditions hereof; provided, however, that no such action shall constitute an assumption by such Lender of the obligations of Declarant under this Declaration. In the case of any notice of violation given by the City to Declarant, the Lender shall have the same concurrent cure periods as are given Declarant under this Declaration for remedying a default or causing it to be remedied and, except in the event of a Public Access Violation, if prior to the expiration of the applicable cure period specified in Section 5 above, a Lender gives City written notice that it intends to undertake the curing of such default or to cause the same to be cured, and then proceeds with all due diligence to do so, Lender shall have, in each case, an additional period of thirty (30) days (or, except for a default relating to the payment of money, such longer period as reasonably necessary) as long as Lender commences cure within such thirty (30) day period and diligently proceeds to completion) after the later to occur of (i) the expiration of such cure period, or (ii) the date that the City has served such notice of default upon Lender, and the City shall accept such performance by or at the instance of the Lender as if the same had been made by Declarant. The time in which Lender may cure is herein called the "**Lender Cure Period**". Notwithstanding anything to the contrary herein, in no event shall the additional Lender Cure Period exceed six (6) months beyond the applicable Declarant Cure Period.

7. Enforcement. Declarant acknowledges that its failure to construct the Open Space Improvements for any Dedicated Open Space in a timely manner or to properly maintain or operate them as required in this Declaration will cause irreparable harm to the City and that the City will not have an adequate remedy at law for such breach. Accordingly, City shall be



entitled to specific performance or injunctive or other equitable relief by reason of such breach. City may, in its sole discretion, rely on this Declaration to enforce any of the covenants or restrictions hereunder. City, but not the general public, shall have all rights and remedies available at law or in equity in order to enforce the covenants and restrictions set forth in this Declaration. All rights and remedies available to City under this Declaration or at law or in equity shall be cumulative and not alternative, and invocation of any such right or remedy shall not constitute a waiver or election of remedies with respect to any other available right or remedy. If there is any breach of the covenants or restrictions hereunder, City shall be entitled to recover all attorneys' fees and costs in connection with City's enforcement activities and actions.

If Declarant fails to maintain a Dedicated Open Space in the manner required in this Declaration, and Declarant fails to timely cure such failure pursuant to Section 5 above and no Lender cures such failure pursuant to Section 6 above, City shall further have the right, at its sole option, to remedy such failure at Declarant's expense by providing Declarant with ten (10) days' prior written notice of City's intention to cure such failure (a "**Self-Help Notice**"). Such action by City shall not be construed as a waiver of such default or any rights or remedies of City, and nothing herein shall imply any duty of City to do any act that Declarant is obligated to perform. Declarant shall reimburse City for all of its costs and expenses, including without limitation, reasonable attorneys' fees, in remedying or attempting to remedy such failure, within thirty (30) days' of receiving City's invoice for such costs and expenses, together with documentation reasonably evidencing such costs and expenses. If Declarant fails to timely reimburse City for such costs and expenses, City shall have the right to record a notice of such unpaid costs and expenses against record title to the Project Site. At City's request, Declarant shall provide security in a form and amount satisfactory to City to ensure Declarant's prompt reimbursement of any amounts owed by Declarant to City pursuant to this Section.

8. Priority of Lien. No violation or breach of any provision of this Declaration shall impair, defeat or invalidate the lien of any Encumbrance, but all provisions hereof shall thereafter be binding upon and effective against any owner whose title is derived through foreclosure of any Encumbrance or acceptance of any deed in lieu of foreclosure.

9. No Waiver. No waiver by City of any violation under this Declaration shall be effective or binding unless and to the extent expressly made in writing by City, and no such waiver may be implied from any failure by City to take action with respect to such violation. No express written waiver of any violation shall constitute a waiver of any subsequent violation in the performance of the same or any other provision of this Declaration.

10. Compliance With Laws. Declarant shall comply with all laws, statutes, ordinances, rules, and regulations of federal, state and local authorities (including, without limitation, City laws of general applicability) having jurisdiction over the Project Site, now in force or hereafter adopted with respect to its use, in the performance of its obligations under this Declaration.

11. Litigation Expenses. If City brings an action or proceeding (including any cross-complaint, counterclaim, or third-party claim) against Declarant or the then-owner(s) of the Project Site by reason of a default, or otherwise arising out of this Declaration, the prevailing party in such action or proceeding shall be entitled to its costs and expenses of suit, including,



but not limited to, reasonable attorneys' fees, which shall be payable whether or not such action is prosecuted to judgment. "Prevailing Party" shall include, without limitation, a party who dismisses an action for recovery hereunder in exchange for payment of the sums allegedly due, performance of covenants allegedly breached, or consideration substantially equal to the relief sought in the action. Attorneys' fees under this Section shall include attorneys' fees on any appeal, and, in addition, a party entitled to attorneys' fees shall be entitled to all other reasonable costs and expenses incurred in connection with such action. For purposes of this Declaration, reasonable fees of attorneys of City's Office of City Attorney shall be based on the fees regularly charged by private attorneys with an equivalent number of hours of professional experience in the subject matter area of the law for which City'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 Office of City Attorney.

12. Binding on Successors; No Merger. This Declaration and the covenants and restrictions set forth herein constitute restrictions and covenants running with the land and shall bind and burden Declarant, in its capacity as owner of the Project Site, and each successor owner and occupier of the Project Site. Declarant may transfer its obligations under this Declaration to a residential, commercial or other management association for the Project Site, but shall remain ultimately responsible for Declarant's rights and obligations under this Declaration.

13. Severability. Should any provision or portion hereof be declared invalid or in conflict with any law, the validity of all remaining provisions shall remain unaffected and in full force and effect.

14. Time. Time is of the essence of this Declaration and each and every part hereof.

15. Term; Amendment. This Declaration shall be effective on the date it is recorded in the Official Records of San Francisco County, shall continue for the life of the last remaining Building at the Project Site; provided, however, that if Declarant does not build any Building at the Project Site during the DA Term, this Declaration shall automatically terminate on the expiration of the DA Term. This Declaration may be amended or otherwise modified only in a writing signed and acknowledged by Declarant (or its successors in interest to any fee interest of the Project Site) and City.

16. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

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IN WITNESS WHEREOF, Declarant and City have executed this Declaration as of the date first written above.

**DECLARANT:**

By:

**CITY:**

CITY AND COUNTY OF SAN FRANCISCO,  
a municipal corporation

By: \_\_\_\_\_

**APPROVED AS TO FORM:**

DENNIS J. HERRERA,  
City Attorney

By: \_\_\_\_\_

Deputy City Attorney

**A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.**

State of California                    )  
  ) ss

County of San Francisco        )

On \_\_\_\_\_, before me, \_\_\_\_\_, a notary public in and for said State, personally appeared \_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_ (Seal)

State of California )  
 ) ss  
County of San Francisco )

Signature \_\_\_\_\_ (Seal)

## **EXHIBIT A**

### Legal Description of Project Site

## **EXHIBIT B-1**

### Description of Buildings

[see attached]

## **EXHIBIT B-2**

### Depiction of Buildings and Dedicated Open Spaces

[see attached]

## EXHIBIT C

### Completion Schedule

Declarant's obligation to construct a Dedicated Open Space (as defined below) shall be as follows:

1. Description of Dedicated Open Spaces. Each of the following shall be a “**Dedicated Public Space**” and shall collectively be the “**Dedicated Public Spaces**”:

a. Reservoir Park: An approximately 2-acre park located at the center of the project site, generally surrounded by the residential buildings proposed for the Project. Potential programming will include a multi-use lawn and terraces, a playground, community garden, picnic area, dog facility, and stormwater gardens and a terrace overlooking the park from the community room (anticipated to be provided as part of the building on Parcel \_\_.)

b. Gateway Landscape: An approximately 0.15-acre landscaped area, potentially programmed with dog facilities, and located at the Project site's entrance east of the Lee Avenue and South Street intersection.

c. Brighton Paseo: An approximately [XX]-acre pedestrian and slow bike only shared path connecting the Project, including Reservoir Park, to the adjacent neighborhood across Ocean Avenue to the south.

d. San Ramon Paseo: An approximately [XX]-acre pedestrian and slow bike only shared path connecting the Project's open space network to San Ramon Way at the west. The landscaped area will include pedestrian and bike amenities, creating a garden-like passage for residents and community members.

2. Installation Schedule. An “**Occupancy Certificate**” means a certificate of occupancy, including any temporary certificate of occupancy. Subject to Section 3 below, Declarant shall complete the construction of the Dedicated Open Spaces as follows:

a. Reservoir Park: The Reservoir Park, as described in Exhibit C, must be completed as a condition to the issuance of the first addendum to any Site Permit for any Market Rate Building in Phase 2 described in Schedule 1-A (i.e., Parcel G). For purposes of this Section 2, the Reservoir Park will be considered “complete” when it is sufficiently complete to allow the public to occupy or utilize the space for its intended use, as reasonably determined by the Planning Director.

b. Gateway Landscape: Gateway Landscape, as described in Exhibit C, must have commenced construction of improvements as a condition of issuance of an FCO for the Market Rate Building in Phase 2, as described in Schedule 1-A (i.e., Parcel G). Gateway Landscape must be complete by the earlier to occur of (i) three months after the date of the FCO for the building on Affordable Parcel B, or (ii) the expiration of the Term of this Agreement. For purposes of this Section 2, Gateway Landscape will be considered “complete” when it is sufficiently



complete to allow the public to occupy or utilize the space for its intended use, as reasonably determined by the Planning Director.

c. Brighton Paseo, San Ramon Paseo: Brighton Paseo must be complete prior to issuance of the FCO for the later of the Buildings on Parcel A or Parcel B. San Ramon paseo must be complete prior to issuance of the FCO for the 50<sup>th</sup> Townhouse Unit. For purposes of this Section 2, the Brighton Paseo and San Ramon Paseo will be considered “complete” when they are sufficiently complete to allow the public to occupy or utilize the spaces for their intended use as described in the DSG, as reasonably determined by the Planning Director.

3. Delayed Completion. Notwithstanding anything to the contrary in Section 2 above or in Section 4.2 of the Development Agreement, if Declarant wishes to receive the first Occupancy Certificate for the residential portion of any of the buildings described in Section 2 above before completing its associated Dedicated Open Space, Declarant may complete that associated Dedicated Open Space at a later time by providing to the City, prior to issuance of the first Occupancy Certificate for any residential portion of that building, a surety performance bond or other security in form acceptable to the City and in an amount equal to 100% of the reasonably estimated cost to complete that Dedicated Open Space as required in this Declaration, and shall diligently and continuously pursue that Dedicated Open Space to completion following which such bond will be released.

4. Alternative Pedestrian Access. If Declarant receives an Occupancy Certificate for any Building without completing all proposed Buildings during the DA Term that would otherwise require the completion of the Brighton Paseo, as described above, then Declarant, in conjunction with the Planning Department, shall design an alternative plan for pedestrian access that seeks to achieve similar pedestrian access and widths as the Brighton Paseo and a similar pedestrian access across the adjacent open space area owned by the SFPUC, but takes into account then-current on-site conditions, including locations of improvements and the Project Site's topography, and the Declarant shall construct such alternative plan improvements prior to the end of the DA Term. On their substantial completion, such alternative plan improvements shall be Open Space Improvements and the portion of the Project Site improved with such alternative plan improvements shall be a Dedicated Open Space.

## **EXHIBIT D**

### Regulations Regarding Access and Maintenance of Dedicated Open Spaces

## EXHIBIT D AFFORDABLE HOUSING PROGRAM

This Exhibit D describes the affordable housing program for the Project (the “**Affordable Housing Plan**”). All capitalized terms used in this Affordable Housing Plan and not specifically defined herein will have the meanings ascribed to them in the Development Agreement by and between the City and County of San Francisco, a municipal corporation, and Reservoir Community Partners LLC, a California Delaware limited liability company (the “**Agreement**”) to which it is attached. Developer anticipates developing 1,100 total dwelling units on the Project Site, of which 50% will be Affordable Units (as defined in Section A (Definitions), below). The Project Site includes four parcels to be developed with 100% Affordable Units (the “**Affordable Parcels**”), in accordance with the Agreement and this Affordable Housing Plan, as generally depicted on the Site Plan attached to this Exhibit D as Exhibit D-1. The Affordable Parcels are anticipated to be Parcels A, B, F, and E, depicted in the Site Plan. As described in Section 5 (Funding Plan), Developer will fund and construct 66.7% of the Affordable Units (the “**Developer’s Affordable Funding Share**”). The gap financing necessary to build the remaining 33.3% of the Affordable Units will be provided by the City (the “**City’s Affordable Funding Share**”) in accordance with this Exhibit D.

### A. Definitions

1. “**Affordable Developer**” means a non-profit affordable housing developer selected by Developer based on criteria from MOHCD’s policies and procedures for developer selection, which may be updated from time to time. The following are pre-approved Affordable Developers based on their selection by the City during the competitive solicitation for the Project: [BRIDGE entity, Mission Housing entity, Habitat for Humanity entity], and [Affiliates] of each of them. If Developer selects or partners with an affordable housing developer which is not pre-approved, then such selection first must be approved by MOHCD in its reasonable discretion.

2. “**AMI**” refers to the unadjusted area median family income for the HUD Metro Fair Market Rent Area that contains San Francisco, as published annually by the San Francisco Mayor’s Office of Housing and Community Development (“MOHCD”). [use “MOHCD AMI” definition from Laurel]

3. “**CPI Index**” means the Consumer Price Index for All Urban Consumers (base years 1982-1984 = 100) for the San Francisco-Oakland-San Jose area, published by the United States Department of Labor, Bureau of Labor Statistics or, if the Consumer Price Index is discontinued or revised during the Term, such other government index or computation with which it is replaced shall be used in order to obtain substantially the same result as would be obtained if the Consumer Price Index had not been discontinued or revised.

**[Definitions section to follow]**

### B. Affordable Housing Program

1. **50% Affordable Obligation.** Developer will cause at least 50% of the total number of dwelling units constructed on the Project Site to be Affordable Units. Developer will be responsible for the pre-development, planning, permitting, construction, and management of all

Affordable Units. The Parties agree that the Project's ability to achieve an overall affordability level of 50% is predicated on Developer's receipt of City's Affordable Funding Share. Developer's compliance with the Development Agreement, including this Affordable Housing Plan, will satisfy Developer's entire affordable housing obligation for the Project. Neither the requirements of Section 415 of the San Francisco Planning Code nor any similar future affordable housing fees or other requirements will apply to the Project.

## 2. **Income Mix.**

(a) At least 36% of the Affordable Units will be Low-Income Units. For purposes of this Affordable Housing Plan, "**Low-Income Units**" will have rents set between 30% to 80% of AMI, with an average rental rate per building of no more than 60% of AMI, or an average purchase price of no more than 80% of AMI. "**Low Income**" will refer to the AMI levels described in this paragraph.

(b) At least 30% of the Affordable Units will be Moderate-Income Units. For purposes of this Affordable Housing Plan, "**Moderate-Income Units**" will have rents set between 80% to 120% of AMI, with an average rental rate per building of no more than 100% of AMI, or an average purchase price of no more than 120% of AMI. "**Moderate Income**" will refer to the AMI levels described in this paragraph.

(c) The remaining 34% of affordable housing units may, in Developer's sole discretion, be a combination of Low- or Moderate-Income Units. Developer will make best efforts to provide these affordable housing units as Low-Income Units with a focus on housing for very low-income seniors and for families at between 60% and 80% of AMI.

(d) The project sponsor may elect but is not required to serve any special populations in the affordable housing units, except for educator households as described in Section D below.

(e) Initial allowable rents, sales prices and eligibility for the Affordable Units will be consistent with MOHCD's published schedules as of the date of underwriting for the applicable Affordable Parcel. The maximum affordable rent or sales price for an Affordable Unit may be no higher than 20% below median market rents or sales prices of the market-rate units in or immediately adjacent to the Project Site.

(f) The Affordable Parcels may, in Developer's sole discretion, contain any combination of Low- and Moderate-Income Units to accommodate affordable funding source requirements, provided that, upon full build-out of the residential units in the Project, the Project's Affordable Units comply in the aggregate with the overall income mix requirements for the Project, as set forth in Sections B.2(a)-(c), above.

## 3. **Unit Mix and Unit Size.**

(a) Developer will comply with the minimum dwelling unit mix requirements of the SUD, but will use reasonable efforts to achieve the goal of providing 50% of the Affordable Units as two- or more bedroom units on the Affordable Parcels.

(b) All units must meet minimum sizes required by the California Tax Credit Allocation Committee (“*TCAC*”).

**4. Affordability Restrictions.**

(a) Each Affordable Parcel will be subject to a recorded regulatory agreement approved by MOHCD to maintain affordability levels for the life of the Project or fifty-seven (57) years, whichever is longer, and regulatory requirements regarding term duration contained in any tax credit agreement. The MOHCD regulatory agreement will be recorded against the subject Affordable Parcel upon site acquisition.

(b) Each Affordable Parcel will be subject to long-term restrictions pursuant to a Notice of Special Restrictions approved by City’s Planning Department and disclosing the limitations on development set forth in the Agreement and this Affordable Housing Plan, and recorded against the subject Affordable Parcel upon site acquisition.

**C. Tenant Preferences, Marketing, and Monitoring.**

1. Chapter 47 of the SF Administrative Code, including Section 47.3 regarding Neighborhood Preference, will apply to all Affordable Units including the Affordable Units dedicated to Educator Housing as described in Section 4.

2. Developer will comply with all applicable state and federal laws, regulations, and guidelines regarding tenant preferences and Fair Housing Laws.

3. Marketing of Affordable Housing Units, except for educator housing.

(a) Developer will perform marketing and outreach for all Affordable Units in accordance with the Marketing, Lottery and Housing Preference Manual published by MOHCD and as may be updated from time to time.

(b) Targeted marketing will be provided for seniors, early child care educators, and neighborhood residents, as applicable to the specific type of housing and funding sources of each Affordable Parcel.

(c) Developer’s marketing materials will be provided to MOHCD in accordance with the timeline outlined in the MOHCD Inclusionary Manual, as may be updated from time to time, and will include resident selection criteria for the City-wide lottery list. For example, current MOHCD policy requires marketing materials to be provided to MOHCD at least 7 months prior to Temporary Certificate of Occupancy for each Affordable Parcel.

4. Tenant waitlists and lottery selections will be managed by MOHCD and administered using the MOHCD Marketing, Lottery and Housing Preference Manual, as updated from time to time.

5. Developer will comply with MOHCD’s policy for Annual Monitoring Reporting (“*AMR*”). Currently, the AMR is due on May 31 for projects whose business year ends on

December 31 and on November 31 for projects whose business year ends on June 31, and must be submitted in electronic form only.

#### **D. Educator Housing**

1. Developer will designate one of the Affordable Parcels for development of approximately 150 Affordable Units for educator households (as defined by state law and otherwise in a manner that ensures Developer's receipt of a property tax exemption on the basis of the property's use exclusively for educational purposes ("***Educator Units***"). The Educator Units will be located in a single building, currently anticipated to be located on Parcel F of the Site Plan. The Educator Units will be deed-restricted to Moderate Income educator households, with a goal of achieving an average of no more than 100% AMI across all Educator Units. Households with at least one full-time employee of the San Francisco Community College District (the "***College***") or the San Francisco Unified School District ("***SFUSD***") will have preferential priority for all Educator Units. College households will have first priority and SFUSD households will have second priority.

2. Tenant waitlists and lottery selections for Educator Units will be managed by MOHCD and administered using the policies in the MOHCD Marketing, Lottery and Housing Preference Manual, as updated from time to time, but excluding the Waitlist policy. The lottery for Educator Units will draw from a specific educator waitlist and will prioritize College educators.

3. Annual monitoring and reporting will be submitted consistent with the Inclusionary Housing Manual Requirements.

4. Developer's marketing materials will be provided to MOHCD in accordance with the timeline outlined in the MOHCD Inclusionary Manual, as may be updated from time to time. The educator building shall have an educator specific marketing program.

5. Developer's ability and obligation to provide the Educator Units is subject to all of the following:

(a) Developer obtains confirmation from the California State Board of Equalization that the building containing the Educator Units will receive a property tax exemption on the basis of the applicable property's exclusive use for educational purposes;

(b) Developer, the College, and SFUSD execute a written agreement regarding coordinated management policies for the Educator Units, including policies regarding retention of residents/tenants of the Educator Units upon the termination, resignation, or retirement of the educator employee. If either the College or SFUSD has not entered into such an agreement, then educators from that institution will lose their preferential priority for occupancy of the Educator Units.

(c) In order for College educator households to receive preferential priority for the Educator Units, the College must timely record a revised Access Easement Agreement with terms reasonably acceptable to Developer.

6. If Developer is unable to provide the Educator Units due to a failure to obtain the items described in Section D.3.(a)-(c) above, then Developer will provide Affordable Units that comply with the overall income mix requirements described in Sections B.2(a)-(c).

#### **E. Funding Plan**

1. Developer, or such other Affordable Developer of an Affordable Parcel, will identify and assemble funding for each Affordable Parcel. Developer may pursue funding from any and all sources, including but not limited to competitive state and federal sources, subject to the limitations set forth in Section E.4(b), below. Such funding may include, but is not limited to, LIHTC, tax-exempt bonds, conventional debt, State and/or Federal subsidies, grants, Developer's Affordable Funding Share, and the City's Affordable Funding Share.

2. The aggregate City's Affordable Funding Share (i.e., over the life of the Project) will be a maximum of \$239,000 per Affordable Unit multiplied by 33.3% of the Affordable Units, which is based on the MOHCD 2019 per unit average subsidy amount. Any unallocated portion of the aggregate City's Affordable Funding Share will adjust annually based on the CPI Index, assuming a base year of 2020. City's Affordable Funding Share will be considered allocated upon MOHCD approval of the Affordable Parcel's gap loan evaluation.

(a) City's obligation to provide City's Affordable Funding Share will apply only to the extent other outside funding sources have been leveraged to the greatest extent feasible. Developer, or an alternative Affordable Developer, as applicable, will diligently pursue all such outside funding sources. Additionally, in no event will City's Affordable Funding Share on a per unit basis exceed Developer's Affordable Funding Share on a per unit basis.

(b) City will satisfy its obligation to pay City's Affordable Funding Share by disbursing a per-unit gap amount that may vary depending on the specific financing needs of each Affordable Parcel, but will not exceed the aggregate City's Affordable Funding Share except as provided for in Section E.2(e) below.

(c) The parties intend that the City's Affordable Funding Share will be applied to the three mixed-income Affordable Parcels A, B, and E, and not to the Educator Units in Parcel F.

(d) Notwithstanding anything to the contrary in this Affordable Housing Plan or in the Development Agreement, City will not be obligated to provide City's Affordable Funding Share, including in the form of predevelopment funds and loan disbursements, (i) at any time that Developer is in default on another affordable housing project funded in whole or in part with City funds, until the default is cured, and (ii) if any material adverse change occurs in the financial condition or operation capacity of Developer or the Affordable Developer that has a material adverse impact on the Project.

(e) City's Affordable Funding Share represents the Parties' good faith estimate of the per-unit equity financing gap required to develop the Affordable Parcels, as of the date of this Agreement. If, for reasons such as reduced funding opportunities available in Difficult Development Areas or Qualified Census Tracts, the actual per-unit financing gap required to develop an Affordable Parcel increases materially such that City's Affordable Funding Share, when combined with other funding sources, including but not limited to Developer's Affordable Funding Share, if

applicable, is inadequate to secure viable financing for construction of the applicable Affordable Parcel, then the Parties will meet and confer in good faith to agree on an adjustment to the City's Per Unit Funding Share and/or the affordability levels to be achieved on a particular Affordable Parcel.

3. The City's Affordable Funding Share will be managed and disbursed by MOHCD. City funding allocations will be subject to MOHCD Loan Committee approval and appropriation by the Board of Supervisors.

(a) Developer's Affordable Funding Share will be applied to Affordable Parcels in amounts depending on the specific financing needs of each Affordable Parcel. Developer will work in consultation with MOHCD to determine the specific amount of City's Affordable Funding Share in each of the Affordable Parcels, in accordance with the funding plan application process set forth below.

(b) The parties intend that Developer's Affordable Funding Share and the City's Affordable Funding Share will be allocated proportionately to each Affordable Parcel A, B, and E. However, Developer may elect to increase Developer's Affordable Funding Share for a particular Affordable Parcel to allow development to proceed and/or to satisfy the Affordable Requirement Linkage described in Schedule 1 attached to the Development Agreement. In such event, City's Affordable Funding Share for the remaining Affordable Parcels will increase commensurately. Conversely, Developer may request that City increase the City's Affordable Funding Share for a particular Affordable Parcel, and if approved then in such event City's Affordable Funding Share for the remaining Affordable Parcels will decrease commensurately.

4. Three (3) months prior to Developer's submittal of a Phase Application to the Planning Department for any Phase that includes an Affordable Parcel, Developer will submit a funding plan to MOHCD. The funding plan will include an analysis of potential funding sources and project competitiveness for those funding sources, including Developer's proposal for allocation of City's Affordable Funding Share for the subject Affordable Parcel.

(a) In order to promote the efficient administration of City's obligations under this Affordable Housing Plan, Developer will adhere to MOHCD's then-current procedures for underwriting of affordable housing projects financed with City funds. To the extent of any conflict between the Development Agreement (including this Affordable Housing Plan) and MOHCD's then-current underwriting procedures, the Development Agreement shall control.

(b) In order to encourage maximum leveraging of outside funding, MOHCD will not restrict Developer's competitive application for funds from any particular source except that in no case will Developer pursue an allocation of tax credits under the 9% program without MOHCD's consent.

5. Once Developer and MOHCD have agreed to a funding plan for a particular Affordable Parcel, Developer will pursue outside funding sources identified in such plan with diligence.

(a) MOHCD will cooperate diligently and in good faith with Developer to assist Developer in securing all approved outside funding, including by acting as the applicant or co-applicant for certain funding sources, where necessary or desirable. If a proposed funding source



requires MOHCD as an applicant, the application will be subject to Citywide Loan Committee approval prior to the submission of the outside funding application.

(b) Developer must comply with all project milestones and performance deadlines as required by all funding sources in the approved funding plan, including but not limited to those established by tax credit and tax-exempt bond financing. Should Developer fail to meet such performance deadlines, City will not have any obligation to provide City's Affordable Funding Share for the subject Affordable Parcel.

6. Developer must submit a Phase Application (as described in greater detail in Exhibit N of the Agreement) for any Phase that receives a predevelopment funding commitment from MOHCD within 12 months of receiving such commitment.

#### F. **Costa-Hawkins Rental Housing Act**

1. **Non-Applicability of Costa-Hawkins Act.** Chapter 4.3 of the California Government Code directs public agencies to grant concessions and incentives to private developers for the production of housing for lower income households. The Costa-Hawkins Rental Housing Act, California Civil Code Sections 1954.50 et seq. (the "**Costa-Hawkins Act**"), provides for no limitations on the establishment of the initial and all subsequent rental rates for a dwelling unit with a certificate of occupancy issued after February 1, 1995, with exceptions, including an exception for dwelling units constructed pursuant to a contract with a public agency in consideration for a direct financial contribution or any other form of assistance specified in Chapter 4.3 of the California Government Code (Section 1954.52(b)). The Parties agree that the Costa-Hawkins Act does not and in no way shall limit or otherwise affect the restriction of rental charges for the Affordable Units. The Development Agreement falls within the express exception to the Costa-Hawkins Act, Section 1954.52(b) because the Development Agreement is a contract with a public entity in consideration for contributions and other forms of assistance specified in Chapter 4.3 (commencing with Section 65919 of Division 1 of Title 7 of the California Government Code). The City and Developer would not be willing to enter into the Development Agreement without the understanding and agreement that Costa-Hawkins Act provisions set forth in California Civil Code Section 1954.52(a) do not apply to the Affordable Units as a result of the exemption set forth in California Civil Code Section 1954.52(b) for the reasons specified above.

2. **General Waiver.** Developer, on behalf of itself and all of its successors and assigns of all or any portion of the Project Site, agrees not to challenge and expressly waives, now and forever, any and all rights to challenge the requirements of the Development Agreement related to the establishment of the Affordable Units under the Costa-Hawkins Act (as the Costa-Hawkins Act may be amended or supplanted from time to time). If and to the extent such general covenants and waivers are not enforceable under Law, the Parties acknowledge and that they are important elements of the consideration for the Development Agreement and the Parties should not have the benefits of the Development Agreement without the burdens of the Development Agreement. Accordingly, if Developer challenges the application of this covenant and waiver, then such breach will be an Event of Default and City shall have the right to terminate the Development Agreement in its entirety.

3.       **Notification.** Developer shall notify any potential buyer of all or part of the Project Site of the provisions of this Affordable Housing Plan. By acquiring any interest in the Project Site, a buyer agrees to these provisions, and agrees to the specific waiver, releases and indemnifications set forth herein. If Developer fails to notify a buyer of these provisions and a buyer alleges that it is not subject to the requirements of this Housing Plan because it was not made aware of these provisions before it acquired an interest in the Project Site, Developer shall indemnify and defend the City against any and all claims or losses resulting from such allegation.

**EXHIBIT D-1**  
**AFFORDABLE HOUSING SITE PLAN**

Parcel	Affordability Range	Approximate Unit Count
A	Low and Moderate	182
B	Low and Moderate	70
E	Low and Moderate	124
F	Moderate	154
H	Moderate	20

[INSERT LAND USE MAP FROM SUD]

**EXHIBIT E**  
**LIST OF APPROVALS**

*(To be provided)*

**EXHIBIT F**  
**MMRP**

*(To be provided)*

**EXHIBIT G**  
**FORM OF ASSIGNMENT AND ASSUMPTION AGREEMENT**

*(To be provided)*

**EXHIBIT H**  
**NOTICE OF COMPLETION AND TERMINATION**

RECORDING REQUESTED BY  
CLERK OF THE BOARD OF SUPERVISORS  
OF THE CITY AND COUNTY OF SAN FRANCISCO  
(Exempt from Recording Fees  
Pursuant to Government Code  
Section 27383)

AND WHEN RECORDED MAIL TO:

[Angela Calvillo]  
Clerk of the Board of Supervisors  
City Hall, Room 244  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102

**ASSIGNMENT AND ASSUMPTION AGREEMENT**

**RELATIVE TO DEVELOPMENT AGREEMENT FOR [\_\_\_\_\_]**

THIS ASSIGNMENT AND ASSUMPTION AGREEMENT (hereinafter, the “**Assignment**”) is entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ (“**Assignor**”) and \_\_\_\_\_, a \_\_\_\_\_ (“**Assignee**”).

**RECITALS**

A. \_\_\_\_\_, a \_\_\_\_\_ and the City and County of San Francisco, a political subdivision and municipal corporation of the State of California (the “**City**”), entered into that certain Development Agreement (the “**Development Agreement**”) dated as of \_\_\_\_\_, 20\_\_ for reference purposes, with respect to certain real property owned by Assignor, as such property is more particularly described in the Development Agreement (the “**Project Site**”). The Development Agreement was recorded in the Official Records of the City and County of San Francisco on \_\_\_\_\_ as Document No. \_\_\_\_\_.

*[add recital to document any previous transfer of the Transferred Property, with recording information]*

B. The Development Agreement provides that Developer (Assignor) has the right to: (i) Transfer all or a portion of the Project Site, (ii) assign all of its rights, title, interest and obligations under the Development Agreement to a Transferee with respect to the portions of the Project Site transferred to the Transferee, and (iii) upon the recordation of an approved Assignment and Assumption Agreement, to be released from any prospective liability or

obligation under the Development Agreement related to the Transferred Property as set forth in Section \_\_\_\_ of the Development Agreement.

C. Assignor intends to convey certain real property as more particularly identified and described on Exhibit A attached hereto (hereafter the “**Transferred Property**”) to Assignee. The Transferred Property is subject to the Development Agreement.

D. Assignor desires to assign and Assignee desires to assume Assignor’s right, title, interest, burdens and obligations under the Development Agreement with respect to and as related to the Transferred Property, as more particularly described below.

### **ASSIGNMENT AND ASSUMPTION**

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee hereby agree as follows:

1. Defined Terms. Initially capitalized terms used herein and not otherwise defined shall have the meaning ascribed to them in the Development Agreement.

2. Assignment of Development Agreement. Assignor hereby assigns to Assignee, effective as of Assignor’s conveyance of the Transferred Property to Assignee, all of the rights, title, interest, burdens and obligations of Assignor under the Development Agreement with respect to the Transferred Property, including any Community Benefits that are tied to Buildings on the Transferred Property. Assignor retains all the rights, title, interest, burdens and obligations under the Development Agreement with respect to all other portions of the Project Site owned by Assignor.

3. Assumption of Development Agreement. Assignee hereby assumes, effective as of Assignor’s conveyance of the Transferred Property to Assignee, all of the rights, title, interest, burdens and obligations of Assignor under the Development Agreement with respect to the Transferred Property, including its associated Community Benefits, and agrees to observe and fully perform all the duties and obligations of Assignor under the Development Agreement with respect to the Transferred Property, and to be subject to all the terms and conditions thereof with respect to the Transferred Property. The parties intend that, upon the execution of this Assignment and conveyance of the Transferred Property to Assignee, Assignee shall become the “Developer” under the Development Agreement with respect to the Transferred Property.

4. Reaffirmation of Indemnifications. Assignee hereby consents to and expressly reaffirms any and all indemnifications of the City set forth in the Development Agreement, including without limitation Section \_\_\_\_ of the Development Agreement.

5. Housing Obligations. Assignee has read and understands the obligations set forth in Exhibit \_\_\_\_ of the Development Agreement as they relate to the Transferred Property. Without limiting the foregoing, Assignee agrees (1) to the terms and provisions such Exhibit \_\_\_\_, including the indemnities, waivers and releases set forth therein, and (2) that the Development Agreement falls within the express exception to the Costa-Hawkins Act, Section 1954.52(b) because it is a contract with a public entity in consideration for contributions and other forms of assistance specified in Chapter 4.3 (commencing with Section 65919 of Division 1 of Title 7 of



the California Government Code). Assignee understands that the City would not have been willing to enter into the Development Agreement without the provisions of such Exhibit D.

6. Assignee's Covenants. Assignee hereby covenants and agrees that: (a) Assignee shall not challenge the enforceability of any provision or requirement of the Development Agreement; (b) Assignee shall not sue the City in connection with any and all disputes between Assignor and Assignee arising from this Assignment or the Development Agreement, including any failure to complete all or any part of the Project by any party; and (c) Assignee shall indemnify the City and its officers, agents and employees from, and if requested, shall defend them against any and all Losses resulting directly or indirectly from any dispute between Assignor and Assignee arising from this Assignment or the Development Agreement.

7. Binding on Successors. All of the covenants, terms and conditions set forth herein shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, successors and assigns.

8. Notices. The notice address for Assignee under Section \_\_\_\_ of the Development Agreement shall be:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_

With copy to:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_

8. Counterparts. This Assignment may be executed in as many counterparts as may be deemed necessary and convenient, and by the different parties hereto on separate counterparts, each of which, when so executed, shall be deemed an original, but all such counterparts shall constitute one and the same instrument.

9. Governing Law. This Assignment and the legal relations of the parties hereto shall be governed by and construed and enforced in accordance with the laws of the State of California, without regard to its principles of conflicts of law.

IN WITNESS HEREOF, the parties hereto have executed this Assignment as of the day and year first above written.

**ASSIGNOR:**

[insert signature block]

**ASSIGNEE:**

[insert signature block]

**EXHIBIT I**  
**WORKFORCE AGREEMENT**

*(To be provided)*

## **EXHIBIT J TRANSPORTATION PLAN**

This Exhibit J (the “Transportation Exhibit”) outlines the Project’s transportation commitments in four areas: transportation demand management, public parking (including permanent, interim, and parking garage analysis), Transportation Sustainability Fee, and SFMTA contact. All capitalized terms used in this Transportation Exhibit and not specifically defined herein will have the meanings ascribed to them in the Development Agreement by and between the City and County of San Francisco, a municipal corporation, and Reservoir Community Partners LLC, a Delaware limited liability company (the “Agreement”).

### **A. Transportation Demand Management Plan**

Developer will comply with the Transportation Demand Management Program described in Planning Code Section 169-169.6. Developer will implement the Transportation Demand Management Plan attached as Exhibit J-1 (the “TDM Plan”).

Developer will implement the TDM Plan for each Building on the Project Site upon the issuance of the first certificate of occupancy, including any temporary certificate of occupancy, for that Building.

Developer will comply with its obligations under the TDM Plan throughout the life of the Project. Developer will monitor and submit monitoring reports as described in the Transportation Demand Management Program. TDM Plan monitoring and reporting, and any required TDM Plan adjustments, will be carried out in accordance with the TDM Plan.

### **B. Public Parking**

Developer will provide interim public parking during construction of the Project and permanent public parking, both in accordance with this Transportation Exhibit. The interim and permanent parking will be available to the general public, including to students, faculty, and staff of the San Francisco Community College District (the “College”) during weekday daytime hours.

Developer will charge market rate parking fees for all public parking. Public parking will be available on an hourly or daily basis. Developer will provide weekly, monthly, or annual rates or passes for the public parking spaces for students, faculty and staff of the College.

#### **a. Public Parking Requirement**

The Project addresses the transformation of parking on the Project Site from College-oriented parking uses to residential uses by permanently replacing up to 450 public parking spaces. The Project will do this through building one or more public parking facilities beneath or within the residential buildings that will be owned and operated by Developer. The process for determining the phasing and number of public spaces in any garage will be determined through the Parking Garage Analysis process described in Section C of this Transportation Exhibit. In no event will the total number of public, non-accessory parking spaces in parking garages exceed 450 parking spaces.

Developer, through the Parking Garage Analysis process, will use best efforts to minimize the number of parking spaces provided, consistent with the City's Transit First Policy.

City, acting through the Director of Planning in consultation with the Director of Transportation, may modify in whole or in part the Public Parking Requirement in this Section B after a written request from Developer, environmental review as required, and if Developer establishes to the satisfaction of City that either of the following conditions is met:

- Developer will construct parking facilities to be used jointly by residential tenants of the site and the College, to be owned and operated by Developer; or
- Developer will contribute funds to the College equal to the number of spaces established through the Parking Garage Analysis process for a College-sponsored parking facility, to be owned and operated by the College.

#### **b. Interim Parking**

During the initial site-wide grading phase of construction of the Project no publicly-available parking spaces will be provided. Developer will make good faith efforts to make parking spaces available for public use during the remaining construction phases of the Project. Availability of public parking space is dependent on construction activity, staging needs, safety considerations, and relevant operational considerations. College faculty, staff and students may be offered daily, weekly and monthly parking rates.

As described in the Phasing Plan and Community Benefits Linkages attached as Schedule 1 to this Agreement, permanent public parking will be made available to the public, including the College community, no later than the completion of phase two of construction of the Project.

### **C. Parking Garage Analysis**

- a. **Parking Report.** Six months before submitting a development phase application for any phase of the Project that includes a permanent non-accessory parking facility, Developer will submit to the Planning Director, with copies provided to the Director of Transportation, a Parking Report that contains the following information:
  - i. The status of vertical build-out in prior Development Phases of the Project, if any;
  - ii. If known, a summary of TDM efforts then being implemented by the College, including the most recently available data from surveys of College faculty, staff, and students and their transportation mode to and from the College, parking utilization associated with the College, and a discussion of how these travel behaviors are expected to change over the following five to ten years;
  - iii. The current inventory of parking that is accessory to Project uses and public parking available at the Project Site;

- iv. A conceptual analysis of the parking garage(s), including the expected capacity of the garage(s) at completion, a discussion of any features of the design(s) that would allow for adaptability of portions of the garage(s), and any requirements for future adaptation;
- v. A narrative description of the approach to parking management and garage operations, including any joint use of parking spaces, and plans for queue abatement measures to avoid any excessive recurring queuing that could affect the operation of any Muni routes that operate on Frida Kahlo Way or on Ocean Avenue;
- vi. A description of how the information presented within the Parking Report will be reflected in the Development Phase Application.

**b. Parking Recommendations.**

- i. The Planning Director and the Director of Transportation will have 45 days after their receipt of the Parking Report to provide to Developer written recommendations regarding, operations, or management of the proposed parking garage, including the number of public spaces that Developer is required to provide.
- ii. Developer will meet and confer with the Director of Planning and Director of Transportation within 15 days of Developer's receipt of their written recommendations.
- iii. Developer will incorporate the public parking space requirement into the Project.

**C. Transportation Sustainability Fee**

As described in Schedule 2-1, Developer will pay the Transportation Sustainability Fee ("TSF") in accordance with Planning Code section 411A, and subject to any annual escalation as permitted by the Development Agreement. The TSF must meet all requirements of, and will be payable on all Buildings in accordance with, Planning Code sections 411A.1-411A.8 and the Development Agreement.

**D. SFMTA Contact**

SFMTA commits to designating a staff person to follow up on the transportation-related components of the Project, including this Exhibit, the DA, and the FEIR. This staff person will be a point person for the Developer and the community.

**EXHIBIT J-1**

**TRANSPORTATION DEMAND MANAGEMENT PLAN**

*[see attached]*



# BALBOA RESERVOIR TDM PLAN

APRIL 2020

RESERVOIR COMMUNITY PARTNERS



## BALBOA RESERVOIR A TRANSIT ORIENTED DEVELOPMENT AND TDM

Balboa Reservoir is a transit oriented development, including 1,100 units of housing with a range of affordability which are designed to encourage multiple modes of transportation, including walking, bicycling and public transportation. Balboa Reservoir will provide onsite amenities, such as a childcare center, a community room, a playground, a dog park and a community garden. All of these amenities will serve to reduce vehicle trips to off-site locations.

The site is located proximate to several major transportation lines including Bart, Muni train lines, and several major bus lines. The site is proximate to a neighborhood commercial corridor which includes a groceries, restaurants, coffee shops and other neighborhood serving retail. The site is also proximate to many educational resources including public and private high schools and City College.

## TRANSPORTATION DEMAND MANAGEMENT (TDM) PROGRAM


The Balboa Reservoir project will implement a comprehensive TDM program that includes family friendly measures. The program will include physical improvements to the site as well as programmatic offerings to residents. The Project team will implement the program for each phase of development (see Balboa Reservoir Phasing Plan). Notices of special restrictions will be recorded for each building. The initiating implementation of each measure shall be controlled by the development agreement, especially the documents describing project phasing and community improvements linkages, and later live on for the Life of the Project.


The following inputs were used in the SF TDM Tool to determine the point goal Balboa Reservoir needs to achieve to be in compliance with the city's TDM ordinance. The land use summary below results in a goal of 30 points, as shown in detail in Appendix A.

- APN: 3180/190
- Residential
- 1,100 units (980 rental units in multi-family buildings; 20 affordable homeownership units; and 100 town houses)
- 25% two bedroom or larger and 10% 3 bedroom or larger
- 18% affordable (55% AMI or lower)
- 32% affordable to moderate income (between 55% and 120% AMI)
- 550 Accessory Parking Spaces
- TAZ zone number 915; Neighborhood Parking Rate: 1.19

Balboa Reservoir will implement a set of the strategies detailed in this plan to achieve the 30-point goal. Specific TDM measures will be selected by the developer from this approved tool kit. Should

the land use profile of the project change, as permitted by the development agreement the TDM program points target and scoring shall be updated accordingly.

Some measures require an upfront investment in infrastructure, while others propose ongoing Programmatic measures. Physical Measures are marked with , while Programmatic measures

are marked with . A table at the end of the document summarizes the proposed TDM program and sorts them by physical measures and programmatic measures.

## PROPOSED TDM STRATEGIES

### **ACTIVE – 1: Improve Walking Conditions (Option A or B: 1 Point)**

Option B: Balboa Reservoir will provide the recommended sidewalk width adjacent to the property and all required streetscape elements, as well as 50 feet of additional recommended sidewalk.

- **Mixed-use street:** Recommended width to achieve point: 15’
- **Neighborhood residential street:** Recommended width to achieve point: 12’
- Required streetscape elements in the neighborhood residential category typically include:
  - Curb ramps
  - Marked crosswalks
  - Pedestrian signals - countdown and advanced pedestrian signal
  - Street trees
  - Sidewalk planter strip
  - Stormwater control
  - Pedestrian lighting (at corners)

Option A: Should Option B not be feasible, Balboa Reservoir will provide the recommended sidewalk width adjacent to the property and all required streetscape elements, as well as implement five additional streetscape elements from the following options (listed in the Better Streets Plan, page 90) in addition to the required streetscape elements.

- Pedestrian-priority signal devices and timings
- High-visibility crosswalks
- Special crosswalk treatments
- Restrictions on vehicle turning movements at crosswalks
- Removal or reduction of permanent crosswalk closures
- Mid-block crosswalks
- Raised Crosswalks
- Extended bulb-outs
- Mid-block bulb-outs
- Center or side medians
- Pedestrian or refuge islands
- Transit bulb-outs
- Transit boarding islands
- Flexible use of the parking lane
- Parking lane planters

- Chicanes
- Sidewalk or median pocket parks
- Reuse of 'pork chops' and excess right-of-way
- Shared public ways
- Pedestrian-only streets
- Public stairs

The Balboa Reservoir Infrastructure Plan and Balboa Reservoir Design Guidelines include the proposed streetscape plan and sections that show the location, design, and dimensions of existing and proposed pedestrian-oriented streetscape elements along the project frontage(s).



**ACTIVE-2: Bicycle Parking (Option B or Option C – 2 or 3 Points)**

Ample and easily accessible bicycle parking, secure Class 1 bicycle parking, has been associated with an increase in bicycling and a corresponding decrease in driving alone. Balboa Reservoir will provide Class 1 and Class 2 bicycle parking spaces beyond the Planning Code requirements at the rates identified below.

OPTION B Points: 2 points

Residential: One Class 1 Bicycle Parking space for each multi-family Dwelling Unit up to 100, plus one Class 1 space for every two multi-family Dwelling Units over 100. Two Class 2 Bicycle Parking spaces for every 20 multi-family Dwelling Units.

550 class one parking spaces

100 class two parking spaces

OR

OPTION C: 3 points

Residential: One and a half Class 1 Bicycle Parking spaces for each multi-family Dwelling Unit up to 100, plus one Class 1 space for every 1.33 multi-family Dwelling Units over 100. Three Class 2 Bicycle Parking spaces for every 20 multi-family Dwelling Units.

827 Class one (150 plus 677)

150 class two parking spaces

Both Class 1 and Class 2 bicycle parking spaces in multi-unit buildings will conform with all standards governing bicycle parking detailed in Planning Code Section 155.1, ensuring they will be easy to use and are located in convenient, safe and accessible locations. Class 1 bicycle parking will include at least 30 spaces for non-traditional bicycles, such as cargo bikes and bike trailers, as well

as outlets for charging electric bicycles. Approximate locations are identified in the bike parking plan in Appendix B.

#### **ACTIVE-5-A: Bike Repair Station (1 Point)**

Balboa Reservoir will include one bicycle repair station in each multi-unit building to allow residents to maintain and fix their bicycles without having to purchase their own tools. The repair stations will be located in bicycle rooms or cages and include, at a minimum, a bicycle pump, wrenches, a chain tool, lubricants, tire levers, hex keys/Allen wrenches, torx keys, screwdrivers, and spoke wrenches.

#### **DELIVERY – 1: Delivery-Supportive Amenities (1 Point)**

Balboa will offer temporary storage for package deliveries, laundry delivery or other deliveries for site residents. Being able to easily accept and securely store deliveries may reduce trips otherwise taken by residents driving alone. Storage will be made available in each of the multi-family buildings using a secure storage room or storage lockers. The site plan in the Design Guidelines shows approximate locations for each multi-unit building.

#### **FAMILY – 1: Family TDM Amenities (Option A, 1 Point)**

Option A (1points):

- One storage unit per 20 multi-family dwelling units located in each garage/building that has carshare spaces. Storage units will have an interior space that is at least 35 inches high, 25 inches wide and 30 inches deep.
- 30 cargo bike parking spaces (count towards required bike parking spaces) with access to outlets for charging. Per the description for ACTIVE-2, Class 1 bicycle parking will include at least 30 spaces for non-traditional bicycles

#### **FAMILY – 2: On-site Childcare (2 Points)**

The Balboa Reservoir development program includes an on-site childcare facility. The stand-alone facility is expected to significantly reduce vehicle trips due to its location adjacent to 1,100 residential units, 50 percent of which will be low income and more than half of which will be 2 or more bedrooms. In addition, this childcare facility will attract clients among adjacent City College of San Francisco (CCSF) employees and students, reducing trip lengths to access childcare options. The facility will meet licensing standards and requirements in local and state codes.

Outreach efforts for childcare providers will follow city best practices, including review by the Mayor's Office of Housing and Community Development (MOHCD), as detailed in the Balboa Reservoir Childcare Plan to ensure there is a competitive process.

#### **INFO-1: Multimodal Wayfinding Signage (1 Point)**

Effective wayfinding guides residents, visitors and employees to the wide variety of transportation options and infrastructure available to them. Balboa Reservoir will install pedestrian-scale, permanent signage in key locations directing people to the nearest transit stops, carshare parking, bikeshare location, bicycle parking and amenities, and taxi/Lyft/Uber/carpool pick-up and drop-off locations. Wayfinding signage will meet City standards for any on-street wayfinding signage, in particular for bicycle and car-share parking.

The site plan in Infrastructure Master Plan shows the general preliminary locations for wayfinding signage.

#### **INFO-2: Real Time Transportation Information Displays (1 Point)**

Balboa Reservoir will install real time transportation information displays in all multi-family building lobbies. Information displayed will, at a minimum, include real time information for area transit options, walk time to transit locations, and availability of on-site car-share vehicles. Planned locations are shown in the Infrastructure Master Plan.

#### **LU-2: Onsite Affordable Housing (Option C - 4 points)**

Fifty percent of all the units on site will be permanently affordable housing. Affordable housing generates fewer auto trips and related emissions.

- Eighteen percent of the dwelling units at Balboa Reservoir will be set aside for low-income housing (30 to 80 % of area median income (AMI)).
- An additional 15% of units will be available for moderate income residents with incomes between 80% and 120% AMI.
- An additional 17% of units will be provided as either low or moderate income units.

#### **PKG-4: Parking Supply: Right sized parking (Option F - 6 Points)**

Balboa Reservoir will provide accessory parking at a maximum rate of 0.5 parking spaces per unit, which equals to 42% of the neighborhood parking ration of 1.19 and yields 6 points.

### **CCSF designated faculty and staff housing (1 point)**

Balboa Reservoir will collaborate with CCSF on reserving up to 150 housing units for CCSF staff and faculty. Assuming a 50% drive alone mode share<sup>1</sup> and four workdays per week for Balboa residents and, housing 150 faculty and staff could reduce an estimated 120 vehicle trips. Given the projected total number of daily trips generated at Balboa Reservoir from all land uses (10,985 daily), a reduction of 120 trips would equal 1.1% (the equivalent of one point)<sup>2</sup>. If CCSF trip reductions were taken into account as well, the number of vehicle trips reduced through this measure would be higher. CCSF staff and faculty are expected to live in affordable housing units dedicated to moderate income households. The anticipated trip reduction is in addition to that anticipated due to onsite affordable housing.

### **CSHARE – 1: Car-share Parking and Membership (Option E - 5 Points)**

Balboa will designate one car-share parking space for every 40 provided dwelling units. The car-share parking spaces will be located in easily accessed locations within publicly accessible parking facilities. Car-share parking will be made highly visible through signage, which will serve both a directional and an educational/marketing purpose. Balboa Reservoir will comply with the quantity, location and related standards governing carshare parking detailed in San Francisco Planning code Sections 151.1 and 166. The planned locations of carshare vehicle parking are shown in Appendix B.

In addition to providing car-share parking, Balboa Reservoir will offer car-share memberships to households at a rate of one per multi-family dwelling unit on an annual basis, for the life of the project.

### **FAMILY 3- Family TDM Package – (2 Points)**

The Balboa Reservoir is a family friendly development that will prioritize amenities for families in the TDM program. The project will provide carshare amenities (CSHARE-1, Option E) and family friendly amenities (Family 1A and Family 1B) which when combined offer a compelling suite of

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<sup>1</sup> Per a 2018 online survey of CCSF employees 66% of employees drove alone to work, 22% took transit; 5% walk or bike; 4% carpool and 3% took other modes. Fehr and Peers, CCSF TDM and Parking Plan, March 15, 2019.

<sup>2</sup> This estimate is based on an estimated total vehicle trip generation of 10,985 (Balboa Reservoir DSEIR, Appendix C, Table 3). We estimate that 150 housing units for CCSF staff and faculty would reduce 120 daily vehicle trips (assuming the average Balboa resident takes 2 commute trips per day, 4 days per week at an SOV rate of 50% and that CCSF faculty and staff would not drive to work at CCSF). The reduction of 120 trips would equal a percentage reduction of 1.1% or the equivalent of 1 point). This reduction does not take into account the trips reduced on the CCSF side.

family friendly transportation demand management amenities. If the project elects to provide at least 40% two bedroom or larger units, the project would qualify for 2 points under this category.



***FAMILY – 1: Family TDM Amenities (Option B, 1 Point)***

Option B (1 point) Balboa Specific Option:

- **21** electric cargo bikes or electric bikes with bike trailer, 3 per rental building, to be checked out on a trip-by-trip basis by residents.
- One collapsible shopping/utility cart for every 10 Dwelling Units. Carts shall be available for use to any unit by advanced reservation on an hourly basis (e.g., pen and paper sign up system, online, etc.).



***BALBOA SPECIFIC: ACTIVE-4: Bike Share Membership (Location B – 2 Points)***

On an annual basis, for the life of the project or as long as a bike sharing program is available, Balboa Reservoir will offer bike sharing benefits, described here, for approximately 980 multi-family rental dwelling units. The bike sharing benefits will include 50% of an annual bike share membership subsidy and 50% in ride credits equivalent for a 50% enrollment fee. Example: if an annual membership is \$100 then the Reservoir Community Partners (RCP) funded bike sharing benefits would include \$50 towards membership and \$50 credit towards rides on the bike share program, and the residents would be responsible for a \$50 enrollment fee. Requiring an enrollment fee ensures that only residents who intend to use the service sign up, leading to maximum return on investment. Should Bay Wheels cease service, RCP will amend the TDM program and offer bike/scooter sharing benefits with other bike or scooter share providers in the area, at a similar value.

***PKG-1: Unbundle Parking (Location A – 1 Point)***

Balboa Reservoir will lease or sell all accessory parking spaces associated with multi-family buildings separately from the unit rental or purchase fees. This reduces housing costs for residents who do not own a car and rewards the use of alternative modes of transportation. With the neighborhood parking rate being 1.19, the project qualifies for one point.



**BALBOA SPECIFIC ACTIVE: Host a Bike Share Docking Station (1 Point)**

RCP will host a bikeshare docking station on the project site, if deemed useful and desirable by SFMTA when the final infrastructure master plan is approved for construction (draft location

shown on site plan in Appendix B). RCP will locate the station off the public right of way, in an area operated by the Homeowners Association. Bike share companies would be responsible for maintenance and operations of the dock, including any utilities.

## **ADDITIONAL TRANSPORTATION DEMAND MANAGEMENT MEASURES**

The Balboa Reservoir project is designed as a transit oriented and sustainable development. In addition to Transportation Demand Management measures identified above to meet the requirements of San Francisco's Planning Code, the project will include amenities and programming that will further reduce necessary vehicle trips for residents.

### **Additional Onsite amenities**

Onsite playground, a dog park/run and community garden plots. As the closest playground and dog park are more than a mile away – outside of the typical walking radius - these amenities are expected to reduce vehicle trips, in particular in the afternoon and evening peak hour. Community garden plots reduce vehicle trips in two ways: residents are expected to take fewer trips to the grocery store and produce does not have to be delivered to the store, thereby reducing regional and local freight trips. The community garden trip reductions are included in the requested two points, as they are more difficult to forecast and expected to be small.

### **Additional Infrastructure Improvements**

In addition to streetscape improvements onsite, the project will provide bicycle amenities on Lee Avenue and transit improvements on Frieda Kahlo Way, as part of a mitigation measure. These measures will support Balboa Reservoir residents as well as neighbors who choose to walk, bicycle or use public transit in the area.

### **Additional Onsite Programming**

The project may offer programming to encourage children to walk or bike to school. This could include providing safe walking and biking directions and maps to resident families, promoting annual Walk & Roll to School Day and facilitate formation of walking school buses or bike trains, where parents take turns walking or biking children to nearby schools. In addition, carpooling to schools that are farther away could be facilitated/encouraged.



## IMPLEMENTATION OF THE BALBOA RESERVOIR TDM PROGRAM

### *Onsite Transportation Demand Management (TDM) Coordinator*

Balboa Reservoir will employ an onsite TDM coordinator who will be responsible for implementing and marketing TDM strategies, coordinate with CCSF on joint efforts, serve as the liaison with City staff regarding all aspects of TDM plan, including implementation, verification, monitoring and reporting. The transportation coordinator will also be responsible for ensuring that all physical elements are implemented according to City's TDM Program Standards and maintained and replaced as needed. The TDM Coordinator will attend trainings/workshops offered by the City on a regular basis.

## MONITORING AND REPORTING

This document provides an overview of the TDM Program's three monitoring and reporting processes. The first process occurs prior to issuance of the First Certificate of Occupancy (San Francisco Department of Building Inspection) for a Vertical Improvement. This process will ensure that all physical improvements are completed in accordance with the plan. The second process occurs after the First Certificate of Occupancy is issued by the San Francisco Department of Building Inspection and the Vertical Improvement is operational. It includes monitoring of physical measures, as well as ongoing programmatic measures. An optional third process to revise an approved TDM Plan is also provided, which may occur at any point after approval of the Development Agreement.

### Pre-Occupancy Monitoring and Reporting

Before construction starts the TDM requirements will be recorded on the deed of the property through a Notice of Special Restrictions (NSR). Once construction is complete, the city shall conduct a site visit to confirm that all applicable physical measures in the TDM plan have been implemented. Prior to the site visit, the TDM Coordinator shall provide to Planning Department staff a Pre-Occupancy Monitoring and Reporting Form including 1) a copy of the TDM Plan 2) the TDM Coordinator contact information 3) a copy of a signed letter stating that the TDM Coordinator agrees to distribute a copy of the TDM Plan tenant lease documents, and/or deeds to each new resident and 4) documentation that approved programmatic measures in the TDM Plan have or will be implemented as required. Within 30 days of the Pre-Occupancy Monitoring and Reporting Form submittal, Planning Department staff will review the documentation of the programmatic measures in the TDM Plan and schedule a site visit. During the site visit, Planning Department staff will verify that physical measures are provided as specified in the TDM Plan and complete corresponding sections of a Pre-Occupancy Monitoring and Reporting Form for programmatic measures. Planning Department staff will then review the documentation and finalize a Pre-Occupancy Monitoring and Reporting Form. This process, starting from the scheduled site visit date, shall not take longer than

30 days. The First Certificate of Occupancy from the Department of Building Inspection shall not be issued until the TDM Coordinator receives an approved Pre-Occupancy Monitoring and Reporting Form. The administrative fee associated with the TDM Plan Review Application covers the cost of pre-occupancy monitoring and reporting.

### **Ongoing Monitoring, Evaluation, and Refinement**

During the established monitoring period, Planning Department staff will verify that the TDM Coordinator is maintaining physical measures and continuing to provide programmatic measures as specified in the TDM Plan. The TDM Coordinator will submit annual Ongoing Monitoring and Reporting Forms and supporting documentation, along with the associated administrative fee. The first Ongoing Monitoring and Reporting Form shall be due within 30 calendar days of the 18 month anniversary of the issuance of the First Certificate of Occupancy. Subsequent Ongoing Monitoring and Report Forms shall also be due within 30 calendar days of the 18 month anniversary of the issuance of the First Certificate of Occupancy.

Planning Department staff will conduct a site visit once every three years to confirm all approved physical measures in the TDM Plan continue to be implemented and/or installed. TDM coordinators will be informed in advance of these site visits. The project shall submit annual monitoring reports. If the Project is in good standing (i.e., submits satisfactory Ongoing Monitoring and Reporting Forms for five consecutive years), then the annual requirement will shift to one submittal every three years. If, at any time, the Project fails to demonstrate satisfactory ongoing monitoring and reporting, the Project may be required to revert back to an annual submittal schedule until the Project again demonstrates five consecutive years of satisfactory monitoring and reporting.

## **TDM PROGRAM UPDATES**

At any time after the Planning Department approves a Development Project's building permit, the property owner may propose an update to the TDM Plan by submitting a TDM Plan Update Application. The Planning Department shall ensure that the amended TDM Plan meets the TDM Program Standards that were in effect at the time that the Development Project's first Development Application was filed or the TDM Program Standards in effect at the time that the TDM Plan Update Application is filed, if elected by the project sponsor. Possible reasons that a property owner may request review of a TDM Plan by the Planning Department include altering the TDM measures within the TDM Plan<sup>1</sup> or reducing or increasing the number of Accessory Parking spaces associated with the Development.

## TDM MEASURES SUMMARY

The table below summarizes the proposed TDM measures. In addition, to the TDM Tool output, which does not capture the Balboa Specific or otherwise modified points.

TDM Measure			
Physical/Upfront Investment	Category	Option	Points
Provide wide sidewalks, extend sidewalks beyond property, streetscape elements that encourage active transportation	ACTIVE-1	A or B	1
Provide secure and public bike parking above code requirements	ACTIVE-2	B or C	2 or 3
Provide bike repair station	ACTIVE-5A	-	1
Provide bike share docking station		Balboa Specific	1
Provide package delivery lockers in each building	DELIVERY-1	-	1
Provide car seat storage near carshare spaces & cargo bike parking	FAMILY-1	A	1
Provide on-site childcare facilities and services	FAMILY-2	-	2
Multimodal wayfinding signage	INFO-1	-	1
Real-time transportation information in lobbies	INFO-2	-	1
Provide on-site affordable housing	LU-2		4
Parking Supply: Right sized parking	PKG-4	F	6
CCSF staff/faculty housing (1 point per 100 units)		BALBOA SPECIFIC	1
Provide parking spaces for on-site vehicle share vehicles and memberships	CSHARE-1	E	5
			<b>26 to 28</b>
Operational			
Provide bike share memberships to each unit	ACTIVE-4	B, MODIFIED	2
Host a bike share docking station	BALBOA SPECIFIC		1
Provide vehicle share vehicles and memberships	CSHARE-1	E	(above)
Provide cargo bikes or electric bikes	FAMILY-1	B, MODIFIED	1
Tailored marketing, including new resident kits, including one-time transit incentive	INFO-3	B	2
Unbundle parking from all tenant leases	PKG-1	A	1
Dedicated on-site transportation coordinator			
			<b>7</b>
	<b>Total</b>		<b>33 to 35</b>

## REFERENCES

## DESIGN GUIDELINES AND INFRASTRUCTURE MASTER PLAN

- The location, design, and dimensions of existing and proposed pedestrian-oriented streetscape elements along the project frontage(s)
- Approximate location of delivery amenities (lockers/mail room) in the lobby of each building
- Car-Share Parking, Bike Parking Locations and Wayfinding Plan
  - Class 1 bike parking locations
  - Class 2 bike parking locations
  - Possible new bike share station location
  - Use bike/ped plan as a base map
- Car-share parking locations
- Wayfinding signage
- Real-time transportation information locations

## BALBOA RESERVOIR CHILDCARE PLAN

## TDM TOOL OUTPUT

This appendix includes the TDM Tool output for the strategies Balboa Reservoir selected from the menu of options. Balboa Reservoir intends to claim points for Family-1, Option A and B, which is not reflected in the total point count due to a glitch in the tool.

## **EXHIBIT K**

### **SCHEDULE TEMPLATE FOR LATER APPROVALS**

#### **Milestone Schedule #2 for Executive Directive on Housing:** *First post-entitlement Schedule Requirements*

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Development partners will submit a project schedule with Basis of Design or no later than 30 days after entitlement upon request from the City, via the housing delivery agencies (OEWD/TIDA/OCII). This schedule is intended to support and guide City review and staff capacity planning between entitlement and temporary certificate of occupancy (TCO). This schedule should include the following major milestones and be in the format described below. Public Works Infrastructure Taskforce and housing delivery agencies will review this schedule and then share this schedule with City departments for feedback. With department feedback in hand, Public Works Infrastructure Taskforce and housing delivery agencies will call a meeting with development partners for schedule confirmation.

Milestones to be included:

City approvals:

- **Subdivision/mapping actions**
- **Phase application**
- **Transaction documents** (any easements, street vacations, etc.)
- **Infrastructure engineering/permit applications**
  - Example: Street Improvement Plan (SIP), major systems, like AWSS
- **Vertical design review**
  - Examples: Site permit, building permit, schematic design/detailed design, construction docs
- **Any necessary commission approvals**
- **Start of construction** (demolition/site prep, horizontal and/or vertical)
- **Substantial completion**
- **City acceptance of infrastructure**
- **Opening of horizontal infrastructure**
- **TCO**
- **Any other relevant major milestones**

Non-City approvals:

- **Any associated non-San Francisco approvals** (i.e. Navy, Caltrans, Caltrain, State lands, etc.)
  - Example: Caltrans encroachment permit

Schedule format:

- The schedule should be in Gantt chart format
  - Time should be in in fiscal years via months or quarters at the top
  - Milestones should be in rows on the left

- Start dates (day/month/year) and durations in days should be indicated for each milestone
- Project should be broken out into major Phases and sub Phases, if applicable
- The planning horizon should include: 1<sup>st</sup> Phase app, Tent./Final Map, vertical design review, start of horizontal/vertical construction, substantial completion, City acceptance, TCO
- The preferred schedule software is Microsoft Project

### **Milestone Schedule #3 for Executive Directive on Housing:** *Phase Application Preliminary Information*

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Development partners will submit pre-Phase Application information to the Planning Department with accompanying schedule upon request from the City, via the housing delivery agencies (OEWD/TIDA/OCII). The schedule must include the Phase Application milestones listed below, as applicable. The City will require a more detailed schedule during Phase Application review, but this high-level pre-Phase Application schedule will support and guide City design review and staff capacity planning.

This schedule should be in the format described below. Planning and the housing delivery agencies will review this schedule and then share this schedule with City departments for feedback. With department feedback in hand, Planning and Managing Agency will call a meeting with development partners for schedule confirmation.

Milestones to be included:

City approvals:

- **Phase application submittal**
- **Transaction documents** (any easements, street vacations, etc.)
- **Subdivision/mapping actions**
- **Horizontal Design review** (Street Plan, Infrastructure, and Community Benefits Plan)
- **Infrastructure engineering/permit applications**
- **Vertical Design Review**
- **Submittal/approval of Site Permit/Building Permit**
- **Start of horizontal/vertical construction**
- **Public infrastructure acceptance**
- **Building permits processes, building construction/occupancy (TCO)**
- **Any other relevant major milestones**

Non-City approvals:

- **Any associated non-San Francisco approvals** (i.e. Navy, Caltrans, Caltrain, State lands, etc.)

Schedule format:

- The schedule should be in Gantt chart format
  - Time should be in in fiscal years via months or quarters at the top
  - Milestones should be in rows on the left

- Project should be broken out into major Phases and sub Phases, if applicable
- The planning horizon for post-entitlement should include at least the first two post-entitlement years (five years for Development Agreements)
- The preferred schedule software is Microsoft Project, but the City will accept Microsoft Excel format, if that is the development team's preference

#### **Milestone Schedule #4 for Executive Directive on Housing:** *Improvement Plan Schedule Requirements*

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Development partners will submit a project schedule with any Street Improvement Permit (SIP) submittal. This schedule is intended to support and guide City review and staff capacity planning between SIP and Final Map(s), or other final City pre-construction approvals.

This schedule should include the following major milestones and be in the format described below. Public Works Infrastructure Taskforce and housing delivery agencies will review this schedule and then share this schedule with City departments for feedback. With department feedback in hand, Public Works Infrastructure Taskforce and housing delivery agencies will call a meeting with development partners for schedule confirmation.

Milestones to be included:

City approvals:

- **Subdivision/mapping actions**
- **Phase application and approvals**
- **Transaction documents** (any easements, street vacations, etc.)
- **Infrastructure engineering/permit applications**
  - Example: Street Improvement Plan (SIP), storm water plan, and other major systems, like AWSS or backwater system
- **Vertical design review**
  - Examples: Site permit, building permit, schematic design/detailed design, construction docs
- **Any necessary commission approvals**
- **Start of construction** (demolition/site prep, horizontal and/or vertical)
- **Substantial completion**
- **City acceptance of infrastructure**
- **Opening of horizontal infrastructure**
- **TCO**
- **Any other relevant major milestones**

Non-City approvals:

- **Any associated non-San Francisco approvals** (i.e. Navy, Caltrans, Caltrain, State lands, etc.)
  - Example: Caltrans encroachment permit

Schedule format:

- The schedule should be in Gantt chart format

- Time should be in in fiscal years via months or quarters at the top
- Milestones should be in rows on the left
- Start dates (day/month/year) and durations in days should be indicated for each milestone
- Project should be broken out into major Phases and sub Phases, if applicable
- The planning horizon should include: SIP, Transactional Documents, Tent./Final Map, Vertical Design, SoC, TCO
- The preferred schedule software is Microsoft Project

**Milestone Schedule #5 for Executive Directive on Housing:**  
*Post-Final map(s) Schedule Requirements*

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Development partners will submit a project schedule no more than two weeks after Final Map approvals (or other pre-construction phase final City approval) upon request from the City, via the housing delivery agencies (OEWD/TIDA/OCII). This schedule is intended to support and guide City review and staff capacity planning between final pre-construction approvals and start of construction.

This schedule should include the following major milestones and be in the format described below. Public Works Infrastructure Taskforce and housing delivery agencies will review this schedule and then share this schedule with City departments for feedback. With department feedback in hand, Public Works Infrastructure Taskforce and housing delivery agencies will call a meeting with development partners for schedule confirmation.

Milestones to be included:

City approvals:

- **Subdivision/mapping actions**, if any remain
  - Example: Operations and maintenance manual
- **Transaction documents** (any easements, street vacations, etc.), if any tasks remain
  - Example: Release parcels from loan collateral
- **Infrastructure engineering/permit applications**
  - Example: SIP permit plan set, permit to enter
- **Infrastructure construction**
  - Contractor to mobilize
- **Start of construction**
- **Any other relevant major milestones**

Non-City approvals:

- **Any associated non-San Francisco approvals** (i.e. Navy, Caltrans, Caltrain, State lands, etc.)
  - Example: Caltrans encroachment permit

Schedule format:

- The schedule should be in Gantt chart format



- Time should be in in fiscal years via months or quarters at the top
- Milestones should be in rows on the left
- Start dates (day/month/year) and durations in days should be indicated for each milestone
- Project should be broken out into major Phases and sub Phases, if applicable
- The planning horizon should include: Final map(s) (or other final pre-construction City action), start of construction, substantial completion, City acceptance, opening of horizontal infrastructure, TCO
- The preferred schedule software is Microsoft Project.

**Milestone Schedule #6 for Executive Directive on Housing:**  
*Start of Construction (Horizontal and/or Vertical) Schedule Requirements*

---

Development partners will submit a project schedule no more than four weeks before start of construction date upon request from the City, via the housing delivery agencies (OEWD/TIDA/OCII). This schedule is intended to support and guide City review and staff capacity planning between start of construction and start and opening of horizontal infrastructure and/or temporary certificate of occupancy (TCO).

This schedule should include the following major milestones and be in the format described below. Public Works Infrastructure Taskforce and housing delivery agencies will review this schedule and then share this schedule with City departments for feedback. With department feedback in hand, Public Works Infrastructure Taskforce and housing delivery agencies will call a meeting with development partners for schedule confirmation.

Milestones to be included:

City approvals:

- **Subdivision/mapping actions**, if any remain
- **Transaction documents** (any easements, street vacations, etc.), if any tasks remain
- **Infrastructure engineering/permit applications**
- **Infrastructure construction**
- **Start of construction**
- **Substantial completion**
- **City acceptance of infrastructure**, if any, including Board of Supervisor approvals
- **Opening of horizontal infrastructure**
- **TCO**
- **Any other relevant major milestones**

Non-City approvals:

- **Any associated non-San Francisco approvals** (i.e. Navy, Caltrans, Caltrain, State lands, etc.)
  - Example: Caltrans encroachment permit

Schedule format:

- The schedule should be in Gantt chart format
  - Time should be in in fiscal years via months or quarters at the top
  - Milestones should be in rows on the left
  - Start dates (day/month/year) and durations in days should be indicated for each milestone
- Project should be broken out into major Phases and sub Phases, if applicable
- The planning horizon should include: Final map(s) (or other final pre-construction City action), start of construction, substantial completion, City acceptance, opening of horizontal infrastructure, TCO
- The preferred schedule software is Microsoft Project.

## **Exhibit L**

### **Child Care Program**

This Exhibit L describes the child care program for the Project (the “**Child Care Program**”). All capitalized terms used in this Child Care Program and not specifically defined herein will have the meanings ascribed to them in the Development Agreement by and between the City and County of San Francisco, a municipal corporation, and Reservoir Community Partners LLC, a Delaware limited liability company (the “Agreement”).

1. Developer will provide approximately [ ] gross square feet of rentable area for a child care facility intended to serve approximately 100 children, currently anticipated to be built on Parcel B with an adjacent open space for child care use (as required by local/State law). Developer will deliver the child care facility in warm shell condition, with the space demised to meet occupancy separation requirements (minus finishes on wall, floor and ceiling), stubs for standard utilities, path to a location for mechanical equipment, storefront and rear access as required, and other items required to obtain a temporary certificate of occupancy to allow a tenant to proceed with its improvements. The child care provider will be a nonprofit public benefit corporation. The child care provider will specify the tenant improvements necessary for the space, which Developer will not be responsible for providing under this Agreement.

2. A State-licensed child care provider will operate in the space under the following terms, provided that all Later Approvals and applicable operating and licensing and other requirements as may be necessary are first obtained.

a. Provider will comply with all State guidelines and applicable local guidelines for operating a child care facility.

b. Provider will operate a facility licensed to serve approximately 100 children with the final number to be determined based on state and any local licensing requirements.

c. In accordance with Planning Code Section 414.13, Developer or subsequent owner of the building in which it is located will include (and require compliance with) a provision in its lease with the child care provider requiring the provider to reserve at least fifty percent (50%) of the maximum capacity of the child care facility to be affordable to children of households of low income (as determined and defined by the license for the facility issued by the California Department of Social Services), and subject to availability of operating subsidy. Operators are encouraged to work with the San Francisco Office of Early Care and Education to learn about Early Learning Scholarships for low- and moderate-income families as well as other operator resources.

3. The operating term for the child care facility will equal the “life of the Project,” as such term is defined in the NSR (defined in Section 5). Subject to the provisions of this Exhibit L, the Developer will use commercially reasonable efforts to lease the space to a child care operator at all times for the life of the Project. The operating term may be fulfilled by more than one child care operator over the life of the Project. The Developer will comply with the terms below during initial leasing and periods of operator turnover and/or vacancy periods.

a. (i) On the earlier to occur of (A) applying for a First Construction Document (as defined in San Francisco Building Code Section 107A.13.1(a)(8)) for the building in which the child care facility is located, and (B) 15 business days before initially offering the facility for rent and (ii) within 15 business days following the expiration or termination of a child care operator’s lease for the facility, the owner of the facility will notify governmental and nonprofit entities that can assist in publicizing the availability of the facility of the opportunity to lease it, including, at a minimum, the following entities: the San Francisco Office of Early Care and Education (or any successor agency), the Family Child Care Association of San Francisco, the Children's Council, [City College Childcare Program Operator] and Wu Yee Children's Services.

b. If the child care space remains vacant for more than three years after DBI has issued of a first certificate of occupancy (including any temporary certificate of occupancy) for the building in which the facility is located, despite Developer’s commercially reasonable efforts to lease it at prevailing child care facility market terms (comparable to other similarly-sized and geographically proximate licensed child care facilities) to an initial child care operator, and Developer wishes to be released from its obligation to lease the facility to a child care operator, then Developer will have the right to pay City an amount equal to \$\_\_\_\_\_ [in lieu child care facility fee that would otherwise be due at the Effective Date if the fee was not waived], proportionately adjusted to reflect any increase between the published CPI Index in effect as of the Effective Date and the published CPI Index in effect at the time such payment is made (as adjusted, the “Base Fee”), plus an amount equal to 10% of the Base Fee, for deposit in the Child Care Capital Fund established under Planning Code Section 414.14. On paying such amount to City, the Developer may use the facility for any use permitted under the Project SUD after receiving required approvals and permits pursuant to the Project SUD.

c. If after having leased the facility to at least one child care operator, the child care space remains vacant for more than three years after the termination or earlier expiration of the most recent child care operator’s lease despite Developer’s commercially reasonable efforts to lease the facility at prevailing child care facility market terms (comparable to other similarly-sized and geographically proximate licensed child care facilities operated by a nonprofit public benefit corporation) to a child care operator, and Developer wishes to be released from its obligation to lease the facility to a child care operator, then Developer will have the right to pay City an amount equal to the Base Fee prorated over a twenty-five (25) year period, with a credit for any time the facility was operated by a child care provider in compliance with this Child Care Program. On paying such amount to City, the Developer may use the facility for any use permitted under the Project SUD after receiving required approvals and permits pursuant to the Project SUD.

4. Developer or subsequent owner of the building in which the child care facility is located cannot charge rent (including security, common building charges and utilities, etc.) to the child care operator that exceeds prevailing market rent comparable to other similarly-sized and geographically proximate licensed child care facilities.

5. Developer or subsequent owner of the building in which the child care facility is located will execute the Notice of Special Restrictions included in the Approvals to dedicate the space for child care use and to incorporate the terms of this Child Care Program in form and substance approved by Planning ("NSR"). The NSR will be recorded against the applicable parcel within the Project Site at the earlier to occur of the final map that includes the child care facility is recorded or the date the First Construction Document is issued for the building that will contain the child care facility.

6. In consideration of this Child Care Program community benefit and except as provided in Section 3.b, Section 3.c, and Section 7, the Project will not be subject to the residential child care fee (Planning Code Sec. 414A) and that fee will be waived. For the avoidance of doubt, this waiver applies to all of the buildings constructed on the Project Site pursuant to this Agreement.

7. Phasing/performance requirements for the child care facility will be detailed in Schedule 1 (Phasing Plan and Community Benefits Linkages). If DBI has not issued a certificate of occupancy (including any temporary certificate of occupancy) for the child care facility prior to the expiration of the Term but Developer has received a First Construction Document for any Building, then Developer shall pay to City an amount equal to the Base Fee plus 20% of the Base Fee at the end of the Term.

**EXHIBIT M**  
**MASTER INFRASTRUCTURE PLAN**

# **BALBOA RESERVOIR INFRASTRUCTURE PLAN**

**APRIL 10, 2020**

**Prepared by**



With assistance from:

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**APPENDICES**

Appendix A	Balboa Reservoir Design Standards and Guidelines, Chapter 5
Appendix B	Preliminary Geotechnical Report
Appendix C	SU-30 and WB-40 Design Vehicle Movements
Appendix D	Fire Engine and Fire Truck Turning Movements
Appendix E	Passenger Vehicle Turning Movements
Appendix F	Fire Flow Evaluation
Appendix G	"Balboa Reservoir Hydrologic and Hydraulic Modeling" memo by BKF, dated January 9, 2020
Appendix H	Balboa Reservoir Design Standards and Guidelines, Sustainable Neighborhoods Framework

The appendices are for reference only and are not approved as part of the Infrastructure Plan approval.

## **1. INTRODUCTION**

### **1.1 Purpose**

This Infrastructure Plan is an exhibit to the Development Agreement (DA) between Balboa Community Partners, LLC (Developer) and City and County of San Francisco (City). The Infrastructure Plan describes the infrastructure to be constructed for the Balboa Reservoir Project (Project), associated with Project sustainability, demolition, grading, street and transportation improvements, open space and park improvements, low pressure water system, combined sewer system, auxiliary water supply system (AWSS), stormwater management system and dry utility system. Initially capitalized terms unless separately defined in this Infrastructure Plan have the meanings and content set forth in the DA. Initially capitalized terms unless separately defined in this Infrastructure Plan have the meanings and content set forth in the DA.

### **1.2 Design Standards and Guidelines**

The Balboa Reservoir Design Standards and Guidelines (DSG) is a separate document that establishes the design framework and detailed standards that guide the design of open spaces and buildings. The DSG is approved by the Planning Commission and is a companion document to the Infrastructure Plan. Chapter 5 of the DSG has been included as Appendix A to the Infrastructure Plan as it is relevant to the design of the streets, pedestrian network, loading zones and other features within the public right of way.

### **1.3 Land Use Program**

The Project Site is located north of Ocean Avenue, West of Frida Kahlo Way, Southwest of Riordan High School and east of Plymouth Avenue as shown in Figure 1.0. The project boundary includes approximately 17.6 acres (Block 3180, Lot 190) as shown on Figure 1.1A. The proposed Project includes the redevelopment of the Project Site into a mixed-use development including residential, community room, limited retail, and parking. The proposed Project will also include public access areas and open spaces as well as public and private streets which extend beyond the project boundary. The limits of proposed improvements are shown in Figure 1.1B.

Overall the proposed Project will construct up to approximately 1,640,400 gross square feet (gsf) including approximately 1,100 residential units, approximately 7,500 gsf of retail use, approximately 339,900 gsf of parking, and approximately 10,000 gsf of daycare facilities.



**Table 1.1: Proposed Development Program Scenarios**

Proposed Building Use	Preferred Development Program
Residential	1,100 total units <i>450 market-rate units</i> <i>550 affordable units</i> <i>100 townhomes</i>
Retail	7,500 sf
Day Care	10,000 sf
Parking	339,900 sf
Public Open Space	4 acres

The land use program may be adjusted in the future provided that it remains within the limits analyzed under the Project EIR. The Project utility demands and infrastructure requirements have been evaluated based on the Development Program that results in the highest utility demand. Accordingly, future adjustments are not anticipated to significantly change the overall Project utility demands or general infrastructure requirements outlined in this Plan.

#### **1.4 Property Acquisition, Dedication, and Easements**

The mapping, dedication and acceptance of streets and other infrastructure improvements is anticipated to occur through the subdivision mapping process. Except as otherwise noted, infrastructure described in this Infrastructure Plan shall be constructed within the public right-of-way or dedicated easements to provide for access and maintenance of infrastructure facilities. Existing and Proposed Property lines and easements are shown on Figure 1.2A and Figure 1.2B respectively.

Public service easements will be allowed within the Project as necessary to provide infrastructure and services to the Project and are subject to review and approval by the affected City agency. Proposed public water, combined sewer, auxiliary water supply system (AWSS), and power easements benefitting the San Francisco Public Utilities Commission (SFPUC) on the property will be reviewed on a case-by-case basis. Full access for vehicles and equipment for the maintenance and repair of utility mains will be provided. Public utilities within easements will be installed in accordance with applicable City regulations for public acquisition and acceptance within public utility easement areas, including provisions for maintenance access. Where improvement standards proposed herein differ from the City and County of San Francisco Subdivision Regulations (Subdivision Regulations), such standards and infrastructure shall

be subject to design modification or exception requests and reviewed by the affected City Agencies during the Project Phase application or construction document approval process.

### **1.5 Project Datum**

Elevations referred to herein, are based on the CCSF 2013 NAVD88 Vertical Datum.

### **1.6 Conformance with EIR/EIS & Entitlements**

This Infrastructure Plan has been developed to be consistent with Project mitigation measures required by the Draft Environmental Impact Report (EIR) and other entitlement documents. Regardless of the status of their inclusion in this Infrastructure Plan, the mitigation measures of the EIR shall apply to the Project.

### **1.7 Applicability of Uniform Codes and Infrastructure Standards**

The Infrastructure Plan is intended to comply with the current City of San Francisco Subdivision Regulations. The Infrastructure Plan may be modified in the future to the extent that future modifications are in accordance with the current City of San Francisco Subdivision Regulations and the DA. Approval of future modifications will require approval from the relevant City agencies.

### **1.8 Master Utility Plans**

Each publicly-owned or accepted infrastructure system described herein will be more fully described and evaluated in Master Utility Plans (MUPs), which will be submitted to the City Agencies after approval of the Infrastructure Plan. The MUPs provide detailed layouts and modeling of each infrastructure system. The Infrastructure Plan is to be approved by the City Agencies as part of the DA approval processes. Approval of this Infrastructure Plan does not imply approval of the MUPs, which will be approved after DA execution and prior to the submittal of the Basis of Design.

### **1.9 Project Phasing**

It is anticipated that the Project will be developed in two phases (Development Phase(s)) subject to the approval process outlined in the DA. See Figure 1.3. Each Development Phase would include a Development Parcel or Parcels and associated infrastructure and open space areas. Phased Improvements are the street, access, utility and open space improvements necessary to accommodate development of a particular Development Parcel or Parcels.

The parties acknowledge that certain improvements of the Infrastructure Plan, such as site preparation, grading, soil compaction and stabilization, may be required or desired at an earlier stage of development and in advance of such Phase Improvements. As described in the DA, the parties will cooperate in good

faith in determining the scope and timing of such advance improvements, so as not to delay the construction of Development Parcels and associated Phase Improvements, or affect the criteria for the proportional scope of Phase Improvements.

### **1.10 Phases of Infrastructure Construction**

The construction of infrastructure, as described in the Infrastructure Plan, Tentative Map and other Project approvals, can be phased to serve the incremental build-out of the Project in accordance with the Project approvals. Each phase of construction will result in a functioning infrastructure system. Phase Improvements will be described in subsequent Improvement Plans and associated Public Improvement Agreements or permits approved prior to filing a Final Map for the associated Development Parcels.

For each Development Parcel proposed for development, the associated adjacent and as needed infrastructure to provide access and utilities to serve that development, such as streets, and improvements therein and thereon, will be constructed. As described in the DA, adjacent infrastructure refers to infrastructure that is necessary and near to and may share a common border or end point with the proposed Development Parcel or Parcels.

The limits of the existing infrastructure to be demolished as well as conceptual layouts of the permanent and/or temporary infrastructure systems for each Development Parcel will be provided as part of the construction document submittals for that Development Parcel or Phase. Repairs and/or replacement of the existing facilities necessary to serve the Development Parcel will be designed and constructed by the Developer.

Where requested by Developer, and if the City Agency(s) with jurisdiction over the affected infrastructure determines it is appropriate in connection with the phased development of the Project, portions of the Phase Improvements may be constructed or installed as interim improvements to be owned and maintained by the Developer. Interim improvements would be removed or abandoned, as determined by the City Agency, when substitute permanent Phase Improvements are provided to serve a subsequent Development Parcel. Infrastructure within the right of way will not be constructed in phases.

Demolition of existing Project area infrastructure and construction of each proposed Development Parcel and associated Phase Improvements will impact site accessibility. During construction of each Development Parcel and associated Phase Improvements, interim access shall be provided and maintained for emergency vehicles, subject to San Francisco Fire Department (SFFD) approval, as well as

pedestrian access on at least one side of the street around the construction perimeter that is American with Disabilities Act (ADA) compliant. Interim access to the existing parking will also be maintained and coordinated between the Developer and City, as required.

At all phases of development prior to full build out, the Developer shall demonstrate to the City Agency that functioning utility systems are in place at all times and comply with applicable City laws, codes and regulations.

### **1.11 Operation and Maintenance**

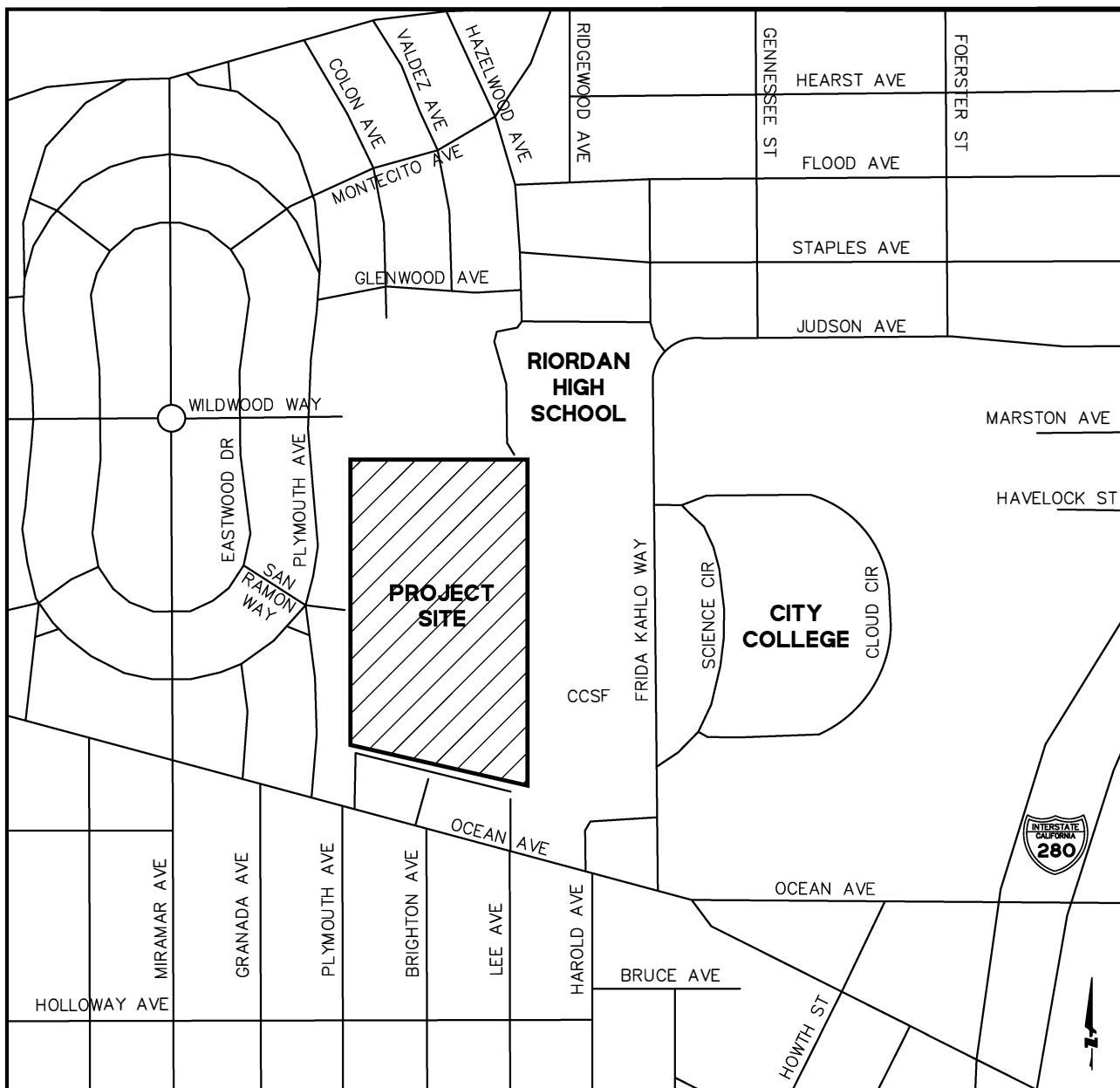
After formal acceptance of public infrastructure installed by the Developer, the City will be responsible for maintenance of the infrastructure installed by the Developer, except as otherwise agreed to in writing by the Developer and the City. A maintenance agreement, as required by the Public Improvement Agreement (PIA), will be prepared in conjunction with the first phase of the Improvement Plans and may be subject to a Major Encroachment Permit (MEP).

### **1.12 Companion Documents**

The following attachment and appendices contain reference documents that are referenced by the Infrastructure Plan:

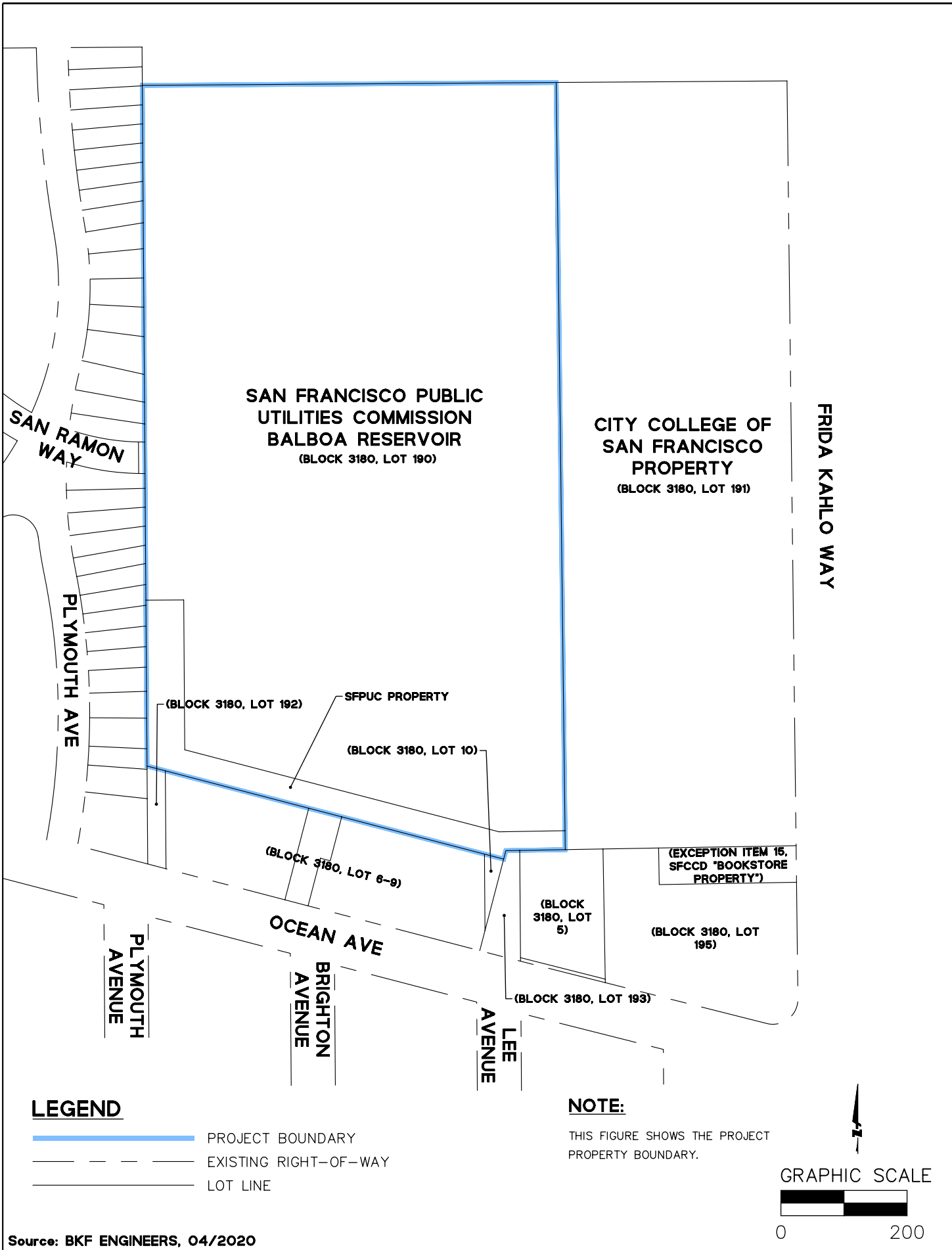
- Appendix A Balboa Reservoir Design Standards and Guidelines, Chapter 5
- Appendix B Preliminary Geotechnical Report
- Appendix C SU-30 and WB-40 Design Vehicle Movements
- Appendix D Fire Engine and Fire Truck Turning Movements
- Appendix E Passenger Vehicle Turning Movements
- Appendix F Balboa Reservoir – Fire Flow Evaluation
- Appendix G “Balboa Reservoir Hydrologic and Hydraulic Modeling” memo by BKF
- Appendix H Balboa Reservoir Design Standards and Guidelines, Sustainable Neighborhoods Framework

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 PLOT DATE: 04-01-20 PLOTTED BY: cheh



Source: BKF ENGINEERS, 04/2020

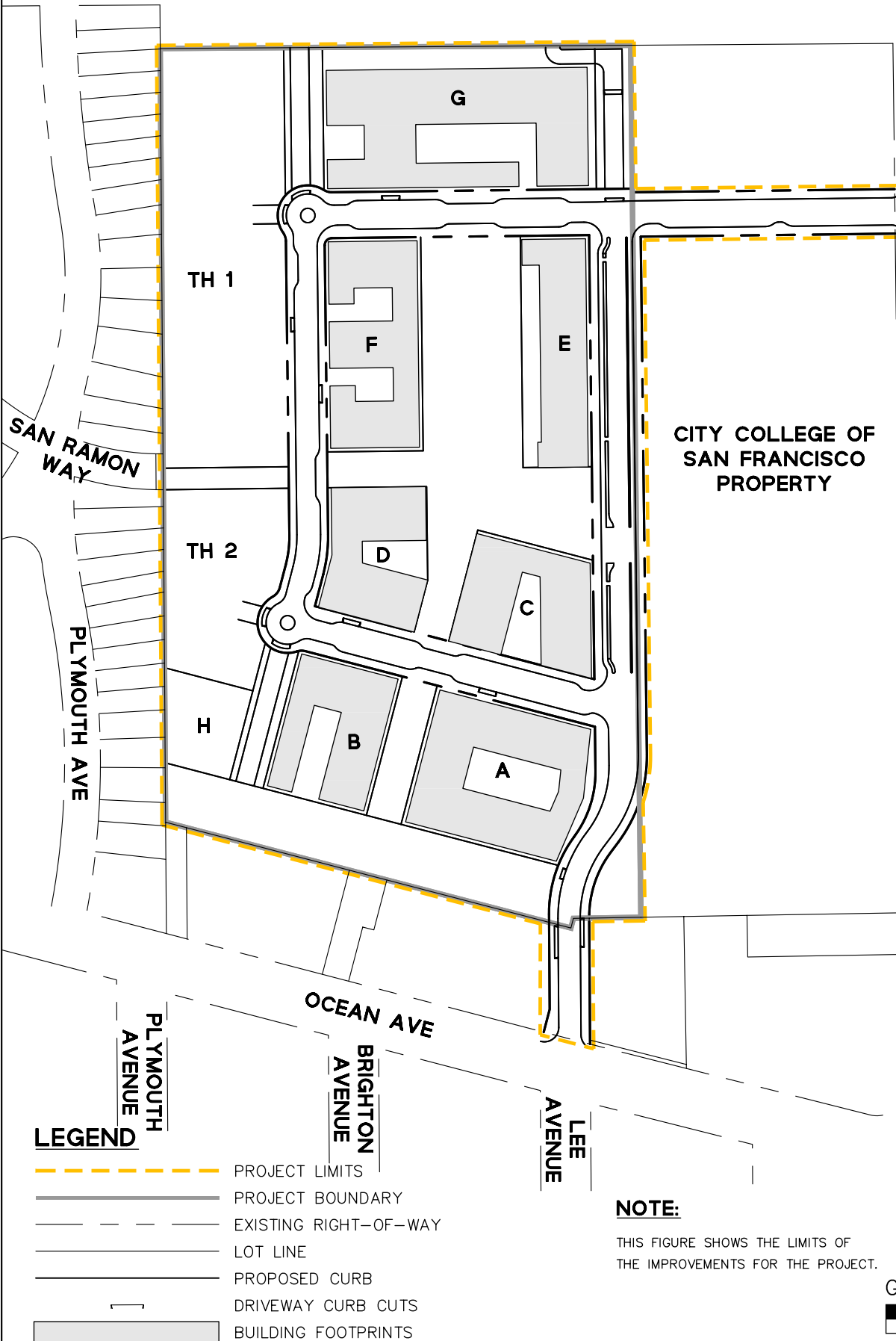
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BALBOA RESERVOIR INFRASTRUCTURE PLAN

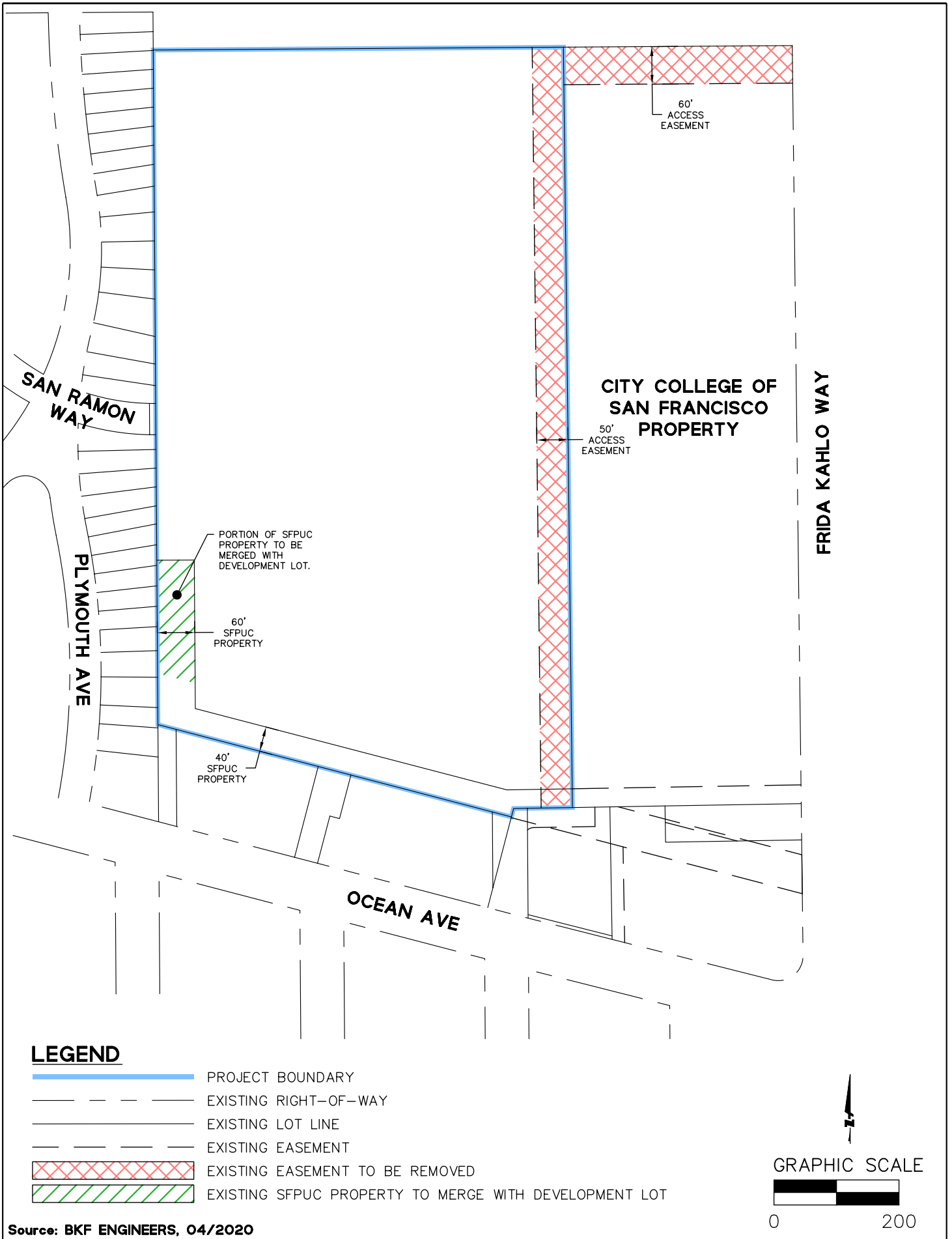
FIGURE 1.1A - PROJECT BOUNDARY

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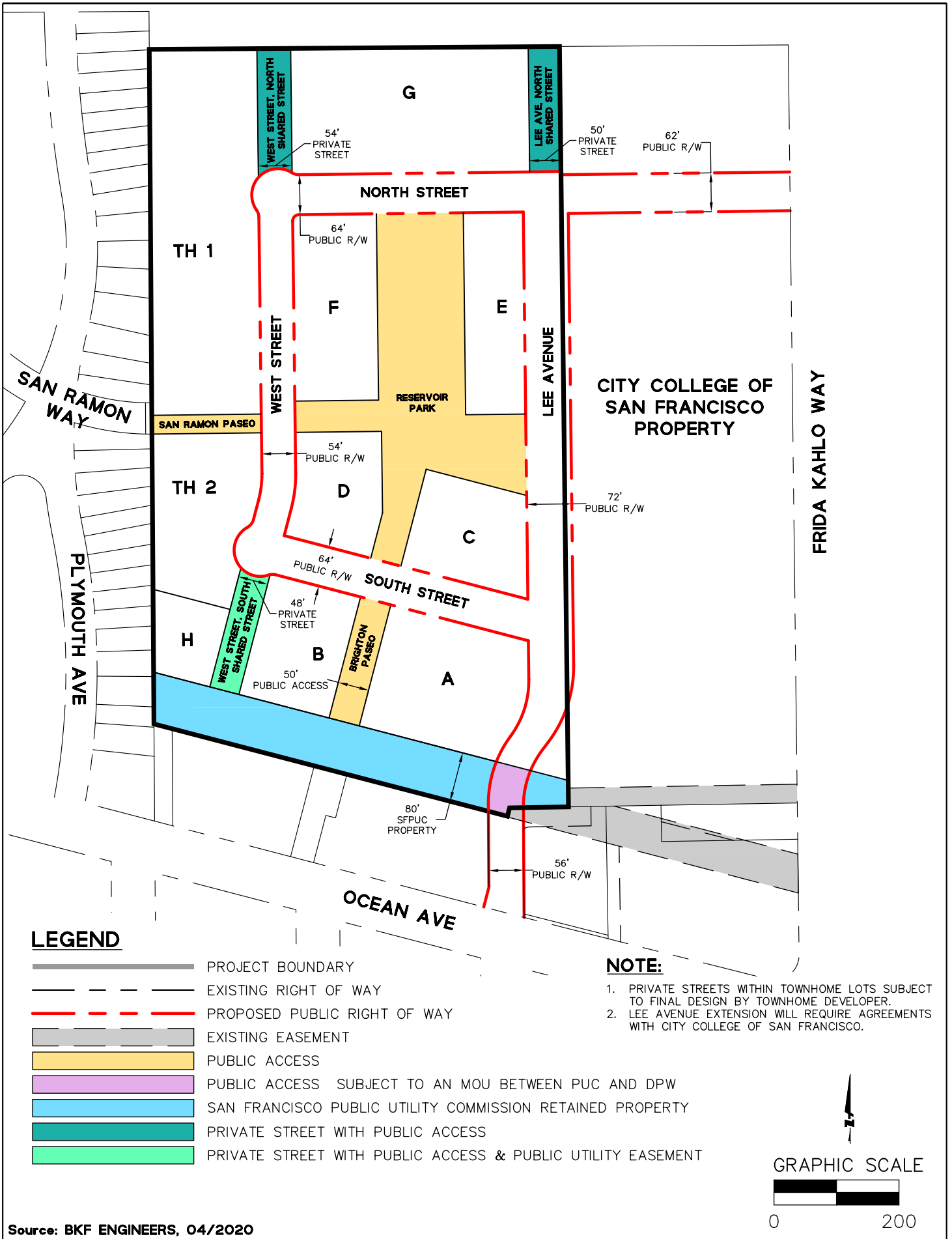
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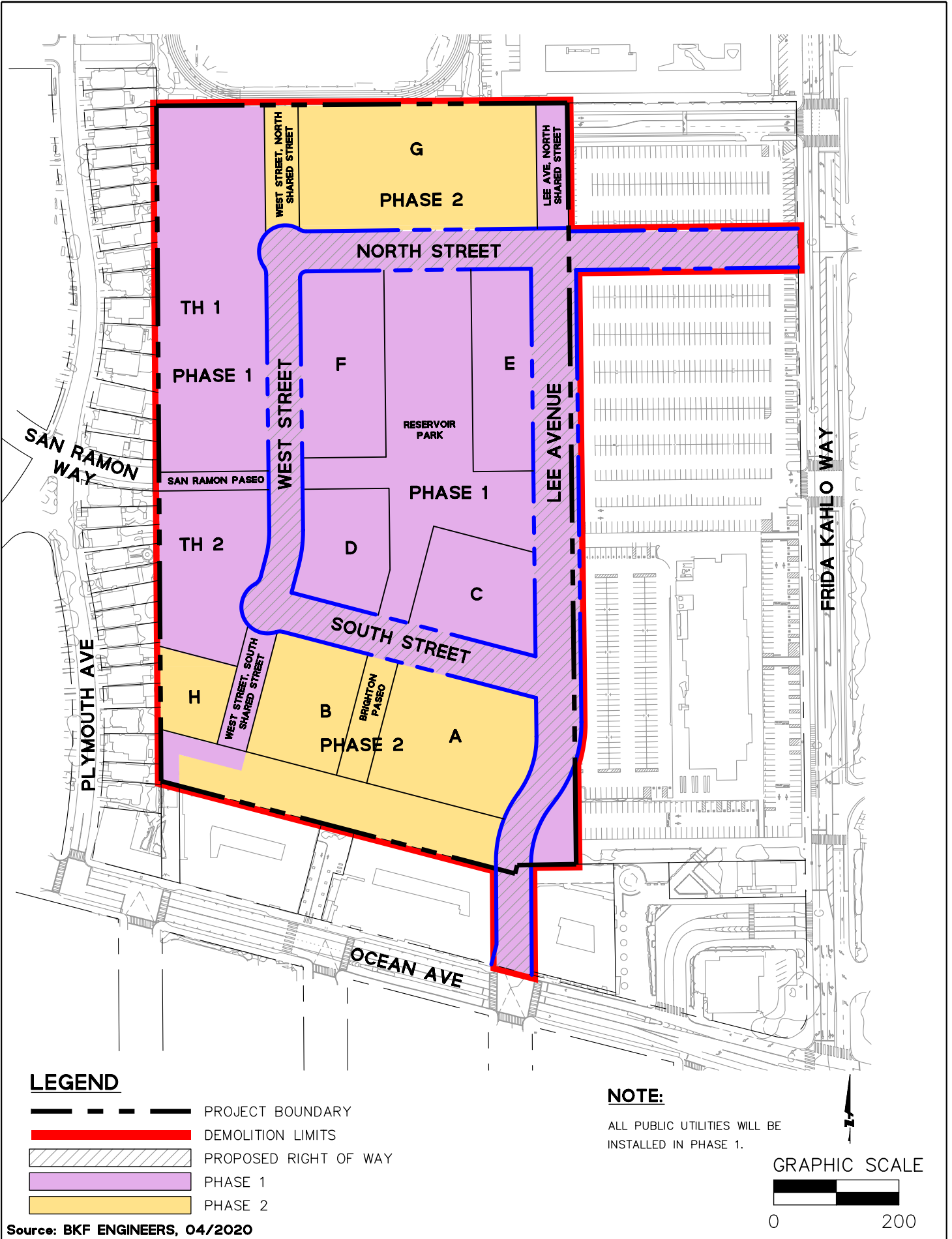




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BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 1.3 - PROJECT PHASING

## 2. SUSTAINABILITY

### 2.1 Sustainable Infrastructure

The Balboa Reservoir Project includes sustainable design development through modern infrastructure and attention to community health and prosperity. Improvements will comply with the City and County of San Francisco and State sustainability requirements including Title 24 (Divisions 6 and 11) and The San Francisco Green Building Code. A summary of the key sustainable infrastructure design strategies are as follows:

#### Section 4 – Site Demolition

- Recycle materials on-site where feasible.

#### Section 6 – Site Grading

- Erosion and sedimentation control measures during construction will be implemented consistent with an approved Erosion and Sediment Control Plan for the site during grading and construction to protect and control runoff.

#### Section 6 – Street, Mobility, and Circulation Designs

- New infrastructure and facilities to improve circulation and safely support all transportation modes such as walking and cycling to regional transit hubs.
- Establish an accessible neighborhood that prioritizes walking and biking.
- New public bicycle and pedestrian paths to provide connection to open spaces to support safety of bicycles and pedestrians.
- Selection of street trees that support Site ecosystems.

#### Section 7 – Open Space and Parks

- New parks and recreation facilities that will complement the existing surrounding neighborhood and citywide open space network.
- Selection of plants and trees that support Site ecosystems and habitats.

#### Section 9 – Low Pressure Water System

- New reliable potable water system.
- Use of water conservation fixtures.

#### Section 10 – Non-Potable Water System

- Non-potable water system for toilet flushing and irrigation uses.

#### Section 11 – Auxiliary Water Supply System (AWSS)

- New AWSS to improve reliability of fire suppression systems and improve site resiliency during a seismic event.

#### Section 13 – Stormwater Management System

- Stormwater management controls included in the buildings, streets, and open spaces to reduce runoff volume and rate affecting the City Combined Sewer System.

#### Section 14 – Dry Utility Systems

- New power, gas and communication systems to serve the Development.
- Refer to the DSG for discussion on photovoltaics and solar preheat systems on building rooftops in accordance with the Better Roofs Ordinance and energy efficient equipment and fixtures to reduce energy demands.

Refer to Chapter 4 of the Design Standards and Guidelines for a thorough discussion of the project's sustainability goals, standards and guidelines.

### **3. SITE DEMOLITION**

#### **3.1 Scope of Demolition**

The Developer will be responsible for the demolition and deconstruction of all non-retained existing buildings and infrastructure features. Demolition and deconstruction will include removal and disposal of hardscape, landscape and utilities. The demolition limit of work consists of the existing surface parking lot, earthen berm on the west side of the site, and road on the east side. Project demolition and grading activities will comply with City Ordinance 175-91 for use of non-potable water for soil compaction and dust control. Where feasible, concrete and asphalt pavements will be recycled and used on-site or made available for use elsewhere. Soil removal associated with demolition activities will comply with the Project environmental permit requirements.

As part of the vegetation grubbing and clearing operation, trees and other plant materials will be removed, relocated or protected in place, as required. Trees and plant materials removed as part of the demolition process will be recycled by composting or similar methods for on-site uses associated with the planting of new vegetation and erosion control to the extent feasible.

The Developer shall be responsible for providing for the infrastructure permanent improvements proposed to replace the existing infrastructure in accordance with approved building and construction permits issued by the City Agency. The extent of these improvements and associated demolition will be finalized during the construction document approval process.

#### **3.2 Phases of Demolition**

Demolition will occur in one phase for the entire site. Demolition will be staged to allow the existing utility services, vehicular and pedestrian access areas, and landscaped spaces to remain in place as long as possible and reduce disruption of existing uses on the site and adjacent facilities. Project demolition activities will comply with City Ordinance 175-91 for use of non-potable water for soil compaction and dust control. The project will also meet the minimum required construction recycling rates from City Ordinance 27-06 for private projects. The project could also be required to meet a 75% diversion rate required for City projects.

## **4. GEOTECHNICAL CONDITIONS**

### **4.1 Existing Site Geotechnical Conditions**

The site is currently owned by the San Francisco Public Utilities Commission and was originally planned for use as a municipal water reservoir. Although the site was never used as a reservoir, the central portion of the site was excavated down approximately 15 feet and an embankment approximately 30 feet tall was constructed along the western and southern boundary. The southern embankment was removed in 2008, and a new embankment was constructed along the eastern site boundary between 2008 and 2009. The central, depressed portion of the site is currently occupied by an asphalt parking lot.

A preliminary geotechnical investigation was performed at the site by Rockridge Geotechnical, Inc. (Rockridge) on January 3, 2017. The investigation consisted of advancing four borings to depths of between 6 and 26 feet below ground surface (bgs) and advancing six cone penetrations tests (CPTs) until practical refusal in very dense sand, which occurred at depths between 5 and 46 feet bgs.

The site is mapped in a zone of early-Pleistocene alluvium (Qoa) (Graymer, 2006). Based on the results of the preliminary geotechnical investigation, the non-embankment portion of the site is underlain by a deposit of medium dense to very dense silty sand with occasional clay interbeds, known locally as the Colma formation. The Colma formation extends to a depth of at least 46 feet bgs at location CPT-6, the maximum depth explored. The embankment consists of sand fill which was likely excavated onsite and re-worked. Documentation of the embankment construction was not available; however, the results of the preliminary investigation indicates that the fill appears to have been well-compacted and is generally dense to very dense in consistency.

Free groundwater was not observed in the borings drilled for the preliminary investigation. A geotechnical investigation was previously performed in 2010 for a development on Phelan Loop immediately southeast of the site. In that investigation, groundwater was encountered in one boring at a depth of about 22 feet bgs, while a second boring drilled to 40 feet did not encounter groundwater.

### **4.2 Existing Site Geotechnical Constraints**

Based on the results the preliminary geotechnical investigation, Rockridge concludes there are no major geotechnical or geological issues that would preclude development of the site as proposed. The primary geotechnical issues affecting the proposed development include site grading and support of the proposed structures.

### **4.3 Site Grading**

Conceptual development plans include removing the western berm and raising grades across the remainder of the site. In some areas, grades may be raised 20 feet or more. Even where fill is properly placed and compacted, some minor settlement of the new fill is expected. During final design, the anticipated settlement will be determined so the site improvements can be designed to accommodate minor differential settlement. If necessary, building entrance slabs can be designed to accommodate settlement of the fill and building utility connections can be designed with a flexible connection. These and other approaches to manage site settlement will be reviewed during final design.

### **4.4 Foundations**

Foundations should be designed to provide adequate foundation support and limit total and differential settlements of the proposed buildings to acceptable levels.

### **4.5 Stormwater Infiltration**

Conceptual development plans include incorporating infiltration facilities to manage stormwater runoff from impervious surfaces.

### **4.6 Geotechnical Approaches**

#### **4.6.1 Site Grading Approach**

Fill should be placed and compacted in accordance with the recommendations of the final geotechnical report. In general, fill should consist of on-site soil or imported soil (select fill) that is free of organic matter, contains no rocks or lumps larger than three inches in greatest dimension, has a liquid limit of less than 40 and a plasticity index lower than 12, and is approved by the Geotechnical Engineer. It is anticipated that the embankment material will meet these criteria.

Where proposed buildings will span different fill thicknesses, the Geotechnical Engineer should evaluate the need of overexcavating and recompacting in-place soil to reduce potential for differential performance.

#### **4.6.2 Foundation Approach**

Rockridge preliminarily concluded the proposed buildings could be supported on shallow foundations bearing on firm native soil or properly placed and compacted engineered fill.

### **4.6.3 Stormwater Infiltration Approach**

Where explored in the preliminary geotechnical investigation, the soil at the site primarily consists of silty sand. The silty sand is anticipated to have moderate to high infiltration rates, depending on the exact gradation and mineralogy of soil exposed at designated infiltration areas. Infiltration facilities, including determination of infiltration rates, will be designed and constructed in accordance with SFPUC standards.

### **4.7 Schedule for Additional Geotechnical Studies**

Prior to starting final design of the new infrastructure, the Geotechnical Engineer should perform additional borings/CPTs and prepare a final geotechnical report based on the supplemental field investigation. The geotechnical report should provide information about the soil and groundwater conditions at the site and include design-level recommendations regarding:

- site seismicity and seismic hazards, including the potential for liquefaction and liquefaction-induced ground failure
- the most appropriate foundation type for the proposed buildings
- design criteria for the recommended foundation type, including vertical and lateral capacities
- estimates of foundation settlement
- lateral earth pressures (static and seismic) for design of below-grade walls
- design groundwater level
- subgrade preparation for floor slabs, pavements, and exterior concrete flatwork
- flexible and rigid pavement design
- site grading and excavation, including criteria for fill quality and compaction
- temporary slopes
- temporary shoring and underpinning of adjacent structures, if required
- 2016 San Francisco Building Code (SFBC) site class and design spectral response acceleration parameters
- soil corrosivity
- construction considerations



In addition, infiltration rates should be determined in accordance with SFPUC guidelines<sup>1</sup> after the locations of infiltration facilities have been finalized. Approved infiltration testing methods for a development of this size include "Large Pilot Infiltration Test (PIT)" and "Soil Grain Size Analysis", as appropriate.

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<sup>1</sup> *Determination of Design Infiltration Rates for the Sizing of Infiltration-based Green Infrastructure Facilities*, April 2017

## **5. SITE GRADING**

### **5.1 Project Datum**

Site elevations, referred to herein are on the CCSF 2013 NAVD88, unless identified otherwise.

### **5.2 Existing Site Conditions**

The existing grade within the Project Site slopes gradually north, south, and west, away from the roadway to the north east with ground elevations ranging from approximately 315 feet elevation at the roadway to approximately 292 feet elevation to the south of the existing berm. The northern border is bounded by the track and field of Riordan High School with elevations between 315 and 325. The eastern border is bounded by the City College of San Francisco (City College) parking lot and drive aisle with grades varying between elevation 307 and 315. Along the southern border, there is a grade different of approximately 10 feet at the termination of Lee Avenue with elevation change from 308 on the Project Site to 298 at the termination of Lee Avenue. Mixed-use buildings border the south boundary. The elevation differential is reduced at the southwest corner of the site at elevation 289 where it conforms to the adjacent parcel. Along the western border, the site is bounded by and conforms to the existing grades along the backyards of residences fronting Plymouth Ave with ground elevations ranging from 286 feet to 320 feet in elevation. The existing site elevations are shown in Figure 5.1.

### **5.3 Site Geotechnical Constraints and Approaches**

The Preliminary Geotechnical Report was prepared for the Project by Rockridge Geotechnical. Although the site was intended to be used as a reservoir, it never fulfilled that purpose as it was converted into a parking lot. The central of the portion of the site was excavated down approximately 15 feet and an embankment approximately 30 feet tall was constructed along the west and east boundaries. The southern embankment was removed in 2008 and a new embankment was constructed on the east boundary between 2008 and 2009.

The Project Site sits on sufficiently dense soil which is able to resist liquefaction, and associated manifestations such as settlement, loss of bearing capacity, sand boils, and lateral spreading. Furthermore, as the soil above the groundwater table consists primarily of dense to very dense silty sand, the Project Site is not susceptible to cyclic densification (also referred to as differential compaction).

## **5.4 Project Grading Overview**

The Developer will be responsible for the design and construction of the proposed grading for the Project. Below is a description of the grading design for the different areas of the site. The proposed Project conceptual grading plan is shown in Figure 5.2.

The Project is comprised of a street network with North Street, West Street, and South Street located as described in their name and Lee Avenue occupying the eastern leg of the loop. The street network connects to Ocean Avenue to the south via Lee Avenue and Frida Kahlo Way at the northeast via North Street. Development areas are divided into Blocks with Block A and B south of South Street, Blocks C, D, E, and F occupying the center, Block G to the north, and Block H and townhomes to the west.

Proposed grading for the Project raises the development area to approximate elevations of 299.6 feet to 315.5 feet at the center of the site. The street grades will slope generally to the southwest through a private street into the existing SFPUC easement. The streets and sidewalks will be designed to provide ADA compliant accessible pathways throughout the site and adjacent parcels. The proposed looped street with interconnected open space and accessible pathways will be constructed to link San Ramon Way and City College in the west-east direction and Ocean Avenue and North Street in the north-south direction. Throughout the site longitudinal street grades less than 5 percent will be provided. Proposed watershed boundaries are shown in Figure 5.3.

## **5.5 Proposed Grading Designs**

### **5.5.1 Building Areas**

Proposed finished floors will be set at highest adjacent grades. Project development and grading designs will be developed to comply with the City requirements for ADA accessible paths of travel.

### **5.5.2 Proposed Roadways**

Proposed slopes along public streets and private streets will be set at a maximum longitudinal slope of 5 percent to provide ADA accessible pathways of travel without requiring handrails as shown in Figure 5.2. The proposed public street system is designed in linear grading pattern from north to south and generally east to west as illustrated in Figure 5.2. At conforms, the site conforms or slopes down to the existing adjacent streets. Handrails will be provided for stairs and accessible areas exceeding 5 percent, where required.

At street intersections, grades will be designed at a maximum slope of 2% to provide an accessible path of travel in crosswalks. In addition, vertical curves within the streets will be designed to both begin and end outside the limits of the crosswalk areas.

### **5.5.3 Overland Release**

The drainage design will be examined in the project's sewer, stormwater, and grading master plan to ensure project designs contain the 100-year HGL below top of curb, consistent with the requirements of the San Francisco Subdivision Regulations. If necessary to avoid any potential adverse effects from overland release, stormwater will be detained onsite, including a variance request to contain flows from the 100-year storm within the pipe network for the Project Site. The proposed drainage system will route the 100-year runoff through the pipe network to the two points of connection to the existing combined sewer in Ocean Avenue. See Figure 5.4.

## **5.6 Proposed Site Earthwork**

The conceptual grading plan for the Project will require approximately 171,000 CY of gross earthwork. To support grading activities, an Erosion and Sediment Control Plan (ESCP) will be submitted in parallel with future grading permits. Grading in conjunction with site remediation efforts will be performed by the Developer.

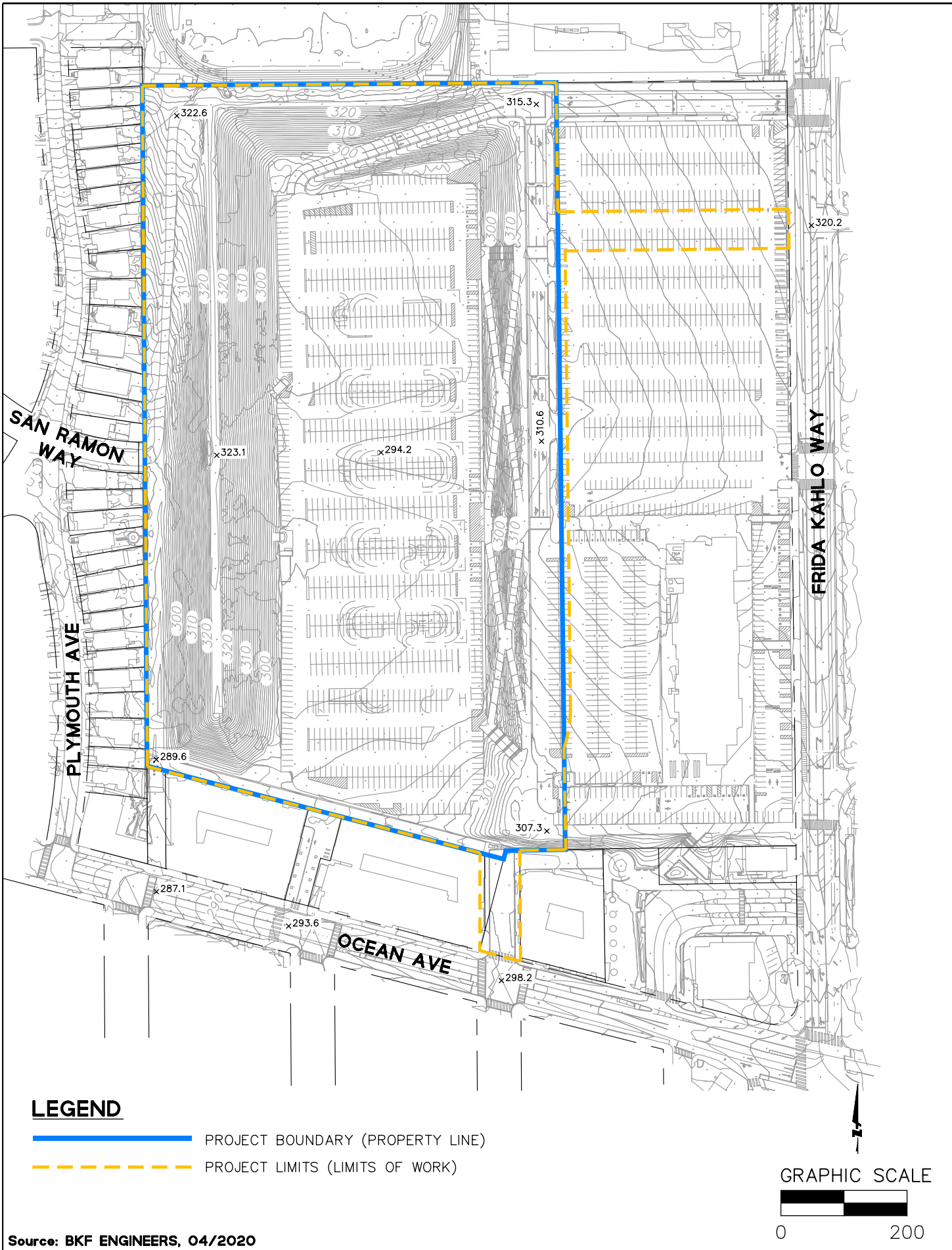
## **5.7 Cut/Fill Quantities**

Approximate total quantity of soil to be exported is 56,000 CY. The remaining excavated material will be reused on site to eliminate the need to import additional fill.

## **5.8 Phases of Grading Activities and Approvals**

The Developer will grade the site based on the principle of adjacency and as-needed to facilitate a specific proposed Development Phase and consistent with the requirements of the DA. The amount and location of the grading proposed will be the minimum necessary to support the Development Phase. The new Development Phase will conform to the existing grades as close to the edge of the Development Phase area as possible while maintaining the integrity of the remainder of the Project. Repairs and/or replacement of the existing facilities necessary to support the proposed Development Phase will be designed and constructed by the Developer. Interim grading will be constructed and maintained by the Developer as necessary to maintain existing facilities impacted by proposed Development Phases. Project grading activities will comply with City Ordinance 175-91 for use of non-potable water for soil compaction and dust control.

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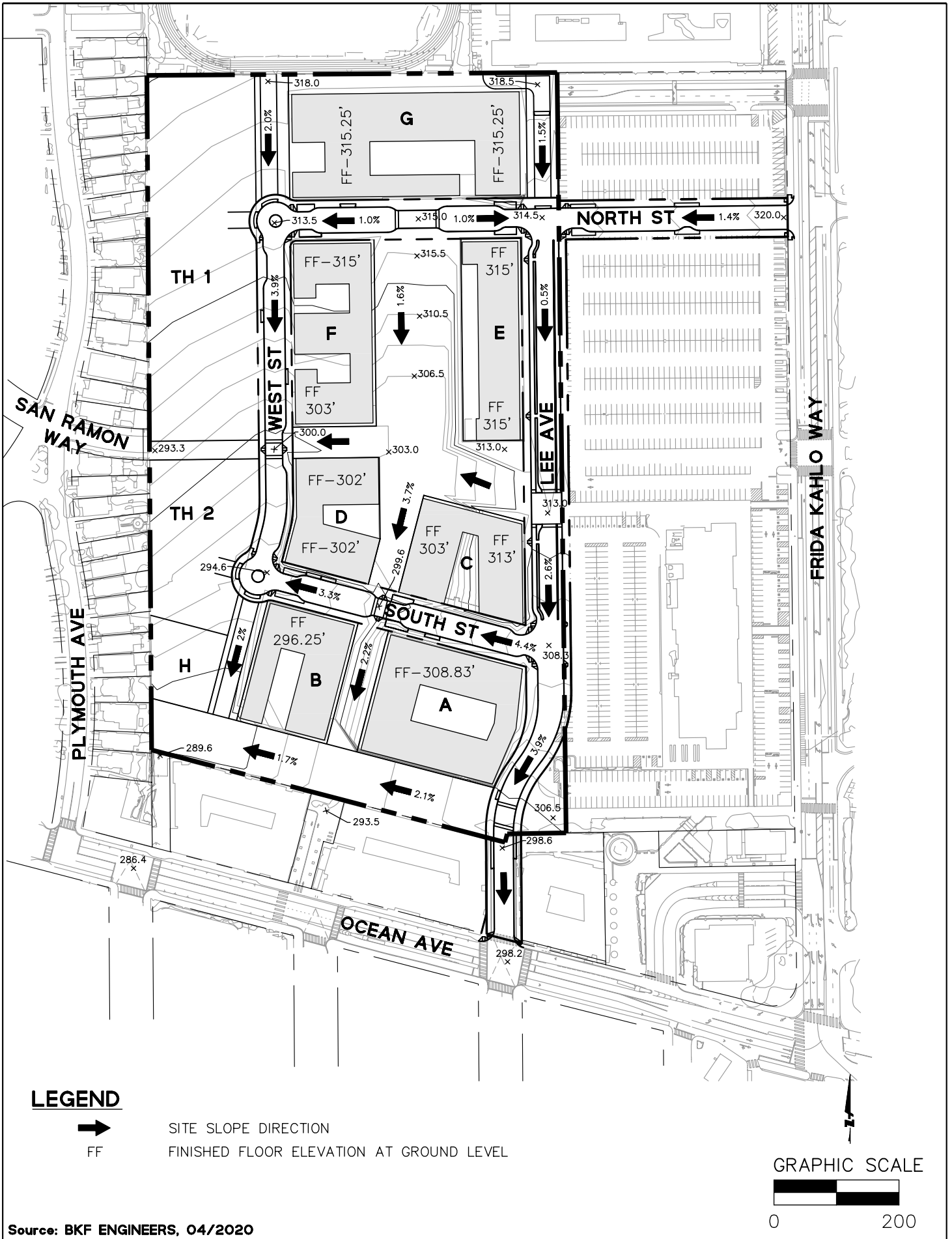


Source: BKF ENGINEERS, 04/2020

BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 5.1 – EXISTING SITE TOPOGRAPHY

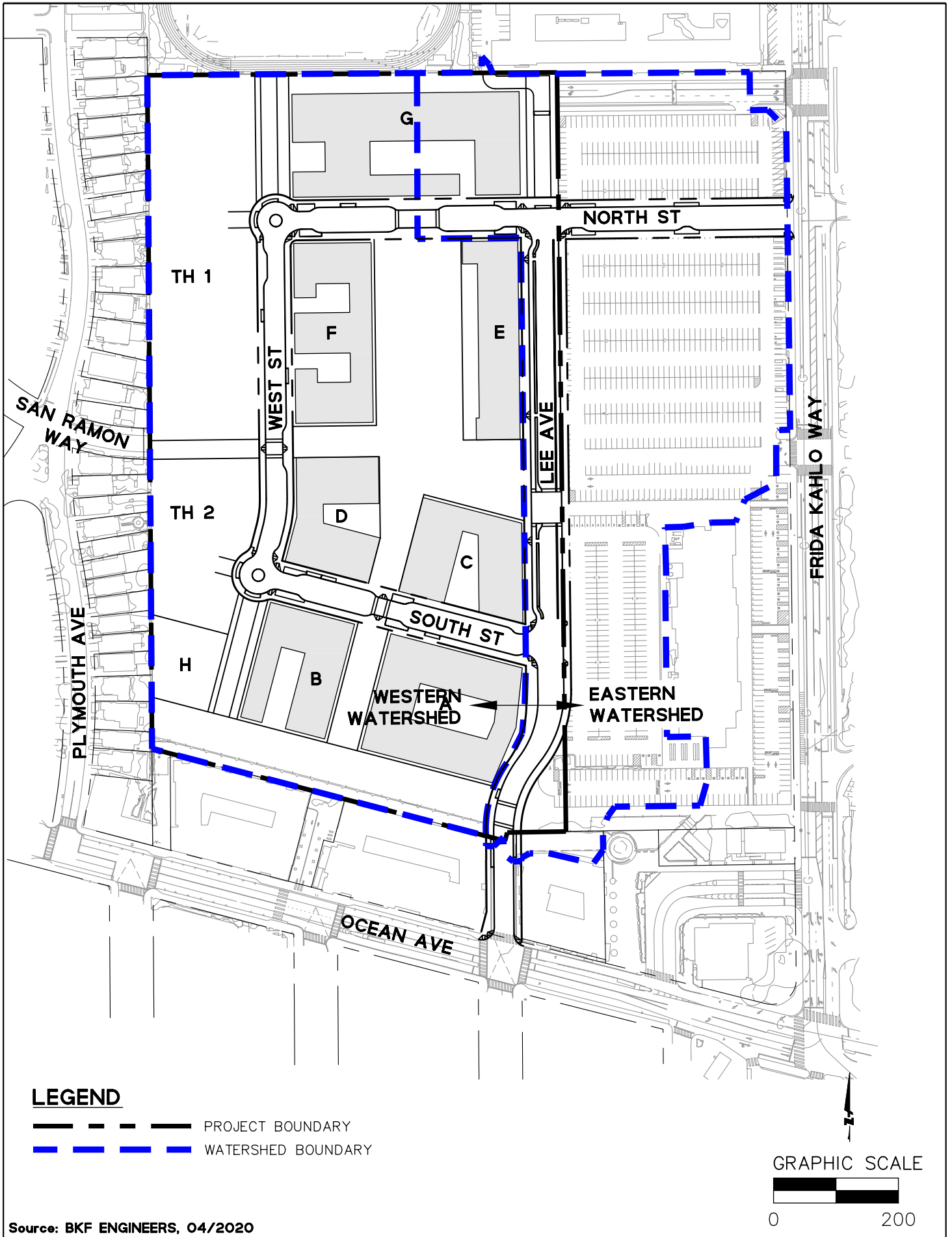
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BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 5.2 – PROPOSED GRADING

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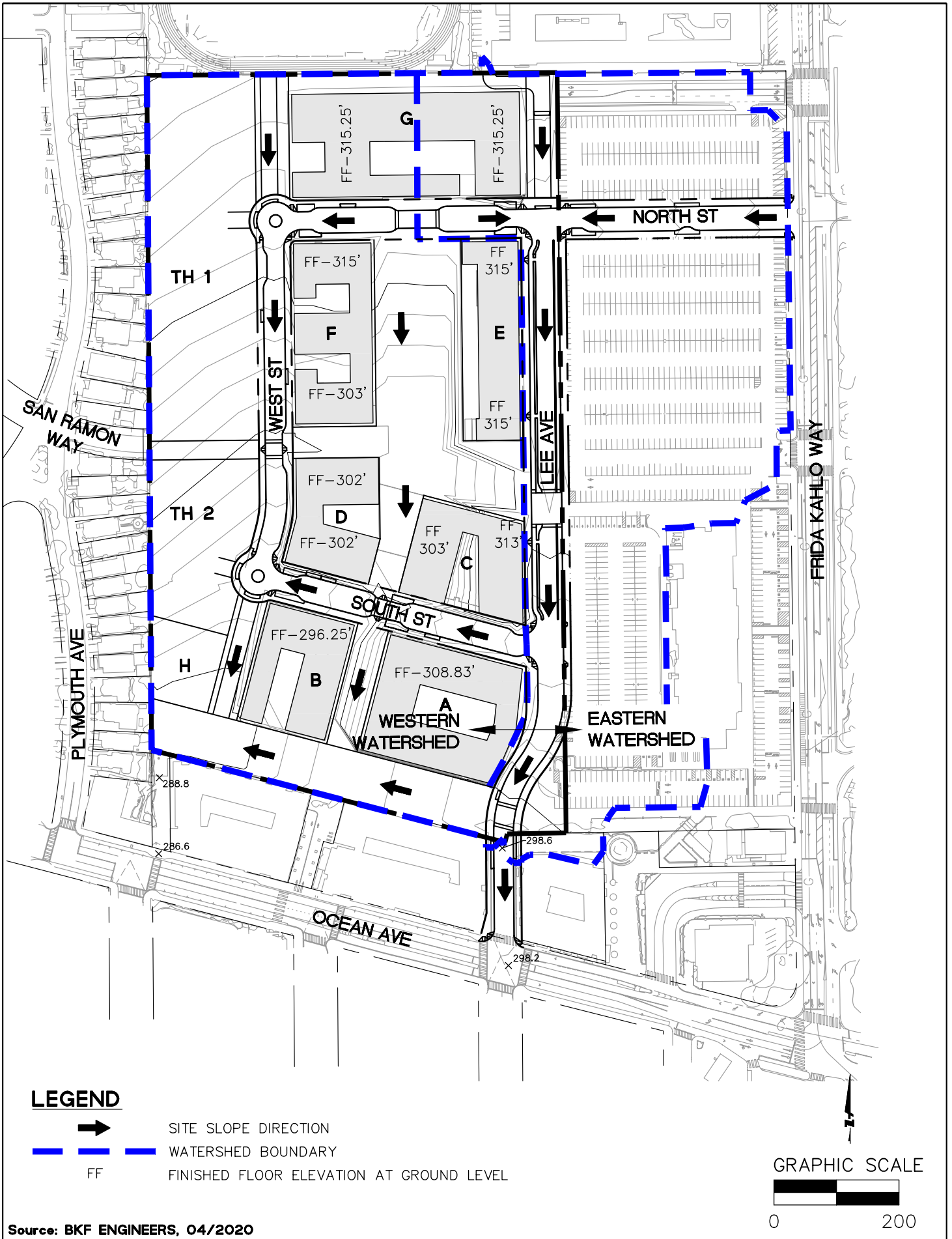


BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 5.3 – PROPOSED WATERSHED



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## **6. STREET, MOBILITY AND CIRCULATION DESIGNS**

Balboa Reservoir's street network will be comprised of short, walkable blocks that connect to the existing neighborhoods, City College, and adjacent streets. The Project will prioritize pedestrian and bicycle safety and access to the buildings, streets, and open spaces through careful consideration of transit and transportation connections, accessibility, traffic calming measures, and on-street parking. The bicycle network will provide safe and convenient access within the Project and connections to nearby Ocean Avenue and Frida Kahlo Way. These facilities will be integral to the character of Balboa Reservoir's streets.

*The report makes reference to specific sections of Chapter 5 of the DSG which is included as Attachment A to this report. The reviewer shall review both Chapter 6 of the Infrastructure Plan and Chapter 5 of the DSG concurrently.*

### **6.1 Plan Overview**

As a pedestrian-priority development, the street network will provide safe and easy access to open spaces, building entrances, and retail, with unique street types designed to the scale of the pedestrian experience. A combination of traffic calming strategies will discourage unnecessary vehicle traffic and ensure that internal traffic will be low-speed and low-volume. The public realm will be fully integrated with the design and scale of the ground floor of the buildings.

### **6.2 Public Street Modes of Travel and Access**

#### **6.2.1 Pedestrian Circulation and Accessibility**

Creating a safe, accessible, and comfortable pedestrian experience will be a priority on all streets, with safe pedestrian street crossings and connections to open spaces and surrounding streets. All of the proposed internal streets will have raised crosswalks which raise pedestrians slightly above the adjoining vehicle traveled way and simultaneously providing a vehicle traffic calming measure. Passenger loading and building servicing strategies will be designed to minimize conflicts between pedestrians and vehicles, and to maximize the special street-life elements that create a rich pedestrian experience.

*The pedestrian network is further defined in Section 5.3 of the DSG.*

#### **6.2.2 Bicycle Circulation**

The Project is dedicated to improving bicycle transportation throughout the area by providing infrastructure for improved cyclist safety. Bicycle lanes of various class designations will be

incorporated into the public streets throughout the site. Lee Avenue will accommodate the majority of bicycle traffic traveling north and south through the site via Class II and Class IV bike lanes providing a safe environment that separates bicycles from vehicular traffic and prioritizes bicycle travel. Due to limited right-of-way and curb-to-curb widths, dedicated bike lanes cannot be accommodated in North, South, and West Streets. These streets will incorporate Class III bike routes. Figure 6.2 shows the conceptual strategy for bicycle facilities at a network scale. Refer to Section 6.4 for specific street designs, bicycle facilities, and safety strategies.

*The bicycle network and bikeway design guidelines are further defined in the DSG.*

### **6.2.3 Vehicular Circulation and Intersections**

All streets shall have two-way, low-volume, posted low-speed limit traffic circulation. Streets should be designed for a 25 mph design speed and posted for 20 mph. Controlled intersections are shown on Figures 6.5A – 6.5D. Alternate options for implementing mountable traffic circles at the north and south ends of West Street are shown on Figure 6.5B2 and 6.5C2.

*Refer to Section 5.14 of the DSG for additional information on traffic circle implementation.*

All intersections shall adhere to City standards for signage and street markings. Where crosswalks at uncontrolled intersections are proposed at Open Space connections, an appropriate combination of traffic control strategies, including crosswalk markings, shall be employed to maximize visibility and safe pedestrian crossing. Refer to Section 6.8 for more detailed information on intersection design and controls.

*The vehicle design guidelines are further defined in Section 5.3 of the DSG.*

### **6.2.4 Fire Department Access**

Based on the planning efforts undertaken during the initial meetings with the San Francisco Fire Department, intersection radii, land widths, street widths from curb to curb, and right-of-way layouts have been designed to accommodate fire truck turning movements at the Project intersections shown in Appendix D. Per the SFFD requirements, intersections are designed to accommodate the truck turning movements of the City of San Francisco 57-foot Articulated Fire Truck (Fire Truck). Other emergency vehicles turning movements analyzed include the SFFD Engine. The SFFD 57-foot Articulated Fire Truck shown in Figures D.6-D.9 was the most restricted vehicle and thus was the basis for street layout designs. At intersection approaches and within

intersections, the Fire Truck may encroach into the opposing vehicular travel lane to complete turning movements, but a minimum of 7-feet of refuge area is provided for any cars within these lanes. Appendix D shows enlargements of the fire truck turning movements for the San Francisco 57-foot Articulated Fire Truck at the site intersections.

Low pressure water system fire hydrant, stand pipe inlet, and auxiliary water supply system fire hydrant layout is shown on Figure 6.8.

### **6.2.5 Parking, Loading, and Service**

Parking, loading, and service will be distributed to minimize impact on the public realm pedestrian experience. Passenger loading across the site will be accommodated in dedicated areas. Servicing needs for Development Parcels will be accommodated on all streets in time-limited or dedicated zones that will be either on-street or off-street. Commercial loading, trash pickup, mail drop-off and residential move-in and move-outs will require careful coordination in an active pedestrian environment. Loading and service areas are shown on Figure 6.9.

*Refer to Section 5.12-5.16 of the DSG for more detailed information on parking, loading, and service.*

### **6.2.6 Large Vehicle Access**

All Project streets within the public right-of-way shall accommodate commercial vehicle circulation. Access through the public right-of-way shall be designed for the SU-30 truck and accommodate the WB-40 trucks. Refer to Appendix C for truck turning studies.

## **6.3 Public Street System**

The Developer will be responsible for the design and construction of the public streets as shown on Figure 6.1. Improvements will generally include the following:

- Pavement structural sections
- Concrete curbs and gutters
- Concrete sidewalk and curb ramps
- Traffic control signage and striping
- Traffic signal
- Street chicane for traffic calming
- Street lighting and pedestrian-scale lighting
- Street landscaping and trees

- Stormwater management facilities (may include such methods as landscape strips, permeable pavements, and bioretention areas)
- Street furnishings (includes, but are not limited to, benches, trash cans and bike support facilities)
- Accessible on-street passenger loading zones with adjacent street level passenger loading aisles and curb ramps.
- Accessible curb ramps
- Accessible Pedestrian Signal (APS) at traffic signal
- Raised crosswalks
- Sidewalk bulb-outs
- Class II, III, and IV bikeways
- Enhanced Paving
- Utility Clearance Requirements
- Flashing Beacon

Approval of and responsibility for maintenance and liability for non-standard facilities, if any, shall be as described in the DA.

*Refer to Chapter 5 of the DSG for additional information on Streetscape and landscape improvements.*

### **6.3.1 Public Street Layout and Parcelization**

A system of street and parcel numbers has been created to facilitate planning and design coordination and is shown on Figure 6.1. The new grid network of public streets includes two streets oriented north to south: the Lee Avenue and West Street. Lee Avenue will conform to the existing dead-end street just north of Ocean Avenue. Property frontage improvements will result in partial renovation of the existing City College parking lots to the east. North Street and South Street will be oriented east to west. North Street will tie into Frida Kahlo Way at a new intersection. The existing intersection just north of North Street will be closed.

### **6.3.2 Roadway Dimensions**

Street widths—curb to curb—are designed to accommodate emergency access, utility clearances, bicycle facilities, passenger loading and building servicing, and vehicular access throughout the site. Typical vehicular travel lanes within streets will range from 10-feet to 13-feet in width. Travel lanes are measured from the face of curb or outside edge of bicycle facilities. All streets will

provide for two-way traffic and fire access, with street widths varying from a minimum of 26-feet to 40-feet. Additional roadway dimension information at intersections is shown in Figure 6.5A-D and detailed cross section information is shown on the utility cross section exhibits in Figures 8.2A-G.

## **6.4 Public Street Network and Hierarchy**

The Balboa Reservoir street network will include several street types with distinctive character, traffic speed, and street-life elements – site furniture, street trees, special paving, and understory planting that combine with active ground floor uses to enrich the pedestrian experience.

*Refer to Chapter 5.3 of the DSG for detailed information about the public street network and hierarchy.*

### **6.4.1 Street Zones and Designs**

The streets will contribute to a varied public realm while satisfying above- and under-ground infrastructure needs at the Project. Proposed streets shall conform to the Subdivision Regulations. The public right-of-way must be open to the sky with the exception of permitted landscape and street-wall encroachments per the DSG, and publicly accessible at all times unless subject to maintenance, operations, security and safety rights, or closure by Master Developer for events. Street closure by Master Developer or others shall be subject to all applicable City permitting and authorizations. Ownership and maintenance and liability for streetscape elements and encroachments shall be addressed as set forth in the DA including, but not limited to non-standard design features, such as lighting, stormwater gardens, and other stormwater treatments.

## **6.5 Components of Public Streets**

### **6.5.1 Curb Heights**

The curb heights shall be 6-inches unless at a raised crosswalk where they are reduced to 4-inches.

### **6.5.2 Paving**

Final pavement design for the roadway sections will be designed for the anticipated traffic load and equivalent single axial loads (ESAL) for a design life coordinated with the City Agency per the terms of the DA. See Figure 6.7 for pavement surfaces.

The Pedestrian Throughway defined on each street shall be an accessible path of travel that is unobstructed by non-ADA-compliant paving or material treatments. Paving and built-in site elements shall be comprised of high-quality materials and finishes that are durable to withstand

high-intensity use. All material textures in designated clear path of travel and accessible use areas shall be ADA-compliant.

*Refer to Section 5.9 of the DSG for street paving materials.*

### **6.5.3 Street Planting**

Planting will function ecologically to help achieve the Project's goals for sustainability and contribute to a healthy environment. Composition and distribution of a diverse, adapted urban forest, stormwater gardens, and planted areas will create a resilient ecological framework to shape varied sensory experiences across the site and urban habitat.

*Refer to Section 5.5 and 5.8 of the DSG for more detailed information about the public street trees and planting palette respectively.*

### **6.5.4 Sustainable Water Strategies**

The Project's landscape and building systems will work together and be designed to conserve, re-use, and filter water. Site hydrology will be intertwined with daily life in a unique and systematic way, with stormwater management gardens that are a part of the public experience in every streetscape and open space. Irrigation is an essential element of plant health and should be considered as part of the site hydrology strategy.

### **6.5.5 Lighting**

Lighting will be an important component of nighttime identity, experience, and safety. Lighting of special, unique character should reinforce key pedestrian routes along the streetscapes. SFPUC acceptable lighting fixtures will work together to create a warm, inviting, and safe nighttime environment. Energy efficient LED street lighting will also be designed to limit light pollution within the streets.

#### **6.5.5.1 Lighting Design Intent**

Lighting design intent shall follow IES-RP8, Illuminating Engineering Society standards appropriate to the subject street type. Metal finishes and colors shall be coordinated with other site furnishings and building color palette.

#### **6.5.5.2 Location**

All street lights shall be located within the furnishing zone per SF Better Streets Plan.

### **6.5.5.3 Fixtures**

Light fixtures within the ROW shall comply with SFPUC guidelines and shall be selected from the SFPUC catalogue of acceptable fixtures.

### **6.5.5.4 Scale of Light Fixtures**

Lighting shall satisfy functional needs of auto circulation but also be scaled to the pedestrian and bicycle experience. Lighting shall be coordinated with the design of the open space lighting, and glare shall not be created at eye level.

*Refer to Section 5.11 of the DSG for additional information on public street lighting.*

### **6.5.6 Accessible Loading**

Loading zones for vehicular and paratransit loading and unloading will be distributed across the site to enable access to all Development Parcels and open spaces, with priority given to significant pedestrian connections. See Figure 6.9. Proposed configurations for loading stalls are described for integration with DPW-Standard Curb, 6-inches typical.

*Refer to Sections 5.12-5.15, of the DSG for detailed information about the accessible loading zones.*

### **6.5.7 Utility, Driveway, and Streetscape Coordination**

The project will ensure that locations of above-grade utility structures, where provided, are coordinated with streetscape elements. These locations shall be coordinated with tree spacing to ensure City Standards are applied to the greatest extent possible. Driveway locations shall be coordinated with placement of streetscape elements.

*Refer to Sections 5.4 and 5.7 of the DSG for additional information on streetscape coordination.*

Full-street cross-sections with utilities are shown in Figures 8.2A-8.2F in Section 8

## **6.6 Traffic Calming**

As part of the pedestrian and bicycle focused development plan, traffic calming elements are proposed to improve non-vehicular traffic safety and access. Proposed traffic calming elements for the Project street rights-of-way are identified in Figure 6.3 and include raised crosswalks, chicanes, bulb-outs, narrowed lane widths to accommodate bicycle infrastructure.

*Refer to Section 5.6 of the DSG for additional information traffic calming strategies.*

### **6.6.1 Raised Mid-Block Crosswalks**

Raised mid-block pedestrian crosswalks are proposed along all streets except the portion of North Street east of Lee Avenue. At raised crosswalk locations, the street pavement areas will be raised as much as 3.5-inches to reduce the adjacent curb heights to 4-inches and will change paving material for a more effective visual cue to motorists. Final grades are dependent on overland release studies.

Where raised crossings are proposed, striped continental crosswalks shall be provided unless the project elects to use decorative crosswalk treatments that comply with the 2014 SFMTA Crosswalk Guidelines and required review. Any potential decorative crosswalks or ground mural require approval from SFMTA and must be in accordance with FHWA regulations. Proposed decorative treatments shall meet ADA standards for slip-resistance. Each mid-block crossing will also have a Rectangular Rapid Flashing Beacon (RRFB). The design for these crosswalks will be coordinated with and are subject to the approval of the SFPUC, SFDPW, the SFMTA, and the San Francisco Fire Department (SFFD). Refer to Section 5: Site Grading for additional information about Project grading and overland release requirements. Raised crossing configurations are shown on Figure 6.4A-E.

The Developer or HOA will be responsible for maintenance and restoration of the street pavement sections, including pavement markings, within the raised crosswalk. Designs will incorporate measures to minimize maintenance and reduce the potential for dirt, silt and other debris to settle within the crosswalks.

### **6.6.2 Street Chicane**

A chicane is integrated at the northern end of West Street to calm traffic and reduce vehicle speeds approaching and departing from the intersection at North Street and West Street. The chicane offset is 8-feet and maintains a 12.5-foot travel lane consistent with the land widths of West Street. Layout of the chicane is shown on Figure 6.5B.

### **6.6.3 Intersection Bulb-Outs**

Bulb-outs have been incorporated at all intersections. These locations are expected to have a high concentration of pedestrian traffic. Bulb-outs will narrow driving lanes, create a shorter pedestrian crossing, make pedestrians more visible to motorists and require vehicles to reduce speeds. The final design for the bulb-outs will be coordinated with the SFMTA, SFDPW, SFPUC, and the SFFD.



Bulb-out improvements will be constructed if the designs can meet the City Agency's requirements for overland drainage release, utility clearances, and accessibility for persons with disabilities. Overland release at these locations will be studied in the Sewer, Stormwater and Grading Master Utility Plan. Typical intersection bulb-out details are shown on Figures 6.5A-D.

## **6.7 Off-Site Traffic Signalization**

The Developer will be responsible for design and construction funding, either as partial contribution or in full, of traffic signal modifications or new traffic signals, as well as striping. Where possible, the electrical service for traffic signals will be located within the joint trench (see Section 17). Traffic signals shall be designed by and constructed to the specifications of the SFMTA and SFDPW. Relocation of the traffic signal will require approval by the SFMTA Board of Directors. If determined feasible, planned off-site intersection improvements include, but may not be limited to the following:

### **6.7.1 Frida Kahlo Way and North Street Intersection**

A new signalized intersection will be constructed at the proposed intersection of North Street and Frida Kahlo Way. The existing signalized intersection at the northern access road to the existing surface parking lot will be removed. See Figure 6.6 for the proposed intersection geometry.

## **6.8 On-Site Traffic Controls**

Traffic calming and stop-controlled intersections, rather than signalization, are the primary strategy for on-site traffic control. Stop signs will be added at all intersections, with final locations to be determined by traffic sight distance requirements and coordination with the City. If implemented, stop signs on city streets will require legislation from SFMTA Board and traffic calming may also require SFMTA Board and/or public hearing.

## **6.9 Public Transportation System**

No public transportation is envisioned within the Project Site. The site is not being designed to accommodate large passenger buses, which includes both large public buses and private transportation buses. However the site is located within a 1/4 mile of bus and streetcar service and less than 1 mile from the Balboa BART Station.

## **6.10 SFMTA Infrastructure**

Where required, the following list of infrastructure items includes items to be owned, operated and maintained by the SFMTA within public right-of-ways:

- Signals and Signal Interconnects, including Muni Bus Prioritization signals
- TSP signal preempt detectors
- Conduit containing TSP signal cables
- Shelters (Via Vendor)
- Paint – poles and asphalt delineating coach stops
- Asphalt painting for transit lanes
- Departure prediction (“NextBus”) monitors and related communications equipment
- Bicycle racks
- Crosswalk striping, except for areas with a raised crosswalk or with painted concrete special striping or other special decorative treatment
- Bike lane and traffic striping
- APS/Pedestrian crossing signals
- Street, traffic and parking signs
- Parking meters
- Colored curbs
- Rectangular Rapid Flash Beacon (RRFB)

#### **6.11 Acceptance and Maintenance of Street Improvements**

Upon acceptance of the new and/or improved public streets by the Board of Supervisors, responsibility for the operation and maintenance of the roadway and streetscape elements will be designated to the appropriate City Agency as defined in the City of San Francisco Municipal Code and related ordinances, and the Project DA. Conflicts between proposed public utility infrastructure and the surface improvements proposed as part of the Project, including but not limited to dedicated transportation routes, trees, bulb-outs, and medians, shall be minimized in the design of the infrastructure and surface improvements. The City Agency responsible for said utility infrastructure will review all proposals for surface improvements above proposed public utility infrastructure on a case-by-case basis to ensure that future access for maintenance is preserved. Stormwater management infrastructure installed as part of the streetscape to meet the Stormwater Management Requirements and Design Guidelines (SMR) will be maintained by the Master Developer and/or City Agency subject to the terms of the Project DA. The SFPUC will maintain stormwater controls located in the public ROW that receive stormwater runoff from

the public ROW only. Parcel developer or Master HOA will be required to maintain any stormwater control that manages private parcel runoff, or a blend of private parcel and public ROW runoff.

As outlined in the DA, the Master Developer will be responsible for maintenance and restoration of the non-standard materials and design features, including decorative paving and hardscape elements, as well as specific streetscape elements and encroachments. Restoration will include replacement of the pavement markings within areas with non-standard materials.

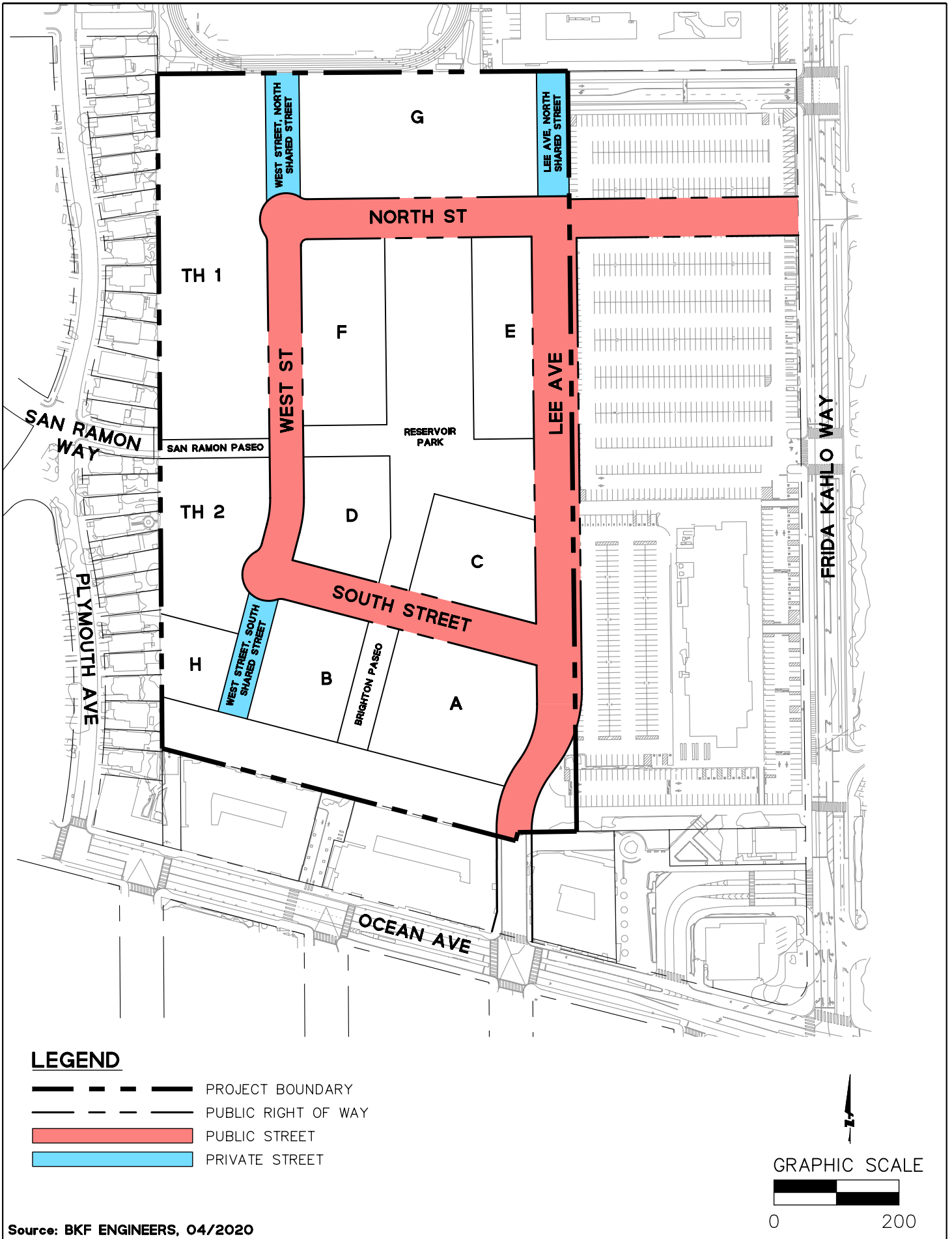
### **6.12 Phasing of New Roadway Construction**

All new public roadways will be constructed in Phase 1.

### **6.13 Lee Avenue Right-of-Way**

On the east side of the proposed 72-foot wide Lee Avenue right-of-way, approximately 11-feet of land needs to be dedicated from City College. At this time, the developer and City are negotiating this land dedication with City College. Should the land dedication not occur, the Lee Avenue street cross section would need to be revised to fit within a narrower 61-foot wide right-of-way. The alternate street cross section for Lee Avenue is shown on Figure 6.10.

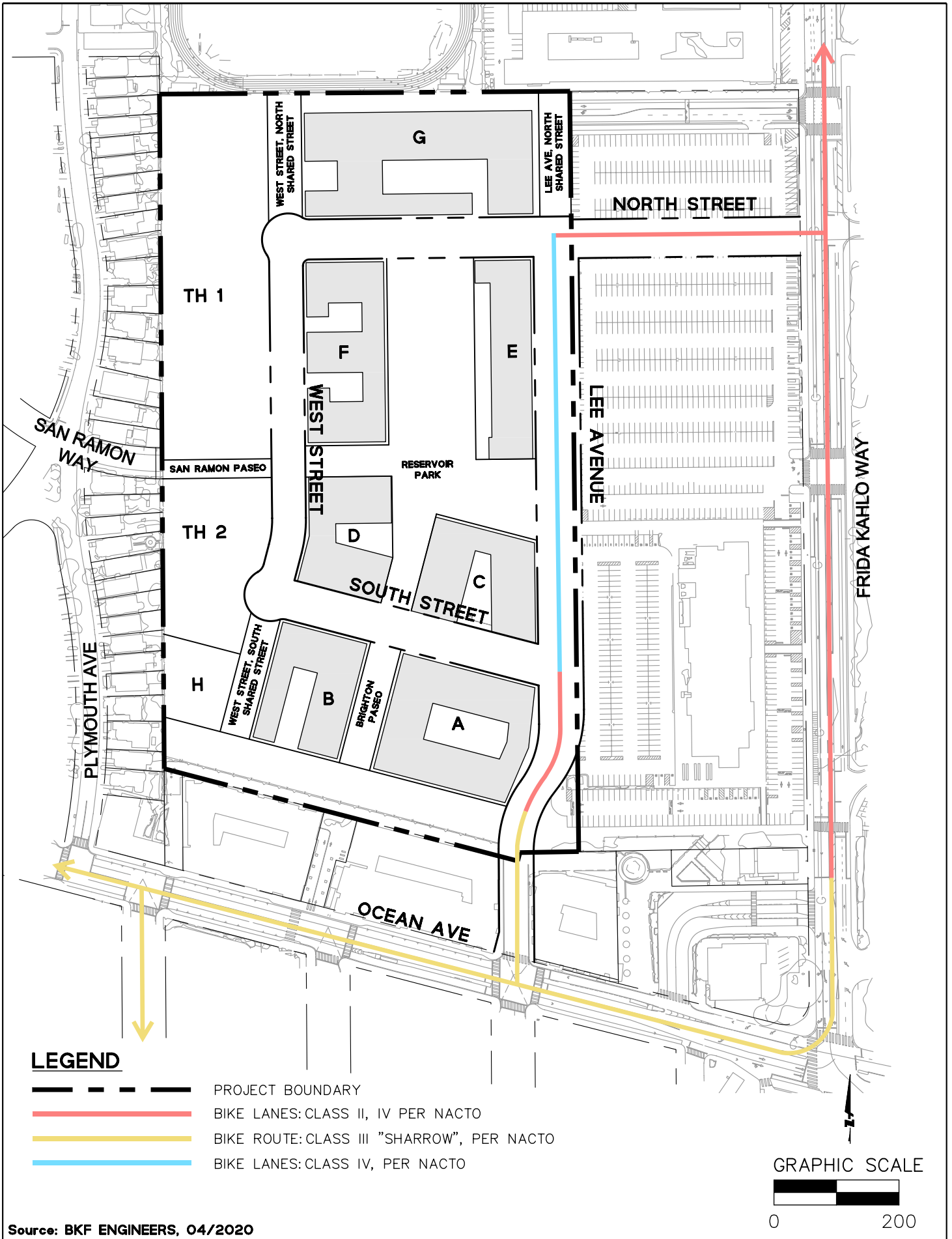
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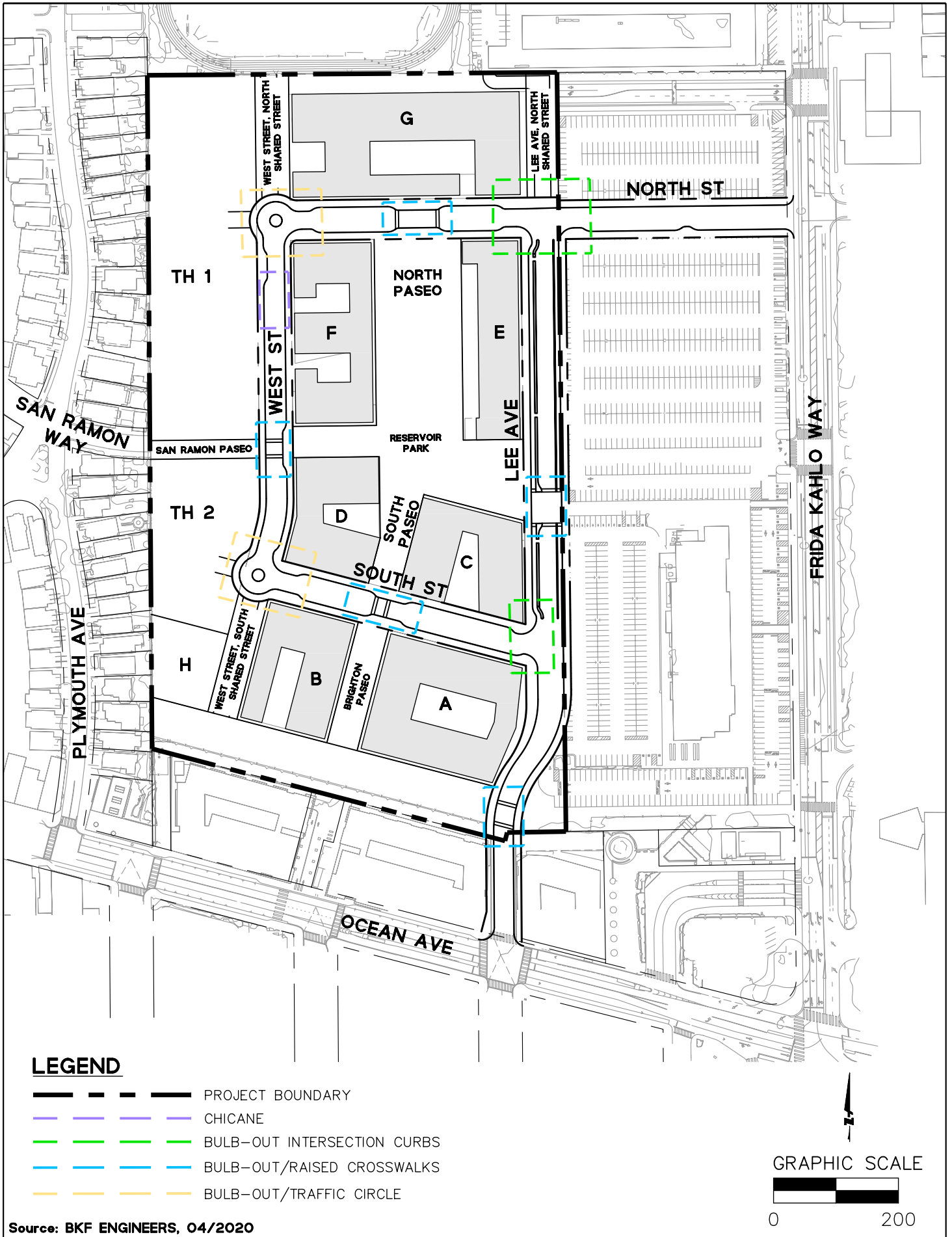
FIGURE 6.1 – PROPOSED STREET SYSTEM

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BALBOA RESERVOIR INFRASTRUCTURE PLAN

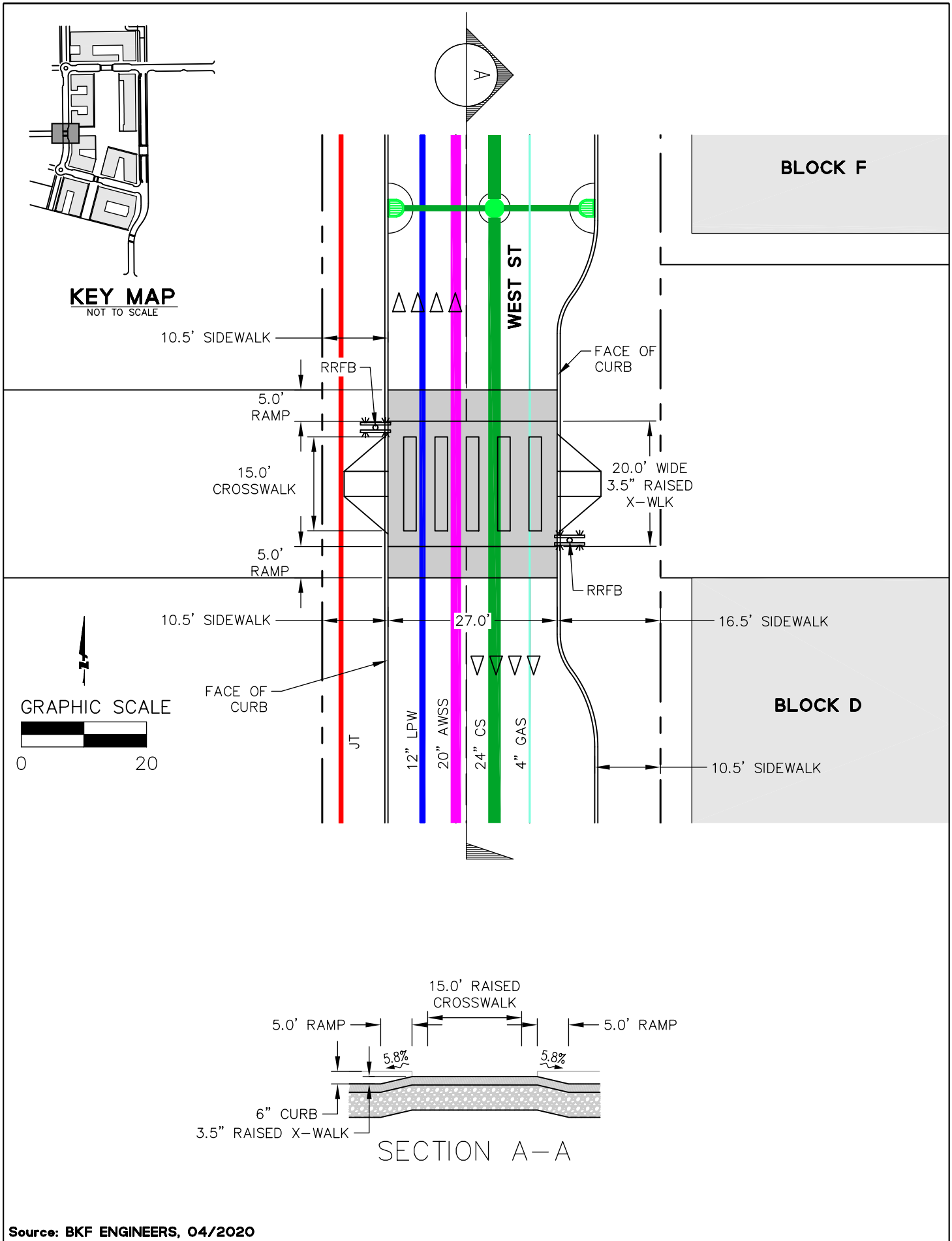
FIGURE 6.2 – PROPOSED BICYCLE FACILITIES



BALBOA RESERVOIR INFRASTRUCTURE PLAN

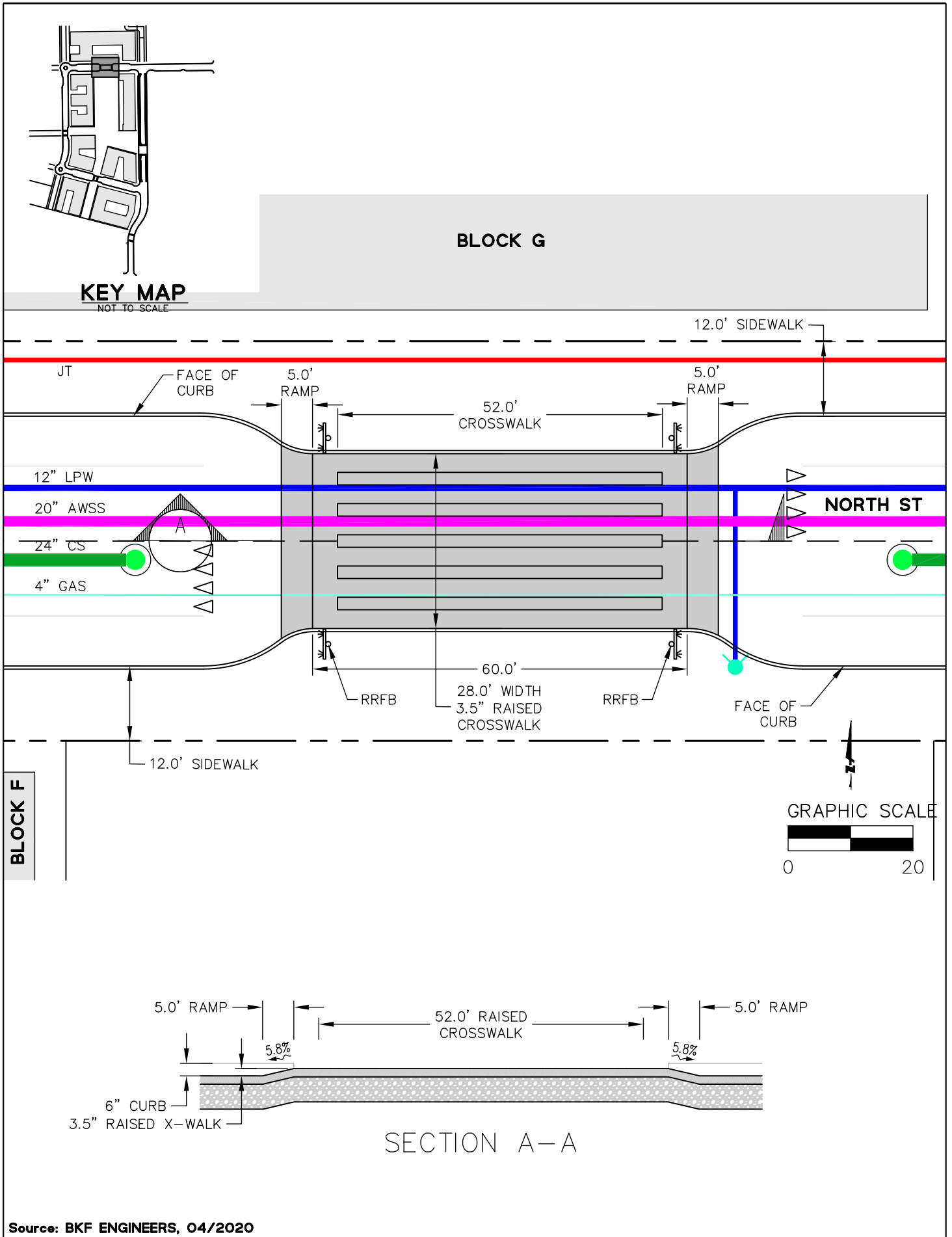
FIGURE 6.3 – TRAFFIC CALMING MEASURES

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PLOT DATE: 03-31-20 PLOTTED BY: cheh



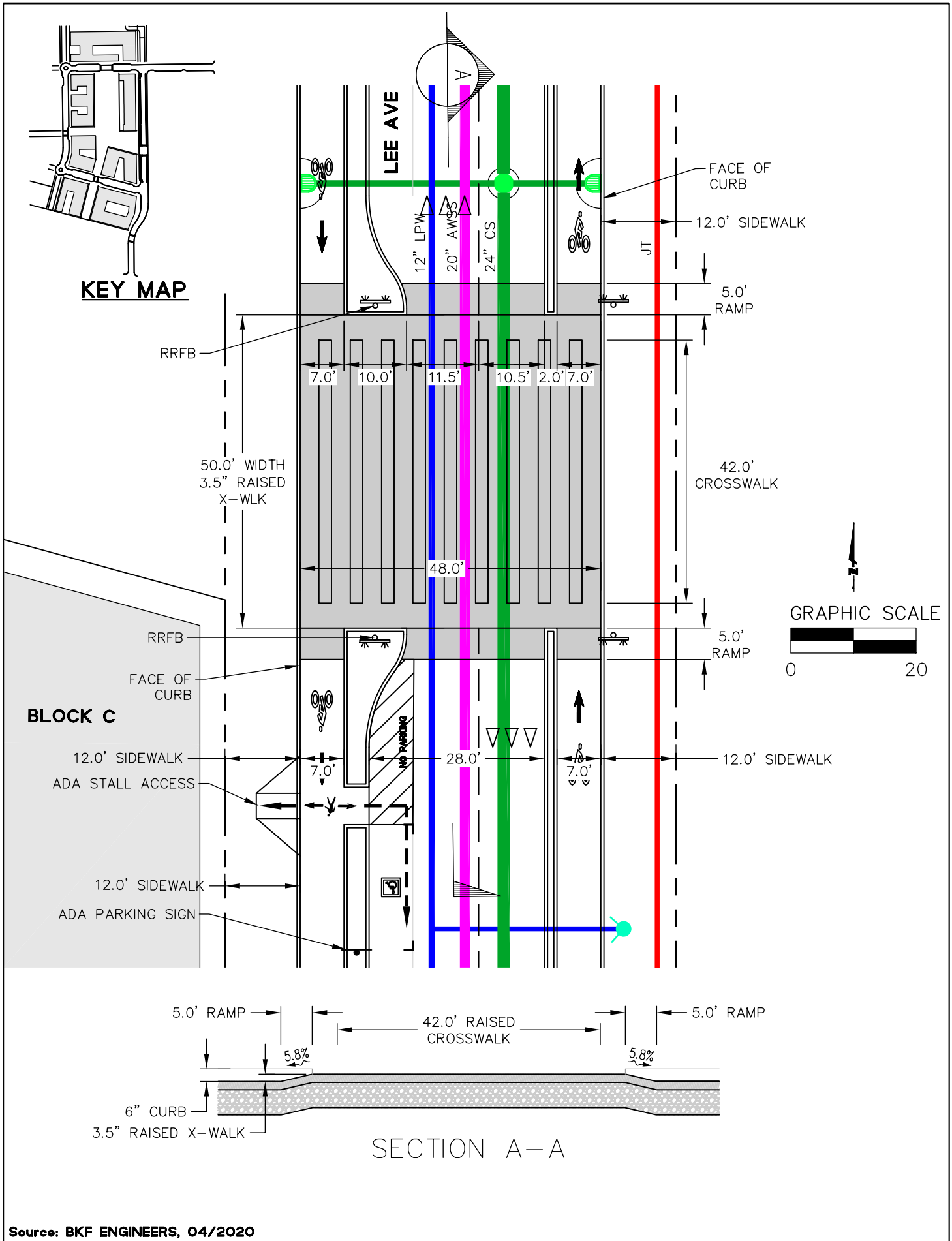
**BALBOA RESERVOIR INFRASTRUCTURE PLAN** **FIGURE 6.4A - RAISED STREET CROSSING (WEST STREET)**

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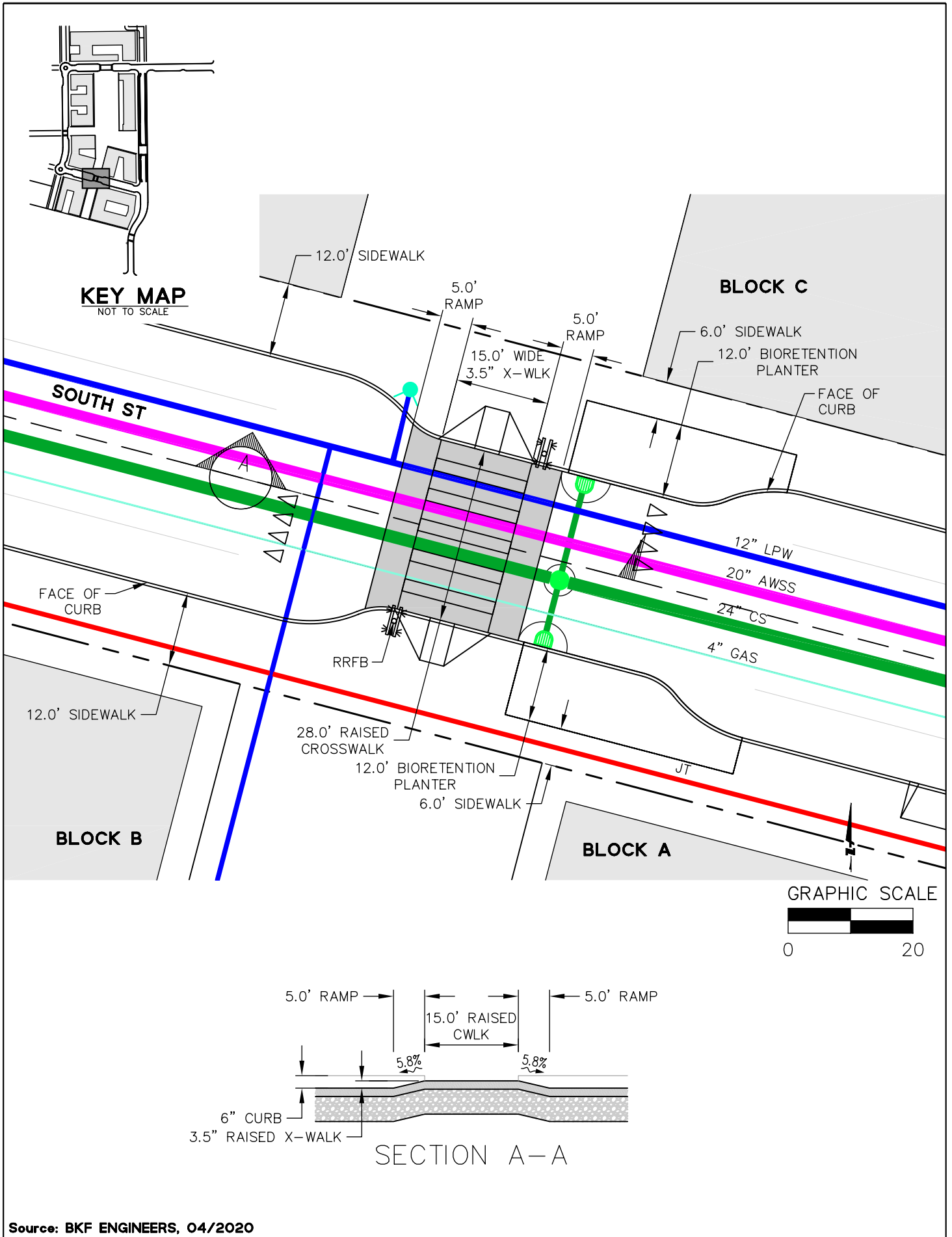




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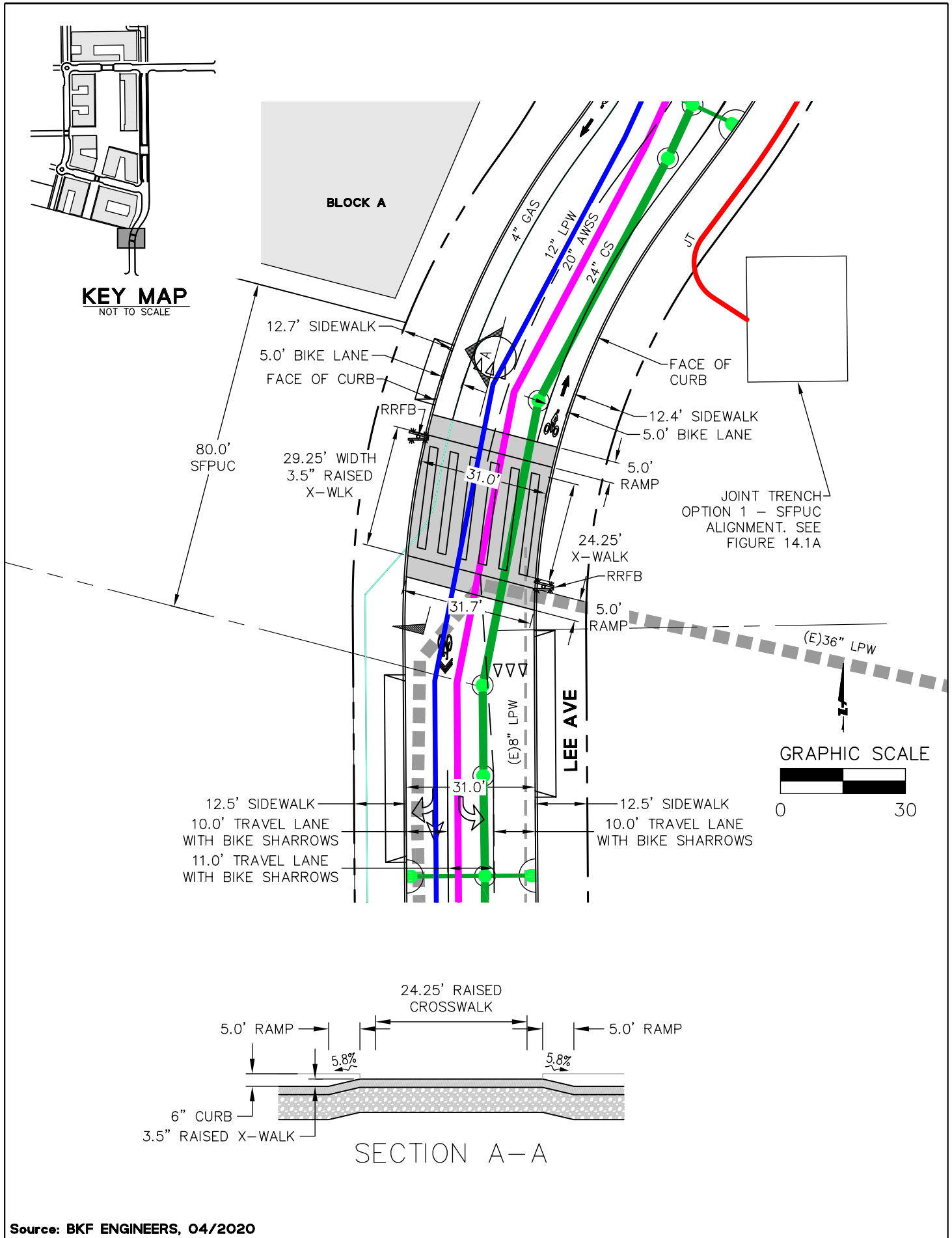


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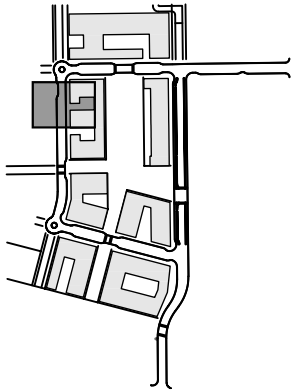
Source: BKF ENGINEERS, 04/2020

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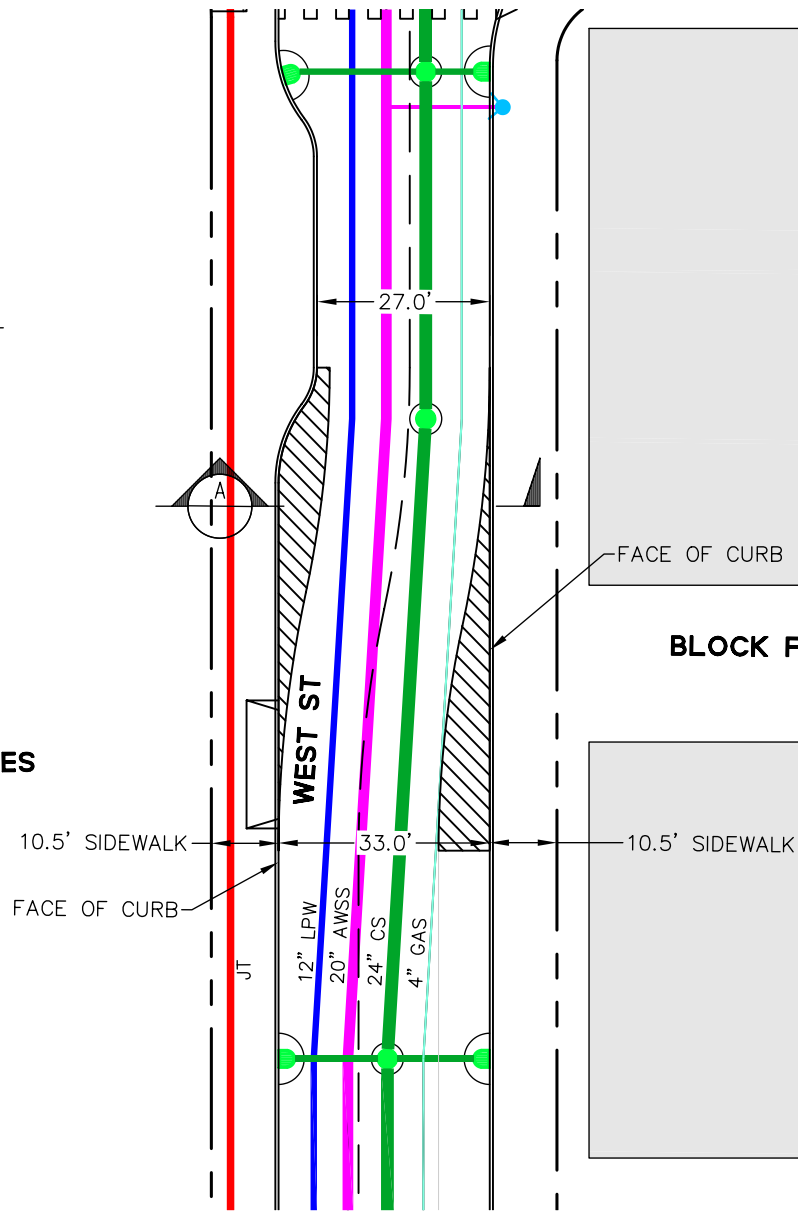
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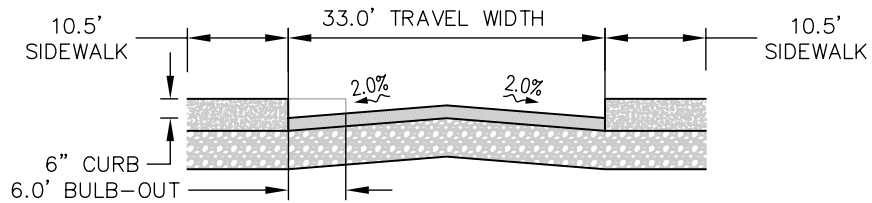


**KEY MAP**  
NOT TO SCALE

**TOWNHOMES**



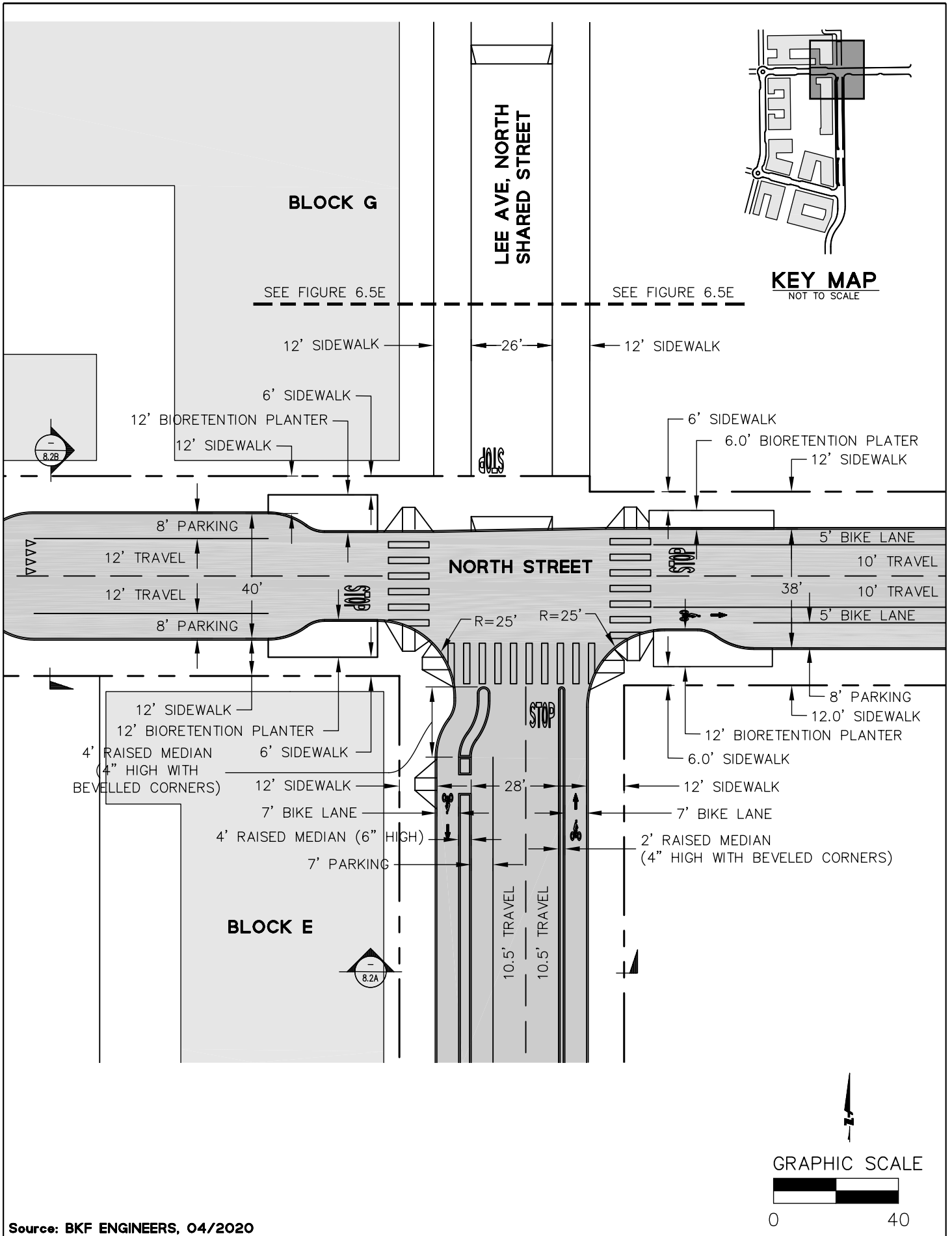
**BLOCK F**



**SECTION A-A**

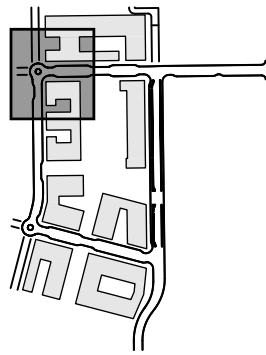
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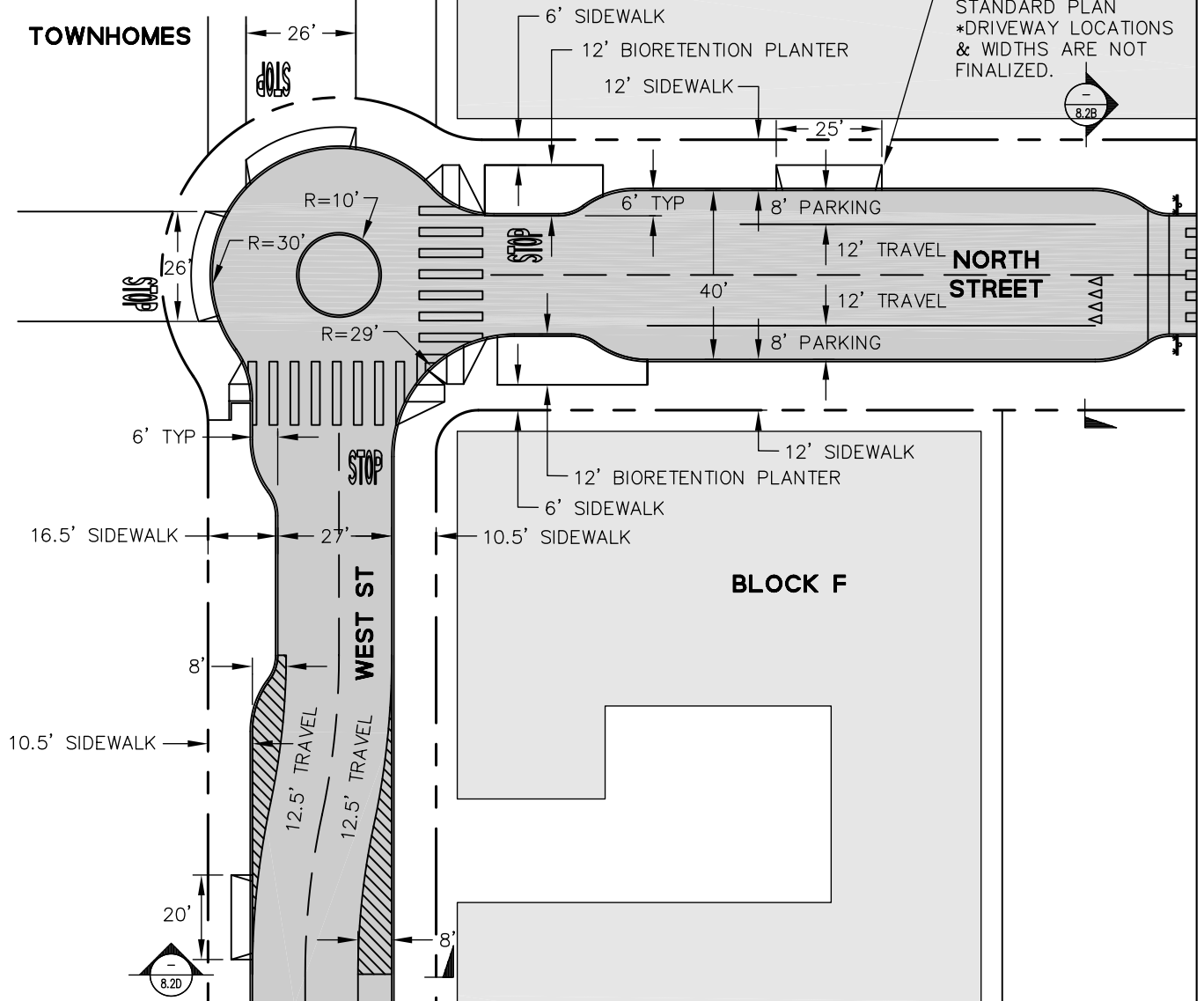
KEY MAP  
NOT TO SCALE

TOWNHOMES

WEST STREET, NORTH  
SHARED STREET

BLOCK G

DRIVEWAY PER CITY  
STANDARD PLAN  
\*DRIVEWAY LOCATIONS  
& WIDTHS ARE NOT  
FINALIZED.



BLOCK F

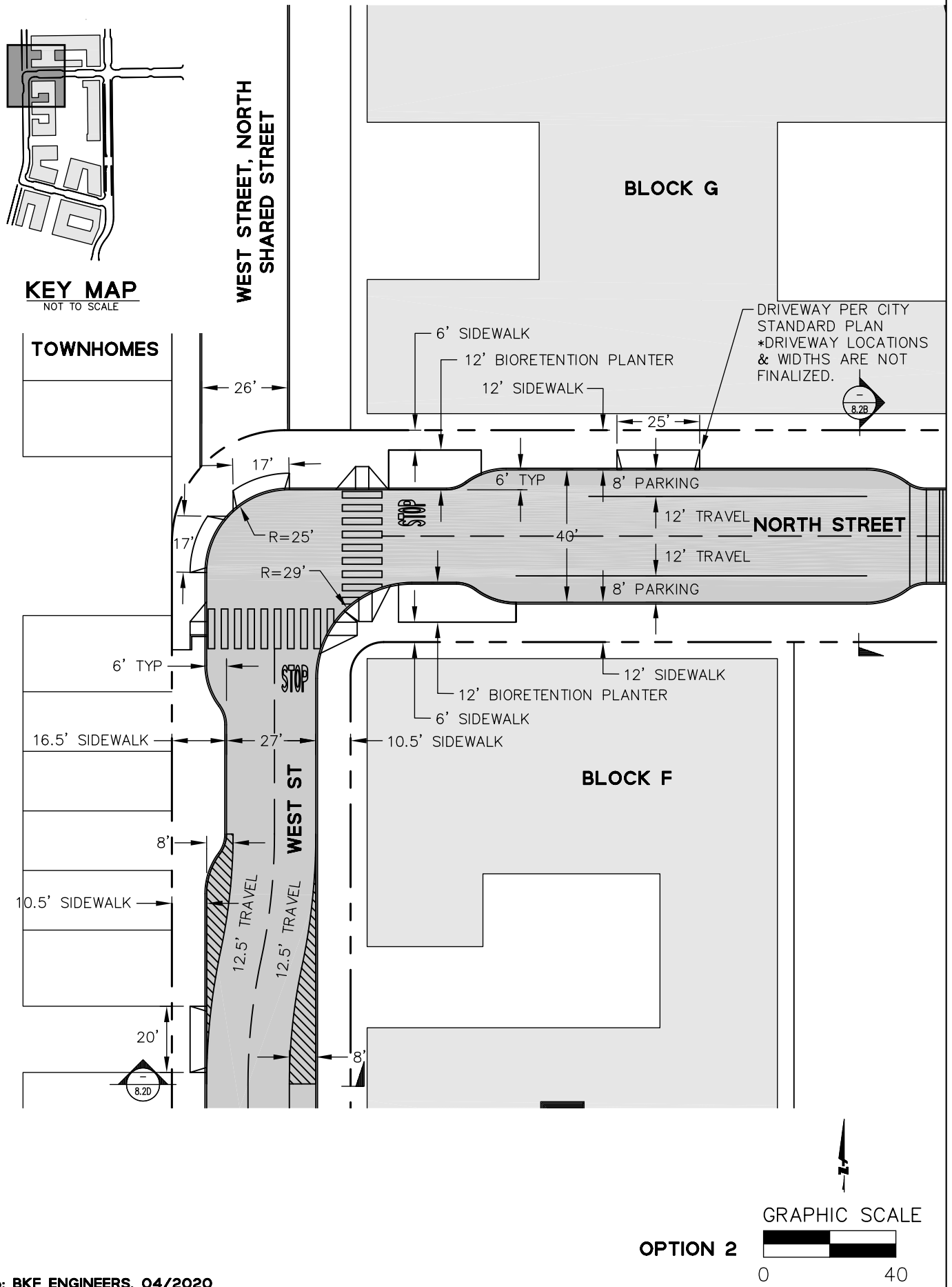
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OPTION 1

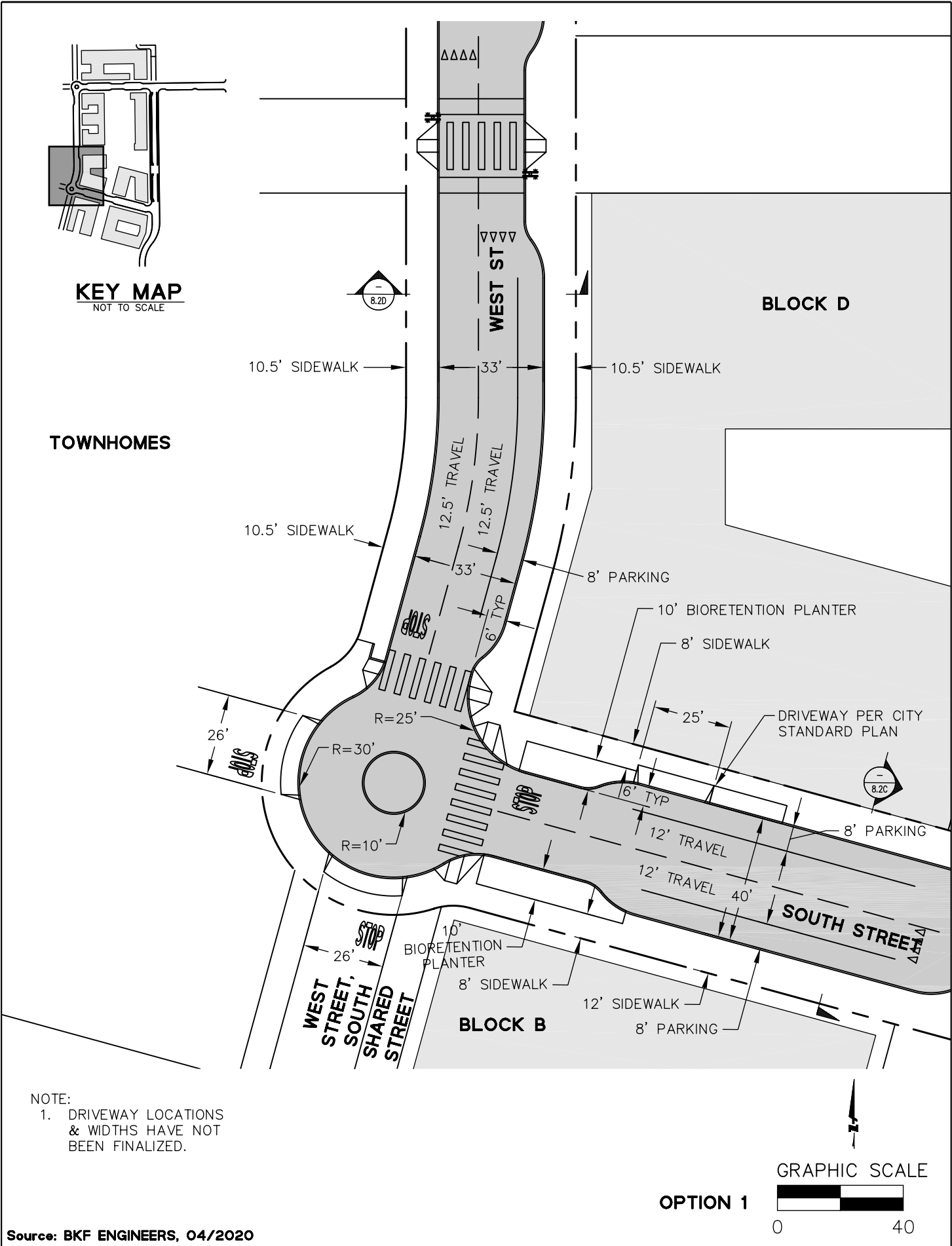
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PLOT DATE: 04-03-20 PLOTTED BY: cheh





**Block D**

10.5' SIDEWALK

10.5' SIDEWALK

33'

12.5' TRAVEL

12.5' TRAVEL

33'

8' PARKING

6' TYP

12' BIORETENTION PLANTER

6' SIDEWALK

25'

DRIVEWAY PER CITY STANDARD PLAN

8' PARKING

12' TRAVEL

12' TRAVEL

40'

**SOUTH STREET**

12' SIDEWALK

8' PARKING

6' SIDEWALK

12' BIORETENTION PLANTER

26'

**WEST STREET, SOUTH SHARED STREET**

**Block B**

17'

R=25'

R=25'

17'

17'


STOP

6' TYP

8.20

8.20

GRAPHIC SCALE

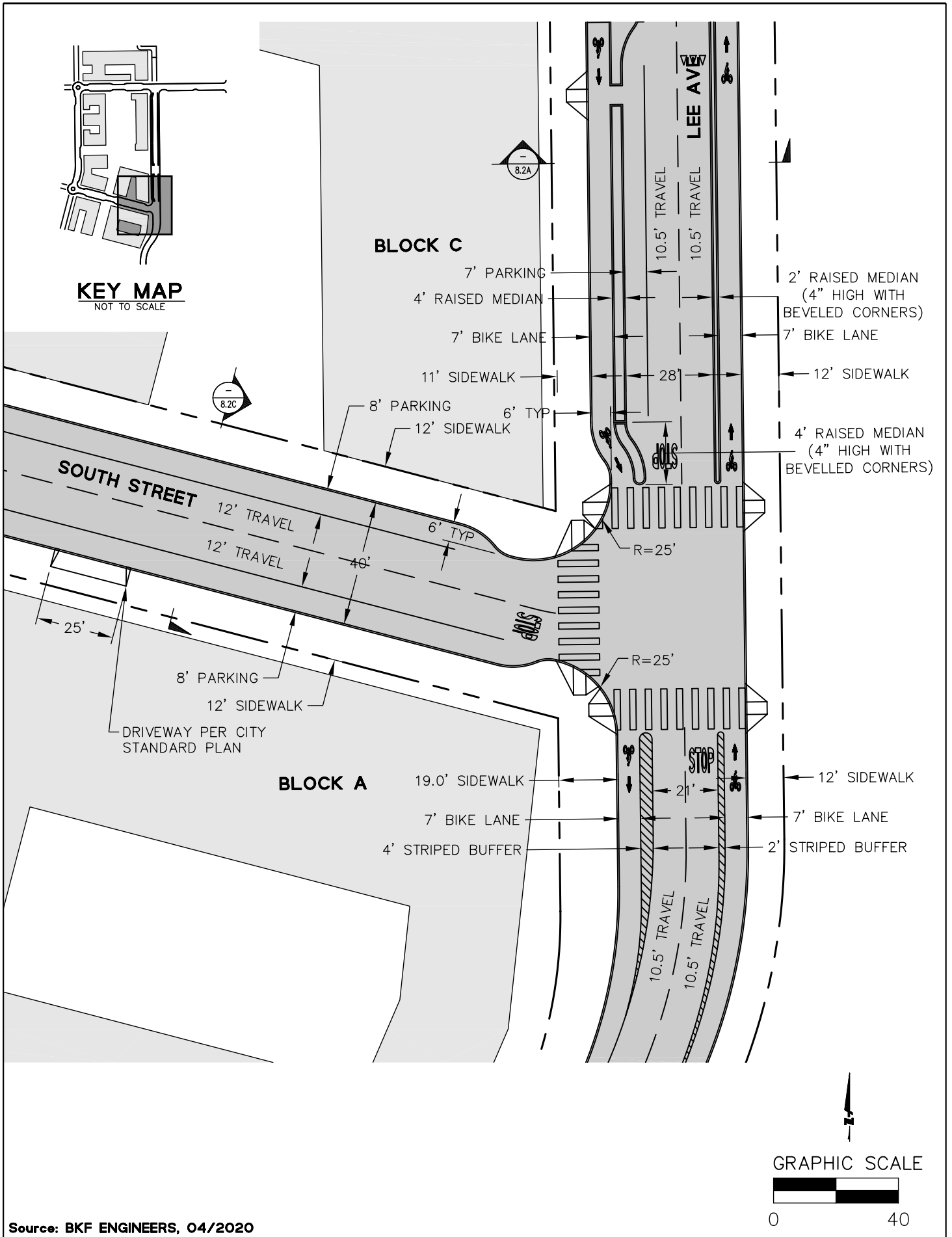


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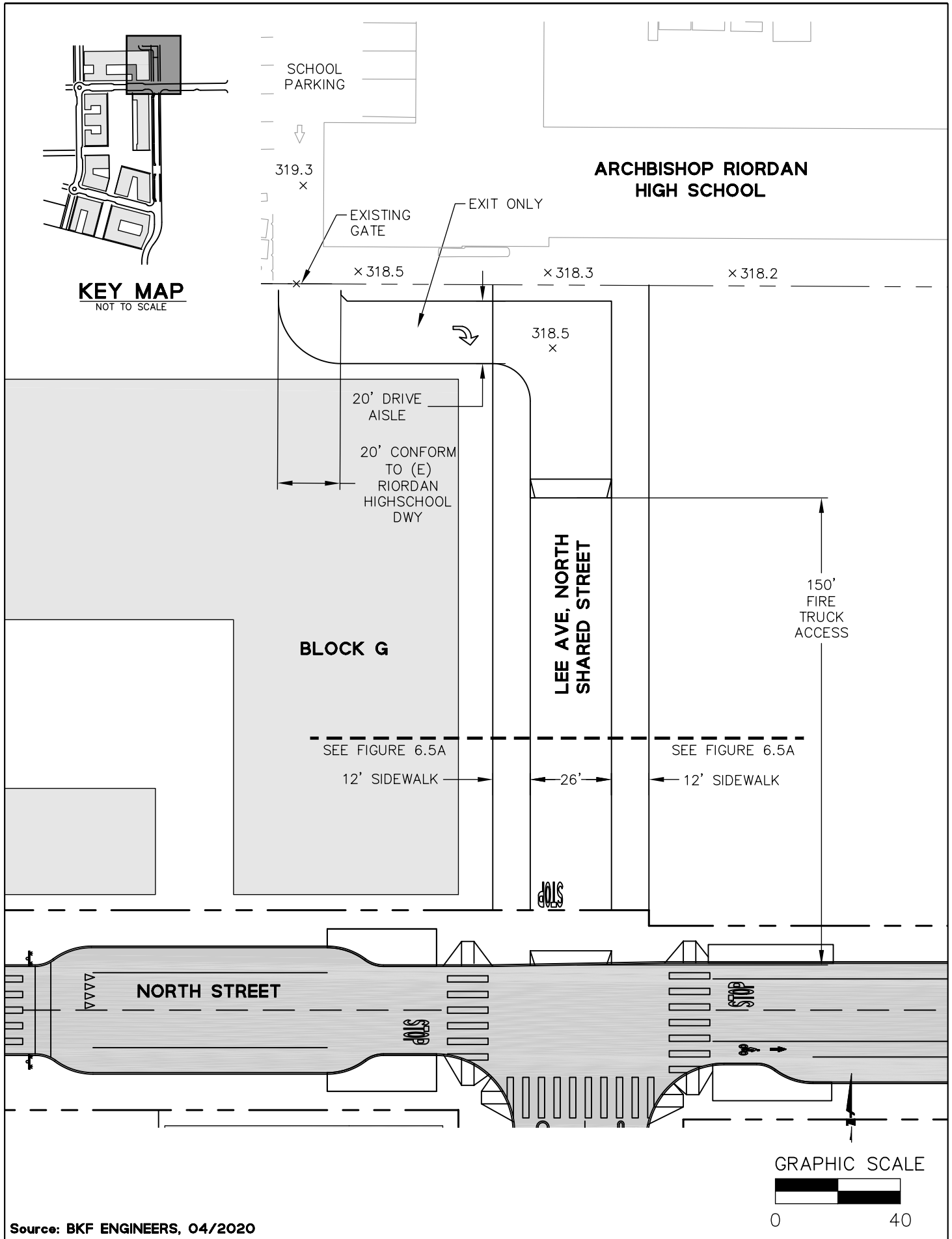
# BALBOA RESERVOIR INFRASTRUCTURE PLAN

**FIGURE 6.5C2 – INTERSECTION GEOMETRY (SOUTH ST & WEST ST)**

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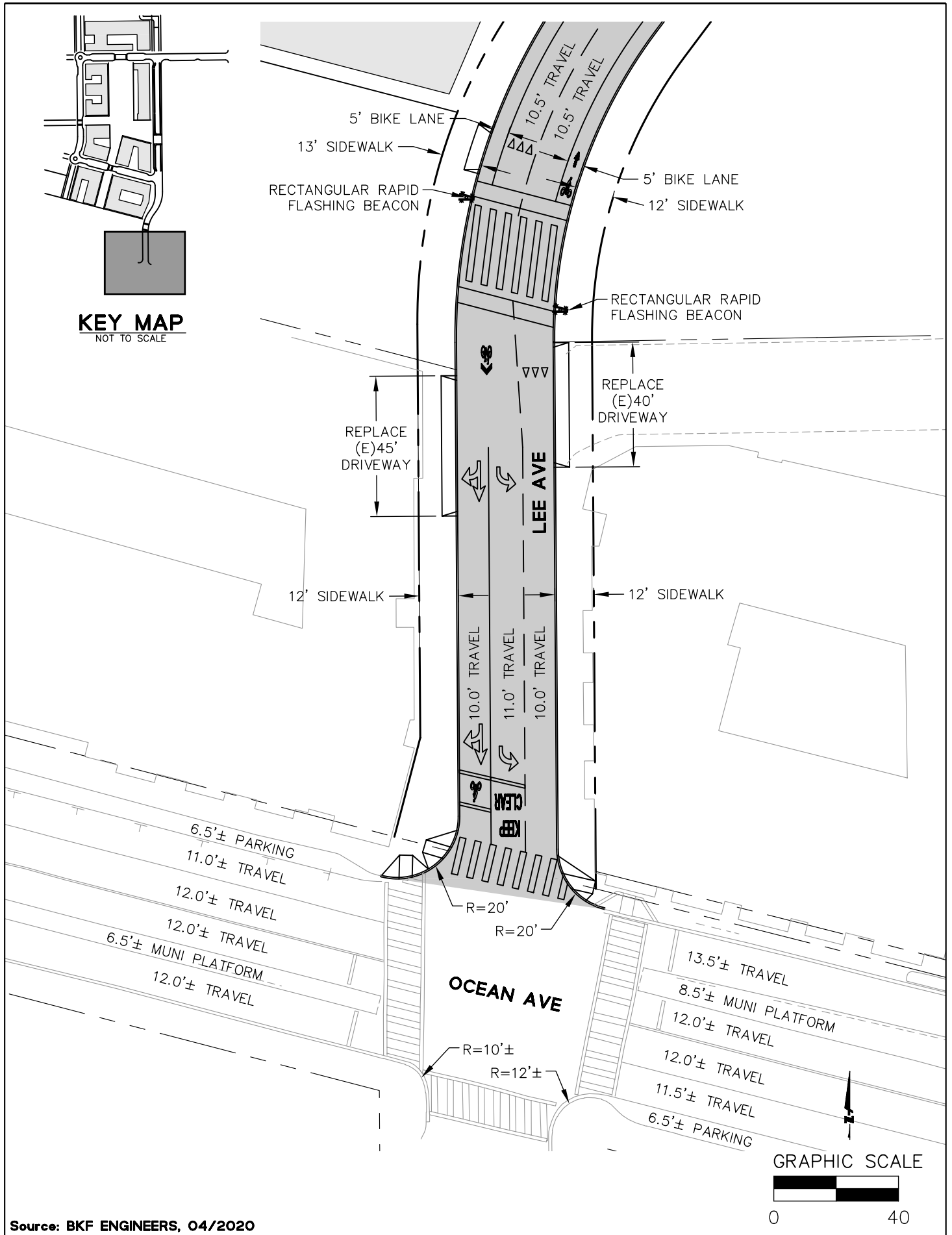


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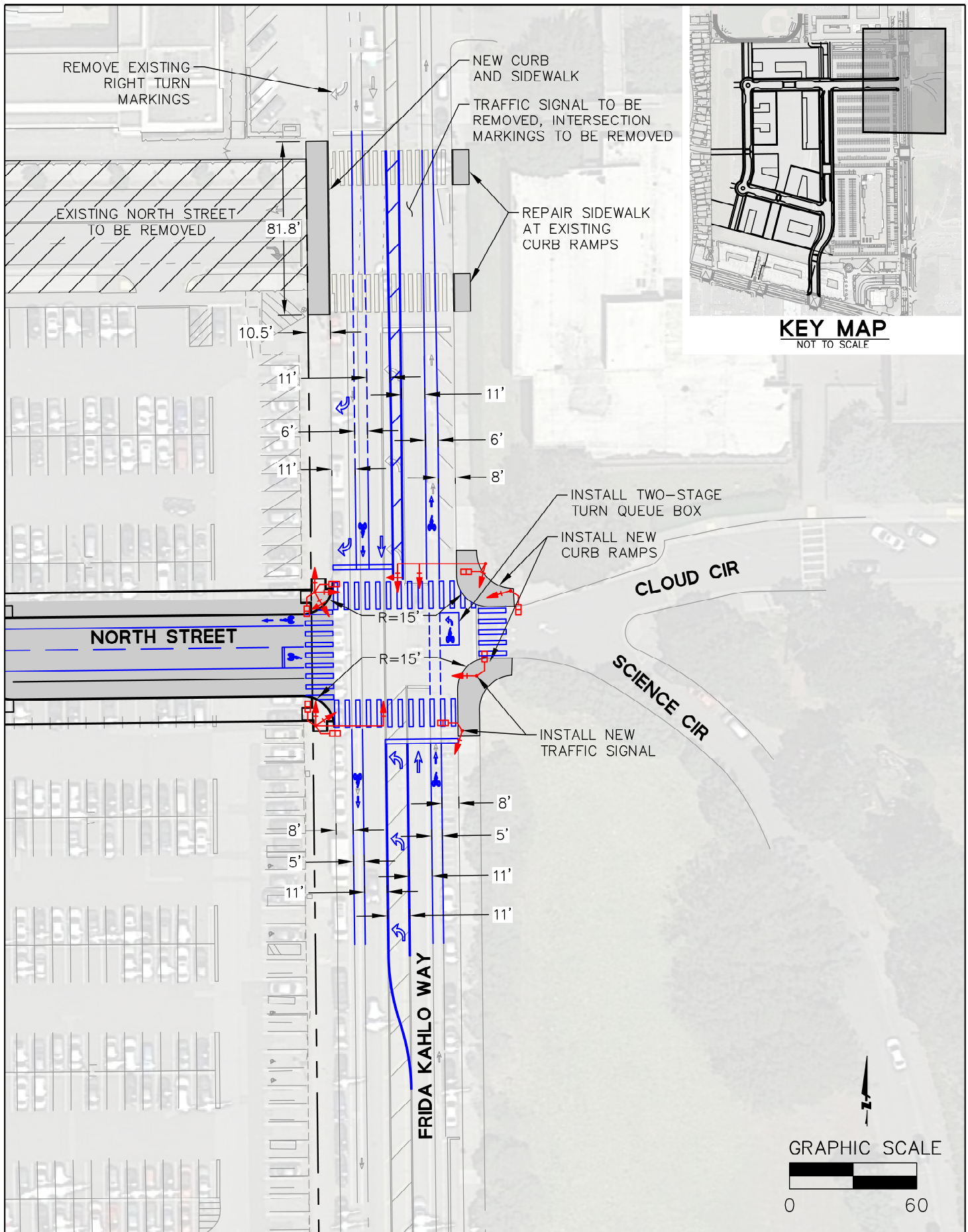


BALBOA RESERVOIR INFRASTRUCTURE PLAN      FIGURE 6.5E - INTERSECTION GEOMETRY (LEE AVE & RIORDAN HS)

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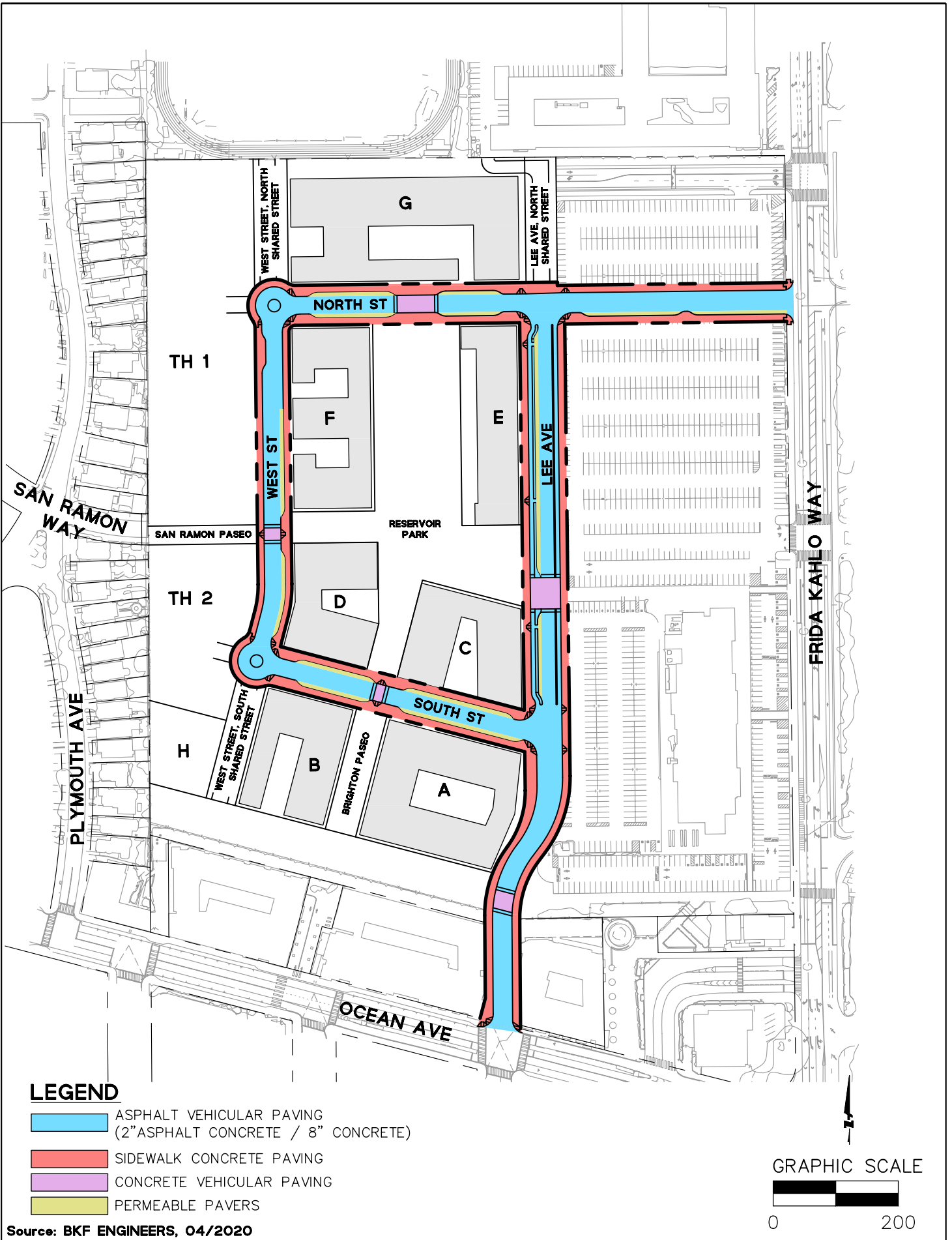


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Source: BKF ENGINEERS, 04/2020

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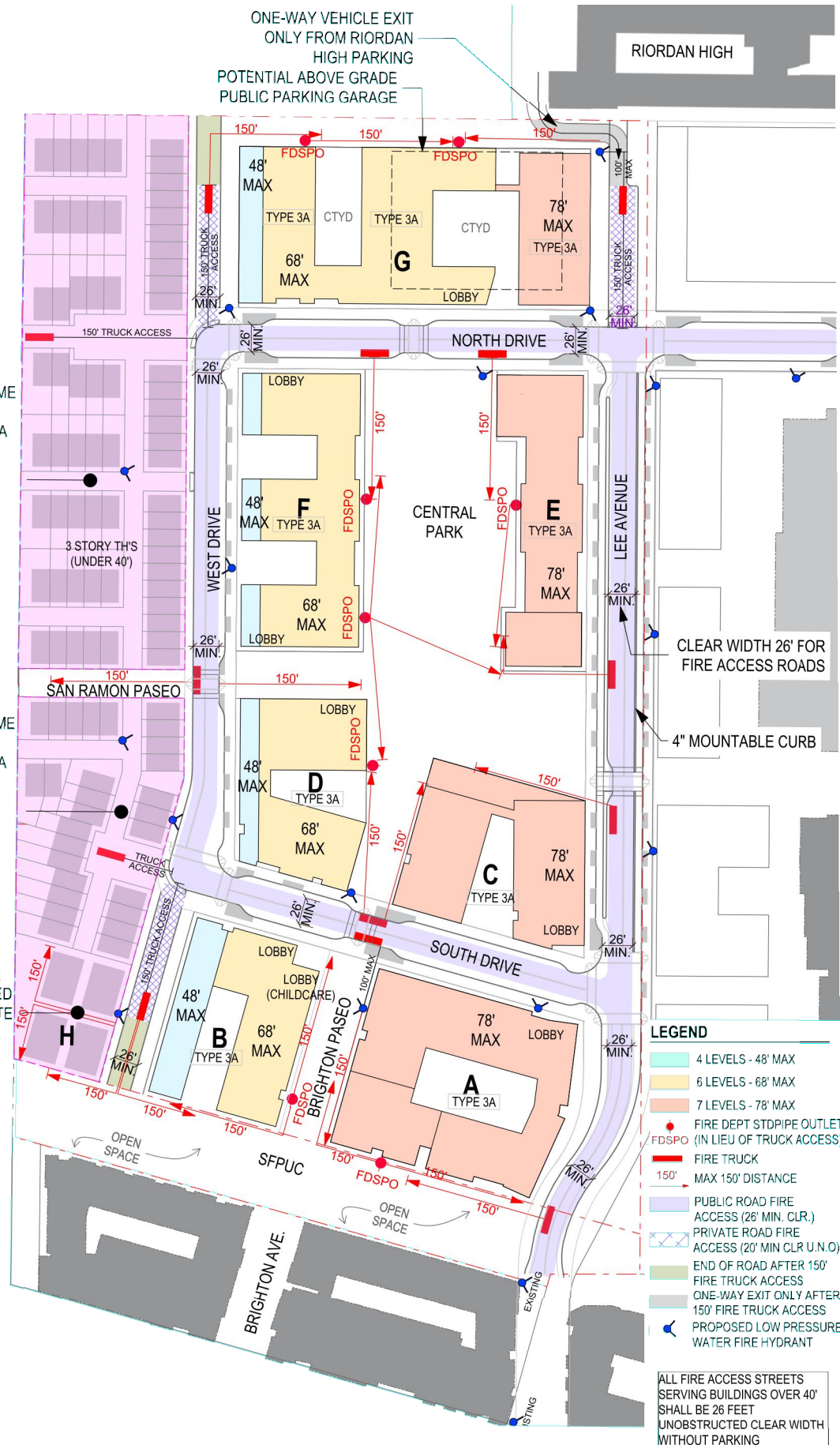
BALBOA RESERVOIR INFRASTRUCTURE PLAN FIGURE 6.7 – PAVEMENT SURFACES



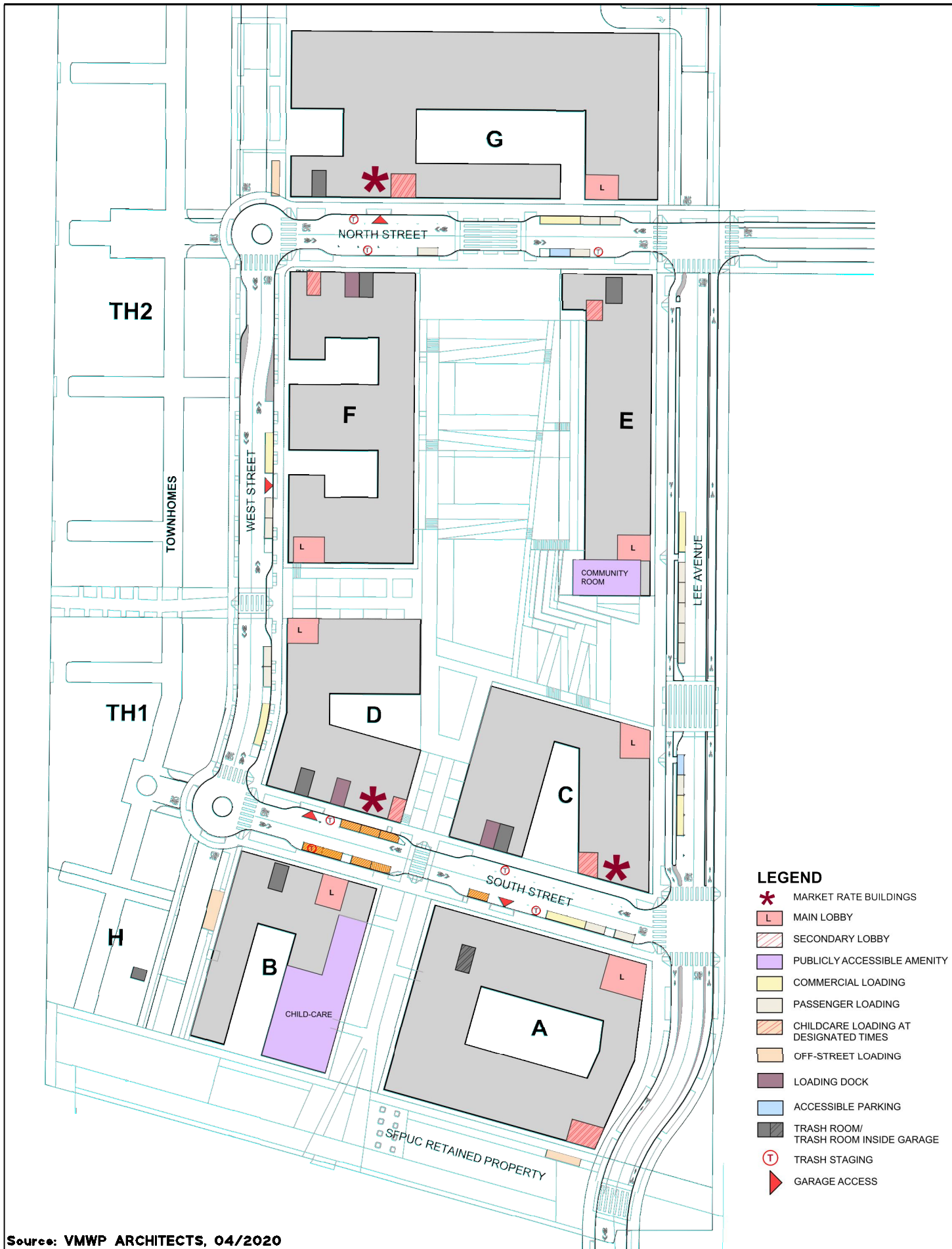
FIRE ACCESS FOR TOWNHOME PARCEL TO BE REVIEWED AT A LATER DATE ONCE TOWNHOME DEVELOPER IS ONBOARD (UNDER SEPARATE SUBMITTAL)

FIRE ACCESS FOR TOWNHOME PARCEL TO BE REVIEWED AT A LATER DATE ONCE TOWNHOME DEVELOPER IS ONBOARD (UNDER SEPARATE SUBMITTAL)

FIRE ACCESS FOR 'H' PARCEL TO BE REVIEWED AT A LATER DATE (UNDER SEPARATE SUBMITTAL)



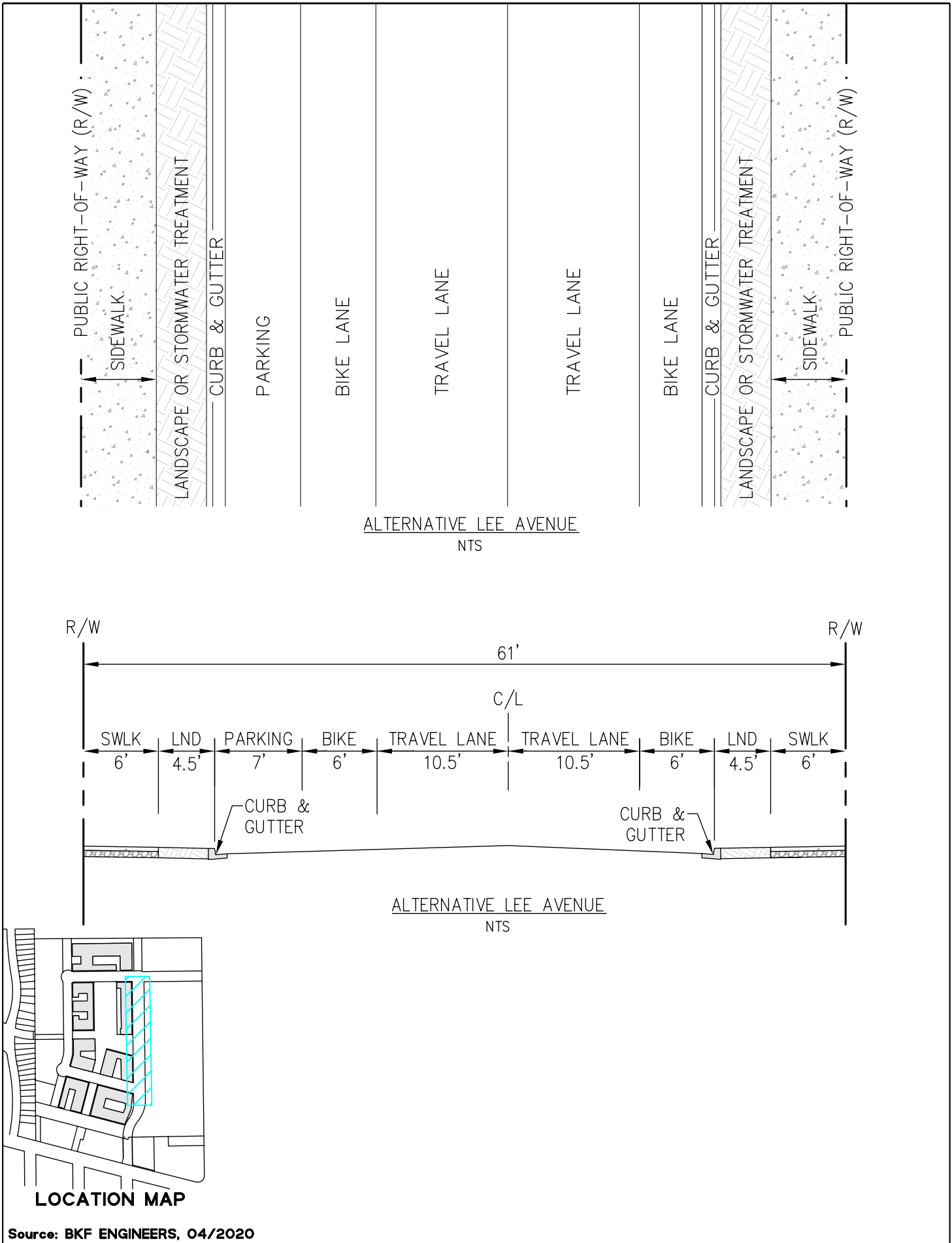
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Source: VMWP ARCHITECTS, 04/2020



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PLOT DATE: 04-08-20 PLOTTED BY: cheh



## 7. OPEN SPACE AND PARKS

The proposed Project will provide approximately 4.0 acres of publicly accessible open space. The following is a summary of the major components of the open space network. See Figure 7.1 for an overview of the Open Space System and the corresponding DSG Open Space section for a detailed description. These improvements are intended to extend the connection from San Ramon Way to City College, and create a connection from the SFPUC easement south of the project to the centralized public open space. The Developer's infrastructure obligations include the design, construction, and maintenance of the open space and park improvements. Key components of the open space program area are described below.

*Refer to Chapter 6 of the Balboa Reservoir DSG for detailed information about the open space design.*

### 7.1 Proposed Open Space and Parks to be built by Developer

Open space to be built by the Developer shall be substantially completed consistent with the following schedule:

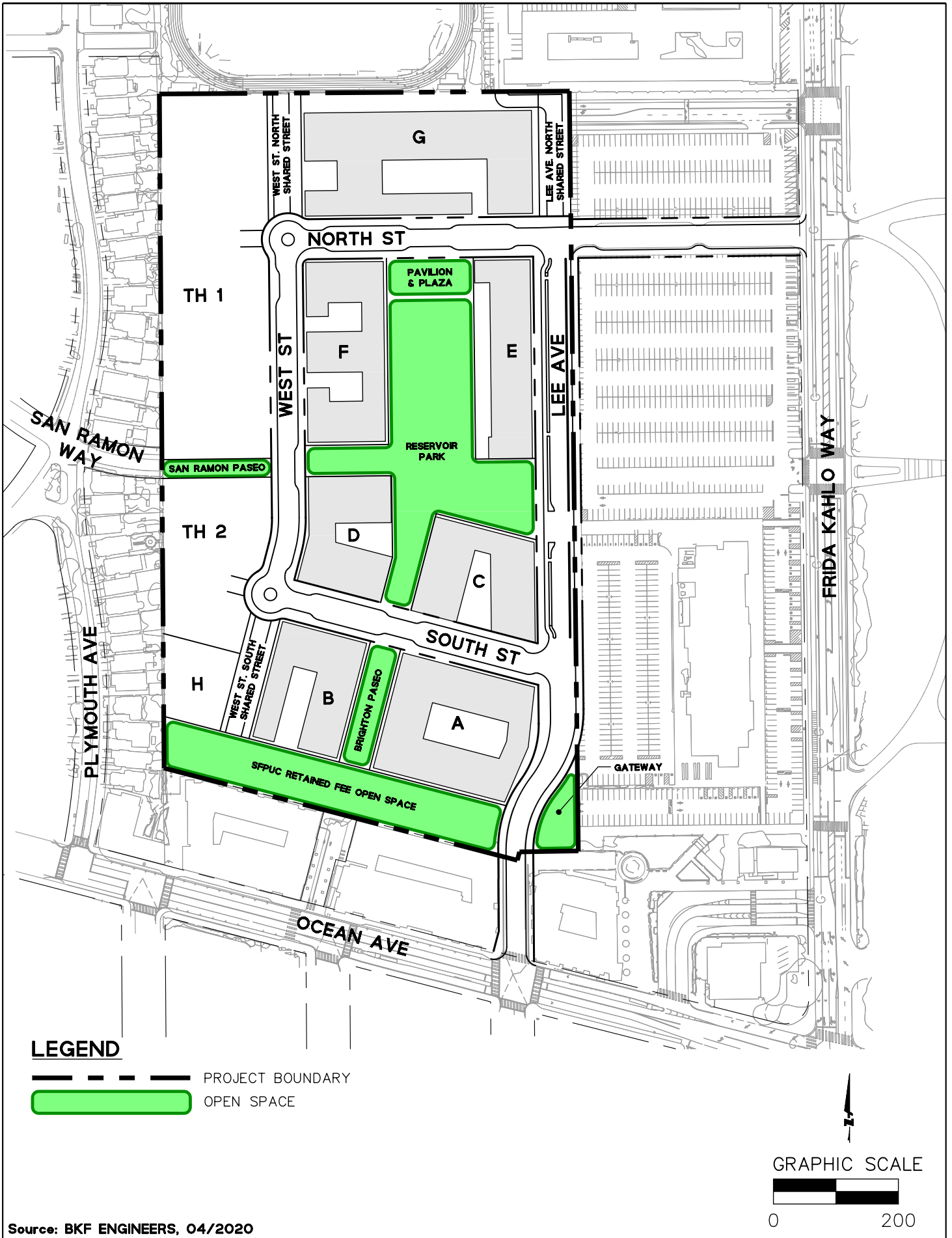
Reservoir Park	2.0 acres	Phase 1
PUC Open Space	1.2 acres	Phase 2
Paseos	0.8 acres	Phase 1 and 2

### 7.2 Phasing, Ownership, Operation, and Maintenance

New open space and parks system will be constructed in phases to match the Phases of the Project and as depicted on the Phasing Plan, Figure 1.3. The Phase will connect to the existing open space and parks as close to the edge of the Phase area as possible where a logical transition line can be established within the open space improvement features.

Reservoir Park and the Paseos will be owned and maintained by the Master Homeowner's Association. The SFPUC is and will remain the property owner of the Retained Fee and will issue a revocable license to the Developer and later, to any assignee homeowner's association, to allow for construction, management, and operations of the planned flexible public open area.

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PLOT DATE: 03-31-20 PLOTTED BY: cheh



BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 7.1 - OPEN SPACES

## **8. UTILITY LAYOUT AND SEPARATION**

### **8.1 Utility Systems**

The Project proposes to install public utility systems, including the combined sewer system, low pressure water (LPW) system, auxiliary water supply system (AWSS), and dry utility systems. Ownership, maintenance, and acceptance responsibilities of utility infrastructure will be documented in the DA.

### **8.2 Utility Layout and Separation Criteria**

Utility main layout and separations will be designed in accordance with the Subdivision Regulations and SFPUC Utility Standards. Utility main separation requirements are presented in Figure 8.1 Utility Separation Criteria.

### **8.3 Conceptual Utility Layout**

The Project utility layout is designed to connect the proposed Project utility infrastructure to the existing adjacent public utility infrastructure facilities. The proposed LPW system, shown on Figure 9.1, will be a looped system and have two connections to the existing SFPUC LPW system on Frida Kahlo Way and Ocean Avenue. The proposed AWSS, shown on Figures 11.1A and B, will have a single connection point to the existing AWSS at the intersection of Ocean Avenue and Lee Avenue. The Project studied the feasibility of installing a second AWSS connection through the SFPUC property at the southwest corner of the project (Block 318 Lot 192) to create a looped system but was deemed infeasible by SFPUC. The proposed combined sewer system, shown on Figure 12.1, will have two connections to the existing SFPUC combined sewer system in Ocean Avenue via Lee Avenue and the SFPUC property.

### **8.4 Utility Layout and Clearance Design Modifications and Exceptions**

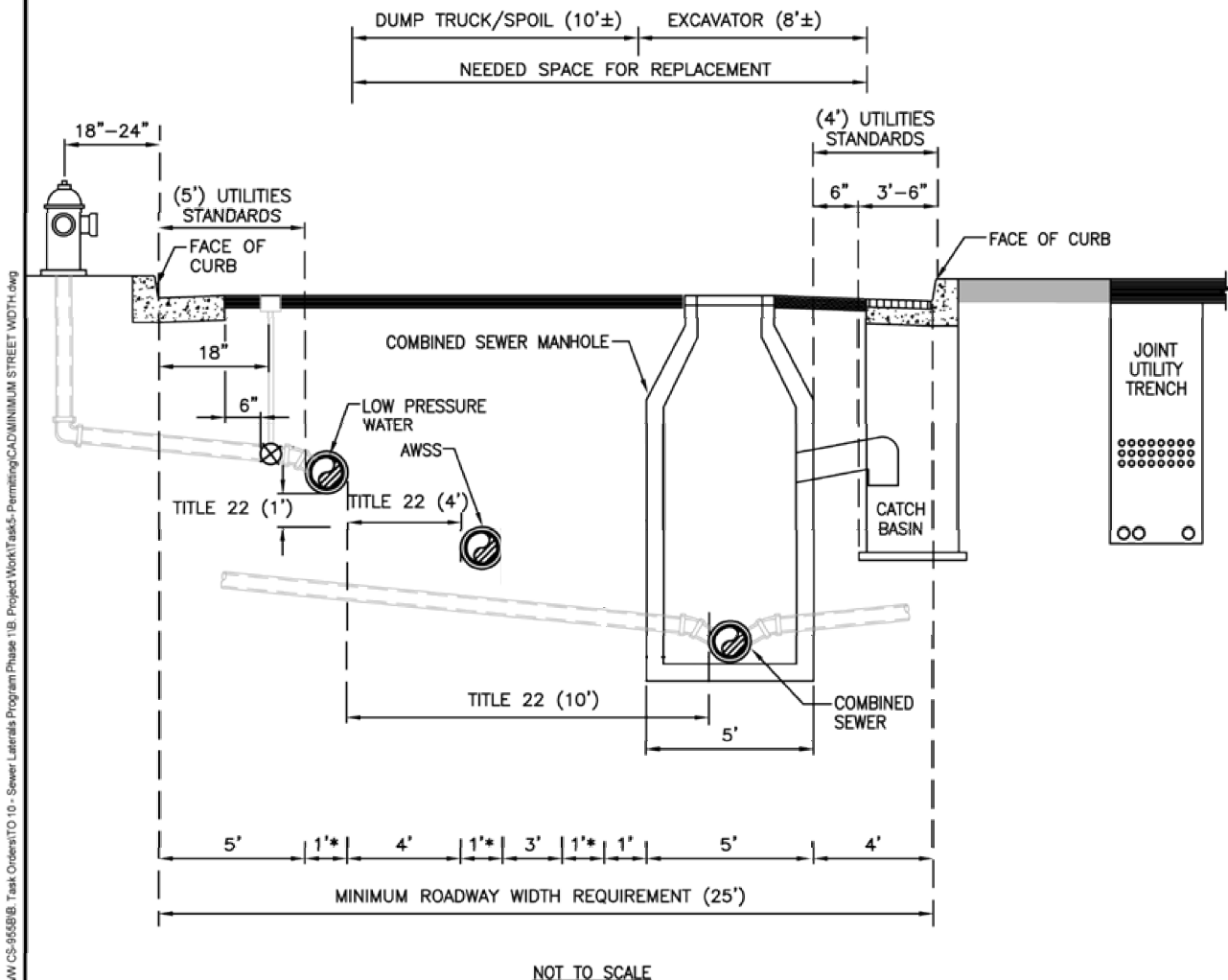
Due to constraints within the Project Site, design modifications and exceptions to standard sizing, spacing, and locations of utilities may be requested. A design modification and exception request to utility standards and requirements is subject to the review and approval by the department with authority over each utility. The combined sewer system, LPW system, and AWSS design modifications and exceptions receive authorization per the process outlined in the Subdivision Regulations. Potential locations for the design modifications and exceptions will be identified in the future. Approval of this Infrastructure Plan does not constitute authorization of utility-related design modifications and exceptions.


\* ASSUME 1' OUTSIDE DIAMETER FOR ALL PIPES

\*\* MINIMUM HORIZONTAL CLEARANCE BETWEEN SEWER MAIN AND OTHER UTILITIES SHALL BE 3.5' FOR FUTURE REPAIR AND REPLACEMENT (IE. EXCAVATION/SHORING)

**NOTES:**

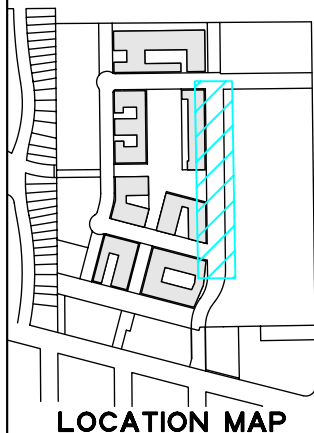
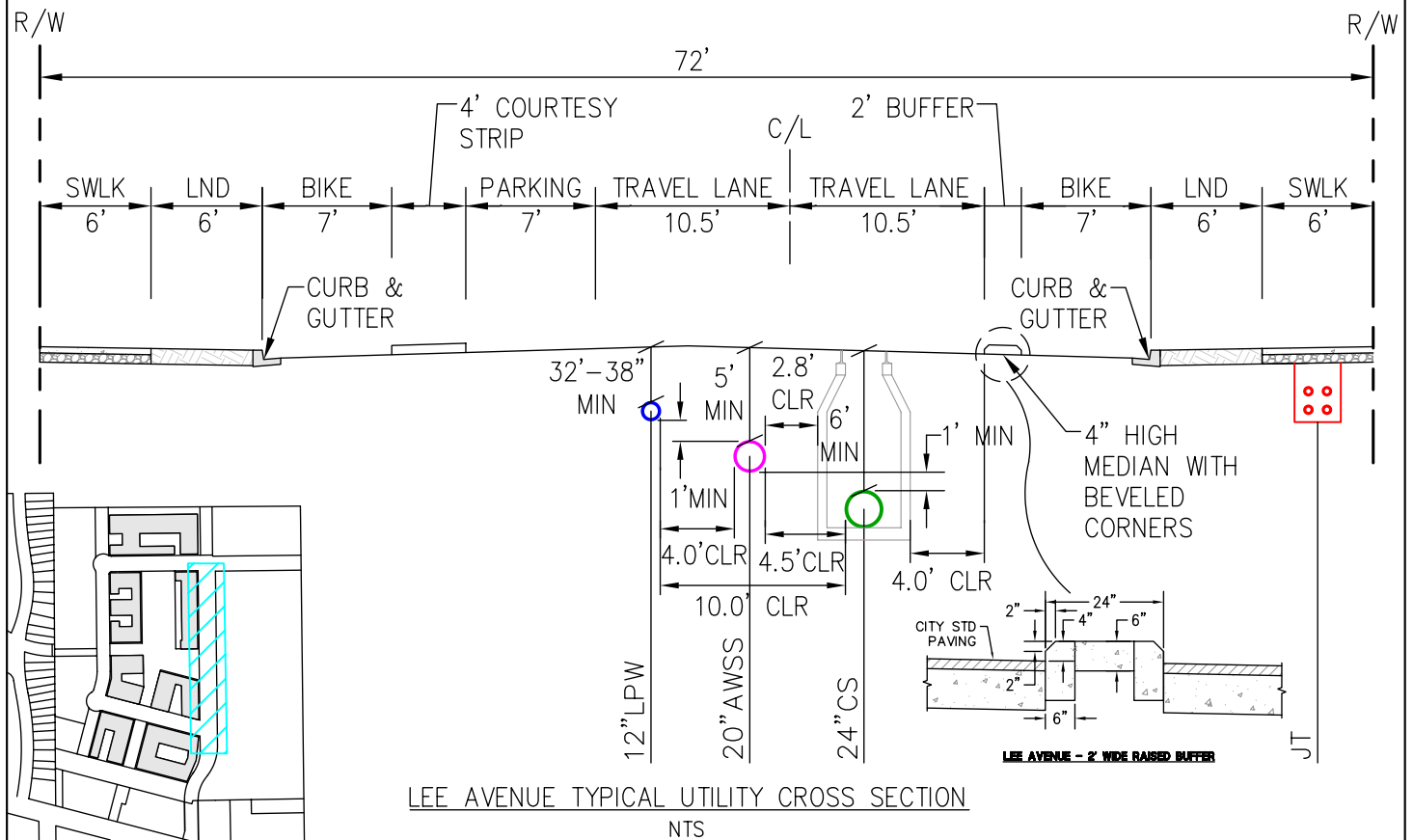
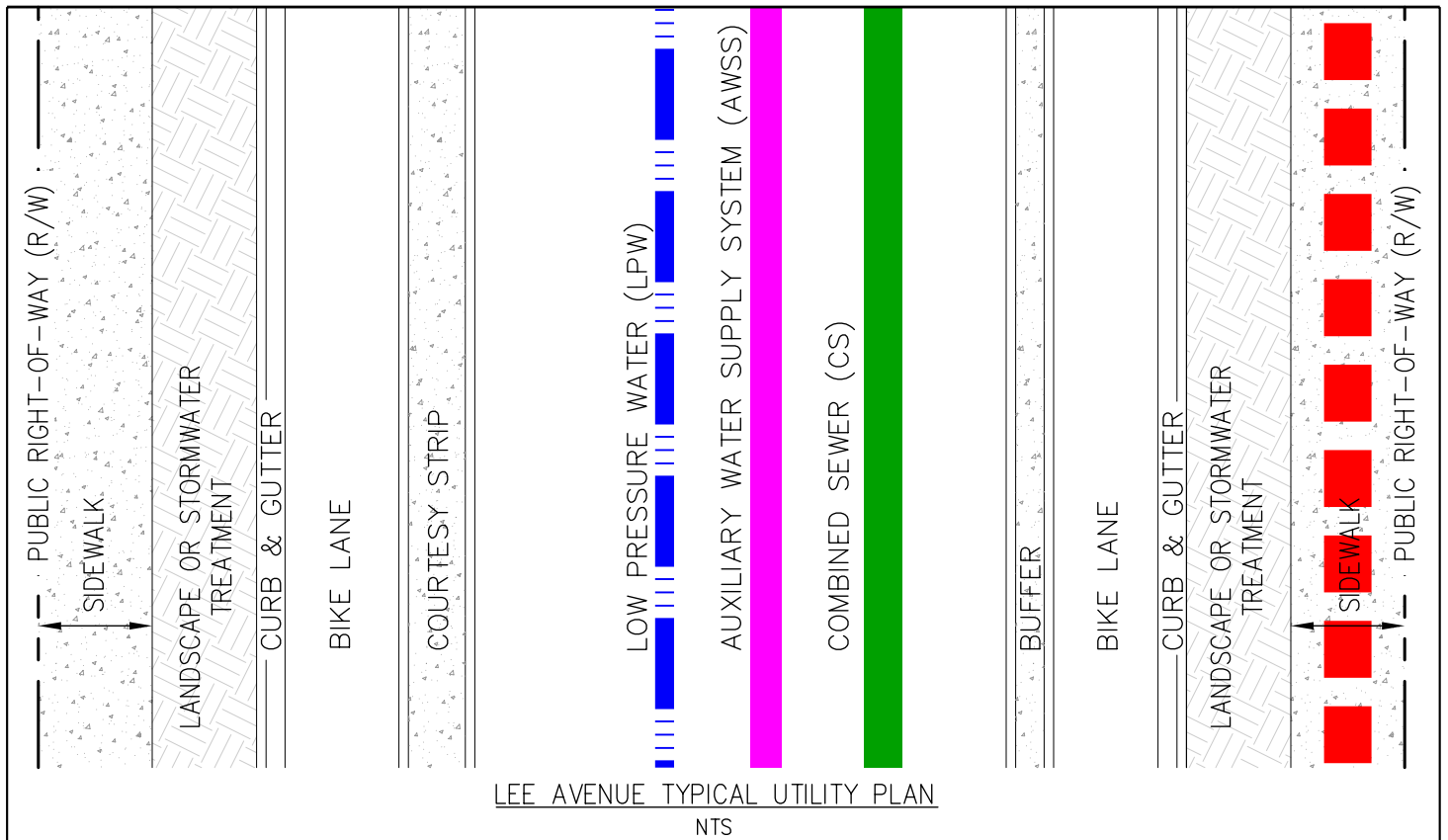
1. ALL DIMENSIONS REPRESENT MINIMUM SEPARATION REQUIREMENTS.
2. SFPUC NEEDS TO REVIEW AND APPROVE A VARIANCE FOR UTILITY CLEARANCES FOR PROPOSALS OF ROADWAY WIDTHS LESS THAN INDICATED IN DRAWING.
3. MINIMUM ROADWAY WIDTH REQUIREMENT WILL INCREASE FOR LARGER MAINS.
4. A 15' MINIMUM SURFACE AREA IS REQUIRED FOR BASIC VEHICLE AND EQUIPMENT ACCESS, SERVICING, AND MAINTENANCE OF WASTEWATER ASSETS.
5. TITLE 22 CA CODE OF REGULATIONS REQUIRES MINIMUM 10' HORIZONTAL AND 1' VERTICAL SEPARATION BETWEEN PARALLEL POTABLE WATER AND SEWER LINES; MINIMUM 4' HORIZONTAL AND 1' VERTICAL SEPARATION BETWEEN PARALLEL POTABLE WATER AND STORM DRAIN, RECYCLED WATER AND OTHER NON-POTABLE WATER LINES.
6. MINIMUM HORIZONTAL CLEARANCE OF LOW PRESSURE WATER, AWSS, AND RECYCLED WATER WITH OTHER DRY UTILITIES SHALL BE 3'.
7. MINIMUM OUTSIDE DIAMETER MANHOLE IS 5' FOR MAIN SEWER SIZES UP TO 24"Ø. MANHOLE DIMENSION INCREASES FOR MAIN SEWERS LARGER THAN 24"Ø. (EX. 9.75' WIDE FOR 72"Ø MAIN)



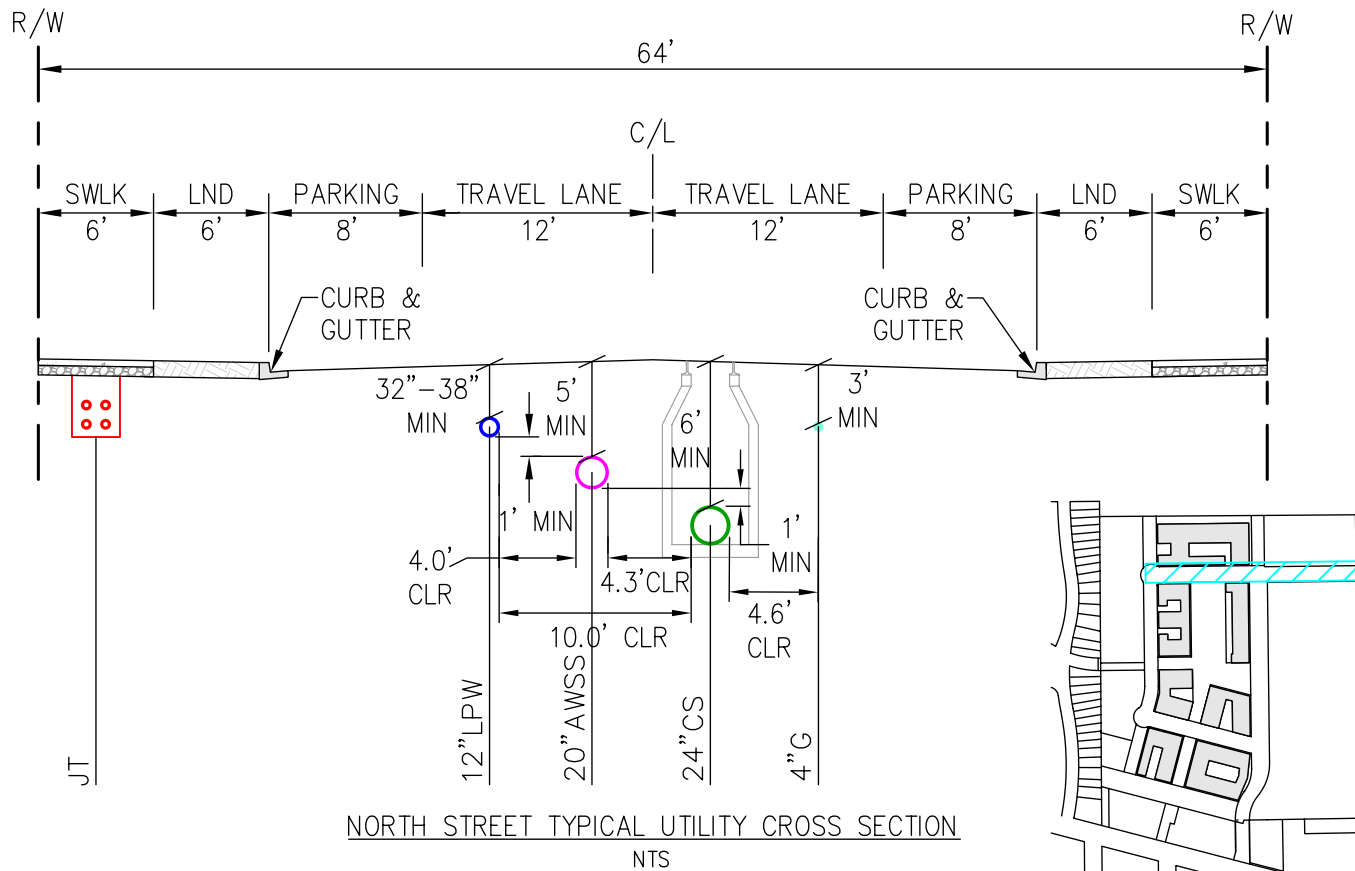
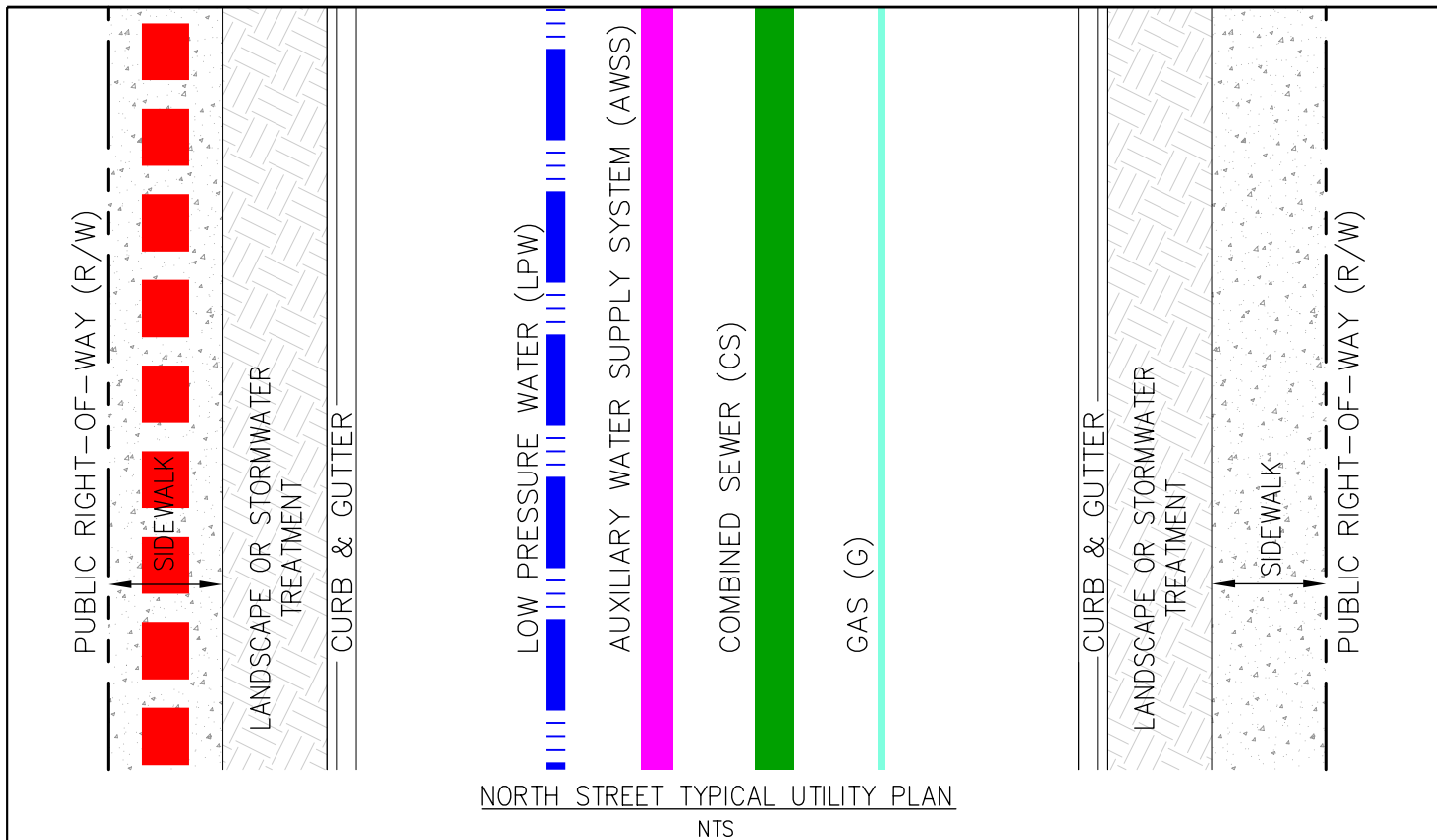
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Source: BKF ENGINEERS, 04,2020

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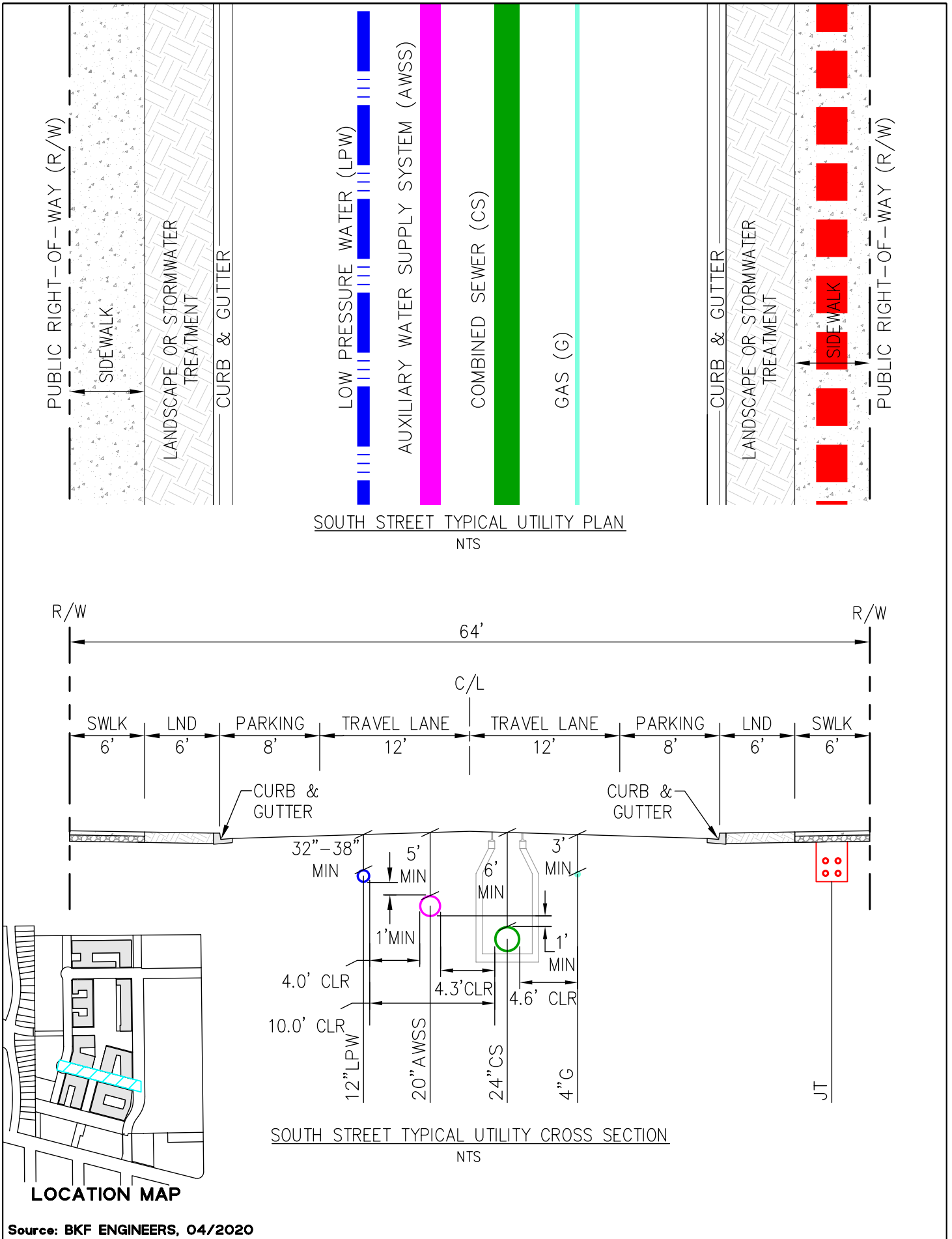


Source: BKF ENGINEERS, 04/2020



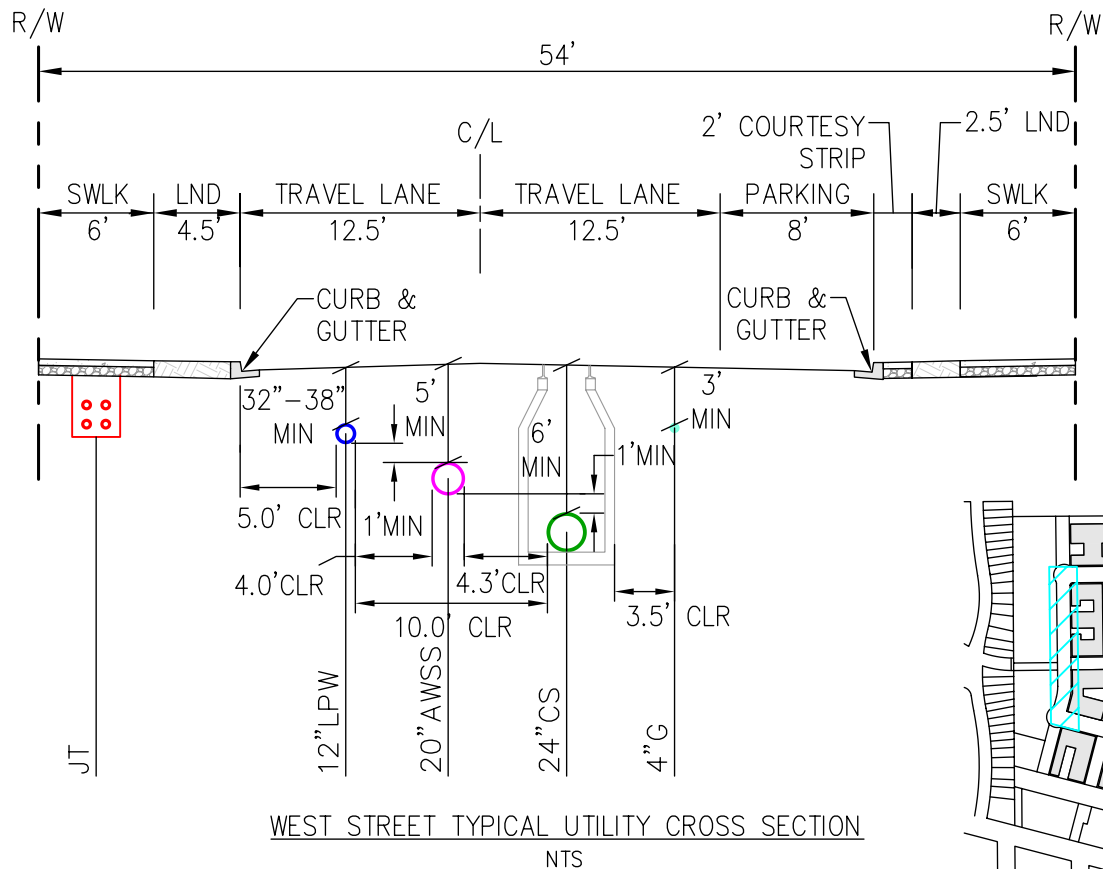
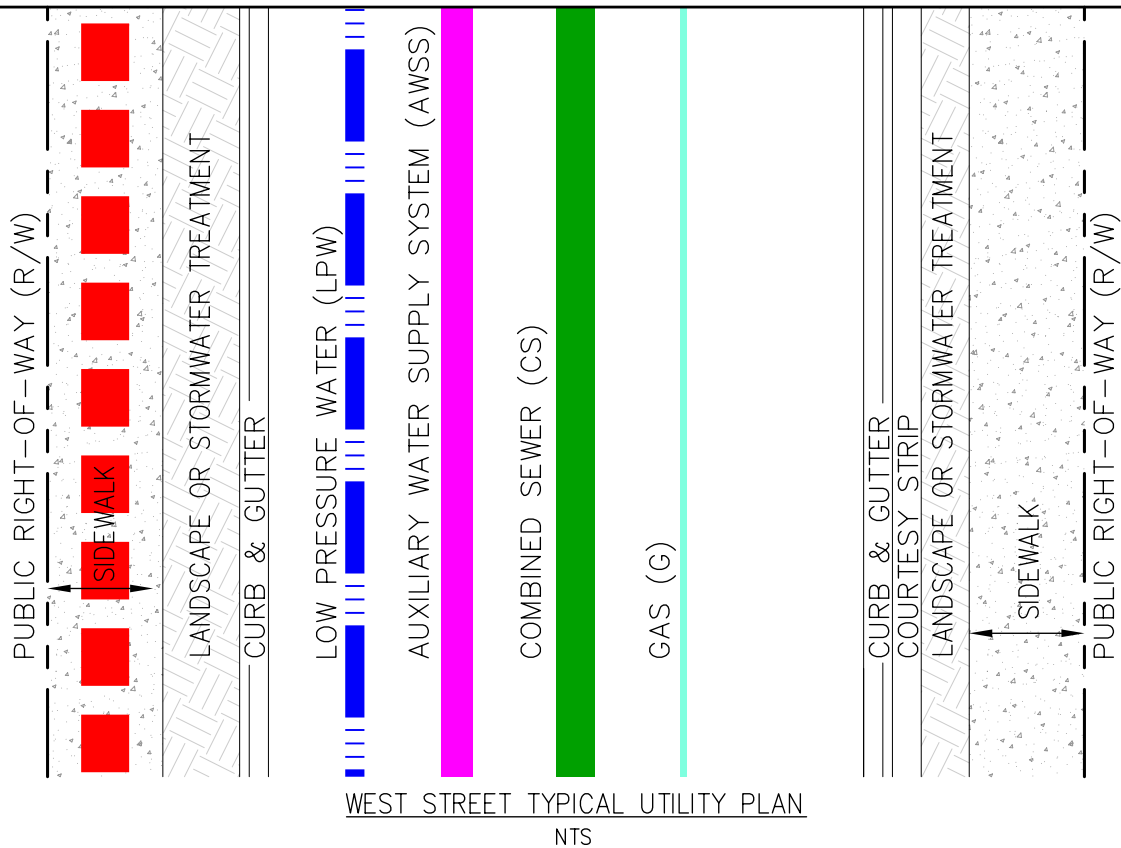
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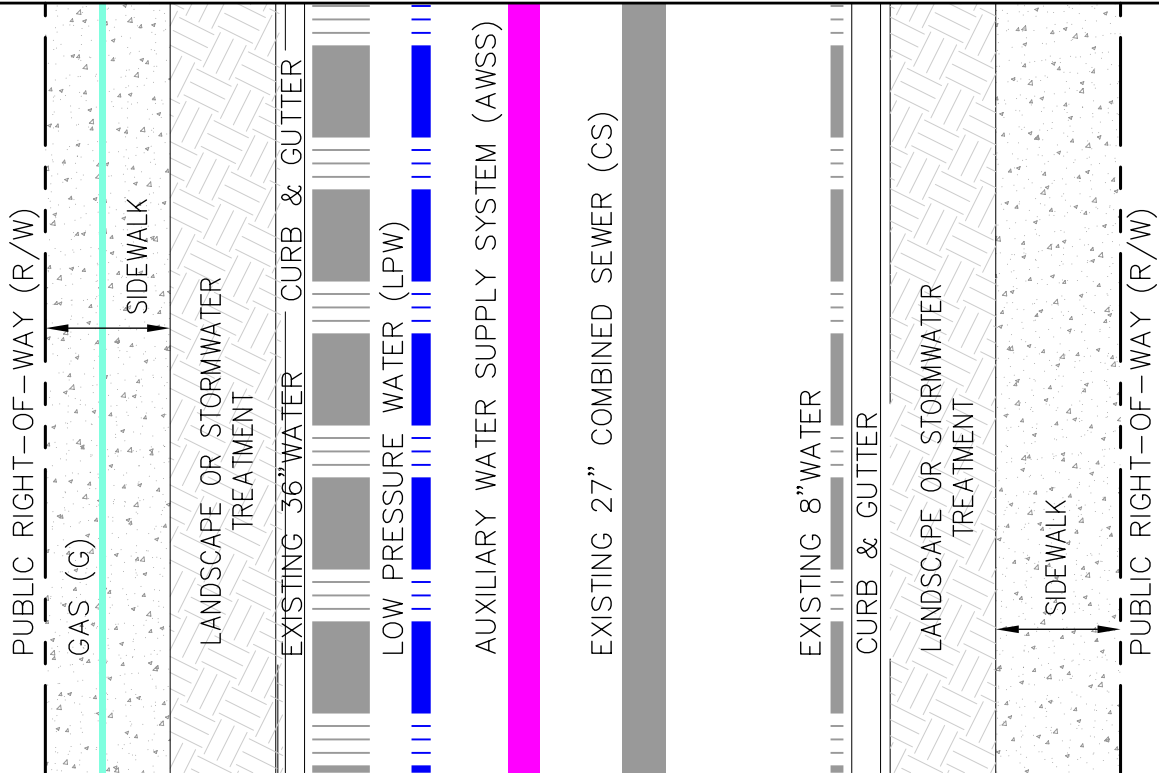




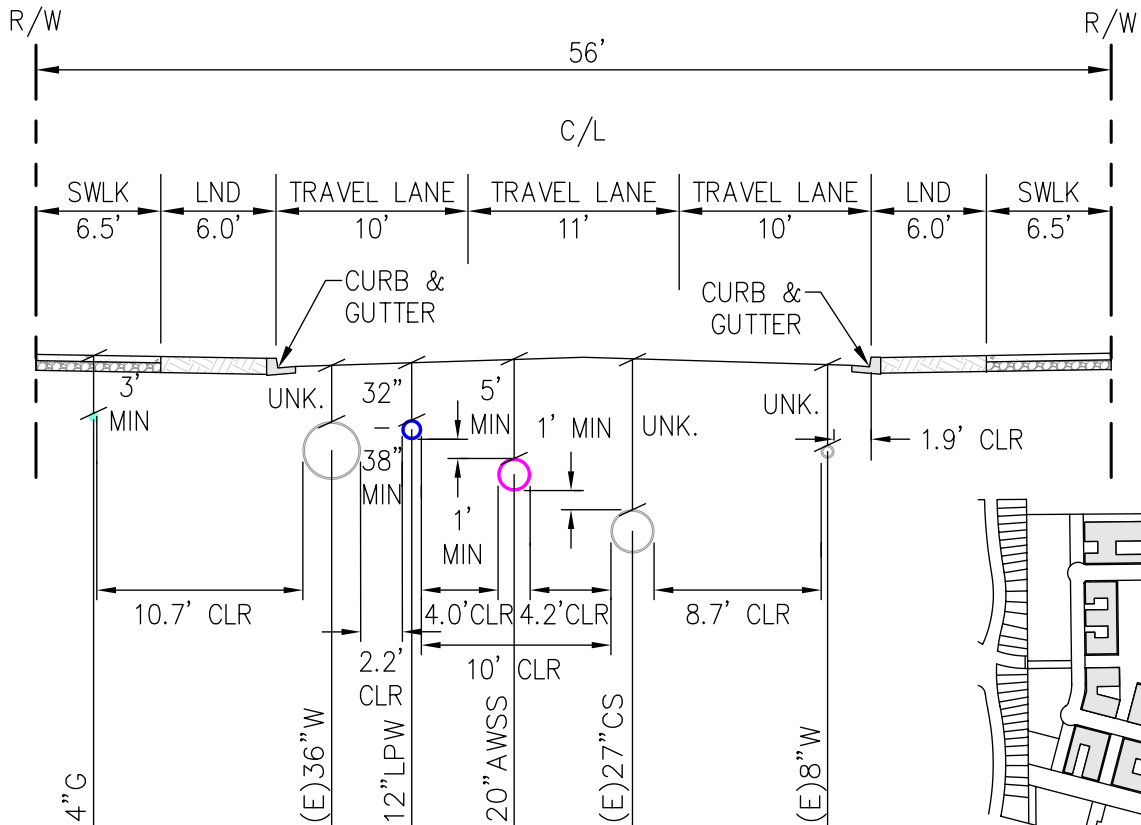
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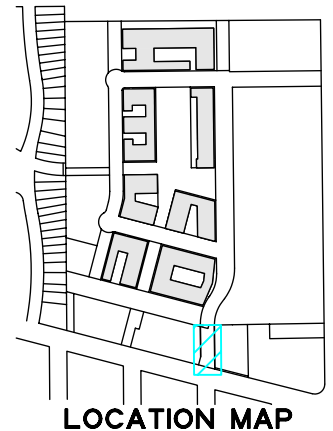
Source: BKF ENGINEERS, 04/2020



EXISTING LEE AVENUE TYPICAL UTILITY PLAN  
NTS

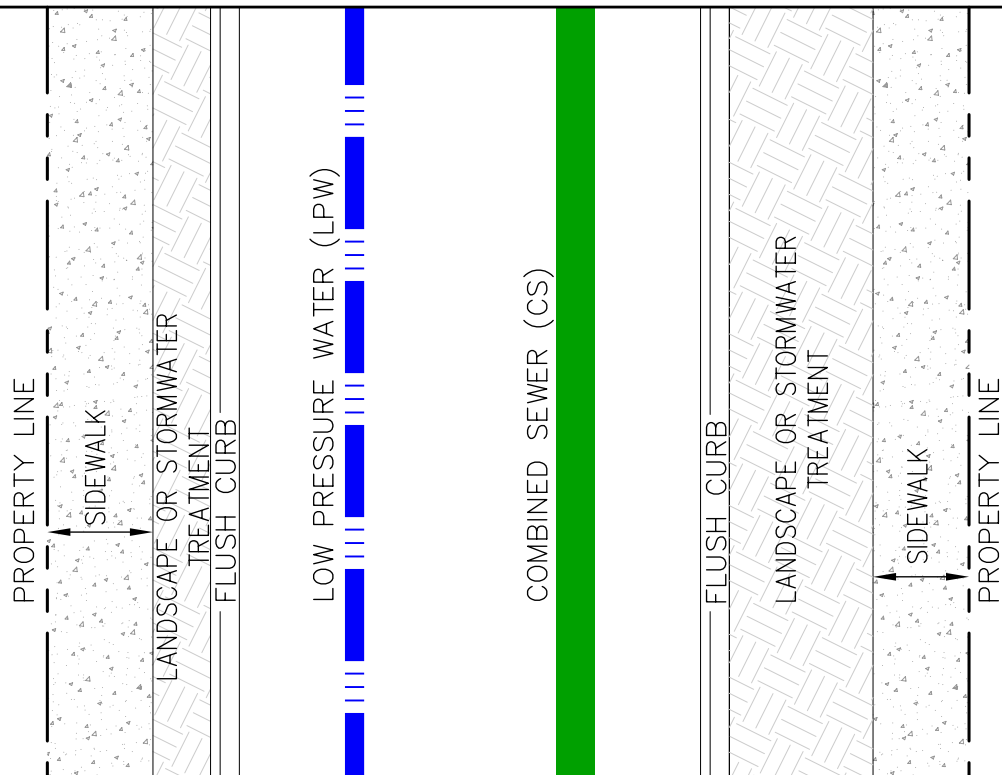


EXISTING LEE AVENUE TYPICAL UTILITY CROSS SECTION  
NTS

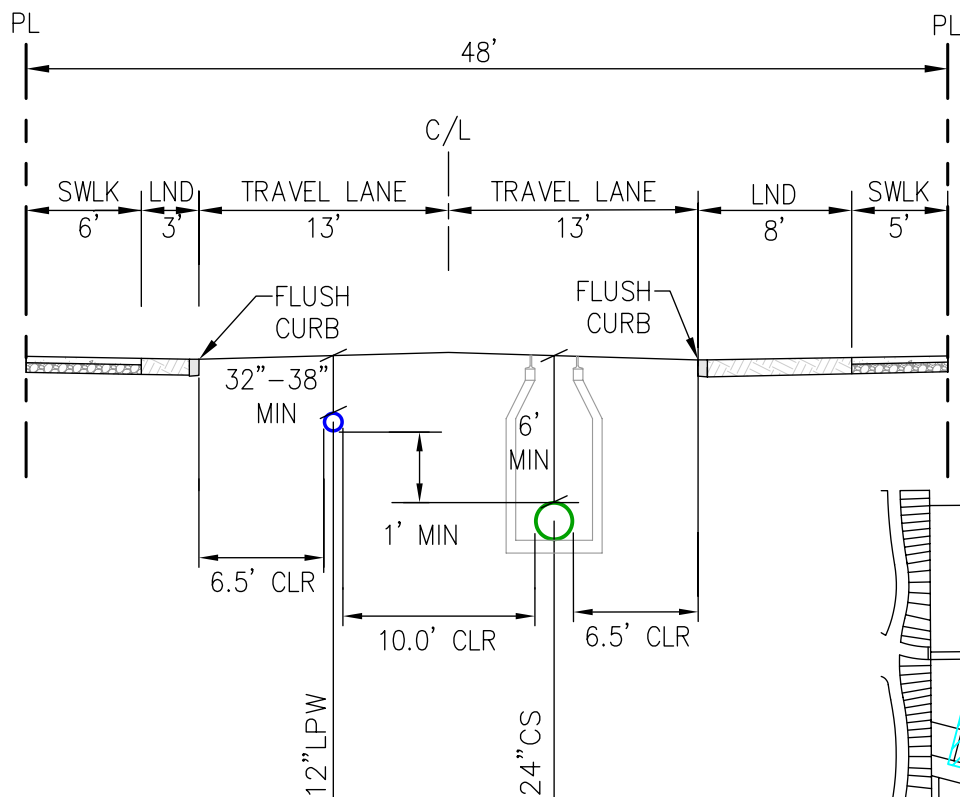


Source: BKF ENGINEERS, 04/2020

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PLOT DATE: 03-31-20 PLOTTED BY: cheh



WEST STREET (PRIVATE) TYPICAL UTILITY PLAN  
NTS



WEST STREET (PRIVATE) TYPICAL UTILITY CROSS SECTION  
NTS

Source: BKF ENGINEERS, 04/2020

## 9. LOW PRESSURE WATER SYSTEM

### 9.1 Existing Low Pressure Water System

Potable water service will be provided by a water supply, storage, transmission, and distribution system that is metered with back flow preventers operated by the SFPUC. The proposed Project will connect to the SFPUC's Low Pressure Water (LPW) system for domestic supply and fire protection. The existing LPW system within the project vicinity includes 8 and 12-inch diameter distribution pipelines and low pressure fire hydrants within Frida Kahlo Way and Ocean Avenue. Existing potable water and fire protection infrastructure near the Project Site are located along Frida Kahlo Way and on Lee Avenue.

Fire hydrant flow information was obtained for the 12-inch main in Ocean Avenue and the 8-inch main in Frida Kahlo Way. Both of these mains are located within the Sutro Pressure Zone.

	<b>12-inch Main in Ocean Ave</b>	<b>8-inch Man in Frida Kahlo Way</b>
Static Pressure (psi)	80	69
Residual Pressure (psi)	62	51
Observed Flow (gpm)	1,197	947
Available Flow at 20 psi (gpm)	2,290	1,630

### 9.2 Proposed Low Pressure Water System

#### 9.2.1 Project Water Supply

In accordance with the California Water Code, SFPUC is preparing a Water Supply Assessment for the proposed Project. The Water Supply Assessment was approved by the SFPUC Commission on May 28, 2019.

#### 9.2.2 Project Water Demands

The proposed Project water demands are summarized in Table 9.1 below. The Project's water demands have been calculated using the SFPUC's Non-Potable Water Program District Scale water calculator. The proposed Project will include building-based recycled water treatment plants in certain buildings that will divert, treat and reuse graywater (and potentially rainwater) for non-potable uses within the project, such as toilet flushing and irrigation. The annual non-potable water demand will be calculated as part of the master utility plan once the final system is determined.

### 9.2.2.1 Fire Flows

The required fire flows will be according to Appendix B of the California Fire Code and approved by SFFD. Fire flows are based on the building area and the type of construction. The proposed buildings will be Type I-A, II-A and V-A construction. See Appendix F for Fire Flow Evaluation which presents the CFC required fire flow for each building.

**Table 9.1. Water Demands**

Annual Potable Water Demand	39,543,600 gpy
-----------------------------	----------------

Project Potable Water Demands	
Design Scenario	Demand
Domestic Average Day Demand (ADD)	108,300 gpd
Maximum Day Demand (MDD) = 1.2 x ADD	130,000 gpd
Peak-Hour Demand (PHD) = 2.65 x ADD	287,000 gpd
Required Fire-Flow <sup>2</sup> (FF) = 1,500 gpm x 4 hours	360,000 gpd
<b>Maximum Potable Water Demand (Maximum Day Demand + Required Fire Flow)</b>	<b>490,000 gpd</b>

### 9.2.3 Project Water Distribution System

The proposed Project will include the design and construction of the proposed LPW system by the Developer. The proposed LPW system will be owned and maintained by the SFPUC upon completion and acceptance of the improvements. The proposed LPW system is depicted on Figure 9.1. The proposed LPW system pipeline sizes will be verified by the PUC's review of the hydraulic modeling in the Low Pressure Water Master Plan (LPWMP) that will be prepared after Project approvals.

The project will connect to the existing 12-inch LPW line in Ocean Avenue and the existing 8-inch line in Frida Kahlo Way. The Project will install new 12-inch LPW lines in the new proposed streets while meeting the necessary separation requirements to other utilities and proposed improvements as outlined in Section 10. The vertical and horizontal separation distances to other utilities will be consistent with the requirements outlined in Title 22 of the California Code of

<sup>2</sup> The required fire flow will be determined by SFFD based on final building areas and construction type.

Regulations, the SFDPW Subdivision Regulations and the State of California Department of Health Services Guidance Memorandum 2003-02. The typical utility cross sections for each street are depicted on Figures 8.2A-G.

SFPUC will perform the required disinfections of new mains and connections to existing mains at the Developer's cost.

#### **9.2.4 Low Pressure Water Design Criteria**

The proposed LPW system will be designed to maintain a minimum system pressure of 20 psi and a maximum velocity of 14 fps during MDD plus Fire Flow design scenario. The LPW system will also maintain 40 psi minimum residual pressure and 8 fps maximum velocity during PHD. The proposed LPW system will be modeled in the LPWMP to confirm the proposed system meets the pressure and flow requirements in each design scenario.

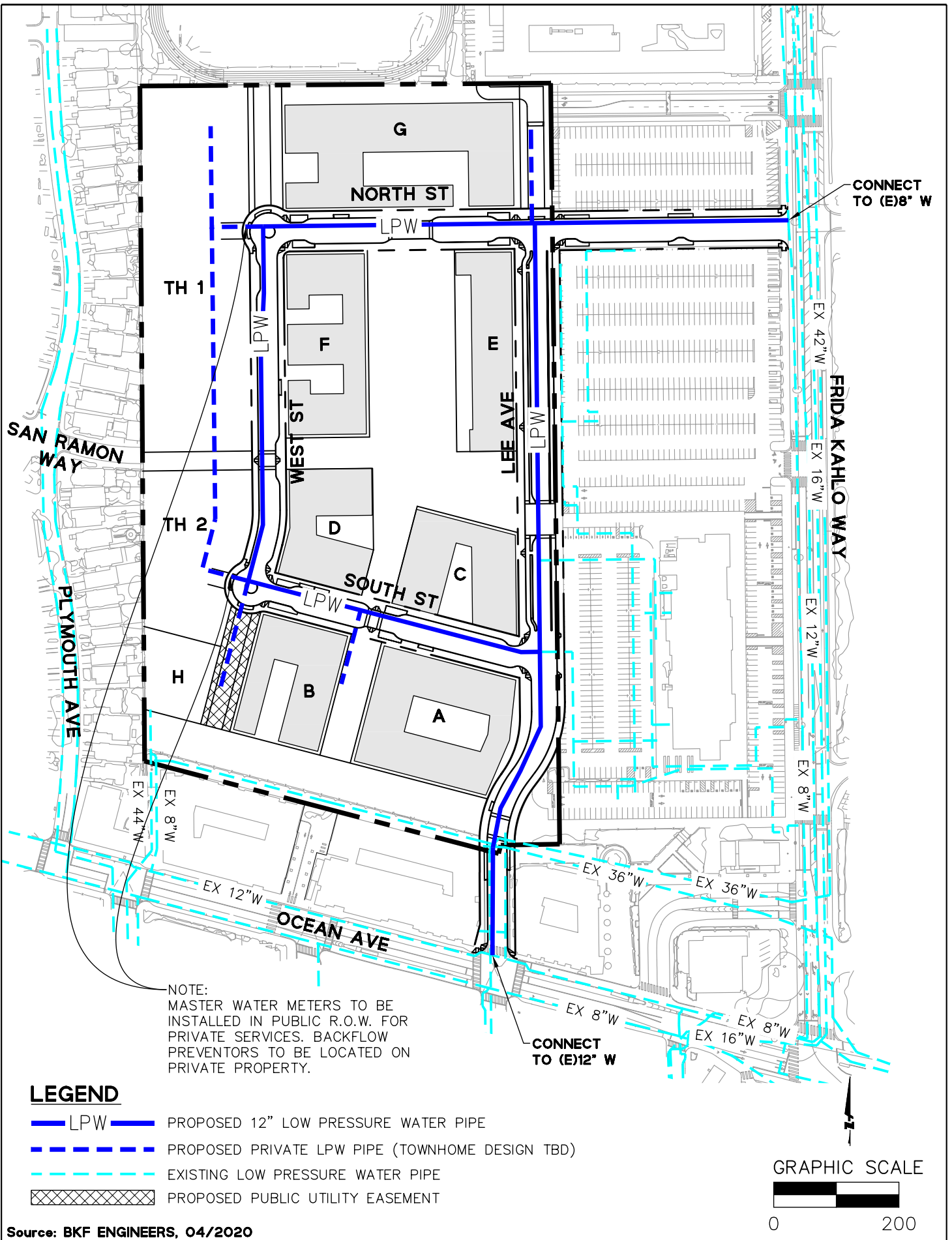
#### **9.2.5 Proposed Fire Hydrant Locations**

The LPW system will be the secondary fire water supply for the Project Site. The proposed LPW fire hydrants will have a maximum radial separation of 300-feet between hydrants, or as specified in Appendix C of the California Fire Code. Additionally, the LPW hydrants will be placed within 100-feet of building fire department connections. The proposed LPW fire hydrant locations are depicted on Figure 9.2A. The required fire flow will provide adequate fire protection for new and reuse construction per Appendix B of the California Fire Code. The project will coordinate with the SFFD for the final locations of new LPW fire hydrants within the Project.

#### **9.2.6 Proposed Fire Department Standpipe Outlets**

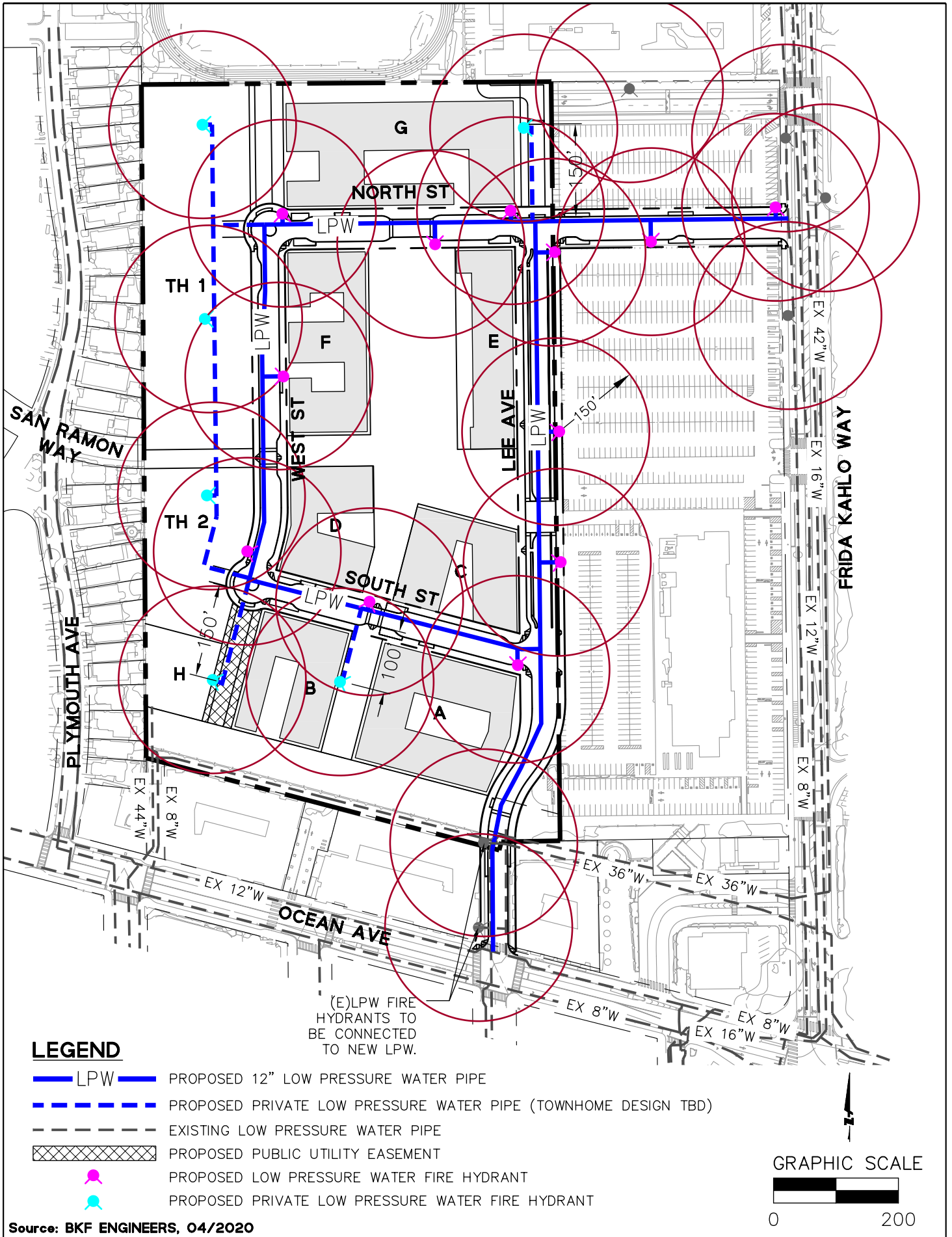
As shown on Figure 9.2B, fire department standpipe outlets will be provided on the exterior of the buildings. The outlets will be connected to the building sprinkler system and will provide a location where the fire department can connect a hose and provide hose coverage to the sides of the buildings.

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PLOT DATE: 03-31-20 PLOTTED BY: cheh



BALBOA RESERVOIR INFRASTRUCTURE PLAN FIGURE 9.1 - PROPOSED LOW PRESSURE WATER SYSTEM

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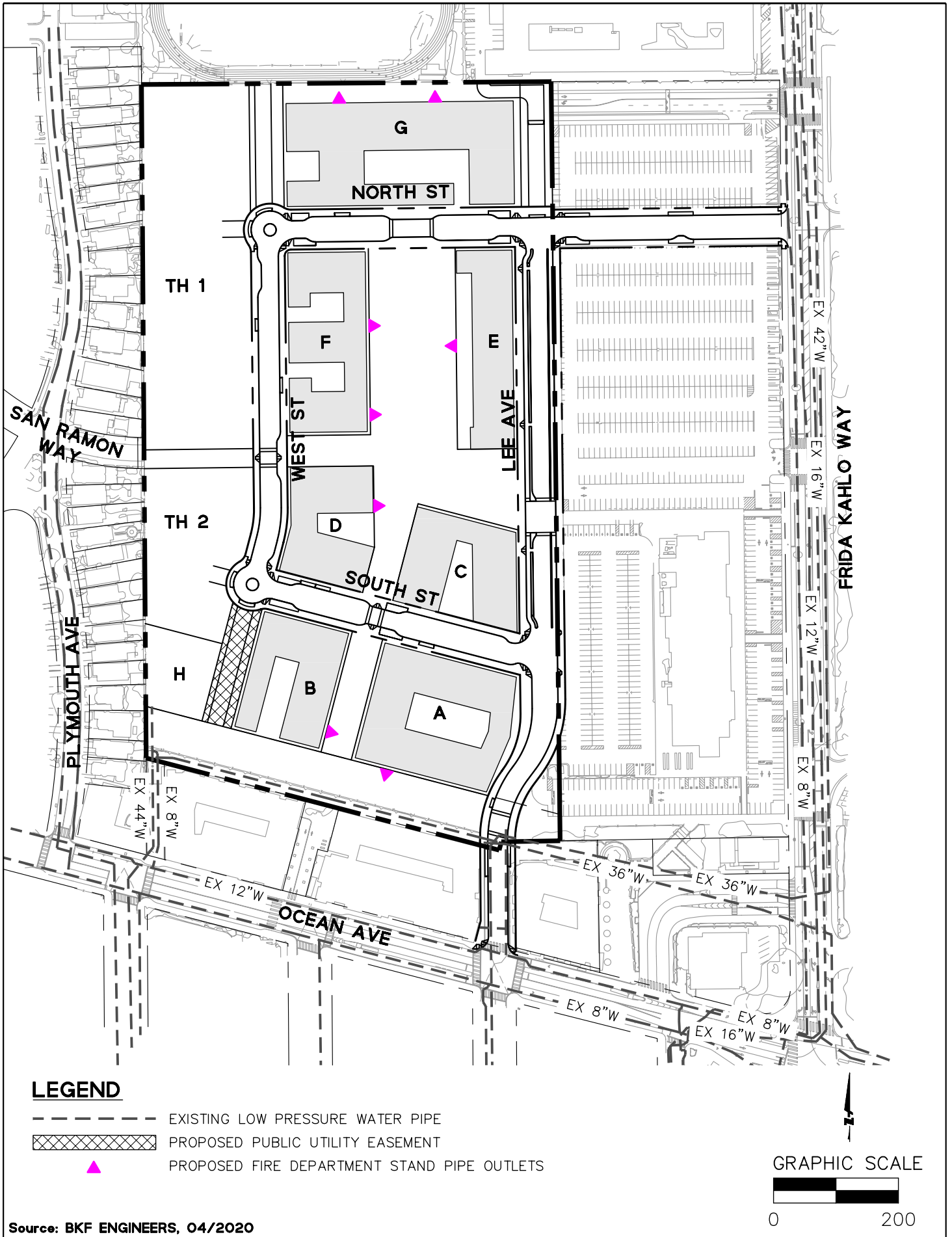


BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 9.2A - PROPOSED FIRE HYDRANT LOCATIONS



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BALBOA RESERVOIR INFRASTRUCTURE PLAN FIGURE 9.2B - PROPOSED STANDPIPE OUTLET LOCATIONS

## **10. NON-POTABLE WATER SYSTEM**

In September 2012, the City and County of San Francisco adopted the Non-Potable Water Ordinance (NPO) allowing the collection, treatment, and use of alternative water sources for non-potable applications. In October 2013, the ordinance was amended to allow district-scale water systems consisting of two or more building sharing a non-potable water system. The ordinance was further amended in July 2015 to mandate the installation of onsite non-potable water systems in new developments 250,000 sf or more (the “Non-Potable Water Ordinance”, Ordinance 109-15 – Mandatory Use of Alternate Water Supplies in New Construction).

The Project will comply with the NPO per the terms of the DA.

### **10.1 Existing Non-Potable Water System**

The City’s non-potable water system does not currently extend to or serve the Project Site. The City does not have existing non-potable water facilities within the vicinity of the Project Site.

### **10.2 Proposed Non-Potable Water System**

The Project will either implement parcel-based graywater reuse systems or a district wide non-potable water system to comply with the City’s Non-Potable Water Program. The decision between parcel-based or district-wide system will be made prior to construction of Phase 1 and documented in the Water System Masterplan. For the potential district wide system, the Project would only consider distributing non-potable water between adjacent market-rate buildings and landscape areas. The Project is not considering installing non-potable water infrastructure within the public right-of-ways.

Graywater from the residential showers, bathroom sinks and bathtubs will be collected and stored in a tank for treatment and reuse. The non-potable water will be reused for toilet flushing and landscape irrigation. The Project is not considering collecting and treating blackwater.

### **10.3 Non-Potable Water System Phasing**

The new NPW system will be installed as-needed to facilitate a specific proposed Development Phase. The amount and location of the proposed NPW system installed will be the minimum necessary to support the Development Phase. Each phase will be operational prior to occupancy of proposed buildings to be constructed as a part of that phase. The Operator of the NPW distribution system will be responsible for the new, phased NPW facilities once construction of the improvements is complete.

For each Development Phase, the Developer will provide the City a Non-Potable Water Utility Report describing and depicting the existing NPW infrastructure and the proposed phased improvements and demonstrate that the Development Phase will provide the required pressure and flow.

## **11. AUXILIARY WATER SUPPLY SYSTEM (AWSS)**

### **11.1 Existing AWSS Infrastructure**

The SFPUC, in cooperation with the SFFD, owns and operates the Auxiliary Water Supply System (AWSS). The AWSS is a high pressure, non-potable water distribution system dedicated to fire suppression specifically designed for reliable operation after a major seismic event. The existing AWSS system within the vicinity of the project includes a 20-inch diameter main in Ocean Avenue.

### **11.2 AWSS Regulations and Requirements**

The proposed Project will meet the fire protection requirements established by the SFFD to meet their City-wide objectives for fire protection following a seismic event. This includes the extension and installation of AWSS facilities to and within the Project. The proposed AWSS facilities will be located in the proposed streets that are within the public right-of-way, as approved by the SFPUC.

The AWSS facilities will be placed with vertical and horizontal separation distances to other utilities as shown in Section 8.

### **11.3 Proposed AWSS Infrastructure**

The proposed Project will install new AWSS facilities within the Project, extending and connecting to the existing AWSS main in Ocean Avenue.

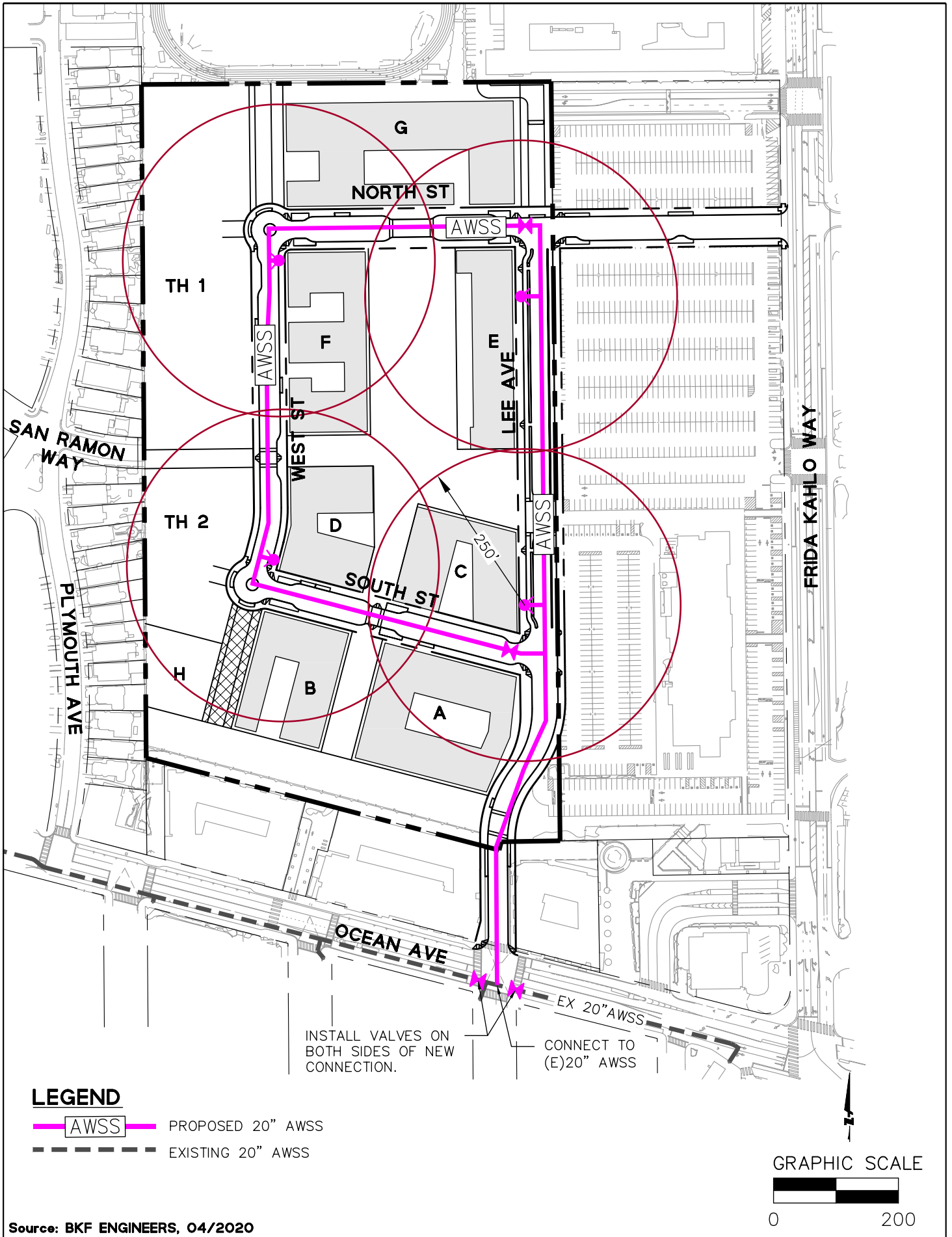
The project shall provide a single point of connection to the existing AWSS main in Ocean Avenue. Two valves will be installed on the existing AWSS line in Ocean Ave on both sides of the new connection. The alignment will run north on Lee Avenue, west on North Street, south on West Street, and east on South Street and connect back to the main in Lee Avenue creating a loop within the Project Site. This option has been deemed the most feasible option to supply AWSS to the Project Site.

The proposed Project will design and install the new AWSS facilities in a single phase consistent with the Project Phasing Plan. The proposed 20-inch pipeline will be earthquake resistant ductile iron pipe material. The Project will also install AWSS fire hydrants, at a maximum spacing of 500 feet, at locations determined by the SFPUC and SFFD. The proposed AWSS facilities for both options, including proposed hydrant locations, are depicted on Figure 11.1.

The SFPUC will be responsible for maintenance of existing AWSS facilities. The SFPUC will be responsible for the new AWSS facilities once construction of a new AWSS facility is complete and accepted by the SFPUC. Impacts to improvements installed with previously constructed portions of the Development due

to the designs of subsequent blocks will be the responsibility of the Developer and will be addressed prior to approval of construction documents for each subsequent block. The SFPUC and SFFD will provide flow and pressure capacities of the existing AWSS that the proposed AWSS will connect to.

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BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 11.1 - PROPOSED AWSS SYSTEM

## **12. COMBINED SEWER SYSTEM**

### **12.1 Existing Combined Sewer**

#### **12.1.1 Existing Conditions**

The existing conditions within the Project Site consists of a parking lot that is used under contract by City College which is enclosed by three sides of the old Balboa Reservoir embankments. The Project Site is roughly 75% impervious. The site is adjacent to the City College Multi-Use Building built in 2010 and has private sanitary sewer and stormwater pipelines that collect and discharge the wastewater into a 27-inch combined sewer gravity pipeline located at the dead end segment of Lee Avenue.

#### **12.1.2 Existing Drainage Area**

The Project is comprised of one stormwater watershed defined by the existing topography in Figure 5.1 of the Project Site. The stormwater runoff on the raised side of the East reservoir embankment is collected in the private storm drain inlets located behind the City College Multi-Use Building, and the lower parking lot drains to the South West corner of the site.

#### **12.1.3 Existing Sewer Demands**

The existing sewer demands on the Project Site are at a minimum as there is only the existing City College building present in the nearby lot.

#### **12.1.4 Existing Combined Sewer System**

There is an existing 30-inch diameter combined sewer main in Frida Kahlo Way that flows south into a 3-foot by 4.5-foot concrete sewer at the intersection with Ocean Avenue. It then runs west along Ocean Avenue to the intersection of Lee Avenue, where it transitions to a 2-foot by 3-foot concrete sewer and continues west down Ocean Avenue. There is also a private 8-inch sewer line on the west side of the City College Multi-Use Building which connects to the 27-inch combined sewer in Lee Avenue and which discharges into the 2-foot by 3-foot concrete sewer in Ocean Avenue.

### **12.2 Proposed Combined Sewer System**

#### **12.2.1 Proposed Sewer Demands**

The proposed Project estimated sewer flow assumes a return of 95% on the indoor potable water demand and 100% on the indoor non-potable water for the Average Day Demands. The potable

and non-potable water demand calculations associated with the proposed Project are estimated using the SFPUC's Non-Potable Water Program District Scale Water Calculator.

<b>Project Sewage Generation</b>	
<b>Design Scenario</b>	<b>Demand</b>
Average Dry Weather Flow (ADWF)	102,900 gpd
Peak Dry Weather Flow (PDWF) = 3 x ADWF	308,700 gpd

### 12.2.2 Proposed Stormwater Flows

Runoff from the Project Site is divided into two main watersheds as shown on Figure 12.2. Runoff from both of these watersheds will be conveyed by the new combined sewer system to the existing system in Ocean Avenue. Due to existing capacity limitations in the Ocean Avenue combined sewer system, the proposed Project will not increase peak stormwater discharge from the project site during the 5-year, 3-hour and 100-year, 3-hour storm events as a requirement of the SFPUC for project implementation. Onsite detention and retention will be provided to limit the peak discharge to existing conditions.

The approximate existing 5-year and 100-year peak flows for each watershed are listed below:

	<b>Area (acre)</b>	<b>5-year Flow (cfs)</b>	<b>100-year Flow (cfs)</b>
Western Watershed	14.3	8.5	9.4
Eastern Watershed	11.3	17.2	28.8

### 12.2.3 Proposed Combined Sewer Capacity and Design Criteria

Design criteria, pipe sizes and flow velocities will conform to the requirements of the San Francisco Subdivision Regulations and the San Francisco Public Works Standard Specifications and Plans, subject to SFPUC review and approval.

### 12.2.4 Proposed Combined Sewer System

The wastewater and stormwater from the Project will be collected and conveyed by a proposed combined sewer system. The proposed combined sewer system is depicted on Figure 12.1. The combined sewer system will be designed and constructed by the Developer. The combined sewer design will be reviewed and approved by the SFPUC. The proposed combined system will consist of a diameter pipe size to be finalized in the MUP and to convey sanitary sewer and stormwater



by gravity to existing 24-inch and 27-inch pipes connecting to the combined sewer facilities in Ocean Avenue.

Prior to initiation of detailed design, the Developer will conduct inspections of these existing connection pipes and SFPUC will determine if the pipes require repair or replacement by the Developer. As appropriate, the project's sewer and stormwater master plan may also contemplate flows from other entitled projects connecting in the future Lee Avenue.

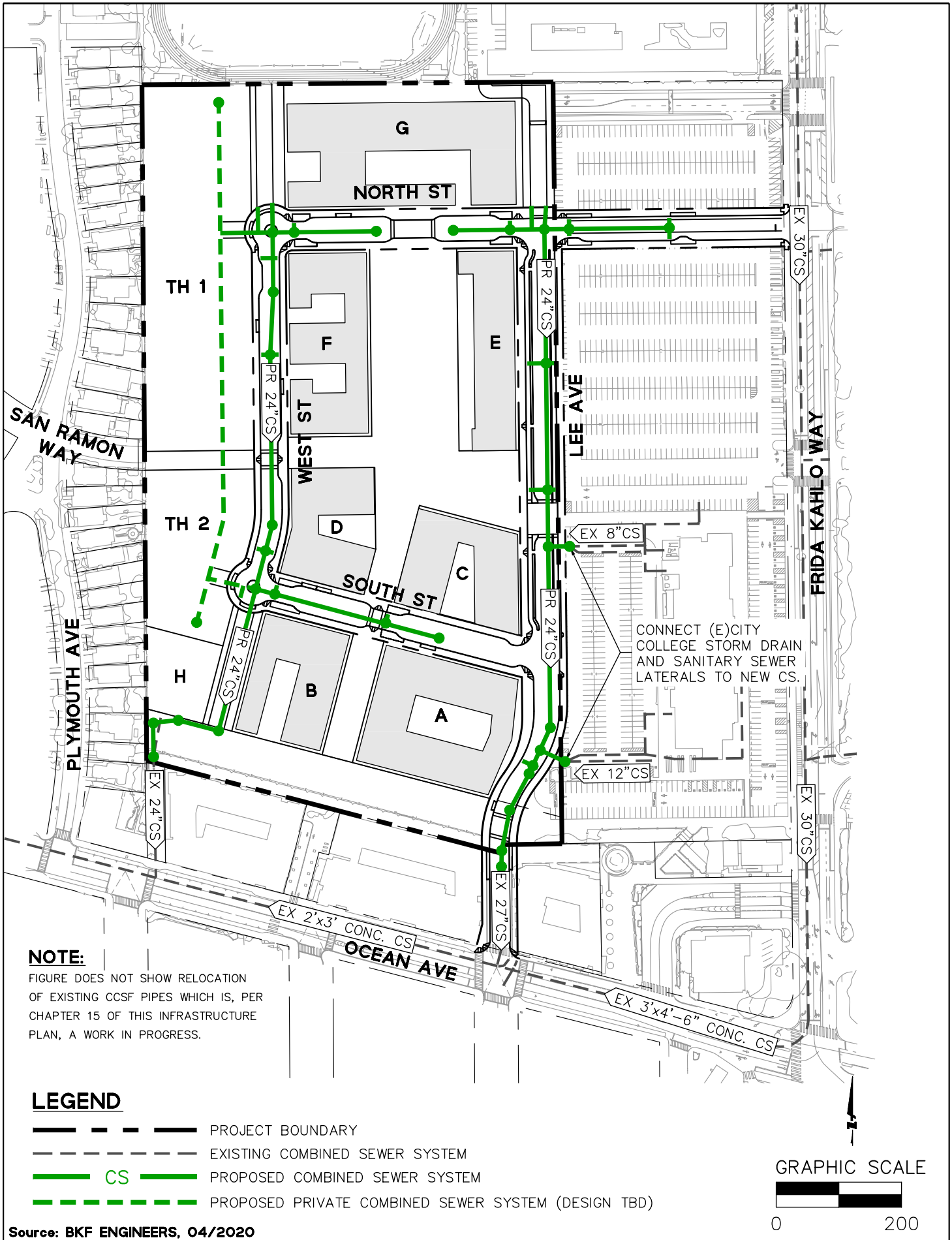
#### **12.2.5 Pipe Material**

HDPE will be the pipe material proposed by the Developer pending approval by the San Francisco Public Utilities Commission, Collection System Division.

#### **12.2.6 Combined Sewer Construction and Phasing**

The new combined sewer system will be installed with Phase 1 of the improvements which includes the street improvements and infrastructure to serve the entire project.

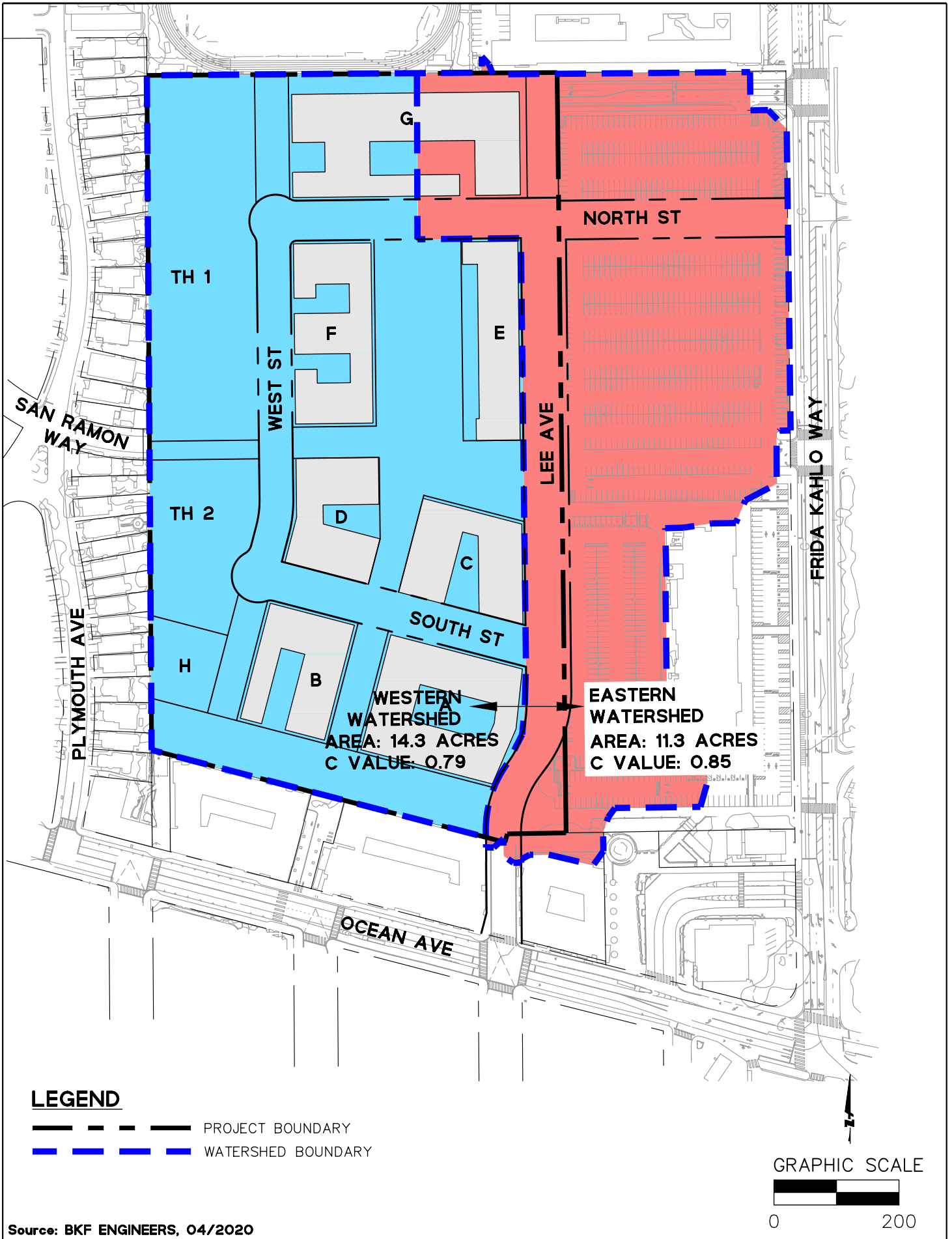
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BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 12.1 – PROPOSED COMBINED SEWER SYSTEM

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PLOT DATE: 03-31-20 PLOTTED BY: cheh



BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 12.2 - PROPOSED WATERSHED

### **13. STORMWATER MANAGEMENT SYSTEM**

#### **13.1 Existing Stormwater Management System**

The existing site is approximately 76.2% impervious, mostly covered in asphalt pavement. The existing site drains to the City's combined sewer system that drains to the Oceanside Water Pollution Control Plant which discharges to the Pacific Ocean.

#### **13.2 Proposed Stormwater Management System**

##### **13.2.1 San Francisco Stormwater Management Requirements and Design Guidelines**

The Project is located in a combined sewer area and is subject to the Combined Sewer Area Performance Requirements of the San Francisco Stormwater Management Requirements (SMR). A Sewer, Stormwater and Grading Master Utility Plan will be provided prior to the submittal of the Basis of Design and the Improvement Plans. Since the site was previously more than 50% impervious, the Project must reduce from the existing condition the runoff rate and volume of stormwater going into the combined system for the 2-year, 24-hour design storm. The Developer's Infrastructure obligations include the design and construction of the proposed stormwater management system. Typically, the SMR require projects to reduce runoff rate and volume of stormwater by 25% each.

Due to existing capacity limitations in the Ocean Avenue combined sewer system, the Project may not increase the peak discharge to the Ocean Avenue sewer system in the 5-year, 3-hour and 100-year, 3-hour storm events. Additional onsite detention and retention (above what is required to the SMR) will be provided to limit the peak discharge to existing conditions.

##### **13.2.2 Proposed Site Conditions and Baseline Assumptions**

The Project includes public streets, parks and plaza open space areas, and Private Development Parcels. The Project will be designed to integrate Low Impact Development (LID) elements with stormwater best management practices (BMPs) to create a sustainable environment at the site and achieve compliance with the SMR. Stormwater BMPs considered for the Project include flow-through planters, bioretention areas, rain gardens and infiltration galleries to manage and reduce stormwater runoff prior to discharging to the public combined sewer system.

Public streets will consist of at-grade streets with a combination of landscape strips, tree wells, and flow-through planters. Reservoir Park will include landscape strips, tree wells, and centralized

bioretention areas. Brighton Paseo, San Ramon Paseo, West Street, North and South Paseo will likely include either bioretention areas or infiltration galleries, or a combination of both. Development parcels covered entirely with podium structures will include a combination of flow-through planters, landscape planters, tree wells, and pedestrian pathways.

### **13.2.3 Private Parcel Stormwater Management Design Concepts**

The SMR requires the Project to implement BMPs to reduce the flow and volume of runoff from the Project Site. To be included with the Stormwater Management Master Plan, a process flow diagram illustrating the limits of the drainage management areas (DMAs), location of runoff discharge to existing combined sewer system, and existing combined sewer system will be developed to illustrate compliance with the SMR.

The conceptual stormwater management plan for the Project includes DMAs with either localized or centralized management facilities. Localized stormwater management occurs in DMAs that are able to direct surface runoff to BMPs that are sized to manage stormwater runoff from impervious areas per the given design storm event. Private development parcels located within DMAs with localized stormwater management will allocate a space to implement BMP measures and manage stormwater for the design storm event prior to discharging into the adjacent public combined sewer system. Alternatively, Development Parcels also have the option to collect and reuse stormwater on-site for non-potable uses to meet the SMO requirements.

Centralized stormwater management facilities will be implemented to collect runoff from larger site areas and from different properties to manage stormwater with a larger scale BMP. Adjacent private parcels to Reservoir Park plan to direct stormwater runoff to the centralized bioretention facility within Reservoir Park. These parcels could include C, D, E and F. Runoff from the new public streets could be directed to a centralized BMP located on private property. The centralized facility is planned to be sized to meet parcel C, D, E, & F SMO compliance as well as partial SMO compliance for the proposed public ROW. This option will be explored and included in the Sewer, Stormwater and Grading Master Utility Plan.

### **13.2.4 Public ROW Stormwater Management Design Concepts**

The primary BMP within the public ROW will be flow through planters that will manage runoff from the streets and sidewalks. However, it is anticipated that the public streets will be unable to

meet the 25% reduction for rate and volume on their own due to lack of space for flow through planters. Therefore, the centralized stormwater management facilities located in Reservoir Park will be oversized to ensure stormwater management requirements of the public streets are met providing additional reductions for rates and volume beyond the 25% required by the SMRs.

### 13.2.5 Stormwater Management Phasing

Each phase of the Project as a whole, including the public right-of-way, private streets, development parcels, and open spaces, will meet the 25% rate and volume reductions. Phase 1 currently includes all of the public ROW, parcels C, D E and F and the townhome site. Phase 2 currently includes parcels A, B, G, and H. Refer to Figure 1.3 for phasing of parks and open space.

### 13.2.6 Conceptual Stormwater Management Sizing

The conceptual stormwater management approach for the Project is presented in Figures 13.1 and 13.2. Figure 13.1 shows the large scale DMAs that are used for the conceptual BMP sizing calculations.

Figure 13.2 presents the conceptual location and size of the BMPs for each DMA. The BMP sizes were determined for planning purposes using the SFPUC's latest CSS BMP sizing calculator.

**Table 13.1. Estimating BMP Sizing**

DMA	DMA area (acre)	Permeable Pavement (sf)	Bioretention or Infiltration Gallery (sf)	Lined Private Bioretention (sf)	Unlined Public Bioretention (sf)	Unlined Private Bioretention (sf)
1	2.22	3,500	0	5,100	0	0
2	4.84	12,600	7,400	5,800	0	7,200
3	2.55	6,000	2,000	4,300	0	7,700
4	1.15	0	0	0	3,100	0
5	3.39	12,400	0	0	0	7,400
6	1.02	16,100	0	0	0	0
7	0.32	0	0	570	0	0
8	0.51	0	0	0	1,200	0
9	0.16	0	0	0	0	280

### 13.3 Stormwater Control Plan

Based on the designs to be reviewed and approved by the SFPUC as part of the Sewer, Stormwater and Grading Master Utility Plan and Basis of Design, the stormwater management strategies for the Project will be documented in a series of Stormwater Control Plans (SCP) in compliance with SFPUC stormwater management regulations and the requirements of the SMR. The selected modeling methodology will be

per the SFPUC accepted hydrologic calculation methods. A Preliminary SCP will be submitted for the public right-of-way and public open space improvement with proposed ROW and centralized BMP stormwater controls to the SFPUC at, or before, the 60% Improvement Plan milestone. The Final SCP approval by SFPUC shall occur prior to issuance of the Street Improvement Permit. When full stormwater compliance is not met within a public ROW SIP, the Preliminary SCP of the corresponding centralized bioretention facility project (i.e. Reservoir Park) will be approved prior to issuance the subject SIP project permit.

Private parcels will submit the SCP for SFPUC review and approval per the standard SCP Project Review process. The Townhome parcel and SFPUC open space parcel will independently comply with the SMO and submit separate SCPs. When full stormwater compliance is not fully met within a private parcel, the Preliminary SCP of the corresponding centralized bioretention facility project (i.e. Reservoir Park) will be approved prior to issuance the private parcel Preliminary SCP. Where private parcels discharge stormwater to the centralized bioretention facility to comply with their stormwater management requirements, the centralized facility must be fully operation prior to the issuance of the Certificate of Final Completion of any subject connecting private parcels.

#### **13.4 Phases for Stormwater Management System Construction**

The Developer will design and install the new stormwater management system as-needed to ensure SMO compliance during each proposed Development Phase. The amount and location of the proposed stormwater management systems shall be installed to ensure full compliance by the end of each completed Development Phase(s). The new Development Phase will connect to the existing utility systems as close to the boundary of the Development Phase area as possible. Development phasing with regard to stormwater management system is conceptual and remains under design. The phasing and simplification of the stormwater management systems will be further coordinated with the SFPUC prior to approval of the Stormwater Master Plan and Basis of Design.

At all phases of the development, the Developer must provide functioning and adequate stormwater management in compliance with the SFPUC's post-construction stormwater management requirements and the SMR. In addition, the Developer must complete the construction of the approved stormwater management improvements required for each development phase prior to receiving a Certification of Completion for the development phase.

Centralized stormwater management facilities necessary to achieve SMR compliance within a development phase will be constructed and operational prior to or in conjunction with that phase. If interim facilities are determined necessary and allowed by the SFPUC, the Developer will be responsible for constructing and maintaining interim stormwater management infrastructure, and ensuring such interim facilities remain online and operating continuously until permanent BMP infrastructure is fully functional and operating.

Stormwater management systems, which may include bioretention areas, street flow-through planters, infiltration galleries, and retention areas located on public or private property within the Project, will be constructed and maintained by the City Agency, Developer, or its Assignees, where applicable, per the terms of the DA. SFPUC will only maintain stormwater control facilities that receive public ROW runoff, only. The Developer or Master HOA will maintain any stormwater control facility managing private parcel runoff, or a blend of private parcel and public ROW runoff.

#### **13.4.1 Phase 1 Stormwater Management Construction**

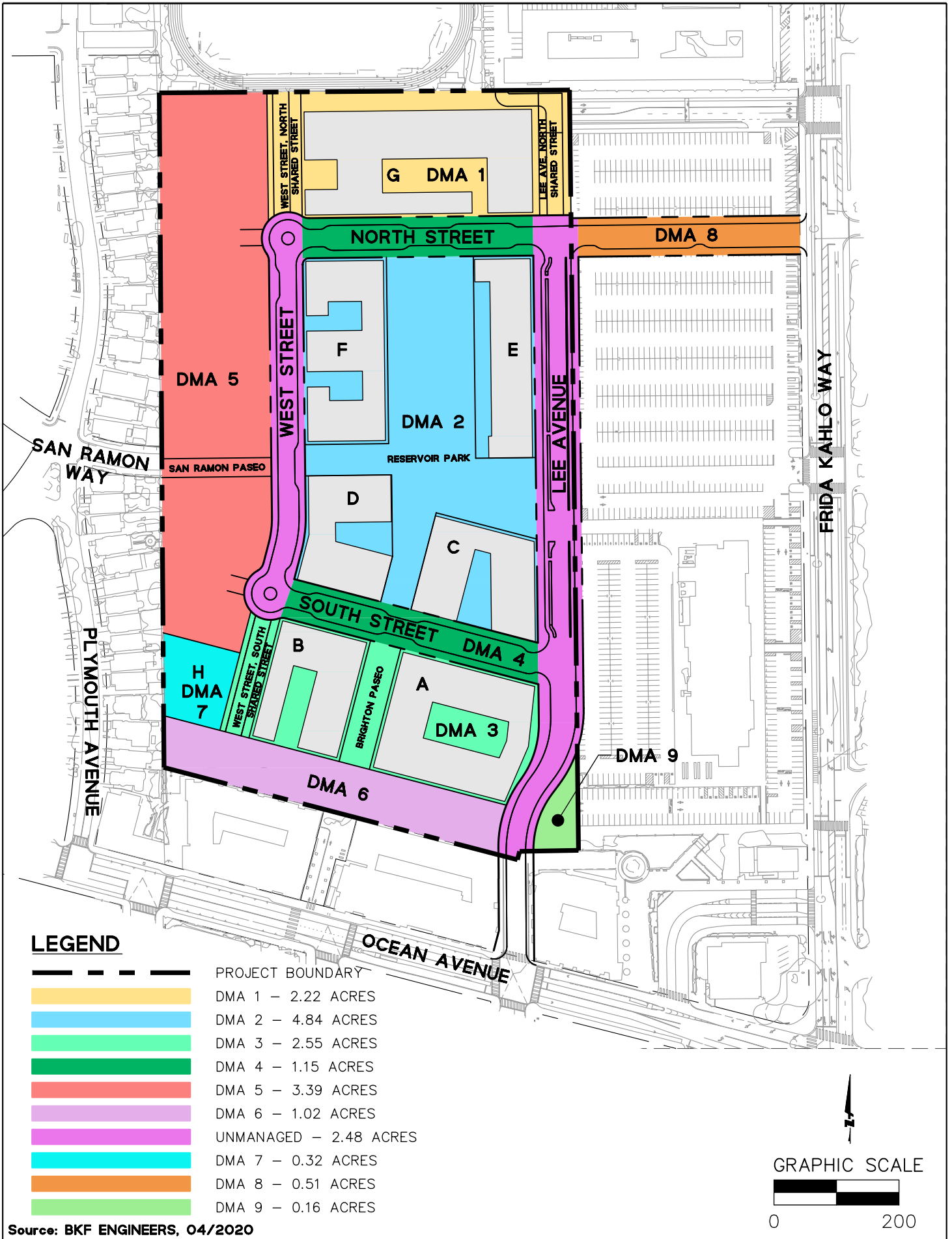
Phase 1 will include all the public ROWs, the townhome site, Lots C, D, E and F and Reservoir Park. All parcel and public ROW BMPs within the phase boundary will be constructed in this phase. The centralized stormwater management area in Reservoir Park will be constructed in this phase. This will likely be over-sized to manage future runoff from Phase 2.

#### **13.4.2 Phase 2 Stormwater Management Construction**

Phase 2 will include Lots A, B, H and G. Parcel BMPs needed to meet the SMR requirements for these lots will be constructed in this phase.

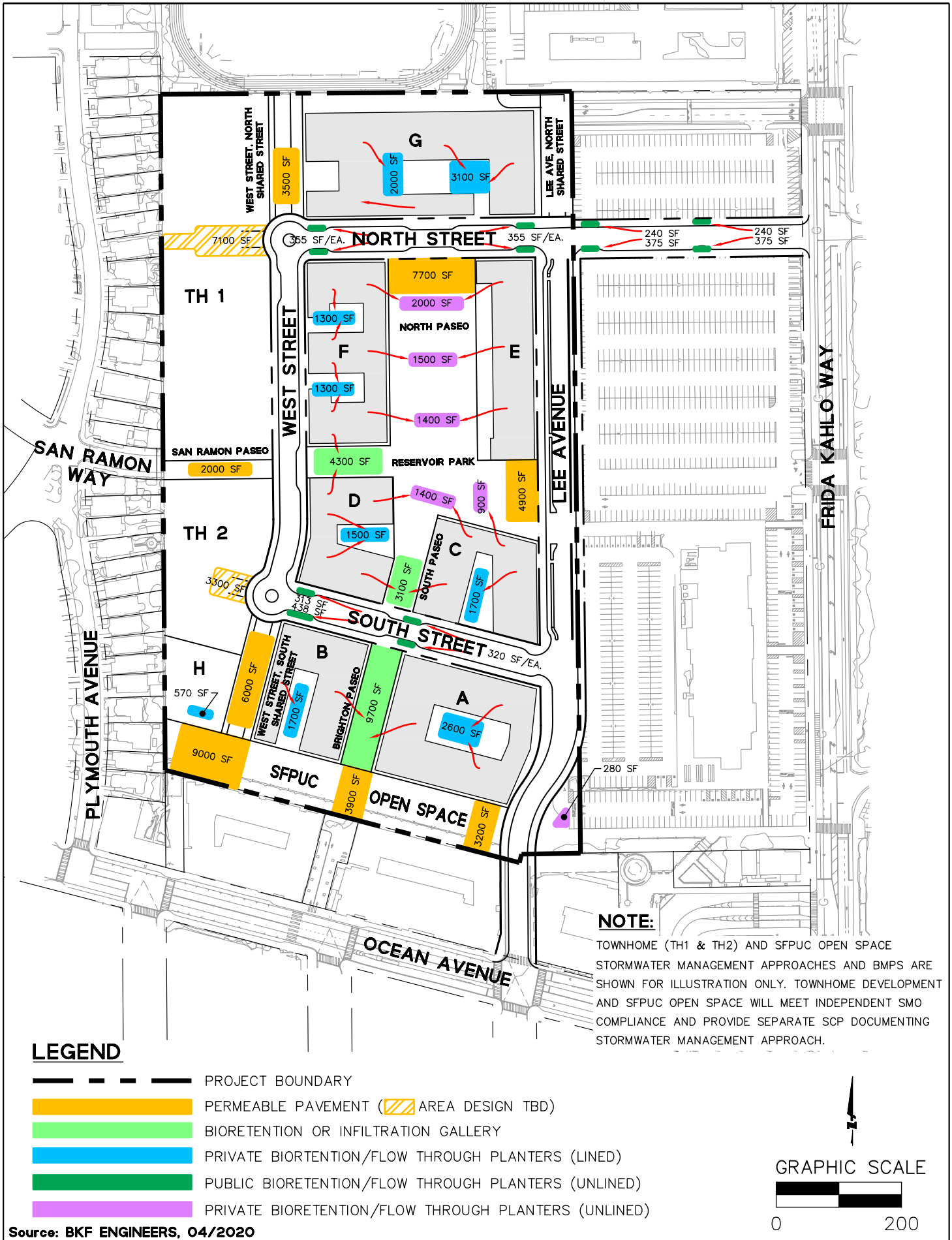


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BALBOA RESERVOIR INFRASTRUCTURE PLAN      FIGURE 13.1 - STORMWATER DRAINAGE MANAGEMENT AREAS

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BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 13.2 – STORMWATER CONTROL PLAN

## **14. DRY UTILITY SYSTEMS**

### **14.1 Existing Dry Utility Systems**

#### **14.1.1 Electric**

Balboa Reservoir project area is surrounded by Ocean Ave. on the south, Plymouth Ave. on the west and across a parking lot to remain, Frida Kahlo Way on the east. According to record maps provided by PG&E, Ocean Ave. includes 4kV and 12kV underground electrical distribution. On Plymouth Ave., overhead electrical lines with 4kV run along the backyards of existing properties. Finally, underground electrical distribution has been established on Frida Kahlo Way as well.

#### **14.1.2 Natural Gas**

Per record maps provided by PG&E, there are existing high pressure distribution gas mains running along Ocean Ave on the south and north sides. Additionally, the record maps show a deactivated gas line cutting through Ingleside branch of San Francisco Public Library near the intersection of Plymouth Ave. and Ocean Ave. On the west side, a high pressure distribution main line begins (capped with an electronic marker, EM) approximately 50' north off the corner of Plymouth Ave. and Ocean Ave. and runs along Plymouth Ave. Along Frida Kahlo Way, there is a high pressure distribution main line in the westerly side of the street.

#### **14.1.3 Communications**

Based on visual inspection at the Project Site, AT&T and Comcast operate existing communication facilities along Ocean Ave., Plymouth Ave. and Frida Kahlo Way. Ocean Ave. and Frida Kahlo Way consist of underground low voltage distribution systems while Plymouth Ave. consists of joint poles carrying the AT&T, Comcast, and San Francisco Department of Technology (DT) overhead lines along the backyards of the properties

### **14.2 Project Power Providers and Requirements**

Per Chapter 99 of the San Francisco Administrative Code, the Developer will provide the SFPUC with all Project information the SFPUC requires to determine the feasibility of providing electric service to the Project Site (the "Feasibility Study"). The SFPUC will complete the Feasibility Study within thirty (30) days after the date that Developer provides to the SFPUC all Project information needed to complete the Feasibility Study. Developer agrees that if the SFPUC determines it is feasible to provide electricity for the Project Site, then the SFPUC will be the exclusive power provider to the Project Site. The SFPUC electrical power will be provided under the SFPUC's Rules

and Regulations Governing Electric Service and at rates that are comparable to rates in San Francisco for comparable service from other providers. SFPUC requires adequate space for the Wholesale Distribution Tariff (WDT) intervening facilities be provided as an easement or fee title land rights at the time of the Final Map for each applicable phase.

### **14.3 Proposed Joint Trench**

The proposed joint trench for dry utilities (that lie in public streets and in the sidewalk area if at all possible) consists of trench excavation and installation of conduit ducts for gas, electric, voice / data, and fire and police alarm. Additionally, utility vaults, splice boxes, street lights and bases, wire and backfill are included. The utility owner/franchisee (voice / data companies) will be responsible for installing their own facilities such as transformers and wire. Options for a proposed joint trench system are shown on Figures 14.1A-C depending on provider and proposed point of connection.

All necessary and properly authorized public utility improvements for which franchises are authorized by the City shall be designed and installed in the public right-of way in accordance with governing codes, rules and regulations, and permits approved by San Francisco Public Works (SFPW). Joint trenches or utility corridors will be utilized wherever feasible. The location and design of joint trenches and utility corridors in the right-of way must be approved by SFPW during the street improvement review process. All subsurface vaults serving one building shall be placed behind the property line. If a subsurface vault serves the distribution system, it may be placed in the right of way. Other facilities (e.g., traffic signal controllers) shall be located above ground as necessary for operational reasons. The precise location of the joint trench in the right of way will be determined prior to recording the applicable final map and identified in the street improvement plans. Nothing in this Infrastructure Plan shall be deemed to preclude Owner from seeking reimbursement for or causing others to obtain consent for the utilization of such joint trench facilities where such reimbursement or consent requirement is otherwise permitted by law.

### **14.4 Street Lights**

Secondary power for street lighting may be installed in the joint trench or separate trench with proper separation as a street light utility.

### **14.5 Public Utility Easements**

Public Utility Easements are not necessarily allowed by the City for public facilities. The SFPUC must approve each PUE on a case-by-case basis, otherwise it is assumed that all facilities will be in the public right-of-ways.

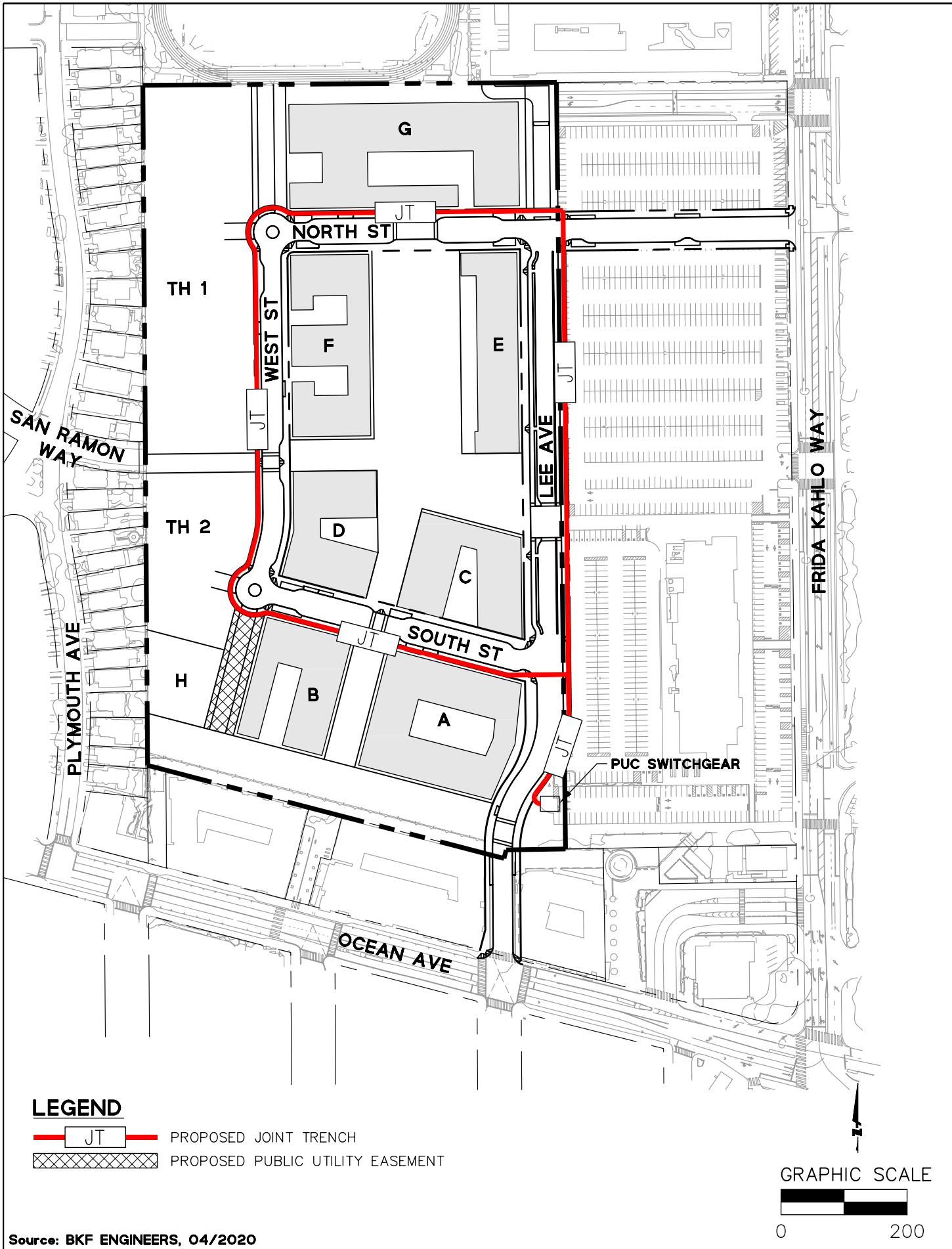
Public utilities in easements will be installed in accordance with the standards in this Infrastructure Plan and applicable City Regulations for public acquisition and acceptance within public utility easement areas, including provisions for maintenance, but such areas shall not be required to be dedicated as public right of ways or improved to public right of way standards but may including paving, street furnishings, lighting, landscaping and irrigation.

#### **14.6 Phases for Dry Utility Systems Construction**

Joint trench design and installation will occur in phases based on the principle of adjacency and as-needed to facilitate a specific proposed Development Phase and consistent with the requirements of the DA. The amount of existing system replaced, and new infrastructure installed along Lee Avenue, North Road, West Road, and South Road will be the minimum necessary to support the Development Phases. The new infrastructure will connect to the existing systems as close to the proposed development as possible while maintaining the integrity of the existing system. Repairs and/or replacement of the existing facilities necessary to serve the Development Phase will be designed and constructed by the Developer. Such phased dry utility installation will allow the existing utility services to remain in place as long as possible and reduce disruption of existing uses on the site and adjacent facilities. Temporary or interim electric or dry utility infrastructure may be constructed and maintained as necessary to support service to existing buildings.

The service providers will be responsible for maintenance of existing facilities until replaced by the Developer. In the interim, the service provider is responsible for any power facilities installed under any agreement with the Developer and City Agency. The service provider will also be responsible for any new power facilities once the improvements for the Development phase or the new power facility is complete and accepted by the City Agency.

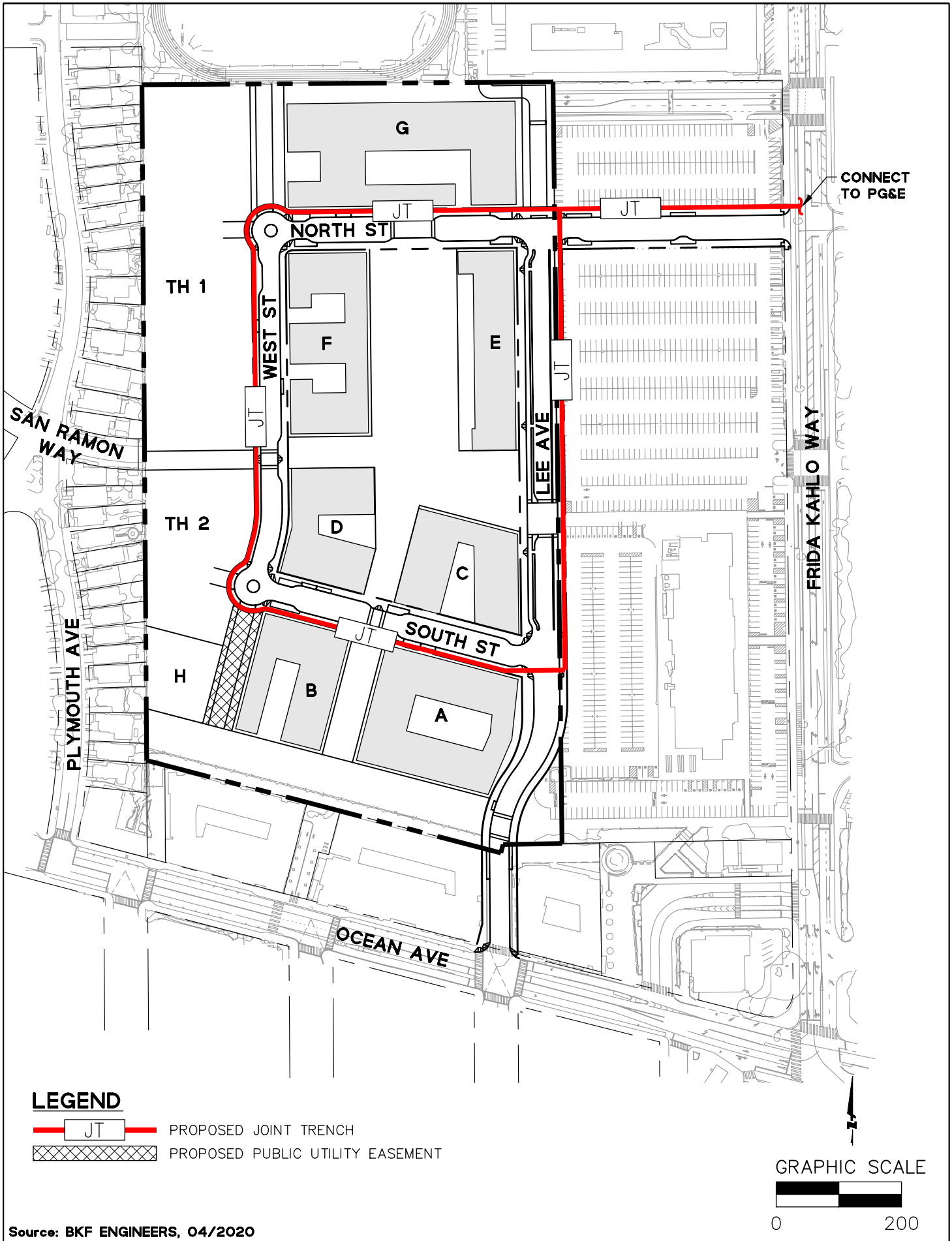
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BALBOA RESERVOIR INFRASTRUCTURE PLAN      FIGURE 14.1A - PROPOSED JOINT TRENCH SYSTEM (OPTION 1 - SFPUC)

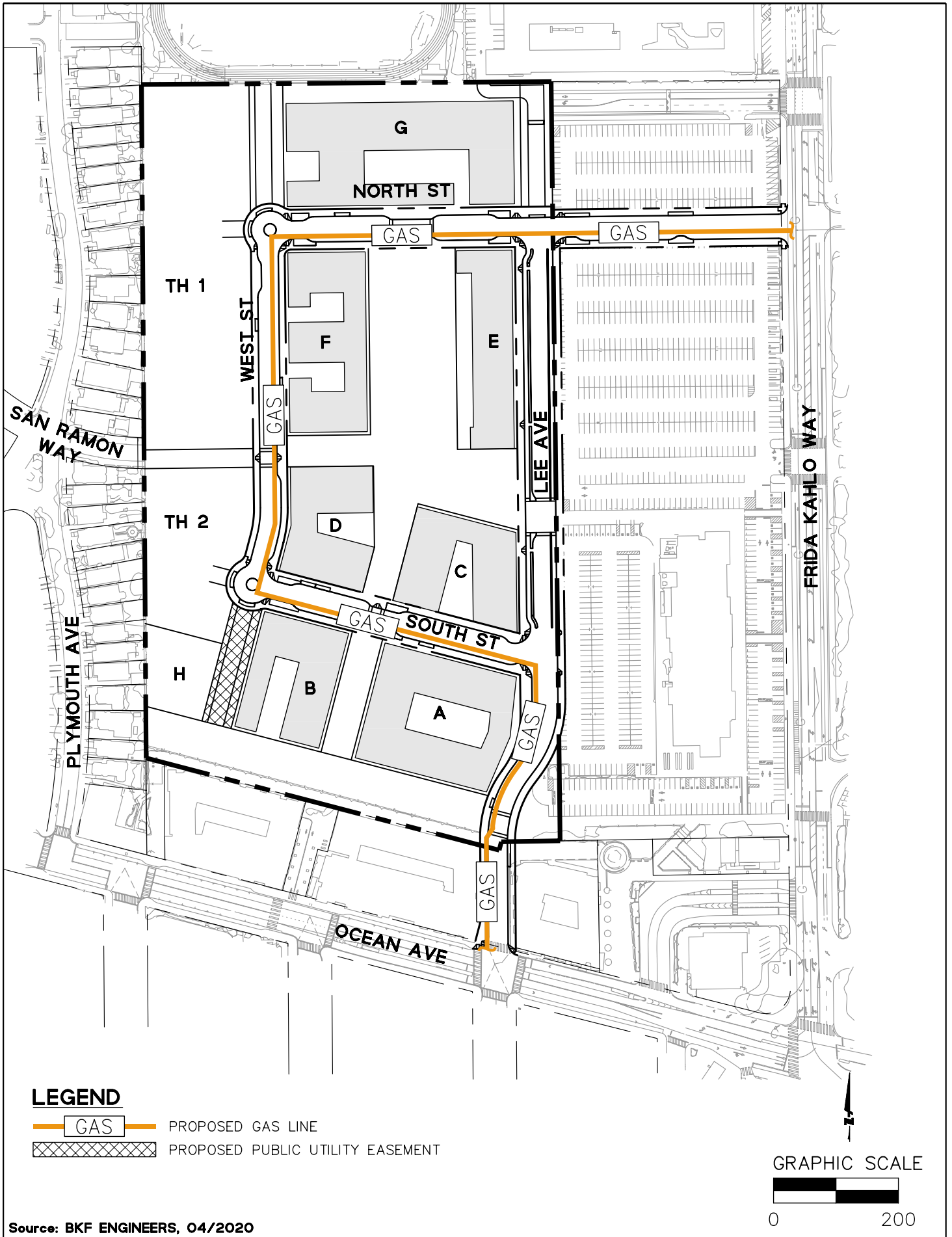


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BALBOA RESERVOIR INFRASTRUCTURE PLAN      FIGURE 14.1B - PROPOSED JOINT TRENCH SYSTEM (OPTION 2 - PG&E)

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Source: BKF ENGINEERS, 04/2020



## **15. EXISTING CITY COLLEGE OF SAN FRANCISCO UTILITIES**

### **15.1 Existing Private Utilities**

Within the proposed right-of-way of Lee Avenue, there are currently private utilities owned by the City College of San Francisco (City College). These utilities primarily serve City College's multi-use building, located east of the Project Site. See Figure 15.1A.

#### **15.1.1 Fire Water**

There is an existing 8-inch private fire water line that runs in the proposed Lee Avenue right-of-way. This line has two points of connection to the City water system in Frida Kahlo Way. It serves several on site, private fire hydrants.

#### **15.1.2 Sanitary Sewer**

There is an existing 8-inch private sanitary sewer line that runs in the proposed Lee Avenue right-of-way. This line flows south and connects to the existing 27-inch City combined sewer line at the dead end of Lee Avenue.

#### **15.1.3 Storm Drain**

There are existing 18-inch and 60-inch private storm drain lines that run in the proposed Lee Avenue right-of-way. These lines collect storm water runoff and flow south towards Ocean Avenue. The 18-inch line collects runoff from the northern portion of the City College site and conveys it to the 60-inch line. The 60-inch line is a detention pipe that holds storm water and slowly releases it to the City's 27-inch combined sewer line in Lee Avenue. On the downstream end of the 60-inch line, there is a weir structure which controls the rate of discharge from the line.

#### **15.1.4 Geothermal Wells**

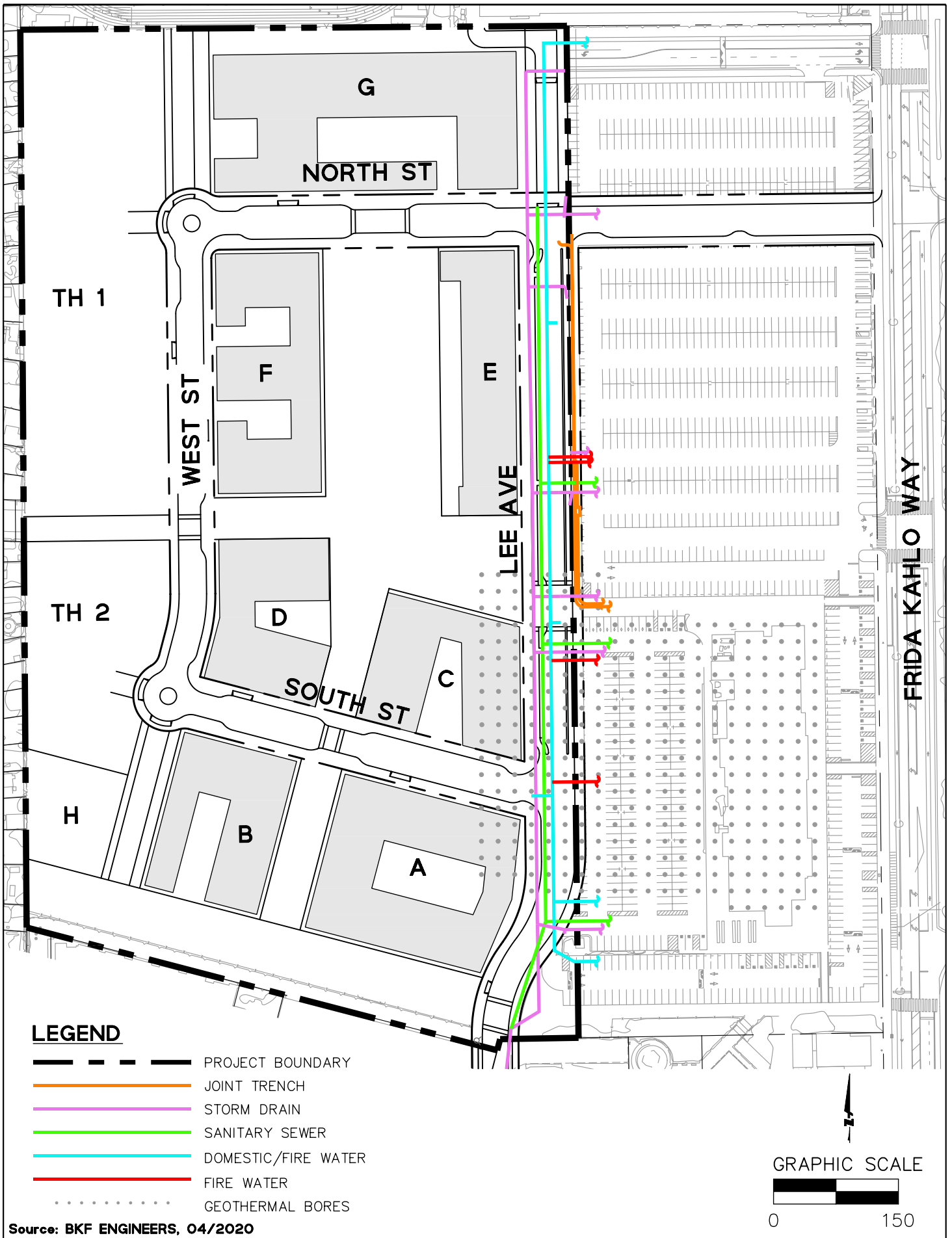
There is a field of geothermal wells owned by City College that extend under a portion of the future Lee Avenue right-of-way and into the Project Site. These wells are part of the heating and cooling system for the multi-use building which has a central plant that uses hydronic heating for climate control. Water is pumped through the wells and then returned to the building where it either heats or cools the building.

### **15.2 Relocation of Private Utilities**

The private utilities will need to be relocated or abandoned to construct Lee Avenue. Proposed City College utility reconnections to the new utilities in Lee Avenue are shown in Figure 15.1B.

- The City College storm drain and sanitary sewer laterals will be connected to the new public CS line in Lee Avenue.
- The City College fire service laterals will be connected to the new 12-inch LPW in Lee Avenue. Backflow preventors will be installed on the fire service laterals.

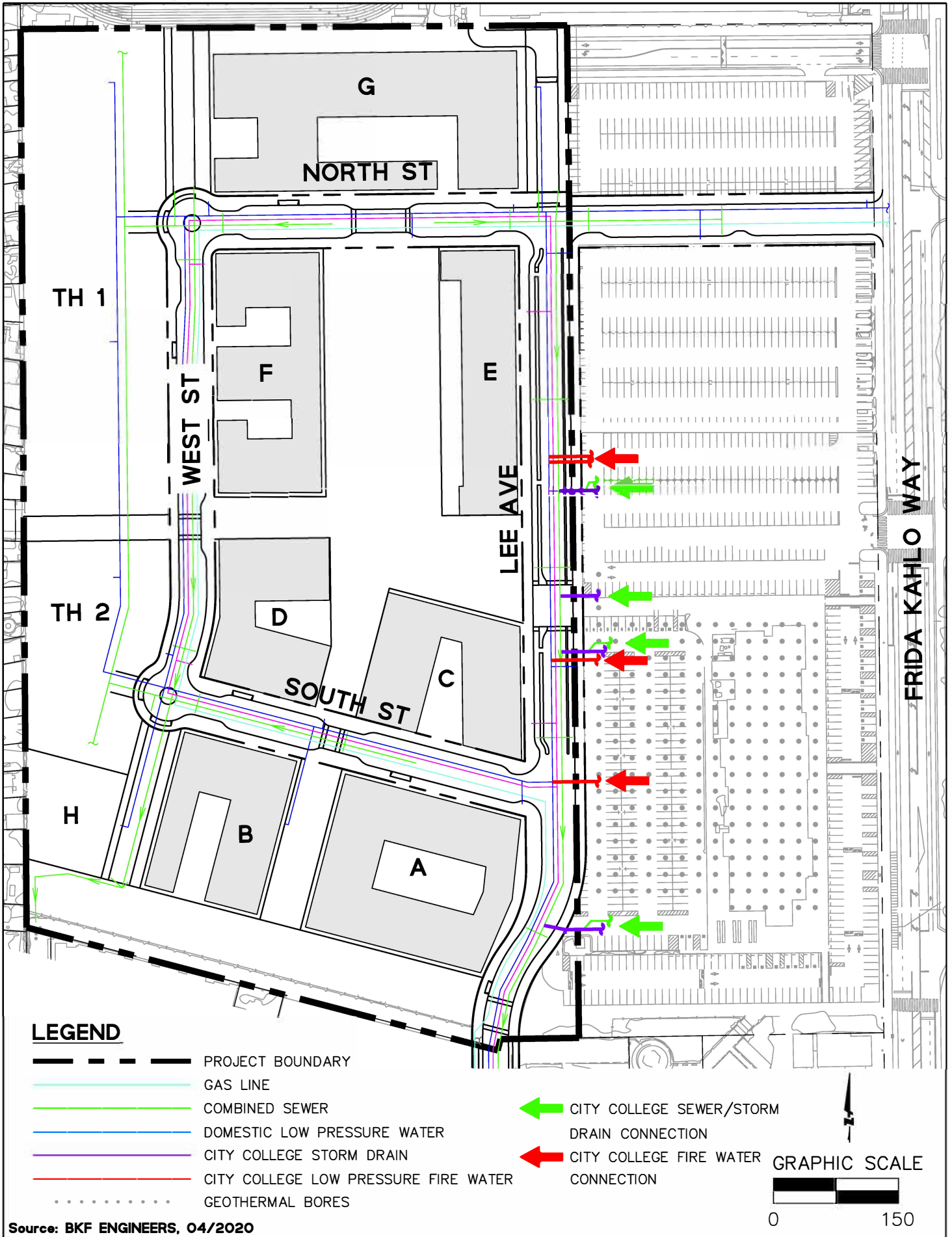
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BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 15.1A - EXISTING CITY COLLEGE UTILITIES

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BALBOA RESERVOIR INFRASTRUCTURE PLAN

FIGURE 15.1B - PROPOSED CITY COLLEGE UTILITY CONNECTIONS

**APPENDIX A – BALBOA RESERVOIR DESIGN STANDARDS AND GUIDELINES**  
**CHAPTER 5**

# CIRCULATION

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## STREET DESIGN STANDARDS AND GUIDELINES

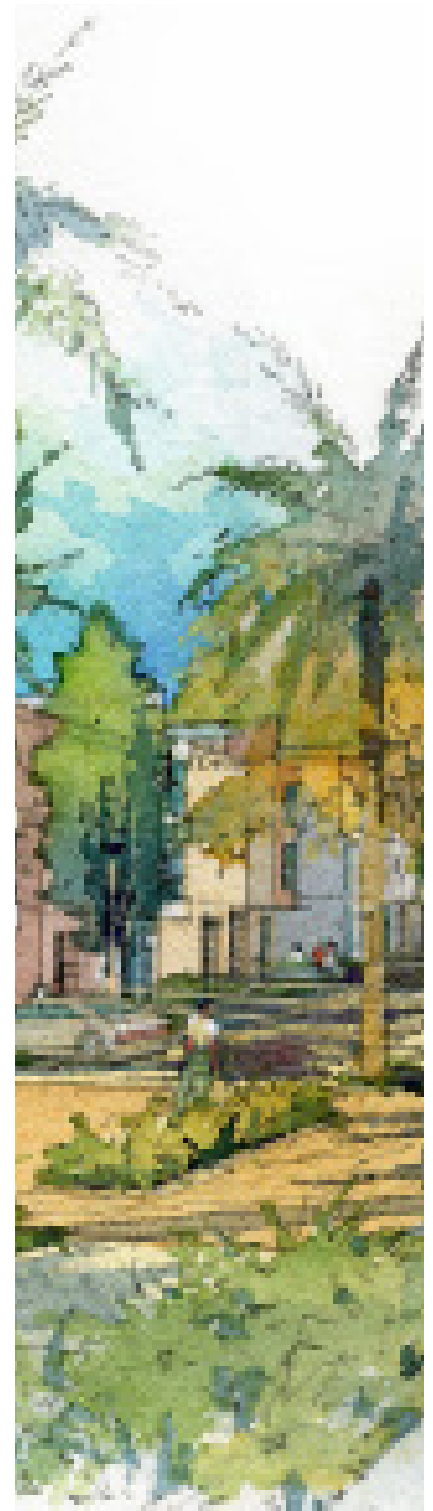
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# Overview

## 5.1 STREET DESIGN OVERVIEW

### Circulation Overview

If the heart of the new Balboa Reservoir neighborhood is the park and open space network, then the streets are the circulatory system that brings vitality to and from the surrounding neighborhoods and beyond. The Balboa Reservoir neighborhood is located in close proximity to local and regional transit lines. The Balboa Reservoir DSG prioritizes walking and biking over cars through the use of traffic calming measures. The transportation and mobility strategy for the Balboa Reservoir neighborhood will be an important part of a broader city initiative, coordinated with SFMTA and City College of San Francisco, to improve neighborhood and area-wide circulation by reducing reliance on private automobiles and providing seamless access to the existing public transportation network.

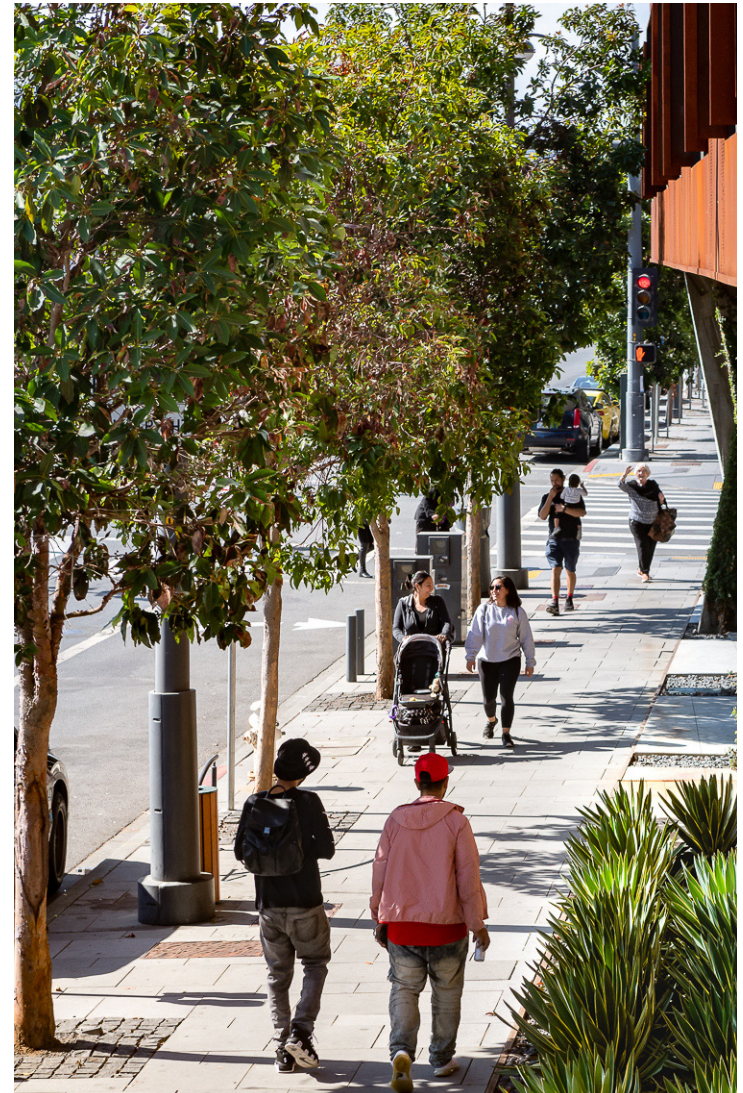
### Design Context and Concept

The Balboa Reservoir neighborhood's streets conform to the geometry of adjacent streets such as Frida Kahlo Way, Lee Avenue, and Ocean Avenue. However, they are unique in that while the existing San Francisco grid is discontinuous in this area, the new streets do not allow for through auto traffic except at the extension of Lee Avenue. This layout presents opportunities for pedestrian-oriented design and new green infrastructure. Except at Lee Avenue, all streets will have lower and slower moving traffic volumes, and the opportunity to continue the geometry of existing streets onto private property, as well as publicly accessible pedestrian and bike connections. The neighborhood will thus have a more pedestrian character, and will be an ideal destination for families, dog owners, residents, and neighbors walking to transit.

### Design Principles and Objectives

All streets shall be designed according to the requirements of SF Public Works and the design principles of the San Francisco Better Streets Plan (BSP). The Balboa Reservoir neighborhood streets shall achieve the following objectives:

- Streets shall accommodate a comprehensive set of mobility, infrastructure, and streetscape elements, including facilities for diverse users including pedestrians, bicyclists, disabled persons, and drivers (cars, service, and emergency vehicles).
- Streets will also provide an array of horizontal elements: utilities, stormwater management



infrastructure, furnishings, planting, and traffic calming.

- Streets shall be designed to create a cohesive visual and physical connection between the public realm and private spaces such as paseos and autocourts.
- The streetscape palette will also include regularly planted street trees, to create a canopy for shade and shelter from wind as well as a pleasant walking and cycling environment.
- Streets will be accessible to all modes of transportation via Lee Avenue, North Street, South Street, and West Street. **Figure 5.1–1: Site Illustrative Plan** on page 59 shows the designation for each street within the site boundary.
- Specific street designs and characteristics are described further in the **Standards and Guidelines sections 5.12 to 5.16**.
- The street names "North Street," "South Street," and "West Street" are placeholders to be renamed at a later date.



Figure 5.1–1: Site Illustrative Plan



## 5.2 STREET TYPOLOGY

### Street Hierarchy

The street hierarchy is designed to promote safer streets and ensure traffic flows freely throughout the circulation network. It is determined by the following characteristics:

- Circulation context: The number of connection points to adjacent streets.
- Traffic volume: Frequency and total amount of traffic flowing through the street.
- Size: Street width and total number of lanes.

### Street Types

The street types represented in the Balboa Reservoir neighborhood are listed below, in order of hierarchy:

- *Mixed-Use Street* - Mixed-use streets are often wide streets that serve arterial functions, with higher volumes of traffic. In the Balboa Reservoir neighborhood, the mixed-use street is Lee Avenue.
- *Neighborhood Residential Lane*: Narrower and lower volume publicly owned streets that tend to only accommodate traffic internal to the plan area. These include North Street, South Street, and West Street.
- *Shared Public Way*: Privately owned and maintained streets; publicly accessible.
- *Townhouse Entry Court/Driveway*. Privately owned and maintained streets; publicly accessible but primarily serving townhouse residents.

More detail can be found in *Street Design by Individual Case*, Sections 5.12 - 5.16.

### LEGEND

- Mixed-Use Street*
- Neighborhood Residential Lane*
- Shared Public Way*
- Townhouse Entry Court & Driveway*
- Public Open Space*
- Paseo (documented under Chapter 6 Open Space)*

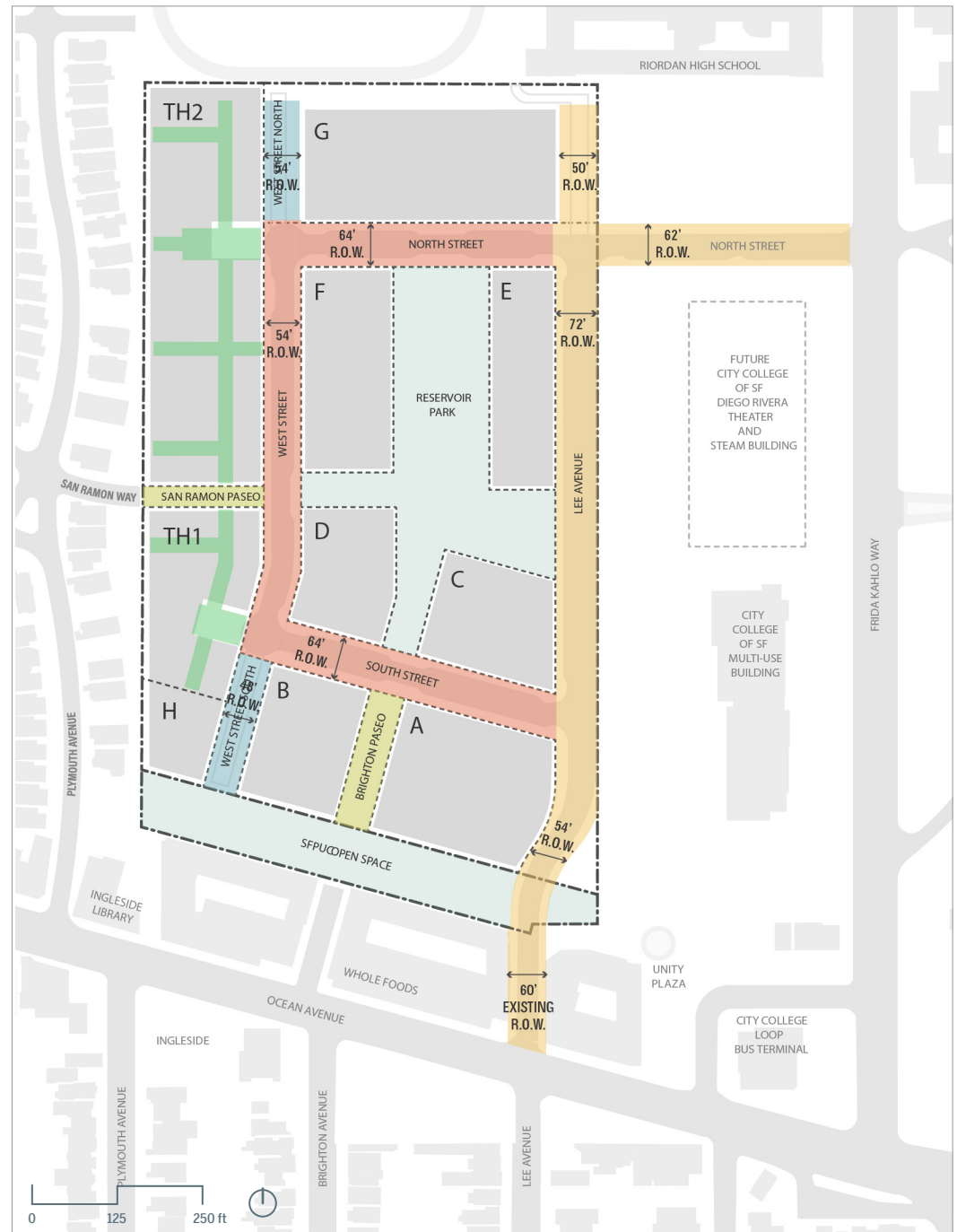


Figure 5.2–1: Street Typology and Street Width

## 5.3 CIRCULATION NETWORKS

Four circulation-related networks are illustrated on the following pages:

- Transit Network
- Pedestrian Network
- Bicycle Network
- Vehicular Network

### Transit Network

The Balboa Reservoir neighborhood is ideally situated with multiple transit services, including the MUNI K Line on Ocean Avenue, bus connections at the City College Terminal and Frida Kahlo Way, and the Balboa Park BART Station. The transportation and mobility strategy aims to enhance access to the existing transportation services, reducing reliance on private automobiles. In order to further develop and meaningfully contribute to an area-wide transportation strategy, continued coordination with SFMTA and City College is crucial during the implementation of the Balboa Reservoir DSG. The Balboa Reservoir development team is committed to implementing cost-effective strategies that have been proven successful in residential settings and will achieve the target set by the City's TDM ordinance for the Balboa Reservoir neighborhood.

#### LEGEND

	MUNI Metro Rail		MUNI/Bus Stop
	Bus Route 8 & 49 ( Every 10 min or less)		
	Bus Route 29 & 43 ( Every 10-20 mins)		
	Bus Route 8BX ( Peak Services, Limited Hour)		

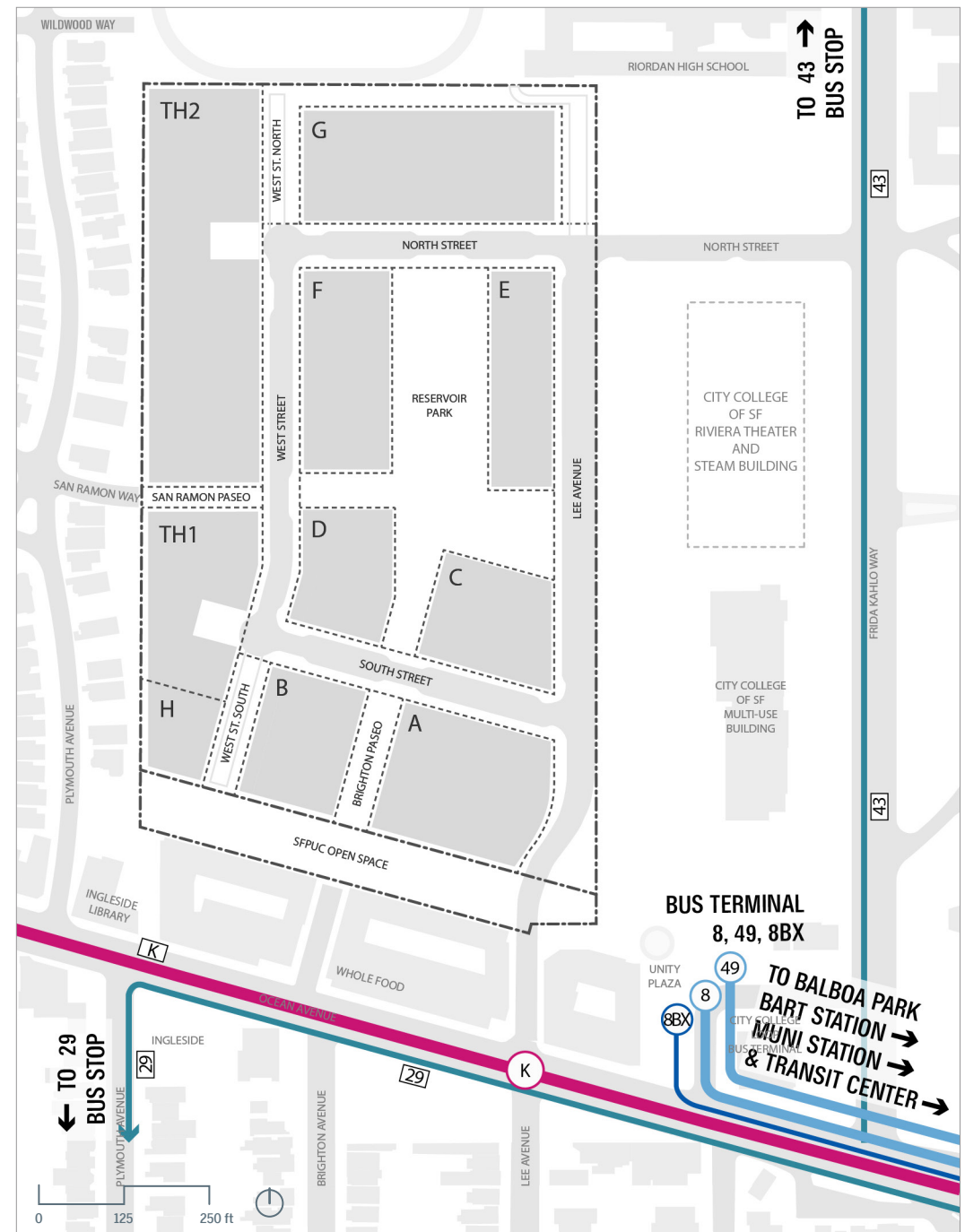


Figure 5.3-1: Transit Network Diagram

Pedestrian Network

The Balboa Reservoir neighborhood prioritizes walking and biking. The surrounding street network creates direct access points for residents and neighbors into the central open space and connects to a family-friendly pedestrian and bike network. Additionally, there are multiple pedestrian linkages to Ocean Avenue transportation and other neighborhood services. Raised crossings will be located at key open space intersections to signify pedestrian priority.

LEGEND

- Raised Pedestrian Crossings
- Standard Pedestrian Crossings
- Primary Pedestrian Flow
- Secondary Pedestrian Flow
- MUNI Bus Stop
- MUNI Bus Terminal
- MUNI Metro Stop

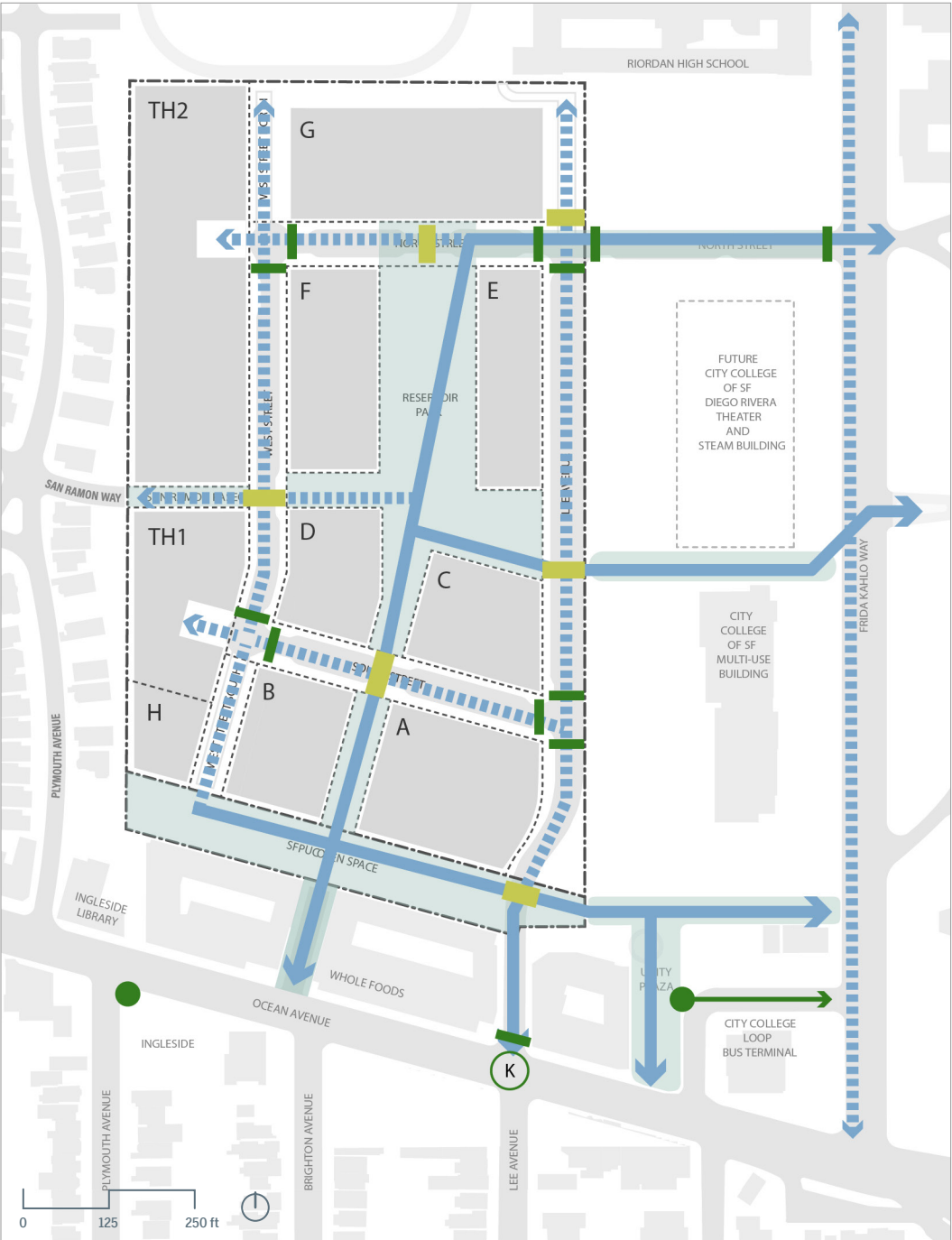


Figure 5.3–2: Pedestrian Network Diagram










## Bicycle Network

The Balboa Reservoir bicycle network provides dedicated bike lanes on Lee Avenue linking to the Holloway Avenue Bike Route to Park Merced, as well as to the bike lanes on Frida Kahlo Way to Sunnyside and Ocean Avenue. Internal bike circulation is provided on North, South, and West Streets. In addition, Class I shared paths will be provided at the SFPUC Retained Fee Open Space to accommodate additional access from Ocean Avenue via Ingleside Library.

Each building will house a bike storage room (Class I) and Class II bike parking near building entries. A bike share station is proposed at the intersection of the SFPUC Retained Fee Open Space and Lee Avenue.

Also, refer to **Chapter 3 Land Use** and **Chapter 7.22 On-Site Bicycle Parking** for bike parking requirements for buildings.

### LEGEND

- |   |  |
|---|--|
|  Bike Share Station                            |  Class II Bike Parking for Open Space Users |
|  Class II Bike Parking Location for Building |  Bike Route: Class III "Sharrow"*         |
|  Bike Lanes: Class II*                       |  Existing Bike Route                      |
|  Internal Bike Circulation                   |  Bike Box Improvement                     |
|  Bike Lanes: Class IV*                       |  |

\*NACTO Bike Facilities Definition

Class II: a portion of road reserved for the preferential or exclusive use of people biking, indicated by road markings

Class III: travel lanes shared by bicyclists and vehicles

Class IV: bike lanes separated from traffic by physical barriers

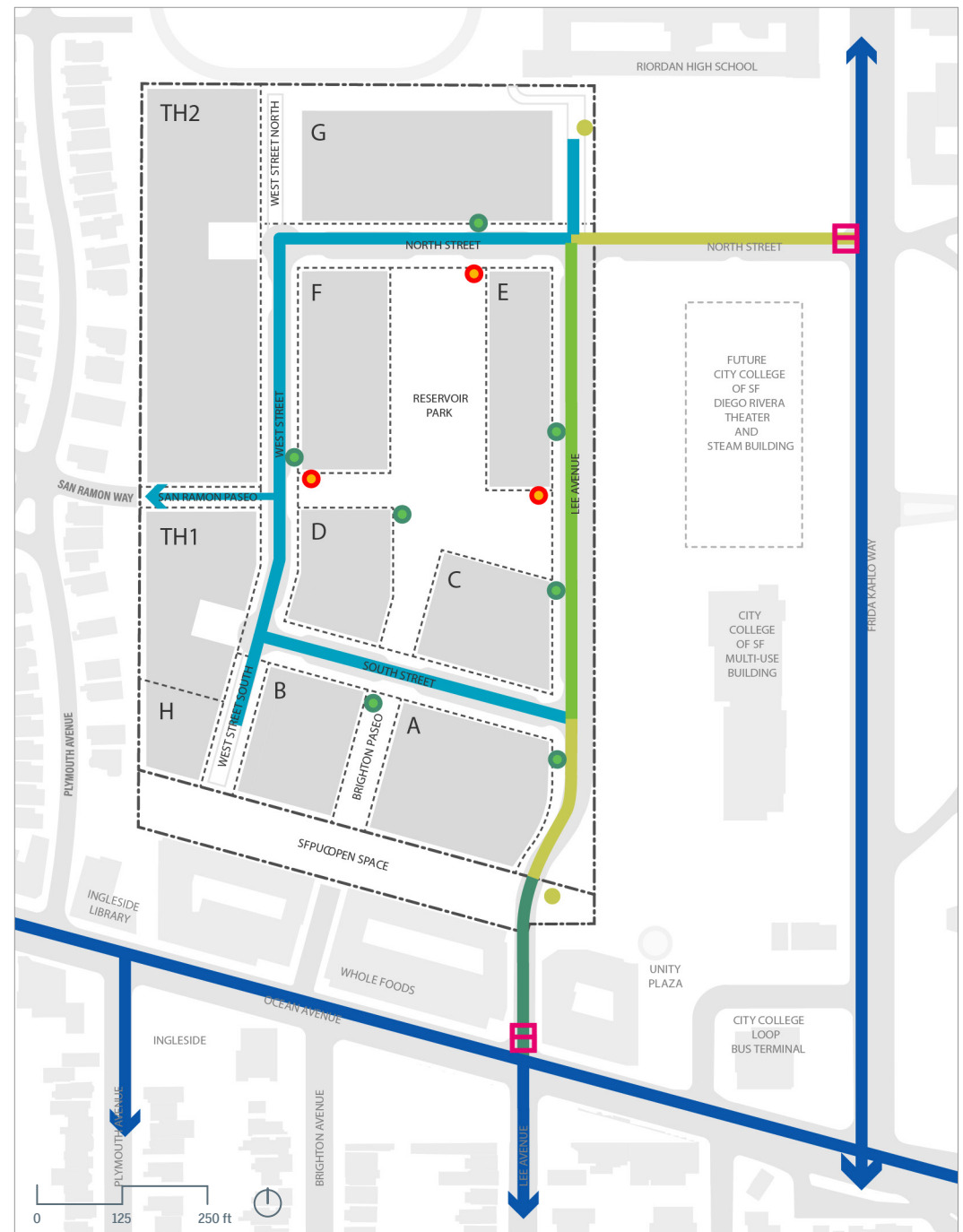


Figure 5.3-3: Bicycle Network Diagram

## Vehicle Network







Vehicular connections to the site shall be located at two access points: Lee Avenue will extend to the north and will connect to Frida Kahlo Way to the east via North Street, a new street that will relocate the existing access at City College to align with Cloud Circle.

The loop formed by North, West and South Streets at the interior of the site provides vehicle access to each building entry, loading zone, and garage. This simple loop allows each block to dedicate at least two sides solely to pedestrian and bicycle circulation. Streets are designed to slow down vehicles and support safe pedestrian and bicycle movement. Shared streets will provide access to townhouse units.

A public parking garage may potentially be located at either the northern or southern block of the site. Refer to **Sections 7.2.2 and 7.21** for additional information regarding a comprehensive parking strategy for the site.

For a detailed study of streets and intersections, see **Section 5.12: Lee Avenue – Section 5.16: Townhouse Entry Court and Driveway.**

### LEGEND

-  Streets and Auto Access
-  Shared Public Way
-  Shared street at Townhouses
-  One-way Exit Drive from Riordan High School
-  Signalized Intersection
-  Signalized Intersection with No Right Turn into Lee Ave

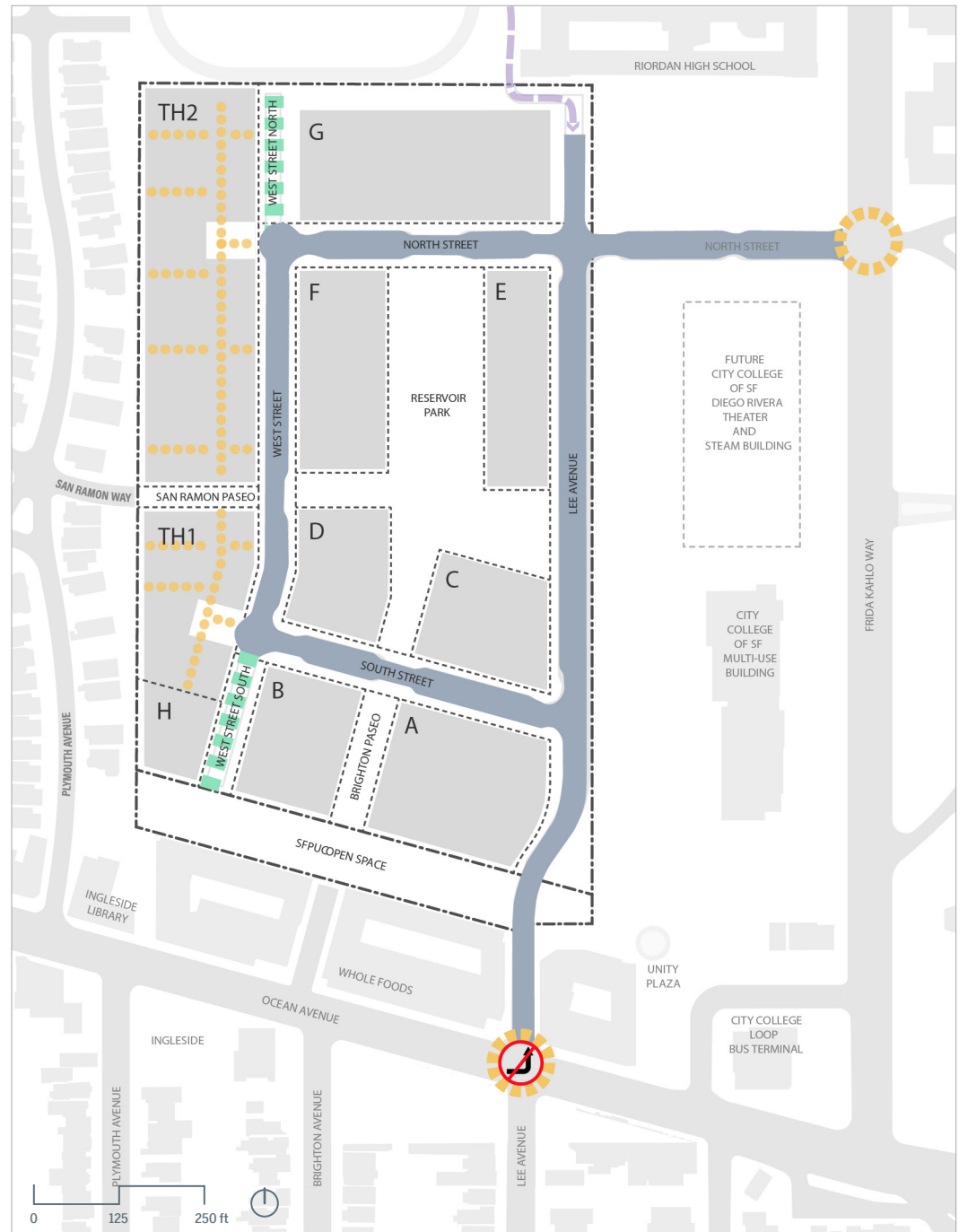


Figure 5.3-4: Vehicle Network Diagram



# Street Design Standards and Guidelines

## 5.4 OVERVIEW

Streetscape is defined as the zone between the faces of buildings, including the publicly accessible right-of-way and the building setbacks. There are six streetscape zones referenced throughout in the following Street Standards and Guidelines. Except for the drive lane zone, the categories are derived from the San Francisco Better Streets Plan.

### Setback Zone

The setback zone is the area between the property line and the face of building where transitions between public use at the sidewalk and private use inside the building occur. The adjacent users may occupy this zone for outdoor display, seating, and planting with appropriate permits.

Architectural elements that protrude into the street such as awnings, canopies and marquees may also occupy this zone. The width of frontage zones can be up to 5 feet wide.

### Pedestrian Throughway Zone

The pedestrian throughway zone is intended for accessible pedestrian travel only and should be clear of obstacles, including driveway aprons or other changes to cross slope. The walking surface should be stable, firm and slip-resistant.

### Furnishing Zone

The furnishing zone provides a buffer between pedestrian and vehicular traffic. It also contains street trees, lighting, planting and site furnishings such as benches, trash receptacles, and bike racks.

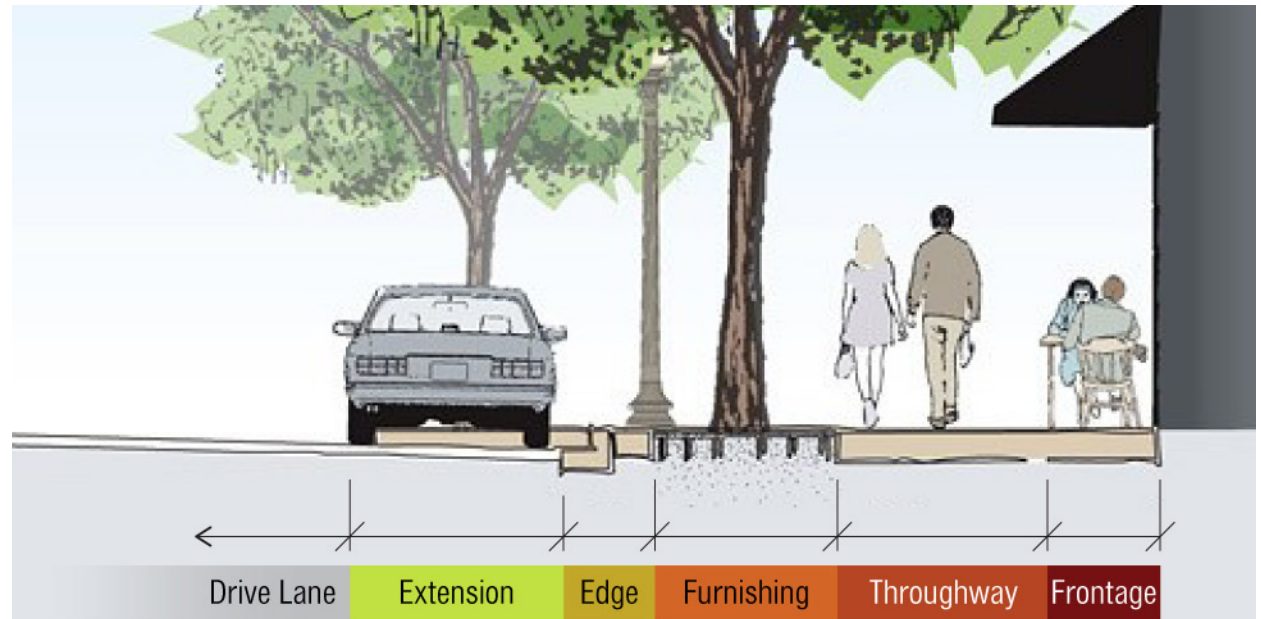


Figure 5.4-1: Source: SF Better Streets Plan

### Edge Zone

The edge zone is the area intended to provide access to parallel parking from the sidewalk. The surface of the edge zone should be stable, firm and slip-resistant.

### Extension Zone

The extension zone refers to specific conditions where the sidewalk extends into the parking lanes. Applications include curb extension, flexible use of parking lanes and bicycle parking, tree planting, and stormwater features in the parking lane.

### Drive Lane Zone

The drive lane zone is allocated to vehicular travel. In this pedestrian and bicycle-prioritized neighborhood, the width of the vehicular drive lane should be minimized but should still provide fire access.

## Standards

### S.5.4.1 Pedestrian Throughway Zone

- All streets shall provide at minimum a 6-foot-wide pedestrian throughway.
- At sidewalks where there is a continuous planting zone, a minimum of 3-foot by 5-foot passing zone at a maximum of 200-feet on center shall be provided.
- SF Public Works standard concrete paving shall be used at throughway zones. Special treatment shall be used at paseo and street intersections to emphasize the pedestrian connection between streets and open space.

### S.5.4.2 Furnishing zone

- Furnishing zones shall be surfaced with cast-in-place concrete or accessible permeable paving to allow rainfall to supplement street tree irrigation. For furnishing zones located adjacent to parking, a minimum of a 4-foot-wide accessible pathway should be provided centered to the parking space.
- See **5.8 Street Planting Palette** on page 74 for street planting requirements at furnishing zones.
- See **5.11 Street Lighting** on page 86 for street lighting requirements at furnishing zones.
- See **5.10 Street Furniture** on page 85 for site furnishing requirements at furnishing zones.

### S.5.4.3 Extension Zone

- Extension zones shall have a minimum width of 8 feet for parking and loading and to accommodate bulb-outs and chicanes.
- See **5.6 Traffic Calming Strategies** on page 70 for bulb-out and chicane design requirements.
- Accessible loadings zones and associated curb ramps are per the **MIP, Figure 6.9: Proposed Service & Loading Plan**. Post entitlement, the ADA coordinator and SFMTA curb management staff shall provide final approval of loading zones.

### S.5.4.4 Drive Lane

- All streets shall be in compliance with SF Fire Department fire access requirements. For more information see **MIP, Section 6.2.4: Fire Department Access**.

### S.5.4.5 Curb Cut

The maximum allowable curb cut width for a driveway is 10 feet.



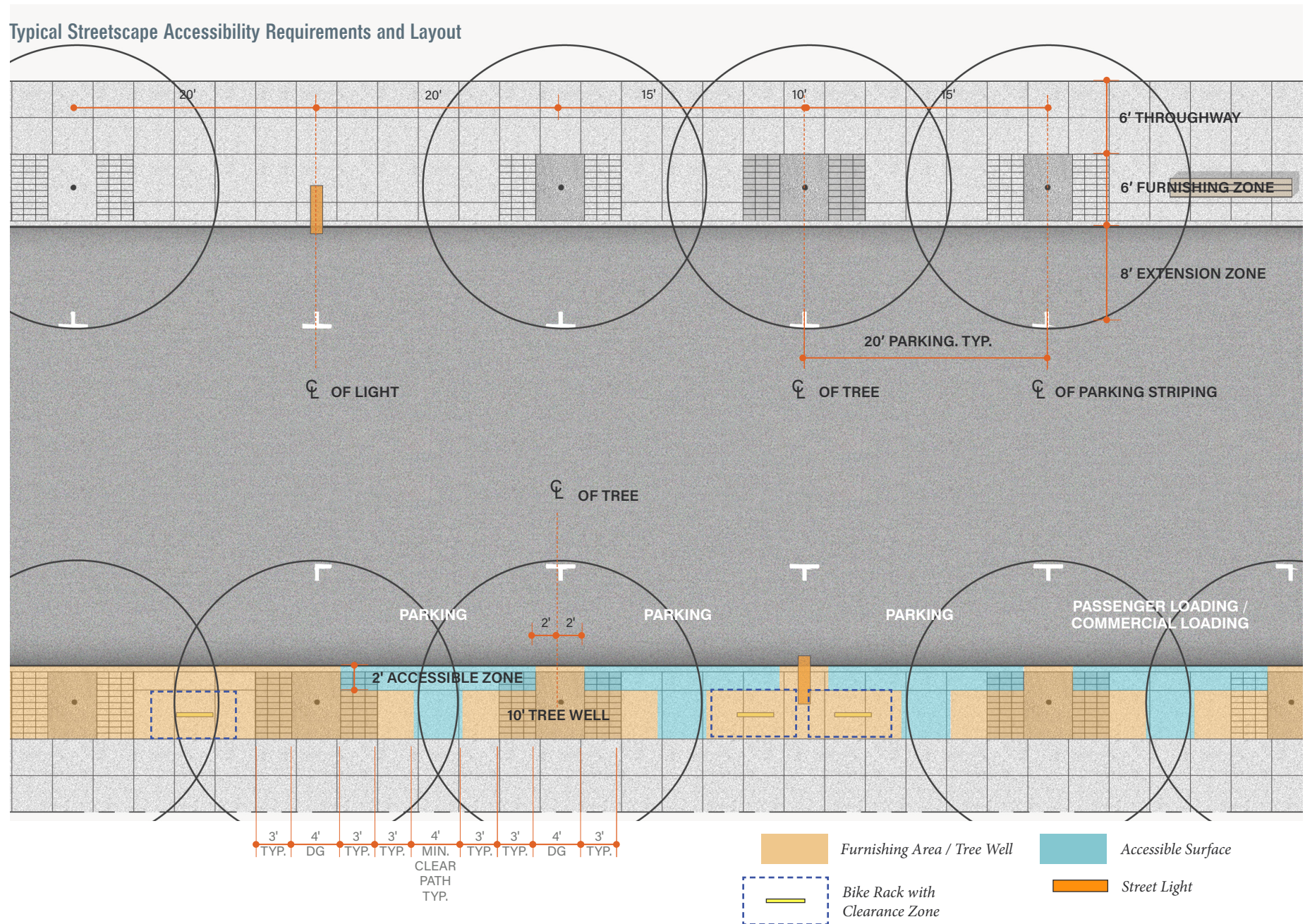


Figure 5.4-2: Typical Streetscape Accessibility Requirements and Layout



## 5.5 STREET TREES

## City Policies

As the Better Streets Plan describes, street trees offer benefits such as traffic calming, shade, stormwater runoff reduction, support for ecological habitats, air quality improvements, and the potential to enhance property values and retail activity by creating a comfortable pedestrian environment. They are also a reminder of natural cycles and changing seasons.

City codes require new development projects to plant a 24-inch box tree for every 20 feet along the property's street frontage. The following City Codes apply to the Balboa Reservoir site:

- SF Planning Code - Section 138.1 - Streetscape and Pedestrian Improvements
- SF Public Works Code - Article 16: Urban Forestry Ordinance
- SF Administrative Code - Chapter 98: The Better Streets Policy
- SF Environment Code - Chapter 12: Urban Forestry Council

For a complete a street tree species list, see **Section 5.8: Street Planting Palette**.

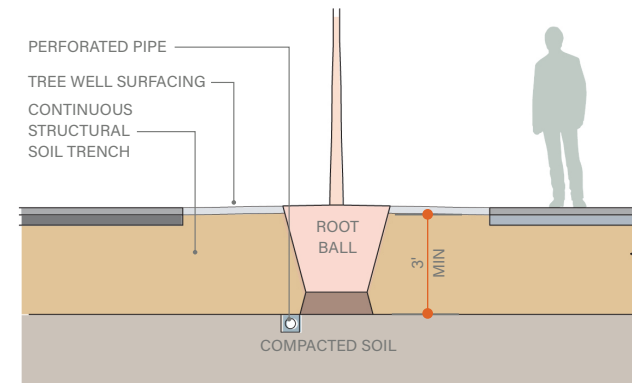
## Standards

### S.5.5.1 Street Trees

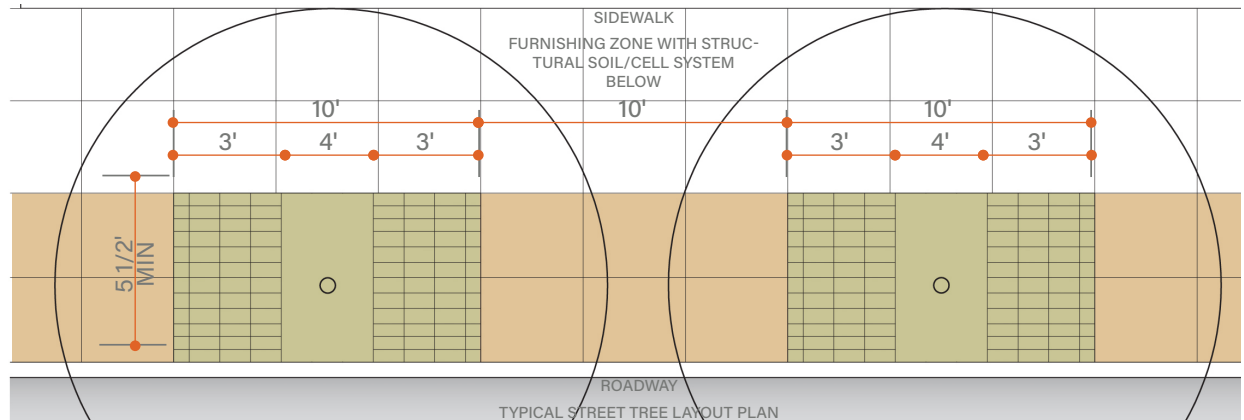
Street trees shall be in a minimum 24-inch box at installation and spaced at max 20 feet on center along the property street frontage. See **Figure 5.5-1** for additional tree planting requirements.

#### S.5.5.2 Tree Spacing & Utility Coordination

Although regular tree spacing is not always possible due to curb cuts, sub-grade utilities, or other sidewalk elements, regular spacing shall be maintained to the extent possible. Utility planning and street tree layouts shall be carefully coordinated to minimize tree gaps. See **Figure 5.5-1** for more information on street trees. See also *Balboa Reservoir Infrastructure Plan, Section 8: Utility Layout and Separation* for more details.



**Figure 5.5–2: Typical Section of Sand-Based Structural Soil**



**Figure 5.5–1: Tree Well Diagram**

### S.5.5.3 Soil Preparation for Street Trees

In order to maintain healthy growing conditions, each tree shall have at least 500 cubic feet of growing medium 3 feet deep. This can be achieved in several ways including structural cells placed under the sidewalk or continuous trenches of sand-based structural soils in the furnishing zone (Figure 5.5–1).

### S.5.5.4 Tree Wells and Sand-Based Structural Soil

Where trees are spaced 20 feet on center, successive tree wells should be connected with a structural soil trench in the furnishing zone. Sand-based structural soil involves a blend of soil and sand, which is not “trademarked” and is uniformly graded. This blend provides structural strength and high levels of compaction, while allowing for aeration, fertility, and percolation.

### S.5.5.5 Street Trees, Intersection Design, and Visibility

Sight line clearance requirements for the placement of trees and plantings shall comply with the ‘Street Tree Planting’ guideline by SF Public Works.

### S.5.5.6 Streetscape Planting

Landscape material may be planted up to the crosswalk edge on sidewalks and medians,

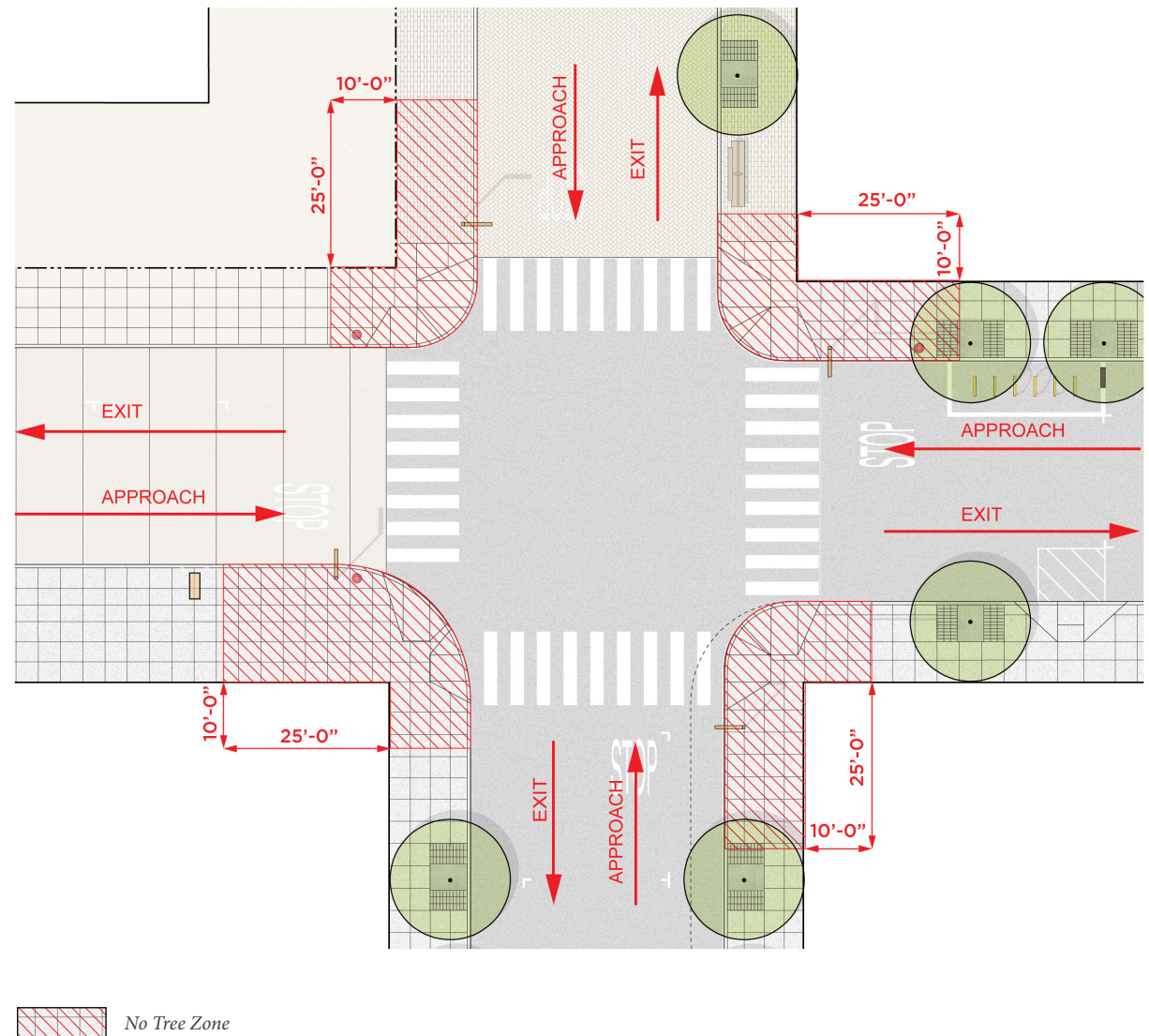


Figure 5.5–3: Typical Intersection Sight Line Clearance

## 5.6 TRAFFIC CALMING STRATEGIES

provided it does not exceed 3 feet in height as measured from the street

### S.5.5.7 Tree Distance at Intersection

On the approach to any intersection, trees shall be planted no closer than 25 feet from the corner of the property line.

On the far side of any intersection, trees shall be planted no closer than 10 feet from the corner of the property line.

### S.5.5.8 Tree Vertical Clearance

Trees shall have a vertical clearance of 84 inches over the sidewalk measured from the lowest branch, and 14 feet of vertical clearance for any portion of the tree that hangs over the roadway.

As a transit-oriented development with low traffic volume, the Balboa Reservoir neighborhood can be a model for a pedestrian-oriented environment, and for implementation of the guidelines in the Better Streets Plan. The following strategies have been incorporated into the DSG where appropriate. For more information see **Balboa Reservoir Infrastructure Plan, Section 6.6: Traffic Calming**.

### Standards

#### S.5.5.9 Chicane

A chicane is a form of bulb-out added to the roadway to shift the alignment and slow down vehicles. It provides additional sidewalk space, and thus opportunities for additional landscaping at the street, while visually reducing the width of drive lane. A chicane is one of the potential traffic calming measures that can be used for the treatment of West Street. SFMTA shall have final authority on the location and design of the chicane.

#### S.5.5.10 Mountable Traffic Circle

A mountable traffic circle shall be provided at the intersection of West Street and North Street and at the intersection of West Street and South Street. Mountable traffic circles provide an opportunity to create neighborhood identity while facilitating the childcare drop-off at South Street.



Figure 5.6-2: Mountable Traffic Circle



Figure 5.6-1: Chicane



Each mountable traffic circle shall accommodate the turning radius of a typical passenger vehicle while allowing large vehicles such as firetrucks to drive over the raised traffic circle. Highly textured traffic-rated paving material shall be used in the traffic circle. The final layout and design shall be subject to SF Public Works and SFMTA approval.

### S.5.5.11 Raised Crossings

Raised pedestrian crosswalks prioritize pedestrians in the vehicular traffic zone by slowing down vehicles. A raised crosswalk shall be provided at the locations shown on **Figure 5.3-2**.

### S.5.5.12 Bulb-Outs

Bulb-outs (also known as curb extensions) shall be provided at intersections and mid-block crossings to shorten pedestrian crossings, and to provide opportunities for stormwater management and streetscape planting. The width of each bulb-out shall be maximized based on vehicle turning radius and adjacent bike lane requirements. SFMTA shall have final authority on the location and design of bulb-outs.



Figure 5.6-4: Bulb-Out



Figure 5.6-5: Raised Street Crosswalk

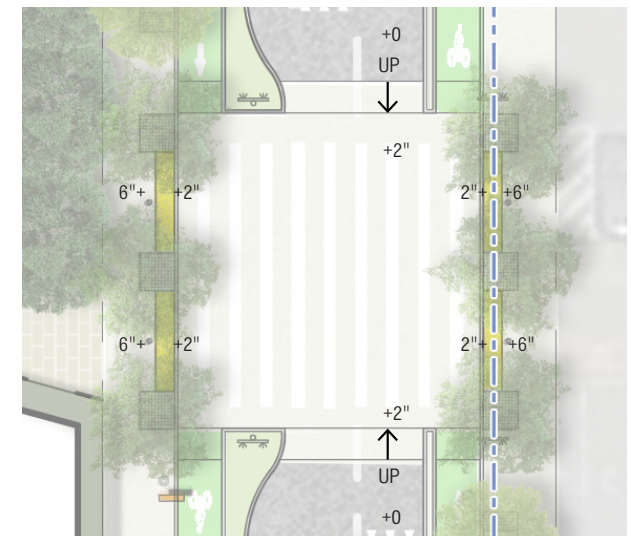


Figure 5.6-3: Raised Crosswalk at Lee Avenue and Reservoir Park

## 5.7 STREET UTILITIES AND PARKING METERS

The layout of street utilities and parking meters will be carefully coordinated with street tree placement to minimize potential conflict between trees and street furniture.

### Standards

#### S.5.7.1 Above-Grade Utilities Location

All above-grade utilities within the right-of-way shall be located within the furnishing zone and shall not interfere with the clear throughway zone. All laterals and appurtenances must be outside of any driveway curb-cuts.

#### S.5.7.2 Parking Meters and Other Street Elements

All parking meters and other street elements, including pay and display machines and multi-space meters, shall be placed in the furnishing zone. Street elements shall be organized and consolidated where possible.

#### S.5.7.3 Parking Meters

SFMTA standard parking meters shall be provided at each on-street parking stall. Legislation will be required from SFMTA to install parking meters and establish time limits.

### Guidelines

#### G.5.7.1 Location and Access

All utilities should be placed below grade wherever feasible or be clustered around driveway curb-cuts. When possible, utilities should be grouped and should allow clear access to the throughway zone adjacent to street furnishing elements.

# Street Palette

## 5.8 OVERVIEW

Streets serve as the primary realm for daily pedestrian life and vehicular circulation throughout the Balboa Reservoir neighborhood. The following sections will outline the materials and planting palettes that help define the Balboa Reservoir neighborhood's public realm identity.

Most of the streets will be publicly owned except for the dead end sections of West Street and Lee Avenue, shared public ways, and driveways and entry courts within the townhouse parcel. These private streets are primarily used as loading, garage access, and driveway access for building parcels. Privatizing these street segments allows for more flexibility on material selection and streetscape amenities to create a pedestrian-prioritized streetscape. Privately owned streets will be developed and maintained by the HOA and will remain accessible to the public. Publicly owned streets are subject to SF Public Works and SFMTA design standards and material requirements.

The following diagram identifies the streets where SF Public Works and SFPUC standard materials and lighting palettes will be used. The street planting palette is applicable for all streets within the Balboa Reservoir neighborhood.

### LEGEND

- Publicly Owned Street with SF Public Works Standard Materials and SFPUC Standard Lighting Fixture
- Privately Owned and Publicly Accessible Street with Non-SF Public Works Standard Materials and Non-SFPUC Standard Lighting Fixture

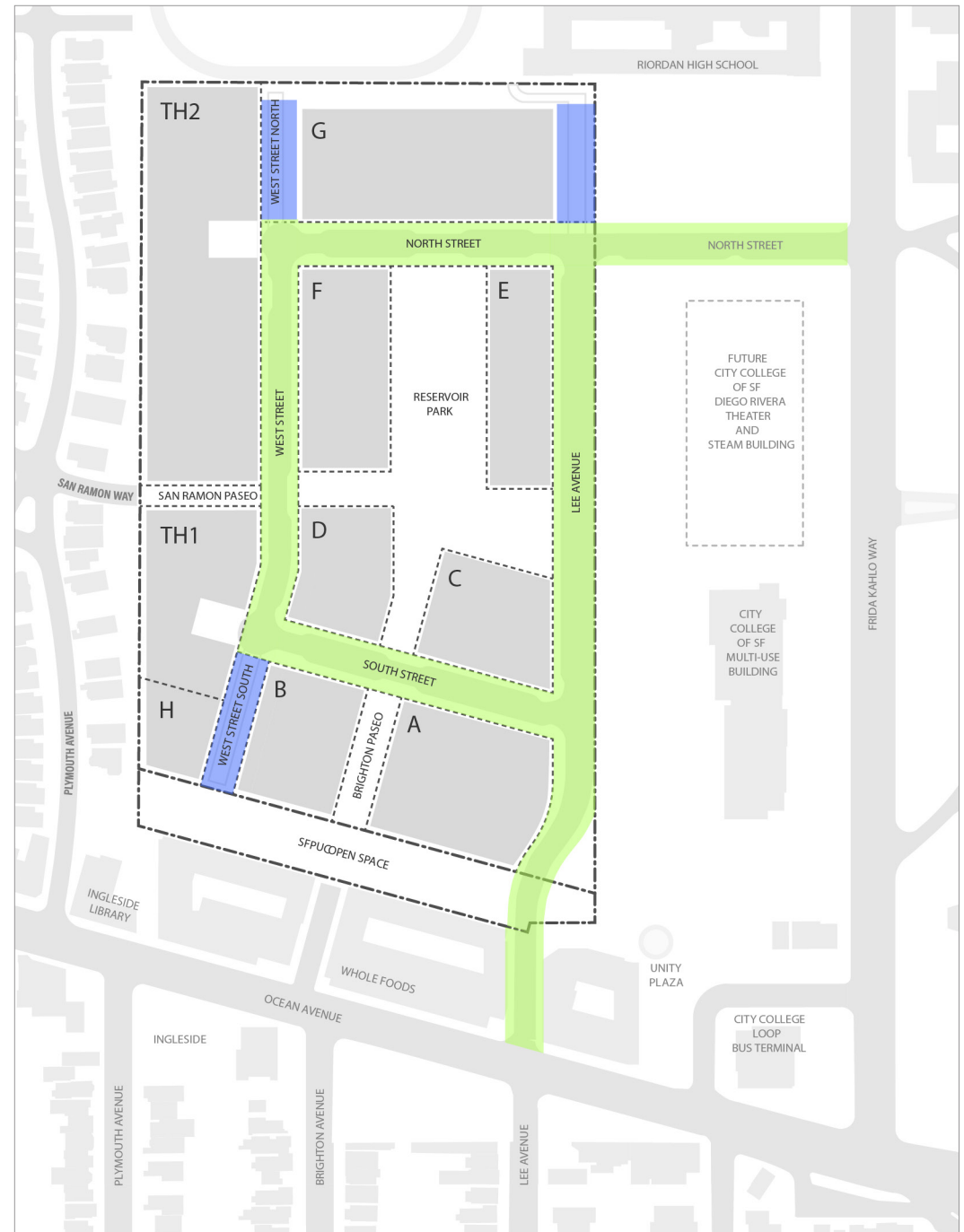


Figure 5.7-1: Street Ownership & Material Application Diagram

## 5.9 STREET PLANTING PALETTE

Sustainable plant choices are those that are climate-adapted and that favor relatively large tree canopies that can capture carbon, hold rainwater, provide shade, and mitigate wind. All of the elements are to encourage pedestrian activity. Plants shall be selected according to standards approved by the City of San Francisco ([sfplantfinder.org](http://sfplantfinder.org)) in order to achieve success in urban soil conditions.

There are three types of plantings in the right-of-way:

- Street trees.
- Regular low shrubs and groundcover planting.
- Stormwater low shrubs and groundcover planting.

The following symbols, adapted from [sfplantfinder.org](http://sfplantfinder.org), are used throughout the planting palette to denote place of origin:

- (SF) San Francisco native species
- (CA) California native species
- (EX) Exotic species, not native to the region or state.

### Street Trees

Street trees are chosen for their ability withstand San Francisco's strong wind and fog, compaction, limited soil volumes, and the harsh alkaline soil conditions found in urban settings. All trees, except the Southern California native Catalina ironwood, are from Australia where growing conditions are similar to California.

#### LEGEND

- Street Tree, Type 1: Evergreen Large Size Tree with Rounded Shape
- Street Tree, Type 2: Evergreen Medium Size Tree with Oval Shape
- Street Tree, Type 3: Evergreen Large Tree with Oval Shape
- Street Tree, Type 4: Evergreen Flowering Medium Accent Tree
- Street Tree, Type 5: Evergreen Small Flowering Tree
- Street Tree, Type 6: Evergreen Large Focal Point Tree

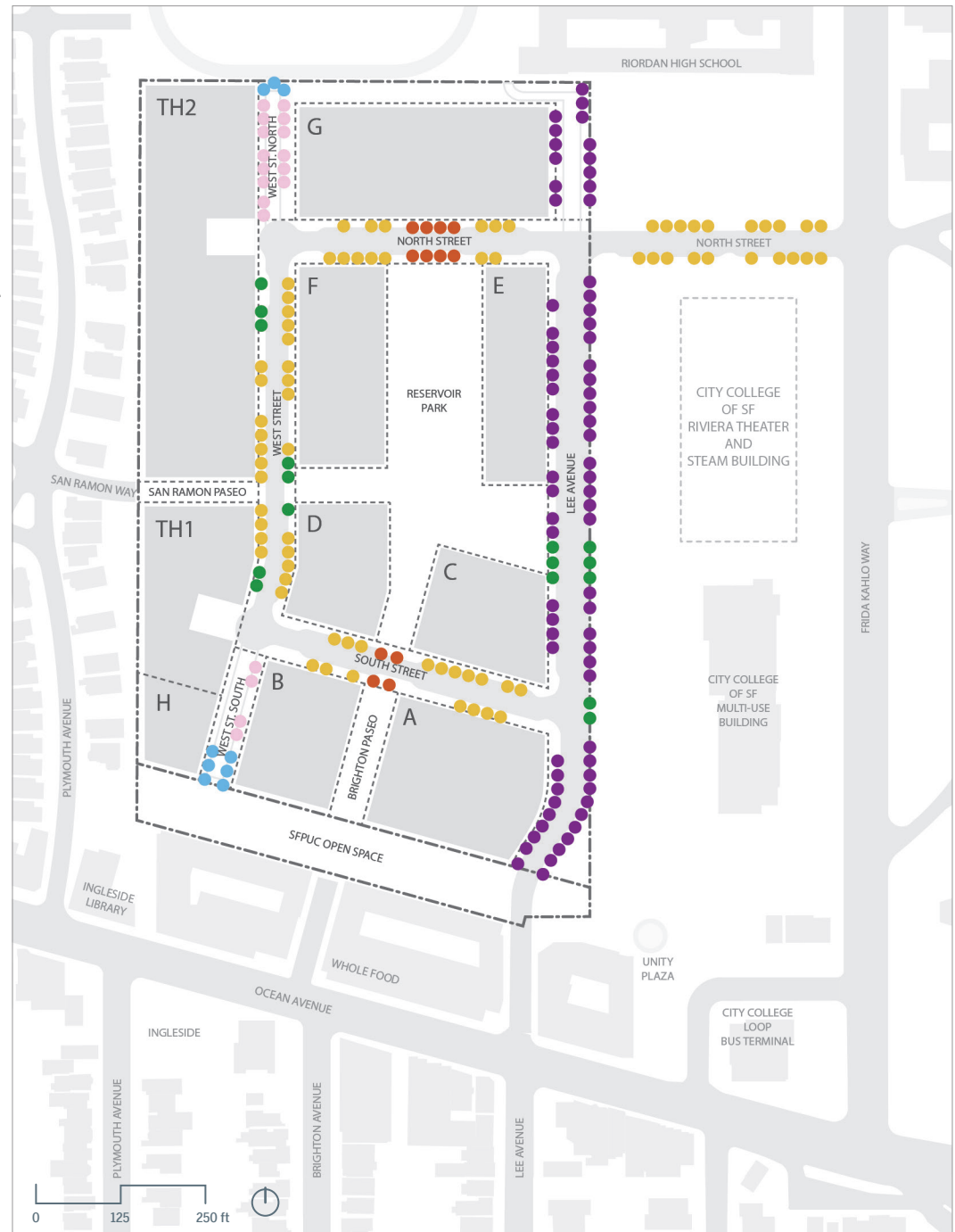


Figure 5.9-1: Street Trees Type Diagram



### Low Shrubs and Groundcover Planting

Plantings in the right-of-way and the associated irrigation systems are encouraged when regular maintenance and replacement can be guaranteed by the adjacent property owner. Low plantings in the right-of-way present a special challenge due to the urban and windy coastal conditions, engineered soils, and vulnerability to people and pets.

Therefore, low plantings need to be sturdy and low-maintenance and should be resistant to trampling and other environmental conditions. Woody shrubs and large-leaved succulents are discouraged. Plants that have proven to do well are a very few selected monocots that withstand a wide range of soil, drainage, and compaction conditions, and are crush resistant and drought-tolerant, such as *Dietes* and *Lomandra*. Additional species are *Muhlenbergia lindheimeri*, *Muhlenbergia emerslyii*, and *Dymondia*. Those plantings can be supplemented with climate-adapted desert and subtropical species, such as *Yucca*, *Beschorneria*, *Agave*, and *Aloe arborescens*. These right-of-way shrubs and groundcovers will have some overlap with those used in the open space in order to establish continuity. See **Figure 5.8–2**.

#### LEGEND

- Stormwater Planting
- Regular Planting

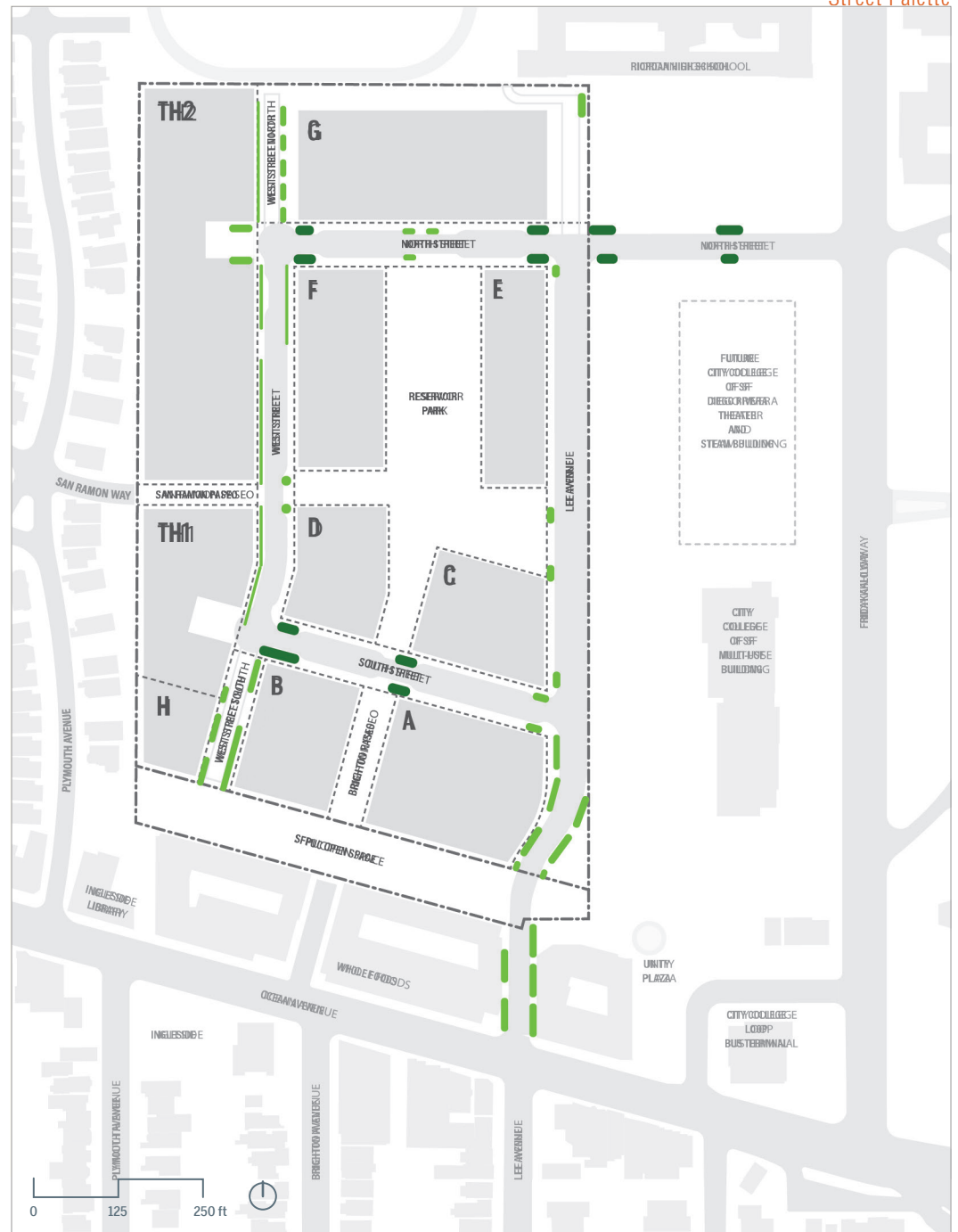


Figure 5.9–2: Stormwater Planting and Regular Planting Diagram



### Stormwater, Low Shrubs, and Groundcover Planting

Stormwater plantings within the right-of-way are selected to withstand all the above conditions in addition to seasonal flooding. Some limited use of natives is possible. A preliminary list of stormwater plantings are:

- *Elymus glaucus* (Blue Wild Rye)
- *Cornus sericea* (Redtwig Dogwood)
- *Fragaria chiloensis* (Beach Strawberry)
- *Corylus cornuta* (Hazelnut)
- *Carex tumulicola* (Berkeley Sedge)
- *Chondropetalum elephantinum* (Giant Cape Rush)
- *Muhlenbergia emersleyi* (Emersley's Muhley Grass)

See **Figure 5.8–5: Regular Planting Palette for Bulb-Outs and Sidewalks**

## Standards

### S.5.9.1 Native Plant Ratio

50% of groundcover and shrubs planted in regular and stormwater planting areas shall be native species.



**Figure 5.9–3:** Drought Tolerant and Low Maintenance Low Planting at Street



## STREET TREE, preferred species



*Native Frangipani*  
*Hymenosporum flavum*

Type 1 ●

### Climate Appropriateness



Bloom Time  
*Spring to Summer*

Water Needs  
*Moderate*

Associated Wildlife  
*Birds, Bees*

Habitat Value  
*Fruit*

Size Determined by SF  
Urban Forestry Council  
*Large Street Tree*



*Paperbark Tea Tree*  
*Melaleuca quinquenervia*

Type 2 ●

### Climate Appropriateness



Bloom Time  
*Summer-Fall*

Water Needs  
*None*

Associated Wildlife  
*Birds, Bees*

Habitat Value  
*Fruit, Shelter*

Size Determined by SF  
Urban Forestry Council  
*Medium Street Tree*



*Brisbane Box*  
*Lophostemon confertus*

Type 1 ●

### Climate Appropriateness



Bloom Time  
*Spring*

Water Needs  
*None*

Associated Wildlife  
*Birds, Butterflies*

Habitat Value  
*Fruit*

Size Determined by SF  
Urban Forestry Council  
*Large Street Tree*



*Water Gum*  
*Tristaniopsis laurina*

Type 2 ●

### Climate Appropriateness



Bloom Time  
*Spring - Summer*

Water Needs  
*Moderate*

Associated Wildlife  
*Butterflies*

Habitat Value  
*Fruit, Shelter*

Size Determined by SF  
Urban Forestry Council  
*Medium Street Tree*

Figure 5.9–4: Street Trees Preferred Species



## STREET TREE, preferred species



*Catalina Ironwood*  
*Lyonothamnus*

Type 3 ●

Climate Appropriateness

Bloom Time  
*Summer*

Water Needs  
*None*

Associated Wildlife  
*Birds*

Habitat Value  
*Fruit*

Size Determined by SF  
Urban Forestry Council  
*Large Street Tree*



*New Zealand Christmas Tree*  
*Metrosideros excelsa*

Type 4 ●

Climate Appropriateness

EX

Bloom Time  
*Spring, Summer*

Water Needs  
*None*

Associated Wildlife  
*Birds*

Habitat Value  
*Fruit, Cover*

Size Determined by SF  
Urban Forestry Council  
*Medium Street Tree*



*Primrose Tree*  
*Lagunaria patersonii*

Type 3 ●

Climate Appropriateness

EX

Bloom Time  
*June to September*

Water Needs  
*Moderate*

Associated Wildlife  
*Bees, Butterflies, Birds*

Habitat Value  
*Fruit, Seeds*

Size Determined by SF Urban  
Forestry Council  
*Large Street Tree*



*Red Flowering Gum*  
*Corymbia ficifolia*

Type 4 ●

Climate Appropriateness

EX

Bloom Time  
*Fall, Winter, Spring, Summer*

Water Needs  
*Low*

Associated Wildlife  
*Birds, Bees*

Habitat Value  
*Pollinators, Fruit*

Size Determined by SF  
Urban Forestry Council  
*Large Street Tree*





Toyon  
*Heteromeles arbutifolia*

Type 5 ●

Climate Appropriateness



Bloom Time  
–Summer

Water Needs  
Low

Associated Wildlife  
Birds, Bees

Habitat Value  
Pollinators, Fruit

Size Determined by SF  
Urban Forestry Council  
Small Street Tree



Monterey Cypress  
*Hesperocyparis macrocarpa*

Type 6 ●

Climate Appropriateness



Bloom Time  
Fall

Water Needs  
Low

Associated Wildlife  
Birds

Habitat Value  
Fruit

Note  
Used at  
Private Shared Street



Mountain Lilac  
*Ceanothus 'Ray Hartman'*

Type 5 ●

Climate Appropriateness:



Bloom Time  
Winter

Water Needs  
Low

Associated Wildlife  
Birds, Bees

Habitat Value  
Fruit, Pollinators

Size Determined by SF  
Urban Forestry Council  
Small Street Tree



Silk Oak  
*Grevillea robusta*

Type 6 ●

Climate Appropriateness



Bloom Time  
Spring

Water Needs  
None

Associated Wildlife  
Birds, Bees

Habitat Value  
Pollinators



## REGULAR LOW SHRUBS AND GROUNDCOVER PLANTING, preferred species



California Buckwheat  
*Eriogonum fasciculatum*

Climate Appropriateness



Bloom Time  
Summer, Spring, Fall

Water Needs  
Low

Associated Wildlife  
Bees, Butterflies

Habitat Value  
Pollinators, Buds/Greens



Gooding's Muhly  
*Muhlenbergia emersleyi*

Climate Appropriateness



Bloom Time  
July-Nov

Water Needs  
Low

Associated Wildlife  
Birds

Habitat Value  
Buds/Greens, Cover



California Poppy  
*Eschscholzia californica*

Climate Appropriateness



Bloom Time  
Spring, Summer

Water Needs  
Low

Associated Wildlife  
Bees, Birds, Butterflies

Habitat Value  
Pollinator, Cover



California Sagebrush  
*Artemisia californica*

Climate Appropriateness



Bloom Time  
Spring, Summer, Fall

Water Needs  
Low

Associated Wildlife  
Birds, Butterflies

Habitat Value  
Buds/Greens, Cover,  
Pollinators



Sage and Variety  
*Salvia* "Bee Bliss" and Variety

Climate Appropriateness



Bloom Time  
Summer, Fall

Water Needs  
Low

Associated Wildlife  
Butterflies, Bees,  
Hummingbirds

Habitat Value  
Buds/Greens, Pollinators



Fortnight Lily  
*Dietes Bicolor*

Climate Appropriateness



Bloom Time  
Spring, Fall

Water Needs  
Low

Associated Wildlife  
Butterflies, Bees,  
Hummingbirds

Habitat Value  
Buds/Greens, Pollinators

Figure 5.9-5: Regular Planting Palette for Bulb-Outs and Sidewalks



## REGULAR LOW SHRUBS AND GROUNDCOVER PLANTING, preferred species



*Cedros Island Verbena*  
*Verbena lilacina "De La Mina"*

Climate Appropriateness



Bloom Time  
*Spring/Summer*

Water Needs  
*Moderate*

Associated Wildlife  
*Butterflies*

Habitat Value  
*Buds/Greens*



*Idaho Fescue*  
*Festuca idahoensis*

Climate Appropriateness



Bloom Time  
*Summer*

Water Needs  
*Low*

Associated Wildlife  
*Butterflies, Insects*

Habitat Value  
*Buds/Greens*



### Botanical Information



Species:  
*Hesperaloe parviflora*

Common Name:  
*Yellow/Red Yucca*

Type:  
*Perennial*

Habitat Value:  
*Pollinator*

Associated Wildlife:  
*Birds*



*Torch Aloe and Aloe Variety*  
*Aloe arborescens*

Climate Appropriateness



Bloom Time  
*February to September*

Water Needs  
*Low*

Associated Wildlife  
*Bees, Birds*

Habitat Value  
*Pollinators, Buds/Greens*



*Smooth Agave and Agave Variety*  
*Agave desmettiana*

Climate Appropriateness:



Bloom Time  
*Rarely Flowers*

Water Needs  
*Moderate*

Associated Wildlife  
*Bees, Birds*

Habitat Value  
*Pollinators, Buds/Greens*



## STORMWATER LOW SHRUBS AND GROUND COVER PLANTING, preferred species



*Blue Wild-Rye*  
*Elymus glaucus*

Climate Appropriateness



Bloom Time  
*Summer*

Water Needs  
*Low*

Associated Wildlife  
*Butterflies, Bees, Insects*

Habitat Value  
*Buds/Greens, Cover*



*American Dogwood*  
*Cornus sericea*

Climate Appropriateness



Bloom Time  
*Spring to Fall*

Water Needs  
*Low*

Associated Wildlife  
*Butterflies, Birds*

Habitat Value  
*Fruit, Cover*



*Berkeley Sedge*  
*Carex tumulicola*

Climate Appropriateness



Bloom Time  
*Winter, Spring*

Water Needs  
*Low*

Associated Wildlife  
*Birds*

Habitat Value  
*Buds/Greens, Cover*



*Fragaria chiloensis*  
*Coast Strawberry*

Climate Appropriateness



Bloom Time  
*Spring, Winter*

Water Needs  
*Low*

Associated Wildlife  
*Bees, Birds, Butterflies*

Habitat Value  
*Cover, Fruit*



*Large Cape Rush*  
*Chondropetalum elephantinum*

Climate Appropriateness



Bloom Time  
*Summer/Fall*

Water Needs  
*Low*

Associated Wildlife  
*None*

Habitat Value  
*Cover*



*Deer Grass*  
*Muhlenbergia rigens*

Climate Appropriateness



Bloom Time  
*Spring*

Water Needs  
*Low*

Associated Wildlife  
*Bees, Birds, Butterflies*

Habitat Value  
*Buds/Greens, Nesting*

## 5.10 STREET PAVING MATERIALS

Paving materials are selected to withstand extensive wear and tear and to signify street hierarchy. The street network in the Balboa Reservoir neighborhood consists of publicly owned and privately owned streets which will be maintained by SF Public Works and private developers respectively and will have different Standards and Guidelines.

### Publicly Owned/Maintained Streets

#### (SF Public Works Approved Materials)

Public streets will be designed in conjunction with Public Works and will deploy the newly approved list of expanded materials.

### Standards

#### S.5.10.1 Public Works Specification

All the paving material used in the public right-of-way sidewalk and roadway shall be compliant with SF Public Works standard specifications.

#### S.5.10.2 Roadway

Standard roadway asphalt shall be used on roadways. Vehicular concrete paving shall be used at key raised crosswalks to prioritize pedestrians and enhance open space network connections.

#### S.5.10.3 Sidewalk

Concrete paving shall be used and designed to meet load-bearing requirements. The materials

shall be able to provide level surfaces onto which furnishings, stages and elements can be secured. Where a sidewalk abuts a plaza, sidewalk paving materials shall be coordinated with the plaza paving to create a continuous public space.

#### S.5.10.4 Warning Paving

City standard detectable warning paving shall be used at raised crosswalks and curb ramps.

### Guidelines

#### G.5.10.1 Raised Crosswalk

Custom crossing design using materials in compliance with SF Public Works approved material palette should be encouraged in all key street intersections and park entrances to signify pedestrian priority, add neighborhood character, and enhance place-making.

#### G.5.10.2 Permeable Unit Paving at Parallel Parking

Permeable unit paving should be used at parallel parking for stormwater management.

### Crosswalks



*Thermo Plastic Crossing*



*Thermo Plastic crossing with Custom Pattern Inlay*

### Traffic Lane



*City Standard Asphalt*

### Warning Pavers



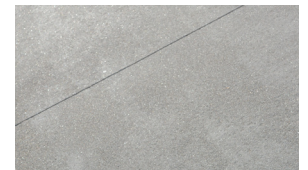
*Warning Pavers Cast intact*

### Parallel Parking



*Permeable 4"x8" Dark Grey-Paver*

### Pedestrian Throughway/ Protected Bike Lane Median



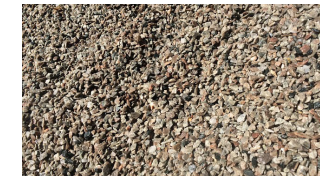
*Cast in Place Concrete; Medium Gray w/ Silica Carbide & Water Jet Finish*

### Tree Well Surfacing



*Cobble Stone with Flagged Finish*

### Tree Well Mulch



*Gravel Mulch at opening*

Figure 5.10–1: SF Public Works Approved Materials for Publicly Owned Streets



## Privately Owned/Maintained Streets Standard Material

In privately owned and maintained streets, paving materials are not limited to the SF Public Works standard paving palette.

Privately owned streets provide an opportunity to feature unique materials and details to introduce variation within the design of the public realm.

### Standards

#### S.5.10.5 Sidewalk and Roadway

The materials used for sidewalk and roadway in shared public ways shall be durable enough to withstand extensive use, wear-and-tear, and load-bearing requirements for all types of vehicles. Materials, colors and finishes used for both pedestrian and vehicular zones create a unified pedestrian priority auto space.

#### S.5.10.6 Warning Paving

Compliant but non-city-standard detectable warning paving shall be used at shared streets to signify pedestrian priority. Cast iron or white pre-cast detectable warning pavers are recommended for durability and aesthetic quality and variation.

#### S.5.10.7 Vehicular Unit Paving

When unit pavers are used for roadway applications, smaller unit pavers and a bituminous setting bed shall be used to withstand heavy loads and extend longevity of the paving system.

### Guidelines

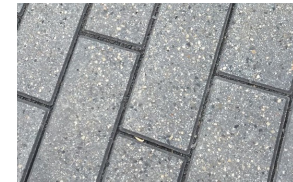
#### G.5.10.3 Permeable Paving

Permeable paving should be used to reduce pervious surface for stormwater management and should meet SFPUC stormwater management requirements.

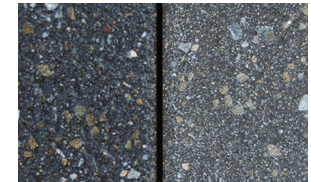
#### G.5.10.4 Paving Patterns

Special paving pattern designs and material variations are recommended to define spatial identity.

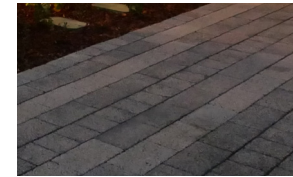
#### Concrete Unit Paving



6x12 Concrete Unit Paver, Ground and Blasted Finish



#### Permeable Paving



Pedestrian Permeable Paving

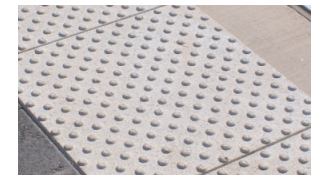


Vehicular Permeable Paving

#### Warning Paving



Warning Pavers Cast Iron



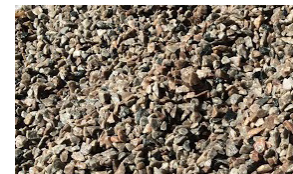
Warning Pavers Alt 1  
Precast Concrete

#### Tree Well Surfacing



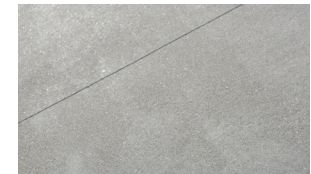
4x4 Cobble Stone with Flamed  
Finish

#### Tree Well Mulch



Gravel Mulch

#### Sidewalk



CIP Concrete:  
Natural Gray w/ Silica Carbide  
and Water Jet Finish

Figure 5.10–2: Street Material Palette for Privately Owned Street

## 5.11 STREET FURNITURE

### Seating, Receptacles, Bike Racks, Other Amenities

Street furniture is intended to be an amenity that supports a wide variety of activities. The primary materials for furnishings are steel and wood, for durability and comfort. Pictured to the right is suggested street furniture that shows the recommended character of naturally-weathered materials and finishes which should be coordinated across the site to ensure a consistent palette. The standards and guidelines outlined in this chapter are for both private and public streets.

### Standards

#### S.5.11.1 Location

Site furnishings shall be located within the furnishing zones parallel to the curb per the Better Streets Plan. Site furnishings shall be located in areas where they are likely to be used, such as low traffic shared public ways or at the Reservoir Park entrance. Their locations are also determined by ADA access and loading zones. Use of non-SFDPW-standard furniture on public right-of-ways requires a special permit

#### S.5.11.2 Bike Rack

- Selected bike racks shall not have circular tubes, shall provide secure mounting, shall employ durable materials that do not require maintenance, and shall meet additional requirements in the SFMTA Bicycle Rack Specifications.

- The Balboa Reservoir neighborhood shall provide class II bike parking for each building and open space at the right-of-way or in the publicly accessible open space.
- The placement of bike racks shall be in compliance with SFMTA Bicycle Parking Standards, Guidelines, and Recommendations. The total class II bike parking requirement shall be defined final TDM plan. See **Chapter 7.22 and 7.39 On-Site Bicycle Parking** for further bike parking requirements.

#### S.5.11.3 Bollards

Fixed bollards shall be provided at mid-block crossings and removable bollards shall be provided at the SFPUC Retained Fee access drive curb cut.

### Guidelines

#### G.5.11.1 Litter & Recycling Receptacles

Litter and recycling receptacles should be provided when regular maintenance and cleaning is available. They should be attractive site furnishings which contribute to the character of the street and provide options for landfill, recycling, and compost. Waste receptacles shall be located at areas of high pedestrian traffic, such as near pedestrian crossings. SF Public Works shall have final authority on trash receptacle selection and locations.

Figure 5.11–1: Street Furnishing Palette

### Benches



Manufactured Bench with Back Metal and Wood Finish



Manufactured Backless Bench, Metal and Wood Finish



Manufactured Bench with Reclaimed Wood or Similar

### Bollards



Bollard, Metal Finish or Similar

### Litter + Recycling Receptacles



Trash and Recycling Receptacles, for Square Stainless or Galvanized Metal Finish

### Bike Racks



Square Stainless or Galvanized Steel Tube Section

## 5.12 STREET LIGHTING

Street lighting at the Balboa Reservoir site is an important component of the streetscape design. It helps to establish a sense of continuity and cohesiveness in the neighborhood and a hierarchy of primary and secondary streets. The quality and intensity of the light provides neighborhood character, as well as a sense of safety and security.

### Standards

#### S.5.12.1 Lighting Design Requirements

Lighting design intent shall follow IES-RP8, Illuminating Engineering Society standards appropriate to the subject street type.

#### S.5.12.2 Location

All street lights shall be located within the furnishing zone and should not obstruct pedestrian thoroughways or the loading and unloading of people and goods.

#### S.5.12.3 Public Street Pole Lights

Street lighting design for public right-of-ways shall be in compliance with SFPUC guideline and the light fixtures shall be selected from SFPUC light catalogue. See **MIP section 6.5.5 Lighting** and **5.11 Street Lighting** on page 86 for more information. .

#### S.5.12.4 Privately Owned Shared Public Way Pole Lights

Street pole lights at privately owned shared public ways shall be pedestrian in scale to emphasize pedestrian priority. Colors and finishes shall be coordinated with other site furnishings and building color palettes. The same pedestrian poles shall be used at both the shared public way and the public open space. Street light fixtures in privately owned streets aren't required to be selected from SFPUC street light catalogue.

#### Private Shared Street Pedestrian Pole Light



*Manufactured Pedestrian Light, Metal Finish*



*Louis Poulsen Abertslund Maxi Post or similar*

#### Public Street Pole Light



*Manufactured Pole Light from SFPUC catalogue of acceptable fixtures, Metal Finish*

Figure 5.12–1: Street Lighting Palette



## Street Design by Individual Case

Given the number of unique conditions at Balboa Reservoir, maintaining a simple and coherent street design is essential to providing a unifying framework for development over time. In order to support implementation of the Streetscape Design Guidelines, the following sections will provide detailed standard guidelines for individual streets. The streets are listed per the street hierarchy defined in **Chapter 5.2 Street Typology**.

### LEGEND

- ⬢ Publicly Owned Streets
- ⬢ Privately Owned Streets with Public Access
- 5.XX Section Number in Chapter 5
- 5.XX Section Number in Chapter 5

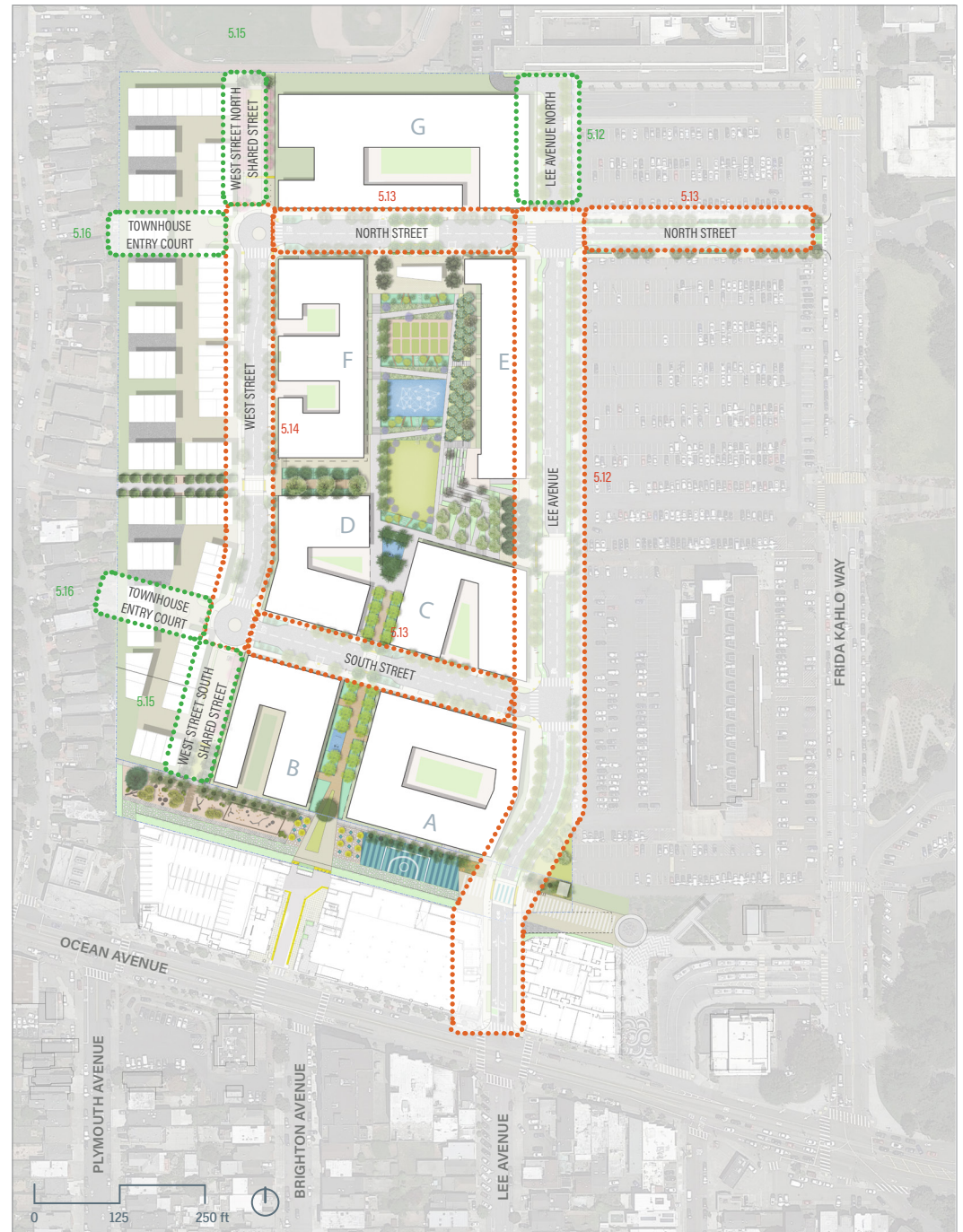


Figure 5.12-2: Street Ownership & Key Plan

Note: Building footprints are for illustrative purposes only

### 5.13 LEE AVENUE

Lee Avenue is the primary mixed-use street connecting the project site to the adjacent neighborhood. Lee Avenue will serve non-residential and residential uses including potential future housing on City College property. The extension of Lee Avenue is a tree-lined bicycle boulevard that provides a gateway to the Reservoir Park and a complementary edge to the City College Master Plan. It will be the primary bicycle connection south to the Class III bike route to Holloway Avenue and to Frida Kahlo Way. The treatment of Lee Avenue is divided into 3 main zones, with 5 total segments. See **Figure 5.12–2**.

#### Lee Avenue North of North Street (Segment L.1)

The section of Lee Avenue north of North Street provides a one-way exit route for Riordan High School, a possible garage exit for Block G, and a potential parking garage exit from the City College property. This segment will be a conventional two-way street with a minimum 12-foot sidewalk on both sides. The right-of-way for this segment is 50-feet wide. This segment of Lee Avenue will be privately owned with public access. See **Figure 5.12–3**.

#### Lee Avenue at Central Block (Segment L.2 & L.3)

The section of Lee Avenue between North Street and South Street will have an asymmetric profile within a 72-foot-wide-right-of-way. It will have one travel lane in each direction and a protected Class IV bike lane and a minimum of 12-foot wide sidewalks on both sides. Parallel parking and loading areas are provided only on the west side of the street. See **Figure 5.12–4**.

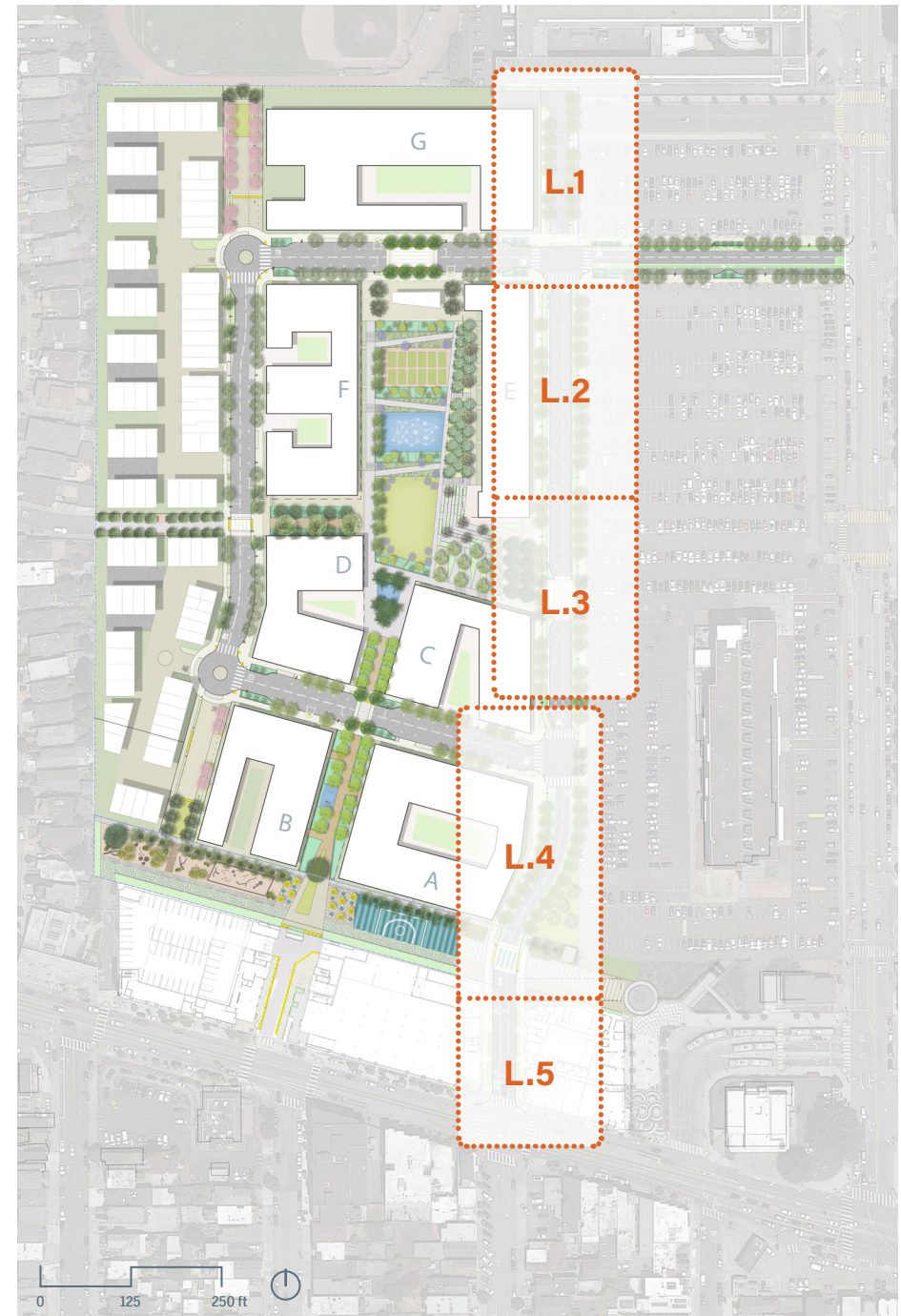


Figure 5.13–1: Lee Avenue, Key Map

Note: Building footprints are for illustrative purposes only

### Lee Avenue South of South Street (Segment L.4 & L.5)

Lee Avenue south of South Street will taper from a 72-foot-wide right-of-way to a 56-foot-wide right-of-way to match the existing width between 1110 and 1150 Ocean Avenue. At this segment, there will not be parallel parking on either side of the street and one travel lane and bike lane in each direction. Class II bike lanes run from South Street to the SFPUC Retained Fee Open Space and transition into Class III bike lanes through Ocean to Holloway Ave Class III bike route. There will be bulb-outs at intersections and mid-block crossings at the Reservoir Park and SFPUC Retained Fee Open Space to emphasize pedestrian priority and traffic calming. A vehicular left turn lane on the southern most end of Lee Avenue will assist with traffic control at the intersection of Lee Avenue and Ocean Avenue. See **Figure 5.12.5**.

## Standards

### S.5.13.1 Street Zone Dimensions

Right-of-way cross-section dimensions shall be as shown in **Figure 5.12–3** through **Figure 5.12.6**.

### S.5.13.2 Element and Material Specification

Elements per **Figure 5.12–2**. All elements shown shall be included. Dimensions vary.

### S.5.13.3 Raised Crosswalk

The crosswalk at the intersection of Lee Avenue and the Reservoir Park entry and the intersection of Lee Avenue and the SFPUC Retained Fee Open Space shall be raised and a minimum of 50 feet long. High quality paving materials such as unit paving are encouraged. See *Balboa Reservoir Infrastructure Plan, Section 6.6: Traffic Calming* for more details.

### S.5.13.4 Loading

Loading per *Balboa Reservoir Infrastructure Plan, Figure 6.9: Proposed Service & Loading Plan*.

### S.5.13.5 SFPUC Asset Protection Standards

Street trees are not allowed where the roadway and sidewalk cross the SFPUC Retained Fee Parcel. Refer to **SFPUC Asset Protection Standards** for tree restrictions over transmission distribution assets at this parcel.

## Guidelines

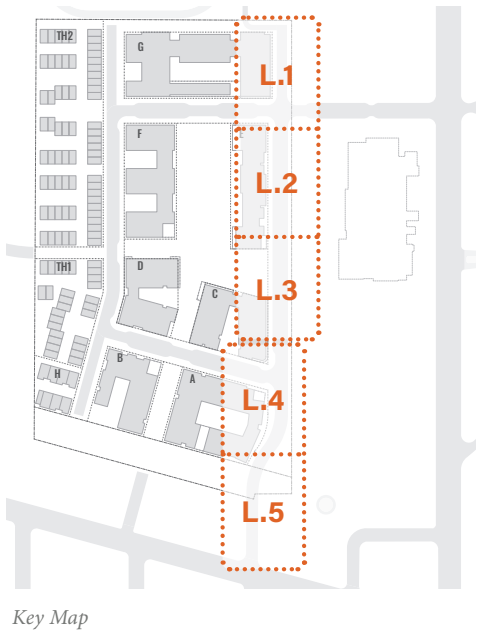
### G.5.13.1 Stormwater Management

Some of the Lee Avenue stormwater requirements will be offset in the open space stormwater management areas. See *Chapter 6: Open Space Network* for more information. This enables flexibility in the design of Lee Avenue including managing challenging grading, potential inclusion of protected bike ways, and other pedestrian amenities. The open space stormwater management area will be sized over the 25% requirement to offset the Lee Avenue stormwater requirement.



LEGEND

1 Tree Well	13 Bench
2 Concrete Sidewalk	14 Bollard
3 Street Light	15 Concrete Unit Pavers
4 Litter + Recycling Receptacle	16 Roadway - Asphalt
5 Bioretention Planting	17 Curb Cut for Driveway
6 Regular Planting	18 Bike Share
7 Warning Paver	
8 Curb Cut for Accessible Loading/Parking	BL bike lane
9 Raised Crosswalk/Ground Mural	P parking
10 Traffic Island	SW sidewalk
11 Curb Cut for Garage	TL travel lane
12 Bike Rack	M median
	BO bulb-out



Key Map

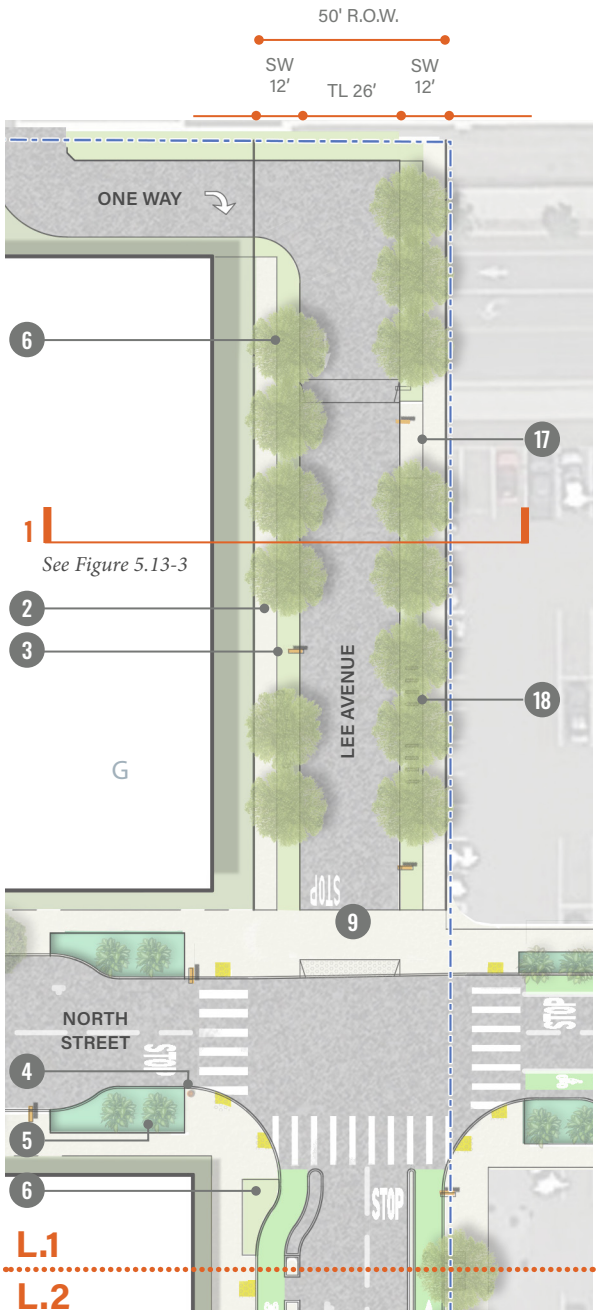


Figure 5.13-2: Lee Avenue, Site Plan L.1

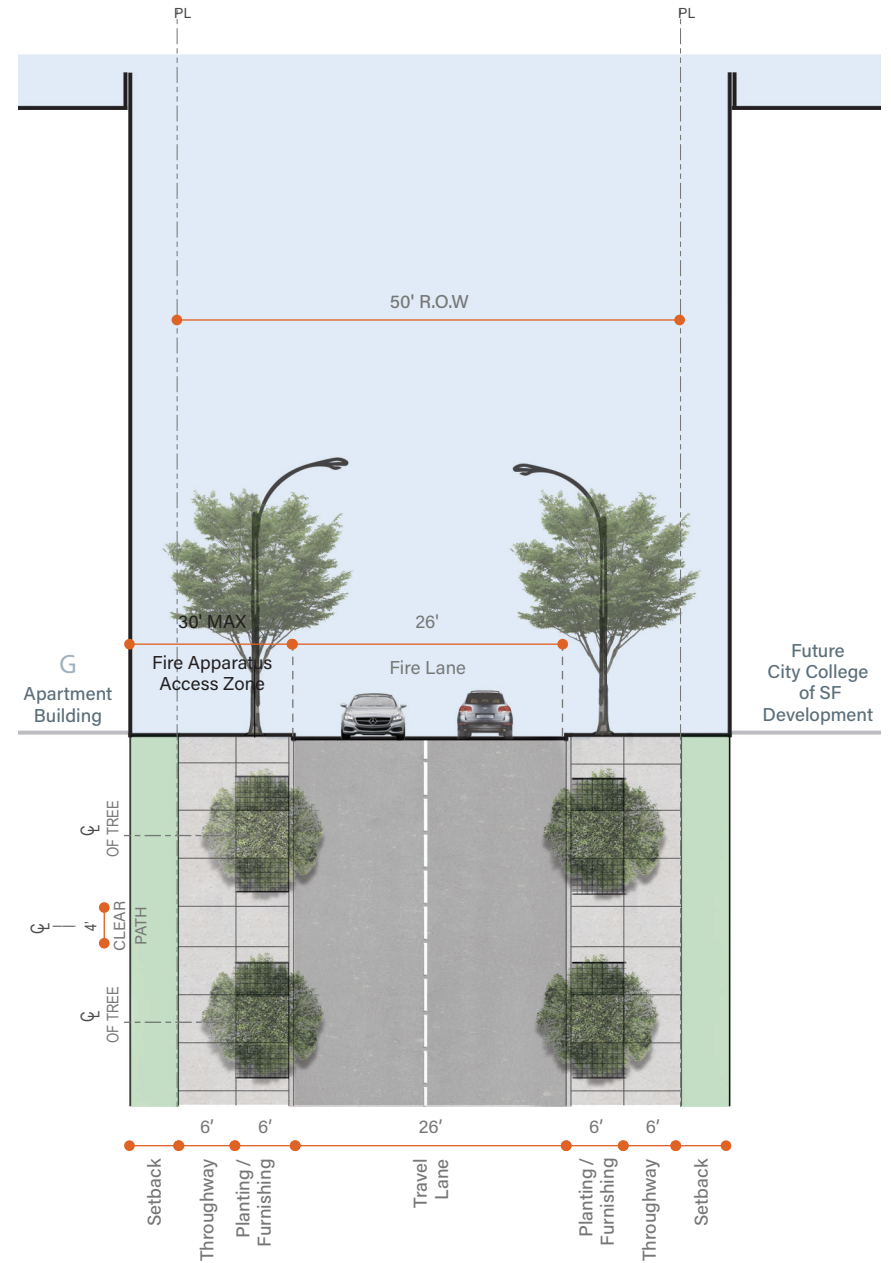
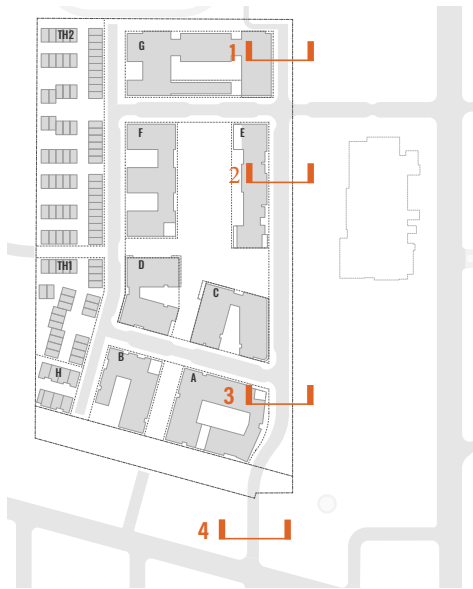


Figure 5.13-3: Lee Avenue, Section 1

\*see Figure 5.13-2: Lee Avenue, Plan Enlargements L.1



Key Map



**LEGEND**

1 Tree Well

2 Concrete Sidewalk

3 Street Light

4 Litter + Recycling Receptacle

5 Bioretention Planting

6 Regular Planting

7 Warning Paver

8 Curb Cut for Accessible Loading/Parking

9 Raised Crosswalk/Ground Mural

10 Traffic Island

11 Curb Cut for Garage

12 Bike Rack

13 Bench

14 Bollard

15 Concrete Unit Pavers

16 Roadway - Asphalt

17 Curb Cut for Driveway

18 Bike Share

BL bike lane

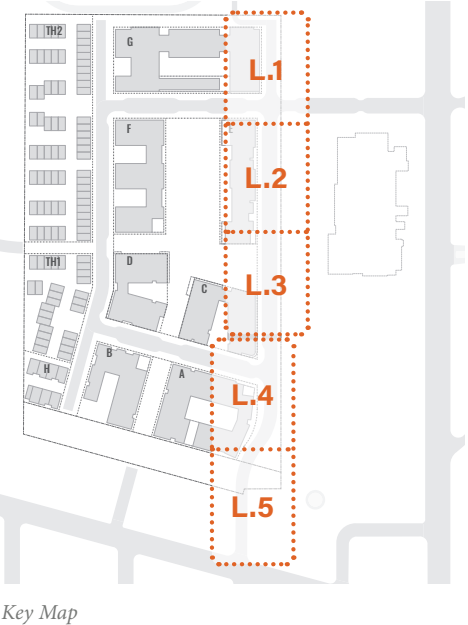
P parking

SW sidewalk

TL travel lane

M median

BO bulb-out



Key Map

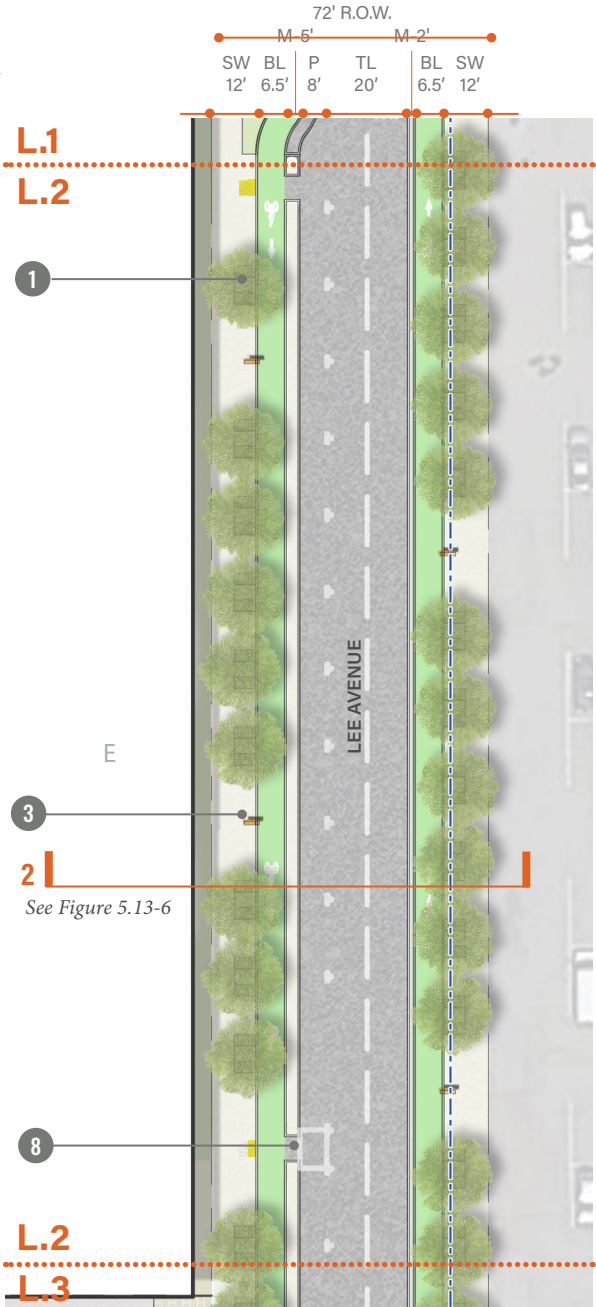


Figure 5.13-4: Lee Avenue, Site Plan L.2

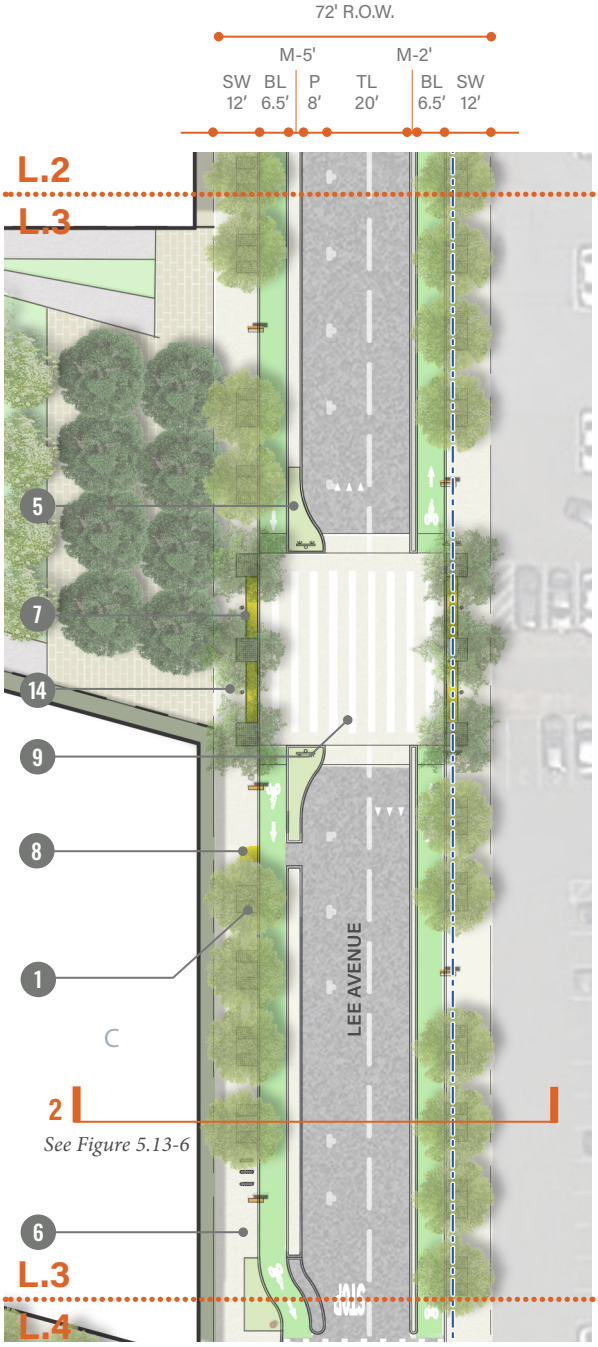


Figure 5.13-5: Lee Avenue, Site Plan L.3

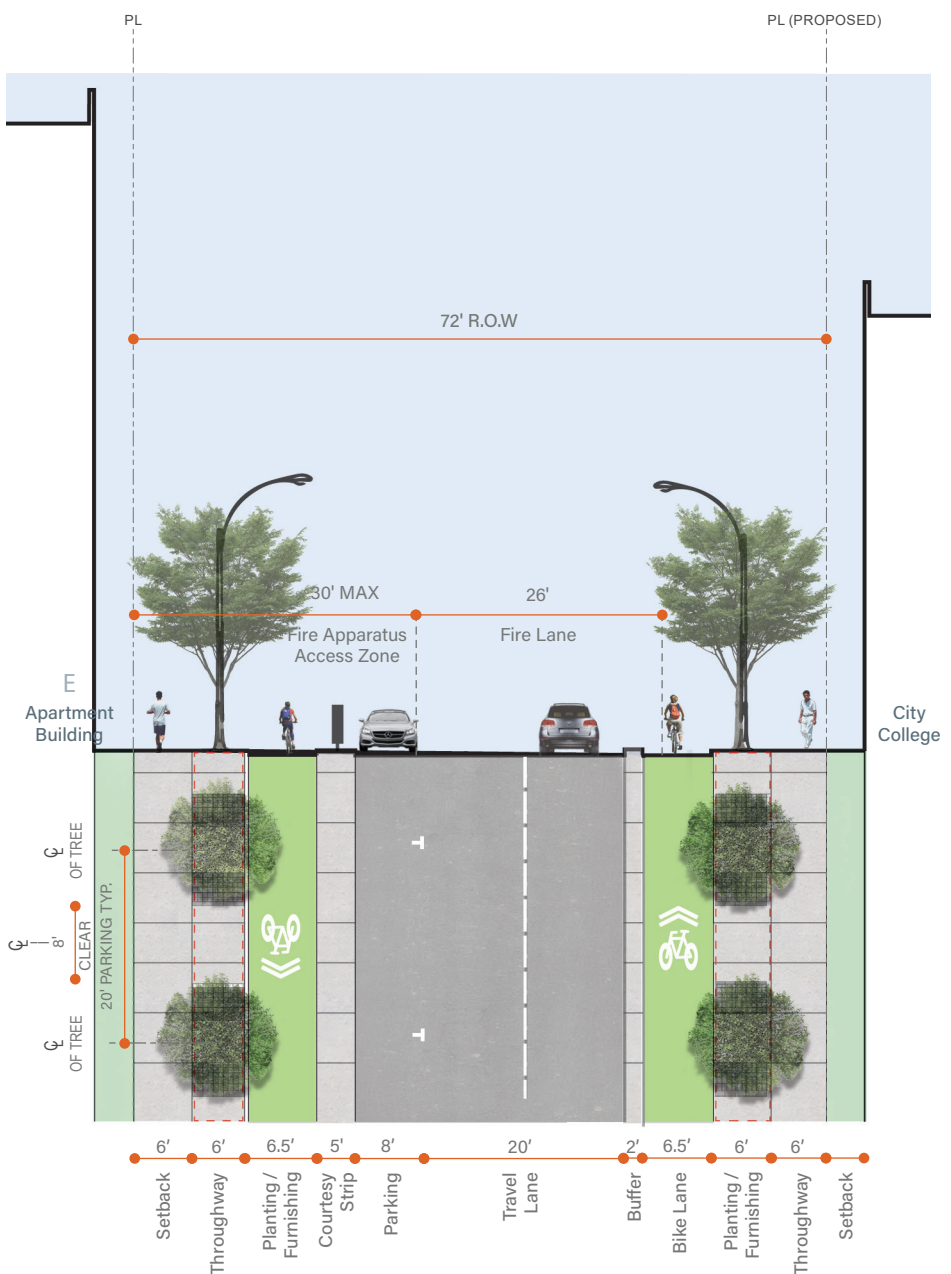


Figure 5.13-6: Lee Avenue, Section 2

\*see "Figure 5.13- 4 & 5: Lee Avenue, Plan Enlargements L.2 & L.3



Key Map

LEGEND

- 1 Tree Well

2 Concrete Sidewalk

3 Street Light

4 Litter + Recycling Receptacle

5 Bioretention Planting

6 Regular Planting

7 Warning Paver

8 Curb Cut for Accessible Loading/Parking

9 Raised Crosswalk/Ground Mural

10 Traffic Island

11 Curb Cut for Garage

12 Bike Rack
- 13 Bench

14 Bollard

15 Concrete Unit Pavers

16 Roadway - Asphalt

17 Curb Cut for Driveway

18 Bike Share
- BL bike lane

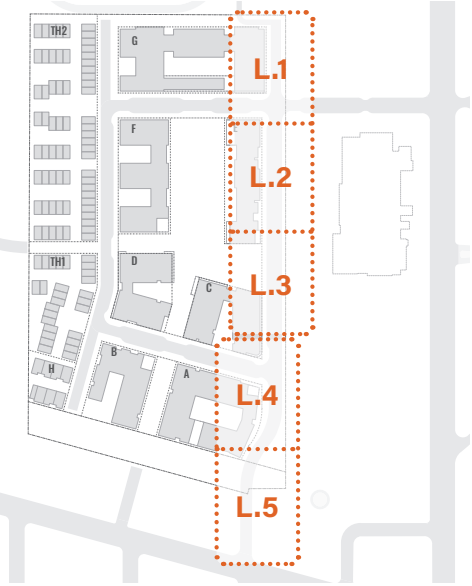
P parking

SW sidewalk

TL travel lane

M median

BO bulb-out



Key Map

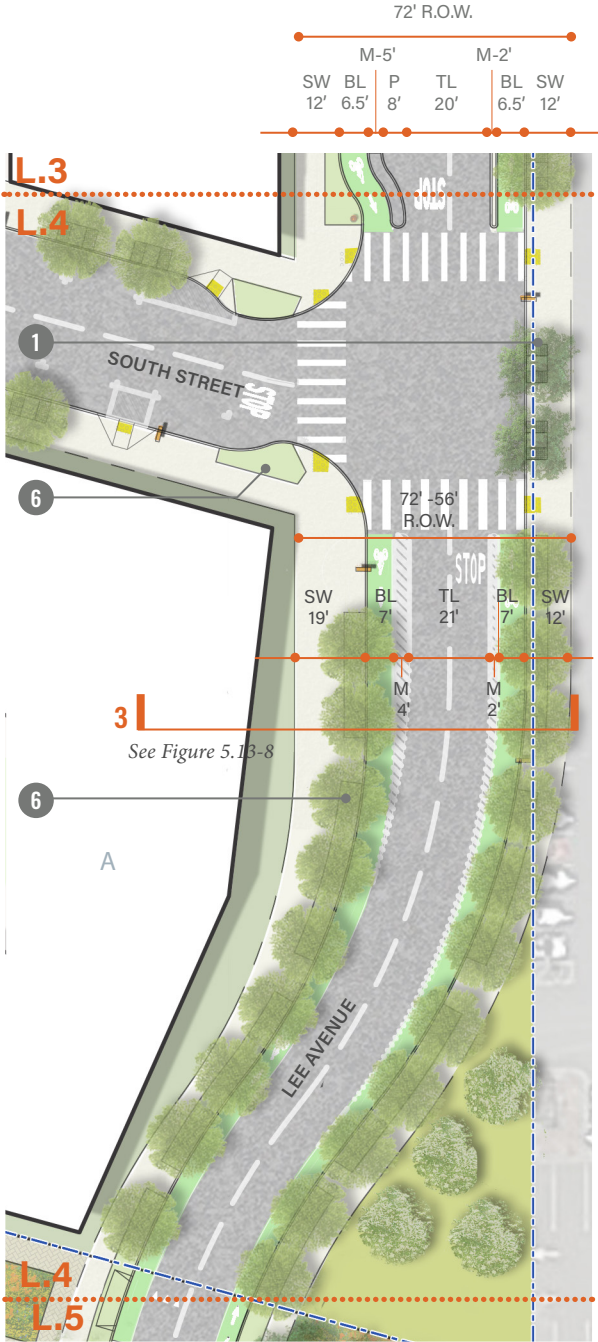
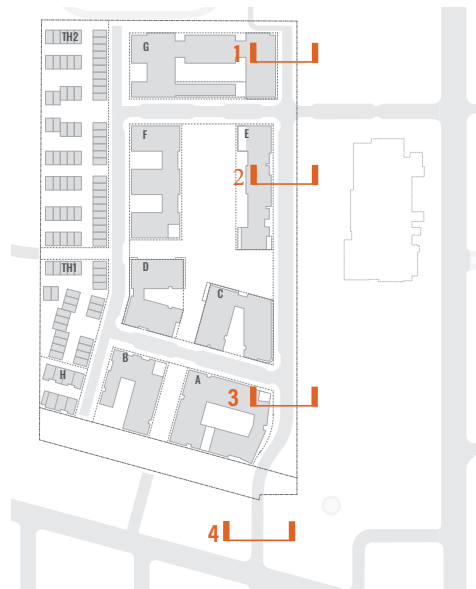


Figure 5.13-7: Lee Avenue, Site Plan L.4



Key Map

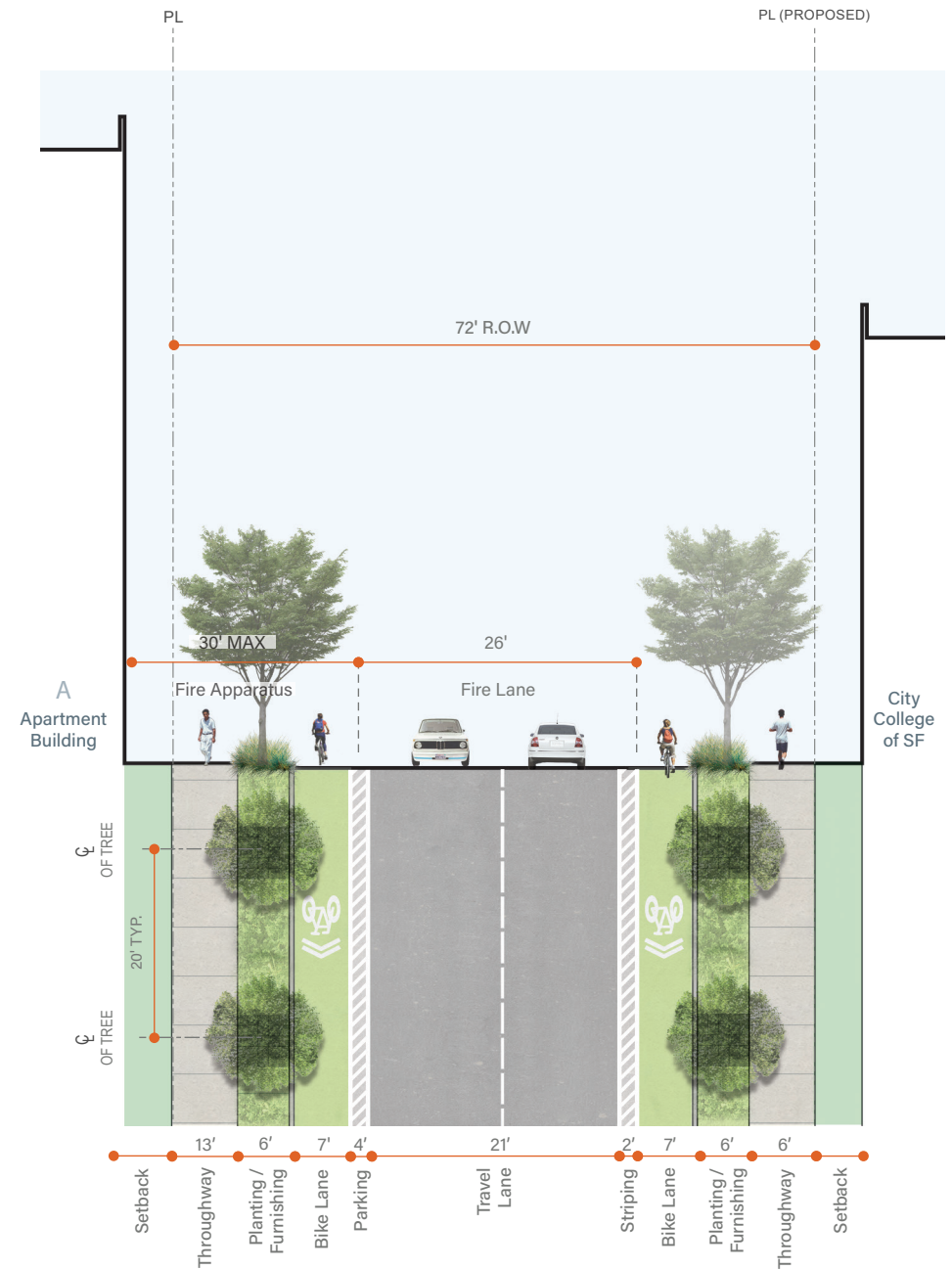


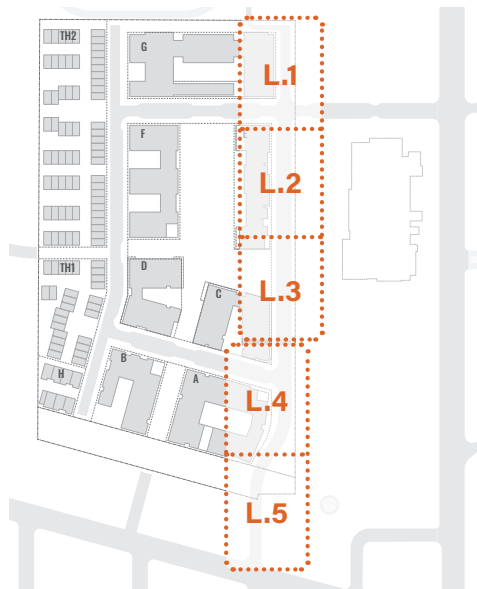
Figure 5.13-8: Lee Avenue, Section 3

\*see "Figure 5.13-7: Lee Avenue, Site Plan L.4



LEGEND

- |   |                          |
|---|--------------------------|
| 1 Tree Well                               | 13 Bench                 |
| 2 Concrete Sidewalk                       | 14 Bollard               |
| 3 Street Light                            | 15 Concrete Unit Pavers  |
| 4 Litter + Recycling Receptacle           | 16 Roadway - Asphalt     |
| 5 Bioretention Planting                   | 17 Curb Cut for Driveway |
| 6 Regular Planting                        | 18 Bike Share            |
| 7 Warning Paver                           |                          |
| 8 Curb Cut for Accessible Loading/Parking | BL bike lane             |
| 9 Raised Crosswalk/Ground Mural           | P parking                |
| 10 Traffic Island                         | SW sidewalk              |
| 11 Curb Cut for Garage                    | TL travel lane           |
| 12 Bike Rack                              | M median                 |
|   | BO bulb-out              |



Key Map

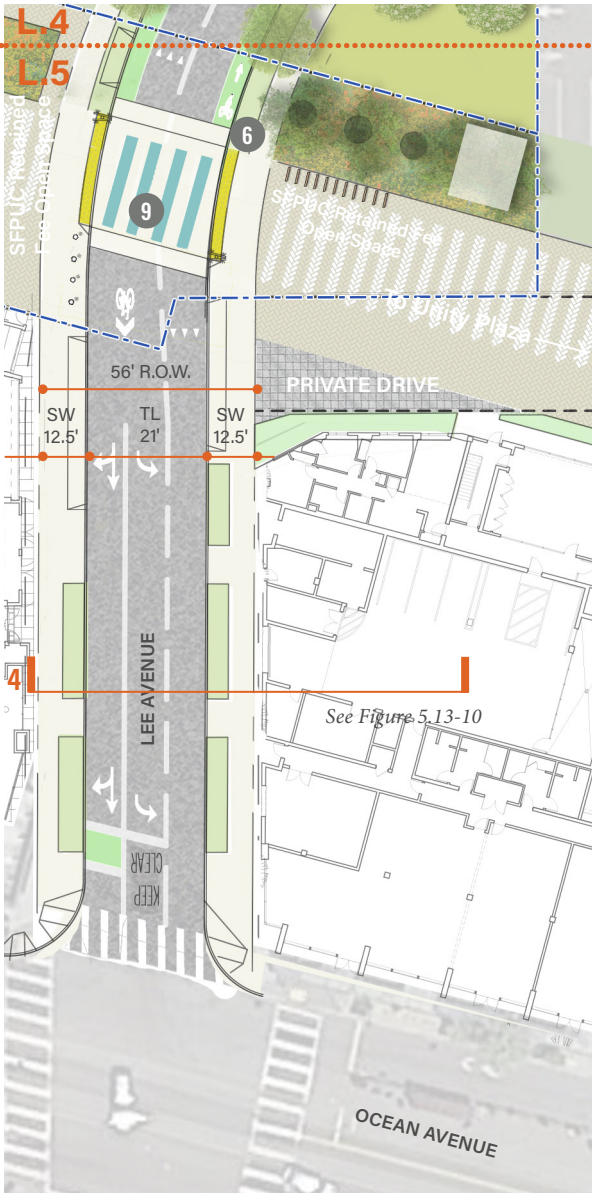
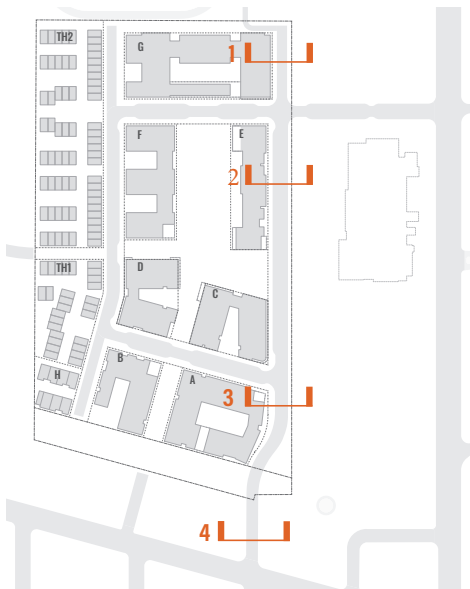


Figure 5.13-9: Lee Avenue, Site Plan L.5



Key Map

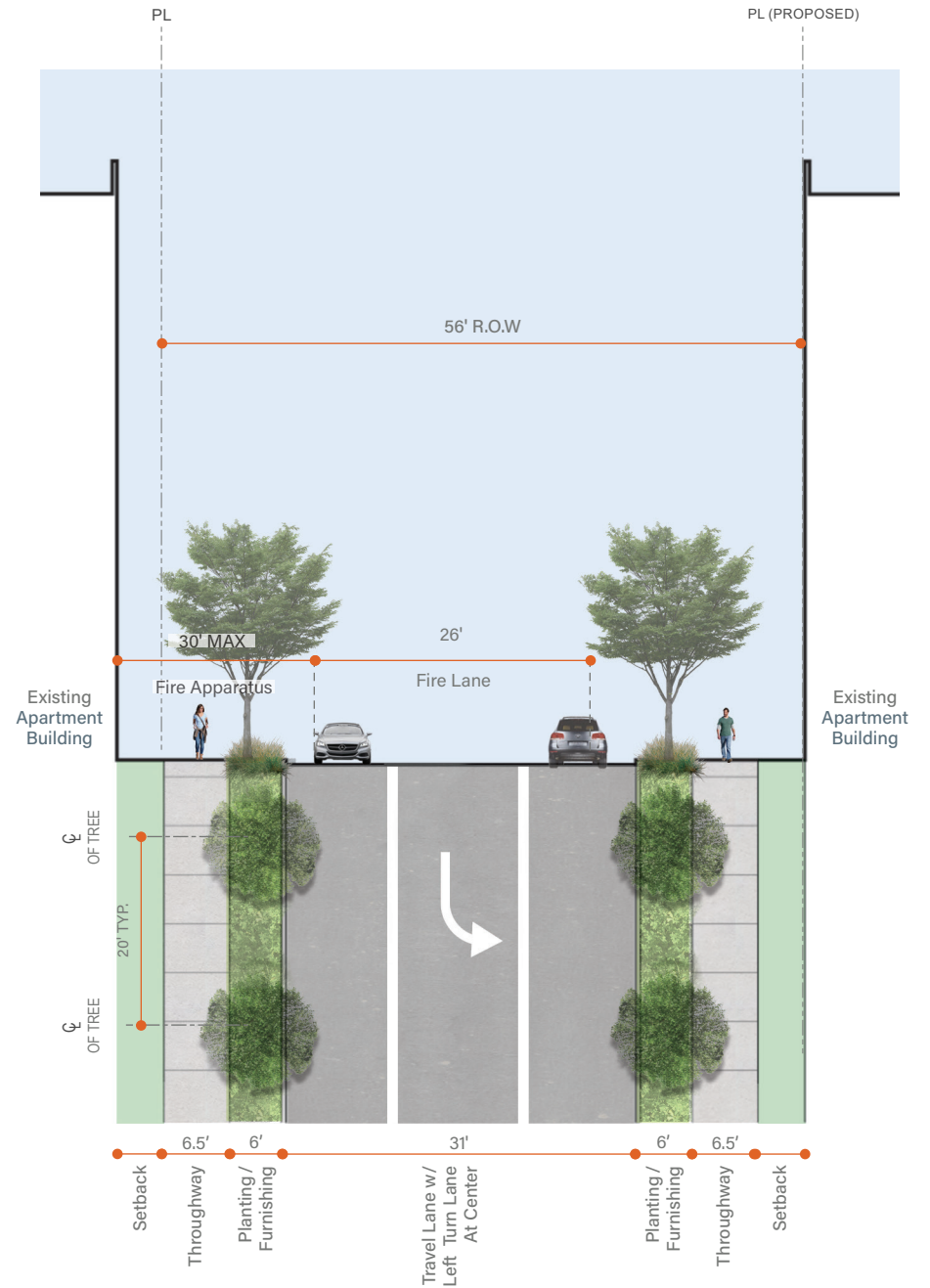


Figure 5.13-10: Lee Avenue, Section 4

\*see "Figure 5.13--: Lee Avenue, Site Plan L5

## 5.14 NORTH STREET AND SOUTH STREET

### North Street

North Street will be an east-west neighborhood residential lane with a 64-foot-wide right-of-way providing vehicular, bike, pedestrian and service access to buildings and to Reservoir Park. Parallel parking and 12-foot-wide sidewalks are provided on both sides of the street. North Street will also extend eastward connecting Lee Avenue to the existing Frida Kahlo Way and provide access to the future Performing Art Education Center at City College. The portion of North Street between Lee Avenue and Frida Kahlo Way will be narrowed to a 62-foot-wide right-of-way to accommodate designated bike lanes on both sides of the street and parallel parking on the south side. There will be bulb-outs at intersections and a raised mid-block crossing at Reservoir Park to strengthen pedestrian connections to the central public space. Street stormwater will be treated with rain gardens in bulb-outs or pervious vehicular paving. Large evergreen trees will be planted on this street.

### South Street

South Street will be an east-west neighborhood residential lane with a 64-foot-wide right-of-way. It will provide vehicular, pedestrian and bike access to individual buildings, childcare, the Brighton Paseo, and to the Reservoir Park. Loading zones and 12-foot-wide sidewalks are provided on both sides of the street. South Street will have slower traffic and will accommodate bicycles on the street. There will be bulb-outs at intersections and, as in the case of North Street, a mid-block raised crossing to create safe connections to Reservoir Park and to Brighton Paseo. Stormwater will be treated through bioswales located in the bulb-out areas and through pervious vehicular paving. Large evergreen trees will be planted on this street.

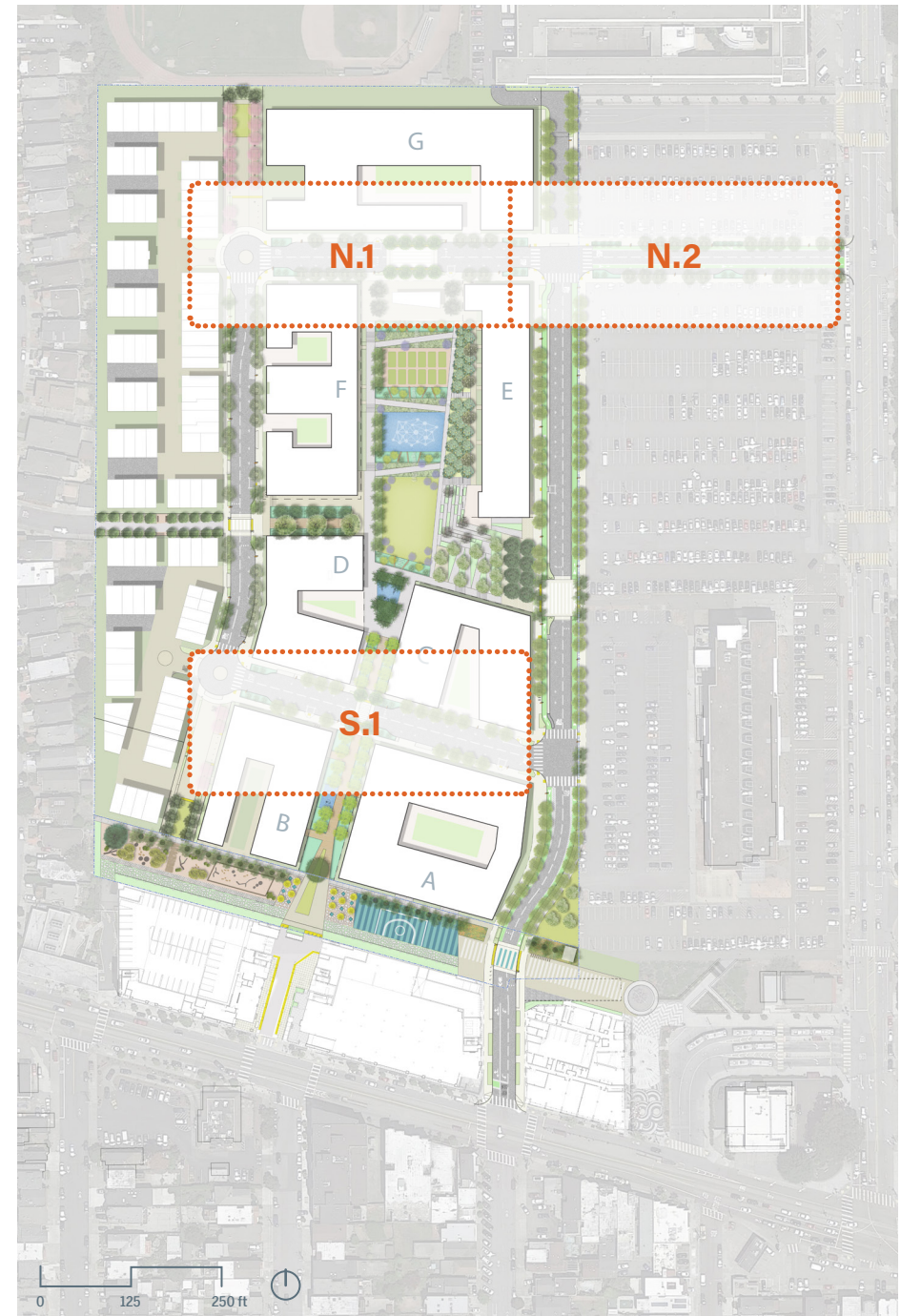


Figure 5.14-1: North & South Street, Key Map

Note: Building footprints are for illustrative purposes only

## Standards

### S.5.14.1 Street Zone Dimensions

Right-of-way cross-section dimensions shall be as shown in **Figure 5.13–2** and **Figure 5.13–4**.

### S.5.14.2 Element and Material Specification

Elements shall be included per **Figure 5.13–3** and **Figure 5.13–5**. All elements shown shall be included.

### S.5.14.3 Raised Crosswalk

Crosswalks at the intersection of North Street and the Reservoir Park entrance, and South Street and the Reservoir Park entrance shall be raised and at minimum 60 feet long at North Street and 15 feet long at South Street. High quality paving materials such as unit paving are recommended. See *Balboa Reservoir Infrastructure Plan, Section 6.6: Traffic Calming* for more details.

## Guidelines

### G.5.14.1 Stormwater Management

To the extent possible, stormwater generated within the North Street and South Street right-of-ways shall be treated within the right-of-way in centralized linear bioretention treatment areas adjacent to the sidewalk. These bioretention planters adjacent to the sidewalk shall have a 6-inch curb for fall protection. An alternate treatment option is to route North Street and South Street stormwater to the Reservoir Park. A Brighton Paseo stormwater area is also under consideration.

### G.5.14.2 Mountable Traffic Circle

High quality paving such as unit paving is encouraged around the mountable traffic circles at the intersection of North Street and West Street and at the intersection of South Street and West Street.



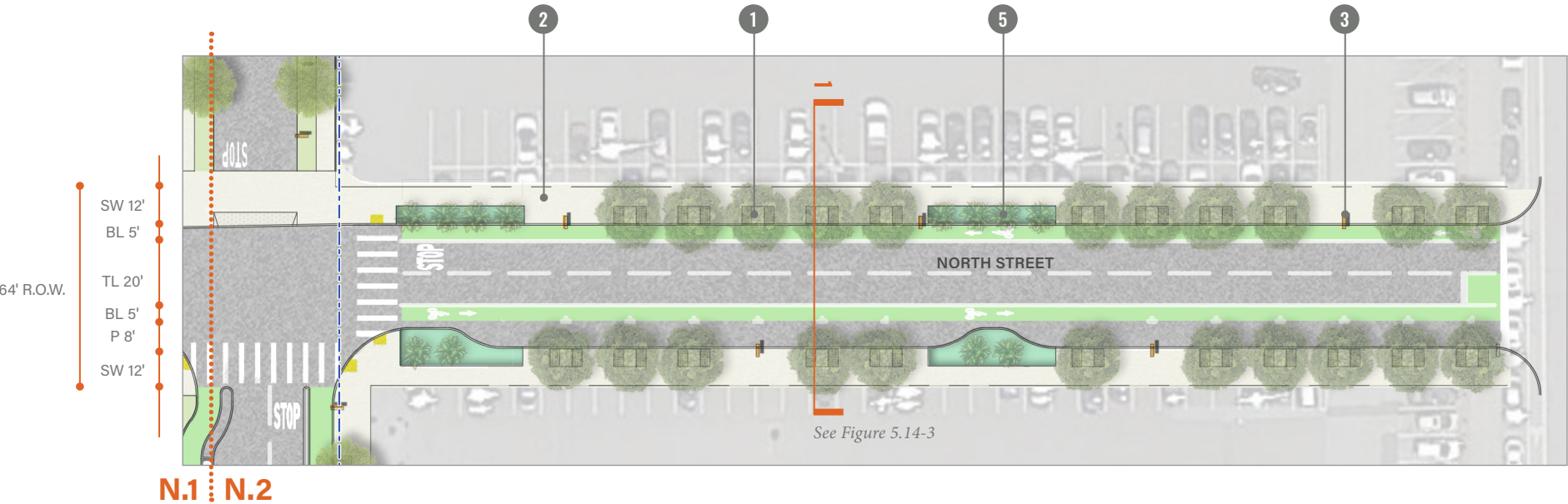
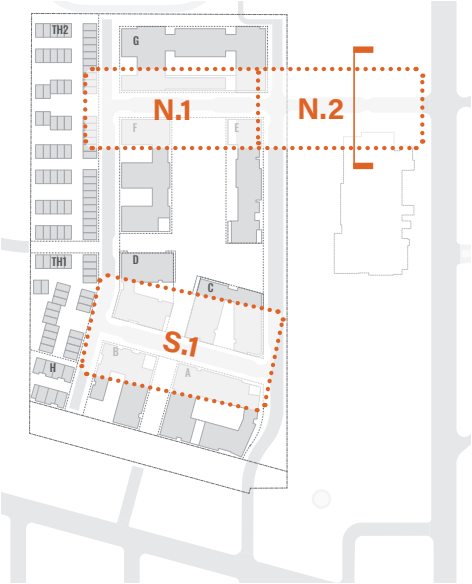


Figure 5.14-2: North Street Site Plan N2



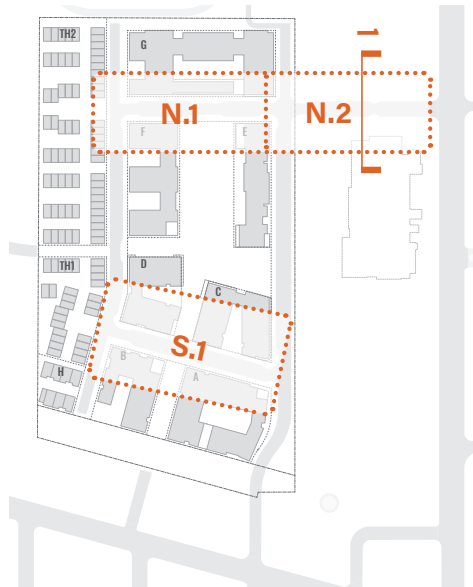
Key Map

Keymap

LEGEND

- |   |                          |
|---|--------------------------|
| 1 Tree Well                               | 13 Bench                 |
| 2 Concrete Sidewalk                       | 14 Bollard               |
| 3 Street Light                            | 15 Concrete Unit Pavers  |
| 4 Litter + Recycling Receptacle           | 16 Roadway - Asphalt     |
| 5 Bioretention Planting                   | 17 Curb Cut for Driveway |
| 6 Regular Planting                        | 18 Bike Share            |
| 7 Warning Paver                           |                          |
| 8 Curb Cut for Accessible Loading/Parking | BL bike lane             |
| 9 Raised Crosswalk/Ground Mural           | P parking                |
| 10 Traffic Island                         | SW sidewalk              |
| 11 Curb Cut for Garage                    | TL travel lane           |
| 12 Bike Rack                              | M median                 |
|   | BO bulb-out              |





Key Map

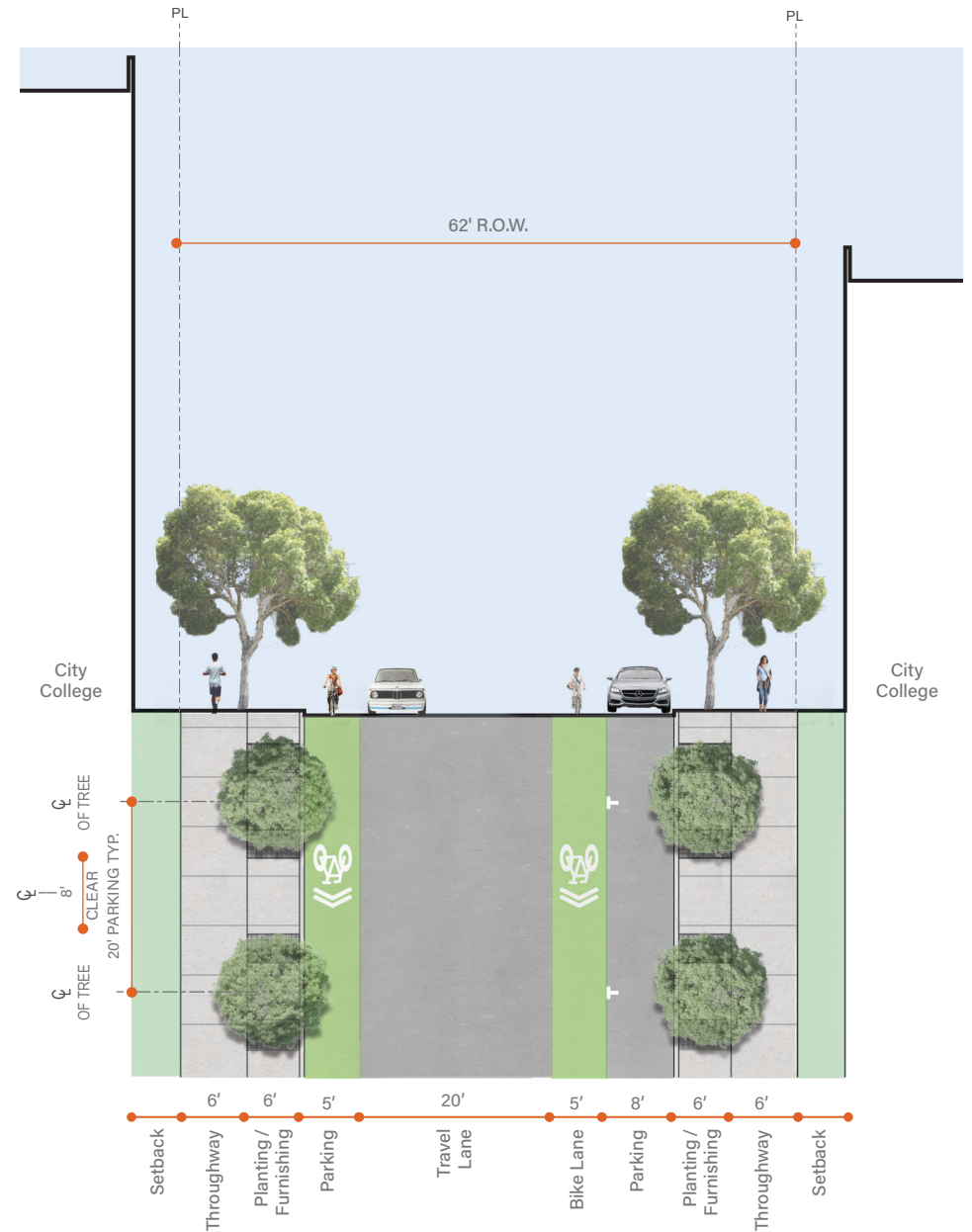


Figure 5.14-3: North Street N2 Section

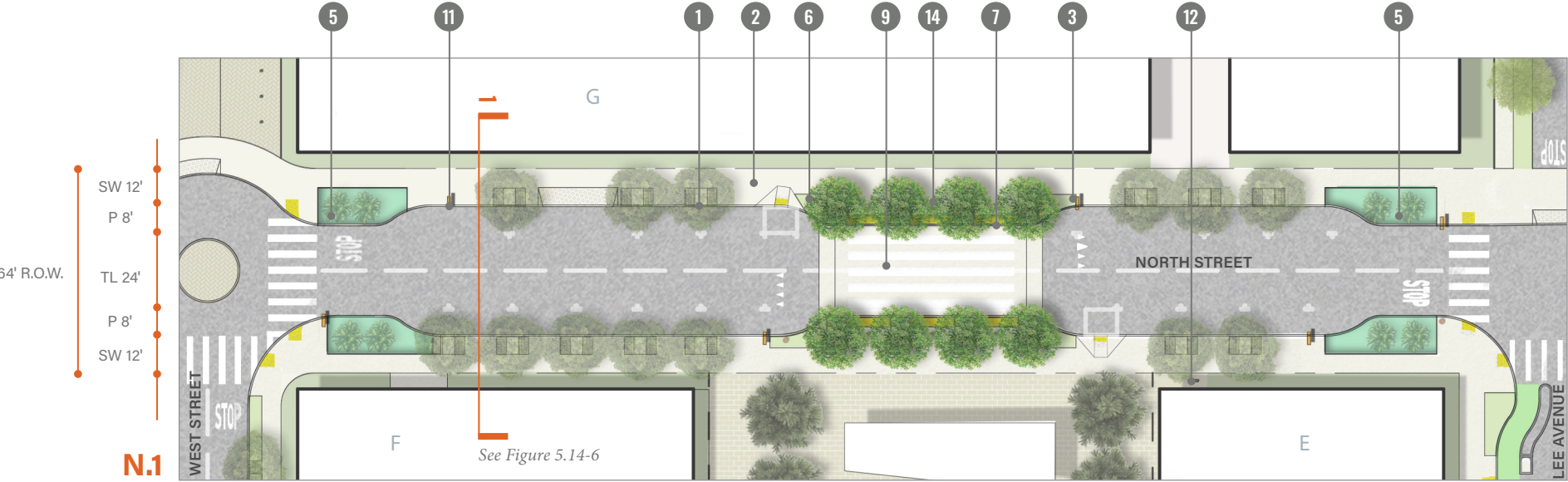
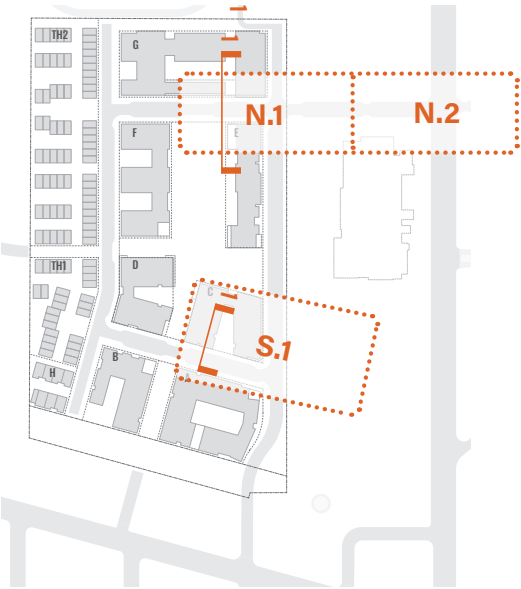


Figure 5.14-4: North Street Site Plan N1

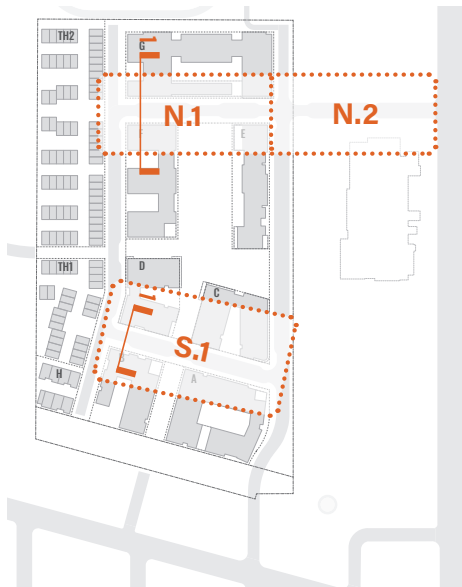


Keymap

LEGEND	
1 Tree Well	13 Bench
2 Concrete Sidewalk	14 Bollard
3 Street Light	15 Concrete Unit Pavers
4 Litter + Recycling Receptacle	16 Roadway - Asphalt
5 Bioretention Planting	17 Curb Cut for Driveway
6 Regular Planting	18 Bike Share
7 Warning Paver	
8 Curb Cut for Accessible Loading/Parking	BL bike lane
9 Raised Crosswalk/Ground Mural	P parking
10 Traffic Island	SW sidewalk
11 Curb Cut for Garage	TL travel lane
12 Bike Rack	M median
	BO bulb-out



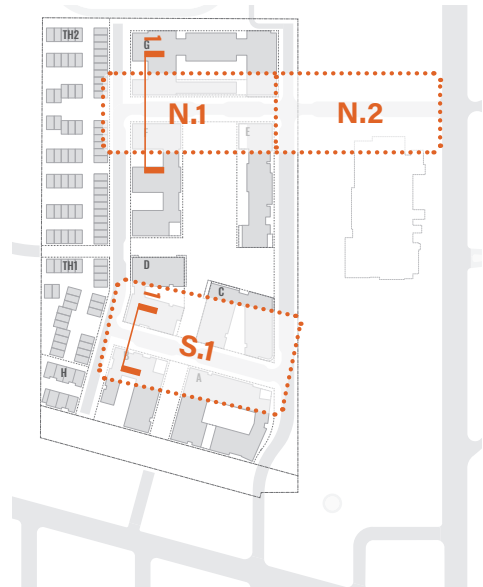
Figure 5.14-5: South Street Site Plan S1



#### LEGEND

- |   |                          |
|---|--------------------------|
| 1 Tree Well                               | 13 Bench                 |
| 2 Concrete Sidewalk                       | 14 Bollard               |
| 3 Street Light                            | 15 Concrete Unit Pavers  |
| 4 Litter + Recycling Receptacle           | 16 Roadway - Asphalt     |
| 5 Bioretention Planting                   | 17 Curb Cut for Driveway |
| 6 Regular Planting                        | 18 Bike Share            |
| 7 Warning Paver                           |                          |
| 8 Curb Cut for Accessible Loading/Parking | BL bike lane             |
| 9 Raised Crosswalk/Ground Mural           | P parking                |
| 10 Traffic Island                         | SW sidewalk              |
| 11 Curb Cut for Garage                    | TL travel lane           |
| 12 Bike Rack                              | M median                 |
|   | BO bulb-out              |





Keymap

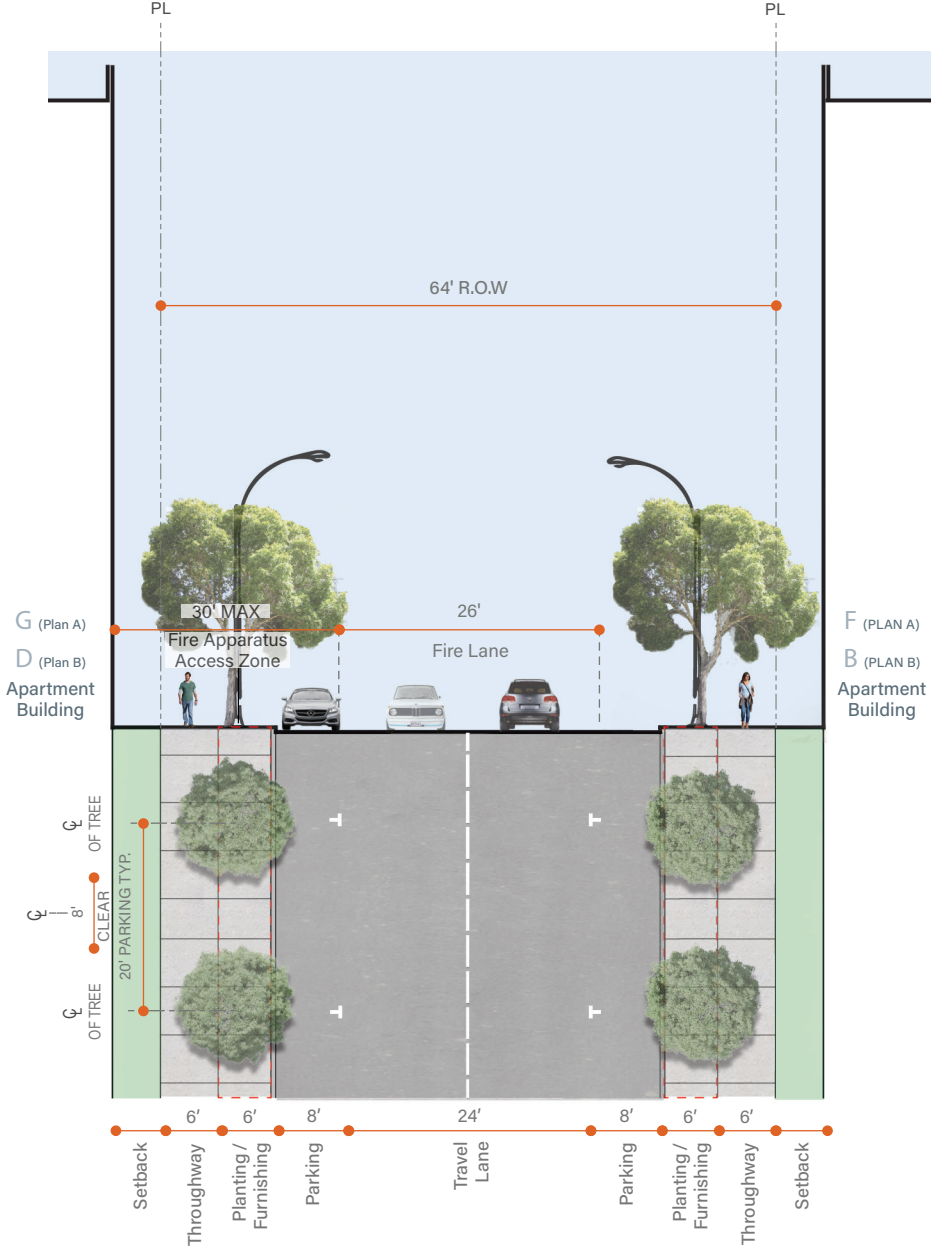


Figure 5.14-6: North & South Street N1 & S2 Section

## 5.15 WEST STREET

West Street will be a north-south neighborhood residential street with a 54-foot-wide right-of-way providing vehicular, pedestrian, and bike access to individual buildings, townhouses, San Ramon Paseo, and Reservoir Park. This street will have an asymmetrical section with parallel parking on the east side. There will be one travel lane in each direction with a 10.5-foot-wide sidewalk on both sides of the street. Since there will be no parallel parking at the townhouse side of the street, a continuous 4-foot-wide tree and planting buffer with 8-foot-wide breaks every 60 feet will be provided along the townhouse frontage. The streetscape design will feature traffic calming elements such as chicanes, raised crosswalks, and mountable traffic circles.

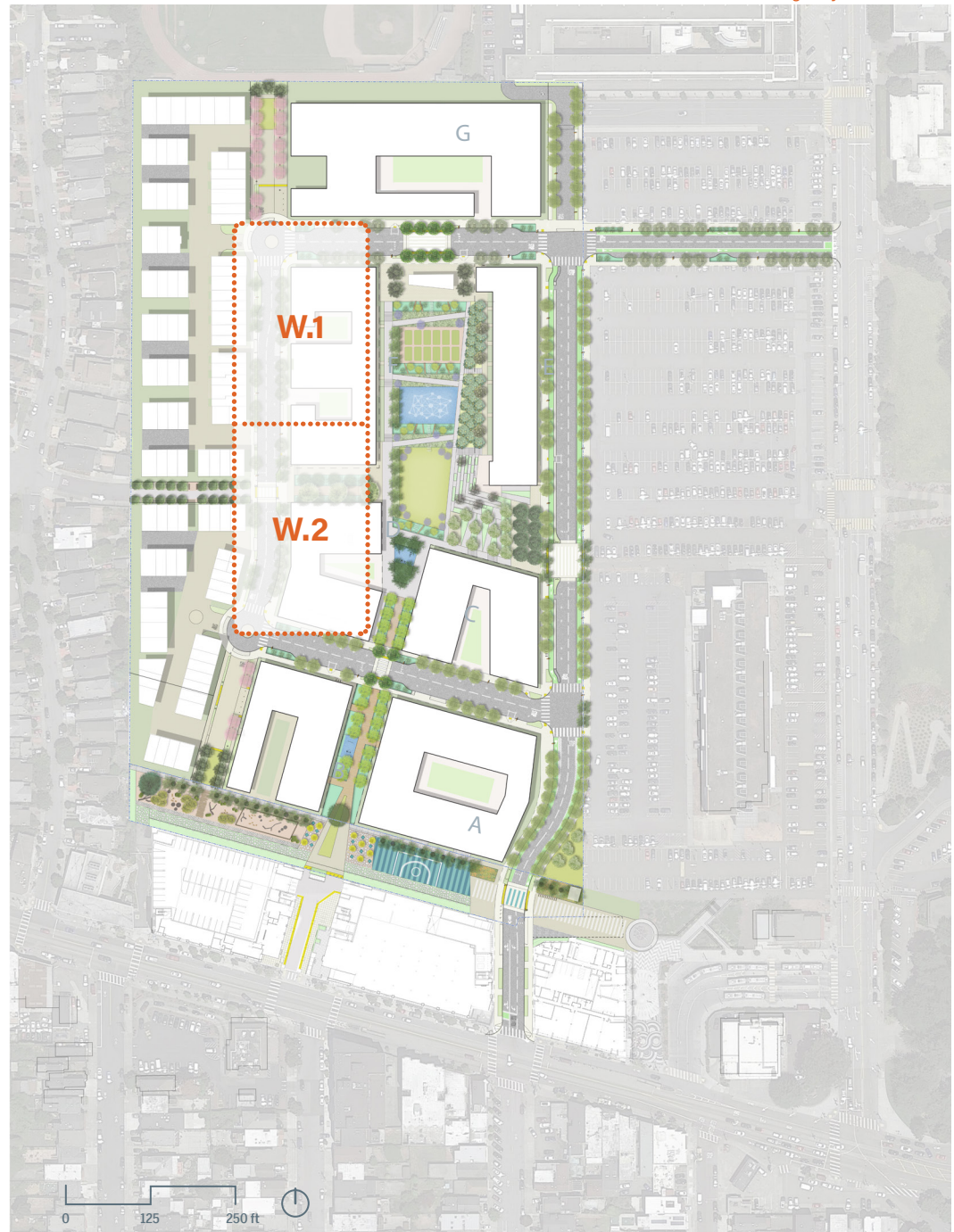


Figure 5.15–1: West Street, Key Map

## Standards

### S.5.15.1 Street Zone Dimensions

Right-of-way cross-section dimensions shall be as shown in **Figure 5.14.3**.

### S.5.15.2 Element and Material Specification

Elements per **Figure 5.14–2**. All elements shown shall be included. Dimensions vary to meet site-specific conditions.

### S.5.15.3 Raised Crosswalk

The crosswalk at the intersection of West Street and the Reservoir Park entry shall be raised and 30 feet long at minimum. High quality paving materials such as unit paving is recommended. See *Balboa Reservoir Infrastructure Plan, Section 6.6: Traffic Calming* for more details.

## Guidelines

### G.5.15.1 Stormwater Management

Due to grading challenges and spatial constraints, West Street will not be able to meet the 25% reduction in stormwater rate and volume. The open space stormwater management area will be oversized beyond the 25% requirement to offset the West Street stormwater requirement. See *Chapter 6: Open Space Network* for more information.

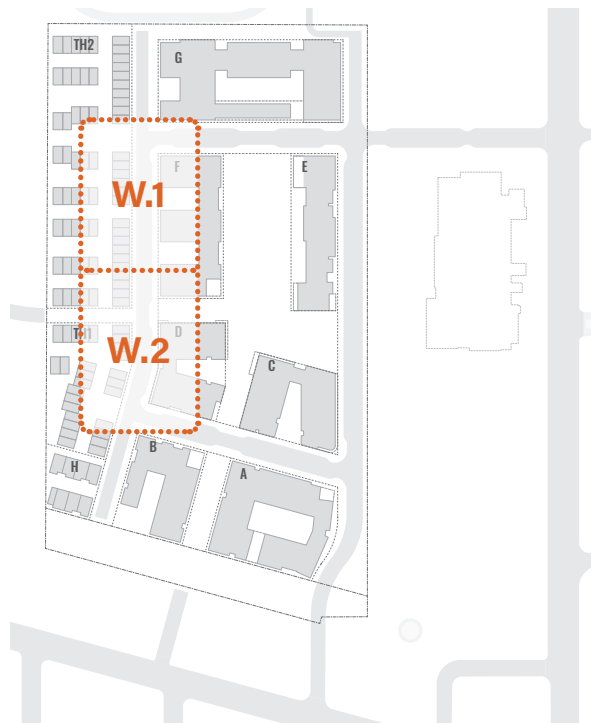
### G.5.15.2 Mountable Traffic Circle

High-quality paving such as unit paving is recommended at the mountable traffic circle at the intersection of North Street and West Street and at the intersection of South Street and West Street.



# LEGEND

- |   |                          |
|---|--------------------------|
| 1 Tree Well                               | 13 Bench                 |
| 2 Concrete Sidewalk                       | 14 Bollard               |
| 3 Street Light                            | 15 Concrete Unit Pavers  |
| 4 Litter + Recycling Receptacle           | 16 Roadway – Asphalt     |
| 5 Bioretention Planting                   | 17 Curb Cut for Driveway |
| 6 Regular Planting                        | 18 Bike Share            |
| 7 Warning Paver                           |                          |
| 8 Curb Cut for Accessible Loading/Parking | BL bike lane             |
| 9 Raised Crosswalk/Ground Mural           | P parking                |
| 10 Traffic Island                         | SW sidewalk              |
| 11 Curb Cut for Garage                    | TL travel lane           |
| 12 Bike Rack                              | M median                 |
|   | BO bulb-out              |



Key Map

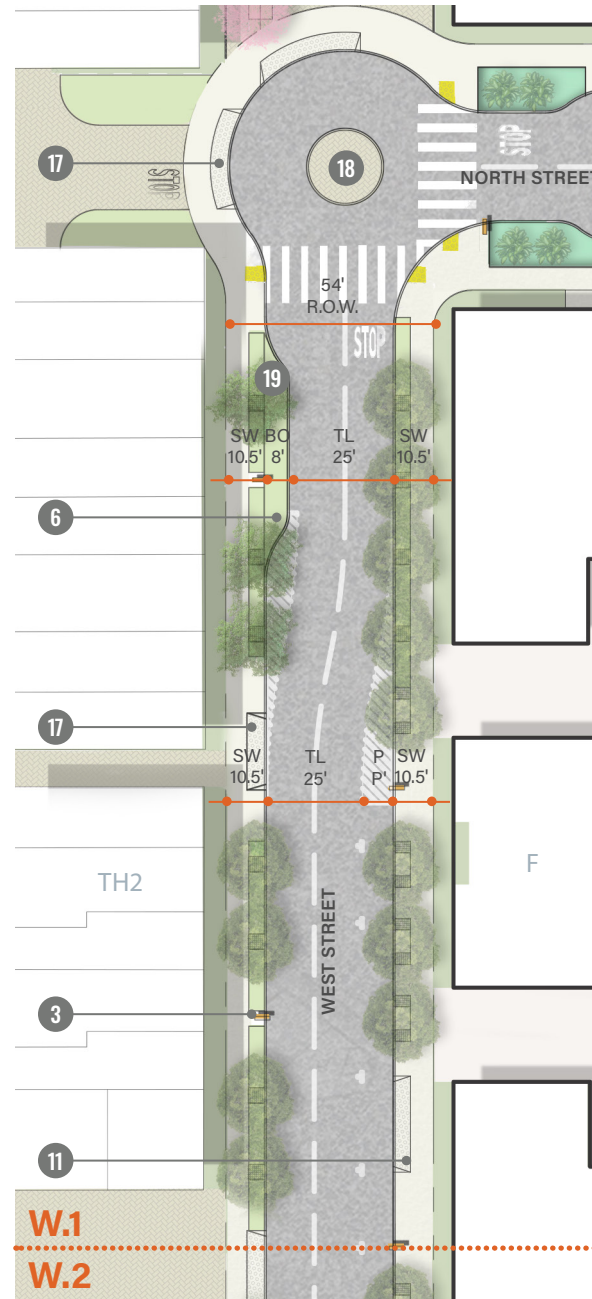
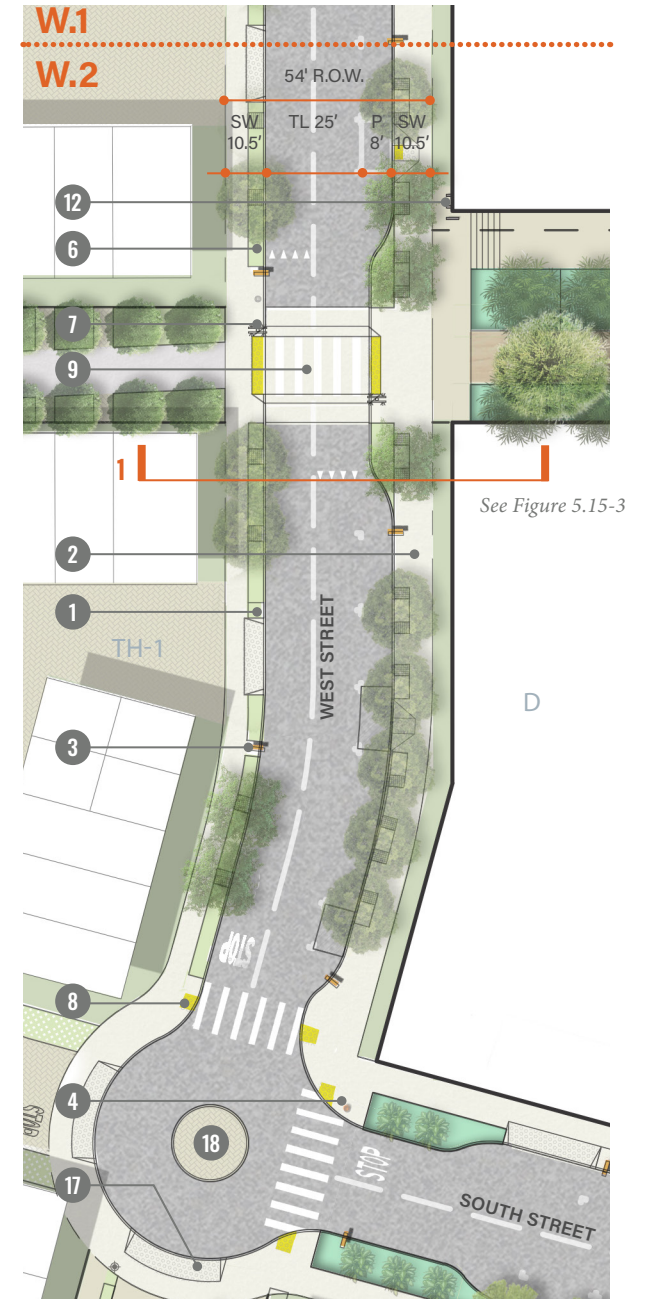


Figure 5.15–2: West Street, Site Plan W.1 & W.2



See Figure 5.15-3





Key Map

\*Planting zone to contain 500 cubic feet of verified growing media at a 3' depth per street tree

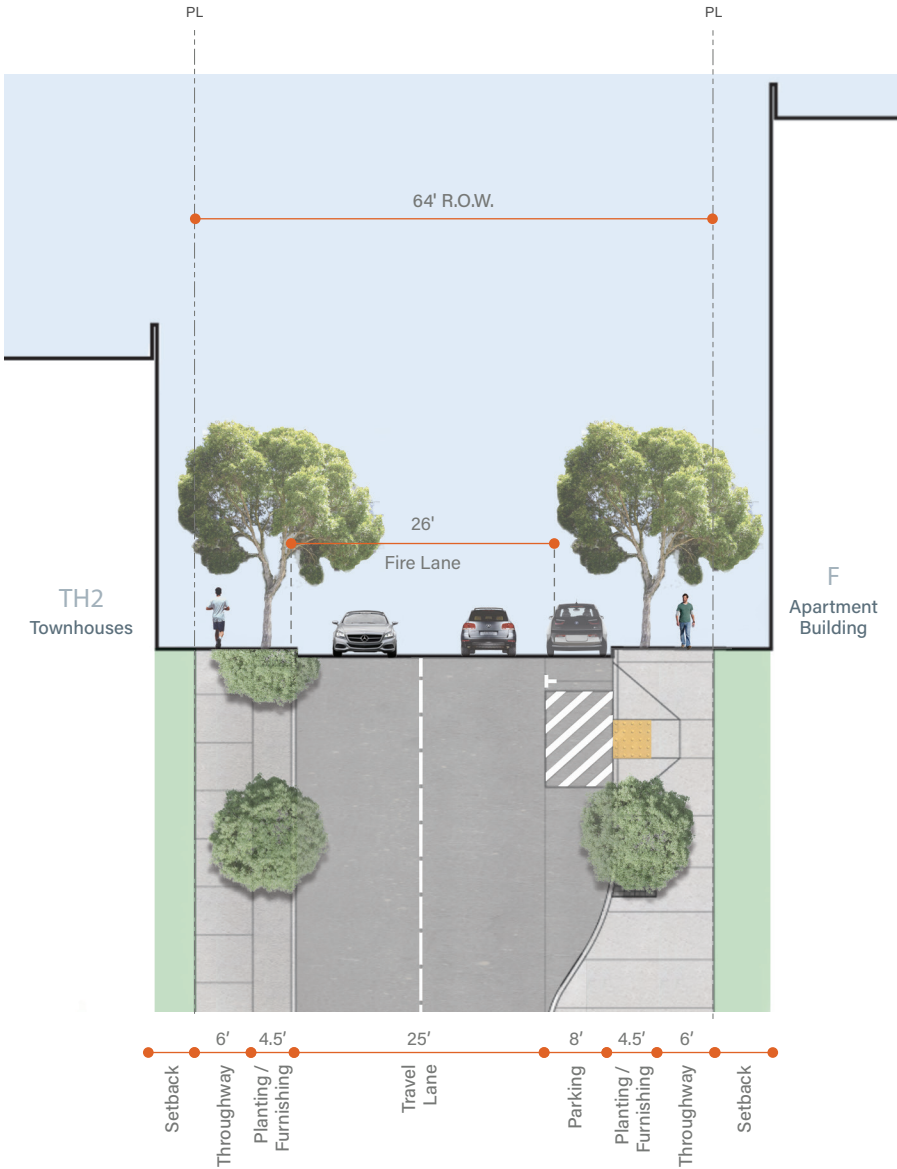


Figure 5.15-3: West Street, Section 1 \*see "Figure 5.15-2: West Street, Site Plan W.1 & W.2".



## 5.16 WEST STREET SOUTH SHARED PUBLIC WAY AND NORTH SHARED PUBLIC WAY

### West Street North Shared Public Way

The privately operated, pedestrianized raised street at the north end of West Street has a 54-foot-wide right of way. 28-feet outside the fire lane will serve as a usable open space with attractive paving that provides supplemental fire access and signifies pedestrian priority, and at the seating area with large trees at the end of the street to terminate the view. The streets will be flanked by townhouse entries on the west side and stoops on the east side. Off-street loading for Block G will be accommodated on the West Street North Shared Street.

### West Street South Shared Public Way

The West Street South shared public way will also be a privately operated street. The south end of West Street will provide fire access, vehicular access, and off-street loading for Block B and the townhouse area. The street will be flanked by plantings and stoops on both sides and will be curbless with permeable paving and warning pavers to emphasize the pedestrian nature of the street.

The pocket park at the West Street North is one of the possible dog relief area locations currently under consideration. See **Section 6.17 Dog Relief Area** for additional information.

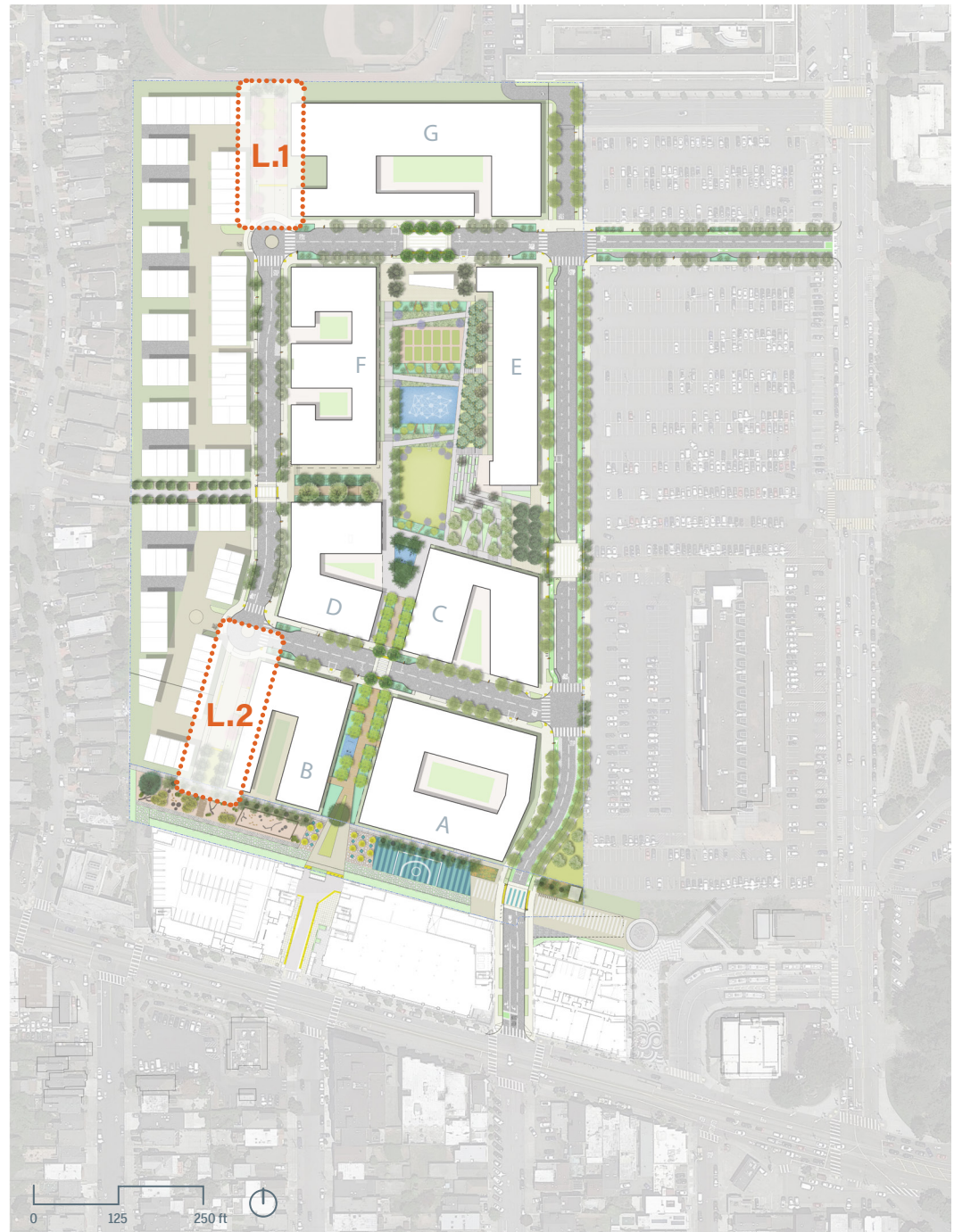


Figure 5.16-2: West Street, Shared Streets Key Map

Note: Building footprints are for illustrative purposes only

Figure 5.16-1: West Street, Shared Streets Key Map



## Standards

### S.5.16.1 Street Zone Dimensions

Right-of-way cross-section dimensions shall be as shown in **Figure 5.15–5** and **Figure 5.15.8**.

### S.5.16.2 Element and Material Specification

Elements are per **Figure 5.15–3** and **Figure 5.15–6**. All elements shown shall be included. Dimensions vary.

### S.5.16.3 Street Profile

The street shall be curbsless and paved with ADA accessible, H20-load-bearing special paving to emphasize pedestrian priority.

### S.5.16.4 Fire Access

26-foot-clear fire access zones shall be provided. See *Balboa Reservoir Infrastructure Plan, Section 6.2.4: Fire Department Access* for more details.

### S.5.16.5 Loading

Shared public ways at the north and south end of West Street shall accommodate auto access and loading to adjacent townhouses. See *Balboa Reservoir Infrastructure Plan, Figure 6.9: Proposed Service & Loading Plan* for more details.

### S.5.16.6 Street Furnishing and Lighting

Since West Street has limited auto access at the north and the south ends, the termini can

double-up as usable outdoor space. They should be developed to have a plaza-like character with furnishings and street lighting which serves pedestrians as well as autos.

## Guidelines

### G.5.16.1 Vehicular Access

At West Street South, vehicular access shall be limited to 2/3 of the street so a mini park can be accommodated at the end of the street to serve as a gateway to the SFPUC Open Space and to provide a visual terminus at the end of street at West Street North. Special paving shall be used for the entire roadway to distinguish the shared zone from vehicular driveway in public streets.

### G.5.16.2 Planting

Planting shall maximize habitat creation and stormwater management. See *Section 5.8: Street Planting Palette*.

### G.5.16.3 Stormwater Management

Stormwater generated within West Street South should be treated within the right of way. The use of permeable paving is recommended.



**Figure 5.16–3:** High quality paving create a plaza like environment to serve slow vehicles, bike and pedestrian circulation



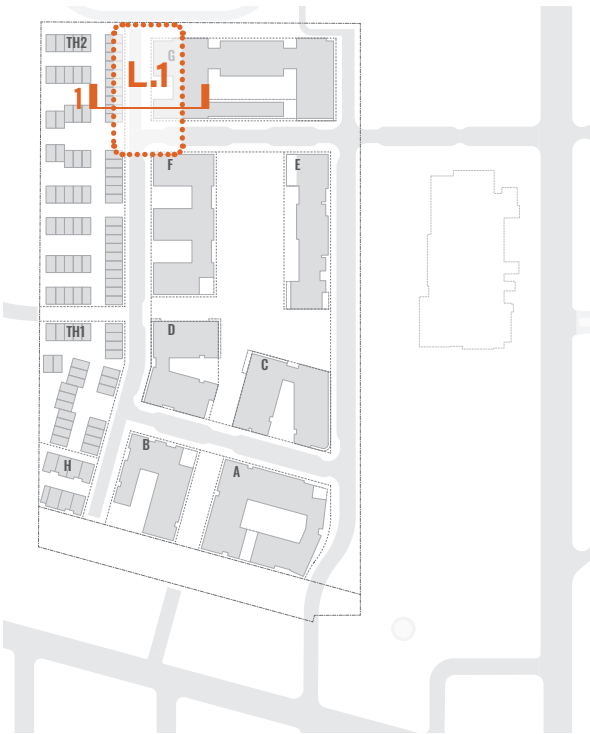
**Figure 5.16–4:** Fire access service serve as pedestrian pathway

WEST STREET NORTH SHARED STREET

LEGEND

- 1 Firelane
- 2 Stoop Entrances
- 3 Mini Park /Dog Relief Area
- 4 Off-Street Loading Zone

- P parking
- SW sidewalk
- TL travel lane
- BL bike lane
- M median
- BO bulb-out
- FL fire lane



Key Map

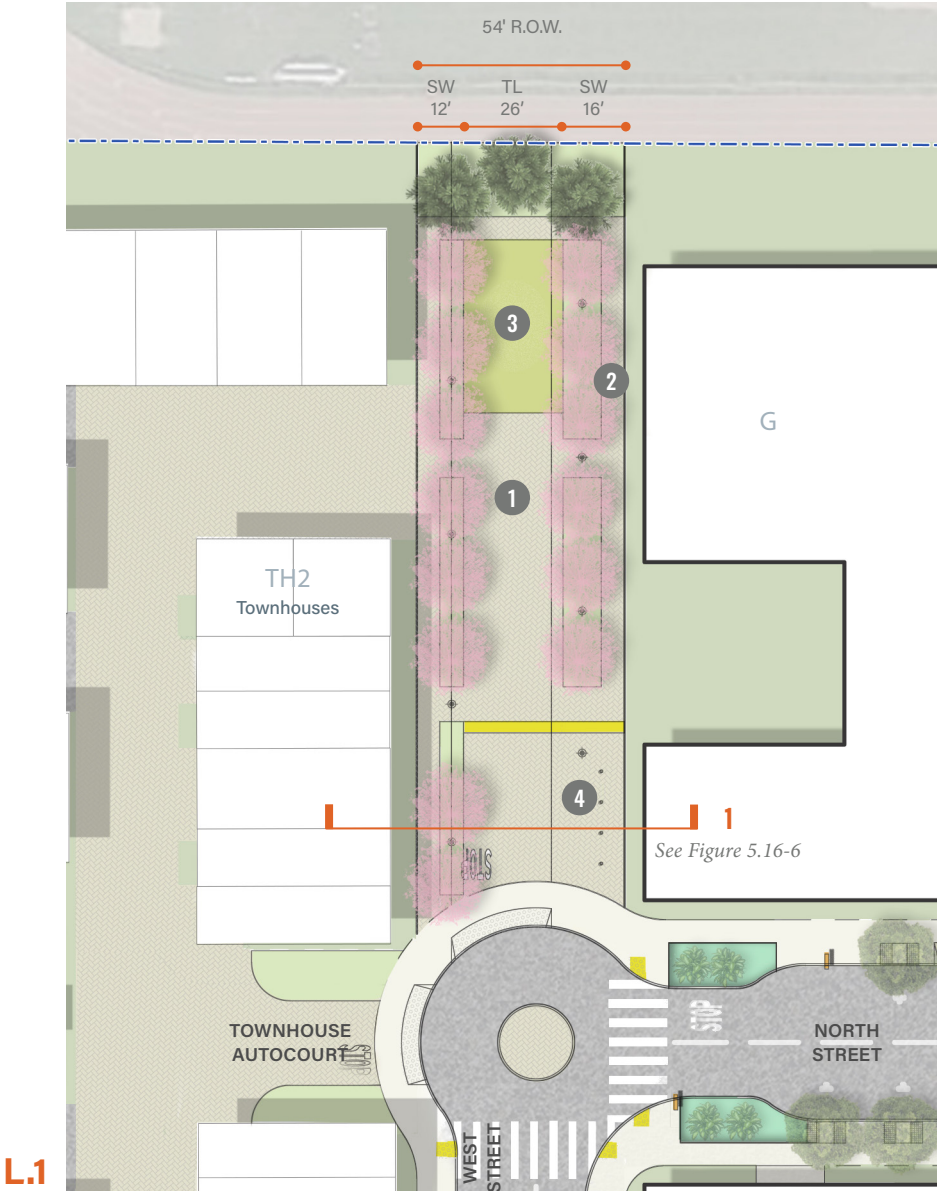


Figure 5.16-5: West Street North, Site Plan L.1

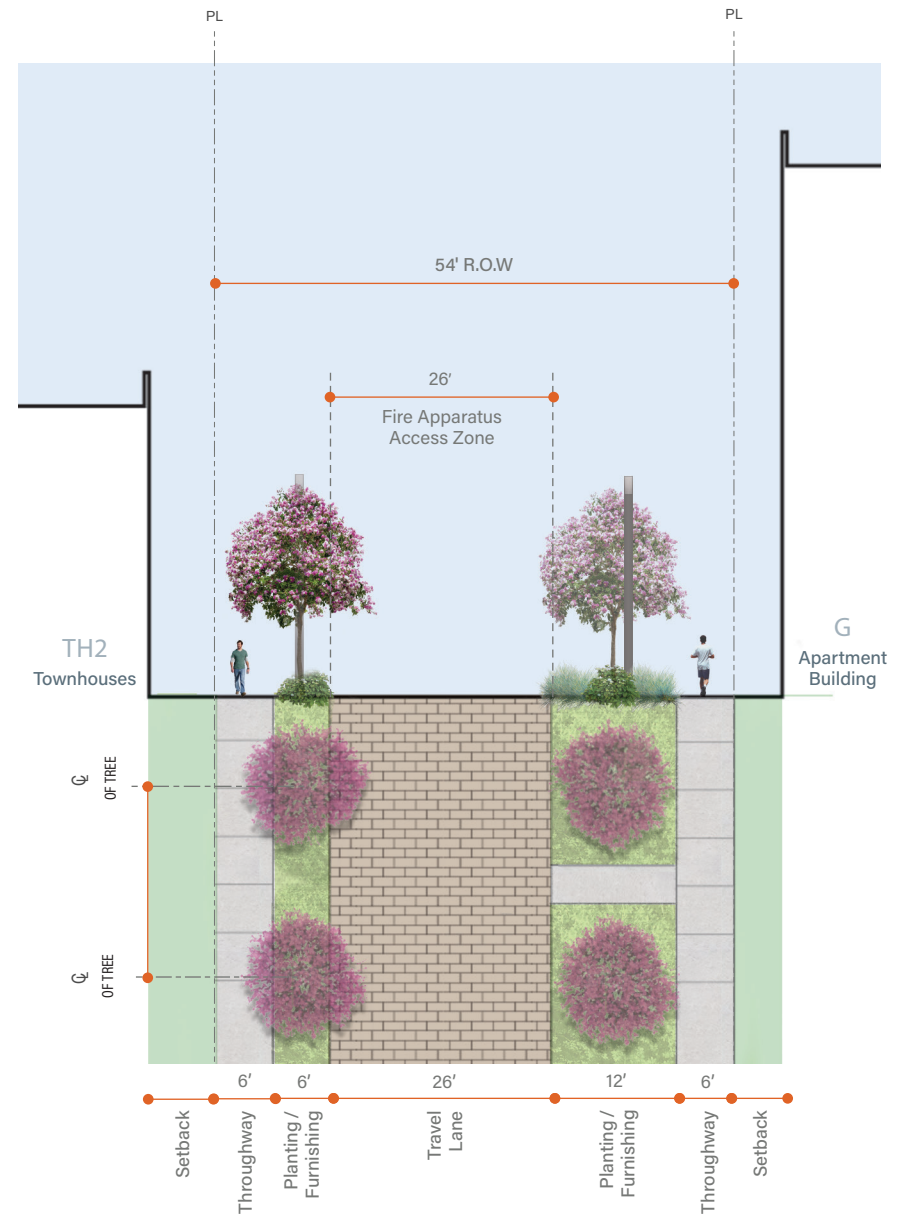


Figure 5.16-6: West Street North, Section 1 \*see "Figure 5.15.3: West Street North, Plan Enlargement", Site Plan L.1



Key Map



WEST STREET SOUTH SHARED STREET

LEGEND

- 1 Off-Street Loading Zone
- 2 Raised Street /Fire Lane With Permeable Paving
- 3 Warning Paving
- 4 Stoop Entrances
- 5 Mini Park

BL bike lane  
P parking  
SW sidewalk  
TL travel lane  
M median  
BO bulb-out



Key Map



Figure 5.16-7: West Street South, Site Plan L.2



Key Map

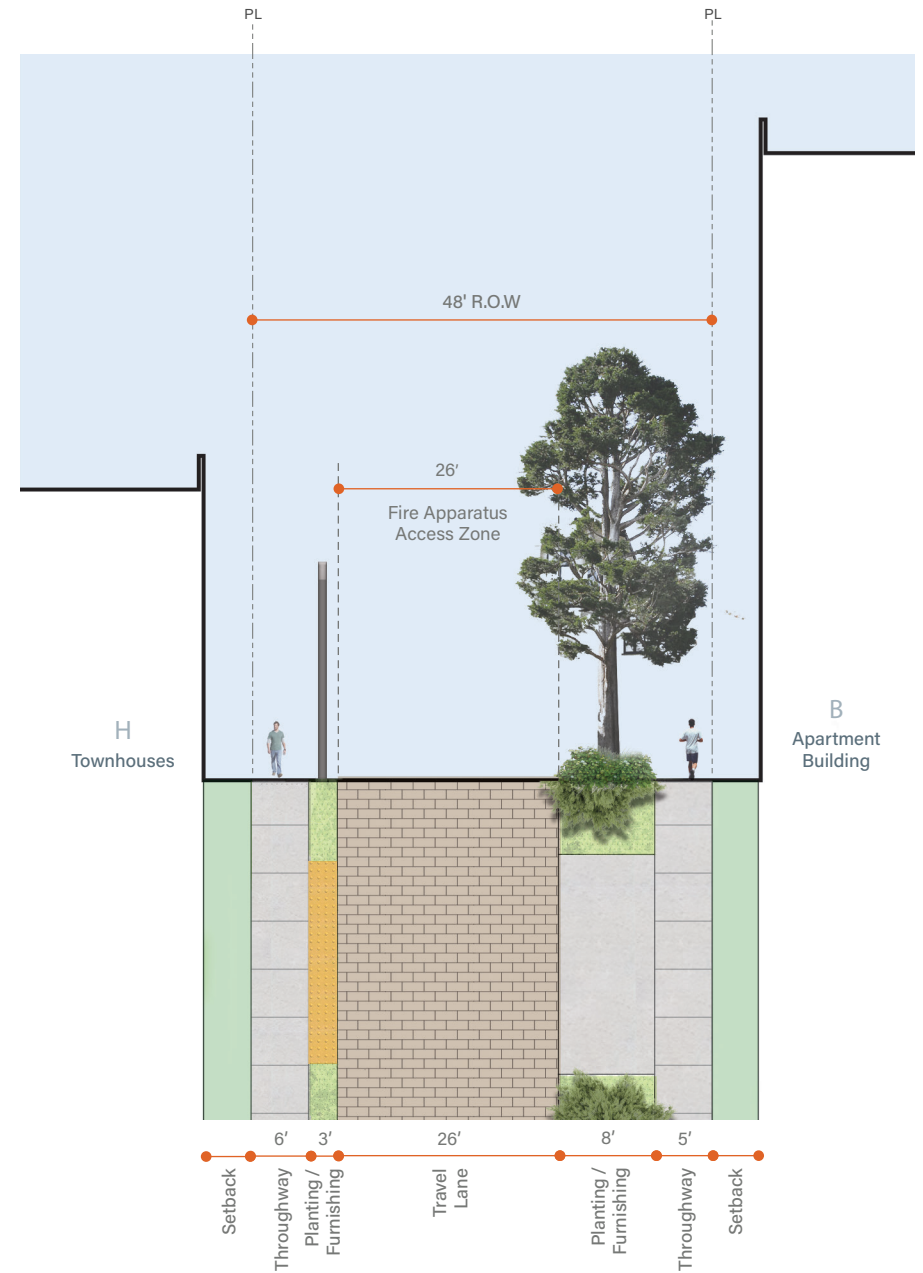


Figure 5.16-8: West Street South, Section 1

\*see "Figure 5.15.6: West Street South, Plan Enlargement", Site Plan L.2



## 5.17 TOWNHOUSE ENTRY COURT AND DRIVEWAY

The intent of the townhouse entry courts is to provide a strong visual terminus to North and South Streets, and to integrate the townhouses into the rest of the project. Townhouse entry courts can provide vehicle access or be limited to only bikes and pedestrians. Townhouse driveways are privately owned with low speed vehicular and pedestrian access to the townhouse development.

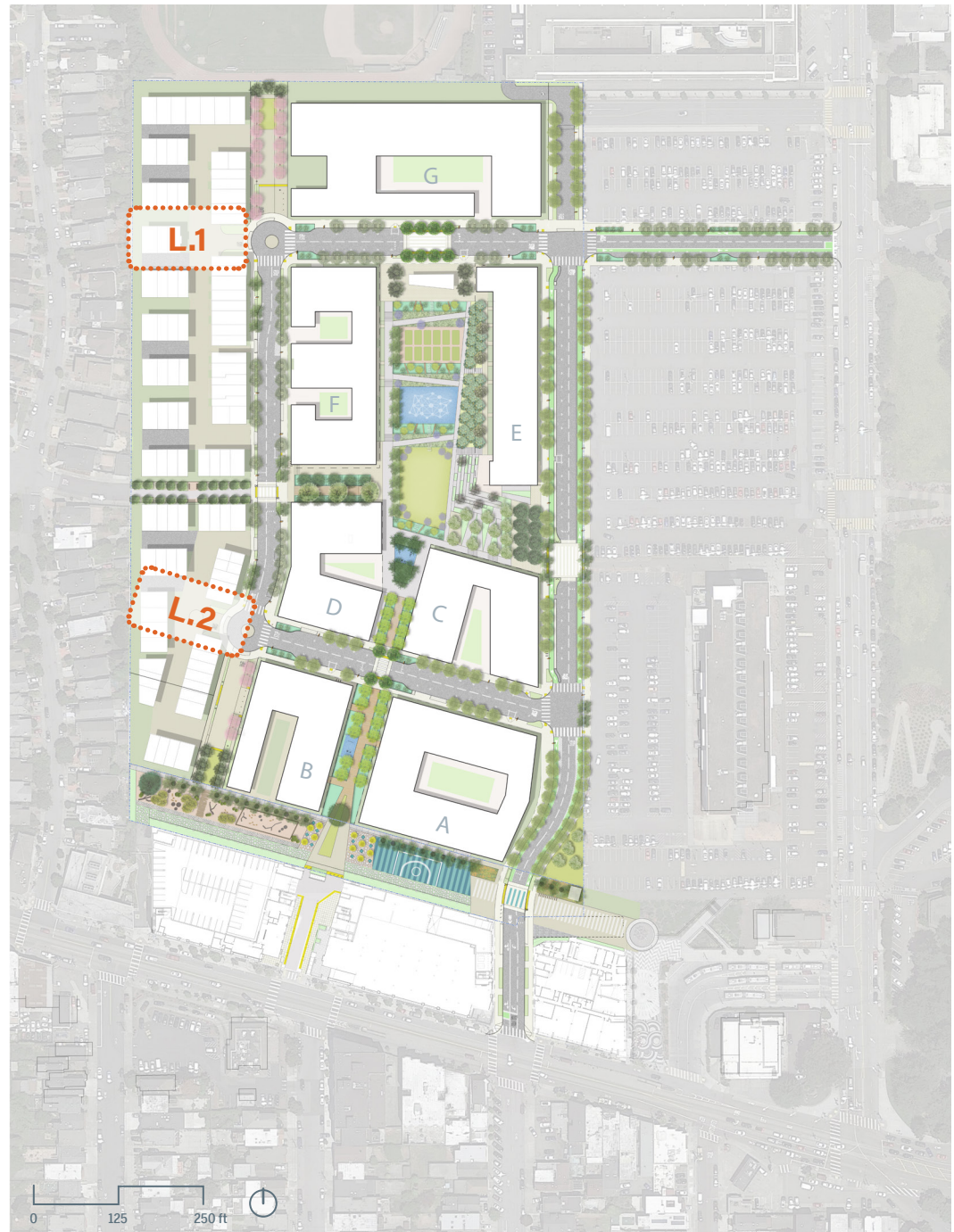


Figure 5.17-1: Townhouse Entry Courts, Key Map

Note: Building footprints are for illustrative purposes only

## AUTO COURT PRECEDENTS

## Standards

### S.5.17.1 Entry Courts

Entry courts shall be designed as auto/ pedestrian courts and shall be located at the ends of North Street and South Street. Special paving and curbless treatment shall be used to emphasize their pedestrian character. No gates or fences are allowed at the auto court entries. Refer to **Section 7.26** for minimum dimensions at entry courts.

### S.5.17.2 Driveway

Curbless treatment and special paving shall be used, and planting shall be maximized wherever possible to scale down the width of the driveway for traffic calming.

### S.5.17.3 Stormwater Management

Stormwater that is generated within the right-of-way of townhouse driveways shall be treated within the townhouse development parcel. Permeable paving is recommended as a driveway and auto court treatment to increase pervious surface area.

## Guidelines

### G.5.17.1 Planting

Planting should maximize habitat creation and stormwater management. See **Section 5.8: Street Planting Palette**.



Figure 5.17-2: Permeable and vehicular rated paving is used to maximize pervious surface for stormwater management

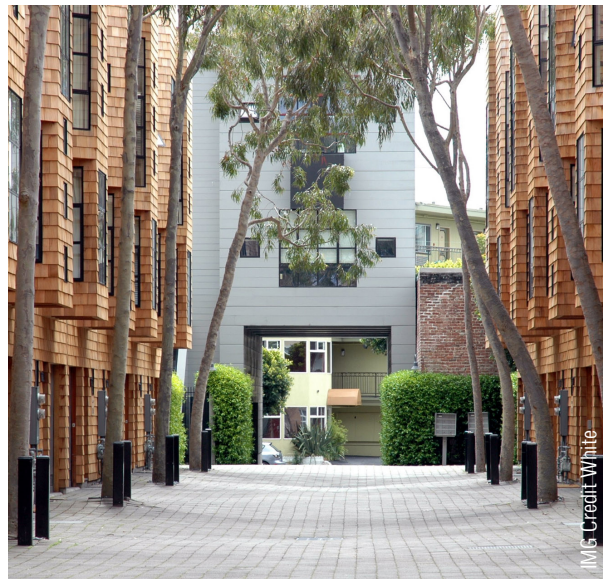


Figure 5.17-3: Planting is maximized wherever possible to scale down the width of the driveway and for traffic calming.



Figure 5.17-4: High quality paving material, planting and accent lighting create a pedestrian environment.



LEGEND

- |   |                          |
|---|--------------------------|
| 1 Tree Well                                 | 13 Bench                 |
| 2 Concrete Sidewalk                         | 14 Bollard               |
| 3 Street Light                              | 15 Concrete Unit Pavers  |
| 4 Litter & Recycling Receptacle             | 16 Roadway, Asphalt      |
| 5 Bioretention Planting                     | 17 Curb Cut for Driveway |
| 6 Regular Planting                          |                          |
| 7 Warning Paver                             | BL Bike Lane             |
| 8 Curb Cut for Accessible Loading / Parking | BO Bulb-Out              |
| 9 Raised Crosswalk                          | P Parking                |
| 10 Traffic Island                           | SW Sidewalk              |
| 11 Curb Cut for Garage                      | M Median                 |
| 12 Bike Rack                                | ROW Right of Way         |
|   | TL Travel Lane           |

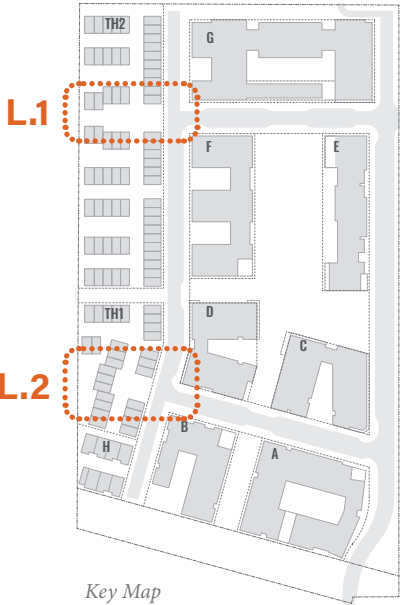


Figure 5.17-5: Townhome Entry Court, Site Plan L.1 & L.2

**APPENDIX B – PRELIMINARY GEOTECHNICAL REPORT**

**DRAFT**



Prepared for **BRIDGE Housing Corporation**

**PRELIMINARY GEOTECHNICAL INVESTIGATION  
PROPOSED RESIDENTIAL DEVELOPMENT AT BALBOA RESERVOIR  
PHELAN AND OCEAN AVENUES  
SAN FRANCISCO, CALIFORNIA**

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PROJECT***

January 22, 20118  
Project No. 17-1425

January 22, 2018  
Project No. 17-1425

Mr. Justin Lai  
Investment Analyst  
BRIDGE Housing Corporation  
600 California Street, Suite 900  
San Francisco, California 94108

Subject: Preliminary Geotechnical Investigation  
Proposed Residential Development at Balboa Reservoir Site  
Phelan and Ocean Avenues  
San Francisco, California

Dear Mr. Lai:

We are pleased to present the results of our preliminary geotechnical investigation for the proposed residential development to be constructed at the Balboa Reservoir site in San Francisco. Our services were provided in accordance with our proposal dated October 26, 2017 and a Budget Increase Request dated January 2, 2018.

The project site consists of a rectangular-shaped, 17-acre lot on the western side of Phelan Avenue, north of its intersection with Ocean Avenue. The site is bordered by Riordan High School to the north, single-family residential developments to the west, multi-story mixed-used buildings to the south, and a parking lot and multi-use building for the City College of San Francisco (CCSF). The site, which was previously excavated up to 15 feet below original grades for a planned reservoir, is currently an asphalt-paved parking lot used for CCSF student parking.

Current plans are to construct a 1,100-unit residential development which will consist of clusters of residential buildings separated by landscaped areas, walkways and parks. The buildings will be constructed near the existing grades and will consist of residential units of Type 5 construction over one-story concrete (Type I) podiums.

From a geotechnical standpoint, we conclude the site can be developed as planned, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical issues affecting the proposed development include site grading and support of the proposed structures. We preliminarily conclude the proposed buildings should be supported on conventional spread footings that gain support on undisturbed native soil or engineered fill.

**DRAFT**



Mr. Justin Lai  
BRIDGE Housing Corporation  
January 22, 2018  
Page 2

This report presents our preliminary conclusions and recommendations regarding foundation design, earthwork and grading, seismic design, and other geotechnical aspects of the project. The recommendations contained in our report are based on limited subsurface exploration and review of available data for the site, and are not intended for final design. Final geotechnical design values should be confirmed by a detailed geotechnical investigation. In addition, variations between expected and actual soil conditions may be found in localized areas during construction. Therefore, we should be engaged to observe shoring and foundation installation, and fill placement, during which time we may make changes in our recommendations, if deemed necessary.

We appreciate the opportunity to provide our services to you on this project. If you have any questions, please call.

Sincerely,  
ROCKRIDGE GEOTECHNICAL, INC.

**DRAFT**

Clayton J. Proto, P.E.  
Project Engineer

Enclosure

**DRAFT**

Craig S. Shields, P.E., G.E.  
Principal Engineer

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## **APPENDIX A**

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Figures A-11	Classification Chart

## **APPENDIX B**

Corrosivity Test Results
--------------------------

**PRELIMINARY GEOTECHNICAL INVESTIGATION  
PROPOSED RESIDENTIAL DEVELOPMENT AT BALBOA RESERVOIR  
PHELAN AND OCEAN AVENUES  
San Francisco, California**

## **1.0 INTRODUCTION**

This report presents the results of the preliminary geotechnical investigation performed by Rockridge Geotechnical, Inc. (Rockridge) for the proposed residential development to be constructed at the Balboa Reservoir site in San Francisco, California.

The project site consists of a rectangular-shaped, 17-acre lot on the western side of Phelan Avenue, north of its intersection with Ocean Avenue, as shown on Figure 1, Site Location Map. The site is bordered by Riordan High School to the north, single-family residences to the west, multi-story mixed-used buildings to the south, and a parking lot and multi-use building for the City College of San Francisco (CCSF) to the east. The site is currently an asphalt-paved parking lot used for CCSF student parking. The central portion of the site was previously excavated up to 15 feet below original grades for a planned reservoir, and an embankment up to about 30 feet tall was constructed along the western portion of the site.

Plans are to construct a 1,100-unit residential development which will consist of clusters of residential buildings separated by landscaped areas, walkways and parks. The buildings will consist of residential units of Type 5 construction over one-story concrete (Type I) podiums.

## **2.0 SCOPE OF SERVICES**

Our investigation was performed in accordance with our Proposal for Preliminary Geotechnical Investigation with BRIDGE Housing, dated October 27, 2017, and a subsequent Budget Increase Request dated January 2, 2018. Our scope of services consisted of reviewing available geologic maps and geotechnical reports of the site and vicinity, exploring subsurface conditions at the site by performing six cone penetration tests (CPTs), advancing four exploratory borings, and performing engineering analyses to develop preliminary conclusions and recommendations regarding:

- site seismicity and seismic hazards, including the potential for liquefaction and liquefaction-induced ground failure
- the most appropriate foundation type(s) for the proposed structures
- preliminary design criteria for the recommended foundation type(s)
- estimates of foundation settlement
- 2016 San Francisco Building Code (SFBC) site class and design spectral response acceleration parameters
- construction considerations.

### **3.0 FIELD INVESTIGATION**

Prior to performing the subsurface field investigation, we obtained a permit from the San Francisco Department of Public Health (SFDPH) and contacted Underground Service Alert (USA) to notify them of our work, as required by law. We also retained Precision Locating LLC, a private utility locator, to minimize the likelihood that an underground utility was encountered during our investigation. Details of the field exploration are described below.

#### **3.1 Test Borings**

Four borings, designated B-1 through B-4, were drilled on January 3, 2018 by Benevent Building of Concord, California at the approximate locations shown on Figure 2. Borings B-1, B-2, B-3, and B-4 were drilled to depths of about 26, 26, 11, and 6 feet bgs, respectively, using a limited-access drill rig equipped with solid flight augers. During drilling, our field engineer logged the soil encountered and obtained representative samples for visual classification and laboratory testing. The logs of the borings are presented on Figures A-1 through A-4 in Appendix A. The soil encountered in the borings was classified in accordance with the classification chart shown on Figure A-5.

Soil samples were obtained using a Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside and 1.5-inch inside diameter, without liners. The sampler was driven with an above-ground, 140-pound, hammer falling 30 inches per drop using a rope and cathead. The samplers were driven up to 18 inches and the hammer blows required to drive the samplers were

recorded every six inches and are presented on the boring logs. A “blow count” is defined as the number of hammer blows per six inches of penetration or 50 blows for six inches or less of penetration. The blow counts required to drive the SPT samplers were converted to approximate SPT N-values using factors of 1.2, respectively, to account for approximate hammer energy and the fact that the sampler was sized to accommodate liners, but was driven without liners. The blow counts used for this conversion were: (1) the last two blow counts if the sampler was driven more than 12 inches, (2) the last one blow count if the sampler was driven more than six inches but less than 12 inches, and (3) the only blow count if the sampler was driven six inches or less. The converted SPT N-values are presented on the boring logs.

Upon completion of drilling, the boreholes were backfilled with cement grout in accordance with SFDPH standards. The soil cuttings generated by the borings were spread in landscaping areas.

### **3.2 Cone Penetration Tests**

Six CPTs, designated CPT-1 through CPT-6, were advanced on January 3, 2017 by Middle Earth GeoTesting of Orange, California at the approximate locations shown on the Site Plan, Figure 2. The CPTs were advanced until practical refusal was met in very dense sand, which occurred at depths ranging from approximately 5 to 46 feet below ground surface (bgs). The CPTs were performed with a truck-mounted rig hydraulically pushing a 1.7-inch-diameter cone-tipped probe into the ground. The probe measured tip resistance, pore water pressure, and frictional resistance on a sleeve behind the cone tip. Electrical sensors within the cone continuously measured these parameters for the entire depth advanced, and the readings were digitized and recorded by a computer. Accumulated data were processed by computer to provide engineering information such as soil behavior types, correlated strength characteristics, and estimated liquefaction resistance of the soil encountered. The CPT logs, showing tip resistance, friction ratio, pore water pressure, and soil behavior type, are shown on Figures A-6 through A-12 in Appendix A. Upon completion, the CPT holes backfilled with neat cement grout in accordance with SFDPH requirements.

#### **4.0 SITE AND SUBSURFACE CONDITIONS**

We understand the site is currently owned by the San Francisco Public Utilities Commission, and was originally planned for use as a municipal water reservoir. Although the site was never used as a reservoir, the central portion of the site was excavated down approximately 15 feet and an embankment approximately 30 feet tall was constructed along the western and southern boundary. The southern embankment was removed in 2008, and a new embankment was constructed along the eastern site boundary between 2008 and 2009. The central, depressed portion of the site is currently occupied by an asphalt parking lot.

As presented on the Regional Geologic Map (Figure 3), the site is mapped in a zone of early-Pleistocene alluvium (Qoa) (Graymer, 2006). Based on the results of our investigation and our understanding of the site history, we conclude the non-embankment portion of the site is underlain by a deposit of medium dense to very dense silty sand with occasional clay interbeds, known locally as the Colma formation. The Colma formation extends to a depth of at least 46 feet bgs at location CPT-6, the maximum depth explored. The embankment consists of sand fill which was likely excavated onsite and re-worked. Documentation of the embankment construction was not available; however, the results of our investigation indicates that the fill appears to have been well-compacted and is generally dense to very dense in consistency.

Free groundwater was not observed in our borings. We reviewed the results of a 2010 geotechnical investigation performed by Fugro, Inc for a development on Phelan Loop immediately southeast of the site. In this investigation, groundwater was encountered in one boring at a depth of about 22 feet bgs, while a second boring drilled to 40 feet did not encounter groundwater. To better estimate the highest potential groundwater level at the site, we also reviewed information on the State of California Water Resources Control Board GeoTracker website (<http://geotracker.waterboards.ca.gov/>). The closest site with groundwater information on the GeoTracker website is at 1490 Ocean Avenue, which is about 600 feet west of the subject property. Recorded depths to groundwater at the 1490 Ocean Avenue site has fluctuated from about 18 to 33 feet bgs during the time period of 2002 to 2012. Ground surface elevations at 1490 Ocean Avenue are approximately 20 feet below existing grades at the Balboa Reservoir

site. The groundwater level at the site is expected to fluctuate several feet seasonally with potentially larger fluctuations annually, depending on the amount of rainfall. Based on available data, we conclude a design high groundwater level of 20 feet bgs could be used for preliminary design.

## **5.0 SEISMIC CONSIDERATIONS**

The San Francisco Bay Area is considered to be one of the more seismically active regions in the world. We preliminarily evaluated the potential for earthquake-induced geologic hazards including ground shaking, ground surface rupture, liquefaction,<sup>1</sup> lateral spreading,<sup>2</sup> and cyclic densification<sup>3</sup>. The results of our evaluation regarding seismic considerations for the project site are presented in the following sections.

### **5.1 Regional Seismicity and Faulting**

The major active faults in the area are the Hayward, San Andreas, and Calaveras faults. These and other faults of the region are shown on Figure 4. The fault systems in the Bay Area consist of several major right-lateral strike-slip faults that define the boundary zone between the Pacific and the North American tectonic plates. Numerous damaging earthquakes have occurred along these fault systems in recorded time. For these and other active faults within a 50-kilometer radius of the site, the distance from the site and estimated mean characteristic moment magnitude<sup>4</sup> [Working Group on California Earthquake Probabilities (WGCEP, 2008) and Cao et al. (2003)] are summarized in Table 2.

---

<sup>1</sup> Liquefaction is a phenomenon where loose, saturated, cohesionless soil experiences temporary reduction in strength during cyclic loading such as that produced by earthquakes.

<sup>2</sup> Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

<sup>3</sup> Cyclic densification is a phenomenon in which non-saturated, cohesionless soil is compacted by earthquake vibrations, causing ground-surface settlement.

<sup>4</sup> Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

**TABLE 2**  
**Regional Faults and Seismicity**

<b>Fault Segment</b>	<b>Approximate Distance from Site (km)</b>	<b>Direction from Site</b>	<b>Mean Characteristic Moment Magnitude</b>
N. San Andreas - Peninsula	5	West	7.20
N. San Andreas (1906 event)	5	West	8.05
San Gregorio Connected	12	West	7.50
N. San Andreas - North Coast	12	West	7.51
Total Hayward	24	Northeast	7.00
Total Hayward-Rodgers Creek	24	Northeast	7.33
Monte Vista-Shannon	37	Southeast	6.50
Mount Diablo Thrust	40	East	6.70
Rodgers Creek	40	North	7.07
Total Calaveras	41	East	7.03
Point Reyes	41	Northwest	6.90
Green Valley Connected	45	East	6.80

Since 1800, four major earthquakes (i.e., Magnitude > 6) have been recorded on the San Andreas fault. In 1836, an earthquake with an estimated maximum intensity of VII on the Modified Mercalli (MM) Intensity Scale occurred east of Monterey Bay on the San Andreas fault (Toppozada and Borchardt 1998). The estimated moment magnitude,  $M_w$ , for this earthquake is about 6.25. In 1838, an earthquake occurred on the Peninsula segment of the San Andreas fault. Severe shaking occurred with an MM of about VIII-IX, corresponding to an  $M_w$  of about 7.5. The San Francisco Earthquake of 1906 caused the most significant damage in the history of the Bay Area in terms of loss of lives and property damage. This earthquake created a surface rupture along the San Andreas fault from Shelter Cove to San Juan Bautista approximately 470 kilometers in length. It had a maximum intensity of XI (MM), an  $M_w$  of about 7.9, and was felt 560 kilometers away in Oregon, Nevada, and Los Angeles. The Loma Prieta Earthquake of

October 17, 1989 had an  $M_w$  of 6.9 and occurred about 92 kilometers southeast of the site. On August 24, 2014 an earthquake with an estimated maximum intensity of VIII (severe) on the MM scale occurred on the West Napa fault. This earthquake was the largest earthquake event in the San Francisco Bay Area since the Loma Prieta Earthquake. The  $M_w$  of the 2014 South Napa Earthquake was 6.0.

In 1868, an earthquake with an estimated maximum intensity of X on the MM scale occurred on the southern segment (between San Leandro and Fremont) of the Hayward fault. The estimated  $M_w$  for the earthquake is 7.0. In 1861, an earthquake of unknown magnitude (probably an  $M_w$  of about 6.5) was reported on the Calaveras fault. The most recent significant earthquake on this fault was the 1984 Morgan Hill earthquake ( $M_w = 6.2$ ).

The U.S. Geological Survey's 2014 Working Group on California Earthquake Probabilities has compiled the earthquake fault research for the San Francisco Bay area in order to estimate the probability of fault segment rupture. They have determined that the overall probability of moment magnitude 6.7 or greater earthquake occurring in the San Francisco Region during the next 30 years (starting from 2014) is 72 percent. The highest probabilities are assigned to the Hayward fault, Calaveras fault, and the northern segment of the San Andreas fault. These probabilities are 14.3, 7.4, and 6.4 percent, respectively.

## **5.2 Geologic Hazards**

During a major earthquake on a segment of one of the nearby faults, strong to very strong ground shaking is expected to occur at the project site. Strong shaking during an earthquake can result in ground failure such as that associated with soil liquefaction, lateral spreading, and cyclic densification. We used the results of the CPTs and borings performed for this investigation to evaluate the potential of these phenomena occurring at the project site.

### **5.2.1 Ground Shaking**

The ground shaking intensity felt at the project site will depend on: 1) the size of the earthquake (magnitude), 2) the distance from the site to the fault source, 3) the directivity (focusing of



earthquake energy along the fault in the direction of the rupture), and 4) site-specific soil conditions. The site is 5 kilometers from the San Andreas fault. Therefore, the potential exists for a large earthquake to induce strong to violent ground shaking at the site during the life of the project.

### **5.2.2 Liquefaction and Liquefaction-Induced Settlement**

When a saturated, cohesionless soil liquefies, it experiences a temporary loss of shear strength created by a transient rise in excess pore pressure generated by strong ground motion. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. Flow failure, lateral spreading, differential settlement, loss of bearing strength, ground fissures and sand boils are evidence of excess pore pressure generation and liquefaction. The site mapped outside of a liquefaction hazard zone, as shown on Figure 5 from the map titled *State of California, Seismic Hazard Zones, City and County of San Francisco, Official Map*, prepared by the California Geological Survey (CGS) and dated November 17, 2000.

Liquefaction susceptibility was assessed using the software CLiq v2.1 (GeoLogismiki, 2017). CLiq uses measured field CPT data and assesses liquefaction potential, including post-earthquake vertical settlement, given a user-defined earthquake magnitude and peak ground acceleration (PGA). We performed a liquefaction triggering analysis using our CPT data in accordance with the methodology by Boulanger and Idriss (2014).

Our analyses were performed using a “during earthquake” groundwater depth of 20 feet bgs. In accordance with the 2016 San Francisco Building Code (SFBC), we used a peak ground acceleration of 0.76 times gravity (g) in our liquefaction evaluation; this peak ground acceleration is consistent with the Maximum Considered Earthquake Geometric Mean ( $MCE_G$ ) peak ground acceleration adjusted for site effects ( $PGA_M$ ). We also used a moment magnitude of 8.05, corresponding to the mean characteristic moment magnitude of the San Andreas fault (Table 2).

The results of our liquefaction analysis indicate the soil at the site is sufficiently dense to resist liquefaction. Therefore, we preliminarily conclude that the potential for liquefaction and associated surface manifestations, such as settlement, loss of bearing capacity, sand boils, and lateral spreading, are nil.

### **5.2.3 Cyclic Densification**

Cyclic densification (also referred to as differential compaction) of non-saturated sand (sand above groundwater table) can occur during an earthquake, resulting in settlement of the ground surface and overlying improvements. The CPTs indicate that the soil above the groundwater table at the site consists predominantly of dense to very dense silty sand, which is not susceptible to cyclic densification. Therefore, we preliminarily conclude that the potential for cyclic densification is nil.

### **5.2.4 Ground Surface Rupture**

Historically, ground surface displacements closely follow the trace of geologically young faults. The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site. We therefore conclude the risk of fault offset at the site from a known active fault is very low. In a seismically active area, the remote possibility exists for future faulting in areas where no faults previously existed; however, we conclude the risk of surface faulting and consequent secondary ground failure from previously unknown faults is also very low.

## **6.0 PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of our engineering analyses using the data from the CPTs, we conclude there are no major geotechnical or geological issues that would preclude development of the site as proposed. The primary geotechnical issues affecting the proposed development include site grading and support of the proposed structures. These issues, as well as construction considerations and seismic design, are discussed in more detail in the following sections.

### **6.1 Foundations and Settlement**

The results of borings and CPTs performed at the site indicate the central portion of the site is underlain by dense to very dense silty sand of the Colma formation. The western portion of the site is currently occupied by an embankment which measures approximately 30 feet high and has a footprint approximately 180 feet wide (east-west) and 1000 feet long (north-south). The embankment was likely constructed using soil excavated from the central portion of the site. We understand that current plans are to remove the western embankment and use the material to raise grades across the site. If spread uniformly, we estimate that this grading would raise site grades by approximately 4 to 5 feet; therefore, it is likely that some or all of the proposed structures will bottom in the newly placed fill. Provided that this fill is properly placed and well-compacted, we conclude conventional spread footings are appropriate for foundation support.

We preliminarily recommend that spread footings be designed using an allowable bearing pressure of 7,000 pounds per square foot (psf) for dead-plus-live loads; this pressure may be increased by one-third for total design loads, which include wind or seismic forces. Estimated total settlements will be on the order of 3/4 inch and differential settlement will be on the order of 1/2 inch over a 30-foot horizontal distance. Continuous footings should be at least 18 inches wide and isolated spread footings should be at least 36 inches wide. Footings should extend at least 18 inches below the lowest adjacent soil subgrade.

Lateral loads may be resisted by a combination of friction along the base of the footing and passive resistance against the vertical faces of the footing. To compute lateral resistance, we recommend using an equivalent fluid weight of 330 pounds per cubic foot (pcf); the upper foot

of soil should be ignored unless confined by a slab or pavement. Frictional resistance should be computed using a base friction coefficient of 0.40 where the footing is in direct contact with soil. The passive pressure and frictional resistance values include a factor of safety of at least 1.5 and may be used in combination without reduction.

## **6.2 Construction Considerations**

Site demolition should include the removal of all existing improvements, including pavements, underground utilities, and buried foundations. In general, abandoned underground utilities should be removed to the property line or service connections and properly capped or plugged with concrete. Where existing utility lines are outside of the proposed building footprint and will not interfere with the proposed construction, they may be abandoned in-place provided the lines are filled with lean concrete or cement grout to the property line. Voids resulting from demolition activities should be properly backfilled with compacted fill following the recommendations provided later in this section.

The exposed soil subgrade is expected to generally consist of dense to very dense sand. However, if loose sand or weak clay is encountered, those materials should be removed and replaced with either properly compacted fill or lean concrete.

In areas that will receive fill, the soil subgrade exposed should be scarified to a depth of at least eight inches, moisture-conditioned to above optimum moisture content, and compacted to at least 90 percent relative compaction<sup>5</sup>. The soil subgrade should be compacted to at least 95 percent relative compaction if the soil consists of clean sand or gravel (defined as soil with less than 10 percent fines passing the No. 200 sieve). The soil subgrade should be kept moist until it is covered by fill.

Fill should consist of on-site soil or imported soil (select fill) that is free of organic matter, contains no rocks or lumps larger than three inches in greatest dimension, has a liquid limit of

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<sup>5</sup> Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the ASTM D1557 laboratory compaction procedure.

less than 40 and a plasticity index lower than 12, and is approved by the Geotechnical Engineer. It is anticipated that the embankment material will meet these criteria. Samples of proposed imported fill material should be submitted to the Geotechnical Engineer at least three business days prior to use at the site. The grading contractor should provide analytical test results or other suitable environmental documentation indicating the imported fill is free of hazardous materials at least three days before use at the site. If this data is not available, up to two weeks should be allowed to perform analytical testing on the proposed imported material.

Fill should be placed in horizontal lifts not exceeding eight inches in uncompacted thickness, moisture-conditioned to above optimum moisture content, and compacted to at least 90 percent relative compaction. Fill consisting of clean sand or gravel (defined as soil with less than 10 percent fines by weight) should be compacted to at least 95 percent relative compaction. Fill greater than five feet in thickness, fill placed below proposed foundations, or fill placed within the upper foot of vehicular pavement soil subgrade should also be compacted to at least 95 percent relative compaction.

### **6.3 Soil Corrosivity**

Corrosivity analyses were performed by Project X Corrosion Engineering on a sample of the native soil from boring B-2 at a depth of 15 feet bgs. The results of the tests are presented in Appendix B of this report. Based on the results of the laboratory corrosivity analyses performed on the samples, we conclude the soil is “negligibly corrosive” to metal with respect to resistivity, sulfate ion concentration, and pH. The chloride ion concentration classifies as “mildly corrosive”. Accordingly, all buried metallic structures and reinforcing steel in concrete structures should be protected against corrosion depending upon the critical nature of the structure. If it is necessary to have metal in contact with soil, a corrosion engineer should be consulted to provide recommendations for corrosion protection.

## **6.4 Seismic Design**

We anticipate the proposed building will be designed using the seismic provisions in the 2016 San Francisco Building Code (SFBC). We preliminarily conclude a Site Class D designation should be used for seismic design. The latitude and longitude of the site are  $37.7238^{\circ}$  and  $-122.4553^{\circ}$ , respectively. In accordance with the 2016 CBC, we recommend the following:

- $S_S = 1.937g$ ,  $S_1 = 0.907g$
- $S_{MS} = 1.937g$ ,  $S_{M1} = 1.361g$
- $S_{DS} = 1.291g$ ,  $S_{D1} = 0.907g$
- Seismic Design Category E for Risk Categories I, II, and III.

## **7.0 ADDITIONAL GEOTECHNICAL SERVICES**

The preliminary conclusions and recommendations presented within are based on a preliminary field investigation and not intended for final design. Prior to final design, we should be retained to provide a final geotechnical report based on a supplemental field investigation. Additional borings and CPTs will be required to further evaluate the subsurface conditions beneath the site and develop final foundation design recommendations. After our final report has been completed and the design team has selected a foundation system, we should review the project plans and specifications prior to construction to check their conformance with the intent of our final recommendations. During construction, we should observe site preparation, foundation installation, and the placement and compaction of backfill. These observations will allow us to compare the actual with the anticipated soil conditions and to check if the contractor's work conforms with the geotechnical aspects of the plans and specifications.

## **REFERENCES**

2016 San Francisco Building Code

Boulanger, R.W and Idriss, I.M. (2014), “CPT and SPT Based Liquefaction Triggering Procedures”, Center for Geotechnical Modeling, Department of Civil and Environmental Engineering, University of California, Davis, Report No. UCD/CGM-14/01, April.

California Geological Survey (2003), State of California Seismic Hazard Zones, West Oakland Quadrangle, Official Map, February 14.

Cao, T., Bryant, W. A., Rowshandel, B., Branum D. and Wills, C. J. (2003). “The Revised 2002 California Probabilistic Seismic Hazard Maps”.

GeoLogismiki, 2017, CLiq, Version 2.1.6.11.

Field, E.H., and 2014 Working Group on California Earthquake Probabilities, (2015). UCERF3: A new earthquake forecast for California’s complex fault system: U.S. Geological Survey 2015-3009, 6 p., <http://dx.doi.org/10.3133/fs20153009>.

Fugro West Inc. (2010). Geotechnical Study, Phelan Loop Multi-Family Housing Development, Project No. 1905.002

Graymer, R.W., Moring, B.C., Saucedo, G.J., Wentworth, C.M., Brabb, E.E. and Knudsen, K.L., 2006. Geologic map of the San Francisco Bay region. US Department of the Interior, US Geological Survey.

Robertson, P.K. (2010), “Soil Behaviour type from the CPT: an update”, 2nd International Symposium on Cone Penetration Testing, Huntington Beach, CA, Vol.2. pp575-583.

Robertson, P.K. and Shao L. (2010), “Estimation of Seismic Compression in dry soils using the CPT”, Fifth International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, California, May 24-29.

Topozada, T.R. and Borchardt G. (1998), “Re-evaluation of the 1936 “Hayward Fault” and the 1838 San Andreas Fault Earthquakes.” Bulletin of Seismological Society of America, 88(1), 140-159.

U.S. Geological Survey (USGS) (2008), The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2): prepared by the 2007 Working Group on California Earthquake Probabilities, U.S. Geological Survey Open File Report 2007-1437.

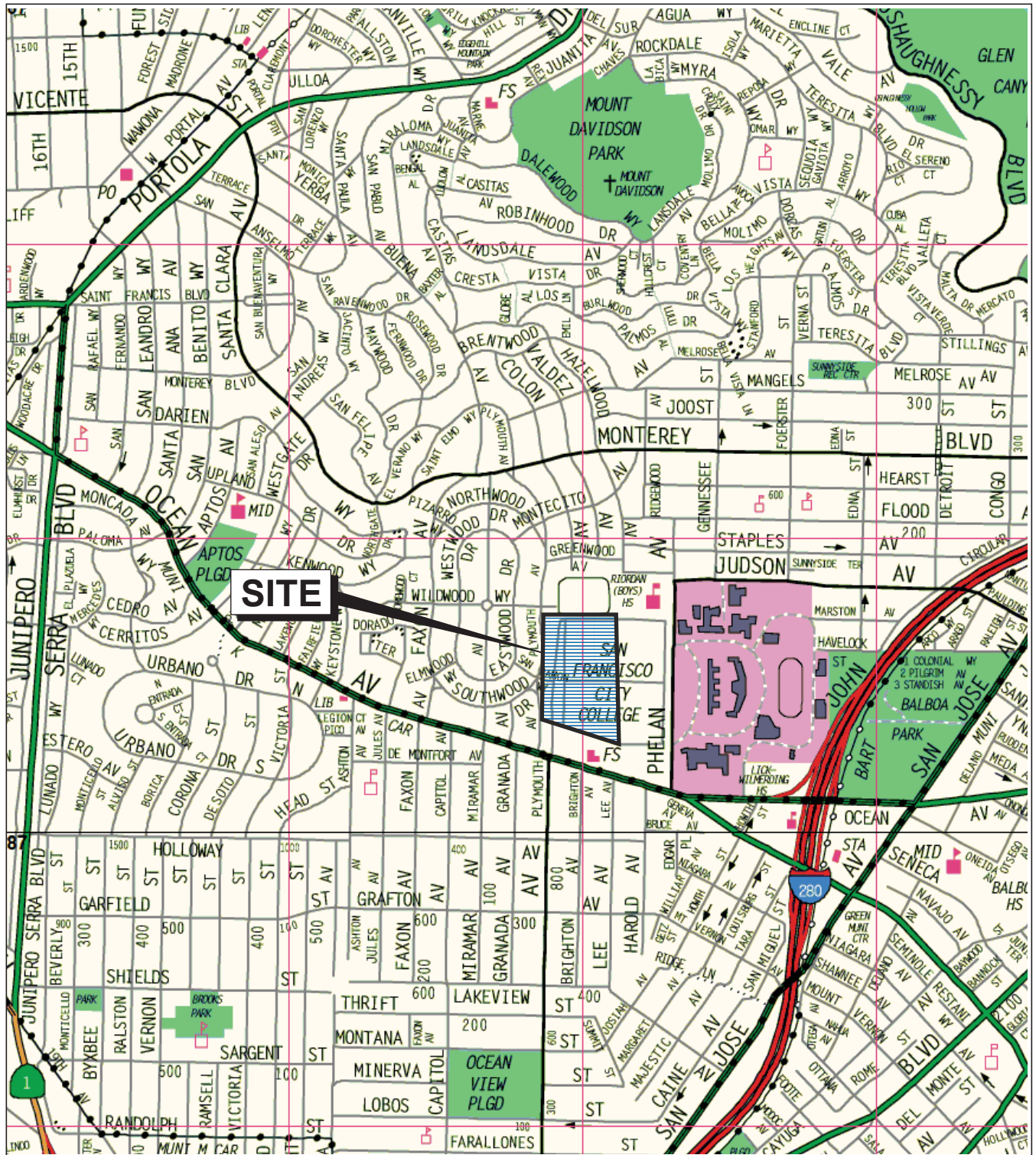
Zhang G., Robertson. P.K., Brachman R. (2002), Estimating Liquefaction Induced Ground Settlements from the CPT, Canadian Geotechnical Journal, 39: pp 1169-1180

**DRAFT**



## **FIGURES**





Base map: The Thomas Guide  
San Francisco County  
2002

0 1/4 1/2 Mile  
Approximate scale



**BALBOA RESERVOIR**  
San Francisco, California

## SITE LOCATION MAP




**ROCKRIDGE**  
GEOTECHNICAL

Date 01/05/18 Project No. 17-1425 Figure 1





EXPLANATION

- B-1  Approximate location of boring by Rockridge Geotechnical Inc., January 3, 2018
- CPT-1  Approximate location of cone penetration test by Rockridge Geotechnical Inc., January 3, 2018
-  Project limits

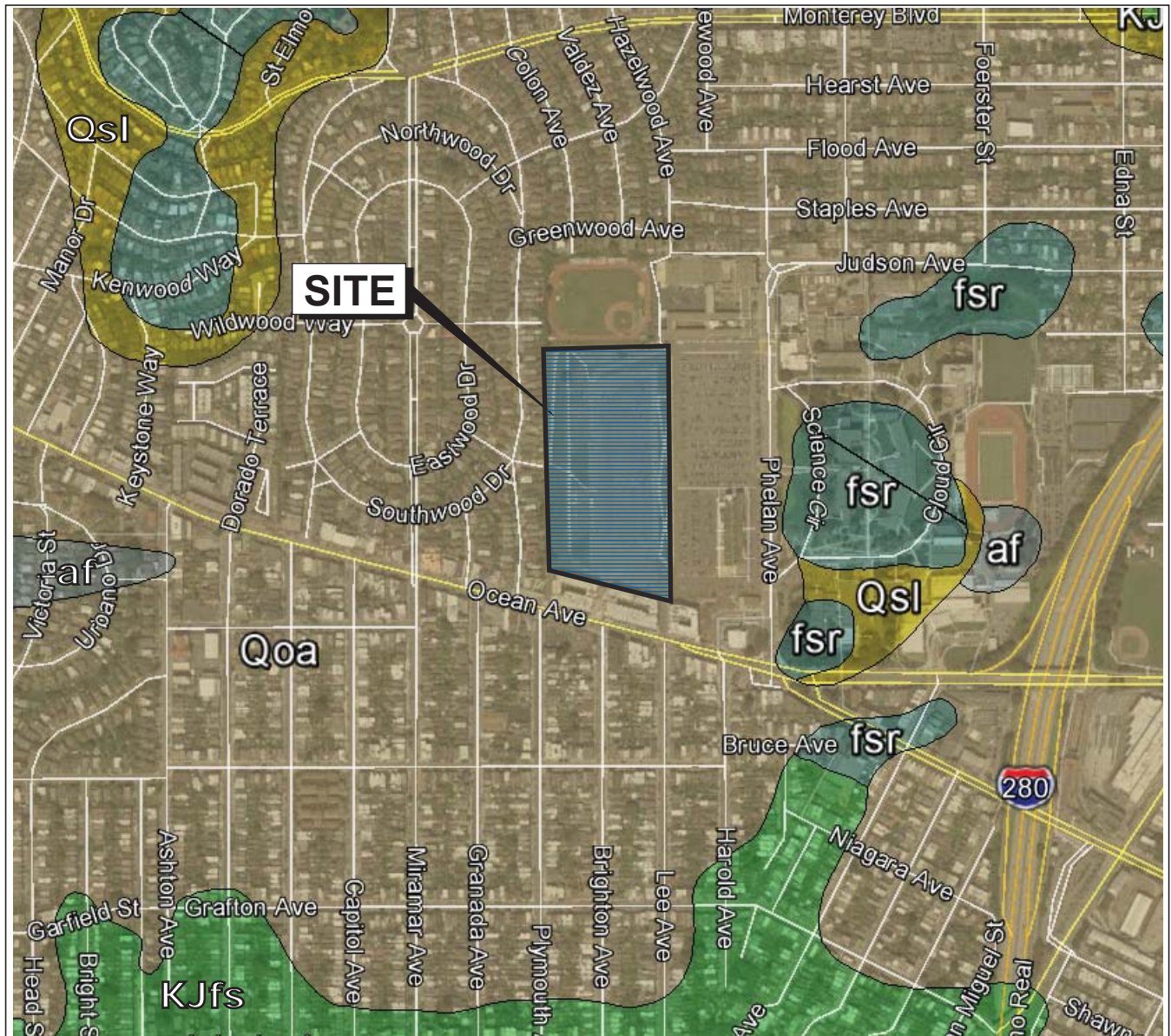


0 150 Feet  
Approximate scale

Base map: Google Earth, 2017.

BALBOA RESERVOIR San Francisco, California		
SITE PLAN		
Date 01/10/18	Project No. 17-1425	Figure 2
 ROCKRIDGE GEOTECHNICAL		



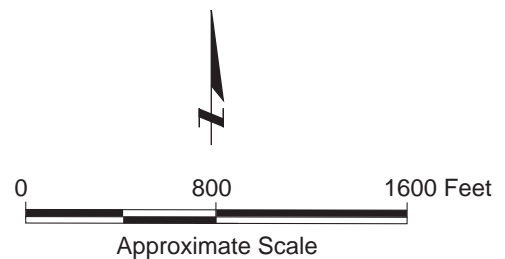


Base map: Google Earth with U.S. Geological Survey (USGS), San Francisco County, 2016.

#### EXPLANATION

- af** Artificial Fill
- QsI** Hillslope Deposits (Quaternary)
- Qoa** Alluvium (early Pleistocene)
- KJfs** Franciscan Complex sedimentary rocks (Early Cretaceous and (or) Late Jurassic)
- fsr** Franciscan Complex melange (Eocene, Paleocene, and (or) Late Cretaceous)

Geologic contact: dashed where approximate and dotted where concealed, queried where uncertain



**BALBOA RESERVOIR**  
San Francisco, California

#### REGIONAL GEOLOGIC MAP

**ROCKRIDGE**  
GEOTECHNICAL

Date 01/05/18 Project No. 17-1425 Figure 3

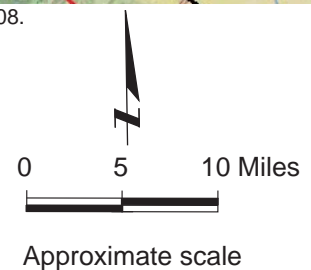




Base Map: U.S. Geological Survey (USGS), National Seismic Hazards Maps - Fault Sources, 2008.

**EXPLANATION**

- Strike slip
- Thrust (Reverse)
- Normal



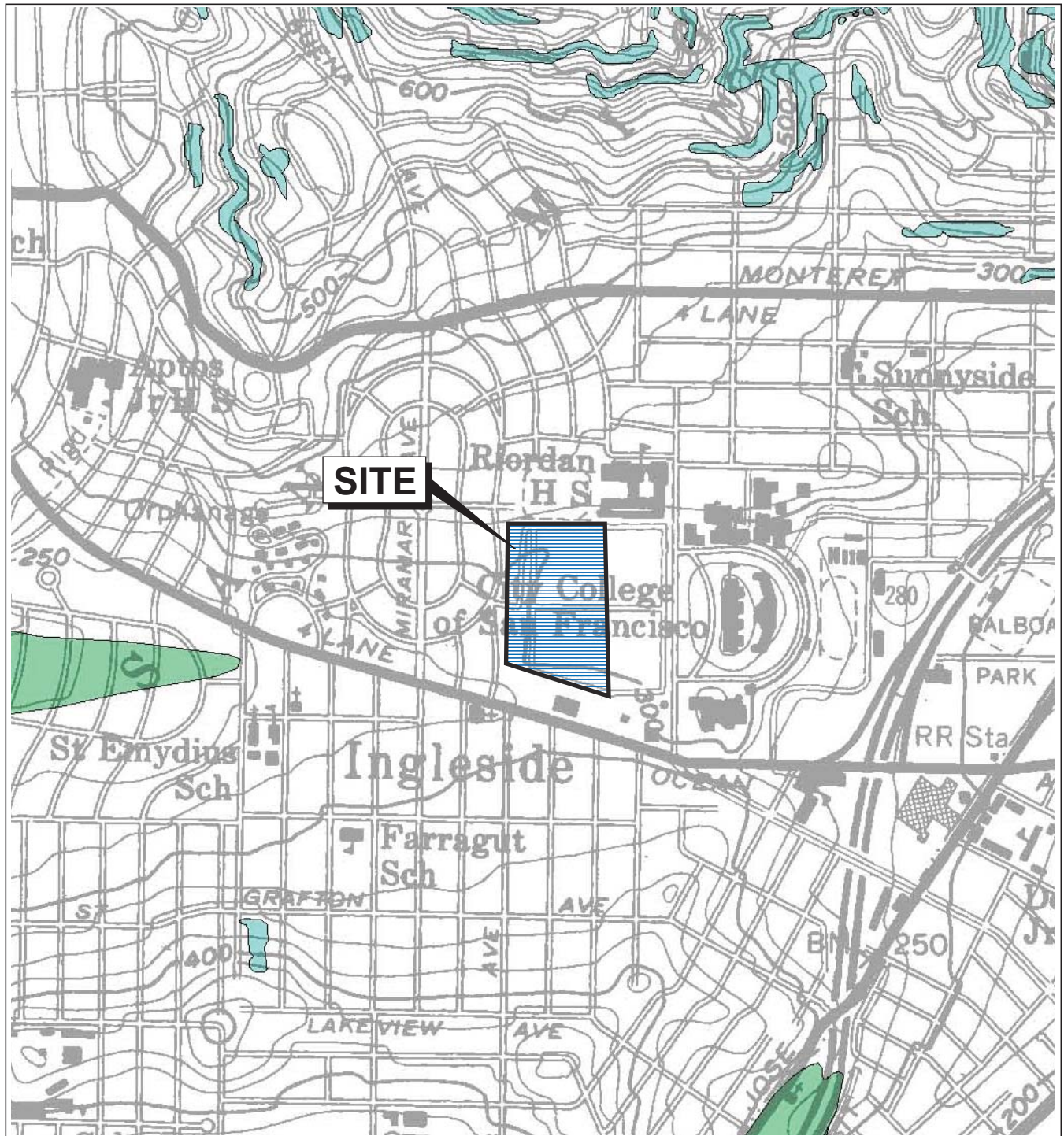
**BALBOA RESERVOIR**  
San Francisco, California



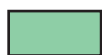
**REGIONAL FAULT MAP**

Date 01/05/18	Project No. 17-1425	Figure 4
---------------	---------------------	----------





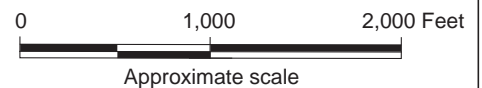
**EXPLANATION**



**Liquefaction;** Areas where historic occurrence of liquefaction, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.



**Earthquake-Induced Landslides;** Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.



Reference:  
State of California "Seismic Hazard Zones"  
City and County of San Francisco  
Released on November 17, 2000

**BALBOA RESERVOIR**  
San Francisco, California



**SEISMIC HAZARDS ZONE MAP**

Date 01/05/18	Project No. 17-1425	Figure 5
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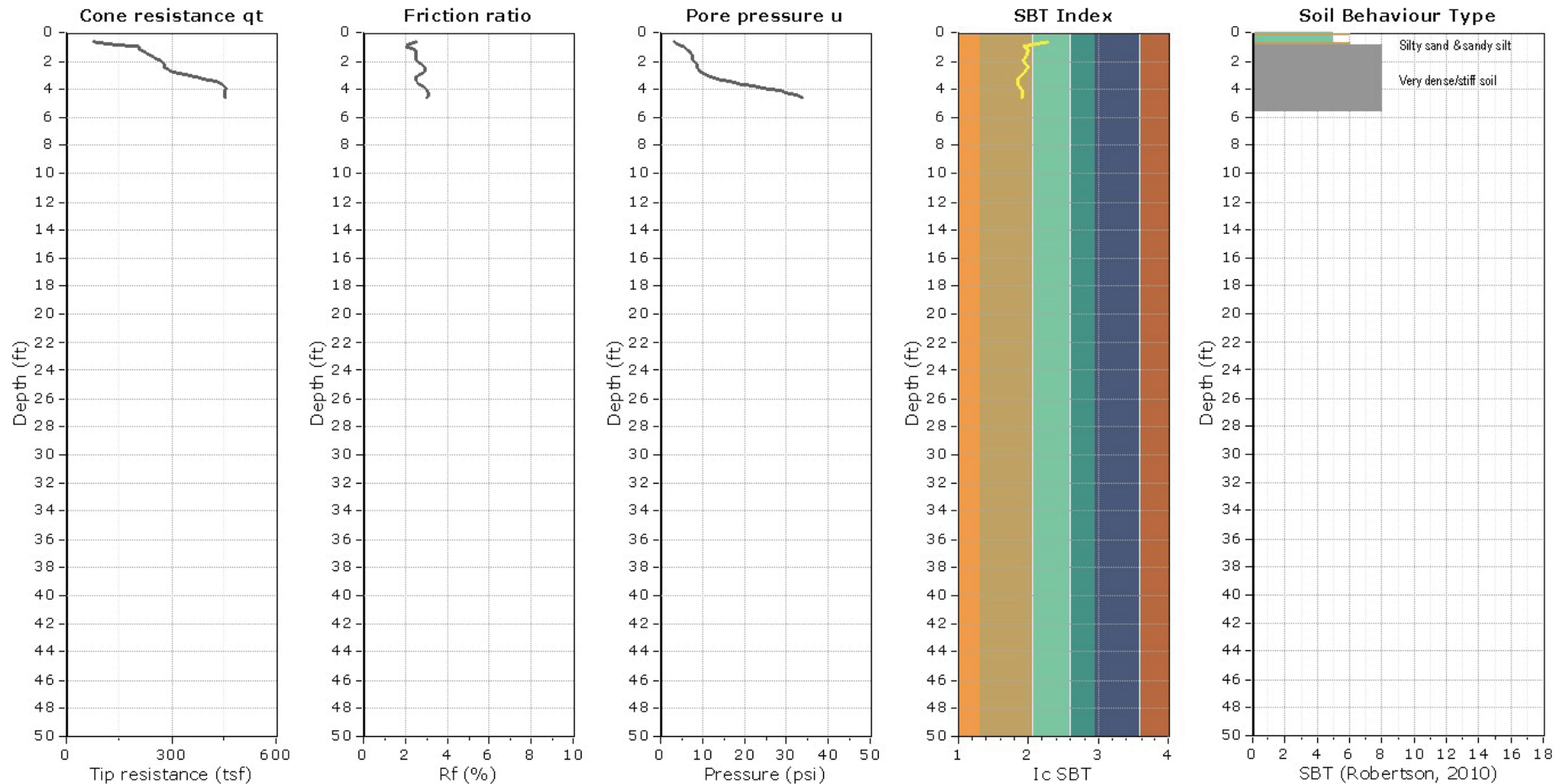
**DRAFT**



## **APPENDIX A**

### **Cone Penetration Test Results and Logs of Borings**

DRAFT



Total depth: 4.59 ft, Date: 1/3/2018 (Refusal at 4.6 on second attempt)  
Groundwater not measured  
Cone Operator: Middle Earth Geo Testing, Inc.

**SBT legend**

- |                           |                              |                                   |
|---------------------------|------------------------------|-----------------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silty clay | 7. Gravely sand to sand           |
| 2. Organic material       | 5. Silty sand to sandy silt  | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay     | 6. Clean sand to silty sand  | 9. Very stiff fine grained        |

**BALBOA RESERVOIR**  
San Francisco, California

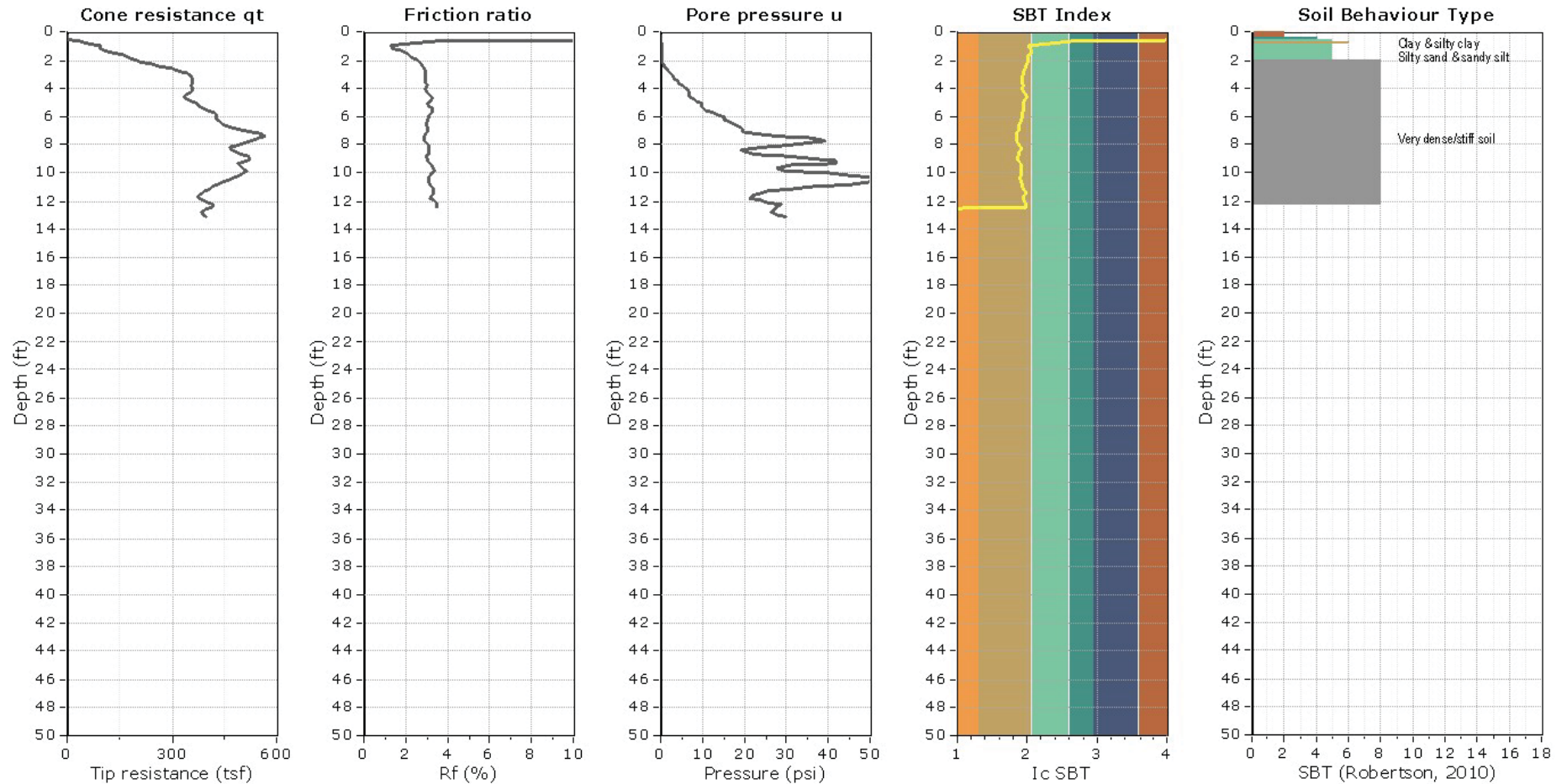


**CONE PENETRATION TEST RESULTS**  
**CPT-1**

Date 01/16/18	Project No. 17-1425	Figure A-1
---------------	---------------------	------------



DRAFT



Total depth: 13.12 ft, Date: 1/3/2018  
Groundwater not measured  
Cone Operator: Middle Earth Geo Testing, Inc.

SBT legend

- |                           |                              |                                   |
|---------------------------|------------------------------|-----------------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silty clay | 7. Gravely sand to sand           |
| 2. Organic material       | 5. Silty sand to sandy silt  | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay     | 6. Clean sand to silty sand  | 9. Very stiff fine grained        |

BALBOA RESERVOIR  
San Francisco, California

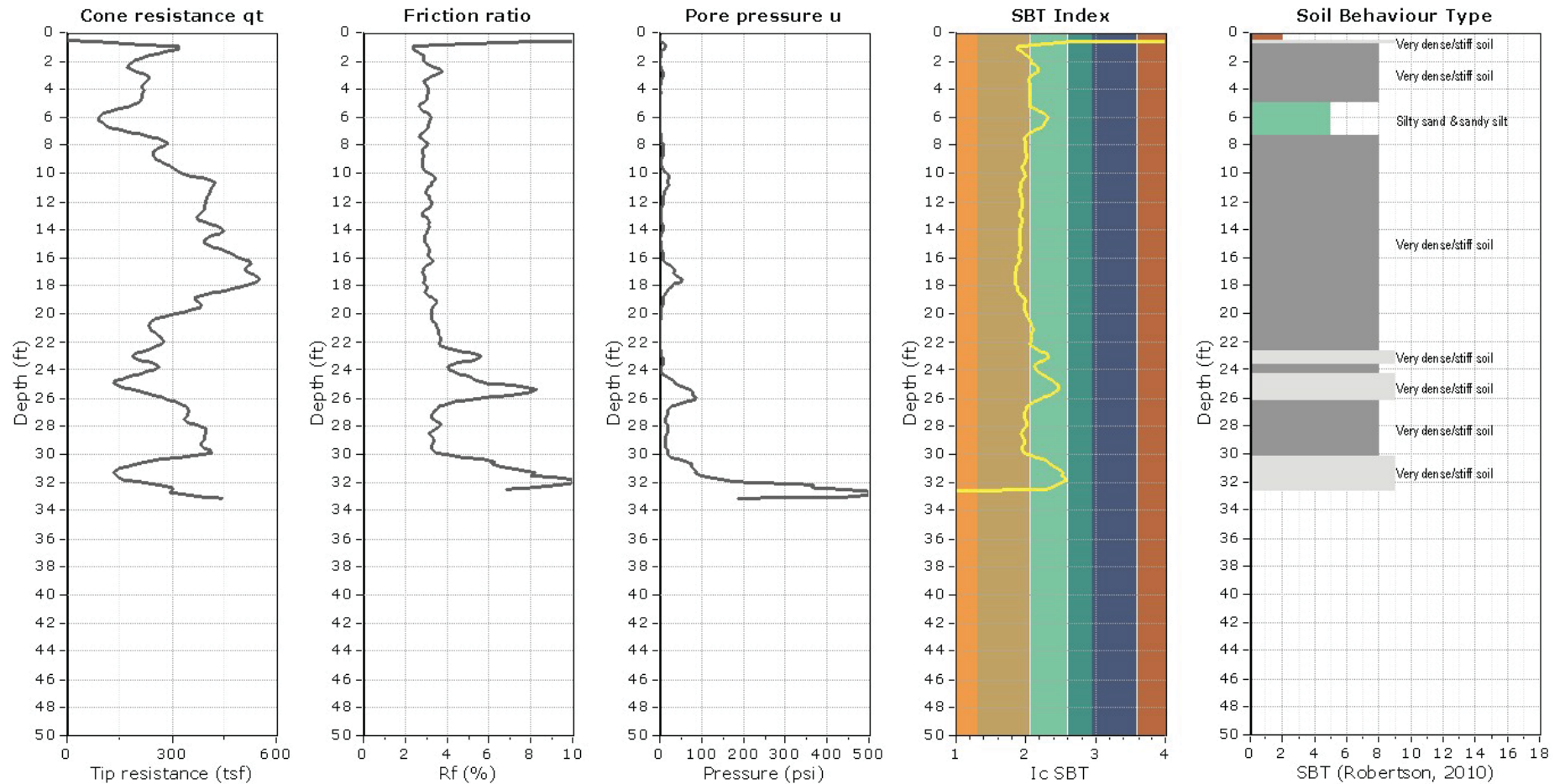
ROCKRIDGE  
GEOTECHNICAL

CONE PENETRATION TEST RESULTS  
CPT-2

Date 01/16/18 Project No. 17-1425 Figure A-2



DRAFT



Total depth: 33.14 ft, Date: 1/3/2018  
Groundwater not measured  
Cone Operator: Middle Earth Geo Testing, Inc.

**SBT legend**

- |                           |                              |                                   |
|---------------------------|------------------------------|-----------------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silty clay | 7. Gravely sand to sand           |
| 2. Organic material       | 5. Silty sand to sandy silt  | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay     | 6. Clean sand to silty sand  | 9. Very stiff fine grained        |

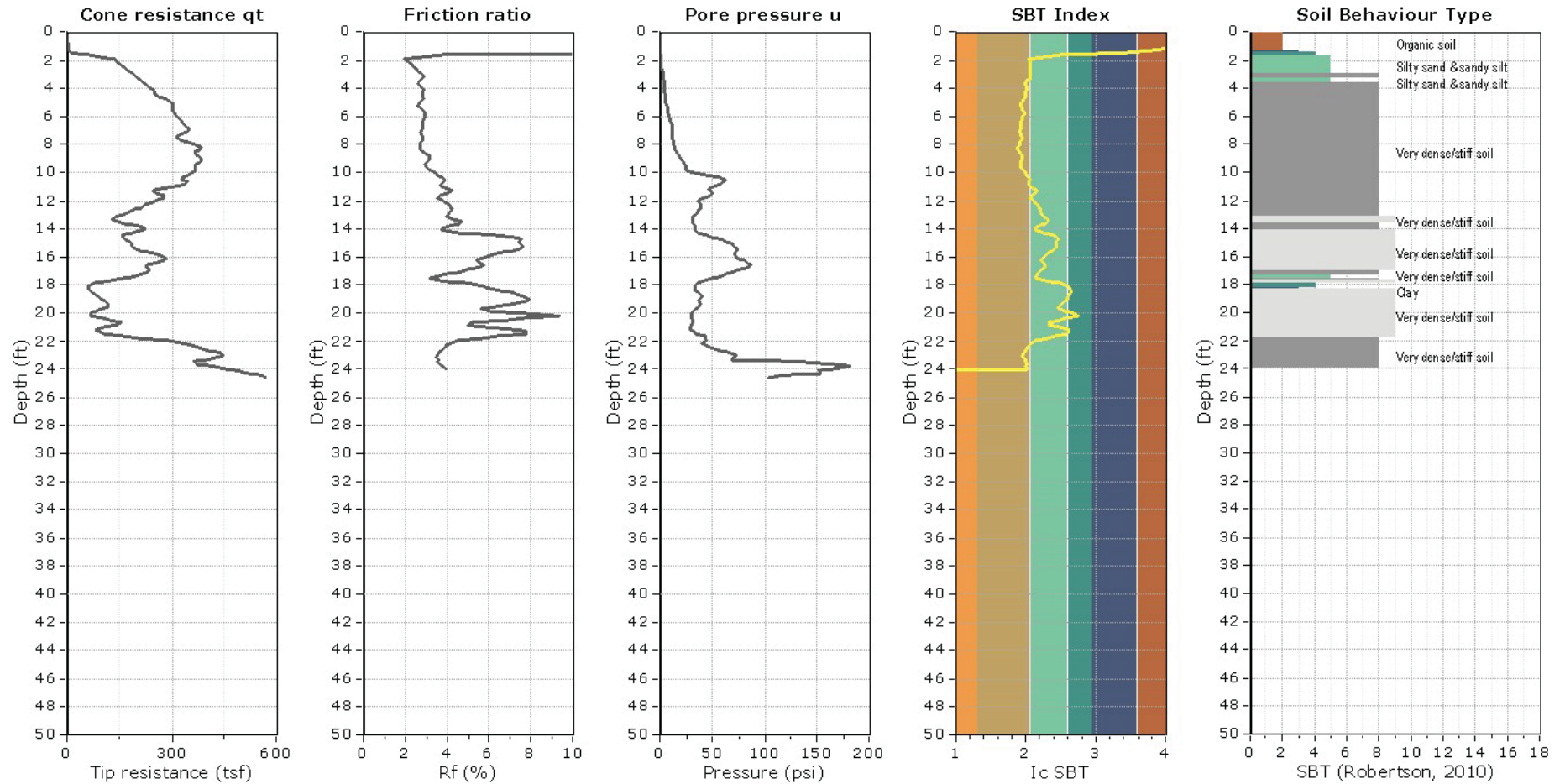
**BALBOA RESERVOIR**  
San Francisco, California

**ROCKRIDGE**  
GEOTECHNICAL

**CONE PENETRATION TEST RESULTS**  
**CPT-3**

Date 01/16/18	Project No. 17-1425	Figure A-3
---------------	---------------------	------------

DRAFT



Total depth: 24.61 ft, Date: 1/3/2018  
Groundwater not measured  
Cone Operator: Middle Earth Geo Testing, Inc.

**SBT legend**

- |                           |                              |                                   |
|---------------------------|------------------------------|-----------------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silty clay | 7. Gravely sand to sand           |
| 2. Organic material       | 5. Silty sand to sandy silt  | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay     | 6. Clean sand to silty sand  | 9. Very stiff fine grained        |

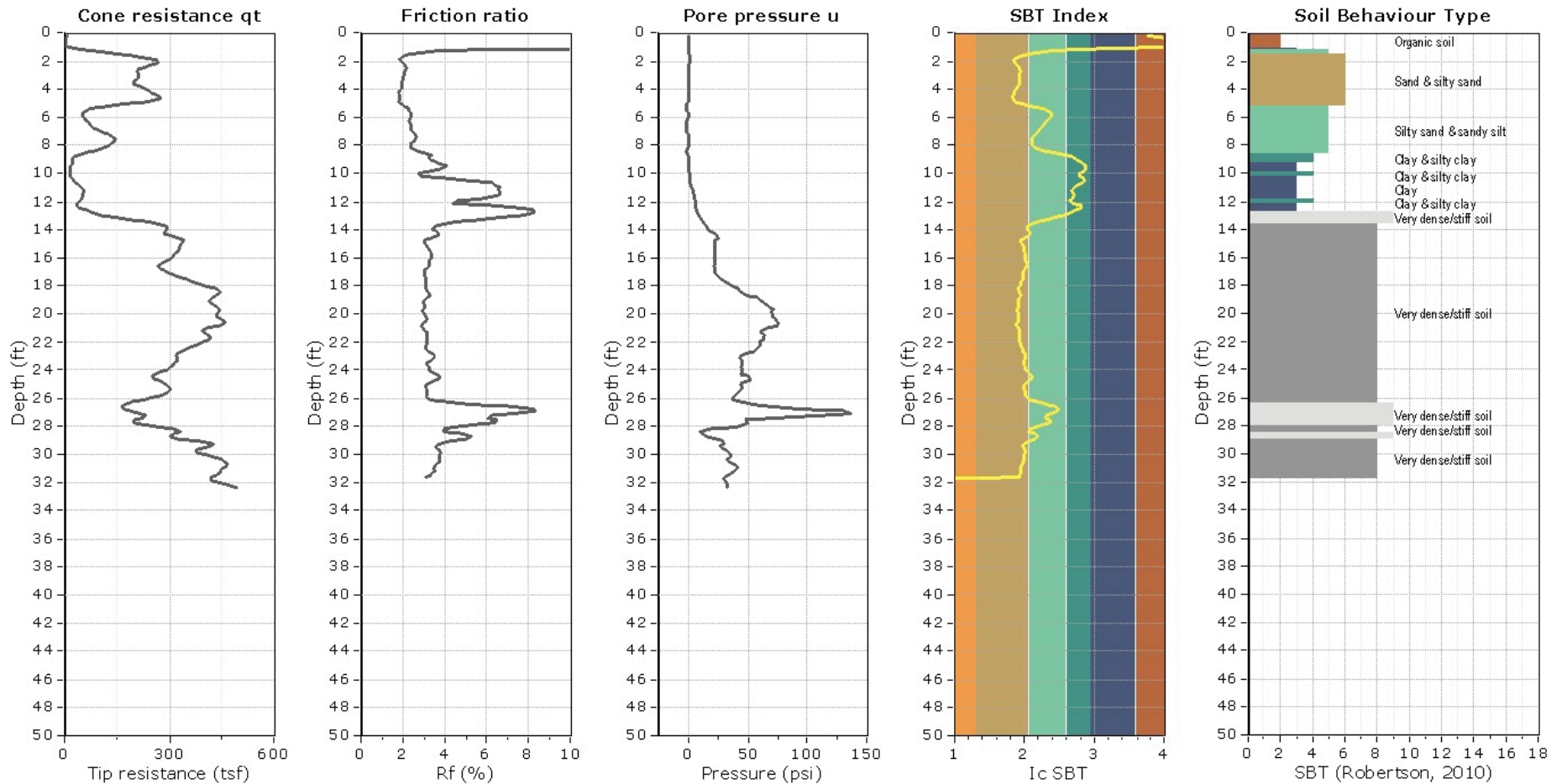
**BALBOA RESERVOIR**  
San Francisco, California



**CONE PENETRATION TEST RESULTS**  
**CPT-4**

Date 01/16/18	Project No. 17-1425	Figure A-4
---------------	---------------------	------------

DRAFT



Total depth: 32.32 ft, Date: 1/3/2018  
Groundwater not measured  
Cone Operator: Middle Earth Geo Testing, Inc.

**SBT legend**

- |                           |                              |                                   |
|---------------------------|------------------------------|-----------------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silty clay | 7. Gravely sand to sand           |
| 2. Organic material       | 5. Silty sand to sandy silt  | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay     | 6. Clean sand to silty sand  | 9. Very stiff fine grained        |

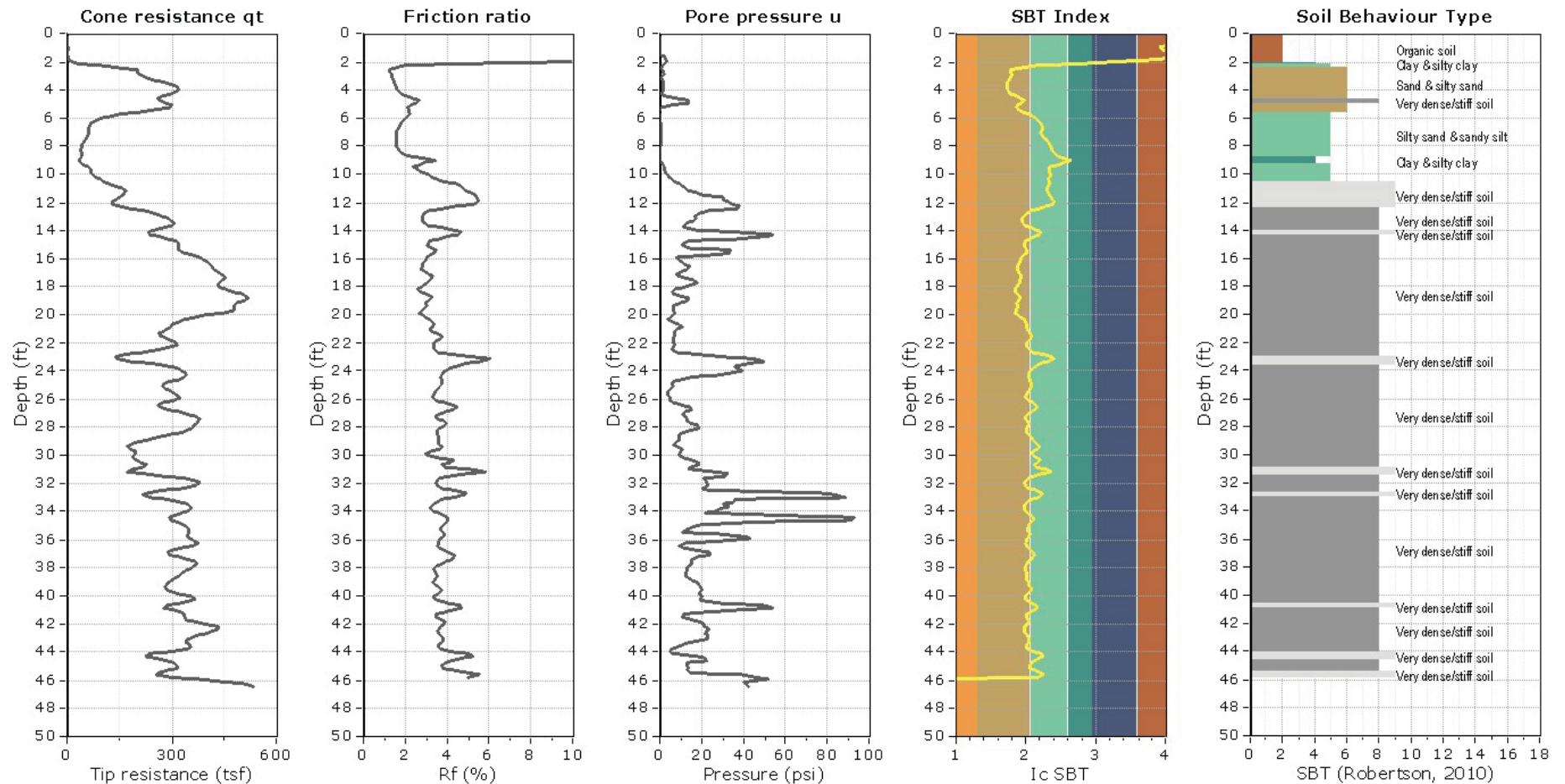
**BALBOA RESERVOIR**  
San Francisco, California

**ROCKRIDGE**  
GEOTECHNICAL

**CONE PENETRATION TEST RESULTS**  
**CPT-5**

Date 01/16/18	Project No. 17-1425	Figure A-5
---------------	---------------------	------------

DRAFT



Total depth: 46.42 ft, Date: 1/3/2018  
Groundwater not measured  
Cone Operator: Middle Earth Geo Testing, Inc.

SBT legend

- |                           |                              |                                   |
|---------------------------|------------------------------|-----------------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silty clay | 7. Gravely sand to sand           |
| 2. Organic material       | 5. Silty sand to sandy silt  | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay     | 6. Clean sand to silty sand  | 9. Very stiff fine grained        |

BALBOA RESERVOIR  
San Francisco, California






























CONE PENETRATION TEST RESULTS  
CPT-6

Date 01/16/18	Project No. 17-1425	Figure A-6
---------------	---------------------	------------






PROJECT: <b>BALBOA RESERVOIR</b> San Francisco, California					<b>Log of Boring B-2</b> PAGE 1 OF 1							
Boring location: See Site Plan, Figure 2					Logged by: D. Landkamer							
Date started: 1/3/18			Date finished: 1/3/18									
Drilling method: Solid Stem Auger												
Hammer weight/drop: 140 lbs./30 inches			Hammer type: Safety/Rope & Cathead			LABORATORY TEST DATA						
Sampler: Standard Penetration Test (SPT)												
DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	Blows/ 6"	SPT N-Value <sup>1</sup>								
1	SPT		21	52	SM	SILTY SAND (SM) orange-brown, very dense, moist, fine-grained sand, trace clay						
2			22									
3			11									
4	SPT		22	53		trace gravel						
5			17									
6			23									
7	SPT		26	54	no gravel							
8												
9												
10	SPT		10	50								
11			19									
12			23									
13	SPT		14	46	dense, with clay, trace gravel							
14			16									
15			22									
16	SPT		16	54	CLAYEY SAND (SC) brown to red-brown, dense, moist, fine- to coarse-grained sand, trace gravel							
17			18									
18			27									
19	SPT		16	42	SILTY SAND (SM) orange-brown, very dense, moist, fine-grained sand, with clay, trace fine gravel							
20			18									
21			27									
22	SPT		10	42	dense, with clayey sand inclusions							
23			13									
24			22									
25	SPT		10	42								
26			13									
27			22									
28	SPT		10	42								
29			13									
30			22									
Boring terminated at a depth of 26.5 feet below ground surface. Boring backfilled with cement grout. Groundwater not encountered during drilling.						<sup>1</sup> SPT blow counts for the last two increments were converted to SPT N-Values using a factor of 1.2 to account for sampler type and hammer energy.						
ROCKRIDGE 17-1425.GPJ TR.GDT 1/10/18												
						Project No.: 17-1425				Figure: A-8		

PROJECT: <b>BALBOA RESERVOIR</b> San Francisco, California					<b>Log of Boring B-3</b> PAGE 1 OF 1															
Boring location: See Site Plan, Figure 2					Logged by: D. Landkamer															
Date started: 1/3/18			Date finished: 1/3/18																	
Drilling method: Solid Stem Auger																				
Hammer weight/drop: 140 lbs./30 inches			Hammer type: Safety/Rope & Cathead		LABORATORY TEST DATA															
Sampler: Standard Penetration Test (SPT)																				
DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft								
	Sampler Type	Sample	Blows/ 6"	SPT N-Value <sup>1</sup>																
1	SPT		7 13 20	40	SP- SM	SAND with SILT (SP-SM) olive gray, dense, dry to moist, fine-grained sand														
2																				
3																				
4	SPT		13 13 15	34									yellow-brown and olive-gray							
5																				
6	SPT		15 21 25	55									very dense, moist							
7																				
8																				
9																				
10	SPT		21 23 26	59																
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				
25																				
26																				
27																				
28																				
29																				
30																				

Boring terminated at a depth of 11.5 feet below ground surface.  
Boring backfilled with cement grout.  
Groundwater not encountered during drilling.

<sup>1</sup> SPT blow counts for the last two increments were converted to SPT N-Values using a factor of 1.2 to account for sampler type and hammer energy.



**ROCKRIDGE  
GEOTECHNICAL**

Project No.:  
**17-1425**

Figure:  
**A-9**

ROCKRIDGE 17-1425.GPJ TR.GDT 1/10/18

PROJECT:		<b>BALBOA RESERVOIR</b> San Francisco, California			<h2 style="margin: 0;">Log of Boring B-4</h2> PAGE 1 OF 1							
Boring location: See Site Plan, Figure 2					Logged by: D. Landkamer							
Date started: 1/3/18		Date finished: 1/3/18										
Drilling method: Solid Stem Auger												
Hammer weight/drop: 140 lbs./30 inches		Hammer type: Safety/Rope & Cathead			LABORATORY TEST DATA							
Sampler: Standard Penetration Test (SPT)												
DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	Blows/ 6"	SPT N-Value <sup>1</sup>								
1	SPT		7	38	SC	CLAYEY SAND with GRAVEL (SC) brown to red-brown, medium dense, moist, fine- to medium-grained sand						
2			14									
3			18									
4	SPT		6	23	SM	SILTY SAND (SM) brown, dense, moist, fine- to medium-grained sand						
5			7									
6	SPT		14	48		orange-brown, medium dense, with clay						
7			20									
8			20			brown, no clay						
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

Boring terminated at a depth of 6.5 feet below ground surface.  
 Boring backfilled with cement grout.  
 Groundwater not encountered during drilling.

<sup>1</sup> SPT blow counts for the last two increments were converted to SPT N-Values using a factor of 1.2 to account for sampler type and hammer energy.

Project No. 17-1425      Figure A-10

ROCKRIDGE 17-1425.GPJ TR.GDT 1/10/18



UNIFIED SOIL CLASSIFICATION SYSTEM			
Major Divisions		Symbols	Typical Names
Coarse-Grained Soils (more than half of soil > no. 200 sieve size)	Gravels (More than half of coarse fraction > no. 4 sieve size)	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	Sands (More than half of coarse fraction < no. 4 sieve size)	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
Fine -Grained Soils (more than half of soil < no. 200 sieve size)	Silts and Clays LL = < 50	ML	Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL	Organic silts and organic silt-clays of low plasticity
	Silts and Clays LL = > 50	MH	Inorganic silts of high plasticity
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic silts and clays of high plasticity
Highly Organic Soils		PT	Peat and other highly organic soils

GRAIN SIZE CHART

Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4	76.2 to 4.76
	3" to 3/4"	76.2 to 19.1
	3/4" to No. 4	19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200	4.76 to 0.075
	No. 4 to No. 10	4.76 to 2.00
	No. 10 to No. 40	2.00 to 0.420
	No. 40 to No. 200	0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

Unstabilized groundwater level

Stabilized groundwater level

Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered

Classification sample taken with Standard Penetration Test sampler

Undisturbed sample taken with thin-walled tube

Disturbed sample

Sampling attempted with no recovery

Core sample

Analytical laboratory sample

Sample taken with Direct Push sampler

Sonic

SAMPLER TYPE

C	Core barrel	PT	Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube
CA	California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter	S&H	Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter
D&M	Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube	SPT	Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.5-inch inside diameter
O	Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube	ST	Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure

BALBOA RESERVOIR  
San Francisco, California

ROCKRIDGE  
GEOTECHNICAL

Date 01/05/18

Project No. 17-1425

Figure A-11

**APPENDIX B**  
**Corrosivity Test Results**



# **Results Only Soil Testing for Balboa Reservoir**

**January 15, 2018**

**Prepared for:  
Clayton Proto  
Rockridge Geotechnical  
270 Grand Ave,  
Oakland, CA 94610  
cjproto@rockridgegeo.com**

**Project X Job#: S180112A  
Client Job or PO#: 17-1425**



## Soil Analysis Lab Results

Client: Rockridge Geotechnical  
 Job Name: Balboa Reservoir  
 Client Job Number: 17-1425  
 Project X Job Number: S180112A  
 January 15, 2018

	Method	ASTM G187	ASTM D516	ASTM D512B	SM 4500- NO3-E	SM 4500- NH3-C	SM 4500- S2-D	ASTM G200	ASTM G51			
Bore# / Description	Depth	Resistivity		Sulfates		Chlorides		Nitrate	Ammonia	Sulfide	Redox	pH
		As Rec'd   Minimum										
	(ft)	(Ohm-cm)	(Ohm-cm)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(mg/kg)	(mg/kg)	(mV)	
B-2 #5	15.0	12,060	10,050	120	0.0120	255	0.0255	165	97.5	5.70	211	7.99

Unk = Unknown

NT = Not Tested

mg/kg = milligrams per kilogram (parts per million) of dry soil weight

mg/L - milligrams per liter of liquid volume

Chemical Analysis performed on 1:3 Soil-To-Water extract

Please call if you have any questions.

Prepared by,

Nathan Jacob,  
 Lab Technician

Respectfully Submitted,

Eddie Hernandez, M.Sc., P.E.  
 Sr. Corrosion Consultant  
 NACE Corrosion Technologist #16592  
 Professional Engineer  
 California No. M37102  
[ehernandez@projectxcorrosion.com](mailto:ehernandez@projectxcorrosion.com)





S180112A ROCKRIDGE

17-1425 1 Full  
DRAFT Phone: (213) 928-7213  
Ship Samples To: 29

### Lab Request Sheet Chain of Custody

Phone: (213) 928-7213 · Fax (951) 226-1720 · [www.projectxcorrosion.com](http://www.projectxcorrosion.com)  
Ship Samples To: 29970 Technology Dr, Suite 105F, Murrieta, CA 92563

**IMPORTANT: Please complete Project and Sample Identification Data as you would like it to appear in report & include this form with samples.**

<b>Project X Job #:</b>	
<b>Date:</b>	

<b>Company Name:</b>	Rockridge Geotechnical	<b>Contact Name:</b>	Clayton Proto	<b>Phone No. :</b>	510-420-5738 x 120
<b>Mailing Address:</b>	270 Grand Avenue, Oakland California	<b>Contact Email:</b>	cjproto@rockridgegeo.com		
<b>Accounting Contact:</b>	Kate Schenk	<b>Invoice Email:</b>	kaschenk@rockridgegeo.com		

Project Name:	Balboa Reservoir		
Client Project No:	17-1425	P.O. #:	

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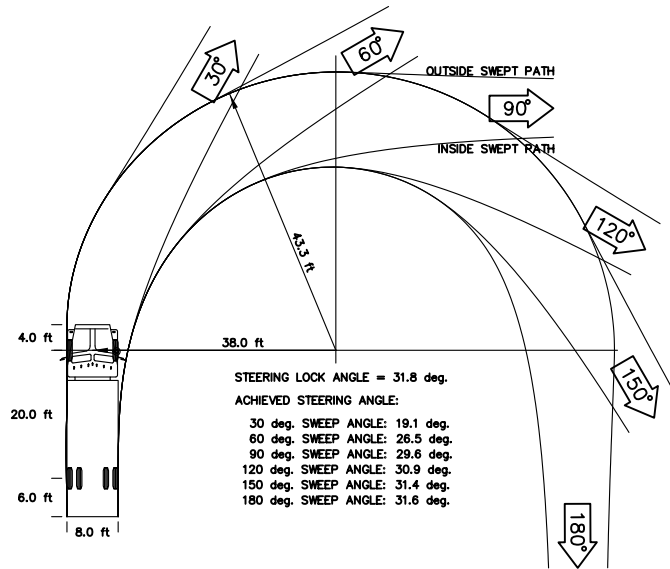
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SPECIAL INSTRUCTIONS:			
1	COMPOSITION	1	
2	Stability	2	
3	Sensitivity	3	
4		4	
5	Reactivity	5	
6	Interference	6	
7	Potential	7	
8	Concentration	8	
9	Storage	9	
10	Shelf Life	10	
11	Preparation	11	
12	Use	12	
13	Disposal	13	
14	Labeling	14	
15	Documentation	15	
16	Quality Control	16	
17	Validation	17	
18	Calibration	18	
19	Verification	19	
20	Repeatability	20	
21	Reproducibility	21	
22	Accuracy	22	
23	Precision	23	
24	Linearity	24	
25	Range	25	
26	Limit of Detection	26	
27	Limit of Quantitation	27	
28	Specificity	28	
29	Robustness	29	
30	Stability	30	
31	Recovery	31	
32	Interference	32	
33	Matrix Effect	33	
34	Sample Preparation	34	
35	Instrumentation	35	
36	Software	36	
37	Hardware	37	
38	Reagents	38	
39	Buffers	39	
40	Solvents	40	
41	Standards	41	
42	Controls	42	
43	Blank	43	
44	Reference	44	
45	Comparison	45	
46	Validation	46	
47	Verification	47	
48	Repeatability	48	
49	Reproducibility	49	
50	Accuracy	50	
51	Precision	51	
52	Linearity	52	
53	Range	53	
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55	Limit of Quantitation	55	
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69	Standards	69	
70	Controls	70	
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93	Hardware	93	
94	Reagents	94	
95	Buffers	95	
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97	Standards	97	
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**APPENDIX C – SU-30 AND WB-40 DESIGN VEHICLE MOVEMENTS**

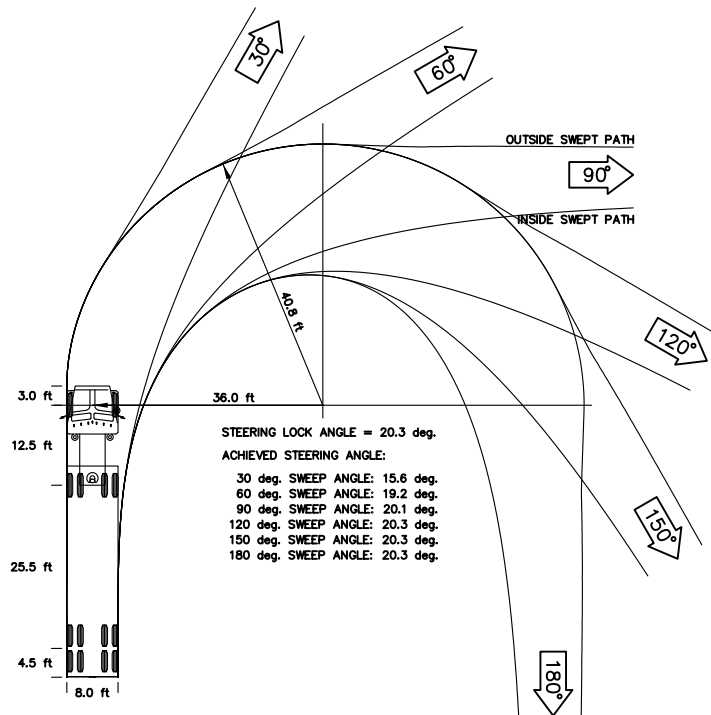




SU-30  
AASHTO 2011 (US)

[ft]  
(c) 2019 Transoft Solutions, Inc. All rights reserved.

0ft 10ft 20ft



WB-40  
AASHTO 2011 (US)

[ft]  
(c) 2019 Transoft Solutions, Inc. All rights reserved.

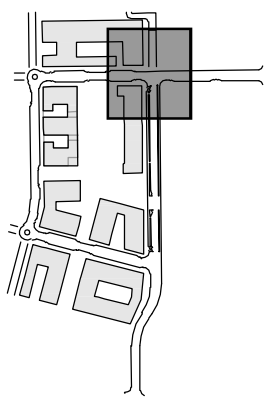
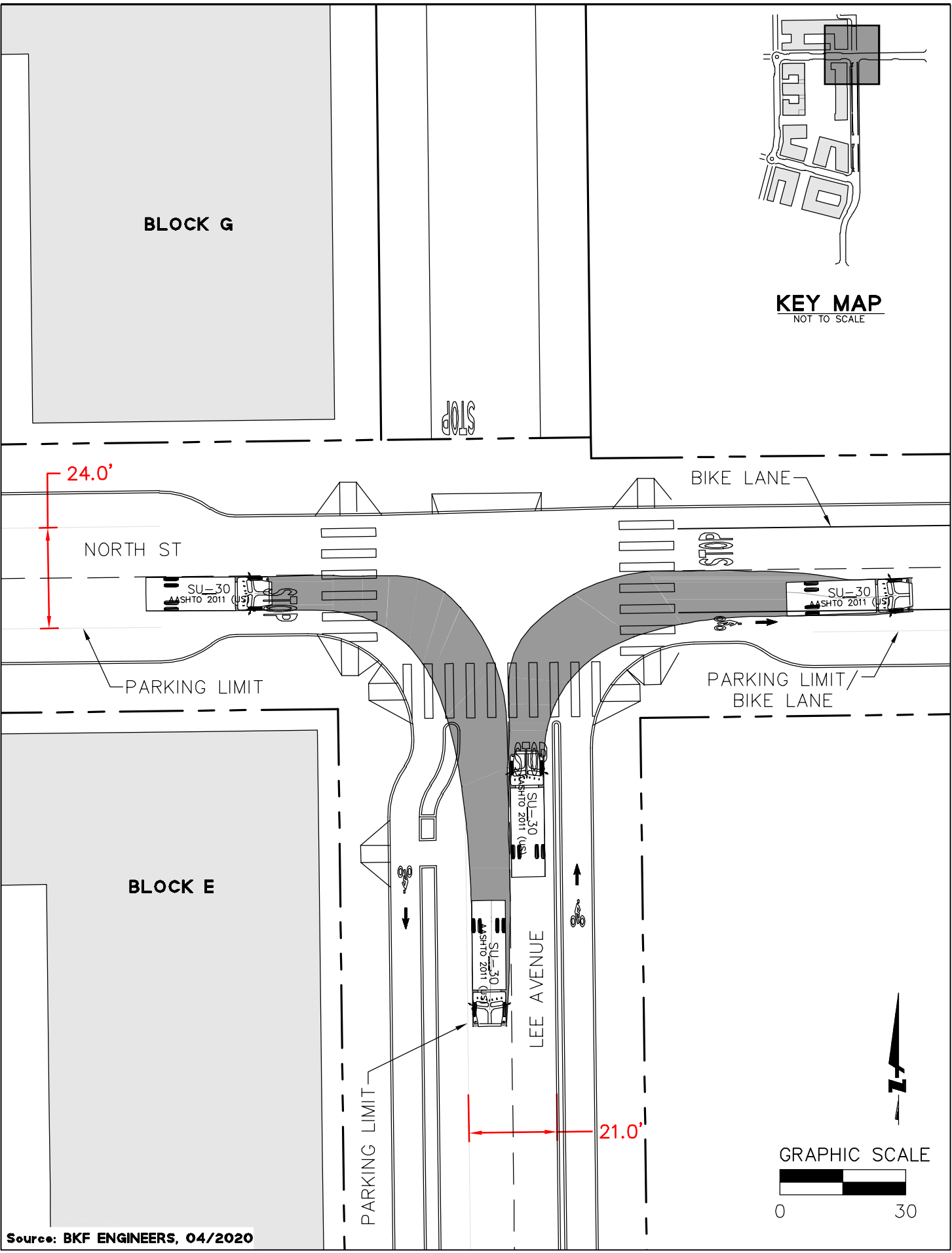
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GRAPHIC SCALE



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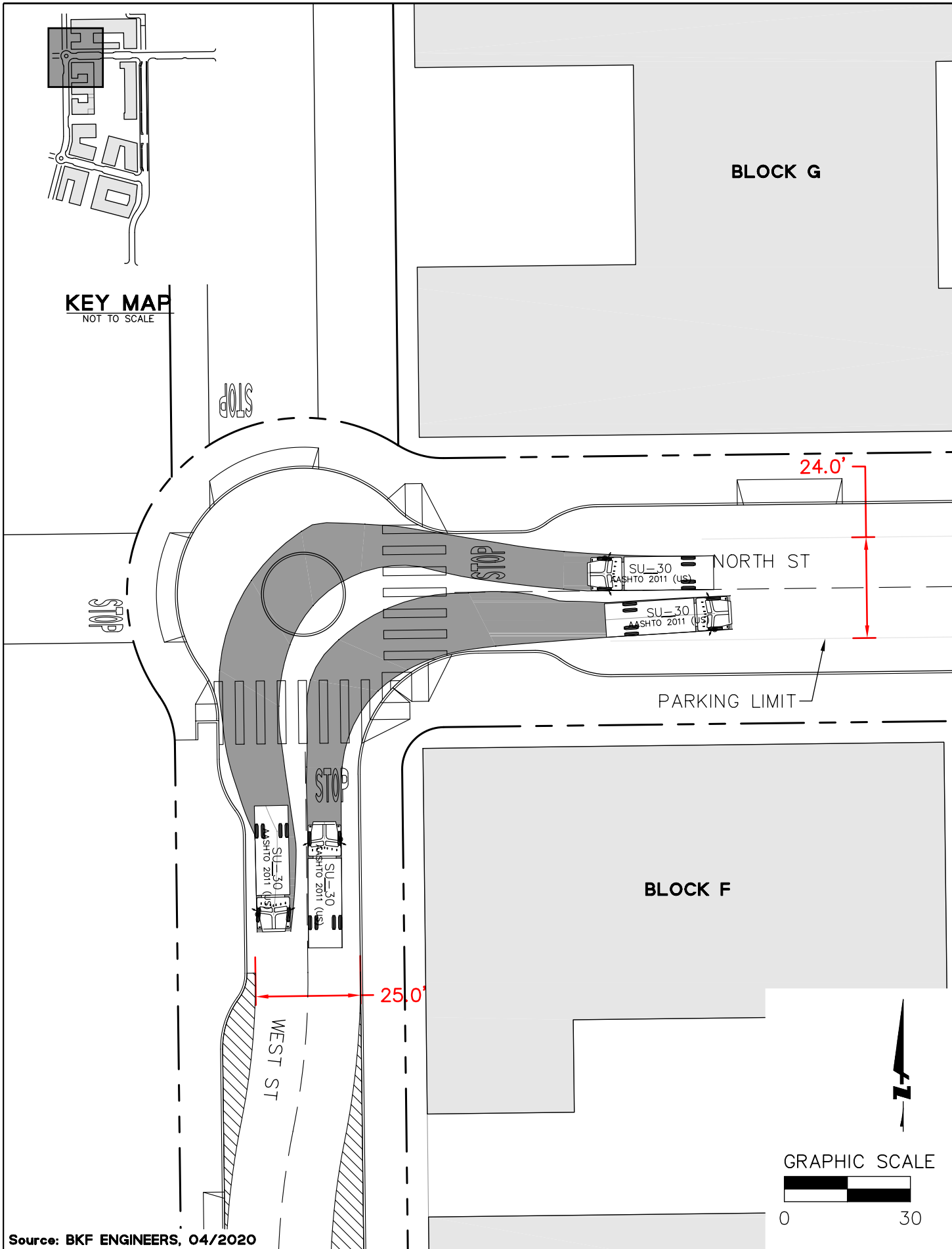


**KEY MAP**  
NOT TO SCALE

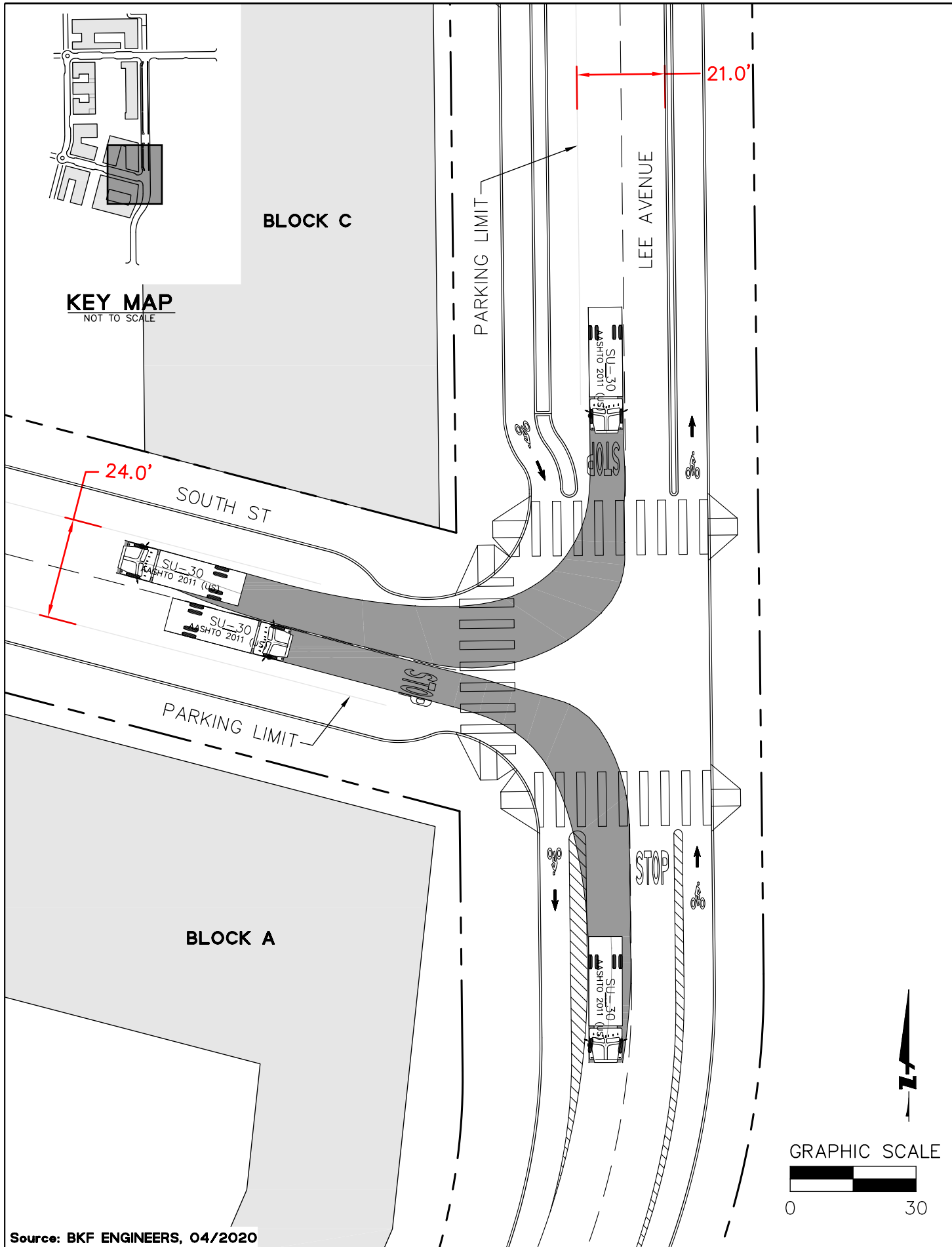
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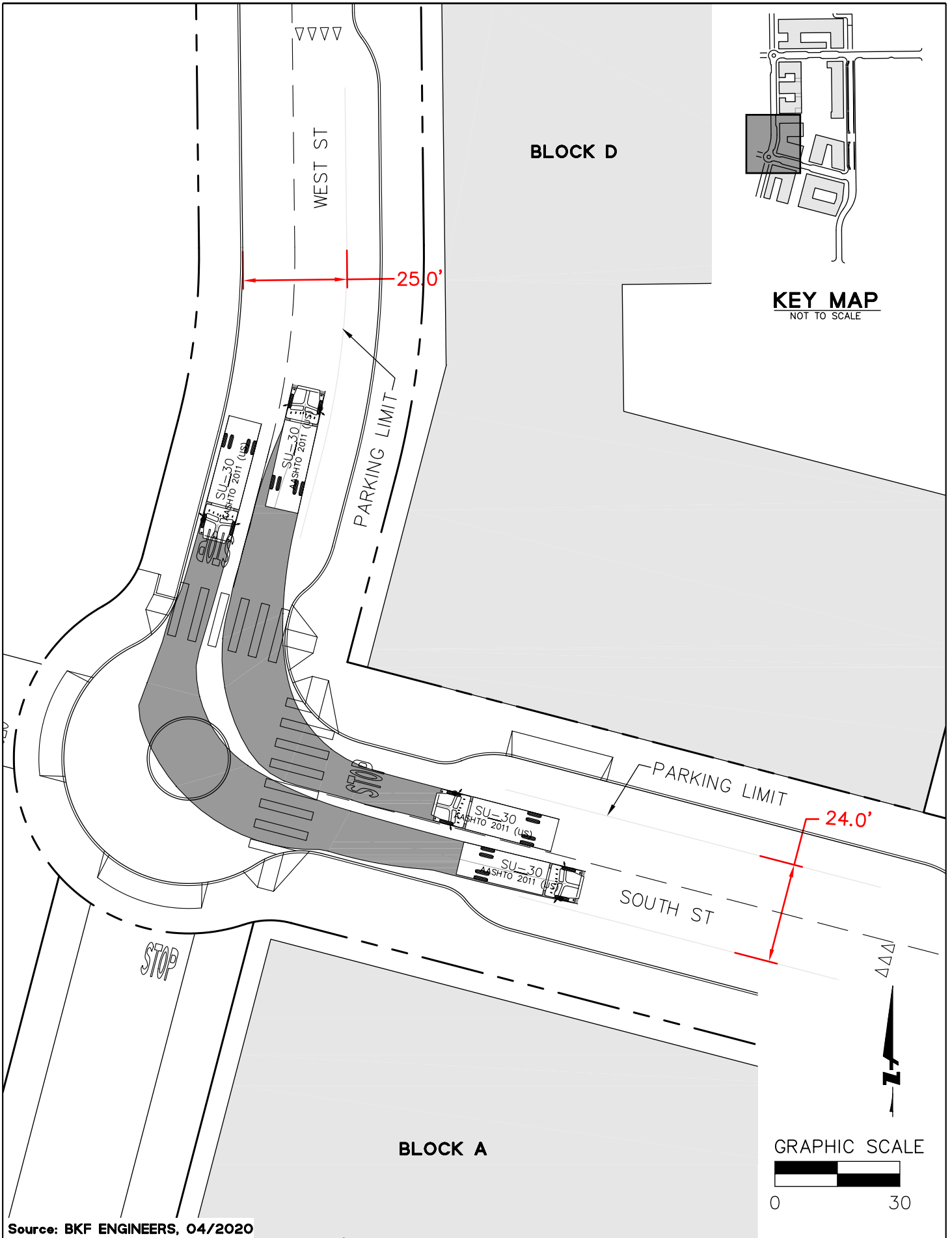


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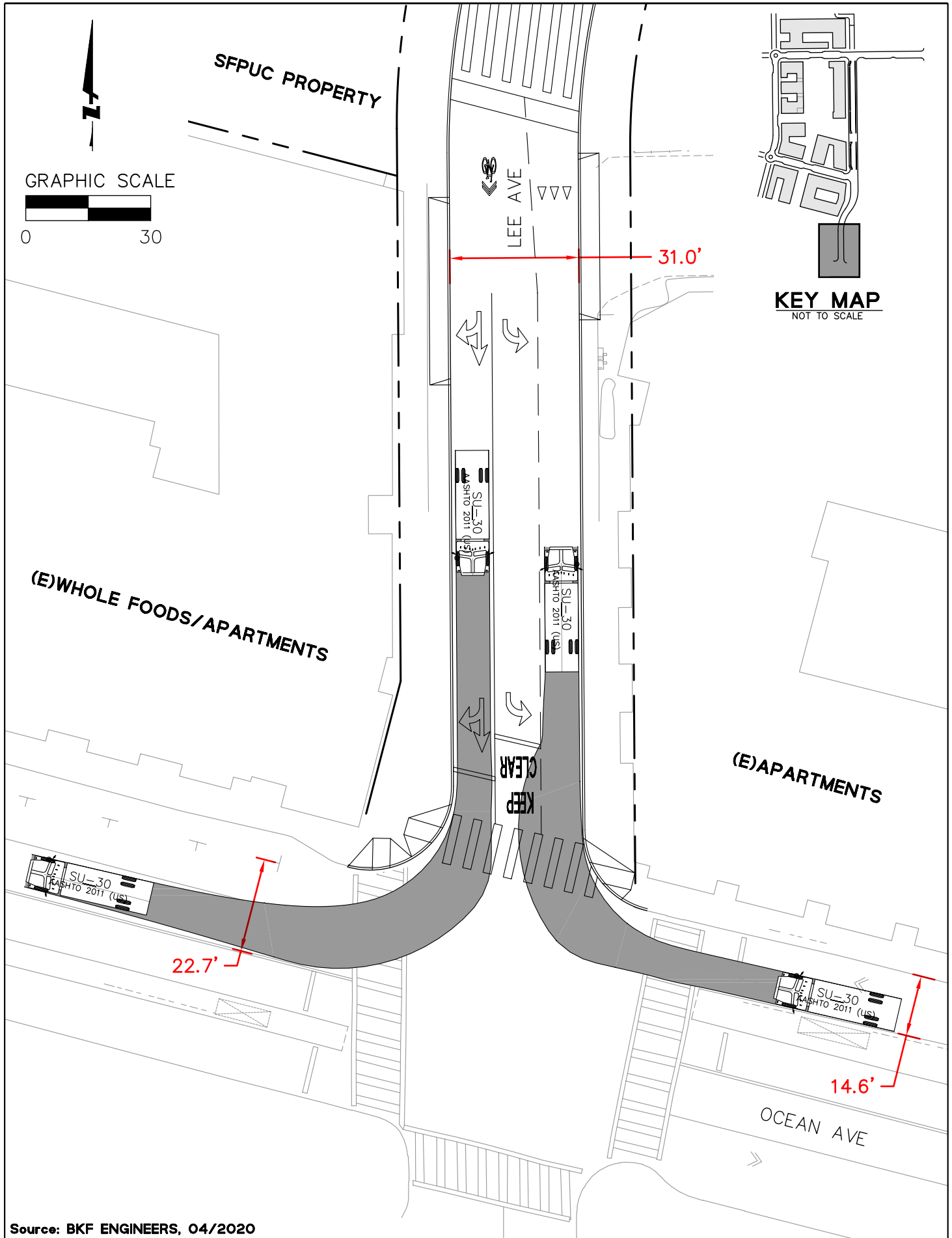


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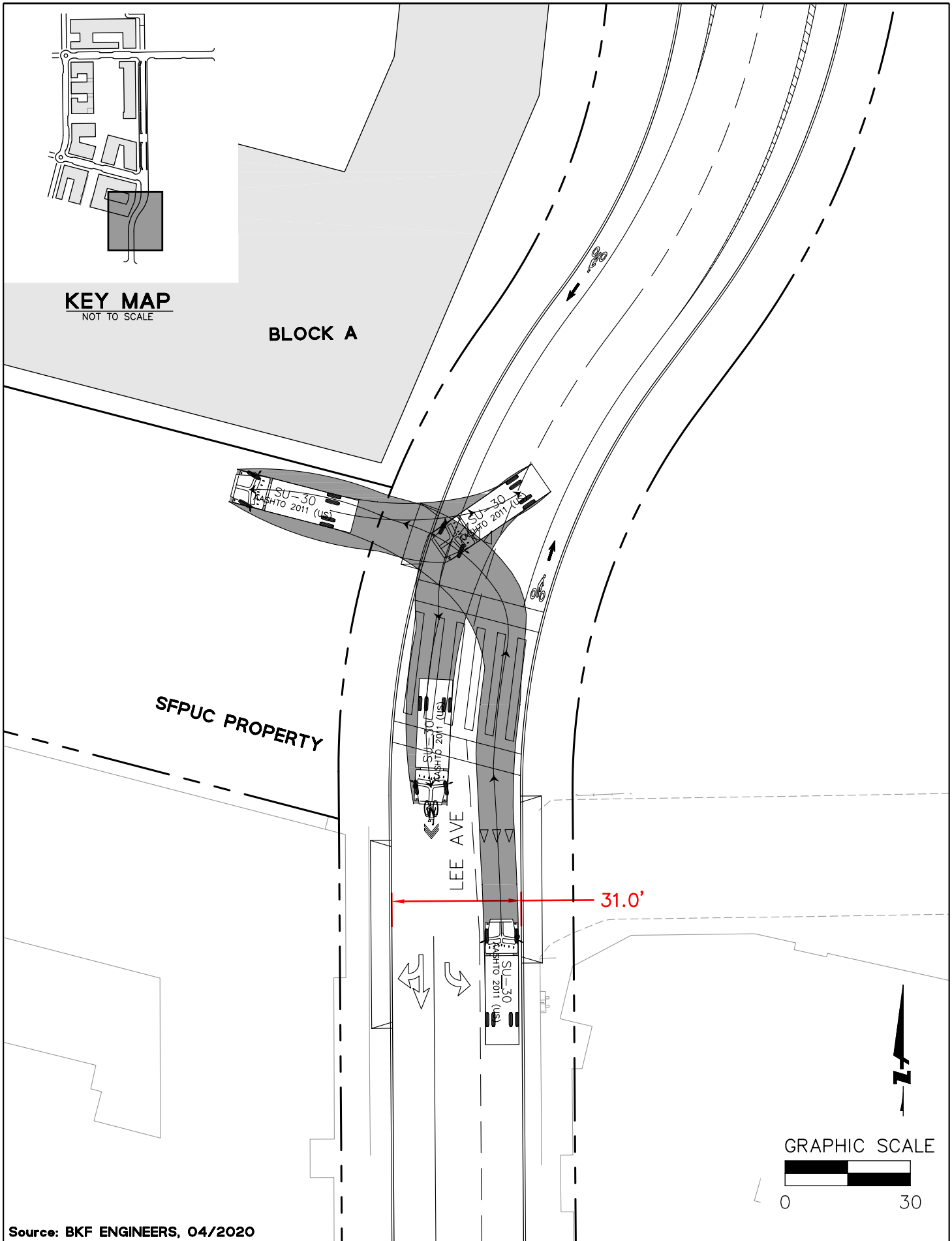


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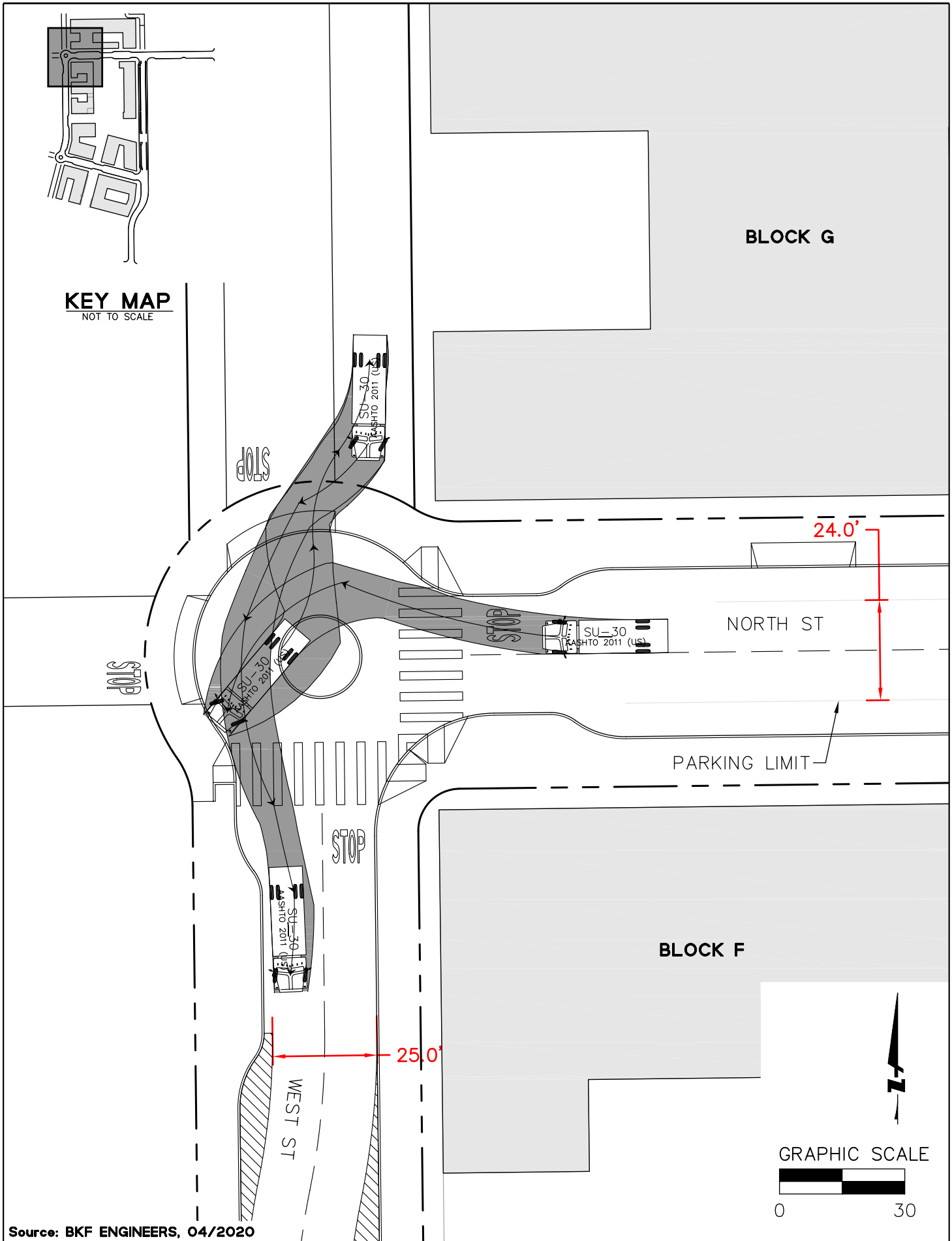


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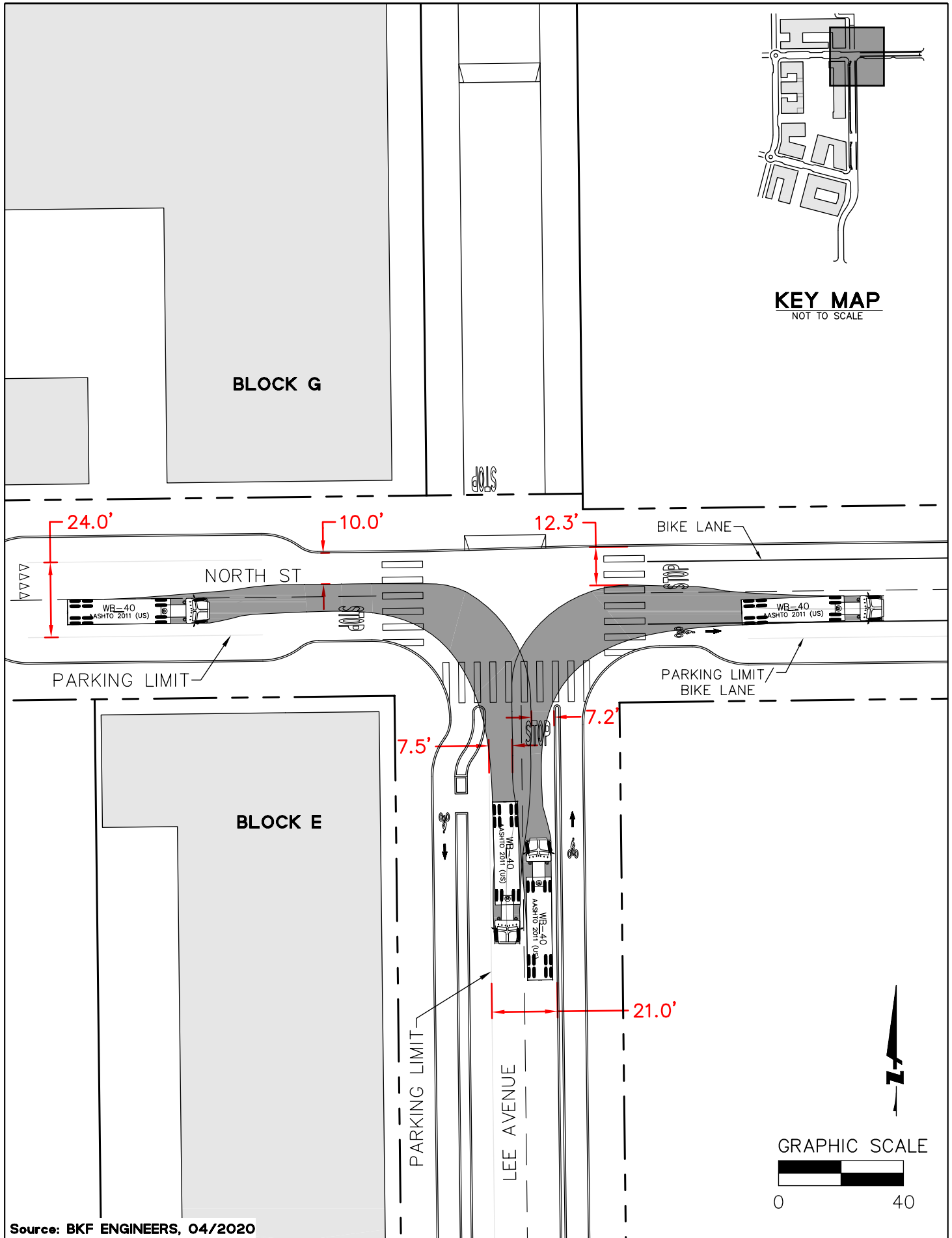
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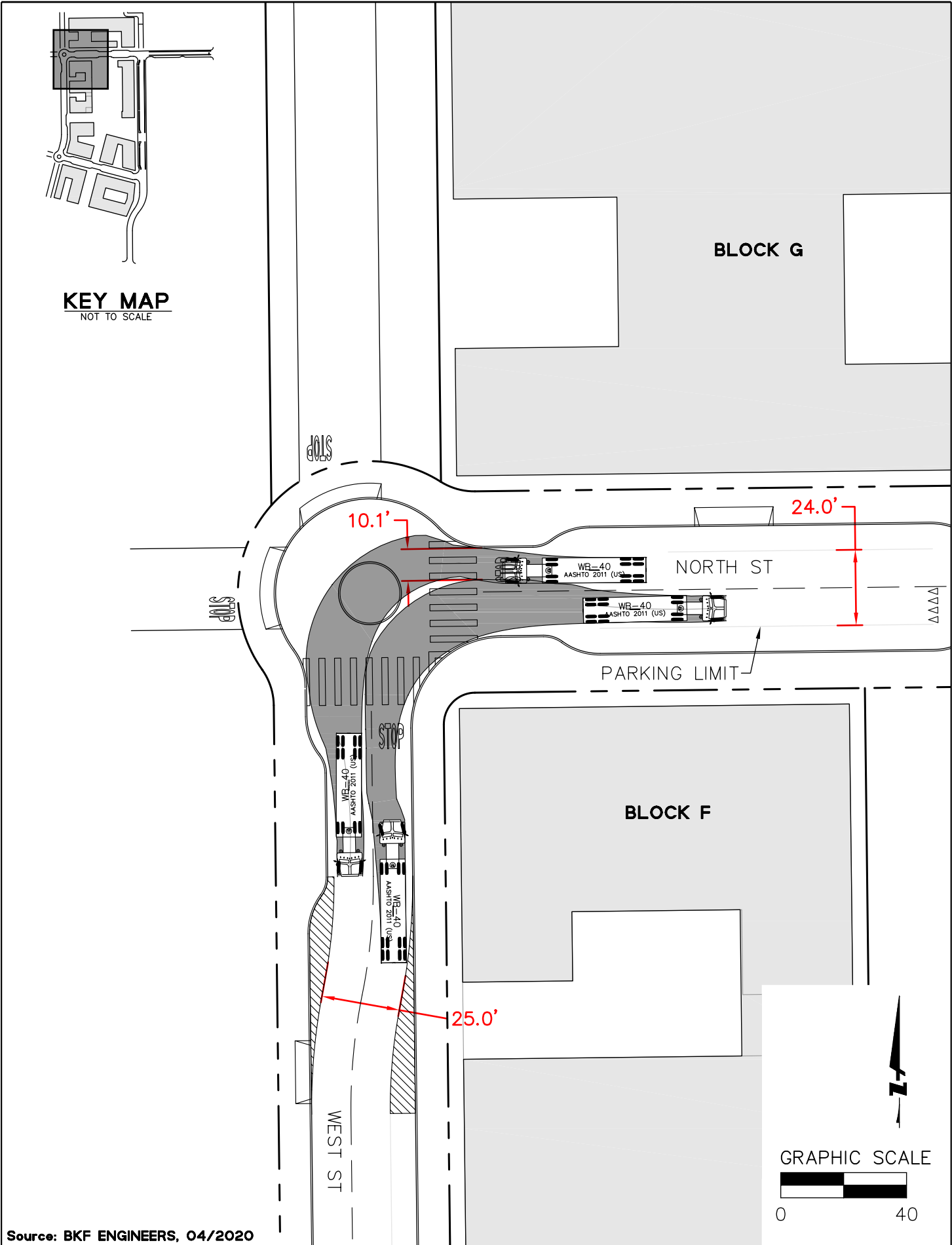


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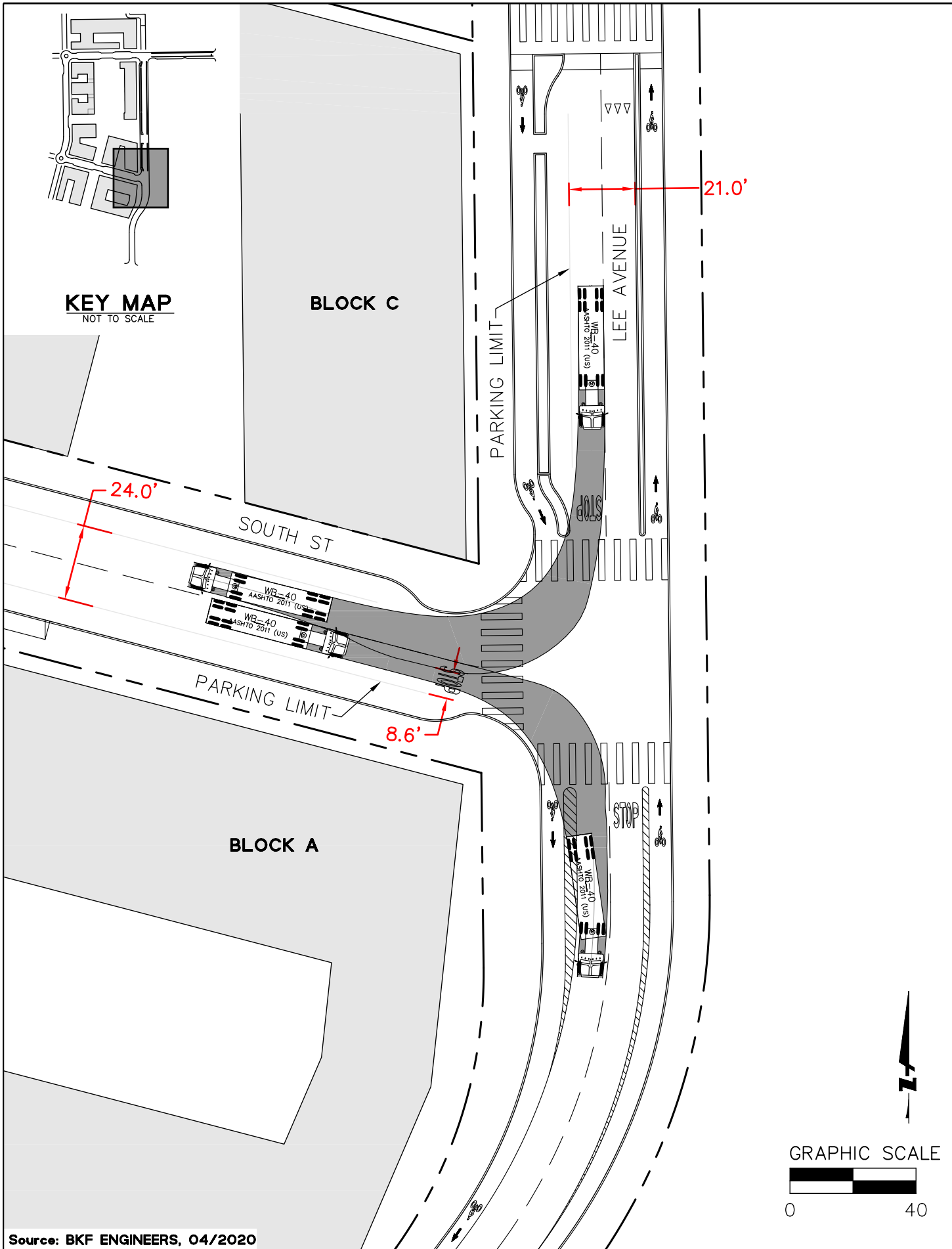
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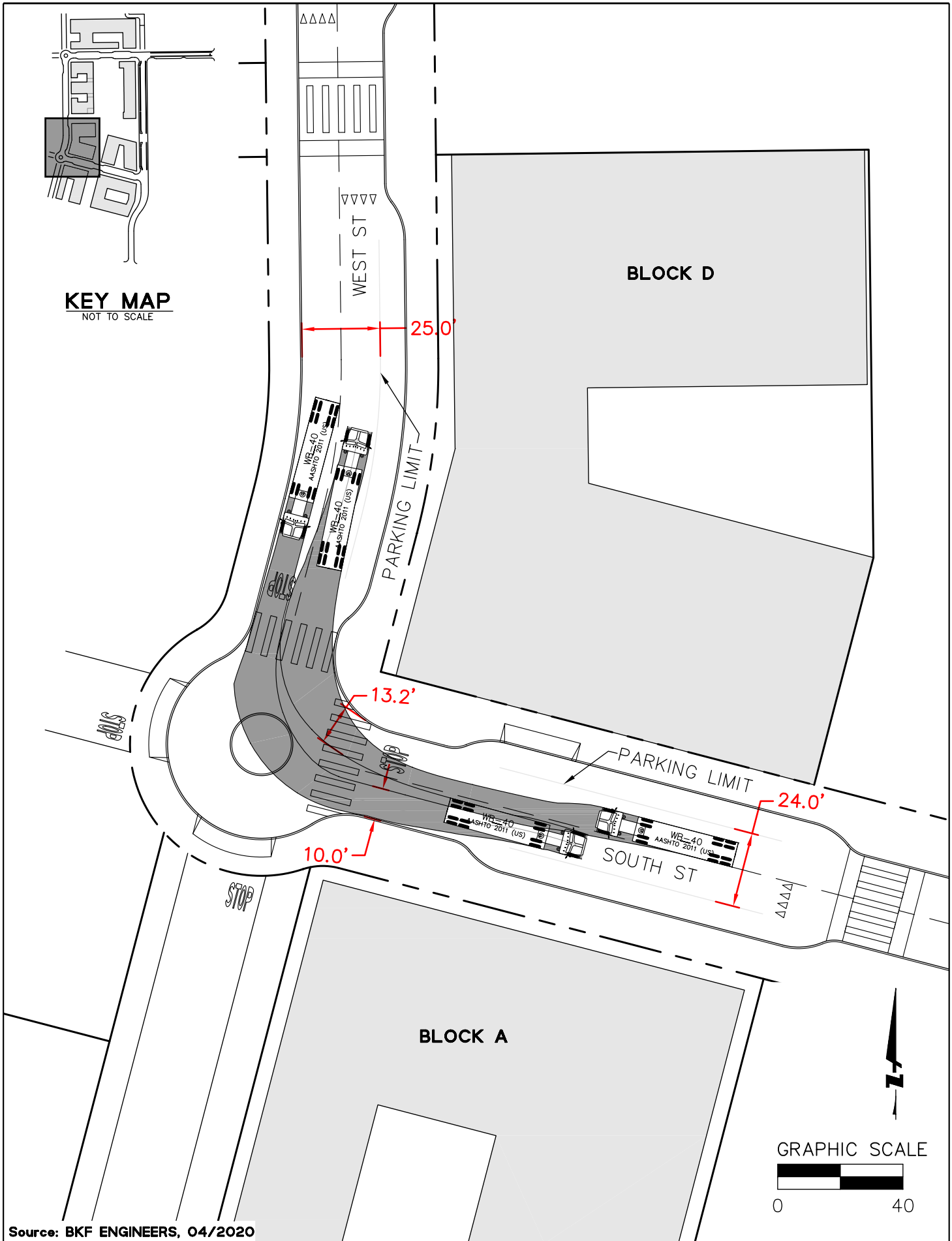


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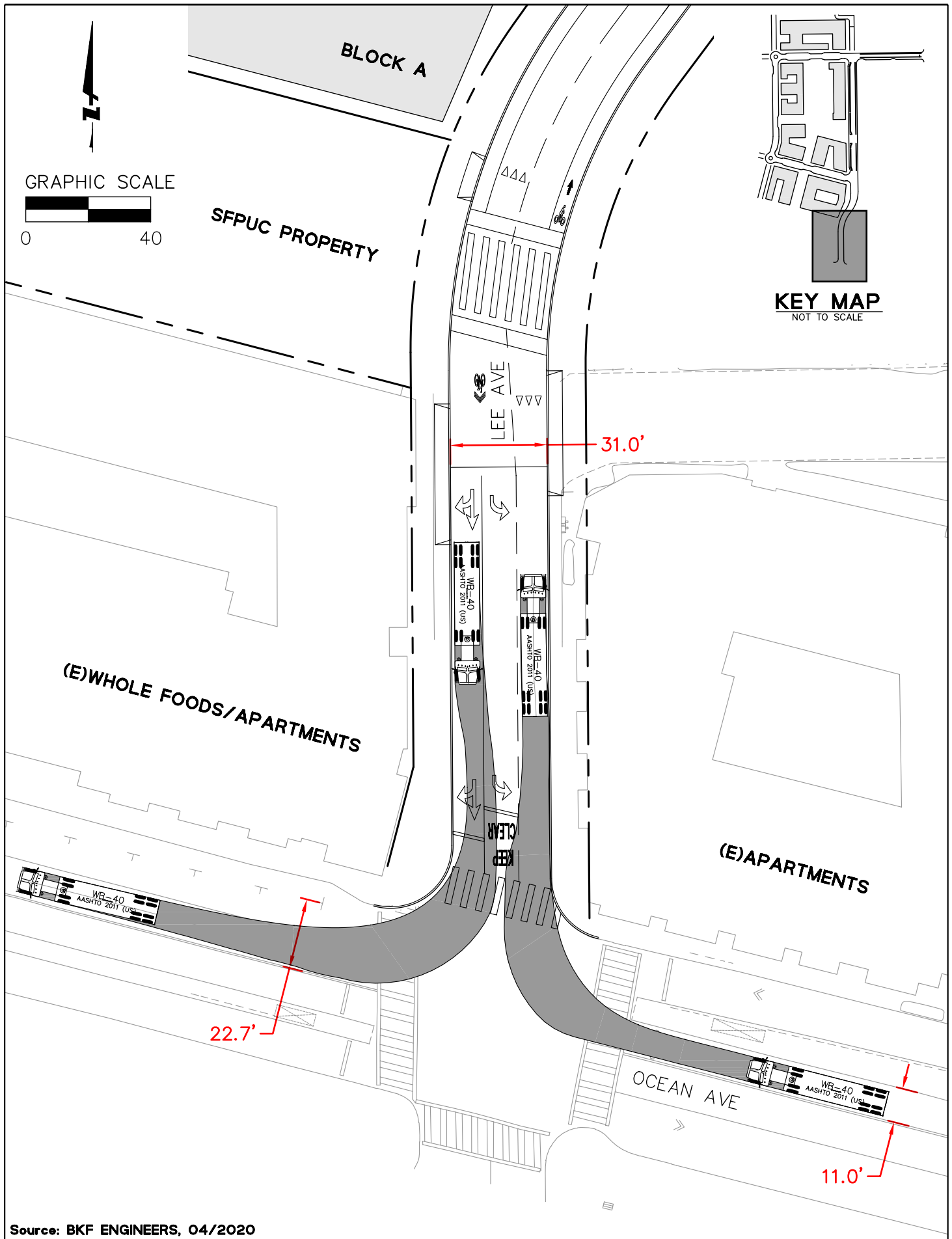


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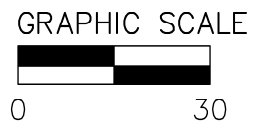
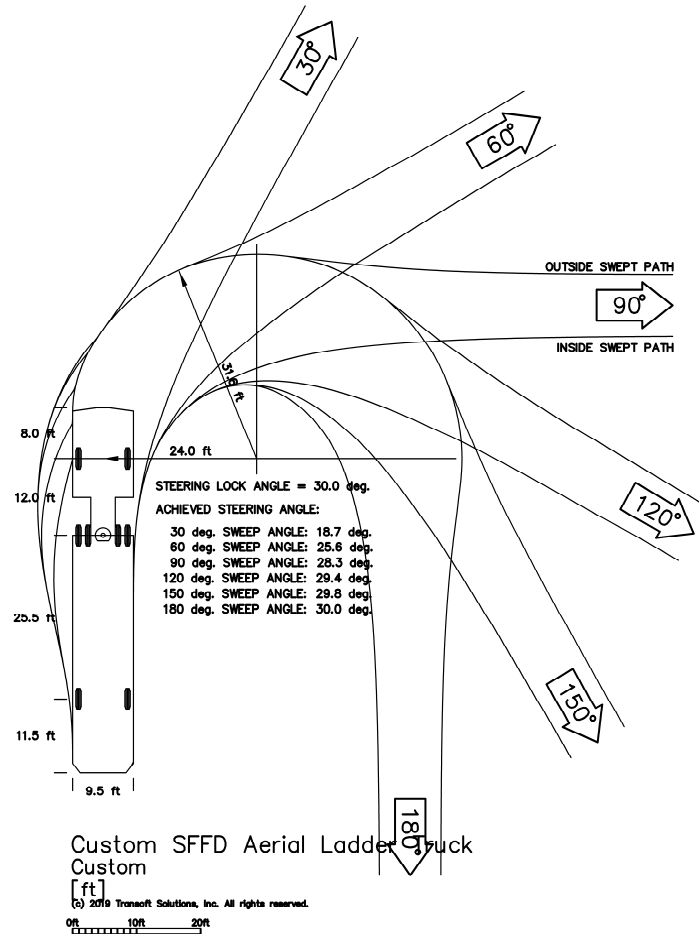
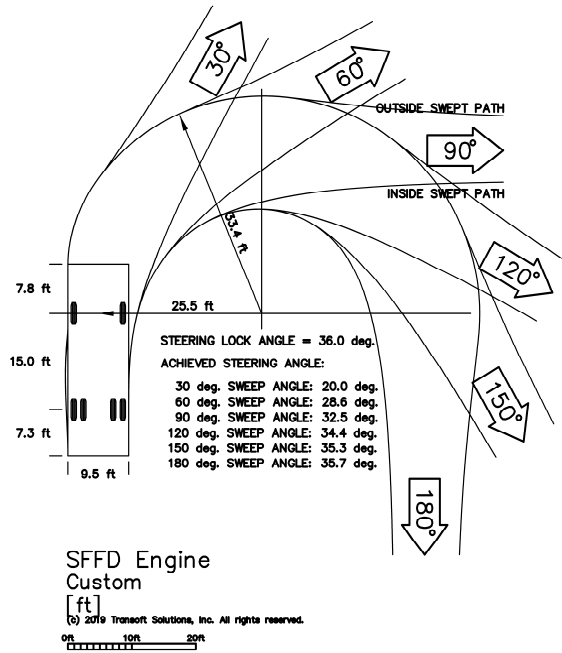
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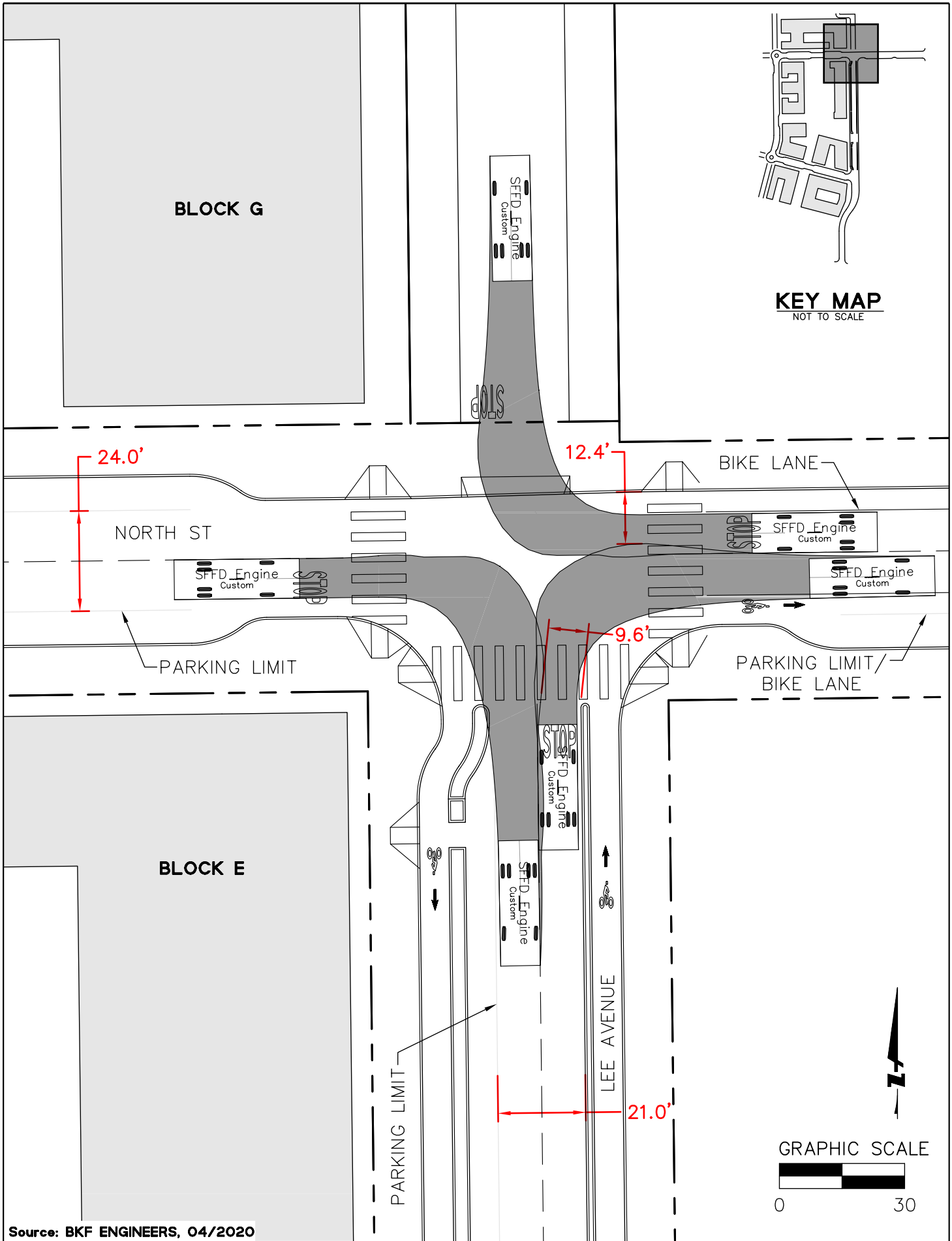
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**APPENDIX D – FIRE ENGINE AND FIRE TRUCK TURNING MOVEMENTS**

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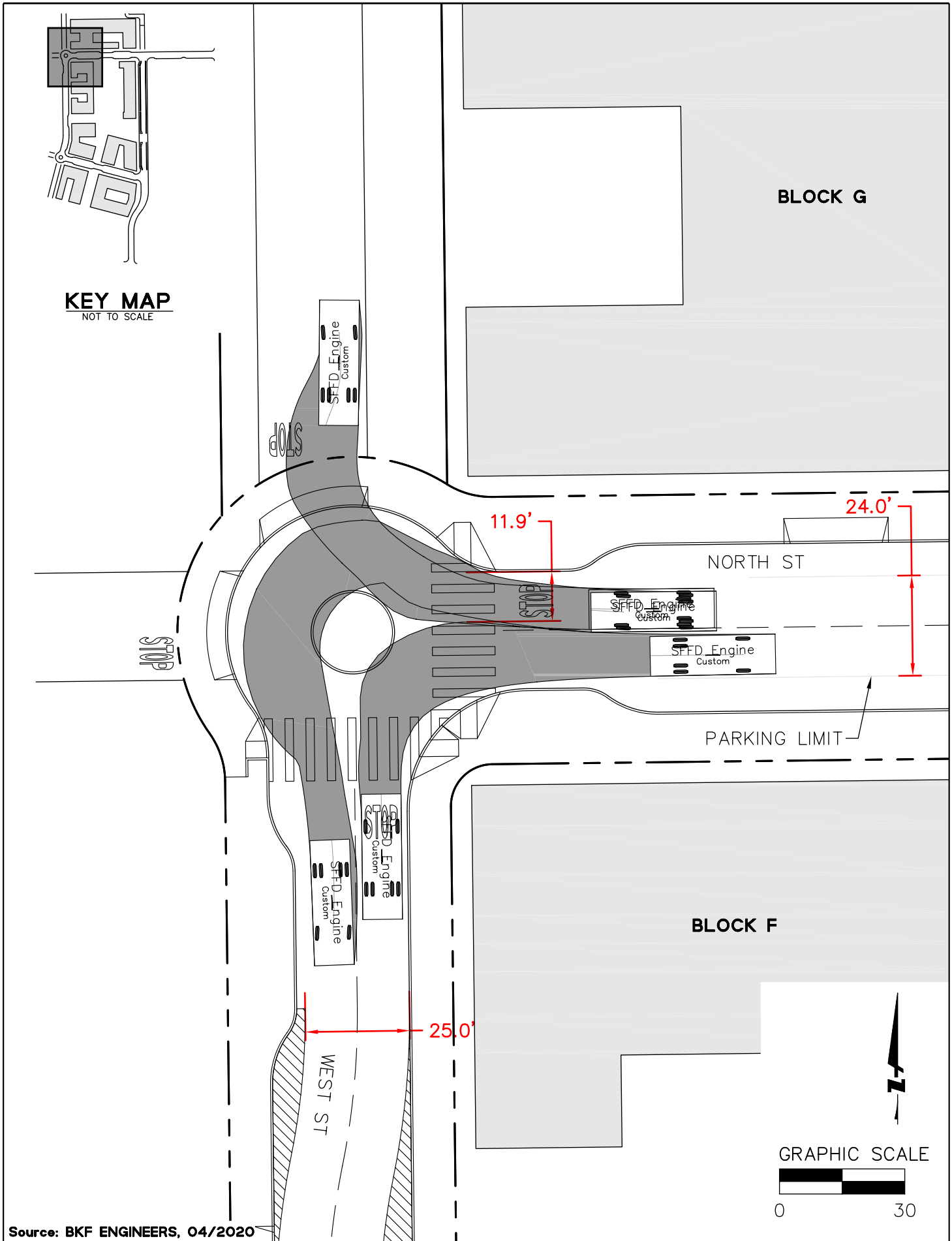


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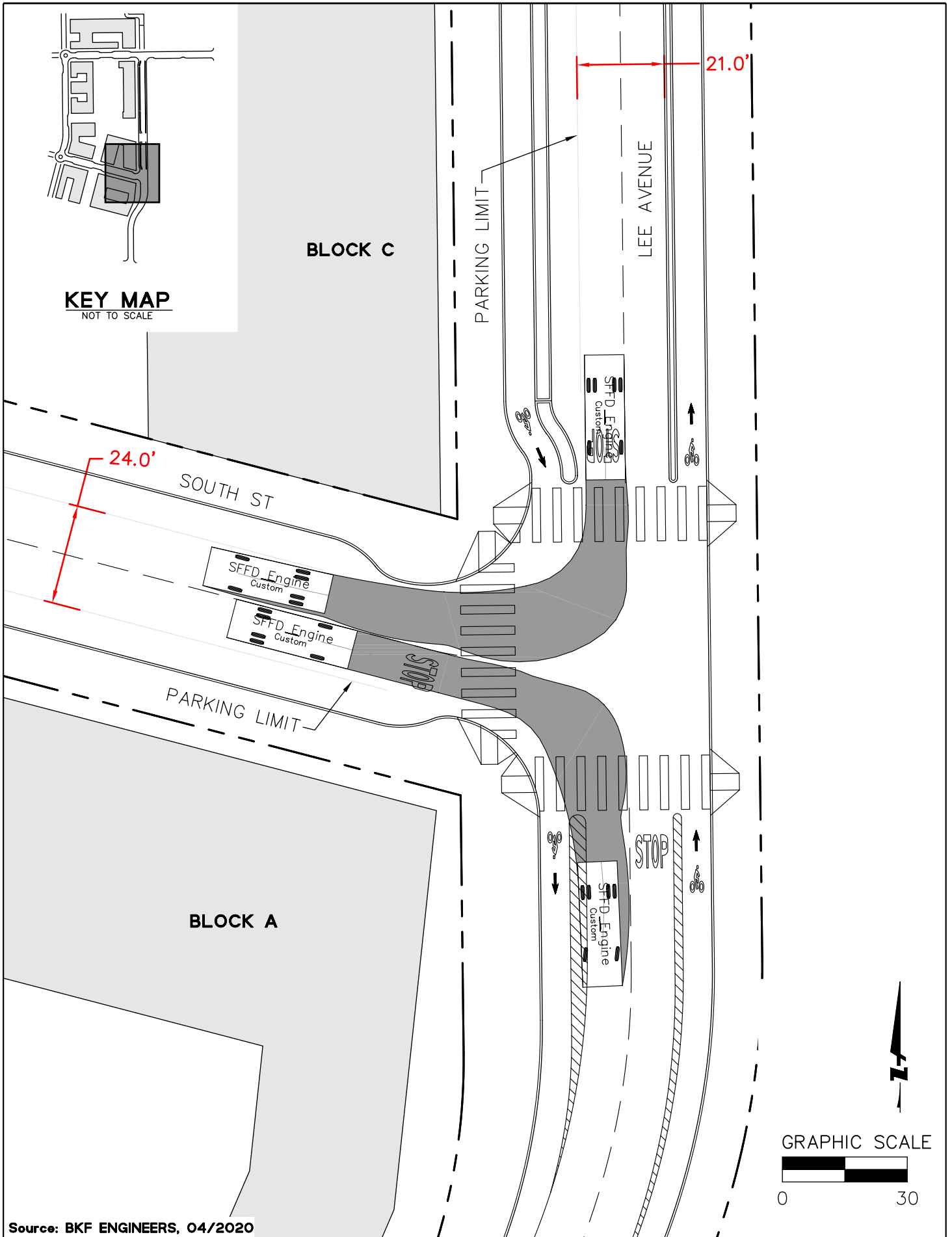
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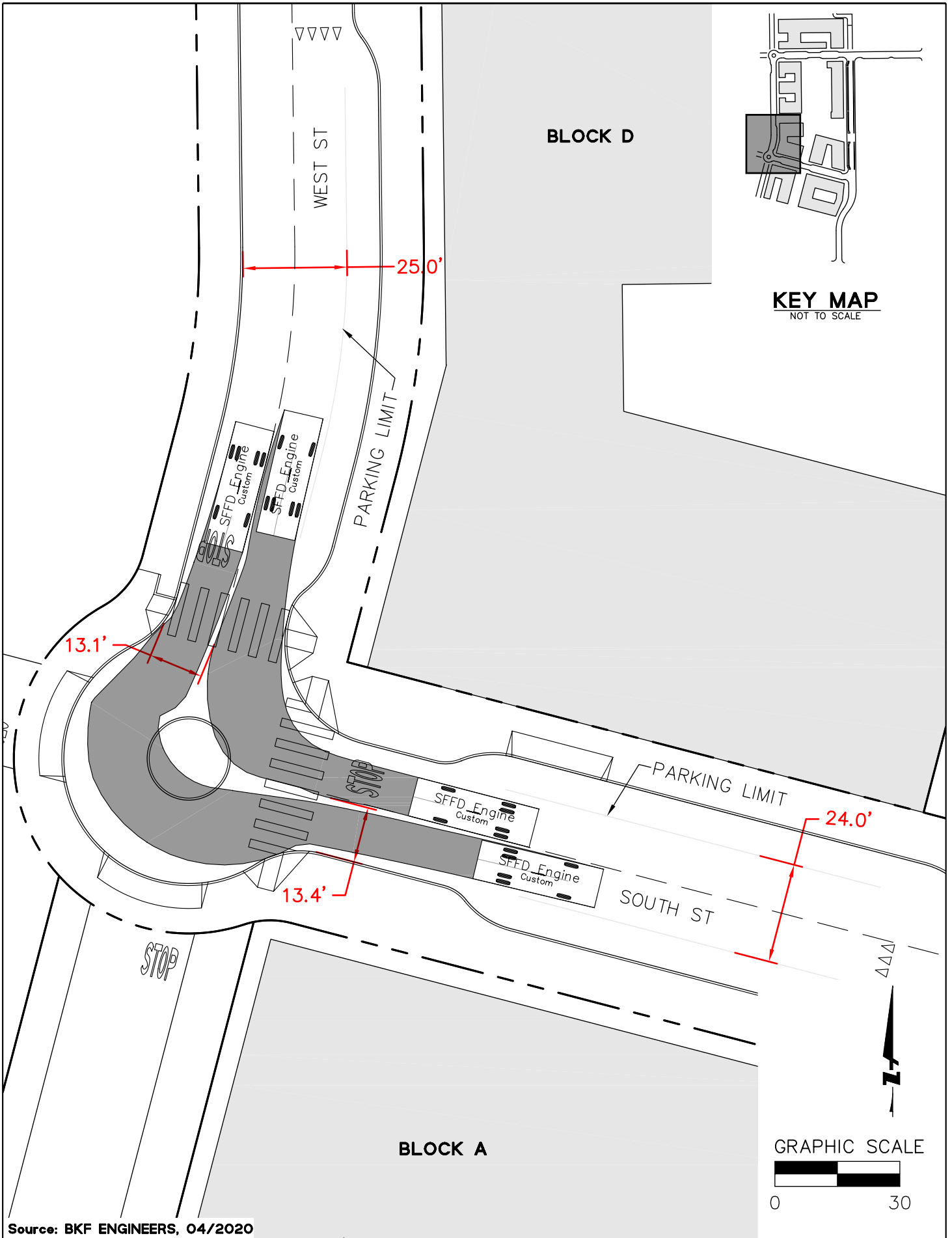


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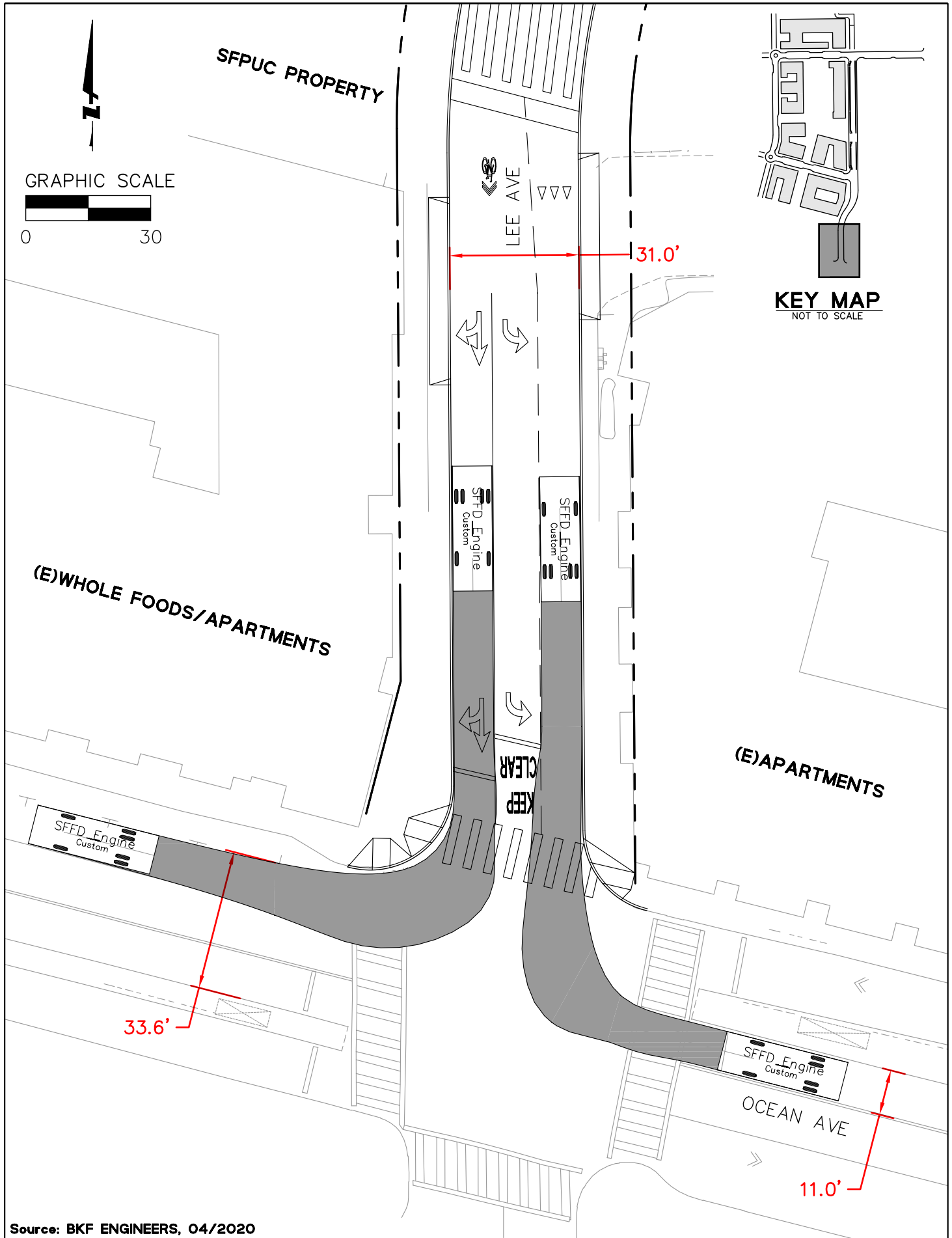
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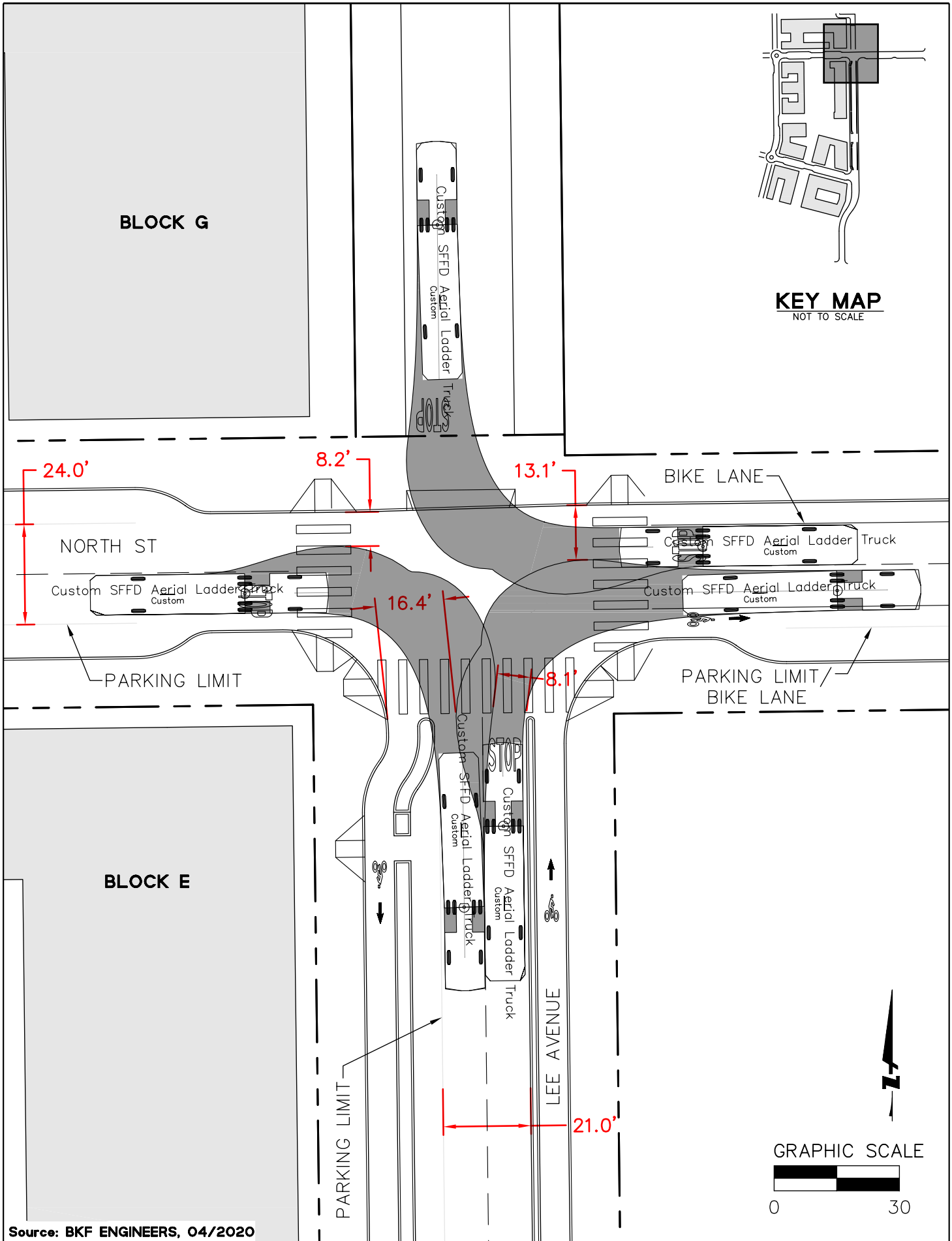
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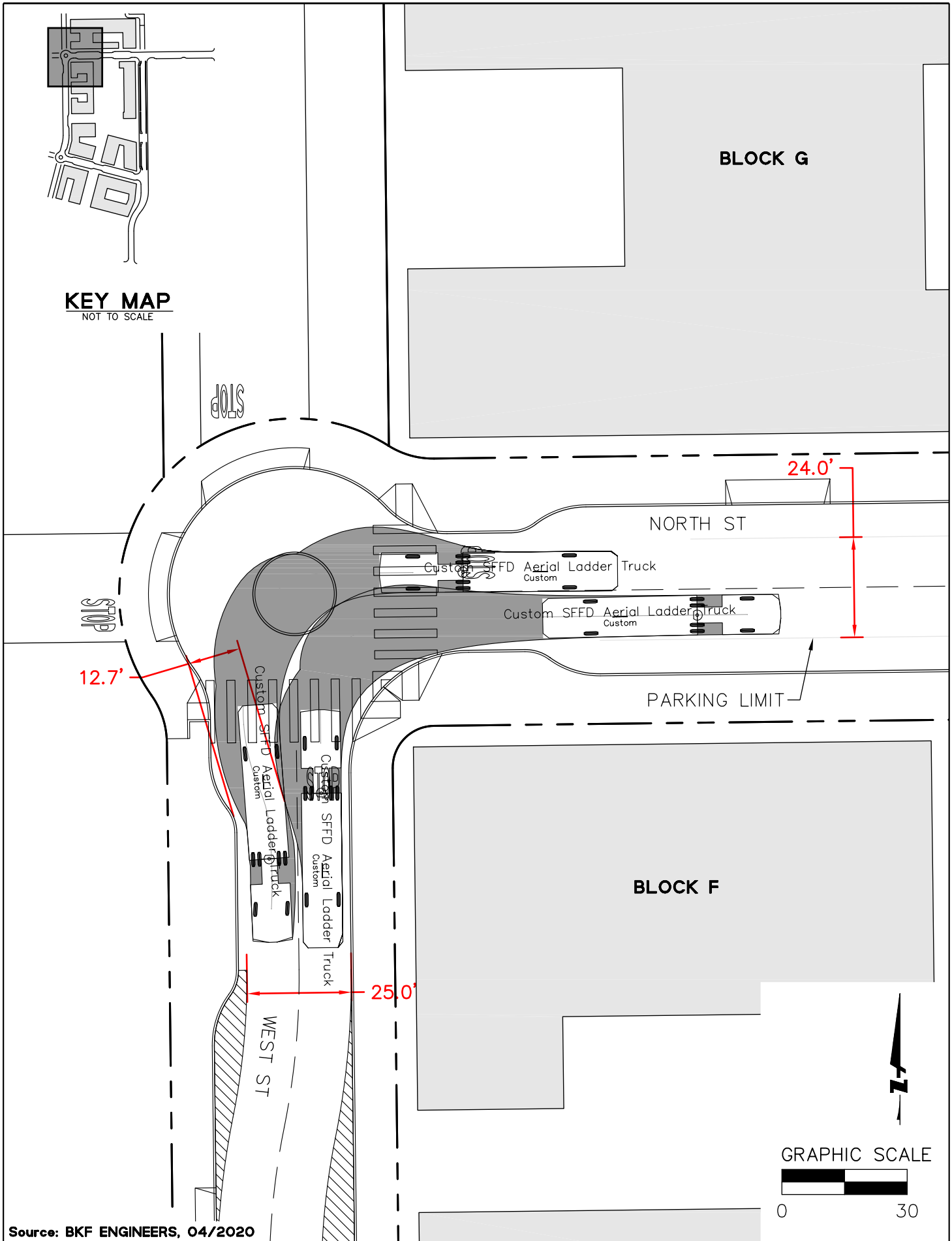


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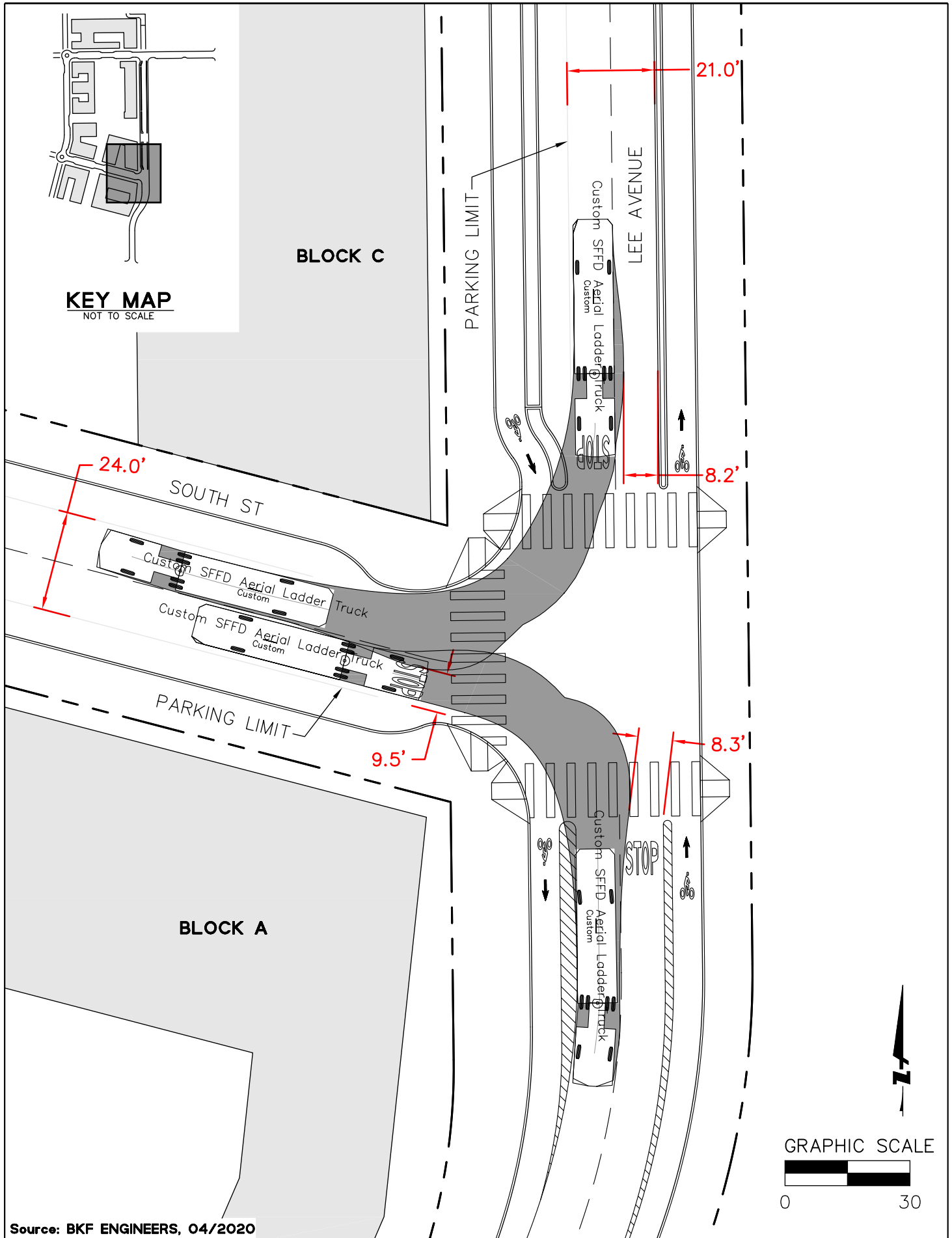


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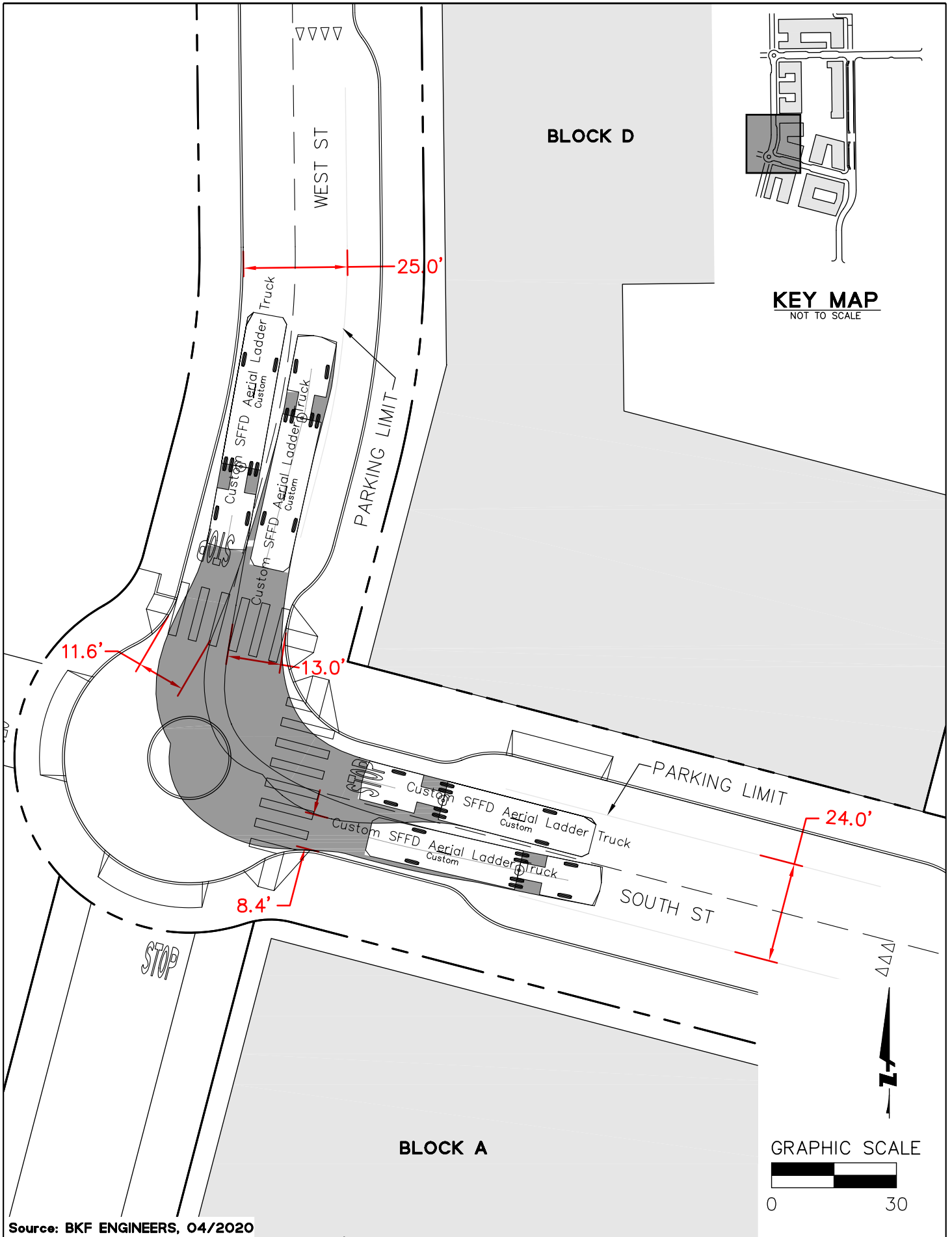
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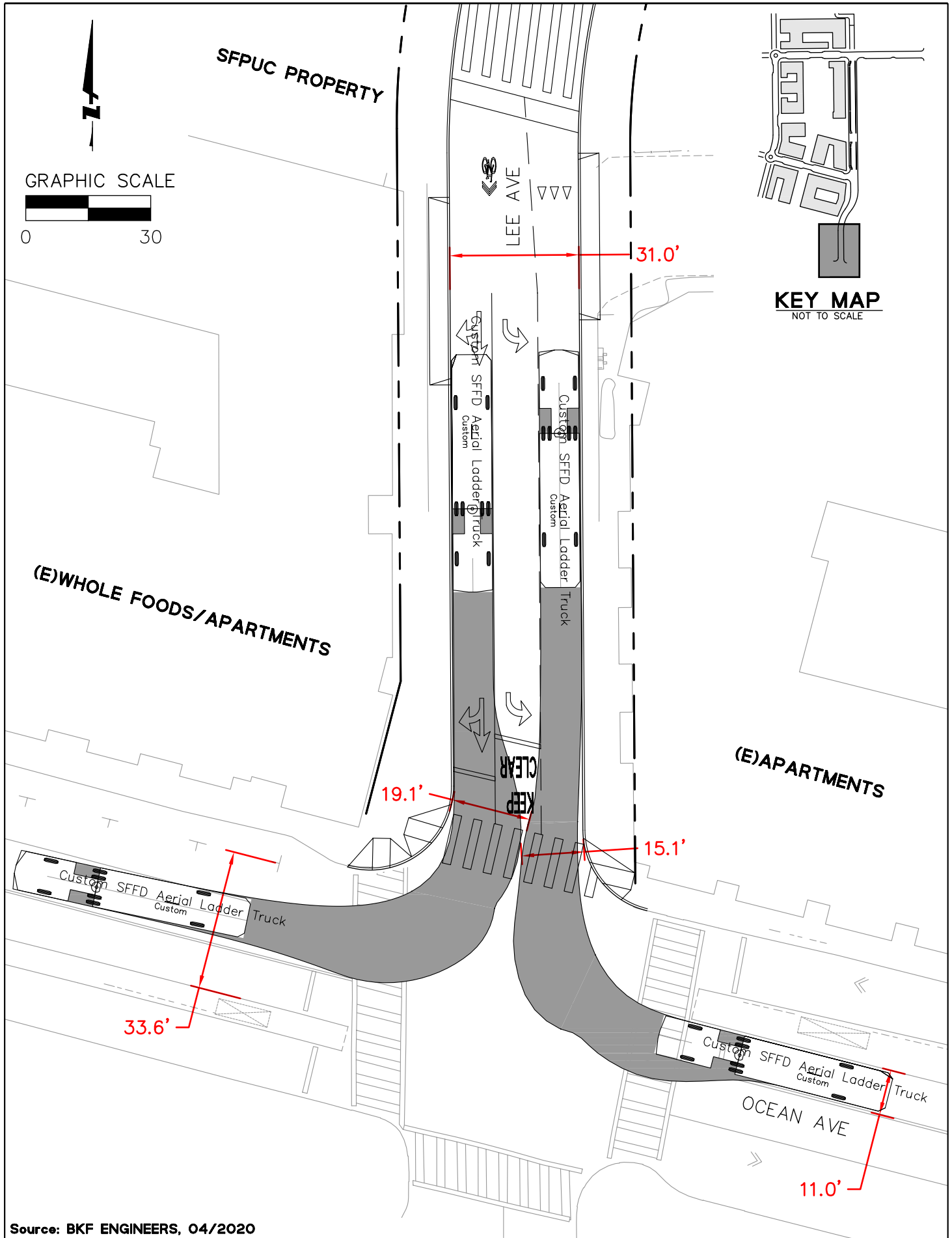
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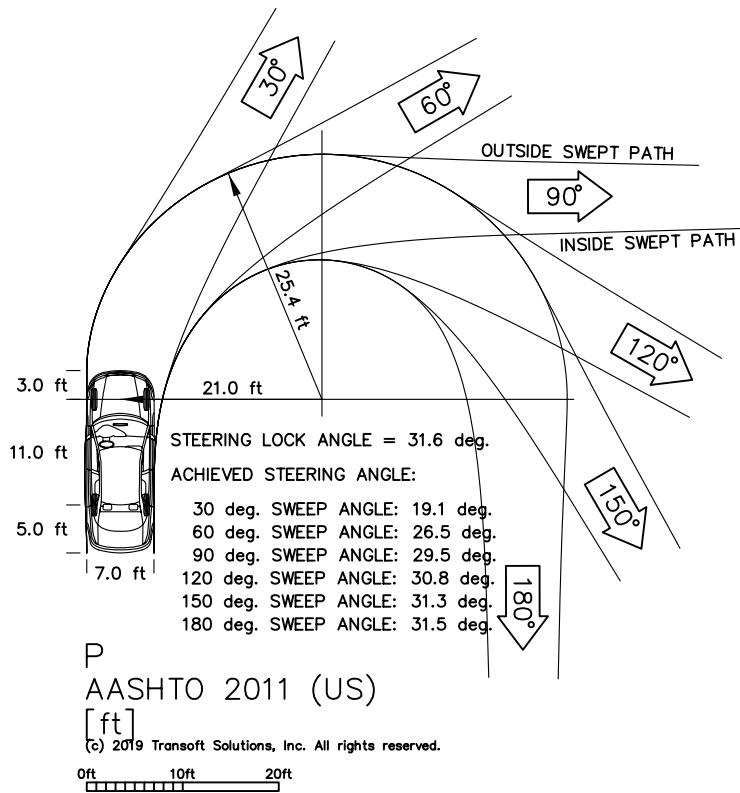
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**APPENDIX E – PASSENGER VEHICLE TURNING MOVEMENTS**

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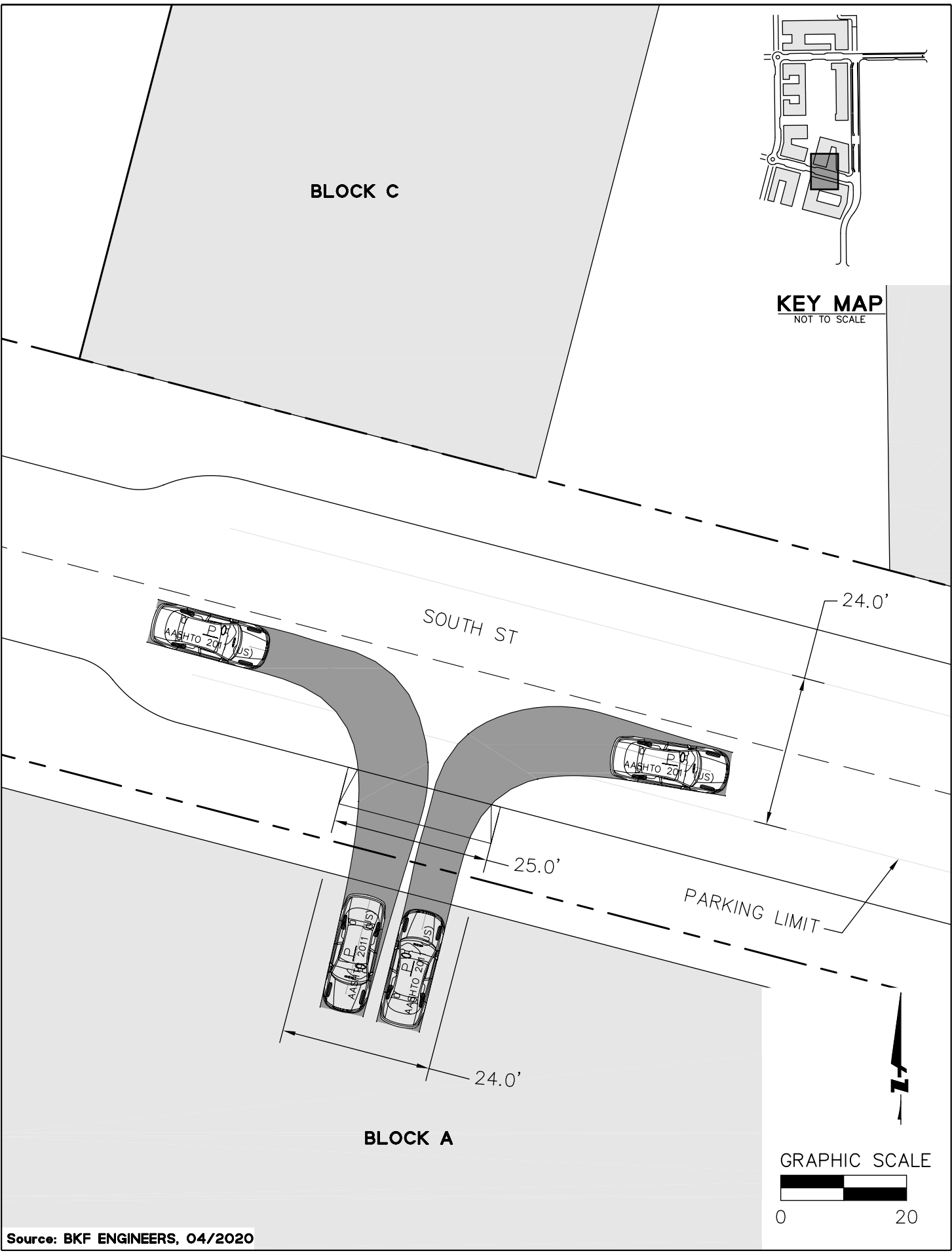


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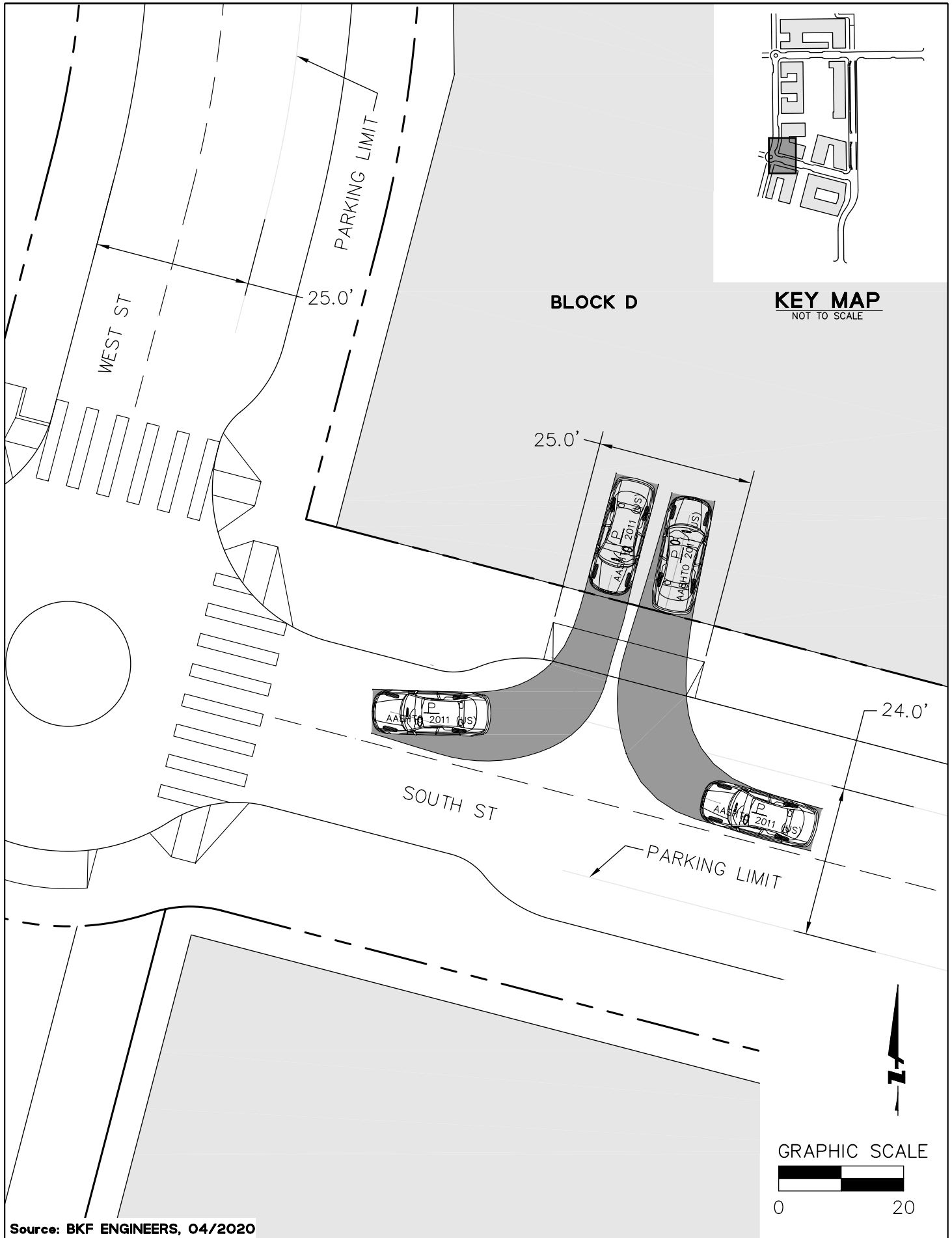
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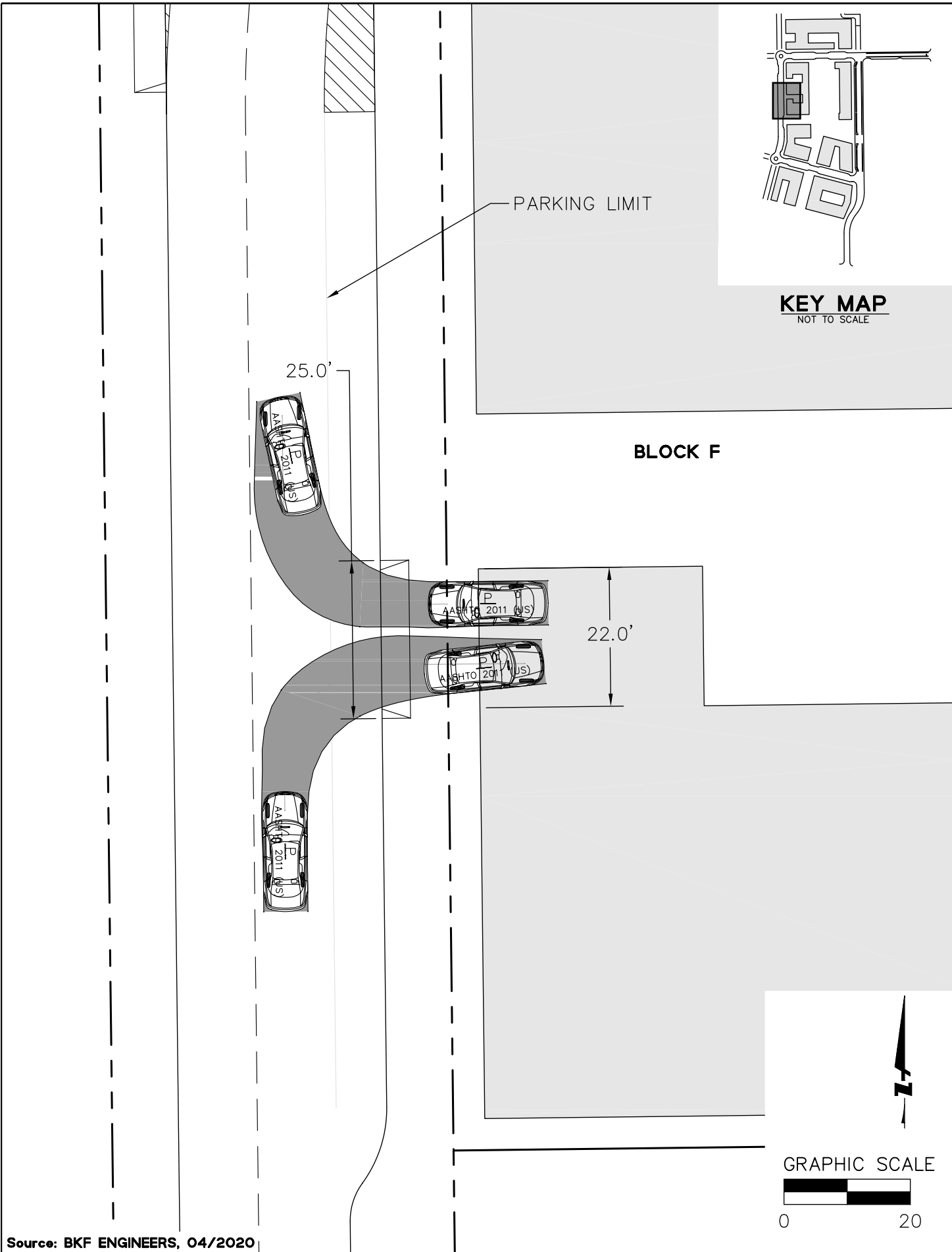
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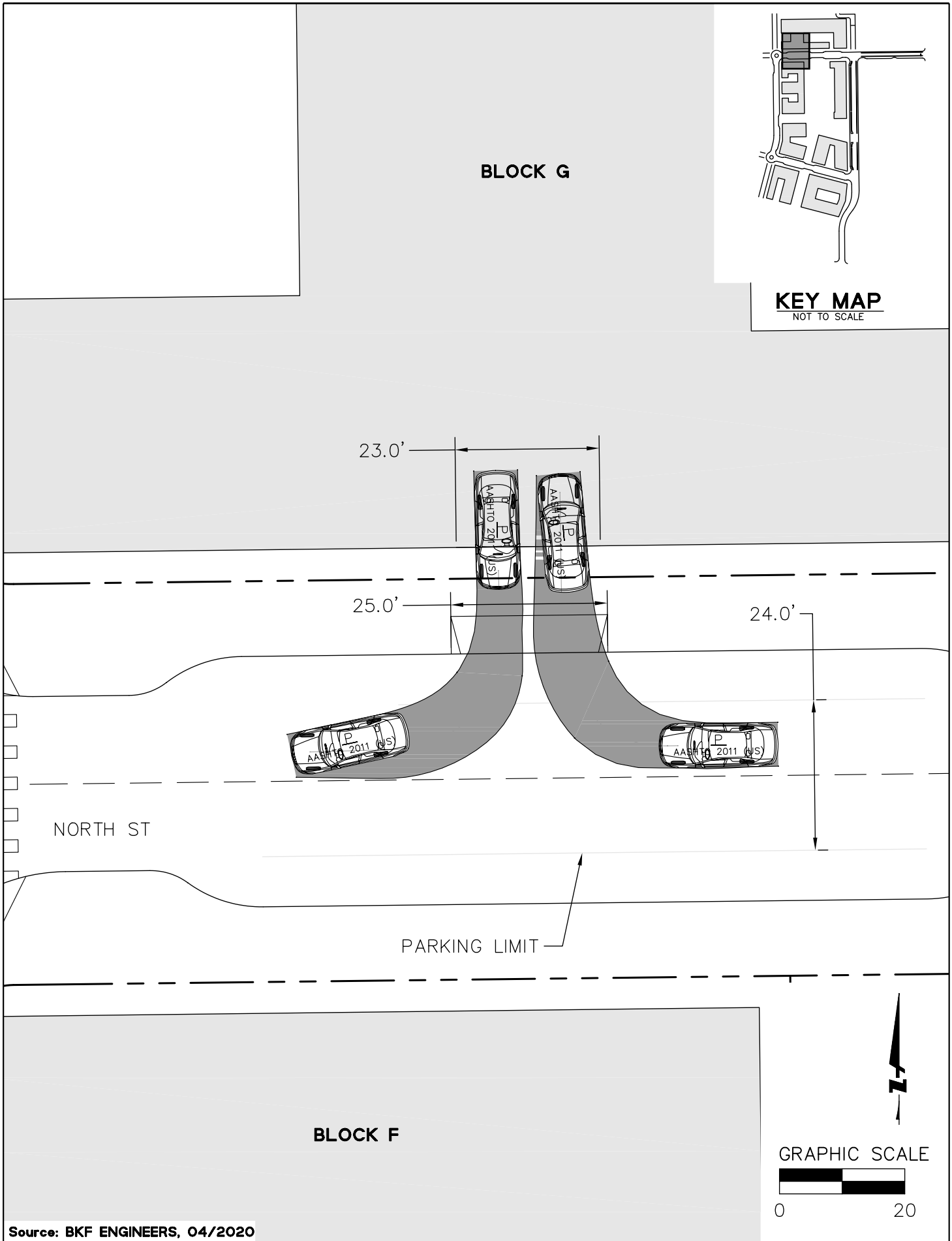
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PLOT DATE: 04-01-20 PLOTTED BY: cheh





**APPENDIX F – FIRE FLOW EVALUATION**



December 17, 2019

Ms. Karen Murray  
Van Meter Williams Pollack LLP  
333 Bryant Street, Suite 300  
San Francisco, CA 94104

## **BALBOA RESERVOIR – FIRE FLOW FIRE FLOW EVALUATION**

Dear Karen,

This letter will outline our assessment of the fire flow requirements for the planned multi-building Balboa Reservoir development project in San Francisco, California. The purpose of our assessment is to develop an estimate for fire flow required for the buildings anticipated to be on site and compare that to the anticipated fire flow available.

### **REQUIRED FIRE FLOW**

Site Fire Flow. The project anticipates approximately 7 new buildings of R-2 occupancy and 100 Townhouses of R-3 occupancy. All buildings are anticipated to be provided with sprinkler protection. No car stackers are planned. The buildings are anticipated to be built of types I-A over III-A construction, and range in height from 4 to 7 stories. The Townhouses will be Type V-A and 1800 sf each. While the design details have not yet been developed, we have looked at the various scenarios to determine what might be the most challenging fire flow requirement presented. The project will include multi-family homes with construction type III-A over Type I-A podium and Townhouses with construction type V-A. We assume fire flow will be similar for all building since they are planned to be Type III-A over Type I-A podium and of a similar size. The townhouse fire flow will be similar for all Townhouses since they are planned to be Type V-A and the same size. However, if the townhouses are combined into 3 or more units, they will become R-2 occupancy and the fire flow would have to be adjusted.

The fire flows required for building projects in San Francisco are determined from Table B105.1 in Appendix B of the 2019 California Fire Code (CFC). A weighted average of required fire flow based on Table B105.1 is calculated for Type IA and Type IIIA areas. The required fire flow for Townhouses is calculated based from Table B105.1(1) for NFPA 13 R or 13D sprinkler protected Townhouses with areas between 0-3600 sq.

Table B105.2 of the CFC allows a reduction of 75%, but not to less than a total requirement of 1,500 gallons per minute, if NFPA 13 R sprinkler protection is provided in the building (footnote a) or 1,000 gallons per minute, if NFPA 13 sprinkler protection is provided (footnote b). However, the lowest fire flow allowed by SFFD when using the sprinkler

reduction is 1,500 GPM. The weighted area and fire flow calculation for each building is presented in table below.

Bldg A	Area	% Area	Fire Flow	25%	
Type IA	72600	0.32	3000	1000	GPM
Type IIIA	155600	0.68	5750	1437.5	GPM
total	228200		<b>Weighted Ave</b>	<b>1298</b>	<b>GPM</b>

Bldg B	Area	% Area	Fire Flow	25%	
Type IA	19091	0.17	1500	1000	GPM
Type IIIA	93659	0.83	4500	1125	GPM
total	112750		<b>Weighted Ave</b>	<b>1104</b>	<b>GPM</b>

Bldg E	Area	% Area	Fire Flow	25%	
Type IA	38350	0.28	2000	1000	GPM
Type IIIA	100800	0.72	4500	1125	GPM
total	139150		<b>Weighted Ave</b>	<b>1091</b>	<b>GPM</b>

Bldg F	Area	% Area	Fire Flow	25%	
Type IA	60300	0.33	2750	1000	GPM
Type IIIA	120650	0.67	5000	1250	GPM
total	180950		<b>Weighted Ave</b>	<b>1167</b>	<b>GPM</b>

Townhouse	Area	Table	Fire Flow	
Type V-A	1800	B105.1(1)	<b>500</b>	<b>GPM</b>

Based on calculations above and the fact that a minimum 1500 GPM fire flow is required by SFFD, the required fire flow for all buildings will be 1500 GPM. Higher fire flow requirements could be applicable if sprinklers are not installed, or lesser construction types are used or car stackers are added in the future.

System Water Flows. CFC Appendix B105.3 requires the water systems at the site to be capable of supplying the required water to the fixed fire protection systems in each of the buildings, for 2 hours. Various fire protection system arrangements would require a variety of fire flows for them to function properly. We understand that flammable liquid storage rooms/warehouses and car stackers are not anticipated for the site, and storage will be limited to heights less than 12 feet. Based upon these stipulations, our opinion is that the highest fixed fire protection system water flows required would probably be those required for the following systems:

- Sprinkler systems protecting generator fuel storage rooms and similar environments.

The required water flow rates for these two scenarios would be estimated given the assumptions below:

The requirements for sprinkler systems protecting generator rooms would be similar to Extra Hazard Group 1 criteria (0.30 gpm per ft.<sup>2</sup>) over the area of the room up to an area of 2,500 ft.<sup>2</sup>. The anticipated water demand for this type of system (for the maximum remote area) could be up to approximately 1,475 GPM.

Combined Flows. In previous years the Fire Department had calculated fire flows in a manner that would require the site fire flow calculated from CFC Appendix B and the fire flow based upon the sprinkler system demands to be added together. This approach is not specifically mandated by the Code language, and the current approach enforced by the San Francisco Fire Department (SFFD) is to meet the highest demand between the two fire flows and not as a combined flow.

#### **AVAILABLE FIRE FLOW**

There are two points of connection from the existing municipal water mains to the network supplying the required fire flow for the project. The water flow information is determined by flow tests conducted by City for both water mains. Based on the location of city mains, Building A and Building B will be connected to water supply at 1110 Ocean Ave and Building E and Building F will be supplied by city main at 155 Frida Kahlo Way. The townhouses could be connected to either main, which will require some on site private piping. That piping should be designed to accommodate the required 500 gpm fire flow. The available water supply at 20 psi residual pressure calculated based on the method from NFPA Fire Protection Handbook, 18<sup>th</sup> ed, page 6-104. Calculations are as follow, based on water flow information provided by the 10/22/19 based on flow tests conducted by SFFD.

#### Frida Kahlo:

S = static pressure of 69 psi

R1= calculation of residual pressure of 51 psi

Q1= calculated flow of 947 gpm at residual of 51 psi (R1)

R2 = residual pressure of 20 psi (maximum fire flow pressure allowed per CFC Appendix B102)

Q2 = flow at residual pressure of 20 psi (R2)

$$Q2 = Q1 * ((S-R2)^{0.54} / (S-R1)^{0.54})$$

$$Q2 = 1626 \text{ gpm}$$

The available water supply of 1626 gpm exceeds the fire flow requirement of 1500 gpm.

Ocean:

S = static pressure of 80 psi

R1= calculation of residual pressure of 62 psi

Q1= calculated flow of 1197 gpm at residual of 51 psi (R1)

R2 = residual pressure of 20 psi (maximum fire flow pressure allowed per CFC Appendix B102)

Q2 = flow at residual pressure of 20 psi (R2)

$$Q2 = Q1 * ((S-R2)^{0.54} / (S-R1)^{0.54})$$

$$Q2 = 2293 \text{ gpm}$$

The available water supply of 2293 gpm exceeds the fire flow requirement of 1500 gpm.

### SUMMARY

This evaluation concludes that the water distribution system proposed for the project site must be sufficient to supply both the 1,475 GPM water requirements of the anticipated fixed fire protection systems for any building proposed, and the 1,500 GPM site fire flow as indicated in Appendix B of the CFC for the largest anticipated building proposed, but not a combination of both flows simultaneously as long as there will be no car stacker in buildings. This should comply with current fire flow standards in San Francisco and those currently enforced by SFFD.

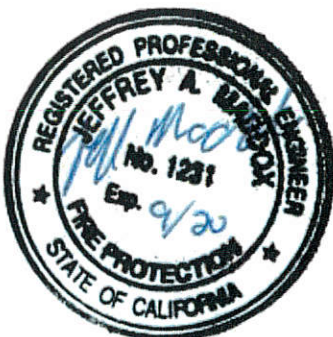
Sincerely,

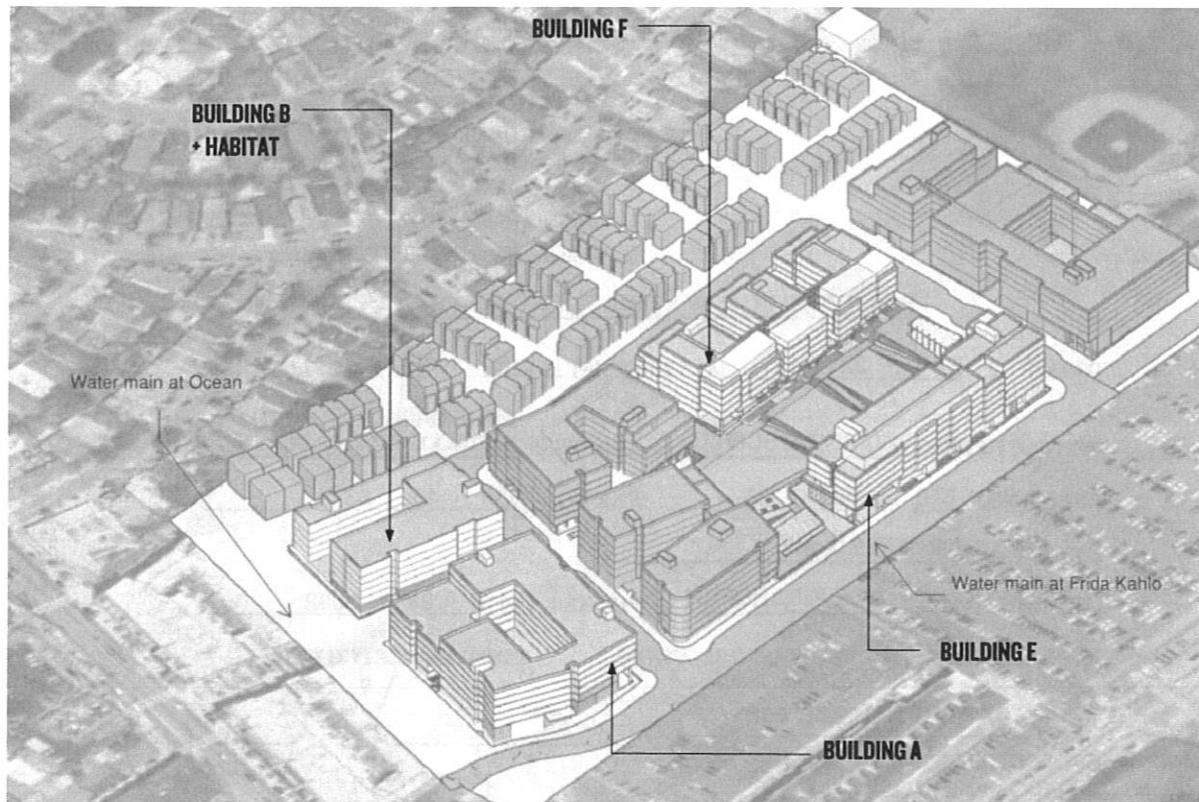


Jeffrey A. Maddox, P.E.

HS/JAM:hs

19-2283/LTHS Balboa Reservoir Site Fire Flow







SAN FRANCISCO FIRE DEPARTMENT  
BUREAU OF FIRE PREVENTION  
PLAN CHECK DIVISION/WATER FLOW  
1660 MISSION STREET, 4TH FLOOR  
SAN FRANCISCO, CA. 94103  
FAX # 415-575-6933  
Email: WaterflowSFFD@sfgov.org

**REQUEST FOR WATER FLOW INFORMATION**

DATE: 10 / 22 / 18 REQUEST IS FOR: ☒ FIRE FLOW  
☐ SPRINKLER DESIGN  
CONTACT PERSON: BRIAN SCOTT ADDRESS: 255 SHORELINE DR, SUITE 200  
REDWOOD CITY, CA 94065  
PHONE NO. ( 650 ) 482 / 6335 FAX NO. ( 650 ) 482 / 6399  
EMAIL: bscott@bkf.com  
OWNER'S NAME: JOE KIRCHOFER PHONE # ( 415 ) 284 / 9082

ADDRESS FOR WATER FLOW INFORMATION:

PROVIDE SKETCH HERE:

SE CORNER OF BALBOA  
37.727121, -122.452507 RESERVOIR  
155 Frida Kahlo Way  
CROSS STREETS (BOTH ARE REQUIRED):  
JUDSON AVE  
FRIDA KAHLO WAY / CLOUD CIRCLE  
118'  
8  
SCIENCE CIR  
FRIDA KAHLO WAY

SPECIFY STREET FOR POINT OF CONNECTION: 8" LINE ON FRIDA KAHLO WAY

OCCUPANCY (CIRCLE ONE): R3 R2 LIVE/WORK COMMERCIAL OTHER \_\_\_\_\_

HAZARD CLASSIFICATION: LIGHT ORD 1 ORD 2 EXT 1 EXT 2 OTHER \_\_\_\_\_

CAR-STACKER: YES NO

NUMBER OF STORIES: N/A HEIGHT OF BLDG.: N/A FT.

- SUBMIT FORM WITH A \$125.00 CHECK MADE PAYABLE TO 'S.F.F.D.'
- REQUESTS REQUIRING A FIELD FLOW TEST WILL BE NOTIFIED BY FAX OR EMAIL, AND AN ADDITIONAL FEE OF \$250.00 WILL BE NECESSARY.
- WATER FLOW INFORMATION WILL BE RETURNED BY FAX, MAIL, OR EMAIL.
- INCOMPLETE FORMS WILL NOT BE PROCESSED.
- PLEASE ALLOW 7-14 WORKING DAYS FOR PROCESSING.

\*\*\*\*\*Official use only\*\*\*\*\*

Flow data provided by: LAU Date Forwarded: 11/1/18

Flow data: FIELD FLOW TEST X

STATIC 69 PSI

RECORDS ANALYSIS \_\_\_\_\_

RESIDUAL 51 PSI

FLOW 947 GPM

Gate Page 178

8 " MAIN on Frida Kahlo Way

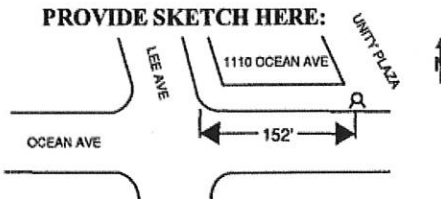




SAN FRANCISCO FIRE DEPARTMENT  
BUREAU OF FIRE PREVENTION  
PLAN CHECK DIVISION/WATER FLOW  
1660 MISSION STREET, 4TH FLOOR  
SAN FRANCISCO, CA. 94103  
FAX # 415-575-6933  
Email: WaterflowSFFD@sfgov.org

**REQUEST FOR WATER FLOW INFORMATION**

DATE: 10 / 22 / 18 REQUEST IS FOR: ☒ FIRE FLOW  
☐ SPRINKLER DESIGN  
CONTACT PERSON: BRIAN SCOTT ADDRESS: 255 SHORELINE DR, SUITE 200  
REDWOOD CITY, CA 94065  
PHONE NO. ( 650 ) 482 / 6335 FAX NO. ( 650 ) 482 / 6399  
EMAIL: bscott@bkf.com  
OWNER'S NAME: JOE KIRCHOFER PHONE # ( 415 ) 284 / 9082  
ADDRESS FOR WATER FLOW INFORMATION: 1110 OCEAN AVE  
CROSS STREETS (BOTH ARE REQUIRED):  
HAROLD  
OCEAN AVE / LEE AVE  
SPECIFY STREET FOR POINT OF CONNECTION: 12" LINE ON OCEAN AVE  
OCCUPANCY (CIRCLE ONE): R3 R2 LIVE/WORK COMMERCIAL OTHER \_\_\_\_\_  
HAZARD CLASSIFICATION: LIGHT ORD 1 ORD 2 EXT 1 EXT 2 OTHER \_\_\_\_\_  
CAR-STACKER: YES NO  
NUMBER OF STORIES: N/A HEIGHT OF BLDG.: N/A FT.



- SUBMIT FORM WITH A \$125.00 CHECK MADE PAYABLE TO 'S.F.F.D.'
- REQUESTS REQUIRING A FIELD FLOW TEST WILL BE NOTIFIED BY FAX OR EMAIL, AND AN ADDITIONAL FEE OF \$250.00 WILL BE NECESSARY.
- WATER FLOW INFORMATION WILL BE RETURNED BY FAX, MAIL, OR EMAIL.
- INCOMPLETE FORMS WILL NOT BE PROCESSED.
- PLEASE ALLOW 7-14 WORKING DAYS FOR PROCESSING.

\*\*\*\*\*Official use only\*\*\*\*\*

Flow data provided by: LAU Date Forwarded 11/1/18

Flow data: FIELD FLOW TEST

STATIC 80 PSI

RECORDS ANALYSIS X

RESIDUAL 62 PSI

FLOW 1197 GPM

Gate Page 181

12" MAIN on Ocean



**Appendix G “Balboa Reservoir Hydrologic and Hydraulic Modeling” memo by BKF, dated  
January 9, 2020**

## TECHNICAL MEMORANDUM

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**Date:** January 9, 2020 **BKF Job No.:** C20160367-11

**Deliver To:** Craig Freeman, SFPUC

**From:** Erik Moreno, BKF Engineers  
Lindsey Carmona, BKF Engineers

**Subject:** **Balboa Reservoir**  
**Hydrologic and Hydraulic Modeling**

---

Balboa Reservoir is a 17-acre site in San Francisco bounded by City College campus to the east, multi-family housing and retail on Ocean Avenue to the south, Westwood Park neighborhood to the west, and Riordan High School to the north. Balboa Reservoir is proposed to be developed (the Project).

The Project is subject to the Stormwater Management Requirements (SMR) and shall provide stormwater best management practices (BMPs) to reduce the 2-year, 24-hour peak runoff rate and total runoff volume from the Project (i.e. runoff from on-site areas only) by 25%. Herein, this is referred to as the 2-year storm requirement.

There are capacity limitations in the Ocean Avenue combined sewer system. Therefore, the Project may not increase the peak discharge to the Ocean Avenue sewer system in the 5-year, 3-hour and 100-year, 3-hour storm events. Herein, this is referred to as the 5-year and 100-year storm requirement.

This memorandum has been prepared to document the hydrologic and hydraulic modeling, and to present two alternatives for the project that will meet these requirements. Alternative 1 uses only green infrastructure, and alternative 2 uses a combination of green infrastructure and traditional stormwater detention.

### Assumptions

The following assumptions were made to develop the existing and proposed conditions model:

- Sewer System geometry developed using:
  - Ocean Avenue Combined Sewer System (CSS) provided by SFPUC;
  - As-built drawings;
  - Estimated pipe slopes (1% assumed).
- Green infrastructure assumed to be a single, vertical wall bioretention planter:
  - 6" ponding depth;
  - 1 in/hr infiltration rate
- Detention system assumed to be off-line vaults separated from the main with a side weir and with orifice controls to throttle discharge to the sewer main.
- Existing 6' x 6' storm drain structure at Node C-010, downstream of 72" pipe in East system is shown on survey and may contain orifice controls. Due to insufficient information, 6' x 6' structure not modeled.
- NAVD88 vertical datum.
- All impervious area is assumed to be directly connecting (no composite curve number).

### **Drainage Systems**

In existing conditions, the Project site may be split into two drainage systems (West and East), each with a separate connection to the combined sewer under Ocean Avenue. The East system captures runoff from off-site areas (areas not impacted by the Project). The West system does not include runoff from any off-site areas. Refer to Exhibit 1.

Table 1. Existing Drainage System Areas

Drainage System	On-site Area <i>Acres</i>	Off-site Area <i>Acres</i>	Total Area <i>Acres</i>
West System	14.5	0.0	14.5
East System	2.4	7.2	9.6

In the proposed conditions, additional area is added to the West system, and a portion of the West system is diverted to the East system. Refer to Exhibit 2.

Table 2. Proposed Drainage System Areas

Drainage System	On-site Area <i>Acres</i>	Off-site Area <i>Acres</i>	Total Area <i>Acres</i>
West System	14.3	0.0	14.3
East System	4.3	7.0	11.3

### **Existing Runoff**

Runoff from the West system in existing conditions is significantly attenuated by two undersized pipes. The pipes are both 12-inch diameter, relatively flat and are the only outlets for the existing parking lot. The limited capacity of these pipes results in significant volume stored in the parking lot, and low discharge rates to Ocean Avenue. Runoff rates from the East system are not attenuated in existing conditions.

Table 3. Existing Conditions Flow Results

Drainage System	2-year Storm (On-site Only)		5-year Storm (On-site and Offsite)		100-year Storm (On-site and Offsite)	
	<i>cfs</i>	<i>AF</i>	<i>cfs</i>	<i>AF</i>	<i>cfs</i>	<i>AF</i>
West System	8.4	2.3	8.5	0.9	9.4	1.7
East System	3.4	0.5	17.2	0.8	28.8	1.5

### **Proposed Runoff**

Two alternatives were studied to meet the Project requirements the proposed conditions.

#### **Alternative 1 – Green Infrastructure:**

The required flow rate and volume reductions are achieved using only green infrastructure (GI), assumed to be unlined bioretention planters. For the 2-year on-site analysis, the amount of green infrastructure provided in the West system is based on preliminary site plans; the amount provided in the East system is the minimum required based on modeling. For the 5-year and 100-year requirement, additional green infrastructure area was added to reduce peak discharge to Ocean Avenue down to existing conditions. Modeling results are shown in the following tables.

Table 4. Alternative 1 – Required GI for 2-year Requirement (On-site Only)

Drainage System	Provided GI Area	2-year Peak Runoff Rate	2-year Rate Reduction	2-year Total Runoff Volume	2-year Volume Reduction
	<i>Acres</i>	<i>cfs</i>	<i>Percent</i>	<i>cf</i>	<i>Percent</i>
West System	1.1	5.9	30%	1.1	54%
East System	0.4	1.3	61%	0.3	28%

Table 5. Alternative 1 – Required GI for 5-year and 100-year Requirement (On-site and Off-site)

Drainage System	Provided GI Area	5-year Storm		100-year Storm	
		Existing Discharge Rate	Proposed Discharge Rate	Existing Discharge Rate	Proposed Discharge Rate
	<i>Acres</i>	<i>cfs</i>	<i>cfs</i>	<i>cfs</i>	<i>cfs</i>
West System	1.9	8.5	0.0	9.4	9.0
East System	0.5	17.2	17.0	28.8	28.4

#### Alternative 2 – Combination Green Infrastructure and Detention:

For this alternative, the 2-year requirement volume reduction is achieved using GI, and an off-line detention system is used to reduce the 2-year peak rate down to existing conditions. The benefit of this approach is less green infrastructure is required in the western system. For the 5-year and 100-year requirement, additional detention volume was added to reduce the peak discharge to Ocean Avenue down to existing conditions. Modeling results are shown in the following tables.

Table 6. Alternative 2 – Required GI and Detention for 2-year Requirement (On-site)

Drainage System	Provided GI Area	Provided Detention Volume	2-year Peak Runoff Rate	2-year Rate Reduction	2-year Total Runoff Volume	2-year Volume Reduction
	<i>Acres</i>	<i>AF</i>	<i>cfs</i>	<i>Percent</i>	<i>cf</i>	<i>Percent</i>
West System	0.4	0.3	6.2	26%	1.7	25%
East System	0.4	0.0	1.3	61%	0.3	28%

Table 7. Alternative 2 – Required GI and Detention for 5-year and 100-year Requirement (On-site and Off-site)

Drainage System	Provided GI Area	Provided Detention Volume	5-year Storm		100-year Storm	
			Existing Discharge Rate	Proposed Discharge Rate	Existing Discharge Rate	Proposed Discharge Rate
	<i>Acres</i>	<i>AF</i>	<i>cfs</i>	<i>cfs</i>	<i>cfs</i>	<i>cfs</i>
West System	0.4	0.9	8.5	4.5	9.4	9.2
East System	0.4	0.1	17.2	17.1	28.8	26.5

#### Storm Drain System Model

The XPSWMM 2017 dynamic hydrologic and hydraulic modeling program developed by XP Solutions was used to analyze the performance of the existing and proposed storm drain system. Santa Barbara Urban Hydrograph (SBUH) methodology is used to compute the runoff and the USEPA SWMM hydraulic computational engine to compute the one-dimensional flow through the proposed storm drain system.

The existing conditions XPSWMM model consists of two storm sewer lines that drain the east and west side of the site. The storm sewer line that drains the west side of the site connects to the existing combined sewer main in Ocean Avenue near Plymouth Avenue. The storm sewer line that drains the east side of the site connects to the same combined sewer main in Ocean Avenue near Lee Avenue.

The proposed conditions model consists of two sewer systems that serve the east and west side of the site. The model includes green infrastructure and detention facilities that are required for the project to comply with the SFPUC's Stormwater Management Requirements (per discussion above). The two proposed storm sewer lines connect to the combined sewer main in Ocean Avenue at the same location as the existing storm sewer lines.

### **Santa Barbara Unit Hydrograph Hydrologic Parameters**

#### **Rainfall**

The green infrastructure is modeled using the SFPUC's 2-year, 24-hour hyetograph. For the 5-year and 100-year requirements, the SFPUC's 5-year, 3-hour "Level of Service" storm and the 100-year, 3-hour storm hyetograph are used.

#### **Runoff Curve Number**

The curve number (CN) of a drainage area is based on the soil type and surface cover. SBUH automatically assigns a Curve Number of 98 to all impervious areas. Per the geotechnical report dated January 22, 2018 from Rockridge Geotechnical, the top layer of soil encountered in the borings taken on site were silty sand, sand with silt, and clayey sand with gravel. These soil types behave similar to type B soils. Therefore, a Curve Number of 61 was assigned to all pervious areas. This number is based on type B soils with "Open Space" land use (lawns, parks, etc.) with "Good Condition" (grass cover > 75%).

#### **Percent Impervious**

The total impervious area for each DMA was estimated based on a combination of the proposed roadway and preliminary site layout. Roof and pavement covers (i.e. asphalt, concrete, etc.) are assumed to be 100% impervious. Note that impervious area is modeled as directly connecting impervious area (i.e. a composite curve number is not computed for our analysis).

#### **Time of Concentration**

The time of concentration was calculated using the velocity methodology developed by the Natural Resources Conservation Service (NRCS). A time of concentration of 5 minutes was used for DMAs that had a calculated time of concentration less than 5 minutes, per the Santa Barbara Urban Hydrograph Methodology.

#### **Computational Time Step**

For the hydrologic analyses, a computational time step of 60 seconds was used.

### **SWMM Hydraulic Parameters**

#### **Manning's n**

Manning's n, or the roughness coefficient, is dependent on the storm drain pipe material. The existing storm drain is assumed to be vitrified clay pipe. Manning's n is 0.014 for vitrified clay. The same Manning's n was used in proposed conditions because the pipe type has not yet been determined.

#### Computational Time Step

For the hydraulic analyses, a computational time step of 10 seconds was used.

#### Green Infrastructure

A storage node representing bioretention areas was added to both the west and east systems. Both bioretention nodes have infiltration rates of 1.0 inch/hour<sup>1</sup>, and 6-inches of ponding depth before flows bypass downstream.

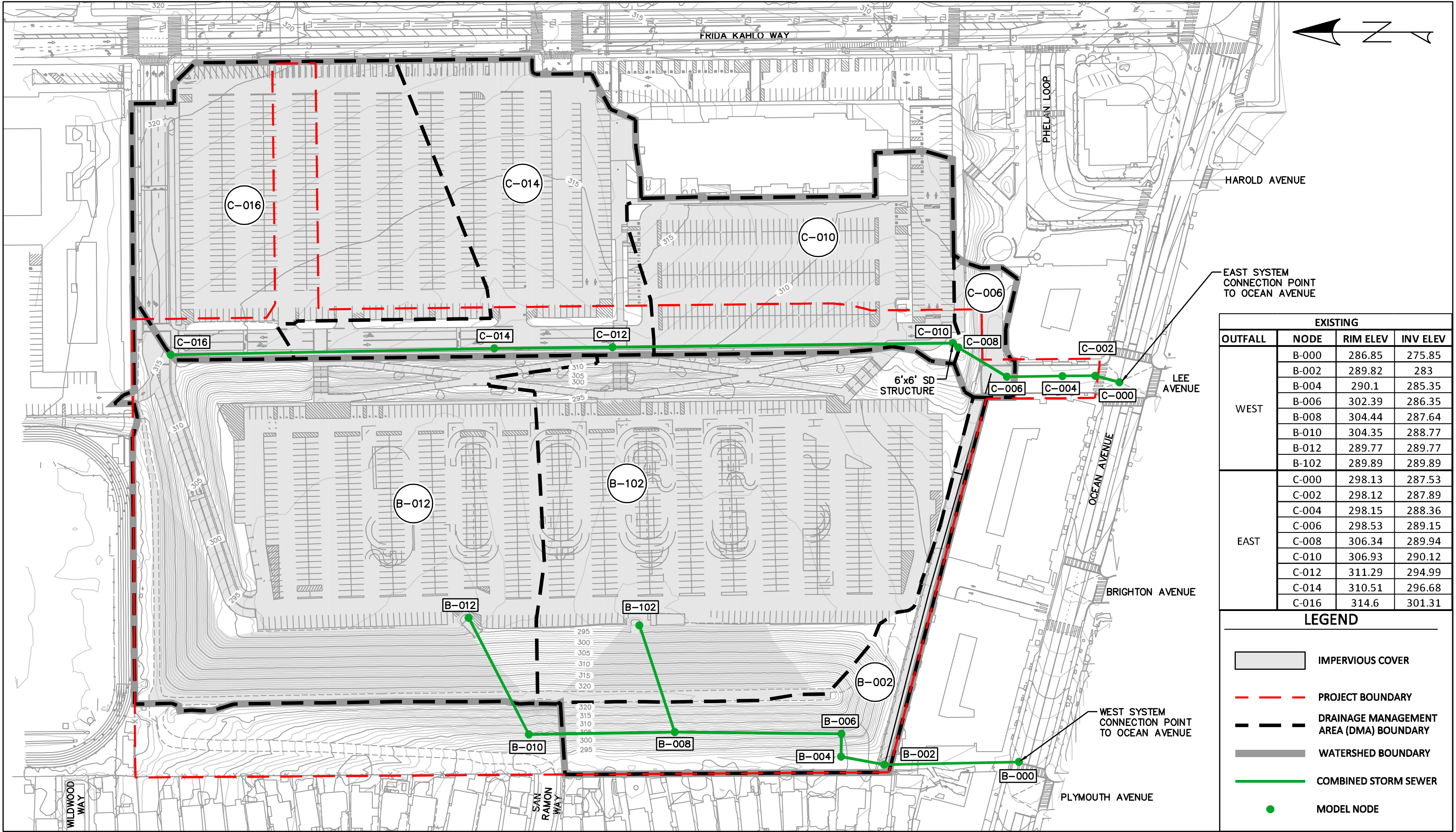
#### Detention Systems

An off-line detention node is added to the model, downstream of the Green Infrastructure. Flow is diverted to the detention node using a side weir. The crest of the side weir is set to divert the peak of the hydrograph to optimize detention volume. An orifice meters flow from the detention vault back to the storm drain main. No infiltration is modeled for the detention node.

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<sup>1</sup> Estimated based on recommendations provided by Rockridge Geotechnical through email.





EXISTING			
OUTFALL	NODE	RIM ELEV	INV ELEV
WEST	B-000	286.85	275.85
	B-002	289.82	283
	B-004	290.1	285.35
	B-006	302.39	286.35
	B-008	304.44	287.64
	B-010	304.35	288.77
	B-012	289.77	289.77
	B-102	289.89	289.89
EAST	C-000	298.13	287.53
	C-002	298.12	287.89
	C-004	298.15	288.36
	C-006	298.53	289.15
	C-008	306.34	289.94
	C-010	306.93	290.12
	C-012	311.29	294.99
	C-014	310.51	296.68
	C-016	314.6	301.31

LEGEND	
	IMPERVIOUS COVER
	PROJECT BOUNDARY
	DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY
	WATERSHED BOUNDARY
	COMBINED STORM SEWER
	MODEL NODE





PROPOSED			
OUTFALL	NODE	RIM ELEV	INV ELEV
WEST	B-000	286.85	275.85
	B-002	288.64	283
	B-004	289.18	283.54
	B-006	288.77	283.94
	B-008	288.11	284.61
	B-010	293.38	286.95
	B-012	294.24	287.58
	B-014	295.58	288.01
	B-016	300.77	289.5
	B-018	305.8	290.73
	B-020	309.79	291.73
	B-022	312	292.27
	B-024	312.21	292.68
	B-026	312.49	293.03
EAST	B-028	313.49	294.34
	B-102	299.35	289.07
	B-104	302.51	289.99
	C-000	298.13	287.53
	C-002	297	287.89
	C-004	297.21	288.36
	C-006	297.56	289.15
	C-008	297.66	289.37
	C-010	299.92	290.07
	C-012	302.99	290.73
	C-014	305.24	291.54
	C-016	307.82	293.29
	C-018	312.12	295.33
	C-020	312.81	297.35
	C-022	313.5	299.49
	C-024	313.68	299.95
	C-102	313.47	300.01
	C-104	313.76	300.95
	C-202	313.52	299.89
	C-204	316.07	301.49

**LEGEND**

- IMPERVIOUS COVER
- PROJECT BOUNDARY
- DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY
- WATERSHED BOUNDARY
- COMBINED STORM SEWER
- MODEL NODE



Balboa Reservoir Project Review Comment Form

Submittal: Balboa Res H&H Modeling  
File Dates: version 10/25/19; received 10/29/19

Comment Type Category:

Response Date:	12/18/2019	G - General
Agency / Dept:	SFPUC WWE	T - Technical
Primary Contact:	Craig Freeman	E - Editorial
		C - Coordination

Response Code:

- 1 - Accepted - Will comply
- 2 - Accepted - Action completed
- 3 - Discussion or clarification required
- 4 - Unacceptable for reasons given

REVIEW						RESPONSE			
Comment No.	Reviewer	Comment Type	Reference (Page / Section / Dwg. / Fig. #)		Review Comment	Respondent	Response Date	Response Code	Response Comment
1	CF		page 1, 3rd paragraph, first sentence		Delete "known".	Lindsey Carmona	1/9/2020	2	Deleted.
2	CF		Assumptions Section, third bullet.		Existing text, "Detention system assumed to be off-line vaults separated from the main with a side weir and with orifice controls to throttle discharge back to the sewer main." Is it "back to"? If discharging downstream, suggest deleting "back".	Lindsey Carmona	1/9/2020	2	Text has been revised.
3	CF		Assumptions Section, fourth bullet.		Comment regarding existing text, "Existing 6’ x 6’ storm drain structure downstream of 72” pipe in East system is shown on survey and may contain orifice controls." SFPUC webGIS does not identify either structure, though our webGIS does contain information on what appear to be 2009-installed pipes by City College. Please advise and clarify in memo. (No pipe size info in memo, so hard to locate where this text is pointing to.)	Lindsey Carmona	1/9/2020	2	The location of the 6’x6’ storm drain structure was added to Exhibit 1. The bullet point in the "Assumptions" list was revised to say "Existing 6’ x 6’ storm drain structure at Node C-010, downstream of 72” pipe in East system is shown on survey and may contain orifice controls."
4	KK		Conceptual Analysis		Consistent with conceptual level analysis in memo, conceptual stormwater management approaches and modeling assumptions are not reviewed in detail regarding SMO requirements. SFPUC to review proposed stormwater management and modeling assumptions during the Preliminary SCP and Final SCP approvals process. Stormwater management controls sizing and approach understood to likely to change.	Lindsey Carmona	1/9/2020	1	Understood.
5	KK		Eastern DMA - Scale and Scope		Regarding Alternative 1: Clarify why GI is assumed within the East System calculations, and clarify ‘the minimum required GI Area based on modeling of the east system’. This memo identifies a large offsite drainage management area east of the Balboa Redevelopment Project boundary limits. A portion of this out-of-project-limits area contributing to the East System includes future roadway improvements (i.e. Lee Ave, etc.). (Separately, as previously understood, Lee Avenue is not currently proposed with stormwater GI due to project constraints.)	Lindsey Carmona	1/9/2020	1	GI is only assumed to manage runoff from on-site areas. We do not account for GI managing runoff from off-site areas. Even though the latest site plan does not show planters within Lee Avenue, we believe accounting for GI management for all on-site areas in the East System is reasonable given the following: 1. New buildings within the East System boundary can have on-site stormwater management BMPs; 2. North Street (east and west of Lee Avenue) can have small planters to manage runoff, as shown in the latest site plan; 3. The remaining on-site area in the East system (i.e. Lee Avenue) could be managed using permeable pavement in the parking lanes and/or a BMP in the open space to the east of Node C-010.
6	KK		Alternative 2		Regarding Alternative 2: While GI has been proposed in combination with detention. Detention facilities, where working in concert with GI, must be designed and sized using ‘multi-stage’ detention requirements.	Lindsey Carmona	1/9/2020	1	Understood. During the design phase, the detention systems will be designed to comply with the 'multi-stage' detention requirements.

[illegible]

**Appendix H Design Standards and Guidelines Sustainable Neighborhoods Framework**

**GOAL 1**

Ensure Non-Toxic &  
Comfortable Air Indoors & Out

**EQUITY**

**OPPORTUNITIES:** Keep from exacerbating the health impacts of cumulative air pollution like respiratory and cardiovascular; decrease hospital visits for those with limited access to health insurance

**CONSIDERATIONS:** projects in neighborhoods with populations with greatest sensitivity to extreme heat should take additional measures to provide habitable environments; population-specific health challenges may warrant additional study

**RESILIENCE**

**OPPORTUNITIES:** better respond to heat waves and bad air quality days

**CONSIDERATIONS:** integrate future heating and cooling needs into energy capacity scaling equipment; extreme heat puts pressure on essential services such as energy, transport, and health

**CLIMATE**

**OPPORTUNITIES:** lower toxic pollutants; renewable electricity exports; reduced risks of ozone production due to higher temperatures

**CONSIDERATIONS:** analyze long-term climate impacts of strategies to respond to high temperatures

CITY TARGET	APPROACHES	CITY REQUIREMENTS	GOALS FOR THE BALBOA RESERVOIR NEIGHBORHOOD	PROJECT STANDARDS & GUIDELINES FROM DSG
ZERO-EMISSION environments	LAND USE			
	ALL-ELECTRIC	All-electric preferred [GBC '20]	<ul style="list-style-type: none"> <li>100% of building systems will be designed for electricity. Buildings will reduce all sources of local GHG.</li> </ul>	
	CONSTRUCTION PRACTICES	/ Construction Air Filtration [GBC]	<ul style="list-style-type: none"> <li>Minimize particulate matter emissions associated with diesel fuel engines during construction by implementing a Clean Construction Plan.</li> </ul>	
	MATERIAL SELECTION	/ GHG Emissions checklist [CEQA]	<ul style="list-style-type: none"> <li>Establish a Sustainable Procurement Program for each building targeting 100% of materials to meet at least one sustainable materials criteria.</li> <li>Evaluate carbon sequestration concrete and utilize as demonstration project.</li> <li>Prioritize Forest Stewardship Council (FSC) Certified Wood and use FSC certified wood for 50% of total framing materials.</li> </ul>	<b>G.4.2.1.1</b> Electric Building Systems <b>G.4.2.1.2</b> Domestic Water Heating <b>G.4.2.4.1</b> Construction Indoor Air Quality Management Plan <b>S.4.2.3.1</b> Sustainable Procurement Evaluation <b>G.4.2.3.1</b> Prioritize Local Materials and Manufacturers <b>G.4.2.3.2</b> Material Life Cycle <b>S.4.2.5.1</b> TDM Ordinance <b>S.4.2.2.1</b> EV Infrastructure
	ACTIVE MOBILITY	/ Transportation Demand Management (TDM) / Sidewalk widening, bike racks [BSP, PC]	<ul style="list-style-type: none"> <li>80% of the trips to and from the site will be by sustainable modes and the project will achieve a vehicle trip reduction of at least 30% compared with a comparable project without TDM measures.</li> </ul>	
	ELECTRIC VEHICLES	/ 100% EV-ready off-street parking [EC] / EV charges @ 5% of spaces [EC]	<ul style="list-style-type: none"> <li>A load management system will be installed to manage the EV charging stations. This would allow EV charging stations to be installed at 100% of the on-site parking spaces while avoiding any upgrades to the electrical infrastructure.</li> </ul>	
100% NON-TOXIC interiors	MATERIAL SELECTION	/ Low-Emitting Materials [GBC/LEED]	<ul style="list-style-type: none"> <li>100% of interior materials will meet all low-emitting materials and emissions testing requirements of the current version of LEED.</li> </ul>	<b>G.4.3.1.1</b> Low Emitting Materials <b>S.4.3.2.1</b> Ventilation Requirements <b>G.4.3.2.1</b> Improved Ventilation and Windows
	AIR FILTRATION	/ High Quality Air Filtration [Art 38]		
COMFORTABLE micro-climate	PASSIVE EXTERIOR COOLING			
	INTERIOR RESPITES			



**GOAL 2**  
**ACHIEVE AN EFFICIENT  
 & FOSSIL FUEL-FREE  
 ENVIRONMENT**

### EQUITY

**OPPORTUNITIES:** healthier air; lower utility costs & minimized rate volatility; improved indoor comfort; energy revenues for local economy; equal access to energy efficiency upgrades for renters; increase job opportunities for energy upgrade work.

**CONSIDERATIONS:** avoid passing upfront retrofit costs to residents; limited triggers/funding for existing building retrofits; explore opportunities for community-owned solar.

### RESILIENCE

**OPPORTUNITIES:** reduced outages; emergency power supplies; reduced risk from natural gas explosions; secure against global oil price shifts and instability; better respond to heat waves and bad air quality days.

**CONSIDERATIONS:** plan for most vulnerable communities; tenant education about energy measures are great opportunities to foster stronger and connected communities.

### CLIMATE

**OPPORTUNITIES:** emission free; increasing energy efficiency reduces overall demand and accommodates fuel switching; reduce toxic pollutants.

**CONSIDERATIONS:** when assessing carbon footprint factor-in gas leak rates at well sites, forgo gas infrastructures to receive credits.

CITY TARGET	APPROACHES	CITY REQUIREMENTS	GOALS FOR THE BALBOA RESERVOIR NEIGHBORHOOD	PROJECT STANDARDS & GUIDELINES FROM DSG
MAXIMUM ENERGY EFFICIENT environments	SOLAR ORIENTATION	/ Reduce energy use by 5% [Title 24/GBC]		<b>S.4.4.1.1</b> Glazing <b>G.4.4.1.1</b> Natural Ventilation <b>G.4.4.1.2</b> Reduced Solar Gain <b>S.4.4.2.1</b> Infiltration <b>G.4.4.2.1</b> High Efficiency HVAC Systems
	BUILDING FORM			
	ENVELOPE & FAÇADE TREATMENTS			
	MECHANICAL SYSTEMS			
	VEGETATION			
100% CARBON-FREE energy	ON-SITE RENEWABLE POWER GENERATION	/ 15% roof area installed with solar PV or solar thermal systems [GBC]	<ul style="list-style-type: none"> <li>The project will generate 25% of its building energy demand via on-site renewable energy generation systems, in conjunction in conjunction with measures to reduce EUI.</li> <li>The project will offset all carbon emissions related to building operations. Any gas use on site or at the grid level will be offset by renewable energy credit (REC) or carbon offset credit purchases.</li> <li>The project will evaluate providing battery storage for PV systems on a building by building basis to provide power supply for up to 72 hours in the event of a power outage or emergency.</li> </ul>	<b>S.4.5.1.1</b> On-Site Renewable Energy <b>S.4.5.2.1</b> Solar Thermal Arrays <b>S.4.5.4.1</b> SFPUC Power
	SOLAR THERMAL HOT WATER			
	BATTERY STORAGE			
	ALL-ELECTRIC			
	GREEN POWER PURCHASE			
SMART systems & operations	AUTOMATION & CONTROL		<ul style="list-style-type: none"> <li>The project will provide thermal and clean air safety zones for heat wave and compromised air quality relief at community room or at childcare. Safety zones will include centralized emergency power and communication zones where people can charge phones or refrigerate medications during extended power outages.</li> </ul>	<b>S.4.6.1.1</b> Individual Metering <b>S.4.6.2.1</b> Resident education <b>G.4.13.1</b> Connect Residents with Local Resources
	REPORTING & ENGAGEMENT			



**GOAL 3**  
**SUPPORT BIODIVERSITY**  
**& CONNECT EVERYONE**  
**TO NATURE DAILY**

### EQUITY

**OPPORTUNITIES:** access to healthy and affordable food; physical and mental health improvement; social cohesion and connection to one's environment; reduced exposure to noise, air pollution, and extreme heat; robust biodiversity minimizes rodent infestations.

**CONSIDERATIONS:** inequitable access, use, or quality of green spaces by vulnerable populations; additional maintenance costs (public & private); potential existing contaminants for safe food production.

### RESILIENCE

**OPPORTUNITIES:** ecosystem services improve shoreline and urban flood management, reducing housing and work place instability and access due to flooding; planted hillsides are less susceptible to erosion and landslides; wildlife biodiversity.

**CONSIDERATIONS:** increased landscaping that includes too much impervious surface can increase flooding; poor plant selection or irrigation equipment can exacerbate water scarcity.

### CLIMATE

**OPPORTUNITIES:** enhance climate regulation and carbon sequestration; reduce carbon footprint associated with to large-scale food production; distribution and waste; improve water efficiency.

**CONSIDERATIONS:** gas-powered lawn equipment exacerbates emissions and health impacts of landscaping; poor landscaping maintenance practices can lead to additional methane from decomposing green waste.

CITY TARGET	APPROACHES	CITY REQUIREMENTS	GOALS FOR THE BALBOA RESERVOIR NEIGHBORHOOD	PROJECT STANDARDS & GUIDELINES FROM DSG
GREEN space equivalent to 1/2 site area	OPEN SPACES	/ X SF per unit, X SF if common space (does not require greening) [PC]	<ul style="list-style-type: none"> <li>50% of site area will be vegetated, including areas of tree canopy and green roofs or landscaping at courtyards.</li> <li>Provide a 25% peak rate and total volume stormwater management reduction for the overall site using green infrastructure and Low Impact Development.</li> <li>Minimize stormwater management at public streets by providing equal offsetting management at private development parcels.</li> </ul>	<b>G.4.7.1</b> Planting at On-Site Open Space <b>S.4.11.1</b> Stormwater Management <b>G.4.11.1</b> Infiltration
	LIVING ROOFS	/ 25% front yard set-back landscaped (50% pervious) [PC] / 30% roof area as living roof [PC alt]		
	GREEN WALLS			
	GREEN INFRASTRUCTURE	/ Manage 25% of stormwater onsite [SMO option]		
	RIGHT-OF-WAY	/ 1 street tree every 20' [PC]		
BIODIVERSE landscapes of 100% climate appropriate, majority local species	TREE CANOPY		<ul style="list-style-type: none"> <li>100% healthy landscaping practices - minimizing or eliminating pesticide, herbicide or fertilizer use following the City's Integrated Pest Management Ordinance.</li> <li>Use all-electric / clean fuel landscape maintenance equipment.</li> </ul>	<b>S.4.8.1</b> Native Landscaping <b>G.4.8.1</b> Low Emissions Maintenance <b>G.4.8.2</b> Ecological Placemaking <b>G.4.8.3</b> Daily Maintenance <b>G.4.8.4</b> Quarterly Horticultural Services
	UNDERSTORY PLANTING			
	NATURAL AREAS			
	BUILDING FAÇADES			
HEALTHY food & wildlife systems	BUILDINGS	/ Bird Safe Buildings [PC]	<ul style="list-style-type: none"> <li>Collaborate with City College culinary program to create on-site programs to assist resident and neighbors in growing and preparing healthy foods.</li> </ul>	<b>G.4.9.1</b> Access to Community Gardens <b>G.4.9.2</b> Healthy Food Education <b>G.4.9.3</b> Food Corridor <b>G.4.9.4</b> Sustainable Pest Control
	OPEN SPACES			
	OPERATIONS			

**GOAL 4****MAXIMIZE CONSERVATION,  
FLOOD PROTECTION &  
WATERSHED HEALTH****EQUITY**

**OPPORTUNITIES:** Keep from exacerbating the health impacts of populations impacted by toxins in water; reduce home-based health hazards; reduce the disproportionate racial impact of flooding.

**CONSIDERATIONS:** ground water pollution is more prevalent in disadvantaged communities; in case of emergency plan for large-scale temporary relocation of low-income residents; use high quality potable water filters.

**RESILIENCE**

**OPPORTUNITIES:** decrease risk of flooding of power generation, transmission, and distribution networks; reduce vulnerability to droughts; better respond to heat waves and bad air quality days.

**CONSIDERATIONS:** In urban centers, critical services like healthcare, food supply, transportation, energy systems, schools and retail share interdependencies with water.

**CLIMATE**

**OPPORTUNITIES:** decrease in energy and emissions associated with extraction, conveyance, treatment and consumption of water.

**CONSIDERATIONS:** climate change is expected to impact water quality by increasing the nutrient content, pathogens, and the sediment levels of surface water.

CITY TARGET	APPROACHES	CITY REQUIREMENTS	GOALS FOR THE BALBOA RESERVOIR NEIGHBORHOOD	PROJECT STANDARDS & GUIDELINES FROM DSG
REGENERATIVE systems that minimize consumption & maximize reuse	EFFICIENT FIXTURES	/ Reduced water consumption [GBC]		<b>S.4.10.1.1</b> Plumbing Fixtures <b>S.4.10.2.1</b> Drip Irrigation <b>S.4.10.2.2</b> Gray Water Irrigation <b>S.4.10.2.3</b> Edible Planting Irrigation <b>S.4.10.3.1</b> Non-Potable Reuse <b>G.4.10.3.1</b> Gray Water Treatment
	SMART-METERING	/ Residential multifamily water sub-metering [GBC/CA Water Code]		
	NON-POTABLE REUSE	/ Onsite systems for non-potable flushing and irrigation [Art 12C]		
	IRRIGATION	/ Low water, climate appropriate plants [GBC]		
100% FLOOD-SAFE buildings & sidewalks	DESIGN ELEVATIONS	/ Sea level rise consideration [CEQA] / 100-yr flood disclosure		<b>S.4.11.1</b> Stormwater Management <b>G.4.11.1</b> Infiltration
	GREY INFRASTRUCTURE	/ Ensure positive sewage flow, raise entryway elevation and/or special sidewalk construction and deep gutters if risk of ground-level flooding	<ul style="list-style-type: none"> <li>• Provide a 25% peak rate and total volume stormwater management reduction for the overall site using green infrastructure and Low Impact Development.</li> <li>• Minimize stormwater management at public streets by providing equal offsetting management at private development parcels.</li> </ul>	
	GREEN INFRASTRUCTURE	/ Front setback 25% permeable [PC]		
HIGH QUALITY waterways & sources	EROSION PREVENTION	/ Slowed stormwater flow rates [SMO]		
	POLLUTANT MANAGEMENT	/ Reduced runoff and pollution from construction [GBC] / (MS4) filter or treat 80% on site [SMO]		



**GOAL 5**  
**PRIORITIZE RESOURCE**  
**CONSERVATION,**  
**RESPONSIBILITY & REUSE**

**EQUITY**

**OPPORTUNITIES:** Keep from exacerbating the health impacts of cumulative air pollution like respiratory and cardiovascular; decrease hospital visits for those with limited access to health insurance

**CONSIDERATIONS:** projects in neighborhoods with populations with greatest sensitivity to extreme heat should take additional measures to provide habitable environments; population-specific health challenges may warrant additional study

**RESILIENCE**

**OPPORTUNITIES:** better respond to heat waves and bad air quality days

**CONSIDERATIONS:** integrate future heating and cooling needs into energy capacity scaling equipment; extreme heat puts pressure on essential services such as energy, transport, and health

**CLIMATE**

**OPPORTUNITIES:** lower toxic pollutants; renewable electricity exports; reduced risks of ozone production due to higher temperatures

**CONSIDERATIONS:** analyze long-term climate impacts of strategies to respond to high temperatures

CITY TARGET	APPROACHES	CITY REQUIREMENTS	GOALS FOR THE BALBOA RESERVOIR NEIGHBORHOOD	PROJECT STANDARDS & GUIDELINES FROM DSG
100% RESPONSIBLE material use	RESOURCE EXTRACTION		● Divert 100% of residential waste generated from landfill.	<div>S.4.12.1 Recycling and Composting Ordinance</div> <div>S.4.12.2 Recycling of Construction Waste</div> <div>G.4.12.1 Recycling</div> <div>G.4.12.2 Balanced Cut and Fill</div>
	REUSABLE PRODUCTS	/ Accessible and sufficient collection systems / Recycling and composting (Buildings)		
Significantly REDUCED per-capita waste generation	3-STREAM WASTE COLLECTION		● Divert 75% of construction and demolition waste with a minimum of 4 separate waste streams.	
	CONSUMPTION & PURCHASING			
	COST MONITORING			
100% materials RECOVERED from waste stream	MATERIAL RE-USE			
	CONSTRUCTION DEBRIS	/ Construction waste diversion (65%)		



## **EXHIBIT N**

### **DEVELOPMENT PHASE APPLICATION PROCESS**

#### **A. General**

The Project shall be built in Phases in accordance with the terms of the Phasing Plan and Community Benefits Linkages as set forth in **Schedule 1** of this Agreement. The Phasing Plan and Community Benefits Linkages (the “Linkages”) reflect the Parties’ mutual acknowledgement that certain controls shall guide the development of the Project and the phased provision of public improvements (i.e. infrastructure to be dedicated to the City) and Publicly Accessible Private Improvements.

#### **B. Development Phase Application: Purpose and Approval Authority**

The purpose of the Development Phase Application is to provide a broad overview of the scope of each Development Phase, including the number and type of each element (vertical and horizontal), and to ensure that the Linkages requirements are satisfied.

1. City Department responsible for review: Planning Department; Mayor’s Office of Housing and Community Development (“**MOHCD**”), as to Affordable Housing Plan
2. City Department responsible for approval: Planning Department; MOHCD, as to compliance with Affordable Housing Plan
3. Role of other City Departments: Development Phase Applications will be distributed to DPW, SFPUC, SFMTA, Port, SFFD, RPD, and OEWD for their information. No action is required by these City Agencies. City Agencies may provide comments on the content of the Development Phase Application to the Planning Department within the Planning Department’s thirty (30) day completeness review timeline and the sixty (60) day content review timeline.
4. Relationship to Infrastructure Review by Other City Departments: A Development Phase Application must show how the proposed scope and content of Infrastructure within the Development Phase will comply with the Project SUD and Approvals, including the Linkages. The approved Development Phase Application will not limit the scope of Infrastructure that Developer is required to construct in the Development Phase, but the proposed scope and content of Infrastructure in such improvement plans shall at least serve the scope outlined in the Phase Application. The exact details of required Infrastructure in each Development Phase may vary from the approved Development Phase Approval in order to achieve appropriate roadway access, functional utility systems and connections, and to maintain service to existing residents and commercial users, but shall still be governed by the Infrastructure Plan and Linkages. Notwithstanding the foregoing, any removal of street sections from a Development Phase after its inclusion in a Development Phase Approval will be subject to Planning Department review and approval.

### **C. Development Phase Application Review and Approval**

At any time before submitting a Development Phase Application (defined below) to the Planning Department and MOHCD for review, Developer may request a pre-application meeting with City staff to review the proposed Development Phase. Prior to the commencement of each Development Phase, Developer shall submit to the Planning Department an application (a “**Development Phase Application**”) in substantial conformance with the attached checklist. Upon receipt, the Planning Director shall have the right to request additional information from Developer as may be needed to understand the proposed Development Phase Application and to ensure compliance with this Agreement, including the Linkages; provided, however, that within thirty (30) days following receipt of a Development Phase Application, the Planning Director shall determine the completeness of the Application and will notify Developer of any deficiencies and make any requests for additional information or materials that are reasonably necessary in order to review the Development Phase Application. If the Planning Director fails to respond within such 30-day period, the Development Phase Application will be deemed complete.

The Planning Department will, within sixty (60) days of determination of application completeness, complete its review of the proposed improvements against the requirements of the Project SUD (including the DSG), Linkages and the Development Agreement, including any necessary coordination with other City Agencies. If the Planning Director objects to the proposed Development Phase Application, he or she shall do so in writing, stating with specificity the reasons for the objection and any items that should be included or changed to bring the Development Phase Application into compliance with the Project SUD, Linkages and the Development Agreement. The Planning Director will act reasonably in making determinations with respect to each Development Phase Application, including the determination as to whether the Development Phase Application meets the requirements of the Linkages and the Development Agreement. The Parties agree to meet and confer in good faith to discuss and resolve any differences in the scope or requirements of a Development Phase Application. Changes proposed by the Planning Department will be reasonably considered by Developer, and changes proposed by Developer will be reasonably considered by the Planning Director. If there are no objections, or upon resolution of any differences, the Planning Director shall approve the Development Phase Application with such revisions, comments, or requirements as may be permitted in accordance with the terms of the Development Agreement and the Linkages (each a “**Development Phase Approval**”). The Development Phase Application and Development Phase Approval shall be posted on the Planning Department website.

### **D. Standard of Approval**

Approval of the Development Phase Application will be ministerial in nature based on the Development Phase Application’s consistency with the Linkages, its completeness in providing the information required by this Exhibit, and its conformance with the Initial Approvals. Discretion in approving a Development Phase Application will be limited to those matters where the proposed development plan deviates from the Initial Approvals. As such, the Planning Director will approve any Development Phase Application that conforms to and is consistent with the Development Agreement, including the applicable Project SUD, Linkages and Initial Approvals, and will not disapprove any Development Phase Application on the basis of any element that conforms to and is consistent therewith.

#### **E. Concurrent Review**

Developer must obtain a Development Phase Approval before the City may approve a tentative subdivision map that covers all or any portion of the applicable Development Phase; provided, however, that approval of a Development Phase Application will not be required for (i) the approval of a tentative or final transfer map, (ii) the issuance of construction permits for grading and site preparation in any Phase, or (iii) the approval of a tentative subdivision map application that covers all or substantially all of the entire Project Site (a “**Master Tentative Map**”), as permitted under Paragraph F below. Subject to the foregoing, at any time before or after submittal of a Development Phase Application, Developer may submit Subdivision Map and Design Review Applications covering all or any of the real property within the Development Phase for the City’s review and approval in accordance with the procedures hereunder and under the Project SUD, but the time periods for City review and approvals of Subdivision Maps other than tentative or final transfer maps or Master Tentative Maps and for Design Review Applications for vertical development and community improvements (either privately or publicly owned) shall not begin until the Planning Department issues a Development Phase Approval.

#### **F. Start of Development Phase**

Upon receipt of a Development Phase Approval, Developer shall submit a tentative subdivision map application (if not already submitted) covering the real property within the Development Phase. Developer also has the option to submit a Master Tentative Map application and seek approval of phased final maps for each Development Phase covered by the Master Tentative Map. As provided in Paragraph D above, the City may not condition approval of a Master Tentative Map on a Development Phase Approval, but the City shall not be required to issue construction permits to Commence Construction within any Development Phase covered by the Master Tentative Map unless the City has first approved a Development Phase Approval for the applicable Development Phase. Upon submittal of any tentative subdivision map application, Developer shall have the right to submit any request or application for Later Approvals, such as street improvement permits and building permits, required to start construction.

#### **G. Amendment of a Development Phase Approval**

At any time after receipt of a Development Phase Approval, Developer may request an amendment to the Development Phase Approval. Any such request for amendment shall be made to the Planning Director and shall be subject to the same review and approval standards as set forth in this Agreement for the original approval. Changes in the type, density or intensity of vertical development (residential or commercial) that is identified in a Development Phase Application as “anticipated” or “proposed” will not necessarily require an amendment to a Development Phase Approval, so long as the Development Phase remains in compliance with this Agreement, including the applicable Project SUD and Approvals, and the revisions to the vertical development would result in necessary changes to the provision of public improvements and Publicly Accessible Private Improvements described in the original Phase Approval per the provisions of the Linkages and other Project SUD and Approvals.

## **H. Concurrent Development**

Each Development Phase shall remain independent, in accordance with the Development Agreement, so long as the functional and operational requirements of that Development Phase can be met with the completion of any necessary infrastructure reasonably necessary to support the Development Phase. Developer may begin construction of a Development Phase simultaneously with another Development Phase or may begin construction of a subsequent Development Phase while components of a prior Development Phase are still in progress. Notwithstanding the above, Developer may propose interim or temporary infrastructure improvements, and DPW, with the consent of any affected City Agency in their respective sole discretion, may allow such interim or temporary infrastructure improvements and defer completion of required public improvements subject to terms and conditions that the City deems appropriate. The applicable Public Improvement Agreement will address the interim or temporary infrastructure improvements along with sufficient security to guarantee the completion and removal of such improvements and security for the permanent public improvements. The City will not accept any interim or temporary improvements for maintenance and liability purposes. Notwithstanding Administrative Code Chapter 23, the Director of Real Estate is authorized to accept on behalf of the City temporary public easements related to the construction, completion, and use of public improvements, and temporary or interim improvements, for a period not to exceed five (5) years. Nothing in this paragraph shall be construed as a limitation on the discretion retained by any City Agency as set forth in this Agreement.

## **I. Contents of Development Phase Applications**

The required components of each Development Phase Application are as follows:

1. Site plan and other graphics, including existing or proposed blocks, lots, streets and area, showing the area covered by the applicable Development Phase Application.
2. A narrative description of the proposed scope of development within the Development Phase, including tables indicating the estimated square footage of each land use category per block and total number of parking stalls (residential and public).
3. Materials sufficient to describe the infrastructure, Publicly Accessible Private Improvements and Open Space that will be provided for the Development Phase, and a description of how the Development Phase will comply with the requirements of the Linkages to provide these Associated Community Benefits. The level of detail will be commensurate with the detail set forth in the Master Infrastructure Plan and Planning Department standards for conditional use applications. The materials will also include an itemized description of the status of public improvements and Publicly Accessible Private Improvements in prior Development Phase Approvals.
4. If the Development Phase will include residential use, the Development Phase Application will also include:
  - a. Developer's estimate of the total number of residential units, the number and location of affordable housing units and target AMI levels, as set forth in the Housing Plan.

- b. The anticipated number and location of market rate residential parcel pads to be prepared, with the estimated number of residential units on each.
- 5. A table or matrix showing applicable Mitigation Measures associated with the applicable Development Phase.
- 6. The following infrastructure improvement details:
  - a. Plans showing the infrastructure to be provided for the Development Phase at a level of detail sufficient to determine consistency of the Development Phase with the Linkages.
  - b. Plans showing new streets to be dedicated.
  - c. Plan showing location of the Development Phase in relation to the rest of the Project Site, with street access and circulation for existing residents (as applicable).
- 7. Narrative or schedule of anticipated order of horizontal construction within the Development Phase, by element (i.e., infrastructure, Publicly Accessible Private Improvements, and Open Spaces).
- 8. A narrative describing the Project's compliance with the sustainability controls in the Design Standards and Guidelines
- 9. List of any requested modifications to this Agreement, including the Linkages, the Design Standards and Guidelines or other requirements of the Project SUD.
- 10. Certification of accuracy from authorized representative.
- 11. For illustrative purposes only, a summary table materially in the form shown below, listing the permitted and anticipated, and if known, type, density and intensity of, vertical development by parcel within the Development Phase.

**Sample Summary Table**

<b>Blocks in the Design Guide- lines</b>	<b>Height/Bulk District</b>	<b>Maximum Permitted Heights</b>	<b>Allowable Use under the SUD, and Anticipated Use if known</b>	<b>Anticipated Amount of Development</b>	<b>Type of Affordable Housing Anticipated</b>	<b>Proposed Parking &amp; Parking Ratio, if known</b>
<i>(1, 2, 3, etc.)</i>			<i>(Affordable Housing, Market Rate Parcel, Commercial, Retail, Community, Other)</i>	<i>(Total # Housing Units, Square Footage of Retail, Commercial, Community, Other)</i>	<i>(# BMR Units, In Lieu, Land Dedication)</i>	<i>(Residential and/or Commercial)</i>

**EXHIBIT O**  
**FINANCING PLAN**

*(To be provided)*

## SCHEDULE 1

### PHASING PLAN AND COMMUNITY BENEFITS LINKAGES SCHEDULE

Pursuant to Article 4 of the Agreement, the Developer's right to occupy Market Rate Units and/or Townhouse Units is linked to (i) completion of related Community Benefits and (ii) its construction and/or funding of a certain number of Affordable Units, as described in the Affordable Housing Plan set forth in Exhibit D to the Agreement and in this Phasing Plan and Community Benefits Linkages ("**Linkages Schedule**"). The linkages between the specific Community Benefits/Affordable Housing Units and the associated Buildings, Townhouse Units or Market Rate Units are set forth in this Schedule 1. The anticipated phasing of Buildings and Community Benefits are shown in the table and phasing plan attached to this Schedule 1 as Schedule 1-A, and as further described below. All capitalized terms used in this Linkages Schedule and not specifically defined herein will have the meanings ascribed to them in the Development Agreement by and between the City and County of San Francisco, a municipal corporation, and RCP Community Partners LLC, a Delaware limited liability company (the "**Agreement**") to which it is attached.

1. **Phasing Plan.** An overriding principle of the Project is that as Developer constructs Market Rate Units, it will contribute Developer's Affordable Funding Share and cause a like number of Affordable Units to be constructed, subject to City's contribution of City's Affordable Funding Share, as described in the Affordable Housing Plan attached as Exhibit D to the Agreement (the "Affordability Principle"). Therefore, Developer's ability to obtain a first certificate of occupancy, including any temporary certificate of occupancy (an "FCO"), for any Market Rate Building is conditioned upon Developer's obtaining an FCO for a like number of total Affordable Units in the Project. The anticipated phasing of the Project is as follows:

a. **Phase 1.** Affordable Parcel E (approximately 124 units), Affordable Parcel F (approximately 154 units); Market Rate Parcels C and D (approximately 260 units), and Townhome Parcels H, TH1 and TH2 (approximately 100 units); Reservoir Park Parcel J, Community Room.

b. **Phase 2.** Affordable Parcels A (approximately 182 units), Affordable Parcel B (approximately 90 units); Market Rate Parcel G (approximately 190 units); PUC Open Space Parcel I; childcare center on Parcel B.

c. **Changes to Phasing Plan.** Developer may propose changes to the phasing plan to be considered by the Planning Department. If those changes impact the linkages between the specific Community Benefits and the associated Buildings, Townhouse Units or Market Rate Units, or if the phasing plan changes such that certain Market Rate Parcels or Affordable Parcels are developed in different phases than described in this Linkages Schedule and thus cannot satisfy the Phase 1 or Phase 2 Linkage requirements, then the parties will meet and confer in good faith to attempt to agree to a new linkage requirement that is substantially equivalent and satisfies the Affordability Principle. The Planning Director may grant approval of an amended phasing and linkage requirement in the Planning Director's sole discretion. If the amended phasing includes changes to the phasing of an Affordable Parcel, then the Planning Director will consult with and obtain the consent of the MOHCD Director.

2. **Affordable Housing Linkage.**



a. **Phase 1 Linkage.** Developer must obtain an FCO for the Affordable Units located on Affordable Parcel E and Affordable Parcel F as a condition to the issuance of an FCO for Market Rate Units located on Market Rate Parcels C and D and any Townhouse Units (except as detailed below for Townhouse Units).

b. **Phase 1 Townhome Development.** Developer may, in its sole discretion, satisfy the Phase 1 Linkage for the Townhouse Units by paying a site-directed in-lieu fee equal to 33% of the Townhome Parcel's Townhouse Units (the "***Townhouse In-Lieu Fee***"). The methodology for calculating the Townhouse In-Lieu Fee will be as set forth in Planning Code Section 415.5; except that the applicable percentage will be 33% regardless of changes to the percentages otherwise required by Planning Code Section 415.5. The Townhouse In-Lieu Fee will be deposited into an escrow account at a mutually agreed upon title company and will be controlled jointly by City, acting by and through MOHCD, and Developer. City will release funds from the escrow account to Developer for Developer's use for any Affordable Units in Phase 1 or Phase 2. Such release of funds will occur no later than the close of escrow of the construction loan for any Affordable Building requested by Developer. The Townhouse In-Lieu Fee will, in City's sole discretion and upon City's unilateral direction to the escrow holder, be released to MOHCD upon (i) any termination of the Agreement resulting from Developer's Default, as described in Section 9.4.2 of the Agreement, or (ii) upon expiration of the Term of this Agreement.

c. **Phase 2 Linkage.** Developer must obtain an FCO for Affordable Parcel A and Affordable Parcel B as a condition to the issuance of an FCO for Market Rate Parcel G, unless either of the following scenarios occurs:

i. If Affordable Parcel B contains homeownership affordable housing units that will be constructed using volunteer labor or a "self-help" model of construction, such as those anticipated to be developed by Habitat for Humanity (the "Self-Help Units"), then the Linkage obligation for the Self-Help Units only will be satisfied upon the commencement of construction of the Self-Help Units and confirmation from the MOHCD Director at the time of commencement that, in the MOHCD Director's reasonable good faith judgment, Developer has demonstrated that these units have adequate financing or other security to complete construction. Subject to subsection (ii) below, all other Affordable Units in Affordable Parcel B must obtain an FCO as a condition to the issuance of an FCO for Market Rate Parcel G unless DBI determines that an FCO for the Affordable Units is not permissible without an FCO of the Self-Help Units, in which case the Linkage obligation for the entire Affordable Parcel B will be satisfied upon the commencement of construction if the MOHCD Director determines that all Affordable Units in Affordable Parcel B have adequate financing or other security to complete construction.

ii. If the gap subsidy for either Affordable Parcel A or Affordable Parcel B will be funded entirely by City's Affordable Funding Share, without any contribution of Developer's Affordable Funding Share, Developer may obtain an FCO for Market Rate Parcel G if it has obtained an FCO for the parcel (either Affordable Parcel A or Affordable Parcel B) that requires Developer's Affordable Funding Share.

3. **Reservoir Park.** The Reservoir Park, as described in Exhibit C, must be completed as a condition to the issuance of the first addendum to any Site Permit for any Market Rate Building in Phase 2 described in Schedule 1-A (i.e., Parcel G). For purposes of this Section 3, the Reservoir

Park will be considered “complete” when it is sufficiently complete to allow the public to occupy or utilize the space for its intended use, as reasonably determined by the Planning Director.

4. Community Room. The community room, as described in Exhibit B, must be located in a Building immediately adjacent to Reservoir Park and must front the park. The community room must be complete as a condition to the issuance of the FCO for the Building in which the Community Room is located. The community room will be available for public use. Public access to the community room will be provided from Reservoir Park and/or from the public street. The public area of the room will be not less than 1,000 square feet, not including support areas. The community room will be used as a community clubhouse, neighborhood center, or other community facility open for public use in which the chief activity is not carried on as a gainful business and whose chief function is the gathering of persons from the immediate neighborhood for the purposes of recreation, social interaction, and education. The community room will be made available at reasonable times of the day and days of the week (such as evenings and weekends) for use and rent by residents, neighborhood organizations, non-profits, public agencies, and other members of the public for non-commercial meetings, events and other gatherings. The operator of the community room will publicize the availability of such facility, may require a reasonable fee for such use, and set reasonable hours and terms for such use, but any fees may not exceed the administrative and maintenance costs of hosting such events. For purposes of this Section 4, the Community Room will be considered complete when the Department of Building Inspection is ready and willing to issue an FCO for the Community Room.

5. Public Parking. The Permanent Public Parking, as described in Exhibit J, must be complete prior to issuance of an FCO for any Building in Phase 2, as identified in Schedule 1-A, unless the Permanent Parking is being provided within a Building in Phase 2 in which case the Permanent Parking must be complete concurrent with issuance of the FCO for the Building in which the Permanent Parking will be located. For purposes of this Section 6, the Permanent Parking will be considered “complete” when it is sufficiently complete to allow the public to utilize the space for vehicular parking, as reasonably determined by the Planning Director.

6. Child Care Facility. The Child Care Facility, as described in Exhibit L, must receive an FCO prior to or concurrent with issuance of the FCO of the Building in which the Child Care Facility is located. For purposes of this Section 7, the Child Care Facility will be considered “complete” when it obtains a temporary certificate of occupancy for space in a “warm shell” condition, i.e. with the space demised to meet occupancy separation requirements (minus finishes on wall, floor and ceiling), stubs for standard utilities, path to a location for mechanical equipment, storefront and rear access as required, and other items required to obtain a temporary certificate of occupancy to allow a tenant to proceed with its improvements.

7. SFPUC Open Space & Gateway Landscape. The SFPUC Open Space and Gateway Landscape, as described in Exhibit B, must have commenced construction of improvements as a condition of issuance of an FCO for the Market Rate Building in Phase 2, as described in Schedule 1-A (i.e., Parcel G). The SFPUC Open Space and Gateway Landscape must be complete by the earlier to occur of (i) three months after the date of the FCO for the building on Affordable Parcel B, or (ii) the expiration of the Term of this Agreement. For purposes of this Section 8, the SFPUC Open Space and Gateway Landscape will be considered “complete” when it is sufficiently complete

to allow the public to occupy or utilize the space for its intended use, as reasonably determined by the Planning Director.

8. Brighton Paseo, San Ramon Paseo. Brighton Paseo must be complete prior to issuance of the FCO for the later of the Buildings on Parcel A or Parcel B. San Ramon Paseo must be complete prior to issuance of the FCO for the 50<sup>th</sup> Townhouse Unit. For purposes of this Section 8, the Brighton Paseo and San Ramon Paseo will be considered “complete” when they are sufficiently complete to allow the public to occupy or utilize the spaces for their intended use as described in the DSG, as reasonably determined by the Planning Director.

**Schedule 1-A**

<b>Parcel</b>	<b>Approximate Unit Count</b>	<b>Affordable or Market Rate Units</b>	<b>Approximate Size</b>
<b>Phase 1</b>			
Parcel E	124 Units	Affordable	
Parcel F	154 Units	Affordable	
Parcels C & D	260 Units	Market Rate	
Parcels H, TH1 & TH2	100 Units	Market Rate	
Parcel J Reservoir Park			2 Acres
Parcel L San Ramon Paseo			
Infrastructure Improvements	<i>[describe]</i>		
<b>Phase 2</b>			
Parcel A	182 Units	Affordable	
Parcel B	90 Units	Affordable	
Parcel G	190 Units	Market Rate	
SFPUC Open Space & Parcel O			

Gateway Landscape			
Parcel K Brighton Paseo			
Child Care Facility			100 seats
Community Room			
Public Parking			
Infrastructure Improvements	<i>[describe]</i>		

*[insert phasing plan]*

**SCHEDULE 2-1  
SCHEDULE OF IMPACT FEES**

<b>Impact Fee Applicable to Project</b>	<b>Planning Code Section</b>
Transportation Sustainability Fee	Sec. 411A.1-411A.9
<b>Impact Fees Waived for Project</b>	<b>Planning Code Section</b>
Balboa Park Impact Fee	Sec. 422.1-422.4
Residential Child Care Fee	Sec. 414A.1-414A-8
Residential Affordable Housing Fee	Sec. 415.1-415.11

## **SCHEDULE 2-2**

### **SCHEDULE OF CODE WAIVERS AND AMENDMENTS**

The following sections of the San Francisco Municipal Code are waived or modified by this Agreement:

#### **Administrative Code Chapter 56 (Development Agreements).**

The provisions of the Workforce Agreement shall attached to the Development Agreement as Exhibit I shall apply in lieu of the provisions of Administrative Code Section 56.7(c), Chapter 82.4, Chapter 23, Chapter 14B and Chapter 6.22.

The provisions of the Agreement regarding any amendment or termination, including those relating to “Material Change” shall apply in lieu of the provisions of Administrative Code Section 56.15 and Section 56.18.

In connection with the Agreement, the Board of Supervisors found that the City substantially complied with Administrative Code Section 56, and waived any procedural or other requirements if an to the extent not strictly complied with in the approval and adoption of the Agreement.

The competitive selection process for the disposition of the Project Site and the subsequent negotiation of the Agreement, including the Affordable Housing Program attached to the Agreement as Exhibit D satisfies the intent of Chapter 41B and, to the extent of any non-compliance, Chapter 41B is waived.

In recognition of the Fiscal Feasibility Report adopted by the Board of Supervisor as Resolution 85-18 and the depth of analysis and sophistication required to appraise the Project Site in connection with the sale of the Project Site, the Appraisal Review required by Section 23.3 is waived.

#### **Planning Code**

The Impact Fees described in Schedule 2-1 constitute the entirety of impact fees required for the Project. As such, the impact fees described in Article 4 of the Planning Code are waived on the condition that Developer pays the impacts fees and other exactions required by the Agreement.

The Master Infrastructure Plan attached to the Agreement as Exhibit M is deemed to satisfy the requirements of Section 138.1 and, to the extent of any non-compliance, Section 138.1 is waived.

The Affordable Housing Plan attached to the Agreement as Exhibit D is deemed to satisfy the requirements of Section 415 *et seq.* and, to the extent of any non-compliance, Section 415 *et seq.* is waived.

The Project Open Space described in Exhibit C and Exhibit C-1 of the Agreement is deemed to satisfy the requirements of Section 422 (Balboa Park Community Improvements Fund) and, to the extent of any non-compliance, Section 422 is waived.

The Child Care Program attached to the Agreement as Exhibit L is deemed to satisfy the requirements of 414A and, to the extent of any non-compliance, Section 414A is waived.

### **Subdivision Code**

A Public Improvement Agreement, if applicable, shall include provisions consistent with the Development Agreement and the applicable requirements of the Subdivision Code and the Subdivision Regulations regarding extensions of time and remedies that apply when improvements are not completed within the agreed time. Accordingly, Section 1348 is waived.

### **Public Works Code**

The Master Infrastructure Plan attached to the Agreement as Exhibit M is deemed to satisfy the requirements of 806(d) and, to the extent of any non-compliance, Section 138.1 is waived.

### **Heath Code**

The Board of Supervisors found that the recycled water requirements set forth in Section 12B would inhibit the timely and efficient construction of the Affordable Units and any townhouse condominium units and, as such, the requirements of Section 12B , to the extent applicable to the Affordable Units or any townhouse condominium units included in the Project are waived.