Appendix G
Affordable housing plan

04.2023

Contents

Plans and Figures

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Affordable Housing Plan Compliance

As per Section G of the North Bayshore Precise Plan Affordable Housing Administrative Guidelines, the following is included in this Affordable Housing Plan.

Location and Assessor Parcel Numbers	See *Section G2*
Complete neighborhood area and character area	See *Section G2*
Proposed FAR and Tier level	See *Table G3.2*
Standard City planning application materials	See *Master Plan*
Proposed residential program	See *Table G3.1*
Description of how affordable housing will be provided	See *Section G4*
On-Site Affordable Housing	See *Section G4.2*
Land Dedication	See *Section G4.1*
Plan for unbundled residential parking,	See *Section G4.3*
Environmental and geotechnical site analysis	Previously provided to City
Infrastructure analysis	See *Section G4.4*
Proposed transportation demand management (TDM) program	See *Section G4.3* and *Appendix H* of the *Implementation Plan*
Phasing and implementation strategy	See *Section G5*
Schedule for transfer	See *Exhibit F of the Development Agreement*

G1. Introduction

A critical component to the vibrant, walkable, mixed-use community envisioned by the Master Plan is the delivery of 15 percent affordable housing. The diversity of housing supports the diversity of jobs in the area, and provides opportunities for a wide range of residents to live closer to work, services and amenities in the complete neighborhoods that will be developed. The Master Plan provides 15 percent affordable housing facilitated via land dedication for stand-alone affordable housing.

Dedication of land to the City of Mountain View is the number one key strategy to achieving the *North Bayshore Precise Plan's* affordable housing objective (*Section 3.4.1*). Land parcels are interwoven into the fabric of each neighborhood and have been identified in accordance with the Precise Plan objectives and NBPP Affordable Housing Administrative Guidelines. With access to public funding sources for affordable housing production, the City and affordable housing developers will have maximum flexibility to serve a wide range of incomes and special needs to increase the diversity of the overall community. Additionally, inclusionary units provided within the market rate buildings will add to the range of housing opportunities for future residents.

Terminology

NORTH BAYSHORE PRECISE PLAN

This Master Plan and related documents reference the vision, guiding principles, and planning controls set by the *North Bayshore Precise Plan* ("Precise Plan'' or "NBPP") for the district. The Precise Plan was adopted by the City on November 25, 2014, and was thereafter amended in 2017, 2018, 2019, 2020, and 2021.

NORTH BAYSHORE MASTER PLAN

Describes an area covering approximately ±153 acres which represents the land to which the *North Bayshore Master Plan* ("Master Plan" or "Plan") applies. Throughout this document, "the Project" is also used to describe the Master Plan.

COMPLETE NEIGHBORHOODS

The NBPP looks to transform the central area of North Bayshore that surrounds N. Shoreline Boulevard by proposing three "Complete Neighborhoods" — Shorebird, Joaquin and Pear. These complete neighborhoods are intended to have a balanced mix of housing, office, services, and open space within a safe, comfortable, and convenient walking distance for residents and employees.

Abbreviations

AC: Acre

AMI: Average median income

BMR: Below market rate

City/CMV: City of Mountain View

DU: Dwelling unit

EIR: Environmental impact report

FAR: Floor area ratio

GSF: Gross square feet

NBPP: North Bayshore Precise Plan

POPA: Privately-owned, publicly-accessible open space

M: Million

MASTER PLAN: A mixed-use land use proposal applicable to the Master Plan Area.

MASTER PLAN AREA: A ±153-acre land holding within North Bayshore to which this Master Plan applies.

NBS: North Bayshore

RFP: Request for Proposals

SEIR: Subsequent environmental impact report

SF: Square feet

TDM: Transportation demand management

VTM: Vesting tentative map

Document Notes

FIGURES

All figures in this document are provided for illustrative purposes only. The conceptual renderings used throughout the Master Plan, and other supporting documents, are representative of architectural design concepts or design intent for new mixed-use and office buildings. They are provided to give a general impression of the building's scale and massing relative to the public open spaces and streetscape that their ground floor uses help to frame and activate. Buildings and site-specific architectural designs will be provided with each phase of permit entitlements.

MEASUREMENT

Unless otherwise noted, all area measurements throughout this document indicate gross square feet.

DISTRICT SYSTEMS

District systems are contemplated as a design option within the framework of this Master Plan. They are not a definitive design element.

STREET NAMES

New streets have been given names, inspired by the local context, as placeholders to be used during the planning process. Final names of public streets shall be determined by the City; private streets will be named by the land owner with the approval of the City.

BLOCK REFERENCES:

This Master Plan identifies block references eg. SB-BR-1. The Master Plan block references differ from the VTM lot references eg. SB1. All references in this Master Plan are block references, unless otherwise noted.

G2. Existing sites

The following parcels represent the entire Master Plan Area. As a result of the subdivision mapping process, new or altered parcels will result, some of which will be for residential uses. Of those residential parcels, ±6.94 ac will be dedicated to the City for affordable housing.

Shorebird

VTM PARCEL	APN	ADDRESS/S	CHARACTER AREA		AREA	DEDICATION
SB25	116-14-072	1300 Space Park Way	General	0.92 ac	40,014 sf	Partial
	116-11-028	1371 Shorebird Way 1375 Shorebird Way	General	4.86 ac	211,794 sf	Partial
	116-14-070	1250 Space Park Way	Edge	0.63 ac	27,277 sf	All
	116-11-038	1201 Charleston Rd 1345 Shorebird Way 1355 Shorebird Way 1365 Shorebird Way	Edge	16.73 ac	728,872 sf	Partial

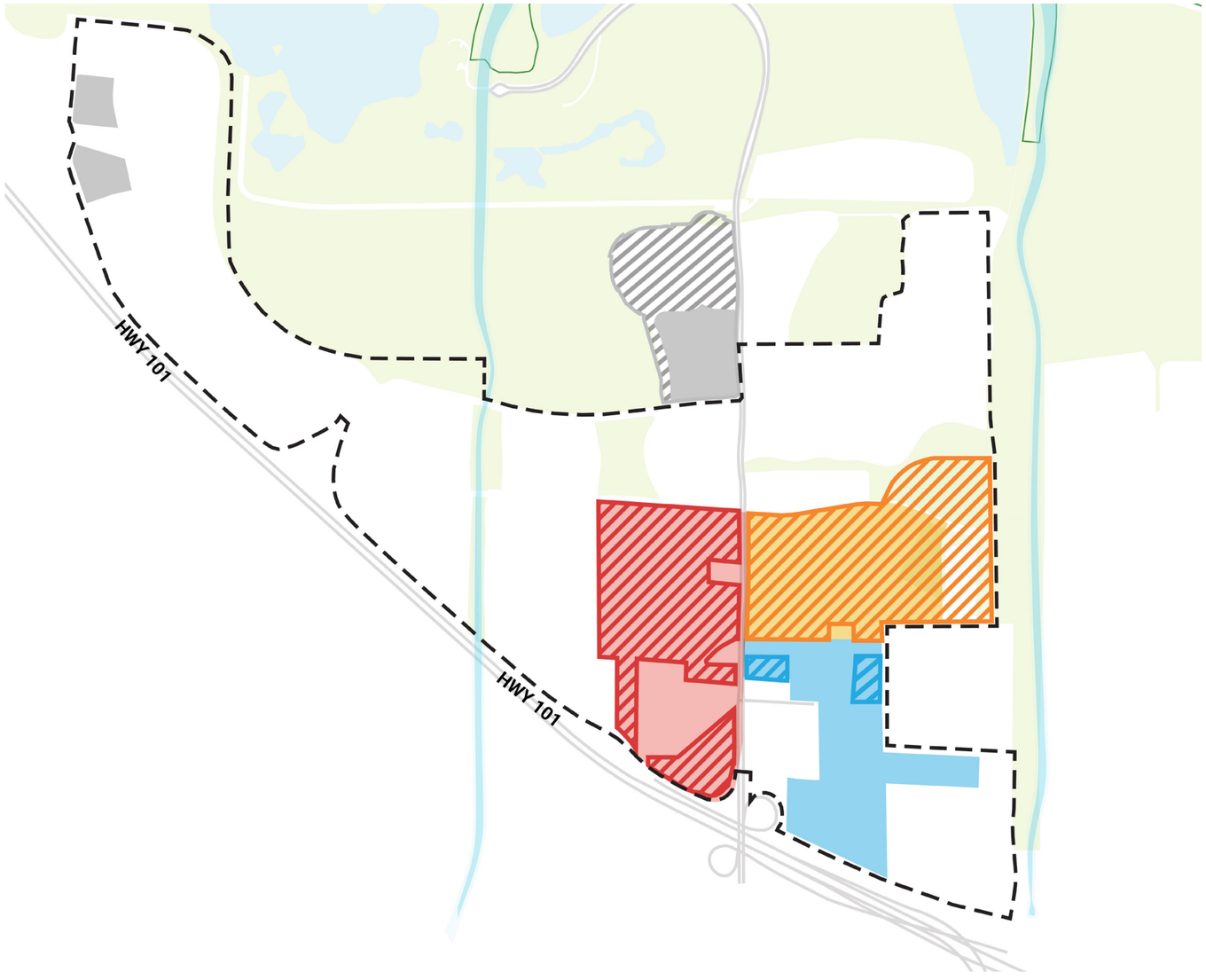
Joaquin

VTM PARCEL	APN	ADDRESS/S	CHARACTER AREA		AREA	DEDICATION
JN6	116-10-102	1565 Charleston Rd 1585 Charleston Rd	Core	9.55 ac	415,897 sf	Partial
	116-10-104	1010 Joaquin Rd	Core	3.81 ac	166,053 sf	Partial
JS2	116-13-027	1555 Plymouth St	Gateway	3.13 ac	136,383 sf	Partial
JS3	116-10-101	1477 Plymouth St 1435 Plymouth St	Gateway	1.03 ac	44,826 sf	Partial
JS4	116-10-101	1477 Plymouth St 1435 Plymouth St	Gateway	1.03 ac	44,826 sf	Partial
	116-10-088	1431 Plymouth St	Gateway	0.75 ac	32,517 sf	Partial

Pear

VTM PARCEL	APN	ADDRESS/S	CHARACTER AREA		AREA	DEDICATION
PE2	116-14-095	1230 Pear Avenue	General	1.08 ac	46,923 sf	All
	116-14-028	1220 Pear Avenue	Edge	1.13 ac	49,112 sf	All

Figure G2.1 NBPP COMPLETE NEIGHBORHOODS



Key

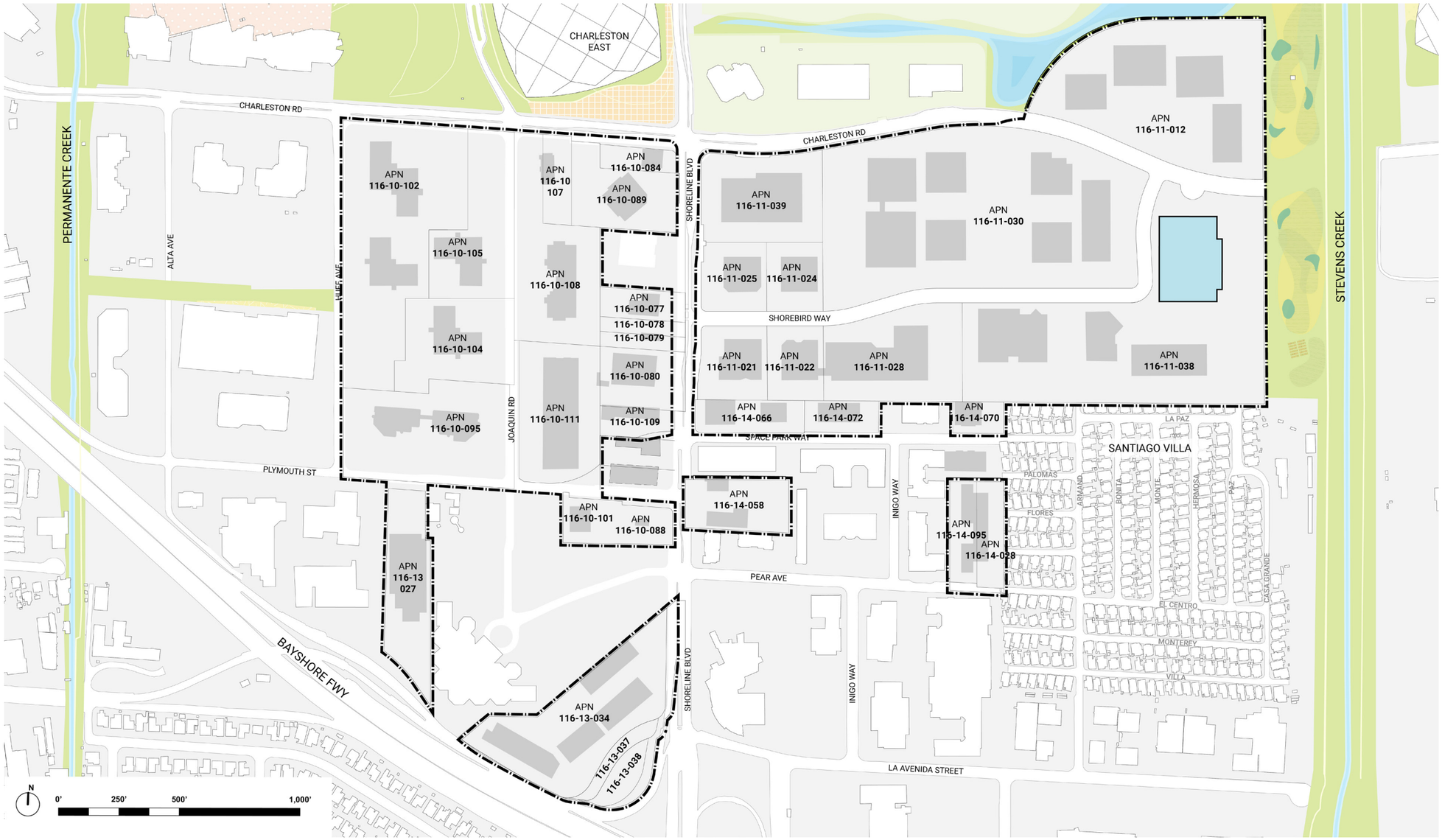
NBPP COMPLETE NEIGHBORHOODS

- JOAQUIN
- SHOREBIRD
- PEAR
- NBPP BOUNDARY

PROJECT AREA

- JOAQUIN
- SHOREBIRD
- PEAR
- OFF SITE DISTRICT PARKING
- AREA NOT SUBJECT TO REDEVELOPMENT

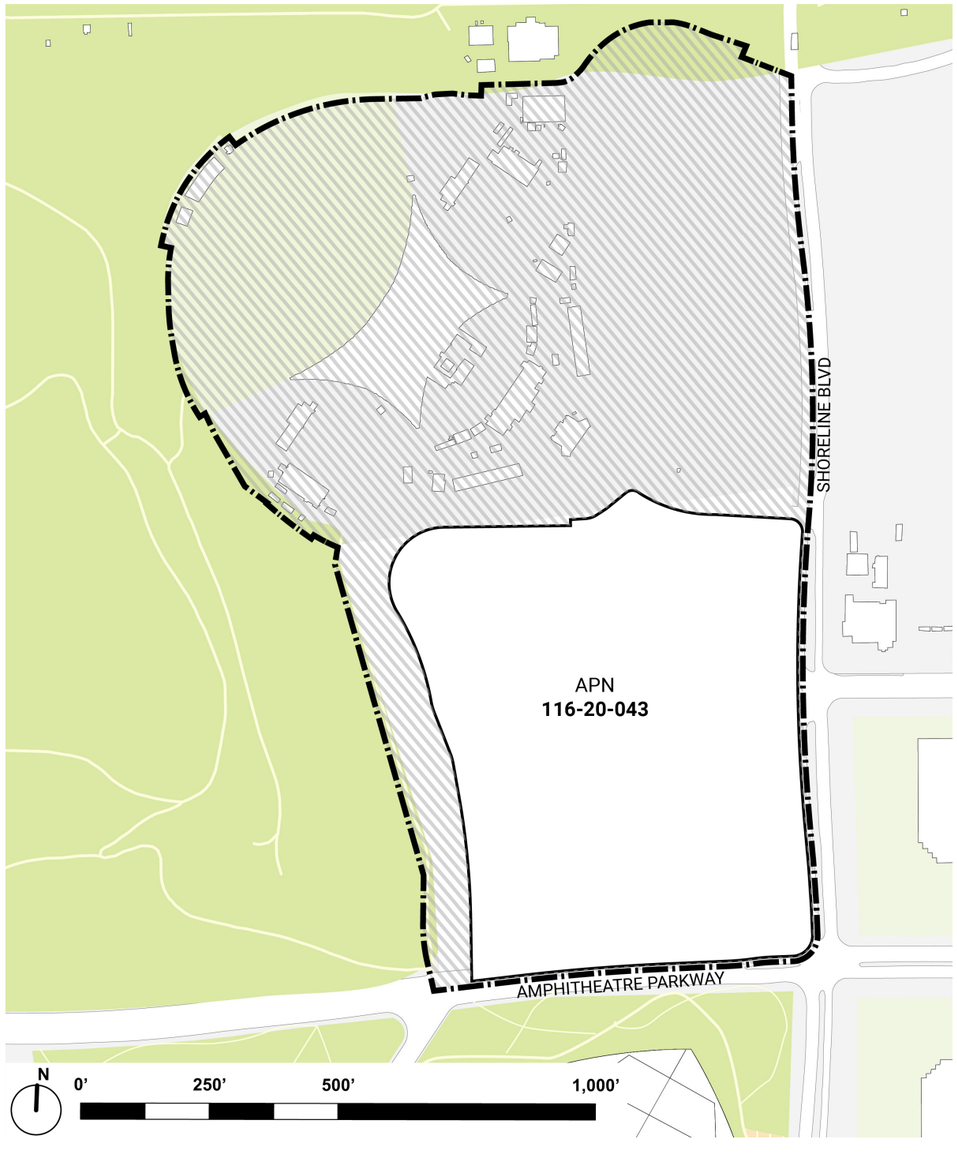
Plan G2.1 EXISTING PARCELS - CORE PROJECT AREA (APN)



Key

- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE REMOVED
- EXISTING OPEN SPACE
- PROJECT AREA

Plan G2.2 EXISTING PARCELS - MARINE WAY AND SHORELINE (APN)



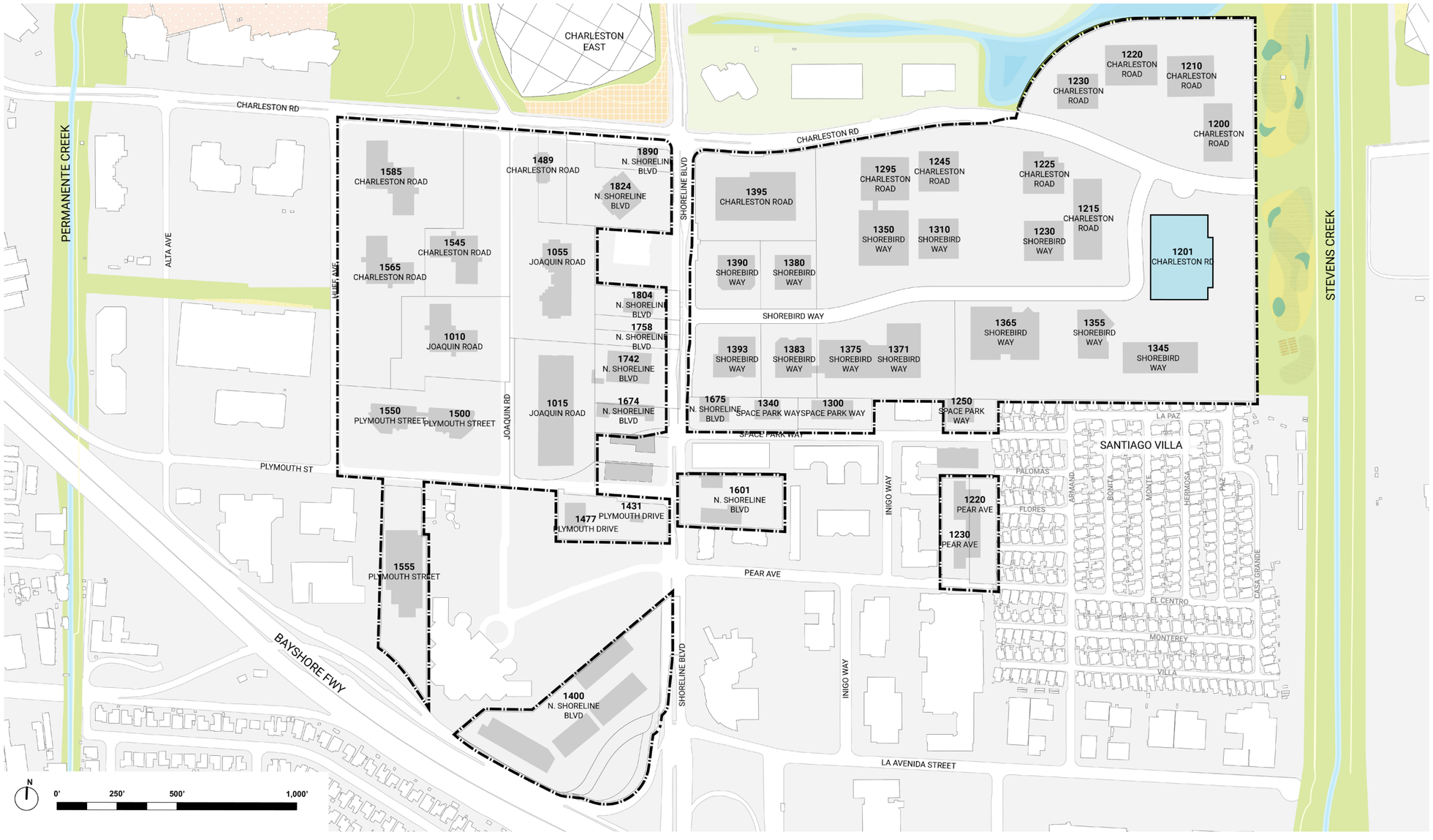
Key

- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE REMOVED
- EXISTING OPEN SPACE
- PROJECT AREA
- AREA NOT SUBJECT TO REDEVELOPMENT

Note:

SA-P-1 (Amphitheatre Parking Garage) is a planned parking garage that would provide parking for uses located within the Master Plan Area. The parking garage will be part of the Master Plan's CEQA review but will require a Development Review Permit as it is located outside of the NBPP area.

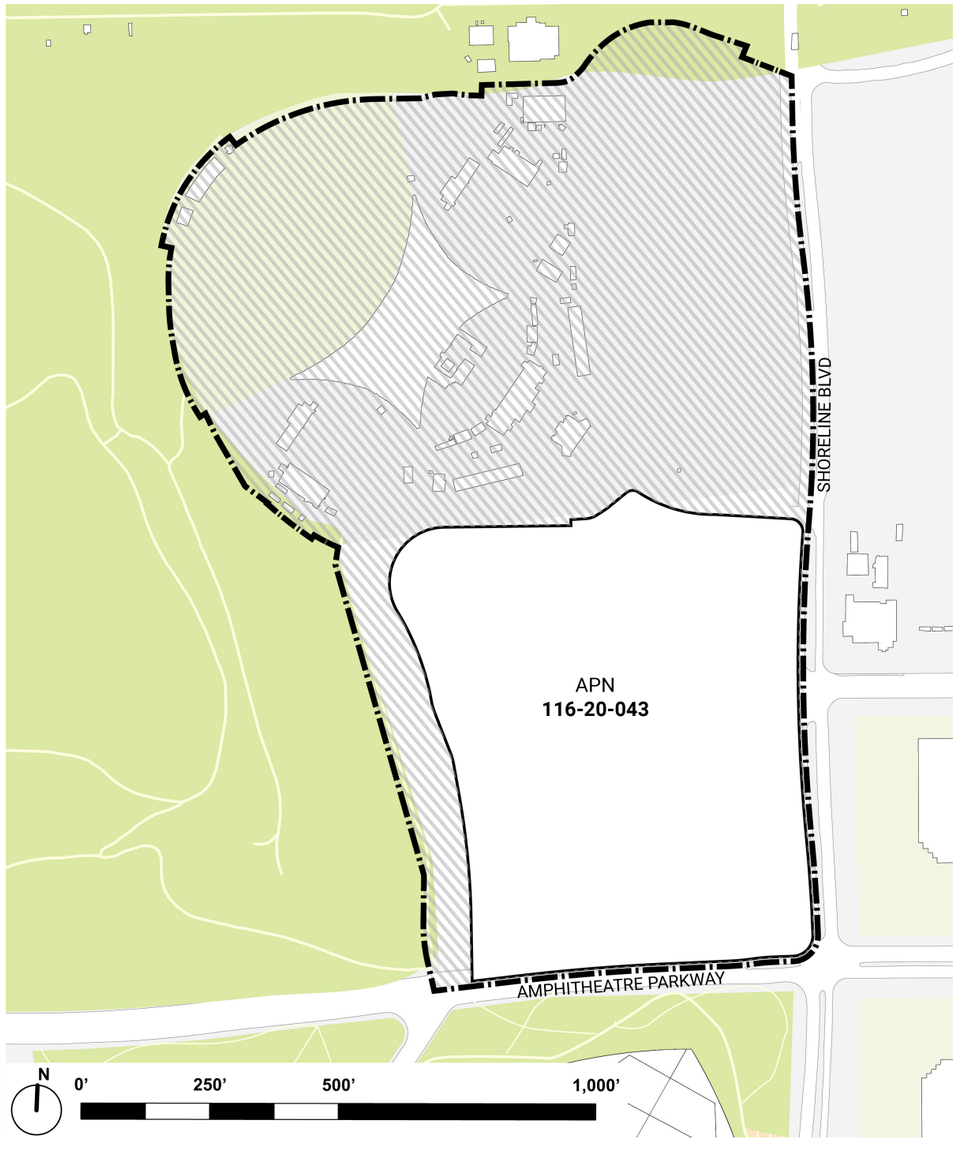
Plan G2.3 EXISTING PARCELS - CORE PROJECT AREA (APN)



Key

- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE REMOVED
- EXISTING OPEN SPACE
- PROJECT AREA

Plan G2.4 EXISTING PARCELS - MARINE WAY AND SHORELINE (APN)



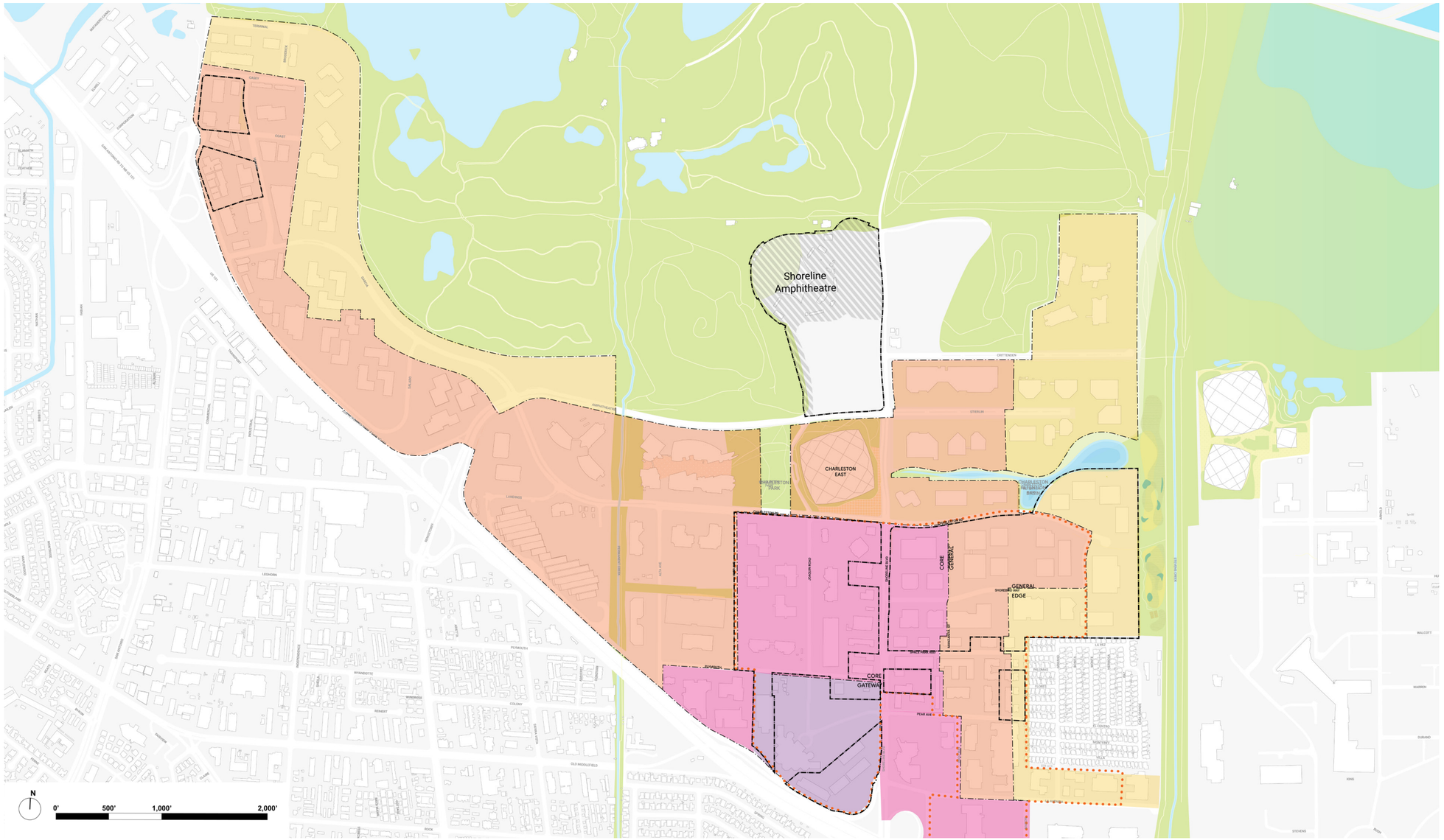
Key

- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE REMOVED
- EXISTING OPEN SPACE
- PROJECT AREA
- AREA NOT SUBJECT TO REDEVELOPMENT

Note:

SA-P-1 (Amphitheatre Parking Garage) is a planned parking garage that would provide parking for uses located within the Master Plan Area. The parking garage will be part of the Master Plan’s CEQA review but will require a Development Review Permit as it is located outside of the NBPP area.

Plan G2.5 NBPP CHARACTER AREAS (EXISTING BUILDINGS)



Key

- GATEWAY CHARACTER AREA
- CORE CHARACTER AREA
- GENERAL CHARACTER AREA
- EDGE CHARACTER AREA
- EXISTING OPEN SPACE
- EXISTING BUILDINGS
- PROJECT AREA
- NBPP COMPLETE NEIGHBORHOODS BOUNDARY
- AREA NOT SUBJECT TO REDEVELOPMENT

Note:

SA-P-1 (Amphitheatre Parking Garage) is a planned parking garage that would provide parking for uses located within the Master Plan Area. The parking garage will be part of the Master Plan's CEQA review but will require a Development Review Permit as it is located outside of the NBPP area.

G3. Plan overview

This Affordable Housing Plan outlines the key affordable housing elements for the NBS Master Plan. As an implementation tool, the Master Plan, in conjunction with the NBPP, establishes the governing parameters for future residential zoning permits.

The Master Plan seeks to redevelop Google's landholdings predominantly in the Shorebird and Joaquin Complete Neighborhoods, as well as adjoining parcels in the Pear Complete Neighborhood.

The following summarizes the key elements of the Master Plan:

- up to ±3,145,897 sf of office space comprised of 1,303,250 sf of net new office and the redevelopment of ±1,842,647 sf of existing office;
- up to 7,000 new residential units;
- up to 295,000 sf of active ground plan uses including retail and community uses;
- up to 340,000 sf of hotels uses;
- up to 130,000 sf of district central plant;
- up to ±26.1 acres of publicly accessible open space;
- 4,500 linear feet new public streets; and
- district office, residential and active use parking, including centralized district parking garages.

Table G3.1 MASTER PLAN ESTIMATED RESIDENTIAL DEVELOPMENT PROGRAM

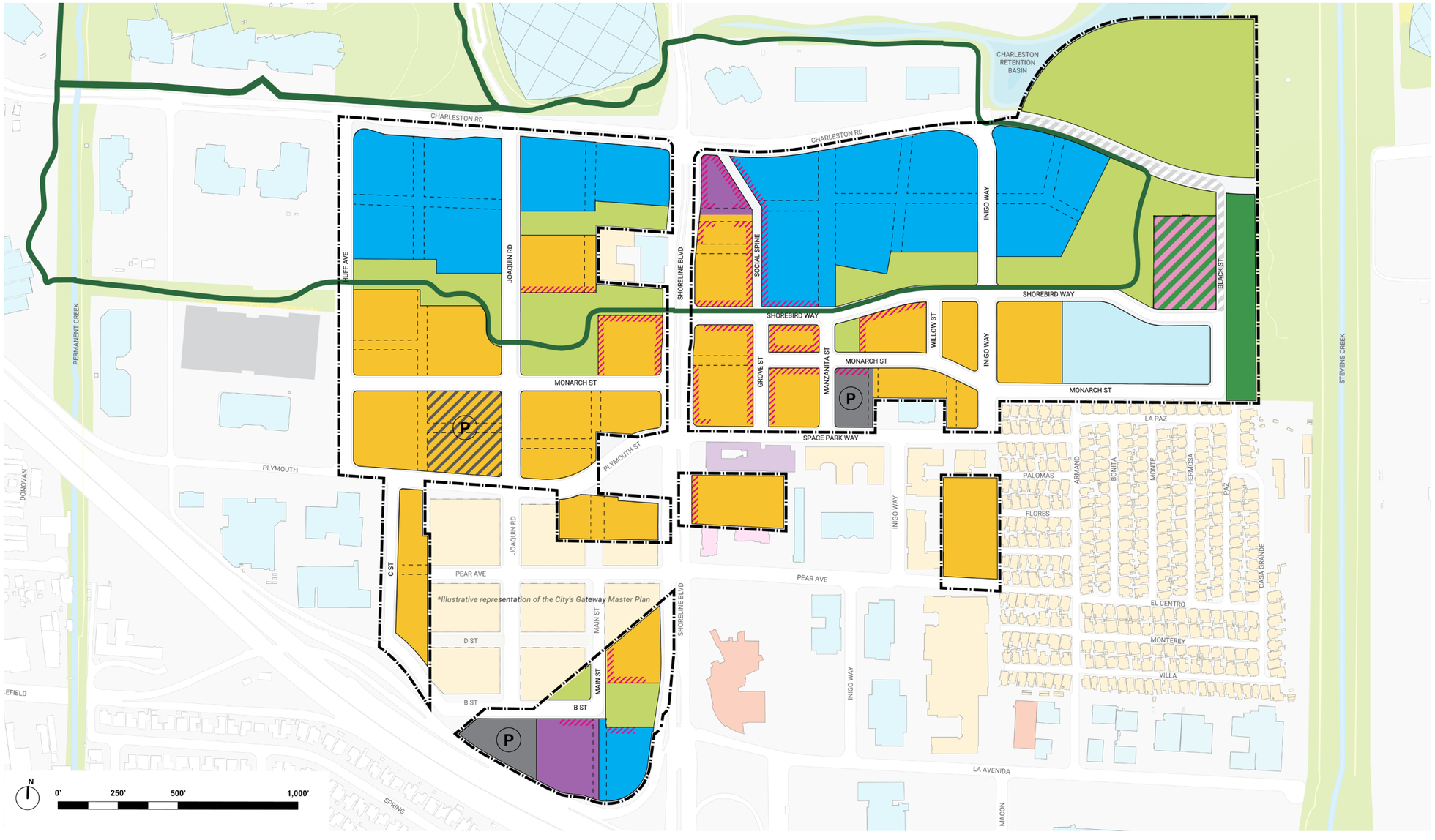
LAND USE	TOTAL	SHOREBIRD	JOAQUIN	PEAR
Residential units	**7,000 du**	**2,085 du**	**4,343 du**	**572 du**
Market rate units	5,950 du	1,865du	3,744 du	341 du
Land dedicated units	1,050 du	220 du	599 du	231 du

Note: Up to 7,000 total residential units will be constructed over the course of the Master Plan's build out, and subject to requisite zoning approvals.

Table G3.2 ASSESSMENT FRAMEWORK

NEIGHBORHOOD	Shorebird, Joaquin and Pear Complete Neighborhoods - see Section 2 for more detail.
CHARACTER AREA DESIGNATION	Gateway, Core, General and Edge Character Areas - see Section 2 for more detail.
PRECISE PLAN BONUS FAR TIER	Residential Bonus FAR Tier I
PERCENT AFFORDABLE HOUSING REQUIREMENT	15 percent affordable housing

Plan G3.1 LAND USE (CORE PROJECT AREA)



Key

- OFFICE
- RESIDENTIAL
- ACTIVE USES
- HOTEL
- PUBLIC USE
- FLEX - PARKING, RESIDENTIAL
- FLEX - COMMUNITY USE, DISTRICT SYSTEMS
- PARKING
- DISTRICT CENTRAL PLANT
- GREEN LOOP
- INDICATIVE LOCATION OF MID-BLOCK BREAKS
- CONCEPTUAL DEVELOPMENT BLOCKS
- OPEN SPACE
- LIMITED ACCESS STREET
- PROJECT AREA

Note:

This Plan is part of the North Bayshore Master Plan. This Plan demonstrates a conceptual plan for the future development of the Master Plan Area. Roadway alignments, and land use parcels are general depictions. This Master Plan may be subsequently updated and modified in response to City comments as part of the development review process, and future zoning permit applications.

G4. Affordable housing plan

Affordable housing within the Master Plan Area will allow low and middle income residents more housing choices closer to work, services, and amenities, and will increase diversity and equity in housing opportunities. The Master Plan provides 15 percent of all residential units facilitated via land dedication for stand-alone affordable housing.

The location of dedicated affordable sites will be generally in accordance with *Plan G.4.1*.

Land dedication

The Tier 1 Bonus FAR requirements for 15 percent affordable housing (approximately 1,050 affordable units), will be met by dedicating various parcels of land to the City of Mountain View to be subsequently developed by others for standalone affordable housing in accordance with the NBPP Section 3.4.1A.4 “Land Donation”. The location of dedicated affordable sites will be generally in accordance with *Plan G.4.1* and *Table G.4.*2.

Table G4.1 LAND DEDICATION OVERVIEW

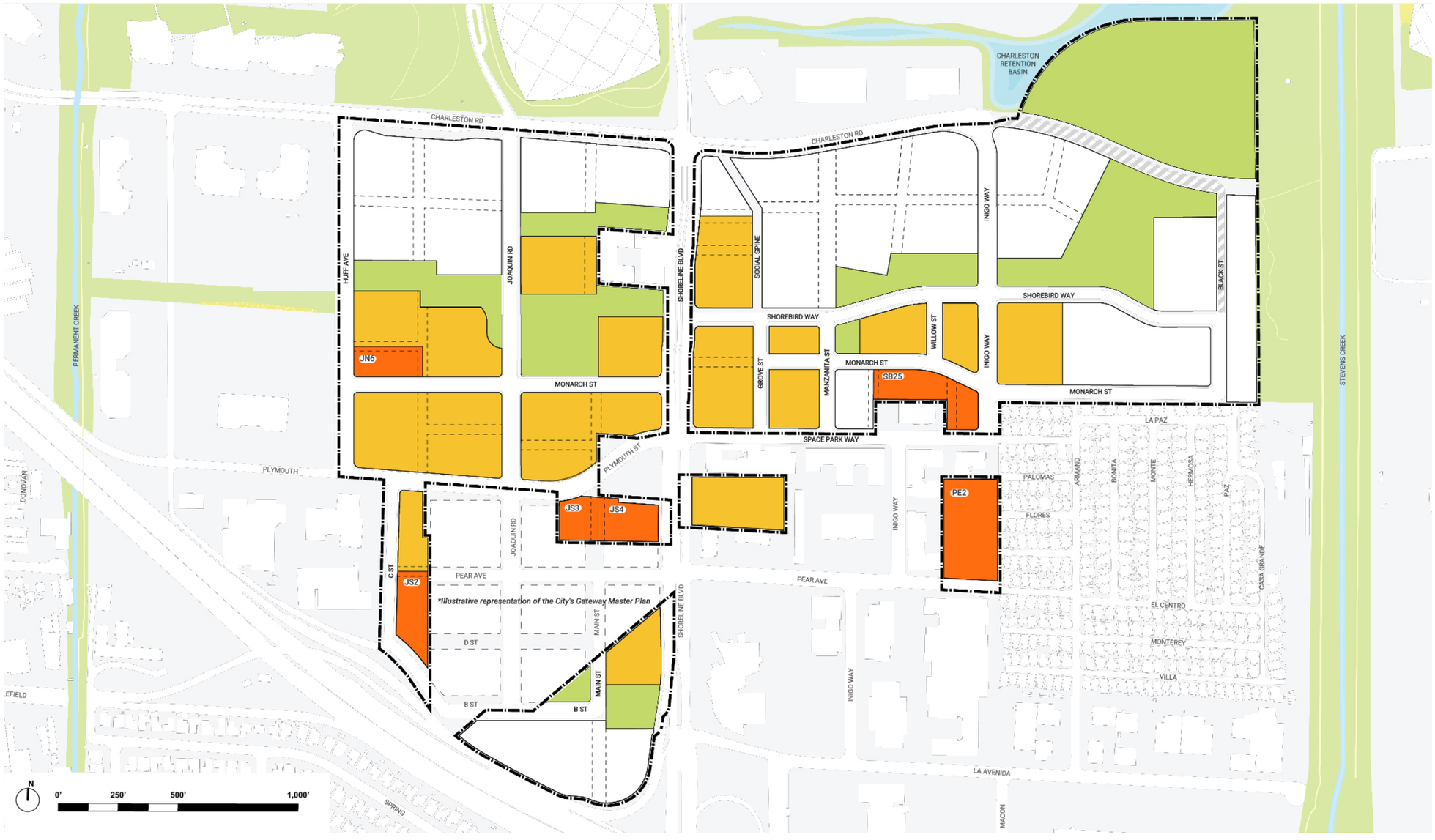
AMI	To be determined as part of the City RFP process.
UNIT MIX	To be determined as part of the City RFP proposed.
MINIMUM PARCEL SIZE AND DIMENSIONS	The average parcel size for the dedicated parcel is ±1.4 acres. Refer to *Table G.4.2* for site specific areas.
LAND DEDICATION FORMULA	Estimated residential yield is calculated based on the allowable density achievable on the site in compliance with the NBPP development standards. Yield assumes typical buildings will be mid-rise (max height of 8 stories, or lower as required by the NBPP; and assumed unit mix of 25% studios, 25% 1 bedroom, 25% 2 bedroom and 25% 3 bedrooms for maximum flexibility in City’s RFP process).

Table G4.2 AFFORDABLE HOUSING PARCELS TO BE DEDICATED

BLOCK REF	VTM REF	NEIGHBORHOOD	PHASE	AREA	ESTIMATED RESIDENTIAL YIELD[1]	PERCENTAGE OF TOTAL YIELD
PE-BR-2	PE2	Pear	Phase 1	± 2.15 ac	±231du	±3.3%
JS-PR-2	JS3, JS4	Joaquin	Phase 1	± 1.60 ac	±276 du	±3.9%
SB-BR-6	SB25	Shorebird	Phase 2	± 1.40 ac	±220 du	±3.1%
Part of JN-BR-1	JN6	Joaquin	Phase 7	± 0.83 ac	±167 du	±2.4%
Part of JS-BR-1	JS2	Joaquin	Phase 8	± 0.97 ac	±156 du	±2.2%
TOTAL				**±6.94 ac**	**±1,050 du**	**±15%**

1 Estimated residential yield is calculated based on compliance with the NBPP development standards. Yield assumes typical buildings will be mid-rise (max height of 8 stories, or lower as required by the NBPP; and a unit mix of 25% studios, 25% 1 bedroom, 25% 2 bedroom and 25% 3 bedrooms).

Plan G4.1 DEDICATED AFFORDABLE HOUSING PARCELS



Key

- MARKET RATE RESIDENTIAL
- AFFORDABLE HOUSING LAND DEDICATION SITE
- INDICATIVE LOCATION OF MID-BLOCK BREAKS
- CONCEPTUAL DEVELOPMENT BLOCKS
- XX-X-# VTM LOT NUMBER
- OPEN SPACE
- LIMITED ACCESS STREET
- PROJECT AREA

Note:

This Plan is part of the North Bayshore Master Plan. This Plan demonstrates a conceptual plan for the future development of the Master Plan Area. Roadway alignments, and land use parcels are general depictions. This Master Plan may be subsequently updated and modified in response to City comments as part of the development review process, and future zoning permit applications.

Circulation and mobility

The Project's circulation and mobility strategy is included in *Chapter 6* of the *Master Plan*.

TRANSPORTATION DEMAND MANAGEMENT (TDM) PROGRAM

A TDM Plan, which is inclusive of affordable housing, is included as *Appendix F* of the *Implementation Plan*. As noted in the North Bayshore Residential TDM Guidelines, affordable housing in itself is a required TDM strategy of all projects within North Bayshore because residents of affordable housing typically have lower auto ownership rates and reduce overall project vehicle miles traveled (VMT).

PARKING

For the land dedicated parcels, it is anticipated that the City will issue an RFP for interested third parties to develop standalone affordable housing. Accordingly, information regarding pricing for unbundled parking and operation costs will be addressed as part of the City's RFP process, or future zoning permit applications as determined by the relevant third parties. The yield assumptions for the land dedication sites targeted a ratio of 0.65 stalls to units, the City and its selected developer will ultimately determine the achievable and appropriate parking ratio for the development.

Utilities and district systems

The Project's utilities and district systems strategy is included in *Chapter 7* of the *Master Plan*.

PUBLIC UTILITY INFRASTRUCTURE

The Master Plan Area will require typical utility services to support the development, such as: water, sewer, storm drainage, and power services. The public networks will be extended and improved as necessary to serve the units to the property from the public street.New utility connections, where required, will be provided to the parcel boundary for all dedicated land parcels.

Google, as master developer, will work together with the City to construct sidewalks and provide street access as agreed to as part of the Master Plan and Development Agreement. Sidewalks, street lighting and street trees will be installed in coordination with the redevelopment of the affordable parcel.

DISTRICT SYSTEMS

The Master Plan includes two district system options. If it is determined that District Systems will be implemented, it will enhance the capacity and resilience of the City's networks with the opportunity to produce and treat resources locally. There is potential to connect district systems to dedicated land parcels. The decision to provide such connections is subject to the City's discretion as well as project phasing, availability of service, and regulatory approvals.

G5. Phasing and implementation

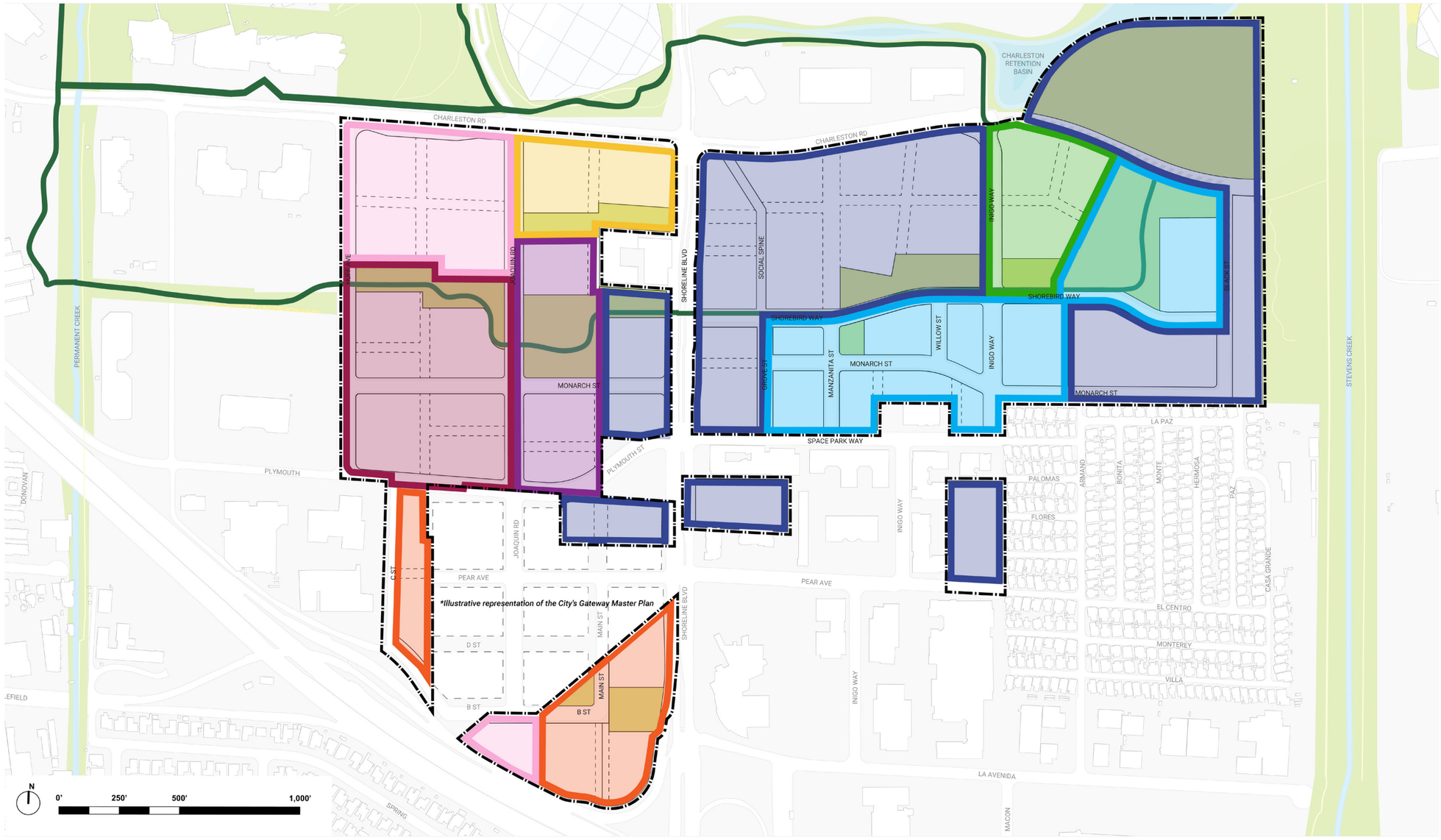
The Project's phasing strategy is included in *Appendix C* of the *Implementation Plan*.

The Project will be divided into eight phases, of which, five include residential development. Shorebird will be delivered as the first Complete Neighborhood in three phases. The delivery of Shorebird will also include development of two noncontiguous development parcel in Pear, and one contiguous development parcels in Joaquin South.

Joaquin North, being that part of the neighborhood north of Plymouth Street, will be delivered as the second Complete Neighborhood in four phases. Joaquin South, will be largely delivered in the final phase to allow for the potential to develop concurrently with the other major landowner within the Gateway Master Plan Area, facilitating the co-delivery of new roads, pedestrian/bike connections, and horizontal infrastructure.

The dedication of land for affordable housing will be delivered generally in accordance with *Exhibit F* of the *Development Agreement*.

Plan G5.1 PHASING



Key

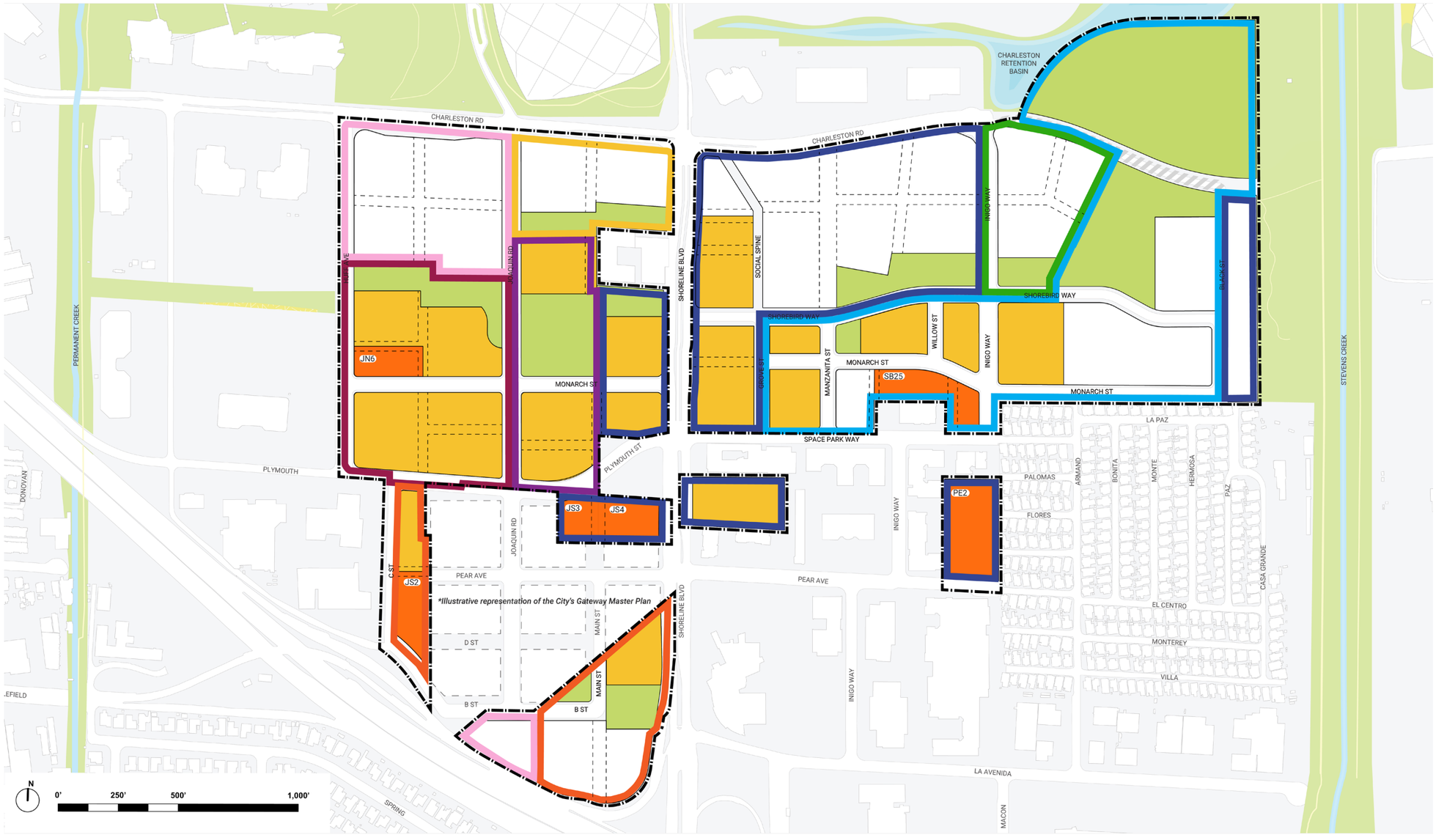
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5
- PHASE 6
- PHASE 7
- PHASE 8
- INDICATIVE LOCATION OF MID-BLOCK BREAKS/ PRIVATE DRIVEWAYS
- CONCEPTUAL DEVELOPMENT BLOCKS
- OPEN SPACE
- LIMITED ACCESS STREET
- PROJECT AREA

Note:

The location of phasing boundaries is conceptual and reflective of land use phasing only. Phasing boundaries are not inclusive of the location of horizontal improvements (either within the Project Area or off-site) such as new streets, utility lines etc needed to serve each phase.

This Plan is part of the North Bayshore Master Plan. This Plan demonstrates a conceptual plan for the future development of the Master Plan Area. Roadway alignments, and land use parcels are general depictions. This Master Plan may be subsequently updated and modified in response to City comments as part of the development review process, and future zoning permit applications.

Plan G5.2 DEDICATED AFFORDABLE HOUSING PARCELS BY PHASE



Key

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5
- PHASE 6
- PHASE 7
- PHASE 8
- MARKET RATE RESIDENTIAL
- AFFORDABLE HOUSING LAND DEDICATION SITE
- INDICATIVE LOCATION OF MID-BLOCK BREAKS
- CONCEPTUAL DEVELOPMENT BLOCKS
- XX# VTM LOT NUMBER
- OPEN SPACE
- LIMITED ACCESS STREET
- PROJECT AREA

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Appendix H

Transportation Demand Management (TDM) plan

04.2023

Project team

PROJECT APPLICANT

GOOGLE

APPLICANT REPRESENTATIVE

LENDLEASE SILICON VALLEY DEVELOPMENT LLC

DESIGN & CONSULTANT TEAM

HASSELL: MASTER PLANNING + URBAN DESIGN

SITELAB URBAN STUDIO: MASTER PLANNING

WEST8: PARKS + OPEN SPACE

SERA: OFFICE ARCHITECT

SCB: RESIDENTIAL ARCHITECT

SECOND NATURE: ECOLOGY

H.T. HARVEY & ASSOCIATES: ECOLOGY

FEHR & PEERS: TRANSPORTATION

KIER + WRIGHT: CIVIL AND INFRASTRUCTURE

SHERWOOD: STORMWATER AND DISTRICT WATER

INTEGRAL: SUSTAINABILITY AND DISTRICT THERMAL

ARUP: TRANSPORTATION + DISTRICT SYSTEMS + LOGISTICS

HOLMES: FIRE / LIFE SAFETY

ALLEN MATKINS: LAND USE AND ENTITLEMENTS

COBLENTZ: LAND USE AND ENTITLEMENTS

EPS: FISCAL IMPACT ANALYSIS

Contents

Introduction

The North Bayshore Framework Master Plan envisions a vibrant new North Bayshore neighborhood of residents, workers and visitors. To achieve this, Google's has designed multimodal transportation and mobility initiatives that support long-term growth and enhance the surrounding district.

With less than 44% of our North Bayshore workers commuting by single occupancy vehicle (SOV) trips today, Google has successfully demonstrated that our Transportation Demand Management (TDM) strategy can shift workers away from SOV trips. We are excited to expand upon this success and extend our current TDM programs to the new office development at Shorebird, Joaquin, and Pear. The following TDM plan outlines a set of strategies to highlight our ongoing objective to remain at or below the 35% SOV drive alone mode share target in accordance with Google's ongoing objective with the City of Mountain View.

At Google, we understand that transportation challenges cross jurisdictional boundaries and span public / private interests. Beyond meeting the trip cap and mode share targets for North Bayshore, we will continue to offer programs designed to improve circulation, minimize traffic impacts, and promote multimodal accessibility for our workers and the larger community. Looking forward, we will continue to be a leader in regional transportation solutions, including both financial contributions and development of programs and services that improve transportation for workers and the community at large.

The North Bayshore TDM Plan includes a holistic approach to supporting both office and residential developments at Shorebird, Joaquin, and Pear, while meeting the NBPP trip cap, mode share target, and residential performance standards.

The North Bayshore Office TDM Program extends our existing TDM services to provide workers with a real choice to not drive to work alone. From accessible bike paths to effective transit options, the plan includes a set of programs and infrastructure projects aimed at further shifting mode share. Transportation options include active mobility services, ride-sharing and car-sharing programs, and an extension of shuttle and transit that combined will meet or exceed the 35% SOV maximum target.

The North Bayshore Residential TDM Plan includes programs that support the inherent transportation benefits of a residential community. The Master Plan estimates 60% of housing units in the area will have one or more residents who work within North Bayshore. Since residents who live locally are more likely to simply walk or bike to work, significant auto trip generation reductions are built into the fabric of the project. The North Bayshore Residential TDM Plan also includes mobility programs and infrastructure investments that promote car-free or low-driving lifestyles for residents.

The North Bayshore TDM Plan extends our current TDM offerings as well as provides a new opportunity for improved transportation for workers, residents and the larger community. The plan is not intended to be a static list of recommendations, but rather an evolving program that can proactively adapt to meet the needs of the community as it evolves. To do this, the North Bayshore TDM Plan recognizes the importance of continued monitoring and evaluation, and adjustments as needed to continue to meet our shared mobility goals.

Document Guide

1.1. Location and Terminology

North Bayshore Precise Plan

The North Bayshore Master Plan is supported by this TDM document to describe the proposal and fulfill the application criteria set forth by the City of Mountain View.

Throughout this document, "the Project" or "the Master Plan" are also used to describe the North Bayshore Master Plan.

This document, together with the master plan, reference the vision, guiding principles, and planning controls set by the “North Bayshore Precise Plan” (“Precise Plan” or “NBPP”) for the North Bayshore district. The NBPP was originally adopted by the City of Mountain View in 2014. In December of 2017, the City updated and adopted the NBPP to allow for and to target the creation of 9,850 homes.

Complete Neighborhoods

The NBPP looks to transform the central area of the North Bayshore district that surrounds Shoreline Boulevard by proposing three Complete Neighborhoods that permit residential uses as shown in Figure 1.1.1: Pear, Shorebird, and Joaquin.

Master Plan Area

Shown in Figure 1.1.2, the Master Plan describes an area covering approximately 124 acres in the heart of North Bayshore. It is roughly consistent with, and slightly larger than, the Shorebird and Joaquin neighborhoods as defined in the Precise Plan. Additional parcels within the Pear neighborhood -1601 N. Shoreline Boulevard, 1220 Pear and 1230 Pear- are Google-owned and planned for early delivery of housing, in close proximity to the North Bayshore Master Plan. The Master Plan is comprised by three complete Neighborhoods: Shorebird, Joaquin, and Pear.

As shown in Figure 1.1.2., Shorebird is located east of Shoreline Boulevard, north of Space Park Way, and southeast of the Charleston Retention Basin.

As shown in Figure 1.1.2., Joaquin is bounded by US-101 to the south, Shoreline Boulevard to the east, Charleston Road to the north, and Huff Avenue to the west. For this proposal, Joaquin is discussed as two areas: Joaquin North and Joaquin South.

- Joaquin North: The area owned by Google within the Joaquin neighborhood, north of Plymouth, excluding the northeast quadrant of the Joaquin neighborhood boundary as defined by the Precise Plan.
- Joaquin South: Identified in the NBPP as the highest density “Gateway Character Area,” Joaquin South refers to the area south of Plymouth that is currently controlled by two property owners, Google and another property owner. The Master Plan presents a cohesive vision for the area, while respecting property boundaries and assuming proportional responsibility for the delivery of district housing targets and community benefits.

As shown in Figure 1.1.2., Pear is located east of Shoreline Boulevard, south of Space Park Way, and north of US-101.

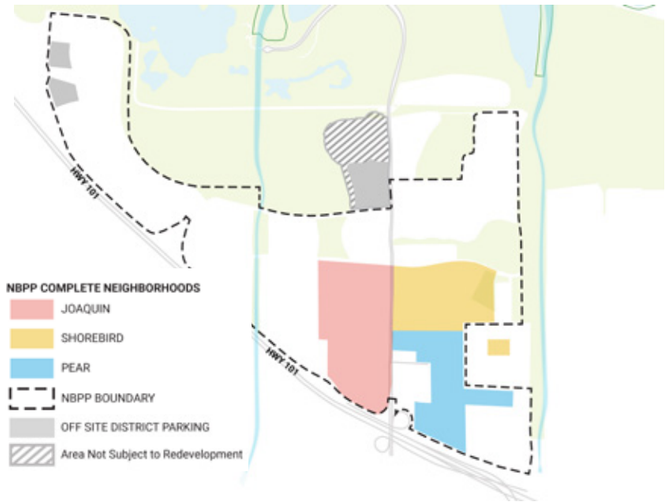

Figure 1.1.1. MASTER PLAN’S RELATIONSHIP TO NBPP NEIGHBORHOODS

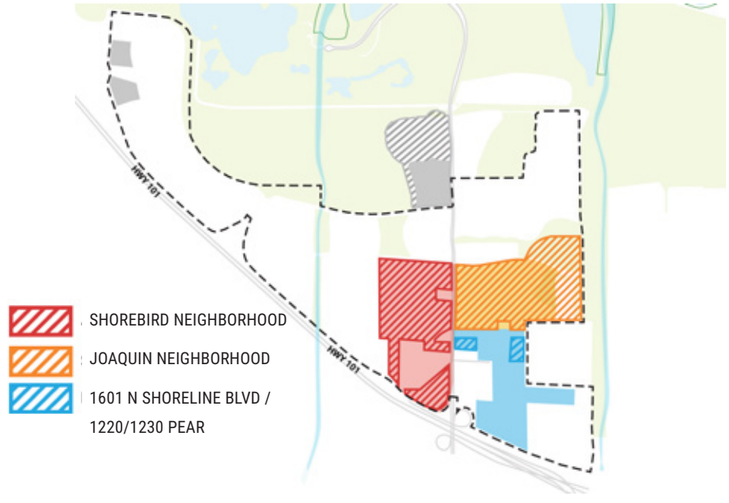

Figure 1.1.2. MASTER PLAN’S RELATIONSHIP TO NBPP NEIGHBORHOODS

Document Notes

Figures: All figures in this document are provided for illustrative purposes only. The conceptual renderings used throughout the North Bayshore Master Plan, and other supporting documents, do not represent actual architectural designs for specific residential or office buildings. They are provided to give a general impression of the building's scale and massing relative to the public open spaces they help to frame and activate through their ground floor uses and how buildings meet the street and open spaces.

Measurement: Unless otherwise noted, all area measurements throughout this document indicate gross square feet (GSF).

Residential Units: Total units shown are indicative and are subject to further refinement in proposed Master Plans and Planned Community Permits.

Transportation: New streets have been given names, inspired by the local context, as placeholders to be used during the planning process.

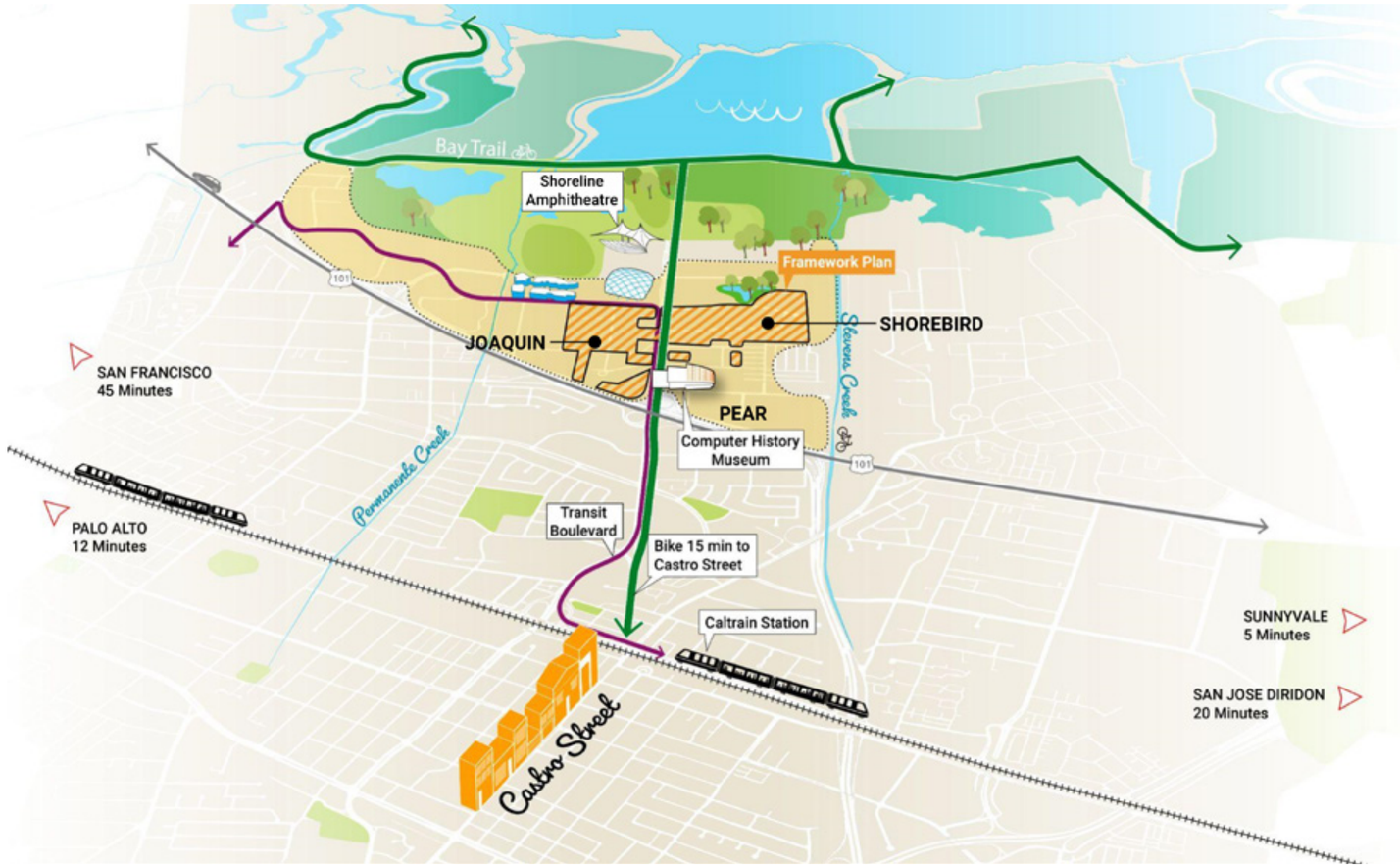

Figure 1.1.3. NORTH BAYSHORE CONTEXT


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133
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Office TDM and Project Description

2.1. Office TDM

Google began operating its first shuttle in 2004. Today, Google's transportation team is recognized as a leader in reducing commuter dependence on the car, with a drive-alone mode share of less than 44% in North Bayshore. Google's shuttle system and significant biking population are two of its most successful programs.

Building on a history of success and a reputation for leadership in employee transportation, Google has the ongoing objective to extend all of its current TDM program to office development at the Master Plan. The TDM program is tailored to ensure that Single Occupancy Vehicle (SOV) / Drive Alone usage for office trips does not exceed 35%, consistent with the North Bayshore Precise Plan (NBPP) and the North Bayshore TDM Plan Guidelines.

The region's transportation challenges affect the entire community, crossing boundaries between jurisdictions and spanning both public and private interests. Google will continue to be a leader in pursuing regional transportation solutions and delivering programs and services that improve transportation for the workforce and the community at large. Much of the work will benefit the entire community: safer pedestrian and bike routes, effective alternatives to driving, and a number of programs designed to encourage biking, carpooling and public transit use. To deliver its TDM Plan Google relies on a team that has already delivered the unprecedented success Google has experienced to date, particularly in North Bayshore. The team is led by a full-time TDM manager responsible for managing and continuously improving the program. Key principles guiding the team and its program development are measurement, experimentation, rapid adjustment, and a deep user understanding. Google is prepared to extend its TDM effort to all Google-operated buildings in the Master Plan.

TDM program success

- **4,270,000 RIDERS ON COMMUTER SHUTTLES IN 2019, EQUIVALENT TO REMOVING 9,310 CARS FROM BAY AREA ROADS EACH DAY.**
- **56.31% OF GOOGLE WORKERS DID NOT DRIVE ALONE TO THE MOUNTAIN VIEW CAMPUS IN 2019.**
- **GOOGLE'S GBUS NETWORK (COMMUTER SHUTTLE SERVICE) PROVIDES OVER 1,000 DAILY DEPARTURES, SERVING 330 STOPS IN THE NINE BAY AREA COUNTIES.**
- **10,000+ GBUS SHUTTLE BOARDINGS EACH MORNING.**
- **110 MILLION VEHICLE MILES ARE SAVED EACH YEAR BY GOOGLE WORKERS WHO USE THE GBUS NETWORK.**
- **21% OF GOOGLE WORKERS WHO LIVE WITHIN 9 MILES OF WORK RIDE A BIKE TO WORK.**
- **NEARLY 12,000 TRIPS ARE MADE ON GBIKES (GOOGLE'S BIKE SHARE) EVERY DAY, PROVIDING AN ALTERNATIVE TO DRIVING FOR INTERNAL CAMPUS TRIPS.**
- **225,000 RIDERS PER YEAR USE THE GOOGLE FUNDED MOUNTAIN VIEW COMMUNITY SHUTTLE, REMOVING LOCAL TRIPS FROM THE ROAD.**

Figure 2.1.1. MASTER PLAN'S RELATIONSHIP TO NBPP NEIGHBORHOODS

Multi-modal transit facilities provide high capacity transit, combined with first and last mile connections, allowing commuters to leave the car at home

Active mode infrastructure provide a safe and efficient district network

GBus and GBikes are two of Google's most successful TDM programs

Autonomous Vehicles

Electric Bikes

Electric Scooters

2.2. Project Description

The Master Plan proposes a diverse mix of land uses that support a vibrant public realm to connect residents, workers and visitors to art, food, and nature in North Bayshore. The project's TDM Plan supports the Master Plan by outlining the project's TDM ongoing objectives for residential occupants and office workers.

The Master Plan would contain up to 11.1[1] million square feet of development consisting of office, residential, retail and other land uses. The project site is distributed within three neighborhoods:

Shorebird: located at the southeast corner of the Shoreline Boulevard and Charleston Road intersection, bounded by Stevens Creek to the east and Space Park Way to the south.

Joaquin: located west of Shoreline Boulevard, bounded by Charleston Road to the north and US-101 to the south.

Pear: located east of Shoreline Boulevard, south of Space Park Way, and north of US-101.

Conveniently located close to US-101 and SR-237, the project has direct access to San Francisco, the Peninsula, and San Jose. There are three primary gateways into the North Bayshore area, which serve as primary vehicular access. The closest to the project is Shoreline Boulevard, which runs through the site. At Rengstorff, a second gateway provides access to the project via both Amphitheatre Parkway and Charleston Road. San Antonio is the gateway furthest from the project and provides access via Garcia Avenue, Amphitheatre Parkway and Charleston Road.

The Master Plan will provide space for office and residential development with supporting and complementary land uses that include local retail, grocery store, small business center, visitor center, and public open space.

Development Program

Residential will be the predominant land use in the project, providing 7,000 residential dwelling units. The existing office buildings will be transformed into a contemporary office cluster to provide 3.12 million square feet of office program. These two primary land uses create a neighborhood for people to both live and work. Increasing the diversity of uses within the project, a new 525-room hotel is proposed, conveniently located to leverage close proximity to transit and the active mobility network. To complement the office and residential land uses, the Master Plan will also be home to an enlivened public realm that provides 299,000 square feet of retail and active space. The space will be flexible and designed to support a range of neighborhood serving retail, entertainment and small local businesses. The Master Plan also includes 130,000 square feet of district infrastructure building with a District Central Plant (DCP) located at its eastern end, to provide a combined energy production, thermal heating and cooling and non-potable water treatment.

The project will be home to approximately 12,600 office workers and 12,250 residents, many of whom will both live and work within the district.

LAND USE	PROGRAM (SQUARE FEET)	CAR PARKING SPACES	SHORT TERM BIKE PARKING SPACES	LONG TERM BIKE PARKING SPACES
Office	3,117,931	608 (on-site) 5,628 (off-site) 6,236 (total)	312	1,559
Residential	7,187,342 (7,000 DUs)	4,550	700	7,000
Hotel	340,000 (525 rooms)	1,612 (shared between uses)	68	68
Retail	288,990		58	58
District Central Plant	130,000	5	None	None
Total	**11,064,263**	**12,403**	**1,138**	**8,685**

Figure 2.2.1. DEVELOPMENT PROGRAM & PARKING

1 The Master Plan also includes 1,716,000 SF for residential parking, for a grand total of 12,808,229 SF.

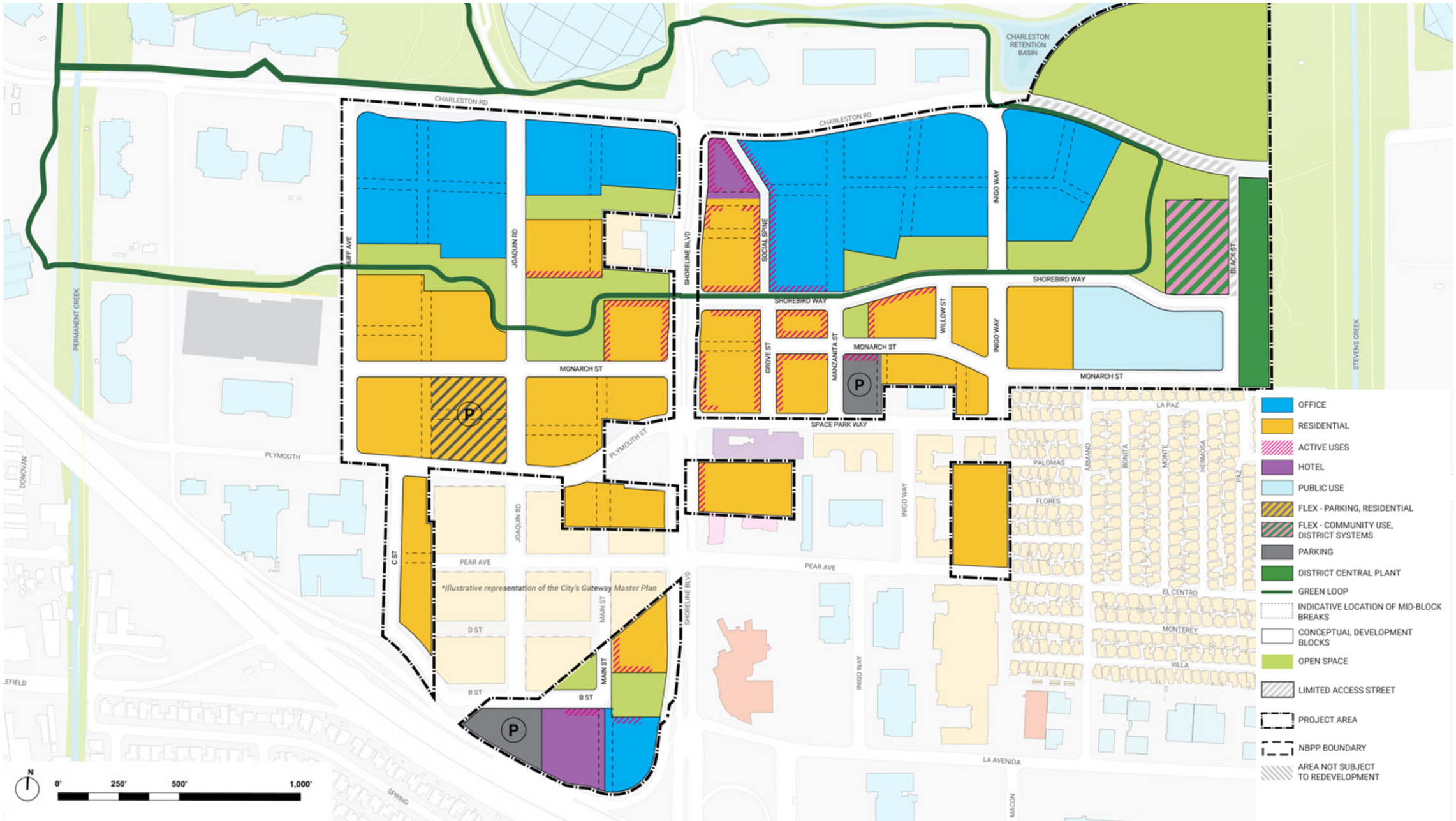


Figure 2.2.2. CONCEPTUAL LAND USE PLAN FOR THE PROJECT

Car and Bike Parking

Total parking for the project is listed in Figure 2.2.3. In total, 6,775 of the required 12,403 spaces will be located on the project site: 608 spaces will be for office use, 4,550 spaces for residential, 1,612 spaces for commercial use. The remaining 5,628 spaces will be located off-site, in four new district parking garages within the district: Amphitheatre Lot C (SA-P-1), Shorebird (SB-P-1), Joaquin North (JN-P-1), and Joaquin South(JS-P-1). All parking garages are located within a 10-minute walk from the Master Plan buildings. 4,334 spaces located at the Amphitheatre Garage will be for office use and account for 90% of the overall office parking provision.

The SA-P-1 Amphitheatre parking garage will be designed to accommodate a mobility hub to facilitate intermodal transfers. The design will integrate transit loading bays and shared micro mobility docking stations to provide alternative mobility options to walking and support the last leg connection to uses within the Master Plan Area.

Proposed parking at full build out is two spaces per 1,000 square feet for office and 0.65 spaces per unit for residential, both under the NBPP maximum parking requirements.

On-street parking will be provided on select access streets, with parking management by the City to restrict parking for short-stays. Curb space will also be provided for the increased curbside activity for pick-up and drop-off expected with the continued growth in Transportation Network Companies (TNCs), including autonomous vehicles in the future. Sections 5.7 provides further breakdown of car parking spaces.

To support increased bike activity, bike parking within the project will be provided to meet or exceed the NBPP requirements. See Sections 5.3, and 6.5 for further details on the breakdown of bike parking spaces. Consistent with current practices, showers, towels, changing facilities and lockers will be provided for workers as part of the project in line with the standards outlined in the NBPP.

LAND USE	ON-SITE SPACES	OFF-SITE SPACES	TOTAL PARKING PROVISION
Proposed Office	608	5,628	6,236
Proposed Residential	4,550	-	4,550
Proposed Commercial (Retail / Hotel)	1,612	-	1,612
Proposed Total*	**6,775**	**5,628**	**12,403**

*Includes additional 5 on-site spaces for District Central Plant

Figure 2.2.3. ON-SITE / OFF-SITE CAR PARKING SPACE BREAKDOWN

Figure 2.2.4. SHORT-TERM BIKE PARKING

Circulation and Support of City Implementation Actions (CIP)

The circulation and mobility network of the project includes an important expansion and improvements package of pedestrian and bicycle facilities that prioritizes connectivity and quality of experience. The street network is designed to prioritize active modes first, shared mobility second and lastly local vehicular access. These new facilities, combined with an effective TDM program, unbundling and reduction of parking, transit and shuttle incentives, and provision of bike-share and car-share services, have been designed to significantly decrease the pressure on key gateways into and out of North Bayshore by incentivizing active modes of transportation.

However, the need for additional roadway capacity is anticipated particularly at the gateways. The transportation improvements provided in the North Bayshore Master Plan build upon the priority transportation improvements envisioned in the NBPP. The necessity for these improvements will be further confirmed by the ongoing NBS circulation analysis.

The capacity improvement projects include but are not limited to: new reversible transit lane on Shoreline Boulevard; vehicular improvements along Shoreline Boulevard; realignment of the US-101 NB off-ramp at Shoreline Boulevard; and capacity improvements at Rengstorff interchange.

Future Ready

The improvements and network proposed in this project embrace the dynamic potential of innovation in transportation systems, as anticipated by the NBPP. The Master Plan focuses on creating an active mobility network, including narrow streets to prioritize pedestrian and cyclists, as well as a robust distributed, convenient network for an autonomous future.

Over the coming decades, autonomous vehicles (AVs) and related technologies have the potential to introduce transformative change to mobility norms. Change could come faster within the Bay Area, due to the clustering of AV developers, early adopter markets, and proactive city partnerships.

Initially, AVs are highly likely to be introduced as shared or fleet-based services similar to today's app-based ride hailing services. These services will likely be limited to specific use cases within predetermined zones. For example, rides to an employer's campus could be available for workers living within a five- to fifteen-mile radius. Programs can expand to wider zones and with a broader customer base. Eventually, workers and office visitors within a certain distance from specified geographies could access the site via a fleet-based AV service.

The project also supports other innovative technology-driven solutions to mobility including parking management, incentive programs, and minor capacity improvements at the San Antonio interchange.

Figure 2.2.5 summarizes the key proposed characteristics for the development site, as prescribed in the City's TDM Plan Guidelines.

Intended Land Uses	Office Residential Hotel Retail and Entertainment District systems
Amenities or services that will be provided for workers and residents	Comprehensive Travel Demand Management Program Commuter / Connector shuttles Public transit Shared bicycles Secure bicycle parking, showers, changing facilities Long-term use lockers On-site bike repair On-site car-share Ride sharing service Priority parking for ADA, expectant mothers, carpools, and electric vehicles Emergency Ride Home Program Rideshare matching service On-site food service
Type of employee that the site is designed for	Technology industry workers and support service workers
Employee density per 1,000 square feet	4 employees per 1,000 sq. ft.
Type of resident that the site is designed for	Residential units are anticipated to attract a high rate of people who work within North Bayshore, which will reduce the overall vehicle trips in/out of North Bayshore
Average occupants per residential unit	1.75 residents per dwelling unit (per NBPP Environmental Impact Report)

Figure 2.2.5. PROJECT DESCRIPTION OVERVIEW

TDM Approach

3.1. Transportation Strategy

The North Bayshore Master Plan TDM Plan fits into Google's overall transportation strategy for North Bayshore. The transportation strategy is founded upon the key principles of providing a mix of uses, minimizing parking, relieving bottlenecks and providing better commute choices.

Mix of Uses

A Complete Neighborhood provides a mix of residential and commercial uses. When residents of North Bayshore also work there, they have less need for external trips. This reduces trips at the gateways, and promotes walking and bicycling within the district.

Provide Better Choices

Over the past 10 years, Google has worked to provide transit service that is an attractive alternative to driving alone. Before, those services were focused on its long-distance commuters. Now Google extends these services to near- and medium-distance commuter markets. In addition, physical improvements to the pedestrian and bicycle network will help incentivize workers and visitors to leave their cars behind. New TDM programs and services prioritize people and nature over traffic and privately-owned cars.

Minimize Parking

The project plans for a future when mobility is much less oriented around parking than today. Parking is an inefficient use of land and generates congestion. Parking demand will decrease with the overall success of the North Bayshore Master Plan TDM Plan, with more trips completed through walking and biking, public transit or shuttles. A successful project will result in less reliance on owning a car, as people take advantage of safer bike routes, better transit and self-driving cars.

The project aims to minimize parking as much as possible by offering attractive alternatives to driving. Reducing parking availability is an effective way of influencing mode share, particularly drive-alone trips, as

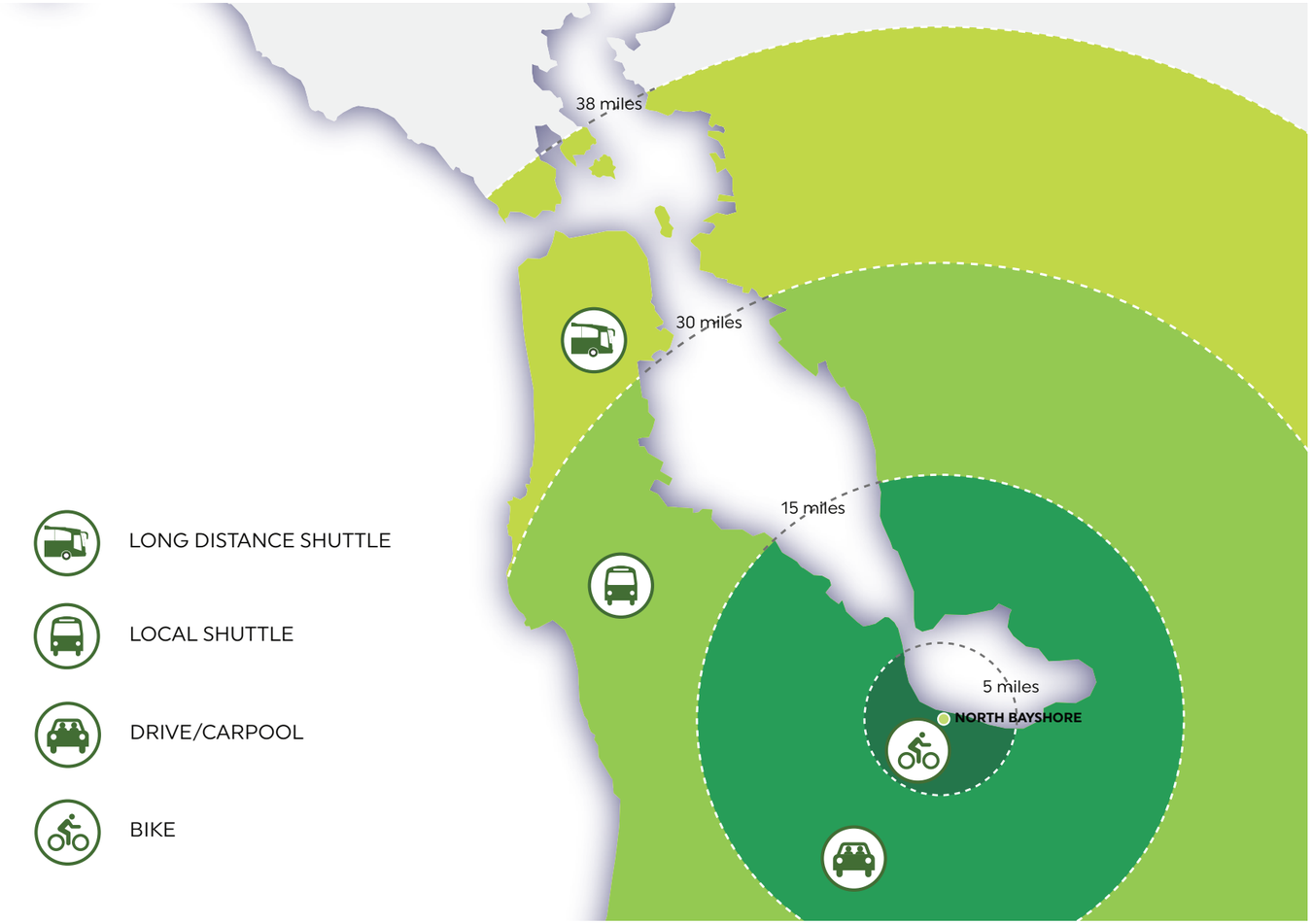


Figure 3.1.1. PREDOMINANT TRAVEL MODE & DISTANCE

people are more incentivized to use other commute modes if parking is not readily available. However, in order for minimized parking to successfully influence mode shift, attractive and efficient alternatives need to be provided.

Relieve Bottlenecks

The project is adjacent to North Shoreline Boulevard, the gateway with the highest traffic volumes in the District. To address this challenge, the project proposes to reduce overall gateway demand through a design focused on people, reduction in parking supply and a successful TDM program. Secondly, the project proposes district capacity improvement projects that improve the district's walking and biking network, and high-capacity transit infrastructure projects to improve transit / shuttle speed and reliability. Finally, the project supports roadway capacity improvements within the district to increase vehicle capacity at the gateways, consistent with the Priority Transportation Improvements outlined in the NBPP. The North Bayshore Master Plan provides further details on these projects to increase overall district capacity.

Figure 3.1.2. SHORELINE BOULEVARD

Commitment to improve

Both commuter and residential TDM programs have been developed using lessons learned by Google as it has built a successful TDM program over time.

Google has a history of reducing drive-alone commute trips by encouraging workers to switch to other forms of commuting. From the start, Google invested in transportation options, including transit, shuttle bus, vanpool and self-powered commuting (bicycle, walking, etc). Google has expanded its TDM offerings over time, for example introducing pedal-assist electric bikes (e-bikes) for longer distance commutes. These have allowed Google to respond to changing technology and travel needs.

Combined with a successful residential and office TDM program, the project recognizes that reducing its impact on the community where people live and work means prioritizing walking and cycling, and minimizing the space set aside for vehicles, including both parking and roads.

Coordinated approach to transportation alternatives

Minimizing the number of single-occupancy vehicle trips into, out of and within North Bayshore during peak hours requires providing realistic transportation alternatives that can meet the various travel needs of its residential and employee population throughout the day. Those needs go beyond the commute to and from work, and can include late or off-site work, errands or lunch engagements, and unexpected child care requirements, among others.

To address these requirements, the TDM Plan uses core programs (those that reduce commute trips during peak hours, such as commute shuttles) along with supporting programs (those that make it possible to leave the car at home, such as the emergency ride home program or car-share for off-site meetings or errands).

Figure 3.1.3. GBUS SERVICE IN NORTH BAYSHORE

Google's GBus network has continued to evolve since its initial conception, with services added as demand changes, all with the intention of providing a convenient alternative to driving to work. The success of the GBus program is supported through its complementary programs like Emergency Ride Home and GBikes.

3.2. TDM Program Components

The North Bayshore Master Plan TDM Plan provides programs distinctly tailored for residential or office use. Some of the programs outlined in the guidelines provide benefit only for the office program, such as Priority Parking for Carpool and Vanpools, or Pre-Tax Commuter Benefits. Some programs can be considered for both residential or office (if cost-effective), for example Subsidized or Free Transit Passes could be offered within the Office TDM Program and/or Residential TDM Program. Other programs should be offered collectively to both as a shared program, such as shuttle services for first/last-mile connections or on-site car sharing. The TDM Plan is comprised of four types of measures that apply to both resident and employee tailored programs.

1. Core Programs

Core programs are measures that include the provision of transportation alternatives, including commuter shuttle buses or transit passes for residents.

2. Supporting Programs

Supporting programs are measures providing an additional layer of convenience, comfort, flexibility or experience that helps workers make smart transportation choices or allows residents to live without owning a car. Examples include the Emergency Ride Home Program, which reduces worker anxiety around being able to get home in an emergency. On-site car-share services provide workers and residents access to a car when required. Community shuttles can be used by workers, residents and the general public. Internal Google circulation shuttles can be used by Google workers to connect with other Google campuses.

Figure 3.2.1. COMMUTER SHUTTLE (CORE PROGRAM)

Figure 3.2.2. GBIKES (SUPPORTING PROGRAM)

3. Supporting Infrastructure Improvements

The overall development goals for North Bayshore include a comprehensive set of transformative infrastructure improvement projects designed to make walking, bicycling and transit more safe and attractive. These physical components include pedestrian and bicycle bridges, an extensive and complete network of bicycle lanes, tracks and trails, the Green Loop network, and new connections to the regional pedestrian and bicycle network. Within buildings, improvements include provision of showers and changing rooms for "self-powered" commuters like cyclists and secure bicycle storage rooms for workers and residents. To improve transit efficiency, bus lanes and well-designed shuttle stops will be added. To maintain roadway safety and efficiency, plans include curbside pickup and drop-off zones.

4. Tipping the Balance: Methods of Encouragement

Sometimes small actions can have a significant impact. There are measures in the TDM Plan designed to increase awareness and encourage the use of alternative transportation choices through education, incentive, and reward programs. These measures can tip the balance to a greater proportion of workers and residents using alternative modes of transportation other than SOV.

Figure 3.2.3. BIKE LANE (INFRASTRUCTURE IMPROVEMENTS)

Figure 3.2.4. REWARDS PROGRAM (ENCOURAGEMENT)

3.3. Implementation, funding, and administration of the TDM program

The Office TDM Program for the Master Plan will be implemented, funded and administered by Google's Real Estate and Workplace Services (REWS) division and/or emnployer tenants in the Master Plan area. All office buildings constructed as part of the Master Plan will be required to maintain compliance with the office TDM requirements specified in the project's Development Agreement and/or Conditions of Approval. This includes, but is not limited to, vehicle trip performance standards that are based on the project's 35% SOV target for office trips as well as annual TDM monitoring requirements. More information on TDM monitoring and enforcement is provided in Section 7.

The Residential TDM Program will be funded through lease and rental revenue for residential units or annual fees for the for-sale units. Implementation and administration of the program will be completed by an on-site transportation coordinator working for the developer / property owner, working with the Mountain View TMA and City of Mountain View. Further information on the role and responsibilities are provided in Section 6.2. All residential buildings constructed as part of the Master Plan will be required to maintain compliance with the residential TDM requirements specified in the project's Development Agreement and/or Conditions of Approval. This includes, but is not limited to, vehicle trip performance standards that are based on the project's 50% non-driving mode-split target for residential trips as well as annual TDM monitoring requirements. More information on TDM monitoring and enforcement is provided in Section 7.

3.4. Mode Share

The NBPP identifies mode share targets that enable planned growth while minimizing traffic impacts of new office development.

The COVID-19 pandemic has resulted in a halt of commutes to the office, considering the shelter in place mandate starting March 2020. These office commutes have begun to gradually resume.

Mode share for pre-pandemic Google workers in North Bayshore, the North Bayshore Precise Plan, and the Master Plan Area are summarized in Figure 3.4.1. As indicated, nearly 42% of all Google employees were driving alone to North Bayshore before the pandemic, outperforming the NBPP target maximum of 45% drive-alone. For all their offices in North Bayshore, Google is targeting an SOV rate of 35% for office trips at full build out.

Residential units will be required to meet the residential vehicle trip performance threshold to be outlined in the North Bayshore Residential TDM Guidelines that have recently been approved by the City of Mountain View.

COMMUTE MODE	2019 GOOGLE MODE CHOICE [1] ALL EMPLOYEES (INCLUDES THOSE OOO AND WFH) [2]	2019 GOOGLE MODE CHOICE [1] COMMUTERS (EXCLUDES THOSE OOO AND WFH)	NORTH BAYSHORE PRECISE PLAN TARGET MODE SHARE [3]	MASTER PLAN TARGET MODE SHARE
Drive Alone	42.2%	47.6%	45%	35%
Carpool	3.8%	4.3%	10%	65%
Drop-off / Taxi / Uber / Lyft	2.4%	2.7%		
Shuttle	31.3%	35.4%	45%	
Public Transit	2.0%	2.3%		
Bike	6.1%	6.9%		
Walk	0.6%	0.7%		
Vanpool	0.1%	0.1%		
Telecommute	9.5%	-	-	
Did not commute	2%	-	-	
Total	**100%**	**100%**	**100%**	

Notes:
[1] For all other Google holdings in North Bayshore. Source: Google In Motion 2019.
[2] OOO: Out of office / WFH: Working from home
[3] North Bayshore Precise Plan requirement used to set project-level trip caps.

Figure 3.4.1. PRE-PANDEMIC MODE SHARE AND PROJECT TARGETS

Figure 3.4.2. EXISTING NORTH BAYSHORE GREEN LOOP

TDM Program Overview

4.1. TDM Program

The North Bayshore TDM Plan Guidelines outline a series of required baseline and optional measures to remain at or below the trip targets for office and residential uses. This section provides an overview of the required and optional TDM measures, with Section 5 (Office) and Section 6 (Residential) providing further details on the measures. Refer to Figure 4.1.1 and Figure 4.1.3 for the breakdown of required versus optional[1] TDM measures for office and residential uses, respectively.

In designing the project's TDM program, Google has sought to go above and beyond the minimum requirements set out in the NBPP and the North Bayshore TDM Plan Guidelines. Google's approach is to be flexible and responsive to the changing travel needs of its workers. A key part of each of the measures will be the close monitoring of up-to-date travel conditions and services to adequately respond dynamically to changing travel needs of residents and workers.

Figure 4.1.1 summarizes the required baseline and optional TDM program measures for non-residential (office) in accordance with the NBPP TDM Standards and Guidelines.

Figure 4.1.2 provides an estimate of the potential for reducing office trips, based upon the program type. The TDM programs listed on Figure 4.1.2 have an estimated impact relative to the city-wide baseline SOV according to the following formula:

*Resulting SOV estimate = Baseline SOV * (1 - (1 - % TDM Program 1) * (1 - % TDM Program 2)* … (1 - % TDM Program N))*[2]

According to the *Fall 2019 North Bayshore District Transportation Monitoring Summary*, between 50-55% of people were commuting in SOVs to the District before the pandemic. Google's successful TDM programs were outperforming the District average, with rates already below the 45% SOV target in the NBPP. By fully implementing the programs on Figure 4.1.2, Google will reach the 35% SOV target for office in North Bayshore.

REQUIRED BASELINE TDM PROGRAMS	OPTIONAL TDM PROGRAMS
Priority parking for carpools and vanpools	Parking cash-out
On-Site transportation coordinator	Parking pricing
Bicycle parking, shower, and changing facilities	Parking supply
Bike sharing	Pre-tax commuter benefits
Flexible work Schedule	Subsidized or free vanpools or carpools
Guaranteed ride home program	Subsidized or free transit passes
Membership in TMA	Biking financial incentives
Rideshare matching services	On-site bike repair facilities
Shuttle services	Bike buddy program
Marketing and information	Bike giveaway program
	Expanded carpool matching
	Commuter shuttle services
	Car sharing
	On-site amenities and services
	Funding district-wide services

Figure 4.1.1. OFFICE TDM PROGRAM SUMMARY (REQUIRED BASELINE AND OPTIONAL PROGRAMS)

1 Optional TDM Measures can be implemented as a mitigation strategy if the trip cap established in the NBPP is not met.

2 This formula provides a general estimate. Reductions can change depending on the program details.

TDM PROGRAMS	ESTIMATED SOV REDUCTION
ACTIVE MOBILITY (Walk/bike, bicycle parking, shower and changing facilities; bicycle sharing; bicycling incentives; on-site bicycle repair facilities; bicycle buddy program; bicycle give away program)	15%
RIDESHARING AND CAR SHARING (Priority parking for carpools and vanpools; rideshare matching services; subsidized or free vanpools or carpools; expanded carpool matching; car sharing)	5%
COMMUTER SHUTTLE SERVICES (Shuttle services; pre-tax commuter benefits; commuter shuttle services)	30%
FLEXIBLE WORK SCHEDULE (Flexible work schedule, emergency ride home)	2%
MARKETING (On-site transportation coordinator; membership in the TMA; marketing and information)	2%
SITE DESIGN AND OTHER MEASURES (Parking cash-out; parking supply; on-site amenities and services; funding district-wide services, other TDM measures)	10%

Figure 4.1.2. POTENTIAL OFFICE SOV TRIP REDUCTION BASED ON TDM

REQUIRED TDM STRATEGIES	BEST PRACTICE TDM STRATEGIES
Implement maximum parking supply ratios	Fund transit passes for residents
Unbundle parking from all residential leases	Establish leasing partnership with North Bayshore eployers
Join the Mountain View TMA	Lease space for on-site childcare
Provide on-site car share spaces	Provide development-specific bike share
Provide short and long-term secure bike parking	Establish a shared parking agreement
	Sustainable transportation incentive program
	Hire on-site transportation coordinator
	Facilitate coordinated delivery services and provide accessible storage options
	Provide space for on-site bike share
	Provide a bicycle resource center
	Provide car share membership to residents
	Provide on-site common space, including collaborative workspace
	Create and maintain a mobile-friendly transportation website for residents
	Designate convenient commercial loading and delivery zones internal to the project site

Figure 4.1.3. RESIDENTIAL TDM PROGRAM SUMMARY (REQUIRED AND OPTIONAL PROGRAMS)

Office TDM Program

5.1. Office TDM Overview

The Office TDM Program is designed to provide workers with attractive incentives and supporting programs that provide a real alternative to not driving to North Bayshore. All of the programs outlined in the following sections are successfully used by Google to achieve significant mode shift from drive-alone to more efficient and effective commute modes, providing real benefits to the district. These programs are complemented by Google's ongoing objective to fund its proportionate share of NBPP's Priority Transportation Improvements.

Figure 5.1.1. GBIKES FOR ON-SITE CAMPUS TRANSPORTATION

5.2. Commuter Shuttle Services

Commuter Shuttle Services

Google's commuter shuttle program was started in 2004 and has since grown to be one of the Bay Area's largest and most successful employer shuttle programs. Google's 2019 employee survey identified that the overall commuter shuttle mode share for Mountain View has reached 36.4%. For certain commutes such as, San Francisco to Mountain View, approximately 90% of workers use the Commuter Shuttle as the primary mode to get to work. The shuttle program has dozens of stops located throughout the Bay Area, with each route typically serving no more than three stops to reduce travel time. Free Wi-Fi is offered on board each shuttle.

The shuttle program is operated on weekdays from origin stops between approximately 6:00 a.m. and 10:30 a.m. and departs from North Bayshore from approximately 3:30 p.m. to 10:30 p.m. The shuttles are free to employees and are also available to contractors for a nominal fee in accordance with federal tax codes. The Google Transportation Team actively manages the shuttle program in concert with contractor suppliers who dispatch and provide drivers. Together, the team responds to day-to-day challenges such as traffic accidents, surges in demand and bus maintenance.

Commuter shuttles are especially effective in reducing drive-alone mode share, since commute shuttles offer higher vehicle occupancy than carpools and vanpools. Google operates both single- and double-decker shuttles, with capacity ranging from 50 to 70 people, respectively. All shuttles are equipped with bicycle storage.

One hallmark of the shuttle program is the ability to adjust service to meet growing demand. The Google Transportation Team continuously monitors population growth, preferences and trends via regular employee surveys and feedback. As office locations are added, Google adjusts services to serve them. Primary approaches to increase service have been to add stops, create new routes, increase frequency, and use higher-capacity vehicles.

Figure 5.2.1. GOOGLE COMMUTER SHUTTLE

Local Shuttle Services

Connections to Caltrain stations play an increasing role in Google's transportation strategy. Currently, Google provides several services to connect from North Bayshore to local and regional transit stations including nearby Caltrain and VTA light rail stations, as well as long-distance connections to BART.

The MVTMA operates the MVgo shuttle system that travels throughout North Bayshore and to/from the downtown transit center. Google's buildings are served by all four MVgo routes, which provide timed connections to the Downtown Mountain View Caltrain/VTA LRT station. As part of its enhanced community benefits associated with the Bonus FAR Requalification Request, Google contributes to funding the community shuttle until June 2024, as part of a five year extension signed in 2019.

In addition, Google provides its workers in North Bayshore with free connector shuttles to the VTA Middlefield Station, which is also served by MVgo. A number of other Google commuter shuttles provide express weekday commute period service from North Bayshore to a number of local Caltrain stations, including San Antonio, Palo Alto and Sunnyvale.

Further afield, the commuter shuttles serve a number of regional transit stations in San Francisco and the East Bay, including Millbrae BART/Caltrain, and BART stations including Glen Park, Fremont, Union City, West Oakland, MacArthur, Ashby and North Berkeley.

Figure 5.2.2. INTER-CAMPUS SHUTTLE

5.3. Bicycle parking, showers, changing facilities, and lockers

Whether through celebrations of Bike to Work Day, or through the provision of its iconic, colorful GBikes, Google has long been known to support biking.

Google's success in sustaining a bike-friendly culture also happens behind the scenes. Valuable building space is dedicated to secure indoor bike rooms. Showers and lockers are almost ubiquitous in workspaces. The overall interest is in ensuring that workers who bike feel that choice is respected, and even prioritized over autos.

Bicycle Parking

Short-term bicycle parking serves the need for quick access and secure parking without the hassle of bringing a bike inside buildings. This parking is friendly to visitors, located conveniently near building entrances and intended for daily and hourly use. Google uses racks that meet Association for Pedestrian and Bicycle Professionals (APBP) requirements. Racks are commonly found near entrances to buildings Google owns or occupies throughout North Bayshore and will be provided in the Master Plan. Full-day parking for bikes is provided in bike rooms inside buildings. Bike rooms are located to provide the best-of-route experience for cyclists, located close to showers, lockers and changing rooms. Indoor rooms protect bikes from inclement weather, and badge-controlled access ensures bicycles are safe from theft. These rooms are a significant commitment of valuable office space, but Google finds the investment worthwhile in its contribution to meeting transportation goals.

Figure 5.3.1 summarizes the proposed minimum bicycle parking to be provided at the Project.

Shower and Changing Facilities

Google currently provides showers, towels, changing facilities, and lockers in its buildings. Consistent with current practices, they will provide these same amenities in the new buildings.

The North Bayshore Precise Plan requires a minimum of 154 showers for the office program, at a rate of one unisex shower for 40,000 square feet and one additional shower per each additional 20,000 square feet.

LAND USE	SHORT-TERM BICYCLE PARKING SPACES PROPOSED (MINIMUM) [1]	LONG-TERM BICYCLE PARKING SPACES PROPOSED (MINIMUM) [2]
Office	312	1,559
Residential	700	7,000
Commercial	111	111
Total	**1,123**	**8,670**

Figure 5.3.1. BICYCLE PARKING SUMMARY

Notes:
[1] Precise Plan requirements for short-term bicycle parking are:
Office - one space per 10,000 square feet
Residential - one space per 10 dwelling units
Commercial - one space per 5,000 square feet

[2] Precise Plan requirements for long-term bicycle parking are:
Office - one space per 2,000 square feet
Residential - one space per dwelling unit
Commercial - one space per 5,000 square feet

LAND USE	NBPP SHOWER REQUIREMENT	NUMBER OF SHOWERS PROPOSED
Office (3.12 million square feet)	One unisex shower for the first 40,000 square feet	1
	One unisex shower per each additional 20,000 square feet	154

Figure 5.3.2. PROPOSED SHOWER SUMMARY

5.4. Bike Sharing

Biking Financial Incentives

Google provides two bicycling incentives programs in the Parking Management Program. These incentives are the Commuter Bike On-ramp Program and the Bike2Work Points Program. The Commuter Bike On-ramp Program offers $500 subsidies to purchase a bicycle for those cyclists who complete a six-month program. Bike2Work is a quarterly incentive that offers rewards to those who take a self-powered commute mode to work.

GBikes

Google currently operates and maintains a unique fleet of more than 2,000 colorful shared bicycles, known affectionately as "GBikes". The focus of the signature GBike program is to provide convenience and flexibility for on-campus transportation. GBikes are readily available on campus; users can simply pick one up and go. GBikes can be left at any building entrance but are most often used between Google buildings and to reach shuttle stops on campus.

A crew of full-time staff actively manages the operation of the GBike program. Google staff distributes and redistributes GBikes to shuttle bus locations, cafés, and other high-demand locations multiple times per day to meet demand patterns and to ensure that GBikes are a convenient choice of travel. Abandoned GBikes left at non-Google buildings or outside of North Bayshore are recovered. Broken GBikes are collected, repaired, and put back into service.

The Google Transportation Team regularly reviews the performance of every program, including the GBike program, and budgets for replacement bikes, the cost of maintenance and repair, and expansion of the GBike fleet to keep pace with population growth.

Visitor Bikes

In addition to casual bike-sharing, Google also operates a shared-bike program with over 800 high-quality commuter bikes called "VBikes". The purpose of the VBike program is to assign bikes on an extended basis to visiting or short-term workers (notably interns) for commute purposes. These are fully-geared, comfortable hybrid bikes issued with locks. Lights and helmets are also available. With this program, it is possible for many workers to live in the South Bay without owning a car. When the employee's term at Google has ended, the bike is returned and reassigned as needed. VBikes

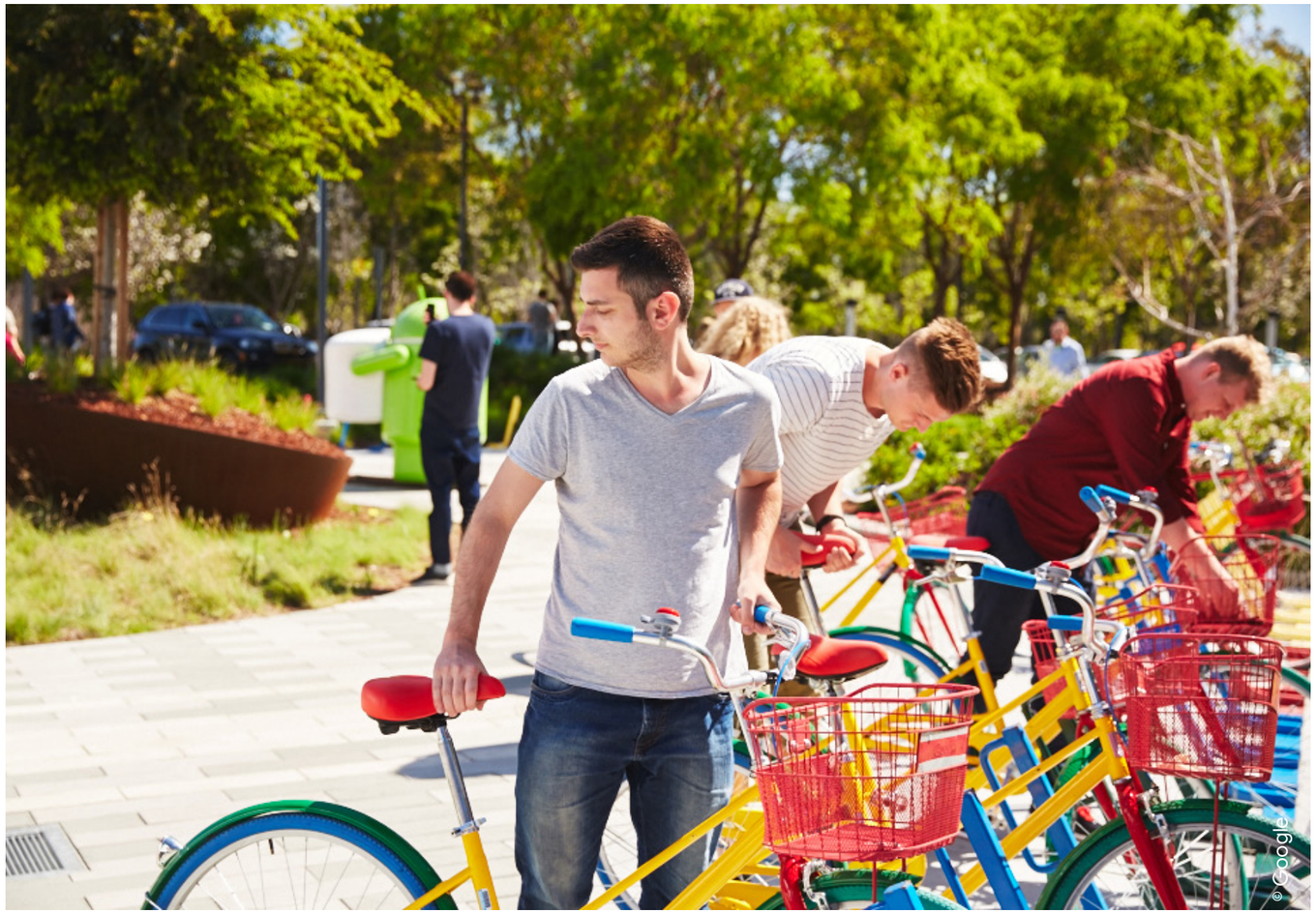


Figure 5.4.1. GBIKES

are distributed from a central, staffed location in North Bayshore called the "Bike Hub". Workers may also have their VBike maintained free of charge.

E-Bikes

Electric pedal-assist bicycles, or e-bikes, are the newest additions to Google's shared bicycle fleet. E-bikes are offered to Google employees for commuting between Google's campuses in the area. E-bikes are checked out at the Bike Hub in North Bayshore and must be returned at the close of business each day.

Bike Share Pods and Free Membership

Google recognizes the role for shared-bike programs that extend beyond North Bayshore. The bike-share industry is in a state of rapid transformation, and Google intends to stay aligned with trends and opportunities. Shared-bike programs are perfect for travel off-campus, including commuting to/from Caltrain stations and for off-campus meetings.

Bike Share Safety and Security

Bicycle helmets are provided in every building lobby for Google employee use. Helmets are also available at two bicycle repair shops on the campus. Locks are provided with each VBike. Google workers are also allowed to bring bicycles indoors to a secure parking area in their building, or to a secure area in a parking structure.

Figure 5.4.2. LIME E-BIKES

5.5. Car-sharing

Workers currently have access to several car-sharing options, including Google's own fleet of shared vehicles (GFleet) and subsidized membership to external car-sharing organizations located in North Bayshore. Access to shared cars in North Bayshore for things like errands, doctors' appointments and off-campus meetings reduces workers anxieties around leaving their cars at home.

GFleet

The hallmark of its car-sharing service is called GFleet. Google maintains an all-electric fleet of over 85 car-share vehicles available to all employees, free of charge, during work hours. GFleet vehicles are used for trips that begin and end at the Google Campus.

Zipcar

Google provides free employee membership to Zipcar and reimburses business travel, while reduced rates are available for personal use. Zipcars are useful for renting for longer periods of time than GFleet, including weekends, providing workers with around-the-clock options.

Figure 5.5.1. GFLEET

5.6. Parking

Google has an ongoing objective to reduce overall parking supply and better utilize the parking it does provide to minimize the amount of space dedicated to parking.

Parking Management Program

Google is developing a program to manage parking usage, one that will be innovative and fitting with its culture. The TDM manager will manage the development and implementation of this program. The program identifies a combination of incentives and policies that work to manage the daily demand for parking and shift users to alternative modes as efficiently as possible. Options include points, awards for joining a commute program, large awards for hitting milestones, or daily charges or incentives. Google is investigating a possible cash-out program as one of the parking program components.

Parking Supply

A total of 6,236 spaces will be provided for the office program (2.0 spaces for every 1,000 square feet of office program at full build out). The office parking supply is 25% below the NBPP maximum provision of 2.7 spaces per 1,000 square feet of built office space. For the residential parking, 4,550 spaces are provided in-building (based on the Project's proposed unit mix), which is compliant with the NBPP requirement for residential parking (based on 0.25 stalls/DU for studios, 0.5 stalls/DU for 1BRs, and 1 stall/DU for 2BRs+). Retail and hotel parking will be shared, providing 1,612 spaces in total.

More than just reducing the quantity of parking per unit of office space, location matters as well. 608 spaces are provided for office workers on-site, while 5,628 spaces are provided off-site within a 10-minute walk to their office buildings. Residential parking is provided in-building and adjacent on-site parking structure (along with the 1,612 retail and hotel spaces).

The project also includes up to 8,400 linear feet of curbside loading zones, providing space for nearly 336 vehicles to use on-street. All existing surface parking within the project will be removed. Within the overall parking supply, priority spaces are provided for key user groups; further information is provided in Section 5.7.

Figure 5.6.1. ELECTRIC VEHICLE CHARGING STATIONS

5.7. Priority Parking Spaces

Google currently provides priority parking for carpools and electric vehicles, and this program will be expanded to the project to meet the standards established in the NBPP.

Figure 5.7.1 illustrates the amount of office and commercial parking to be provided at the project and the allocation of carpool and other priority parking spaces.

To respond dynamically to increased demand for priority parking for carpools and vanpools, the use of priority parking spaces is monitored on an ongoing basis to determine whether a greater number of priority spaces is required.

Google also provides priority parking for expectant mothers, electric vehicles, and its own GFleet car-share. More of these priority spots will be designated as the fleet of electric vehicles and carpool vehicles grows.

SPACE BREAKDOWN	OFFICE	COMMERCIAL	TOTAL
Standard	4,845	1,416	6,261
ADA	81	35	116
Electric Vehicle	624	161	785
Carpool/Vanpool	624	0	624
Expectant Mother	62	0	62
Total	**6,236**	**1,612**	**7,848**

Figure 5.7.1. OFFICE AND COMMERCIAL PARKING PROVISIONS AT THE NORTH BAYSHORE MASTER PLAN

Figure 5.7.2. PRIORITY PARKING

Designated priority parking for expectant mother (left) and carpool parking (right)

5.8. On-site Amenities and Services

The on-site amenities and services provided at Google reduce the number of trips that workers need to take during the day and increase the feasibility of using an alternative to a single-occupancy vehicle for commuting. Some of these amenities will be offered at Shorebird (on-site food, fitness etc.) while others are provided elsewhere nearby. Types of amenities and services include:

- **DINING:** On-site food services
- **HEALTH:** On-site fitness centers
- **FACILITIES:** On-site services such as ATMs and laundry
- **DAYCARE:** Two full-time childcare centers

Figure 5.8.1. EXAMPLES OF AMENITIES

5.9. Marketing and Information

A key part of Google's TDM program is the communication of travel options and a method for communicating any travel-related issues on a day-to-day basis. Travel information needs to be easily accessible to new and existing workers, as well as visitors to the Google campus.

The Google Transportation Team operates an extensive website describing all available transportation services and supportive programs. The team is also responsible for email announcements, newsletters and maintaining up-to-date information on the intranet site concerning commuting conditions and traveler information, and coordinating the relaying of this information with our Building Liaisons. This is supplemented by Google Building Liaisons, who coordinate with workers at the building level. As part of a welcome package, HR provides new workers with information about their transportation options, including directions to the transportation intranet site, contact information for their Building Liaison, as well as instruction for finding solutions to transportation (and other) issues. An internal online support system is used to respond to individual questions and issues and to collect feedback across all of Google.

Google employs a full-time TDM manager who oversees and coordinates transportation information. The TDM manager is responsible for identifying opportunities to enhance the marketing and communication of transportation options, and for working with both internal and external partners to develop and communicate incentive programs.

Google is continuously expanding and refining its outreach programs. Measures in progress include an upgraded website to provide all current and planned program elements, commute cost and carbon calculator, local and regional bike maps, resource lists, and other commute planning tools.

The outreach program intends to target specific employee groups with materials like informational welcome packets, posters, banners, meeting room displays and more, as well as campus events and programs that could include programs like interdepartmental competitions to encourage alternative transportation use.

5.10. Other programs

Emergency Ride Home Program

Google's Emergency Ride Home (ERH) Program (an enhanced version of the Guaranteed Ride Home Program described in the TDM Guidelines) is available to all employees who use alternate modes of transportation and who experience an emergency. The ERH Program includes roadside assistance for cyclists, rides home in a vanpool and/or taxi reimbursement. ERH is a supporting program that makes transit, shuttle services, carpooling, ridesharing, and bicycling viable transportation choices. Like all of its transportation programs, ERH is managed through the Google Transportation Team.

Membership in the Transportation Management Association (TMA)

Google was a founding member of the Mountain View Transportation Management Association (MTMA), and continues to be a member in good-standing. Membership in and coordination with the TMA will continue to be an element of Google's TDM approach as the TMA develops its services and functions.

Rideshare / Expanded Carpool Matching Services

Google provides an enhanced rideshare program available to all Google workers. Using Waze technology, potential carpoolers are able to dynamically match up through an app; drivers are reimbursed for their costs only. Waze carpoolers can use the designated carpool parking spaces. The aim of the program is to allow workers to input specific parameters and preferences, such as origins, destinations, how far they are willing to travel to get picked up etc.

Google has experimented with other shared-ride services: Scoop, Lyft, and Via. In the future, if further mode shift is necessary, Google has experience with each of these services and knows how to use them to drive additional behavior change.

Flexible Work Schedule

Google provides a flexible work schedule program available to all Google workers who are able and those who require special accommodations. This program incentivizes workers to shift their work schedules to commute outside of the AM and PM peak periods.

Pre-Tax Commuter Benefits

Google provides pre-tax commuter benefits through payroll deductions and a third-party provider. Consistent with the provisions in the federal tax code, workers have the opportunity to pay for transit passes or parking expenses using pre-tax dollars.

Subsidized or Free Vanpools or Carpools

Google currently subsidizes vanpools by providing vans, fuel, toll expenses and vehicle maintenance. Google plans to expand this program to increase participation, with a particular focus on areas that are not well-served by the shuttle service.

In the near future and in concert with the implementation of its Parking Management program, it is anticipated that vanpool and carpool participants will be supplemented by programs that encourage carpooling and vanpooling. Such programs include financial incentives, priority parking spaces or other creative solutions.

Subsidized or Free Transit Passes

Currently Google supports commuters using public transit by offering a pre-tax commuter benefit. Google has been actively investigating offering free transit passes, especially to encourage commutes by Caltrain.

GRide

Operated by Google, GRide is an on-demand transportation service similar to a taxi, serving longer trips between Google facilities for employees who do not bring their private cars to campus. This service provided over 75,000 trips in 2014.

Alternative Transportation

Google is continuously experimenting with new programs and strategies. The field of alternative transportation is extremely active right now. New apps, services and technologies are being developed constantly. Google's Transportation Team plans to remain an early adopter, finding and deploying solutions that work.


Engineering
Residency
Program

Residential TDM Program

6.1. Residential TDM Programs

The Project has the ongoing objective to work within the NBPP Residential Vehicle Trip Performance Standard and Residential TDM Standards and Guidelines. The following section provides an overview of the type of programs considered.

The future of mobility in North Bayshore will require a mix of land uses and a multi-modal transportation network that together will encourage people to make more trips within, to, and from the site without a car. The built environment and the improvements package of pedestrian and bicycle facilities will create a place that accommodates all modes; a residential TDM program will support car-free and low-driving lifestyles for those who live in the project area. At the core of this program is a reduced parking supply for all residential developments. Residential parking will be provided at a rate of 0.65 parking spaces for every residential unit at full buildout (4,550 total spaces), inherently limiting the number of vehicle trips made by private vehicles.

A residential TDM program leverages the planned multimodal infrastructure and complements it with mobility programs to encourage trips by non-driving modes to reduce the volume of vehicle trips within the site and through the gateways. In addition to supporting efforts to reduce vehicle trips and congestion on roadways, the residential TDM program will support the North Bayshore Precise Plan to:

- Promote housing affordability
- Improve transportation connections
- Promote Transit, Biking, and Walking

This plan outlines both core and supportive programs that will allow to meet or exceed the target of 50% of daily trips to be made by non-driving transportation modes. Core strategies are fundamental to the plan because they result in the greatest reduction in vehicle trips and support for the NBPP Principles; supportive strategies are secondary and support the decision to make trips without a car. The success of the residential TDM will be most significant if all residential developments within the area provide a similar set of benefits to residents to encourage using non-driving modes for regular trips.

The residential TDM program is designed to serve all residents in the master plan area; certain adjustments are required for specific program elements to ensure equitable options to tenants of Below Market Rate (BMR) housing units. The residential TDM program and each element's alignment with the core program goals are shown in Figure 6.1.1.

According to the *Fall 2019 North Bayshore District Transportation Monitoring Summary*, between 50-55% of people were commuting in SOVs to the District before the pandemic. This is the baseline for the trip reduction ranges in Figure 6.1.1.

RESIDENTIAL TDM PROGRAM STRATEGY	TRIP REDUCTION RANGE	PROMOTE HOUSING AND AFFORDABILITY	IMPROVE TRANSPORTATION CONNECTIONS	PROMOTE TRANSIT, BIKING AND WALKING
REQUIRED STRATEGIES				
Unbundled Parking	2.6% to 13.0%	✓		✓
TMA Involvement	-		✓	✓
Local Shuttle Connections	< 4.0%		✓	
Mobile Friendly Transportation Website	0.8% to 4.0%	✓	✓	✓
On-site Car-share spaces	-	✓		
Short- and Long-term Secure Bike Parking	3.0% to 21.3%			✓
BEST PRACTICE STRATEGIES				
On-site Car-share Vehicles	< 0.7%	✓		
Residential Bike-share or Loaner Bike Program	Grouped Strategy [1]	✓		✓
Access to Larger Bike- and Scooter-share Program	Grouped Strategy [1]	✓		✓

Notes:
[1] There is no data on reduction associated only with bike parking; this range is as part of a grouped strategy including enhanced walkability and bikeability of North Bayshore as a whole.

Figure 6.1.1. RESIDENTIAL TDM STRATEGIES

6.2. TMA Involvement and Support

A Transportation Management Association (TMA) is a nonprofit, member-based organization that provides transportation services based on local needs and challenges. TMAs address parking and circulation, function as a point of coordination, and provide transportation information to residents and visitors.

The City of Mountain View has an existing TMA, Mountain View Transportation Management Association (MVTMA); this is independent of the City and is not a public agency. The MVTMA operates the MVgo shuttle system that travels throughout North Bayshore and to/from the downtown transit center. Residential developments within the master plan will join the MVTMA to support transportation initiatives in North Bayshore.

Each individual residential development will become an active member of the TMA and the transportation concierge staff will represent North Bayshore residents. In addition to membership, mobile- and web-friendly resident transportation information will be provided.

Key functions of the TMA as stated in the Precise Plan also include:

- **SHUTTLE SERVICES:** integrate existing shuttle systems to create more efficient and coordinated services.
- **TMA ORGANIZATION:** assist TMA members in meeting their TDM targets.
- **MONITORING:** coordinate monitoring and reporting of data on TDM strategies and progress towards meeting trip reduction and SOV targets.
- **PROGRAM DEVELOPMENT:** develop transportation management strategies and secure funding from private employers, property owners, the City, regional, state, and federal agencies.

Figure 6.2.1. MVGO SHUTTLE

Local Shuttle Connections

Through the development process, a mix of land uses ensures that everyday services will be available within a short walk, bike or bus ride from residential developments in the Master Plan. Convenient transit can support the decision for car-free trips; for residents to rely on the local shuttle options within the area, routes need to make it easy for people to get where they want to go, when they want to travel.

To support an expansion of the community shuttle services, additional funding may be provided for the existing shuttle programs to support service seven days a week, more frequent headways, and additional off-peak services. The investment in shuttle expansion would provide residents (and non-residents) with time-efficient connections between North Bayshore, Downtown Mountain View (Castro Street), and the Crossings.

Two shuttle services are currently offered in Mountain View – MVgo and Mountain View Community Shuttle. Both are free and publicly available to the local residents, workforce and visitors.

MVgo is based out of the Mountain View Transit Center in downtown Mountain View. Four shuttle routes are available, connecting large employers in West Bayshore and East Whisman with the Mountain View Caltrain station. The service is available on weekdays, primarily operated during the peak commute period.

Mountain View Community Shuttle connects residential neighborhoods, senior residences and services, city offices, libraries, parks and recreational facilities, medical offices, shopping centers and entertainment venues with the Mountain View Transit Center; there is no service to North Bayshore. The shuttle service runs every 30 minutes on weekdays, from 7:00 a.m. until 7:00 p.m., and offers hourly service on weekends and holidays between 10:00 a.m. and 6:00 p.m.

Create and Maintain a Mobile-Friendly Transportation Website

A mobile-friendly website for residents can increase the awareness of non-driving options by providing transportation information, point-to-point navigation tools, travel suggestions, user engagement campaigns, and other efforts. A mobile friendly website will include the following:

- **REAL-TIME TRANSIT INFORMATION:** including MVgo and Mountain View Community Shuttle arrivals and connections with Caltrain and VTA.
- **MULTIMODAL OPTIONS:** information on costs and multimodal options available for traveling to and from North Bayshore, as well as information on nearby attractions and services.
- **REGIONAL INFORMATION:** links to citywide or regional transportation information.
- **RESIDENT WEBSITE:** resident-specific portal to allow for the delivery of targeted, individualized TDM information.
- **PROMOTION:** notifications of upcoming transportation-related events.
- **DELIVERIES:** integration with internet delivery services for ordering.
- **CAR-SHARE AND BIKE-SHARE:** registration for car-share and bike-share memberships.
- **DAYCARE:** North Bayshore child care services enrollment.

6.3. Unbundle Parking with Costs Relative to BMR Housing Discount

Residential parking (for all units) will be unbundled. Unbundled parking separates the cost of a residential parking space from the rental or purchase price of a unit. This program reduces monthly housing costs for households that do not wish to own and park a vehicle.

Reduced parking supply is closely related to unbundled parking. With fewer residents owning a car, a variety of land uses that provide entertainment, retail and daily services, and a transportation environment that makes it easy to get around without a car, there will be fewer vehicle trips from residents.

The proposed development plans to have 4,550 spaces for 7,000 units.

The cost of residential parking spaces will reflect the market value of parking; residents who choose to own and park a car will be required to pay for parking on a monthly or yearly basis to provide flexibility to give up vehicle ownership at any point in the year. Residents of BMR units will have a reduced monthly rate for parking that is proportional to the BMR housing subsidy. For BMR for-sale units, unbundled parking will also be option. The sale price may be reduced if parking is not included in the sale and parking can still be made available on a rental basis.

The success of this program relies on restricting the ability for residents to obtain regular parking for a lesser cost and on offering mobility options for when people need to have a car or to make long trips.

6.4. Car Share Program

Provide Car Share Spaces

Car-share spaces help offset a smaller parking supply by offering residents access to a vehicle without their having to purchase one. In addition to having dedicated spaces that are easily accessible, each site will provide family amenities, such as car-seats, to increase the reliability and accessibility of car-share vehicles. To comply with the NBPP the following standards will be met through the site design process:

- **QUANTITY:** one car-share space for developments with 50 to 200 units. Developments with over 200 units shall provide two spaces, plus one for every additional 200 units.
- **LOCATION:** spaces shall be located in or near publicly accessible areas to allow use by non-residents.
- **ON-SITE PROVISION:** the developer or property manager shall give car-share operators the right of first refusal to locate vehicles on-site at no cost. If a car-share operator chooses not to locate vehicles at the development, the developer and/or property manager will not be penalized.

Figure 6.4.1. CAR SHARE SERVICES

6.5. Short and Long Term Bike Parking

Residents are more likely to bike when offered the same level of access and security as those who drive. Figure 6.5.2 shows the bike parking, by type, to be provided on-site, following the requirements in the NBPP Residential TDM Guidelines.

The NBPP requires the following bike parking standards:

- **QUANTITY:** one short-term bicycle parking space is required for every 10 units and one long-term bicycle parking space is required for every unit.
- **IDENTIFY:** North Bayshore developers are required to clearly identify secure bike parking locations for residents.
- **LOCATION:** the spaces must be located in an easily accessible, well-lit, and attractive location close to main entrances that experience high pedestrian traffic.
- **ACCESS CONTROL:** developers shall provide a fob, key, or another secure access mechanism to residents for long-term bike parking. Bike parking should be designed to also accommodate cargo bicycles.
- **PUBLIC ACCESS:** publicly available bicycle parking shall be placed according to the recommendations outlined in Appendix D of the City of Mountain View's Bicycle Transportation Plan Update.
- It is likely that some residents will not own a bike and others will own more than one. Any unused spaces will be made available to full-time workers of on-site retail or commercial uses and/or a residential loaner bike program. To ensure residents have priority to secure bike parking, the appropriate amount of spaces made available to workers will be determined by the Transportation Concierge Staff on a quarterly basis.

Figure 6.5.1. EXAMPLE OF AN INDOOR BICYCLE PARKING FACILITY

SHORT-TERM SPACES	LONG-TERM SPACES	TOTAL BIKE PARKING SUPPLY
700	7,000	7,700

Figure 6.5.2. RESIDENTIAL BIKE PARKING SPACES

6.6. Residential Bike-Share or Loaner Bike Program

The developer can establish a North Bayshore master plan specific bike-share program or loaner bike program to make biking equally accessible to residents. This program may be structured one of two ways and is yet to be determined. One option is to pay to sponsor a docking station operated by an official bike-share provider at the residential site. With the increase in dockless bike-share programs, an agreement could be established for rebalancing efforts to include placement near residential areas.

Alternatively, a site-specific loaner bike program may be provided where bikes are purchased and provided specifically for tenant use. This could also be coordinated with a local bike shop or a bicycle advocacy organization to launch and operate this program. If a site-specific program is implemented, cargo and/or family friendly bikes will be provided.

A loaner bike program would require reservations through a residential portal, with free rides up to two-hours and a small fee for each additional hour the bike is checked out. Residents of BMR rate housing will be allocated a monthly stipend to accommodate some longer trips.

Figure 6.6.1. BIKE SHARE

Access to Larger Bike and Scooter Share

Bike and scooter-share increase the options for longer connections between modes. Currently, there is no dock-based bike-share within the City of Mountain View. Dockless shared mobility models are constantly changing; through partnerships, space can be set aside on-site for bike and scooter-share vendors, however, an agreement would need to be established to ensure that the shared vehicles are available for residents to use throughout the day.

If bike-share is provided, one option is to work with Clipper and bike/scooter vendors to explore the possibility of accepting payment made with Clipper Card accounts. This would be similar to how transit passes and e-cash can be loaded. If residents are already receiving Clipper e-cash from the development, then they can easily integrate a bike-share membership into their transportation options.

Figure 6.6.2. ELECTRIC SCOOTERS


1011
40

Monitoring and Enforcement

7.1. Office TDM

To monitor compliance with the office TDM requirements, Google will develop an annual monitoring report and submit to the City of Mountain View, per the requirements of the North Bayshore TDM Guidelines as well as the project's Development Agreement and/or Conditions of Approval. The report will include the following elements:

- **STATUS OF ALL EXISTING TDM PROGRAMS:** including data on participation rates if available.
- **STATUS OF ALL RECOMMENDED TDM MEASURES:** from the prior monitoring report (if applicable), including any available data on participation rates, if any.
- **DRIVEWAY TRAFFIC COUNTS:** driveway traffic counts will be prepared by an independent licensed consultant. The monitoring period will consist of one full work week (five days), Monday through Friday. Traffic counts will be collected for peak direction traffic during the a.m. and p.m. three-hour peak periods.
- **MONITOR COMPLIANCE:** a.m. traffic counts will be added together and compared to the a.m. office trip cap. The same will be done for the p.m. traffic counts. Compliance will be calculated using the average of the three highest volume weekdays of a.m. / p.m. counts.
- **REPORT CONCLUSIONS:** The TDM report will either state: (1) the project has remained below the required project peak period Office Trip Cap, providing supporting statistics and analysis to establish attainment of the goal; or (2) the project has not achieved the peak period Office Trip Cap, providing an explanation of how and why the goal has not been reached and a description of additional measures that will be adopted in order to attain the TDM goal required for the project.

If the office trip cap is exceeded, Google will submit a revised TDM plan to the City identifying new programs or measures to address the exceedance and reduce the number of site-specific vehicle trips. Google will be granted a six month "grace period" to implement the measures and correct compliance with the trip cap. If the following annual monitoring report indicates that, despite changes to the TDM program, the site still does not comply with the office trip cap, then the City will assess a financial penalty.

TDM monitoring and enforcement in the TDM Plan may differ from the Conditions of Approval. The Conditions of Approval shall govern final TDM requirements unless otherwise determined permissible by the City.

7.2. Residential TDM

To monitor compliance with the residential TDM requirements, Google will develop an annual monitoring report and submit to the City of Mountain View, per the requirements of the NBPP Residential TDM Guidelines as well as the project's Development Agreement and/or Conditions of Approval. The two main components of the annual report are:

- Conduct a mode share survey. Data collection will include a statistically significant survey of residents to monitor that the non-drive mode share is at or above 50%.

- Report the status of the required TDM programs, as established in Section 6.

If an annual report shows noncompliance, the property owners will prepare a TDM measures strategy and will be granted a six month "grace period" to meet the mode share target. If the following annual report indicates that, in spite of the changes in the TDM program, the target is still not being met, or if the applicant fails to submit a TDM report, the City may assess a financial penalty.

TDM monitoring and enforcement in the TDM Plan may differ from the Conditions of Approval. The Conditions of Approval shall govern final TDM requirements unless otherwise determined permissible by the City.

Google

lendlease

Appendix I
Logistics technical memo

04.2023

Technical Note

ARUP

560 Mission Street
San Francisco, California 94105
United States
www.arup.com

t + 415 957 9445

Project title	North Bayshore Logistics Masterplan	Job number	282535-00
cc	City of Mountain View Public Works	File reference	TN-03
Prepared by	Spencer Paret Melody Ablola	Date	May 25, 2023
Subject	Delivery & Loading Requirements		

The following technical note has been prepared to provide details and justification regarding the overall delivery and loading requirements for North Bayshore, in comparison to the requirements set out by city municipal code. It should be noted that the loading recommendations made in this document are meant to serve deliveries only and are exclusive of any spaces required for the storage and collection of waste and waste equipment.

1 Loading Spaces by Municipal Code & Precise Plan

The City of Mountain View Municipal Code Section 36.32.60. states the minimum number of loading spaces that shall be provided for each non-residential use unless modified by the zoning administrator is as follows:

Table 1: City of Mountain View Municipal Code Loading Space Requirements for Non-Residential Uses

Type of Land Use	Gross Floor Area	Loading Spaces Required
Commercial, industrial, institutional, and service uses	10,000 to 30,000 square feet	1 space
	30,001 square feet and more	1 space per additional 20,000 square feet

The total projected floor area for all non-residential uses of the North Bayshore project is 3,876,921 square feet. Applying this square footage to the rate provided in the table above, a total of 173 loading spaces would be required. **Table 2** provides a detailed breakdown of the non-residential loading spaces required per building which have been aggregated to the parcel level.

Table 2: North Bayshore Loading Space Requirements by Code for Non-Residential Uses

Development Block	Building	Commercial Area (Square Feet)	Loading Spaces Required
SB-BO-1	SB-O-1	Office – 235,936 Retail – 14,950	12
SB-BO-1	SB-O-2A	Office – 137,762 Retail – 6,400	6
SB-BO-1	SB-O-2B	Office – 137,561 Retail – 12,361	6
SB-BO-2	SB-O-3	Office – 155,914	7
SB-BO-2	SB-O-4	Office – 187,430	8
SB-BO-2	SB-O-5	Office – 205,351	9
SB-BO-2	SB-O-6	Office – 189,461	8
SB-BO-3	SB-O-7	Office – 140,187	6
SB-BO-3	SB-O-8	Office – 177,501	8
SB-BO-3	SB-O-9	Office – 72,491	3
SB-FLEX	SB-C-1201	Community – 55,000 Utility – 35,000	4
Green Way Park West	SB-K-1	Retail – 1,000	0
Green Way Park West	SB-K-2	Retail – 1,000	0
Green Way Park West	SB-K-3	Retail – 1,000	0
SB-BH	SB-H-1	Hotel – 160,000 Retail – 16,731	8
SB-PR-6	SB-P-1	Retail – 4,550	0
SB-BR-1	SB-R-1	Retail – 8,699	0
SB-BR-1	SB-R-2	Retail – 18,493	1
SB-BR-2	SB-R-3	Retail – 18,510	1
SB-BR-2	SB-R-4	Retail – 21,197	1
SB-BR-3	SB-R-5	Retail – 18,552	1
SB-BR-4	SB-R-6	Retail – 12,825	1
SB-BR-5	SB-R-7	Retail – 16,732	1
SB-DCP	SB-CUP	Utility – 95,000	4
JS-BO-1	JS-O-1	Office – 250,000 Retail – 3,990	12
JS-BR-3	JS-R-5	Retail – 7,000	0
JS-FLEX	JS-P-1	Retail – 4,000	0
JS-FLEX	JS-H-1	Hotel – 180,000	8
JN-BO-1	JN-O-1	Office – 181,374	8
JN-BO-1	JN-O-2	Office – 190,715	9
JN-BO-1	JN-O-3	Office – 192,553	9
JN-BO-1	JN-O-4	Office – 190,067	9
JN-BO-2	JN-O-5	Office – 236,754	11
JN-BO-2	JN-O-6	Office – 236,874	11
Joaquin Portal Park	JN-K-1	Retail – 1,000	0
JN-BR-4	JN-R-6	Retail – 7,748	0
JN-BR-7	JN-R-7	Retail – 3,299	0

Development Block	Building	Commercial Area (Square Feet)	Loading Spaces Required
JN-BR-6	JN-R-10	Retail – 20,655	1
JN-BR-7	JN-R-11	Retail – 3,298	0
PE-BR-1	PE-R-1	Retail – 10,000	0
Totals:		**3,876,921**	**173**

The City of Mountain View Municipal Code Section 36.32.60. defines loading space requirements for commercial, industrial, institutional and service uses, but does not explicitly define residential loading requirements. Per Section 36.32.60.,"requirements for uses not specifically listed shall be determined by the zoning administrator based upon the requirements for comparable uses and upon the particular characteristics of the proposed use." Given that the North Bayshore Precise Plan also does not define residential loading requirements, they have been noted as zero until further direction from the City of Mountain View zoning administrator is provided. **Table 3** below specifies the expected number of dwelling units and the corresponding number of loading spaces required by Section 36.32.60..

Table 3: North Bayshore Loading Space Requirements by Code for Residential Buildings

Development Block	Residential Building	Number of Units	Residential Loading Spaces Required
SB-BR-1	SB-R-1	160	0 (TBD)
SB-BR-1	SB-R-2	206	0 (TBD)
SB-BR-2	SB-R-3	177	0 (TBD)
SB-BR-2	SB-R-4	251	0 (TBD)
SB-BR-3	SB-R-5	211	0 (TBD)
SB-BR-4	SB-R-6	297	0 (TBD)
SB-BR-5	SB-R-7	176	0 (TBD)
SB-BR-6	SB-R-8	159	0 (TBD)
SB-BR-7	SB-R-9	172	0 (TBD)
SB-BR-6	SB-R-10	61	0 (TBD)
SB-BR-8	SB-R-11	215	0 (TBD)
JS-BR-1	JS-R-1	253	0 (TBD)
JS-BR-1	JS-R-2	156	0 (TBD)
JS-BR-2	JS-R-3	83	0 (TBD)
JS-BR-2	JS-R-4	193	0 (TBD)
JS-BR-3	JS-R-5	318	0 (TBD)
JN-BR-2	JN-P-1	195	0 (TBD)
JN-BR-1	JN-R-1	415	0 (TBD)
JN-BR-1	JN-R-2	167	0 (TBD)
JN-BR-2	JN-R-3	432	0 (TBD)
JN-BR-1	JN-R-4	340	0 (TBD)
JN-BR-2	JN-R-5	254	0 (TBD)
JN-BR-4	JN-R-6	375	0 (TBD)
JN-BR-7	JN-R-7	331	0 (TBD)
JN-BR-7	JN-R-8	200	0 (TBD)
JN-BR-6	JN-R-10	391	0 (TBD)
JN-BR-7	JN-R-11	240	0 (TBD)

Development Block	Residential Building	Number of Units	Residential Loading Spaces Required
PE-BR-1	PE-R-1	341	0 (TBD)
PE-BR-2	PE-R-2	231	0 (TBD)
Totals:		**7,000**	**0 (TBD)**

Therefore, the total loading space requirements by individual buildings, as set out by city municipal code for both residential and non-residential, is 173 loading spaces, as demonstrated in **Table 4**.

Table 4: North Bayshore Loading Space Requirements for Residential and Non-Residential Buildings

Development Block	Building	Residential Loading Spaces Required	Commercial Loading Spaces Required	Total Loading Spaces Required
SB-BO-1	SB-O-1	0	12	12
SB-BO-1	SB-O-2A	0	6	6
SB-BO-1	SB-O-2B	0	6	6
SB-BO-2	SB-O-3	0	7	7
SB-BO-2	SB-O-4	0	8	8
SB-BO-2	SB-O-5	0	9	9
SB-BO-2	SB-O-6	0	8	8
SB-BO-3	SB-O-7	0	6	6
SB-BO-3	SB-O-8	0	8	8
SB-BO-3	SB-O-9	0	3	3
SB-FLEX	SB-C-1201	0	4	4
Green Way Park West	SB-K-1	0	0	0
Green Way Park West	SB-K-2	0	0	0
Green Way Park West	SB-K-3	0	0	0
SB-BH	SB-H-1	0	8	8
SB-BR-6	SB-P-1	0	0	0
SB-BR-1	SB-R-1	0	0	0
SB-BR-1	SB-R-2	0	1	1
SB-BR-2	SB-R-3	0	1	1
SB-BR-2	SB-R-4	0	1	1
SB-BR-3	SB-R-5	0	1	1
SB-BR-4	SB-R-6	0	1	1
SB-BR-5	SB-R-7	0	1	1
SB-BR-6	SB-R-8	0	0	0
SB-BR-7	SB-R-9	0	0	0
SB-BR-6	SB-R-10	0	0	0
SB-BR-8	SB-R-11	0	0	0
SB-DCP	SB-CUP	0	4	4
JS-BO-1	JS-O-1	0	12	12
JS-BR-1	JS-R-1	0	0	0
JS-BR-1	JS-R-2	0	0	0

Development Block	Building	Residential Loading Spaces Required	Commercial Loading Spaces Required	Total Loading Spaces Required
JS-BR-2	JS-R-3	0	0	0
JS-BR-2	JS-R-4	0	0	0
JS-BR-3	JS-R-5	0	0	0
JS-FLEX	JS-P-1	0	0	0
JS-FLEX	JS-H-1	0	8	8
JN-BO-1	JN-O-1	0	8	8
JN-BO-1	JN-O-2	0	9	9
JN-BO-1	JN-O-3	0	9	9
JN-BO-1	JN-O-4	0	9	9
JN-BO-2	JN-O-5	0	11	11
JN-BO-2	JN-O-6	0	11	11
Joaquin Portal Park	JN-K-1	0	0	0
JN-BR-2	JN-P-1	0	0	0
JN-BR-1	JN-R-1	0	0	0
JN-BR-1	JN-R-2	0	0	0
JN-BR-2	JN-R-3	0	0	0
JN-BR-1	JN-R-4	0	0	0
JN-BR-2	JN-R-5	0	0	0
JN-BR-4	JN-R-6	0	0	0
JN-BR-7	JN-R-7	0	0	0
JN-BR-7	JN-R-8	0	0	0
JN-BR-6	JN-R-10	0	1	1
JN-BR-7	JN-R-11	0	0	0
PE-BR-1	PE-R-1	0	0	0
PE-BR-2	PE-R-2	0	0	0
Totals:		**0**	**173**	**173**

2 Demand-based Loading Recommendations

As opposed to a loading space per square footage or per unit metric, a demand-based approach was applied that uses standard generation rates from local and global data surveys, specific to individual land uses. This demand-based approach has been agreed upon by the City in lieu of the municipal code for other precedent projects, including Charleston East and Landings. The demand-based forecast shown in **Table 5** outlines anticipated daily delivery vehicle arrivals by land use:

Table 5: Demand-based Daily Delivery Vehicle Arrivals by Program Type

Program Type	Area (Square Feet)	Deliveries per Day
Office	3,117,931	319
Residential	7,187,342	468
Hotel	340,000	53

Retail	233,990	179
Community	55,000	5
Utility	130,000	12
Totals:	**11,064,263**	**1,036**

Given that some buildings have mixed land uses, a breakdown of daily delivery vehicle arrivals by program type for each building is provided in **Table 6**. It is expected that office will require dedicated loading bays for security reasons, and thus daily delivery arrivals have been split between office and non-office land uses.

Table 6: Demand-based Daily Delivery Vehicle Arrivals by Building and Land Use

Development Block	Building	Average Daily Arrivals							
		Office	Non-Office						Office and Non-Office Total
			Residential	Hotel	Retail	Community	Utility	Non-Office Total	
SB-BO-1	SB-O-1	24	0	0	11	0	0	11	35
SB-BO-1	SB-O-2A	14	0	0	5	0	0	5	19
SB-BO-1	SB-O-2B	14	0	0	9	0	0	9	23
SB-BO-2	SB-O-3	16	0	0	0	0	0	0	16
SB-BO-2	SB-O-4	19	0	0	0	0	0	0	19
SB-BO-2	SB-O-5	21	0	0	0	0	0	0	21
SB-BO-2	SB-O-6	19	0	0	0	0	0	0	19
SB-BO-3	SB-O-7	14	0	0	0	0	0	0	14
SB-BO-3	SB-O-8	18	0	0	0	0	0	0	18
SB-BO-3	SB-O-9	7	0	0	0	0	0	0	7
SB-FLEX	SB-C-1201	0	0	0	0	5	3	8	8
Green Way Park West	SB-K-1	0	0	0	1	0	0	1	1
Green Way Park West	SB-K-2	0	0	0	1	0	0	1	1
Green Way Park West	SB-K-3	0	0	0	1	0	0	1	1
SB-BH	SB-H-1	0	0	25	13	0	0	38	38
SB-BR-6	SB-P-1	0	0	0	3	0	0	3	3
SB-BR-1	SB-R-1	0	10	0	7	0	0	17	17
SB-BR-1	SB-R-2	0	14	0	14	0	0	28	28
SB-BR-2	SB-R-3	0	13	0	14	0	0	27	27
SB-BR-2	SB-R-4	0	19	0	16	0	0	35	35
SB-BR-3	SB-R-5	0	13	0	14	0	0	27	27
SB-BR-4	SB-R-6	0	19	0	10	0	0	29	29
SB-BR-5	SB-R-7	0	12	0	13	0	0	25	25
SB-BR-6	SB-R-8	0	10	0	0	0	0	10	10
SB-BR-7	SB-R-9	0	10	0	0	0	0	10	10
SB-BR-6	SB-R-10	0	4	0	0	0	0	4	4
SB-BR-8	SB-R-11	0	16	0	0	0	0	16	16

Development Block	Building	Average Daily Arrivals							
		Office	Non-Office						Office and Non-Office Total
			Residential	Hotel	Retail	Community	Utility	Non-Office Total	
SB-DCP	SB-CUP	0	0	0	0	0	9	9	9
JS-BO-1	JS-O-1	26	0	0	3	0	0	3	29
JS-BR-1	JS-R-1	0	17	0	0	0	0	17	17
JS-BR-1	JS-R-2	0	11	0	0	0	0	11	11
JS-BR-2	JS-R-3	0	5	0	0	0	0	5	5
JS-BR-2	JS-R-4	0	14	0	0	0	0	14	14
JS-BR-3	JS-R-5	0	21	0	5	0	0	26	26
JS-FLEX	JS-P-1	0	0	0	3	0	0	3	3
JS-FLEX	JS-H-1	0	0	28	0	0	0	28	28
JN-BO-1	JN-O-1	19	0	0	0	0	0	0	19
JN-BO-1	JN-O-2	20	0	0	0	0	0	0	20
JN-BO-1	JN-O-3	20	0	0	0	0	0	0	20
JN-BO-1	JN-O-4	20	0	0	0	0	0	0	20
JN-BO-2	JN-O-5	24	0	0	0	0	0	0	24
JN-BO-2	JN-O-6	24	0	0	0	0	0	0	24
Joaquin Portal Park	JN-K-1	0	0	0	1	0	0	1	1
JN-BR-2	JN-P-1	0	14	0	0	0	0	14	14
JN-BR-1	JN-R-1	0	27	0	0	0	0	27	27
JN-BR-2	JN-R-2	0	11	0	0	0	0	11	11
JN-BR-2	JN-R-3	0	30	0	0	0	0	30	30
JN-BR-1	JN-R-4	0	25	0	0	0	0	25	25
JN-BR-2	JN-R-5	0	18	0	0	0	0	18	18
JN-BR-4	JN-R-6	0	24	0	6	0	0	30	30
JN-BR-7	JN-R-7	0	23	0	3	0	0	26	26
JN-BR-7	JN-R-8	0	13	0	0	0	0	13	13
JN-BR-6	JN-R-10	0	25	0	15	0	0	40	40
JN-BR-7	JN-R-11	0	16	0	3	0	0	19	19
PE-BR-1	PE-R-1	0	19	0	8	0	0	27	27
PE-BR-2	PE-R-2	0	15	0	0	0	0	15	15
Totals:		**319**	**468**	**53**	**179**	**5**	**12**	**717**	**1,036**

Daily deliveries are then used to forecast peak hour delivery volumes, and the associated peak hour loading bay requirements. For all land uses, it is assumed that 15% of all deliveries will arrive during the peak hour and each vehicle will have a 30-minute turnaround time. **Table 7** demonstrates how daily delivery volumes are used to forecast peak hour delivery vehicle arrivals, which are then used to approximate peak hour loading bay requirements. Given the office security concerns discussed above, loading requirements are separated between office and non-office land uses. It is assumed that loading areas can be shared between non-office land uses. Under this demand-based approach, 112 loading spaces are required.

Google is investigating logistics interventions that could further reduce demand-based office loading requirements in the future, but those interventions have not been assumed for this technical analysis to maintain a conservative analysis until those interventions are confirmed.

Table 7: Demand-based Loading Bay Requirements by Building

Development Block	Building	Office			Non-Office			Office and Non-Office Peak Hour Loading Bays
		Average Daily Arrivals	Peak Hour Arrivals*	Peak Hour Loading Bays**	Average Daily Arrivals	Peak Hour Arrivals*	Peak Hour Loading Bays**	
SB-BO-1	SB-O-1	24	3.6	2	11	1.7	1	3
SB-BO-1	SB-O-2A	14	2.1	2	5	0.8	1	3
SB-BO-1	SB-O-2B	14	2.1	2	9	1.4	1	3
SB-BO-2	SB-O-3	16	2.4	2	0	0.0	0	2
SB-BO-2	SB-O-4	19	2.9	2	0	0.0	0	2
SB-BO-2	SB-O-5	21	3.2	2	0	0.0	0	2
SB-BO-2	SB-O-6	19	2.9	2	0	0.0	0	2
SB-BO-3	SB-O-7	14	2.1	2	0	0.0	0	2
SB-BO-3	SB-O-8	18	2.7	2	0	0.0	0	2
SB-BO-3	SB-O-9	7	1.1	1	0	0.0	0	1
SB-FLEX	SB-C-1201	0	0.0	0	8	1.2	1	1
Green Way Park West	SB-K-1	0	0.0	0	1	0.2	1	1
Green Way Park West	SB-K-2	0	0.0	0	1	0.2	1	1
Green Way Park West	SB-K-3	0	0.0	0	1	0.2	1	1
SB-BH	SB-H-1	0	0.0	0	38	5.7	3	3
SB-BR-6	SB-P-1	0	0.0	0	3	0.5	1	1
SB-BR-1	SB-R-1	0	0.0	0	17	2.6	2	2
SB-BR-1	SB-R-2	0	0.0	0	28	4.2	3	3
SB-BR-2	SB-R-3	0	0.0	0	27	4.1	3	3
SB-BR-2	SB-R-4	0	0.0	0	35	5.3	3	3
SB-BR-3	SB-R-5	0	0.0	0	27	4.1	3	3
SB-BR-4	SB-R-6	0	0.0	0	29	4.4	3	3
SB-BR-5	SB-R-7	0	0.0	0	25	3.8	2	2
SB-BR-6	SB-R-8	0	0.0	0	10	1.5	1	1
SB-BR-7	SB-R-9	0	0.0	0	10	1.5	1	1
SB-BR-6	SB-R-10	0	0.0	0	4	0.6	1	1
SB-BR-8	SB-R-11	0	0.0	0	16	2.4	2	2
SB-DCP	SB-CUP	0	0.0	0	9	1.4	1	1
JS-BO-1	JS-O-1	26	3.9	2	3	0.5	1	3
JS-BR-1	JS-R-1	0	0.0	0	17	2.6	2	2
JS-BR-1	JS-R-2	0	0.0	0	11	1.7	1	1
JS-BR-2	JS-R-3	0	0.0	0	5	0.8	1	1

Development Block	Building	Office			Non-Office			Office and Non-Office Peak Hour Loading Bays
		Average Daily Arrivals	Peak Hour Arrivals*	Peak Hour Loading Bays**	Average Daily Arrivals	Peak Hour Arrivals*	Peak Hour Loading Bays**	
JS-BR-2	JS-R-4	0	0.0	0	14	2.1	2	2
JS-BR-3	JS-R-5	0	0.0	0	26	3.9	2	2
JS-FLEX	JS-P-1	0	0.0	0	3	0.5	1	1
JS-FLEX	JS-H-1	0	0.0	0	28	4.2	3	3
JN-BO-1	JN-O-1	19	2.9	2	0	0.0	0	2
JN-BO-1	JN-O-2	20	3.0	2	0	0.0	0	2
JN-BO-1	JN-O-3	20	3.0	2	0	0.0	0	2
JN-BO-1	JN-O-4	20	3.0	2	0	0.0	0	2
JN-BO-2	JN-O-5	24	3.6	2	0	0.0	0	2
JN-BO-2	JN-O-6	24	3.6	2	0	0.0	0	2
Joaquin Portal Park	JN-K-1	0	0.0	0	1	0.2	1	1
JN-BR-2	JN-P-1	0	0.0	0	14	2.1	2	2
JN-BR-1	JN-R-1	0	0.0	0	27	4.1	3	3
JN-BR-1	JN-R-2	0	0.0	0	11	1.7	1	1
JN-BR-2	JN-R-3	0	0.0	0	30	4.5	3	3
JN-BR-1	JN-R-4	0	0.0	0	25	3.8	2	2
JN-BR-2	JN-R-5	0	0.0	0	18	2.7	2	2
JN-BR-4	JN-R-6	0	0.0	0	30	4.5	3	3
JN-BR-7	JN-R-7	0	0.0	0	26	3.9	2	2
JN-BR-7	JN-R-8	0	0.0	0	13	2.0	1	1
JN-BR-6	JN-R-10	0	0.0	0	40	6.0	3	3
JN-BR-7	JN-R-11	0	0.0	0	19	2.9	2	2
PE-BR-1	PE-R-1	0	0.0	0	27	4.1	3	3
PE-BR-2	PE-R-2	0	0.0	0	15	2.3	2	2
Totals:		**319**	**48**	**33**	**717**	**109**	**79**	**112**

*The total arrivals in the peak hour were calculated by taking the sum of the daily arrivals and multiplying it by a factor of 15%

**It is assumed a single loading space can accommodate two deliveries during the peak hour, applying an average turnaround time of 30 minutes per vehicle.

Table 8 below compares the recommended demand-based loading bay count versus the loading bay requirement by code for office spaces. When comparing the code requirement to the demand-based loading approach, there is a delta of -61 loading spaces.

Table 8: Office Demand-based Recommendations vs. Code Requirements

Development Block	Building	Total Bays Recommended at Peak (Demand-based)	Total Bays Recommended by Code	Delta
SB-BO-1	SB-O-1	3	12	-9
SB-BO-1	SB-O-2A	3	6	-3
SB-BO-1	SB-O-2B	3	6	-3
SB-BO-2	SB-O-3	2	7	-5
SB-BO-2	SB-O-4	2	8	-6
SB-BO-2	SB-O-5	2	9	-7
SB-BO-2	SB-O-6	2	8	-6
SB-BO-3	SB-O-7	2	6	-4
SB-BO-3	SB-O-8	2	8	-6
SB-BO-3	SB-O-9	1	3	-2
SB-FLEX	SB-C-1201	1	4	-3
Green Way Park West	SB-K-1	1	0	+1
Green Way Park West	SB-K-2	1	0	+1
Green Way Park West	SB-K-3	1	0	+1
SB-BH	SB-H-1	3	8	-5
SB-BR-6	SB-P-1	1	0	+1
SB-BR-1	SB-R-1	2	0	+2
SB-BR-1	SB-R-2	3	1	+2
SB-BR-2	SB-R-3	3	1	+2
SB-BR-2	SB-R-4	3	1	+2
SB-BR-3	SB-R-5	3	1	+2
SB-BR-4	SB-R-6	3	1	+2
SB-BR-5	SB-R-7	2	1	+1
SB-BR-6	SB-R-8	1	0	+1
SB-BR-7	SB-R-9	1	0	+1
SB-BR-6	SB-R-10	1	0	+1
SB-BR-8	SB-R-11	2	0	+2
SB-DCP	SB-CUP	1	4	-3
JS-BO-1	JS-O-1	3	12	-9
JS-BR-1	JS-R-1	2	0	+2
JS-BR-1	JS-R-2	1	0	+1
JS-BR-2	JS-R-3	1	0	+1
JS-BR-2	JS-R-4	2	0	+2
JS-BR-3	JS-R-5	2	0	+2
JS-FLEX	JS-P-1	1	0	+1
JS-FLEX	JS-H-1	3	8	-5
JN-BO-1	JN-O-1	2	8	-6

Development Block	Building	Total Bays Recommended at Peak (Demand-based)	Total Bays Recommended by Code	Delta
JN-BO-1	JN-O-2	2	9	-7
JN-BO-1	JN-O-3	2	9	-7
JN-BO-1	JN-O-4	2	9	-7
JN-BO-2	JN-O-5	2	11	-9
JN-BO-2	JN-O-6	2	11	-9
Joaquin Portal Park	JN-K-1	1	0	+1
JN-BR-2	JN-P-1	2	0	+2
JN-BR-1	JN-R-1	3	0	+3
JN-BR-1	JN-R-2	1	0	+1
JN-BR-2	JN-R-3	3	0	+3
JN-BR-1	JN-R-4	2	0	+2
JN-BR-2	JN-R-5	2	0	+2
JN-BR-4	JN-R-6	3	0	+3
JN-BR-7	JN-R-7	2	0	+2
JN-BR-7	JN-R-8	1	0	+1
JN-BR-6	JN-R-10	3	1	+2
JN-BR-7	JN-R-11	2	0	+2
PE-BR-1	PE-R-1	3	0	+3
PE-BR-2	PE-R-2	2	0	+2
Totals:		**112**	**173**	**-61**

3 Typical Loading Bay Dimensions & Sizing

A 40’ long box truck (SU-40) is proposed as the design vehicle for the site. To accommodate this vehicle, loading bays will be sized at 12’ W x 40’ L with 15’ of vertical clearance. Per City of Mountain View Municipal Code Section 36.32.75, minimum required dimensions for a loading space set by the City of Mountain View: 10’ W x 25’ L with 12’ of vertical clearance. An example loading dock layout at a typical building is shown in **Figure 1**. Section 3.3.11 of the North Bayshore Precise Plan and Section 36.32.75 of City of Mountain View Municipal Code further prescribe location, screening, and other off-street loading design requirements.

Technical Note

282535-00 May 25, 2023

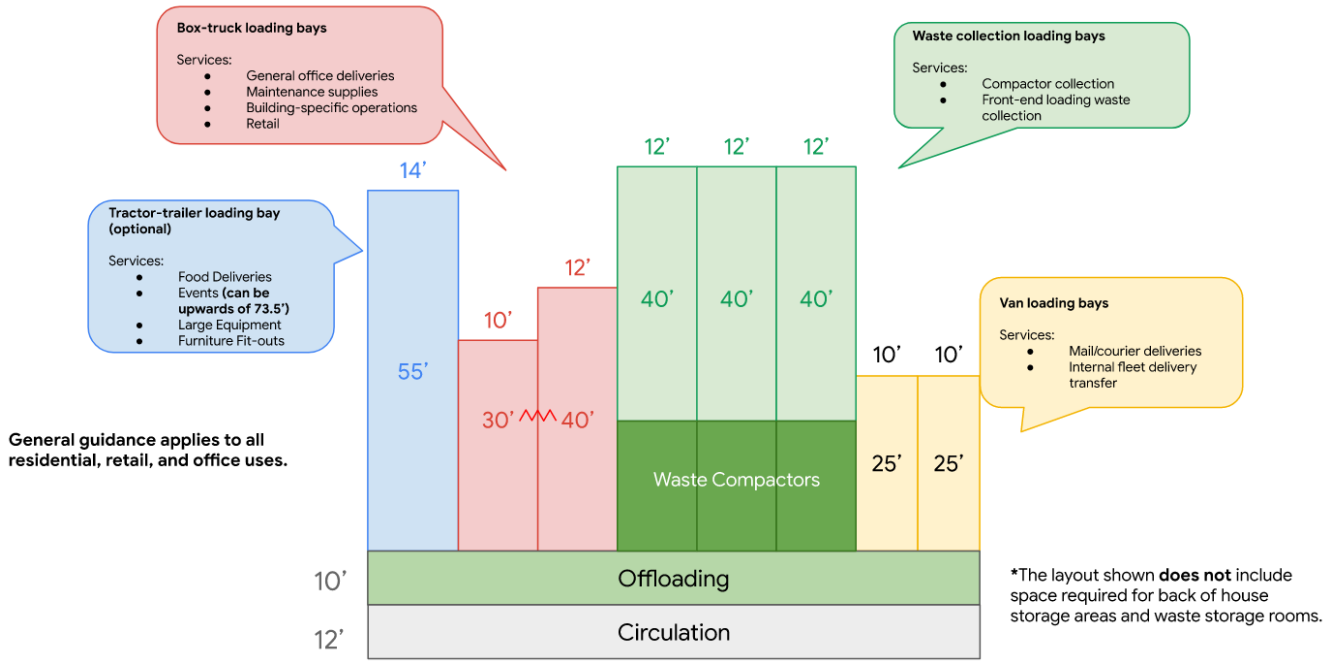


Figure 1: Example Loading Dock Layout

Table 9 outlines the various minimum height clearances required for the various delivery and service vehicles that will be accessing the site.

Table 9: Minimum Height Clearances by Vehicle Type

Vehicle Type	Length	Clear Height Requirement
Van	< 24’	12’
Box Truck	30’ – 40’	15’
Tractor-trailer (Articulated)	> 40’	15’
Waste Collection Truck	40’	15’ for traveling, 22’ for tipping

Appendix J

Parking technical memo

04.2023

FEHR PEERS

Memorandum

Date: May 31, 2023

To: Neil Smolen, Lendlease

From: Robert Eckols, PE, and Kevin Zamzow-Pollock; Fehr & Peers

Subject: Parking Technical Evaluation for Google's North Bayshore Framework Master Plan in Mountain View, California

SJ21-2074

This memorandum presents the results of a technical evaluation of the parking proposed in Google's North Bayshore Framework Master Plan (Master Plan) development located in the North Bayshore Precise Plan (NBPP) area in Mountain View, California.

Key Findings

The following key findings resulted from the analysis presented in this memorandum:

- The NBS Framework Master Plan will provide up to 6,236 parking spaces for office uses, 4,550 parking spaces for residential uses, and 1,612 shared parking spaces for retail, hotel, residential guests, and community uses. The district central plant will provide 5 parking spaces. The combined total parking supply for all Master Plan land uses is 12,403 parking spaces.
- Based on the parking supply requirements outlined in the NBPP, the Master Plan can supply up to a maximum of 14,802 parking spaces. Therefore, the proposed Master Plan parking supply is below the NBPP parking supply maximums.
- For the shared parking analysis, the parking demand rates for the Master Plan land uses were assumed to be as follows:
    - The parking demand rate for market-rate office uses is estimated to be 1.85 vehicles per 1,000 square feet. This rate was calculated using the Urban Land Institute (ULI) base office parking demand rate of 2.80 vehicles per 1,000 square feet that was

adjusted to account for Google's proposal to achieve a single-occupant vehicle mode share of 35%.

- The parking demand rate for residential uses is estimated to be 0.65 vehicles per unit based on the anticipated mix of unit types (studios, 1-bedroom, 2-bedroom, & 3-bedroom). The residential Transportation Demand Management (TDM) program will be used to meet these reduced parking standards as described in the *North Bayshore Residential Parking TDM and Demand Analysis,* Nelson-Nygaard, August 2022.
- The peak parking demand rate for residential guests was assumed to be 10% of the residential parking rate, or 0.065 vehicles per unit. The residential guest demand rate is consistent with the assumptions in the ULI for residential studio-efficiency parking.
- Parking demand rates for retail, hotel, and community uses were also based on the ULI baseline parking demand rates, which are derived from data collected by ULI and data presented in Institute of Transportation Engineers (ITE) *Parking Generation, Fifth Edition*.

- Without shared parking, the total parking demand for Master Plan is 11,479 vehicles. This demand accounts for the 35% SOV mode choice for office and adjustments to the other uses for TDM and internalization within the planning area. Key assumptions in the weekday analysis were:
  - 60% of the weekday retail trips would be internalized to the Master Plan Area and not require parking, 40% of weekend retail trips would be internalized.
  - 50% of the community trips would be internalized to the Master Plan Area and would not require parking, and
  - 60% of the hotel trips would not arrive in a vehicle that would park on-site.
- Comparing the weekday peak shared parking demand to the proposed Master Plan shared parking supply results in a parking surplus of 452 spaces. The office parking has a surplus of 467 spaces; however, these uses have dedicated (reserved) parking and these spaces are not available to the other land uses.
- For the remaining uses including retail, hotel, residential guests, and community uses, the unshared weekday peak parking demand is 1,160 vehicles and the proposed parking supply is 1,612 spaces. Therefore, without accounting for the time-of-day variation of the shared land uses there is a surplus of 452 spaces.
- With shared parking for the retail, hotel, residential guests, and community uses, the weekday peak demand with shared parking in place is 954 vehicles and the shared parking surplus is 6,658 spaces. On the weekends the peak parking demand with shared parking in place is 939 vehicles, and the surplus is 673 spaces.

Project Description

The Master Plan is a mixed-use community complete with stores, services, and restaurants for residents, neighbors, and workers, and a range of plazas and open spaces. The Master Plan Area is located near the center of the NBPP Area. Primary vehicular access into the Master Plan Area is provided by Shoreline Boulevard, Charleston Road, and Amphitheater Parkway.

Table 1 summarizes the planned land uses for the Master Plan. The office component includes a total of 3,117,931 square feet of office space. The residential portion of the Project includes a total of 7,000 dwelling units. There will also be a total of 525 hotel rooms between two buildings, 233,990 square feet of neighborhood supporting retail space located on the ground floors of mixed-use buildings, and 55,000 square feet of community uses.

The Master Plan area includes parks and open space that will serve residents and workers as well as visitors. Parking for local serving parks will be provided in the shared parking and on-street parking areas.

The Project will provide up to 6,236 parking spaces for office uses and 4,550 parking spaces for residential uses. The Project will provide 1,612 shared parking spaces for retail, hotel, and community uses. Residential guests will also use the shared parking supply. Five parking spaces will be provided at the central district plant. The central district plant spaces were not included in the shared parking analysis. In total, the Project's parking supply for all land uses will be 12,403 parking spaces.

Table 1: Master Plan Land Use Summary

Land Use	Amount
Office Use	3,117,931 square feet
Total Residential Units	7,000 units
Retail Use	233,990 square feet
Hotel	525 rooms
Community Use	55,000 square feet

Source: Lendlease, 2022

Table 2 summarizes the parking supply proposed for the Master Plan. The purpose of this master plan-level evaluation is to estimate the project parking demand to validate if demand can be adequately accommodated at, or below, the NBPP maximum supply limits.

Table 2: Master Plan Proposed Parking Supply

Land Use	Amount	Proposed Parking Supply Rate[1]	Proposed Parking Supply
Office	3,117,931 sq ft	2.00 spaces per 1,000 sq ft	6,236 spaces
Residential[2]	7,000 du	0.65 spaces per du	4,550 spaces
Residential Guests	7,000 du	Shared Parking	1,612 spaces
Retail	233,990 sq ft		
Hotel	525 rooms		
Community Use	55,000 sq ft		
District Central Plant	NA	NA	5 spaces
Total Supply			**12,403 spaces**

1. These rates are an approximation of the parking supply maximums reported in the project description of the Master Plan.
2. The residential parking supply during Phase 1 would be 1.25 spaces per unit that would be provided at a temporary off-site location(s) within the Master Plan area, however the specific location(s) have not been identified. At build out, residential parking would be provided at 0.65 spaces per unit.

Source: Lendlease, 2022.

Table 3 shows the parking capacities and assumed type of parking of the district parking garages. The parking counts presented are spaces associated with the Master Plan. The SA-P-1 garage may accommodate additional parking stalls to support City/public uses (i.e., non-Master Plan uses).

Master Plan Mode Share Targets & Parking

To minimize the number of vehicle trips into and out of North Bayshore, the NBPP includes a district-wide, single-occupancy vehicle (SOV) mode share target of 45%. However, Google's Master Plan commits to achieving a 35% SOV mode share at Project build out through TDM measures and progressive site design features. Therefore, it is possible that the calculations and conclusions presented in this memorandum may differ from the observed parking demand at Project buildout based on the effectiveness of the overall TDM plan. The Project's ability to meet this aggressive 35% SOV mode share target and the associated parking demand will be regularly monitored as part of the TDM Plan. If spillover parking is observed, it will be the developer's responsibility to adjust their parking policies and TDM programs to meet their transportation commitments.

Table 3: Parking Distribution & Users

District / Location	Uses Served	Capacity[1]	Office	Residential	Hotel & Active Uses
District Parking					
SA-P-1 Amphitheatre[2]	Office parking	4,334	4,334		
SB-P-1 Shorebird	Retail, hotel, community, and visitor parking	600			600
JN-P-1 Joaquin	North residential, retail, hotel, community, and visitor parking	500			500
JS-P-1 Joaquin South	Office, retail, hotel	700	404		296
MW-P-1 & MW-P-2 Marine Way	Office	890	890		
District Central Plant[3]	District Central Plant	**5**			
	District Parking Subtotal:	***7,029***	***5,628***		***1,396***
On-site Parking					
	On-site Parking Subtotal:	***5,374***	***608***	***4,550***	***216***
	Totals	**12,403**	**6,236**	**4,550**	**1,612**

1 The final number of parking spaces per building and how many will be housed in a district parking garage will be determined during the design phase for each building.
2 SA-P-1 may accommodate additional parking stalls to support City/public uses (i.e., non-Master Plan uses).
3 The surface parking provided at the District Central Plant is considered insignificant and not considered in the shared parking analysis.
Source: NBS Framework Master Plan, Table 6.1.1 - March 2022, Page 53, Google-Lendlease (updated October 19, 2022)

NBMA Phasing

During early phases of the Master Plan, parking demand rates are expected to exceed the build out parking supply rates presented in **Table 2**. During the phased development of the Master Plan, parking demand rates would gradually reduce to the build out parking supply rates presented in **Table 2** as a result of changes to the built environment, expansion of the multimodal transportation network, and TDM that results in a mode shift away from drive alone vehicles.

Temporary off-site parking would be provided at existing lots within the Master Plan area as buildings are vacated for redevelopment. No new permanent parking would be constructed to support the temporary near-term parking demand.

For residential uses, it is anticipated that early phases of the Master Plan would generate a total parking demand of 1.25 stalls per dwelling unit, which would result in a temporary off-site residential parking demand of 0.6 stalls per dwelling unit. The anticipated reduction in residential parking demand by phase is presented in **Figure 1** below.

For hotel and active uses, existing surface parking lots may also be utilized until multi-story garages are constructed.

NBPP Parking Supply Requirements

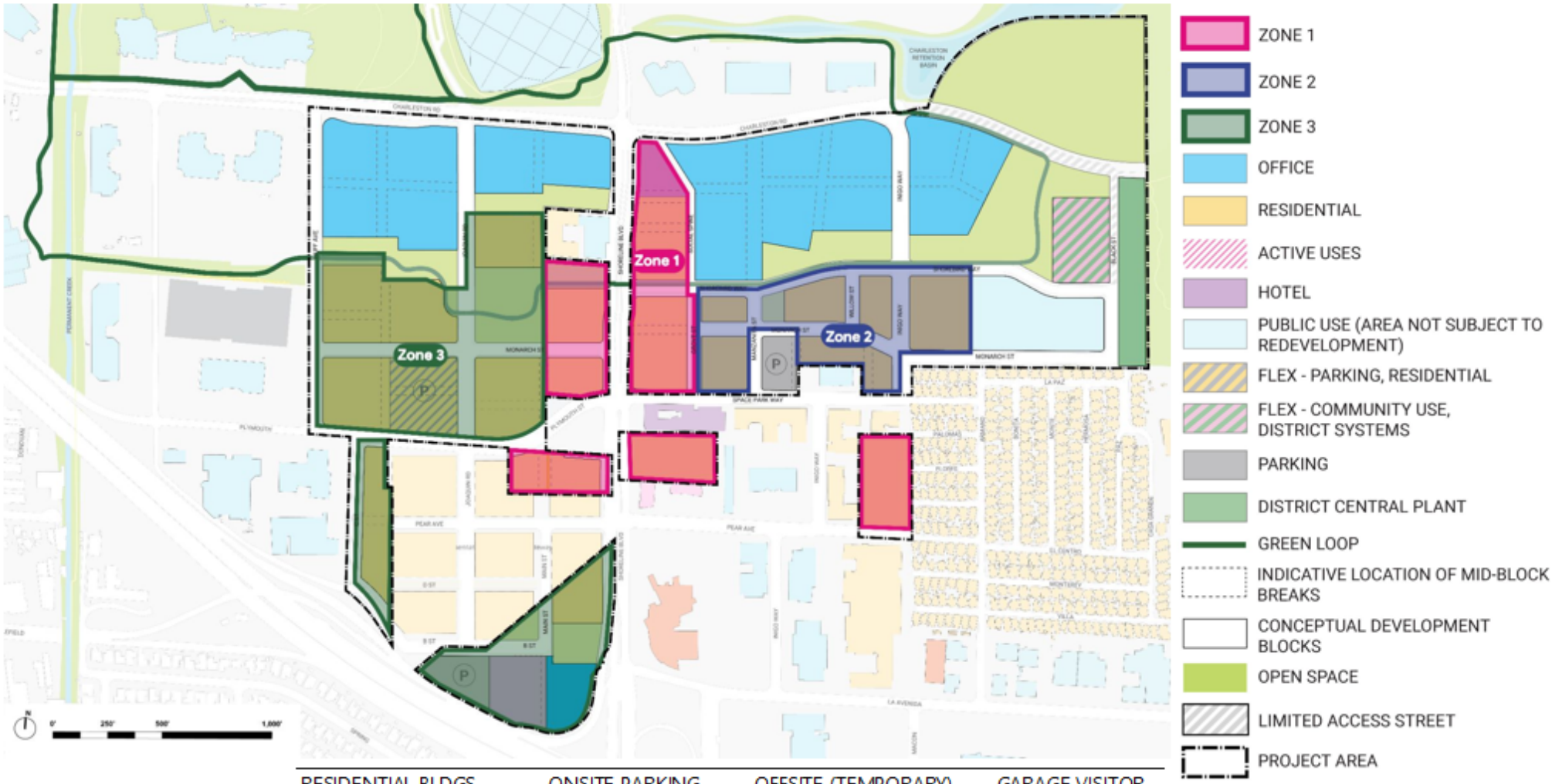
The NBPP outlines various policies to encourage multimodal travel and discourage travel by SOV, including implementing parking supply maximums for most land uses. **Table 4** shows the parking requirements for all land uses in the Master Plan based on the NBPP. For office use, the maximum parking supply is 2.7 spaces per 1,000 square feet. For residential uses, maximum parking supply rates of 0.25, 0.5, and 1.0 spaces per unit for micro/studios, 1-bedroom, and 2+-bedroom units, respectively. The NBPP does not set minimum or maximum parking standards for retail, hotel, and community use. The parking supplies will be equivalent to the Institute of Transportation Engineers' *Parking Generation* manual peak period parking demand for the most comparable land use as determined by the Zoning Administrator.

Table 4: North Bayshore Precise Plan Parking Standards

Land Use	Maximum Parking Requirement		
Office/Research and Development	2.70	spaces per 1,000 sq ft of gross building floor area	
Retail/Commercial greater than 1,000 sq. ft.		No maximum[1]	
Residential – Micro-units[2]	0.25	spaces per unit	*Average residential rate = ~0.65 spaces per unit*[3]
Residential - 1-bedroom	0.50	spaces per unit	
Residential – 2-bedroom and up	1.00	spaces per unit	
Residential Guests		No maximum[1]	
Hotel		No maximum[1]	
Community		No maximum[1]	

Notes:
1. For uses with no maximum, the equivalent to the Institute of Transportation Engineers' *Parking Generation* manual peak period parking demand for the most comparable land use as determined by the Zoning Administrator.
2. Up to 450 square feet and without a separate bedroom. For this assessment, all studios are considered micro-units.
3. Varies based on the unit mix, but cannot exceed 0.65 per unit.

Source: North Bayshore Precise Plan, 2019.



RESIDENTIAL BLDGS	ONSITE PARKING	OFFSITE (TEMPORARY)	GARAGE VISITOR
Zone 1	0.65 stalls/DU	0.6 stalls/DU	0.2 stalls/DU
Zone 2 (cumulative)	0.65 stalls/DU	0.35 stalls/DU	0.2 stalls/DU
Zone 3 (cumulative)	0.65 stalls/DU		0.2 stalls/DU

Figure 1
Phased Development Parking Plan

FEHR PEERS

Since the NBPP does not set a maximum parking supply for retail uses, for this evaluation we relied on information from the Institute of Transportation Engineers' (ITE) Parking Generation manual. Land Use: 820 Shopping Center was the most comparable use based on the size of the retail space. The ITE Shopping Center parking demand rate combines multiple retail, food & beverage, and entertainment uses into a single rate. It accounts for internal trips between the uses (park once for multiple activities). Additional adjustments will be made to these rates to account for the mixed-use setting, which are described later in this document. For this parking evaluation, the 85th-percentile peak parking demand rates for Land Use 820: Shopping Center of 3.68 spaces per 1,000 square feet was used.

The NBPP does not set a maximum parking supply rate for hotels. For this evaluation, it was assumed that the maximum parking standard for hotels would be 0.70 spaces per key. This assumption is based on hotel occupancy surveys conducted by three traffic consultants for the City of Mountain View in 2016 and 2017. These memorandums documented a rate of less than one space per key. The hotels surveyed were business hotels and did not have ancillary uses provided on-site. The current assumption is that the proposed Master Plan hotels will not have ancillary uses such as ballrooms or conference centers.

The NBPP does not provide a maximum parking supply rate for community uses. The nature of the community uses has not been clearly defined; however, we understand that the community uses will not include recreational facilities and will function more like office space with meeting rooms and other amenities. Therefore, for the analysis the parking supply was assumed to be the same as the office maximum supply rate of 2.7 spaces per 1,000 square feet.

Ultimately, the parking supply requirements for the retail, hotel, and community uses will be determined by the zoning administrator.

Table 5 estimates the maximum parking allowed based on the land use summary in **Table 1** and the parking supply rates in **Table 4**. Based on these assumptions, the Project would need to provide no more than 14,802 parking spaces for land uses with NBPP maximums (i.e., non-community uses). The Master Plan proposes to provide 12,403 parking spaces for all land uses. Therefore, the Master Plan parking supply is within the NBPP maximum parking supply requirements.

Table 5: NBPP Requirements and Master Plan Proposed Supply

Land Use	Size	NBPP Maximum or ITE Parking Demand Rate	NBPP Parking Requirements (spaces)	Master Plan Proposed Parking Supply(spaces)
Office	3,117,931sq. ft.	2.70 spaces per 1,000 sq ft	8,419	6236
Residential	7,000 units	0.65 spaces per unit	4,550	4,550
Residential Guests[1]	7,000 units	0.065 spaces per unit	455	1,612
Retail[2]	233,990 sq. ft.	3.68 spaces per 1,000 sq ft	861	
Hotel[3]	525 keys	0.70 spaces per key	368	
Community[4]	55,000 sq. ft.	2.70 spaces per 1,000 sq ft	149	
District Central Plant	NA	NA	NA	5
Total			**14,802**	**12,403**[5]

`Notes:
1. Used the ULI Shared Parking default rate for guest parking of 10% of the resident parking supply.
2. Used the Institute of Transportation Engineers' Trip Generation Manual's 85th percentile peak demand rate for Land Use 820: Shopping Center.
3. Hotel rate was derived from local hotel parking studies prepared for the City of Mountain View, 2016 & 2017.
4. Community parking supply was assumed to be provided at the same rate as office parking.
5. SA-P-1 may accommodate additional parking stalls to support City/public uses (i.e., non-Master Plan uses).

Source: North Bayshore Precise Plan, 2019 & Lendlease, 2023.

Parking Demand Assessment

Fehr & Peers conducted a parking demand assessment for the Master Plan both with and without shared parking. Since Google is proposing to occupy the office space, the office parking demand rates used in the analysis reflect that of typical Google employees based on meeting the SOV mode share target of 35% at buildout. The parking demand rates for the other land uses are discussed below.

Shared Parking Analysis Methods

Urban Land Institute Methodology

The Urban Land Institute (ULI) sponsored a national study in 1984 that established basic methods for analyzing parking demand in mixed-use developments and developed average parking rates by land use. Fehr & Peers staff participated in the 2004 update of this national study sponsored by ULI. In 2020, a third update of the report was published. The analysis presented in this memorandum utilizes the data from the updated *Shared Parking, Third Edition* report.

In the shared parking methodology, the base parking rate and daily, hourly, and seasonal patterns for each land use are established, and the overall parking demand is calculated by considering the unique travel characteristics of the Project being analyzed. For land uses without large seasonal fluctuations (i.e., non-retail land uses), hourly parking demand patterns are primarily used to identify the highest parking demand for a typical weekday.

For this assessment, peak parking demand rates for all land uses are as discussed in the following sections and, for some land uses, the rates are based on more site-specific data than presented in *Shared Parking, Third Edition*. Daily/hourly/seasonal patterns from *Shared Parking* were used to calculate the shared parking demand reduction for all land uses.

Shared Parking & Land Use Assumptions

Upon completion, the parking configuration at Master Plan will be similar to what is described below:

- Office employees will have dedicated parking facilities. Office employees will be discouraged from using the shared parking facilities for other land uses by implementing physical controls, time limits, or parking fines.
- Residential land uses will have dedicated parking facilities on site. Similar to office employees, residents will be discouraged from using the shared parking facilities for other land uses by implementing physical controls, time limits, or parking fines.
- Retail, hotel, community, and residential guest parking will use a collective shared parking supply consolidated in the district parking. Additionally, the retail land uses may have up to 136 on-site dedicated parking spaces within the Shorebird neighborhood.
- There will be on-street parking spaces within the Master Plan Area. These spaces were not considered a part of the parking supply; however, they would be available to short-term Master Plan resident guests, retail customers, institution users, and park/open space visitors. On-street parking will be managed such that it will not be available for overnight parking.

As stated previously, the nature of the community uses has not been finalized; however, the uses are not proposed as recreational in nature. Instead, the space may function more like office uses, meeting spaces, or other working space. The parking supply for community uses is not constrained by a NBPP parking maximum. For purposes of this analysis, it is assumed that community uses are part of the shared parking demand and would use the shared parking supply.

The remainder of this assessment estimates the parking demand for office, residential, retail, hotel, and community uses in the Master Plan.

Parking Demand Rate Assumptions

Parking Demand Rates for Office Employees

ULI's *Shared Parking, Third Edition* provides a base parking demand rate of 2.80 spaces per 1,000 square feet for office uses larger than 500,000 square feet. This parking demand rate includes the demand for both employees and visitors, and it is based on empirical observations at various suburban office developments in the United States. Since ULI's parking demand rate does not account for the effects of NBPP's trip cap for office uses and Google's 35% SOV commitment (requiring aggressive TDM programs), additional adjustments to the base parking demand rate are included.

For office uses, vehicle trip generation and parking demand are directly related. If the number of vehicles arriving on-site decreases, the number of parking spaces needed to store those vehicles decreases. Conversely, providing more parking spaces than needed may encourage employees to shift from non-vehicular modes to vehicular modes (i.e., single-occupancy vehicles) as the ease of finding parking exceeds the benefits of using non-vehicular modes (including those provided through TDM programs).

The Master Plan has an objective to achieve a 35% SOV mode share upon Project completion. To evaluate how achieving a 35% SOV mode share will affect trip generation rates (and subsequently parking demand) for office development, methods used in both the *Charleston East Transportation Impact Analysis* and the *Landings Site Specific Transportation Analysis* were employed for the Master Plan.

Table 6 compares the morning peak-hour inbound trip generation for the Master Plan (including a 35% SOV mode share) to the trip generation for General Office Buildings (Land Use 710) as reported in the ITE *Trip Generation*, 11th Edition. Like the ULI parking demand rates, ITE trip generation rates are based on empirical observations at various suburban office developments in the United States and do not fully account for aggressive TDM programs or the effects of peak hour trip caps. As **Table 6** shows, the ITE *Trip Generation* estimates are 34% greater than the Master Plan trip generation assuming a 35% SOV mode share.

Table 6: NBPP SOV Target and ITE Trip Generation Rate Comparison

Source	AM Peak Hour Inbound Vehicle Trip Generation
Master Plan Trip Generation with 35% SOV mode share (A)	1,879
ITE General Office Building (710) (B)	2,837
% Difference[1] (C = (B - A) / B)	+34%

1. Percent difference compared to ITE office trip rates. (% Difference = (ITE Rate – NBPP trip rate) / NBPP trip rate)
Source: NBPP; Trip Generation 11th Edition, ITE.

The NBPP acknowledges the direct relationship between trip generation and parking demand through parking supply maximums. Offices within the NBPP area are subject to a parking supply maximum of 2.7 spaces per 1,000 square feet of office space, as shown in **Table 4** earlier in this document. The NBPP office approximate parking supply maximum is lower than the office parking supply minimum for office uses of 1 space per 300 square feet (3.33 spaces per 1,000 square feet) identified in the City of Mountain View Municipal Code §36.32.50b. In addition, the NBPP approximate parking supply maximum is approximately 5% lower than the ULI base office parking demand rate of 2.80 spaces per 1,000 square feet, which also does not account for the effects of a 35% SOV mode share. To account for the effects of the 35% SOV target and the peak hour trip cap, further reductions are warranted.

As shown in **Table 6**, office development in the Master Plan will reduce its trip generation by 34% through TDM measures compared to ITE trip generation rates to meet a 35% SOV mode share. By reducing trip generation via TDM measures, the Master Plan will also reduce its peak parking demand as compared to ULI parking demand rates. ULI's hourly parking distribution percentages for office uses indicate that parking demand increases the most during the AM peak hour when employees arrive at work, whereas parking demand decreases during the PM peak hour when employees leave work. Therefore, the ULI peak parking demand rate occurs in the AM peak period.

The peak hour trip generation reduction was applied to ULI's base parking demand rate to account for the trip cap's effect on parking demand. Therefore, the total peak parking demand for this assessment is estimated to be 1.85 spaces per 1,000 square feet of office space (2.80 spaces per 1,000 square feet [ULI demand rate] X (1 – 34% AM peak hour trip generation reduction) = 1.85 spaces per 1,000 square feet).

Parking Demand Rates for Residential Units

The Project proposes to supply residential parking at 0.65 spaces per residential dwelling unit. This reduced level of residential parking supply is needed to accommodate the residential peak parking demand, even with implementation of robust residential TDM programs that includes unbundled residential parking. For additional justification on the parking demand rates for residential land uses, refer to the *North Bayshore Residential Parking TDM and Demand Analysis,* Nelson-Nygaard, August 2022. The proposed 0.65 spaces per unit ratio complies with the NBPP maximum residential parking supply requirement. The Master Plan's proposed residential parking supply rates are lower than the published ITE and ULI peak parking demand rates for residential units.

It is noted that an on-site parking supply rate of 0.65 spaces per residential dwelling unit will not be achieved during Phase 1 of Project construction. The residential parking supply during Phase 1 will be 1.25 spaces per unit using temporary off-site (remote) parking. However, at buildout the Master Plan will achieve the ultimate parking supply rate of 0.65 spaces per unit. Regular

monitoring will be conducted consistent with NBPP policies to observe the actual parking supply rates for residential uses in the Master Plan.

Based on the data presented in the ULI Shared Parking Manual, residential guest peak parking demand is 10% of the resident demand. The peak guest demand increases through the evening and the peak guest demand occurs between midnight and 5:00 AM. For the shared parking analysis, we assumed that the residential guests would utilize the shared parking supply. However, it is worth noting that the Master Plan will provide on-street parking spaces that would be available to residential guests for short term parking within the time limits place on the on-street parking.

Parking Demand Rates for Retail, Hotel, and Community Uses

The parking demand rates for retail and hotel uses were derived from the ITE *Parking Generation, 5th Edition*, published in 2019. *Parking Generation* provides parking demand rates for various land uses based on empirical parking surveys. These surveys are from various parts of the nation, and the observed developments are primarily located in urban or suburban areas. For planning purposes, the 85th percentile demand rates are used to determine a project's parking supply. The 85th percentile demand rates provide adequate parking supply for 85 percent of developments surveyed for each land use.

Parking demand rates for Land Use 820: Shopping Center was used to estimate parking demand for retail uses. The parking demand rate for Land Use 310: Hotel uses is 1.14 spaces per room including employee parking. The parking demand rate for Community uses is assumed to have a demand rate of 2.7 spaces per 1,000 square feet.

Mode Adjustment and Internalization Adjustments

The ULI Shared Parking Analysis methodology includes adjustments to account for variation in the mode of travel other than single-occupancy vehicles (typically associated with TDM) and internalization that occurs when a person parks once and visits multiple land uses on the site. The mode adjustments were applied to the peak parking demand rates to reflect use of modes other than single-occupancy vehicles, including carpooling, bicycling, walking, and using transit. The internalization adjustments were applied to the peak parking demand rates to account for the percentage of parkers at one land use who are already counted as being parked at another land use. For example, when employees of one land use visit a nearby restaurant, there is no additional parking demand generated.

All mode adjustments and internalization adjustments for office and residential uses are intrinsic to the base parking demand rates defined earlier in this document. Therefore, no mode adjustments were made in the shared parking analysis to the office and residential uses.

Mode adjustments and internalization adjustments for retail, hotel, and community uses were determined following standard guidance from *Shared Parking, Third Edition*. Key mode adjustment and internalization assumptions for the weekday analysis were:

- 60% of the retail trips would be internalized to the Master Plan Area and not require parking,
- 50% of the community trips would be internalized to the Master Plan Area and would not require parking, and
- 60% of the hotel trips would not arrive in a vehicle that would park on site.

Table 7 presents the unadjusted peak-hour parking demand rates by land use and the adjusted peak-hour parking demand rates considering mode adjustment and internalization adjustments. In general, all land uses assume adjusted parking demand rates that are lower than standard market-rate, or code-required parking supply rates.

Table 7: Unadjusted and Adjusted Peak Parking Demand Rate Summary

Land Use	Unadjusted Peak Parking Demand Rate	Adjusted Peak Parking Demand Rate[1]
Office	2.80 spaces per 1,000 sq ft	1.85 spaces per 1,000 sq ft
Residential - Resident	0.65 spaces per unit	0.65 spaces per unit
Residential - Guest	0.065 spaces per unit	0.065 spaces per unit[2]
Retail	3.68 spaces per 1,000 sq ft	1.47 spaces per 1,000 sq ft
Hotel	1.14 spaces per room	0.55 spaces per room
Community	2.70 spaces per 1,000 sq ft	1.35 spaces per 1,000 sq ft

Notes:
1. Adjusted peak parking demand rate includes mode adjustments and noncaptive ratio adjustments following standard guidance from *Shared Parking, Third Edition* for retail, community, and park and open space uses.
2. Residential guest parking is assumed to use the shared parking supply default of 10% of resident parking.

Source: Institute of Transportation Engineers, 2018; Urban Land Institute, 2020; Fehr & Peers, 2022.

North Bayshore Master Plan Parking Demand

Allowing multiple uses to utilize shared parking facilities reduces a Project's overall peak parking demand by accounting for the hourly demands of each use throughout the day. To demonstrate the effects of sharing parking between different land uses, this section estimates the Master Plan's peak parking demand both without (unshared) and with shared parking facilities.

Unshared Parking Demand

Regardless of the presence of shared parking, the Master Plan would still qualify for mode adjustments based on the Project's TDM programs and internalization adjustments based on the mixed-use nature of the Project. The unshared peak parking demand was calculated for the Master Plan using the unadjusted and adjusted parking rates presented in **Table 7. Table 8** presents a summary of the peak parking demand assuming no shared parking within the Master Plan. Therefore, each land use must provide enough offsite parking to meet its own peak parking demand.

Table 8: Master Plan Weekday Unadjusted & Adjusted Parking Demand without Shared Parking

Land Use	Amount	Unadjusted Parking Demand w/o Sharing (vehicles)	Adjusted Parking Demand w/o Sharing (vehicles)
Office	3,117,931 sq ft	8,731	5,769
Residential -Resident	7,000 units	4,550	4,550
Residential – Guest	7,000 units	455	455
Retail	233,990 sq ft	861	344
Hotel	525 keys	599	287
Community	55,000 sq ft	149	74
Total Parking Demand:		15,345	11,479

Notes:
1. Unadjusted and adjusted peak parking demand rates as presented in **Table 7**. The adjusted rates consider mode adjustments and internalization reductions for mixed-use projects as described in Shared Parking, Third Edition. The adjusted office demand rate accounts for the 35% SOV target proposed by Google.

Source: Fehr & Peers, 2021.

The total unshared parking demand without mode or internalization adjustments is 15,345 spaces. This calculation does not account for the 35% SOV rate for the office uses. After applying the appropriate driving mode split and internalization adjustments, the total unshared peak parking demand for all land uses in the Master Plan is 11,479 vehicles.

The results presented in **Table 8** above assume that there are no shared parking facilities, and each use would provide enough parking to meet their peak demand. **Table 9** compares the peak parking demand without shared parking as shown in **Table 8** to the proposed maximum parking supplies for the Master Plan as shown in **Table 4**.

Table 9: Master Plan Adjusted Unshared Parking Demand & Proposed Supply

Land Use	Adjusted Parking Demand w/o Sharing (vehicles)	Master Plan Proposed Parking Supply	
		Parking Supply (spaces)	Parking Surplus or Shortfall
Office[1]	5,769	6,236	+467
Residential - Resident	4,550	4,550	0
Residential - Guest	455	1,612	+452
Retail	344		
Hotel	287		
Community	74		
District Central Plant[2]	NA	5	+5
Total Supply	*11,479*	*12,403*	*+924*
Shared Parking Only[3]	*1,160*	*1,612*	*+452*

1. Proposed Office supply includes 5 spaces provided at the District Central Plant.
2. District Central Plant not estimated, but are included in the total parking supply.
3. Share parking land uses include Retail, Hotel, Community and residential guest parking demand and supply.

Source: Lendlease, 2021.

Compared to the Master Plan proposed parking supply, the unshared parking demand for office uses and residential (resident) uses are adequately served by the Master Plan proposed parking supply. For the retail, hotel, residential guests, and community uses there is a 452-space surplus of parking for these uses. By considering the shared parking time-of-day and monthly variation of the retail, hotel, residential guest, and community uses, the overall parking demand and supply comparison is substantially better.

Shared Parking Demand

For this scenario, peak-period parking demand was calculated for the Master Plan using the adjusted parking rates presented in **Table 9**. The retail, hotel, residential guest, and community uses would share parking facilities. The office and residential uses would have dedicated/unshared parking facilities. This estimate includes mode and internalization adjustments for all land uses, and shared parking reductions accounting for the daily, hourly, and seasonal parking demand variations by land use. **Table 10** presents a summary of the unshared parking demand, shared parking reduction, and net parking demand for Master Plan.

The total adjusted peak parking demand without shared parking for all land uses in the Master Plan is 11,479 vehicles. After accounting for the hourly variation for each use, the net peak parking demand with shared parking is 11,273 vehicles. Because the office and residential uses will not share parking facilities with any other land uses, there is no shared parking reduction for

the residential parking facilities; however, applicable mode adjustments and internalization adjustments still apply to unshared parking facilities.

Table 10: Master Plan Weekday Shared Parking Demand - Percent Reduction

Land Use	Amount	Unshared Peak Demand[1] (vehicles)	Shared Parking Demand[2] (vehicles)	Percent Reduction
Office	3,117,931 sq ft	5,769	5,769	0%
Residential - Resident	7,000 units	4,550	4,550	0%
Residential - Guest	7,000 units	455	455	0%
Retail	233,990 sq ft	344	299	-13%
Hotel	525 keys	287	163	-43%
Community	55,000 sq ft	74	37	-50%
Total All Uses		*11,479*	*11,273*	*-2%*
Shared Parking Uses Only[3]		*1,160*	*954*	*-18%*

Notes:
1. Unshared parking demand using the adjusted peak parking demand rates as presented in **Table 6**.
2. Shared parking reduction considering daily, hourly, and seasonal variations as described in *Shared Parking, Third Edition*.
3. Share parking land uses include Retail, Hotel, Community, and residential guest parking.

Source: Fehr & Peers, 2022.

The shared parking facilities serving the other land uses can expect parking reductions between 50% and 60% during the peak parking periods due to mode adjustments, internalization, and the hourly, daily, and monthly variations in parking demand patterns for each land use. The overall reduction for the shared parking is 18% when the residential guest parking is included in the shared parking demand. The shared parking component of the Master Plan is a small portion of the overall parking demand (less than 10% of all parking). Therefore, the Master Plan can expect an overall shared parking reduction of 2% of the total parking demand.

The combined peak parking demand occurs at 7:00 PM on a weekday based on the types of land uses that are being shared. The residential guest demand is the highest demand at this time of the day accounting for 48% of the demand. Retail uses are the second highest demand accounting for 31% of the demand and the hotel is 17% of the demand.

Table 11 compares the Master Plan shared parking demand to the proposed parking supply. There is a 518-space surplus for the office parking, which is not shared with other land uses. The residential parking has no surplus as it is all reserved parking. There is a 662-space surplus for the shared parking used by the hotel, retail, residential guests, and community uses. Since there is a

surplus in the current Master Plan parking supply, there may be opportunities to reduce the number of spaces during the design document development.

Table 11: Master Plan Weekday Shared Parking Demand – Vehicle and Spaces

Land Use	Amount	Shared Parking Demand[2] (vehicles)	NBS MP Parking Supply (vehicles)	Surplus or Shortfall (Spaces)
Office Use	3,117,931 sq ft	5,769	6,236	+467
Residential Use	7,000 units	4,550	4,550	
Residential Guest	7,000 units	455	1,612	+658
Retail Use	233,990 sq ft	299		
Hotel	525 keys	163		
Community Use	55,000 sq ft	37		
District Central Plant	NA	NA	5	+5
Total All Uses		*11,273*	*12,403*	*+1,130*
Shared Parking Only[3]		*954*	*1,612*	*+658*

Notes:
1. Unshared parking demand using the adjusted peak parking demand rates as presented in **Table 6**.
2. Shared parking reduction considering daily, hourly, and seasonal variations as described in *Shared Parking, Third Edition*.
3. Share parking land uses include Retail, Hotel, Community, and residential guest parking.
Source: Fehr & Peers, 2022.

Managing Parking Demand

As part of the Master Plan TDM program, both peak hour trips and parking occupancy will be monitored regularly to ensure that the Master Plan is both meeting its trip cap and meeting its actual parking demand. If parking occupancy monitoring reveals that parking demand exceeds the parking supply at Master Plan, mitigating measures will be implemented to address the discrepancy. Two key strategies that may be used to alleviate any shortfall are discussed below.

North Bayshore Master Plan TDM Plan & Parking

All projects within the NBPP that are subject to maximum parking requirements and must operate a Transportation Demand Management (TDM) program. The Master Plan TDM Plan outlines programs that will incentivize multimodal travel and disincentivize traveling by car, and, by extension, car ownership. Master Plan will provide various TDM programs for its office employees and residents to encourage non-vehicular travel. For office employees, TDM programs will primarily encourage commuting by using employee shuttles, biking, walking, or taking transit. For the office demand Google has committed to achieving a SOV rate of 35%, which substantially reduces parking demand. To reach this SOV target, Google provides their workers with an extensive package of TDM incentives including the "door to door" shuttle service.

For Master Plan residents, TDM programs will both encourage commuting by non-vehicular modes and disincentivize vehicular ownership. See the North Bayshore Transportation Demand Management Plan to see the TDM programs planned for Master Plan along with a quantitative evaluation of their total effect on residential parking demand.

Expanding the TDM program for office and residential uses can reduce parking demand. As discussed previously, an SOV/carpool target of 50% must be established for future non-Google office tenants to manage demand at 2.0 spaces per 1,000 square feet of offices or lower. By comparison, approximately 46% of Google's Mountain View employees drove alone or carpooled as their primary commute mode in 2019.

Right-Sizing Parking Supply

Since the reduction in SOV rate applies to both existing and new Google offices within North Bayshore, it is reasonable to assume a future reduction in parking demand at existing lots outside the Master Plan area. Preliminary analysis indicates that the reduction in parking demand at these existing lots may be substantial enough to displace the need for the Marine Way Garage. To right-size parking facilities, Google may opt to not build the Marine Way Garage, subject to review and approval by the City.

Appendix K

District systems concept plan

04.2023

Google

District Systems Concept Plan
North Bayshore

March 2023

Prepared by:
Lendlease
Integral Group
Sherwood Design Engineers
Arup

Contents

K1. Introduction

1.1. Project District System Description

1.1.1. ORIGIN OF THE DISTRICT SYSTEMS

The proposed North Bayshore Master Plan ("Project") is generally located to the north of US 101, west of Stevens Creek, south of Charleston Road, and east of Alta Avenue. The Master Plan is within the Shorebird, Joaquin, and Pear Complete Neighborhood Character Areas of the North Bayshore Precise Plan (NBPP).

The NBPP establishes a vision for the Project to create an innovative and sustainable district that protects and stewards ecology and open space, while maintaining its role as a major technology hub for small businesses, start-ups, and established companies that serve the local and global economies. At its core, the NBPP sets out a vision and guiding principles for new development and prioritizes ecological enhancement, sustainable transportation, green building design, as well as strategies to reduce per-capita water and energy use. The Project Applicant (defined below in Section 1.2) is seeking to create a sustainable place through integrated design. The Project aims to achieve this goal through a number of sitewide and building specific sustainability strategies. These may include District Systems, energy efficient all-electric buildings, onsite renewable energy, ecological improvements, mixed income housing, and measures to reduce vehicular traffic and emphasize transit, biking, and walking. The Project plans to design office buildings to meet LEED Platinum Certification and residential buildings to meet 120 points under the GreenPoint Rated system. The Project is also committed to full electrification in place of natural gas, consistent with the City of Mountain View Ordinance No. 17.19, dated November 12, 2019 ("REACH Code"), which prohibits new natural gas infrastructure in all new construction and requires deployment of rooftop solar photovoltaic for new construction.

The Project Applicant is considering options to enhance the performance of North Bayshore, with a focus on creating a sustainable framework that is underpinned by private infrastructure systems and improvements, including centralized all-electric thermal heating and cooling including ground coupling, electrical power, wastewater and non-potable water ("District Systems", as described more fully in Section 3). The District Systems have been conceptualized to support and accelerate the achievement of the Google's sustainability goals in addition to those outlined in the North Bayshore Precise Plan.

1.1.2. DESIGN INTENT

District Systems form a key strategy in reducing emissions and resource consumption. District Systems essentially entail the development of an onsite generation or treatment facility with accompanying networks separate from, though sometimes linked to, the City or regional utility networks.

The Project is proposing a District Systems approach to deliver resources via systems for energy, wastewater, non-potable water, and waste that are located on-site. District Systems are most commonly used for building space heating and cooling, but may also be employed to generate and distribute electricity, collect and treat wastewater, produce and distribute non-potable water, and manage stormwater, and consolidate resources such as solid waste and the like.

District Systems have additional benefits for the Project. For instance, district thermal systems deliver heating and cooling resources more efficiently as compared to individual and building-specific systems. District wastewater and non-potable water services enable local management of the Project's resource demands, thereby reducing demands on existing municipal systems while increasing Project resiliency. District waste consolidation strategies reduce truck trips, and centralized infrastructure streamlines the sorting and pick-up of waste generated by the Project. Business-as-usual utility connections will be developed in tandem with the District Systems to meet the domestic and fire water demands of the Project, with joint trench services provided and maintained by service providers. Additionally, in some cases buildings within the Project Area may not connect to the proposed District Systems and instead connect to existing utilities; these limitations are noted in the private utilities section within this document.

The District Systems would serve the Project via interconnected, accessible vaults, conduits, and related distribution networks (collectively, "District Systems Corridor", of which there will be multiple in the Project), which would be routed within private parcels to the maximum extent feasible and will cross the public Rights of Way at certain locations, as shown in Fig. 3.1. The District Systems Corridor may have different forms, from a direct buried trench to a building-integrated structure as further described in the following sections. Business-as-usual utility systems will be run within the public Rights of Way and joint trench as normal.

Integral to the District Systems approach would be the construction and operation of a District Central Plant ("DCP"), currently contemplated to be in the SB-PCUP parcel on the Project Area. The approximately 130,000 total square-foot DCP would house mechanical, electrical, wastewater treatment, waste consolidation infrastructure, solid waste management equipment, and any ancillary equipment to service the proposed Project Area. Each system is further described in the following sections.

The Project Applicant is proposing to connect District Systems to the majority of buildings within the Project's boundaries. However, due to phasing and property ownership, the scope of connections may be restricted in certain areas of the Project.

1.1.3. SUMMARY OF UTILITY SERVICES

A summary of the extent of service and options for each District System is summarized below. See Section 3 for a full description of all systems.

> **Wastewater and Non-potable Recycled Water**. The Project is maintaining three distinct options for wastewater and non-potable recycled water servicing, outlined below.

The District Systems option consists of a private, onsite district water reuse facility ("WRF"), which will collect wastewater from the development for treatment, producing non-potable water for non-potable uses, such as for water closet and urinal flushing, potential laundry facilities, irrigation, and cooling. A private wastewater collection system and a private non-potable water distribution network will be installed to facilitate operations. Individual buildings will have backup connections to the municipal wastewater system via typical sewer lateral connections. A private, onsite wastewater residuals management facility will process wastewater residuals for beneficial reuse.

The Collaborative option consists of an onsite water reuse facility, which will act as a regional satellite facility, treating wastewater to produce recycled water for non-potable uses. Individual buildings will connect to the municipal wastewater systems via typical sewer lateral connections. Wastewater will be mined from the municipal wastewater system for treatment at the water reuse facility. The Project will connect to the City of Mountain View's recycled water network and extend the network, as needed, to individual buildings and systems within the Project's boundaries. Recycled water produced at the water reuse facility will be stored onsite and then added to the regional recycled water network to meet non-potable demands. An onsite wastewater residuals management facility will process wastewater residuals for beneficial reuse.

A City option is also being considered, which will connect individual buildings to the municipal wastewater system via typical sewer lateral connections. In this option, the Project will connect to the City of Mountain View's recycled water network and extend the network, as needed, to individual buildings and systems within the Project's boundaries.

Microgrid. The Project is proposing to service the Project with electricity from PG&E service lines, distributing 12 kV electrical networks across the Project Area to service the Project. Additionally, PG&E's CMET Microgrid is intended to service all properties within the Project Area, subject to the Project's phasing, cost, and engineering limitations, including potential service limitations for some buildings.

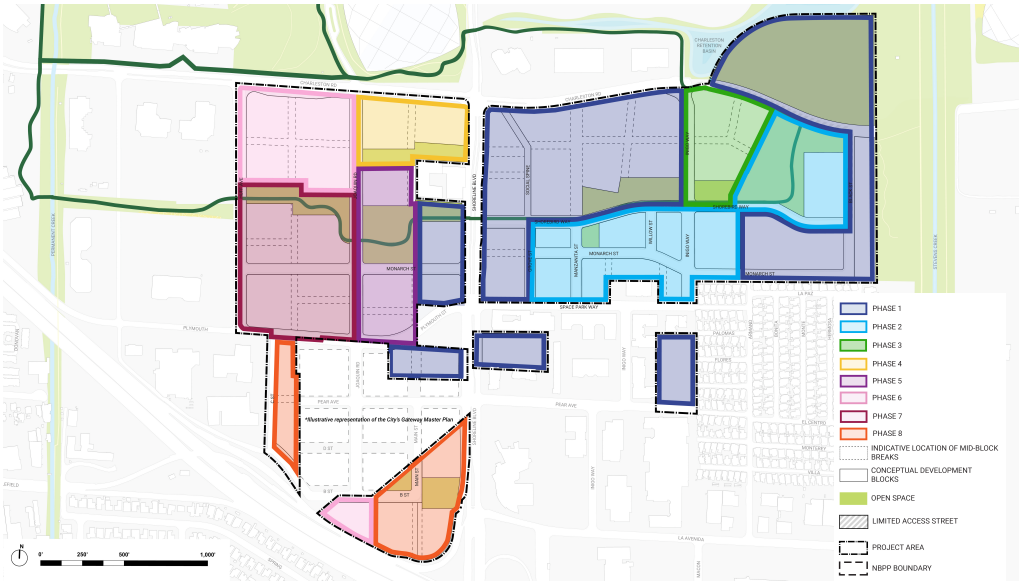
Thermal Heating and Cooling. The Project is proposing to service the Project with an all-electric thermal heating and cooling District System, distributing energy via a thermal network contained within the District Systems Corridor. The production of heating and cooling energy will be achieved at the DCP. The District Heating and Cooling systems are intended to service all properties within the Project Area, subject to the Project's phasing, cost, and engineering limitations, including potential service limitations for some buildings.

Solid Waste Consolidation. The Project is proposing a pneumatic waste collection system to sort and deliver a number of waste streams to a single location, while maintaining conventional City programs for bulky waste and other streams that cannot be accommodated by the automated waste collection system.

1.1.4. CONSTRUCTION PHASING

If approved, construction of the Project's proposed buildings and infrastructure would likely occur in eight phases, as outlined in the Phasing Plan included in the Implementation Plan of the NBS Master Plan (Exhibit C, Implementation Plan) and shown below.

Figure 1.1. NORTH BAYSHORE MASTER PLAN - PHASING PLAN



The Project phasing strategy may require temporary equipment (including heating and cooling equipment) for some buildings while the DCP is constructed. Temporary equipment will be required for parcels where entitlements and construction precede construction of the DCP. This may be due to early construction on some parcels, the additional required regulatory approvals for the combined DCP parcel, or the need to complete civil infrastructure connecting the DCP to the larger Project Area . Temporary equipment will be removed when DCP construction is complete.

1.2. Concept Plan Purpose

The District Systems Concept Plan (DSCP) serves various purposes:

1. To provide a high-level overview of the District Systems being considered as part of the Project;
2. Describe how District Systems would interface with existing utility systems, streets, networks and other portions of the public realm;
3. Identify potential oversight agencies and permit requirements relevant to the design, construction, and operation of the District Systems;
4. Describe future submittals and associated timelines relative to District Systems;
5. Establish the bases for the review and approval process for implementation of District Systems.

The DSCP is part of the Master Plan and vested through a Development Agreement (the "Development Agreement"). The DSCP uses the term "Project Applicant" to collectively refer to Google, LendLease, or any other entity consistent with the Development Agreement that may ultimately be seeking the permits for, and performing the development and construction of, District Systems discussed herein.

The DSCP works in tandem with the Review and Approval Framework ("RAF") included in Appendix L of the Implementation Plan, Supplemental Document of the Master Plan and the Master Encroachment Agreement ("MEA") governing the placement of District Systems in public Rights of Way and property. The RAF details the review and approval process for all Master Plan entitlements and permitting, including District Systems, and covers processing and reviewing documents for the design, construction, and operation and maintenance of District Systems. If the District Systems option is pursued, the City and the Project Applicant will enter into an MEA, which will establish the rights, obligations, and other provisions and requirements that will govern any and all District Systems encroachments of the City's Public Rights of Way and property. The MEA signed by the Project Applicant and the City shall include the key terms in the Term Sheet attached to the Development Agreement as Exhibit N, and shall be finalized and executed according to the timeline and terms established in the Development Agreement.

Additionally, this document describes the interface of the proposed District Systems with existing City systems, networks, and other portions of the public realm. It also describes the submission requirements and review process for the entitlement of District Systems alongside Zoning Permits, as defined in Section 6.2.1, that the Project Applicant will submit for City approval.

1.3. Concept Plan Purpose

The DSCP is composed of the following sections:

- **Section 1: Introduction** - this section establishes the connection between district systems and the project context
- **Section 2: Public Utilities Option** - this section provides a description of the public utilities required to deliver the Project, should the Project Applicant decide to not implement the District Systems
- **Section 3: District Systems Option** - this section provides an overview of the proposed District Systems for the Project
- **Section 4: Anticipated Permitting and Licensing** - this section provides an overview of the future approvals and permits required for the implementation of District Systems
- **Section 5: District Systems Design Standards** - this section provides an overview of the engineering standards that complement the existing City's specifications for the implementation of District Systems
- **Section 6: Future Submittals Timeline And Content** - this section describes the set of documents and MEA that will be submitted starting in Phase 1 of the Project, concurrent with the first Zoning Permit application. The section also establishes the guidelines and criteria against which the final District Systems buildout can be reviewed and approved through the City permitting and outside agencies approval processes.
- **Section 7: Appendices**

1.4. Modifications to the Concept Plan

Modifications to the DSCP are categorized as either Minor Modifications, which can be approved by City Staff or the Zoning Administrator, or Major Modifications, which may require changes to previously executed agreements, Project conditions of approval, or additional permitting by the City or outside agencies. Where applicable, further environmental review per the California Environmental Quality Act may also be required. As this is a conceptual plan, modifications to this plan may be necessary to incorporate new or modified information. Any modifications to the DSCP can be proposed by the Project Applicant and reviewed by the City during subsequent permit review of this Project.

K2. Public Utilities Option

The existing Project Area is currently served by several public utilities including domestic (potable) water (DW), sanitary sewer (SS), recycled water (RW), storm drain (SD), PG&E electrical (ELEC), natural gas, and telecommunications (COMM). The Project as a result of an intensification of use will require new connections to these public systems, which will necessitate upgrades to the utilities, and may require development of new thermal, electric, sanitary sewer and non-potable water private District Systems. The Project is committed to full electrification in place of natural gas, consistent with City of Mountain View Code, Section 8.20.14, Table 101.10, which prohibits new natural gas infrastructure in all new construction and requires deployment of rooftop solar photovoltaic for new construction.

The Project proposes several options for how private District Systems and the City's municipal systems would interface. In the event the Project Applicant decides not to implement any component of the District Systems described in the DSCP, the following Public Utilities work should be completed. See Section 3 for a description of how District Systems could be implemented if that option is pursued.

For Sanitary Sewer and Recycled Water services, the Applicant intends to connect and rely on the City systems described in sections 2.1 and 2.2. In the event the Applicant can justify to the City why the City's recycled water quality is not acceptable, in terms of potential impacts on landscaping or plumbing systems, the City and the Applicant shall reconvene to discuss options for the Applicant to improve the quality on-site through additional treatment, blending, or other processes. If such processes are inadequate or otherwise impractical, the City and Applicant will discuss if and how private and collaborative options for wastewater collection, treatment, and recycled water distribution described in sections 3.4, 3.5, and 3.6 may be deployed in the Project.

2.1. Sanitary Sewer System

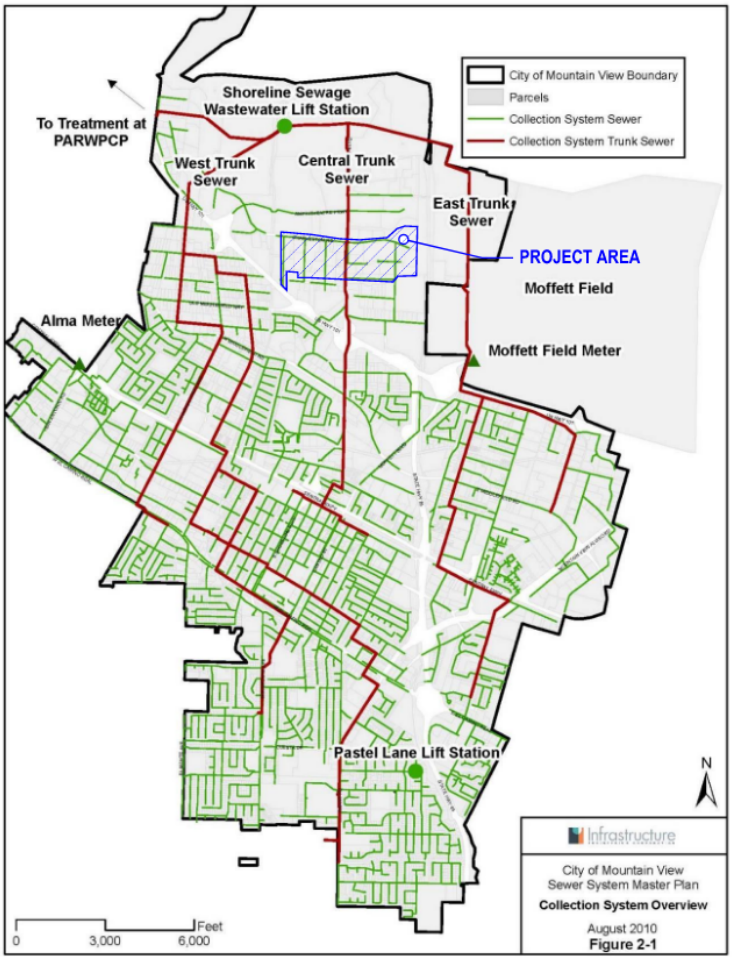
The existing sanitary sewer system in the Project Area is owned and operated by the City of Mountain View.

The Project will connect to existing sanitary sewer mains within the development boundary and implement any required upgrades to service the Project. The City is responsible for maintenance of the public sanitary sewer system supporting the Project, inclusive of any improvements installed by the Project Applicant upon acceptance, unless the City, at its discretion, agrees to an alternate arrangement.

2.1.1. EXISTING GRAVITY COLLECTION SYSTEM

The Project area is currently served by the City's existing sanitary sewer network, which flows northwest to the Palo Alto Regional Water Quality Control Plant (RWQCP), as shown in Figure 2.1. Under the City option as well as the District Water - Collaborative option, the Project would connect to existing sanitary sewer mains within the Project. It is expected that the City would be responsible for maintenance of the public sanitary sewer system supporting the Project, inclusive of any improvements installed by the Project Applicant upon acceptance, unless the City, at its discretion, agrees to an alternate arrangement.

Figure 2.1. CITY OF MOUNTAIN VIEW EXISTING WASTEWATER COLLECTION NETWORK



2.1.2. EXISTING SEWER FLOWS

The City of Mountain View maintains a citywide sanitary sewer model, which includes the Project.

2.1.3. PROPOSED CONNECTIONS

Individual buildings will connect to the City's existing sanitary sewer system via typical sewer lateral connections with a minimum of one sewer lateral per parcel.

2.1.4. SANITARY SEWER CAPACITY MODEL

Schaaf & Wheeler prepared a utility impact study (UIS) based on their North Bayshore Master Plan Utility Impact Study Assumptions Memorandum (dated January 11, 2022). The UIS analyzed the Project's impact on the City's wet utility infrastructure, including the potable water, sanitary sewer, and recycled water systems. In the NBS UIS Assumptions Memorandum, Schaaf & Wheeler outlined the options and assumptions that would be used for the UIS. The memorandum noted that the UIS will analyze the following three utility system options:

1. City Utilities, no Private District Utility System
2. City Utilities with Private District Utility System (no private sewage treatment or recycled water)
3. City Utilities with Private District Utility System (includes private sewage treatment and recycled water)

The results of the sanitary sewer UIS are included in the Project Subsequent Environmental Impact Report ("SEIR").

2.2. Recycled Water System

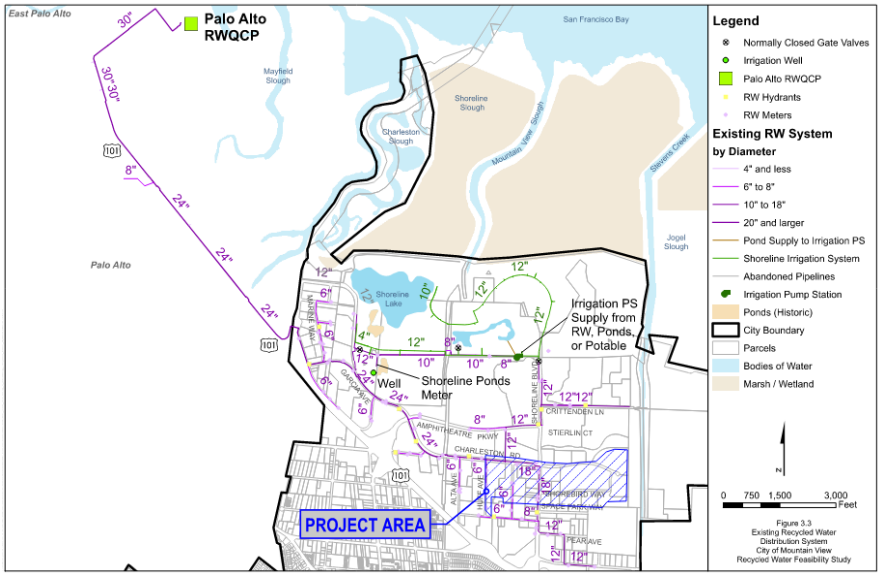
The City has prepared a 2022 feasibility study for expanding the recycled water network citywide, including into the North Bayshore area. When the City's recycled water network is expanded, additional environmental review and network design may be required. The Project is maintaining an option to connect to the City's recycled water system once extended to the Project Area. The potential impacts to the existing recycled water system are discussed below. The Project Applicant is required to dual-plumb buildings per the NBPP and in accordance with city requirements to allow for future connection to non-potable water sources for use in toilet flushing or irrigation.

2.2.1. EXISTING RECYCLED WATER SYSTEM

The existing recycled water system in the Project Area is owned and operated by the City of Mountain View and is supplied with recycled water from the Palo Alto Regional Water Quality Control Plant (RWQCP), as shown in Figure 2.2.

Under the City option, the Project would connect to existing recycled water mains within the Project Area to serve non-potable uses, such as for water closet and urinal flushing, potential laundry facilities, irrigation, and cooling. The City would be responsible for maintenance of the public recycled water system supporting the project, inclusive of any improvements installed by the Project Applicant upon acceptance, unless the City, at its discretion, agrees to an alternate arrangement. Under the Collaborative option, the onsite water reuse facility would contribute non-potable water to the existing recycled water network.

Figure 2.2. CITY OF MOUNTAIN VIEW EXISTING RECYCLED WATER NETWORK



2.2.2. FUTURE RECYCLED WATER SYSTEM

The City's 2022 Recycled Water Feasibility Study proposed upgrades (including storage, pressurization, and pipelines) in the Project Area, but did not indicate a project timeline or construction schedule.

If needed to meet the water quality needs of the Project, the Project Applicant would investigate options such as potable water blending or desalination systems to further treat the recycled water supplied by the City at the point-of-use within the Project area. If constructed, it is anticipated that the Advanced Water Purification System (AWPS), including reverse osmosis, may be online at the Palo Alto RWQCP in the next few years. However, the City cannot guarantee the timeline for when this facility will be brought online. The target water quality for the City recycled water is 400 to 500 mg/l total dissolved solids (TDS) based on the AWPS Preliminary/Conceptual Design Report.

2.3. Utility Relocations In The Public Rights Of Way

The Project proposes street improvements within the Project Area. As part of this effort, some existing utilities within the public Rights of Way may require relocation in order to avoid conflicts between proposed streetscape elements and existing utilities. Existing City utilities likely will not require relocation to accommodate District Systems given that no District Systems alignments are currently proposed within or parallel to the ROW.

2.4. Energy Systems

2.4.1. EXISTING ELECTRIC

Existing electrical systems in the Project Area are owned and operated by Pacific Gas and Electric (PG&E) and Silicon Valley Clean Energy (SVCE). Proposed modifications, upgrades, and any potential undergrounding of the existing systems are proposed to extend beyond the Project . It is expected that PG&E and SVCE will continue to own and operate these upgraded systems.
The Project Area is served with power from Pacific Gas and Electric (PG&E) and Silicon Valley Clean Energy (SVCE). SVCE is a community choice energy agency governed by the cities of Sunnyvale, Cupertino and Mountain View, and the County of Santa Clara (unincorporated county areas). SVCE purchases clean energy directly from the energy source and delivers to customers through existing PG&E infrastructure.

The Project has a single available distribution voltage of approximately 12kV from the Ames distribution network, a PG&E electrical substation outside the Project Area and located on the east side of Stevens Creek. Just outside the Project Area there are overhead and underground PG&E distribution systems along with overhead and underground secondary distribution and service systems. Overhead lines run parallel to Stevens Creek, extending to the Project Area. Additional overhead lines within the network are located in the northern portion of the Project Area, extending west across Crittenden Lane. These circuits serve customers both within the Project Area and elsewhere in the City.

2.4.2. PROPOSED ELECTRICITY SYSTEM

Electrical services will be provided from the adjacent existing electrical distribution network. The existing electrical network has insufficient capacity to serve the Project from solely the Ames Substation, so an extension of PG&E feeder(s) to the Project is required to be constructed.

PG&E SERVICE UPGRADES

The Project has an existing Distribution service at multiple meters with a total load of 6.2 MW. Construction for Phase 1 of the project is expected to start around 2024 and the Project's load is expected to ramp up from the existing 6.2 MW to 35.6 MW over the next few years, per the Preliminary Engineering Study (PES) report submitted to PG&E in October 2021. PG&E will provide a new transformer and 12 kV connections to the Project Area to facilitate a point of electrical service distribution to the building parcels from the existing electrical network.

The existing adjacent lines are the Whisman 1101, 1104, 1109, 1105 & AMES 1101 feeders, which have insufficient capacity to serve the loads projected for the Project. Therefore, additional feeders are required. To serve the Project, PG&E has identified option "D1" and proposes to study how this option could connect the Ames Distribution Substation to the Project.

- Option D1: Expanding Ames Distribution Substation to 6 breaker Ring Configuration & adding new distribution transformer and feeders. To serve Google at medium voltage level and for the estimated MW load, a second 3-phase transformer, rated 115 kV/12 kV, 45 MVA, will be installed so that half of the new 12 kV feeders will come from this new Bank 2 and half of the other new feeders will come from the existing Bank 1, vial two separate sets of switchgear. Adding a new element will require the bus upgrade at Ames Distribution Substation to Ring configuration, initially built as 4-breaker Ring with a potential to expand to 6-breaker Ring.

The option would accommodate the Project's anticipated load growth and would enable PG&E's CMET Program either by facilitating a single point of connection for the Project parcels or by extending the proposed lines to each new connection within the Project Area, with PG&E responsible for installing secondary service transformers (if desired) and metering.

If a single point of connection is preferred for the site, PG&E's service will terminate at a primary service meter at the proposed DCP location to a metering room within the DCP. Access to the metering room for PG&E personnel will be provided in accordance with the latest PG&E Electrical and Gas Service Requirements (Greenbook). For a PG&E-integrated microgrid, PG&E will furnish and install meters at each building and, as desired, secondary transformers. Access to each transformer and meter will be provided in accordance with PG&E's Electrical and Gas Service Requirements (Greenbook).

UNDERGROUNDING OF DISTRIBUTION LINES

The existing PG&E overhead transmission circuits, as part of this development and other developments, will be placed underground at certain locations on PG&E's network. Undergrounding the transmission lines will take place according to PG&E standards and will typically be in underground duct banks with associated vaults and access points.

K3. District Systems Option

As outlined in the introduction, the Project proposes a District Systems approach to deliver resources via centralized systems for thermal and electrical energy, wastewater and non-potable water, and waste collection, located on-site in the Project area. The proposed District Systems are designed to serve only privately owned parcels within the Project, with the option of serving public Parks within the Project, and will predominantly run within private parcels within the Project. Portions of the District Systems are proposed to be located in the public Rights of Way.

The optional, proposed District Systems would be fully owned and operated by the Project Applicant. The maintenance of both the DCP assets (including the WRF) and the private distribution / collection networks will be managed by the Project Applicant. The Project Applicant will appoint a qualified operator to manage the District Systems and service delivery, including billing. The District Systems services will be provided to the individual buildings at a primary level via a landlord/tenant arrangement. The individual buildings will manage individual billing to residents and tenants.

For Sanitary Sewer and Recycled Water services, the Applicant intends to connect and rely on the City systems described in sections 2.1 and 2.2. In the event the Applicant can justify to the City why the City's recycled water quality is not acceptable, in terms of potential impacts on landscaping or plumbing systems, the City and the Applicant shall reconvene to discuss options for the Applicant to improve the quality on-site through additional treatment, blending, or other processes. If such processes are inadequate or otherwise impractical, the City and Applicant will discuss if and how private and collaborative options for wastewater collection, treatment, and recycled water distribution described in sections 3.4, 3.5, and 3.6 may be deployed in the Project.

This section provides a description of the conceptual design of each of the systems proposed for the Project.

3.1. District Central Plant

The Project proposes to consolidate district utility services via the construction of one District Central Plant (DCP). The Project's phasing strategy includes construction of the DCP during Phase 1 of the Project.

The DCP will provide a consolidated location for the following utilities:

- **Water reuse facility** to treat wastewater and produce non-potable water for non-potable uses. This facility would meet California Code of Regulations Title 22 disinfected tertiary (unrestricted reuse) recycled water standards.
- A residuals management facility to process wastewater and potentially organic food waste residuals for beneficial reuse.
- All-electric D**istrict Thermal Plant** to generate the heating hot water and cooling chilled water to be distributed via the District Systems Corridor. Equipment in this facility would comply with Title 24 energy code requirements and the City's codes.
- The electric utility infrastructure necessary to distribute power to the District, received from the electric grid and to control the assets serving the **Microgrid**. Equipment would include electrical gear to support the thermal and water systems and controls to manage power throughout the site.
- **Automated waste collection system** to sort and consolidate various waste streams across multiple parcels into a centralized location.

All buildings within the Project Area may be connected to the DCP, except the following parcels due to phasing or land contiguity constraints: PE-BR-1 and PE-BR-2, JS-BR-2, JS-FLEX, JS-BR-3, JS-BO-1. The plant may also include back-up facilities for resilience and life safety including battery storage.

3.2. Electrical System (Microgrid)

The Project Applicant proposes to develop a microgrid system to enable sharing of renewable power and storage ("Distribution Energy Resources (DER)") among buildings and provide resiliency to critical functions in the event of an outage on the utility network.

The Project Applicant may pursue the following options for the Microgrid:

- **Pacific Gas & Electric Company's ("PG&E") Community Microgrid Enablement Program ("CMEP"):** PG&E may own or operate components of the Microgrid, including particularly the distribution component, consistent with PG&E's status as a regulated public utility.

If the Project Applicant elects to proceed with the Microgrid, the Project Applicant will identify when it would seek to implement it as part of its District Systems Implementation Plan submission, as described in 6.2.

3.2.1. FACILITY DESIGN

Renewable generation technologies including photovoltaic arrays and building-integrated photovoltaic products may be located on building rooftops, facades, and nearby structures to comply with the City's REACH code requirements. In addition, storage technologies such as batteries may also be deployed at the DCP, or at buildings throughout the development. Such storage technologies could be used to provide both resilience and/or backup power services. Both storage and generation on-site would allow the realization of Project benefits such as:

- Provide power to key critical loads in the event of a utility wide grid outage;
- Allow renewable energy to be shared between buildings (with limitations to islanded mode or utility grid outage in the case of the PG&E option);
- Allow the DER owners to choose between optimizing carbon or economic performance.

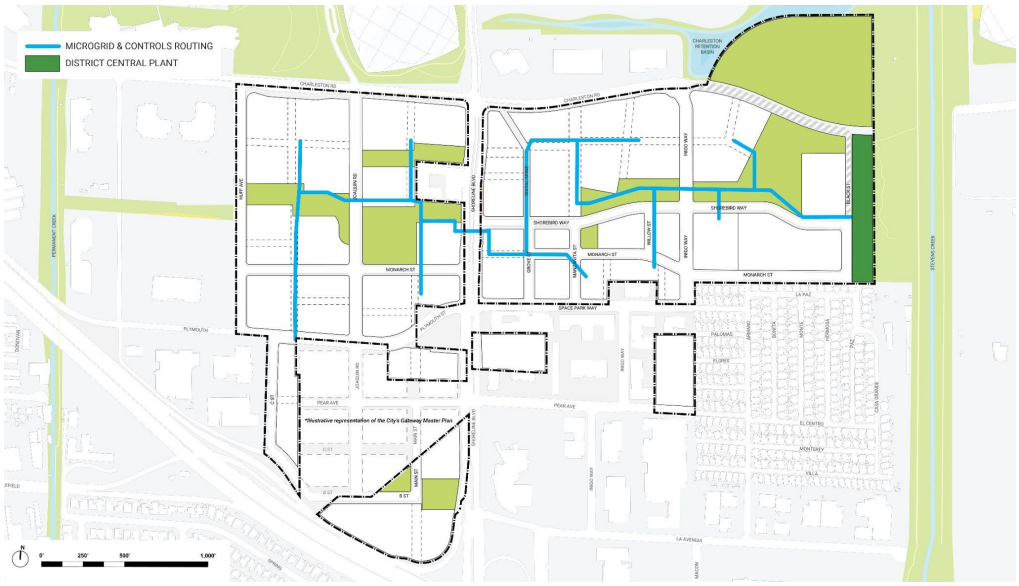
The Project is proposing localized 12 kV infrastructure from a dedicated switching station to connect participating buildings within the Project in a microgrid with one or more connections to the PG&E distribution system. The microgrid would include controls to share power between buildings across the microgrid distribution, and controls to operate any generation and storage disconnected from the grid in the event of an outage. It is not anticipated, however, that the microgrid will have sufficient renewable energy and storage to operate for an extended period in an islanded scenario due to the density of the Project. The intent of a microgrid topology is primarily to enable sharing of renewable power and storage and provide limited resilience to critical functions in the event of an outage on the utility network.

For a PG&E-CMEP microgrid, PG&E will furnish and install meters at each building and, as desired, secondary transformers. Access to each transformer and meter will be provided in accordance with PG&E's Electrical and Gas Service Requirements (Greenbook).

3.2.2. CONCEPTUAL LAYOUT

If a Community Microgrid arrangement is selected, connections to each building will be provided by PG&E from distribution lines located within PG&E's existing easements. This microgrid option includes private fiber distribution for controls. The microgrid operation control location(s) shall be determined by PG&E islanding sections.

Figure 3.1. CONCEPTUAL MICROGRID & CONTROLS LAYOUT. ILLUSTRATIVE DIAGRAM SUBJECT TO CHANGE.



3.2.3. PROPOSED ELECTRICAL SYSTEM PHASING

The electrical distribution system will be built out as buildings come online through the phases of construction as described in Section 1.1.4 Project Phasing. Laterals and all required switching stations in buildings would be constructed on a parcel-by-parcel basis.

3.3. Thermal Systems

The District Thermal Systems are composed of 3 main components; a generation facility located at the DCP, a series of distribution networks deployed in the District Systems Corridor and Energy Transfer Stations ("ETS") located in each building. The proposed thermal systems would serve the Project at full buildout, with some buildings being serviced by standard business-as-usual systems depending on phasing and ownership constraints, as noted below.

The proposed thermal systems would serve the full proposed Project, with some buildings being serviced by standard BAU systems depending on phasing constraints, as noted below. The DCP and distribution of heating hot water and chilled water would be owned and managed by the Project Applicant.

3.3.1. FACILITY DESIGN

The approach for the thermal system is based on the consolidation of capacities, leveraging non coincidental demand profiles across the asset mix as well as taking advantage of resource demand peaks occurring at different times for each building typology. Centralizing the thermal equipment provides greater operational efficiency while providing a means to exchange heat between residential and commercial buildings, and reducing water consumption required for cooling towers.

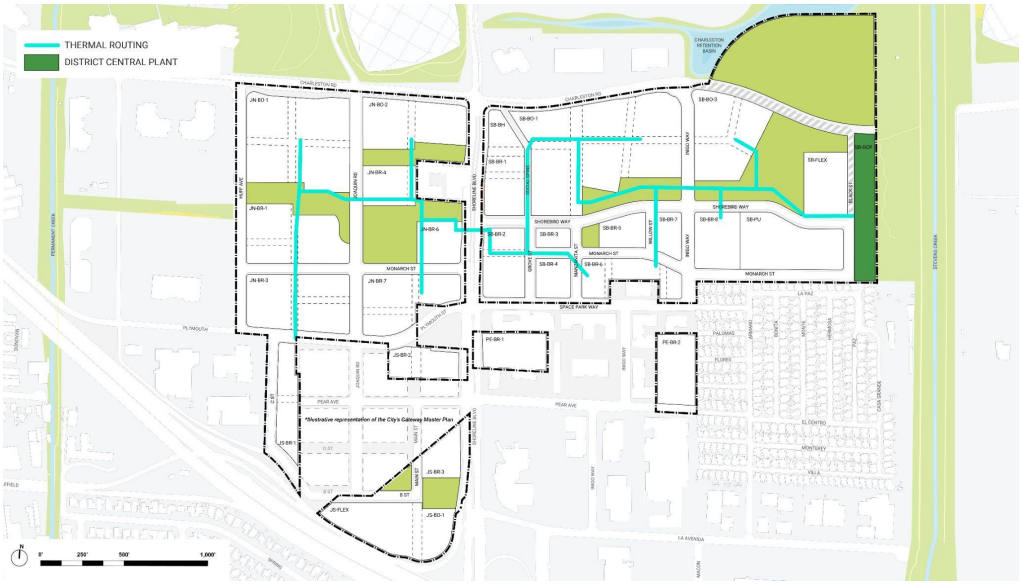
Central cooling generation for most buildings in the Project Area is currently proposed via heat recovery chillers and air source heat pumps supplemented by water cooled chillers. Heat rejection will be via ground loops utilizing geobores or structural piles within the Project Area, supplemented by cooling towers mounted on the roof of the DCP building. Heating is proposed to be all-electric via the heat recovery chillers connected to the ground loop, supplemented by air source heat pumps located on the roof of the DCP building. Centralizing thermal equipment provides greater operational efficiency as well as a means to exchange heat between residential and commercial buildings, as well as reduce water consumption required for cooling towers. The Project may also include thermal energy storage located at the DCP building, in the form of vertical tanks located adjacent to the DCP (above grade). Further design development will investigate the size as well as configuring the storage to be switchable between heating and cooling on a seasonal basis.

All buildings within the Project Area may be connected to the DCP, except the following parcels due to phasing or land contiguity constraints: PE-BR-1 and PE-BR-2, JS-BR-2, JS-FLEX, JS-BR-3, JS-BO-1. These include certain residential buildings, and certain dedicated affordable parcels which may be constructed prior to the DCP and hot and chilled water lines being completed. Where appropriate, temporary thermal service may be located at these parcels with a connection to the DCP replacing the temporary service. In other cases, the parcels will maintain stand-alone thermal equipment unconnected to the DCP. In all cases, non-DCP thermal equipment will meet all required standards under California's Title 24 building Energy Efficiency Standards and City codes and standards.

3.3.2. CONCEPTUAL LAYOUT

There is no existing heating hot water or chilled water system serving the site. Thermal energy for the Project is proposed to be served from the DCP. The DCP would provide heating hot water and chilled water to the all of the buildings within the Project Area except the ones with any of the constraints described above, via underground heating hot water and chilled water pipes located within the District Systems Corridor and/or direct-buried, as shown in Figure 3.2. Buried district piping would be fused-joint virgin high density polyethylene or equivalent.

Figure 3.2. CONCEPTUAL THERMAL ENERGY LAYOUT. ILLUSTRATIVE DIAGRAM SUBJECT TO CHANGE.



3.3.3. BUILDING INTEGRATION

The proposed District Thermal Systems would eliminate much of the mechanical production equipment that would typically be installed in each building. To ensure the provision of the service, an Energy Transfer Station would be designed and constructed in each building to fit out the appropriate heat exchangers, metering, controls and pumping circulation systems to ensure the connection to the hot and chilled water networks. Each building would be responsible for the determination of their loads and the District Systems Operator would be responsible for the sizing and installation of the ETS equipment. The ETS rooms might also be accommodated to include the manifolds for the connection of the geobores at each building to the primary networks.

3.3.4. DISTRICT THERMAL SYSTEMS PHASING

The thermal distribution system will be built out as buildings come online through the phases of construction as described in Section 1.1.4 Project Phasing. Laterals and all required energy transfer stations in buildings would be constructed on a parcel-by-parcel basis. The District Systems Operator would deliver the energy transfer stations including the incoming district piping, valves and connections to the heat exchangers that serve the buildings' loads. The heat exchangers themselves are district components, with all connections on the building side (piping, valves, etc.) under the individual building owner / operator responsibility.

Certain residential buildings on parcels dedicated to the City, may opt not to connect to the thermal system, depending on parcel-specific considerations and/or if the DS owner(s) and owner(s) of the parcels are unable to reach an agreement to connect those parcels to the DS. In those cases, the parcels will maintain stand-alone thermal equipment unconnected to the DCP, owned and operated by the building owner. Stand-alone equipment would be determined by the individual building design teams, however it would be expected to consist of small to medium sized air cooled condensers to support local hot water and refrigeration needs. There is also the likelihood of exhaust fans to support small cafes and similar commercial tenants. In the event that some parcels are constructed prior to the DCP and before hot and chilled water lines are completed, temporary thermal equipment would be installed on the buildings with an ETS ready for future connection to the District Thermal Systems once commissioned. Once the service has switched over to District Systems, the temporary thermal equipment would be removed from the buildings and transferred to the DCP. These arrangements would be described in the corresponding planning permits.

3.4. Wastewater Collection & Treatment System

The District Wastewater Collection and Treatment System is composed of two main components: a water reuse facility (WRF) located at the DCP and a wastewater collection system deployed in the District Systems Corridor. The collection system would be located in the Project Area and within the proposed District Systems Corridor. The WRF and private wastewater collection system will be owned and maintained by the Project Applicant.

For details on the Collaborative option, refer to Section 3.6 District Water: Collaborative Option.

3.4.1. COLLECTION AREAS

The proposed sewer system would collect wastewater from the Project's participating development parcels in the Shorebird neighborhood via a private collection network owned by the Project Applicant and connected to the WRF. Some development parcels (eg parcels in the Joaquin neighborhood and dedicated affordable parcels PE-BR-1 and PE-BR-2) may not connect to the District System and WRF.

3.4.2. FACILITY DESIGN

One private onsite district WRF would be proposed to treat Project-generated wastewater for reuse to meet non-potable demands. The WRF would meet California Code of Regulations Title 22 disinfected tertiary (unrestricted reuse) recycled water standards through a multi-stage treatment process, including screening, primary filtration, secondary biological treatment, tertiary filtration, and disinfection. The WRF would be sized to treat up to a maximum wastewater production flow of 0.9 million gallons per day, based on the flows estimated by the Project Applicant's design engineer and as detailed in Section 7.1 of the Appendices. The WRF would include influent equalization tank(s) of up to 0.45 million gallons, which would be able to provide flow attenuation and short-term storage. Water that has been tertiary filtered and disinfected would be stored in non-potable storage tank(s) of up to 0.45 million gallons before being distributed for residential and commercial uses such as water closet and urinal flushing, laundry facilities, irrigation, and cooling. Treated non-potable water would be distributed via a pressurized non-potable water distribution network within the District Systems Corridor.

TREATMENT STANDARDS

As noted above, the proposed onsite district WRF would treat wastewater to the same public health standards met by the recycled water produced by the Palo Alto Regional Water Quality Control Plant (RWQCP) and distributed via the City of Mountain View recycled water network.

The non-potable water produced at the WRF will be regulated by the State similar to the RWQCP system. This level of treatment would allow for unrestricted reuse for approved non-potable end uses, including spray irrigation. The Project will have the capacity to irrigate public areas (which could include publicly-owned parks and/or privately-owned open spaces with public access) with non-potable water produced at the WRF thereby leaving potable water available for other uses.

DISCHARGE CONNECTION

The proposed WRF would tie into the City's sanitary sewer network to discharge excess wastewater, potentially, for disposal to the City sewer system of wastewater treatment residuals (sludge). This connection would allow the WRF to discharge excess wastewater to the City's sanitary sewer system in case of a lower demand for non-potable water or if the WRF is offline for any reason. This sanitary sewer discharge connection would connect to the City's existing sanitary sewer in Charleston Road. The point of connection would be similar to a typical wastewater lateral connection.

In the proposed arrangement, with the discharge connection to the City's sanitary sewer, the WRF would be operating similar to a "satellite" facility and would thus avoid the need for the Project Applicant to get a permit for a treated water discharge to the environment. If the WRF wasn't connected to the City's sanitary sewer, then any excess treated wastewater would need to be permitted for discharge (eg. to surface water or for land application).

Refer to Section 4.3.2 City Permitting for additional details.

WASTEWATER RESIDUALS MANAGEMENT

California Senate Bill 1383 requires a 50 percent reduction in organic waste (including biosolids) disposal from 2014 levels by 2020, and a 75 percent reduction by 2025. Onsite beneficial reuse would align with the City's existing efforts to meet that goal by diverting organic waste from the landfill. Any products of the onsite solids management will be used within the Project boundaries or as close to the Project Area as possible; the hauling distance will be minimized to the greatest extent feasible.

Industry standards typically referenced by the State Water Quality Control Board, define 'sludge' as the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes. Solid waste refers to grit and screening material generated during preliminary treatment. Biosolids refers to sludge that has been treated and tested and shown to be capable of being beneficially used as soil amendment pursuant to federal and state regulations.

The sludge from the WRF treatment plant would include waste activated sludge (WAS) from the secondary biological treatment process and primary solids from the primary filtration process. WAS is preliminarily estimated to be 1% (10,000 mg/L) total solids flow. Primary solids are estimated to have up to 50% (500,000 mg/L) total solids content.

The Project is considering two options for sludge management. One option would be to process the sludge at an onsite residuals management facility for beneficial reuse. The second option would be to discharge these flowable solids to the City's sanitary sewer network, via the WRF's discharge connection. If the latter approach is pursued, the Project team will coordinate with the City on the permanent discharge. Residuals would be mixed with the excess non-treated wastewater flow and sent to the City's sanitary sewer network, which processed through the Palo Alto RWQCP.

The Project is proposing an onsite residuals management facility that could process wastewater residuals and organics (food) waste for beneficial reuse and is studying onsite residuals management alternatives. Any product of onsite treatment would be beneficially reused and would not be sent to the City's sanitary sewer. For example, the solids produced as a residual from the WRF treatment processes could be managed onsite through pyrolysis, a thermochemical decomposition process that generates biochar (a high-quality soil amendment) and biogas (which is consumed within the reactor chamber during the pyrolysis process).The onsite residuals management facility would have the capacity to treat all wastewater residuals produced by the Project and would still have further capacity to process additional wastewater residuals and/or organics (food) waste.

Desalination is not proposed at the WRF and as such a brine discharge is not anticipated.

ODOR CONTROL

At the initial stage of treatment, raw wastewater is screened to remove inorganic solids, which are collected in a roll-off bin and periodically hauled off-site. Preliminary screening of wastewater is intended to remove large materials from the flow stream that may damage or clog subsequent treatment equipment and reduce overall treatment reliability. Screens can either be coarse or fine depending on the size of material intended for removal. Materials captured by the screens are called screenings and can include rags, plastics, and paper. Screenings are composed primarily of inorganic wastes that are not biodegradable and not beneficial for post processing and resource recovery. As such, screenings are typically washed, compacted and hauled off site at regular intervals for disposal in a permitted landfill.

Grit such as sand, gravel, coffee grounds and eggshells are removed to prevent their accumulation in downstream processes such as aeration basins and anaerobic digesters. These materials are typically removed via gravity settling; scour air or another abrasion process can be used to more effectively separate grit from other suspended solids. Similar to screenings, grit does not have a resource recovery value and is hauled off site.

The screenings and grit would need to be managed to not create nuisance odors; wastewater treatment plant odors are subject to the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). Handling and disposal would require screenings and grit to be washed and drained, and the wash water may be recycled to the front of the treatment train. Once washed and dewatered, the screenings and grit will be stored in refuse containers to the satisfaction of the City's requirements, and routinely hauled offsite to a permitted landfill. Refuse containers would have to be odor proof and contained within an area draining to the sanitary sewer in the case of a rain event. Odor control measures may also include housing primary screenings in a ventilated enclosure at the WRF.

Primary treatment and management of primary and secondary solids also have the potential to produce odors. The WRF will have appropriate odor controls to manage any objectionable odors from these processes. The headspace of tanks with the potential to produce odors will be vented. If needed, air blowers and odor control units (eg. carbon filters) may be incorporated into the wastewater treatment design. Specific solutions will be developed as the Project moves into design.

COLOR CONTROL

Advanced treatment may be included to achieve color removal and to reduce the risk of microorganism re-growth in the distribution system. This advanced treatment can be achieved via ozonation and/or granular activated carbon (GAC) contact. Ozone is a powerful oxidant that is commonly used for color removal and breakdown of recalcitrant organics. Ozonation, when followed by contact with a GAC bed, would provide removal of trace organics made bioavailable by the ozonation process and further reduce color. As a pre-treatment stage to disinfection, ozonation followed by GAC contact has the added benefit of reducing the required disinfection dosage.

3.4.3. PRIVATE COLLECTION CONCEPTUAL LAYOUT

The proposed design for the wastewater collection system includes a private, low-pressure sanitary sewer (SS) collection network which would be integrated into the proposed District Systems Corridor alignment, as shown in Figure 3.4.

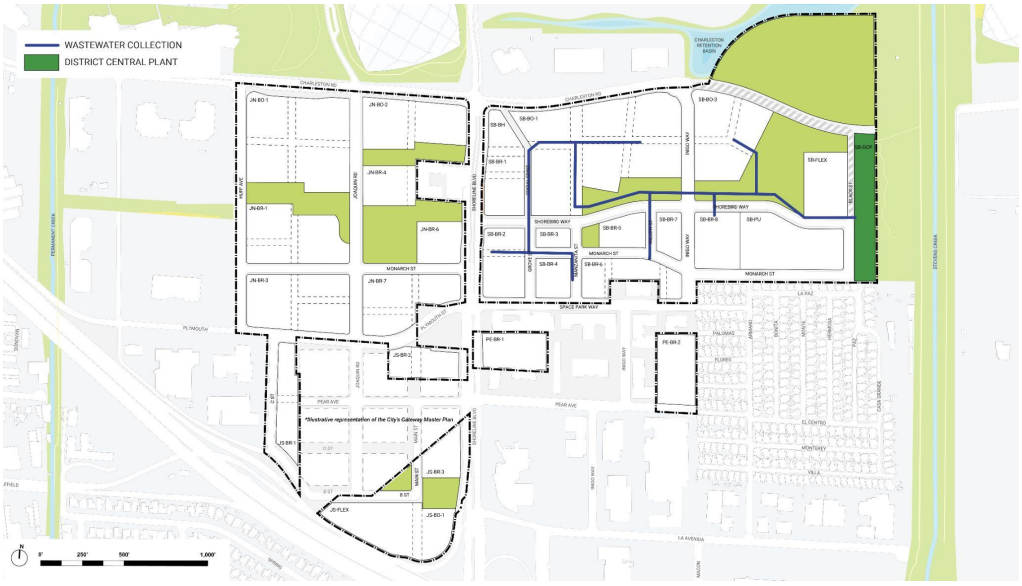
Each building or parcel connected to the private SS network would discharge their sanitary waste via a small pump station at basement-level. The pump stations would each include a pump, a collection tank, and potentially an overflow tank to feed into a low-pressure force main, routed within the proposed District Systems Corridor. Pumps would be selected to adequately transfer wastewater solids through the SS network to the WRF. All parcels will require a connection to the City's conventional gravity collection network for emergency back-up use. Refer to Section 7.3.7.1 Redundancy and Backups - Water Reuse Facility for additional details on the system redundancy and backup power.

A low-pressure collection system (also known as a pressure sanitary sewer [PSS]) is proposed for the Shorebird neighborhood as it allows for the controlled transfer of sewage in a more efficient footprint than conventional gravity systems. A pressurized system would allow for wastewater to be collected in smaller diameter pipes within the District Systems Corridor whereas a gravity system would require that a dedicated trench be constructed with larger diameter pipes to achieve adequate slope for flow.

A PSS operates through a sealed system, eliminating leakages (exfiltration) and stormwater inflow and infiltration (I/I) while also reducing odor issues. Additionally, a PSS allows for system optimization, as the operator can program the system's operating periods and stagger peak loads. This flexibility could potentially reduce the discharge volume that would be sent to the City SS.

The in-building pump station wet wells associated with the PSS will be vented as required by California Plumbing Code (CPC) to prevent odorous conditions. If needed, air blowers and odor control units (eg. carbon filters) may be incorporated into the pump station design.

Figure 3.4. CONCEPTUAL DISTRICT WASTEWATER COLLECTION NETWORK (SHOREBIRD ONLY). ILLUSTRATIVE DIAGRAM SUBJECT TO CHANGE.



3.4.4. BUILDING INTEGRATION

The proposed District Wastewater Collection & Treatment System would connect to the participating buildings in the Shorebird neighborhood via a connection room at each parcel would be composed of a wet well, overflow tank, pumps, and odor control for the pumped connections and, as emergency backup, a typical sewer lateral for the gravity connections. Pumps would be selected to adequately transfer wastewater solids through the network to the WRF. Refer to Section 7.3.7.3 Redundancy and Backups - Water Reuse Facility for additional details on the system redundancy and backup power.

3.4.5. PROPOSED COLLECTION SYSTEM PHASING

The sanitary sewer collection system will be built out as buildings come online throughout the construction phases as described in Section 1.1.4 Construction Phasing. Sewer laterals and all required pumps would be constructed on a parcel-by-parcel basis.

3.5. Non-Potable Water Distribution System

The district non-potable water distribution system is proposed to serve only parcels within the Project Area. This includes the possibility of serving public parks and open spaces within the Project Area. The non-potable system will be located on Project Applicant property to the maximum extent feasible and within the proposed District Systems Corridor system. The Project Applicant will own and maintain the non-potable water systems.

For details on the Collaborative option, refer to Section 3.6 District Water: Collaborative Option.

3.5.1. PROPOSED NON-POTABLE WATER SUPPLY

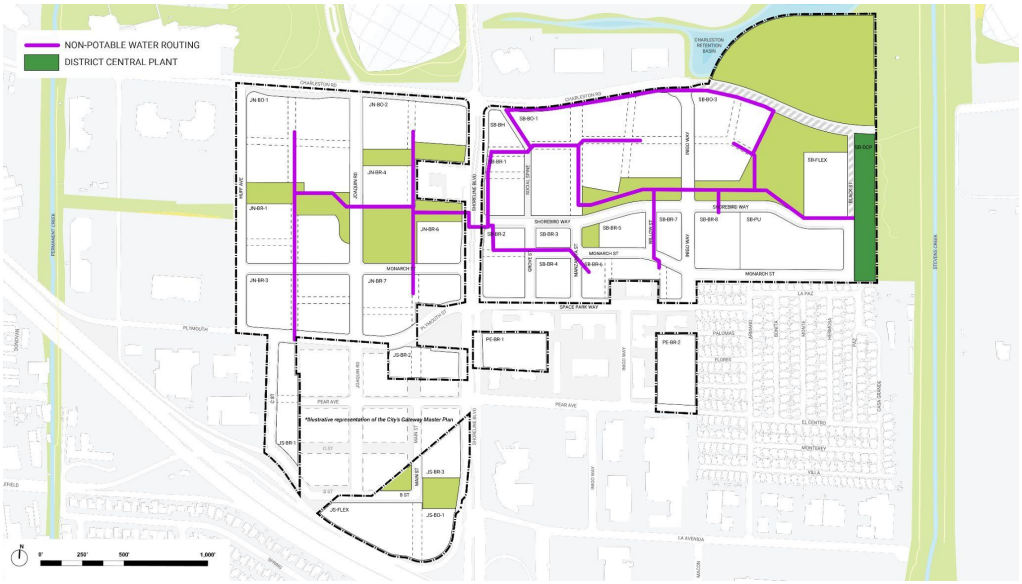
The non-potable water supply to the Project Area would be provided by the onsite district WRF, which would treat wastewater flows produced by the Project for non-potable reuse throughout the Project.

City-supplied recycled water would be the primary non-potable backup supply. City-supplied potable water would act as the secondary backup supply.

3.5.2. NON-POTABLE WATER DISTRIBUTION CONCEPTUAL LAYOUT

Treated non-potable water would be distributed to all participating Project development parcels through a private non-potable water distribution network, as shown in Figure 3.5. The non-potable pipe would be routed through the District Systems Corridor and connect to all participating parcels as a non-potable supply for water closet and urinal flushing, laundry, and irrigation. The non-potable supply would also be used in the proposed district central plant (DCP) as a makeup water supply for heat rejection in cooling towers.

Figure 3.5. CONCEPTUAL NON-POTABLE WATER DISTRIBUTION. ILLUSTRATIVE DIAGRAM SUBJECT TO CHANGE.



3.5.3. BUILDINGS INTEGRATION

The proposed Non-Potable Water Distribution System would connect to individual buildings via a connection room at each parcel composed of a backflow preventer, non-potable water submeter, break tank, and booster pumps, along with any piping, valving, electrical, and controls required to serve the building interiors. Irrigation demands would be served either directly off the main distribution line or from the building's break tank.

Break tanks would be provided in the connection room at each parcel. Each break tank would have at a minimum, a supply connection from the Non-Potable Water Distribution network and from the City potable water network. A supply connection from the City recycled water network could also be included. All supply connections would have an air gap at the break tank.

3.5.4. NON-POTABLE WATER DISTRIBUTION SYSTEM PHASING - PRIVATE OPTION

The non-potable water distribution network will be built out as buildings come online throughout the construction phases as described in Section 1.1.4. Non-potable laterals and any required booster pumps would be constructed on a parcel-by-parcel basis. The district WRF would be built during an early phase of the proposed Project.

3.6. District Water: Collaborative Option

In addition to the private District Systems option detailed in the sections above, a Collaborative option is also being proposed by the Project. The details of the Collaborative option are covered in this section.

3.6.1. WASTEWATER COLLECTION SYSTEM & BUILDINGS INTEGRATION

Project wastewater will be collected via the City's SS network. Individual buildings will connect to the municipal wastewater system via typical sewer lateral connections. The WRF will mine wastewater from the City's SS network.

3.6.2. FACILITY DESIGN

The Collaborative option consists of an onsite WRF sized to treat up to a maximum wastewater production flow of 0.9 million gallons per day (MGD) , which will act as a regional satellite facility, treating wastewater to produce recycled water for non-potable uses. An onsite wastewater residuals management facility would process wastewater residuals for beneficial reuse. Refer to Section 3.4.1.2 Facility Design for details on the proposed onsite WRF and wastewater residuals management facility, including treatment standards, wastewater discharge connection, and odor control measures.

3.6.3. NON-POTABLE WATER DISTRIBUTION

Recycled water produced at the Collaborative WRF will be stored onsite and then added to the regional recycled water network to meet non-potable demands on- and off-site.

3.6.4. ASSET OWNERSHIP

Under the Collaborative option, the onsite WRF could be owned and maintained by the Project Applicant, or alternative ownership models could be explored with the City. Project Applicant will meet with the City to determine the most appropriate model and work through the agreement details.

The wastewater collection network and recycled water distribution network would be owned and maintained by the City.

3.7. Waste Collection System

An Automated Waste Collection System (AWCS) is proposed for the collection of solid non-hazardous waste from privately owned parcels within the Master Plan area. The AWCS consists of a network of pneumatic below-grade tubes that connect buildings with a central transfer facility or AWCS terminal. The system supports the collection of up to four primary waste streams: garbage, paper recycling, container recycling and organics.

3.7.1. FACILITY DESIGN

An AWCS is a system that applies pneumatic technology to create efficiencies in waste management in buildings. An AWCS places the majority of waste operations underground through a network of pipes connected to a central transfer facility, reducing space requirements at grade. The technology has a design life of 30-40 years, though its longevity depends on the conditions of use/maintenance and the custom design of the pipe network.

Some of the benefits of implementing an AWCS include:

- reducing noise, odors, and visual clutter on the street;
- reducing the number of collection points per waste truck trip;
- reducing the number of waste vehicle trips to individual buildings, and subsequently, greenhouse gas emissions and pollution;
- mitigating traffic impacts of waste truck idling and queuing; and
- reducing the overall space take of waste storage at the building level, freeing valuable space.

Mixed-use and Commercial land use types will be principally served by the AWCS for their primary waste streams, segregated at source. In most circumstances, janitorial staff or residents will place waste into the AWCS after collecting each stream from each floor.

The key elements of the system are:

- **Inlet points:** consist of a user accessible inlet door per stream, into which waste is deposited. Generally, each floor will have AWCS inlets at appropriate locations to facilitate the safe and efficient disposal of waste into gravity chutes. Access to gravity chutes will be restricted, and will be locked by default. A card reader will grant access to those who hold appropriate credentials.
- **Building Valves:** once deposited at the inlet points, waste drops into a section of pipe (valves) used to temporarily hold it until the system is ready to collect it. In lieu of standard valves, a screw tank may be installed in buildings with a high density of occupants, to provide increased capacity for waste holding before collection.
- **Pipe network:** consists of a network of pneumatic tubes that connect the building or group of buildings to a central collection point. These pipes run below ground and use air to transport waste.
- **AWCS terminal(s):** The AWCS terminal is a transfer facility that serves as a centralized point of collection for waste transported via the pipe network. Waste is stored as bulk in sealed containers until collection by the City's waste hauler.
  The AWCS is operated through a Supervisory Control and Data Acquisitions (SCADA) Controls system located at the terminal. The SCADA system enables initiating collection from the different buildings (1) by sensor, (2) on a schedule, or (3) by manual activation.

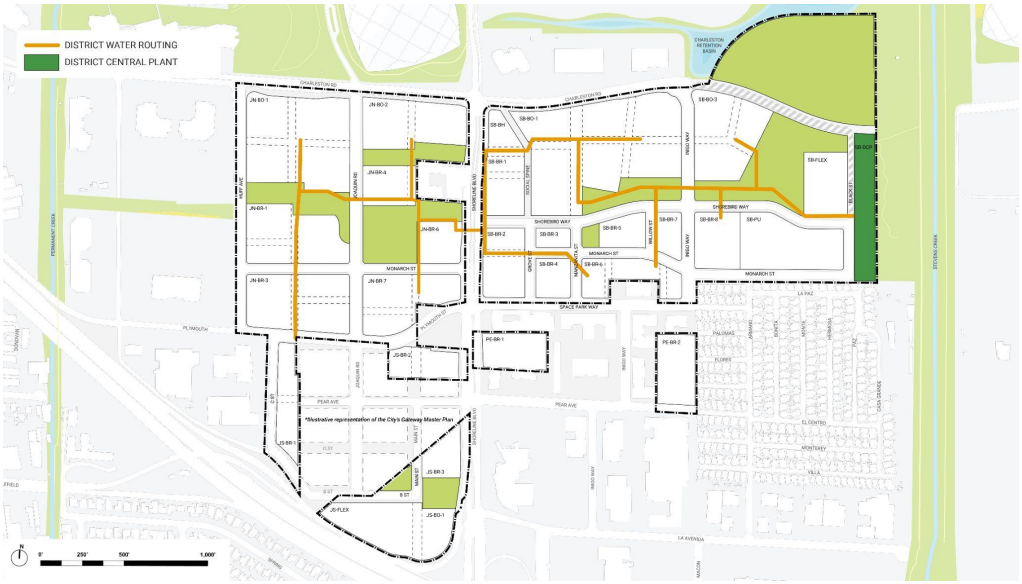
In accordance with City standards, this system is expected to support four primary waste streams: garbage, paper recycling, container recycling, and organics. Waste streams remain separate via the automated process that evacuates one stream at a time. Most of the site's waste will be hauled away from the AWCS terminal(s), where large, stream-specific containers will be loaded onto flatbed trucks daily.

All other waste streams not supported by the AWCS will be collected by staff or residents, and transferred to one or more centralized waste storage rooms at each building. The waste streams not supported by AWCS are: bulky items, cardboard, e-waste, kitchen grease, and other hazardous materials. These streams will be hauled from each building using traditional waste management techniques.

3.7.2. CONCEPTUAL LAYOUT

The Project's AWCS terminal would be housed within the District Central Plant (DCP), and the pipe network would run within the proposed District Systems Corridors, as shown in Figure 3.6. Connections between the building and the AWCS pipe network will be designed and provided at each building.

Figure 3.6. CONCEPTUAL WASTE COLLECTION SYSTEM LAYOUT. ILLUSTRATIVE DIAGRAM SUBJECT TO CHANGE.



3.7.3. BUILDINGS INTEGRATION

An AWCS starts at the base of the building with a system of indoor inlet valves that store waste temporarily until it's ready for collection. There is one indoor inlet valve for each stream transported by the AWCS, and valves are provided by sets of three or four (3-4) depending on the number of streams collected by the system. Multiple sets are allocated per building depending on the floor plate size, the number of chute locations and estimated daily waste generation.

Waste originating in buildings will be collected by residents or janitorial staff at each level and then transferred to a building waste holding area. The typology of the building waste holding area depends on the building height:

- In buildings with chutes, selected waste streams are transferred via vertical chutes connected directly to an inlet indoor valve set at the base of the building; or
- In buildings without chutes, waste is transferred via service elevator to the building waste holding area, where the indoor inlet valve sets are located. Janitorial staff is responsible for depositing waste into the system.

All other waste streams not captured by AWCS (eg. cardboard, bulky waste, e-waste, etc.) will be transported via service elevators to the building waste holding area(s), to be stored until collection.

3.7.4. PROPOSED AWCS PHASING

The Automated Waste Collection System will be built out as buildings come online through the eight phases of construction as described in Section 1.1.4 Project Phasing. The system would rely on the finalization of the AWCS terminal, as part of Phase 1 of the Project. Building AWCS infrastructure and lateral connections to the main AWCS pipe network would be constructed on a parcel-by-parcel basis.

3.8. District Systems Corridor

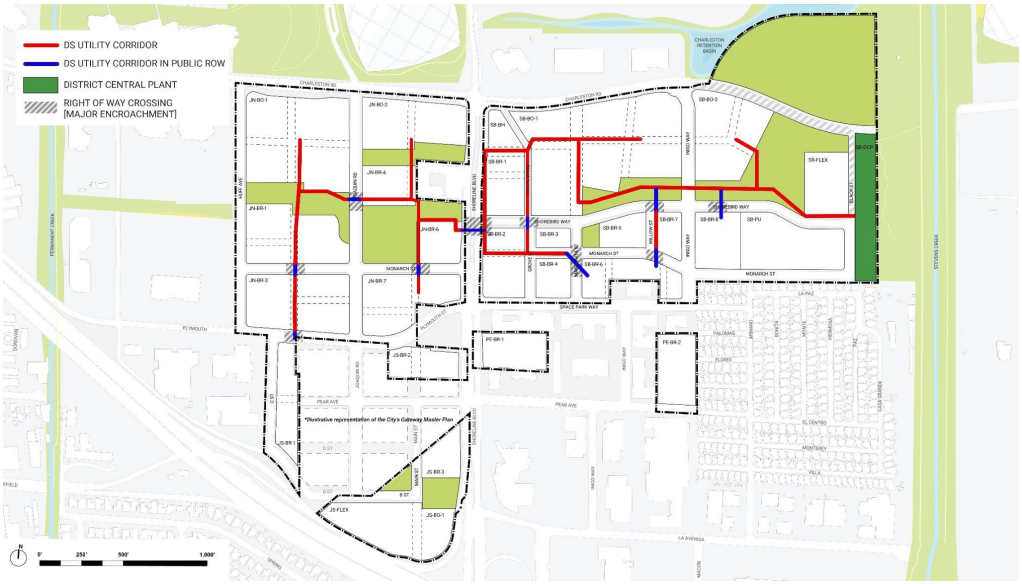
The Project proposes to include new District Systems Corridors for the conveyance of private utilities to serve the Project Area. The District Systems Corridors will be constructed as a combination of direct-bury utility trenches and structure embedded within basement parking, if applicable. The proposed District Systems alignments are predominantly within private parcels, only encroaching into the public Rights of Way to reach other participating project parcels. Portions of the alignment routing within the proposed public parks (Shorebird Wilds, The Portal) are kept to a minimum and are maintained at the periphery of open space areas to minimize impacts to trees and public spaces.

A deep District Systems Corridor structure based on the jack and bore methodology described in 5.2.3 allows for under-crossing of public Rights of Way with minimal disturbance or relocation to the existing City-owned and franchise utilities. Refer to Figure 3.9 for a conceptual section of the Jack and Bore method, and how the District System utilities could be accommodated in a single or multiple bores. A direct bury construction method at existing Rights of Way crossings would create conflicts with the existing utility systems and would require significant existing utility protections and relocations. At a maximum, the District Systems Corridor is expected to have an outer width of 30 feet (including 1.5' of outside clearances on either side). Its size is based on a conceptual design and is subject to change through detailed design, including a reduction in width where appropriate. Refer to Figure 3.7 for the Conceptual District Systems Corridor Plan and Figures 3.8 and 3.9 for conceptual District Systems Corridor sections. No trees or structures would be allowed directly on top of or within at least 5' of where the District Systems Corridors are buried.

These private utilities may include but are not limited to thermal systems (chilled and hot water), sanitary sewer collection, non-potable water distribution, microgrid and solid waste conveyance equipment. The District Systems Corridors will be constructed as a combination of direct-bury utility trenches or tunnels, or utilities within basement parking.

Jack and bore is the preferred construction method for public Rights of Way crossings. A direct bury construction method at these ROW crossings would result in conflicts with the existing utility systems and would require significant existing utility protections and relocations.

Figure 3.7. CONCEPTUAL DISTRICT SYSTEMS CORRIDOR LAYOUT. ILLUSTRATIVE DIAGRAM SUBJECT TO CHANGE.



District Systems may connect and be made available to any dedicated affordable sites that fall within the District Systems utility corridor, subject to agreement between (i) the District Systems owner(s) and (ii) the owner(s) of the dedicated affordable sites, as applicable, and any required regulatory approvals and/or phasing constraints.

The District Systems Corridor sections in Figures 3.7 to 3.9 are for illustrative purposes only and are subject to change as the District Systems design advances.

Figure 3.8 shows the typical section of the District Systems Corridors, when they are directly buried. This section proposes that all District Systems would be buried in a “joint trench” and share the same alignment, but maintain a constant separation as shown. Exceptions to the separation requirements are likely to occur, when access or appurtenances for these District Systems are needed.

Figure 3.8. CONCEPTUAL DISTRICT SYSTEMS CORRIDOR SECTION - TYPICAL EXTERIOR ROUTING. ILLUSTRATIVE DIAGRAM SUBJECT TO CHANGE.

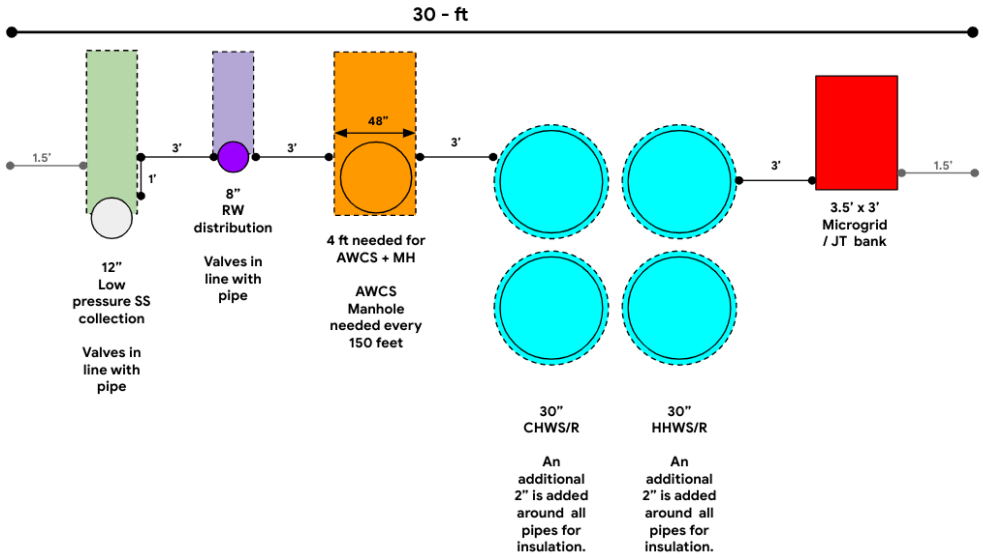
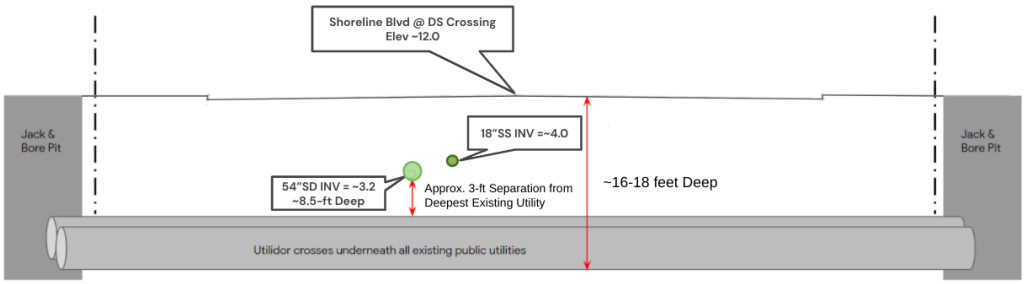


Figure 3.9 shows a conceptual section for when the District Systems Corridor crosses Rights of Way. This option assumes the construction of a tunnel via a Jack and Bore method.

Figure 3.9. CONCEPTUAL DISTRICT SYSTEMS CORRIDOR SECTION - PUBLIC RIGHTS OF WAY CROSSING JACK AND BORE OPTION



District Systems pipes may also be routed inside private property making use of the potential basements. In this condition, the wet utilities would hang from the walls or ceilings of said basements and dry utility conduits would be hung from the ceilings supported by trapeze mounts, and traverse across the parcels, with smaller service pipes providing a connection to each building. Minimum height clearances for vehicular parking and aisles would be maintained per City regulations.

K4. Anticipated Permitting And Licensing

The proposed District Systems are an innovative way to provide district level infrastructure services. Most of the regulatory approval pathways currently exist with some unknowns primarily regarding the electrical, sewer, and water systems. This section provides an overview of the approvals that would be required for the implementation of District Systems. A complete Permitting Plan would be submitted along with the District Systems Implementation Plan as described in Section 6.2 to confirm the selection of systems and associated timelines for the City to review at the time of the Zoning Permit submission.

4.1. Microgrid

To operate the microgrid, the project will be required to follow connection procedures through PG&E.

In addition to the microgrid operating agreement and entity, solar and storage interconnection will be permitted through PG&E. This includes a Grid Facility Interconnection Application (GFIA), which will be submitted to and approved by the utility, resulting in a Permission to Operate (PTO) for solar and storage located on the project. The applicable tariff and interconnection, operation, and metering requirements will be determined through coordination with PG&E. For the microgrid option in collaboration with PG&E, solar and storage interconnections for some or all buildings will be less than 3 MW and therefore subject to the Rule 21 interconnection procedure. If under 1 MW, permitting for net metering-based projects may be fast-tracked.

4.1.1. ANTICIPATED PERMITS AND AGREEMENTS

AGENCY	ROLE	DOCUMENTATION	ESTIMATED TIMEFRAME
City of Mountain View	Permitting & Inspecting	• Planning permit per Phase • Building permits for each phase • Certificate of Occupancy of each phase	
Environmental Protection Agency (EPA) & San Francisco Bay Regional Water Quality Control Board (“Regional Board”)	Approval of SMP	• Soil & Groundwater Management Plan (SMP) & Project-Specific Agency Submittal (PSAS) by Geotech • Must be approved and supplied to City of Mountain View prior to building permit issuance.	6 - 12 months for agency coordination
Pacific Gas & Electric (PG&E)	Operational agreement	CMEP: Rule 21 Interconnection Application	6 - 12 months for application approval. Must be installed within 2 years from application approval

4.2. Thermal

The City of Mountain View will issue a standard building permit for the DCP related to district thermal systems.

The permit and approval requirements for the thermal systems at the DCP are regulated under the following sections of Chapter 8 of the City Code:

- *Title 24, Part 4 - California Mechanical Code (Title 24)*
- *Title 24, Part 5 - California Plumbing Code (Title 24)*
- *Title 24, Part 6 - California Energy Code (Title 24)*
- *Title 24, Part 9 - California Fire Code/City of Mountain View Fire Code*
- *Title 24, Part 11 - California Green Building Standards Code (CAL Green)*

Additionally, Santa Clara Valley Water District will issue a standard well permit for construction of the geobores as part of the vertical buildings.

4.2.1. ANTICIPATED PERMITS AND AGREEMENT

AGENCY	ROLE	DOCUMENTATION	ESTIMATED TIMEFRAME
City of Mountain View	Planning Permitting Inspecting	• Planning permit per Phase • Building permits of each phase • Certificate of Occupancy of each phase	
Environmental Protection Agency (EPA) & San Francisco Bay Regional Water Quality Control Board (“Regional Board”)	Approval of geothermal ground source wells & SMP	• Soil & Groundwater Management Plan (SMP) & Project-Specific Agency Submittal (PSAS) by Geotech • Must be approved and supplied to the City of Mountain View before building permit issuance	6 - 12 months for agency coordination
Santa Clara Valley Water District	Permitting for geothermal ground source wells construction	Well construction (& permit by installing contractor)	2-3 months for permitting

4.3. Water Reuse Facility

The WRF will be designed to meet current regulations and can be designed to meet anticipated pathogen log reduction targets (LRTs) for Future Regulations, as discussed further in Section 4.3.1. The current design includes the following processes that can be used to meet pathogen LRTs: tertiary filtration, ozonation, and ultraviolet (UV) disinfection. If needed to meet Future Regulations, these processes can be upsized (eg. higher UV dose).

The WRF will be located within a private parcel and under the current regulations, is expected to be permitted by the San Francisco Bay Regional Water Quality Control Board (“Regional Board”) and the State Water Resource Control Board (“State Water Board”) Division of Drinking Water (DDW). The Regional Board will issue the operational permit, or Order, while the State Water Board DDW will review the engineering report and provide technical comments on tertiary filtration and disinfection unit processes.

It is anticipated that the Regional Board will issue an Individual Order for the WRF as there are no known General Orders that would cover a facility of the capacity proposed[1]. If a smaller WRF is built (<100,000 gpd), then the proposed system could fall under one or more General Orders (collection, treatment, distribution). The Regional Board has considered a "low risk" General Order previously to include facilities that do not have an environmental discharge. All wastewater treated at the WRF will be used for beneficial reuse onsite, any untreated wastewater will go to the City's sanitary sewer and treated wastewater will not be discharged to the City's sanitary sewer. Should such a General Order become available, the project will seek to enroll in it to leverage the streamlined permit process.

The City of Mountain View will issue a building permit and possibly a wastewater discharge permit.

The permit and approval requirements for the WRF are regulated under the following[2]:

- *California Water Code, Section 7 (Porter-Cologne Act)*
- *California Health Laws Related to Recycled Water ("The Purple Book")*
- *California Code of Regulations (CCR), Title 22, Division 4. Environmental Health*
- *California Plumbing Code (CPC)*
- *City of Mountain View Wastewater Discharge Permit requirements*
- *Bay Area Air Quality Management District (BAAQMD) requirements*
- *EPA Part 503 Biosolids Rule*

4.3.1. FUTURE REGULATIONS

Senate Bill 966 (SB 966), signed into law in September 2018, requires the State Water Resources Control Board ("Water Board") to adopt regulations for risk-based water quality standards for the onsite treatment and reuse of non-potable water by December 2022. The bill would also require local jurisdictions that elect to establish a program for onsite treated non-potable water systems to adopt a local program that includes the risk-based water quality standards established by the Water Board. The goal of SB 966 is to increase recycled water use in California by helping local jurisdictions implement onsite water reuse and by streamlining the existing permitting process.

SB 966 changes the way that onsite non-potable water systems will be regulated in the future. Instead of permitting these systems via the California Plumbing Code (CPC) Chapter 15 or California Code of Regulations (CCR) Title 22, which was written with municipal-scale facilities in mind, SB 966 requires "local programs" to be formed and adopted. The local programs championed by SB 966 will be formed by cities, counties, and utilities and will be required to utilize a "risk-based framework" that establishes treatment performance targets (pathogen log reduction targets) based on the alternate water source and end use of the non-potable water. Design criteria and requirements are included in this framework to establish a basis for the reduction and inactivation of bacteria, viruses, and protozoa that could be present in alternate water sources (eg. wastewater).

Any permitting for the WRF that occurs prior to January 2025, would be under the current California Water Code and the CCR Title 22 regulatory structure, which is administered locally by the Regional Board. Therefore, based on the timeline for the Project, this shift in regulatory framework may affect design requirements for the treatment system. It is not clear whether, given the scale of this WRF, if the system will be regulated as an "onsite" system or not. As such, the Project is building in flexibility to adapt to SB 966 when it becomes law and the WRF treatment system will be designed to meet the risk-based framework requirements in preparation for future regulatory enforcement.

[1] The Small Domestic Wastewater Treatment Systems General Order WQ 2014-0153-DWQ covers systems treating less than 100,000 gallons per day.

[2] This list is not intended to be exclusive should other regulations apply at time of permitting, based on scope of permit.

4.3.2. CITY PERMITTING

As a control authority for the Palo Alto RWQCP, the City of Mountain View is required by state, federal, and local laws to regulate wastewater discharges of specified commercial businesses and industrial users to the RWQCP. Through its Pretreatment Program, the City permits and inspects specified commercial and industrial facilities. Through Discharge Permits, the City authorizes wastewater discharges to the sanitary sewer and the RWQCP.

The wastewater flow discharged from the WRF would be governed under a City of Mountain View wastewater discharge permit and, if required, the City's discharger self-monitoring program and any applicable pretreatment regulations. Connections to the City's sanitary sewer with monitored flows will include flow monitoring equipment, such as flow meters, as required in the City of Mountain View's City Code.

The City charges wastewater users a one-time Sewer Capacity Charge (based on increased impacts to the City's sanitary sewer).

The City charges wastewater users monthly Wastewater Service fees for Residential customers (calculated based on dwelling units) and for Commercial customers (calculated based on estimated flow volume). The Wastewater Service fees for Commercial customers vary based on the usage type (eg. base commercial, commercial / industrial, restaurant, etc.).

4.3.3. ANTICIPATED PERMITTING AGENCIES

AGENCY	ROLE	DOCUMENTATION	ESTIMATED TIMELINE
San Francisco Bay Regional Water Quality Control Board ("Regional Board")	Permitting Agency	Will issue operational permit	2 years for agency coordination
		Report of Waste Discharge (ROWD), Title 22 Engineering Report, Waste Discharge Requirements (WDRs), Notice of Applicability (NOA) to General Order (if using)	1 year for operational permit and state process
State Water Resource Control Board ("State Water Board") Division of Drinking Water (DDW)	Technical Permit Reviewer	Will review engineering report and provide technical comments on tertiary filtration and disinfection unit processes	2 years for agency coordination
		Title 22 Engineering Report (treatment)	6 months for engineering reports and Title 22 permit
Santa Clara County Department of Public Health (DPH)	Potential Stakeholder	Could play a role in adoption of a local program to administer statewide risk-based standards (SB966)	2 years for agency coordination
Environmental Protection Agency (EPA) & San Francisco Bay Regional Water Quality Control Board ("Regional Board")	Approval of SMP	Soil & Groundwater Management Plan (SMP) & Project-Specific Agency Submittal (PSAS) by Geotech	6 - 12 months for agency coordination

AGENCY	ROLE	DOCUMENTATION	ESTIMATED TIMELINE
		Must be approved and supplied to the City of Mountain View prior to building permit issuance.	
City of Mountain View	Permitting Agency	Will issue a building permit and possibly a wastewater discharge permit	2 years for agency coordination

4.4. Sanitary Sewer Collection System

The current, adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Resources Control Board Order No. 2006-0003-DWQ) makes no reference to private sewers and limits applicability to greater than one mile of sewer for public systems. The proposed private sanitary sewer network includes less than one mile of sewer collection pipelines.

The SWRCB is in the process of updating this General Order (Draft Order WQ 2022-XXXX-DWQ) and has conducted workshops and collected comments in early 2022. This draft states that, "A private company that owns and/or operates a sanitary sewer system of any size where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order, and that is not regulated under separate waste discharge requirements issued by a Regional Water Quality Control Board."

It is anticipated that the WRF will be covered under a site specific Waste Discharge Order and associated Waste Discharge Requirements or a General Order, if appropriate, as described above. Once this new order is adopted, the Project could enroll under the Sanitary Sewer Systems General Order if the collection network is not covered by a site specific order. Whether that is the case is at the discretion of the Regional Board. The Sanitary Sewer Systems General Order may require a Sewer Management Plan (as is required for the City under their permit), audits, performance evaluations, annual reporting, and spill reporting through the State web portal.

4.5. Non-Potable Water Systems

The Project will include distribution of non-potable recycled water to individual buildings. The use of non-potable recycled water is governed by the City of Mountain View Customer Guidelines for Recycled Water Use. These Guidelines govern the implementation of dual plumbing, which is permitted as part of the building permit. The City works with DDW to review and approve dual plumbing plans as well as other end uses of recycled water as required under CRC Title 17 and Title 22.

4.5.1. ANTICIPATED PERMITTING AGENCIES

AGENCY	ROLE	DOCUMENTATION	ESTIMATED TIMEFRAME
San Francisco Bay Regional Water Quality Control Board ("Regional Board")	For Information Only	N/A	N/A
State Water Resource Control Board ("State Water Board") Division of Drinking Water (DDW)	Technical Permit Reviewer	Review of initial plumbing approach for individual building permits.	3 months for agency coordination
		Dual Plumbing Engineering Reports	6 months for engineering reports
City of Mountain View	Permitting Agency	Opportunity for a local entity such as the City to take on primary role for dual plumbing permitting	2 years for agency coordination

4.6. Waste Collection System

The proposed waste collection system in North Bayshore would be the first facility of its kind to operate in California, and as such, the roadmap to achieve regulatory review and approval must be coordinated with relevant stakeholders. The following is a list of entities who are likely to require involvement in the permitting, construction and operation of an AWCS:

4.6.1. ANTICIPATED PERMITTING AGENCIES

AGENCY	ROLE	DOCUMENTATION	ESTIMATED TIMEFRAME
Santa Clara County Department of Environmental Health, Hazardous Material Compliance Division (as Local Enforcement Agency [LEA] of CalRecycle)	For Information Only	Issuance of a registration tier permit to operate a facility for solid waste transfer or processing, composting, transformation or disposal; required for facilities with medium volume transfer/processing capacity ($15 \leq X \leq 100$ tons per day)	N/A
Bay Area Air Quality Management District - BAAQMD (In representation of the California Air Resources Board [CARB])			
City of Mountain View	Permitting Agency	Opportunity for a local entity such as the City to take on primary role for dual plumbing permitting	2 years for agency coordination

- **Santa Clara County Department of Environmental Health, Hazardous Material Compliance Division** (as Local Enforcement Agency [LEA] of CalRecycle): Issuance of a registration tier permit to operate a facility for solid waste transfer or processing, composting, transformation or disposal; required for facilities with medium volume transfer/processing capacity ($15 \leq X \leq 100$ tons per day).
- **Bay Area Air Quality Management District - BAAQMD** (In representation of the California Air Resources Board [CARB]): Issuance of an Air District Permit that gives the holder authorization to build and/or to operate any stationery equipment that emits (pollutants) to the atmosphere. All projects are evaluated before the business can build and operate their equipment, to ensure that all air quality requirements are met.

Early engagement with these entities is required to ensure the permitting pathway aligns with the project construction plan and phasing. Engagement with other relevant entities may be required to enable timely permitting and appropriate coordination.

K5. District Systems Design Standards

5.1. Use of the District Systems Design Standards

5.1.1. STANDARDS AND SPECIFICATIONS APPLICABLE TO THE PROJECT

The District Systems Design Standards (hereafter "DSDS") describe the standards and specifications used to evaluate District Systems within the Project Area. The list of standards includes, but is not limited to the following:

- City Of Mountain View Standard Provisions And Standard Details
- Mountain View City Code
- City of Mountain View Design Guidelines
- City of Mountain View Recycled Water Guidelines

These standards are to be used within the Project for purposes of evaluating District Systems. Any DSDS from the City of Mountain View Code shall be based on the City of Mountain View Code as provided in the Development Agreement. If not otherwise required by the Development Agreement, the Project Applicant may choose to apply a DSDS provision based on the City of Mountain View Code applicable and in effect at the time of the permit submittal for a District System phase. If a City of Mountain View Code, guideline, or standard does not address a specific improvement (eg. the District Systems Corridors), this document identifies other sources of authority that provide standards to evaluate the installation of the subject improvements, such as the California Department of Transportation's Standard Specifications.

5.1.2. ANCILLARY DOCUMENTS PROVIDING STANDARDS

The DSDS described in this Section refers to certain ancillary documents to provide standards for horizontal improvements associated with the District Systems. Such ancillary documents are typically referred to herein by the name of the preparing agency, the name of the document, and the year the document was approved or most recently amended (eg. "Caltrans Specification (2018)").

Ancillary documents may be amended or superseded in the future by the agencies responsible for their preparation and approval. With the exception of regulations, standards, and requirements in the Mountain View City Code, which are vested through the Development Agreement, regulations, standards and requirements in effect at the time of the first permit submittal for a District System phase may be used to establish the applicable DSDS. The Project Applicant may submit a request for relief from a DSDS to the City pursuant to Section 5.1.3. Any standard and requirement regulated by another agency (other than the City) applies to the project at time of permitting, with any relief sought by the Project Applicant submitted directly to that oversight agency.

5.1.3. FUTURE MODIFICATIONS TO DSDS

The Project Applicant may submit a written request to the City for relief of regulatory requirements from any City of Mountain View Code, guideline, requirement, or standard applicable to the District System. If granted by the City, the exception can be documented in this plan, if deemed necessary, or incorporated into a City permit.

5.2. District Systems Applicable Standards

5.2.1. OVERVIEW

The proposed District Systems would conform to a combination of City of Mountain View standards as well as additional local, state, and national standards which are utility-specific. Where a District System would be regulated by an agency other than the City of Mountain View, the Project Applicant would obtain and comply with any necessary permits or approvals from the applicable agency, as noted below.

5.2.2. DISTRICT CENTRAL PLANT

The district central plant (DCP) and water reuse facility (WRF) are currently planned to be constructed during Phase 1 of the Project's buildout and will be located on the eastern side of the project, within building(s) and/or screened outdoor areas. The physical structure of the DCP will be indicated in the Zoning Permit submitted for entitlement with detailed construction plans and submitted for building permit review.

5.2.3. DISTRICT SYSTEMS CORRIDORS

The Project will include new utility corridors ("District Systems Corridors") that contain and convey private systems to serve the Project Area. These private systems may include thermal systems (chilled and hot water), communications, electrical distribution, sanitary sewer collection, non-potable water distribution, and solid waste conveyance equipment.

The District Systems Corridors are proposed to be constructed as a combination of direct-bury trenches, systems integrated within basement parking structures, or underground tunnel structures. When crossing public Rights of Way, the proposed District Systems Corridors may be constructed using a jack-and-bore method, or integrated into a structure. If any alternative construction method for the corridor system is considered, the Applicant will consult with the City of Mountain View and any other relevant agencies. District Systems Corridors that encroach in the public Rights of Way or on City land would be subject to the MEA between the City and Project Applicant.

DIRECT BURY DISTRICT SYSTEMS CORRIDOR

In the direct bury method, no subterranean structure will be constructed. Each district system will be installed based on the City's Standards for trenching.

District Systems will be constructed in a phased manner which ensures adequate provisions for traffic to cross where required. Temporary utilities would be permitted as part of the individual parcels which they serve where required.

All direct bury segments within the public Rights of Way and on City land shall be subject to the MEA, and necessary City permits. Current City standards do not include standards private infrastructure within of the public Rights of Way, which are proposed at several locations (See Figure 3.7) throughout the proposed District Systems alignments. Other City Agreement(s) may be required for the proposed District Systems Corridor, depending on final design and location.

PARKING-INTEGRATED DISTRICT SYSTEMS CORRIDOR

Where a private underground parking structure is available, the District Systems may be mounted on walls and ceilings, but would maintain required vehicle height clearances and parking space dimensions (unobstructed) as required by Mountain View City Code. California Building Code, including relevant Mountain View City Code, current at the time of permit submission, and would apply for all utility installation and related fencing or access structures. For individual utility-specific regulations, refer to the subsequent sections.

JACK AND BORE DISTRICT SYSTEMS CORRIDOR

The jack and bore construction method may be used to install District Systems at public Rights of Way crossings.

Jack and bore construction will follow design guidelines as provided in the US Department of Transportation Federal Highway Administration Technical Manual for Design and Construction of Road Tunnels - Civil Elements (2009), unless other specifications are provided as part of the approvals for these crossings. Additional interior access requirements including ventilation and lighting will be governed by OSHA requirements.

Protective measures will be required during construction to minimize disturbance of any existing utilities, and surface improvements including minimizing roadway pavement from lift or buckling. Future detailed assessments will be required prior to completion of the design to limit adverse impacts from this construction method. Construction of jacking pits will be similar to the cut and cover method and utilize similar types of equipment. Temporary shoring will likely be required for jacking pits. Groundwater control will be needed during excavation and jacking operations. In addition, geotechnical exploration would be required to determine the appropriate shoring, dewatering, and soil management methodology at each crossing.

5.2.4. DISTRICT WASTEWATER COLLECTION

The proposed private wastewater collection system would convey wastewater from the Project's participating development parcels in the Shorebird neighborhood to the proposed WRF. Wastewater would be discharged by pump stations within each building and conveyed via a series of private low-pressure sanitary sewer lines. The proposed sanitary sewer network would rely on a sewer system independent from the stormwater and rainwater collection systems, so the WRF would not be prone to infiltration and inflow issues or wet weather surges. Private wastewater collection within the District Systems Corridor will be governed by the current California Plumbing Code at the time of permit submission in terms of design guidelines. See Section 4.3.4 Sanitary Sewer Collection System for a discussion of Regional Board oversight of this network. While current City standards do not include guidelines for private wastewater force mains, lift stations, or ejector pumps, nearby cities, including San Bruno, Redwood City, and Sunnyvale, feature such standards.

Any buildings which are not served by this private system will connect to the existing City-owned sewer system and will conform to public sanitary sewer requirements. All parcels are required to connect to the City sewer system as emergency back-up.

The applicable regulations for the wastewater collection infrastructure are:

- *California Plumbing Code (CPC)*
- *City of Mountain View Standard Provisions and Standard Details*
- *San Francisco Bay Regional Water Quality Control Board Waste Discharge Requirements (WRDs)*

If the City of Mountain View Standard Provisions and Standard Details document does not provide standards for pressurized sanitary sewer and structures, sanitary sewer pumps, or sanitary sewer mining stations, the Project Applicant will develop a best practices guide based on other available codes and industry standards, and will submit to the City of Mountain View Public Works Department for review and approval.

5.2.5. DISTRICT NON-POTABLE WATER DISTRIBUTION

Treated non-potable water is proposed to be distributed from the WRF to participating Project parcels through a private non-potable water distribution system. The non-potable water lines would be routed through the Project and connect to the proposed buildings as a non-potable supply for water closet and urinal flushing and laundry facilities. Where appropriate, separate laterals will be routed to outdoor landscape and open space areas for irrigation. The non-potable water will also serve thermal equipment located at the DCP and at other parcels, if needed.
The distribution of the non-potable water will be subject to review by the Regional Board and the Division of Drinking Water (DDW), similar to the WRF. The Regional Board administers Water Reclamation Requirements for Recycled Water Use under General Order WQ 2016-0068-DDW for permitting of recycled water distribution networks. It is likely that the Project would enroll in this Order under a Notice of Applicability (NOA) issued by the Regional Board.

The current applicable regulations for the non-potable recycled water distribution infrastructure are[3]:
- *California Code of Regulations, Title 17, Division 1. State Department of Health Services*
- *California Code of Regulations, Title 22, Division 4. Environmental Health*
- *California Plumbing Code (CPC)*

5.2.6. DISTRICT THERMAL SYSTEMS

Thermal energy for the Project is proposed to be served from the DCP. The DCP would generate hot water and chilled water via mechanical equipment installed in the DCP. Hot water and chilled water would then be distributed to the majority of the buildings for cooling, heating, and domestic hot water preheat within the Project Area via underground heating hot water and chilled water pipes located within the District Systems Corridor.

The mechanical equipment in the DCP and connections to the thermal system will be submitted for plan review as part of the building permit review process.

Hydronic piping connecting throughout the site will be submitted as part of the District Systems Corridor approvals. Piping will comply with standards and regulations as described in the current version of the California Mechanical Code, Hydronic Piping section at the time of permit submission.

The applicable regulations for the mechanical equipment and associated connections at the DCP are:
- *Title 24, Part 4 - California Mechanical Code (Title 24)*
- *Title 24, Part 5 - California Plumbing Code (Title 24)*
- *Title 24, Part 6 - California Energy Code (Title 24)*
- *Title 24, Part 9 - California Fire Code/City of Mountain View Fire Code*
- *Title 24, Part 11 - California Green Building Standards Code (CAL Green)*

5.2.7. ELECTRICAL AND MICROGRID

ELECTRICAL DISTRIBUTION

The Project includes renewable generation technologies including photovoltaic arrays and building-integrated photovoltaic products, as well the potential for storage technologies such as batteries.

In the private microgrid alternate, the Project will include localized 12 kV infrastructure from a single point of connection to PG&E, described in 3.2 to connect the majority of the buildings within the development area in a microgrid.The Project's microgrid distribution would be housed within the proposed District Systems Corridor.

[3] This list is not intended to be exclusive should other regulations apply at time of permitting, based on scope of permit.

Electrical feeders connecting throughout the site will be submitted as part of the District Systems Corridor approvals. Individual electrical connections at each building will be submitted as part of the building permit review process for the building in accordance with the requirements from the City of Mountain View for Building Plan Submission. Electrical equipment within the DCP will be submitted as part of the Building Plan Review and permit application for the DCP.

The standards applicable to the review and approval of the electrical and microgrid systems are:

- *PG&E Electrical and Gas Service Requirements (Green Book)*
- *2019 California Fire Code/City of Mountain View Fire Code (Batteries)*
- *NFPA 855 2020 Standard for the Installation of Stationary Energy Storage Systems*
- *Title 24, Part 3 - California Electrical Code (Title 24)*
- *Title 24, Part 6 - California Energy Code (Title 24)*
- *Title 24, Part 11 - California Green Building Standards Code (CAL Green)*
- *NFPA 30 - Flammable and Combustible Liquids*
- *NFPA 70 - National Electrical Code 2020*
- *NFPA 72 - Fire Alarm Code*
- *NFPA 101 - Life Safety Code*
- *NFPA 110 - Emergency and Standby Power Systems*
- *National Electrical Safety Code, ANSI C2*

5.3. Horizontal Improvements

5.3.1. SITE PREPARATION

GRADE-LEVEL SITE PREPARATION STANDARDS

Site preparation work shall comply with the City of Mountain View Standard Provisions and Standard Details/City Code, project conditions of approval, the Project Environmental Impact Report Mitigation Measures, and where information is incomplete or does not exist, it is recommended that the current Caltrans Specifications be used. If conflicts exist within the two documents, the City of Mountain View Standard Provisions and Standard Details/City Code and Project SEIR Mitigation Measures will govern the following criteria, unless otherwise expressed by the Public Works Department:

- Dust Control
- Mobilization
- Construction Area Traffic Control Devices
- Existing Facilities
- Clearing & Grubbing
- Dewatering
- Earthwork
- Finishing Roadway
- Noise Control
- Testing & Disposal of Materials

SUB-GRADE SITE PREPARATION STANDARDS

The Project will use site-specific geotechnical reports to determine subgrade preparation requirements. The current City of Mountain View Standard Provisions and Standard Details/City Code, applicable Project Subsequent Environmental Impact Report ("SEIR") Environmental Impact Report Mitigation Measures, and requirements from oversight agencies (such as, but not limited to, US EPA, and SFRWQCB) will govern, otherwise it is recommended that the Caltrans Specification (2018) is used. The Project will be required to submit soils and geotechnical reports for review, for building permit review. Grading work will follow geotechnical report recommendations and City or oversight agencies t requirements.

5.4. Public Rights of Way/City-owned Properties

When installing improvements in the public Rights of Way or City-owned properties, the Project will comply with the latest version of the City of Mountain View Standard Provisions and Standard Details, and City Code as described in the Development Agreement. All District Systems encroaching into the public Rights of Way or City-owned properties shall be subject to the MEA and applicable City permits.

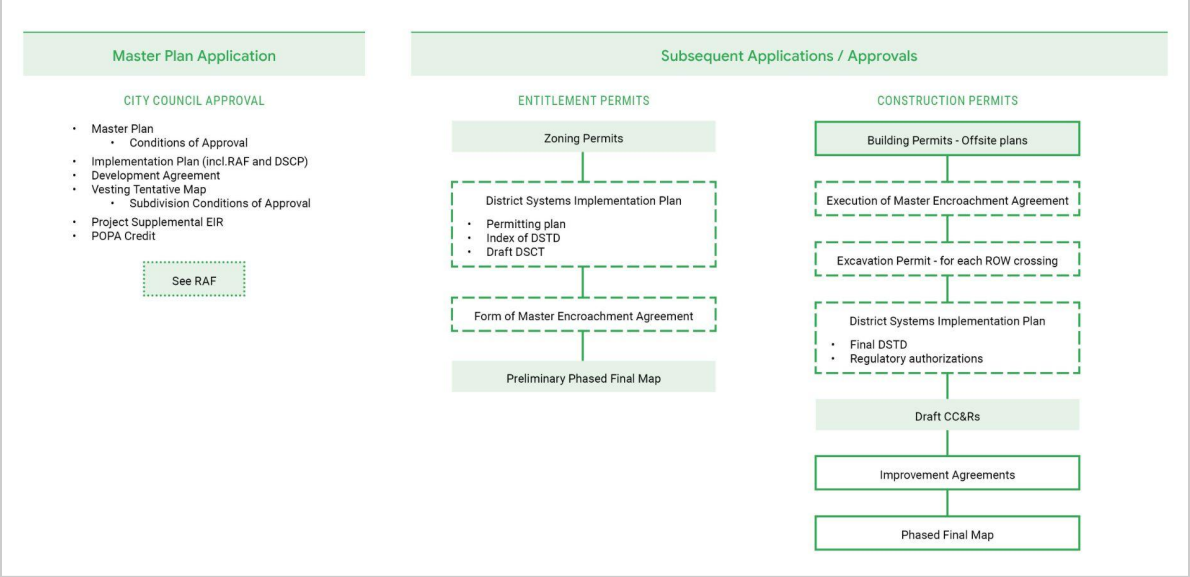
K6. Future Submittals Timeline And Content

6.1. Introduction

This section summarizes the entitlement and permitting process to implement District Systems in the Project. The review and approval processes for entitlements and permits are detailed in the Review and Approvals Framework in Section M of the North Bayshore Implementation Plan. For implementation of District Systems, the Project Applicant will submit a District Systems Implementation Plan for City review for purposes of confirming that the District Systems Implementation Plan addresses the Performance Standards in Section 6.3, below, any applicable Master Plan conditions of approval, and the DSDS and City regulations, standards, and codes applicable to District Systems proposed for installation in the City's public Rights of Way and property.

The articulation of the various submissions is detailed in the following figure:

Figure 6.1 DISTRICT SYSTEMS IMPLEMENTATION PROCESS



Note:
Except for the entitlements and Mountain View City Code, regulations, guidelines, and standards vested under the Development Agreement all date-specific references to standards, city, state or federal codes, guidelines, greenbooks, or other manuals or details are to apply based on the adopted versions in place at the time of permit submittal, unless otherwise authorized by the governing agency.

6.2. Submittals And Phasing

The District Systems permit submissions will align with the Project's phased buildout and associated phased Zoning Permit applications. Different Project phases will reflect the sequential design and development of District Systems in the Project.

6.2.1. ZONING PERMIT SUBMISSION

The RAF provides that a Zoning Permit application will be submitted for each Project development phase. As defined in the RAF, "Zoning Permit" refers to all zoning and development-related permits subject to review and approval by the Planning Division, including Planned Community Permits ("PCPs") and Development Review Permits ("DRPs").

To implement District Systems, the Project Applicant will submit a District Systems Implementation Plan ("DSIP") as part of a Zoning Permit application for the Project development phase in which the Project Applicant proposes to begin implementation of District Systems. As part of the Zoning Permit application, the Project Applicant will include the required District Systems-related plans and other application materials specified in the RAF.

6.2.2. DISTRICT SYSTEMS IMPLEMENTATION PLAN SUBMISSION

The DSIP included in the Zoning Permit application will identify the District Systems that the Project Applicant proposes for implementation in each development phase. The District Systems contemplated for installation in subsequent development phases will be described in concept form in the DSIP, and consistent with the RAF's Zoning Permit application requirements for District Systems, will be subsequently detailed in the corresponding development phase Zoning Permit application, including how a given District System will interconnect with previously approved and/or constructed District Systems from prior phases.

The DSIP will also include key documents detailed in the following sections. The DSIP describes the implementation and operation of the District Systems, including how District Systems will comply with applicable DSDS discussed in Section 5 and the performance standards listed in this Section 6.

The City shall provide a complete draft of the MEA to the Project Applicant as part of the City's first round of written comments on a Zoning Permit application that includes submittal of the DSIP. The City and Project Applicant shall execute the MEA prior to issuance of construction permits for the District Systems proposed in said Zoning Permit. The MEA, which will reflect the terms included in the Development Agreement, will establish the Project Applicant's rights and obligations with respect to District Systems infrastructure located within public Rights of Way or on other City-owned property.

6.3. District Systems Implementation Plan

6.3.1. OVERVIEW

The Project Applicant is actively evaluating the implementation of the District Systems described in Section 3. These efforts include the pursuit of various regulatory authorizations and the analysis of the appropriate commercial structure, operational controls and covenants that will apply to the District Systems. As the City is aware, the pursuit of regulatory approvals and the drafting of governing documents will extend beyond the Project entitlement date. Accordingly, Project Applicant proposes the following conditions and process as a means of:

1. ensuring compliance with the District Systems Performance Standards (defined and listed in 6.3.2.5 below);
2. establishing a process for the City to ensure the Performance Standards are reflected in the documents governing the District Systems;
3. preserving the optionality to implement several Microgrid options as described in Section 3.2 in recognition of the evolving regulatory status of that particular District System;

4. Preserving the optionality to implement a number of wastewater and non-potable water options that consider various environmental and regional requirements as described in Sections 3.4, 3.5, and 3.6.

6.3.2. PROCEDURE FOR SUBSEQUENT CITY REVIEW OF DISTRICT SYSTEMS

DISTRICT SYSTEMS IMPLEMENTATION PLAN CONFIRMATION

The Project Applicant will submit a "District Systems Implementation Plan" (DSIP) with the submittal of a Zoning Permit Application. The City will review the DSIP for purposes of confirming that the DSIP satisfies the Performance Standards detailed in Section 6.3.2.5 below, and applicable Master Plan conditions of approval, DSDS, City regulations, standards, and codes, and includes the components described below.

The City will verify the DSIP complies with this Plan, the conditions of approval, and City standards, codes and regulations. The City will notify the Project Applicant as part of the City's standard application review process, if there is any incomplete or missing information. Following Zoning Permit approval, the Project Applicant will submit phased Final Maps and Improvement Plans that incorporate District Systems as described in the DSIP, and any District Systems distribution infrastructure that crosses public Rights of Way or other City property and will be subject to the MEA. The City will review any phased Final Maps and Improvement Plans that rely on District Systems for consistency with the DSIP, conditions of approval and applicable City regulations.

IDENTIFICATION OF PROPOSED DISTRICT SYSTEMS

The Implementation Plan will identify any District System that the Project Applicant proposes to implement as part of a given development phase. For phases subsequent to the initial District Systems implementation phase, the DSIP will describe in concept form how the District System will interconnect with the same system as approved and/or constructed within prior phases.

SUMMARY OF REGULATORY REQUIREMENTS, STATUS AND SCHEDULE

District Systems will be subject to all applicable federal, state, local and regional requirements at the time of implementation, except as provided in Section 5.1 and the Development Agreement. The DSIP will include a summary of any required regulatory authorizations necessary to construct or operate any District System, along with the status of any regulatory authorizations. To the extent that any authorizations have not been obtained at the time of the DSIP submittal, the summary will provide a schedule and any necessary supporting information to describe the timing of anticipated regulatory authorizations relative to Project Applicant's schedule for completing improvement plans, filing a phased Final map, and obtaining building permits.

INDEX OF "DISTRICT SYSTEMS TRANSACTIONAL DOCUMENTS"

An index describing the draft documents that will govern the operation of the District System and its relationship to the commercial and residential properties comprising the development phase.

This may include, for example, residential covenants, conditions and restrictions ("CC&Rs"), commercial CC&Rs, ground leases, licenses, supply contracts, and various deeds relating to real or personal property (collectively, the "District Systems Transactional Documents or DSTD"). It is anticipated that parties to the DSTD will include, but may not be limited to, the Project Applicant, Google, residential and commercial building owners, ground lessees, and the District Systems operator. The index will identify the specific documents that will implement the respective Performance Standards.

"DRAFT DISTRICT SYSTEMS CONTRACTUAL TERMS"

A summary that includes a series of draft contractual terms to be reflected in the DSTD ("Draft District Systems Contractual Terms" or Draft DSCT), which will ultimately be included in final versions of the District Systems Transactional Documents. The Draft DSCT will be evaluated for purposes of documenting satisfaction of the Performance Standards.

CONFIRMATION OF DISTRICT SYSTEMS PERFORMANCE STANDARDS

Following Zoning Permit Approval, the Project Applicant will provide the following to the City concurrent with the submittal of applications for permits for the construction of District Systems:

PROPOSED FINAL DSTD

The Project Applicant will submit proposed forms of the DSTD to the Planning Division, as part of the building permit review, for the purpose of confirming that the proposed forms are consistent with the District Systems Performance Standards. City staff will review these materials - Planning, Public Works, and the City Attorney's office. The forms may include redactions where necessary to avoid disclosure of nonpublic proprietary information.

CONFIRMATION OF REGULATORY AUTHORIZATIONS

The Project Applicant will submit copies of any regional, state or federal authorizations, approvals or acknowledgements identified in the DSIP, or to the extent not obtained by the time of initial Building Permit submittal, documentation to establish said authorizations, approvals or acknowledgments will be obtained before Project Applicant provides service to any end users to the Public Works Director's reasonable satisfaction.

PUBLIC IMPROVEMENT AGREEMENT

The Public Improvement Agreement prepared in conjunction with any phased final map for a subdivision that uses District Systems and associated improvement plans, will include an obligation for Project Applicant to provide a copy of the final version of any District Systems Transactional Document that is required to be recorded to the Planning Division for confirmation that the relevant terms are included prior to recordation of the subject District Systems Transactional Document.

DISTRICT SYSTEMS PERFORMANCE STANDARDS

To ensure Mountain View businesses and residents are provided reliable utility service at a reasonable cost this DSCP identifies "Performance Standards", which the Project Applicant must address in the DSIP and which the City will confirm through its review of the DSIP.

INTENT OF SERVICE

The District Systems will provide consistent and continuous utility services equivalent to that which would be expected for comparable utility service otherwise available to Mountain View residents and commercial tenants ("Service Standard").

Check Point

The consistent and continuous service will be confirmed through the embedment of a Service Standard equivalent to comparable utility service available in Mountain View. The Service Standard will be included in the DSTD.

RATE EQUITY

Rates for service charged to residential tenants or owners (ie. condominium), office tenants or owners, and other commercial tenants and owners, whether reflected in sales prices, utility charges, rent or other consideration, will be consistent with any rate schedule, limits or mechanisms established by any governing state or federal agency, or law, or, in the absence of an applicable control, rates will not exceed rates for comparable service from other utility providers available to Mountain View residents, tenants, or owners ("Rate Equity") or comparable building level thermal service.

Check Point
Rate Equity will be confirmed and made enforceable by customers via a guarantee clause in the DSTD addressing supply arrangements. The City will not have any role in enforcing contractual terms in the DSTD. All serviced buildings shall be sub-metered for District System service.

CUSTOMER SERVICE ADMINISTRATION

The District Systems will ensure adequate communications channels and procedures are established to address and resolve issues such as customer service, billing, performance, and other issues, including with dispute resolution mechanisms and performance standards as appropriate.

Check Point
The DSTD will include terms to ensure that the DS operator will implement clear procedures for communication with customers to resolve issues raised by customers. This may include, for example, a structure included in the DSTD that requires the operator to respond to any questions or complaints concerning service or billing within an established time period (eg. 24-7 for immediate service failures, fifteen days for billing disputes), and to identify procedures for prompt resolution (and reimbursement where relevant) of customer service or billing issues.

EXCLUSIVITY AND TENURE

The District Systems operator/owner will have the exclusive right and obligation to service all buildings within the subdivision boundary. Owners and ground lessees in subject buildings will be required to exclusively contract with the District Systems operator/owner to procure available services. These same buildings will have redundant connectivity to the municipal sanitary sewer system to be used in case of emergency, which allows for City or other utility providers appointed by the City right to serve in such cases.

Check Point
The DSTD will include enforceable covenants that require the owners or lessees, including at both the building and unit or parcel level, as applicable, to contract with the District Systems operator/owner for electric service, sanitary sewer collection, non-potable water and thermal heating and cooling service if and when available from the District Systems operator/owner. The DSTD will require the District Systems operator/owner to exclusively supply services within the Project Area and to all owners or lessees within the Project Area, unless otherwise described in the District Systems Concept Plan, and identified prior to approval of the applicable phased Final map. The Project's improvement plans will confirm that the District Systems are routed to each applicable building and sized to provide the necessary service.

SAFETY

The District Systems will be operated safely and in accordance with applicable law and industry standards and the requirements of any operational permits issued by the appropriate authorities.

Check Point
Inclusion of a safety statement and accompanying safety plan to address applicable City, regional, state and federal standards and guidelines relative to safe operation of the District Systems. The statement and plan will be included within the DSTD.

QUALIFIED OPERATOR

Each District System will be operated by a professional operator with the technical experience, qualifications and experience as required by any governing operational permits, to operate the District System safely and in accordance with applicable law and industry standards. This Performance Standard shall apply to the Project Applicant and to any successor operator the Project Applicant assigns.

> **Check Point**
> Inclusion of clauses within the DSTD confirming minimum years' experience, which may be dependent on an outside permitting agency requirement, and the confirmation that all applicable certifications and qualifications will be required before contracting the operator .

CAPITAL REPLACEMENT

The District Systems owner/operator will be obligated to ensure that the systems have appropriate capital replacement schedules to maintain the equipment for continuous operation.

> **Check Point**
> Inclusion of a clause within the DSTD confirming the obligation of the District Systems operator to replace the capital plant in a timely manner to ensure continuous operation of the systems.

LIMITATIONS ON ASSIGNMENT

The Project Applicant's right to assign the District Systems infrastructure and associated rights and obligations (each an "Assignment") will be consistent with the following, and which will be reflected in enforceable covenants and restrictions recorded on the development parcels that extend in perpetuity:

- **Assignment and Assumption Agreement:** Any Assignment will require execution of an "Assignment and Assumption Agreement" which evidences that the assignee has assumed all rights and obligations of the assignor pertaining to the subject District Systems as required by these Performance Standards and the operative DSTD. No Assignment shall be effective until the assignor or assignee provides an executed copy of the Assignment and Assumption Agreement to the City.
- **Evidence of Qualified Operator:** Concurrent with the submittal of the executed Assignment Assumption Agreement, the assignor or assignee shall provide documentation to the City confirming that the assigned District System will continue to be operated by a Qualified Operator subsequent to the Assignment. No Assignment shall be effective until the assignor or assignee provides the documentation required pursuant to this condition.
- **Permitted Assignments:** Project Applicant may assign to (i) a "Google Affiliate," which means any entity that, directly or indirectly, controls Google, is under common control with Google, or is wholly-owned or controlled by Google; (ii) Alphabet, Lendlease or any Google / Alphabet / Lendlease affiliates / related entities); or (iii) any third-party assignees that is an owner/investor in the infrastructure sector, with appropriate operational and asset management capabilities, directly or via an operating partner. Any such assignments would not require City's consent but would require prior sixty (60) days written notice to City except assignment of permits or other regulatory obligations under federal, state or local laws must be in compliance with these laws.
- **MEA Assignment:** Project Applicant's rights to assign the executed MEA are separately established in the Development Agreement.

PRIVATE SYSTEMS - NO CITY OBLIGATIONS / NOTICE TO OWNERS

The Project Applicant's decision to seek subsequent approvals from the City for the implementation and construction of the District Systems and buildings that rely on District Systems is at their sole discretion. Submittal of a Zoning Permit with any District System signals that the Project Applicant is voluntarily electing to proceed with these systems to meet the objectives of the Project. The Project Applicant acknowledges that the District Systems are private, and that the City has no role in funding, constructing, operating, maintaining, or replacing the District Systems. The Project Applicant shall be solely responsible for funding, constructing, operating, maintaining, replacing, and assuring continuity of service via the District Systems and for providing customer service and resolving disputes among the owner/operator and any entities receiving service from the owner/operator.

Check Point

The Project Applicant shall be required to document to the City's reasonable satisfaction, and as part of the DSIP, that notice will be provided to future owners that includes the following:

1. a description of any service that is provided to the subject building by a District System;
2. a statement that the District System is privately owned and operated, and that the City of Mountain View has no responsibility for providing the service or to address disputes relating to the service; and
3. the identity of the District Systems owner/operator, the Qualified Operator and all necessary information regarding terms for service and dispute resolution.

K7. Appendices

7.1. Wastewater Production Estimates

The Project wastewater flow estimates account for low-flow fixtures, as required by LEED and CalGreen, and are aligned with the Project's sustainability commitments. A comparison of Mountain View's typical demand factors and the Project's proposed demand factors, including potable and non-potable water demands, are presented in Table 7.1. These factors are different from those presented in the Project EIR Utility Impact Study Assumptions Memorandum (January 2022) and are provided as additional context for further study at a future date.

Comparatively, the proposed unit demand factors represent a lower estimated total water use, which in turn represents a lower estimated wastewater production for the Project. Considering total wastewater production based on the proposed unit duty factors provided in Table 7.1 and projected non-potable water demands, the annual discharges to the City's sanitary sewer are projected to be up to 200 million gallons per year.

Table 7.1: COMPARISON OF THE CITY'S AND THE PROJECT'S PROPOSED WATER DEMAND FACTORS

Usage Type	**City of Mountain View's Typical Water Demand Factors**		**Project's Proposed Water Demand Factors**	
	Unit Duty Factor [Note 1]		Unit Duty Factor [Note 2]	
	gpd per 1000 sq ft	gpd per dwelling unit	gpd per 1000 sq ft	gpd per dwelling unit
Retail	130		13	
Restaurant	1,200		635	
Office	130		51	
Residential		100		77
Hotel		100		69
Community / Civic	165		*Included in Retail demands*	
Open Space & Parks	n/a		2.7 AFY/acre	

Notes:
1. Includes irrigation and cooling demands. Source: North Bayshore Master Plan Utility Impact Study Assumptions Memorandum. January 11, 2022.
2. Includes cooling demands. Irrigation demands are not included in the unit duty factors.

7.2. Non-potable Project Demands

In the proposed development, non-potable recycled water may be used for water closet and urinal flushing, laundry facilities, irrigation, and cooling. Use of non-potable recycled water may help the Project comply with the City of Mountain View's Green Building Code, which requires the Project to meet LEED Platinum to be awarded a Bonus Floor Area Ratio (FAR). All Google office buildings will achieve LEED Platinum and water incentives will be a contributor to the overall performance. Refer to the Project Water Demands Memorandum for details on the Project's non-potable demands.

The Project's non-potable demands will be tracked using submeters at each parcel - one for building interiors (including per residential unit submeters, as required) and one for irrigation. In order to track overall Project water demands, submeters will also be included downstream of each City potable water meter (eg. at each building) or City recycled water meter (eg. at the WRF's backup supply connection). All submeters will be downstream of City meters and will be privately owned and maintained.

7.3. Preliminary Operations & Maintenance

Preliminary operations & maintenance information is provided in this section. Further details will be developed as the Project moves into design, and provided during the permitting process and documented in the associated engineering report.

7.3.1. OPERATION, MAINTENANCE, AND MONITORING PLAN (OMMP)

The Project Applicant would be responsible for hiring an Operator who would be responsible for operating, maintaining, and monitoring the DCP including the WRF and the Microgrid, PV and battery storage equipment, the collection and distribution networks and building connections, as well as the district waste collection system. Industrial grade controls equipment and software would be installed at the DCP, enabling the Operator and design engineers to automate the processes to enable efficient operations. A building management system would be used to operate the central plant equipment as well as monitor and control the heat exchanger Energy Transfer Stations located in each served building and the distributed ground loop pumps and valves. All district energy control valves, flow meters, temperature sensors and pressure sensors will be networked for control and monitoring of the DCP side of the entire system. The Operator, with the help of a Microgrid Data Acquisition and Control System, would be able to operate the generating resources primarily under automatic control.

7.3.2. STANDARD OPERATING PROCEDURES

The manufacturer of each piece of equipment at the DCP, including the WRF and the Microgrid, would provide an Owner's Manual with the equipment. These manuals will contain necessary operations and maintenance information and procedures related to each piece of equipment. The Operator would review each set of documentation to determine the standard operating procedures (SOP) for each piece of equipment and system. The design engineers of the DCP, WRF and Microgrid would also provide design documentation for the plant and operational criteria. The Operator would adjust controls and fine tune processes to achieve the most efficient operations while meeting service quality goals. Design engineers would develop a checklist for the Operator to follow during their daily walkthroughs of the DCP to ensure all the necessary equipment is checked.

7.3.3. PREVENTATIVE MAINTENANCE AND REPLACEMENT SCHEDULES

Preventative maintenance is one of the most important components of a District System operation. It is very important to keep all the components of each system at the DCP, including the WRF, the microgrid controls, the generation and storage resources in working order and ensure minimal operational disturbances. Each equipment will require different types of preventative maintenance at different time scales. As discussed above, manufacturers of each equipment would submit documentation with their equipment. This document would highlight necessary preventative maintenance frequency and the responsible party. The Operator would review the documentation and create a preventative maintenance schedule for the DCP, and would be responsible for either carrying out the maintenance or contacting qualified personnel to carry it out.

Replacement schedule of each equipment will be determined either by the replacement frequency recommended by the vendor or according to the Operator's observations on the performance/efficiency of the equipment.

7.3.4. STAFFING REQUIREMENTS

Even though the majority of the processes and equipment will be automated, onsite operator(s) are still needed. The District Systems Operator's staff will either be located onsite or able to arrive onsite and respond to emergencies immediately. For the district thermal system, the typical emergency would be failure of major equipment that may result in not being able to supply enough heating.

7.3.5. RECORD KEEPING REQUIREMENTS

The controls system will include a data historian for data logging. The data loggers would record sensor data, operational settings, and any other other data required by the systems operation and the regulators. Data logging frequency will be determined according to the controls system designer's recommendation. All data will be backed up onsite. An additional computer will be provided for the Operator to access and record any external data (eg. lab tests, observations, fault events etc).

7.3.6. SPILL PREVENTION AND EMERGENCY RESPONSE

The WRF design would include influent equalization tank(s) with a capacity of up to 0.45 million gallons. The equalization tank(s) would be able to provide flow attenuation and short term storage. Therefore, any surge in flows would not overwhelm downstream processes. Each process tank would be designed with a side water depth and freeboard. Side water depth would be selected for optimal operating conditions. Freeboard would be selected to provide additional volume under surge conditions and prevent any overflowing of the tanks. Any chemicals stored onsite would be placed in OSHA compliant, adequately sized secondary containment. Floor drains installed at the WRF would be configured to re-route all spillage back to the headworks of the plant and will prevent any environmental spillage.

Refrigerant monitoring and alarm systems would be installed in the DCP as required by code, including necessary exhaust and make-up air systems. Current refrigerant type is R-514A, however low GWP next generation refrigerants are under active development and a different low GWP refrigerant may be used for the air source heat pumps dependent upon market availability. The control system would issue alarms and notify operating personnel as noted above.

During the loss of normal grid power from upstream utilities, the microgrid operations shall attempt islanded functions based on currently existing energy storage reserves. Islanding events may require additional operators in the field to ensure that microgrid controls remain functional, energy supply remains stable, and faults are resolved immediately. During this time, increased open lines of communication may be required with individual building operators to ensure the islanded microgrid stability.

7.3.7. REDUNDANCY AND BACKUPS

<u>THERMAL SYSTEM</u>

The system will be built with equipment redundancy (N+1) and operational redundancy, to ensure that maintenance procedures can be conducted without interrupting service. Planned maintenance that requires complete shut down will be scheduled outside business hours or on the weekend.

In the event of a power outage, then standby power would be supplied to circulating pumps at the DCP, plus at the buildings to maintain chilled water flow to any areas that require cooling utilizing available thermal mass in the distribution system. Note that chillers and heat pumps will not be on standby power.

MICROGRID

All buildings will be connected to the PG&E grid and draw power from the PG&E system as needed with the microgrid intended to create a level of additional resiliency in the event of a PG&E outage. In the event of a power outage, PV and battery storage within the microgrid will be utilized to provide up to 10% of the normal power load to standby loads for the thermal plant, water reuse facility, and critical loads at each building. Buildings are anticipated to manage power served to each appropriately with the ability to shed buildings as required to maintain outage load.

WATER REUSE FACILITY

In the event of a power outage, standby power would be supplied at the WRF to maintain biological treatment, wastewater discharge to the City sanitary sewer, and non-potable water distribution, plus at the buildings to maintain the booster pumps (to supply potable water and non-potable water) and the wastewater pumps.

In standby mode, the WRF will stop treating wastewater or producing additional non-potable water for the duration of the outage and supply the Project using water from the non-potable water storage tank(s) (up to 0.45 million gallons). If additional water is needed, makeup water can be supplied to the treated water tank at the WRF from the City of Mountain View's recycled water and/or potable water systems. If backup power is not available to the WRF and additional supplies are needed, makeup water can be supplied to the non-potable water break tanks at the buildings from the City of Mountain View.

Additionally, the system will be built with equipment redundancy (N+1) and operational redundancy, to ensure that maintenance procedures can be conducted without interrupting service. Planned maintenance that requires complete shut down will be scheduled during weekday business hours in order to minimize impacts to residents. The WRF will have adequate storage onsite to meet wastewater storage needs and non-potable demands during planned maintenance.

WASTEWATER COLLECTION

The proposed design for the wastewater collection system includes a private, low-pressure sanitary sewer (SS) collection network. Each building or parcel connected to the private SS network would discharge their sanitary waste via a small pump station at basement-level. All parcels would also have a connection to the City's conventional gravity collection network for emergency back-up use.

In the event of a power outage, backup power provided at the building-level would also power the basement-level wastewater pumps and the buildings would continue to discharge to the private, low-pressure SS collection network. If the building-level backup power were to also fail, then building wastewater would overflow by gravity to the City's sanitary sewer.

WASTE SYSTEM

Compared to a traditional waste collection system, AWCS has an improved ability to remain operational in adverse conditions. AWCS can be built to remain operational in the event of natural disasters such as earthquakes, floods, and snowstorms, among others. An AWCS can generally remain operational because:

- the system is sealed from the building valves through the waste containers at the terminal, making the system flood resilient;
- regardless of road conditions on-site, frequently collected waste streams are removed from a single collection point, allowing road clearing to prioritize access to the AWCS terminal;
- remote operation enables continuity of waste collection in the case staff attendance is interrupted by a pandemic, weather conditions, holidays or other circumstances; and
- the system can be designed with appropriate tolerances to provide earthquake resistance in geographies where this is a concern.

In the case of catastrophic events, AWCS infrastructure can be adapted for the temporary storage of waste and collection through traditional means:

- **Failure at the terminals:** If a terminal fails, waste could be collected directly from individual buildings.
- **Failure at the pipe network:** If one pipe branch or network fails, the remaining branches and networks remain operational. If a pipe branch or network should be rebuilt, the location of pipes along the District Systems Corridors allows for easy reconstruction of pipe sections.
- **Failure at buildings:** If one chute fails, the remaining chutes can remain operational (assuming independent chutes per stream). In the case that all chutes fail, waste can be manually transported via service elevators to the valve room.

If the operator cannot attend the system, the following modifications can be made to retain the functionality of spaces within the district:

- terminal building(s) can be renovated or repurposed;
- the pipe network in District Systems Corridors can be easily deconstructed;
- valve rooms can be converted to traditional waste storage rooms; and
- waste chutes can be converted to storage, janitorial closets, etc.

Appendix L

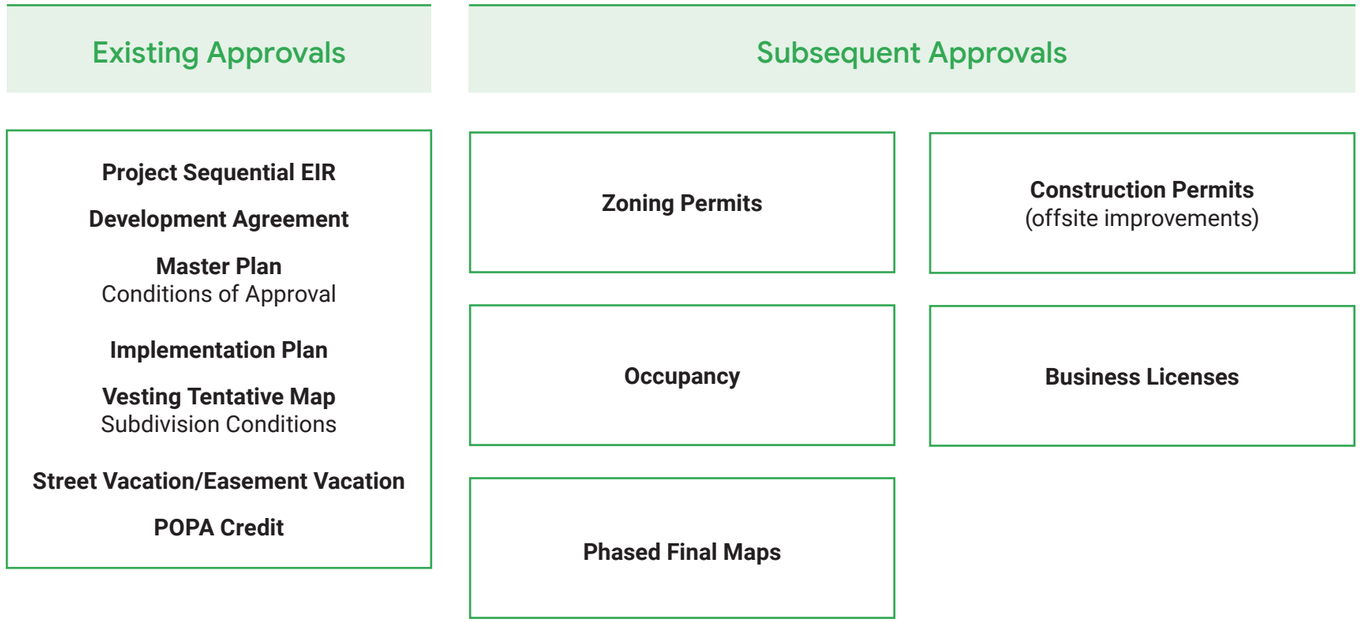
Review and approvals framework

04.2023

L1. Introduction

The Review & Approvals Framework (RAF) sets forth the review and approval process of key City permits, occupancy and licenses necessary to implement the North Bayshore Master Plan , which are identified as Subsequent Approvals (as defined in the Development Agreement). This is not an exhaustive list of all permits or requirements. All permits and licenses are subject to the City's then current processing procedures and processing fees in place at time of submittal, unless otherwise provided for in the Development Agreement, Staffing Reimbursement Agreement or this document. Modifications to this framework must be mutually agreed upon by City staff and the Applicant.

Note: All checklist and application forms are available on the City's website, unless otherwise noted.



Defined terms

The following terms are used in this document:

CONDITIONS OF APPROVAL: as defined in the Development Agreement.

CONSTRUCTION PERMITS: refers to all required permits for construction activities by multiple City Departments, including Building, Public Works, and Fire and Environmental Safety. Examples include: (a) demolition and building permits (e.g. grading, shoring, site improvements, new construction, etc.) issued by the Building Division for work on a parcel; (b) encroachment and excavation permits with improvement plans issued by the Public Works Department for work within the public right of way or easement areas; and (c) hazardous materials permits and stormwater (C.3) inspections on private property from the Fire and Environmental Safety Division.

COMMENTING DEPARTMENTS: any City Department that reviews permit materials for completeness and accuracy that is not the lead Department issuing the permit.

EXISTING APPROVALS: as defined in the Development Agreement and shown in the graphic above.

PLANNED COMMUNITY PERMIT (PCP): a zoning permit (s36.50.30 CMV Zoning Code) that may be required for new construction, redevelopment or changes of use in the North Bayshore Precise Plan area that comply with the applicable North Bayshore Precise Plan and/or Master Plan development standards.

DEVELOPMENT REVIEW PERMIT (DRP): a zoning permit (s36.44.45 CMV Zoning Code) that may be required for new construction, redevelopment and changes of use to ensure that new development and changes to existing developments: (1) comply with city development requirements and policies; (2) maintain or enhance the appearance of the community; (3) maintain property values through quality development; (4) ensure compatibility of private development with surrounding properties and neighborhoods, public rights-of-way and other facilities; and (5) in reviewing new residential development, strong emphasis is given to the compatibility of the new development with the surrounding development, including its intensity, density, scale, bulk, height, setbacks, open space, building orientation and architectural style and design.

PROJECT SEIR: the Subsequent EIR, including the Mitigation, Monitoring, and Reporting Program, included in the Existing Approvals, as defined in the Development Agreement.

ZONING PERMITS: refers to all zoning and development-related permits subject to review and approval by the Planning Division (e.g. PCPs, DRPs, Provisional Use Permits, Heritage Tree Removal Permits, etc). The review process for all zoning permits is outlined in the Administration Article XVI of Chapter 36 of the City Code.

Abbreviations

CC&Rs: Covenants, conditions and restrictions

City/CMV: City of Mountain View

DCP: District central plant

DRC: Development Review Committee

DRP: Development review permit

DSCP: District Systems Concept Plan

DSIP: District Systems Implementation Plan

DSCD: District Systems Contractual Document

DSTD: District Systems Transactional Document

EIR: Environmental impact report

Precise Plan: North Bayshore Precise Plan

PCP: Planned community permit

POPA: Privately-owned, publicly-accessible open space

MASTER PLAN: A mixed-use land use proposal applicable to the Master Plan Area.

MASTER PLAN AREA: A ±153-acre land holding within North Bayshore to which this Master Plan applies.

MTA: Multimodal transportation analysis

NBS: North Bayshore

RAF: Review and Approvals Framework

SEIR: Subsequent environmental impact report

TDM: Transportation demand management

VTM: Vesting tentative map

ZA: Zoning Administrator

L2. Expedited planning entitlement review process

The Master Plan will be implemented under a streamlined planning entitlement process permitted in Precise Plan s3.5.2.10 and provided for in the Development Agreement. As provided in the Precise Plan, at the time of Master Plan approval, the City Council may determine a subsequent development review process for Zoning Permits associated with the Master Plan Accordingly, Zoning Permits shall be reviewed by City Staff, the DRC, and decided upon at a ZA public hearing, in lieu of the City Council at a City Council public hearing ("Expedited Review Process"). Following approval of Zoning Permit(s), projects follow the City's standard permitting process for Construction Permits, which includes off-site improvements and building/fire permits.

L3. Zoning permit application and review requirements

Zoning Permit (Planning) Application Submittal Requirements

To assist in the Expedited Review Process of Subsequent Approvals, some materials will be submitted by the Applicant in advance of construction permits. This is intended to align design details early in the permitting process for the benefit of the City and Applicant. These advanced materials may include, but are not limited to, Conceptual Improvement Plans, Preliminary Phased Final Maps, and District Systems. None of the materials provided in advance shall be considered submittal of the final materials for approval.

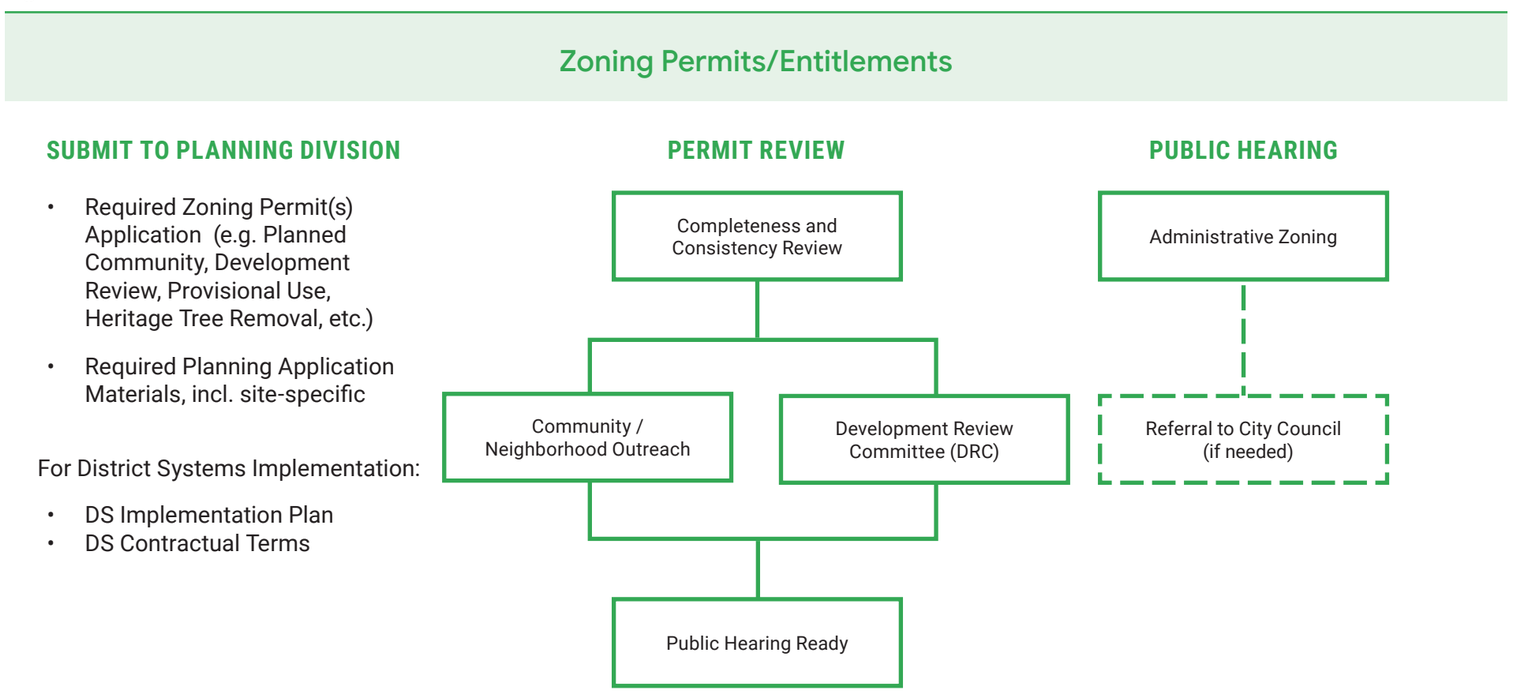
Each Zoning Permit application will include, as of the submittal date of the application:

1. The information and materials required to be submitted on the City's Formal Application Checklist.
2. Additional advanced materials and information, provided at the discretion of the Applicant, as applicable, including:
    a. Conceptual Improvement Plans will include, but is not limited to:
        - *Cover Sheet*: lists drawings (including future sheets to be submitted), abbreviations, and standard notes.
        - *Project Narrative*: includes scope of project, site description, summary of infrastructure proposed for public dedication, and a preliminary schedule for design through construction. Narrative will also include a phasing description of how proposed improvements align with the Master Plan and integrate into prior and future development, as applicable.
        - *Demolition Plan*: Shows existing buildings and trees to be removed.
        - *Site Grading and Drainage Plan*: shows existing grades and proposed street grades at beginning of horizontal curves (BC's), end of horizontal curves (EC's), grade breaks, high points, low points, vertical curves (VC), beginning of VC (BVC's) and end of VC (EVC's), pad grades, overland release routes, grade conforms, street centerline grades and drainage devices.
        - *Stormwater Management Plan (private)*: includes site grading, drainage plan, and Stormwater Management Plan that provides preliminary green stormwater infrastructure calculations and typical details for onsite private treatment control measures.
        - *Stormwater Management Plan (public streets)*: includes description, preliminary green infrastructure calculations, typical details and plan view layout of how stormwater management can be achieved for public street(s).
        - *Utility Plans and Centerline Profiles (public streets)*: includes existing utilities to be abandoned or relocated, all utilities and new or reconstructed water, storm and sanitary mains with pipe slopes, inverts and rim elevations at manholes, on both plan and profile sheets.
        - *Typical Street Section Plan*: includes lane dimensions, sidewalk dimensions, roadway materials, grades, curb heights, and utilities, including all horizontal clearances.

- *Street Improvement Plan*: includes stationing, roadway dimensions, bulb-out locations, traffic calming measures, non-standard roadway conditions for acceptance, transit facilities, street lights, bikeway and trail dimensions, streetscape design and roadway materials. A separate street layout site plan shall be provided for private streets.
- *Geometric (Signage and Striping) and Traffic Signal Plan*: includes final traffic lines and pavement markings including centerlines, lanelines, edgelines, crosswalks, limit lines (stop lines), arrows, words and other appropriate delineation; permanent project signing in the public right-of-way; and new and/or modified traffic signal locations.
- *Public Landscape Plan*: included if median and/or new landscaping in the public street is proposed.
- *Street Light Plans*: includes new street light locations, new street light electrical systems, existing street light locations and removal and/or modifications to existing electrical systems. Also includes photometric analysis showing all existing or proposed new streetlights (show height, arm length, and location) and calculate the minimum, maximum, average illuminance values, as well as uniformity ratios for each crosswalk shown separately.

b. Preliminary Phased Final Map will include the information identified in City Code Sections 28.7 to 28.7.20 governing Final Maps, in substantial compliance with the Existing Approvals. Also submit the Vesting Tentative Map Easement Table with the information required. Indicate the extent of the easement vacations to be processed.

Figure L3.1 ZONING PERMITS/ENTITLEMENTS PROCESS



* Additional Zoning Permits may be required prior to new tenant occupancy or for other post-construction activities, which are not detailed here.

c. District Systems information will be provided where the system is proposed and will include, but is not limited to:

- Layout/Plan Set: provide plans that show the proposed location and alignment of the District System serving the building(s); location of pipe network, conduit, cables, other private utility connections to the District System; and which private utilities would be provided through District Systems. Plans will also include a preliminary location map, plan view, and elevation showing the dimensions, location, and alignment of the proposed District Systems within the public right of way and its relationship to adjoining properties, and any structures, utilities or improvements, and show any district systems proposed to be located within the District Systems.
- *District Systems Implementation Plan (DSIP)*: submit the draft DSIP, which is limited to (1) the Performance Standards listed in the District Systems Concept Plan (DSCP) and (2) the District Systems Design Standards, as that term is defined in the DSCP, and City regulations, standards, and codes applicable to District Systems proposed for installation in the City's public right-of-way and property .
- *District Central Plant (DCP)*: the design and development of the DCP will be included in a Zoning Permit application. The plans will show the location of the DCP, including switching rooms, heating and cooling central plant, energy storage and backup, wastewater treatment plant, and district waste collection system. The plans also will show any interface with vertical buildings, landscaped areas, roads, sidewalks, mid-block passageways, any transit facilities, and open space areas. In addition to the applicable Precise Plan standards, city regulations, permitting agencies, and environmental requirements per the Project SEIR, the DCP will be subject to any applicable standards set forth in the DSCP.

Zoning Permit Review Process

When a Zoning Permit application is submitted, the permit will follow the City's development review process. While some Zoning Permit applications can be reviewed administratively by City staff, the table below outlines the review process for a PCP for proposed new building and site construction.

PROCESS STEP	ACTION
Pre Application Meeting	The Applicant may request a pre-application meeting with Planning staff at any mutually agreeable time prior to submission of an application.
City Review and Determination of Completeness	City staff will review the Zoning Permit application for completeness in accordance with state mandated requirements, including determining a status of complete or incomplete based on the submittal checklist and Existing Approvals. Additionally, consistency review with the Existing Approvals (including consistency with Project SEIR) will also be conducted. Application materials submitted are reviewed by all Commenting Departments simultaneously, such that the City's response on the status of the application is comprehensive. This review cycle repeats until the incomplete items are provided and the application is deemed complete. If the application is deemed incomplete, the City shall identify with specificity the remaining items Applicant must provide for the application to be deemed complete. The Applicant will resubmit revised materials and/or supplemental information as requested by the City. Once submitted, City staff will review the materials and confirm that the application is complete, in accordance with state mandated requirements. Should additional environmental review or outside consultant review on the MTA be required, City staff will coordinate with the Applicant to fund completion of the necessary documents and materials. Note: The community meeting and DRC meetings may occur prior to an application being deemed complete.
Project Meetings	At any time throughout the review of the application, City staff and the Applicant can arrange meetings to discuss or resolve any aspects of the application.
Community/ Neighborhood Meeting	The Applicant will host a community/neighborhood meeting on the application
DRC Recommendation	The DRC will review the application at a regularly scheduled meeting. The DRC will provide site and building design guidance and recommendations to the Applicant and City staff on the application. More than one DRC meeting may be necessary (e.g. informal and formal).

PROCESS STEP	ACTION
ZA Public Hearing	Once the application is deemed complete and the above process steps are complete, the project will be scheduled for a regularly scheduled ZA Public Hearing. The ZA is authorized to make a final decision on the Zoning Permit(s). The ZA also has the discretion to refer the decision to the City Council. Note: All public hearings, actions and appeals must be conducted in accordance with Chapter 36, Article XVI, Division 16 of the City Code.

1. Development Exceptions. The Applicant may apply for exceptions to development standards as provided in s3.5.6 of the Precise Plan), which have been considered for similar types of projects under a PCP or Provisional Use Permit, or described in the Master Plan. To be considered for such an exception, the Applicant will demonstrate the requested exception (a) meets the intent and purpose of the Precise Plan, including, but not limited to, its guiding principles and character area expectations and (b) results in a superior project design or outcome for the community. Any exception to development standards will be reviewed and approved by the Zoning Administrator as part of a Zoning Permit.

Figure L3.2 CONSTRUCTION PERMITS PROCESS

Construction Permits

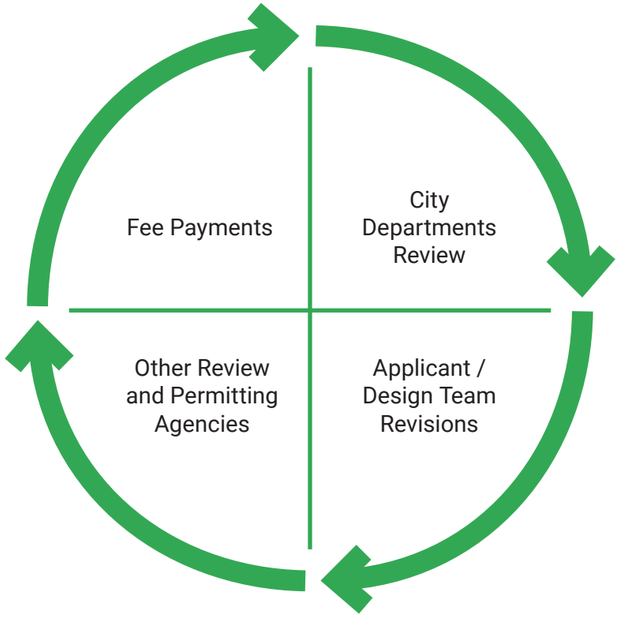
SUBMIT TO BUILDING DIVISION

- Required Building Permit Plan Check Submittal (Based on Permit Scope/Type)
  - Conditions of Approval Response Matrix (Master Plan + PCP) and Project SEIR Mitigation Measures
- Improvement Plans
- Phased Final Map
- Excavation Permit Application
- Easement Vacation Application (if needed for subsequent vacations)
- Draft CC&Rs
- Stormwater C3 Inspections
- Necessary documents for legal agreements or recordations or other DS documentation

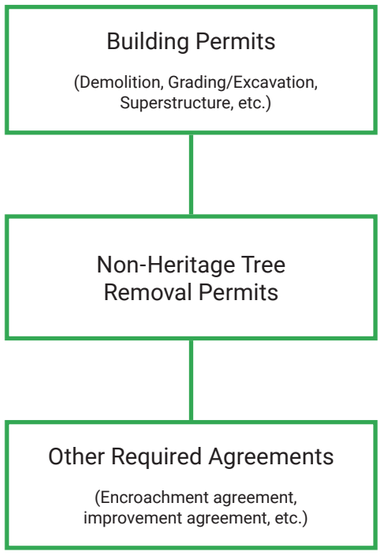
For District Systems Implementation:
- Master Encroachment Agreement
- Excavation Permits

Note: For any scope of work requiring a Zoning Permit, a Building Permit for the development covered by the Zoning Permit cannot be issued by the City to the Applicant unless the Applicant has first obtained approval of the required Zoning Permit.

REVIEW PROCESS



PERMITS ISSUED



Other Zoning Permits

Following permit approvals for new building and site design, there are additional Zoning Permits required for occupancy of a new commercial tenant space, building signage, or other minor site modifications or improvements. These permits will be processed in accordance with the Article XVI of Chapter 36 (Zoning Ordinance Administration) and the Precise Plan.

1. Signage. One or more Master Sign Programs and individual Sign Permits may be associated with each development phase. A Sign Permit will be submitted to the Planning Division by the Applicant, or tenant, and reviewed and approved administratively by City staff either after entitlement of a new building(s), or after, or in tandem, with approval of any use permit (e.g. Change of Use Permit, Provisional Use Permit) required for a new tenant. Separate sign permits must be obtained from the Planning and Building Divisions. A Sign Permit from the Building Division cannot be issued prior to the building permit for the associated commercial tenant space.

2. Use Permits. Use permits, such as a Change of Use or Provisional Use Permit, may be applied for, and reviewed in tandem with a PCP permit for new construction, if the tenant uses and operational details are known. Otherwise, a separate use permit can be submitted by the Applicant or tenant, following a PCP permit. Either way, the same City review process applies.

3. Site and Façade Modifications. Exterior modifications to the site or façade, subsequent to the initial PCP approval for the new building, may require a DRP and PCP. Consultation with the project planner is advised prior to submission as some minor modifications may not require a Zoning Permit (e.g. like-for-like replacements), while others may be reviewed by City staff only or require consultation with the DRC. Minor alterations to the building or site may be approved, conditionally approved, or disapproved by the ZA through the development review process per City Code Sections 36.44.65 and 36.50.50.

L4. Construction permits

Building Application Submittal Requirements (includes Improvement Plans and Phased Final Maps)

Each Building Permit Application will include, as of the submittal date of the application:

1. A completed Building application form and the information and materials required on the Submittal Requirements and Checklist for Plan Check for the specific scope of work (e.g. New Mixed-Use Building, Commercial Tenant Improvement, New Commercial Building, etc).
2. Concurrent with the Building application and submitted in tandem with building plans, provide information and materials required on the Submittal Requirements for Improvement Plans checklist and Final Map materials, which includes off-site work (see items in section C of this document).
3. Any application, permit, inspection, or plan check information required for hazardous materials, food service uses, and stormwater and sanitary sewer (C3) requirements from the City's Fire and Environmental Protection Division.
4. Written response to comments on how (or where) each Condition of Approval on the Subsequent Approval Zoning Permit (and Existing Approval entitlement) has been addressed and Mitigation Measures from the Project SEIR, either of which may require additional documentation to be prepared and provided.
5. Depending on scope of work or deferred submittal:
    a. Any supplemental Building/Fire application forms and materials, such as Alternate Materials and Methods Application, Change of Address, Special Inspection and Testing Form, Emergency Responder Radio Coverage System, etc. Note, these forms are typically submitted later in a building permit review process or after issuance of a building permit for new construction.
    b. Any information, insurance, or legal documents necessary to execute required agreements, permits, bonds, etc. for the permit scope or per the Development Agreement.
    c. A completed CC&R Checklist and draft copy of CC&Rs for review by the City, as applicable, for purposes of confirming the CC&Rs address any associated Vesting Tentative Map conditions of approval or Municipal Code requirements. Consult the project planner for the checklist and submit directly to the Planning Division. The CC&R's may also include information pertaining to District Systems.
    d. Provide copies of draft DSTD and DSCT documents for City review. Draft DSTD and DSCT materials may include redactions where necessary to avoid disclosure of nonpublic proprietary information.

Building Plan Check Review

All permits submitted for Building permits will follow the standard building plan check review process as outlined below.

TASK	PROCESS STEP OR ACTION
Pre Application Meeting	The Applicant can request a pre application meeting with Building staff and key Commenting Department staff at any mutually agreeable time prior to submission of a building application.
City Review	City staff will review the Building Permit application and materials for completeness and consistency with Zoning Permit(s) and City Codes and regulations. Offsite improvements and Phased Final Maps are submitted and reviewed in tandem with Building permit applications. Application materials submitted are reviewed by all Commenting Departments simultaneously. If a Commenting Department identifies corrections, missing or incomplete information, inconsistencies with prior approvals or noncompliance with City, State or Federal regulations, then the Commenting Department will deem the building plan check disapproved and provide written comments and/or redlines on the plans. Comments on Improvement Plans/Phased Final Map will be incorporated into the Building plan check comments. The Applicant will resubmit revised materials and/or supplemental information to the Building Division as requested by the Commenting Departments to be rechecked. Once rechecked, Commenting Departments will either deem the submittal approved, disapproved or conditionally approved. The cycle of City review and Applicant revisions repeats until all materials are in good order. Review timelines may be incorporated into a Staffing Reimbursement Agreement. Note: Unless otherwise noted in the plan check comments or communicated by City staff, all materials should be resubmitted to the Building Division for recirculation and review by Commenting Departments.
Project Meetings	At any time throughout building plan check review, Commenting Department staff and the Applicant can arrange meetings to discuss or resolve any aspects of the plan check review comments or materials.
Prior to Building Permit Issuance	Prior to issuance of a building permit, all Commenting Departments must identify the building plan check materials, including Improvement Plans, Phased Final Map, signed agreements, to be complete and in good order. Some of the items that may be required to be completed prior to building permit issuance include, but are not limited to: Improvement agreement Payment of required permit, processing, or impact fees Phased Final Map The Applicant can request to “break out” scopes of work on the same project under multiple building permits (e.g. shoring/ excavation, foundation, superstructure, etc.) as necessary for construction sequencing and for purposes of complying with applicable Conditions of Approval. However, it is at the sole discretion of the Building Division to determine the appropriate permits to issue, including order of permits to be issued, minimum requirements for consideration, timing, etc.
Pre-Construction Meeting	At, or just after, building permit issuance, the Building Division can arrange a pre-construction meeting with the Applicant’s Contractor (and subcontractors) to discuss City construction policies and requirements, City contacts for construction inspections, and other construction-related matters.

Improvement Plan and Phased Final Map Review Process

The Applicant shall prepare Improvement Plans in accordance with Chapter 28 of the City Code, the City's Standard Design Criteria, Excavation Permit Application, Plan Review Checklist, and Improvement Plan Checklist as identified above, and in accordance with Conditions of Approval.

1. Improvement Submittal Requirements. The Improvement Plans will represent design development since the Conceptual Improvement Plans were submitted during Zoning Permit review; or, if not submitted preliminarily during Zoning Permit review, then the complete Improvement Plans will be provided at Building Plan Check review. The Applicant will submit the following, in accordance with the submittal requirements in place at time of submission:
    a. Improvement Plans, including traffic control plans for work within the public roadway and/or easement areas per the Improvement Plans Checklist and Conditions of Approval.
    b. Utility potholing will be provided with a survey to verify the preliminary design established in the Conceptual Improvement Plans is feasible.
    c. An Excavation Permit Application for all applicable work within the public right- of-way.
    d. Any supplemental Public Works application forms and materials for water service, sewer service, excavations, encroachments, easement vacations, etc.
    e. The Applicant will also provide a Conditions of Approval matrix documenting how each comment received as part of the Conceptual Improvement Plans has been addressed, or, why any particular comment has not been incorporated, along with responding to Conditions of Approval for the Subsequent Zoning Permit approval.

2. Phased Final Map Submittal Requirements. The Phased Final Map will substantially conform to the parcelization as shown in the Vesting Tentative Map. The Applicant will submit the following, in accordance with the submittal requirements in place at time of submission, unless otherwise provided for in the Development Agreement, or, for phased Final Maps of land to be conveyed to the City per the Existing Approvals:
    a. Phased Final Map, closure calculations and other map references per the current Map Submittal Checklist and pursuant to City Code Section 28.7.20.
    b. Current Title Report, less than six months old.
    c. Plat and Legal descriptions of all easements to be vacated.
    d. Plat and Legal descriptions of all easement or land dedications to be provided as required in the Existing Approvals.
    e. The Applicant will prepare a Subdivision Conditions of Approval Compliance matrix of the vesting tentative map conditions and identify in writing how the proposed Phased Final Map or other documents satisfy the Conditions of Approval.

L5. Inspection

City inspections will be required throughout construction. City Departments identify inspections that are required as part of the issued permit(s). Inspections are the responsibility of the Applicant to schedule with the appropriate City Department at the times noted on the issued permit(s), unless expressly scheduled by the City Department for routine inspections (e.g. monthly inspections). Outside agencies may also require inspections on permitted work or oversight responsibilities, which the Applicant is responsible to coordinate directly with the responsible agency.

L6. Occupancy

The Applicant may request occupancy of a building(s) where construction has been substantially completed, and may request phased occupancy. The Applicant will coordinate with the Building Division for requests for occupancy, including temporary or final. Requests for occupancy are coordinated by the assigned City Building Inspector for the permit, who will coordinate with all appropriate City Departments. Any issuance of Temporary Certificate of Occupancy is at the sole discretion of the Chief Building Official.

L7. Business licenses

All businesses within the City of Mountain View, including contractors and subcontractors, are required to obtain a business license to operate, whether located within the City or completing work within it. Business licenses are administratively processed and can be obtained through the City's Finance Department. Business licenses are required to be renewed annually.

L8. Modifications to existing approvals

Modifications to Existing Approvals will be considered per the process outlined in the Project Administrative Procedures.