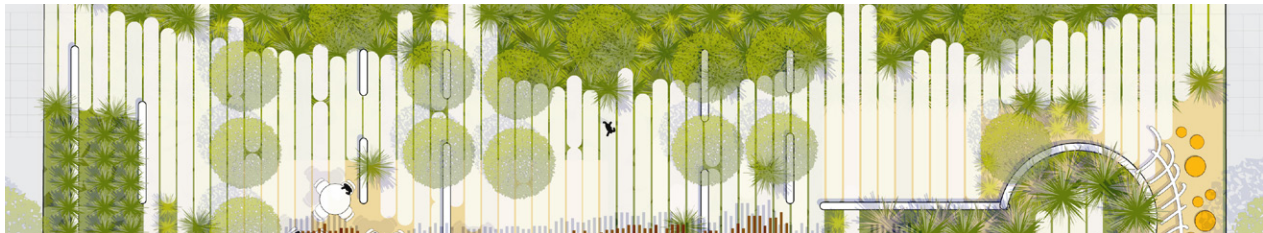


DOGPATCH 22ND STREET GREENING MASTER PLAN



FOR A GREENER SAN FRANCISCO CENTRAL WATERFRONT

GreenTrustSF
CENTRAL WATERFRONT
A SAN FRANCISCO PARKS TRUST PARTNER



TEAM MEMBERS

PREPARED FOR:



GreenTrustSF - Central Waterfront
A community-based non-profit
a San Francisco Parks Trust partner

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Dedicated to civic engagement and
philanthropy to enhance and protect the
parks,open spaces, and recreational
activities that are vital to the health and
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INTRODUCTION



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October
2010

In early 2007, the newly founded **GreenTrustSF-Central Waterfront** embarked on an ambitious goal of creating a Green Blueprint for the entire area bounded by Interstate 280, Mariposa Street, Illinois Street and Cesar Chavez Boulevard. This land area, known variously as Eastern Potrero Hill, Dogpatch and/or the Central Waterfront, has been zoned, in the City’s Eastern Neighborhoods Plan, to allow for a more densely developed mixed-use neighborhood. A rich historic fabric of industrial uses alongside smaller-scale residential uses characterizes this area but, because of that historic industrial use, there is a dearth of parks and landscaped open spaces compared with other neighborhoods in the City.

The **Dogpatch 22nd Street Greening Master Plan** and future Green Blueprint are intended to assist property owners, developers, and neighbors plan for and create new green spaces. They will add to everyone’s enjoyment of the greater Central Waterfront neighborhood. An enhanced green infrastructure will also provide habitat for birds, butterflies and other wildlife, and will help to mitigate storm/rain run-off by increasing the amount of unpaved land.

The wider goal of **GreenTrustSF** is to plan and help implement a new green infrastructure, one that enhances existing open spaces and encourages the creation of new green streetscapes and parks.

The completion of the **Dogpatch 22nd Street Greening Master Plan** is the first step in realizing the Green Blueprint for the Central Waterfront. We hope you find it inspiring and useful.

Board of Directors, GreenTrustSF

- Stephen Antonaros, Vice Chair
- Janet Carpinelli, Chair
- Loring Sagan, member-at-large
- Mark Walther, Treasurer
- Ralph Wilson, Webmaster

GREENTRUST SF CENTRAL WATERFRONT: FEATURE PROJECTS



Warm Water Cove Park Cleanup
This project involved the cleanup and creation of two native plant gardens in San Francisco’s central waterfront at 24th Street at San Francisco Bay. The project and clean up started in August 2007 and was completed in September 2008.



Aqua Vista Park Earth Day Clean-up and Planting
The project is located at Terry Francois Blvd, north of Mariposa Street. It involved the clean up of a neighborhood park and the planting of native shrubs. It took place in April, 2008.



OVERVIEW

The Dogpatch 22nd Street Greening Master Plan is the result of a 2-year effort by GreenTrustSF - Central Waterfront, the Dogpatch community, and interested neighbors to create a plan for improvements to 22nd Street between Pennsylvania Avenue and Third Street. The Master Plan envisions 22nd Street as a unique corridor that is a central part of the Dogpatch neighborhood and important connector street between Potrero Hill, to Dogpatch and the eastern waterfront. It also serves to connect travelers between Third Street, and the Light Rail station, and the 22nd Street Caltrain station.

This Master Plan has been developed through a collaborative, systematic, and contextually sensitive approach that respects the inherent eclecticism of the neighborhood while enhancing its overall character, and performance. The goal of turning 22nd Street into a model green street is accomplished through the maximization of ecological, safety, and community benefits. The design tools presented in this plan each serve multiple functions and work together as an network.

This Master Plan follows the plan for a network of connected green streets and boulevards, as proposed by the Eastern Neighborhoods Plan for the SF Central Waterfront prepared by the SF Planning Department (<http://www.sf-planning.org>). By capitalizing on San Francisco’s recent planning initiatives such as Better Streets, Pavement to Parks, Sunday Streets and Street Parklets, the plan accomplishes a range of citywide goals. By using the Best Management Practices as defined by The San Francisco Public Utilities Commission, the plan ensures a high level of positive environmental benefit (<http://www.sfwater.org>).

GOALS

Help to minimize sewer/storm water overflows into the Bay:
22nd Street shall be modified to retain a greater percentage of water during big storms. This helps reduce overflows into the Bay from the City’s combined storm water and sewer infrastructure, and also reduces local flooding problems.

Provide open space:
22nd Street can complement and link to the larger open space green network, bringing more open space to the underserved areas in the Eastern Neighborhoods.

Support 22nd Street as a local shopping district with small businesses:
A street system that encourages people to walk to neighborhood commercial districts—rather than drive to regional shopping centers—for their daily needs, helps to support the small commercial areas and businesses that make up an essential part of San Francisco’s character.

Support community, civic interaction, and identity:
Properly planned, neighborhoods can foster peaceful interactions of neighbors, colleagues, and strangers who share a collective identity and pride as the residents of a place.

Enhance the everyday quality of life for San Francisco’s residents:
Above all, a well-designed street system throughout the Dogpatch neighborhood will enhance its livability, providing lively places to stroll or sit, opportunities for friendly interaction, freedom from excessive noise and pollution, and an attractive cityscape/greenscape for San Francisco’s residents.

Decrease the likelihood of pedestrian injuries and fatalities:
Streets that are designed with the safety of pedestrians in mind will decrease the likelihood of pedestrian/auto collisions, and the number of pedestrian injuries and fatalities that occur each year.

STRATEGIES

- Connect the community
- Leverage existing policies and planning proposals as prerogatives for enactment of master plan.
- Jump-start the transformation of 22nd Street as envisioned by the Central Waterfront Plan.
- Connect 22nd Street to the Expanded Green Street Network as proposed by the Eastern Neighborhoods Plan.

METHODS

- Develop a kit of parts consisting of contemporary best practices.
- Utilize Best Management Practices as advocated by the San Francisco Public Utilities Commission.

OBJECTIVES

Environmental

- Improve water quality
- Expand landscaped areas
- Increase native vegetation planting
- Increase biodiversity
- Recharge ground water
- Improve air quality

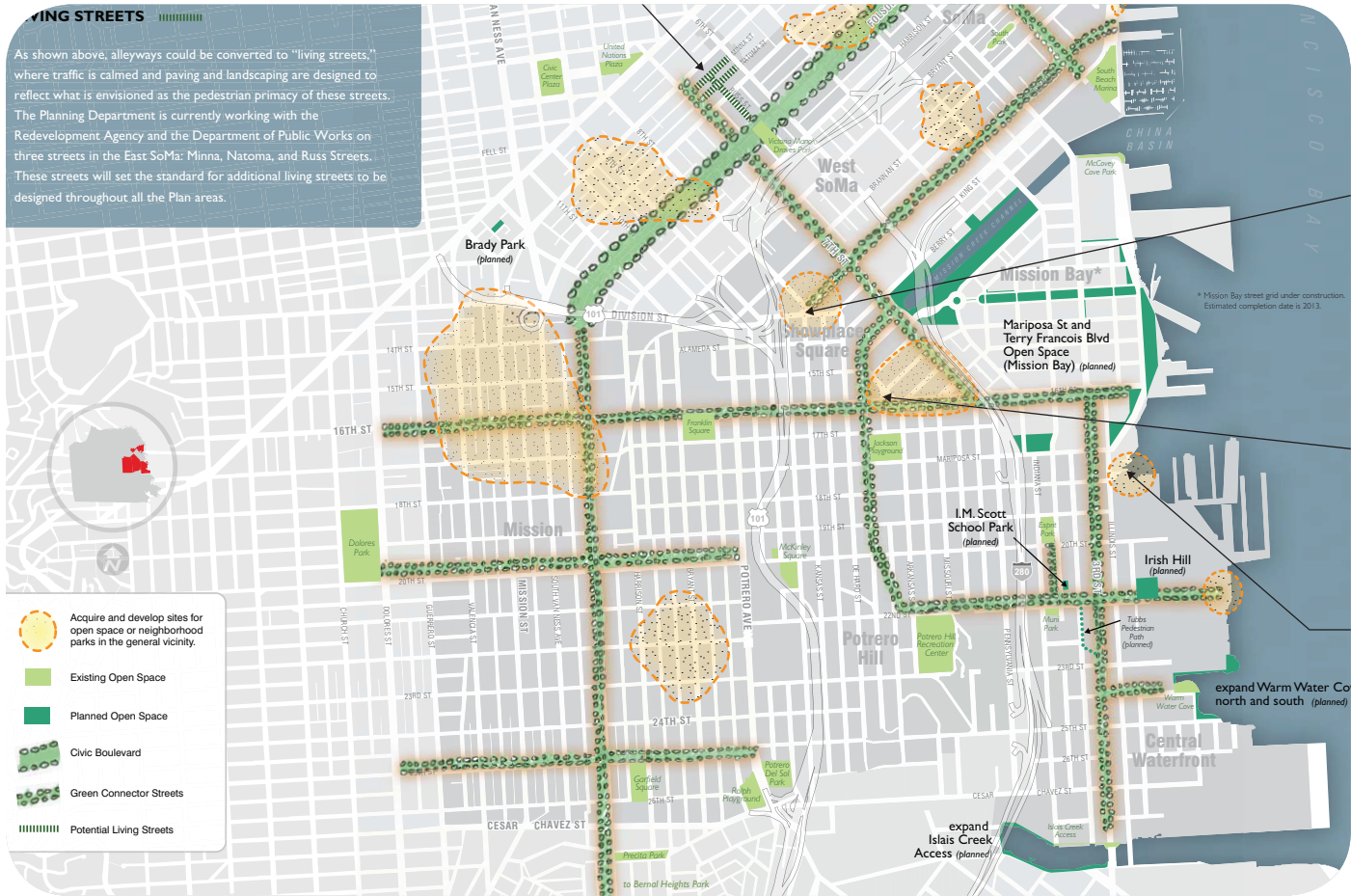
Community

- Create a vibrant main street for the Dogpatch neighborhood
- Enhance public space
- Increase property value
- Add public use amenities
- Upgrade Muni Mini Park

Safety

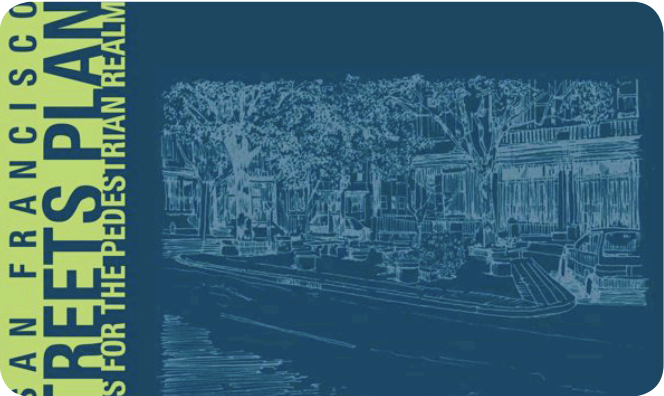
- Create a safe pedestrian, cyclist, and transit street
- Calm and reduce vehicular traffic

EASTERN NEIGHBORHOODS MASTER PLAN



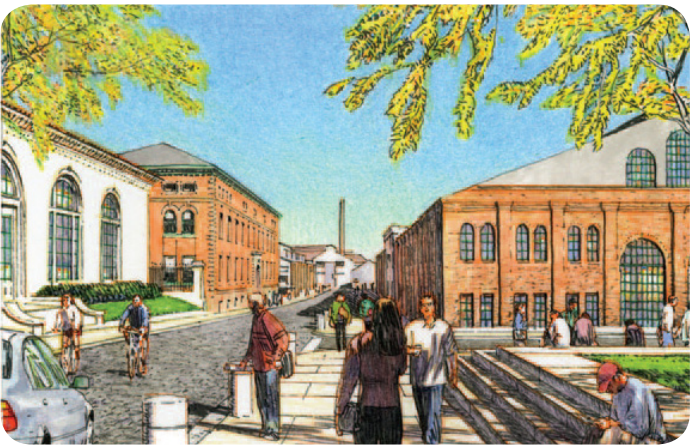
The Central Waterfront Area Plan proposes an open space network of “Green Connector” streets, with wider sidewalks, places to sit and enjoy, significant landscaping, and gracious street trees that would provide linkages between larger open spaces and provide the recreational and aesthetic benefits of these spaces to the eastern neighborhoods of San Francisco. As indicated in the plan: Connecting 22nd Street to the larger Central Waterfront neighborhood and to the proposed Pier 70 redevelopment provides an opportunity for greening. Streets can and should provide important and valued additions to the open space network and aesthetic quality of the area. The Eastern Neighborhoods Plan will generate amendments to the planning code to make more explicit the requirements of private developers to construct and maintain a more enjoyable, more beautiful pedestrian environment. In addition to these general streetscape improvements along streets, specific design interventions should also be considered for major intersections. As evidenced throughout the Plan Area, where major intersections are often two streets of speeding through-traffic framed on four corners by single-story buildings, these places are unfriendly to the walker and cyclist. To better foster a sense of place and to improve the pedestrian experience, significant public space improvements—such as bulb-outs and landscaping treatments—should be focused at these intersections. The design and maintenance of all streets throughout the Plan area should be guided by the Better Streets Plan and the Pier 70 Plan , which provide direction on how to improve the overall urban design quality, aesthetic character, and ecological function of the City’s streets while maintaining safe and efficient use for all modes of transportation. (<http://www.sf-planning.org/index.aspx?page=1673>).

BETTER STREETS PLANS



The Better Streets Plan will result in a street system designed to promote human needs for the use and enjoyment of public streets. It will prioritize the needs of walking, bicycling, transit use and community life. The Better Streets Plan will result in streets where people walk and spend time out of choice—not just necessity—because streets will be memorable, engaging, safe, accessible, healthy, attractive, fun, and convenient. The Better Streets Plan will result in a green network that enhances the City’s long-term ecological functioning and people’s connection to the natural environment. Finally, the Better Streets Plan will result in improved street-based social opportunities, community life, access, and mobility for all San Franciscans, regardless of cultural identity, income group, neighborhood identity, or mobility level (<http://www.sf-planning.org/ftp/BetterStreets/index>).

PIER 70 MASTER PLAN



The Port of San Francisco’s Pier 70 Preferred Master Plan envisions a vibrant and authentic historic district that re-establishes the historic activity level, activates new waterfront open spaces, creates a center for innovative industries, and integrates ongoing ship repair operations. This vision combines the legacy of the past and the vitality of the existing shipyard with sustainable and economically viable infill development, while rehabilitating Pier 70’s historic buildings. Pier 70’s future public realm will include major waterfront open space, including parks, shoreline access areas, and a fabric of buildings, streets, courtyards, and pedestrian ways that reflect Pier 70’s distinctive historic character (<http://pier70sf.org/future/planning>).

PAVEMENT TO PARKS



16th Street & 8th Street



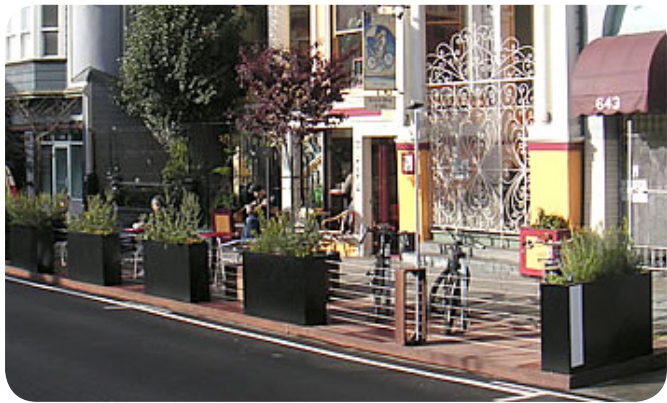
San Jose Street & Dolores

San Francisco's streets and public rights-of-way make up fully 25% of the city's land area, which is greater than the total space comprised in all of the city's parks. In order to ameliorate this imbalance, the City has converted intersections to parks. San Francisco's new "Pavement to Parks" projects seek to temporarily reclaim these interstitial spaces by quickly and inexpensively turning them into public plazas and parks. As in the above example, these projects enclose this "extra" space for public use with the help of large scale planters.

PARKLETS



22nd Street & Bartlett Street



Divisadero Street & Grove Street

A Parklet is a new type of 'Pavement to Parks' Project begun in 2010. Instead of reclaiming a piece of underutilized roadway at an intersection, Parklets repurpose two to three parking spaces along a block as a space for people to relax, drink a cup of coffee, and enjoy the city around them. Parklets do this with a built-out platform that extends into the parking lane. On the platform, benches, planters, landscaping, bike parking, and café tables and chairs all provide a welcoming new public space.

FLEXIBLE PARKING



Columbus Street & Green Street



Columbus Street & Green Street

In this approach -flexible parking- car parking spaces are converted to other uses—from cafe seating to greenery. San Francisco is implementing this concept in many parts of the City. The San Francisco Green Streets Plan demonstrates the future of what an official "flexible parking space" will look like. These spaces would be built with a secure platform that extends the curb, but can be easily removed to provide for parking when necessary.

SUNDAY STREETS



24th Street & Folsom Street



24th Street & South Van Ness Avenue

Sunday Streets occur monthly during the summer, when the City temporarily closes certain streets to automobile traffic and re-designates them for walking, cycling, skating, and playing. This creates safe, fun, car-free space on city streets that gives San Francisco residents and visitors an opportunity to be active, without having to compete with vehicular traffic. Sunday Streets events create a stronger sense of community in every neighborhood they touch throughout the City.

NOE STREET



Project Goals:
Traffic Calming
Street Greening
Community Building

Location: San Francisco, CA
Date: 2008
Size: 4 Blocks

Client: CA Pacific Medical Center

Streetscape Components

-  Planters
-  Bulbouts
-  Chicanes



This project sought to increase pedestrian and bicycle safety by installing bulb-outs and widening the sidewalk in three locations. It also added angled parking on Noe Street between Duboce Avenue and 14th Street. The plan aimed to help reduce speeding while also retaining the existing tree islands on each end of the block. These spaces also serve as social and common space zones.

SW 12TH AVENUE






Project Goals:
Infiltrate Stormwater
Street Greening

Location: Portland, OR
Date: Summer 2005
Size: 2 Blocks

Client: Portland State University

Streetscape Components

-  Chicanes
-  Infiltration Trenches
-  Tree Basins



This project uses landscaped planters to capture and infiltrate approximately 8,000 square feet of street runoff, while still maintaining strong pedestrian circulation and on-street parking. The project demonstrates how urbanized areas can be designed to provide direct environmental benefits and be aesthetically pleasing.

2ND AVENUE NW

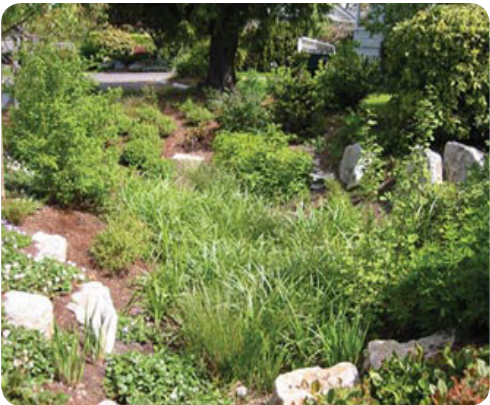


Project Goals:
Infiltrate Stormwater
Street Greening

Location: Seattle, WA
Date: 2001
Size: 3 Blocks

Client: Seattle Public Utilities

- Streetscape Components:
- C Chicanes
 - I Infiltration Trenches
 - T Tree Basins



SEA streets are designed to provide drainage that closely approximates the hydrology prior to development. To accomplish this, impervious surfaces were reduced to 11% less than a traditional street, provided surface detention in swales, and added native trees and shrubs. Two years of monitoring show that SEA Streets have reduced the total volume of stormwater leaving the street by 99% (City of Seattle).

SHOTWELL STREET



Project Goals:
Reduce Hardscape
Infiltrate Stormwater

Location: San Francisco, CA
Date: March 2005
Size: 1 Block

Client: DPW, PUC, PlantSF

- Streetscape Components:
- D Permeable Driveways
 - T Tree Basins
 - I Infiltration Trenches



By converting to permeable paving and adding sidewalk planters, this block is able to greatly reduce stormwater loads on the city's combined sewer system. Instead of entering the sewer, rainwater is now permitted to penetrate the exposed soil, and nourish plants. Plantings were done during the wet season and no irrigation was provided or required.

LINDEN ALLEY





photos by Winslow Architecture

Project Goals:
Traffic Calming
Community Building

Location: San Francisco, CA
Date: 2010
Size: 1/4 Block

Streetscape Components:

-  Planters
-  Tree Basins



In a neighborhood under-served by parks, and gridded with high-volume traffic corridors, the conversion of this portion of Linden alley into a pedestrian-friendly, green street offers places for people to sit and gather. The raised roadbed slows traffic, while putting people on the same footing as cars. Paved with a uniform permeable material, the widened sidewalks are separated and defined from the vehicle lane by planting and granite curb seating.




LELAND AVENUE



Project Goals:
Traffic Calming
Community Building

Location: San Francisco, Ca
Date: September 2010
Size: 4 Blocks

Streetscape Components:

-  Chicanes
-  Infiltration Trenches
-  Tree Basins



The Leland Avenue Streetscape Improvement Project includes 63 newly planted trees, 30 accessible curb ramps, 15 corner bulb-outs, 45 pedestrian light fixtures, sidewalk and street repaving, decorative-stamped crosswalks to promote pedestrian safety, sidewalk furniture and public artwork called “Street Life” commissioned by the SF Arts Commission and designed by Rebar. A large part of the project includes the addition of stormwater management facilities. These improvements enhance the community’s identity and appearance, increase economic vitality, improve pedestrian safety and promote public transit.

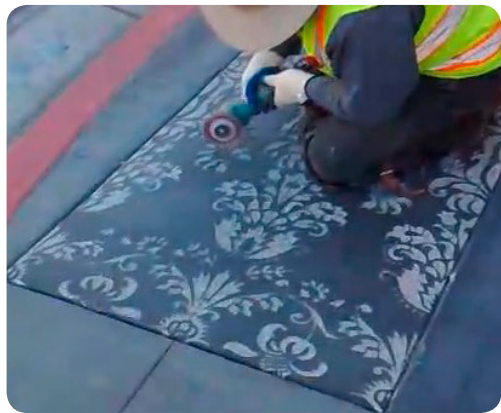
VALENCIA STREET



Project Goals:
Community Building
Traffic Calming

Location: San Francisco, CA
Date: 2010
Size: 4 Blocks

- Streetscape Components:
- Planters
 - Bulbouts
 - Chicanes



The Valencia Project included the replacement and addition of 76,000 square feet of sidewalk and the installation of pedestrian bulbouts to provide traffic calming, facilitate street crossing and add space for gathering. Additional improvements included the planting of 106 Brisbane Box and London Plane trees along the sidewalks, new trash receptacles, 69 bike racks, 32 wheel chair accessible curb ramps, 26 roadway scale lights and 46 pedestrian scale lights

VAN NESS AVEUNE



Project Goals:
Infiltrate Stormwater
Street Greening

Location: San Francisco, Ca
Date: Spring 2010
Size: 1 Block

- Streetscape Components:
- Infiltration Trenches
 - Tree Basins



The Van Ness Avenue enhancement project is in the Civic Center area, from Market to McAllister Streets. It includes widening and landscaping the center median from Market to Fell Streets. Together with raised planters of blooming shrubs and new street trees, accented by decorative paving and ornamental metal rails—Van Ness Streetscape Improvements enhances the grand historic character of this important district.



HISTORIC COASTLINE OF THE EASTERN WATERFRONT



LONG BRIDGE 1867



IRISH HILL AND COASTLINE EARLY 1900s



EASTERN PORTION OF SAN FRANCISCO 1892

What is now Dogpatch has a long record of human history dating from the local Native American residents of pre-European contact days to the present day. From 1776 until after the end of Spanish rule in 1821, all of Potrero Hill was used for grazing by Mission Dolores to rear livestock for the Mission and the military garrison at the Presidio of San Francisco. In 1833 the Mexican government secularized the missions of Alta California. Although partly intended to free the indigenous people of California from peonage, the concurrent patenting of vast ranchos by the Mexican government resulted in the division of Mission Dolores' land amongst the powerful descendents of the original Spanish settlers.

All of what is now Potrero Hill, including Potrero Point, became part of a vast ranch known as Rancho Potrero de San Francisco, or simply Potrero Nuevo. Potrero Nuevo was granted to the sons of Francisco de Haro, the first alcalde of San Francisco, and its boundaries were the same formidable natural features that have traditionally isolated the neighborhood from the rest of the city. Potrero Nuevo was ideal pasturage as it needed little fencing due to the presence of considerable natural boundaries, including Mission Creek to the north, San Francisco Bay to the east, Islais Creek to the south and the western escarpment of Potrero Hill to the west. Although the Gold Rush pushed settlement south of Market Street to Steamboat Point, access to Rancho de Potrero Nuevo was hindered by the shallow tidal flats of Mission Bay. Nonetheless, this geographic isolation did not stop squatters from attempting to settle the steep slopes of Potrero Point, a 100-foot-tall arm of Potrero Hill that projected eastward into the Bay.

Given the isolation of Potrero Nuevo, the first pilings for Long Bridge (now part of Third St) were driven off Steamboat Point in February 1865 and the Potrero connection was completed near Mariposa Street in 1867. Long Bridge was extended, via Kentucky Street (now Third St), across Islais Creek to Bayview in 1868. The completion of Kentucky Street across Potrero Point was only accomplished through massive blasting efforts, which were needed to remove portions of a large vein of serpentine rock that connected Potrero Point with the rest of Potrero Hill. In this first major alteration of the physical shape of Potrero Hill, over 100,000 cubic yards of rock were removed. Within a few months of the bridge's completion, horse car lines operated by the Potrero and Bayview Railroad were in operation on Long Bridge, connecting downtown San Francisco with Potrero Point for the first time in its recorded history.

Railroads played a decisive role in the physical development of Potrero Point, and what is now Dogpatch, during the last quarter of the 19th century and the first half of the 20th century. From the late 1880s until the end of the Second World War, Union Iron Works was the most important industry on Potrero Point and the largest employer of local residents, employing anywhere between a quarter to half of the neighborhood residents. It was also the most important manufacturing industry in San Francisco and the West Coast from the latter half of the 19th century until the First World War.

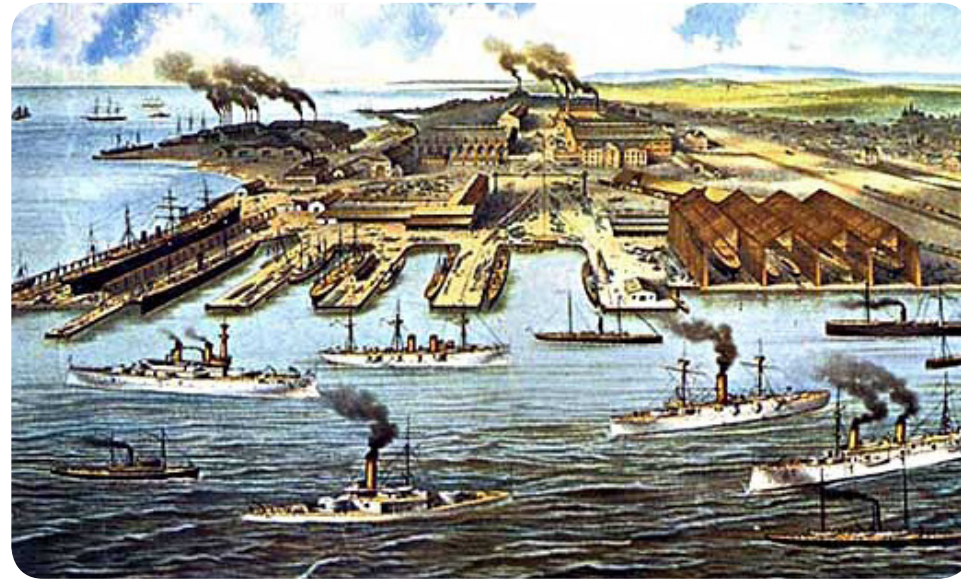
Excerpt from John Borg, former Dogpatch resident

San Francisco's oldest existing public school building, Irving M. Scott School, was built in 1895 to serve the children of Dogpatch. The three-story wooden structure, named for the head of the nearby Union Iron Works ship yard, still stands at 1060 Tennessee Street. Just up the street at 1009 Tennessee is one of the City's oldest firehouses. A handsome two-story brick building, San Francisco Firehouse No. 16 was originally constructed in the late 1890s, when fire wagons were powered by teams of horses.

Excerpts from Christopher Ver Planck "The Story of Dogpatch" <http://pier70sf.org/dogpatch/DogHistSig.htm>



IRISH HILL 1890s



SHIP BUILDING @ POTRERO POINT EARLY 1900s



SHORELINE 1970

According to a 1999 survey conducted by the Foundation for San Francisco's Architectural Heritage, the residents of Dogpatch rented or owned their housing in nearly equal proportions until after World War II, when absentee owners began to buy up the housing stock. Almost three-quarters of heads of households in Dogpatch worked for one of the district's large employers, such as Union Iron Works/Bethlehem Steel, the Western Sugar Refinery, and Tubbs Cordage Company.

More recently, all of the existing historic buildings and culturally significant artifacts remaining in Dogpatch have been carefully researched, photographed, and cataloged by volunteers from the neighborhood and the Foundation for San Francisco's Architectural Heritage. Together, they succeeded in having the neighborhood officially declared an historic landmark district in 2005.

By the mid-1940s, the Central Waterfront's glory began to fade, and Dogpatch was hard hit by a long, slow period of industrial decline. The local shipbuilding industry died out after World War II. The maritime industry diminished as shipping went to bigger, more modern ports in Los Angeles, Oakland, and Seattle. Factories closed. Workers moved away, and many homes and factories were demolished. By the 1950s and 1960s, Dogpatch gradually changed from a proud working-class community into a physically blighted area.

The Dogpatch neighborhood began to experience an urban renaissance of sorts in the late 1970s, at a time when arson, decay, and demolitions were reaching epidemic proportions. A diverse collection of people, including many artists and creative professionals, purchased run-down but affordable Victorian cottages and Edwardian flats in the area. They fixed up the neglected properties and transformed the once-dying area. New types of business and industry discovered the special charm of Dogpatch, and moved in, too. Esprit Corp. transformed an old wine warehouse on Minnesota Street into the headquarters of a world renowned fashion and lifestyle company.

By the mid-1990s, after twenty-five years of gradual change, a rapid wave of development started taking place, mostly in the form of "live-work" loft units. Hundreds of these units were built in a few short years. Much of the development occurred on empty lots, but by the late-1990s preservationists noted a disturbing trend: historic structures and warehouses were destroyed to make way for new loft developments.

Other major projects nearby influenced the growth in and around Dogpatch, including the baseball park, the UCSF Medical Research Center, and Mission Bay, the largest mixed-use project ever approved in San Francisco. A new high-capacity light-rail line along the Third Street corridor was completed in 2006, prompting further growth and development.

Today, Dogpatch is a neighborhood in transition. It maintains an offbeat, quaint, populist appeal, dating back to its working-class roots. But as the mix of residents and businesses continue to change, the character of the area could soon disappear unless steps are taken to save it. Neighbors hope that planners and developers will build from the legacy of Dogpatch's colorful past in guiding the district to an even brighter future. San Francisco will lose more than it can afford if it does not protect this vibrant urban neighborhood and its extraordinary monuments to an earlier time.

Excerpts from Christopher Ver Planck "The Story of Dogpatch" <http://pier70sf.org/dogpatch/DogHistSig.htm>

ANALYSIS



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22ND STREET - VIEWING EAST



HISTORIC DISTRICT



VEGETATION DIVERSITY



ESTABLISHED RESTAURANTS



PUBLIC TRANSIT



ENTREPRENEURIAL CULTURE



MUNI MINI PARK



MUNI WOODS DIVISION CABLE CAR PRODUCTION

22nd Street has many attributes that will contribute to the creation of a vibrant mixed-use community street.

- Dogpatch is a designated city Historical District with a vibrant history.
- The area is served by multiple forms of transit, two bus lines, the Third Street Light Rail and a Caltrain Station.
- The area is home to many businesses which are leaders in their markets and amongst the community.
- 22nd Street is wide and can accommodate expansion of the sidewalks.
- 22nd street is warm and sunny, as the prevailing winds are blocked by Potrero Hill to the west, and the street receives ample sunlight due to the low heights of the buildings on the south side.
- Many of the trees are mature, and there is a variety of existing vegetation growing along the street.
- The Muni mini-park has the potential to anchor the street and provide an accessible plaza space for community gathering.

Given all of these strong characteristics, 22nd Street has become the main street of the Dogpatch neighborhood and will continue to serve as the Dogpatch downtown district.



WIDE STREET (22nd Street-viewed looking east)



MUNI MINI PARK



DAMAGED SIDEWALKS



OVERHEAD POWER LINES



SHORT CUT TRUCK ROUTE



STORM DRAIN FLOODING



MINIMAL STREET VEGETATION



280 OVERPASS

22nd Street, while eclectic and unique, faces challenges.

- Wide streets facilitate faster driving, decreasing pedestrian safety.
- Residents are forced to regularly maintain the street by clearing debris from the storm drains and curbs.
- Storm drains become clogged with detritus such as leaves and waste, resulting in flooding in the streets.
- The lack of street vegetation and permeable surfaces contribute to the poor street drainage, causing flooding in front of many residences and businesses.
- Overhead power lines makes it difficult for street trees to reach their mature size.
- The proximity of the 280 freeway overpass presents a number of challenges: the underpass is an unfriendly space for pedestrians and the freeway is a source for water, air, particulate, and noise pollution.
- Muni Mini Park is underused and neglected. Some of the park's infrastructure has been removed, resulting in undesirable conditions. The park is comprised primarily of hardscape materials causing it to be impermeable to rainfall and channeling a large amount of rain runoff into the street.

While these problems present challenges to the realization of the street's full potential, they are all easily remedied with the implementation of a combination of renovations and projects which can be undertaken over time.

ANALYSIS

Analysis was undertaken to investigate the various factors that affect the street character of 22nd Street. The following analytical maps are based on direct observation and recording. By maintaining a street-level view of the site, the Master Plan is able to reflect the unique character of 22nd Street and respond accordingly.

Existing Surface Use:
Parking: 81-86 spaces
Public Space: 31,200 s.f.

Road Space: 54,600 s.f.
Landscape Area: 620 s.f. (Muni Park)

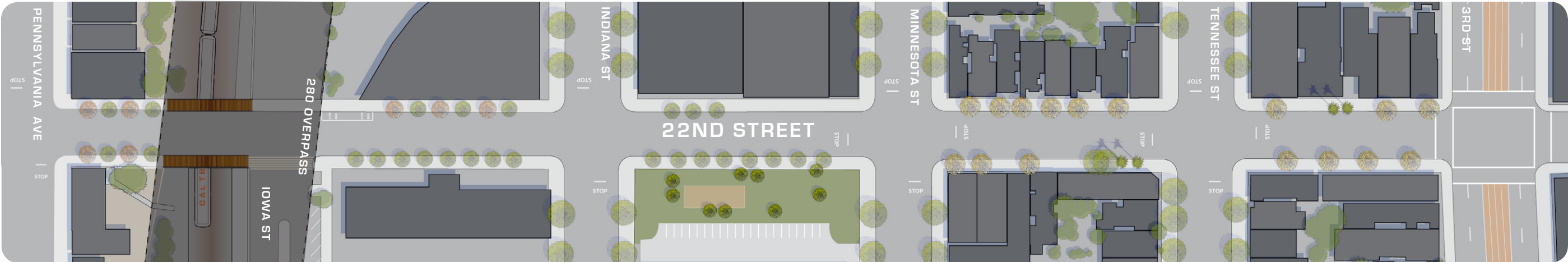
*Square Feet = s.f.



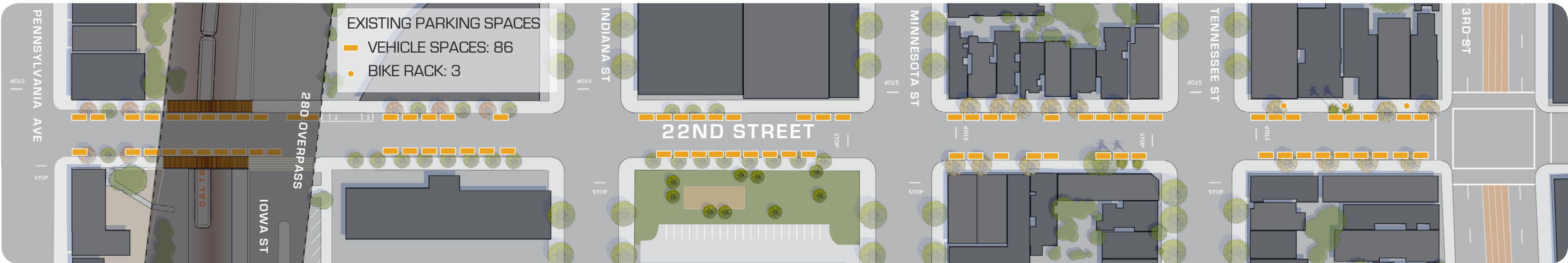
VIEW EAST FROM 280 OVERPASS



VIEW WEST FROM 3RD STREET



EXISTING PLAN



EXISTING PARKING

LAND USE

- Street Level Land Use
- Industrial
 - Commercial
 - Residential
 - Mixed Use
 - Church
 - Open Space

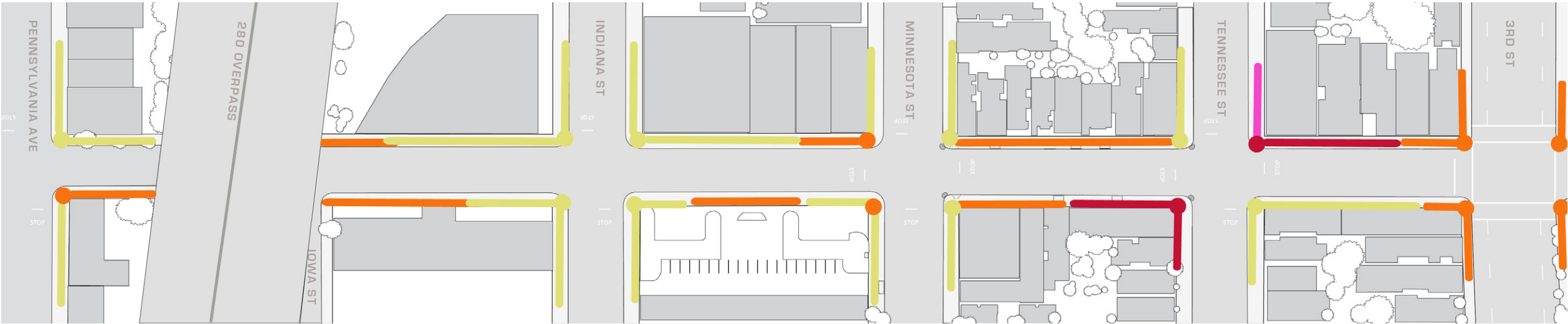
- General Land Use
- Industrial
 - Commercial
 - Residential
 - Mixed Use
 - Church
 - Open Space



Land use along 22nd Street is diverse and asymmetrical. The Western-most section of the street, from Pennsylvania to Minnesota, has the least diverse land uses. It has long industrial and commercial frontages, with the fewest individual land owners. With the 280 underpass and the existing Muni Mini Park, this area has great potential for the establishment of new open spaces and the improvement of the existing park. The east portion of the street, from Minnesota to 3rd Street is has a very diverse array of land-uses and is a true mixed use zone.

USE INTENSITY

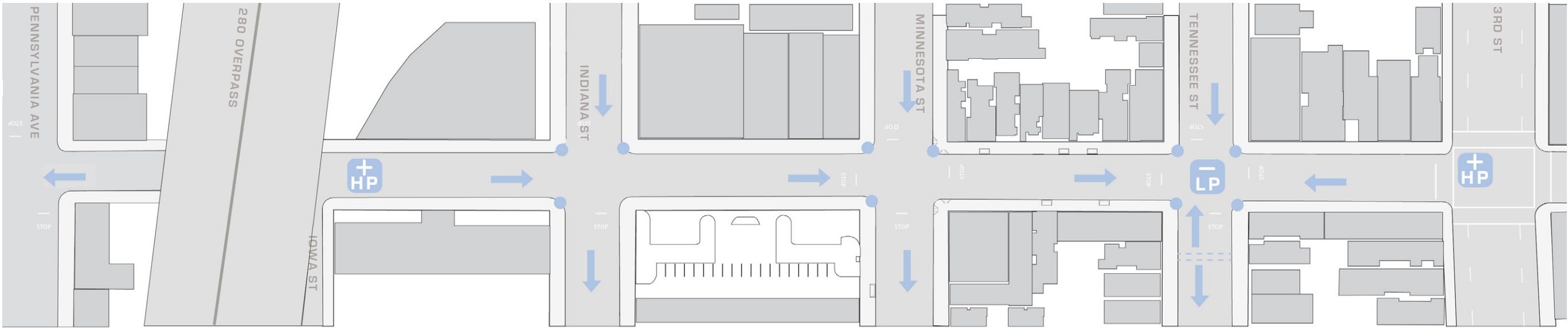
- High
- Moderate
- Low



This mapping represents on-the-ground observations of the site at various times of day to determine intensity of use. The East section, from Pennsylvania to Minnesota, is used by Caltrain commuters, and has a number of bus stops that support Muni riders. Muni buses idle in front of the Muni headquarters. The Muni Park often has dogwalkers and individuals eating lunch or enjoying the sun. The most intense use occurs in the eastern section of the street. With restaruants, bars, and coffee houses, this is a heavily populated zone throughout the day. Existing restaurants at Tennessee Street provide cafe seating and enliven the sidewalks, which have become a successful social gathering space. The lack of parking and traffic law enforcement in this area has lead to frequent double-parking in this section.

DRAINAGE

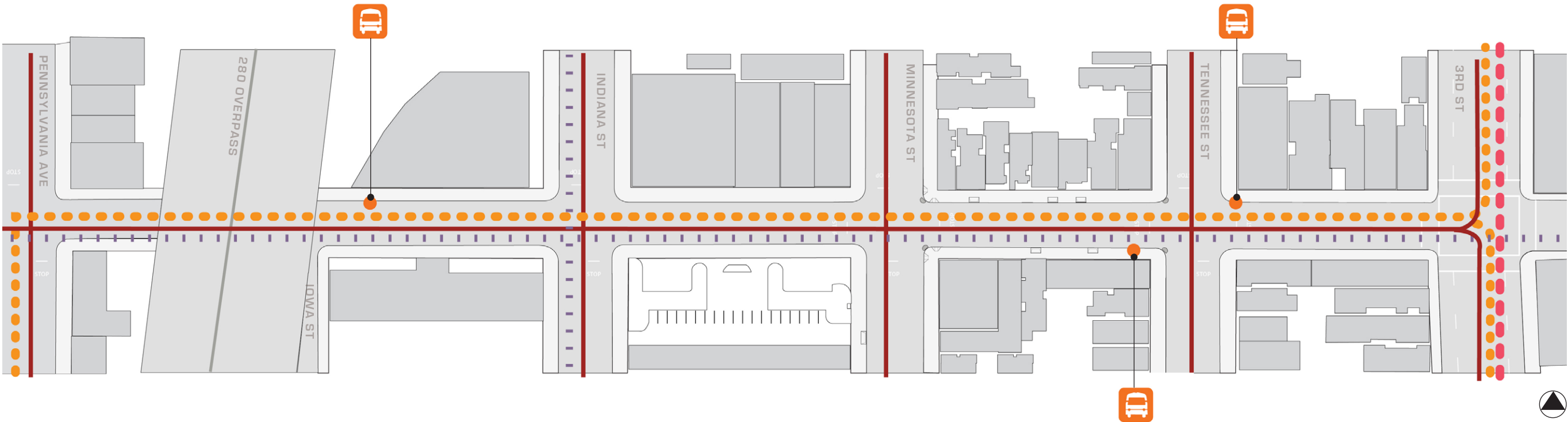
- Storm Drain
- Elevation High Point
- Elevation Low Point
- Water Flow



This stormwater drainage map was prepared from the existing street survey. At present, the street drains into 24" diameter surface mounted grates at the locations shown. Chronic flooding areas include the Northwest corner at Indiana and the West corners at Tennessee. Drainage at these locations is more intense due to steeper street gradients and the focusing of water from many directions. Many individuals have mentioned stormwater backup at other locations along the street, which are often cleared by business owners and residents. The horizontal grates become blocked by leaves and newspapers. Though the sidewalks have trees and at-grade planters, it could be made more pervious with permeable paving and the use of structural soil and sidewalk best management practices.

CIRCULATION

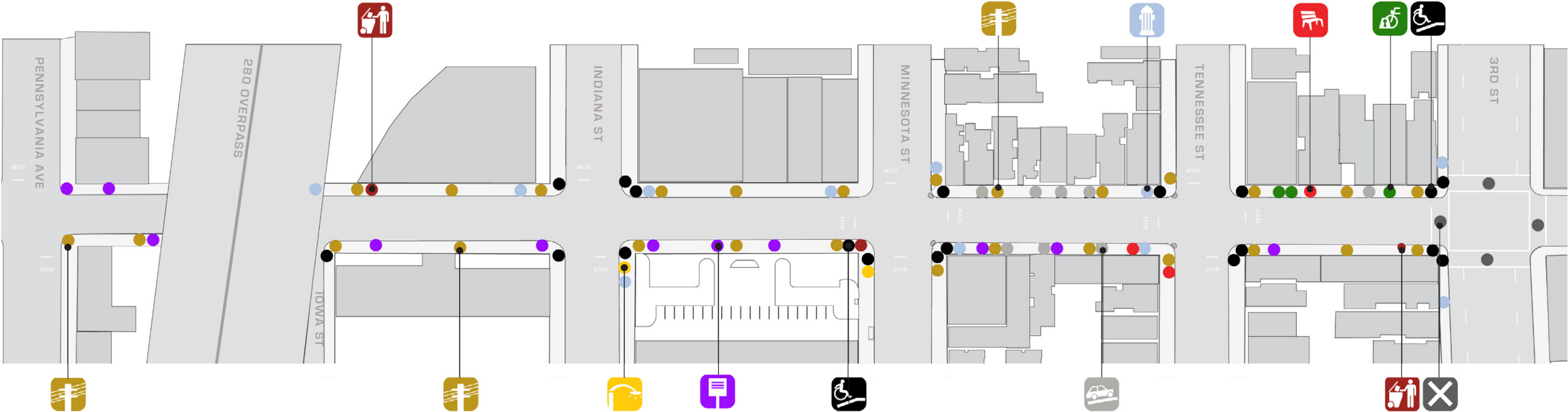
- Muni Bus (43)
- Light Rail (T)
- Vehicle
- Bicycle
- Bus Stop



22nd Street serves as secondary artery to 3rd Street and is host to diverse modes of transportation, for local and regional commuters. To the west, beneath the 280 overpass is a Caltrain stop and rail line. The Muni headquarters is on 22nd Street at Indiana Street, and the Light Rail T line runs along 3rd Street. The 22nd Street serves as an important link for bicyclists who connect to Illinois Street as a conduit to SOMA and downtown San Francisco. Parking is heavily impacted by commuters, who come to catch the Caltrain in the mornings. As noted in the following Street Components diagram, there are few bicycle racks on the street.

STREET COMPONENTS

- Cross Walk
- Driveway
- Ramp
- Bike Rack
- Traffic/Parking Sign
- Street Lamp
- Power Pole
- Fire Hydrant
- Trash
- Furniture



This mapping documents the existing street components, including infrastructure, urban furniture, and various site amenities. In general, the street is underlighted at night. This is especially true for the area under the 280 overpass. Site amenities such as trash cans and bicycle racks are also in short supply. The distribution of ADA curb ramps is uneven, and non-existent in high foot traffic areas, as with the southwest corner of Tennessee Street.

VEGETATION CHARACTER

- London Plane
- Liquid Amber
- Ginkgo
- Prunus
- Queen Palm
- Fig
- Flowering Crabapple
- Gallery Pear



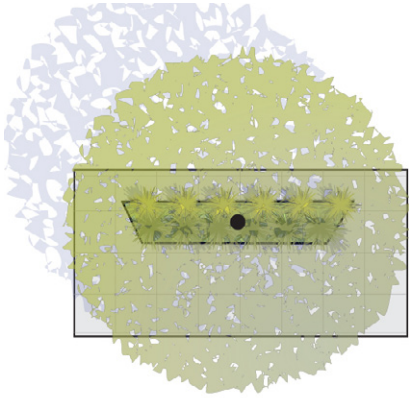
The existing street trees on 22nd street are very eclectic. The diveristy of vegetation types gives each block a unique character and is a strength. The dominant species is the London Plane [Platanus acerifolia], which takes many forms. In the Muni Mini Park, this species has been pollarded, severely trimmed to not interfere with overhead powerlines. In other areas, these trees have been left to grow freely, and provide shade and character to the eastern end of the street. This species' large leaves, which drop in the winter, have been characterized as a flooding nuisance by many of the street's residents. Recent plantings at the west end of the street, by Friends of the Urban Forest include alternating Ginkgo trees [Ginkgo biloba] and Liquid Amber trees [Liquidamber styraciflua]. There are very few sidewalk planters on the street. The addition of more vegetation, at the ground level and at the base of the existing trees is encouraged.

THE MASTER PLAN



TOOL KIT & UNIT COST ESTIMATES	26
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MASTER PLAN CALCULATIONS	41

TREE BASIN



- Increase Landscape Space
- Neighborhood Beautification
- Recharge Groundwater
- Improve Air Quality
- Increase Biodiversity

Approximate Size:
• 20 s.f.

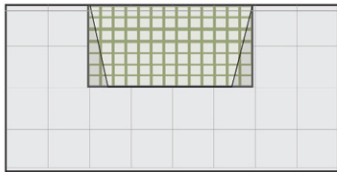
Approximate Installation Cost:
• \$145/s.f.

Precedent Projects:
• Valley Street @ Dolores,
San Francisco



Tree basin with curb cut for water run-off intake

PERMEABLE DRIVEWAY PAVEMENT



- Increase Landscape Space
- Beautify Neighborhood
- Recharge Groundwater

Approximate Size:
• 30-60 s.f.

Approximate Installation Cost:
• \$17/s.f.

Precedent Projects:
• Shotwell Street between 17th
& 18th streets, San Francisco



Shotwell Street permeable driveway

PLANTERS



- Increase Landscape Space
- Beautify Neighborhood
- Decrease Stormwater Runoff

Approximate Size:
• 5-10 s.f.

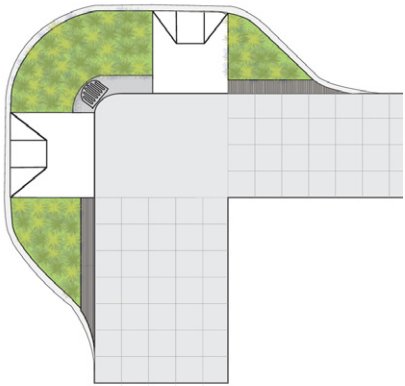
Approximate Installation Cost:
• \$350+

Precedent Projects:
• Divisadero Street Parklet



Concrete planters as decorate pieces or sidewalk barriers

B BULB-OUT



- Traffic Calming
- Increase Landscape Space
- Beautify Neighborhood
- Increase Public Space
- Recharge Groundwater

Approximate Size:

- 290 s.f.

Approximate Cost (not including drain relocation):

- \$25,000-\$60,000

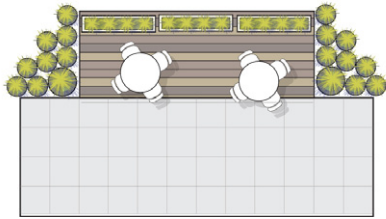
Precedent Projects:

- Harrison Street @ 23rd Street, San Francisco, CA



Planted bulb-outs at Harrison Street & 22nd Street

P PARKLET



- Traffic Calming
- Increase Landscape Space
- Beautify Neighborhood
- Increase Public Space

Approximate Size:

- 80 s.f.

Approximate Cost:

- \$5,000+

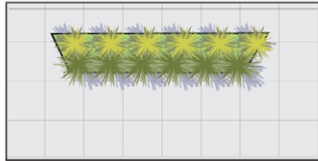
Precedent Projects:

- Divisadero Street Parklet @ Hayes Street San Francisco, CA



Parklet on Divisadero Street & Hayes Street

I INFILTRATION TRENCH



- Recharge Groundwater
- Increase Landscape Space
- Beautify Neighborhood

Approximate Size:

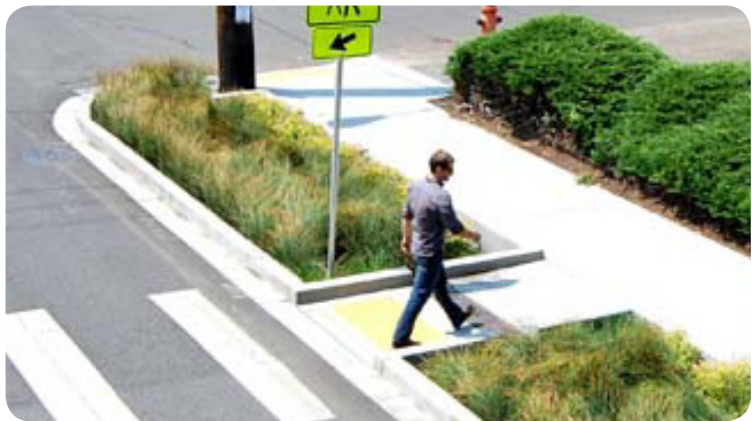
- 75 s.f.

Approximate Cost:

- \$3,500+

Precedent Projects:

- 12th Avenue Street Greening Portland, OR



Infiltration planters with curb cut and trench drain

PROCESS

Community input has been a high priority to the 22nd Street Greening Master Plan process. A series of interactive design workshops were held with a diverse group of Dogpatch residents, working to develop innovative urban design strategies along 22nd Street. The community gave insightful feedback that ensures the Master Plan will promote safety, beauty, ecology and neighborhood pride.

The first community workshop focused on brainstorming and making notes directly to an enlarged 8-foot long aerial map. Numerous ideas resulted from this exercise that formed the basis of this Master Plan:

- Add street trees to slow down traffic
- Add benches along both sides of street
- De-pave as much as possible
- Move commercial trucking off street
- Slow down traffic with bulb-outs
- Add passenger loading zones for businesses
- Add a construction viewing platform at Muni Mini Park for cable cars
- Bike lanes are needed
- Add sand to Muni Mini Park
- Add lighting and improved fencing under 280 Overpass
- Add more lighting along street
- Separate areas for dogs and children in Muni Mini Park

FLYER



GreenTrust **SF Central Waterfront**

Join the fun!
Thursday, April 3
2298 Third St./20th Street
7:00-9:00pm

Help us plan our inaugural neighborhood greening project.
Join us for the evening, become a member and help jumpstart the greening of the Central Waterfront.
To learn more: www.gtsfcw.org info@gtsfcw.org





INTRODUCTION



INTERACTIVE MAPPING



MAP DISCUSSION



CHILDREN'S COMMENTS

PROCESS

At the second community workshop, 52 community members attended a presentation of the 22nd Street Greening Master Plan. The Master Plan Team presented two options for the Master Plan and the relevant renderings, phasing plans, and site analysis drawings. The community gave direct verbal feedback to the Master Plan team, and was invited to comment directly by writing their comments on the Master Plan.

Community feedback addressed a wide range of issues, which underscored hurdles and constraints that the neighborhood identified in the existing street environment. Community feedback identified three areas of focus: the 280 overpass, which is seen as unfriendly, unsafe, and unusable; parking and its treatment along the street; and the need for more bicycle amenities and greening.

The Master Plan team responded to the community’s feedback by developing a plan for fitting the 280 overpass with a sculptural lighting component and developing greening and parking plans for under-utilized lots beneath the overpass and adjacent to the Caltrain station, and for the length of 22nd Street between Pennsylvania Street and Third Street.

FLYER

Dogpatch/22nd Street Greening

The GreenTrustSF will be sponsoring the 2nd community workshop to present conceptual alternatives and street modification options for the Dogpatch/22nd Street Greening Master Plan.

WHEN: Saturday, Jan. 23, 10:00 am - 12:30 pm
WHERE: Rickshaw Bagworks, 904 22nd St.
(between Minnesota and Indiana)

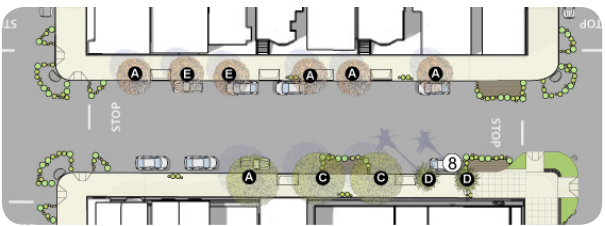
Coffee and breakfast snacks provided compliments of Cup o’ Blues, Just For You, Piccino

For more information, visit www.gtsfcw.org

- PROJECT GOALS
- Beautify and Green 22nd Street
 - Improve Water Quality
 - Expand and Enhance Public Space
 - Improve Safety
 - Traffic Calming
 - Increase Property Values
 - Reintroduce Native Vegetation



View of Traffic Calming at 22nd and Tennessee



Conceptual Master Plan Blowup between Minnesota and Tennessee



Conceptual Master Plan at 22nd Street



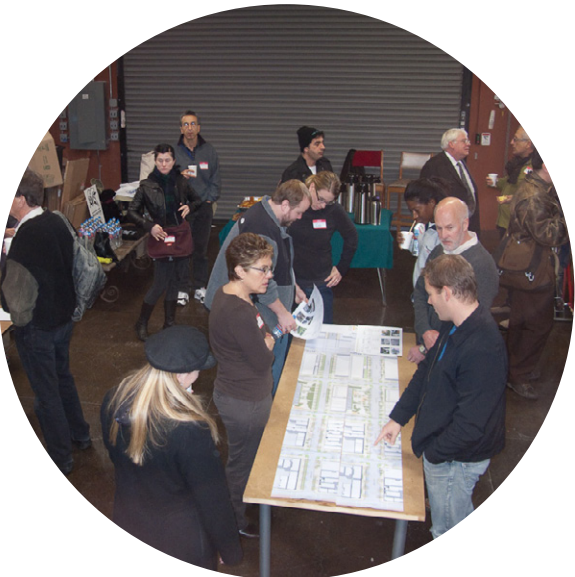
GreenTrust SF - Central Waterfront, a community-based non-profit, exists to establish and cultivate a comprehensive plan with associated financing mechanisms to realize a greener Central Waterfront and improve the community’s social and ecological health.



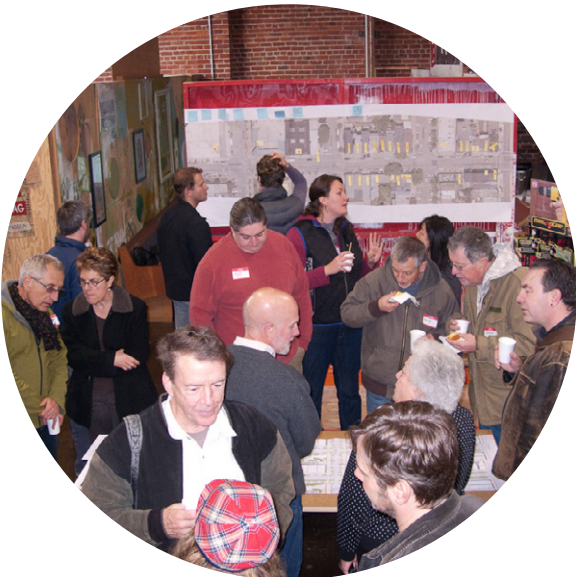
PRESENTATION OF KIT OF PARTS



PRESENTATION OF THE PLAN



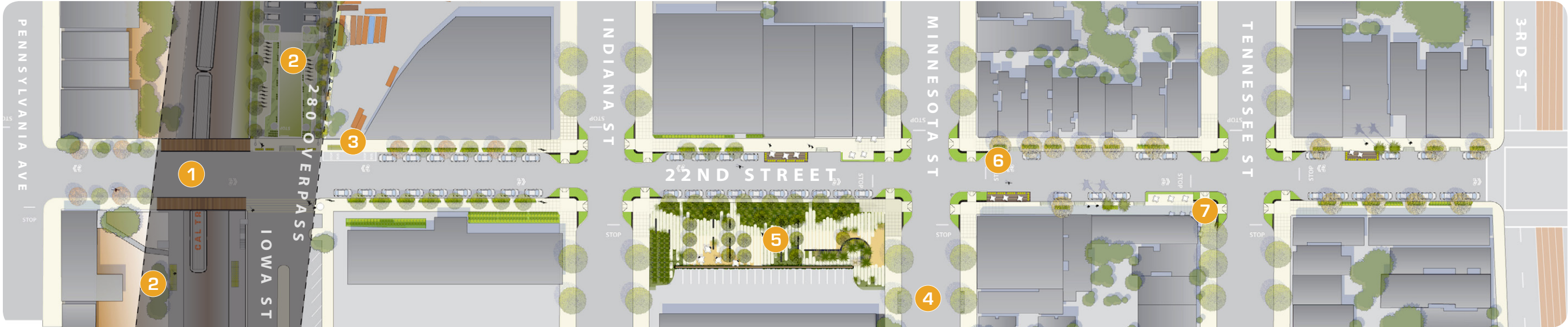
INTERACTIVE MAPPING



DISCUSSION AND REVIEW

COMMUNITY COMMENTS ON THE PLAN

At the community meeting, individuals were asked to write suggestions and comments on sticky notes about the proposed master plan presented. These were placed directly on large plans and represented below.



PLAN COMMENTS

- 1

 - Add sculptural lighting below the overpass
 - Add improved fencing along the underpass area
 - Add limited parking in the empty lot below the overpass
- 2

 - Save the native Buckeye tree near the Caltrain station
 - Improve Caltrain area with landscaping
- 3

 - Make sidewalk/bridge ADA-compliant at Caltrain Station
 - Add cover to existing bus stop at Caltrain
 - Add bike parking by the bus stop and elsewhere along 22nd Street
- 4

 - No parking in dead-end street at Iowa Street, make a piazza for market
- 5

 - The Muni Mini Park is a good place for community food garden
 - Love the idea of the Farmer's Market/ re-making that park!
 - Separate dogs and kids at the park. Dogs on west side of park and kids on east side.
- 6

 - Move Muni stop west, in front of the park, move away from residential building
- 7

 - Property owner: "Bulb-out is a good idea" at Tennessee Street

GENERAL COMMENTS

- Add ten-minute parking zones in front of businesses
- Add secure and sturdy bike racks
- Stop signs are needed
- Please NO sycamore trees (no pollarding)
- Add more bike parking at Caltrain Station



Environmental best management practices are embedded in every component of the plan and have been a guiding principle throughout its development. All features of the plan simultaneously serve aesthetic, community, and environmental functions. An example of such a strategy is present in the vegetated area along the street edge at Muni Mini Park, which will be a fully performing bioswale that retains, treats and infiltrates rain and stormwater. The replacement of asphalt with permeable pavers along parking aisles will allow for flexible use as sidewalk expansion and reduce combined sewage overflow during storm events. Curb bulb-outs at intersections provide safe street crossings and would be planted with native, drought-resistant plant species. These stormwater management practices detain and decrease runoff during storms and increase water infiltration to the ground water from an average rain.

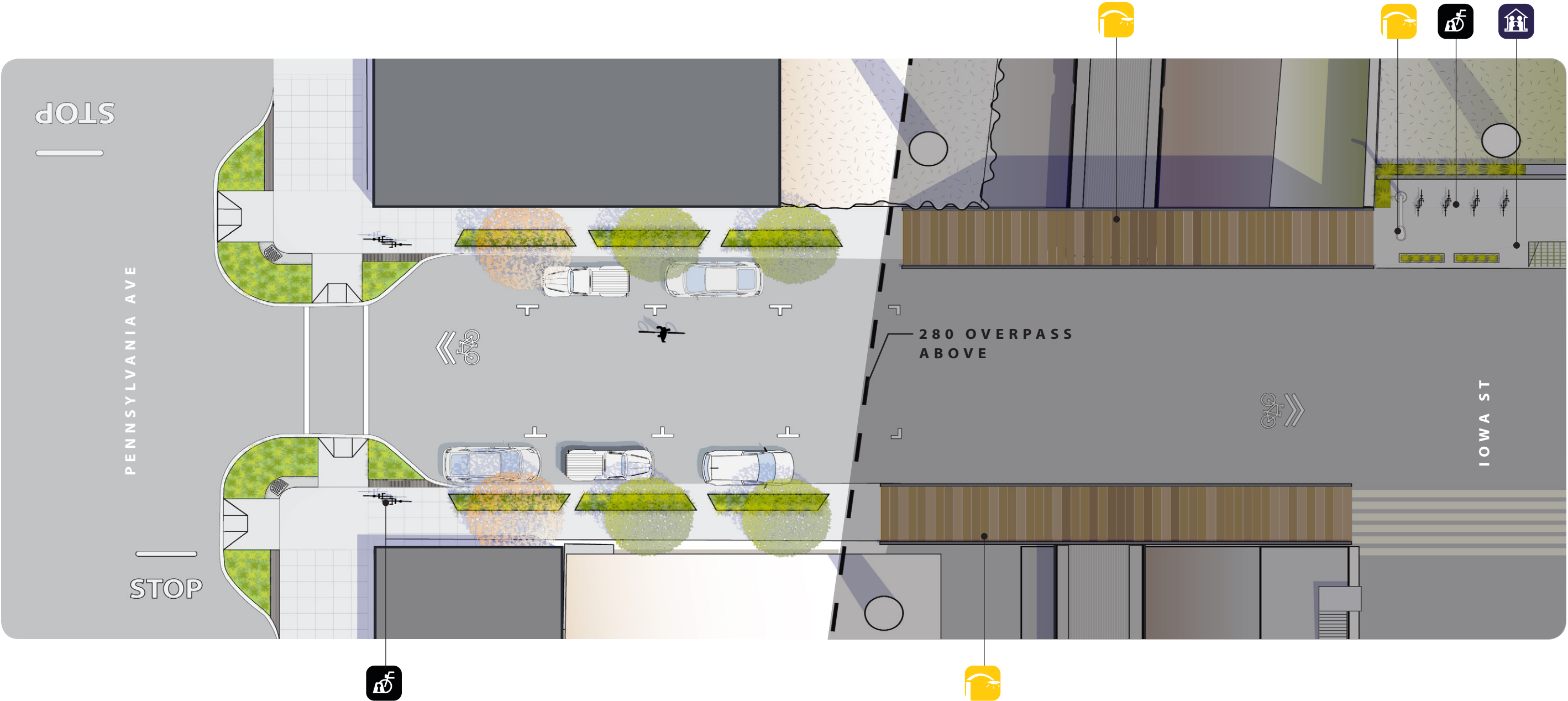
Implementation of the Master Plan will result in a unique community-oriented identity for 22nd Street. The plan seeks to enhance the comprehensive nature of the benefits and amenities that currently exist along the street. Widening the sidewalks will serve to increase public space for amenities such as increased restaurant seating, additional street furniture and public art. The plan identifies locations for art and furniture that will be sourced from and produced by local community businesses and artisans. A redesigned Muni Mini Park will become a gathering space for community events and a site for a regular farmer’s market.

Safety improvements included in the Master Plan are focused on the fostering of a welcoming and equitable environment for pedestrians and bicyclists. Tools for calming traffic include curb bulb-outs at intersections, increased vegetation and wider sidewalks. Corner bulb-outs help pedestrians establish greater presence in the street right-of-way as well as providing a shorter crosswalk distance from curb to curb. Widened sidewalks narrow the vehicular right-of-way, causing motorists to reduce their speeds, which greatly increases pedestrian safety. In addition, extended sidewalks allow buses to board riders without changing lanes, making boarding safer and quicker, thereby reducing overall transit times. Additional street trees and vegetation create perceptual rhythm that visually narrows the street as well as forming a physical buffer between sidewalk and street.

In conjunction with increasing permeability, the plan will greatly increase Bay Area friendly and drought-tolerant vegetation. By adding native vegetation, the area will attract more bees, butterflies, and birds, thereby increasing biodiversity. The addition of plentiful vegetation will improve air quality and reduce pollution. The careful selection of native and drought-resistant plants will require less water.

ENLARGED PLAN

PENNSYLVANIA AVENUE TO IOWA STREET



The corner of Pennsylvania Avenue is a prime location for bulb-outs, considering the heavy pedestrian traffic crossing to reach the existing Caltrain stop. Infiltration planters, with access paving, will be installed to soften the sidewalk edge. The area under the 280 overpass is a unique urban moment, and includes an historic rail bridge. This area could serve as the West gateway to Dogpatch, with sculptural lighting elements, graphics, and amenities. There is a need for additional bicycle parking near the Caltrain stop, as well as street furniture to provide seating for people who often wait in this zone to be picked up.

- LEGEND
- B

Permeable Bulb-out

I

Infiltration Planter

P

Parklet

T

Tree Basin

D

Permeable Driveway

B

Bike Rack

P

Park

B

Bioswale

T

Trench Drain

P

Public Community Space

S

Street Furniture

S

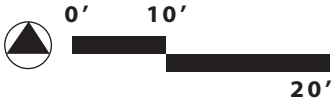
Street Light

P

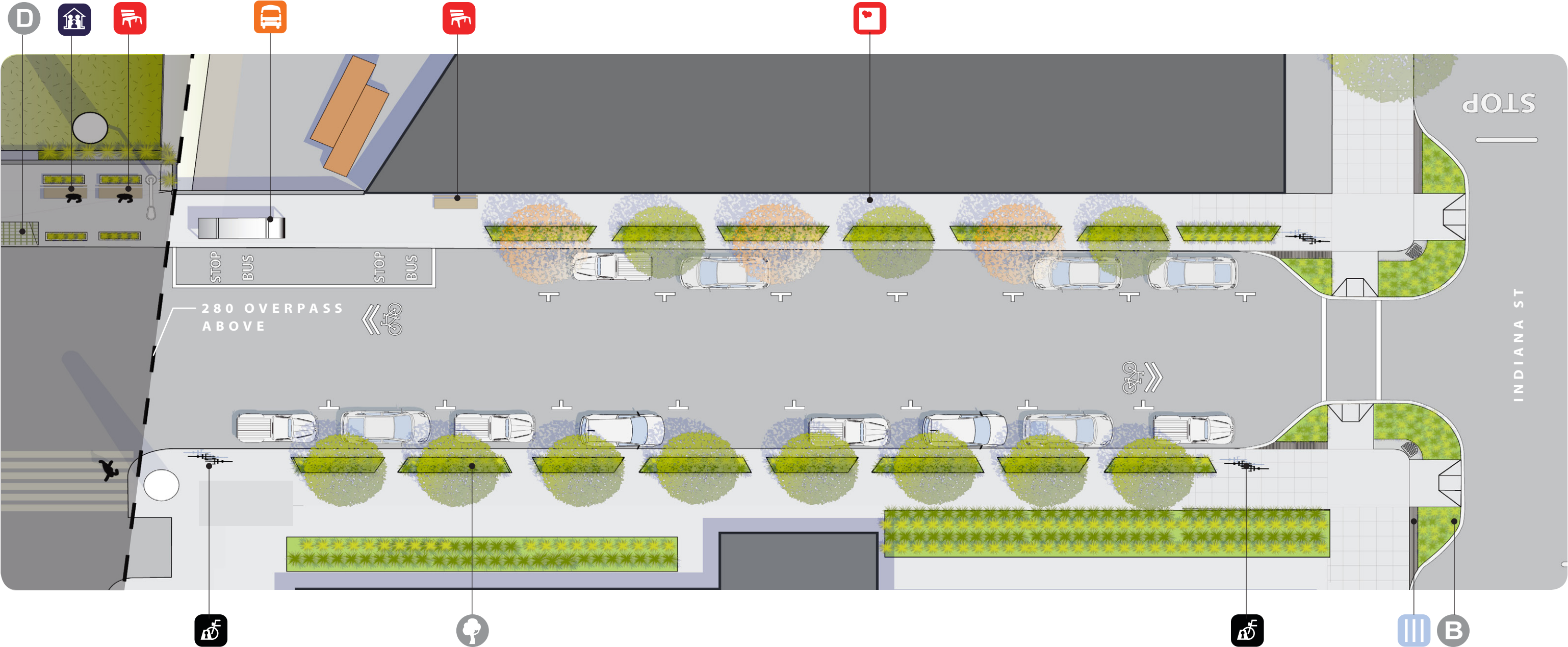
Public Art

B

Bus Stop Shelter



ENLARGED PLAN
IOWA STREET TO INDIANA STREET

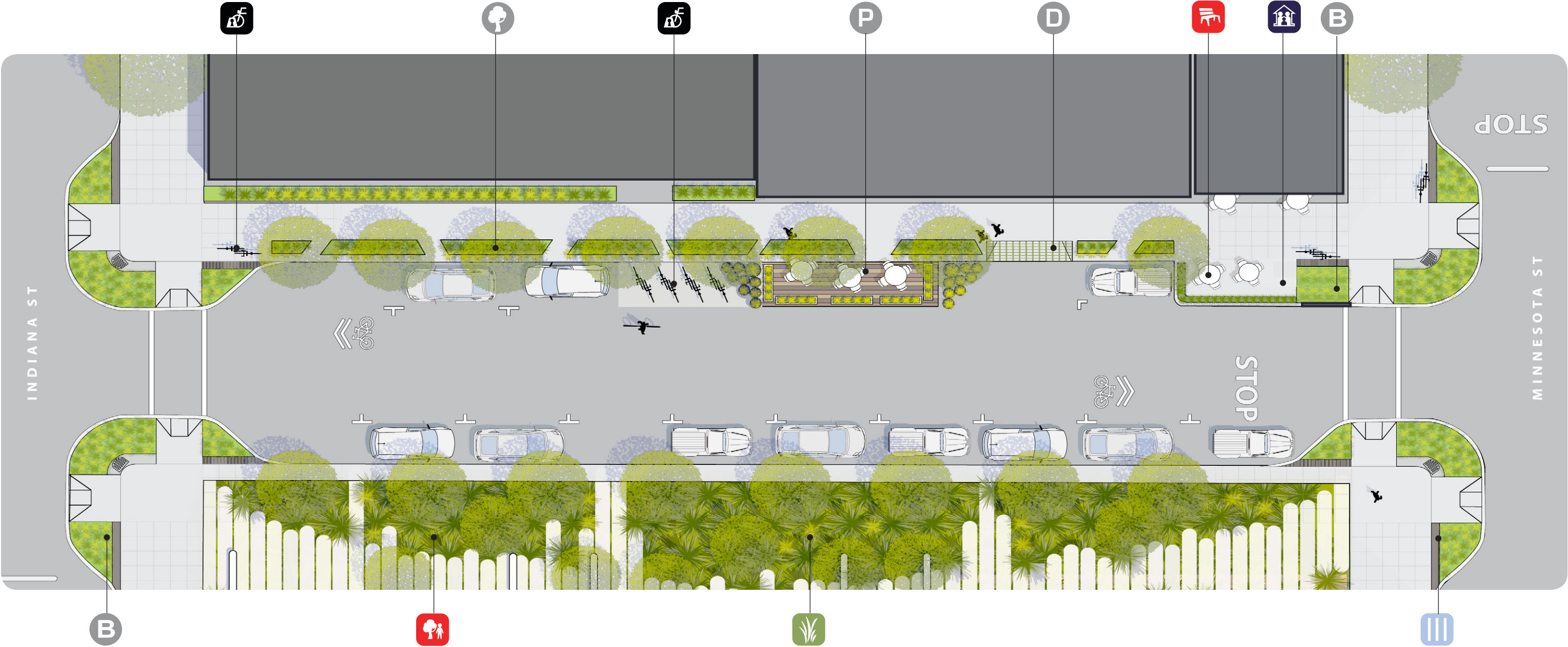


Upgraded street furnishings under the overpass will help to create a pleasant and sheltered area. A bus stop shelter should be added to the existing Muni stop. A re-configuration of the weeded vacant lot under the 280 overpass may be seen on page 46 of this Master Plan. Infiltration planters with drought-tolerant plantings and street trees help to beautify the street and to percolate sidewalk runoff. The south facade of the existing building, to the north, offers a unique opportunity for a large mural, or for some graphic decoration as shown on page 35 of this document.

- LEGEND**
- | | | | |
|-------------------------------|--------------|------------------------|------------------|
| B Permeable Bulb-out | Bike Rack | Public Community Space | Bus Stop Shelter |
| I Infiltration Planter | Park | Street Furniture | |
| P Parklet | Bioswale | Street Light | |
| Tree Basin | Trench Drain | Public Art | |
| D Permeable Driveway | | | |



ENLARGED PLAN
INDIANA STREET TO MINNESOTA STREET



This section of the street includes a significant redesign of the existing Muni Mini Park, which is detailed in Chapter 4. With improvements made to Muni Mini Park, the block between Indiana Street and Minnesota Street will serve as community center for the neighborhood. With new curb cuts along 22nd Street, the park will receive stormwater runoff and help to reduce potential flooding in the neighborhood. Parklets and bulb-outs will provide safety and comfort to pedestrians during special park events such as farmer's markets and other gatherings.

LEGEND

B

Permeable Bulb-out

I

Infiltration Planter

P

Parklet

T

Tree Basin

D

Permeable Driveway

A

Bike Rack

M

Park

B

Bioswale

T

Trench Drain

P

Public Community Space

S

Street Furniture

L

Street Light

A

Public Art

S

Bus Stop Shelter

ENLARGED PLAN
MINNESOTA STREET TO TENNESSEE STREET



This block is the commercial and neighborhood heart of Dogpatch, This plan shows the use of permeable paving at all of the existing driveways and the removal of sidewalk paving throughout. It also depicts the use of flex parking at the emerging businesses to the west, as well a permanent parklet at the established business to the east.

LEGEND

B Permeable Bulb-out

I Infiltration Planter

P Parklet

T Tree Basin

D Permeable Driveway

Bike Rack

Park

Bioswale

Trench Drain

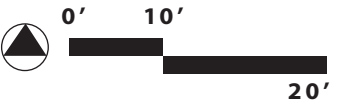
Public Community Space

Street Furniture

Street Light

Public Art

Bus Stop Shelter



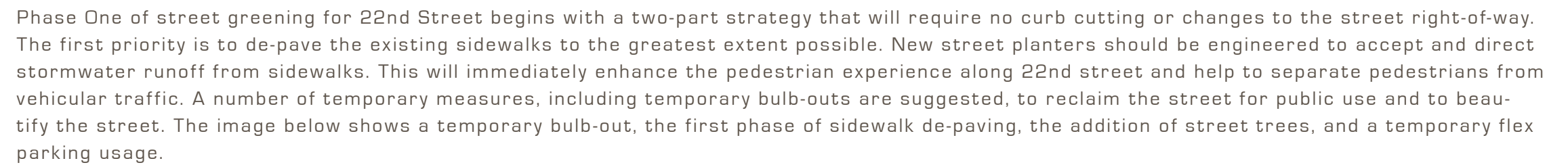
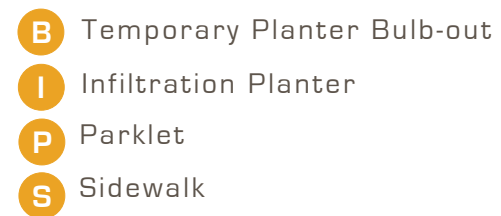
ENLARGED PLAN
TENNESSEE STREET TO THIRD STREET

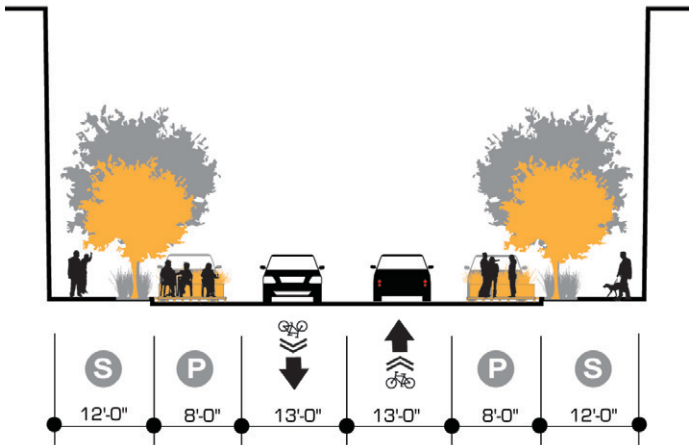


This section of the street includes established businesses on the north side and large buildings, with no commercial frontage on the south. A flex parking use at the Just for You cafe, north side, would provide additional cafe seating and gathering space.

- LEGEND**
- | | | | |
|-------------------------------|--------------|------------------------|------------------|
| B Permeable Bulb-out | Bike Rack | Public Community Space | Bus Stop Shelter |
| I Infiltration Planter | Park | Street Furniture | |
| P Parklet | Bioswale | Street Light | |
| Tree Basin | Trench Drain | Public Art | |
| D Permeable Driveway | | | |





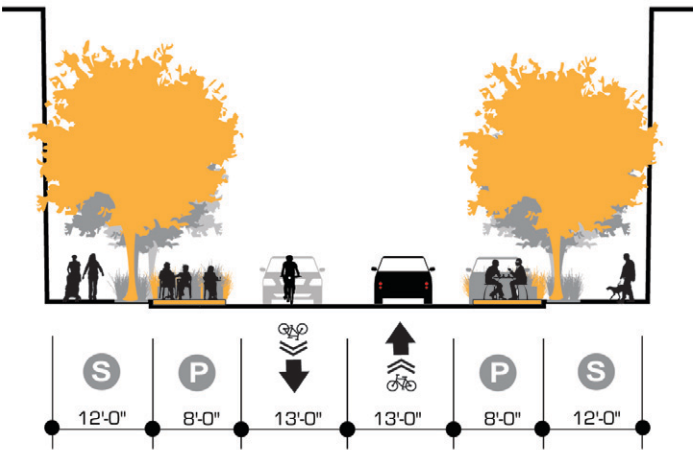


- B** Permeable Bulb-out
- I** Infiltration Planter
- P** Parklet
- D** Permeable Driveway
- S** Sidewalk

Phase Two of street improvements replaces the temporary planter bulb-outs with permanent installations. This would extend the curb edge to the vehicular right-of-way and add accessibility features at high traffic intersections such as 22nd & Tennessee. Additional street trees will be planted in expanded sidewalk infiltration planters. Curb cuts will be modified along the street length, including the addition of permeable driveways to improve permeability.



A - VIEW LOOKING WEST FROM 22ND & TENNESSEE (See "before"-image in Appendix)



- B** Permeable Bulb-out
- I** Infiltration Planter
- P** Parklet
- D** Permeable Driveway
- S** Sidewalk

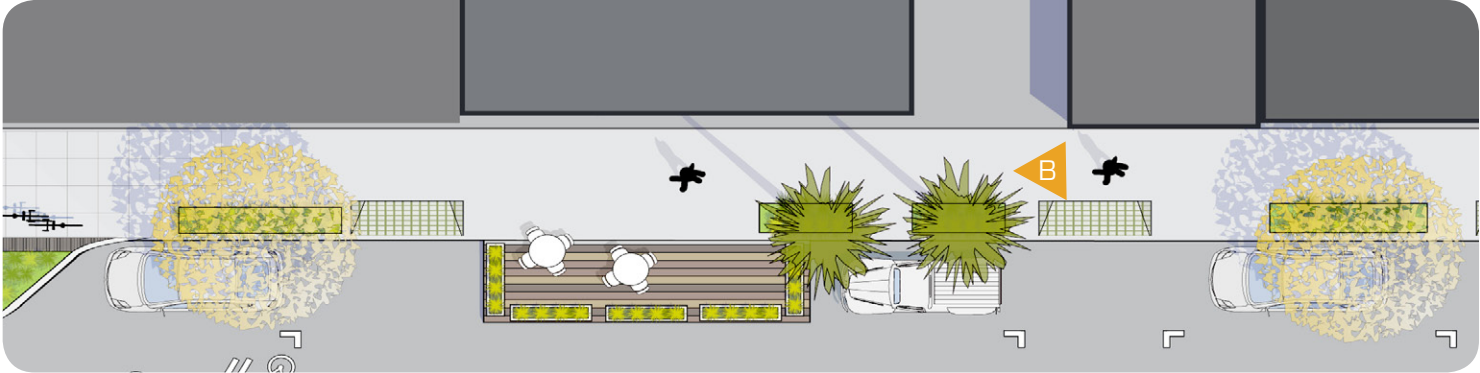
Phase Three represents the complete implementation of permeable bulb-outs along the street along with expanded permanent sidewalk parklets. Mature tree growth beautify the street and provide traffic-calming along 22nd Street. Parking aisles will be replaced with permeable paving that will reduce urban runoff.



A - VIEW LOOKING WEST FROM 22ND & TENNESSEE (See "before" image in Appendix)



B - Rendering: Parklet on 22nd Street between 3rd Street and Tennessee Street (See “before” images in Appendix)



North sidewalk between Tennessee Street and Third Street



Bike parking



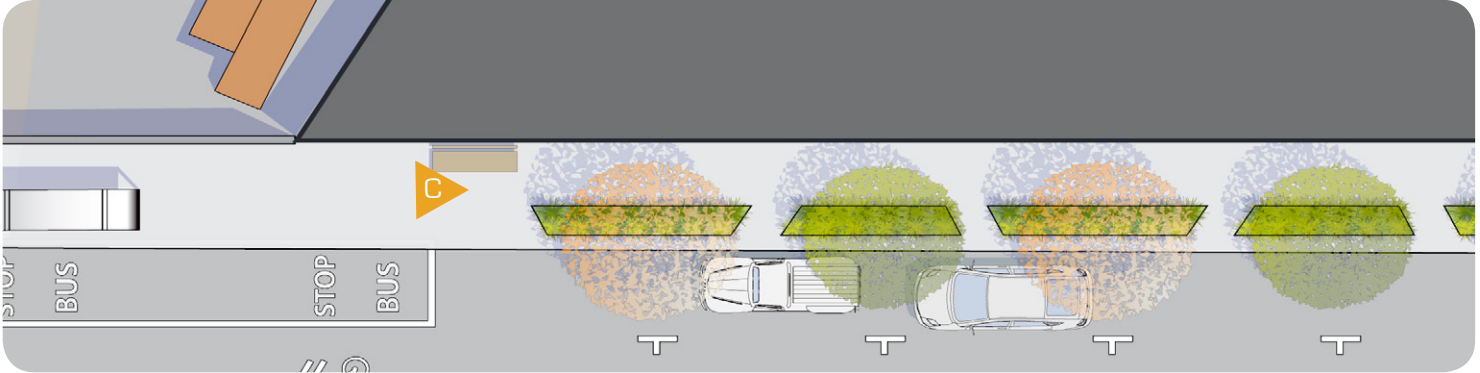
Attractive plants for birds



Temporary planters



C - Rendering: Streetscape on 22nd Street between Indiana Street and Iowa Street (See “before” images in Appendix)



North sidewalk between Iowa Street and Indiana Street



Contemporary street furniture



Art opportunity along building



Sidewalk plantings

MASTER PLAN CALCULATIONS
FOR 22ND STREET FROM PENNSYLVANIA ST. TO THIRD ST.



INTERVENTIONS

B	Permeable Bulb-out	12
D	Permeable Pavement	4
I	Infiltration Planter	14
Tree Basin	Tree Basin	17
Bioswale	Bioswale	1
Bike Rack	Bike Rack	7

PROPOSED QUANTITY

One of the primary goals of the Master Plan is to decrease water runoff into San Francisco's combined storm and waste water sewer system. This is important because urban runoff is a primary cause for water treatment facilities to overflow during periods of heavy rains. This means that large amounts of water are released into the Pacific Ocean without being treated first during these events.

By removing impervious surfaces, like concrete, and replacing them with pervious surfaces, like plants, gravel, or permeable paving, the Master Plan substantially reduces urban runoff. A 10% decrease in impervious surfaces and a 9% decrease in stormwater run-off per second was achieved by the Plan. Imagine if every street in the Dogpatch neighborhood reduced their runoff by 10%.

This strategy, of incrementally converting impervious surfaces to pervious surfaces has been widely practiced throughout San Francisco and is supported and spearhead by many governmental agencies such as the SF Public Utilities Commission, the SF Department of Public Works, and SF Planning Department.

For more information, visit the SFPUC website: www.sfwater.org

CALCULATIONS

Total Area = 110,536 s.f.

EXISTING CONDITIONS

Impervious Surface	108,856 s.f.
Pervious Surface	1,680 s.f.

MASTER PLAN

Impervious Surface	101,822 s.f.
Pervious Surface	8,714 s.f.

Improvement	
Pervious Surface Increase	7,034 s.f.

9% Decrease in stormwater run-off per second

10% Decrease in impervious surface area

400% Increase in pervious surface area

PROJECTS



MUNI MINI PARK PERSPECTIVE 44

MUNI MINI PARK PROPOSED PLAN 45

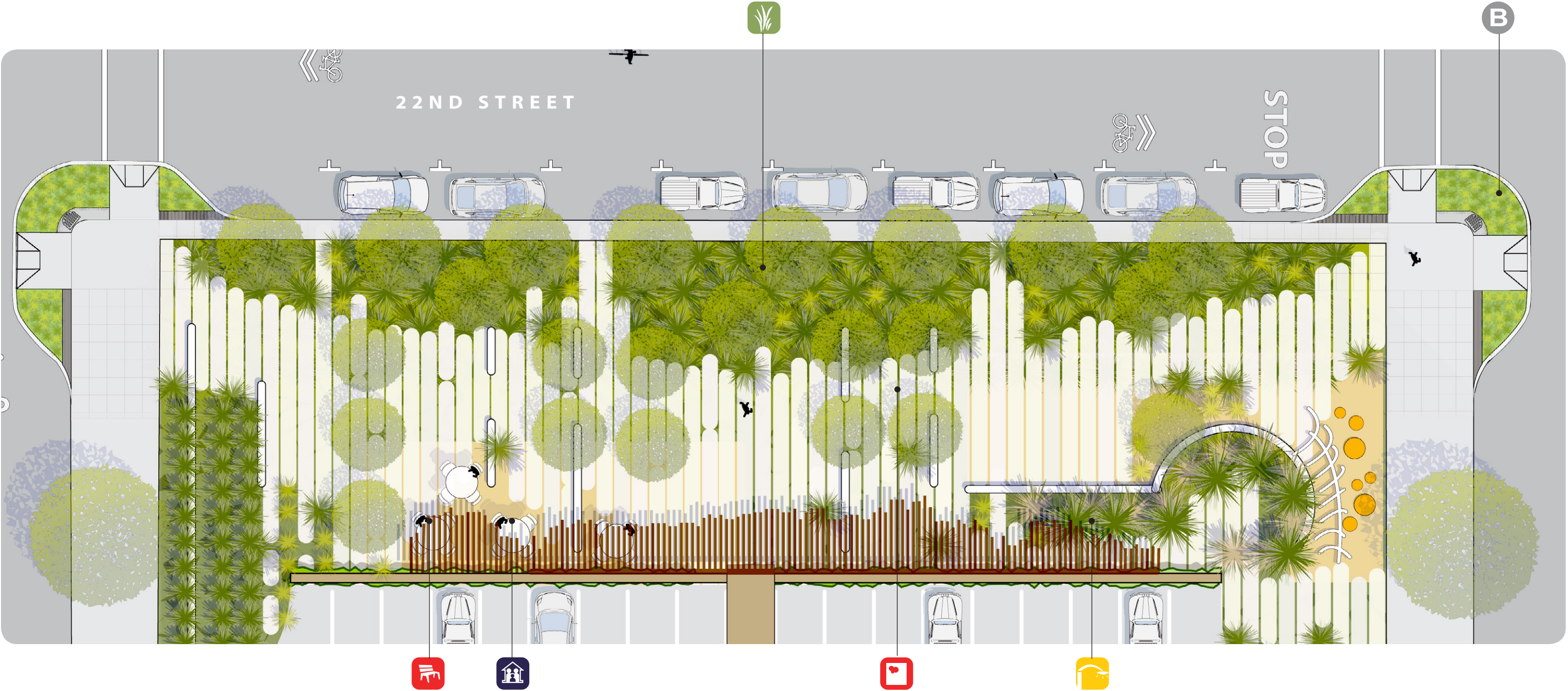
280 UNDERPASS PARKING CONCEPT 46

280 UNDERPASS LIGHTING PLAN 47

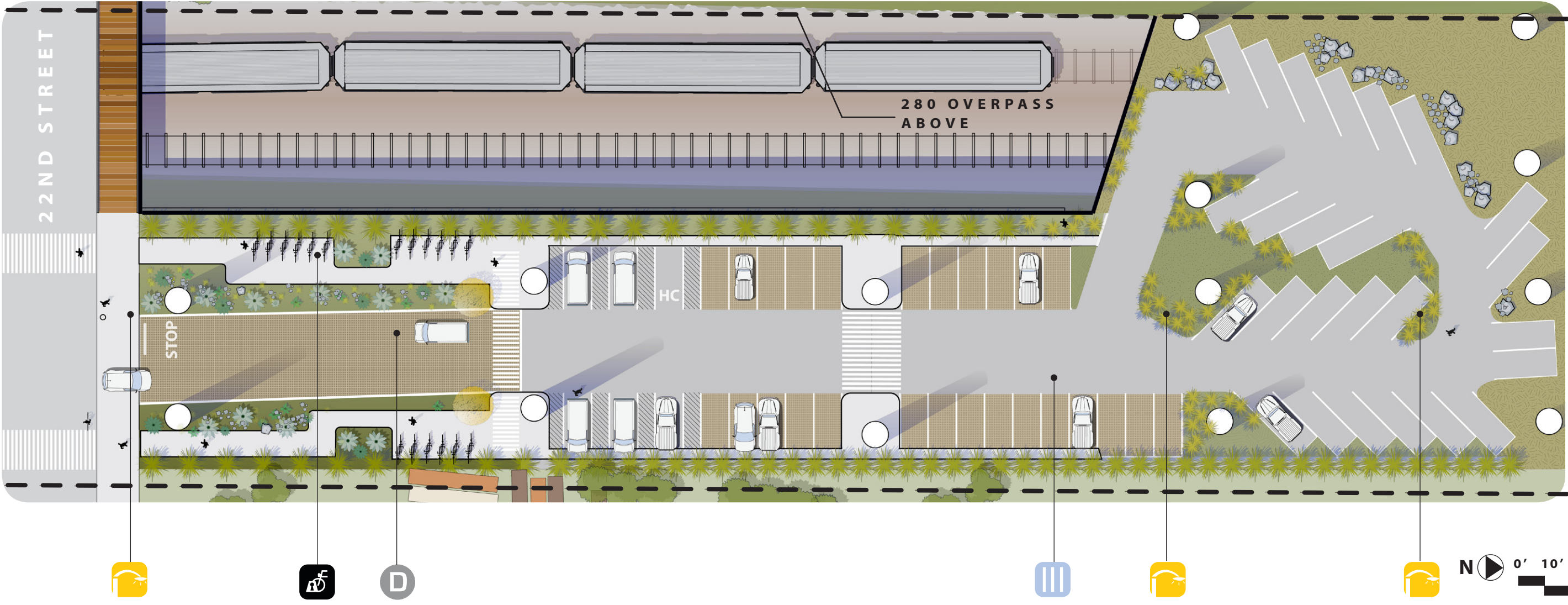


D-Rendering Facing towards East (See “before” image in Appendix)

This proposal for a renewed Muni Mini Park envisions an open space that balances the community's social needs with a significant improvement of the street's stormwater management. The plan lowers the grade of the site to be level with the sidewalk, thereby creating an easily accessible space for events and gatherings. The park will be resurfaced with concrete slabs, spaced to allow for water infiltration. Along the street edge, excavation and wetland planting will form a bioswale to collect runoff from the street, where it will be retained, treated, and infiltrated. This ecological feature will be an inviting urban habitat for wildlife year-round, and will be a natural landmark for the neighborhood. The existing low concrete walls of the current park plan will be re-used and incorporated into the design and given a new use as seating dispersed across the park. Community events, ranging from lunch-break meetings to farmers markets and neighborhood block parties will be easily accommodated.



The Plan above shows a re-configuration of the Muni Mini Park. The existing topography is regraded to be level, increasing the usable space by 235%. The existing concrete retaining walls are reused for seating. A large community gathering area is provided, as well as smaller spaces for dining or private conversation. There is a view platform and shade structure for watching cable car manufacturing and also an informal children’s play area. A long vegetated bio-infiltration swale is proposed for the north side of the park, that functions to accept stormwater runoff from the street and park hardscape.



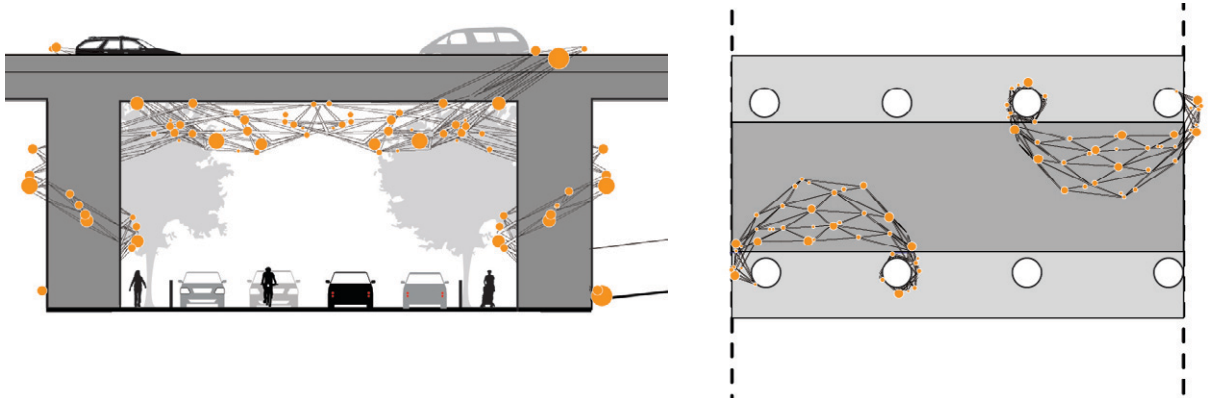
There is presently a large unused space underneath the 280 overpass. This plan proposes the addition of a commercial parking lot that could alleviate the Caltrain parking demand and generate revenue to fund many of the 22nd Street improvements. This plan also proposes extensive bicycle parking at the entry drive to the parking lot. The first bays of stalls would be ADA accessible and the second bay would be over permeable paving. A large lot at the rear would require regrading for clearance, This configuration would add 25 parking spaces, and would also propose integrated on-site drainage in the form of bio-infiltration swales and infiltration trenches.

- LEGEND
- | | | | |
|-------------------------------|--------------|------------------------|------------------|
| B Permeable Bulb-out | Bike Rack | Public Community Space | Bus Stop Shelter |
| I Infiltration Planter | Park | Street Furniture | |
| P Parklet | Bioswale | Street Light | |
| Tree Basin | Trench Drain | Public Art | |
| D Permeable Driveway | | | |



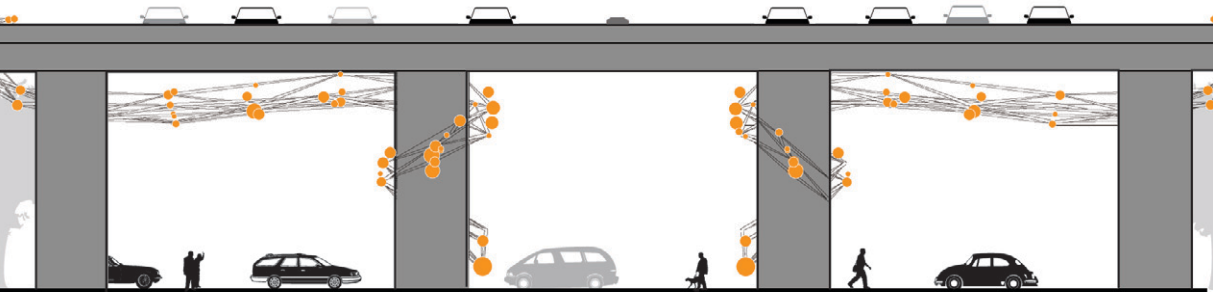


E - View of 280 Underpass: Proposed Rendering [See “before” image in Appendix]



North - South Section, Facing West

Plan



East - West Section, Facing South



Painted Columns



Suspended Light Fixtures

The 280 overpass is a great asset for the street. It is a grand and unique urban space, defined by monumental infrastructure. In the second community meeting, many individuals expressed interest in the development of a unique sculptural installation, that would beautify and respond to this space. This conceptual proposal visualizes a sculptural lighting system and graphic system that brings much needed illumination and character to the space.

APPENDICES



TRAFFIC ENGINEER REPORT & LETTER OF SUPPORT	50
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785 Market Street, Suite 1300
San Francisco, CA 94103
(415) 284-1544 FAX: (415) 284-1554

September 30, 2010

David Fletcher
Fletcher Studio
2339 3rd St, Suite 43R, Floor 3R
San Francisco CA 94107

Dear Mr. Fletcher:

We have reviewed your September 21, 2010 Draft *Dogpatch 22nd Street Greening Master Plan* and are pleased to offer the following comments:

Your plan builds upon recent planning and pilot project implementation by the San Francisco Planning Department, Department of Public Works, Municipal Transportation Agency, and County Transportation Authority, including the San Francisco *Better Streets Plan*.

It is compatible with Muni operations along 22nd Street, accommodating stops and turning movements for Muni buses.

It supports the San Francisco Bicycle Plan, including access to the 22nd Street Caltrain Station, and connections along Indiana Street.

The phasing strategy is realistic, allowing for changes to happen over time in fundable increments.

The recommended improvements are generally the most cost effective tools for addressing stormwater runoff, improving pedestrian quality, and expanding the economic vitality of the street.

Your approach to parking is creative, particularly allowing merchants to create “parklets” in front of their stores. As you know, the City released its new application for parklets just this week. The potential parking lot above the Caltrain right of way north of 22nd Street is also creative, but will be challenging to fund. We know of no likely funding sources for such a project. Indeed, the best response to ensure adequate parking availability at all times is to join the *SFpark* program, which could install credit-card parking meters and price the unmanaged parking in the vicinity of the Caltrain station to ensure a few empty parking spaces are available on all blocks at all times, while making it easy for commuters and shoppers to pay. If we add to the parking supply in the area without managing that supply, the likely result would be no increase in availability. In other words, we have a parking management problem in Dogpatch, not a parking supply problem.

It has been a pleasure working with you on this project, and I hope it moves quickly into implementation.

Sincerely yours,

Jeffrey Tumlin



SAN FRANCISCO
PARKS TRUST

November 8, 2010

To whom it may concern:

San Francisco Parks Trust has served as fiscal sponsor for GreenTrust SF since 2007. Since then GreenTrust has been working on a Master Greening Plan for 22nd Street in the Dogpatch. They have held open community meetings to solicit feedback and have been building relationships with City agencies who have jurisdiction over the properties that are proposed for improvement. SFPT will continue to collaborate with GreenTrust to build support and obtain the necessary permits and approvals to implement the improvements.

SFPT also provided a \$2000 Innovator Award for a traffic calming bulb-out, at the corner of 22nd between Minnesota and Tennessee, and we will continue to assist in the effort to raise funds for both small- and large-scale improvements.

We are excited to be a part of this project and look forward to assisting in its implementation.

Sincerely,

Karen Kidwell
Executive Director

BIKE RACK

Wele Circular Bike Rack
Square Tube
Hot Dipped Galvanized Finish



Welle Bike Rack



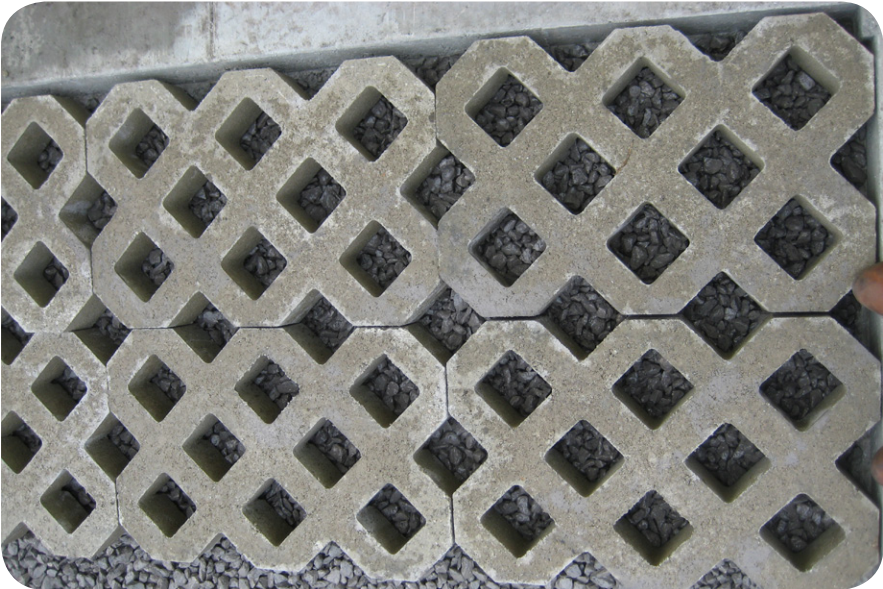
Welle Bike Rack

The main reason cyclists prefer the Welle Circular Rack is that it provides two points of contact to lean, stabilize, and lock the bike.

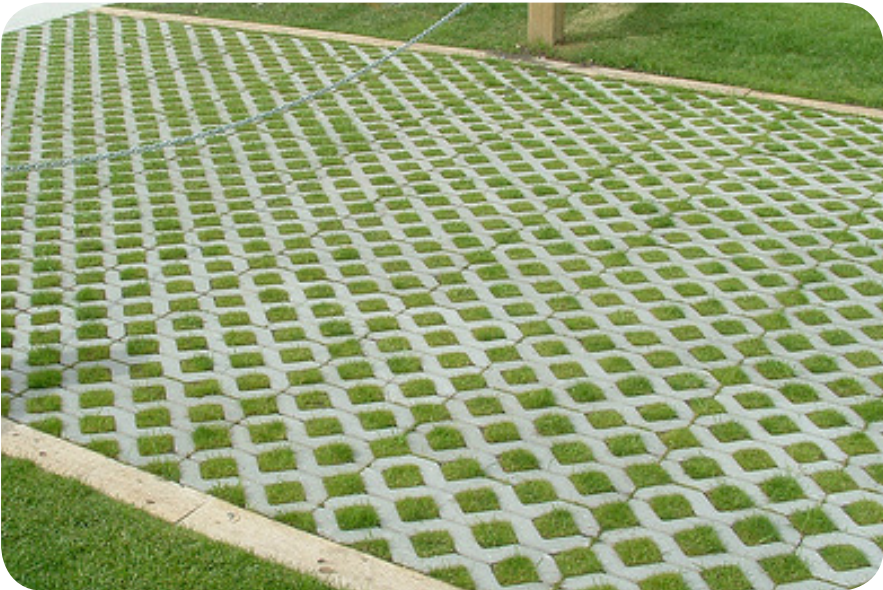
The Welle Circular Rack is available in 2” round Schedule 40 pipe (2-3/8”). It is also available in 2” square tube, .188” wall thickness.
<http://www.bikeparking.com>

PERMEABLE PAVERS

Turfstone



Turfstone



Turfstone

The Checker Block has LEED credit potential with an SRI > 29; stormwater runoff reduction.
<http://www.calstone.com>

CONCRETE PLANTERS

Jensen Precast Concrete Manhole Components & Precast Planters (Architectural Precast GFRP)



GFRP Precast Planter



Precast Concrete Manhole

Jensen Precast Concrete Manholes come in many different diameters and heights and are fairly inexpensive compared to traditional concrete planters of this size.
<http://www.jensenprecast.com/>

NATIVE PLANTS

Native Plants are those plant species “which occur naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions” [Federal Native Plant Conservation Committee, 1994].



Achillea millefolium



Festuca 'Varities'



Phlomis Fruticosa



Sisyrinchium bellum

DROUGHT TOLERANT PLANTS

Drought-Tolerant is a term used to describe plants which tolerate low water climates. Drought-tolerant plants are climate adapted to arid regions. San Francisco is not considered to be an arid region, though some drought-tolerant plants, such as succulents thrive here. Recommended drought tolerant plants may include exotics, but should not include invasives. Pollinator plants are species which attract urban wildlife, including humming birds and butterflies. These plants may also be drought tolerant exotics or native plants.



Phlomis fruticosa



Parahebe catarractae



Sempervivum



Aloe spp.

PLANTING PERRMEABLE PAVING

Permeable pavers may be planted, or filled with an inert bgroundcover such as gravel or mulch. For planting applications, a low growing groundcover that is drought tolerant should be used. Care should be taken in planting to not create a tripping hazard close to the path of travel.



Grass planting



Herniaria glabra



Dymondia margaretae



Mazus reptans 'Purple' or 'Alba'



Street Planting Example

ONLINE RESOURCES

Bay Natvies Nursery
<http://www.baynatives.com>

Calflora
<http://www.calflora.org/>

California Native Plant Society
<http://www.cnps-yerbabuena.org>

Friends of the Urban Forest
www.fuf.net

Plant Right
<http://www.plantright.org/regions>

San Francisco Weed Management
<http://www.sfwma.org>

SAN FRANCISCO RETAIL PLANT SOURCES

Flora Grubb Gardens
<http://www.floragrubb.com/idx/index.php>

Flowercraft Garden Center
<http://www.flowercraftgc.com/>

HANC SF Native Plant Nursery
<http://www.hanc-sf.org/native-plant-nursery/>

San Francisco Botanical Garden Nursery
http://www.sfbotanicalgarden.org/plant_sales/plant_sales.htm

LEGEND

●

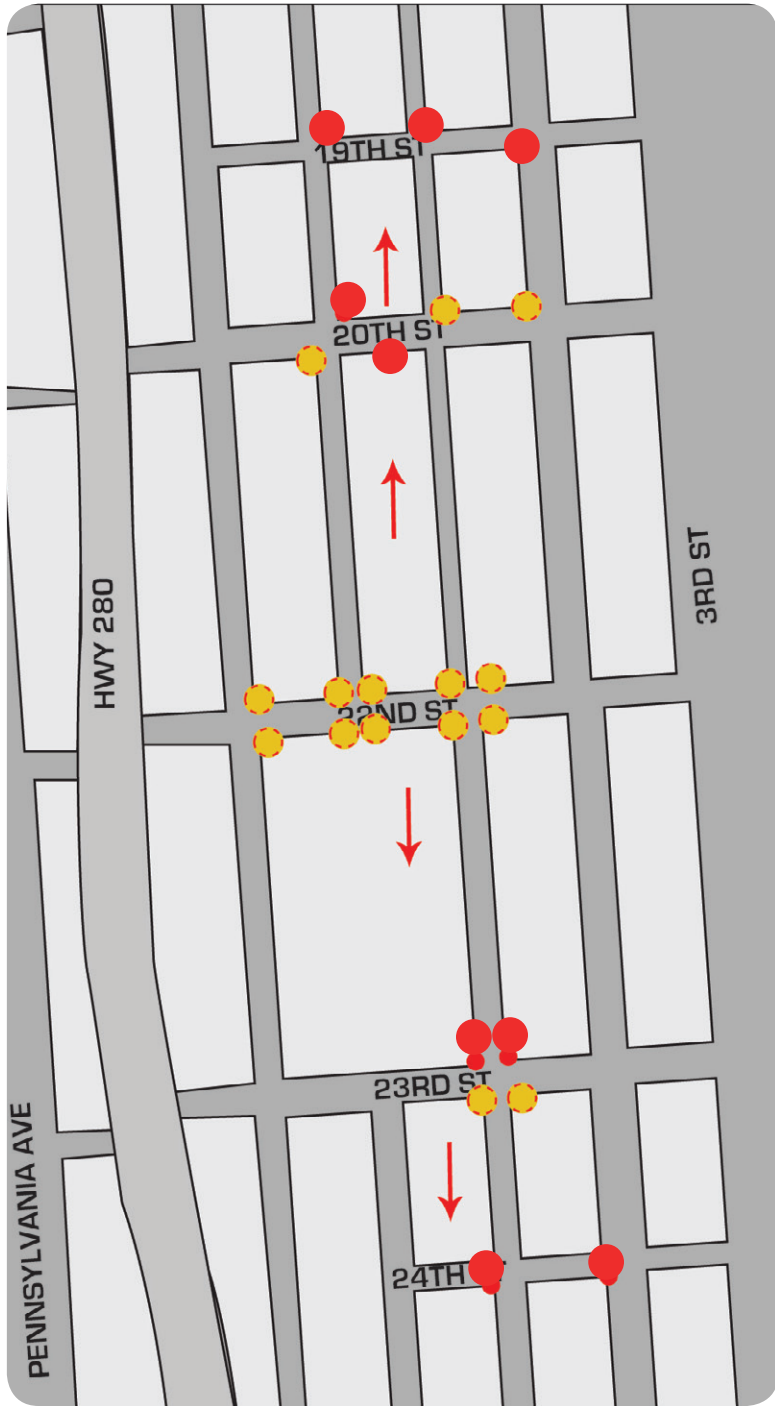
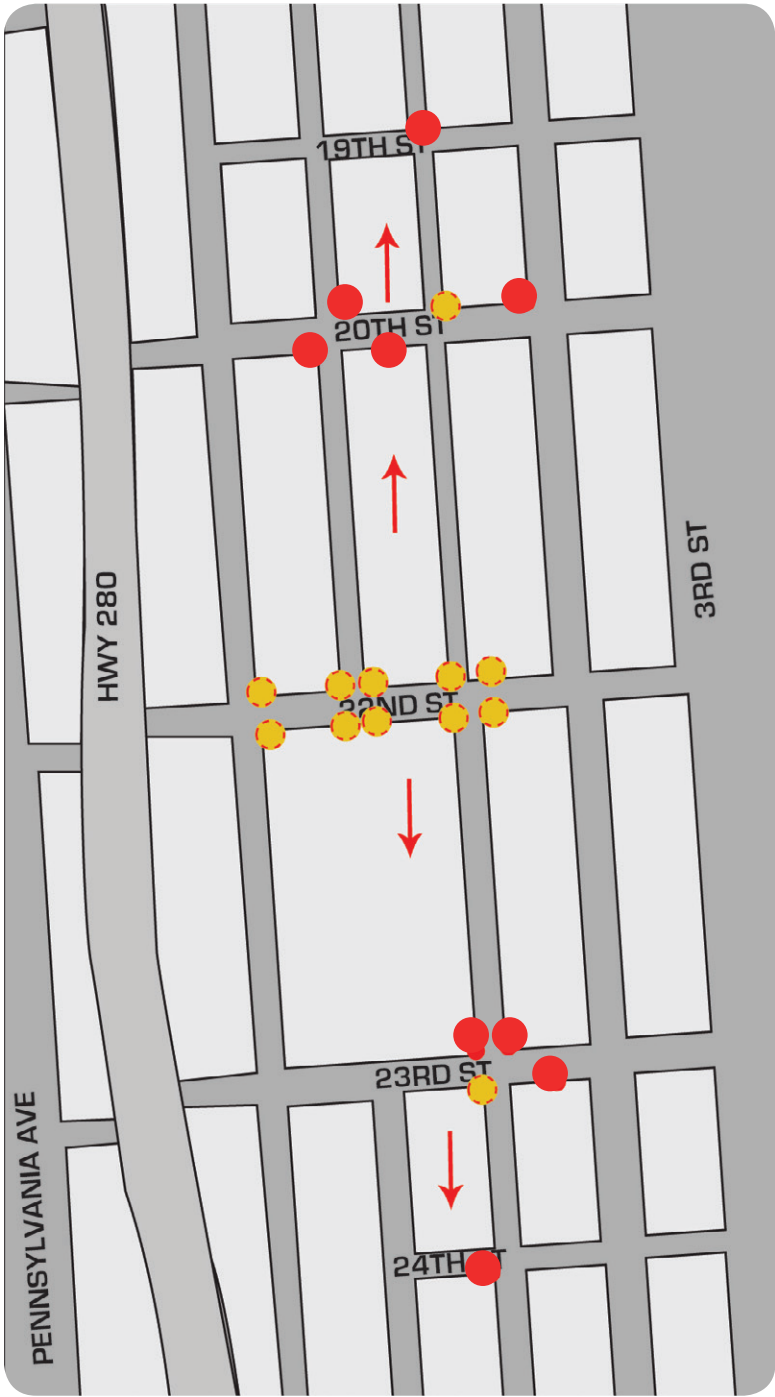
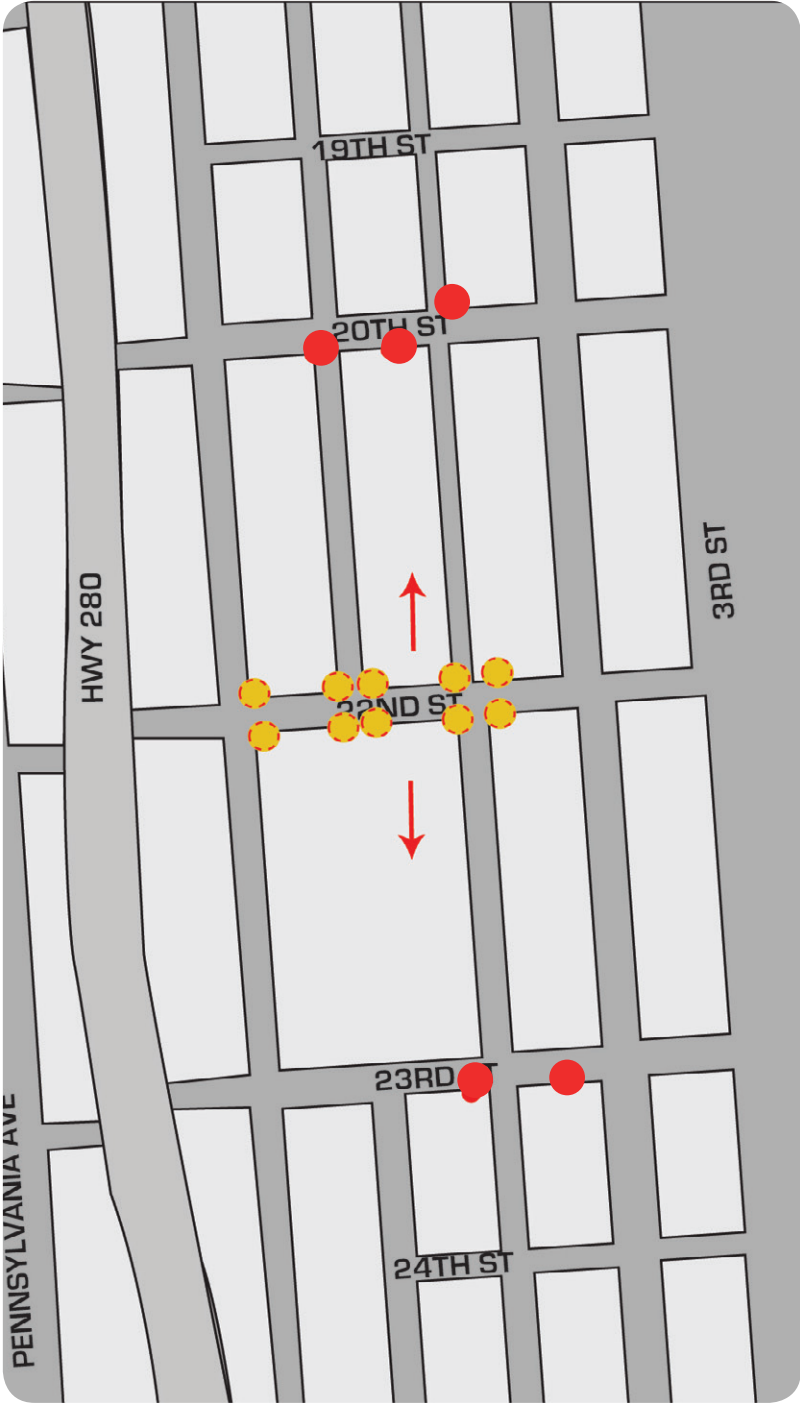
TEMPORARY CORNER GREENING



●

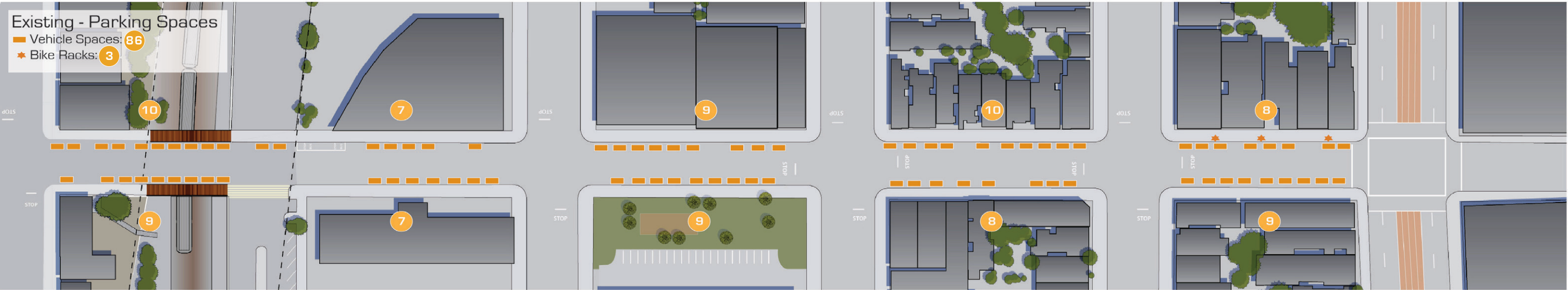
ESTABLISHED BULBOUTS & STREET GREENING





As 22nd Street's permanent greening elements are put in place, the temporary elements can be moved and reused on neighboring intersections and streets, thereby establishing presence and garnering support for permanent curb bulb-outs and street greening.

The process of "phasing in" used to establish the streetscape alterations that will come to 22nd Street can be used throughout the neighborhood to green the entirety of the Dogpatch area.



Parking studies were conducted to demonstrate how each phase of the Mater Plan would effect available parking spaces along 22nd Street. Not only did these studies visualize the impact of the Master Plan to the parking counts, they influenced design decisions and initiated conversations around possible alternative approaches to the parking conditions. The Caltrain Station, being within the Master Plan scope, proposes a unique parking configuration for the neighborhood. Iowa Street, for example, is filled daily with Caltrain riders parking their cars for the entire day before commuting south for work.

Currently the adjacent streets, running north to south, have 4 hour parking restrictions and are a neighborhood parking zone. These spaces have parallel parking on one side and perpendicular parking on the other, with the exception of Indiana Street. Indiana Street has parallel parking on both sides to accommodate the class three bike lane running along the west side. 22nd Street has parallel parking on both sides and does not have a required space within the right-of-way to park perpendicular on one or both sides. The parking along the street is not striped and is infrequently monitored, resulting in lower parking efficiency and turnover.



The studies also show there are a sufficient amount of parking spaces for the neighborhood and its small businesses. It became evident after conducting these studies that it is more appropriate to ask how to better manage the parking spaces available on 22nd, rather than ask how to add more. While the Master Plan illustrates a conceptual parking lot under the 280 Freeway, the strategy along 22nd Street, supported by the parking studies, is to conserve parking spaces, add 10 hour meters for the Caltrain commuters, add striping, and increase bicycle racks. By adding 10 hour meters, the community can benefit from the proceeds of local commuters and use those funds to implement the Master Plan (See page 46).

By the 3rd phase the total difference from existing conditions would be a loss of 24 spaces and gaining 27 bike racks, four parklets, 14 bulb-outs, and 2 mid-block chicanes.



A - Renderings on Pages 28, 29, 30



D - Rendering on Page 40



B - Rendering on Page 31



B - Rendering on Page 31



E - Rendering on Page 43

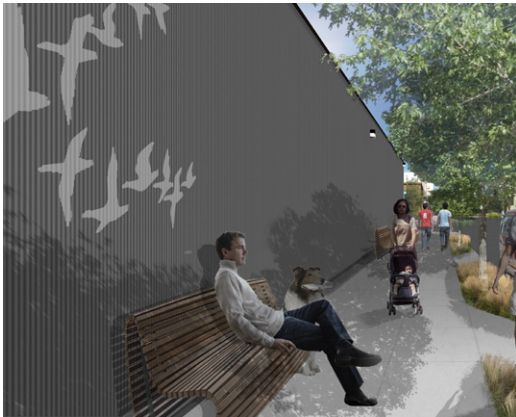
THUMBNAILS OF RENDERINGS OF PROPOSED PROJECTS



A - pg 34



B - pg 35



C - pg 35



D - pg 44



E - pg 47

SAFETY TOOLS



Traffic Circle



Crosswalk



Street Paint



Bicycle Lane



Traffic Table

AMMENITIES



Bus Shelter



Sidewalk Lighting



Underpass Lighting



Sidewalk Bench



Bike Rack

ENVIRONMENTAL TOOLS



Sidewalk Planting



Bulb-out



Chicane



Water Treatment



Median

Listed here are a typical set of tools used by planning professionals to enliven communities through the betterment of their public spaces and streetscapes.

These component tools can be applied in a variety of ways and individually serve multiple functions.

The Master Plan team’s approach has been to research all existing tools to determine their appropriate application to 22nd Street. An open attitude was maintained towards many possibilities, and solutions were found in a diverse mixture of tools to create a holistic solution for the community. The Master Plan focuses on the implementation of site amenities and engineering a systematic and contextually sensitive approach.

I A M P Ax 58

PARKLET
For reference only. See <http://www.sfplanning.org> for current permit documents.



**REQUEST FOR PROPOSALS FOR TEMPORARY SIDEWALK EXTENSIONS
“PARKLETS”**

Date RFP Issued: September 17, 2010
Date Responses Due: October 18, 2010, 5:00PM

BACKGROUND

Parklets provide an economical solution to the desire for wider sidewalks. Parklets are intended to provide space for people to sit, relax and enjoy the city around them, especially where narrow sidewalks would otherwise preclude such activities. They are intended to be seen as pieces of street furniture, providing aesthetic enhancements to the overall streetscape. Parklets secure this space by repurposing on-street parking spots. In the place of car parking, a platform is built to bring the grade of the sidewalk out into the street. Once the platform is installed, benches, café tables and chairs, landscaping, and bike parking can all be placed on top in order to provide a welcoming public space along the street. **Parklets must remain publicly accessible and will require signage to this effect.**

ELIGIBLE APPLICANTS

- 1. Community Benefit Districts (CBDs)
- 2. Storefront business owners
- 3. Non-profit institutions and community organizations
- 4. Other applicants may be considered on a case by case basis. Please contact sfpavementtoparks@sfgov.org before submitting an application.

APPROPRIATE LOCATION AND DESIGN PARAMETERS

Please see the attached handout for specific design parameters. Generally, the Parklet must be located away from a corner and along a street with a speed limit of 25mph or less. The extent of the Parklet must not extend beyond six feet from the curb line where there is parallel parking. As indicated in the attached handout, reflective tape, soft hit posts, and wheel stops will be required. Depending on the location, you may also be required to provide an edge to the Parklet, such as planters, railing, or cabling. Any edge should be visually permeable. If cable railing is used, the vertical spacing between cables cannot exceed 6”. Parklets are not permitted in red zones. They may replace yellow or blue zones or motorcycle parking if there are appropriate adjacent locations for these zones to be relocated and the applicant is willing to pay additional fees to relocate these zones. They may be allowed in white and green zones if the entity that originally requested the white or green zone agrees to repurpose that curb area. Lastly, Parklets are not permitted in front of a fire hydrant or over a manhole or utility valve. If you have any questions about your particular location, please contact sfpavementtoparks@sfgov.org

Parklets are intended to be aesthetic improvements to the streetscape. We ask that you design them with this in mind, ensuring that the materials you use are high quality, durable, and beautiful. Greening is an important aspect of this beautification. Access panels in order to maintain the area underneath the Parklet must be included and the design must allow drainage along the gutter to pass underneath the Parklet. By City and County of San Francisco code, Parklets may not use tropical hardwood or virgin redwood.

WHAT MUST BE INCLUDED IN YOUR INITIAL APPLICATION

- 1. **Initial site plan.** Please provide a plan (see flyer for an example) that shows the footprint of the proposed Parklet, including enough context to understand what is happening on either end of the proposed Parklet. Please show property lines, sidewalk width, Parklet length and width, existing parking stalls, and all surface obstructions within 15 feet of the occupied area (e.g. fire hydrants, streetlights, parking meters, street trees, etc) on the plan. While not required as part of this initial application, the more detail you can provide, including materiality, the better.
- 2. **Parklet programming.** Please demonstrate what type of elements you are proposing on the Parklet (e.g. café tables and chairs, benches, landscaping, bike parking, etc).
- 3. **Construction schedule.** Please articulate who will build your Parklet if you are awarded a permit and how long after you receive a permit that you anticipate installing the Parklet.
- 4. **Support.** Documentation of support from your immediate neighbors, and from any existing merchant group, if applicable, in the form of an email or letter.
- 5. **Initial Application Fee.** A check in the amount of \$287.80, written out to the San Francisco Department of Public Works.

COSTS

- 1. Initial Application Fee: **\$287.80** (If your application is not selected as part of this RFP, your initial application fee will be returned. Otherwise, this fee is non-refundable.)
- 2. Permit Fee: **\$1,465.52**
- 3. Yearly renewals will be charged **\$245.52**

Checks should be written out to the San Francisco Department of Public Works.

You will also be responsible for all costs associated with designing and installing the Parklet.

REVIEW PROCESS

Approximately 25 applications will be selected for permits as part of this initial RFP. We do anticipate releasing subsequent RFPs, although no schedule has yet been defined for doing so. A staff committee from various City agencies will review the initial set of applications and will rank projects based on the following goals:

- 1. Enhancing the aesthetic quality of the streetscape and thoughtful preliminary design
- 2. Good location – proposed Parklet is likely to be well used and active
- 3. Demonstrated community support
- 4. Likely to be well-maintained

Those applicants not selected as part of this initial ranking will have their initial application fee returned. Those applicants that are selected as part of the initial ranking will be notified and the City will issue a Public Notice, informing the public that a permit is being considered to allow the installation of the Parklet at the proposed location. The applicant will be required to post a copy of the Public Notice in a readily visible place in front of the applying business for ten calendar days. If

there are no objections from the public, you will be required to submit detailed plans and drawings showing all details, including finishes, plant species, and furniture types within two weeks. We will also need details calling out maintenance access panels and how drainage will be provided along the gutter. If there are objections from the public, a Public Hearing will be scheduled. Approval or denial of the application is determined at the Public Hearing. In the event of a denial, the applicant may appeal to the Board of Permit Appeals within 15 calendar days of the decision. All remaining fees will be collected at the point a permit is issued.

RESPONSIBILITIES OF THE PERMIT HOLDER

If your application is selected, you will be required to enter into a permit with the City and satisfy the following requirements:

- 1. **Insurance.** You will be required to provide evidence of at least \$1M in liability insurance (the same requirement as sidewalk café tables and chairs), naming the City and County of San Francisco as additional insured.
- 2. **Maintenance.** You will be required to sign a maintenance agreement to keep all plants in good health and the Parklet free of debris and grime. You must maintain the surface of the Parklet daily and rinse out the area beneath the Parklet at least once a week. The Department of Public Health may require you to provide pest abatement beneath the Parklet platform.
- 3. **Tables and Chairs.** Any movable items, such as tables and chairs, must either be locked down at night or taken inside. Unsecured furniture is not permitted after business hours.

FINAL NOTE

The City reserves the right to amend this RFP and all terms contained within it up until the point that a final permit is issued. Applicants may withdraw their application if they do not agree with any of the amended terms.

CONTACT

For any questions regarding this RFP, please contact sfpavementtoparks@sfgov.org

SUBMITTING YOUR INITIAL APPLICATION

In order to gauge interest, we ask that you notify us as soon as possible via email, sfpavementtoparks@sfgov.org, if you intend on applying.

Please submit your initial application by 5:00PM on October 18 to:

Andres Power
SF Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

TEMPORARY BULB-OUT
For reference only. See <http://www.sfplanning.org> for current permit documents.

TRAFFIC CALMING Request Form

Name:Phone:

Address:Zip:

Email:Your Neighborhood:

In general, what are your concerns about the traffic in your area? (please check all that apply)

☐ Speeding

☐ Cut-through traffic

☐ Frequent crashes

☐ Exhibition driving (such as “donuts”)

☐ Other (please explain)

Are there specific streets or intersections that you would like to make safer? If so, please list them.

What concerns you about these locations?

Check if the problem involves a local school? ☐ School name:

Do you have suggestions on how to improve traffic safety in your area?

Please attach a map of the problem area to the form.

SIGNATURES: Please have at least ten people from your neighborhood sign this portion of the form before you submit. IMPORTANT! To be considered for traffic calming, you must have the signatures, and the attached map of the area.

PRINTED NAMESIGNATUREADDRESS

1

2

3

4

5


6

7


8

9

10



PLEASE RETURN TO:
Municipal Transportation Agency
Planning Division
1 South Van Ness Avenue, 7th Fl
San Francisco, CA 94103
www.livablestreets.org

GreenTrustsf

22ND STREET GREENING MASTER PLAN

SPECIAL SIDEWALK PERMIT

Department of Public Works

Bureau of Street-Use and Mapping

APPLICATION AND INSTRUCTIONS FOR
SPECIAL SIDEWALK PERMIT

LOCATION: AddressZIPBlock No.Lot No.

PROPERTY OWNER(S) OF RECORD - FULL NAME(S) AS RECORDED:

Name:

Address:

Phone:

APPLICANT/COMPANY, OTHER THAN OWNER: Agent of Owner☐ Lessee☐

Name:

Address:

Phone:

☐ SF Business Certificate☐ Driver’s License

☐ State License

☐ SPECIAL SURFACE

Any non-standard surface, unless previously approved by D.P.W., shall require submittal of a friction/static test for coefficient of friction (ASTM-C1028) using leather, rubber and neolite under wet and dry conditions. A minimum coefficient of **0.65** (0.80 for sloped surfaces greater than 1:20) will be required in order for surface to be approved. The material used to provide contrast shall be an integral part of the walking surface and shall sit flush with the sidewalk grade. NOTE: An exposed aggregate concrete sidewalk shall not require a test for coefficient of friction.

Manufacturer’s Name

Identification

☐ NON-STANDARD SCORING

☐ NON-STANDARD CROSS SLOPE (≥ 2.5%)

Signature(s) Owner(s) of Record or Authorized Agent

DATE:

1. Submit three (3) sets of completely dimensioned and noted plans to show ONLY the extent and location of the proposed work. Special sidewalk plans can be in conjunction with other DPW permits.

2. Submit a non-refundable fee payable by cash, checks, or VISA/MC to the Department of Public Works for investigation and inspection. (See Fee Schedule)

3. Submit all of the above with this application to our office:

Department of Public Works
Bureau of Street-Use and Mapping
875 Stevenson Street, Room 460
San Francisco, CA 94103-0942

4. Upon approval of permits additional fees will be required for **notarization and recordation** of approved permits. The Recorder’s Office is located on the ground floor of City Hall in Room 190. For information on Recorder’s fees, please call (415) 554-4176. Any certified Notary Public may notarize the permit.

DO - IT - YOURSELF (DIY) DESIGN WORKSHEETS
(PAGES 61-64)

The plans on the following pages 61 through 64 are scaled base drawings that can be used for working through design ideas for sidewalk plantings, parklets, bike corrals, bulb-outs, and other street greening tool kit items. Specific street greening tools preferred by the Master Plan and their associated costs can be found on pages 26 and 27.

The plans show all the existing street trees, fire hydrants, water meters, utility poles, street drains, and other street utilities and signs that should be considered when planning for any project. Read through the permit application instructions attached for information about how to address these street components, as it varies from permit to permit. The location of these items should be verified in field when more detailed drawings are drafted.

The best use of these DIY Design Worksheets would be to make copies and sketch out a design concept and schematic plan over the base plan. These ideas would serve as a jump start to your project. Use the Enlarged Master Plan drawings on pages 36-40 to guide your plan.

Detailed drawings, as described in the attached permit application instructions, along with the permit application forms and fees will be needed to obtain a permit with the appropriate local agencies.

APPENDICES

Use these drawings to work-out design solution. Verify in field exact locations of right-of-way elements



NOTE: NOT FOR CONSTRUCTION. VERIFY ALL DIMENSIONS + CONDITIONS IN FILED.

PLANT LIST

San Francisco, California 94107

OF SHEETS

Use these drawings to work-out design solution. Verify in field exact locations of right-of-way elements



LEGEND

PLANT LIST

San Francisco, California 94107

1	PERMIT SET
2	
3	
4	
5	
6	
7	
8	
9	

	SHEET TITLE

LAYOUT SHEET

SCALE

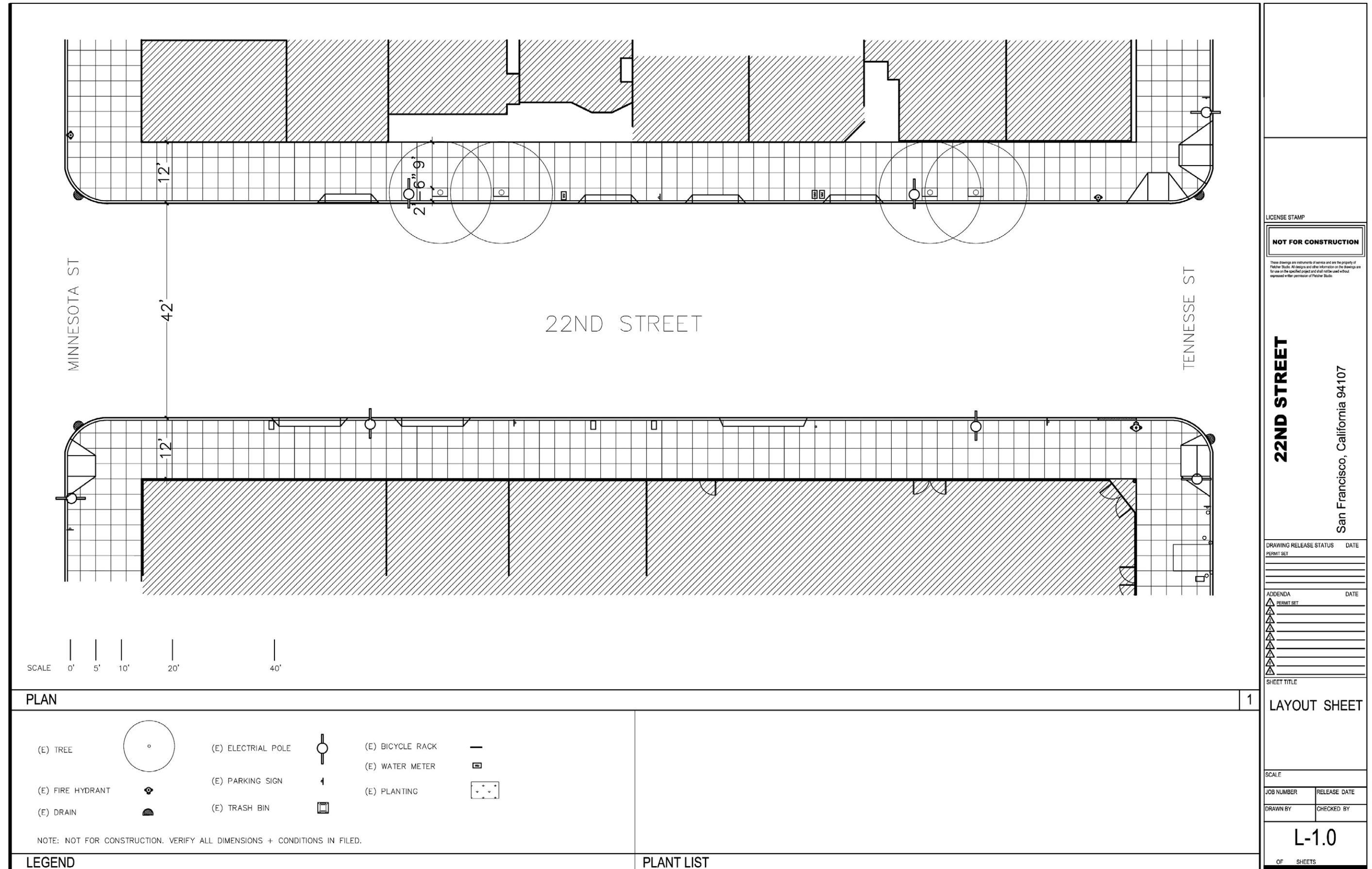
JOB NUMBER	RELEASE DATE
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DRAWN BY	CHECKED BY
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L-1.0

OF SHEETS

Use these drawings to work-out design solution. Verify in field exact locations of right-of-way elements



"DIY" DESIGN WORKSHEET

Use these drawings to work-out design solution. Verify in field exact locations of right-of-way elements

