The City of SAN DIEGO

City of San Diego Stormwater Department
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DATE: December 30, 2024

TO: Project Submittal & Management, Public Projects, Development Services Department

FROM: Diane Green, Qualified Biologist (Associate Planner), Rebecca Boyd, Assistant Planner, Stormwater Department

SUBJECT: Revegetation Plan for Public Project Assessment for Van Dyke Pl at Van Dyke Ave SD SWD (PRJ-1122165/WBS# B25023)

Introduction

The City of San Diego (City) Stormwater Department proposes maintenance of the existing stormwater system to meet current City design standards and improve system performance on Van Dyke Place and Van Dyke Avenue. The stormwater drainage pipe project (Project) will implement the following maintenance activities, revegetation of temporary disturbance associated with the Project to minimize erosion and improve the appearance of the environment by increasing the quality and quantity of landscaping visible from the public right-of-way (PROW). The Project created ground disturbance will be revegetated in accordance with San Diego Municipal Code Sections 142.0402, 142.0403, 142.0411, and 142.0413, and the City's Landscape Standards in the Land Development Manual.

Project Location

The Project is generally located on Van Dyke Place and along Van Dyke Avenue in the Mid- City: Kensington-Talmadge Community Planning area (Council District 9) (Attachment A). The Project's dissipator at the outfall, is located at the northern terminus of the stormwater system alignment and will be installed approximately 380 feet from the Multi Habitat Planning Area (MHPA).

Project Purpose and Description

The Project will install approximately 712 Linear Feet (LF) of 18-inch Reinforced Concrete Pipe (RCP). This involves removal and replacement of 57 LF of 18-inch concrete pipe and abandonment of 90 LF of Corrugated Metal Pipe (CMP) in place. Six storm drain structures and a dissipator at the outfall will be installed. The maximum depth of excavation will be approximately 14 feet. The Project is located entirely within the PROW. Installation of the dissipator will impact approximately 1,020 Square Feet (Sq-Ft) of previously disturbed non-native vegetation to allow continued and controlled drainage into the adjacent urban canyon where the stormwater conveyance system outfall presently flows. No impacts to Environmentally Sensitive Lands (ESL) will occur. Staging and stockpile areas will be on Van Dyke Place within the PROW and will occupy approximately 1,560 Sq-Ft.

Construction is anticipated to start February 18, 2025, and end April 29, 2025. Construction will occur on site between the hours of 7:00am to 6:00pm, Monday through Saturday. The total duration of construction is estimated to be 60 working days.

Existing Conditions

The Project is located entirely within the PROW, the installation of a dissipator impacts approximately 1,020 sq-ft of previously disturbed non-native vegetation to allow continued and controlled drainage into the adjacent urban canyon where stormwater already flows. The total flow currently exiting the outfall is 17.664 cubic feet per second (CFS), with a final exit velocity of 17.049 feet per second (ft/sec). Both existing velocities entering the urban canyon are beyond the permissible velocity of 3.75 ft/sec.

Installation of the dissipator will extend into a previously disturbed and vegetated area that was once graded and used as an emergency fire access. This area is Burnham Place, a paper street. The dissipator will be installed where areas of deteriorated hardscape and non-native vegetation are located.

The Revegetation Area is dominated by Non-Native Vegetation, a Tier IV Multiple Species Conservation Plan habitat, as detailed in the Vegetation Communities. This includes Century Plant (*Agave americana*), Bougainvillea (*Bougainvillea sp.*), Fennel (*Foeniculum vulgare*), English ivy (*Hedera helix*), and wild radish (*Raphanus raphanistrum*). There is a large Eucalyptus tree approximately 12 feet to the north of the Revegetation Area, and a Magnolia tree is located in an adjacent property to the north of the Revegetation Area (Attachment D). Due to the lack of native plant species in the Revegetation Area there is a low likelihood that wildlife can be sustained by the non-native vegetation. All the species that were observed are common to the region and expected in the habitat found in the Revegetation Area. No impacts to Environmentally Sensitive Lands (ESL) will occur. For Revegetation Area see Attachment B.

Nesting bird surveys will be completed by a qualified biologist 72 hours before the start of any construction activities during bird breeding season (January 15 – September 15). If an active nest is found, a biological monitor will remain on site during construction to monitor the nest, work and noise levels, and stop work if necessary. If construction were to stop for 72 hours a new nesting bird survey will be performed before the start of any construction activities. A 300-foot avoidance buffer will be maintained in the event an active Cooper's hawk nest is present.

Site Preparation

Minimization and avoidance of ground disturbance will be practiced wherever feasible. Unavoidable temporary disturbance of approximately 0.023 acres (1,020 square feet) of Non-Native Vegetation and .006 acres (261 square feet) of Urban/ Developed habitat will occur at the northeastern end of the Project, where the dissipator installation and associated pipe replacement is within an urban canyon (refer to Biological Study Report). Prior to the start of construction, the Project Engineer will mark out the construction boundaries. During initial grading and excavation activities of the impacted non-native vegetated area, topsoil will be saved/stockpiled off-site. One Magnolia tree (*Magnolia sp.*) is located on an adjacent property approximately 5 feet away from the Revegetation Area. It is behind a fence on a neighboring property and could not be accessed to obtain the caliper size of the tree. The Magnolia tree will need to have its branches trimmed on one side for equipment usage of the access route, and its roots may be impacted during excavation. There is a Eucalyptus tree (*Eucalyptus sp.)* which is located 12 feet north from the Revegetation Area and has a 52.55-inch caliper. The existing base of the large Eucalyptus tree is at a sufficient distance away and work would likely not impact the tree or its roots. A designated Project Arborist will monitor activities at both locations. All trees and their roots will be protected in place to the greatest extent

feasible. See Attachment D for tree locations.

Following project installation within the Revegetation Area there will be over 25 sq-ft of bare soil. All areas comprised of bare soil within the disturbance area will be revegetated with hardy native coastal sage scrub plants without permanent irrigation. This will be done in conjunction with a mulch layer of a minimum depth of 2 inch and no greater than 4 inch over the site. Revegetation with native coastal sage scrub plants will minimize the need for long-term watering and maintenance, control erosion, and satisfy the Municipal Code requirements for construction and maintenance-related ground disturbance.

Irrigation

Watering shall be done by hand upon plant installation in coordination with the designated Project Biologist. The site is small enough that hand watering will be effective. A water truck with a hose will be used under the Project Biologist's direction. Since each plant will be watered individually, each plant will be examined when watering occurs which will allow signs of drought stress (signs include wilted, droopy leaves, brown spots on leaves, and leaves falling off) to be caught quickly and the watering schedule can be adjusted accordingly. This will also limit the water to just watering the plants and not the surrounding ground, which will limit the growth of invasive plants. The biologist's visits and watering will be done twice per month for the first 2 months, then once per month thereafter during the 120-day Plant Establishment Period (PEP) and will be adjusted accordingly due to signs of drought stress or rain events. After the 120 days, watering will be reduced and will be based on the water needs of the plants for the next 25 months. This is essential to encourage deep root growth and survival of native vegetation once supplementary water is discontinued. Typically, less watering is required if plants are installed during the rainy season (October 1 – April 30).

Plant Installation Specifications

The disturbed area of bare soil will be planted with hardy native coastal sage scrub shrubs (Table 1) and covered with weed-free wood mulch to stabilize the soil. Revegetation is estimated to begin 30 working days into construction after project installation is completed (March 24, 2025).

Methods and standards for the installation of container plants and mulch include:

- A Project Biologist to oversee the implementation of the Revegetation Plan.

- All graded, disturbed or eroded areas that will not be permanently paved or covered by structures to be permanently revegetated in accordance with the standards identified in the San Diego Municipal Code Landscape Regulations Section 142.0411, Revegetation and Erosion Control, and Table 142.04F. All required revegetation and erosion control to be completed within 90 calendar days of the completion of grading or disturbance.

- Topsoil to be saved/stockpiled upon initial grading/excavating activities and be reapplied to the revegetation area to a depth of at least 12 inches.

- Existing preconstruction grades to be reestablished and approved by the Project Engineer before installing container plants and mulch. Container plant stock to be supplied by a reputable nursery with experience in native plant horticulture.

- Container plants to be rejected if they show signs of girdling roots, insect infestation, disease, or decay, or are otherwise unhealthy.

- Container plants to be placed throughout the Revegetation Area, with the plants spaced approximately 5 feet on center from each other (Attachment B and Attachment C).

- The top of the planting hole to be at least 2 times larger than the root ball and no deeper than the root crown/trunk flare to bottom of the root ball (Attachment C).

- The installed container plants to have the root crown slightly (approximately 1-2 inches) above grade, and the root ball will be placed at the bottom of the planting hole with little to no backfill. The excavated soil to be used to backfill the hole, and wood mulch to be applied over the top to bring it to grade (Attachment C). Mulch depth to not exceed 2 inches within the planting basin.

- An earthen watering ring to be built around each installed container plant, using excavated soil. The watering ring will be at least 2 feet wide, and the earthen mounded ring will be at least 3 inches high (Attachment C).

- After installation container plants to be thoroughly watered, and any sunken soil to be backfilled and covered with mulch to bring to grade.

- Weed-free shredded wood mulch product to be uniformly spread to a minimum depth of 2 inches and no greater than 4 inches over the site.

When mulch is applied on the site, the following procedures will be utilized as determined by the designated Project Biologist:

  - Jute netting and other approved geotextile materials to be installed and secured per manufacturer's specifications and in a manner precluding sheet flows and rilling below the material surface.
  - Straw Stabilization:
    - Straw mulch to be uniformly spread at the rate of two tons per acre.
    - Straw on all cut slopes to be "tacked" with binder at a minimum rate of 160 pounds per acre. The binder shall be an organic derivative or processed organic adhesive.
    - Straw on all fill slopes shall be incorporated into the soil with a bladed roller so that the straw will not support combustion or blow away and will leave a uniform surface.
  - Wood Products:
    - Shredded wood products shall be uniformly spread to a minimum depth of two inches.
    - When used in conjunction with indigenous native container stock, the mulch shall be applied directly after the container plants are installed.

- Watering shall be done by hand upon plant installation in coordination with the designated Project Biologist. More watering will be required during the PEP and be reduced thereafter. Typically, less watering is required if plants are installed during the rainy season (October 1 – April 30).

- In accordance with Section IV of the San Diego Land Development Code, the areas where vegetation has been removed will be replaced with a plant palette consisting of various species found in Diegan Coastal Sage Scrub habitat (Table 1). All plants will be 1 gallon minimum in size, and there will be at least 1 shrub for every 100 square feet of disturbed area.

Table 1: Plant Palette and Quantities

Species Name	Container Size	*Quantity
California Buckwheat *(Eriogonum fasciculatum)*	1 gallon	18
California encelia *(Encelia californica)*	1 gallon	18
California sagebrush *(Artemisia californica)*	1 gallon	18

***Note 1:** Quantity of container stock* will *be reverified by the Project Biologist based on the actual bare soil that exists following project installation. The Project Biologist can adjust or modify the plant palette with similar or other native species, as needed.*

- If the vegetation does not survive the rainy season, specific measures need to take place to ensure the future survival of the plants. These measures will be handled and monitored by the Project Biologist and the Project Engineer as follows:

  - Employ erosion control measures to protect newly planted areas, such as:
    - Install temporary barriers or mats, such as silt fence barriers and fiber rolls, to prevent soil erosion until vegetation is established.
    - Mulch around plants to retain moisture and reduce weeds.
  - Thoroughly inspect and evaluate the existing vegetation after the rainy season. Determine areas of loss, possible causes, and areas that will require replanting. If causes can be determined for loss of plants, address these problems (fix erosion issues with silt fence barrier, etc.)
  - Prepare a detailed replanting plan that outlines:
    - Species selection appropriate for the local climate and soil conditions.
    - Timing for replanting to coincide with optimal growing conditions.
    - Methods for ensuring the successful establishment of new plants.
  - Make sure soil is properly prepared before replanting, including:
    - Amend soil to improve drainage and fertility.
    - Removing dead or dying vegetation to reduce competition and disease spread.
  - Implement a watering and maintenance schedule to support the establishment of new plants, including:
    - Monitoring soil moisture levels on a regular basis.
    - Additional irrigation during dry spells as needed.
  - Start a monitoring program to assess the survival and growth of newly planted vegetation, including:
    - Perform regular site visits to evaluate plant health.
    - Document replanting times, methods and outcomes.
  - Based on the monitoring results, make necessary adjustments to improve future plant survival rates.

Hydroseed Measures

The revegetation plan states the use of container plants instead of hydroseeding as a method for plant establishment. The number of container plants to be installed will adequately cover the area, any bare soil to be covered with mulch. However, if the planting of the bare slopes is delayed after project installation within the Revegetation Area, the area will be hydroseeded to maintain slope stability. While hydroseeding is not planned for use on the site, should hydroseeding be included, section 4.4 of the Landscape Standards for application procedures will be implemented as follows:

- HYDROSEEDING PROCEDURES
  - Mixes shall be specified by the pure live seed of each species, which are all native coastal sage scrub plants.
  - Fiber mulch shall be applied at a minimum rate of 2,000 pounds per acre except when used in conjunction with straw mulch, when it shall be applied at a minimum rate of 400 pounds per acre.
  - A wetting agent consisting of 95 percent alkyl polyethylene glycol ether shall be applied as per manufacturers' recommendations.
  - Equipment used for the application of slurry shall have a built-in agitation system to suspend and homogeneously mix the slurry. The slurry mix shall be dyed green. The equipment must have a pump capable of applying slurry uniformly.

Interim Binder Note: Graded, disturbed, or eroded areas to be treated with a Non- Irrigated Hydroseed Mix shall receive an interim binder/ tackifier as needed between April 2 and August 31 for dust-erosion control with subsequent application of hydro seed mix during the rainy season between October 1 and April 1. The Hydroseed Mix will consist of the species and quantities listed in Table 2.

Table 2. Hydroseed Mix

Species Name	**Minimum % Pure Live Seed**	**Pounds/Acre**
Deerweed/ *Acmispon glaber*	85%	3.0
California sagebrush/ *Artemisia californica*	10%	3.0
Coyote brush/ *Baccharis Pilularis*	1%	3.0
Giant wild rye/ *Elymus condensatus*	70%	3.0
California Encelia/ *Encelia californica*	25%	5.0
California buckwheat/ *Eriogonum fasciculatum*	10%	6.0
California poppy/ *Eschscholzia californica*	85%	2.0
Goldenbush/ *Isocoma menziesii*	15%	1.0
Needle goldfields/ *Lasthenia gracilis*	39%	2.0
Miniature lupines/ *Lupinis bicolor*	83%	3.0
Dotseed plantain/ *Plantago erecta*	85%	6.0
Black sage/ *Salvia mellifera*	40%	2.0
Purple needle grass/ *Stipa pulchra*	75%	4.0

Maintenance Program and Biological Monitoring

In accordance with Section 4.5 of the City's Landscape Standards, nonpermanent irrigated areas will be maintained for a period of 25 months following a 120-day PEP or until sufficient coverage is established (e.g., 70 percent), as determined the Project Biologist whichever comes first. All revegetated areas will be maintained by the Stormwater Department until final approval by the Project Biologist. The revegetated areas will adhere to the following success criteria:

Table 3. Success Criteria

Milestone	Percent Vegetative Cover
120-Day PEP	30%
12 Months	50%
25 Months	70%

The maintenance period begins on the first day following acceptance and may be extended at the determination of the Project Biologist. Prior to final approval, the Project Biologist may require corrective action, including but not limited to replanting, the provision or modification of irrigation systems (if any), and the repair of any soil erosion or slope slippage.

The following revegetation maintenance activities that are to be performed are provided below:

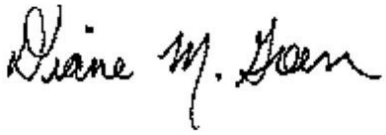
- Project biologist will monitor contractor/crew as they install plants onsite.
- Upon completion of container plant installation, conduct weed abatement, trash removal, and hand watering at least twice per month for the first two months, then once per month thereafter during the 120 days (i.e., during the PEP) or as determined by the project biologist.
- The watering schedule after the 120 days will be determined by the project biologist.
- Conduct twice yearly maintenance of the revegetation site for 25 months following the 120-day PEP.
- Identify and replace any dead plants 1 year after the container plant installation date.
- Replacement plantings will only use the species identified in Table 1.

The following biological monitoring activities that are to be performed are provided below:

- Observe watering twice per month for the first 2 months, then once per month thereafter during the 120-day PEP, adjusting watering schedule accordingly due to signs of drought stress or rain events.
- Provide 120-day PEP, 1 year maintenance (post PEP), and 25-month end of project reports, showing if site is meeting success criteria/intended design.
- Include photo documentation of the site.

Please contact me at GreenDM@sandiego.gov or (619) 527-3449 if you have any questions.

Sincerely,



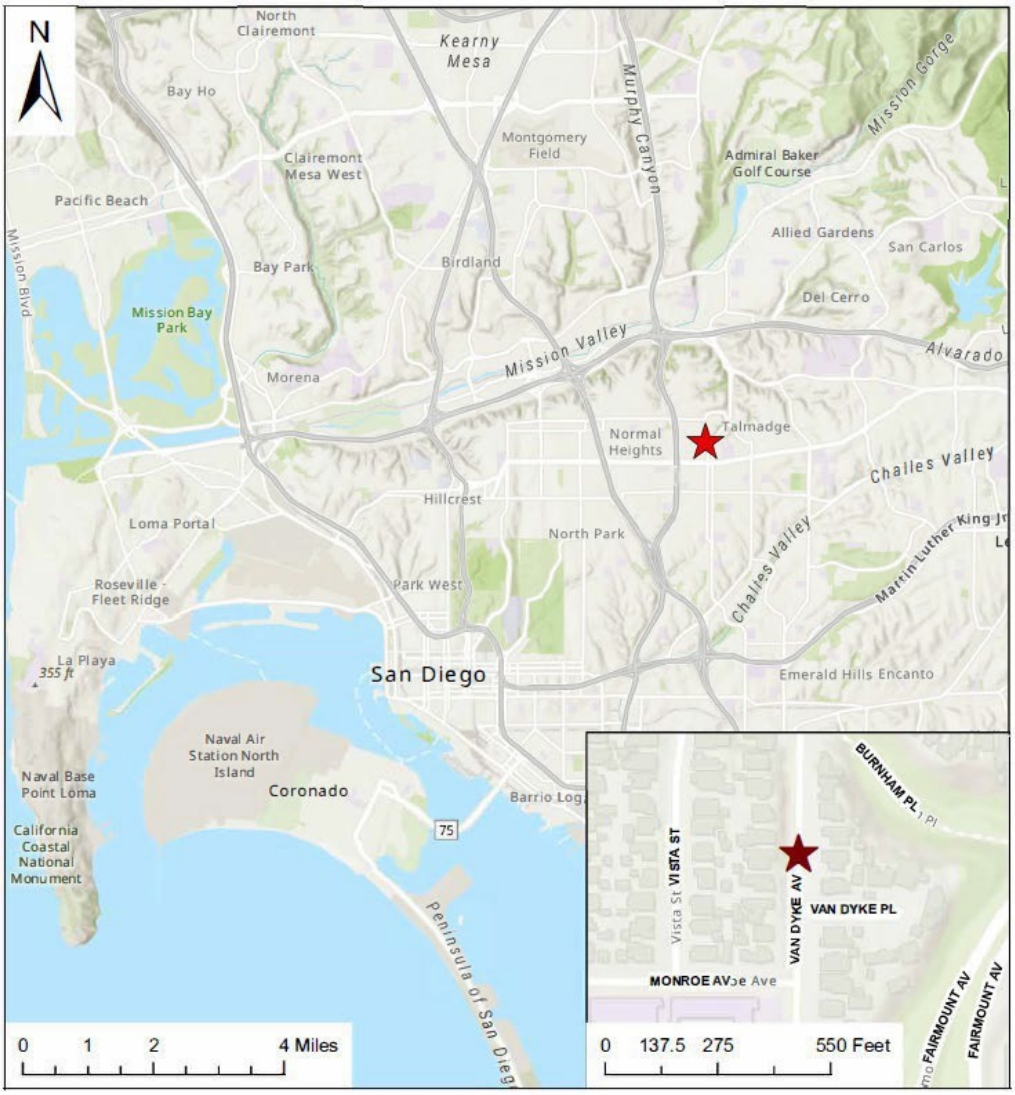
Qualified Biologist

Attachments

A. Location Map
B. Revegetation Area/Plan
C. Container Plant Installation Diagram
D. Biological Survey Map

ATTACHMENT A: Location Map

Location Map: Van Dyke Pl at Van Dyke Ave SD SWD WBS # B-25023



Legend

★ Project Location

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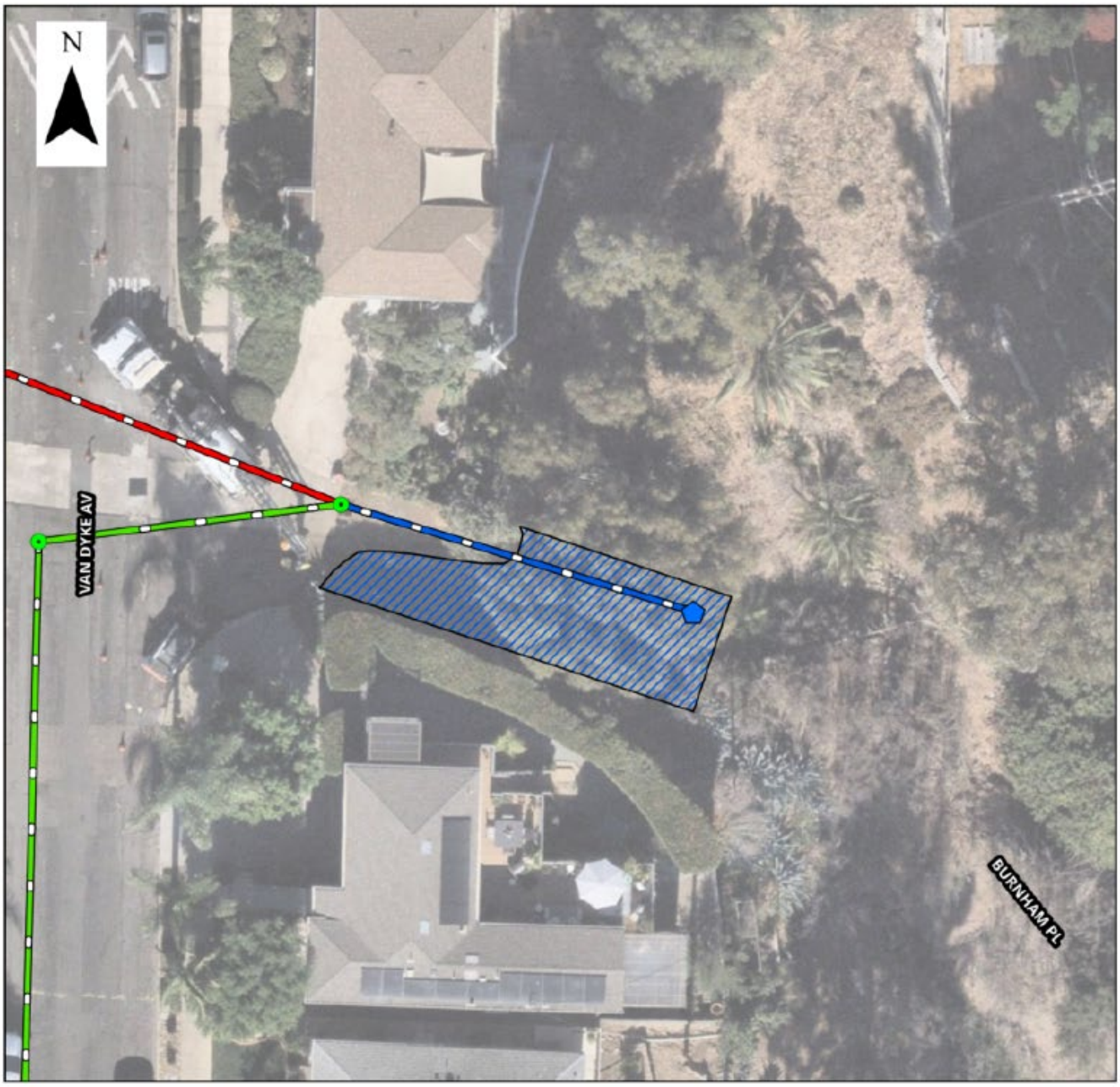
ATTACHMENT B: Revegetation Area/Plan

Van Dyke Pl at Van Dyke Ave SD SWD
Revegetation Area



0 10 20 40 US Feet

Legend

- Proposed Structure
- Remove and Replace Outlet (Install Dissipator)
- Proposed RCP
- Remove and Replace Existing Pipe
- Existing Pipe
- Revegetation Area

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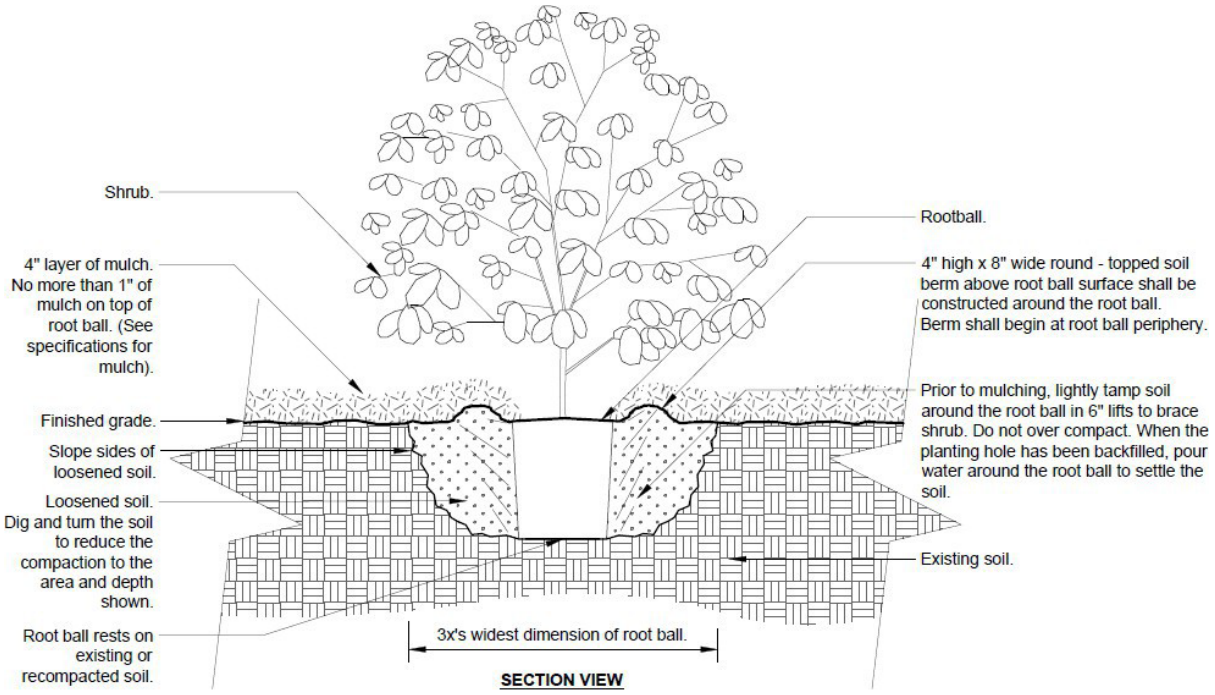
ATTACHMENT C: Container Plant Installation Diagram



Notes:
1- Shrubs shall be of quality prescribed in the root observations detail and specifications.

2- See specifications for further requirements related to this detail.

P-X SHRUB - UNMODIFIED SOIL

ATTACHMENT D: Biological Survey Map