



MEMORANDUM

TO: CITY OF SUMNER
FROM: JIM DOUGHERTY, BIOLOGIST
DATE: MARCH 19, 2025
SUBJECT: HABITAT MANAGEMENT PLAN – CITY
OF SUMNER BIOSOLIDS
MODERNIZATION PROJECT
CITY OF SUMNER, PIERCE COUNTY,
WASHINGTON
G&O #22446.00

INTRODUCTION

The purpose of this Habitat Management Plan is to assess potential project effects on fish and wildlife habitat, and describe the implementation of permanent mitigation and restoration measures required by the City of Sumner Municipal Code (SMC), Chapter 16.56.080, and the City of Sumner Shoreline Management Plan (SMP).

PROJECT LOCATION

The project is located at the City of Sumner Wastewater Treatment Plant (WWTP) located at 13114 63rd Street East, Sumner, Washington 98390, near the confluence of the Puyallup and White Rivers at latitude 47°11'58.46"North, longitude 122°15'15.26" West, in Section 23 of Township 20 North, Range 4 East. See Figure 1, Location Map and Vicinity Map.

The project is located in two of the nineteen parcels that are included within the WWTP site, Parcel 4250001210 and Parcel 4250001080. The WWTP site is developed with buildings, open tanks, and covered tanks that provide wastewater treatment for the City of Sumner, City of Bonney Lake, and portions of unincorporated Pierce County. 51.7 Percent of the site is covered with impervious surface. There are limited areas of maintained lawn, ornamental plantings, and groundcover. All existing vegetation within the confines of the WWTP has been planted since the site was developed and provides no habitat function to the White or Puyallup River buffer (due to distance to the rivers) and the isolation of the site, by a floodwall and fencing around the WWTP.

There are no residential structures within the WWTP site. The site is bounded by Highway 410 on the north, Linden Avenue and BNSF rail lines and land owned by the State of Washington Department of Fish and Wildlife on the east, the White River on the northwest, and the Puyallup River on the south. The nearest residential property is approximately 260 feet away from the WWTP on the north side of Highway 410.



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The WWTP is located in the Urban Conservancy designation, Inventory Segment B, per the SMP. The urban conservancy buffer in this segment is 200 feet.

The Puyallup and White Rivers are waters of the State and provide habitat for Federal and State endangered, threatened, and sensitive fish species, including Chinook salmon, steelhead trout, and bull trout. According to the Priority Habitat and Species data provided by the Washington Department of Fish and Wildlife (March 2025), no known locations of any other species that are afforded protection under SMC, Title 16.56.050, occur in areas that would be altered by project activities. This Report, therefore, focuses on the potential for project activities to affect habitat for aquatic species in the Puyallup and/or White River.

PROJECT DESCRIPTION

The City of Sumner will construct several improvements to the existing Wastewater Treatment Plant (WWTP) to improve solids handling and treatment capabilities. The need for this project was the subject of the *2023 City of Sumner Wastewater Treatment Facility Comprehensive Facility Plan, Addendum 3* (Addendum 3). Addendum 3 reviewed design alternatives for improvements to the existing Class A biosolids treatment system and other biosolids handling equipment to address the replacement of ageing equipment and the anticipated increase in flow and loads to the City of Sumner WWTP. A Habitat Management Plan was prepared in 2013 (Parametrix) for the expansion of the WWTP that discussed the impact of improvements conducted within the existing footprint of the WWTP and construction of a new Secondary Clarifier 3 that was outside of the existing footprint. The conclusion of the 2013 Habitat Management Plan was that the project avoided direct impacts on the Puyallup and White Rivers, did not impact listed species or their habitat, and did not impact wetlands or other critical habitat. No compensatory mitigation was proposed. The current proposed project will have less impact on the natural environment than the 2013 project.

The majority of the activities included in the Biosolids Modernization Project include installation of new/replacement equipment within existing buildings. The project includes the following items.

- Expansion of the Solids Handling Building, installation of new equipment and replacement of equipment in the Solids Handling Building.
- Installation of an emergency generator.
- Installation of a skid-mounted gas-conditioning unit.
- Installation of an enclosed-flame waste gas burner.



- Installation of a digester gas hydrogen sulfide treatment system.
- Installation of approximately 890 square feet of new paving
- Installation of a gate and paved vehicle turn-around (approximately 1,180 square feet) on State Street to provide added security WWTP.
- Removal of approximately 18 shrubs and two fruit trees for installation of new paving and the skid-mounted gas-conditioning unit, and four trees to improve security camera monitoring of the WWTP.

Native shrubs and trees will be planted at a 2:1 ratio as mitigation for the vegetation that will be removed.

The improvements, with the exception of the removal of four trees to increase security of the WWTP, are located within the 200 feet buffer of the White and Puyallup Rivers. The project will increase the impervious surface of the WWTP by 0.7 percent.

The installation of the new asphalt paving in the WWTP and gas-conditioning unit will require the removal of eighteen arbor vitae shrubs and two fruit trees. This vegetation is within the 200 feet of the Shoreline Zone. In addition, three pine trees and one cedar tree north of the headworks will be removed in order to ensure a clear view from the security cameras that protect the WWTP. The four evergreen trees north of the headworks are not located within 200 feet of the Shoreline Zone.

The project will not affect the following characteristics of the Puyallup and White Rivers: flood storage capacity, channel migration and bank stability, bank armoring and channel straightening, riparian vegetation, habitat forming processes, refuge for fish from higher velocity floodwaters, and spawning substrate.

The SMP “Riparian Management Zones” purpose is to preserve the natural character of Sumner’s riverine and lake system, and to protect the resources and ecology of the shoreline. Riparian Management Zones are designed to protect ecological functions and processes of the shorelines of the State, protect and enhance salmonid habitat, and provide a recreational open-space system for the City of Sumner. The proposed project does not affect the existing vegetated areas along the White and Puyallup Rivers.

ENDANGERED, THREATENED, AND SENSITIVE SPECIES

No Endangered Species (ESA) listed or State-listed endangered, threatened, or sensitive species have been documented at the project site. The Puyallup and White Rivers adjacent to the project site provide aquatic habitat for several ESA-listed or State-listed species. In addition, aquatic habitats in the Puyallup and White Rivers are considered priority habitat in general, for biodiversity. Table 1 lists species identified by the



Washington Department of Wildlife Priority Habitat and Species (PHS) Program (March 2025) as occurring in the Puyallup and/or White Rivers, the ESA listing status, and the habitat used adjacent to the proposed project site. Other ESA-listed threatened or proposed threatened species that could occur in the vicinity include the streaked horned lark (*Eremophila alpestris strigata*), marbled murrelet (*Brachyramphus marmoratus*), yellow-billed cuckoo (*Coccyzus americanus*), northwestern pond turtle (*Actinemys marmorata*), and the monarch butterfly (*Danaus plexippus*). There is no suitable habitat or documented occurrences of streaked horned lark, marbled murrelet, yellow-billed cuckoo, northwestern pond turtle, or monarch butterfly within the existing WWTP site. Since no suitable habitat exists for these species in the project area, they will not be discussed further in this Report. This Report focuses on the potential for project activities to affect habitat for ESA-listed aquatic species in the Puyallup River and/or the White River.

TABLE 1

**Washington State Department of Fish and Wildlife Priority Habitat and Species
List of Species Identified in Vicinity of Project Site**

Common Name	Scientific Name	ESA Listing Status	Habitat Use in Project Vicinity
Puget Sound Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	Threatened	Migration and Rearing
Puget Sound Steelhead	<i>Oncorhynchus mykiss</i>	Threatened	Migration
Puget Sound Bull Trout	<i>Salvelinus confluentus</i>	Threatened	Migration

WILDLIFE SPECIES

Per the 2013 Habitat Management Plan, upland animal species that may use the project site and the adjacent uplands include species commonly found in urbanized areas that have adapted to a wide variety of conditions. Characteristic species include European starlings (*Sturnus vulgaris*), American robins (*Turdus migratorius*), American crows (*Corvus brachyrhynchos*), dark-eyed juncos (*Junco hyemalis*), spotted towhees (*Pipilo maculatur*), house finches (*Carpodacus mexicanus*), house sparrows (*Passer domesticus*), black-capped chickadees (*Poecile atricaillus*), Virginia opossums (*Didelphis virginiana*), raccoons (*Procyon lotor*), deer mice (*Peromyscus maniculatus*), and Norway rats (*Rattus norvegicus*).

AQUATIC SPECIES

The Puyallup and White Rivers provide riverine habitat to resident and migratory fish (Table 1) in addition to providing habitat for species that prey on aquatic species.



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GENERAL PROPERTY DESCRIPTION AND SURROUNDING LAND

The project area is located at the confluence of the White and Puyallup Rivers. The area is characterized as flat with alluvial gravel (riverbed) deposits. Levees and flood control berms protect the WWTP from flooding. Onsite, the facility has a mixture of paved, gravel, and grassed/landscaped surfaces with few trees. To the south are grassed areas with mature deciduous trees and the Puyallup River. To the northwest is a narrow strip of shoreline with gravel and mature deciduous trees along the White River and the access road to the facility. State Highway 410 crosses the White River to the northeast of the project site. To the east are Linden Avenue and BNSF railroad tracks. To the west is the confluence of the White and Puyallup Rivers. The Puyallup River Trail follows the river shoreline around the WWTP.

HABITAT AREAS

There is little habitat potential within the limits of the WWTP facility. Facility landscaping purposefully limits suitable wildlife habitat, other than resting areas for small birds.

The adjacent habitat is primarily riparian, dominated by grasses, shrubs, and deciduous trees. The dominant species of vegetation located between the WWTP facility and the Puyallup and White Rivers were identified in the 2013 Habitat Management Plan. Per the 2013 Habitat Management Plan, the vegetation between the WWTP and the rivers is typical of riparian habitat in the Puget Sound Trough and includes black cottonwood (*Populus balsamifera*), snowberry (*Symphoricarpos alba*), and scouring rush (*Equisetum hymale*). Other species observed are the beaded hazelnut (*Corylus cornuta*), common velvetgrass (*Holcus lanatus*), Himalayan blackberry (*Rubus armeniacus*), red alder (*Alnus rubra*), big-leaf maple (*Acer macrophyllum*), Sitka willow (*Salix sitchensis*), and common rush (*Juncus effusus*). Per the National Wetland Inventory, no wetlands are located within, or adjacent to the project site except for the rivers (United States Fish and Wildlife Service, March 2025).

The proposed project footprint of disturbance is confined to upland areas of the existing WWTP developed area and will not impact screening along the Puyallup River Trail. Approximately 1,325 square feet of existing landscaped areas within the treatment plant site will be disturbed for installation of additional paved area and a gas-treatment system. Approximately 1,180 square feet of existing grassed area will be disturbed to install a hammer-head turnaround off of State Street.

Four evergreen trees, greater than 4 inches at 1 foot above grade, will be removed to improve camera surveillance capability.



Impact Analysis

The proposed project would not have direct impacts on listed fish, wildlife, or plant species. There would be no indirect impacts on listed wildlife or plant species because none are located on, or in the vicinity of the project.

Fish Species

Operation of the WWTP may have indirect effects on listed fish species due to the discharge of stormwater and treated wastewater. This risk will occur only during large rain events in the service area, or in the case of a system failure at the WWTP, with the plant becoming overloaded and unable to process effluent. The risk remains at the same level as current conditions.

The new impervious surfaces that will result from this project increase the total amount of impervious surface within the WWTP by 0.7 percent. Stormwater generated from the expansion of paving within the WWTP fenced area will be conveyed through the onsite stormwater detention/treatment system prior to discharge to the White River. The impervious surface installed for the vehicle turnaround on State Street will be discharged by overland flow to the White River along with the existing flow from State Street.

Removal of shrubs and trees within the WWTP to install the proposed biosolids system improvements will not degrade the riparian habitat conditions of the Puyallup or White Rivers. The shrubs and trees within the upland portion of the WWTP do not contribute to shading of the rivers and do not provide wildlife habitat.

Wildlife and Plant Species

Indirect project construction impacts may occur on non-listed wildlife species, including mammals and birds. Potential impacts include disturbance during construction due to elevated levels of noise and human activity at the project site, as well as loss of resting/roosting trees for small bird species. Construction-related noise disturbances will be temporary and short-lived. Habitat loss will be offset in part, by post-project planting of native vegetation, per the City of Sumner SMP. The potentially disturbed habitat will be offset by planting native vegetation in a currently grassed area of the WWTP, at a ratio of 1:1 for shrubs and groundcover, and at a ratio of 2:1 for trees. The removal of existing vegetation at the WWTP is not expected to result in adverse effects on wildlife species.

2:1



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MITIGATION

The project has been designed to avoid impacting vegetation within the 200-foot shoreline buffer of the White and Puyallup Rivers to the extent possible, and will have minimal impacts on habitat within the project boundaries. The existing WWTP is not suitable wildlife habitat for most species, as upland ground surfaces are gravel and asphalt with some landscaping in the form of mowed grass, shrubs, ornamental trees, and trees planted for screening. There is no planned disturbance to the existing native vegetation riparian areas along the White and Puyallup Rivers or in-water habitat. Approximately eighteen ornamental shrubs, two fruit trees, and four evergreen trees within the WWTP site will be removed. The three pine trees and one cedar tree adjacent to the main parking lot are located landward of the 200-foot buffer zone. None of the removed vegetation provides habitat value to the Puyallup or White Rivers shoreline or floodplain.

Best management practices (BMPs) and minimization measures will be used during construction of the project in order to avoid potential impacts to water quality in the White or Puyallup Rivers. BMPs that will be implemented include the following.

- Clearing limits will be staked in the field prior to the start of construction.
- Any temporarily disturbed areas will be replanted with native species.
- Erosion control BMPs such as silt fence and strawbales, as outlined in the Temporary Erosion Sediment Control Plan for the project, will be used at all times.
- All equipment will be checked daily for leaks and any necessary repairs made prior to the commencement of work.
- A Spill Prevention Control and Countermeasures Plan will be prepared by the Contractor and approved by the City prior to the initiation of construction.

REPLACEMENT RATIOS

The SMP requires mitigation for removal of native shoreline vegetation within the shoreline jurisdiction. Mitigation shall ensure that there will be no net loss in the amount of vegetated area or the ecological functions performed by the disturbed vegetation. Although the limited amount of vegetation that will be removed for this project is not native shoreline vegetation and provides no habitat function for listed species, the



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requirements of the SMP Section III, Vegetation Conservation Regulations – Riparian Management Zone, Regulation 3, for vegetation restoration, will be followed.

Revegetation will involve the placement of shrubs and trees as follows.

1. At the time of planting, shrubs will be a minimum of 12 inches high. Shrubs will be planted such that within 2 years the shrubs will cover at least 60 percent of the area that would be covered when the shrubs have attained a mature size.
2. For every tree greater than 4 inches caliper, as measured 1 foot above grade, removed for clearing, a minimum of two trees will be planted.
3. Cut trees larger than 9 inches measured 1 foot above grade, will be retained in the Vegetation Management Zone for habitat value.
4. Plants native to western Washington will be used.
5. A mix of vegetation classes (i.e., ground cover, shrubs, and trees) will be used. Minimally, trees will be planted 20 feet on center.
6. An irrigation system will be installed to ensure survival of the planted vegetation.

The proposed Landscape Plans are attached. Trees and shrubs installed as mitigation for the trees and shrubs removed for the project will be planted in an area of approximately 6,580 square feet, located in the grassed area between State Street, and the main WWTP parking lot. The proposed planting area is located on a portion of Parcel 4250001080. This parcel is owned by the City of Sumner.

Five Red Alders (*Alnus rubra*) and seven Western Red Cedars (*Thuja plicata*) will be planted to replace the six trees that will be removed at a replacement ratio of 2:1. Nine Pacific rhododendrons (*Rhododendron macrophyllum*), thirteen Red flowering currants (*Ribes sanguineum*), and fourteen Common snowberries (*Symphoricarpos albus*) will be planted to replace the eighteen shrubs removed, at a replacement ratio of 2:1. Six of the common snowberry and five of the red flowering currant plants will be planted in the area adjacent to 63rd Street East, where the four evergreen trees will be removed. The remaining twenty-five shrubs will be planted in the grassed area between State Street and the main WWTP parking lot. Irrigation will be provided for all new plants. The installation of the native replacement trees and shrubs in the area shown will provide an enhanced visual and light barrier for vehicles on Highway 410, as well as the businesses located across the White River from the WWTP.

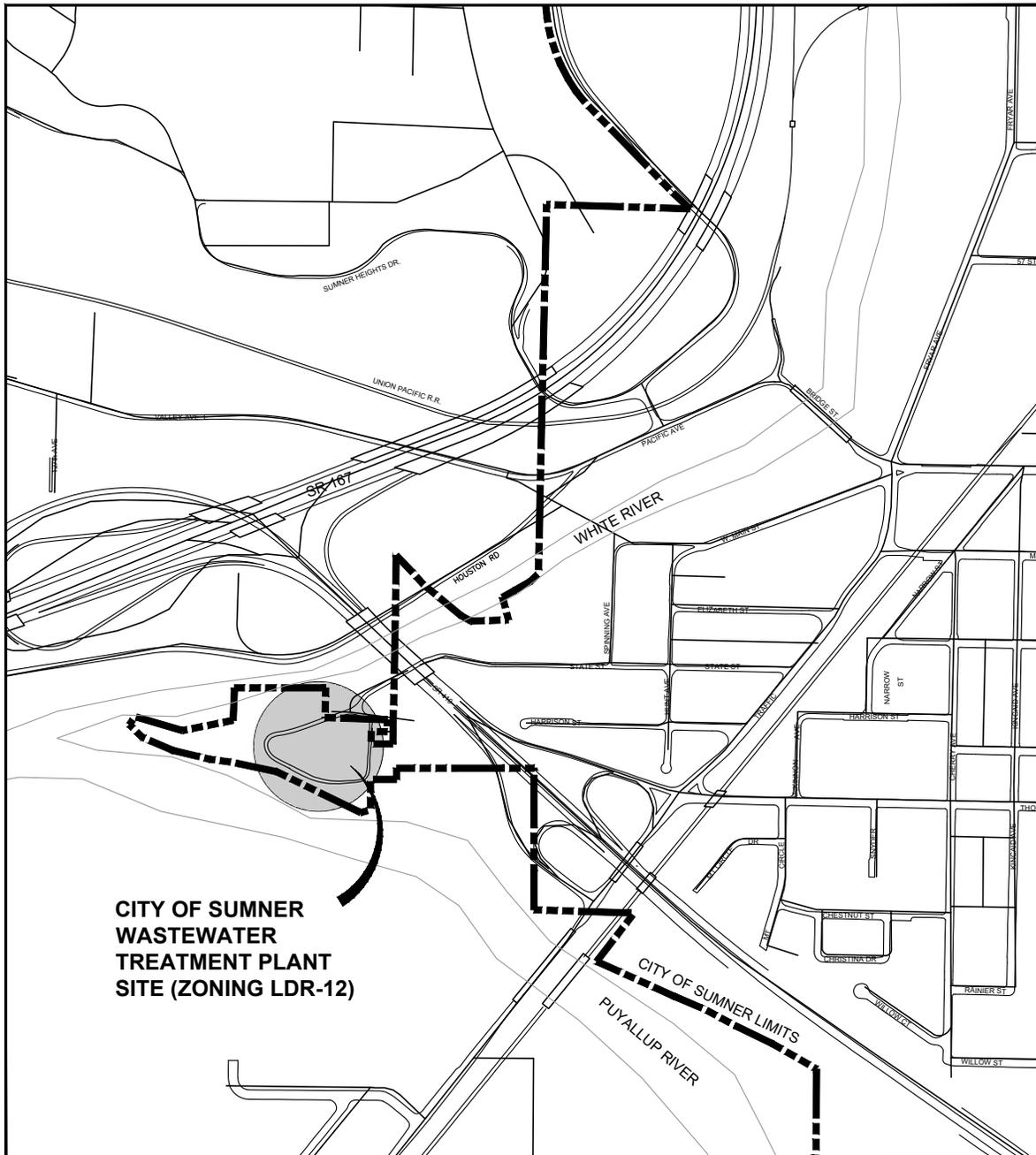


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Trees will be randomly spaced on an average of 20-foot centers. Shrubs will be placed on an average of 6-foot centers. Irrigation will be provided. Weed control will be done by mechanical means. If limited chemical application is necessary, weeds will be sprayed with an approved chemical by a licensed applicant.

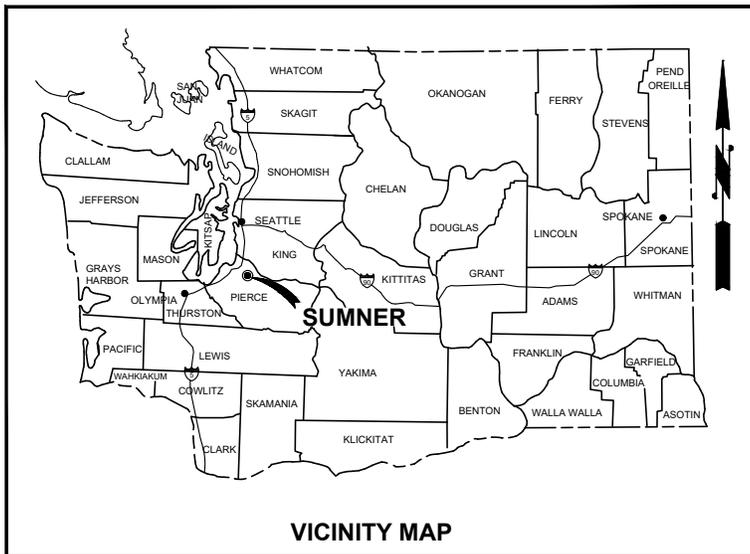
Monitoring of the planted vegetation will occur for 5 years to ensure 80 percent survival. During the first 2 years after initial planting, any unhealthy or dead vegetation planted for this project will be replaced.

NL/sr



LOCATION MAP

SCALE: 1"=800'



VICINITY MAP



ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

**CITY OF SUMNER
WASTEWATER TREATMENT PLANT
BIOSOLIDS MODERNIZATION**

**FIGURE 1
LOCATION MAP AND VICINITY MAP**



NOTES:

1. REFER TO IR-1 FOR IRRIGATION SYSTEM RESTORATION PLAN.
2. CONTRACTOR SHALL IMPORT, PLACE & FINE GRADE 6" DEPTH OF SPECIFIED TOPSOIL WITHIN ALL HYDROSEED LAWN AREAS.
3. ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE /OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR FINE GRADING & HYDROSEED RESTORATION OF ALL AREAS SHOWN & INCIDENTAL AREAS DISTURBED DURING CONSTRUCTION OPERATIONS IN ADDITION TO WHAT IS DEPICTED ON THESE PLANS.
5. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING VEGETATION SHOWN TO REMAIN THROUGHOUT CONSTRUCTION PERIOD. PLANT MATERIAL TO REMAIN THAT DIES OR IS DAMAGED AS A RESULT OF CONSTRUCTION WILL BE REPLACED WITH COMPARABLE SIZE & SPECIES AT NO ADDITIONAL COST TO OWNER.
6. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



No.	DATE	REVISION

ISSUED FOR:
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NOT FOR
CONSTRUCTION

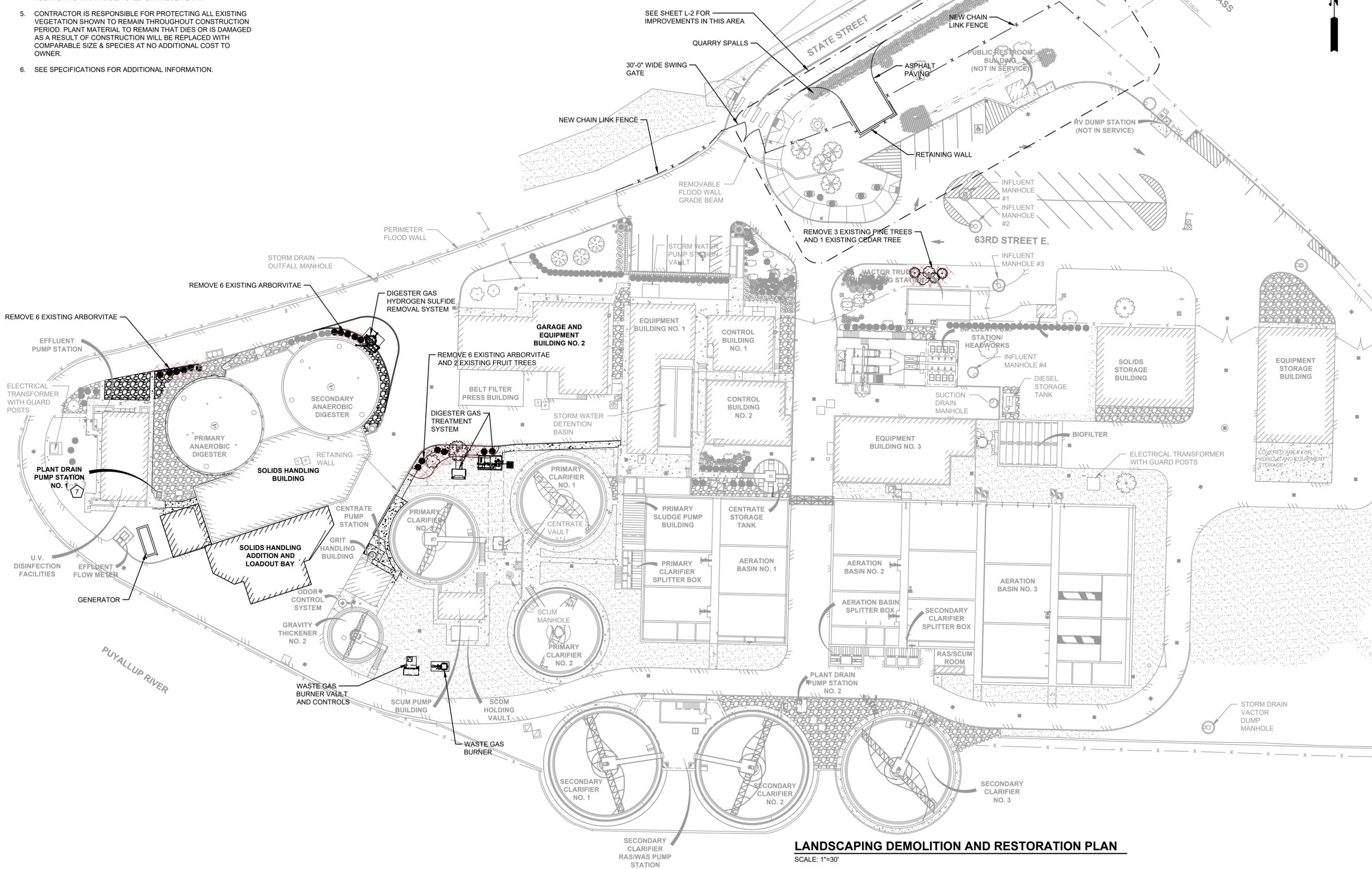
ISSUE DATE:	MARCH 2025
APPROVED BY:	DAW
CHECKED BY:	DAW
DRAWN BY:	CRR
DESIGNER:	DAW
G & O JOB NO.:	22446
FILE:	G-SITE-LDSCP.DWG

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 IF NOT, SCALE ACCORDINGLY

GENERAL

LANDSCAPING
DEMOLITION AND
RESTORATION PLAN

DRAWING: **L-1** OF: **16**



LANDSCAPING DEMOLITION AND RESTORATION PLAN
 SCALE: 1"=30'

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NOTES:

- REFER TO IR-1 FOR IRRIGATION SYSTEM RESTORATION PLAN.
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ISSUE DATE:	MARCH 2025
APPROVED BY:	DAW
CHECKED BY:	DAW
DRAWN BY:	CRR
DESIGNER:	DAW
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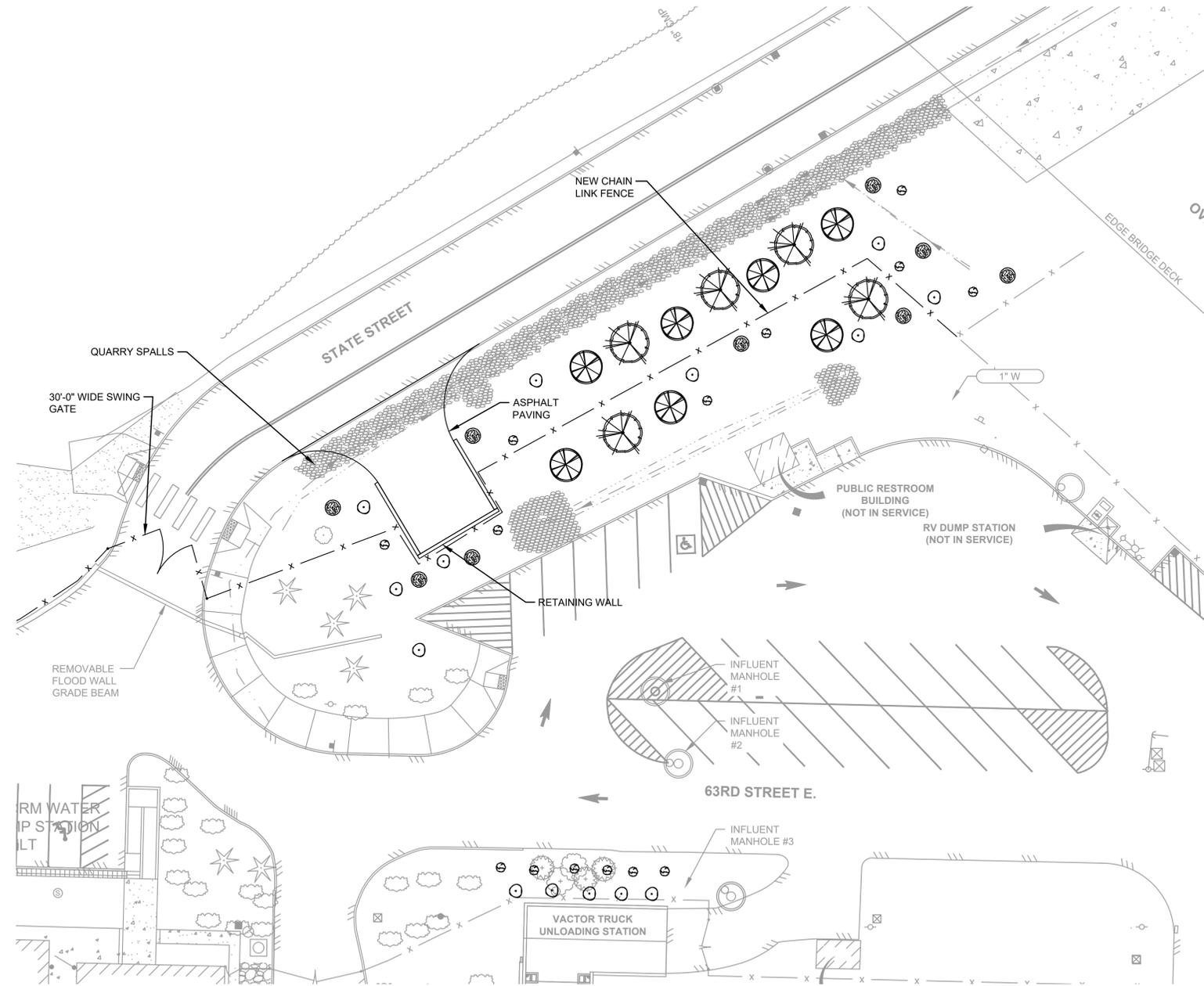
GENERAL

**LANDSCAPING
DEMOLITION AND
RESTORATION
ENLARGED PLAN**

DRAWING: **L-2** OF: **16**

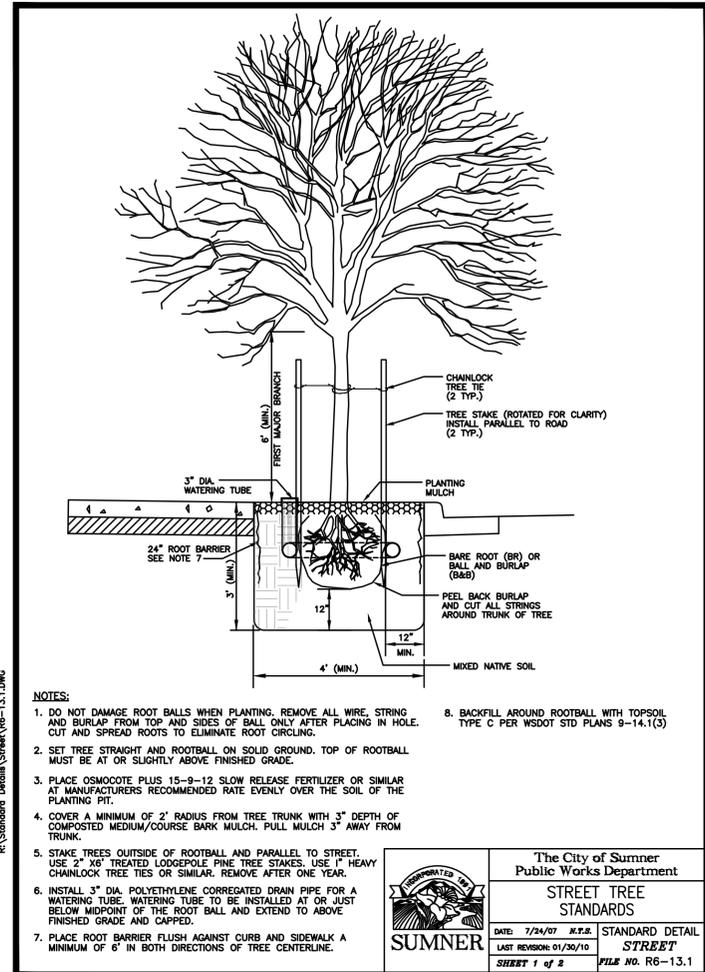
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LANDSCAPING SCHEDULE					
SYMBOL	PLANT	QUANTITY	SIZE	MINIMUM SPACING	NOTES
	RED ALDER (ALNUS RUBRA)	5	5 GALLON OR B&B	20'-0" ON-CENTER	FULL & BUSHY
	WESTERN RED CEDAR (THUJA PLICATA)	7	5 GALLON OR B&B	20'-0" ON-CENTER	FULL & BUSHY
	PACIFIC RHODODENDRON (RHODODENDRON MACROPHYLLUM)	9	2 GALLON	6'-0" ON-CENTER	NATIVE PLANT
	RED FLOWERING CURRANT (RIBES SANGUINEUM)	13	2 GALLON	6'-0" ON-CENTER	NATIVE PLANT
	COMMON SNOWBERRY (SYMPHORICARPOS ALBUS)	14	2 GALLON	6'-0" ON-CENTER	NATIVE PLANT

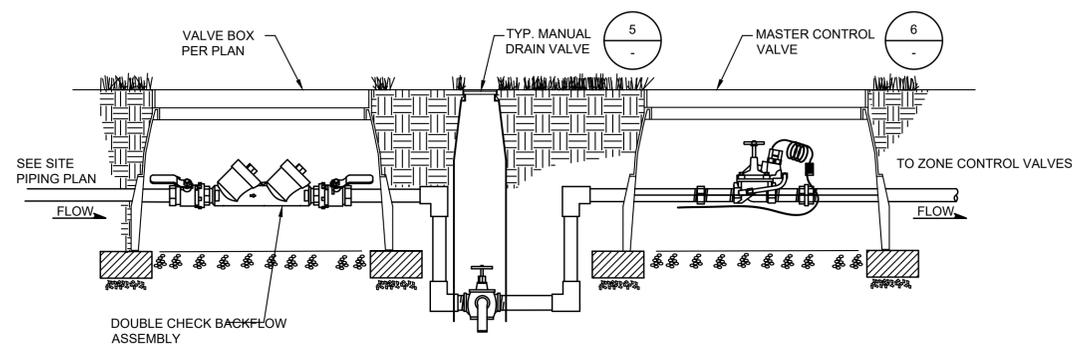


LANDSCAPING DEMOLITION AND RESTORATION ENLARGED PLAN

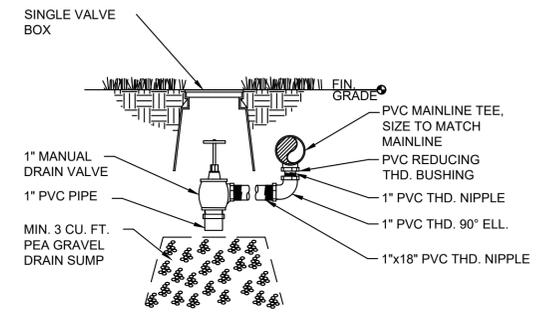
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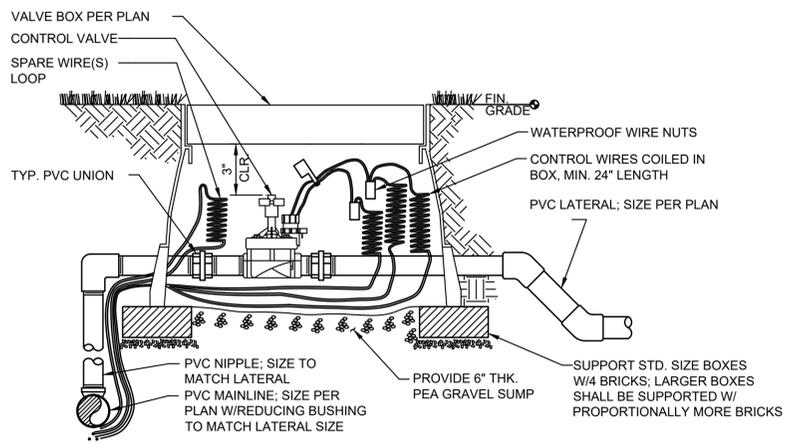
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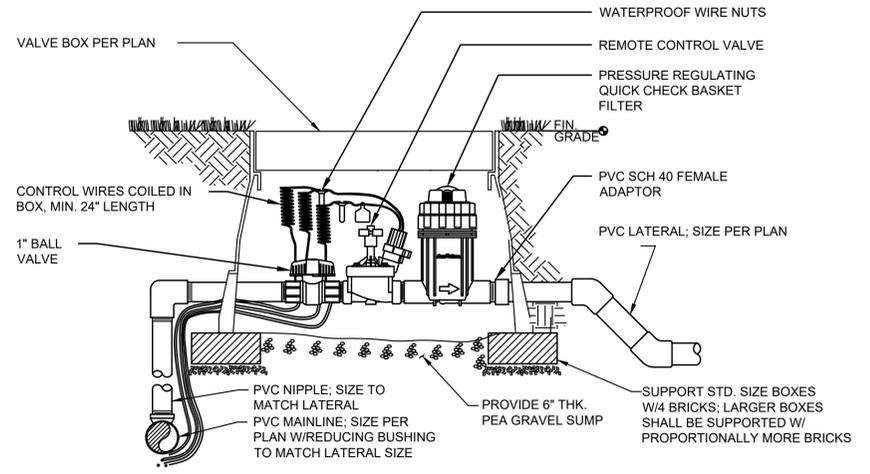
2 POINT OF CONNECTION
 L-2 NOT TO SCALE



3 MANUAL DRAIN VALVE
 - NOT TO SCALE



4 TYPICAL CONTROL VALVE
 - NOT TO SCALE

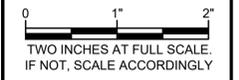


5 MASTER VALVE
 - NOT TO SCALE

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APPROVED BY:	DAW
CHECKED BY:	DAW
DRAWN BY:	CRR
DESIGNER:	DAW
G & O JOB NO.:	22446
FILE:	G-DET.DWG



LANDSCAPING
DETAILS

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