City of Bellevue, Development Services Department
P.O. Box 90012, Bellevue, WA 98009-9012
(425) 452-6800 Fax (425) 452-5225

SHORELINE MANAGEMENT ACT OF 1971
PERMIT FOR SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT

CITY FILE NO. 15-130086-WG **DATE OF APPLICATION:** 12/21/2015

DECISION: Approved
DATE OF DECISION: 7/28/2016

Pursuant to Chapter 90.58 RCW, this permit is hereby granted to **Chris Dew, King County Wastewater Treatment Division** to undertake the following development: **Upgrades to the Sunset sewer pump station and replacement of existing sewer main including staging and pipe layback in Lake Sammamish** upon the property located at **3800 W Lake Sammamish Parkway SE and Vasa Park at 3560 W Lake Sammamish Parkway SE.**

The project is located in or within 200 feet of **Lake Sammamish**, a "Shoreline of Statewide Significance" (RCW 90.58.030), and/or its associated wetlands. These areas are within the Shoreline Overlay District of the City of Bellevue, Land Use Code 20.25E. This proposal conforms to the applicable shoreline master program provisions found in the attached staff report. The project qualifies as a revision to a previously approved Shoreline Conditional Use Permit and meets the criteria for a revision in WAC 173-27-100.

Development pursuant to this permit shall be undertaken in accordance with the following terms and conditions:
Conditions in attached staff report.

This permit is granted pursuant to the Shoreline Management Act of 1971 and nothing in this permit shall excuse the applicant from compliance with any other federal, state or local statutes, ordinances or regulations applicable to this project, but not inconsistent with the Shoreline Management Act (Chapter 90.58 RCW).

This permit may be rescinded pursuant to RCW 90.58.140(8) in the event the permittee fails to comply with the terms and conditions hereof. Construction pursuant to this permit, or substantial progress toward construction, must be undertaken within two years of the date of final approval. This permit shall expire five years from the date of local approval.

Construction pursuant to this permit will not begin or is not authorized until twenty-one (21) days from the "date of filing," as defined in RCW 90.58.140(6) and WAC 173-27-130, or until all review proceedings initiated within twenty-one (21) days from the date of such filing have terminated; except as provided in RCW 90.58.140(5) (A) (B) (C) (D).

7/28/2016
Date

City of Bellevue, Land Use Division

CC: Attorney General, Department of Ecology, Northwest Region
Dept. of Fish and Wildlife, 1775 12th Ave. NW Suite 201 Issaquah, WA 98027
DOE, Joe Burcar, 3190 160th Avenue SE, Bellevue, WA 98008-5452

City of Bellevue, Development Services Department
P.O. Box 90012, Bellevue, WA 98009-9012
(425) 452-6800 Fax (425) 452-5225

I. Decision Criteria for Land Use Exemption from a Shoreline Conditional Use Permit at the Sunset Pump Station

The Director may determine that an addition or modification to a previously approved project or decision is exempt from further review under the administrative amendment process or as a new application, provided the following criteria are met:

1. **The proposal does not result in any significant adverse impact beyond the site; and**
   The proposal maintains the existing pump station location and does not expand the use or structures. The proposed improvements are localized on the existing site.

2. **The proposal is within the general scope of the purpose and intent of the original approval; and**
   The proposal maintains the existing pump station and improves its function which is within the scope and intent of the approval that established the pump station.

3. **The proposal complies with all applicable Land Use Code requirements; and**
   As found in the associated staff report for permits 15-130086-WG and 15-130087-LO the project meets the applicable Land Use Code requirements.

   In addition the proposed improvements at the Sunset Pump Station comply with the criteria to revise a prior shoreline approval in WAC 173-27-100 found below. The proposal maintains an existing pump station within 200 feet of Lake Sammamish. No new structure is proposed and no improvements are proposed to extend over water. The height of the pump station after the proposed improvements are made will comply with the maximum 35 feet allowed in the shoreline jurisdiction. No exceeded of height, lot coverage, setbacks, or other requirement is proposed that was not previously part of the approved pump station. All proposed landscaping is consistent or superior to the original landscaping that was installed around the facility. The use as a pump station is not proposed to be changed. SEPA review was done by King County which issued a Determination of Non-Significance and found the proposed upgrades to this existing utility facility would not have an adverse environmental impact.

   WAC 173-27-100

   (2) "Within the scope and intent of the original permit" means all of the following:

   (a) No additional over water construction is involved except that pier, dock, or float construction may be increased by five hundred square feet or ten percent from the provisions of the original permit, whichever is less;

   (b) Ground area coverage and height may be increased a maximum of ten percent from the provisions of the original permit;

   (c) The revised permit does not authorize development to exceed height, lot coverage, setback, or any other requirements of the applicable master

City of Bellevue, Development Services Department
P.O. Box 90012, Bellevue, WA 98009-9012
(425) 452-6800 Fax (425) 452-5225

program except as authorized under a variance granted as the original permit or a part thereof;

(d) Additional or revised landscaping is consistent with any conditions attached to the original permit and with the applicable master program;

(e) The use authorized pursuant to the original permit is not changed; and

(f) No adverse environmental impact will be caused by the project revision.

4. **The proposal does not add square footage that is more than 20 percent of existing gross square footage; and**
   No new structural square footage is proposed.

5. **If an addition or expansion has been approved within the preceding 24-month period, the combined additions will not add square footage that exceeds 20 percent of existing gross square footage.**

City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Sunset & Heathfield Pump Stations and Force Main Upgrade
Proposal Address:	3800 W Lake Sammamish Parkway SE (Sunset) 3541 163rd Ave SE (Heathfield)
Proposal Description:	Land Use review of a Critical Areas Land Use Permit and Shoreline Substantial Development Permit proposal for the King County Wastewater Treatment Division to upgrade the King County sewer pumps and supporting equipment at the Sunset and Heathfield pump stations near Lake Sammamish. Included is a new 24-inch sewer force main to replace the existing 12-inch main that connects the pump stations approximately following the alignment of SE 38th Pl, 164th Pl SE, and SE 35th Pl to reach the Eastgate Interceptor at the intersection of SE 35th Pl and SE Eastgate Way. The project proposes modifications to critical areas and is within 200 feet of Lake Sammamish shoreline jurisdiction and requires a Critical Areas Land Use Permit and Shoreline Substantial Development Permit
File Number:	15-130086-WG and 15-130087-LO
Applicant:	Chris Dew, King County Wastewater Treatment Division
Decisions Included:	Critical Areas Land Use Permit (Process II. 20.30P) Shoreline Substantial Development Permit (Process II. 20.30R)
Planner:	Reilly Pittman, Land Use Planner
State Environmental Policy Act Threshold Determination:	**Determination of Non-Significance issued on September 17, 2015 by King County for the proposed work**
Director's Decision:	**Approval with Conditions** Michael A. Brennan, Director Development Services Department By: _____ Carol V. Helland, Land Use Director

Application Date:	December 21, 2015
Notice of Application Publication:	January 14, 2016
Decision Publication Date:	July 28, 2016
CALUP Appeal Deadline:	August 11, 2016
Shoreline Development Permit Appeal:	August 18, 2016

Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision. Appeal of the Shoreline Substantial Development Permit must be made to the Washington State Shoreline Hearings Board (contact the project planner for more information on how to file an appeal with the Shoreline Hearings Board).

CONTENTS

I. Proposal Description ..... Pg 3-4

II. Site Description, Zoning & Land Use Context ..... Pg 4-8

III. Consistency with Land Use Code Requirements ..... Pg 8-15

IV. Public Notice & Comment ..... Pg 15-17

V. Summary of Technical Review ..... Pg 17-18

VI. State Environmental Policy Act (SEPA) ..... Pg 18

VII. Changes to Proposal Due to Staff Review ..... Pg 18

VIII. Decision Criteria ..... Pg 18-20

IX. Conclusion and Decision ..... Pg 20

X. Conditions of Approval ..... Pg 20-23

Attachments

1. Project and Restoration Plans – Enclosed
2. Critical Areas Report and Maintenance and Monitoring Plan – In File
3. Land Use Code and Policy review – In File
4. Project Biological Evaluation submitted to USACE – In File
5. Arborist Report and Tree Management Standards – In File
6. Public Comments – In File
7. Land Use Exemption Criteria – In File 15-130084-LJ
8. SEPA DNS – In File
9. Plans, Communication, SEPA Checklist, Geotech Report and Application Materials – In File

I. Proposal Description

The King County Wastewater Treatment Division proposes to upgrade the existing Sunset and Heathfield sewer pump stations and replace the associated 12-inch sewer main that connects the stations with a new 24-inch force main. The pump stations were originally constructed in 1965, upgraded in 1987, and currently have a capacity of 18 million gallons per day. The proposed upgrades of the pump stations and sewer main in this project will allow this system to carry 30 million gallons per day.

Upgrades to each pump station include:

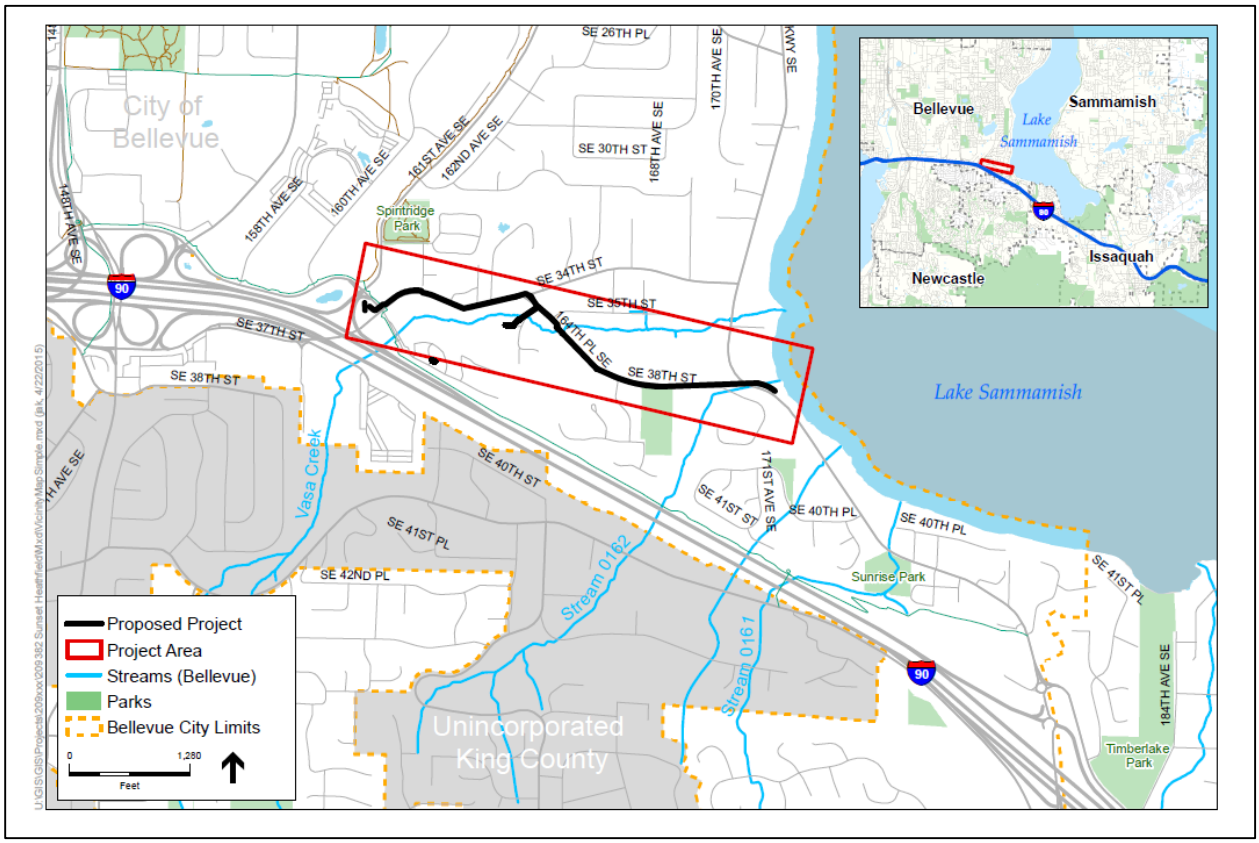
- Replacement pumps, valves, and equipment associated with running the pump station to provide larger pumps and improve station efficiency.
- Replacement of the station heating, ventilation, and air cooling to meet updated code requirements and improve odor control.
- Replacement of the existing emergency standby generators and fuel tanks with larger units to ensure the sewer pump stations continue to function in the event of a power outage.
- Replacement of fencing, landscaping, a green roof at the Sunset station, roofing and drainage systems to ensure security, provide screening, and improve drainage and water quality leaving the sites.
- Removal of existing shoreline armoring and restoration at the Sunset pump station above the ordinary high water mark.

Upgrades to the sewer main include:

- Installation of approximately 6,000 linear feet of sewer pipe and associated infrastructure to replace the existing sewer main.
- Installation will be achieved through open trenching and trenchless horizontal drilling construction methods.

The proposed work area and improvements for the Sunset Pump Station will disturb the shoreline critical area buffer and 100 year floodplain of Lake Sammamish. The proposed work area and improvements for the Heathfield Pump Station are within identified stream buffers. The proposed sewer main will be underground but construction requires temporary disturbance of the Vasa Creek stream buffer, identified wetlands and buffers, and the buffers of other identified streams. The project impacts are detailed in the project critical areas report as Attachment 2. As a result, the proposal requires a Critical Areas Land Use Permit to allow the proposed upgrades and replacement to existing public utility facilities and systems that will disturb areas protected by the City's Land Use Code 20.25H. The project also requires a Shoreline Substantial Development Permit as the work is within the shoreline jurisdiction and subject to the provisions of the City of Bellevue Shoreline Master Program. See Figure 1 below for project area.

Figure 1



II. Site Description, Zoning, Land Use and Critical Areas

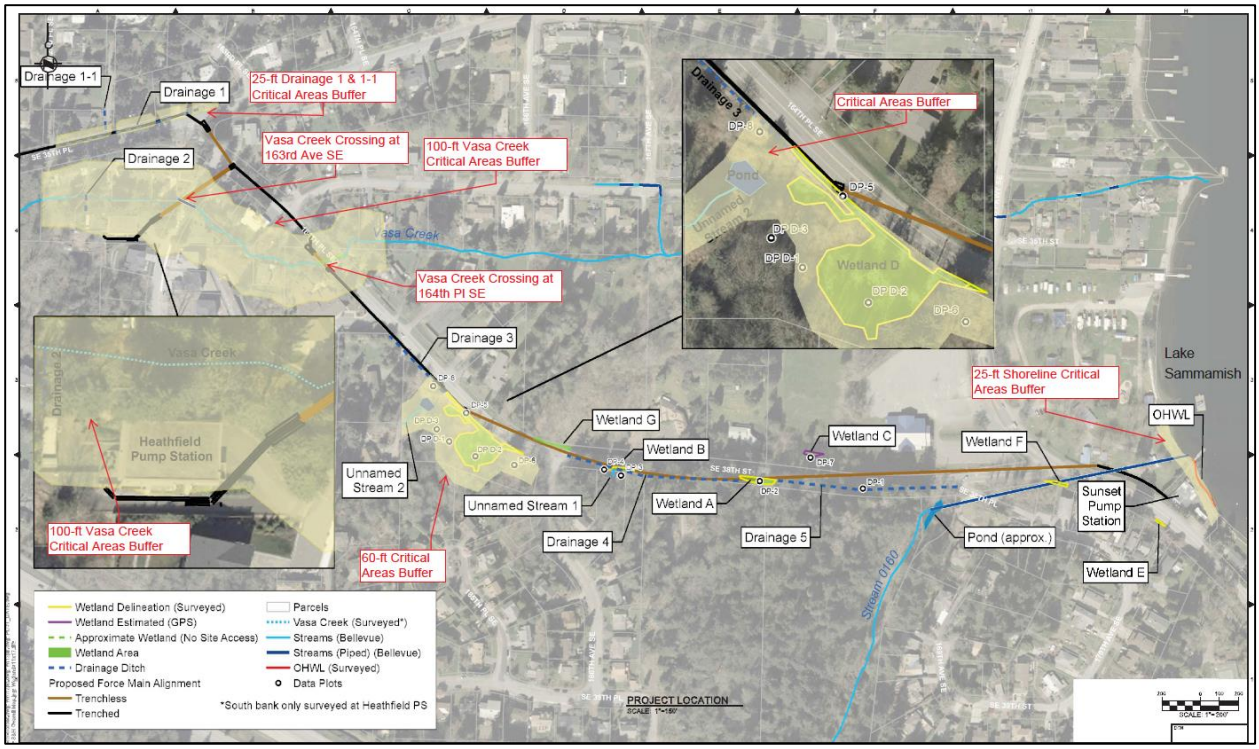
A. Site Description

The project site is located in the Newcastle and Eastgate Subareas of the City's Comprehensive Plan. The project area begins at the Sunset Pump Station located adjacent to Lake Sammamish at 3800 W Lake Sammamish Parkway SE. The main is trenched from the Sunset station to Vasa Park which is a private park adjacent to the north of the pump station. From Vasa Park the sewer main is installed by trenchless boring which runs underground and west from the Vasa Park up SE 38th St. and 164th Pl. SE where the boring exits on a property owned by King County. The main is proposed to be installed by trenching and boring to cross under streams and runs north to where a connection from the Heathfield Pump Station at 3541 163rd Ave. SE joins the main. The sewer main then turns west along SE 34th St and SE 35th Pl., ending at SE Eastgate Way.

The project area is in vicinity of Vasa Creek and several smaller streams as well as wetlands and the 100-year floodplain of Lake Sammamish. Boring and staging for the sewer main will begin in Vasa Park and require use of Lake Sammamish and the shoreline as a pullback area to float segments of the pipe to be assembled as it is pulled upslope through the bored line.

The sewer main will be bored from the Vasa Park under Lake Sammamish Parkway and avoid all critical area impacts along SE 38th St. The boring will end at a parcel owned by King County adjacent to 164th Pl. SE which has a wetland and pond located on it. From this property the sewer main is mostly constructed by trenching with boring used intermittently to avoid impacts to streams and roadways. The connection to the Heathfield Pump Station is mostly bored in order to avoid Vasa Creek by going under it. See Figure 2 below for critical areas in work area.

Figure 2



B. Zoning

The subject site and surrounding properties are zoned single-family residential. The proposed sewer line replacement and upgrades to the existing pump stations will not alter the sites so as to trigger compliance with zoning dimensional requirements or change the current uses as utility facilities. Utility facilities are allowed in residential zones by a Conditional Use Permit or a Shoreline Conditional Use Permit in the case of the Sunset Pump Station. The upgrades proposed to these existing pump stations require a Land Use Exemption from a Conditional Use Permit which has also been submitted as application 15-130084-LJ. See Attachment 7 for decision criteria related to the exemption application.

C. Land Use Context

The project crosses areas that have Comprehensive Plan Land Use designations of SF-H, Single-Family High Density, MF-M, Multi-Family Medium Density, and OLB, Office and Limited Business District. No changes to the land use character of these areas should result

from the project which maintains the existing pump stations and replaces an underground sewer main. The construction staging, trenching and, boring entry pit at Vasa Park on Lake Sammamish will result in loss of vegetation and trees in the private park. Restoration for all disturbance in the park is provided in the plans.

D. Critical Areas Function and Value, Regulations

i. Streams and Riparian Areas

Most of the elements necessary for a healthy aquatic environment rely on processes sustained by dynamic interaction between the stream and the adjacent riparian area (Naiman et al., 1992). Riparian vegetation in floodplains and along stream banks provides a buffer to help mitigate the impacts of urbanization (Finkenbine et al., 2000 in Bolton and Shellberg, 2001). Riparian areas support healthy stream conditions.

Riparian vegetation, particularly forested riparian areas, affect water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature (Brazier and Brown, 1973; Corbett and Lynch, 1985).

Upland and wetland riparian areas retain sediments, nutrients, pesticides, pathogens, and other pollutants that may be present in runoff, protecting water quality in streams (Ecology, 2001; City of Portland 2001). The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding.

Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods (Novitzki, 1979; Verry and Boelter, 1979 in Mitsch and Gosselink, 1993). Upland and wetland areas can infiltrate floodflows, which in turn, are released to the stream as baseflow

Stream riparian areas, or buffers, can be a significant factor in determining the quality of wildlife habitat. For example, buffers comprised of native vegetation with multi-canopy structure, snags, and down logs provide habitat for the greatest range of wildlife species (McMillan, 2000). Vegetated riparian areas also provide a source of large woody debris that helps create and maintain diverse in-stream habitat, as well as create woody debris jams that store sediments and moderate flood velocities.

Sparsely vegetated or vegetated buffers with non-native species may not perform the needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width be restored or revegetated (May 2003). Until the newly planted buffer is established

the near term goals for buffer functions may not be attained.

Riparian areas often have shallow groundwater tables, as well as areas where groundwater and surface waters interact. Groundwater flows out of riparian wetlands, seeps, and springs to support stream baseflows. Surface water that flows into riparian areas during floods or as direct precipitation infiltrates into groundwater in riparian areas and is stored for later discharge to the stream (Ecology, 2001; City of Portland, 2001).

ii. Wetlands

Wetlands provide important functions and values for both the human and biological environment—these functions include flood control, water quality improvement, and nutrient production. These "functions and values" to both the environment and the citizens of Bellevue depend on their size and location within a basin, as well as their diversity and quality. While Bellevue's wetlands provides various beneficial functions, not all wetlands perform all functions, nor do they perform all functions equally well (Novitski et al., 1995). However, the combined effect of functional processes of wetlands within basins provides benefits to both natural and human environments. For example, wetlands provide significant stormwater control, even if they are degraded and comprise only a small percentage of area within a basin.

iii. Shorelines

Shorelines provide a variety of functions including shade, temperature control, water purification, woody debris recruitment, channel, bank and beach erosion, sediment delivery, and terrestrial-based food supply (Gregory et al. 1991; Naiman et al. 1993; Spence et al.1996).

Shorelines provide a wide variety of functions related to aquatic and riparian habitat, flood control and water quality, economic resources, and recreation, among others. Each function is a product of physical, chemical, and biological processes at work within the overall landscape. In lakes, these processes take place within an integrated system (ecosystem) of coupled aquatic and riparian habitats (Schindler and Scheuerell 2002). Hence, it is important to have an ecosystem approach which incorporates an understanding of shoreline functions and values. The discussion presented herein emphasizes this ecosystem approach.

iv. Floodplain

The value of floodplains can be described in terms of both the hydrologic and ecological functions that they provide. Flooding of occurs when either runoff exceeds the capacity of rivers and streams to convey water within their banks, or when engineered stormwater systems become overwhelmed. Studies have linked urbanization with increased peak discharge and channel degradation (Dunne and

Leopold 1978; Booth and Jackson 1997; Konrad 2000). Floodplains diminish the effects of urbanization by temporarily storing water and mediating flow to downstream reaches. The capacity of a floodplain to buffer upstream fluctuations in discharge may vary according to valley confinement, gradient, local relief, and flow resistance provided by vegetation. Development within the floodplain can dramatically affect the storage capacity of a floodplain, impact the hydrologic regime of a basin and present a risk to public health and safety and to property and infrastructure.

v. Habitat

Urbanization, the increase in human settlement density and associated intensification of land use, has a profound and lasting effect on the natural environment and wildlife habitat (McKinney 2002, Blair 2004, Marzluff 2005, Munns 2006), is a major cause of native species local extinctions (Czech et al 2000), and is likely to become the primary cause of extinctions in the coming century (Marzluff et al. 2001a). Cities are typically located along rivers, on coastlines, or near large bodies of water. The associated floodplains and riparian systems make up a relatively small percentage of land cover in the western United States, yet they provide habitat for rich wildlife communities (Knopf et al. 1988), which in turn provide a source for urban habitat patches or reserves. Consequently, urban areas can support rich wildlife communities. In fact, species richness peaks for some groups, including songbirds, at an intermediate level of development (Blair 1999, Marzluff 2005).Protected wild areas alone cannot be depended on to conserve wildlife species. Impacts from catastrophic events, environmental changes, and evolutionary processes (genetic drift, inbreeding, colonization) can be magnified when a taxonomic group or unit is confined to a specific area, and no one area or group of areas is likely to support the biological processes necessary to maintain biodiversity over a range of geographic scales (Shaughnessy and O'Neil 2001). As well, typological approaches to taxonomy or the use of indicators present the risk that evolutionary potential will be lost when depending on reserves for preservation (Rojas 2007). Urban habitat is a vital link in the process of wildlife conservation in the U.S.

III. Consistency with Code Requirements:

A. Zoning District Dimensional Requirements LUC 20.20.010:

The improvements to the pump stations comply with the maximum height restrictions of the R-5 zone and all other zoning requirements.

New security fences are proposed to replace the existing fences around each pump station. The fences are necessary to screen the facilities and provide the needed security around these essential utility facilities. The proposed fences are ornamental steel which will replace the existing chain-link fences and combined with the proposed new landscaping will improve the screening and character around each facility. No proposed fence exceeds eight feet tall.

New mechanical and HVAC equipment cannot be contained within the existing facilities and are proposed on the roof or at grade for each pump station. The new fencing and landscaping will provide the required screening under LUC 20.20.525.

Design standards applicable to Utility Facilities in LUC 20.20.650 are also met by the proposal. No changes to the existing architectural form or character of the existing pump stations are proposed. New fencing and landscaping is proposed around each pump station to improve sight screening once the vegetation is established. The pump stations are also regional utility facilities and are an existing part of the King County sewer system. Due to population growth and development, the pump stations are nearing their designed capacity. The proposed upgrades are intended to ensure continued service and environmental protection. See Land Use Code Review as Attachment 3.

B. Noise Code Requirements BCC 9.18

All noise generated, including construction noise, is regulated by BCC 9.18. Requests can be submitted to allow expanded work hours and noise generation and are reviewed through an application for expanded exempt hours type LY. Approval of expanded hours must show that the request is:

- Necessary to accommodate transportation mitigation such as evening haul routes; construction on schools and essential government facilities which cannot be undertaken during exempt hours; construction activities and site stabilization in the fall prior to the onset of winter weather; or emergency work; or
- Sounds created by construction will not exceed the maximum permissible environmental noise levels contained in BCC 9.18.030 as verified by sound level monitoring conducted before and during construction by a qualified acoustic consultant.

Approval of a permit to allow expanded work hours is required if any expanded hours are proposed. **See Section X for a related condition of approval.**

Requests for expanded work hours in the City's right-of-way are subject to separate approval by the City's Transportation Department.

C. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes standards and procedures that apply to construction of improvements on any site which contains in whole or in part any portion designated as critical area or critical area buffer. The proposed pump station upgrades and sewer main replacement are considered new or expanded utility facilities and systems which are allowed uses in critical areas and buffers per LUC 20.25H.055 and the project is subject to the following code requirements.

i. Consistency with LUC 20.25H.055.C.2.a

New or expanded facilities and systems are allowed within the critical area or critical area buffer only where no technically feasible alternative with less impact on the critical area or critical area buffer exists. A determination of technically feasible alternatives will consider:

1. **The location of existing infrastructure;**

   The existing sewer main and pump stations are within stream and wetland buffers, the stream buffer from Vasa Creek, the shoreline buffer from Lake Sammamish, and the 100-year floodplain of Lake Sammamish. Given the need to maintain the sewer system there is no option to relocate these facilities.

2. **The function or objective of the proposed new or expanded facility or system;**

   These upgrades will increase the system capacity to respond to the increased input of waste and stormwater. Based on growth projections, the system capacity will be exceeded in the near future without the proposed upgrades.

3. **Demonstration that no alternative location or configuration outside of the critical area or critical area buffer achieves the stated function or objective, including construction of new or expanded facilities or systems outside of the critical area;**

   The existing facilities are within the critical areas noted. Due to the engineering requirements and need to maintain services, there is no alternative location where the pump stations or sewer main can be relocated to and maintain their functions. The proposed changes at each pump station are located in the existing areas of disturbance but are new improvements within critical areas and buffers. Due to the existing pump station construction and engineering requirements the proposed project configuration is the best alternative with the least impact on critical areas. Much of the sewer main is proposed to be bored underground and will avoid open trenching impacts to a majority of the critical areas in the project area.

4. **Whether the cost of avoiding disturbance is substantially disproportionate as compared to the environmental impact of proposed disturbance; and**

   If this project were not carried out the existing sewer capacity would be exceeded and have impacts on economic development and the environment. The proposed improvements maintain the locations of the existing facilities. The cost to avoid these impacts by relocating the facilities would require additional property acquisition and is substantially disproportionate to the environmental impact resulting from the proposed

improvements and potential mitigation on these sites which will improve the function and values of the critical areas.

5. The ability of both permanent and temporary disturbance to be mitigated.

The proposed project will result in temporary impacts to wetland and stream habitat. See Figure 3 below for proposed impacts per project feature. See the Attachment 2 for the project critical areas report for full description of the proposed impacts. Wetland areas and buffers will be restored following construction. Open-cut trenches will be backfilled and the areas restored with vegetation appropriate for the critical area or buffer in question. Adjacent stream buffers and riparian areas will be replanted with appropriate native trees and shrubs.

Figure 3

Project Component	Temporary Impact Areas	Permanent Impact Areas
Heathfield Pump Station		
Pump station improvements and force main (Figure 6)	Vasa Creek buffer: 4,784 sf	Vasa Creek buffer: 24 sf
Sunset Pump Station		
Bank restoration and native landscaping (Figure 10; Appendix A)	Lake Sammamish Shoreline Critical Area buffer: 300 sf	None (permanent effects will be beneficial)
New Force Main		
Pipe assembly and pullback (Figure 10)	Lake Sammamish Shoreline Critical Area buffer: area unknown (minimum area needed to pull back pipe)	None
New force main along SE 35th Place (Figure 9)	Drainage 1 and Drainage 1-1 channel: 1,100 sf Drainage 1 buffer: 2,925 sf	None
New force main crossing of Vasa Creek (164th Place SE) (Figure 8)	Vasa Creek buffer: 1,275 sf	None
New force main along 164th Place SE and adjacent King County-owned parcel (Figure 7)	Wetland D: 1,512 sf Drainage 3: 915 sf Buffer of Wetland D: 5,090 sf	None
Construction Staging		
Construction staging/laydown on King County-owned parcel along 164th Place SE (Figure 7)	Same as above for 'new force main along 164th Place SE' (Wetland D: 1,512 sf Buffer of Wetland D: 5,063 sf)	None

ii. Consistency with LUC 20.25H.055.C.2.b

If the applicant demonstrates that no technically feasible alternative with less impact on

the critical area or critical area buffer exists, then the applicant shall comply with the following**:**

1. **Location and design shall result in the least impacts on the critical area or critical area buffer.**

   Through boring, the project avoids and minimizes effects to stream and wetland habitat to the maximum extent practicable; however, the project will result in temporary impacts to wetland and stream habitat. The submitted critical areas report describes all impacts which are noted in Figure 3 above. All temporary impacts will be restored and mitigation provided per the restoration and landscaping plans submitted.

2. **Disturbance of the critical area and critical area buffer, including disturbance of vegetation and soils, shall be minimized.**

   Disturbance to wetlands, streams, and buffers in the project area will be minimized to the amount necessary to allow for construction staging and temporary construction impacts. The proposed boring avoids many impacts to wetlands and streams. The construction will be subject to standard erosion control and stormwater best management practices including catch basin inserts, straw bales, sand bags, pumping, dewatering, and other measures.

3. **Disturbance shall not occur in habitat used for salmonid rearing or spawning or by any species of local importance unless no other technically feasible location exists.**

   The Biological Evaluation for the project found that the proposed action may have minor effects on aquatic habitat resulting from minor turbidity that will be minimized or eliminated from implementation of BMPs and erosion control measures. The BE received a “no effect” determination from NOAA Fisheries on September 25, 2015. See Attachment 4 for the Biological Evaluation submitted to the US Army Corps of Engineers.

4. **Any crossing over of a wetland or stream shall be designed to minimize critical area and critical area buffer coverage and critical area and critical area buffer disturbance, for example by use of bridge, boring, or open cut and perpendicular crossings, and shall be the minimum width necessary to accommodate the intended function or objective; provided, that the Director may require that the facility be designed to accommodate additional facilities where the likelihood of additional facilities exists, and one consolidated corridor would result in fewer impacts to the critical area or critical area buffer than multiple intrusions into the critical area or critical area buffer.**

Trenchless boring is proposed to cross under Vasa Creek in order to avoid impacts. Boring is also proposed from Vasa Park up SE 38th Pl. to avoid many other impacts to wetland and streams along this portion of the sewer main alignment. Open trenching, bore pits, and temporary impacts are proposed in wetlands and streams. These impacts are only temporary and do not result in permanent improvements or crossings of these critical areas. Temporary staging and bore pit exit are proposed on a County owned property with a degraded wetland. These temporary impacts allow for other more significant impacts to be avoided by boring. The impacts will be restored and the wetland improved with native vegetation so as to improve the function above the existing condition.

5. **All work shall be consistent with applicable City of Bellevue codes and standards.**

   The proposed project will comply with City of Bellevue codes and standards.

6. **The facility or system shall not have a significant adverse impact on overall aquatic area flow peaks, duration or volume or flood storage capacity, or hydroperiod.**

   As proposed, all work will occur in the low-flow period and no improvements are proposed that would impact flows or flood storage. **See Section X for a related condition of approval.**

7. **Associated parking and other support functions, including, for example, mechanical equipment and maintenance sheds, must be located outside critical area or critical area buffer except where no feasible alternative exists.**

   Due to the existing facility layout and engineering requirements there is no feasible alternative to locate a condenser unit at the Heathfield Pump Station outside of the Vasa Creek stream buffer. This unit will impact 24 square feet of stream buffer. Plans are included to provide 4,920 square feet of mitigation and stream bank improvement to address this impact. The existing stream buffer is dominated by invasive vegetation and has limited native understory species. The buffer provides some habitat functions but the proposed mitigation will improve the functions of the buffer vegetation.

8. **Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.**

   The proposed project will avoid or minimize impacts to wetlands, streams, and buffers

wherever feasible. However, total avoidance will not be possible due to the location of the pump stations and sewer main. All unavoidable impacts to critical areas will be mitigated as required by federal, state, and City requirements (LUC 20.25H). The project will restore all temporary impact areas. See attachment 1 for restoration plans. **See Section X for a related condition of approval.**

iii. Consistency With LUC 20.25H.080 and LUC 20.25H.100

Development on sites with a type S or F stream, wetlands, or associated critical area buffer shall incorporate the following performance standards in design of the development, as applicable

1. **Lights shall be directed away from the stream.**

   New lighting is proposed by this project. All lighting must meet requirements in LUC 20.20.525 to conceal lights so that light glare does not leave the sites. In addition lighting is required to be screened from adjacent critical areas. **See Section X for a related condition of approval.**

2. **Activity that generates noise such as parking lots, generators, and residential uses, shall be located away from the stream, or any noise shall be minimized through use of design and insulation techniques.**

   Temporary noise impacts will occur during project construction due to the use of construction equipment and vehicles. Construction noise was discussed previously in this report. Future use of the proposed generators would be in times of power loss and temporary. Noise from generators will be addressed as part of the design but will still result in noise temporarily leaving the site that is regulated by BCC 9.18. **See Section X for a related condition of approval.**

3. **Toxic runoff from new impervious area shall be routed away from the stream.**

   Construction runoff will be handled by the erosion and sediment controls in place. New impervious surfaces are not proposed.

4. **Treated water may be allowed to enter the stream critical area buffer.**

   A green roof is proposed as part of the Sunset Pump Station and a rain garden is proposed at the Heathfield Pump Station to improve water quality.

5. **The outer edge of the stream critical area buffer shall be planted with dense vegetation to limit pet or human use.**

The plans submitted restore all temporary impacts and provide mitigation for permanent impacts. **See Section X for a related condition of approval.**

6. **Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream critical area buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices", now or as hereafter amended. S60-Wilburton Sewer Capacity Upgrade Project 29 City of Bellevue - Critical Areas Report**

   No use of pesticides, insecticides, or fertilizers will be used for the proposed project. **See Section X for a related condition of approval.**

iv. Consistency with LUC 20.25H.180

The footprint of the Sunset Pump Station is not being expanded and there is no change to the effective base flood elevation. Improvements are underground, on the roof, or within the structure. Changes to landscaping are proposed as well as tree removal which will be replaced. The proposed crossing under Vasa Creek by the sewer main will not affect the Vase Creek floodplain. No new development is proposed in a floodplain. A biological evaluation was prepared as part of this project which evaluates impacts to floodplains and Lake Sammamish as reviewed by the USACE.

v. Consistency With LUC 20.25E.080

The Sunset Pump Station and a portion of the sewer main replacement is within the shoreline jurisdiction of Lake Sammamish. The project will be consistent with all federal and state water quality standards. Plans were submitted that detail all work and vegetation removal. The Sunset Pump Station will continue to comply with the 35-foot height limit. The project complies with the Bellevue Shoreline Master Plan and applicable codes. No watercraft storage is proposed. Any usage of herbicides, pesticides, and/or fertilizers will comply with the City's best management practices for use of these products. **See Section X for a related condition of approval.**

IV. Public Notice and Comment

Application Date:	December 21, 2015
Public Notice (500 feet):	January 14, 2016
Minimum Comment Period:	February 15, 2016

The Notice of Application for this project was published in the City of Bellevue Weekly Permit Bulletin and the Seattle Times on January 14, 2016. Notice was also mailed to property owners within 500 feet of the project site. Comments were received from residents in vicinity of the project. The applicant reviewed the comments which are addressed below and in some cases responses were provided to the commenters directly by the City for comments

concerning transportation improvements. See Attachment 6 for public comments submitted.

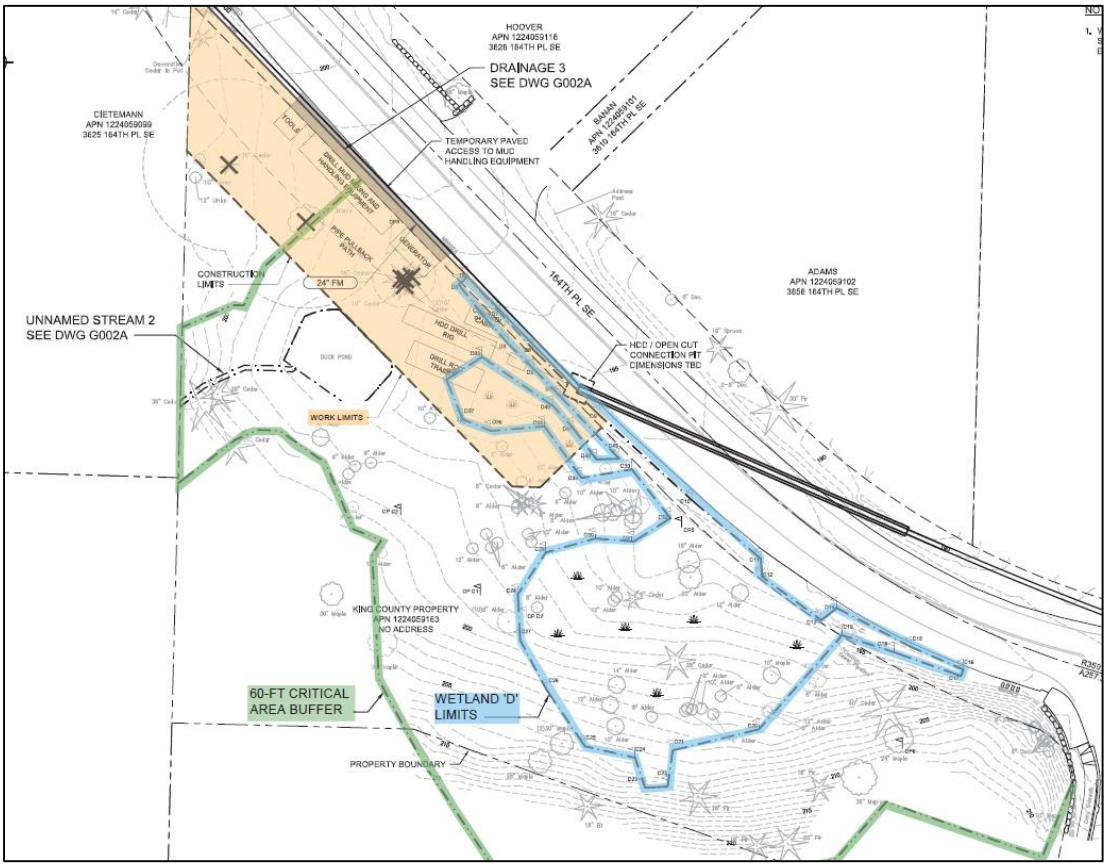
Responses to Comments from Glenn Extor

The City's former Transportation Development Review Manager, responded to Mr. Extor directly. King County states that the project will implement traffic control and safety plans that must be approved by the City to ensure pedestrian access is provided during construction, for the short period of time when the roads will be impacted. Construction is estimated to take up to one week at the area of concern which is between 162nd Pl. SE a three-way intersection. The ditch indentified in the comments is a stream and closing streams is not part of this proposal and would be part of a City of Bellevue road improvement project to provide pedestrian access. This proposal is only to address the County sewer and does not propose any road improvements which would be City projects with City funding.

Responses to Scott and Cynthia Alexander

The applicant states the King County owned property at wetland D, adjacent to 164th Pl. SE, is not designated as open space and that there are no notes on the property deed or title that show the property has an open space designation. The City's Land Use Code has critical areas requirements that apply to the property which is the reason this permit review is required. The property is proposed for construction staging and storage, boring pit exit/entry, and a construction trailer. The site is currently characterized by a category III wetland (wetland D) and pond feature. Tree coverage is sparse and the site is primarily non-native invasive blackberry and reed canary grass. Native species include alder and salmon berry. Temporary construction impacts to this property are proposed and will result in vegetation removal and loss of four trees. The identified wetland and pond are not proposed to be permanently impacted. The temporary impacts are primarily in the wetland buffer. King County discussed construction staging on this property with the City which found the property is degraded and could be restored following construction. The project has plans to restore all impacts on this property and improve the critical area functions on this property above what existed prior to construction. See figure 4 below for proposed impacts and attachment 1 for project plans. All imported construction materials to provide temporary support and staging will be required to be removed as part of the County construction contract. The City's code requires that all temporary disturbance be removed. All work is proposed at times of low-flow but the project is required to meet all drainage and erosion control requirements which include routing drainage. The project construction will be required to comply with the construction hours in the City's noise code BCC 9.18 which does allow provision for increased work hours subject to approval. The existing facilities have existed for several decades without incident from the Seattle Fault that is in vicinity. The project team consulted by the applicant included geotechnical engineers which took the vicinity of the fault into account as part of their design.

Figure 4



Responses to Comments from Allan Dietemann

The applicant's property research does not show this property is designated as open space on a deed or property title. It is owned by King County but the King County Assessor does not show the property as part of the open space program. The property is regulated by the City of Bellevue critical areas codes that protect wetlands and streams. Based on the project design which avoids significant critical areas along the path by boring under them, this site is necessary for the boring pit and pipe pullback to draw the sewer line up the boring path from Lake Sammamish. All impacts to the property will be restored and the critical areas functions improved beyond the current site. As little of the property as possible is proposed to be used by the construction to avoid and limit impacts to the maximum extent in compliance with City rules. Where temporary impacts from construction staging cannot be limited the area is proposed to be restored. Construction noise is limited by the City of Bellevue noise code BCC 9.18. **<u>See Section X for a related condition of approval.</u>**

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed

the proposed site development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development.

B. Utilities

The City's Utility Department reviewed and approved the proposal. Any future Utilities permit applications must comply with Bellevue Codes 24.02, 24.04 and 24.06.

VI. State Environmental Policy Act (SEPA)

King County, as lead agency, issued a SEPA Determination of Non-significance for the project on September 17, 2015. See attachment 8 for the issued DNS.

VII. Changes to Proposal Due to Staff Review

Staff requested responses to the comments received, more information about the project alternatives considered and impact avoidance measures. An arborist review of all tree removal and protection was also requested which is attachment 5 along with a list of tree management standards. More information on the proposed fencing and landscaping designs was requested.

VIII. Decision Criteria

A. 20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria

The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

1. **The proposal obtains all other permits required by the Land Use Code;**

   The applicant must obtain a clearing and grading permit and any other construction permits for the project. The clearing and grading permit must reference this approval. Requests to generate construction noise outside of exempted hours require application for a noise permit. **<u>See Section X for a related condition of approval.</u>**

2. **The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;**

   The project utilizes the best available construction techniques to have the least impact on critical areas and buffers as possible. The proposed boring avoids many wetland and stream impacts. And where impacts are not avoided the site of the impacts is restored and mitigated so that the critical area function is improved above the existing condition. The project plans were reviewed by an arborist who provided their assessment of tree removal needs and protection requirements in order to ensure as few trees as possible are removed and where possible converted to habitat snags.

The findings and recommendations of the arborist are required to be implemented by the project. **See Section X for a related condition of approval.**

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;**

   As discussed in Section III of this report performance standards will be met.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;**

   The proposed activity will increase a public sewer system capacity.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and**

   Areas of temporary disturbance are proposed to be restored and mitigation is provided as described in the project critical areas report as attachment 2. Maintenance and monitoring is proposed in the critical areas report as well and is required for five years. Recommendations and protection measures found in the arborist report are required to be implemented. **See Section X for a related condition of approval.**

6. **The proposal complies with other applicable requirements of this code.**

   As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code.

B. LUC 20.30R.155.B Shoreline Substantial Development Permit – Decision Criteria
The Director may approve, or approve with modifications if:

1. **The applicant has carried the burden of proof and produced evidence sufficient to support the conclusion that the application merits approval or approval with modifications;**

   The proposal as proposed or conditioned is in conformance with required performance standards in the Land Use Code and has obtained approval of a Critical Areas Land Use permit for elements that are not in conformance with the requirements for development in areas within shoreline jurisdiction.

2. **The applicant has demonstrated that the proposal complies with the applicable decision criteria of the Bellevue City Code;**

As discussed in this staff report, the proposal complies with all applicable decision criteria and performance standards.

3. **The applicant has demonstrated that the proposal is consistent with the policies and procedures of the Shoreline Management Act and the provisions of Chapter 173-14 WAC and the Master Program.**

   The proposal complies with the policies of the Shoreline Management Act and Chapter 173-14 WAC of the Master Program. See attachment 3 for an analysis of how the project is supported by the City's Comprehensive Plan goals and objectives.

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of Development Services Department does hereby **approve with conditions** the proposed upgrades to the Sunset and Heathfield pump stations and the installation of a 24 inch sewer main to replace the existing line. **A Clearing and Grading permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.**

Note- Expiration of Approval of Critical Areas Land Use Permit: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a clearing and grading permit or other necessary development permits within one year of the effective date of the approval.

Note- Expiration of Approval of Shoreline Substantial Development Permit: In accordance with LUC 20.30R.175, the Shoreline Substantial Development Permit automatically expires and is void if the applicant fails to file for a building permit or other necessary development permit and fails to make substantial progress towards completion of the project within two years of the effective date of the Shoreline Substantial Development Permit unless the applicant has received an extension for the Shoreline Substantial Development Permit pursuant to LUC 20.30R.180.

Permit authorization expires finally, despite substantial progress, five years after the effective date of the Shoreline Substantial Development Permit unless the applicant has received an extension pursuant to LUC 20.30R.180

X. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code – BCC 23.76	Tom McFarlane, 425-452-5207
Utility Code – BCC Title 24	Mark Dewey, 425-452-6179
Land Use Code – BCC Title 20	Reilly Pittman, 425-452-4350
Noise Control – BCC 9.18	Reilly Pittman, 425-452-2973

The following conditions are imposed under the Bellevue City Code authority referenced:

1. **Clearing and Grading Permit and Building Permit Required:** Grading permit 16-126512-GD for project clearing and grading is required to be approved. Building permits 16-132274-BW and 16-132275-BW are required to be approved for each pump station. Plans submitted as part of either permit application shall be consistent with the activity permitted under this approval.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

2. **Obtain all Other Applicable State and/or Federal Permits:** Before work can proceed, all required federal and state permits and approvals must be obtained by the applicant. A copy of the approved Section 404 permit issued by the Army Corps of Engineers and the approved Hydraulic Project Approval (HPA) issued by the Washington State Department of Fish and Wildlife shall be submitted to the City of Bellevue, prior to beginning construction.

   Authority: Land Use Code 20.25H.080
   Reviewer: Reilly Pittman, Development Services Department

3. **Restoration Plan:** Plans submitted under the clearing and grading permit for restoration and mitigation shall be consistent with this approval and the restoration plans found as attachment 1. All temporary disturbance is required to be restored.

   Authority: Land Use Code 20.30P.140; 20.25H.220
   Reviewer: Reilly Pittman, Development Services Department

4. **Maintenance and Monitoring:** The maintenance and Monitoring plan in section nine of the critical areas report is required to be included with the project plans submitted under the clearing and grading permit. Monitoring is required for five years. A copy of the annual monitoring report is required to be provided to the Environmental Planning Manager for the Land Use Department.

Authority: Land Use Code 20.30P.140; 20.25H.220
Reviewer: Reilly Pittman, Development Services Department

5. **Arborist Recommendations and Tree Protection:** All arborist recommendations and findings are required to be implemented to limit tree removal as described in attachment 5.

   Authority: Land Use Code 20.25H.055
   Reviewer: Reilly Pittman, Development Services Department

6. **Construction Timing:** As proposed the construction of the project should occur during low-flow periods and no improvements may impact flows or flood storage.

   Authority: Land Use Code 20.25H.055
   Reviewer: Reilly Pittman, Development Services Department

7. **Dark Sky Lighting Required:** Lighting shall be limited to the minimum necessary and constructed and installed in such a manner that all light emitted, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part, is projected below the horizontal plane through the lowest light-emitting part or otherwise obscured. The applicant shall submit a written narrative and identify lighting on the construction plans to demonstrate success at meeting this condition. Lighting that does not meet this condition shall be replaced unless analysis suggests that the location of the lighting makes the condition unnecessary or the specific lighting requirement cannot be met under these restrictions. Lighting shall be confirmed by inspection in the field after installation.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

8. **Pesticides, Insecticides, and Fertilizers:** The applicant must submit as part of the required Clearing and Grading Permit information regarding the use of pesticides, insecticides, and fertilizers in accordance with the City of Bellevue's "Environmental Best Management Practices".

   Authority: Land Use Code 20.25H.080 and LUC 20.25H.100
   Reviewer: Reilly Pittman, Development Services Department

9. **Noise Control:** Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded

hours of operation are specifically authorized in advance. Requests for construction hour extension must be done in advance with submittal of a construction noise expanded exempt hours permit.

Authority: Bellevue City Code 9.18
Reviewer: Reilly Pittman, Development Services Department

SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

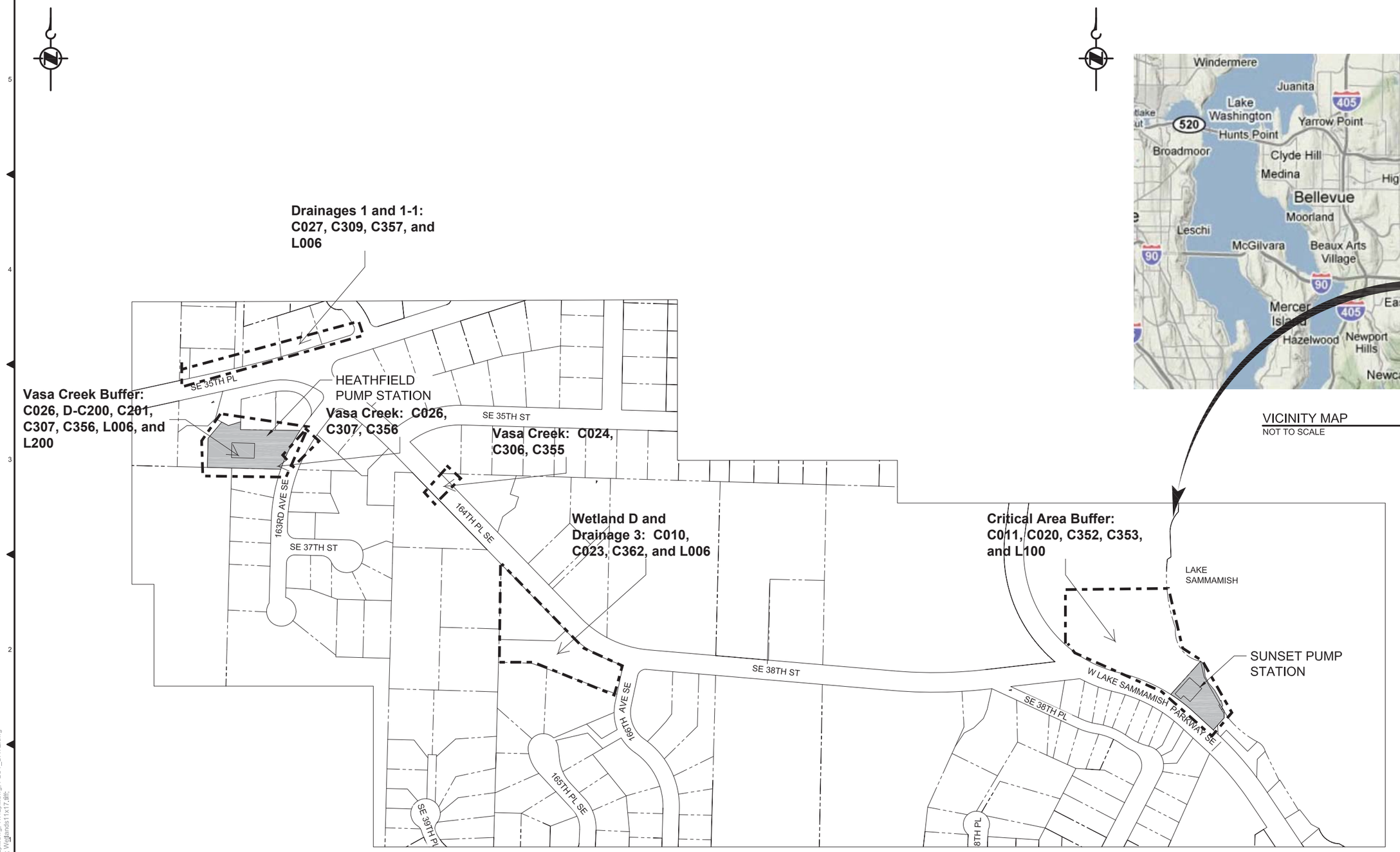
CONTRACT NO. C01008C16

Funded in Part by Washington State Department of Ecology

Application for City of Bellevue Critical Areas Land Use Permit
Project Plan Set

DECEMBER 2015

KING COUNTY
Department of
Natural Resources and Parks
Wastewater Treatment Division



PROJECT LOCATION
SCALE: 1"=150' (APPX)

VICINITY MAP
NOT TO SCALE

150 0 75 150
SCALE: 1"=150'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM	SCALE: AS NOTED
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

GENERAL PROJECT LOCATION AND VICINITY MAP

DCN:	
DATE: DECEMBER 2015	
PROJECT FILE NO: 1038122	
DRAWING NO: G002	
SHT NO / TOTAL: 2 / 41	REV NO: 0

C:\pwworkdir\d0269162\330_331+1038122G002_G002A_CALUP.dwg | Layout: 331+1038122G002
PLOTTED: Nov 13, 2015-11:53:11am By shutakj
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; Wm12plt.dwg; W112plt.dwg; PLOT_DATE.dwg
IMAGES: King County Map 2.jpg; S&H Overall Map.jpg; Wetlands11x17.dfl;

Drainage 1-1

Drainage 1

25-ft Drainage 1 & 1-1 Critical Areas Buffer

Drainage 2

Vasa Creek Crossing at 163rd Ave SE

100-ft Vasa Creek Critical Areas Buffer

Vasa Creek

Vasa Creek Crossing at 164th Pl SE

Drainage 3

Critical Areas Buffer

Pond

Unnamed Stream 2

DP-8

DP-5

DP D-3

DP D-1

Wetland D

DP D-2

DP-6

Lake Sammamish

25-ft Shoreline Critical Areas Buffer

OHWL

Wetland G

Wetland B

Wetland C

Wetland F

DP-7

DP-4

DP-3

DP-2

DP-1

Unnamed Stream 1

Wetland A

Drainage 4

Drainage 5

Pond (approx.)

Sunset Pump Station

Wetland E

Stream 0160

Heathfield Pump Station

100-ft Vasa Creek Critical Areas Buffer

60-ft Critical Areas Buffer

SE 35TH PL

163RD PL SE

164TH PL SE

166TH AVE SE

167TH AVE SE

SE 35TH ST

SE 38TH ST

SE 38TH PL

SE 39TH PL

SE 39TH ST

165TH PL SE

169TH AVE SE

170TH AVE SE

Wetland Delineation (Surveyed)
Wetland Estimated (GPS)
Approximate Wetland (No Site Access)
Wetland Area
Drainage Ditch
Proposed Force Main Alignment
Trenchless
Trenched
Parcels
Vasa Creek (Surveyed*)
Streams (Bellevue)
Streams (Piped) (Bellevue)
OHWL (Surveyed)
Data Plots

*South bank only surveyed at Heathfield PS

PROJECT LOCATION
SCALE: 1"=150'

200 0 100 200
SCALE: 1"=200'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=200'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

CRITICAL AREAS GENERAL LOCATION MAP

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: G002A
SHT NO / TOTAL: 3 / 41
REV NO: 0

C:\pwworkdir\d0289162\330_331-1038122G002_G002A_CALUP.dwg | Layout: 331-1038122G002A
PLOTTED: Nov 13, 2015-04:41:45pm By shutakj
XREFS: SunsetHeathfield-Datze-TB-Border.dwg; Wm12plt.dwg; Wl12plt.dwg; PLOT_DATE.dwg
IMAGES: King County Map 2.jpg; S&H Overall Map.jpg; Wetlands11x17.jlt;

SHEET NO.	DRAWING NO.	DRAWING TITLE
1	--	COVER SHEET
2	G002	GENERAL PROJECT LOCATION AND VICINITY MAP
3	G002A	CRITICAL AREAS GENERAL LOCATION MAP
4	G003	GENERAL INDEX OF DRAWINGS
5	G006	GENERAL SYMBOLS
6	G007	GENERAL ABBREVIATIONS
7	C002	CIVIL STANDARD DETAILS 1
8	C005	CIVIL STANDARD DETAILS 4
9	C009	SUNSET TO HEATHFIELD EROSION CONTROL & RESTORATION ESC DETAILS
10	C010	SUNSET TO HEATHFIELD HDD PULLBACK AREAS KING COUNTY PROPERTY
11	C011	SUNSET TO HEATHFIELD HDD PULLBACK AREAS VASA PARK
12	C011A	HDD PIPE ASSEMBLY AND PULLBACK
13	C014	CIVIL FIBER OPTIC CONDUIT INSTALLATION DETAILS
14	C020	PROJECT TOPOGRAPHIC SURVEY
15	C023	PROJECT TOPOGRAPHIC SURVEY
16	C024	PROJECT TOPOGRAPHIC SURVEY
17	C026	PROJECT TOPOGRAPHIC SURVEY
18	C027	PROJECT TOPOGRAPHIC SURVEY
19	D-C100	SUNSET CIVIL DEMOLITION PLAN
20	C101	SUNSET CIVIL SITE GRADING PLAN
21	D-C200	HEATHFIELD CIVIL DEMOLITION PLAN
22	C201	HEATHFIELD CIVIL SITE GRADING PLAN
23	C306	SUNSET TO HEATHFIELD FORCE MAIN PLAN & PROFILE STA 25+50 TO 29+50
24	C307	SUNSET TO HEATHFIELD FORCE MAIN PLAN & PROFILE STA 29+50 TO 33+13
25	C309	SUNSET TO HEATHFIELD FORCE MAIN PLAN & PROFILE STA 45+00 TO 49+00
26	C350	EXISTING TREE INVENTORY SHEET 1
27	C352	SUNSET TO HEATHFIELD EROSION CONTROL & TREE PROTECTION PLAN STA 01+00 TO 5+00
28	C353	SUNSET TO HEATHFIELD RESTORATION PLAN STA 01+00 TO 5+00
29	C355	SUNSET TO HEATHFIELD EROSION CONTROL / TREE PROTECTION & RESTORATION PLAN VASA CREEK TRENCHLESS CROSSING
30	C356	SUNSET TO HEATHFIELD EROSION CONTROL / TREE PROTECTION & RESTORATION PLAN HEATHFIELD PUMP STATION
31	C357	SUNSET TO HEATHFIELD EROSION CONTROL / TREE PROTECTION & RESTORATION PLAN DRAINAGE 1-1 AND DRAINAGE 1
32	C362	SUNSET TO HEATHFIELD EROSION CONTROL / TREE PROTECTION & RESTORATION PLAN KING COUNTY PROPERTY
33	L001	MITIGATION LEGEND
34	L001A	MITIGATION NOTES
35	L002	LANDSCAPE & IRRIGATION NOTES & LEGEND
36	L003	LANDSCAPE & IRRIGATION DETAILS 1
37	L006	LANDSCAPE & IRRIGATION DETAILS 4
38	L007	GREEN ROOF AND RAIN GARDEN DETAILS
39	L100	SUNSET LANDSCAPE RESTORATION PLAN
40	L200	HEATHFIELD LANDSCAPE RESTORATION PLAN
41	E008	FIBER OPTIC HANDHOLE DETAILS

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM
PROJECT ENGINEER: L. STIEGLER
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI

SCALE: NO SCALE
REFERENCE 0 1"
FACILITY NUMBER: 330-331
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

GENERAL INDEX OF DRAWINGS

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: G003
SHT NO 4 / TOTAL 41
REV NO: 0

C:\pwworkdir\dir0167691330_331-1038122G003 thru G005.dwg | Layout: 331-1038122G003
PLOTTED: Dec 11, 2015-04:28:30pm By shutakj
XREFS: SunsetHeathfield-D-size-TB-Border.dwg
IMAGES:

MATERIAL SYMBOLS

- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE IN SECTION
- MORTAR, GROUT, SAND OR PLASTER
- QUARRY SPALLS OR RIPRAP
- NATURAL GROUND OR GRADE (EARTH)
- BACKFILL
- STEEL OR STAINLESS STEEL
- CONCRETE MASONRY UNIT
- BATT OR FILL INSULATION
- RIGID INSULATION
- OR WOOD
- WETLANDS
- TEMPORARY CONSTRUCTION ENTRANCE
- CONCRETE RESTORATION
- ASPHALT PAVING RESTORATION
- NEW ASPHALT PAVEMENT
- NEW BANK RESTORATION GROUND COVER
- NEW POROUS CONC PAVEMENT OR SIDEWALK
- POROUS FLEXIBLE PAVING SYSTEM
- NEW CEMENT CONC PAVEMENT OR SIDEWALK
- GRATING OR AC PAVEMENT IN SECTION
- CHECKERED PLATE
- GRATING (SPAN IS IN DIRECTION OF MORE CLOSELY SPACED BARS)
- GRATING (TWO WAY SPAN)
- BLOCK RETAINING WALL
- EROSION CONTROL SEEDING
- CONSTRUCTION STAGING
- ROCK DRAINAGE DITCH
- GRASS-LINED CHANNEL
- INSULATING GASKET

LINETYPE SYMBOLS

- CENTERLINE
- MATCHLINE
- INVISIBLE OR HIDDEN LINE
- BREAKLINE
- (A) GRID LINE

UTILITY LINETYPE SYMBOLS

EXISTING UTILITIES

- SD — SD — STORM DRAIN
- SS — SS — SANITARY SEWER
- LARGE DIAMETER PIPE
- W — W — WATER
- IR — IR — IRRIGATION

EXISTING UTILITIES

- G — G — NATURAL GAS
- P — P — BURIED POWER
- OP — OP — OVERHEAD POWER
- OT — OT — OVERHEAD TELEPHONE
- T — T — UGT — UGT — BURIED TELEPHONE
- FO — FO — FIBER OPTIC CABLE
- COM — COM — COMMUNICATIONS

PROPOSED UTILITIES

27" SS

SIZE

SERVICE

4" W

SYMBOLS

- CB EXISTING CATCH BASIN
- CB NEW CATCH BASIN
- EXISTING MANHOLE
- NEW MANHOLE
- CO CLEANOUT
- ABANDON & PLUG PIPE
- THRUST BLOCK
- EXISTING FIRE HYDRANT
- NEW FIRE HYDRANT
- EXISTING WATER METER
- EXISTING VALVE
- NEW VALVE
- EXISTING PRESSURE RELIEF VALVE
- BOLLARD
- GM EXISTING GAS METER
- EXISTING GAS VALVE
- SIGNS AND/OR POSTS
- DECIDUOUS TREE
- EVERGREEN TREE
- BRUSH OR TREE LINE
- STRAW BALE
- INLET PROTECTION
- CULVERT
- SANDBAG
- E-1 SOIL BORING & DESIGNATION
- MONUMENT
- HORIZONTAL AND VERTICAL CONTROL POINT
- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- WP-3 WORK POINT
- XXX.XX SPOT ELEVATION
- A 12 WETLAND FLAG AND ID
- XXX FINISH GRADE ELEVATION
- XXX TOP OF CURB (OR WALL) ELEVATION
- XXX BOTTOM OF CURB (OR WALL) ELEVATION
- W.S. WATER SURFACE
- WATER SURFACE LEVEL
- TCC TRAFFIC CONTROL BOX
- TS TRAFFIC SIGNAL HANDHOLE
- TRAFFIC SIGNAL POLE
- PEDESTRIAN PUSH BUTTON POLE
- TRAFFIC LIGHT
- TRAFFIC SPAN WIRE
- UP EXISTING UTILITY POLE
- UP EXISTING UTILITY POLE WITH ANCHOR
- UP NEW UTILITY POLE
- UP NEW UTILITY POLE WITH ANCHOR
- LUMINAIRE
- POLE LIGHT
- ARM LIGHT
- ARM LIGHT (TWO)
- P 80X POWER BOX
- HH HANDHOLE
- TRANSMISSION TOWER
- POWER OR UTILITY VAULT
- POWER TRANSFORMER
- E ELECTRICAL MANHOLE
- E ELECTRICAL BOX
- C COMMUNICATION MANHOLE
- SLOPE
- 5 INTERSTATE ROUTE
- 405 U.S. ROUTE
- 522 STATE ROUTE
- SECTION CORNER
- QUARTER SECTION CORNER
- HANDICAP PARKING
- TRAFFIC DIRECTION ARROW
- TRAFFIC TURN ARROW
- ℄ CENTERLINE
- SPRINGLINE
- PROPERTY LINE
- C COMMUNICATION MH
- CATCH BASIN INLET PROTECTION
- SILT PROTECTION IN END OF DITCH
- #117, AcMa 30,0" TREE INVENTORY CALL OUT
- XXXXXX EQUIPMENT TAG
- TREE PROTECTION
- PILASTER FOR PICKET FENCE
- TEST HOLE FOR UTILITY POTHOLING

LINE DESIGNATIONS

- 125 EXISTING CONTOUR
- 125 PROPOSED CONTOURS
- TCE TEMPORARY CONSTRUCTION EASEMENT
- PE PERMANENT EASEMENT
- SSPE SUBSURFACE PERMANENT EASEMENT
- PROPERTY LINE
- RIGHT OF WAY
- X — X FENCE
- CONSTRUCTION FENCE
- OX — OX — OX — OX COMBINED CONSTRUCTION FENCE AND SILT PROTECTION
- SILT FENCE
- GUARDRAIL
- HANDRAIL
- SCREENING WALL
- SAWCUT
- EDGE OF GRAVEL ROAD
- CURB AND GUTTER
- EDGE OF ASPHALT OR CONCRETE
- DRAINAGE DITCH (WITH FLOW DIRECTION)
- CONSTRUCTION LIMIT
- WATTLE
- WETLAND BOUNDARY
- CRITICAL AREA BUFFER LIMIT
- EXISTING ORDINARY HIGH WATER MARKS
- S = X.XX% DOWN SLOPE ARROW AND VALUE
- 57+00 ALIGNMENT STATIONING
- NCC-04 EASEMENT CALLOUT BUBBLE
- JERSEY BARRIER
- CITY LIMIT
- STATE/COUNTY LIMIT
- RAILROAD
- GRIND AND OVERLAY LIMIT

TYPICAL SECTION AND DETAIL REFERENCING SYSTEM

(1) THE SECTION IS CUT ON DRAWING C100

SECTION LETTER — A C108

ELEVATION NUMBER — 2 C108

DETAIL NUMBER — 1 C108

DRAWING ON WHICH SECTION, DETAIL, OR ELEVATION APPEARS

- INDICATES THE DRAWING IS ON THE SAME SHEET

(2) ON DRAWING C108 THIS SECTION IS IDENTIFIED

SECTION LETTER

SECTION A C100
SCALE: 1 1/2"=1'-0"

DRAWING(S) ON WHICH SECTION/DETAIL WAS TAKEN

— INDICATES THE SECTION/DETAIL IS TAKEN FROM THE SAME SHEET

(3) DETAILS AND ELEVATIONS ARE CROSS-REFERENCED IN A SIMILAR MANNER TO SECTIONS. DETAILS AND ELEVATIONS ARE IDENTIFIED BY A NUMBER, SECTIONS ARE IDENTIFIED BY A LETTER.

OPTIONAL DESCRIPTION

DESCRIPTIVE SUBTITLE
ELEVATION 2 C100
SCALE: 1/4"=1'-0"

DESCRIPTIVE SUBTITLE
DETAIL 1 C100
SCALE: 1/4"=1'-0"

NORTH ARROW

40 0 40 80
FEET
ENGINEERING GRAPHIC SCALE

2 0 2 4
FEET
ARCHITECTURAL GRAPHIC SCALE (FOR ¾" SCALE)

1 KEY NOTE

020101 STANDARD DETAIL CALLOUT

XXX-X* CITY OF BELLEVUE DETAIL CALLOUT

DEMOLITION SYMBOLS

- EXISTING CONCRETE OR ASPHALT TO BE REMOVED
- EXISTING STRUCTURE TO BE REMOVED
- TEMPORARY -TO BE BUILT FOR FUTURE REMOVAL
- CONCRETE SIDEWALK REMOVAL LIMITS
- EXISTING DRAINAGE SWALE
- ABANDON
- DEMOLITION NOTE
- EXISTING GRAVEL/ VEGETATION/LANDSCAPING TO BE REMOVED
- EXISTING ROCK WALL TO BE REMOVED
- ASPHALT TO REMAIN (PROTECT)
- GRAVEL TO REMAIN (PROTECT)
- TEMPORARY WORK AREA
- TREE DEMOLITION

ARCHITECTURAL SYMBOLS

- EXIT EGRESS PATH
- 330-XX DOOR NO. CALLOUT
- METAL STUD WALL W/ GYP BD EACH SIDE

GEOTECHNICAL INSTRUMENTATION

- STRUCTURE SETTLEMENT POINT
- UTILITY SETTLEMENT POINT
- SURFACE SETTLEMENT POINT
- OPTICAL SURVEY POINT
- VM VIBRATION MONITORING POINT
- HISTORIC BORING
- PROJECT BORING

LANDSCAPE SYMBOLS

REFER TO DWGS L001 AND L002 FOR LANDSCAPE SYMBOLS

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

LINDA C. STIEGLER — STATE OF WASHINGTON — 37135 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: S. FARNAM	SCALE: NO SCALE
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

GENERAL SYMBOLS

DCN:

DATE: DECEMBER 2015

PROJECT FILE NO: 1038122

DRAWING NO: **G006**

SHT NO 5 / TOTAL /41 REV NO: 0

C:\pwworkdir\d0167691\330_331-1038122G006.dwg | Layout: 331-1038122G006
PLOTTED: Dec 10, 2015-04:11:40pm By starks
XREFS: SunsetHeathfield-Daize-TB-Border.dwg
IMAGES:

GENERAL ABBREVIATIONS

A	AMPERE
AB	ANCHOR BOLT
AC	ASPHALT CONCRETE
A/C	AIR CONDITIONING
ACC	AREA CONTROL CENTER
ACOU	ACOUSTIC
ACP	ASBESTOS CEMENT PIPE
ADD	ADDITION(AL)
ADJ	ADJUSTABLE
ADPT	ADAPTER
AFF	ABOVE FINISH FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUM, ALUMINUM
ANC	ANCHOR
APPX	APPROXIMATE(LY)
APN	ASSESSOR PARCEL NUMBER
AR	AIR RETURN
ARV	AIR RELEASE VALVE
ARCH	ARCHITECTURAL
AS	AIR SUPPLY
ASSY	ASSEMBLY
ATB	ASPHALT TREATED BASE
ATM	ATMOSPHERE
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AWG	AMERICAN WIRE GAUGE
B&B	BALLED AND BURLAPPED
BBE	BEVEL BOTH ENDS
BC	BEGINNING OF CURVE
BCOP	BARE COPPER
BD	BOARD
BF	BLIND FLANGE
BH	BORE HOLE
BHP	BRAKE HORSEPOWER
BK	BRICK
BKR	BREAKER
BLE	BEVEL LARGE END
BLDG	BUILDING
BLK	BLOCK, BLACK
BM	BEAM, BENCHMARK
BMP	BEST MANAGEMENT PRACTICE
BOP	BOTTOM OF PIPE, BACK OF PIPE
BOT	BOTTOM
BRDG	BRIDGING
BRG	BEARING
BTU	BRITISH THERMAL UNIT
BTWN	BETWEEN
BUV	BUTTERFLY VALVE
BV	BALL VALVE
C	CENTER LINE, CRANE, CASING
CAB	DIRECT BURIAL CABLE, CABINET
CAL	CALIPER
CAP	CAPACITY
CAV	COMBINATION AIR VACUUM RELIEF VALVE
CB	CATCH BASIN
C/C	CENTER TO CENTER
CD	CEILING DIFFUSER
CDR	CONDUCTOR
CDU	CONDENSING UNIT
CEM	CEMENT
CF	CUBIC FEET
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CH	CHANNEL
CHV	CHECK VALVE
CIP	CAST IN PLACE
CJ	CONSTRUCTION JOINT, CONTROL JOINT
CK	CHECKER(ED)
CKPL	CHECKER PLATE
CKT	CIRCUIT
CL	CENTERLINE
CL	CLEAR, CLEARANCE
CLG	CEILING
CLK	CLOCK
CLR	CLEAR, CLEARANCE
CM	MANUAL CONTROL STATION
CMA	MANUAL-AUTO CONTROL STATION
CMC	CEMENT MORTAR COATED
CML	CEMENT MORTAR LINED
CMU	CONCRETE MASONRY UNIT
CND	CONDUIT
CNTL	CONTROL
CO	CLEANOUT
COB	CITY OF BELLEVUE, WASHINGTON
COF	COOLING AIR FAN
COL	COLUMN, COLLECTION
CONC	CONCRETE, CONCENTRIC
COND	CONDUCTOR, CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS, CONTAINER
CONTD	CONTINUED
CONST	CONSTRUCTION
CP	COMPRESSOR, CENTER POINT, CATHODIC PROTECTION, CONTROL POINT
CPLG	COUPLING
CPR	COMPRESSOR
CPVC	CHLORINATED POLYVINYL CHLORIDE
CR	CONDUIT RACK
CS	COMBINED SEWER
CTR	CENTER
CU	CONTROL UNIT, COPPER
CV	CONTROL VALVE
C/W	COMPLETE WITH
CYL	CYLINDER
D	DRAIN
DB	DUCT BANK
DCV	DOUBLE CHECK VALVE
DEC	DECREASING
DET	DETAIL
DG	DOOR GRILLE
DIA	DIAMETER
DIAG	DIAGRAM, DIAGONAL
DIFF	DIFFERENTIAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DIR	DIRECTION
DIS	DISPENSER
DISCH	DISCHARGE
DM	DAMPER MOTOR
DN	DOWN
DNRP	DEPARTMENT OF NATURAL RESOURCES & PARKS
DO	DISSOLVED OXYGEN, DITTO
DOE	DEPARTMENT OF ECOLOGY
DR	DRAIN ROCK, DRAINAGE, DOOR
DS	DOWNSPOUT
DT	DRIP TRAP
DWF	DRY WEATHER FLOW
DWG(S)	DRAWING(S)
DWL	DOWEL
E	EAST
EA	EXHAUST AIR, EACH
EAT	ENTERING AIR TEMPERATURE
EAU	ENGINE ALTERNATOR UNIT
EC	END OF CURVE
ECC	ECCENTRIC
ED	EXTRACTOR DAMPER, EQUIPMENT DRAIN
EE	EACH END
EF	EACH FACE
EFF	EFFLUENT
EG	EXHAUST GRILLE
EJ	EXPANSION JOINT
EL	ELEVATION (ELEV) ELECT ELECTRICAL
ELL	ELBOW
EMBD	EMBEDDED
EMER	EMERGENCY
EOL	ELBOLET
EOMD	END OF METAL DECK
EOP	END OF PIPE
E/P	ELECTRIC/PNEUMATIC
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPR	EVAPORATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EXISTING SURFACE
ESC	EROSION AND SEDIMENTATION CONTROL
EW	EACH WAY
EX	EXTRA
EXIST	EXISTING
EXJ	EXPANSION JOINT
EXP	EXPANSION, EXPOSED
EXT	EXTERIOR
F	FAHRENHEIT, FACE, FUSE(D), FAN
FA	FOUL AIR
FAB	FABRICATE(D), FABRICATION
FAI	FRESH AIR INTAKE
FB	FLAT BAR, FLOOR BEAM
FC	FAIL CLOSED
FCO	FLOOR CLEANOUT
FCR	FINE CRUSHED ROCK
FD	FLOOR DRAIN
FDR	FEEDER
FE	FLOW ELEMENT, FIRE EXTINGUISHER
FF	FLAT FACE, FINISH FLOOR
F/F	FACE TO FACE
FH	FIRE HYDRANT, FLATHEAD
FHD	FLATHEAD
FIN	FINISHED
FL	FLOOR, FLOW LINE
FLEX	FLEXIBLE
FLG('D)	FLANGE(D), FLAP GATE
FLP	FLUID POWER UNIT
FLR	FLOOR
FLT	FILTER
FM	FORCE MAIN, FLOWMETER
FMH	FLEXIBLE METAL HOSE
FMX	FLASH MIXER
FND	FOUNDATION
FNPT	FEMALE NATIONAL PIPE THREAD
FO	FAIL OPEN
FOB	FLAT ON BOTTOM
FOC	FACE OF CONCRETE
FOD	FIBER OPTIC DUCT BANK
FOM	FACE OF MASONRY (OR BRICK)
FOT	FLAT ON TOP
FP	FILTER PRESS
FPC	FLEXIBLE PIPE COUPLING
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FR	FRAME
FRP	FIBERGLASS REINFORCED PIPE
FS	FAR SIDE, FLOW SWITCH, FIRESTAT
FT	FLASH TANK, FEET
FTG	FOOTING
FUT	FUTURE
G	POWER ACTUATED GATE, GUTTER
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GBR	GEOTECHNICAL BASELINE REPORT
GBV	GLOBE VALVE
GD	GUARD
GDR	GEOTECHNICAL DATA REPORT
GFI	GROUND FAULT INTERRUPTER
GI	GALVANIZED IRON
GIP	GALVANIZED IRON PIPE
GL	GLASS
GOX	GASEOUS OXYGEN
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
GRD	GRADE
GRDR	GRINDER
GRT	GROUT
GRTG	GRATING
GSKT	GASKET
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
GWB	GYPSUM WALL BOARD
GWL	GROUND WATER LEVEL
GYP	GYPSUM
H	HIGH, HORIZONTAL
H/A	HAND/AUTO
HARDBD	HARDBOARD
HAS	HEADED ANCHOR STUD
HC	HEATING COIL
HD	HEAVY DUTY
HDD	HORIZONTAL DIRECTIONAL DRILL
HDOT	HEAVY DUTY OILTIGHT
HDPE	HIGH DENSITY POLYETHYLENE
HDR	HEADER
HDWR	HARDWARE
HEX	HEXAGONAL
HG	MERCURY, HAND GRADE
HGL	HYDRAULIC GRADE LINE
HHV	HEAT HOSE VALVE
HM	HOLLOW METAL
H/O/A	HAND-OFF-AUTO
HOR	HORIZONTAL
HP	HIGH PRESSURE, HIGH POINT, HORSEPOWER
HPI	HORIZONTAL POINT OF INTERSECTION
HPU	HYDRAULIC POWER UNIT
HR	HANDRAIL, HEAT RESERVOIR, HOUR
HSS	HIGH SIGNAL SELECT. HOLLOW STRUCTURAL SECTION
HT	HEIGHT
HTR	HEATER
HTV	HIGH TEMPERATURE VENT
HV	HAND VALVE
H/V	HEATING AND VENTILATING
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HW	HOT WATER
HWH	HOT WATER HEATER
HWL	HIGH WATER LEVEL
HWTR	HIGH WATER
HYD	HYDRAULIC
HYDT	HYDRANT
Hz	HERTZ (CYCLES PER SECOND)
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IL	INDICATING LAMP
IN	INCH
INF	INFLUENT
INSUL	INSULATE(D), INSULATION
INST	INSTANTANEOUS
INT	INTERIOR, INTERSECTION
INTER	INTERMEDIATE
INTLK	INTERLOCK
INV	INVERT, INVERT ELEVATION
IRR	IRRIGATION
JB	JUNCTION BOX
JCT	JUNCTION
JST	JOIST
JT	JOINT
K	KIP (1,000 POUNDS)
KC	KING COUNTY
KGV	KNIFE GATE VALVE
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
LA	LANDSCAPE ARCHITECT
LAM	LAMINATE(D)
LAT	LEAVING AIR TEMPERATURE, LATERAL, LATITUDE
LB	POUND(S)
LCP	LOCAL CONTROL PANEL
LEL	LOWER EXPLOSIVE LIMIT
LEV	LEVEL
LF	LINEAR FEET
LFBR	LINEAR FEET BASEBOARD
LG	LONG
LH	LEFT HAND
LJ	LAP JOINT
LLV	LONG LEG VERTICAL
LO	LUBRICATING OIL
LOS	LOCKOUT STOP
LP	LOW PRESSURE
LS	LIMIT SWITCH
LT	LEFT, LIGHT
LTG	LIGHTING
LV	LOW VOLTAGE
LVR	LOUVER
LWL	LOW WATER LEVEL
LWR	LOWER
M	MOTOR
mA	MILLIAMPERE
MAINT	MAINTENANCE
MAN	MANUAL
MAT'L	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MCC	MOTOR CONTROL CENTER
MCU	MASTER CONTROL UNIT
MD	MOTORIZED DAMPER
ME	MISCELLANEOUS MECHANICAL EQUIPMENT
MECH	MECHANICAL
MEE	MISCELLANEOUS ELECTRICAL EQUIPMENT
MFR	MANUFACTURER
MG	MILLION GALLONS
MGD	MILLION GALLONS PER DAY
MG/L	MILLIGRAMS PER LITER
MH	MANHOLE, MAINTENANCE HOLE
MHHW	MEAN HIGH HIGH WATER
MI	MALLEABLE IRON
MIE	MISCELLANEOUS INSTRUMENTATION EQUIPMENT
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
ML	MILLILITER
MLLW	MEAN LOWER LOW WATER
MLW	MEAN LOW WATER
MO	MOTOR OPERATOR, MASONRY OPENING
MOD	MODULUS
MTD	MOUNTED
MTL	METAL
MTR	MOTOR
MUL/DIV	MULTIPLY/DIVIDE
MX	MIXER, MISCELLANEOUS EQUIPMENT
N	NEUTRAL, NORTH
NA	NONAUTOMATIC, NOT APPLICABLE
NC	NORMALLY CLOSED
NE	NORTHEAST
NEG	NEGATIVE
NF	NONFUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NOM	NOMINAL
NP	NAMEPLATE
NPSH	NET POSITIVE SUCTION HEAD
NPT	NATIONAL PIPE THREAD
NRS	NONRISING STEM
NS	NEAR SIDE
NTS	NOT TO SCALE
NW	NORTHWEST
O/	OVER
OA	OVERALL, OUTSIDE A.R.
OAI	OUTSIDE AIR INTAKE
OC	ON CENTERS
OCC	OCCUPANTS
OCU	ODOR CONTROL UNIT
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OVERHEAD, OPPOSITE HAND
OHD	OVERHEAD
OHW	ORDINARY HIGH WATER
OHWM	ORDINARY HIGH WATER MARK
OL	OVERLOAD
O/O	OUT TO OUT
OPNG	OPENING
OPP	OPPOSITE
ORF	ODOR REMOVAL FILTER
ORP	OXIDATION REDUCTION POTENTIAL
OSC	ODOR SCRUBBER
OUR	OXYGEN UPTAKE RATE
P	PUMP, PAVEMENT ELEVATION
PAR	PARALLEL, PARAGRAPH
PBE	PLAIN BOTH ENDS
PC	PIPE COUPLING, PRECAST, PIECE, POINT OF CURVATURE, PHOTO CONTROL
P/C	PLAIN CONCRETE (NO REINFORCING STEEL)
PCC	PORTLAND CEMENT CONCRETE
PCHV	PINCH VALVE
PCP	PLAIN CONCRETE PIPE
PCS	PIECES
PC-T	PIPE COUPLING TO TAKE TENSION
PCU	PHOTOELECTRIC CONTROL
PE	PLAIN END, PERMANENT EASEMENT
P/E	PNEUMATIC/ELECTRIC
PEN	PENETRATION
PERF	PERFORATED
PERP	PERPENDICULAR
PFP	POROUS FLEXIBLE PAVING
PG	PRESSURE GAGE
PH	PHASE
PHC	POINT OF HORIZONTAL CURVATURE
PHT	POINT OF HORIZONTAL TANGENT
POI	PROPORTIONAL PLUS INTEGRAL CONTROL, PRESSURE INDICATOR, POINT OF INTERSECTION
POS	POSITIVE
PK	PEAK
PL	PLATE, PIPELINE, PROPERTY LINE
PLCS	PLACES
PLE	PLAIN LARGE END
PLV	PLUG VALVE
PLY	PLYWOOD
PNEU	PNEUMATIC
PNL	PANEL, PANELBOARD
PNT	PAINT
POC	POINT OF CONNECTION
POE	PLAIN ONE END
POP	PNEUMATIC OPERATOR
PP	POWER POLE
PR	PAIR
PRD	PRESSURE RELIEF DAMPER
PRES	PRESSURE
PREFIN	PREFINISHED
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REGULATING (REDUCING) (RELIEF) VALVE
PS	PRESSURE SWITCH, PRESSURE SENSOR
PSE	PUGET SOUND ENERGY
PSF	POUNDS PER SQUARE FOOT
PSH	PRESSURE SWITCH HIGH
PSI	POUNDS PER SQUARE
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PSL	PIPE SLEEVE, PRESSURE SWITCH LOW
PT	POINT, POINT OF TANGENCY
PV	PLUG VALVE, PROCESS VARIABLE
PVC	POLYVINYL CHLORIDE, POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVL	PRESSURE VESSEL
PVT	PAVEMENT, POINT OF VERTICAL INTERSECTION
Q	RATE OF FLOW
QCV	QUICK COUPLER VALVE
QCPL	QUICK COUPLING
QTY	QUANTITY
R	RADIUS, RISER
RA	RETURN AIR
RAD	RADIUS
RAF	ROLL TYPE AIR FILTER
R/C	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN, ROAD
RE	RIM ELEVATION
RF	RAISED FACE
REC	RECEIVER, RECESSED
RECD	RECEIVED
RECIRC	RECIRCULATION
RECP	RECEPTACLE
RED	REDUCE(R)
REF	REFERENCE
REG	REGULATOR
REINF	REINFORCED
REL	RELAY
REM	REMOVABLE
REQ'D	REQUIRED
RESIL	RESILIENT
RE-STL	REINFORCING STEEL
RG	RETURN GRILLE
RGS	RIGID GALVANIZED STEEL
RH	RIGHT HAND
RL	REDUCED LEVEL
RM	ROOM
RO	ROUGH OPENINGS
RP	RADIUS POINT
RPM	REVOLUTIONS PER MINUTE
RS	RAW SEWAGE
RT	RIGHT
RTU	REMOTE TERMINAL UNIT
RV	RELIEF VALVE
R/W	RIGHT OF WAY
RWP	RAINWATER PIPE
S	SOUTH, SOLENOID VALVE SLOPE
SA	SUPPLY AIR
SB	SIGNAL BOX
SCH	SCHEDULE
SCRD	SCREWED
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SDT	SMOKE DETECTOR, SANITARY DRAIN, STORM DRAIN TEMPORARY STORM DRAIN
SE	SOUTHEAST
SEC	SECOND
SECT	SECTION
SEL	SELECTOR
SEP	SEPARATOR
SF	SQUARE FOOT
SG	SUPPLY GRILLE, SLUICE GATE
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SL	SLOPE
SLG	SLIDE GATE
SLR	SEALER
SN	SCREEN
SP	SPACE, SET POINT, STATIC PRESSURE, STOP
SO	SLIP-ON
SPCS	SPACES
SPEC	SPECIFICATIONS
SPG	SPACING
SPL	SPLICE
SQ	SQUARE
SR	SPEED REDUCER
SRG	SPLIT-RANGING
SRV	SAFETY RELIEF VALVE
SS	STAINLESS STEEL, SANITARY SEWER, SPEED SELECTOR, SUSPENDED SOLIDS
SSC	SOLID STATE CONTROLLER
SSFH	STAINLESS STEEL FLAT HEAD
SSMH	SANITARY SEWER MANHOLE
SSPE	SUBSURFACE PERMANENT EASEMENT
SST	STAINLESS STEEL
ST	START, STREET
STA	STATION, STARTING AIR
STD	STANDARD, STUD
STGA	STARTING AIR
STL	STEEL
STOR	STORAGE
STR	STRONG
STRUCT	STRUCTURAL
SUB	SUBSTITUTE
SUPT	SUPPORT
SURF	SURFACE
SUSP	SUSPENDED
SV	SOLENOID VALVE
SW	SOUTHWEST, SOCKET WELD
SWB	SWITCHBOARD
SWGR	SWITCHGEAR, SWAGE
SYM	SYMMETRICAL, SYMBOL
T	TRAP, TOP, TANK
TA	TOP & BOTTOM TRANSFER AIR
TB	TERMINAL BOX,
TBD	TO BE DETERMINED
T/B	TOP OF BANK
TCE	TEMPORARY CONSTRUCTION EASEMENT
T/C	TOP OF CURB
TCL	TOTALLY CLOSED
TCP	TEMPERATURE CONTROL PANEL
TD	TIME DELAY RELAY, TANK DRAIN
TE	TOTALLY ENCLOSED
TEMP	TEMPERED
TESC	TEMPORARY EROSION AND SEDIMENTATION CONTROL
TFR	TRANSFORMER
TH	THERMOMETER
THD'D	THREADED
THK	THICK
THRESH	THRESHOLD
THRU	THROUGH
TLE	THREAD LARGE END
TOA	TEST-OFF-AUTO
TOC	TOP OF CONCRETE
TOE	THREADED ONE END
TOL	THREDOLET
TOM	TOP OF MASONRY
TOP	TOP OF PIPE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TP	TANGENT POINT, TRAP PRIMER TOPPING, TRANSLUCENT PANEL
TPC	TREATMENT PLANT CONTRACTOR
TPLX	TRIPLEXED
TPP	TREATMENT PLANT PORTAL
TR	TIMING RELAY, STAIR TREAD
TRANS	TRANSFORMER
TRM	TRANSMITTER
TRN	TRANSDUCER
TRS	TRANSFER SWITCH
TS	TEMPERATURE SWITCH
TSE	THREADED SMALL END
TU	TREE UNIT
TV	THERMOSTATIC VALVE
TW	THERMOWELL , TOP OF WALL
TWA	TEMPORARY WORK AREA
TYP	TYPICAL
U,UD	UNDERDRAIN
UG	UNDERGROUND
UH	UNIT HEATER
UL	ULTIMATE LOAD
UN	UNION
UNO	UNLESS NOTED OTHERWISE
U/P	UTILITY POLE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UPO	UNIFORMED POLICE OFFICER
US	UTILITY STATION
USACE	U.S. ARMY CORPS OF ENGINEERS
U/S	UNDERSIDE
V	VALVE,VENT, VOLTS, VERTICAL
VAC	VACUUM, VOLTS ALTERNATING CURRENT
VAR	VARIES, VARIABLE
VB	VALVE BOX
VC	VERTICAL CURVE
VD	VOLUME DAMPER
VDC	VOLTS DIRECT CURRENT
VERT(S)	VERTICAL(S)
VFT	VACUUM FILTER
VP	VAPOR PRESSURE, VACUUM PUMP
VPI	VERTICAL POINT OF INTERSECTION
VSC	VARIABLE SPEED COUPLING
VTR	VENT THROUGH ROOF
VWP	VIBRATING WIRE PIEZOMETER
W	WEST, WIDE, WOOD, WOMENS, WASHER, WATER,WEST,CITYWATER
W/	WITH
WC	WATER COLUMN WALL
WD	WOOD
WEG	WALL EXHAUST GRILLE
WER	WALL EXHAUST REGISTER
WF	WIDE FLANGE
W/O	WITHOUT
WOL	WELDOLET
WP	WORKING POINT, WEATHER PROOF
WPJ	WEAKENED PLANE JOINT
WN	WELD NECK
WR	WASHROOM, WATER RESISTANT
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
WSR	WALL SUPPLY REGISTER,
WS	WASHER
WT	WATERSTOP
WWF	WATERTIGHT, WEIGHT WELDED WIRE FABRIC, WET
WTD	WEATHER FLOW WASTEWATER TREATMENT DIVISION
X	
	SPARE CONDUIT
XLP	(SUFFIX LETTER)
XP	CROSS LINKED POLYETHYLENE
YCO	EXPLOSION PROOF\
YR	YARD CLEANOUT
ZS	YEAR
#	POSITION SWITCH
@	NUMBER, POUNDS
Ø	AT
	DIAMETER, PHASE

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

LINDA C. STIEGLER · STATE OF WASHINGTON · 37135 · REGISTERED PROFESSIONAL ENGINEER

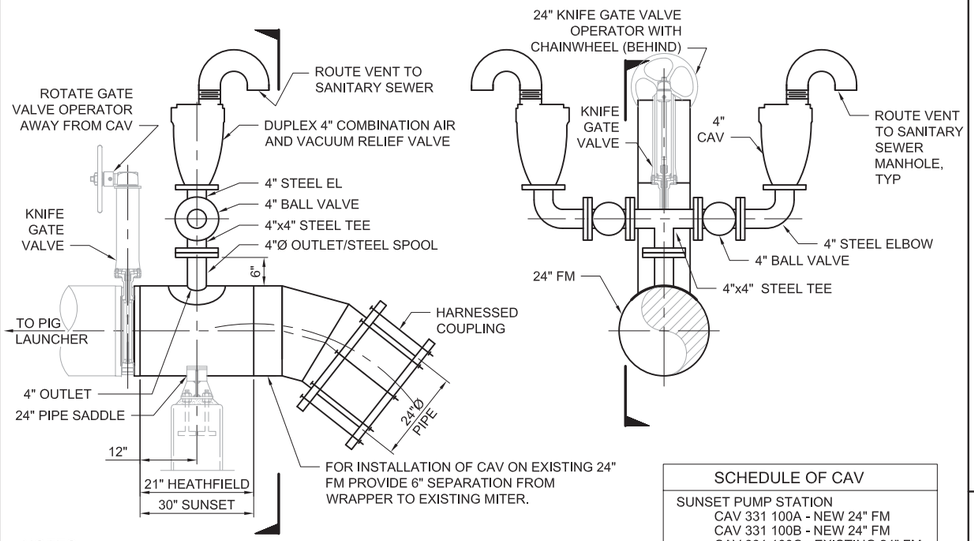
DESIGNED/DRAWN: S. FARNAM	SCALE: NO SCALE
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

GENERAL ABBREVIATIONS

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: G007
SHT NO 6 / TOTAL 41
REV NO: 0

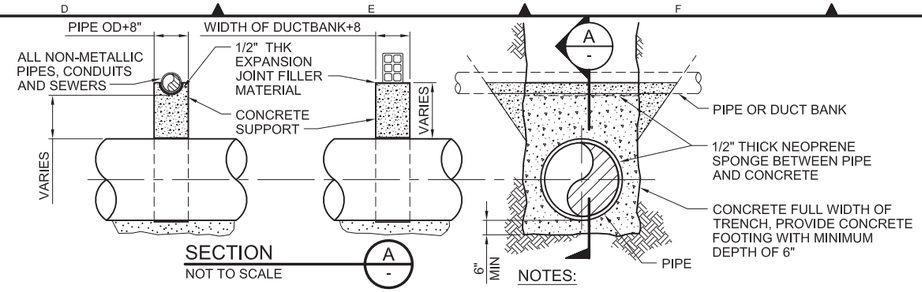


NOTES:

1. FOR LOCATION OF CAV VALVE PIPE OUTLET SEE PLAN AND PROFILE DRAWINGS.
2. THE CAV PIPING AND VALVE SHALL BE 4-INCH SIZE UNLESS OTHERWISE NOTED.
3. PROVIDE PIPE OR FITTINGS NECESSARY FOR PROPER VALVE FUNCTION AND TO MEET MANUFACTURERS REQUIREMENTS.
4. PROVIDE STEEL PIPE WITH BUTTSTRAP OR STEEL WRAPPER TO LOCATE VALVE, AS INDICATED IN THE DRAWINGS.
5. INSTALLATION ON EXISTING 24" FM CAN BE MADE USING A 4" TAP AND COLLAR OR WRAPPER WELDED TO EXISTING STEEL PIPE.
6. ORIENT VENT PIPE TO AVOID CONFLICTS WITH OTHER VALVES AND PIPING.

SCHEDULE OF CAV
SUNSET PUMP STATION CAV 331 100A - NEW 24" FM CAV 331 100B - NEW 24" FM CAV 331 100C - EXISTING 24" FM CAV 331 100D - EXISTING 24" FM
HEATHFIELD PUMP STATION CAV 330 100A - NEW 24" FM CAV 330 100B - NEW 24" FM CAV 330 100C - EXISTING 24" FM CAV 330 100D - EXISTING 24" FM

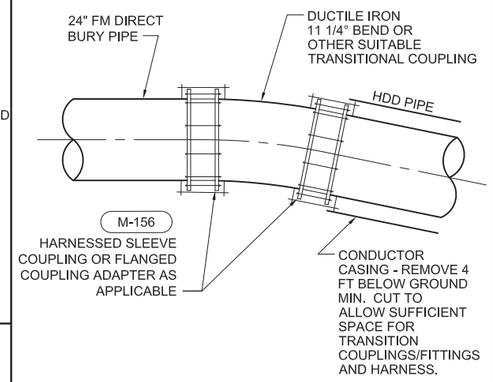
DUPLEX COMBINATION AIR AND VACUUM RELIEF VALVE ASSEMBLY — C-221



NOTES:

1. UNDERGROUND UTILITY SUPPORTS ARE TO BE PROVIDED WHEN MINIMUM CLEARANCE OF 12 INCHES CANNOT BE PROVIDED.
2. EXISTING PIPE OR DUCT BANK SHALL BE FIRMLY SUPPORTED DURING INSTALLATION OF NEW PIPE AND SUPPORT.
3. BACKFILL TO BE BROUGHT UP UNIFORMLY ON BOTH SIDES OF CONC SUPPORT

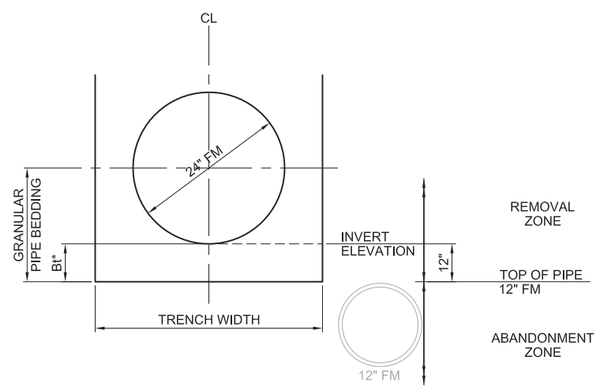
UTILITY SUPPORT — C-608



NOTES:

1. EXACT COUPLING FOR TRANSITION FITTING TO BE DETERMINED BASED ON PIPE TYPES SELECTED FOR PROJECT.
2. ADDITIONAL FITTINGS MAY BE REQUIRED TO ACCOMMODATE OD'S OF SELECTED PIPE.

HDD/DIRECT BURY PIPE TRANSITION DETAIL — C-906

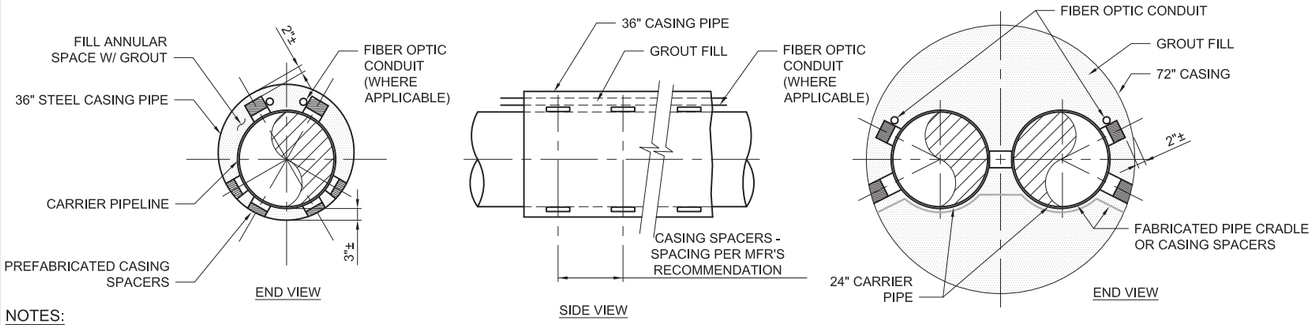


*Bt - BEDDING THICKNESS

NOTES:

1. WHEN REMOVING PIPE, VOID SHALL BE BACKFILLED WITH BEDDING MATERIAL OR CONTROLLED DENSITY FILL (CDF).
2. ABANDONMENT SHALL INCLUDE CUTTING, FILLING OF PIPE, AND CAPPING, IN ACCORDANCE WITH COB S-15.
3. APPLIES ONLY TO EXISTING 12" FM PIPING WITHIN TRENCH WIDTH.
4. REMOVE 12" FM IF IT FALLS WITHIN THE 12 INCHES HORIZONTAL OF THE 24" FM.
5. REMOVAL OF 12" FM SHALL BE COORDINATED WITH CONTRACTOR'S PLAN FOR FIBER OPTIC SYSTEM SHOWN ON DWG C014.

12" FM PIPING REMOVAL & ABANDONMENT DETAIL — C-900



NOTES:

1. CASING SPACERS SHALL BE DESIGNED TO SLIP OVER WELD SURFACE.
2. ONE SPACER SHALL BE PLACED NOT MORE THAN TWO FEET FROM EACH END OF CASING. ONE SPACER SHALL BE PLACED ON THE SPIGOT END OF EACH PIPE SEGMENT.
3. SEE PLAN AND PROFILE DRAWINGS FOR CARRIER PIPE INVERT ELEVATION.
4. 72" CROSSING PIPE SPACERS LONGITUDINAL SECTION SIMILAR TO 36" CASING PIPE.

CASING/CARRIER PIPE DETAIL — C-909

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

LINDA C. STIEGLER — STATE OF WASHINGTON — 37135 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: S. FARNAM	SCALE: NO SCALE
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

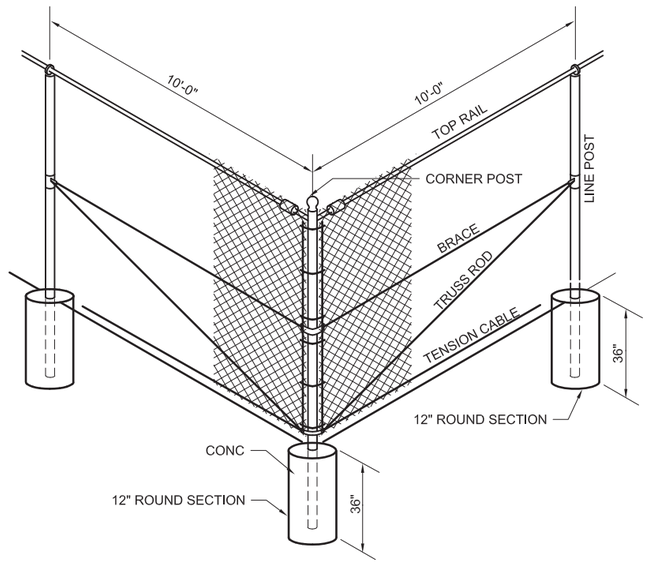
DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

CIVIL STANDARD DETAILS 1

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **C002**
SHT NO 7 / TOTAL 41
REV NO: 0

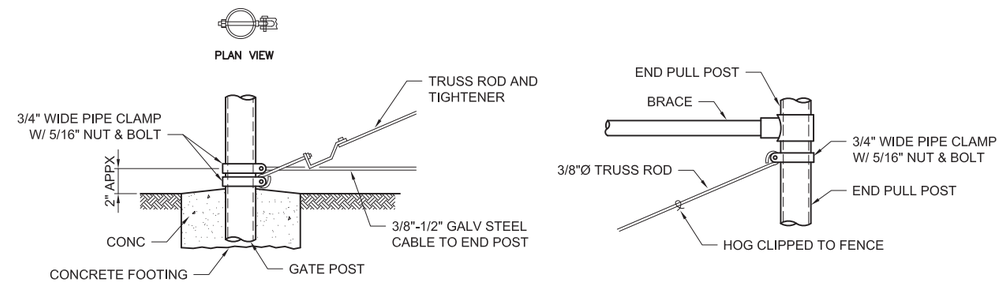
C:\pwworkdir\d0167684\330-331-1038122C002.dwg | Layout: 330-331-1038122C002
PLOTTED: Dec 11, 2015-05:27:34pm By shutakj
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; STANDARD CIVIL DETAILS.dwg
IMAGES:

MEMBER													
BRACE OR TOP RAIL				LINE POST				END, CORNER & PULL POST		GATE POST		OPENING	
ROUND		HIGH COLUMN		ROUND		HIGH COLUMN		ROUND		ROUND			
OD	WEIGHT #/FT	SIZE	WEIGHT #/FT	OD	WEIGHT #/FT	OD	WEIGHT #/FT	OD	WEIGHT #/FT	OD	WEIGHT #/FT		
1-5/8"	2.27			2-3/8"	3.65			2-7/8"	5.79	6-5/8"	18.97		NOT TO EXCEED 20' FOR SINGLE GATE 40' FOR DOUBLE GATE
										2-7/8"	5.79		3'

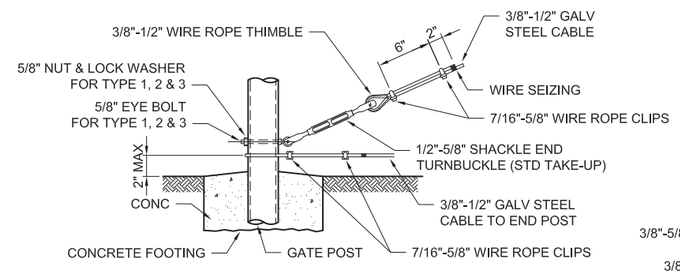


CORNER BRACING

(ALL ANGLES 30 DEGREES AND OVER)

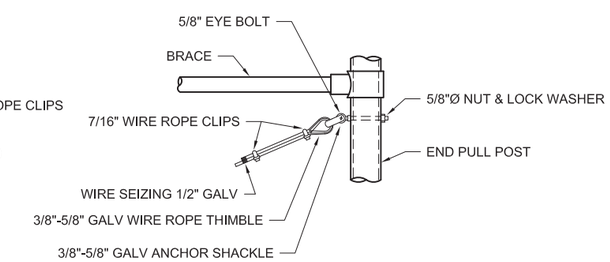


OPTIONAL BRACE AND TRUSS CONNECTION



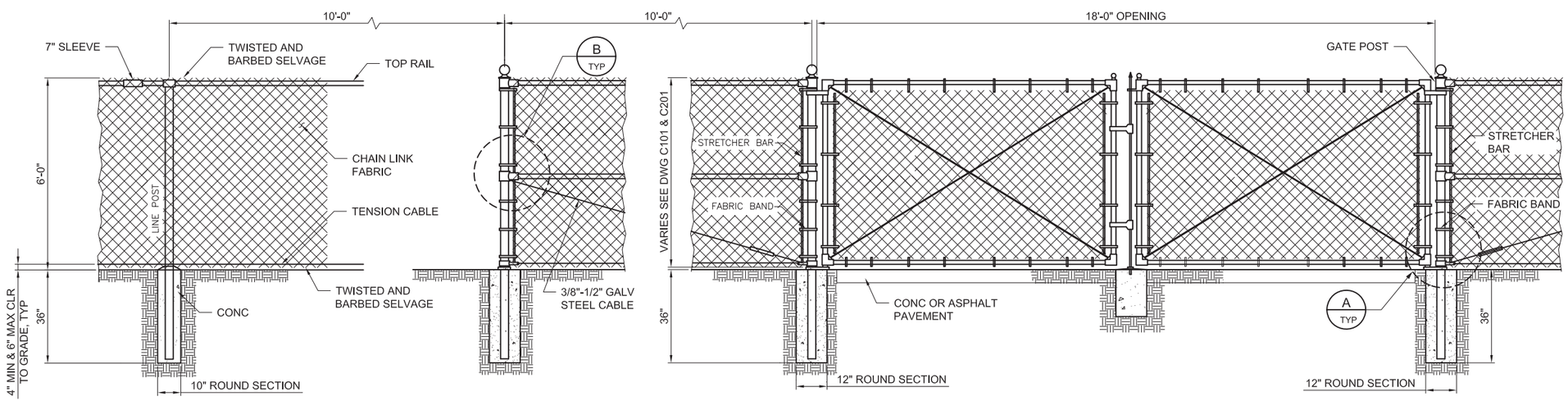
CABLE FASTENING TO POST BASE

DETAIL A --



TOP CABLE ATTACHMENT END PULL POST

DETAIL B --



TYPICAL FENCE AND GATE

NOTES:

1. INSTALL TWO 9'-0" AND TWO 3'-0" GATES AT THE LOCATIONS AS SHOWN ON DWG C201 WITH LOCKING DEVICES.
2. FENCING AT HEATHFIELD PUMP STATION TO INCLUDE PRIVACY FENCE SLATS.

FENCE DETAILS 020101

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

LINDA C. STIEGLER — STATE OF WASHINGTON — 37135 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: S. FARNAM	SCALE: NO SCALE
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

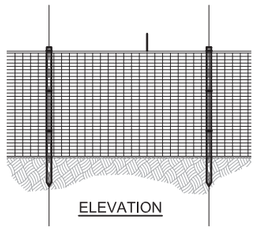
CIVIL STANDARD DETAILS 4

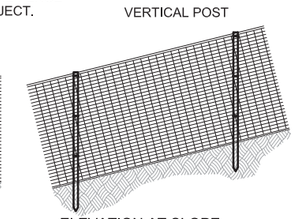
DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **C005**
SHT NO 8 / TOTAL 41
REV NO: 0

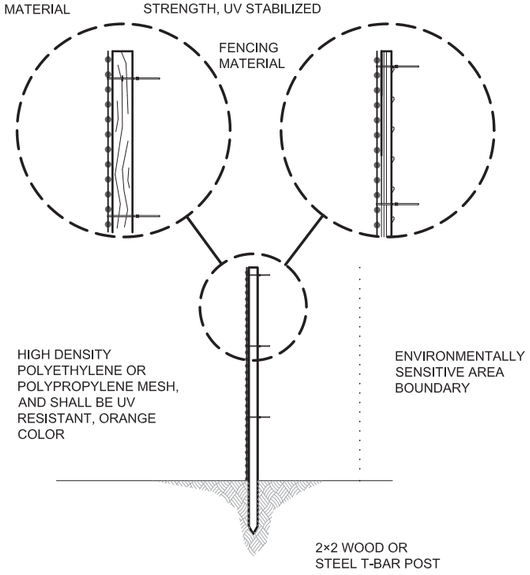
C:\pwworkdir\d0167684\330-331-1038122C004 thru C006.dwg | Layout: 330-331-1038122C005
PLOTTED: Dec 10, 2015-10:23:36am By shutakj
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; KC STANDARD CIVIL DETAILS.dwg; Mike DuPont-Wa Stamp.dwg; Mike DuPont-Wa Stamp-signed.dwg; Sunset Fence.dwg; SunsetHeathfield-Dsize-TB-Border.dwg;
IMAGES:

NOTES:

1. POST SHALL HAVE SUFFICIENT STRENGTH AND DURABILITY TO SUPPORT THE FENCE THROUGH THE LIFE OF THE PROJECT.

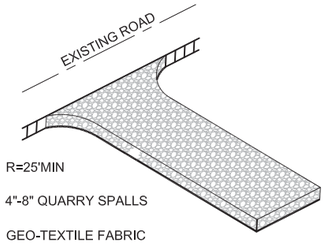






CONSTRUCTION FENCE

DETAIL 1 / -
NOT TO SCALE

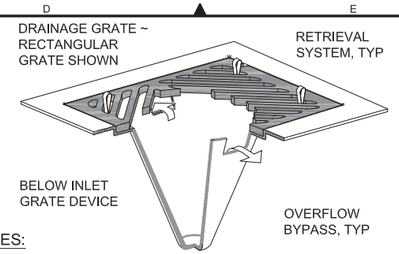


NOTES:

1. STABILIZED ACCESS SHALL BE USED IN ALL AREAS OF THE SITE WITH VEHICLE TRAFFIC AND PARKING, INCLUDING PLANTING STRIPS.
2. SEE SPECIFICATIONS FOR GEOTEXTILE REQUIREMENTS

STABILIZED CONSTRUCTION ENTRANCE

DETAIL 2 / -
NOT TO SCALE

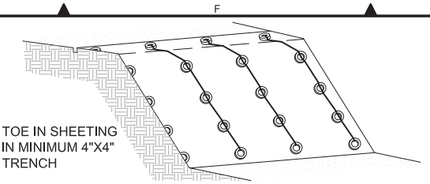


NOTES:

1. SIZE THE BELOW INLET GRATE DEVICE (BIGD) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
2. THE BIGD SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
3. THE RETRIEVAL SYSTEM SHALL ALLOW REMOVAL OF THE BIGD WITHOUT SPILLING THE COLLECTED MATERIAL.
4. PERFORM MAINTENANCE PER SPECIFICATION

INLET PROTECTION

DETAIL 3 / -
NOT TO SCALE

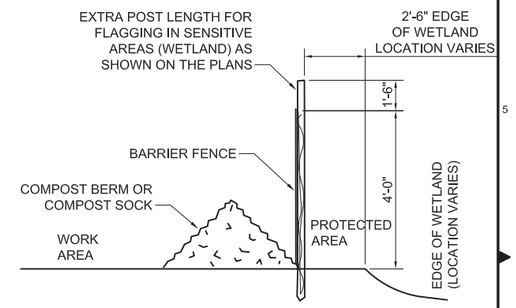


NOTES:

1. TIRES, SANDBAGS, OR EQUIVALENT MAY BE USED TO WEIGHT PLASTIC.
2. SEAMS BETWEEN SHEETS SHALL OVERLAP A MINIMUM OF 12" AND BE WEIGHTED OR TAPED.
3. ANCHOR WEIGHTS AT TOP OF SLOPE WITH STAKES.
4. FOR CONICAL SOIL STOCKPILES, DETAIL IS SIMILAR, EXCEPT CONNECT ALL ROPES TOGETHER TO COMMON WEIGHT(S) AT TOP AND CENTER OF STOCKPILE, SPREADING TO MAX 10'-0" SPACING AT BOTTOM OF PILE.

SLOPE PROTECTION

DETAIL 4 / -
NOT TO SCALE

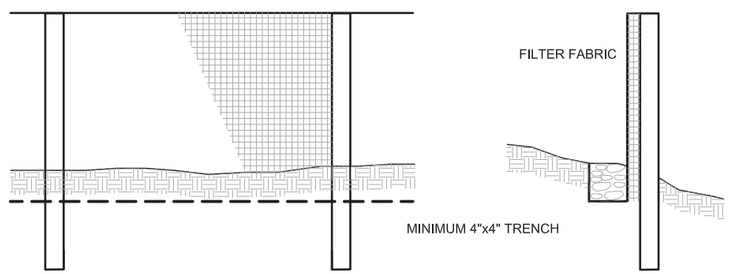


COMBINED BARRIER FENCE & SEDIMENT PROTECTION

DETAIL 7 / -
NOT TO SCALE

JOINTS IN FILTER FABRIC SHALL BE SPLICED AT POSTS. USE STAPLES, WIRE RINGS, OR EQUIVALENT TO ATTACH FABRIC TO POSTS.

2"x2" BY 14 Ga. WIRE OR EQUIVALENT, IF STANDARD STRENGTH FABRIC USED



POST SPACING MAY BE INCREASED TO 8' IF WIRE BACKING IS USED

BACKFILL TRENCH WITH NATIVE SOIL OR 3/4"-1.5" WASHED GRAVEL

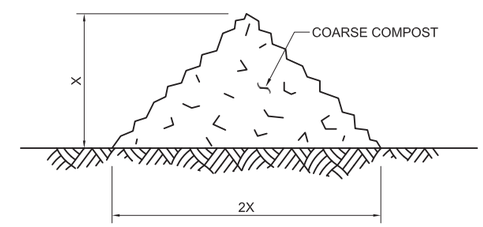
2"x4" WOOD POSTS, STEEL FENCE POSTS, REBAR, OR EQUIVALENT

NOTE:

1. FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.
2. WHEN LOCATING SILT FENCE WITHIN CRITICAL ROOT ZONE OF TREES SECURE BOTTOM OF FENCE TO GROUND AND COVER WITH ROCK OR MULCH. DO NOT BURY SILT FENCE.

FILTER FABRIC SEDIMENT FENCE (SILT FENCE)

DETAIL 5 / -
NOT TO SCALE

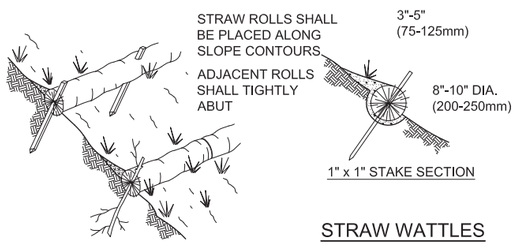


X = 1'-0" FOR SLOPES 4H:1V OR FLATTER
X = 1'-6" FOR SLOPES STEEPER THAN 4H:1V

TYPICAL SECTION

COMPOST BERM

DETAIL 6 / -
NOT TO SCALE



NOTES:

1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" x 5" (75-125mm) DEEP, DUG ON CONTOUR. RUNOFF SHALL NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

STRAW WATTLES

DETAIL 8 / -
NOT TO SCALE

EROSION CONTROL NOTES

1. APPROVAL OF THESE EROSION/SEDIMENTATION CONTROL (ESC) PLANS DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
3. THE BOUNDARIES OF THE CONSTRUCTION LIMITS SHOWN ON THESE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED.
4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
5. THE ESC FACILITIES SHOWN ON THESE PLANS SHALL BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
6. THE ESC FACILITIES SHOWN ON THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY THE CITY OF BELLEVUE OR BY THE PROJECT REPRESENTATIVE, TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED PROPER FUNCTIONING. THE CONTRACTOR SHALL MAINTAIN RECORDS OF WEEKLY INSPECTIONS, AND MAKE RECORDS AVAILABLE UPON REQUEST.
8. ANY AREAS OF EXPOSED SOILS THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON (OCT 1 - APRIL 30) OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
9. ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE PER MONTH DURING THE DRY SEASON, TWICE PER MONTH DURING THE WET SEASON, AND WITHIN THE 24 HOURS FOLLOWING EACH STORM EVENT.
11. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
12. ANY PERMANENT STORMWATER BMP OR RETENTION/DETENTION FACILITY USED AS A TEMPORARY BMP OR TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/29/2017

DESIGNED/DRAWN: C. SCHOFIELD	SCALE: NO SCALE
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE
SUNSET TO HEATHFIELD EROSION CONTROL & RESTORATION ESC DETAILS

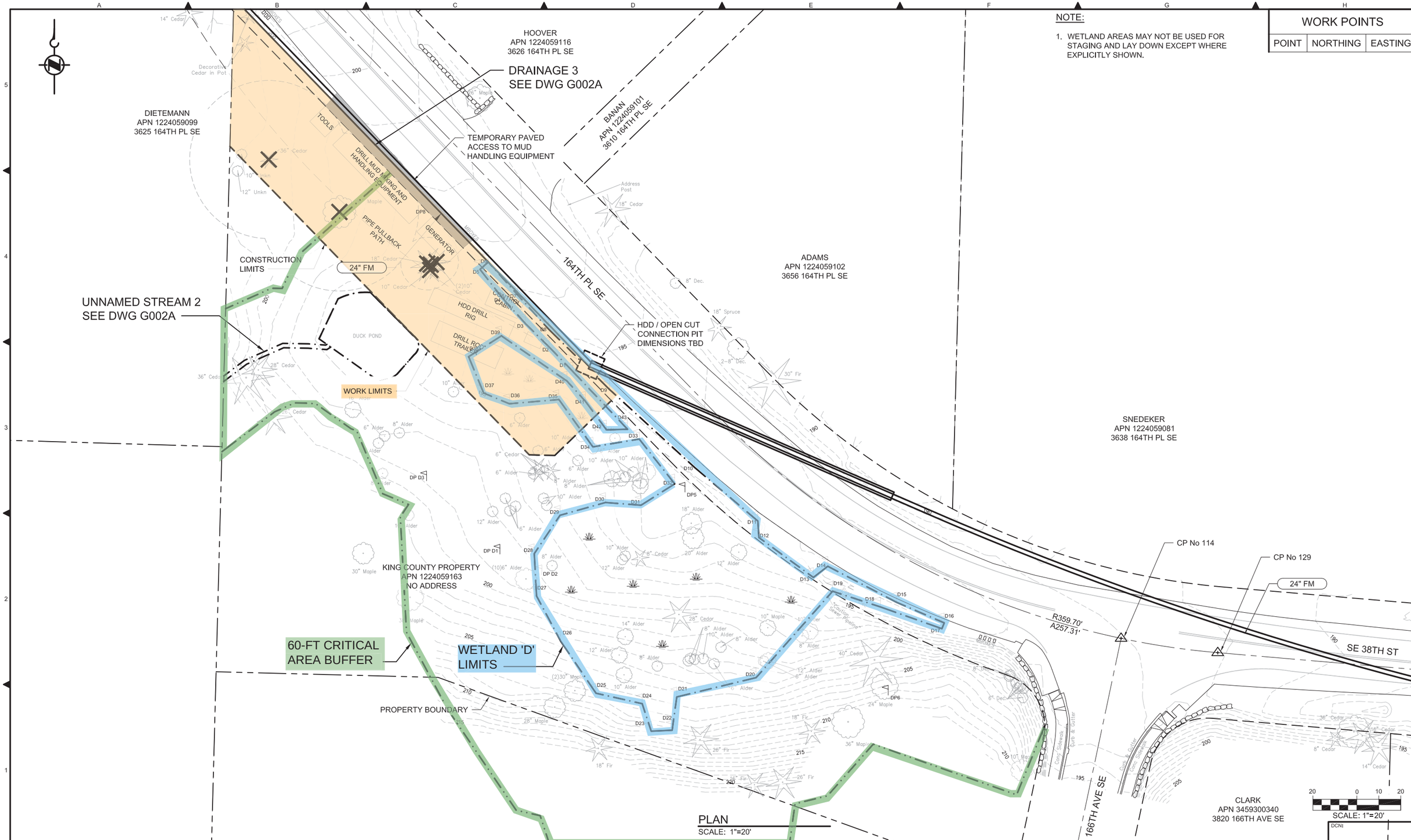
DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: C009
SHT NO 9 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0269162\330-331-1038122C009 & C352 thru C362.dwg | Layout: 330-331-1038122C009
PLOTTED: Dec 11, 2015-05:32:24pm By: shutakj
XREFS: SunsetHeathfield-Dsize-TB-Border;dwg; dms_deleted;SUNSET- SECTIONS.dwg; S&H PROFILES OPEN CUT.dwg; S&H PROFILES.dwg; S&H ALIGNMENT 2014-12.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H EX SITE FEATURES.dwg; S&
IMAGES:

NOTE:

1. WETLAND AREAS MAY NOT BE USED FOR STAGING AND LAY DOWN EXCEPT WHERE EXPLICITLY SHOWN.

WORK POINTS		
POINT	NORTHING	EASTING



PLAN
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

LINDA C. STIEGLER — STATE OF WASHINGTON — 37135 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=20'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE
SUNSET TO HEATHFIELD HDD PULLBACK AREAS KING COUNTY PROPERTY

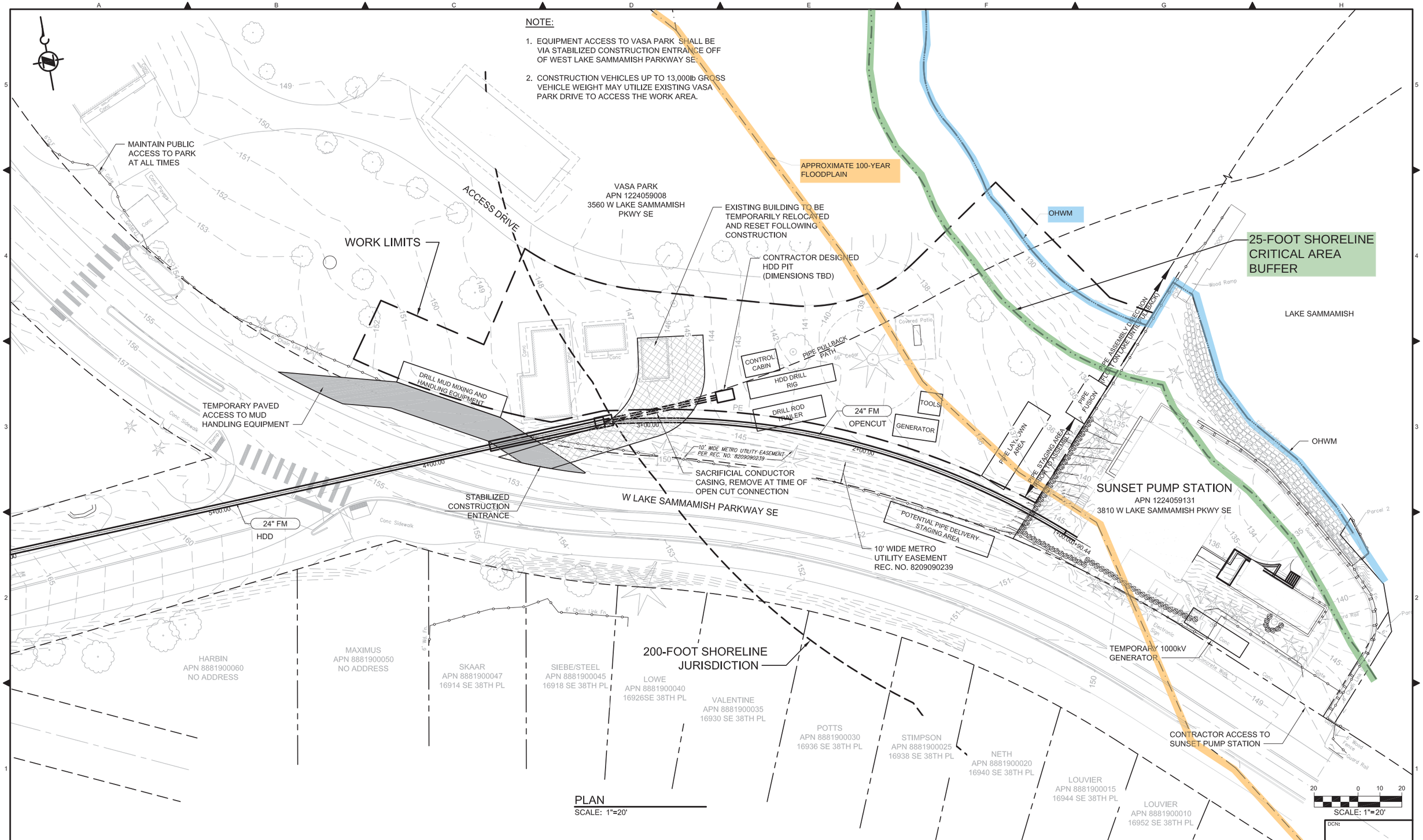
DATE:	DECEMBER 2015
PROJECT FILE NO:	1038122
DRAWING NO:	C010
SHT NO / TOTAL	10 / 41
REV NO:	0

DCN:

C:\pwworkdir\d0269162\330-331-1038122C010.dwg | Layout: 330-331-1038122C010
PLOTTED: Dec 11, 2015-04:32:50pm By: shutak]
XREFS: SunsetHeathfield-Datze-TB-Border.dwg; S&H ALIGNMENT 2014-12.dwg; S&H PROFILES HDD.dwg; S&H EX SITE FEATURES.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H DEMOLITION WORK.dwg; dms_deleted,330-331-1038122C351 thru C363.dwg; 2015-04-01
IMAGES:

NOTE:

1. EQUIPMENT ACCESS TO VASA PARK SHALL BE VIA STABILIZED CONSTRUCTION ENTRANCE OFF OF WEST LAKE SAMMAMISH PARKWAY SE.
2. CONSTRUCTION VEHICLES UP TO 13,000lb GROSS VEHICLE WEIGHT MAY UTILIZE EXISTING VASA PARK DRIVE TO ACCESS THE WORK AREA.



PLAN
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

LINDA C. STIEGLER — STATE OF WASHINGTON — 37135 — REGISTERED PROFESSIONAL ENGINEER

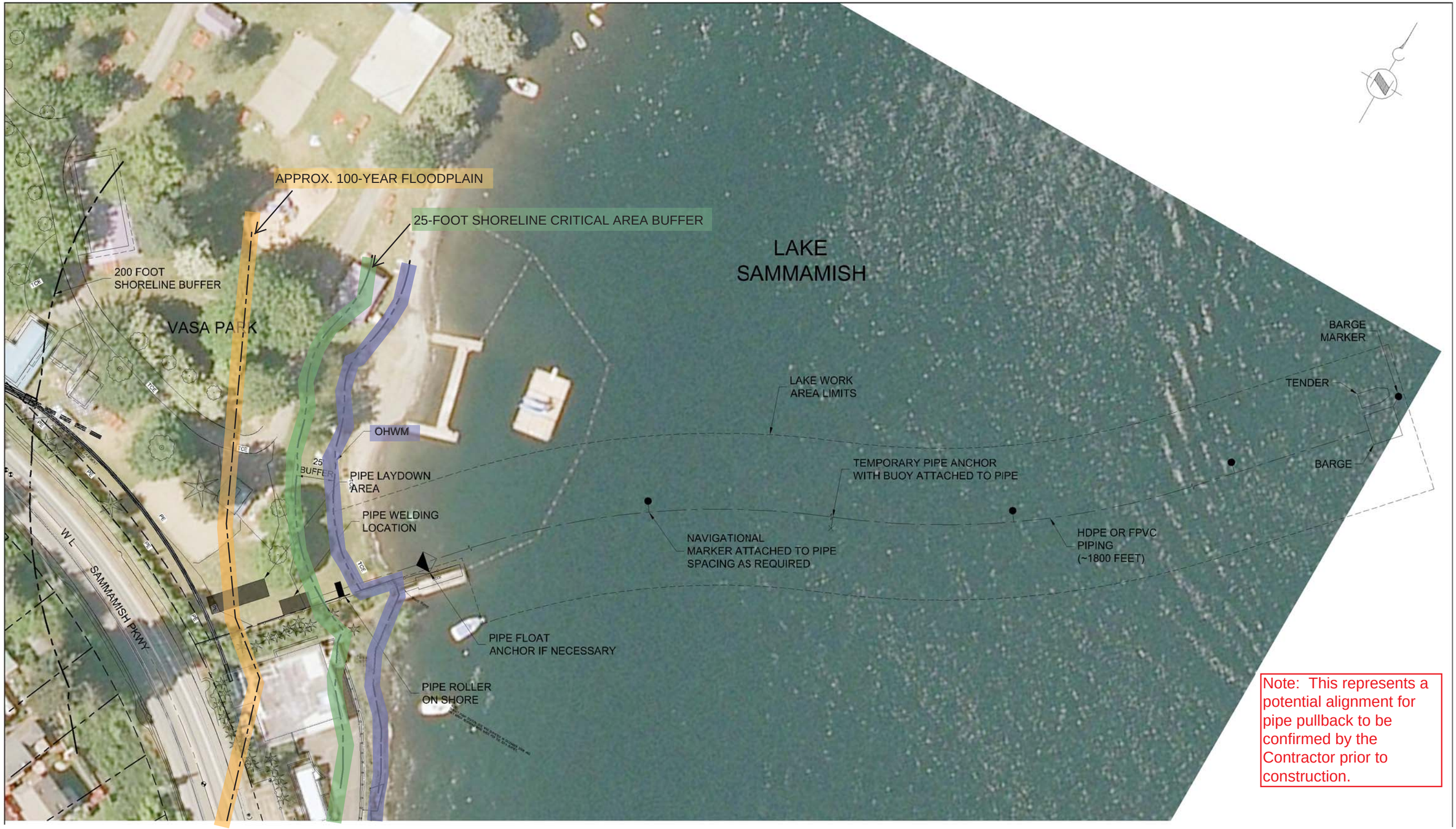
DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=20'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE
SUNSET TO HEATHFIELD SUNSET PUMP STATION AND VASA PARK WORK AREAS

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: C011
SHT NO 11 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0269162\330-331-1038122C011.dwg | Layout: 331-1038122C011
PLOTTED: Dec 18, 2015-02:38:10pm By nearykm
XREFS: Sunset-Heathfield-Dsize-TB-Border.dwg; S&H ALIGNMENT 2014-12.dwg; S&H PROFILES HDD.dwg; S&H EX SITE FEATURES.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H DEMOLITION WORK.dwg; 330-331-1038122C009 & C352 thru C362.dwg; FEMA Floodplain
IMAGES:



NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

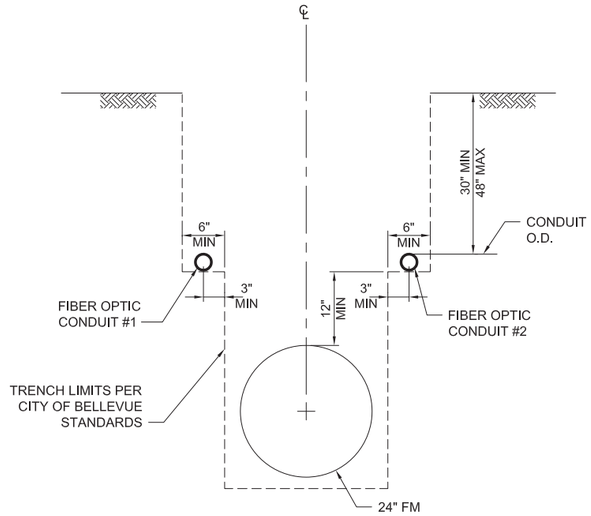
DESIGNED/DRAWN: S. FARNAM	SCALE: NO SCALE
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

POTENTIAL HDD PIPE ASSEMBLY AND PULLBACK

DATE: DECEMBER 2015	
PROJECT FILE NO: 1038122	
DRAWING NO: C011A	
SHT NO 12 / TOTAL 41	REV NO: 0

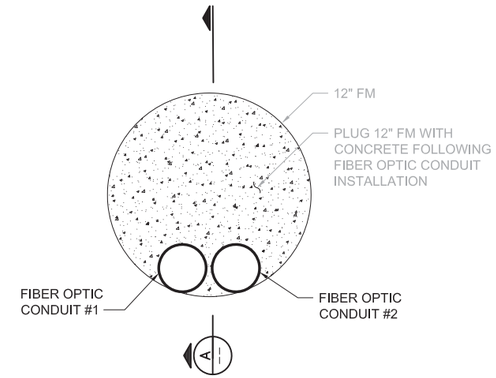


LOOKING UP STATION

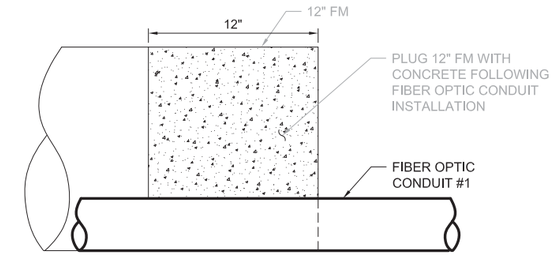
DETAIL 1 –

NOTES:

1. TRENCH BACKFILL AND PIPE BEDDING REQUIREMENTS PER CITY OF BELLEVUE STANDARDS.
2. INSTALL THREE FIBER OPTIC CABLES. TWO IN CONDUIT #1 AND ONE IN CONDUIT #2.
3. SEE DETAIL C-909 FOR FIBER OPTIC CONDUIT/CABLE INSTALLATION IN CASING PIPE.



LOOKING UP STATION



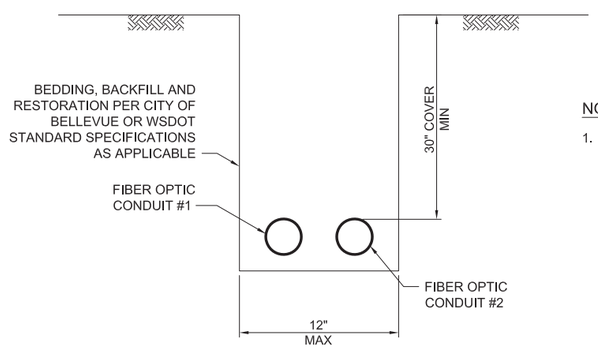
SECTION A –

NOTES:

1. EXPOSE, (CUT AND REMOVE) EXISTING 12" FM PIPING AND FITTINGS AS REQUIRED TO INSTALL FIBER OPTIC CONDUITS.
2. INSTALL THREE FIBER OPTIC CABLES, TWO IN CONDUIT #1 AND ONE IN CONDUIT #2.

DETAIL 2 –

FIBER OPTIC INSTALLATION SCHEDULE		
FROM	TO	DETAIL
SUNSET PUMP STATION	STA 3+20	1
STA 3+20	STA 4+30, 23' RT	3
STA 4+30, 23' RT	STA 20+60	2
STA 20+60	STA 25+90	1
STA 25+90	STA 26+48	C-909 (DWG C002)
STA 26+48	STA 29+93	1
STA 29+93	STA 32+53	C-909 (DWG C002)
STA 32+25	HEATHFIELD PUMP STATION	3
HEATHFIELD PUMP STATION	STA 50+25	2
STA 50+25	STA 63+65	1
STA 63+65	MH R11-65B	3



LOOKING UP STATION

DETAIL 3 --

NOTES:

1. INSTALL THREE FIBER OPTIC CABLES, TWO IN CONDUIT #1 AND ONE IN CONDUIT #2.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

LINDA C. STIEGLER — STATE OF WASHINGTON — 37135 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: S. FARNAM	SCALE: NO SCALE
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

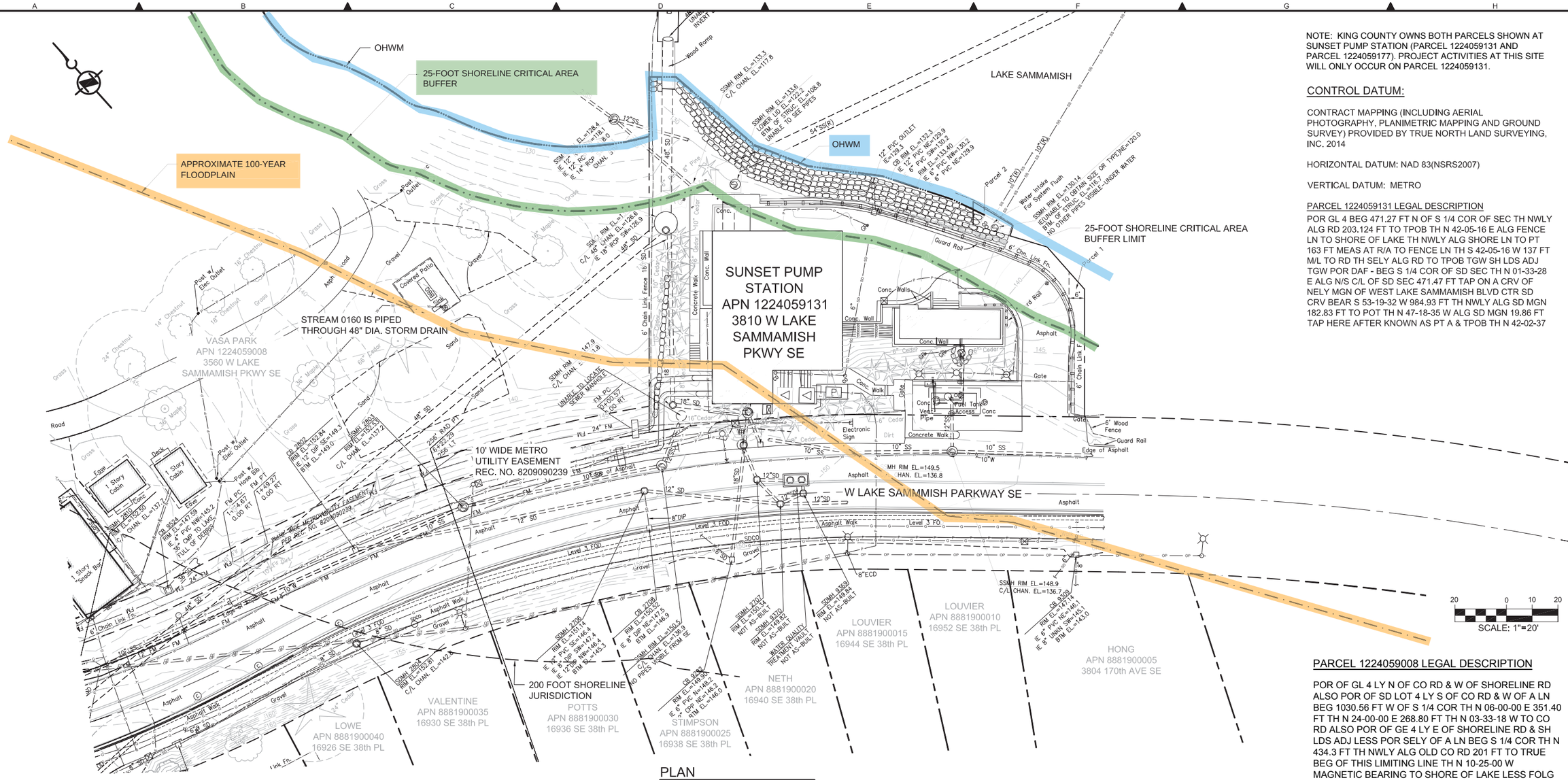
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

CIVIL
FIBER OPTIC CONDUIT INSTALLATION DETAILS

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **C014**
SHT NO 13 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0167684\330-331-1038122C014.dwg | Layout: 330-331-1038122C014
PLOTTED: Dec 10, 2015-04:43:39pm By starks
XREFS: SunsetHeathfield-Datze-TB-Border.dwg; Mike DuPont-Wa Stamp.dwg; Mike DuPont-Wa Stamp-digned.dwg
IMAGES:



PLAN
SCALE: 1"=20'

NOTE: KING COUNTY OWNS BOTH PARCELS SHOWN AT SUNSET PUMP STATION (PARCEL 1224059131 AND PARCEL 1224059177). PROJECT ACTIVITIES AT THIS SITE WILL ONLY OCCUR ON PARCEL 1224059131.

CONTROL DATUM:

CONTRACT MAPPING (INCLUDING AERIAL PHOTOGRAPHY, PLANIMETRIC MAPPING AND GROUND SURVEY) PROVIDED BY TRUE NORTH LAND SURVEYING, INC. 2014

HORIZONTAL DATUM: NAD 83(NSRS2007)

VERTICAL DATUM: METRO

PARCEL 1224059131 LEGAL DESCRIPTION

POR GL 4 BEG 471.27 FT N OF S 1/4 COR OF SEC TH NWLY ALG RD 203.124 FT TO TPOB TH N 42-05-16 E ALG FENCE LN TO SHORE OF LAKE TH NWLY ALG SHORE LN TO PT 163 FT MEAS AT R/A TO FENCE LN TH S 42-05-16 W 137 FT M/L TO RD TH SELY ALG RD TO TPOB TGW SH LDS ADJ TGW POR DAF - BEG S 1/4 COR OF SD SEC TH N 01-33-28 E ALG N/S C/L OF SD SEC 471.47 FT TAP ON A CRV OF NELY MGN OF WEST LAKE SAMMAMISH BLVD CTR SD CRV BEAR S 53-19-32 W 984.93 FT TH NWLY ALG SD MGN 182.83 FT TO POT TH N 47-18-35 W ALG SD MGN 19.86 FT TAP HERE AFTER KNOWN AS PT A & TPOB TH N 42-02-37

PARCEL 1224059008 LEGAL DESCRIPTION

POR OF GL 4 LY N OF CO RD & W OF SHORELINE RD ALSO POR OF SD LOT 4 LY S OF CO RD & W OF A LN BEG 1030.56 FT W OF S 1/4 COR TH N 06-00-00 E 351.40 FT TH N 24-00-00 E 268.80 FT TH N 03-33-18 W TO CO RD ALSO POR OF GE 4 LY E OF SHORELINE RD & SH LDS ADJ LESS POR SELY OF A LN BEG S 1/4 COR TH N 434.3 FT TH NWLY ALG OLD CO RD 201 FT TO TRUE BEG OF THIS LIMITING LINE TH N 10-25-00 W MAGNETIC BEARING TO SHORE OF LAKE LESS FOLG INC SH LDS ADJ BEG 471.27 FT N OF S 1/4 COR OF SEC TH NWLY ALG RD 203.124 FT TO TPOB TH N 42-05-16 E ALG FENCE LN TO SHORE OF LAKE TH NWLY ALG SHORE LN TO PT 163 FT MEAS AT R/A TO FENCE LN TH S 4E-05-16 W 137 FT M/L TO RD TH SELY ALG RD TO TPOB LESS POR LY WITHIN FOLG - BEG S 1/4 COR OF SD SEC TH N 01-33-28 E ALG N/S C/L OF SD SEC 471.47 FT TAP ON A CRV OF NELY MGN OF WEST LAKE SAMMAMISH BLVD CTR SD CRV BEARS S 53-19-32 W 984.93 FT TH NWLY ALG SD MGN 182.83 FT TO POT TH N 47-18-35 W ALG SD MGN 19.86 FT TO TPOB TH N 42-02-37 E 56.11 FT TH S 00-32-37 W 9.06 FT TH S 42-02-37 W 49.39 FT TAP ON NELY MGN OF SD BLVD TH N 47-18-35 W ALG SD MGN 6 FT TO TPOB CLASSIFIED AS "OPEN SPACE" OPEN SPACE LAND PURSUANT TO RCW 84.34.050

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM
SCALE: 1"=20'
PROJECT ENGINEER: L. STIEGLER
REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF
FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. NAMINI
CONTRACT NO: C01008C16

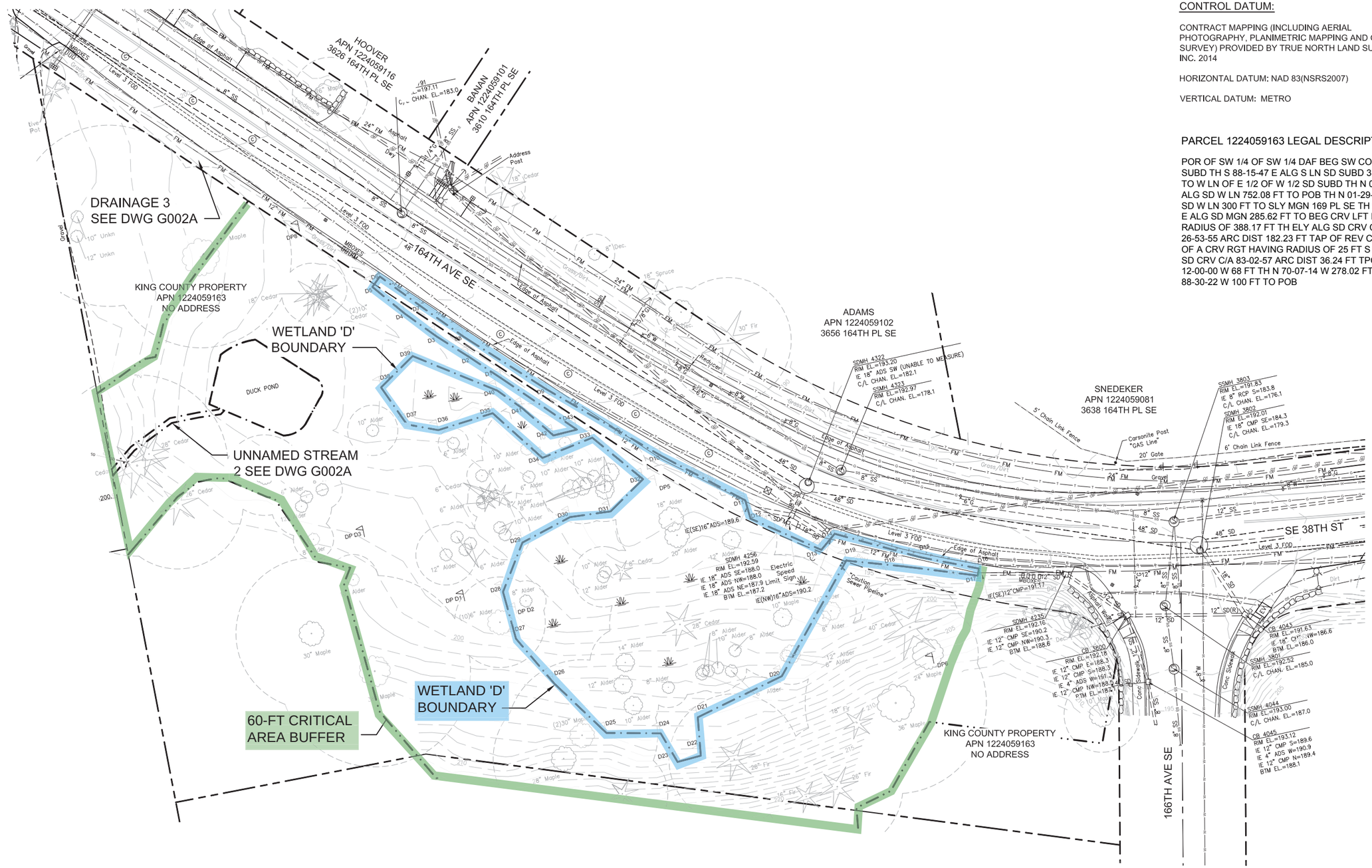
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

PROJECT TOPOGRAPHIC SURVEY

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **C020**
SHT NO / TOTAL: 14 / 41
REV NO: 0

C:\pwworkdir\d0269162\330-331-1038122C020 thru C029.dwg | Layout: 330-331-1038122C020
PLOTTED: Dec 11, 2015-08:50:52am By starks
XREFS: SunsetHeathfield-D-Size-TB-Border.dwg; S&H EX SITE FEATURES.dwg; S&H EX GEN FUEL STORAGE UPGRADES.dwg; 2015-04-01 J126001.dwg; FEMA Floodplain.dwg
IMAGES:



PLAN
SCALE: 1"=20'

SCALE: 1"=20'

CONTROL DATUM:

CONTRACT MAPPING (INCLUDING AERIAL PHOTOGRAPHY, PLANIMETRIC MAPPING AND GROUND SURVEY) PROVIDED BY TRUE NORTH LAND SURVEYING, INC. 2014

HORIZONTAL DATUM: NAD 83(NSRS2007)

VERTICAL DATUM: METRO

PARCEL 1224059163 LEGAL DESCRIPTION

POR OF SW 1/4 OF SW 1/4 DAF BEG SW COR SD SUBD TH S 88-15-47 E ALG S LN SD SUBD 331.74 FT TO W LN OF E 1/2 OF W 1/2 SD SUBD TH N 01-29-28 E ALG SD W LN 752.08 FT TO POB TH N 01-29-38 E ALG SD W LN 300 FT TO SLY MGN 169 PL SE TH S 44-09-02 E ALG SD MGN 285.62 FT TO BEG CRV LFT HAVING RADIUS OF 388.17 FT TH ELY ALG SD CRV C/A OF 26-53-55 ARC DIST 182.23 FT TAP OF REV CRV & BEG OF A CRV RGT HAVING RADIUS OF 25 FT S ELY ALG SD CRV C/A 83-02-57 ARC DIST 36.24 FT TPOB TH S 12-00-00 W 68 FT TH N 70-07-14 W 278.02 FT TH N 88-30-22 W 100 FT TO POB

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM
PROJECT ENGINEER: L. STIEGLER
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI
SCALE: 1"=20'
REFERENCE 0 1"
FACILITY NUMBER: 331
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

PROJECT TOPOGRAPHIC SURVEY

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: C023
SHT NO 15 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0269162\330-331-1038122C020 thru C029.dwg | Layout: 330-331-1038122C023
PLOTTED: Dec 11, 2015-04:38:44pm By shutakj
XREFS: SunsetHeathfield-D-size-TB-Border.dwg; S&H EX SITE FEATURES.dwg; S&H EX GEN FUEL STORAGE UPGRADES.dwg; 2015-04-01 J126001.dwg; FEMA Floodplain.dwg
IMAGES:

CONTROL DATUM:

CONTRACT MAPPING (INCLUDING AERIAL PHOTOGRAPHY, PLANIMETRIC MAPPING AND GROUND SURVEY) PROVIDED BY TRUE NORTH LAND SURVEYING, INC. 2014

HORIZONTAL DATUM: NAD 83(NSRS2007)

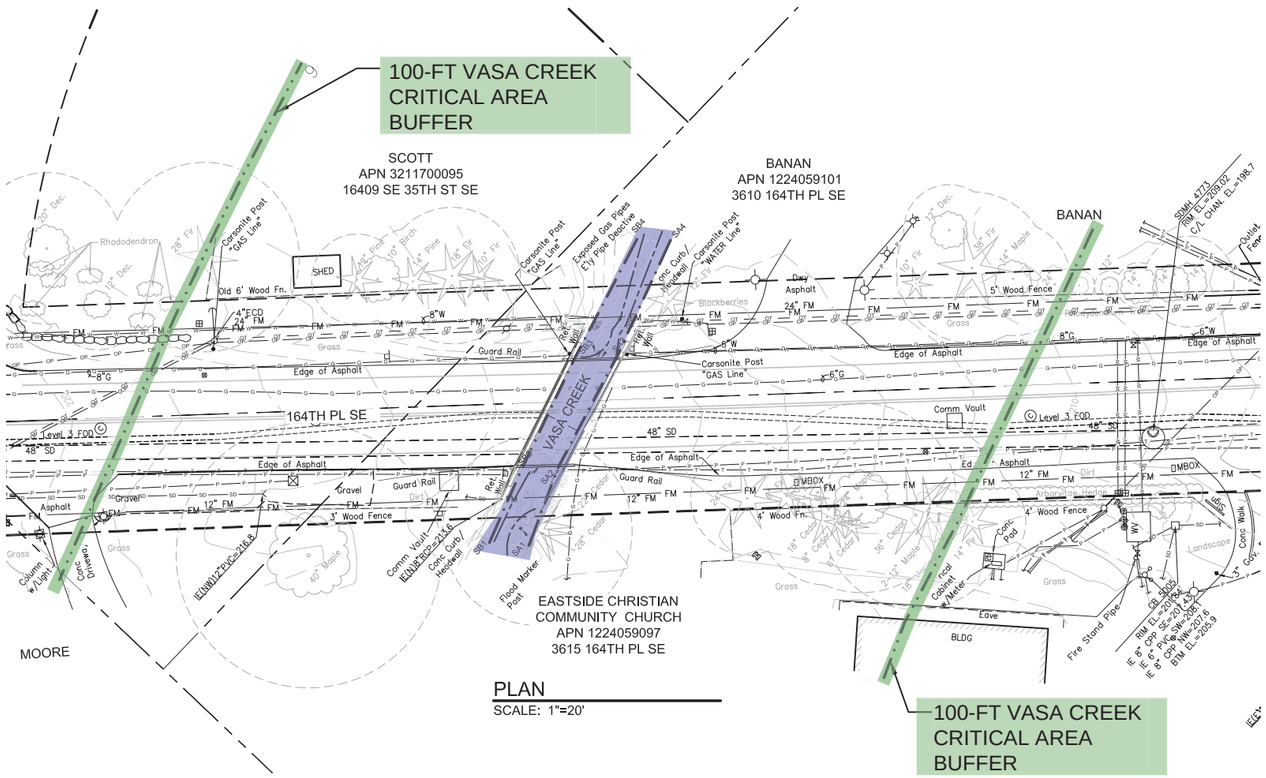
VERTICAL DATUM: METRO
(TO CONVERT TO FROM METRO TO NAVD88 SUBTRACT 96.43' FROM METRO ELEVATION)

TO CONVERT FROM NAVD29 TO NAVD47, ADD 0.09 FEET.

TO CONVERT FROM NAVD47 TO METRO, ADD 100.0 FEET.

LEGAL DESCRIPTION

NO LEGAL DESCRIPTION; PROJECT AREA LOCATED WITHIN CITY OF BELLEVUE RIGHTS-OF-WAY



PLAN
SCALE: 1"=20'

SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=20'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

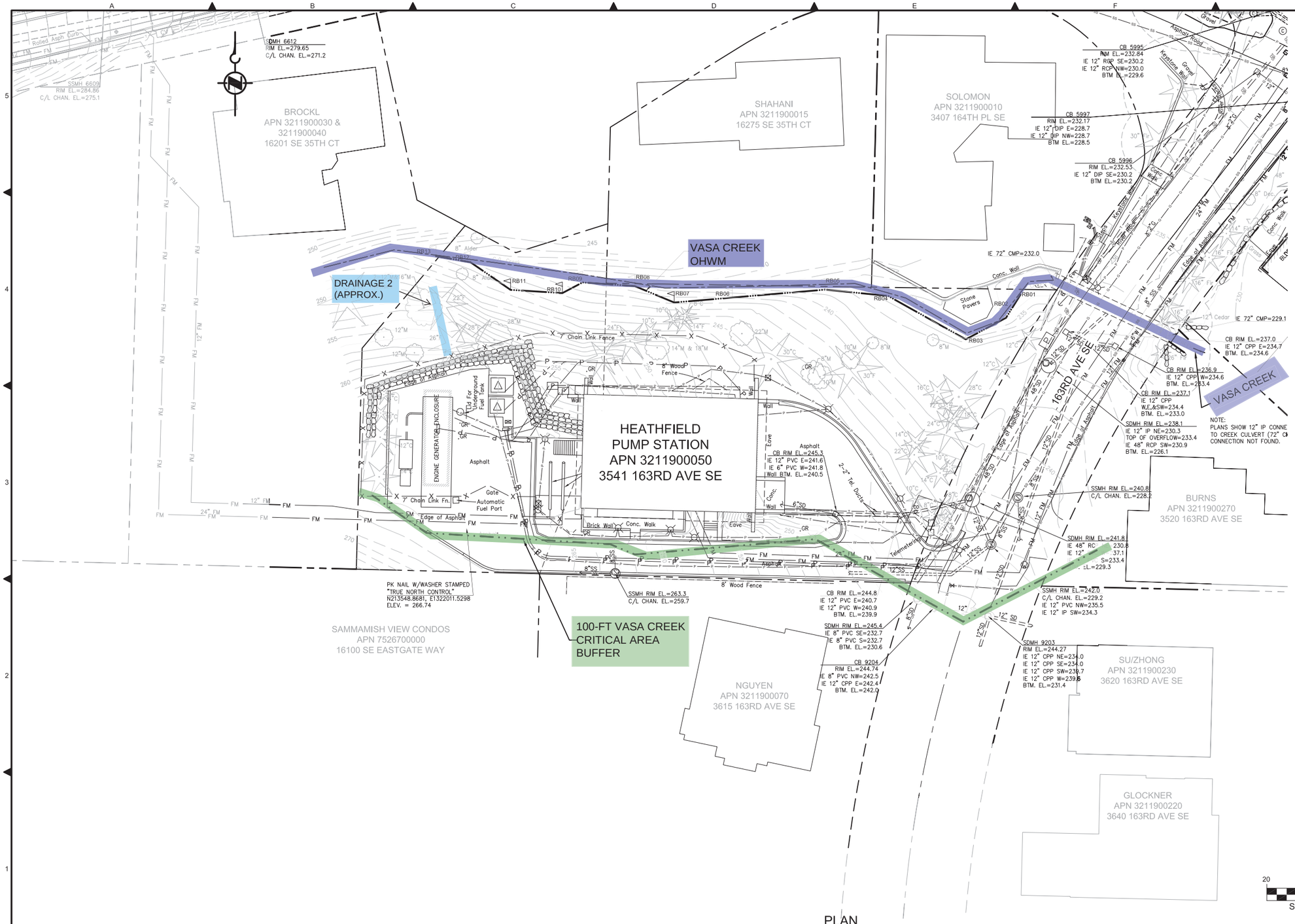
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

PROJECT TOPOGRAPHIC SURVEY

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **C024**
SHT NO 16 / TOTAL 41
REV NO: **0**

C:\pwworkdir\d0269162\330-331-1038122C020 thru C029.dwg | Layout: 330-331-1038122C024
PLOTTED: Dec 11, 2015-04:40:40pm By shutakj
XREFS: SunsetHeathfield-Daize-TB-Border.dwg; S&H EX SITE FEATURES.dwg; S&H EX GEN FUEL STORAGE UPGRADES.dwg; 2015-04-01 J126001.dwg; FEMA Floodplain.dwg
IMAGES:



PLAN

SCALE: 1"=20'

CONTROL DATUM:

CONTRACT MAPPING (INCLUDING AERIAL PHOTOGRAPHY, PLANIMETRIC MAPPING AND GROUND SURVEY) PROVIDED BY TRUE NORTH LAND SURVEYING, INC. 2014

HORIZONTAL DATUM: NAD 83(NSRS2007)

VERTICAL DATUM: METRO

HEATHFIELD PUMP STATION LEGAL DESCRIPTION

HEATHFIELD COUNTRY ESTATES #3 & UND $\frac{1}{8}$ INT IN TR A AD TR REV BY BELL SP 78-23 REC AF # 7805020881 LESS C & M RGTS

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

LINDA C. STIEGLER, STATE OF WASHINGTON, 37135, REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=20'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

PROJECT TOPOGRAPHIC SURVEY

DCN:

DATE: DECEMBER 2015

PROJECT FILE NO: 1038122

DRAWING NO: **C026**

SHT NO 17 / TOTAL 41

REV NO: **0**

C:\pwworkdir\d0269162\330-331-1038122C020 thru C029.dwg || Layout: 330-331-1038122C026
PLOTTED: Dec 17, 2015-01:25:07pm By nearykm
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; S&H EX SITE FEATURES.dwg; S&H EX GEN FUEL STORAGE UPGRADES.dwg; 2015-04-01 J126001.dwg; FEMA Floodplain.dwg
IMAGES:

CONTROL DATUM:

CONTRACT MAPPING (INCLUDING AERIAL PHOTOGRAPHY, PLANIMETRIC MAPPING AND GROUND SURVEY) PROVIDED BY TRUE NORTH LAND SURVEYING, INC. 2014

HORIZONTAL DATUM: NAD 83(NSRS2007)

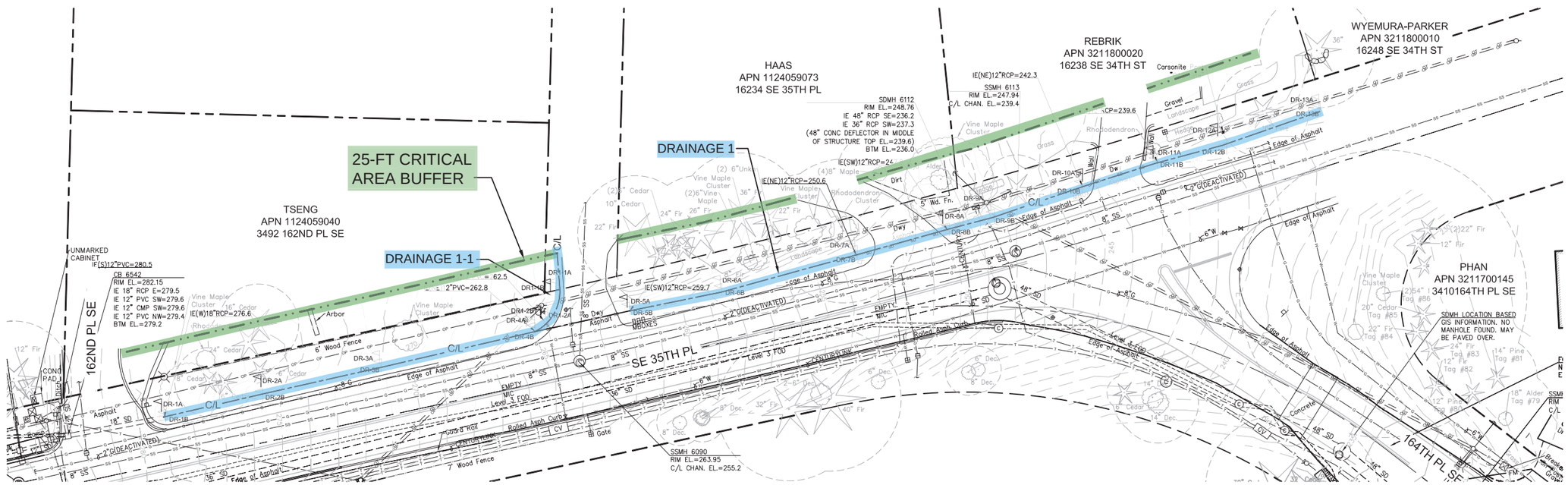
VERTICAL DATUM: METRO
(TO CONVERT TO FROM METRO TO NAVD88 SUBTRACT 96.43' FROM METRO ELEVATION)

TO CONVERT FROM NAVD29 TO NAVD47, ADD 0.09 FEET.

TO CONVERT FROM NAVD47 TO METRO, ADD 100.0 FEET.

LEGAL DESCRIPTION

NO LEGAL DESCRIPTION; PROJECT AREA LOCATED WITHIN CITY OF BELLEVUE RIGHTS-OF-WAY



PLAN

SCALE: 1"=20'

20 0 10 20

SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=20'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

PROJECT TOPOGRAPHIC SURVEY

DCN:

DATE: DECEMBER 2015

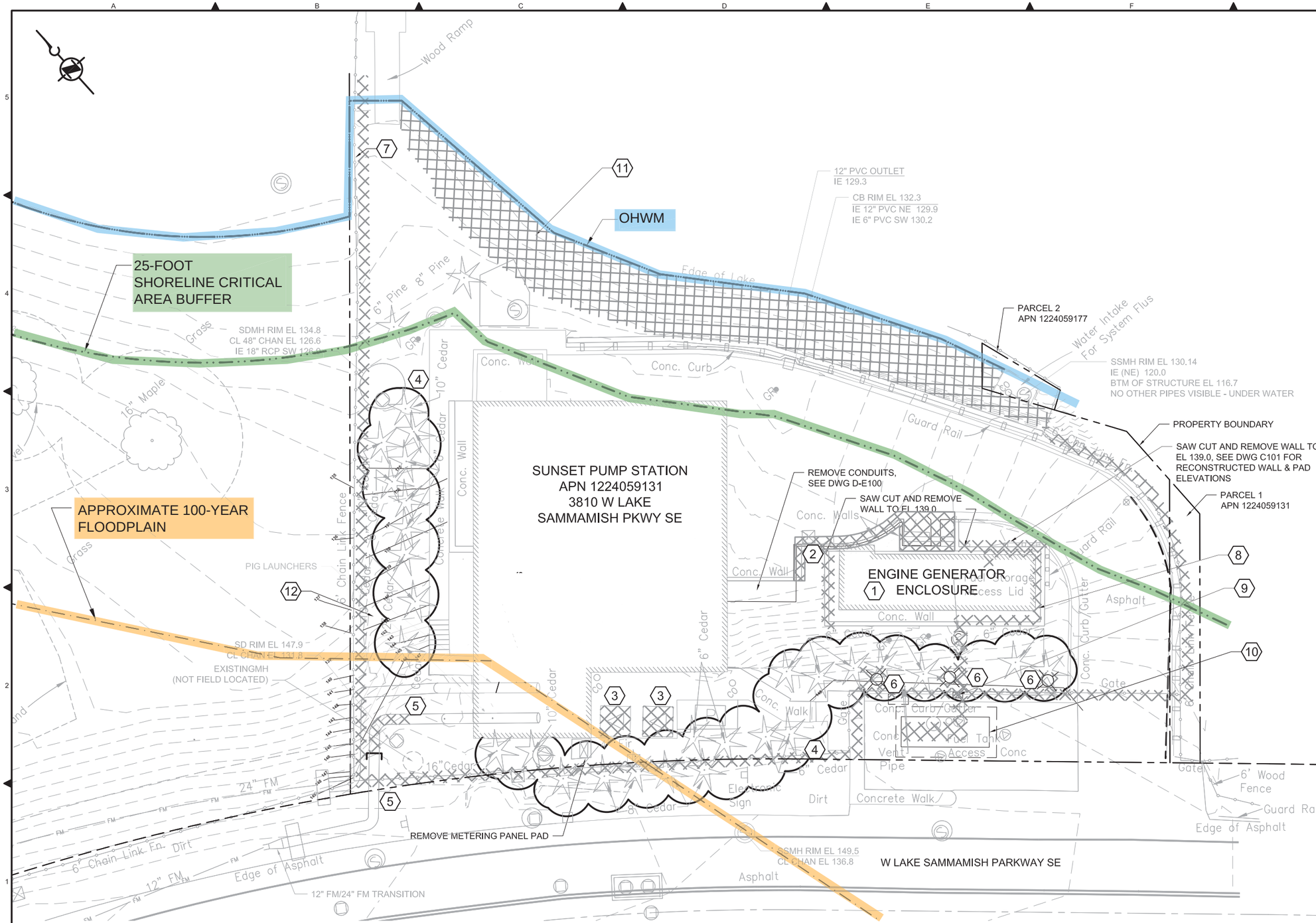
PROJECT FILE NO: 1038122

DRAWING NO: **C027**

SHT NO 18 / TOTAL 41

REV NO: **0**

C:\pwworkdir\d0269162\330-331-1038122C020 thru C029.dwg | Layout: 330-331-1038122C027
PLOTTED: Dec 11, 2015-04:45:08pm By shutakj
XREFS: SunsetHeathfield-Daize-TB-Border.dwg; S&H EX SITE FEATURES.dwg; S&H EX GEN FUEL STORAGE UPGRADES.dwg; 2015-04-01 J126001.dwg; FEMA Floodplain.dwg
IMAGES:



NOTES:

1. PROTECT ALL EQUIPMENT, STRUCTURES AND TREES NOT SCHEDULED FOR REMOVAL AS INDICATED IN THE DRAWINGS.
2. FOR RESTORATION AND PAVING OF SITE AND LIMITS OF FENCING AFTER DEMOLITION SEE DWG C101.
3. PROJECT AREA AS SHOWN ON THIS DRAWING IS WITHIN THE 200-FOOT SHORELINE JURISDICTION.

KEY NOTES:

1. REMOVE ENGINE GENERATOR ENCLOSURE. RETAIN/REUSE INSTRUMENTS AND EQUIPMENT AS SHOWN IN ELECTRICAL DRAWINGS AND SPECIFICATIONS.
2. MODIFY ENGINE GENERATOR FOUNDATION/CURBING. SEE DWG C101.
3. BE RESPONSIBLE FOR COORDINATION WITH PSE FOR REMOVAL OF EXISTING TRANSFORMERS. SEE DWGS C101 AND E100.
4. REMOVE TREES AS INDICATED IN DWG C352. REPLACE TREES/SHRUBS AS INDICATED IN DWG L100.
5. MODIFY EXISTING 24" FM AND TIE-IN TO NEW 24" FM TO SUNSET PUMP STATION.
6. REMOVE EXISTING ELECTRIC LIGHT POLE FOUNDATIONS. SEE DWG D-E100.
7. REMOVE FENCE, RETAIN FENCE POSTS NORTH AND EAST OF ORDINARY HIGH WATER MARK. SEE DWG L100.
8. REMOVE EXISTING FUEL PIPING AND SUMP. PROTECT FUEL TANK. INSTRUMENTS AND ALARMS SHALL BE REVISED/SALVAGED AS IN SPECIFICATIONS AND DRAWINGS.
9. PROTECT FUEL TANK INSTRUMENTS AND ALARMS.
10. PROTECT 2,500-GAL UNDERGROUND FUEL TANK.
11. REMOVE EXISTING ROCK, VEGETATION, AND DEBRIS. LEAVE IN SUITABLE CONDITION FOR RESTORATION PER DWG L100.
12. REMOVE ROCKERY WALL. SEE DWG L100 FOR RESTORATION.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

LINDA C. STIEGLER — STATE OF WASHINGTON — 37135 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=10'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

SUNSET CIVIL DEMOLITION PLAN

DCN:

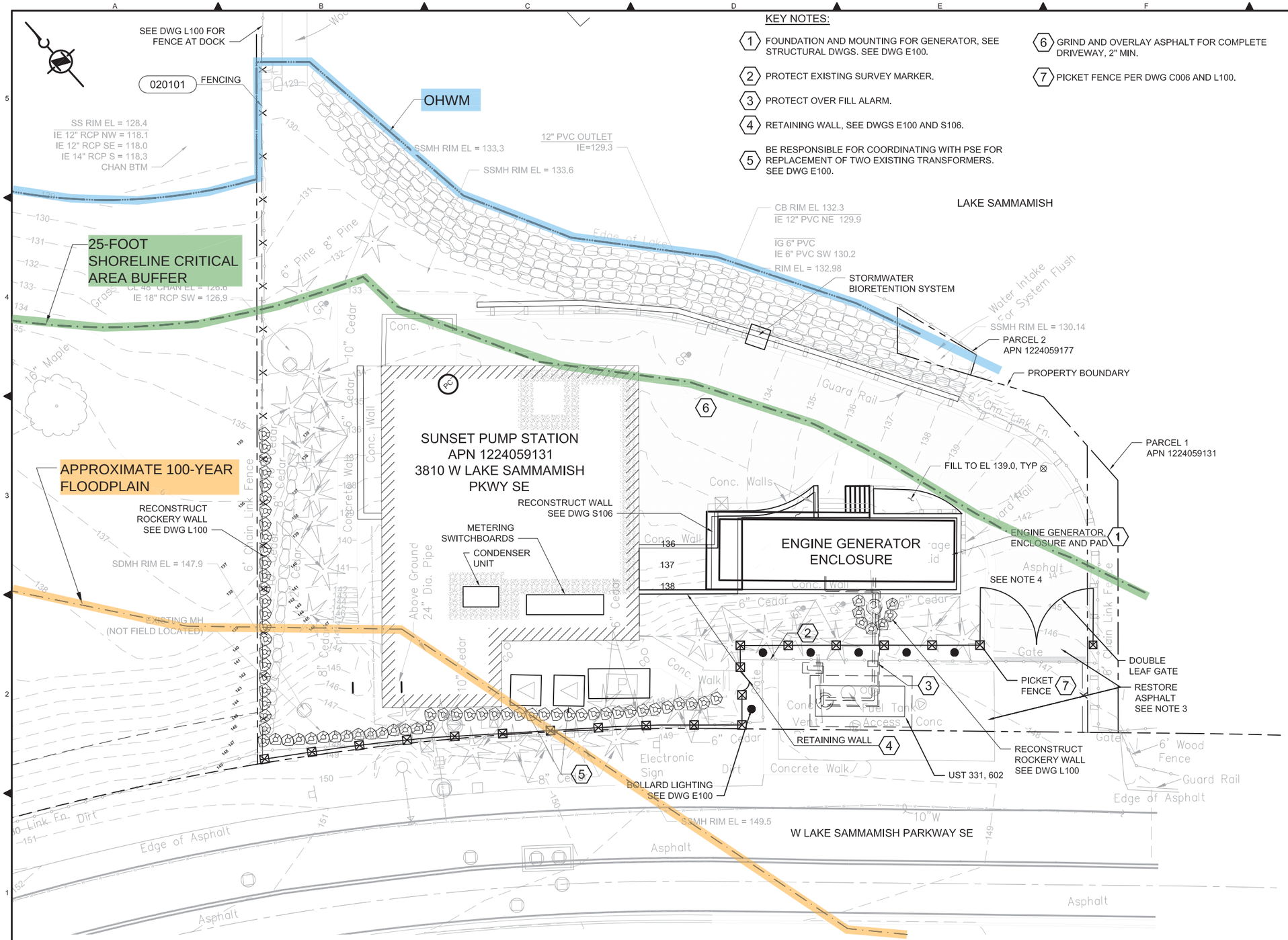
DATE: DECEMBER 2015

PROJECT FILE NO: 1038122

DRAWING NO: **D-C100**

SHT NO 19 / TOTAL 41 — REV NO: 0

C:\pwworkdir\d0269162\331-1038122D-C100.dwg | Layout: 331-1038122D-C100
PLOTTED: Dec 21, 2015-10:44:41am By shutaki
XREFS: SunsetHeathfield-Daize-TB-Border.dwg; S&H DEMOLITION WORK.dwg; S&H EX SITE FEATURES.dwg; S&H ALIGNMENT 2014-12.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H EX GEN FUEL STORAGE UPGRADES.dwg; 330-331-1038122C009 & C352 thru C362
IMAGES:



SITE PLAN
SCALE: 1"=10'

KEY NOTES:

1. FOUNDATION AND MOUNTING FOR GENERATOR, SEE STRUCTURAL DWGS. SEE DWG E100.
2. PROTECT EXISTING SURVEY MARKER.
3. PROTECT OVER FILL ALARM.
4. RETAINING WALL, SEE DWGS E100 AND S106.
5. BE RESPONSIBLE FOR COORDINATING WITH PSE FOR REPLACEMENT OF TWO EXISTING TRANSFORMERS. SEE DWG E100.
6. GRIND AND OVERLAY ASPHALT FOR COMPLETE DRIVEWAY, 2" MIN.
7. PICKET FENCE PER DWG C006 AND L100.

NOTE:

1. SEE DRAWING L100 FOR LANDSCAPE RESTORATION.
2. PROJECT AREA AS SHOWN ON THIS DRAWING IS WITHIN THE 200-FOOT SHORELINE JURISDICTION, SEE DWG C011.
3. SAWCUT, REMOVE AND DISPOSE OF EXISTING ASPHALT, CURB AND SIDEWALK IMPACTED BY TRENCHING AND NEW FACILITIES. LIMITS OF PAVEMENT AND CURB REMOVAL AND REPLACEMENT SHALL BE TO EXISTING JOINT LINES WHERE APPLICABLE. BE RESPONSIBLE FOR CONSTRUCTION DISTURBANCE AND MAINTENANCE OF PAVEMENT OUTSIDE OF THE LIMITS SHOWN. .
4. ENGINE GENERATOR SHALL BE MOUNTED SUCH THAT 24 INCH CLEARANCE TO CONCRETE WALL IS MAINTAINED ON WEST AND SOUTHEAST SIDES.

10 0 5 10
SCALE: 1"=10'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=10'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

LINDA C. SUTTCLIFFE STATE OF WASHINGTON 37135 REGISTERED PROFESSIONAL ENGINEER

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

SUNSET CIVIL SITE GRADING PLAN

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: C101
SHT NO 20 / TOTAL 41
REV NO: 0

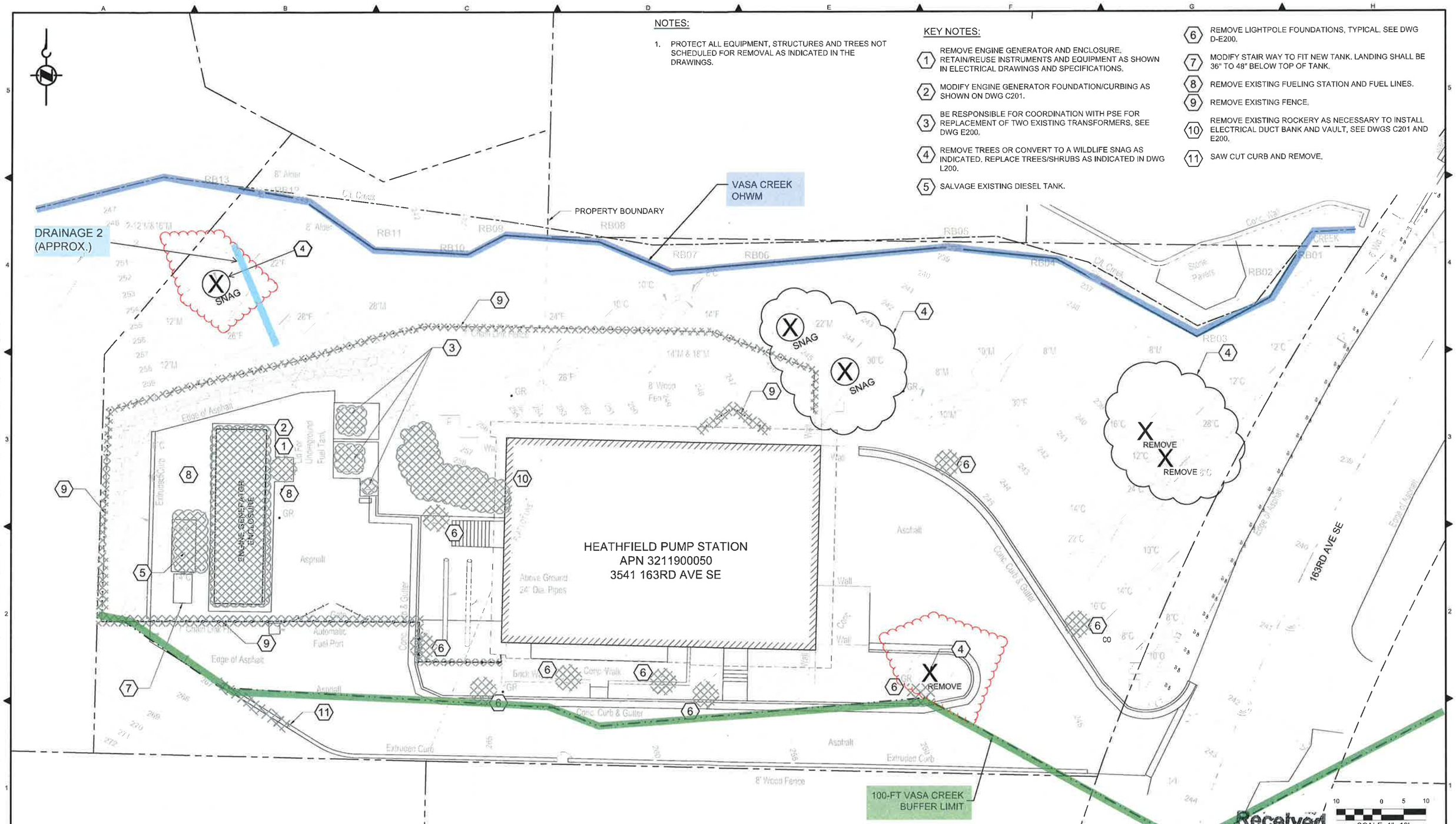
C:\pwworkdir\d0269162\331-1038122C101.dwg | Layout: 331-1038122C101
PLOTTED: Dec 21, 2015-10:42:02am By shutak
XREFS: SunsetHeathfield-Datze-TB-Border;dwg; S&H EX SITE FEATURES.dwg; S&H ALIGNMENT 2014-12.dwg; S&H EX GEN FUEL STORAGE UPGRADES.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; 330-331-1038122L001-L100-L200.dwg; 330-331-1038122site plan.dwg; FE
IMAGES:

NOTES:

1. PROTECT ALL EQUIPMENT, STRUCTURES AND TREES NOT SCHEDULED FOR REMOVAL AS INDICATED IN THE DRAWINGS.

KEY NOTES:

1. REMOVE ENGINE GENERATOR AND ENCLOSURE. RETAIN/REUSE INSTRUMENTS AND EQUIPMENT AS SHOWN IN ELECTRICAL DRAWINGS AND SPECIFICATIONS.
2. MODIFY ENGINE GENERATOR FOUNDATION/CURBING AS SHOWN ON DWG C201.
3. BE RESPONSIBLE FOR COORDINATION WITH PSE FOR REPLACEMENT OF TWO EXISTING TRANSFORMERS. SEE DWG E200.
4. REMOVE TREES OR CONVERT TO A WILDLIFE SNAG AS INDICATED. REPLACE TREES/SHRUBS AS INDICATED IN DWG L200.
5. SALVAGE EXISTING DIESEL TANK.
6. REMOVE LIGHTPOLE FOUNDATIONS, TYPICAL. SEE DWG D-E200.
7. MODIFY STAIR WAY TO FIT NEW TANK. LANDING SHALL BE 36" TO 48" BELOW TOP OF TANK.
8. REMOVE EXISTING FUELING STATION AND FUEL LINES.
9. REMOVE EXISTING FENCE.
10. REMOVE EXISTING ROCKERY AS NECESSARY TO INSTALL ELECTRICAL DUCT BANK AND VAULT, SEE DWGS C201 AND E200.
11. SAW CUT CURB AND REMOVE.



Received
MAY 12 2016
King County Permit Processing

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

DESIGNED/DRAWN: T. BAILEY
PROJECT ENGINEER: L. STIEGLER
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI
SCALE: 1"=10'
REFERENCE
FACILITY NUMBER: 330
CONTRACT NO: C01008C16

King County

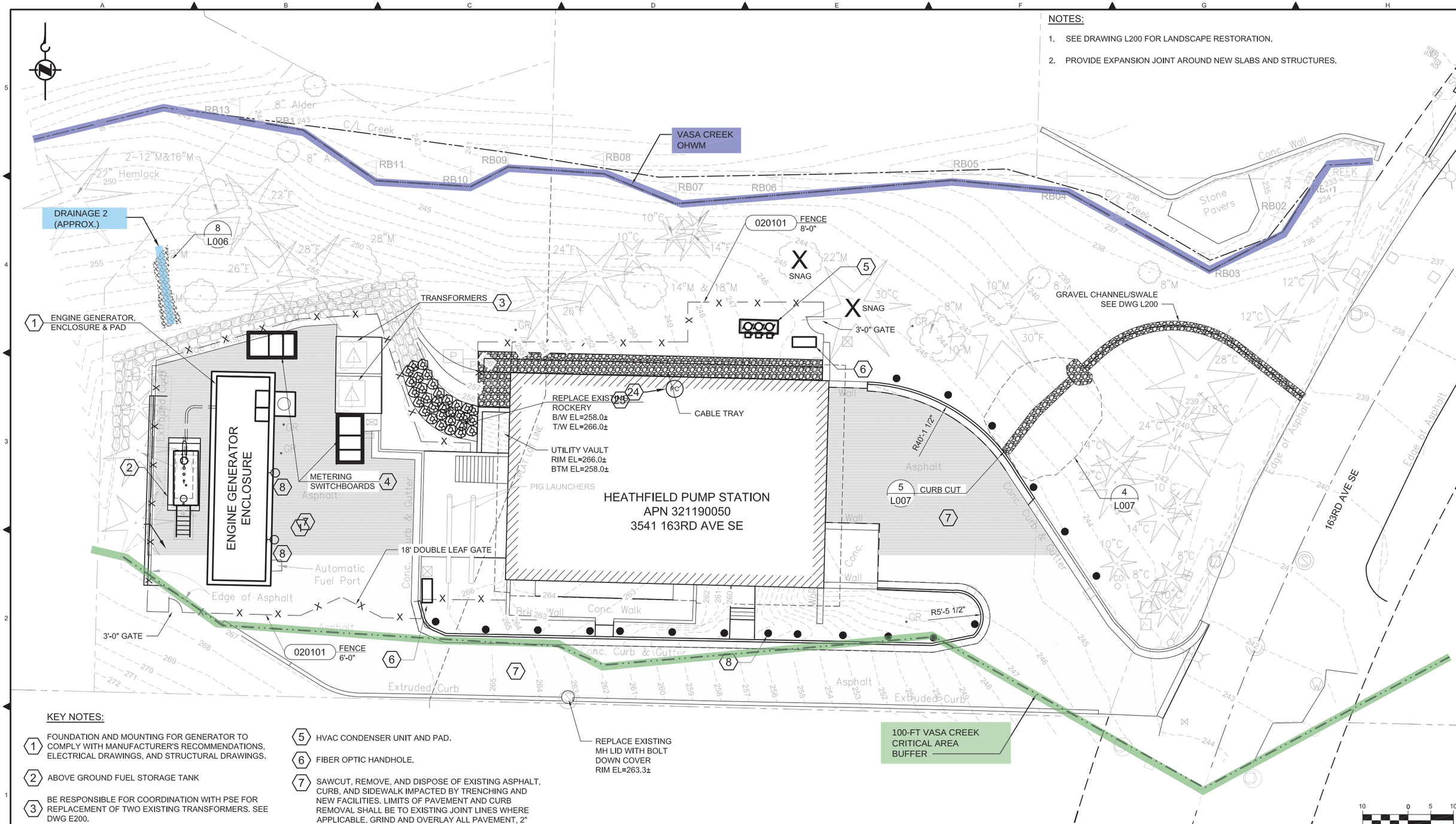
DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCEMAIN UPGRADE

HEATHFIELD DEMOLITION PLAN

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: D-C200
SHT NO / TOTAL: / 449
REV NO: 0

NOTES:

1. SEE DRAWING L200 FOR LANDSCAPE RESTORATION.
2. PROVIDE EXPANSION JOINT AROUND NEW SLABS AND STRUCTURES.



KEY NOTES:

1. FOUNDATION AND MOUNTING FOR GENERATOR TO COMPLY WITH MANUFACTURER'S RECOMMENDATIONS, ELECTRICAL DRAWINGS, AND STRUCTURAL DRAWINGS.
2. ABOVE GROUND FUEL STORAGE TANK
3. BE RESPONSIBLE FOR COORDINATION WITH PSE FOR REPLACEMENT OF TWO EXISTING TRANSFORMERS. SEE DWG E200.
4. PREPARE PADS AND CONDUITS FOR METERING SWITCHBOARDS. SEE DWG E200.
5. HVAC CONDENSER UNIT AND PAD.
6. FIBER OPTIC HANDHOLE.
7. SAWCUT, REMOVE, AND DISPOSE OF EXISTING ASPHALT, CURB, AND SIDEWALK IMPACTED BY TRENCHING AND NEW FACILITIES. LIMITS OF PAVEMENT AND CURB REMOVAL SHALL BE TO EXISTING JOINT LINES WHERE APPLICABLE. GRIND AND OVERLAY ALL PAVEMENT, 2" MINIMUM.
8. BOLLARD LIGHTING SEE DRAWING E200.

SITE PLAN
SCALE: 1"=10'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

LINDA C. STIEGLER, STATE OF WASHINGTON, 37135, REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: S. FARNAM	SCALE: 1"=10'
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

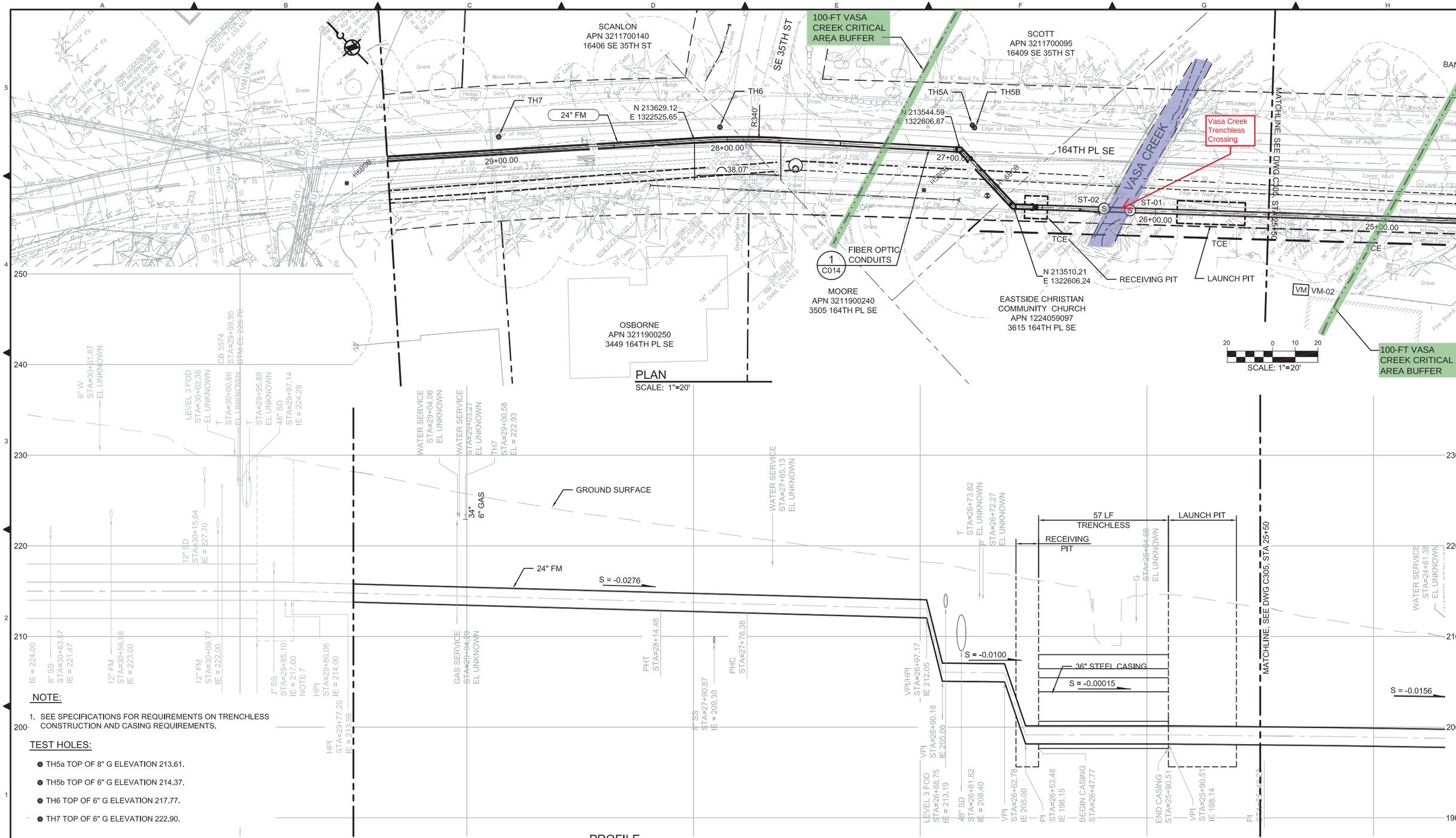
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

HEATHFIELD CIVIL SITE GRADING PLAN

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **C201**
SHT NO 22 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0269162\330-1038122C201 & C202.dwg | Layout: 330-1038122C201
PLOTTED: Dec 17, 2015-02:41:42pm By: nearykm
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; S&H EX SITE FEATURES.dwg; S&H ALIGNMENT 2014-12.dwg; S&H EX GEN FUEL STORAGE UPGRADES.dwg; 330-1038122 3000 GAL TANK.dwg; 330-1038122 GENERATOR BLDG.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg
IMAGES:



NOTE:

1. SEE SPECIFICATIONS FOR REQUIREMENTS ON TRENCHLESS CONSTRUCTION AND CASING REQUIREMENTS.

TEST HOLES:

- TH5a TOP OF 8" G ELEVATION 213.61.
- TH5b TOP OF 6" G ELEVATION 214.37.
- TH6 TOP OF 6" G ELEVATION 217.77.
- TH7 TOP OF 6" G ELEVATION 222.90.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

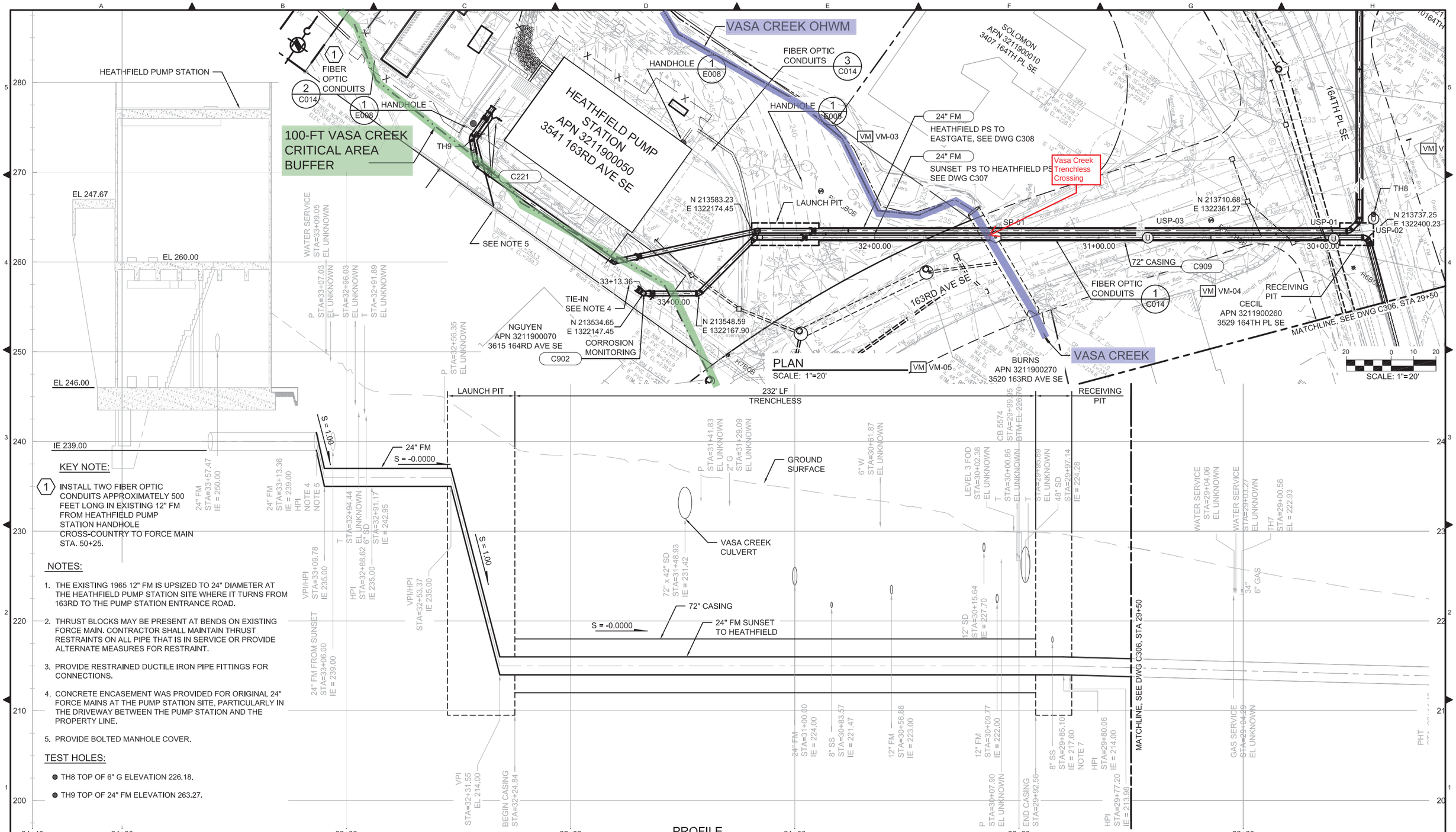
DESIGNED/DRAWN: S. FARNAM
SCALE: AS NOTED
PROJECT ENGINEER: L. STIEGLER
REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF
FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. NAMINI
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE
SUNSET TO HEATHFIELD FORCE MAIN PLAN & PROFILE STA 25+50 TO 29+50

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **C306**
SHT NO 23 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0269162\330-331-1038122C301-C312.dwg | Layout: 330-331-1038122C306
PLOTTED: Dec 11, 2015-05:14:59pm By: shutakj
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; HEATHFIELD - SECTIONS_EXIST.dwg; S&H PROFILES OPEN CUT.dwg; S&H ALIGNMENT 2014-12.dwg; S&H PROFILES HDD.dwg; S&H GEOTECH MON
IMAGES:



KEY NOTE:

1. INSTALL TWO FIBER OPTIC CONDUITS APPROXIMATELY 500 FEET LONG IN EXISTING 12" FM FROM HEATHFIELD PUMP STATION HANDHOLE CROSS-COUNTRY TO FORCE MAIN STA. 50+25.

NOTES:

1. THE EXISTING 1965 12" FM IS UPSIZED TO 24" DIAMETER AT THE HEATHFIELD PUMP STATION SITE WHERE IT TURNS FROM 163RD TO THE PUMP STATION ENTRANCE ROAD.
2. THRUST BLOCKS MAY BE PRESENT AT BENDS ON EXISTING FORCE MAIN. CONTRACTOR SHALL MAINTAIN THRUST RESTRAINTS ON ALL PIPE THAT IS IN SERVICE OR PROVIDE ALTERNATE MEASURES FOR RESTRAINT.
3. PROVIDE RESTRAINED DUCTILE IRON PIPE FITTINGS FOR CONNECTIONS.
4. CONCRETE ENCASEMENT WAS PROVIDED FOR ORIGINAL 24" FORCE MAINS AT THE PUMP STATION SITE, PARTICULARLY IN THE DRIVEWAY BETWEEN THE PUMP STATION AND THE PROPERTY LINE.
5. PROVIDE BOLTED MANHOLE COVER.

TEST HOLES:

- TH8 TOP OF 6" G ELEVATION 226.18.
- TH9 TOP OF 24" FM ELEVATION 263.27.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM	SCALE: AS NOTED
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION

SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

SUNSET TO HEATHFIELD FORCE MAIN PLAN & PROFILE STA 29+50 TO 33+13

DCN:

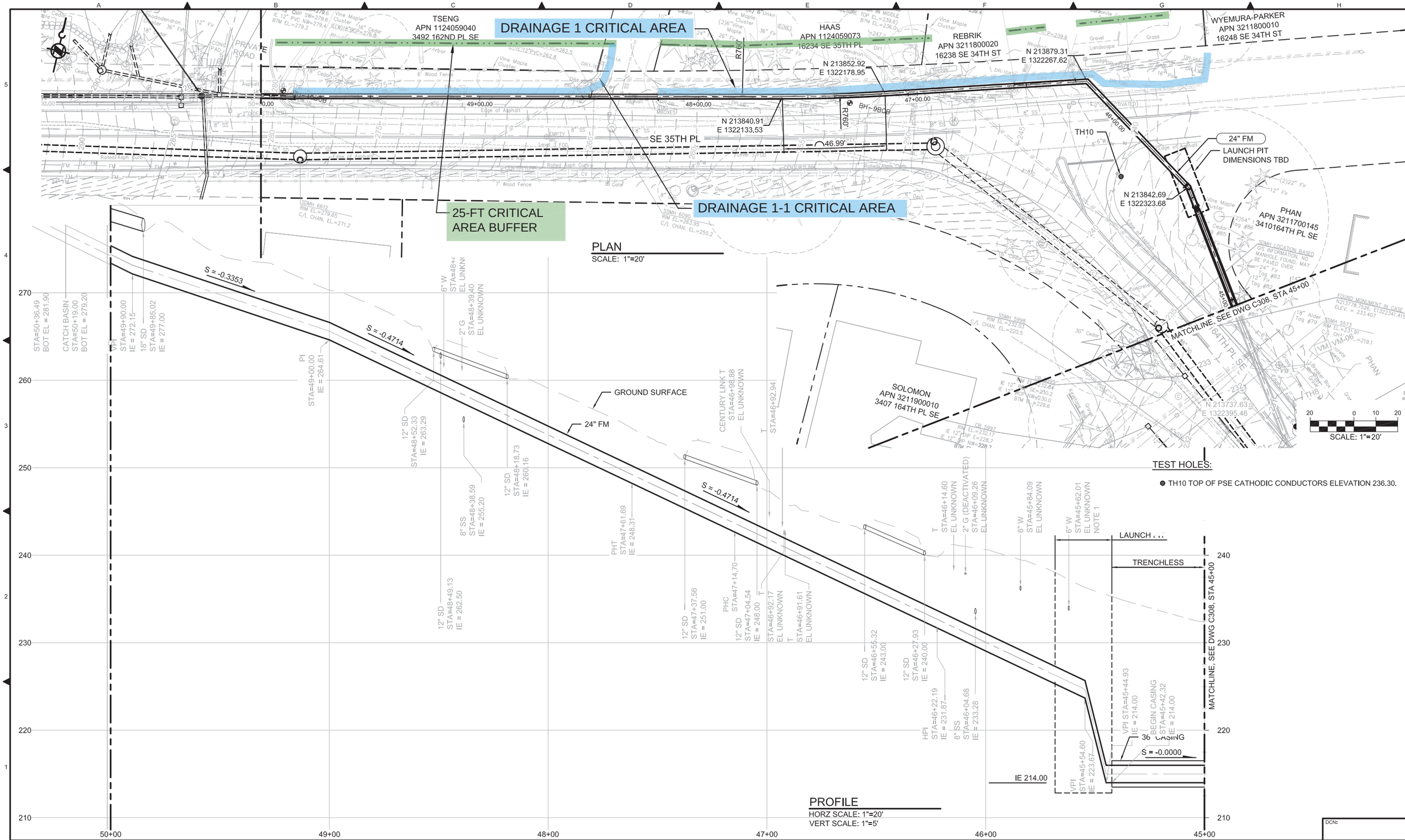
DATE: DECEMBER 2015

PROJECT FILE NO: 1038122

DRAWING NO: **C307**

SHT NO 24 / TOTAL 41 REV NO: 0

C:\pwworkdir\d0269162\330-331-1038122C301-C312.dwg | Layout: 330-331-1038122C307
PLOTTED: Dec 11, 2015-10:37:11am By starks
XREFS: SunsetHeathfield-D4ze-TB-Border.dwg; HEATHFIELD - SECTIONS_EXIST.dwg; S&H PROFILES OPEN CUT.dwg; S&H ALIGNMENT 2014-12.dwg; S&H PROFILES HDD.dwg; S&H EX SITE FEATURES.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H GEOTECH MON
IMAGES:



NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

DESIGNED/DRAWN: S. FARNAM	SCALE: AS NOTED
PROJECT ENGINEER: L. STIEGLER	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

LINDA C. STIEGLER — STATE OF WASHINGTON — 37135 — REGISTERED PROFESSIONAL ENGINEER

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

HEATHFIELD TO EASTGATE FORCE MAIN PLAN & PROFILE STA 45+00 TO 49+00

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: C309
SHT NO 25 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0269162\330-331-1038122C301-C312.dwg | Layout: 330-331-1038122C309
PLOTTED: Dec 11, 2015-04:50:03pm By shutalj
XREFS: Sunset-Heathfield-Dsize-TB-Border.dwg; HEATHFIELD - SECTIONS_EXIST.dwg; S&H PROFILES OPEN CUT.dwg; S&H ALIGNMENT 2014-12.dwg; S&H PROFILES HDD.dwg; S&H EX SITE FEATURES.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H GEOTECH MON
IMAGES:

TREE TAG #	SPECIES	DBH (IN.)	TPZ (FT.)	DISPOSITION	DRAWING LOCATION
SUNSET PUMP STATION					
1	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	10.9	11	**REMOVE TREE AND REPLACE***	C352
2	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	10	10	**REMOVE TREE AND REPLACE***	C352
3	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	7.3	8	**REMOVE TREE AND REPLACE***	C352
4	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6.6	7	**REMOVE TREE AND REPLACE***	C352
5	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6.4	7	**REMOVE TREE AND REPLACE***	C352
6	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6	6	**REMOVE TREE AND REPLACE***	C352
7	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	8.6	9	**REMOVE TREE AND REPLACE***	C352
8	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6.5	7	**REMOVE TREE AND REPLACE***	C352
9	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	4.5	6	**REMOVE TREE AND REPLACE***	C352
10	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	7.4	8	**REMOVE TREE AND REPLACE***	C352
11	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6.8	7	**REMOVE TREE AND REPLACE***	C352
12	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	8	8	**REMOVE TREE AND REPLACE***	C352
13	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	7	7	**REMOVE TREE AND REPLACE***	C352
14	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	9	9	**REMOVE TREE AND REPLACE***	C352
15	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	8	8	**REMOVE TREE AND REPLACE***	C352
16	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	4	6	**REMOVE TREE AND REPLACE***	C352
17	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	13.9	14	**REMOVE TREE AND REPLACE***	C352
18	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	20.3	21	**REMOVE TREE AND REPLACE***	C352
19	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	6.4, 5.1, 6.9, 10.7, 6.4 and 11	10	**REMOVE TREE AND REPLACE***	C352
KING COUNTY PARCEL					
28	RED ALDER, ALNUS RUBRA	10.1	10	**NO IMPACT**	C362
29	RED ALDER, ALNUS RUBRA	9.7	10	**NO IMPACT**	C362
30	RED ALDER, ALNUS RUBRA	7	7	**NO IMPACT**	C362
31	RED ALDER, ALNUS RUBRA	9.9	10	**NO IMPACT**	C362
32	WESTERN RED CEDAR, THUJA PLICATA	12, 23, 11	23	**REMOVE TREE AND REPLACE***	C362
33	WESTERN RED CEDAR, THUJA PLICATA	8.8	9	**REMOVE TREE AND REPLACE***	C362
127	RED ALDER, ALNUS RUBRA	7.1	8	**NO IMPACT**	C362
128	RED ALDER, ALNUS RUBRA	7.7	8	**NO IMPACT**	C362
129	RED ALDER, ALNUS RUBRA	6.4	7	**NO IMPACT**	C362
130	RED ALDER, ALNUS RUBRA	10.5	11	**NO IMPACT**	C362
131	BIGLEAF MAPLE, ACER MACROPHYLLUM	34	34	**NO IMPACT**	C362
132	BIGLEAF MAPLE, ACER MACROPHYLLUM	28	28	**NO IMPACT**	C362
133	RED ALDER, ALNUS RUBRA	9.6	10	**NO IMPACT**	C362
134	RED ALDER, ALNUS RUBRA	7.8	8	**NO IMPACT**	C362
135	RED ALDER, ALNUS RUBRA	10.9	11	**NO IMPACT**	C362
136	RED ALDER, ALNUS RUBRA	7.8	8	**NO IMPACT**	C362
137	RED ALDER, ALNUS RUBRA	7.7, 6.6	8	**NO IMPACT**	C362
138	RED ALDER, ALNUS RUBRA	9.2	10	**NO IMPACT**	C362
139	RED ALDER, ALNUS RUBRA	16.4	17	**NO IMPACT**	C362
140	WESTERN RED CEDAR, THUJA PLICATA	23	24	**NO IMPACT**	C362
141	WESTERN RED CEDAR, THUJA PLICATA	29	30	**NO IMPACT**	C362
142	WESTERN RED CEDAR, THUJA PLICATA	22	23	**NO IMPACT**	C362
143	WESTERN RED CEDAR, THUJA PLICATA	29	30	**REMOVE TREE AND REPLACE***	C362
144	BIGLEAF MAPLE, ACER MACROPHYLLUM	28	29	**REMOVE TREE AND REPLACE***	C362
DIETEMANN PROPERTY					
34	WESTERN RED CEDAR, THUJA PLICATA	13.7	14	**RETAIN AND PROTECT**	C354
35	BIRD CHERRY, PRUNUS AVIUM	5.7, 8.5, 7.7	9	**RETAIN AND PROTECT**	C354
36	PACIFIC DOGWOOD, CORNUS NUTTALLII	11, 4.8, 4.4	11	**REMOVE TREE AND REPLACE**	C354
37	WESTERN RED CEDAR, THUJA PLICATA	24.9	25	**RETAIN AND PROTECT (SPECIAL PROTECTION)**	C354
38	WESTERN RED CEDAR, THUJA PLICATA	8.7	9	**RETAIN AND PROTECT**	C354
39	WESTERN RED CEDAR, THUJA PLICATA	12.8	13	**RETAIN AND PROTECT**	C354
164TH PLACE SOUTHEAST					
40	BIGLEAF MAPLE, ACER MACROPHYLLUM	20.5	20	**REMOVE TREE AND REPLACE**	C355
41	SITKA SPRUCE, PICEA SITCHENSIS	5.2	6	**REMOVE TREE AND REPLACE**	C355
42	SITKA SPRUCE, PICEA SITCHENSIS	6.5	6	**REMOVE TREE AND REPLACE**	C355
43	SITKA SPRUCE, PICEA SITCHENSIS	20.1	20	**REMOVE TREE AND REPLACE**	C355

TREE TAG #	SPECIES	DBH (IN.)	TPZ (FT.)	DISPOSITION	DRAWING LOCATION
HEATHFIELD PUMP STATION					
44	WESTERN RED CEDAR, THUJA PLICATA	20	20	**REMOVE TREE AND REPLACE***	C356
45	WESTERN RED CEDAR, THUJA PLICATA	33.4	33	**RETAIN AND PROTECT (SPECIAL PROTECTION)**	C356
46	WESTERN RED CEDAR, THUJA PLICATA	14.7	15	**REMOVE TREE AND REPLACE***	C356
47	WESTERN RED CEDAR, THUJA PLICATA	21.3	21	**RETAIN AND PROTECT (SPECIAL PROTECTION)**	C356
48	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	30.1	30	**RETAIN AND PROTECT (SPECIAL PROTECTION)**	C356
49	WESTERN RED CEDAR, THUJA PLICATA	16.5	16	**RETAIN AND PROTECT, PERFORM CROWN REDUCTION PRUNING (SPECIAL PROTECTION)**	C356
50	WESTERN RED CEDAR, THUJA PLICATA	25.4	25	**RETAIN AND PROTECT (SPECIAL PROTECTION)**	C356
51	BIGLEAF MAPLE, ACER MACROPHYLLUM	10.3	10	**RETAIN AND PROTECT (SPECIAL PROTECTION)**	C356
52	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	34.1	34	**RETAIN AND PROTECT, PERFORM CROWN REDUCTION PRUNING (SPECIAL PROTECTION)**	C356
53	BIGLEAF MAPLE, ACER MACROPHYLLUM	11.5	11	**RETAIN AND PROTECT**	C356
54	WESTERN RED CEDAR, THUJA PLICATA	6	6	**RETAIN AND PROTECT**	C356
55	BIGLEAF MAPLE, ACER MACROPHYLLUM	19.7, 21.5	22	**RETAIN AND PROTECT**	C356
56	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	28.9	29	**RETAIN AND PROTECT**	C356
57	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	33.4	34	**RETAIN AND PROTECT**	C356
58	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	9.7	10	**RETAIN AND PROTECT**	C356
59	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	12.1	12	**RETAIN AND PROTECT**	C356
60	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	17.1	17	**RETAIN AND PROTECT**	C356
61	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	21	21	**RETAIN AND PROTECT**	C356
62	WESTERN RED CEDAR, THUJA PLICATA	17	17	**NO IMPACT**	C356
HEATHFIELD PUMP STATION					
63	BIGLEAF MAPLE, ACER MACROPHYLLUM	6	6	**NO IMPACT**	C356
64	WESTERN RED CEDAR, THUJA PLICATA	40	40	**CUT TO A SNAG**	C356
65	BIGLEAF MAPLE, ACER MACROPHYLLUM	30	30	**CUT TO A SNAG**	C356
66	BIGLEAF MAPLE, ACER MACROPHYLLUM	14.8	15	**NO IMPACT**	L200
67	BIGLEAF MAPLE, ACER MACROPHYLLUM	13.3	14	**NO IMPACT**	L200
68	BIGLEAF MAPLE, ACER MACROPHYLLUM	11.5, 13, 10, 6, 4, 6	14	**CUT TO A SNAG**	L200
EASTSIDE CHRISTIAN COMMUNITY CHURCH PROPERTY					
69	SWEETGUM, LIQUIDAMBAR STYRACIFLUA	8	8	**RETAIN AND PROTECT**	C355
70	SITKA SPRUCE, PICEA SITCHENSIS	14	14	**RETAIN AND PROTECT**	C355
71	WESTERN RED CEDAR, THUJA PLICATA	38.9	39	**RETAIN AND PROTECT (SPECIAL PROTECTION)**	C355
72	BIGLEAF MAPLE, ACER MACROPHYLLUM	19, 13.1, 14.3	19	**REMOVE TREE AND REPLACE**	C355
73	WESTERN RED CEDAR, THUJA PLICATA	29	29	**REMOVE TREE AND REPLACE**	C355
74	ENGLISH HOLLY, ILEX AQUIFILIUM	8.3	9	**RETAIN AND PROTECT**	C355
75	WESTERN RED CEDAR, THUJA PLICATA	14.7	15	**RETAIN AND PROTECT**	C355
76	WESTERN RED CEDAR, THUJA PLICATA	21, 31	31	**RETAIN AND PROTECT**	C355
MOORE PROPERTY					
77	BIGLEAF MAPLE, ACER MACROPHYLLUM	42.2	42	**RETAIN AND PROTECT, PERFORM CROWN REDUCTION PRUNING (SPECIAL PROTECTION)**	C355

NOTES:

1. * DENOTES TREE REPLACEMENTS ARE INCORPORATED IN THE SUNSET PUMP STATION OR HEATHFIELD PUMP STATION RESTORATION DESIGN
2. TREES LISTED IN THE INVENTORY TABLE ARE SHOWN AND IDENTIFIED ON THE DWGS C350 TO C362.
3. PROTECTION MEASURES INDICATED FOR TREES MARKED "SPECIAL PROTECTION" MAY REQUIRE WORK WITHIN TPZ. ARBORIST SHALL DETERMINE APPROPRIATE ALTERNATE PROTECTION MEASURES. TREE HEALTH SHALL BE MONITORED DURING AND AFTER CONSTRUCTION.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

DESIGNED/DRAWN: A. FRISK
PROJECT ENGINEER: S. RADFORD
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI
SCALE: NO SCALE
REFERENCE 0 1"
FACILITY NUMBER: 330-331
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

EXISTING TREE INVENTORY SHEET 1

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C350
SHT NO / TOTAL: / 449
REV NO: 0

C:\pwworkdir\d0299667\330-331-1038122C350 & C51.dwg | Layout: C350
PLOTTED: Apr 29, 2016-11:45:52am, By:swradford
XREFS: SunsetHeathfield-3Size-TB-Border.dwg
IMAGES:

TREE TAG #	SPECIES	DBH (IN.)	TPZ (FT.)	DISPOSITION	DRAWING LOCATION
LOC PHAN PROPERTY					
78	NORWAY MAPLE, ACER PLATANOIDES	14.5	15	**NO IMPACT**	C356
79	BIGLEAF MAPLE, ACER MACROPHYLLUM	17.4	17	**NO IMPACT**	C357
80	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	10.6	11	**NO IMPACT**	C357
81	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	12.7	13	**NO IMPACT**	C357
82	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	11.5	12	**NO IMPACT**	C357
83	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	24.3	24	**NO IMPACT**	C357
84	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	21.2	22	**NO IMPACT**	C357
85	WESTERN RED CEDAR, THUJA PLICATA	19.7	20	**NO IMPACT**	C357
86	BIGLEAF MAPLE, ACER MACROPHYLLUM	24, 26	26	**REMOVE TREE AND REPLACE**	C357
SOUTHEAST 35TH PLACE					
87	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	16	16	**REMOVE TREE AND REPLACE**	C357
88	WESTERN RED CEDAR, THUJA PLICATA	16	16	**RETAIN AND PROTECT**	C358
89	WESTERN RED CEDAR, THUJA PLICATA	10	10	**RETAIN AND PROTECT**	C358
90	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	18.8	19	**RETAIN AND PROTECT**	C358
91	WESTERN RED CEDAR, THUJA PLICATA	26	26	**RETAIN AND PROTECT**	C358
92	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	11.3	12	**RETAIN AND PROTECT**	C358
93	RED MAPLE, ACER RUBRUM	6	6	**REMOVE TREE AND REPLACE**	C359
94	MOUNTAIN ASH CULTIVAR, SORBUS AUCUPARIA CV.	1.2, 1.7, 1.5	6	**REMOVE TREE AND REPLACE**	C359
95	MOUNTAIN ASH CULTIVAR, SORBUS AUCUPARIA CV.	1.8	6	**REMOVE TREE AND REPLACE**	C359
96	BIGLEAF MAPLE, ACER MACROPHYLLUM	13.1	13	**RETAIN AND PROTECT**	C360
97	BIGLEAF MAPLE, ACER MACROPHYLLUM	6.2, 9.3, 12.5, 7.8, 10, 14, 8	14	**RETAIN AND PROTECT**	C360
98	RED MAPLE, ACER RUBRUM	5	6	**RETAIN AND PROTECT**	C360
99	RED MAPLE, ACER RUBRUM	4.5	6	**RETAIN AND PROTECT**	C360
100	RED MAPLE, ACER RUBRUM	3.2	6	**RETAIN AND PROTECT**	C360
101	RED MAPLE, ACER RUBRUM	2.7	6	**RETAIN AND PROTECT**	C360
102	BIGLEAF MAPLE, ACER MACROPHYLLUM	14.3	14	**RETAIN AND PROTECT**	C360
103	BIGLEAF MAPLE, ACER MACROPHYLLUM	23.5	23	**RETAIN AND PROTECT**	C360
104	BIGLEAF MAPLE, ACER MACROPHYLLUM	6.4, 5, 8.1, 6.7	10	**RETAIN AND PROTECT**	C360
105	NORWAY MAPLE, ACER PLATANOIDES	6	6	**NO IMPACT**	C360
106	WESTERN RED CEDAR, THUJA PLICATA	9, 4	10	**NO IMPACT**	C360
107	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	6, 5.3	10	**NO IMPACT**	C360
VASA PARK					
20	BIGLEAF MAPLE, ACER MACROPHYLLUM	8.5	9	**RETAIN AND PROTECT, PERFORM CROWN RAISE PRUNING (SPECIAL PROTECTION)**	C352
21	WESTERN RED CEDAR, THUJA PLICATA	55.1	55	**REMOVE TREE AND REPLACE**	C352
22	BIGLEAF MAPLE, ACER MACROPHYLLUM	31.9	32	**RETAIN AND PROTECT, PERFORM CROWN RAISE PRUNING (SPECIAL PROTECTION)**	C352
23	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	12.8	13	**RETAIN AND PROTECT, PERFORM CROWN RAISE PRUNING (SPECIAL PROTECTION)**	C352
108	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	10.3	11	**REMOVE TREE AND REPLACE**	C352
109	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	10.3	11	**REMOVE TREE AND REPLACE**	C352
110	NORWAY MAPLE, ACER PLATANOIDES	19.5	20	**RETAIN AND PROTECT**	C352
111	NORWAY MAPLE, ACER PLATANOIDES	14.6	15	**RETAIN AND PROTECT, PERFORM CROWN REDUCTION PRUNING (SPECIAL PROTECTION)**	C352
112	HORSE CHESTNUT, AESCULUS HIPPOCASTANUM	17.6	18	**NO IMPACT**	C352
113	HORSE CHESTNUT, AESCULUS HIPPOCASTANUM	19.1	20	**NO IMPACT**	C352
114	HORSE CHESTNUT, AESCULUS HIPPOCASTANUM	14.2	15	**NO IMPACT**	C352
115	HORSE CHESTNUT, AESCULUS HIPPOCASTANUM	23.2	24	**NO IMPACT**	C352
116	BIGLEAF MAPLE, ACER MACROPHYLLUM	31.3	32	**RETAIN AND PROTECT, PERFORM STRUCTURAL PRUNING (SPECIAL PROTECTION)**	C352
117	BIGLEAF MAPLE, ACER MACROPHYLLUM	30	30	**RETAIN AND PROTECT, AND PERFORM CROWN CLEAN PRUNING**	C352
118	BIGLEAF MAPLE, ACER MACROPHYLLUM	23.2	24	**NO IMPACT, PERFORM CROWN CLEAN PRUNING**	C352
119	BIGLEAF MAPLE, ACER MACROPHYLLUM	22.8	23	**NO IMPACT, PERFORM CROWN CLEAN PRUNING**	C352
120	BIGLEAF MAPLE, ACER MACROPHYLLUM	20.8	21	**NO IMPACT**	C352
121	BIGLEAF MAPLE, ACER MACROPHYLLUM	21.9	22	**NO IMPACT**	C352
122	BIGLEAF MAPLE, ACER MACROPHYLLUM	22.9	23	**NO IMPACT**	C352
123	BIGLEAF MAPLE, ACER MACROPHYLLUM	24.8	25	**NO IMPACT**	C352
124	BIGLEAF MAPLE, ACER MACROPHYLLUM	23.2	24	**NO IMPACT**	C352
125	BIRD CHERRY, PRUNUS AVIUM	6.5, 7.2	10	**NO IMPACT**	C352
126	PAPER BIRCH, BETULA PAPYRIFERA	21.3	22	**NO IMPACT**	C352
127	BIGLEAF MAPLE, ACER MACROPHYLLUM	24	24	**RETAIN AND PROTECT, PERFORM CROWN RAISE PRUNING (SPECIAL PROTECTION)**	C352

NOTES:

1. TREES LISTED IN THE INVENTORY TABLE ARE SHOWN AND IDENTIFIED ON THE DWGS C350 TO C362.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

DESIGNED/DRAWN: A. FRISK
SCALE: NO SCALE
PROJECT ENGINEER: S. RADFORD
REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF
FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI
CONTRACT NO: C01008C16

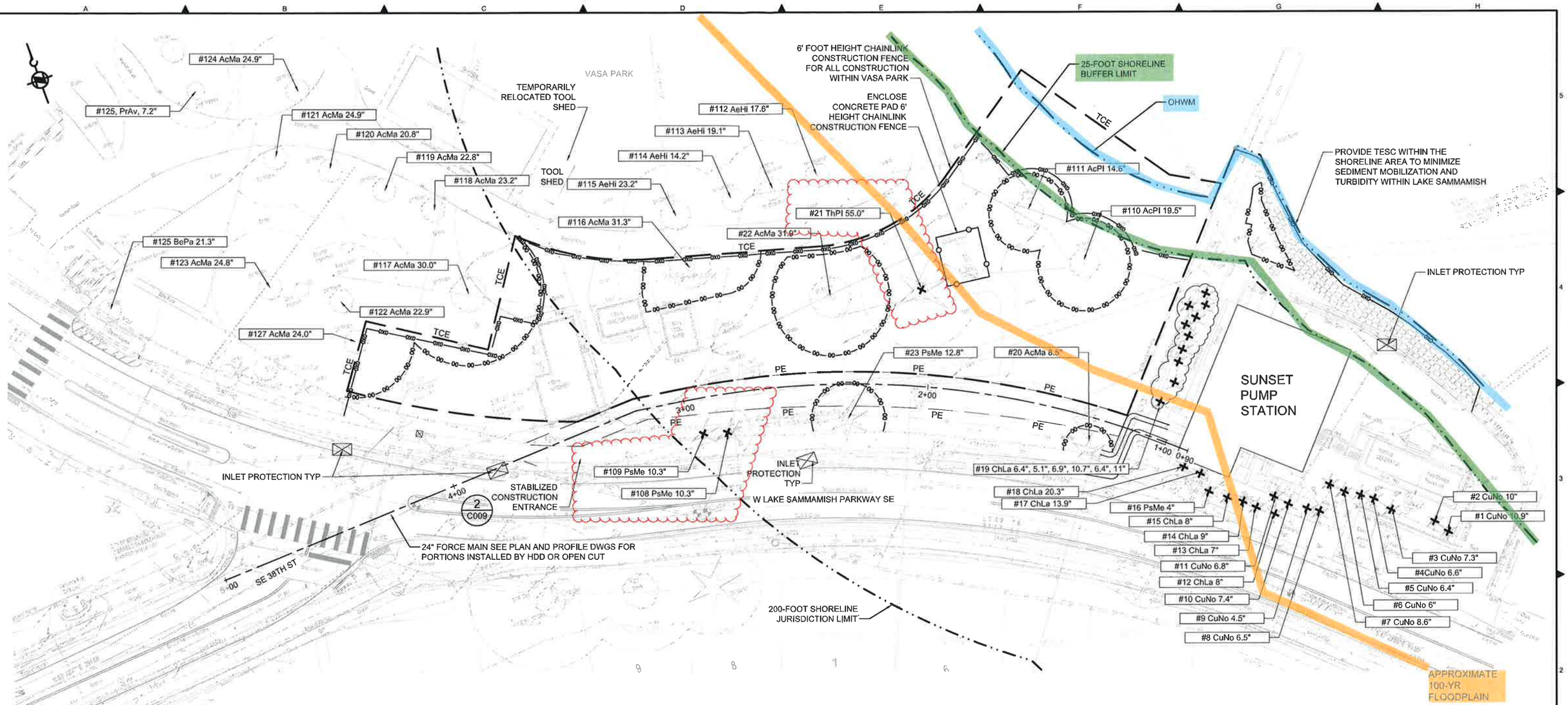
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

EXISTING TREE INVENTORY SHEET 2

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C351
SHT NO / TOTAL: / 449
REV NO: 0

C:\pwworkdir\d0299697330-331-\1038122\C350 & C351.dwg | Layout: C351
PLOTTED: Apr 28, 2016-11:46:33am By:swradford
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg
IMAGES:



GENERAL ESC DRAWING NOTES:

1. SEE DWG C009 FOR STANDARD EROSION CONTROL NOTES AND DETAILS.
2. THE TEMPORARY CONSTRUCTION EASEMENT (TCE) LINE INDICATES THE LIMIT OF CONTRACTOR DISTURBANCE. SEE PLAN AND PROFILE DWGS FOR COORDINATES OF TEMPORARY CONSTRUCTION EASEMENT.
3. LOCATE CONSTRUCTION FENCE AND SEDIMENT BARRIER AT THE TEMPORARY CONSTRUCTION EASEMENT (TCE), TYPICAL. UNO. CONSTRUCTION FENCE AND SEDIMENT BARRIERS SHOWN INSIDE TCE FOR CLARITY.
4. SEE DWGS C350 AND C351 FOR TREE INVENTORY TABLE. SEE EROSION CONTROL/TREE PROTECTION & RESTORATION DWGS FOR EXISTING TREE INVENTORY CALL OUT LABELS.
5. SEE PLAN AND PROFILE DRAWINGS FOR PIPELINE ALIGNMENT.
6. EMPLOY TREE PROTECTION MEASURES WITHIN CONSTRUCTION AND STAGING AREAS. SEE DETAILS AND SPECIFICATIONS.
7. CONTRACTOR SHALL MAINTAIN EXISTING STORMWATER FLOW PATTERNS, PARTICULARLY ALONG LAKE SAMMAMISH PARKWAY, AND INCORPORATE ALL SUCH DRAINAGE INTO ITS STORMWATER MANAGEMENT PLAN.

20 0 10 20
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/25/2017

DESIGNED/DRAWN: A. FRISK
PROJECT ENGINEER: S. RADFORD
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI
SCALE: 1"=20' REFERENCE 0 1"
FACILITY NUMBER: 331
CONTRACT NO: C01008C16

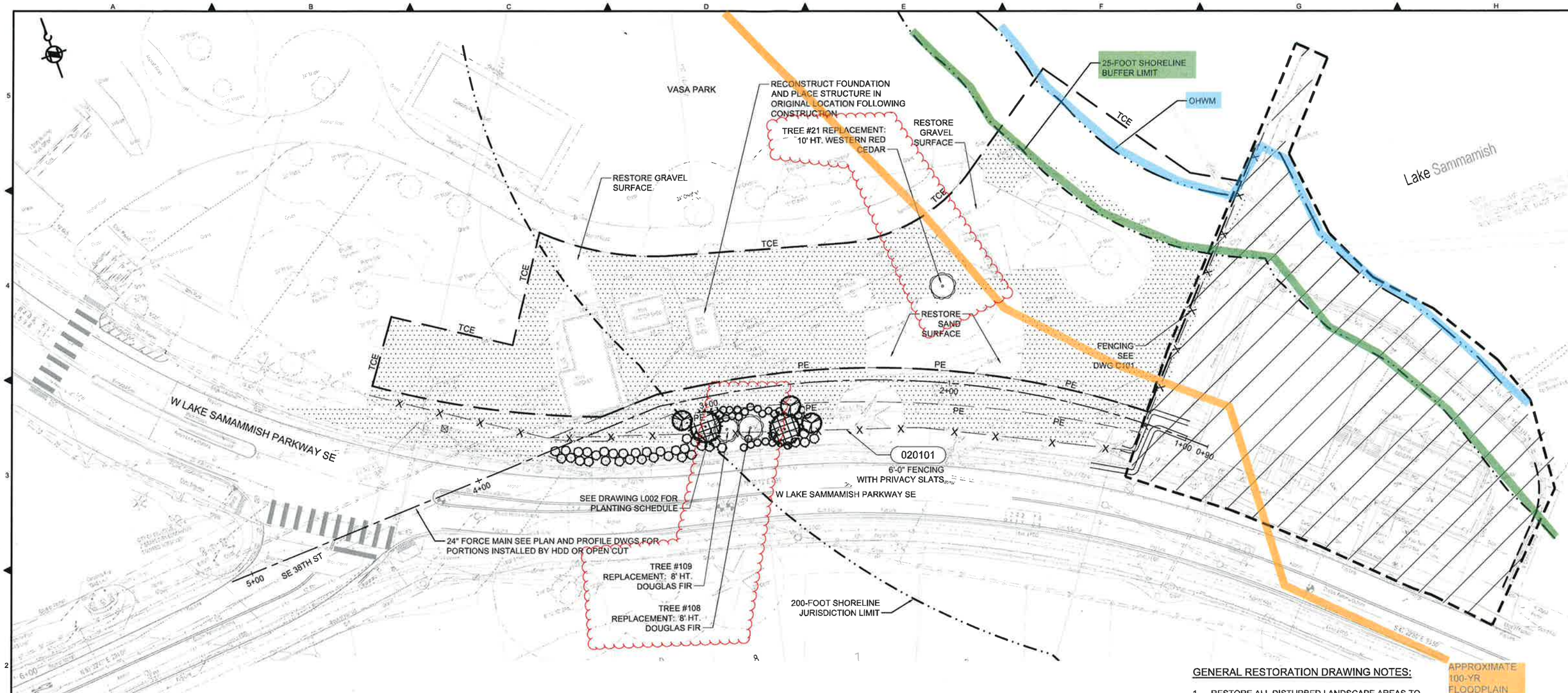
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

SUNSET TO HEATHFIELD
EROSION CONTROL & TREE PROTECTION PLAN
STA 01+00 TO 05+00

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C352
SHT NO / TOTAL: / 449
REV NO: 0

C:\pwworkdir\d0212519\330-331-1038122C352 thru C361.dwg | Layout: 330-331-1038122C352
PLOTTED: Apr 05, 2016-03:23:49pm By swradford
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; ESC_Model.dwg; IRESTORATION_Model.dwg; S&H ALIGNMENT 2014-12.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; S&H EX SITE FEATURES.dwg; LandscapeModel.dwg; SiteLightingModel.dwg
IMAGES:
Adobe PDF



GENERAL RESTORATION DRAWING NOTES:

1. RESTORE ALL DISTURBED LANDSCAPE AREAS TO PRE-PROJECT CONDITIONS OR BETTER.
2. LANDSCAPE RESTORATION SHALL BE PER SPECIFICATIONS.
3. REFER TO LANDSCAPE PLANTING LEGEND FOR LANDSCAPE PLANTING RESTORATION SYMBOLOGY AND PLANT PALETTE
4. RESTORE PAVED AREAS TO PRE-PROJECT CONDITIONS OR BETTER.
5. RESTORE ROADWAY PAVEMENTS, STRIPING AND ROADWAY MARKERS PER CITY OF BELLEVUE ENGINEERING STANDARDS AND AND TRANSPORTATION DEPARTMENT DESIGN MANUAL AND STANDARD DETAILS FOR FOR ALL WORK WITHIN THE CITY OF BELLEVUE RIGHT OF WAY.

20 0 10 20
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 868
EXPIRES 5/29/2017

DESIGNED/DRAWN: A. FRISK
PROJECT ENGINEER: S. RADFORD
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI
SCALE: 1"=20'
REFERENCE 0 1"
FACILITY NUMBER: 331
CONTRACT NO: C01008C16

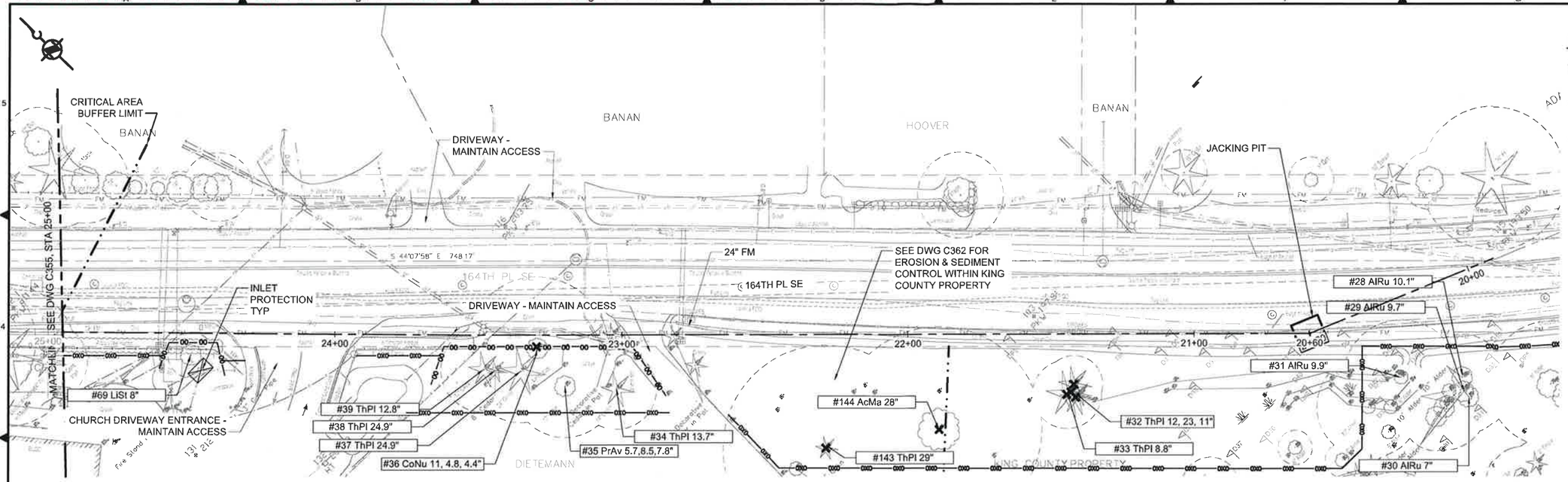
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

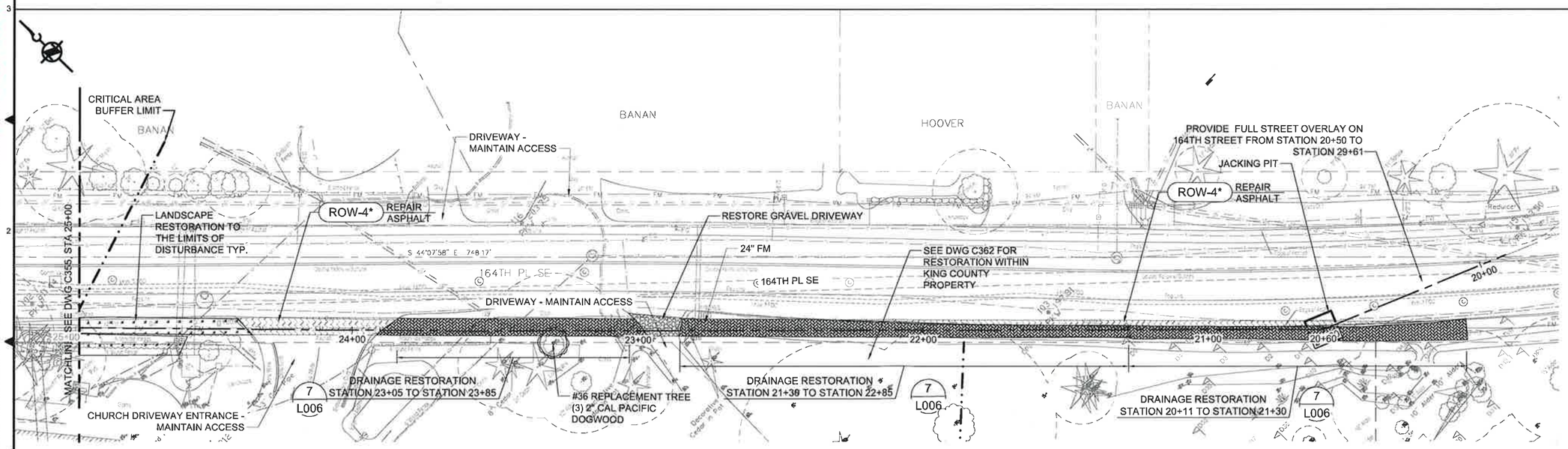
SUNSET TO HEATHFIELD RESTORATION PLAN STA 01+00 TO 05+00

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C353
SHT NO / TOTAL: / 449
REV NO: 0

C:\pwworkdir\d0212519\330-331-1038122C352 thru C361.dwg | Layout: 330-331-1038122C353
PLOTTED: Apr 05, 2016-03:25:11pm By swradford
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; IESC_Model.dwg; IRESTORATION_Model.dwg; S&H ALIGNMENT 2014-12.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H EX SITE FEATURES.dwg; LandscapeModel.dwg; SiteLightingModel.dwg
IMAGES: Made PDF



EROSION CONTROL & TREE PROTECTION PLAN



RESTORATION PLAN

NOTES:

1. SEE DWG C352 FOR GENERAL ESC DRAWING NOTES.
2. SEE DWG C353 FOR GENERAL RESTORATION NOTES.
3. SEE DWG L001 FOR MITIGATION AREA NOTES AND PLANTING SCHEDULE

20 0 10 20
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/23/2017

DESIGNED/DRAWN: A. FRISK	SCALE: 1"=20'
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

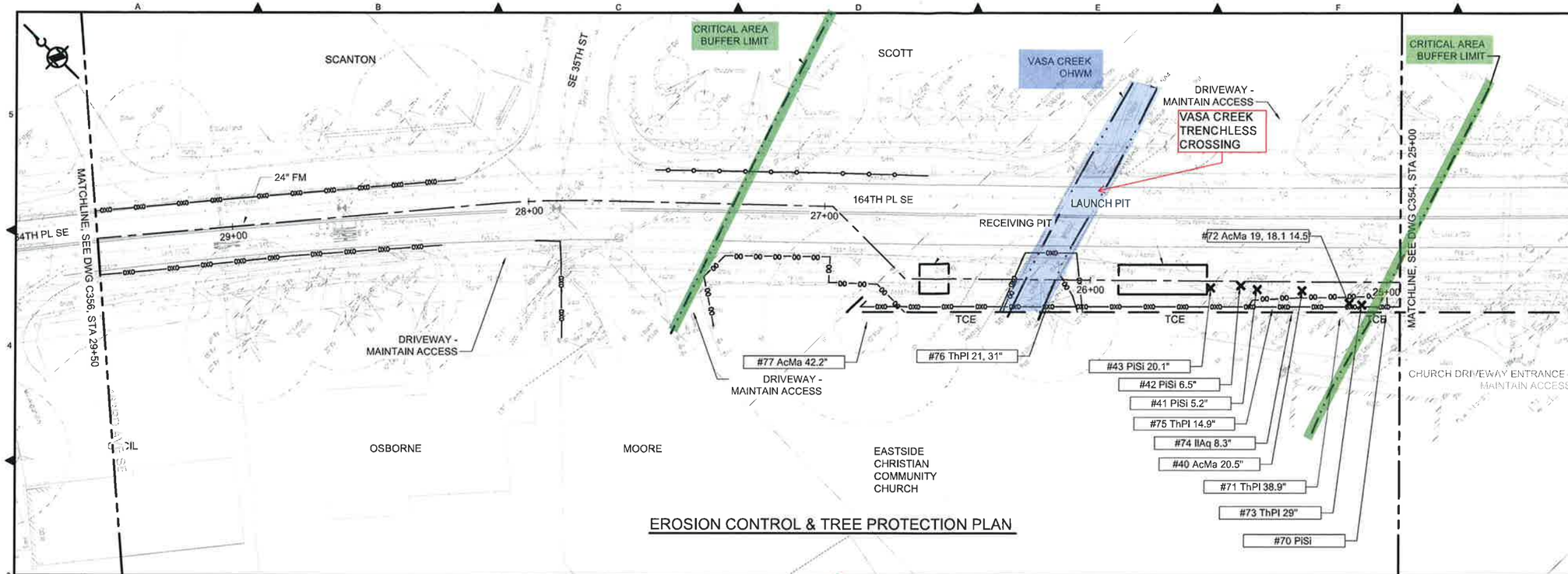
SUNSET TO HEATHFIELD

EROSION CONTROL/TREE PROTECTION & RESTORATION PLAN

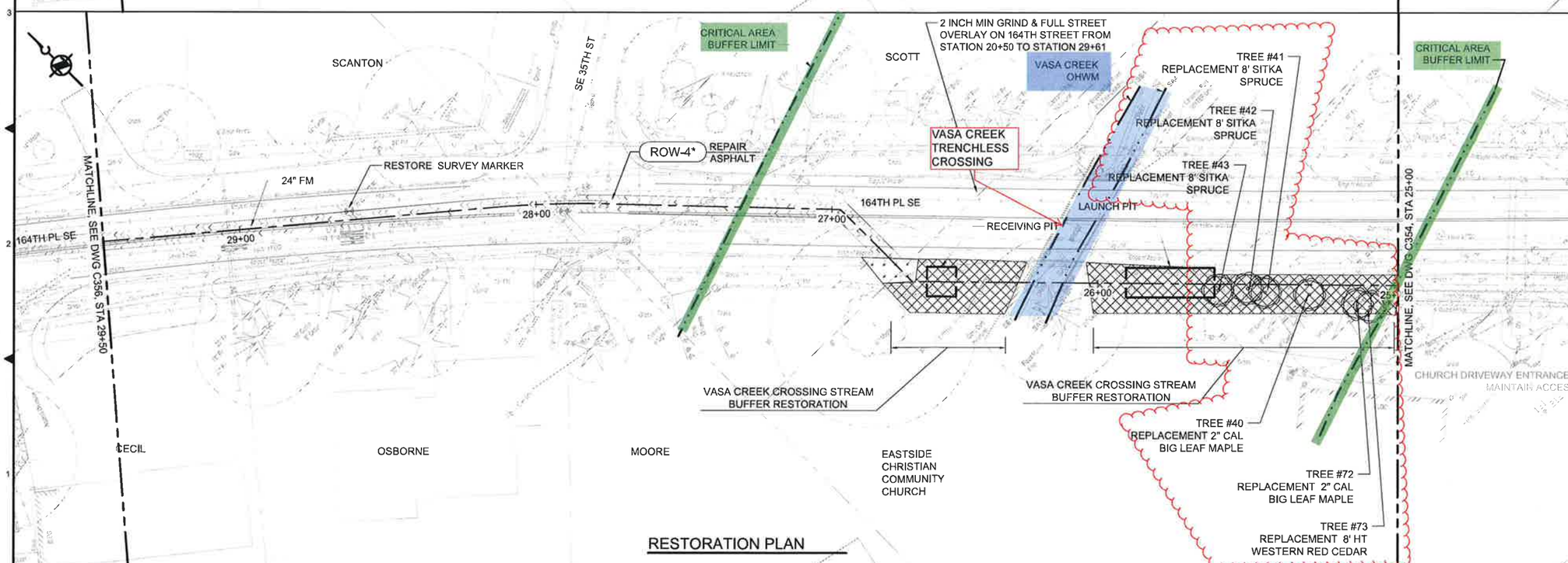
STA 20+00 TO 25+00

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C354
SHT NO / TOTAL / 449
REV NO: 0

C:\pwworkdir\d0212519\330-331-1038122C352 thru C361.dwg | Layout: 330-331-1038122C354
XREFS: Sunset-Heathfield-Dalze-TB-Border.dwg; ESC_Model.dwg; RESTORATION_Model.dwg; SAN ALIGNMENT_STA 20+00 TO 25+00.dwg; SAN ALIGNMENT_STA 20+00 TO 25+00.dwg
IMAGES:
Adobe PDF



EROSION CONTROL & TREE PROTECTION PLAN



RESTORATION PLAN

NOTES:

1. SEE DWG C352 FOR GENERAL ESC DRAWING NOTES.
2. SEE DWG C353 FOR GENERAL RESTORATION NOTES.
3. SEE DWG L001 FOR MITIGATION AREA NOTES AND PLANTING SCHEDULE

20 0 10 20
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/29/2017

DESIGNED/DRAWN: A. FRISK
PROJECT ENGINEER: S. RADFORD
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI

SCALE: 1"=20'
REFERENCE 0 1"
FACILITY NUMBER: 331
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

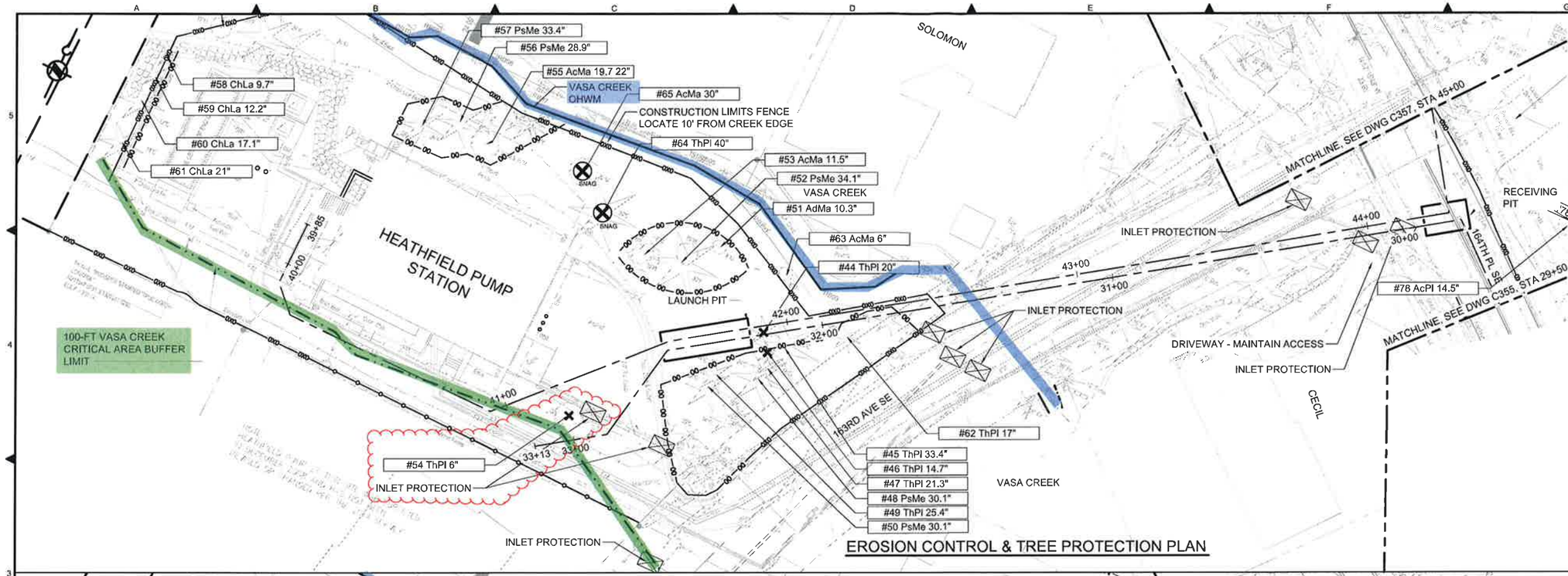
SUNSET TO HEATHFIELD

EROSION CONTROL / TREE PROTECTION & RESTORATION PLAN

STA 25+00 TO 30+00

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C355
SHT NO / TOTAL / 449
REV NO: 0

C:\pwworkdir\d0212519\330-331-1038122C352 thru C361.dwg | Layout: 330-331-1038122C355
PLOTTED: Mar 30, 2016-09:58:57am By: swradford
XREFS: SunsetHeathfield-Daize-TB-Border.dwg; IESC_Model.dwg; IRESTORATION_Model.dwg; S&H ALIGNMENT 2014-12.dwg; HEATHFIELD - MH R11 67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H EX SITE FEATURES.dwg; LandscapeModel.dwg; SiteLightingModel.dwg
IMAGES:
Adobe PDF



EROSION CONTROL & TREE PROTECTION PLAN

NOTES:

1. SEE DWG C352 FOR GENERAL ESC DRAWING NOTES.
2. SEE DWG C353 FOR GENERAL RESTORATION NOTES.
3. SEE DWG L200 FOR LOCATION OF TREE INVENTORY TREES #66, 67, & 68

RESTORATION PLAN

SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 668
EXPIRES 8/29/2017

DESIGNED/DRAWN: A. FRISK
PROJECT ENGINEER: S. RADFORD
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI

SCALE: 1"=20'
REFERENCE 0 1"
FACILITY NUMBER: 330
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

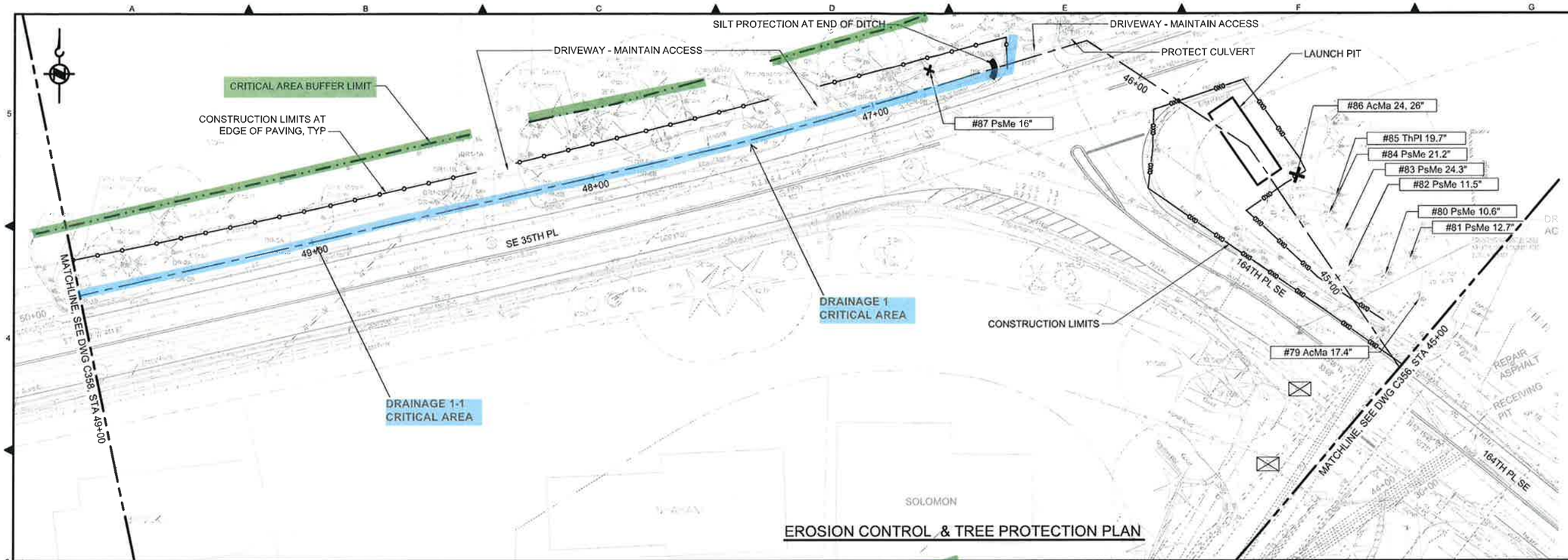
HEATHFIELD TO EASTGATE

EROSION CONTROL /TREE PROTECTION & RESTORATION PLAN

STA 30+00 TO 44+00

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C356
SHT NO / TOTAL / 449
REV NO: 0

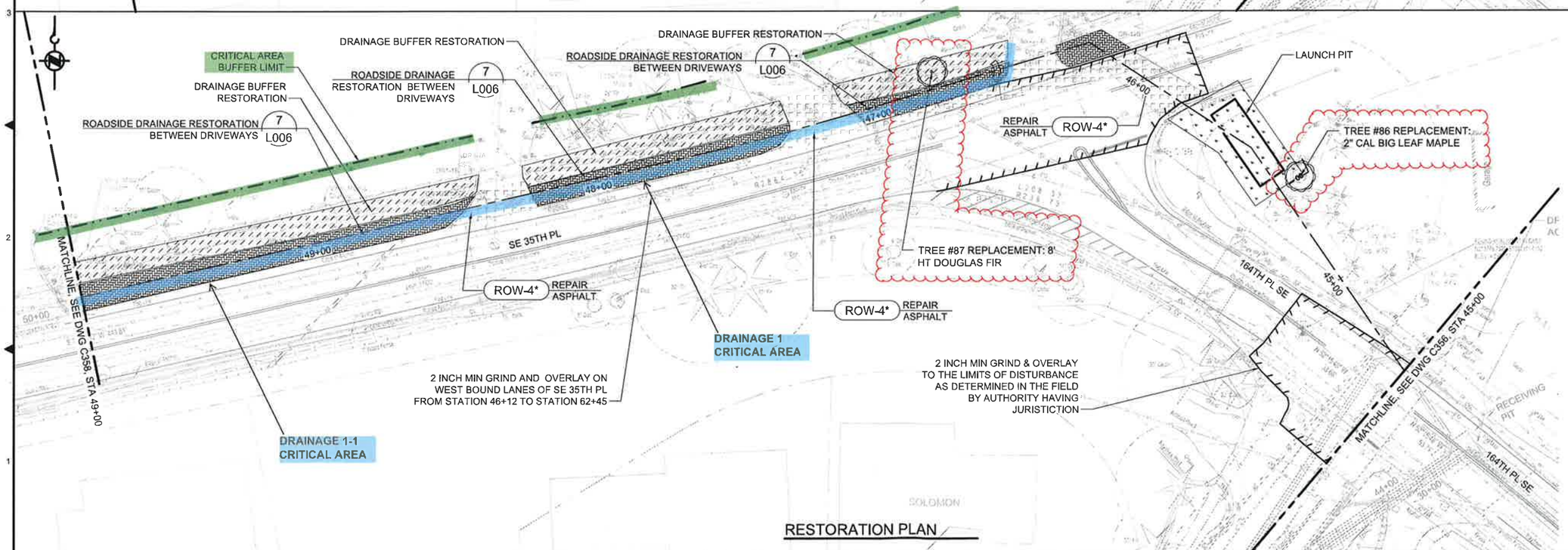
C:\cwworkdir\d0212519\330-331-1038122C352.thru C361.dwg | Layout: 330-331-1038122C356
PLOTTED: Mar 30, 2016-09:59:36am By swradford
XREFS: Sunset\Heathfield-Dsize-TB-Border.dwg; IESC_Model.dwg; IRESTORATION_Model.dwg; S&H ALIGNMENT 2014-12.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H EX SITE FEATURES.dwg; LandscapeModel.dwg; SiteLightingModel.dwg
IMAGES:
Adobe PDF



EROSION CONTROL & TREE PROTECTION PLAN

NOTES:

1. SEE DWG C352 FOR GENERAL ESC DRAWING NOTES.
2. SEE DWG C353 FOR GENERAL RESTORATION NOTES.
3. SEE DWG L001 FOR MITIGATION AREA NOTES AND PLANTING SCHEDULE



RESTORATION PLAN

20 0 10 20
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 588
EXPIRES 6/29/2017

DESIGNED/DRAWN: A. FRISK
PROJECT ENGINEER: S. RADFORD
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI

SCALE: 1"=20'
REFERENCE 0 1"
FACILITY NUMBER: 330
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

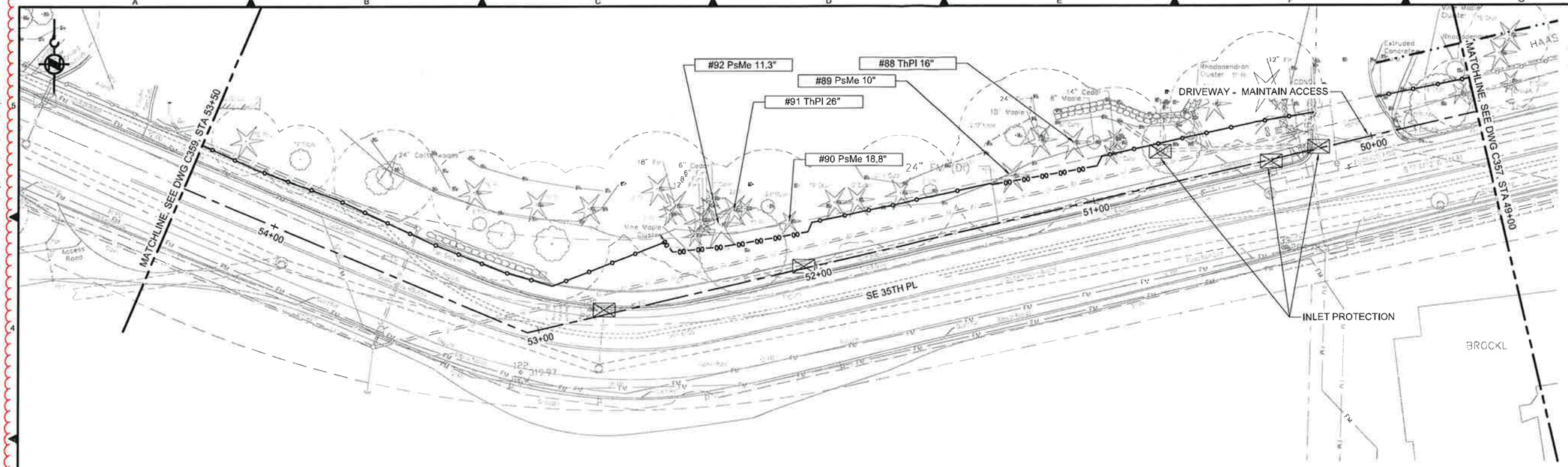
HEATHFIELD TO EASTGATE

EROSION CONTROL/TREE PROECTION & RESTORATION PLAN

STA 44+00 TO 49+00

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C357
SHT NO / TOTAL / 449
REV NO: 0

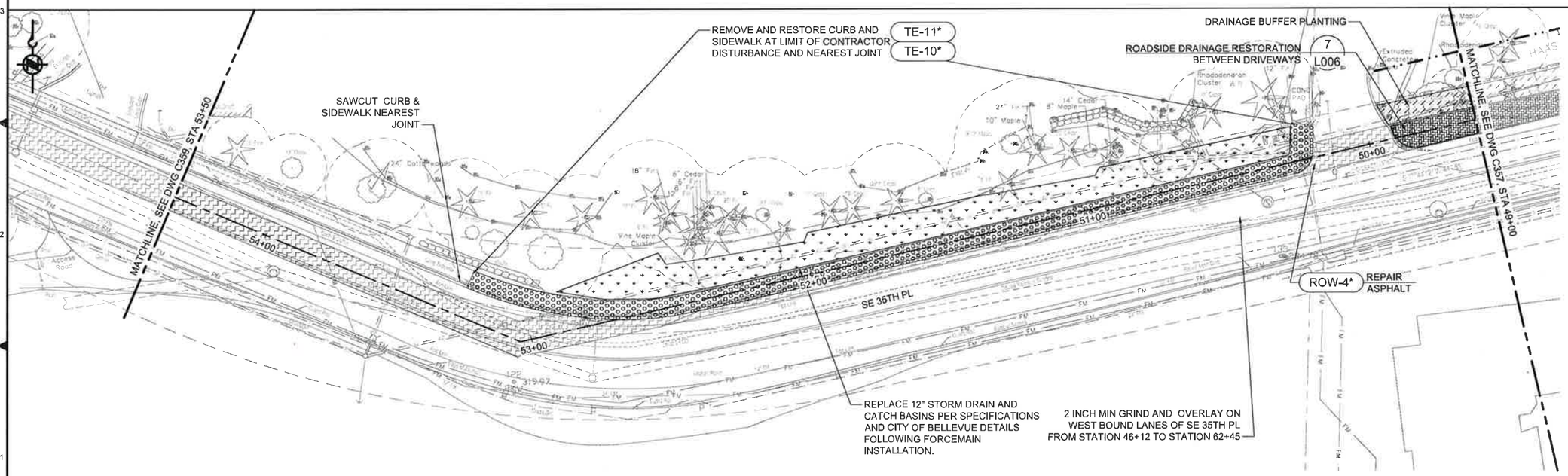
C:\pwworkdir\d02\2519\330-331-1038122C352 thru C361.dwg | Layout: 330-331-1038122C357
PLOTTED: Mar 30, 2016-10:00:34am By swradford
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; !ESC_Model.dwg; !RESTORATION_Model.dwg; S&H ALIGNMENT 2014-12.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 678.dwg; HEATHFIELD - MH R11 683.dwg; S&H EX SITE FEATURES.dwg; LandscapeModel.dwg; SiteLightingModel.dwg
IMAGES:
Adobe PDF



EROSION CONTROL PLAN & TREE PROTECTION PLAN

NOTES:

1. SEE DWG C352 FOR GENERAL ESC DRAWING NOTES.
2. SEE DWG C353 FOR GENERAL RESTORATION NOTES.
3. SEE DWG L001 FOR MITIGATION AREA NOTES AND PLANTING SCHEDULE



RESTORATION PLAN

20 0 10 20
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/29/2017

DESIGNED/DRAWN: A. FRISK	SCALE: 1"=20'
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

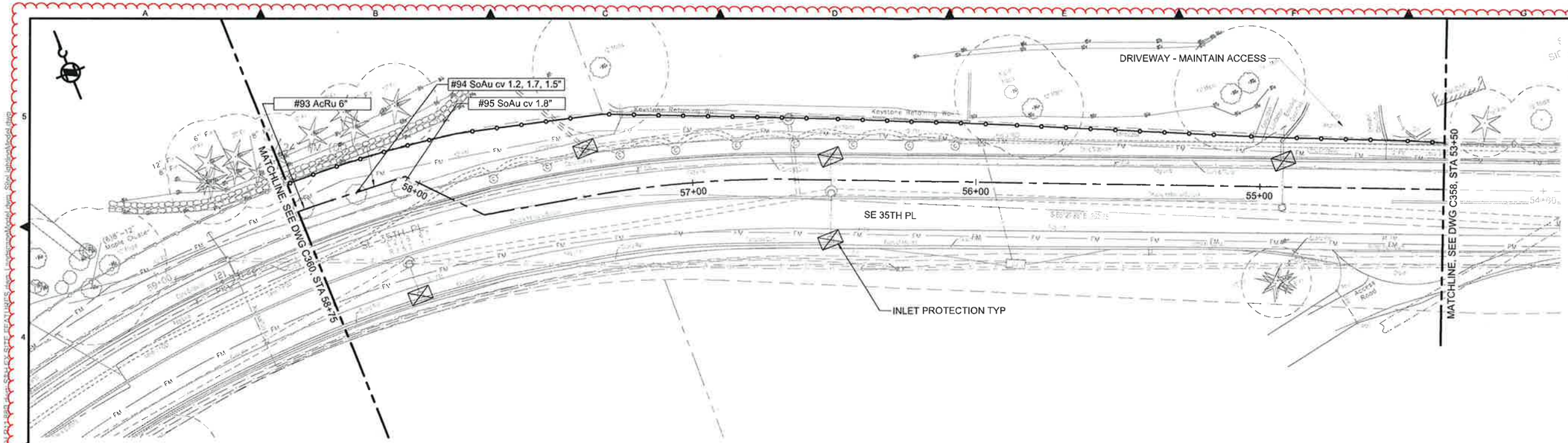
DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

HEATHFIELD TO EASTGATE

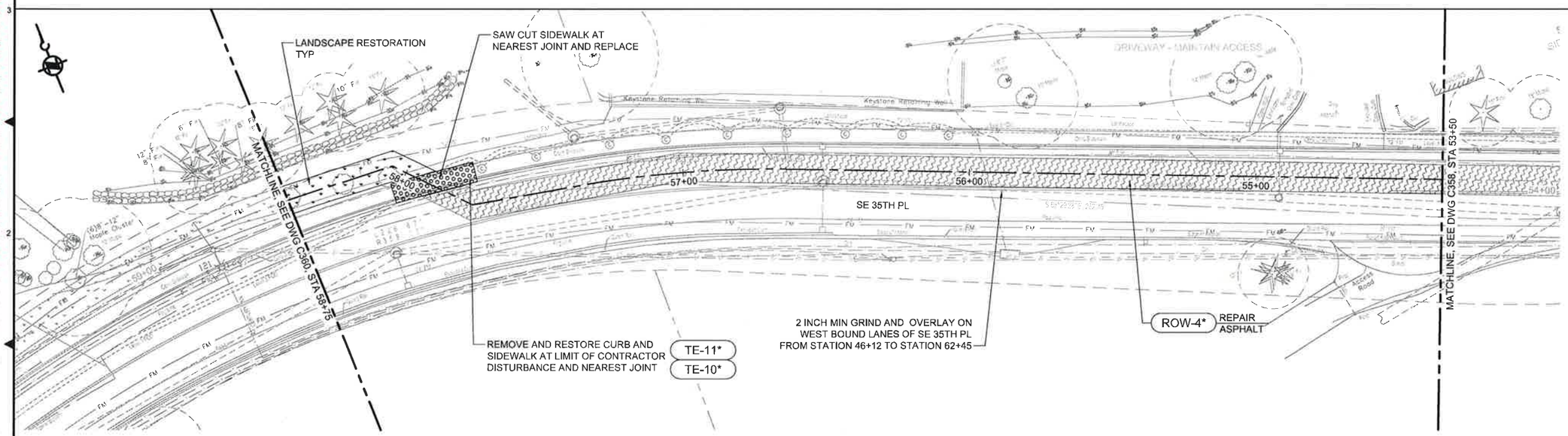
EROSION CONTROL/TREE PROECTION & RESTORATION PLAN

STA 49+00 TO 53+50

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C358
SHT NO / TOTAL / 449
REV NO: 0



EROSION CONTROL & TREE PROTECTION PLAN



RESTORATION PLAN

20 0 10 20
SCALE: 1"=20'

NOTES:

1. SEE DWG C352 FOR GENERAL ESC DRAWING NOTES.
2. SEE DWG C353 FOR GENERAL RESTORATION NOTES.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 668
EXPIRES 6/29/2017

DESIGNED/DRAWN: A. FRISK	SCALE: 1"=20'
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

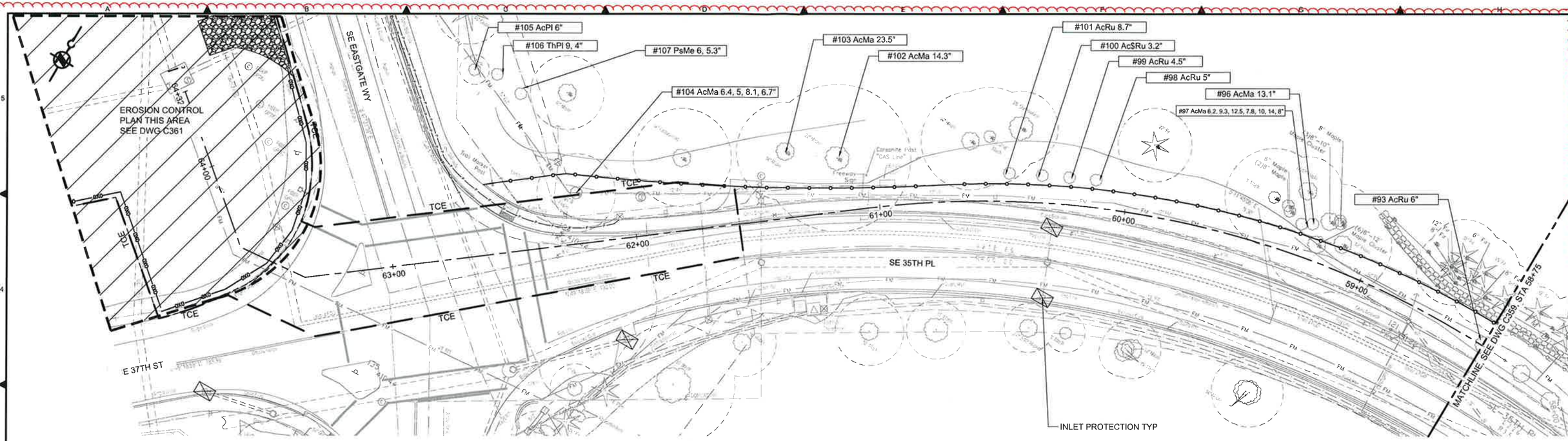
HEATHFIELD TO EASTGATE

EROSION CONTROL/TREE PROECTION & RESTORATION PLAN

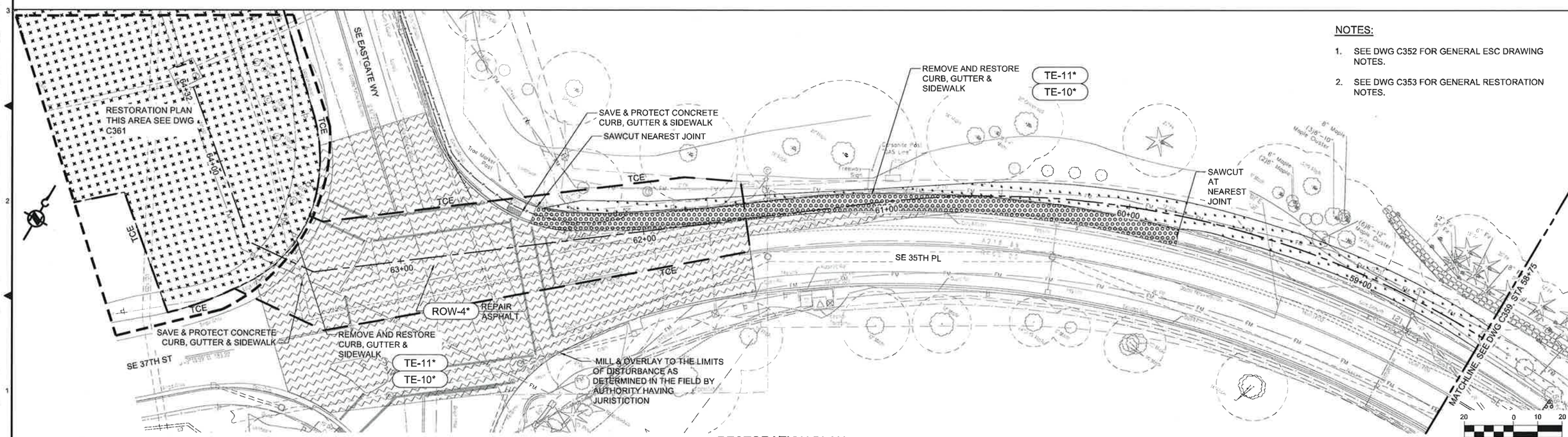
STA 53+50 TO 58+75

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C359
SHT NO / TOTAL: / 449
REV NO: 0

C:\pwworkdir\d0212519\330-331-1038122C352 thru C361.dwg | Layout: 330-331-1038122C359
PLOTTED: Mar 30, 2016-10:00:04am By: swradford
XREFS:
IMAGES:



EROSION CONTROL & TREE PROTECTION PLAN



RESTORATION PLAN

NOTES:

1. SEE DWG C352 FOR GENERAL ESC DRAWING NOTES.
2. SEE DWG C353 FOR GENERAL RESTORATION NOTES.

SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 588
EXPIRES 6/09/2017

DESIGNED/DRAWN: A. FRISK	SCALE: 1"=20'
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

HEATHFIELD TO EASTGATE

EROSION CONTROL/TREE PROTECTION & RESTORATION PLAN

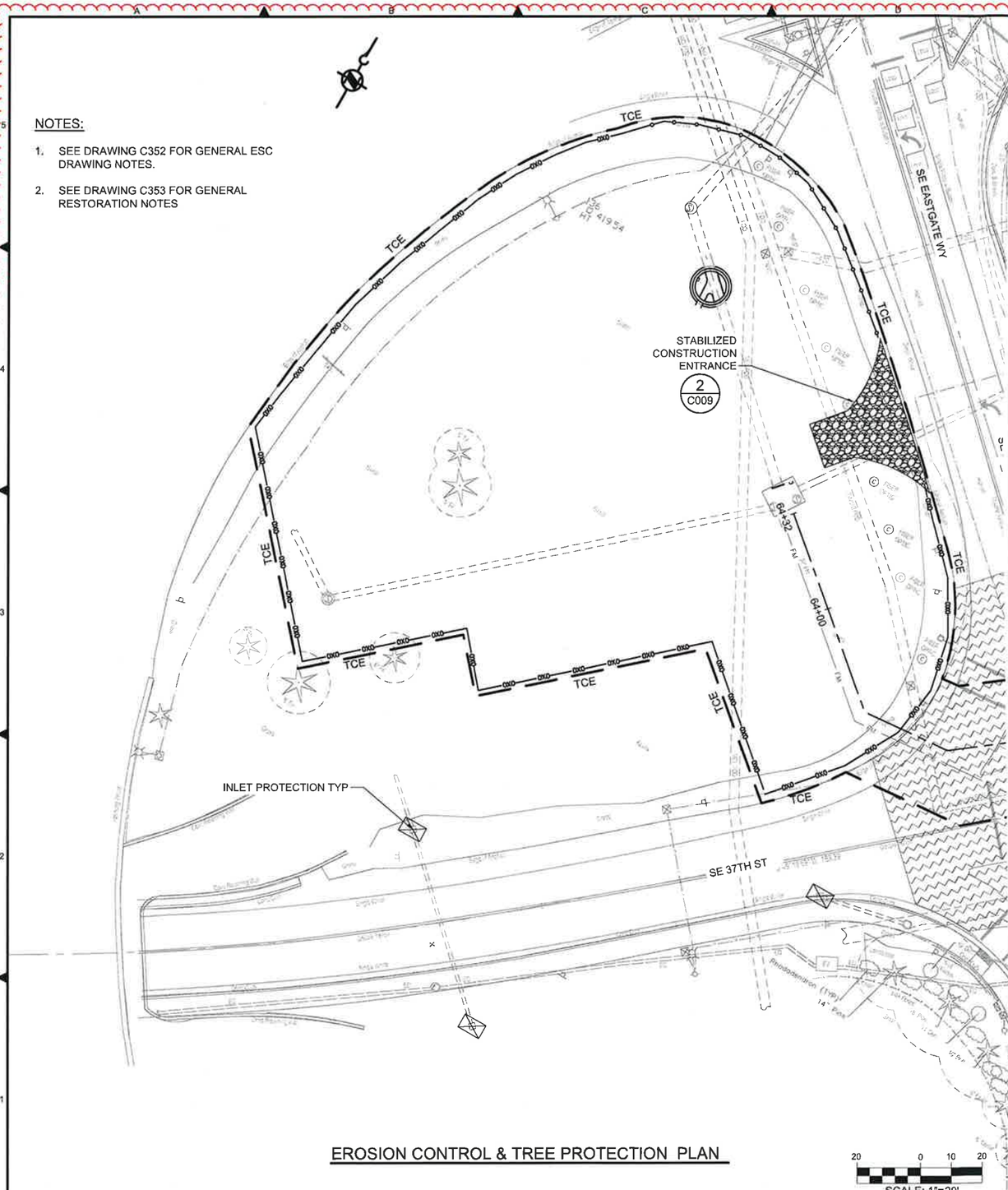
STA 58+75 TO 64+32

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C360
SHT NO / TOTAL / 449
REV NO: 0

C:\pwworking\d0212517\0330-331-1038122C-352 thru C361.dwg | Layout: 330-331-1038122C360
XREFS: Sunset/Heathfield-Dsize-TB-Border.dwg; IESC_Model.dwg; RESTORATION_Model.dwg; SDI ALIGNMENT 2011-1.dwg; HEATHFIELD XM ATTACHED
IMAGES:
Date Plot

NOTES:

1. SEE DRAWING C352 FOR GENERAL ESC DRAWING NOTES.
2. SEE DRAWING C353 FOR GENERAL RESTORATION NOTES



EROSION CONTROL & TREE PROTECTION PLAN

20 0 10 20
SCALE: 1"=20'

RESTORATION PLAN

20 0 10 20
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 586
EXPIRES 6/29/2017

DESIGNED/DRAWN: A.FRISK	SCALE: 1"=20'
PROJECT ENGINEER: S. RADFORD	0 REFERENCE 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. HAMINI	CONTRACT NO: CD100BC16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

HEATHFIELD TO EASTGATE

EROSION CONTROL/TREE PROTECTION & RESTORATION PLAN

EASTGATE LAYDOWN AREA

DCN:

DATE: APRIL 2016

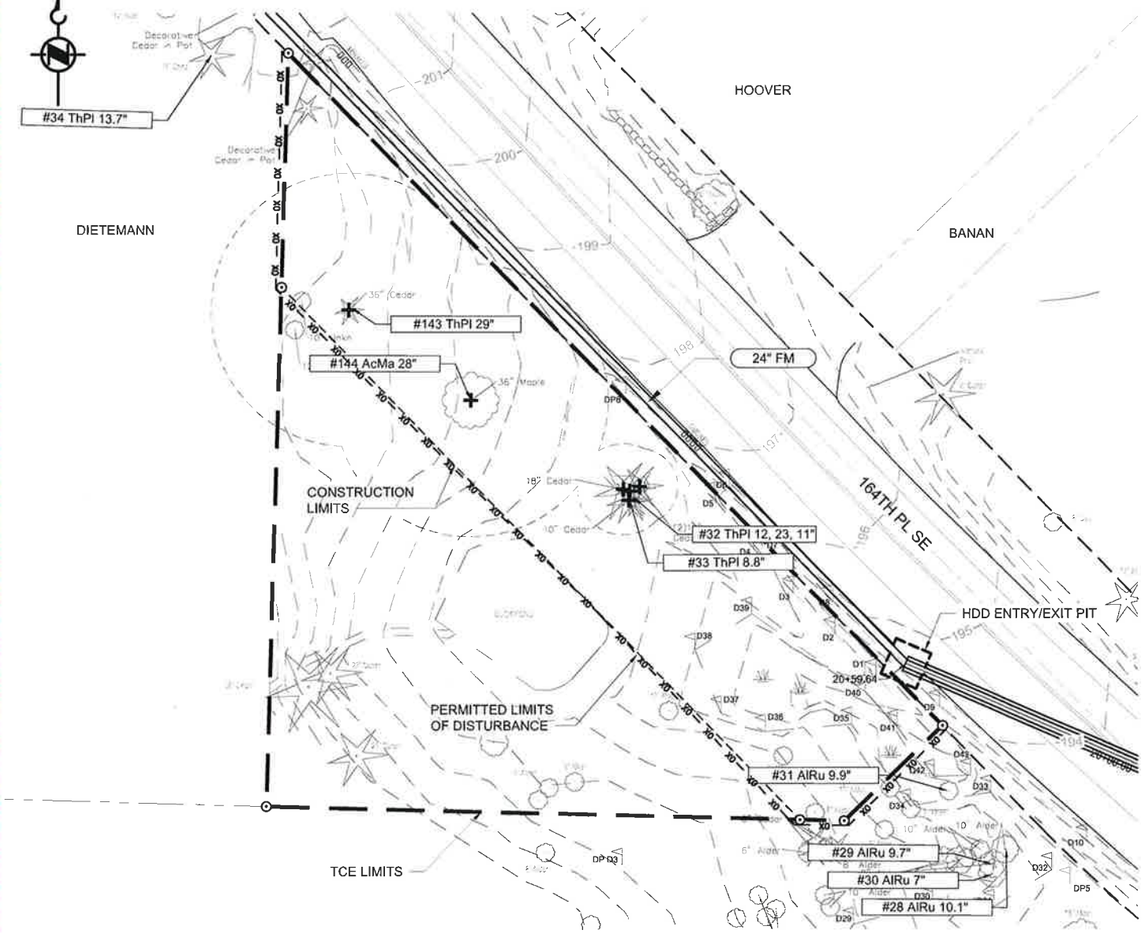
PROJECT FILE NO: 1038122

DRAWING NO: C361

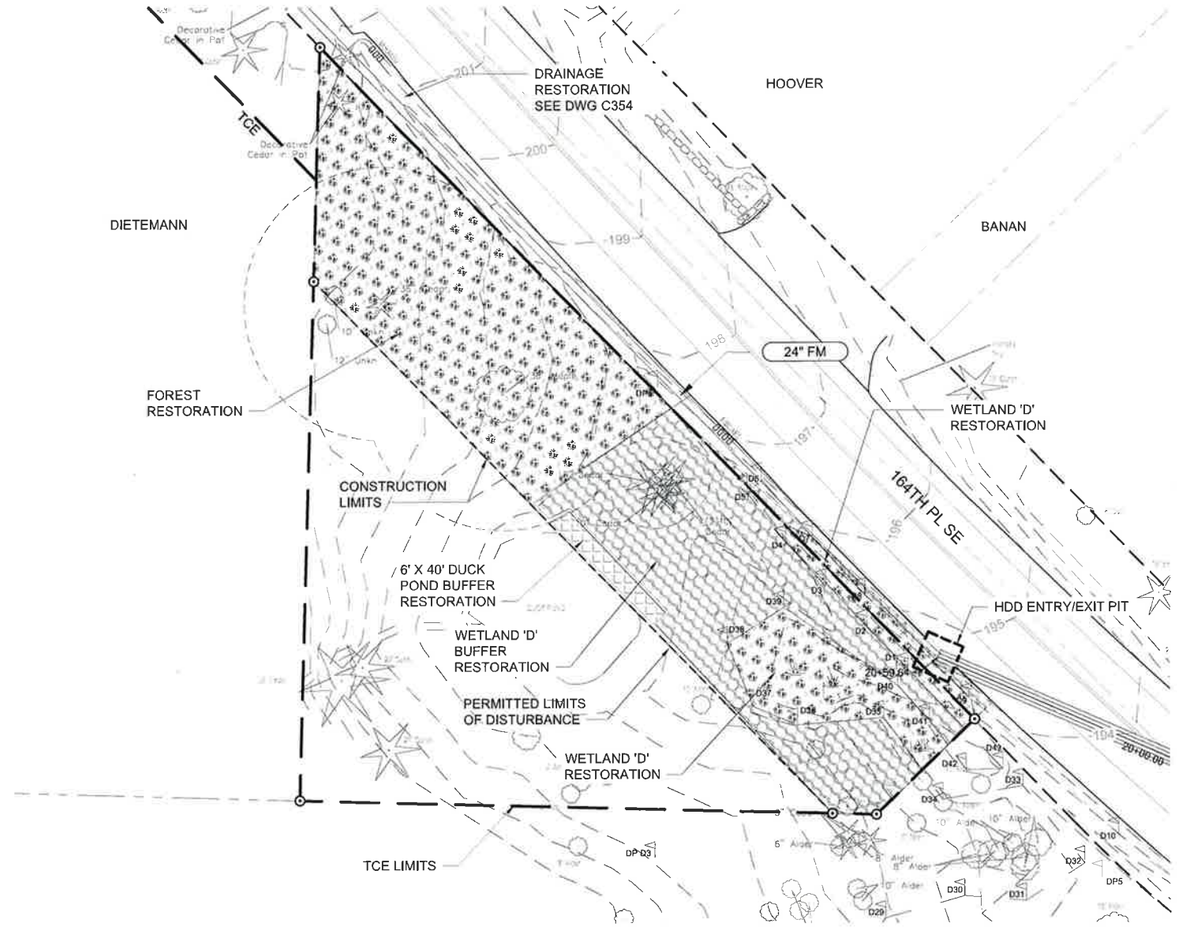
SHT NO / TOTAL: / 449

REV NO: 0

C:\pwworking\dri\d0212515\330-331-1038122\C352 thru C361.dwg | Layout: 330-331-1038122\C361
PLOTTED: Apr 25, 2016-11:35:09am By: fraskr
IMAGES: Adobe PDF
Sites\HiringModel.dwg
HEATHFIELD - NH R11 67B.dwg; HEATHFIELD - NH R11 68B.dwg; S&H EX SITE FEATURES.dwg; Landscape\Model.dwg;



EROSION CONTROL & TREE PROTECTION PLAN



RESTORATION PLAN

NOTES:

1. SEE DWG C352 FOR GENERAL EROSION AND SEDIMENT CONTROL DRAWING NOTES.
2. SEE DWG C353 FOR GENERAL RESTORATION NOTES
3. SEE DWG L001 FOR WETLAND & DRAINAGE RESTORATION SYMBOLOGY

NOTES:

1. SEE DRAWING L001 FOR WETLAND & DRAINAGE RESTORATION SYMBOLOGY

20 0 10 20
SCALE: 1"=20'

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/29/2017

DESIGNED/DRAWN: A. FRISK	SCALE: 1"=20'
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

SUNSET TO HEATHFIELD

EROSION CONTROL / TREE PROTECTION & RESTORATION PLAN

KING COUNTY PROPERTY

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: C362
SHT NO / TOTAL / 449
REV NO: 0

C:\pwworkdir\d0212519\330-331-1038122C362.dwg | Layout: 330-331-1038122C362
PLOTTED: Apr 05, 2016-11:12:24am By swradford
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; S&H ALIGNMENT 2014-12.dwg; S&H PROFILES HDD.dwg; S&H EX SITE FEATURES.dwg; HEATHFIELD - MH R11-67.dwg; HEATHFIELD - MH R11 67B.dwg; HEATHFIELD - MH R11 68B.dwg; S&H DEMOLITION WORK.dwg; dms_dolntod,330-331-1038122C351 thru C363.dwg
IMAGES:
Adobe PDF

GENERAL HABITAT RESTORATION NOTES

HABITAT RESTORATION AREAS WORK SEQUENCE

HEATHFIELD PUMP STATION HABITAT RESTORATION

COMPLETE THE FOLLOWING ACTIVITIES TO RESTORE THOSE PORTIONS OF THE VASA CREEK BUFFER DISTURBED BY PROJECT CONSTRUCTION.

1. COMPLETE THE REMOVAL OF ANY NOXIOUS WEEDS (PARTICULARLY ENGLISH IVY AND HIMALAYAN BLACKBERRY).
2. COVER BARE SOIL AREAS WITH WOOD CHIP MULCH TO PREVENT EROSION, RETAIN MOISTURE, AND SUPPRESS WEEDS.
3. INSTALL NATIVE TREE AND SHRUB SPECIES.

FORCE MAIN CONSTRUCTION HABITAT RESTORATION AREAS

FOLLOWING INSTALLATION OF THE NEW FORCE MAIN WITHIN DRAINAGE 1, DRAINAGE 1-1, DRAINAGE 3, AND THE ROADSIDE DITCH PORTION OF WETLAND D, THE TRENCH SHALL BE BACKFILLED WITH SUITABLE MATERIAL PER ENGINEERING REQUIREMENTS AND GRADED TO MATCH PRE-CONSTRUCTION CONDITIONS. COBBLE SHALL BE PLACED IN THE BED OF DRAINAGE 1, SIMILAR TO EXISTING CONDITIONS. THE DISTURBED PORTION OF THE DRAINAGES AND THE DITCH PORTION OF WETLAND D SHALL BE SEEDED WITH HABITAT RESTORATION AREA SEED MIX. NATIVE SHRUB SPECIES SHALL BE INSTALLED BETWEEN THE RESTORED DITCH AND THE ADJACENT PROPERTIES.

VASA CREEK BUFFER AT THE 164TH PLACE SE CROSSING

FOLLOWING INSTALLATION OF THE NEW FORCE MAIN WITHIN AREA OF THE VASA CREEK BUFFER COMPLETE THE FOLLOWING ACTIVITIES:

1. MULCH BARE SOILS.
2. APPLY MITIGATION SEED MIX.
3. INSTALL NATIVE TREE AND SHRUB SPECIES.

KING COUNTY PROPERTY HABITAT RESTORATION

RESTORE THE PORTION OF THE KING COUNTY PROPERTY INCLUDING THE WETLAND D AND WETLAND BUFFER USED FOR CONSTRUCTION PURPOSES. COMPLETE THE FOLLOWING ACTIVITIES:

1. REMOVE ALL EQUIPMENT, MATERIALS, AND DEBRIS FROM THE SITE.
2. REMOVE ANY GRAVEL OR OTHER SURFACING MATERIAL THAT HAS BEEN APPLIED AND DISPOSE OF IT PROPERLY OFFSITE.
3. DECOMPACT ALL DISTURBED SOILS.
4. APPLY AN ORGANIC SOIL AMENDMENT.
5. INSTALL PLANT MATERIALS.
6. APPLY A LAYER OF WOOD CHIP MULCH ACROSS THE RESTORED AREA.

HEATHFIELD PUMP STATION (VASA CREEK STREAM BUFFER) 4,920 SF

SYMBOL	STRATUM	COMMON NAME	SCIENTIFIC NAME	SIZE	QUANTITY	SPACING (OC)
	TREE	DOUGLAS FIR	PSEUDOTSUGA MENZIESII	1 GAL	5	12 Ft
		SITKA SPRUCE	PICEA SITCHENSIS	1 GAL	5	12 Ft
	SHRUB	SNOWBERRY	SYMPHORICARPUS ALBA	1 GAL	8	6 Ft
		VINE MAPLE	ACER CIRCINATUM	1 GAL	8	6 Ft
		INDIAN PLUM	OEMLERIA CERASIFORMIS	1 GAL	8	6 Ft
		NOOTKA ROSE	ROSA NUTKANA	1 GAL	8	6 Ft
	HERB	SWORD FERN	POLYSTICHUM MUNITUM	1 GAL	42	3 Ft
		LOW OREGON GRAPE	MAHONIA NERVOSA	1 GAL	42	3 Ft

WETLAND D BUFFER 3,800 SF

SYMBOL	STRATUM	COMMON NAME	SCIENTIFIC NAME	SIZE	QUANTITY	SPACING (OC)
	TREE	DOUGLAS FIR	PSEUDOTSUGA MENZIESII	1 GAL	13	12 Ft
		WESTERN RED CEDAR	THUJA PLICATA	1 GAL	13	12 Ft
	SHRUB	SNOWBERRY	SYMPHORICARPUS ALBA	1 GAL	21	6 Ft
		SALMONBERRY	RUBUS SPECTABILIS	1 GAL	21	6 Ft
		NOOTKA ROSE	ROSA NUTKANA	1 GAL	21	6 Ft
		HAZELNUT	CORYLUS CORNUTA	1 GAL	21	6 Ft
	HERB	SWORD FERN	POLYSTICHUM MUNITUM	1 GAL	21	3 Ft

DUCK POND (BUFFER) 185 SF

SYMBOL	STRATUM	COMMON NAME	SCIENTIFIC NAME	SIZE	QUANTITY	SPACING (OC)
	TREE	PACIFIC WILLOW	SALIX LUDICA	LIVE STAKE	7	6 Ft
	SHRUB	SITKA WILLOW	SALIX SITCHENSIS	LIVE STAKE	7	6 Ft
		RED OSIER DOGWOOD	CORNUS SERICEA	1 GAL	7	6 Ft
	EMERGENT HERBS	SMALL-FRUITED BUL RUSH	SCIRPUS MICROCARPUS	PLUG	160	.5 FT
		SLOUGH SEDGE	CAREX OBNUPTA	PLUG	160	.5 FT

WETLAND D & FOREST RESTORATION WETLAND D: 1,012 SF. FOREST: 4,723 SF

SYMBOL	STRATUM	COMMON NAME	SCIENTIFIC NAME	SIZE	QUANTITY	SPACING (OC)
	TREE	WESTER RED CEDAR	THUJA PLICATA	1 GAL	15	12 Ft
	TREE	SITKA SPRUCE	PICEA SITCHENSIS	1 GAL	15	12 Ft
	SHRUB	SITKA WILLOW	SALIX SITCHENSIS	LIVE STAKE	15	3 Ft
	SHRUB	RED OSIER DOGWOOD	CORNUS SERICEA	LIVE STAKE	15	3 Ft
	SHRUB	INDIAN PLUM	OEMLERIA CEREASIFORMIS	1 GAL	15	6 Ft
	SHRUB	BLACK TWINBERRY	LONICERA INVOLURATA	1 GAL	60	6 Ft

VASA CREEK CROSSING (STREAM BUFFER) 2,170 SF

SYMBOL	STRATUM	COMMON NAME	SCIENTIFIC NAME	SIZE	QUANTITY	SPACING (OC)
	SHRUB	SNOWBERRY	SYMPHORICARPUS ALBA	1 GAL	15	6 Ft
		TALL OREGON GRAPE	MAHONIA AQUIFOLIUM	1 GAL	15	6 Ft
		NOOTKA ROSE	ROSA NUTKANA	1 GAL	15	6 Ft
		PACIFIC WAX MYRTLE	MYRICA CALIFORNICA	1 GAL	15	6 Ft
	HERB	SWORD FERN	POLYSTICHUM MUNITUM	1 GAL	15	3 Ft

DRAINAGE BUFFER 2,390 SF

SYMBOL	STRATUM	COMMON NAME	SCIENTIFIC NAME	SIZE	QUANTITY	SPACING (OC)
	SHRUB	SNOWBERRY	SYMPHORICARPUS ALBA	1 GAL	27	6 Ft
		TALL OREGON GRAPE	MAHONIA AQUIFOLIUM	1 GAL	27	6 Ft
		NOOTKA ROSE	ROSA NUTKANA	1 GAL	27	6 Ft
		RED FLOWERING CURRANT	RIBIES SANGUINEUM	1 GAL	27	6 Ft
	HERB	SWORD FERN	POLYSTICHUM MUNITUM	1 GAL	53	3 Ft

HABITAT RESTORATION SEED MIX (ROADSIDE DITCH OF WETLAND 'D', DRAINAGE 1, DRAINAGE 1-1, DRAINAGE 3) 4,240 SF

SYMBOL		
	30% BLUE WILD RYE/ELYMUS GLAUCUS	5% MEADOW BARLEY/HORDEUM BRACHYANTHERUM
	30% TUFTED HAIRGRASS/DESCHAMPSIA CAESPITOSA	5% AMERICAN SLOUGHGRASS/BECKMANNIA SYZIGACHNE
	30% WESTERN MANNAGRASS/GLYCERIA OCCIDENTALIS	APPLICATION RATE = 40LBS./ACRE

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 686
EXPIRES 6/29/2017

DESIGNED/DRAWN: A. FRISK
SCALE: NO SCALE
PROJECT ENGINEER: S. RADFORD
REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF
FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

HABITAT RESTORATION NOTES & PLANT SCHEDULE

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: L001
SHT NO / TOTAL: / 449
REV NO: 0

C:\pwworkdir\d0167759\330_331-1038122.001.dwg | Layout: 330-331-1038122.001
PLOTTED: Mar 11, 2016-12:58:30pm (by nathanrx)
XREFS: SunsetHeathfield-Base-11-Border.dwg
IMAGES: 331-1038122F110.jpg

GOALS

THE OVERALL GOAL OF THE RESTORATION PLAN IS TO RESTORE ALL WETLAND, STREAM, AND BUFFER AREAS AND WILDLIFE HABITATS THAT ARE TEMPORARILY IMPACTED BY PROJECT CONSTRUCTION AND PROVIDE ADDITIONAL HABITAT ENHANCEMENTS AT THE TWO PUMP STATIONS.

OBJECTIVES

KING COUNTY PROPOSES TO MONITOR AND MAINTAIN THE PLANTING AREAS FOR A PERIOD OF FIVE YEARS. IN ORDER TO EVALUATE WHETHER THE ABOVE OBJECTIVES HAVE BEEN MET, THE FOLLOWING PERFORMANCE STANDARDS WILL APPLY DURING THE FIVE-YEAR MONITORING PERIOD:

ALL UPLAND BUFFER AREAS AND WETLAND D RESTORATION AREA:

- 100% SURVIVAL OF ALL INSTALLED PLANT MATERIAL WITHIN FIRST YEAR (CONTRACTOR'S GUARANTEE PERIOD).
- ALL PLANTED DISTURBED AREAS WILL HAVE 20% COVER WITHIN 2 YEARS, 40% COVER WITHIN 3 YEARS, 60% COVER WITHIN 4 YEARS AND 100% COVER WITHIN 5 YEARS OF BEING PLANTED.
- FOUR INCHES OF WOOD CHIP MULCH WILL BE MAINTAINED OVER THE PLANTED AREA DURING YEARS 1-5.
- ALL MONITORING YEARS: NO MORE THAN 5% TOTAL COVER OF NONNATIVE INVASIVE VEGETATION WITHIN THE PLANTING AREA. INVASIVE SPECIES TO BE MONITORED WILL INCLUDE HIMALAYAN AND CUT-LEAF BLACKBERRY, BINDWEED (MORNING GLORY), ENGLISH IVY, ENGLISH HOLLY, NONNATIVE LAUREL SPECIES, SCOT'S BROOM, REED CANARYGRASS, AND ANY OTHER SPECIES LISTED ON THE KING COUNTY NOXIOUS WEED LIST. THERE SHALL BE ZERO TOLERANCE FOR KNOTWEED.

DITCHES:

- ALL MONITORING YEARS: DITCH BANKS SHALL BE STABLE, WITH GOOD ESTABLISHMENT OF SEED MIX AND NO AREAS OF BARE OR ERODING SOIL.

GENERAL WORK SEQUENCE

HEATHFIELD PUMP STATION RESTORATION

THE COUNTY WILL COMPLETE THE FOLLOWING ACTIVITIES TO RESTORE THOSE PORTIONS OF THE VASA CREEK BUFFER DISTURBED BY PROJECT CONSTRUCTION. 1,400 sf

1. COMPLETE THE REMOVAL OF ANY NONNATIVE INVASIVE VEGETATION (PARTICULARLY ENGLISH IVY AND HIMALAYAN BLACKBERRY).
2. COVER BARE SOIL AREAS WITH ARBORIST MULCH TO PREVENT EROSION, RETAIN MOISTURE, AND SUPPRESS WEEDS.
3. INSTALL NATIVE TREE AND SHRUB SPECIES.

IN ADDITION, TO COMPENSATE FOR THE PERMANENT IMPACT OF INSTALLING THE HVAC CONDENSER UNIT, THE COUNTY WILL USE SIMILAR MEASURES TO RESTORE ADDITIONAL STREAM BUFFER AREA OUTSIDE OF THE CONSTRUCTION DISTURBANCE AREA. THE PERMANENT BUFFER IMPACT AREA IS SMALL (24 SQUARE FEET) AND THERE IS AMPLE SPACE ONSITE TO PROVIDE ADDITIONAL RESTORATION TO COMPENSATE FOR THIS IMPACT.

FORCE MAIN CONSTRUCTION RESTORATION AREAS

FOLLOWING INSTALLATION OF THE NEW FORCE MAIN WITHIN DRAINAGE 1, DRAINAGE 1-1, DRAINAGE 3, AND THE ROADSIDE DITCH PORTION OF WETLAND D, THE TRENCH WILL BE BACKFILLED WITH SUITABLE MATERIAL PER ENGINEERING REQUIREMENTS AND GRADED TO MATCH PRE-CONSTRUCTION CONDITIONS. COBBLE WILL BE PLACED IN THE BED OF DRAINAGE 1, SIMILAR TO EXISTING CONDITIONS. THE DISTURBED PORTION OF THE DRAINAGES AND THE DITCH PORTION OF WETLAND D WILL BE SEEDED WITH A WEST-AREA SEED MIX. NATIVE SHRUB SPECIES WILL BE INSTALLED BETWEEN THE RESTORED DITCH AND THE ADJACENT PROPERTIES.

TO RESTORE THE BUFFER OF VASA CREEK AT THE 164TH PLACE SE CROSSING, THE COUNTY WILL MULCH BARE SOILS WITH A NATIVE SEED MIX AND INSTALL NATIVE TREE AND SHRUB SPECIES.

Project Component	Temporary Impact Areas	Permanent Impact Areas
Heathfield Pump Station		
Pump station improvements and force main	Vasa Creek buffer: 4,784 sf	Vasa Creek buffer: 24 sf
Sunset Pump Station		
Bank restoration and native landscaping	Lake Sammamish Shoreline Critical Area buffer: 300 sf	None (permanent effects will be beneficial)
New Force Main		
Pipe assembly and pullback	Lake Sammamish Shoreline Critical Area buffer: area unknown (minimum area needed to pull back pipe)	None
New force main along SE 35th Place	Drainage 1 and Drainage 1-1 channel: 1,100 sf Drainage 1 buffer: 2,925 sf	None
New force main crossing of Vasa Creek (164th Place SE)	Vasa Creek buffer: 1,275 sf	None
New force main along 164th Place SE and adjacent King County-owned parcel	Wetland D: 1,512 sf Drainage 3: 915 sf Buffer of Wetland D: 5,090 sf	None
Construction Staging		
Construction staging/laydown on King County-owned parcel along 164th Place SE	Same as above for 'new force main along 164th Place SE' Wetland D: 1,512 sf Buffer of Wetland D: 5,063 sf)	None

KING COUNTY PROPERTY RESTORATION

TO RESTORE THE PORTION OF THE WETLAND D AND WETLAND BUFFER USED FOR CONSTRUCTION STAGING/LAYDOWN, THE COUNTY WILL COMPLETE THE FOLLOWING ACTIVITIES:

1. REMOVE ALL EQUIPMENT, MATERIALS, AND DEBRIS FROM THE SITE.
2. REMOVE ANY GRAVEL OR OTHER SURFACING MATERIAL THAT HAS BEEN APPLIED AND DISPOSE OF IT PROPERLY OFFSITE.
3. DECOMPACT ALL DISTURBED SOILS.
4. APPLY AN ORGANIC SOIL AMENDMENT.
5. PLANT NATIVE TREE, SHRUB AND GROUNDCOVER SPECIES.
6. APPLY A LAYER OF ORGANIC MULCH ACROSS THE RESTORATION SITE.

MAINTENANCE AND MONITORING PLAN

THIS SECTION DESCRIBES THE PROPOSED MONITORING AND MAINTENANCE OF THE RESTORATION AREAS. THREE YEARS OF MONITORING AND MAINTENANCE WILL BE THE RESPONSIBILITY OF KING COUNTY. A PROFESSIONAL BIOLOGIST OR LANDSCAPE ARCHITECT WILL PERFORM ALL MONITORING.

PRE-CONSTRUCTION

MONITORING OF THE RESTORATION AREAS WILL BEGIN PRIOR TO CONSTRUCTION OF THE PROJECT. AT THIS TIME, THE COUNTY WILL MEET WITH THE CONSTRUCTION CONTRACTOR TO DEFINE AND CLEARLY MARK THE LIMITS OF WORK AND TESC MEASURES.

POST-CONSTRUCTION AND BEFORE PLANT INSTALLATION

AFTER THE PROJECT IS INSTALLED, THE TESC MEASURES WILL BE REMOVED. AT THIS TIME, KING COUNTY ECOLOGIST WILL MEET WITH THE LANDSCAPE CONTRACTOR TO DISCUSS SITE PREPARATION PRIOR TO INSTALLATION OF PLANTINGS. SHOULD ANY PLANT SPECIES SUBSTITUTIONS BE NECESSARY, THE PROJECT BIOLOGIST AND CONTRACTOR WILL DISCUSS AND DOCUMENT THESE FOR APPROVAL BY KING COUNTY AND CITY OF BELLEVUE. THE BIOLOGIST WILL ALSO INSPECT THE PLANT MATERIAL AND ASSIST WITH PLACEMENT OF PLANT SPECIES IN THE FIELD.

AS-BUILT INSPECTION

AFTER THE PLANTS ARE INSTALLED IN THE RESTORATION AREAS, THE LANDSCAPE CONTRACTOR WILL PROVIDE AN AS-BUILT OR RECORD DRAWING. KING COUNTY ECOLOGIST WILL VISIT THE SITE WITH THE KING COUNTY REPRESENTATIVE TO ENSURE THE PLANTS HAVE BEEN INSTALLED PROPERLY, MULCH AND SEED HAVE BEEN APPLIED, AND THERE ARE NO OTHER ISSUES THAT NEED TO BE ADDRESSED.

KING COUNTY ECOLOGIST WILL VERIFY THE AS-BUILT CONDITIONS, INSPECT THE PLANTS, RECOMMEND REPLACEMENT IF NECESSARY, AND ESTABLISH SAMPLE TRANSECTS AND PHOTO POINT LOCATIONS. PERMANENT TRANSECTS FOR MONITORING WILL BE SELECTED TO REPRESENT THE PLANTING AREAS. THE APPROPRIATE NUMBER AND LOCATION OF TRANSECTS WILL BE DETERMINED ON SITE DURING THE AS-BUILT SITE INSPECTION. PERMANENT PHOTO POINTS WILL BE LOCATED TO PROVIDE A REPRESENTATIVE VISUAL DOCUMENTATION OF SITE PROGRESS. THE PHOTO POINTS AND SAMPLE TRANSECTS WILL BE SHOWN ON THE AS-BUILT DRAWING.

MONITORING OF THE RESTORATION AREAS WILL BEGIN UPON KING COUNTY AND CITY OF BELLEVUE ACCEPTANCE OF THE AS-BUILT OR RECORD DRAWING, AND WILL CONTINUE FOR FIVE YEARS.

PERFORMANCE MONITORING

THE SITES WILL BE MONITORED ACCORDING TO THE SCHEDULE AND METHODS SHOWN IN TABLE 10. DURING EACH YEAR OF THE MONITORING PERIOD, THE SITE WILL BE MONITORED IN THE SPRING FOR THE PRESENCE OF NON-NATIVE INVASIVE VEGETATION. THIS WILL ALLOW TIME FOR MAINTENANCE OF THE SITE IF NEEDED TO REMOVE WEEDS DURING THE EARLY GROWING SEASON BEFORE SEED SET. A SECOND SITE VISIT IN THE LATE SUMMER OR EARLY FALL WILL BE MADE TO ASSESS VEGETATION COVER AND SURVIVAL AGAINST THE PROJECT PERFORMANCE STANDARDS.

Monitoring Element	Location & Methods	Year 1	Year 2	Years 3-5
Vegetation survival	Comprehensive count of installed plants (Year 1 only). Count of installed plants along a transect (Years 2 and 3).	Late Summer or Early Fall	Late Summer or Early Fall	Late Summer or Early Fall
Non-native invasive vegetation	General observations of invasive species. Percent cover data collected along a transect.	Early Spring Late Summer or Early Fall	Early Spring Late Summer or Early Fall	Early Spring Late Summer or Early Fall
Ditch stability	General observations of ditch bank stability at restoration locations.	Early Spring Late Summer or Early Fall	Early Spring Late Summer or Early Fall	Early Spring Late Summer or Early Fall

MONITORING REPORTS

AN AS-BUILT OR RECORD DRAWING WILL BE PROVIDED TO CITY OF BELLEVUE WITHIN 90 DAYS OF COMPLETION OF THE MITIGATION INSTALLATION.

MONITORING REPORTS WILL BE PREPARED DURING YEARS 1, 2, 3 AND 5 TO DOCUMENT THE FINDINGS OF THE MONITORING SITE VISITS. THE REPORTS WILL BE SUBMITTED TO CITY OF BELLEVUE BY OCTOBER 31 OF EACH MONITORING YEAR. THE MONITORING REPORTS WILL INCLUDE:

- PROJECT BACKGROUND AND MONITORING SCHEDULE;
- RESTORATION GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS;
- QUANTITATIVE PLANT SURVIVAL AND COVER ASSESSMENT AGAINST PERFORMANCE STANDARDS;
- GENERAL OBSERVATIONS OF SITE CONDITIONS AND PLANT HEALTH ACROSS THE RESTORATION AREAS;
- GENERAL OBSERVATIONS OF DITCH BANK STABILITY;
- USE OF BUFFER AREAS BY HUMANS AND WILDLIFE;
- DOCUMENTATION OF COMPLETED MAINTENANCE ACTIVITIES;
- PHOTOGRAPHS TAKEN FROM ESTABLISHED PHOTOPOINTS;
- RECOMMENDATIONS FOR ADDITIONAL MAINTENANCE ACTIONS OR CONTINGENCY MEASURES;
- VEGETATION MONITORING DATA (INCLUDED AS AN APPENDIX).

MAINTENANCE AND CORRECTIVE ACTION

KING COUNTY WILL COMMENCE MAINTENANCE OF THE RESTORATION AREAS AFTER ACCEPTANCE OF THE AS-BUILT REPORT AND CONTINUE FOR FIVE YEARS. MAINTENANCE WILL INCLUDE, BUT IS NOT LIMITED TO:

- INSTALLATION OF ADDITIONAL PLANTINGS IF THE COMBINATION OF INSTALLED PLANTS AND REGROWTH OF NATIVE VOLUNTEER SPECIES DOES NOT MEET THE MINIMUM PERFORMANCE STANDARDS DISCUSSED ABOVE. ALL PLANTS THAT DIE PRIOR TO YEAR 1 MONITORING MUST BE REPLACED.
- WEEDING WILL BE PERFORMED MONTHLY DURING THE MAINTENANCE PERIOD TO REMOVE INVASIVE, NON-NATIVE PLANT SPECIES IN THE RESTORATION AREAS.
- ADDING ADDITIONAL WOOD FIBER MULCH ACROSS THE ENTIRE RESTORATION AREAS TO MAINTAIN AT LEAST FOUR INCHES DEPTH OF MULCH.
- STABILIZING ERODED AREAS USING BIOENGINEERING TECHNIQUES THAT ARE APPROPRIATE IF MULCHING, SEEDING OR OTHER STANDARD EROSION CONTROL METHODS FAIL.
- REMOVING FROM THE SITE ALL LITTER AND NON-NATIVE INVASIVE VEGETATION.

CONTINGENCY PLAN

SHOULD ANY MONITORING REPORT REVEAL THE MITIGATION HAS FAILED IN WHOLE OR PART, AND SHOULD THAT FAILURE BE BEYOND THE SCOPE OF ROUTINE MAINTENANCE, KING COUNTY WILL PREPARE A CONTINGENCY PLAN. ONCE APPROVED BY THE CITY OF BELLEVUE, THE CONTINGENCY PLAN WILL BE INSTALLED AND WILL REPLACE THE APPROVED MITIGATION PLAN. IF THE FAILURE IS SUBSTANTIAL, THE CITY MAY EXTEND THE MONITORING PERIOD.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

DESIGNED/DRAWN: S. RADFORD
PROJECT ENGINEER: S. RADFORD
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI
SCALE: NO SCALE
REFERENCE 0 1"
FACILITY NUMBER: 330-331
CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

MITIGATION NOTES

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: L001A
SHT NO 34 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0269162\SH_Mitigation_Notes_L001A.dwg | Layout: 330-331-1038122L001A
PLOTTED: Dec 16, 2015-03:39:03pm By swradford
XREFS: SunsetHeathfield-Daze-TB-Border.dwg
IMAGES:

PLANT SCHEDULE SUNSET PUMP STATION

3,400 SF

TREES	BOTANICAL NAME / COMMON NAME	CONT	QTY
	ACER CIRCINATUM / VINE MAPLE	15 GAL	5
	BETULA JACQUEMONTII / JACQUEMONTII BIRCH	15 GAL	1
	OEMLERIA CERASIFORMIS / INDIAN PLUM	15 GAL	7
	PICEA SITCHENSIS / SITKA SPRUCE	B & B	3
	PRUNUS EMARGINATA / BITTER CHERRY	15 GAL	3
	THUJA OCCIDENTALIS `EMERALD` / EMERALD ARBORVITAE	15 GAL	34
	X CUPRESSOCYPARIS LEYLANDII / LEYLANDI CYPRESS	24"BOX	1

SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	QTY
	ARBUTUS UNEDO / STRAWBERRY TREE SHRUB	5 GAL	4
	CISTUS X HYBRIDUS / WHITE ROCKROSE	5 GAL	21
	MAHONIA AQUIFOLIUM / OREGON GRAPE	2 GAL	41
	MYRICA CALIFORNICA / PACIFIC WAX MYRTLE	5 GAL	6
	POLYSTICHUM MUNITUM / WESTERN SWORD FERN	5 GAL	43
	ROSA NUTKANA / NOOTKA ROSE	5 GAL	21
	RUBUS SPECTABILIS / SALMONBERRY	5 GAL	13
	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	2 GAL	25

GROUND COVERS	BOTANICAL NAME / COMMON NAME	CONT	SPACING	QTY
	FRAGARIA CHILOENSIS `LIPSTICK` / BEACH STRAWBERRY	4"POT	18" o.c.	185
	GAULTHERIA SHALLON / SALAL	1 GAL	18" o.c.	171
	RUBUS PENTALOBUS `EMERALD CARPET` / BRAMBLE	4"POT	12" o.c.	263
	SEDUM SP. / PREVEGETATED MAT	FLAT	12" o.c.	1,785

PLANT SCHEDULE HEATHFIELD PUMP STATION

700 SF

TREES	BOTANICAL NAME / COMMON NAME	CONT	QTY
	ACER CIRCINATUM / VINE MAPLE	15 GAL	7
	OEMLERIA CERASIFORMIS / INDIAN PLUM	15 GAL	2
	THUJA PLICATA / WESTERN RED CEDAR	15 GAL	2

SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	QTY
	ARBUTUS UNEDO / STRAWBERRY TREE SHRUB	5 GAL	10
	CISTUS X HYBRIDUS / WHITE ROCKROSE	5 GAL	27
	MAHONIA AQUIFOLIUM / OREGON GRAPE	2 GAL	19
	POLYSTICHUM MUNITUM / WESTERN SWORD FERN	5 GAL	27
	ROSA NUTKANA / NOOTKA ROSE	5 GAL	24
	SALIX LUCIDA / PACIFIC WILLOW	5 GAL	3
	SYMPHORICARPOS ALBUS / COMMON WHITE SNOWBERRY	5 GAL	17
	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	2 GAL	3

GROUND COVERS	BOTANICAL NAME / COMMON NAME	CONT	SPACING	QTY
	CAREX OBNUPTA / SLOUGH SEDGE	4"POT	12" o.c.	69
	GAULTHERIA SHALLON / SALAL	1 GAL	18" o.c.	21
	JUNCUS BALTICUS / BALTIC RUSH	4"POT	12" o.c.	137
	JUNCUS PATENS `ELK BLUE` / SPREADING RUSH	4"POT	12" o.c.	77
	RUBUS PENTALOBUS `EMERALD CARPET` / BRAMBLE	4"POT	12" o.c.	335
	SALIX LUCIDA / PACIFIC WILLOW	LIVE STAKE	6" o.c.	150

PLANT SCHEDULE SHORELINE RESTORATION

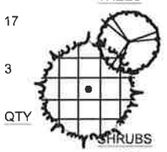
1,485 SF

SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	QTY
	LONICERA INVOLUCRATA / TWINBERRY	1 GAL	27
	PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK	1 GAL	45
	ROSA NUTKANA / NOOTKA ROSE	5 GAL	38
	RUBUS SPECTABILIS / SALMONBERRY	5 GAL	8
	SALIX LUCIDA / PACIFIC WILLOW	5 GAL	12

GROUND COVERS	BOTANICAL NAME / COMMON NAME	CONT	SPACING	QTY
	SALIX LUCIDA / PACIFIC WILLOW	LIVE STAKE	6" o.c.	321
	SCHOENOPLECTUS ACUTUS / HARDSTEM BULRUSH	2" PLUG	9" o.c.	101

LANDSCAPE RESTORATION: 1,300 SF
SOD RESTORATION: 23,900 SF
TOTAL RESTORATION: 25,200 SF

PLANT SCHEDULE VASA PARK RESTORATION



TREES	BOTANICAL NAME / COMMON NAME	CONT	QTY
	ACER CIRCINATUM / VINE MAPLE	15 GAL	3
	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	15 GAL	2

SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	QTY
	CISTUS X HYBRIDUS / WHITE ROCKROSE	5 GAL	35
	ROSA NUTKANA / NOOTKA ROSE	5 GAL	27

OTHER LANDSCAPE SYMBOLS

- ROCKERY WALL
- LAWN RESTORATION
- SOD GRASS RESTORATION
- LANDSCAPE RESTORATION
- REPLACEMENT TREE (SEE DRAWING C350 & C351 FOR EXISTING TREE INVENTORY AND REPLACMENTS)

LANDSCAPE GENERAL NOTES

1. BE RESPONSIBLE FOR COMPUTING SPECIFIC QUANTITIES OF GROUND COVERS AND PLANT MATERIALS UTILIZING ON-CENTER SPACING FOR PLANTS AND MINIMUM PLANTING DISTANCES AS INDICATED IN THE DRAWINGS.
2. GROUND COVERS SHALL BE PLANTED IN AN EQUILATERAL TRIANGULAR SPACING PATTERN AT THE ON CENTER DISTANCES INDICATED IN THE DRAWINGS. WHERE GROUND COVER ABUTS CURBING, WALKWAYS, SIGNS OR POLES, MINIMUM PLANTING DISTANCES SHALL BE 12" FROM CENTER OF PLANT TO CURB, WALKWAY, ETC, MINIMUM PLANTING DISTANCE SHALL BE 14" FROM CENTER OF TREES.
3. INSTALL EROSION CONTROL MATTING ON ALL SLOPES 4H:1V OR GREATER.

IRRIGATION GENERAL NOTES

1. THE IRRIGATION WORK INCLUDES ABANDONMENT AND REMOVAL OF EXISTING IRRIGATION PIPING, HEADS AND ASSOCIATED IRRIGATION EQUIPMENT TO FACILITATE THE WORK. VERIFY EXTENT OF EXISTING IRRIGATION SYSTEMS AT THE SUNSET AND HEATHFIELD PUMP STATION SITES. CONDUCT A MEETING WITH THE PROJECT REPRESENTATIVE PRIOR TO STARTING WORK TO VERIFY THE EXTENT OF EXISTING IRRIGATION SYSTEMS.
2. PROTECT EXISTING TREES; ALL TRENCHES UNDER DRIP LINE OF TREES SHALL BE HAND DUG.
3. VERIFY CONDITIONS AND NOTIFY PROJECT REPRESENTATIVE OF ANY DISCREPANCIES BEFORE BEGINNING ANY WORK.
5. THESE DRAWINGS DO NOT SHOW ALL OFFSETS AND FITTINGS REQUIRED FOR A COMPLETE SYSTEM.
6. INSTALLATION OF IRRIGATION SYSTEM SHALL CONFORM TO ALL LOCAL, CITY AND COUNTY CODES.
7. SLEEVE ALL LINES UNDER PAVING.
8. LOCATE PIPING IN PLANTING AREAS WHENEVER POSSIBLE.
9. SEE ELECTRICAL DRAWINGS FOR POWER CONNECTIONS
10. PLACE VALVES IN VALVE BOXES PER DETAILS SHOWN ON DWGS L003 AND L004. LOCATE VALVES, INCLUDING QUICK COUPLER VALVES, IN SHRUB/GROUND COVER PLANTING AREAS.
11. ALL NEW IRRIGATION VALVE BOX COVERS SHALL BE FITTED WITH LOCKING LIDS.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/20/2017

DESIGNED/DRAWN: A. FRISK	SCALE: NO SCALE
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

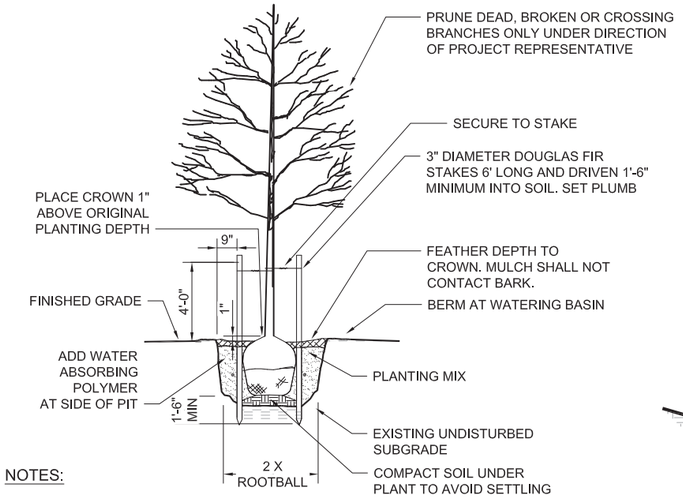
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

LANDSCAPE & IRRIGATION NOTES & LEGEND

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: L002
SHT NO / TOTAL: / 449
REV NO: 0

C:\pwworking\sea01\77719\330_331-1038122L002.dwg | Layout: 330-331-1038122L002
PI: OTTED: Mar 16, 2016-09:46:55am By: awtadfg
XREFS: SunsetHeathfieldDsign-(B-Bardin).dwg LandscapeXtdel.dwg SiteLnitmplXtdel.dwg
IMAGES:

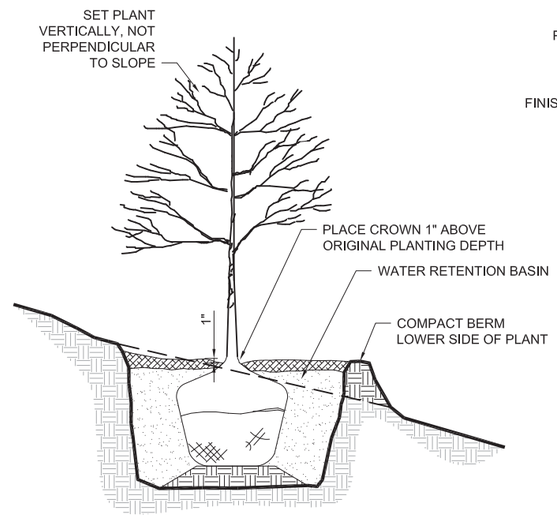


NOTES:

1. CAREFULLY CUT THE TWINE OR WIRE WRAPPED AROUND THE STEM AT THE TOP OF THE ROOTBALL.
2. REMOVE:
   A. BURLAP FROM TOP HALF OF THE ROOTBALL AFTER TREE IS PLACED IN HOLE
   B. ANY CONTAINER HOLDING THE ROOT SYSTEM
   C. ALL TAGS, LABELS, AND INORGANIC TIES AND WRAPS
3. PRUNE DEAD OR BROKEN ROOTS.
4. SLICE THROUGH ROOTS CIRCLING THE BALL. SPREAD ("BUTTER-FLY") ROOTS.
5. WIRE TREE BASKETS MAY REMAIN IN PLACE IF THE WIRE IS FOLDED OUTWARD AND COVERED BY SOIL WHEN INSTALLED. SNIP WIRE AT JOINTS AND LEAVE NO WIRE SHARPS EXPOSED.

TREE PLANTING & STAKING (DECIDUOUS & EVRGREEN)

DETAIL 1
NOT TO SCALE

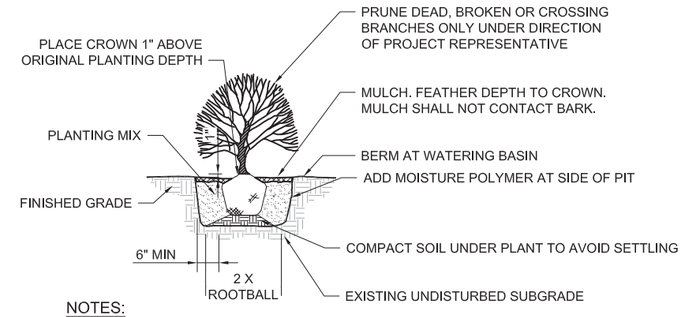


NOTE:

SEE SHRUB PLANTING DETAIL 3 AND TREE PLANTING & STAKING DETAIL 1, THIS DRAWING.

PLANTING ON SLOPE

DETAIL 2
NOT TO SCALE

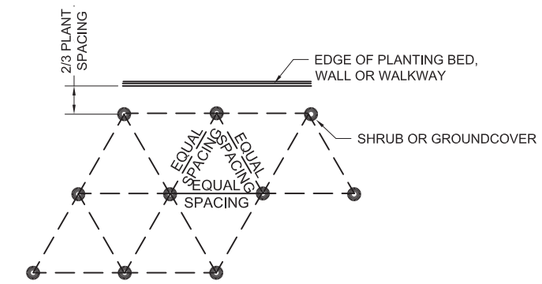


NOTES:

1. CAREFULLY CUT THE TWINE OR WIRE WRAPPED AROUND THE STEM AT THE TOP OF THE ROOTBALL.
2. REMOVE:
   A. BURLAP FROM TOP HALF OF THE ROOTBALL AFTER SHRUB IS PLACED IN HOLE.
   B. ANY CONTAINER HOLDING THE ROOT SYSTEM.
   C. ALL TAGS, LABELS, AND INORGANIC TIES AND WRAPS.
3. PRUNE DEAD OR BROKEN ROOTS.
4. SLICE THROUGH ROOTS CIRCLING THE BALL. SPREAD ("BUTTER-FLY") ROOTS.

SHRUB PLANTING

DETAIL 3
NOT TO SCALE

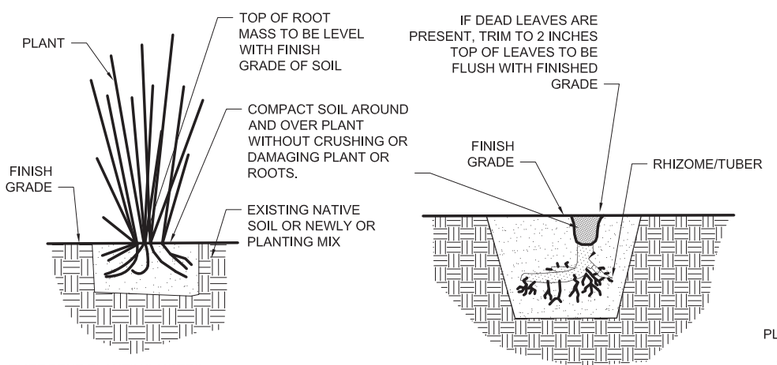


NOTES:

1. REFER TO PLANTING SCHEDULE FOR SPACING

TYPICAL PLANT SPACING

DETAIL 4
NOT TO SCALE

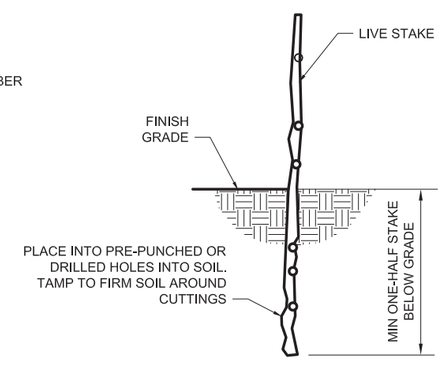


EMERGENT PLANTING NOTES:

1. MAKE PLANTING HOLE WITH PLANTING BAR OR SHOVEL. SIZE HOLE TO BE LARGE ENOUGH ONLY TO ACCOMMODATE RHIZOME AND ROOTS. DO NOT OVER EXCAVATE FOR PLANTING.
2. SOIL SHALL BE VERY MOIST TO WET AT TIME OF PLANTING.

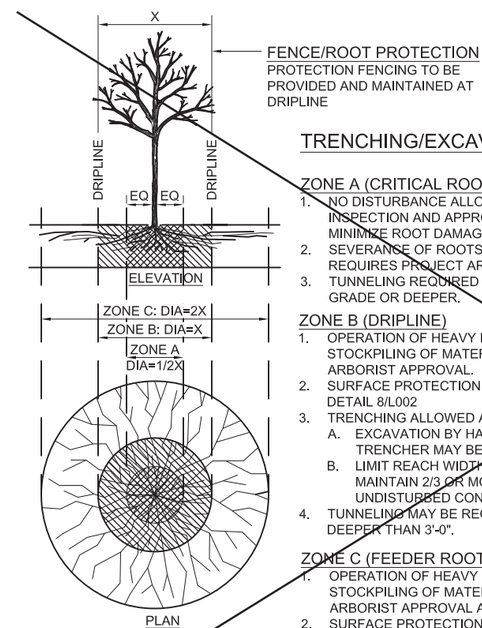
EMERGENT PLANTING

DETAIL 5
NOT TO SCALE



LIVE STAKE PLANTING

DETAIL 6
NOT TO SCALE



TRENCHING/EXCAVATION

ZONE A (CRITICAL ROOT ZONE)

1. NO DISTURBANCE ALLOWED WITHOUT SITE/SPECIFIC INSPECTION AND APPROVAL OF METHODS TO MINIMIZE ROOT DAMAGE.
2. SEVERANCE OF ROOTS LARGER THAN 2" DIA REQUIRES PROJECT ARBORIST APPROVAL.
3. TUNNELING REQUIRED TO INSTALL LINES 3'-0" BELOW GRADE OR DEEPER.

ZONE B (DRIPLINE)

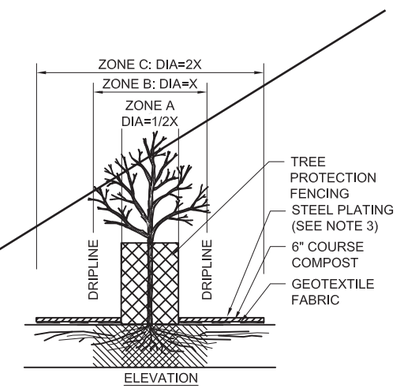
1. OPERATION OF HEAVY EQUIPMENT AND/OR STOCKPILING OF MATERIALS SUBJECT TO PROJECT ARBORIST APPROVAL.
2. SURFACE PROTECTION MEASURES REQUIRED. SEE DETAIL 8/L002
3. TRENCHING ALLOWED AS FOLLOWS:
   A. EXCAVATION BY HAND OR WITH HAND-DRIVEN TRENCHER MAY BE REQUIRED.
   B. LIMIT REACH WIDTH. DO NO DISTURB ZONE A. MAINTAIN 2/3 OR MORE OF ZONE B IN UNDISTURBED CONDITION.
4. TUNNELING MAY BE REQUIRED FOR TRENCHES DEEPER THAN 3'-0".

ZONE C (FEEDER ROOT ZONE)

1. OPERATION OF HEAVY EQUIPMENT AND /OR STOCKPILING OF MATERIAL SUBJECT TO PROJECT ARBORIST APPROVAL AND PER DETAIL 8/L002.
2. SURFACE PROTECTION MEASURES MAY BE REQUIRED. TRENCHING WITH HEAVY EQUIPMENT ALLOWED AS FOLLOWS:
   A. MINIMIZE TRENCH WIDTH
   B. MAINTAIN 2/3 OR MORE OF ZONE C IN UNDISTURBED CONDITION.

TREE PROTECTION

DETAIL 7
NOT TO SCALE



NOTES

1. GEOTEXTILE SHALL BE ROLLED OUT AND OVERLAIN ON THE EXISTING SURFACE.
2. A 6-INCH LAYER OF COURSE COMPOST SHALL BE SPREAD OVER THE FABRIC. LIGHT WEIGHT EQUIPMENT, SUCH AS PICKUP TRUCKS, FORK LIFTS. CAN MOVE OVER THIS SURFACE WITHOUT SOIL DISTURBANCE.
3. FOR HEAVY EQUIPMENT USE, SUCH AS LARGE CRANES AND SEMI-TRACTORS INSTALL STEEL PLATING OVER THE COURSE COMPOST.
4. AFTER COMPLETION OF CONSTRUCTION ACTIVITIES, ALL PROTECTIVE MEASURES SHALL BE REMOVED.

ROOT ZONE PROTECTION

DETAIL 8
NOT TO SCALE

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/29/2017

DESIGNED/DRAWN: S. RADFORD	SCALE: NO SCALE
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

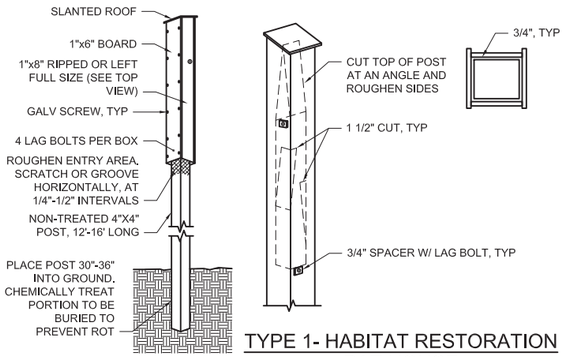
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

LANDSCAPE & IRRIGATION DETAILS 1

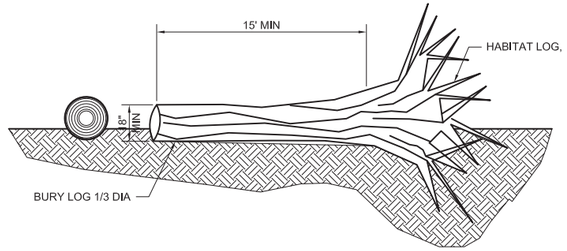
DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **L003**
SHT NO 36 / TOTAL 41
REV NO: 0

C:\pwworkdir\d0167719\330_331-1038122L003 thru L005.dwg | Layout: 330-331-1038122L003
PLOTTED: Dec 11, 2015-10:43:41am By starks
XREFS: SunsetHeathfield-Datze-TB-Border.dwg
IMAGES:



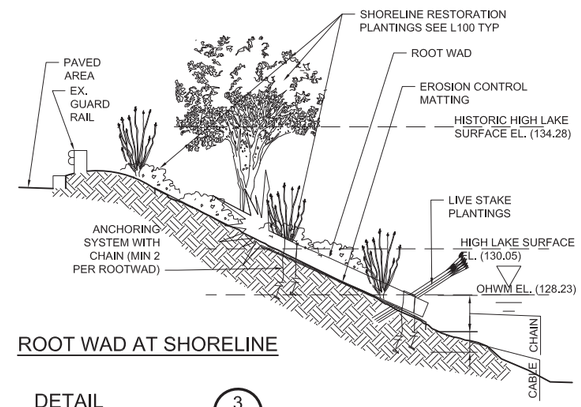
TYPE 1- HABITAT RESTORATION
BAT HOUSE

DETAIL 1 / L200
NOT TO SCALE



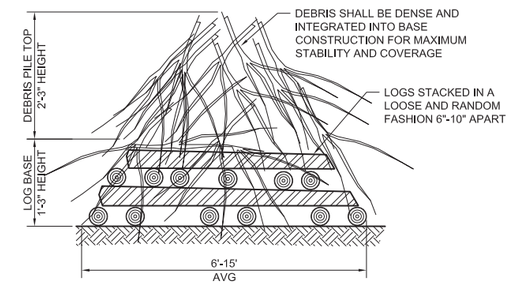
TYPE 3 - HABITAT RESTORATION
ROOT WAD

DETAIL 2 / L200
NOT TO SCALE



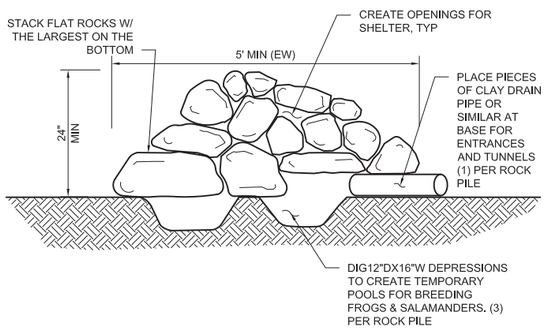
ROOT WAD AT SHORELINE

DETAIL 3 / L100
NOT TO SCALE



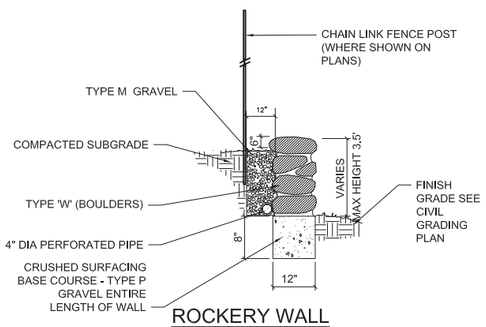
TYPE 2 - HABITAT RESTORATION
BRUSH PILE

DETAIL 4 / L200
NOT TO SCALE



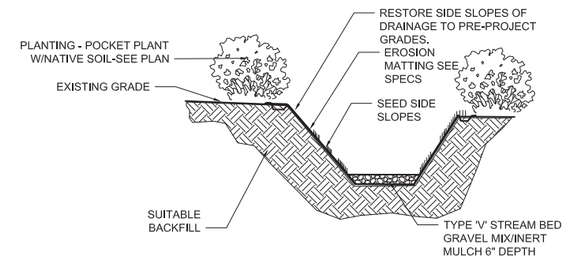
TYPE 5 - HABITAT RESTORATION
ROCK PILE

DETAIL 5 / -
NOT TO SCALE



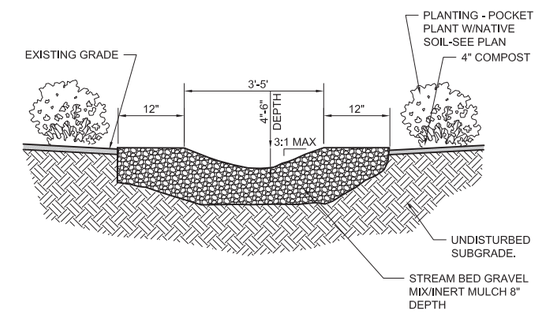
ROCKERY WALL

DETAIL 6 / L100
NOT TO SCALE



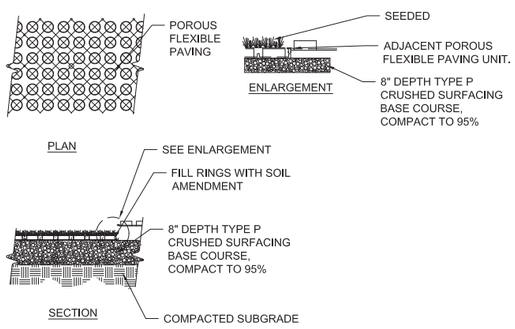
ROADSIDE DRAINAGE
RESTORATION

DETAIL 7 / -
NOT TO SCALE



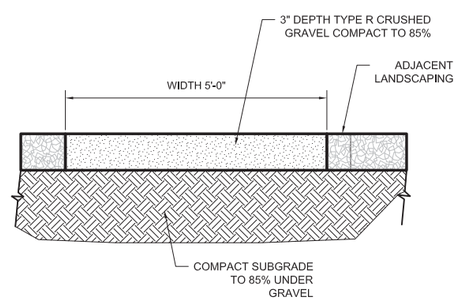
CASCADE
DRAINAGE SWALE

DETAIL 8 / L200,C201
NOT TO SCALE



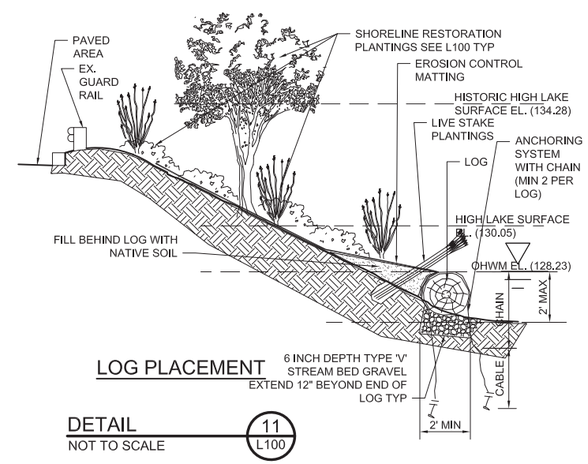
POROUS FLEXIBLE PAVING SYSTEM

DETAIL 9 / L100
NOT TO SCALE



GRAVEL PATH

DETAIL 10 / L100
NOT TO SCALE



LOG PLACEMENT

DETAIL 11 / L100
NOT TO SCALE

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/29/2017

DESIGNED/DRAWN: S. RADFORD	SCALE: NO SCALE
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

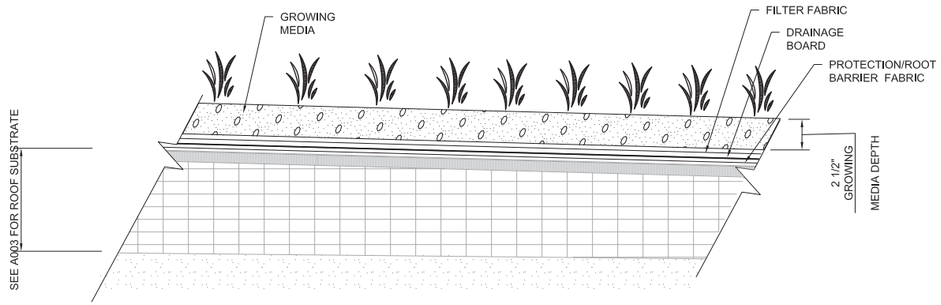
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

LANDSCAPE & IRRIGATION DETAILS 4

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **L006**
SHT NO 37 / TOTAL 41
REV NO: 0

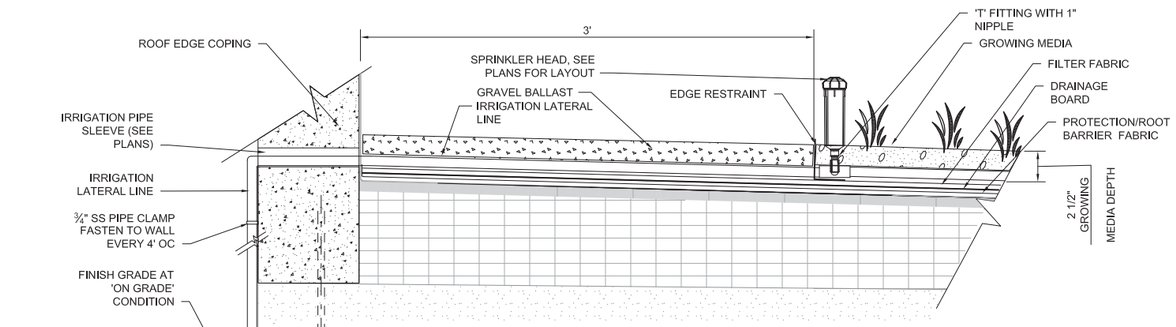
C:\pwworkdir\d0167719\330_331+1038122L006 thru L007.dwg | Layout: 330-331+1038122L006
PLOTTED: Dec 11, 2015-10:41:45am By starks
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg; S&H LANDSCAPE DETAILS.dwg
IMAGES: CascadeSectiondetail2.jpg; CreekCascadeDetail.jpg; RaingardenSection1.jpg; RaingardenSection2.jpg; RaingardenSection3.jpg; Type-1_HabitatFeatures_Page_2.jpg; Type-1_HabitatFeatures_Page_3.jpg; TYPE_2_BatBox.jpg; TYPE_4_BankEnhancement_Page_1.jpg; CascadeSectiondetail2.jp



GREEN ROOF ASSEMBLY

SECTION 1 / L100

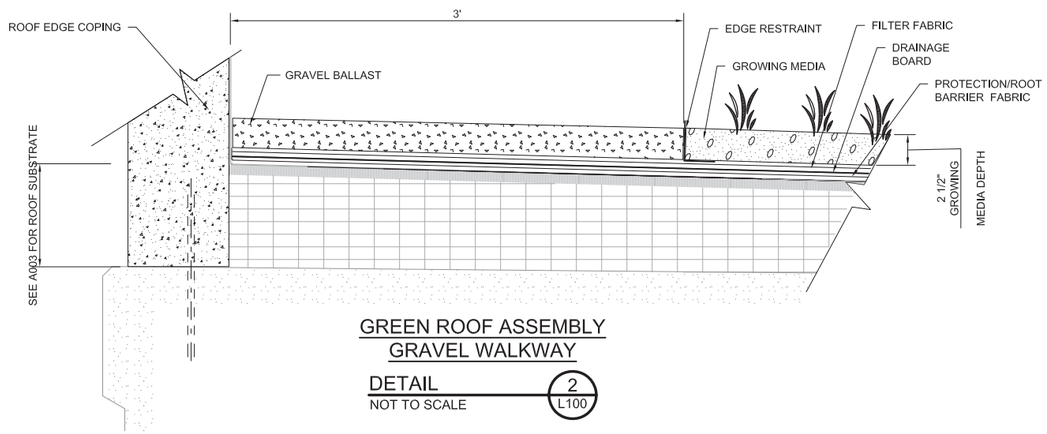
NOT TO SCALE



GREEN ROOF ASSEMBLY
IRRIGATION

DETAIL 5 / L100

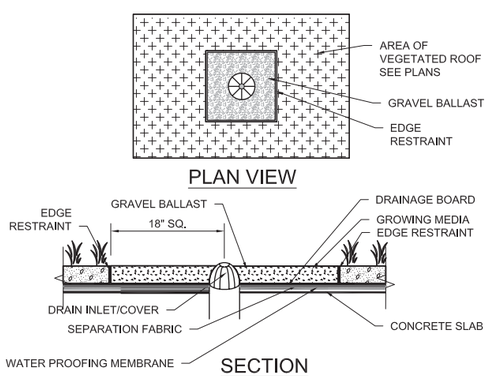
NOT TO SCALE



GREEN ROOF ASSEMBLY
GRAVEL WALKWAY

DETAIL 2 / L100

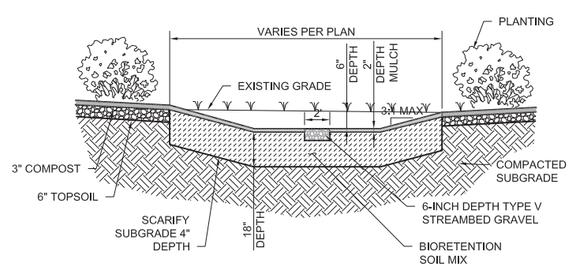
NOT TO SCALE



SECTION
GREEN ROOF DRAIN DETAIL

DETAIL 3 / L100

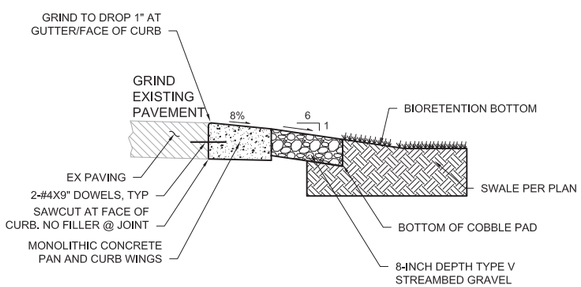
NOT TO SCALE



RAIN GARDEN SECTION - TYPICAL

DETAIL 4 / L200,C201

NOT TO SCALE

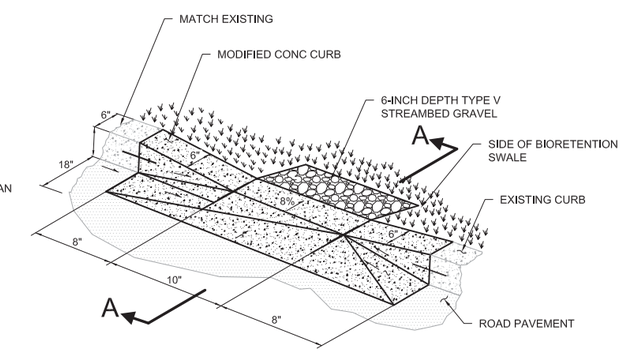


SECTION A-A

CURB CUT

DETAIL 5 / L200,C201

NOT TO SCALE



ISOMETRIC VIEW

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

CITY OF BELLEVUE

CRITICAL AREAS LAND USE PERMIT

DECEMBER 2015

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT

Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/29/2017

DESIGNED/DRAWN: S. RADFORD	SCALE: NO SCALE
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

GREEN ROOF & RAIN GARDEN DETAILS

DCN:

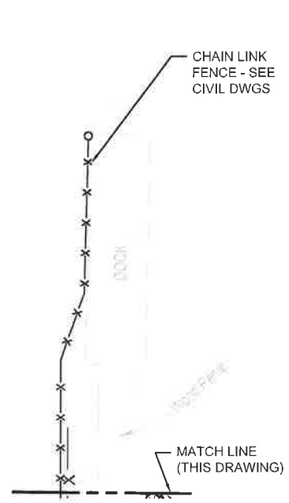
DATE: DECEMBER 2015

PROJECT FILE NO: 1038122

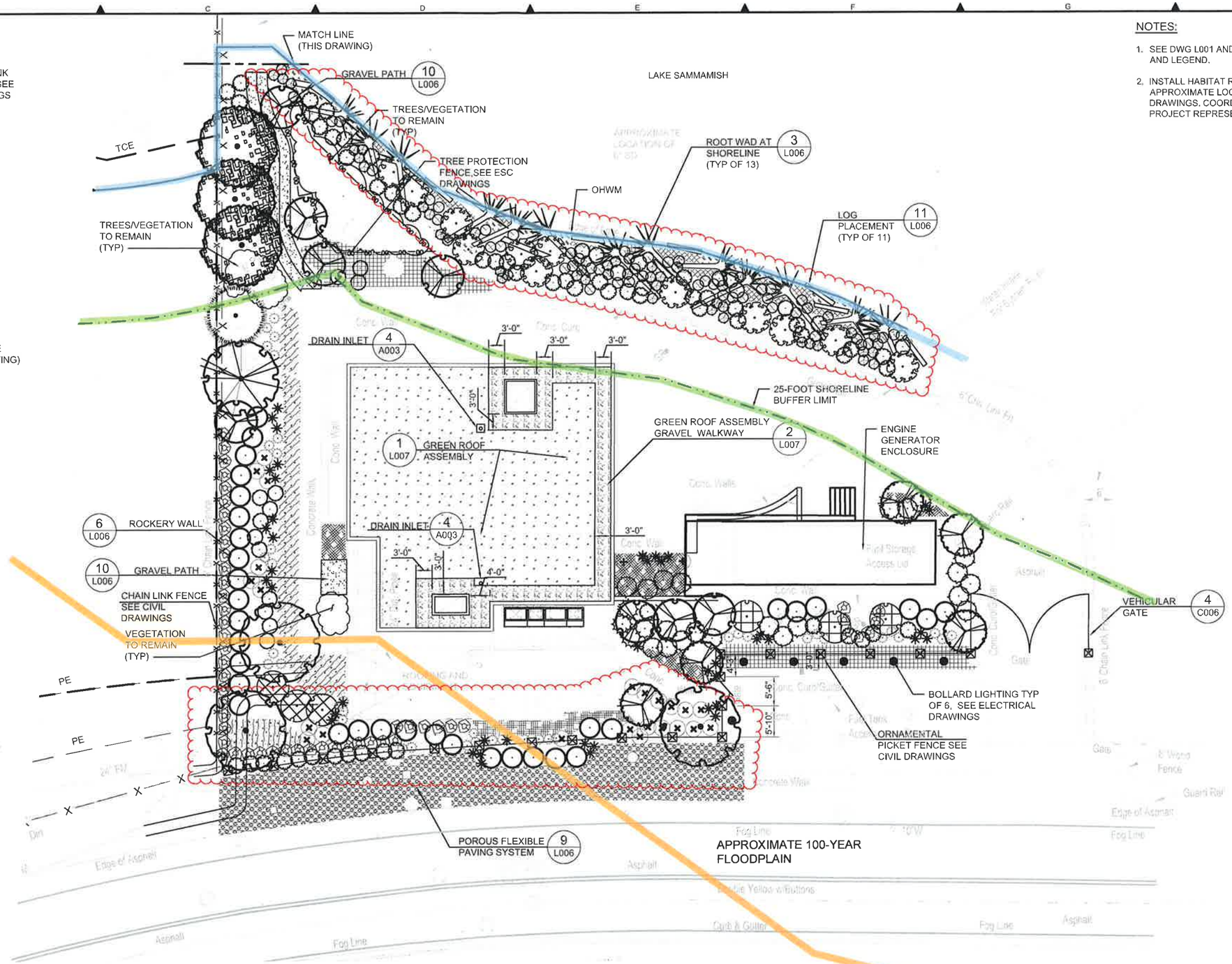
DRAWING NO: **L007**

SHT NO 38 / TOTAL 41 REV NO: 0

C:\pwworkdir\d0167719\330_331-1038122L006 thru L007.dwg | Layout: 330-331-1038122L007
PLOTTED: Dec 11, 2015-10:42:35am By starks
XREFS: SunsetHeathfield-Dsizs-TB-Border.dwg; S&H LANDSCAPE DETAILS.dwg
IMAGES: CascadeSectiondetail2.jpg; CreekCascadeDetail1.jpg; RaingardenSection1.jpg; RaingardenSection2.jpg; RaingardenSection3.jpg; Type-1_HabitatFeatures_Page_2.jpg; Type-1_HabitatFeatures_Page_3.jpg; Type-1_HabitatFeatures_Page_4.jpg; TYPE_2_BatBox.jpg; TYPE_4_BankEnhancement_Page_1.jpg; CascadeSectiondetail2.jp



PLAN



PLAN

NOTES:

1. SEE DWG L001 AND L002 FOR PLANTING NOTES AND LEGEND.
2. INSTALL HABITAT RESTORATION FEATURES AT APPROXIMATE LOCATIONS INDICATED IN THE DRAWINGS. COORDINATE LOCATION WITH PROJECT REPRESENTATIVE.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH®

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 668
EXPIRES 6/29/2017
4.4.16

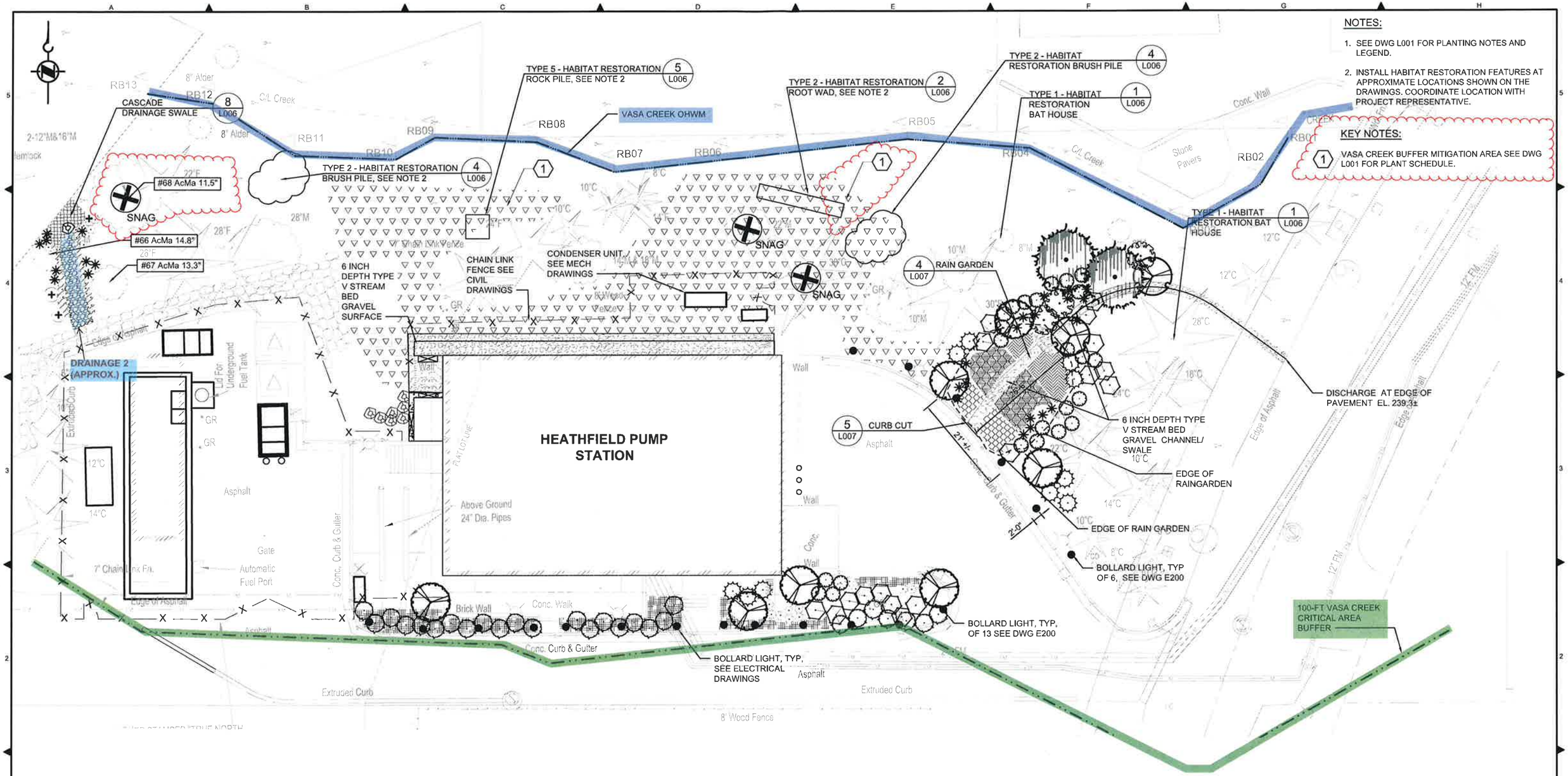
DESIGNED/DRAWN: A. FRISK	SCALE: 1"=10'
PROJECT ENGINEER: S. RADFORD	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

SUNSET LANDSCAPE RESTORATION PLAN

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: L100
SHT NO / TOTAL: / 449
REV NO: 0



NOTES:

1. SEE DWG L001 FOR PLANTING NOTES AND LEGEND.
2. INSTALL HABITAT RESTORATION FEATURES AT APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS. COORDINATE LOCATION WITH PROJECT REPRESENTATIVE.

KEY NOTES:

1 VASA CREEK BUFFER MITIGATION AREA SEE DWG L001 FOR PLANT SCHEDULE.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 6/29/2017

DESIGNED/DRAWN: A. FRISK
PROJECT ENGINEER: S. RADFORD
DESIGN APPROVAL: R. GAUFF
PROJECT ACCEPTANCE: S. NAMINI

SCALE: 1"=10'
REFERENCE 0 1"
FACILITY NUMBER: 330
CONTRACT NO: C01008C16

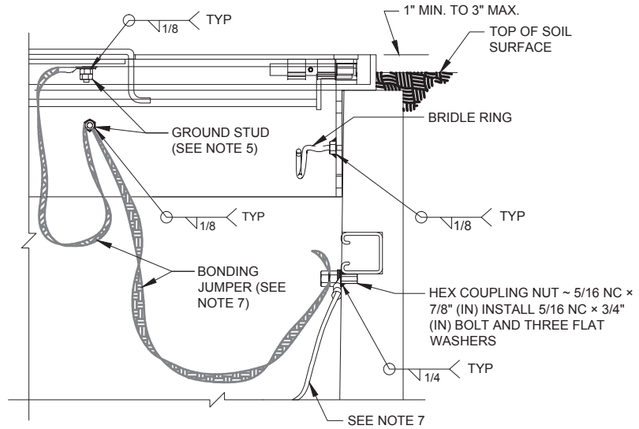
King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

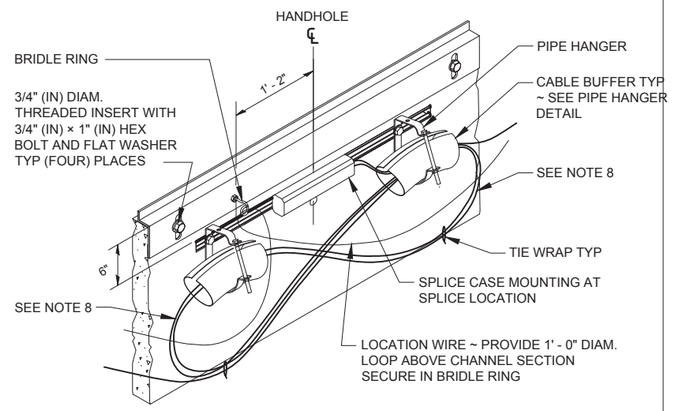
HEATHFIELD LANDSCAPE RESTORATION PLAN

DCN:
DATE: APRIL 2016
PROJECT FILE NO: 1038122
DRAWING NO: L200
SHT NO / TOTAL / 449
REV NO: 0

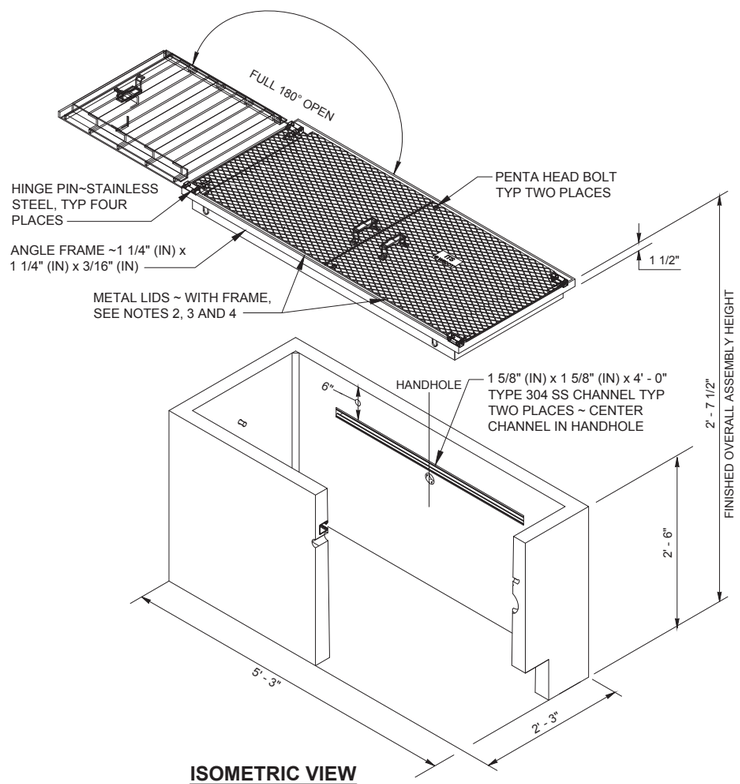
C:\pwworkdir\d0167715\330-331-1038122PL10G-L200.dwg | Layout: 330-1038122L200
PLOTTED: Mar 25, 2016-09:48:34am By swradford
XREFS: SunsetHeathfield-Dsizc-TB-Border.dwg; S&H EX SITE FEATURES.dwg; SUNSET - ROOF PLAN_EXIST.dwg; S&H ALIGNMENT 2014-12.dwg; 330-331-1038122site plan.dwg; 330-1038122C201 & C202.dwg; HEATHFIELD - MH R11 6/7.dwg; HEATHFIELD - MH R11 6/8.dwg; LandscapeModel.dwg
IMAGES:
Adobe PDF



DETAIL



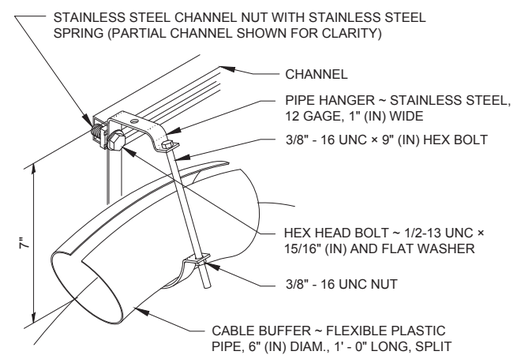
INTERNAL ISOMETRIC VIEW



ISOMETRIC VIEW

FIBER OPTIC HANDHOLE OPEN BOTTOM

DETAIL 1 / -
NOT TO SCALE



PIPE HANGER DETAIL

NOTES:

1. USE FIBER OPTIC HANDHOLE IN UNPAVED AREAS, NOT TO BE INSTALLED ON PAVED SHOULDERS OR TRAVELED WAY. USE IN SIDEWALKS, WALKWAYS, AND SHARED USE PATHS.
2. DIAMOND PATTERN SHALL BE MINIMUM 3/32" THICK.
3. INSTALLED WITH THE SURFACE FLUSH WITH AND MATCHED TO GRADE OF THE SIDEWALK, WALKWAY, AND SHARED USE PATHS.
4. THE NON-SLIP LID SHALL BE IDENTIFIED WITH PERMANENT MARKING 1/8" LINE THICKNESS FORMED WITH A STAINLESS STEEL WELD BEAD AND SHALL BE PLACED PRIOR TO HOT-DIP GALVANIZING.
5. PROVIDE 1/4-20 UNC X 3/4" GROUND STUD WITH TWO NUTS AND TWO FLAT WASHERS WELDED TO EACH LID AND COATED WITH ANTI-SEIZE COMPOUND.
6. OPEN BOTTOM HANDHOLE SHALL BE INSTALLED ON 12" BED OF TYPE E FILL MATERIAL FOR DRAINAGE.
7. THE BONDING JUMPER SHALL BE 1#8 MINIMUM X 4' OF TINNED BRAIDED COPPER. TIE GROUNDING CONDUCTOR TO ARMOR OF FIBER OPTIC CABLE AND TO 3/4" INCH DIAMETER BY 10' FEET LONG GROUND ROD.
8. AT NO TIME SHALL THE CABLE'S MINIMUM BENDING RADIUS LIMITATIONS BE COMPROMISED.

NO	REVISION DESCRIPTION	BY	APVD	DATE

MWH. HDR

CITY OF BELLEVUE
CRITICAL AREAS LAND USE PERMIT
DECEMBER 2015

KENNETH L. MCGOWAN, STATE OF WASHINGTON, 15608, REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: E. PILAPIL	SCALE: NO SCALE
PROJECT ENGINEER: K. MCGOWAN	REFERENCE 0 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS AND FORCE MAIN UPGRADE

FIBER OPTIC HANDHOLE DETAILS

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: **E008**
SHT NO 41 / TOTAL 41
REV NO: 0

BORDER FILE EDITION: KCWTD-2012-Dsize-TB-Border
C:\pwworkdir\d0167888\330_331-1038122E008.dwg | Layout: Layout
PLOTTED: Nov 02, 2015-02:13:14pm By epilapil
XREFS: SunsetHeathfield-Dsize-TB-Border.dwg
IMAGES: