

Sunset and Heathfield Pump Stations and Force Main Upgrade Project

Critical Areas Land Use Permit (LO) Application Narrative Description

King County WTD is requesting a Critical Areas Land Use Permit to disturb, develop or otherwise modify critical areas and critical area buffers as allowed per Bellevue Land Use Code Section 20.25H. Project features within critical areas and buffers that are included as part of this application are:

- 25-Foot Shoreline Buffer of Lake Sammamish – Sunset Pump Station Upgrades; Force Main (HDD pullback in Vasa Park Resort)
- 100-Year Floodplain – Sunset Pump Station Upgrades; Force Main (HDD pullback and staging in Vasa Park Resort)
- 100-Foot Stream Buffer of Vasa Creek – Force Main (trenchless crossings at 164th Place SE and 163rd Avenue SE); Heathfield Pump Station Upgrades
- Drainages 1 and 1-1 – Force Main (along SE 35th Place)
- Drainage 2 – Restoration and rehabilitation on Heathfield Pump Station Site
- Drainage 3 – Force Main along 164th Place SE
- Wetland D and 60-foot Wetland Buffer – Force Main (HDD pullback on King County Parcel adjacent to 164th Place SE)

A Critical Areas Report has been prepared for this project and is enclosed.

The following sections provide: 1) Applicant Responses to Applicable Regulations, 2) Background, and 3) Project Description.

Applicable Regulations

The City of Bellevue (City) regulates activities in critical areas and their applicable buffers under Land Use Code (LUC) Section 20.25, otherwise known as the City's Critical Areas Ordinance (CAO). Environmental critical areas regulated by the City include streams, wetlands, geologic hazard areas, habitat associated with species of local importance, areas of special flood hazard, and shorelines. The critical areas identified in the vicinity of the proposed project include streams, wetlands, shorelines, and areas of special flood hazard.

Specific procedural (permit) requirements, as well as critical area classifications, required buffer widths, and mitigation requirements for the City will be discussed in further detail in the applicable sections that follow.

Uses and Development in Critical Areas (LUC 20.25H)

The proposed wastewater infrastructure modifications and force main replacement are considered allowable uses or development in critical areas in the City (LUC 20.25H.055), provided that mitigation measures are implemented properly.

Allowed Uses (LUC 20.25H)

The following sections identify the allowed uses in critical areas in the City.

The LUC 20.25H.055 notes:

The uses and/or development described in subsection B of this section may be undertaken in a critical area or critical area buffer if all of the requirements of the referenced sections are met. A Critical Areas Land Use Permit shall be required unless otherwise noted.

B. Uses and Development Allowed within Critical Areas.

The following chart lists uses and development that may be allowed in a critical area, critical area buffer, or critical area structure setback. The sections noted in the chart for each use or activity and critical area refer to the applicable performance standards that must be met.

Applicant’s Response:

New or expanded utility facilities and utility systems are an allowed use in critical areas, critical area buffers, or critical area structure setbacks under LUC 20.25H.055. A summary from the LUC identifying each critical area is provided in Table 1, below; the sections noted under each critical area refer to applicable performance standards that must be met.

Table 1: Allowed Uses Chart from LUC 20.25H.055

Allowed Use or Development	Streams	Wetlands	Shorelines	Areas of Special Flood Hazard
New or expanded utility facilities, utility systems, stormwater facilities	20.25H.055.C.2 20.25H.080.A 20.25H.080.B	20.25H.055.C.2 20.25H.100	20.25H.055.C.2 20.25E.080.B 20.25E.080.U	20.25H.055.C.2 20.25H.180.C

General Performance Standards (LUC 20.25H)

Below is a description of general performance standards required for new utility systems in streams and wetlands. Performance standards in areas of special flood hazard are discussed on page 8 of this document. Performance standards in shorelines are addressed in the Shoreline Substantial Development Permit application submittal.

Specific performance standards are also addressed in the enclosed Critical Areas Report.

Public Rights of Way

The LUC 20.25H.055(C) notes:

2. New and Expanded Uses or Development. As used in this section, “facilities and systems” is a general term that encompasses all structures and improvements associated with the allowed uses and development described in the table in subsection B of this section:

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:

i. The location of existing infrastructure;

Applicant's Response:

The existing conveyance system flows from Sunset Pump Station, beneath West Lake Sammamish Parkway SE, along SE 38th Street/164th Place SE, along 163rd Avenue SE to Heathfield Pump Station, and from Heathfield Pump Station along SE 35th Place. There is no technically feasible alternative force main alignment. Disturbance associated with construction of the project will occur mainly within City rights-of-way and King County-owned properties and one private property (Vasa Park Resort), resulting in minimal, temporary impacts to both adjacent critical areas and private property.

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

Applicant's Response:

King County Wastewater Treatment Division (WTD) is proposing to replace approximately 6,000 lineal feet of 12-inch-diameter force main with a larger 24-inch-diameter force main to provide additional capacity and to accommodate projected growth in the service area.

iii. 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;

Applicant's Response:

King County WTD has taken steps to avoid and minimize critical areas impacts through design and placement of the proposed project:

- Project activities will occur within City rights-of-way and King County-owned properties where possible.
- Horizontal directional drilling (HDD) and other trenchless techniques are proposed along portions of the pipeline alignment to avoid and minimize impacts to roadside wetlands, project area streams, steep slopes, and significant trees.
- Trenchless techniques are proposed for pipeline crossings of Vasa Creek to avoid and minimize construction impacts to the creek and associated buffer/riparian corridors.
- Removal of riparian (streamside) vegetation will be minimized.
- Any temporarily disturbed areas will be replanted with native shrubs and trees, or native hydroseed mix as appropriate.

With these measures in place, the project will avoid direct impacts to six of the seven wetlands in the project area. The project will avoid direct impacts to Vasa Creek, Unnamed Stream 1 and Unnamed Stream 2, but will involve direct impacts to Drainages

1, 1-1, 2, and 3 in the project area. See Table 2, below, for a list drawings associated with each affected critical area.

Table 2: Affected Critical Areas and Associated Drawings

Critical Area	List of Drawings
Wetland D and Drainage 3	G002, G002A, C010, C023, C362, L001, L001A, L006
25-Foot Shoreline Buffer - Lake Sammamish	G002, G002A, C011, C011A, C020, D-C100, C101, C350, C352, C353, L001A, L002, L006, L007, L100
Vasa Creek (164th Place SE)	G002, G002A, C024, C306, C355, L001, L001A
Vasa Creek (163rd Avenue SE)	G002, G002A, C026, C307, C356, L001, L001A
Drainages 1 and 1-1	G002, G002A, C027, C309, C357, L001, L001A, L006
Vasa Creek Buffer (Heathfield Pump Station)	G002, G002A, C026, D-C200, C201, C307, C350, C356, L001, L001A, L002, L006, L007, L200
Drainage 2	G002, G002A, D-C200, C201, C307, L001, L001A, L006, L200

Most impacts will be temporary; however, 24 square feet of permanent impacts will occur to the 100-foot stream buffer of Vasa Creek at Heathfield Pump Station from installation of a new condenser (see Drawing C201).

Permanent impacts will occur to Drainage 2 near Heathfield Pump Station; however, impacts will be positive as this drainage will be restored and its slope will be stabilized (see Drawings C201, L006, and L200).

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

Applicant's Response:

For this project, the cost of avoiding disturbance would be greater compared to the environmental impact of the proposed disturbance due to the infeasibility of relocating the pump stations and force main outside of critical areas.

Trenchless technologies were considered for the force main installation along SE 35th Place to avoid temporary impacts to Drainages 1 and 1-1; however, there were technical challenges associated with significant elevation change, limited right-of-way width, the presence of utilities, geometric installation requirements, and the logistics of maintaining single lane traffic during construction.

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

Applicant's Response:

The proposed project will result in temporary impacts to wetlands and wetland buffers, drainage channels and drainage buffers, stream buffers, and the Lake Sammamish 25-foot Shoreline Critical Area buffer. Permanent impacts will occur to Vasa Creek's 100-foot stream buffer (24 square feet) from installation of a new condenser unit. Impacts are discussed in further detail in Section 6 of the Critical Areas Report. Disturbed areas will

be restored following construction per Section 7 of the Critical Areas Report and restoration/landscaping plans shown in the attached Project Plan Set (Drawings C353, C355, C356, C357, C362, L001, L001A, L002, L003, L006, L007, L100, and L200).
Construction of the project will not result in any increase in flood levels during the occurrence of the base flood discharge and will not interfere with floodplain functions; therefore, impacts to the floodplain are not anticipated.

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:

i. Location and design shall result in the least impacts on the critical area or critical area buffer;

Applicant's Response:

The project design avoids and minimizes impacts to wetlands, streams, and buffers wherever feasible as discussed above. However, total avoidance will not be possible due to the location of the project and the constraints associated with design guidelines and the existing terrain. The project will generally follow the existing force main and will occur within City rights-of-way and King County owned properties where possible. Following construction, disturbed areas will be restored per Section 7 of the Critical Areas Report and restoration/landscaping plans shown in the attached Project Plan Set (Drawings C353, C355, C356, C357, C362, L001, L001A, L002, L003, L006, L007, L100, and L200).

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

Applicant's Response:

Best Management Practices (BMPs) to protect water quality will be implemented during construction in accordance with the City's Stormwater Management Guide and Washington Department of Ecology NPDES Construction Stormwater General Permit requirements. As part of these requirements, the contractor will be required to submit and follow a Stormwater Pollution Prevention Plan (SWPPP); Temporary Erosion and Sediment Control (TESC) Plan; and Spill Prevention, Control, and Countermeasures (SPCC) Plan.

Temporary erosion and sediment control measures and BMPs will at a minimum include: catch basin inserts; covering of utility trenches at the end of each working day; and additional erosion control materials such as plastic sheeting, straw bales, sand bags, pumps, etc. Drawings C009, C352, C355, C356, C357, and C362 show TESC plans. Other measures to minimize impacts include the following:

- Construction impacts will be confined to the minimum area necessary to complete the project.
- Exposed soils will be stabilized with a vegetative cover or other erosion control treatment immediately following construction.
- Areas disturbed by construction activities will be revegetated with native vegetation within one year or one growing season after construction is complete.

Landscaping in compliance with City of Bellevue standards will be installed to control erosion once the facility is functional.

- Equipment refueling will be conducted within a designated refueling area away from streams or wetland areas. Spill control and emergency response plans will be implemented for fueling and concrete activity areas.
- Oil, fuels, or chemicals will not be discharged to surface waters or onto land where there is a potential for reentry into surface waters.
- Dewatering water disposal will be to existing sewer system pending satisfactory water quality testing. If water quality is below acceptable discharge levels water will be collected in Baker tanks and disposed of off-site.

iii. 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;

Applicant's Response:

A Biological Evaluation (BE) has been prepared for the project. The BE found that the proposed action may have minor effects on aquatic habitat within the Action Area, primarily the potential for some minor turbidity associated with in-water and near-water work within and adjacent to tributaries to Vasa Creek. This includes site improvements at Heathfield Pump Station adjacent to Vasa Creek and potential anchor placement and removal in Lake Sammamish for HDD pipe pullback. These effects will be minimized or eliminated due to the implementation of TESC measures, SPCC plan, and timing construction to work in the low-flow period. In addition, some minor, temporary removal of vegetation will occur along the Vasa Creek tributaries. Any temporary decrease in habitat function resulting from vegetation removal is expected to be insignificant, and disturbed areas will be restored following project construction,

Due to the lack of any substantial direct effects of the proposed action, the project will have no adverse effect on Essential Fish Habitat (EFH) for the federally managed Pacific salmon, specifically Chinook salmon and coho salmon. Any potential effects will be temporary and have an insignificant effect on EFH.

Two copies of the BE prepared for this project are included in the Critical Areas Land Use Permit application packet. A "no effect" determination was received from NOAA Fisheries on September 25, 2015.

iv. 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;

Applicant's Response:

Trenchless techniques are proposed for two pipeline crossings under Vasa Creek to avoid and minimize construction impacts to the creek and associated buffer/riparian corridors. HDD and other trenchless techniques are proposed along portions of the

pipeline alignment to avoid and minimize impacts to roadside wetlands, project area streams, steep slopes, and significant trees.

v. All work shall be consistent with applicable City of Bellevue codes and standards;

Applicant's Response:

The proposed project will comply with LUC 20.25H.055(C).

vi. 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;

Applicant's Response:

No work is proposed that would pose a significant impact on aquatic area flow peaks, duration or volume of flood storage. Trenchless crossings of Vasa Creek are proposed.

vii. 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; and

Applicant's Response:

In order to upgrade interior HVAC equipment at Heathfield Pump Station, the new condenser unit must be located adjacent to the north side of the station to accommodate the points of connection with new equipment within the building (see Drawing C201). The County explored methods to avoid impacts to Vasa Creek buffer but determined that locating the new condenser unit in the buffer is the only technically feasible method. **This will result in 24 square feet of permanent stream buffer impacts.** The stream buffer area is currently dominated by non-native invasive vegetation, primarily English ivy, with limited understory species such as scattered sword fern, and an overstory of western red cedar and Douglas fir trees. The buffer vegetation provides some screening and wildlife habitat functions, although these functions are limited by the lack of a native shrub understory. Impacts can be mitigated through restoration actions (described in Section 7 of the attached Critical Areas Report, and shown on Drawing L200).

vii. 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.

Applicant's Response:

The project design avoids and minimizes impacts to wetlands, streams, and buffers wherever feasible as discussed above. However, total avoidance will not be possible due to the location of the project and the constraints associated with design guidelines and the existing terrain. **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. Specific restoration details are provided in Section 7 of the Critical Areas Report and restoration/landscaping plans shown in the attached Project Plan Set (Drawings C353, C355, C356, C357, C362, L001, L001A, L002, L003, L006, L007, L100, and L200).

Critical Areas Land Use Permit Decision Criteria (LUC 20.30P)

A discussion of the decision criteria related to approving a Critical Areas Land Use Permit is provided below.

LUC 20.30P.130 Decision Criteria.

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

A. The proposal obtains all other permits required by the Land Use Code; and

Applicant's Response:

All other land use permits, including a Land Use Exemption and Shoreline Substantial Development Permit, will be obtained from the City of Bellevue.

B. 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; and

Applicant's Response:

Best available construction, design and development techniques were used during project development. The project design avoids and minimizes impacts to wetlands, streams, and buffers wherever feasible. However, total avoidance will not be possible due to the location of the project and the constraints associated with the existing terrain and existing utilities.

C. The proposal incorporates the performance standards of Part 20.25H LUC to the maximum extent possible; and

Applicant's Response:

The performance standards of LUC 20.25H for streams and wetlands have been incorporated to the maximum extent possible as discussed beginning on Page 2 of this document; and below for applicable floodplain performance standards.

D. The proposal will be served by adequate public facilities including streets, fire protection, and utilities; and

Applicant's Response:

As it is located in an urban area, the project is served by adequate public facilities.

E. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC 20.25H.210; except that a proposal to modify or remove vegetation pursuant to an approved Vegetation Management Plan under LUC 20.25H.055.C.3.i shall not require a mitigation or restoration plan; and

Applicant's Response:

Section 7 of the Critical Areas Report contains the conceptual restoration approach for this project as required by City of Bellevue LUC. Restoration/landscaping plans are also shown in the attached Project Plan Set (Drawings C353, C355, C356, C357, C362, L001, L001A, L002, L003, L006, L007, L100, and L200).

F. The proposal complies with other applicable requirements of this code.

Applicant's Response:

The project complies with all applicable requirements of the LUC Part 20.25H Critical Areas Overlay District; see the Critical Areas Report for more information.

Areas of Special Flood Hazard (LUC 20.25H.175)

Areas of special flood hazard (the 100-year floodplain) are regulated under LUC 20.25H.175. FEMA Flood Insurance Rate Maps show the 100-year floodplain (Zone A and Zone AE) along Vasa Creek from 163rd Avenue SE downstream (east) to Lake Sammamish. Work within this area is required to comply with the performance standards in LUC 20.25H.180 (for example, no rise in base flood elevation; mitigation for any loss of flood storage volume; protection of utilities; anchoring of structures; etc.).

The proposed force main alignment crosses Vasa Creek twice within the area mapped as a special flood hazard area (at 163rd Avenue SE and at 164th Place SE). Where the proposed force main alignment crosses Vasa Creek, the 100-year peak flows are contained within the existing culvert (163rd Avenue SE) and the existing creek channel (164th Place SE). The pipeline at these crossings will be constructed underneath the culvert and bridge crossings utilizing trenchless construction methods. At the completion of construction, all trenchless construction pits will be backfilled and surface restored to preexisting conditions.

Areas along the shoreline of Lake Sammamish, including the Sunset Pump Station site and Vasa Park Resort HDD pullback area, are mapped as a special flood hazard area (see Figure 1 of this document).

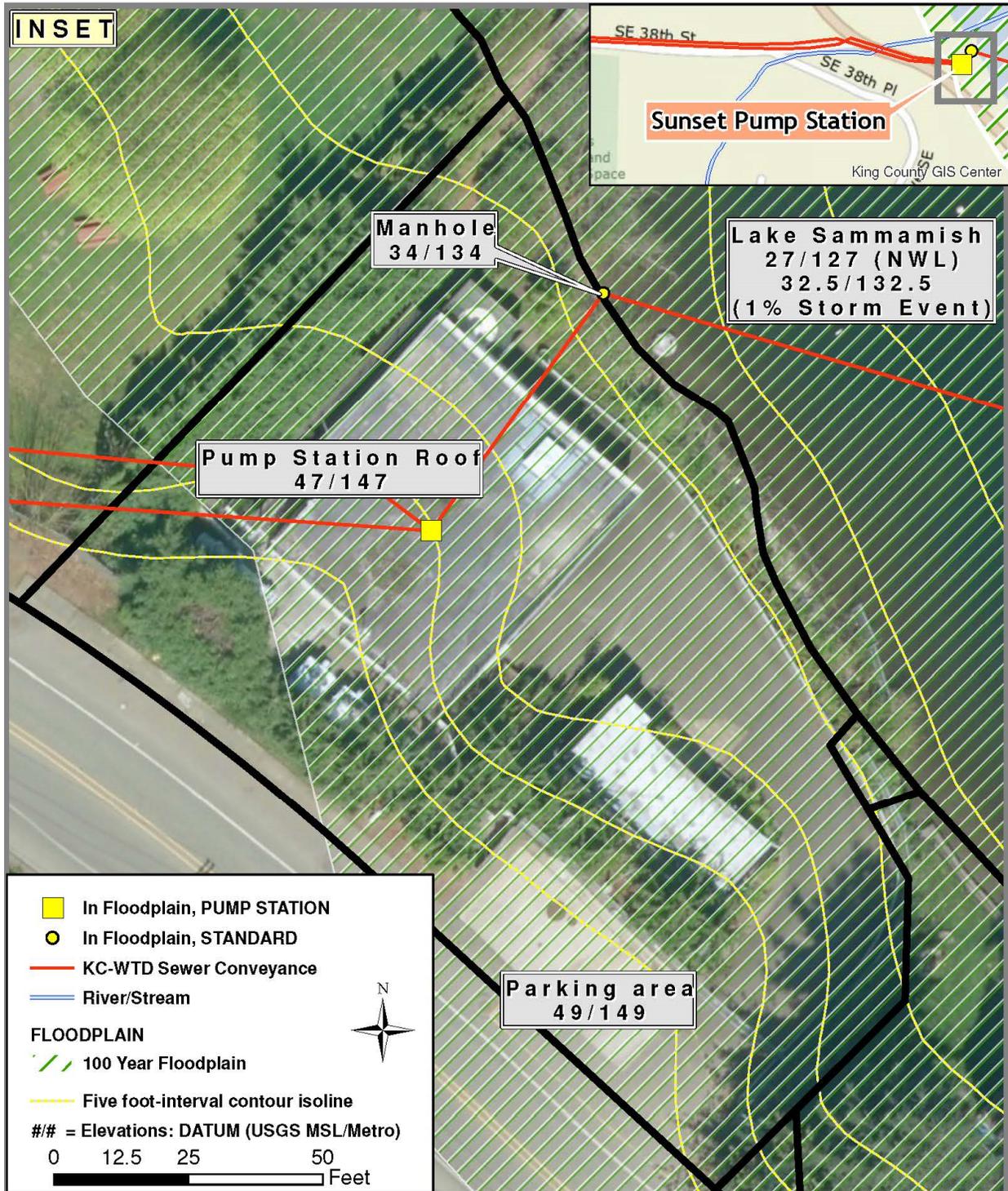
Construction of the proposed project will comply with all applicable standards and provisions described in LUC 20.25H.180. All design and construction methods will be in accordance with accepted standards of practice for meeting the provisions of the City code. As a result, construction of the project will not result in any increase in flood levels during the occurrence of the base flood discharge and will not interfere with floodplain functions.

The attached Vulnerability of Wastewater Facilities to River Flooding (King County 2014) document is provided in support of this Critical Areas Land Use Permit application.

Critical Areas Report – Decision Criteria (LUC 20.25H.255)

The Critical Areas Report prepared for this project demonstrates that the project provides equivalent or better protection of critical area functions and values, adequate resources are available to ensure completion of proposed mitigation and monitoring, the project will not affect functions and values of critical areas and buffers off-site, and the development is compatible with other uses and developments in the project area.

Figure 1: 100-Year Floodplain Near Sunset Pump Station



NWL: Normal Water Level
Source: King County WTD, 2013

City of Bellevue Standards Proposed for Modification (LUC 20.25H.250.B.3)

City of Bellevue code requires project applicants to identify any critical area standards which their project seeks to modify (LUC 20.25H.250.B.3). The project does not seek to modify any of these standards.

Background

The Sunset Pump Station and Heathfield Pump Station operate in series to convey wastewater originating in Issaquah, the Sammamish Plateau, and some local Bellevue sewers to the Eastgate Interceptor in the Eastgate area of Bellevue. The pump stations and associated 12-inch-diameter force main were constructed in 1965. A 24-inch-diameter force main was installed in 1983 to operate jointly with the existing 12-inch-diameter force main. The two pump stations were completely rebuilt in 1987 to increase peak flow to the current capacity of 18 million gallons per day (mgd).

The Sunset and Heathfield Pump Stations and Force Main Upgrade Project is necessary to upgrade the pump stations and force main system to convey a firm capacity of 26 mgd and a peak flow of 30 mgd to respond to increased wastewater volumes associated with projected population growth in the area served by this sewer system, which are projected to exceed this system's current capacity of 18 mgd.

King County Wastewater Treatment Division's (WTD) proposed Sunset and Heathfield Pump Stations and Force Main Upgrade Project consists of the following key elements:

- Upgrades to the Sunset Pump Station
- Upgrades to the Heathfield Pump Station
- A new 24-inch-diameter force main to replace an existing 12-inch-diameter force main.

Project Description

Project features within critical areas and buffers are as follows and described in further detail below:

- 25-Foot Shoreline Buffer of Lake Sammamish – Sunset Pump Station Upgrades; Force Main (HDD pullback in Vasa Park Resort)
- 100-Year Floodplain – Sunset Pump Station Upgrades; Force Main (HDD pullback and staging in Vasa Park Resort)
- 100-Foot Stream Buffer of Vasa Creek – Force Main (trenchless crossings at 164th Place SE and 163rd Avenue SE); Heathfield Pump Station Upgrades
- Drainages 1 and 1-1 – Force Main (along SE 35th Place)
- Drainage 2 – Restoration and rehabilitation on Heathfield Pump Station Site
- Drainage 3 – Force Main along 164th Place SE
- Wetland D and 60-foot Wetland Buffer – Force Main (HDD pullback on King County Parcel adjacent to 164th Place SE)

Exterior Modifications: At the Sunset Pump Station, located on the western shoreline of Lake Sammamish, the existing standby generator will be replaced with a larger unit to support the new pumps in the event of a power outage. Other activities on the Sunset Pump Station property will include installing new rooftop electric and HVAC equipment, replacing the fence

surrounding the pump station property, installing a green roof, updating site landscaping with native plants, and landscape and habitat enhancements. **The Sunset Pump Station is located within the 25-foot shoreline buffer of Lake Sammamish and the 100-year floodplain.**

At the Heathfield Pump Station, the existing standby generator will be replaced with a larger unit similar to the Sunset Pump Station. The above-ground fuel tank to support the generator will also be replaced with a larger tank. Other work includes exterior building modifications, roof replacement, new electrical metering switchboards, and a new HVAC condenser unit installed adjacent to the north side of the pump station building. A large number of new electrical service and generator conductors are required to be routed from the new PSE transformers and the new emergency generator on the west side of Heathfield Pump Station to the electrical switchboards inside of the pump station. The new conductors will be routed using a combination of new buried duct bank and electrical vault on the west side of the pump station, and wall-mounted cable trays on the north side of the pump station.

Other activities on the Heathfield Pump Station property will include vegetation management and the installation of stormwater bioretention systems such as rain gardens and habitat enhancements. **The Heathfield Pump Station is located within the 100-foot buffer of Vasa Creek.**

Force Main Replacement: The project includes installation of a new 24-inch-diameter force main sewer line between the Sunset and Heathfield Pump Stations, and from the Heathfield Pump Station to the Eastgate Interceptor sewer line. This new force main will operate in conjunction with an existing 24-inch-diameter force main. An existing 12-inch-diameter force main will be taken out of operation.

In total, approximately 6,000 lineal feet of force main pipe will be installed. The new force main will be installed using a number of different construction methods, including cut and cover (open trench), jack and bore (or other trenchless method), and HDD (trenchless). Cut and cover construction will involve the excavation of a relatively uniform linear trench, pipe installation, trench filling, and subsequent surface restoration. Cut and cover installation will generally follow road rights-of-way between Sunset Pump Station, Heathfield Pump Station, and the Eastgate Interceptor. **Open cut installation will impact critical areas at several locations along the force main alignment, including within Vasa Park Resort to the HDD pullback area and parallel to 164th Place SE where it will require excavation through Wetland D and Drainage 3 (see Drawings C010, C023, and C362), and within Drainage 1 and Drainage 1-1 (see Drawings C027 and C357).**

Trenchless installation will involve the excavation of entry and exit pits, soil boring and installation of a steel casing, pipe installation, and subsequent filling and surface restoration of entry and exit pits. Trenchless installation will generally be used in areas of the alignment where King County seeks to reduce project impacts to sensitive environmental resources, existing private or public property interests, or other elements of the project area.

Installation using HDD, described in further detail below, will generally be used to reduce project impacts to traffic flow on West Lake Sammamish Parkway SE, existing underground utility infrastructure on SE 38th Street, and significant trees, forest habitat, and steep slopes on the south side of SE 38th Street.

HDD Pipe Assembly and Pullback Operations, Vasa Park Resort: The 24-inch-diameter force main will require pre-assembly to utilize HDD installation methods. At the contractor's discretion, the pipe may be pre-assembled and pulled back through the HDD borehole from either end of the HDD portion, from either the Vasa Park Resort site as shown on Drawing C011 or the King County-owned parcel as shown on Drawing C010. Due to proximity of the Sunset Pump Station end of the HDD borehole to Lake Sammamish, if the pipe is pulled back from the Sunset Pump Station end across the 25-shoreline habitat buffer, approximately 1,800 feet of pipe will need to be floated on the surface of the lake before it is pulled back into the borehole. The pipe sections will be joined in an upland area in Vasa Park Resort, adjacent to the Sunset Pump Station, and the assembled pipe will be pulled onto the water surface of Lake Sammamish as additional pipe sections are added (see Drawing C011A). The pipe will be elevated on rollers or with equipment (such as a long boom excavator) in order to minimize shoreline ground disturbance and the potential for turbidity in Lake Sammamish.

Pipe assembly operations will require use of watercraft, most likely a tug/tender, to help advance the pipe into the waters of Lake Sammamish as it is assembled. The pipe will be handled so that it does not drag across the beach. Pipe assembly operations will take approximately one week. To eliminate sedimentation from propeller wash, the tug/tender will not be allowed to ground and will maintain a minimum distance of 20 feet from the shoreline. The pipe is sufficiently buoyant to float on the surface and will be marked as required to identify it as a navigational hazard. The orientation of the pipe will be generally perpendicular to the Lake Sammamish shoreline and parallel to the existing dock. The pipe will extend into the lake for a maximum distance of approximately 1,800 feet, although one end of the pipe will remain on the shore. Once pipe assembly is completed the pipe will be positioned to minimize its impact to watercraft, and anchored in place using floating buoys, until pipe pullback operations commence. Once HDD pullback operations commence, it will require several days to completely pull the pipe out of the lake and through the borehole.

The number of buoys will be determined based on visual safety criteria for lake users and boaters, and HDD pullback into Lake Sammamish will be done during the off-season for recreational use. Individual buoys will be attached to their own anchor or a series of buoys could be attached to cable strung from the shore to the boat. Approximately 10 to 15 buoy anchors will be dropped and set from the tug/tender along the length of the pipe. Anchor depths will vary from 10 to 80 feet below the surface.

The deployed pipe may be floated on the lake for two to four weeks depending on contractor sequencing of the HDD work. This is a static activity as the pipe is simply anchored in place and requires no other in-water construction activities during this time. All anchors and buoys will be removed from the lake following completion of pipe pullback operations.

HDD staging areas within Vasa Park Resort include temporary access for construction equipment; relocation of an existing building (to be reset following construction); control cabin; HDD drill rig; drill rod trailer; generator; tool storage area; pipe laydown area; and pipe staging/fusion area. **The pipe pullback path will cross the 25-foot shoreline critical area buffer from Lake Sammamish and the 100-year floodplain** (see Drawing C011).

Proposed Habitat Enhancements: King County WTD is considering landscape and habitat improvements at the Sunset Pump Station and Heathfield Pump Station sites as part of the Envision™ Sustainability program (see Drawings L100 and L200).

Improvements at the Sunset Pump Station site will include the following:

- Green roof;
- Native vegetation landscaping; and
- Bank restoration along Lake Sammamish including removal of some shoreline armoring (riprap) on the upper shoreline, installation of “soft” erosion control measures, and planting with native species. This work will occur above the ordinary high water mark of the lake.

Improvements at the Heathfield Pump Station site will include the following:

- Rain garden;
- Drainage restoration and stabilization;
- Native vegetation landscaping; and
- Habitat features include brush piles, bat houses, and snags.

Construction Schedule

Project construction is anticipated to occur over 30 months beginning in spring 2017 with final completion in fall 2019. The HDD portion of the force main installation will occur during the off-season for lake-based recreation and could be completed in either 2017-2018 or 2018-2019. The open trench portion of the force main construction and the trenchless crossings of Vasa Creek will occur during the dry season and could be completed in either 2018 or 2019.

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

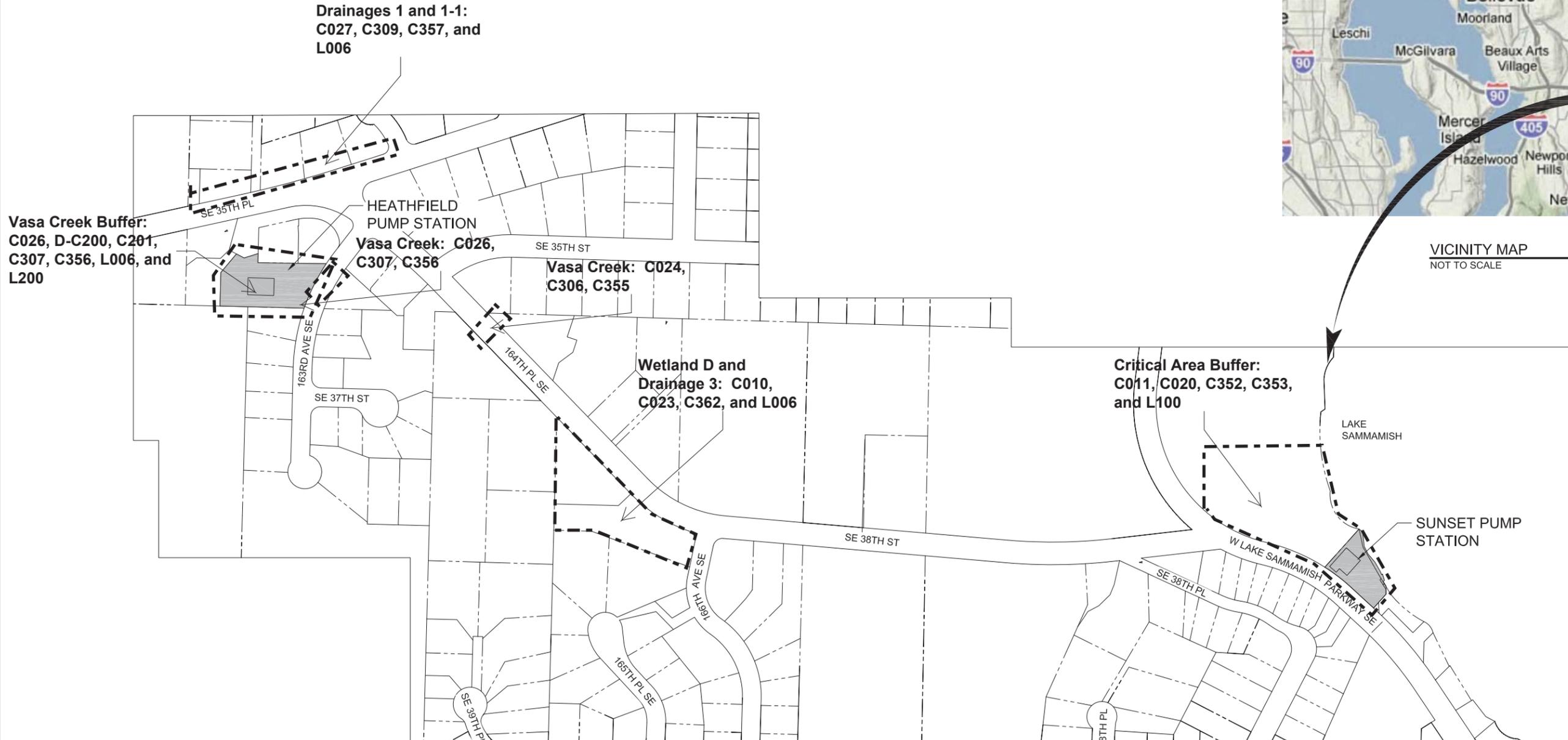


KING COUNTY

Department of
Natural Resources and Parks
Wastewater Treatment Division



VICINITY MAP
NOT TO SCALE



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

SCALE: 1"=150'

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 PLOTTED: Nov 13, 2015, 11:53:11am By: shuakj
 XREFS: SunsetHeathfield-Dzize-TB-Border.dwg; Wm12pl.dwg; Wm12pl.dwg; PLOT_DATE.dwg
 IMAGES: King County Map 2.jpg; S&H Overall Map.jpg; Wetlands11x17.tif;

NO	REVISION DESCRIPTION	BY	APVD	DATE



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:
AS NOTED

REFERENCE
0 1"

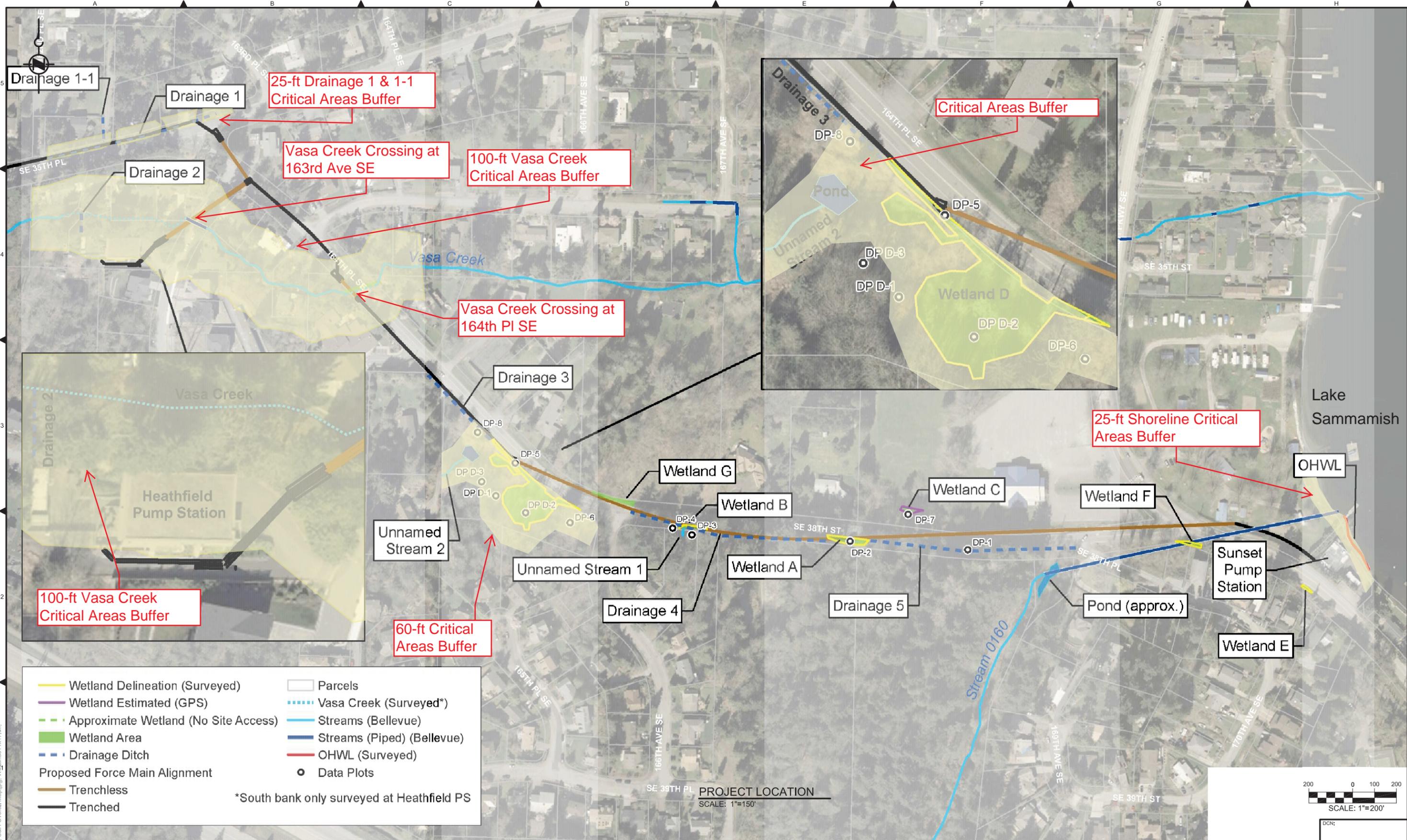
FACILITY NUMBER:
330-331

CONTRACT NO:
C01008C16



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



Legend

- 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

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 PLOTTED: Nov 13, 2015 04:41:45pm By: snuakj
 XREFS: SunsetHeathfield-Size-TB-Board.dwg; W112pl.dwg; W112pl.dwg; PLOT_DATE.dwg
 IMAGES: King County Map 2.jpg; S&H Overall Map.jpg; Wetlands11x17.tif;

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
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 DECEMBER 2015

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



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

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

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 PLOTTED: Dec 11, 2015, 04:28:30pm By: shuakj
 XREFS: SunsetHeathfield-Daize-TB-Header.dwg
 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015

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



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 / TOTAL 4 / 41	REV NO: 0

MATERIAL SYMBOLS

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

DEMOLITION SYMBOLS

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

ARCHITECTURAL SYMBOLS

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

LINETYPE SYMBOLS

	CENTERLINE
	MATCHLINE
	INVISIBLE OR HIDDEN LINE
	BREAKLINE
	GRID LINE

UTILITY LINETYPE SYMBOLS

EXISTING UTILITIES		EXISTING UTILITIES		PROPOSED UTILITIES	
	SD		SS		G
	W		P		OP
	IR		OT		T
			FO		COM

SYMBOLS

	EXISTING CATCH BASIN		HORIZONTAL CONTROL POINT		TRANSMISSION TOWER
	NEW CATCH BASIN		VERTICAL CONTROL POINT		POWER OR UTILITY VAULT
	EXISTING MANHOLE		WORK POINT		POWER TRANSFORMER
	NEW MANHOLE		SPOT ELEVATION		ELECTRICAL MANHOLE
	CLEANOUT		WETLAND FLAG AND ID		ELECTRICAL BOX
	ABANDON & PLUG PIPE		FINISH GRADE ELEVATION		COMMUNICATION MANHOLE
	THRUST BLOCK		TOP OF CURB (OR WALL) ELEVATION		SLOPE
	EXISTING FIRE HYDRANT		BOTTOM OF CURB (OR WALL) ELEVATION		INTERSTATE ROUTE
	NEW FIRE HYDRANT		WATER SURFACE		U.S. ROUTE
	EXISTING WATER METER		WATER SURFACE LEVEL		STATE ROUTE
	EXISTING VALVE		TRAFFIC CONTROL BOX		SECTION CORNER
	NEW VALVE		TRAFFIC SIGNAL HANDHOLE		QUARTER SECTION CORNER
	EXISTING PRESSURE RELIEF VALVE		TRAFFIC SIGNAL POLE		HANDICAP PARKING
	BOLLARD		PEDESTRIAN PUSH BUTTON POLE		TRAFFIC DIRECTION ARROW
	EXISTING GAS METER		TRAFFIC LIGHT		TRAFFIC TURN ARROW
	EXISTING GAS VALVE		TRAFFIC SPAN WIRE		CENTERLINE
	SIGNS AND/OR POSTS		EXISTING UTILITY POLE		SPRINGLINE
	DECIDUOUS TREE		EXISTING UTILITY POLE WITH ANCHOR		PROPERTY LINE
	EVERGREEN TREE		NEW UTILITY POLE		COMMUNICATION MH
	BRUSH OR TREE LINE		NEW UTILITY POLE WITH ANCHOR		CATCH BASIN INLET PROTECTION
	STRAW BALE		LUMINAIRE		SILTY PROTECTION IN END OF DITCH
	INLET PROTECTION		POLE LIGHT		TREE INVENTORY CALLOUT
	CULVERT		ARM LIGHT		EQUIPMENT TAG
	SANDBAG		ARM LIGHT (TWO)		TREE PROTECTION
	SOIL BORING & DESIGNATION		POWER BOX		PILASTER FOR PICKET FENCE
	MONUMENT		HANDHOLE		TEST HOLE FOR UTILITY POTHOLING
	HORIZONTAL AND VERTICAL CONTROL POINT				

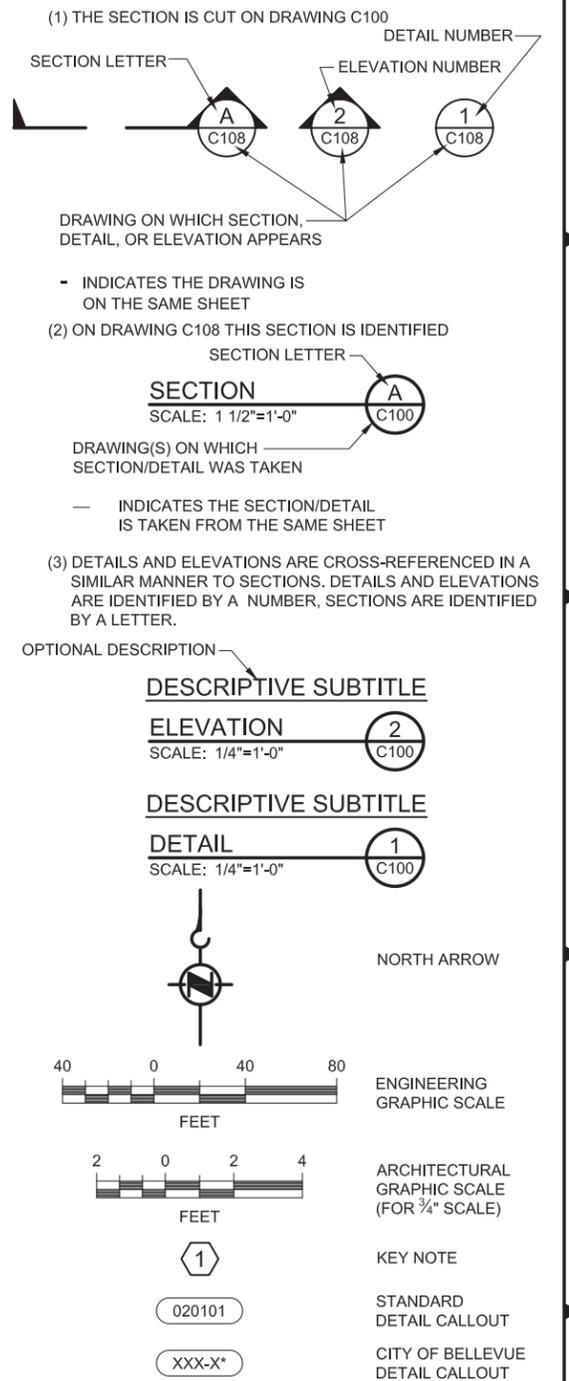
GEOTECHNICAL INSTRUMENTATION

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

LINE DESIGNATIONS

	EXISTING CONTOUR
	PROPOSED CONTOURS
	TEMPORARY CONSTRUCTION EASEMENT
	PERMANENT EASEMENT
	SUBSURFACE PERMANENT EASEMENT
	PROPERTY LINE
	RIGHT OF WAY
	FENCE
	CONSTRUCTION FENCE
	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
	DOWN SLOPE ARROW AND VALUE
	ALIGNMENT STATIONING
	EASEMENT CALLOUT BUBBLE
	JERSEY BARRIER
	CITY LIMIT
	STATE/COUNTY LIMIT
	RAILROAD
	GRIND AND OVERLAY LIMIT

TYPICAL SECTION AND DETAIL REFERENCING SYSTEM



LANDSCAPE SYMBOLS

REFER TO DWGS L001 AND L002 FOR LANDSCAPE SYMBOLS

C:\pwworking\0167691330_331-1038122\G006.dwg | Layout: 331-1038122\G006
 PLOTTED: Dec 10, 2015 11:40am By starks
 XREFS: SunsetHealthfield-Daize-TB-Border.dwg
 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015



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



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

**GENERAL
 SYMBOLS**

DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: G006
SHT NO / TOTAL 5 / 41
REV NO: 0

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

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NO	REVISION DESCRIPTION	BY	APVD	DATE

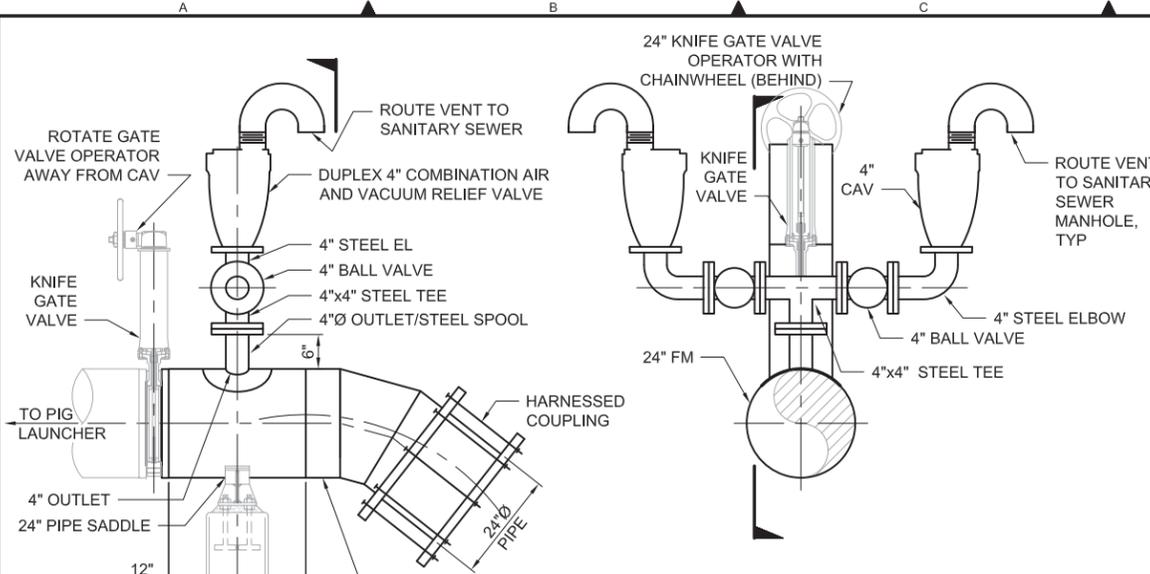


CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015



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



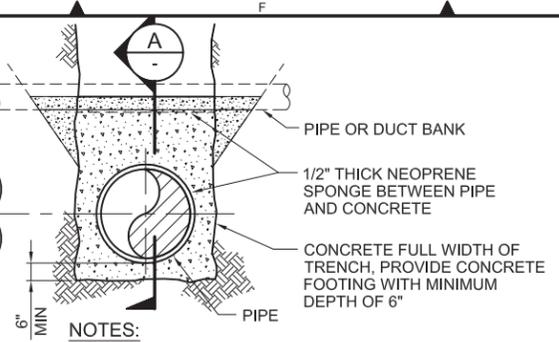
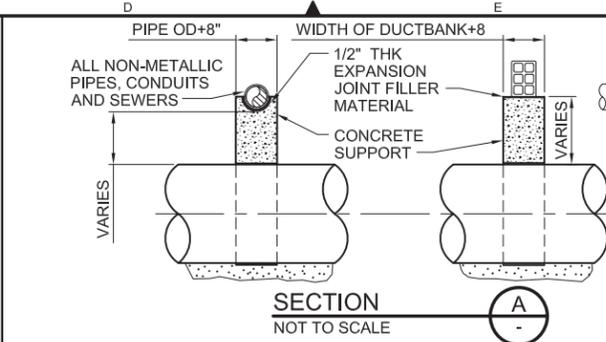


NOTES:

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

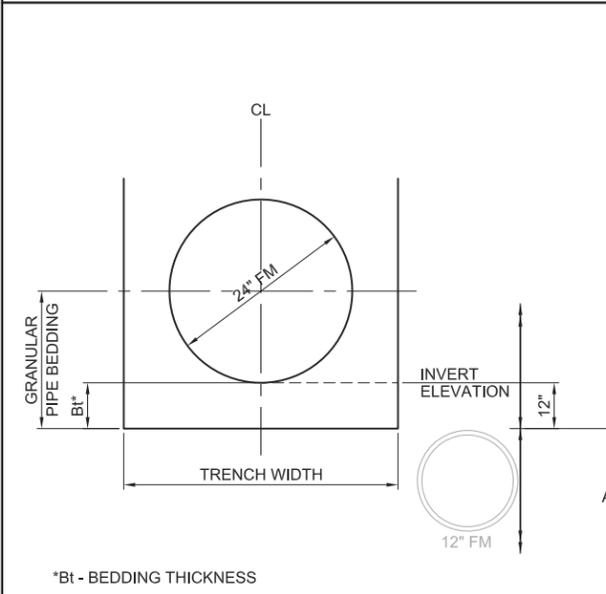
SCHEDULE OF CAV	
SUNSET PUMP STATION	
CAV 331 100A	- NEW 24" FM
CAV 331 100B	- NEW 24" FM
CAV 331 100C	- EXISTING 24" FM
CAV 331 100D	- EXISTING 24" FM
HEATHFIELD PUMP STATION	
CAV 330 100A	- NEW 24" FM
CAV 330 100B	- NEW 24" FM
CAV 330 100C	- EXISTING 24" FM
CAV 330 100D	- EXISTING 24" FM

DUPLEX COMBINATION AIR AND VACUUM RELIEF VALVE ASSEMBLY C-221



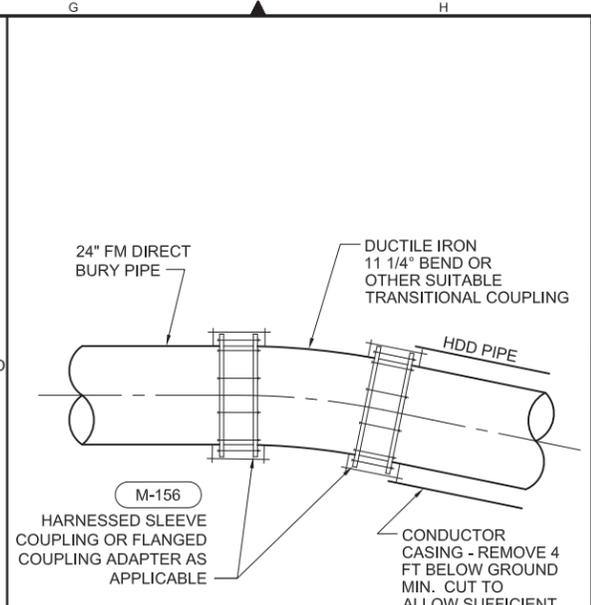
- NOTES:**
- UNDERGROUND UTILITY SUPPORTS ARE TO BE PROVIDED WHEN MINIMUM CLEARANCE OF 12 INCHES CANNOT BE PROVIDED.
 - EXISTING PIPE OR DUCT BANK SHALL BE FIRMLY SUPPORTED DURING INSTALLATION OF NEW PIPE AND SUPPORT.
 - BACKFILL TO BE BROUGHT UP UNIFORMLY ON BOTH SIDES OF CONC SUPPORT

UTILITY SUPPORT C-608



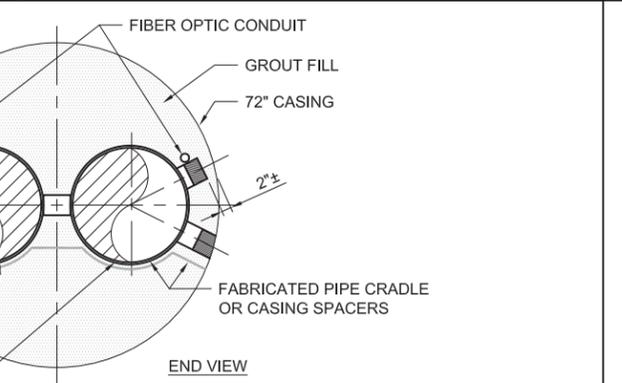
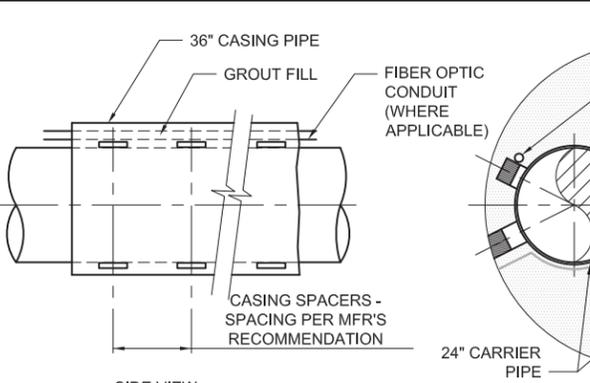
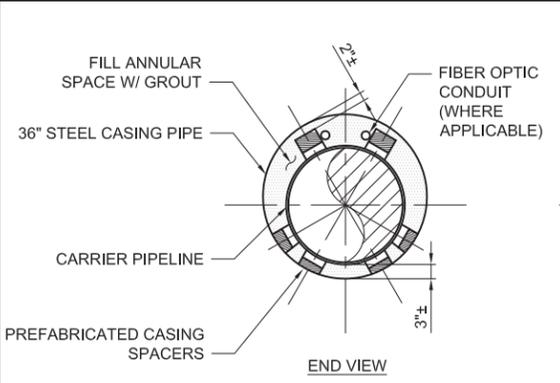
- NOTES:**
- WHEN REMOVING PIPE, VOID SHALL BE BACKFILLED WITH BEDDING MATERIAL OR CONTROLLED DENSITY FILL (CDF).
 - ABANDONMENT SHALL INCLUDE CUTTING, FILLING OF PIPE, AND CAPPING, IN ACCORDANCE WITH COB S-15.
 - APPLIES ONLY TO EXISTING 12" FM PIPING WITHIN TRENCH WIDTH.
 - REMOVE 12" FM IF IT FALLS WITHIN THE 12 INCHES HORIZONTAL OF THE 24" FM.
 - 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:**
- EXACT COUPLING FOR TRANSITION FITTING TO BE DETERMINED BASED ON PIPE TYPES SELECTED FOR PROJECT.
 - ADDITIONAL FITTINGS MAY BE REQUIRED TO ACCOMMODATE OD'S OF SELECTED PIPE.

HDD/DIRECT BURY PIPE TRANSITION DETAIL C-906



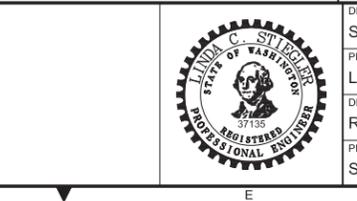
- NOTES:**
- CASING SPACERS SHALL BE DESIGNED TO SLIP OVER WELD SURFACE.
 - ONE SPACER SHALL BE PLACED NOT MORE THAN TWO FEET FROM EACH END OF CASING. ONE SPACER SHALL BE PLACED ON THE SPIGOT END OF EACH PIPE SEGMENT.
 - SEE PLAN AND PROFILE DRAWINGS FOR CARRIER PIPE INVERT ELEVATION.
 - 72" CROSSING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

CASING/CARRIER PIPE DETAIL C-909

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
LAND USE PERMIT**
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DESIGNED/DRAWN:
S. FARNAM
SCALE:
NO SCALE
PROJECT ENGINEER:
L. STIEGLER
REFERENCE
DESIGN APPROVAL:
R. GAUFF
FACILITY NUMBER:
330-331
PROJECT ACCEPTANCE:
S. NAMANI
CONTRACT NO:
C01008C16

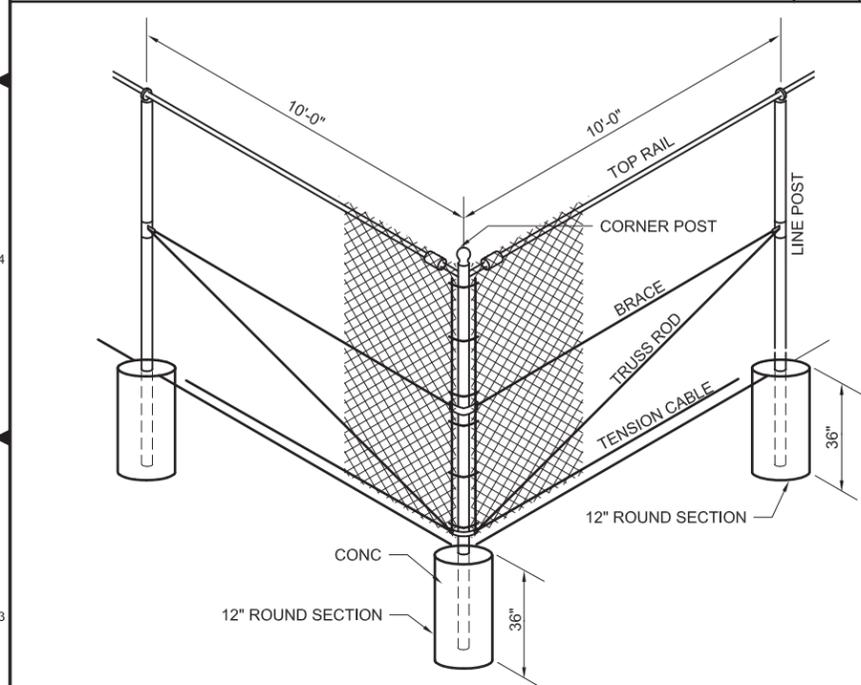


DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE
**CIVIL
STANDARD DETAILS 1**

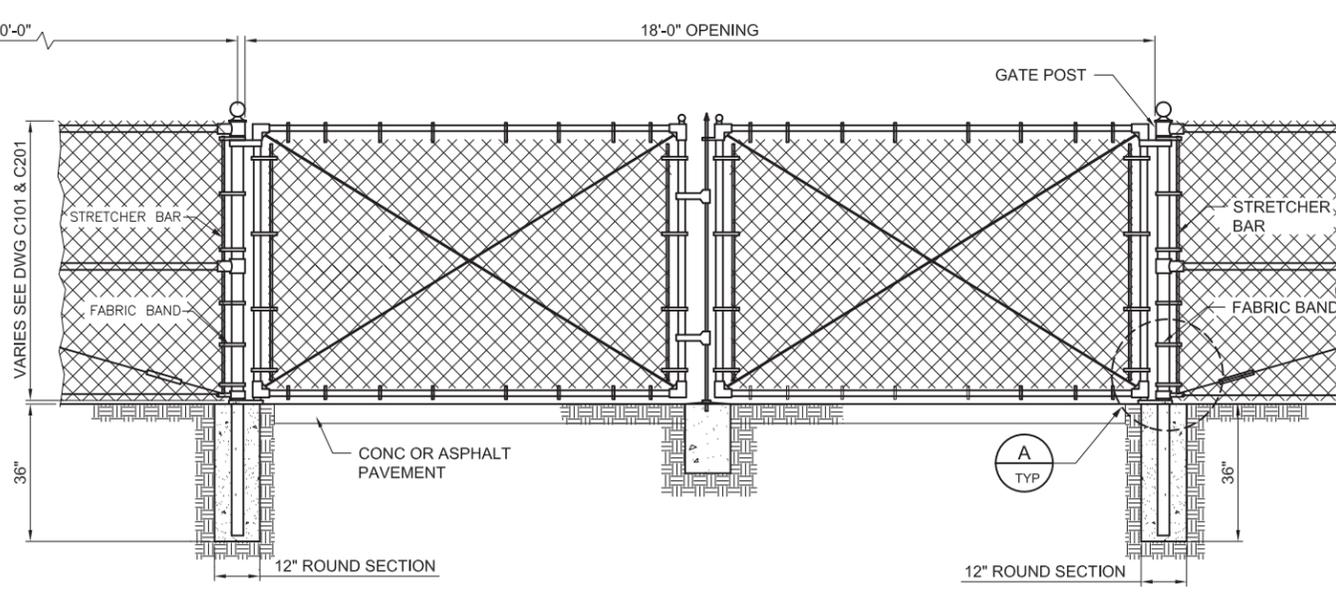
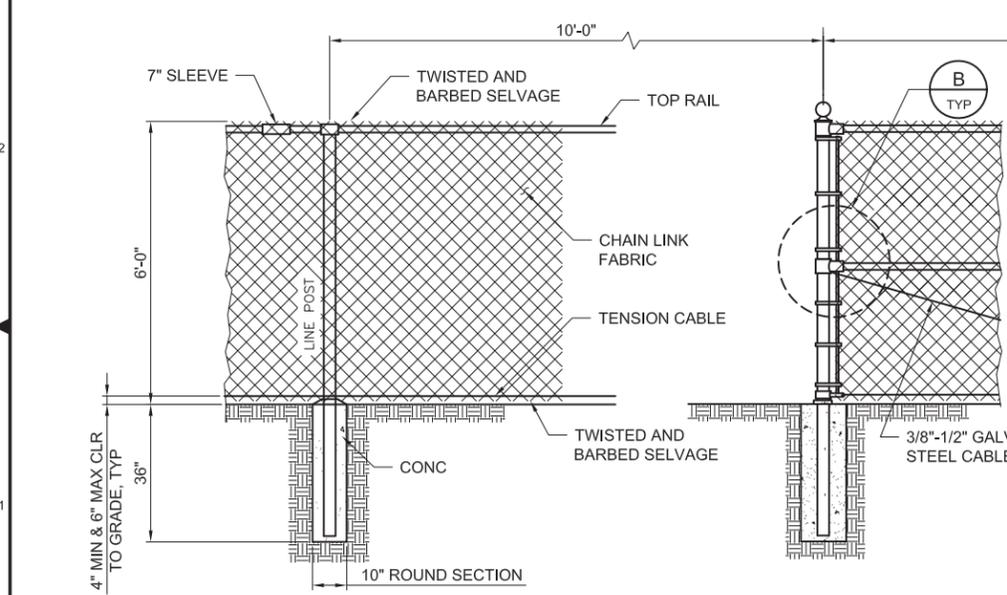
DCN:	DATE: DECEMBER 2015
PROJECT FILE NO: 1038122	DRAWING NO: C002
SHT NO / TOTAL 7 / 41	REV NO: 0

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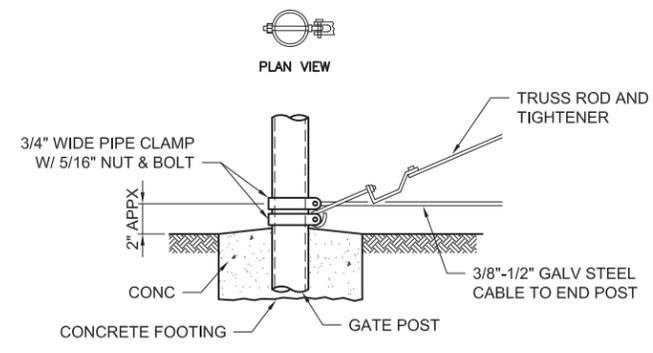
MEMBER													
BRACE OR TOP RAIL			LINE POST				END, CORNER & PULL POST		GATE POST		OPENING		
ROUND		HIGH COLUMN	ROUND		HIGH COLUMN	ROUND		ROUND					
OD	WEIGHT #/FT	SIZE	WEIGHT #/FT	OD	WEIGHT #/FT	OD	WEIGHT #/FT	OD	WEIGHT #/FT				
1-5/8"	2.27			2-3/8"	3.65			2-7/8"	5.79	6-5/8"	18.97		NOT TO EXCEED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



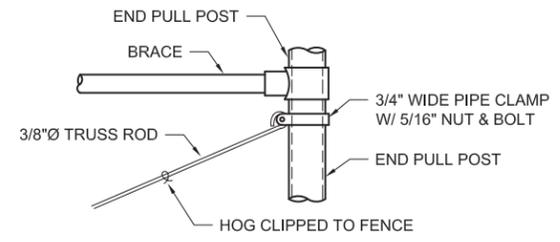
CORNER BRACING
(ALL ANGLES 30 DEGREES AND OVER)



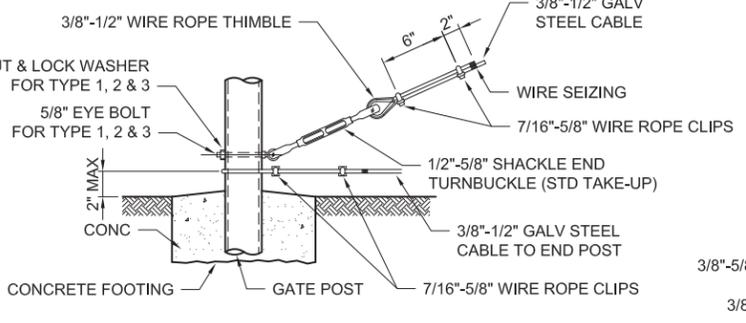
TYPICAL FENCE AND GATE



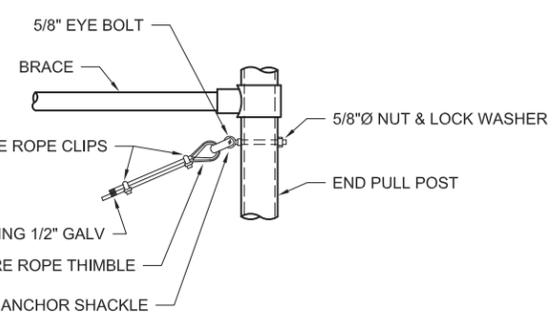
OPTIONAL BRACE AND TRUSS CONNECTION



TOP CABLE ATTACHMENT END PULL POST



CABLE FASTENING TO POST BASE



DETAIL B

DETAIL A

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

FENCE DETAILS 020101

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NO	REVISION DESCRIPTION	BY	APVD	DATE



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. NAMANI

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

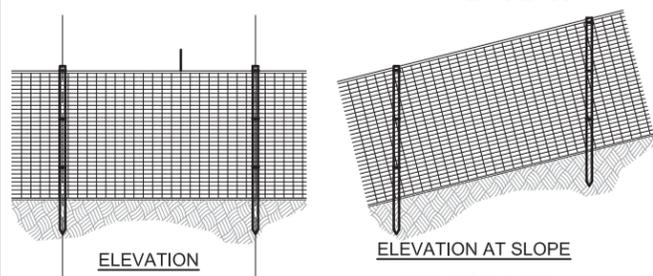


DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE
**CIVIL
STANDARD DETAILS 4**

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

NOTES:

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



VERTICAL POST

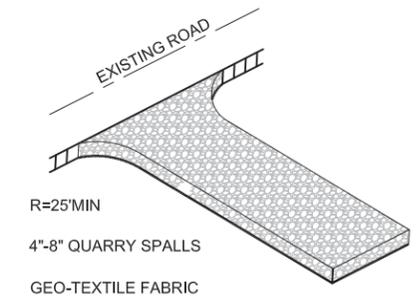
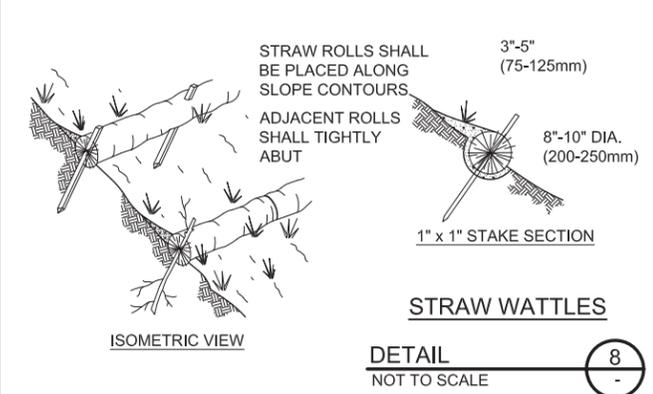
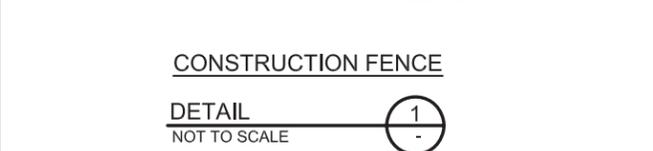
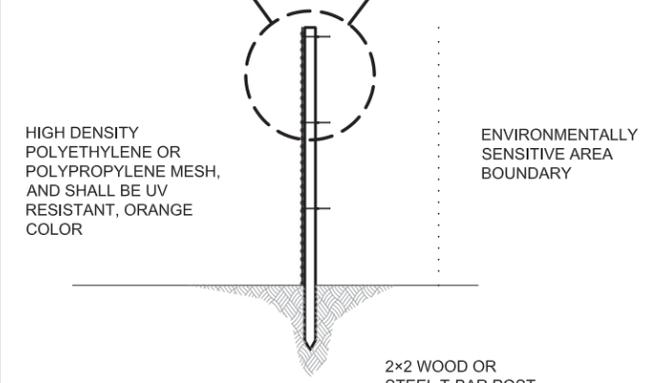
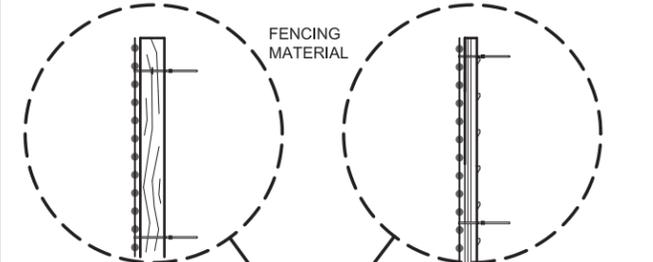
ELEVATION

2x2 WOOD POST FENCING MATERIAL

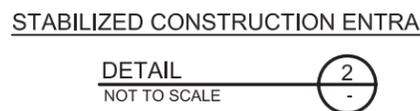
STAPLE TOP TIE
SELF-LOCKING TIE ~ NYLON 6/6 (MIN GRADE), 50# MIN TENSILE STRENGTH, UV STABILIZED

ELEVATION AT SLOPE

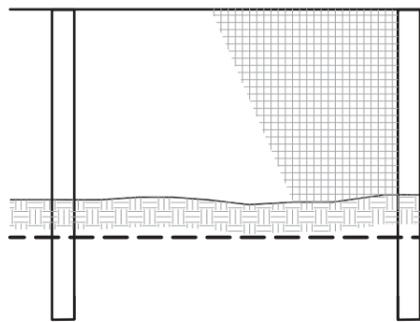
STEEL T-BAR POST
SELF-LOCKING TIE ~ NYLON 6/6 (MIN GRADE), 50# MIN TENSILE STRENGTH, UV STABILIZED



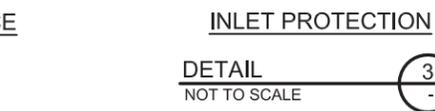
- NOTES:**
- STABILIZED ACCESS SHALL BE USED IN ALL AREAS OF THE SITE WITH VEHICLE TRAFFIC AND PARKING, INCLUDING PLANTING STRIPS.
 - SEE SPECIFICATIONS FOR GEOTEXTILE REQUIREMENTS



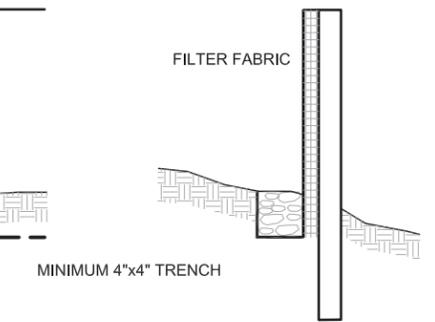
JOINTS IN FILTER FABRIC SHALL BE SPLICED AT POSTS. USE STAPLES, WIRE RINGS, OR EQUIVALENT TO ATTACH FABRIC TO POSTS.



- POST SPACING MAY BE INCREASED TO 8' IF WIRE BACKING IS USED
- NOTE:**
- FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.
 - 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.



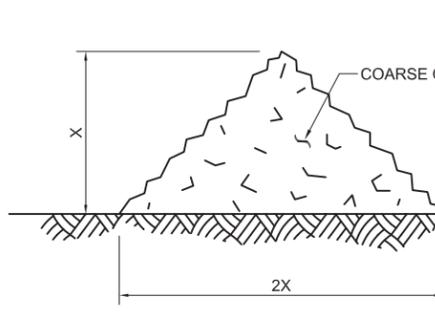
2"x2" BY 14 Ga. WIRE OR EQUIVALENT, IF STANDARD STRENGTH FABRIC USED



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



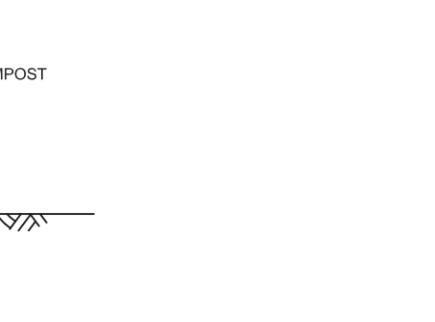
PROVIDE ENERGY DISSIPATION AT TOE WHEN NEEDED



- NOTES:**
- TIRES, SANDBAGS, OR EQUIVALENT MAY BE USED TO WEIGHT PLASTIC.
 - SEAMS BETWEEN SHEETS SHALL OVERLAP A MINIMUM OF 12" AND BE WEIGHTED OR TAPED.
 - ANCHOR WEIGHTS AT TOP OF SLOPE WITH STAKES.
 - 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.



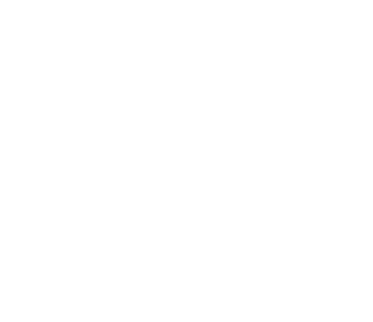
BACKFILL TRENCH WITH NATIVE SOIL OR 3/4"-1.5" WASHED GRAVEL



- NOTE:**
- 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.).
 - 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.
 - 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.
 - 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.



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



- EXTRA POST LENGTH FOR FLAGGING IN SENSITIVE AREAS (WETLAND) AS SHOWN ON THE PLANS
- 2'-6" EDGE OF WETLAND LOCATION VARIES
- 1'-6"
- 4'-0"
- EDGE OF WETLAND (LOCATION VARIES)

- NOTES:**
- 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.

- EROSION CONTROL NOTES**
- 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.).
 - 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.
 - 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.
 - 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.

- 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.
- 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.
- 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.
- ANY AREAS OF EXPOSED SOILS THAT WILL NOT BE DISTURBED FOR TWO

- ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
- 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.
- 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.
- 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.

- 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.).

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
LAND USE PERMIT**
DECEMBER 2015



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 9/29/2017

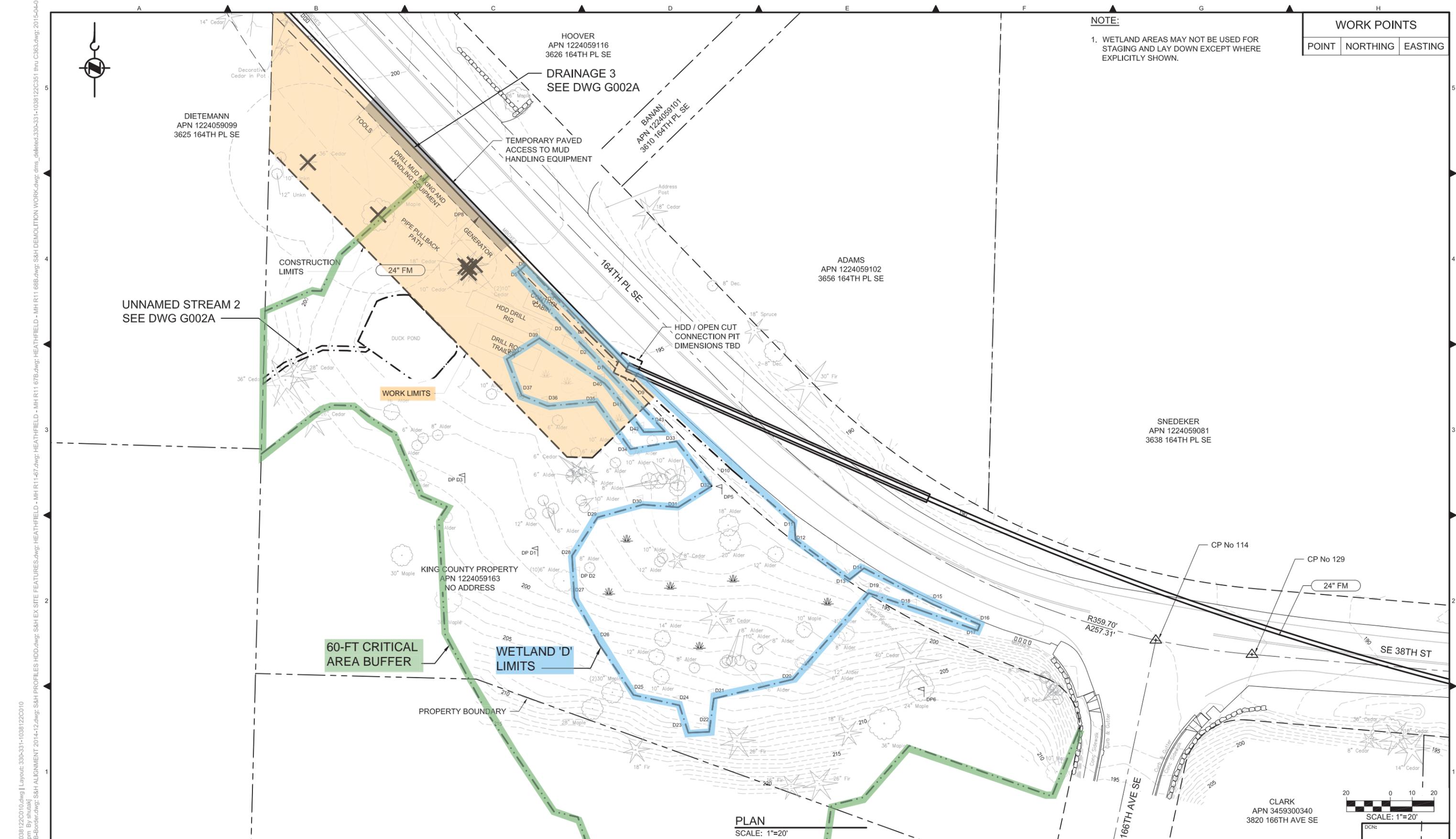
DESIGNED/DRAWN: C. SCHOFIELD	SCALE: NO SCALE
PROJECT ENGINEER: S. RADFORD	0 REFERENCE 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO: C01008C16



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 / TOTAL 9 / 41	REV NO: 0

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

WORK POINTS		
POINT	NORTHING	EASTING

C:\pwworking\0269162\330-331-1038122\010.dwg [Layout: 330-331-1038122C010] PLOTTED: Dec 11, 2015 04:32:50pm By: shuakj XREFS: SunsetHeathfield-Daize-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:

NO	REVISION DESCRIPTION	BY	APVD	DATE



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



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

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

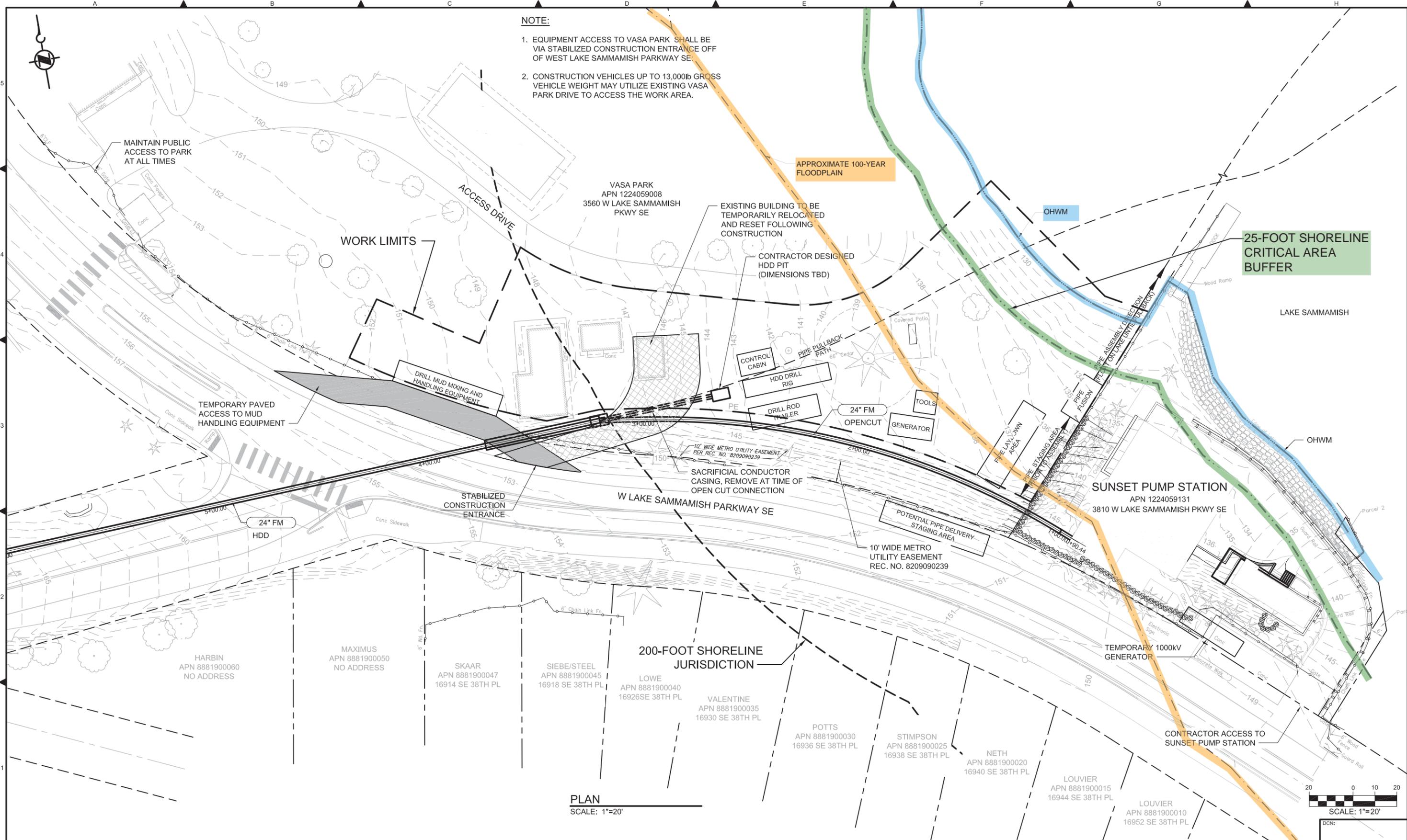
PLAN
 SCALE: 1"=20'



SCALE: 1"=20'

NOTE:

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



PLAN
SCALE: 1"=20'

SCALE: 1"=20'

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NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015



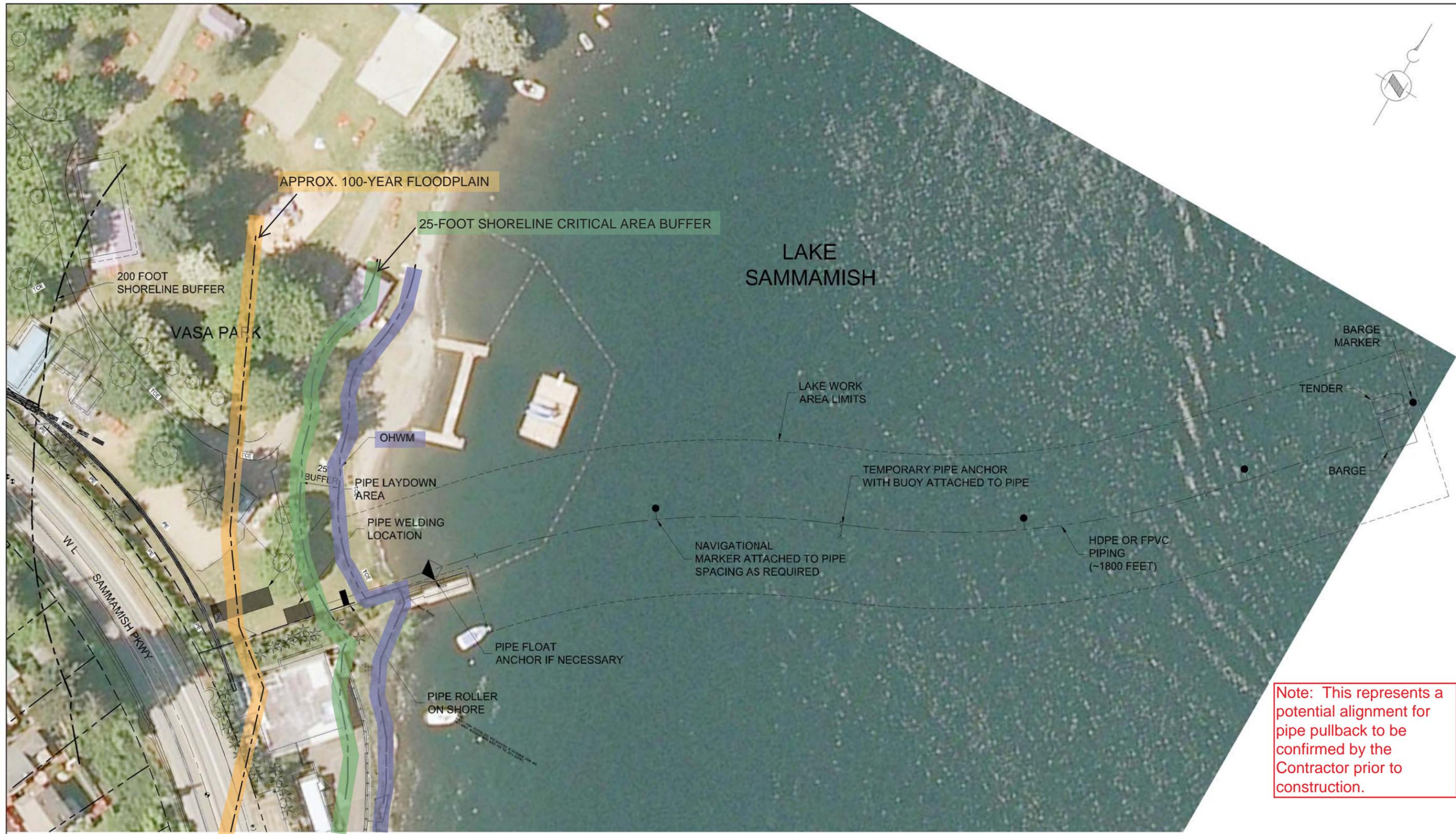
DESIGNED/DRAWN:
S. FARNAM
 PROJECT ENGINEER:
L. STIEGLER
 DESIGN APPROVAL:
R. GAUFF
 PROJECT ACCEPTANCE:
S. NAMANI

SCALE:
1"=20'
 REFERENCE
 FACILITY NUMBER:
330-331
 CONTRACT NO:
C01008C16



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**

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



Note: This represents a potential alignment for pipe pullback to be confirmed by the Contractor prior to construction.

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015



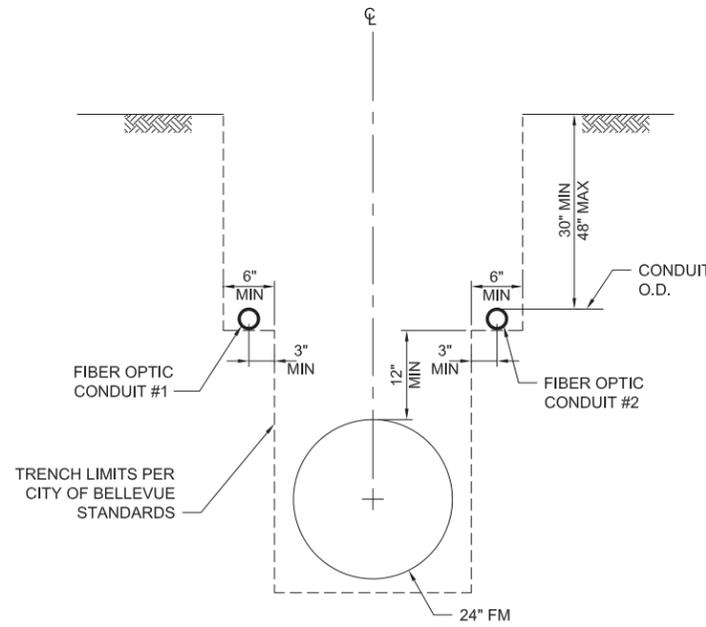
DESIGNED/DRAWN:
S. FARNAM
 PROJECT ENGINEER:
L. STIEGLER
 DESIGN APPROVAL:
R. GAUFF
 PROJECT ACCEPTANCE:
S. NAMINI

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



DEPARTMENT OF NATURAL RESOURCES & PARKS
 WASTEWATER TREATMENT DIVISION
 SUNSET AND HEATHFIELD PUMP STATIONS
 AND FORCE MAIN UPGRADE
**POTENTIAL HDD PIPE
 ASSEMBLY AND PULLBACK**

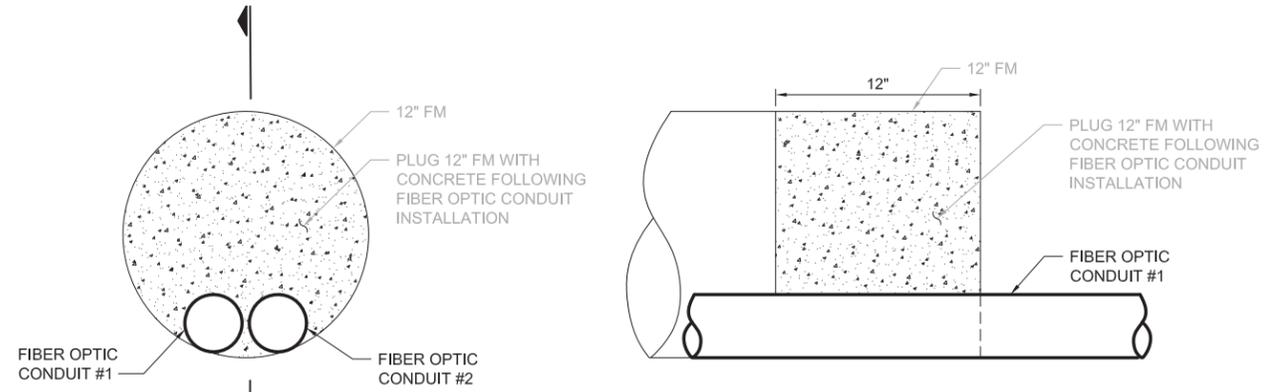
DATE:
DECEMBER 2015
 PROJECT FILE NO:
1038122
 DRAWING NO:
C011A
 SHT NO / TOTAL REV NO:
12 / 41 0



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.

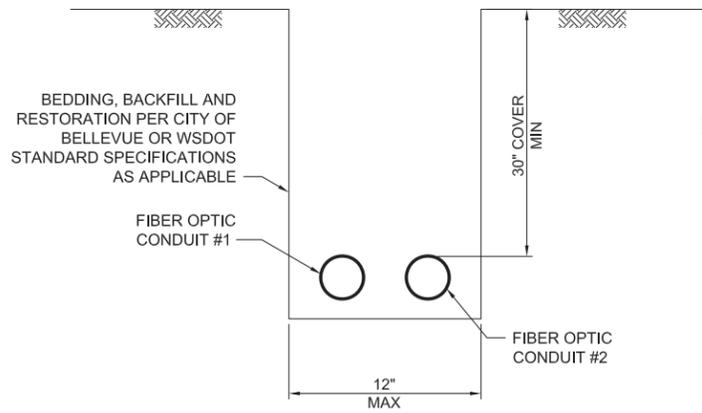


LOOKING UP STATION

DETAIL 2

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.



LOOKING UP STATION
DETAIL 3

NOTES:

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

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 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
LAND USE PERMIT**
DECEMBER 2015



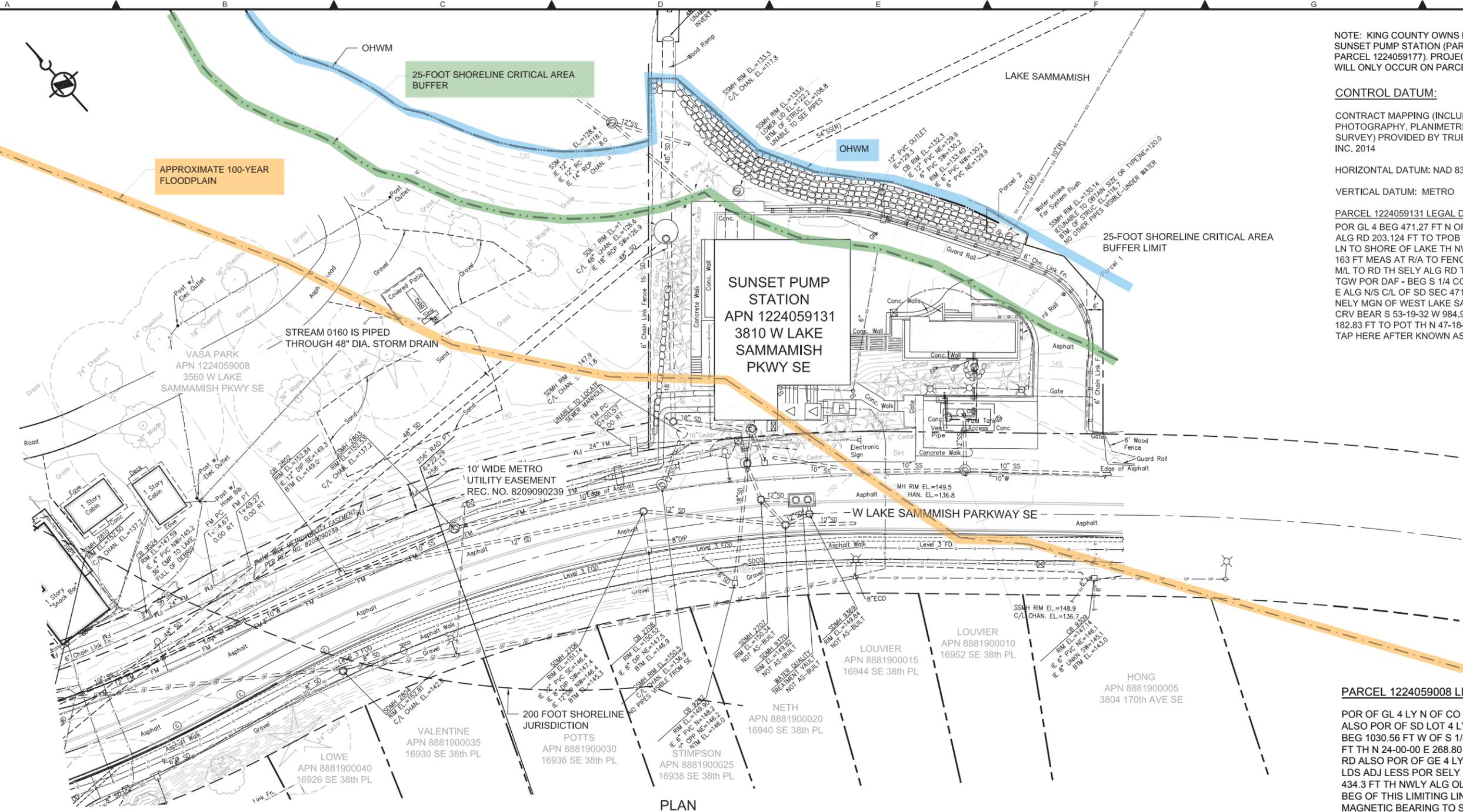
DESIGNED/DRAWN:
S. FARNAM
PROJECT ENGINEER:
L. STIEGLER
DESIGN APPROVAL:
R. GAUFF
PROJECT ACCEPTANCE:
S. NAMINI

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



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 / TOTAL 13 / 41
REV NO: 0



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 ML 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 ML 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 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



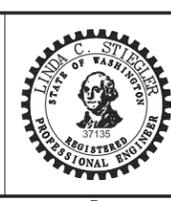
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SCALE: 1"=20'

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 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



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



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

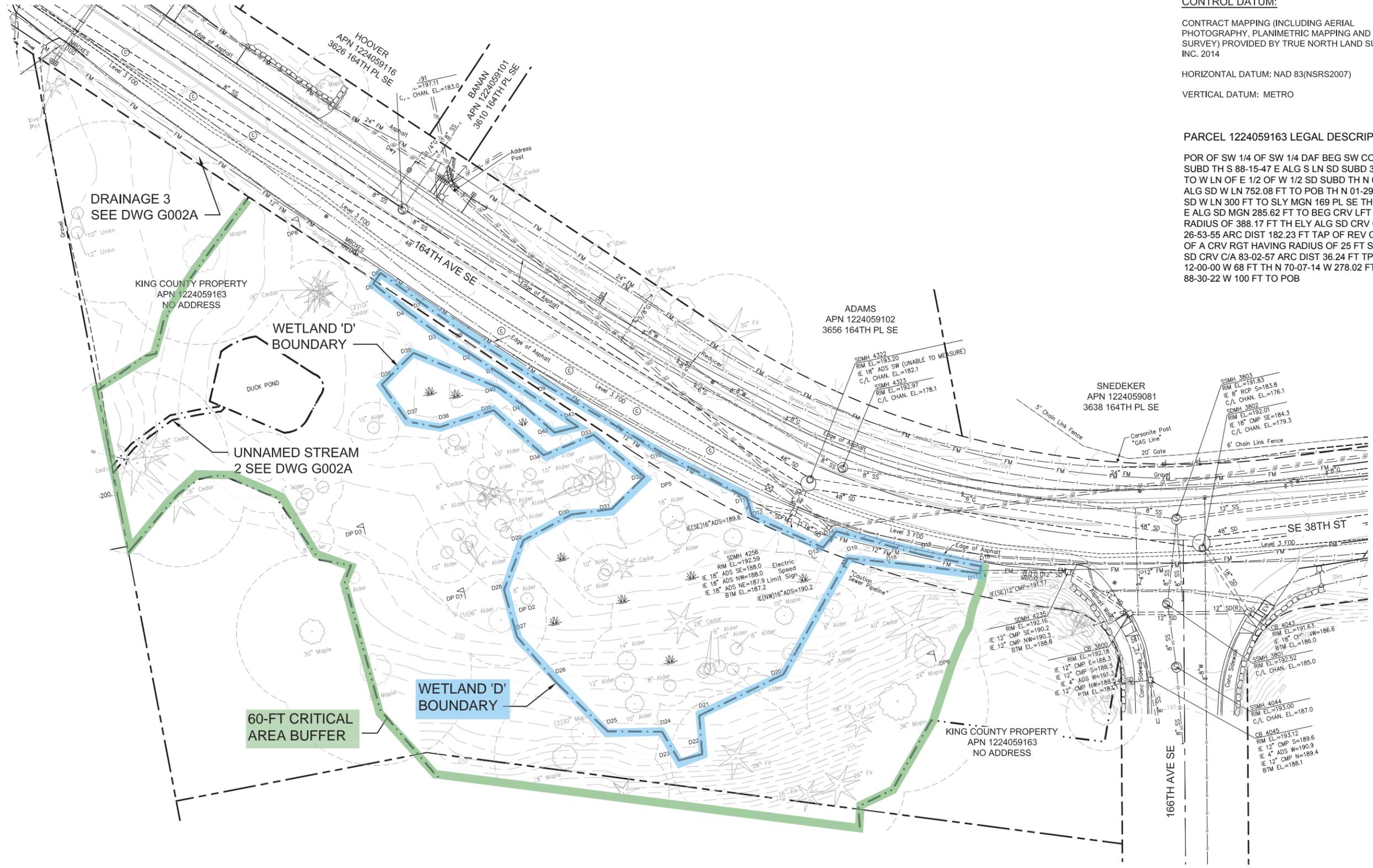
**PROJECT
TOPOGRAPHIC SURVEY**

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



CONTROL DATUM:
 CONTRACT MAPPING (INCLUDING AERIAL PHOTOGRAPHY, PLANIMETRIC MAPPING AND GROUND SURVEY) PROVIDED BY TRUE NORTH 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



PLAN
 SCALE: 1"=20'



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 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



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. NAMANI

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



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.:	DRAWING NO.:
1038122	C023
SHT NO / TOTAL	REV NO.:
15 / 41	0



CONTROL DATUM:

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HORIZONTAL DATUM: NAD 83(NSRS2007)

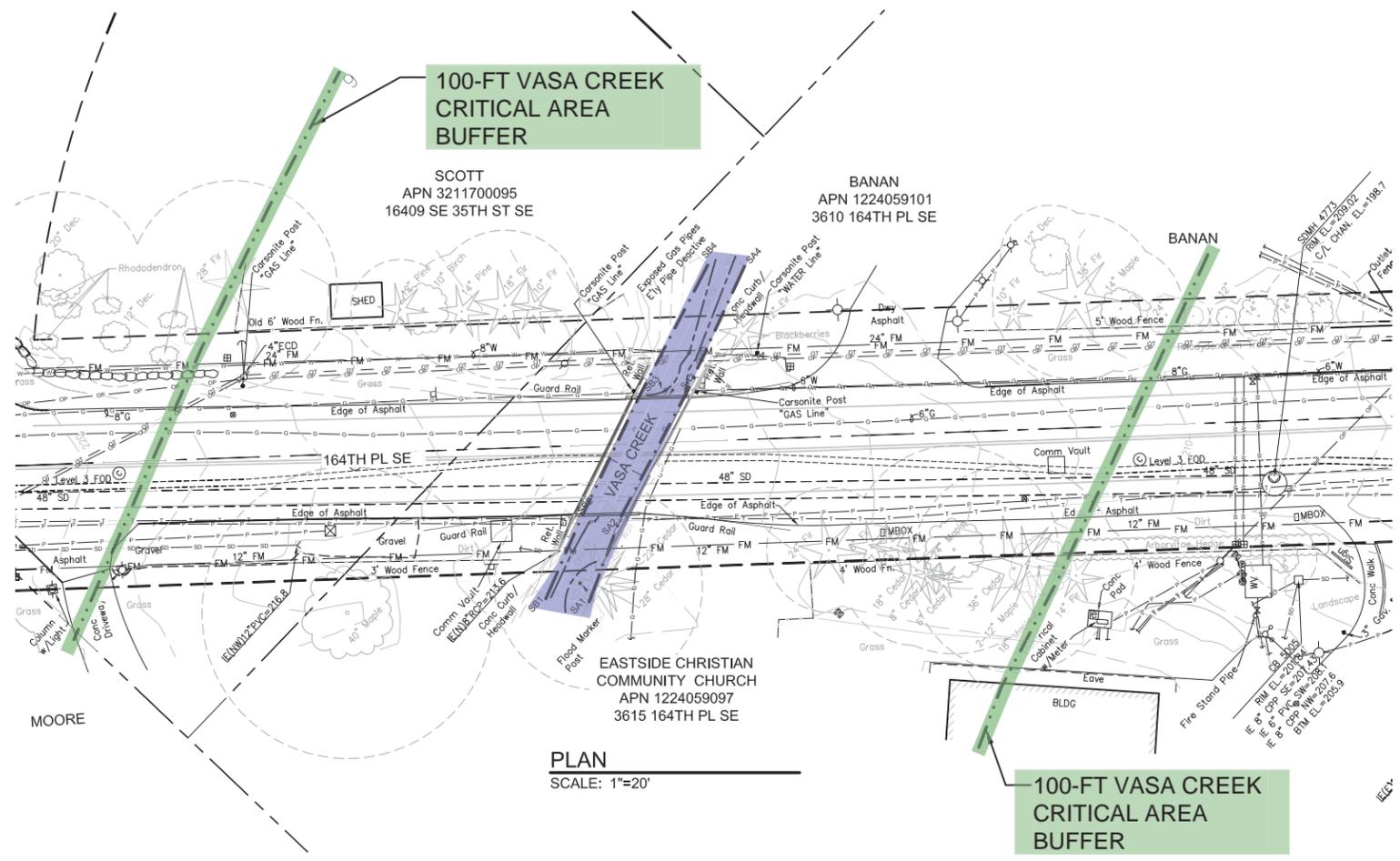
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TO CONVERT FROM NAVD29 TO NAVD47, ADD 0.09 FEET.

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

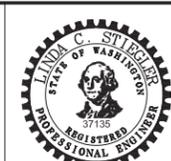


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 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



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. NAMANI

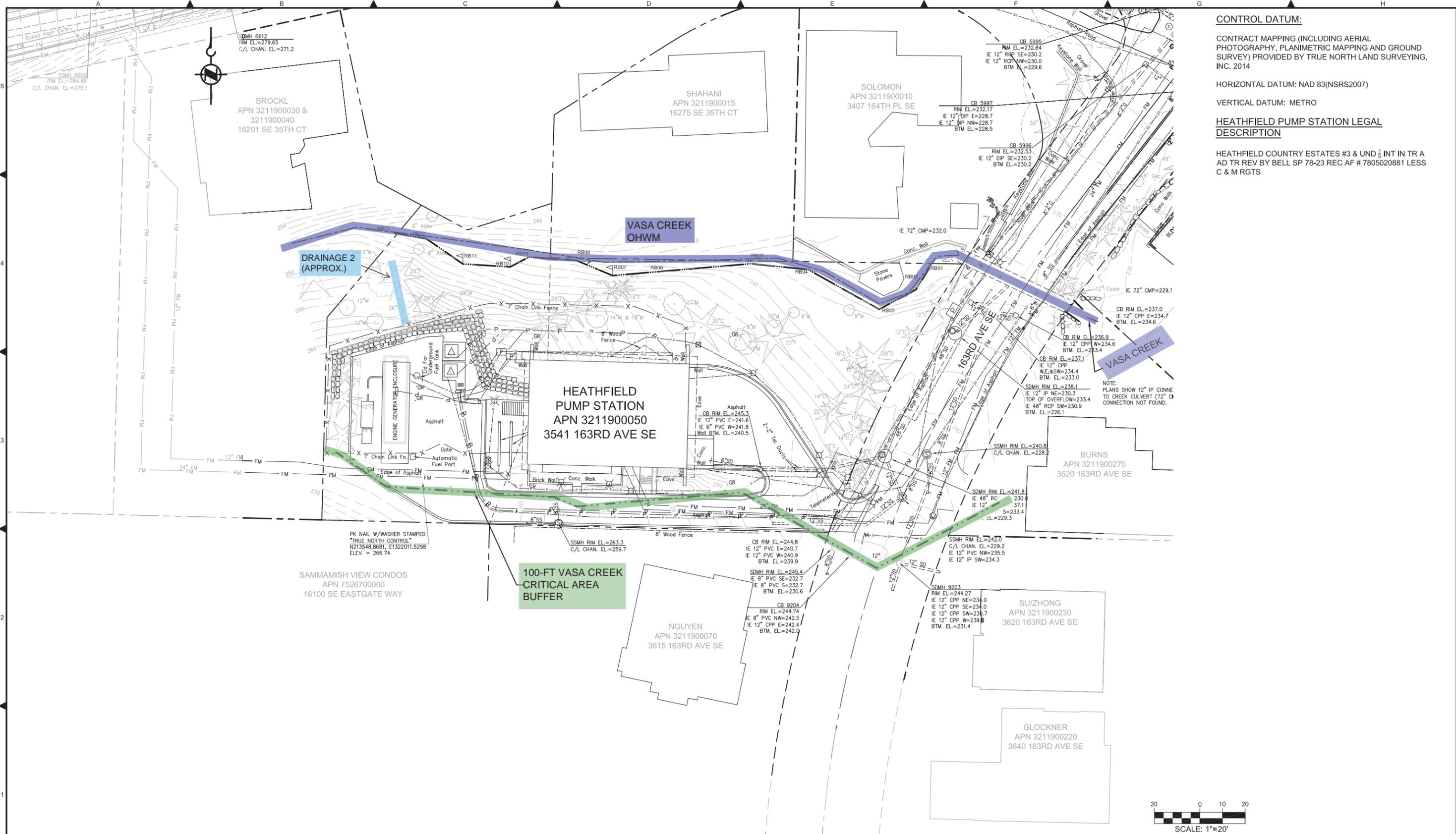
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0 REFERENCE 1"
FACILITY NUMBER:
331
CONTRACT NO:
C01008C16



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 / TOTAL	16 / 41
REV NO.:	0



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 1/3 INT IN TR A AD TR REV BY BELL SP 78-23 REC AF # 7805020881 LESS C & M RGTS

PLAN
SCALE: 1"=20'



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 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



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. NAMANI

SCALE:
1"=20'

0 REFERENCE 1"

FACILITY NUMBER:
330

CONTRACT NO:
C01008C16



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 / TOTAL	17 / 41
REV NO.:	0



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)

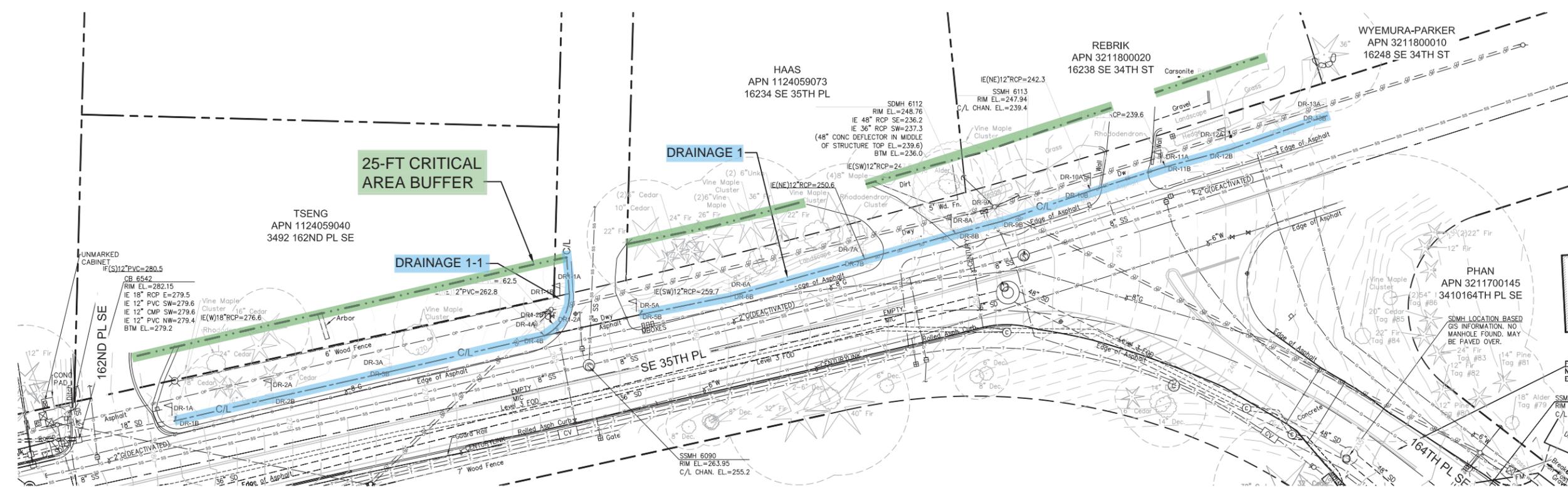
VERTICAL DATUM: METRO
(TO CONVERT TO FROM METRO TO NAVD88 SUBTRACT 96.43' FROM METRO ELEVATION)

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'

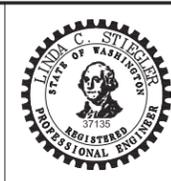


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PLOTTED: Dec 11, 2015 04:45:08pm By: shuakj
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IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



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'
0 REFERENCE 1"
FACILITY NUMBER:
330

CONTRACT NO:
C01008C16

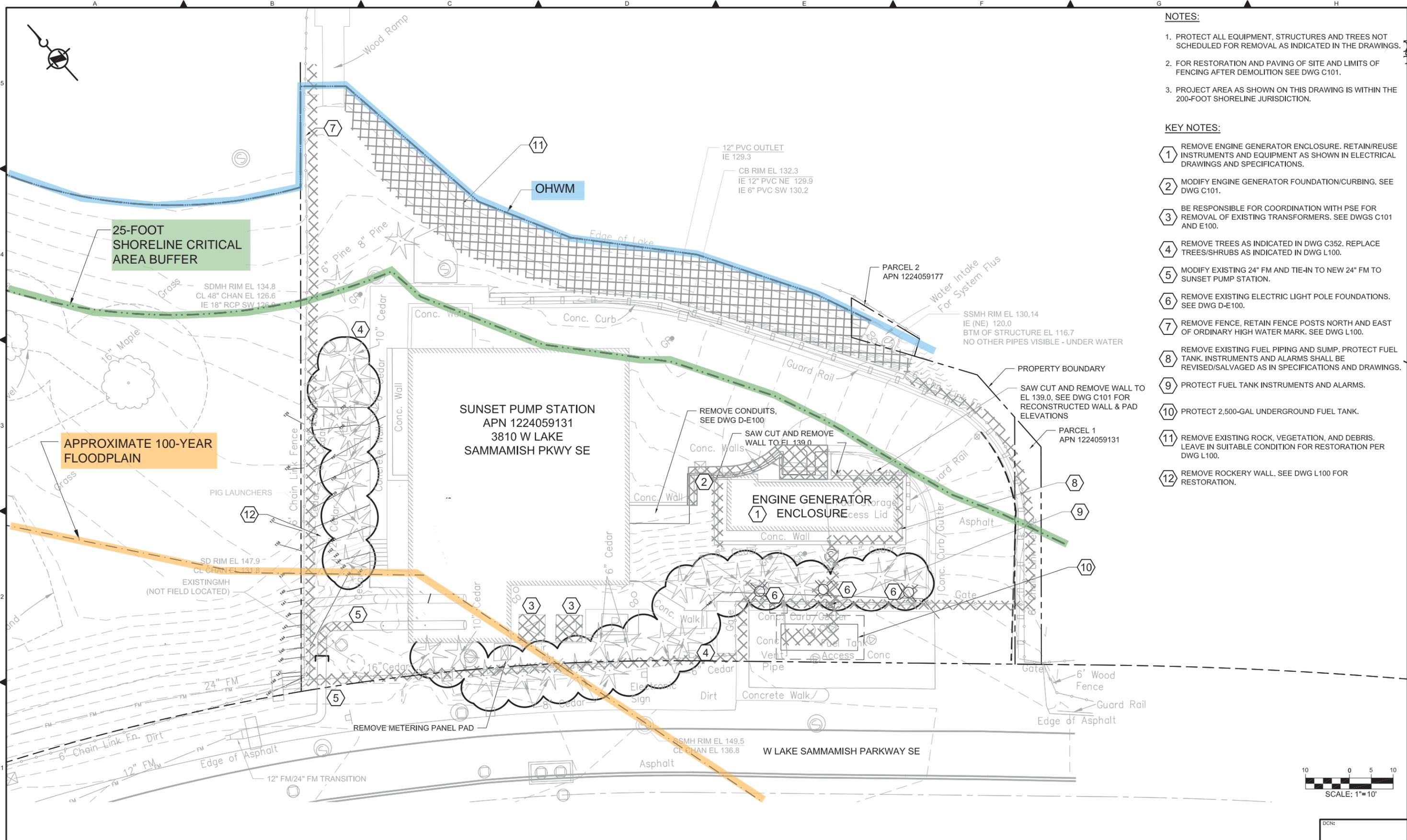


DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE

**PROJECT
TOPOGRAPHIC SURVEY**

DCN:
DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: C027
SHT NO / TOTAL 18 / 41
REV NO: 0

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- 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.

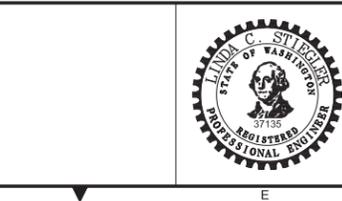
- KEY NOTES:**
- 1 REMOVE ENGINE GENERATOR ENCLOSURE. RETAIN/REUSE INSTRUMENTS AND EQUIPMENT AS SHOWN IN ELECTRICAL DRAWINGS AND SPECIFICATIONS.
 - 2 MODIFY ENGINE GENERATOR FOUNDATION/CURBING. SEE DWG C101.
 - 3 BE RESPONSIBLE FOR COORDINATION WITH PSE FOR REMOVAL OF EXISTING TRANSFORMERS. SEE DWGS 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



CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015

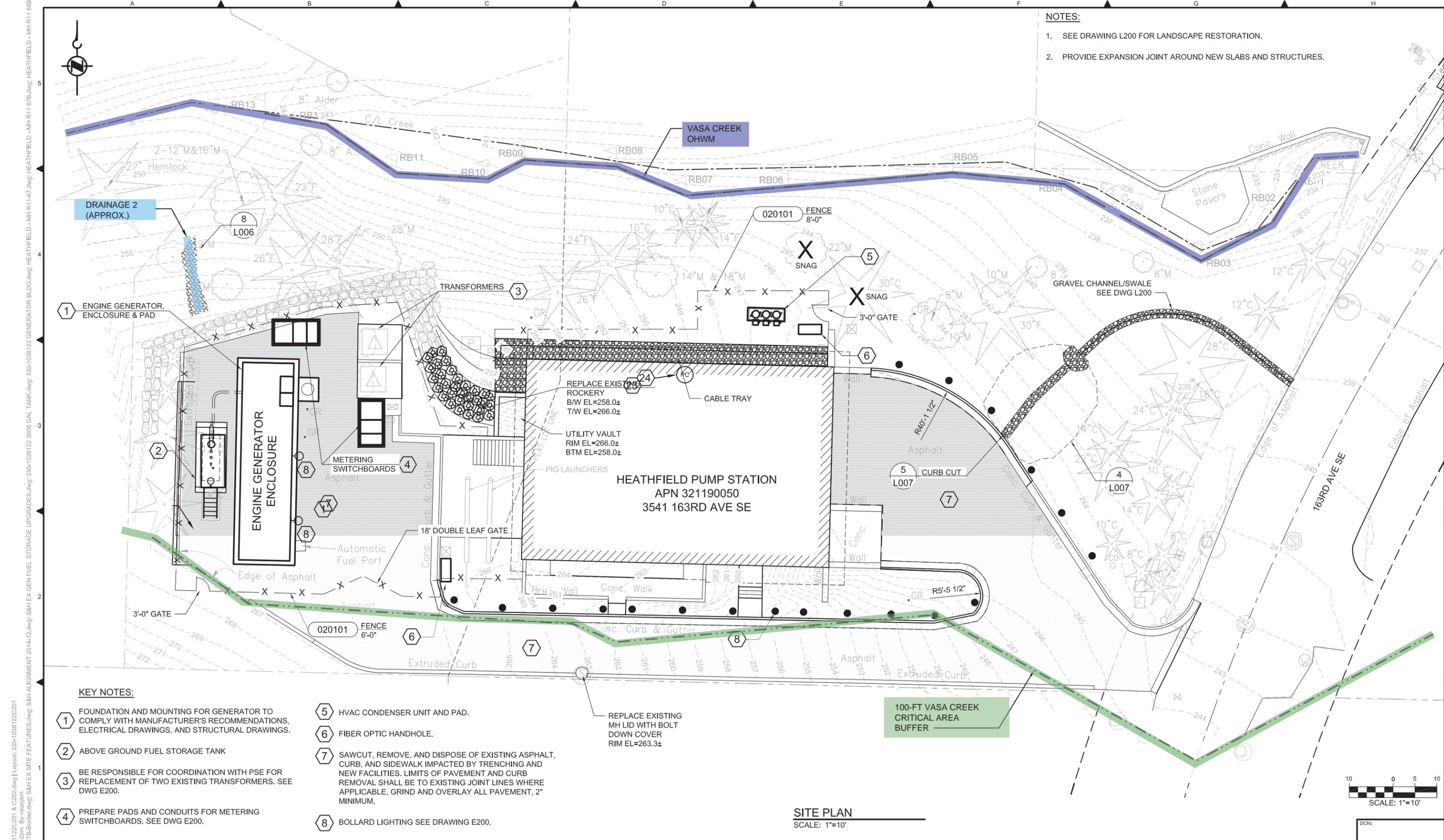


DESIGNED/DRAWN:
 S. FARNAM
 PROJECT ENGINEER:
 L. STIEGLER
 DESIGN APPROVAL:
 R. GAUFF
 PROJECT ACCEPTANCE:
 S. NAMANI

SCALE:
 1"=10'
 REFERENCE
 FACILITY NUMBER:
 331
 CONTRACT NO. C01008C16

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 / TOTAL 19 / 41	REV NO: 0



SITE PLAN
SCALE: 1"=10'



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 XREFS: SunsetHeathfield-Daize-TB-Boarder.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
 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
LAND USE PERMIT**
DECEMBER 2015



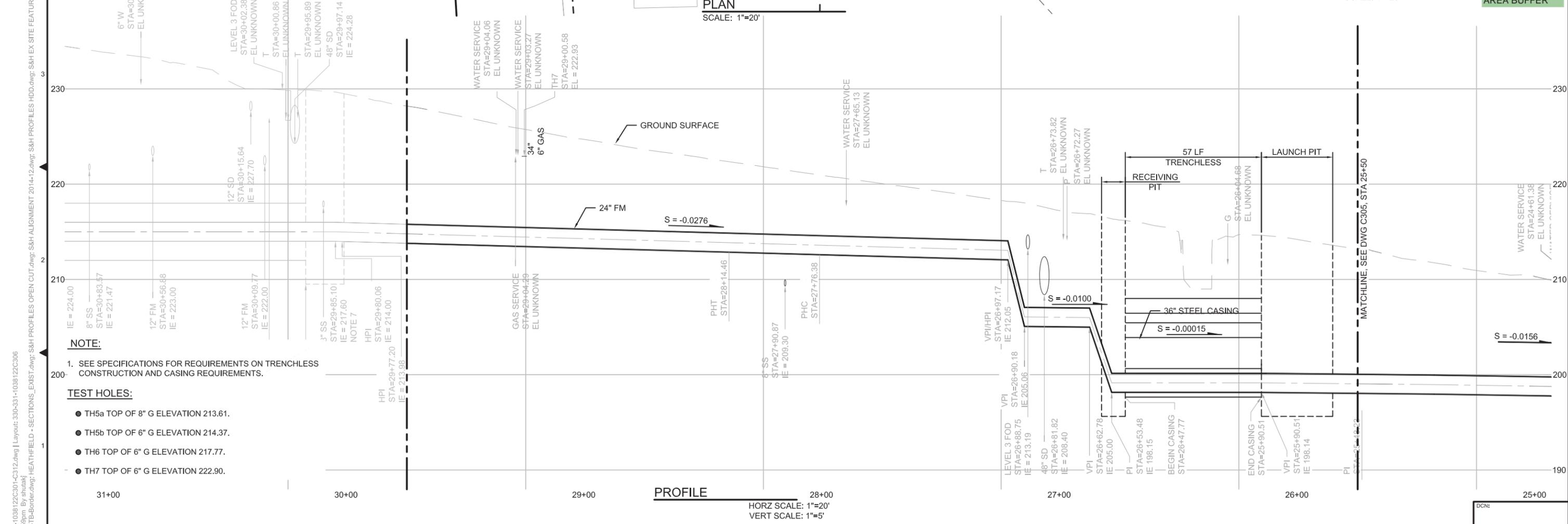
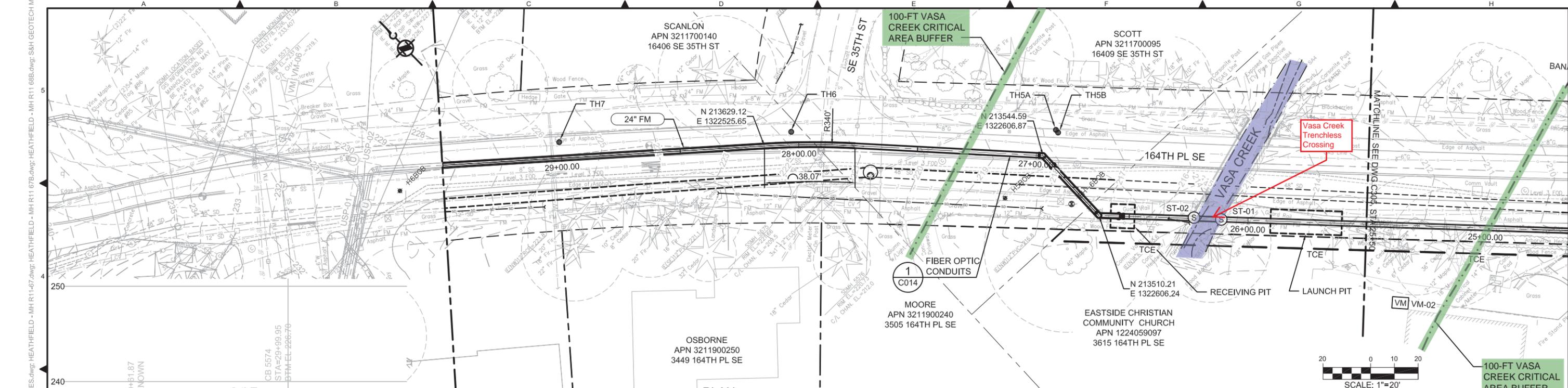
DESIGNED/DRAWN:
S. FARNAM
PROJECT ENGINEER:
L. STIEGLER
DESIGN APPROVAL:
R. GAUFF
PROJECT ACCEPTANCE:
S. NAMINI

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



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 / TOTAL 22 / 41	REV NO: 0



- NOTE:**
- 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



CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015



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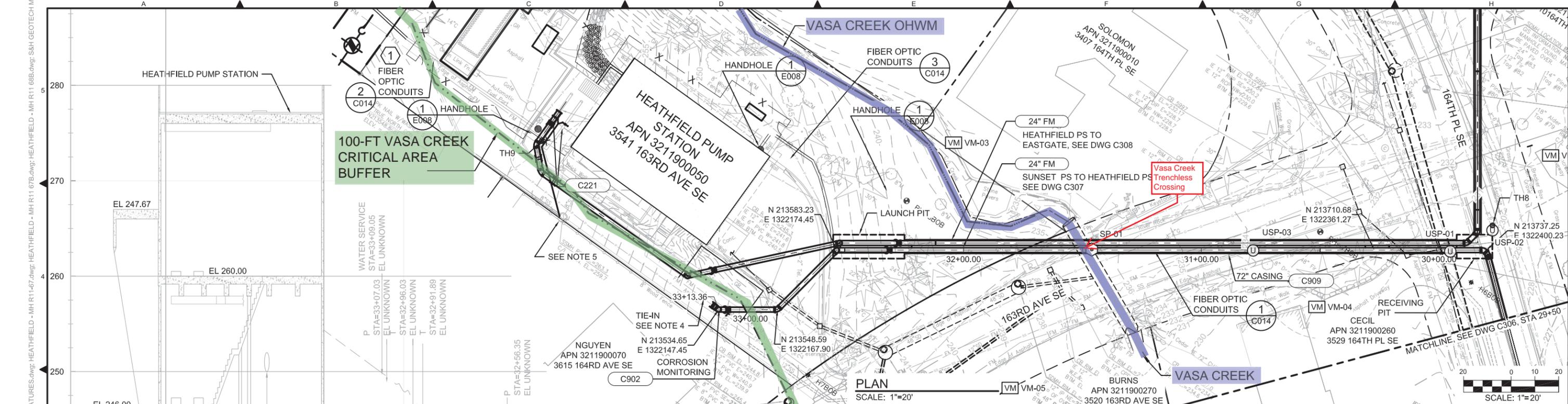
SCALE:
AS NOTED
 REFERENCE
 FACILITY NUMBER:
331
 CONTRACT NO:
C01008C16



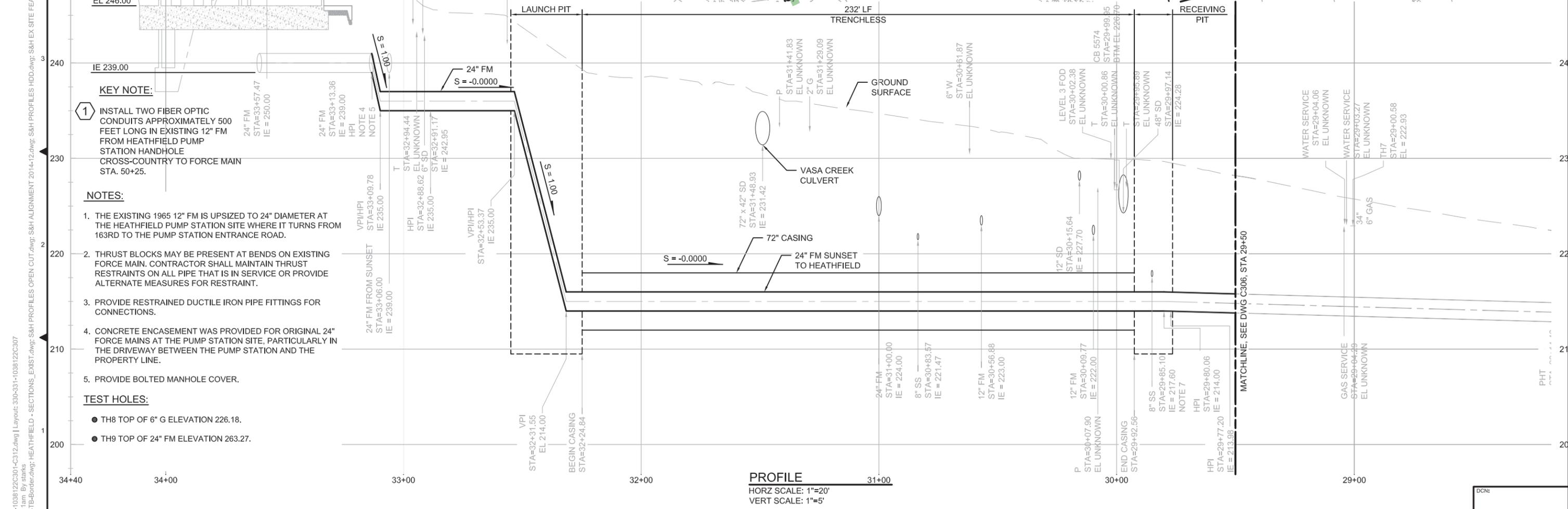
DEPARTMENT OF NATURAL RESOURCES & PARKS
 WASTEWATER TREATMENT DIVISION
 SUNSET AND HEATHFIELD PUMP STATIONS
 AND FORCE MAIN UPGRADE
**SUNSET TO HEATHFIELD
 FORCE MAIN PLAN & PROFILE**
 STA 25+50 TO 29+50

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

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PLAN
SCALE: 1"=20'



PROFILE
HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'

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 ENCASUREMENT 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:

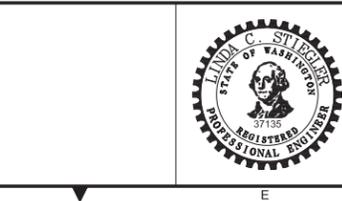
- TH8 TOP OF 6" G ELEVATION 226.18.
- TH9 TOP OF 24" FM ELEVATION 263.27.

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 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015

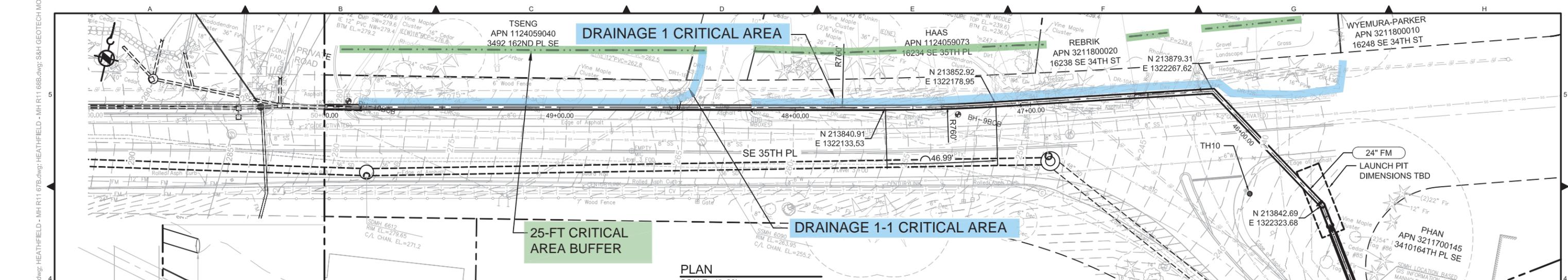


DESIGNED/DRAWN:
S. FARNAM
 PROJECT ENGINEER:
L. STIEGLER
 DESIGN APPROVAL:
R. GAUFF
 PROJECT ACCEPTANCE:
S. NAMINI

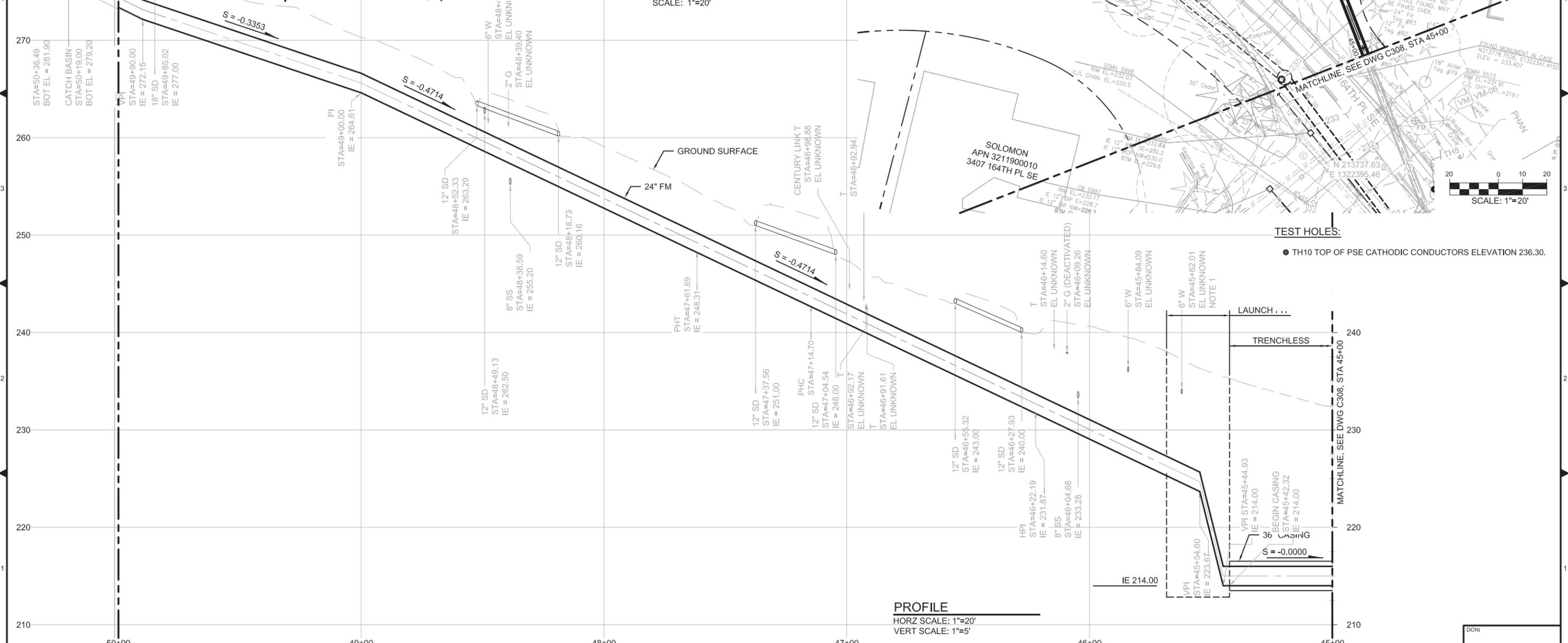
SCALE:
AS NOTED
 REFERENCE
 FACILITY NUMBER:
331
 CONTRACT NO:
C01008C16

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

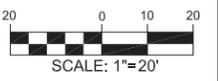
DCN:	DATE: DECEMBER 2015
PROJECT FILE NO: 1038122	DRAWING NO: C307
SHT NO 24 / 41	REV NO: 0



PLAN
SCALE: 1"=20'



PROFILE
HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'



TEST HOLES:
● TH10 TOP OF PSE CATHODIC CONDUCTORS ELEVATION 236.30.

NO	REVISION DESCRIPTION	BY	APVD	DATE



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. NAMANI

SCALE:
AS NOTED
0 REFERENCE 1"
FACILITY NUMBER:
330
CONTRACT NO:
C01008C16



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 / TOTAL 25 / 41	REV NO: 0

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TREE TAG #	SPECIES	DBH (IN.)	CRZ (FT.) (TPZ)	DRIP- LINE (FT.)	DISPOSITION
SUNSET PUMP STATION					
1	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	10.9	11	7	REMOVE TREE
2	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	10	10	7	REMOVE TREE
3	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	7.3	8	5	REMOVE TREE
4	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6.6	7	4	REMOVE TREE
5	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6.4	7	5	REMOVE TREE
6	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6	6	5	REMOVE TREE
7	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	8.6	9	5	REMOVE TREE
8	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6.5	7	6	REMOVE TREE
9	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	4.5	6	5	REMOVE TREE
10	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	7.4	8	5	REMOVE TREE
11	ALASKA CEDAR, CUPRESSUS NOOTKATENSIS	6.8	7	5	REMOVE TREE
12	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	8	8	7	REMOVE TREE
13	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	7	7	5	REMOVE TREE
14	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	9	9	7	REMOVE TREE
15	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	8	8	7	REMOVE TREE
16	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	4	6	5	REMOVE TREE
17	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	13.9	14	10	REMOVE TREE
18	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	20.3	21	15	REMOVE TREE
19	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	6.4, 5.1, 6.9, 10.7, 6.4 AND 11	10	12	REMOVE TREE

VASA PARK					
20	BIGLEAF MAPLE, ACER MACROPHYLLUM	8.5	9	6	RETAIN AND PROTECT, PERFORM CROWN RAISE PRUNING
21	WESTERN RED CEDAR, THUJA PLICATA	55.1	55	24	REMOVE TREE
22	BIGLEAF MAPLE, ACER MACROPHYLLUM	31.9	32	27	RETAIN AND PROTECT, PERFORM CROWN RAISE PRUNING (PCM)
23	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	12.8	13	11	RETAIN AND PROTECT, PERFORM CROWN RAISE PRUNING (PCM)

VASA PARK					
108	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	10.3	11	15	REMOVE TREE
109	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	10.3	11	15	REMOVE TREE
110	NORWAY MAPLE, ACER PLATANOIDES	19.5	20	22	RETAIN AND PROTECT
111	NORWAY MAPLE, ACER PLATANOIDES	14.6	15	19	RETAIN AND PROTECT, PERFORM STRUCTURAL PRUNING
112	HORSE CHESTNUT, AESCULUS HIPPOCASTANUM	17.6	18	13	NO IMPACT
113	HORSE CHESTNUT, AESCULUS HIPPOCASTANUM	19.1	20	19	NO IMPACT
114	HORSE CHESTNUT, AESCULUS HIPPOCASTANUM	14.2	15	14	NO IMPACT
115	HORSE CHESTNUT, AESCULUS HIPPOCASTANUM	23.2	24	20	NO IMPACT
116	BIGLEAF MAPLE, ACER MACROPHYLLUM	31.3	32	23	RETAIN AND PROTECT, PERFORM STRUCTURAL PRUNING (PCM)
117	BIGLEAF MAPLE, ACER MACROPHYLLUM	30	30	30	RETAIN AND PROTECT, PERFORM CROWN CLEAN PRUNING
118	BIGLEAF MAPLE, ACER MACROPHYLLUM	23.2	24	27	NO IMPACT, PERFORM CROWN CLEAN PRUNING
119	BIGLEAF MAPLE, ACER MACROPHYLLUM	22.8	23	21	NO IMPACT, PERFORM CROWN CLEAN PRUNING
120	BIGLEAF MAPLE, ACER MACROPHYLLUM	20.8	21	23	NO IMPACT
121	BIGLEAF MAPLE, ACER MACROPHYLLUM	21.9	22	31	NO IMPACT
122	BIGLEAF MAPLE, ACER MACROPHYLLUM	22.9	23	26	NO IMPACT
123	BIGLEAF MAPLE, ACER MACROPHYLLUM	24.8	25	29	NO IMPACT
124	BIGLEAF MAPLE, ACER MACROPHYLLUM	23.2	24	27	NO IMPACT
125	BIRD CHERRY, PRUNUS AVIUM	6.5, 7.2	10	11	NO IMPACT
126	PAPER BIRCH, BETULA PAPYRIFERA	21.3	22	23	NO IMPACT

TREE TAG #	SPECIES	DBH (IN.)	CRZ (FT.) (TPZ)	DRIP- LINE (FT.)	DISPOSITION
HEATHFIELD PUMP STATION					
44	WESTERN RED CEDAR, THUJA PLICATA	20	20	17	REMOVE TREE
45	WESTERN RED CEDAR, THUJA PLICATA	33.4	33	24	RETAIN AND PROTECT (PCM)
46	WESTERN RED CEDAR, THUJA PLICATA	14.7	15	12	REMOVE TREE
47	WESTERN RED CEDAR, THUJA PLICATA	21.3	21	17	RETAIN AND PROTECT (PCM)
48	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	30.1	30	18	RETAIN AND PROTECT (PCM)
49	WESTERN RED CEDAR, THUJA PLICATA	16.5	16	13	RETAIN AND PROTECT, PERFORM CROWN RAISE PRUNING (PCM)
50	WESTERN RED CEDAR, THUJA PLICATA	25.4	25	17	RETAIN AND PROTECT (PCM)
51	BIGLEAF MAPLE, ACER MACROPHYLLUM	10.3	10	12	RETAIN AND PROTECT (PCM)
52	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	34.1	34	18	RETAIN AND PROTECT, PERFORM CROWN REDUCTION PRUNING
53	BIGLEAF MAPLE, ACER MACROPHYLLUM	11.5	11	13	RETAIN
54	WESTERN RED CEDAR, THUJA PLICATA	6	6	6	RETAIN
55	BIGLEAF MAPLE, ACER MACROPHYLLUM	19.7, 21.5	22	24	RETAIN
56	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	28.9	29	23	RETAIN
57	DOUGLAS FIR, PSEUDOTSUGA MENZIESII	33.4	34	25	RETAIN
58	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	9.7	10	11	RETAIN
59	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	12.1	12	10	RETAIN
60	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	17.1	17	12	RETAIN
61	LAWSON CYPRESS, CHAMAECYPARIS LAWSONIANA	21	21	14	RETAIN
62	WESTERN RED CEDAR, THUJA PLICATA	17	17	14	NO IMPACT

TREE TAG #	SPECIES	DBH (IN.)	CRZ (FT.) (TPZ)	DRIP- LINE (FT.)	DISPOSITION
HEATHFIELD PUMP STATION					
63	BIGLEAF MAPLE, ACER MACROPHYLLUM	6	6	6	NO IMPACT
64	WESTERN RED CEDAR, THUJA PLICATA	40	40	20	CUT TO A SNAG
65	BIGLEAF MAPLE, ACER MACROPHYLLUM	30	30	18	CUT TO A SNAG
66	BIGLEAF MAPLE, ACER MACROPHYLLUM	14.8	15	12	NO IMPACT
67	BIGLEAF MAPLE, ACER MACROPHYLLUM	13.3	14	10	NO IMPACT
68	BIGLEAF MAPLE, ACER MACROPHYLLUM	11.5, 13, 10, 6, 4, 6	14	12	CUT TO A SNAG

NOTES:

1. PCM = POST CONSTRUCTION MONITORING
2. TREES LISTED IN THE INVENTORY TABLE ARE SHOWN AND IDENTIFIED ON DWG C352.
3. TREE PROTECTION SHALL BE IN ACCORDANCE WITH CITY OF BELLEVUE REQUIREMENTS.

C:\pwworking\0269162\330-331-1038122\C350 & C51.dwg | Layout: C350
 PLOTTED: Dec 14, 2015, 10:47:49am By: shunakj
 XREFS: SunsetHeathfield-Daize-TB-Border.dwg
 IMAGES:

NO	REVISION DESCRIPTION	BY	APVD	DATE



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

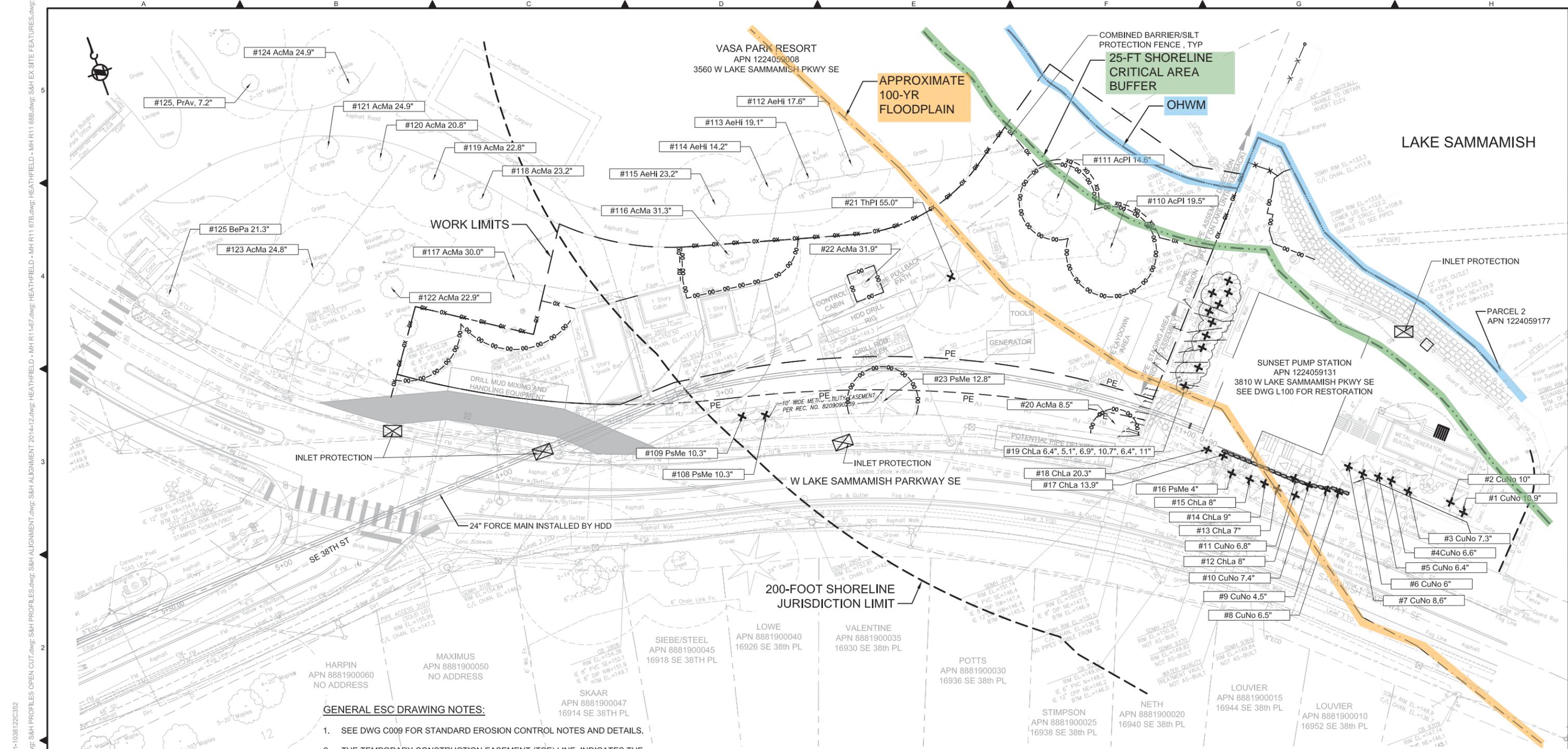
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PROJECT ENGINEER: S. RADFORD	0 REFERENCE 1"
DESIGN APPROVAL: R. GAUFF	FACILITY NUMBER: 330-331
PROJECT ACCEPTANCE: S. NAMINI	CONTRACT NO.: C01008C16



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

**EXISTING TREE INVENTORY
 SHEET 1**

DCN:	
DATE: DECEMBER 2015	
PROJECT FILE NO: 1038122	
DRAWING NO: C350	
SHT NO / TOTAL 26 / 41	REV NO: 0



- GENERAL ESC DRAWING NOTES:**
- SEE DWG C009 FOR STANDARD EROSION CONTROL NOTES AND DETAILS.
 - THE TEMPORARY CONSTRUCTION EASEMENT (TCE) LINE INDICATES THE ALLOWABLE LIMIT OF CONTRACTOR DISTURBANCE. TCE EXTENDS INTO LAKE SAMMAMISH TO ALLOW FOR HDD PULL-BACK. TCE LIMITS ARE INDICATED AS THE SHADED AREA ON THIS DWG.
 - LOCATE CONSTRUCTION FENCE AND SEDIMENT BARRIER AT THE TCE, TYPICAL. UNO.
 - SEE DWG C350 FOR TREE INVENTORY TABLE.
 - EMPLOY TREE PROTECTION MEASURES WITHIN CONSTRUCTION AND STAGING AREAS.
 - MAINTAIN EXISTING STORMWATER FLOW PATTERNS AND INCORPORATE INTO THE STORMWATER MANAGEMENT PLAN.

EROSION CONTROL & TREE PROTECTION PLAN
SCALE: 1"=20'

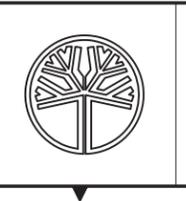


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NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
CRITICAL AREAS
LAND USE PERMIT
 DECEMBER 2015



STATE OF WASHINGTON
 REGISTERED
 LANDSCAPE ARCHITECT

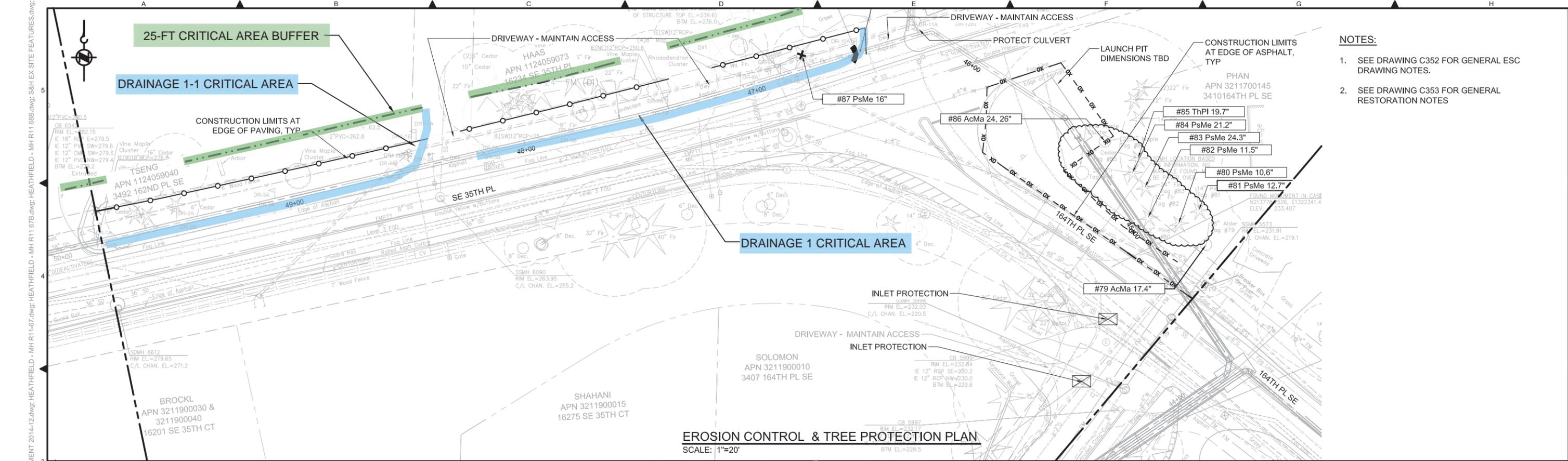
 Scott W. Radford
 CERTIFICATE NO. 688
 EXPIRES 6/29/2017

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



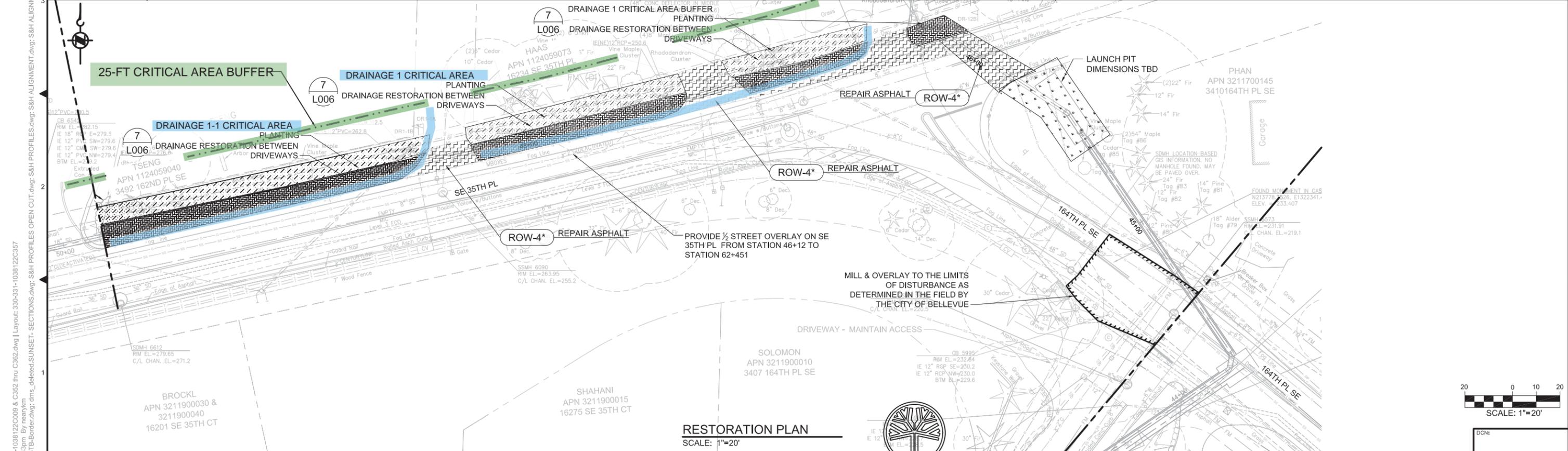
DEPARTMENT OF NATURAL RESOURCES & PARKS
 WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE
EROSION CONTROL & TREE PROTECTION PLAN
STA 01+00 TO 05+00

DATE: DECEMBER 2015
PROJECT FILE NO: 1038122
DRAWING NO: C352
SHT NO / TOTAL 27 / 41
REV NO: 0

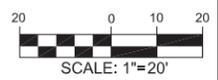


- NOTES:**
- SEE DRAWING C352 FOR GENERAL ESC DRAWING NOTES.
 - SEE DRAWING C353 FOR GENERAL RESTORATION NOTES

EROSION CONTROL & TREE PROTECTION PLAN
SCALE: 1"=20'



RESTORATION PLAN
SCALE: 1"=20'



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NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
CRITICAL AREAS
LAND USE PERMIT
 DECEMBER 2015



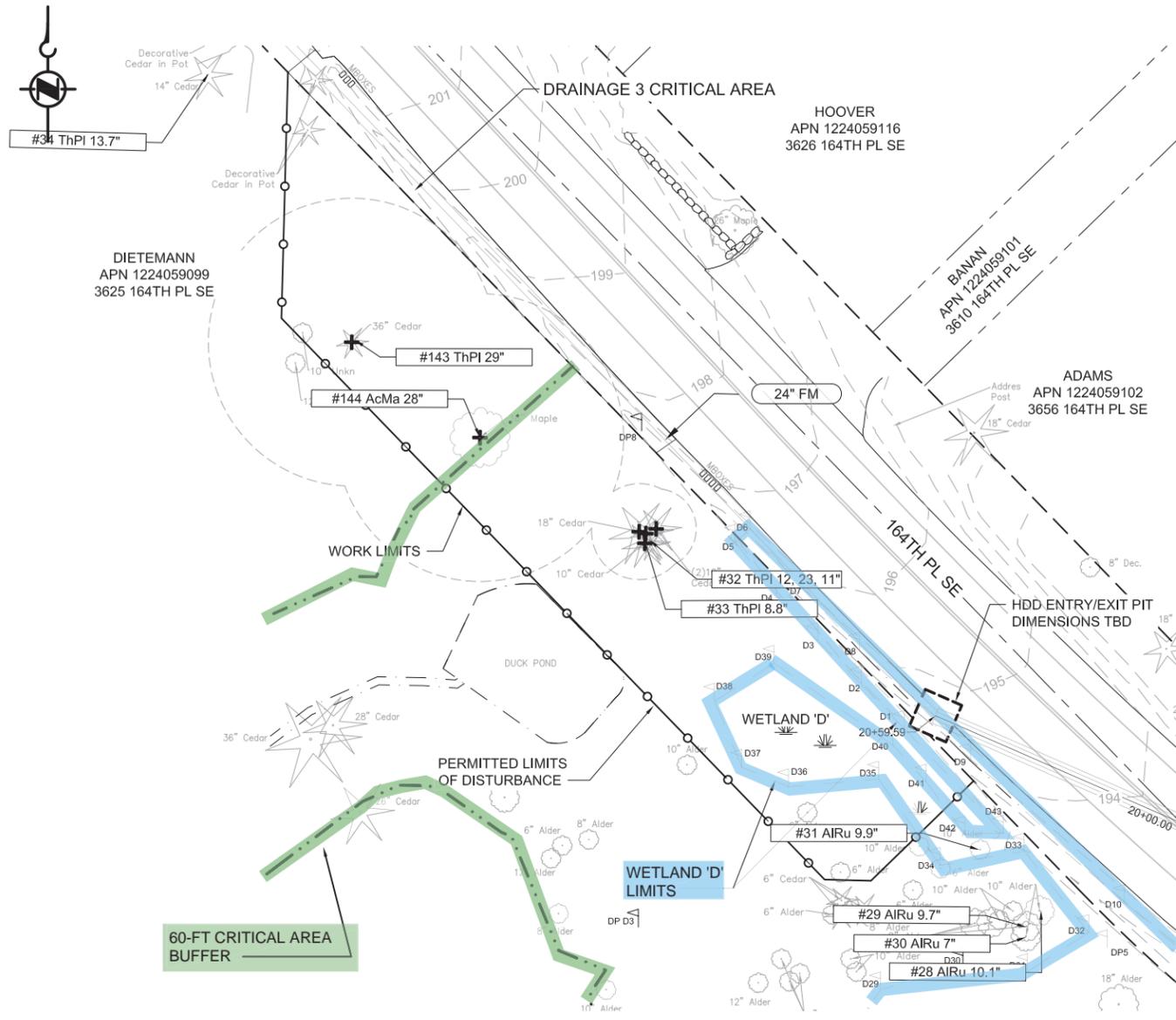
DESIGNED/DRAWN:
C. SCHOFIELD
 PROJECT ENGINEER:
S. RADFORD
 DESIGN APPROVAL:
R. GAUFF
 PROJECT ACCEPTANCE:
S. NAMINI

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

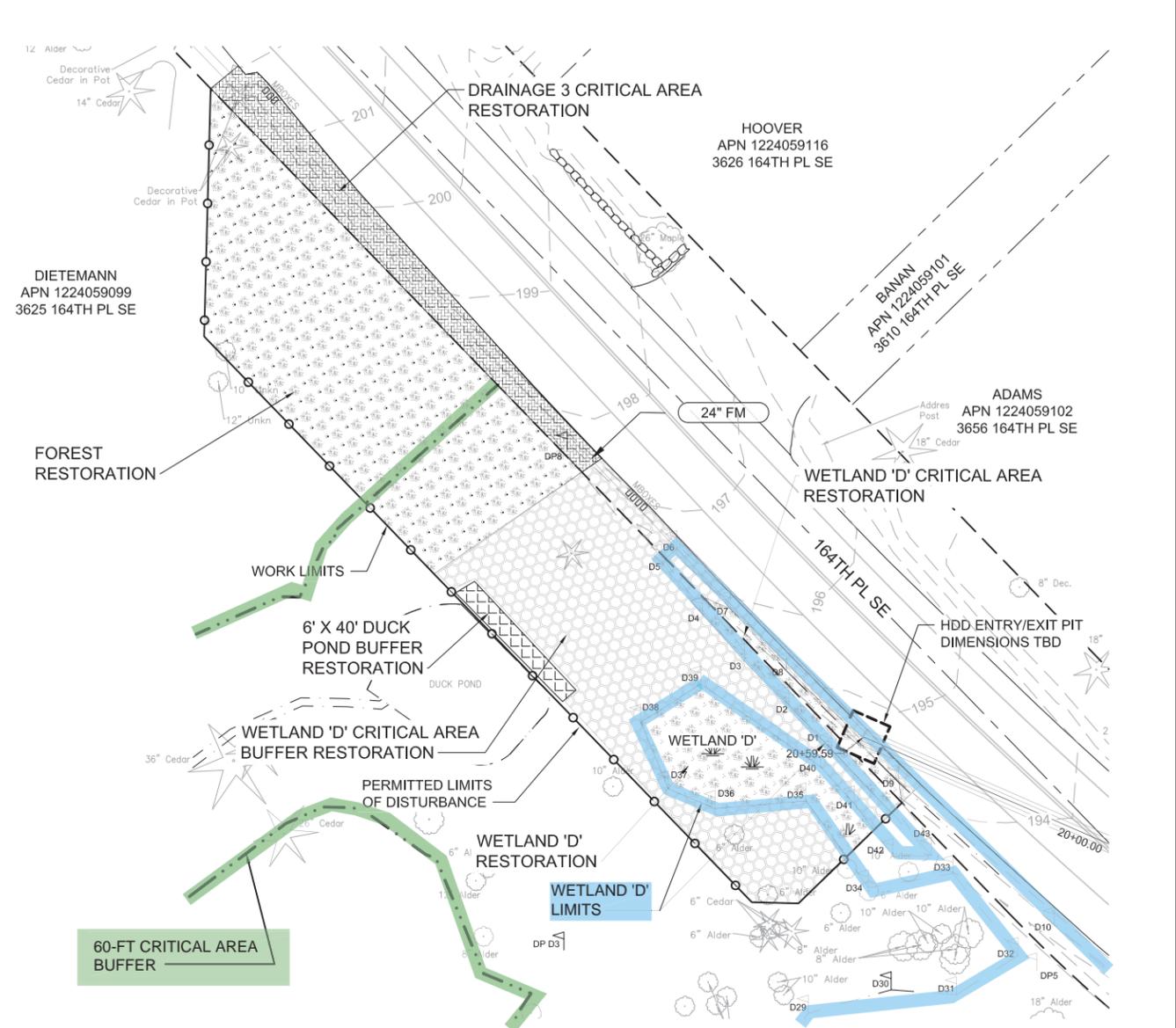


DEPARTMENT OF NATURAL RESOURCES & PARKS
 WASTEWATER TREATMENT DIVISION
SUNSET AND HEATHFIELD PUMP STATIONS
AND FORCE MAIN UPGRADE
HEATHFIELD TO EASTGATE
EROSION CONTROL/TREE PROTECTION & RESTORATION PLAN
DRAINAGE 1-1 AND DRAINAGE 1

DCN:	DATE:
	DECEMBER 2015
PROJECT FILE NO:	DRAWING NO:
1038122	C357
SHT NO / TOTAL	REV NO:
31 / 41	0



EROSION CONTROL & TREE PROTECTION PLAN
SCALE: 1"=20'



RESTORATION PLAN
SCALE: 1"=20'

NOTES:

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



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NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
 LAND USE PERMIT**
 DECEMBER 2015



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

SCALE:
1"=20'
 REFERENCE
 FACILITY NUMBER:
330-331
 CONTRACT NO:
C01008C16



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

DATE:
DECEMBER 2015
 PROJECT FILE NO:
1038122
 DRAWING NO:
C362
 SHT NO / TOTAL
32 / 41
 REV NO:
0

GENERAL WORK SEQUENCE

HEATHFIELD PUMP STATION RESTORATION

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

1. COMPLETE THE REMOVAL OF ANY NONNATIVE INVASIVE VEGETATION (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 MITIGATION/ 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 RESTORATION SEED MIX #2. 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.

KING COUNTY PROPERTY 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 ORGANIC MULCH ACROSS THE RESTORED AREA.

HEATHFIELD PS (STREAM BUFFER)

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

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 (NEAR WETLAND D) THESE PLANTS SHOULD BE INSTALLED AROUND THE POND EDGES.

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

SYMBOL	STRATUM	COMMON NAME	SCIENTIFIC NAME	SIZE	QUANTITY	SPACING (OC)
	TREE	WESTER RED CEDAR	THUJA PLICATA	1 GAL	15	12 Ft
		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 CEREAIFORMIS	1 GAL	15	6 Ft
	SHRUB	BLACK TWINBERRY	LONICERA INVOLURATA	1 GAL	60	6 Ft

VASA CREEK CROSSING (STREAM BUFFER)

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

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

RESTORATION SEED MIX #2 (DITCH AND DRAINAGE AREAS)

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

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NO	REVISION DESCRIPTION	BY	APVD	DATE



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



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

DCN:
DATE:
DECEMBER 2015
PROJECT FILE NO:
1038122
DRAWING NO:
L001
SHT NO / TOTAL
33 / 41
REV NO:
0

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

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 35 th 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 (164 th 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 164 th Place SE	Same as above for 'new force main along 164 th Place SE' Wetland D: 1,512 sf Buffer of Wetland D: 5,063 sf)	None

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.

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 GROUND COVER 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.	Early Spring	Early Spring	Early Spring
	Percent cover data collected along a transect.	Late Summer or Early Fall	Late Summer or Early Fall	Late Summer or Early Fall
Ditch stability	General observations of ditch bank stability at restoration locations.	Early Spring	Early Spring	Early Spring
		Late Summer or Early Fall	Late Summer or Early Fall	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 PHOTOPPOINTS;
- 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.

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NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
LAND USE PERMIT**
DECEMBER 2015

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



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

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

PLANT SCHEDULE SUNSET PUMP STATION

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	35	
	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	35	
	MYRICA CALIFORNICA / PACIFIC WAX MYRTLE	5 GAL	6	
	POLYSTICHUM MUNITUM / WESTERN SWORD FERN	5 GAL	41	
	ROSA NUTKANA / NOOTKA ROSE	5 GAL	21	
	RUBUS SPECTABILIS / SALMONBERRY	5 GAL	13	
	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	2 GAL	27	
GROUND COVERS	BOTANICAL NAME / COMMON NAME	CONT	SPACING	QTY
	FLEXIBLE POROUS PAVING WITH LAWN	SEED		1,053 SF
	FRAGARIA CHILOENSIS 'LIPSTICK' / BEACH STRAWBERRY	4"POT	18" o.c.	168
	GAULTHERIA SHALLON / SALAL	1 GAL	18" o.c.	152
	RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE	4"POT	12" o.c.	205
	SEDUM SP. / PREVEGETATED MAT	FLAT	12" o.c.	1,785

PLANT SCHEDULE HEATHFIELD PUMP STATION

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.	130
	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

SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	QTY	
	LONICERA INVOLUCRATA / TWINBERRY	1 GAL	27	
	PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK	1 GAL	37	
	ROSA NUTKANA / NOOTKA ROSE	5 GAL	26	
	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.	29

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	4
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
	LANDSCAPE RESTORATION

LANDSCAPE GENERAL NOTES

- 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.
- GROUND COVERS SHALL BE PLANTED IN AN EQUILATERAL TRIANGULAR SPACING PATTERN AT THE ON CENTER DISTANCES INDICATED IN THE DRAWINGS. WHERE GROUND COVER ADJUTS 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.
- INSTALL EROSION CONTROL MATTING ON ALL SLOPES 4H:1V OR GREATER.

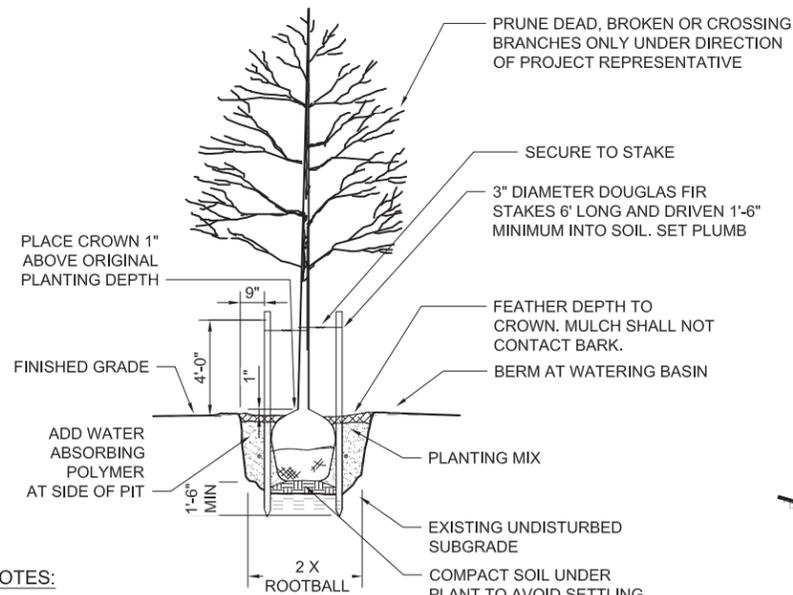
IRRIGATION GENERAL NOTES

- THE IRRIGATION WORK INCLUDES 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. RE-PIPE IRRIGATION SYSTEM AS NECESSARY TO MAINTAIN THE FUNCTION OF THE EXISTING IRRIGATION SYSTEM OUTSIDE OF THE WORK AREA.
- PROTECT EXISTING TREES; ALL TRENCHES UNDER DRIP LINE OF TREES SHALL BE HAND DUG.
- VERIFY CONDITIONS AND NOTIFY PROJECT REPRESENTATIVE OF ANY DISCREPANCIES BEFORE BEGINNING ANY WORK.

- PROVIDE STATIC WATER PRESSURE TEST AT THE POINT OF CONNECTION (P.O.C.) PRIOR TO SUBMITTAL AND PROVIDE PRESSURE REDUCING VALVE IF REQUIRED.
- THESE DRAWINGS DO NOT SHOW ALL OFFSETS AND FITTINGS REQUIRED FOR A COMPLETE SYSTEM.
- INSTALLATION OF IRRIGATION SYSTEM SHALL CONFORM TO ALL LOCAL, CITY AND COUNTY CODES.
- SLEEVE ALL LINES UNDER PAVING.

- LOCATE PIPING IN PLANTING AREAS WHENEVER POSSIBLE.
- SEE ELECTRICAL DRAWINGS FOR POWER CONNECTIONS
- 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.
- ALL NEW IRRIGATION VALVE BOX COVERS SHALL BE FITTED WITH LOCKING LIDS.

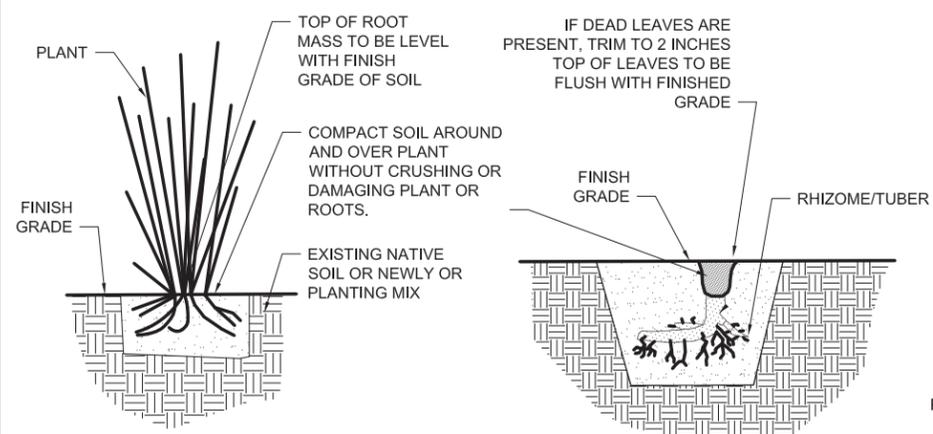
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- NOTES:**
- CAREFULLY CUT THE TWINE OR WIRE WRAPPED AROUND THE STEM AT THE TOP OF THE ROOTBALL.
 - REMOVE:
 - BURLAP FROM TOP HALF OF THE ROOTBALL AFTER TREE IS PLACED IN HOLE.
 - ANY CONTAINER HOLDING THE ROOT SYSTEM.
 - ALL TAGS, LABELS, AND INORGANIC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

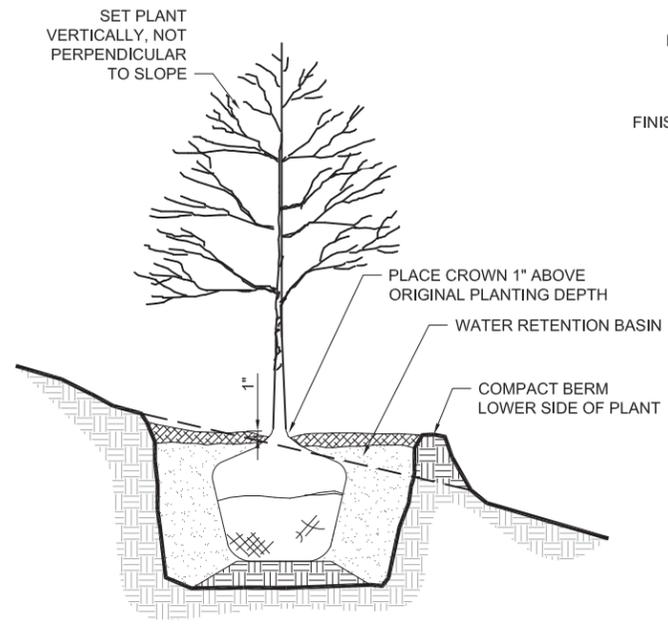
TREE PLANTING & STAKING (DECIDUOUS & EVERGREEN)

DETAIL 1
NOT TO SCALE



- EMERGENT PLANTING NOTES:**
- 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.
 - SOIL SHALL BE VERY MOIST TO WET AT TIME OF PLANTING.

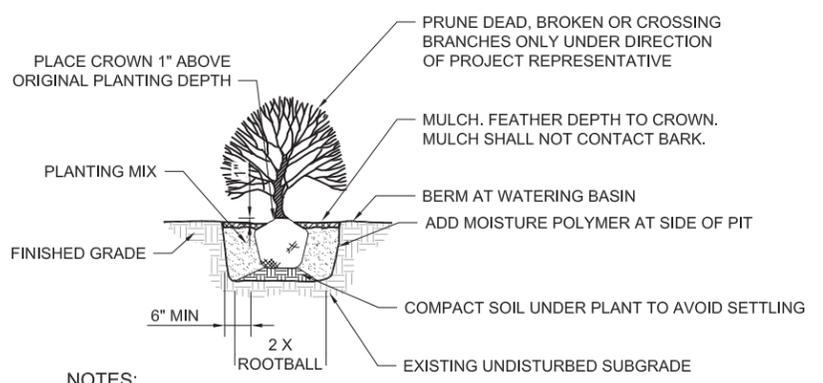
EMERGENT PLANTING
DETAIL 5
NOT TO SCALE



- NOTE:**
- SEE SHRUB PLANTING DETAIL 3 AND TREE PLANTING & STAKING DETAIL 1, THIS DRAWING.

PLANTING ON SLOPE

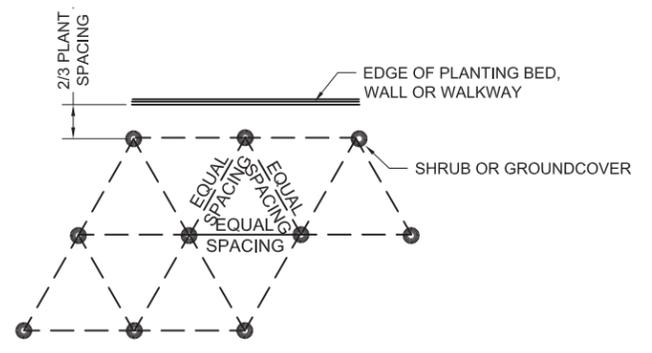
DETAIL 2
NOT TO SCALE



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

SHRUB PLANTING

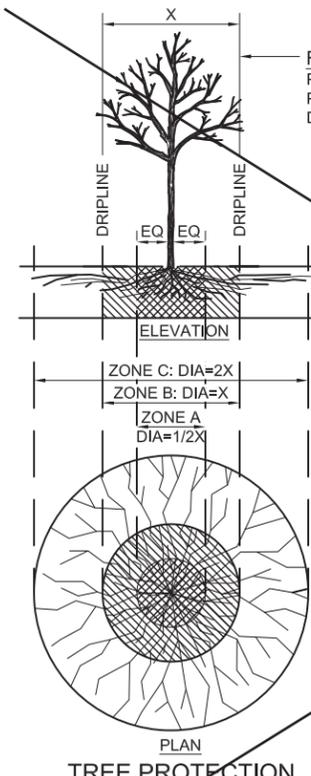
DETAIL 3
NOT TO SCALE



- NOTES:**
- REFER TO PLANTING SCHEDULE FOR SPACING

TYPICAL PLANT SPACING

DETAIL 4
NOT TO SCALE

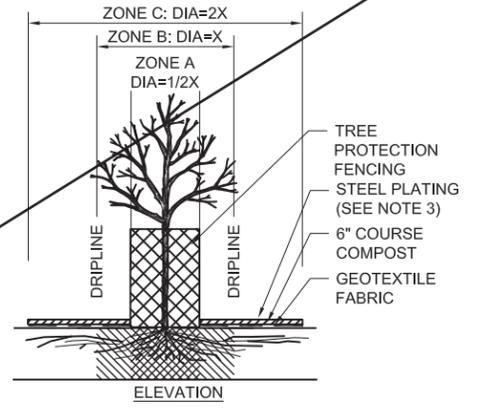


TRENCHING/EXCAVATION

- ZONE A (CRITICAL ROOT ZONE)**
- NO DISTURBANCE ALLOWED WITHOUT SITE/SPECIFIC INSPECTION AND APPROVAL OF METHODS TO MINIMIZE ROOT DAMAGE.
 - SEVERANCE OF ROOTS LARGER THAN 2" DIA REQUIRES PROJECT ARBORIST APPROVAL.
 - TUNNELING REQUIRED TO INSTALL LINES 3'-0" BELOW GRADE OR DEEPER.
- ZONE B (DRIPLINE)**
- OPERATION OF HEAVY EQUIPMENT AND/OR STOCKPILING OF MATERIALS SUBJECT TO PROJECT ARBORIST APPROVAL.
 - SURFACE PROTECTION MEASURES REQUIRED. SEE DETAIL 8/L002
 - TRENCHING ALLOWED AS FOLLOWS:
 - EXCAVATION BY HAND OR WITH HAND-DRIVEN TRENCHER MAY BE REQUIRED.
 - LIMIT REACH WIDTH. DO NO DISTURB ZONE A. MAINTAIN 2/3 OR MORE OF ZONE B IN UNDISTURBED CONDITION.
 - TUNNELING MAY BE REQUIRED FOR TRENCHES DEEPER THAN 3'-0".
- ZONE C (FEEDER ROOT ZONE)**
- OPERATION OF HEAVY EQUIPMENT AND/OR STOCKPILING OF MATERIAL SUBJECT TO PROJECT ARBORIST APPROVAL AND PER DETAIL 8/L002.
 - SURFACE PROTECTION MEASURES MAY BE REQUIRED. TRENCHING WITH HEAVY EQUIPMENT ALLOWED AS FOLLOWS:
 - MINIMIZE TRENCH WIDTH
 - MAINTAIN 2/3 OR MORE OF ZONE C IN UNDISTURBED CONDITION.

TREE PROTECTION

DETAIL 7
NOT TO SCALE



- NOTES:**
- GEOTEXTILE SHALL BE ROLLED OUT AND OVERLAIN ON THE EXISTING SURFACE.
 - 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.
 - FOR HEAVY EQUIPMENT USE, SUCH AS LARGE CRANES AND SEMI-TRACTORS INSTALL STEEL PLATING OVER THE COURSE COMPOST.
 - AFTER COMPLETION OF CONSTRUCTION ACTIVITIES, ALL PROTECTIVE MEASURES SHALL BE REMOVED.

ROOT ZONE PROTECTION

DETAIL 8
NOT TO SCALE

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NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
LAND USE PERMIT**
DECEMBER 2015



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

Scott W. Radford
CERTIFICATE NO. 688
EXPIRES 9/29/2017

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



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

**LANDSCAPE & IRRIGATION
DETAILS 1**

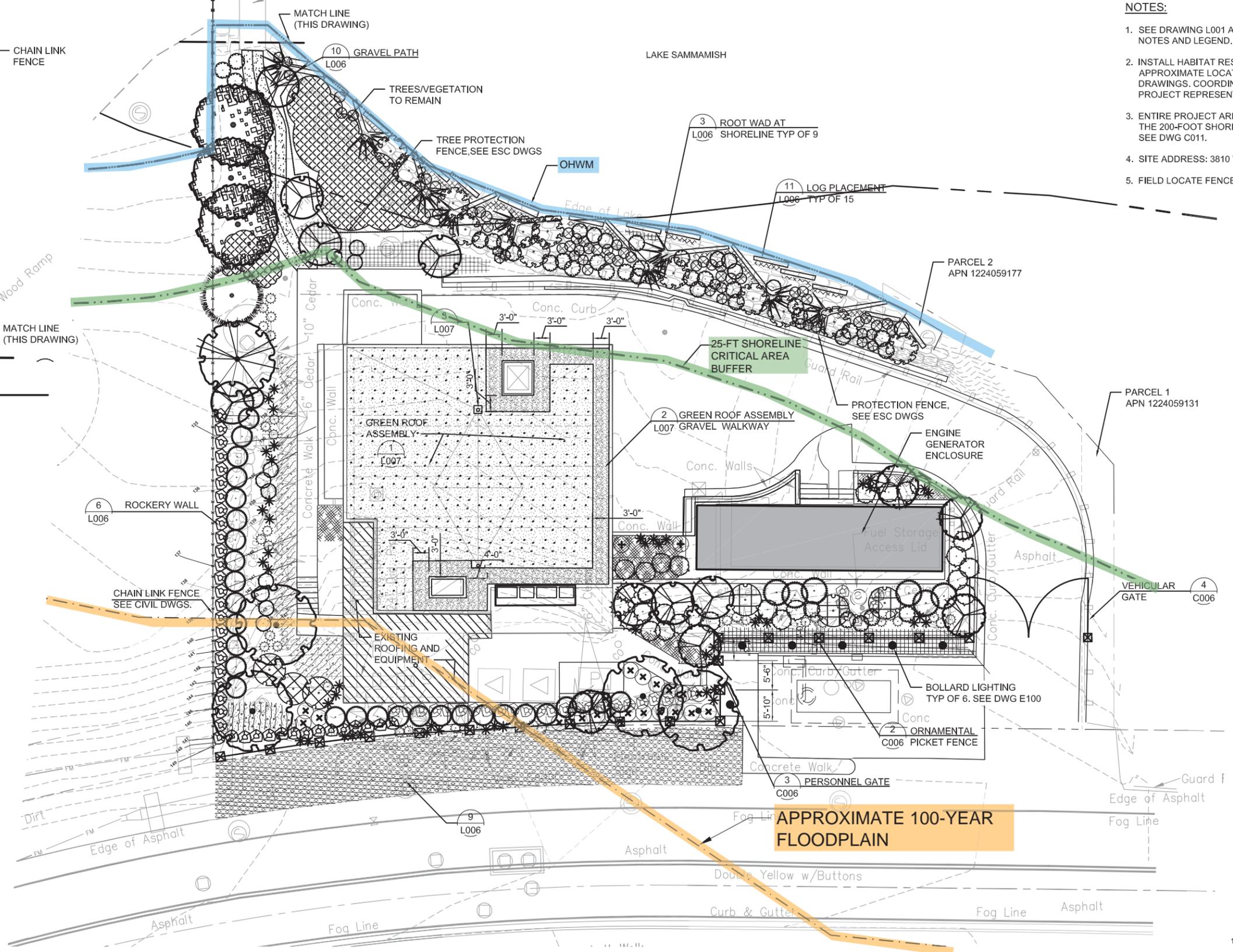
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SHT NO / TOTAL 36 / 41	REV NO: 0

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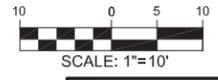


NOTE: 43 LF OF NEW FENCE FABRIC PLACED ON EXISTING POSTS. FABRIC SHALL EXTEND 2 INCHES BELOW OHW LINE AND EXTEND 6" ABOVE EXISTING DOCK ELEVATION.

PLAN
SCALE: 1"=10'



PLAN
SCALE: 1"=10'



- NOTES:**
1. SEE DRAWING 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.
 3. ENTIRE PROJECT AREA AS SHOWN LIES WITHIN THE 200-FOOT SHORELINE JURISDICTIONAL LIMIT. SEE DWG C011.
 4. SITE ADDRESS: 3810 W LAKE SAMMAMISH PKWY SE.
 5. FIELD LOCATE FENCE PILASTERS.

NO	REVISION DESCRIPTION	BY	APVD	DATE



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
 PROJECT ENGINEER:
S. RADFORD
 DESIGN APPROVAL:
R. GAUFF
 PROJECT ACCEPTANCE:
S. NAMINI

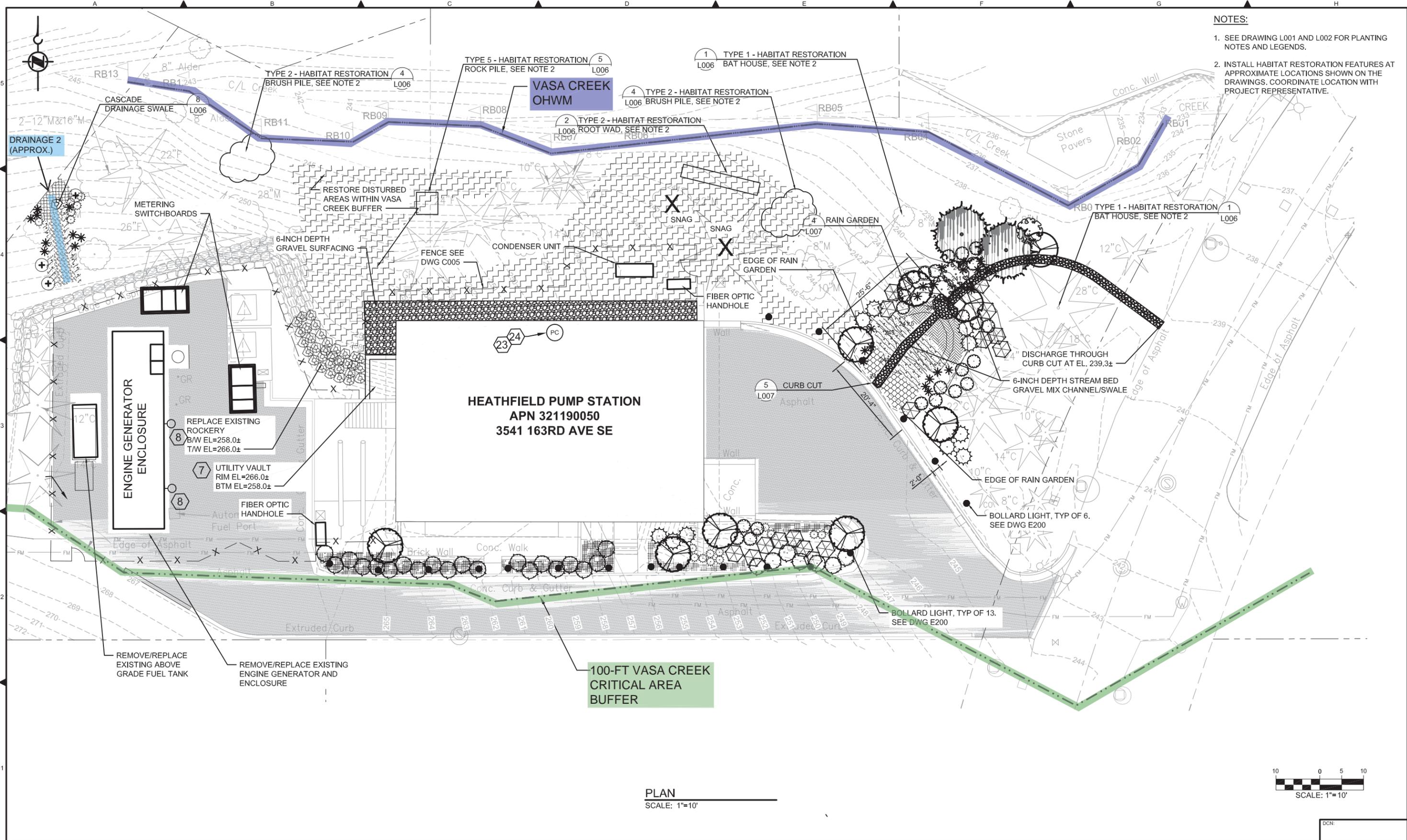
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 REFERENCE
 FACILITY NUMBER:
331
 CONTRACT NO:
C01008C16



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

DATE:
DECEMBER 2015
 PROJECT FILE NO:
1038122
 DRAWING NO:
L100
 SHET NO / TOTAL
39 / 41
 REV NO:
0

- NOTES:**
- SEE DRAWING L001 AND L002 FOR PLANTING NOTES AND LEGENDS.
 - INSTALL HABITAT RESTORATION FEATURES AT APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS. COORDINATE LOCATION WITH PROJECT REPRESENTATIVE.



PLAN
SCALE: 1"=10'

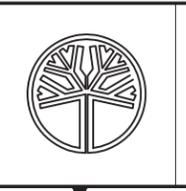


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NO	REVISION DESCRIPTION	BY	APVD	DATE



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

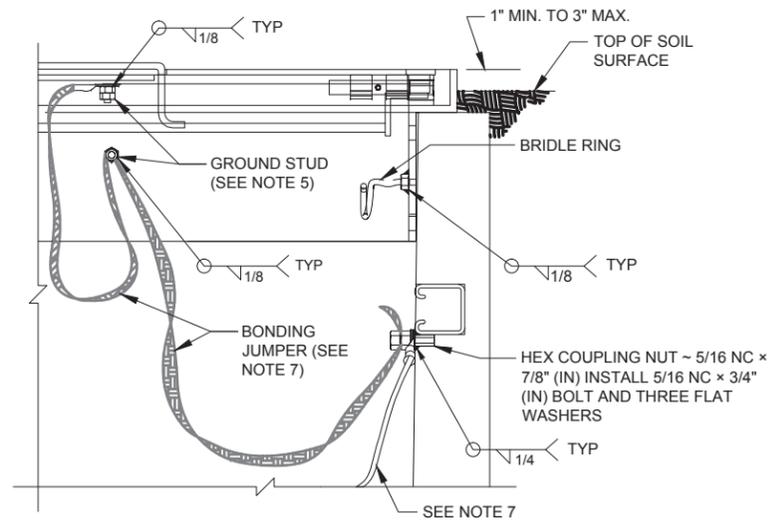
DESIGNED/DRAWN:
 S. RADFORD
 PROJECT ENGINEER:
 S. RADFORD
 DESIGN APPROVAL:
 R. GAUFF
 PROJECT ACCEPTANCE:
 S. NAMINI

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

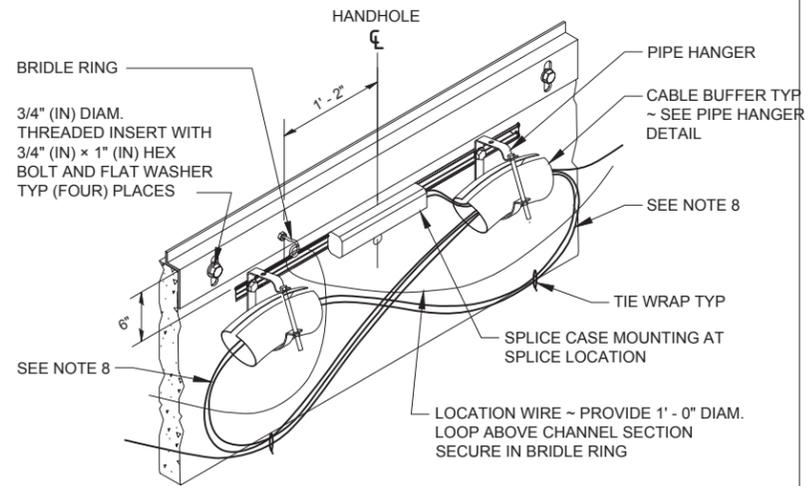
DEPARTMENT OF NATURAL RESOURCES & PARKS
 WASTEWATER TREATMENT DIVISION
 SUNSET AND HEATHFIELD PUMP STATIONS
 AND FORCE MAIN UPGRADE

**HEATHFIELD LANDSCAPE
 RESTORATION PLAN**

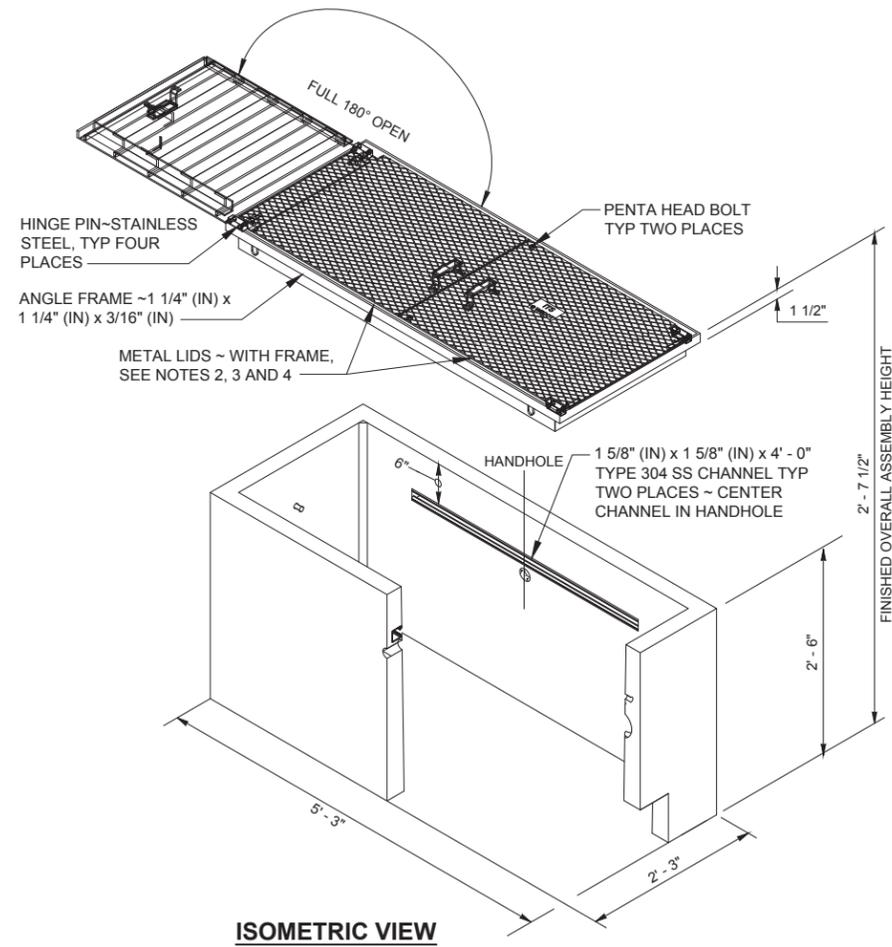
DCN:
 DATE:
 DECEMBER 2015
 PROJECT FILE NO:
 1038122
 DRAWING NO:
L200
 SHET NO / TOTAL
 40 / 41
 REV NO:
 0



DETAIL



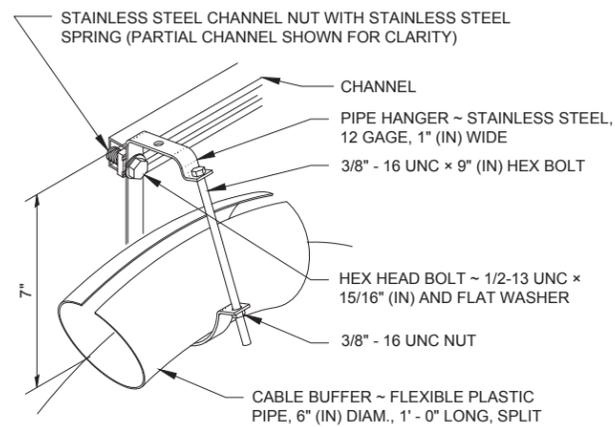
INTERNAL ISOMETRIC VIEW



ISOMETRIC VIEW

FIBER OPTIC HANDHOLE OPEN BOTTOM

DETAIL
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.

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NO	REVISION DESCRIPTION	BY	APVD	DATE



CITY OF BELLEVUE
**CRITICAL AREAS
LAND USE PERMIT**
DECEMBER 2015



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



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 / TOTAL 41 / 41
REV NO: 0