Appendix B CSWPPP - Construction Stormwater Pollution Prevention Plan

Construction Stormwater Pollution Prevention Plan

VaderENGINEERING

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Construction Stormwater Pollution Prevention Plan
(CSWPPP)

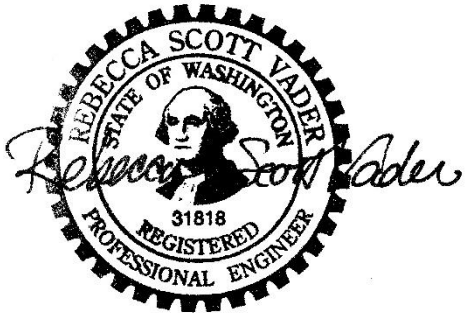
Elementary Portables
811 21st ST SE
Puyallup, WA 98372

Parcel(s): 0420352148

Permit No: _____

Application Submitted July 30,2024
Revised ___Aug 26, 2024
Oct 4, 2024
Approved _____,

Work for this project was performed for Cascade Christian Schools, and prepared in conformance with sound engineering principles and standards, with the best available site and technical information at the time of investigation. This work is specific to the project, site, and client, and should not be applied to any other purpose without consultation with Vader Engineering. The report contained herein has been prepared by the undersigned Professional Engineer(s) Licensed in the State of Washington.



Rebecca Scott Vader, PE

Proximity Requirement

A copy of this CSWPP Plan shall be retained onsite or within reasonable access to the site until construction completes and the site achieves permanent stabilization.

A log of preventative activities that indicate what actions were taken to maintain erosion control shall also be kept and be available for inspection.

EROSION CONTROL LEAD REQUIREMENT

The proponent shall be responsible to see that the general contractor identifies an Erosion and Sediment Control Lead for the Construction SWPPP. That individual shall be onsite or on call at all times. If a preconstruction meeting is held, this person shall attend. For sites disturbing 1 acre or more, that lead must be a Certified Lead. Certification may be obtained by an approved training program that meets the erosion and sediment control training criteria established by Ecology. See BMPC160 Certified Erosion and Sediment Control Lead (CESCL) for more information about the duties of the Lead.

CESCL (Required > 1 ac)

Lead Name:_ _____Brad Hines, BMA Solutions_
24hr Contact Telephone:_____253-736-3213____
Fax number:N/A___**Email** ___bmaexcavation@yahoo.com_
Address:___ 3160 84th CTE, Edgewood, WA 98371 __

If needed: Update

Lead Name:_____
24hr Contact Telephone:_____
Fax number:_____
Address:_____

Construction Emergency Contact:

Name:_____Ken Schmidt_____
24hr Contact Telephone:_____253-365-3974___

Owner Emergency Contact:

Name:_____Ray Ossman_____
24hr Contact Telephone:_____253-332-1216 ____

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Introduction to Construction Storm Water Pollution Prevention Plans

This narrative contains the concise, site-specific information about existing conditions constructions schedule, and other pertinent items to supplement what is shown on the drawings. This report shall be located on the construction site or within reasonable access to the site, and the drawings shall be kept on the construction site at all times.

One primary purpose of the CSWPPP narrative is to describe the scope of self-conducted inspections and set out inspection frequency. This narrative provides a basic template to document the major observations related to implementing the CSWPPP and actions taken to maintain, repair or improve erosions and sedimentation control (TESC) as a result of the ongoing inspections. The site and project descriptions are above in the main body of the text.

Approval of this Construction SWPPP does not constitute an approval of permanent drainage design (e.g., size and location of impervious surfaces, pipes, restrictors, channels, retention, detention/infiltration facilities, utilities, etc.). These are covered under different narratives and plans.

Each site, and some sub-sites, will select which Best Management Practices are expected to protect the receiving waters. For construction sites that eventually discharge to surface water, the primary concern is compliance with Washington State water quality standards. For sites that infiltrate runoff, both the infiltrative capacity of the constructed facilities and the prevention of groundwater pollution will be monitored.

The implementation of this Construction SWPPP and the construction, maintenance, replacement, and upgrading of these Construction SWPPP facilities is the responsibility of the applicant/contractor until all construction is completed and approved and vegetation and/or landscaping is established.

There are 13 elements to a Construction Storm Water Pollution Prevention Plan. However, some elements do not apply to every site. When this is encountered, a justification is provided in the text.

Note to Reader: The CSWPPP is formatted by section, with typical guidance presented at the beginning of a section and project- specific notes added in bold italic text at the end of the section. Adequate TESC control requires continuous adjustments to the stage of construction and weather conditions, so all BMPs are available to the contractor if needed for control.

Since these reports draw heavily on reference documents, lists, and standards, in certain areas of the report, typical items may be included in the text to indicate that they were considered, but ~~struck through~~ to show that they are not applicable to this project. Correspondingly, tables and lists may have <u>underlined</u> or **bold** text to indicate selected items.

Section 1 - General Project Description

The project intends to add parking, paving work, landscaping, and series of temporary wet and dry portable outlying buildings to support elementary classrooms near the junior high and high school buildings on the existing school site located at 811 21st ST SE in the jurisdiction of Puyallup, Washington. This project will be on-site work only, retaining current accesses from the public road and served by existing public water, sewer, and power, with onsite service extensions. Stormwater will continue to be collected and on-site and additional on-site conveyance will be provided with drain connections for the annexed property to discharge to the existing stormwater infrastructure available on the school site.

The proponent intends to retain and utilize the existing stormwater facilities and collection system to accommodate the new and replaced project areas. The project anticipates no impacts to critical areas so includes no mitigation on or adjacent to the site.

Please refer to the CSWPP Plan Sheets to assist in the description of the project and site and for the full details of the Temporary Erosion and Sediment Control Plan for the construction period. The objective of a CSWPPP is to control erosion and prevent sediment and other pollutants from leaving the site during the construction phase of a project. The personnel and practices narrated in this CSWPPP describe how that is to be accomplished.

Table 1 – Parcel Data

Addresses:	811 21st Street SE
Parcel Number:	0420352148, 0420263083 (Annexed)
Lot Area:	756,448 SF (17.37 AC)
Total Developed Site:	756,448 SF (no native conditions on site)
Project Site Area Total Disturbed:	33,439 SF
Pervious Area Cleared for 'first time'	0
Impervious Area Pre-Project:	6.10 AC
New & Replaced Impervious:	0.50 AC
Cut	0 - CY
Fill	1,500 - CY
Project Landscaping:	Grass, Trees, Shrubs
Soils:	Medium Dense Silty Sand

Utilities at the site: Water: City of Puyallup; Sewer: City of Puyallup; Power: PSE; Communications: Qwest; Gas: PSE; Cable: Comcast

Current Discharge: Onsite detention pond, discharge to Deer Creek, a tributary to the Puyallup River

Proposed Discharge: Same

Permanent stabilization: Asphalt paving, curbs, structures, and landscaping.

Section 2 – Site, Adjacent, and Critical Areas Descriptions

SITE: The project site is near the center of an existing school campus. The project area was previously cleared, graded, developed, and benefits from existing Master Plan infrastructure. Please see figure below.

The following tabulates the existing site data:

Addresses:	811 21st ST SE
Parcel Number:	0420352148, 0420263083 (Annexed)
Lot Areas:	756,448 SF (17.37 AC)
Total Developed Site:	756,448 SF (no native conditions on site)
Project/Clearing Area:	33,439 SF
Impervious Site* Area:	See Table on CSWPP Plan
Zoning:	RS-08/RS-04
Soils (See Appendix):	Sandy Loam
Infiltration used?:	Stub-out Perforated Pipe Connection, Unlined Detention Pond, and expect incidental infiltration.
Infiltration Rates:	0.35 in/hr (See soil test summary attached)

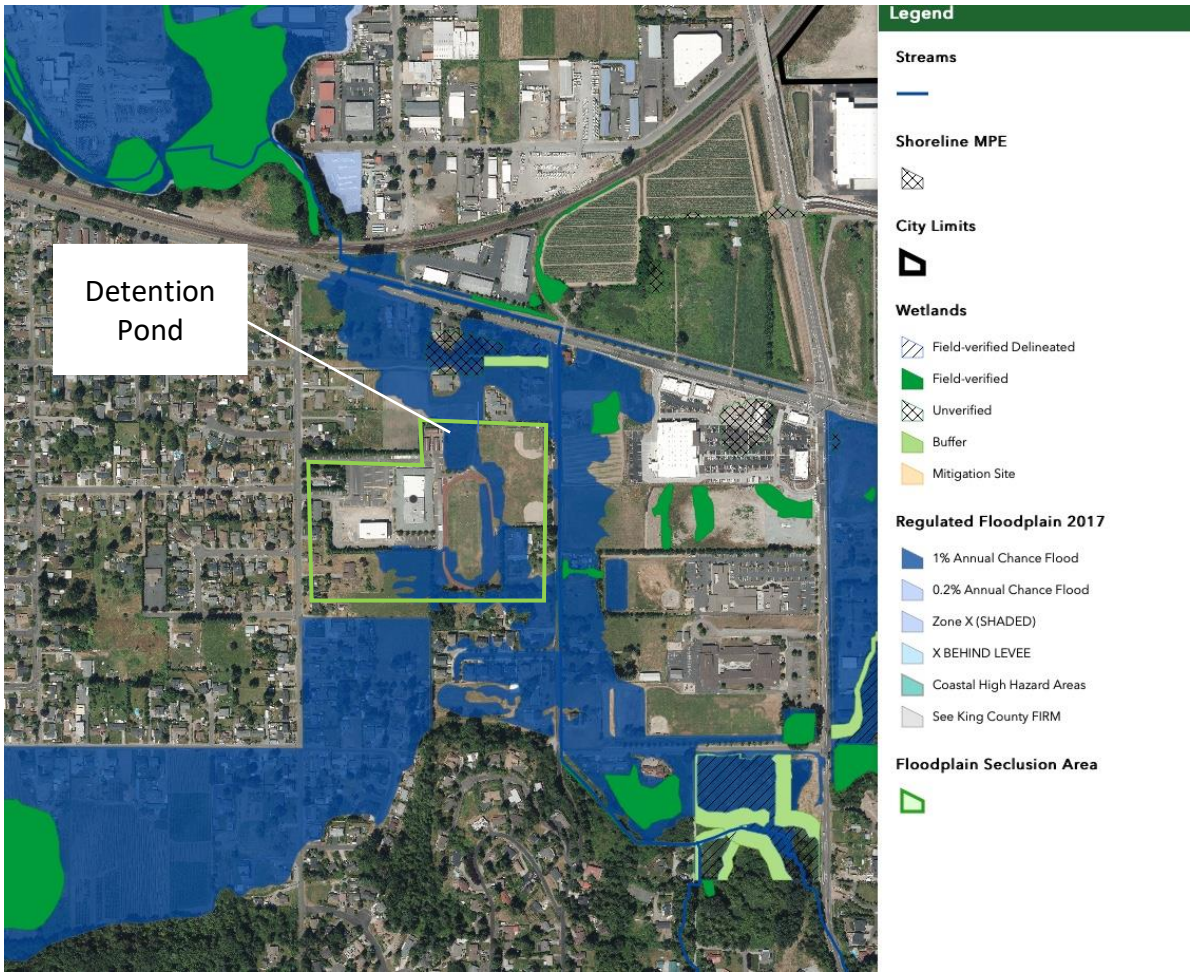
Connecting to right-of-way drainage system? Onsite connection, which discharges to 21st ST SE

Utilities at the site: If needed, special installation measures to avoid conflict with stormwater quantity and quality control features are listed with the utility.

Water: City of Puyallup
Sewer: City of Puyallup
Power: PSE
Communications: Qwest
Gas: PSE

Fuel Tanks: No evidence of fuel tanks found; tanks not considered likely with site history.

Figure 1: Critical Areas Map



Source: City of Puyallup GIS. Map disclaimed as approximate and not surveyed.

Adjacent Areas:

Residential Areas:	Residential properties surround the site.
Roads:	21st ST SE (not affected)
	25th ST SE (not affected)
Stream and receiving waters:	Overflow to Deer Creek then the Puyallup River.
Lakes:	None.
Wetlands:	None
Run on to the active project site expected?	No, due to constructed drainage and high points.

The drainage discharge to the immediate receiving water is infiltration. The overflow is piped north to Deer Creek where it enters a well-maintained, managed, existing drainage system.

Critical Areas:

Inside a mapped Critical Drainage Area?	No.
Constructing within a Critical Area or buffer?	No.
Within 200 feet of a mapped Critical Area?	No

Critical areas for runoff that are down gradient of the project site?

In basin, but Not directly downgradient.

Special requirements for working near or within critical areas:

No site disturbance proposed in critical areas.

Soils: Please see the *Geotechnical Investigation* by Cobalt Geosciences for more detail on items summarized below:

Soil Name(s):	Puyallup Fine Sandy Loam
Soil Mapping unit:	Sand
Erodibility:	Slight to Moderate
Settleability:	See Soils Report in Appendix D
Permeability:	Poor
Depth:	8.5-9.5 ft (limits of observation)
Texture:	Sandy Loam
Soil Structure:	See Soils Report in Appendix D

Potential Problems: Silt traces, if present in the soils will be the major contributors to sediment-laden water, as the sand and gravel will settle quickly.

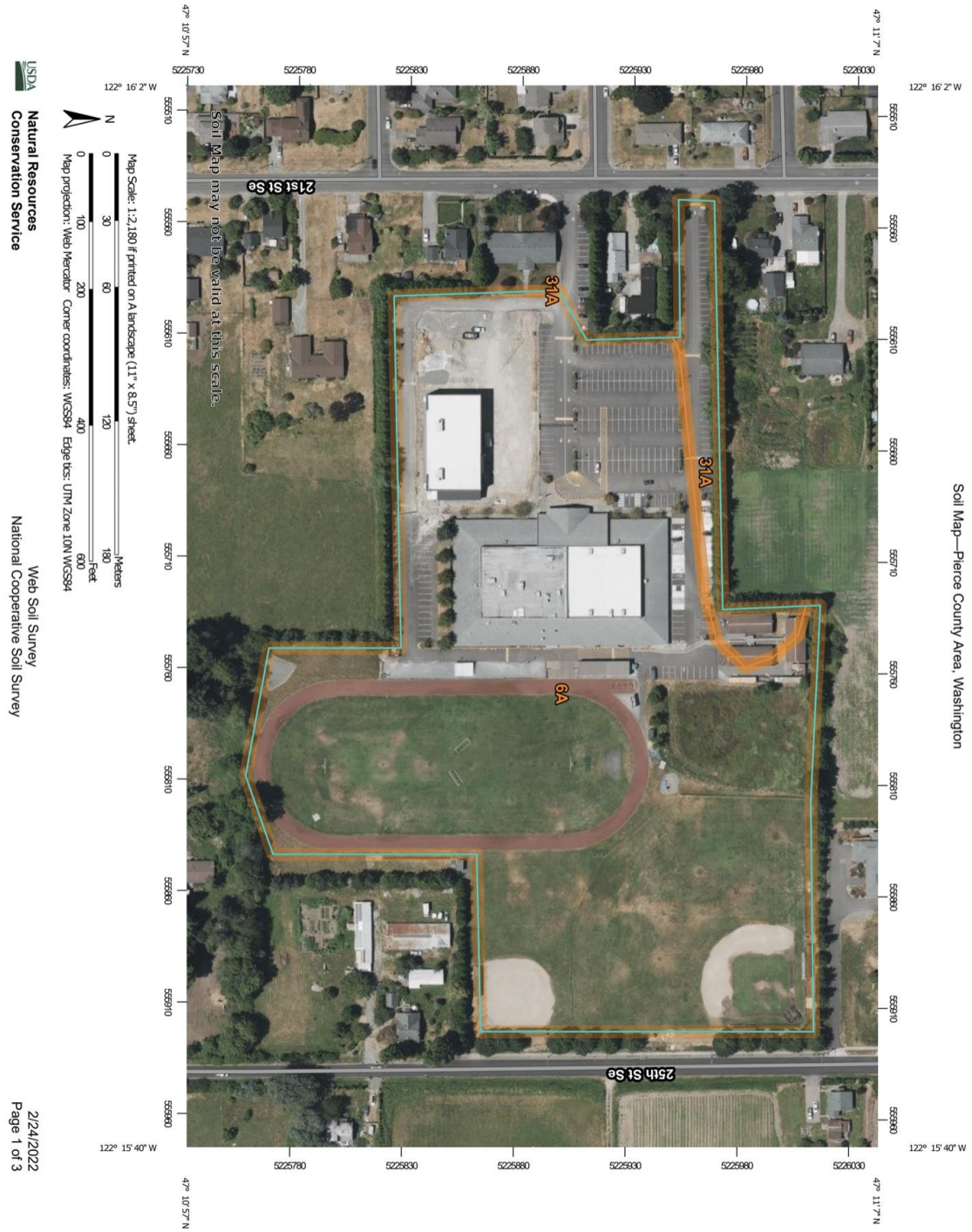
Net grading /cut /fill:

CUT & FILLS
1,500 CU. YDS. - FILL 0 CU. YDS. - CUT 1,500 CU. YDS. NET - FILL NOTE: CUTS AND FILLS ARE PROVIDED FOR PERMIT PURPOSES ONLY. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO NECESSARY CUT AND FILL QUANTITIES.

The goal to reduce net fill and import will be pursued with re-using excavated soil as structural fill whenever it meets specifications. Imported material meeting specifications for pavement courses, pipe bedding, trench interceptor, turf support, and structural fill will be used as needed to achieve project goals with the construction conditions.

Unsuitable export, if any, will be to accredited/commercial receiving pit.

Figure 2 – Soils Map and Work Area



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6A	Briscot loam	13.6	94.3%
31A	Puyallup fine sandy loam	0.8	5.7%
Totals for Area of Interest		**14.5**	**100.0%**

Section 3 - Construction BMPs 13 Elements

The following list describes how each of the required elements is addressed. The types of BMPs selected are discussed below, and the locations, details, and related notes are shown on the drawing sheets. Many of the BMPs have inspection or maintenance components. It is these items that will populate the CSWPPP log kept electronically by the designated inspector. The log will record the date, the recent rainfall events, BMP modifications, and progression of construction, such as permanent stabilization of an area.

Some of the BMPs selected are redundant, however, all CSWPPP BMPs are included to provide flexibility during construction. BMPs may be substituted within type and/or layered across elements or time to achieve the necessary level of control.

ELEMENT 1: MARK CLEARING LIMITS

Clearing limits are shown on the drawing the CSWPP, also known as TESC Plan, and were selected to fulfill the requirement to limit ground disturbance.:

Before beginning land-disturbing activities, flag or paint the clearing limits. Retain any duff layer, topsoil and groundcover within the clearing limits to the maximum degree practicable. The project limits will be marked by high visibility paint or flagging on the hard surfaces and upgradients, and:

- BMP C233 Silt Fence or
- BMP C 235 Straw Wattles on down gradients and pervious areas.
- BMP C103 High Visibility Fence for in transit areas

Not initially selected or not applicable:

- BMP C101 Preserve Natural Vegetation, (none)
- BMP C102 Buffer Zones.

ELEMENT 2: ESTABLISH CONSTRUCTION ACCESS

The construction vehicle access and exit shall be limited to one route if possible. To fulfil this requirement, use:

- BMP C105 Stabilized Construction Entrance
- BMP C107 Construction Road/ Parking Area Stabilization (existing onsite paving)

Check daily during site activity for track out onto ROW. Clean daily or as necessary, more frequently during wet weather, to prevent sediment from entering waters of the state.

- Sediment shall be removed from roads by shoveling or pickup sweeping and shall be transported to a controlled sediment disposal area.

- Pavement washing will be allowed only after sediment is removed in this manner. Wastewater shall be controlled by pumping back onsite, or otherwise be prevented from discharging untreated into systems tributary to state surface waters.
- If sediment is tracked offsite, refer to extra measures in the entrance notes on the drawings.

Not initially Selected:

- BMP C106 Wheel Wash

The proposed construction access will be from the existing drive approach within right-of-way and/or a new access from existing parking.

ELEMENT 3: CONTROL FLOW RATES

This project conveys runoff to, and in, constructed components so care is needed to prevent erosive flow rates from accumulating sediment and discharging it in interceptor/infiltration beds before full stabilization is achieved. Protection from internal flow rates may be necessary to avoid gully formation or excessive erosion inside the construction limits, primarily where steeper grades are used.

The controls to meet this requirement are split between large area and channel measures. To reduce formation of runoff, concentration of rivulets, and/or mobilization of fines over Large Areas:

- BMP C120 Temporary and Permanent Seeding
- BMP C121 Mulching
- BMP C122 Nets and Blankets
- BMP C130 Surface Roughening
- ~~BMP C131 Gradient Terraces~~
-

And to intercept, slow, and re-spread runoff in temporary or permanent Channels:

- BMP C207 Check Dams,
- BMP C235 Wattles,
- BMP 201 and 202 Grass-lined and Blanket or Rock-Lined Channels, and
- ~~BMP C203 Water Bars.~~

Other BMPs of this type and BMPs primarily listed under other elements may be combined or substituted to achieve stable base in onsite conveyances. In the event that prescriptive sizing from the table in Part 4 below becomes ineffective, custom sizing was performed according to the sizing calculations contained in Appendix A of this document.

Check weekly for adequate control of erosion between placements. Sediment retained behind these velocity resistors shall be removed before the accumulated depth exceeds ½ the depth of the device.

ELEMENT 4: INSTALL SEDIMENT CONTROLS

Design of Construction Sediment Control was performed in accordance with 2019 SWMMWW Vol II BMP C240 to minimize erosion and avoid discharge of sediment offsite or into onsite sensitive areas.

Sediment controls will be needed for soil stockpiles, at the edges of disturbance, and along the upstream side of interceptor/infiltration ~~or dispersion~~ trenches that are near to upslope disturbances.

Where safe and practical, trench spoils will be placed uphill, or for infiltration or dispersion trenches, removed. Also use:

- ~~BMP C231 Brush Barrier (if brush harvestable onsite or nearby)~~
- BMP C232 Gravel Filter Berm
- BMP C233 Silt Fence
- BMP C234 Vegetated Strip (where available on the east side).
- BMP C235 Wattles placed at the downstream edges of disturbance
- BMPC 251 Construction Stormwater Filtration

These BMPs are not intended to act as a barrier to flows. Check uphill sides for signs of clogging or sediment accumulations more than 1/3 the height of the device. If this occurs, remove the sediment, add another parallel BMP, or replace.

Due to the area of disturbance, to prepare for the event that construction occurs during wet weather and the above do not adequately control sediment, also use:

- BMP C240 Sediment Trap(s)

There are several published approximations available for addressing the needs of sub basins as construction progresses. Sizing of the sediment traps may enlarge a trap above the minimum size shown on the standard drawings. The surface area of the trap is 2080 SF per CFS of inflow from a 2-year runoff event. The 2- year event runoff from either the continuous modelling software or the Rational Method is used to size sediment settling, divided over multiple traps so that each portion of the excavation being worked had a trap before the temporary discharge point. The excavation area is modelled as ½ lawn and ½ impervious to simulate bare soil.

Because this is an extensive site, a larger unit is also selected:

- BMP C241 Temporary Sediment Pond

  (See Form C for sizing)

  The Temporary Sediment pond has at least a 3:1 length to width ratio. If insufficient, add temporary filter fabric or bale baffles in increase sinuosity to between 3:1 and 6:1

The proposed plan is intended as guidance and the Contractor shall be responsible for implementing and maintaining appropriate sediment controls based on changing site conditions.

ELEMENT 5: STABILIZE SOILS

All exposed and unworked soils shall be stabilized by application of effective BMPs that protect the soil from the erosive forces of raindrop impact and flowing water, and wind erosion. From October 1 through April 30, no soils shall remain exposed and unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed and unworked for more than 7 days.

Soils shall be stabilized at the end of the shift before a holiday or weekend if needed based on the weather forecast. This applies to all soils on site, whether at final grade or not.

Stabilizing soils will be a key to constructing wet season grading and drainage. A wide selection of stabilization BMPS is proposed in order to meet the varied needs of cut and fill slopes, stockpiles, and surfaces brought near grade but not yet paved, including, but not limited to:

- BMP C120 Temporary and Permanent Seeding
- BMP C121 Mulching
- BMP C122 Nets and Blankets
- BMP C123 Plastic Covering
- BMP C124 Sodding
- BMP C125 Topsoiling/Composting
- BMP C126 Polyacrylamide (PAM) for Soil Erosion Protection
- BMP C130 Surface Roughening
- BMP C 131 Gradient Terraces
- BMO C140 Dust Control

All of these BMPs require good contact with the ground and prompt repair of areas that are damaged. Check for rills and re-grade to avoid gully formation.

The proposed sediment control details and notes are provided on Sheets C2 through C3 of the Plan set.

ELEMENT 6: PROTECT SLOPES

This project includes trenching and temporary cuts for foundations ~~and/or permanent cut and fill slopes~~ up to 2H: 1V that will need protection from erosion during rainfall and storm events. The site soils will erode before stabilization is achieved, so it is important to divert runoff away from slopes with permanent or temporary interceptors.

In addition to the BMPs listed in elements above, if run-on begins to occur, apply above the slope as needed:

- BMP C200 Interceptor Dike and Swale (if these exist in places, maintain)
- BMP C205 Subsurface Drains
- BMP C206 Level Spreader
- BMP C 207 Check Dams

- BMP C208 Triangular Silt Dike to prevent gully formation or other erosion of the constructed slopes.

Direct the flow line of these features at grades of .5 to 1% to an outfall above a permanently stabilized vegetated strip or facility which can safely contain the stormwater.

Check outlets and make timely repairs to avoid gully formation. When the area below the diversion is permanently stabilized, remove the BMP and blend the channel with the natural surface.

Provide drainage to remove ground water intersecting the slope surface of exposed soil areas.

Slope protection primarily for trenching, excavation, and proposed stockpile areas.

ELEMENT 7: PROTECT DRAIN INLETS

Provide protection for all storm drain inlets within or down slope of construction until permanent stabilization is achieved. For inlets that are in operation before permanent stabilization of the disturbed drainage area, apply:

- BMP C220 Storm Drain Inlet Protection (any of multiple configurations)

Check inlet protection filters at least weekly and after storm events. Clean or replace clogged inserts or exterior filters. Take care not to wash sediment into storm drains while cleaning, but spread removed material evenly over the surrounding land or move to a stockpile and stabilize as appropriate.

Protection needed at onsite inlets, existing and proposed.

ELEMENT 8: STABILIZE CHANNELS AND OUTLETS

All temporary onsite conveyance channels shall be designed, constructed and stabilized to prevent erosion from the peak 10-minute flow velocity from a Type 1A 10-year 24-hour frequency storm for the developed condition, or alternate method ad detailed in the SWMMWW procedure in Vol II Section 3.3.3. Element 8.

Stabilization, including riprap armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream reaches is already provided at the outlet of the conveyance system.

In the event that temporary or permanent channels shows signs of erosion, stabilize with:

- BMP C202 Blanket-lined or Rock-Lined Channels
- ~~BMP C203 Water Bars~~
- BMP C204 Pipe Slope Drains
- BMP C205 Subsurface Drains
- BMP C206 Level Spreader
- BMP C207 Check Dams and

- BMP C 208 Triangular Silt Dike (geotextile encased)
- BMP C209 Outlet Protection.

Check on any Channel Stabilization features for inadequate performance, such as erosion at the sides, or sediment accumulation during and after each runoff producing rainfall. If significant erosion occurs between check dams, install a protective liner on that portion of the channel. Remove sediment before it exceeds ½ the depth of the backwater/sump.

ELEMENT 9: CONTROL POLLUTANTS

All pollutants, including waste materials and demolition debris, that occur on-site shall be handled and disposed of in a manner that does not cause contamination of stormwater. See the Source Control section of the Drainage Report for more information. A copy of the permitted and prohibited discharges list is appended to this report for convenience. Use:

- BMP C151 Concrete Handling
- BMP C153 Material Delivery, Storage and Containment

to prevent pollution from concrete foundation wash waters, petroleum products, detergents, soil stabilizers, fertilizers, asphalt compounds, or paints in the event that they are stored on the project site. Such items stored in their usual and accustomed places in the buildings and places outside the construction area are not subject to these construction provisions.

Cover, containment, and protection from vandalism shall be provided for all chemicals, liquid products, petroleum products, and non-inert wastes present on the site (see Chapter 173-304 WAC for the definition of inert waste).

Keep material storage areas clean, organized, and supplied with appropriate spill cleanup materials or kits. Further provisions may be necessary for liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117 of 302. In the unlikely event that these are part of the project site, add to the inspection log document the selection of proper storage, secondary containment, adequate spacing, and other items listed in the BMP.

Maintenance and repair of heavy equipment and vehicles, and other activities which may result in discharge or spillage of pollutants to the ground or into stormwater runoff must be conducted using spill prevention measures, such as drip pans. Contaminated surfaces shall be cleaned immediately following any discharge or spill incident. Report all spills to 911. Emergency repairs may be performed onsite using temporary plastic placed beneath and, if raining, over the vehicle.

Concrete work and other high pH components need appropriate protections, use where needed:

- BMP C152 Sawcutting and Surfacing Pollution Protection
- BMP C154 Concrete Washout Areas
- ~~BMP C250 Construction Stormwater Chemical Treatment~~
- ~~BMP C251 Construction Stormwater Filtration~~
- ~~BMP C252 High pH Neuralization Using CO_2~~
- ~~BMP C253pH Control for High pH Water~~

Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Manufacturers' label recommendations shall be followed for application rates and procedures.

Wheel wash, or tire bath wastewater, shall be discharged to a separate onsite treatment system or pumped and hauled to a sanitary sewer facility if allowed by the local wastewater authority.

The Contractor shall be responsible that no wastes enter the runoff.

ELEMENT 10: CONTROL DE-WATERING

Other than gravity footing drains to relieve pressure at foundations and retaining walls, permanent dewatering not expected. In the event that permanent dewatering is needed, contact the geotechnical and civil engineers for coordination of outfall. If temporary dewatering is needed, discharge only non-turbid water to the vegetated areas of the site. Use filters to clean turbid water if necessary, including the use of:

- BMP C 236 Vegetative Filtration.
- BMP C240 Sediment Trap

Highly turbid of otherwise compromised dewatering water, such as from concrete pours or clean up, shall be handled separately from stormwater. (BMP C151 Concrete Handling)

All foundation and trench de-watering water, which has similar characteristics to stormwater runoff at the site, shall be discharged into a controlled conveyance system, prior to discharge to a sediment trap or sediment pond. Channels must be stabilized, as specified in Element #8.

~~Clean, non-turbid de-watering water, such as well-point ground water, can be discharged to systems tributary to state surface waters, as specified in Element #8, provided the de-watering flow does not cause erosion or flooding of the receiving waters. These clean waters should not be routed through stormwater sediment ponds.~~ *Ongoing dewatering not expected.*

Other disposal options, depending on site constraints, may include: 1) infiltration, 2) transport offsite in vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters, 3) onsite treatment using chemical treatment or other suitable treatment technologies, or 4) sanitary sewer discharge~~.~~ or 5) use of sedimentation bag with outfall to a vegetated ditch or swale for small volumes of localized dewatering.

Significant dewatering activities are not expected during this project; however, the Contractor shall be responsible that no wastes enter the runoff.

ELEMENT 11: MAINTAIN BMP'S

The construction phase erosion and sedimentation BMPs must be maintained until the site is accepted by the jurisdiction as permanently stabilized. The BMP's and any accumulated sediments or waste then need to be removed promptly, within 30 days.

For a construction site of at least 1 acre, (this project disturbes over an acre) a:

- BMP C160 Certified Erosion and Sediment Control Lead is prescribed, and is always recommended.

The Owner/Contractor must identify the inspector charged with visually examining stormwater that discharges from site, if any, for:

- Suspended sediment,
- Turbidity,
- Discoloration, and
- Oil sheen.

This inspector will evaluate the effectiveness of BMPS and determine if maintenance, repair, or improvement is necessary to achieve discharge thresholds.

- BMP C150 Materials On Hand will allow efficient maintenance.

Inspect BMP implementation and maintenance and document in the site log at least once a week and within 24 hours of a precipitation event that causes a stormwater discharge from the property. In the wet season, inspect daily. Any problems shall be addressed within 10 days of the inspection.

The *TEMPORARY EROSION AND SEDIMENTATION CONTROL MAINTENANCE REQUIREMENTS* on the drawings read as follows:

1. Erosion and sedimentation control facilities shall be inspected after each storm event and daily during prolonged rainfall.
2. Necessary repairs of replacement of facilities shall be accomplished promptly.
3. Sediment deposits shall be removed after each storm event or when the level of deposition reaches approximately one-half the maximum potential depth.
4. Sediment deposits remaining in place after the ESC facilities are no longer required shall be dressed to conform to the existing grade, prepared, and seeded.
5. Temporary erosion and sedimentation control facilities shall be maintained by: _TBD by Contractor_____

ELEMENT 12: MANAGE THE PROJECT

Erosion and sediment control BMPs for this project have been designed based on the following principles:

- Fit the existing topography, soils, and drainage patterns.
- Emphasize erosion control rather than sediment control.
- Minimize the extent and duration of the area exposed.
- Keep runoff velocities low.
- Retain sediment on site.
- Thoroughly monitor site and maintain all ESC measures.
- Schedule major earthwork during the dry season if possible.

If it is determined that the CSWPPP is ineffective in eliminating or significantly minimizing ESC problems, additional BMP measures or modifications will be necessary until the problems are corrected. BMPs may be selected from the alternatives listed in the Volume 2 of the Stormwater Manual. Revisions shall be made within 7 days following the determination of insufficiency.

Sampling and analysis of the stormwater discharged from a construction site may be necessary on a case-by-case basis to ensure compliance with Discharge and Surface Water Standards:

- Discharge: Runoff leaving the construction site shall be free of settleable solids, as measured with an Imhoff Cone and in accordance with Standard Methods for the Examination of Water and Wastewater, most recent edition, American Water Works Association. "Free of settle able solids" shall be defined as measuring less than 2.5 mL/L/hr, for storms up to the water quality design event.
- Surface Water: For storms up to the water quality design event, turbidity downstream of a construction site may not increase more than 5 NTU, if upstream turbidity is 50 NTU or less, and may not increase more than 10 percent, if upstream turbidity is over 50 NTU. To the extent practicable, samples should be taken far enough downstream so that the construction site discharge has been well-mixed with the surface water.

Whenever inspection and/or monitoring reveals that the BMP's identified in the Construction SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, appropriate BMP's or design changes shall be implemented as soon as possible.

In addition to conducting and documenting the daily, weekly, after rainfall and monthly inspections, rainfall-responsive scheduling can reduce the effort necessary to achieve erosion and sedimentation control.

- BMP C162 Scheduling

provides for managing the land-disturbing activities by micro scheduling grading to reduce the amount and duration of soil exposed, especially during rainy periods. Small portions of the site may be cleared, brought to grade, and stabilized before clearing the next section.

Per the DOE, the following activities are exempt from the seasonal clearing and grading limitations:

- Routine maintenance and necessary repair of erosion and sediment control BMP's;
- Routine maintenance of public facilities or existing utility structures that do not (a) expose the soil or (b) result in the removal of the soil's vegetative cover; and
- Self-contained project sites, where there is complete infiltration of the water quality design event runoff within the site.

ELEMENT 13: PROTECT LOW IMPACT DEVELOPMENT BMPS

Construct clog-able portions of any Treatment BMPs such as infiltration, dispersion, and filters after the contributing area receives permanent stabilization treatments.

Clean and remove temporary sediment accumulations from CBs and diversion sumps prior to allowing discharge to the surface dispersion pipes.

If discharge of sediment-laden water to vegetation is used as a protection, re-spread sediment before it accumulates to the degree that it smothers the vegetation.

4. Section 4 - Construction Schedule & Phasing

Construction is expected to begin shortly after permits are obtained. To aid in management of reliable construction, the proponent intends to retain a contractor both experienced and familiar with the area and the soils. A contractor based close to the project site will allow site work scheduling to accommodate the weather patterns as much as practical.

For more specifics on the CSWPPP schedule, the following notes from the TESC drawings are shown on the drawings.

CONSTRUCTION SEQUENCE:

1. HOLD A PRECONSTRUCTION MEETING WITH THE CITY OF PUYALLUP AND OBTAIN REQUIRED PERMITS.
2. ESTABLISH CLEARING AND GRADING LIMITS.
3. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE.
4. CONSTRUCT PERIMETER DITCHES, SILT FENCES, AND OTHER EROSION AND CONTROL DEVICES AS SHOWN ON THE PLAN.
5. CONSTRUCT PROTECTION DEVICES FOR CRITICAL AREAS AND SIGNIFICANT TREES PROPOSED FOR RETENTION.
6. SCHEDULE AN EROSION CONTROL INSPECTION WITH THE CITY OF PUYALLUP.
7. GRADING ACTIVITIES MAY ONLY COMMENCE AFTER ALL DRAINAGE AND EROSION CONTROL MEASURES ARE IN PLACE PER THE APPROVED PLAN.
8. IDENTIFY EROSION CONTROL MEASURES WHICH REQUIRE REGULAR MAINTENANCE.
9. EROSION AND SEDIMENT CONTROLS MAY ONLY BE REMOVED ONCE THE SITE IS STABILIZED TO THE CITY OF PUYALLUP SITE INSPECSTOR'S SATISFACTION.

The project shall be phased where feasible to accomplish soil-exposing activities in the dry season. This project has limited activities –grading, connecting utilities, paving, constructing the building improvements and landscaping, that are expected to occur without interruption.

Grading and Drainage during the wet season requires greater vigilance in erosion and sedimentation control. Manage the land-disturbing activities by micro scheduling grading to reduce the amount and duration of soil exposed, especially during rainy periods.

The building foundation portion of the site is expected to be cleared, set to grade, and stabilized with foundation concrete early in the schedule. Backfill for final grade around the building will occur later. And topsoil and plantings near the end of the project in an advantageous weather window for planting.

Transport of sediment from the construction site will be prevented by directing the discharge from the excavation into sediment control features.

In addition to conducting and documenting the daily, weekly, after rainfall and monthly inspections, rainfall-responsive scheduling can reduce the effort necessary to achieve erosion and sedimentation control.

Section 5 – Pollution Prevention

The names of the proponent contact, construction emergency contact and onsite temporary erosion and sedimentation control personnel are to be recorded on the front cover of this document.

During construction, when erosion and sedimentation pollution are at elevated potential, the primary goal is TESC. A certified CESCL is mandated for sites disturbing more than 1 acre.

After stabilization, the prevention of stormwater pollution from the operations and maintenance of the business become important. This is addressed in the Operations, Maintenance, and Source Control report.

Section 6 – Inspections and Monitoring

All BMPs must be inspected, maintained, and repaired as needed to assure continue performance of their intended function. Site inspection shall occur in all areas disturbed by construction activities and at any stormwater discharge point. During inspections, the Contractor shall evaluate and document the effectiveness of the installed BMPs and determine if it is necessary to repair or replace any of the BMPs to improve the quality of stormwater discharges.

All maintenance and repairs shall be documented in the site log. All new BMPs or design changes shall be documented in the SWPPP as soon as possible.

If a project is less than 1 acre and does not discharge to an impaired water body, regular stormwater sampling and reporting to Ecology under the NPDES general construction permit is not triggered.

EROSION CONTROL LEAD

The owner shall identify an Erosion and Sediment Control Lead in the Construction SWPPP and that individual shall be onsite or on call at all times. If a preconstruction meeting is held, this person shall attend. For sites disturbing 1 acre or more, that lead must be a Certified Lead.

Duties and responsibilities of the Lead shall include, but are not limited to the following:

- Maintaining permit file on site at all times which includes the SWPPP and any associated permits and plans.
- Directing BMP installation, inspection, maintenance, modification, and removal.
- Updating all project drawings and the Construction SWPPP with changes made.
- Keeping daily/weekly logs, and inspection reports. Inspection reports should include:
    - Inspection locations, dates and times.
    - Weather information, including conditions during the inspection and recent rainfall events.

    - A summary list of BMPs implemented, including field observations. The list should include the following:
        - List of all BMPs in place on the project site
        - BMPs inspected
        - BMPs needing maintenance
        - BMPs failed and needing replacement
        - Recommended replacements or other actions
        - Visual observations or water quality monitoring conducted
        - Monitoring results
        - Comments and notes
- Facilitate, participate in, and take corrective actions resulting from inspections performed by outside agencies or the owner.

Keep the contact information up to date if the role is assigned to another. If a pre-construction meeting is held, this person shall attend.

For convenience, inspection report forms follow, and may be reproduced without limitation. A table summarizing how and when to report on the various conditions observed follows the forms.

Section 7 – Record Keeping

The inspection forms may be kept with this document or in a separate log that is also maintained on site or within reasonable access to the site and mad available for viewing upon request to jurisdictional personnel. If requested by a jurisdictional agency in writing, a copy of the records shall be submitted within 14 days.

3-year Records Retention Schedule

The records created as part of implementing and inspecting the CSWPPP shall be retained by the Contractor during the life of the construction project and for at least 3 years following permit coverage. Records may be transferred to Owner following determination of permanent stabilization and BMP removal.

Conclusion - Manage the Project

Erosion and sediment control BMPs for this project have been designed based on the following principles:

- Fit the existing topography, soils, and drainage patterns.
- Emphasize erosion control rather than sediment control.
- Minimize the extent and duration of the area exposed.
- Keep runoff velocities low.
- Retain sediment on site.
- Thoroughly monitor site and maintain all ESC measures.
- Schedule major earthwork during the dry season if possible.

If it is determined that the CSWPPP is ineffective in eliminating or significantly minimizing ESC problems, additional BMP measures or modifications will be necessary until the problems are corrected. BMPs may be selected from the alternatives listed in the SWMMWW. Revisions shall be made within 10 days following the determination of insufficiency.

Form A -Sample Site Inspection Form

From http://www.ecy.wa.gov/programs/wq/stormwater/construction/

Project Name _____ Permit # _____ Inspection Date _____ Time _____

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*

Print Name: _____

Approximate rainfall amount since the last inspection (in inches): _____

Approximate rainfall amount in the last 24 hours (in inches): _____

Current Weather Clear ☐ Cloudy ☐ Mist ☐ Rain ☐ Wind ☐ Fog ☐

A. Type of inspection: Weekly ☐ Post Storm Event ☐ Other ☐

B. Phase of Active Construction (check all that apply):

Pre Construction/installation of erosion/sediment controls	☐	Clearing/Demo/Grading	☐	Infrastructure/storm/roads	☐
Concrete pours	☐	Vertical Construction/buildings	☐	Utilities	☐
Offsite improvements	☐	Site temporary stabilized	☐	Final stabilization	☐

C. Questions:

1. Were all areas of construction and discharge points inspected?	Yes ___	No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen	Yes ___	No ___
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*)	Yes ___	No ___
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?*	Yes ___	No ___
5. If yes to #4 was it reported to Ecology?	Yes ___	No ___
6. Is pH sampling required? pH range required is 6.5 to 8.5.	Yes ___	No ___

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

Form B – BMP Site Inspection

Form B –BMP Site Inspection Form

Copy this form as needed. Mark N for Not functioning, I for Improvement needed, and P for Performing. This form adapted from the Ecology SWPPP Template.

Inspection of BMPs							
Element 1: Mark Clearing Limits							
BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	
BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	
Element 2: Establish Construction Access							
BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	
Element 3: Control Flow Rates							
BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	
BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	

Element 4: Install Sediment Controls

BMP:

Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

BMP:

Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

BMP:

Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

BMP:

Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

BMP:

Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

Element 5: Stabilize Soils

BMP:

Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

BMP:

Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	

BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	

Element 6: Protect Slopes

BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	

BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	

Element 7: Protect Drain Inlets

BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	

BMP:							
Location	Inspected			Functioning			Problem/Corrective Action
	Y	N		Y	N	NIP	

Element 8: Stabilize Channels and Outlets						
BMP:						
Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

Element 9: Control Pollutants						
BMP:						
Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

Element 10: Control Dewatering						
BMP:						
Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

Element 11: Maintain BMPS						
Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

Element 12: Manage the Project						
Location	Inspected		Functioning			Problem/Corrective Action
	Y	N	Y	N	NIP	

End of CSWPPP document.

Page inserted for duplex print spacing

Version:

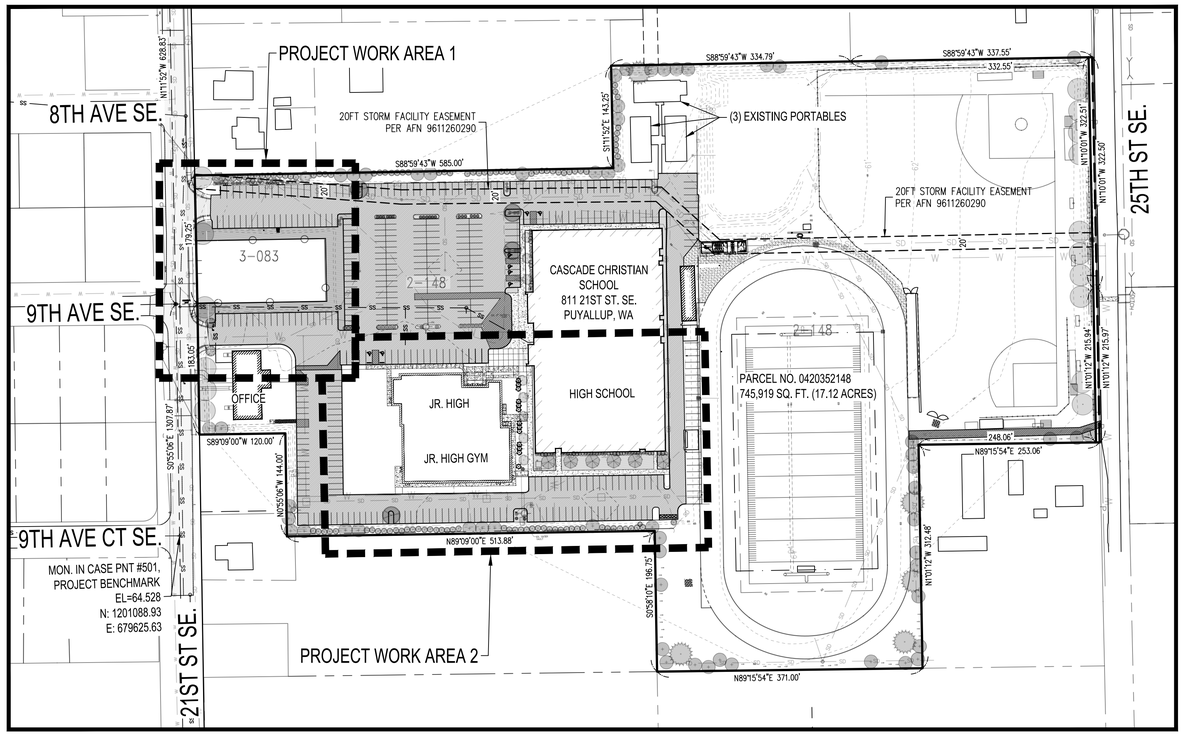
CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

COVER SHEET & EXISTING CONDITIONS

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)

VICINITY MAP
NOT TO SCALE

NORTH



EXISTING CONDITIONS
SCALE: 1" = 100'

NORTH
1" = 100'
0 50 100 200

BASIS OF BEARING

MONUMENTED CENTERLINE OF 21ST STREET EAST, THAT BEING N0°43'16"E

DATUM

VERTICAL DATUM:
NAVD 88 - BASED ON PIERCE COUNTY GIS

CONTOUR INTERVAL: 2'

HORIZONTAL DATUM:
NAD 83-91 (WASHINGTON STATE SOUTH ZONE)

SITE BENCHMARK

MONUMENT IN CASE WITH 3" BRASS DISK, 0.8' BELOW RIM,
POINT NUMBER 501
AT INTX. 9TH AVE. CT E., & 21ST ST. E.
ELEVATION=64.528.

PROJECT SPECIFICATIONS

PROJECT AREA:
PROPOSED USE: PRIVATE RELIGIOUS EDUCATION
SITE SIZE: 756448 SF/17.37 AC (INCL. ANNEXED PARCEL)
DEVELOPED AREA: 100%
IMPERVIOUS AREA: 6.40 ACRES
PERVIOUS AREA: 10.97 ACRES
OPEN SPACE AREA:
PARKING (ASPHALT) AREA: 278467 SF/6.39 AC.
LANDSCAPE AREA: 477981 SF/10.97 AC.
MIN LOT SIZE: 8,000 SF/4,000 SF
MIN LOT DEPTH: 90'/80'
MIN LOT WIDTH: 60'/40'
MAX SITE COVERAGE: 45%/50%
SITE COVERAGE: 50%

SET BACKS:

	BUILDING	YARD
FRONT:	20'/15'	30'
SIDE:	16'/5'	30'
REAR:	20'/15'	30'
SIDE STREET:	15'/10'	12'
LOT WIDTH:	60'/40'	
LOT LENGTH:	90'/80'	

SITE DATA

ASSESSORS/TAX PARCEL NUMBER: 0420352148, 0420263083 (ANNEXED)
PARCEL/SITE SIZE: 756,448 (17.37 AC)
SECTION/TOWNSHIP/RANGE: 35/20/04
DEVELOPMENT JURISDICTION: CITY OF PUYALLUP
SITE ADDRESS: 815 21ST ST. SE
PUYALLUP, WA 98372
ZONING: RS-08/RS-04
DENSITY: 5 DU/8 DU PER ACRE
PRESENT USE: PRIVATE RELIGIOUS EDUCATION
SENSITIVE AREAS: N/A
WETLANDS: NO
FLOOD PLAIN HAZARD AREAS: YES (FEMA 100 YEAR)
EROSION HAZARD AREAS: NO
LANDSLIDE HAZARD AREAS: NO
COAL MINE HAZARD AREAS: NO
SEISMIC HAZARD AREAS: YES
CREEKS/STREAMS: NO
LAKES: NO
STEEP SLOPES(10% OR GREATER): NO
VOLCANIC: YES
WILDLIFE HABITAT: NO
SHORELINE CLASSIFICATION: N/A
IMPERVIOUS AREAS: 6.40 AC. (UPDATED)
PERVIOUS AREAS: 10.97 AC. (UPDATED)
ADJACENT ZONING DESIGNATIONS & USE:
NORTH: RS-04 (HIGH URBAN DENSITY SINGLE-FAMILY RESIDENTIAL ZONE)
SOUTH: RS-08 (MEDIUM URBAN DENSITY SINGLE-FAMILY RESIDENTIAL ZONE)
EAST: RS-04/RS-08 (HIGH & MEDIUM URBAN DENSITY SINGLE-FAMILY RESIDENTIAL ZONE)
WEST: RS-08 (MEDIUM URBAN DENSITY SINGLE-FAMILY RESIDENTIAL ZONE)

UTILITIES

SEWER:	WATER:	GAS:
CITY OF PUYALLUP 1100 39TH AVE SE PUYALLUP, WA 98374 (253) 840-5550	CITY OF PUYALLUP 1100 39TH AVE SE PUYALLUP, WA 98374 (253) 840-5550	PUGET SOUND ENERGY 6905 S 228TH ST KENT, WA 98032 (253) 395-6954
FIRE:	**CABLE:**	**POWER:**
PUYALLUP FIRE 902 7TH ST NW PUYALLUP, WA 98371 (253) 845-6666	COMCAST 2200 N 30TH ST TACOMA, WA (253) 572-1100	PUGET SOUND ENERGY 6905 S 228TH ST KENT, WA 98032 (253) 395-6954
SCHOOL::	**REFUSE:**	**TELEPHONE:**
PUYALLUP SCHOOL DIST. 302 2ND ST E PUYALLUP, WA 98371 (253) 841-1301	DM DISPOSAL 3600 PORT OF TACOMA RD SUITE 505 TACOMA, WA 98424 (253) 845-6955	QWEST PHONE COMPANY 955 LIND SW RENTON, WA 98055 (425) 228-6092

LEGAL DESCRIPTIONS

PARCEL 0420352148:
SECTION 35 TOWNSHIP 20 RANGE 04 QUARTER 21 :
PARCEL "A" OF DBLR 95-12-11-0261 COMMENCING AT THE INTERSECTION OF 21ST ST SE & 9TH AVE SE BEING ON SECTION LINE BETWEEN SECTIONS 26 & 35 THENCE EAST ALONG SAID SECTION LINE 30 FEET TO EASTERLY R/W LINE OF SAID 21ST ST SE & POINT OF BEGINNING THENCE CONTINUE EAST ALONG SAID SECTION LINE 181 FEET THENCE NORTH 01°11'52" WEST 88 FEET THENCE SOUTH 88°59'43" WEST 181 FEET TO EASTERLY R/W LINE OF 21ST ST SE THENCE NORTH ALONG SAID R/W LINE 91.25 FEET THENCE EAST PARALLEL WITH SECTION LINE 585 FEET THENCE NORTH 01°11'52" WEST 143.25 FEET THENCE EAST PARALLEL WITH SECTION LINE 672.34 FEET TO WESTERLY R/W OF 25TH ST SE THENCE SOUTH ALONG SAID R/W 322.5 FEET TO SECTION LINE THENCE CONTINUE ALONG SAID WESTERLY R/W LINE OF 25TH ST SE 215.97 FEET THENCE SOUTH 89°15'54" WEST 253.06 FEET THENCE SOUTH 01°01'12" EAST 312.48 FEET THENCE SOUTH 89°15'54" WEST 371 FEET TO EAST LINE OF NORTHWEST OF NORTHEAST OF NORTHWEST THENCE NORTH ALONG SAID SUBDIVISION 196.75 FEET TO SOUTHEAST CORNER OF NORTH 1/2 OF NORTHWEST OF NORTHEAST OF NORHTWEST THENCE WEST ALONG SAID SUBDIVISION 513.88 FEET TO SOUTHEAST CORNER OF SOUTH 144 FEET OF WEST 150 FEET OF NORTH 1/2 OF NORTHWEST OF NORTHEAST OF NORTHWEST THENCE N 00°55'06" WEST 144 FEET THENCE SOUTH 89°09' WEST 120 FEET TO SAID EASTERLY R/W OF 21ST ST SE THENCE NORTH ALONG 183.05 FEET TO POINT OF BEGINNING OUT OF 2-145, 2-010 & 04-20-26-3-007 SEG H-0611 JU 1/23/96JU
PARCEL 0420263083: (PER AFN 4643203)
THE SOUTH 88 FEET OF THE WEST 181 FEET OF THE FOLLOWING DESCRIBED PROPERTY:
COMMENCING AT A POINT ON THE SOUTH BOUNDARY OF SECTION 26, TOWNSHIP 20 NORTH, RANGE 4 EAST OF THE WILLAMETTE MERIDIAN IN PIERCE COUNTY, WASHINGTON, 377.55 FEET WEST OF THE QUARTER SECTION CORNER IN THE SOUTH BOUNDARY OF SAID SECTION, SAID POINT BEING SOUTHWEST CORNER OF PREMISES HERETOFORE CONVEYED TO ALFRED SCHLEFEREIT BY DEED RECORDED IN BOOK 333 OF DEED AT PAGE 481: THENCE RUNNING NORTH ALONG WEST BOUNDARY OF SAID SCHLEFEREIT PREMISES, 322.5 FEET; THENCE WEST 363 FEET MORE OR LESS, TO A POINT 585 FEET EAST OF THE EAST LINE OF 21ST STREET SOUTHEAST; THENCE SOUTH ALONG A LINE PARALLEL WITH AND 585 FEET EAST OF SAID STREET TO A POINT 179.25 FEET NORTH OF THE SOUTH BOUNDARY OF SAID SECTION; THENCE WEST PARALLEL WITH SOUTH BOUNDARY OF SAID SECTION 585 FEET, MORE OR LESS, TO EAST BOUNDARY OF 21ST STREET SOUTHEAST; THENCE SOUTH 179.25 FEET TO SOUTH BOUNDARY OF SAID SECTION; THENCE EAST 948 FEET TO THE POINT OF BEGINNING.
SITUATE IN THE COUNTY OF PIERCE, STATE OF WASHINGTON.

SURVEY REFERENCES

1. PIERCE COUNTY ROS FOR BLA/LOT CONSOLIDATION CASE NO. 95-84-010, PER AFN 9512110261.
2. SURVEY FIELD WORK PERFORMED DURING THE 3rd WEEK OF MARCH, 2021 USING GPS EQUIPMENT BY ABBEY ROAD GROUP LAND DEVELOPMENT SERVICES COMPANY, LLC, ROBERT L. "LES" HILLEBRAND, PLS.

TOPOGRAPHIC / SURVEY NOTE

THE EXISTING CULTURAL AND TOPOGRAPHICAL DATA SHOWN ON THESE DRAWINGS HAS BEEN PREPARED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, VADER ENGINEERING CANNOT ENSURE ACCURACY AND THUS IS NOT RESPONSIBLE FOR THE ACCURACY OF THAT INFORMATION OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.

PROJECT INFO

OWNER:
CASCADE CHRISTIAN SCHOOLS
DON JOHNSON
815 21ST ST SE
PUYALLUP, WA 98372
(253) 841-1776

ARCHITECT:
JEFF BROWN ARCHITECTURE
JEFF BROWN, AIA NCARB
12181 C ST. S.
TACOMA, WA 98444
(253) 606-8324 W
JEFF@JEFFBROWNARCHITECTURE.COM

LANDSCAPE ARCHITECT:
JGM LANDSCAPE ARCHITECTS INC. PS
CRAIG LEWIS, PLA, ASLA
12610 N.E. 104TH STREET
SEATTLE, WA 98033
(425) 454-5723 OFFICE
(206) 795-3196 CELL
CRAIG@JGM-INC.COM

CIVIL ENGINEER:
VADER ENGINEERING
REBECCA VADER, PE
6817 27TH ST. W #65353
TACOMA, WA 98464
TEL: 253-363-2065

TOPOGRAPHIC SURVEYOR:
ABBEY ROAD GROUP LAND DEV. SERVICES COMPANY
LES HILLEBRAND
P.O. BOX 1224
PUYALLUP, WA 98371
(253) 435-3699 W
LES.HILLEBRAND@ABBEYROADGROUP.COM

CONTRACTOR:
MOUNTAIN CONSTRUCTION
KEN SCHMIDT
7457 S. MADISON ST.
TACOMA, WA 98409
(253) 474-5281
(253) 365-3974 CELL
KEN@MOUNTAINCONST.COM

ESCL:
BRAD HINES BMA SOLUTIONS
3160 84TH CT. E
EDGEWOOD, WA 98371
TEL: 253-736-3213

CONSTRUCTION EMERGENCY CONTACT:
KEN SCHMIDT
TEL: 253-365-3974

OWNER EMERGENCY CONTACT:
RAY OSSMAN
TEL: 253-332-1216

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

SHEET INDEX

BEFORE YOU DIG CALL
1-800-424-5555
NOT LESS THAN 48 HOURS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED.

CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

COVER SHEET & EXISTING CONDITIONS

SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

SCOTT VADER — STATE OF WASHINGTON — 21818 — REGISTERED PROFESSIONAL ENGINEER

VADER
ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

NO.	REVISION

PROJECT NO: 2409
SCALE: 1" = 100'
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
PLOT DATE: 10/5/2024

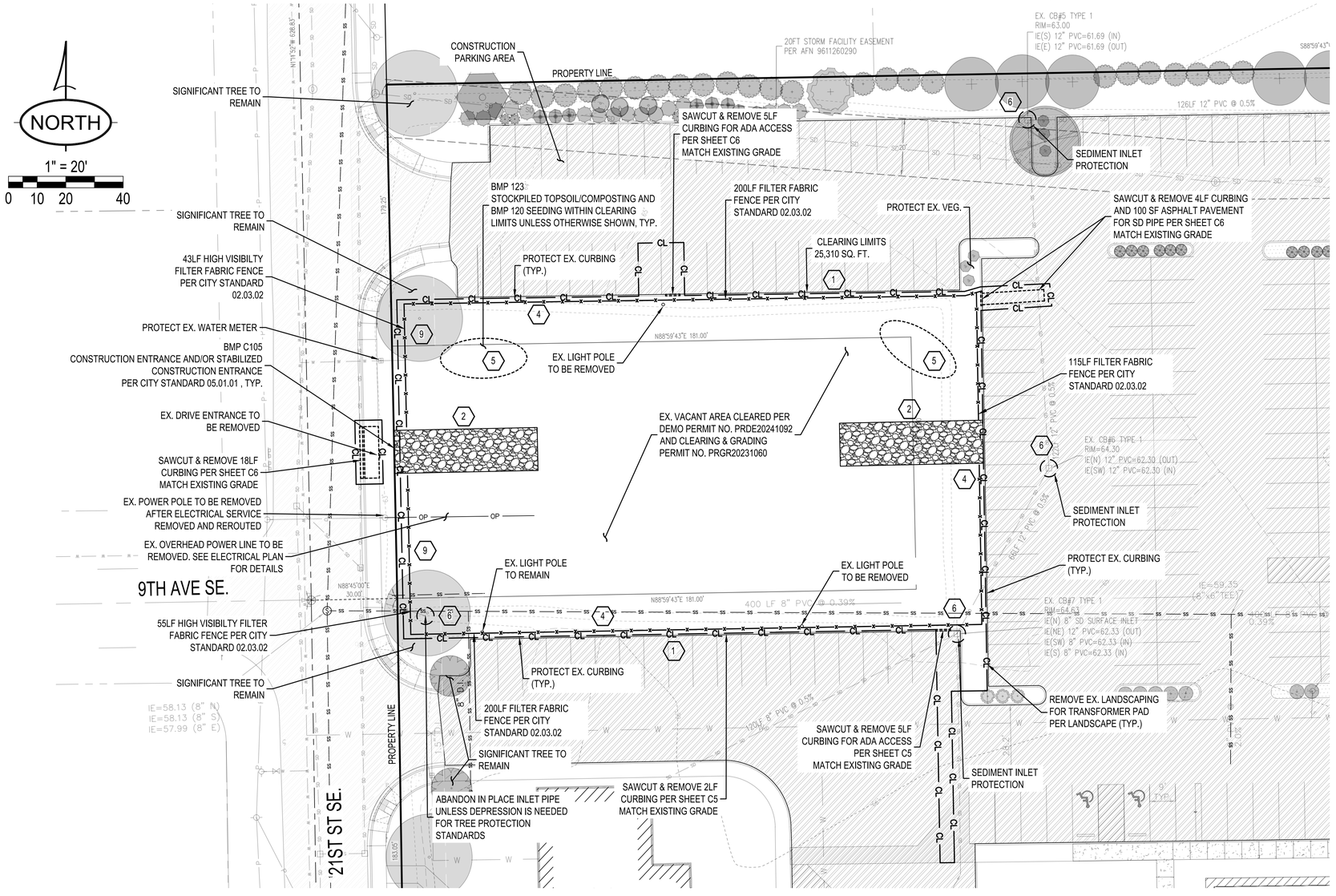
C1

SHEET 1 OF 10

CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

CSWPP PLAN - PROJECT WORK AREA 1

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)



BASIS OF BEARING

MONUMENTED CENTERLINE OF 21ST STREET EAST, THAT BEING N0°43'16"E

DATUM

VERTICAL DATUM:
NAVD 88 - BASED ON PIERCE COUNTY GIS

CONTOUR INTERVAL: 2'

HORIZONTAL DATUM:
NAD 83-91 (WASHINGTON STATE SOUTH ZONE)

SITE BENCHMARK

MONUMENT IN CASE WITH 3" BRASS DISK, 0.8' BELOW RIM, POINT NUMBER 501
AT INTX. 9TH AVE. CT E., & 21ST ST. E.
ELEVATION=64.528.

CUT & FILLS

1,500 CU. YDS. - FILL
0 CU. YDS. - CUT

1,500 CU. YDS. NET - FILL

NOTE:
CUTS AND FILLS ARE PROVIDED FOR PERMIT PURPOSES ONLY. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO NECESSARY CUT AND FILL QUANTITIES.

LOT AREAS

TOTAL SITE.....772,587 SQ. FT. (17.736 ACRES)

PROJECT WORK AREA 1:
CLEARING LIMITS.....25,310 SQ. FT.

PRO. ASPHALT.....4,865 SQ. FT.
PRO. CONCRETE.....42 SQ. FT.
PRO. ROOF.....10,752 SQ. FT.

PROJECT WORK AREA 2:
CLEARING LIMITS.....8,129 SQ. FT.

PRO. ASPHALT.....4,420 SQ. FT.
PRO. CONCRETE.....80 SQ. FT.
PRO. ROOF.....1,904 SQ. FT.

SYMBOL LEGEND

- SAWCUT LINE
- TEMPORARY CONSTRUCTION FENCE
- BMP 235 WATTLES OR FILTER FABRIC FENCE
- CL CLEARING LIMITS

CSWPPP NOTES & KEY

1. CLEARING & GRADING LIMITS
2. STABILIZE ENTRANCE & CIRCULATION, C107 AND SWEEP PAVEMENT AS NEEDED
3. PREVENT SEDIMENTATION OF INFILTRATION FACILITIES, BMP C235 WATTLES (N/A)
4. SEDIMENT CONTROLS BMP C235 WATTLES AND STABILIZE SOILS, BMP C120-126, 140
5. PROTECT SLOPES, BMP C120, 121, STOCKPILE SLOPES BMP C122, 123
6. PROTECT DRAIN INLETS WITH FILTER INSERT
7. PROTECT CHANNELS PROPOSED (N/A)
8. MAINTAIN BMPS, INSPECT WEEKLY. REMOVE TEMPORARY BMPS WITHIN 30 DAYS OF FINAL STABILIZATION, BMP C160
9. CONSTRUCTION OR HIGH VISIBILITY FENCE OR CONES WHERE ADJACENT TO PUBLIC TRAVEL DURING TIME OF CONSTRUCTION
10. PROVIDE TREE PROTECTION

CONSTRUCTION SEQUENCE

1. HOLD A PRECONSTRUCTION MEETING WITH THE CITY OF PUYALLUP AND OBTAIN REQUIRED PERMITS.
2. ESTABLISH CLEARING AND GRADING LIMITS
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7. GRADING ACTIVITIES MAY ONLY COMMENCE AFTER ALL DRAINAGE AND EROSION CONTROL MEASURES ARE IN PLACE PER THE APPROVED PLAN.
8. IDENTIFY EROSION CONTROL MEASURES WHICH REQUIRE REGULAR MAINTENANCE.
9. EROSION AND SEDIMENT CONTROLS MAY ONLY BE REMOVED ONCE THE SITE IS STABILIZED TO THE CITY OF PUYALLUP SITE INSPECTOR'S SATISFACTION.

CONSTRUCTION SCHEDULE:
BEGIN (MONTH, YEAR): _____, _____
END (MONTH, YEAR): _____, _____

TREE PROTECTION NOTE

EX. TREES TO REMAIN ARE TO BE PROTECTED ACCORDING TO THE BEST MANAGEMENT PRACTICES AND RECOMMENDATIONS PROVIDED IN THE ASSOCIATED ARBORIST REPORT. SEE TREE PROTECTION FENCING DETAIL SHEET C9.

DISPOSE OF REMOVED DEBRIS AT AN APPROVED SITE.

PARKING NOTE

EXISTING PARKING SHALL REMAIN OPEN FOR SCHOOL USE UNTIL REPLACEMENT PARKING IS AVAILABLE.

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

BEFORE YOU DIG CALL
1-800-424-5555
NOT LESS THAN 48 HOURS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED.

CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

CSWPP PLAN - PROJECT WORK AREA 1

SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

VADER ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

NO.	REVISION

PROJECT NO: 2409
SCALE: 1" = 20'
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
PLOT DATE: 10/5/2024

C2

SHEET 2 OF 10

CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

CSWPP PLAN - PROJECT WORK AREA 2

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)

SYMBOL LEGEND

- SAWCUT LINE
- TEMPORARY CONSTRUCTION FENCE
- BMP 235 WATTLES OR FILTER FABRIC FENCE
- CL — CLEARING LIMITS

CSWPPP NOTES & KEY

1. CLEARING & GRADING LIMITS
2. STABILIZE ENTRANCE & CIRCULATION, C107 AND SWEEP PAVEMENT AS NEEDED
3. PREVENT SEDIMENTATION OF INFILTRATION FACILITIES, BMP C235 WATTLES (N/A)
4. SEDIMENT CONTROLS BMP C235 WATTLES AND STABILIZE SOILS, BMP C120-126, 140
5. PROTECT SLOPES, BMP C120, 121, STOCKPILE SLOPES BMP C122, 123
6. PROTECT DRAIN INLETS WITH FILTER INSERT
7. PROTECT CHANNELS PROPOSED (N/A)
8. MAINTAIN BMPS, INSPECT WEEKLY. REMOVE TEMPORARY BMPS WITHIN 30 DAYS OF FINAL STABILIZATION, BMP C160
9. CONSTRUCTION OR HIGH VISIBILITY FENCE OR CONES WHERE ADJACENT TO PUBLIC TRAVEL DURING TIME OF CONSTRUCTION
10. PROVIDE TREE PROTECTION

TREE PROTECTION NOTE

EX. TREES TO REMAIN ARE TO BE PROTECTED ACCORDING TO THE BEST MANAGEMENT PRACTICES AND RECOMMENDATIONS PROVIDED IN THE ASSOCIATED ARBORIST REPORT. SEE TREE PROTECTION FENCING DETAIL SHEET C9.

DISPOSE OF REMOVED DEBRIS AT AN APPROVED SITE.

PARKING NOTE

EXISTING PARKING SHALL REMAIN OPEN FOR SCHOOL USE UNTIL REPLACEMENT PARKING IS AVAILABLE.

CONSTRUCTION SEQUENCE

1. HOLD A PRECONSTRUCTION MEETING WITH THE CITY OF PUYALLUP AND OBTAIN REQUIRED PERMITS.
2. ESTABLISH CLEARING AND GRADING LIMITS
3. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE
4. CONSTRUCT PERIMETER DITCHES, SILT FENCES, AND OTHER EROSION AND CONTROL DEVICES AS SHOWN ON THE PLAN.
5. CONSTRUCT PROTECTION DEVICES FOR CRITICAL AREAS AND SIGNIFICANT TREES PROPOSED FOR RETENTION.
6. SCHEDULE AN EROSION CONTROL INSPECTION WITH THE CITY OF PUYALLUP.
7. GRADING ACTIVITIES MAY ONLY COMMENCE AFTER ALL DRAINAGE AND EROSION CONTROL MEASURES ARE IN PLACE PER THE APPROVED PLAN.
8. IDENTIFY EROSION CONTROL MEASURES WHICH REQUIRE REGULAR MAINTENANCE.
9. EROSION AND SEDIMENT CONTROLS MAY ONLY BE REMOVED ONCE THE SITE IS STABILIZED TO THE CITY OF PUYALLUP SITE INSPECTOR'S SATISFACTION.

CONSTRUCTION SCHEDULE:
BEGIN (MONTH, YEAR): _____, _____
END (MONTH, YEAR): _____, _____

NORTH
1" = 20'
0 10 20 40

BASIS OF BEARING

MONUMENTED CENTERLINE OF 21ST STREET EAST, THAT BEING N0°43'16"E

DATUM

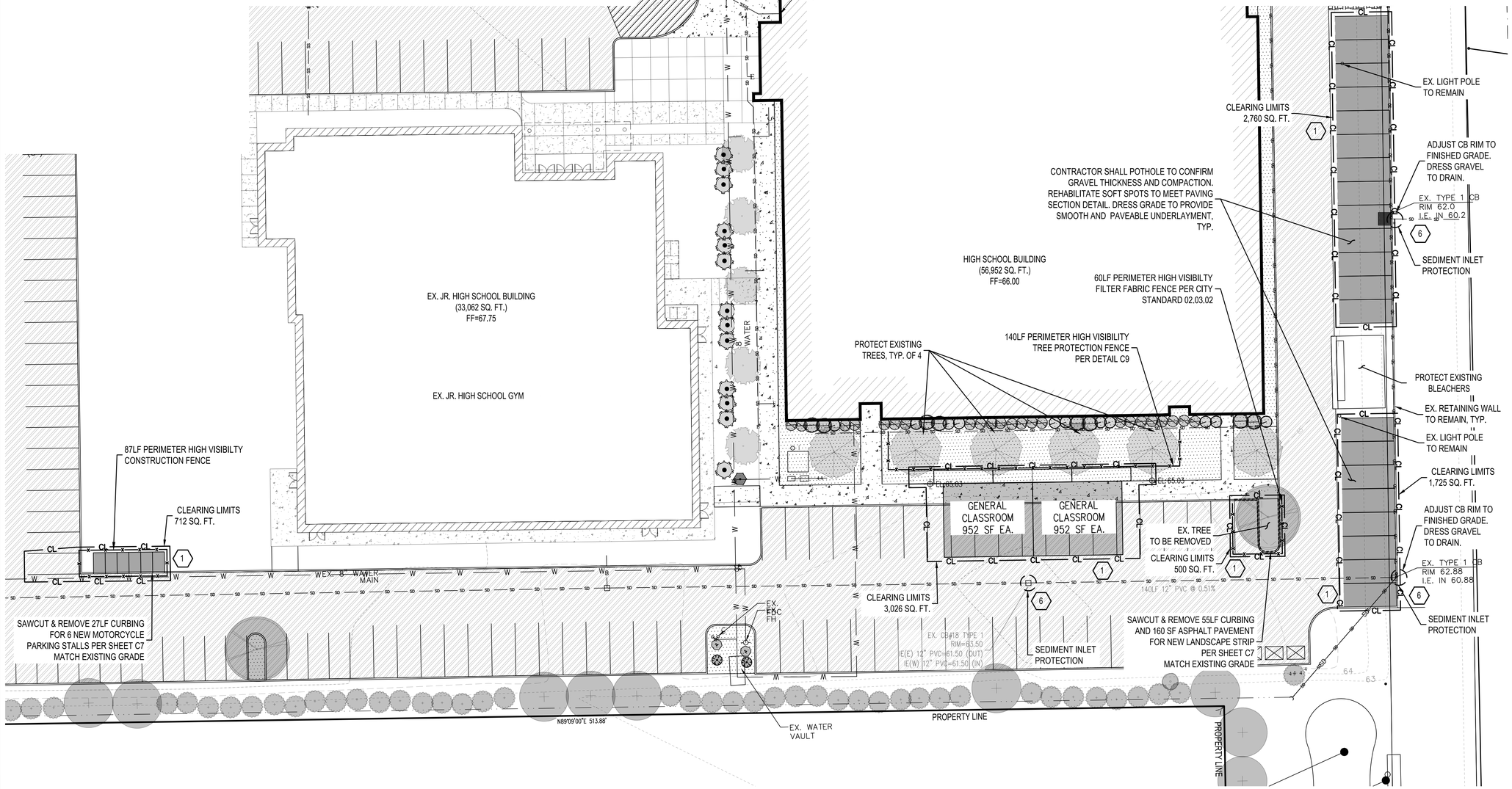
VERTICAL DATUM:
NAVD 88 - BASED ON PIERCE COUNTY GIS

CONTOUR INTERVAL: 2'

HORIZONTAL DATUM:
NAD 83-91 (WASHINGTON STATE SOUTH ZONE)

SITE BENCHMARK

MONUMENT IN CASE WITH 3" BRASS DISK, 0.8' BELOW RIM, POINT NUMBER 501
AT INTX. 9TH AVE. CT E., & 21ST ST. E.
ELEVATION=64.528.



APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
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BEFORE YOU DIG CALL
1-800-424-5555
NOT LESS THAN 48 HOURS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED.

CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

CSWPP PLAN - PROJECT WORK AREA 2

SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

SCOTT VADER — STATE OF WASHINGTON — 21818 — REGISTERED PROFESSIONAL ENGINEER

VADER ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

NO.	REVISION

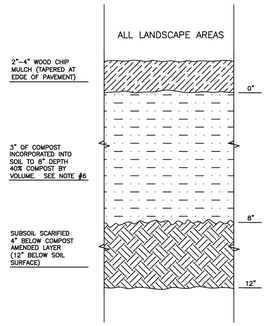
PROJECT NO: 2409
SCALE: 1" = 20'
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
PLOT DATE: 10/5/2024

C3
SHEET 3 OF 10

CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

CSWPPP NOTES & DETAILS

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)



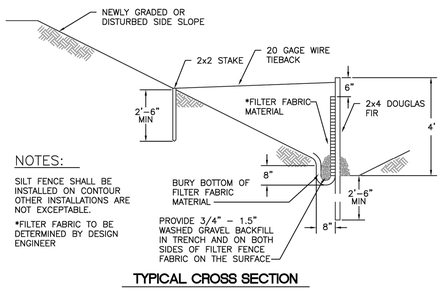
NOTES:

1. ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION, AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE AMENDED WITH COMPOST AS DESCRIBED BELOW.
2. SUBSOIL SHOULD BE SCARIFIED (LOOSENED) 4 INCHES BELOW AMENDED LAYER, TO PRODUCE 12-INCH DEPTH OF UN-COMPACTED SOIL, EXCEPT WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS OR AS DETERMINED BY THE ENGINEER. SEE NOTE BELOW REGARDING PLANTING STEPS FOR STREET TREES.
3. COMPOST SHALL BE TILLED IN TO 8 INCH DEPTH INTO EXISTING SOIL, OR PLACE 8 INCHES OF COMPOST-AMENDED SOIL, PER SOIL SPECIFICATION.
4. PLANTING BEDS SHALL RECEIVE 3 INCHES OF COMPOST TILLED IN TO 8-INCH DEPTH, OR MAY SUBSTITUTE 8" OF IMPORTED SOIL CONTAINING 35-40% COMPOST BY VOLUME. MULCH AFTER PLANTING, WITH 4 INCHES OF ARBORIST WOOD CHIP MULCH OR APPROVED EQUAL (6" OF LOOSE WOOD CHIPS AT THE TIME OF PLANTING TO ALLOW SETTLING TO 4").
5. SETBACKS: TO PREVENT UNEVEN SETTLING, DO NOT COMPOST-AMEND SOILS WITHIN 3 FEET OF UTILITY INFRASTRUCTURES (POLES, VAULTS, METERS ETC.). WITHIN ONE FOOT OF PAVEMENT EDGE, CURBS AND SIDEWALKS SOIL SHOULD BE COMPACTED TO APPROXIMATELY 95% PROCTOR TO ENSURE A FIRM SURFACE.
6. SEE SECTION 8.2(8) OF THE VMS FOR SOIL AMENDMENT AND INSTRUCTION PROCEDURES FOR STREET TREE PLANTER STRIPS. ALL STREET TREE PLANTER STRIPS SHALL RECEIVE 40% COMPOST AMENDED SOIL TO THE FULL DEPTH OF THE STREET TREE ROOTBALL.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SOIL AMENDMENT AND DEPTH

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LIAN	CHRIS BEALE	COLLEEN HARRIS	XXXX	
FILE NAME: I:\DWG\COMMON\STDS\CITYSTDS\8TK01.02.08		DATE APPROVED: 06/01/2015	DATE REVISED: XX/XX/XX	SCALE: 3:1	01.02.08a

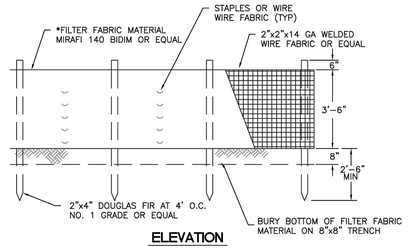


NOTES:

SILT FENCE SHALL BE INSTALLED ON CONTOUR OTHER INSTALLATIONS ARE NOT EXCEPTABLE.

*FILTER FABRIC TO BE DETERMINED BY DESIGN ENGINEER

TYPICAL CROSS SECTION



ELEVATION

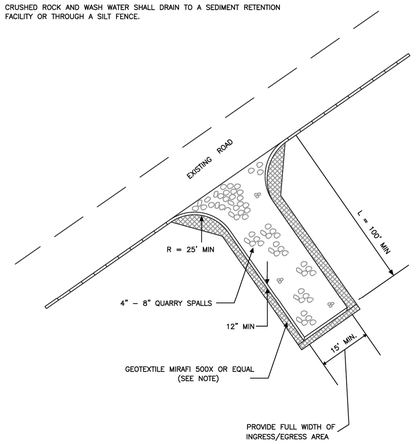
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

SILTATION FENCE

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
LINDA LANSING	LINDA LIAN	COLLEEN HARRIS	XXXX	
FILE NAME: F:\DWG\COMMON\STDS\CITY\2009\02_SD\02.03.02		DATE APPROVED: 09/01/1992	DATE REVISED: 06/01/2003	SCALE: NTS	02.03.02

NOTE:

1. GEOTEXTILE MIRAFI 500 X OR APPROVED EQUAL SHALL BE PLACED UNDER THE ENTIRETY OF THE TEMPORARY ENTRANCE.
2. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
3. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE'S WHEELS, THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION FACILITY OR THROUGH A SILT FENCE.



CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

TEMPORARY CONSTRUCTION ENTRANCE

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JDM EDWIN-SVOBODA	LINDA LIAN	COLLEEN HARRIS	XXXX	
FILE NAME: F:\DWG\COMMON\STDS\CITY\2009\05_GRD\05.01\05.01.01		DATE APPROVED: 07/01/2009	DATE REVISED: XX/XX/XX	SCALE: 1:40	05.01.01

1. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION AS PRESCRIBED ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD AND OBSERVED DURING CONSTRUCTION.

2. ALL REQUIRED SEDIMENTATION AND EROSION CONTROL FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. THE CONTRACTOR SHALL SCHEDULE AN INSPECTION OF THE EROSION CONTROL FACILITIES PRIOR TO ANY LAND CLEARING AND/OR CONSTRUCTION. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS DETERMINED BY THE CITY, UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, AND ADDITIONS TO THE EROSION AND SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE PERMITEE.

3. THE EROSION AND SEDIMENTATION CONTROL SYSTEM FACILITIES DEPICTED ON THESE PLANS ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE PERMITEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.

4. APPROVAL OF THESE PLANS IS FOR GRADING, TEMPORARY DRAINAGE, EROSION AND SEDIMENTATION CONTROL ONLY. IT DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT STORM DRAINAGE DESIGN, SIZE OR LOCATION OF PIPES, RESTRICTORS, CHANNELS, OR RETENTION FACILITIES.

5. ANY DISTURBED AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 30 DAYS OR MORE, MUST BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING, OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF APRIL THROUGH SEPTEMBER INCLUSIVE. SEEDING MAY PROCEED OUTSIDE THE SPECIFIED TIME PERIOD WHENEVER IT IS IN THE INTEREST OF THE PERMITEE BUT MUST BE AUGMENTED WITH MULCHING, NETTING, OR OTHER TREATMENT APPROVED BY THE CITY.

6. IN CASE EROSION OR SEDIMENTATION OCCURS TO ADJACENT PROPERTIES, ALL CONSTRUCTION WORK WITHIN THE DEVELOPMENT THAT WILL FURTHER AGGRAVATE THE SITUATION MUST CEASE, AND THE OWNER/CONTRACTOR WILL IMMEDIATELY COMMENCE RESTORATION METHODS. RESTORATION ACTIVITY WILL CONTINUE UNTIL SUCH TIME AS THE AFFECTED PROPERTY OWNER IS SATISFIED.

7. NO TEMPORARY OR PERMANENT STOCKPILING OF MATERIALS OR EQUIPMENT SHALL OCCUR WITHIN CRITICAL AREAS OR ASSOCIATED BUFFERS, OR THE CRITICAL ROOT ZONE FOR VEGETATION PROPOSED FOR RETENTION.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

GRADING, EROSION, AND SEDIMENTATION CONTROL NOTES

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	CITY STANDARD
JDM EDWIN-SVOBODA	LINDA LIAN	COLLEEN HARRIS	LINDA LIAN	
FILE NAME: F:\DWG\COMMON\STDS\CITY\2009\05_GRD\05.01\05.02.01		DATE APPROVED: 07/01/2009	DATE REVISED: 11/18/2014	SCALE: 1:1	05.02.01

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

BEFORE YOU DIG CALL
1-800-424-5555
NOT LESS THAN 48 HOURS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED.

CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

CSWPPP NOTES & DETAILS

SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

SCOTT VADER — STATE OF WASHINGTON — 21818 — REGISTERED PROFESSIONAL ENGINEER

VADER ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

NO.	REVISION

PROJECT NO: 2409
SCALE: N/A
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
PLOT DATE: 10/5/2024

C3

CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

CSWPPP NOTES & DETAILS

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)

GRADING, EROSION AND SEDIMENTATION CONTROL NOTES:

1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.
2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HERINAFTER REFERRED TO AS THE "CITY STANDARDS").
4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY ENGINEER PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS HOURS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
7. ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION AS PRESCRIBED ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD AND OBSERVED DURING CONSTRUCTION.
8. ALL REQUIRED SEDIMENTATION AND EROSION CONTROL FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL DRAINAGE SYSTEM. THE CONTRACTOR SHALL SCHEDULE AN INSPECTION OF THE EROSION CONTROL FACILITIES PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS DETERMINED BY THE CITY, UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, AND ADDITIONS TO THE EROSION AND SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE PERMITTEE.
9. THE EROSION AND SEDIMENTATION CONTROL SYSTEM FACILITIES DEPICTED ON THESE PLANS ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE PERMITTEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.
10. APPROVAL OF THESE PLANS IS FOR GRADING, TEMPORARY DRAINAGE, EROSION AND SEDIMENTATION CONTROL ONLY. IT DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT STORM DRAINAGE DESIGN, SIZE OR LOCATION OF PIPES, RESTRICTORS, CHANNELS, OR RETENTION FACILITIES.
11. ANY DISTURBED AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 30 DAYS OR MORE, MUST BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING, OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF APRIL THROUGH SEPTEMBER INCLUSIVE. SEEDING MAY PROCEED OUTSIDE THE SPECIFIED TIME PERIOD WHENEVER IT IS IN THE INTEREST OF THE PERMITTEE BUT MUST BE AUGMENTED WITH MULCHING, NETTING, OR OTHER TREATMENT APPROVED BY THE CITY.
12. IN CASE EROSION OR SEDIMENTATION OCCURS TO ADJACENT PROPERTIES, ALL CONSTRUCTION WORK WITHIN THE DEVELOPMENT THAT WILL FURTHER AGGRAVATE THE SITUATION MUST CEASE, AND THE OWNER/CONTRACTOR WILL IMMEDIATELY COMMENCE RESTORATION METHODS. RESTORATION ACTIVITY WILL CONTINUE UNTIL SUCH TIME AS THE AFFECTED PROPERTY OWNER IS SATISFIED.
13. NO TEMPORARY OR PERMANENT STOCKPILING OF MATERIALS OR EQUIPMENT SHALL OCCUR WITHIN CRITICAL AREAS OR ASSOCIATED BUFFERS, OR THE CRITICAL ROOT ZONE FOR VEGETATION PROPOSED FOR RETENTION.

SOIL AMENDMENT NOTES:

CHOOSE 1 OF 3 OPTIONS FOR SOIL AMENDMENT IN ANY AREAS WHERE TOPSOIL REMOVED AND IMPERVIOUS NOT PLACED.

ROOT ZONES WHERE TREES ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS ARE EXEMPTED FROM THIS REQUIREMENT. PROTECT FENCE AND THESE ROOT ZONES FROM STRIPPING OF SOIL, GRADING, OR COMPACTION TO THE MAXIMUM EXTENT PRACTICAL.

SCARIFY SUBSOILS AT LEAST 4 INCHES FOR A FINISHED MAXIMUM DEPTH OF 12 INCHES OF UNCOMPACTED SOIL. INCORPORATE SOME OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS WHERE FEASIBLE.

ONCE SOIL IS AMENDED, PROTECT FROM COMPACTION AND EROSION.

OPTION 1: AMEND SOILS WITH ORGANIC COMPOST

USE COMPOST AND OTHER MATERIALS THAT MEET THE FOLLOWING ORGANIC CONTENT REQUIREMENTS:

- FOR PRE-APPROVED AMENDMENT RATES USE THE COMPOST SPECIFICATION FOR BIORETENTION, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST SHALL HAVE ORGANIC MATTER CONTENT OF AT LEAST 40% AND NOT MORE THAN 65%. THE CARBON TO NITROGEN RATIO SHALL BE BELOW 25:1 FOR GENERAL USE AND NO MORE THAN 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.

- CALCULATED AMENDMENT RATES SHALL NOT EXCEED THE CONTAMINANT LIMITS IN TABLE 220-B, TESTING PARAMETERS, WAC 173-350-220. ASSURE THAT THE RESULTING SOIL IS CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

1.A. LAWN AREA SHALL BE AMMENDED TO 5% ORGANIC CONTENT

PLACE 1.75" COMPOST AND TILL TO AN 8" DEPTH. CHECK TO CONFIRM THE FOLLOWING:

ACHIEVE AN ORGANIC MATTER CONTENT OF 4% MINIMUM AS MEASURED BY THE LOSS-ON-IGNITION TEST (ASTM D2974 OR TMECC 05.07A.)

WATER OR ROLL TO COMPACT OT 85 % MAXIMUM DRY DENSITY, RAKE TO SMOOTH, AND REMOVE SURVADE WOODY DEBRIS AND ROCKS LARGER THAN 1 " DIAMETER.

1.B. LANDSCAPE AREAS SHALL BE AMMENDED TO 10% ORGANIC CONTENT

PLACE 3" COMPOST AND TILL TO AN 8" DEPTH. CHECK TO CONFIRM THE FOLLOWING:
- ACHIEVE AN ORGANIC MATTER CONTENT OF 8% MINIMUM AS MEASURED BY THE LOSS-ON-IGNITION TEST (ASTM D2974 OR TMECC 05.07A.)
- ACHIEVE A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OR THE ORIGONAL UNDISTURBED SOIL.
- ACHIEVE A MINIMUM DEPTH OF 8 INCHES.

AFTER PLANTING, MULCH BEDS WITH 2 TO INCHES OF ORANIC MATERIAL SUCH AS ABROBISTS CHIPS, BARK, SHREDDED LEAVES, COMPOST, ETC. DO NOT USE FINE BARK BECAUSE IT CAN SEAL THE SURFACE.

OPTION 2: SOIL STOCKPILING

REMOVE AND STOCKPILE THE DUFF LAYER AND THE ENTIRE DEPTH OF NATIVE TOPSOIL UP TO A MAX OF 3 FEET. TEMPORARILY STABILIZE ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES OR CIRITCAL AREAS.

REAPPLY TO PORTIONS OF THE SITE BROUGHT TO FINAL GRADE. OVER-EXCAVATE CUT SECTIONS IF NECESSARY TO PLACE AT LEAST THE SAME DEPTH OF TOPSOIL THAT WAS ON SITE PRE-DEVELOPMENT, UP TO A MAXIMUM OF 3 FEET.

RIP ANY CEMENTED TILL LAYERS TO A DEPTH OF 6 INCHES IN CUT SECTIONS AND MIX STOCKPILED TOPSOIL THOROUGHLY INTO THE RIPPED TILL TO PROVIDE A GRADUAL TRANSITION BETWEEN TILL AND TOPSOIL.

PLACE TOPSOIL IN LIFTS NOT GREATER THAN 1 FOOT DEEP AND COMPACT TO A DENSITY THAT MATCHES EXISITNG CONDITIONS.

OPTION 3: IMPORTING SOIL

LAWN AREAS USE A MIX AT LEAST 20 % BY VOLUME COMPOST WITH REMAINING MINERAL SOIL CONTAINING NO MORE THAN 5% PASSING THE US#200 SIEVE.

LANDSCAPE AREAS USE A MIX AT LEAST 35% BY VOLUME COMPOST WITH MINERAL SOIL CONTAINING NO MORE THAN 5% PASSING THE US#200 SIEVE.

FILL NOTES:

FOR CLEAN FILL ONLY.

IF CONTAMINATION OF SOIL OR GROUNDWATER IS INDICATED OR DISCOVERED DURING PROPOSED WORK, CONDUCT TESTING ON THE MEDIA. IF CONTAMINATION IS CONFIRMED BY SAMPLING, NOTIFY THE DOE ENVIRONMENTAL REPORT TRACKING SYSTEM COORDINATOR AT (360) 407-6300.

BMP C123 PLASTIC COVERING NOTES:

1. PLASTIC SHEETING SHALL HAVE A MINIMUM THICKNESS OF 6 MILS AND SHALL MEET THE REQUIREMENTS OF THE STATE STANDARD SPECIFICATIONS SECTION 9-14.5.
2. COVERING SHALL BE INSTALLED AND MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10-FOOT GRID SPACING IN ALL DIRECTIONS. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH AND THERE SHALL BE AT LEAST A 12 INCH OVERLAP OF ALL SEAMS.
3. CLEAR PLASTIC COVERING SHALL BE INSTALLED IMMEDIATELY ON AREAS SEEDED BETWEEN NOVEMBER 1 AND MARCH 31 AND REMAIN UNTIL VEGETATION IS FIRMLY ESTABLISHED.
4. WHEN THE COVERING IS USED ON UN-SEEDED SLOPES, IT SHALL BE KEPT IN PLACE UNTIL THE NEXT SEEDING PERIOD.
5. PLASTIC COVERING SHEETS SHALL BE BURIED TWO FEET AT THE TOP OF SLOPES IN ORDER TO PREVENT SURFACE WATER FLOW BENEATH SHEETS.
6. PROPER MAINTENANCE INCLUDES REGULAR CHECKS FOR RIPS AND DISLODGED ENDS.
7. PLASTIC COVERING MAY BE USED ON DISTURBED AREAS THAT REQUIRE COVER MEASURES FOR LESS THAN 30 DAYS, EXCEPT AS STATED BELOW.
8. PLASTIC IS PARTICULARLY USEFUL FOR PROTECTING CUT AND FILL SLOPES AND STOCKPILES. NOTE: THE RELATIVELY RAPID BREAKDOWN OF MOST POLYETHYLENE SHEETING MAKES IT UNSUITABLE FOR LONG-TERM (GREATER THAN 6 MONTHS) APPLICATIONS.
9. DUE TO RAPID RUNOFF CAUSED BY PLASTIC COVERING, DO NOT USE THIS METHOD UPSLOPE OF AREAS THAT MIGHT BE ADVERSELY IMPACTED BY CONCENTRATED RUNOFF. SUCH AREAS INCLUDE STEEP AND/OR UNSTABLE SLOPES.
10. PLASTIC SHEETING MAY RESULT IN INCREASED RUNOFF VOLUMES AND VELOCITIES, REQUIRING REQUIRING ADDITIONAL ONSITE MEASURES TO COUNTERACT THE INCREASES. CREATING A TROUGH WITH WATTLES OR OTHER MATERIAL CAN CONVEY CLEAN WATER AWAY FROM THESE AREAS.
11. WHENEVER PLASTIC IS USED TO PROTECT SLOPES INSTALL WATER COLLECTION MEASURES AT THE BASE OF THE SLOPE. THESE MEASURES INCLUDE PLASTIC-COVERED BERMS, CHANNELS AND PIPES USED TO CONVEY CLEAN RAINWATER AWAY FROM BARE SOIL AND DISTURBED AREAS. DO NOT MIX CLEAN RUNOFF FROM PLASTIC COVERED SLOPE WITH DIRTY RUNOFF FROM A PROJECT.

TEMPORARY EROSION AND SEDIMENTATION CONTROL MAINTENANCE REQUIREMENTS

1. EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL BE INSPECTED AFTER EACH STORM EVENT AND DAILY DURING PROLONGED RAINFALL.
2. NECESSARY REPAIRS OR REPLACEMENT OF FACILITIES SHALL BE ACCOMPLISHED PROMPTLY.
3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE MAXIMUM POTENTIAL DEPTH.
4. SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE ESC FACILITIES ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
5. TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL BE MAINTAINED BY:

BMP C123 STOCKPILED TOPSOIL NOTES:

1. STOCKPILES SHALL BE STABILIZED (WITH PLASTIC COVERING OR OTHER APPROVED DEVICE) DAILY BETWEEN NOVEMBER 1 AND MARCH 31.
2. IN ANY SEASON, SEDIMENT LEACHING FROM STOCKPILES MUST BE PREVENTED.
3. TOPSOIL SHALL NOT BE PLACED WHILE IN FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR WHEN CONDITIONS EXIST THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING.
4. PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVED PLAN.
5. SIDE SLOPES OF THE STOCKPILE SHALL NOT EXCEED 2H: 1V

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

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BEFORE YOU DIG
CALL
1-800-424-5555
NOT LESS THAN 48 HOURS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED.

CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

CSWPPP NOTES & DETAILS

SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

SCOTT VADER — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 31818

VADER
ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

NO.	REVISION

PROJECT NO: 2409
SCALE: N/A
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
PLOT DATE: 10/5/2024

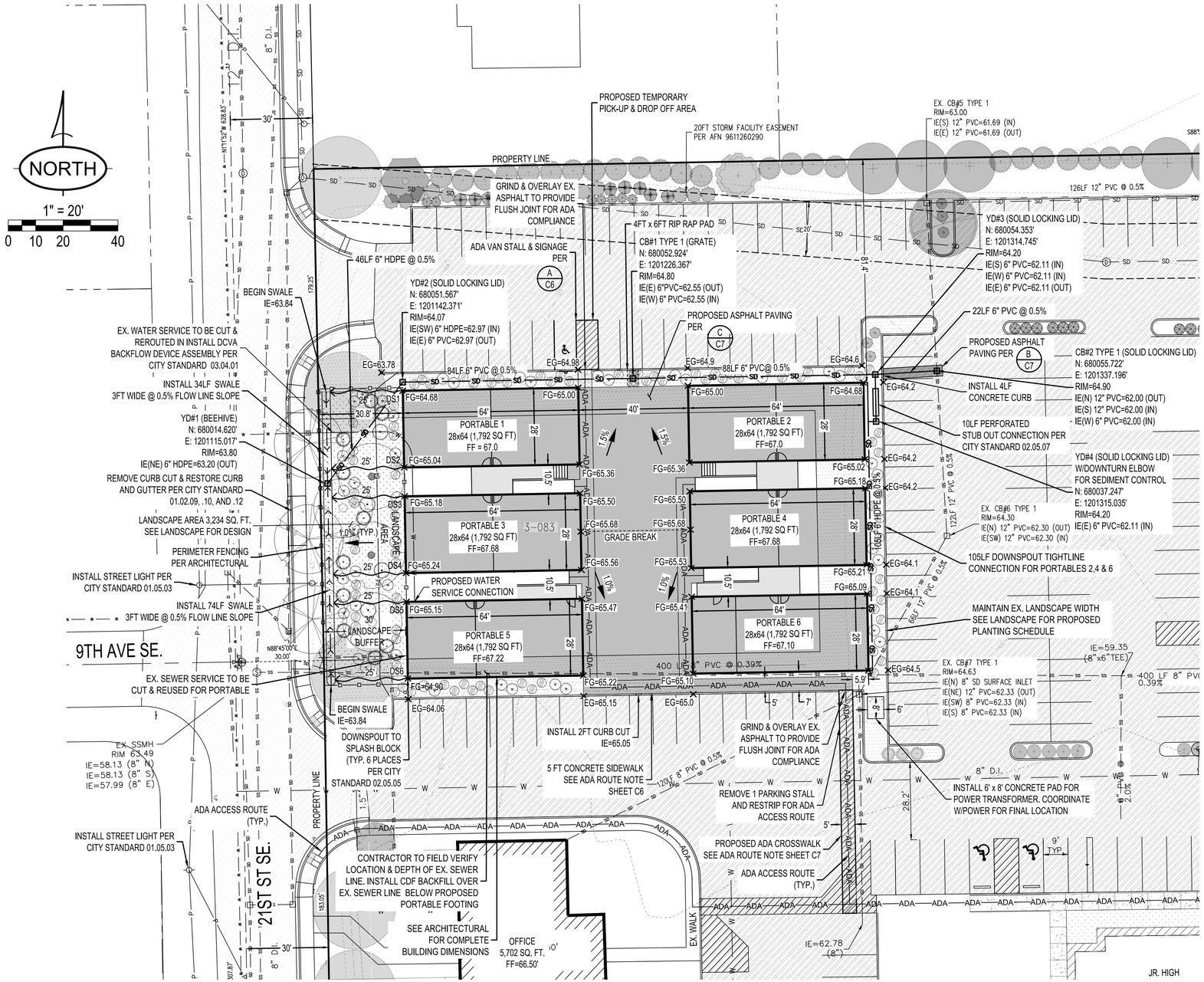
C5

SHEET 5 OF 10

CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

GRADING, DRAINAGE & UTILITIES PLAN - PROJECT WORK AREA 2

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)



BASIS OF BEARING

MONUMENTED CENTERLINE OF 21ST STREET EAST, THAT BEING N0°43'16"E

DATUM

VERTICAL DATUM:
NAVD 88 - BASED ON PIERCE COUNTY GIS

CONTOUR INTERVAL: 2'

HORIZONTAL DATUM:
NAD 83-91 (WASHINGTON STATE SOUTH ZONE)

SITE BENCHMARK

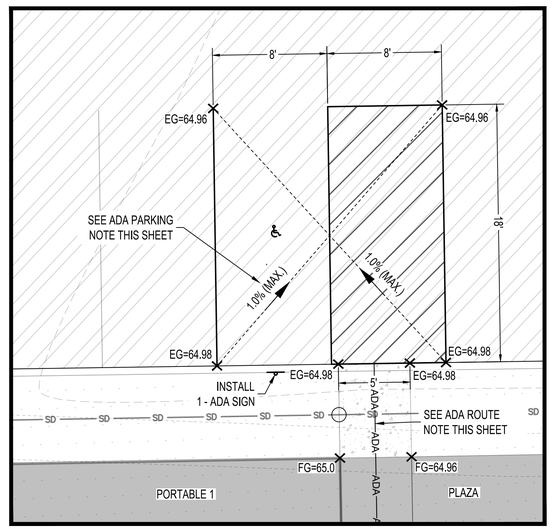
MONUMENT IN CASE WITH 3" BRASS DISK, 0.8' BELOW RIM, POINT NUMBER 501
AT INTX. 9TH AVE. CT E., & 21ST ST. E.
ELEVATION=64.528.

ADA ROUTE

CONTRACTOR TO FIELD VERIFY ADA COMPLIANCE ALONG PROPOSED ACCESSIBILITY ROUTE. FIELD VERIFY EXISTING PAVEMENT MAINTAINS MAX 2% CROSS SLOPE ALONG ADA ROUTE AND MAX 5% RUNNING SLOPES. FOR NEW PAVEMENT, DESIGN TO MAX 1.5% CROSS SLOPE AND MAX 4% RUNNING SLOPE WHERE POSSIBLE. NOTE, DESIGN TO MAX 1.5% SLOPES IN ALL DIRECTIONS AT RAMP LANDINGS, PATH INTERSECTIONS, AND TURNS ALONG PATH.WHERE NECESSARY, DESIGN NEW ADA RAMPS TO MAX 7.5% RUNNING SLOPE AND 1.5% CROSS SLOPE. INSTALL DETECTABLE WARNING STRIPS AT ENDS OF ADA ROUTE BEFORE ENTERING A CROSS WALK, PER ADA STANDARDS.GRIND/OVERLAY ASPHALT PAVEMENT AS NECESSARY TO ACHIEVE ADA COMPLIANT GRADES. USE CONCRETE PAVEMENT FOR IMPROVED GRADING ACCURACY OF ADA COMPLIANCE.

ADA PARKING

CONTRACTOR TO FIELD VERIFY ADA COMPLIANCE WITHIN PROPOSED ADA PARKING AREAS. FIELD VERIFY EXISTING PAVEMENT MAINTAINS MAX 2% SLOPE IN ALL DIRECTIONS. FOR NEW PAVEMENT, DESIGN TO MAX 1.0% SLOPE WHERE POSSIBLE.GRIND/OVERLAY ASPHALT PAVEMENT AS NECESSARY TO ACHIEVE ADA COMPLIANT GRADES. USE CONCRETE PAVEMENT FOR IMPROVED GRADING ACCURACY OF ADA COMPLIANCE.



A C6 **ADA-VAN PARKING STALL DETAIL**

SCALE: 1" = 5'

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CITY OF PUYALLUP
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CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

GRADING, DRAINAGE & UTILITIES PLAN - PROJECT WORK AREA 2

SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

SCOTT VADER — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 21819

VADER ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

NO.	REVISION

PROJECT NO: 2409
SCALE: 1" = 20'
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
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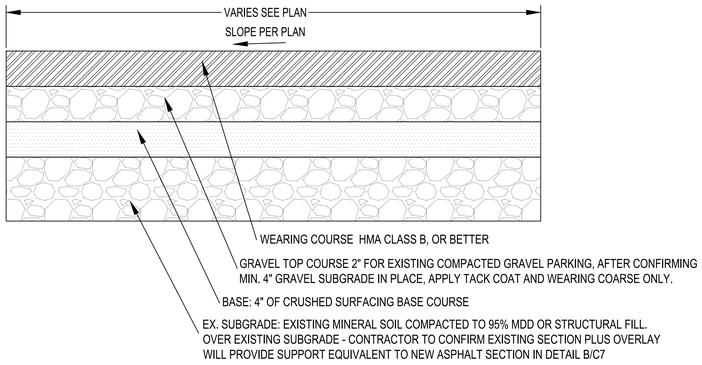
C6

SHEET 6 OF 10

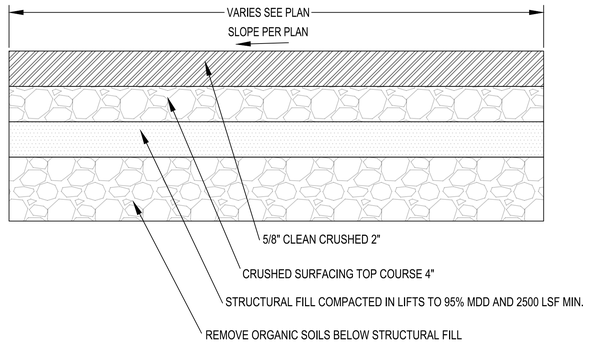
CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

GRADING, DRAINAGE & UTILITIES PLAN - PROJECT WORK AREA 2

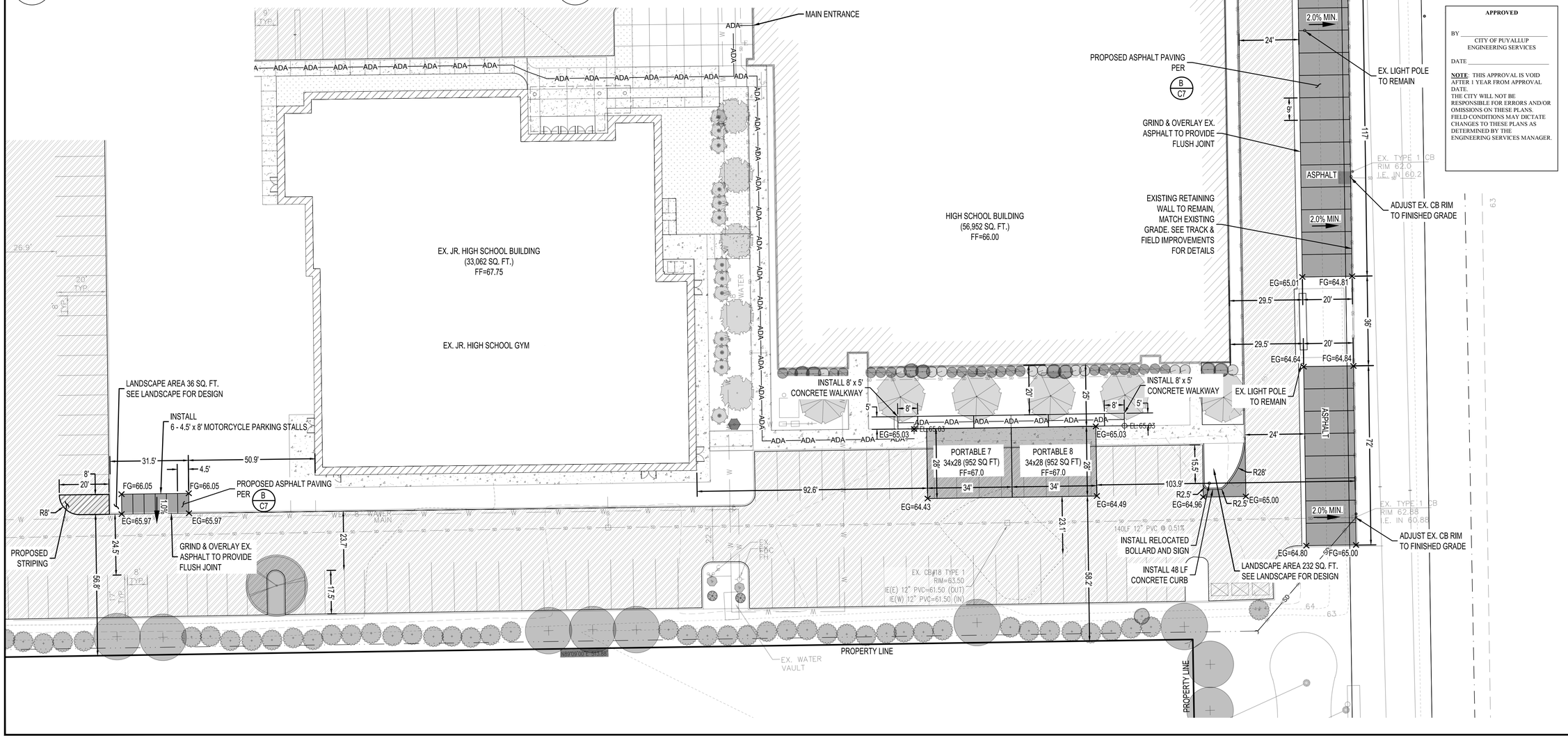
A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)

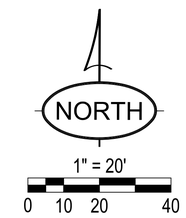


B/C7 **ASPHALT SECTION (TYPICAL)** N.T.S.



C/C7 **PORTABLE FILL SECTION (TYPICAL)** N.T.S.





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SITE BENCHMARK
MONUMENT IN CASE WITH 3" BRASS DISK, 0.8' BELOW RIM, POINT NUMBER 501 AT INTX. 9TH AVE. CT E., & 21ST ST. E. ELEVATION=64.528.

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C7

SHEET 7 OF 10

CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

NOTES & DETAILS

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)

STORMWATER NOTES:

1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.
2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.
5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE ENGINEERING SERVICES STAFF PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT, SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
8. DURING CONSTRUCTION, ALL EXISTING AND NEWLY INSTALLED DRAINAGE STRUCTURES SHALL BE PROTECTED FROM SEDIMENTS.
9. ALL STORM MANHOLES SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.01. FLOW CONTROL MANHOLE/OIL WATER SEPARATOR SHALL CONFORM TO CITY STANDARD DETAIL NO. 02.01.06 AND 02.01.07.
10. MANHOLE RING AND COVER SHALL CONFORM TO CITY STANDARD DETAIL 06.01.02.
11. CATCH BASINS TYPE I SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.02 AND 02.01.03 AND SHALL BE USED ONLY FOR DEPTHS LESS THAN 5 FEET FROM TOP OF THE GRATE TO THE INVERT OF THE STORM PIPE.
12. CATCH BASINS TYPE II SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.04 AND SHALL BE USED FOR DEPTHS GREATER THAN 5 FEET FROM TOP OF THE GRATE TO THE INVERT OF THE STORM PIPE.
13. CAST IRON OR DUCTILE IRON FRAME AND GRATE SHALL CONFORM TO CITY STANDARD DETAIL NO.02.01.05. GRATE SHALL BE MARKED WITH "DRAINS TO STREAM". SOLID CATCH BASIN LIDS (SQUARE UNLESS NOTED AS ROUND) SHALL CONFORM TO WSDOT STANDARD PLAN B-30.20-04 (OLYMPIC FOUNDRY NO. SM60 OR EQUAL). VANED GRATES SHALL CONFORM TO WSDOT STANDARD PLAN B-30.30-03 (OLYMPIC FOUNDRY NO. SM60V OR EQUAL).
14. STORMWATER PIPE SHALL BE ONLY PVC, CONCRETE, DUCTILE IRON, OR DUAL WALLED POLYPROPYLENE PIPE.

A. THE USE OF ANY OTHER TYPE SHALL BE REVIEWED AND APPROVED BY THE ENGINEERING SERVICES STAFF PRIOR TO INSTALLATION.
B. PVC PIPE SHALL BE PER ASTM D3034, SDR 35 FOR PIPE SIZE 15-INCH AND SMALLER AND F679 FOR PIPE SIZES 18 TO 27 INCH. MINIMUM COVER ON PVC PIPE SHALL BE 3.0 FEET.
C. CONCRETE PIPE SHALL CONFORM TO THE WSDOT STANDARD SPECIFICATIONS FOR CONCRETE UNDERDRAIN PIPE. MINIMUM COVER ON CONCRETE PIPE SHALL NOT LESS THAN 3.0 FEET.
D. DUCTILE IRON PIPE SHALL BE CLASS 50, CONFORMING TO AWWA C151. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.
E. POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9-05.24(1). 12-INCH THROUGH 30-INCH PIPE SHALL MEET OR EXCEED ASTM F2736 AND AASHTO M330, TYPE S, OR TYPE D. 36-INCH THROUGH 60-INCH PIPE SHALL MEET OR EXCEED ASTM F2881 AND AASHTO M330, TYPE S, OR TYPE D. TESTING SHALL BE PER ASTM F1417. MINIMUM COVER OVER POLYPROPYLENE PIPE SHALL BE 3-FEET.

15. TRENCHING, BEDDING, AND BACKFILL FOR PIPE SHALL CONFORM TO CITY STANDARD DETAIL NO. 06.01.01.
16. STORM PIPE SHALL BE A MINIMUM OF 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES.
17. ALL STORM DRAIN MAINS SHALL BE TESTED AND INSPECTED FOR ACCEPTANCE AS OUTLINED IN SECTION 406 OF THE CITY OF PUYALLUP SANITARY SEWER SYSTEM STANDARDS.
18. ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES, AND PROTECTIVE MEASURES FOR CRITICAL AREAS AND SIGNIFICANT TREES SHALL BE INSTALLED PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES.

GENERAL NOTES:

1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.
2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.
3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").
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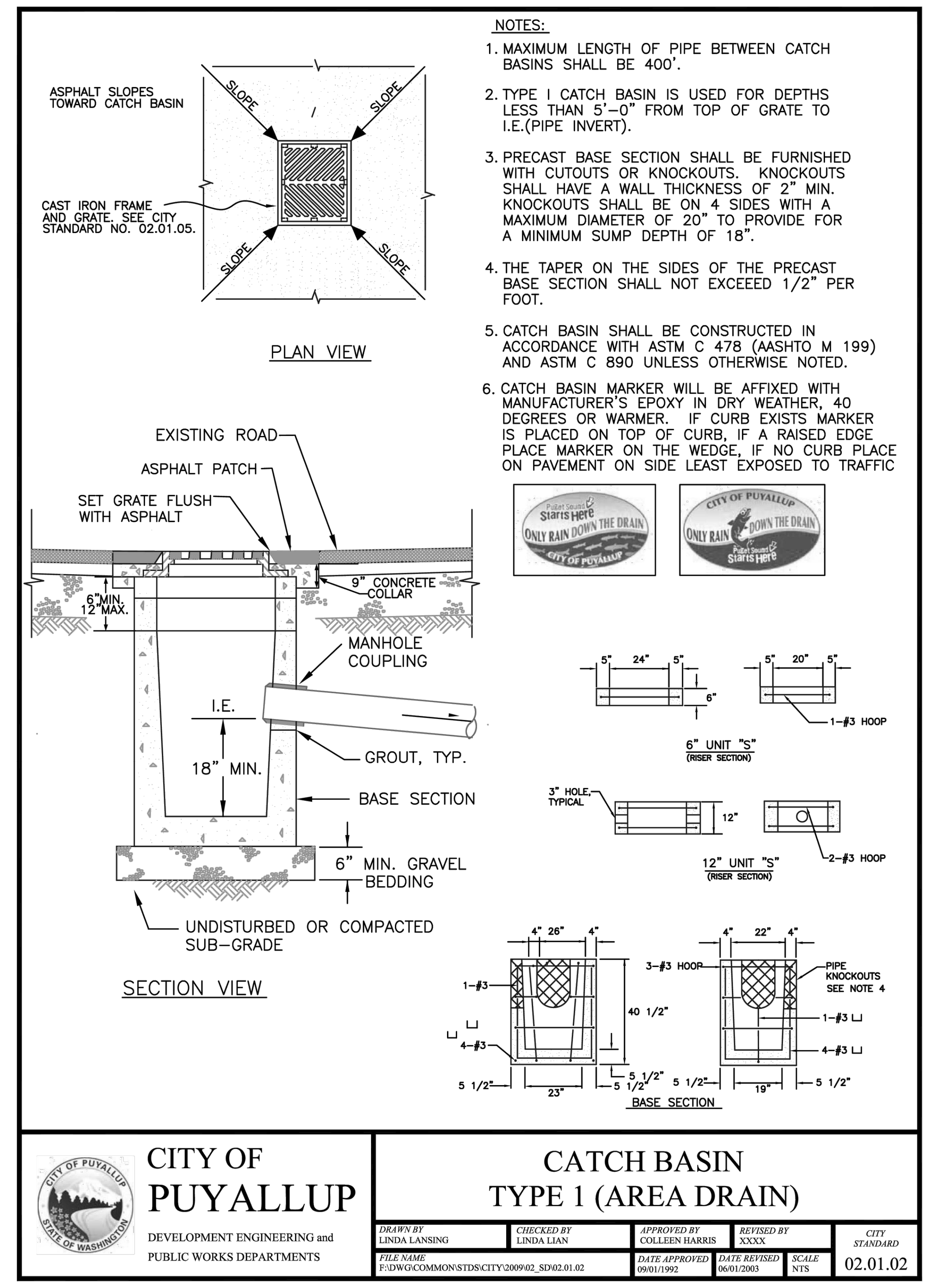
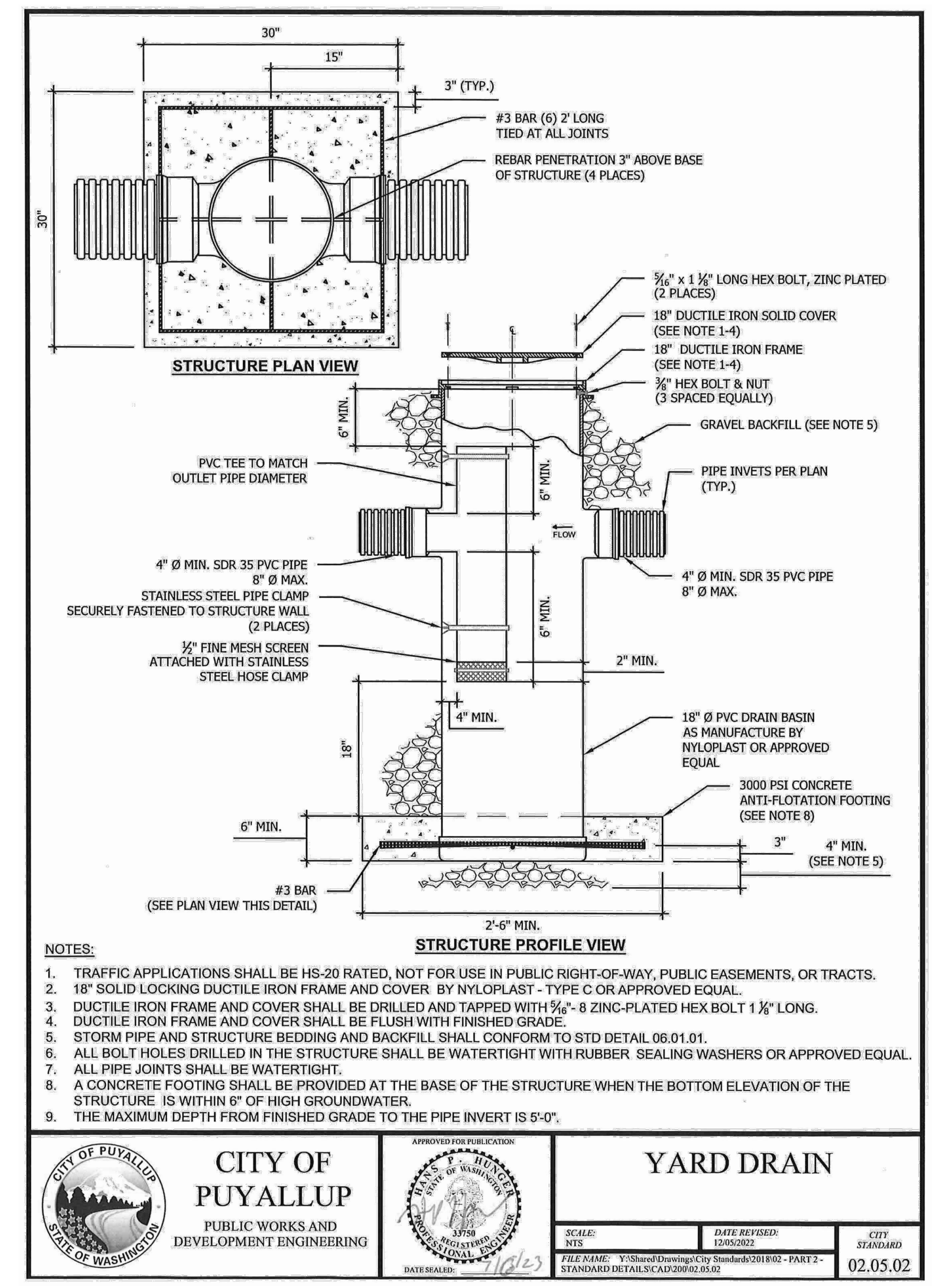
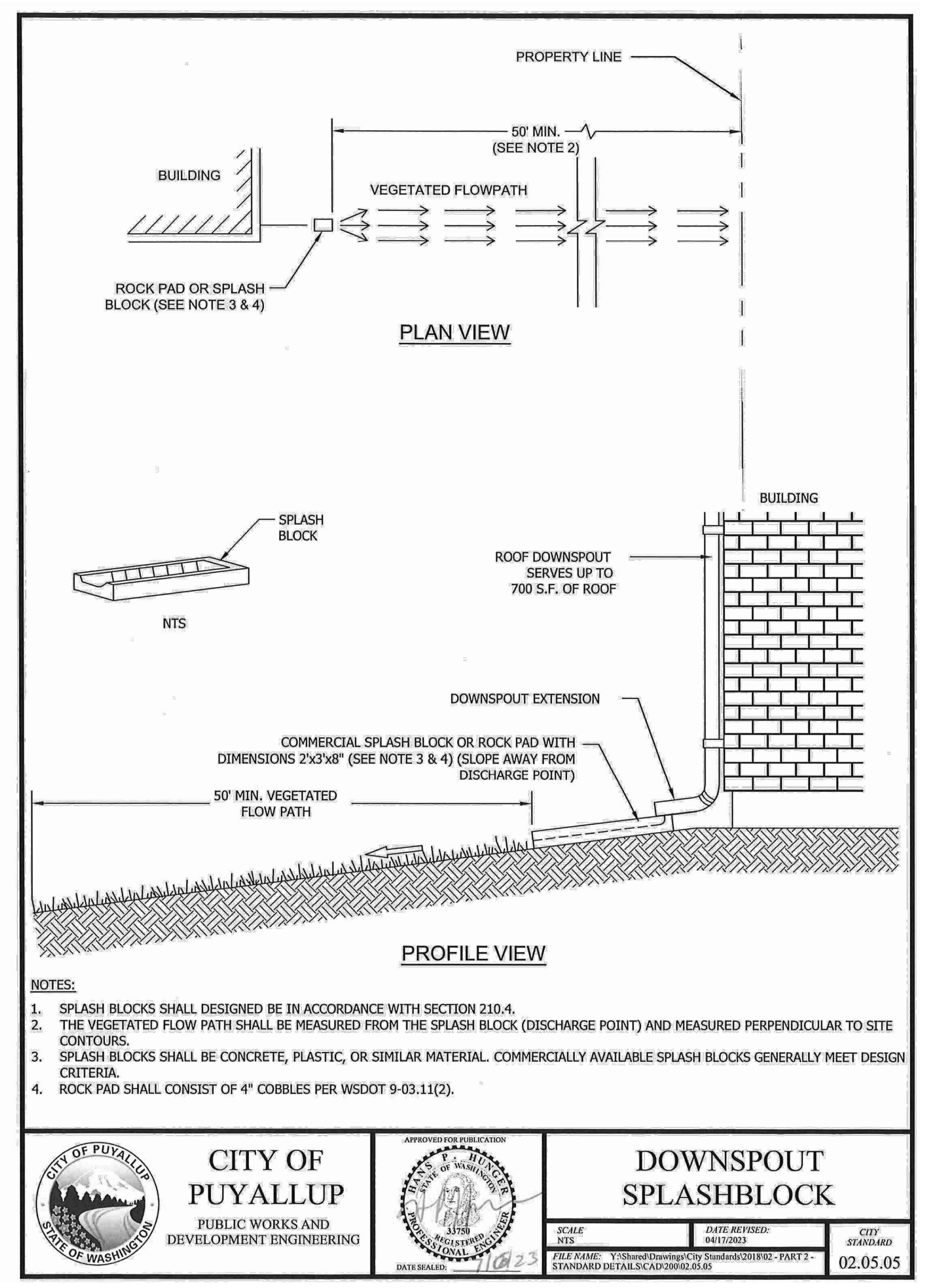
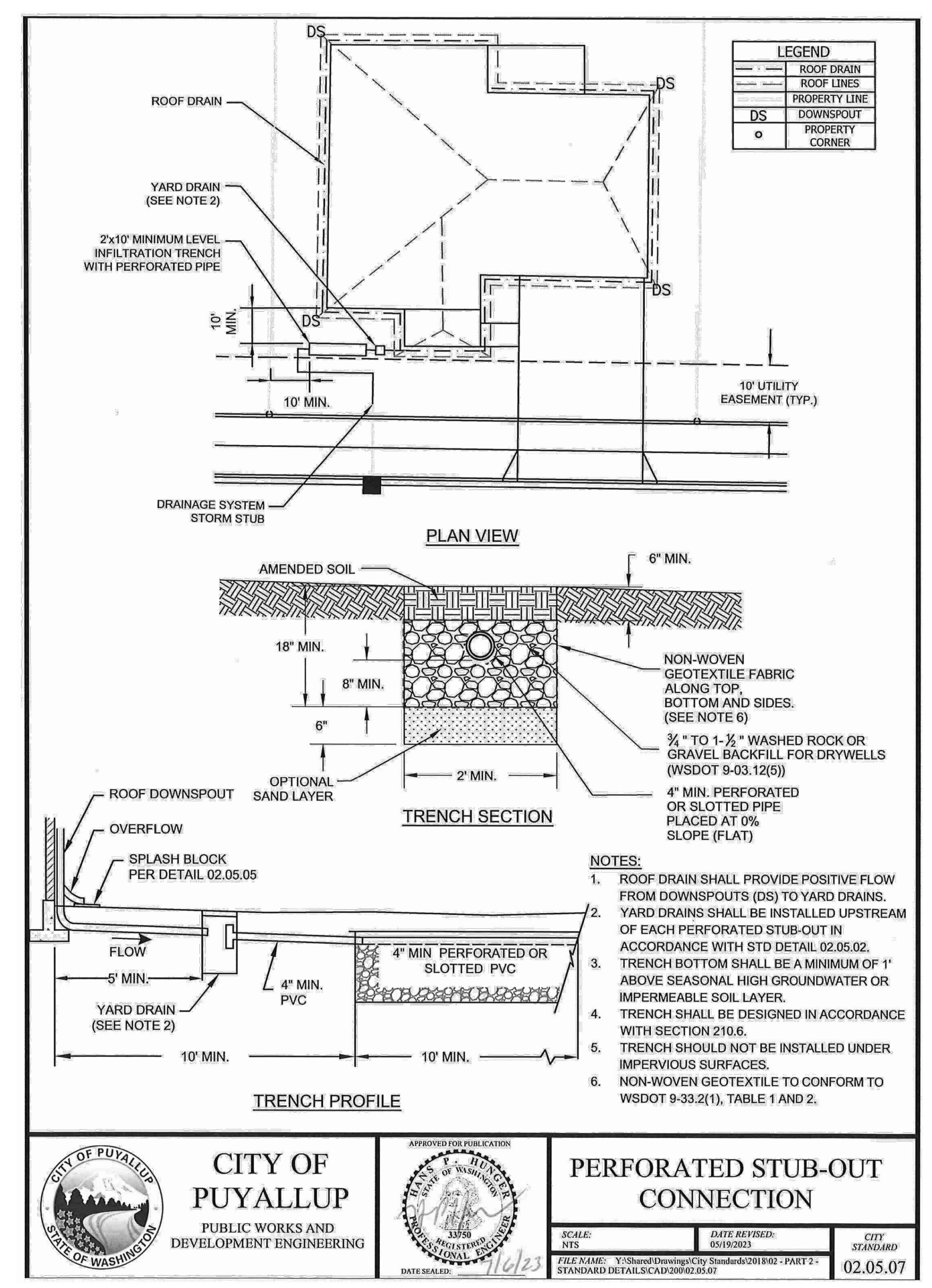
5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.
6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.
8. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TRUE ELEVATIONS AND LOCATIONS OF HIDDEN UTILITIES. ALL VISIBLE ITEMS SHALL BE THE ENGINEER'S RESPONSIBILITY.
9. THE CONTRACTOR SHALL INSTALL, REPLACE, OR RELOCATE ALL SIGNS, AS SHOWN ON THE PLANS OR AS AFFECTED BY CONSTRUCTION, PER CITY STANDARDS.
10. POWER, STREET LIGHT, CABLE, AND TELEPHONE LINES SHALL BE IN A TRENCH LOCATED WITHIN A 10-FOOT UTILITY EASEMENT ADJACENT TO PUBLIC RIGHT-OF-WAY. RIGHT-OF-WAY CROSSINGS SHALL HAVE A MINIMUM HORIZONTAL SEPARATION FROM OTHER UTILITIES (SEWER, WATER, AND STORM) OF 5 FEET.
11. ALL CONSTRUCTION SURVEYING FOR EXTENSIONS OF PUBLIC FACILITIES SHALL BE DONE UNDER THE DIRECTION OF A WASHINGTON STATE LICENSED LAND SURVEYOR OR A WASHINGTON STATE LICENSED PROFESSIONAL CIVIL ENGINEER.
12. DURING CONSTRUCTION, ALL PUBLIC STREETS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN OF ALL MATERIAL DEPOSITS RESULTING FROM ON-SITE CONSTRUCTION, AND EXISTING STRUCTURES SHALL BE PROTECTED AS DIRECTED BY THE CITY.
13. CERTIFIED RECORD DRAWINGS ARE REQUIRED PRIOR TO PROJECT ACCEPTANCE.
14. A NPDES STORMWATER GENERAL PERMIT MAY BE REQUIRED BY THE DEPARTMENT OF ECOLOGY FOR THIS PROJECT. FOR INFORMATION CONTACT THE DEPARTMENT OF ECOLOGY, SOUTHWEST REGION OFFICE AT (360)407-6300.
15. ANY DISTURBANCE OR DAMAGE TO CRITICAL AREAS AND ASSOCIATED BUFFERS, OR SIGNIFICANT TREES DESIGNATED FOR PRESERVATION AND PROTECTION SHALL BE MITIGATED IN ACCORDANCE WITH A MITIGATION PLAN REVIEWED AND APPROVED BY THE CITY'S PLANNING DIVISION. PREPARATION AND IMPLEMENTATION OF THE MITIGATION PLAN SHALL BE AT THE DEVELOPER'S EXPENSE.









APPROVED

BY ______________
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE ______________

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

BEFORE YOU DIG CALL 1-800-424-5555
NOT LESS THAN 48 HOURS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED.

CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

NOTES & DETAILS
SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

VADER ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

NO.	REVISION

PROJECT NO: 2409
SCALE: N/A
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
PLOT DATE: 10/5/2024

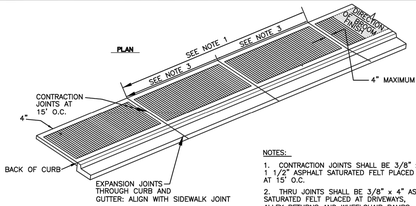
C8

SHEET 8 OF 10

CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

NOTES & DETAILS (2)

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)



MINIMUM SIDEWALK WIDTHS

5'(RS ZONES) SINGLE FAMILY RESIDENTIAL AREAS (DETACHED DWELLINGS)
8'(RS ZONES) COMMERCIAL USES, WHEN REQUIRED BY DEVELOPMENT SERVICES MANAGER
8'(RM ZONES) MEDIUM AND HIGH DENSITY MULTI-FAMILY RESIDENTIAL AREAS
8'(ML ZONES) INDUSTRIAL AREAS
8'(CG, CBD ZONES) COMMERCIAL AREAS
8'(PF ZONES) PUBLIC FACILITIES AREAS
8'(F ZONES) FAIR AREAS
* MATCH GREATEST WIDTH FOR ANY ADJACENT ZONE

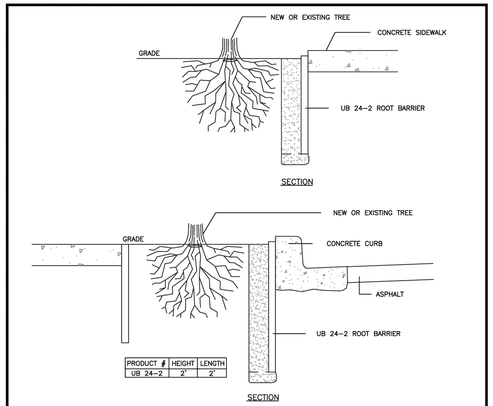
NOTES:

1. CONTRACTION JOINTS SHALL BE 3/8" x 1 1/2" ASPHALT SATURATED FELT PLACED AT 15' O.C.
2. THRU JOINTS SHALL BE 3/8" x 4" ASPHALT SATURATED FELT PLACED AT DRIVEWAYS, ALLEY RETURNS AND WHEELCHAIR RAMPS AND RADII.
3. V-GROOVEMARKS SHALL BE 1/8" DEEP AND 1/4" WIDE PLACED AT 5' O.C. FOR 5' SIDEWALKS AND 7.5' O.C. FOR 8' SIDEWALKS.
4. ALL JOINTS SHALL BE CLEAN AND EDGED TO A 1/4" RADIUS. JOINTS SHALL BE FLUSH WITH THE FINISHED SURFACE.
5. ALL UTILITY POLES AND STREET SIGN POSTS IN SIDEWALK AREA NOT REQUIRED TO BE RELOCATED SHALL HAVE A SQUARE SECTION OF CONCRETE SURROUNDED BY 3/8" EXPANSION JOINT MATERIAL AROUND THE POLE. THE JOINT SHALL BE NO CLOSER THAN 6" TO ANY SIDE OF THE POLE.
6. FORMS SHALL BE EITHER WOOD OR STEEL AND SHALL MEET ALL REQUIREMENTS OF THESE SPECIFICATIONS.
7. CONCRETE SHALL BE CLASS 3000 COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, AASHTO GRADING 467 COARSE AGGREGATE, NO FLY ASH.
8. SIDEWALK MINIMUM UNOBSTRUCTED CLEAR WIDTH SHALL BE 4', EXCLUSIVE OF THE WIDTH OF THE CURB.
9. GRATINGS, ACCESS COVERS, JUNCTION BOXES, CABLE VAULTS, PULL BOXES AND OTHER APPURTENANCES WITHIN THE SIDEWALK (RIGHT-OF-WAY) MUST HAVE SLIP RESISTANT SURFACE AND MATCH THE GRADE OF THE SIDEWALK.
10. CURB RAMPS SHALL BE CONSTRUCTED AT INTERSECTIONS USING A DESIGN PREPARED BY A LICENSED PROFESSIONAL ENGINEER. WHEN A RAMP DESIGN FAILS TO MEET ALL APPLICABLE DESIGN STANDARDS, THE ENGINEER SHALL DOCUMENT WHY THE PROPOSED RAMP ACHIEVES DESIGN STANDARDS TO THE MAXIMUM EXTENT FEASIBLE.

CITY OF PUYALLUP	SIDEWALK WITHOUT PLANTING STRIP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	CITY STANDARD 01.02.01

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	SCALE
RSV	LINDA LIAN	COLLEEN HARRIS	LINDA LIAN	1:8
DATE APPROVED: 07/01/2009	DATE REVISED: 10/21/11			

FILE NAME: F:\DWG\COMMON\STDS\CITY\2009\01_STR\01-02\01-02.01



PRODUCT #	HEIGHT	LENGTH
UB 24-2	2'	2'

SECTION

NOTES:

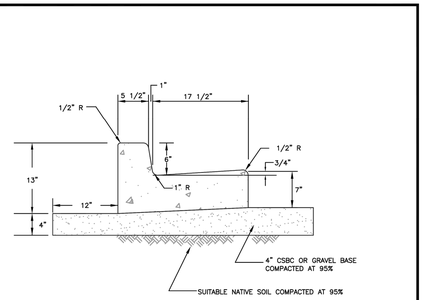
1. ROOT BARRIERS SHALL BE REQUIRED IN ALL STREET TREE PLANTING INSTALLATIONS WHETHER NEW OR EXISTING, WHEN STREET TREES ARE INSTALLED IN RIGHT-OF-WAY OR IN A PLANTING EASEMENT*.
2. ROOT BARRIERS USED SHALL BE DeepRoot ROOT BARRIERS OR EQUIVALENT.
3. UB - 24 SHALL BE USED
4. ROOT BARRIERS SHALL BE INSTALLED IF REQUIRED BY THE CITY.
5. INSTALLATION OF ROOT BARRIERS TO BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
6. THE PANEL SHALL BE INSTALLED SO THE VERTICAL RIBS FACE THE ROOTS OF THE TREE. A MINIMUM OF FOUR (4) PANELS SHALL BE INSTALLED ON EACH SIDE OF ROOT BALL FOR 8' OF PROTECTION.
7. FOR PRODUCT INFORMATION VISIT:
   http://www.deeproot.com/template.php?sec=products&nav=treeRoot&content=rb_app&sub=2&lsel=1

*"PLANTING EASEMENT" SHALL MEAN THAT PORTION OF LAND MADE AVAILABLE AS A PUBLIC EASEMENT FOR THE PURPOSE OF PLANTING AND MAINTAINING CITY STREET TREES. ALL STREET TREES PLANTED WITHIN A PLANTING EASEMENT SHALL BE PLANTED WITHIN THREE FEET OF RIGHT-OF-WAY.

CITY OF PUYALLUP	ROOT BARRIER DETAIL
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	CITY STANDARD 01.02.03

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	SCALE
RSV	CHRIS HEALE	COLLEEN HARRIS	LINDA LIAN	1:1
DATE APPROVED: 07/01/2009	DATE REVISED: 08/01/2015			

FILE NAME: F:\DWG\COMMON\STDS\CITY\2009\01_STR\01-02\01-02.03



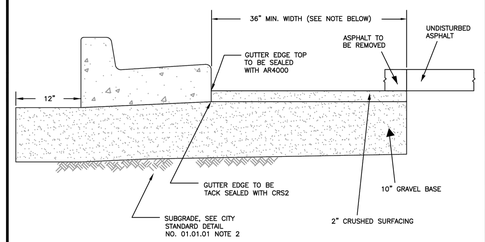
NOTES:

1. CONTRACTION JOINTS SHALL BE 3/8" x 2 1/4" ASPHALT SATURATED FELT PLACED IN ALL EXPOSED SURFACES OF CURB AND GUTTER AND SPACED AT 15' MAX. 10' MIN. O.C.
2. THRU JOINTS SHALL BE 3/8" ASPHALT SATURATED FELT PLACED AT POINTS OF TANGENCY ON CURVES, AT CATCH BASINS, AND AT EDGES OF ALLEY AND DRIVEWAYS. THE MAXIMUM DISTANCE BETWEEN THRU JOINTS SHALL BE 100'.
3. CONCRETE SHALL BE CLASS 3000 COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, AASHTO GRADING 467 COARSE AGGREGATE, NO FLY ASH.
4. FORMS SHALL BE STEEL UNLESS PRIOR APPROVAL IS GIVEN BY THE CITY ENGINEER. FORMS SHALL BE SET TRUE TO LINE AND GRADE AND SECURELY STAKED PRIOR TO CONCRETE PLACEMENT. FULL DEPTH DIVISION PLATES ARE ONLY TO BE USED WHERE THRU JOINTS ARE TO BE PLACED.
5. THE 1" RADIUS ON THE UPPER FACE OF THE CURB MAY BE FORMED BY AN EDGER TOOL OR BUILT INTO THE FACE FORM. THE 1" RADIUS AT THE BOTTOM FACE OF THE CURB SHALL BE FORMED BY THE FACE FORM.

CITY OF PUYALLUP	CURB AND GUTTER
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	CITY STANDARD 01.02.09

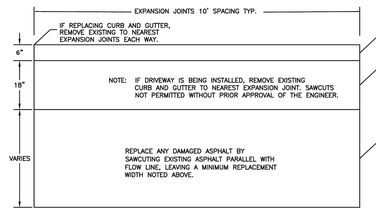
DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	SCALE
RSV	LINDA LIAN	COLLEEN HARRIS	Linda Lian	1:1
DATE APPROVED: 07/01/2009	DATE REVISED: 04/23/13			

FILE NAME: F:\DWG\COMMON\STDS\CITY\2009\01_STR\01-02\01-02.09



NOTE: THE 36" MINIMUM PAVEMENT PATCH SHALL BE INCREASED IN WIDTH IF THE RESULTING MEET LINE WOULD LIE WITHIN A LANE WHEEL PATH.

SCALE: 1:1



PLAN VIEW

SCALE: 1:2

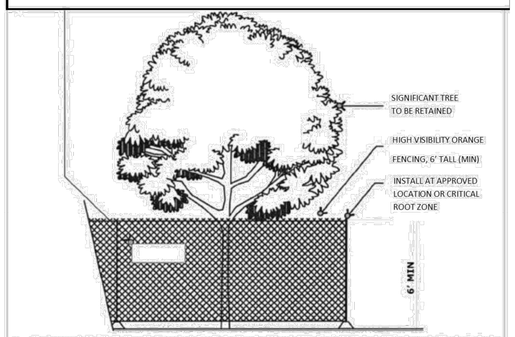
CITY OF PUYALLUP	CURB CUT
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	CITY STANDARD 01.02.10

DRAWN BY	CHECKED BY	APPROVED BY	REVISED BY	SCALE
RSV	LINDA LIAN	COLLEEN HARRIS	XXXX	NARES
DATE APPROVED: 07/01/2009	DATE REVISED: XX/XX/XX			

FILE NAME: F:\DWG\COMMON\STDS\CITY\2009\01_STR\01-02\01-02.10

TREE PROTECTION ZONE (TPZ)

NO ENTRY. NO GRADE CHANGES, STORAGE/STOCKPILING OF MATERIALS OR EQUIPMENT, PLACEMENT OF FILL OR TOP SOIL, TRENCHING OR VEHICULAR/FOOT TRAFFIC PERMITTED WITHIN THE TPZ. THIS TREE BARRIER SHALL NOT BE REMOVED WITHOUT AUTHORIZATION FROM PUYALLUP PLANNING DEPARMENT. - SUBJECT TO FINES AND ENFORCEMENT ACTION BY THE CITY – TO REPORT VIOLATIONS OR FOR MORE INFORMATION—CALL (253) 864.4165



- MINIMUM SIX (6) FOOT HIGH TEMPORARY HIGH VISIBILITY ORANGE CONSTRUCTION FENCING SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE ON APPROVED FINAL LANDSCAPE PLAN SET. FENCING SHALL BE INSTALLED USING POSTS DRIVEN INTO GROUND—PIER BLOCKS SHALL NOT BE USED. AVOID POSTS DRIVEN INTO ROOTS LARGER THAN 1" DIAMETER. FENCING SHALL BE INSTALLED PRIOR TO WORK COMMENCING ON SITE AND REMAIN IN PLACE THROUGHOUT ALL PHASES OF CONSTRUCTION.--CALL THE CITY'S PLANNING DIVISION WITH REQUESTS TO MODIFY THE LOCATION OF THE TREE PROTECTION FENCING—(253) 864-4165.
- TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING AND COVERED WITH SOIL AS SOON AS POSSIBLE. OTHER PRE-TREATMENT MEASURES MAY BE REQUIRED TO PROTECT ROOT SYSTEM—SEE APPROVED TREE PROTECTION OR FINAL LANDSCAPE PLAN FOR FURTHER DETAILS.
- NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC/PLACEMENT OF TOP SOIL OR FILL MATERIAL, STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMITS OF THE ESTABLISHED FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING DIVISION. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST WITH PRIOR WRITTEN APPROVAL BY THE CITY PLANNING DIVISION.
- THE ABOVE REFERENCED TPZ SIGNS SHALL BE PLACED EVERY 15 FEET ALONG THE FENCING AND SHALL REMAIN IN PLACE THROUGHOUT ALL PHASES OF CONSTRUCTION

TREE PROTECTION FENCING DETAIL
(for public and private trees)

APPROVED

BY _____
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE _____

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1-800-424-5555
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CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

NOTES & DETAILS (2)

SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

VADER ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

NO.	REVISION

PROJECT NO: 2409
SCALE: N/A
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
PLOT DATE: 10/5/2024

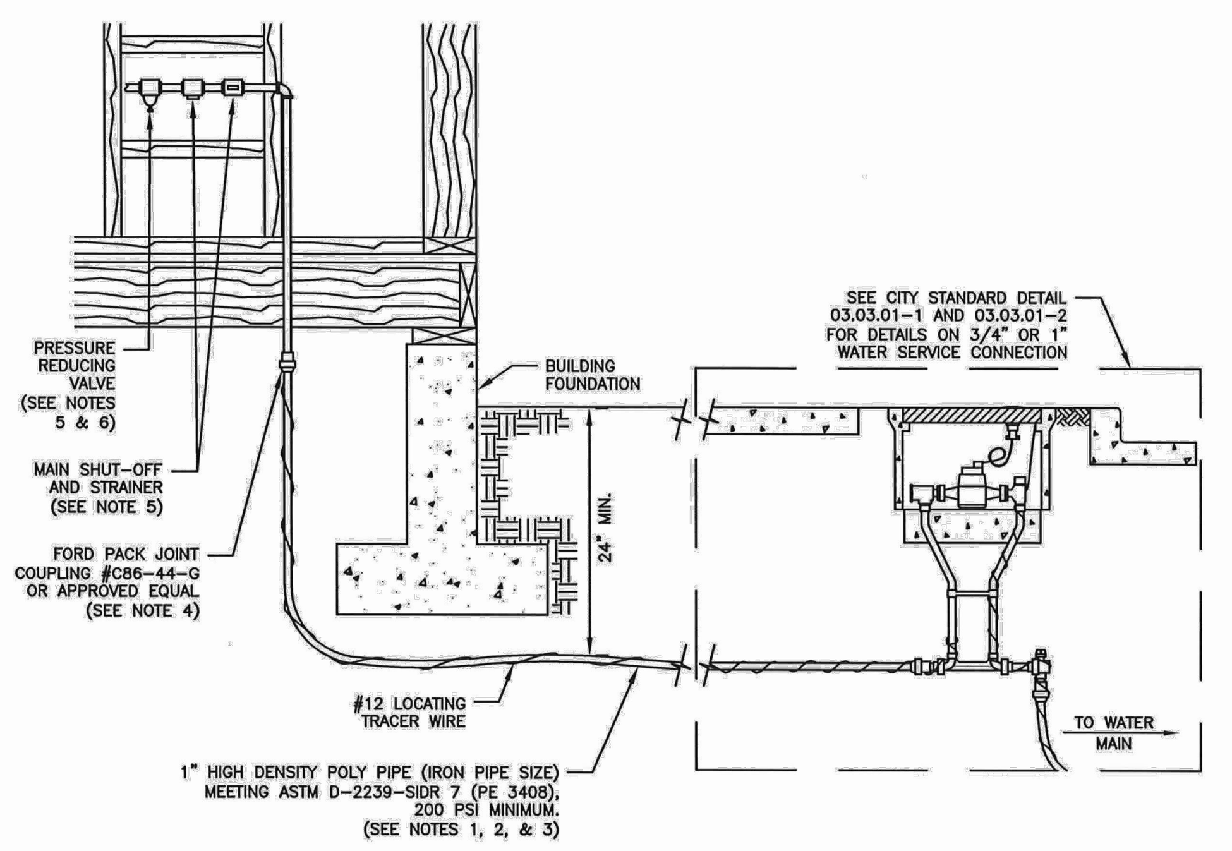
C9

SHEET 9 OF 10

CASCADE CHRISTIAN SCHOOL CAMPUS - ELEMENTARY SCHOOL PORTABLES

NOTES & DETAILS (3)

A PORTION OF THE S 1/2 OF SECTION 26 AND N 1/2 OF SECTION 35, TOWNSHIP 20 NORTH, RANGE 4 EAST, W.M.
PIERCE COUNTY, WASHINGTON (CITY OF PUYALLUP)



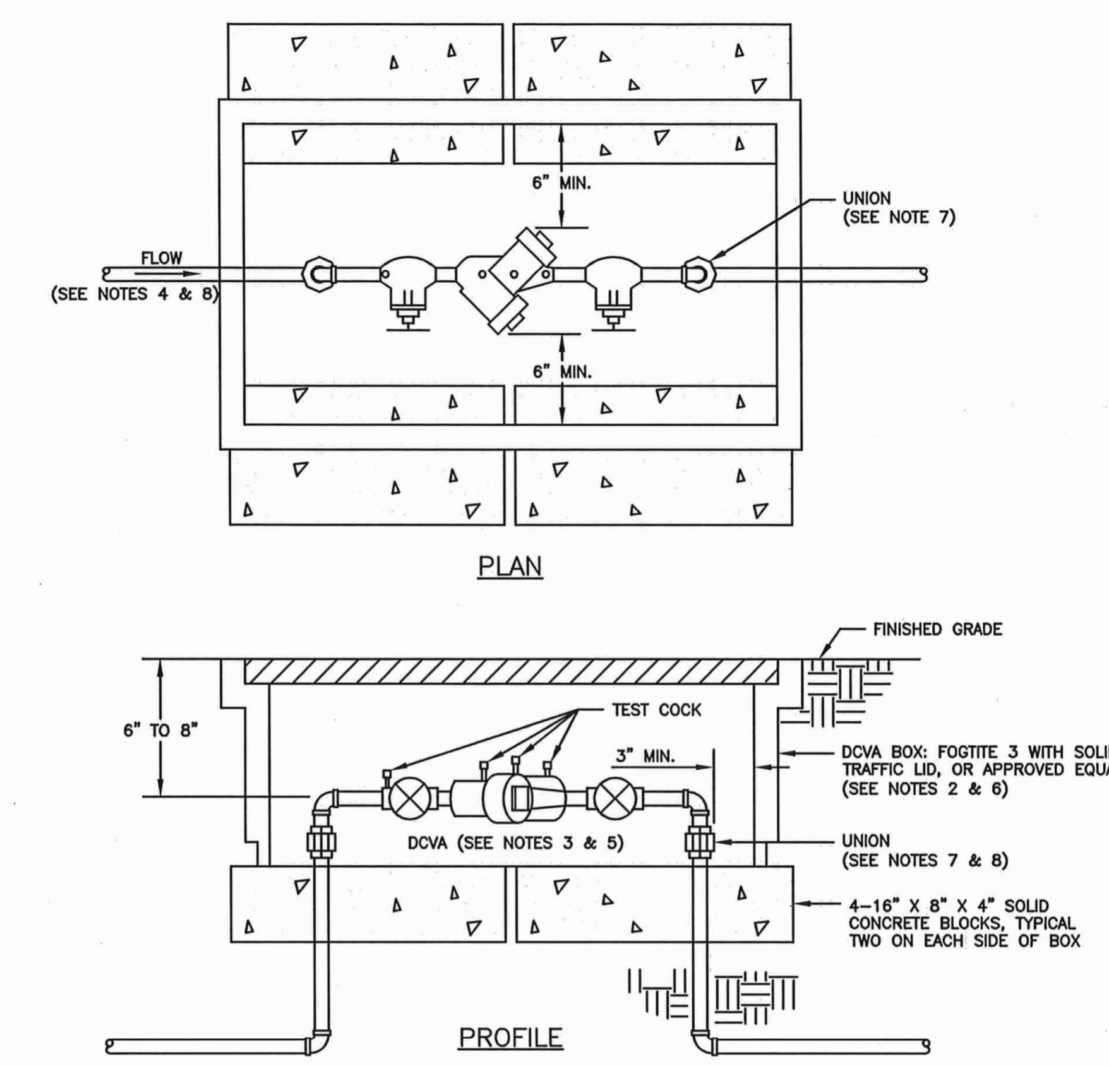
NOTES

1. SERVICE LINE MAY BE 200 PSI POLY PIPE IN UNCONTAMINATED SOILS. IN SOILS THAT MAY CONTAIN HYDROCARBONS USE 1" "K" COPPER PIPE.
2. PIPE TO BE BEDDED WITH MATERIAL FREE OF ROCKS.
3. POLY PIPE SHOULD BE PLACED IN THE TRENCH IN A SNAKELIKE FASHION (NOT STRAIGHT WITHOUT SLACK). THIS WILL ACCOMMODATE GROUND MOVEMENT AND KEEP PRESSURE OFF THE FITTINGS.
4. PLASTIC WATER SERVICE PIPING MAY TERMINATE WITHIN A BUILDING, PROVIDED THE CONNECTION TO THE POTABLE WATER DISTRIBUTION SYSTEM SHALL BE ACCESSIBLE. SEE THE CURRENT UNIFORM PLUMBING CODE FOR MORE INFORMATION.
5. THE MAIN SHUT-OFF VALVE, PRESSURE REDUCING VALVE, AND STRAINER SHALL BE LOCATED INSIDE THE BUILDING IN AN ACCESSIBLE LOCATION. THEY SHOULD BE LOCATED BEFORE ANY BRANCH CONNECTIONS, AND PROTECTED FROM FREEZING. THE MAIN SHUT-OFF VALVE SHALL BE BRASS.
6. ALL PROPERTIES WITH WATER SERVICE CONNECTIONS LOCATED SOUTH OF 15TH AVE SE AND SOUTH OF 15TH AVE SW SHALL HAVE AN APPROVED PRIVATELY OWNED AND PRIVATELY MAINTAINED PRESSURE REDUCING VALVE (PRV) LOCATED ON THEIR WATER SERVICE LINE.
7. ALL PROPERTIES WITH IRRIGATION BRANCH CONNECTIONS LOCATED SOUTH OF 15TH AVE SE AND SOUTH OF 15TH AVE SW SHOULD HAVE AN APPROVED PRIVATELY OWNED AND PRIVATELY MAINTAINED PRESSURE REDUCING VALVE (PRV) LOCATED ON THEIR IRRIGATION BRANCH LINE.
8. ALL INSTALLATIONS WITHIN TWO (2) FEET OF THE BUILDING SHALL COMPLY WITH THE CURRENT UNIFORM PLUMBING CODE.

CITY OF PUYALLUP
PUBLIC WORKS AND DEVELOPMENT ENGINEERING
APPROVED FOR PUBLICATION
HANS P. HUNGER, STATE OF WASHINGTON, 33750, REGISTERED PROFESSIONAL ENGINEER — 7/6/23

PRIVATE WATER SERVICE LINES

(NOT TO SCALE)
CITY STANDARD 03.03.04
FILE NAME: Y:\SHARED\DRAWINGS\CITY STANDARDS\2018\02 - PART 2 - STANDARD DETAILS\CAD\300\03.03



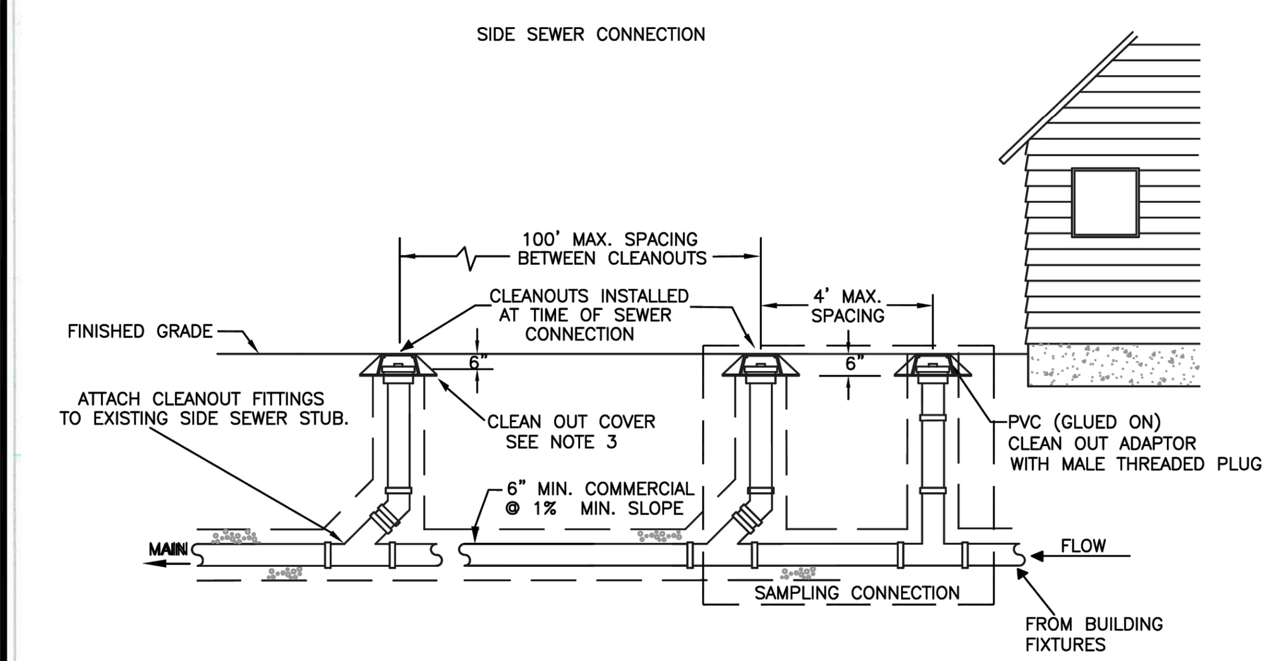
NOTES:

1. BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
2. THE DCVA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
3. DCVA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
4. DCVA SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF WATER METER. WHEN IRRIGATION OR A NON FLOW-THROUGH FIRE SPRINKLER SYSTEM IS CONNECTED OFF THE DOMESTIC WATER LINE, DCVA SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF THE BRANCH CONNECTION.
5. DCVA SHALL BE SIZED EQUAL OR COMPARABLE TO METER SIZE.
6. METER BOX SHALL BE LARGE ENOUGH TO ALLOW THE MINIMUM SETBACKS ILLUSTRATED ABOVE. METER BOX LID SHALL BE A TRAFFIC LID WITH A H-20 LOADING.
7. DIELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS.
8. USE ONLY BRASS OR COPPER BETWEEN THE METER AND THE UNION ON THE CUSTOMER'S SIDE OF THE DCVA.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
APPROVED FOR PUBLICATION
HANS P. HUNGER, STATE OF WASHINGTON, 33750, REGISTERED PROFESSIONAL ENGINEER
DATE SEALED: 4/15/24

2" AND SMALLER DOUBLE CHECK VALVE ASSEMBLY INSTALLATION

(NOT TO SCALE)
CITY STANDARD 03.04.01
FILE NAME: Y:\SHARED\DRAWINGS\CITY STANDARDS\2018\02 - PART 2 - STANDARD DETAILS\CAD\300\03.04



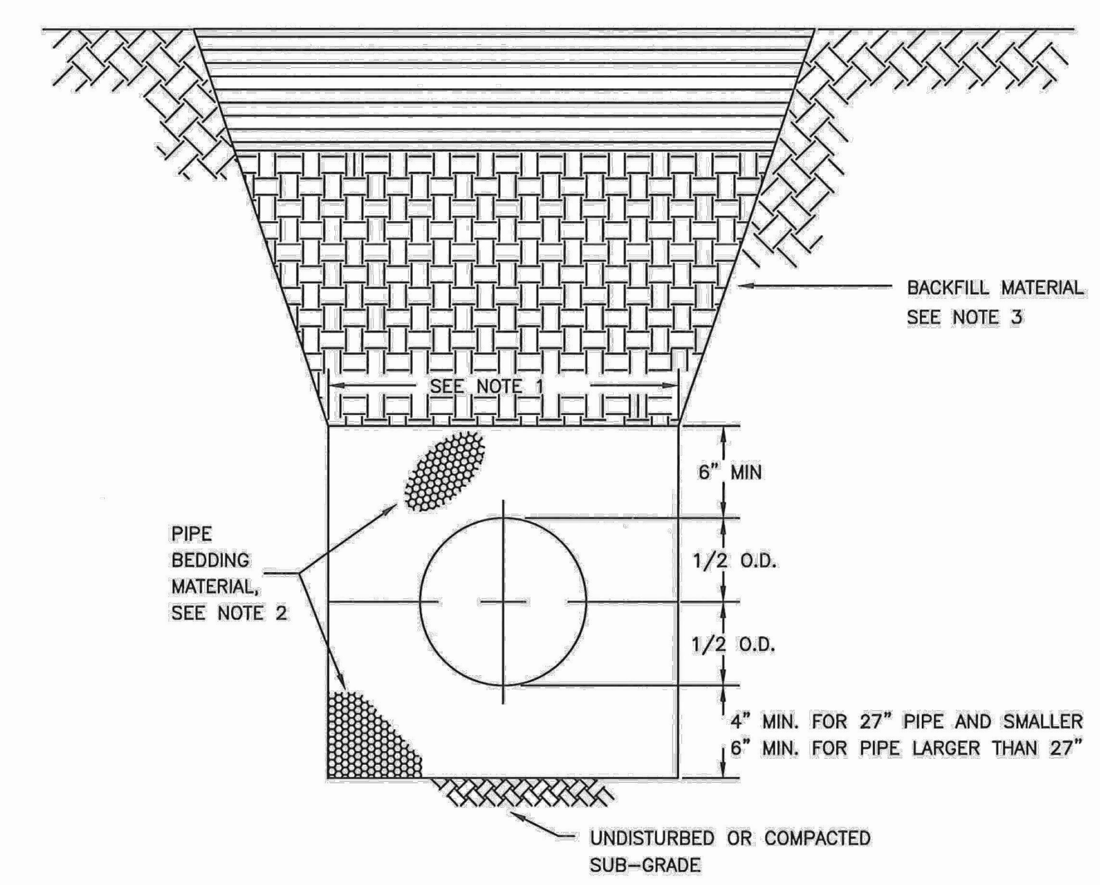
NOTES:

1. SAMPLING CONNECTION SHALL BE INSTALLED OUT SIDE WITH UNOBSTRUCTED ACCESS AT ALL TIMES.
2. A SAMPLING CONNECTION SHALL BE INSTALLED FOR EACH COMMERCIAL / RETAIL UNIT OR SPACE.
3. CLEAN OUT AND SAMPLING CONNECTION COVERS:
   A) FOR NON-VEHICULAR TRAFFIC INSTALLATIONS USE "CARSON" MODEL 910 GREEN YARD BOX WITH BOLT DOWN LID MARKED SEWER OR APPROVED EQUAL.
   B) FOR ASPHALT, GRAVEL, OR TRAFFIC INSTALLATIONS SEE CITY STANDARD DETAIL NO. 04.03.05 FRAME AND COVER SECTION.
4. EACH CLEANOUT ASSEMBLY SHALL CONSIST OF: ONE CLEANOUT ADAPTER, HUB x FEMALE, FIPT, PVC SI AND ONE CLEANOUT PLUG, MOPT WITH RAISED NUT, PVC SDR35.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

COMMERCIAL SIDE SEWER CONNECTION WITH SAMPLING CONNECTION

CITY STANDARD 04.03.04



1. TRENCHING SHALL MEET THE REQUIREMENTS OF SECTION 7-08.3(1)A AND 2-06.3(1) OF THE WSDOT SPECIFICATIONS.
2. BEDDING MATERIAL SHALL CONFORM TO 9-03.12(3) GRAVEL BACKFILL FOR PIPE ZONE BEDDING.
3. GRAVEL BACKFILL SHALL CONFORM TO 9-03.12(1)A GRAVEL BACKFILL FOR FOUNDATIONS, CLASS A.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER

PIPE TRENCHING BEDDING AND BACKFILL

CITY STANDARD 06.01.01

APPROVED

BY ______________________
CITY OF PUYALLUP
ENGINEERING SERVICES

DATE ______________________

NOTE: THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

NOTES:

1. CENTERLINE STRIPE FOR CHANNELIZATION SHALL BE DETAIL B OR DETAIL C AS DIRECTED BY CITY. CENTERLINE STRIPE FOR ALL COLLECTORS SHALL BE DETAIL D WITH TYPE 2YY RPM SPACED AT 80' INTERVALS ON TANGENTS AND HORZ. CURVES WITH A RADIUS OF 5000' OR MORE AND 40' INTERVALS ON HORZ. CURVES LESS THAN 5000'. CENTERLINE STRIPE FOR ARTERIALS SHALL BE DETAIL E WITH RPM SPACING AS PREVIOUSLY DEFINED.
2. ROADS, UNLESS OTHERWISE DETERMINED BY THE CITY, (ARTERIALS & COLLECTORS) LONGITUDINAL LINES SHALL BE PAINTED. APPLIED 14 MILS WHEN WET.
3. NO PASSING ZONES IN ONE DIRECTION OR BOTH SHALL BE CLEARLY MARKED WITH CENTERLINE STRIPE, DETAIL B OR DETAIL C OR COMBINATION OF DETAIL D AND DETAIL E.
4. ON WIDE INTERSECTIONS SPACE TYPE 1 OR 2 RPM 4 FEET ON CENTER.

RAISED PAVEMENT MARKERS

TYPE 2 RPM (REFLECTIVE)
RAISED FACE COLORS

TYPE 2WR	WHITE AND RED
TYPE 2YR	YELLOW AND RED
TYPE 2YY	YELLOW AND YELLOW
TYPE 2W	WHITE – ONE SIDE ONLY
TYPE 2Y	YELLOW – ONE SIDE ONLY

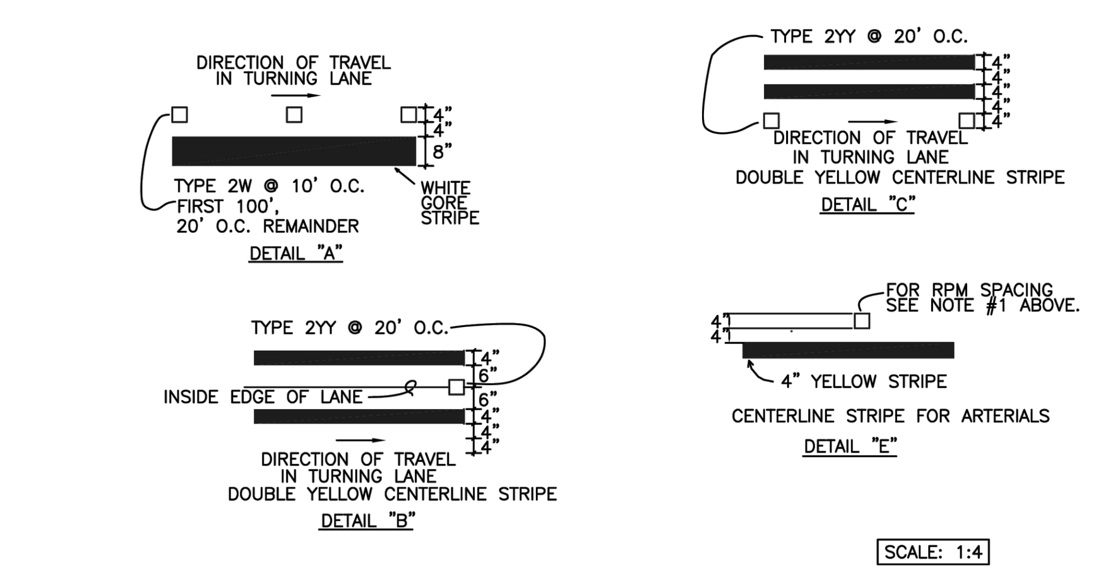
TYPE 1 RPM COLORS

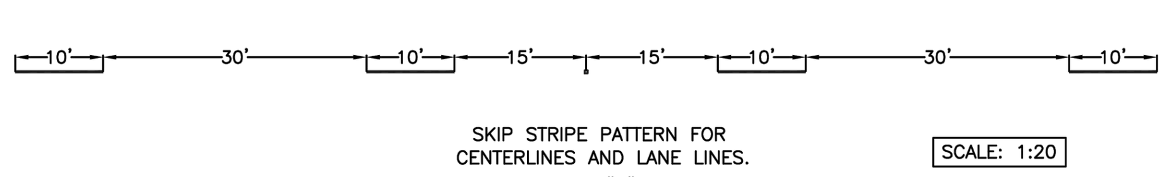
TYPE 1W	WHITE
TYPE 1Y	YELLOW

*TYPE 3 RPM COLORS

TYPE 3W	8" RUMBLE BAR – WHITE
TYPE 3Y	8" RUMBLE BAR – YELLOW

* CITY MAY REQUIRE REFLECTIVE.

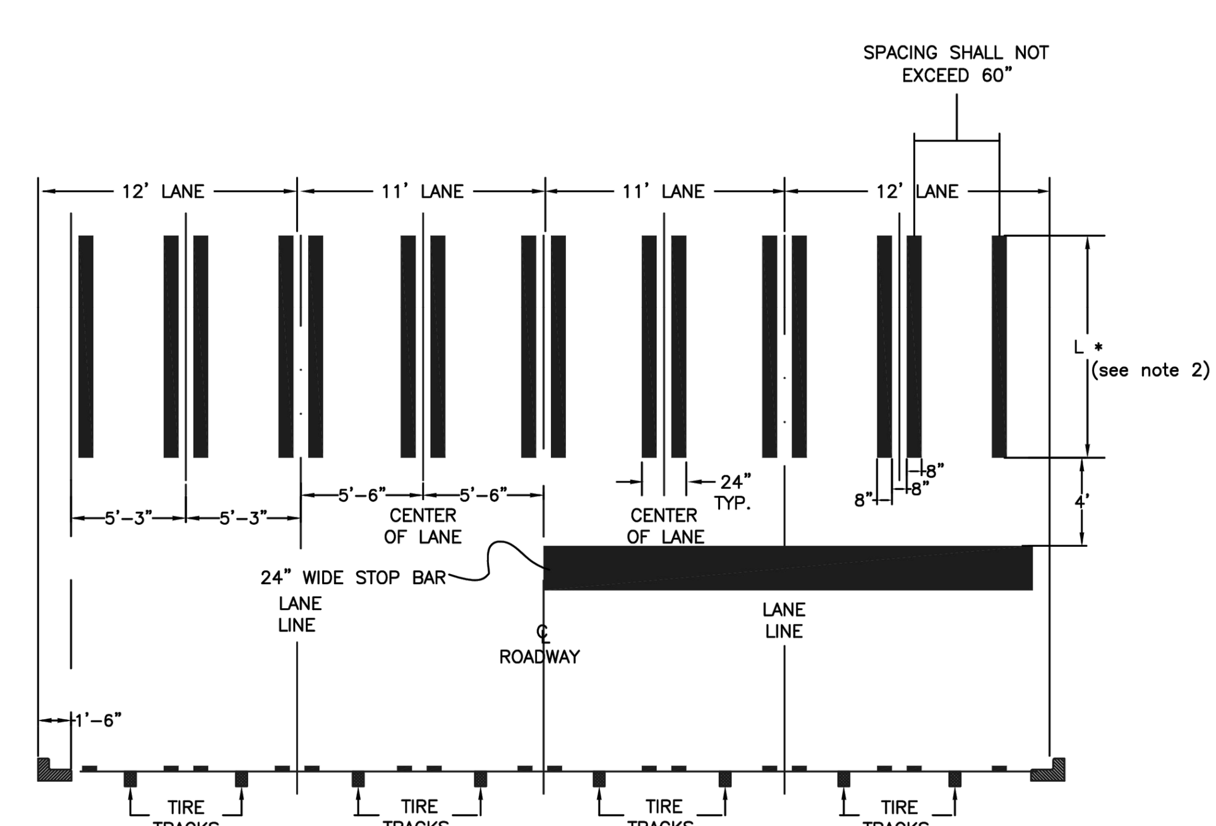




CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

PAVEMENT MARKING DETAILS

CITY STANDARD 01.03.10



NOTES:

1) FOR ALL ROADWAYS, THE LONGITUDINAL LINES SHALL BE CENTERED ON THE LANE LINES AND IN THE CENTER OF THE TRAVELED PORTION OF THE LANE TO MINIMIZE TIRE WEAR. THE SPACING BETWEEN THE LONGITUDINAL LINES SHALL NOT EXCEED 60".

* 2) THE LENGTH OF A CROSSWALK SHALL BE 8' ACROSS RESIDENTIAL STREETS, 10' ACROSS COLLECTORS AND MINOR ARTERIALS AND 12' ACROSS PRINCIPAL ARTERIALS. HOWEVER, THE LENGTH OF A CROSSWALK SHALL BE 8' ACROSS SIDE STREETS ALONG COLLECTORS AND MINOR ARTERIALS AND 12' ACROSS SIDE STREETS ALONG PRINCIPAL ARTERIALS.

3) STOP BAR WHEN USED WITH A CROSSWALK SHALL BE PLACED FOUR FEET IN ADVANCE OF AND PARALLEL TO THE CROSSWALK ALL STOP BARS SHALL BE 24" WIDE.

4) PAVEMENT MARKINGS, INCLUDING CROSSWALKS, SHALL BE TYPE A LIQUID HOT APPLIED THERMOPLASTIC. PER STANDARD SPECIFICATIONS, SECTION 9-34 PAVEMENT MARKING MATERIAL, 9-34.1 GENERAL.

CITY OF PUYALLUP
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

CROSSWALK DETAIL

CITY STANDARD 01.03.11

BEFORE YOU DIG CALL 1-800-424-5555
NOT LESS THAN 48 HOURS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED.

CASCADE CHRISTIAN SCHOOL CAMPUS ELEMENTARY SCHOOL PORTABLES

NOTES & DETAILS (3)

SITE ADDRESS:
811 21ST ST SE
PUYALLUP, WA 98372

VADER ENGINEERING
6817 27TH ST W, #65353
TACOMA, WA 98464
253.363.2065
rvader@vaderengineering.com

REVISION | NO.

PROJECT NO: 2409
SCALE: N/A
DESIGNED: RSV
DRAWN: BDS
SAVED: 10/5/2024
PLOT DATE: 10/5/2024

C10

Arborist Report

Prepared for:

Cascade Christian Schools

819 21st St SE

Puyallup, WA

8/4/2024

STEVE THE ARBORIST, LLC.

P O Box 2515 Belfair, WA. 98528 253-858-5474 Licensed Insured

Cascade Christian School

819 21st St SE

Puyallup, WA

8/4/2024

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Upon the request of the school district an onsite inspection was preformed on all significant trees remaining on site.

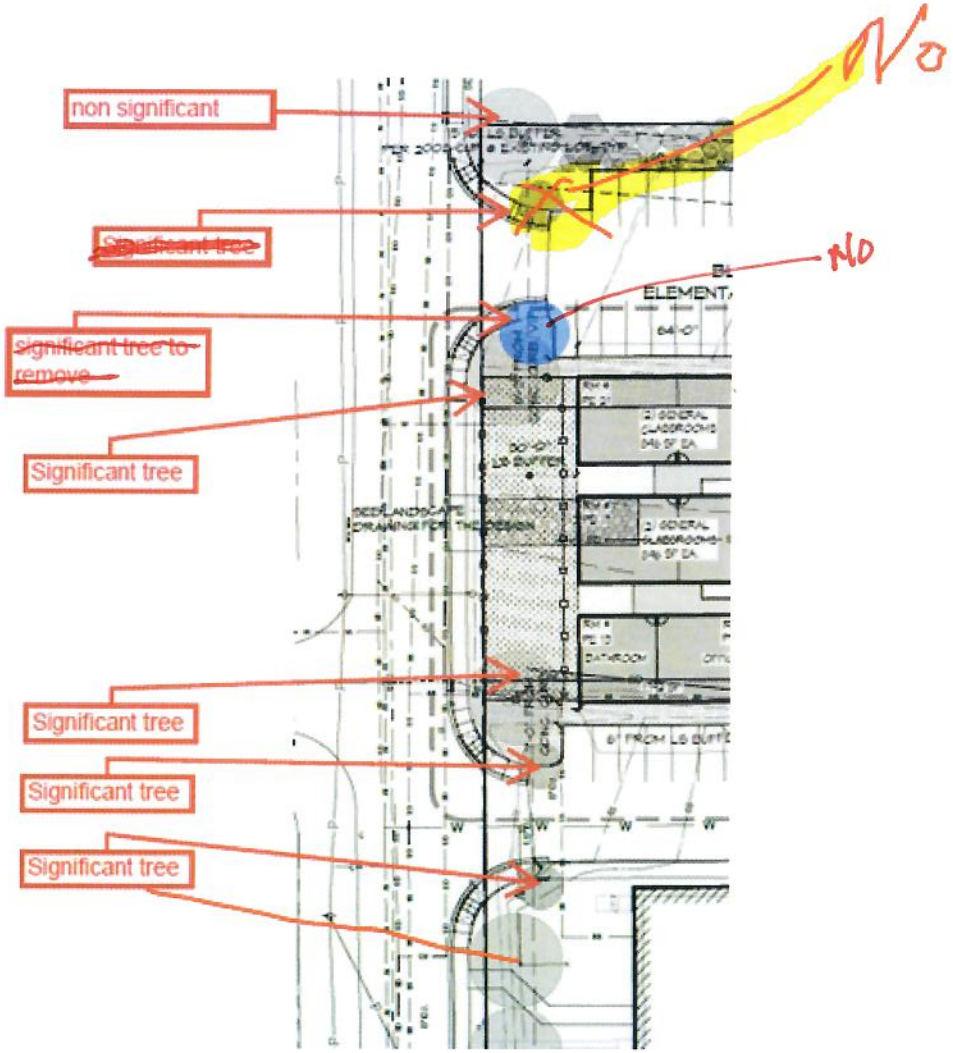
Five trees were identified as significant, all five trees are to remain and be protected during construction activities.

The significant trees will have no impact on the proposed rain garden and are to be protected with Tree Protection Zones (TPZ).

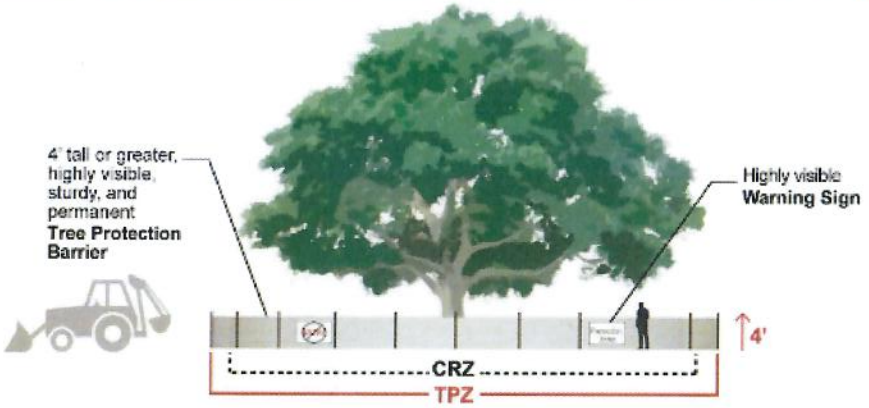
Trim up the 5 significant trees for line of sight and health and install a TPZ for each tree.

Remove one decayed Flowering Plum with a DBH of 12" near entrance from 26th St SE.

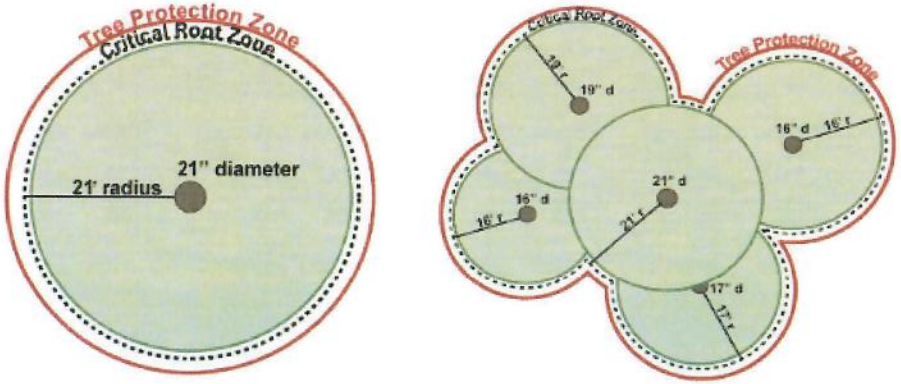
Steven J Wortinger PN-7076A TRAQ


non significant
~~Significant tree~~
~~significant tree to remove~~
Significant tree
Significant tree
Significant tree
Significant tree
No
No

Tree protection barrier encloses the Tree Protection Zone and is at least 4' tall, highly visible, sturdy, permanent and has warning signs on or near it for the duration of any construction activities.



Tree Protection Zone (TPZ) is an area where construction activities are prohibited or restricted to prevent injury to preserved trees, especially during pre- construction and construction, and includes the Critical Root Zone and/or beyond.



Best Management Practices

To promote the health of trees and stands of trees before, during, and after construction activities, follow these basic BMPs:

Planning Phase

1. Before assessing trees and other site structures and conditions, mark the site boundaries on plans and in the field to delineate which trees and stands of trees will be inventoried.

2. Perform a tree inventory that includes at minimum the location, size, and health of each tree and delineates quality stands of trees. Scope of the inventory should be based on communication and needs of the project team (developer, planner, engineer, architect

Steven J Wortinger

Certified Arborist and Tree Risk Assessor PN 7076-A

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