



# Renton Market

City of Renton, WA

## Technical Information Report

October 2024 | Civil Construction Permit Report



# Technical Information Report

October 2024

Prepared for:  
City of Renton

Prepared by:  
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# 1. Project Overview

The Renton Pavilion Market is located at 233 Burnett Avenue South in Renton, Washington. The project site is bounded by Renton Transit Center to the north, Burnett Avenue South to the east, Logan Avenue South to the west, and South 3rd Street to the south. The site covers parcel no. 5696000055, 5696000065, and 5696000120 per parcel records of King County, Washington. The site currently contains the Renton Pavilion Events Center building, concrete paving parking stalls, concrete pedestrian walkways and plaza, one driveway, and landscaping. Refer to Figure 1-1 for a vicinity map.

The project proposes minor utility and site improvements associated with the renovation of the existing building. Site improvements include a new driveway on Burnett Avenue South, a new temporary trash enclosure, parking lot restriping to the north of the Renton Pavilion Event Center, and a new vestibule entry on the south side of the building. Utility improvements include installation of new grease interceptor and associated side sewer piping.

Refer to Appendix A for the TIR Worksheet.



Figure 1-1: Vicinity Map

## EXISTING CONDITIONS

Current conditions consist of the existing Renton Pavilion Events Center building, parking area, and adjacent plaza. The site slopes from east to west at 1.0 to 5.0%.

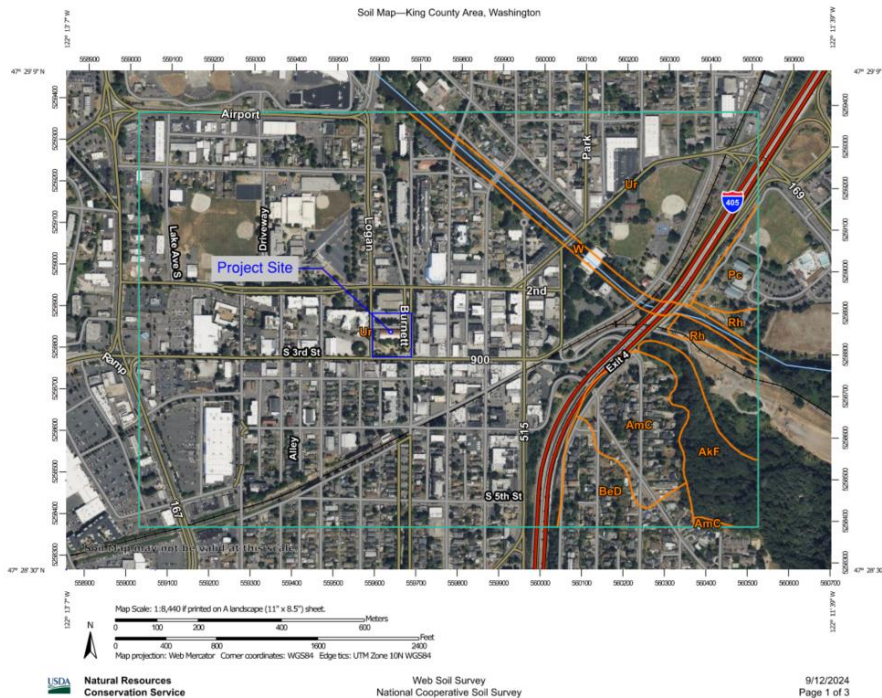
Runoff from the site is collected via catch basins on-site and is conveyed to storm drainage infrastructure along the western and eastern property frontages in Logan Avenue South and Burnett Avenue South. The majority of the site's runoff is collected via catch basins and then discharges to the existing 18-inch public storm drain in Logan Avenue South. The eastern edge of the site's runoff, sheet flows to catch basins located in the Burnett Avenue South right-of-way, which are collected by a 12-in public storm drain. Both systems eventually discharge to Cedar River.

The on-site improvements area is approximately 3,545 square feet (0.08 acres). Refer to Appendix B for an existing conditions map. Refer to Table 1-1 for a summary of existing surfaces.

**Table 1-1: Project's Existing Surface Areas**

No.	Surface Description	Area (sf)
1	Impervious Surface	3,369
2	Pervious Surface	176
	<b>Total</b>	3,545 sf 0.08 acres

Soil conditions for the site are interpreted to be Urban Land soil category per the USDA Web Soil Survey shown in Figure 1-2.



**Figure 1-2: Soils Map**

## PROPOSED CONDITIONS

The site improvements consist of pedestrian pavement replacement at the building vestibule, utility trenching, and parking lot restriping. A new concrete vehicle driveway will be constructed on Burnett Avenue South for additional site access. The proposed site improvements will continue to maintain existing drainage pattern.

Refer to Table 1-2 for a summary of the project's proposed surface areas.

**Table 1-2: Project's Proposed Surface Areas**

No.	Surface Description	Area (sf)
1	Non-Pollution-Generating Impervious Surface (NPGIS): Pedestrian Pavement	2,493
2	Pollution-Generating Impervious Surface (PGIS): Road and Driveway	867
3	Pervious Surface: Landscape	176
	<b>Total</b>	3,545 sf 0.08 acres

Refer to Appendix B for a proposed conditions exhibit.

The proposed project follows the requirements of the 2022 City of Renton Surface Water Design Manual (RSWDM). The minimum requirements for drainage review were determined using the manual and are detailed in the following sections of this report.

## 2. Conditions and Requirements Summary

The proposed redevelopment project results in more than 2,000 square feet but less than 50 acres of new plus replaced impervious surface; therefore, a "Full Drainage Review" is required per the RSWDM, Section 1.1.2.4. The following is a summary of how the project will comply with the nine core requirements and six special requirements.

Refer to Appendix C for minimum requirements and Appendix D for civil plans.

### CORE REQUIREMENT NO. 1: DISCHARGE AT THE NATURAL LOCATION

The project will maintain the existing topography and drainage patterns of the site. Runoff from the project site will continue to be discharged to the existing public stormwater conveyance systems in Logan Avenue South and Burnett Avenue South. Both existing systems ultimately discharge to Cedar River. Therefore, the project meets the discharge requirements in Section 1.2.1 of the RSWDM.

### CORE REQUIREMENT NO. 2: OFF-SITE ANALYSIS

Per RSWDM, Section 1.2.2, the project does not change the rate, volume, duration, or location of discharges to and from the project site (existing impervious surface is replaced in kind with impervious surface having similar runoff-generating characteristics), therefore is exempt from off-site analysis.



### **CORE REQUIREMENT NO. 3: FLOW CONTROL**

Per RSWDM, Section 1.2.3, the proposed project has less than 5,000 square feet of new plus replaced impervious surface, and less than 3/4 acres of new pervious surface. there for is exempt from flow control requirements.

### **CORE REQUIREMENT NO. 4: CONVEYANCE SYSTEM**

Per RSWDM, Section 1.2.4.2, the proposed project is not required to provide conveyance system analysis since existing onsite conveyance systems will not experience a change in flow characteristics (e.g., peak flows or volume of flows). Therefore, the proposed project need not be analyzed for conveyance capacity.

### **CORE REQUIREMENT NO. 5: CONSTRUCTION STORMWATER POLLUTION PREVENTION**

Temporary Erosion and Sediment Control (TESC) best management practices (BMPs) will be implemented during construction to prevent the transport of sediment from the project site to the maximum extent practicable. TESC BMPs are anticipated to include silt fences, straw wattles, catch basin inserts, and other measures as necessary.

Refer to Appendix D for Civil TESC plans.

Refer to Section 8 of this report for the Construction Stormwater Pollution Prevention Plan (CSWPPP) analysis and design.

### **CORE REQUIREMENT NO. 6: MAINTENANCE AND OPERATIONS**

The owner is responsible for the maintenance and operations of the proposed drainage structures. Refer to Section 9 of this report for maintenance and operations discussion.

### **CORE REQUIREMENT NO. 7: FINANCIAL GUARANTEES AND LIABILITY**

Since the project is not proposing any drainage facilities, this requirement is not applicable.

### **CORE REQUIREMENT NO. 8: WATER QUALITY**

Per RSWDM, the proposed project has less than 5,000 square feet of new plus replaced impervious surface (PGIS), and less than 3/4 acres of pollutant generation pervious surface (PGPS), therefore is exempt from the water quality requirement.

### **CORE REQUIREMENT NO. 9: ON-SITE BMPS**

Per RSWDM, all proposed projects, including redevelopment projects, must provide on-site BMPs to mitigate the impacts of storm and surface water runoff generated by new impervious surface, new pervious surface, existing impervious surfaces, and replaced impervious surface targeted for mitigation.

For non-subdivision projects making improvements on an individual site/lot, implementation of this requirement shall be in accordance with the "Individual Lot BMP Requirements" in Section 1.2.9.2 of the RSWDM. On-site BMP requirements may be satisfied through two methods: (1) application of BMPs to the maximum extent feasible, or (2) complying with the Low Impact Development (LID) Performance Standard. The project will provide on-site BMPs to the maximum extent feasible for the replaced impervious surfaces. Following is the

evaluation of feasibility and applicability of small lot BMPs for this project per Section 1.2.9.2.1 of the RSDM. Refer to Table 2-1 for infeasibility criteria per the RSWDM.

### **Full Dispersion**

The site cannot accommodate the required minimum native vegetated flowpath; therefore, full dispersion is considered infeasible per Section C.2.1.1 of the RSWDM.

### **Full and Limited Infiltration**

The project site is located within Wellhead Protection Area, Zone 1 of the Aquifer Protection Area (APA), per City of Renton GIS maps. Per Section 1.3.6, Special Requirement No. 6, it is prohibited to provide on-site BMPs that rely on infiltration, such as bioretention and permeable pavement. Also, per Section C2.2, this BMP is not allowed in Zone 1 of the APA.

### **Rain Gardens**

The project site is located within Wellhead Protection Area, Zone 1 of the APA, per City of Renton GIS maps. This BMP is not allowed in Zone 1 of the APA per Section C2.12 of the RSWDM.

### **Bioretention**

The project site is located within Wellhead Protection Area, Zone 1 of the APA, per City of Renton GIS maps. Per Section 1.3.6, Special Requirement No. 6, it is prohibited to provide on-site BMPs that rely on infiltration, such as bioretention and permeable pavement. Also, per Section C2.6, this BMP is not allowed in Zone 1 of the APA.

### **Permeable Paving**

The project site is located within Wellhead Protection Area, Zone 1 of the APA, per City of Renton GIS maps. Per Section 1.3.6, Special Requirement No. 6, it is prohibited to provide on-site BMPs that rely on infiltration, such as bioretention and permeable pavement. In addition, per Section C2.7, this BMP is not allowed in Zone 1 of the APA. For this project, the replaced impervious surface consists of replacing/patching portions of existing conditions and matching in kind.

### **Basic Dispersion**

The site cannot accommodate the required minimum native vegetated flowpath; therefore, basic dispersion is considered infeasible per Section C.2.4.1 of the RSWDM.

**Table 2-1: On-site BMPs Infeasibility Criteria**

No.	BMP	Feasibility	Infeasibility Criteria
1	Full Dispersion	Infeasible	<p><b>Section C.2.1:</b> Full dispersion is considered infeasible and not required for projects that cannot meet the minimum design requirements listed below.</p> <ul style="list-style-type: none"> <li>Minimum Design Requirement No. 3: A native vegetated flowpath segment of at least 100 feet in length (25 feet for sheet flow from a nonnative pervious surface) must be available along the flowpath that runoff would follow upon discharge from a dispersion device.</li> </ul>
2	Full Infiltration	Infeasible	<p><b>Section C2.2:</b> This BMP is not allowed in Zone 1 of the Aquifer Protection Area.</p>
3	Rain Gardens	Infeasible	<p><b>Section C2.12:</b> This BMP is not allowed in Zone 1 of the Aquifer Protection Area.</p>
4	Bioretention	Infeasible	<p><b>Section C.2.6:</b> This BMP is not allowed in Zone 1 of the Aquifer Protection Area.</p>
5	Permeable Paving	Infeasible	<p><b>Section C2.7:</b> This BMP is not allowed in Zone 1 of the Aquifer Protection Area.</p>
6	Basic Dispersion	Infeasible	<p><b>Section C.2.4:</b> Basic dispersion is considered infeasible and not required for projects that cannot meet the minimum design requirements listed below.</p> <ul style="list-style-type: none"> <li>Minimum Design Requirement No. 2: Each dispersion device must discharge runoff such that it flows over a minimum distance of vegetated area called the “vegetated flowpath segment.” The minimum distance, or length of the flowpath segment, is specified in the design specifications for each device.</li> </ul>

### **SPECIAL REQUIREMENT NO. 1: OTHER ADOPTED AREA-SPECIFIC REQUIREMENTS**

There are no adopted area-specific regulations for the site. Therefore, Special Requirement No. 1 is not applicable to the project.

### **SPECIAL REQUIREMENT NO. 2: FLOOD HAZARD AREA DELINEATION**

Per the City of Renton GIS Maps, the project does not contain and is not adjacent to a flood hazard area. Per the FEMA Flood Map Service Center, the project site is within the “Other Flood Areas,” Zone X, with the annotation of 500-year flood chance. Per RSWDM, flood hazard areas are composed of the 100-year floodplain, zero-rise flood fringe, zero-rise floodway, and FEMA floodway. Since Zone X is not considered a 100-year flood hazard area, Special Requirement No. 2 is not applicable to this project.

Refer to Appendix E for the FEMA FIRM Map.

### **SPECIAL REQUIREMENT NO. 3: FLOOD PROTECTION FACILITIES**

The project will not rely on existing or proposed flood protection facilities for protection against hazards posed by erosion or inundation. Therefore, Special Requirement No. 3 is not applicable to this project.

#### **SPECIAL REQUIREMENT NO. 4: SOURCE CONTROL**

Water quality source controls applicable to this project will be applied in accordance with the King County Stormwater Pollution Prevention Manual and Renton Municipal Code, Title IV. The proposed trash enclosure includes roof to prevent rainwater interaction with dumpster/trash receptacles.

#### **SPECIAL REQUIREMENT NO. 5: OIL CONTROL**

The site is not considered high-use because its anticipated average daily traffic count is less than 100 vehicles per 1,000 square feet of gross building area; therefore, Special Requirement No. 5 is not applicable.

#### **SPECIAL REQUIREMENT NO. 6: AQUIFER PROTECTION AREA**

Per the City of Renton GIS Maps, the site is located within the Wellhead Protection Area, Zone 1 of the APA. The project does not propose any type of prohibited systems including flow control facilities, on-site BMPs that rely on infiltration, or open channel conveyance systems.

Refer to Appendix F for the City of Renton Critical Areas Map.

### **3. Off-Site Analysis (N/A)**

As mentioned in Section 2, Core Requirement No. 2, this project is exempt from off-site analysis. Therefore, this section is not applicable.

### **4. Flow Control, Low Impact Development (LID), and Water Quality Facility Analysis and Design (N/A)**

As mentioned in the Core Requirements summary, this project is exempt from flow control and water quality requirements. Refer to Section 2 of this report.

On-site BMP requirements may be satisfied through two methods: (1) application of BMPs to the maximum extent feasible, or (2) complying with the Low Impact Development (LID) Performance Standard. The project is addressing Core Requirement No. 9 through method 1, however as noted above, applicable and available BMP's are not feasible.

### **5. Conveyance System Analysis and Design**

As mentioned in Section 2, Core Requirement No. 4, this project is exempt from the conveyance system analysis.

The project will replace the existing area drain adjacent the south vestibule entry with a 4-inch trench drain. The grading has been revised to move the low point away from the doors to the Market but will continue to collect the same area. The proposed trench drain will be connected to an existing 8-inch storm drain. The total drainage area for the trench drain is approximately 5,720-square feet, which results in a 0.38-cfs during a 25-year 24-hour rainfall event, and 0.44-cfs during a 100-year 24-hour rainfall event. The 4-inch trench will have a minimum depth of 9.8-inch and will have the minimum capacity of 0.38-cfs with 9.7-inches of minimum nominal

depth. The existing 8-inch storm drain at the proposed south vestibule will be routed to avoid the proposed structural foundations. Approximately 3,500-square feet of existing roof will also be redirected to the existing 8-inch storm drain at the south vestibule entry. The total drainage area for the proposed 8-inch storm drain is approximately 16,855- square feet and will result in the following flow rates: 0.96-cfs during a 25-year 24-hour rainfall event. The proposed 8-inch storm drain, sloped at 0.4%, has a full flow capacity rate of 0.99-cfs, therefore has sufficient capacity to drain the additional roof area.

Refer to Appendix G for conveyance calculations.

## 6. Special Reports and Studies (N/A)

This section is not applicable to the project.

## 7. Other Permits

The required permits associated with the project are listed below. This report covers the requirements pertaining to the “Civil Construction Permit” submitted to the City of Renton.

**Table 7-1: Required Permits**

Agency	Permit/Approval
City of Renton	Civil Construction Permit
City of Renton	Building Permit
DOE (Department of Ecology)	SEPA (State Environmental Policy Act)

## 8. Construction Stormwater Pollution Prevention Plan (CSWPPP) Analysis and Design

### **PART 8.A: EROSION AND SEDIMENT CONTROL PLAN ANALYSIS AND DESIGN**

Temporary and permanent erosion and sediment control (ESC) measures will be implemented per Appendix D, Section D.2.1, of the RSWDM.

1. **Clearing Limits:** Prior to any site clearing or grading, areas to remain undisturbed during project construction shall be delineated on the project’s ESC plan and physically marked on the project site.
2. **Cover Measures:** Temporary and permanent cover measures shall be provided when necessary to protect disturbed areas. The intent of these measures is to prevent erosion by having as much area as possible covered during any period of precipitation.
3. **Perimeter Protection:** Perimeter protection to filter sediment from sheet flow shall be provided downstream of all disturbed areas prior to upslope grading.
4. **Traffic Area Stabilization:** Unsurfaced entrances, roads, and parking areas used by construction traffic shall be stabilized to minimize erosion and tracking of sediment off-site.

5. **Sediment Retention:** Surface water collected from all disturbed areas of the site shall be routed through a sediment pond or trap prior to release from the site, except those areas at the perimeter of the site small enough to be treated solely with perimeter protection. Sediment retention facilities shall be installed prior to grading any contributing area.
6. **Surface Water Collection:** Surface water collection measures (e.g., ditches, berms, etc.) shall be installed to intercept all surface water from disturbed areas, convey it to a sediment pond or trap, and discharge it downstream of any disturbed areas. Areas at the perimeter of the site, which are small enough to be treated solely with perimeter protection, do not require surface water collection. Significant sources of upstream surface water that drain onto disturbed areas shall be intercepted and conveyed to a stabilized discharge point downstream of the disturbed areas. Surface water collection measures shall be installed concurrently with or immediately following rough grading and shall be designed, constructed, and stabilized as needed to minimize erosion.
7. **Dewatering Control:** The water resulting from construction site dewatering activities must be treated prior to discharge or disposed of as specified.
8. **Dust Control:** Preventative measures to minimize wind transport of soil shall be implemented when a traffic hazard may be created or when sediment transported by wind is likely to be deposited in water resources.
9. **Flow Control:** Surface water from disturbed areas must be routed through the project's on-site flow control facility or other provisions must be made to prevent increases in the existing site conditions 2-year and 10-year runoff peaks discharging from the project site during construction (flow control facility, runoff treatment facility, and on-site BMP areas [existing or proposed] shall not be used for this purpose).
10. **Control Pollutants:** Stormwater pollution prevention (SWPPS) measures are required to prevent, reduce, or eliminate the discharge of pollutants to on-site or adjacent stormwater systems or watercourses from construction-related activities such as materials delivery and storage, on-site equipment fueling and maintenance, demolition of existing buildings and disposition of demolition materials and other waste, and concrete handling, washout and disposal. Section D.2.2 describes BMPs specific to this purpose; additionally, several of the ESC BMPs described herein are applicable.
11. **Protect Existing and Proposed Stormwater Facilities and On-Site BMPs:** Sedimentation and soil compaction reduce the infiltration capacity of native and engineered soils. Protection measures shall be applied/installed and maintained so as to prevent adverse impacts to existing stormwater facilities and on-site BMPs and areas of proposed stormwater facilities and on-site BMPs for the project. Adverse impacts can prompt the requirement to restore or replace affected stormwater facilities and on-site BMPs.
12. **Maintain Protective BMPs:** Protection measures shall be maintained to ensure continued performance of their intended function, to prevent adverse impacts to existing BMPs/facilities and areas of proposed BMPs/facilities, and protect other disturbed areas of the project.
13. **Manage the Project:** Coordination and timing of site development activities relative to ESC concerns, and timely inspection, maintenance and update of protective measures are necessary to effectively manage the project and ensure the success of protective ESC and SWPPS design and implementation.

## **PART 8.B: STORMWATER POLLUTION PREVENTION AND SPILL CONTROL PLAN DESIGN**

Stormwater pollution prevention and spill control (SWPPS) measures will be implemented per Section D.2.2 of the RSWDM.

- Follow effective pollutant handling and disposal procedures.

- Provide cover and containment for materials, fuel and other pollutants.
- Manage the project site to maximize pollutant control and minimize pollutant sources.
- Protect from spills and drips of petroleum products and other pollutants.
- Avoid overapplication or untimely application of chemicals and fertilizers.
- Prevent or treat contamination of stormwater runoff by pH modifying sources.

## 9. Bond Quantities, Facility Summaries, and Declaration of Covenant

The Site Improvement Bond Quantity Worksheet is included in Appendix H.

Flow Control and Water Quality Facility Summary Sheets are not applicable to this project, since the project does not propose any flow control and water quality facilities.

## 10. Operations and Maintenance Manual

The proposed stormwater structures on-site consist of a trench drain for collection and storm drainage pipes for conveyance. A copy of RSWDM “maintenance requirements for stormwater facilities and on-site BMPs” for on-site structures is included in Appendix I.

# Appendix A

TIR Worksheet



# REFERENCE 8-A

## TECHNICAL INFORMATION REPORT (TIR) WORKSHEET

Part 1 PROJECT OWNER AND PROJECT ENGINEER
Project Owner <u>City of Renton</u>
Phone <u>425.430.6400</u>
Address <u>1055 S Grady Way, Renton, WA 98057</u>
Project Engineer <u>Jenifer Clapham, PE</u>
Company <u>KPFF Consulting Engineers</u>
Phone <u>206.926.0549</u>

Part 2 PROJECT LOCATION AND DESCRIPTION
Project Name <u>Renton Pavilion Market</u>
CED Permit # _____
Location Township <u>23 North</u>
Range <u>05 East</u>
Section <u>18</u>
Site Address <u>233 Burnett Avenue South, Renton, WA 98057</u>

Part 3 TYPE OF PERMIT APPLICATION
<input type="checkbox"/> Land Use (e.g., Subdivision / Short Subd.)
<input checked="" type="checkbox"/> Building (e.g., M/F / Commercial / SFR)
<input type="checkbox"/> Grading
<input type="checkbox"/> Right-of-Way Use
<input checked="" type="checkbox"/> Other <u>Civil Construction Permit</u>

Part 4 OTHER REVIEWS AND PERMITS	
<input type="checkbox"/> DFW HPA	<input type="checkbox"/> Shoreline Management
<input type="checkbox"/> COE 404	<input type="checkbox"/> Structural Rockery/Vault/_____
<input type="checkbox"/> DOE Dam Safety	<input type="checkbox"/> ESA Section 7
<input type="checkbox"/> FEMA Floodplain	
<input type="checkbox"/> COE Wetlands	
<input type="checkbox"/> Other _____	

Part 5 PLAN AND REPORT INFORMATION	
<p style="text-align: center;"><b>Technical Information Report</b></p> <p>Type of Drainage Review (check one):</p> <p><input checked="" type="checkbox"/> Full</p> <p><input type="checkbox"/> Targeted</p> <p><input type="checkbox"/> Simplified</p> <p><input type="checkbox"/> Large Project</p> <p><input type="checkbox"/> Directed</p> <p>Date (include revision dates): _____</p> <p>Date of Final: <u>09/20/2024</u></p>	<p style="text-align: center;"><b>Site Improvement Plan (Engr. Plans)</b></p> <p>Plan Type (check one):</p> <p><input checked="" type="checkbox"/> Full</p> <p><input type="checkbox"/> Modified</p> <p><input type="checkbox"/> Simplified</p> <p>Date (include revision dates): _____</p> <p>Date of Final: <u>09/20/2024</u></p>

TECHNICAL INFORMATION REPORT (TIR) WORKSHEET

<b>Part 6 SWDM ADJUSTMENT APPROVALS</b> <span style="color: blue;">N/A</span>
Type (circle one):     Standard / Blanket Description: (include conditions in TIR Section 2) _____ _____ _____ Approved Adjustment No. _____     Date of Approval: _____

<b>Part 7 MONITORING REQUIREMENTS</b>	
Monitoring Required:    Yes / <span style="border: 1px solid blue; border-radius: 50%; padding: 2px;">No</span> Start Date:                _____ Completion Date: _____	Describe: _____ _____ _____ Re: SWDM Adjustment No. _____

<b>Part 8 SITE COMMUNITY AND DRAINAGE BASIN</b>
Community Plan: _____ Special District Overlays: _____ Drainage Basin: <span style="color: blue;">Duwamish - Green River</span> Stormwater Requirements: _____

<b>Part 9 ONSITE AND ADJACENT SENSITIVE AREAS</b>	
<input type="checkbox"/> River/Stream _____ <input type="checkbox"/> Lake _____ <input type="checkbox"/> Wetlands _____ <input type="checkbox"/> Closed Depression _____ <input type="checkbox"/> Floodplain _____ <input checked="" type="checkbox"/> Other <span style="color: blue;">Aquifer Protection Area (Zone 1)</span> _____	<input type="checkbox"/> Steep Slope _____ <input type="checkbox"/> Erosion Hazard _____ <input type="checkbox"/> Landslide Hazard _____ <input type="checkbox"/> Coal Mine Hazard _____ <input type="checkbox"/> Seismic Hazard _____ <input type="checkbox"/> Habitat Protection _____ <input type="checkbox"/> _____

TECHNICAL INFORMATION REPORT (TIR) WORKSHEET

Part 10 SOILS		
Soil Type	Slopes	Erosion Potential
Urban Land		
<input type="checkbox"/> High Groundwater Table (within 5 feet)	<input type="checkbox"/> Sole Source Aquifer	
<input type="checkbox"/> Other _____	<input type="checkbox"/> Seeps/Springs	
<input type="checkbox"/> Additional Sheets Attached		

Part 11 DRAINAGE DESIGN LIMITATIONS	
REFERENCE	LIMITATION / SITE CONSTRAINT
<input checked="" type="checkbox"/> Core 2 – Offsite Analysis <u>N/A</u>	
<input checked="" type="checkbox"/> Sensitive/Critical Areas <u>Aquifer Protection Area (Zone 1)</u>	<u>The site is within Wellhead Protection Area. Therefore, Infiltration is prohibited.</u>
<input checked="" type="checkbox"/> SEPA _____	
<input checked="" type="checkbox"/> LID Infeasibility _____	<u>The project is addressing Core Requirement No. 9 (On-site BMPs) through application of BMPs to the maximum extent feasible, however applicable and available BMP's are not feasible.</u>
<input type="checkbox"/> Other _____	
<input type="checkbox"/> _____	
<input type="checkbox"/> Additional Sheets Attached	

Part 12 TIR SUMMARY SHEET (provide one TIR Summary Sheet per Threshold Discharge Area)	
<b>Threshold Discharge Area:</b> (name or description)	<u>Renton Pavilion Market project site has one Threshold Discharge Area.</u>
<b>Core Requirements (all 9 apply):</b>	
Discharge at Natural Location	Number of Natural Discharge Locations: <u>1</u>
Offsite Analysis <u>N/A</u>	Level: <u>1</u> / 2 / 3      dated: _____
Flow Control (include facility summary sheet) <u>N/A</u>	Standard: _____ or Exemption Number: _____
Conveyance System <u>N/A</u>	Spill containment located at: _____
Erosion and Sediment Control / Construction Stormwater Pollution Prevention	CSWPP/CESCL/ESC Site Supervisor: _____ Contact Phone: _____ After Hours Phone: _____
Maintenance and Operation	Responsibility (circle one):      Private / <u>Public</u> If Private, Maintenance Log Required:      Yes / No
Financial Guarantees and Liability	Provided:      Yes / <u>No</u>

TECHNICAL INFORMATION REPORT (TIR) WORKSHEET

<b>Part 12 TIR SUMMARY SHEET</b>		<b>(provide one TIR Summary Sheet per Threshold Discharge Area)</b>
Water Quality (include facility summary sheet)	N/A	Type (circle one): Basic / Sens. Lake / Enhanced Basic / Bog or Exemption No. _____
On-site BMPs		Describe: All on-site BMPs are infeasible.
<b>Special Requirements (as applicable):</b>		
Area Specific Drainage Requirements	N/A	Type: SDO / MDP / BP / Shared Fac. / None Name: _____
Floodplain/Floodway Delineation		Type (circle one): Major / Minor / Exemption / <b>None</b> 100-year Base Flood Elevation (or range): _____ Datum: _____
Flood Protection Facilities	N/A	Describe: _____
Source Control (commercial / industrial land use)	N/A	Describe land use: Describe any structural controls:
Oil Control	N/A	High-Use Site: Yes / <b>No</b> Treatment BMP: _____ Maintenance Agreement: Yes / No with whom? _____
<b>Other Drainage Structures</b>		
Describe: _____		

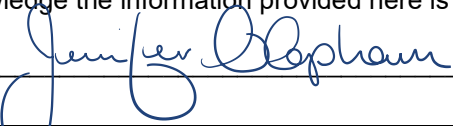
TECHNICAL INFORMATION REPORT (TIR) WORKSHEET

<b>Part 13 EROSION AND SEDIMENT CONTROL REQUIREMENTS</b>	
<p style="text-align: center;"><b>MINIMUM ESC REQUIREMENTS DURING CONSTRUCTION</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Clearing Limits</li> <li><input checked="" type="checkbox"/> Cover Measures</li> <li><input checked="" type="checkbox"/> Perimeter Protection</li> <li><input checked="" type="checkbox"/> Traffic Area Stabilization</li> <li><input checked="" type="checkbox"/> Sediment Retention</li> <li><input checked="" type="checkbox"/> Surface Water Collection</li> <li><input checked="" type="checkbox"/> Dewatering Control</li> <li><input checked="" type="checkbox"/> Dust Control</li> <li><input checked="" type="checkbox"/> Flow Control</li> <li><input checked="" type="checkbox"/> Control Pollutants</li> <li><input checked="" type="checkbox"/> Protect Existing and Proposed BMPs/Facilities</li> <li><input checked="" type="checkbox"/> Maintain Protective BMPs / Manage Project</li> </ul>	<p style="text-align: center;"><b>MINIMUM ESC REQUIREMENTS AFTER CONSTRUCTION</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Stabilize exposed surfaces</li> <li><input checked="" type="checkbox"/> Remove and restore Temporary ESC Facilities</li> <li><input checked="" type="checkbox"/> Clean and remove all silt and debris, ensure operation of Permanent BMPs/Facilities, restore operation of BMPs/Facilities as necessary</li> <li><input checked="" type="checkbox"/> Flag limits of sensitive areas and open space preservation areas</li> <li><input type="checkbox"/> Other _____</li> </ul>

<b>Part 14 STORMWATER FACILITY DESCRIPTIONS (Note: Include Facility Summary and Sketch)</b>							
Flow Control	N/A	Description	Water Quality	N/A	Description	On-site BMPs	Description
<input type="checkbox"/> Detention		_____	<input type="checkbox"/> Vegetated Flowpath		_____	<input type="checkbox"/> Full Dispersion	Infeasible
<input type="checkbox"/> Infiltration		_____	<input type="checkbox"/> Wetpool		_____	<input type="checkbox"/> Full Infiltration	Infeasible
<input type="checkbox"/> Regional Facility		_____	<input type="checkbox"/> Filtration		_____	<input type="checkbox"/> Limited Infiltration	Infeasible
<input type="checkbox"/> Shared Facility		_____	<input type="checkbox"/> Oil Control		_____	<input type="checkbox"/> Rain Gardens	Infeasible
<input type="checkbox"/> Other		_____	<input type="checkbox"/> Spill Control		_____	<input type="checkbox"/> Bioretention	Infeasible
		_____	<input type="checkbox"/> Other		_____	<input type="checkbox"/> Permeable Pavement	Infeasible
		_____			_____	<input type="checkbox"/> Basic Dispersion	Infeasible
		_____			_____	<input type="checkbox"/> Soil Amendment	Infeasible
		_____			_____	<input type="checkbox"/> Perforated Pipe Connection	Infeasible
		_____			_____	<input type="checkbox"/> Other	_____

TECHNICAL INFORMATION REPORT (TIR) WORKSHEET

Part 15 EASEMENTS/TRACTS <span style="color: blue;">N/A</span>	Part 16 STRUCTURAL ANALYSIS <span style="color: blue;">N/A</span>
<input type="checkbox"/> Drainage Easement <input type="checkbox"/> Covenant <input type="checkbox"/> Native Growth Protection Covenant <input type="checkbox"/> Tract <input type="checkbox"/> Other _____	<input type="checkbox"/> Cast in Place Vault <input type="checkbox"/> Retaining Wall <input type="checkbox"/> Rockery > 4' High <input type="checkbox"/> Structural on Steep Slope <input type="checkbox"/> Other _____

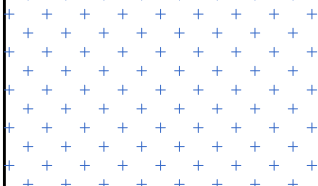

Part 17 SIGNATURE OF PROFESSIONAL ENGINEER
<p>I, or a civil engineer under my supervision, have visited the site. Actual site conditions as observed were incorporated into this worksheet and the attached Technical Information Report. To the best of my knowledge the information provided here is accurate.</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div data-bbox="256 667 706 821" style="text-align: center;">  </div> <div data-bbox="1133 701 1299 737" style="text-align: right;"> <p>2024-10-15</p> </div> </div> <hr style="border: 0; border-top: 1px solid black; margin-top: 10px;"/> <div style="display: flex; justify-content: center; margin-top: 5px;"> <span data-bbox="760 743 878 770"><i>Signed/Date</i></span> </div>

# Appendix B

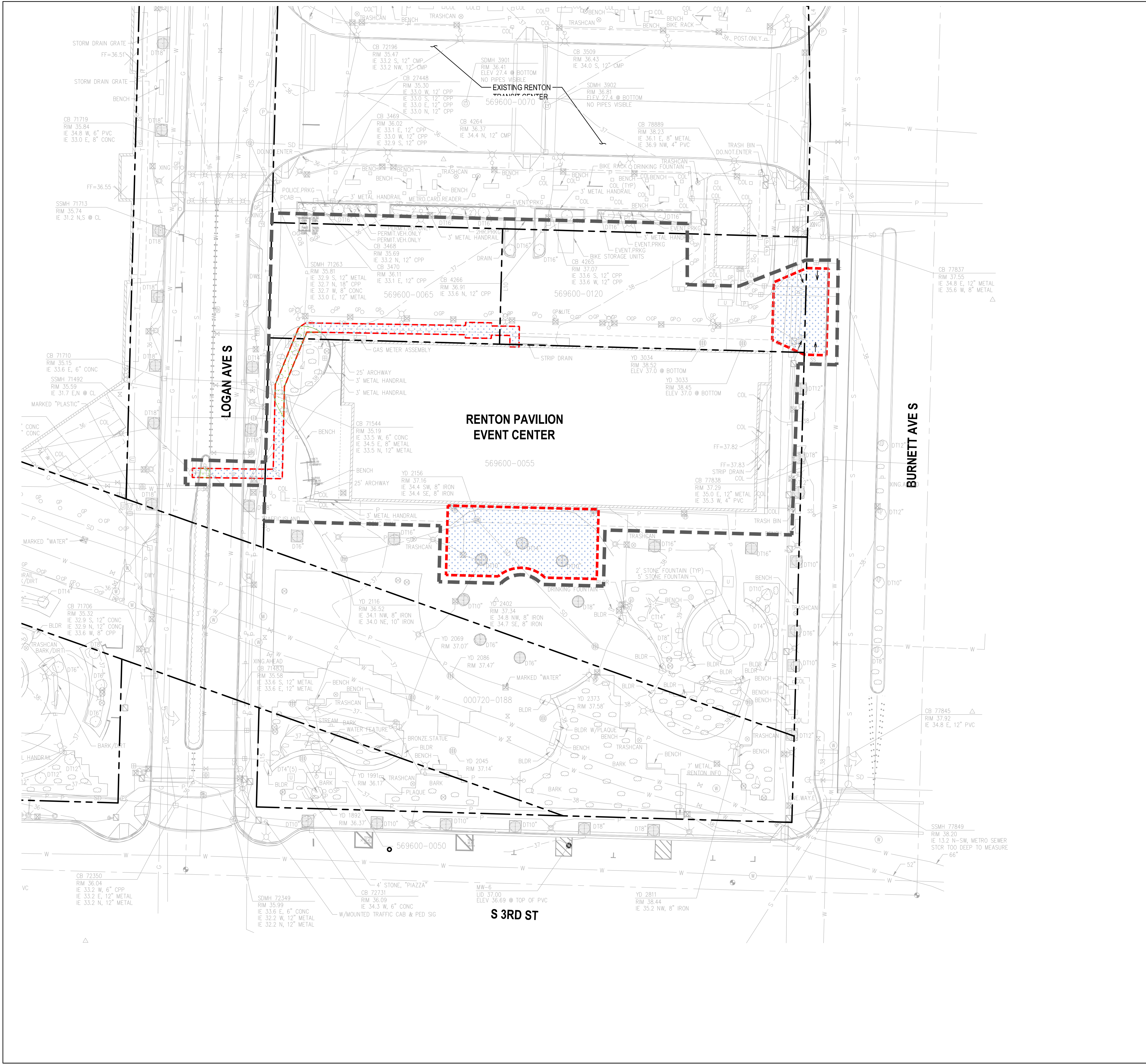
Existing and Proposed Conditions Map

# RENTON PAVILION MARKET EXISTING CONDITIONS

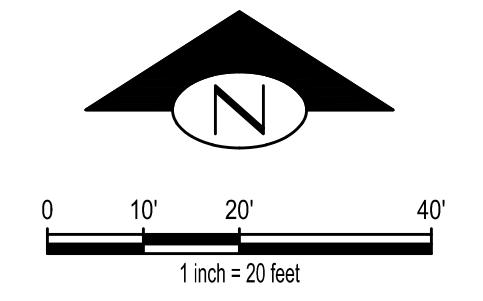
SEPTEMBER 2024

LEGEND - RENTON PAVILION SITE		
SURFACE		AREA (SF)
IMPERVIOUS AREA		3,369
PERVIOUS AREA		176
TOTAL ON-SITE AREA		3,545-SF 0.08-AC

 LIMITS OF WORK



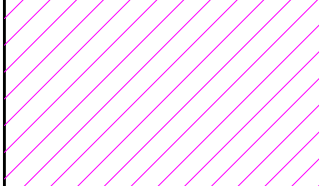
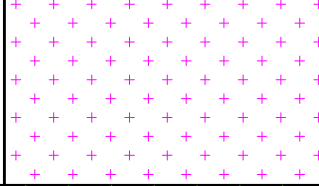
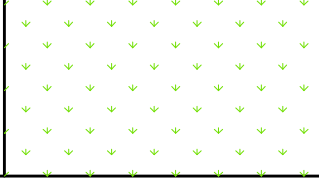
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 2:13200001-2099999\2300522



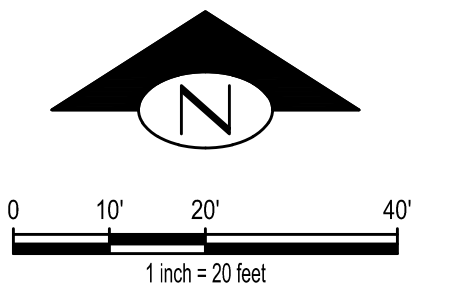
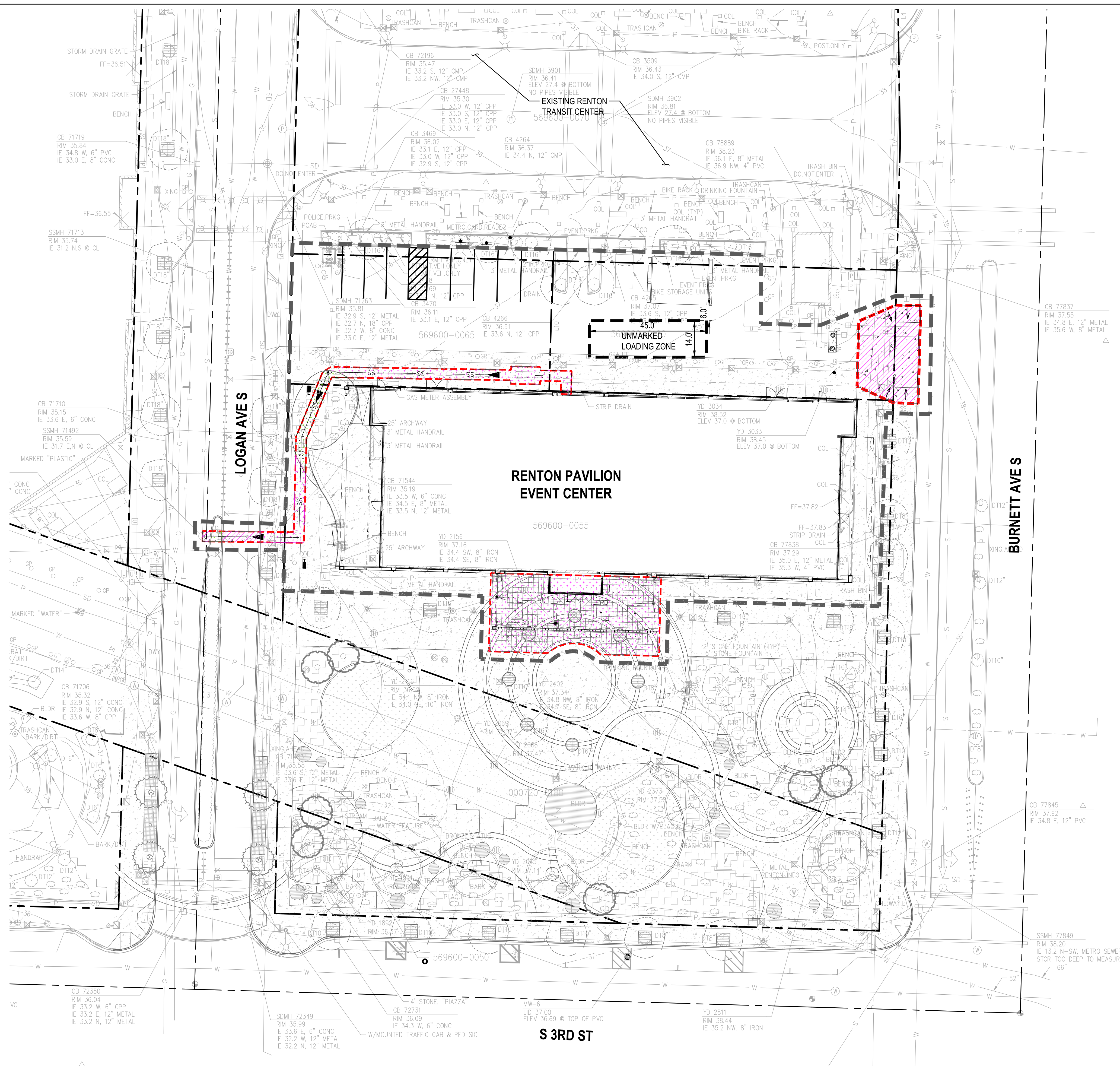


# RENTON PAVILION MARKET PROPOSED CONDITIONS

SEPTEMBER 2024

LEGEND - RENTON PAVILION SITE		
SURFACE		AREA (SF)
PGIS		876
NPGIS		2,493
NPGPS		176
<b>TOTAL ON-SITE AREA</b>		<b>3,545-SF 0.08-AC</b>

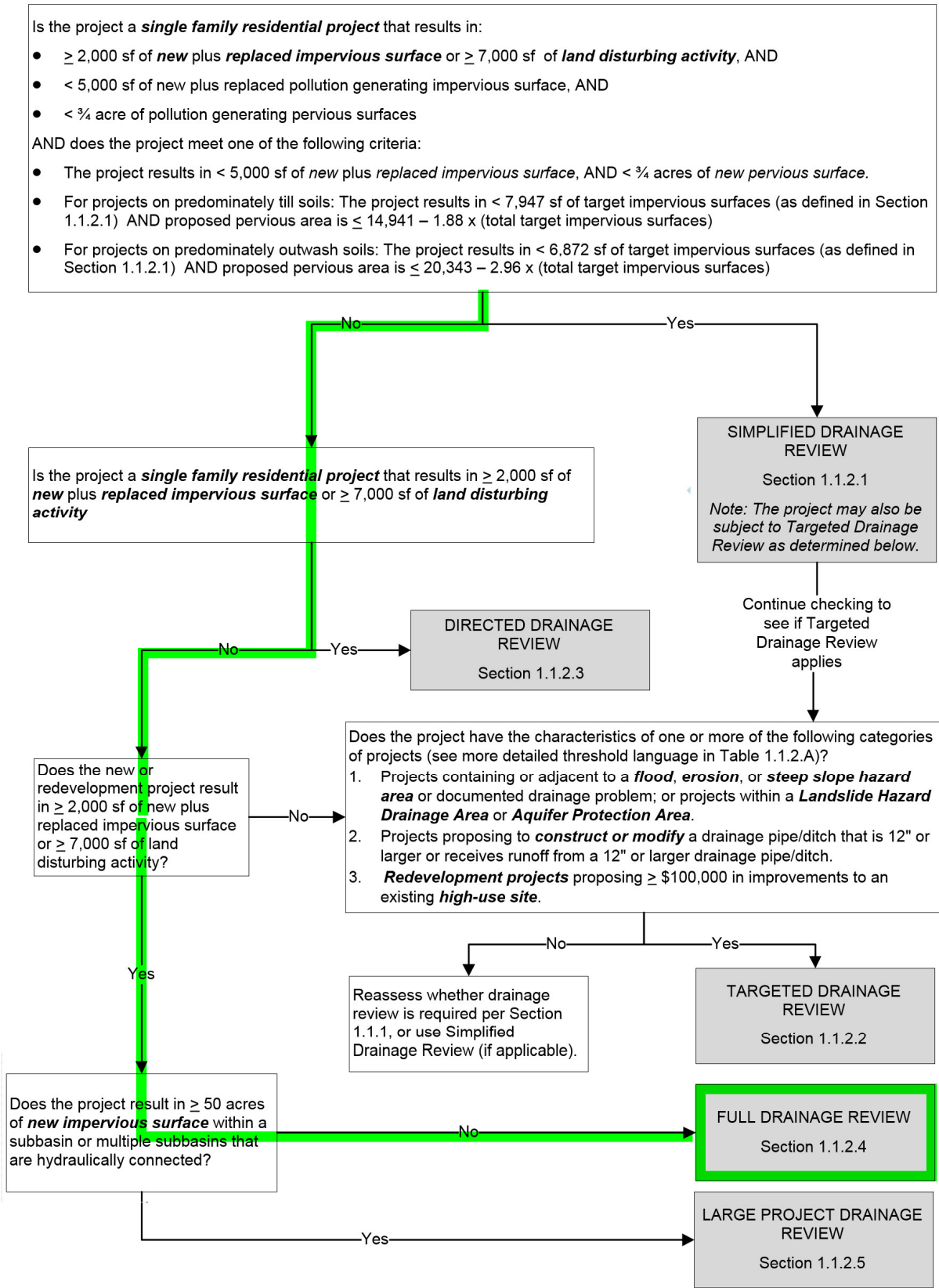
 LIMITS OF WORK



# Appendix C

## Minimum Requirements

**FIGURE 1.1.2.A FLOW CHART FOR DETERMINING TYPE OF DRAINAGE REVIEW REQUIRED**

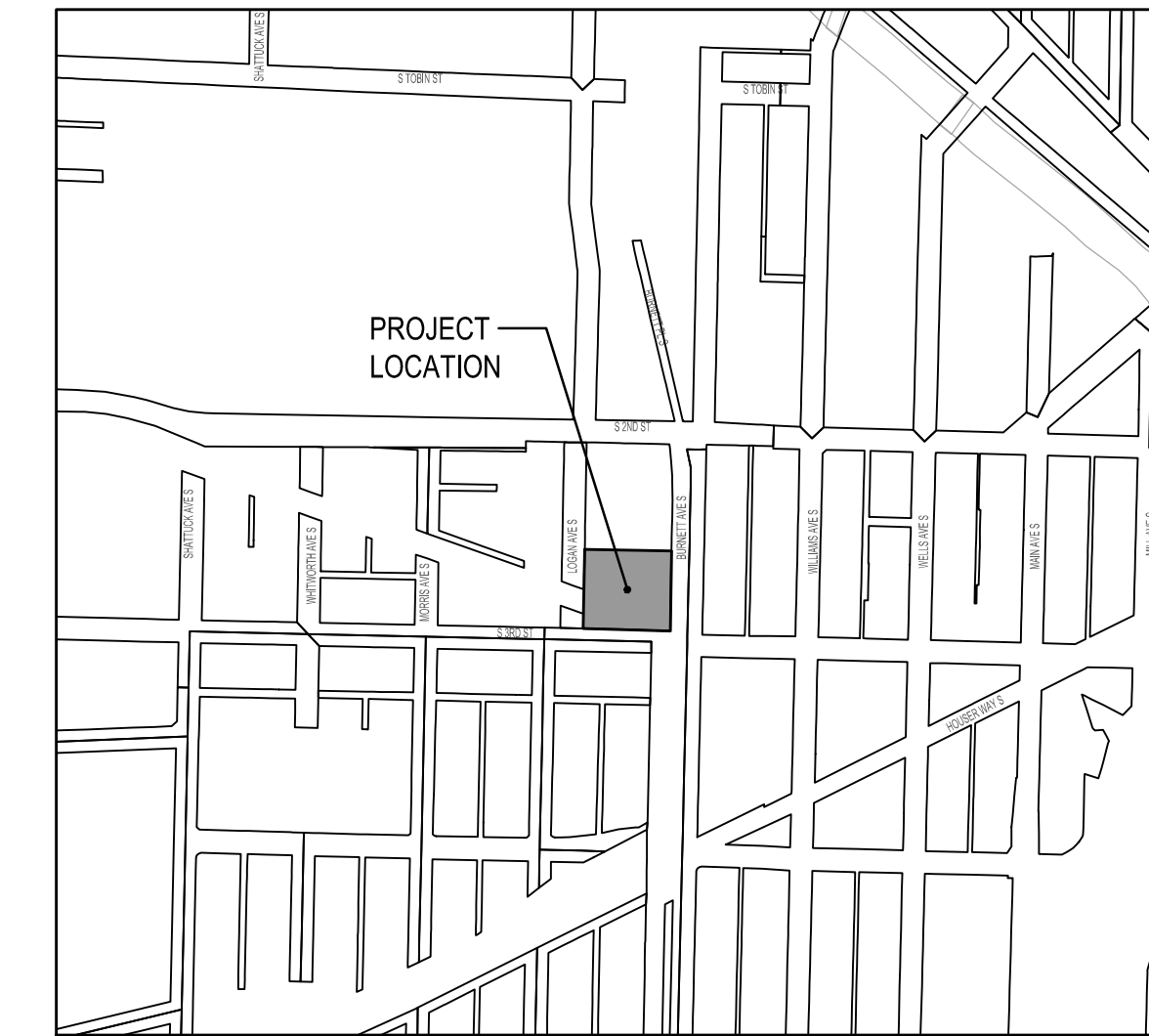


# Appendix D

## Civil Plans

# RENTON MARKET

## CIVIL CONSTRUCTION PERMIT



**VICINITY MAP**  
1" = 500'±

### ABBREVIATIONS

AD	AREA DRAIN
AVE	AVENUE
CB	CATCH BASIN
CL	CENTER LINE
COR	CITY OF RENTON
CSBC	CRUSHED SURFACE BASE COURSE
DEMO	DEMOLISH
ELECT	ELECTRICAL
EL/ELEV	ELEVATION
EX/EXIST	EXISTING
GI	GREASE INTERCEPTOR
HMA	HOT MIX ASPHALT
IE	INVERT ELEVATION
LF	LINEAR FOOT
LS	LANDSCAPE/LANDSCAPING
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
PLUMB	PLUMBING
ROW	RIGHT OF WAY
SD	STORE DRAIN
SS	SANITARY SEWER
STD	STANDARD
TYP	TYPICAL
W	WATER
#	NUMBER

### Sheet List Table

Sheet Number	Sheet Title
C0.00	COVER
C1.00	NOTES
C1.01	NOTES
C2.00	DEMO AND TESC PLAN
C2.50	DEMO AND TESC DETAILS
C3.00	CIVIL MARKET IMPROVEMENT PLAN
C3.10	GRADING ENLARGEMENT
C3.11	GRADING ENLARGEMENT
C3.50	CIVIL IMPROVEMENT DETAILS
C3.51	CIVIL IMPROVEMENT DETAILS

CONTRACTOR IS ALERTED TO THE FACT THAT WORK WILL BE ACCOMPLISHED AROUND ACTIVE PSE GAS AND ENERGIZED FACILITIES THAT ARE SERVING EXISTING CUSTOMERS. CONTRACTOR SHALL COORDINATE WITH PSE TO DETERMINE WHICH FACILITIES ARE ACTIVE AND ENERGIZED AND SHALL IMPLEMENT SAFETY PROCEDURES PER PSE REQUIREMENTS. CONTRACTOR SHALL COORDINATE WITH PSE TO ENSURE THAT FACILITIES ARE IN PLACE TO MAINTAIN SERVICE TO CUSTOMERS THROUGHOUT CONSTRUCTION.



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Seattle, Washington 98122  
206.323.9932

GRAHAM BABA ARCHITECTS



1601 5th Avenue, Suite 1600  
Seattle, WA 98101  
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www.kpff.com

Revisions:  
No. Date Description

**CIVIL CONSTRUCTION PERMIT**  
10/17/2024

**Renton Market & Piazza**  
233 Burnett Ave S.  
Renton, WA 98057

Project No.:

AHJ Project No.:

Scale:

Sheet contents:

**COVER**

Sheet:

**C0.00**

Z:\300001-230999\300622 Renton Pavilion\_CADD\Design\RF-C1.00-NOTES.dwg

HeathEM

Oct 15, 2024 - 3:31pm

## CITY OF RENTON SANITARY SEWER NOTES

1. ALL WORK AND WORK MATERIAL SHALL BE IN CONFORMANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF RENTON PLANNING/BUILDING/PUBLIC WORKS DEPARTMENT AND THE LATEST EDITION OF THE WSDOT/ APWA STANDARDS AND SPECIFICATIONS, AS APPROVED AND MODIFIED BY THE CITY OF RENTON IN THE RENTON STANDARD PLANS & SPECIFICATIONS. A SET OF APPROVED PLANS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
2. THE HOURS OF WORK IN THE STREET RIGHT OF WAY SHALL BE PER CITY SPECIFICATIONS ON WEEKDAYS UNLESS OTHERWISE APPROVED IN WRITING BY THE PLANNING/ BUILDING/ PUBLIC WORKS DEPARTMENT. AN APPROVED TRAFFIC CONTROL PLAN MUST BE OBTAINED PRIOR TO BEGINNING ANY WORK WITHIN PUBLIC RIGHT OF WAY.
3. ALL LOCATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TRUE AND CORRECT LOCATION SO AS TO AVOID DAMAGE OR DISTURBANCE.
4. A PRE-CONSTRUCTION CONFERENCE AND A 24 HOUR NOTICE SHALL BE REQUIRED PRIOR TO STARTING NEW CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL NECESSARY PERMITS PRIOR TO STARTING CONSTRUCTION. ( INSPECTION WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE CITY OF RENTON.) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PUBLIC WORKS INSPECTOR 24 HOURS IN ADVANCE OF BACKFILLING ALL CONSTRUCTION.
5. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS AND SEQUENCES OF CONSTRUCTION AND FOR THE SAFETY OF WORKERS AND OTHERS ON THE CONSTRUCTION SITE.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN STREET USE AND ANY OTHER RELATED PERMITS PRIOR TO ANY CONSTRUCTION.
7. PLANS APPROVED BY THE CITY OF RENTON, PUBLIC WORKS DEPARTMENT SHALL TAKE PRECEDENCE OVER ALL OTHER PLANS.
8. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
9. THE CONTRACTOR SHALL PROVIDE THE CITY OF RENTON WITH AN AS-BUILT DRAWING OF THE SANITARY SEWER SYSTEM, WHICH HAS BEEN STAMPED AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED PROFESSIONAL SURVEYOR.
10. BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6 INCHES, MAXIMUM DEPTH OF 8 INCHES, THOROUGHLY TAMPING EACH LAYER TO 95 PERCENT OF MAXIMUM DENSITY. THESE COMPACTED LAYERS MUST EXTEND FOR ONE PIPE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THE FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED.
11. OPEN CUT ROAD CROSSINGS FOR UTILITY TRENCHES ON EXISTING TRAVELED ROADWAY SHALL BE BACKFILLED WITH CRUSHED ROCK AND MECHANICALLY COMPACTED UNLESS OTHERWISE APPROVED BY
12. DATUM FOR VERTICAL CONTROL SHALL BE NORTH AMERICAN VERTICAL DATUM 1988 METERS, AND FOR HORIZONTAL CONTROL SHALL BE NORTH AMERICAN DATUM 1983/1991 METERS UNLESS OTHERWISE APPROVED BY THE CITY OF RENTON PUBLIC WORKS DEPARTMENT. REFERENCE BENCHMARK AND ELEVATIONS ARE NOTED ON THE PLANS.
13. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED TO THE SATISFACTION OF THE DEPARTMENT FOR THE PREVENTION OF ON-SITE EROSION AFTER THE COMPLETION OF CONSTRUCTION.
14. ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF RENTON PLANNING/ BUILDING/ PUBLIC WORKS DEPARTMENT AND THE LATEST EDITION OF THE WSDOT/ APIWA STANDARDS AND SPECIFICATIONS, AS APPROVED AND MODIFIED BY THE CITY OF RENTON IN THE RENTON STANDARD PLANS & SPECIFICATIONS. THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL, AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL, TO UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORMLY DENSE, UNYIELDING BASE. PIPE BEDDING SHALL BE PEA GRAVEL 6 INCHES ABOVE AND BELOW THE PIPE.
15. SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE ( PVC) RUBBER GASKETED ASTM D 3034, SDR 35, OR DUCTILE IRON CLASS 50, UNLESS OTHERWISE APPROVED BY THE WASTEWATER UTILITY.
16. IN UNIMPROVED AREAS, MANHOLE TO EXTEND MINIMUM 6 INCHES AND MAXIMUM 12 INCHES ABOVE FINISHED GRADE OR MUST HAVE MINIMUM 2' DIAMETER CONCRETE RING POURED AT GRADE. IN PAVED AREA, COVER MUST SLOPE IN ALL DIRECTIONS TO MATCH PAVING.

## CITY OF RENTON SURFACE WATER STANDARD NOTES:

1. BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY OCCURS, A PRE- CONSTRUCTION MEETING SHALL BE HELD AMONG THE CITY OF RENTON, HEREBY REFERRED TO AS THE CITY, THE APPLICANT, AND THE APPLICANT'S CONTRACTOR.
2. THE APPLICANT SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY CITY, STATE, AND FEDERAL PERMITS PRIOR TO CONSTRUCTION.
3. ALL STORM DRAINAGE IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF RENTON SURFACE WATER DESIGN MANUAL ( RENTON SWDM), RENTON MUNICIPAL CODE ( RMC), AND THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION PREPARED BY WSDOT AND THE AMERICAN PUBLIC WORKS ASSOCIATION ( APWA). IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT TO CORRECT ANY ERROR, OMISSION OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST TO THE CITY.
4. APPROVAL OF THE ROAD, GRADING, PARKING, BUILDING, AND DRAINAGE PLAN DOES NOT CONSTITUTE AS APPROVAL OF ANY OTHER CONSTRUCTION ( E.G. WATER, SEWER, GAS, ELECTRICAL. ETC.). PLANS FOR STRUCTURES SUCH AS BRIDGES, VAULTS, AND RETAINING WALLS REQUIRE A SEPARATE REVIEW AND APPROVAL BY THE CITY PRIOR TO CONSTRUCTION. THE SURFACE WATER DRAINAGE SYSTEM SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED PLANS. ANY DEVIATION FROM THE APPROVED PLANS WILL REQUIRE COORDINATION FOLLOWED BY WRITTEN APPROVAL FROM THE CITY.
5. A COPY OF THE APPROVED PLANS SHALL BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
6. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHALL THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE APPLICANT'S CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON THAT MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. THE APPLICANT SHALL RECORD ON THE AS- BUILT DRAWINGS ALL UNDOCUMENTED UTILITIES DISCOVERED AND ANY CHANGES TO THE APPROVED PLANS. THE APPLICANT SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD IF A CONFLICT EXISTS.
7. VERTICAL DATUM SHALL BE NAVD 88 AND HORIZONTAL DATUM SHALL BE NAD 83 ( WA STATE PLANE, NORTH), UNLESS OTHERWISE APPROVED BY THE CITY. REFERENCE BENCHMARK, DATUM, AND ELEVATIONS SHALL BE NOTED ON THE PLANS.
8. ALL UTILITY TRENCH BACKFILL AND ROADWAY SUBGRADE SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER SECTION 2-03.3(14)D - COMPACTION AND MOISTURE CONTROL TESTS OF THE WSDOT STANDARD SPECIFICATIONS. IN PERMEABLE PAVEMENT AND OTHER INFILTRATION AREAS, ALL TRENCH BACKFILL SHALL BE FIRM AND UNYIELDING BUT IN NO CASE SHALL BE COMPACTED TO MORE THAN 92% OF MAXIMUM DRY DENSITY.
9. OPEN CUTTING OF EXISTING ROADWAYS FOR STORM DRAINAGE WORK IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH THE CITY TRENCH RESTORATION STANDARDS.
10. ALL PIPE AND STRUCTURES SHALL BE STAKED FOR SURVEY LINE AND GRADE PRIOR TO THE START OF CONSTRUCTION, WHERE SHOWN ON THE PLANS OR WHERE DIRECTED BY THE CITY, THE EXISTING MANHOLES, CATCH BASINS, OR INLETS SHALL BE ADJUSTED TO THE GRADE AS STAKED.
11. ALL FLOW CONTROL FACILITIES SHALL BE INSTALLED AND IN OPERATION PRIOR TO, OR IN CONJUNCTION WITH, ANY CONSTRUCTION ACTIVITY UNLESS OTHERWISE APPROVED BY THE CITY.
12. ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH THE CURRENT STATE OF WASHINGTON STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION. THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL, AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL TO UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORMLY DENSE, UNYIELDING BASE. ALL PIPE BEDDING AND BACKFILL SHALL BE AS SHOWN ON THE CITY STANDARD PLAN 220. 00, 220. 10, AND 220. 20.
13. STEEL PIPE SHALL BE ALUMINIZED, OR GALVANIZED WITH ASPHALT TREATMENT 1, 2, OR 5 INSIDE AND OUTSIDE.
14. ALL DRAINAGE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES SHALL BE FITTED WITH DUCTILE IRON, BOLT- LOCKING LIDS PER THE CITY STANDARD PLAN 204. 10, 204. 20, 204. 30, 204. 40, AND 204. 50. STRUCTURES SHALL HAVE:
  - RECTANGULAR OR ROUND, SOLID LIDS WHEN NOT COLLECTING RUNOFF, AND OUTSIDE OF THE ROADWAY.
  - ROUND, SOLID LIDS WHEN NOT COLLECTING RUNOFF, AND LOCATED WITHIN THE ROADWAY, BUT OUTSIDE OF THE CURB/ GUTTER LINE.
  - ROUND, SOLID LIDS DISPLAYING THE CITY LOGO WHEN WITHIN THE PUBLIC RIGHT- OF- WAY OR IN AN EASEMENT TO THE CITY. PRIVATE STRUCTURE LIDS OUTSIDE PUBLIC RIGHT- OF- WAY AND EASEMENTS TO THE CITY SHALL NOT DISPLAY THE CITY LOGO.
15. BUILDINGS AND OTHER STRUCTURES SHALL BE PLACED IN ACCORDANCE WITH TABLE 4.1 EASEMENT WIDTHS AND BUILDING SETBACKS LINES OF THE RENTON SWDM.
16. LIDS OF MANHOLES/ CATCH BASINS WITHIN PUBLIC RIGHT- OF- WAY SHALL NOT BE ADJUSTED TO FINAL GRADE UNTIL AFTER PAVING. ALL MANHOLE/ CATCH BASIN RIMS SHALL BE ADJUSTED TO BE FLUSH WITH FINAL FINISHED GRADES, UNLESS OTHERWISE SHOWN.
17. ALL DRIVEWAY CULVERTS LOCATED WITHIN CITY RIGHT- OF- WAY SHALL BE OF SUFFICIENT LENGTH TO PROVIDE A MINIMUM 3:1 SLOPE FROM THE EDGE OF THE DRIVEWAY TO THE BOTTOM OF THE DITCH.
18. ROCK FOR EROSION PROTECTION OF ROADSIDE DITCHES, WHERE REQUIRED, SHALL BE OF SOUND QUARRY ROCK PLACED TO A MINIMUM DEPTH OF ONE (1) FOOT AND SHALL MEET THE FOLLOWING SPECIFICATIONS:
  - 4 - 8 INCH ROCK / 40 - 70% PASSING;
  - 2 - 4 INCH ROCK / 30 - 40% PASSING; AND
  - LESS THAN 2 INCH ROCK / 10 - 20% PASSING.
19. FOOTING DRAINAGE SYSTEMS AND ROOF DOWNSPOUT SYSTEMS SHALL NOT BE INTERCONNECTED AND SHALL SEPARATELY CONVEY COLLECTED FLOWS TO THE CONVEYANCE SYSTEM OR FLOW CONTROL FACILITY ON THE SITE, UNLESS APPROVED BY THE CITY. FOOTING DRAINS SHALL NOT BE CONNECTED TO ON- SITE BMPS.
20. THE END OF EACH STORM DRAIN STUB SHALL BE CAPPED. A CLEANOUT TOPPED WITH A BOLT- LOCKING LID MARKED " STORM" OR " DRAIN" SHALL BE LOCATED AT THE PROPERTY LINE OR AT THE POINT OF CONNECTION OF A PRIVATE STORM DRAINAGE CONVEYANCE SYSTEM PER THE CITY STANDARD PLAN 227. 00.
21. ALL STORM SYSTEM EXTENSIONS SHALL BE STAKED FOR LINE AND GRADE BY A SURVEYOR LICENSED IN WASHINGTON STATE, AND CUT SHEETS SHALL BE PROVIDED TO THE CITY PRIOR TO CONSTRUCTION.
22. ALL NEWLY- INSTALLED AND NEWLY- REHABILITATED ( PUBLIC AND PRIVATE) STORM CONVEYANCE SYSTEMS SHALL BE INSPECTED BY MEANS OF REMOTE CCTV ACCORDING TO THE CITY STANDARD PLAN 266. 00. CCTV INSPECTIONS AND REPORTS SHALL BE SUBMITTED TO THE CITY PRIOR TO RECEIVING APPROVAL TO INSTALL PROJECT CURBS, GUTTERS AND/ OR PAVEMENT.
23. ALL STORM SYSTEMS AND CONNECTIONS TO EXISTING MAINS SHALL BE TESTED IN ACCORDANCE WITH SECTION 7-04.3(1) OF THE WSDOT STANDARD SPECIFICATIONS AND IN THE PRESENCE OF A REPRESENTATIVE OF THE CITY. STORM DRAIN STUBS SHALL BE TESTED FOR ACCEPTANCE AT THE SAME TIME THE MAIN STORM IS TESTED.
24. FOR ALL DISTURBED PERVIOUS AREAS ( COMPACTED, GRADED, LANDSCAPED, ETC.) OF THE DEVELOPMENT SITE, TO MAINTAIN THE MOISTURE CAPACITY OF THE SOIL EITHER STOCKPILE AND REDISTRIBUTE THE EXISTING DUFF LAYER AND NATIVE TOPSOIL OR AMEND THE SOIL WITH COMPOST IN ACCORDANCE WITH STANDARD PLAN 264. 00.

25. ISSUANCE OF THE BUILDING OR CONSTRUCTION PERMITS BY THE CITY DOES NOT RELIEVE THE APPLICANT OF THE CONTINUING LEGAL OBLIGATION AND/ OR LIABILITY CONNECTED WITH STORMWATER DISPOSAL. THE CITY DOES NOT ACCEPT ANY OBLIGATION FOR THE PROPER FUNCTIONING AND MAINTENANCE OF THE STORM SYSTEM PROVIDED DURING CONSTRUCTION.
26. ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER ACTIONS NEEDED TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK SHALL BE PROVIDED. ANY WORK WITHIN THE TRAVELED RIGHT- OF- WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE A TRAFFIC CONTROL PLAN APPROVED BY THE CITY. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-10 TEMPORARY TRAFFIC CONTROL SHALL APPLY.
27. PROJECTS LOCATED WITHIN THE CITY' S AQUIFER PROTECTION AREA ( APA) SHALL COMPLY WITH SPECIAL REQUIREMENT # 6 OF THE RENTON SWDM AND AQUIFER PROTECTION REGULATIONS ( RMC 4-3-050).
28. PLACEMENT OF SURFACE APPURTENANCES ( CATCH BASIN/ MANHOLE LIDS, CLEANOUTS, INLETS, ETC.) IN THE STREET TRAVEL LANE WHEEL PATH, INTERSECTIONS OF STREET TRAVEL LANES, BIKE LANES, SIDEWALKS, AND CROSSWALKS SHALL BE AVOIDED WHENEVER POSSIBLE. ANY SURFACE APPURTENANCE PLACED IN A SIDEWALK OR CROSSWALK SHALL BE FITTED WITH A NON- SLIP OR NON- SKID LID PER ADA REQUIREMENTS.
29. CLEARLY LABEL PUBLIC AND PRIVATE SYSTEMS ON THE PLANS. PRIVATE SYSTEMS SHALL BE MAINTAINED BY THE APPLICANT.
30. MINIMUM COVER OVER STORM DRAINAGE PIPE SHALL CONFORM TO TABLE 4.2.1.A2 OF THE RENTON SWDM.
31. CONSTRUCTED PERMEABLE PAVEMENT SHALL BE PERMEABLE ENOUGH TO ABSORB WATER AT A MINIMUM RATE OF 20 INCHES PER HOUR IMMEDIATELY AFTER THE PAVEMENT SURFACE HAS BEEN WETTED CONTINUOUSLY FOR AT LEAST 10 MINUTES. COMPLIANCE WITH THIS MINIMUM RATE SHALL BE CHECKED PRIOR TO CONSTRUCTION APPROVAL OF THE PAVEMENT. COMPLIANCE MAY BE CHECKED USING A SIMPLE BUCKET TEST IN WHICH 5 GALLONS OF WATER IS POURED ONTO THE PAVEMENT SURFACE ALL AT ONCE. IF ONLY A MINOR AMOUNT OF WATER PONDS OR RUNS OFF THE SURFACE, THEN THE PAVEMENT IS CONSIDERED TO MEET THE MINIMUM RATE OF ABSORPTION. AT LEAST ONE TEST SHALL BE CONDUCTED PER 1,000 SQUARE FEET OF PERMEABLE PAVEMENT. IF THIS TEST IS NOT CONCLUSIVE, THEN ANOTHER TEST PER ASTM C1701 SHALL BE CONDUCTED. FOR LARGE AREAS ( E.G., PARKING AREAS), TESTING OBSERVATION MAY BE ACCOMPLISHED WHILE WALKING BEHIND A SLOWLY MOVING WATER TRUCK DISCHARGING WATER AT A RATE SIMILAR TO THE BUCKET TEST. PERMEABLE PAVERS SHALL BE TESTED USING ASTM C1781.

## CITY OF RENTON CCTV INSPECTION STANDARD NOTES:

1. ALL NEWLY- INSTALLED AND NEWLY- REHABILITATED ( PUBLIC AND PRIVATE) SANITARY SEWER AND STORM DRAIN MAIN LINES SHALL BE INSPECTED BY MEANS OF REMOTE CCTV. CCTV INSPECTIONS AND REPORTS SHALL BE SUBMITTED TO THE CITY OF RENTON INSPECTOR ASSIGNED TO THE PROJECT PRIOR TO RECEIVING APPROVAL TO INSTALL PROJECT CURBS, GUTTERS, AND/ OR PAVEMENT.
2. THE CONTRACTOR SHALL PERFORM ALL CCTV INSPECTIONS IN ACCORDANCE WITH THE NATIONAL ASSOCIATION OF SEWER SERVICE COMPANIES ( NASSCO) PIPELINE ASSESSMENT CERTIFICATION PROGRAM ( PACP).
3. ALL CCTV OPERATORS SHALL HAVE CURRENT NASSCO PACP CERTIFICATION.
4. CCTV INSPECTIONS SHALL BE RECORDED IN A GRANITENET COMPATIBLE FORMAT DATABASE USING THE LATEST SOFTWARE VERSION AND SUBMITTED WITH ELECTRONIC LINKS BETWEEN THE DATA AND THE VIDEO ON AN EXTERNAL HDD, DVD, OR FLASH DRIVE.
5. ALL CCTV INSPECTION REPORTS SHALL BE WITHIN +/- TWO ( 2) FEET OF THE MEASURED LINEAR FOOTAGE BETWEEN MANHOLES ALONG THE EXISTING PIPELINE CENTERLINE FROM THE START OF PIPE TO END OF PIPE.
6. ALL OWNER AND PACP REQUIRED HEADER INFORMATION MUST BE FULLY AND ACCURATELY ENTERED ON ALL CCTV REPORTS. WORK NOT FOLLOWING THESE SPECIFICATIONS WILL BE REJECTED AND THE CONTRACTOR SHALL BE REQUIRED TO RE- CCTV THE WORK.
7. THE DOCUMENTATION OF THE WORK SHALL CONSIST OF PACP CCTV REPORTS, PACP DATABASE, LOGS, ELECTRONIC REPORTS, ETC. NOTING IMPORTANT FEATURES ENCOUNTERED DURING THE INSPECTION. THE SPEED OF TRAVEL SHALL BE SLOW ENOUGH TO INSPECT EACH PIPE JOINT, TEE CONNECTION, STRUCTURAL DETERIORATION, INFILTRATION AND INFLOW SOURCES, AND DEPOSITS, BUT SHOULD NOT, AT ANY TIME, BE FASTER THAN 30 FEET PER MINUTE, EXCEPT AS NOTED OTHERWISE IN THIS DOCUMENT.
8. THE CAMERA MUST BE CENTERED IN THE PIPE TO PROVIDE ACCURATE DISTANCE MEASUREMENTS TO PROVIDE LOCATIONS OF FEATURES IN THE SEWER AND THESE FOOTAGE MEASUREMENTS SHALL BE DISPLAYED AND DOCUMENTED ON THE VIDEO. ALL PACP OBSERVATIONS SHALL BE IDENTIFIED BY AUDIO AND ON A PACP LOG. ALL VIDEO MUST BE CONTINUOUSLY METERED FROM MANHOLE TO MANHOLE. ALL VIDEO RECORDING SHALL BE CONTINUOUS FROM STRUCTURE TO STRUCTURE WITH NO " PAUSING" OF THE VIDEO RECORDING DURING EACH PIPELINE INSPECTION. THE PIPE SHALL BE CLEANED PRIOR TO THE CCTV INSPECTION TO ENSURE ALL DEFECTS, FEATURE, AND OBSERVATIONS ARE SEEN AND LOGGED.
9. JUST PRIOR TO BEGINNING THE CCTV INSPECTION, WHILE THE CCTV CAMERA IS IN PLACE AND RECORDING, WATER ( CONTAINING DYE) SHALL BE INTRODUCED INTO THE UPSTREAM MANHOLE OF EACH PIPE SEGMENT UNTIL IT IS OBSERVED AND RECORDED FLOWING PAST THE CAMERA' S FIELD OF VISION IN ITS ENTIRETY.
10. THE CCTV CAMERA SHALL HAVE A WATER- LEVEL MEASURING DEVICE ( BALL, CYLINDER, ETC.) ATTACHED THAT HAS 1/4" MARKINGS TO SHOW THE DEPTH OF WATER IN THE PIPE DURING THE CCTV INSPECTION.
11. ALL MANHOLES SHALL BE CHanneled AND COATED PRIOR TO CCTV INSPECTION.
12. PER CITY OF RENTON SPECIFICATION 7-08. 3(2)B, SEWER AND STORM DRAIN PIPELINE SHALL HAVE NO MORE THAN 1/2" OF PONDING TO BE CONSIDERED ACCEPTABLE.



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**Renton Market  
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Renton, WA 98057

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AHJ Project No.:

Scale:

Sheet contents:

**NOTES**

Sheet:

**C1.00**

**CITY OF RENTON WASTEWATER UTILITY STANDARD NOTES**

- ALL WORK AND MATERIAL SHALL BE IN CONFORMANCE WITH THE STANDARDS AND SPECIFICATION OF THE CITY OF RENTON PUBLIC WORKS DEPARTMENT AND THE LATEST EDITION OF THE WSDOT/ APWA STANDARDS AND SPECIFICATIONS, AS APPROVED AND MODIFIED BY THE CITY OF RENTON STANDARD PLANS& SPECIFICATIONS.A SET OF APPROVED PLANS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
- DATUM FOR VERTICAL CONTROL SHALL BE NORTH AMERICAN VERTICAL DATUM 1988. HORIZONTAL CONTROL SHALL BE NORTH AMERICAN DATUM 1983/ 1991 UNLESS OTHERWISE APPROVED BY THE CITY. BENCHMARKS AND MONUMENTS SHALL BE REFERENCED ON THE APPROVED PLANS.
- A PRE- CONSTRUCTION CONFERENCE AND A 24- HOUR NOTICE SHALL BE REQUIRED PRIOR TO STARTING NEW CONSTRUCTION. IT SHALL BE THE CONTRACTOR' S RESPONSIBILITY TO SECURE ALL NECESSARY PERMITS, INCLUDING STREET USE PERMITS, PRIOR TO STARTING CONSTRUCTION. INSPECTION WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE CITY. IT SHALL BE THE CONTRACTOR' S RESPONSIBILITY TO NOTIFY THE PUBLIC WORKS INSPECTOR 24 HOURS IN ADVANCE OF BACKFILLING ALL CONSTRUCTION.
- THE HOURS OF WORK IN THE STREET RIGHT- OF- WAY SHALL BE PER CITY SPECIFICATIONS ON WEEKDAYS UNLESS OTHERWISE APPROVED IN WRITING BY THE PUBLIC WORKS DEPARTMENT. AN APPROVED TRAFFIC CONTROL PLAN MUST BE OBTAINED PRIOR TO BEGINNING ANY WORK WITHIN THE PUBLIC RIGHT- OF-WAY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS AND SEQUENCES OF CONSTRUCTION AND FOR THE SAFETY OF WORKERS AND OTHERS ON THE CONSTRUCTION SITE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
- ALL LOCATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE AND IT SHALL BE THE CONTRACTOR' S RESPONSIBILITY TO VERIFY THE TRUE AND CORRECT LOCATION SO AS TO AVOID DAMAGE OR DISTURBANCE. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF RCW 19. 122. A DIG TICKET SHALL BE OBTAINED A MINIMUM OF TWO BUSINESS DAYS PRIOR TO STARTING ANY EXCAVATION. THE CONTRACTOR SHALL HAVE A COPY OF THE DIG TICKET ON SITE AT ALL TIMES.
- BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 12- INCHES, MAXIMUM DEPTH 18- INCHES, THOROUGHLY COMPACTING EACH LAYER TO 95 PERCENT OF MAXIMUM DENSITY. THESE COMPACTED LAYERS MUST EXTEND FOR ONE PIPE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THE FILL OVER THE PIPE SHALL BE EQUIVALENT TO BANK RUN GRAVEL FOR TRENCH BACKFILL( 9- 03. 19).
- SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE( PVC) RUBBER- GASKETED ASTM D 3034, SDR 35, C900/ C905 OR DUCTILE IRON CLASS 50, UNLESS OTHERWISE APPROVED BY THE CITY.
- SANITARY SEWER PIPES SHALL NOT BE LOCATED UNDER ANY STRUCTURE( WALL, BUILDING FOUNDATION, ETC.) UNLESS APPROVED BY THE CITY. IF A SANITARY SEWER IS TO BE LOCATED UNDER ANY STRUCTURE( WALL, BUILDING FOUNDATION, ETC.), IT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON IN ACCORDANCE WITH STANDARD DETAIL 412.
- OPEN- CUT ROAD CROSSINGS FOR UTILITY TRENCHES ON EXISTING TRAVELED ROADWAYS SHALL BE BACKFILLED WITH CRUSHED SURFACING AGGREGATE( WSDOT SPECIFICATION 9-03. 9( 3) AND MECHANICALLY COMPACTED UNLESS OTHERWISE APPROVED BY THE CITY.
- ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATION OF THE CITY AND THE LATEST EDITION OF THE WSDOT/ APWA STANDARDS AND SPECIFICATION AS APPROVED AND MODIFIED BY THE CITY IN THE RENTON STANDARD PLANS& SPECIFICATIONS. THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL TO A UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORMLY DENSE, UNYIELDING BASE. PIPE BEDDING SHALL BE IN ACCORDANCE WITH STANDARD PLAN 405.
- ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED TO THE SATISFACTION OF THE CITY FOR THE PREVENTION OF ON- SITE EROSION BOTH DURING CONSTRUCTION AND AFTER THE COMPLETION OF CONSTRUCTION IN ACCORDANCE WITH THE CURRENT SURFACE WATER DESIGN MANUAL.
- THE CONTRACTOR SHALL PROVIDE THE CITY OF RENTON WITH A RECORD DRAWING OF THE SANITARY SEWER SYSTEM WHICH HAS BEEN STAMPED AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED PROFESSIONAL SURVEYOR.

**EROSION AND SEDIMENT CONTROL (ESC) STANDARD PLAN NOTES:**

- BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY OCCURS, A PRE- CONSTRUCTION MEETING SHALL BE HELD AMONG THE CITY OF RENTON, HEREBY REFERRED TO AS THE CITY, THE APPLICANT, AND THE APPLICANT' S CONTRACTOR.
- THE APPLICANT IS RESPONSIBLE FOR OBTAINING THE WASHINGTON STATE DEPARTMENT OF ECOLOGY (ECOLOGY) CONSTRUCTION STORMWATER GENERAL PERMIT, IF IT IS REQUIRED FOR THE PROJECT. THE APPLICANT SHALL PROVIDE THE CITY COPIES OF ALL MONITORING REPORTS PROVIDED TO ECOLOGY ASSOCIATED WITH THE CONSTRUCTION STORMWATER GENERAL PERMIT.
- THE ESC PLAN SET SHALL INCLUDE AN ESC CONSTRUCTION SEQUENCE DETAILING THE ORDERED STEPS THAT SHALL BE FOLLOWED FROM CONSTRUCTION COMMENCEMENT TO POST- PROJECT CLEANUP IN ORDER TO FULFILL PROJECT ESC REQUIREMENTS.
- THE BOUNDARIES OF THE CLEARING LIMITS, SENSITIVE AREAS AND THEIR BUFFERS, AND AREAS OF VEGETATION PRESERVATION AND TREE RETENTION AS PRESCRIBED ON THE PLAN(S) SHALL BE CLEARLY DELINEATED BY FENCING AND PROTECTED IN THE FIELD IN ACCORDANCE WITH APPENDIX D OF THE CITY OF RENTON SURFACE WATER DESIGN MANUAL (RENTON SWDM) PRIOR TO THE START OF CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK- OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT. IF SEDIMENT IS TRACKED OFFSITE, PUBLIC ROADS SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY, OR MORE FREQUENTLY DURING WET WEATHER, AS NECESSARY TO PREVENT SEDIMENT FROM ENTERING WATERS OF THE STATE.
- WASHOUT FROM CONCRETE TRUCKS SHALL BE PERFORMED OFF- SITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS ONTO THE GROUND, OR TO STORM DRAINS OR OPEN DITCHES. ON- SITE DUMPING OF EXCESS CONCRETE SHALL ONLY OCCUR IN DESIGNATED CONCRETE WASHOUT AREAS.
- ALL REQUIRED ESC BMPS SHALL BE CONSTRUCTED AND IN OPERATION PRIOR TO LAND CLEARING AND/ OR CONSTRUCTION TO PREVENT TRANSPORTATION OF SEDIMENT TO SURFACE WATER, DRAINAGE SYSTEMS AND ADJACENT PROPERTIES. ALL ESC BMPS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/ OR CONSTRUCTION IS COMPLETE AND POTENTIAL FOR ON- SITE EROSION HAS PASSED. ALL ESC BMPS SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETED AND THE SITE HAS BEEN STABILIZED TO ENSURE POTENTIAL FOR ON- SITE EROSION DOES NOT EXIST. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, ENHANCEMENT, AND REMOVAL OF ESC BMPS SHALL BE THE RESPONSIBILITY OF THE APPLICANT.
- ANY HAZARDOUS MATERIALS OR LIQUID PRODUCTS THAT HAVE THE POTENTIAL TO POLLUTE RUNOFF SHALL BE DISPOSED OF PROPERLY.
- THE ESC BMPS DEPICTED ON THIS DRAWING ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE APPLICANT SHALL ANTICIPATE THAT MORE ESC BMPS WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE PROPOSED SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE APPLICANT TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY THE ACTIVITIES AND TO PROVIDE ADDITIONAL ESC BMPS, OVER AND ABOVE MINIMUM REQUIREMENTS, AS MAY BE NEEDED, TO PROTECT ADJACENT PROPERTIES AND WATER QUALITY OF THE RECEIVING DRAINAGE SYSTEM.
- APPROVAL OF THIS PLAN IS FOR ESC ONLY. IT DOES NOT CONSTITUTE AN APPROVAL OF STORM DRAINAGE DESIGN, SIZE NOR LOCATION OF PIPES, RESTRICTORS, CHANNELS, OR STORMWATER FACILITIES.
- ANY DEWATERING SYSTEM NECESSARY FOR THE CONSTRUCTION OF STORMWATER FACILITIES SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON (OCTOBER 1ST THROUGH APRIL 30TH) OR SEVEN DAYS DURING THE DRY SEASON (MAY 1ST THROUGH SEPTEMBER 30TH) SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC COVER METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.) IN CONFORMANCE WITH APPENDIX D OF THE RENTON SWDM.
- WET SEASON ESC REQUIREMENTS APPLY TO ALL CONSTRUCTION SITES BETWEEN OCTOBER 1ST AND APRIL 30TH, UNLESS OTHERWISE APPROVED BY THE CITY.
- ANY AREA NEEDING ADDITIONAL ESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
- THE ESC BMPS ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED AT A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT. INSPECTION AND MAINTENANCE SHALL OCCUR MORE FREQUENTLY AS REQUIRED BY THE CITY.
- BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, CATCH BASIN INSERTS PER THE CITY STANDARD PLAN 216. 30 SHALL BE PROVIDED FOR ALL STORM DRAIN INLETS DOWNSLOPE AND WITHIN 500 FEET OF A DISTURBED OR CONSTRUCTION AREA, UNLESS THE RUNOFF THAT ENTERS THE INLET WILL BE CONVEYED TO A SEDIMENT POND OR TRAP. ALL CATCH BASIN INSERTS SHALL BE PERIODICALLY INSPECTED AND REPLACED AS NECESSARY TO ENSURE FULLY FUNCTIONING CONDITION.
- AT NO TIME SHALL SEDIMENT ACCUMULATION EXCEED 2/3 OF THE CAPACITY OF THE CATCH BASIN SUMP. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT- LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- ANY PERMANENT STORMWATER FACILITY LOCATION USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY ESC BMPS AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE TEMPORARY FACILITY IS TO ULTIMATELY FUNCTION AS AN INFILTRATION SYSTEM IN ITS PERMANENT STATE, THE TEMPORARY FACILITY SHALL BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
- AREAS DESIGNATED ON THE PLAN(S) CONTAINING EXISTING STORMWATER FACILITIES OR ON- SITE BMPS (AMENDED SOILS, BIORETENTION, PERMEABLE PAVEMENT, ETC.) SHALL BE CLEARLY FENCED AND PROTECTED USING ESC BMPS TO AVOID SEDIMENTATION AND COMPACTION DURING CONSTRUCTION.
- PRIOR TO THE BEGINNING OF THE WET SEASON (OCTOBER 1ST), ALL DISTURBED AREAS SHALL BE INSPECTED TO IDENTIFY WHICH ONES SHALL BE SODDED OR SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SODDED OR SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.AN EXHIBIT OF THOSE AREAS TO BE SODDED OR SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE CITY FOR REVIEW.
- PRIOR TO FINAL CONSTRUCTION ACCEPTANCE, THE PROJECT SITE SHALL BE STABILIZED TO PREVENT SEDIMENT- LADEN WATER FROM LEAVING THE PROJECT SITE. ALL ESC BMPS SHALL BE REMOVED, AND STORMWATER CONVEYANCE SYSTEMS, FACILITIES, AND ON- SITE BMPS SHALL BE RESTORED TO THEIR FULLY FUNCTIONING CONDITION. ALL DISTURBED AREAS OF THE PROJECT SITE SHALL BE VEGETATED OR OTHERWISE PERMANENTLY STABILIZED. AT A MINIMUM, DISTURBED AREAS SHALL BE SODDED OR SEEDED AND MULCHED TO ENSURE THAT SUFFICIENT COVER WILL DEVELOP SHORTLY AFTER FINAL APPROVAL. MULCH WITHOUT SEEDING IS ADEQUATE FOR AREAS TO BE LANDSCAPED BEFORE OCTOBER 1ST.
- ROCKERIES ARE CONSIDERED TO BE A METHOD OF BANK STABILIZATION AND EROSION CONTROL. ROCKERIES SHALL NOT BE CONSTRUCTED TO SERVE AS RETAINING WALLS. ALL ROCKERIES IN CITY ROAD RIGHTS- OF- WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY STANDARDS. ROCKERIES OUTSIDE OF ROAD RIGHTS- OF- WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.

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10/17/2024

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233 Burnett Ave S.  
Renton, WA 98057

Project No.:

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Scale:

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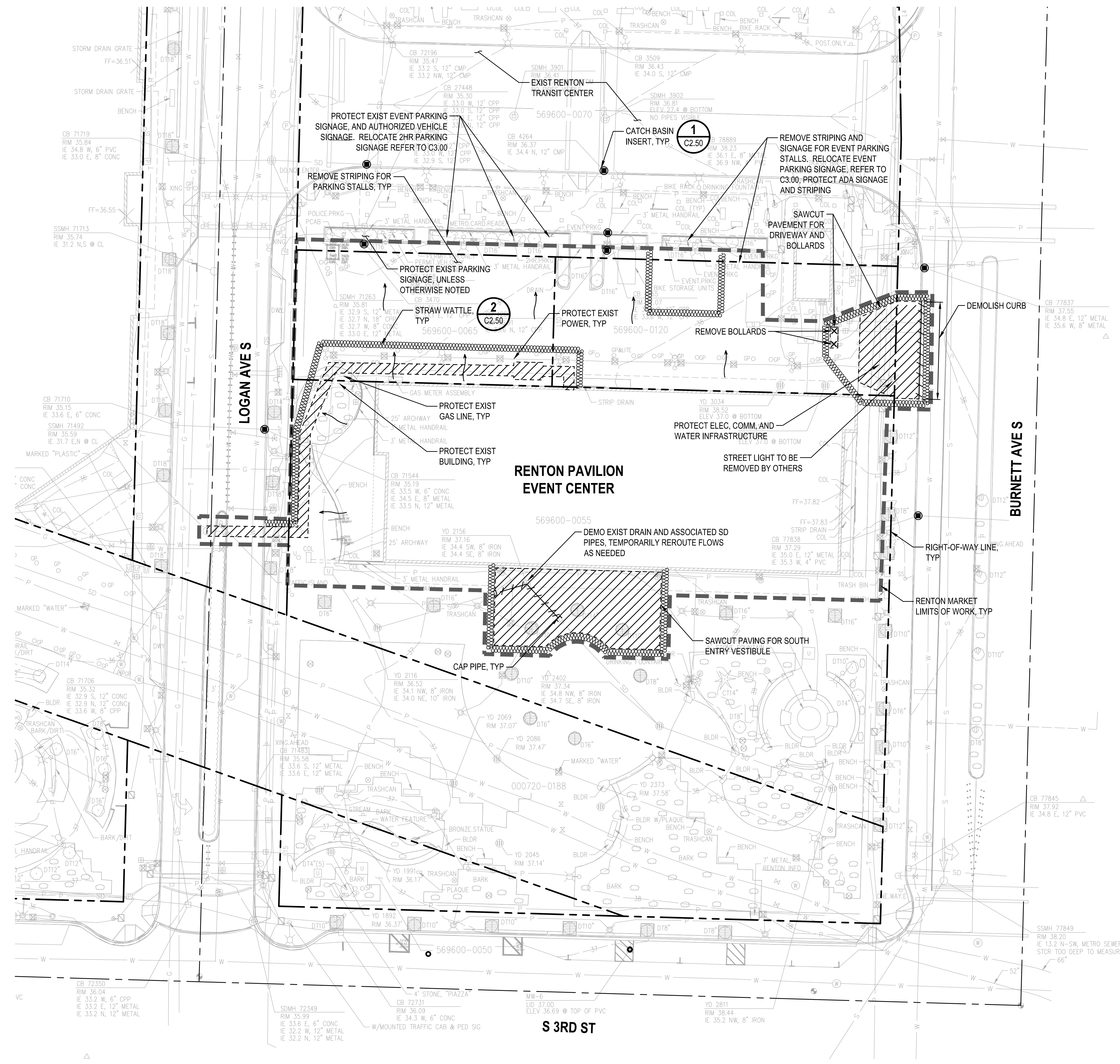


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HeatherM

Oct 15, 2024 - 3:31pm



**LEGEND:**

- RIGHT-OF-WAY LINE
- STRAW WATTLE
- CATCH BASIN INSERT
- REMOVE BOLLARD
- REMOVE FULL DEPTH CONCRETE PAVING OR LANDSCAPING
- SAWCUT LINE
- DEMOLISH EXISTING UTILITY
- LIMITS OF WORK

**NOTES:**

1. CONTRACTOR SHALL OBTAIN AND PAY FOR NECESSARY PERMITS TO EXECUTE DEMOLITION, INCLUDING PERMIT TO USE PUBLIC WATER SUPPLY FOR DUST SUPPRESSION.
2. DEMOLITION SHALL BE IN CONFORMANCE WITH APPLICABLE REGULATION, CODES, AND DEMOLITION PERMIT REQUIREMENTS.
3. CONTRACTOR SHALL DISPOSE OF EXCESS DEMOLITION MATERIAL OFF-SITE IN A SAFE AND LEGAL MANNER.
4. MAKE VERTICAL SAWCUTS BETWEEN ALL EXISTING PAVEMENT TO REMAIN AND THE PORTION TO BE REMOVED. PROTECT PAVEMENT TO REMAIN OUTSIDE OF SAWCUT LINE.
5. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES AND CONDUCT EXISTING BUILDING PRE-CONSTRUCTION SURVEYS, PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITIES.
6. CONTRACTOR SHALL PROVIDE TRAFFIC AND PEDESTRIAN REROUTES AS NECESSARY TO COMPLETE THE WORK, AND OBTAIN APPROVAL FROM THE CITY PRIOR TO BEGINNING WORK.
7. ANY DAMAGE RESULTING FROM PROJECT DEMOLITION ACTIVITIES TO EXISTING IMPROVEMENTS OR VEGETATION OUTSIDE OF WORK INDICATED ON PLAN SHALL BE REPAIRED/REPLACED IN KIND AT CONTRACTOR'S EXPENSE.
8. ALL DISTURBED PAVEMENT IN PUBLIC RIGHT OF WAY SHALL BE REPLACED PER COR STANDARDS AND PROJECT PLANS.
9. CONTRACTOR SHALL COORDINATE WITH ALL AFFECTED UTILITY PROVIDERS AND CITY TO KEEP ADJOINING PROPERTY SERVICES UNINTERRUPTED, AND TO PERFORM DEMOLITION ACTIVITIES IN ACCORDANCE TO APPLICABLE STANDARDS.
10. REMOVE STRIPING ON REMAINING EXISTING PAVEMENT TO INSTALL FULL EXTENTS OF PROPOSED STRIPING AS INDICATED ON PLANS. REMOVAL OF EXISTING STRIPING SHALL NOT DAMAGE EXISTING PAVEMENT TO REMAIN.
11. CONTRACTOR IS RESPONSIBLE FOR PREVENTING SEDIMENT AND SEDIMENT LADEN RUNOFF FROM LEAVING THE SITE. CONTRACTOR SHALL ADJUST AND ADD BMPs AS NECESSARY TO ADDRESS FIELD CONDITIONS AND PROGRESSION OF WORK. EROSION AND SEDIMENT CONTROL MEASURES SHALL MEET COR REQUIREMENTS. TESC MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH COR.
12. REMOVE AND DISPOSE OF ALL TESC MEASURES AT THE COMPLETION OF THE PROJECT WHEN ALL DISTURBED AREAS HAVE BEEN FULLY AND FINALLY STABILIZED.
13. CITY STREETS AND SIDEWALKS SHALL BE KEPT CLEAN AT ALL TIMES. MATERIAL SHALL NOT BE STORED ON CITY STREETS OR SIDEWALKS WITHOUT A STREET USE PERMIT FROM THE COR.

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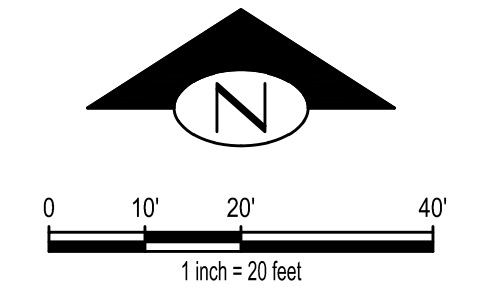
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**DEMO AND TESC  
PLAN**

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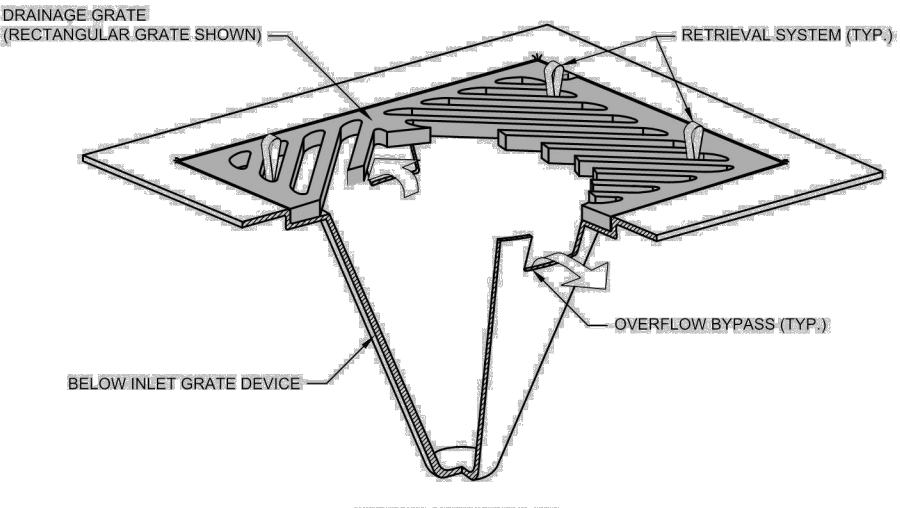
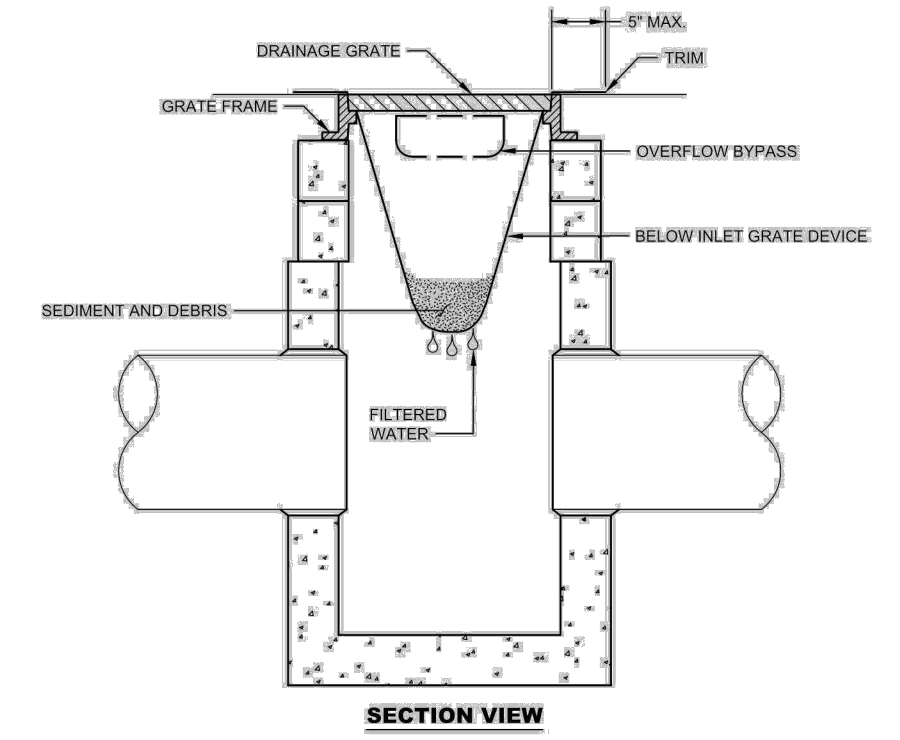
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HeatherM

Oct 15, 2024 - 3:32pm





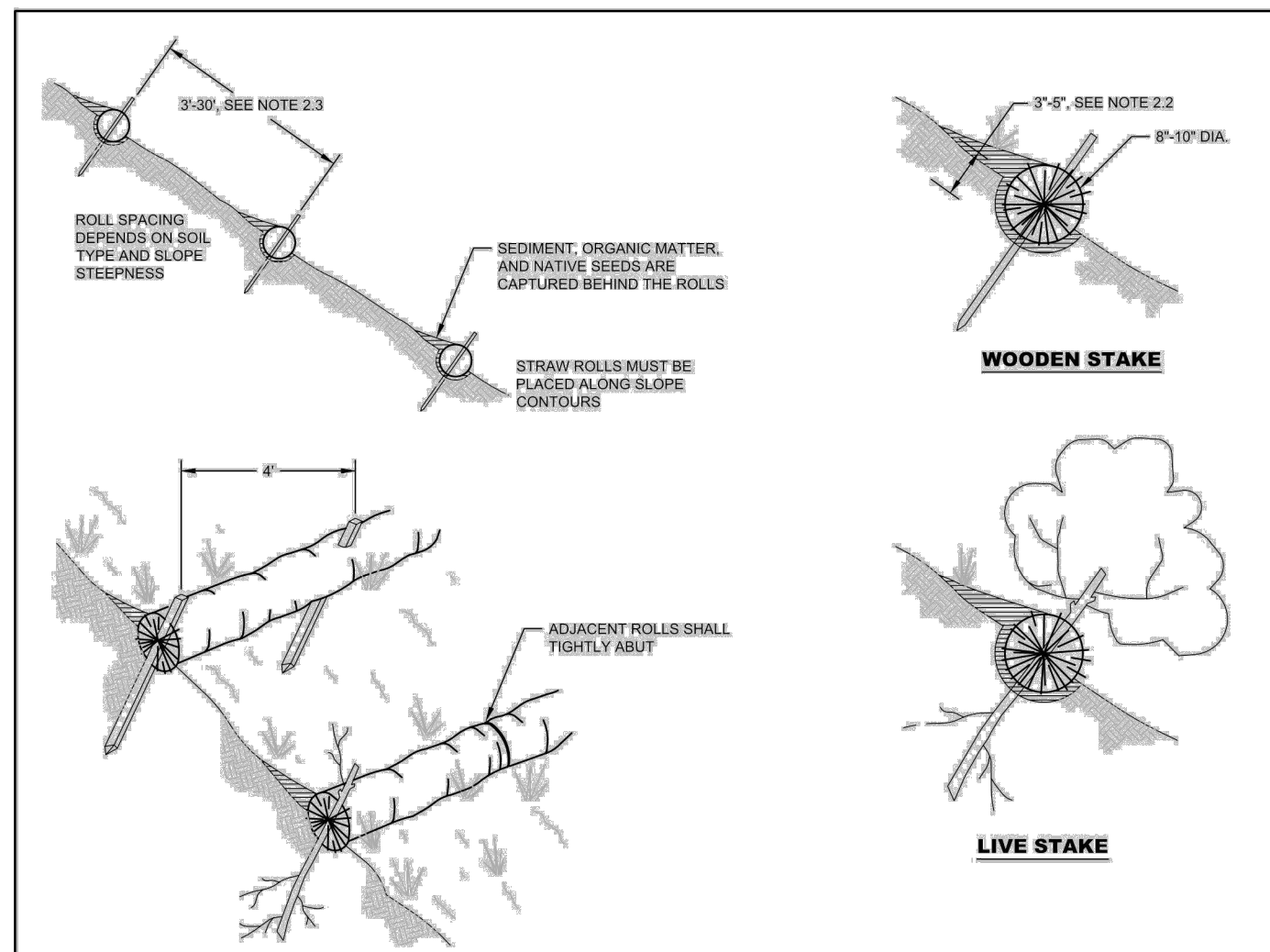
- NOTES:**
1. PROTECTION SHALL BE PROVIDED FOR ALL STORM DRAIN INLETS DOWN SLOPE AND WITHIN 100 FEET OF A DISTURBED OR CONSTRUCTION AREA, UNLESS THE RUNOFF THAT ENTERS THE CATCH BASIN WILL BE CONVEYED TO A SEDIMENT POND OR TRAP.
  2. INLET PROTECTION SHALL BE DESIGNED TO PROTECT THE DRAINAGE SYSTEM.
  3. THE CONTRIBUTING DRAINAGE AREA MUST NOT BE LARGER THAN ONE ACRE.
  4. SIZE THE BELOW INLET GRATE DEVICE (BIGD) FOR THE STORMWATER STRUCTURE IT WILL SERVICE.
  5. THE BIGD SHALL HAVE A BUILT-IN HIGH FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
  6. THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BIGD WITHOUT SPILLING THE COLLECTED MATERIAL.
  7. PERFORM MAINTENANCE IN ACCORDANCE WITH STANDARD SPECIFICATION 8-41.3(15).
  8. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.

UNLESS OTHERWISE NOTED, DRAWING IS NOT TO SCALE (NTS)

	PUBLIC WORKS DEPARTMENT	CATCH BASIN INSERT	STD. PLAN - 216.30	ATTORNEY:	DATE:
			GAZ	9/28/2018	9:45 AM

**CATCH BASIN INSERT**  
NTS

1



- NOTES:**
1. CONDITIONS OF USE
    - 1.1. INSTALL ON DISTURBED AREAS THAT REQUIRE IMMEDIATE EROSION PROTECTION.
    - 1.2. USE ON SLOPES REQUIRING STABILIZATION UNTIL PERMANENT VEGETATION CAN BE ESTABLISHED.
    - 1.3. CAN BE USED ALONG THE PERIMETER OF A PROJECT AS A CHECK DAM IN ORLEND DITCHES AND AROUND TEMPORARY STOCKPILES.
    - 1.4. WATTLES CAN BE STAKED TO THE GROUND USING WILLOW CUTTINGS FOR ACCORD REVEGETATION.
    - 1.5. RILLING CAN OCCUR BENEATH AND BETWEEN WATTLES IF NOT PROPERLY ENTRENCHED, ALLOWING WATER TO PASS BELOW AND BETWEEN WATTLES.
  2. DESIGN AND INSTALLATION SPECIFICATIONS
    - 2.1. IT IS CRITICAL THAT WATTLES ARE INSTALLED PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE CONTOUR.
    - 2.2. NARROW TRENCHES SHOULD BE DUG ACROSS THE SLOPE ON CONTOUR, TO A DEPTH OF 3 TO 5 INCHES ON CLAY SOILS AND SOILS WITH GRADUAL SLOPES, ON LOOSE SOILS, STEEP SLOPES, AND DURING HIGH RAINFALL EVENTS, THE TRENCHES SHOULD BE DUG TO A DEPTH OF 6 TO 7 INCHES, OR 1/2 TO 2/3 OF THE THICKNESS OF THE WATTLE.
    - 2.3. START CONSTRUCTION OF TRENCHES AND INSTALLING WATTLES FROM THE BASE OF THE SLOPE AND WORK UP HILL. EXCAVATED MATERIAL SHOULD BE SPREAD EVENLY ALONG THE UP HILL SLOPE AND COMPACTED USING HAND TAMING OR OTHER METHOD. CONSTRUCT TRENCHES AT CONTOUR INTERVALS OF 3 TO 30 FEET APART DEPENDING ON THE STEEPNESS OF THE SLOPE, SOIL TYPE, AND RAINFALL. THE STEEPER THE SLOPE THE CLOSER TOGETHER THE TRENCHES SHOULD BE CONSTRUCTED. VERTICAL DISTANCE BETWEEN WATTLES IS NOT TO EXCEED 10 FEET.
    - 2.4. INSTALL THE WATTLES SNUGLY INTO THE TRENCHES AND ABUT TIGHTLY END TO END. DO NOT OVERLAP THE ENDS.
    - 2.5. INSTALL STAKES AT UP HILL END OF THE WATTLE AND AT 4 FOOT CENTERS ALONG THE ENTIRE LENGTH OF THE WATTLE.
    - 2.6. IF REQUIRED, INSTALL PILOT HOLES FOR THE STAKES USING A STRAIGHT BAR TO DRIVE HOLES THROUGH THE WATTLE AND INTO THE SOIL.
    - 2.7. AT A MINIMUM, WOODEN STAKES SHOULD BE APPROXIMATELY 3/4 X 3/4 X 24 INCHES. WILLOW CUTTINGS OR 3/8-INCH REBAR CAN ALSO BE USED FOR STAKES.
    - 2.8. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE, LEAVING 2 TO 3 INCHES OF THE STAKE PROTRUDING ABOVE THE WATTLE.
  3. MAINTENANCE STANDARDS
    - 3.1. INSPECT WATTLES PRIOR TO FORECASTED RAIN, DAILY DURING EXTENDED RAIN EVENTS, AFTER RAIN EVENTS, WEEKLY DURING THE WET SEASON, AND AT TWO WEEK INTERVALS AT ALL OTHER TIMES OF THE YEAR.
    - 3.2. REPAIR OR REPLACE SPLIT, TORN, RAVELING OR SLUMPING WATTLES.
    - 3.3. REMOVE SEDIMENT ACCUMULATIONS WHEN EXCEEDING 1/2 THE HEIGHT BETWEEN THE TOP OF THE WATTLE AND THE GROUND SURFACE.

UNLESS OTHERWISE NOTED, DRAWING IS NOT TO SCALE (NTS)

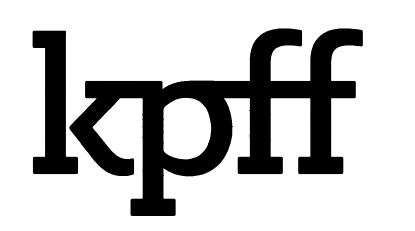
	PUBLIC WORKS DEPARTMENT	STRAW WATTLES	STD. PLAN - 213.40	ATTORNEY:	DATE:
			GAZ	9/28/2018	9:45 AM

**STRAW WATTLE**  
NTS

2

1507 Belmont Ave, Suite 200  
Seattle, Washington 98122  
206.323.9932

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Revisions:  
No. Date Description

**CIVIL CONSTRUCTION PERMIT**  
10/17/2024

**Renton Market & Piazza**  
233 Burnett Ave S.  
Renton, WA 98057

Project No.:

AHJ Project No.:

Scale:

Sheet contents:

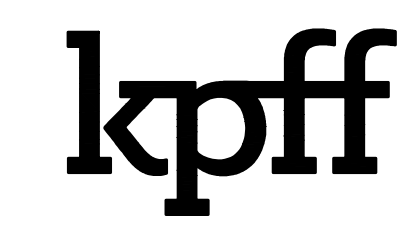
**DEMO AND TESC DETAILS**

Sheet:



**C2.50**

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Sheet contents:  
**CIVIL MARKET IMPROVEMENT PLAN**

Sheet:

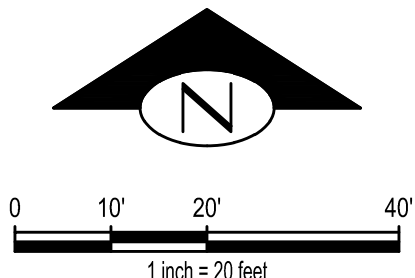
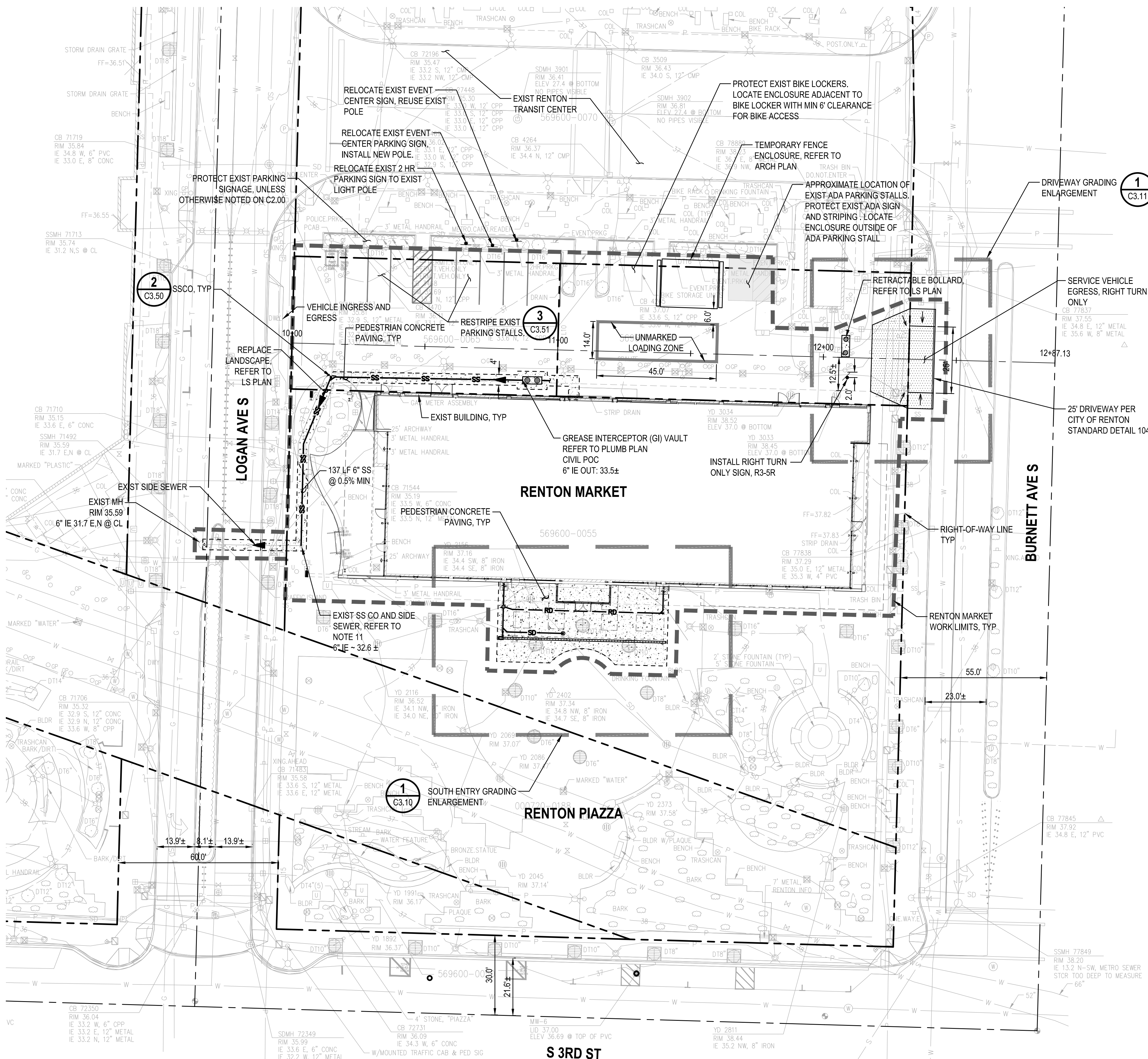
**C3.00**

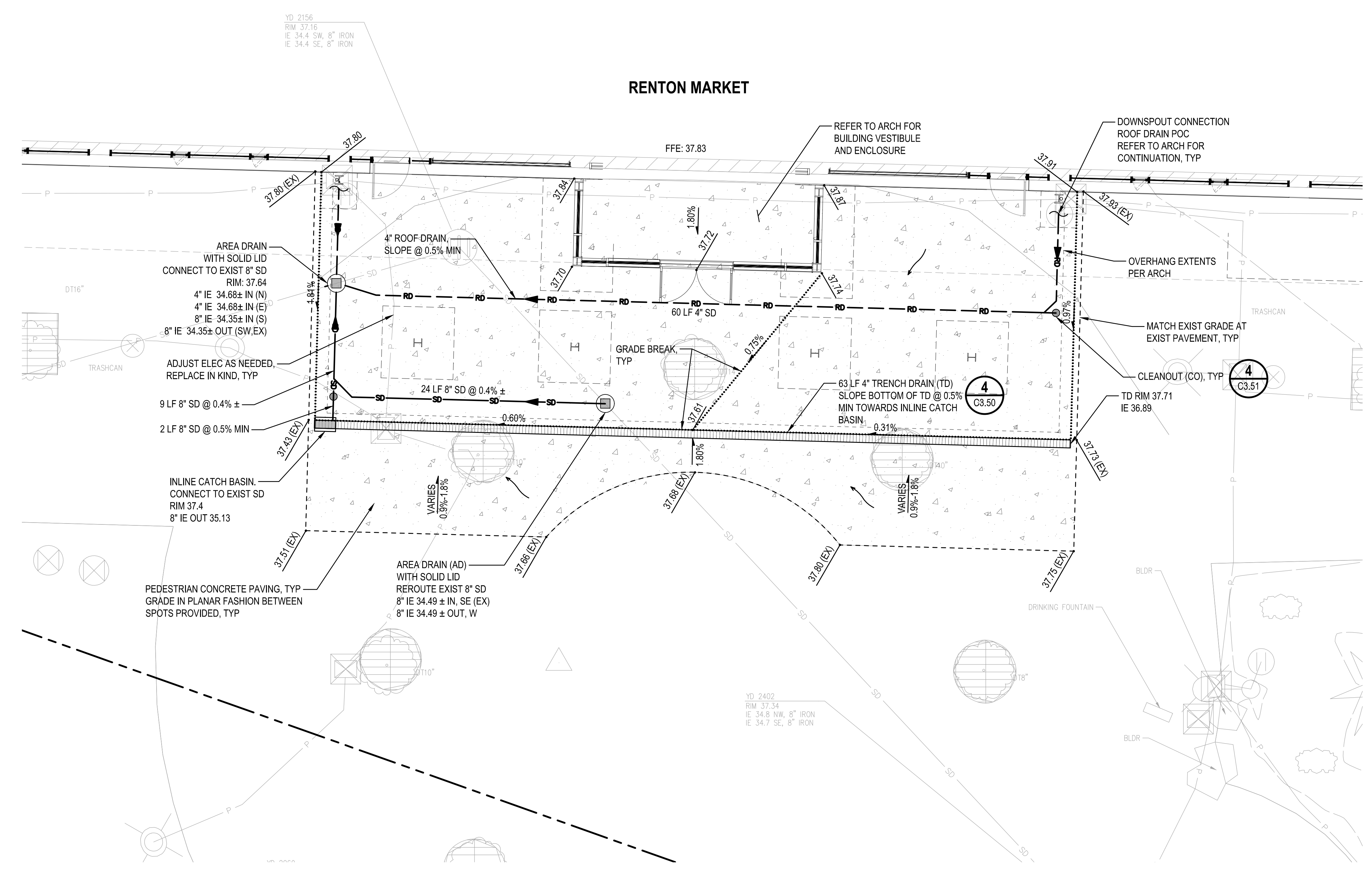
**LEGEND:**

- RIGHT-OF-WAY LINE
- SANITARY SEWER PIPE (SS)
- SANITARY SEWER CLEAOUT (SSCO)
- PEDESTRIAN CONCRETE PAVEMENT, REFER TO NOTE 5 AND 6
- VEHICULAR CONCRETE PAVEMENT, REFER TO NOTE 5
- LANDSCAPE, REFER TO LS PLANS
- RETRACTABLE BOLLARD, REFER TO LS PLANS

**NOTES:**

1. REFER TO C1.00 AND C1.01 FOR GENERAL NOTES.
2. CONTRACTOR SHALL CONFIRM POC'S PRIOR TO CONSTRUCTION WHEN CONNECTING TO EXISTING SYSTEMS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
3. PRIOR TO DEMOLITION, CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES TO REMAIN WITHIN AND ADJACENT TO LIMIT OF WORK.
4. ALL EXISTING PAVEMENT STRIPING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND. PRODUCTS SHALL BE PER CITY OF RENTON PUBLIC WORKS DEPARTMENT STANDARD PLANS AND SPECIFICATIONS, AND WSDOT STANDARD PLANS AND SPECIFICATIONS.
5. FULL DEPTH PAVEMENT REPLACEMENT, AND TRENCH RESTORATION AT UTILITY CUTS, SHALL BE PER CITY OF RENTON STD DETAILS. PAVEMENT SECTION SHALL BE PER CITY OF RENTON STD DETAILS, OR MATCH EXISTING WHICHEVER IS GREATER. MATCH EXISTING PAVEMENT MATERIAL PER ASSOCIATED STANDARD DETAILS (I.E. ASPHALT STD. PLAN 110.1, ETC.)
6. PEDESTRIAN CONCRETE:  
4" CONCRETE  
6" CSBC  
REFER TO LANDSCAPE FOR CONCRETE SCORING, COLOR, AND FINISHES.
7. STORM AND SANITARY SEWER, STRUCTURES AND PIPES SHALL BE PER CITY OF RENTON PUBLIC WORKS DEPARTMENT STANDARD PLANS AND SPECIFICATIONS, AND WSDOT STANDARD PLANS AND SPECIFICATIONS.
8. THE RENTON MARKET PROJECT IS REQUIRED TO MEET STORMWATER REQUIREMENTS PER THE 2022 CITY OF RENTON SURFACE WATER DESIGN MANUAL (RSWDM).
  - 8.1. FLOW CONTROL: THE PROJECT PROPOSES LESS THAN 5,000 SQUARE FEET OF NEW PLUS REPLACED IMPERVIOUS SURFACE, AND LESS THAN 3/4 ACRES OF NEW PERVIOUS SURFACE, THEREFORE FLOW CONTROL IS NOT REQUIRED.
  - 8.2. WATER QUALITY: THE PROJECT PROPOSES LESS THAN 5,000 SQUARE FEET OF NEW PLUS REPLACED IMPERVIOUS SURFACE (PGIS), AND LESS THAN 3/4 ACRES OF POLLUTANT GENERATION PERVIOUS SURFACE (PGPS), THEREFORE WATER QUALITY IS NOT REQUIRED.
  - 8.3. ON-SITE BMPs: THE PROJECT PROPOSES MORE THAN 2,000-SF OF NEW PLUS IMPERVIOUS SURFACE, THEREFORE ON-SITE STORMWATER MANAGEMENT (OSM) IS REQUIREMENT. ALL AVAILABLE OSM BMP'S WERE EVALUATED AND ARE NOT FEASIBLE FOR THE SITE.
  - 8.4. THE PROJECT LOCATED IN AN AQUIFER PROTECTION AREA, THEREFORE STORMWATER MITIGATION FACILITIES SHALL NOT INFILTRATE AND SHALL BE COLLECTED VIA STORMWATER CONVEYANCE AND DISCHARGE TO THE CITY MAIN.
9. GREASE INTERCEPTOR SIZE AND VAULT PER MECHANICAL.
10. EXISTING SS CO ELEVATION TO BE FIELD VERIFIED. IF EXISTING SS CO IS AT AN ELEVATION THAT PROVIDES POSITIVE DRAINAGE OUT OF THE SITE (EXISTING SS PIPE MUST BE AT MIN 2.0% OR APPROVED BY THE CITY) AND ALLOWS FOR THE ONSITE GREASE INTERCEPTOR PIPING TO BE INSTALLED AT A 0.5% MINIMUM SLOPE, THEN EXISTING SS MAY BE USED.
11. TRENCH DRAIN SHALL BE ACO KLASSIKDRAIN OR APPROVED EQUIVALENT. INSTALL TRENCH DRAIN PER MANUFACTURER'S SPECIFICATIONS, TYP.
12. 8" STORM DRAIN AND 6" SANITARY SEWER PIPE SHALL BE PVC PLASTIC PIPE ASTM SPEC. D3034 OR APPROVED EQUIVALENT.
13. ALL REGULATORY SIGNAGE AND PAVEMENT STRIPING SHALL CONFORM TO MUTCD SPECIFICATIONS.



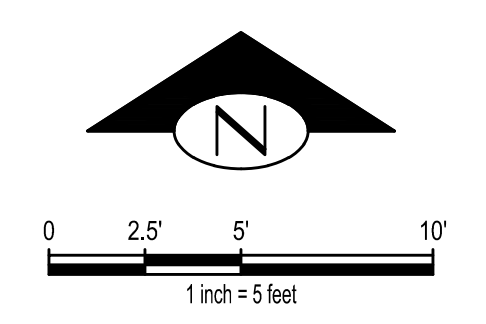


**SOUTH VESTIBULE GRADING ENLARGEMENT**

1

**NOTES:**

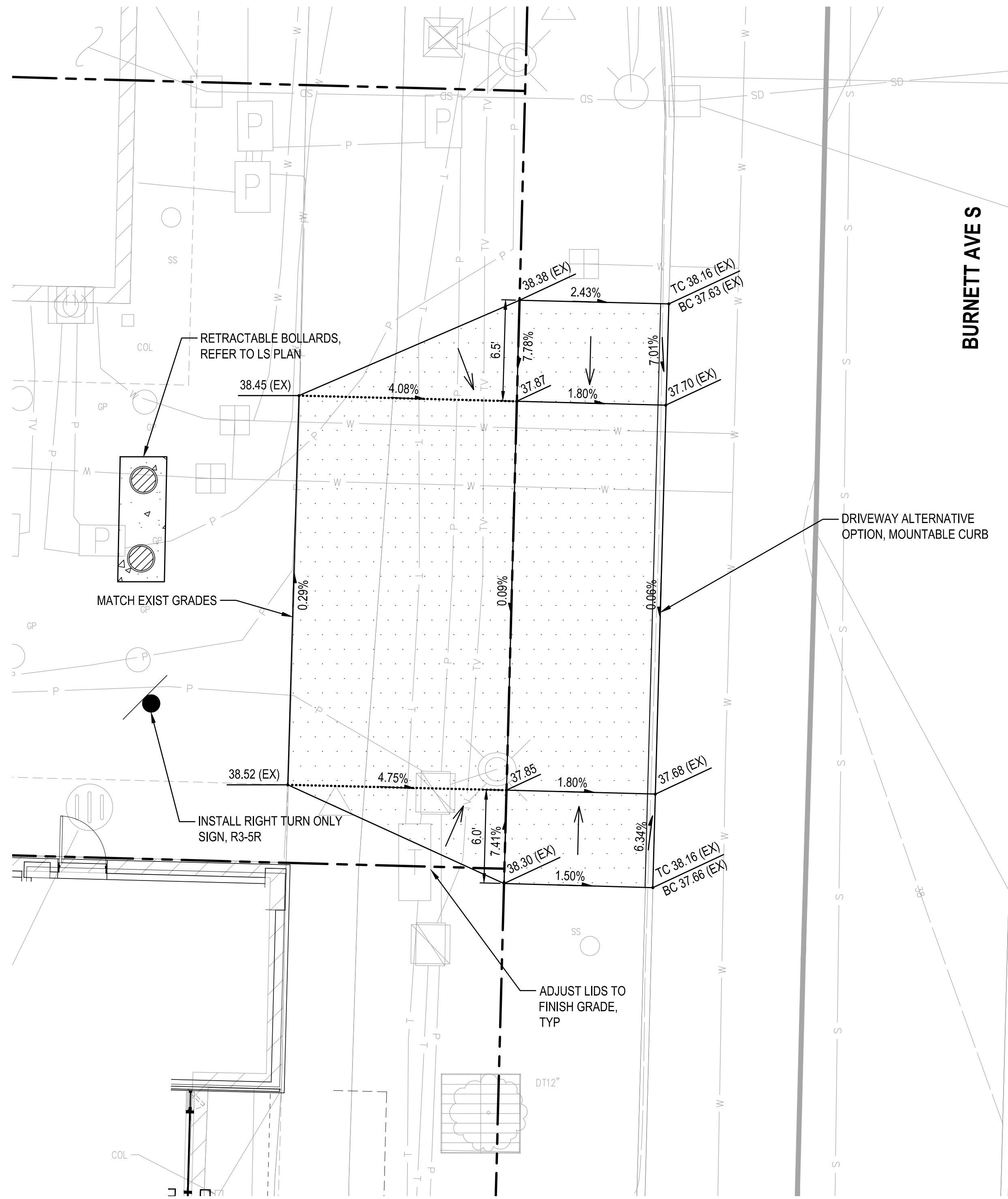
- REFER TO SHEET C3.00 FOR NOTES AND LEGEND.



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HeatherM

Oct 15, 2024 - 3:33pm



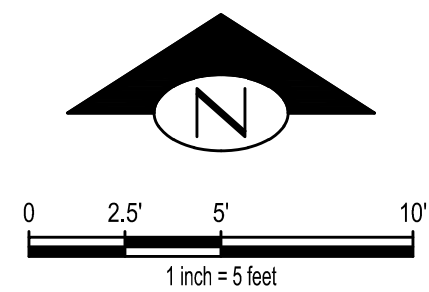
BURNETT AVE S

**ALLEY DRIVEWAY GRADING ENLARGEMENT**

1

**NOTES:**

1. REFER TO SHEET C3.00 FOR NOTES AND LEGEND.



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**kpff**

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Revisions:  
No. Date Description

**CIVIL  
CONSTRUCTION  
PERMIT**  
10/17/2024

**Renton Market  
& Piazza**  
233 Burnett Ave S.  
Renton, WA 98057

Project No.:

AHJ Project No.:

Scale:

Sheet contents:  
**GRADING  
ENLARGEMENT**

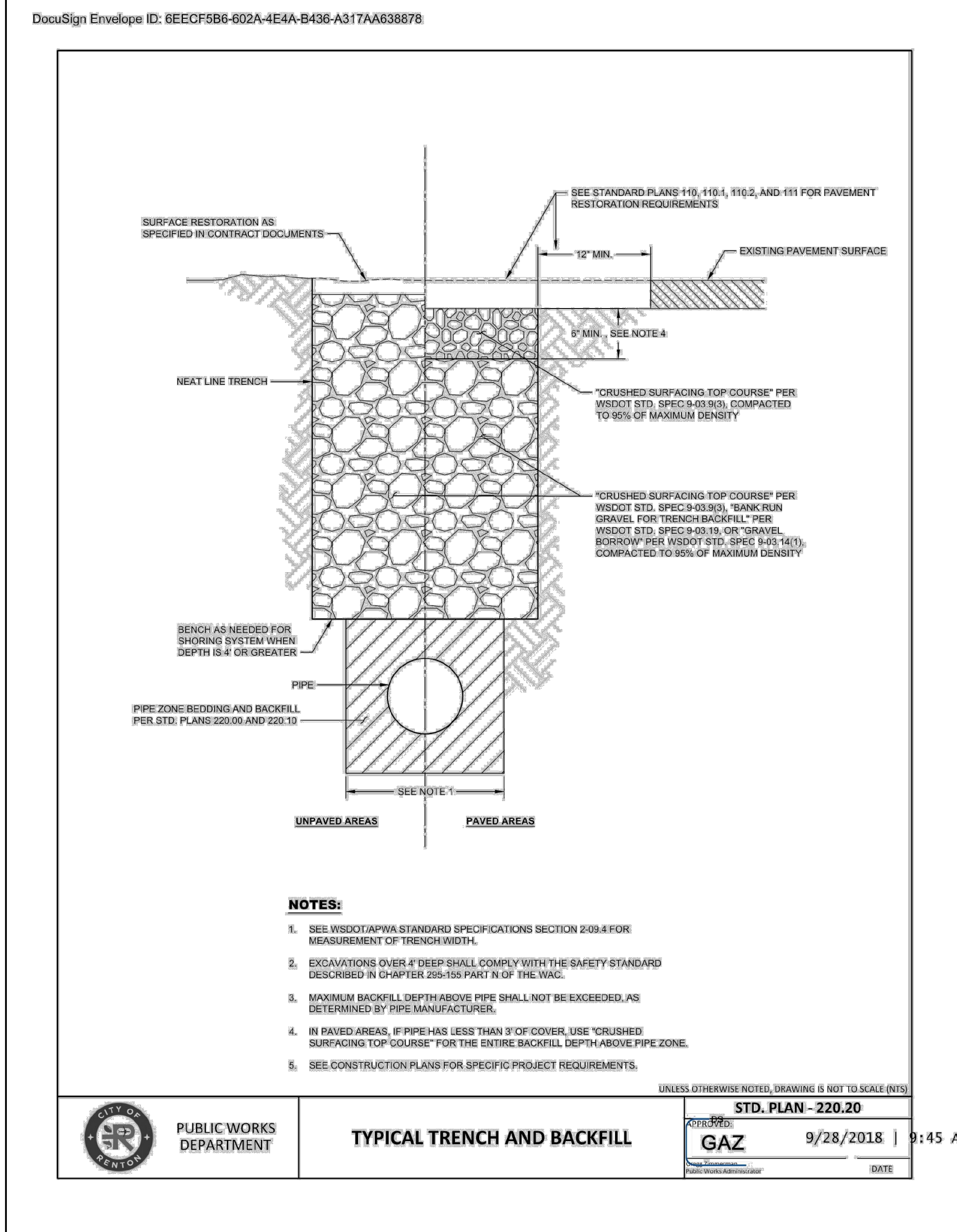
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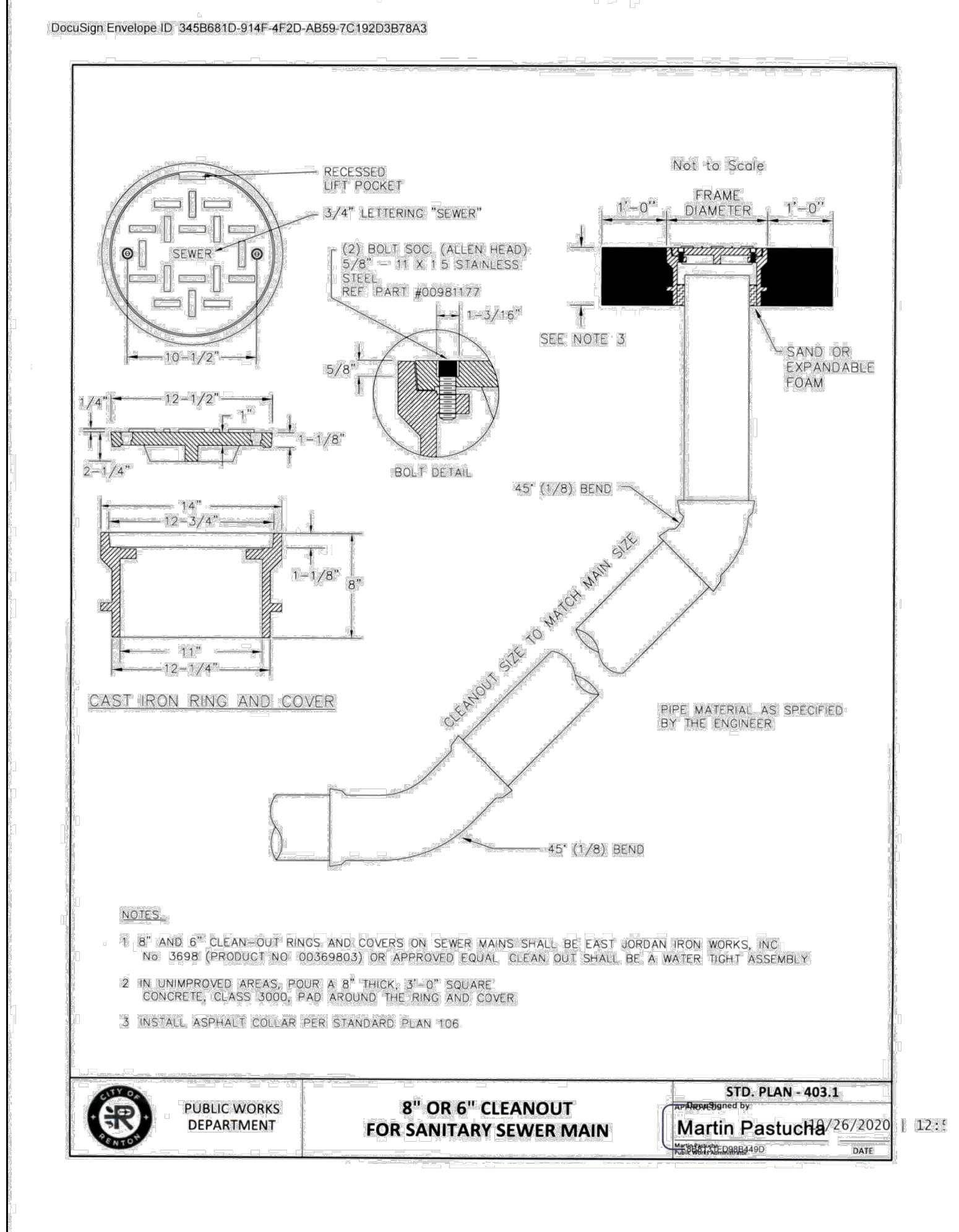
HeatherM

Oct 15, 2024 - 3:33pm



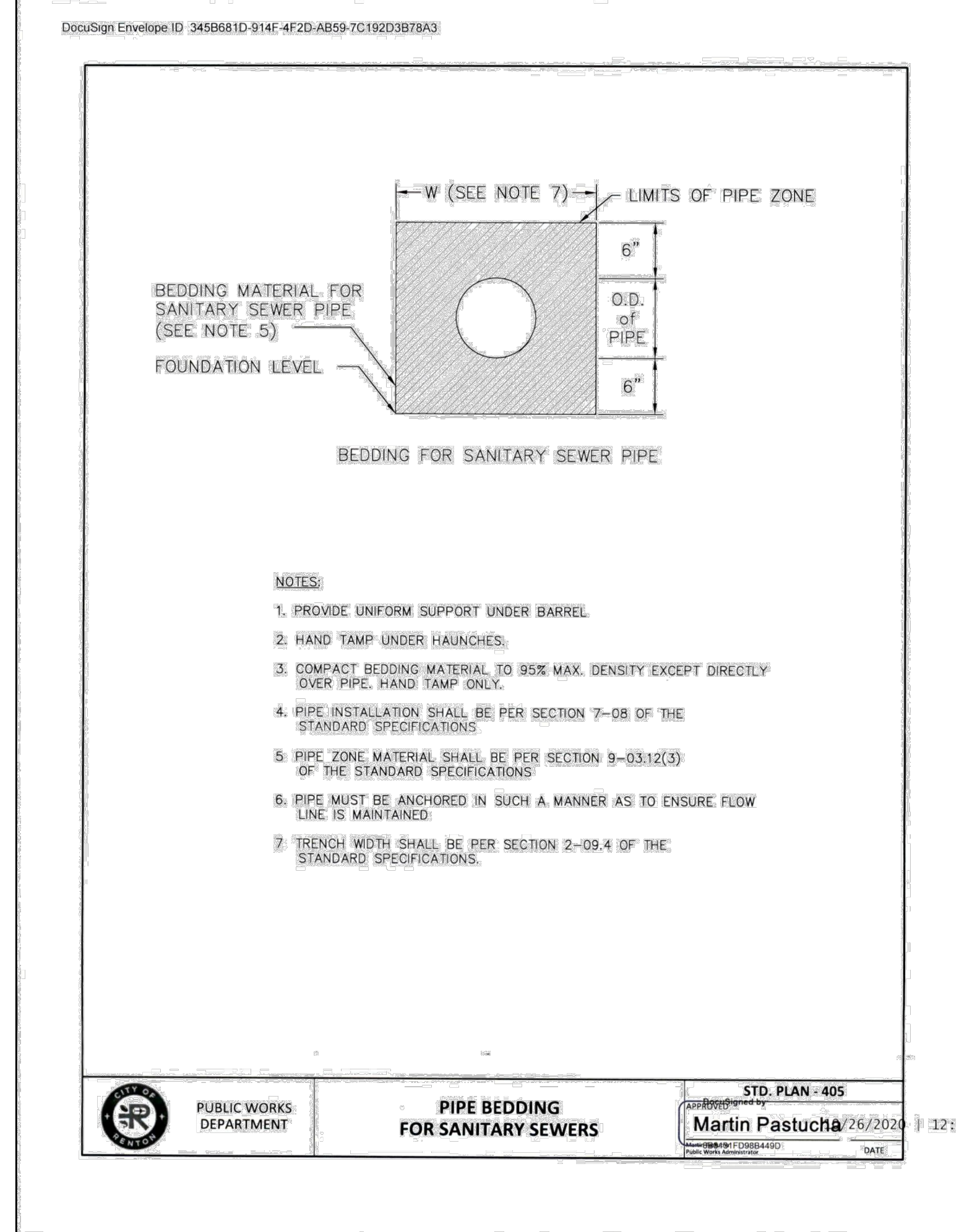
TYPICAL TRENCH AND BACKFILL

1



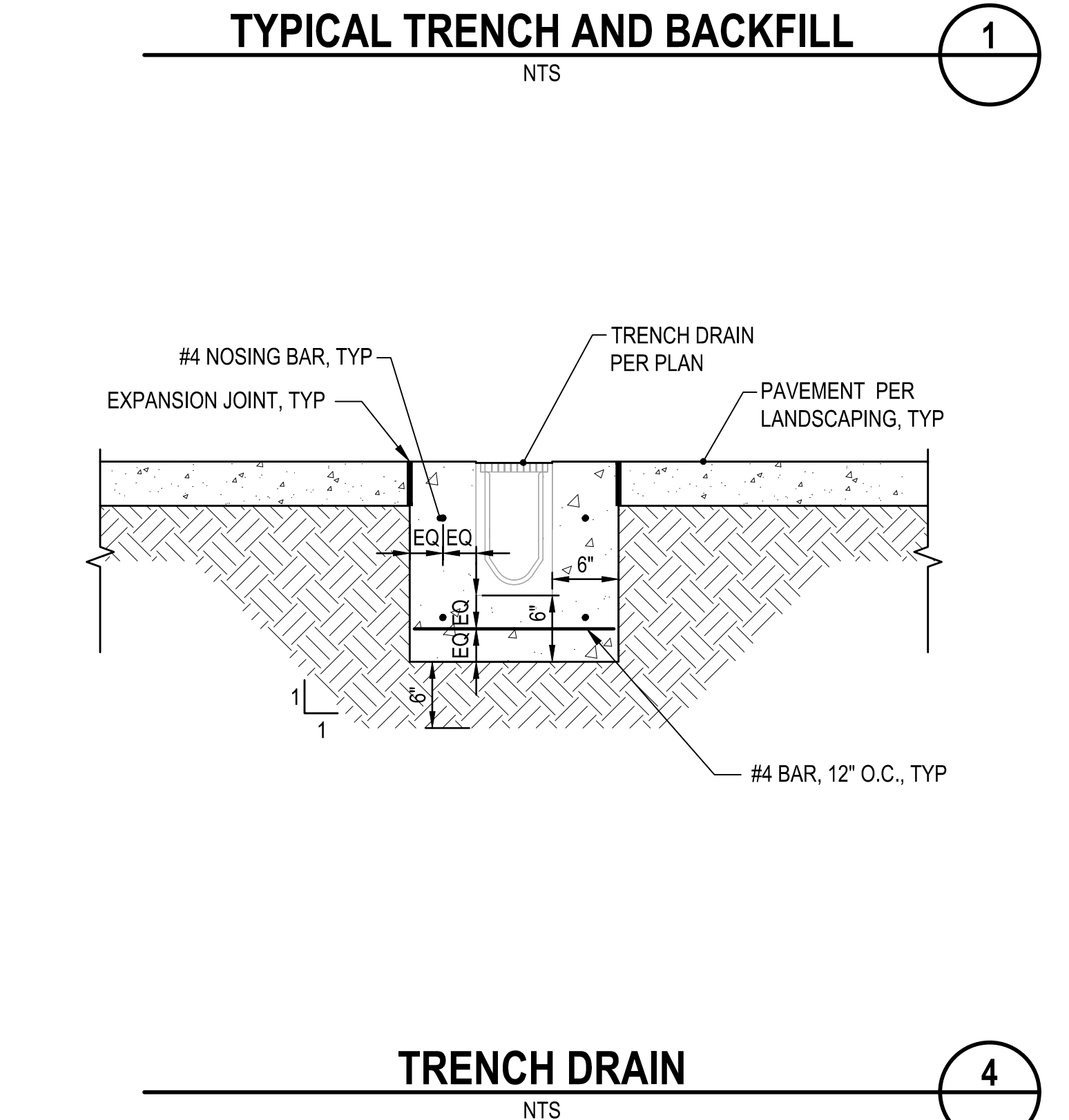
8" OR 6" CLEANOUT FOR SANITARY SEWER MAIN

2



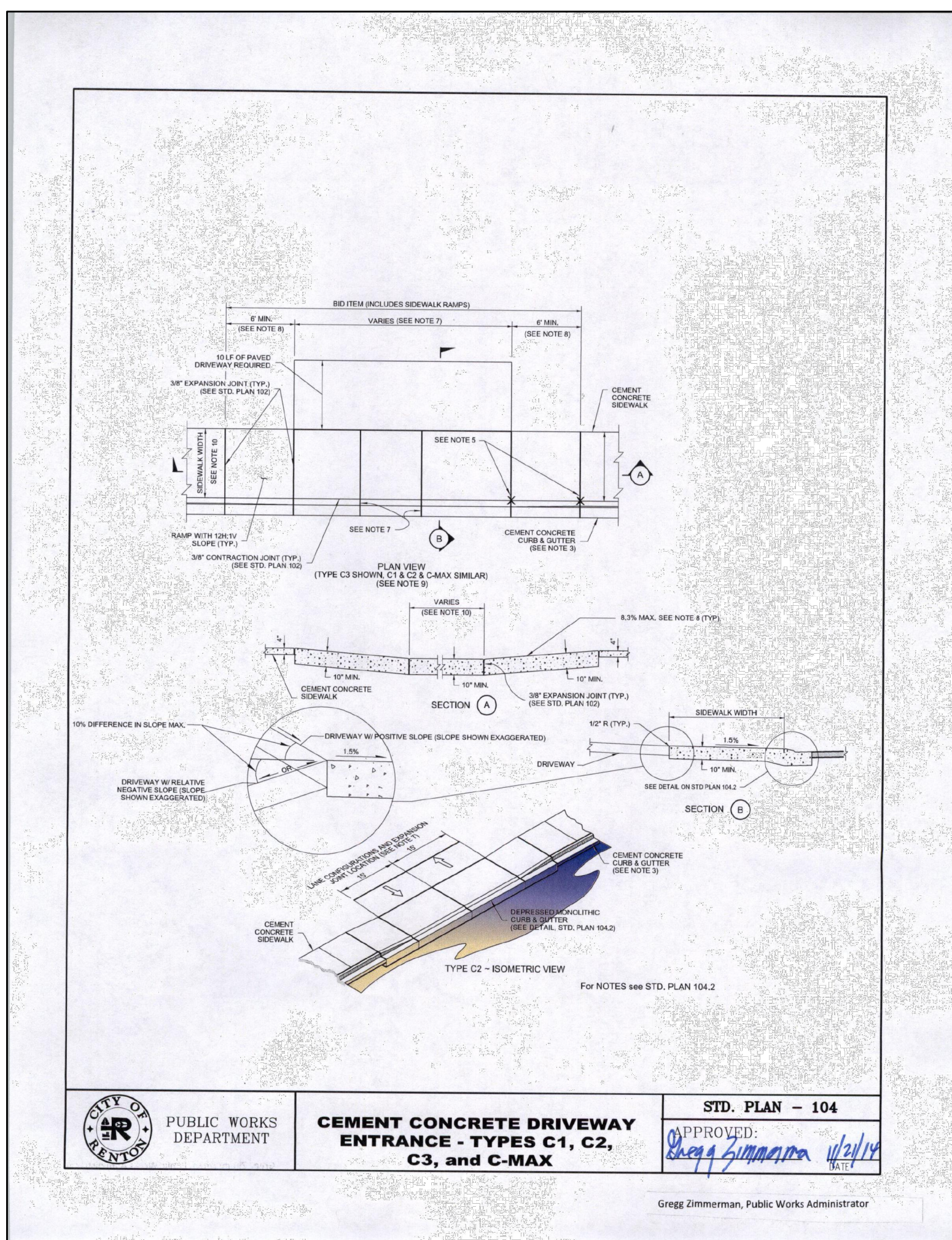
PIPE BEDDING FOR SANITARY SEWERS

3



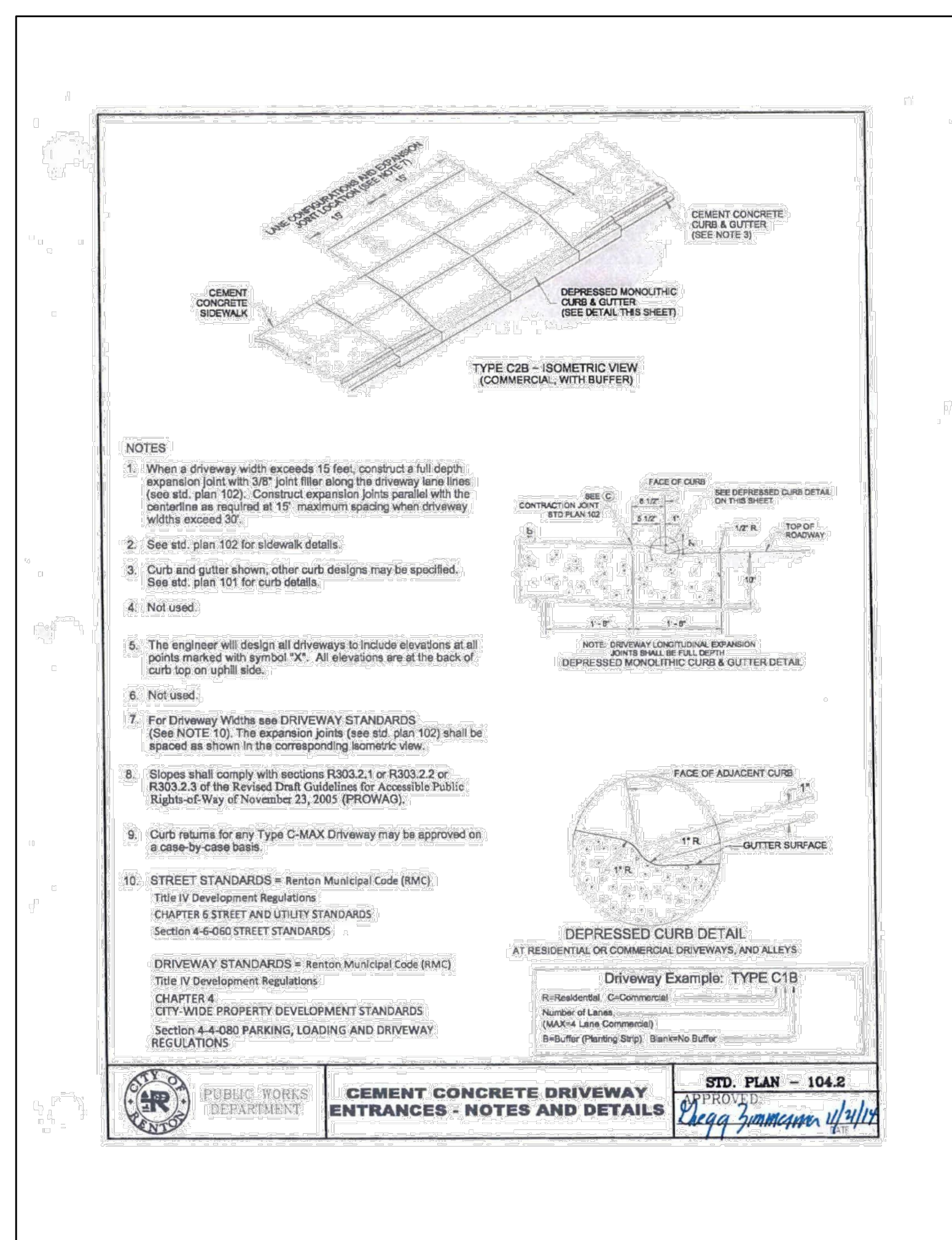
TRENCH DRAIN

4



CEMENT CONCRETE DRIVEWAY ENTRANCE

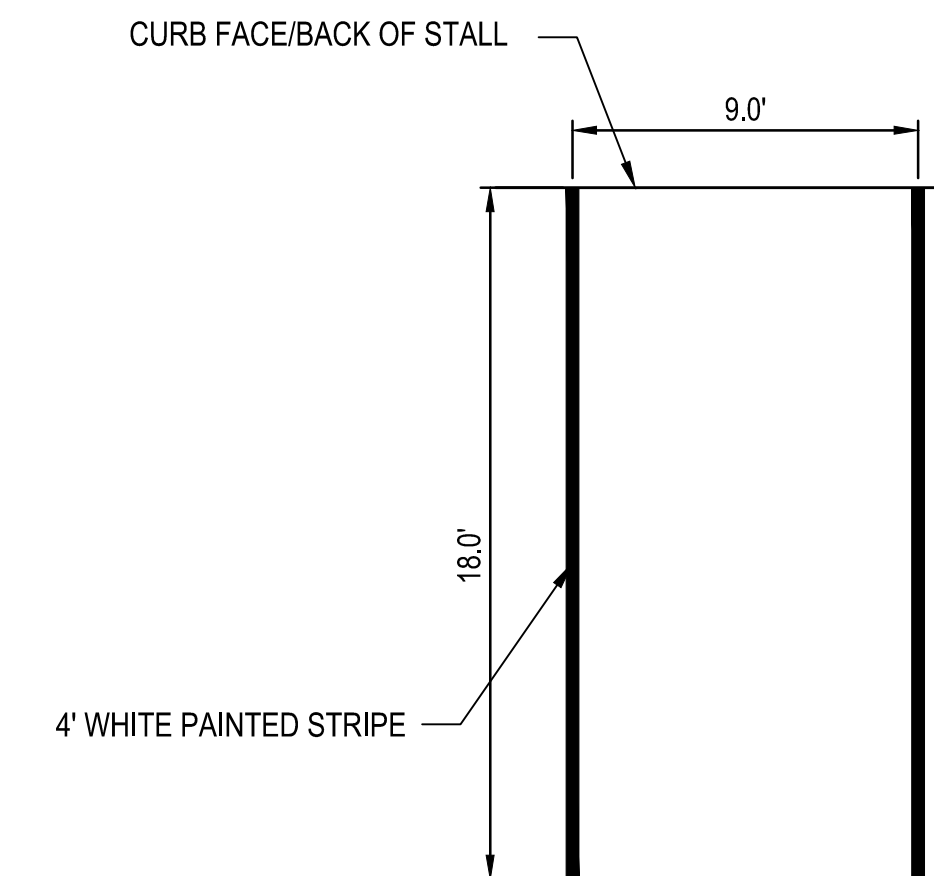
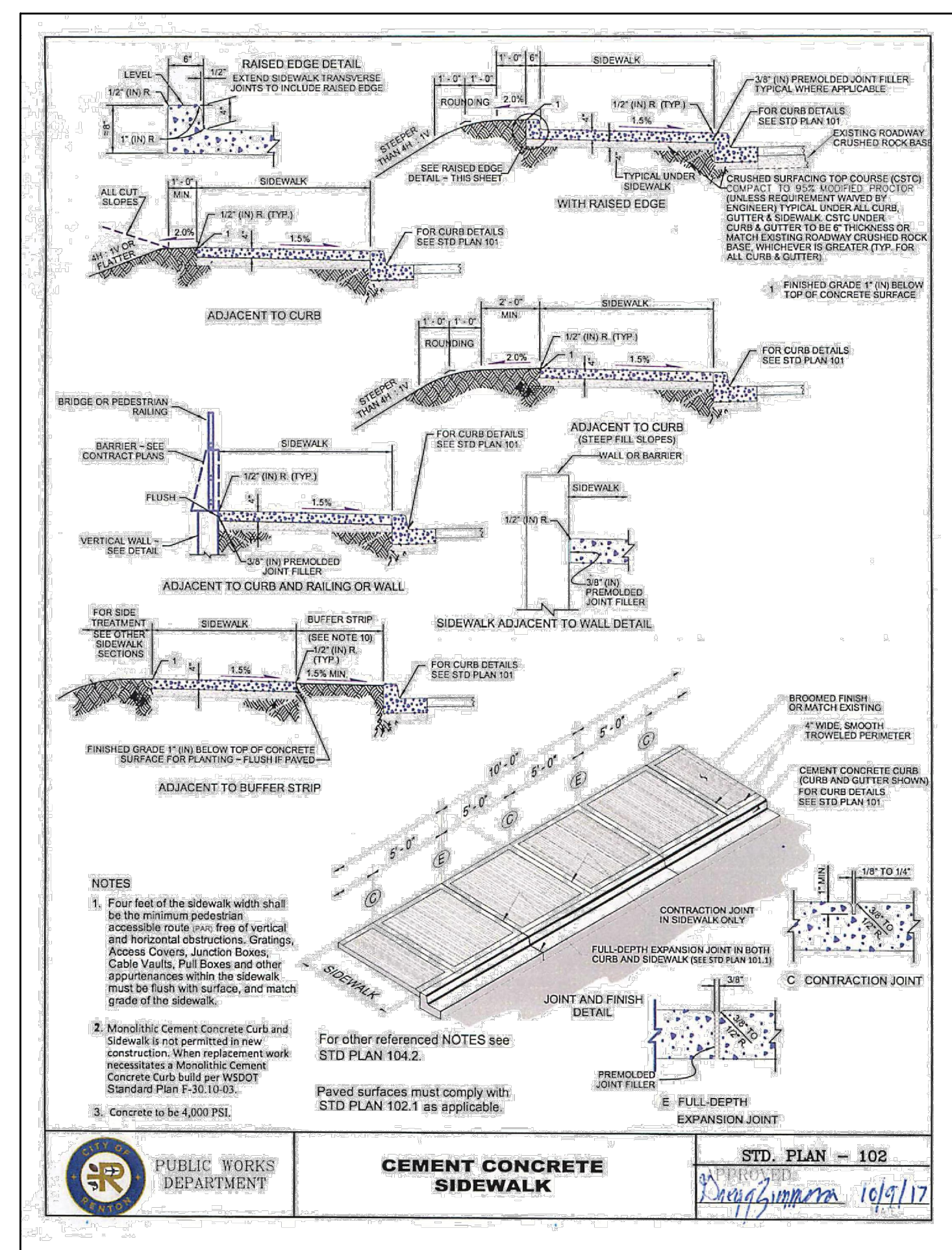
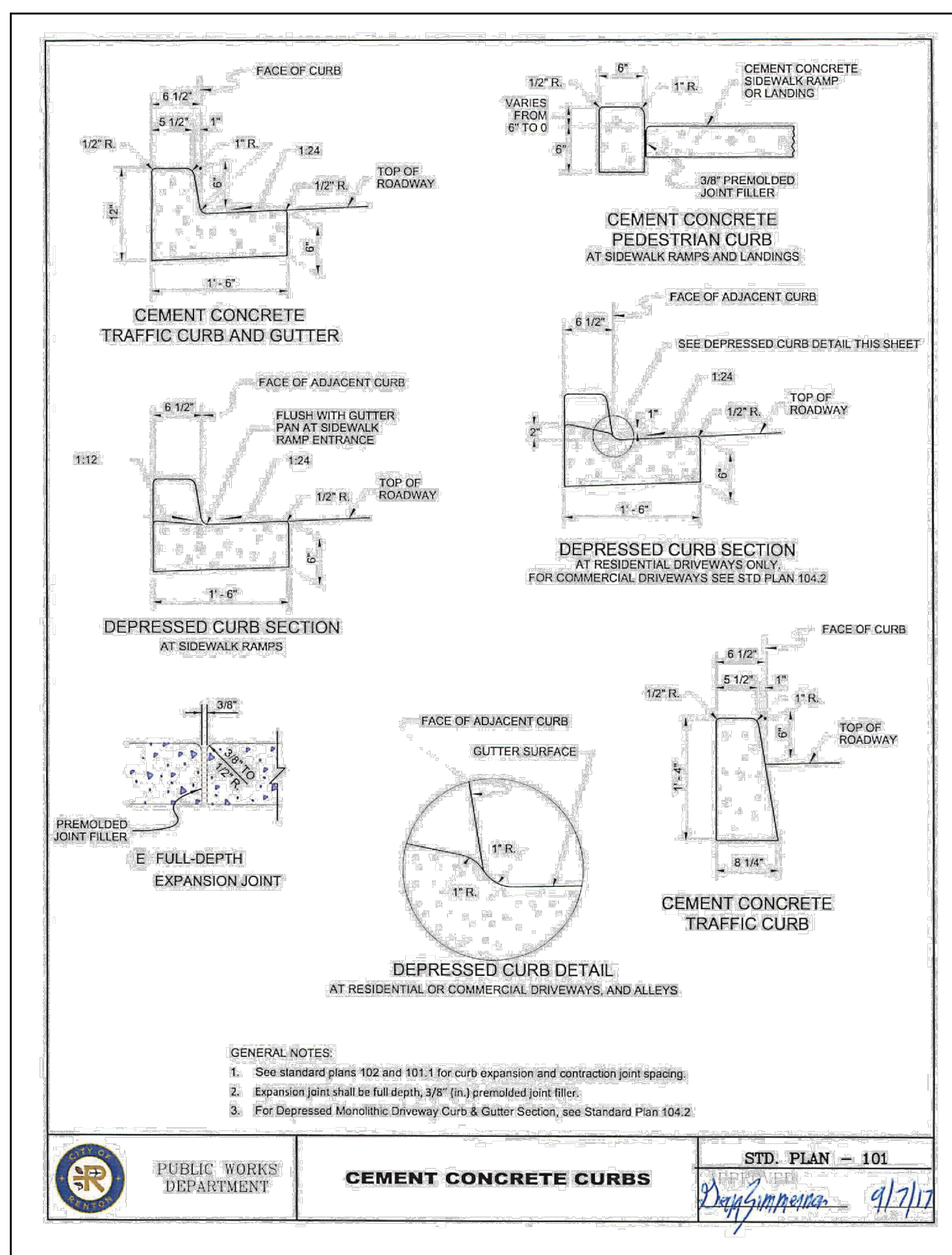
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CEMENT CONCRETE DRIVEWAY NOTES AND DETAILS

6

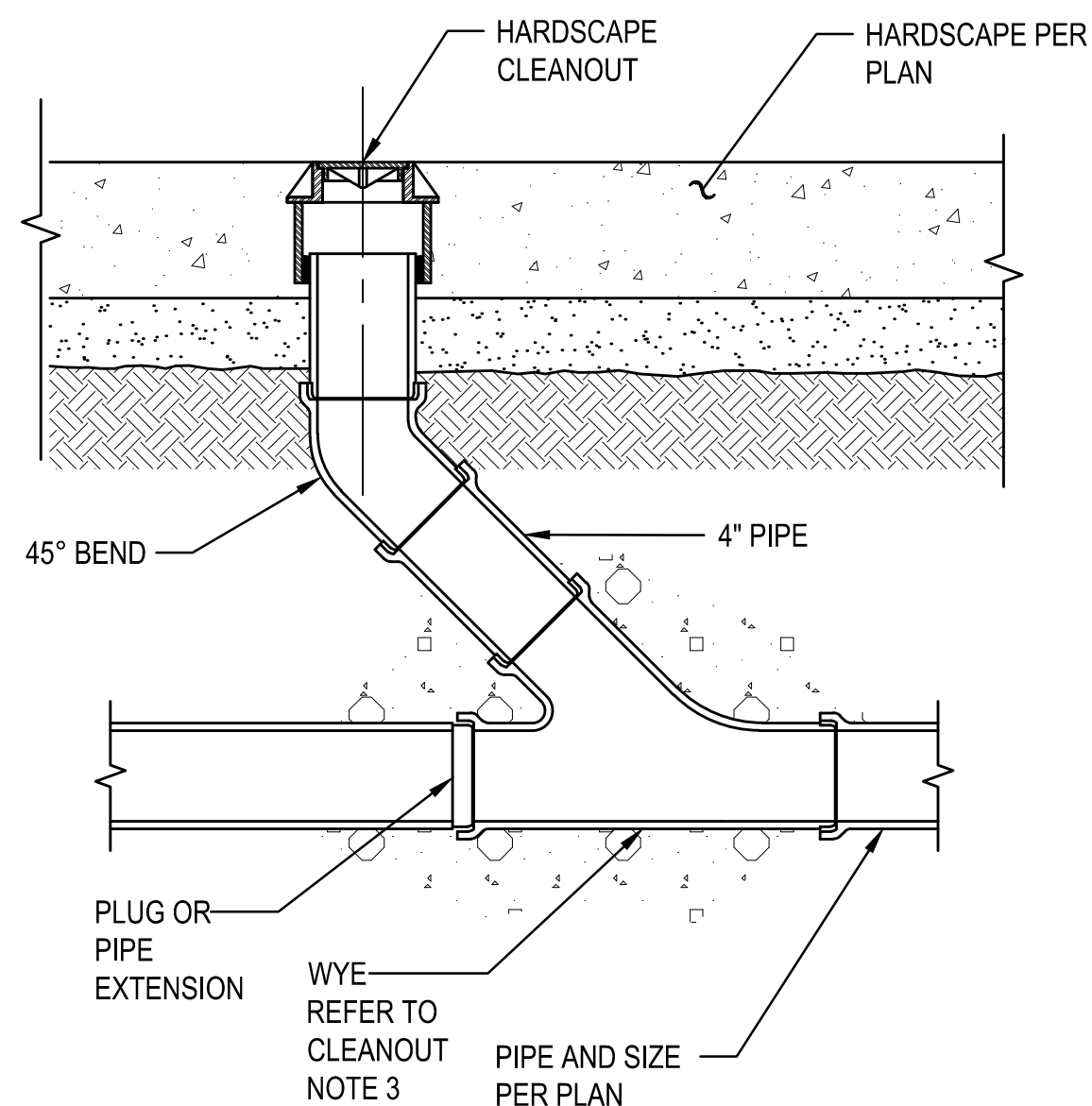
Oct 15, 2024 - 3:34pm  
Z:\300001-230999\300622 Renton Pavilion\_CADD\Design\RF-C3.50-CIV-DETL.dwg  
HeathelM



**CEMENT CONCRETE CURBS** ①  
 NTS

**CEMENT CONCRETE SIDEWALK** ②  
 NTS

**STANDARD PARKING STALL** ③  
 NTS  
 C3.00



**STORM DRAIN CLEANOUT** ④  
 NTS  
 C3.10

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**CIVIL IMPROVEMENT DETAILS**

Sheet:

**C3.51**



# Appendix E

FEMA Flood Map

**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **foodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **foodways** were computed at cross sections and interpolated between cross sections. The foodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

**Provisionally Accredited Levee Notes to Users:** Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations by November 01, 2018. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicate the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/national-flood-insurance-program>.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 10. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, N/NGS12  
National Geodetic Survey  
SSMC-3, #9202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

**Base Map** information shown on the FIRM was derived from multiple sources. Base map files were provided in digital format by King County GIS, WA DNR, WSDOT, and Pierce County GIS. This information was compiled at scales of 1:12,000 to 24,000 during the time period of 1994-2012.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

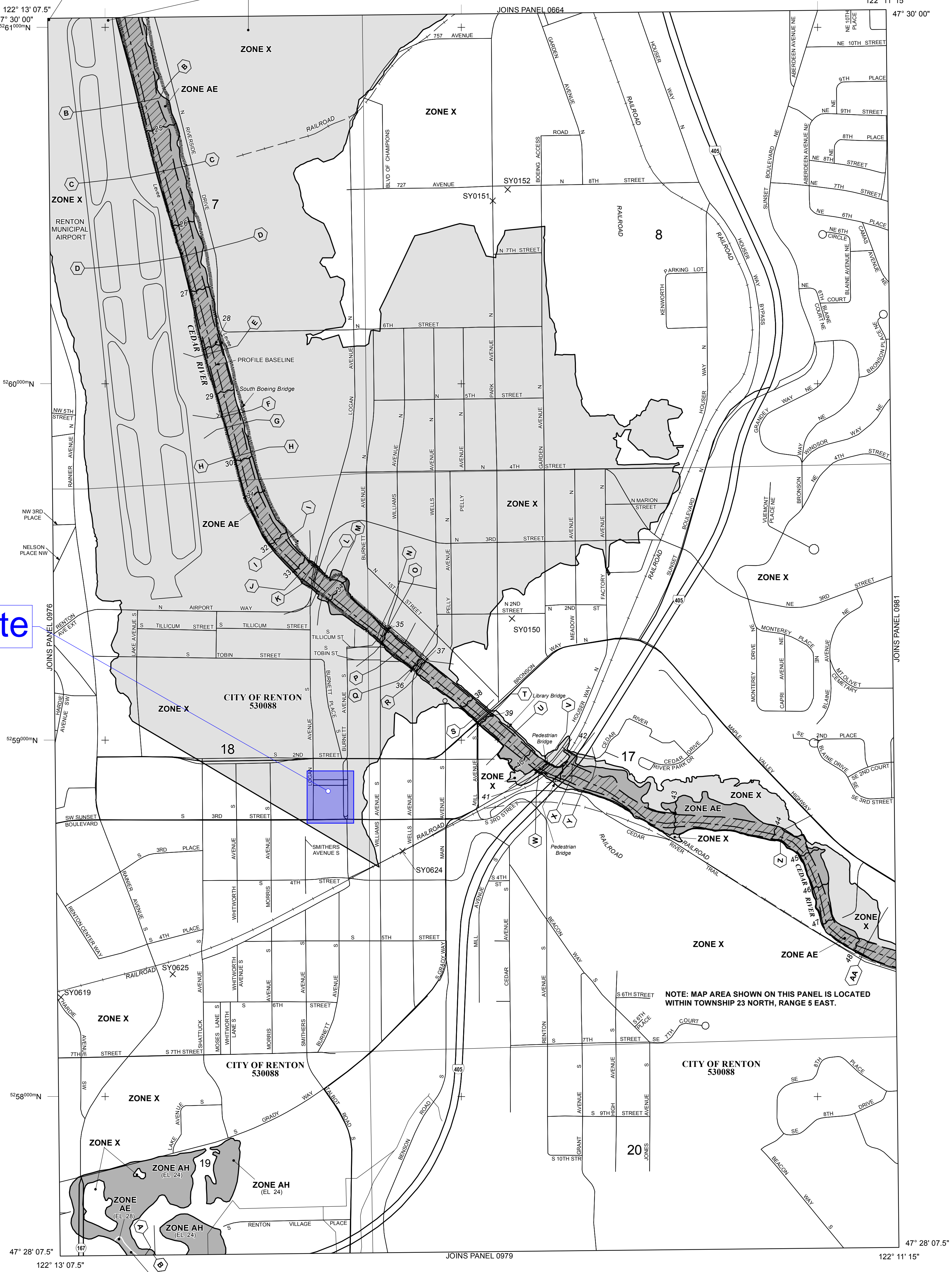
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/nfip>.

King County  
Unincorporated Areas  
530071

NOTE: THIS AREA IS SHOWN AS BEING PROTECTED FROM THE 1-PERCENT-ANNUAL-CHANCE OR GREATER FLOOD HAZARD BY A LEVEE SYSTEM THAT HAS BEEN PROVISIONALLY ACCREDITED. OVERTOPPING OR FAILURE OF ANY LEVEE SYSTEM IS POSSIBLE. FOR ADDITIONAL INFORMATION SEE THE "PROVISIONALLY ACCREDITED LEVEE NOTE" IN NOTES TO USERS.



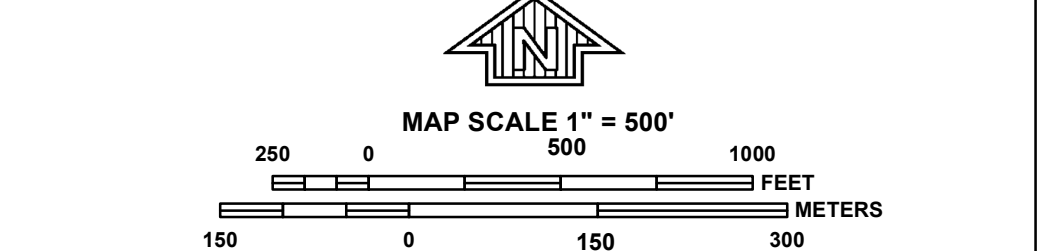
**Project Site**

**LEGEND**

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE AE** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decredited. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS**
- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- 513 (EL 987)
- Base Flood Elevation value where uniform within zone; elevation in feet\*

- \*Referenced to the North American Vertical Datum of 1988
- Cross section line
- Transect line
- 45° 02' 08", 93° 02' 12" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 8900000 N 1000-meter Universal Transverse Mercator grid values, zone 10
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M11.5 River Mile
- MAP REPOSITORIES Refer to Map Repositories list on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP September 29, 1989
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL May 15, 1995 - to update map format  
(Date of Revision) - to change Base Flood Elevations, to update corporate limits, to add roads and road names, to update the effects of wave action, to change Special Flood Hazard Areas, to change zone designations and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.  
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0977G**

**FIRM**  
FLOOD INSURANCE RATE MAP  
KING COUNTY,  
WASHINGTON  
AND INCORPORATED AREAS

**PANEL 977 OF 1700**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
KING COUNTY	530071	0977	G
RENTON, CITY OF	530088	0977	G

**PRELIMINARY**  
9/15/2017

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
53033C0977G  
**MAP REVISED**

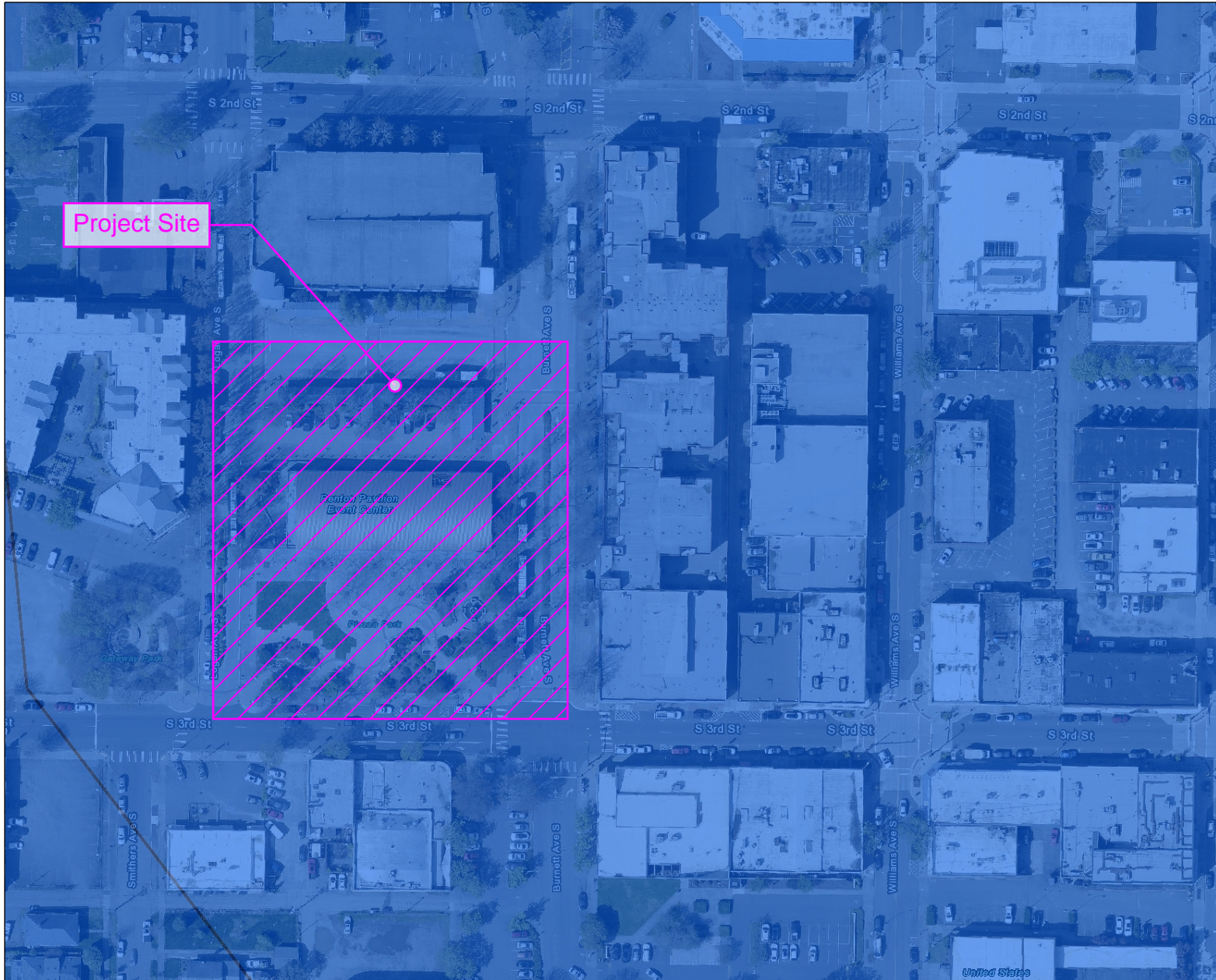
Federal Emergency Management Agency



# Appendix F

## Critical Areas Map

# Map Title



## Legend

### Wellhead Protection Area Zones

- Zone 1
- Zone 1 Modified
- Zone 2

### Environment Designations

- Natural
- Shoreline High Intensity
- Shoreline Isolated High Intensity
- Shoreline Residential
- Urban Conservancy

### Jurisdictions

#### Streams (Classified)

- S - Shoreline
- F - Fish
- Np - Non-Fish
- Ns - Non-Fish Seasonal
- Unclassified

### Wetlands

#### Streets

#### Points of Interest

#### Parks

#### Waterbodies

#### 2023.sid

- Red: Band\_1
- Green: Band\_2
- Blue: Band\_3

## Notes

None



136 0 68 136 Feet  
WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

All data, information, and maps are provided "as is" without warranty or any representation of accuracy, timeliness of completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the user.



# Appendix G

Conveyance Calculations

**Renton Market  
 KPFF 2300622  
 October 2024**

**Drainage Calculations - Runoff Calculation for Project Site**

**Description: 25yr and 100-yr Rational Method runoff calculations**

**Basin Name: Trench Drain and South Entry Vestibule Inline CB**  
**Basin Description: Total plaza area, existing and proposed paving contributing to Inline CB**

**Assumptions & Constants**

$Pr_{25yr}$ =	3.4	in. ( RSWDM Figure 3.2.1.D 25-yr/24-hr Isopluvial Map)
$Pr_{100yr}$ =	3.9	in. ( RSWDM Figure 3.2.1.D 100-yr/24-hr Isopluvial Map)
$ar_{25yr}$ =	2.66	(for 25-year event per RSWDM Table 3.2.1.B)
$br_{25yr}$ =	0.65	(for 25-year event per RSWDM Table 3.2.1.B)
$ar_{100yr}$ =	2.61	(for 100-year event per RSWDM Table 3.2.1.B)
$br_{100yr}$ =	0.63	(for 100-year event per RSWDM Table 3.2.1.B)
$T_c$ =	5	minutes (minimum $T_c$ per RSWDM pg. 3-12)
C impervious =	0.90	(per RSWDM Table 3.2.1.A for Pavement and Roofs)
C pervious =	0.25	(per RSWDM Table 3.2.1.A for Lawns)

**Runoff Calculations**

Area, impervious =	5,720 sf
Area, impervious =	0.13 ac
Area, pervious =	0 sf
Area, pervious =	0.00 ac
Area, total =	0.13 ac
C, average =	0.90
$i_{25-yr}$ =	0.93
$I_{25-yr}$ =	3.18 in/hr
<b>Total Flow, <math>Q_{25yr}</math> =</b>	<b>0.38 cfs</b>
$i_{100-yr}$ =	0.95
$I_{100-yr}$ =	3.69 in/hr
<b>Total Flow, <math>Q_{100yr}</math> =</b>	<b>0.44 cfs</b>

**Renton Market  
KPFF 2300622  
October 2024**

**Drainage Calculations - Runoff Calculation for Project Site**

**Description: 25yr and 100-yr Rational Method runoff calculations**

**Basin Name: Proposed 8" SD**  
**Basin Description: Area Contributing to Proposed 8" SD**

**Assumptions & Constants**

Pr <sub>25yr</sub> =	3.4	in. ( RSWDM Figure 3.2.1.D 25-yr/24-hr Isopluvial Map)
Pr <sub>100yr</sub> =	3.9	in. ( RSWDM Figure 3.2.1.D 100-yr/24-hr Isopluvial Map)
ar <sub>25yr</sub> =	2.66	(for 25-year event per RSWDM Table 3.2.1.B)
br <sub>25yr</sub> =	0.65	(for 25-year event per RSWDM Table 3.2.1.B)
ar <sub>100yr</sub> =	2.61	(for 100-year event per RSWDM Table 3.2.1.B)
br <sub>100yr</sub> =	0.63	(for 100-year event per RSWDM Table 3.2.1.B)
Tc =	5	minutes (minimum Tc per RSWDM pg. 3-12)
C impervious =	0.90	(per RSWDM Table 3.2.1.A for Pavement and Roofs)
C pervious =	0.25	(per RSWDM Table 3.2.1.A for Lawns)

**Runoff Calculations**

Area, impervious =	13,801 sf
Area, impervious =	0.32 ac
Area, pervious =	3,053 sf
Area, pervious =	0.07 ac
Area, total =	0.39 ac
C, average =	0.78
<i>i</i> <sub>25-yr</sub> =	0.93
<i>I</i> <sub>25-yr</sub> =	3.18 in/hr
<b>Total Flow, Q<sub>25yr</sub> =</b>	<b>0.96 cfs</b>
<i>i</i> <sub>100-yr</sub> =	0.95
<i>I</i> <sub>100-yr</sub> =	3.69 in/hr
<b>Total Flow, Q<sub>100yr</sub> =</b>	<b>1.12 cfs</b>

## 4" Trench Drain Minium Depth

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.500 %
Constructed Depth	9.8 in
Constructed Top Width	4.00 in
Discharge	0.38 cfs
Results	
Normal Depth	9.7 in
Flow Area	0.2 ft <sup>2</sup>
Wetted Perimeter	1.7 ft
Hydraulic Radius	1.3 in
Top Width	3.96 in
Critical Depth	6.9 in
Critical Slope	1.711 %
Velocity	2.14 ft/s
Velocity Head	0.07 ft
Specific Energy	0.88 ft
Froude Number	0.516
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	9.7 in
Critical Depth	6.9 in
Channel Slope	0.500 %
Critical Slope	1.711 %

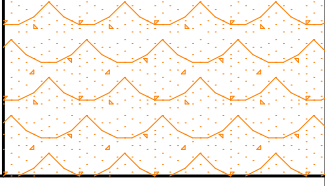
Trench Drain Basin 25yr flow: 0.38 cfs  
Trench drain min depth is 9.8",  
Therefore OK

## Proposed 8" SD Reroute

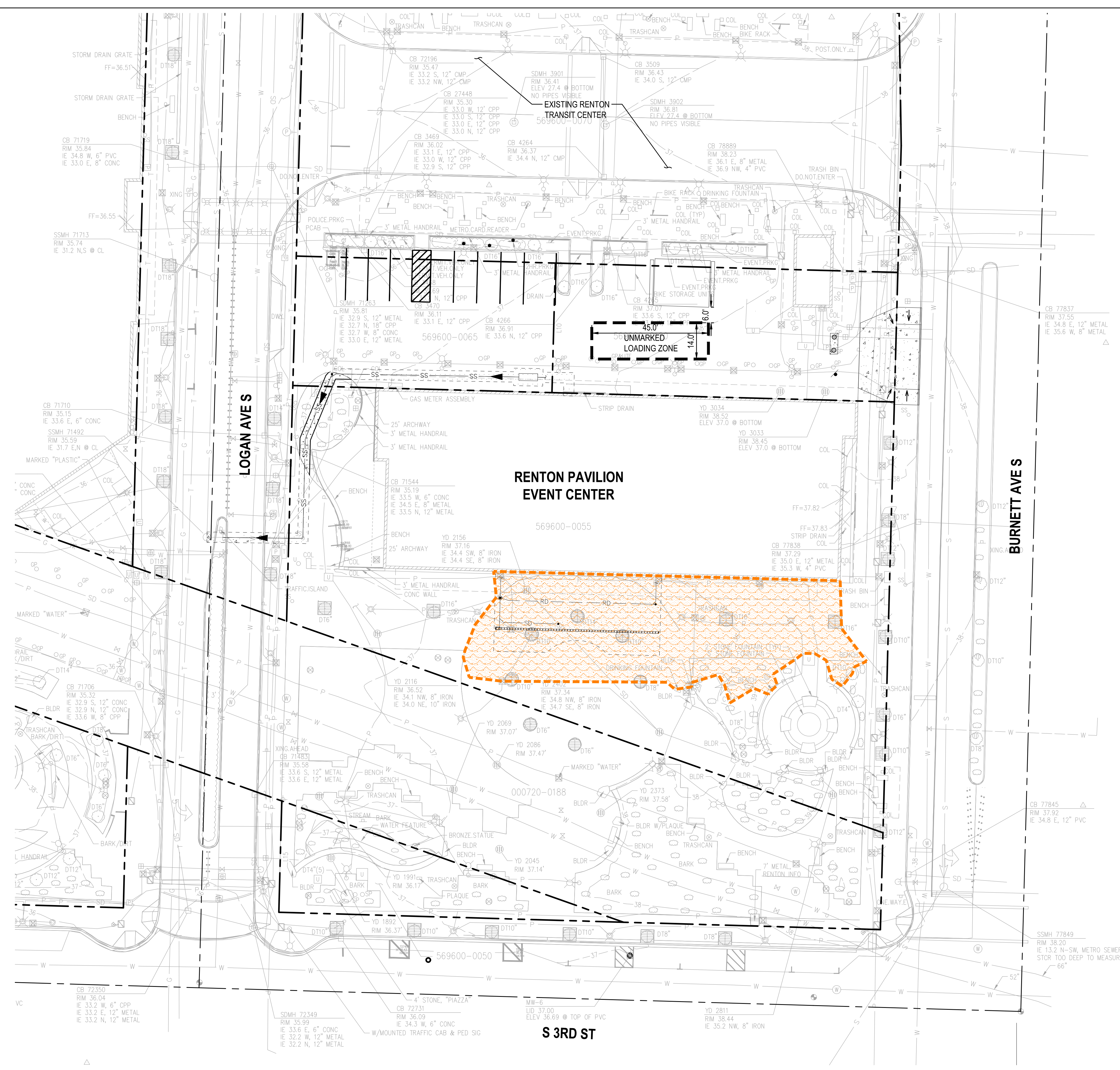
Project Description	
Friction Method	Manning Formula
Solve For	Discharge
Input Data	
Roughness Coefficient	0.010
Channel Slope	0.400 %
Normal Depth	8.0 in
Diameter	8.0 in
Results	
Discharge	0.99 cfs
Flow Area	0.3 ft <sup>2</sup>
Wetted Perimeter	2.1 ft
Hydraulic Radius	2.0 in
Top Width	0.00 in
Critical Depth	5.7 in
Percent Full	100.0 %
Critical Slope	0.551 %
Velocity	2.85 ft/s
Velocity Head	0.13 ft
Specific Energy	0.79 ft
Froude Number	(N/A)
Maximum Discharge	1.07 cfs
Discharge Full	0.99 cfs
Slope Full	0.400 %
Flow Type	Undefined
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	100.0 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	8.0 in
Critical Depth	5.7 in
Channel Slope	0.400 %
Critical Slope	0.551 %

8" SD Reroute Basin 25yr flow: 0.96 cfs  
Therefore Ok

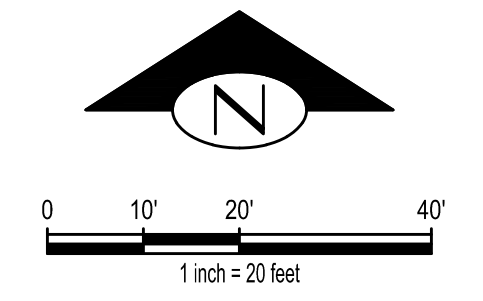
# RENTON PAVILION MARKET TRENCH DRAIN BASIN AREA SEPTEMBER 2024

LEGEND - RENTON PAVILION SITE		
SURFACE		AREA (SF)
TRENCH DRAIN - NPGIS		5,720
TOTAL BASIN AREA		5,720-SF 0.13-AC

 BASIN BOUNDARY



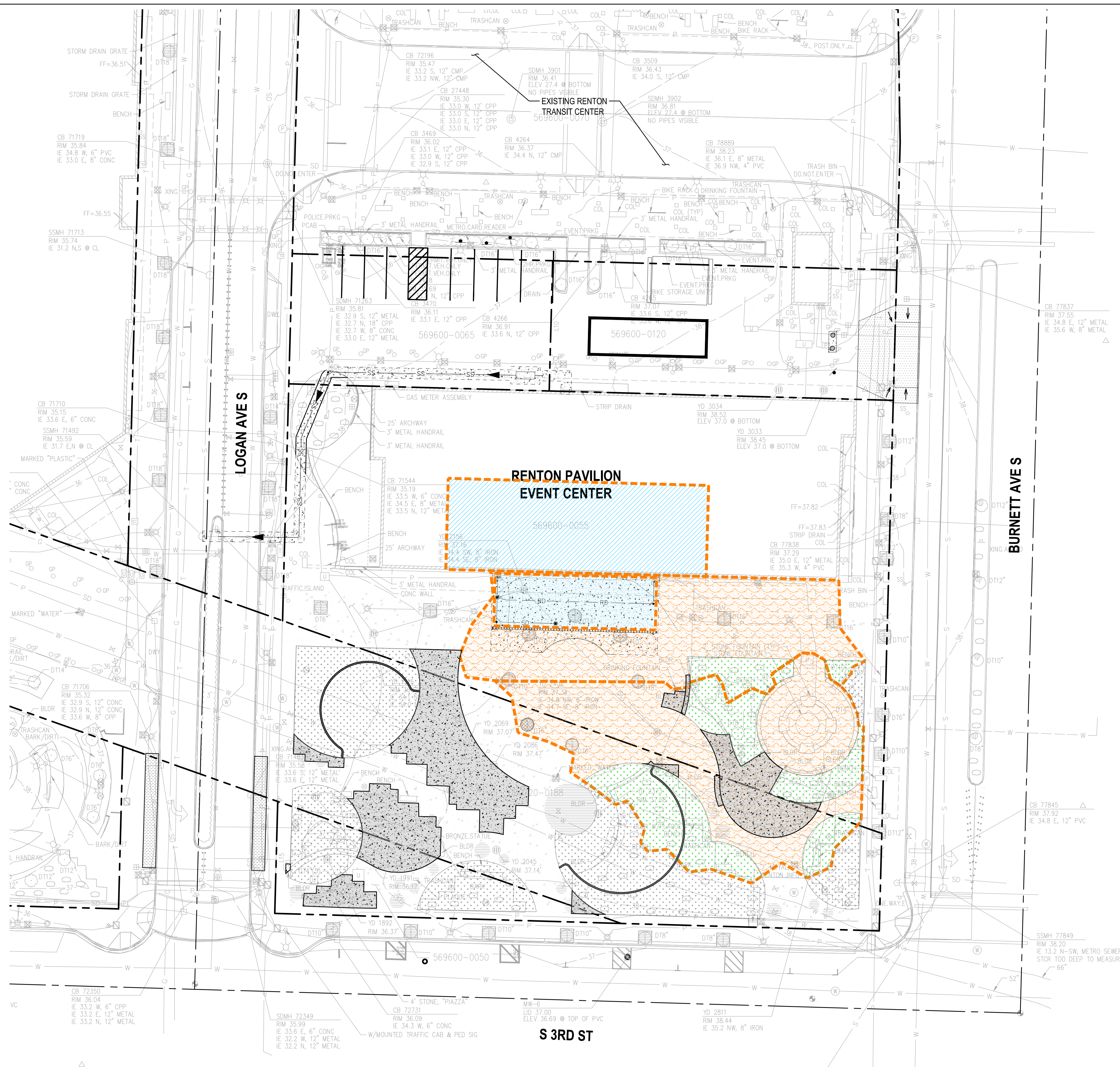
Oct 09, 2024 - 11:17pm  
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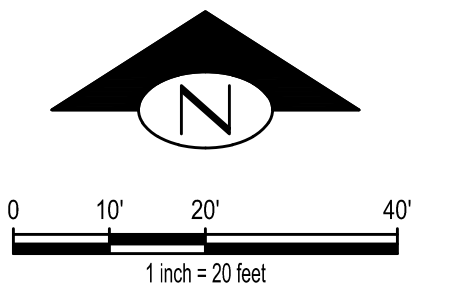
# RENTON PAVILION MARKET EXISTING 8-INCH STORM DRAIN PIPE BASIN AREA

SEPTEMBER 2024

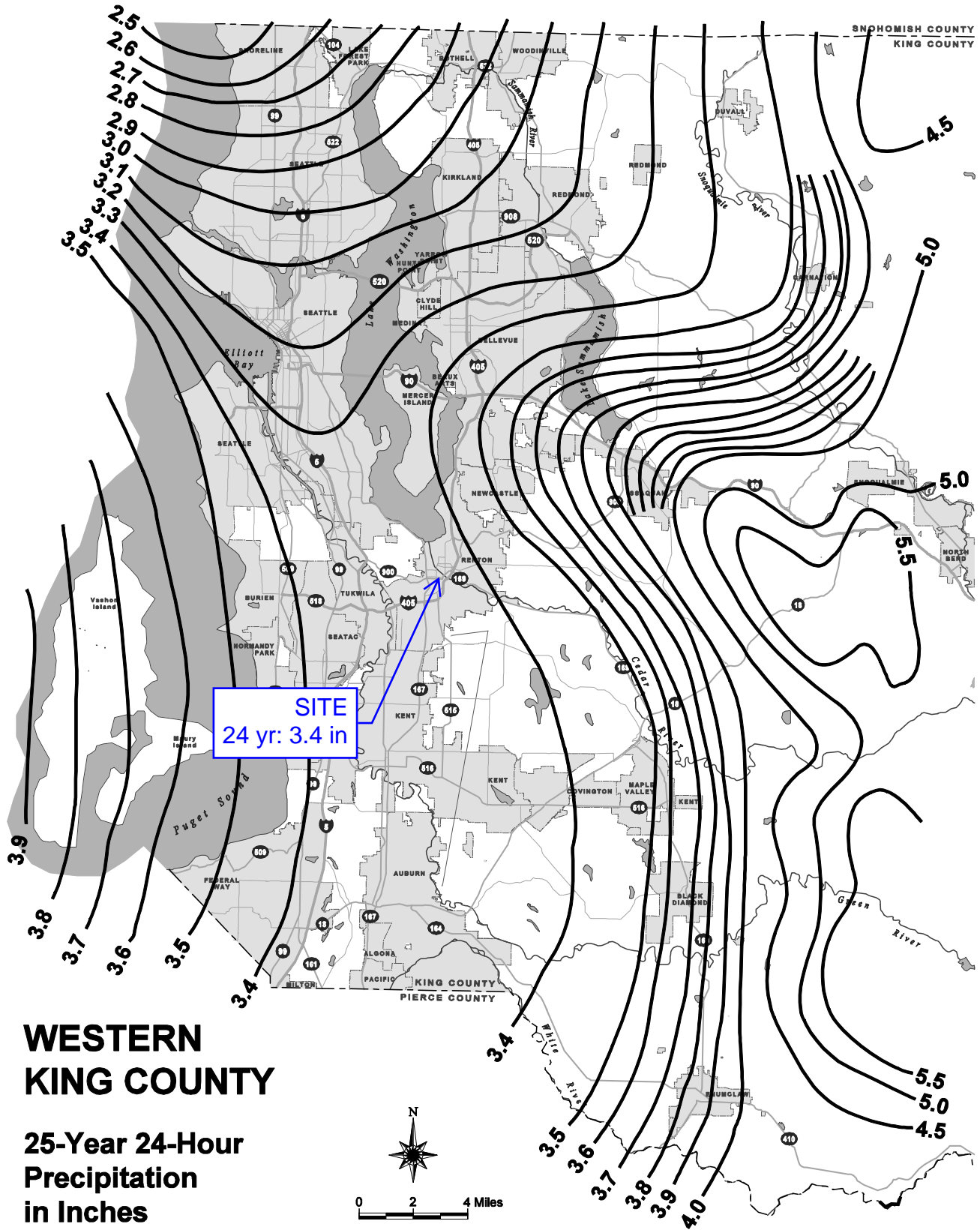


LEGEND - RENTON PAVILION SITE		
SURFACE		AREA (SF)
EXIST 8-INCH SD - NPGIS		9,101
EXISTING CONTRIBUTING ROOF AREA - NPGIS		3,500
PROPOSED VESTIBULE CANOPY - NPGIS		1,200
LANDSCAPE AREA - PGPS		3,053
<b>TOTAL BASIN AREA</b>		<b>16,854-SF 0.39-AC</b>

BASIN BOUNDARY



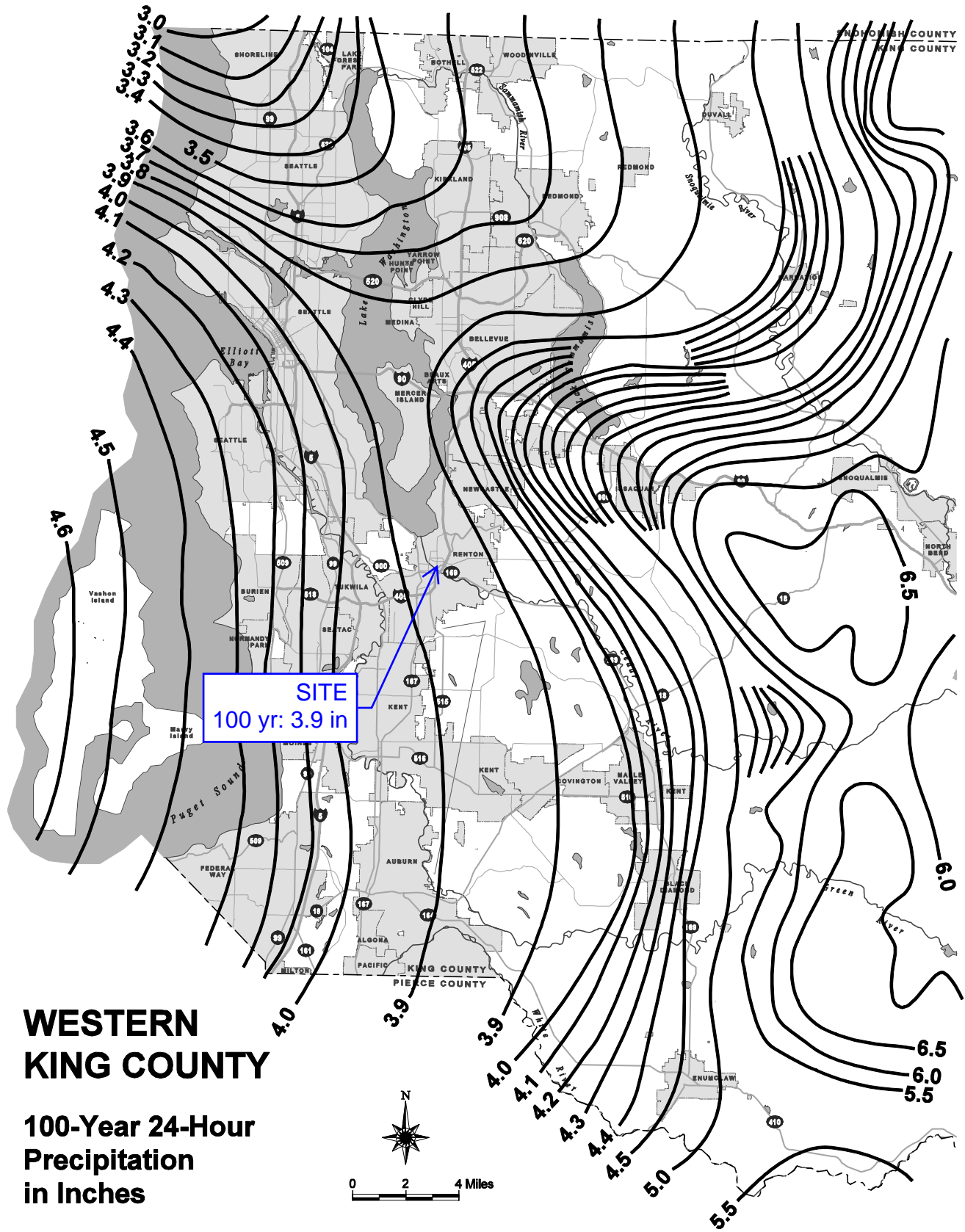
**FIGURE 3.2.1.C 25-YEAR 24-HOUR ISOPLUVIALS**



**WESTERN  
KING COUNTY**

**25-Year 24-Hour  
Precipitation  
in Inches**

**FIGURE 3.2.1.D 100-YEAR 24-HOUR ISOPLUVIALS**



**WESTERN  
KING COUNTY**  
**100-Year 24-Hour  
Precipitation  
in Inches**

TABLE 3.2.1.A RUNOFF COEFFICIENTS – “C” VALUES FOR THE RATIONAL METHOD

General Land Covers		Single Family Residential Areas*	
Land Cover	C	Land Cover Density	C
Dense forest	0.10	0.20 DU/GA (1 unit per 5 ac.)	0.17
Light forest	0.15	0.40 DU/GA (1 unit per 2.5 ac.)	0.20
Pasture	0.20	0.80 DU/GA (1 unit per 1.25 ac.)	0.27
Lawns	0.25	1.00 DU/GA	0.30
Playgrounds	0.30	1.50 DU/GA	0.33
Gravel areas	0.80	2.00 DU/GA	0.36
Pavement and roofs	0.90	2.50 DU/GA	0.39
Open water (pond, lakes, wetlands)	1.00	3.00 DU/GA	0.42
		3.50 DU/GA	0.45
		4.00 DU/GA	0.48
		4.50 DU/GA	0.51
		5.00 DU/GA	0.54
		5.50 DU/GA	0.57
		6.00 DU/GA	0.60

\* Based on average 2,500 square feet per lot of impervious coverage.  
For combinations of land covers listed above, an area-weighted “ $C_c \times A_i$ ” sum should be computed based on the equation  $C_c \times A_i = (C_1 \times A_1) + (C_2 \times A_2) + \dots + (C_n \times A_n)$ , where  $A_s = (A_1 + A_2 + \dots + A_n)$ , the total drainage basin area.

TABLE 3.2.1.B COEFFICIENTS FOR THE RATIONAL METHOD “ $I_R$ ” EQUATION

Design Storm Return Frequency	$a_R$	$b_R$
2 years	1.58	0.58
5 years	2.33	0.63
10 years	2.44	0.64
25 years	2.66	0.65
50 years	2.75	0.65
100 years	2.61	0.63

TABLE 3.2.1.C  $K_R$  VALUES FOR  $T_T$  USING THE RATIONAL METHOD

Land Cover Category	$k_R$
Forest with heavy ground litter and meadow	2.5
Fallow or minimum tillage cultivation	4.7
Short grass pasture and lawns	7.0
Nearly bare ground	10.1
Grassed waterway	15.0
Paved area (sheet flow) and shallow gutter flow	20.0

# Appendix H

## Bond Quantity Worksheet

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET

## PROJECT INFORMATION



1055 South Grady Way – 6<sup>th</sup> Floor | Renton, WA 98057 (425) 430-7200

Date Prepared:

Project Phase <sup>1</sup>

Prepared by:	
Name:	Jenifer Clapham, PE
PE Registration No:	40799
Firm Name:	KPFF Consulting Engineers
Firm Address:	1601 5th Ave, Suite 1600, Seattle, WA 98101
Phone No.:	206.926.0549
Email Address:	jenifer.clapham@kpff.com

**Engineer Stamp Required**  
*(all cost estimates must have original wet stamp and signature)*



Project Location and Description		Project Owner Information	
Project Name:	Renton Market	Project Owner:	City of Renton
CED Plan # (LUA):		Phone:	425.430.6400
CED Permit # (C):		Address:	1055 S Grady Way
Site Address:	233 Burnett Ave S, Renton, WA 98057		Renton, WA 98057
Street Intersection:	Burnett Ave S/S 3rd St	Add'l Project Owner:	
Parcel #(s):	5696000055, 5696000065, 5696000120	Phone:	
Abbreviated Legal Description:	MOTOR LINE ADD TO RENTON 2-3 & 16-17-18 LESS ST	Address:	

Clearing and Grading	Utility Providers
<b>Clearing and grading greater than or equal to 5,000 board feet of timber?</b> Yes/No: <input type="text" value="NO"/> If Yes, Provide Forest Practice Permit #: <input type="text" value="N/A"/>	Water Service Provided by: <input type="text" value="CITY OF RENTON"/> Sewer Service Provided by: <input type="text" value="CITY OF RENTON"/>

Estimated Civil Construction Permit - Construction Costs <sup>2</sup>			
As outlined in City Ordinance No. 4345, 50% of the plan review and inspection fees are to be paid at Permit Submittal. The balance is due at Permit Issuance. Significant changes or additional review cycles (beyond 3 cycles) during the review process may result in adjustments to the final review fees.			
Water	A	\$	-
Wastewater (Sanitary Sewer)	B	\$	32,527.47
Stormwater (Drainage)	C	\$	24,630.54
Roadway (Erosion Control + Transportation)	D	\$	54,412.64
<b>Total Estimated Construction Costs</b>	E <i>A + B + C + D</i>	<b>\$</b>	<b>111,570.66</b>

<sup>1</sup> Select the current project status/phase from the following options:  
**For Approval** - Preliminary Data Enclosed, pending approval from the City;  
**For Construction** - Estimated Data Enclosed, Plans have been approved for construction by the City;  
**Project Closeout** - Final Costs and Quantities Enclosed for Project Close-out Submittal

<sup>2</sup> All prices include labor, equipment, materials, overhead, profit, and taxes. City of Renton Sales Tax is: 10.3%

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR EROSION & SEDIMENT CONTROL



**CED Permit #:**

Description	No.	Reference #	Unit Price	Unit	(A)	
					Quantity	Cost
Backfill & compaction-embankment	ESC-1		\$ 7.50	CY		
Check dams, 4" minus rock	ESC-2	SWDM 5.4.6.3	\$ 90.00	Each		
Catch Basin Protection	ESC-3		\$ 145.00	Each	9	1,305.00
Crushed surfacing 1 1/4" minus	ESC-4	WSDOT 9-03.9(3)	\$ 110.00	CY		
Ditching	ESC-5		\$ 10.50	CY		
Excavation-bulk	ESC-6		\$ 2.30	CY		
Fence, silt	ESC-7	SWDM 5.4.3.1	\$ 5.00	LF		
Fence, Temporary (NGPE)	ESC-8		\$ 1.75	LF		
Geotextile Fabric	ESC-9		\$ 3.00	SY		
Hay Bale Silt Trap	ESC-10		\$ 0.60	Each		
Hydroseeding	ESC-11	SWDM 5.4.2.4	\$ 0.90	SY		
Interceptor Swale / Dike	ESC-12		\$ 1.15	LF		
Jute Mesh	ESC-13	SWDM 5.4.2.2	\$ 4.00	SY		
Level Spreader	ESC-14		\$ 2.00	LF		
Mulch, by hand, straw, 3" deep	ESC-15	SWDM 5.4.2.1	\$ 2.90	SY		
Mulch, by machine, straw, 2" deep	ESC-16	SWDM 5.4.2.1	\$ 2.30	SY		
Piping, temporary, CPP, 6"	ESC-17		\$ 13.75	LF		
Piping, temporary, CPP, 8"	ESC-18		\$ 16.00	LF		
Piping, temporary, CPP, 12"	ESC-19		\$ 20.50	LF		
Plastic covering, 6mm thick, sandbagged	ESC-20	SWDM 5.4.2.3	\$ 4.60	SY		
Rip Rap, machine placed; slopes	ESC-21	WSDOT 9-13.1(2)	\$ 51.00	CY		
Rock Construction Entrance, 50'x15'x1'	ESC-22	SWDM 5.4.4.1	\$ 2,050.00	Each		
Rock Construction Entrance, 100'x15'x1'	ESC-23	SWDM 5.4.4.1	\$ 3,675.00	Each		
Sediment pond riser assembly	ESC-24	SWDM 5.4.5.2	\$ 2,525.00	Each		
Sediment trap, 5' high berm	ESC-25	SWDM 5.4.5.1	\$ 22.00	LF		
Sed. trap, 5' high, riprapped spillway berm section	ESC-26	SWDM 5.4.5.1	\$ 80.00	LF		
Seeding, by hand	ESC-27	SWDM 5.4.2.4	\$ 1.15	SY		
Sodding, 1" deep, level ground	ESC-28	SWDM 5.4.2.5	\$ 9.20	SY		
Sodding, 1" deep, sloped ground	ESC-29	SWDM 5.4.2.5	\$ 11.50	SY		
TESC Supervisor	ESC-30		\$ 125.00	HR		
Water truck, dust control	ESC-31	SWDM 5.4.7	\$ 160.00	HR		
<b>WRITE-IN-ITEMS</b>		<b>Reference #</b>	<b>Unit Price</b>	<b>Unit</b>	<b>Quantity</b>	<b>Cost</b>
Straw Wattle		SWDM D.2.1.2.5	\$ 4.00	LF	540	2,160.00

<b>EROSION/SEDIMENT SUBTOTAL:</b>	<b>3,465.00</b>
<b>SALES TAX @ 10.3%</b>	<b>356.90</b>
<b>EROSION/SEDIMENT TOTAL:</b>	<b>3,821.90</b>

(A)



# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR STREET AND SITE IMPROVEMENTS



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
<b>GENERAL ITEMS</b>											
Backfill & Compaction- embankment	GI-1	\$ 7.00	CY								
Backfill & Compaction- trench	GI-2	\$ 10.25	CY			10	102.50	45	461.25		
Clear/Remove Brush, by hand (SY)	GI-3	\$ 1.15	SY								
Bollards - fixed	GI-4	\$ 275.00	Each								
Bollards - removable	GI-5	\$ 520.00	Each					2	1,040.00		
Clearing/Grubbing/Tree Removal	GI-6	\$ 11,475.00	Acre								
Excavation - bulk	GI-7	\$ 2.30	CY								
Excavation - Trench	GI-8	\$ 5.75	CY	10	57.50			45	258.75		
Fencing, cedar, 6' high	GI-9	\$ 23.00	LF								
Fencing, chain link, 4'	GI-10	\$ 44.00	LF								
Fencing, chain link, vinyl coated, 6' high	GI-11	\$ 23.00	LF					90	2,070.00		
Fencing, chain link, gate, vinyl coated, 20'	GI-12	\$ 1,600.00	Each								
Fill & compact - common barrow	GI-13	\$ 28.75	CY								
Fill & compact - gravel base	GI-14	\$ 31.00	CY								
Fill & compact - screened topsoil	GI-15	\$ 44.75	CY								
Gabion, 12" deep, stone filled mesh	GI-16	\$ 74.50	SY								
Gabion, 18" deep, stone filled mesh	GI-17	\$ 103.25	SY								
Gabion, 36" deep, stone filled mesh	GI-18	\$ 172.00	SY								
Grading, fine, by hand	GI-19	\$ 2.90	SY								
Grading, fine, with grader	GI-20	\$ 2.30	SY			55	126.50	325	747.50		
Monuments, 3' Long	GI-21	\$ 1,025.00	Each								
Sensitive Areas Sign	GI-22	\$ 8.00	Each								
Sodding, 1" deep, sloped ground	GI-23	\$ 9.25	SY								
Surveying, line & grade	GI-24	\$ 975.00	Day								
Surveying, lot location/lines	GI-25	\$ 2,050.00	Acre								
Topsoil Type A (imported)	GI-26	\$ 32.75	CY								
Traffic control crew ( 2 flaggers )	GI-27	\$ 137.75	HR								
Trail, 4" chipped wood	GI-28	\$ 9.15	SY								
Trail, 4" crushed cinder	GI-29	\$ 10.25	SY								
Trail, 4" top course	GI-30	\$ 13.75	SY								
Conduit, 2"	GI-31	\$ 5.75	LF								
Wall, retaining, concrete	GI-32	\$ 63.00	SF								
Wall, rockery	GI-33	\$ 17.25	SF								

SUBTOTAL THIS PAGE:

**57.50**

(B)

**229.00**

(C)

**4,577.50**

(D)

(E)

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR STREET AND SITE IMPROVEMENTS



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
<b>ROAD IMPROVEMENT/PAVEMENT/SURFACING</b>											
AC Grinding, 4' wide machine < 1000sy	RI-1	\$ 34.50	SY								
AC Grinding, 4' wide machine 1000-2000sy	RI-2	\$ 18.25	SY								
AC Grinding, 4' wide machine > 2000sy	RI-3	\$ 11.50	SY								
AC Removal/Disposal	RI-4	\$ 40.00	SY								
Barricade, Type III ( Permanent )	RI-5	\$ 64.25	LF								
Guard Rail	RI-6	\$ 34.50	LF								
Curb & Gutter, rolled	RI-7	\$ 19.50	LF			40	<b>780.00</b>				
Curb & Gutter, vertical	RI-8	\$ 14.25	LF								
Curb and Gutter, demolition and disposal	RI-9	\$ 20.50	LF	40	<b>820.00</b>						
Curb, extruded asphalt	RI-10	\$ 6.25	LF								
Curb, extruded concrete	RI-11	\$ 8.00	LF								
Sawcut, asphalt, 3" depth	RI-12	\$ 3.00	LF	50	<b>150.00</b>						
Sawcut, concrete, per 1" depth	RI-13	\$ 5.00	LF	50	<b>250.00</b>			580	<b>2,900.00</b>		
Sealant, asphalt	RI-14	\$ 2.25	LF								
Shoulder, gravel, 4" thick	RI-15	\$ 17.25	SY								
Sidewalk, 4" thick	RI-16	\$ 43.50	SY					325	<b>14,137.50</b>		
Sidewalk, 4" thick, demolition and disposal	RI-17	\$ 37.00	SY	40	<b>1,480.00</b>			325	<b>12,025.00</b>		
Sidewalk, 5" thick	RI-18	\$ 47.00	SY								
Sidewalk, 5" thick, demolition and disposal	RI-19	\$ 46.00	SY								
Sign, Handicap	RI-20	\$ 97.00	Each								
Striping, per stall	RI-21	\$ 8.00	Each								
Striping, thermoplastic, ( for crosswalk )	RI-22	\$ 3.50	SF								
Striping, 4" reflectorized line	RI-23	\$ 0.55	LF								
Additional 2.5" Crushed Surfacing	RI-24	\$ 4.15	SY								
HMA 1/2" Overlay 1.5"	RI-25	\$ 16.00	SY								
HMA 1/2" Overlay 2"	RI-26	\$ 20.75	SY								
HMA Road, 2", 4" rock, First 2500 SY	RI-27	\$ 32.25	SY								
HMA Road, 2", 4" rock, Qty. over 2500SY	RI-28	\$ 24.00	SY								
HMA Road, 4", 6" rock, First 2500 SY	RI-29	\$ 51.75	SY								
HMA Road, 4", 6" rock, Qty. over 2500 SY	RI-30	\$ 42.50	SY								
HMA Road, 4", 4.5" ATB	RI-31	\$ 43.50	SY								
Gravel Road, 4" rock, First 2500 SY	RI-32	\$ 17.25	SY								
Gravel Road, 4" rock, Qty. over 2500 SY	RI-33	\$ 11.50	SY								
Thickened Edge	RI-34	\$ 10.00	LF								

SUBTOTAL THIS PAGE:

**2,700.00**  
(B)

**780.00**  
(C)

**29,062.50**  
(D)

(E)

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR STREET AND SITE IMPROVEMENTS



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
<b>PARKING LOT SURFACING</b>				<b>No.</b>							
2" AC, 2" top course rock & 4" borrow	PL-1	\$ 24.00	SY								
2" AC, 1.5" top course & 2.5" base course	PL-2	\$ 32.00	SY								
4" select borrow	PL-3	\$ 5.75	SY								
1.5" top course rock & 2.5" base course	PL-4	\$ 16.00	SY								

SUBTOTAL PARKING LOT SURFACING: (B) (C) (D) (E)

<b>LANDSCAPING &amp; VEGETATION</b>				<b>No.</b>							
Street Trees	LA-1										
Median Landscaping	LA-2										
Right-of-Way Landscaping	LA-3										
Wetland Landscaping	LA-4										

SUBTOTAL LANDSCAPING & VEGETATION: (B) (C) (D) (E)

<b>TRAFFIC &amp; LIGHTING</b>				<b>No.</b>							
Signs	TR-1										
Street Light System ( # of Poles)	TR-2										
Traffic Signal	TR-3										
Traffic Signal Modification	TR-4										

SUBTOTAL TRAFFIC & LIGHTING: (B) (C) (D) (E)

<b>WRITE-IN-ITEMS</b>											
Vehicular Concrete Pavement		\$ 94.00	SY			40	3,760.00	50	4,700.00		

SUBTOTAL WRITE-IN ITEMS: (B) 3,760.00 (C) 4,700.00 (D) (E)

**STREET AND SITE IMPROVEMENTS SUBTOTAL:** 2,757.50 (B) 4,769.00 (C) 38,340.00 (D) (E)

**SALES TAX @ 10.3%** 284.02 (B) 491.21 (C) 3,949.02 (D) (E)

**STREET AND SITE IMPROVEMENTS TOTAL:** 3,041.52 (B) 5,260.21 (C) 42,289.02 (D) (E)

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR DRAINAGE AND STORMWATER FACILITIES



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
<b>DRAINAGE (CPE = Corrugated Polyethylene Pipe, N12 or Equivalent) For Culvert prices, Average of 4' cover was assumed. Assume perforated PVC is same price as solid pipe.)</b>											
Access Road, R/D	D-1	\$ 30.00	SY								
* (CBs include frame and lid)											
Beehive	D-2	\$ 103.00	Each								
Through-curb Inlet Framework	D-3	\$ 460.00	Each								
CB Type I	D-4	\$ 1,725.00	Each								
CB Type II	D-5	\$ 2,000.00	Each								
CB Type II, 48" diameter	D-6	\$ 3,500.00	Each								
for additional depth over 4'	D-7	\$ 550.00	FT								
CB Type II, 54" diameter	D-8	\$ 4,075.00	Each								
for additional depth over 4'	D-9	\$ 570.00	FT								
CB Type II, 60" diameter	D-10	\$ 4,225.00	Each								
for additional depth over 4'	D-11	\$ 690.00	FT								
CB Type II, 72" diameter	D-12	\$ 6,900.00	Each								
for additional depth over 4'	D-13	\$ 975.00	FT								
CB Type II, 96" diameter	D-14	\$ 16,000.00	Each								
for additional depth over 4'	D-15	\$ 1,050.00	FT								
Trash Rack, 12"	D-16	\$ 400.00	Each								
Trash Rack, 15"	D-17	\$ 470.00	Each								
Trash Rack, 18"	D-18	\$ 550.00	Each								
Trash Rack, 21"	D-19	\$ 630.00	Each								
Cleanout, PVC, 4"	D-20	\$ 170.00	Each					1	170.00		
Cleanout, PVC, 6"	D-21	\$ 195.00	Each								
Cleanout, PVC, 8"	D-22	\$ 230.00	Each					1	230.00		
Culvert, PVC, 4"	D-23	\$ 11.50	LF					77	885.50		
Culvert, PVC, 6"	D-24	\$ 15.00	LF								
Culvert, PVC, 8"	D-25	\$ 17.00	LF					35	595.00		
Culvert, PVC, 12"	D-26	\$ 26.00	LF								
Culvert, PVC, 15"	D-27	\$ 40.00	LF								
Culvert, PVC, 18"	D-28	\$ 47.00	LF								
Culvert, PVC, 24"	D-29	\$ 65.00	LF								
Culvert, PVC, 30"	D-30	\$ 90.00	LF								
Culvert, PVC, 36"	D-31	\$ 150.00	LF								
Culvert, CMP, 8"	D-32	\$ 22.00	LF								
Culvert, CMP, 12"	D-33	\$ 33.00	LF								
<b>SUBTOTAL THIS PAGE:</b>									<b>1,880.50</b>		
				(B)	(C)	(D)	(E)				

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR DRAINAGE AND STORMWATER FACILITIES



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
<b>DRAINAGE (Continued)</b>											
Culvert, CMP, 15"	D-34	\$ 40.00	LF								
Culvert, CMP, 18"	D-35	\$ 47.00	LF								
Culvert, CMP, 24"	D-36	\$ 64.00	LF								
Culvert, CMP, 30"	D-37	\$ 90.00	LF								
Culvert, CMP, 36"	D-38	\$ 150.00	LF								
Culvert, CMP, 48"	D-39	\$ 218.00	LF								
Culvert, CMP, 60"	D-40	\$ 310.00	LF								
Culvert, CMP, 72"	D-41	\$ 400.00	LF								
Culvert, Concrete, 8"	D-42	\$ 48.00	LF								
Culvert, Concrete, 12"	D-43	\$ 55.00	LF								
Culvert, Concrete, 15"	D-44	\$ 89.00	LF								
Culvert, Concrete, 18"	D-45	\$ 100.00	LF								
Culvert, Concrete, 24"	D-46	\$ 120.00	LF								
Culvert, Concrete, 30"	D-47	\$ 145.00	LF								
Culvert, Concrete, 36"	D-48	\$ 175.00	LF								
Culvert, Concrete, 42"	D-49	\$ 200.00	LF								
Culvert, Concrete, 48"	D-50	\$ 235.00	LF								
Culvert, CPE Triple Wall, 6"	D-51	\$ 16.00	LF								
Culvert, CPE Triple Wall, 8"	D-52	\$ 18.00	LF								
Culvert, CPE Triple Wall, 12"	D-53	\$ 27.00	LF								
Culvert, CPE Triple Wall, 15"	D-54	\$ 40.00	LF								
Culvert, CPE Triple Wall, 18"	D-55	\$ 47.00	LF								
Culvert, CPE Triple Wall, 24"	D-56	\$ 64.00	LF								
Culvert, CPE Triple Wall, 30"	D-57	\$ 90.00	LF								
Culvert, CPE Triple Wall, 36"	D-58	\$ 149.00	LF								
Culvert, LCPE, 6"	D-59	\$ 69.00	LF								
Culvert, LCPE, 8"	D-60	\$ 83.00	LF								
Culvert, LCPE, 12"	D-61	\$ 96.00	LF								
Culvert, LCPE, 15"	D-62	\$ 110.00	LF								
Culvert, LCPE, 18"	D-63	\$ 124.00	LF								
Culvert, LCPE, 24"	D-64	\$ 138.00	LF								
Culvert, LCPE, 30"	D-65	\$ 151.00	LF								
Culvert, LCPE, 36"	D-66	\$ 165.00	LF								
Culvert, LCPE, 48"	D-67	\$ 179.00	LF								
Culvert, LCPE, 54"	D-68	\$ 193.00	LF								
<b>SUBTOTAL THIS PAGE:</b>											
				(B)	(C)	(D)	(E)				

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR DRAINAGE AND STORMWATER FACILITIES



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
<b>DRAINAGE (Continued)</b>											
Culvert, LCPE, 60"	D-69	\$ 206.00	LF								
Culvert, LCPE, 72"	D-70	\$ 220.00	LF								
Culvert, HDPE, 6"	D-71	\$ 48.00	LF								
Culvert, HDPE, 8"	D-72	\$ 60.00	LF								
Culvert, HDPE, 12"	D-73	\$ 85.00	LF								
Culvert, HDPE, 15"	D-74	\$ 122.00	LF								
Culvert, HDPE, 18"	D-75	\$ 158.00	LF								
Culvert, HDPE, 24"	D-76	\$ 254.00	LF								
Culvert, HDPE, 30"	D-77	\$ 317.00	LF								
Culvert, HDPE, 36"	D-78	\$ 380.00	LF								
Culvert, HDPE, 48"	D-79	\$ 443.00	LF								
Culvert, HDPE, 54"	D-80	\$ 506.00	LF								
Culvert, HDPE, 60"	D-81	\$ 570.00	LF								
Culvert, HDPE, 72"	D-82	\$ 632.00	LF								
Pipe, Polypropylene, 6"	D-83	\$ 96.00	LF								
Pipe, Polypropylene, 8"	D-84	\$ 100.00	LF								
Pipe, Polypropylene, 12"	D-85	\$ 100.00	LF								
Pipe, Polypropylene, 15"	D-86	\$ 103.00	LF								
Pipe, Polypropylene, 18"	D-87	\$ 106.00	LF								
Pipe, Polypropylene, 24"	D-88	\$ 119.00	LF								
Pipe, Polypropylene, 30"	D-89	\$ 136.00	LF								
Pipe, Polypropylene, 36"	D-90	\$ 185.00	LF								
Pipe, Polypropylene, 48"	D-91	\$ 260.00	LF								
Pipe, Polypropylene, 54"	D-92	\$ 381.00	LF								
Pipe, Polypropylene, 60"	D-93	\$ 504.00	LF								
Pipe, Polypropylene, 72"	D-94	\$ 625.00	LF								
Culvert, DI, 6"	D-95	\$ 70.00	LF								
Culvert, DI, 8"	D-96	\$ 101.00	LF								
Culvert, DI, 12"	D-97	\$ 121.00	LF								
Culvert, DI, 15"	D-98	\$ 148.00	LF								
Culvert, DI, 18"	D-99	\$ 175.00	LF								
Culvert, DI, 24"	D-100	\$ 200.00	LF								
Culvert, DI, 30"	D-101	\$ 227.00	LF								
Culvert, DI, 36"	D-102	\$ 252.00	LF								
Culvert, DI, 48"	D-103	\$ 279.00	LF								
Culvert, DI, 54"	D-104	\$ 305.00	LF								
Culvert, DI, 60"	D-105	\$ 331.00	LF								
Culvert, DI, 72"	D-106	\$ 357.00	LF								

SUBTOTAL THIS PAGE:

	(B)	(C)	(D)

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR DRAINAGE AND STORMWATER FACILITIES



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
<b>Specialty Drainage Items</b>											
Ditching	SD-1	\$ 10.90	CY								
Flow Dispersal Trench (1,436 base+)	SD-3	\$ 32.00	LF								
French Drain (3' depth)	SD-4	\$ 30.00	LF								
Geotextile, laid in trench, polypropylene	SD-5	\$ 3.40	SY								
Mid-tank Access Riser, 48" dia, 6' deep	SD-6	\$ 2,300.00	Each								
Pond Overflow Spillway	SD-7	\$ 18.25	SY								
Restrictor/Oil Separator, 12"	SD-8	\$ 1,320.00	Each								
Restrictor/Oil Separator, 15"	SD-9	\$ 1,550.00	Each								
Restrictor/Oil Separator, 18"	SD-10	\$ 1,950.00	Each								
Riprap, placed	SD-11	\$ 48.20	CY								
Tank End Reducer (36" diameter)	SD-12	\$ 1,375.00	Each								
Infiltration pond testing	SD-13	\$ 143.00	HR								
Permeable Pavement	SD-14										
Permeable Concrete Sidewalk	SD-15										
Culvert, Box ___ ft x ___ ft	SD-16										

SUBTOTAL SPECIALTY DRAINAGE ITEMS: (B) (C) (D) (E)

<b>STORMWATER FACILITIES (Include Flow Control and Water Quality Facility Summary Sheet and Sketch)</b>											
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
Detention Pond	SF-1		Each								
Detention Tank	SF-2		Each								
Detention Vault	SF-3		Each								
Infiltration Pond	SF-4		Each								
Infiltration Tank	SF-5		Each								
Infiltration Vault	SF-6		Each								
Infiltration Trenches	SF-7		Each								
Basic Biofiltration Swale	SF-8		Each								
Wet Biofiltration Swale	SF-9		Each								
Wetpond	SF-10		Each								
Wetvault	SF-11		Each								
Sand Filter	SF-12		Each								
Sand Filter Vault	SF-13		Each								
Linear Sand Filter	SF-14		Each								
Proprietary Facility	SF-15		Each								
Bioretention Facility	SF-16		Each								

SUBTOTAL STORMWATER FACILITIES: (B) (C) (D) (E)

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR DRAINAGE AND STORMWATER FACILITIES



CED Permit #:

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
<b>WRITE-IN-ITEMS (INCLUDE ON-SITE BMPs)</b>											
TrenchDrain	WI-1	\$ 250.00	LF					63	15,750.00		
In-line Catch Basin	WI-2	\$ 700.00	Each					1	700.00		
Area Drain	WI-3	\$ 2,000.00	Each					2	4,000.00		
	WI-4										
	WI-5										
	WI-6										
	WI-7										
	WI-8										
	WI-9										
	WI-10										
	WI-11										
	WI-12										
	WI-13										
	WI-14										
	WI-15										
SUBTOTAL WRITE-IN ITEMS:									<b>20,450.00</b>		
DRAINAGE AND STORMWATER FACILITIES SUBTOTAL:									<b>22,330.50</b>		
SALES TAX @ 10.3%									<b>2,300.04</b>		
DRAINAGE AND STORMWATER FACILITIES TOTAL:									<b>24,630.54</b>		
				(B)		(C)			(D)		(E)



# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR WATER



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
Connection to Existing Watermain	W-1	\$ 3,400.00	Each								
Ductile Iron Watermain, CL 52, 4 Inch Diameter	W-2	\$ 58.00	LF								
Ductile Iron Watermain, CL 52, 6 Inch Diameter	W-3	\$ 65.00	LF								
Ductile Iron Watermain, CL 52, 8 Inch Diameter	W-4	\$ 75.00	LF								
Ductile Iron Watermain, CL 52, 10 Inch Diameter	W-5	\$ 80.00	LF								
Ductile Iron Watermain, CL 52, 12 Inch Diameter	W-6	\$ 145.00	LF								
Gate Valve, 4 inch Diameter	W-7	\$ 1,225.00	Each								
Gate Valve, 6 inch Diameter	W-8	\$ 1,350.00	Each								
Gate Valve, 8 Inch Diameter	W-9	\$ 1,550.00	Each								
Gate Valve, 10 Inch Diameter	W-10	\$ 2,100.00	Each								
Gate Valve, 12 Inch Diameter	W-11	\$ 2,500.00	Each								
Fire Hydrant Assembly	W-12	\$ 5,000.00	Each								
Permanent Blow-Off Assembly	W-13	\$ 1,950.00	Each								
Air-Vac Assembly, 2-Inch Diameter	W-14	\$ 3,050.00	Each								
Air-Vac Assembly, 1-Inch Diameter	W-15	\$ 1,725.00	Each								
Compound Meter Assembly 3-inch Diameter	W-16	\$ 9,200.00	Each								
Compound Meter Assembly 4-inch Diameter	W-17	\$ 10,500.00	Each								
Compound Meter Assembly 6-inch Diameter	W-18	\$ 11,500.00	Each								
Pressure Reducing Valve Station 8-inch to 10-inch	W-19	\$ 23,000.00	Each								
<b>WATER SUBTOTAL:</b>				<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>	
<b>SALES TAX @ 10.3%</b>				<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>	
<b>WATER TOTAL:</b>				<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>	
				(B)		(C)		(D)		(E)	

# SITE IMPROVEMENT BOND QUANTITY WORKSHEET FOR SANITARY SEWER



**CED Permit #:**

				Existing Right-of-Way (B)		Future Public Improvements (C)		Private Improvements (D)		Quantity Remaining (Bond Reduction) (E)	
Description	No.	Unit Price	Unit	Quant.	Cost	Quant.	Cost	Quant.	Cost	Quant.	Cost
Clean Outs	SS-1	\$ 1,150.00	Each					1	1,150.00		
Grease Interceptor, 500 gallon	SS-2	\$ 9,200.00	Each					1	9,200.00		
Grease Interceptor, 1000 gallon	SS-3	\$ 11,500.00	Each								
Grease Interceptor, 1500 gallon	SS-4	\$ 17,200.00	Each								
Side Sewer Pipe, PVC. 4 Inch Diameter	SS-5	\$ 92.00	LF								
Side Sewer Pipe, PVC. 6 Inch Diameter	SS-6	\$ 110.00	LF			37	4,070.00	137	15,070.00		
Sewer Pipe, PVC, 8 inch Diameter	SS-7	\$ 120.00	LF								
Sewer Pipe, PVC, 12 Inch Diameter	SS-8	\$ 144.00	LF								
Sewer Pipe, DI, 8 inch Diameter	SS-9	\$ 130.00	LF								
Sewer Pipe, DI, 12 Inch Diameter	SS-10	\$ 150.00	LF								
Manhole, 48 Inch Diameter	SS-11	\$ 6,900.00	Each								
Manhole, 54 Inch Diameter	SS-13	\$ 6,800.00	Each								
Manhole, 60 Inch Diameter	SS-15	\$ 7,600.00	Each								
Manhole, 72 Inch Diameter	SS-17	\$ 10,600.00	Each								
Manhole, 96 Inch Diameter	SS-19	\$ 16,000.00	Each								
Pipe, C-900, 12 Inch Diameter	SS-21	\$ 205.00	LF								
Outside Drop	SS-24	\$ 1,700.00	LS								
Inside Drop	SS-25	\$ 1,150.00	LS								
Sewer Pipe, PVC, ____ Inch Diameter	SS-26										
Lift Station (Entire System)	SS-27		LS								
<b>SANITARY SEWER SUBTOTAL:</b>							<b>4,070.00</b>		<b>25,420.00</b>		
<b>SALES TAX @ 10.3%</b>							<b>419.21</b>		<b>2,618.26</b>		
<b>SANITARY SEWER TOTAL:</b>							<b>4,489.21</b>		<b>28,038.26</b>		
				(B)			(C)		(D)		(E)

**SITE IMPROVEMENT BOND QUANTITY WORKSHEET  
BOND CALCULATIONS**



1055 South Grady Way – 6<sup>th</sup> Floor | Renton, WA 98057 (425) 430-7200

Date: 10/8/2024

Prepared by:		Project Information	
Name:	Jenifer Clapham, PE	Project Name:	Renton Market
PE Registration No:	40799	CED Plan # (LUA):	
Firm Name:	KPFF Consulting Engineers	<b>CED Permit # (C):</b>	
Firm Address:	1601 5th Ave, Suite 1600, Seattle, WA 98101	Site Address:	233 Burnett Ave S, Renton, WA 98057
Phone No.:	206.926.0549	Parcel #(s):	5696000055, 5696000065, 5696000120
Email Address:	jenifer.clapham@kpff.com	Project Phase:	FOR APPROVAL

	CONSTRUCTION BOND AMOUNT <sup>*/**</sup> (prior to permit issuance)		MAINTENANCE BOND <sup>*/**</sup> (after final acceptance of construction)	
Site Restoration/Erosion Sediment Control Subtotal	(a)	\$ 3,821.90		
Existing Right-of-Way Improvements Subtotal	(b)	\$ 3,041.52	(b)	\$ 3,041.52
Future Public Improvements Subtotal			(c)	\$ 9,749.42
Stormwater & Drainage Facilities (Public & Private) Subtotal	(d)	\$ 24,630.54	(d)	\$ 24,630.54
Bond Reduction: Existing Right-of-Way Improvements (Quantity Remaining) <sup>2</sup>	(e)	\$ -		
Bond Reduction: Stormwater & Drainage Facilities (Quantity Remaining) <sup>2</sup>	(f)	\$ -		
Site Restoration	P (a) x 100%	\$ 3,821.90	EST <sup>1</sup> ((b) + (c) + (d)) x 20%	\$ 7,484.30
Existing Right-of-Way and Storm Drainage Improvements	R ((b x 150%) + (d x 100%))	\$ 29,192.83		
Maintenance Bond	S	\$ -		
Bond Reduction <sup>2</sup>	(e) x 150% + (f) x 100%	\$ -		
<b>Construction Permit Bond Amount<sup>3</sup></b>	<b>T (P + R - S)</b>	<b>\$ 33,014.72</b>		
		<i>Minimum Bond Amount is \$10,000.00</i>		

<sup>1</sup> Estimate Only - May involve multiple and variable components, which will be established on an individual basis by Development Engineering.

<sup>2</sup> The City of Renton allows one request only for bond reduction prior to the maintenance period. Reduction of not more than 70% of the original bond amount, provided that the remaining 30% will cover all remaining items to be constructed.

<sup>3</sup> Required Bond Amounts are subject to review and modification by Development Engineering.

\* Note: The word BOND as used in this document means any financial guarantee acceptable to the City of Renton.

\*\* Note: All prices include labor, equipment, materials, overhead, profit, and taxes.

# Appendix I

Operations and Maintenance Manual

<b>NO. 5 – CATCH BASINS AND MANHOLES</b>				
<b>MAINTENANCE COMPONENT</b>	<b>DEFECT OR PROBLEM</b>	<b>CONDITION WHEN MAINTENANCE IS NEEDED</b>	<b>RESULTS EXPECTED WHEN MAINTENANCE IS PERFORMED</b>	
Structure	Sediment accumulation	Sediment exceeds 60% of the depth from the bottom of the catch basin to the invert of the lowest pipe into or out of the catch basin or is within 6 inches of the invert of the lowest pipe into or out of the catch basin.	Sump of catch basin contains no sediment.	
	Trash and debris	Trash or debris of more than ½ cubic foot which is located immediately in front of the catch basin opening or is blocking capacity of the catch basin by more than 10%.	No Trash or debris blocking or potentially blocking entrance to catch basin.	
		Trash or debris in the catch basin that exceeds 1/3 the depth from the bottom of basin to invert the lowest pipe into or out of the basin.	No trash or debris in the catch basin.	
		Dead animals or vegetation that could generate odors that could cause complaints or dangerous gases (e.g., methane).	No dead animals or vegetation present within catch basin.	
		Deposits of garbage exceeding 1 cubic foot in volume.	No condition present which would attract or support the breeding of insects or rodents.	
	Damage to frame and/or top slab	Corner of frame extends more than ¾ inch past curb face into the street (if applicable).	Frame is even with curb.	
		Top slab has holes larger than 2 square inches or cracks wider than ¼ inch.	Top slab is free of holes and cracks.	
		Frame not sitting flush on top slab, i.e., separation of more than ¾ inch of the frame from the top slab.	Frame is sitting flush on top slab.	
	Cracks in walls or bottom	Cracks wider than ½ inch and longer than 3 feet, any evidence of soil particles entering catch basin through cracks, or maintenance person judges that catch basin is unsound.	Catch basin is sealed and is structurally sound.	
		Cracks wider than ½ inch and longer than 1 foot at the joint of any inlet/outlet pipe or any evidence of soil particles entering catch basin through cracks.	No cracks more than ¼ inch wide at the joint of inlet/outlet pipe.	
	Settlement/misalignment	Catch basin has settled more than 1 inch or has rotated more than 2 inches out of alignment.	Basin replaced or repaired to design standards.	
	Damaged pipe joints	Cracks wider than ½-inch at the joint of the inlet/outlet pipes or any evidence of soil entering the catch basin at the joint of the inlet/outlet pipes.	No cracks more than ¼-inch wide at the joint of inlet/outlet pipes.	
	Contaminants and pollution	Any evidence of contaminants or pollution such as oil, gasoline, concrete slurries or paint.	Materials removed and disposed of according to applicable regulations. Source control BMPs implemented if appropriate. No contaminants present other than a surface oil film.	
	Inlet/Outlet Pipe	Sediment accumulation	Sediment filling 20% or more of the pipe.	Inlet/outlet pipes clear of sediment.
		Trash and debris	Trash and debris accumulated in inlet/outlet pipes (includes floatables and non-floatables).	No trash or debris in pipes.

<b>NO. 5 – CATCH BASINS AND MANHOLES</b>			
<b>MAINTENANCE COMPONENT</b>	<b>DEFECT OR PROBLEM</b>	<b>CONDITION WHEN MAINTENANCE IS NEEDED</b>	<b>RESULTS EXPECTED WHEN MAINTENANCE IS PERFORMED</b>
Inlet/Outlet Pipe (cont.)	Damaged inlet/outlet pipe	Cracks wider than 1/2-inch at the joint of the inlet/outlet pipes or any evidence of soil entering at the joints of the inlet/outlet pipes.	No cracks more than 1/4-inch wide at the joint of the inlet/outlet pipe.
Metal Grates (Catch Basins)	Unsafe grate opening	Grate with opening wider than 7/8 inch.	Grate opening meets design standards.
	Trash and debris	Trash and debris that is blocking more than 20% of grate surface.	Grate free of trash and debris.
	Damaged or missing grate	Grate missing or broken member(s) of the grate. <b>Any open structure requires urgent maintenance.</b>	Grate is in place and meets design standards.
Manhole Cover/Lid	Cover/lid not in place	Cover/lid is missing or only partially in place. <b>Any open structure requires urgent maintenance.</b>	Cover/lid protects opening to structure.
	Locking mechanism not working	Mechanism cannot be opened by one maintenance person with proper tools. Bolts cannot be seated. Self-locking cover/lid does not work.	Mechanism opens with proper tools.
	Cover/lid difficult to remove	One maintenance person cannot remove cover/lid after applying 80 lbs. of lift.	Cover/lid can be removed and reinstalled by one maintenance person.

<b>NO. 6 – CONVEYANCE PIPES AND DITCHES</b>			
<b>MAINTENANCE COMPONENT</b>	<b>DEFECT OR PROBLEM</b>	<b>CONDITIONS WHEN MAINTENANCE IS NEEDED</b>	<b>RESULTS EXPECTED WHEN MAINTENANCE IS PERFORMED</b>
Pipes	Sediment & debris accumulation	Accumulated sediment or debris that exceeds 20% of the diameter of the pipe.	Water flows freely through pipes.
	Vegetation/root growth in pipe	Vegetation/roots that reduce free movement of water through pipes.	Water flows freely through pipes.
	Contaminants and pollution	Any evidence of contaminants or pollution such as oil, gasoline, concrete slurries or paint.	Materials removed and disposed of according to applicable regulations. Source control BMPs implemented if appropriate. No contaminants present other than a surface oil film.
	Damage to protective coating or corrosion	Protective coating is damaged; rust or corrosion is weakening the structural integrity of any part of pipe.	Pipe repaired or replaced.
	Damaged pipes	Any dent that decreases the cross section area of pipe by more than 20% or is determined to have weakened structural integrity of the pipe.	Pipe repaired or replaced.
Ditches	Trash and debris	Trash and debris exceeds 1 cubic foot per 1,000 square feet of ditch and slopes.	Trash and debris cleared from ditches.
	Sediment accumulation	Accumulated sediment that exceeds 20% of the design depth.	Ditch cleaned/flushed of all sediment and debris so that it matches design.
	Noxious weeds	Any noxious or nuisance vegetation which may constitute a hazard to City personnel or the public.	Noxious and nuisance vegetation removed according to applicable regulations. No danger of noxious vegetation where City personnel or the public might normally be.
	Contaminants and pollution	Any evidence of contaminants or pollution such as oil, gasoline, concrete slurries or paint.	Materials removed and disposed of according to applicable regulations. Source control BMPs implemented if appropriate. No contaminants present other than a surface oil film.
	Excessive vegetation growth	Vegetation that reduces free movement of water through ditches.	Water flows freely through ditches.
	Erosion damage to slopes	Any erosion observed on a ditch slope.	Slopes are not eroding.
	Rock lining out of place or missing (If applicable)	One layer or less of rock exists above native soil area 5 square feet or more, any exposed native soil.	Replace rocks to design standards.

<b>NO. 10 – GATES/BOLLARDS/ACCESS BARRIERS</b>			
<b>MAINTENANCE COMPONENT</b>	<b>DEFECT OR PROBLEM</b>	<b>CONDITIONS WHEN MAINTENANCE IS NEEDED</b>	<b>RESULTS EXPECTED WHEN MAINTENANCE IS PERFORMED</b>
Chain Link Fencing Gate	Damaged or missing members	Missing gate.	Gates in place.
		Broken or missing hinges such that gate cannot be easily opened and closed by a maintenance person.	Hinges intact and lubed. Gate is working freely.
		Gate is out of plumb more than 6 inches and more than 1 foot out of design alignment.	Gate is aligned and vertical.
		Missing stretcher bar, stretcher bands, and ties.	Stretcher bar, bands, and ties in place.
	Locking mechanism does not lock gate	Locking device missing, non-functioning or does not link to all parts.	Locking mechanism prevents opening of gate.
	Openings in fabric	Openings in fabric are such that an 8-inch diameter ball could fit through.	Fabric mesh openings within 50% of grid size.
Bar Gate	Damaged or missing cross bar	Cross bar does not swing open or closed, is missing or is bent to where it does not prevent vehicle access.	Cross bar swings fully open and closed and prevents vehicle access.
	Locking mechanism does not lock gate	Locking device missing, non-functioning or does not link to all parts.	Locking mechanism prevents opening of gate.
	Support post damaged	Support post does not hold cross bar up.	Cross bar held up preventing vehicle access into facility.
Bollards	Damaged or missing bollards	Bollard broken, missing, does not fit into support hole or hinge broken or missing.	No access for motorized vehicles to get into facility.
	Bollards do not lock	Locking assembly or lock missing or cannot be attached to lock bollard in place.	No access for motorized vehicles to get into facility.
Boulders	Dislodged boulders	Boulders not located to prevent motorized vehicle access.	No access for motorized vehicles to get into facility.
	Evidence of vehicles circumventing boulders	Motorized vehicles going around or between boulders.	No access for motorized vehicles to get into facility.