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City of Puyallup  
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Subject: Taco Time – Site Development Permit Resubmittal  
PRCCP20231136  
AGC Job #2935

Please find attached our resubmittal of civil plan materials with revisions in response to the review comments dated September 19, 2023. This submittal consists of the following:

- Revised Civil Plan
- Revised Drainage Report
- Revised Landscape Plan
- Revised O&M Plan
- Revised Source Control Plan
- Retaining Wall Analysis
- Entering Sight Distance Exhibit
- Survey Exhibits
- Turning Path Exhibit

Following are responses to review comments:

Taco Time Review

## Engineering – Civil

- Additional Submittal Item Required: Add the most recent survey, separate from Civil Plans, to the Survey submittal bucket. The Survey should have existing topography, existing easements, existing storm facilities, etc. This can be used to satisfy existing conditions requirements in civil plans.

*Separate survey exhibit included with this resubmittal.*

### Civil Plans

#### Sheet C-1

- COP Design Standards Section 2.1(13): Add current zoning of adjacent lots. [Civil Plans, C-1]

*Added zoning to parcel numbers on this sheet.*

- Erosion & Sediment Inspection is completed through CityView Portal after pre-construction meeting.

This note is not required to be on the plans. [Civil Plans, [C-1]

*Note deleted.*

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- COP Design Standards Section 2.1(22): Label Puyallup River on all applicable sheets. [Civil Plans, C-1]  
*Added Puyallup River label to 1"=100' inset on sheet C-1. Puyallup River does not show on any other sheet.*
- COP Design Standards Section 2.1(14): Label property lines with distance and bearings on each sheet with plan view. [Civil Plans, C-1]  
*Referenced standard requires the distances and bearing "shall be shown on the plans". It does not say it has to be on every sheet. That's the point of the horizontal control sheet. Have added to cover sheet.*
- COP Design Standards Section 2.1(11): Add a brief legal description of the site, in enough detail to locate the property, including parcel number, 1/4 section, township, and range shall be located below the vicinity map. [Civil Plans, C-1]  
*Added legal description and STR, also moved address and parcel numbers, below vicinity map.*
- COP Design Standards Section 1.0(1.4): Approval block should be 2-1/4" x 3-1/4". [Civil Plans, C-1]  
*Re-sized approval block.*
- COP Design Standards Section 2.1(10): The vicinity map shall be located on the lower right of the first sheet with the project site approximately centered. A north arrow shall be on the map. The site address shall be shown below the vicinity map. [Civil Plans, C-1]  
*Revised.*
- Revise 811 label. [Civil Plans, C-1]  
*Not clear why this needs to be revised. Added 800 number.*
- This additional Vicinity map is not necessary. If it is kept, frame it with scale and north arrow. Freeze utilities, hatches, trees, setbacks, and label street, river, new buildings and ex buildings. [Civil Plans, C-1]  
*Additional map is necessary to show entire site. Added frame and north arrow. Scale is already indicated. Simplified diagram elements.*
- Freeze utilities and existing conditions to be removed. [Civil Plans, C-1]  
*Deleted items to be removed and utilities.*
- COP Design Standards Section 2.1(19): Show and dimension existing and proposed easements on all sheets. Show all Pierce County recording numbers for existing easements. [Civil Plans, C-1]  
*Added existing ingress, egress, & utilities easement. Note that this easement is now obsolete since applicant owns both subject properties.*
- Add legend with existing and proposed lines and symbols. [Civil Plans, C-1]  
*Added legend.*
- Add existing and proposed surface area table from Preliminary Site Plan Submittal. Use the table format given separately under Docs & Images. Additionally break up new plus replaced hard surfaces and effective new plus replaced hard surfaces into the separate TDAs. Provide [Civil Plans, C-1]  
*Impervious area table added.*
- Screen (gray) back existing conditions to remain on all sheets. [Civil Plans, C-1]  
*Lightened all items to remain.*
- Add Grading plan with spot elevations, slope labels, and proposed topography. [Civil Plans, C-1]  
*Added grading plan sheet.*
- This hatch does not show up well in BlueBeam. Revise proposed pavement hatch to be more visible. [Civil Plans, C-1]  
*Lightened the hatching.*
- Show fill and/or excavation quantities in cubic yards. [Civil Plans, C-1]  
*Added.*
- Add note, "A separate building permit is required for trash enclosure" [Civil Plans, C-1]  
*Note added.*



- Add monument protection note. [Civil Plans, C-1]

*Note added.*

### Sheet C-2

- Freeze utilities and existing conditions to be removed. [Civil Plans, C-2]

*Items removed.*

- Tie horizontal control to a property corner. [Civil Plans, C-2]

*Additional callouts added to clarify tie-in.*

- Hatch concrete for contrast legibility. [Civil Plans, C-2]

*Hatch added.*

- Horizontal control Plan looks incomplete. Curb line and curve table showing tagged curb radii and dimensions are not shown. [Civil Plans, C-2]

*Added e/p radii.*

- Remove existing bioswale extents. [Civil Plans, C-2]

*Removed.*

- Add 811 note on all Planview sheets. [Civil Plans, C-2]

*811 note is irrelevant on this sheet, not added. Did add to relevant sheets.*

- Show offsite improvements dimensions and curb lengths [Civil Plans, C-2]

*Added callouts.*

- Show wheel stop separation distance from curb. [Civil Plans, C-2]

*Added dimension.*

### Sheet C-3

- Change Ex. curb linetype to double the length of dashed line or solid line. line type is too similar to infiltration gallery. [Civil Plans, C-3]

*Modified both lines.*

- Show top and bottom lines of ex curb. [Civil Plans, C-3]

*Updated lines.*

- It is unclear what is to remain and what is to be removed. Use bold lines for existing conditions to be removed. [Civil Plans, C-3]

*Revised shaded lines for removed items to heavier lines. See demo key notes for clarification.*

- Show and provide a protection note for the limits of proposed and existing infiltration facilities. [Civil Plans, C-3]

*Added protection fencing callout to Demo Key Notes.*

- Separate structure and pipe removal callouts for clarity. [Civil Plans, C-3]

*Separated notes.*

- separate plug callout for clarity. [Civil Plans, C-3]

*Separated callout.*

- Callout what this sawcut patch is for. [Civil Plans, C-3]

*This sawcut patch removed due to grind and overlay comment.*

- Show grind and overlay on plans. [Civil Plans, C-3]

*Added grind for overlay on this sheet. Added overlay callout to paving plan.*

- Clarify through callouts and labels every item to remain and every item to be removed. [Civil Plans, C-3]

*Items to be removed have been clarified through the use of line weights and callouts. Since this is a demo plan, adding labels "to remain" is unwarranted.*

- Are these trees existing or proposed? Callout existing trees to remain and freeze proposed trees from sheet. [Civil Plans, C-3]

*This is not a tree retention or tree removal plan. Trees shown are existing.*



- add all symbols and lines in legend and add callouts in planview. [Civil Plans, C-3]  
*Updated legend.*
- Is this a wall? specify whether is to remain or be removed. [Civil Plans, C-3]  
*Block wall removal callouts added.*
- Existing conditions should match most updated Survey. Survey can be used for existing conditions. [Civil Plans, C-3]  
*Separate survey exhibit included with resubmittal.*
- for clarity, add screened back concrete hatch for existing to remain and bold concrete hatch for concrete to be removed. [Civil Plans, C-3]  
*Added concrete hatching.*
- There are no proposed items on this sheet. update legend to show applicable lines and symbols. [Civil Plans, C-3]  
*Legend is general in nature.*
- Symbols in legend should match symbols in plan. [Civil Plans, C-3]  
*Symbols do match.*
- Pavement removal limits don't match proposed pavement limits. Sawcuts should be straight lines. [Civil Plans, C-3]  
*Limits do match. Straightened out sawcuts.*
- Show street curb as curb and gutter on all sheets. [Civil Plans, C-3]  
*Updated curb vs curb and gutter linework.*
- Show Existing FFE on all sheets with contours. [Civil Plans, C-3]  
*Added FF.*
- Remove water and electrical lines associated with irrigation on all Civil Sheets. Keep Them on the irrigation plan. [Civil Plans, C-3]  
*These are relevant existing conditions and have been left on existing conditions map. Have removed from demo map.*

#### Sheet C-4

- Remove all proposed conditions from TESC plan except for infiltration facility limits. [Civil Plans, C-4]  
*Proposed conditions removed from plan.*
- Callout infiltration facility and excavation limits. Add compaction protection note. Bottom of facility should be scarified per COP soil amendment standards if compacted by heavy equipment. [Civil Plans, C-4]  
*Added callouts and notes.*
- Callout existing elements. [Civil Plans, C-4]  
*Added callout for existing building and concrete. Other existing items are either self-explanatory or covered by legend.*
- Hatch existing concrete in ROW. [Civil Plans, C-4]  
*Added hatch for existing concrete.*
- Clearly show sawcut limits and of area to be disturbed during construction. [Civil Plans, C-4]  
*I do not think adding sawcut limits is beneficial to this sheet. Clearing limits/project limits have been more clearly defined.*
- Designate one entrance for construction entrance. The entrance may move or be adjusted as needed and after inspector notification and approval. [Civil Plans, C-4]  
*Deleted construction entrance callout on westerly entrance.*



- An existing stabilized entrance may function as a construction entrance but must have an "approved equal" track-out device/facility installed on it. email Review engineer with track-out facility proposal for approval prior to next submittal. [Civil Plans, C-4]  
*Added a trackout mat to the plans.*
- Show cross hatch symbol for inlet protection on all onsite and offsite inlets within project vicinity to remain. [Civil Plans, C-4]  
*Added a cross-hatch, although this seems excessive given every structure is labeled.*
- Label Street. [Civil Plans, C-4]  
*Added street label.*
- Reference which sheet details are located on in Keynotes. [Civil Plans, C-4]  
*Added sheet references.*
- All existing trees 6 inches diameter at breast height or larger, which are proposed to be removed, or retained. The location, size and species of each tree shall be shown. [Civil Plans, C-4]  
*Added to demo plan.*
- Show type of fill material and compaction requirements. [Civil Plans, C-4]  
*Added fill notes to grading plan, sheet C-6.*
- State whether or not the fill material will be placed upon native or stripped vegetation. [Civil Plans, C-4]  
*Included a note in fill notes added to sheet C-6.*
- Clearly show the limits of fill and/or excavation work. [Civil Plans, C-4]  
*Disturbed area limits added.*
- Show clearing limits [Civil Plans, C-4]  
*Disturbed area limits added.*
- Add excavation note with cut/fill slope limits and when shoring is required. [Civil Plans, C-4]  
*Added cut/fill notes to sheet C-6.*

#### Sheet C-5

- Move #6 before #4. All TESC elements should be in place prior to TESC inspection with the City. [Civil Plans, C-5]  
*Moved note.*
- Add install construction entrance note between #2 and #3. [Civil Plans, C-5]  
*Added "install trackout mat".*
- Resolve large space in Standard notes. [Civil Plans, C-5]  
*fixed*
- use dates from Section City Standards 501.5. [Civil Plans, C-5]  
*Replaced entire note with verbiage from 501.5.*
- Add soil stabilization notes from City Standards Section 501.5 [Civil Plans, C-5]  
*Replaced entirety of note 3 with 501.5.*
- This construction entrance detail is not needed. Add applicable an construction entrance detail. [Civil Plans, C-5]  
*Replaced construction entrance detail with trackout mat detail.*
- Add Note: No clearing, filling, grading or other alteration occurs within any critical areas or associated buffer unless specifically authorized pursuant to Chapter 21.06 Environmentally Critical Areas Management of the Puyallup Municipal Code. [Civil Plans, C-5]  
*Added as Special Note #4.*
- Add Note: There is a potential to encounter groundwater during deep excavations. Provide Dewatering note that complies with City Dewatering standards Section 504. [Civil Plans, C-5]  
*Added as Special Note #5.*



## Sheet C-6

- Paving and Storm sheet is busy. Separate Paving Plan from Storm Plan. Remove topography and utility lines from paving plan and rename it as Site Plan. [Civil Plans, C-6]

*Revised.*

- What is JB? Reference detail. [Civil Plans, C-6]

*Revised callout to CB.*

- Remove structures from keynotes and label structure names and numbers on plans. use a separate structures table for rim and invert elevations. [Civil Plans, C-6]

*Revised labelling system.*

- All ADA curb ramps, ADA stalls, and Driveways must have 1:10 scale details showing dimensions, spot elevations, and slope arrows. [Civil Plans, C-6]

*Added 1"=10' drawings to sheet C-7.*

- Show directional pipe-flow arrows. [Civil Plans, C-6]

*Added flow direction arrows.*

- "Disturbed Area Limit" arrow not pointing to anything. [Civil Plans, C-6]

*Added clearing limit line.*

- Mask all labels and callouts [Civil Plans, C-6]

*Clipped contour lines under text.*

- Provide 1:10 scale trash enclosure grading detail with dimensions, slopes, and spot elevations that meets City Design Standard Section 208. You can modify detail on C13 and reference it on site plan. [Civil Plans, C-6]

*Added detail to C-7.*

- Reference Sheet Number in keynotes where details are located. [Civil Plans, C-6]

*Added sheet number callouts.*

- Show roof overhang. [Civil Plans, C-6]

*Added roof overhang.*

- Darken building footprint to increase legibility. [Civil Plans, C-6]

*Darkened footprint.*

- Show Proposed building FFE. [Civil Plans, C-6]

*Added FFE.*

- Show Existing building FFE. [Civil Plans, C-6]

*Added FFE.*

- Show existing CB Rims. [Civil Plans, C-6]

*Added rim elevations to sheet C-8.*

- Add Retaining wall note "Walls over 4 feet require a separate building permit." [Civil Plans, C-6]

*Added key note "8"*

- Freeze all existing elements (like curbing and bioswale) to be removed on all proposed plan sheets. [Civil Plans, C-6]

*Removed items to be removed.*

- Pipe cover at CB 1-2 is approximately 0.65 feet. Minimum cover for Ductile Iron Pipe is 1 foot. [Civil Plans, C-6]

*Grading revised to provide 1 foot min. cover.*

- Add Pipe materials note stating, "Ductile iron pipe shall be Class 50, conforming to AWWA C151. Minimum cover on ductile iron pipe shall be 1-foot. PVC pipe shall be per ASTM D3034, SDR 35 for pipe size 15-inch and smaller. Minimum cover on PVC pipe shall be 3-feet." [Civil Plans, C-6]

*Standard storm notes were inadvertently omitted. Have been added on sheet C-12.*



- Pipe cover at CB 2-3 is approximately 0.9 feet. Minimum cover for Ductile Iron Pipe is 1 foot. [Civil Plans, C-6]
  - Grading revised to provide 1 foot min. cover.*
- Label and hatch each street patch on site plan. [Civil Plans, C-6]
  - With overlay required, no street patching is necessary.*
- Roof downspout Detail is not in plans. Provide City roof downspout infiltration detail 02.05.01 and site specific detail as mentioned in comment on sheet C10. [Civil Plans, C-6]
  - We are not using the standard detail. We have specific trench and sediment control structure details as called out on plan and shown on sheets C-12 & C-13.*
- Add Stormwater Plan Notes from City Standard Section 207. [Civil Plans, C-6]
  - Added to sheet C-12.*
- Confirm if CB 2-3 is in conflict with new curb and revise if necessary. [Civil Plans, C-6]
  - There is no curb proposed.*
- The Silva Cells appear to be in conflict with Stormtanks. Confirm there is no conflict or revise. [Civil Plans, C-6]
  - Deleted portion of Silva Cells in conflict with StormTank.*
- This says storm-tanks are 2 feet deep, the profile appears to show it at about 3.5 feet deep [Civil Plans, C-6]
  - Corrected depth to 3.5'*
- A fence is required for walls over three feet in height. [Civil Plans, C-6]
  - Added fence.*
- Call out type of retaining wall. [Civil Plans, C-6]
  - Added wall type to callout.*
- Call out all proposed improvements and reference applicable details. [Civil Plans, C-6]
  - Done.*
- Match proposed contour with existing contour. [Civil Plans, C-6]
  - Corrected contour lines.*
- Reference applicable structure details and Sheet Number where details are located. [Civil Plans, C-6]
  - Added sheet references.*
- 3.52 foot drop from rim to invert exceeds the 3.3' max drop for the provided detail Revise invert to meet detail specs. [Civil Plans, C-6]
  - 3.3 feet is the minimum hydraulic drop of the structure, not the physical rim to invert. The rim to invert for 18" cartridges may range from 2.3' to 4.25'.*
- Show required invert drop per detail. Marked up detail shows 2'-2" drop from inlet to outlet inverts. Confirm invert difference is met after receiving the shallow depth detail. [Civil Plans, C-6]
  - The 2'-2" dimension is not the invert drop, it is the inlet bay permanent pool depth. This configuration is allowed by Contech for shallow depth applications with considerations as noted in the drainage report.*
- Show full depth pavement removal limits per curbcut detail. [Civil Plans, C-6]
  - Added to Demo Plan and Site Plan.*
- call out bike storage and reference detail. [Civil Plans, C-6]
  - Added callout for bike rack. Detail will be on arch. plans, not a civil element.*
- call out what this is. Are these columns? If so, make sure roof outline is shown and accounted for in storm design. [Civil Plans, C-6]
  - Added callout.*
- Show trash enclosure roof downspout connection to storm [Civil Plans, C-6]
  - Downspout can simply discharge onto the pavement. Have added a callout to this effect to the trash enclosure pad detail.*



- Show infiltration facility inspection port locations and add callout that references detail and sheet location. [Civil Plans, C-6]

*Port locations and callouts added.*

- Show stormtank facility per detail with correct inlet location and module orientations. [Civil Plans, C-6]  
*Corrected storm connection, added modules.*

#### Sheet C-7

- Per COP Design Standards Section 2.2, the consistency between the horizontal scale and the vertical scale shall be on a ratio of 10 to 1 (i.e., 1" = 20' horizontal; 1" = 2' vertical). [Civil Plans, C-7]

*10 times vertical exaggeration is an obsolete standard that does not have value for tighter scale drawings. Most jurisdictions require or allow a 1"=5' vertical scale regardless of horizontal scale. No clarity is obtained by enforcing this standard and it becomes impossible to fit much on a single sheet.*

- Provide Station and existing/proposed elevation labels on bottom of each profile view. [Civil Plans, C-7]  
*Added stations and labels.*

- Mask and "bring to front" the order for all Profile View labels and titles to avoid grid lines intersecting text. [Civil Plans, C-7]

*Text is completely legible, this change is unnecessary.*

- Label existing and proposed surface. [Civil Plans, C-7]

*Added labels.*

- Provide profiles of each proposed storm facility showing other facilities on in close proximity (filterra, silva cells, etc.) cover depth, inverts, storage layers, ponding limits and, high water elevations. show section labels on storm plan Plan. [Civil Plans, C-7]

*Added cross-sections to include Filterra and downspout infiltration trench.*

- Call out max height of retaining wall. [Civil Plans, C-7]

*Added max. height callout.*

- Label stations for each wall corner and do the same on grading plan. [Civil Plans, C-7]

*Added stations.*

- clarify by adding "pipe-run" in between storm and profiles.[Civil Plans, C-7]

*Added.*

- Show depth of cover for infiltration systems in profile for Section A-A. [Civil Plans, C-7]

*Added.*

- Show all dimensions for infiltration systems in profile for Section A-A. [Civil Plans, C-7]

*Added.*

- show FFE for building in profile for Section A-A. [Civil Plans, C-7]

*Added.*

- Show profile to Stormtanks. [Civil Plans, C-7]

*Added in new cross-section B-B.*

#### Sheet C-8

- Show all pipe Crossings and crossing Table with a note specifying City separation standards in section 204.4 and. Show City standard mitigation measures for locations where separation does not meet standards. [Civil Plans, C-8]

*Added crossing data. All crossings meet separation requirements. Standard SS notes added to plans.*

- Provide Sewer line profile per Design Standards Section 2.0. [Civil Plans, C-8]

*Added SS profile.*





- Callout water connection and reference connection detail. [Civil Plans, C-8]  
*Added specific callout, but typically the hydrant callout is adequate for this.*
- Callout all water pipe sizes and materials and lengths. provide thrust blocks with referenced details where applicable. [Civil Plans, C-8]  
*Callouts are complete.*
- Add trench bedding and backfill note and reference detail. [Civil Plans, C-8]  
*Added.*
- Add Sanitary Sewer Notes from City Standard Section 405. [Civil Plans, C-8]  
*Added.*
- Add Water System Notes from City Standard Section 304. [Civil Plans, C-8]  
*Added.*
- Add grease interceptor sizing calculations to plans. [Civil Plans, C-8]  
*Added sizing to sheet C-15.*
- Add Pipe material and cover Requirements note for sewer pipes per Section 401. [Civil Plans, C-8]  
*Notes added.*
- Specify ex pipe material. [Civil Plans, C-8]  
*Included in new profile view.*
- Reference applicable structure details and Sheet Number where details are located. [Civil Plans, C8]  
*Added references.*
- 100-foot max spacing between cleanouts. [Civil Plans, C-8]  
*Added cleanout.*
- FYI: commercial min. slope is 1%. [Civil Plans, C-8] (only add if 6" will be required)  
*Where beneficial, revised to 1%.*
- Show type 1 catch basin symbol for trash enclosure drain. [Civil Plans, C-8]  
*Revised symbol.*
- Show grease interceptor manholes. [Civil Plans, C-8]  
*Added access lids.*
- Callout grease interceptor size per detail and required calculations. [Civil Plans, C-8]  
*Added size and detail callout.*
- 03.10.01 is not provided in sheets.  
*No fire sprinkler system required, so no longer necessary.*
- callout all utility crossings and add crossing table for utilities in ROW. Add Utilities crossing details 03.01.03-1 & 2. [Civil Plans, C-8]  
*Utility crossings added. Referenced details apply to water mains, there are no water mains proposed.*

#### Sheet C-9

- add curb and gutter city standard detail 01.02.09. [Civil Plans, C-9]  
*Added – Sheet C-11*
- add curb cut city standard detail 01.02.10. [Civil Plans, C-9]  
*Added – Sheet C-13*

#### Sheet C-10

- Provide City roof downspout infiltration detail 02.05.01, yard drain detail 02.05.02, and complete, scaled site specific section and profile showing length, width, depth of cover, and finished a surface section to confirm construction conflicts do not exist. [Civil Plans, C-10]  
*Replaced custom sediment structure detail with 02.05.02 – Sheet C-13. The standard detail 02.05.01 is not applicable.*



- Provide Manufacturer Shallow depth configuration detail. [Civil Plans, C-10]  
*There is no manufacturer's detail for shallow depth configuration.*
- Provide Site specific inverts in detail. [Civil Plans, C-10]  
*Added invert.*
- X-out curb inlet detail if not used. [Civil Plans, C-10]  
*Done.*

#### Sheet C-12

- Show site specific slopes and spot elevations. [Civil Plans, C-12]  
*That is not the point of this detail, the information is shown on the plans.*
- Show site specific Rim and invert elevations. [Civil Plans, C-12]  
*That is not the point of this detail, the information is shown on the plans.*
- distance from nearest cleanout is 23 feet. [Civil Plans, C-12]  
*Added cleanout.*
- place bold box around correct size per the required sizing calculations. [Civil Plans, C-12]  
*Added box.*

#### Sheet C-14

- Also see city detail. [Civil Plans, C-14]  
*City detail is not applicable for StormTank application.*

#### Drainage Report

- Provide an area table in section 1 to use in determining minimum requirements. The City encourages using the table provided during Preliminary Site Plan to ensure all required areas are tabulated. Email Lance Hollingsworth if you have trouble finding this table again. [Storm Report, Pg 3]  
*Added table of impervious areas.*
- It appears there may be more than one TDA onsite. Define the different TDAs with a numeric naming convention (TDA 1, TDA 2) and show in a TDA map. Use the TDAs when considering minimum requirements 6,7, and 8 per the Ecology Manual. [Storm Report, Pg 3]  
*The intent of the two different POC's in the WWHM analysis was to reflect the two TDA's. Language has been added to clarify this. Map D1 tables and area labels update to show TDA's.*
- Consider MR 6 thresholds for each TDA. [Storm Report, Pg 6]  
*Added clarification regarding the TDA's.*
- Existing developed areas are never used for sizing BMPs, only for determining minimum requirements. In terms of full infiltration onsite, existing flows are not needed for the sizing design if 100 percent is infiltrated. If the design was detention, the entire site would have to be considered forested for the existing condition. [Storm Report, Pg 10]  
*Historically, City of Puyallup has required the existing (or pre-developed) section of the report whether relevant or not. In the case of using WWHM, a pre-developed scenario must exist within the model connected to any POC for which a treatment analysis is required. Otherwise WWHM will not calculate treatment flow rates or volumes. Also, in cases where full infiltration is not achieved, such as POC 2 (TDA 2), existing condition flows are required to be calculated to show that the increase in flows is less than 0.15 cfs. In this case, I also thought it was important to show the performance of the existing infiltration trench in existing conditions in order to compare to developed conditions. In any event, including the information, even if not required, is not "wrong".*



- Remove existing conditions flow calculations. They are not needed for infiltration design. [Storm Report, Pg 10]

*See response above.*

- New plus replaced hard surface area needs to be recorded for all basins. and added in table. Use table from preliminary site plan. [Storm Report, Pg 137]

*New and replaced are designated in the table added to the report. The basin maps reflect the hydrologic analysis for which the distinction is not necessary.*

- Name the different developed basins with a numeric naming convention for clarity (Basin 1, Basin 2) and define each basin by its drainage characteristics. Tie this back to the developed basin map in the back of the report for clarity. [Storm Report, Pg 10]

*Added TDA references. Existing labels in tables and on map are adequate.*

- An infiltration trench cannot be used as a technical equivalent for permeable pavement. Continue feasibility discussion with remaining BMPs in the list. Document the site conditions and Ecology Manual infeasibility criteria used to deem each BMP infeasible to satisfy MR 5. [Storm Report, Pg 6]

*Added infeasibility explanation for remaining BMPs.*

- If you justify how each TDA effective impervious surface was reduced below the 10K threshold, the flow control standard is not required to be met. [Storm Report, Pg 6]

*Added verbiage to clarify this.*

- When considering MR 7, use the effective impervious area to determine thresholds for Each TDA. Review the supplemental guidelines in the Manual where it specifies the effective impervious area and the converted vegetation areas can be reduced with infiltration facilities such that the TDA Thresholds are not triggered, eliminating the Flow Control BMP requirement. [Storm Report, Pg 6]

*Reference to TDA's has been added.*

- Reference the basin map that is provided at the end of the report. [Storm Report, Pg 12]

*Added a basin map reference.*

- Flow frequency is not needed for modeling infiltration facilities that achieve 100 percent infiltration. [Storm Report, Pg 12]

*While not necessary, it is not "wrong", and many reviewers want to see the peak flow rates prior to infiltration.*

- Explain how there is an applicable flow frequency discharge off-site if 100% infiltration is achieved. [Storm Report, Pg 14]

*As stated in the last paragraph of the page, the new impervious consists of the roof of the building and some walkway. The roof will be infiltrated leaving 500 sf of effective impervious area. That, plus the existing direct discharge areas result in the flow frequency discharge.*

- Correct typo. [Storm Report, Pg 14]

*Corrected.*

- Meeting Flow control standard does not appear to be required based on report stating effective impervious area is reduced to under 10,000 SF through infiltration. Contact Lance Hollingsworth for clarification of design intent. [Storm Report, Pg 14]

*To show that meeting flow control is not required, we must show that the increase in flows from existing is less than 0.15 cfs, so the hydrologic analysis is necessary for POC 2 due to the small area of direct discharge.*

- If 100 percent infiltration is achieved, predeveloped basin information should be empty and not used in WWHM. Call Lance Hollingsworth if you have any questions. [Storm Report, Pg 26 - WWHM Pg 3]

- Predeveloped trench performance is not needed if developed existing trench performance infiltrates 100 percent.



- Should this be POC 2? [Storm Report, Pg 15]  
*Revised headings to TDA 1 and TDA 2 for clarification. POC 3 is used for that area routed to treatment. POC 2 is the entirety of the area draining south.*
- Add note for contractor to clean existing infiltration trench per maintenance Manual and Ecology standards prior to end of construction. [Civil Plans, C-6]  
*ESC requires protection and cleaning of storm system, additional notes/measures are not necessary.*
- Show peak groundwater levels and reference geotech report. [Civil Plans, C-7]  
*Added groundwater callouts to cross-section.*
- Include FEMA Panel number and date. [Storm Report, Pg 8]  
*Added FIRM panel and date.*
- Use an "approved equal" track-out device/facility on top of existing paved access. [Storm Report, Pg 16 - SWPPP]  
*Added reference to a trackout pad.*
- Include wheel wash BMP C106 since it is mentioned in narrative. [Storm Report, Pg 16 - SWPPP]  
*Added wheel wash BMP reference.*
- Add City Design Standard Section 501.5 to Element 5 narrative. [Storm Report, Pg 16 - SWPPP]  
*Added verbiage from 501.5.*
- Add concrete washout, concrete handling, treating high pH water, and saw cutting BMPs to element 9. [Storm Report, Pg 17 - SWPPP]  
*Added BMPs.*
- Add all applicable BMP detail sheets from Ecology Manual to SWPPP. [Storm Report, Pg 21 - SWPPP]  
*Added as Appendix E.*
- Add Site Inspection Form form Ecology SWPPP Template. [Storm Report, Pg 21 - SWPPP]  
*Added with Appendix E.*

#### Source Control Plan

- Add applicable BMPs from Section IV-1 Source Control BMPs Applicable to All Sites. [Source Control Plan, Pg 2]  
*Added*
- Add S421 for Parking lot. It gives direction for when washing parking lots. [Source Control Plan, Pg 2]  
*Added*
- Add S424 for roof/building drains, S442 for storm drain labeling, S447 for Roof Vents. [Source Control Plan, Pg 2]  
*Added*

#### O&M Plan

- Revise to say 2- Infiltration trenches. [O&M, Pg 2]  
*StormTech Gallery is the second "trench", updated to "StormTech Infiltration Gallery".*
- Add ex. trench to maintenance schedule. [O&M, Pg 3]  
*Existing trench is not part of this permit and is not subject to current regulations.*
- Add Street Name [O&M, Pg 3]  
*Added.*
- Add north arrow. Specify NTS [O&M, Pg 3]  
*Added.*
- Add trash enclosure to maintenance schedule. [O&M, Pg 3]  
*Trash enclosure is not a storm drainage feature.*



## Engineering – Traffic Review

- Per Preliminary Site Plan approval conditions:

Sight distance analysis will be required during civil review to ensure driveway(s) can meet City standards for entering sight distance. Any sight obstructions (signage, trees, fences, etc.) must be identified.

*Entering Sight Distance diagram included with this resubmittal.*

During civil design channelization/stripping plan will be required. Proposed channelization arrows & striping cannot be located on sidewalk. Arrows must be thermoplastic.

*Added Channelization Plan to Horizontal control plan, sheet C-2.*

During civil design AutoTurn analysis will be required to ensure design vehicles can safely navigate site.

*Turning diagram included with this resubmittal.*

## Fire Review

1. Parcel lines do not match Pierce County Assessor's page or Puyallup's GIS. Provide exact site plan for review.

*Added "internal" tax parcel line to cover sheet and site plan.*

2. New Fire Hydrant location will not be approved. Move Fire Hydrant by main entrance.

*Moved hydrant to west side of entrance.*

3. New FDC location will not be approved. FDC Location needs to be accessible onsite and not from Main Street. Move FDC to Westside of structure by drive through leaving enough room for a fire apparatus to park onsite and hook up. FDC should be max 15' from Fire Hydrant.

*Determined no fire sprinkler system required.*

4. Provide No Parking Sign / Fire Lane layout with painted and stenciled curbs on both sides of main entrance. Painted curb required at all non-parking stalls and around parking aisles. Show details on plans with sign callouts.

*There is no curbing proposed. Added fire lane edge stripe at entrance. Added signs to channelization plan, sheet C-2.*

## Public Works Collection Review

This would be the location of the commercial side sewer connection with sampling tee. Adjust the 8x6 reducer location until after this point. Civil C-8.

*Added sampling tee, moved reducer, added replacement of ex. 8" callout to accommodate.*

## Public Works Streets Review

- show note 3 , full sidewalk panel replacement sheet c-6 sh

*Added note 3, note hydrant location shifted to west.*

- does not show any street patching related to curb and gutter replacement on driveway removals and replacements....sheet c-6 sh

*Updated callouts for pavement replacement.*

- with this much street cut and patching this should be half road grind/overlay....sheet c-6

*Added grind and overlay.*



## Public Works Water Review

- Civil C-8: Show 2-inch GV at tap to 12-inch water.  
*Added GV.*
- Civil C-8: Set meter directly behind sidewalk.  
*Moved water meter symbol.*
- Civil C-8: Landscape plans show irrigation point of connection at back of meter. Show this on Civil plans. Insert irrigation tee between meter setter and domestic RPBA. Add DCVA after irrigation tee. Call out size of DCVA. Add City standard detail 03.04.01 to plan set.  
*Added callout for irrigation tee and DCVA, added detail.*
- Civil C-8: Bring existing water service to current City standards. Install ArmorCast meter box and raise box and meter setter to correct height.  
*Added callout to this effect.*
- Civil C-8: Call out 4-inch wet tap on 12-inch water main and show GV at tee.  
*Fire sprinkler system eliminated.*
- Civil C-8: Call out 6-inch wet tap on 12-inch water main and show GV at tee.  
*Hydrant feed is 8-inch due to length of spool. Added wet-tap callout and GV symbol.*
- Civil C-8: Set center of hydrant 1-foot 6-inch behind sidewalk edge.  
*Hydrant shifted to west. Existing water line and storm line result in proposed hydrant location.*
- Civil C-8: FDC shall be 10-foot minimum and 15-foot maximum from fire hydrant.  
*No fire system required.*

Please call or e-mail if you have any questions or need additional information to process.

Sincerely,



Robert A. Trivitt, PE  
Project Manager

