



Whipple Consulting Engineers, Inc.

April 21st, 2020

WCE No. 2013-1166

City of Spokane Valley
10210 E. Sprague Ave,
Spokane Valley, WA 99206

Attn: Henry Allen

Re: **Painted Hills PRD O & M Manual Precursory review comments**

Dear Mr. Allen:

We have received your email on February 7th, 2020 and offer the following response. For clarity your comments are listed below with our response in Bold.

Plan sheet C1.3

I was looking at plan sheet C1.3 and noted that there are some design items that will need O&M that need to be included (in the description, tasks, schedules and costs):

1. Dishman-Mica Road: the planting strip, sidewalk, roadside swale and path

A separate paragraph was added under section 3.00, page 9 (Interior Asphalt Pathway, Exterior Asphalt pathway, and Concrete sidewalk). The plating strip was added to the Bio-infiltration Swale/Channel paragraph on page 8.

2. Stream buffer impact mitigation area: Per the biological evaluation, critical areas report and habitat management plan (especially sections 8, 9 and 10), please include tasks and funding for the maintenance of the items utilized for the mitigation of buffer impacts on Chester Creek. Items include noxious weed monitoring and control (perpetual?); signage maintenance; maintenance of irrigation for plant establishment; annual monitoring with reporting; annual mortality replacement of grasses, shrubs and trees; measures implemented for at least 5 years and until performance objectives are met.

Please see the Chester Creek paragraph on page 5 for incorporation of these items.

3. Thorpe Road: roadside swale and sidewalk

A separate paragraph was added under section 3.00, page 9 (Interior Asphalt Pathway, Exterior Asphalt pathway, and Concrete sidewalk). The roadside swales were added to the Bio-infiltration Swale/Channel paragraph on page 8.

4. Madison Road: the roadside swale, planting area and path

Please see response to comment #1 above

5. Triangle Pond and Gustin Pipe
 - a. Include the O&M for the Triangle Pond items (access road, ground cover, sedimentation, drywells, etc.) and Gustin Pipe facilities that the proponent/HOA will be responsible for; confirm with Spokane County on the tasks and costs.
 - b. Confirm with the County that there are easements in place allowing people the ability to access and work in the pond and on the pipe.

These were added on pages 9 and 10 under Offsite Parent Parcel(s) Drainage Facilities (County) section. An easement exhibit and legal will be forthcoming that will allow for County access and performing work as necessary.

O&M Manual

1. Page 1

- a. Abbreviations: include CE and AHJ

Added as requested.

- b. Suggest removing paragraph starting with “Responsible Official” and, instead, for the City in the list of “Party responsible” say something to the effect:
 - i. Community oversight - per CFR 65.6(a)(12) the City Manager or designee will be the local community official responsible for assuring that the maintenance activities are accomplished.

Revised as requested.

- c. Paragraph starting with “The residential lot owners ...” –
 - i. This paragraph mentions that the citizens south of Thorpe are benefitting, how so?

This statement was removed.

- ii. Revise last sentence to say something like: The homeowners association of this project, which is composed of residential, multi-family and commercial lot owners, is responsible for (details described later):

Revised as requested.

2. Section 2.00

- a. 1st paragraph –
 - i. in the list of the PRD facilities include the concrete channel upstream of the pipes, the upstream and downstream headwalls with trash racks and the settling pond.

Revised as requested.

- ii. Recommend not including the pipe type for the 48” pipes; it does not match the type in the plans.

Revised as requested.

- b. Include triangle pond and Gustin pipe

These were added on pages 9 and 10 under Offsite Parent Parcel(s) Drainage Facilities (County) section.

3. Section 3.00

a. Chester Creek

i. in the first paragraph

- 1. it says that the project is to replace the easterly levee but other documents say that the levee is to remain and that fill will be placed landward (eastward) of the levee. Please confirm if the latter is the correct description.

The latter is true and the language was revised accordingly.

- 2. The City will be responsible for maintaining the Creek’s bed and banks up to the ordinary high water mark (OHWM); the proponent/HOA is responsible for maintenance above the OHWM. For more information on this please contact Aaron Clary at aclary@spokanevalley.org.

The language was revised to reflect this, including the separate O & M Manual for the Levee.

ii. Maintenance items, third bullet –

- 1. City will maintain the channel bottom.

Revised, please see above.

- 2. The current conundrum: I do believe the Geotech’s recommendation is to only have grasses on the channel banks but Fish and Wildlife wants trees to be kept on the channel banks. We are currently in discussion with F&W about this.

The Geotechnical recommendation should govern as this is a flood control issue. Therefore, only grasses should be allowed on the channel banks.

b. Storm Drain mainline

- i. In the list of what the storm drain consists of and the maintenance items, consider here including the concrete channel upstream of the pipes and the upstream and downstream headwalls with trash racks (confirm that these items are included in the costs). Suggest moving the Headwalls/trash racks section on page 6 to here since it seems to be a component of the storm drain mainline. Up to you. Also, since the function of the trash racks is so critical please consider adding to the maintenance items to inspect function of trash racks during large storm events and for qualified personnel to safely remove obstructing debris if possible.

Revised as requested.

- c. Cross culverts – the City will maintain the cross culverts from the inlet up to but not including the flap gates. Proponent/HOA to inspect and maintain the flap gates and catch basins.

The language was revised accordingly.

d. Bio-infiltration swale

- i. Include the settling pond. Change title to be: Bio-infiltration swale and Settling pond.

the language was revised as requested.

- ii. In the description and maintenance items include those for the settling pond.

Revised as requested.

4. Section 4.00 Sinking Funds

a. In the calculations–

- i. Remove the Madison Road culverts and replace with the flap gates.

Revised as requested.

- ii. Should mowing include the settling pond and the infiltration field?

Yes; and this has been revised.

- iii. Debris removal should also include the concrete channel, trash racks, settling pond and the infiltration field.

Yes; this has been revised.

- iv. Reseeding and noxious weed removal should also include the settling pond and the infiltration field.

Revised as requested.

- v. Include the Chester Creek, triangle pond and Gustin pipe activities.

The offsite County facilities were added as separate calculations for clarity.

5. Appendix B Chester Creek O&M

- a. Again, the City will maintain the channel bottom and banks up to the OHWM. For questions about this please contact Aaron Clary at aclary@spokanevalley.org. If, during a flood, scouring is observed please contact the City Stormwater Section of Public Works. If, after the flood or during other times of the year, an inspection reveals channel damage below OHWM please contact the City Stormwater Section of Public Works.

The language was revised accordingly.

If you have any questions or comments regarding this letter please feel free to contact me at (509) 893-2617.

Sincerely,
Whipple Consulting Engineers, Inc.



Camden Robinson, E.I.T.

Encl:

CC: Sponsor