

January 13, 2017

Watts Enterprises-Trappers Ridge at Wolf Creek Phase 8 Final Subdivision/WAT02.01 Eden, UT

## Re: County Comments Dated December 8, 2016

Below are the county comments and our responses:

## **Engineering Review Comments:**

1. The storm water calculations show a 10-year scenario for the utilities and basin. The basin needs to be calculated based on a 100-yr event.

*Response: It was discussed and determined in a meeting on June 30 (Jared Anderson, Chad Meyerhoffer, Jeremy Toone) that the 10 year detention scenario is sufficient.* 

2. Does the common area easement found on the east side cover utilities as well?

*Response: We have added language to the owner's dedication on the plat that grants public utility and drainage rights over all common areas.* 

3. SP01, specify in the road cross section that the road will be chip-sealed one year after placement. Specify who will complete it.

*Response: Note has been added that the developer is responsible for chip-seal one year after asphalt placement.* 

4. SP01, the county requires 3" HMA, 6" UTBC, and 8" of granular borrow on the road section.

*Response: Road section has been modified to show 8" granular borrow in place of the 6" identified as a recommendation in the geotechnical report.* 

5. SP01, one side of the road shows a 16' width of asphalt and 2' for the curb, but the other side shows 16' for the road and curb.

*Response:* This has been corrected to show that the asphalt width is 14' from centerline to lip of gutter.

6. There is no easement on the plat plan for the drainage basin. The basin is shown in a common area of the neighboring subdivision. Please verify approval for the basin. Documentation for the HOA and CCR should be verified.

Response: The existing natural drainage swale and proposed detention basin are located within the common area of Trappers Ridge at Wolf Creek Phase 5. We have prepared a separate easement document that grants a drainage easement over the swale and detention basin to be recorded at the same time as the Phase 8 plat. 7. UT01, set the storm drain pipes 5' from the property lines and callout the 5'.

*Response: Storm drain pipes are 5' off property lines, and have been dimensioned as such on the GR01.* 

8. Please provide a design and service approval letter for the Wolf Creek water and sewer district for the water, sewer, and irrigation services.

Response: Letter has been provided and is included in this submittal.

9. Show location of the overflow from the detention basin.

*Response: Location of overflow and bank rip rap has been shown and identified on GR01.* 

 GR01, please verify that a 15" SD pipe can fit into a 2x2 catch basin. The angles of direction change causes concern. A 15" RCP should be kept, so if improvement is needed, the box should size up.

*Response: Box has been upsized to a 4'x4' box and noted on GR01.* 

11. GR01, callout the pipe from the cul-de-sac to the detention basin.

Response: This pipe is now labeled.

12. GR01, ensure the rockery wall is only 4' high on each step. If taller, provide structural calculations.

*Response: Wall grading has been modified to ensure no wall is taller than 4'. In some cases, an additional tier was added.* 

13. GR01, how are the rockery walls maintained without affecting the neighbors to the north?

*Response: Location of walls have been placed a minimum of 4' off of the neighboring lot lines.* 

14. GR01, at the Storm Drain spill out some sort of energy dissipation such as riprap.

Response: Rip rap has been show and specified at all outfall locations.

15. Do we need a drainage easement for the south side of the subdivision for the existing drainage swale.

Response: The existing natural drainage swale and proposed detention basin are located within the common area of Trappers Ridge at Wolf Creek Phase 5. We have prepared a separate easement document that grants a drainage easement over the swale and detention basin to be recorded at the same time as the Phase 8 plat.

16. Have the storm drain and irrigation lines going under the rockery wall installed with structural casing.

*Response: Structural casing has been identified on UT01 for the culinary and secondary lines. The RCP storm drain would not benefit to being encased, due to depth, and the excavation required in the event that a pipe had an issue.* 

17. Install an swale along the road uphill. Any driveways constructed along the road on the uphill side will need a 15" RCP culvert.

Response: The lots will drain toward the roadway as they would in any residential scenario. A swale would be less beneficial than allowing water to flow to the curb and gutter. We also feel that a swale, along with driveway culverts, will only create a maintenance issue.

18. Verify the clearance of the sewer pipe under the detention basin.

Response: The clearance from the proposed finish grade to the top of the pipe will be shallowed by 18" in a portion of the pond excavation. It is estimated that 3' of cover will remain over the existing sewer pipe. A note has been added to the grading plan that the contractor is to verify sewer line depth prior to excavation.

19. PP01, provide a stopping queue or more level segment starting from station 10+15.

*Response: Roadway design has been modified to accommodate a more level cue area at the intersection.* 

20. PP01, How are the parking spaces graded?

*Response: Grad flags have been added to show the grading of the parking spaced on PP01.* 

21. Provide details for all utilities.

*Response: Utility details are shown. Braden believes this may have been inadvertently copied into this document.* 

22. PP02, Ensure that the asphalt in the cul-de-sac is sloped at a minimum of 2% at all places.

*Response: Cul-de-sac design has been confirmed to have a minimum 2% slope on all asphalt areas. Slope arrows have been shown.* 

23. Do we have a slope easement on the south side of the road from 16+50 to 19+15

Response: Slope easements have been added to areas where fill is required, see updated plat.

24. Check the curb in the cul-de-sac to be sure that it's sloped at least at 0.5%.

*Response: All curb and gutter in cul-de-sacs have been confirmed to be at a minimum of 0.5%.* 

25. PP03, provide a stopping queue or more level segment starting from station 40+00.

*Response: Roadway design has been modified to provide a level cue area, without forcing the roadway to exceed 10%.* 

26. PP03, ensure that the asphalt in the cul-de-sac is sloped at a minimum of 2% at all places.

*Response: Cul-de-sac design has been confirmed to have a minimum 2% slope on all asphalt areas.* 

Additional updates to plans: N/A

If any questions arise, please feel free to contact me directly.

Sincerely, Galloway

Rich Piggott, PE (PROJECT MANAGER) RichPiggott@GallowayUS.com



October 12, 2016

**RE: Capacity** 

Watts Enterprises 5200 South Highland Dr. Ste 101 SLC, UT 84117

To whom it may concern:

This is official notice that Wolf Creek Water and Sewer Improvement District has the capacity to serve the Trappers phase 8 with a total of 18 lots. WCWSID has reviewed the plans and has approved them as presented by Galloway Engineering.

If you have any questions or concerns please fill free to contact me at 801-430-4647

Thank you, Mul Rob Thomas

General Manager Wolf Creek Water and Sewer Improvement District