

April 8, 2024

Brady Shyrock, on Behalf of Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920

RE: Lot 2 Elm Grove Villa - Smith Plumbing & Heating; Water Quality Detention Pond Certification

Dear Natahsa Grimaldo,

Please accept this letter as formal documentation of conformance of the Water Quality Detention Pond for stormwater quality and detention at the Lot 2 Elm Grove Villa - Smith Plumbing & Heating development. The Lot 2 Elm Grove Villa - Smith Plumbing & Heating (Site) is located at 1875 Main Street, Colorado Springs within El Paso County, Colorado. The project site is located east of Main Street, which is also designated as Hancock Expressway and south/southwest of Bradley Road. The Site is located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 01, Township 15 South, Range 66 West of the 6th Principal Meridian, City of Colorado Springs, County of El Paso, State of Colorado.

Survey data detailing the Water Quality Detention Pond at the site was provided to Galloway & Company, Inc. on February 14, 2024 and updated February 23, 2024 & March 12, 2024, by Ridge Line Land Surveying. The pond was constructed based on the pond design prepared by Galloway, Inc. in the approved Lot 2 Elm Grove Villa Subdivision Final Drainage Report dated March, 2022.

WQCV Design

The WQCV has a volume of 0.030-acre feet and a depth of 2.74 feet. The WQCV has a 99% drain time of 45 hours which is in conformance with MHFD Criteria and City of Colorado Springs Criteria.

Note to self: once additional MHFD calcs page is provided, check these values.

EURV, 5-Year, & 100-Year Design

Per the approved FDR, the EURV and 100-year volumes will be conveyed via the Modified CDOT Type C Outlet structure to the existing inlet, downstream to the existing concrete flume, and outfalls into the existing 6' concrete valley pan flowing in a southward direction within the townhome site. concrete pan and Elm Grove Drive roadway section with curb & gutter). The proposed development does not increase runoff being discharged from the site, therefore the pond release flows can sufficiently be handled by the existing conveyance system as originally intended. Runoff then sheet flows across Elm Grove Drive (to the east) to an existing low point on the east side of Elm Grove Drive (existing concrete chase), to the existing concrete rundown structure and into the existing pond situated to the south of the existing townhomes. Storm events larger than the 100-year storm will overtop the emergency overflow weir and free release into the structures as described below.



Lot 2 Elm Grove Villa
Water Quality Detention Pond Certification
April 8, 2024

Clarify. This appears to contradict what is stated on the previous page (45hrs)

Clarify that it is also less than 20% of the total site, which is the other half to this <1ac exclude-able area.

The water quality volume release will be controlled with an orifice plate that will release over a period of 40 hours. The water quality pond will release treated flows into the existing flume and existing 6' concrete valley pan within the Elm Grove Villa townhome development to the south as described above. According to the approved **FDR**, the existing detention pond to the south was designed to accommodate runoff from this development and is functioning as intended.

Total area which will not be treated via the on-site facility is less than 1.0 acre, as required.

Miscellaneous

As-builts were also conducted to verify the construction of the forebay and trickle channel. Based on those as-builts the forebay and trickle channel are in substantial compliance with the approved design.

Conclusion

In summary I, Brady Shyrock, a registered professional engineer in the State of Colorado, do hereby affirm, to the best of my knowledge, based on the as-built survey provided by Ridge Line Land Surveying and information provided to date by the general contractor, the Water Quality Detention Pond for Lot 2 Elm Grove Villa - Smith Plumbing & Heating and associated drainage facilities were constructed in accordance with the design intent of the approved drainage report and construction drawings, and in accordance with local standards and specifications, regional jurisdictional design criteria and state statutes.

Should you have any further questions, or require additional information, please do not hesitate to contact me at (719) 900-7220.

Sincerely,
GALLOWAY



Brady Shyrock, PE
Project Manager
BradyShyrock@GallowayUS.com

cc: John Radcliffe, PE
Principal & Regional Office Manager
JohnRadcliffe@GallowayUS.com

Attached Documents:

- MHFD WQ Detention Pond Calculations
- As-Built Drawings

Galloway & Company, Inc.



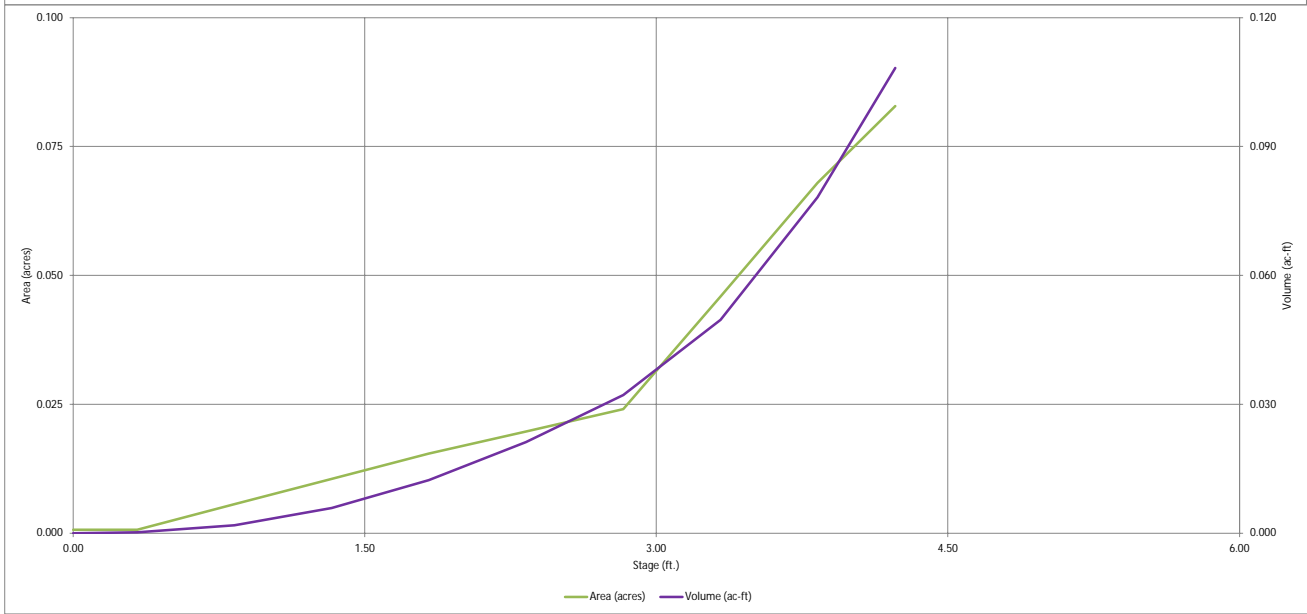
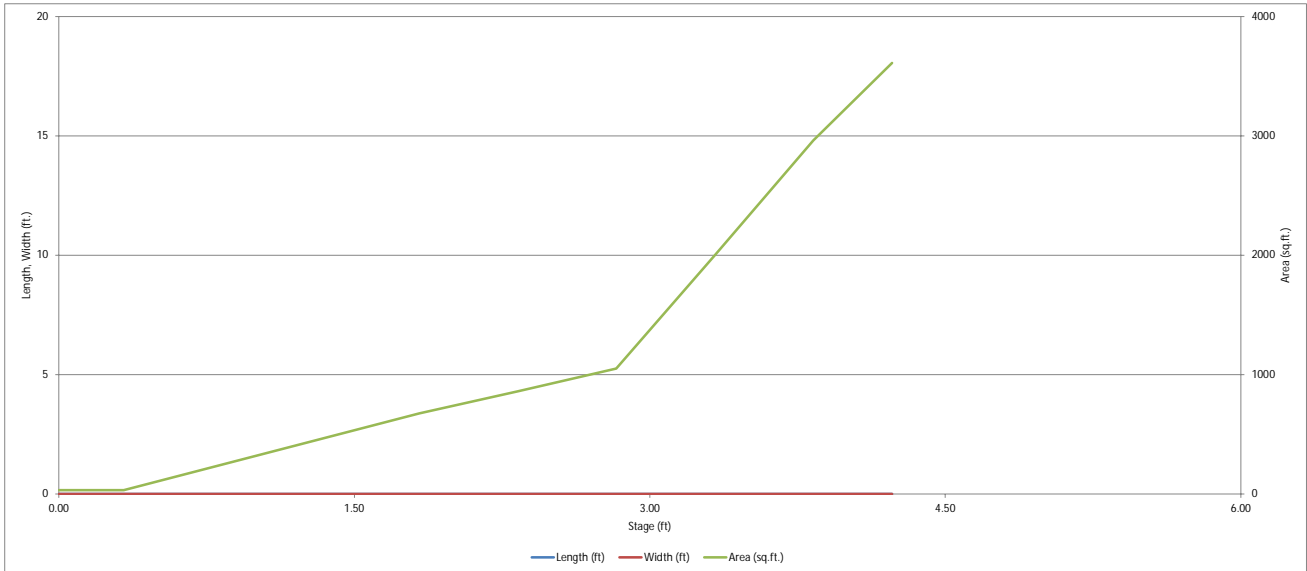
Revise/provide Pond Certification Letter with required statements listed in ECM Section 5.10.6.B:

"The site and adjacent properties (as affected by work performed under the County permit) are stable with respect to settlement and subsidence, sloughing of cut and fill slopes, revegetation or other ground cover, and that the improvements (public improvements, common development improvements, site grading and paving) meet or exceed the minimum design requirements."

For sites including detention and/or water quality facilities, the certification letter shall include a statement that the facilities provide the required storage volume and will meet the required release rates (as documented by an attached MHFD design form), the stage areas, elevations, and outlet dimensions.

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-*Detention*, Version 4.05 (January 2022)



Clarify what "BAS" means. Because the first page of the letter above states that the pond survey was completed by Ridge Line Land Surveying.

MEASURE DOWNS FOR NEW ORFICE HOLE LOCATIONS

BAS SITE VISIT @ 04.08.2024 W/ MEASURE DOWNS FROM TOP OF GRATE

NOTE: @ 3/8" DIA, ADD 0.015625' TO NOTED ORFICE ELEV. TO GET TO CENTROID

To avoid confusion, label the date that this survey data is from to clarify that the blue data is more recent - to show that the plate was modified since this red data was taken.

Or better yet, just delete all of this red data since it is not representative of the as-built condition.

ORFICE CENTROID ELEV = 5848.34

47.49

DIFF = 0.85'

ORFICE CENTROID ELEV = 5847.25

46.44

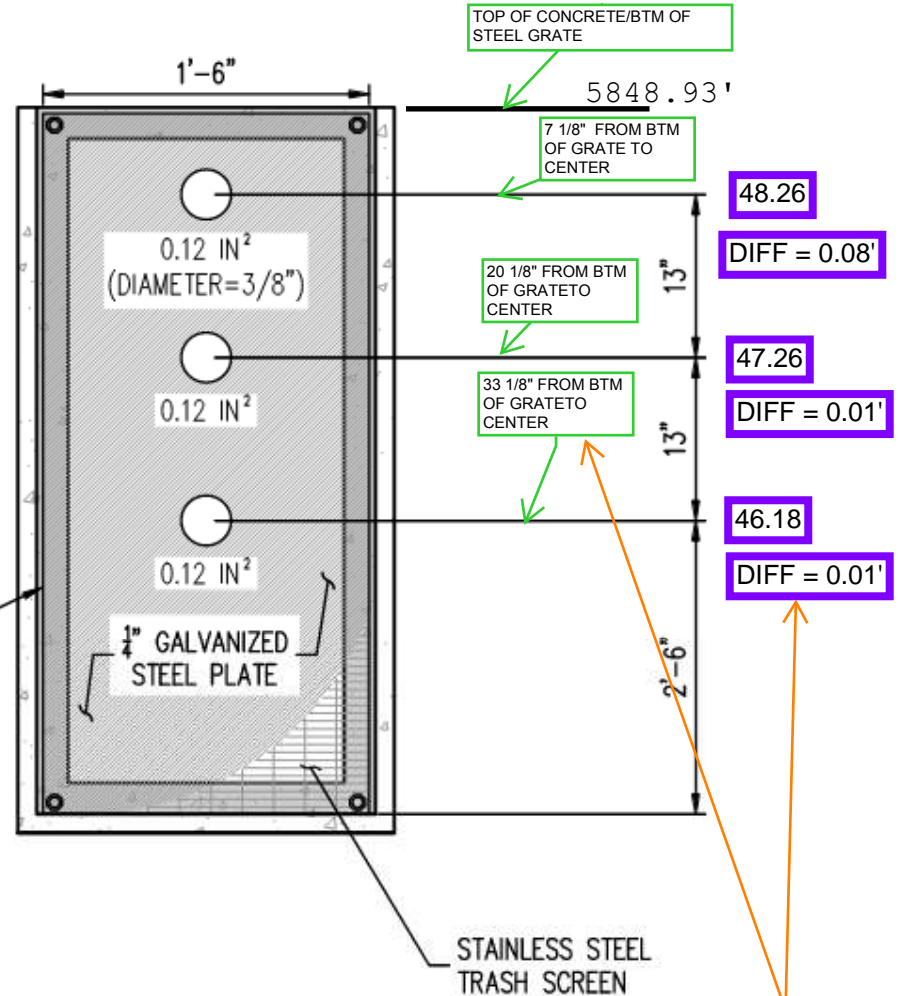
DIFF = 0.81'

ORFICE CENTROID ELEV = 5846.17

45.39

DIFF = 0.78'

2" NEOPRENE GASKET AROUND CONCRETE OPENING TO CREATE A WATER-TIGHT SEAL BETWEEN THE RESTRICTOR PLATE AND CONCRETE WALL



ORFICE PLATE DETAIL

NOT TO SCALE

Please copy all of these green and blue text boxes over to the detail on the previous page or overlay a screenshot of this page on top of the same detail on the previous page.