

Date: Thursday, March 04, 2021

To: NICK HEISER
OLSSON, PROJECT MANAGER

From: Sue Pyles, P.E.
Senior Staff Engineer

Application Number: PL2020269

Application Type: Engineering Plan Review

Application Name: ARIA OFFSITE STORMWATER DETENTION

The Development Services Department received plans for this project on September 09, 2020. We have completed our review and offer the following comments listed below.

- Resubmit one (1) comment response letter and one (1) digital copy following the electronic plan submittal guides as stated below.
- Revised plans will be reviewed within five (5) business days of the date received.

Engineering Review - Corrections

1. Sheet 01: Revise the water contact to Water Utilities department, at 816-969-1900.
2. Sheet 02:
 - Label the perforated underdrain on this sheet.
 - Please include outlet protection for the basin outlet and temporary pipe. Provide calculations to show the design is adequate for the expected discharge. Be sure to dimension it on the plans for constructability.
 - Does a swale section need provided for the areas upstream and downstream of the temporary pipe? Please review and include if deemed necessary.
3. Sheet 04:
 - Is the drawing labeled "Pond Outlet C1" supposed to be Section B-B of the Special Inlet Structure Detail?
 - Revise the Special Inlet Structure Note 2 concrete reference to KCMMB concrete.
4. Sheet 05:
 - Where is the TCE located for this project? Please denote access.
 - Is the intent to construct this as a sediment basin which will be converted to a detention basin in the

future? That doesn't seem to make sense given that the construction area is downstream. If not intended as a sediment basin, please revise the Erosion Control Phasing Chart accordingly.

- Please include the type of biodegradable turf reinforcement mat in the plan set.
- Silt Fence is not an appropriate BMP for outlet structures. Please revise.

5. Please include a full detail for construction of the Outlet Structure in the plan set.

6. Please submit an Engineer's Estimate of Probable Construction Costs.

Traffic Review - Not Required

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs shall accompany your final submittal copies. The itemized estimate (material and installation) shall be sufficiently broken down and shall include the following items, as applicable.

- Public infrastructure, both onsite and offsite.
- Private street construction, including parking lots and driveways.
- Sidewalks located within the right-of-way.
- ADA accessible ramps.
- Sanitary sewer manholes and piping between manholes, including private mains.
- Connection of the building sanitary sewer stub to the public main.
- Waterlines larger than 2 inches in diameter, valves, hydrants, and backflow preventer with vault, if outside the building.
- Stormwater piping greater than 6 inches in diameter, structures, and detention / retention facilities - public or private.
- Water quality features installed to meet the 40-hour extended duration detention requirements.
- Grading for detention / retention ponds.
- Grading to establish proper site drainage.
- Utility infrastructure adjustments to finished grade (i.e. manhole lids, water valves, etc.).
- Erosion and sediment control devices required for construction.
- Re-vegetation and other post-construction erosion and sediment control activities.

Electronic Plans for Resubmittal

All Planning application and development engineering plan resubmittals shall include an electronic copy of the documents as well as the required number of paper copies.

Electronic copies shall be provided in the following formats

- Plats – All plats shall be provided in multi-page Portable Document Format (PDF).
- Engineered Civil Plans – All engineered civil plans shall be provided in multi-page Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Please contact me if you have any questions or comments.

Sincerely,

Sue Pyles, P.E.
Senior Staff Engineer
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cc: Development Engineering Project File