

Date: Monday, March 16, 2020

To: SCHLAGEL & ASSOCIATES
14920 W 107TH ST
LENEXA, KS 66215

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

Application Number: PL2020042

Application Type: Engineering Plan Review

Application Name: WOODLAND GLEN 2ND PLAT (STREET, STORM, MASTER DRAINAGE AND EROSION CONTROL)

The Development Services Department received plans for this project on February 21, 2020. We have completed our review and offer the following comments listed below.

- Resubmit three (3) full size sets of plans (no larger than 24"x36") folded to 8-½"x11", 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. Public infrastructure plans must match the associated plats for location of improvements. When resubmitting, please provide separate plan sets for Woodland Glen 2nd Plat and Woodland Glen 3rd Plat, unless the two plats are combined into a single plat.
2. General:
 - Submit an Engineer's Estimate of Probable Construction Costs.
 - Submit the SWPPP and a copy of the MDNR Land Disturbance Permit.
3. Sheet 1:
 - Add the plat number to the project title on this sheet and the title block on all sheets.
 - Revise the phone number to 816-969-1200 in General Note 14.
 - Remove General Notes 14 & 15, they are not applicable.
 - Include a Vicinity Map with nearby streets labeled.
 - Revise "Public Works" to "Development Services" in Street Note 2.
4. Sheets 2-4:
 - Show and label the existing detention basin.

- Label the sediment traps. Include design calculations, show and label emergency spillway location and dimension, and ensure all standard detail requirements are met.
- Clearly indicate that the sediment traps, where the proposed detention basins are proposed, are to be constructed prior to any site grading.
- Include ESC for Lots 56-58 & Tract A3.
- The “Tract A3” label overlaps the easement label on Sheet 3.

5. Sheet 7:

- Revise SW 14th Street to terminate at SW Winthrop Terrace.
- Retaining walls are not allowed in utility easements or over public storm sewer. Revise as needed to meet this requirement with the proposed retaining walls.
- Label “Winthrop Terrace” to “SW Winthrop Terrace” on this sheet and throughout the plan set.
- Label SW Heartwood Drive on this sheet and throughout the plan set.
- Revise the temporary turnaround to meet the Design and Construction Manual requirements.
- Show and label a 5’ sidewalk along the south side of SW 14th Street on this sheet and throughout the plan set.
- Show and label a 5’ sidewalk on the east side of SW Heartwood Drive on this sheet and throughout the plan set.

6. Sheet 8: The storm sewer labeled as private should be public. Revise accordingly.

7. Sheet 9:

- All lots must have a designated MBOE. This information may be included in a table for clarity.
- Show and label the 100-year WSE for each detention basin. Verify it is a minimum of 20’ from all property lines.

8. Sheet 10:

- Revise the leader line weights for Inlets 104, 1001, and 1101 drainage areas.
- Label Structure 201.
- Show and label the drainage area that encompasses the area draining to the existing detention basin.

9. Sheet 12: Add underdrains at the low points of SW Winthrop Terrace.

10. Sheets 14 & 15:

- All ADA-accessible ramps and ADA-accessible ways must have a specific detail associated with them. The specific details of these features must include, at a minimum, the design details specified in Section 5304.8 of the Design and Construction Manual. Elevation call-outs, although required, are not sufficient. Other design details specified in this section are required, including slope call-outs which comply with the criteria listed in Table LS-5, and section views specified in 5304.8.
- Include ADA-accessible route details, using the City of Lee’s Summit design standards, across

intersections under stop control. In addition, the profile view of the roadway sections must be updated to clearly show the locations of these stop controlled intersections.

11. Sheet 16:

- Label SW Ward Road on this sheet and throughout the plan set.
- Show and label the existing storm sewer on the south side of SW Ward Road.
- Label the detention basins.
- Revise the description for Structure 2 from “4x4 Junction Box” to “Outlet Structure” to match the other outlet structure descriptions in the Storm Sewer Construction Notes.
 - The minimum crossing angles for sanitary sewer and water mains is 45 degrees. The storm sewer crossing a water main upstream of Structure 802 and a sanitary sewer downstream of Structure 301 don’t appear to meet this requirement. Revise as needed.
- Remove the partial profile from this sheet.

12. Sheets 17-19:

- Please depict the orifice plate accurately for each structure. Label the dimension between the top of the plate and the flowline of the next higher orifice to verify elevations make sense.
- Label the dimension between the top of the 10” and the flowline of the 24” orifice for EDDB 2 Outlet Structure. It appears too close for proper construction.
- Clarify construction of the outlet structures. Is the intent to have to main structure follow junction box detail, or something different? Please clearly indicate requirements.

13. Sheet 20:

- Relocate overlapping text on the Line 100 & 300 Profiles.
- Revise the Structure 201 description as discussed above.
- Label the structure numbers with description as well as Flowlines Out at Structures 200, 600, and 700.
- Include the following note on any profile sheet applicable: “Compacted Fill shall be placed to a minimum 18” above the top of the pipe prior to installation.”
- Show and label the limits of the compacted fill placement in the Profile view. Use hatching for clarity.

14. Sheet 21:

- Label the water crossing upstream of Structure 802 in the Line 800 Profile.
- Revise the Line 900 Flowline In at the existing curb inlet to provide a minimum 0.2’ drop through the structure.
- Include the following note on any profile sheet applicable: “Compacted Fill shall be placed to a minimum 18” above the top of the pipe prior to installation.”
- Show and label the limits of the compacted fill placement in the Profile view. Use hatching for clarity.

15. Final Stormwater Management Report:

- Revise the study to depict the proposed layout.
- Label the existing and proposed detention basins.
- Include and/or clarify the following additional information in the body of the report:
 - o Drainage areas to each proposed detention basin.
 - o Water Surface elevations for 2/10/100 year events as well as the Water Quality event for each proposed detention basin.
 - o Emergency overflow: location, calculations showing the spillway can pass the 100-year flow in a fully clogged condition.

Traffic Review - Corrections

1. Plans are missing roadway typical sections, sidewalk and ADA ramp information, pavement design, street signs (e.g. stop signs/street name signs), and a temporary traffic control plan. The TTC Plan should also address issues/commitments noted during the PDP Public Hearing(s) for phasing and routing construction related traffic.

2. A temp. cul-de-sac is required that complies with the Design and Construction Manual. The "turn around" proposed is not acceptable.

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,

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cc: Development Engineering Project File