
PUBLIC WORKS ENGINEERING DIVISION

Date: Friday, August 24, 2018

To:

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PARAGON STAR LLC
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From: Sue Pyles, P.E.
Senior Staff Engineer

Application Number: PL2018092

Application Type: Engineering Plan Review

Application Name: Paragon Star Storm Sewer and Mass Grading

The Development Services Department received plans for this project on June 01, 2018. 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

1. Sheet 1:
 - Add KCMO sanitary sewers contact information in the Utility Contacts list.
 - Add Sheet 8 to the Index of Sheets.
2. Sheet 6:
 - There is a gap in the proposed contours just west of Structure #302. Please revise on this sheet and throughout the plan set.
3. Sheet 8:
 - Please clarify what the extra tick mark and "5" are at the west end of the Line 300 Channel centerline in Plan view.
4. Sheet 9:
 - Include ownership in the labels for all existing sanitary sewer.

- Sanitary Note S8 calls out a MH adjustment and “S8” is shown in the Plan view. I can’t see any sanitary MH or line. Please revise to show the existing sanitary sewer referenced.

5. Sheet 10:

- The width of riprap protection at the beginning of the stream realignment is provided in Section A-A on this sheet. Please provide length and stationing, or some other method to locate, to allow proper placement during construction.

6. Sheet 11:

- The existing sanitary sewer meter structure appears to be incorrectly located. From aerials, the structure seems to be located where the Existing 42” LBV interceptor connects to the 84” interceptor. If this is the structure being referred to, please revise all callouts in the plan set. If this refers to something else, please provide additional information.

- There is a dimension line in Section H-H directly below the 8’ dimension which seems extra. Please revise accordingly.

- Section F-F refers to 12” to be placed in Line 500. Please see related comment under Sheet 13.

7. Sheet 13:

- Label the existing grade line in each Profile view.

- Line 500 is filled with 12” of streambed material. Provide details regarding how that material is placed. In addition, make clear that the pipe is embedded into the ground with the flowline being the top of the 12” fill. Refer to the sheet containing this information in Profile view if on another sheet.

8. Sheet 15:

- The HGL(allowable) calculation appears to be top elevation of structure – 1.33 feet (the distance between the opening and the top of structure for a curb inlet). According to APWA Section 5604.4, the HGL must be a minimum of 0.5’ below the opening elevation (top elev – 1.33 – 0.5 for a curb inlet). Please revise.

- If possible, please enlarge the calculations. They are difficult to read.

9. Sheet 23:

- Revise the General Notes to match the notes in the City’s standard details.

10. General:

- The plans show encasement and MH adjustments to existing sanitary sewers owned by both KCMO and Little Blue Valley Sewer District. Written documentation of concurrence of those owners, as well as inclusion of any information in this plan set that they request, will be required prior to approval of this plan set. Written approval for the location of proposed structure 1201 is also required.

- Drainage discharges to the east onto the adjacent property in 3 locations. Those locations will require private easements allowing this discharge. The executed easements will be required prior to the approval of these plans.

- Please coordinate the design of the street and the design of the storm structures on this project. Review of the future street plans could require adjustments to the inlets

- Several storm sewer structures being constructed with this project will be a part of the street system once the streets are constructed. Please be aware that review of future street plans may result in adjustments to those structures.

- Add inlet calculations to the plan set.

- Submit an Engineer's Estimate of Probable Construction Costs

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

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 on CD in the following formats

- Plats – All plats shall be provided in Tagged Image Format File (TIFF) Group 4 compression.
- Engineered Civil Plans – All engineered civil plans shall be provided in Tagged Image Format File (TIFF) Group 4 compression. All sheets shall be individually saved and titled with the sheet title.
- Architectural and other plan drawings – Architectural and other plan drawings, such as site electrical and landscaping, shall be provided in Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

- It is requested that each plan sheet be a maximum of 2MB.

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