

Date: Friday, January 24, 2020

To: MCCLURE ENGINEERING COMPANY
705 1ST AVE NORTH
FORT DODGE, IA 50501

From: Loic Nguinguiri, E.I.

Application Number: PL2019390

Application Type: Engineering Plan Review

Application Name: Saint Luke's East - Flex Facility Pre Utility Work

The Development Services Department received plans for this project on November 18, 2019. 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 - Pending

1. General: Please include the building edge line and the helipad footprint in the legend.
2. General: The FEMA floodplain information is outdated. Please update the FEMA flood note.
3. General: Please include the general note: The contractor shall contact the City's Development Services Engineering Inspectors 48 hours prior to any land disturbance work at (816) 969-1200.
4. General: Sanitary and Storm (private) pipes appear to be less than 5' from tree(s). Please consider increasing the distance.
5. General: Before resubmittal, Please revise (or update) quantities for 15" RCP, 45 degree horizontal bend and 22.5 degree horizontal bend.
6. Water: It looks like the water pipe, to be disconnected and removed, runs from STA 0+00 to STA 3+75.29. Please revise.
7. Water: The City's minimum cover for water main is 3.5'. Despite being mentioned in general note 6, the depth does not appear to meet the minimum requirement at several stations on the profile view. Please

adjust.

8. Water: Please revise on profile view the following concern: From STA 1+07 to STA 1+50, the difference of elevation between the edge of water pipe and existing ground appears to be less than 18 inches. According to section 2102.4 of the Design and Construction manual:

o When pipe is to be installed in embankment or fill, the embankment shall be constructed in accordance with APWA Section 2102.6 and shall be built up to a plane at least 18 inches above the top of the pipe prior to the excavation of the pipe trench.
9. Water: Utilities, such as electric conduit or fiber optic, appear to be within the 6 inches space reserved for bedding aggregate. Please provide clarification or explanation regarding the concern.
10. Water: The two parallel water lines at STA 2+46.45 and STA 2+66.96 appear to be domestic service lines. Please disregard the previous comment issued and just make sure that they connect to the new water main. However, those shall not be labeled as FPW (Fire Protection Water) lines.
11. Water: The City does not recommend 90 degree bends on water mains. Please revise to (2) 45 degree bends.

Traffic Review - Pending

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,

Loic Nguingiri, E.I.

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cc: Development Engineering Project File