

October 16th, 2023

City of Lee's Summit, Missouri Attn: Gene Williams 220 SE Green Street Lee's Summit, MO 64063

RE: THE VILLAGE AT DISCOVERY PARK – PUBLIC SANITARY PL2023145

This letter provides responses to comments as provided and dated below. Thank you for your time, all approvals are acknowledged without comment below. Please note the following formatting conventions:

- General statements, descriptions, and quotes from previous communication of changes not in direct response to a comment shall be unformatted.
- · Comments as provided or described as well as possible shall be italicized.
- Responses to comments shall be bold.

Thanks,

David Eickman

Engineering Review - Corrections

2

1. Sheet C664 was shown in the previous submittal with the forcemain outside the limits of the dam. A review of Sheet C663, however, appears to show the forcemain is still within the limits of the dam. The forcemain must be outside the limits of the dam, since it will present a conduit for potential failure, as well as the possibility of a line break and subsequent dam failure. Please review and revise as appropriate and ensure the forcemain is outside the limits of the dam.

Forcemain moved out of the dam limits on Sheet C663.

2. The sanitary sewer manholes that exceed 20 feet of depth should be upgraded to 5 foot inside diameter. Many are already shown as 5 foot inner diameter manholes, with the exception of Z1, Z2, 16-008, 16-010, 16-009, and A8. Please revise plans to show 5 foot inside diameter sanitary sewer manholes for all sanitary sewer manholes greater than 20 feet in depth.

Following sanitary sewer manholes deeper than 20 ft upsized to 5 ft inside diameter: SAN Z2, NEW MH 16-008, NEW MH 16-009, NEW MH 16-010. Proposed manholes SAN Z1 and SAN A8 shortened and are shallower than 20 ft now. Due to existing

manholes being upsized and replaced, an updated waiver exhibit provided with the resubmittal.

- 3. Manhole A8 is shown with excessive depth for no apparent reason. It was also not included in the waiver exhibit. Was there a reason for the excessive depth on the south side of Colbern Rd.? If not, please raise the manhole.
 - Manhole SAN A8 revised and shortened considerably (~16 ft deep). Previous design configuration was targeting existing ground surface, and not the mass grading surface of Zone 2.
- 4. It does not appear sufficient effort was expended to lessen the depth of sanitary sewer lines throughout the project. Where allowed, please raise manholes to lessen the impact of deep sanitary sewers for this project. There appear to be several ways to minimize the depth issues, one of which was described in the above comment. There also appear to be methods to raise the manholes at the Douglas St. crossing by a measurable amount. Every foot will help, as these lines will be extremely difficult to maintain as shown. Please thoroughly evaluate and revise. At this time, staff will not support a waiver to the 20 foot maximum depth rule unless there has been additional effort to minimize the excessive depth issues.

Existing sanitary sewer line Z has to stay deep due to fixed upstream and downstream flow invert elevations at connection points. We have addressed the city's request to upsize all relevant manholes to 5 ft and will still be applying for the waiver.

Proposed sanitary sewer line A is ~12-16 ft deep, mainly in order to accommodate future Discovery Park Zone 2 development south of Colbern Rd, which is well below city's requirements of 20 ft depth max.