

August 10th, 2021



Lee's Summit, Missouri
Development Services - Engineering Division
Attn: Sue Pyles
220 SE Green Street
Lee's Summit, Missouri 64063

**Re: Sanitary Sewer Memo for "Lee's Summit Logistics" Project
1220 NW Main Street, Lee's Summit, MO**

This memorandum and the attached exhibits are intended to provide an overview of the sanitary sewer systems for the project located at 1220 NW Main Street. Current conditions on the site consist of open green space. It is assumed the existing sanitary main that runs throughout the site was designed to handle the future development within this space.

The proposed conditions consist of three (3) industrial warehouses ranging from 100,000 sf to 500,000 sf. As stated above, the site has existing public main extension that cuts through the proposed site. With that, the proposed service for each building will involve sanitary sewer service lines connections in lull of a sanitary sewer main. These connections will be made from building MEP rooms to existing sewer main. The proposed sanitary sewer design will keep the same drainage patterns as the existing system. Additionally, the new service lines will utilize gravity flow to connect to the existing gravity main.

Existing Sanitary Sewer Main Extension:

Per survey information, the northern portion of the project will utilize the existing 24" RCP sanitary sewer main, while the southern building will utilize the existing 12" VCP sanitary sewer main. Per the survey information, given the flowlines and distance, slope, etc. the capacity of each line is listed below:

Existing Sanitary Sewer 24"

Pipe diameter 24" RCP at 2.10% grade with a capacity of 32.87 cfs.

Proposed Site Flow Rate: 1.15 cfs

Existing Pipe without Proposed Site Flow Rate: 32.87 cfs

Existing Sanitary Sewer 36"

Pipe diameter 36" RCP at 1.53% grade with a capacity of 82.72 cfs.

Proposed Site Flow Rate: 1.15 cfs

Existing Pipe without Proposed Site Flow Rate: 82.72 cfs

Olsson is still working with the City on additional information such as the watershed boundary, that is generated by the City of Lee's Summit. This will help determine the exact capacity of the existing line and location in which is best for the proposed service line connections. Per the calculations above, and dependent on the overall watershed for these particular sanitary sewer mains, it appears that the total sewer of the site would be within the appropriate capacity of the

existing pipes. Olsson will continue to work with City staff on the sanitary sewer capacity memo and determination of existing conditions. Please find the attached calculations to help explain the sanitary sewer capacity.

If you have any further questions, please contact me at 913.381.1170 or lmoore@olsson.com.

Sincerely,

Luke Moore
OLSSON

Terry Parsons, P.E.
OLSSON



Attachments include

- **Project Superbowl Capacity Calculations**
 - **General Layout "Exhibit A"**