LEE'S SUMMIT
MISSOURI

PUBLIC WORKS ENGINEERING DIVISION

Date: Monday, June 15, 2015

To:
THH INC
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From: Gene Williams, P.E.
Senior Staff Engineer

Application Number: PL2015067

Application Type: Engineering Plan Review

Application Name: Summit Innovation Center - Public Street, Stormwater, ESC

The Public Works Department received plans for this project on June 8, 2015. These plans are dated and were sealed on June 7, 2015. We have completed our review and offer the following comments:

Engineering Review

1. The plans show a significantly different alignment for the main trunk line storm sewer, and also a different material for the main trunk line storm sewer (i.e., RCP rather than a 5 x 5 foot box culvert). By substituting RCP for the RCB, junction boxes with manhole extensions on top are now proposed on top of large, buried junction boxes. The City's standard detail does not allow for any extension above a junction box of greater than a foot, nor does it allow for the placement of a manhole on top.

2. Why is the storm sewer so deep? As a public system, this raises considerable maintenance concerns. It would appear the main storm sewer trunk line can be raised vertically to a more reasonable elevation.

3. Sheet C201: It does not appear that the junction box call-outs on this sheet match what is shown on the details.

4. Sheet C502: The boxes shown on this sheet do not appear to match the call-outs on Sheet C201.

5. Sheet C502: These junction box/manhole hybrids do not appear to meet any currently-accepted City standard detail.

6. Sheet C101: A considerable amount of stormwater will daylight at the end of the storm sewer trunk line. What is the grading plan after it daylights? Of particular concern is the existing sanitary sewer manhole which will be in the path of stormwater, assuming it is still in operation after the installation of the storm sewer trunk line.

7. General Comment: Although sidewalks are shown within the development, they do not necessarily need to be constructed along Innovation Parkway until development occurs on those lots abutting the sidewalk. The request to show sidewalk on the plans is needed to determine potential confilcts with

proposed improvements.

8. Please note that the City standard detail for junction boxes are from the Kansas City Chapter of the APWA. These details do not allow for a junction box to be installed greater than 7' x 7' in width without a special design, or greater than 7' in the vertical dimension without a special design. All aspects of the design will need to be shown, including steel reinforcing bars in the plan and section views, thickness of concrete, etc.

9. Sheet C201: The rip rap at the end of the main storm sewer trunk line does not appear to be large enough to handle the stormwater flows. The profile view also shows a "bump", presumably for additional energy dissipation. If this is going to be maintained as a public storm line, then a more robust system should be provided for the long term maintenance at the end of pipe.

10. Sheet C201: After an evaluation of the depth (i.e., raising the stormwater trunk line to a more reasonable depth), it may be necessary to provide a short segment at the end of the pipe where the slope will be minimal. This will aid in reducing the velocity at the end of pipe. It will, however, require an additional junction box.

Traffic Review

1. Add street name signs at the intersection of Ward and Innovation above the stop sign.

2. Add stop sign and street name signs at the intersection of Innovation and Tudor

3. Remove all thru arrows and thru/right combination arrows from the pavement markings with exception of the two thru/right combination arrows along northbound Ward Road (temporary).

4. Note 12 on the General Notes shall refer to Ward Road as an Arterial, not a Collector.

If you have any questions or comments, please contact me, Gene Williams either at (816) 969-1800 or e-mail to Gene.Williams@cityofls.net.

Sincerely,

Original Signed

Gene Williams, P.E.
Senior Staff Engineer

cc: Development Engineering Project File