

From: Kampa, Tim
Sent: Monday, January 30, 2017 12:31 PM
To: Desrude, Jennifer
Cc: Gruidl, Bryan
Subject: RE: BCS parking ramp

Jen,

I've added comments below in green.

From: Desrude, Jennifer
Sent: Tuesday, January 24, 2017 9:27 AM
To: Kampa, Tim <tkampa@BloomingtonMN.gov>
Subject: BCS parking ramp

Hi Tim,

I'm not sure if Tom Lincoln worked through these comments with you already. I received updated plans about a month ago and they slipped through the cracks. Here is a [link](#). Here were your remaining comments:

20) Need 10' min separation between sanitary and watermain. This separation requirement includes storm sewer and any manholes as well. Currently, there is a sewer manhole about 3' away from the watermain on 30th Avenue and the storm along the north side is less than 10' from the watermain. As shown these lines will never be permitted to become public mains in the future due to the risk involved.

KHA Response:

Horizontal separation is not achievable in the 10' Drainage and Utility easement. Vertical separation is met and the material type of the sanitary and storm has been changed to C-900/905 PVC. This exception is approved by the MDH. It is understood that the storm and sanitary pipe and manholes will need to pass the required testing. It is also understood that these lines will not become public mains due to the risk involved. Insulation has been added to the foundation wall because the lower level of the ramp is unheated.

I want to go on record as saying that these Utilities are not being constructed in accordance with City and State standards regarding location and separation. It may be very difficult for the owners contractor to perform any future repairs on these utilities without damage to the surrounding facilities. Still would have preferred that the building be moved to accommodate the proper separations. Since the MDH has approved the plan we will let the project be built in accordance with the requirements of the MDH. Please note that the utility lines with nonconforming spacing cannot become public lines in the future as there is not enough room to maintain/repair them.

****I believe this is the memo we discussed yesterday. I can draft a memo to the file and attach this statement that they understand the lines will not become public.**

21) Show watermain monitoring due to proximity to LRT. The watermain running parallel with the LRT needs to be double wrapped with 8 Mil Poly and 3 Test stations are needed.

KHA Response:

A note stating that the watermain running parallel with the LRT needs to be double wrapped with 8-mil poly was added to sheet C5.4. Test stations were added to sheet C5.6 as requested. A Stray Current Test Station detail was added to sheet C5.4.

OK.

28) This will complicate future sanitary repairs. Suggest relocating power. The power line must not run between the hydrants and associated auxiliary valves. Power should be 5' to 10' from hydrants.

KHA Response:

Acknowledged. The Xcel service has been moved to the north and will exceed the 5-foot separation from the hydrant.

OK- Also look out for the conflict with power crossing of the water service gate valve. Make sure the valve is 5' away from the power line.

1) The thrust restrain systems for the hydrants on the north side of the ramp need to be designed to protect the building from damage. Also the hydrants may be subject to freezing if they are only about 3' from the parking area and that space is unheated. Insulation may be needed.

KHA Response:

Insulation was provided between the building and the hydrant leads. See sheets C5.6 and C7.0 for profile and plan views. Hydrant thrust block won't impose significant load to the cast-in-place foundation wall.

OK.

10) There must be a hydrant located within 50 feet of all building fire dept connection points

KHA Response:

A fire department connection point was added to the plans. See sheet C5.6. It is located within 50 feet of a fire hydrant.

OK. Make sure Bloomington Fire approves the Location.

12) Use Class 52 DIP watermain for pipe 12-inches in diameter and smaller. A minimum 8 mil polywrap is required on all DIP. Correct Page C5.4 that calls for PVC C-900 and use 2 layers of 8 mil polywrap on the watermain that runs parallel with the LRT Tracks

KHA Response:

Sheets C5.4 and C5.5 have been updated to reflect this change. A callout was added to sheet C5.6 stating "use 2 layers of 8 mil polywrap on the watermain that runs parallel with the LRT tracks."

OK.

21) Why is sewer service to the ramp DIP?

KHA Response:

The sewer service to the ramp is DIP because it is in the footprint of the future parking ramp structure.

OK.

25) All levels of the parking ramp that have sidewalls more than 50% open must drain to the storm sewer. Need verification that the ramp is not open. Make sure that storm water is directed away from the ramp entrances. Also make sure that footing drain tile water is directed to the storm sewer not the sanitary sewer.

KHA Response:

The ramp is less than 50% open. Architecturally, we meet the IBC definition of Open Parking Garage (Section 406.5, construction, openings and exceptions) with opposing sides of the building open. This addresses ventilation and fire sprinklers for the upper floors. The Mechanical code looks for percentage of openness per elevation to address whether drains need to route to sanitary or storm sewers. Our proposed ramp is ~30% open, which is below the 50% threshold. Therefore, the top level of the parking ramp will drain to the storm sewer system, while the remaining levels and the lower level will drain to the sanitary sewer system. The foundation drain tile is directed to a sump and connected to the storm sewer system. Drainage is directed away from ramp entrances, and thus not to the sanitary sewer system.

I understand that Bloomington's Building and Inspection group has classified the ramp as open and has requested the majority of the ramp be drained to the storm sewer. With the enclosed lower level areas being drained to the sanitary sewer. Check with Bloomington Storm Sewer Engineers regarding any additional requirements such as trap manholes or required sweeping prior to ramp washdowns.

Please let me know if these comments and the linked plans above satisfy your remaining comments. The rest looks OK.

Thanks,
Jen

Jen Desrude, PE | Development Coordinator
City of Bloomington | Public Works | Engineering
1700 West 98th Street | Bloomington, MN 55431
Direct: 952-563-4862
jdesrude@BloomingtonMN.gov