

MEMORANDUM

FOCUS ENGINEERING, inc.

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Date: April 18, 2019

To: Ken Roberts, Planner Director
Cc: Chad Isakson, Assistant City Engineer
From: Jack Griffin, P.E., City Engineer

Re: Metro Transit Park & Ride at I94 and CSAH-15
Engineering Plan Review

An engineering review has been completed for the Metro Transit Park & Ride Station Engineering Plans at I94 and Manning Avenue (CSAH-15) received on March 25, 2019. The submittal consisted of the following documentation:

- I-94 and Manning Avenue Park & Ride Station Plans, dated 03.29.2019, prepared by SRF.
- Stormwater Management, dated November 2018, prepared by SRF. Not Certified.

STATUS/FINDINGS: Engineering has prepared the following review comments:

PRELIMINARY PLAT AND EASEMENTS

- No lot easements have been provided as required.
- A retaining wall and chain link fence are proposed along the length of the rear lot line. The retaining wall and chain link fence encroach the required rear lot line easement. Temporary construction easements or permits will be required from adjacent properties to construct the proposed retaining wall. Temporary construction easements should be shown on the plans and provided to the City.
- The plans show a future charging station encroaching the required side lot easement on the north side. The plans should be revised to relocate the future charging station outside of the easement.
- Drainage and utility easements must be added to the plans over all watermain and hydrants. Easements must extend minimum 15-feet from pipe and hydrants (see Utility Plan comments). Drainage and utility easements must be provided in the City's standard form of drainage and utility easement agreement.

STORMWATER MANAGEMENT

- The site plan is subject to a storm water management plan meeting State, VBWD and City rules and regulations. A storm water management plan has been submitted but has not yet been reviewed by the VBWD. The stormwater management plan must be prepared and certified by an engineer licensed in the State of Minnesota. The plan must be resubmitted with professional certification. Any plan revisions made to obtain the VBWD approval must be resubmitted to the City for review and approval.
- The site plan shows storm water management being addressed using on-site underground storage located beneath the proposed parking spaces. The storm water facilities constructed for this development will remain privately owned and maintained. The applicant will be required to execute and record a Stormwater Maintenance and Easement Agreement in the City's standard form of agreement.
- The 100-year high water flood level (HWL) and 100-year HWL contour must be calculated and shown on the grading plans, must be fully contained within private property, and must be protected by easement.

PERMITS/APPROVALS

- A copy of the VBWD permit is required prior to start of construction.
- A copy of the MnDOT drainage permit is required prior to start of construction.
- A copy of the MPCA Stormwater Construction permit is required prior to start of construction.
- Any plan revisions made to obtain the above permits must be resubmitted for City review and approval.
- An executed Stormwater Maintenance and Easement Agreement in the City's standard form is required prior to start of construction.
- Retaining walls that exceed 4 feet in height must have a design submitted and certified by an engineer licensed in the State of Minnesota.
- Written landowner permission must be provided for any off-site grading work, easements and storm water discharges to adjacent properties.
- No construction for this project may begin until the applicant has received City Engineer approval for the Final Construction Plans; the applicant has obtained and submitted to the City all applicable permits, easements and permissions needed for the project; a site improvement agreement has been executed with the City and all required securities have been provided, and a preconstruction meeting has been held by the City's engineering department.

CONSTRUCTION PLANS

- Construction Phasing. The plans should be updated to better identify the Hudson Boulevard Improvements as "proposed construction by others" and to require coordination between contractors. The plans and specifications should carefully address construction phasing, such as the timing for water and sewer connection and testing, and driveway connections to Hudson Boulevard.
- C3.0. Grading, Drainage and Erosion Control. Revise the erosion control plans to include the City of Lake Elmo standard plan notes for erosion control and City standard details for erosion control. The specifications must be updated to include the City of Lake Elmo standard specifications for erosion control. The City specifications, details and plan notes must be identified to supersede all other plans and specifications in case of conflict.
- C3.0. Grading, Drainage and Erosion Control. Revise plans to identify Hudson Boulevard as "proposed" and to be constructed "by others". Add plan note that grading revisions may be required to match into the final constructed grades for Hudson Boulevard.
- C3.0. Grading, Drainage and Erosion Control. Add erosion control and restoration measures at the storm sewer outfall pipe off-site.
- C4.0. Utility Plan. Revise the utility plans to show the sewer and water service connections to be located at the right-of-way of Hudson Boulevard. The public improvement project must be updated to provide sewer and water service stubs from the mains to the right-of-way consistent with City of Lake Elmo standard service details.
- C4.0. Revise the utilities shown in Hudson Boulevard from "existing" to "installed by others".
- C4.0. Utility Plan. Add hydrants interior to the site as required by the Lake Elmo Fire Department. See attached plans showing required locations.
- C4.0. Utility Plan. Revise plans to extend 8-inch watermain interior to site to each hydrant and create a looped main configuration. Update the plans to show a minimum 30-foot utility easement centered over all watermain and hydrants. Easement must extend minimum 15-feet from all pipe and hydrants.
- C4.0. Utility Plan. Revise the utility plans to include the City of Lake Elmo standard plan notes for watermain and City standard details for watermain. The specifications must be updated to include the City of Lake Elmo standard specifications for watermain. The City specifications, details and plan notes must be identified to supersede all other plans and specifications in case of conflict.
- C5-X. Civil Details. The plans must be revised to replace all civil details, plan notes and specification for erosion and sediment control to meet the standards of the City of Lake Elmo.
- L1.0. Landscape Plans. All proposed utilities must be shown on the landscape plans and all trees relocated to maintain 10 feet of separation from all public utilities.

GENERAL NOTES:

1. ALL SANITARY SEWER AND WATERMAIN UTILITIES SHALL BE FURNISHED AND INSTALLED PER THE REQUIREMENTS OF THE SPECIFICATIONS/THE MINNESOTA PLUMBING CODE, THE LOCAL GOVERNING UNIT, AND THE STANDARD UTILITIES SPECIFICATION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), 2013 EDITION.
2. ALL UTILITY PIPE BEDDING SHALL BE COMPACTED SAND OR FINE GRANULAR MATERIAL. ALL COMPACTION SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CEAM SPECIFICATION AND THE GEOTECHNICAL REPORT.
3. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE PERFORMED PER THE REQUIREMENTS OF THE STATE AND LOCAL JURISDICTIONS. THE CITY DEPARTMENT OF ENGINEERING AND BUILDING INSPECTIONS DEPARTMENT AND THE CONSTRUCTION ENGINEER MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY WORK WITHIN THE PUBLIC RIGHT OF WAY, OR WORK IMPACTING PUBLIC UTILITIES.
4. ALL SANITARY SEWER AND WATER SERVICES SHALL TERMINATE 5.0' FROM FACE OF BUILDING UNLESS OTHERWISE NOTED.
5. A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION AND 10 FEET OF HORIZONTAL SEPARATION IS REQUIRED FOR ALL UTILITIES UNLESS OTHERWISE NOTED.
6. ALL NEW WATERMAIN AND SERVICES MUST HAVE A MINIMUM OF 8.0' FEET OF COVER. EXTRA DEPTH MAY BE REQUIRED TO MAINTAIN A MINIMUM 18" VERTICAL SEPARATION TO SANITARY OR STORM SEWER LINES. THE CONTRACTOR SHALL FIELD ADJUST WATERMAIN TO AVOID CONFLICTS WITH SANITARY SEWER, STORM SEWER, AND OTHER SERVICES AS REQUIRED. INSULATION OF WATER AND SANITARY SEWER LINES SHALL BE PROVIDED WHERE 8.0' MINIMUM DEPTH CANNOT BE ATTAINED.
7. ALL FIRE HYDRANTS SHALL BE LOCATED 5.0' BEHIND BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
8. PROPOSED PIPE MATERIALS:

WATER SERVICE COPPER 1-1/2"

SANITARY SERVICE PVC SCH. 40 4"

NOTES:

- (A) COORDINATE WITH UNDERGROUND RETENTION BMP CONTRACTOR FOR EXACT LOCATION AND ELEVATION OF BMP CONNECTIONS.
- (B) SEE SPECIFICATIONS REGARDING UNDERGROUND RETENTION BMP.
- (C) STORAGE VOLUME FROM INVERT TO CROWN OF PIPE.

LEGEND

- SANITARY SEWER
- WATERMAIN
- STORM SEWER
- DRAIN TILE
- DROP INLET STRUCTURE
- CATCH BASIN
- FLARED END SECTION

Hydrants to be 5 ft. from back of curb

PETER GALZKI | 3/11/2019 2:03:03 PM
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1	03/29/19	WCG	PSG	MCA	BID SET
0	02/22/19	WCG	PSG	MCA	CUP APPLICATION SUBMITTAL
NO	DATE	BY	CKD	APPR	

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: MICHAEL C. AARON
Michael C. Aaron
Date 03/19/19 License # 25721

DRAWN BY
W. GRAY
DESIGNED BY
P. GALZKI
CHECKED BY
M. AARON
COMM. NO. 11089.00



I-94 AND MANNING AVENUE PARK AND RIDE STATION
11530 HUDSON BOULEVARD NORTH
UTILITY PLAN
LAKE ELMO, MINNESOTA 55042

SHEET
C4-0

