MEETING DATE: April 22, 2019
AGENDA NUMBER: 12
FILE NUMBER: 19-041
ITEM: Port Riverwalk

RECOMMENDATION: Approval of mass grading with 10 Stipulations

APPLICANT: CENTRA Homes – David Pattberg
11460 Robinson Drive
Minneapolis, MN 55433

PURPOSE: New Residential Development
137 Lots on 43 Acres

LOCATION: Coon Rapids Blvd, Coon Rapids, MN
APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. Any work within or adjacent to a Public ditch within the Watershed District.
3. Any work in or adjacent to wetlands, lakes or water courses
4. One or more cumulative acres of land disturbance
5. The lands and waters that have been, or may be covered by the regional flood.
6. High water table, outwash and organic soils
7. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1. Construction Plan set (22 sheets); by Carlson McCain, dated 4/9/19, received 4/10/19.
4. Response Memo: by Kjolhaug Environmental Services, dated 4/9/19, received 4/10/19.
PREVIOUS ACTION TAKEN: This application was withdrawn by the applicant prior to the March 25, 2019 meeting. The following 21 stipulations were identified during the District review:

1. Receipt of escrows.
2. Provide hydrographs including stage vs time data for all storm events in the proposed condition or update HydroCAD model to include tailwater conditions of Coon Creek at 841.4.
3. Update all construction sheets to show Filtration Basin 10.
4. Remove gate valve note from Filtration Basin 10 detail.
5. Provide labels on Utility Plan that show sump depths and inverts.
6. Update all filtration basins to include a clay liner.
7. Clarify purpose of sluice gates. Provide a note on OCS details that sluice gates are to be closed.
8. Update HydroCAD model/Construction Plans with the following:
   a. FB 10 – Diameter of outlet device #1 and #2 are inconsistent in model and on storm spreadsheet.
   b. FB 30 – Weir length and breadth of outlet device #2 is inconsistent in model and on OCS detail.
   c. FB 20 – Exfiltration should be modeled as an outlet device routed to OCS.
   d. FB 21 – Exfiltration should be modeled as an outlet device routed to OCS. Invert of outlet device #1 is inconsistent in model and the Coon Rapids Boulevard OCS 604 detail.
9. FB 40 – Exfiltration should be routed downstream of the weir to the downstream 24” pipe. FB 40 Split – Include both weirs at the correct elevation as the primary outlet device. FB 40 Split primary device #2 should match outlet device #2 of FB 40 Split 2.
10. Update STMH 204 detail to show sump.
11. Clarify if the drain tile for FB 20 and 21 will be 4” or 6”.
12. Clarify if FB 30 drain tile has enough capacity to allow both basins (FB 20 and 30) to drain.
13. Clarify/Update FB 20 and 21 detail to reflect the correct depth to drain tile. Ensure MPCA requirements are met for biofiltration media depth. Ensure OCS 604 being constructed with CRB Reconstruction Project is consistent with drain tile invert.
14. Provide a table showing the amount of impervious areas being routed to each BMP and the water quality volume provided by each BMP.
15. Provide detail for rip rap at flared end sections.
16. Provide calculations (SHSAM can be used to indicate sumps are appropriately sized to meet district removal rates of 80% TSS. A minimum of 4-foot depth is required to prevent resuspension for sumps. A rock containment barrier for the volume from the 0.5” event can also be used.
17. Clarify how 3’ separation from groundwater is met or provide approval from the City.
18. Provide an O&M Agreement that meets District requirements.
19. Gain TEP concurrence and LGU approval of de minimis application.
20. Clarify impacts to wetland due to volume reduction.
21. Provide VALID documentation from the DNR if the proposed project includes endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

**FINDINGS:**

**Pre-application Meeting:** The project as submitted has received a general review during a pre-application meeting.

**Ditches:** There is not a public ditch on the property. Lower Coon Creek is a natural channel according to the public drainage map located on the property. There are no approved elevations for this channel.

The channel is a 5th order stream. The ditch serves the primary role of

a. Trunk drainage system

**Ditch Hydraulics:** The existing Lower Coon Creek crossing will remain in place with no proposed alterations.

**Erosion and Sediment Control:** Soils affected by the proposal are Hayden, Isanti, Nymore, and Zimmerman.

- Stabilizing vegetation is proposed for disturbed areas within seven (7) days of rough grading.
- Soil stockpiles have been proposed to be fitted with sediment-trapping measures to prevent soil loss.
- Adjacent properties and stormwater ponds are protected from sediment deposition.
- Construction schedules detailing when sediment trapping measures will occur; stabilization of earthen structures and the general timing of construction phases have been provided.
- Stormwater runoff does pass through a sediment basin or other sediment trapping BMP with equal or greater storage capacity.
- Stabilization adequate to prevent erosion has been provided at the outlets of all storm sewer pipes.
- All storm sewer inlets are protected from sediment-laden water during construction.
- All work adjacent to water or related resource has taken precautions to contain sediment, and stabilize the work area during construction.
- Provisions have been made to minimize transport of sediment (mud) by runoff or vehicle tracking onto the paved surface.
- Provisions have been made for cleaning road surfaces where sediment is transported by the end of the day.
- Construction entrance points are clearly located on the Preliminary Grading and Erosion Control Plan.
• The erosion and sediment control plan does provide for the repair and maintenance of all temporary and permanent erosion and sediment control practices.

**Dewatering:** Shallow ground water does exist on site. The project will likely require dewatering.

**Floodplain:** There is floodplain on the property according to the District model. The District’s floodplain elevation is at 842.6 feet. The project does propose to place fill within the floodplain. The total floodplain impact is 0.2 acre-feet. The proposed impact is within the flood fringe. Compensatory storage is provided. There are no flooding concerns upstream and/or downstream.

**High Water Flooding:** Information has been provided to substantiate low floor elevations. Low floor elevations of lots 215 – 219 do not meet the criteria for the City of Coon Rapids; 3 ft above mottled, 2 ft above 100 yr. Test pits are proposed prior to construction to verify groundwater depth. Note has been added to plans that LFE are to be revised if groundwater separation is not met.

**Groundwater:** Geotechnical information collected in March, 2017 indicates long term groundwater elevation is present at 3 to 20.5 feet below the surface.

The project site is within the Emergency Response Area/10 Year Well Head Protection Area/Drinking Water Supply Management Area.

The proposal does not contain a land use discouraged or prohibited by the Safe Drinking Water Supply Act (SDSA).

The project is also within a known groundwater contamination area.

**Historic Sites:** The proposed project does not include sites of historic or archeological significance.

**Local Planning & Zoning:** The proposed project is consistent with local planning and zoning. There is an approved local water plan.

Property owners affected by changes in drainage have been notified and acknowledge the changes proposed.

**Maintenance:** The owner of the Stormwater Management features and treatment practices is Unknown. The Stormwater Treatment Practices (STPs) consisting of the following:

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
<th>Inspection &amp; Maintenance Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtration basin</td>
<td>6</td>
<td>Unknown</td>
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</tbody>
</table>
A maintenance agreement has not been executed. The applicant has not submitted a Maintenance Plan for each Stormwater Treatment Practice.

Easements: The proposed project does include ditch maintenance easement. A ditch maintenance easement is required. A maintenance access to all storm water management features is provided.

**Stormwater & Hydrology:** Infiltration is allowed within the southeast half of the project area based on published GIS maps. Infiltration is allowed within the project area from roofs, infiltration from other impervious surfaces must be filtered first within the northwest half of the project area due to it being within a DWSMA/WPA. The 1.1-inch filtration is achieved. The stormwater management system uses sedimentation ponds and filtration basins. Calculations have been provided that illustrate the 1.1-inch filtration volume is achieved below outlet.

Drainage sensitive uses do not exist downstream from the proposed site. Based on current model, the rate of post-development runoff from the site does exceed predevelopment rates discharging to the west by 0.9 cfs for the 2-year, 1.3 cfs for the 10-year, and 1.0 cfs for the 25-year events. No adverse impacts are anticipated by the increase in rates. Properties and waterways downstream from the project are protected from erosion due to increases in the volume, velocity and peak water flow rates of stormwater runoff. Concentrated storm water leaving the site is discharged directly into a well-defined natural or man-made off-site receiving channel or pipe. All on-site constructed storm water conveyance channels are constructed to withstand the expected velocity from a 2-year frequency storm without erosion.

**Water Quality:** The proposed project does not cause an exceedance of State water quality standards. The project does not contribute to the adverse impact of wetlands through inundation or volume of flow. All discharges into wetlands/stormwater basins are pretreated by a sumps/water quality basins/overland flow but it is unknown if they are designed correctly. All work adjacent to wetlands, waterbodies and water conveyance systems are protected from erosion. The proposal will not detrimentally affect the existing water quality of the receiving water. The proposal will not cause extreme fluctuations of water levels or temperature changes.

**Impairments:** This project is within one (1) mile of and drains to an Impaired Water. The Impaired Water is Lower Coon Creek. Lower Coon Creek is impaired for Aquatic Life (Macro-invertebrates)/Aquatic Recreation (E. coli). The major stressors are Total Suspended Solids (TSS)/Total Phosphorus (TP)/E.coli. There is an EPA approved Total Maximum Daily Load (TMDL) or Waste Load Allocation (WLA) for this water.

There are new impervious surfaces proposed as part of this project.
**Wetlands:** Wetlands do exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. Wetlands have been delineated. The most recent delineation was completed on 7/19/17. The wetland boundary has been checked.

The wetland is not a DNR protected water.

The total proposed wetland impact is 2,458 square feet. The impact is through fill in locations as shown below:

The de minimis is 2,500 sf (type 2). TEP members have been notified with a complete plan and have been requested to submit comments.

The project is not wetland dependent.

The project is exempt. The LGU has not approved the de minimis application.

The applicant does not need to contact the DNR area hydrologist and the Corps of Engineers.

**Wetland Replacement Plan:** A wetland replacement plan has not been submitted and is unknown if required until TEP review.
Wildlife: The proposed project may include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors. The applicant has not contacted the MDNR natural heritage or endangered species program and is required to.

If the project is present, the project may propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species.

Performance Escrow: $23,500
Wetland Escrow: $ N/A
There are not ditch liens on the property.

ISSUES/CONCERNS:

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>NEED</th>
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<tbody>
<tr>
<td>Escrows: $2,000 + (43 ac * $500/ac) = $23,500</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td>Stormwater &amp; Hydraulics: Impacts due to tailwater conditions of Coon Creek are unknown. Stage vs time data was not provided for all storm events.</td>
<td>2. Provide hydrographs including stage vs time data for all storm events in the proposed condition or update HydroCAD model to include tailwater conditions of Coon Creek at 841.4. Detailed hydrograph can be provided for tailwater conditions if needed.</td>
</tr>
<tr>
<td>Exfiltration for FB #21 is routed to Pond 200 in HydroCAD model. However, FB #21 drain tile is not shown connecting to Pond 200 in the plans. Response to stipulation 13 received on April 10, 2019 states that drain tile for FB #21 will be routed to FB #40 OCS. The invert for the primary outlet device #1 for FB #21 is inconsistent in model and on CRB OCS 604 detail. It is unclear if impervious amounts for FB #20 and #21 shown in Appendix C include new impervious for the Coon Rapids Blvd project.</td>
<td>3. Clarify where the drain tile for FB #21 will be routed to. Update drain tile on construction plans to reflect this.</td>
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<td>Soils &amp; Erosion Control: Comment letter received on April 10, 2019 states rip rap detail was provided on sheet 21. However, no detail was provided.</td>
<td>4. Update HydroCAD model to reflect the correct invert for the primary outlet device #1 for FB #21.</td>
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<td>5. Clarify if impervious amounts for FB #20 and #21 in Appendix C include new impervious for the Coon Rapids Blvd project.</td>
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<td></td>
<td>6. Provide detail for rip rap at flared end sections.</td>
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</table>
**Water Quality:** All discharges into wetlands/water quality basins are pretreated by a sediment sump manhole or sediment containment practice.

7. SHSAM results were provided for sump manhole 200 with SAFL Baffle. However, it is unknown if the rest of the sumps are appropriately sized. Provide calculations for all sump manholes (SHSAM can be used to indicate sumps are appropriately sized to meet district removal rates of 80% TSS. A minimum of 4-foot depth is required to prevent resuspension for sumps. A rock containment barrier for the volume from the 0.5” event can also be used.

**Groundwater:** Tests pits are proposed to verify 3-foot groundwater separation from low floors. Lots 215-219 do not meet the low floor separation.

8. Provide acknowledgment that results of test pits to confirm 3-foot groundwater separation will be provided to the District and the City prior to home construction, and if separation is not met, plans that do meet the separation will be submitted for review.

**Maintenance:** It is unknown who will be responsible for the inspection and maintenance of stormwater facilities. A maintenance agreement has not been executed. The applicant has not submitted a Maintenance Plan for each Stormwater Treatment Practice.

9. Provide an O&M Agreement that meets District requirements.

**Wetlands:** Wetland impacts are proposed.

10. An approved Notice of Decision must be issued by the LGU.

**RECOMMENDATION:** Approval of mass grading with 10 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. Provide hydrographs including stage vs time data for all storm events in the proposed condition or update HydroCAD model to include tailwater conditions of Coon Creek at 841.4. Detailed hydrograph can be provided for tailwater conditions if needed.
3. Clarify where the drain tile for FB #21 will be routed to. Update drain tile on construction plans to reflect this.
4. Update HydroCAD model to reflect the correct invert for the primary outlet device #1 for FB #21.
5. Clarify if impervious amounts for FB #20 and #21 in Appendix C include new impervious for the CRB project.
6. Provide detail for rip rap at flared end sections.
7. SHSAM results were provided for sump manhole 200 with SAFL Baffle. However, it is unknown if the rest of the sumps are appropriately sized. Provide calculations for all sump manholes (SHSAM can be used to indicate sumps are appropriately sized to meet district removal rates of 80% TSS. A minimum of 4-foot depth is required to prevent resuspension for sumps. A rock containment barrier for the volume from the 0.5” event can also be used.
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