COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: April 11, 2016
AGENDA NUMBER: 14
FILE NUMBER: 15-163
ITEM: Vision 15

RECOMMENDATION: Table with 8 Stipulations

APPLICANT: Vision Bank
4725 Hwy 7
St. Louis Park MN, 55146

PURPOSE: Construction of 11 new Townhomes on 4 acres

LOCATION: 1005 Coon Rapids Blvd. W., Coon Rapids MN
APPLICABILITY:
1) Any building within a designated shoreland zone (1.07 Sub 2)
2) Development of land not authorized by the municipal drainage plan (1.04)
3) Construction, removal or abandonment of a water impoundment (1.16 Sub 1)
4) Construction of 1 acre or greater of impervious surface

EXHIBITS:
1) Construction Plan set (6 sheets) by Carlson McCain, dated 3/24/16, received 3/28/16

HISTORY & CONSIDERATIONS: This application was initially submitted on December 30, 2015. The application was considered incomplete. Staff sent a letter to the applicant on January 4, 2016 requesting the following:
1. Provide groundwater report
2. Completely surround Infiltration basin with erosion control measures
3. State on the plans that stabilizing vegetation is required within 14 days of rough grading
4. Provide a detail for the underground utility with inverts labeled for easy cross checking with models
5. Include pond summary in hydraulic modeling report
6. Address pretreatment of stormwater prior to entering underground utilities and the infiltration basin. Pretreatment can consist of but is not limited to settling basins or sump manholes
7. Provide statement that CCWD staff will be invited to be present to witness a post-construction infiltration basin test.
8. Provide calculations that show that the catch basins installed on street A will be able to capture the flows necessary to meet rate and volume control. A useful website is (http://nfco.com/municipal/resources/curb-opening-hydraulics-calculator).

**FINDINGS:**

**Ditches:** There is not a public ditch on the property.

**Ditch Hydraulics:**
A crossing of the ditch is not proposed.

**Erosion and Sediment Control:** Soils affected by the proposal are Isanti fine sandy loam and Zimmerman fine sand. Stabilizing vegetation is not proposed for disturbed areas within seven days (7 days) of rough grading. Adjacent properties and stormwater ponds are protected from sediment deposition. Project site is greater than 1 acre, an NPDES permit is required.

**Floodplain:** There is no floodplain on the property according to the District model and FEMA.

**Groundwater:** Geotechnical information has not been submitted

The site is not within a Drinking Water Supply Management Area (DWSMA). The project site is not within the 10 Year Well Head Protection Area. The project site is not within the Emergency Response Area.

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

The project is not within the 10 Year Well Head Protection Area.

Storage and use of petroleum products exceeding fifty-five (55) gallons are not proposed on-site.

The project does not have an acceptable contingency plan for preventing hazardous materials from contaminating the shallow/surficial aquifer should flood, fire, wind or other natural catastrophe, equipment failure or releases occur.

**High Water Flooding:**
Information has been provided to substantiate low floor elevations and is not needed because the proposed buildings are slab-on-grade construction. Low floor elevations do meet the criteria for the City of Coon Rapids, 2 ft over the 100 yr flood elevation.

**Dewatering:**
It is unknown if the project requires dewatering.

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

**Local Planning & Zoning:** The proposed project is not 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 Future HOA. It is unknown if the Future HOA agrees to maintain the Stormwater Treatment Practices (STPs) consisting of the following:

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storm Chamber</td>
<td>2</td>
</tr>
<tr>
<td>Infiltration Basin</td>
<td>1</td>
</tr>
</tbody>
</table>

The owner has not submitted a Maintenance Plan for each Stormwater Treatment Practice. It is unknown if the Maintenance Plan is consistent with District Maintenance standards for each STP.

It is unknown if the owner agrees to maintain in perpetuity the Stormwater Treatment Practices in accordance with the approved maintenance plans and in a manner that will permit the Practices to perform the purposes for which they were designed and constructed. The Owner has not signed a District Operations and Maintenance Agreement for Stormwater Facilities.

**Easements:** The proposed project does not include ditch maintenance easement. A maintenance access to all storm water management features is not provided.

Inspection and maintenance of stormwater facilities will be the responsibility of the future HOA. A maintenance agreement has not been executed.

**Stormwater & Hydrology:** Infiltration is allowed within the project area. The 1-inch infiltration is achieved. The stormwater management system utilizes rain guardian for sediment capture. Stormwater leaving the site is discharged into a well-defined receiving channel or pipe and routed to a public drainage system. Drainage sensitive uses do not exist downstream from the proposed site. The rate of post-development runoff from the
site does not exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses.

**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. 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 and drains to an Impaired Water. The Impaired Water is Coon Creek. Coon Creek is impaired for (Aquatic Life (Macro-invertebrates) / Aquatic Recreation (E. coli)). The major stressors of Total Phosphorus (TP). There is an EPA approved Total Maximum Daily Load (TMDL) or Waste Load Allocation (WLA) for this water.

The project does not propose site stabilization within 7 days after construction. The proposed stormwater system does retain at least one inch of runoff from the project site.

There are new impervious surfaces proposed as part of this project.

**Wetlands:** Wetland do not exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey.

**Wetland Replacement Plan:** A wetland replacement plan has not been submitted and is not required.

**Wildlife:** The proposed project does not include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors. No substantial adverse alteration or significant detrimental impact on a species food supply, security or reproductive cycle or the alteration or removal of a plant species will occur.

There are not Ground Water Dependent water resources on site.

The proposed project does not result in:
- Loss of any existing environmental value linked to receiving waters
- Pose a significant threat to aquatic fauna or flora, especially groundwater-dependent ecosystems,
- Soil erosion or local flooding
- Harm to native vegetation (via flooding or toxicity)
- Erosion of structures or services
- Sediment build-up in drains, waterways or wetlands
- Nuisance to the local community such as foul odors; harm to plants or property
- Hazard to human health or safety
- Loss or discernible reduction of flow in public or private water sources.
No steps are proposed for avoiding or minimizing impacts.

**Performance Escrow:** $3,000.00  
**Wetland Escrow:** N/A  
There are not ditch liens on the property.

**FINDINGS/ISSUES/CONCERNS:**

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>NEED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Groundwater:</strong> It is unclear if dewatering is needed during the construction of the proposed project.</td>
<td>1. Provide statement whether dewatering will be required for the construction of the proposed project. If yes, provide well-field location, rates, discharge location, schedule and quantities.</td>
</tr>
<tr>
<td><strong>Soils &amp; Erosion Control:</strong> No soil borings were taken at the site. NRCS soil survey suggests that the site has soils consistent with infiltrations but borings are needed to confirm the ability to infiltrate stormwater.</td>
<td>2. The applicant must provide soil boring information at each of the infiltration locations showing that the infiltration practices have adequate separation from groundwater, have soils that will be support infiltration, and will infiltrate at the proposed rate of 0.5”/hr.</td>
</tr>
</tbody>
</table>
| **Water Quality:** Sump manholes are not present in the design. | 3. Provide sizing calculations for the proposed sumps. Information that is required by the District is:  
  a. A sizing methodology that can be verified and reviewed  
  b. An estimation of the annual sediment load  
  c. An estimation of the annual sediment load |
**Water Quality:** Sumps must be cleaned at regular intervals appropriate to their size and sediment loading.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maintenance:</strong> A Stormwater Pollution Prevention Plan (SWPPP) was not submitted.</td>
<td>5. Provide a SWPPP</td>
</tr>
<tr>
<td><strong>Maintenance:</strong> A drainage and utility easement is not provided for the infiltration pond shown on the drainage plan.</td>
<td>6. Provide Operation and Maintenance agreement for infiltration basin and storm chambers</td>
</tr>
<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> The applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.</td>
<td>7. The applicant must acknowledge that they will conduct a post construction test on the infiltration/filtration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.</td>
</tr>
</tbody>
</table>

**Escrows:** $2,000 + (2 ac * $500/ac) = $3,000.00

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stipulations:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Receipt of escrows.</td>
<td></td>
</tr>
<tr>
<td>2. Provide statement whether dewatering will be required for the construction of the proposed project. If yes, provide well-field location, rates, discharge location, schedule and quantities.</td>
<td></td>
</tr>
<tr>
<td>3. The applicant must provide soil boring information at each of the infiltration locations showing that the infiltration practices have adequate separation from groundwater, have soils that will be support infiltration, and will infiltrate at the proposed rate of 0.5”/hr.</td>
<td></td>
</tr>
<tr>
<td>4. Provide sizing calculations for the proposed sumps. Information that is required by the District is:</td>
<td></td>
</tr>
<tr>
<td>a. A sizing methodology that can be verified and reviewed</td>
<td></td>
</tr>
<tr>
<td>b. An estimation of the annual sediment load</td>
<td></td>
</tr>
<tr>
<td>c. An estimation of the annual sediment reduction capacity of each sump.</td>
<td></td>
</tr>
</tbody>
</table>

**RECOMMENDATION:** Table with 8 Stipulations
5. Provide an estimate of the interval in which the sump needs to be cleaned
6. Provide O&M agreement for stormwater practices
7. Provide a SWPPP
8. The applicant must acknowledge that they will conduct a post construction test on the infiltration/filtration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.