General Background & Comments
The project proposes site improvements at Valley View Middle School, 6750 Valley View Road in Edina, MN. The project site consists of two schools, Valley View Middle School (VVMS) and Edina High School (EHS). Edina High School, located at 6754 Valley View Road, conducted building additions and improvements at the project site in 2016 (Permit No. 2016-05).

Proposed Valley View Middle School 2020 site improvements include replacement of an existing shed, loading dock improvements including replacement of concrete and asphalt pavement, interior courtyard renovations, and utility improvements. The project site information includes the following:

- Total Site Area: 63.50 acres
- Site Impervious Area Pre 2016 Construction: 25.16 acres
- Existing Site Impervious Area Pre 2020 Construction: 31.73 acres
- 2016 Increase in Site Impervious Area: 6.58 acres
- 2020 Increase in Site Impervious Area: 0 acres
- 26.2% increase in Total Site Impervious Area
- Total Disturbed and Reconstructed Impervious Area: 10.13 acres (10.00 acres of disturbed impervious resulting from the 2016 EHS Renovation project and 0.134 acres of disturbed area resulting from the 2020 VVMS Renovation project)
- 40.3% of the Existing Site Impervious Area (2016 and 2020 construction) will be disturbed and reconstructed
- Total Disturbed Area: 24.31 acres (24.05 acres of disturbed area from the 2016 EHS Renovation project and 0.25 acres of disturbed area from the 2020 VVMS Renovation project)
- 2020 Renovations Total Disturbed Area: 0.25 acres

As previously stated, Edina High School conducted building additions and improvements at the project site in 2016 (Permit No. 2016-05). The 2016 project included construction of a 97,966 square foot building addition, expansion of the parking lot from 866 stalls to 931 stalls and reconstruction and construction of two artificial turf fields at the project site. Stormwater management was proposed and constructed as part of the 2016 Edina High School Renovations project and includes an underground infiltration system at the east side of the site beneath the athletic fields. The underground system provides rate control, volume retention and water quality management for the project site, including 24.3 acres of disturbed area (24.053 acres in 2016 and 0.254 acres in 2020).

The Nine Mile Creek Watershed District’s Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on a site or will increase the imperviousness of the entire site by more than 50%, stormwater management criteria of Rule 4.3 will apply to the entire project parcel. Otherwise, the stormwater requirements will apply only to the disturbed, replaced and net additional impervious surface on the project site. Stormwater management is therefore required for the total disturbed area of 24.31 acres that includes the 10.13 acres of disturbed and replaced impervious area (10.0 acres in 2016 and 0.13 acres in 2020). No net additional impervious area is proposed for the 2020 VVMS Renovation project.

The District’s requirements for both stormwater management and erosion and sediment control apply to the project because more than 5,000 square feet or more surface area will be disturbed, per Rules 4.2.1b and 5.2.1b, respectively.

The project does not propose to fill or impact the 100-year floodplain of the creek, 853 M.S.L. - Atlas 14 management elevation.

A wetland boundary determination and MnRAM Assessment for the wetland areas on the School property were completed for the Three Rivers Regional Trail project. This information was provided to the School District by Three Rivers Park District. The District approved of the boundary determination, July 2014, and accepted the MnRAM Assessment in August 2014. The onsite wetlands were determined to be high value wetlands requiring a minimum buffer of 30 feet and an average buffer of 60 feet, Rule 3.4.1a. In conjunction with the 2016 EHS Renovations project, the District approved the wetland boundary determination and accepted the high value wetland determination for the wetland on the School District property. Wetland buffer requirements were approved and met as part of the 2016 EHS Renovation project, and the wetland buffer was constructed thereafter. No wetland fill or impacts within the onsite wetlands are proposed for the VVMS 2020 Renovation project.

Sediment control logs and inlet protection are shown to be installed for erosion control, and sod is utilized for permanent stabilization within the interior courtyard site improvement area. The proposed site improvements at the shed area will not require permanent stabilization, as the entire portion of the site is impervious surface (existing and proposed).
Braun Intertec conducted a geotechnical evaluation and performed standard penetration test (SPT) borings onsite throughout February, July, August and November 2015. The soil borings indicate that groundwater was encountered at a depth of 15 feet in boring ST 51-15, elevation 847.4 M.S.L. This boring (of the approximate 20 borings taken in the area) appears to have the highest elevation that groundwater was encountered.

Exhibits
4. Soil borings dated throughout February, July, August and November 2015 provided by Braun Intertec.
5. Phase 1 Environmental Site Assessment dated June 30, 2015 prepared by Braun Intertec.

4.0 Stormwater Management
The underground stormwater system constructed in 2016 (following issuance of Permit 2016-05) includes 20 rows of 60-inch perforated CMP, each row being 442 feet in length. The underground infiltration system was installed beneath the two artificial turf athletic fields on the east side of the site. Stormwater modeling was provided from the 2016 EHS Renovation project, as the underground infiltration system was designed to meet stormwater management criteria for both the 2016 and 2020 renovation projects. The system will provide the rate control, volume retention and water quality management required to meet District Rule 4.3.1.

The existing and proposed 2, 10 and 100 year frequency discharges from the site are:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Existing Discharge c.f.s.</th>
<th>Proposed Discharge c.f.s.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 year</td>
<td>95.2</td>
<td>51.2</td>
</tr>
<tr>
<td>10 year</td>
<td>163.3</td>
<td>91.7</td>
</tr>
<tr>
<td>100 year</td>
<td>320.0</td>
<td>176.3</td>
</tr>
</tbody>
</table>

Proposed discharge rates are based off the total proposed new site impervious of 31.7 acres (including 6.5 acres of net additional new impervious area from the 2016 EHS Renovations project). Rule 4.3.1b is met.

The 2016 EHS Renovation project resulted in 16.576 acres of new and disturbed impervious area (including 9.999 acres of disturbed existing impervious and 6.577 acres of added impervious area). Volume retention of 1.38 acre-feet (60,171 cubic feet) is required from 1-inch of runoff from the 16.576 acres of new and disturbed impervious area from the 2016 EHS project, based on criteria outlined in the Nine Mile Creek Watershed District Rules in 2016.
Volume retention of 0.01 acre-feet (535 cubic feet) is required from the 1.1-inches of runoff from the 0.134 acres of disturbed existing impervious area from the proposed 2020 project, based on Rule 4.3.1. Therefore, 60,706 cubic feet of volume retention is required from the net new and disturbed existing impervious areas from the 2016 and 2020 projects.

In accordance with Rule 4.3.1a (i), where infiltration facilities, practices or systems are proposed, pretreatment of runoff must be provided. To comply with Rule 4.3.1a (i), 450 lineal feet of 84-inch CMP was constructed as a “clean-out” chamber (sump) for runoff prior to discharging to the infiltration area. This system was constructed as part of the 2016 EHS Renovation project.

Soil borings were taken at the underground infiltration area on November 15, 2015 and indicate the underlying soils vary from silty sand (SM) to sandy lean clay (CL). Approximately 70% of the underground system is within the sandy soils and 30% within the clay soils. An infiltration rate of 0.45 inches/hour is used for the SM soil type material and 0.06 inches/hour for the CL soil type using design criteria outlined in the Minnesota Storm Water Manual. The constructed underground infiltration system provides an available volume of 94,808 cubic feet (60,706 cubic feet required) to be drawn down within 48 hours over an area of 71,177 square feet for volume retention (the HydroCAD provided shows the footprint of the infiltration area has been reduced from 79,118 square feet, 2016 submittal, to 71,177 square feet, 2020 submittal). Rule 4.3.1a (ii) is met.

The District’s water quality criterion requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. A P8 model has been submitted showing that a 97.4% annual removal for total suspended solids and 90.3% annual removal efficiency of total phosphorus will be provided for water quality treatment. We are in agreement with the P8 model and concur the underground infiltration system meets District criteria for both the 2016 and 2020 renovation projects. Water quality requirements identified in Rule 4.3.1c are met.

Rule 4.3.3.a states that all new and reconstructed buildings must be constructed such that the low floor is at least two feet above the 100-year high water elevation or one foot above the natural overflow of a waterbody. The finished floor elevation of the proposed shed is 925.5 M.S.L. The 100-year frequency flood elevation of the creek on school property is 853 M.S.L., providing a separation of 72.5 feet. Rule 4.3.3a requiring 2 feet of separation between the lowest floor elevation of a structure and the 100-year flood elevation is met. No new stormwater management facilities will be constructed; therefore, no adjacent habitable building will be brought into noncompliance with standards in Rule 4.3.3.

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

The soil borings dated November 15, 2015 indicate that groundwater was encountered at a depth of 15 feet in boring ST 51-15, elevation 847.4 M.S.L. This boring (of the approximate 20 borings taken in the area) appears to have the highest elevation that groundwater was encountered. No District rule requires a specific distance separation between the low floor
elevation of a structure and groundwater; however, the applicant is advised that seasonal fluctuations of the groundwater elevation can occur.

5.0 Erosion and Sediment Control
Erosion and sediment control plans for the courtyard site area renovation and shed site area improvements were submitted. Sediment control logs and inlet protection are shown to be installed for erosion control, and sod is utilized for permanent stabilization within the interior courtyard site improvement area. The proposed site improvements at the shed site area will not require permanent stabilization, as the entire area at this portion of the site is impervious surface (existing and proposed).

The project contact is David Rey, Anderson-Johnson.

11.0 Fees
Because the property owner is a public entity, no fees are charged.

Rules 4.0 and 5.0 $0

12.0 Financial Assurances
Because the property owner is a public entity, the District’s financial assurance requirements do not apply.

Sureties for the project are: $0

Findings
The proposed project includes the information necessary, plan sheets and erosion control plan for review. Rules 4 and 5 are met.

Recommendation
Approval, contingent upon:

1. General Conditions

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.8, an as-built drawing of the project conforming to the design specifications as approved by the District must be submitted. (Also required as a condition of Permit #2016-05).

2. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site. It is required that the chloride-management plan has been provided and approved by the District’s Administrator.
MIDDLE SCHOOL
2020 RENOVATIONS

4. INSTALL CONTROL FENCING AND BARRICADING AS NECESSARY TO PROTECT THE PUBLIC.

8. REFER TO ARCHITECTURAL PLANS FOR BUILDING AND STOOP DIMENSIONS AND LAYOUT.

12. IF EROSION AND SEDIMENT CONTROL MEASURES TAKEN ARE NOT ADEQUATE AND RESULT IN PROTECTION BITUMINOUS PAVEMENT OF CONSTRUCTION RELATED DIRT AND DEBRIS.

13. INLET PROTECTION DEVICE AT STORM SEWER INLETS. AT THE INLETS TO ALL STORM SEWER AND IS NON ADA TRANSFORMER PAD

14. ROAD DRAIN "TOP SLAB", MANUFACTURED BY WIMCO

15. VISIT THE SITE PRIOR TO BIDDING; BE FAMILIAR WITH ACTUAL CONDITIONS IN THE FIELD. EXTRA COMPENSATION WILL NOT BE ALLOWED FOR CONDITIONS WHICH COULD HAVE BEEN DETERMINED

16. REMOVE BITUMINOUS PAVEMENT AND WATERMAIN

17. PROVIDE RUBBER BOOT AT TRANSFORMERS DURING MANHOLE STRUCTURES OR PIPING OR SIMILAR).

18. PROVIDE DAILY SWEEPING OF HARD SURFACES (END OF WORK DAY)

19. REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING GRADES IN RESTORATION AREAS OUTSIDE GRADING LIMITS

20. SPOT ELEVATIONS SHOWN IN PARKING LOTS, DRIVES AND ROADS INDICATE GUTTER GRADES, UNLESS NOTED OTHERWISE. SPOT ELEVATIONS WITH LABELS OUTSIDE THE BUILDING PERIMETER

21. PROPRIETARY MATERIALS, OR PROTECT SANITARY WATERMAIN "PROTECT DRAINTILE"

22. FAILURE OF YOUR INSTALLATION IS THE OWNER'S RESPONSIBILITY AND YOU ARE RESPONSIBLE FOR THE CONTENT OF THE WORK SHOWN, COMPARE DRAWINGS OR PROPOSAL AS SHOWN BY THE CONTRACTOR.

23. NO FINISHED SLOPES SHALL EXCEED 4' HORIZONTAL TO 1' VERTICAL (4:1), UNLESS OTHERWISE 4.26%

24. REFER TO UTILIZATION, ACCESS, OR OTHERWISE ENTER THE AREAS DESIGNATED NOT TO BE USE.

25. WHERE NEW SOD MEETS EXISTING SOD, EXISTING SOD EDGE SHALL BE CUT TO ALLOW FOR A...