Permit Application Review Permit No. 2018-131
Received complete: December 26, 2018

Applicant:	Tim Rybak; Bloomington Public Schools
Consultant:	Mandy Backstrom; Anderson-Johnson Associates
Project:	Building Addition and new Chiller Enclosure at Valley View Middle School
Location:	8900 Portland Avenue: Bloomington
Rule(s):	4 and 5
Reviewer:	BCO

General Background & Comments

The project proposes the construction a building addition and a new chiller enclosure at Valley View Middle School located at 8900 Portland Avenue in Bloomington.

The project site information is:

- Total Site Area: 11.17 acres
- Existing Total Site Impervious Area: 7.48 acres (325,829 square feet)
- New Impervious Area: 0.044 acres (1,917 square feet)
- New Total Site Impervious Area : 327,746 square feet
- 0.6% increase in the percentage of site impervious area
- Disturbed and reconstructed impervious area: 3,354 square feet
- 1.6% of the existing impervious area will be disturbed and reconstructed
- Total disturbed area: 14,113 square feet

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 parcel or will increase the imperviousness of the parcel by more than 50%, storm water management will apply to the entire project parcel. Otherwise, the storm water requirements will apply only to the disturbed areas and additional impervious area on the parcel. Since the increase in site impervious area is 0.6% and 1.6% of the existing site impervious area will be disturbed and reconstructed, storm water management is required for the 14,113 square feet of disturbed area that includes 5,271 square feet of new and disturbed and reconstructed impervious area.

The District's requirements for both storm water management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5000 square feet or more surface area disturbed, Rules 4.2.1a and b and 5.2.1a and b.

Volume retention, rate control and water quality management will be provided within two infiltration basins/rainwater gardens (Basins) to be constructed on-site.

Silt fence is to be installed at the limits of construction to provide erosion control.

Exhibits

1. Permit Application dated November 20, 2018.
2. Plans dated November 9, 2018, prepared by Anderson-Johnson.
3. Storm Water Management calculations dated December 12, 2018 prepared by Anderson-Johnson.
4. Soil Borings dated November 1, 2018 prepared by Braun Intertec.
5. E-mail correspondence from Anderson-Johnson dated November 29, 2018 stating that the project architect had changed the plans and the submittal would be changing.
6. E-mail correspondence dated December 11, 2018 from Barr Engineering stating that the application was considered incomplete until the revised submittal was provided.

The submittal is now complete.

4.0 Stormwater Management

Stormwater management, volume retention, rate control and water quality management will be provided within two Basins to be constructed on the site.

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

Frequency	Existing Discharge to the northeast c.f.s.	Proposed Discharge to the northeast c.f.s.
2 year	22.7	22.0
10 year	38.2	37.9
100 year	74.1	73.8

There is one discharge point leaving the site from the area disturbed. The existing discharge from the other locations on the site will not be affected by the project and will not change from existing conditions. Rule 4.3.1b is met.

An infiltration volume of 483 cubic feet is required from the 5,271 square feet of new and disturbed and reconstructed impervious area. The soils information provided indicates the underlying soils is silty sand (SM) having an infiltration rate of 0.45 inches/hour using the

Minnesota Storm Water Manual. A volume of 621 cubic feet will be provided by the Basins (483 cubic feet required). An area of 262 feet is required, with an area of 1,106 square feet provided, for volume retention using this infiltration rate. This is based on a maximum allowable inundation depth of 1.8 feet within the Basins with a required drawdown in 48 hours (4.3.1a (ii)).

The District's water quality criterion requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. The results of a MIDS calculator submitted indicate the Basins provide an annual removal efficiency of 90.5% for total suspended solids (56 lbs.) and an annual removal efficiency of 90.4% for total phosphorus (0.31 lbs.). Rule 4.3.1c is met.

The borings submitted indicate that groundwater was not encountered to elevation 810 +/- M.S.L. The bottom of Basin #1 is 821.1 M.S.L., a separation of 11.1 feet. The bottom elevation of Basin #2 is 823 M.S.L., a separation of 13 feet. A three (3) foot separation is required between the bottom of an infiltration facility and groundwater.

The HydroCAD modeling provided shows elevation 822.3 M.S.L. as the calculated 100-year frequency flood elevation for Basin #1 and 823.9 M.S.L. for Basin #2. The finished floor of the existing building is 828 M.S.L. A 5.7 foot separation will be provided between the existing finished floor elevation of the school and the flood elevation of Basin #1. For Basin #2, a 4.1 foot separation will be provided between the finished floor elevation of the school and the flood elevation of Basin #2. District Rule 4.3.3 states that a stormwater management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with a standard in subsections 4.3.3 c, requiring at least two feet of separation provided between the 100-year high water elevation of a constructed facility and the low floor elevation of a structure. Rule 4.3.3 is met.

In accordance with Rule 4.3.1a (i), the pre-treatment of runoff prior to the infiltration area will be provided by runoff sheet-flowing across pervious turf area ranging from 20 feet to 100 feet from the project areas to the basins. The turf grass acts as a filter providing the required pretreatment of storm water upstream of an infiltration area.

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.

5.0 Erosion and Sediment Control

The submitted erosion and sediment control plan includes silt fence at the limits of construction. The project contact is Mandy Backstrom, Anderson-Johnson.

11.0 Fees

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

Rules 2.0-6.0 ..... $0

12.0 Sureties

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.

1. Rules 4 and 5 are met.

Recommendation

Approval, contingent upon:

1. General Conditions
2. Submission of documentation that a drainage easement over the stormwater-management facility has been submitted to Bloomington (4.5.4i), if such easement is required by the city.
3. In accordance with Rule 4.3.5, submission of a document signed by an official with authority with the Bloomington School District being a public entity assuming the maintenance obligation for the on-site storm water management facilities.

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

1. Per Rule 4.5.6, an as-built drawing of the storm water facilities, including a stage-volume relationship in tabular form, for the retention area within the two infiltration basins/ rainwater gardens conforming to the design specifications as approved by the District must be submitted.
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.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-131 with the conditions recommended by staff.

Permit #:	2018-131
Project Name:	Building Addition and Site Maintenance at Valley View Middle School- 8900 Portland Avenue: Bloomington
Approval Date:	January 16, 2019

General Provisions

1. All temporary erosion control measures shown on the erosion and sedimentation control plans must be installed prior to commencement of surface or vegetation alteration and be maintained until completion of construction and vegetation is established as determined by NMCWD.

   If silt fence is used, the bottom flap must be buried and the maximum allowable spacing between posts is 4-foot on center. All posts must be either 2-inch x 2-inch pine, hardwood, or steel fence posts. If hay bales are used, all bales must be staked in place and reinforced on the downstream side with snow fence.

2. All areas altered because of construction must be restored with seed and disced mulch, sod, wood fiber blanket, or be hard surfaced within two weeks after completion of land alteration and no later than the end of the permit period.

3. Upon final stabilization, the permit applicant is responsible for the removal of all erosion control measures installed throughout the project site.

4. At the entryway onto the site, a rock filter dike being a minimum of two feet in height and having maximum side slopes of 4:1 must be constructed. This rock filter dike will enable construction traffic to enter the site and also provide an erosion control facility.

5. If dewatering is required and sump pumps are used, all pumped water must be discharged through an erosion control facility prior to leaving the construction site. Proper energy dissipation must be provided at the outlet of the pump system.

6. The NMCWD must be notified a minimum of 48 hours prior to commencement of construction.

7. The NMCWD, its officers, employees and agents review, comment upon, and approve plans and specifications prepared by permit applicants and their consultants for the limited administrative purpose of determining whether there is reasonable assurance that the proposed project will comply with the regulations and criteria of the NMCWD. The determination of the NMCWD that issuance of this permit is appropriate was made in reliance on the information provided by the applicant.

8. The grant of this permit shall not in any way relieve the permittee, its engineer, or other professional consultants of responsibility, nor shall it make the NMCWD responsible for the technical adequacy of the engineer's or consultant's work. The grant of this permit shall not relieve the permittee from complying with all conditions and requirements of the permit which shall be retained by the permittee with the permit.

9. The issue of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

10. This permit is permissive only. No liability shall be imposed upon the NMCWD or any of its officers, agents or employees, officially or personally, on account of the granting of this permit or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors.

11. In all cases where the doing by the permittee of anything authorized by this permit shall involve the taking, using, or damaging of any property, rights or interests of any other person or persons, or of any publicly-owned lands or improvements or interests, the permittee, before proceeding therewith, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all necessary property, rights, and interest.

12. The permit is transferable only with the approval of the NMCWD (see NMCWD Rule 1.0). The permittee shall make no changes, without written permission previously obtained from the NMCWD, in the dimensions, capacity, or location of any items of work authorized by this permit.

13. The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the NMCWD for inspection of the work authorized by this permit.

14. This permit may be terminated by the NMCWD at any time deemed necessary in the interest of public health and welfare, or for violation of any of the provisions of this permit.

15. Construction work authorized under this permit shall be completed on or before date specified above. The permittee may, in writing, request that the NMCWD extend the time to complete the project in accordance with NMCWD Rule 1.0.

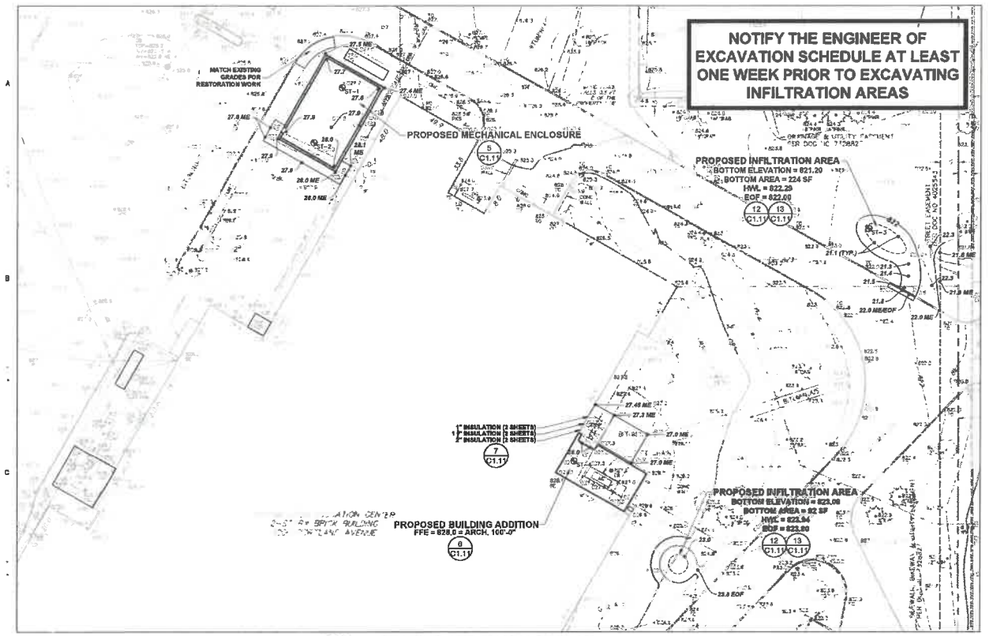
Permit No.2018-131

Is hereby issued to Tim Rybak, Bloomington Public Schools, subject to the conditions specified in the attached form:

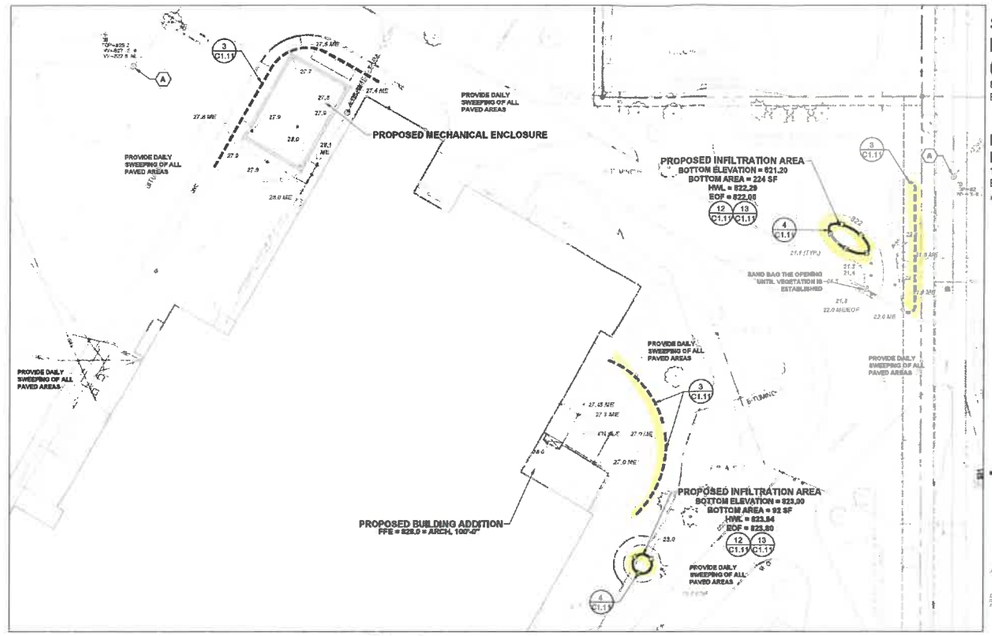
For the construction of a building addition and site maintenance at Valley View Middle School located at 8900 Portland Avenue in Bloomington.

Steve Kloiber, Chair
Nine Mile Creek Watershed District

This permit expires on: February 1, 2020



1 C1.21 **GRADING AND DRAINAGE PLAN**



2 C1.21 **SEDIMENT CONTROL PLAN**

LEGEND

- REFERENCE KEY TO SITE DETAILS (DETAIL ID NUMBER (TOP), DETAIL SHEET NUMBER (BOTTOM))
- PROPOSED BUILDING STOOP - REFER TO ARCHITECTURAL PLANS
- PROPERTY LINE
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION (ME = MATCH EXISTING, EOF = EMERGENCY OVERFLOW)
- PROPOSED SILT FENCE (5 C1.11)
- PROPOSED SEDIMENT CONTROL LOG (4 C1.11)
- SEDIMENT CONTROL DEVICE AT STORM SEWER INLET (A)
- APPROXIMATE SOIL BORING LOCATION (ST-1)

GENERAL NOTES

1. ALL CONSTRUCTION MUST COMPLY WITH APPLICABLE STATE AND LOCAL ORDINANCES.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR AND SHALL PAY FOR ALL CONSTRUCTION STAKING / LAYOUT.
3. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL RELATED CONSTRUCTION PERMITS. SUBMIT A COPY OF ALL PERMITS TO THE CITY.
4. INSTALL CONTROL FENCING AND BARRICADING AS NECESSARY TO PROTECT THE PUBLIC.
5. INSPECT SITE AND REVIEW SOIL BORINGS TO DETERMINE EXTENT OF WORK AND NATURE OF MATERIALS TO BE HANDLED.
6. REFER TO SPECIFICATIONS FOR DEWATERING REQUIREMENTS.
7. CHECK ALL PLAN AND DETAIL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT.
8. REFER TO ARCHITECTURAL PLANS FOR BUILDING AND STOOP DIMENSIONS AND LAYOUT.
9. MAINTAIN ADJACENT PROPERTY AND PUBLIC STREETS CLEAN FROM CONSTRUCTION CAUSED DIRT AND DEBRIS ON A DAILY BASIS. PROTECT DRAINAGE SYSTEMS FROM SEDIMENTATION AS A RESULT OF CONSTRUCTION RELATED DIRT AND DEBRIS.
10. MAINTAIN DUST CONTROL DURING GRADING OPERATIONS.
11. ALL EROSION CONTROL METHODS SHALL COMPLY WITH MPCA AND LOCAL REGULATIONS.
12. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO SITE AND PROTECT EXISTING SITE FEATURES (INCLUDING TURF AND VEGETATION) WHICH ARE TO REMAIN.
13. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE SHOWN TO FINISH GRADE UNLESS OTHERWISE NOTED.
14. PROPOSED ELEVATIONS SHOWN TYPICALLY AS 21.1 OR 21 SHALL BE UNDERSTOOD TO MEAN 821.1 OR 821.
15. SPOT ELEVATIONS SHOWN IN PARKING LOTS, DRIVES AND ROADS INDICATE GUTTER GRADES, UNLESS NOTED OTHERWISE. SPOT ELEVATIONS WITH LABELS OUTSIDE THE BUILDING PERIMETER INDICATE PROPOSED GRADES OUTSIDE THE BUILDING. SPOT ELEVATIONS WITH LABELS INSIDE THE BUILDING PERIMETER INDICATE PROPOSED FINISH FLOOR ELEVATIONS.
16. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING QUANTITIES OF CUT, FILL AND WASTE MATERIALS TO BE HANDLED, AND FOR AMOUNT OF GRADING TO BE DONE IN ORDER TO COMPLETELY PERFORM ALL WORK INDICATED ON THE DRAWINGS. IMPORT SUITABLE MATERIAL AND EXPORT UNSUITABLE / EXCESS / WASTE MATERIAL AS REQUIRED. ALL COSTS ASSOCIATED WITH IMPORTING AND EXPORTING MATERIALS SHALL BE INCIDENTAL TO THE CONTRACT.
17. NO FINISHED SLOPES SHALL EXCEED 4' HORIZONTAL TO 1' VERTICAL (4:1), UNLESS OTHERWISE NOTED.
18. ALL DISTURBED AREAS OUTSIDE THE BUILDING PAD WHICH ARE NOT DESIGNATED TO BE PAVED SHALL RECEIVE AT LEAST 6" OF TOPSOIL AND SHALL BE SODDED.
19. WHERE NEW SOD MEETS EXISTING SOD, EXISTING SOD EDGE SHALL BE CUT TO ALLOW FOR A CONSISTENT, UNIFORM STRAIGHT EDGE. JAGGED OR UNEVEN EDGES WILL NOT BE ACCEPTABLE. REMOVE TOPSOIL AT JOINT BETWEEN EXISTING AND NEW AS REQUIRED TO ALLOW NEW SOD SURFACE TO BE FLUSH WITH EXISTING.
20. FAILURE OF TURF DEVELOPMENT: IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN ACCEPTABLE TURF, THE CONTRACTOR SHALL RE-SOD ALL APPLICABLE AREAS, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.
21. LOCATE ALL EXISTING UTILITIES, VERIFY LOCATION, SIZE AND INVERT ELEVATION OF ALL EXISTING UTILITIES. VERIFY LOCATIONS, SIZES AND ELEVATIONS OF SAME BEFORE BEGINNING CONSTRUCTION.
22. CONTRACTOR SHALL MAINTAIN DRAINAGE FROM EXISTING BUILDING AT ALL TIMES. PROVIDE TEMPORARY STORM SEWER (INCLUDING, BUT NOT LIMITED TO, CATCH BASINS, MANHOLES, PIPING, ETC.) AS REQUIRED. EXISTING STORM SEWER SHALL NOT BE REMOVED UNTIL TEMPORARY OR PERMANENT STORM SEWER IS INSTALLED AND FUNCTIONAL. COORDINATE ALL REMOVALS WITH APPROPRIATE TRADES (SITE UTILITY CONTRACTOR, MECHANICAL CONTRACTOR, ETC.) AS REQUIRED.
23. IF EROSION AND SEDIMENT CONTROL MEASURES TAKEN ARE NOT ADEQUATE AND RESULT IN DOWNSTREAM SEDIMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING OUT DOWNSTREAM STORM SEWERS AS NECESSARY, INCLUDING ASSOCIATED RESTORATION.
24. SEDIMENT CONTROL DEVICE AT STORM SEWER INLETS. AT THE INLETS TO ALL STORM SEWER STRUCTURES, PROVIDE A PRODUCT FROM THE FOLLOWING LIST. ACCEPTABLE PRODUCTS:
    - A. WIMCO TOP SLAB™ MODEL RD 27.
    - B. INFRASAFE® SEDIMENT CONTROL BARRIER, DISTRIBUTED BY ROYAL ENVIRONMENTAL SYSTEMS, INC. SCB'S SHALL BE SIZED SPECIFICALLY FOR THE STRUCTURE AND CASTING SPECIFIED. SCB'S SHALL BE EQUIPPED WITH FRAME AND PERFORATED SHROUD AND SHALL BE WRAPPED ON THE OUTSIDE, COVERING THE PERFORATED WALL ONLY, WITH A GEOTEXTILE SOCK.
    - C. DANDY BAG® OR DANDY BAG DB DISTRIBUTED BY BROCK WHITE COMPANY, ST. PAUL, MN (615) 647-0950. DANDY BAG SHALL BE USED ONLY FOR CURB INLETS AFTER PAVEMENT (BINDER COURSE OR WEAR COURSE) IS INSTALLED OR AT EXISTING PAVED AREAS.
    - D. INFRASAFE® DEBRIS COLLECTION DEVICE BY ROYAL ENVIRONMENTAL SYSTEMS, INC., DISTRIBUTED BY ESS BROTHERS, 9350 COUNTY ROAD 19, CORCORAN, MN 55357 DCD'S SHALL BE SIZED SPECIFICALLY FOR THE STRUCTURE AND CASTING SPECIFIED. PROVIDE FILTER BAGS AND TIES FOR COMPLETE INSTALLATION.
    - E. OR APPROVED EQUAL.

GEOTECHNICAL TABLE

REFER TO SPEC 31 00 00 EARTHWORK AND UNIT PRICES
NOTE: DEPTHS LISTED IN TABLE BELOW DO NOT INCLUDE REMOVAL OF SUITABLE SOIL REQUIRED TO MEET PROPOSED GRADES.

Boring	Estimated Cut (FT)
ST-4	4

BENCHMARKS (RELO VERIFY BEFORE USING)

1.) TOP OF TOP NUT OF FIRE HYDRANT; SW CORNER OF 88TH ST & PORTLAND AVE.
Elevation = 827.39 FEET

2.) TOP OF TOP NUT OF FIRE HYDRANT; SW CORNER OF 90TH ST & 3RD AVE.
Elevation = 821.10 FEET

Valley View Middle School Mechanical Improvements (Bid Package 1)
9900 Portland Avenue South
Bloomington, MN 55420

Independent School District #271
1350 West 106th Street
Bloomington, MN 55431

Wold

WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101
wold.com | 651.227.7773

KRAUS-ANDERSON.
ANDERSON - JOHNSON ASSOCIATES, INC.
LANDSCAPE ARCHITECTURE • SITE PLANNING • CIVIL ENGINEERING • LAND DEVELOPMENT MANAGEMENT • CONSTRUCTION MANAGEMENT

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
DAVID A. RITT
Registration Number 40180 Date 11/09/18

Revisions		
Description	Date	Num
ADDENDUM #2	12/14/18	A2

Comm: 192112
Date: 11/09/18
Drawn: MLB
Check: DAR
North

GRADING AND DRAINAGE PLAN, SEDIMENT CONTROL PLAN

Scale: 1" = 30'

C1.21

2018-131