AGENDA

ROGERS PLANNING COMMISSION

March 19, 2019 - 7:00 PM

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

2. OPEN FORUM

3. APPROVE AGENDA

4. CONSENT AGENDA

4.1 Approval of February 19, 2019 Planning Commission Minutes

5. PUBLIC HEARINGS

5.1 Public Hearing to Consider a Request for an Interm Use Permit, to Allow Jordan Swanson to Conduct a Business Under the Extended Home Occupation Standards

6. NEW BUSINESS

6.1 Consider a Request for a Site Plan Amendment for Alside, Located at 20015 S. Diamond Lake Road

6.2 Consider a Variance and Site Plan Approval Requests from School District 728.

- Site Plan Approval for Tennis Courts at Rogers High School and Chiller Units at Rogers Middle School.
- Variance Approval Allowing Perimeter Fencing Surrounding the Tennis Courts and Chiller Units to Exceed the Maximum Height.

7. OTHER BUSINESS

7.1 Clarification from January 15, 2019 Planning Commission Meeting- Commission Offices

8. ADJOURN

Meeting Date: March 19, 2019

REQUEST FOR ACTION
ROGERS PLANNING COMMISSION

Agenda Item: No. 4.1

Subject: Approval of February 19, 2019 Planning Commission Minutes

Prepared By:

ATTACHMENTS:

Description

Mintues

MINUTES
ROGERS PLANNING COMMISSION
February 19, 2019

CALL TO ORDER

The meeting of the Rogers Planning Commission was held on February 19, 2019 at 7:00 p.m. and was called to order with Commissioners Binkley, Jullie, Silverstein, Bryan, Plansky, Bourgeois, Kraemer, Nei and Terhaar present.

Member(s) excused: None.

Also present were Councilmember Bruce Gorecki, City Planner/Economic Development Coordinator Jason Ziemer, Public Works Director John Seifert, and Associate Planner Amy Patnode.

SET AGENDA

The Agenda was set as submitted.

Commissioner Binkley moved, Commissioner Kraemer seconded the motion to approve the agenda as submitted.

On the vote, all members voted AYE. Motion carried.

CONSENT AGENDA

4.1 Approval of the January 15, 2019 Planning Commission Meeting Minutes

Commissioner Kraemer moved, Commissioner Binkley seconded a motion to approve the January 15, 2019 Planning Commission Minutes.

On the vote, all members voted AYE. Motion carried.

PUBLIC HEARINGS

5.1 Public Hearing to Consider a Request for a Variance to Exceed the Allowable Amount of Square Footage for a Detached Accessory Structure

Associate Planner Patnode provided background information and commented on the following:

- Property is located at 12023 Tucker Road.
- The detached accessory structure would exceed the allowable area because of the proposed lean-to.
- The lean-to will meet setback requirements, although the existing shed encroaches on current setbacks.
- Lean-to will match existing shed color and materials.

Chair Silverstein opened the meeting for public comment.

Scott McFarren, 12024 Tucker Road: Asked about the orientation in which the garage door will be facing. If the door faces the road, will the applicant expand the existing driveway off Trail Haven Road.

John Siefert, Public Works Director: In conversation with staff, it was assumed the doors would face south. We would not want to applicant to back into the parking space from the road.

Commissioner Silverstein moved, Commissioner Binkley seconded a motion to close the public hearing.

On the vote, all members voted AYE. Motion carried.

There was a brief discussion by the Planning Commission

Commissioner Binkley moved, Commissioner Jullie seconded a motion to approve the variance request allowing Keith Ouellette to construct a lean-to located at 12023 Tucker Road, to exceed the allowable detached accessory size, with the following conditions:

1. The lean-to must be setback from Trail Haven Road right-of-way at least 50 feet.
2. A building permit must be applied for through the City of Rogers
3. The lean-to must conform to the plans submitted with this request.
4. The garage doors must be facing south, away from Trail Haven Road.

On the vote, all members voted AYE. Motion carried.

5.2 Public Hearing to Consider the Preliminary Plat and Variance to Minimum Lot Standards of Reservoir Fields for a Proposed Tennis Center Project.

City Planner Ziemer provided background information and commented on the following:

- This site is a tennis facility that will be a public-private partnership.
- The tennis facility will own only the land the tennis facility is located on. In turn, the variance request is due to the small plat of land.
- The zoning for the property is Special Industrial (S-I).
- The Site Plan for the facility will be presented at a later meeting.

Chair Silverstein opened the meeting for public comment.

John Seifert, Public Works Director: Comments were made on the plat, partnership and history of the site. General questions were answered and explained.

Commissioner Silverstein moved, Commissioner Kraemer seconded a motion to close the public hearing.

On the vote, all members voted AYE. Motion carried.

There was a brief discussion by the Planning Commission.

Commissioner Jullie moved, Commissioner Bryan seconded a motion for approval of the Preliminary Plat of Reservoir Fields and variance request for Lot 1, Block 1 Reservoir Fields.

NEW BUSINESS

6.1 Concept Plan for New Park Building at Lions Central Park (formerly Triangle Park)

Public Works Director Seifert provided background information and commented on the following:

- The Concept Plan of the building and site layout.
- Space is intended for community gathering space, event space, rental area for special occasions.
- Gave detail about history of site, assembly and people involved with planning process.
- 9 separate lots to be combined for this project.

The Planning Commissioners had a discussion of the phased planning, how the other City facilities would be affected or altered for different uses. The project was perceived well and Commissioners find the project appealing and a catalyst for downtown revitalization.

6.2 Zoning Code Update Discussion

City Planner Ziemer discussed the Commissions role in reviewing zoning codes.

ADJOURN

Commissioner Kraemer moved, Commissioner Jullie seconded a motion to adjourn the meeting at 8:47 p.m.

On the vote, all members voted AYE. Motion carried.

Meeting Date: March 19, 2019

REQUEST FOR ACTION
ROGERS PLANNING COMMISSION

Agenda Item: No. 5.1

Subject: Public Hearing to Consider a Request for an Interm Use Permit, to Allow Jordan Swanson to Conduct a Business Under the Extended Home Occupation Standards

Prepared By: Amy Patnode, Associate Planner

Recommended Planning Commission Action

Motion to table the request from Jordan Swanson, for an Interim Use Permit and to continue the public hearing to the April 16, 2019 Planning Commission meeting at 7:00p.m. at the Rogers Community Room.

Overview / Background

Jordan Swanson, owner and operator of Minnesota Concrete Lifting, LLC is requesting an Interim Use Permit to operate a business from his home, by standards of the extended home occupation, located at 14590 Starlite Drive. The property is zoned RE-2, is 3 acres and would run the business out of the detached accessory structure.

This item was submitted on January 31, 2019. The 15-day review was February 22, 2019 and the statutory 60-day review expires on April 23, 2019.

Staff is proposing to table this request to the April 16, 2019 Planning Commission meeting. The applicant and homeowner, Jordan Swanson, needs to provide the building inspector with additional information before the Planning Commission makes a recommendation to the City Council. Staff wants to table this request to reduce the number of conditions attached to the request and to make sure state building codes have been met.

The public hearing has been published. Staff recommends tabling this item but opening the public hearing, to be continued at the April 16, 2019 meeting at 7:00 p.m. at 21201 Memorial Drive.

ATTACHMENTS:

Description

Extended Home Occupation Standards/Critera

Sec. 125-36. - Permitted home occupations, special home occupations, and extended home businesses.

(a) *Purpose.* The purpose and intent of allowing home occupations and extended home businesses is to provide a means through the establishment of specific standards and procedures by which home occupations can be conducted at residential and agricultural properties without jeopardizing the health, safety and general welfare of the surrounding neighborhood. In addition, the intent is to further provide a mechanism enabling the distinction, between and separate process for permitted home occupations and extended home businesses.

(c) *Criteria for granting extended home business permits.* All extended home businesses shall meet the following standards:

(1) Extended home businesses shall be allowed only on residential properties in the RE-2, RE-5, and AG zoning districts in the city.

(2) Any extended home business shall be clearly incidental and secondary to the residential or agricultural use of the property. The use should not change the residential character thereof, and shall result in no incompatibility or disturbance to the surrounding residential uses;

(3) The permittee must live in the home associated with the extended home business. Multiple extended home businesses may be permitted as long as the cumulative totals of all occupations meet the provisions;

(4) There can be no outside storage of materials, goods, or equipment on or near the site, other than deliveries which are staged in a specific location on the property and moved inside the home or accessory structure within one day of delivery. The city may approve limited outdoor storage of materials for extended home businesses in AG zoning districts;

(5) The extended home business shall not be visible from the outside other than a sign conforming to City Code requirements (section 113) for the zoning district including sign overlay districts.

(6) All parking associated with the extended home business shall occur on-site and shall meet all conditions pursuant to section 42-123;

(7) The extended home business cannot cause septic waste flow to exceed the design capacity of the septic system;

(8) The extended home business cannot generate traffic to and from the home that is not characteristic of the neighborhood;

(9) No extended home business shall produce light, glare, noise, odor or vibration that will in any way have an objectionable effect upon adjacent or nearby property;

(10) No equipment shall be used in the extended home business which will create electrical interference to surrounding properties;

(11) The extended home business shall meet all applicable fire and building codes;

(12) There shall be hours of operation for the extended home business; and

(13) Any other reasonable standard deemed necessary by the city council.

(d) *Performance standards for extended home businesses.*

(1) Business use of the home shall not exceed 50 percent of the floor area of the principal dwelling (excluding the garage area);

(2) The garage or accessory building may be used for the business, provided there is still garage space to park two vehicles;

(3) In addition to the occupant(s) of the property, no more than two persons who are not occupants shall be employed in the home extended business. The number of employees allowed may be altered by the city council based on the characteristics of the business or the site;

(4) No more than one commercial vehicle under four tons gross vehicle weight associated with the business can be parked overnight outside or near the home;

(5) No vehicles over four tons gross vehicle weight associated with the business can be parked at an outside location;

(6) Dust control measures may be required; and

(7) Any other reasonable conditions required by the city council.

(e) *Procedure for home extended businesses.* An extended home business permit shall be a license for use of the property. Extended home business licenses shall be reviewed by the planning commission at a public hearing, and approved or denied by the city council. Application, notice, and processing shall be as that required for an interim use permit in section 125-35 of the Rogers City Code. Extended home businesses must comply with all the provisions in this chapter, and all conditions associated with the process and procedures regarding the issuance of a license and other applicable zoning ordinances. An application shall be accompanied by a fee for an extended home business permit, as adopted by the city council, along with a detailed scaled site plan and description of the home extended business with all performance standards described herein.

(f) The city shall notify the city's property tax assessor when any home extended business license is issued and provide of a copy of such license to the assessor.

(Ord. No. 2010-03, § III, 5-25-2010; Ord. No. 2012-06, § 4(Exh. D), 7-10-2012)

Editor's note— Ord. No. 2012-06, § 4(Exh. D), adopted July 10, 2012, amended § 125-36 title to read as herein set out. Former § 125-36 title pertained to home occupations and extended home businesses.

Meeting Date: March 19, 2019

REQUEST FOR ACTION
ROGERS PLANNING COMMISSION

Agenda Item: No. 6.1

Subject: Consider a Request for a Site Plan Amendment for Alside, Located at 20015 S. Diamond Lake Road

Prepared By: Amy Patnode, Associate Planner

Recommended Planning Commission Action

Motion to approve a site plan amendment for 20015 South Diamond Lake Road to alter the north building elevation, subject to the following conditions:

1. The two dock doors match the submitted plans.
2. Any lighting added to the north building elevation shall comply to Section 125-332 of City Code.
3. The Fire Department comments must be addressed.

Motion to approve the site plan amendment for 20015 South Diamond Lake Road to construct a fence, subject to the following conditions:

1. The fence shall match the existing fences height at 10 feet.
2. The fence shall be screened with tube slats that match the existing fence.
3. The fence dimensions shall be 110 feet by 182 feet as indicated on the submitted fence permit.
4. No hazardous materials shall be stored in the fenced area.
5. The Fire Department shall be granted access to the gated area.
6. The construction or alteration of fences will require a site plan amendment.

Overview / Background

Darrell Anderson with The Design Partnership, LTD (Applicant) and Gary Lidstone with CBRE (representing the owner) are seeking approval on behalf of Alside (Tenant) for a Site Plan Amendment to relocate their outdoor storage area, and to add dock doors to the north exterior of the building, located at 20015 South Diamond Lake Road (Subject Property).

The Subject Property is part of the Rogers Industrial Park 16th addition (Industrial Park). Two large industrial buildings are located within the Industrial Park, 20015 & 20195 South Diamond Lake Road. 20015 S. Diamond Lake Road has been referred to as building two, and 20195 has been referred to building three since the initial development of the site. Alside has been a tenant in building three for many years and is moving into building two. The move triggers a site plan amendment due to the proposed changes.

This application was received on February 6, 2019. The statutory 15-day review ended on February 27, 2019 and the 60-day statutory review ends on April 28, 2019.

Primary Issues to Consider

1. Land Use and Zoning
2. Applicant Request & Site Information
3. Performance Standards for Outdoor Storage
4. Fence Details
5. Parking, Lighting and Drainage

Analysis of Primary Issues

1. Land Use and Zoning

The Subject Property is zoned Limited Industrial (L-I) and guided for Limited Industrial in the 2030 Comprehensive Plan. The draft 2040 Comprehensive Plan also guides this property as Industrial. The proposed alterations are allowed uses in the L-I zoning district.

This type of use is allowed by both the Comprehensive Plan and Zoning.

2. Applicant Request & Site Information

Alside is moving into building two and will occupy the northern most 43,200 square feet. To conduct business, they are proposing to located 2, 12' x 14' dock doors on the north building elevation and the installation of one (1) new man door. The request for the new doors will subtract 5 parking stalls from the property. At time of construction, 324 parking stalls were shown on the site plan for building two although only 294 stalls are striped and used today. The parking requirement is based off a 10% build-out of office space, and 90% as warehouse. The required stalls based off that ratio is 247. The parking stall total with the five stalls subtracted is 289, above the current requirement.

The Tenant is in the process of obtaining building permit approval for the installation of two additional dock doors on the west side of the building. There will be a total of 6 dock doors in Alsides tenant space for the west building elevation. Both buildings in the Industrial Park had the original intent for the dock doors to face inward toward the property. The addition of dock doors on the west building elevation does not alter the site in such a way that would trigger a Site Plan Amendment. However, this information is relevant to the application before us.

In 2006, the City approved a Conditional Use Permit to building three for 32,400 square feet of outside storage. This was granted to the property owner, not the individual tenant. Sometime after those approvals, Alside located outdoor storage on the site with a screened, ten-foot fence. Five years later Alside expanded their outdoor storage area to 34,400 square feet. Alside is proposing to relocate their outdoor storage area onto the building two outdoor storage area. In doing so, their outdoor storage area will decrease from the existing 34,400 square feet to approximately 20,000 square feet. The proposed outdoor storage area is well below the allowable area of outdoor storage for building two; 51,840 square feet. The materials stored within the enclosed area is similar to Alsides existing outside storage: materials such as roofing materials, fiber cement and foam insulation.

3. Performance Standards for Outdoor Storage

Tenants and property owners who request outdoor storage in the Limited Industry (L-I) district must comply with standards established by City Code. Performance standards for outdoor storage of materials are listed below.

g. Outdoor storage of materials [§125-199 (5)(g)]:

1. Permitted by conditional use permit if storage is accessory and related to principal use.
2. Storage area is limited to the rear yard.
3. Storage area is limited to up to 20 percent of the building area.
4. Storage areas shall be fenced.
5. Storage and screening shall not exceed eight feet in height.
6. The use does not take up parking space as required for conformity to this ordinance.
7. All lighting shall be hooded and so directed that the light source shall not be visible from the public right-of-way or from neighboring properties.
8. All exterior storage areas must be paved and include storm drainage management facilities as required by the city.

In regards to this property, any fenced in area on the property, excluding a perimeter fence on this property, is considered an area designated for outdoor storage of materials, even if the fenced area is used to enclose vehicles and/or trailers.

4. Fence Details

City Code regarding Fences. Outdoor storage of materials shall be fenced; the screening and storage of such shall not exceed 8 feet in height [125-199 (5)(g)]. Screening for outdoor storage areas also are required to be screened with an opacity of at least 90 percent and shall be architecturally harmonious with the principal building and shall be compatible with the natural surroundings [125-374 (g)(1)(a, b)]. Fences for the protection from danger and of valuable private property may construct fences to guard private property. Such uses may be enclosed with an industrial chain-link fence at least six (6) but no more than eight (8) feet in height topped with three strands of barbed wire, provided they project over the property on the interior side of the fence [125-374 (G)(3)].

The approval of the Conditional Use Permit (CUP) in 2006 listed the following condition: "That the storage area is screened with 10 foot high privacy screening, but that there is no barbed wire allowed".

The Applicant is proposing to construct a ten (10) foot chain-link fence to match the existing height of Associated Energy Systems fence (tenant in building three) and Alsides existing fence (to be moved). The material used to screen the existing fence matches the exterior of the buildings, and the proposed fence will match the existing fence. The fence has tan colored slats inserted for an approximate opacity of 90%. Staff supports the approval of a ten (10) foot fence to match the existing fence at the property.

5. Parking, Lighting and Drainage

The proposed outdoor storage area does not take up parking spaces as required by code [125-199(g)(6)]. However, the proposed dock doors on the north building elevation will subtract 5 parking stalls from the building two property. Building two will still have enough parking stalls even after the stalls have been removed.

All lighting shall be hooded and so directed that the light source shall not be visible from the public right-of-way or from neighboring properties [125-199 (g)(7)]. No lighting is shown on the proposed north building elevation. When a building permit is submitted, lighting specs will be required although electrical permits are not pulled through the City.

All exterior storage areas must be paved and include storm drainage management facilities as required by the City [125-199 (g)(8)]. The Subject Property was constructed in 2005 and incorporated all the proper drainage techniques and has an onsite drainage pond in the northern part of the site. All storm management procedures shall be maintained.

Staff recommends approval of the site plan amendment for the tenant Alside to construct two dock doors on the north building elevation and to construct a 182' x 110' fence as indicated on the site plan. The fence is recommended to be 10 feet to match their existing height and screening type and color.

Staff Recommendation

Staff recommends the following:

Motion to approve a site plan amendment for 20015 South Diamond Lake Road to alter the north building elevation, subject to the following conditions:
1. The two dock doors match the submitted plans.
2. Any lighting added to the north building elevation shall comply to Section 125-332 of City Code.
3. The Fire Department comments must be addressed.

Motion to approve the site plan amendment for 20015 South Diamond Lake Road to construct a fence, subject to the following conditions:
1. The fence shall match the existing fences height at 10 feet.
2. The fence shall be screened with tube slats that match the existing fence.
1. The fence dimensions shall be 110 feet by 182 feet as indicated on the submitted fence permit.
2. No hazardous materials shall be stored in the fenced area.
3. The Fire Department shall be granted access to the gated area.
4. The construction or alteration of fences will require a site plan amendment.

ATTACHMENTS:

Description

Site Plan

North Building Elevation

Fence Specs

Narrative

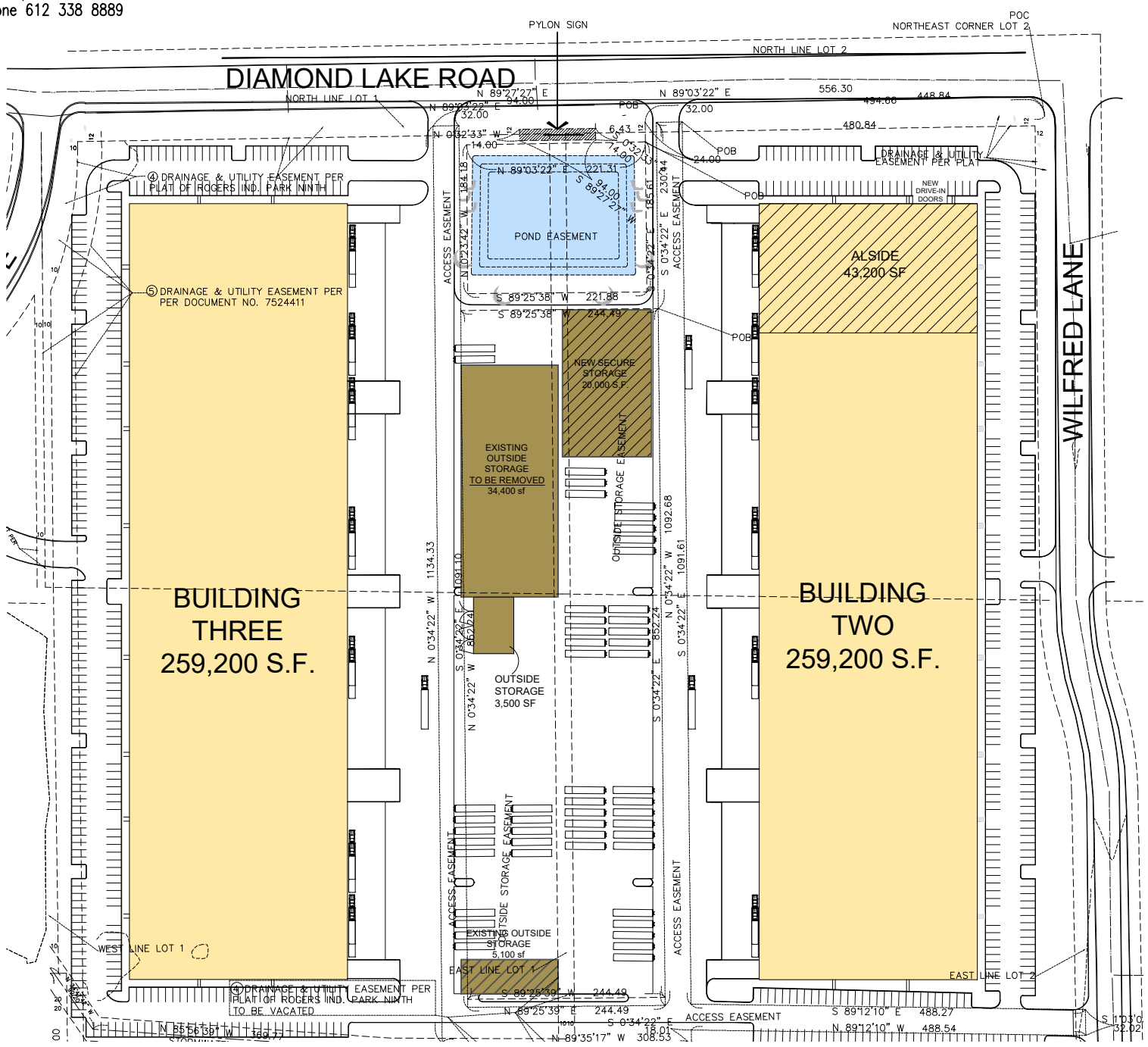
Fire Dept. Comments

Project Na:	ALSIDE	Sheet Na:	SITE PLAN
Project No:	2030003-17	Sheet No:	
Address:	DIAMOND LAKE INDUSTRIAL CENTER #2 ROGERS, MN	Scale:	1" = 180'-0"
		Date:	03-01-2019

THE DESIGN
PARTNERSHIP, LTD.

Architecture
Planning
Interiors

2700 Louisiana Ave. S #26396
Minneapolis, MN 55426
Phone 612 338 8889



1 / A-1 SITE PLAN

SCALE: 1" = 180'-0"

NORTH

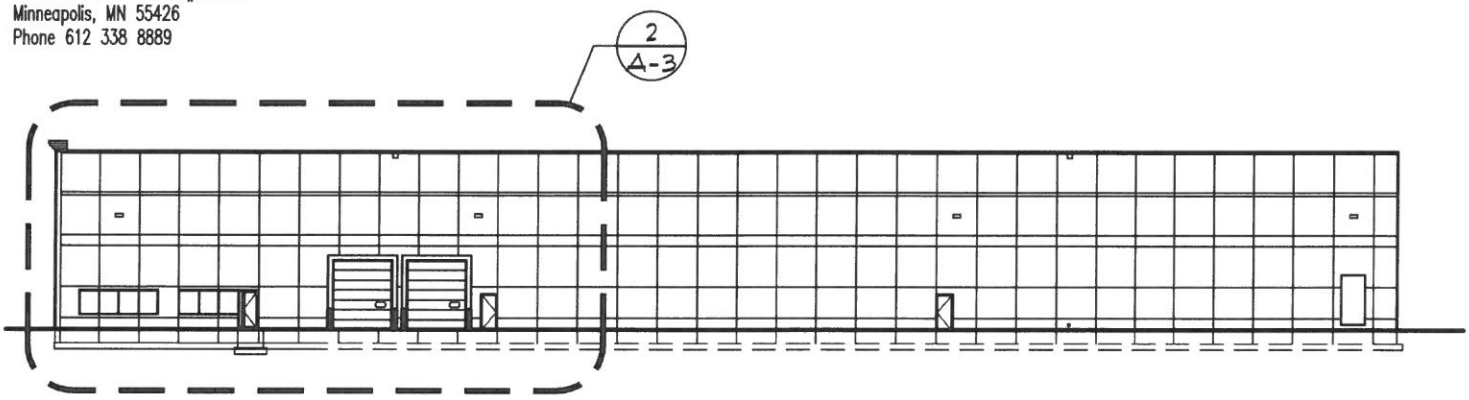
0 90' 180' 360'

Project Na:	ALSIDE
Project No:	2030003-17
Address:	DIAMOND LAKE INDUSTRIAL CENTER #2 ROGERS, MN
Sheet Na:	PARTIAL NORTH ELEVATION
Sheet No:	A-3
Scale:	1/16" = 1-0"
Date:	02-06-2019

THE DESIGN
PARTNERSHIP, LTD.

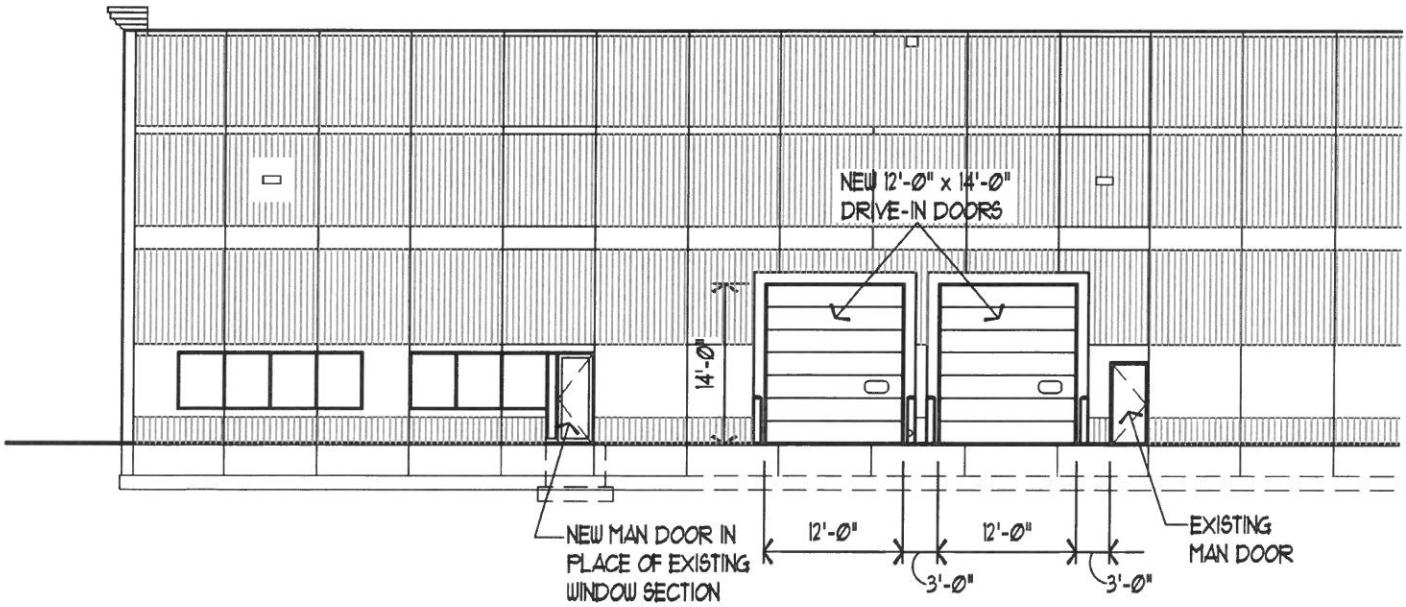
Architecture
Planning
Interiors

2700 Louisiana Ave. S #26396
Minneapolis, MN 55426
Phone 612 338 8889



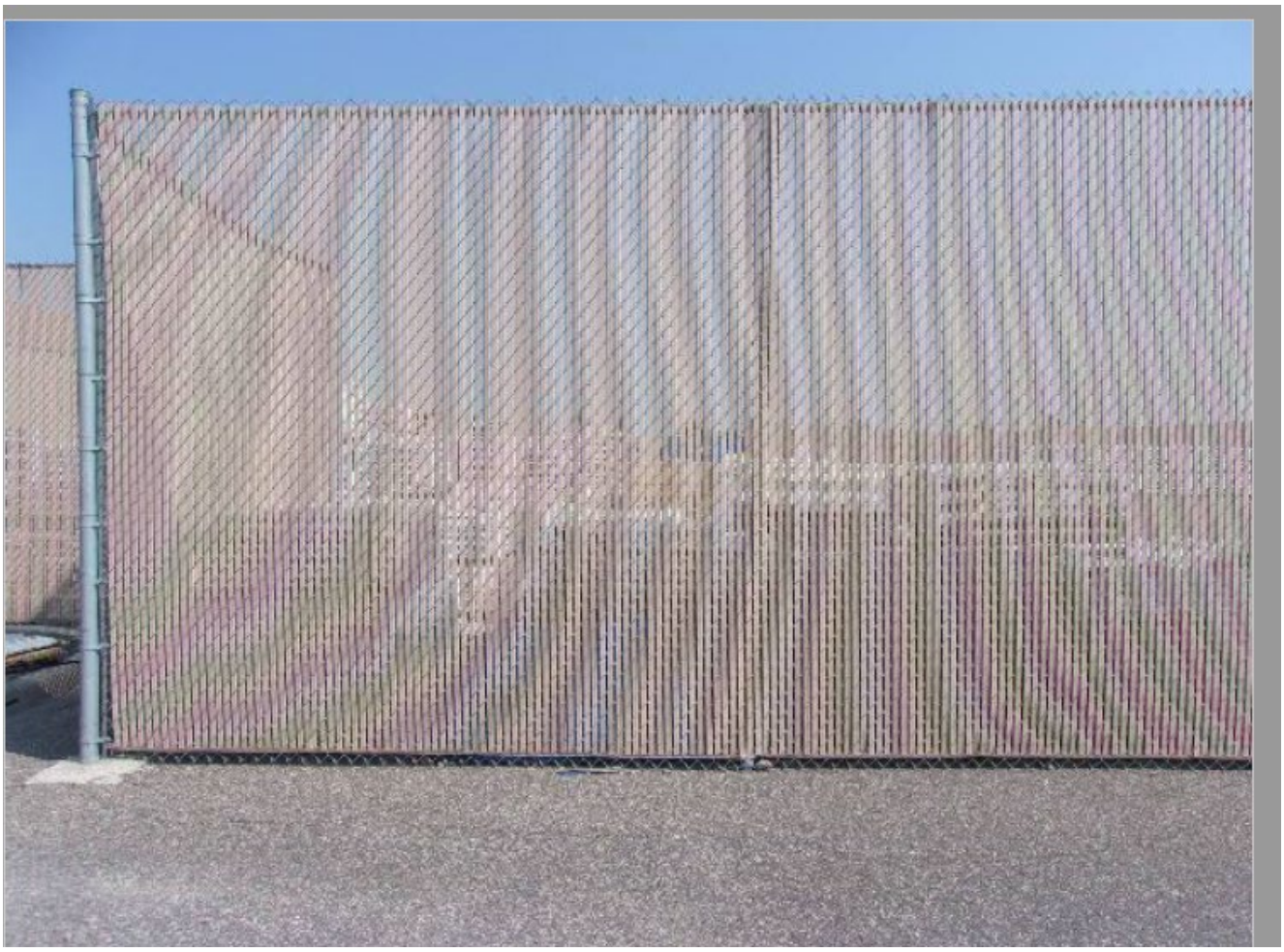
1 / A-3 NORTH ELEVATION

REFRENCE ONLY - NOT TO SCALE



2 / A-3 PARTIAL NORTH ELEVATION

SCALE: 1/16" = 1'-Ø"



This is a copy of a photo submitted for our past requests.

The intension of this project is to construct the same fence type, Chain Link with inserts, the height of this fence will not exceed the allowed 10’- 0” restriction as per prior CUP approvals.

Alside submittal – March 4, 2019

The Design Partnership, Ltd.

EST. 1972

Architecture
Planning
Interiors

February 6, 2019

Diamond Lake Industrial Center
Bldg #2 / Bldg #3
20015/20195 S. Diamond Lake Road
Rogers, Minnesota

(Bldg #2) PID – 1312023340007 *(North)* & 2412023210001 *(South)*
(Bldg #3) PID – 1312023340006 *(North)* & 2412023210009 *(South)*

Re: Site plan review for Alside, Building #2; Relocating from Building #3

The request is for the deletion of 5 parking stalls to facilitate the installation of (2) 12'-0" wide by 14'-0" high overhead doors on the North side of building #2 as indicated on the attached plans. The overhead doors in this location will allow for a greater efficiency in the use of the new facility.

The original site plan approved in 2003 had a requirement of 220 parking stalls, based on 10% office use and 90% warehousing. The approved plans for construction included 327 parking stalls as a buffer for a higher use of the premises. After the reduction of the 5 parking stalls requested, there will remain 322 active parking stalls. This parking count is for building #2 only, building #3 stands on its own.

On attached sheet A1 (site plan) the tenant's outside secure storage area is located to the SW of the new facility location. The new storage area is 182'-0" wide and 110'-0" deep for a total storage area of 20,000 S.F. The area will be secured with a 10'-0" high fence with vinyl slats for screening and accessed via a 20'-0" wide roll gate and (1) man door gate. Products to be stored in this area include: roofing materials, fiber cement and possibly foam insulation.

With the tenants move from their current location in building #3, their current secure outside storage of 34,400 S.F and fenced with a product like described above, will be disassembled and relocated/replaced to the new location. This reallocation of space results in a 14,400 S.F. reduction in outside storage for the total property and complies with the approval received in August of 2018.

Prepared By:
Darrell D. Anderson
President

Attached:

A-1 (Site Plan)
A-2 (Partial Floor Plan w/ site)
A-3 (North Building Elevation)

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#26396
Minneapolis, MN 55426
Phone 612.338.8889

City of Rogers
22350 South Diamond Lake Road
Rogers, Minnesota 55374
Phone: 763.428.2253
Fax: 763.428.4470
www.rogersmn.gov

Staff Comments – Alside Site Plan Amendment for 20015 S. Diamond Lake Road

Fire Department Comment:
Mechanical permit required for relocating fire damper unit.
Sprinkler permit may be required for adding/relocating overhead doors.

Meeting Date: March 19, 2019

REQUEST FOR ACTION
ROGERS PLANNING COMMISSION

Agenda Item: No. 6.2

Subject: Consider a Variance and Site Plan Approval Requests from School District 728.

Prepared By: Jason Ziemer, City Planner / Community Development Coordinator

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Recommended Planning Commission Action

To recommend to the City Council approval of a Variance request for fence height, allowing fences to exceed the maximum height allowed by City Code, and approval of the Site Plan for the tennis courts for Rogers High School and chiller units at Rogers Middle School.

Overview / Background

BKBM Engineers (Applicant), on behalf of Independent School District #728 (District), has submitted a Zoning & Land Use application, requesting City approval of Site Plan for the construction of tennis courts at Rogers High School and installation of chiller units at Rogers Middle School. a proposed expansion of its existing manufacturing facility in Rogers, located at 20500 David Koch Avenue. Rogers High School is located at 21000 141st Avenue North (PID: 11-120-23-44-0001); Rogers Middle School is located across the street at 20855 141st Avenue North (PID: 14-120-23-11-0003). With construction of the eight (8) new tennis courts adjacent to the High School, the District is proposing to remove the existing six (6) courts at the Middle School.

City staff have been in discussion with the District about revising an existing Joint Powers Agreement (JPA), whereby the City would take ownership of and retain the existing courts for the purpose of tennis, pickle ball, accessible basketball, etc. As the JPA has not yet been revised and approved the plans continue to show removal of the courts; plan revisions would be required if the courts are ultimately salvaged. In addition to Site Plan approval, the Applicant is requesting a Variance for fence height, allowing the exterior fences around the tennis courts and enclosure around the chiller units to be 10 feet versus the eight (8) foot maximum as restricted by City Code.

The application for Site Plan was received on February 1, 2019; the application for Variance was received on March 8, 2019. Plan revisions, excluding the pending outcome regarding the Middle School tennis courts, were submitted on March 8, 2019. The 60-day statutory review period expires on April 26, 2019.

Primary Issues to Consider

1. Land Use & Zoning
2. Site Plans
3. Fencing & Screening Standards
4. Variance Standards

Analysis of Primary Issues

1. Land Use & Zoning

The Rogers High School building is situated on 38.45 acres; the main parking lot, athletic fields and Rogers Activity are on the adjacent lot owned by the City of Rogers, also totaling 38.45 acres. Rogers Middle School is located directly across the street from the High School on 22.69 acres. The two properties are currently guided as **Institutional**, per the Rogers 2030 Comprehensive Plan, which defines it as follows: *Institutional includes government facilities, schools, churches, cemeteries and other public/semi-public uses.* The 2040 Comprehensive Plan retains this Land Use designation.

The corresponding zoning for the High School and Middle School is **Single-Family Residential (R-2)**. City Code Section §125-194 establishes *Permitted, Accessory and Conditional Uses* for properties zoned R-2. Permitted uses in this zoning district are: *churches, community centers, essential services, forestry, golf courses, nurseries, public recreation, schools, residential kennels, single-family detached residences and home occupations.* The tennis courts are set back 60 feet from the easterly property line, exceeding the 10-foot side yard setback minimum. Although not a zoning requirement, the courts are also setback 60 feet from the southerly parking lot.

The property not does fall within a **Highway Corridor Overlay District**.

Land Use conditions are satisfied.

2. Site Plans

The eight (8) tennis courts proposed for the High School property were planned for the same area as part of the original school construction plans, albeit in a slightly different configuration. No new roadways and/or parking stalls are proposed as the existing facilities are sufficient. The only additional impervious surface, beyond the courts, is the new sidewalk between the parking area and courts. The construction limits, or area of disturbance, for the tennis courts is 2.91 acres. The courts will be surrounded by a fence. Although not a zoning issue for review, City staff did comment on the type of access gate, suggesting the Applicant and District consider a gate system that would prevent bicycles from being brought into the court area, if that is of concern. The Landscape Plan does show a bicycle parking area.

The chiller units proposed for the Middle School site are shown to be located on the southside of the building near the school bus loading area. The chiller units will be located against the school and surrounded with a secure enclosure (fence).

Lot Coverage

City Code §125-329(4) limits the maximum lot coverage (impervious surface area) of properties zoned as residential to 75%. As noted above, the High School property is 38.45 acres; the Middle School is 22.69 acres. With the proposed improvements the total lot coverage for both properties area roughly 39% and 46%, respectively.

Lot coverage is satisfied.

Parking & Site Circulation

City Code does not set specific minimum requirements for outdoor athletic facilities, such as tennis courts, ballfields, etc. Although not applicable to this request, the High School, for example, is required to provide one (1) space for each four (4) students, plus three (3) additional spaces for each classroom. Use of outdoor athletic facilities by faculty and students while school is in session is assumed to have already been addressed according to high school parking code requirements. For use when school is not in session, shared parking is assumed for use of athletic facilities, thus, no additional parking is necessary. There is 158 space parking lot adjacent to the site, with 20 parking spaces immediately adjacent to the courts. Excluding spectators, at full court capacity – doubles matches on all eight (8) courts – a total of 32 parking spaces would be needed to serve users.

Parking requirements are satisfied.

Surface Water

As part of the initial review, City Public Works staff reviewed the original Site Plan approval for construction of the High School and determined no additional storm water requirements are necessary as all grading and existing storm water ponds were constructed with capacity assuming the development of the tennis courts. The Applicant will still be required to satisfy erosion control requirements as the site disturbance is in excess of one (1) acre.

Surfaced Water requirements are satisfied.

Landscape Plan

For landscaping, City Code merely requires an applicant to provide a plan that shows the location, size and type of tree and plant species. The tennis court site is currently turf (grass). The Landscape Plan presented by the Applicant proposes the addition of five (5) overstory deciduous trees (Autumn Blaze Maple) and seven (7) understory deciduous trees (Ivory Silk Japanese Lilac). The City requires all trees planted to have a minimum caliper of 2.5 inches; the lilac trees are showing with a 1.5-inch caliper. Except for the impervious surfaces the rest of the disturbed area will be restored to turf (grass).

Landscape Plan requirements are satisfied.

Signage

No signage is proposed. The District may install court rules signage.

3. Fencing & Screening Standards

As described above, the Landscape Plan for the eight (8) High School tennis courts shows a perimeter fence enclosing the courts in addition to interior fences separating court areas. The Site Plan at the Middle School also shows a perimeter fence surrounding the two chiller units. Although City Code does not specifically address height requirements for the types of uses, all fencing standards have a maximum height restriction of eight (8) feet. Specifically, privacy fences in residential districts *shall not exceed eight feet in height* [§125.374(f)(4)]. Chain link fences are permitted within residential districts; the Applicant is showing privacy slats on all outer perimeter fencing with a 75% opacity. There are opacity minimums or maximums for residential property.

Fence height for all perimeter fencing surrounding both the tennis courts and chiller units are shown at 10 feet, two (2) feet taller than the maximum allowed. The Applicant submitted a Variance request, allowing fences on both sites to exceed the maximum height.

4. Variance Standards

For variance applications, the Planning Commission shall use the following criteria as part of its analysis and evaluation when considering whether to approve such requests [§125-58(a)].

1. Variances shall only be permitted when they are in harmony with the general purpose and intent of city code and consistent with the comprehensive plan.
2. Variances may only be permitted when the applicant establishes that there are non-economic practical difficulties in complying with the zoning ordinance, meaning the property owner proposes to use the lot or parcel in a reasonable manner not permitted by the zoning code.
3. The plight of the property owner must be due to circumstances that are unique to the lot or parcel and is not created by the property owner.
4. The variances must not alter the essential character of the locality including all zoning district and overlay district provisions.

Essentially, the practical difficulty aspect of variance requests looks at the "reasonableness" of a proposed use on a property. As part of its analysis, the Planning Commission should also consider whether a variance is absolutely necessary. In other words, is the Applicant able to comply with current zoning code as stated without the need for a variance.

Using the Variance worksheet with the application, the Applicant described the reasons for the taller than permitted fences. Specific to the tennis courts, the Applicant noted best practices and industry standards, according to the American Sports Builders Association, recommend a 10-foot tall fence for asphalt courts to keep tennis balls within the field of play. The chiller units, proposed to be installed at the Middle School, each stand eight (8) feet tall; they are just under nine (9) feet tall including the concrete pad. The Applicant is proposing a taller fence to provide proper screening, mitigate noise, and provide added safety by discouraging tampering by students or others.

Analysis of Variance Requests

After review, City staff determined the request is reasonable as fences are permitted accessory uses in residential districts, and maintain the essential character of the area. Because they are an allowable use, the addition of fencing is also in harmony with the general purpose and intent of City code and consistent with the Comprehensive Plan. City staff agree the purpose of the taller fences surrounding the chiller units are necessary not only to screen them from view, but their location next to areas where students congregate provides added security and safety for those children. As for the tennis courts, an industry standard is not by itself a justification of a variance, yet there is equally a safety argument. Similar to the other adjacent athletic facilities, perimeter fences are intended to keep the sport confined within the field of play, reducing the potential for injury for those not spectating or participating in the sport. The taller fence can also provide additional security by deterring persons from attempting to climb the fence when the courts are not accessible and using them for anything other than their intended purpose. Although it could be argued there are no specific practical difficulties that make a 10-foot tall fence an absolute necessity, there are practical arguments that the taller fencing also provide safety and security elements.

Staff Recommendation

City staff proposes the Planning Commission recommend approval of the Variance to fence height, allowing the fences to exceed the maximum allowed by two (2) feet, based on findings established by the Commission.

City staff proposes the Planning Commission recommend approval of the Site Plan for the tennis courts for Rogers High School and chiller units at Rogers Middle School.

ATTACHMENTS:

Description

Project Narrative_Tennis Courts & Chiller Units
Variance Narrative_Tennis Courts & Chiller Units
Variance Worksheet_Tennis Courts & Chiller Units
Plans_High School Tennis Courts
Landscape Plan_High School Tennis Courts
Plans_Middle School Chiller Units
Landscape Plan_Middle School Chiller Units

Project Narrative

TO: Jason Ziemer
City of Rogers
22350 S Diamond Lake Road
Rogers, MN 55374

DATE: February 18, 2019

PROJECT: 2019 Rogers High School Tennis Courts – Bid Package #1; 2019 Rogers Middle School – Chiller Units

PROJECT NO.: 19143.50; 19144.50

Jason,

Site plan approval is being requested for the 2019 Rogers High School Tennis Courts – Bid Package #1 and 2019 Rogers Middle School – Chiller Units projects.

The Tennis Courts project at the High School would include the installation of eight new tennis courts, a concrete viewing area, concrete and asphalt paths to the proposed courts, and associated landscaping. The new courts would be located on the western side of the Rogers High School Property, north of the bus loading area. The proposed location of the tennis courts would occupy an existing athletic practice field. Construction of the tennis courts on the school's property would be a benefit to the High School's tennis program and would have no detrimental effects to the surrounding land uses (industrial, residential, commercial and farm properties).

The Chiller Units project would include the installation of two new chiller units for the existing Rogers Middle School (RMS) building and the demolition of six existing tennis courts south of the school. The chiller units would be located south of the existing building and surrounded with a ten (10') foot high screen fence as a visual barrier. The chiller units were also located such that they should be far enough away from the adjacent residential properties so that any noise from the units will not adversely impact the community. The RMS tennis courts are currently showing signs of fatigue (cracks in court surface and drainage concerns) and are becoming unusable. For this reason, the existing courts are being removed and are to be reinstalled at the High School. Based on the funding source for the High School tennis courts, the RMS courts must come out if the High School courts are to be installed.

Based on the information provided above, BKBM is recommending the City of Rogers approve the proposed projects.

We look forward to your response.

Kevin A. Bohl

Kevin A Bohl, P.E

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Variance Narrative

TO: Jason Ziemer
City of Rogers
22350 S Diamond Lake Road
Rogers, MN 55374

DATE: March 7th, 2019

PROJECT: 2019 Rogers High School Tennis Courts – Bid Package #1; 2019 Rogers Middle School – Chiller Units

PROJECT NO.: 19143.50; 19144.50

Jason,

A variance to the allowable fence height is being requested for the "Rogers High School Tennis Courts" and "Rogers Middle School Chiller Units" projects. The properties are currently zoned for R-2 Single Family Residential and schools are a permitted use for R-2 zoning.

The addition of the tennis courts at the high school will be beneficial to the school's athletic program and will be located on a portion of the site that is already used as a practice field. The school district and design team feel that the variance request to allow a 10-foot high fence (in lieu of the maximum 8-foot height allowed) for the tennis courts should be approved for the following reasons;

- American Sports Builders Association recommends a fence height of 10-feet for asphalt courts to keep the tennis balls within the field of play.
- A 10-foot high fence is considered industry standard for this type of application.
- The addition of tennis courts at the high school will be a benefit to the school and surrounding community.

The addition of the proposed mechanical units at the Middle School are necessary as part of a much-needed upgrade to the existing mechanical systems. The school district and design team feel that the variance request to allow a 10-foot high fence for the chiller units should be approved for the following reasons;

- The fence is intended to screen the mechanical units from view.
- The proposed mechanical unit is approximately 8-feet high and sits on a pad that is roughly 8-inches high (total height 8' 8"). In order to verify the unit is properly screened, the fence height is proposed as 10-feet high.
- The fence will act as a noise barrier for the units.
- The fence will act as a physical barrier to discourage tampering with the units by students (safety).

Please let me know if you have any additional questions and we look forward to your response.

Kevin A. Bohl

Kevin A Bohl, P.E.
BKBM Engineers

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VARIANCE WORKSHEET

1. Describe how the request is in harmony with the general purpose and intent of zoning for the property.

The Rogers High School and Middle School are both Zoned R-2 single family residential. The zoning will not be changed with this variance and fences are allowed within this zoning type.

2. Describe how the request is consistent with the Comprehensive Plan.

The fences proposed for the High School Tennis Courts will be necessary for the courts to function. The addition of the tennis courts will enhance the school's athletic program and surrounding community.

The fence proposed for the Middle School are intended to screen the proposed mechanical unit. In addition to acting as a visual barrier, the screen fence will also act as a noise reducer for the surrounding neighborhoods and to discourage tampering with the units by students (safety).

3. Describe why the proposed use is reasonable.

American Sports Builders Association recommends a fence height of 10-feet for asphalt tennis courts to keep the tennis balls within the field of play. A 10-foot high fence is considered industry standard for this type of application.

The 10-foot high fence proposed at the Middle School is intended to act as a screen fence for the proposed mechanical unit. The proposed mechanical unit is approximately 8-feet high and sits on a pad that is roughly 8-inches high (total height 8' 8"). In order to verify the unit is properly screened, the fence height is being proposed to be 10-feet high.

4. Describe the following: *circumstances unique to the property, why the need for the variance was not created by the property owner, and why the need is not solely based on economic considerations.*

The addition of the tennis courts at the high school is necessary to enhance the school's athletic program. Similarly, the addition of the mechanical units at the middle school are necessary to update the current mechanical systems in the building.

An increase in the fence height from 8-feet to 10-feet will cost the owner more money and economically is not advantageous to the owner.

5. Describe why the variance would not alter the essential character of the neighborhood.

The proposed improvements to the school's property do not change the use or charter of the property. The installation of tennis courts will improve the school's athletic program and enhance the character of the neighborhood.

1 C100 SELECTIVE SITE DEMOLITION AND EROSION CONTROL PLAN
1" = 30'

PROPOSED PLAN SYMBOLS

- CONSTRUCTION LIMITS
- PERIMETER EROSION CONTROL (SILT FENCE)
- PROPERTY LINE
- SAWCUT LINE (APPROX.)
- ROCK CONSTRUCTION ENTRANCE
- BITUMINOUS REMOVAL
- CONCRETE REMOVAL
- PIPE REMOVAL
- TREE REMOVAL

ABBREVIATIONS

BLDG	Building
BM	Bench Mark
CB	Catch Basin
CONC	Concrete
DIP	Ductile Iron Pipe
ELEV	Elevation
EX	Existing
FFE	Finished Floor Elevation
INV	Invert
MAX	Maximum
MH	Manhole
MIN	Minimum
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe

NOTE:
STORM SEWER INLETS NOT SHOWN ON PLAN MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INSTALL INLET SEDIMENT PROTECTION PER DETAIL 2/C500 ON ALL STORM INLETS THAT MAY RECEIVE RUNOFF.

N

30' 15' 0 30' 60'
SCALE 1" = 30'

KEYED NOTES

KEYED NOTES ARE DENOTED BY [NO] ON PLAN.

1. INSTALL ROCK CONSTRUCTION ENTRANCE. REFER TO DETAIL 1/C500.
2. INSTALL PERIMETER EROSION CONTROL. REFER TO DETAILS 3/C500 AND 4/C500.
3. INSTALL INLET SEDIMENT PROTECTION. REFER TO DETAIL 2/C500.
4. REMOVE TREE IN ITS ENTIRETY INCLUDING STUMP.
5. EXISTING IRRIGATION SYSTEM TO BE REMOVED FROM UNDER PROPOSED TENNIS COURT AREA. REFER TO LANDSCAPE PLANS FOR REMOVAL, RELOCATION AND RECONFIGURATION OF EXISTING IRRIGATION SYSTEM. CONTRACTOR SHALL MAINTAIN FUNCTIONING IRRIGATION SYSTEM FOR AREAS OUTSIDE OF THE CONSTRUCTION LIMITS DURING CONSTRUCTION.
6. SAWCUT AND REMOVE BITUMINOUS PAVEMENT IN ITS ENTIRETY TO THE APPROXIMATE EXTENTS SHOWN. COORDINATE EXTENTS WITH UTILITY CONTRACTOR.
7. EXISTING TREE TO REMAIN. PROTECT AT ALL TIMES.
8. EXISTING SIDEWALK TO REMAIN. PROTECT AT ALL TIMES.
9. EXISTING CONCRETE CURB AND GUTTER TO REMAIN. PROTECT AT ALL TIMES.
10. EXISTING BITUMINOUS TRAIL TO REMAIN. PROTECT AT ALL TIMES.
11. EXISTING UNDERGROUND ELECTRIC TO REMAIN. PROTECT AT ALL TIMES.
12. REMOVE EXISTING LIGHT POLE IN ITS ENTIRETY, INCLUDING BELOW GRADE FOUNDATION.
13. REMOVE PORTIONS OF EXISTING STORM SEWER NECESSARY FOR PROPOSED STORM SEWER STRUCTURE. COORDINATE WITH UTILITY CONTRACTOR FOR EXTENTS.
14. REMOVE EXISTING STORM SEWER. WHERE EXISTING 15 INCH PIPE CONNECTS TO 27 INCH STORM SEWER PIPE, CONTRACTOR SHALL REPLACE PORTION OF 27 INCH PIPE NECESSARY TO ELIMINATE 15 INCH PENETRATION.

DEMOLITION AND REMOVAL NOTES:

1. PRIOR TO START OF DEMOLITION, ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CITY OF ROGERS AND ELM CREEK WATERSHED MANAGEMENT COMMISSION. ALL SILT FENCES SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY CONSTRUCTION ACTIVITY. SILT FENCES SHALL BE INSTALLED ALONG THE CONTOUR.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND MARK ALL EXISTING UTILITIES 48 HOURS BEFORE CONSTRUCTION STARTS. THE ENGINEER, ARCHITECT OR OWNER DOES NOT GUARANTEE THAT ALL THE UTILITIES ARE MAPPED, OR IF MAPPED, ARE SHOWN CORRECTLY. CONTACT GOPHER STATE ONE CALL AT 651-454-0002 FOR FIELD LOCATING EXISTING UTILITIES. CONTACT UTILITY OWNER IF DAMAGE OCCURS DUE TO CONSTRUCTION.
3. THERE MAY BE MISCELLANEOUS ITEMS TO BE REMOVED THAT ARE NOT IDENTIFIED ON THESE PLANS. THE CONTRACTOR SHALL VISIT THE SITE AND REVIEW THE DOCUMENTS TO OBTAIN A CLEAR UNDERSTANDING OF THE INTENDED SCOPE OF WORK.
4. ANY UTILITIES NOT INDICATED FOR REMOVAL OR ABANDONMENT, ARE TO BE PROTECTED AT ALL TIMES (SEE SMALL UTILITY NOTE BELOW).
5. WHERE GRADE OVER EXISTING SMALL UTILITIES IS PROPOSED TO BE LOWERED, CONTRACTOR SHALL COORDINATE WITH UTILITY OWNER FOR THE LOWERING OF THE EXISTING UTILITY TO PROVIDE THE MINIMUM COVER REQUIRED.
6. THE BACKGROUND INFORMATION WAS PREPARED BY CORNERSTONE LAND SURVEYING. (651) 275-8969.

GENERAL NOTES:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND REVIEW ALL CONSTRUCTION DOCUMENTS AND GEOTECHNICAL REPORTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ITEMS THAT SHOULD HAVE BEEN ANTICIPATED BY PERFORMING THE ABOVE.
2. THE ROCK CONSTRUCTION ENTRANCE INDICATED ON THE PLAN IS SHOWN IN AN APPROXIMATE LOCATION. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR IS TO COORDINATE WITH THE CITY OF ROGERS FOR THE EXACT ROCK CONSTRUCTION ENTRANCE LOCATION.

2019 Rogers High School Tennis Courts - Bid Package #1

21000 141st Avenue N.
Rogers, MN 55374

Independent School District #728
11500 193rd Ave. NW
Elk River, MN 55330

WOLD ARCHITECTS AND ENGINEERS
332 Minnesota Street, Suite W2000
Saint Paul, MN 55101
woldae.com | 651 227 7773

BKBM ENGINEERS
6120 Earle Brown Drive, Suite 700
Minneapolis, MN 55430
Phone: (763) 843-0420
Fax: (763) 843-0421
www.bkbm.com

CONSTRUCTION DOCUMENTS

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.

Kevin A. Bohl

Kevin A. Bohl
License Number: 52209 Date: 01/17/2019

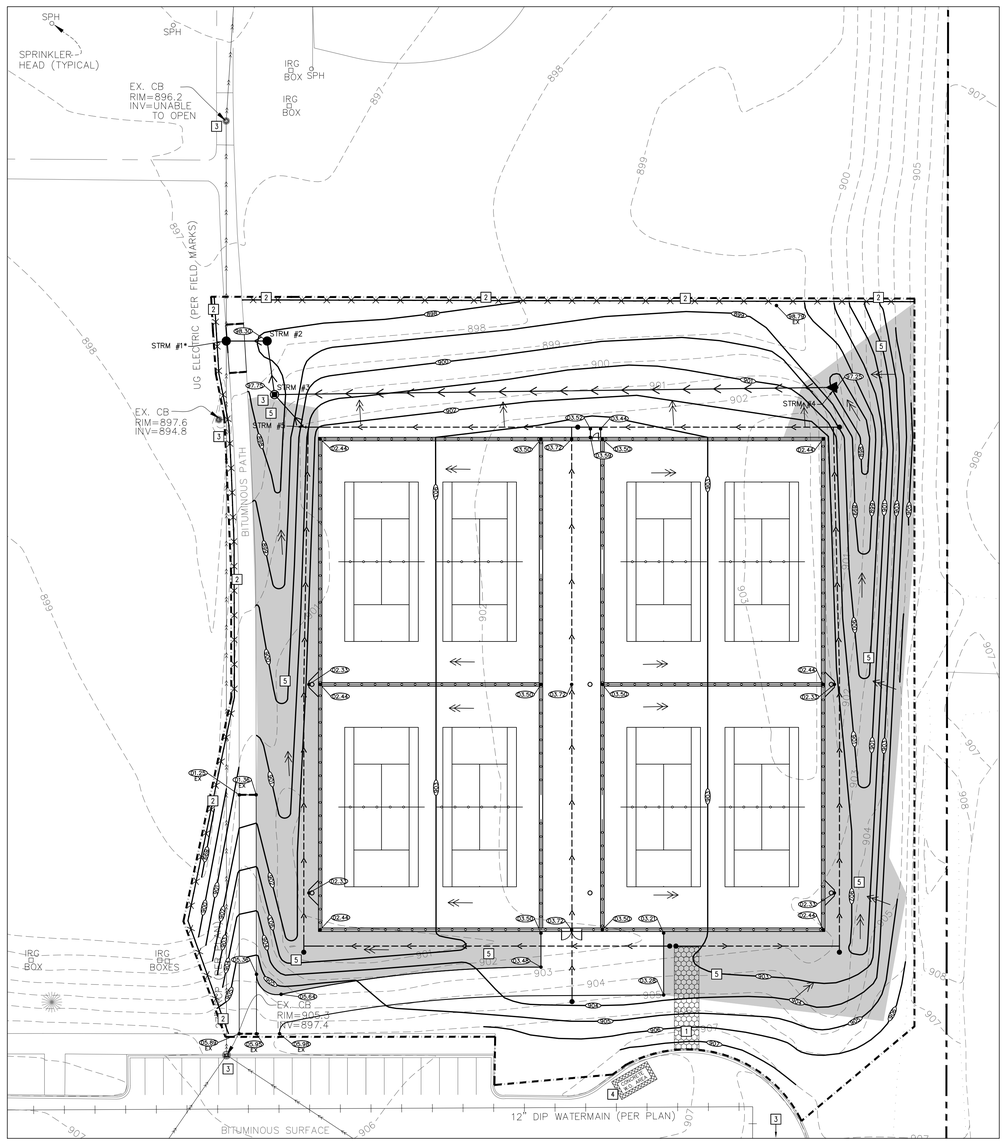
Revisions		
Description	Date	Num

Comm: 182274
Date: 01/17/2019
Drawn: WH
Check: NPA

North

SELECTIVE SITE DEMOLITION AND EROSION CONTROL PLAN

C100



1 C200 GRADING, DRAINAGE, AND EROSION CONTROL PLAN
1" = 30'

PROPOSED PLAN SYMBOLS

- CONSTRUCTION LIMITS
- PERIMETER EROSION CONTROL (SILT FENCE)
- PERIMETER EROSION CONTROL (SILT FENCE)
- PROPERTY LINE
- SAWCUT LINE (APPROX.)
- PROPOSED CONTOUR (898)
- DRAIN TILE
- STORM SEWER
- CLEANOUT
- MANHOLE
- EROSION CONTROL BLANKET (TEMPORARY)
- ROCK CONSTRUCTION ENTRANCE
- SPOT ELEVATION (97.44)
- DRAINAGE FLOW ARROW
- CONCRETE WASHOUT AREA (CONCRETE W.O. AREA)

ABBREVIATIONS

BLDG	Building
BM	Bench Mark
CB	Catch Basin
CONC	Concrete
ELEV	Elevation
EX	Existing
HWL	High Water Level
INV	Invert
MAX	Maximum
MH	Manhole
MIN	Minimum
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
W.O.	Washout

APPROXIMATE DISTURBED AREA IS 2.91 ACRES

NOTE:
STORM SEWER INLETS NOT SHOWN ON PLAN MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INSTALL INLET SEDIMENT PROTECTION PER DETAIL 2/C500 ON ALL STORM INLETS THAT MAY RECEIVE RUNOFF.

WALKWAY NOTES:

1. ALL SIDEWALK LONGITUDINAL AND TRANSVERSE SLOPES ARE TO BE PER CODE.

N

30' 15' 0 30' 60'
SCALE 1" = 30'

KEYED NOTES

KEYED NOTES ARE DENOTED BY [NO] ON PLAN.

1. INSTALL ROCK CONSTRUCTION ENTRANCE. REFER TO DETAIL 1/C500.
2. INSTALL PERIMETER EROSION CONTROL. REFER TO DETAILS 3/C500 AND 4/C500.
3. INSTALL INLET SEDIMENT PROTECTION. REFER TO DETAIL 2/C500.
4. APPROXIMATE LOCATION OF TEMPORARY CONTAINED CONCRETE WASH OUT BIN. REFER TO THE MINNESOTA'S NPDES/SDS GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY FOR MORE DETAILS. SELF CONTAINED CONCRETE WASHOUTS ON CONCRETE DELIVERY TRUCKS IS AN ACCEPTABLE ALTERNATIVE TO ON-SITE CONTAINMENT.
5. INSTALL MN/DOT 3885 CATEGORY 3 TEMPORARY STRAW FIBER EROSION CONTROL BLANKET.

EROSION CONTROL NOTES:

1. ALL EROSION CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO ANY SITE GRADING OPERATIONS. THE CITY OF ROGERS ENGINEERING DEPARTMENT MUST BE NOTIFIED UPON COMPLETION OF THE INSTALLATION OF THE REQUIRED EROSION CONTROL FACILITIES AND PRIOR TO ANY GRADING OPERATION BEING COMMENCED. THE CONTRACTOR IS RESPONSIBLE TO SCHEDULE A PRE-CONSTRUCTION GRADING MEETING ON-SITE WITH THE CITY OF ROGERS ENGINEERING DEPARTMENT, IF REQUESTED. IF DAMAGED OR REMOVED DURING CONSTRUCTION, ALL EROSION CONTROL FACILITIES SHALL BE RESTORED AND IN PLACE AT THE END OF EACH DAY.
2. NO DEVIATIONS SHALL BE MADE FROM THE ELEVATIONS SHOWN ON THE APPROVED GRADING PLAN, WITHOUT PRIOR APPROVAL FROM THE CIVIL ENGINEER.
3. FOR SITES GREATER THAN 1.0 ACRE, AS REQUIRED BY THE MPCA PERMIT REQUIREMENTS, THE PERMIT APPLICANT MUST KEEP AN EROSION CONTROL INSPECTION LOG. INSPECTION MUST BE MADE ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS AFTER EVERY RAIN EVENT. THE INSPECTION RECORD MUST BE MADE AVAILABLE TO THE CITY OF ELK RIVER ENGINEERING DEPARTMENT WITHIN 24 HOURS OF REQUEST.
4. FLOWS FROM DIVERSION CHANNELS OR PIPES (TEMPORARY OR PERMANENT) SHALL BE ROUTED TO SEDIMENTATION BASINS OR APPROPRIATE ENERGY DISSIPATERS TO PREVENT TRANSPORT OF SEDIMENT TO OUTFLOW TO LATERAL CONVEYORS AND TO PREVENT EROSION AND SEDIMENTATION WHEN RUNOFF FLOWS INTO THESE CONVEYORS.
5. SITE ACCESS ROADS SHALL BE GRADED OR OTHERWISE PROTECTED WITH SILT FENCES, DIVERSION CHANNELS, OR DIKES AND PIPES TO PREVENT SEDIMENT FROM EXITING THE SITE VIA THE ACCESS ROADS. SITE-ACCESS ROADS/DRIVEWAYS SHALL BE SURFACED WITH CRUSHED ROCK WHERE THEY ADJOIN EXISTING PAVED ROADWAYS.
6. SOILS TRACKED FROM THE SITE BY MOTOR VEHICLES OR EQUIPMENT SHALL BE CLEANED DAILY FROM PAVED ROADWAY SURFACES, OR MORE FREQUENTLY IF REQUESTED BY CITY OF ROGERS ENGINEERING DEPARTMENT, THROUGHOUT THE DURATION OF CONSTRUCTION.
7. DUST CONTROL MEASURES SHALL BE PERFORMED PERIODICALLY WHEN CONDITIONS REQUIRE AND/OR AS DIRECTED BY THE CITY OF ROGERS ENGINEERING DEPARTMENT.
8. ALL EROSION CONTROL MEASURES SHALL BE USED AND MAINTAINED FOR THE DURATION OF SITE CONSTRUCTION. IF CONSTRUCTION OPERATIONS OR NATURAL EVENTS DAMAGE OR INTERFERE WITH THESE EROSION CONTROL MEASURES, THEY SHALL BE RESTORED TO SERVE THEIR INTENDED FUNCTION AT THE END OF EACH DAY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
9. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AS SOON AS POSSIBLE. ANY AREAS WHICH HAVE BEEN FINISHED GRADED OR AREAS THAT HAVE BEEN DISTURBED AND FOR WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY SHALL BE SEEDED AND MULCHED AS SET FORTH IN THE FOLLOWING PARAGRAPHS WITHIN 14 DAYS:
   - A. ALL SEEDED AREAS SHALL BE EITHER MULCHED AND DISC-ANCHORED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION. TEMPORARY STRAW MULCH SHALL BE DISC-ANCHORED AND APPLIED AT A UNIFORM RATE OF NOT LESS THAN TWO TONS PER ACRE AND NOT LESS THAN 80% COVERAGE.
   - B. IF THE GRADED AREA IS ANTICIPATED TO BE RE-DISTURBED/DEVELOPED WITHIN SIX MONTHS, PROVIDE A TEMPORARY VEGETATIVE COVER CONSISTING OF MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT) SEED MIXTURE 21-111 (OATS), OR 21-112 (WINTER WHEAT), AT A RATE OF 100 POUNDS PER ACRE.
   - C. IF GRADED AREA WILL NOT BE DEVELOPED FOR A PERIOD GREATER THAN SIX MONTHS, PROVIDE A SEMI-PERMANENT VEGETATIVE COVER OF SEED MIXTURE MNDOT 22-112 AT A RATE OF 40 POUNDS PER ACRE.
   - D. GRADING BONDS OR THE EQUIVALENT SECURITIES SHALL BE RETAINED UNTIL TURF HAS GERMINATED AND SURVIVED A 60-DAY GROWING PERIOD.
   - E. REFER TO LANDSCAPE PLANS FOR PERMANENT TURF RESTORATION.
   - F. WHENEVER OTHER EROSION AND SEDIMENT CONTROL PRACTICES ARE INADEQUATE, TEMPORARY ON-SITE SEDIMENT BASINS THAT CONFORM TO THE CRITERIA FOR ON-SITE DETENTION BASINS SHALL BE PROVIDED.
   - G. MULCH, HYDROMULCH, AND TACKIFIERS MAY NOT BE USED FOR STABILIZATION IN SWALES OR DRAINAGE DITCHES.
   - K. RUNOFF SHALL BE PREVENTED FROM ENTERING ALL STORM SEWER CATCH BASINS PROVIDING THEY ARE NOT NEEDED DURING CONSTRUCTION. WHERE STORM SEWER CATCH BASINS ARE NECESSARY FOR SITE DRAINAGE DURING CONSTRUCTION, A SILT FENCE OR SEDIMENT PROTECTION DEVICES AS DETAILED SHALL BE INSTALLED AND MAINTAINED AROUND ALL CATCH BASINS UNTIL THE TRIBUTARY AREA TO THE CATCH BASIN IS RESTORED.
11. EROSION CONTROL FACILITIES SHALL BE INSTALLED AND MAINTAINED AROUND THE PERIMETER OF ALL PONDS WITHIN OR ADJACENT TO THE AREA TO BE GRADED UNTIL THE TRIBUTARY AREA TO THE PONDS IS RESTORED.
12. TO MINIMIZE EROSION, ALL 3:1 SLOPES SHALL BE COVERED WITH A MN/DOT 3885 CATEGORY 2 STRAW EROSION CONTROL BLANKETS OR STAKED SOD.
13. ACCUMULATION OF ALL SEDIMENT OCCURRING IN PONDS STORM SEWERS AND DITCHES SHALL BE REMOVED PRIOR TO, DURING AND AFTER COMPLETION OF GRADING ACTIVITIES.
14. EROSION CONTROL ITEMS AND DEVICES SHALL BE REMOVED ONLY AFTER THE AREA HAS RECEIVED FINAL STABILIZATION OR AS DIRECTED BY THE CITY OF ELK RIVER ENGINEERING DEPARTMENT.

GRADING NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE, REVIEW ALL CONSTRUCTION DOCUMENTS AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO BIDDING. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR WORK THAT COULD HAVE BEEN IDENTIFIED BY A SITE VISIT OR CONSTRUCTION DOCUMENT REVIEW.
2. THE BACKGROUND INFORMATION WAS PREPARED BY CORNERSTONE LAND SURVEYING. (651) 275-8969.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND MARK ALL EXISTING UTILITIES 48 HOURS BEFORE CONSTRUCTION STARTS. THE ENGINEER, ARCHITECT OR OWNER DOES NOT GUARANTEE THAT ALL THE UTILITIES ARE MAPPED, OR IF MAPPED, ARE SHOWN CORRECTLY. CONTACT GOPHER ONE AT 651-454-0002 FOR FIELD LOCATING EXISTING UTILITIES. CONTACT UTILITY OWNER IF DAMAGE OCCURS DUE TO CONSTRUCTION.
4. PROTECT ALL EXISTING STRUCTURES AND UTILITIES WHICH ARE NOT SCHEDULED FOR REMOVAL.
5. NOTIFY CITY BUILDING INSPECTOR BEFORE TRENCHING AND EXCAVATION WORK COMMENCES. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS PRIOR TO START OF CONSTRUCTION.
6. ALL SPOT ELEVATIONS SHOWN AS 03.5, FOR EXAMPLE, ARE TO BE UNDERSTOOD TO MEAN 903.50.
7. NO LANDSCAPED SLOPES ARE TO EXCEED 3:1 (3 FEET HORIZONTAL TO 1 FOOT VERTICAL) UNLESS NOTED OTHERWISE.
8. UPON COMPLETION OF THE GRADING AND UTILITY WORK, THE CONTRACTOR SHALL CERTIFY THAT ALL GRADING AND UTILITY WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED GRADING AND UTILITY PERMITS. AN AS-BUILT GRADING AND UTILITY PLAN SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR HIRED BY THE CONTRACTOR. SURVEY SHALL BE PROVIDED TO CIVIL ENGINEER.
9. ALL DEBRIS CREATED IN THE PROCESS OF CLEARING AND GRADING THE SITE SHALL BE REMOVED FROM THE SITE. THIS INCLUDES TREES AND SHRUBS. UNDER NO CIRCUMSTANCES SHALL THIS TYPE OF MATERIAL BE BURIED OR BURNED ON THE SITE.
10. THE INTENT IS TO STRIP AND SALVAGE TOPSOIL FOR POTENTIAL RE-SPREADING ON THE SITE, IF APPROVED BY THE LANDSCAPE ARCHITECT AND/OR SPECIFICATIONS. SIX INCHES OF TOPSOIL – AFTER COMPACTION – SHALL BE RE-SPREAD PRIOR TO SEEDING AND MULCHING. EXCESS TOPSOIL MAY BE REMOVED FROM THE SITE PROVIDING THERE IS ADEQUATE TOPSOIL REMAINING TO PROPERLY FINISH THE SITE AS NOTED ABOVE. THE TOPSOIL STRIPPING, STOCKPILING AND RE-SPREADING SHALL BE DONE IN ACCORDANCE TO, AND NOTED ON, THE APPROVED GRADING PLAN AND SPECIFICATIONS. THE CONTRACTOR SHALL REFER TO THE LANDSCAPE DRAWINGS AND SPECIFICATIONS FOR ANY SPECIAL TOPSOIL OR PLANTING REQUIREMENTS.
11. ALL GRADING OPERATIONS SHALL BE CONDUCTED IN A MANNER TO MINIMIZE THE POTENTIAL FOR SITE EROSION. EROSION CONTROL MEASURES SHALL BE INSTALLED TO PREVENT SEDIMENT FROM RUNNING OFF ONTO ADJACENT PROPERTIES. ANY DAMAGE TO ADJACENT PROPERTIES MUST BE CORRECTED AND RESTORED AS SOON AS PERMISSION IS GRANTED FROM THE ADJACENT PROPERTY OWNER(S).
12. IF CONSTRUCTION OF THE SITE WORK PROCEEDS THROUGH THE WINTER MONTHS, ANY DISTURBED AREAS OUTSIDE THE BUILDING FOOTPRINTS ARE TO BE MINIMALLY STABILIZED PRIOR TO MARCH 1, AS FOLLOWS: AREAS PLANNED TO RECEIVE PAVEMENTS ARE TO HAVE CLASS 5 BASE INSTALLED; ALL OTHER DISTURBED AREAS ARE TO BE SEEDED, STRAW MULCH PLACED, AND DISC-ANCHORED.
13. WINTER MULCHING:
   - 13.A. SNOW MULCHING SHALL BE DEFINED AS MULCH MATERIAL SPREAD OVER THE TOP OF SNOW SO THAT THE MULCH MELTS THROUGH THE SNOW AND STICKS TO THE EXPOSED SOILS.
   - 13.B. FROZEN GROUND MULCHING SHALL BE DEFINED AS MULCH MATERIAL SPREAD OVER FROZEN GROUND. MULCH MATERIALS THAT DO NOT REQUIRE DISC-ANCHORING INTO THE SOIL MAY BE PLACED WITHOUT MODIFICATION. MULCH MATERIALS THAT REQUIRE DISC-ANCHORING MAYBE ANCHORED WITH HYDRAULIC SOIL STABILIZERS OR MAY BE FROZEN TO THE SOIL BY APPLYING WATER, AT A RATE OF 2000 GALLONS PER ACRE, OVER THE MULCH AS A SUBSTITUTION FOR DISC-ANCHORING.
14. THE CONTRACTOR SHALL LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE.

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Kevin A. Bohl
License Number: **52209** Date **01/17/2019**

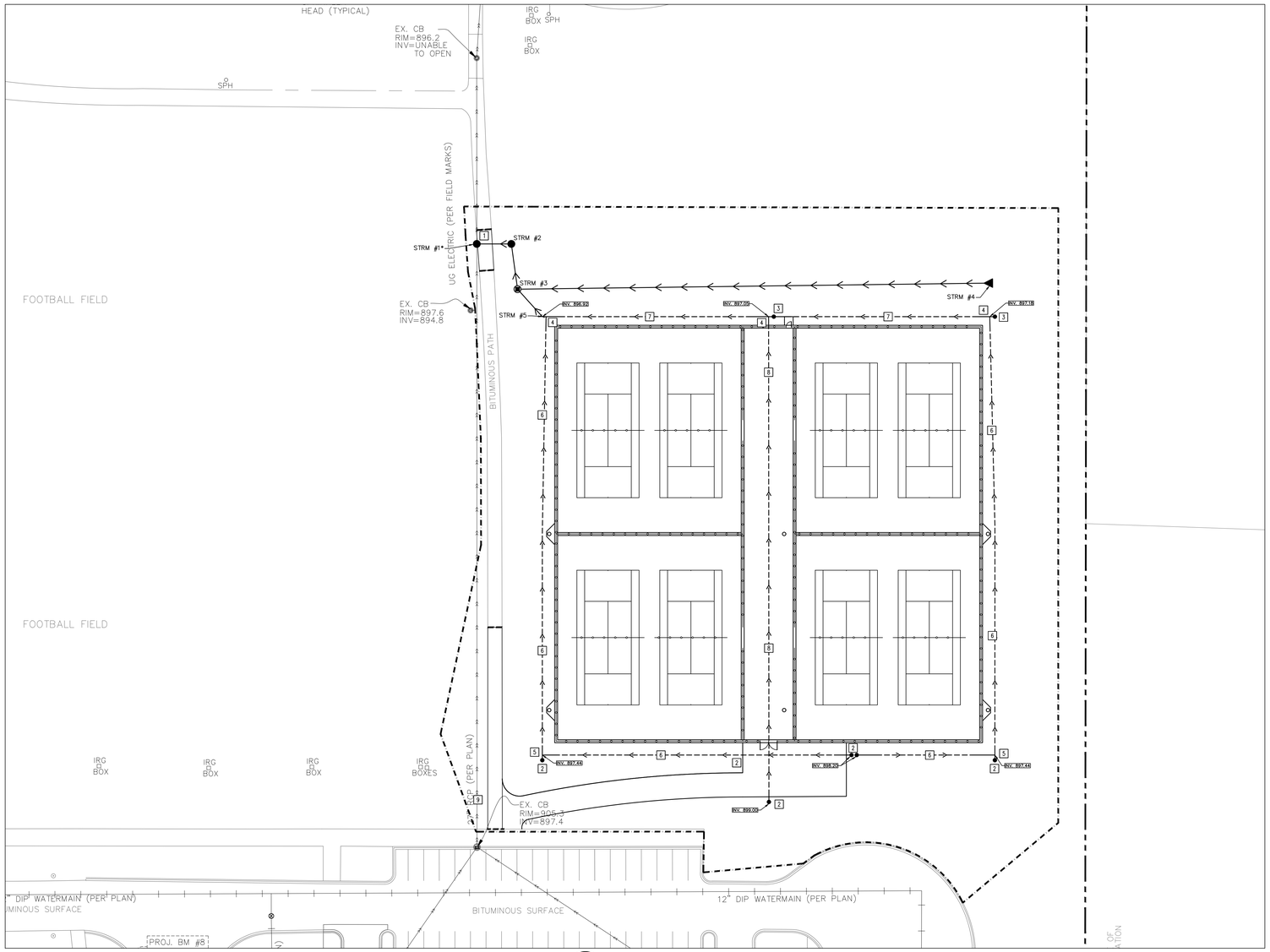
Revisions		
Description	Date	Num

Comm: **182274**
Date: **01/17/2019**
Drawn: **WH**
Check: **NPA**

North

GRADING, DRAINAGE, AND EROSION CONTROL PLAN

C200



1 C300 UTILITY PLAN
1" = 30'

PROPOSED PLAN SYMBOLS	
CONSTRUCTION LIMITS	
PROPERTY LINE	
SAWCUT LINE (APPROX.)	
DRAIN TILE	
STORM SEWER	
CATCH BASIN	
MANHOLE	
CLEANOUT	
FLARED END SECTION	
SEWER INVERT ELEVATION	INV. 898.9

ABBREVIATIONS	
BLDG	Building
BM	Bench Mark
CB	Catch Basin
CONC	Concrete
ELEV	Elevation
EX	Existing
HDPE	High Density Polyethylene
INV	Invert
MAX	Maximum
MH	Manhole
MIN	Minimum
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe

N

30' 15' 0 30' 60'
SCALE 1" = 30'

KEYED NOTES

KEYED NOTES ARE DENOTED BY [NO] ON PLAN.

1. CONTRACTOR SHALL CONSTRUCT STMH #1 OVER EXISTING STORM SEWER AT APPROXIMATE INV. 893.91. CONTRACTOR TO FIELD VERIFY EXACT INVERT AND SIZE OF EXISTING STORM SEWER PIPE AND NOTIFY CIVIL ENGINEER WITH FINDINGS. CONTRACTOR SHALL ROTATE TOP SLAB OF STRM #1 SO THAT CASTING IS OUTSIDE OF TRAIL LIMITS.
2. INSTALL 6-INCH CLEANOUT. REFER TO DETAIL 2/C501.
3. INSTALL 8-INCH CLEANOUT. REFER TO DETAIL 2/C501.
4. INSTALL 8-INCH BY 6-INCH WYE. REFER TO DETAIL 3/C501.
5. INSTALL 6-INCH BY 6-INCH WYE. REFER TO DETAIL 3/C501.
6. INSTALL 6-INCH DRAIN TILE. REFER TO DETAIL 10/C500 AND 11/C500.
7. INSTALL 8-INCH DRAIN TILE. REFER TO DETAIL 10/C500.
8. INSTALL 6-INCH DRAIN TILE. REFER TO DETAIL 10/C500.
9. REFER TO DEMOLITION PLAN FOR 27-INCH PIPE REPLACEMENT.

SEWER STRUCTURE TABLE

STRUCTURE ID	STRUCTURE DIMENSION (INCHES)	NEENAH CASTING TYPE	RIM ELEVATION	INVERT ELEVATION(S)	PIPE LENGTH, DIAMETER, SLOPE & NEXT UPSTREAM STRUCTURE
STRM #1*	72" MH	NA	897.65	N = 893.91 E = 893.91 S = 893.91	--------- 20 L.F. OF 21" RCP @ 1.0% STRM #2
STRM #2	48" MH	R-1733	898.30	W = 894.11 S = 894.11	--------- 26 L.F. OF 21" RCP @ 1.0% STRM #3
STRM #3	72" MH	R-2535	897.75	N = 894.37 E = 894.50 SE = 895.45	--------- 275 L.F. OF 15" RCP @ 1.0% STRM #4 21 L.F. OF 8" PVC @ 6.9% STRM #5
STRM #4	15" FES	NA	899.02	W = 897.25	---------
STRM #5	8" 45° BEND	NA		NW = 896.92	---------

UTILITY NOTES:

1. PROTECT ALL EXISTING STRUCTURES AND UTILITIES WHICH ARE NOT SCHEDULED TO BE REMOVED.
2. STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE (RCP) OR SDR 26 POLY VINYL CHLORIDE (PVC), UNLESS NOTED OTHERWISE. ALL 12-INCH THROUGH 18-INCH RCP STORM SEWER PIPE SHALL BE CLASS 5. RCP PIPE LARGER THAN 18-INCH SHALL BE CLASS 3, UNLESS NOTED OTHERWISE. PVC PIPE AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D3034.
3. CONTRACTORS SHALL COORDINATE ALL WORK WITH GAS, ELECTRIC, TELEVISION AND TELEPHONE COMPANIES PRIOR TO START OF CONSTRUCTION.
4. WHERE PROPOSED GRADE OVER EXISTING SMALL UTILITIES IS PROPOSED TO BE LOWERED, CONTRACTOR SHALL COORDINATE WITH UTILITY OWNER FOR THE LOWERING OF THE EXISTING UTILITY TO PROVIDE THE MINIMUM COVER REQUIRED.
5. ALL JOINTS AND CONNECTIONS IN THE STORM SEWER SYSTEM SHALL BE GAS TIGHT OR WATER TIGHT IN ACCORDANCE TO MN PLUMBING CODE. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATER TIGHT CONNECTIONS TO MANHOLES, CATCH BASINS, AND OTHER STRUCTURES. RESILIENT WATER-STOP GROUTING RINGS ARE AN ACCEPTABLE ALTERNATIVE. CEMENT MORTAR JOINTS ARE PERMITTED ONLY FOR REPAIRS AND CONNECTIONS OF EXISTING LINES CONSTRUCTED WITH SUCH JOINTS.

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Revisions		
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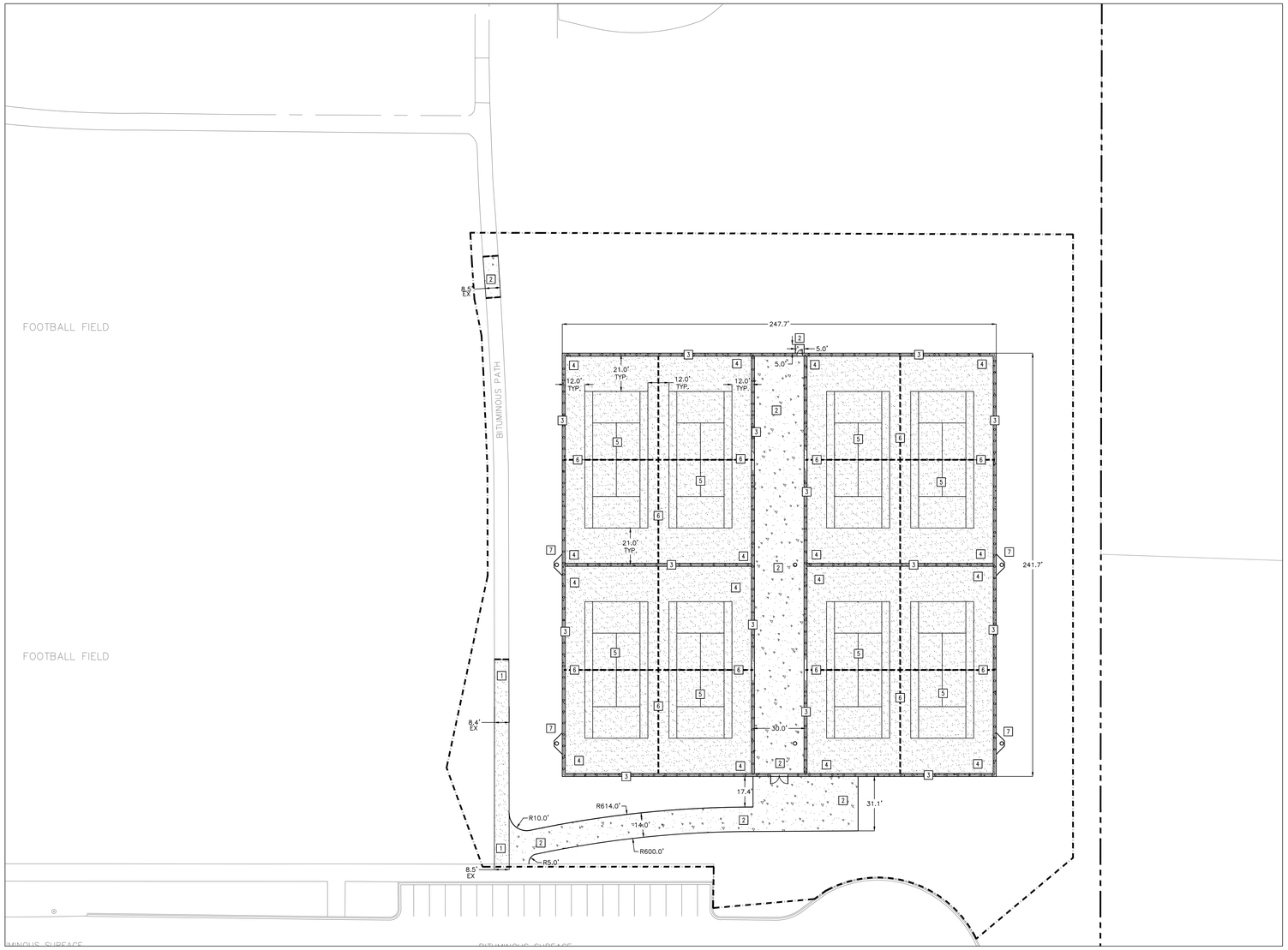
North

UTILITY PLAN

C300



1 C400 PAVING AND GEOMETRIC PLAN
1" = 30'

PROPOSED PLAN SYMBOLS	
CONSTRUCTION LIMITS	
PROPERTY LINE	
SAWCUT LINE	
BITUMINOUS PAVEMENT	
CONCRETE PAVEMENT	

ABBREVIATIONS	
BM	Bench Mark
CONC	Concrete
ELEV	Elevation
EX	Existing
MAX	Maximum
MIN	Minimum
R	Radius
TYP.	Typical
MNMUTCD	Minnesota Manual on Uniform Traffic Control Devices

N

30' 15' 0 30' 60'
SCALE 1" = 30'

KEYED NOTES

KEYED NOTES ARE DENOTED BY [NO] ON PLAN.

1. INSTALL BITUMINOUS PATH, INTENT IS TO MATCH EXISTING PATH CROSS SECTION. FOR BIDDING PURPOSE REFER TO DETAIL 5/C500.
2. INSTALL CONCRETE PAVEMENT. REFER TO DETAIL 6/C500.
3. INSTALL CONCRETE MAINTENANCE STRIP. REFER TO DETAIL 7/C500. REFER TO LANDSCAPING PLANS FOR FENCING.
4. INSTALL BITUMINOUS PAVEMENT. REFER TO DETAIL 8/C500.
5. INSTALL TENNIS COURT PAVEMENT MARKING. REFER TO DETAIL 9/C500. REFER TO LANDSCAPING PLANS FOR COLOR SCHEME.
6. SAW JOINTS IN ASPHALT 1/8-INCH WIDE AS SHOWN ON PLANS. (THE JOINTS SHALL BE SEALED WITH ELASTOMERIC JOINT SEALANT SUITABLE FOR USE WITH ACRYLIC COURT SURFACING.
7. INSTALL CONCRETE APRON AROUND LIGHT POLE BASE. REFER TO DETAIL 6/C501. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR.

PAVING NOTES:

1. ALL DIMENSIONS ARE TO CENTERLINE OF FENCE UNLESS NOTED OTHERWISE.
2. NO SIDEWALK IS TO HAVE MORE THAN A 2% CROSS SLOPE OR MORE THAN A 5% LONGITUDINAL SLOPE.
3. MATCH NEW PAVEMENT INTO EXISTING PAVEMENT. NO ABRUPT GRADE TRANSITIONS OR PONDING OF WATER WILL BE ALLOWED.
4. MATCH NEW SIDEWALK INTO EXISTING SIDEWALK. NO ABRUPT GRADE TRANSITIONS OR PONDING OF WATER WILL BE ALLOWED.
5. SAWCUT EXISTING PAVEMENT AND SIDEWALK TO NEAREST JOINT. COORDINATE REMOVAL LIMITS WITH SITE DEMOLITION CONTRACTOR AND CONSTRUCTION MANAGER.
6. REFER TO SPECIFICATIONS FOR GRADE VERIFICATION SURVEY REQUIREMENTS PRIOR TO PLACEMENT OF SUB-BASE MATERIAL, BASE MATERIAL, AND PAVEMENTS/SIDEWALKS.

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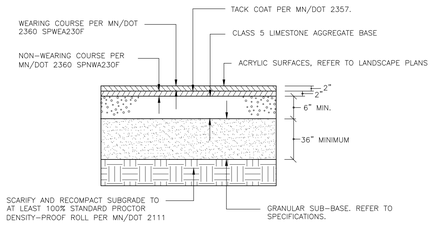
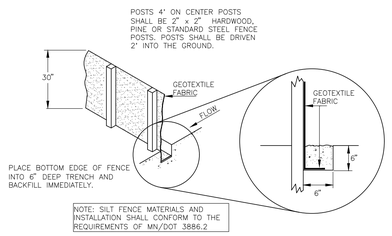
PAVING AND GEOMETRIC PLAN

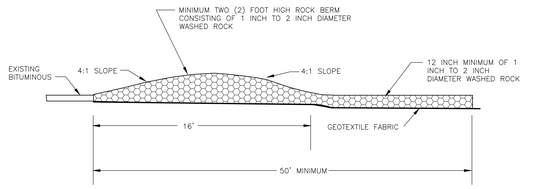
C400



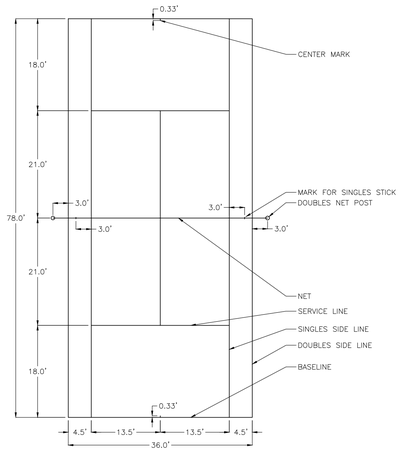
8 C500 TENNIS COURT PAVEMENT
NOT TO SCALE



4 C500 SILTATION FENCE
NOT TO SCALE

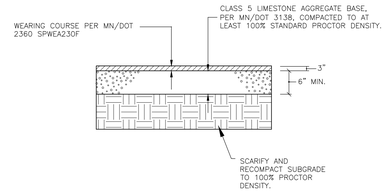


1 C500 BERMED ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE

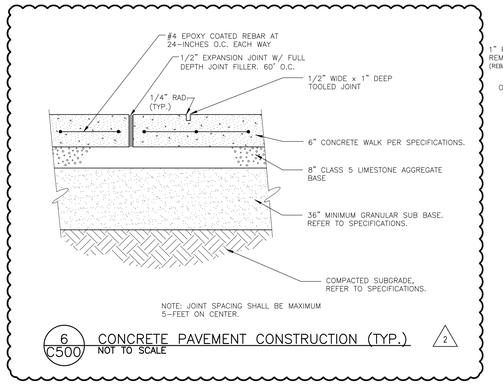


NOTE:
1. ALL DIMENSIONS ARE TO OUTSIDE OF LINES.
2. CENTER LINE, SERVICE LINE, CENTER MARK AND SINGLES SIDE LINE SHALL BE 2-INCHES WIDE. BASELINE AND DOUBLES SIDE LINE SHALL BE 4" WIDE.
3. REFER TO LANDSCAPE PLANS FOR COLOR SCHEME.

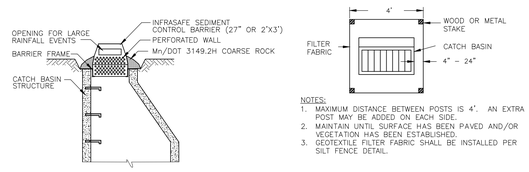
9 C500 TENNIS COURT PAVEMENT MARKING
NOT TO SCALE



5 C500 BITUMINOUS PATH
NOT TO SCALE

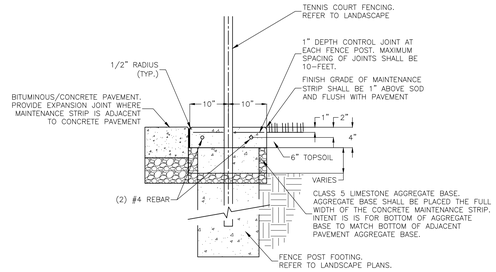


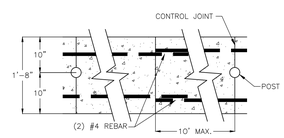
6 C500 CONCRETE PAVEMENT CONSTRUCTION (TYP.)
NOT TO SCALE



2 C500 INLETS SEDIMENTATION PROTECTION OPTIONS
NOT TO SCALE

10 C500 DRAIN TILE PACK
NOT TO SCALE





7 C500 CONCRETE MAINTENANCE STRIP
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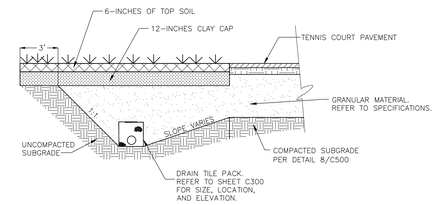
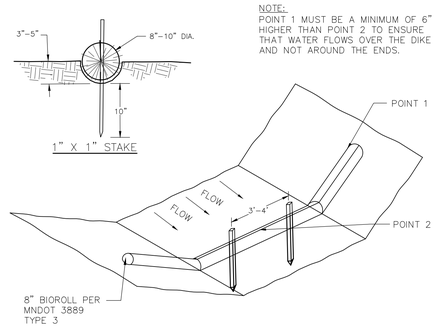


11 C500 DRAIN TILE SECTION
NOT TO SCALE



3 C500 BIO ROLL
NOT TO SCALE

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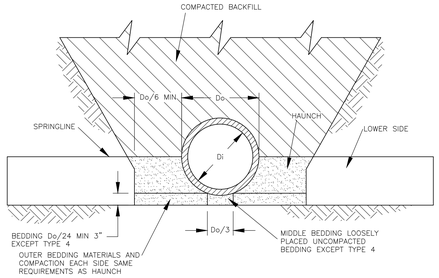
Kevin A. Bohl
License Number: 52209 Date 01/17/2019

Revisions		
Description	Date	Num
Addendum #1	01/25/19	1
Addendum #2	01/29/19	2

Comm: 182274
Date: 01/17/2019
Drawn: WH
Check: NPA
North

DETAILS

C500

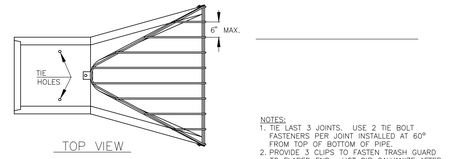


STANDARD TRENCH INSTALLATION SOIL AND MINIMUM STANDARD PROCTOR COMPACTION REQUIREMENTS		
INSTALLATION TYPE	HAUNCH AND OUTER BEDDING	LOWER SIDE
TYPE 1	95% CATEGORY I	90% CATEGORY I 95% CATEGORY II 100% CATEGORY III
TYPE 2	90% CATEGORY I 95% CATEGORY II	85% CATEGORY I 90% CATEGORY II 95% CATEGORY III
TYPE 3	85% CATEGORY I 90% CATEGORY II 95% CATEGORY III	85% CATEGORY I 90% CATEGORY II 95% CATEGORY III
TYPE 4	NO COMPACTION REQUIRED, EXCEPT IF CATEGORY III USE 85% CATEGORY III	NO COMPACTION REQUIRED, EXCEPT IF CATEGORY III USE 85% CATEGORY III

EQUIVALENT SOIL CLASSIFICATIONS FOR SOIL DESIGNATIONS		
SOIL	UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)	MN/DOT SPECIFICATION
CATEGORY I	CLEAN COURSE GRAINED SOILS: SW, SP, GW, GP, OR ANY SOIL BEGINNING WITH ONE OF THESE SYMBOLS WITH 12% OR LESS PASSING A #200 SIEVE	COARSE FILTER AGGREGATE MN/DOT 3149.2H
CATEGORY II	COURSE GRAINED SOILS WITH FINES: GM, GC, SM, SC, OR ANY SOIL BEGINNING WITH ONE OF THESE SYMBOLS CONTAINING MORE THAN 12% PASSING A #200 SIEVE	AGGREGATE BEDDING MN/DOT 3149.2G
CATEGORY III	FINE GRAINED SOILS: CL, ML; (OR CL-ML, CLML, ML/CL) WITH LESS THAN 30% RETAINED ON A #200 SIEVE.	NOT APPLICABLE

NOTES:
1. COMPACTION AND SOIL SYMBOLS-I.E. "95% CATEGORY I" REFERS TO CATEGORY I SOIL MATERIAL WITH MINIMUM STANDARD PROCTOR COMPACTION OF 95%.
2. SOIL IN BEDDING AND HAUNCH ZONES SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS SPECIFIED FOR THE MAJORITY OF SOIL IN THE BACKFILL ZONE.
3. THE TRENCH WIDTH SHALL BE WIDER THAN SHOWN IF REQUIRED FOR ADEQUATE SPACE TO ATTAIN SPECIFIED COMPACTION IN THE HAUNCH AND BEDDING ZONES.
4. FOR TRENCH WALLS WITH GREATER THAN 10 DEGREE SLOPES THAT CONSIST OF EMBANKMENT, THE LOWER SIDE SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS SPECIFIED FOR THE SOIL IN THE BACKFILL ZONE.
5. NO BEDDING IS REQUIRED FOR TYPE 4 STANDARD INSTALLATION.
6. REFER TO ASTM C1479-07 FOR DETAILS.
7. TYPE III BEDDING SHALL BE USED UNLESS NOTED OTHERWISE.

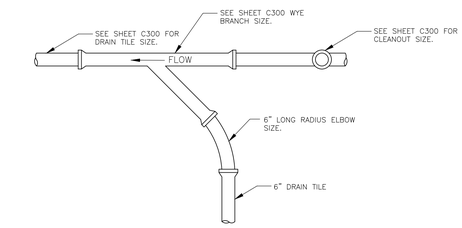
5 C501 TYPICAL PIPE BEDDING FOR RCP AND DIP
NOT TO SCALE



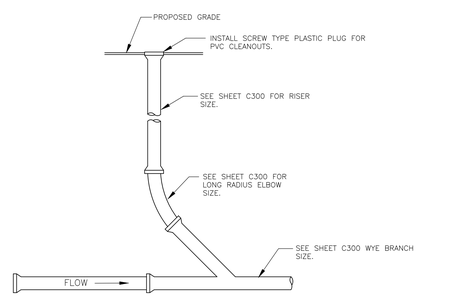
NOTES:
1. TIE LAST 3 JOINTS. USE 2 TIE BOLT FASTENERS PER JOINT INSTALLED AT 60° FROM TOP OF BOTTOM OF PIPE.
2. PROVIDE 3 CLIPS TO FASTEN TRASH GUARD TO FLARED END. HOT DIP GALVANIZE AFTER FABRICATION.

SIZE OF PIPE	TRASH GUARD BARS	"H"	BOLTS
12" TO 18"	3/4"	4"	5/8"
21" TO 42"	1"	6"	3/4"
48" TO 72"	1-1/4"	12"	1"

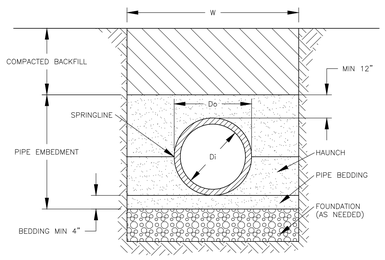
1 C501 FLARED-END SECTION
NOT TO SCALE



3 C501 DRAINTILE WYE DETAIL
NOT TO SCALE

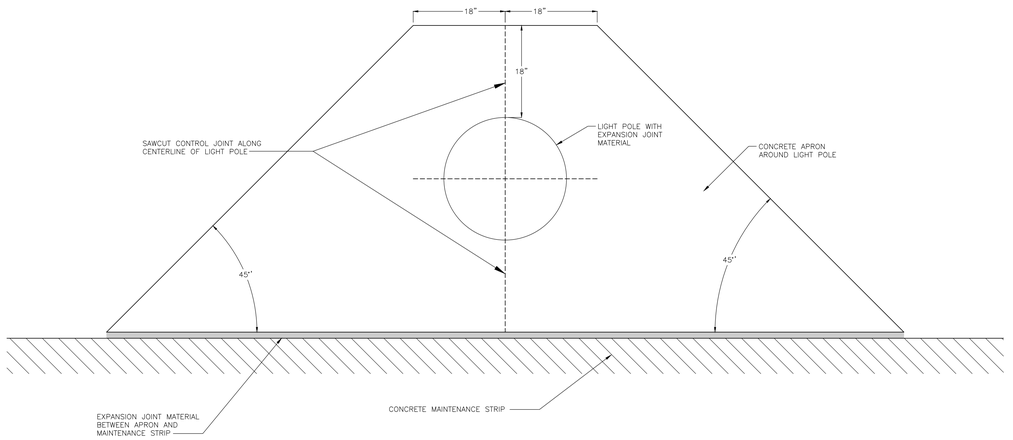


2 C501 SEWER CLEANOUT IN PERVIOUS AREA
NOT TO SCALE



NOTES:
1. THE MINIMUM TRENCH WIDTH "W" SHALL BE W=Do+16" OR 1.25*Do+12 WHICHEVER IS GREATER.
2. PIPE EMBEDMENT MATERIAL SHALL BE CLASS I OR CLASS II MATERIAL. REFER TO SPECIFICATIONS FOR DETAILS.
3. REFER TO ASTM D2321-05 "UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS" FOR DETAILS.

4 C501 TYPICAL PIPE BEDDING FOR PVC
NOT TO SCALE



PLAN VIEW

6 C501 CONCRETE APRON AT LIGHT POLE
NOT TO SCALE

2019 Rogers High School Tennis Courts - Bid Package #1
21000 141st Avenue N.
Rogers, MN 55374

Independent School District #728
11500 193rd Ave. NW
Elk River, MN 55330

WOLD ARCHITECTS AND ENGINEERS
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CONSTRUCTION DOCUMENTS

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.

Kevin A. Bohl
License Number: **52209** Date **01/17/2019**

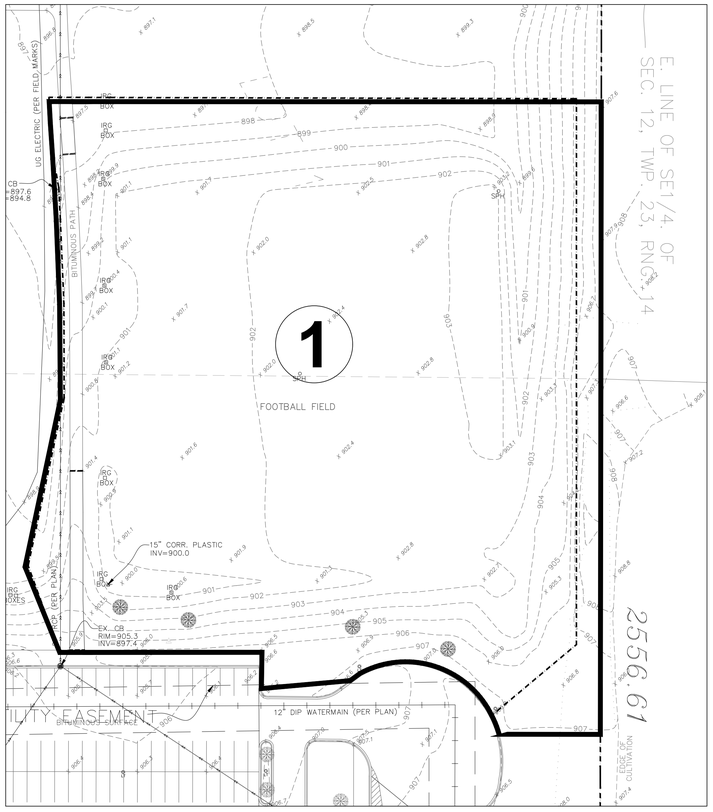
Revisions		
Description	Date	Num

Comm: **182274**
Date: **01/17/2019**
Drawn: **WH**
Check: **NPA**

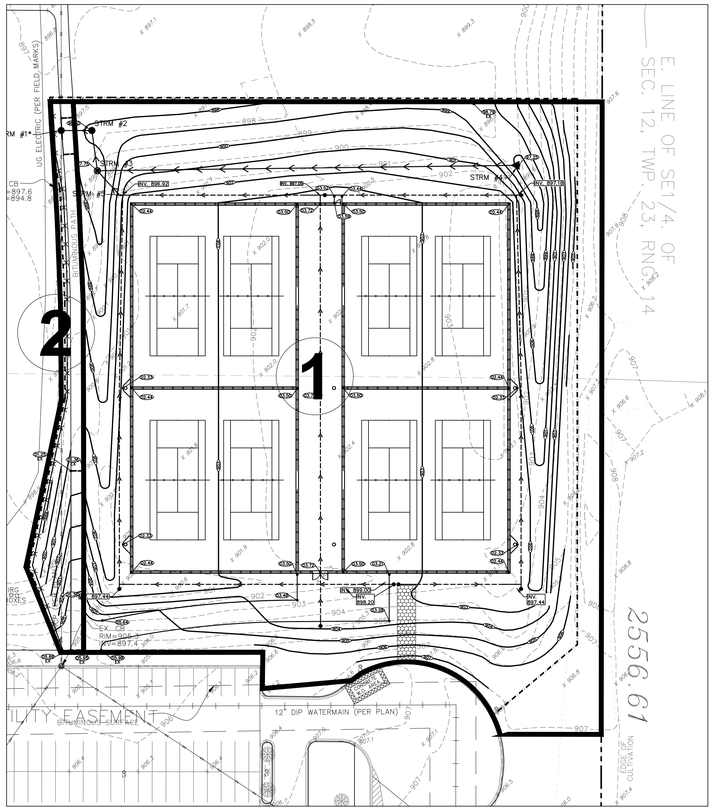
North

DETAILS

C501



1 C600 EXISTING CONDITIONS
1"=40'



2 C600 PROPOSED CONDITIONS
1"=40'

EXISTING DRAINAGE AREAS

DRAINAGE AREA	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)	TOTAL AREA (ACRES)	Q OUT (CFS) STORM EVENT			
				2-YEAR (2.86")	10-YEAR (4.26")	100-YEAR (7.11")	ROUTING
1	0.07	3.03	3.10	0.67	2.80	8.76	SHEET FLOW NORTH TO EXISTING STORM
TOTAL	0.07	3.03	3.10	0.67	2.80	8.76	

PROPOSED DRAINAGE AREAS

DRAINAGE AREA	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)	TOTAL AREA (ACRES)	Q OUT (CFS) STORM EVENT			
				2-YEAR (2.86")	10-YEAR (4.26")	100-YEAR (7.11")	ROUTING
1	1.47	1.47	2.94	4.12	7.07	13.36	SHEET FLOW TO ON-SITE STORM
2	0.07	0.10	0.17	0.30	0.55	1.09	SHEET FLOW NORTH TO EXISTING STORM
TOTAL	1.54	1.57	3.11	4.42	7.62	14.45	

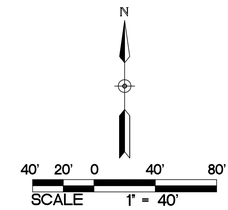
STORMWATER RUNOFF SUMMARY

	2-YR STORM (2.86") RUNOFF (CFS)	10-YR STORM (4.26") RUNOFF (CFS)	100-YR STORM (7.11") RUNOFF (CFS)
EXISTING SITE	0.67	2.80	8.76
PROPOSED SITE	4.42	7.62	14.45

VICINITY MAP
ROGERS, MN

ABBREVIATIONS

BLDG	Building
BMP	Best Management Practice
BW	Bottom of Wall
CB	Catch Basin
CONC	Concrete
ELEV	Elevation
EX	Existing
FFE	Finished Floor Elevation
HWL	High Water Level
INV	Invert
MAX	Maximum
MH	Manhole
MIN	Minimum
MPCA	Minnesota Pollution Control Agency
NPDES	National Pollutant Discharge Elimination System
NWL	Normal Water Level
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
TW	Top of Wall
W.O.	Washout



CONSTRUCTION ACTIVITY EROSION PREVENTION PRACTICES

CONTRACTOR SHALL STABILIZE ALL EXPOSED SOIL AREAS (INCLUDING STOCKPILES). STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

FOR PUBLIC WATER THAT THE DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES, ALL EXPOSED SOIL AREAS THAT ARE WITHIN 200 FEET OF THE WATER'S EDGE, AND DRAIN TO THESE WATERS MUST COMPLETE THE STABILIZATION ACTIVES WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.

PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24-HOURS AFTER CONNECTION TO A SURFACE WATER.

SEDIMENT CONTROL MEASURES MUST BE INSTALLED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN.

SEDIMENT AND EROSION CONTROL MAINTENANCE

PERIMETER SEDIMENT CONTROL PRACTICES: WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE BMP, THE SEDIMENT MUST BE REMOVED WITHIN 24 HOURS. IF PERIMETER SEDIMENT CONTROL HAS BEEN DAMAGED OR IS NOT FUNCTIONING PROPERLY, IT MUST BE REPAIRED AND/OR REPLACED WITHIN 24 HOURS. PERIMETER BMP MEASURES MAY INCLUDE SILT FENCING.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS: ALL TRACKED SEDIMENT ONTO PAVED SURFACES MUST BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR MORE FREQUENTLY IF REQUIRED BY CITY OR WATERSHED.

CONSTRUCTION SITE DEWATERING: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL DEWATERING PERMITS. DISCHARGE FROM ALL DEWATERING OPERATIONS SHALL BE DIRECTED TO ON-SITE DEPRESSIONS. NO DISCHARGE FROM DEWATERING OPERATIONS SHALL BE DIRECTED OFF-SITE TOWARDS A WATER OF THE STATE.

PORTABLE TOILET NOTES:

1. PORTABLE TOILETS POSE AN ENVIRONMENTAL HAZARD WHEN PLACED IN THE VICINITY OF STORM DRAINS OR BODIES OF WATER. PORTABLE TOILET CLEANING ACTIVITIES CAN ALSO GENERATE POLLUTANTS THAT CAN DEGRADE WATER QUALITY.
2. PORTABLE TOILET PLACEMENT:
   - 2.1. PLACE PORTABLE TOILETS ON FLAT STABLE GROUND WITH CLEAR ACCESS TO THE UNITS.
   - 2.2. LOCATE TOILETS A MINIMUM OF 20 FEET FROM ANY WATER BODY AND 10 FEET FROM ANY CURB AND GUTTER. IF UNITFASIBLE, AN EARTHERN BERM OR SAND BAG BERM SHALL BE PLACED AROUND THE UNIT FOR SPILL AND LEAK CONTAINMENT.
   - 2.3. AVOID PLACING TOILETS ON IMPERVIOUS SURFACES THAT WILL QUICKLY DRAIN TO STORM SEWERS.
   - 2.4. LOCATE TOILETS SO THAT EXPOSURE TO TRAFFIC AND MOVING EQUIPMENT IS MINIMIZED.
   - 2.5. SECURE TOILETS TO THE GROUND WITH STAKES OR CABLES.
   - 2.6. RINSE WATER FROM CLEANING ACTIVITIES SHALL NOT BE DISPOSED ON SITE.
3. REGULARLY CHECK TOILETS FOR DAMAGE, LEAKS AND SPILLS AS PART OF THE WEEKLY STORMWATER SITE INSPECTION.
4. OWNER IDENTIFICATION AND CONTACT INFORMATION SHALL BE DISPLAYED IN A PROMINENT LOCATION ON EACH UNIT.

NOTE:

THE STORM WATER POLLUTION PREVENTION PLAN FOR THIS PROJECT INCLUDES THE CIVIL ENGINEERING PLANS AND THE PROJECT MANUAL.

CONTRACTOR TO SUPPLY CONSTRUCTION PHASING NARRATIVE, ESTIMATED PRELIMINARY QUANTITIES OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S ANTICIPATED AT THE START OF THE PROJECT AND FOR THE LIFE OF THE PROJECT, AND LOCATION OF AREAS WHERE CONSTRUCTION WILL BE PHASED TO MINIMIZE DURATION OF EXPOSED SOIL AREAS. CONTRACTOR IS TO REVIEW MINNESOTA POLLUTION CONTROL AGENCY'S INSTRUCTIONS FOR THE APPLICATION FOR MINNESOTA'S NPDES/SDS GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY PRIOR TO SUBMITTING APPLICATION.

INSPECTIONS

EXPOSED SOIL AREAS: ONCE EVERY 7 DAYS AND WITHIN 24 HOURS FOLLOWING A 1/2 INCH OVER 24 HOURS RAIN EVENT.

STABILIZED AREAS: ONCE EVERY 30 DAYS.

FROZEN GROUND: AS SOON AS RUNOFF OCCURS OR PRIOR TO RESUMING CONSTRUCTION.

RECORDS: A COPY OF THE GRADING, DRAINAGE EROSION CONTROL PLAN AND WATERSHED DATA & SWPPP PLANS AS WELL AS THE INSPECTIONS/MAINTENANCE LOGS ARE TO BE KEPT EITHER IN THE FIELD OFFICE, INSPECTOR'S VEHICLE OR CONTRACTOR'S VEHICLE.

PROJECT NARRATIVE

THE EXISTING SITE IS A PERVIOUS SOCCER FIELD. THE DISTURBED AREA IS APPROXIMATELY 3 ACRES. THERE IS AN EXISTING STORM WATER POND NORTH OF THE SITE THAT WAS DESIGNED TO ACCOMMODATE THE PROPOSED RUNOFF FROM THE TENNIS COURTS.

THE PROPOSED SITE INCLUDES EIGHT TENNIS COURTS, CONCRETE VIEWING AREAS, AND BITUMINOUS TRAILS. THERE IS APPROXIMATELY 1.47 ACRES OF NEW IMPERVIOUS SURFACE. STORMWATER WILL SHEET FLOW OFF THE COURTS TO SWALES ON THE WEST AND EAST SIDE OF THE TENNIS COURTS. THE SWALES WILL OUTLET TO STORM SEWER. THE ON-SITE STORM SEWER IS ROUTED TO AN EXISTING STORMWATER TREAMENT POND ON THE NORTH SIDE OF THE SITE.

OTHER NOTES:

1. THIS SWPPP WAS PREPARED BY PERSONNEL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPPS. COPIES OF THE CERTIFICATIONS ARE ON FILE WITH BKBM AND ARE AVAILABLE UPON REQUEST.
2. THIS SWPPP DOCUMENT MUST BE AMENDED AS NECESSARY DURING CONSTRUCTION IN ORDER TO KEEP IT CURRENT WITH THE POLLUTANT CONTROL MEASURES UTILIZED AS THE SITE. THE SITE MAP SHOWING LOCATIONS OF ALL STORM WATER CONTROLS MUST BE POSTED ON THE SITE AND UPDATED TO REFLECT THE PROGRESS OF CONSTRUCTION.

POLLUTION PREVENTION MANAGEMENT MEASURES

SOLID WASTE DISPOSED PROPERLY; COMPLY WITH MPCA REQUIREMENTS.

HAZARDOUS WASTE STORED (SECONDARY CONTAINMENT, RESTRICTED ACCESS) AND DISPOSED IN COMPLIANCE WITH MPCA REQUIREMENTS.

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED.

NO ENGINE DEGREASING ALLOWED ON-SITE.

CONCRETE WASHOUT ON-SITE: ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW LIQUIDS TO ENTER GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. THE CONCRETE WASHOUT AREA INDICATED ON THE PLANS IS SHOWN IN AN APPROXIMATE LOCATION. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION IN ACCORDANCE WITH MPCA REQUIREMENTS.

HANDLING AND STORAGE OF HAZARDOUS MATERIALS:

IF THE CONTRACTOR INTENDS TO USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS ON THE PROJECT SITE, THE CONTRACTOR MUST COMPLY WITH THE FOLLOWING MINIMUM REQUIREMENTS:

1. THE CONTRACTOR MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION TO ENSURE EFFECTIVE TREATMENT. CHEMICALS MAY ONLY BE APPLIED WHERE TREATED STORMWATER IS DIRECTED TO A SEDIMENT CONTROL SYSTEM WHICH ALLOWS FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.
2. CHEMICALS MUST BE SELECTED THAT ARE APPROPRIATELY SUITED TO THE TYPES OF SOILS LIKELY TO BE EXPOSED DURING CONSTRUCTION, AND TO THE EXPECTED TURBIDITY, PH AND FLOW RATE OF STORMWATER FLOWING INTO THE CHEMICAL TREATMENT SYSTEM OR AREA.
3. CHEMICALS MUST BE USED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, AND WITH DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR PROVIDER/SUPPLIER OF THE APPLICABLE CHEMICALS.

ON-SITE FUEL TANKS REQUIRE SECONDARY CONTAINMENT AS REQUIRED BY THE PERMIT. PORTABLE FUEL TRUCKS SHALL HAVE THEIR SPILL KITS AVAILABLE DURING FUELING. SPILLS GREATER THAN 5 GALLONS MUST BE REPORTED TO THE PROPER AUTHORITIES.

SPECIAL AND IMPAIRED WATERS

THESE SPECIAL AND IMPAIRED WATERS ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE. DUE TO THE PROXIMITY OF THESE SPECIAL ADN IMPAIRED WATERS, THE BMPS DESCRIBED IN APPENDIX A OF THE NPDES PERMIT WILL APPLY TO ALL AREAS OF THE SITE.

WATERBODY	IMPAIRMENT(S)
CROW RIVER	DISSOLVED OXYGEN, FECAL COLIFORM, TURBIDITY

MINIMUM ESTIMATED QUANTITIES FOR EROSION CONTROL

ITEM DESCRIPTION	ESTIMATED QUANTITY	
DRAINAGE STRUCT. INLET FILTER	3	EACH
ROCK CONSTRUCTION ENTRANCE	1	EACH
CONCRETE WASHOUT	1	EACH
SILT FENCE	696	LF
EROSION CONTROL BLANKET	1800	SY

NOTE: QUANTITIES SHOWN ARE THE MINIMUM REQUIRED. ADDITIONAL QUANTITIES MAY BE NEEDED IF REQUIRED BY THE MPCA, WATERSHED DISTRICT, OR CITY. CONTRACTOR IS RESPONSIBLE FOR FINAL DETERMINATION OF QUANTITIES PRIOR TO CONSTRUCTION.

MECHANICAL AND NON STORMWATER DISCHARGES, EXISTING AND PROPOSED

1. LANDSCAPE IRRIGATION
2. DISCHARGE FROM POTABLE WATER SOURCES
3. DRAIN TILE

AGENCY CONTACTS

CITY OF ROGERS
ENGINEERING DEPARTMENT
PHONE: (763) 428-8580

MINNESOTA POLLUTION CONTROL AGENCY
PHONE: (651) 296-6300

ELM CREEK WATERSHED MANAGEMENT COMMISSION
3235 FERNBROOK LANE
PLYMOUTH, MN 55447
PHONE: (763) 553-1144

INDEPENDENT SCHOOL DISTRICT 728
11500 193RD AVENUE NW
ELK RIVER, MN 55330
PHONE: (763) 241-3400

NOTE:

THE CONTRACTOR MUST COMPLETE, SIGN, OBTAIN OWNERS SIGNATURE, PAY FEE, AND SEND IN THE NPDES PERMIT APPLICATION. CONTRACTOR SHALL PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR. SWPPP DOCUMENTATION, INCLUDING INSPECTION REPORTS SHALL BE RETAINED FOR A PERIOD OF THREE (3) YEARS. DESIGN CALCULATIONS ARE ON FILE AT BKBM.

THE OWNER AND CONTRACTOR ARE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS, BEFORE, DURING, AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION HAS BEEN FILED.

STOCKPILES:

ON-SITE STOCKPILES OF SOIL SHALL HAVE PERIMETER SEDIMENT CONTROL. STOCKPILES SHALL BE STABILIZED WITH BLANKETS, TARPS, OR HYDRO MULCH IF LEFT ON-SITE FOR MORE THAN 7 DAYS.

TEMPORARY SEDIMENT BASINS:

TEMPORARY SEDIMENT BASINS SHALL BE PROVIDED PER APPENDIX A, SECTION C.1.B OF THE MPCA GENERAL STORMWATER PERMIT.

SWPPP IMPLEMENTATION, INSTALLATION, INSPECTION, AND BMP MAINTENANCE SHALL BE PERFORMED BY THE CONTRACTOR.

NAME: _____

CERTIFICATION #:_____

DATE: _____

FINAL STABILIZATION

STABILIZATION BY UNIFORM PERENNIAL VEGETATIVE COVER (70% DENSITY)

DRAINAGE DITCHES STABILIZED.

ALL TEMPORARY SYNTHETIC AND STRUCTURAL BMP'S REMOVED.

CLEAN OUT SEDIMENT FROM CONVEYANCES AND SEDIMENTATION BASINS (RETURN TO DESIGN CAPACITY).

GRADING & SOILS

BASED ON SOIL BORING(S) PROVIDED BY AMERICAN ENGINEERING TESTING SOILS TYPICALLY FOUND ON THIS PROJECT ARE: SM, SP, SC

REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

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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.

Kevin A. Bohl

Kevin A. Bohl
License Number: 52209 Date 01/17/2019

Revisions		
Description	Date	Num

Comm: 182274
Date: 01/17/2019
Drawn: WH
Check: NPA

North

STORM WATER POLLUTION PREVENTION PLAN

C600

LANDSCAPE + EQUIPMENT LAYOUT PLAN:

General Notes:

01. Refer to Sheets L3.1+L3.2 for Details, Notes, and Schedules.
02. See Civil Engineer's plans for site plan layout and dimensions.
03. Protect adjacent landscape areas from damage during construction.
04. Place topsoil or slope dressing on all areas disturbed by construction, including right-of-way boulevards, unless specified otherwise. See specifications.
05. Ensure new sod is placed to match thatch-layer elevation of adjacent, existing sod to remain. All fine grading of turf and seed areas shall be the responsibility of the sod and seed sub-contractor(s), including sub-cut work. Field verify disturbance upon mobilization - actual seed and sod areas may differ from anticipated limits shown on plan.
06. Irrigation: The landscape contractor is required to protect the existing irrigation system outside the work limits during construction. Within the work limits, cap lines and remove & salvage irrigation components for re-use. Submit irrigation plan showing the new heads & pipe connecting to the existing system.
07. New trees must be staked with Tomahawk sub-surface ball supports, as noted on Sheet L3.1. Above-grade stakes are prohibited.
08. The General Contractor is responsible for coordination of sub-contractor color capabilities to meet school and district expectations. Refer to Specifications.

Landscape Ground Cover Legend:

New Turf Sod Areas (Irrigated)

Native Seed Area
MnDOT 35-221 Dry Prairie General

Refer to Sheet L3.2 & Specifications for Seeding Mixes & Rates.

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Planning
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Saint Paul, MN 55104
651.788.9018 | calyxdesigngroup.com

Construction Documents

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 Landscape Architect under the laws of the State of MINNESOTA.

BENJAMIN D. HARTBERG, PLA
Registration No. 48084 Date 01-17-2019

Revisions		
Description	Date	Num
Addendum	01-25-2019	1

AD1

BKBM# 17445
Date: 1/8/2019
Drawn: MF
Check: BH

LANDSCAPE AND EQUIPMENT LAYOUT PLAN

Sheet #: L3.0

Fence Gate Schedule:

GATE TYPE 'A': PAIR OF 5'-0" WIDE SWING GATE PANELS, LOCKABLE COLLAR, WITH PRIVACY SLATS.
CENTER CANE PIN SET IN CONCRETE.
GATE TYPE 'B': STANDARD 4'-0" WIDE SWING GATE PANEL, LOCKABLE COLLAR, WITH PRIVACY STATS.

NOTE: SUBMIT SHOP DRAWINGS FOR ALL GATES, FENCING, AND PRIVACY SLAT SYSTEM.

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	REMARKS
	AA	Acer x freemanii `Jeffsred`	Autumn Blaze Maple	3" Cal.	B&B	5	
	SI	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	1.5" Cal.	B&B	7	

GROUND COVERS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING	QTY	REMARKS
	PA	Poa pratensis `Admiral`	Kentucky Bluegrass	sod			52,388 sf	

General Notes:

01. Refer to Sheet L3.0 for Layout Plan.
02. Refer to Sheet L3.2 for Details, Notes, and Schedules.
02. See Civil Engineer's plans for site plan layout and dimensions.
03. Protect adjacent landscape areas from damage during construction.
04. Place topsoil or slope dressing on all areas disturbed by construction, including right-of-way boulevards, unless specified otherwise. See specifications.
05. Ensure new sod is placed to match thatch-layer elevation of adjacent, existing sod to remain. All fine grading of turf and seed areas shall be the responsibility of the sod and seed sub-contractor(s), including sub-cut work. Field verify disturbance upon mobilization - actual seed and sod areas may differ from anticipated limits shown on plan.
06. The General Contractor is responsible for coordination of sub-contractor color capabilities to meet school and district expectations. Refer to Specifications.

Landscape Notes:

1. Tree saucer mulch to be four inches (4") depth natural single-shred hardwood mulch for trees outside of a plant bed. Install per tree planting detail.

2. Refer to civil plan sheets for grading, drainage, site dimensions, survey, tree removal, proposed utilities & erosion control.

3. All plant material shall comply with the latest edition of the American Standard for Nursery Stock, American Association of Nurserymen. Unless noted otherwise, deciduous shrubs shall have at least 5 canes at the specified shrub height. Plant material shall be delivered as specified.

4. Plan takes precedence over plant schedule if discrepancies in quantities exist.

5. All proposed plants shall be located and staked as shown.

6. Adjustment in location of proposed plant material may be needed in field. Should an adjustment be required, the client will provide field approval. Significant changes may require city review and approval.

7. The project landscape contractor shall be held responsible for watering and properly handling all plant materials brought on the site both before and after installation. Schedule plant deliveries to coincide with expected installation time within 36 hours.

8. All plant materials shall be fertilized upon installation as specified.

9. The landscape contractor shall provide the owner with a watering schedule appropriate to the project site conditions and to plant material growth requirements.

10. If the landscape contractor is concerned or perceives any deficiencies in the plant selections, soil conditions, drainage or any other site condition that might negatively affect plant establishment, survival or guarantee, they must bring these deficiencies to the attention of the landscape architect & client prior to bid submission.

11. Contractor shall establish to his/ her satisfaction that soil and compaction conditions are adequate to allow for proper drainage at and around the building site.

12. Contractor is responsible for ongoing maintenance of all newly installed material until time of owner acceptance. Any acts of vandalism or damage which may occur prior to owner acceptance shall be the responsibility of the contractor. Contractor shall provide the owner with a maintenance program including, but not limited to, pruning, fertilization and disease/pest control.

13. The contractor shall guarantee newly planted material through TWO calendar years from the date of written owner acceptance. Plants that exhibit more than 10% die-back damage shall be replaced at no additional cost to the owner. The contractor shall also provide adequate tree wrap and deer/rodent protection measures for the plantings during the warranty period.

14. This layout plan constitutes our understanding of the landscape requirements listed in the ordinance. Changes and modifications may be requested by the city based on applicant information, public input, council decisions, etc.

15. The landscape contractor shall be responsible for obtaining any permits and coordinating inspections as required throughout the work process.

16. Plant size & species substitutions must be approved in writing prior to acceptance in the field.

17. Replacement and repairs requested by the Owner during the warranty period must be made within 14 business days of the request.

18. Landscape Contractor is responsible for coordination with the General Contractor, to protect the new improvements on and off-site during landscape work activities. Report any damage to the General Contractor immediately.

19. Irrigation: the landscape contractor is responsible for the function and protection of the existing irrigation system outside the proposed work limits, during construction. Landscape contractor to adjust head spray and zone run times as necessary to ensure turf and plants within and outside the work limits, remain irrigated. Include the cost of temporary on-grade piping, if necessary. Remove and salvage existing irrigation equipment (heads, valves, boxes, as reasonable), within construction limits for re-use ahead of excavation work and remove any irrigation pipe from the work area(s), including under new pavement. Sleeve under new paving as necessary to irrigate areas now isolated from the original system. Clearly mark underground piping and coordinate line & stub locations with General Contractor. Provide a new layout that irrigates all new landscape areas and connects to the existing system.

20. All sod areas shall be prepared prior to planting with a harley power box rake or equal to provide a firm planting bed free of stones, sticks, construction debris, etc. Any alternate seed mixtures, rates, & application method noted shall be submitted to the landscape architect for approval.

21. The Landscape Contractor shall furnish samples of all landscape materials for approval prior to installation.

22. The Landscape Contractor shall clear and grub underbrush from within the work limits to remove dead branches, leaves, trash, weeds and foreign materials. Remove trees where noted on the civil plan, including the stump to 30" below grade.

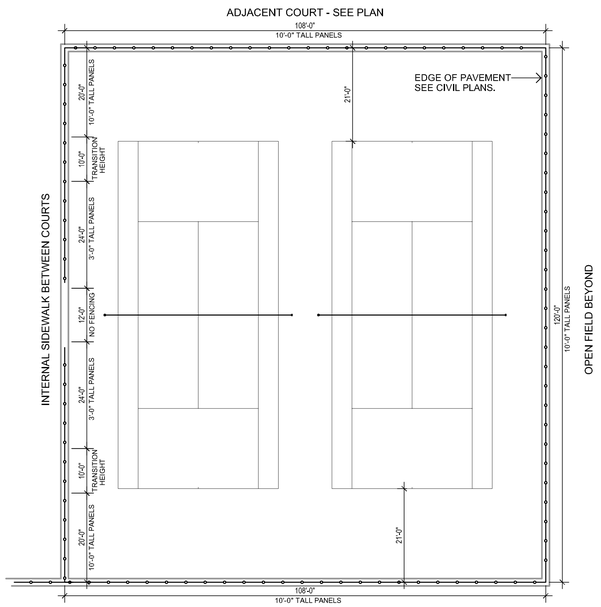
23. The landscape contractor shall contact Gopher State One Call no less than 48 hours before digging for field utility locations.

24. The landscape contractor shall be responsible for the removal of erosion control measures once vegetation has been established to the satisfaction of the municipal staff. This includes silt curtain fencing and sediment logs placed in the landscape.

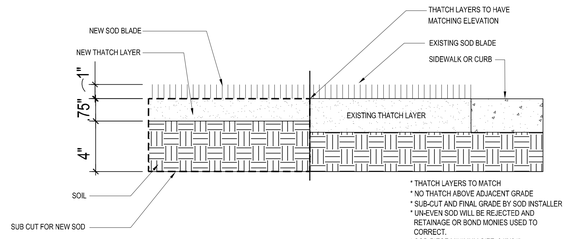
25. The landscape contractor shall be responsible for visiting the site to become familiar with the conditions prior to bidding and installation. Coordinate with the general contractors on matters such as fine grading, landscaped area conditions, staging areas, irrigation connection to building, etc.

26. Landscape contractor shall be responsible for fished or 'fine' grading of topsoil. It shall be the landscape contractor's responsibility to coordinate topsoil fill work with the earthwork sub-contractor. See specifications for topsoil depth requirements, composition, pH, and fertilization requirements.

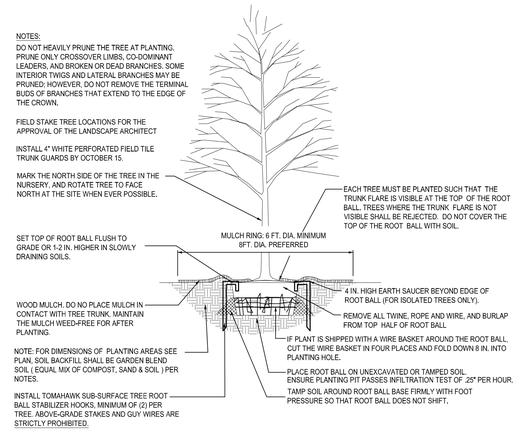
27. Native Seeding: Refer to Sheet L3.2 for native seed mixtures and rates. Refer also to specifications for maintenance required by the seeding contractor.



1 L3.1 TENNIS COURT FENCING LAYOUT PLAN
SCALE: 1"=1'-0"

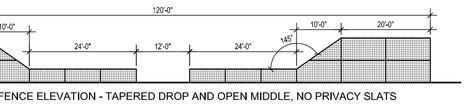


3 L3.1 SECTION - NEW TURF SOD AGAINST EXISTING
NOT TO SCALE



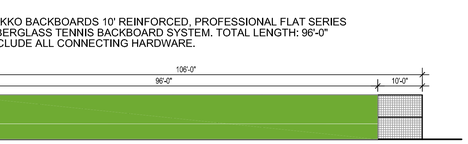
4 L3.1 DECIDUOUS TREE PLANTING - SECTION
NOT TO SCALE

811 Know what's below. Call before you dig.



INSIDE FENCE ELEVATION - TAPERED DROP AND OPEN MIDDLE, NO PRIVACY SLATS

OUTSIDE FENCE ELEVATION - FULL HEIGHT WITH PRIVACY SLATS

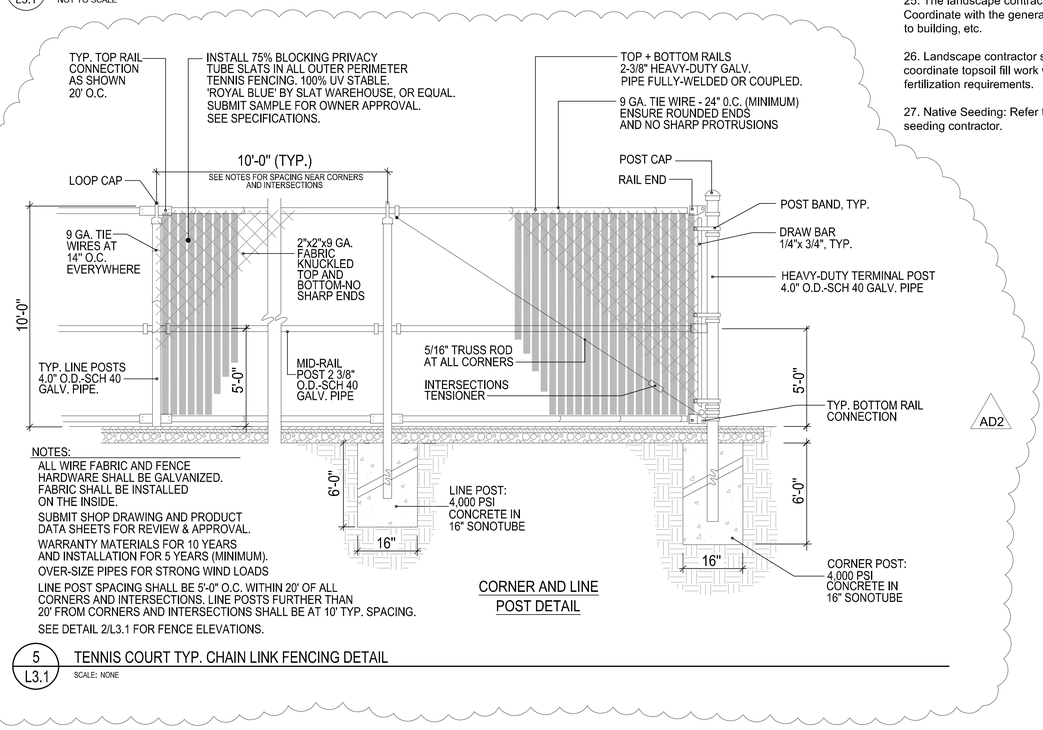


INSIDE ELEVATION AT COURT #4- WITH BACKBOARD (SEE PLAN)

INSIDE FENCE ELEVATION - FULL HEIGHT WITH PRIVACY SLATS

REFER TO DETAIL 5/L3.1 FOR FENCE & RAIL DETAIL.

2 L3.1 TENNIS COURT CHAIN LINK FENCING (INTERIOR) ELEVATIONS
SCALE: NONE



5 L3.1 TENNIS COURT TYP. CHAIN LINK FENCING DETAIL
SCALE: NONE

DETAILS, NOTES, AND SCHEDULES:

2019 Rogers High School Tennis Courts - Bid Package #1
21000 141st Avenue N.
Rogers, MN 55374

Independent School District #728
11500 93rd Ave. NW
Elk River, MN 55330

WOLD ARCHITECTS AND ENGINEERS
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CALYX DESIGN GROUP
Landscape Architecture
Planning
475 N. Cleveland Avenue | Suite 307
Saint Paul, MN 55104
651.788.9018 | calyxdesigngroup.com

Construction Documents

Revisions		
Description	Date	Num
Addendum #1	01-25-2019	1
Addendum #2	01-30-2019	2

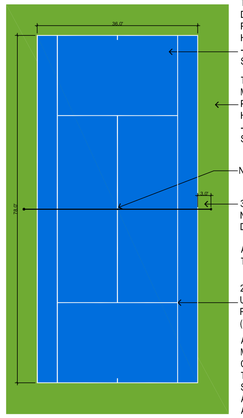
AD2

BKBM# 17445
Date: 1/8/2019
Drawn: MF
Check: BH

LANDSCAPE DETAILS

Sheet #: L3.1

Know what's below. Call before you dig.



TENNIS COURT - INSIDE AREA COLOR COAT:
DARK BLUE COLOR (ACRYLIC) WITH SAND.
PANTONE 7694C
HELLAS TPS COURT SURFACES.
-SUBMIT COLOR CHART AND COATING SAMPLE FOR SELECTION & APPROVAL

TENNIS COURT - OUTSIDE AREA COLOR COAT:
MEDIUM GREEN (ACRYLIC) WITH SAND.
PANTONE 555C
HELLAS TPS COURT SURFACES.
-SUBMIT COLOR CHART AND COATING SAMPLE FOR SELECTION & APPROVAL

NET ANCHOR. SEE DETAIL 2 / L3.2

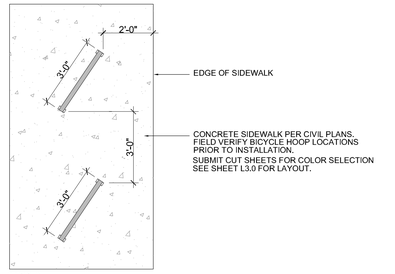
3' DISTANCE FROM SIDELINE TO NET POST (TYP.) SEE NET POST DETAIL 3 / L3.2

ALL TENNIS COURT MARKINGS TO BE USTA REGULATION DIMENSIONS.

2" WIDE WHITE PAINTED STRIPING (TYP.)
USE MULTILINE TEXTURED WHITE LINE PAINT AND MULTISEAL LINE TAPE SEALANT (OR EQUAL).

ACRYLIC RESURFACER:
MIX ACRYLIC RESURFACER AND LOCALLY AVAILABLE CLEAN, WASHED SILICA SAND. APPLY IN 2 COATS (MINIMUM) TO NEW BITUMINOUS SURFACE. LIQUID APPLIED AND SQUEEGEE LEVELED TO AN EVEN SPREAD & DEPTH. APPLY COLOR COATS ONCE RESURFACER HAS CURED. APPLY STRIPING ONCE COLOR COATS ARE CURED.

1 / L3.2 TENNIS COURT COATING AND STRIPING PLAN - DOUBLES PLAY LAYOUT
SCALE: 1"=1'-0"

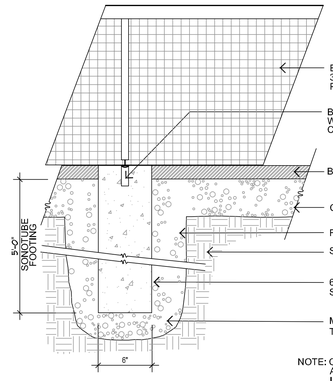


THE BIKE RACK ARRIVES ASSEMBLED AND READY TO BE INSTALLED. HARDWARE IS NOT INCLUDED.
5 YEAR COMPREHENSIVE WARRANTY

PRODUCT: ARCH BIKE RACK W/CENTER MEDALLION — QUANTITY: (4)
DESCRIPTION: PRODUCT #UBCBR — www.anovafurnishings.com
FRAME: STAINLESS STEEL

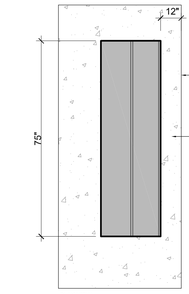
NOTES:
1. INSTALL SURFACE MOUNT BICYCLE BOLLARDS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. SUBMIT PRODUCT DATA SHEET FOR FINAL APPROVAL PRIOR TO ORDERING.
3. SEE SITE PLAN FOR LOCATION OR CONSULT OWNER.
4. SITE FURNISHINGS CONTRACTOR TO INCLUDE ASSEMBLY, MOUNTING HARDWARE, AND LABOR IN BID.

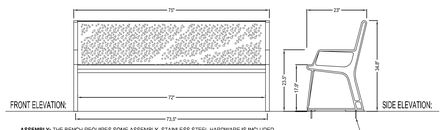
4 / L3.2 BICYCLE BOLLARD DETAIL
SCALE: NONE



NOTE: CONTRACTOR SHALL USE CORE BIT TO CUT ASPHALT IF FOOTING IS PLACED AFTER ASPHALT INSTALLATION.

2 / L3.2 TENNIS NET ANCHOR DETAIL
SCALE: 1"=1'-0"



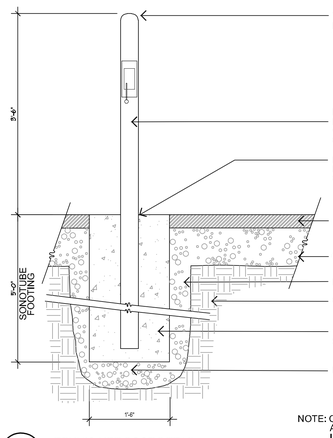


ASSEMBLY: THE BENCH REQUIRES SOME ASSEMBLY. STAINLESS STEEL HARDWARE IS INCLUDED.
WARRANTY: 20-YEAR LIMITED STRUCTURAL WARRANTY WITH 7-YEAR FINISH WARRANTY AGAINST FADING.

PRODUCT: ARI-LEAF 6'-0" CONTOUR BENCH — QUANTITY: (3)
DESCRIPTION: PRODUCT #ADS360LF — www.anovafurnishings.com
FRAME: TEXTURED PEWTER
SEAT: TEXTURED FERN

NOTES:
1. INSTALL SURFACE MOUNT BENCHES ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. SUBMIT PRODUCT DATA SHEET FOR FINAL APPROVAL PRIOR TO ORDERING.
3. SEE SITE PLAN FOR LOCATION OR CONSULT OWNER.
4. SITE FURNISHINGS CONTRACTOR TO INCLUDE ASSEMBLY, MOUNTING HARDWARE, AND LABOR IN BID.

5 / L3.2 6' BENCH DETAIL
SCALE: NONE



NOTE: CONTRACTOR SHALL USE CORE BIT TO CUT ASPHALT IF FOOTING IS PLACED AFTER ASPHALT INSTALLATION.

3 / L3.2 TENNIS NET POST DETAIL
SCALE: 1"=1'-0"

General Notes:

01. Refer to Sheets L3.1+L3.2 for Details, Notes, and Schedules.
02. See Civil Engineer's plans for site plan layout and dimensions.
03. Protect adjacent landscape areas from damage during construction.
04. Place topsoil or slope dressing on all areas disturbed by construction, including right-of-way boulevards, unless specified otherwise. See specifications.
05. Ensure new sod is placed to match thatch-layer elevation of adjacent, existing sod to remain. All fine grading of turf and seed areas shall be the responsibility of the sod and seed sub-contractor(s), including sub-cut work. Field verify disturbance upon mobilization - actual seed and sod areas may differ from anticipated limits shown on plan.
06. Irrigation: The landscape contractor is required to protect the existing irrigation system outside the work limits during construction. Within the work limits, cap lines and remove & salvage irrigation components for re-use. Submit irrigation plan showing the new heads & pipe connecting to the existing system.
07. New trees must be staked with Tomahawk sub-surface ball supports, as noted on Sheet L3.1. Above-grade stakes are prohibited.
08. Colors noted are to be considered custom, unless select vendors have the exact colors as stock. The General Contractor is responsible for coordination of sub-contractor color capabilities to meet school and district expectations.

Native Seeding Installation Method:

Method 1. Drop Seeding Onto Tilled Sites
This is the "standard" method for seeding on prepared sites such as those on construction projects.

A) Site Preparation - The site should be prepared by loosening topsoil to a minimum depth of 3 inches.
B) Fertilizer – Use a fertilizer analysis based on a soil test or a general recommendation is a 10-10-10 (NPK) commercial grade analysis at 260 lbs/acre.
C) Seed Installation - Seed should be installed with a drop seeder that will accurately meter the types of seed to be planted, keep all seeds uniformly mixed during the seeding and contain drop seed tubes for seed placement (Brillion-type). The drop seeder should be equipped with a cultipacker assembly to ensure seed-to-soil contact.
D) Seeding Rates - Rates are specified in the mixture tabulation for the specified mix.
E) Packing – If the drop seeder is not equipped with a cultipacker, the site should be cultipacked following the seeding to ensure seed-to-soil contact.
F) Mulch - The site should be mulched and disc-anchored following cultipacking. The standard mulch is Mn/DOT Type 1 at a rate of 2.0 tons/acre. Also see temporary erosion control for additional information.

Method 2. Hydroseeding
Hydroseeding is an acceptable method for establishing the general mixtures when it is done correctly. However, it is imperative that the site is prepared and finished properly. MnDOT generally uses hydroseeding on steep slopes or other areas inaccessible to a drop seeder such as wetland edges and ponds. Hydroseeding is not recommended if the extended weather patterns are hot and dry and the soil surface is dry and dusty. The seed-water slurry should be applied within one hour after the seed is added to the hydroseeder tank.

A) Site Preparation - The site should be prepared by loosening topsoil to a minimum depth of 3 inches. It is critical that the seedbed be loosened to a point that there are a lot of spaces for seed to filter into cracks and crevices otherwise it may end up on the surface and wash away with the first heavy rain.
B) Fertilizer - Either use a fertilizer analysis based on a soil test or a general recommendation is a 10-10-10 (NPK) commercial grade analysis at 300 lbs/acre. 14

C) Seed Installation - Seed should be installed by hydro-seeding it evenly over the entire site. A fan-type nozzle should be used with approximately 500 gallons of water per acre. It is recommended to add approximately 75 pounds of hydromulch per 500 gallons of water for a visual tracer to ensure uniform coverage.
D) Seeding Rates - Rates are specified in the mixture tabulation for the specified mix.
E) Harrowing - The site should be harrowed, cultipacked or raked following seeding.
F) Mulch - The site should be mulched following harrowing using one of the following methods (as per plans or special provisions):
- Mn/DOT Type 1 mulch at a rate of 2.0 tons per acre with disc anchoring.
- Mn/DOT Hydraulic Soil Stabilizer or Bonded Fiber Matrix on inaccessible sites.

Native Seeding Required Maintenance:

Native Grass and Forb Mixtures (mixtures beginning with the number 3)
Year 1
Establishment (spring seeding):
1) Prepare site - Late April - May.
2) Seed - May 1 – June 1.
Maintenance:
1) Mow (5-8 inches) – every 30 days after planting until September 30.
2) Weed Control - mowing should help control annual weeds. Spot spray thistles etc.

Establishment (fall seeding):
1) Prepare site - Late August - early September.
2) Seed - late September to freeze-up.
Maintenance (following season):
1) Mow (5-8 inches) – once in May, June and July.
2) Weed Control - mowing should keep annual weeds down. Spot spray thistles etc.

Evaluation:
1) Cover crop growing within 2 weeks of planting (except dormant plantings).
2) Seedlings spaced 1-6 inches apart in drill rows.
3) Native grass seedlings may only be 4-6 inches tall.
4) If there is a flush of growth from foxtail etc., mow as necessary.

Year 2
Maintenance:
1) Mow (5-8 inches) one time between June 1 - August 15 before weeds set seed.
2) Weed Control - mowing should keep annual weeds down. Spot spray thistles etc.
3) Some sites may not require much maintenance this second year.
Evaluation:
1) Cover crop will be gone unless winter wheat was used in a fall planting.
2) Grasses forming clumps 1-6 inches apart in drill rows, but still short.
3) Some flowers should be blooming (black-eyed Susans, bergamot etc.).
4) If there is a flush of growth from foxtail etc., mow site.

Year 3
Maintenance:
1) Mow only if necessary.
3) Weed Control - Spot spray thistles, etc.
4) Sites usually do not require much maintenance the third year.
Evaluation:
1) Planting should begin looking like a prairie - tall grasses, flowers etc.

Long-term
Maintenance:
1) Weed Control - Spot spray thistles etc.
2) Burning (3-5 year rotation) alternate spring and fall if possible.
3) Haying (3-5 year rotation) late summer or early fall. Alternate with burning (may substitute for burning).
4) Burning two years in a row will really 'clean up' rough-looking sites.

Native Seed Area
Install at 36.5 lbs Per Acre. Also, Add 50lbs Per Acre of 21-111 Oats Cover Crop.

35-221 Dry Prairie General

Common Name	Scientific Name	Rate (lb/ac)	Rate (kg/ha)	% of Mix (by weight)	Seeds/ sq ft
side-oats grama	*Bouteloua curtipendula*	3.00	3.36	8.22%	6.81
little bluestem	*Schizachyrium scoparium*	3.00	3.36	8.22%	16.53
nodding wild rye	*Elymus canadensis*	1.00	1.12	2.74%	1.91
kalm's brome	*Bromus kalmii*	0.73	0.82	2.00%	2.14
big bluestem	*Andropogon gerardii*	0.70	0.78	1.92%	2.57
Indian grass	*Sorghastrum nutans*	0.70	0.78	1.92%	3.09
blue grama	*Bouteloua gracilis*	0.50	0.56	1.37%	7.35
junegrass	*Koeleria macrantha*	0.25	0.28	0.69%	16.37
prairie dropseed	*Sporobolus heterolepis*	0.12	0.13	0.34%	0.73
	Grasses Subtotal	10.00	11.21	27.42%	59.30
black-eyed susan	*Rudbeckia hirta*	0.31	0.35	0.84%	10.32
purple prairie clover	*Dalea purpurea*	0.19	0.21	0.51%	1.02
hoary vervain	*Verbena stricta*	0.13	0.15	0.34%	1.29
lead plant	*Amorpha canescens*	0.09	0.10	0.26%	0.42
blue giant hyssop	*Agastache foeniculum*	0.06	0.07	0.17%	2.07
butterfly milkweed	*Asclepias tuberosa*	0.06	0.07	0.17%	0.10
Canada milk vetch	*Astragalus canadensis*	0.06	0.07	0.16%	0.40
bird's foot coreopsis	*Coreopsis palmata*	0.06	0.07	0.16%	0.21
white prairie clover	*Dalea candida*	0.06	0.07	0.15%	0.39
Canada tick trefoil	*Desmodium canadense*	0.06	0.07	0.15%	0.13
stiff sunflower	*Helianthus pauciflorus*	0.06	0.07	0.17%	0.09
wild bergamot	*Monarda fistulosa*	0.06	0.07	0.15%	1.42
stiff goldenrod	*Oligoneuron rigidum*	0.06	0.07	0.15%	0.83
large flowered beard tongue	*Penstemon grandiflorus*	0.06	0.07	0.17%	0.32
smooth aster	*Symphyotrichum laeve*	0.06	0.07	0.17%	1.26
rough blazing star	*Liatris aspera*	0.04	0.04	0.12%	0.25
gray goldenrod	*Solidago nemoralis*	0.04	0.04	0.10%	3.86
heath aster	*Symphyotrichum ericoides*	0.04	0.04	0.10%	2.58
	Forbs Subtotal	1.50	1.68	4.09%	26.96
Oats	*Avena sativa*	25.00	28.02	68.49%	11.13
	Cover Crop Subtotal	25.00	28.02	68.49%	11.13
	Total	36.50	40.91	100.00%	97.39
Purpose:	General dry prairie mix for native roadsides, eco-logical restoration, or conservation program plantings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

Notes:
Refer to Civil Engineer's Plans for Grading, Drainage, and Erosion Control Requirements.
Follow MnDOT Guidelines for Seeding Timelines and Establishment Criteria
Seeding Contractor is Responsible for Topsoil Testing & Amendments, If Required.
Refer to Specifications for Submittal Data and Other Requirements.

DETAILS, NOTES, AND SCHEDULES:

SEEDING SCHEDULES:

2019 Rogers High School Tennis Courts

21000 141st Avenue N.
Rogers, MN 55374

Independent School District #728
11500 93rd Ave. NW
ELK RIVER, MN 55330

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www.bkbm.com

CALYX DESIGN GROUP
Landscape Architecture
Planning
475 N. Cleveland Avenue | Suite 307
Saint Paul, MN 55104
651.788.9018 | calyxdesigngroup.com

Construction Documents

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 Landscape Architect under the laws of the State of MINNESOTA.

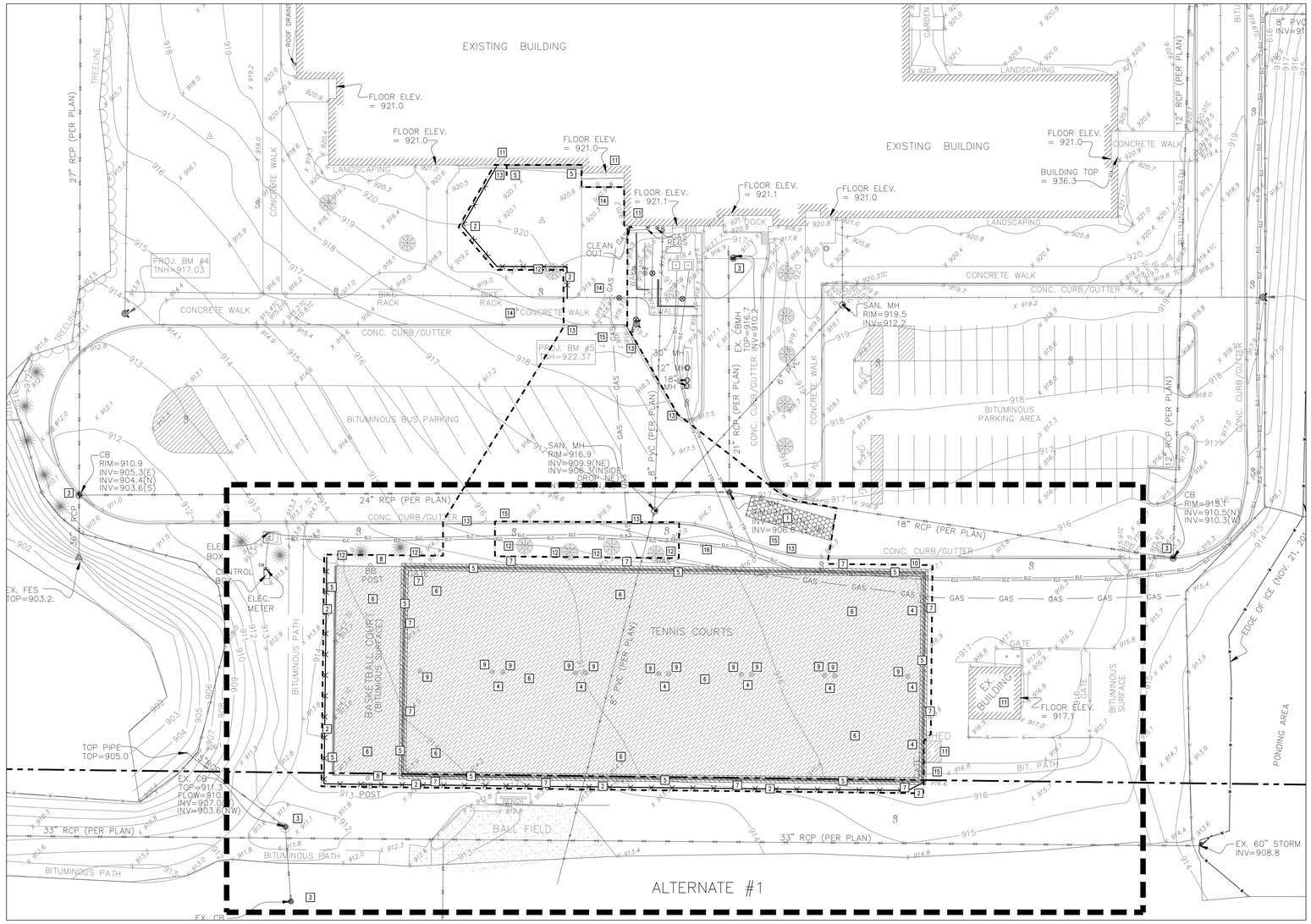
BENJAMIN D. HARTBERG, PLA
Registration No. 48084 Date 01-17-2019

Revisions		
Description	Date	Num

BKBM# 17445
Date: 1/8/2019
Drawn: MF
Check: BH

LANDSCAPE DETAILS

Sheet #: L3.2



1 C100 SELECTIVE SITE DEMOLITION PLAN
1" = 30'

PROPOSED PLAN SYMBOLS	
CONSTRUCTION LIMITS	
SILT FENCE	
SAWCUT LINE (APPROX.)	
PROPERTY LINE	
ALTERNATE #1	
BITUMINOUS REMOVAL	
FENCE REMOVAL	
MAINTENANCE STRIP REMOVAL	

ABBREVIATIONS	
BLDG	Building
BM	Bench Mark
CB	Catch Basin
CONC	Concrete
DIP	Ductile Iron Pipe
ELEV	Elevation
EX	Existing
INV	Invert
MAX	Maximum
MH	Manhole
MIN	Minimum
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe

NOTE:
STORM SEWER INLETS NOT SHOWN ON PLAN MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INSTALL INLET SEDIMENT PROTECTION PER DETAIL 3/C400 ON ALL STORM INLETS THAT MAY RECEIVE RUNOFF.

N
30' 15' 0 30' 60'
SCALE 1" = 30'

NOTE:
BACKGROUND INFORMATION IS BASED ON A 2014 SURVEY PREFORMED BY CORNERSTONE LAND SURVEYING. MISCELLANEOUS SITE WORK HAS BEEN PERFORMED THROUGHOUT THE ROGERS MIDDLE SCHOOL SITE SINCE THE 2014 SURVEY WAS COMPLETED.

PRIOR TO BIDDING, THE CONTRACTOR SHALL VISIT THE SITE TO OBTAIN A CLEAR UNDERSTANDING OF SCOPE OF WORK. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR WORK THAT COULD HAVE BEEN ANTICIPATED BY PERFORMING THE ABOVE.

KEYED NOTES

KEYED NOTES ARE DENOTED BY [NO] ON PLAN.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE. REFER TO DETAIL 1/C400.
2. INSTALL SILT FENCE. REFER TO DETAIL 2/C400.
3. INSTALL INLET SEDIMENT PROTECTION. REFER TO DETAIL 3/C400.
4. REMOVE EXISTING BENCHES IN THEIR ENTIRETY (NOT SHOWN ON PLANS). PRIOR TO BIDDING, CONTRACTOR SHALL VISIT SITE TO OBTAIN CLEAR UNDERSTANDING OF SCOPE OF WORK.
5. REMOVE CONCRETE MAINTENANCE STRIP IN ITS ENTIRETY TO THE EXTENT SHOWN.
6. SAWCUT AND REMOVE BITUMINOUS PAVEMENT IN ITS ENTIRETY TO THE EXTENTS SHOWN. CONTRACTOR SHALL REMOVE UNDERLYING AGGREGATE BASE TO ALLOW FOR A MINIMUM OF 6" OF TOPSOIL TO BE PLACED FOR PROPOSED SOD.
7. REMOVE FENCE IN ITS ENTIRETY, INCLUDING BELOW GRADE FOUNDATIONS.
8. REMOVE EXISTING BASKETBALL POSTS, FOOTINGS, AND BACKBOARDS IN THEIR ENTIRETY.
9. REMOVE TENNIS POSTS, FOOTINGS, AND NETS IN THEIR ENTIRETY.
10. REMOVE EXISTING SIGN IN ITS ENTIRETY (NOT SHOWN ON PLANS). PRIOR TO BIDDING, CONTRACTOR SHALL VISIT SITE TO OBTAIN CLEAR UNDERSTANDING OF SCOPE OF WORK.
11. EXISTING BUILDING TO REMAIN. PROTECT AT ALL TIMES.
12. EXISTING TREE TO REMAIN. PROTECT AT ALL TIMES.
13. EXISTING CURB/MAINTENANCE STRIP TO REMAIN. PROTECT AT ALL TIMES.
14. EXISTING SIDEWALK TO REMAIN. PROTECT AT ALL TIMES.
15. EXISTING BITUMINOUS TO REMAIN. PROTECT AT ALL TIMES.
16. RELOCATE EXISTING ALUMINUM BLEACHERS (NOT SHOWN ON PLANS). COORDINATE NEW LOCATION WITH OWNER. PRIOR TO BIDDING, CONTRACTOR SHALL VISIT SITE TO OBTAIN CLEAR UNDERSTANDING OF SCOPE OF WORK.

DEMOLITION AND REMOVAL NOTES:

1. PRIOR TO START OF DEMOLITION, ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CITY OF ROGERS. ALL SILT FENCES SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY CONSTRUCTION ACTIVITY. SILT FENCES SHALL BE INSTALLED ALONG THE CONTOUR.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND MARK ALL EXISTING UTILITIES 48 HOURS BEFORE CONSTRUCTION STARTS. THE ENGINEER, ARCHITECT OR OWNER DOES NOT GUARANTEE THAT ALL THE UTILITIES ARE MAPPED, OR IF MAPPED, ARE SHOWN CORRECTLY. CONTACT GOPHER STATE ONE CALL AT 651-454-0002 FOR FIELD LOCATING EXISTING UTILITIES. CONTACT UTILITY OWNER IF DAMAGE OCCURS DUE TO CONSTRUCTION.
3. THERE MAY BE MISCELLANEOUS ITEMS TO BE REMOVED THAT ARE NOT IDENTIFIED ON THESE PLANS. THE CONTRACTOR SHALL VISIT THE SITE AND REVIEW THE DOCUMENTS TO OBTAIN A CLEAR UNDERSTANDING OF THE INTENDED SCOPE OF WORK.
4. ANY UTILITIES NOT INDICATED FOR REMOVAL OR ABANDONMENT, ARE TO BE PROTECTED AT ALL TIMES.
5. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND REVIEW ALL CONSTRUCTION DOCUMENTS AND GEOTECHNICAL REPORTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ITEMS THAT SHOULD HAVE BEEN ANTICIPATED BY PERFORMING THE ABOVE.
6. THE STABILIZED CONSTRUCTION ENTRANCE INDICATED ON THE PLAN IS SHOWN IN AN APPROXIMATE LOCATION. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR IS TO COORDINATE WITH THE CITY OF ROGERS FOR THE EXACT STABILIZED CONSTRUCTION ENTRANCE LOCATION.

2019 Rogers Middle School - Chiller Improvements

20855 141st Avenue N.
Rogers, MN 55374

Independent School District #728
11500 193rd Ave. NW
Elk River, MN 55330

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BKBM ENGINEERS
6120 Earle Brown Drive, Suite 700
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CONSTRUCTION DOCUMENTS

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.

Kevin A. Bohl
License Number: **52209** Date **01/17/2019**

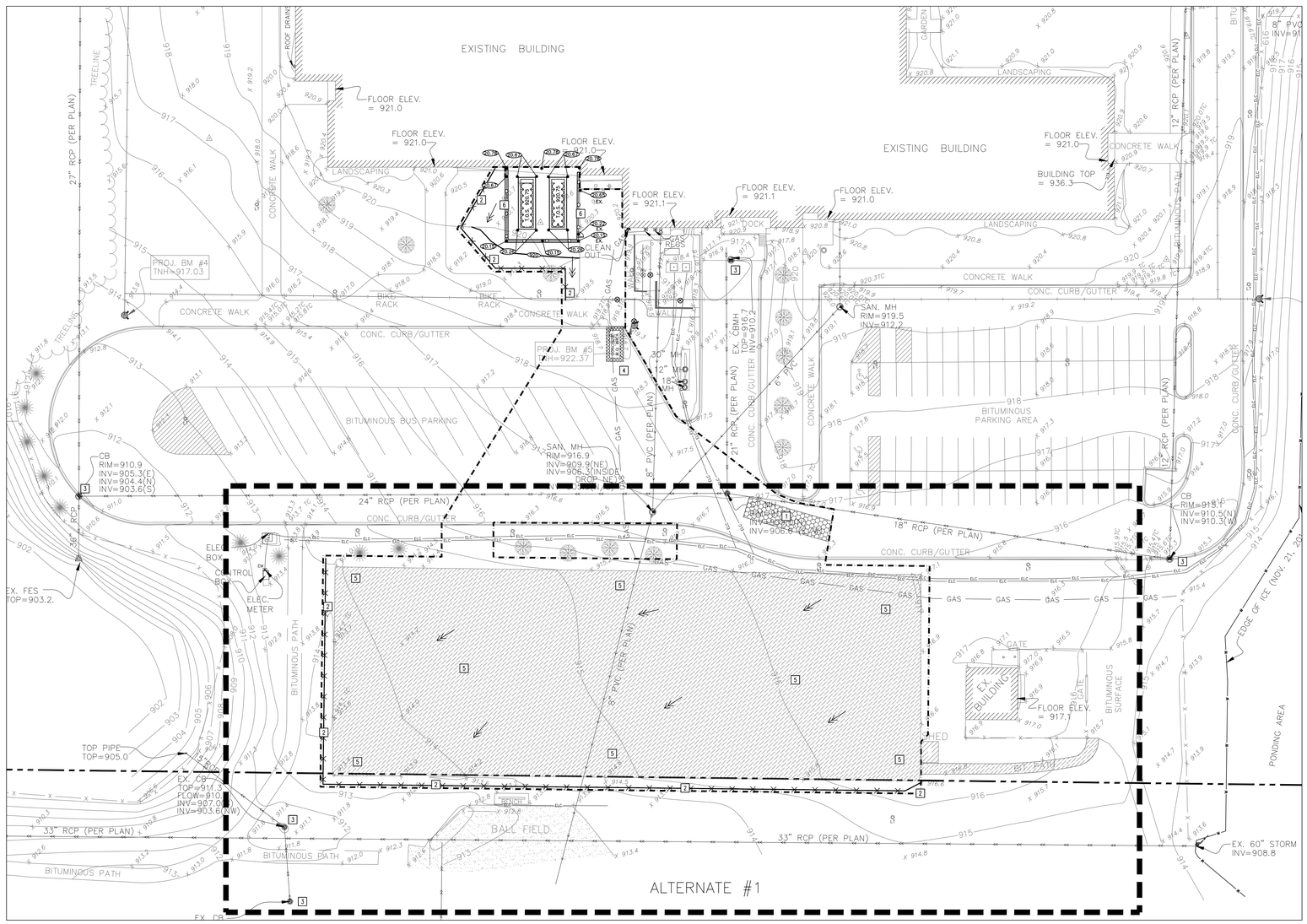
Revisions		
Description	Date	Num

Comm: **19144**
Date: **01/17/2019**
Drawn: **WH**
Check: **NPA**

North

SELECTIVE SITE DEMOLITION PLAN

C100



1 / C200 GRADING, DRAINAGE, AND EROSION CONTROL PLAN
1" = 30'

PROPOSED PLAN SYMBOLS

- CONSTRUCTION LIMITS
- PERIMTER EROSION CONTROL (SILT FENCE)
- PROPERTY LINE
- SAWCUT LINE (APPROX.)
- ALTERNATE #1
- STABILIZED CONSTRUCTION ENTRANCE
- SODDED AREA
- DRAINAGE FLOW ARROW
- SPOT ELEVATION
- CONCRETE WASHOUT AREA (CONCRETE W.O. AREA)

ABBREVIATIONS

BLDG	Building
BM	Bench Mark
CB	Catch Basin
CONC	Concrete
DIP	Ductile Iron Pipe
ELEV	Elevation
EX	Existing
INV	Invert
MAX	Maximum
MH	Manhole
MIN	Minimum
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
TC	Top of Curb
TOS	Top of Slab

NOTE:
STORM SEWER INLETS NOT SHOWN ON PLAN MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INSTALL INLET SEDIMENT PROTECTION PER DETAIL 3/C400 ON ALL STORM INLETS THAT MAY RECEIVE RUNOFF.

APPROXIMATE DISTURBED AREA IS 1.18 ACRES

N

30' 15' 0 30' 60'

SCALE 1" = 30'

NOTE:
BACKGROUND INFORMATION IS BASED ON A 2014 SURVEY PREFORMED BY CORNERSTONE LAND SURVEYING. MISCELLANEOUS SITE WORK HAS BEEN PERFORMED THROUGHOUT THE ROGERS MIDDLE SCHOOL SITE SINCE THE 2014 SURVEY WAS COMPLETED.

PRIOR TO BIDDING, THE CONTRACTOR SHALL VISIT THE SITE TO OBTAIN A CLEAR UNDERSTANDING OF SCOPE OF WORK. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR WORK THAT COULD HAVE BEEN ANTICIPATED BY PERFORMING THE ABOVE.

KEYED NOTES

KEYED NOTES ARE DENOTED BY [NO] ON PLAN.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE. REFER TO DETAIL 1/C400.
2. INSTALL SILT FENCE. REFER TO DETAIL 2/C400.
3. INSTALL INLET SEDIMENT PROTECTION. REFER TO DETAIL 3/C400.
4. APPROXIMATE LOCATION OF TEMPORARY CONTAINED CONCRETE WASH OUT BIN. REFER TO THE MINNESOTA'S NPDES/SDS GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY FOR MORE DETAILS. SELF CONTAINED CONCRETE WASHOUTS ON CONCRETE DELIVERY TRUCKS IS AN ACCEPTABLE ALTERNATIVE TO ON-SITE CONTAINMENT.
5. AREA TO BE GRADED TO MATCH EXISTING GROUND ELEVATIONS, TOPSOIL PLACED, AND RESTORED WITH SOD.
6. SCREEN FENCE. REFER TO LANDSCAPE ARCHITECT'S PLANS.

EROSION CONTROL NOTES:

1. ALL EROSION CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO ANY SITE GRADING OPERATIONS. THE CITY OF ROGERS ENGINEERING DEPARTMENT MUST BE NOTIFIED UPON COMPLETION OF THE INSTALLATION OF THE REQUIRED EROSION CONTROL FACILITIES AND PRIOR TO ANY GRADING OPERATION BEING COMMENCED. THE CONTRACTOR IS RESPONSIBLE TO SCHEDULE A PRE-CONSTRUCTION GRADING MEETING ON-SITE WITH THE CITY OF ROGERS. IF DAMAGED OR REMOVED DURING CONSTRUCTION, ALL EROSION CONTROL FACILITIES SHALL BE RESTORED AND IN PLACE AT THE END OF EACH DAY.
2. ANY EROSION CONTROL FACILITIES DEEMED NECESSARY BY THE CITY OF ROGERS; BEFORE, DURING OR AFTER THE GRADING ACTIVITIES, SHALL BE INSTALLED AT THEIR REQUEST.
3. NO DEVIATIONS SHALL BE MADE FROM THE ELEVATIONS SHOWN ON THE APPROVED GRADING PLAN, WITHOUT PRIOR APPROVAL FROM THE CIVIL ENGINEER.
4. FOR SITES GREATER THAN 1.0 ACRE, AS REQUIRED BY THE MPCA PERMIT REQUIREMENTS, THE PERMIT APPLICANT MUST KEEP AN EROSION CONTROL INSPECTION LOG. INSPECTION MUST BE MADE ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS AFTER EVERY RAIN EVENT. THE INSPECTION RECORD MUST BE MADE AVAILABLE TO THE CITY OF ROGERS WITHIN 24 HOURS OF REQUEST.
5. FLOWS FROM DIVERSION CHANNELS OR PIPES (TEMPORARY OR PERMANENT) SHALL BE ROUTED TO SEDIMENTATION BASINS OR APPROPRIATE ENERGY DISSIPATERS TO PREVENT TRANSPORT OF SEDIMENT TO OUTFLOW TO LATERAL CONVEYORS AND TO PREVENT EROSION AND SEDIMENTATION WHEN RUNOFF FLOWS INTO THESE CONVEYORS.
6. SITE ACCESS ROADS SHALL BE GRADED OR OTHERWISE PROTECTED WITH SILT FENCES, DIVERSION CHANNELS, OR DIKES AND PIPES TO PREVENT SEDIMENT FROM EXITING THE SITE VIA THE ACCESS ROADS.
7. SOILS TRACKED FROM THE SITE BY MOTOR VEHICLES OR EQUIPMENT SHALL BE CLEANED DAILY FROM PAVED ROADWAY SURFACES, THROUGHOUT THE DURATION OF CONSTRUCTION, OR MORE FREQUENTLY IF REQUESTED BY CITY OF ROGERS.
8. DUST CONTROL MEASURES SHALL BE PERFORMED PERIODICALLY WHEN CONDITIONS REQUIRE AND/OR AS DIRECTED BY THE CITY OF ROGERS.
9. ALL EROSION CONTROL MEASURES SHALL BE USED AND MAINTAINED FOR THE DURATION OF SITE CONSTRUCTION. IF CONSTRUCTION OPERATIONS OR NATURAL EVENTS DAMAGE OR INTERFERE WITH THESE EROSION CONTROL MEASURES, THEY SHALL BE RESTORED TO SERVE THEIR INTENDED FUNCTION AT THE END OF EACH DAY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
10. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AS SOON AS POSSIBLE. ANY AREAS WHICH HAVE BEEN FINISHED GRADED OR AREAS THAT HAVE BEEN DISTURBED AND FOR WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY SHALL BE SEEDED AND MULCHED AS SET FORTH IN THE FOLLOWING PARAGRAPHS WITHIN 14 DAYS:
    - A. ALL SEEDED AREAS SHALL BE EITHER MULCHED AND DISC-ANCHORED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION. TEMPORARY STRAW MULCH SHALL BE DISC-ANCHORED AND APPLIED AT A UNIFORM RATE OF NOT LESS THAN TWO TONS PER ACRE AND NOT LESS THAN 80% COVERAGE.
    - B. IF THE GRADED AREA IS ANTICIPATED TO BE RE-DISTURBED/DEVELOPED WITHIN SIX MONTHS, PROVIDE A TEMPORARY VEGETATIVE COVER CONSISTING OF MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT) SEED MIXTURE 21-111 (OATS), OR 21-112 (WINTER WHEAT), AT A RATE OF 100 POUNDS PER ACRE.
    - C. IF GRADED AREA WILL NOT BE DEVELOPED FOR A PERIOD GREATER THAN SIX MONTHS, PROVIDE A SEMI-PERMANENT VEGETATIVE COVER OF SEED MIXTURE MNDOT 22-112 AT A RATE OF 40 POUNDS PER ACRE.
    - D. GRADING BONDS OR THE EQUIVALENT SECURITIES SHALL BE RETAINED UNTIL TURF HAS GERMINATED AND SURVIVED A 60-DAY GROWING PERIOD.
    - E. UNLESS SPECIFIED ELSEWHERE WITHIN THE CONSTRUCTION DOCUMENTS (I.E. ARCHITECTURAL SITE PLAN OR LANDSCAPE PLAN), PERMANENT TURF RESTORATION SHALL CONSIST OF SOD.
    - F. WHENEVER OTHER EROSION AND SEDIMENT CONTROL PRACTICES ARE INADEQUATE, TEMPORARY ON-SITE SEDIMENT BASINS THAT CONFORM TO THE CRITERIA FOR ON-SITE DETENTION BASINS SHALL BE PROVIDED.
    - G. MULCH, HYDROMULCH, AND TACKIFIERS MAY NOT BE USED FOR STABILIZATION IN SWALES OR DRAINAGE DITCHES.
    - K. RUNOFF SHALL BE PREVENTED FROM ENTERING ALL STORM SEWER CATCH BASINS PROVIDING THEY ARE NOT NEEDED DURING CONSTRUCTION. WHERE STORM SEWER CATCH BASINS ARE NECESSARY FOR SITE DRAINAGE DURING CONSTRUCTION, A SILT FENCE OR SEDIMENT PROTECTION DEVICES AS DETAILED SHALL BE INSTALLED AND MAINTAINED AROUND ALL CATCH BASINS UNTIL THE TRIBUTARY AREA TO THE CATCH BASIN IS RESTORED.
11. GRADING ACTIVITIES PROPOSED TO BEGIN AFTER OCTOBER 15 WILL REQUIRE AN APPROVED PHASING SCHEDULE. THE AREA OF LAND THAT THE CITY WILL ALLOW TO BE DISTURBED AT THIS TIME OF YEAR WILL BE SEVERELY LIMITED. THE CITY WILL ALSO REQUIRE ADDITIONAL EROSION CONTROL DEVISES, I.E., TEMPORARY SEDIMENT BASINS, DORMANT SEEDING AND HIGH RATES OF APPLICATION OF BOTH SEED AND MULCH.
12. TO MINIMIZE EROSION, ALL 3:1 SLOPES SHALL BE COVERED WITH A MN/DOT 3885 CATEGORY 2 STRAW EROSION CONTROL BLANKETS OR STAKED SOD.
13. ACCUMULATION OF ALL SEDIMENT OCCURRING IN PONDS, STORM SEWERS, CURB LINES, AND DITCHES SHALL BE REMOVED PRIOR TO, DURING AND AFTER COMPLETION OF GRADING ACTIVITIES.
14. EROSION CONTROL ITEMS AND DEVICES SHALL BE REMOVED ONLY AFTER THE AREA HAS RECEIVED FINAL STABILIZATION OR AS DIRECTED BY THE CITY OF ROGERS.

GRADING NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE, REVIEW ALL CONSTRUCTION DOCUMENTS AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO BIDDING. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR WORK THAT COULD HAVE BEEN IDENTIFIED BY A SITE VISIT OR CONSTRUCTION DOCUMENT REVIEW.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND MARK ALL EXISTING UTILITIES 48 HOURS BEFORE CONSTRUCTION STARTS. THE ENGINEER, ARCHITECT OR OWNER DOES NOT GUARANTEE THAT ALL THE UTILITIES ARE MAPPED, OR IF MAPPED, ARE SHOWN CORRECTLY. CONTACT GOPHER ONE AT 651-454-0002 FOR FIELD LOCATING EXISTING UTILITIES. CONTACT UTILITY OWNER IF DAMAGE OCCURS DUE TO CONSTRUCTION.
3. PROTECT ALL EXISTING STRUCTURES AND UTILITIES WHICH ARE NOT SCHEDULED FOR REMOVAL.
4. NOTIFY CITY BUILDING INSPECTOR BEFORE TRENCHING AND EXCAVATION WORK COMMENCES. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS PRIOR TO START OF CONSTRUCTION.
5. ALL SPOT ELEVATIONS SHOWN AS 20.18, FOR EXAMPLE, ARE TO BE UNDERSTOOD TO MEAN 920.18.
6. NO LANDSCAPED SLOPES ARE TO EXCEED 3:1 (3 FEET HORIZONTAL TO 1 FOOT VERTICAL) UNLESS NOTED OTHERWISE.
7. PROVIDE POSITIVE DRAINAGE FROM BUILDINGS AT ALL TIMES.
8. PRIOR TO ISSUANCE OF BUILDING PERMITS, ALL NECESSARY EROSION CONTROL DEVICES MUST BE IN PLACE AND FUNCTIONING. THE CITY OF ROGERS WILL INSPECT THE SITE TO DETERMINE ITS SUITABILITY FOR BUILDING ACTIVITIES. IF THE PUBLIC UTILITIES HAVE NOT BEEN INSTALLED AT THIS POINT, IT MAY BE NECESSARY TO WITHHOLD BUILDING PERMITS FOR VARIOUS LOTS TO ALLOW THE CONTRACTOR ADEQUATE SPACE TO PERFORM THIS WORK.
9. ALL DEBRIS CREATED IN THE PROCESS OF CLEARING AND GRADING THE SITE SHALL BE REMOVED FROM THE SITE. THIS INCLUDES TREES AND SHRUBS. UNDER NO CIRCUMSTANCES SHALL THIS TYPE OF MATERIAL BE BURIED OR BURNED ON THE SITE.
10. THE INTENT IS TO STRIP AND SALVAGE TOPSOIL FOR POTENTIAL RE-SPREADING ON THE SITE, IF APPROVED BY THE LANDSCAPE ARCHITECT AND/OR SPECIFICATIONS. SIX INCHES OF TOPSOIL – AFTER COMPACTION – SHALL BE RE-SPREAD PRIOR TO SEEDING AND MULCHING. EXCESS TOPSOIL MAY BE REMOVED FROM THE SITE PROVIDING THERE IS ADEQUATE TOPSOIL REMAINING TO PROPERLY FINISH THE SITE AS NOTED ABOVE. THE TOPSOIL STRIPPING, STOCKPILING AND RE-SPREADING SHALL BE DONE IN ACCORDANCE TO, AND NOTED ON, THE APPROVED GRADING PLAN AND SPECIFICATIONS. THE CONTRACTOR SHALL REFER TO THE LANDSCAPE DRAWINGS AND SPECIFICATIONS FOR ANY SPECIAL TOPSOIL OR PLANTING REQUIREMENTS.
11. ALL GRADING OPERATIONS SHALL BE CONDUCTED IN A MANNER TO MINIMIZE THE POTENTIAL FOR SITE EROSION. EROSION CONTROL MEASURES SHALL BE INSTALLED TO PREVENT SEDIMENT FROM RUNNING OFF ONTO ADJACENT PROPERTIES. ANY DAMAGE TO ADJACENT PROPERTIES MUST BE CORRECTED AND RESTORED AS SOON AS PERMISSION IS GRANTED FROM THE ADJACENT PROPERTY OWNER(S).
12. IF CONSTRUCTION OF THE SITE WORK PROCEEDS THROUGH THE WINTER MONTHS, ANY DISTURBED AREAS OUTSIDE THE BUILDING FOOTPRINTS ARE TO BE MINIMALLY STABILIZED PRIOR TO MARCH 1, AS FOLLOWS: AREAS PLANNED TO RECEIVE PAVEMENTS ARE TO HAVE CLASS 5 BASE INSTALLED; ALL OTHER DISTURBED AREAS ARE TO BE SEEDED, STRAW MULCH PLACED, AND DISC-ANCHORED.
13. WINTER MULCHING:
    - 13.A. SNOW MULCHING SHALL BE DEFINED AS MULCH MATERIAL SPREAD OVER THE TOP OF SNOW SO THAT THE MULCH MELTS THROUGH THE SNOW AND STICKS TO THE EXPOSED SOILS.
    - 13.B. FROZEN GROUND MULCHING SHALL BE DEFINED AS MULCH MATERIAL SPREAD OVER FROZEN GROUND. MULCH MATERIALS THAT DO NOT REQUIRE DISC-ANCHORING INTO THE SOIL MAY BE PLACED WITHOUT MODIFICATION. MULCH MATERIALS THAT REQUIRE DISC-ANCHORING MAYBE ANCHORED WITH HYDRAULIC SOIL STABILIZERS OR MAY BE FROZEN TO THE SOIL BY APPLYING WATER, AT A RATE OF 2000 GALLONS PER ACRE, OVER THE MULCH AS A SUBSTITUTION FOR DISC-ANCHORING.
14. THE CONTRACTOR SHALL LIMIT THE DISTURBED AREA AS MUCH AS POSSIBLE.

2019 Rogers Middle School - Chiller Improvements

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Kevin A. Bohl

Kevin A. Bohl
License Number: **52209** Date **01/17/2019**

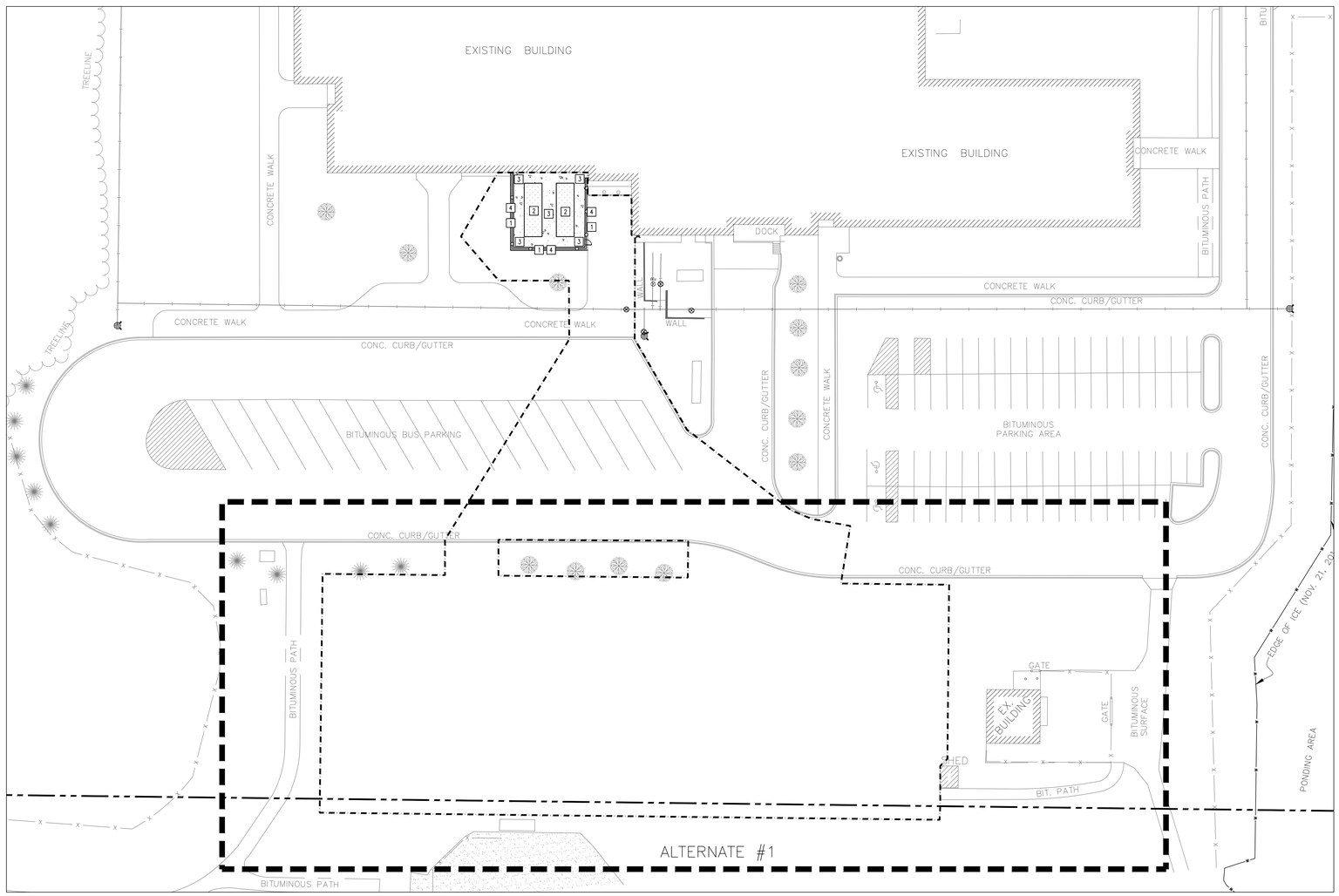
Revisions		
Description	Date	Num

Comm: **19144**
Date: **01/17/2019**
Drawn: **WH**
Check: **NPA**

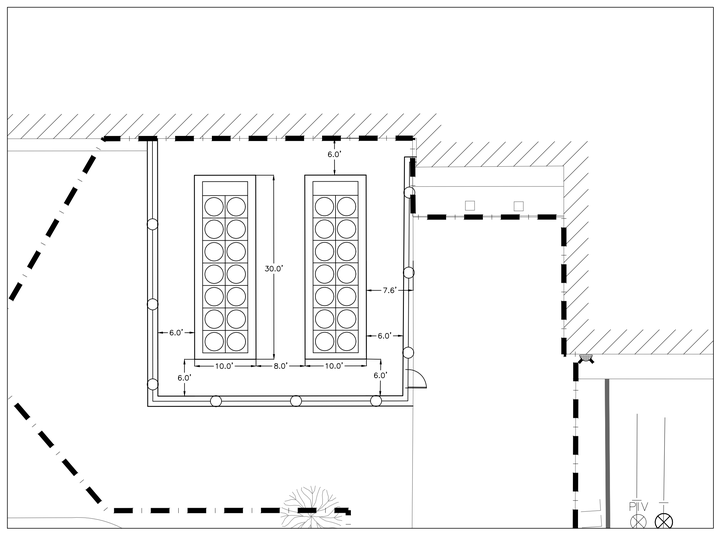
North

GRADING, DRAINAGE, AND EROSION CONTROL PLAN

C200



1 C300 PAVING AND GEOMETRIC PLAN
1" = 30'



2 C300 GEOMETRIC PLAN
1" = 10'

PROPOSED PLAN SYMBOLS	
CONSTRUCTION LIMITS	
PROPERTY LINE	
ALTERNATE #1	
CONCRETE PAD	
CONCRETE SIDEWALK	
CONCRETE EDGER	
FENCE	

ABBREVIATIONS	
BLDG	Building
BM	Bench Mark
CONC	Concrete
ELEV	Elevation
EX	Existing
FFE	Finished Floor Elevation
INV	Invert
MAX	Maximum
MIN	Minimum
MNMUTCD	Minnesota Manual on Uniform Traffic Control Devices

N

30' 15' 0 30' 60'
SCALE 1" = 30'

NOTE:
BACKGROUND INFORMATION IS BASED ON A 2014 SURVEY PREFORMED BY CORNERSTONE LAND SURVEYING. MISCELLANEOUS SITE WORK HAS BEEN PERFORMED THROUGHOUT THE ROGERS MIDDLE SCHOOL SITE SINCE THE 2014 SURVEY WAS COMPLETED.

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UTILITY NOTES:

1. PROTECT ALL EXISTING STRUCTURES AND UTILITIES WHICH ARE NOT SCHEDULED TO BE REMOVED.
2. CONTRACTORS ARE TO COORDINATE ALL WORK WITH GAS, ELECTRIC, TELEVISION AND TELEPHONE COMPANIES PRIOR TO START OF CONSTRUCTION.

KEYED NOTES

KEYED NOTES ARE DENOTED BY [NO] ON PLAN.

[1] SCREEN FENCE. REFER TO LANDSCAPE ARCHITECT'S PLANS.

[2] INSTALL MECHANICAL PAD FOR PROPOSED CHILLER UNIT. COORDINATE WITH MECHANICAL PRIOR TO INSTALLATION FOR ANY SLEEVES REQUIRED FOR UTILITY CONNECTIONS. REFER TO DETAIL 4/C400 FOR PAD CROSS SECTION.

[3] INSTALL CONCRETE WALK. REFER TO DETAIL 6/C400.

[4] INSTALL CONCRETE MAINTENANCE STRIP. REFER TO DETAIL 5/C400.

PAVING NOTES:

1. NO SIDEWALK IS TO HAVE MORE THAN A 2% CROSS SLOPE OR MORE THAN A 5% LONGITUDINAL SLOPE.
2. INSTALL APPROPRIATE EXPANSION MATERIAL WHERE CONCRETE IS ADJACENT TO BUILDING FACE.
3. MATCH NEW SIDEWALK INTO EXISTING SIDEWALK. NO ABRUPT GRADE TRANSITIONS OR PONDING OF WATER WILL BE ALLOWED.
4. SAWCUT EXISTING PAVEMENT AND SIDEWALK TO NEAREST JOINT. COORDINATE REMOVAL LIMITS WITH SITE DEMOLITION CONTRACTOR AND CONSTRUCTION MANAGER.
5. ANY PAVEMENT OR CURB THAT IS DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPAIRED TO THE SATISFACTION OF OWNER AT NO ADDITIONAL COST TO THE OWNER.

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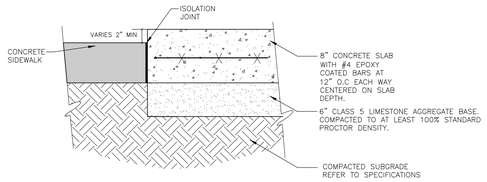
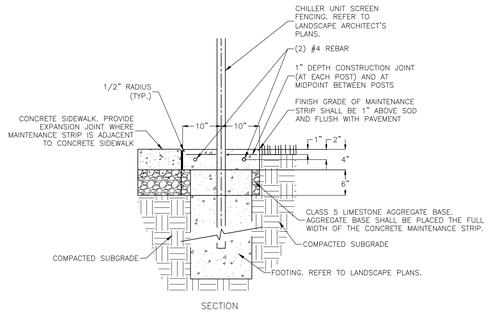
North

PAVING AND GEOMETRIC PLAN

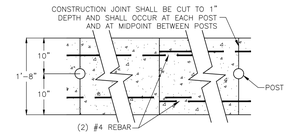
C300



4 C400 MECHANICAL SLABS
NOT TO SCALE

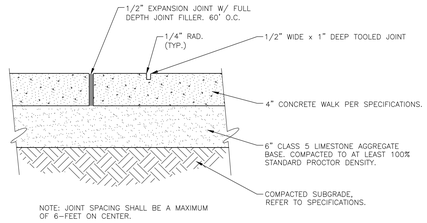


SECTION



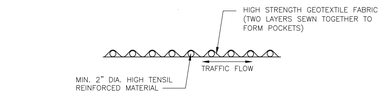
NOTE: PROVIDE 6" MINIMUM CLASS 5 LIMESTONE AGGREGATE BASE BENEATH CONCRETE MAINTENANCE STRIP.

5 C400 CONCRETE MAINTENANCE STRIP
NOT TO SCALE

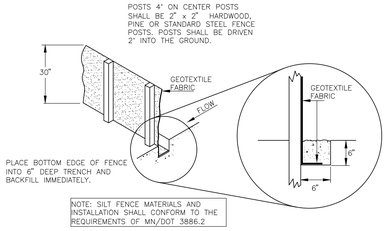


NOTE: JOINT SPACING SHALL BE A MAXIMUM OF 6-FEET ON CENTER.

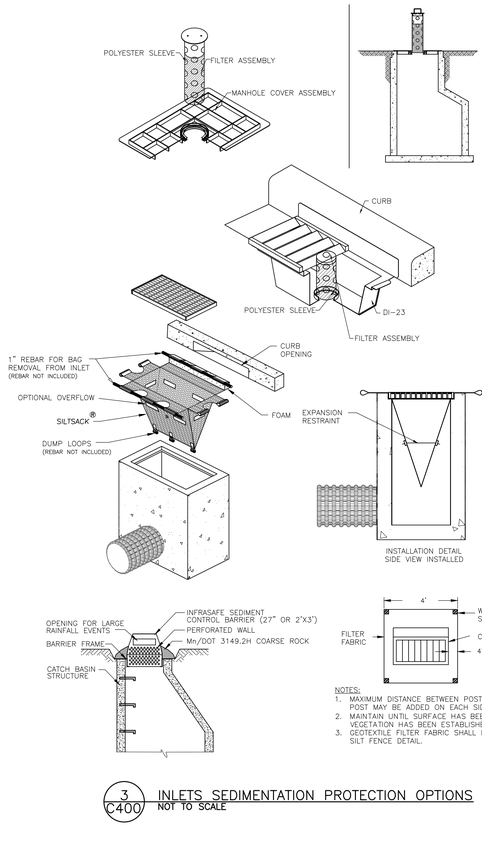
6 C400 CONCRETE SIDEWALK CONSTRUCTION (TYP.)
NOT TO SCALE



1 C400 SHEET PAD CONSTRUCTION ENTRANCE
NOT TO SCALE



2 C400 SILTATION FENCE
NOT TO SCALE



NOTES:
1. MAXIMUM DISTANCE BETWEEN POSTS IS 4'. AN EXTRA POST MAY BE ADDED ON EACH SIDE.
2. MAINTAIN UNTIL SURFACE HAS BEEN PAVED AND/OR VEGETATION HAS BEEN ESTABLISHED.
3. GEOTEXTILE FILTER FABRIC SHALL BE INSTALLED PER SILT FENCE DETAIL.

3 C400 INLETS SEDIMENTATION PROTECTION OPTIONS
NOT TO SCALE

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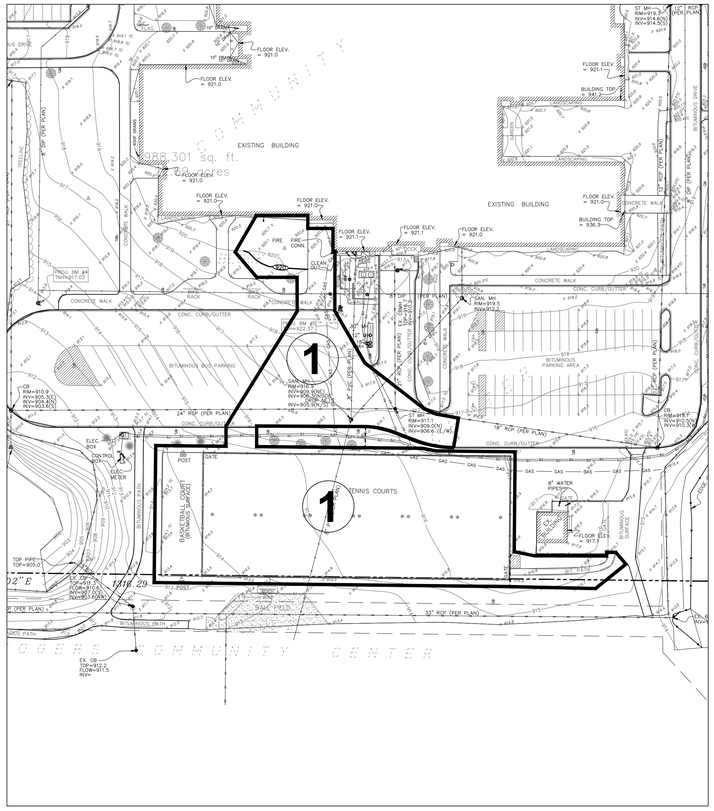
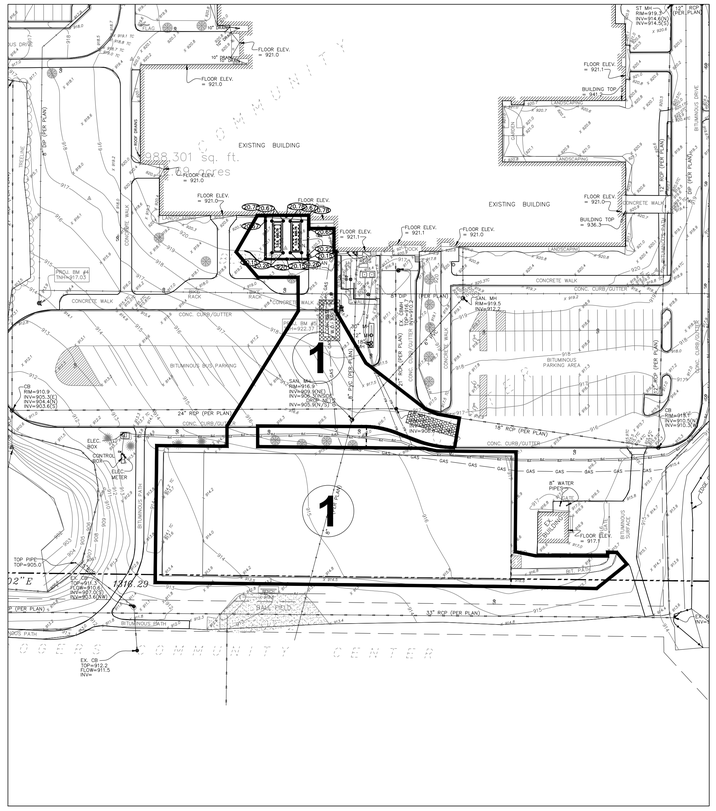
CIVIL DETAILS

C400



1 C500 EXISTING CONDITIONS
1"=60'

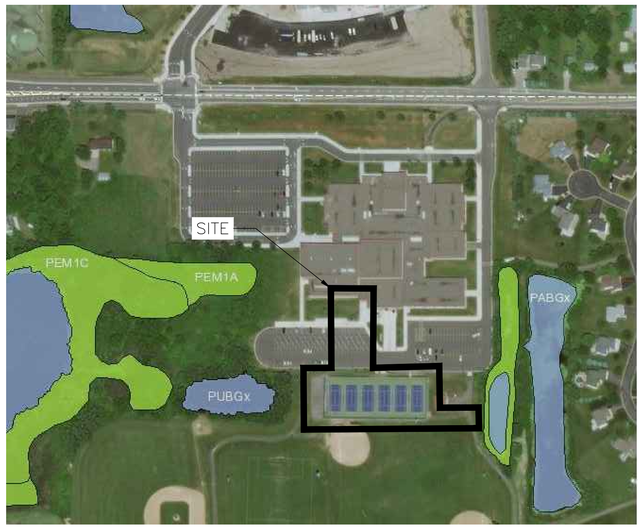


2 C500 PROPOSED CONDITIONS
1"=60'

EXISTING DRAINAGE AREAS							
DRAINAGE AREA	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)	TOTAL AREA (ACRES)	Q OUT (CFS) STORM EVENT			
				2-YEAR (2.86")	10-YEAR (4.26")	100-YEAR (7.11")	ROUTING
1	1.33	0.30	1.63	5.66	8.72	14.28	SHEET FLOW WEST
TOTAL	1.33	0.30	1.63	5.66	8.72	14.28	

PROPOSED DRAINAGE AREAS							
DRAINAGE AREA	IMPERVIOUS AREA (ACRES)	PERVIOUS AREA (ACRES)	TOTAL AREA (ACRES)	Q OUT (CFS) STORM EVENT			
				2-YEAR (2.86")	10-YEAR (4.26")	100-YEAR (7.11")	ROUTING
1	0.43	1.21	1.64	2.00	4.25	9.37	SHEET FLOW WEST
TOTAL	0.43	1.21	1.64	2.00	4.25	9.37	

STORMWATER RUNOFF SUMMARY			
	2-YR STORM (2.86") RUNOFF (CFS)	10-YR STORM (4.26") RUNOFF (CFS)	100-YR STORM (7.11") RUNOFF (CFS)
EXISTING SITE	5.66	8.72	14.28
PROPOSED SITE	2.00	4.25	9.37



VICINITY MAP
ROGERS, MN

ABBREVIATIONS	
BLDG	Building
BMP	Best Management Practice
BW	Bottom of Wall
CB	Catch Basin
CONC	Concrete
ELEV	Elevation
EX	Existing
FFE	Finished Floor Elevation
HWL	High Water Level
INV	Invert
MAX	Maximum
MH	Manhole
MIN	Minimum
MPCA	Minnesota Pollution Control Agency
NPDES	National Pollutant Discharge Elimination System
NWL	Normal Water Level
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
TW	Top of Wall
W.O.	Washout

N

60' 30' 0 60' 120'
SCALE 1" =60'

NOTE:
THE STORM WATER POLLUTION PREVENTION PLAN FOR THIS PROJECT INCLUDES THE CIVIL ENGINEERING PLANS AND THE PROJECT MANUAL.

CONTRACTOR TO SUPPLY CONSTRUCTION PHASING NARRATIVE, ESTIMATED PRELIMINARY QUANTITIES OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S ANTICIPATING AT THE START OF THE PROJECT AND FOR THE LIFE OF THE PROJECT, AND LOCATION OF AREAS WHERE CONSTRUCTION WILL BE PHASED TO MINIMIZE DURATION OF EXPOSED SOIL AREAS. CONTRACTOR IS TO REVIEW MINNESOTA POLLUTION CONTROL AGENCY'S INSTRUCTIONS FOR THE APPLICATION FOR MINNESOTA'S NPDES/SDS GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY PRIOR TO SUBMITTING APPLICATION.

INSPECTIONS
EXPOSED SOIL AREAS: ONCE EVERY 7 DAYS AND WITHIN 24 HOURS FOLLOWING A 1/2 INCH OVER 24 HOURS RAIN EVENT.

STABILIZED AREAS: ONCE EVERY 30 DAYS.

FROZEN GROUND: AS SOON AS RUNOFF OCCURS OR PRIOR TO RESUMING CONSTRUCTION.

RECORDS: A COPY OF THE GRADING, DRAINAGE EROSION CONTROL PLAN AND WATERSHED DATA & SWPPP PLANS AS WELL AS THE INSPECTIONS/MAINTENANCE LOGS ARE TO BE KEPT EITHER IN THE FIELD OFFICE, INSPECTOR'S VEHICLE OR CONTRACTOR'S VEHICLE.

FINAL STABILIZATION
STABILIZATION BY UNIFORM PERENNIAL VEGETATIVE COVER (70% DENSITY)

DRAINAGE DITCHES STABILIZED.

ALL TEMPORARY SYNTHETIC AND STRUCTURAL BMP'S REMOVED.

CLEAN OUT SEDIMENT FROM CONVEYANCES AND SEDIMENTATION BASINS (RETURN TO DESIGN CAPACITY).

GRADING & SOILS
BASED ON SOIL INFORMATION FROM USDA WEB SOIL SURVEY SOILS TYPICALLY FOUND ON THIS PROJECT ARE: SP, SM, ML

SPECIAL AND IMPAIRED WATERS
THESE SPECIAL AND IMPAIRED WATERS ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE. DUE TO THE PROXIMITY OF THESE SPECIAL AND IMPAIRED WATERS, THE BMPS DESCRIBED IN APPENDIX A OF THE NPDES PERMIT WILL APPLY TO ALL AREAS OF THE SITE.

WATERBODY	IMPAIRMENT(S)
NONE	N/A

MINIMUM ESTIMATED QUANTITIES FOR EROSION CONTROL		
ITEM DESCRIPTION	ESTIMATED QUANTITY	
DRAINAGE STRUCT. INLET FILTER	5	EACH
STABILIZED CONSTRUCTION ENTRANCE	1	EACH
CONCRETE WASHOUT	1	EACH
SILT FENCE	728	LF

NOTE: QUANTITIES SHOWN ARE THE MINIMUM REQUIRED, ADDITIONAL QUANTITIES MAY BE NEEDED IF REQUIRED BY THE MPCA, WATERSHED DISTRICT, OR CITY. CONTRACTOR IS RESPONSIBLE FOR FINAL DETERMINATION OF QUANTITIES PRIOR TO CONSTRUCTION.

MECHANICAL AND NON STORMWATER DISCHARGES, EXISTING AND PROPOSED

1. WATER LINE FLUSHING
2. LANDSCAPE IRRIGATION
3. UNCONTAMINATED PUMPED GROUND WATER
4. DISCHARGE FROM POTABLE WATER SOURCES
5. FOUNDATION DRAINS
6. AIR CONDITIONING CONDENSATION

AGENCY CONTACTS

CITY OF ROGERS
ENGINEERING DEPARTMENT
PHONE: (763) 428-8580

MINNESOTA POLLUTION CONTROL AGENCY
PHONE: (651) 296-6300

ELM CREEK WATERSHED MANAGEMENT COMMISSION
3235 FERNBROOK LANE
PLYMOUTH, MN 55447
PHONE: (763) 553-1144

INDEPENDENT SCHOOL DISTRICT 728
11500 193RD AVENUE NW
ELK RIVER, MN 55330
PHONE: (763) 241-3400

PROJECT NARRATIVE
THE EXISTING SITE IS 22.69 ACRES. THERE IS AN EXISTING SCHOOL BUILDING, PARKING AREAS, SIDEWALKS, TENNIS COURTS, AND ATHLETIC FIELDS. THE DISTURBED AREAS SHEET FLOW WEST TO A WET SEDIMENTATION POND.

PROPOSE SITE DESCRIPTION -- NEW IMPERVIOUS SURFACES, STORM WATER CONVEYANCES, METHODS OF TREATMENT IN GENERAL. PROPOSED SITE IMPROVEMENTS INCLUDE A CHILLER UNIT ADJACENT TO THE EXISTING SCHOOL BUILDING. THE EXISTING TENNIS COURT WILL BE REMOVED AND REPLACED WITH SOD. THE APPROXIMATE DISTURBED AREA IS 1.29 ACRES. STORMWATER RUNOFF WILL CONTINUE TO SHEET FLOW WEST TO THE WET SEDIMENTATION POND.

CONSTRUCTION ACTIVITY EROSION PREVENTION PRACTICES
CONTRACTOR SHALL STABILIZE ALL EXPOSED SOIL AREAS (INCLUDING STOCKPILES). STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

FOR PUBLIC WATER THAT THE DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES, ALL EXPOSED SOIL AREAS THAT ARE WITHIN 200 FEET OF THE WATER'S EDGE, AND DRAIN TO THESE WATERS MUST COMPLETE THE STABILIZATION ACTIVES WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.

PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24-HOURS AFTER CONNECTION TO A SURFACE WATER.

SEDIMENT CONTROL MEASURES MUST BE INSTALLED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN.

SEDIMENT AND EROSION CONTROL MAINTENANCE
PERIMETER SEDIMENT CONTROL PRACTICES: WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE BMP, THE SEDIMENT MUST BE REMOVED WITHIN 24 HOURS. IF PERIMETER SEDIMENT CONTROL HAS BEEN DAMAGED OR IS NOT FUNCTIONING PROPERLY, IT MUST BE REPAIRED AND/OR REPLACED WITHIN 24 HOURS. PERIMETER BMP MEASURES MAY INCLUDE SILT FENCING.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS: ALL TRACKED SEDIMENT ONTO PAVED SURFACES MUST BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR MORE FREQUENTLY IF REQUIRED BY CITY OR WATERSHED.

CONSTRUCTION SITE DEWATERING:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL DEWATERING PERMITS. DISCHARGE FROM ALL DEWATERING OPERATIONS SHALL BE DIRECTED TO ON-SITE DEPRESSIONS. NO DISCHARGE FROM DEWATERING OPERATIONS SHALL BE DIRECTED OFF-SITE TOWARDS A WATER OF THE STATE.

PORTABLE TOILET NOTES:
1. PORTABLE TOILETS POSE AN ENVIRONMENTAL HAZARD WHEN PLACED IN THE VICINITY OF STORM DRAINS OR BODIES OF WATER. PORTABLE TOILET CLEANING ACTIVITIES CAN ALSO GENERATE POLLUTANTS THAT CAN DEGRADE WATER QUALITY.
2. PORTABLE TOILET PLACEMENT:
   - 2.1. PLACE PORTABLE TOILETS ON FLAT STABLE GROUND WITH CLEAR ACCESS TO THE UNITS.
   - 2.2. LOCATE TOILETS A MINIMUM OF 20 FEET FROM ANY WATER BODY AND 10 FEET FROM ANY CURB AND GUTTER. IF UNFEASIBLE, AN EARTHERN BERM OR SAND BAG BERM SHALL BE PLACED AROUND THE UNIT FOR SPILL AND LEAK CONTAINMENT.
   - 2.3. AVOID PLACING TOILETS ON IMPERVIOUS SURFACES THAT WILL QUICKLY DRAIN TO STORM SEWERS.
   - 2.4. LOCATE TOILETS SO THAT EXPOSURE TO TRAFFIC AND MOVING EQUIPMENT IS MINIMIZED.
   - 2.5. SECURE TOILETS TO THE GROUND WITH STAKES OR CABLES.
   - 2.6. RINSE WATER FROM CLEANING ACTIVITIES SHALL NOT BE DISPOSED ON SITE.
3. REGULARLY CHECK TOILETS FOR DAMAGE, LEAKS AND SPILLS AS PART OF THE WEEKLY STORMWATER SITE INSPECTION.
4. OWNER IDENTIFICATION AND CONTACT INFORMATION SHALL BE DISPLAYED IN A PROMINENT LOCATION ON EACH UNIT.

NOTE:
THE CONTRACTOR MUST COMPLETE, SIGN, OBTAIN OWNERS SIGNATURE, PAY FEE, AND SEND IN THE NPDES PERMIT APPLICATION. CONTRACTOR SHALL PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR. SWPPP DOCUMENTATION, INCLUDING INSPECTION REPORTS SHALL BE RETAINED FOR A PERIOD OF THREE (3) YEARS. DESIGN CALCULATIONS ARE ON FILE AT BKBM.

THE OWNER AND CONTRACTOR ARE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS, BEFORE, DURING, AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION HAS BEEN FILED.

STOCKPILES:
ON-SITE STOCKPILES OF SOIL SHALL HAVE PERIMETER SEDIMENT CONTROL. STOCKPILES SHALL BE STABILIZED WITH BLANKETS, TARPS, OR HYDRO MULCH IF LEFT ON-SITE FOR MORE THAN 14 DAYS.

OTHER NOTES:
1. THIS SWPPP WAS PREPARED BY PERSONNEL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPPS. COPIES OF THE CERTIFICATIONS ARE ON FILE WITH BKBM AND ARE AVAILABLE UPON REQUEST.
2. THIS SWPPP DOCUMENT MUST BE AMENDED AS NECESSARY DURING CONSTRUCTION IN ORDER TO KEEP IT CURRENT WITH THE POLLUTANT CONTROL MEASURES UTILIZED AS THE SITE. THE SITE MAP SHOWING LOCATIONS OF ALL STORM WATER CONTROLS MUST BE POSTED ON THE SITE AND UPDATED TO REFLECT THE PROGRESS OF CONSTRUCTION.

POLLUTION PREVENTION MANAGEMENT MEASURES
SOLID WASTE DISPOSED PROPERLY; COMPLY WITH MPCA REQUIREMENTS.

HAZARDOUS WASTE STORED (SECONDARY CONTAINMENT, RESTRICTED ACCESS) AND DISPOSED IN COMPLIANCE WITH MPCA REQUIREMENTS.

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED.

NO ENGINE DEGREASING ALLOWED ON-SITE.

CONCRETE WASHOUT ON-SITE: ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER THAT DOES NOT ALLOW LIQUIDS TO ENTER GROUND WATER IS CONSIDERED AN IMPERMEABLE LINER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. THE CONCRETE WASHOUT AREA INDICATED ON THE PLANS IS SHOWN IN AN APPROXIMATE LOCATION. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION IN ACCORDANCE WITH MPCA REQUIREMENTS.

HANDLING AND STORAGE OF HAZARDOUS MATERIALS:
IF THE CONTRACTOR INTENDS TO USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS ON THE PROJECT SITE, THE CONTRACTOR MUST COMPLY WITH THE FOLLOWING MINIMUM REQUIREMENTS:

1. THE CONTRACTOR MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION TO ENSURE EFFECTIVE TREATMENT. CHEMICALS MAY ONLY BE APPLIED WHERE TREATED STORMWATER IS DIRECTED TO A SEDIMENT CONTROL SYSTEM WHICH ALLOWS FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.
2. CHEMICALS MUST BE SELECTED THAT ARE APPROPRIATELY SUITED TO THE TYPES OF SOILS LIKELY TO BE EXPOSED DURING CONSTRUCTION, AND TO THE EXPECTED TURBIDITY, PH AND FLOW RATE OF STORMWATER FLOWING INTO THE CHEMICAL TREATMENT SYSTEM OR AREA.
3. CHEMICALS MUST BE USED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, AND WITH DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR PROVIDER/SUPPLIER OF THE APPLICABLE CHEMICALS.

ON-SITE FUEL TANKS REQUIRE SECONDARY CONTAINMENT AS REQUIRED BY THE PERMIT. PORTABLE FUEL TRUCKS SHALL HAVE THEIR SPILL KITS AVAILABLE DURING FUELING. SPILLS GREATER THAN 5 GALLONS MUST BE REPORTED TO THE PROPER AUTHORITIES.

TEMPORARY SEDIMENT BASINS:
TEMPORARY SEDIMENT BASINS SHALL BE PROVIDED PER APPENDIX A, SECTION C.1.B OF THE MPCA GENERAL STORMWATER PERMIT.

ENGINEER ANTICIPATES THAT, PRIOR TO INSTALLATION OF FILTRATION MEDIA AND DRAIN TILE, CONTRACTOR WILL USE PROPOSED FILTRATION BASINS AS TEMPORARY SEDIMENT BASINS. CONTRACTOR SHALL EXCAVATE TEMPORARY BASINS AND CLAY LINE PRIOR TO USE. SURFACE WATER SHALL BE REMOVED BY SKIMMER DEVICE SUCH AS FAIRCLOTH SKIMMER OR THIRST DUCK, OR USING A PUMP WITH A FILTER. ALTERNATIVE TEMPORARY SEDIMENT BASINS SHALL BE APPROVED BY ENGINEER PRIOR TO USE.

SWPPP IMPLEMENTATION, INSTALLATION, INSPECTION, AND BMP MAINTENANCE SHALL BE PERFORMED BY THE CONTRACTOR.

NAME: _____

CERTIFICATION #:_____

DATE: _____

2019 Rogers Middle School - Chiller Improvements
20855 141st Avenue N.
Rogers, MN 55374

Independent School District #728
11500 193rd Ave. NW
Elk River, MN 55330

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BKBM ENGINEERS
6120 Earle Brown Drive, Suite 700
Minneapolis, MN 55430
Phone: (763) 843-0420
Fax: (763) 843-0421
www.bkbm.com

CONSTRUCTION DOCUMENTS

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.

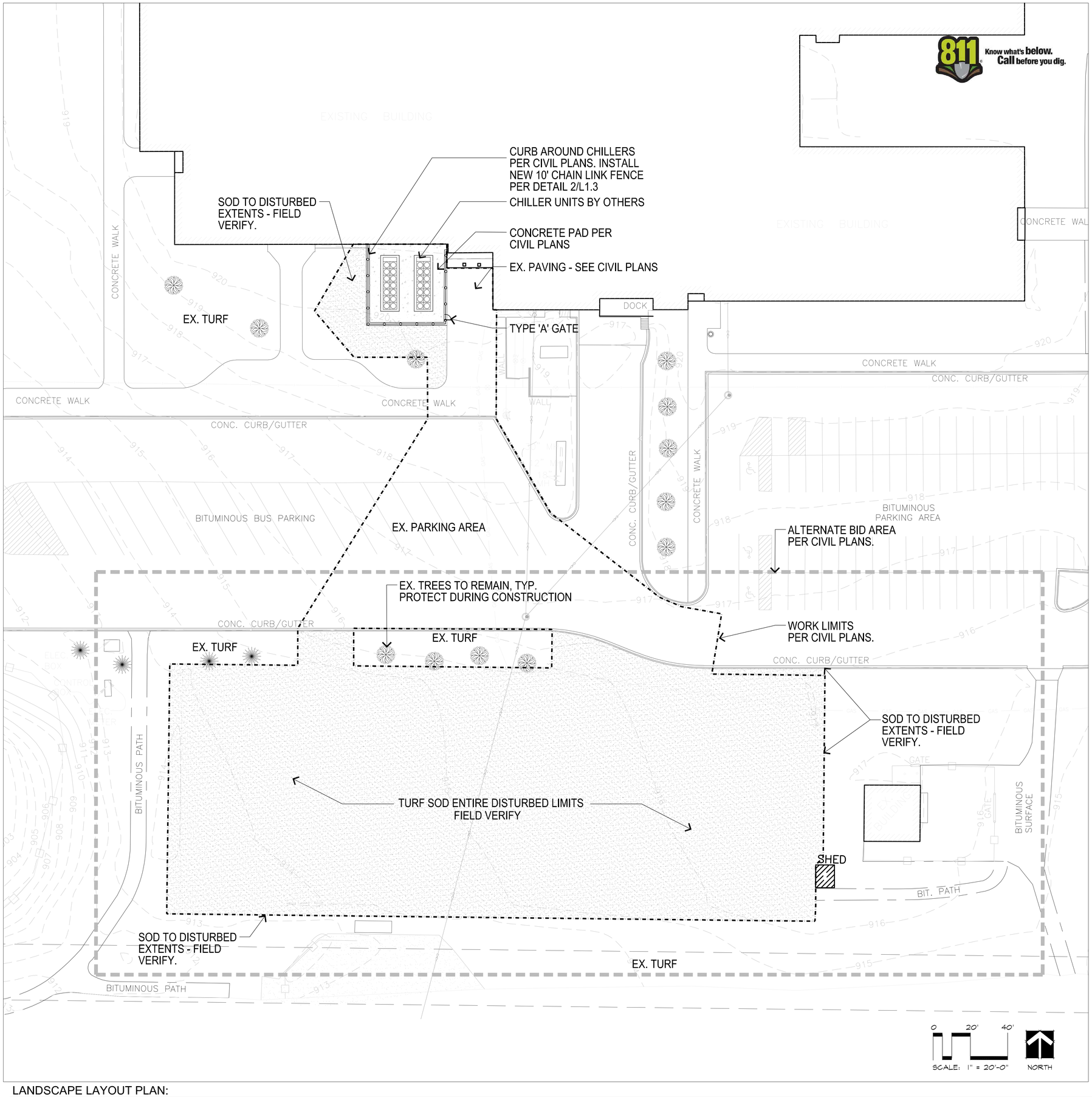
Kevin A. Bohl
Kevin A. Bohl
License Number: **52209** Date **01/17/2019**

Revisions		
Description	Date	Num

Comm: **19144**
Date: **01/17/2019**
Drawn: **WH**
Check: **NPA**
North

STORMWATER POLLUTION PREVENTION PLAN

C500



LANDSCAPE LAYOUT PLAN:

General Notes:

01. Refer to Sheets L3.1 for Details, Notes, and Schedules.
02. See Civil Engineer's plans for site plan layout and dimensions.
03. Protect adjacent landscape areas from damage during construction.
04. Place topsoil or slope dressing on all areas disturbed by construction, including right-of-way boulevards, unless specified otherwise. See specifications.
05. Ensure new sod is placed to match thatch-layer elevation of adjacent, existing sod to remain. All fine grading of turf and seed areas shall be the responsibility of the sod and seed sub-contractor(s), including sub-cut work. Field verify disturbance upon mobilization - actual seed and sod areas may differ from anticipated limits shown on plan.
06. Irrigation: The landscape contractor is required to protect the existing irrigation system outside the work limits during construction. Within the work limits, cap lines and remove & salvage irrigation components for re-use. Submit irrigation plan showing the new heads & pipe connecting to the existing system within the work limits.
07. Colors noted are to be considered custom, unless select vendors have the exact specified school colors as a stock color. The General Contractor is responsible for coordination of sub-contractor(s) color capabilities to meet school and district expectations.

Landscape Ground Cover Legend:

New Turf Sod Areas (Irrigated)

2019 Rogers Middle School Chiller Improvements

20855 141st Avenue N.
Rogers, MN 55374

Independent School District #728
11500 93rd Ave. NW
ELK RIVER, MN 55330

Wold

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Minneapolis, MN 55430
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www.bkbm.com

CALYX DESIGN GROUP
Landscape Architecture
Planning
475 N. Cleveland Avenue | Suite 307
Saint Paul, MN 55104
651.788.9018 | calyxdesigngroup.com

Construction Documents

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 Landscape Architect under the laws of the State of MINNESOTA.

BENJAMIN D. HARTBERG, PLA
Registration No. 48084 Date: 01-17-2019

Revisions		
Description	Date	Num

BKBM# 19144
Date: 1/17/2019
Drawn: MF
Check: BH

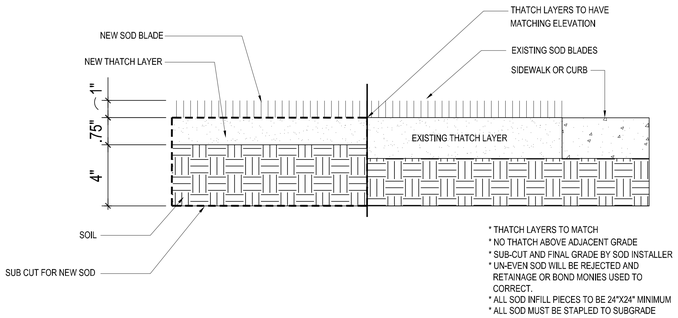
LANDSCAPE LAYOUT PLAN

Sheet #: L3.0

Know what's below. Call before you dig.

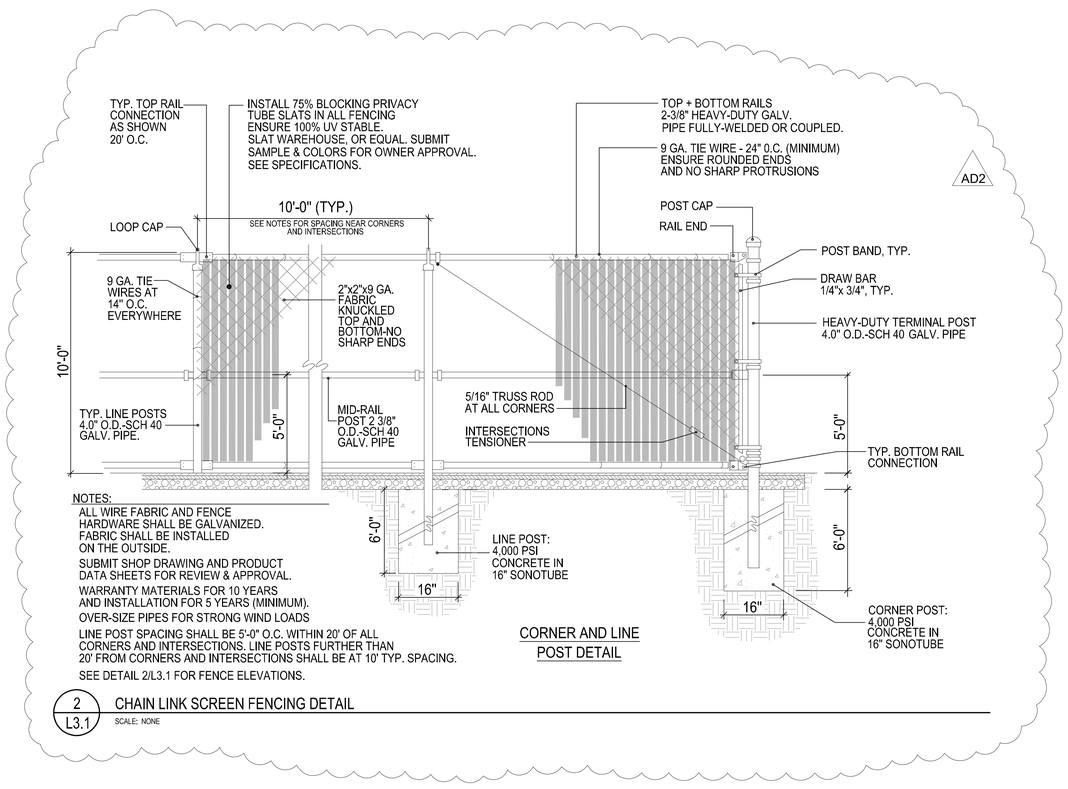
PLANT SCHEDULE

GROUND COVERS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	REMARKS
	PA	Poa pratensis `Admiral`	Kentucky Bluegrass	sod		50,461 sf	



1 / L3.1 SECTION - NEW TURF SOD AGAINST EXISTING

NOT TO SCALE



2 / L3.1 CHAIN LINK SCREEN FENCING DETAIL

SCALE: NONE

General Notes:

01. Refer to Sheets L3.1 for Details, Notes, and Schedules.
02. See Civil Engineer's plans for site plan layout and dimensions.
03. Protect adjacent landscape areas from damage during construction.
04. Place topsoil or slope dressing on all areas disturbed by construction, including right-of-way boulevards, unless specified otherwise. See specifications.
05. Ensure new sod is placed to match thatch-layer elevation of adjacent, existing sod to remain. All fine grading of turf and seed areas shall be the responsibility of the sod and seed sub-contractor(s), including sub-cut work. Field verify disturbance upon mobilization - actual seed and sod areas may differ from anticipated limits shown on plan.
06. Irrigation: The landscape contractor is required to protect the existing irrigation system outside the work limits during construction. Within the work limits, cap lines and remove & salvage irrigation components for re-use. Submit irrigation plan showing the new heads & pipe connecting to the existing system within the work limits.
07. The General Contractor is responsible for coordination of sub-contractor color capabilities to meet school and district expectations. Refer to Specifications.

Fence Gate Schedule:

GATE TYPE 'A': STANDARD 6'-0" WIDE SWING GATE PANEL, LOCKABLE COLLAR, WITH PRIVACY STATS & ADJUSTABLE TENSION BAR.

NOTE: SUBMIT SHOP DRAWINGS FOR ALL GATES, FENCING, AND PRIVACY SLAT SYSTEM.

Landscape Notes:

1. Refer to civil plan sheets for grading, drainage, site dimensions, survey, tree removal, proposed utilities & erosion control.

2. All plant material shall comply with the latest edition of the American Standard for Nursery Stock, American Association of Nurserymen. Unless noted otherwise, deciduous shrubs shall have at least 5 canes at the specified shrub height. Plant material shall be delivered as specified.

3. Plan takes precedence over plant schedule if discrepancies in quantities exist.

4. The project landscape contractor shall be held responsible for watering and properly handling all plant materials brought on the site both before and after installation. Schedule plant deliveries to coincide with expected installation time within 36 hours.

5. All plant materials (including turf) shall be fertilized upon installation as specified.

6. The landscape contractor shall provide the owner with a watering schedule appropriate to the project site conditions and to plant material growth requirements.

7. If the landscape contractor is concerned or perceives any deficiencies in the plant selections, soil conditions, drainage or any other site condition that might negatively affect plant establishment, survival or guarantee, they must bring these deficiencies to the attention of the landscape architect & client prior to bid submission.

8. Contractor shall establish to his/ her satisfaction that soil and compaction conditions are adequate to allow for proper drainage at and around the building site.

9. Contractor is responsible for ongoing maintenance of all newly installed material until time of owner acceptance. Any acts of vandalism or damage which may occur prior to owner acceptance shall be the responsibility of the contractor. Contractor shall provide the owner with a maintenance program including, but not limited to, pruning, fertilization and disease/pest control.

10. The contractor shall guarantee newly planted material through TWO calendar years from the date of written owner acceptance. Plants that exhibit more than 10% die-back damage shall be replaced at no additional cost to the owner. The contractor shall also provide adequate tree wrap and deer/rodent protection measures for the plantings during the warranty period.

11. This layout plan constitutes our understanding of the landscape requirements listed in the ordinance. Changes and modifications may be requested by the city based on applicant information, public input, council decisions, etc.

12. The landscape contractor shall be responsible for obtaining any permits and coordinating inspections as required throughout the work process.

13. Replacement and repairs requested by the Owner during the warranty period must be made within 14 business days of the request.

14. Landscape Contractor is responsible for coordination with the General Contractor, to protect the new improvements on and off-site during landscape work activities. Report any damage to the General Contractor immediately.

15. Irrigation: the landscape contractor is responsible for the function and protection of the existing irrigation system outside the proposed work limits, during construction. Landscape contractor to adjust head spray and zone run times as necessary to ensure turf and plants within and outside the work limits, remain irrigated. Include the cost of temporary on-grade piping, if necessary. Remove and salvage existing irrigation equipment (heads, valves, boxes, as reasonable), within construction limits for re-use ahead of excavation work and remove any irrigation pipe from the work area(s), including under new pavement. Sleeve under new paving as necessary to irrigate areas now isolated from the original system. Clearly mark underground piping and coordinate line & stub locations with General Contractor. Provide a new layout that irrigates all new landscape areas and connects to the existing system.

16. All sod areas shall be prepared prior to planting with a harley power box rake or equal to provide a firm planting bed free of stones, sticks, construction debris, etc. Any alternate seed mixtures, rates, & application method noted shall be submitted to the landscape architect for approval.

17. The Landscape Contractor shall furnish samples of all landscape materials for approval prior to installation.

18. The Landscape Contractor shall clear and grub underbrush from within the work limits to remove dead branches, leaves, trash, weeds and foreign materials. Remove trees where noted on the civil plan, including the stump to 30" below grade.

19. The landscape contractor shall contact Gopher State One Call no less than 48 hours before digging for field utility locations.

20. The landscape contractor shall be responsible for the removal of erosion control measures once vegetation has been established to the satisfaction of the municipal staff. This includes silt curtain fencing and sediment logs placed in the landscape.

21. The landscape contractor shall be responsible for visiting the site to become familiar with the conditions prior to bidding and installation. Coordinate with the general contractors on matters such as fine grading, landscaped area conditions, staging areas, irrigation connection to building, etc.

22. Landscape contractor shall be responsible for finished or 'fine' grading of topsoil. It shall be the landscape contractor's responsibility to coordinate topsoil fill work with the earthwork sub-contractor. See specifications for topsoil depth requirements, composition, pH, and fertilization requirements.

23. Refer to civil engineer's plans for removal and salvage requirements for the existing tennis courts fence, to be re-installed around the new chiller units.

AD2

LANDSCAPE DETAILS, NOTES, AND SCHEDULES:

2019 Rogers Middle School Chiller Improvements

20855 141st Avenue N.
Rogers, MN 55374

Independent School District #728
11500 93rd Ave. NW
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651.788.9018 | calyxdesigngroup.com

Construction Documents

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 Landscape Architect under the laws of the State of MINNESOTA.

BENJAMIN D. HARTBERG, PLA
Registration No. 48084 Date: 01-17-2019

Revisions		
Description	Date	Num
Addendum #1	01-25-2019	1
Addendum #2	01-30-2019	2

BKBM# 19144
Date: 1/17/2019
Drawn: MF
Check: BH

LANDSCAPE DETAILS

Sheet #: L3.1

Meeting Date: March 19, 2019

REQUEST FOR ACTION
ROGERS PLANNING COMMISSION

Agenda Item: No. 7.1

Subject: Clarification from January 15, 2019 Planning Commission Meeting- Commission Offices

Prepared By: Amy Patnode

Overview / Background

Looking for Planning Commission clarification for the Vice-President nomination from the January Planning Commission meeting. Kevin Jullie made the motion, and Mark Kraemer seconded the motion for Brian to be vice chair (Brian Binkley or Drew Bryan).

Staff Recommendation