

### CITY COUNCIL AGENDA MONDAY, APRIL 15, 2019 7:00 P.M.

- 1. CALL TO ORDER
- 2. ROLL CALL
- 3. PLEDGE OF ALLEGIANCE
- 4. ADDITIONS OR CORRECTIONS TO AGENDA
- 5. DISCUSSION FROM THE FLOOR
- 6. CONSENT AGENDA:
  - A. Approval of Minutes April 1, 2019
  - B. Disbursements
    - 1. General Operations Disbursement Claim No. 19-05 \$571,605.57
  - C. Accept Proposal for Testing Sediment at Garfield Pond
  - D. Resolution 19-07 Opting In To The Anoka County "Urban County" Entitlement
  - E. Sign Permits
  - F. Contractor's Licenses
- 7. POLICE REPORT
- 8. PARKS AND RECREATION REPORT
- 9. ORDINANCES AND/OR RESOLUTIONS
  - A. Resolution 19-06 Conditionally Granting Site Plan Approval For Stadium and Turf Improvements at 1100 81<sup>st</sup> Avenue NE
- 10. NEW BUSINESS
  - A. Adopt Small Wireless Facility Aesthetic Standards
  - B. Local Surface Water Management Plan Update
- 11. ENGINEER'S REPORT
- 12. ATTORNEY'S REPORT
- 13. REPORTS
  - A. Administrator Reports
- 14. OTHER
  - A. 525 Osborne Road Marketing Flyer
- 15. ADJOURN

### SEE REVERSE SIDE FOR RULES FOR PUBLIC HEARING AND DISCUSSION FROM THE FLOOR

### RULES FOR DISCUSSION FROM THE FLOOR AND PUBLIC HEARINGS

### **DISCUSSION FROM THE FLOOR**

- Discussion from the floor is limited to three minutes per person. Longer presentations must be scheduled through the Administrator, Clerk/Treasurer's office.
- Individuals wishing to be heard must sign in with their name and address. Meetings are video recorded so individuals must approach the podium and speak clearly into the microphone.
- Council action or discussion should not be expected during "Discussion from the Floor." Council may direct staff to research the matter further or take the matter under advisement for action at the next regularly scheduled meeting.

### PUBLIC HEARINGS

The purpose of a public hearing is to allow the City Council to receive citizen input on a proposed project. This is not a time to debate the issue.

The following format will be used to conduct the hearing:

- The presenter will have a maximum of 10 minutes to explain the project as proposed.
- Councilmembers will have the opportunity to ask questions or comment on the proposal.
- Citizens will then have an opportunity to ask questions and/or comment on the project. Those wishing the comment are asked to limit their comments to 3 minutes. In cases where there is a spokesperson representing a group wishing to have their collective opinions voiced, the spokesperson should identify the audience group he/she is representing and may have a maximum of 10 minutes to express the views of the group.
- People wishing to comment are asked to keep their comments succinct and specific.
- Following public input, Councilmembers will have a second opportunity to ask questions of the presenter and/or citizens.
- After everyone wishing to address the subject of the hearing has done so, the Mayor will close the public hearing.
- The City Council may choose to take official action on the proposal or defer action until the next regularly scheduled Council meeting. No further public input will be received at that time.

Pursuant to due call and notice thereof, the regularly scheduled meeting of the Spring Lake Park City Council was held on April 1, 2019 at the Spring Lake Park Community Center, 1301 81st Avenue N.E., at 7:00 P.M.

### 1. Call to Order

Mayor Hansen called the meeting to order at 7:00 P.M.

### 2. Roll Call

Members Present:	Councilmembers Wendling, Delfs, Goodboe-Bisschoff and Mayor Hansen
Members Absent:	Councilmember Nelson
Staff Present:	Police Chief Ebeltoft; Public Works Director Randall; Attorney Thames; Parks and Recreation Director Rygwall; Administrator Buchholtz and Executive Assistant Gooden
Visitors:	Christine Jones, 8081 Garfield Street NE Ron Geir, 8081 Garfield Street NE

### 3. Pledge of Allegiance

### 4. Additions or Corrections to Agenda

Administrator Buchholtz requested that a price quote from Alpha Video for replacement of HDMI distribution equipment in the Council chambers be added as Item 6F.

### 5. Discussion From The Floor

Ms. Jones, 8081 Garfield Street NE, inquired on the Garfield Pond project. She was inquiring as to when work the project would begin and what the timeline looks like for completion. She is concerned with the impact the project will have on the neighboring properties and what work will be completed this year. She expressed that it would be a good idea if the project was done in the current year, as flooding of the properties tends to occur twice a year.

Administrator Buchholtz explained that the project will assist with flood control. He stated that some of the work will include drudging the pond of sediment. He reported that there are no plans or design for the project at this time. He stated that there will be an open house regarding the work to be done on the project and will allow the residents to offer their input. He stated that there is no construction date scheduled for project to begin.

### 6. Consent Agenda:

Mayor Hansen reviewed the following Consent Agenda items:

- A. Approval of Minutes March 18, 2019
- B. Approval of Exempt Off-Site Gambling Application Spring Lake Park Lions Tower Days June 9, 2019 Lakeside Park
- C. Sign Permit

- D. Contractor's Licenses
- E. Correspondence
- F. Approval of Price Quote Alpha Video

# MOTION BY COUNCILMEMBER DELFS TO APPROVE THE CONSENT AGENDA. ROLL CALL VOTE: ALL AYES. MOTION CARRIED.

### 7. Public Works Report

Public Works Director Randall reported that the Public Works Department has been patching potholes and cutting trees along 83<sup>rd</sup> Avenue and Monroe Street as well as in Sanburnol Park. He reported that fire hydrant flushing will begin on April 15, 2019 and will take approximately two weeks to complete. He reported that street sweeping will begin on April 15, 2019 and should be completed within 48 hours.

Mr. Randall reported that Well No. 5 will be up and running on April 2, 2019. He stated that all the work is completed. He reported that a new sewer liner was installed along Arthur Street where the existing liner had failed. He stated that the new liner is holding and working well.

Councilmember Goodboe-Bisschoff inquired if the trees on Maple Street could be trimmed. Mr. Randall stated that he was aware of the trees in need of trimming however; they are in the power lines so he has contacted Xcel Energy for their contractor to trim the trees.

Councilmember Wendling inquired if a traffic count could be conducted on  $81^{st}$  Avenue. Mr. Randall stated that a count can be done after the street sweeping is completed. He stated that the count would be done in three areas of  $81^{st}$  Avenue.

#### 8. Code Enforcement Report

Administrator Buchholtz stated that Building Official Brainard reported that he attended the City Council meetings on March 4 and 18; a Department Head meeting on March 5; the North Suburban Code Official meeting on March 12; an Association of Minnesota Building Offices Director meeting on March 14; a meeting with MNSPECT on March 21 and the North Suburban Building Officials meeting on March 26.

Administrator Buchholtz reported that in March 2019, a total of 13 building permits were issued compared to 13 in 2018. He reported that three mechanical permits were issued compared to 11 in March 2018. He reported that seven plumbing permits were issued compared to eight in 2018. He stated that 98 inspections were conducted within the month of March and a vacancy listing for March 2019 was provided.

Administrator Buchholtz reported that the Hy-Vee main building continues to proceed as the roof bar joist are complete and steel deck is being applied for closure of the structure. He reported that construction on the Public Storage Interior Climate Control building is now proceeding for framing of the second floor.

Administrator Buchholtz reported that Inspector Caldwell's last of employment was March 8, 2019. He reported that Mr. Brainard submitted his last Code Enforcement report for the month of March. Mr. Brainard stated in his report that it was an honor and a pleasure to serve the citizens of Spring Lake Park in the last 19 years of his service with the City.

Administrator Buchholtz provided a "Disaster Response" handout for information to residents. He reported that the handout is intended to inform all the Spring Lake Park property homeowners of what their building

inspection department will be doing at the time of a disaster to help make damaged home and businesses functional again.

#### 9. Ordinances And Resolutions

### A. Ordinance 451 Amending Chapter 150 of the Spring Lake Park City Code Relating to the State Building Code

Administrator Buchholtz reported that the City of Spring Lake Park executed a contract with MNSPECT, LLC to perform building inspection duties within the City of Spring Lake Park.

Administrator Buchholtz stated that as part of the contract, MNSPECT, LLC has received delegation authority from the State of Minnesota to do plumbing plan review. He stated that in order to utilize that delegation, the City must adopt an ordinance amendment that allows the building official to conduct plumbing plan review and inspections. He reported that the ordinance amends Chapter 150 to authorize the plumbing plan review.

Administrator Buchholtz stated that in addition, there are a number of statutory references in a portion of Chapter 150 that are out of date. He stated that the ordinance corrects those statutory references. He stated that the ordinance also adopts the Minnesota Plumbing Plan Review Fee Schedule by reference into the City's fee schedule.

Councilmember Delfs inquired if a future City Building Official will have the authority for plumbing plan review since MNSPECT currently has been granted authority. Administrator Buchholtz stated that plumbing plan review requires a master plumber license so it is more than likely that MNSPECT would continue with the plan review process.

MOTION MADE BY COUNCILMEMBER WENDLING TO APPROVE ORDINANCE 451 AMENDING CHAPTER 150 OF THE SPRING LAKE PARK CITY CODE RELATING TO THE STATE BUILDING CODE. ROLL CALL VOTE: ALL AYES. MOTION CARRIED.

#### B. Ordinance 452 Amending Chapter 119 of the Spring Lake Park City Code Relating to Massage Services

Administrator Buchholtz reported that City staff has drafted a number of amendments to the City's massage therapy ordinance in order to protect the health, safety and welfare of the residents of Spring Lake Park. He stated that these amendments update the standards for massage therapists who practice and massage therapy enterprises who operate in the City of Spring Lake Park.

Administrator Buchholtz reported that the ordinance updates the definitions sections to clarify which programs and institutions are accredited. He stated that there have been some applicants that have had educations from accredited institutions or accredited programs that have been outside the definition of the ordinance. He stated that his change will correct those situations. He reported that in addition, the ordinance amends the definition of massage therapist to address those situation where the therapist had the required 500 hours from a program or institution that was once accredited but is no longer in existence; allowing the City, in its discretion, to accept those hours for the purpose of the license.

Administrator Buchholtz stated that the ordinance requests additional information from the applicants, which will allow law enforcement more information for which to conduct their background check. He stated that the ordinance requires the applicant to submit the results of a comprehensive national criminal background check from a background investigative provider approved by the city, which is to be obtained and paid for by the

applicant. He stated that the ordinance also allows the City and the Police Department to conduct any additional investigations necessary in reviewing the application.

Administrator Buchholtz reported that the ordinance prohibits therapeutic enterprise license from being issued to locations that are out of compliance with the State Building and Fire Codes, as well as City ordinance as well as to enterprises who have hired two therapists whose licenses have been suspended or revoked within any 12-month period.

Councilmember Goodboe-Bisschoff inquired how many current therapists are licensed in the City. Police Chief Ebeltoft reported that there are three businesses with four or five licensed therapists at this time.

Councilmember Goodboe-Bisschoff inquired if there had been any problems with past license applications. Administrator Buchholtz stated that there were a few situations that the licenses were close to be denied but the applicants withdrew before they were brought to the Council for approval.

MOTION MADE BY COUNCILMEMBER WENDLING TO APPROVE ORDINANCE 452 AMENDING CHAPTER 119 OF SPRING LAKE PARK CITY CODE RELATING TO MASSAGE SERVICES. ROLL CALL VOTE: ALL AYES. MOTION CARRIED.

C. Resolution 19-04 Authorizing Summary Publication of Ordinance 451, An Ordinance Amending Chapter 150 of the Spring Lake Park City Code Relating to the State Building Code

MOTION MADE BY MAYOR HANSEN TO APPROVE RESOLUTION 19-04 AUTHORIZING A SUMMARY PUBLICATION OF ORDINANCE 451, AN ORDINANCE AMENDING CHAPTER 150 OF THE SPRING LAKE PARK CITY CODE RELATING TO THE STATE BUILDING CODE. ROLL CALL VOTE: ALL AYES. MOTION CARRIED.

D. Resolution 19-05 Authorizing Summary Publication of Ordinance 452, An Ordinance Amending Chapter 119 of the Spring Lake Park City Code Related to Massage Services

MOTION MADE BY MAYOR HANSEN TO APPROVE RESOLUTION 19-05 AUTHORIZING SUMMARY PUBLICATION OF ORDINANCE 452, AN ORDINANCE AMENDING CHAPTER 119 OF THE SPRING LAKE PARK CITY CODE RELATED TO MASSAGE SERVICES. ROLL CALL VOTE: ALL AYES. MOTION CARRIED.

<u>10. Engineer's Report</u> – None

#### 11. Attorney's Report

Attorney Thames had no new items to report.

12. Reports

#### A. Beyond the Yellow Ribbon Report

Councilmember Wendling reported a very large turnout for the March pork chop dinner.

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### 13. Other

### A. Notice of Cancellation of Purchase Agreement for 525 Osborne Road NE

Administrator Buchholtz reported that in September 2018, the City executed a purchase agreement with Interstate LLC to sell the 525 Osborne Road NE property for development. He stated that the City has received written notice of termination of the purchase agreement, effective March 21, 2019.

Administrator Buchholtz reported that he would submitting the property listing to the Anoka County Economic Development Authority for any interested buyers that inquire on the property. He stated that Request For Proposals could be sent out to potential developers as a way to market the property. He stated that the City could seek presentation from a commercial broker to list the site.

Administrator Buchholtz stated that there is no action required from the City Council on this item.

### B. Administrator Reports

Administrator Buchholtz reported that there will be an open house regarding the Osborne Road Project on April 4, 2019 from 4:30 PM - 6:30 PM at Emmanuel Christian Center. He reported that there will be brief presentation and Anoka County staff will be present to answer questions.

Administrator Buchholtz reported that the transition to with MNSPECT occurred on April 1, 2019. He reported that staff met with MNSPECT staff last week.

#### 14. Adjourn

# MOTION BY COUNCILMEMBER WENDLING TO ADJOURN. VOICE VOTE: ALL AYES. MOTION CARRIED.

The meeting was adjourned at 7:36 P.M.

Attest:

Cindy Hansen, Mayor

Daniel R. Buchholtz, Administrator, Clerk/Treasurer

### CITY OF SPRING LAKE PARK CLAIMS LIST APPROVED AND PAID GENERAL OPERATIONS

DESCRIPTION

Date: March 2019 Page: 1 Claim Res.#19-05

VOUCHER VENDOR

### AMOUNT

65899 AT & T MOBILITY	MONTHLY SERVICES	912.94
65900 CENTERPOINT ENERGY	MONTHLY UTILITIES	2,382.64
65901 COMPUTER INTERGRATION TECH	SERVICES	5,420.00
65902 CONNEXUS ENERGY	MONTHLY SERVICES	9.58
65903 COON RAPIDS CHRYSLER	AUTO SERVICES/REPAIR	557.56
65904 Evident Crime Scene Products	OPERATING SUPPLIES	76.50
65905 FINANCE AND COMMERCE	SEAL COAT PROJECT	146.90
65906 GOPHER STATE ONE-CALL INC	LOCATES	21.60
65907 INSITUFORM TECHNOLOGIES USA	SEWER LINING PJT	151,040.83
65908 MICHAEL LEDMAN	INSTRUCTOR RECREATION	202.50
65909 LITIN PAPER, PKG & CONVERTING	SUPPLIES	540.30
65910 MANSFIELD OIL COMPANY	FUEL	688.70
65911 MICHAEL STEVENS	OVERPAYMENT FINAL WTR BILL	9.28
65912 SCHAAF FLORAL	FLOWER ARRANGEMENT	104.99
65913 SUBURBAN RATE AUTHORITY	MEMBERSHIP ASSESMENT	452.00
65914 TWIN CITIES BMEU WEST	POSTAGE	700.00
65915 USS MINNESOTA ONE MT LLC	SUBSCRIBED ENERGY	4,511.86
65916 VALLEY-RICH CO., INC.	EQUIPMENT	5,700.26
65917 STANTEC	ENGINEERING FEES	13,213.81
65918 ALL TRAFFIC SOLUTIONS	TRAILER WHEEL LOCK BAR	125.00
65919 ANOKA COUNTY	LANGUAGE LINE SERVICES	24.72
65920 ASPEN MILLS	U. ALLOWANCE	54.95
65921 AXON ENTERPRISE, INC	DATA SERVICES	13,068.00
65922 BERKLEY ADMINISTRATORS	CLAIMS	191.87
65923 CITY OF BLAINE	INSTRUCTOR RECREATION	112.00
65924 BRETT PRAWALSKY	OVERPAYMENT FINAL WTR BILL	22.08
65925 CADY BUSINESS TECHNOLOGIES	SERVICES	840.00
65926 CARSON, CLELLAND & SCHREDER	LEGAL FEES	7 <i>,</i> 875.85
65927 COMM-WORKS, LLC	PARK CAMERAS	850.00
65928 COMPUTER INTERGRATION TECH	COMPUTERS	5,425.00
65929 ECM PUBLISHERS, INC.	PUBLISHING	273.50
65930 FASTENAL COMPANY	PARTS	3.59
65931 FERGUSON WATERWORKS #2516	SUPPLIES	1,491.34
65932 MICHAEL LEDMAN	INSTRUCTOR RECREATION	160.00
65933 METROPOLITAN COUNCIL	WASTE WATER SERVICES	49,464.84
65934 CITY OF MINNEAPOLIS	APS TRANSACTIONS	162.90
65935 MINNESOTA DEPT OF HEALTH	QTR WTR TEST FEE	3,486.00
65936 MINNESOTA SAFETY COUNCIL	INSTRUCTOR RECREATION	486.00
65937 OFFICE OF MN.IT SERVICES	MONTHLY PD FIBER OPTICS	46.40
65938 PERFECT 10 CAR WASH	AUTO SERVICES	19.98
65939 CITY OF SLP - PETTY CASH	RECREATION	365.71

### CITY OF SPRING LAKE PARK CLAIMS LIST APPROVED AND PAID GENERAL OPERATIONS

Date: March 2019 Page: 2 Claim Res.#19-05

### VOUCHER VENDOR

### DESCRIPTION

### AMOUNT

65940 QUILL	OFFICE SUPPLIES	214.95
65941 RICHFIELD BUS CO	BUS SERVICES RECREATION	800.00
65942 SARAH M. KIMBALL	LEGAL SERVICES	560.00
65943 SCENIC SIGN CORP	TRAVEL/LABOR	990.00
65944 SCHWAAB, INC.	STAMPS	75.00
65945 STANTEC	ENGINEERING FEES	12,569.19
65946 STREICHER'S	U. ALLOWANCE	89.98
65947 KENNETH A. TOLZMANN, SAMA	QTR PROPERTY TAX ASSESSMENT	9,260.60
65948 TRUST IN US, LLC	DRUG TESTING	245.00
65949 WASTE MANAGEMENT OF WI-MN	MONTHLY SERVICES	7,292.15
65950 XCEL ENERGY	MONTHLY UTILITIES	53.02
65951 AFLAC	PAYROLL	22.17
65952 AMERITAS	PAYROLL	37.26
65953 CENTRAL PENSION FUND	PAYROLL	780.00
65954 DEARBORN NATIONAL	PAYROLL	475.51
65955 DELTA DENTAL	PAYROLL	1,599.77
65956 HEALTH PARTNERS	PAYROLL	13,933.36
65957 L.E.L.S.	PAYROLL	255.00
65958 LOCAL 49	PAYROLL	105.00
65959 NCPERS GROUP LIFE INS	PAYROLL	72.00
66018 ANOKA COUNTY HIGHWAY DEPT.		150.00
66019 ANOKA COUNTY TREASURY	JLEC SHARED COSTS	12,138.00
66020 AUTOMATIC SYSTEMS CO	SERVICES TOWER	206.50
66021 BAUER BUILT TIRE CENTER	SERVICES REMOUNT TIRES	228.50
66022 ANTHONY BENNEK	U. ALLOWANCE REIMBURSEMENT	453.03
66023 LEAGUE OF MN CITIES INS TRUST WC	LIABILITY INSURANCE	545.00
66024 BLAINE BROTHERS INC.	TOWING SNOW PLOW	245.00
66025 CARGILL, INC	DEICER SALT	24,510.74
66026 CENTERPOINT ENERGY	MONTHLY UTILITIES	2,341.87
66027 COMCAST	MONTHLY SERVICES	105.92
66028 COMMERS PRINTING INC	ENVELOPES	90.30
66029 COMPUTER INTERGRATION TECH	AGREEMENT SOFTWARE/BACKUP	980.00
66030 CONNEXUS ENERGY	MONTHLY UTILITIES	350.83
66031 COORDINATED BUSINESS SYSTEMS	MAINT CONTRACT	1,300.74
66032 CROW WING TRANSPORT	REPAIR	108.73
66033 DONALD LUNDHOLM	REFUND RECREATION	200.00
66034 FASTENAL COMPANY	PARTS	25.08
66035 FLEETPRIDE	PARTS/SUPPLIES	400.06
66036 H & L MESABI INC	PARTS/SUPPLIES	678.68
66037 IDC AUTOMATIC	SERVICES	287.14
66038 INSTRUMENTAL RESEARCH INC	WATER TESTING	72.00

### CITY OF SPRING LAKE PARK CLAIMS LIST APPROVED AND PAID GENERAL OPERATIONS

Date: March 2019 Page: 3 Claim Res.#19-05

### VOUCHER VENDOR

### DESCRIPTION

### AMOUNT

66039 J.P. COOKE CO.	SUPPLIES	74.50
66040 JUDITH JENSEN	REFUND RECREATION	200.00
66041 LEE'S HEATING & AIR	SERVICES	1,250.00
66042 LINDA AND MICHAEL SCHUVEILLER	REFUND RECREATION	200.00
66043 MANSFIELD OIL COMPANY	FUEL	4,844.83
66044 JILL MASON	INSTRUCTOR RECREATION	100.00
66045 MENARDS-CAPITAL ONE COMMERICAL	MONTHLY CREDIT CARD	788.83
66046 METROPOLITAN COUNCIL	STRENGTH CHARGE	60.87
66047 MTI DISTRIBUTING INC	WORMKAN/GROOMER/SCARIFER	26,413.05
66048 NORTH TH 65 CORRIDOR COALITION	MEMBERSHIP DUES	250.00
66049 NORTHWESTERN POWER EQUIPMENT	HYTROL REPAIR KIT	1,598.82
66050 OFFICE DEPOT	SUPPLIES	174.58
66051 KAY OKEY	ESCORT FEES RECREATION	1,032.92
66052 OPG-3, INC.	MAINT AGREEMENT	2,114.00
66053 ORGANIX SOLUTIONS	SUPPLIES	251.48
66054 PUREFLOW FILTRATION DIV	PURFLOW PM 20 MEADIA LOAD	27,425.00
66055 JEFF SANDINO	INSTRUCTOR RECREATION	133.00
66056 TOLL GAS & WELDING SUPPLY	TAX OXYGEN	32.96
66057 TWIN CITY HARDWARE	PARTS	390.00
66058 USS MINNESOTA ONE MT LLC	SUBSCRIBED ENERGY	1,731.10
66059 VALLEY-RICH CO., INC.	SERVICES	31,019.98
66060 WALTERS RECYCLING REFUSE SERV	MONTHLY SERVICES	320.55
66061 WATER CONSERVATION SERVICE INC	LEAK LOCATE 1228 80TH	416.35
66062 WELLS FARGO CREDIT CARD	MONTHLY CREDIT CARD	7,958.13
66063 XCEL ENERGY	MONTHLY UTILITIES	5,440.01
66064 CINTAS	MATS	88.46
66065 COMPUTER INTERGRATION TECH	MANAGED SERVICES	2,720.00
66066 CORE & MAIN LP	OMNI METER	1,350.94
66067 GREAT GARAGE DOOR CO	HINGE: PARTS	9.64
66068 GREEN LIGHTS RECYCLING INC	RECYCLYING EVENT	4,206.88
66069 MANSFIELD OIL COMPANY	FUEL	941.49
66070 ON SITE SANITATION INC	RESTROOMS	135.00
66071 PUREFLOW FILTRATION DIV	PURFLOW PM 20 MEADIA LOAD	27,425.00
66072 SHRED-IT USA	SHREDDING SERVICES	97.22
66073 TRI STATE BOBCAT INC	EDGE 59"	129.92
66074 TWIN CITY HARDWARE	REPAIR/SERVICES	190.00
	TOTAL DISBURSEMENTS	517,605.57

Date: March 2019 Page: 4 Claim Res.#19-05

WHEREAS,

the City Council of the City of Spring Lake Park has considered the foregoing itemized list of disbursements; and

WHEREAS,

the City Council has determined that all disbursements, as listed, with the following exceptions:

are proper.

NOW, THEREFORE BE IT RESOLVED:

that the City Council directs and approves the payment of the aforementioned disbursements this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_\_.

Signed: \_\_\_\_\_

Mayor

Councilmembers:

ATTEST:

Daniel Buchholtz, Admin/Clerk-Treasurer

Proposal 19-0273



April 8, 2019

Mr. Terry Randall City of Spring Lake Park 1301 81<sup>st</sup> Avenue N.E. Spring Lake Park, MN 55432

Re: Proposal for Stormwater Pond Sediment Sampling and Testing, Garfield Pond, Spring Lake Park, MN

Dear Mr. Randall:

Haugo Geotechnical Services is pleased to submit this proposal to complete Stormwater Pond Sediment Sampling and Testing in Spring Lake Park, MN.

# Project

Mr. Terry Randall, on behalf of the City of Spring Lake Park, requested a proposal to complete sampling and testing of the sediment within the Garfield Stormwater Pond located in the southeast quadrant of 81<sup>st</sup> Ave NE & Garfield St in Spring Lake Park, MN. We understand that the City of Spring Lake Park is proposing to excavate the north side of the pond to construct an infiltration area.

To aid in preparing this proposal we were provided an undated aerial map drawn by Stantec showing the proposed improvements. We also reviewed Minnesota Pollution Control Agency (MPCA) guidelines regarding stormwater pond sampling and analysis.

# Purpose

The purpose of our sampling and testing program is to collect and analyze the sediment samples in accordance with MPCA guidelines. Results of the chemical analysis will be used to identify contaminants, if any, in the sediment.

Soil samples collected from the hand auger borings will also be used to provide estimated soil infiltration rates for use in infiltration area design.

# **Scope of Services**

We will provide the following services to help meet the project purpose.

- Collect 2 sediment samples, one at each location, in the top 2 feet of sediment.
- Preform 2 Hand Auger Probes to depths of 10 feet
- Visually classify samples recovered from the soil borings.
- Perform up to 2 P-200 tests on selected samples.
- Prepare soil boring logs describing the soil types/classifications and results of water level measurements.
- Obtain GPS coordinates and elevations at the sample locations.
- Submit the samples for chemical analysis. Each sample will be analyzed for Arsenic, Copper and PAH's.
- Prepare an engineering letter summarizing our procedures and the result obtained including a comparison of chemical analysis to MPCA's Soil Reference Values (SRVs) and a calculation of B[a]P equivalents in accordance with MPCA guidelines.
- The engineering letter will also provide estimated soil infiltration rates.

# **Estimated Cost**

We will provide the services described in this proposal for a lump sum fee of **\$2,310**. We would be happy to meet with you to discuss the project and our proposed scope of services.

# **Additional Services**

If any private utilities are present on the site, we expect you to locate them in advance or notify us and we will have them located at an additional cost of **\$500** If they are not located, we will not be responsible for any damage to any unknown utilities. We will contact you prior to exceeding the budget and submit a change order summarizing the costs for your review and authorization.

# General

Thank you for the opportunity to present this proposal to you. Please sign and return one copy as our authorization to proceed.

We are including the Haugo GeoTechnical Services, LLC General Conditions, which provide additional terms and are part of this agreement.

If you have any questions regarding this proposal and associated scope of services, please contact Lucas Mol (<u>lmol@haugogts.com</u>) at 612-741-8251 or Paul Gionfriddo at 612-271-8185 (<u>pgionfriddo@haugogts.com</u>).

Sincerely,

HAUGO GEOTECHNICAL SERVICES, LLC

Lucas mol

Lucas Mol Project Manger

Pel Highlo

Paul Gionfriddo P.E. Senior Engineer

Attachment: General Conditions

# **Authorization to Proceed**

Ву: \_\_\_\_\_

Name/Title/Company: \_\_\_\_\_

### HAUGO GEOTECHNICAL SERVICES 2825 CEDAR AVE S, MINNEAPOLIS, MN 55407 WEBSITE: www.haugogts.com

HGTS Project # Client: Project: Location: 19-0273 City of Spring Lake Park Garfield Pond Spring Lake Park

			Table 1 Summary of Estimated Costs				
		TRIPS	HOURS PER TRIP	QTY	UNITS	PRICE(\$)	SUM(\$)
	FIELD WORK						
201A	SITE SAMPLING	1	5	5	HOUR	140	700
	GPS SAMPLE LOCATIONS			1	EACH	150	150
	SOILS - LAB TESTING						
	COPPER			2	TEST	50	100
	ARSENIC			2	TEST	50	100
	PAHs			2	TEST	80	160
	200 WASH			2	TEST	35	70
	PROJECT DETAILS						
	TRIP CHARGE			1	TRIP	30	30
690	INFILTRATION&MPCA LETTER			1	EACH	1000	1000
602	PROJECT ENGINEER				HOUR	120	
						TOTAL	\$ 2,310.00

Our services are directly controlled by the schedule of others, the actual cost of our services may vary from our estimate. Invoices for our services will be based on the actual numbers of hours spent on the project and the tests performed. It is difficult to predict all of the services and the quantity of services that may be required.

# **General Conditions**



Our agreement ("Agreement") with you consists of these General Conditions and the accompanying written proposal or authorization.

#### Section 1: Our Responsibilities

1.1 We will provide the services specifically described in our Agreement with you. You agree that we are not responsible for services that are not fairly included in our specific undertaking. Unless otherwise agreed in writing, our findings, opinions, and recommendations will be provided to you in writing. You agree not to rely on oral findings, opinions, or recommendations without our written approval.

1.2 In performing our professional services, we will use that degree of care and skill ordinarily exercised under similar circumstances by reputable members of our profession practicing in the same locality. If you direct us to deviate from our recommended procedures, you agree to hold us harmless from claims, damages, and expenses arising out of your direction.

1.3 We will reference our field observations and sampling to available reference points, but we will not survey, set, or check the accuracy of those points unless we accept that duty in writing. Locations of field observations or sampling described in our report or shown on our sketches are based on information provided by others or estimates made by our personnel. You agree that such dimensions, depths, or elevations are approximations unless specifically stated otherwise in the report. You accept the inherent risk that samples or observations may not be representative of things not sampled or seen and, further, that site conditions may change over time.

1.4 Our duties do not include supervising your contractors or commenting on, overseeing, or providing the means and methods of their work, unless we accept such duties in writing. We will not be responsible for the failure of your contractors to perform in accordance with their undertakings, and the providing of our services will not relieve others of their responsibilities to you or to others.

1.5 We will provide a health and safety program for our employees, but we will not be responsible for contractor, job, or site health or safety unless we accept that duty in writing.

**1.6** You will provide, at no cost to us, appropriate site safety measures as to work areas to be observed or inspected by us. Our

employees are authorized by you to refuse to work under conditions that may be unsafe.

**1.7** Estimates of our fees or other project costs will be based on information available to us and on our experience and knowledge. Such estimates are an exercise of our professional judgment and are not guaranteed or warranted. Actual costs may vary. You should allow a contingency in addition to estimated costs.

#### Section 2: Your Responsibilities

2.1 You will provide us with prior geotechnical and other reports, specifications, plans, and information to which you have access about the site. You agree to provide us with all plans, changes in plans, and new information as to site conditions until we have completed our work.

2.2 You will provide access to the site. In the course of our work some site damage is normal even when due care is exercised. We will use reasonable care to minimize damage to the site. We have not included the cost of restoration of normal damage in the estimated charges.

**2.3** You agree to provide us, in a timely manner, with information that you have regarding buried objects at the site. We will not be responsible for locating buried objects at the site unless we accept that duty in writing. You agree to hold us harmless from claims, damages, losses, and related expenses involving buried objects of which you had knowledge but did not timely call to our attention or correctly show on the plans you or others on your behalf furnished to us.

2.4 You will notify us of any knowledge or suspicion of the presence of hazardous or dangerous materials in a sample provided to us. You agree to provide us with information in your possession or control relating to contamination at the work site. If we observe or suspect the presence of contaminants not anticipated in our Agreement, we may terminate our work without liability to you or to others, and we will be paid for the services we have provided.

2.5 Neither this Agreement nor the providing of services will operate to make us an owner, operator, generator, transporter, treater, storer, or a disposal facility within the meaning of the Resource Conservation Recovery Act, as amended, or within the meaning of any other law governing the handling, treatment, storage, or disposal of hazardous materials. You agree to hold us harmless and indemnify us from any such claim or loss.

2.6 Monitoring wells are your property, and you are responsible for their permitting, maintenance, and abandonment unless we accept that duty in writing.

2. 7 You agree to make disclosures required by law. In the event you do not own the site, you acknowledge that it is your duty to inform the owner of the discovery or release of contaminants at the site. You agree to hold us harmless and indemnify us from claims related to disclosures made by us that are required by law and from claims related to the informing or failure to inform the site owner of the discovery of contaminants.

#### Section 3: Reports and Records

**3.1** We will furnish reports to you in duplicate. We will retain analytical data for seven years and financial data for three years.

**3.2** Our reports, notes, calculations, and other documents and our computer software and data are instruments of our service to you, and they remain our property but are subject to a

license to you for your use in the related project for the purposes disclosed to us. You may not transfer our reports to others or use them for a purpose for which they were not prepared without our written approval, which will not be unreasonably withheld. You agree to indemnify and hold us harmless from claims, damages, losses, and expenses, including attorney fees, arising out of such a transfer or use. At your request, we will provide endorsements of our reports or letters of reliance, but only if the recipients agree to be bound by the terms of our agreement with you and only if we are paid the administrative fee stated in our then current Schedule of Charges.

**3.3** Because electronic documents may be modified intentionally or inadvertently, you agree that we will not be liable for damages resulting from change in an electronic document occurring after we transmit it to you. In case of any difference or ambiguity between an electronic and a paper document, the paper document shall govern.

3.4 If you do not pay for our services in full as agreed, we may retain work not yet delivered to you and you agree to return to us all of our work that is in your possession or under your control. You agree not to use or rely upon our work for any purpose whatsoever until it is paid for in full.

1

3.5 Samples remaining after tests are conducted and field and laboratory equipment that cannot be adequately cleansed of contaminants are and continue to be your property. They will be discarded or returned to you, at our discretion, unless within 15 days of the report date you give us written direction to store or transfer the materials at your expense.

#### Section 4: Compensation

4.1 You will pay for services as agreed upon or according to our then current Schedule of Charges if there is no other written agreement as to price. An estimated cost is nol a firm figure. You agree to pay all sales taxes and other taxes based on your payment of our compensation. Our performance is subject to credit approval and payment of any specified retainer.

**4.2** You will notify us of billing disputes within 15 days. You will pay undisputed portions of invoices on receipt. You agree to pay interest on unpaid balances beginning 30 days after invoice dates at the rate of 1.5% per month, or at the maximum rate allowed by law.

**4.3** If you direct us to invoice another, we will do so, but you agree to be responsible for our compensation unless you provide us with that person's written acceptance of all terms of our Agreement and we agree to extend credit to that person and to release you.

4.4 You agree to compensate us in accordance with our fee schedule if we are asked or required to respond to legal process arising out of a proceeding related to the project and as to which we are not a party.

4.5 If we are delayed by factors beyond our control, or if project conditions or the scope or amount of work change, or if changed labor union conditions result in increased costs, decreased efficiency, or delays, or if the standards or methods change, we will give you timely notice and we will receive an equitable adjustment of our compensation. If you and we do not reach agreement on such compensation within 30 days of our written application, we may terminate without liability to you or others.

4.6 If you fail to pay us within 60 days following invoice date, we may consider the default a total breach of our Agreement and, at our option, terminate our duties without liability to you or to others.

4.7 In consideration of our providing insurance to cover claims made by you, you hereby waive any right of offset as to fees otherwise due us.

# Section 5:

#### Disputes, Damage, and Risk Allocation

5.1 Each of us will exercise good faith efforts to resolve disputes without litigation. Such efforts will include, but not be limited to, a meeting(s) attended by each party's representative(s) empowered to resolve the dispute. Before either of us commences an action against the other, disputes (except collections) will be submitted to mediation.

**5.2** Neither of us will be liable for special, incidental, consequential, or punitive damages, including but not limited to those arising from delay, loss of use, loss of profits or revenue, loss of financing commitments or fees, or the cost of capital.

**5.3** We will not be liable for damages unless suit is commenced within two years of the date of injury or loss or within two years of the date of the completion of our services, whichever is earlier. We will not be liable unless you have notified us of the discovery of the claimed breach of contract, negligent act, or omission within 30 days of the date of discovery and unless you have given us an opportunity to investigate and to recommend ways of mitigating damages.

5.4 For you to obtain the benefit of a fee which includes a reasonable allowance for risks, you agree that our aggregate liability will not exceed the fee paid for our services or \$50,000, whichever is greater, and you agree to indemnify us from all liability to others in excess of that amount. If you are unwilling to accept this allocation of risk, we will increase our aggregate liability to \$100,000 provided that, within 10 days of the date of our Agreement, you provide payment in an amount that will increase our fees by 10%, but not less than \$500, to compensate us for the greater risk undertaken. This increased fee is not the purchase of insurance.

5.5 If you do not pay us within 60 days of invoice date, or if you make a claim against us that is resolved in our favor, you agree to reimburse our expenses, including but not limited to attorney fees, staff time, expert witness fees, and other costs of collection or litigation.

**5.6** The law of the state in which our servicing office is located will govern all disputes. Each of us waives trial by jury. No employee acting within the scope of employment shall have individual liability for his or her acts or omissions, and you agree not make a claim against individual employees.

Section 6:

#### **General Indemnification**

6.1 We will indemnify and hold you harmless from and against demands, damages, and expenses to the comparative extent they are caused by our negligent acts or omissions or those negligent acts or omissions of persons for whom we are legally responsible. You will indemnify and hold us harmless from and against demands, damages, and expenses to the comparative extent they are caused by your negligent acts or omissions or those negligent acts or omissions for whom you are legally responsible.

6.2 To the extent it may be necessary to indemnify either of us under Section 6.1, you and we expressly waive, in favor of the other only, any immunity or exemption from liability that exists under any worker compensation law.

6.3 You agree to indemnify us against losses and costs arising out of claims of patent or copyright infringement as to any process or system that is specified or selected by you or by others on your behalf.

#### Section 7: Miscellaneous Provisions

7.1 We will provide a certificate of insurance to you upon request. Any claim as an Additional Insured shall be limited to losses caused by our sole negligence.

7.2 This Agreement is our entire agreement. It supersedes prior agreements. It may be modified only in a writing, making specific reference to the provision modified.

7.3 Neither of us will assign or transfer any interest, any claim, any cause of action, or any right against the other. Neither of us will assign or otherwise transfer or encumber any proceeds or expected proceeds or compensation from the project or project claims to any third person, whether directly or as collateral or otherwise.

7.4 Our Agreement may be terminated early only in writing. We will receive an equitable adjustment of our compensation in the event of early termination.

### **RESOLUTION NO. 19-07**

### A RESOLUTION OPTING IN TO THE ANOKA COUNTY "URBAN COUNTY" ENTITLEMENT

**WHEREAS,** Anoka County has been classified as an Urban County eligible to receive Community Development Block Grant Funds and HOME Investment Partnership funds through the Department of Housing and Urban Development; and

**WHEREAS,** each community in Anoka County has the option to opt in or out of the Anoka County CDBG and HOME programs; and

WHEREAS, each community who opts in must notify Anoka County of its intent to opt in or out; and

**WHEREAS,** by opting into the Anoka County program, the City will be eligible to apply for CDBG and HOME funds through Anoka County; and

WHEREAS, the City has elected to opt in since Anoka County became an Urban County.

**NOW, THEREFORE, BE IT RESOLVED** BY THE CITY COUNCIL OF SPRING LAKE PARK, MINNESOTA, that the City Council hereby designates that the entire city be included in the Anoka County urban county entitlement.

The foregoing Resolution was moved for adoption by .

Upon Vote being taken thereon, the following voted in favor thereof: .

And the following voted against the same: .

Whereon the Mayor declared said Resolution duly passed and adopted the 15th day of April, 2019.

APPROVED BY:

Cindy Hansen, Mayor

ATTEST:

Daniel R. Buchholtz, City Administrator



# Anoka County COUNTY ADMINISTRATION

**Community & Governmental Relations** 

Renee Sande Community Development Manager Phone: 763.324.4613 E-mail: <u>renee.sande@co.anoka.mn.us</u>

March 21, 2019

City of Spring Lake Park ATTN: Dan Buchholtz, City Administrator 1301 81<sup>st</sup> Avenue NE Spring Lake Park, MN 55432

RE: 2020-2022 Urban County Requalification for participation in the following HUD Programs: CDBG (Community Development Block Grant Program); and -HOME (HOME Investment Partnerships Program)

Dear Mr. Buchholtz:

Every three years Anoka County must complete an Urban Requalification process to continue receiving and administering HUD funds from the CDBG and HOME programs. We are currently preparing our requalification for federal fiscal years 2020 through 2022; and, the county is required to notify participating communities of their option to be excluded from Anoka County's "Urban County" funding cycles for the next three years. *A written response (letter and/or Resolution) is required from the city.* 

In situations where a community, such as Spring Lake Park, spans two or more urban county entitlements (in your case, Anoka and Ramsey Counties); the city needs to choose one of the following options:

- 1. Designate that the entire city be included as part of only one urban county entitlement (Anoka or Ramsey) and excluded from the other; if this choice is made, the city must remain with whichever county it designated the entire 3-year period; **OR**
- 2. Designate that the city will participate as part of more than one "urban county" in which the city is located, provided that a single portion of the split place cannot be included in more than one entitled urban county at a time; **OR**
- 3. Opt-out from inclusion in either "urban county" (Anoka or Ramsey) thereby becoming eligible to apply for grants through HUD's small cities program or the State of Minnesota program.

# If you choose to OPT-IN and remain a participant with Anoka County, the following will apply:

- The grant process for your city will remain the same as it is now for CDBG and HOME programs; AND
- Your city will continue to be ineligible to apply for individual grants through the HUD Small Cities or State CDBG and HOME programs; AND
- The current Cooperation Agreement will automatically renew for another three-year period.



Office: 763-324-4650 ▲ Fax: 763-324-4610 Affirmative Action / Equal Opportunity Employer

### Dan Buchholtz March 21, 2019 Page Two

If you choose to OPT-OUT and NOT remain a participant with Anoka County, the following will apply:

- The city <u>will be able</u> to apply for grants individually through the HUD Small Cities or State CDBG and HOME programs, BUT
- The city will not be eligible to receive funds through Anoka County for federal fiscal years 2020 through 2022.

### Please notify Anoka County (by letter and/or Resolution) no later than May 1, 2019, of your intent to:

- Remain a member (Opt-In) or Opt-Out of Anoka County's "Urban County" program;
- As a split city, select which Urban County jurisdiction you prefer (Anoka or Ramsey)

Mail your notification to:

AC Community & Government Relations ATTN: Renee Sande Anoka County Courthouse 2100 3<sup>rd</sup> Avenue, Suite W250 Anoka, MN 55303

Thank you for your prompt attention to this matter. If you have any questions, or need additional information, please contact me at 763-324-4613 or <a href="mailto:renee.sande@co.anoka.mn.us">renee.sande@co.anoka.mn.us</a>

Sincerely,

Renéé Sánde Community Development Manager

# City of Spring Lake Park 1301 81st Avenue NE Spring Lake Park, MN 55432

Sign Permit

April 15, 2019

<u>Sign Permit</u>

McDonald's

8124 Hwy 65 NE



### CITY OF SPRING LAKE PARK 1301 81<sup>st</sup> Avenue N E Spring Lake Park, MN 55432 763-784-6491

### Sign Permit Application

DATE: 4/3/2019

NAME OF APPLICANT: Lori Burgardt, Sign Permit Expeditors

ADDRESS OF APPLICANT: 1509 Musial Rd., Twin Lakes, WI 53181

TELEPHONE NUMBER OF APPLICANT: 847-772-1719

NAME OF BUSINESS AND LOCATION of building structure, or lot to which or upon which the sign is

to be attached or erected McDonald's 8124 Hwy 65

New Construction: \_\_\_\_\_ Remodel: X Word Change Only:

Attach a drawing or sketch showing the position of the sign in relation to the nearest building, structures, public streets, right-of-way and property lines. Said drawing to be prepared to scale.

Attach two (2) blueprints or ink drawings of the plans and specifications and method of construction or attachment to the building or in the ground, including all dimensions. Show location of all light sources, wattage, type and color of lights and details of light shields or shades.

Attach a copy of stress sheets and calculations showing the structure is designed for dead load and wind velocity in the amount required by this and all other Ordinances of the City, <u>if requested by the Building</u> Inspection Department.

Name of person, firm or corporation erecting the structure: RHL

#### Address: 25113 21st Avenue., St Cloud, MN 56301

Is an Electrical Permit required?

I, the undersigned applicant, do further make the following agreement with the City of Spring Lake Park Mn: 1) To authorize and direct the City of Spring Lake Park to remove and

- dispose of any signs and sign structures on which a Permit has been issued but which was not renewed, if the owner does not remove the same within thirty (30) days following the expiration of the Permit.
- 2) To authorize and direct the City of Spring Lake Park to remove said sign and sign structure, at the expense of the applicant, where maintenance is not furnished, but only after a hearing and after notice of sixty (60) days, specifying the maintenance required by the City.
- To provide any other additional information which may be required by the Building Inspection Department.

DATE OF APPROVAL:

DATE OF ISSUE:

REASON FOR DENIAL:

51 <i>D</i>	
SQUARE FOOTAGE OF PROPOSED SIGN OR SIGNS: Menu builds @x92=18/2 @x18=362	1
SQUARE FOOTAGE OF ALL EXISTING SIGNS: 4277 Skishing	
SQUARE FOOTAGE OF FRONT OF BUILDING: $2/78$	
ADDITIONAL REQUIREMENTS FOR SIGN PERMIT:	

INCLUDE A DRAWING SHOWING LOCATION AND MESSAGE ON SIGN.

IF YOU ARE NOT THE OWNER OF THE PROPERTY, INCLUDE A <u>SIGNED</u> LETTER FROM THE OWNER GIVING PERMISSION TO ERECT THE SIGN.

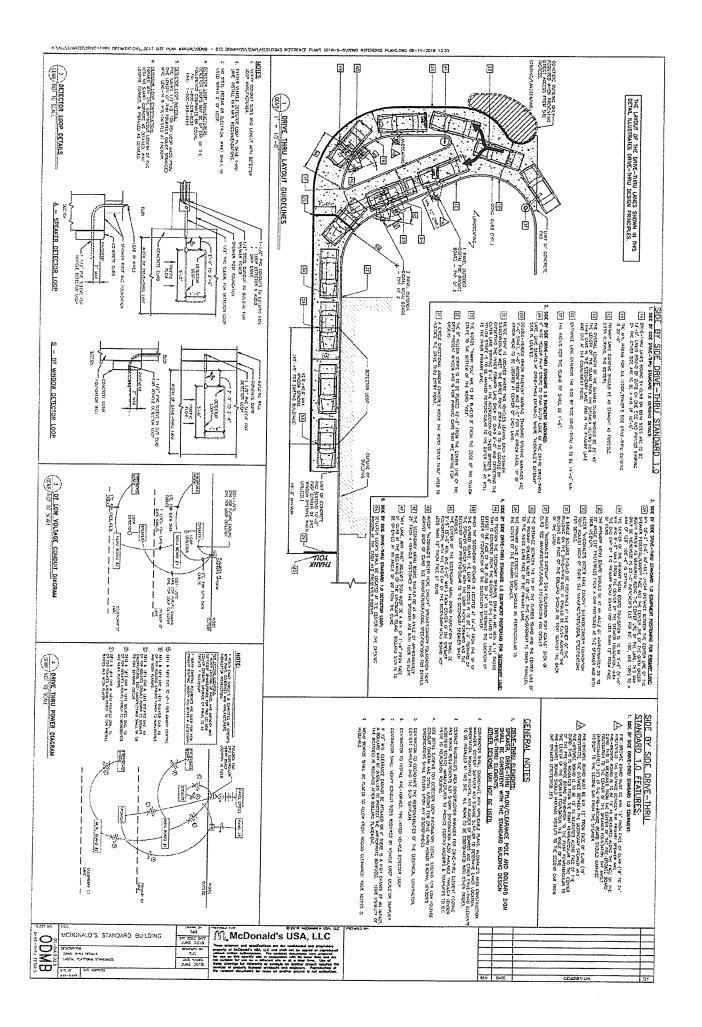
# **<u>NOTE:</u>** ALL APPLICATIONS ARE DUE BY NOON ON THE TUESDAY PRECEEDING THE COUNCIL MEETING.

**DRAWING:** 

Proposed 1874 - <sup>\$75</sup> 1874 - <sup>\$75</sup> 977 - <sup>\$75</sup> 977 - <sup>\$75</sup> \$300

659-30% 421 A- Skisting 54 A- Proposed 173 A Remaining

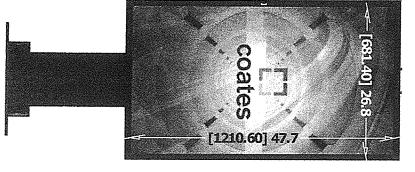
 $\frac{9}{2} \frac{156}{12} \frac{156}{12} \frac{12}{12} = 312$   $\frac{156}{12} \frac{12}{12} = 857$   $\frac{12}{12} \frac{12}{12} \frac{12}{12} \frac{12}{12} \frac{12}{12}$   $\frac{12}{12} \frac{12}{12} \frac{12}{12} \frac{12}{12}$ 





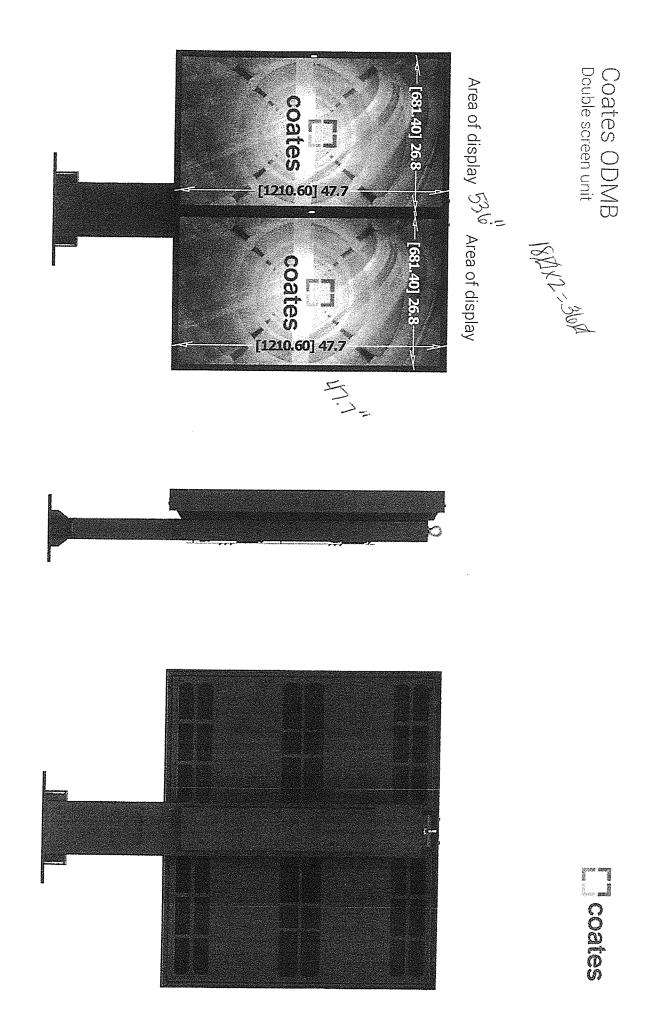


Area of display





Coates



# City of Spring Lake Park 1301 81st Avenue NE Spring Lake Park, MN 55432

# **Contractor's License**

# April 15, 2019

# **Excavating Contractor**

Park Construction Company	Rick's Plumbing, Inc.
Park Construction Company	Rick's Plumbing, Inc.

**Roto-Rooter Services** 

# **Mechanical Contractor**

Bonfe's Plumbing, Heating & Air	CenterPoint Energy
Manufactured Housing Parts & Service	McDowall Company
Northland Mechanical Contractors	Standard Heating & Air
Voss Utility & Plumbing	

# **Plumbing Contractor**

Air Mechanical	Aquarius Home Services
Bonfe's Plumbing, Heating & Air	Century Plumbing, Inc.
Corporate Mechanical	Engberg Plumbing
Hearth & Home Technologies	Focus Plumbing
Jerry's Plumbing, Inc.	King's Plumbing & Home Services
Mid-City Mechanical	MN Plumbing & Home Services
Plumbing Service Center, Inc.	Rick's Plumbing, Inc.
Rivercity Sheet Metal	Roto-Rooter Services
Sabre Plumbing, Heating and A/C	Terry Overacker Plumbing
Thein Well, Co., Inc.	TJK Plumbing, Inc.
Voson Plumbing, Inc.	Voss Utility & Plumbing

# City of Spring Lake Park 1301 81st Avenue NE Spring Lake Park, MN 55432

# **Contractor's License**

# April 15, 2019

Rick's Plumbing, Inc.

# **Roofing Contractor**

Amcer, LLC.

Dura Roof, LLC.

## Sewer & Water Contractor

Park Construction Company

Voss Utility & Plumbing

### Sign Contractor

Allen Industries, Inc.

### Tree Contractor

Central MN Tree Service	LCS Lawn & Tree Service
Neighborhood Tree Care	Northeast Tree, Inc.

Sav A Tree, LLC.



**Police Report** 

March 2019

Submitted for Council Meeting April 15, 2019

The Spring Lake Park Police Department responded to five hundred and sixty-five calls for service for the month of March 2019. This is compared to responding to five hundred and ninety-two calls for service in March of 2018.

Our School Resource Officer, Officer Chlebeck reports handling fifteen calls for service at our local schools for the month of March 2019, along with conducting eighteen student contacts, two escorts and two follow up investigations into school related incidents. Officer Chlebeck noted for the month of March, that school was in session for fourteen days due to Spring Break. Officer Chlebeck also conducted two class presentations on the "Bill of Rights, Constitutional Amendments" and how they pertain to Law Enforcement. Officer Chlebeck attended an OEC Board meeting and a School Resource Officer meeting at the Anoka County Sheriff's Office. For further details, see School Resource Officer Chlebeck's attached report.

Investigator Baker reports handling a case load of thirty –three cases for the month of March. Twentyfive of these case were felony in nature, four of these cases were gross misdemeanor in nature and four of these cases were misdemeanor in nature. Investigator Baker also continues to monitor eight forfeiture cases along with his monthly case load. For further details, see Investigator Baker's attached report.

The Spring Lake Park Police Department Administrative Office Staff continue to remain steadfast in their duties, typing and imaging reports, filing, answering and dispensing phone calls for service and information, while continuing to address citizen concerns at our "Police Public Walk up- Window", along with other duties that may be assigned on a daily basis.

The month of March has been a busy month for myself as well, besides handling the day to day operations of the police department, I continue to attend meetings on a daily basis representing the City of Spring Lake Park and the Police Department.

This will conclude my report for the month of March 2019.

Are there any questions?



Brad Baker

Spring Lake Park Police Department Investigations Monthly Report

March 2019

# **Total Case Load**

# Case Load by Level of Offense: 33

Felony	25
<b>Gross Misdemeanor</b>	4
Misdemeanor	4

# **Case Dispositions:**

County Attorney	7
Juvenile County Attorney	0
City Attorney	1
Forward to Other Agency	2
SLP Liaison	0
Carried Over	16
Unfounded	0
Exceptionally Cleared	3
Closed/Inactive	4

# **Forfeitures:**

Active Forfeitures	8
Forfeitures Closed	0

# Spring Lake Park Police / School Resource Officer Report

# March 2019

Incidents by School Location	Reports (ICRs)	Student Contacts*	Escorts/Other	Follow Up Inv.
Spring Lake Park High School	15	18	2	2
Discovery Days (pre-school)				
Lighthouse School				
Park Terrace Elementary School				
District Office				
Able and Terrace Parks (School Related)				
School Related				
Miscellaneous Locations				
Totals:	15	18	2	2

Breakdown of Reports (ICRs)	
Theft reports (cellphones, iPods, bikes, etc)	1
Students charged with Assault or Disorderly Conduct	
Students charged with other crimes	2
Non-students Charged	
Warrant Arrests	
Miscellaneous reports	12



# Memorandum

То:	Mayor Hansen and Members of the City Council
From:	Daniel R. Buchholtz, MMC, Administrator, Clerk/Treasurer
Date:	April 4, 2019
Subject:	ISD 16 Site Plan Review – Spring Lake Park High School Improvements

The City has received an application for site plan review from Spring Lake Park School District (ISD 16). They are proposing improvements to the football stadium to add a ticket building, a concessions addition and a restroom addition. In addition, the School District is also proposing a reconstruction of the baseball field (both infield and outfield), as well as installation of a 76,000 square foot synthetic turf field, on the northeast corner of the property.

The ticket booth is approximately 13 feet by 9 feet in size, located off Able Street, along the existing sidewalk. The restroom will be approximately 23 feet by 22 feet in size, with men's, women's and family toilet facilities. The concession stand will be approximately 10 feet by 25 feet in size. Those will be located on the northwest exterior corner of the stadium.

The improvements are outside of the required front, rear and side yard setbacks. There is a small reduction (0.16 acres) in the amount of impervious surface on the site. The percentage of the site that is comprised of impervious surface is 57.52%, below the standard of 75% set forth in the zoning code.

City staff have reviewed the proposed improvements and recommend approval of the site plan with the following conditions:

- 1. Improvements shall generate a no net increase in storm water leaving the site.
- 2. Applicant must obtain a permit for the improvements from the Coon Creek Watershed District.
- 3. Applicant shall obtain all necessary building permits prior to construction and occupancy of the proposed improvements.

If you have any questions, please don't hesitate to contact me at 763-784-6491.

## **RESOLUTION NO. 19-06**

## A RESOLUTION CONDITIONALLY GRANTING SITE PLAN APPROVAL FOR STADIUM AND TURF IMPROVEMENTS AT 1100 81<sup>ST</sup> AVE NE

WHEREAS, Spring Lake Park Schools is seeking to add a ticket building, construct additions to the concessions and restroom additions, and turf improvements; and

**WHEREAS,** the site is currently zoned P, Public, and the high school use is consistent with the 2030 Comprehensive Plan and the City's zoning ordinance; and

**WHEREAS,** City staff has reviewed the site plan application against the site plan review criteria outlined in §153.060 of the Spring Lake Park Code of Ordinance and has recommended approval, subject to conditions; and

**WHEREAS,** at its April 15, 2019 meeting, the City Council duly considered the proposed site plan in accordance with §153.060 of the Spring Lake Park Code of Ordinance and City staff's recommendation.

**NOW, THEREFORE, BE IT RESOLVED** BY THE CITY COUNCIL OF SPRING LAKE PARK, MINNESOTA, that the City Council does hereby grant site plan approval to Spring Lake Park Schools for stadium and turf improvements at 1100 81<sup>st</sup> Avenue NE, subject to the following conditions:

- 1. Improvements shall generate no net increase in storm water leaving the site.
- 2. Applicant must obtain a permit for the improvement from the Coon Creek Watershed District.
- 3. Applicant shall obtain all necessary building permits prior to construction and occupancy of the proposed improvements.

The foregoing Resolution was moved for adoption by .

Upon Vote being taken thereon, the following voted in favor thereof: .

And the following voted against the same: .

Whereon the Mayor declared said Resolution duly passed and adopted the 15th day of April, 2019.

APPROVED BY:

Cindy Hansen, Mayor

ATTEST:

Daniel R. Buchholtz, City Administrator



City of Spring Lake Park 1301 81<sup>st</sup> Avenue NE Spring Lake Park, MN 55432 763-784-6491 (p) 763-792-7257 (f) info@slpmn.org

For Office Use	Only
Case Number:	
Fee Paid:	
Received by:	
Date Filed:	
Date Complete:	
Base Fee:	Escrow:

## **DEVELOPMENT APPLICATION**

TYPE OF APPLICATION (Check All	That Apply)	
Appeal	□ Site Plan/Building Plan Review	Minor Subdivision
Comprehensive Plan Amendment	Conceptual Plan Review	Lot Combination
Ordinance Amendment (Text)	Conditional Use Permit	Preliminary Plat
		□ Final Plat
Planned Unit Development	□ Street or Easement Vacation	Other
PROPERTY INFORMATION		
Street Address: 1100 81st Ave. NE, Sprin		
Property Identification Number (PIN#): 0		urrent Zoning: Public
Legal Description (Attach if necessary): See	attached.	
APPLICANT INFORMATION		
Name: Ben Beery		d Architects and Engineers
Address: 332 Minnesota St. Suite W2000		
City: St. Paul	State: MN	Zip Code: 55101
Telephone: 651-227-7773	Fax:	E-mail: bbeery@woldae.com
Contact: Ben Beery		Title: Project Manager
<b>OWNER INFORMATION</b> (if different from		
Name: Amy Schultz	Business Name: Sprir	ng Lake Park Schools
Address: 1415 81st Ave. NE		
City: Spring Lake Park	State: MN	Zip Code: 55432
Telephone: 763-600-5000	Fax:	E-mail: aschul@district16 org
Contact: Amy Schultz		Title: Director of Business Service
DESCRIPTION OF REQUEST (attach		
Existing Use of Property: High school and	associated athletics fields	
Nature of Proposed Use: High School and	associated athletics fields	
Reason(s) to Approve Request: See attac	ched.	
PREVIOUS APPLICATIONS PERTA	INING TO THE SUBJECT SIT	E
Project Name: Unknown		f Application:
Nature of Request:		
NOTE: Applications only accepte	d with ALL required support docume	ents. See City Code
Applications only accepte	required support dooding	

## **APPLICATION FEES AND EXPENSES:**

The City of Spring Lake Park required all applicants to reimburse the City for any and all costs incurred by the City to review and act upon applications.

The application fee includes administrative costs which are necessary to process the application. The escrow fee will include all charges for staff time by the City Planner, City Engineer, City Attorney, and/or any other consultants as needed to process the application.

The City will track all consultant costs associated with the application. If these costs are projected to exceed the money initially deposited to your escrow account, you will be notified in the manner that you have identified below that additional monies are required in order for your application process to continue. If you choose to terminate the application (notice must be in writing), you will be responsible for all costs incurred to that point. If you choose to continue the process you will be billed for the additional monies and an explanation of expenses will be furnished. Remittance of these additional fees will be due within thirty (30) days from the date the invoice is mailed. If payment is not received as required by this agreement, the City may approve a special assessment for which the property owner specifically agrees to be to be assessed for 100 percent per annum and waives any and all appeals under Minnesota Statutes Section 429.081 as amended. All fees and expenses are due whether the application is approved or denied.

With my signature below, I hereby acknowledge that I have read this agreement in its entirety and understand the terms herein. I agree to pay to the City all costs incurred during the review process as set forth in this Agreement. This includes any and all expenses that exceed the initial Escrow Deposit to be paid within 30 days of billing notification. I further understand that the application process will be terminated if payment is not made and application may be denied for failure to reimburse City for costs. I further understand that the City may approve a special assessment against my property for any unpaid escrows and that I specifically waive any and all appeals under Minnesota Statutes 429.081, as amended.

I wish to be notified of additional costs in the following manner (select one):

E-mail USPS – Certified Mail

I, the undersigned, hereby apply for the considerations described above and declare that the information and materials submitted in support of this application are in compliance with adopted City policy and ordinance requirements are complete to the best of my knowledge.

I acknowledge that I have read the statement entitled "Application Fees and Expenses" as listed above.

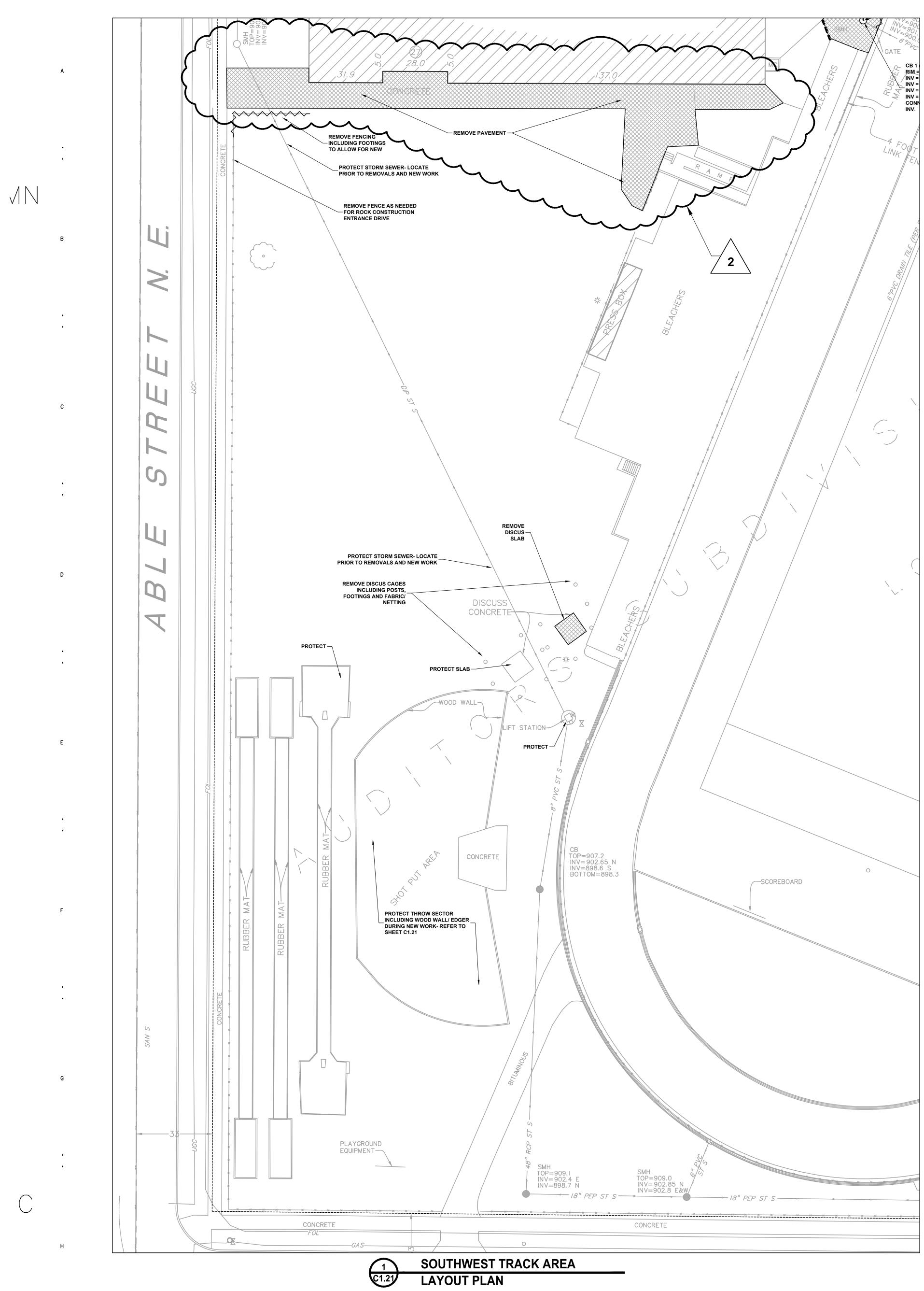
I understand that this application will be processed in accordance with established City review procedures and Minnesota Statutes Section 15.99 as amended, at such time as it is determined to be complete. Pursuant to Minnesota Statutes Section 15.99, the City will notify the applicant within fifteen (15) business days from the filing date of any incomplete or other information necessary to complete the application. Failure on my part to supply all necessary information as requested by the City may be cause for denying this application.

Applicant: \_

Date: <u>4/2/19</u>

Owner: Any chults

NOTE: Applications only accepted with ALL required support documents. See City Code



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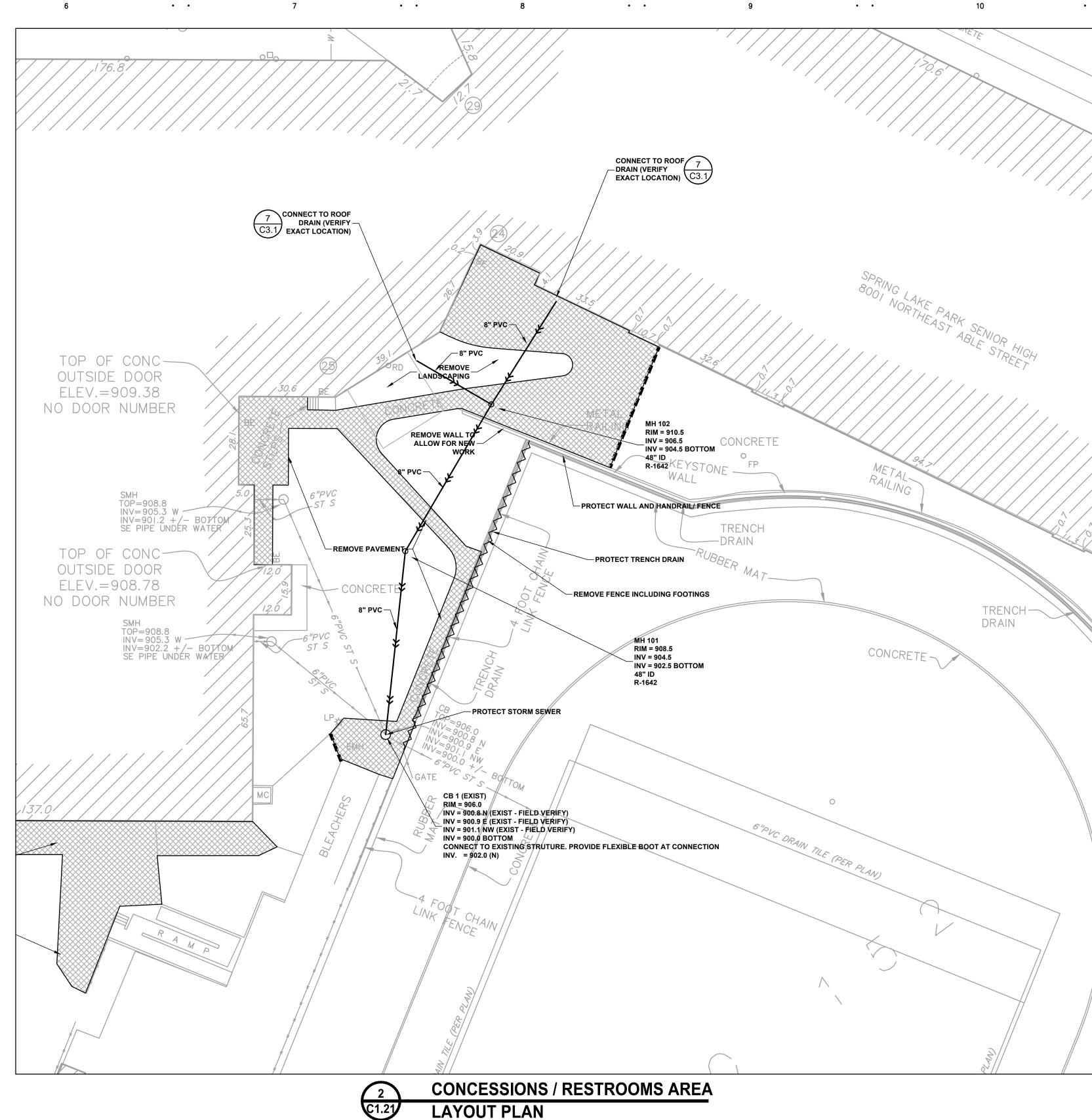
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## **NOTES:**

- 1. REFER TO SHEET C1.31 GRADING AND DRAINAGE PLAN FOR GENERAL NOTES.
- 2. MINIMIZE DISTURBANCE TO SITE AND PROTECT EXISTING VEGETATION AND SITE FEATURES (CURBS, WALKS, PAVEMENTS, OVERHEAD AND UNDERGROUND UTILITIES, SIGNAGE, FENCING, ROADWAYS, ETC.) WHICH ARE TO REMAIN.
- 3. REPAIR OR REPLACE EXISTING PROPERTY AND SITE FEATURES, INCLUDING GRASS AND SATISFACTION AND AT NO ADDITIONAL COST TO THE OWNER.
- 4. VISIT THE SITE PRIOR TO BIDDING; BE FAMILIAR WITH ACTUAL CONDITIONS IN THE FIELD. CHARACTERISTICS.

## LEGEND

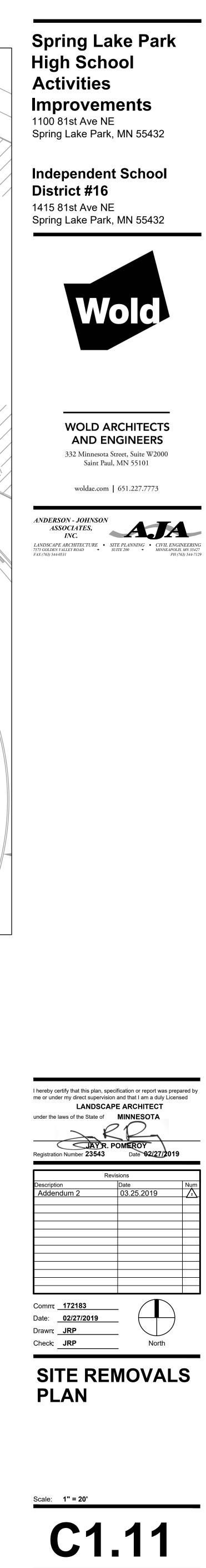
CONCRETE PAVEMENT REMOVALS \*\*\*\*\*\*\* 

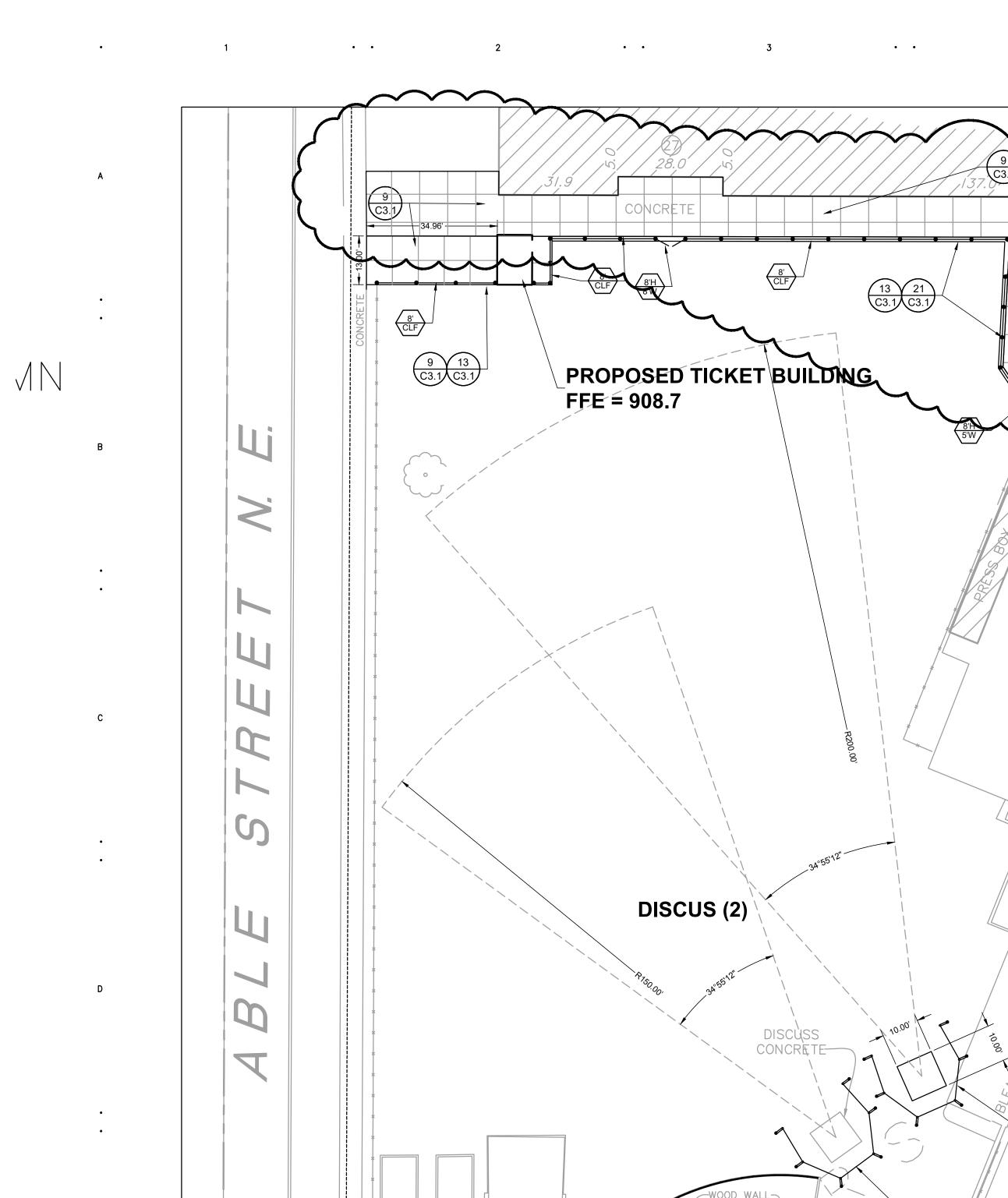
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VEGETATION, WHICH IS TO REMAIN THAT IS DAMAGED BY THE WORK, TO OWNER'S

EXTRA COMPENSATION WILL NOT BE ALLOWED FOR CONDITIONS WHICH COULD HAVE BEEN DETERMINED OR ANTICIPATED BY EXAMINATION OF THE SITE, THE CONTRACT DRAWINGS AND THE INFORMATION AVAILABLE PERTAINING TO EXISTING SOILS, UTILITIES AND OTHER SITE

5. THE CONTRACTOR SHALL HIRE THE SERVICES OF A UTILITY LOCATOR COMPANY TO LOCATE ALL PRIVATELY OWNED UTILITIES THAT MAY BE DISTURBED BY CONSTRUCTION OPERATIONS.







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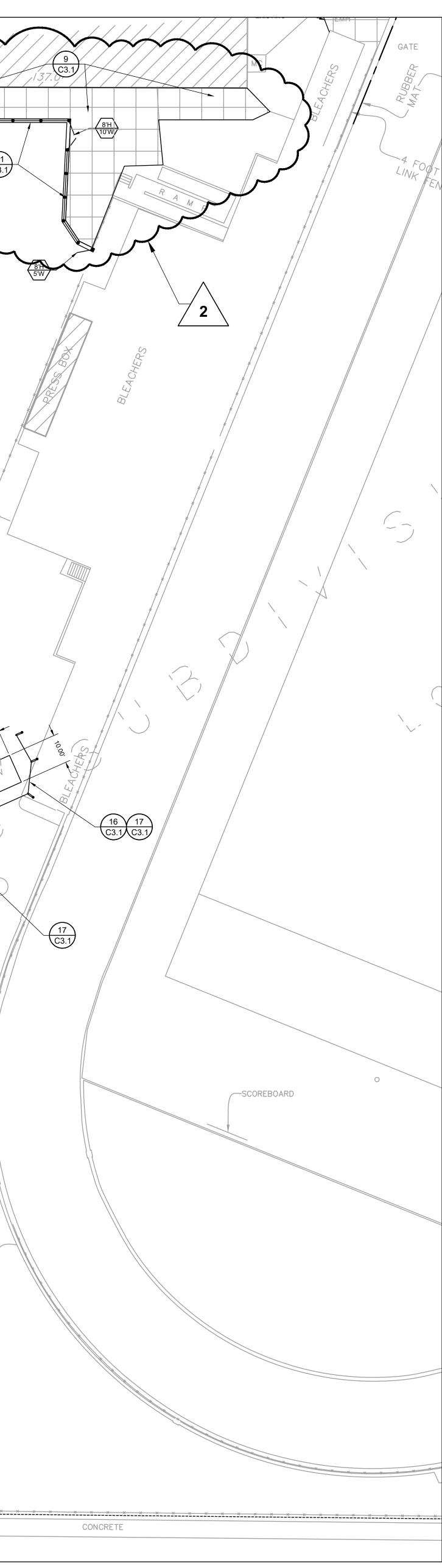
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M.S. SHOT PUT (1)

PLAYGROUND EQUIPMENT

CONCRETE

CONCRETE



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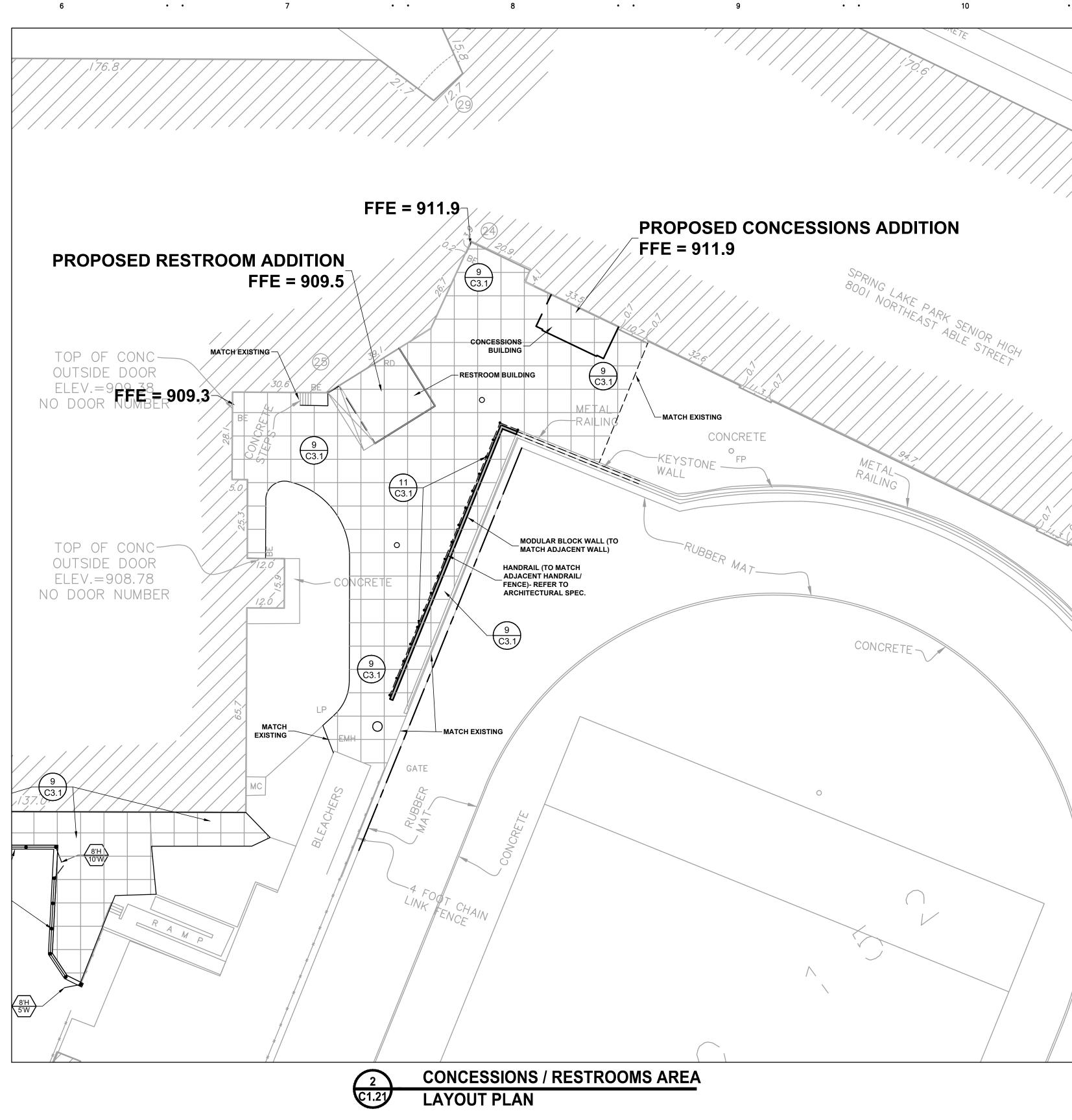
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## NOTES

- 1. REFER TO SHEET C1.31- GRADING AND DRAINAGE PLAN FOR GENERAL NOTES.
- 2. ALL APPLICABLE DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTERLINE OF FENCE, OR PROPERTY LINE UNLESS OTHERWISE NOTED.
- 3. CHECK ALL PLAN AND DETAIL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT.

## LEGEND

	-BASELINE FOR DIMENSION
	BUILDING STOOP - REFER 1
8' CLF	FENCING KEY NOTE - SEE K

## FENCING KEY NOTES

 $\begin{pmatrix} 8' \\ CLF \end{pmatrix}$  8' HIGH CHAIN LINK FENCE  $\begin{pmatrix} 13 \\ C3.1 \end{pmatrix}$ 

 $\begin{pmatrix} 8'H \\ 5'W \end{pmatrix}$  5' WIDE, 8' HIGH SINGLE SWING GATE WITH LOCKING DEVICE  $\begin{pmatrix} 14 \\ C3.1 \end{pmatrix}$ 

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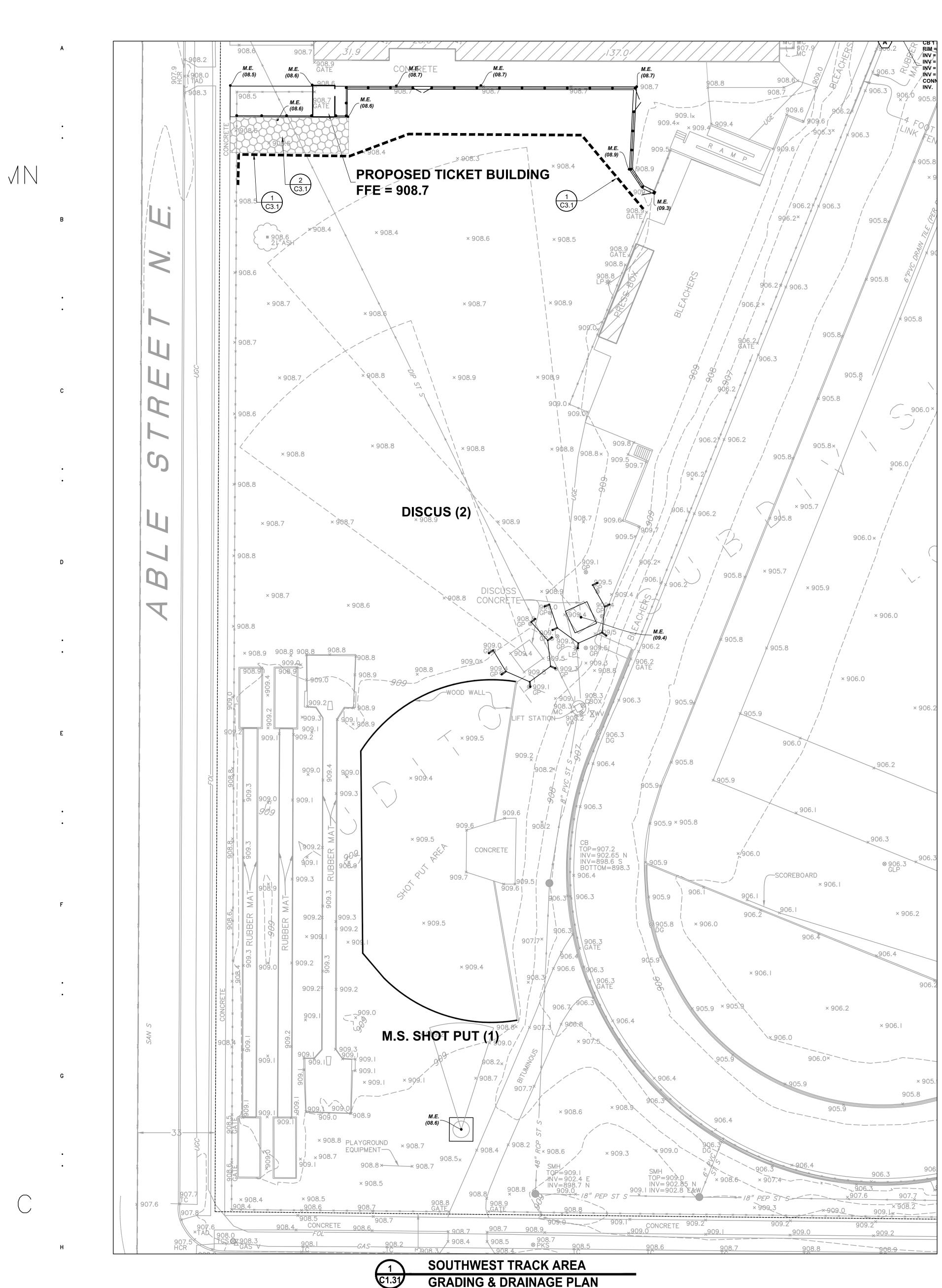
 $\begin{pmatrix} 8'H \\ 8'W \end{pmatrix}$  8' WIDE, 8' HIGH DOUBLE SWING GATE WITH LOCKING DEVICE  $\begin{pmatrix} 14 \\ C3.1 \end{pmatrix}$ 

(3'H) 10' WIDE, 8' HIGH DOUBLE SWING GATE WITH LOCKING DEVICE (14)

TO ARCHITECTURAL PLANS

**KEY NOTES** 





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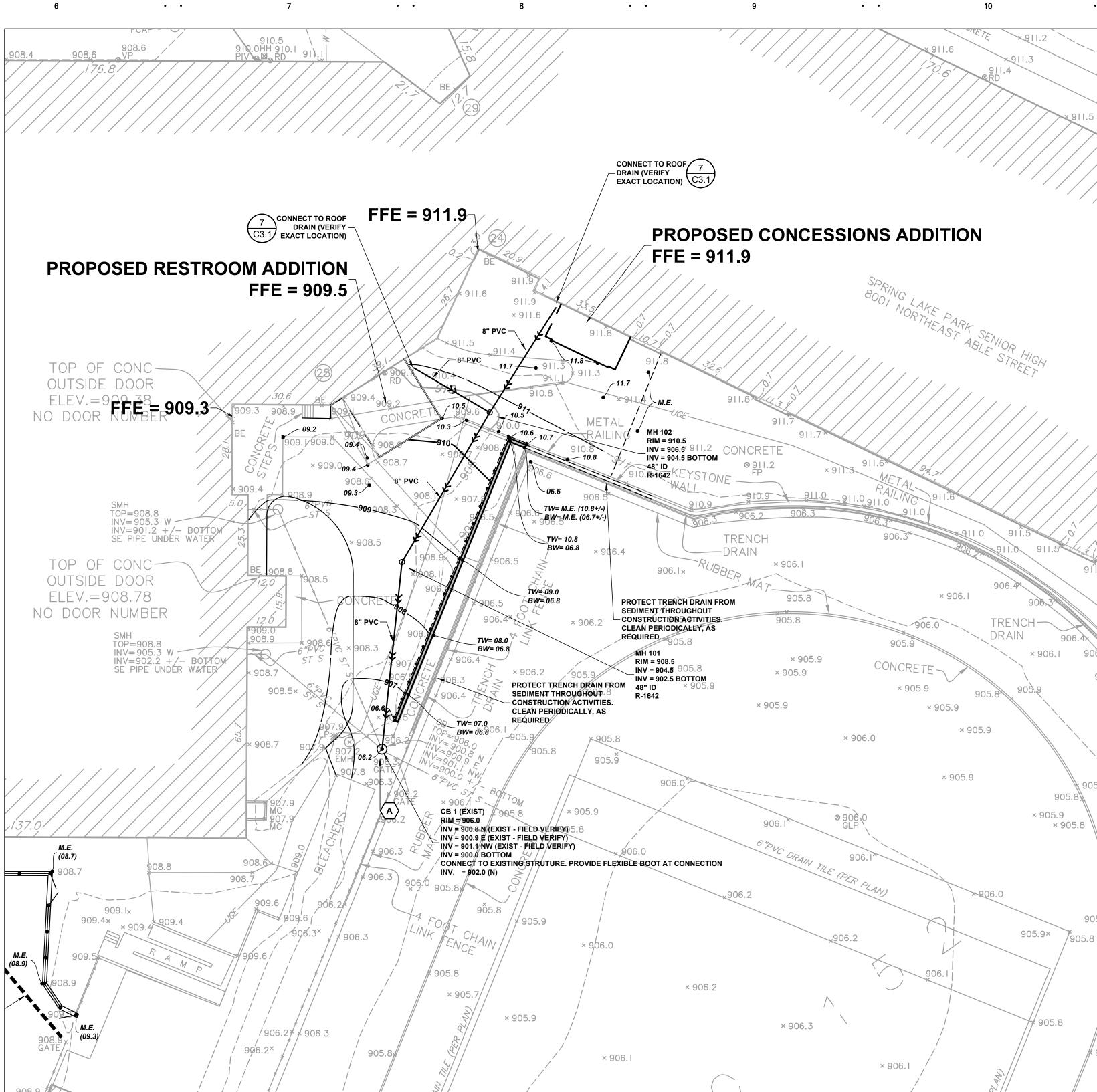
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**GRADING & DRAINAGE PLAN** 



## **GENERAL NOTES**

	ALL CONSTRUCTION MUST COMPLY WITH APPLICABLE STATE AND LOCAL ORDINANCES.
	THE CONTRACTOR WILL BE RESPONSIBLE FOR AND SHALL PAY FOR ALL CONSTRUCTION STAKING / LAYOUT.
	THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL RELATED CONSTRUCTION PERMITS, INCLUDING THE NPDES PERMIT FROM THE MPCA SUBMIT A COPY OF ALL PERMITS TO THE CITY.
	INSTALL CONTROL FENCING AND BARRICADING AS NECESSARY TO PROTECT THE PUBLIC.
	INSPECT SITE AND REVIEW SOIL BORINGS TO DETERMINE EXTENT OF WORK AND NATURE OF MATERIALS TO BE HANDLED.
	REFER TO SPECIFICATIONS FOR DEWATERING REQUIREMENTS.
	CHECK ALL PLAN AND DETAIL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT.
	REFER TO ARCHITECTURAL PLANS FOR BUILDING AND STOOP DIMENSIONS AND LAYOUT.
	MAINTAIN ADJACENT PROPERTY AND PUBLIC STREETS CLEAN FROM CONSTRUCTION CAUSED DIRT AND DEBRIS ON A DAILY BASIS. PROTECT DRAINAGE SYSTEMS FROM SEDIMENTATION AS A RESULT OF CONSTRUCTION RELATED DIRT AND DEBRIS.
-	MAINTAIN DUST CONTROL DURING GRADING OPERATIONS.
•	ALL EROSION CONTROL METHODS SHALL COMPLY WITH MPCA AND LOCAL REGULATIONS.
-	CONTRACTOR SHALL MINIMIZE DISTURBANCE TO SITE AND PROTECT EXISTING SITE FEATURES (INCLUDING TURF AND VEGETATION) WHICH ARE TO REMAIN.
-	PROPOSED CONTOURS AND SPOT ELEVATIONS ARE SHOWN TO FINISH GRADE UNLESS OTHERWISE NOTED.
•	PROPOSED ELEVATIONS SHOWN TYPICALLY AS 10.1 OR 10 SHALL BE UNDERSTOOD TO MEAN 910.1 OR 910.
-	SPOT ELEVATIONS WITH LABELS OUTSIDE THE BUILDING PERIMETER INDICATE PROPOSED GRADES OUTSIDE THE BUILDING. SPOT ELEVATIONS WITH LABELS INSIDE THE BUILDING PERIMETER INDICATE PROPOSED FINISH FLOOR ELEVATIONS.
-	THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING QUANTITIES OF CUT, FILL AND WASTE MATERIALS TO BE HANDLED, AND FOR AMOUNT OF GRADING TO BE DONE IN ORDER TO COMPLETELY PERFORM ALL WORK INDICATED ON THE DRAWINGS. IMPORT SUITABLE MATERIAL AND EXPORT UNSUITABLE / EXCESS / WASTE MATERIAL AS REQUIRED. ALL COSTS ASSOCIATED WITH IMPORTING AND EXPORTING MATERIALS SHALL BE INCIDENTAL TO THE CONTRACT.
-	NO FINISHED SLOPES SHALL EXCEED 3' HORIZONTAL TO 1' VERTICAL (3:1), UNLESS OTHERWISE NOTED.
-	ALL DISTURBED AREAS OUTSIDE THE BUILDING PAD WHICH ARE NOT DESIGNATED TO BE PAVED SHALL RECEIVE AT LEAST 6" OF TOPSOIL AND SHALL BE SODDED.
	WHERE NEW SOD MEETS EXISTING SOD, EXISTING SOD EDGE SHALL BE CUT TO ALLOW FOR A CONSISTENT, UNIFORM STRAIGHT EDGE. JAGGED OR UNEVEN EDGES WILL NOT BE ACCEPTABLE. REMOVE TOPSOIL AT JOINT BETWEEN EXISTING AND NEW AS REQUIRED TO ALLOW NEW SOD SURFACE TO BE FLUSH WITH EXISTING.
)_	FAILURE OF TURF DEVELOPMENT: IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN ACCEPTABLE TURF, THE CONTRACTOR SHALL RE-SOD ALL APPLICABLE AREAS, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.

21. LOCATE ALL EXISTING UTILITIES, VERIFY LOCATION, SIZE AND INVERT ELEVATION OF ALL EXISTING UTILITIES. VERIFY LOCATIONS, SIZES AND ELEVATIONS OF SAME BEFORE BEGINNING CONSTRUCTION.

22. CONTRACTOR SHALL MAINTAIN DRAINAGE FROM EXISTING BUILDING AT ALL TIMES. PROVIDE TEMPORARY STORM SEWER (INCLUDING, BUT NOT LIMITED TO, CATCH BASINS, MANHOLES, PIPING, ETC.) AS REQUIRED, EXISTING STORM SEWER SHALL NOT BE REMOVED UNTIL TEMPORARY OR PERMANENT STORM SEWER IS INSTALLED AND FUNCTIONAL. COORDINATE ALL REMOVALS WITH APPROPRIATE TRADES (SITE UTILITY CONTRACTOR, MECHANICAL CONTRACTOR, ETC.) AS REQUIRED.

## **CONCESSIONS / RESTROOMS AREA GRADING & DRAINAGE PLAN**

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C1.31

## ARY TO PROTECT THE PUBLIC.

- IE BEFORE FIELD LAYOUT.
- P DIMENSIONS AND LAYOUT.

## LEGEND (1) (C3.1) REFERENCE KEY TO SITE DETAILS DETAIL I.D NUMBER (TOP) DETAIL SHEET NUMBER (BOTTOM) 9/0 — EXISTING CONTOUR EXISTING SPOT ELEVATION ×910.1 910 — PROPOSED CONTOUR **PROPOSED SPOT ELEVATION ME = MATCH EXISTING** ∕ 10.6 TW = TOP OF WALL **BW = BOTTOM OF WALL APPROXIMATE SOIL BORING / TEST PIT LOCATION** $\Theta_{SB-1}$ **PROPOSED MANHOLE** $\begin{pmatrix} 24 \\ C3.1 \end{pmatrix}$ PROPOSED BUILDING STOOP - REFER TO ARCHITECTURAL PLANS $\geq$ --- SILT FENCE $\begin{pmatrix} 1 \\ C3.1 \end{pmatrix}$ $\begin{bmatrix} 2 \\ C3.1 \end{bmatrix}$ ROCK CONSTRUCTION ENTRANCE $\begin{pmatrix} 2 \\ C3.1 \end{bmatrix}$ STORM SEWER INLET PROTECTION $\begin{pmatrix} 4 \\ C3.1 \end{pmatrix}$ $\langle \mathbf{A} \rangle$ ----- PROPERTY LINE

## BENCHMARKS (NAVD 29) FIELD VERIFY BEFORE USING

- Top of top nut of fire hydrant +/- 50 feet East of doors 40,41,42 Elevation = 914.42 feet
- 2. Top of top nut of fire hydrant at the Southeast corner of Tennis Courts on West Side of Enterance Road Elevation = 913.63 feet
- 3. Top of top nut of fire hydrant +/- 100 feet East of Main entrance Elevation = 916.12 feet
- 4. Top of top nut of fire hydrant Southwest of ramp bridge +/- 40 feet of Northeast corner of school building Elevation = 916.75 feet
- 5. Top of top nut of fire hydrant Southeast of highway ramp bridge, East of curb Elevation = 914.94
- 6. Top of top nut of fire hydrant South of school, East of football field Elevation = 913.03



Scale: **1" = 20'** 



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## NOTES:

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 REFER TO SHEET C2.31- BALLFIELD IMPROVEMENTS- GRADING AND DRAINAGE PLAN FOR GENERAL NOTES.
 MINIMIZE DISTURBANCE TO SITE AND PROTECT EXISTING VEGETATION AND SITE FEATURES (CURBS, WALKS, PAVEMENTS, OVERHEAD AND UNDERGROUND UTILITIES, SIGNAGE, FENCING,

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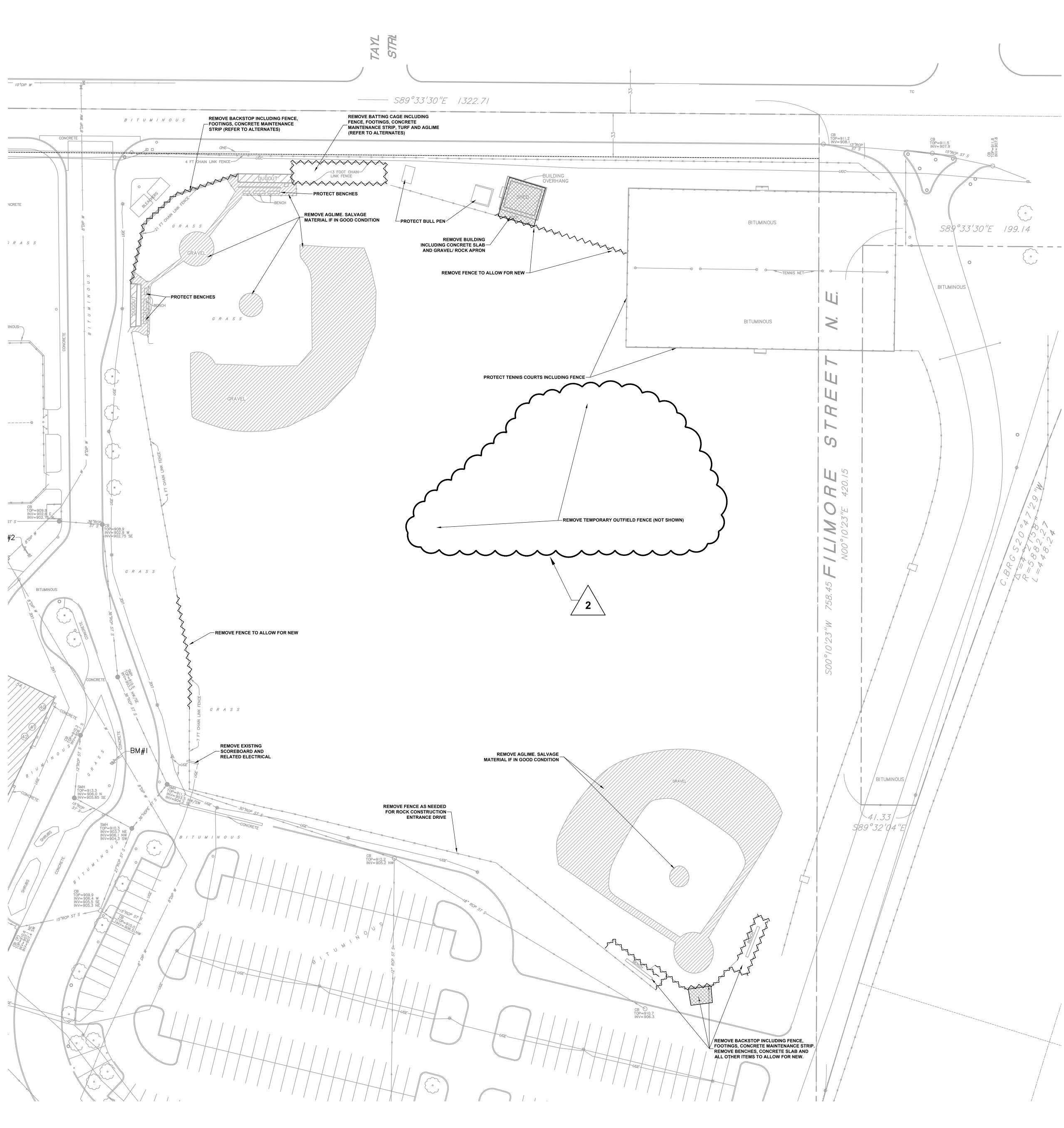
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- (CURBS, WALKS, PAVEMENTS, OVERHEAD AND UNDERGROUND UTILITIES, SIGNAGE, FENCING ROADWAYS, ETC.) WHICH ARE TO REMAIN.
   REPAIR OR REPLACE EXISTING PROPERTY AND SITE FEATURES, INCLUDING GRASS AND
- VEGETATION, WHICH IS TO REMAIN THAT IS DAMAGED BY THE WORK, TO OWNER'S SATISFACTION AND AT NO ADDITIONAL COST TO THE OWNER.
- 4. VISIT THE SITE PRIOR TO BIDDING; BE FAMILIAR WITH ACTUAL CONDITIONS IN THE FIELD. EXTRA COMPENSATION WILL NOT BE ALLOWED FOR CONDITIONS WHICH COULD HAVE BEEN DETERMINED OR ANTICIPATED BY EXAMINATION OF THE SITE, THE CONTRACT DRAWINGS AND THE INFORMATION AVAILABLE PERTAINING TO EXISTING SOILS, UTILITIES AND OTHER SITE CHARACTERISTICS.
- 5. THE CONTRACTOR SHALL HIRE THE SERVICES OF A UTILITY LOCATOR COMPANY TO LOCATE ALL PRIVATELY OWNED UTILITIES THAT MAY BE DISTURBED BY CONSTRUCTION OPERATIONS.

## LEGEND

- AGLIME REMOVALS
- CONCRETE PAVEMENT REMOVALS



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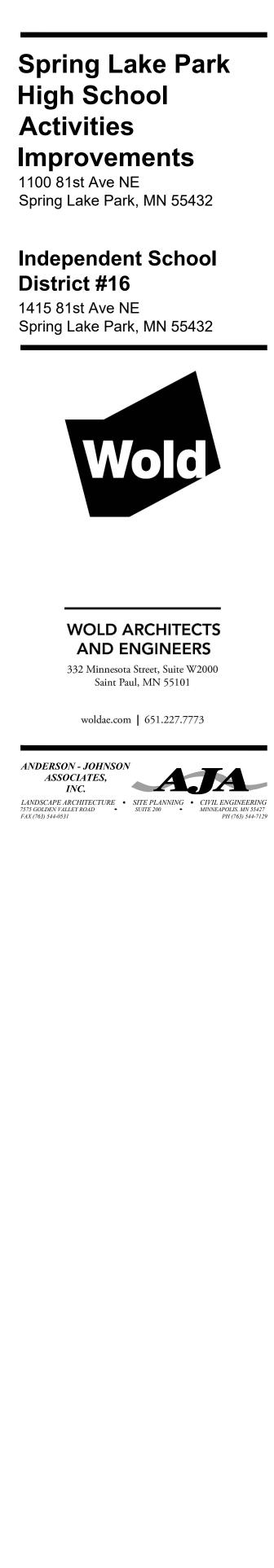
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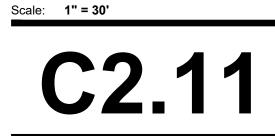


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed LANDSCAPE ARCHITECT under the laws of the State of MINNESOTA

egistration Number 23543 Date 02/27/2019 Revisions escription Date Nu Addendum 2 03.25.2019

**REMOVALS PLAN** 

BALLFIELD



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  - - FENCING KEY NOTES  $\begin{pmatrix} 4'\\ CLF \end{pmatrix}$  4' HIGH CHAIN LINK FENCE  $\begin{pmatrix} 13\\ C3.1 \end{pmatrix}$  $\begin{pmatrix} 7'\\ CLF \end{pmatrix}$  7' HIGH CHAIN LINK FENCE  $\begin{pmatrix} 13\\ C3.1 \end{pmatrix}$  $\begin{array}{c} \hline 10^{\prime} \text{ WIDE, 7' HIGH DOUBLE SWING GATE WITH LOCKING DEVICE} \\ \hline 10^{\prime} \text{ WIDE, 7' HIGH DOUBLE SWING GATE WITH LOCKING DEVICE} \\ \hline 14 \\ \hline 10^{\prime} \text{ C3.1} \end{array}$ 
      - $\begin{pmatrix} 8'\\ CLF \end{pmatrix}$  8' HIGH CHAIN LINK FENCE  $\begin{pmatrix} 13\\ C3.1 \end{pmatrix}$ (3'H) 4' WIDE, 8' HIGH SINGLE SWING GATE WITH LOCKING DEVICE (14)
        - LEGEND
        - REFERENCE KEY TO SITE DETAILS DETAIL I.D NUMBER (TOP) DETAIL SHEET NUMBER (BOTTOM) 1 C3.1  $PROPOSED CONCRETE SLAB \begin{pmatrix} 23 \\ C3.1 \end{pmatrix}$ 8' CLF FENCING KEY NOTE - SEE KEY NOTES ----- PROPERTY LINE
        - NOTES:

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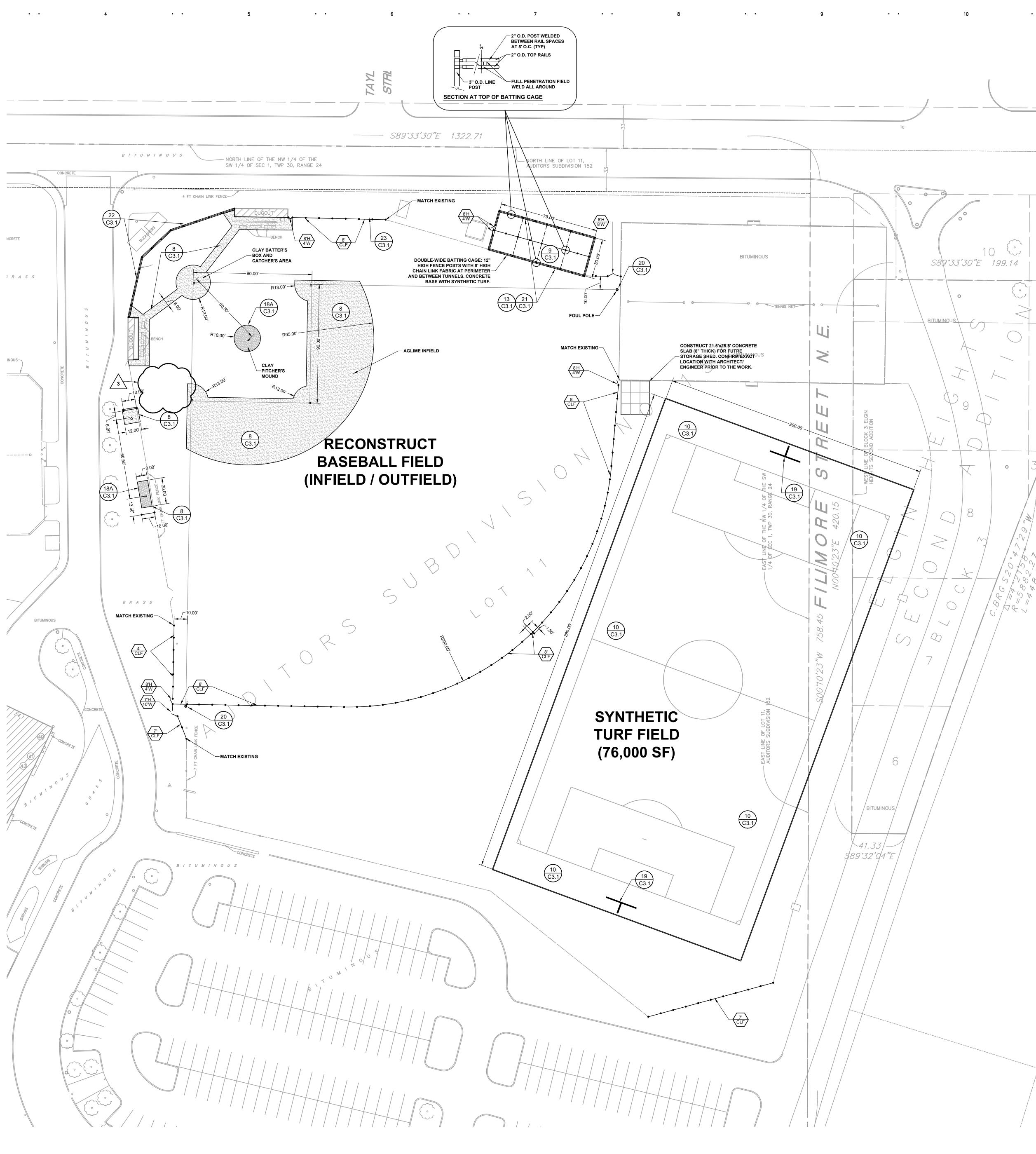
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- 1. REFER TO SHEET C2.31- GRADING AND DRAINAGE PLAN FOR GENERAL NOTES.
- CHECK ALL PLAN AND DETAIL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT 2. ALL DISTURBED AREAS OUTSIDE THE BUILDING PAD, TURF OR AGLIME AREAS WHICH ARE NOT DESIGNATED TO BE PAVED SHALL RECEIVE AT LEAST 6" OF TOPSOIL AND SHALL BE SEEDED.
- 3. FAILURE OF TURF DEVELOPMENT: IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN ACCEPTABLE TURF, THE CONTRACTOR SHALL RE-SEED ALL APPLICABLE AREAS, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.





Scale: **1" = 30'** 

LAYOUT AND FINISHING PLAN

BALLFIELD

stration Number 23543 escription Addendum 2 Addendum 3 Date: 02/27/2019 Check: JRP North

me or under my direct supervision and that I am a duly Licensed LANDSCAPE ARCHITEC under the laws of the State of

I hereby certify that this plan, specification or report was prepared by

woldae.com | 651.227.7773 ANDERSON - JOHNSON

ASSOCIATES,

INC.



WOLD ARCHITECTS AND ENGINEERS

332 Minnesota Street, Suite W2000 Saint Paul, MN 55101

LANDSCAPE ARCHITECTURE • SITE PLANNING • CIVIL ENGINEERING 7575 GOLDEN VALLEY ROAD • SUITE 200 • MINNEAPOLIS. MN 55427 FAX (763) 544-0531 PH (763) 544-7129



Spring Lake Park, MN 55432

Spring Lake Park High School Activities Improvements 1100 81st Ave NE Spring Lake Park, MN 55432

Independent School District #16 1415 81st Ave NE

		. Top of top nut of fire hydrant +/- 50 feet East of doors 40,41,42 Elevation = 914.42 feet
	:	Top of top nut of fire hydrant at the Southeast corner of Tennis Courts on West Side of Enterance Road Elevation = 913.63 feet
		5. Top of top nut of fire hydrant +/- 100 feet East of Main entrance Elevation = 916.12 feet
•		. Top of top nut of fire hydrant Southwest of ramp bridge +/- 40 feet of Northeast corner of school building Elevation = 916.75 feet
1	ł	5. Top of top nut of fire hydrant Southeast of highway ramp bridge, East of curb Elevation = 914.94
N	(	5. Top of top nut of fire hydrant South of school, East of football field Elevation = 913.03
В	1	
		GENERAL NOTES
		. ALL CONSTRUCTION MUST COMPLY WITH APPLICABLE STATE AND LOCAL ORDINANCES.
	2	THE CONTRACTOR WILL BE RESPONSIBLE FOR AND SHALL PAY FOR ALL CONSTRUCTION STAKING / LAYOUT.
•		5. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL RELATED CONSTRUCTION PERMITS, INCLUDING THE NPDES PERMIT FROM THE MPCA. SUBMIT A COPY OF ALL PERMITS TO THE CITY.
•	. 4	INSTALL CONTROL FENCING AND BARRICADING AS NECESSARY TO PROTECT THE PUBLIC.
	ţ	5. INSPECT SITE AND REVIEW SOIL BORINGS TO DETERMINE EXTENT OF WORK AND NATURE OF MATERIALS TO BE HANDLED.
	(	REFER TO SPECIFICATIONS FOR DEWATERING REQUIREMENTS.
	7	CHECK ALL PLAN AND DETAIL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT.
с		REFER TO ARCHITECTURAL PLANS FOR BUILDING AND STOOP DIMENSIONS AND LAYOUT.
C		REFER TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE, PART OF SECTION 01 89 13, FOR EROSION CONTROL REQUIREMENTS. SECTION 31 00 00 SHALL BE RESPONSIBLE FOR FULL IMPLEMENTATION OF THE SWPPP.
	1	0. MAINTAIN ADJACENT PROPERTY AND PUBLIC STREETS CLEAN FROM CONSTRUCTION CAUSED DIRT AND DEBRIS ON A DAILY BASIS. PROTECT DRAINAGE SYSTEMS FROM SEDIMENTATION AS A RESULT OF CONSTRUCTION RELATED DIRT AND DEBRIS.
		1. MAINTAIN DUST CONTROL DURING GRADING OPERATIONS.
•	, , 1	2. ALL EROSION CONTROL METHODS SHALL COMPLY WITH MPCA AND LOCAL REGULATIONS.
	1	3. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO SITE AND PROTECT EXISTING SITE FEATURES (INCLUDING TURF AND VEGETATION) WHICH ARE TO REMAIN.
	1	4. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE SHOWN TO FINISH GRADE UNLESS OTHERWISE NOTED.
	1	5. PROPOSED ELEVATIONS SHOWN TYPICALLY AS 10.1 OR 10 SHALL BE UNDERSTOOD TO MEAN 910.1 OR 910.
D		6. SPOT ELEVATIONS SHOWN AT FENCING OR CURB INDICATE TOP OF MAINTENANCE STRIP, TOP OF CURB OR GRASS FINISH GRADE, UNLESS NOTED OTHERWISE.
	1	7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING QUANTITIES OF CUT, FILL AND WASTE MATERIALS TO BE HANDLED, AND FOR AMOUNT OF GRADING TO BE DONE IN ORDER TO COMPLETELY PERFORM ALL WORK INDICATED ON THE DRAWINGS. IMPORT SUITABLE MATERIAL AND EXPORT UNSUITABLE / EXCESS / WASTE MATERIAL AS REQUIRED. ALL COSTS ASSOCIATED WITH IMPORTING AND EXPORTING MATERIALS SHALL BE INCIDENTAL TO THE CONTRACT.
	1	8. NO FINISHED SLOPES SHALL EXCEED 4' HORIZONTAL TO 1' VERTICAL (4:1), UNLESS OTHERWISE NOTED.
•	, 1 ,	9. ALL DISTURBED AREAS OUTSIDE THE SYNTHETIC TURF FIELD OR AREAS DESIGNATED TO BE PAVED OR RECEIVE AGLIME SHALL RECEIVE AT LEAST 6" OF TOPSOIL AND SHALL BE SEEDED.
	:	20. FAILURE OF TURF DEVELOPMENT: IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN ACCEPTABLE TURF, THE CONTRACTOR SHALL RE-SEED ALL APPLICABLE AREAS, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.
	:	1. LOCATE ALL EXISTING UTILITIES, VERIFY LOCATION, SIZE AND INVERT ELEVATION OF ALL EXISTING UTILITIES. VERIFY LOCATIONS, SIZES AND ELEVATIONS OF SAME BEFORE BEGINNING CONSTRUCTION.
E		LEGEND
		1       REFERENCE KEY TO SITE DETAILS         C3.1       DETAIL I.D NUMBER (TOP)         DETAIL SHEET NUMBER (BOTTOM)
		× 910.1 EXISTING SPOT ELEVATION
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----- PROPERTY LINE

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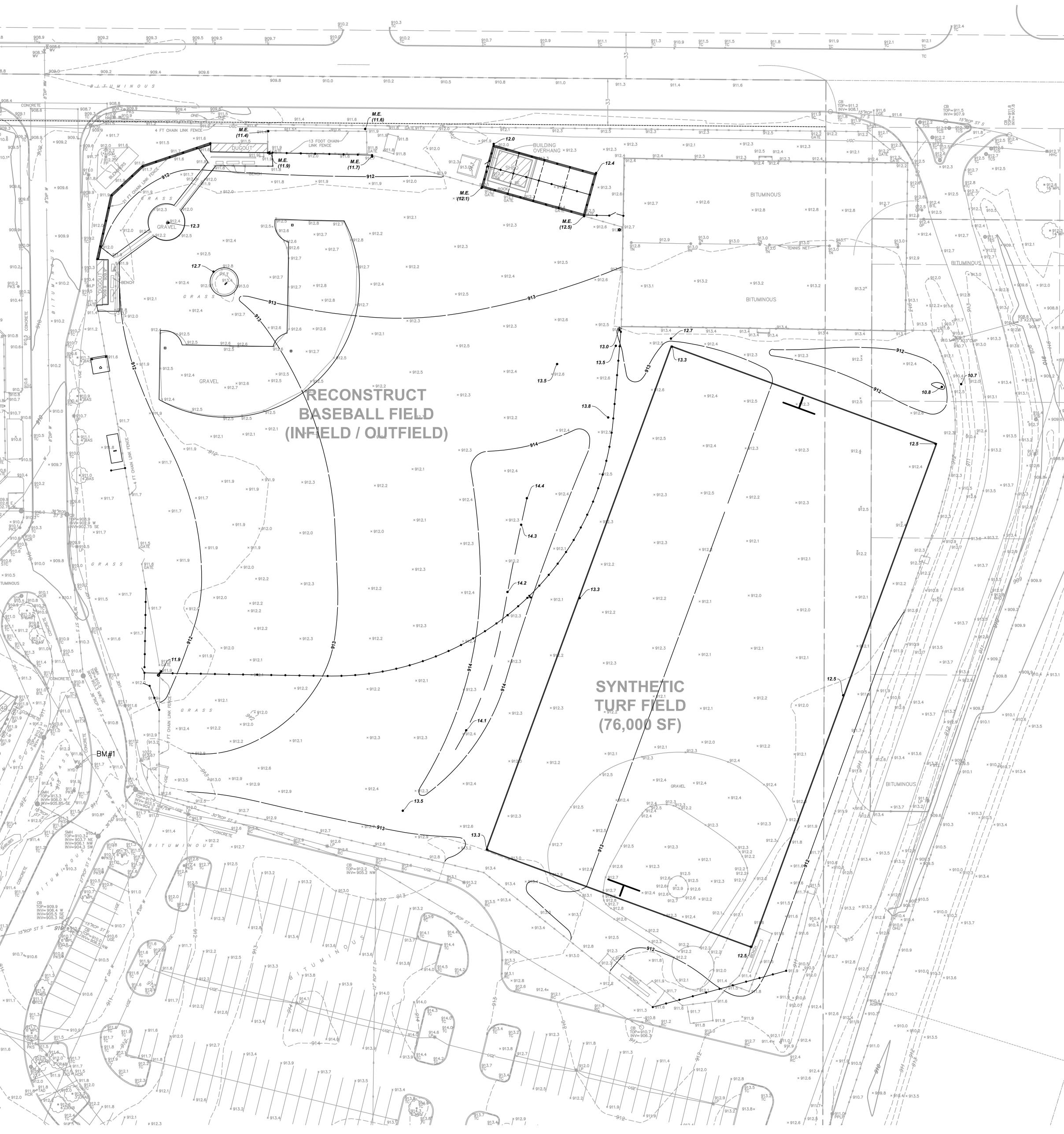
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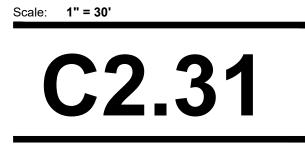
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GRADING AND DRAINAGE PLAN

LANDSCAPE ARCHITECTURE • SITE PLANNING • CIVIL ENGINEERING 7575 GOLDEN VALLEY ROAD • SUITE 200 • MINNEAPOLIS, MN 55427 FAX (763) 544-0531 • PH (763) 544-7129

INC.

WOLD ARCHITECTS AND ENGINEERS 332 Minnesota Street, Suite W2000 Saint Paul, MN 55101 woldae.com | 651.227.7773 ANDERSON - JOHNSON ASSOCIATES,

Spring Lake Park High School

Improvements

1100 81st Ave NE Spring Lake Park, MN 55432

Independent School

Spring Lake Park, MN 55432

Activities

District #16

1415 81st Ave NE



× 912.5



























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 under the laws of the State of MINNESOTA

LANDSCAPE ARCHITECT

JAYR. POMER egistration Number 23543 Date

Revisions

Comm: <u>172183</u>

Date: 02/27/2019 

BALLFIELD

## NOTES

1. REFER TO SHEET C2.31- BALLFIELD IMPROVEMENTS- GRADING AND DRAINAGE PLAN FOR GENERAL NOTES.

- 2. ALL STORM SEWER PIPE SHALL BE PVC PIPE (ASTM D3034, SDR 35) INSTALLED IN ACCORDANCE WITH ASTM D2321, UNLESS OTHERWISE NOTED 3. FLEXIBLE JOINTS AT STORM SEWER PIPE CONNECTIONS TO STRUCTURES:
- a. IN ACCORDANCE WITH MINNESOTA PLUMBING CODE, PROVIDE FLEXIBLE JOINTS AT ALL PIPE CONNECTIONS TO ALL STORM SEWER STRUCTURES.

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ACCEPTABLE MANUFACTURERS / PRODUCTS: FERNCO, "CONCRETE MANHOLE ADAPTORS" OR "LARGE-DIAMETER WATERSTOPS"

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- PRESS-SEAL, WATERSTOP GROUTING RINGS" OR APPROVED EQUAL. iii.
- 4. ANY MANHOLE, CATCH BASIN, STORM SEWER, SANITARY SEWER, DRAINTILE OR OTHER POTENTIAL SOURCE FOR CONTAMINATION SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY WATERMAIN PER MINNESOTA PLUMBING CODE. THIS ISOLATION DISTANCE SHALL BE MEASURED FROM THE OUTER EDGE OF THE PIPE TO THE OUTER EDGE OF THE CONTAMINATION SOURCE (OUTER EDGE OF STRUCTURES OR PIPING OR SIMILAR).
- 5. LOCATE ALL EXISTING UTILITIES, VERIFY LOCATION, SIZE AND INVERT ELEVATION OF ALL EXISTING UTILITIES. VERIFY LOCATIONS, SIZES AND **ELEVATIONS OF SAME BEFORE BEGINNING CONSTRUCTION.**
- 6. REFER TO SWPPP NARRATIVE (SECTION 01 89 13) FOR CONSTRUCTION SEQUENCING AND EROSION CONTROL REQUIREMENTS.
- MAINTAIN ADJACENT PROPERTY AND PUBLIC STREETS CLEAN FROM CONSTRUCTION CAUSED DIRT AND DEBRIS ON A DAILY BASIS. PROTECT DRAINAGE SYSTEMS FROM SEDIMENTATION AS A RESULT OF CONSTRUCTION RELATED DIRT AND DEBRIS.
- <sup>B</sup> 8. MAINTAIN DUST CONTROL DURING GRADING OPERATIONS.
- 9. ALL EROSION CONTROL METHODS SHALL COMPLY WITH MPCA AND OTHER LOCAL REGULATIONS.
- BE RESPONSIBLE FOR CLEANING OUT DOWNSTREAM STORM SEWERS AS NECESSARY. INCLUDING ASSOCIATED RESTORATION. 11. SEDIMENT CONTROL DEVICE AT STORM SEWER INLETS. AT THE INLETS TO ALL STORM SEWER STRUCTURES, PROVIDE A PRODUCT FROM THE FOLLOWING LIST. ACCEPTABLE PRODUCTS:
- WIMCO TOP SLAB™ MODEL RD 27
- INFRASAFE® SEDIMENT CONTROL BARRIER, DISTRIBUTED BY ROYAL ENVIRONMENTAL SYSTEMS, INC. SCB'S SHALL BE SIZED SPECIFICALLY FOR THE STRUCTURE AND CASTING SPECIFIED. SCB'S SHALL BE EQUIPPED WITH FRAME AND PERFORATED SHROUD AND
- SHALL BE WRAPPED ON THE OUTSIDE, COVERING THE PERFORATED WALL ONLY, WITH A GEOTEXTILE SOCK. DANDY BAG® OR DANDY BAG II® DISTRIBUTED BY BROCK WHITE COMPANY, ST. PAUL, MN (615) 647-0950. DANDY BAG SHALL BE USED ONLY FOR CURB INLETS AFTER PAVEMENT (BINDER COURSE OR WEAR COURSE) IS INSTALLED OR AT EXISTING PAVED AREAS.
- INFRASAFE® DEBRIS COLLECTION DEVICE BY ROYAL ENVIRONMENTAL SYSTEMS, INC., DISTRIBUTED BY ESS BROTHERS, 9350 COUNTY ROAD 19, CORCORAN, MN 55357 DCD'S SHALL BE SIZED SPECIFICALLY FOR THE STRUCTURE AND CASTING SPECIFIED. PROVIDE FILTER BAGS AND TIES FOR COMPLETE INSTALLATION.
- OR APPROVED EQUAL.
- c 12. PRIOR TO CONSTRUCTION, DELINEATE TURF AND VEGETATED AREAS NOT TO BE DISTURBED WITH ORANGE SNOW FENCE. NO CONSTRUCTION TRAFFIC, EQUIPMENT OR MATERIALS SHALL BE PERMITTED TO UTILIZE, ACCESS, OR OTHERWISE ENTER THE AREAS DESIGNATED NOT TO BE DISTURBED. MINIMIZE SOIL COMPACTION AND DISRUPTION OF TOPSOIL IN AREAS OUTSIDE THE CONSTRUCTION LIMITS TO COMPLY WITH MN CONSTRUCTION STORMWATER GENERAL PERMIT.

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)	11.6	PROPOSED SPOT ELEVATION ME = MATCH EXISTING	
	<u>1"x12" FLAT TILE</u>		
		COLLECTOR DRAIN - PERFORATED PVC A-2000	
		STORM SEWER PIPE $6$ C3.1	
•	()()	SEDIMENT LOG (3) C3.1	
•		ROCK CONSTRUCTION ENTRANCE	
	$\langle \mathbf{A} \rangle$	STORM SEWER INLET PROTECTION $\begin{pmatrix} 4 \\ C3.1 \end{pmatrix}$	

## **APPROXIMATE EROSION CONTROL DEVICE QUANTITIES**

Provide final stabilization and cleanup of the site.

SILT FENCE = 1,450 L.F. SEDIMENT CONTROL LOG = 140 L.F.

**ROCK CONSTRUCTION ENTRANCE = 30 C.Y.** 

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requirements of the permit.

SEDIMENT CONTROL DEVICE AT STORM SEWER INLET = 4

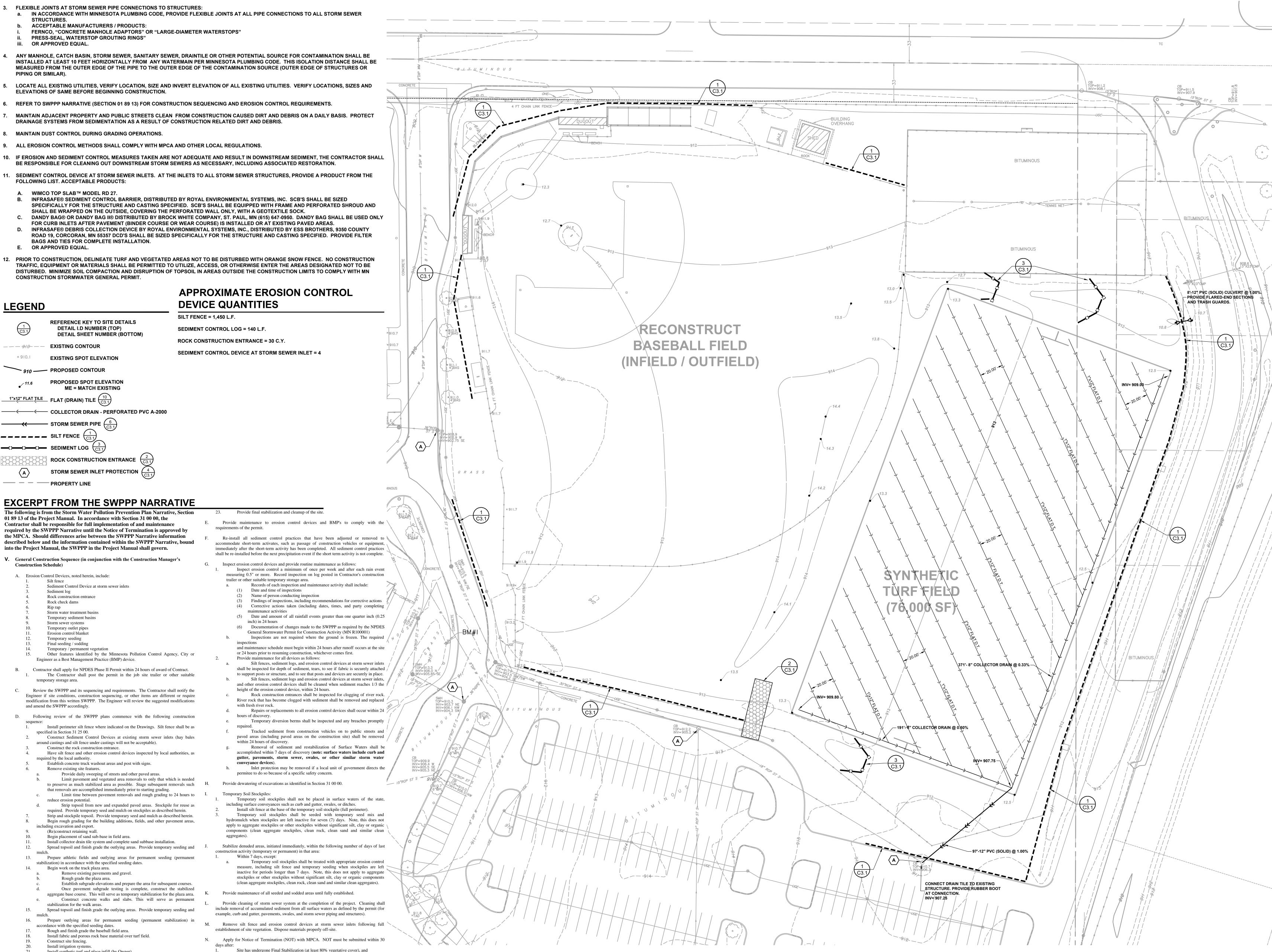
## **EXCERPT FROM THE SWPPP NARRATIVE**

- The following is from the Storm Water Pollution Prevention Plan Narrative, Section 01 89 13 of the Project Manual. In accordance with Section 31 00 00, the Contractor shall be responsible for full implementation of and maintenance required by the SWPPP Narrative until the Notice of Termination is approved by the MPCA. Should differences arise between the SWPPP Narrative information described below and the information contained within the SWPPP Narrative, bound into the Project Manual, the SWPPP in the Project Manual shall govern.
- V. General Construction Sequence (in conjunction with the Construction Manager's **Construction Schedule**) A. Erosion Control Devices, noted herein, include: Silt fence
- Sediment Control Device at storm sewer inlets Sediment log Rock construction entrance Rock check dams Rip rap Storm water treatment basins Temporary sediment basins Storm sewer systems Temporary outlet pipes Erosion control blanket Temporary seeding Final seeding / sodding 14. Temporary / permanent vegetation Other features identified by the Minnesota Pollution Control Agency, City or

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- Engineer as a Best Management Practice (BMP) device. Contractor shall apply for NPDES Phase II Permit within 24 hours of award of Contract. B. The Contractor shall post the permit in the job site trailer or other suitable
- temporary storage area. Review the SWPPP and its sequencing and requirements. The Contractor shall notify the C. Engineer if site conditions, construction sequencing, or other items are different or require modification from this written SWPPP. The Engineer will review the suggested modifications
- and amend the SWPPP accordingly. Following review of the SWPPP plans commence with the following construction sequence Install perimeter silt fence where indicated on the Drawings. Silt fence shall be as specified in Section 31 25 00.
- Construct Sediment Control Devices at existing storm sewer inlets (hay bales around castings and silt fence under castings will not be acceptable). Construct the rock construction entrance. Have silt fence and other erosion control devices inspected by local authorities, as
- required by the local authority. Establish concrete truck washout areas and post with signs. Remove existing site features.
- Provide daily sweeping of streets and other paved areas. Limit pavement and vegetated area removals to only that which is needed to preserve as much stabilized area as possible. Stage subsequent removals such Н. that removals are accomplished immediately prior to starting grading.
- Limit time between pavement removals and rough grading to 24 hours to reduce erosion potential. Strip topsoil from new and expanded paved areas. Stockpile for reuse as red Provide temporary seed and mulch on stockpiles as described herein
- Strip and stockpile topsoil. Provide temporary seed and mulch as described herein. Begin rough grading for the building additions, fields, and other pavement areas, including excavation and export. (Re)construct retaining wall. Begin placement of sand sub-base in field area. 10.
- Install collector drain tile system and complete sand subbase installation. 12. Spread topsoil and finish grade the outlying areas. Provide temporary seeding and mulch.
- Prepare athletic fields and outlying areas for permanent seeding (permanent 13. stabilization) in accordance with the specified seeding dates. 14. Begin work on the track plaza area.
- Remove existing pavements and gravel. a. Rough grade the plaza area.
- Establish subgrade elevations and prepare the area for subsequent courses. Once pavement subgrade testing is complete, construct the stabilized aggregate base course. This will serve as temporary stabilization for the plaza area. Construct concrete walks and slabs. This will serve as permanent е. stabilization for the walk areas.
- 15. Spread topsoil and finish grade the outlying areas. Provide temporary seeding and mulch. 16. Prepare outlying areas for permanent seeding (permanent stabilization) in accordance with the specified seeding dates.
- Rough and finish grade the baseball field area. 17. Install fabric and porous rock base material over turf field. 18.
- Construct site fencing. Install irrigation systems. Install synthetic turf and place infill (by Owner).
- Sod and seed the turf grass areas. Use a temporary irrigation system to keep sod adequately watered. This will serve as permanent stabilization for the turf grass areas.
- shall be re-installed before the next precipitation event if the short term activity is not complete. Inspect erosion control devices and provide routine maintenance as follows: Inspect erosion control a minimum of once per week and after each rain event measuring 0.5" or more. Record inspection on log posted in Contractor's construction trailer or other suitable temporary storage area. Records of each inspection and maintenance activity shall include: (1) Date and time of inspections Name of person conducting inspection (3) Findings of inspections, including recommendations for corrective actions (4) Corrective actions taken (including dates, times, and party completing maintenance activities (5) Date and amount of all rainfall events greater than one quarter inch (0.25)inch) in 24 hours (6) Documentation of changes made to the SWPPP as required by the NPDES General Stormwater Permit for Construction Activity (MN R100001) Inspections are not required where the ground is frozen. The required inspections and maintenance schedule must begin within 24 hours after runoff occurs at the site or 24 hours prior to resuming construction, whichever comes first. Provide maintenance for all devices as follows: Silt fences, sediment logs, and erosion control devices at storm sewer inlets shall be inspected for depth of sediment, tears, to see if fabric is securely attached to support posts or structure, and to see that posts and devices are securely in place. Silt fences, sediment logs and erosion control devices at storm sewer inlets, and other erosion control devices shall be cleaned when sediment reaches 1/3 the  $/\!\!/$ height of the erosion control device, within 24 hours. Rock construction entrances shall be inspected for clogging of river rock. River rock that has become clogged with sediment shall be removed and replaced with fresh river rock. Repairs or replacements to all erosion control devices shall occur within 24 hours of discovery. Temporary diversion berms shall be inspected and any breaches promptly repaired. Tracked sediment from construction vehicles on to public streets and paved areas (including paved areas on the construction site) shall be removed within 24 hours of discovery. Removal of sediment and restabilization of Surface Waters shall be accomplished within 7 days of discovery (note: surface waters include curb and gutter, pavements, storm sewer, swales, or other similar storm water convevance devices). Inlet protection may be removed if a local unit of government directs the permitee to do so because of a specific safety concern. Provide dewatering of excavations as identified in Section 31 00 00. Temporary Soil Stockpiles: Temporary soil stockpiles shall not be placed in surface waters of the state, including surface conveyances such as curb and gutter, swales, or ditches. Install silt fence at the base of the temporary soil stockpile (full perimeter) Temporary soil stockpiles shall be seeded with temporary seed mix and hydromulch when stockpiles are left inactive for seven (7) days. Note, this does not apply to aggregate stockpiles or other stockpiles without significant silt, clay or organic \ components (clean aggregate stockpiles, clean rock, clean sand and similar clean aggregates). Stabilize denuded areas, initiated immediately, within the following number of days of last construction activity (temporary or permanent) in that area: Within 7 days, except: Temporary soil stockpiles shall be treated with appropriate erosion control a. measure, including silt fence and temporary seeding when stockpiles are left inactive for periods longer than 7 days. Note, this does not apply to aggregate
- stockpiles or other stockpiles without significant silt, clay or organic components (clean aggregate stockpiles, clean rock, clean sand and similar clean aggregates). Provide maintenance of all seeded and sodded areas until fully established.
- Provide cleaning of storm sewer system at the completion of the project. Cleaning shall include removal of accumulated sediment from all surface waters as defined by the permit (for example, curb and gutter, pavements, swales, and storm sewer piping and structures).
- Remove silt fence and erosion control devices at storm sewer inlets following full establishment of site vegetation. Dispose materials properly off-site.
- Apply for Notice of Termination (NOT) with MPCA. NOT must be submitted within 30 days after: Site has undergone Final Stabilization (at least 80% vegetative cover), and
- Removal of all temporary erosion control measures (silt fence, etc.), and Final cleanout and maintenance of all permanent storm water facilities, and Completion of all maintenance activities and site cleanup.

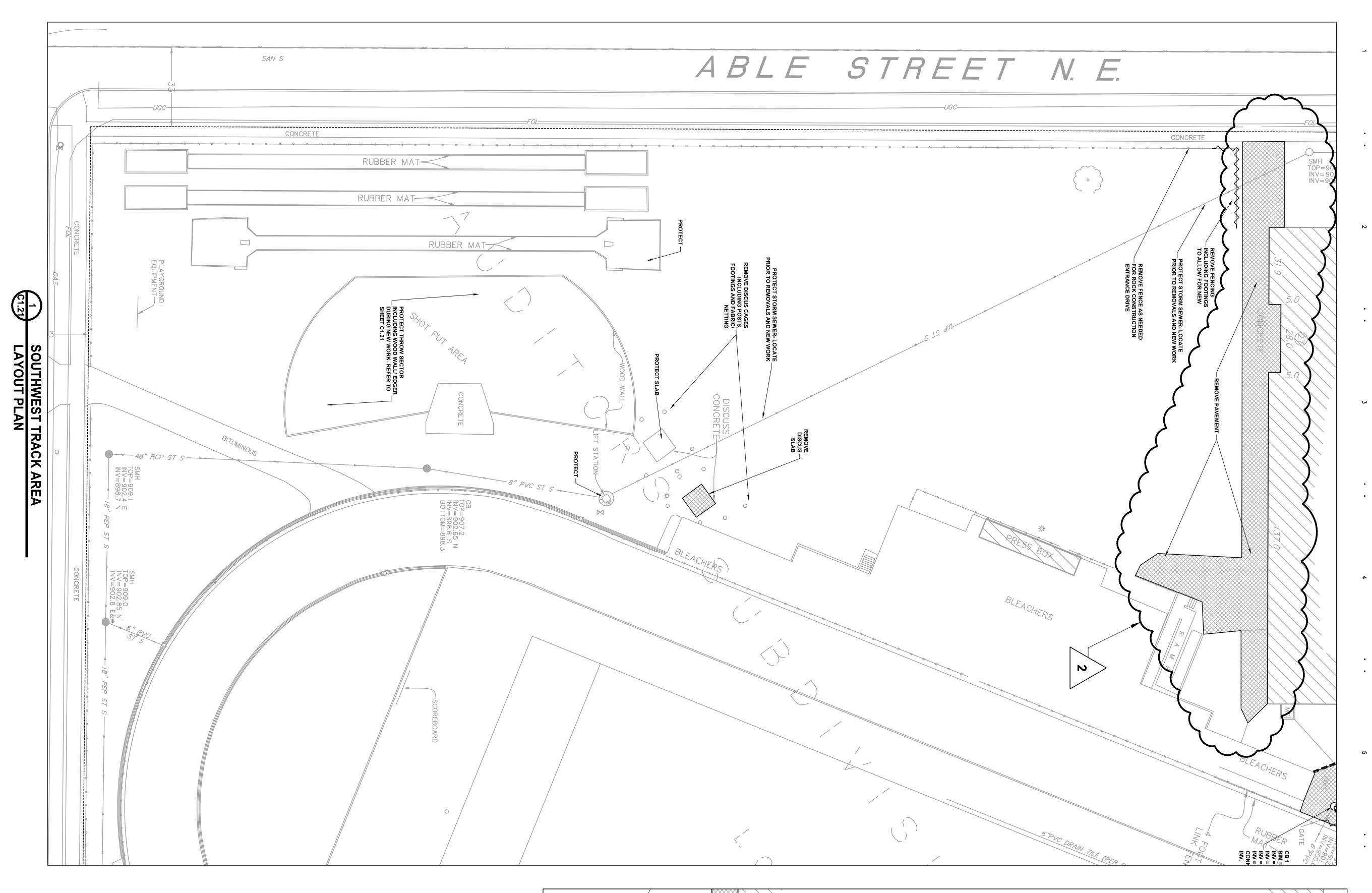
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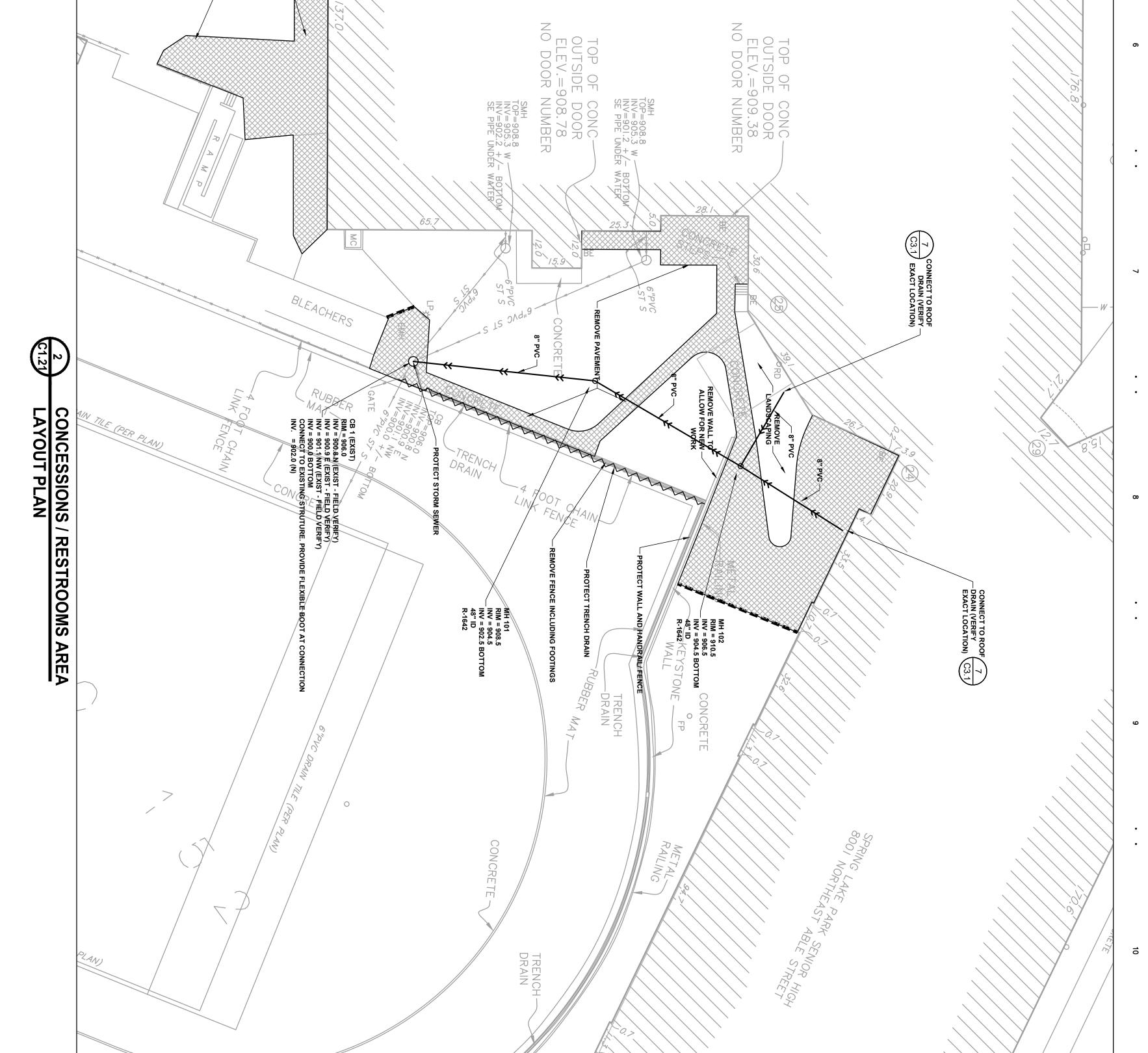
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- REPAIR OR REPLACE EXISTING PROPERTY AND SITE FEATURES, INCLUDING GRASS AND VEGETATION, WHICH IS TO REMAIN THAT IS DAMAGED BY THE WORK, TO OWNER'S SATISFACTION AND AT NO ADDITIONAL COST TO THE OWNER. VISIT THE SITE PRIOR TO BIDDING; BE FAMILIAR WITH ACTUAL CONDITIONS IN THE FIELD. EXTRA COMPENSATION WILL NOT BE ALLOWED FOR CONDITIONS WHICH COULD HAVE BEEN DETERMINED OR ANTICIPATED BY EXAMINATION OF THE SITE, THE CONTRACT DRAWINGS AND THE INFORMATION AVAILABLE PERTAINING TO EXISTING SOILS, UTILITIES AND OTHER SITE CHARACTERISTICS.

MINIMIZE DISTURBANCE TO SITE AND PROTECT EXISTING VEGETATION AND SITE FEATURES (CURBS, WALKS, PAVEMENTS, OVERHEAD AND UNDERGROUND UTILITIES, SIGNAGE, FENCING, ROADWAYS, ETC.) WHICH ARE TO REMAIN. PLAN FOR GENI

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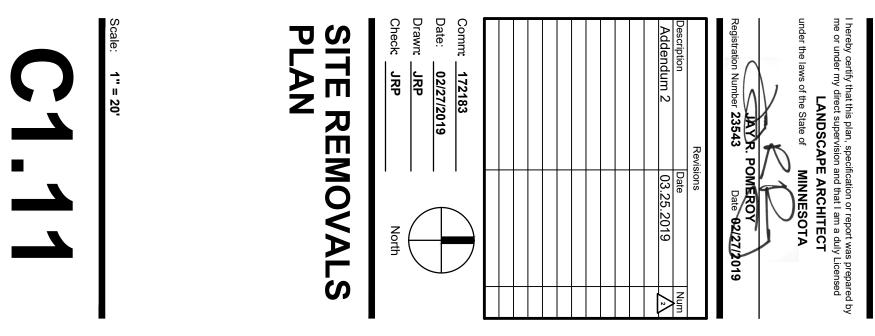
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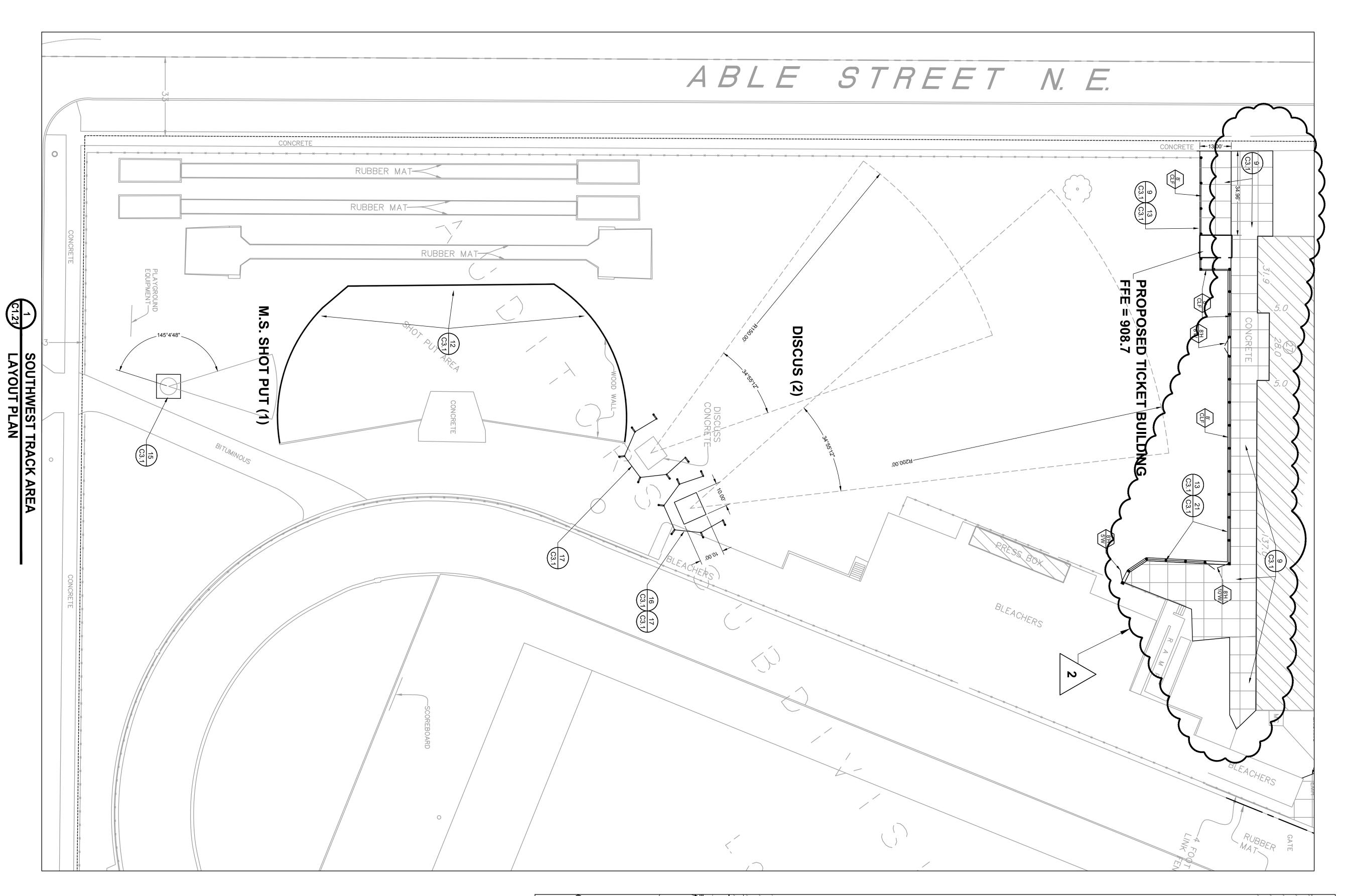
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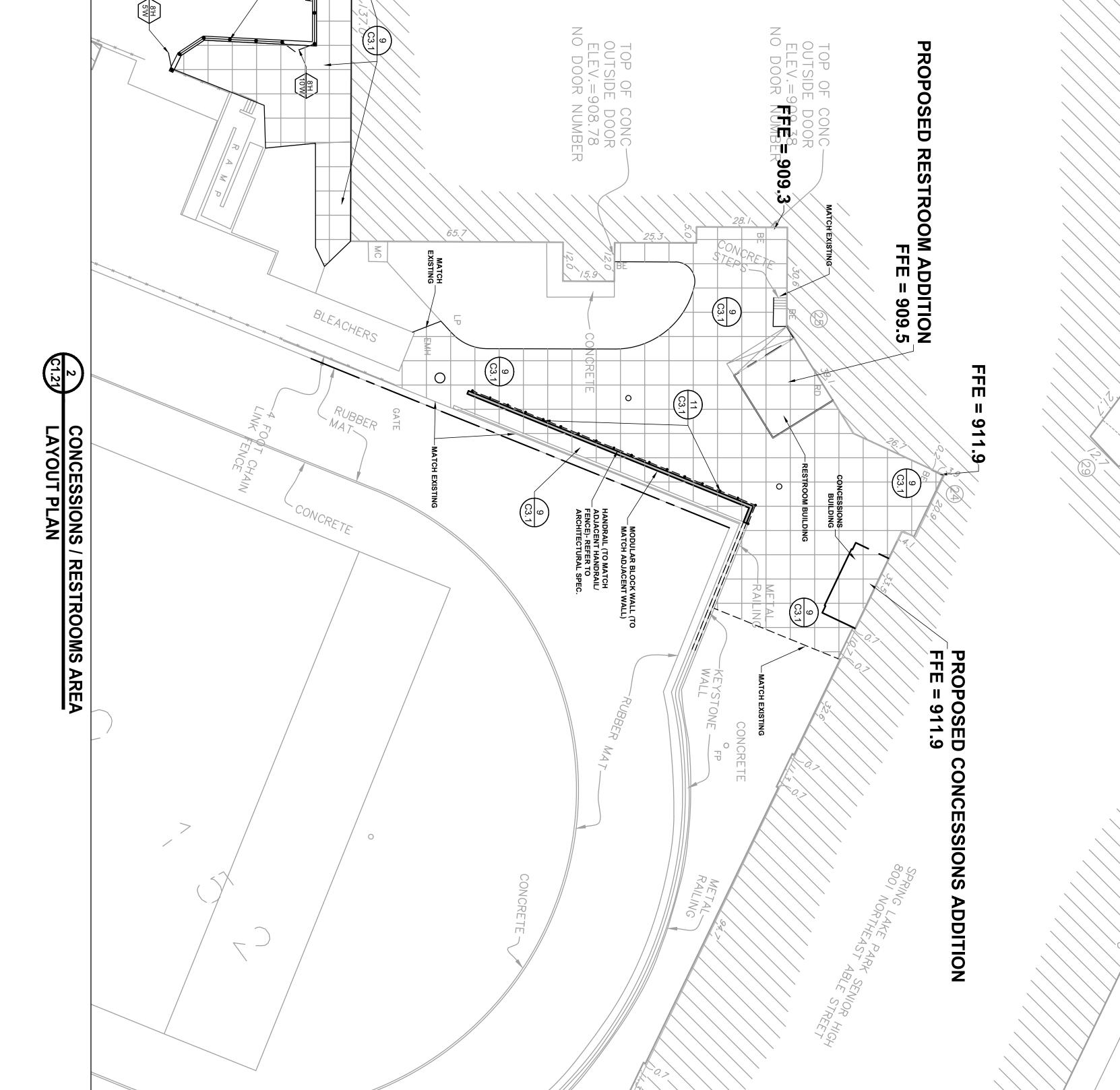


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## BUILDING STOOP - REFER TO ARCHITE FENCING KEY NOTE - SEE KEY NOTES BASELINE FOR DIMENSIONS

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**NOTES** 1. REFER TO SHEET ALL APPLICABLE DIMENSIONS ARE TO EDGE OF PAVEMENT, CENTERLINE OF FENCE, OR PROPERTY LINE UNLESS OTHERWISE NOTED. CHECK ALL PLAN AND DETAIL DIMENSIONS AND COMPANY

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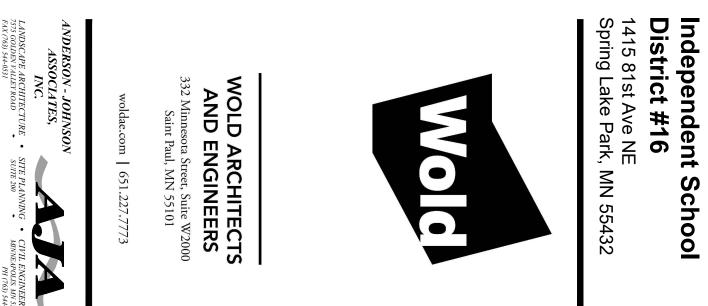


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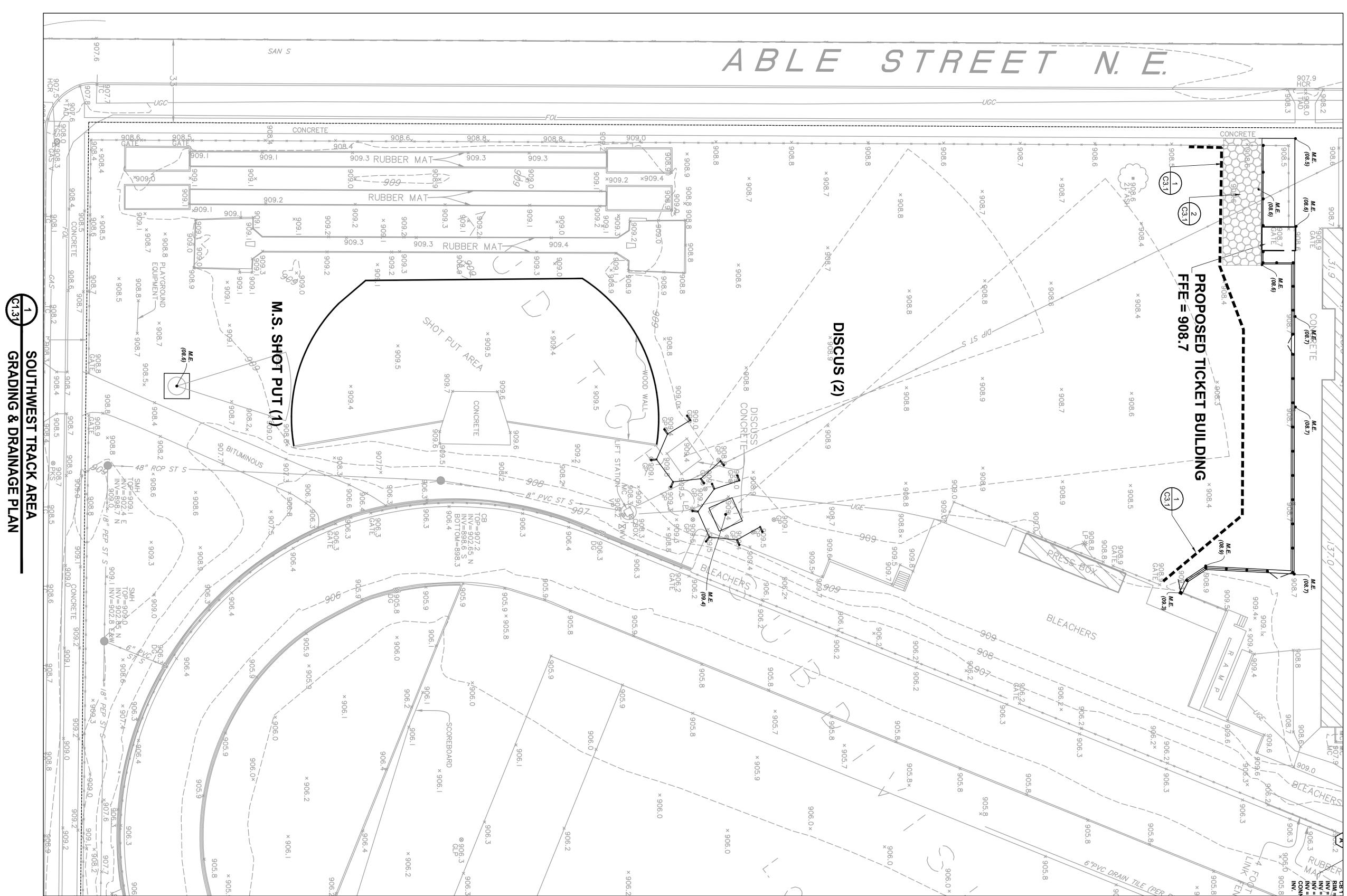
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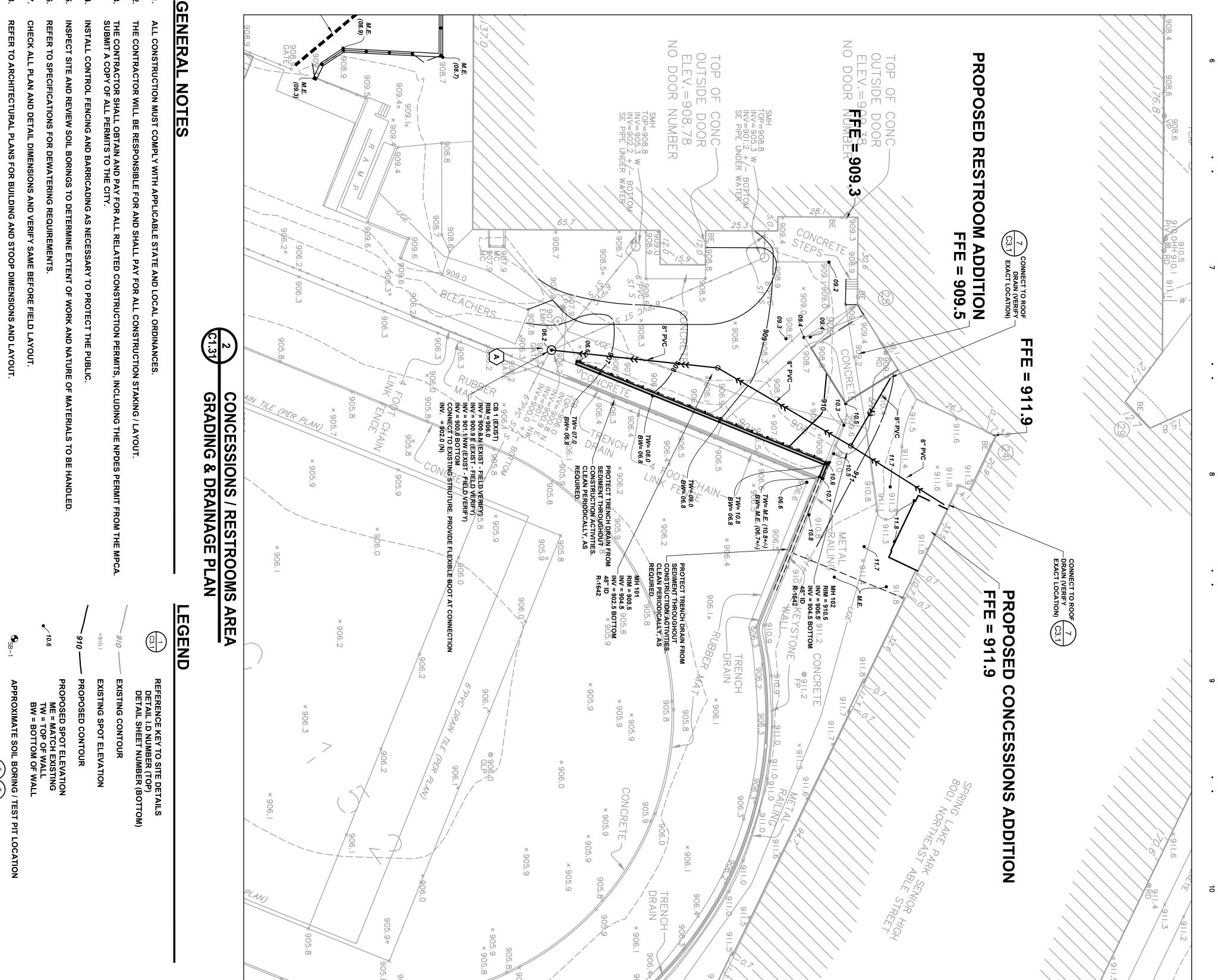
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VINTAIN ADJACENT PROPERTY AND PUBLIC STREETS CLEAN FROM CONSTRUCTION CAUSED DIRT AND DEBRIS ON A COTECT DRAINAGE SYSTEMS FROM SEDIMENTATION AS A RESULT OF CONSTRUCTION RELATED DIRT AND DEBRIS.

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ZONTAL TO 1' VERTICAL (3:1), UNLESS OTHERWISE NOTED.

ALL DISTURBED AREAS OUTSIDE THE BUILDING PAD WHICH AN TOPSOIL AND SHALL BE SODDED. RE NOT DESIGNATED TO BE PAVED SHALL RECEIVE AT LEAST 6" OF

NHERE NEW SOD MEETS EXISTING SOD, EXISTING SOD EDGE SHALL BE CUT TO ALLOW FOR A CONSISTENT, UNIFORM STRAIGHT EDGE. JAGGED OR UNEVEN EDGES WILL NOT BE ACCEPTABLE. REMOVE TOPSOIL AT JOINT BETWEEN EXISTING AND NEW AS REQUIRED TO ALLOW NEW SOD SURFACE TO BE FLUSH WITH EXISTING.

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FAILURE OF TURF DEVELOPMENT: IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN ACCEPTABLE TURF, THE CONTRACTOR SHALL RE-SOD ALL APPLICABLE AREAS, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE ENGINEER.

LOCATE ALL EXISTING UTILITIES, VERIFY LOCATION, SIZE AND INVERT ELEVATION OF ALL EXISTING UTILITIES. VERIFY LOCATIONS, SIZES AND ELEVATIONS OF SAME BEFORE BEGINNING CONSTRUCTION.

CONTRACTOR SHALL MAINTAIN DRAINAGE FROM EXISTING BUILDING AT ALL TIMES. PROVIDE TEMPORARY STORM SEWER (INCLUDING, BUT NOT LIMITED TO, CATCH BASINS, MANHOLES, PIPING, ETC.) AS REQUIRED. EXISTING STORM SEWER SHALL NOT BE REMOVED UNTIL TEMPORARY OR PERMANENT STORM SEWER IS INSTALLED AND FUNCTIONAL. COORDINATE ALL REMOVALS WITH APPROPRIATE TRADE: (SITE UTILITY CONTRACTOR, MECHANICAL CONTRACTOR, ETC.) AS REQUIRED.

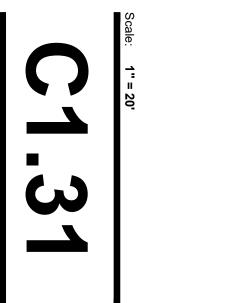
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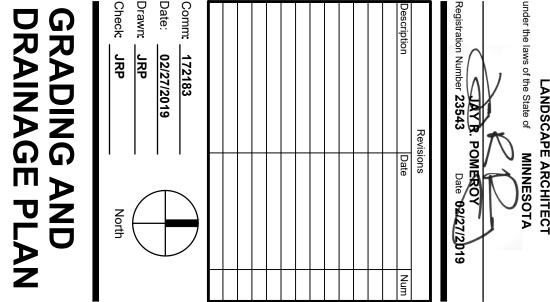
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Enterance Road Elevation = 913.63 feet

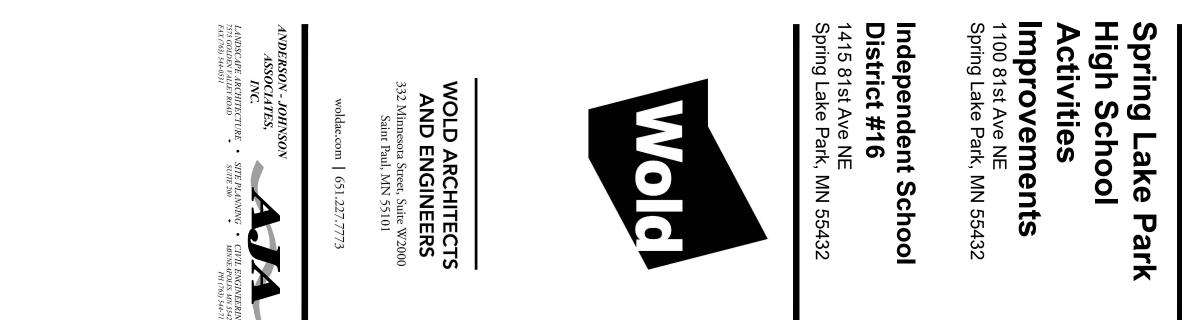
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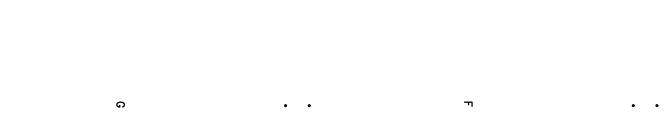
- Top of top nut of fire hyc Elevation = 916.12 feet
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## **NOTES:** 1. REFER TO SHEET C2.31- B GENERAL NOTES.

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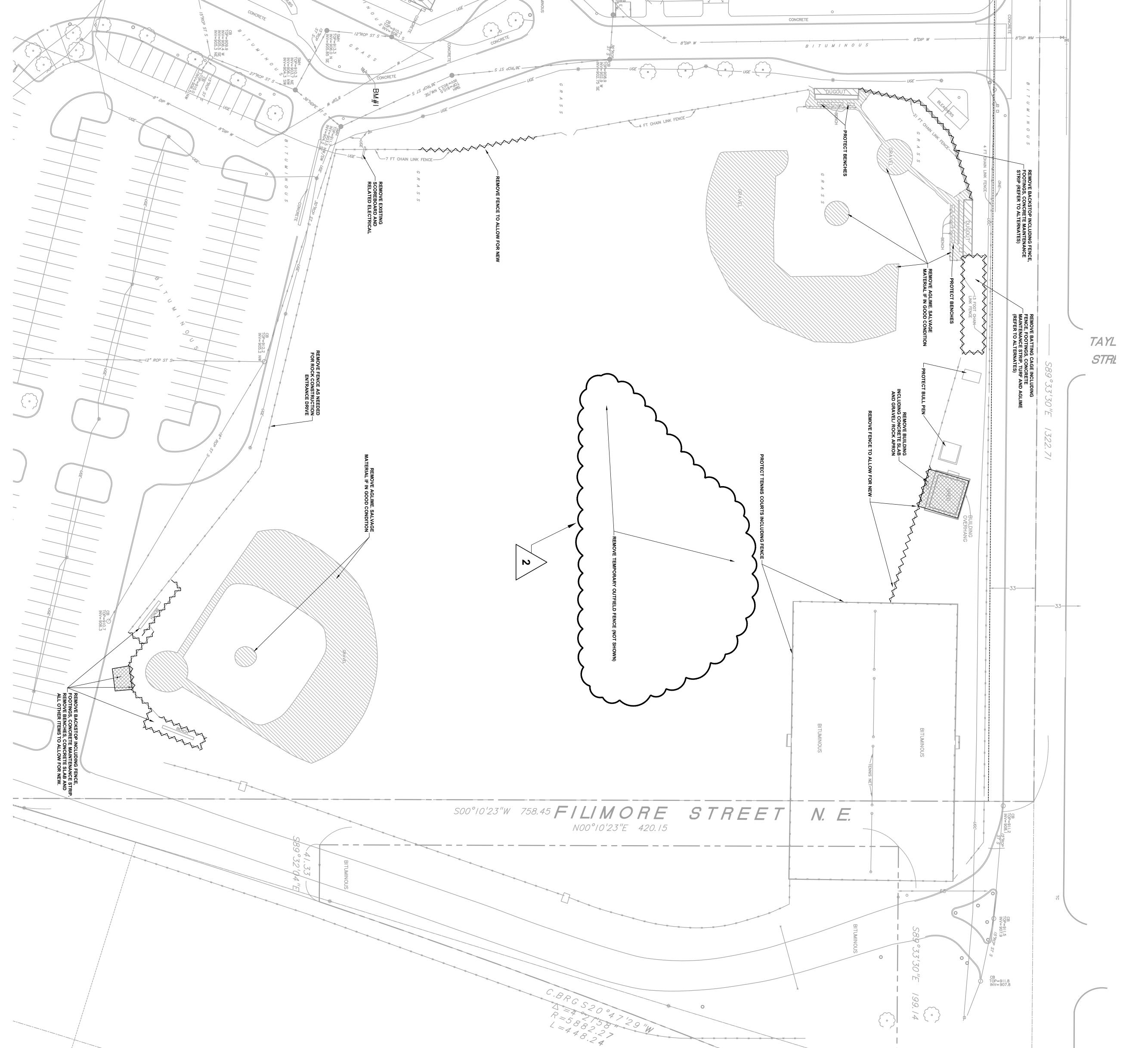
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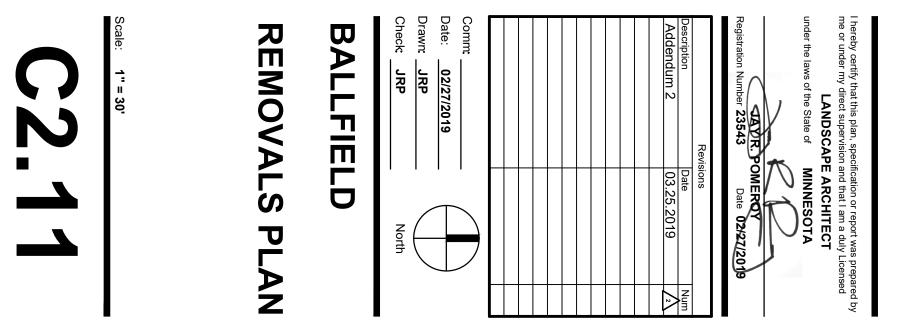
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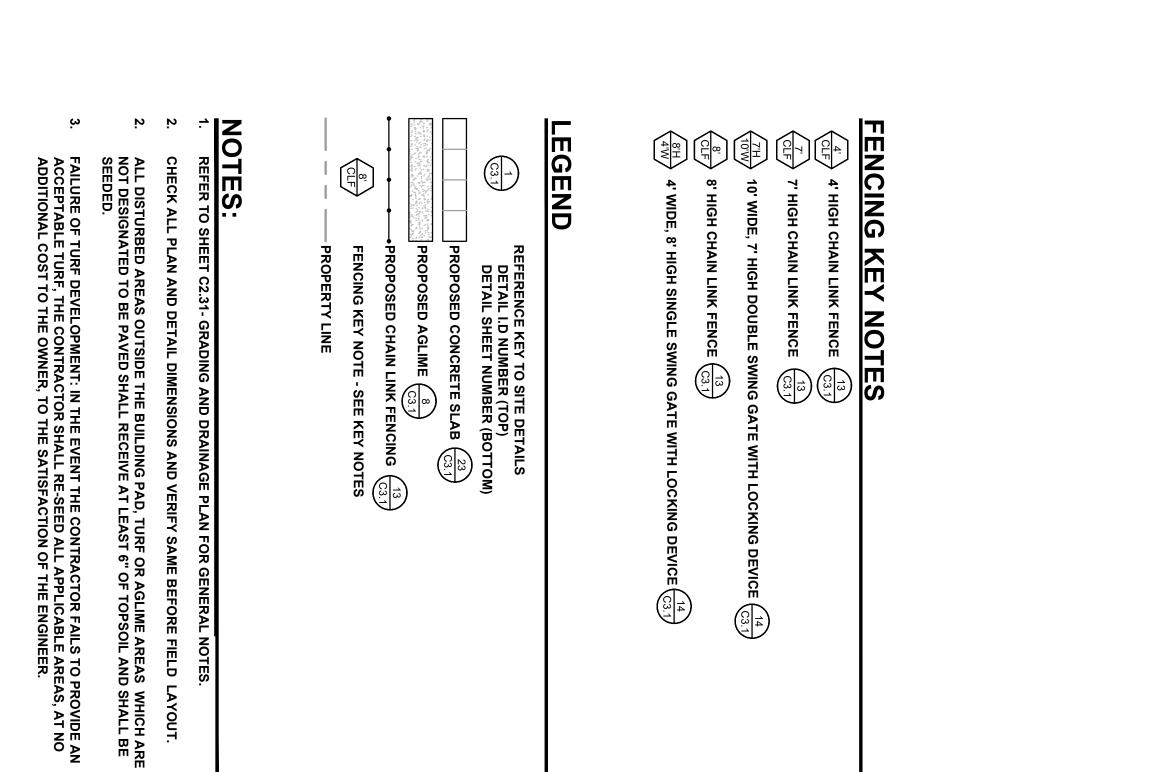
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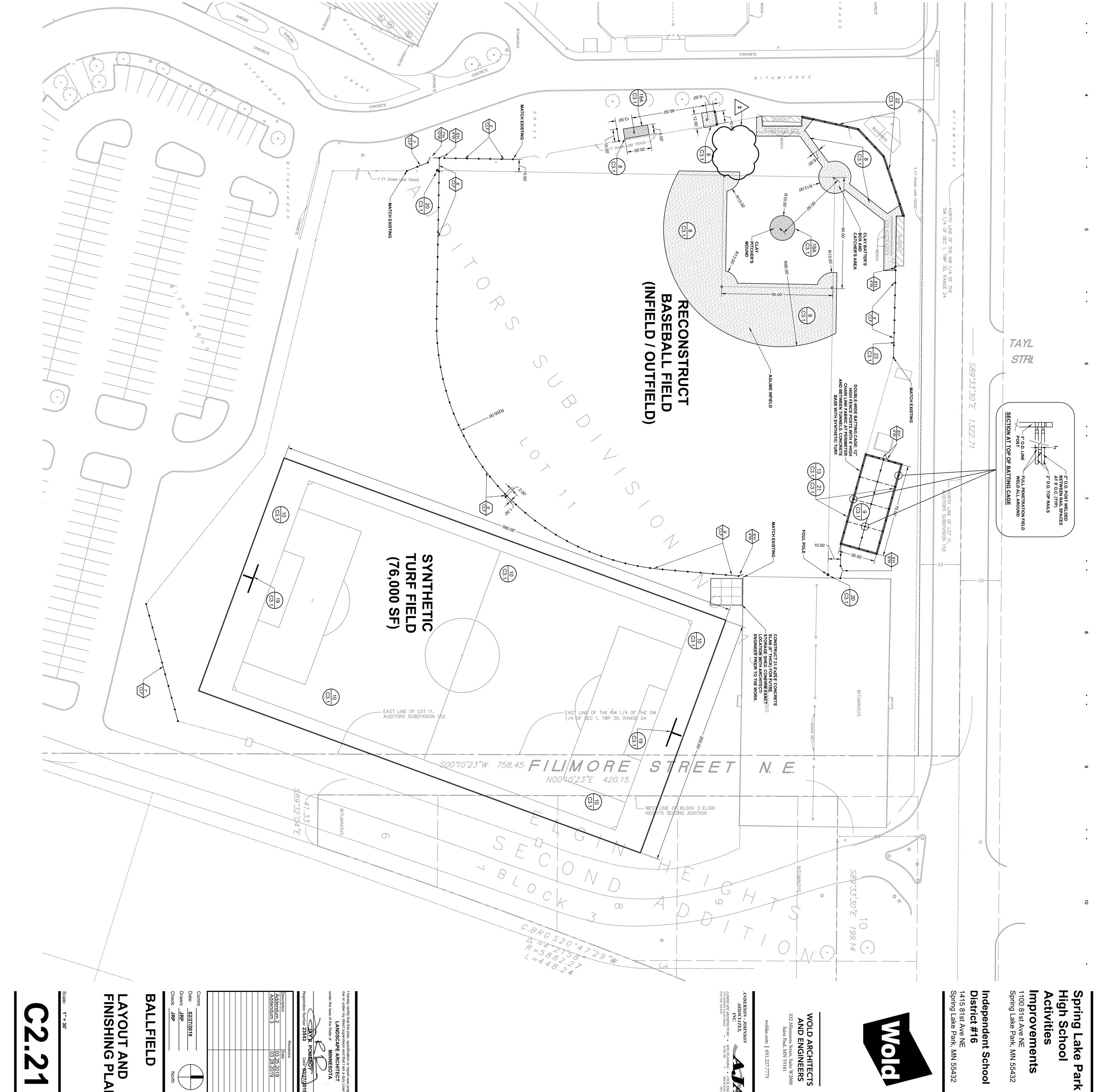
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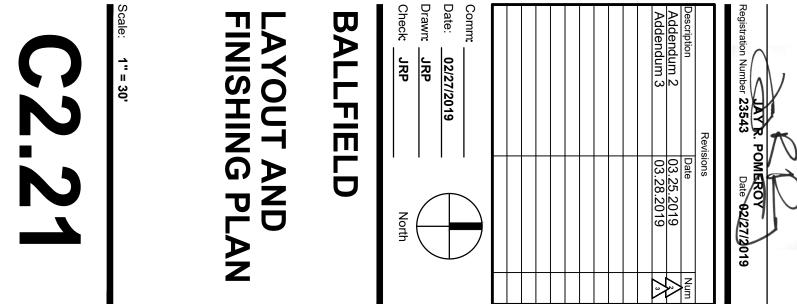
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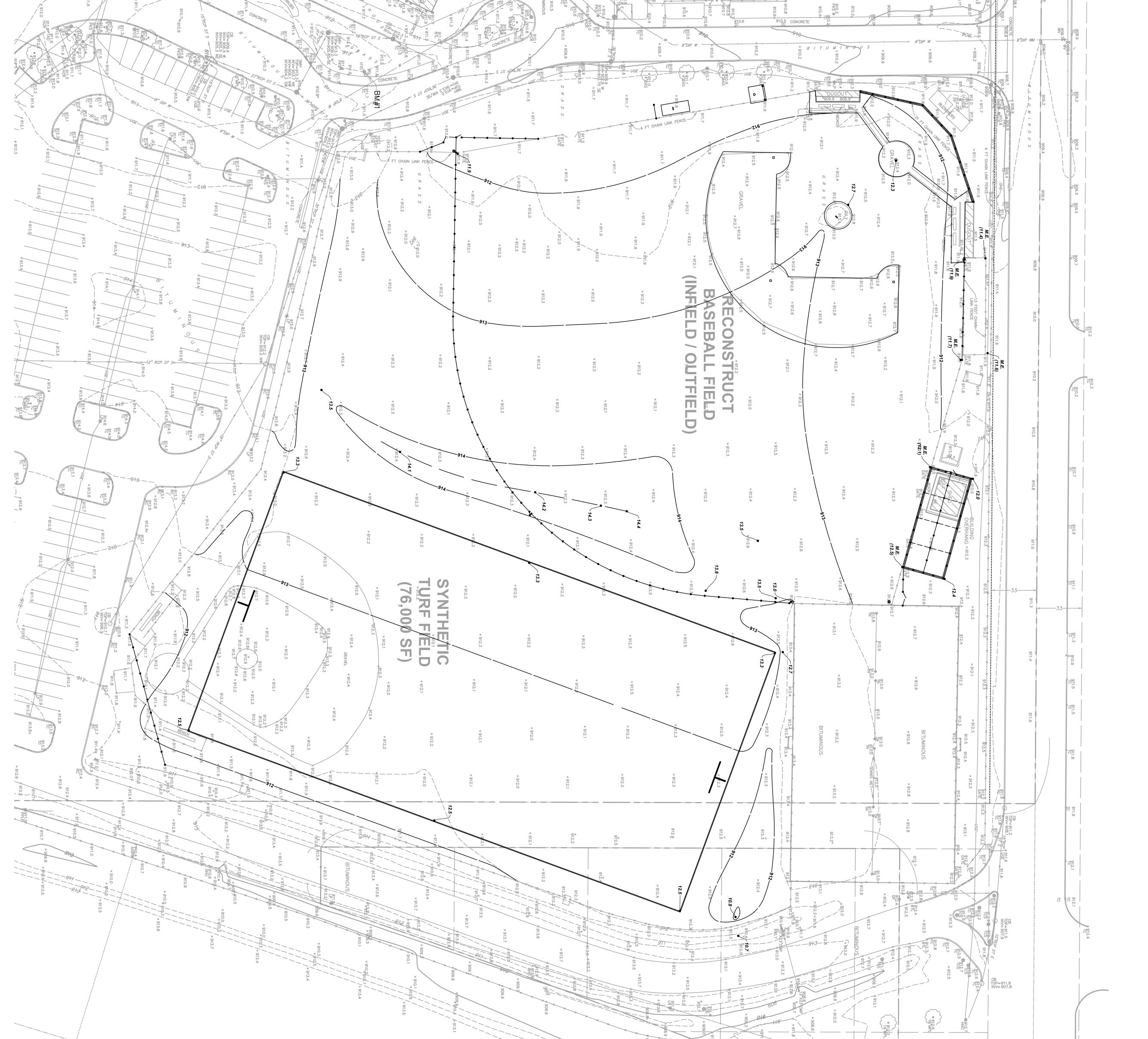
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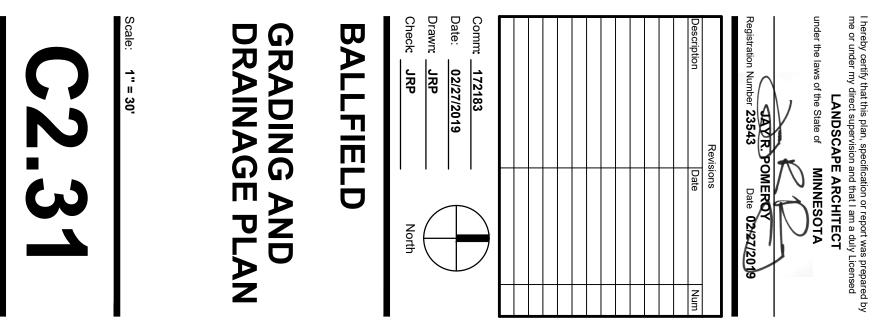
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AND REVIEW SOIL BORINGS TO DETERMINE EXTENT OF WORK AND NATURE OF MATERIALS	5. INSPECT SITE , HANDLED.	
INSTALL CONTROL FENCING AND BARRICADING AS NECESSARY TO PROTECT THE PUBLIC.	4. INSTALL CON	
THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL RELATED CONSTRUCTION PERMITS, INCLUDING THE NPDES PERMIT FROM THE MPCA. SUBMIT A COPY OF ALL PERMITS TO THE CITY.	3. THE CONTRA	
THE CONTRACTOR WILL BE RESPONSIBLE FOR AND SHALL PAY FOR ALL CONSTRUCTION STAKING / LAYOUT	2. THE CONTRA	
<b>VOTES</b> TION MUST COMPLY WITH APPLICABLE STATE AND LOCAL ORDINANCES.	GENERAL NOTES	
	<b>Elevation - 3</b> 1	
nut of fire hydrant South of school, East of football field	6. Top of top nut	
nut of fire hydrant Southeast of highway ramp bridge, East of curb ։ 914.94	5. Top of top nut of f Elevation = 914.94	
nut of fire hydrant Southwest of ramp bridge +/- 40 feet of Northeast corner of school building : 916.75 feet	4. Top of top nut Elevation = 91	
fire hydrant +/- 100 feet East of Main entrance 2 feet	3. Top of top nut of fire hydrant Elevation = 916.12 feet	
Top of top nut of fire hydrant at the Southeast corner of Tennis Courts on West Side of Enterance Road Elevation = 913.63 feet	2. Top of top nut Elevation = 91:	
2 feet	Elevation = 914.42 feet	

AND



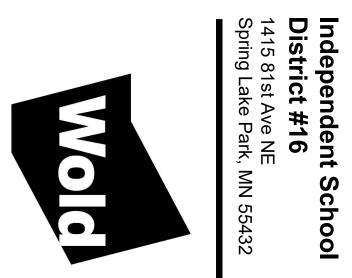
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**Improvements** 1100 81st Ave NE Spring Lake Park, MN 55432

Spring Lake Park High School Activities

WOLD ARCHITECTS AND ENGINEERS 332 Minnesota Street, Suite W2000 Saint Paul, MN 55101

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## BE PVC PIPE (ASTM D3034, SDR 35) INSTALLED IN ACCORDANCE WITH

STORM SEWER PIPE SHALL AT ALL PIPE CONNECTIONS ASTM D2321, б UNLESS OTHERWISE ALL STORM SEWER NOTED.

- FLEXIBLE JOINTS AT STORM SEWER PIPE CONNECTIONS TO STRUCTURES:
  a. IN ACCORDANCE WITH MINNESOTA PLUMBING CODE, PROVIDE FLEXIBLE JOINTS, STRUCTURES.
  b. ACCEPTABLE MANUFACTURERS / PRODUCTS:
  I. FERNCO, "CONCRETE MANHOLE ADAPTORS" OR "LARGE-DIAMETER WATERSTOP
  II. PRESS-SEAL, WATERSTOP GROUTING RINGS"
  III. OR APPROVED EQUAL.
- AMETER WATERSTOPS"
- MANHOLE, CATCH BASIN, STORM SEWER, SANITARY SEWER, DRAINTILE OR OTHER POTENT ALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY WATERMAIN PER MINNESOTA PLUMBI SURED FROM THE OUTER EDGE OF THE PIPE TO THE OUTER EDGE OF THE CONTAMINATION NG OR SIMILAR). IAL SOURCE FOR CONTAMINATION SHALL BE NG CODE. THIS ISOLATION DISTANCE SHALL SOURCE (OUTER EDGE OF STRUCTURES OR
- LOCATE ALL EXISTING UTILITIES, VERIFY LOCATION, SIZE AND INVERT ELEVATION OF ALL EXISTING UTILITIES. ELEVATIONS OF SAME BEFORE BEGINNING CONSTRUCTION. VERIFY LOCATIONS, SIZES AND
- REFER TO SWPPP NARRATIVE (SECTION 01 89 13) FOR CONSTRUCTION SEQUENCING AND EROSION CONTROL

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- MAINTAIN ADJACENT PROPERTY AND PUBLIC STREETS CLEAN FROM CONSTRUCTION CAUSED DIRT AND DE DRAINAGE SYSTEMS FROM SEDIMENTATION AS A RESULT OF CONSTRUCTION RELATED DIRT AND DEBRIS. RIS REQUIREMENTS. 0 N ⋗ DAIL `≺ PROTECT
- **NTAIN DUST CONTRO** ดิ G

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- EROSION CONTROL METHODS SHALL COMPLY WITH MPCA AND OTHER LOCAL REGULATIONS
- F EROSION AND SEDIMENT CONTROL MEASURES TAKEN ARE NOT ADEQUATE AND RESULT IN DOWNSTREAM SEDIMENT, THE CONTRACTOR SHA 3E RESPONSIBLE FOR CLEANING OUT DOWNSTREAM STORM SEWERS AS NECESSARY, INCLUDING ASSOCIATED RESTORATION. ENT CONTROL DEVICE AT STORM SEWER WING LIST. ACCEPTABLE PRODUCTS: INLETS. AT THE INLETS TO ALL STORM SEWER STRUCTURES. PROVI ⋗ PRODUCT FROM THE

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- C WIMCO TOP SLAB™ MODEL RD 27. INFRASAFE® SEDIMENT CONTROL BARRIER, DISTRIBUTED BY ROYAL ENVIRONMENTAL SYSTEMS, INC. SCB'S SHALL BE SIZED SPECIFICALLY FOR THE STRUCTURE AND CASTING SPECIFIED. SCB'S SHALL BE EQUIPPED WITH FRAME AND PERFORATED SHROUD AND SHALL BE WRAPPED ON THE OUTSIDE, COVERING THE PERFORATED WALL ONLY, WITH A GEOTEXTILE SOCK. DANDY BAG® OR DANDY BAG II® DISTRIBUTED BY BROCK WHITE COMPANY, ST. PAUL, MN (615) 647-0950. DANDY BAG SHALL BE USED ON FOR CURB INLETS AFTER PAVEMENT (BINDER COURSE OR WEAR COURSE) IS INSTALLED OR AT EXISTING PAVED AREAS. INFRASAFE® DEBRIS COLLECTION DEVICE BY ROYAL ENVIRONMENTAL SYSTEMS, INC., DISTRIBUTED BY ESS BROTHERS, 9350 COUNTY ROAD 19, CORCORAN, MN 55357 DCD'S SHALL BE SIZED SPECIFICALLY FOR THE STRUCTURE AND CASTING SPECIFIED. PROVIDE FILTER BAGS AND TIES FOR COMPLETE INSTALLATION. OR APPROVED EQUAL.
- 12

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PRIOR TO CONSTRUCTION, DELINEATE TURF AND VEGETATED AREAS NOT TO BE DISTURBED WITH ORANGE SNOW FENCE. NO CONSTRUCTION TRAFFIC, EQUIPMENT OR MATERIALS SHALL BE PERMITTED TO UTILIZE, ACCESS, OR OTHERWISE ENTER THE AREAS DESIGNATED NOT TO BE DISTURBED. MINIMIZE SOIL COMPACTION AND DISRUPTION OF TOPSOIL IN AREAS OUTSIDE THE CONSTRUCTION LIMITS TO COMPLY WITH MN CONSTRUCTION STORMWATER GENERAL PERMIT.

ANDERSON - JOHNSON ASSOCIATES, INC.

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WOLD ARCHITECTS AND ENGINEERS

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LANDSCAPE 7575 GOLDEN V FAX (763) 5 1 1

SITE

## LEGEND

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EFERENCE KEY TO SITE DETAILS DETAIL I.D NUMBER (TOP) DETAIL SHEET NUMBER (BOTTOM)

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V. General Construction S Construction Schedule) A. Erosion Control Dev 1. Silt fence 2. Sedimen 3. Sedimen 4. Rock con 5. Rock con 5. Rock che 6. Rip rap 7. Storm wa 8. Tempora 10. Tempora 11. Erosion o	<b>EXCERPT FROM</b> The following is from the Storm 01 89 13 of the Project Manual. Contractor shall be responsible required by the SWPPP Narrati the MPCA. Should differences described below and the inform into the Project Manual. the SW		
<ul> <li>General Construction Sequence (in conjunction with the Construction Manager's Construction Schedule)</li> <li>A. Erosion Control Devices, noted herein, include: <ol> <li>Silt fence</li> <li>Sediment Control Device at storm sewer inlets</li> <li>Sediment log</li> <li>Rock construction entrance</li> <li>Rock check dams</li> <li>Rip rap</li> <li>Storm water treatment basins</li> <li>Temporary sediment basins</li> <li>Storm sewer systems</li> <li>Temporary outlet pipes</li> </ol> </li> </ul>	<b>EXCERPT FROM THE SWPPP NARRATIVE</b> The following is from the Storm Water Pollution Prevention Plan Narrative, Section 01 89 13 of the Project Manual. In accordance with Section 31 00 00, the Contractor shall be responsible for full implementation of and maintenance required by the SWPPP Narrative until the Notice of Termination is approved by the MPCA. Should differences arise between the SWPPP Narrative information described below and the information contained within the SWPPP Narrative, bound into the Project Manual, the SWPPP in the Project Manual shall govern.	SILT FENCE $(3,1)$ SEDIMENT LOG $(3,1)$ ROCK CONSTRUCTION ENTRANCE $(2,1)$ STORM SEWER INLET PROTECTION $(3,1)$	、 뉴 (읽-) 즈 띠

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# APPROXIMATE EROSION CONTROL DEVICE QUANTITIES SILT FENCE = 1,450 L.F.

ROCK CONSTRUCTION SEDIMENT CONTROL LOG = 140 L.F ENTRANCE 30 C

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Site has undergone Final S Removal of all temporary e Final cleanout and mainten Completion of all maintens

مىسىرى water facilities

 Install perimeter silt fence where indicated on the Drawings. Silt fe ecified in Section 31 25 00.
 Construct Sediment Control Devices at existing storm sewer inlound castings and silt fence under castings will not be acceptable).
 Construct the rock construction entrance.
 Have silt fence and other erosion control devices inspected by local quired by the local authority.
 Establish concrete truck washout areas and post with signs. the SWPPP site conditi n from this v the SWPPP ; prese at ren seeding / sodding porary / permanent vegetat r features identified by t s a Best Management Prac erosion potential.
Strip topsoil from new and expanded paved arc....
ed. Provide temporary seed and mulch on stockpiles as described here and stockpile topsoil. Provide temporary seed and mulch as described trough grading for the building additions, fields, and other pavemen ccavation and export.
onstruct retaining wall.
t placement of sand sub-base in field area.
1 collector drain tile system and complete sand subbase installation.
d topsoil and finish grade the outlying areas. Provide temporary seed and provide temporary seed and provide temporary seed and provide temporary seed area. apply for NPDES Phase II Permit w ntractor shall post the permit in w of the SWPPP <sup>2P</sup> and its sequencing and r litions, construction sequer s written SWPPP. The Eng P accordingly. utlying the speci finish gr ic and po site fenci de daily sweeping of streets and other paved areas. pavement and vegetated area removals to only that which is nee s much stabilized area as possible. Stage subsequent removals s are accomplished immediately prior to starting grading. time between pavement removals and rough grading to 24 hour protential ict the rade elevation ant subgrade t . This will serv ncrete walks s and outlying areas f vith the specified seeding k plaza area. ng pavements and gravel ne plaza area. rade elevations and prep tation ' the Minnesota actice (BMP) dev permanon 1g dates. 1seball field area. the requ اencing, ineer we as and panded paved areas. Stockpile for reuse a mulch on stockpiles as described herein. nporary seed and mulch as described herein additions, fields, and other pavement areas nd prepare the area to ing is complete, co is temporary stabilizat d slabs. This will ements. The Contractor shall notify the or other items are different or require will review the suggested modifications ithin 24 hours of award of Contract the job site trailer or other suit for per ng dates. ng with P (pe the ed by local a fo onstruct the ation for the serve as Silt inlets fence , cou ie stab e plaza perm (p (hay ling be Ħ. ĽK J. H. I. Ģ M. nc ishm Apply 1 days after: 1. 2. 3. 4.  $\frac{3}{2}$ \_\_stall \_\_umodate { nediately aff l be re-i\* a. ovide cleaning of storm sewer sy e removal of accumulated sedime ple, curb and gutter, pavements, sv emove silt fence and erosion c emove silt fence and erosion c ct erosion control devices and provide rc Inspect erosion control a minimum asuring 0.5" or more. Record inspection ller or other suitable temporary storage an Records of each inspections ar (1) Date and time of inspections (2) Name of person conducting in (3) Findings of inspections, inclu (4) Corrective activities (5) Date and amount of all rainf inch) in 24 hours (6) Documentation of changes m General Stormwater Permit for Inspections are not required inspections
(6) Documentation of required inspections
(7) Inspections are not required inspections
(8) Silf fences, sediment logs, and shall be inspected for depth of sedim to support posts or structure, and to se Silf fences, sediment logs, and and other erosion control devices sha height of the erosion control devices, we River rock that has become clogged with fresh river rock. Repairs or replacements to all hours of discovery. Temporary diversion berms s repaired. ize denuded areas, minor on activity (temporary or permanen Within 7 days, except: Temporary soil stockpile measure, including silt fence a inactive for periods longer than stockpiles or other stockpiles wi (clean aggregate stockpiles, clear (clean aggregate stockpiles, clear all all sediment contro the short-term activates, y after the short-term act nstalled before the next p ntrol practices that have been adjusted res, such as passage of construction vehic activity has been completed. All sediment activity fraction event if the short term activit

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Temporary Soil Stockpiles: Temporary soil stockpiles shall not be placed in surface wate including surface conveyances such as curb and gutter, swales, or ditches Install silt fence at the base of the temporary soil stockpile (full per Temporary soil stockpiles shall be seeded with temporary hydromulch when stockpiles are left inactive for seven (7) days. Not apply to aggregate stockpiles or other stockpiles without significant silt, components (clean aggregate stockpiles, clean rock, clean sand an aggregates). repared. Tracked sediment from construction v paved areas (including paved areas on the con within 24 hours of discovery. Removal of sediment and restabilizat accomplished within 7 days of discovery (note: gutter, pavements, storm sewer, swales, o conveyance devices). Inlet protection may be removed if a lo permitee to do so because of a specific safety cor ion of changes made to the SWPPP as required by the N water Permit for Construction Activity (MN R100001) are not required where the ground is frozen. The re piles shall be treated be and temporary set han 7 days. Note, the s without significant s lean rock, clean sand a , shall t liment, tears, to see if fabric is securely attach o see that posts and devices are securely in place and erosion control devices at storm sewer inles shall be cleaned when sediment reaches 1/3 te e, within 24 hours. res shall be inspected for clogging of river ro ed with sediment shall be removed and replace e routine maintenance as follows: m of once per week and after e ction on log posted in Contractor e area. and maintenance activity shall :-g inspection cluding recor (including c shall all the c be un 24 h which on commendations for corrective actions g dates, times, and party completing ants greater than one quarter inch (0.25 the SWPPP as required by the NPDES uction Activity (MN R100001) e the ground is frozen. The required 124 hours after runoff occurs at the site whichever comes first. ws: on control devices at storm sewer inlets ars, to see if fabric is securely attached posts and devices are securely in place. In control devices at storm sewer inlets, leaned when sediment reaches 1/3 the 24 hours. e inspected for clogging of river rock. diment shall be removed and replaced on control devices shall occur within 24 inspected and any breaches promptly e inspected and any breaches promptly is a local unit of government directs the y concern. eedin this c silt, and

and storm sew uon of the project. Clei vaters as defined by the p er piping and structures).

vith appropriate erosion cont ding when stockpiles are 1 is does not apply to aggreg-it, clay or organic compone It, clay or organic aggregates).

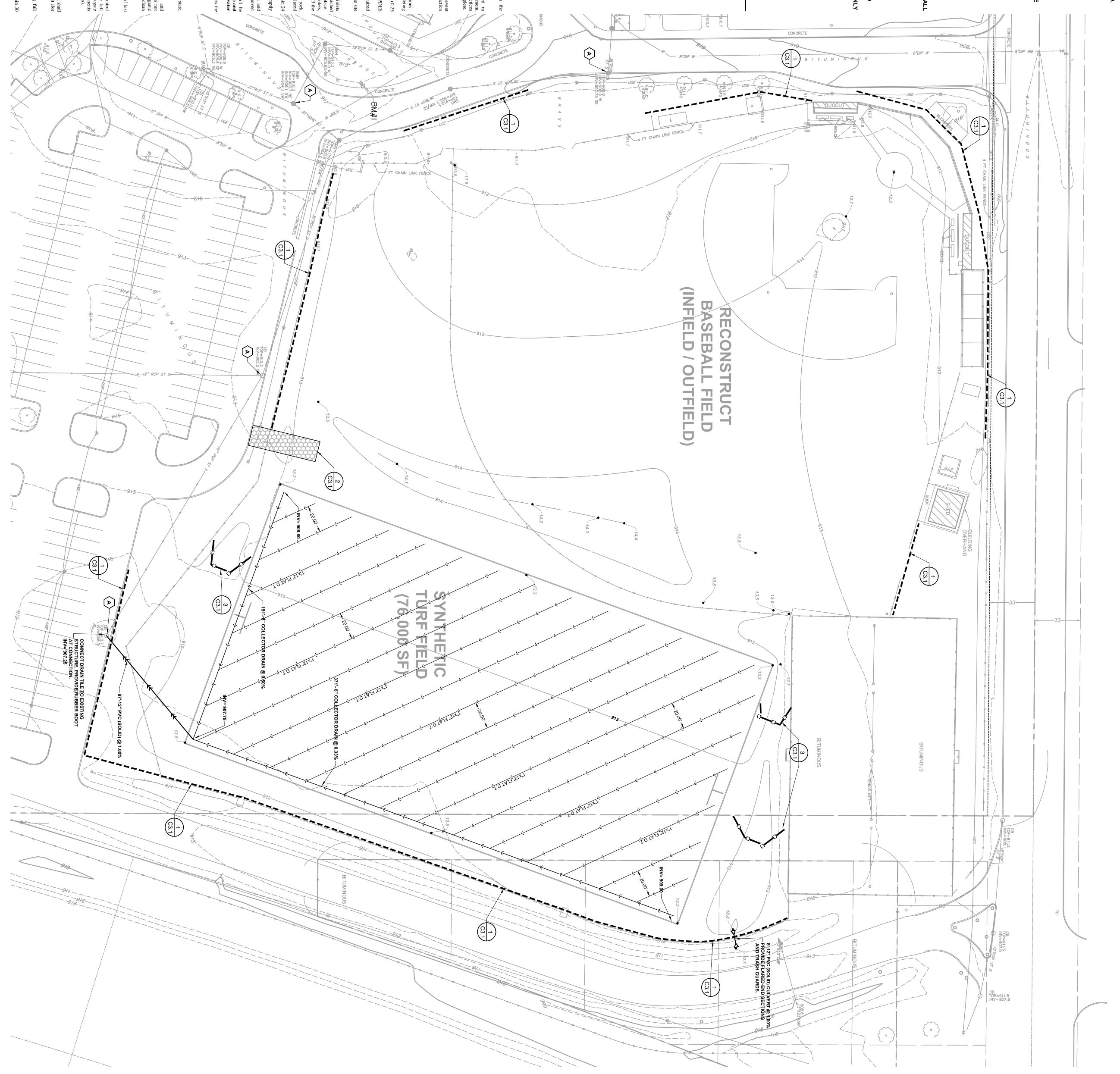
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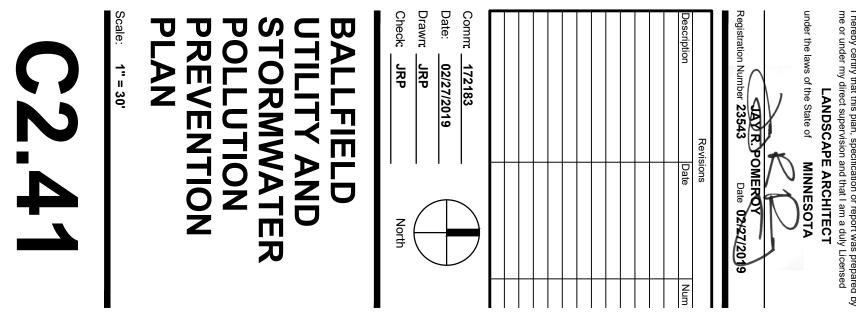
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stabilization of Surface Waters y (note: surface waters include c wales, or other similar storm





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## **Improvements** 1100 81st Ave NE Spring Lake Park, MN 55432 Independent School District #16 Spring Lake Park High School Activities

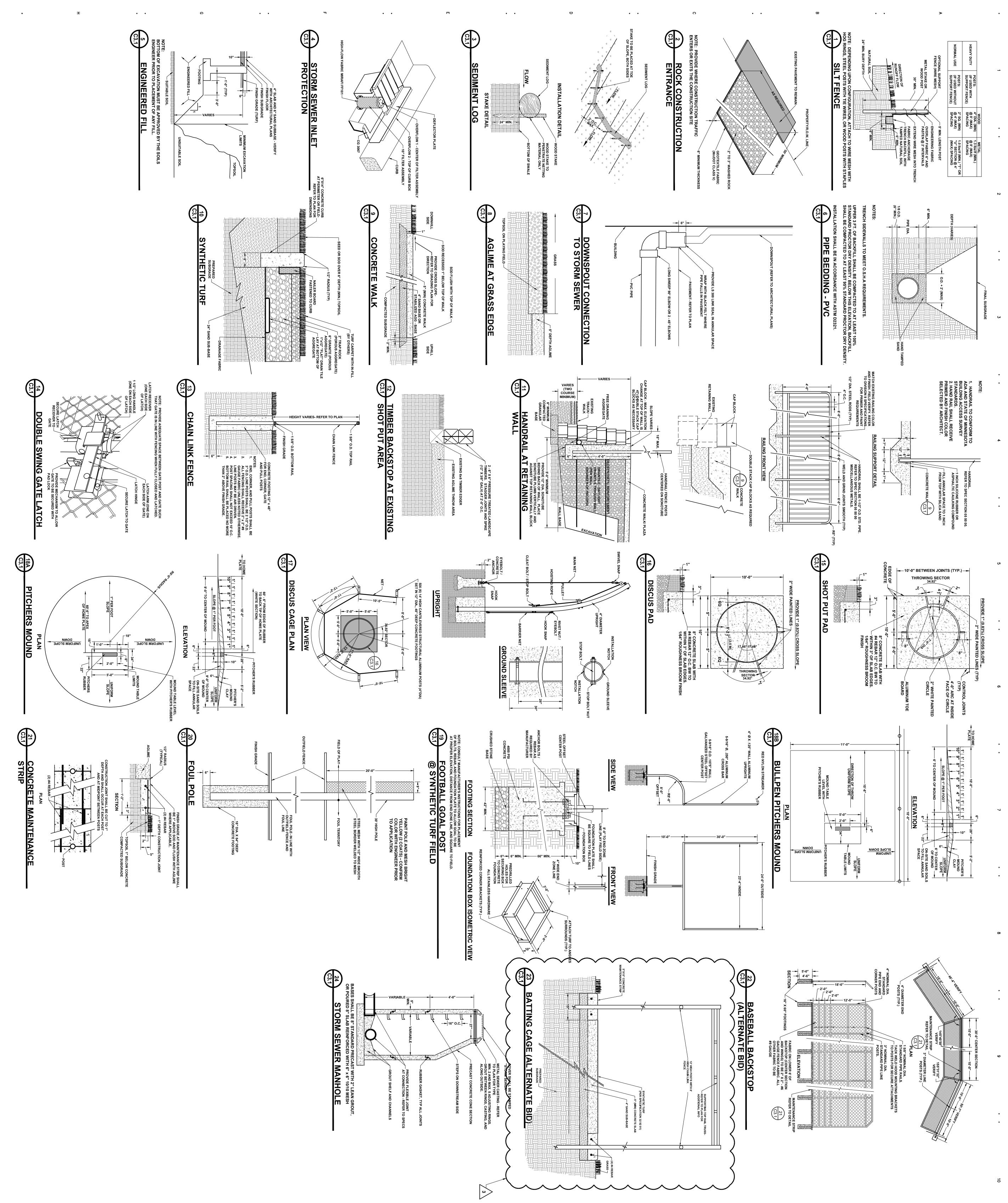
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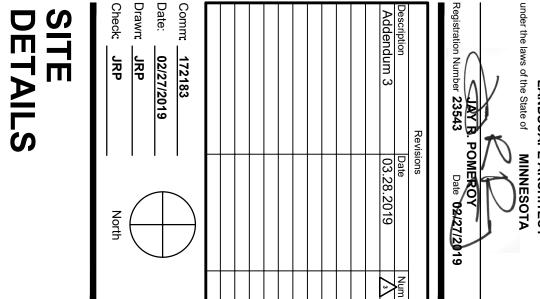
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**Independent School District #16** 1415 81st Ave NE Spring Lake Park, MN 55432

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Spring Lake Park High School Activities

**Improvements** 1100 81st Ave NE Spring Lake Park, MN 55432

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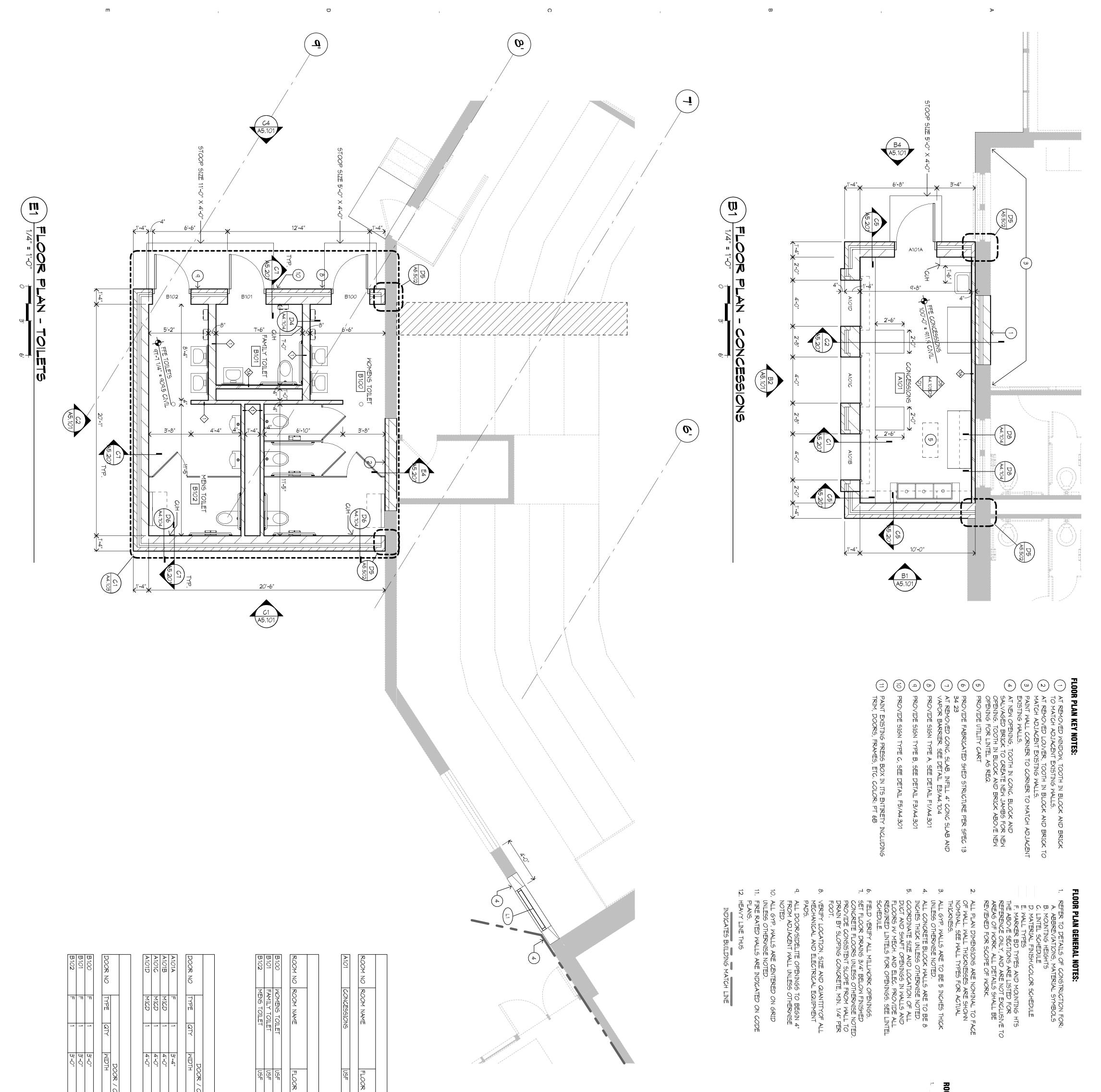
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## AL NOTES

- IF ALL WALLS IN ROOM HAVE THE SAME FINIS DISCREPANCIES BETWEEN THE ROOM FINISH S FINISH DETERMINATION. SCHEDL JLE A Щ
- ON WALLS WHICH ARE COVERED WITH MILLWORK AND TACK SURFACES, A FINISH SHALL NOT BE APPLIED TO THE WALL BEHIND EXCEPT FOR LOCATIONS WHICH MAY BE EXPOSED (I.E. SPACE BETWEEN MILLWORK AND TACK SURFACE.) CONCRETE BLOCK BEHIND MILLWORK AND MARKERBOARDS TO BE TOOLED. FOR
- ER TO IAL FI
- FOR CEILING MATERIAL MHEN MORE THAN EDULE FOR SPE RS THE CEILING

## FINISH SCH **ULE REMARKS**

## SCHEDULE GENERAL NOTES

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- DOORS ARE 1 3/4" THICK UNLESS OTHERWISE NOTED. FRAME DEPTH, ONLY EXCEPTIONS TO THE FOLLOWING T. JUM BOARD PARTITIONS: THROAT OF FRAME TO MATCH THICKNESS.
- 4" WALL: 3 3/4" FRAME 6" WALL: 5 3/4" FRAME 8" AND GREATER WALL: 1 3/4" FRAME FRAME DEPTHS ARE SCHEDULED IN NOMINAL DIMENSIONS. 51000) FOR CORRESPONDING ACTUAL DIMENSIONS.
- 5
- OR GLASS TYPES, ONLY EXCEPTIC ITERIOR NON RATED: LEAR (SAFETY WHEN REQUIRED BY LEAR (SAFETY WHEN REQUIRED BY ITERIOR AND EXTERIOR RATED: RE RATED KTERIOR NON-RATED: LEAR INSULATED (SAFETY INSULAT
- ETY INSULATED
- SEE SHEET AX.XX FOR FRAME TYPES. SEE SHEET AX.XX FOR DOOR TYPES. AT DOOR SCHEDULE, LABEL DESIGNATI

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- FOR ALL OPENINGS WITH SIDE LITES AND SCHEDULED TO BE RATED FOR 20 MINU GLAGS WITHIN THE DOOR IS TO BE RATED FOR 20 MINUTES; THE FRAME AND AD FRAME IS TO BE RATED FOR 45 MINUTES."

- BOOR SCHEDULE REMARKS
   SEE DETAIL 43018 FOR USE WITH ALTERNATE #1
   SEE DETAIL 54012 FOR USE WITH ALTERNATE #1
   PROVIDE FIRE NUMBER AT EXTERIOR DOORS DOOR NUMBER IN "\_".

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1	LABEL				1	1	1		LABEL												
FR 1	TYPE		DOOR / OPENING SCHEDULE	DOOR / OPENING SCHEDULE	DOOR / OPEN	DOOR / OPEN							_	MCDF	MCDF	MCDF	FR 1	TYPE			
1	DEPTH	FRAME						1	1	1		DEPTH	FRAME	DOOR / OPEN							
G.H.M.	MATL				16 SCHEDULE	ST	ST	ST	G.H.M	MATL		DOOR / OPENING SCHEDULE									
1	GL				1	1	1	:	GL												
F7/A5.502	HEAD				DT/A4.102	DT/A4.102	DT/A4.102	FT/A5.502	HEAD												
F7/A5.502 E7/A5.502 F5/A5.502 F1/A5.502	JAMB	MOUNTING CONDITIONS					DT/A4.102 D5/A4.102	D7/A4.102 D5/A4.102	D5/A4.102	F7/A5.502 E7/A5.502, F5/A5.502	JAMB	MOUNTING CONDITIONS									
F1/A5.502	SILL	SN			ET/A4.102	ET/A4.102	ET/A4.102	F1/A5.502	SILL	SN											
ω	HDW GRP							<b>_</b>	HDW GRP												
	REMARKS								REMARKS												

F1/A5.502 E1/A5.502, F5/A5.502 F1/A5.502 E1/A5.502, F5/A5.502

F1/A5.502 F1/A5.502

				ROOM FINISH SCHEDULE	CHEDULE					
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	-15∩	EXIST / BRICK EPT-6A	EPT-6A	C BLK	EPT-6A	C BLK	EPT-6A	C BLK	EPT-6A	
JS⊨	∃SN	C BLK	EPT-6A	C BLK	EPT-6A	C BLK	EPT-6A	C BLK	EPT-6A	
USF	<b>⊒</b> 5[	<u>א</u> מיט		C BLK	EPT-6A	C BLK	EPT-6A	C BLK	EPT-6A	

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REMARKS



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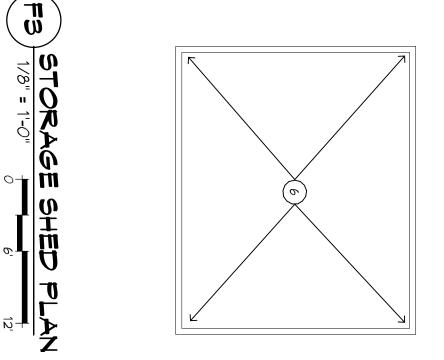
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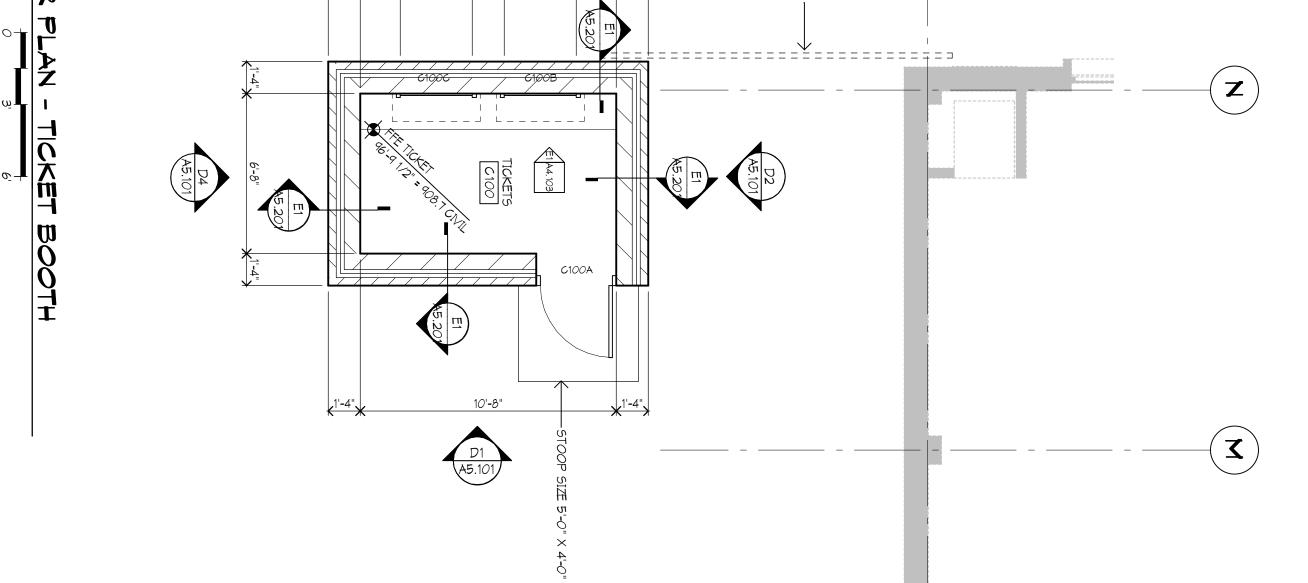
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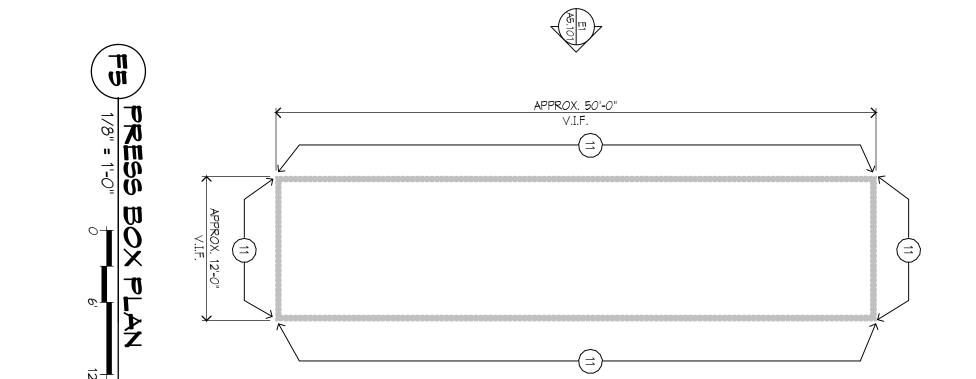
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REMARKS

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1100 81st Ave. NE Spring Lake Park, MN 55432

Improvements

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G.H.M.

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ET/A4.102 ET/A4.102

**Independent School District #16** 1415 81st Ave. NE Spring Lake Park, MN 55432

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Spring Lake Park High School Activities

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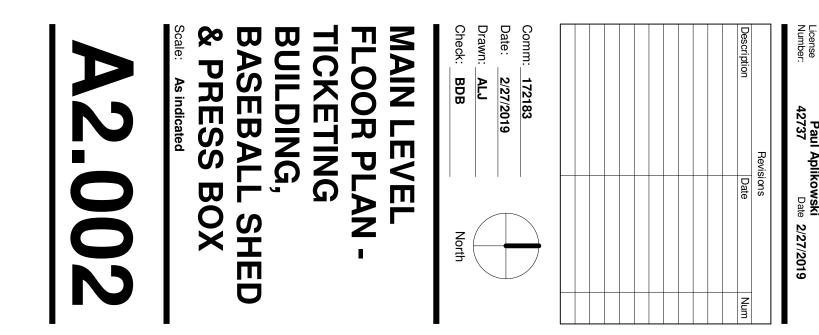
- ALL GYP. WALLS ARE CENTERED ON GRID UNLESS OTHERWISE NOTED.
   FIRE RATED WALLS ARE INDICATED ON CODE PLANS.
   HEAVY LINE THUS

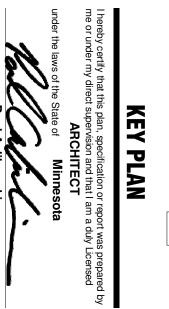
  - DOOR/SIDELITE OPENINGS TO BEGIN 4" ADJACENT WALL UNLESS OTHERWISE
- - Y LOCATION, SIZE AND QUANTITYOF ALL ANICAL AND ELECTRICAL EQUIPMENT
- . O
- IELD VERIFY ALL MILLWORK OPENINGS. ET FLOOR DRAINS 3/4" BELOW FINISHED ONGRETE FLOORS UNLESS OTHERWISE NOTED. ROVIDE CONSISTENT SLOPE FROM WALL TO RAIN BY SLOPING CONCRETE, MIN. 1/4" PER DOT.
  - .1 <u>.</u>6
    - ALL GYP. WALLS ARE TO BE 5 INCHES THICK INLESS OTHERWISE NOTED. ALL CONCRETE BLOCK WALLS ARE TO BE 8 NCHES THICK UNLESS OTHERWISE NOTED. SOORDINATE SIZE AND LOCATION OF ALL DUCT AND SHAFT OPENINGS IN WALLS AND "LOORS W/ MECH. AND ELEC. PROVIDE ALL EQUIRED LINTELS FOR OPENINGS. SEE LINTEL SCHEDULE.
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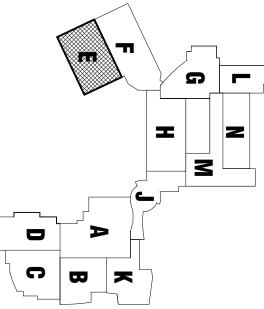
- - 2. ALL PLAN DIMENSIONS ARE NOMINAL TO FACE OF WALL. WALL THICKNESSES ARE SHOWN NOMINAL, SEE WALL TYPES FOR ACTUAL THICKNESS.

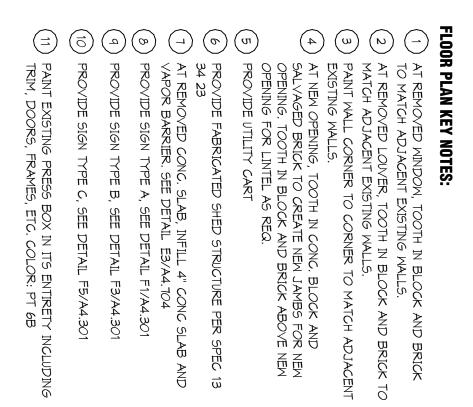
    - REFER TO DETAILS OF CONSTRUCTION FOR:
      A. ABBREVIATIONS, MATERIAL SYMBOLS
      B. MOUNTING HEIGHTS
      C. LINTEL SCHEDULE
      D. MATERIAL FINISH/COLOR SCHEDULE
      E. WALL TYPES
      F. MARKER BD TYPES AND MOUNTING HTS
      THE ABOVE SECTIONS ARE LISTED FOR
      REFERENCE ONLY, AND ARE NOT EXCLUSIVE TO
      AREAS OF WORK. ALL DETAILS SHALL BE
      REVIEWED FOR SCOPE OF WORK.

- **OR PLAN GENERAL NOTES:**









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KRAUS-ANDERSON® Construction Company

reet ;ota 55 Tel: (612) 332-7281 Fax: (763) 786-2650

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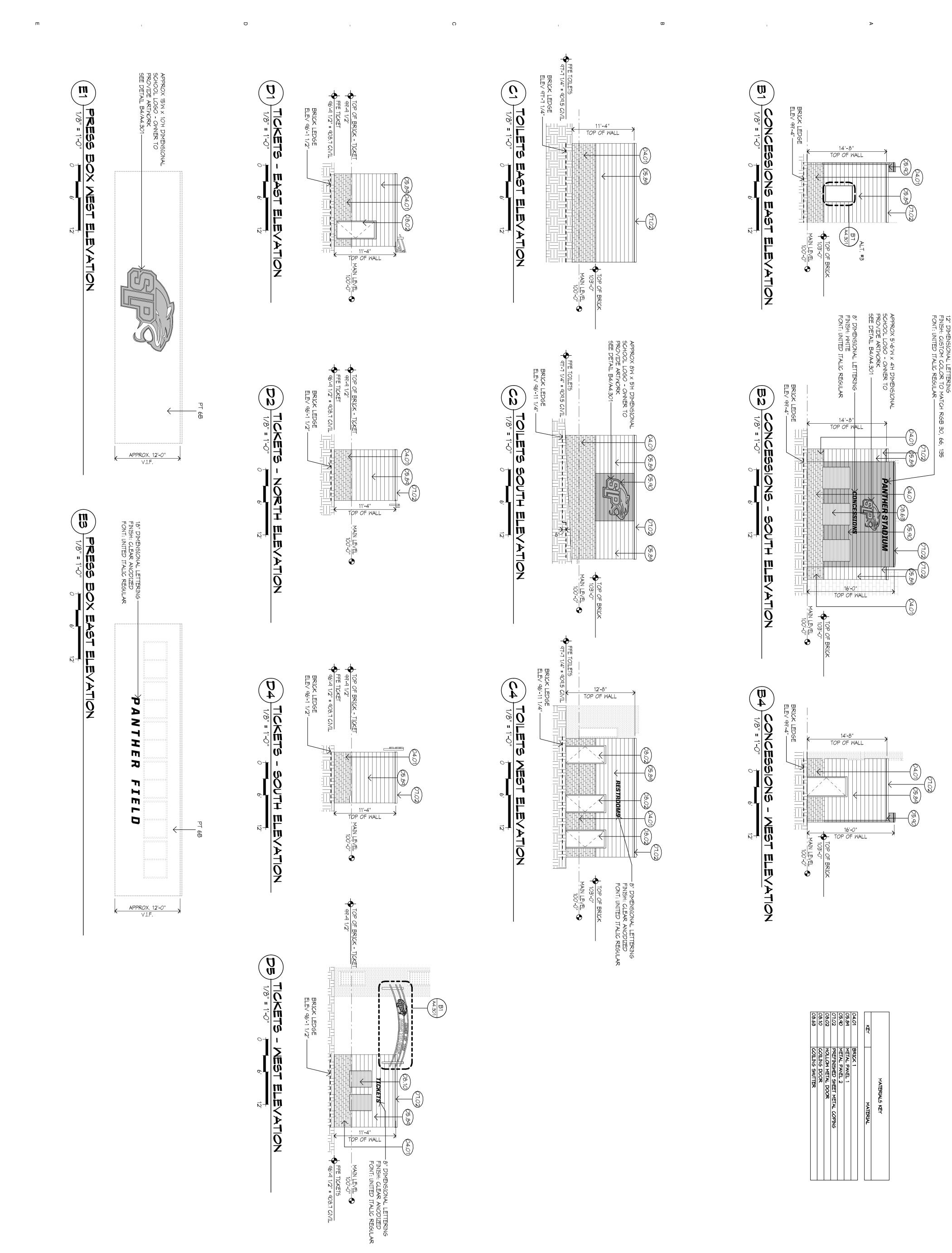
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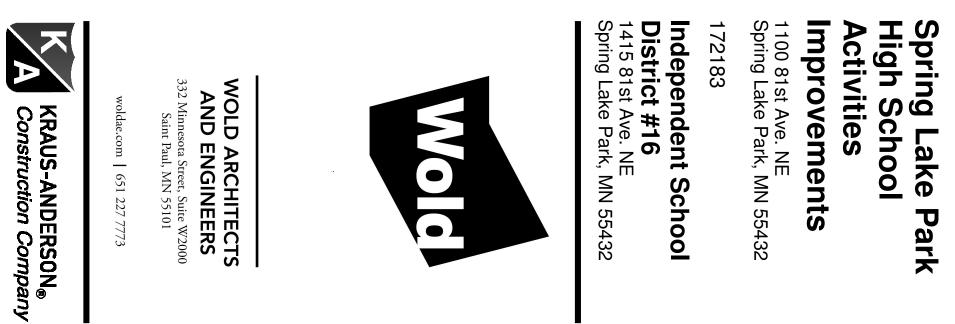
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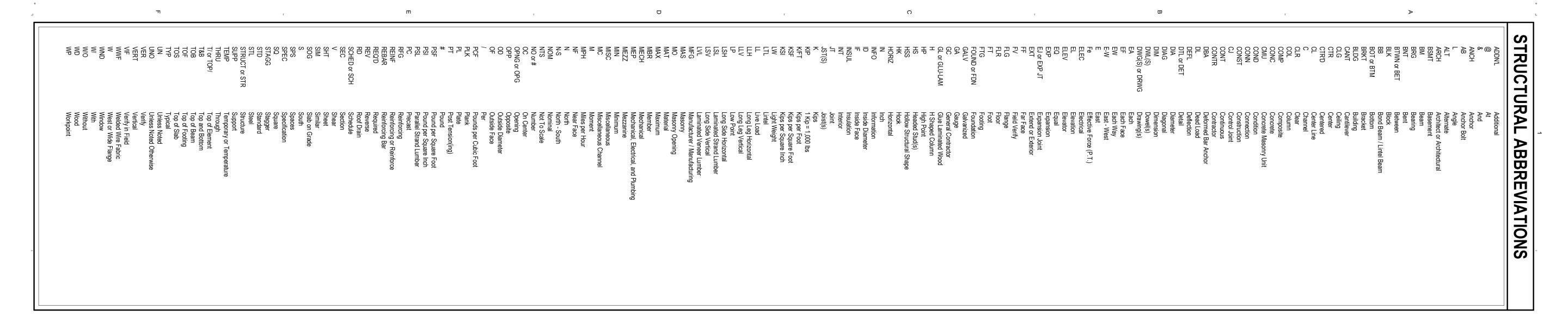
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License Number:	Paul Aplikowski 42737 Date	kowski Date 2/27/2019	
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hereby certify that this plan, specification or report was prepared by ne or under my direct supervision and that I am a duly Licensed ARCHITECT Inder the laws of the State of Minnesota



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in are e provided for other areas. See p đ -S

**EXISTING CONDITIONS** Verify all dimensions, elevations, and detail of existing structure where they affect this construction. Notify engineer if there are any deviations from the contract documents. Obtain prior approval from Structural Engineer before cutting openings or recesses or making other modifications to existing structure not shown on structural drawings.

**COORDINATION -- ARCHITECTURAL, MECHANICAL AND ELECTRICAL ITEMS** Verify all depressions, dimensions, elevations, openings, equipment supports, and details and coordinate by reference to architectural, mechanical and electrical drawing

**OPENINGS** Verify size and location of all openings with architectural, mechanical and electrical drawings. Structural drawings do not necessarily show all openings. Place openings in floor and roof not shown on structural drawings between structural members. Notify Structural Engineer before openings larger than 12" in any dimension are added. Obtain prior approval from Structural Engineer before making any openings through structural members if the openings are not shown on the structural drawings.

DESIGN CODES AND STANDARDS can Co⊧ ∍te nstitute (ACI) 318-11 – tute (ACI) 530-11 – Building Code - Building Code F nded by the *Min*i Requ Rec ents for Structural ents for Masonry Building Code

nican Institute of Steel Construction ( *I Buildings* nican Institute of Steel Construction ( teenth Edition rican Welding Society - Structured March ı (AISC) 360-10 – Spec (AISC) – Steel ng Code 8 (20 9 as modified by Manual n for Structural

**VESIGN STRESSES Veinforcing Steel (Fy)**60,000 psi (A615, Grade 60)
A,500 psi (A615, Grade 60)
4,000 psi unless noted
4,000 psi for exterior concrete
4,000 psi for interior slab on grade
3,000 psi for footings, caissons and topping
3,000 psi prism strength (fm)
2,800 psi CMU compressive strength
2,000 psi grout strength
3,000 psi (A992 or A572 Grade 50) for W shapes
36,000 psi (A500, Grade C) for rectangular structural tubing
46,000 psi (A53, Type E or S, Grade B) for pipes

**DESIGN LOADS** Roof Loads Roof Dead Load: 20 psf superimposed. (Includes allowance Use 10 psf for roof uplit calculation to allow for fully-adhered mei Roof Snow Load for Rainwater Rate Control = 40 psf Roof Snow Load Parameters Ground Snow Load = 50 psf Exposure Factor (Ce) = 1.0 Occupancy Importance Factor = 1.1 Thermal Factor (Ct) = 1.2 Flat-Roof Snow Load (Pf) = 46.2 psf Snow Drift Loads: In accordance with ASCE 7-10 Chapter

illasted roof. roof system.)

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Zone 4 = 22.6 psf Zone 5 = 25.5 psf s

## mic Loads Seismic de

EMPORARY BRACING ovide temporary bracing for all walls (concrete, masonry, cold formed steel, or wo ntil they are of adequate design strength and are properly anchored in final form.

SEOTECHNICAL INFORMATION In assumed soil bearing value of 1500 psf is us e verified by a licensed professional geotechni oncrete footings or slabs. used in the foundation on inical engineer prior to p n design and must placement of

## BACKFILLING Backfill evenly on both s

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wall

**CONCRETE REINFORCING GENERAL** Provide standard hooks where hook lengths are not specified. Provide epoxy coated reinforcing for all concrete exposed to weather such as retaining walls, and exterior walls, piers, columns, slabs, and paving. Epoxy coated reinforcing is not required for building foundation walls unless specifically noted.

CONCRETE COVER ON REINFOR Footings: 3 Masonry Walls & Columns: 4 FORCING
3" clear bottom and sides
centered in cell
1/2" from inside face of cell if not centered
Place bottom reinforcing within 4" of bottom
of lintel

JIY LII /Bond Bms:

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r wall footings, pro ersections. lless otherwise not noted, center wall de 32 bar dia footings ap at Ider walls പ്പ and and full ımn footings under 2

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shown on plan are to top of footing (TOF). Imn dowels at 3" clear bottom of footing.

ting elevations s k wall and colur

ONCRETE SLABS ON GRADE e detail 2/S5.201 for control/construction ji control joints are not shown on plan, place ovide additional joints to meet the spacings Exterior slabs, 10'-0" oc maximum Interior slabs, 12'-0" oc maximum Interior slabs, 12'-0" oc maximum shaped panels and rectangular panels (w e not allowed.

ated below

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(with đ gr than 1.5)

All control/construction joints m NON-BEARING WALLS Provide thickened slab below r s must be con and not staggered or offset.

See 3/S5.201

REINFORCED CONCRETE BLOCK WALLS
When one bar is required in a single core, place in center, unless noted otherwise.
When two bars are required in a single core, place one near each face.
Lap vertical reinforcing 48 bar diameters at splices.
Lap horizontal bond beam reinforcing 48 bar diameters at splices. See detail 6/S5.201 for corner bars.
Extend vertical reinforcing from footings to 2" clear top of wall or to beam bearing for reinforcing below beams.
Fill block core at vertical reinforcing (8" minimum length along wall) with concrete or grout. Vibrate in place. Rodding and puddling are not allowed
Maximum grout pour height is 4-0" for plain masonry units or 12'-0" for open core block. Provide cleanouts if pour height exceeds 5-4". Maximum grout lift height within a grout pour is 5'-4". See Specification 042731 for grouting requirements if plain shapes are being used.
Provide horizontal joint reinforcing at 16".

**CONCRETE BLOCK WALL LINTELS** All block lintels to be filled with concrete or grout. Vibrate in place. Fill a minimum of two block courses below lintel bearing. In masonry bearing walls, locate mechanical openings minimum 1'-4" from beam bearing locations and control joints. Do not locate openings within piers or lintels. See detail 20/S5.201 for openings up to 12" wide. For openings 12" to 36" wide, provide 2 -L5 x 3-1/2 x 5/16 LLV in 8" CMU walls and 2 - L6 x 6 x 5/16 LLV in 12" CMU walls. For openings 36" to 72" wide, provide W8x18 with 5/16" bottom plate in 8" and 12" CMU walls. Bear lintels 8" min each side of opening. See mechanical drawings for opening locations. For openings greater than 72" wide, submit proposed openings to Structural Engineer for review prior to placement. Multiple openings within 24" clear of each other are considered a single opening.

**STRUCTURAL STEEL** Structural steel fabrication and construction shall conform to the AISC "Manual of Steel Construction" and the AISC "Code of Standard Practice for Steel Buildings and Bridges" latest editions. Galvanize structural steel exposed to weather and brick support angles in exterior walls according to ASTM A123. Do not field cut or alter structural members without approval of the Structural Engineer.

ATERAL LOAD RESISTING SYSTEM FOR STRUCTURAL STEEL BUILDINGS he following elements comprise the primary lateral load resisting system: toof Diaphragm: Steel roof decking. follector elements/drag struts: None. follector elements/drag struts: None.

rt limited to, roof drains, / deck. Weld deck to

STEEL ROOF DECK
See detail 14/S5.201 for deck fastening.
Provide steel frame at openings wider than 6", including, but not limited to, roof drains, mechanical duct work, and piping. See detail 15/S5.201 at new deck. Weld deck to angle frames at 12" oc.
Allowable point loads applied to steel deck are controlled by the following: Maximum of 250 pounds in any 5'-0"x5'-0" square area.
Maximum of 100 pounds on any individual hanger location.
The total mechanical load applied to a deck-supporting member shall not exceed 5 pounds per square foot uniform load (typical) or 25 pounds per square foot in mechanical rooms.

**COLD-FORMED STEEL FRAMING** Design and construct cold-formed steel framing according to AISI *Specification for Design of Cold-formed Steel Structural Members*. Gravity and lateral loads shall be according to IBC Chapter 16. Provide calculations, prepared and certified by an engineer licensed to practice in the state in which the project is located, and detailed shop drawings for review.

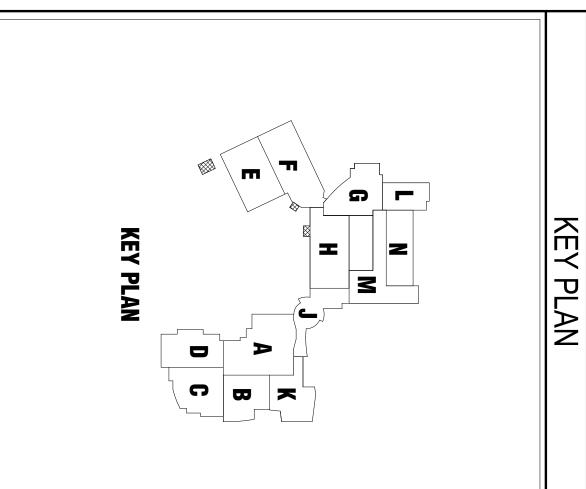
BRICK FACED BLOCK WALL LINTELS See detail 16/S5.201 for brick angle at con ਰਿੱ

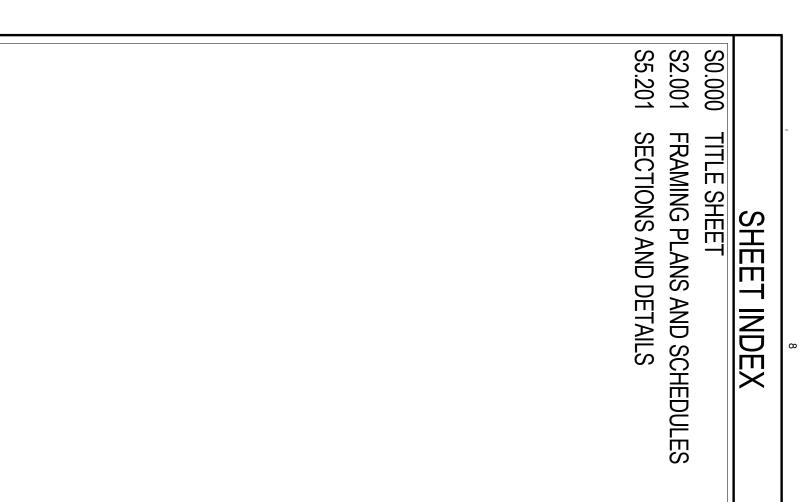
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SCE 7-10 Directional Procedure Parameters Exposure B Ultimate design wind speed 120 MPH (3 second Nominal design wind speed 93 MPH Wind Directionality Factor (Kd) 0.85 Risk Category III Topographic Factor (Kzt) 1.0 Internal Pressure Coefficient (GCpi) +/-0.18 components and Cladding Wind Loads (ultimate) Roof Uplift: Interior Zones = 23.7 psf Edge Zones = 28.1 psf (within 30'-0" of ed Corner Zones = 28.1 psf (within 30'-0" of c

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IN ADDITION TC SPECIAL INSPE CODE. SEE SPE SPECIFIC REQUIRE SPE ITEM 1. Soils complia foundation oc 2. Column footings 3. Wall footings 5. Reinforcing s 6. Post-installe 7. Structural sta				8. Struct streng	9. Steel of	10. Struct
EQUIRED STRUCTURAL SPECION         IN ADDITION TO THE REGULAR INSPECTIONS, THE FOLLOWING         SPECIAL INSPECTION IN ACCORDANCE WITH SECTION 1705 OF         SPECIFIC REQUIRE SPECIFIC REQUIREMENTS. CONSTRUCTION NOT ASSOCIATED         MAY REQUIRE SPECIAL INSPECTION BUT IS NOT LISTED HERE         TEM       REQUIRE SPECIAL INSPECTION BUT IS NOT LISTED HERE         TEM       REQUIRED?       REMARKS         Soils compliance prior to       YES       Reference         foundation construction       NO       Building is         Dest-installed anchors       YES       Reference         Structural steel fabrication       YES       Reference	nrcing steel	nstalled anchors	ural steel fabrication	Structural welding and high strength bolting	Steel decking	Structural masonry
FURAL SPEC         CTIONS, THE FOLLOWING         CTIONS, THE FOLLOWING         CECTION, THE FOLLOWING         CECTION ATERIAL SP         OTISS NOT LISTED HERE         BUT IS NOT LISTED HERE         BUT IS NOT LISTED HERE         REQUIRED?         VES       Reference         NO       Building is         NO       Footing an         NO       Building is         NO       Footing an         NO       Footing an	YES	YES	YES	YES	YES	YES
REQUIRED STRUCTURAL SPECIAL INSPECTION SPECIAL INSPECTION IN ACCORDANCE WITH SECTION 1705 OF THE INTERNATIONAL BUILDI CODE. SEE SPECIFICATION SECTION 014533 AND MATERIAL SPECIFICATION SECTION BUT IS NOT LISTED HERE.         ITEM       REQUIRE SPECIAL INSPECTION BUT IS NOT LISTED HERE.         1. Soils compliance prior to foundation construction       YES         2. Column footings       NO         3. Wall footings       NO         4. Structural concrete       NO         5. Reinforcing steel       NO         6. Post-installed anchors       YES         7. Structural steel fabrication       YES	Reference IBC table 1705.3	Reference IBC table 1705.3	May be omitted if fabricator is AISC certifi Reference IBC 1705.2 and AISC 360 Cha	Reference IBC 1705.2.1 and AISC 360 Ci	Reference IBC table 1705.2.2	Reference IBC 1705.4, TMS 402/602, and 1305.1705







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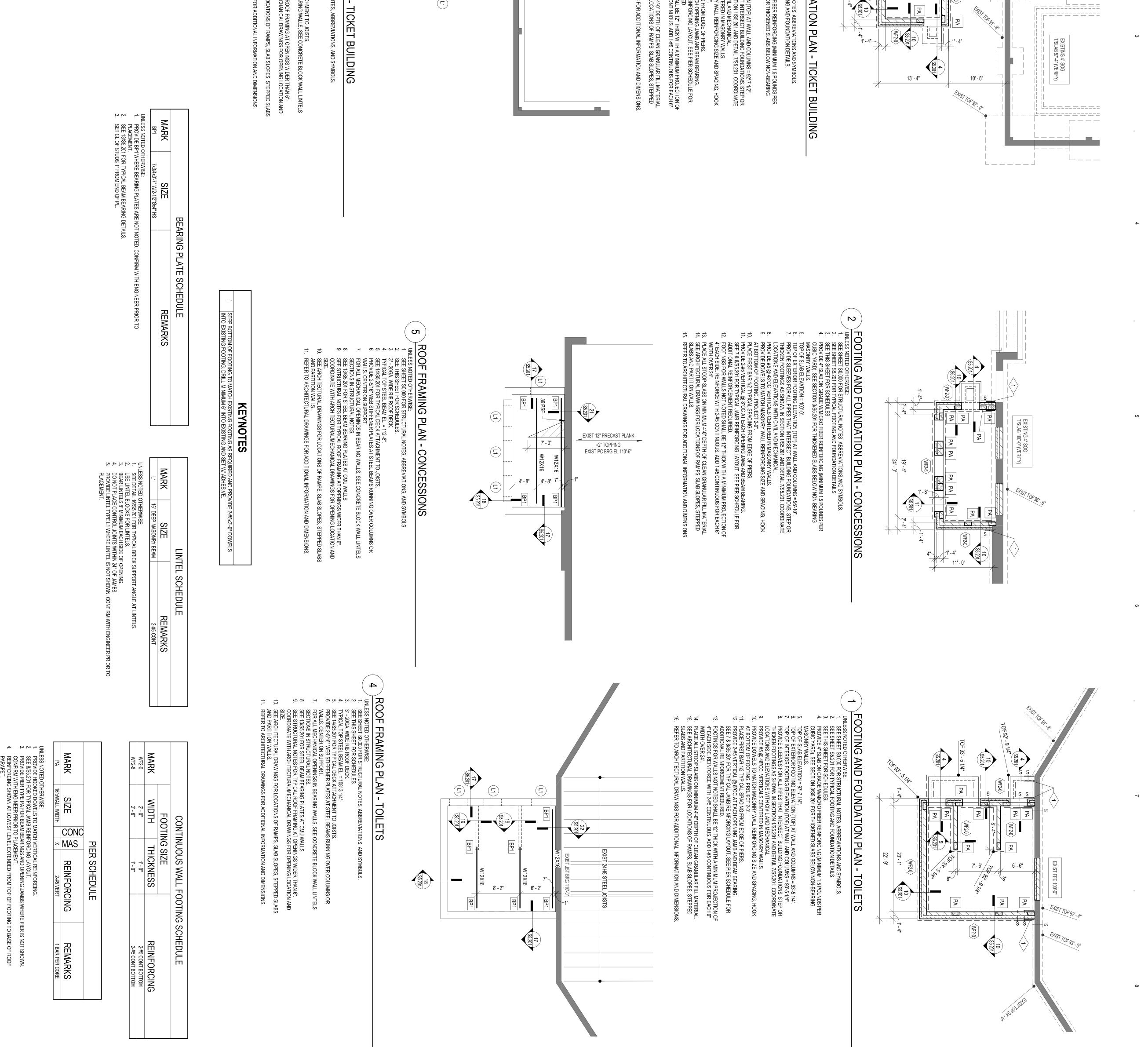


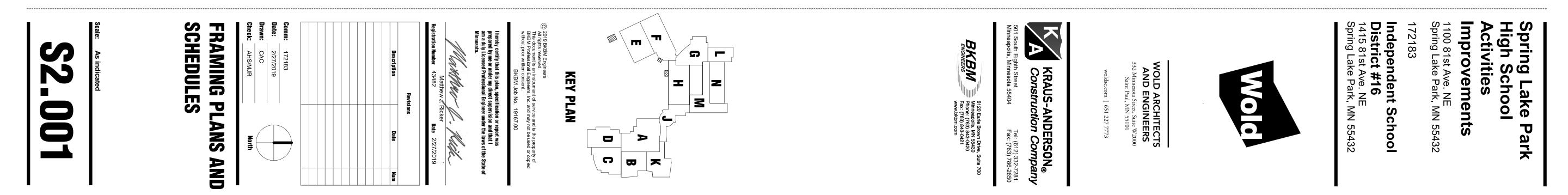
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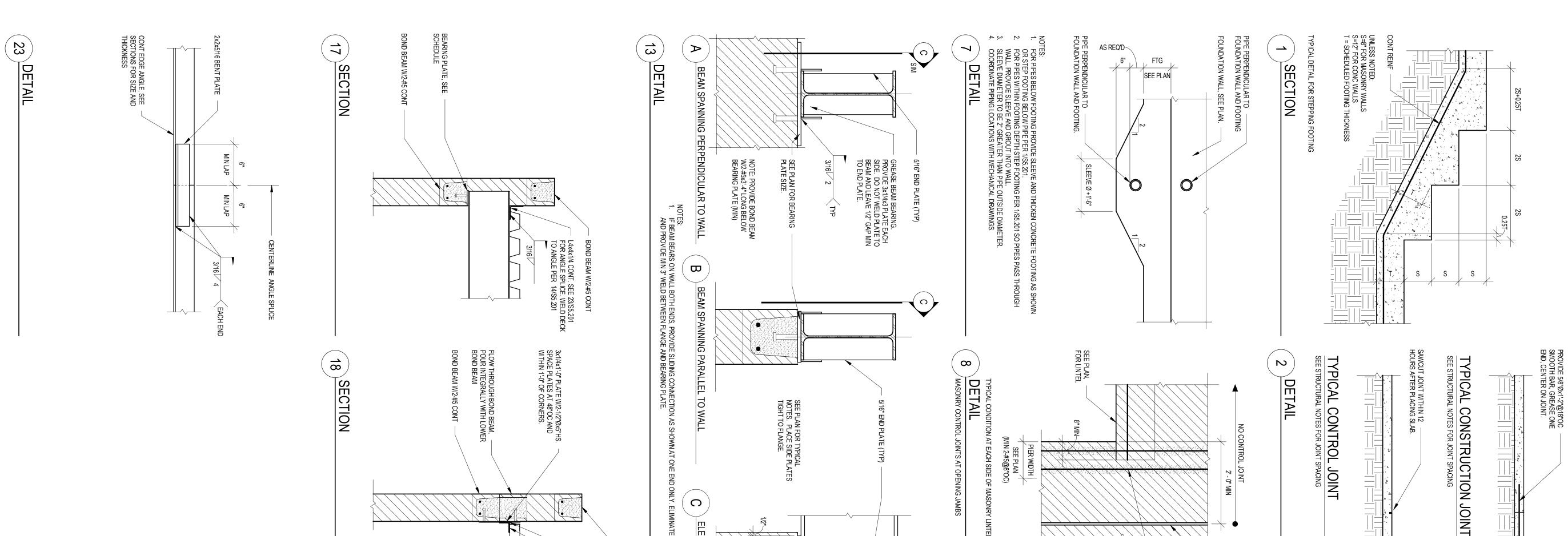






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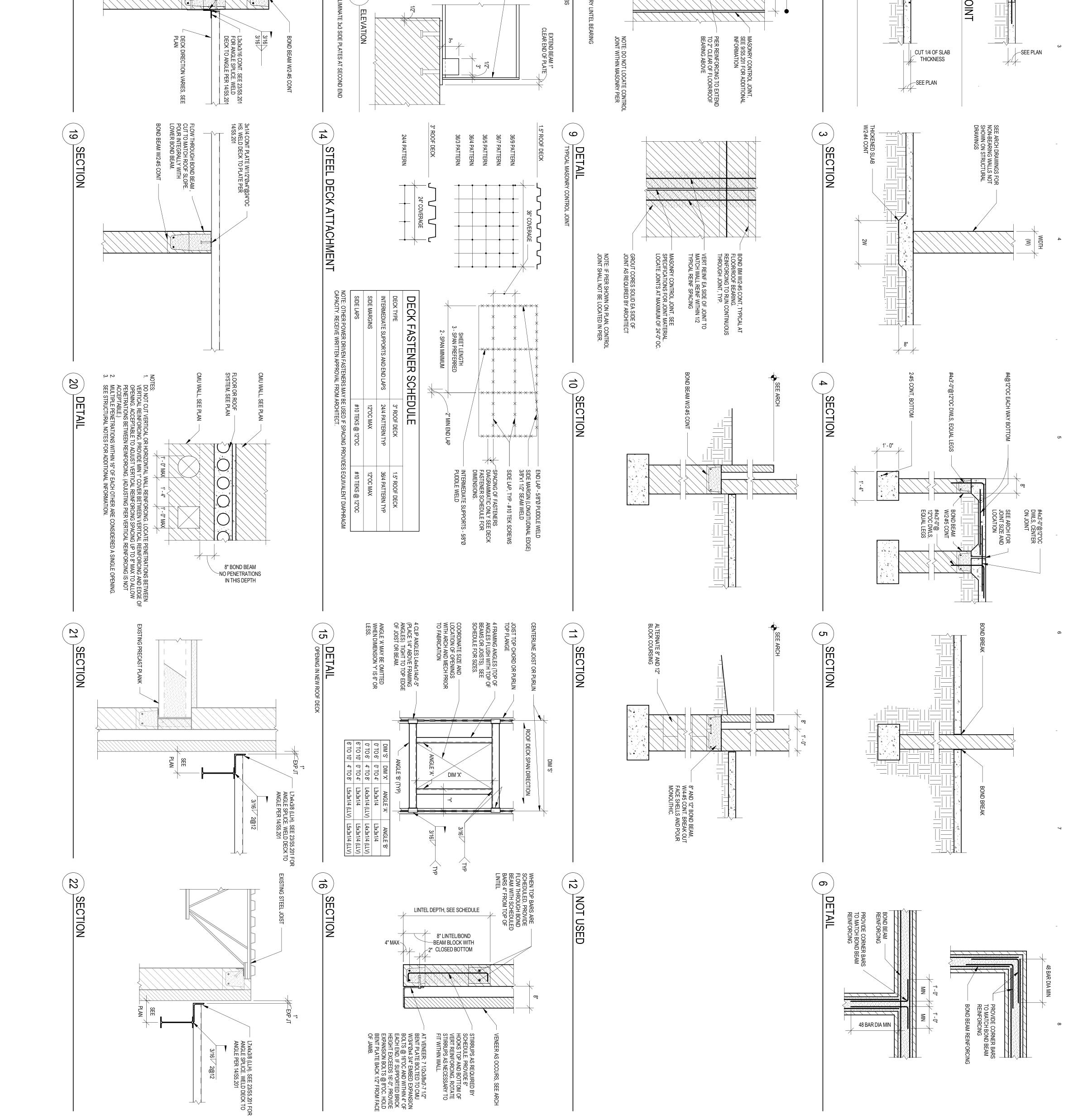


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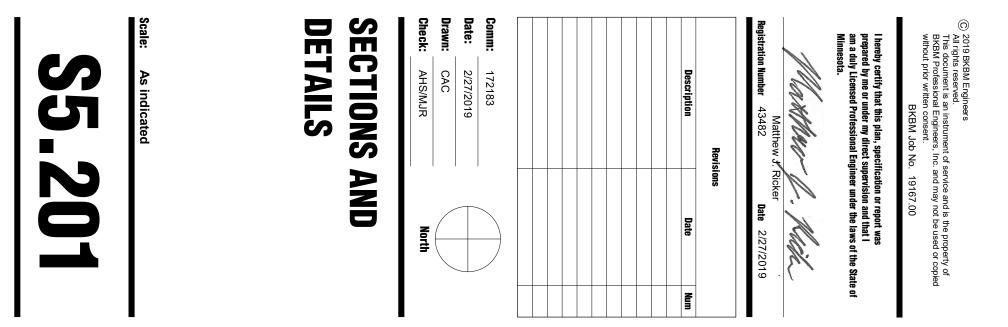
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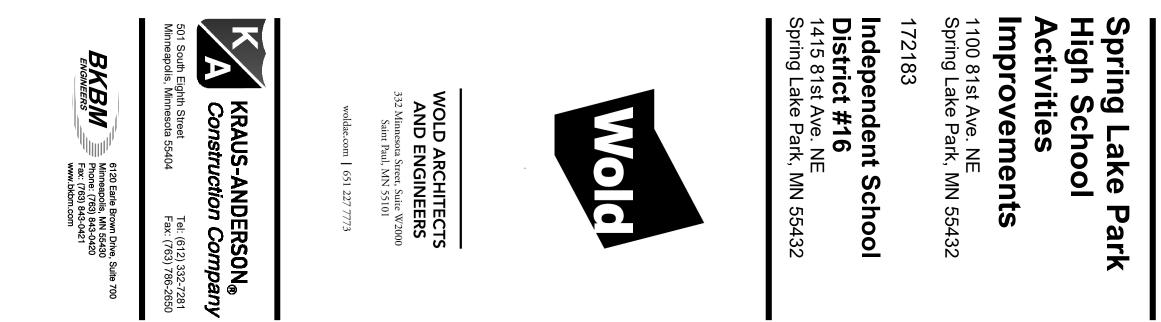
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BOD         EUROPE         Control           BOD         BENTRAL         BASTION OF PIE         MC           BAD         BASTION OF PIE         MC           BAN         BASTION OF PIE         MC           BAN         BASTION OF PIE         MC           BAN         BASTION OF PIE         MC           CAB         CATCH BASIN         MECH           CAB         CATCH BASIN         MECH           CAB         CATCH BASIN         MECH           CON         CONTRACTOR FURNISHED & INSTALLED         MIC           CON         CONTRACTOR FURNISHED & INSTALLED         MIC           CON         CONTRACTOR         MIC           CON         CONTRACTOR         PE           CON         CONTRACTOR         PE           CON         CONTRACTOR         REF           DOW         DOWN SPOUT NOZZLE         REF           ELE         ELENTATION         REF           CON         FRECONTRACTOR         RE           RE         ELECANUER	BODC         BOUCHER         CONTROL         C			.ITS	
BOTTONO OF PIPE         MAX           BASIMENT         MAX           BETWEEN         MECH           CABINET         MECH           CABINET         MECH           CATCH BASIN         MECH           CONTRACTOR FURNISHED & INSTALLED         MICH           CONTRACTOR         PRU           CONTRACTOR         REF           DOWN         REFOR           DOWN SPOUT         REFRO           ELECTRICAL         REFRO           ELECTRICAL         SU           FEED DAMPERFLOOR DRAIN         SU           FIED DRAPERFLOOR DRAIN         TICH           FIED MURE         TICH           GENERAL CONTRACTOR         TICH	BOTTONO FIPE         MAX           BASEMENT         MAX           BETWEEN         MECH           CASINET         MECH           CATCH BASIN         MECH           CATCH BASIN         MICH           CONTRACTOR FURNISHED & INSTALLED         MICH           CONTRACTOR FURNISHED & INSTALLED         OPIC           CONTRACTOR FURNISHED & INSTALLED         OPIC           CONTRACTOR FURNISHED & INSTALLED         OPIC           CONTRACTOR         PREVEN           DUNT BEOLING ROLONTRACTOR         REF           ELECTRICAL         CONTRACTOR         REF           ELECTRICAL         SUP         SUP           FENDING         SUP         SUP <t< td=""><td>BO</td><td>BLOW OFF</td><td>, c</td><td></td></t<>	BO	BLOW OFF	, c	
BASEMENT         MCC           BETWEEN         MCC           BETWEEN         MCC           CATCH BASIN         MED           CONTINUOUS BLOWDOW         MCC           CONTINUATION         OR           CONTINUATION         MCC           CONTINUATION         PR           CONTRACTOR         PR           DAWEER         REFNG           DAWER         REFNG           ELECTRICAL CONTRACTOR         RET           FREE DAWERFICION DRAIN         SU           FREE DAWERFICON DRAIN         TT           GENERAL CONTRACTOR         TT <td>BASEMENT         MCC           BETWEEN JOISTS         MED           CATCH BASIN         MED           CONTRACTOR FURNISHED &amp; INSTALLED         MED           CONTRACTOR         MED           CONTRACTOR         PED           DAMEER         PED           DAMER         PED           DAMER         PED           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT         REF           ELECTRICAL CONTRACTOR         REF           ELEVENER         SV           FREE BLOW DRAIN         SV           FREE BLOW DRAIN         TIT           GAL</td> <td>B.O.P</td> <td>BOTTOM OF PIPE</td> <td>MAX</td> <td></td>	BASEMENT         MCC           BETWEEN JOISTS         MED           CATCH BASIN         MED           CONTRACTOR FURNISHED & INSTALLED         MED           CONTRACTOR         MED           CONTRACTOR         PED           DAMEER         PED           DAMER         PED           DAMER         PED           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT         REF           ELECTRICAL CONTRACTOR         REF           ELEVENER         SV           FREE BLOW DRAIN         SV           FREE BLOW DRAIN         TIT           GAL	B.O.P	BOTTOM OF PIPE	MAX	
DEFINITION         METAPOLI           CALCHERSIN         MECZ           CANCHERSIN         MECZ           CONTRACTOR FURNISHED & INSTALLED         MICZ           CONTRACTOR FURNISHED & INSTALLED         MICZ           CONTRACTOR FURNISHED & INSTALLED         MICZ           CONTRACTOR         OPIG           CONTRACTOR         OPIG           CONTRACTOR         OPIG           CONTRACTOR         PERS           CONTRACTOR         PRESS           DAMEER         OPIG           DOUTRETURENJOISTS         PRESS           DAMEER         PRES           DAMEER         PRESS           DAMEER         PRESS           DAMEER         PRESS           DOWN SPOUT NOZLE         REG           DOWN SPOUT NOZLE         REG           DOWN SPOUT NOZLE         REG           CALONS PER MINUTE         SU           FREE BLOW DRAIN         SU           FREE BLOW DRAIN         TIC           FREE BLOW DRAIN         TIC           GAUGE         TIC           GAUGE         TIC           GAUGE         TIC           GAUGE         TIC           GAUGE <t< td=""><td>BETWEEN JOISTS         Minor           CANCENDER         MIRC           CONTINUCUIS BLOW DOWN         MINO           CONTINUCUIS BLOW DOWN         OPIG           CONTINUCUIS BLOW DOWN         OPIG           CONTINUCUIS BLOW DOWN         OPIG           CONTINUCUIS BLOW DOWN         OPIG           CONTINUCUIS         OPIG           CONTINUCUIS BLOW DORN         PEG           DUCT BETWEEN JOISTS         PRES           DAMPER         PIG           DOWN SPOUT         REFRIG           ELECTRICAL CONTRACTOR         REFRIG           ELECTRICAL         SU           FREE BLOW DRAIN         SU</td><td>BSMT</td><td>BASEMENT</td><td>MECH</td><td>MECHANICAL CONTRACTOR</td></t<>	BETWEEN JOISTS         Minor           CANCENDER         MIRC           CONTINUCUIS BLOW DOWN         MINO           CONTINUCUIS BLOW DOWN         OPIG           CONTINUCUIS BLOW DOWN         OPIG           CONTINUCUIS BLOW DOWN         OPIG           CONTINUCUIS BLOW DOWN         OPIG           CONTINUCUIS         OPIG           CONTINUCUIS BLOW DORN         PEG           DUCT BETWEEN JOISTS         PRES           DAMPER         PIG           DOWN SPOUT         REFRIG           ELECTRICAL CONTRACTOR         REFRIG           ELECTRICAL         SU           FREE BLOW DRAIN         SU	BSMT	BASEMENT	MECH	MECHANICAL CONTRACTOR
CAGINET         MEZZ           CATCH BASIN         MICR           CONTRACTOR FURNISHED & INSTALLED         MICR           CONTRACTOR FURNISHED & INSTALLED         MICR           CONTRACTOR FURNISHED & INSTALLED         NTS           CONTRACTOR FURNISHED & INSTALLED         ON           CONTRACTOR         PICR           CONTRACTOR         PICR           CONTRACTOR         PICR           DUCT FRETWEEN JOISTS         PICR           DAMPER         PICR           DOWN SPOUT         REFRI           DOWN SPOUT         REFRI           DOWN SPOUT NOZZLE         SU           SU         SU	CAGINET         MIEZZ           CATCH BASIN         MICR           CONTRNCTOR FURNISHED & INSTALLED         MIT           CONTRACTOR         OPIC           CONTRACTOR         OPIC           CONTRACTOR         OPIC           CONTRACTOR         OPIC           CONTRACTOR         OPIC           CONTRACTOR         PRESS           CONTRACTOR         PRESS           CONTRACTOR         PRESS           DUCT BETWEENJOISTS         PRESS           DURT BETWEENJOISTS         PRESS           DOWN         POOLT         REG           DOWN SPOUT NOZZLE         REG           ELECATION         REG           ELEVENTING         SUM           FLEXIBLE         SUM           FLEXIBLE         SUM           FLEXIBLE         TIC           FLEXIBLE         TIC           GENERAL CONTRACTOR         SUM           FLEXIBLE         TIC           GENERAL CONTRACTOR         TIC           GENERAL         TIC	NN JTS	BETWEEN JOISTS	MED	MEDIUM
CATCHEBASIN         MIN           CONTRUCIOUS BLOW DOWN         MID           CONTRACTOR FURNISHED & INSTALLED         MID           CONTRACTOR FURNISHED & INSTALLED         MID           CONTRACTOR         MID           CONTRACTOR         ON           CONDENSATE         OPCI           CONDENSATE         OPCI           CONDENSATE         OPCI           CONDENSATE         OPCI           CONDENSATE         OPCI           CONTRACTOR         PE           CONTRACTOR         PE           CONTRACTOR         PE           CONTRACTOR         PE           DUAMPER         PE           DUAMPER         PE           DOWN         POUT           DAMPER         PE           DOWN         POUT           DAMPER         PE           DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REF           ELECTRICAL         REF           ELECTRICAL         SUP           FIED VERIFY         FIED           FREE BLOW ORAIN         SUP           FIED DEREFAL         TI           GENERAL         TI           GENERAL	CATCHEBASIN         MIN           CONTRUCIOR BLIW DOWN         MIT           CONTRACTOR FURNISHED & INSTALLED         MITD           CONTRACTOR FURNISHED & INSTALLED         MITD           CONTRACTOR         ON           CONTRACTOR         OPG           CONDENSATE         OPG           CONDENSATE         OPG           CONTRACTOR         OPG           CONTRACTOR         PD           CONTRACTOR         PD           CONTRACTOR         PD           CONTRACTOR         PD           DUCT BETVEEN JOISTS         PRESS           DAMER         PD           DOWN         POUT NOZZIE         PRES           DOWN SPOUT NOZZIE         REG           DOWN SPOUT NOZZIE         REG           DOWN SPOUT NOZZIE         REG           ELEVATOR         SU           ELEVATOR         SU           FROM         SU           FREE DOWN PAN         TU           GUENERAL         TU           GUENERAL         <	CAB	CABINET	ME22	MANUFACTURER
CONTRACTOR FURNISHED & INSTALLED         MITD           CELING         NTS           CELING         NTS           CONCRETE         OPG           CONTRACTOR         OPG           CONCRETION         OPG           CONTRACTOR         OPG           CONTRACTOR         OPG           CONTRACTOR         OPG           CONTRACTOR         OPG           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           DOWN SPOUT         REFRO           DOWN SPOUT         REFRO           ELECTRICAL         REFRO           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ENTERING         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ENTERING         SAN           ENTERING         SAN           SAN         SAN	CONTRACTOR FURNISHED & INSTALLED         MITD           CELLING         NTS           CELLING         NTS           CONTRACTOR         NTS           CONTRACTOR         OP           CONDENSATE         OPCI           CONDENSATE         OPCI           CONTRACTOR         OPCI           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           DUCT BETWEEN JOISTS         PRCE           DUNTER         P           DUNTER         P           DUNTER         P           DUNTER         P           DUNTER         P           DUNTRER         P           DUNTRER         P           DONN SPOUT         REF           DONN SPOUT         REF           DONN SPOUT         REF           ELECTRICAL CONTRACTOR         REF           ELED VERIF         SU           FEED VERIF         SU           GAUGE         T           GUNTRACTOR         T           SU <td>ß</td> <td>CATCH BASIN</td> <td>MIN</td> <td>MINIMUM</td>	ß	CATCH BASIN	MIN	MINIMUM
CELLING         NTS           CLEANOUT         CONCRUTION           CONCRUTION         ON           CONDENSATE         OPIG           CONTRACTON         OPIG           CONTRACTON         OPIG           CONTRACTON         OPIG           CONTRACTON         OPIG           CONTRACTON         PD           DUNTER         PD           DUNTER         PR           DAMPER         PD           DONN SPOUT         REG           ELECTRICAL         REG           ELECTRICAL         SN           ELECTRICAL         SN           FEE BLOW ORAIN         SN           FICE DAMPERFICOR DRAIN         SN           FICE DAMPERFICOR DRAIN         TI           GENERAL         TIT           GENERAL         TIT           GENERAL         TIT	CELLING         NTS           CILING         NTS           CURNOUT         ON           CONCRET         ON           CONCENSATE         OPG           CONDENSATE         OPG           CONDENSATE         OPG           CONDENSATE         OPG           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           COUNTRER         PRC           DUCT BETWEEN JOISTS         PRC           DUNTER         PRC           DOWN         PRC           DOWN SPOUT         REF           DOWN SPOUT         REF           ELECTRICAL CONTRACTOR         REF           ELED VERIF         SU           FERON         TI           FERON         TI           GAUGE         TI           GAUGE         TI           GAUGE         TI		CONTINUOUS BLOW DOWN	MTD	MOUNTED
CLEAN OUT         ONCRETE         ON           CONCRETION         OPED           CONVERTION         OPED           CONTRACTOR         OPED           CONTRACTOR         PED           CONTRET         PED           DUATER         PR           DUATER         REF           DUATER         REF           DUATER         REF           DUATINON         REF           ELECITICAL CONTRACTOR         REF           ELECITICAL         SUP           FREE BLOW DRAIN         SUP           FREE BLOW DRAIN         SUP           FREE BLOW DRAIN         TI           GELEVATION         TIT           GELEVERAL	CLEAN OUT         OA           CONCRETE         OP           CONCRETION         OPCI           CONTRACTOR         OP           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           CONTRACTOR         P           COUT RETWEN JOISTS         PR           DUT FERNEN         PR           DAMETER         PR           DAMETER         PR           DAMETER         PR           DOWN SPOUT         REG           DOWN SPOUT         REF           ELECTRICAL CONTRACTOR         REF           FEE DONF         SU           FIRE DAMPERFLOOR DRAIN         SU           FIRE DAMPERFLOOR DRAIN         SU           FEE DAMPERFLOOR DRAIN         TIC           GENERAL CONTRACTOR         TIC           GENERAL         TIC           GENERAL         T	CLG		NTS	NOT TO SCALE
CONNEXTE         OR           CONTRACTON         OPCI           CONTRACTON         OPCI           CONTRACTON         OPCI           CONTRACTON         OPCI           CONTRACTON         PD           CONTRACTON         PD           COUTNER         PD           DUMEER         PN           DIMEER         PR           DAMPER         PT           DOWN         POUT           DOWN         POUT           DOWN SPOUT         RD           DOWN SPOUT NOZILE         REF           DOR         RECT           ELECTRICAL         REF           ELEVATION         SAN           ELEVATION         SAN           FREE BLOW DRAIN         SI           FREE DANPERFLOOR DRAIN         SI           FREE DANPERFLOOR DRAIN         TI           GENERAL CONTRACTOR         TI           GENERAL         TI           GENERAL	CONNECTION         OPEN           CONTINUTON         OPEN           CONTINUATION         OPEN           CONTINUATION         OPEN           CONTINUATION         OPEN           CONTINUATION         PI           DAMERER         PIN           DAMERER         PIN           DOWN SPOUT NOZZLE         RED           DOWN SPOUT NOZZLE         RED           CECIRICAL         RET           EACH         RET           ELECIRICAL CONTRACTOR         RET           ELECIRICAL CONTRACTOR         SU           FIRE DONDERN         SU           FIRE DONDERN         SU           FIRE DONTRACTOR         TI           GENERAL         TI           GENERAL         TI           GENERAL         TIN           GENERAL         TIN           GENERAL	6	CLEAN OUT	2	
CONNECTION         OPIN           CONTINUATION         OPIN           CONTINUATION         OSD           CONTRACTOR         PD           COLD WATER         PD           DIAMPER         PR           DOWN         POUT           DOWN         POUT           DOWN SPOUT         RD           DOWN SPOUT NOZZLE         REF           DOR         REF           DOR         REF           DOR         SAN           EXISTING         REG           FREE BLOW DRAIN         SI           FREE BLOW DRAIN         SI           FREE BLOW DRAIN         SI           FREE BLOW DRAIN         TI           GENERAL CONTRACTOR         TI           GENERAL         TI	CONNECTION         OPIG           CONTINUATION         OSD           CONTRACTION         OSD           CONTRACTION         PD           CONTRACTION         PD           CONTRACTION         PD           COUTRACTION         PD           COUTRACTION         PD           DIAMPER         PD           DIAMPER         PT           DOWN         PD           DAMPER         PT           DOWN         PN           DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REF           DOWN SPOUT NOZZLE         REF           DOWN SPOUT NOZZLE         REF           DOWN SPOUT NOZZLE         REG           ELECTRICAL CONTRACTOR         REF           ELECTRICAL CONTRACTOR         SN           FIED DOWN DRAIN         SN           FIED DOWN DRAIN         SN           FIED DOWN DRAIN         SN           FIED STRIC         SN           FIED STRIC         SN           GENERAL CONTRACTOR         TT           GENERAL CONTRACTOR         TT           GENERAL CONTRACTOR         TT           GENERAL         TT <t< td=""><td></td><td>CONDENSATE</td><td>OFCI</td><td></td></t<>		CONDENSATE	OFCI	
CONTINUATION         OSD           COUTRACTOR         P           COLUNATER         P           COLUNATER         P           DUCT BERVEEN JOISTS         P           DAMPER         P           DAMPER         P           DAMPER         P           DAMPER         P           DAMPER         P           DAMPER         P           DOWN         P           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REF           DOWN SPOUT NOZZLE         REF           DOWN SPOUT NOZZLE         REF           ELECTRICAL CONTRACTOR         REF           ELECTRICAL CONTRACTOR         SO           EXISTING         SN           FIRE DAMPERFLOOR DRAIN         SU           FIRE DAMPERFLOOR DRAIN         SU           FIRE DAMPERFLOOR DRAIN         T           GAUGE         T           GAUGE         T           GAUGE         T           GAUGE         T           GAUD AVE         V           HOT WATER         V	CONTINUATIONOSDCOUTRACTORPCOLD WATERPCOLD WATERPDAMPERPRDAMPERPRDAMPERPRDAMPERPRDOWN SPOUTREFDOWN SPOUT NOZZLEREFDOWN SPOUT NOZZLEREFDOWN SPOUT NOZZLEREFELECTRICAL CONTRACTORREFELECTRICAL CONTRACTORREFELECTRICAL CONTRACTORSNELECTRICAL CONTRACTORSNELECTRICAL CONTRACTORSNELECTRICAL CONTRACTORSNELECTRICAL CONTRACTORSNFREE BLOW DRAINSNFREE BLOW DRAINSNFREE BLOW DRAINSNFREE BLOW DRAINTIFREE BLOW DRAINTIFREE BLOW DRAINTIGALUORS PER MINUTETIHORIZONTALNUHORIZONTALVI<	CONN	CONNECTION	OPNG	OPENING
CONTRACTOR         CONTRACTOR           COLD WATER         PD           DUCT BETWEEN JOISTS         PR           DUMPER         PR           DOWN         PR           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT NOZLE         REF           DEECTRICAL CONTRACTOR         RE           ELECTRICAL         SU           FREE BLOW DRAN         SU           FREE BLOW DRAN         SU           FREE BLOW DRAN         SU           FREE BLOW DRAN         TI           GENERAL CONTRACTOR         TI           GENERAL         TI           GENERAL         TI           GENERAL         TI <td>CONTRACTOR         P           COLD WATER         PD           COLD WATER         PDB           DUCT BETWEEN JOISTS         PRESS           DIAMPER         PALBG           DAMPER         PALBG           DAMPER         PALBG           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN SPOUT         REG           EACH         REGT           ELECTRICAL CONTRACTOR         RET           ELECTRICAL CONTRACTOR         RET           ELECATION         SCV           ELECATION         SCV           ELECATION         SUP           FRED DAMPERFLOOR DRAIN         SUP           FRED DAMPERFLOOR DRAIN         SUP           FRED BURGER         TT           GAUGE         TT           GENERAL CONTRACTOR         VD           MOTION         VD           VD</td> <td>CONT</td> <td>CONTINUATION</td> <td>OSD</td> <td>OVERFLOW STORM DRAIN</td>	CONTRACTOR         P           COLD WATER         PD           COLD WATER         PDB           DUCT BETWEEN JOISTS         PRESS           DIAMPER         PALBG           DAMPER         PALBG           DAMPER         PALBG           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN SPOUT         REG           EACH         REGT           ELECTRICAL CONTRACTOR         RET           ELECTRICAL CONTRACTOR         RET           ELECATION         SCV           ELECATION         SCV           ELECATION         SUP           FRED DAMPERFLOOR DRAIN         SUP           FRED DAMPERFLOOR DRAIN         SUP           FRED BURGER         TT           GAUGE         TT           GENERAL CONTRACTOR         VD           MOTION         VD           VD	CONT	CONTINUATION	OSD	OVERFLOW STORM DRAIN
COLD WATER         PD           DUCT BETWEEN JOISTS         PRBS           DIAMPER         PRSS           DAMPER         PR           DOWN         PT           DOWN         RAD           DEEP         RAD           DOWN SPOUT         REF           DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REF           ELECTRICAL CONTRACTOR         REF           ELECTRICAL CONTRACTOR         REF           ELECTRICAL         SAN           FREE BLOW DRAIN         SIN           FREE BLOW DRAIN         TI           GENERAL CONTRACTOR         TI           GENERAL CONTRACTOR         TI           GENERAL         TI           GENERAL         TI           GENERAL         VI           HONZONTAL         VI           HON WATER         VI<	COLD WATER         PD           DUCT BETWEEN JOISTS         PILBG           DUMPER         PRESS           DIAMPER         PR           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN         PAT           DOWN SPOUT         RC           DOWN SPOUT         RC           DOWN SPOUT         RC           EAGH         RC           ELECTRICAL CONTRACTOR         RC           ELECATION         RC           ELECATION         SC           ELECATION         SC           ELECATION         SC           ELECATION         SC           ELECATION         SC           FIED COMPRAT         SC           FIED COMPRET         TT           FRED CONTRACTOR         TT           GENERAL CONTRACTOR         VD           VD         VD		<b>P</b> E	σ	PUMPS
DUCT BETWEEN JOISTS         PLBG           DIAMETER         PRESS           DIAMETER         PR           DAWPER         PT           DOWN         PT           DOWN SPOUT         RAD           DOWN SPOUT         REG           EACH         REG           ELECTRICAL CONTRACTOR         RET           ELECTRICAL CONTRACTOR         RET           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         REG           ENTRING         SU           ELECTRICAL         REG           ENTREND         SU           FIED VERIFY         REG           FREE BLOW DRAIN         SU           FIED VERIFY         SU           FRED VERIFY         SU           FRED VERIFY         SU           FRED VERIFY         SU           FRED VERIFY         SU           FROM         SU           FRED VERIFY         SU           FRED VERIFY         TI           GALLONS PER MINUTE         TU           HORZONTAL         VU           HOT WATER         VU           VU         VU           VU         VU <tr< td=""><td>DUCT BETWEEN JOISTS         PILBG           DUAMETER         PRESS           DAMPER         PR           DAMPER         PT           DOWN         POT           DEWN         RAD           DEWN         RAD           DEWN         RAD           DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REF           DECTRICAL CONTRACTOR         REF           ELECTRICAL CONTRACTOR         REF           ELECTRICAL         REF           ELECTRICAL         REF           ELECTRICAL         REF           ELECTRICAL         REG           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           IFEE DAMPERFLOOR DRAIN         SUP           TO         TO     <!--</td--><td>CW</td><td></td><td>PD</td><td>PRESSURE DROP</td></td></tr<>	DUCT BETWEEN JOISTS         PILBG           DUAMETER         PRESS           DAMPER         PR           DAMPER         PT           DOWN         POT           DEWN         RAD           DEWN         RAD           DEWN         RAD           DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REF           DECTRICAL CONTRACTOR         REF           ELECTRICAL CONTRACTOR         REF           ELECTRICAL         REF           ELECTRICAL         REF           ELECTRICAL         REF           ELECTRICAL         REG           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           IFEE DAMPERFLOOR DRAIN         SUP           TO         TO </td <td>CW</td> <td></td> <td>PD</td> <td>PRESSURE DROP</td>	CW		PD	PRESSURE DROP
DUCT DETWEENJUISTS         PRV           DAMPER         PRV           DAMPER         PT           DOWN         RAD           DERVING         RAD           DOWN SPOUT         RED           DOWN SPOUT         RED           DOWN SPOUT         RED           EACH         REGD           ELECTRICAL CONTRACTOR         REGD           ELECTRICAL CONTRACTOR         REGD           ELECTRICAL CONTRACTOR         REGD           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           SUP         SUP           FIELD VERIPY         SV           GENERAL CONTRACTOR         TICT           GENERAL	DUCL DE INVERNUUSIS         PRV           DAMPER         PRV           DAMPER         PRV           DOWN         PDT           DEP         RD           DAWING         RD           DEP         RD           DOWN SPOUT         RD           DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REF           EACH         REF           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         REF           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           SAN         SAN           SAN         SAN           SAN         TA           TC	-		PLBG	PLUMBING
DAMPER         PT           DOWN         REP           DEEP         RAD           DEAWING         RD           DOWN SPOUT         RE           DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REF           EACH         REGO           ELECTRICAL CONTRACTOR         RE           ELECTRICAL         REGO           ELECTRICAL         REGO           ELECTRICAL         REGO           ENTERING         SAN           EXISTING         SAN           EXISTING         SAN           EXISTING         SAN           FIED VERIPY         SIT           FREE BLOW DRAIN         SUP           FIRE DAWPER/FLOOR DRAIN         SU           FIRE DAWPER/FLOOR DRAIN         TC           GAUGE         TEMP           GENERAL         TIC           GAUGE         TIC           HONZONTAL         VU           HORIZONTAL         VEH           HOT WATER         VIB           VIB         VIB           VIB         VIB           VIB         VIB           VID         VIH           VIN	DAMPER         PT           DOWN         RD           DEEP         RD           DAMPER         RD           DAMPER         RD           DAWINSPOUT         RE           DOWN SPOUT         RE           DOWN SPOUT NOZZLE         REF           DAMPER         REF           DOWN SPOUT NOZZLE         REF           ELECTRICAL CONTRACTOR         RE           ELECTRICAL CONTRACTOR         RE           ELECTRICAL         REG           ELECTRICAL         REG           ELECTRICAL         RE           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           ELECTRICAL         SAN           FIELD VERIPY         SAN           FREE BLOW DRAIN         SV           FLOOR         TEM           GENERAL CONTRACTOR         TI           GENERAL CONTRACTOR         TI           GENERAL CONTRACTOR         TI           GENERAL CONTRACTOR         TI           TYP         TI           GENERAL CONTRACTOR         TI           VI         VI           VI         VI </td <td></td> <td>DIAMETER</td> <td>PRV</td> <td>POWER ROOF VENTILATOR</td>		DIAMETER	PRV	POWER ROOF VENTILATOR
DECWN         RAUNG         RAD           DRAWING         RC           DRAWING         RC           DOWN SPOUT         RE           EACH         REG           ELECTRICAL CONTRACTOR         RE           ELECTRICAL         REFNIG           ELECTRICAL         RE           ENTERING         SN           EXHAUST REGISTER         SC           FIELD VERIFY         SN           FREE BLOW DRAIN         SN           FIELD VERIFY         SN           FREE BLOW DRAIN         SN           FIELD VERIFY         SN           FREE BLOW DRAIN         SN           FLOOR         TT           FLOOR         TT           FROM         TT           GAUGE         TT           GALONS PER MINUTE         TN           HORIZONTAL         VD           HOT WATER         VE           VU         VE           HOT WATER         VIR           VIR         VIR           VIR         VIR           VU         VIR           VU         VIR           VIR         VIR           VIR <td< td=""><td>DOWN         RAD           DRAWING         RAD           DRAWING         RC           DOWN SPOUT         REF           DOWN SPOUT         REF           EACH         REG           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         SAN           EXISTING         SL           ENTRE BLOW DRAIN         SL           FREE DAWPER/FLOOR DRAIN         SL           FREE BLOW DRAIN         SL           FREE BLOW DRAIN         TT           FREE BLOW DRAIN         SL           FRED VERIER         SL           GENERAL CONTRACTOR         TT           GENERAL CONTRACTOR         TT           GALLONS PER MINUTE         TT           TO         TYP           HOR CONTAL         V           HON VALVE         VENT           HOT WATER         VENT           VIT         VIT           VIT         VIT           VIT         VIT     <!--</td--><td>DMPR</td><td>DAMPER</td><td>ΡT</td><td>POINT</td></td></td<>	DOWN         RAD           DRAWING         RAD           DRAWING         RC           DOWN SPOUT         REF           DOWN SPOUT         REF           EACH         REG           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         SAN           EXISTING         SL           ENTRE BLOW DRAIN         SL           FREE DAWPER/FLOOR DRAIN         SL           FREE BLOW DRAIN         SL           FREE BLOW DRAIN         TT           FREE BLOW DRAIN         SL           FRED VERIER         SL           GENERAL CONTRACTOR         TT           GENERAL CONTRACTOR         TT           GALLONS PER MINUTE         TT           TO         TYP           HOR CONTAL         V           HON VALVE         VENT           HOT WATER         VENT           VIT         VIT           VIT         VIT           VIT         VIT </td <td>DMPR</td> <td>DAMPER</td> <td>ΡT</td> <td>POINT</td>	DMPR	DAMPER	ΡT	POINT
DRAWING         RD           DOWN SPOUT         REF           EACH         REG           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         SU           FIRED DUER         SU           FREE BLOW DRAIN         SU           FRED DAMPERFLOOR DRAIN         SU           FROM         TT           GAUGE         TEMP           GENERAL         TU           GALLONS PER MINUTE         TV           HOT WATER         VD           VEH         VD           VUE         VEH           VUE         VEH           V	DRAWING         RD           DOWN SPOUT         REF           EACH         REC           ELECTRICAL         RET           ENTERING         RET           ELECTRICAL         SAN           EXISTING         SAN           ELECTRICAL         SAN           FIELD VERIFY         SE           FROM         SUP           FIRE DAMPERFLOOR DRAIN         TT           TC         TEMP           GAUGE         TEMP           TO         TO           TO         TO           TO		DOWN	RAD	RADIATION
DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REFRIG           EACH         REFRIG           EACH         REGO           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         SAN           FIELD VERIFY         SAN           FREE BLOW DRAIN         SUP           FIELD VERIFY         SUP           FREE BLOW DRAIN         SUP           FREE BLOW DRAIN         SUP           FREE BLOW DRAIN         SUP           FREE BLOW DRAIN         TI           GALORS PER MINUTE         TI           HOT WATER         VD           VIEN         VEN           VIEN	DOWN SPOUT         REF           DOWN SPOUT NOZZLE         REFIG           EACH         REFIG           ELCTRICAL CONTRACTOR         RET           ELECTRICAL CONTRACTOR         SAN           EXISTING         SAN           ELECTRICAL         SAN           FIELD VERIFY         SI           FREE BLOW DRAIN         SV           FLOOR         SV           FROM         TT           GAUGE         TEMP           GENERAL         TV           HORIZONTAL         VEN           HOT WATER         VEN           VIB         VIB           VID         VIB           VID	DRWG	DRAWING	RD	1 1
EACH         REG           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         RET           ELECTRICAL         SAN           FIELD VERIFY         SIN           FREE BLOW DRAIN         SUP           FREE BLOW DRAIN         SUP           FRER CONTRACTOR         TT           GENERAL         TT           GENERAL         TT           GENERAL         TVP           HORIZONTAL         TVP           HORIZONTAL         VI           VI         VI           VI         VI           VI         VI           V	EACH         REG           ELECTRICAL CONTRACTOR         REO           ELECTRICAL         RET           ELECTRICAL         Sup           FIRE DAMPERFLOOR DRAIN         Sup           FIRE DAMPERFLOOR DRAIN         Sup           FROM         TL           GALLONS PER MINUTE         TL           Important         TTU           GALLONS PER MINUTE         TU           Important         VD           Important         VD           Important         VD           Important         VD           Important         <		DOWN SPOUT	REFRIG	
EACH         REOT           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         SUP           FIREDAVERIFY         SUP           FIRE DAMPER/FLOOR DRAIN         SUP           FIRE DAMPER/FLOOR DRAIN         SUP           FROM         SUP           GENERAL         CONTRACTOR           GENERAL         TEMP           GENERAL         TEMP           GENERAL         TUJ           GENERAL         TUJ           GENERAL         TUJ           HOSE BIB         V           HOT WATER         VD           VD         VD           VD         VEST           VUE         VEST           VUE         VIE           VUE         VIE           VUE         VIE           VUE	EACH         RECO           ELECTRICAL CONTRACTOR         RET           ELECTRICAL         SAN           FIED VERIFY         SID           FIED VERIFY         SID           FIED VERIFY         SID           FREE BLOW DRAIN         SID           FROM         TA           FROM         SID           FROM         TEMP           GALLONS PER MINUTE         TTJ           FROM         TYP           HOT WATER         VC           VENT         VENT           VI         VI           VI         VI           VI			REG	
ELECTRICAL CONTRACTOR         RET           ELECTRICAL         ENTERING         RIC           ENTERING         SAN         SAN           EXHAUST REGISTER         SD         SD           FREE BLOW DRAIN         FREE BLOW DRAIN         SD           FREE BLOW DRAIN         SP         SN           FREE BLOW DRAIN         SP         SN           FREE BLOW DRAIN         SP         SN           FRED VERIFY         FREE BLOW DRAIN         SP           FRED VERIFY         SN         SN           FROM         SN         SN           GENERAL         CONTRACTOR         TL           GENERAL         TNJ         TSN           HOR END VALVE         TV         TNJ           HOT WATER         VEN         VEN           VIR         VIR         VIR           VIN         VIN         VIN	ELECTRICAL ELECTRICAL         RIC           ELECTRICAL         RIC           ELECTRICAL         RIC           ENTERING         SAN           EXHAUST REGISTER         SD           FRED VERIFY         FREE BLOW DRAIN         SD           FREE DAMPER/FLOOR DRAIN         SUP           FIRE DAMPER/FLOOR DRAIN         SV           FRED VERIFY         SP           FRED VERIFY         SP           FRED VERIFY         SUP           FRED VERIFY         SV           GALONS PER MINUTE         TU           TWJ         TV           HORZONTAL         V           HOT WATER         VD           VIE         VIE           VIE         VIE           VIE         VIE           VIE         VIE           VIE	S A	3	REQ'D	REQUIRED
ELECTRICAL         ENTERING         SAN           ENTERING         SAN         SD           EXHAUST REGISTER         SD         SD           FIELD VERIFY         FIELD VERIFY         SN           FREE BLOW DRAIN         SP         SP           FIELD VERIFY         SN         SCV           FREE BLOW DRAIN         SP         SN           FREE BLOW DRAIN         SP         SN           FREE BLOW DRAIN         SV         SP           FREE BLOW DRAIN         SV         SP           FREE BLOW DRAIN         SV         SP           FRED VERIFY         SN         SV           FRED VERIFY         SN         SV           FRED VERIFY         SN         SV           FROM         SV         SV           GAUGE         SV         TC           GALONS PER MINUTE         TTJ         TTG           HORIZONTAL         TVP         TYP           HORIZONTAL         VD         VD           HAND VALVE         VD         VEN           VEN         VEN         VEN           VUB         VIB         VIB           VUE         WH         WH	ELECTRICAL         ENTERING         SAN           ENTERING         SAN         SD           EXHAUST REGISTER         SD         SD           FIELD VERIFV         FIELD VERIFV         SC           FIELD VERIFV         SP         SD           FREE DAMPERFLOOR DRAIN         SV         SV           GAUGE         TA         SV         SV           GENERAL CONTRACTOR         TL         TEMP           GENERAL CONTRACTOR         TV         TV           GALONS PER MINUTE         TV         TV           HAND VALVE         VU         VU         VU           VD         VD         VEST         VEST           VI         VIR         VIR         VIR           VI         VIR         VIR         VIR           VI         VIR         VIR         VIR           VI         VIR         VIR         VI			RIC	RETURN IN COVER
ENTERING         SAN           EXHAUST REGISTER         SD           EXISTING         SD           EXISTING         SD           FIELD VERIFY         SD           FREE BLOW DRAIN         SD           FREE BLOW DRAIN         SP           FROM         SP           FROM         SP           GAUGE         TA           GENERAL CONTRACTOR         TFGT           GENERAL         TWJ           HORIZONTAL         TVP           HOT WATER         V           VEH         VEH           VEH         VEH           VIB         VIB           VIB         VIB           VH         WH	ENTERING       SAN         EXHAUST REGISTER       SD         IEXISTING       TT         IEXISTING       TT         IEXISTING <td< td=""><td>ELEC</td><td>ELECTRICAL</td><td></td><td></td></td<>	ELEC	ELECTRICAL		
EXISTING       EXISTING       SUP         FIELD VERIFY       FREE BLOW DRAIN       SUP         FREE BLOW DRAIN       SUP       SHT         FIRE DAMPER/FLOOR DRAIN       SUP         FLEXIBLE       SUP         FROM       SUP         GAUGE       TA         GENERAL CONTRACTOR       TC         GENERAL       TTJ         GENERAL       TTUJ         GALLONS PER MINUTE       TVJ         HORIZONTAL       V         HONE BIB       V         HOT WATER       VIB         VUB       VIE         VUB       VIE         VUB       VIE         VUB       VIE         VUB       VIE         VUB       VIE         VUE       VIE         VUE	EXISTING         EXISTING         SUP           FIELD VERIFY         SUP         SUP           FREE BLOW DRAIN         SUP           FIRE DAMPER/FLOOR DRAIN         SUP           FLEXIBLE         SUP           FROM         SUP           GAUGE         TA           GENERAL CONTRACTOR         TC           GENERAL         TTJ           GENERAL         TTU           GALLONS PER MINUTE         TVP           HORIZONTAL         V           HAND VALVE         VD           HOT WATER         VIB           VIB         VIB           VIB         VIB           VIB         VIB           VIB         VIB           VIB         VIB           VIB         VIE           VIB         VIE           VIB         VIE           VIB         VIE           VIE         VIE			SAN	SANITARY
FIELD VERIFYSHTFREE BLOW DRAINSPFIRE DAMPER/FLOOR DRAINSUFIRE DAMPER/FLOOR DRAINSVFLOORTAFLOORTAFROMTCGAUGETEMPGAUGETEGTGENERAL CONTRACTORTIJGENERALTTUJGALLONS PER MINUTETYPHOSE BIBVHORIZONTALVHOT WATERVEHOT WATERVEJJ <td>FIELD VERIFY         SHT           FREE BLOW DRAIN         SP           FIRE DAMPERFLOOR DRAIN         SUP           FLEXIBLE         SV           FLOOR         TA           FROM         TC           GAUGE         TEMP           GENERAL CONTRACTOR         TTJ           GENERAL CONTRACTOR         TTJ           GENERAL CONTRACTOR         TTJ           GENERAL CONTRACTOR         TTJ           GENERAL         TTJ           GENERAL         TVJ           MONZONTAL         V           HORIZONTAL         VEN           HOT WATER         VEN           VEN         VEN           VEN         VIB           VITR         VIB           VIN         VIN           <td< td=""><td>EXIST</td><td>EXHAUSI REGISTER EXISTING</td><td>SCV</td><td>SI URM UKAIN SELF CONTAINED VALVE</td></td<></td>	FIELD VERIFY         SHT           FREE BLOW DRAIN         SP           FIRE DAMPERFLOOR DRAIN         SUP           FLEXIBLE         SV           FLOOR         TA           FROM         TC           GAUGE         TEMP           GENERAL CONTRACTOR         TTJ           GENERAL CONTRACTOR         TTJ           GENERAL CONTRACTOR         TTJ           GENERAL CONTRACTOR         TTJ           GENERAL         TTJ           GENERAL         TVJ           MONZONTAL         V           HORIZONTAL         VEN           HOT WATER         VEN           VEN         VEN           VEN         VIB           VITR         VIB           VIN         VIN           VIN         VIN <td< td=""><td>EXIST</td><td>EXHAUSI REGISTER EXISTING</td><td>SCV</td><td>SI URM UKAIN SELF CONTAINED VALVE</td></td<>	EXIST	EXHAUSI REGISTER EXISTING	SCV	SI URM UKAIN SELF CONTAINED VALVE
FREE BLOW DRAIN       SP         FIRE DAMPER/FLOOR DRAIN       SUP         FLEXIBLE       SV         FLOOR       TA         FLOOR       TC         FROM       TC         GAUGE       TEMP         GENERAL CONTRACTOR       TEGT         GENERAL CONTRACTOR       TTJ         GENERAL CONTRACTOR       TTJ         GENERAL CONTRACTOR       TVP         HOSE BIB       TYP         HORIZONTAL       V         HOT WATER       VD         HOT WATER       VENT         VENT       VENT	FREE BLOW DRAINSPFIRE DAMPER/FLOOR DRAINSUPFLEXIBLESVFLOORSVFLOORTAFROMTCGAUGETEMPGENERAL CONTRACTORTFGTGENERALTTJGENERALTTJGALLONS PER MINUTETVPHOSE BIBVALVEHOT WATERVDHOT WATERVEHOT WATERVEJJ </td <td>(F.)</td> <td>FIELD VERIFY</td> <td>SHT</td> <td>SHEET</td>	(F.)	FIELD VERIFY	SHT	SHEET
FIRE DAMPERFLOOR DRAIN       SUP         FLOOR       SV         FROM       TA         FROM       TC         GAUGE       TC         GENERAL CONTRACTOR       TFGT         GENERAL CONTRACTOR       TFGT         GENERAL       TFGT         GENERAL       TTJ         GALIONS PER MINUTE       TVP         HOSE BIB       VV         HORIZONTAL       VD         HOT WATER       VEH         VEH       VEH         VIR       VIR         WI       WH         WH       WH	FIRE DAMPER/FLOOR DRAIN         SUP           FLOOR         SV           FROM         TA           GAUGE         TC           GENERAL CONTRACTOR         TEMP           GENERAL CONTRACTOR         TTJ           GENERAL         TFGT           GENERAL         TTJ           GENERAL         TTJ           GENERAL         TTJ           HOSE BIB         TYP           HORIZONTAL         V           HOT WATER         VD           VEH         VEH           VUD         VIEH           VUD         VIEH           VUD         VIEH           VUD         VIEH           VUD         VIEH           VUD         VIEH           VUEH         VIEH           VUEH         VIEH           VUEH         VIEH     <	FBD	Z	SP	STATIC PRESSURE
FLOOR FROM FROM GAUGE GAUGE GAUGE GENERAL CONTRACTOR GENERAL CONTRACTOR MOSE BIB HORIZONTAL HAND VALVE HOT WATER VD HOT WATER VI WI VI VI VI VI VI VI VI VI VI VI VI VI VI	FLOOR FLOOR FROM FROM FROM FROM GAUGE GAUGE GAUGE GENERAL CONTRACTOR GENERAL CONTRACTOR GENERAL HOSE BIB HORIZONTAL HOT VATER HOT WATER VU HOT WATER VU WI VEH VEH VEH VEH VEH VEH VEH VEH VE VI VI VI VI VI VI VI VI VI VI VI VI VI		FER/FLOOR	SV SV	SAFETY VALVE
FROM GAUGE GAUGE GENERAL CONTRACTOR GENERAL CONTRACTOR GENERAL GENERAL GALLONS PER MINUTE HOSE BIB HORIZONTAL HOT VALVE HOT WATER VD HOT WATER VD VEH VEH VEST VIB VIB VIB VIR VIR VIR VIR VIR VIR VIR VIR VIR VIR	FROM GAUGE GAUGE GENERAL CONTRACTOR GENERAL CONTRACTOR GENERAL GALLONS PER MINUTE HOSE BIB HORIZONTAL HOT WATER V HAND VALVE V HAND VALVE V U M V V HOT WATER V V V V V V V V V V V V V V V V V V V	FLR	FLOOR		
GAUGE       TEMP         GENERAL CONTRACTOR       TEMP         GENERAL       TTJ         GALLONS PER MINUTE       TTJ         HOSE BIB       TYP         HORIZONTAL       V         HOT WATER       VD         VEH       VEH         VITR       VIR         VITR       VIR         VITR       VIR         VITR       VIR         VITR       VIR         VITR       VIR         VITR       VITR         VITR       VITR         VITR       VITR         VITR       VITR	GAUGE       TEMP         GENERAL CONTRACTOR       TEMP         GENERAL CONTRACTOR       TTJ         GALLONS PER MINUTE       TTJ         HOSE BIB       TYP         HORIZONTAL       V         HOT WATER       VD         VEH       VEH         VIB       VIR         VIB       VIR         VIB       VIR         VIB       VIR         VIE       VIR         VIE       VIE         VIE	FM	FROM	TA	TRANSFER AIR
GENERAL CONTRACTOR       TFGT         GENERAL       TTJ         GALLONS PER MINUTE       TWJ         HOSE BIB       TYP         HORIZONTAL       V         HON VALVE       VD         HOT WATER       VEH         VEST       VIB         VIR       VIR         VIR       VII         VIR       VIR         VIR       VIR         VIR       VIR         VIR       VIR         VIR       VIR         VIR       VIN         VIR       VIN         VIR       VIN         VIN       VIN	GENERAL CONTRACTOR       TFGT         GENERAL       TTJ         GALLONS PER MINUTE       TWJ         HOSE BIB       TYP         HORIZONTAL       V         HOT WATER       VD         VEH       VEH         VUB       VIB         VITR       VIB         VITR       VIB         VITR       VITR         VITR       VITR </td <td>GA</td> <td>GAUGE</td> <td>TEMP</td> <td>TEMPERATURE CONTROL</td>	GA	GAUGE	TEMP	TEMPERATURE CONTROL
GENERAL       TTJ         GALLONS PER MINUTE       TWJ         HOSE BIB       TYP         HORIZONTAL       V         HAND VALVE       VD         HOT WATER       VEH         VEH       VEH         VEH       VEH         WHOT WATER       VEH         VEH       VEH	GENERAL       TTJ         GALLONS PER MINUTE       TWJ         HOSE BIB       TYP         HORIZONTAL       V         HAND VALVE       VD         HOT WATER       VEH         VEH       VEH         VEH       VEH         VH       VEH         VEH       VEH	GC		TFGT	TOP OF FOOTING
GALLONS FER MINUTE     TYP       HOSE BIB     TYP       HORIZONTAL     V       HAND VALVE     VD       HOT WATER     VEH       VEH     VEH       VEH     VEH       VEH     VEH       WH     WH	GALLONS FERMINUTE       TYP         HOSE BIB       TYP         HORIZONTAL       V         HAND VALVE       VD         HOT WATER       VEH         VEH       VEST         VIB       VIR         VIR       VIR	GEN		UTT .	TIGHT TO JOISTS
HOSE BIBVVENTHORIZONTALVVENTHAND VALVEVDVOLUMEHOT WATERVEHVEHVETVESTVESTVENTVIBVIBRATICVIDVIBVIBRATICVIDVIBVIBRATICVIDVIBVIBRATICVIDVIBVIBRATICVIDVIBVIBRATICVIDVIBVIBRATICVIDVIBVIBRATICVIDVIBVIBRATICVIDVIBVIBVIDVIBVID <t< td=""><td>HOSE BIBVVENTHORIZONTALVVENTHAND VALVEVDVOLUME DAHOT WATERVEHVEHVETVESTIBULEVIBVIDVIDVIBVIDVIDVIBVID</td><td>GTM</td><td></td><td>TYP</td><td>TYPICAL</td></t<>	HOSE BIBVVENTHORIZONTALVVENTHAND VALVEVDVOLUME DAHOT WATERVEHVEHVETVESTIBULEVIBVIDVIDVIBVIDVIDVIBVID	GTM		TYP	TYPICAL
HORIZONIAL VENT HAND VALVE VD VOLUME HOT WATER VEHT VEHT VENT VEST VESTIBU VIB VIB VIB VIB VIB VIB VIB VIB VIB VIB	HORIZONIAL VENI HAND VALVE VENI HOT WATER VD VOLUME DA HOT WATER VENI VENI VENI VENI VENI VENI VENI VENI	HB	HOSE BIB		
MAND VALVE     VD     VOLUME       /     HOT WATER     VEH     VEHICLE       /     HOT WATER     VIB     VIBRATIC       /     VIB     VIBRATIC     VIB     VIBRATIC       /     VIB     VIBRATIC     VIB     VIBRATIC       /     VIB     VIBRATIC     VIB     VIBRATIC       /     VIB     VIB     VIBRATIC     VIB       /     VIB     VIB     VIB     VIB	MUD VALVE     VD     VOLUME DA       HOT WATER     VEH     VEH     VEHICLE       WITH     VIB     VIBRATION     VIB     VIBRATION       VID     VID     VITR     VENT THRU       VID     VID     VID     VID	HORIZ	HORIZONTAL	; <	VENT
VEST VESTI VIB VIBRA VTR VENT VTR VENT VTR VENT VITH WH WALL	VEST     VEST IBULE       VIB     VIBRATION       VIR     VENT THRU       VIR     VENT THRU       VIR     WITH       WH     WALL HYDF       WI     WI	AH L	HOT WATER	VEH	
VIBRA VENT WALL	VIBRATION VENT THRU WITH WALL HYDF			VEST	VESTIBULE
WITH	WITH WALL HYDR			VIB	VIBRATION VENT THRU ROOF
WITH	WITH			• • • •	
WALL	WALL			W/	WITH
				МН	WALL HYDRANT

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	ROOF DRAIN	CATCH BASIN CLEAN OUT FLOOR CLEAN OUT	ATING HOT – 140° ATING HOT – 180° ATER – 180°	RADE	NITROGEN     NITROUS OXIDE       NUTROUS OXIDE     NO       OXYGEN     O       SOFTENED COLD WATER     SCW       SANITARY DRAIN,     O	INTERRUPTIBLE GAS     IG       IRRIGATION WATER SUPPLY     IRR       LABORATORY COMPRESSED     IR       AIR     IA       LIQUIFIED PETROLEUM GAS     IPG       MEDICAL COMPRESSED AIR     MA       MEDICAL VACUUM     VAC			
	AM ITURN   CR ITURN   CR ITURN   CR ITURN   CR	CHILLED WATER SUPPLY CHWS BUILDING CHILLED WATER CHWS(B) SUPPLY CONDENSATE RETURN - CR(HPS) HIGH PRESSURE STEAM CR(HPS)			DEPARTMENT CONNECTION	PENDANT HEAD SPRINKLER SIDEWALL SPRINKLER HEAD UPRIGHT SPRINKLER HEAD TWO CONNECTION FIRE DEPARTMENT CONNECTION THREE CONNECTION FIRE DEPARTMENT CONNECTION	FIRE SPRINKLER LINE     FIRE       FIRE HOSE CABINET,     FHC       RECESSED MOUNTED     FHC       SURFACE MOUNTED     FHC       WET STANDPIPE     WSP       FIRE HYDRANT WITH     WSP	FIRE PROTECTION         DESCRIPTION       SYMBOL         DRV FIRE SPRINKLER LINE       DFS         DRY STANDPIPE       DSP         FIRE PROTECTION LINE,       FP         OUTSIDE BUILDING       FP	MECHANIC
WALL HYDRANT OR HOSE BIBB       OS & Y VALVE       PRESSURE REDUCING VALVE       REFRIGERANT EXPANSION       RELIEF VALVE       SQUARE HEAD BALANCING       COCK VALVE       SHUTOFF VALVE       SOLENOID VALVE       TWO WAY CONTROL VALVE       BACKFLOW PRESSURE			AUTOMATIC SMOKE DAMPER	BACKDRAFT DAMPER	AUTOMATIC FIRE DAMPER	THERMOSTAT, NIGHT $\bigcirc$ N THERMOSTAT, NIGHT $\bigcirc$ N SUPPLY AIR RETURN AIR $\rightarrow$ $\rightarrow$ EXHAUST AIR $\rightarrow$ $\rightarrow$ $\rightarrow$ SUPPLY AIR DUCT $\checkmark$	JRE STEAM SSURE STEAM VDENSATE RETURN JRE STEAM PC JRE STEAM PC JRE STEAM PC	HEATING, VENTILATING AND AIR CONDITIONING DESCRIPTION HEATING WATER REVERSE HWRR HEATING WATER SUPPLY HWS	ICAL SYMBOLS
SIGHT GLASS SHOCK ABSORBER STRAINER THERMOMETER UNION	PUMP (DIAGRAMMATIC) PRESSURE GAUGE WITH VALVE PRESSURE GAUGE WITH VALVE & SIPHON POINT OF CONNECTION POINT OF DEMOLITION	FLOW SWITCH	ECCENTRIC REDUCER	AIR VENT GENERIC STEAM TRAP CAPPED LINE CONCENTRIC REDUCER	MISCELLANEOUS DESCRIPTION SYME PIPE ANCHOR	90° ELBOW TEE CONNECTION TEE CONNECTION DOWN TEE CONNECTION UP WYE, BEND WYE, SINGLE WYE, DOUBLE	CHECK VALVE COMBINATION WYE & 1/8 BEND 1/8 BEND 1/8 BEND ELBOW DOWN ELBOW UP 45° ELBOW	DESCRIPTION     SYM       BRANCH CONNECTION OUT     ⊢()       BRANCH CONNECTION OUT     ⊢()	

**FIRE PROTECTION GENERAL NOTES:**A. Obtain water main flow test data through measurements and provide assurance of accuracy. Coordinate date and time of flow test with city water utility, local fire official having jurisdiction, and engineer at least five (5) working days prior to conducting test

Ξ Provide a complete and fully functioning fire protection sprinkler system in accordance with the requirements of National Fire Protection Association (NFPA) standards, most current state fire code, other applicable state and local codes, the owner's insurance underwriter, and the additional requirements of the authority having jurisdiction. All necessary fire protection sprinkler system equipment, piping, valving, components, specialties and accessories shall be provided whether or not specifically shown on the drawings. Secure all permits and pay all fees in connection with the mechanical work.

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The complete installation of the fire protection sprinkler system shall comply with NF requirements, state fire code requirements, and the additional requirements of the authority having jurisdiction.

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- 0 Route of fire sprinkler mains shown is intended to utilize the most efficient space available and to avoid interference with other building equipment and systems. Field verify actual routing of mains prior to beginning fabrication and installation.
- Ш Do not run fire sprinkler piping near roof mounted relief hood ductwork, combustion air intake louvers, or any intake or relief air ductwork which may subject the pipe to potenti freezing conditions.
- Provide fully recessed sprinklers with coverplates in all areas that have finished ceilings and brass upright type fire sprinkler heads in all areas with exposed structure ceilings, unless indicated otherwise on the drawings or in the project specifications.

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Ξ. Ģ afer to the architectural reflected ceiling plans for the overall reflected ceiling layout. A sordinate fire sprinkler head layout with other ceiling equipment and ceiling architec atures. Fire sprinkler head locations indicated on the architectural reflected ceiling ans supersede those indicated on the mechanical drawings.

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- ovide timely and proper layout of fire protection sprinkler systems and equipment. cordinate fire protection work, including pipe routing and sprinkler head locations, with ork of other trades prior to ordering equipment, beginning system fabrication, and ginning installation. Coordination shall be the responsibility of the fire protection ontractor.
- l fire protection systems, piping and equipment shall be supported from the building ructure in accordance with the requirements of NFPA standard 13 and applicable state rd local codes.
- es for all pipi 오
- ate in ng þe
- ormation indicated on the drawings regarding utility service pressures, locations, invert vations and materials, has been obtained from a representative of the utility at the time design. Verify such information prior to fabricating and installing any components sociated with utility connections and notify engineer of any deviation before beginning tallation of the system.
- fer also to ductwork and lighting drawings for coordination and to the project chanical specifications for further information and additional requirements.
- isting sprinkler piping shall be ace. ed to allow ation of new ductwork in the joist
- ield verify the existing system construction and pipe sizes. Perform hydraulic alculations for new system from the pint of service entrance.

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- fer also to plumbing and lighting plans for coordination and to the project mecha ecifications for futher information and additional requirements.

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- he fire protection contractor shall coordinate all work and routing with other trades prior installation of system to ensure proper sequencing of work without delaying or pairing other trades in their performance of work. The fire protection contractor shall chedule work to meet the project schedule. The fire protection contractor shall remove nd reinstall any and all piping and sprinkler heads that are in conflict with other echanical trades at the fire protection contractor's expense and at no additonal cost to e owner.
- The fire prote ction contractor shall avoid all routing of sprinkler m tely necessary and prior approved by architect. thru stai
- ne fire protection contractor shall follow the routing of new acce, chases, siffits, etc. to avoid any exposed piping or ro sting piping with the icts.
- The fire protection contractor shall coordinate all routing of mains thru stairwells, clear-stories, open vestibules, etc. with the architect prior to installation. If routing is not approved prior to installation, the fire protection contractor shall be responsible for all cost related to moving the piping.

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he fire protection contractor shall coordinate all routing of exposed mains on finished /alls as to route from one elevation to another due to ceiling heights, structure, etc. The ontractor shall clearly document routing on plans and meet architect on site to verify outing prior to installation. If exposed piping routing is not approved prior to installation, ne fire protection contractor shall be responsible for all cost related to moving the piping

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- A. All ductwork shall be fabricated ductwork shall be fabricated, instal th chapter 6 of the 2012 Internationa sociated 2015 Minnesota amendme d SMACNA standards and the mec viect d, installed and supported in accordance arnational Mechanical Code and mendments, the most current ASHRAE the mechanical specifications for this
- ovide adequate support and vibration isolation for all mechanical uipment and systems furnished and installed as part of the schanical work. All mechanical equipment shall be supported from building structure in accordance with code compliant and cognized industry standard methods. No ductwork or piping shall be sported from other ductwork, piping or conduit.
- <u></u> efer to the architectural drawings for locations of all fire rated walls, eilings and floors. Where mechanical systems penetrate rated walls, eilings and floors, maintain the indicated rating with specification and ode approved fire sealing materials.
- Ō Refer to the architectural reflected ceiling plans for ceiling types, heights, and exact locations of all diffusers, grilles, registers, lights, and ceiling mounted equipment. Coordinate air terminal device layout with other ceiling equipment and ceiling architectural features.
- ordinate construction openings necessary for the proper installation mechanical systems with the general contractor. Do not cut new, --stressed or post-tensioned concrete floors or structural members hout first consulting the architect or structural engineer. Coordinate of openings with general contractor prior to ordering and setting oftop equipment.
- .П ovide sleeves for all ductwork and piping penetrations of walls and ors. Maintain respective wall and ceiling ratings at all mechanical metrations.
- ons. Increase
- Ģ Ductwork dimensions are inside clear ai lined ductwork dimensions accordingly.
- Ξ ontractor may subst uctwork sizes. titute spiral ductwork in lieu of rect

angular

<u>ب</u> rovide a manual volume bala erves a diffuser or register. าcing dan 9 each b

ranch duct that

- <u>,</u> rovide flexible cou r device ns at the air and outlet of each fan unit
- ount thermostats and wall switches at 54-inches above finished floor lless indicated otherwise. Refer to the HVAC drawings for locations.
- Z Σ The project mechanical drawings are symbolic and diagrammatic and ire intended to show only the general scheme, equipment involved, ind the approximate locations of materials and equipment.
- The project mechanical drawings and specifications are to be considered as supplementing each other. Work specified but not shown, or shown but not specified shall be provided or performed as though mentioned and indicated in both the drawings and specifications. If items indicated on the drawings or with the specifications, then ther items indicated on the drawings or with the specifications, then the item or statement requiring the greater quantity, superior quality, or condition most favorable to the owner shall take precedence.
- 0 tion and to the on and additiona
- efer also to plumbing and lighting plans for coordinat oject mechanical specifications for further informatic quirements.

	Sheet List
Sheet Number	Sheet Name
M0.00	Mechanical Title Page
M1.01	Mechanical Underground Plumbing Plan
M1.02	Mechanical Main Level Plumbing & Fire Protection Plan
M1.03	Mechanical Plumbing Riser Diagrams
M1.04	Mechanical Main Level HVAC Plan
M1.05	Mechanical Schedules & Details

- PLUMBING GENERAL NOTES: A. Provide all equipment, piping, controls, comm
- r roviue all equipment, piping, controls, components, specialties and accessories necessary for complete and fully functioning mechanical systems whether or not specifically shown on the drawings. Secure all permits and pay all fees in connection with the mechanical work. Provide timely and proper layout of mechanical equipment and systems. Coordinate mechanical work with work of other trades prior to ordering equipment, beginning system fabrication, and beginning installation. Keep all plumbing piping runs as high as possible. Maintain proper burial depths for all utility service piping.
- Coordinate all plumbing piping runs with building structure, ductwork and lights. Offset plumbing piping as required for a coordinated and proper system installation. Pitch sanitary and storm drainage piping at 1/4-inch per foot where possible and 1/8-inch per foot minimum unless indicated otherwise on the drawings or required by applicable codes. Where invert elevations are given, the piping shall pitch on an even grade between two given elevations.
- rovide adequate support and vibration isolation for all mechanical quipment and systems furnished and installed as part of the iechanical work. All mechanical equipment shall be supported from le building structure in accordance with code compliant and icognized industry standard methods. No piping shall be supported om other piping, ductwork or conduit.
- efer to the architectural drawings for locations of all fire rated walls, eilings and floors. Where mechanical systems penetrate rated walls, eilings and floors, maintain the indicated rating with specification and ode approved fire sealing materials. rovide sleeves for all piping penetrations of walls and floors.
- ovide sleeves for all piping penetrations of walls and floors. plumbing piping shall be installed in accordance with the most rrent adopted Minnesota state plumbing code. Refer to Minnesota es, Chapter 4714.
- Vork performed and materials used for the plumbing system shall omply with the standards set in the Minnesota state plumbing code terr to Minnesota rules, Chapter 4714.
- The domestic water piping system shall be disinfected in accordance with the requirements of the Minnesota state plumbing code. Refer to Minnesota rules, Chapter 4714.
- nbing system shall be tested in accordance with the rents of the Minnesota state plumbing code.Refer to ta rules, Chapter 4714.
- tic pipe must be furnished and installed in accordance with lesota state plumbing code requirements. Refer to Minnesota , Chapter 4714. Above grade horizontal runs of plastic waste and pipe cannot exceed 35-feet in total length.
- Il solder and flux used for potable domestic water distribution ystems shall contain less than 0.2 percent lead. Use of 50-50 solder r flux containing more than 0.2 percent lead is prohibited in potable lomestic water distribution systems. Any solder other than 95-5 tin-ntimony or 96-4 tin-silver must be specifically approved by the overning administrative authority prior to use on this project. Refer to linnesota rules, Chapter 4714. ت in pvc and cpvc pipe must include use of a primer which is of asting color to the pipe and cement. Refer to Minnesota rules, ter 4714.
- Information indicated on the drawings regarding utility service pressures, locations, invert elevations, and materials, has been obtained from a representative of the utility at the time of design. Verify such information prior to fabricating and installing any components associated with utility connections and notify engineer of any deviation before beginning installation of the system. Refer also to the HVAC and lighting drawings for coordination and to the project mechanical specifications for further information and additional requirements.
- It is the responsibility of the contractor/installer to notify the Minnesota department of labor and industry when an installation is ready for a state contract job, licensed facility, or project in an area where there is no local administrative authority is ready for an inspection and test. Hubless cast iron waste/vent pipe and fittings: Conform to ASTM A888/CISPI 301 and mark with the certified trademark of the independent third party certification agency.
- Standard shielded couplings: Conform to ASTM C1277 assembly. Provide with stainless steel metal shield, stainless steel bands and tightening devices and ASTM C564 rubber sleeve with integral center pipe stop.
- Heavy duty shielded couplings: Conform to ASTM C1540. Provide with stainless steel metal shield, stainless steel bands and tightening devices and ASTM C564 rubber sleeve with integral center pipe stop.
- Service weight hub and spigot cast iron soil pipe and fittings: Conform to ASTM A 74 and mark with the certified trademark of the independent third party/certification agency. Connecting gaskets shall conform to ASTM C564.3.
- Malleable-iron unions: ASME B16.39; Class 150; hexagonal-stock body with ball-and-socket, metal-to-metal, bronze seating surface; and female threads. vanized steel pipe and fittings: Conform to ASTM A 53/A 53M, type r S, grade A or B, schedule 40. Steel pipe nipples: ASTM a 733, made of ASTM A 53/A 53M or ASTM A 106, schedule 40, galvanized, seamless steel pipe. nclude ends matching joining method.
- PVC sewer pipe and fittings; Conform to ASTM D2665 for pipe and fittings with solvent welded joints using solvents conforming to ASTM D2564.
- C Copper tube: ASTM B 88, type L water tube, dra B16.22 wrought copper solder joint fittings.

## **OVERALL PROJECT MECHANICAL NOTES**

- contractor shall visit the site and verify existing conditions and limitation r to submitting bid and beginning work. No additional charges will be wed due to this contractor's misunderstanding as to the amount of work lived or lack of knowledge of any condition in connection with the work.
- Notify Building Manager prior to starting work or shutting down any system Obtain the assistance of the facility maintenance staff when shutting down existing mechanical and electrical systems.
- Provide all equipment, piping, ductwork, controls, components, specialties and accessories necessary for complete and fully functioning mechanical systems whether or not specifically shown on the drawings. Secure all permits and pay all fees in connection with the mechanical work.
- Work performed and materials used shall conform in every respect to all requirements of applicable codes, ordinances, rules, and regulations pertaining to the work. This shall not permit a lower grade of construction where the drawings or specifications call for workmanship or materials in excess of code requirements.
- Provide timely and proper layout of mechanical equipment and systems. Coordinate mechanical work with work of other trades prior to ordering equipment, beginning system fabrication, and beginning installation.
- ise and vibration generated on the project site as part of fabrication and stallation of the mechanical work shall be limited to levels not objectionable occupants and not detrimental to owner operations. Coordinate with neral contractor times and locations where loud work may be performed.
- rovide adequate support and vibration isolation for all mechanical equipme rd systems furnished and installed as part of the mechanical work. All lechanical equipment shall be supported from the building structure in scordance with code compliant and recognized industry standard methods.
- efer to the architectural drawings for locations of all fire rated walls, ceilings nd floors. Where mechanical systems penetrate rated walls, ceilings and pors, maintain the indicated rating with specification and code approved fire ealing materials.
- Coordinate construction openings necessary for the proper installation of mechanical systems with the general contractor. Do not cut new, pre-stressed or post-tensioned concrete floors or structural members without first consulting the architect or structural engineer.
- At the end of each day's work properly remove and legally dispose of all debris, waste, rubbish, surplus materials, and similar items resulting from the work or associated operations, leaving the project site and all equipment furnished as part of the mechanical work in a clean and dust free condition. Transport debris and rubbish in such a manner as to prevent the spread of dust
- Execute mechanical work with care. New and existing-to-remain construction which is damaged or defaced as a result of the work and is unsuitable for the use intended shall be removed and replaced by this contractor at no additional cost to the owner.
- The project mechanical drawings are symbolic and diagrammatic and are intended to show only the general scheme, equipment involved, and the approximate locations of materials and equipment.
- ormation indicated on the drawings regarding utility service pressures, ations, invert elevations, and materials, has been obtained from a oresentative of the utility at the time of design. Verify such information prior fabricating and installing any components associated with utility connections d notify engineer of any deviation before beginning installation of the
- The project mechanical drawings and specifications are to be considered as supplementing each other. Work specified but not shown, or shown but not specified shall be provided or performed as though mentioned and indicated in both the drawings and specifications. If items indicated on the drawings appear to conflict with other items indicated on the drawings or with the specifications, then the item or statement requiring the greater quantity, superior quality, or condition most favorable to the owner shall take precedence.
- mechanical contractor is responsible for taking down, storage and stallation of any existing ceiling grids, ceiling tiles, etc. as needed for allation of the new mechanical systems. The mechanical contractor sh ace any damaged grids, tiles, etc. to match existing.

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- The mechanical contractor shall remove and reinstall any cross-bracing in the oist space that interferes with the installation of the new ductwork, piping and equipment that is to be installed with the joist spacing.
- Q The mechanical contractor shall provide all necessary offsets and/or transitions as required to install ductwork and piping in the ceiling joist space due to conflicts with existing equipment, ductwork, piping, lights and joist spacing.
- ans with new work
- All piping, ductwork, equipment, etc. shown screened in platic existing and is to remain unless otherwise noted.
- efer to the project mechar dditional requirements. nical specific ations for further info ation and
- All mechanical contractors including demo, HVAC plumbing, fire protection, controls, etc. shall review all drawings & specifications in this complete set and provide a complete system as required and not limit themselves to any specific drawing / specification section.

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Mechanical Page	Comm: Date: <u>2/27/2019</u> Drawn: Check:	Registration Number 41841 Re Description Re
cal Title	North	Revisions       Date     2/27/2019       Date     Num

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 of Some



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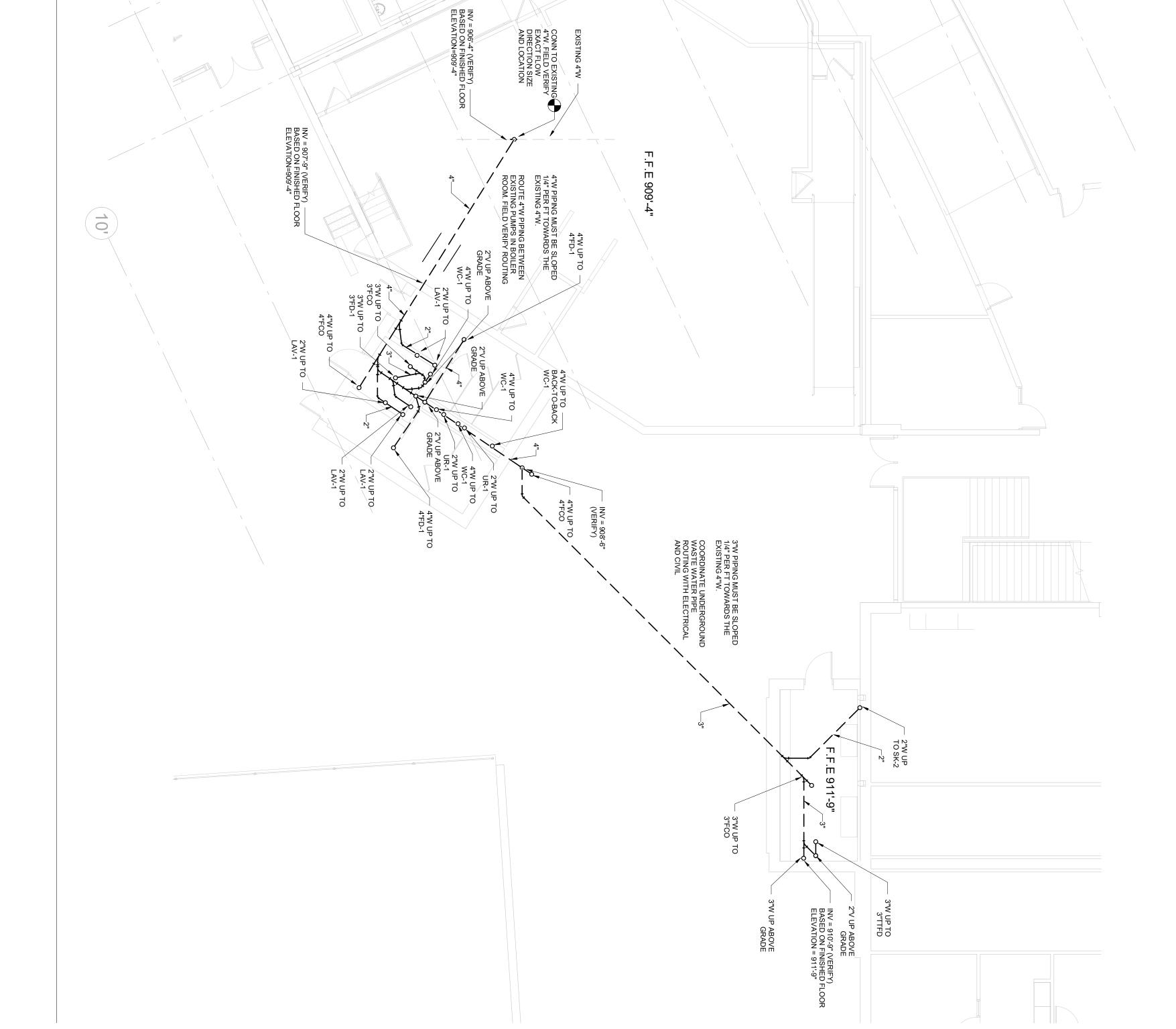
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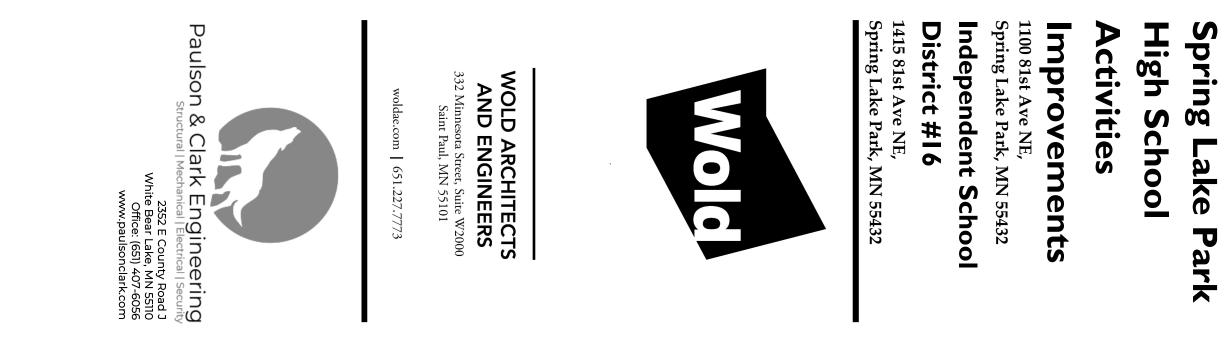
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Ζ	Mechanical Underground Plumbing Plan	Comm: Date: 2/27/2019 Drawn: Check:	Description	Revi
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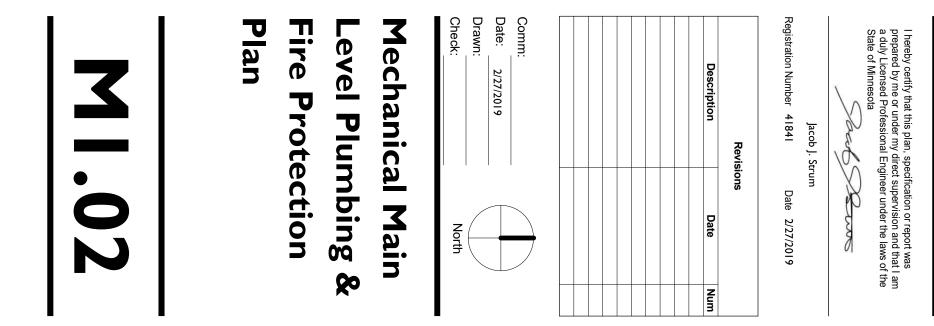
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3 Fire Protection P 1/8" = 1'-0"

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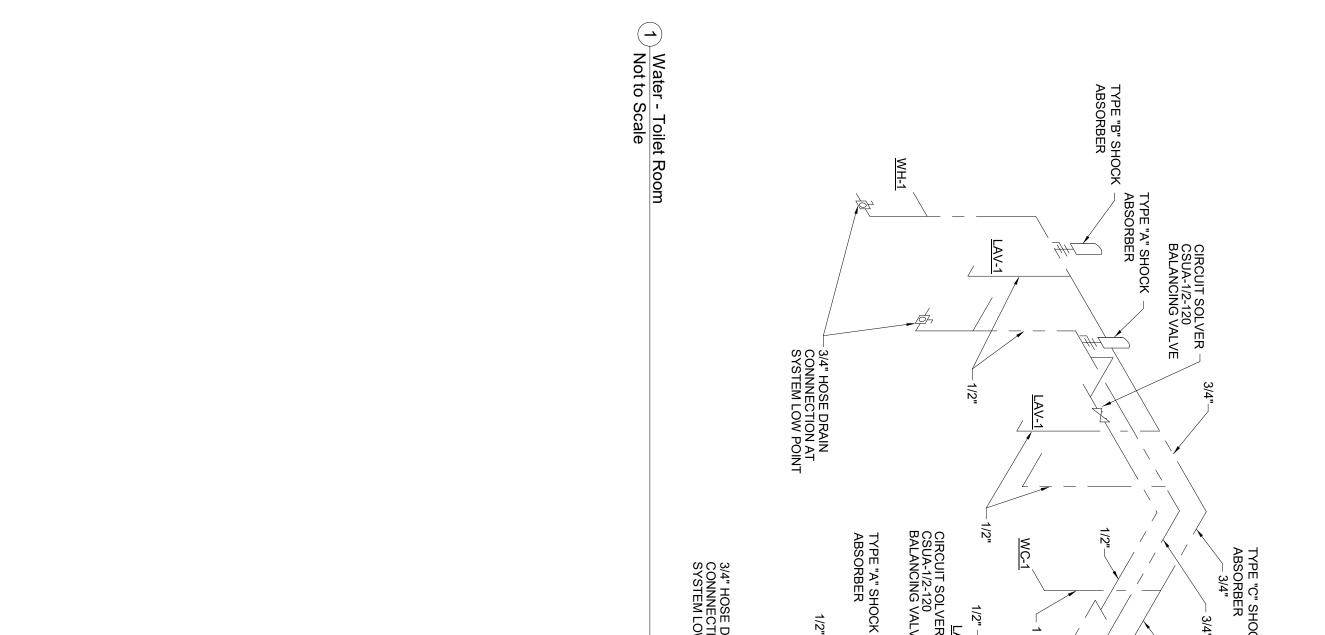
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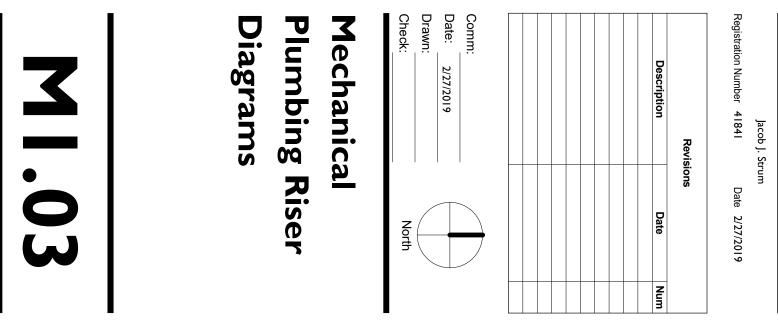
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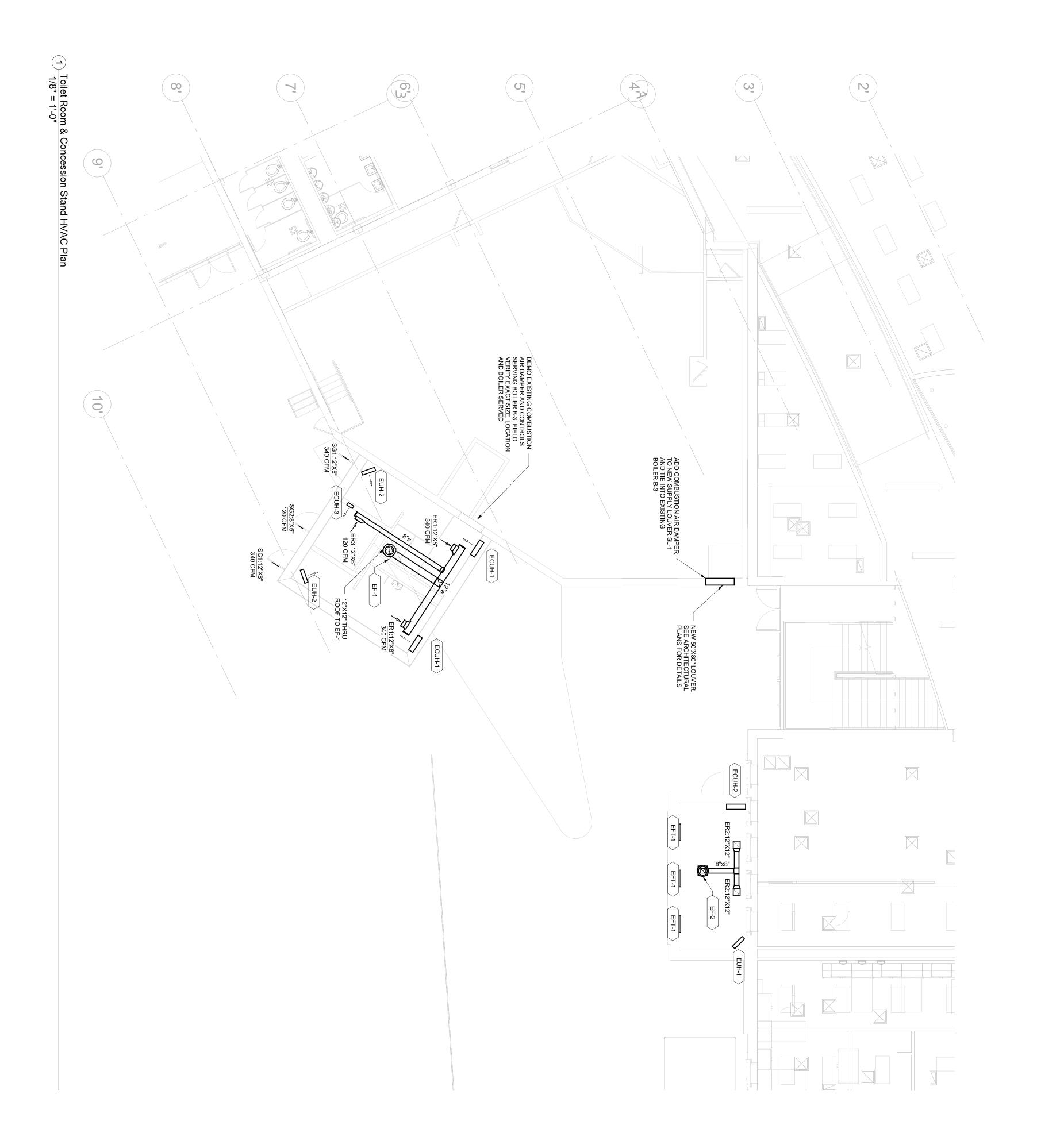
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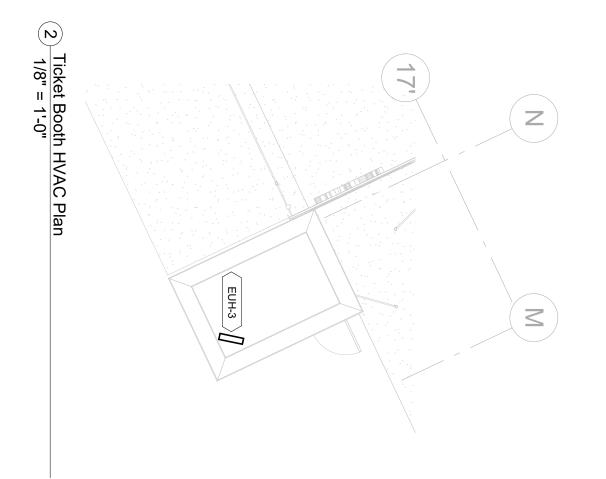
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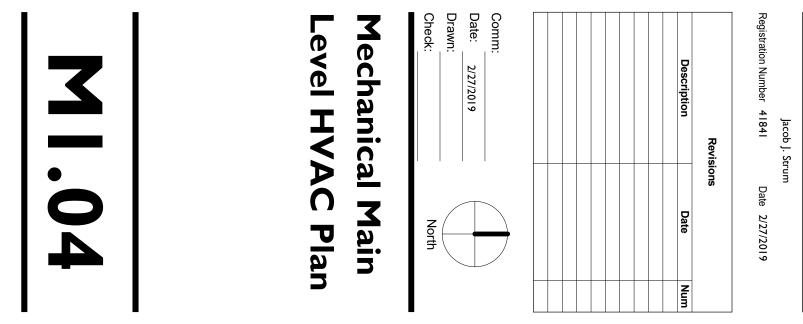
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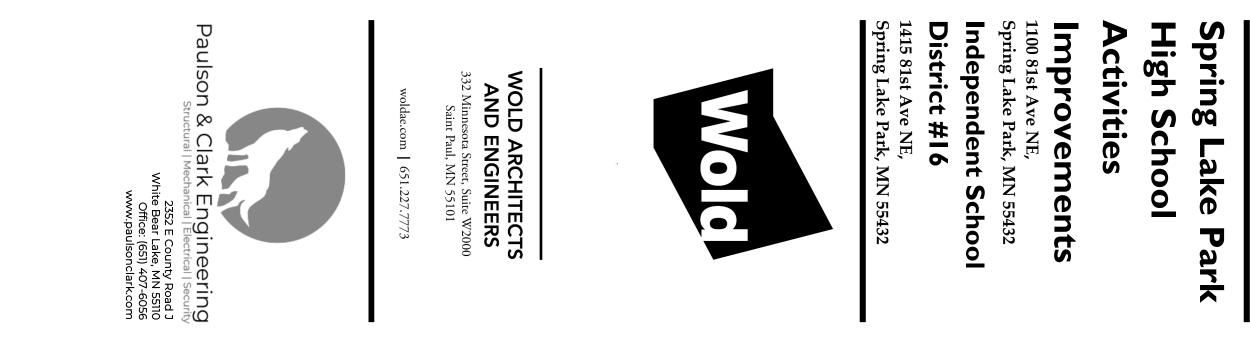








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				Exhaust Fan Schedule	n Schedule							
Equipment Number	Service	Manufacturer	Model	CFM	ESP	Damper	Voltage Phase	Phase	HP	Disc. By	Starter By	Notes
EF-1	Bathroom Group Exhaust	Greenheck	G-95-VG	800	0.500 in-wg	BD	120 V	-	0.17 hp	Elec	Elec	-
EF-2	Concession Stand Exhaust	Greenheck	G-80-VG	200	0.375 in-wg	BD	120 V	1	0.10 hp	Elec	Elec	
NOTES:												

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	G	Grille, Register & Diffuser Schedule	user Schedu	ıle		
Mark	Description	Manufacturer	Model	Damper	Border Type	
ER-1	Exhaust Register 35° Deflection	Titus	350RL	O.B.	Surface Mount	
ER-2	Eggcrate Return Grille	Titus	50F	None	Lay-In	
ER-3	Exhaust Register 35° Deflection	Titus	350RL	O.B.	Surface Mount	
SG-1	Double Deflection Supply Register	Titus	300RS	O.B.	Door Mount	
SG-2	Double Deflection Supply Register	Titus	300RS	O.B.	Door Mount	

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				Electric Cabinet Unit Heater Schedule	t Unit Heater	Schedule						
Mark	Manufacturer	Model	Location	Mount Type	CFM	BTUH	KW	Voltage	Phase	Disc. By	Starter By	Notes
ECUH-1	Markel	6346D062712SD0D0F	Bathroom Group	Recessed	500 CFM	20472	6.00 KW	277 V	1	Elec	N/A	1, 2
ECUH-2	Markel	6333D052712SD0D0F	Concession Stand	Wall	250 CFM	17060	5.00 KW	277 V	1	Elec	N/A	1, 2
ECUH-3	Markel	H3275TRPW	Family Bathroom	Recessed	70 CFM	2560	0.75 kW	208 V	-	Elec	N/A	1, 2
NOTES												

NOTES: 1. PROVIDE AUTOMATIC RESET THERMAL LIMIT 2. FIELD VERIFY WALL MOUNTING LOCATION ۸S

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				Electr	Electric Unit Heater							
Mark	Manufacturer	Model	Location	Mount Type	CFM	BTUH	ΚW	Voltage	Phase	Disc. By	Starter By	Notes
EUH-1	Markel	G1G5103N	Concession Stand	Wall Bracket	400 CFM	11200	3.30 kW	277 V	<b>_</b>	Elec	N/A	1, 2, 3
EUH-2	Markel	G1G5103N	Bathroom Group	Wall Bracket	400 CFM	11200	3.30 kW	277 V	1	Elec	N/A	1, 2, 3
EUH-3	Markel	G1G5103N	Ticket Booth	Wall Bracket	400 CFM	11200	3.30 kW	277 V	-	Elec	N/A	1, 2, 3
NOTES:												

<ol> <li>ELECTRICAL TO PROVIDE PUSH BUTTON START/STOP SWITCH</li> <li>PROVIDE DIAL FOR MANUAL RUN TIME CONTROL</li> <li>FIELD VERIFY BRACKET WALL MOUNTING LOCATION</li> </ol>

Mark EFT-1 Electric Fin Tube Radiation Schedule Phase

NOTES: 1. SLOPED TO ELECTRIC FIN TUBE. INSTALL UNDER CONCESSION STAND WINDOW AND PROVIDE DIAL CONTROL ABOVE COUNTER 2. PROVIDE WITH MODULATING TEMPERATURE CONTROL AND REMOTE MOUNTED THERMOSTAT. VERIFY EXACT LOCATION OF THE ManufacturerModelIndeecoBCS1904U01000B Con Disc. E

Location cession Stand **KW** 1.00 kW Voltage 120 V

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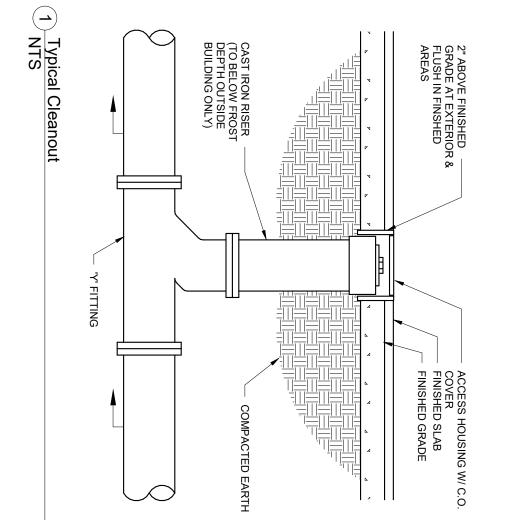
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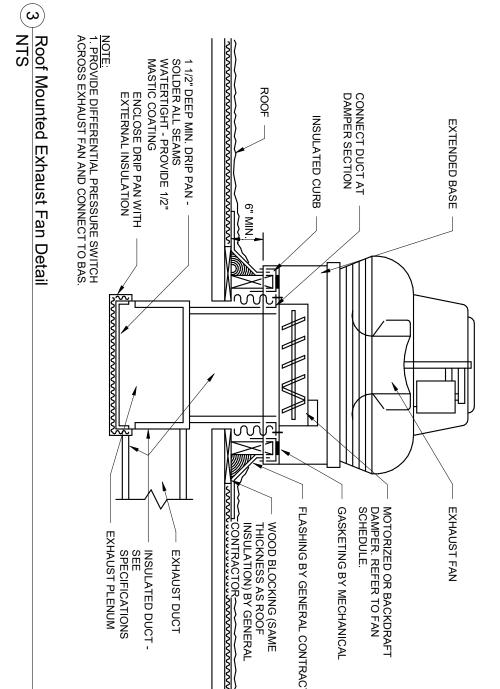
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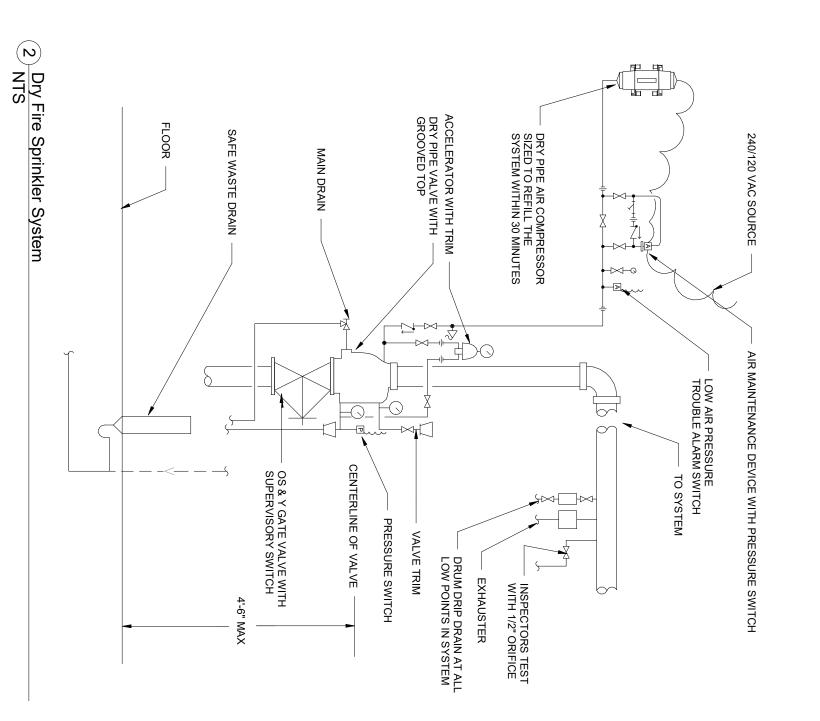
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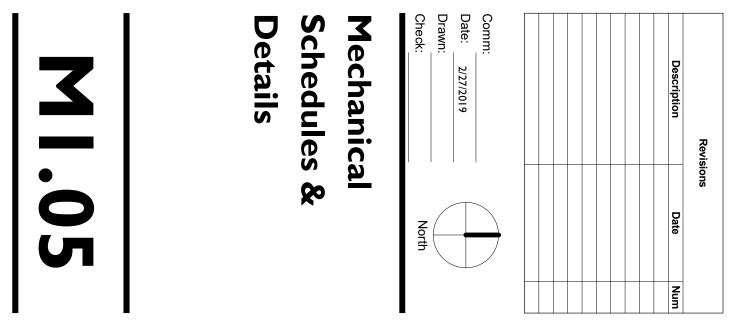


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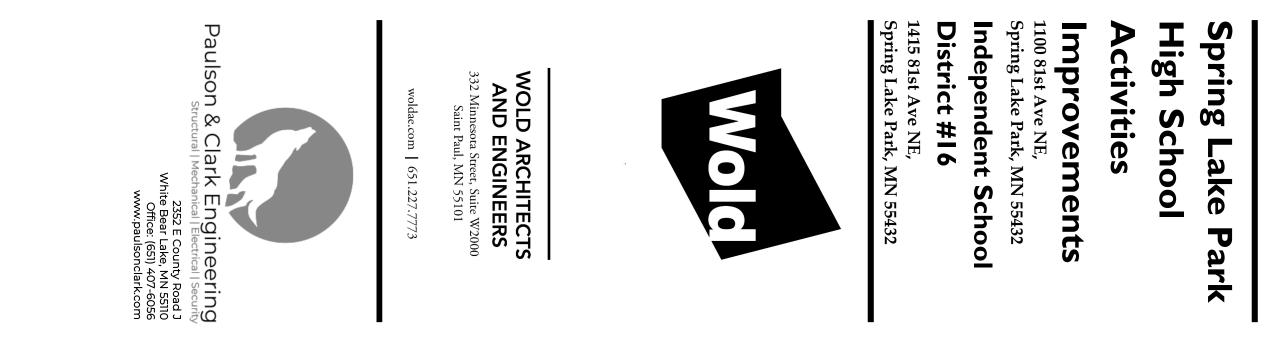




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<u>SYMBOL NOTES</u> SYMBOL NOTES ICATIONS. UNTING HEIGHTS ARE ABOVE. SYMBOLS INDICATE TOP OF PANEL AT 6.0 AT 80" OR 6.0" BELOW AT 80" OR 6.0" BELOW E DEVICES INDICATED TED ON THE DRAWING E DEVICES INDICATED TED ON THE DRAWING G UNIT. DAMPER SHA G UNIT. DAMPER SHA G UNIT. DAMPER SHA DLTAGE SWITCH. "LD# DLTAGE SWITCH. "LD# HT SENSOR CONNECT E WIRELESS ACCESS E WIRELESS ACCESS	FIRE ALARM SOLEN FIRE ALARM SOLEN FIRE ALARM INDIVI FIRE ALARM INDIVI FIRE ALARM CONTF	FIRE ALARM STROE EMERGENCY STRO FIRE ALARM SPEAK FIRE ALARM SMOKI FIRE ALARM DUCT FIRE ALARM DUCT SM FIRE SMOKE DAMP FIRE SMOKE DAMPER FIRE ALARM FLOW	PHOTOCELL         COMBINATION USB         RECEPTACLE (DUP         QUADRUPLEX REC         GFI RECEPTACLE (IDUPLEX RECEPTACLE (IDUPLEX RECEPTACLE (IDUPLEX RECEPTACLE))         GREEN DUPLEX REC         GREEN DUPLEX REC         GREEN DUPLEX REC         GREEN DUPLEX RECEPTAC         GREEN DUPLEX RECEPTAC         DEVICES/SERVICES         IN-GRADE FLOORB         DEVICES/SERVICES	DESCRIPTION LIGHT FIXTURE SWITCH REFERENCE SWITCH FLLED EN SWITCH FLLED FUR PENDANT - COORD PENDANT - COORD WALL-MOUNTED FI EXTERIOR DEFALL TRACK LIGHT-WITH D INDICATES NUMBE EXIT LIGHT-WITH D EXIT LIGHT-WITH E ARROWS VOLTAGE LIGHTING EXIT LIGHT-WITH E EMERGENCY LIGH STANDARD SNAP L LOW-VOLTAGE LIGHTING DIMMER SWITCH THREE-WAY SWITC FOUR-WAY SWITCH COUR-WAY SWITCH NHREE-WAY SWITCH COUR-WAY SWITCH COURF SWITCH WITH PLC ON/OFF SWITCH WITH PLC ON/OFF SWITCH WITH PLC ON/OFF SWITCH WITH TA SWITCH WITH PLC ON/OFF SWITCH WITH TA SWITCH WITH PLC ON/OFF SWITCH WITH TA SWITCH WITH TA CELLING MT, 20 W1 - CELLING MT, 20 W1 - CELLING MT, 20 W1 - WALL MT AT SENSOR W2 - WALL MT AT SENSOR N3 - WALL MT AT SENSOR N3 - WALL MT AT SENSOR TIME-SWITCH (TC:

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V CEILING-' D AND A 2 ( S. TO THE FIRE SMOKE / SMOKE DAMPER. PROVIDE A DUCT LL CLOSE WHENEVER SERVING UNIT IS NOT RUNNING ION BOX WITH (2) 1" EMPTY CONDUITS TO THE CEILING S BO TH AS

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ED TO ROOM CONTROLLER FOR DIMMED DAYLIGHT CONTROL. REFER TO DAYLIGHTING CONNECTION DETAIL. POINT AND JACK TERMINATED IN A BISCUIT BOX LOCATED ABOVE THE CEILING. EACH LOCATION SHALL HAVE H (1) 1-1/4" CONDUIT TO ACCESSIBLE CEILING SPACE FOR FUTURE INSTALLATION OF AV DEVICES BY OWNER. (2) CAT 6 JACKS

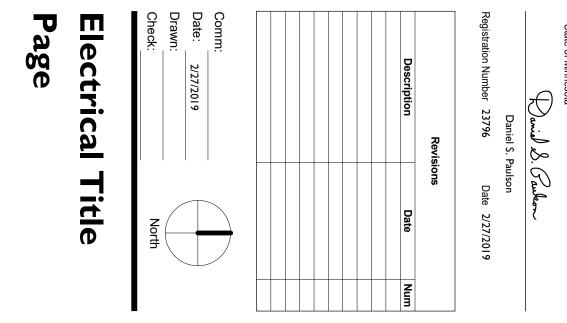
# ELECTRICAL ABBREVIATIONS

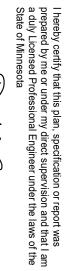
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A	AMPERE	KVA	KILOVOLT-AMPERE
AC AB	ABOVE BACKSPLASH	FOC K	LOCATION
ADD	ADDENDUM	LTG	LIGHTING
AFF	ABOVE FINISHED FLOOR	۲	LOW-VOTAGE
AFG	ABOVE FINISHED GRADE	MAX	MAXIMUM
ARCH	AR HANDLING UNIT	MDF C	MOTOR CONTROL CENTER
ATS	AUTOMATIC TRANSFER SWITCH	MECH	MECHANICAL
AUTO	AUTOMATIC	MIN	MINIMUM
BCCT	BOTTOM OF CABLE TRAY	MFGR	MANUFACTURER
С	CONDUIT	MSS	MOTOR STARTER SWITCH
ß	CIRCUIT BREAKER	MTC	EMPTY CONDUIT
CCT,CKT		MTD	MOUNTED
CLG	CEILING	A	NOT APPLICABLE
COMB	COMBINATION	S	NORMALLY CLOSED
CONN	CONNECT, CONNECTION	NO	NORMALL OPEN
CONTR	CONTRACTOR	Ę	NON-FUSED
CUH	CABINET UNIT HEATER	8	ON CENTER
DN DIST	DOWN	B C	PULL-BOX
DWG	DRAWING	₽	PNEUMATIC-ELECTIC SWITCH
F	EACH	₽	PHASE
E	ELECTRICAL CONTRACTOR	PNL	PANEL
	EMER GENICY	PR	
EMS	ENERGY MANAGEMENT SYSTEM	PWR	POWER
Ψ	ELECTRICAL PNEUMATIC SWITCH	REC	RECEPTACLE
EQUIP	EQUIPMENT	RM	ROOM
EX	EXISTING	S	DENOTES "SURFACE" DEVICE
EXPL	EXPLOSION PROOF	SHT	SHEET
FA	FIRE ALARM	Spr C	SPACE
FIN	FINISHED	S	STAINLESS STEEL
FR	FLOOR	SW	SWITCH
FLA	FULL LOAD AMPS	SWBD	SWITCHBOARD
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR	SWGR	SWITCHGEAR
FACP	FIRE ALARM CONTROL PANEL	TC,TS	TIME-CLOCK, TIME-SWITCH
GND, GRD	GROUND-FAULT CIRCUIT INTERRUPTER	TELE	TERMINAL
HOA	HAND-OFF-AUTOMATIC ALARM	TSFR	TRANSFER
풍	HORSEPOWER	٦	TELEVISION
HTG	HEATING	TYP	TYPICAL
HTR	HEATER	TVSS	TRANSIENT VOLTAGE SURGE PROTECTION
HCH	HORIZONTAL UNIT HEATER	UG	UNDERGROUND
R	HERTZ	Ŧ	UNIT HEATER
5 7	INTERLOCK	< 2	UNIT VENTILATOR
	INTERMEDIATE DISTRIBUTION FRAME	× ×	VOLT-AMPERE
C	CAPACITY	VFD	VARIABLE FREQUENCY DRIVE
G	ISOLATED GROUND	۶	WATTAGE
JB	JUNCTION BOX	WM	SURFACE WIREMOLD

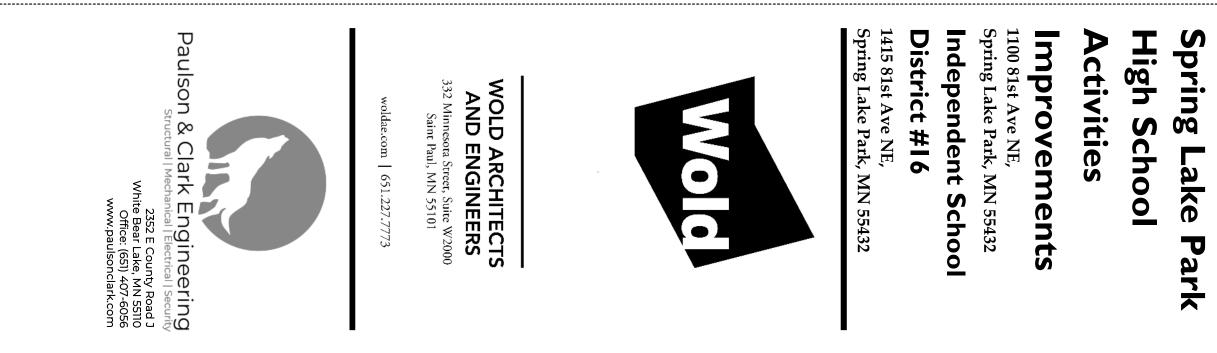
## Sheet Number E0.00 E1.01 E2.01 Electrical Title Page Electrical Overall Plan Electrical Plans & Schedules Elec Sheet Index Sheet Name

Wire size applies to both the hot and * neutral conductor. Provide an Equipment ground sized to comply with T250.122 of the NEC.	241' - 380'	151' - 240'	76' - 150'	0 - 75'	Circuit Length(ft)	Branch Circuit Sizing (120V, 20A circuits)
he hot and 9 an Equipment th T250.122 of	#6 AWG	#8 AWG	#10 AWG	#12 AWG	Wire Size*	t Sizing ircuits)









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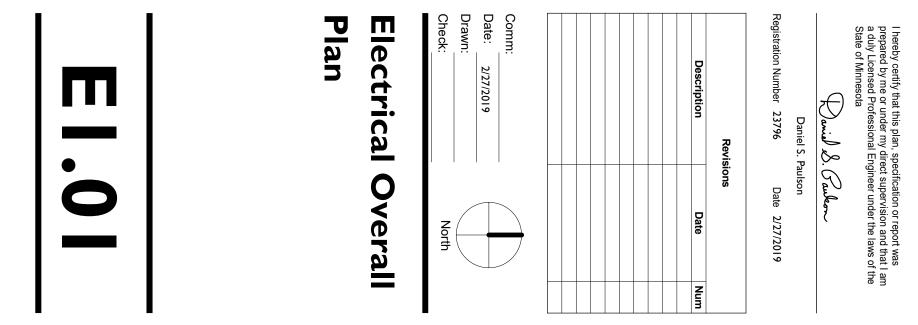
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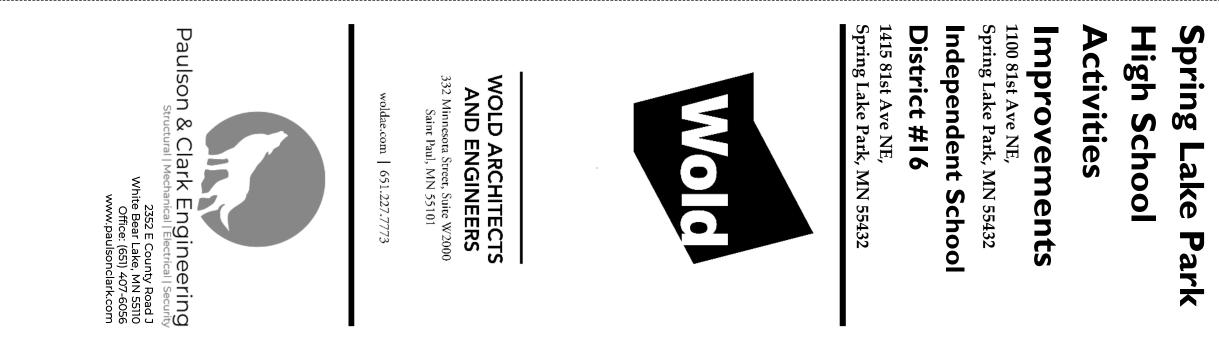
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	General Notes
-	A Refer to the Architectural and Civil plans for phasing and provide connection to the construction trailers as required by the specifications
	B Contractor shall verify voltage drop for each circuit indicated and increase the wire size to limit the voltage drop to 5%.
	C All pole mounted fixtures shall be provide with a concrete base, refer to the details for additional information.
	D Verify locations with civil plans.
	Keved Notes
-	
ა	2 Provide new type ΔΔ fixture mounted at existing inaction how at this location
	this wall labeled with Note 1.
ω	3 Disconnect and remove existing fixture at this location. Offer fixture to owner for storage. Provide new fixture as indicated and connect to existing circuit for
4	4 At this location, install fixture salvaged from locations marked with Note 1. Extend circuit serving new type AA fixtures for power and control.
5	5 Provide (2) conduits trneched into the grass area along the school and LB into the pipe chase/electrical room. (1) conduit shall be for power & provide (1) 1-1/4" conduits for data.
6	6 Disconnect and remove existing light fixture at this location. Provide cover for exposed box. Salvage existing fixture for installation at locations indicated by Note 4.
7	
8	8 Location of an existing Honewell Fire Alarm panel. Field verify the location of the





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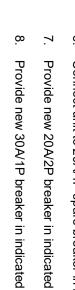
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  - hit is to be controlled by occupancy sensors. haust fan. Provide time-delay starter with o
- ad p
  - nit is cor ed by push-l led by push-l -button ton tir ner indi
- or and Equipment Schedule Nu Provide disconnect at unit as required. nit is
- Description Cabinet Unit Heater Cabinet Unit Heater Cabinet Unit Heater Cabinet Unit Heater om Group Exhaust Unit Heater Unit Heater Unit Heater Unit Heater

	Location: Supply From: HSL1-6B Mounting: Recessed Enclosure: Stainless		Feed	Volts: 12 Phases: 1 Wires: 3 Feed-Thru Lugs: No	Volts: 120/208 Single hases: 1 Wires: 3 Lugs: No	Single		A.I.C. Rating: 16k Mains Type: MCB Mains Rating: 50 A Bussing: 50A Cu		
<b>K</b> T	Circuit Description	Trip	Poles	⊳		B	ũ	Circuit Description	ription	
-	Concessions Rack	20 A	<b>_</b>	360 VA	0 V A			Concessions Equipment	quipment	
ω	Concessions Exterior Recept	20 A	_			540 VA	180 VA	Concessions Equipment	, uipment	
ъ	Concessions POS	20 A	-	540 VA	0 V A			Concessions Equipment	, yuipment	
7	Concessions EF-2	20 A	_			667 VA	180 VA	Concessions Equipment	, uipment	
9	Concessions Lighting	20 A	-	147 VA	0 V A			Concessions Equipment	, yuipment	
11	EFT-1	20 A	1			2772 VA	0 VA	Spare		
13	EFT-1	20 A	-	2772 VA	0 V A			Spare		
15	EFT-1	20 A	_			2772 VA	0 VA	Spare		
17										
19										
21										
23										
25										
27										
29										
		<b>.</b> .	Total Load:	4352 VA	2 VA	7111 VA	IVA	1		
l nad Classification	ification	Total Am	Total Amps:	42 A		65 A	A	Danal Totale	otale	
Electric Heat	it	8316 VA	VA	125.00%		10395 VA				
HVAC		667 VA	A	125.00%	%	834 VA		Total Conn. Load: 11463 VA	11463 VA	
Lighting		147 VA	A/	125.00%	%	184 VA		Total Est. Demand: 13743 VA	13743 VA	
Receptacle		2340 VA	VA	100.00%	%	2340 VA		Total Conn. Current: 55 A	55 A	
								Total Est. Demand (	66 A	

	<b>Branch</b>	
Location:	Panel:	
	HSL1.	

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3 Elect 1/4"

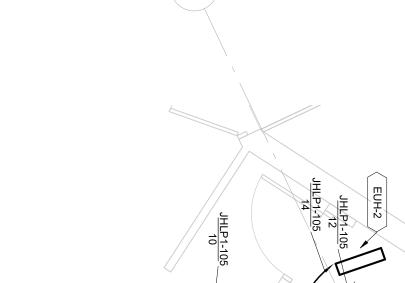
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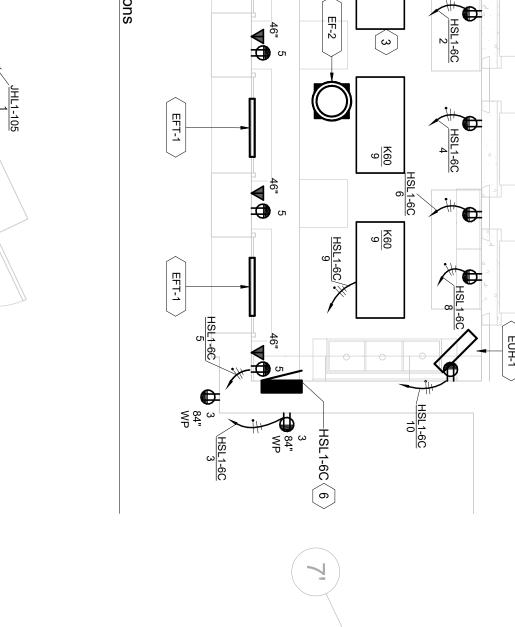
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R-1 Control (10) Panel

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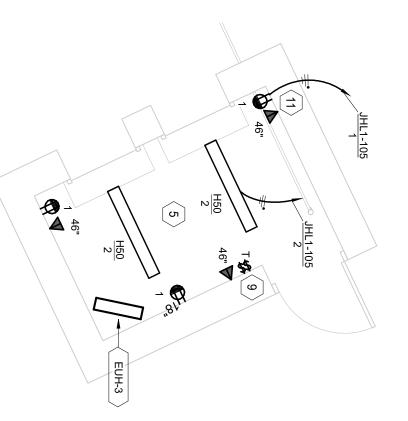
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1 Electrical Plan - Conces 1/4" = 1'-0"

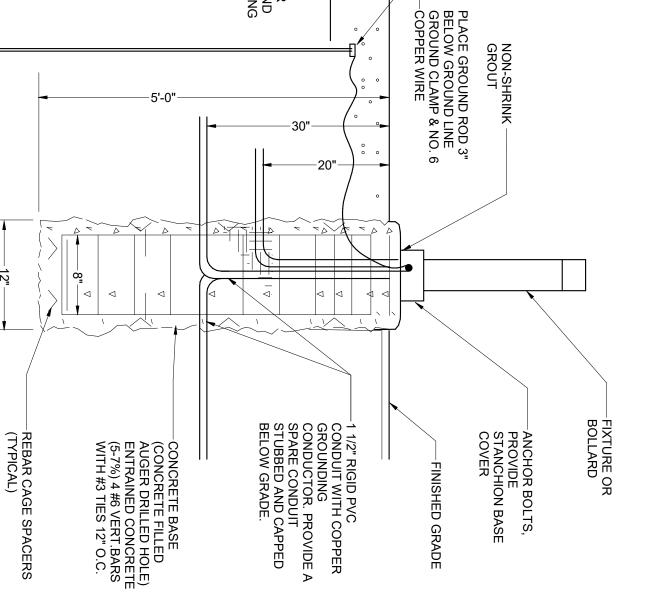
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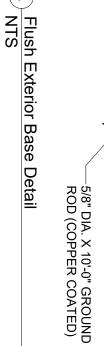






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-- UNDER GROUND WARNING TAPE



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È P ion to upancy sensors in any to unit for 20 minutes after

lumbered Notes:

			Mechanical Equipment Schedu	Equipri	Ient Sched	ainc							
						Disc.	Disc.	Disc.		Starter			
Mounting	Location	Size	Voltage	Phase	Disc. By	Size	Poles	Location	Starter By	Size	Panel	Feeder	Elec Notes
Recessed	Bathroom Group	6000W	277 V		Elec	30 A	<b>_</b>	Near Unit	N/A		JHHD1-1	<30A2G>	1,8
Recessed	Bathroom Group	6000W	277 V	-	Elec	30 A	<b>_</b>	Near Unit	N/A		JHHD1-1	<30A2G>	1,8
Wall	Concession Stand	5000W	277 V	1	Elec	30 A	-	Near Unit	N/A		HSH1-3	<30A2G>	1,8
Recessed	Family Bathroom	750W	208 V	1	Elec	20 A	2	Near Unit	N/A		JHLP1-105	<20A3G>	1,7
1	Bathroom Group	1/10 HP	120 V	1	Elec	20 A	1	Near Unit	Elec	0	JHLP1-105	<20A2G>	1,5,6
	Concession Stand	1/6 HP	120 V	L	Elec	20 A	-	Near Unit	Elec	0	HSL1-6C	<20A2G>	1,2,4,6
Baseboard	Concession Stand	1000	120 V	1	Elec	30 A	-	Near Unit	N/A		HSL1-6C	<20A2G>	3,6
Baseboard	Concession Stand	1000	120 V	1	Elec	30 A	-	Near Unit	N/A		HSL1-6C	<20A2G>	3,6
Baseboard	Concession Stand	1000	120 V	1	Elec	30 A	1	Near Unit	N/A		HSL1-6C	<20A2G>	3,6
Wall Bracket	Concession Stand	3300W	277 V	1	Elec	20 A	<u> </u>	Near Unit	N/A		HSH1-3	<20A2G>	1,6
Wall Bracket	Bathroom Group	3300W	277 V	1	Elec	20 A	-	Near Unit	N/A		JHHD1-1	<20A2G>	1,6
Wall Bracket	Bathroom Group	3300W	277 V	1	Elec	20 A	-	Near Unit	N/A		JHHD1-1	<20A2G>	1,6
Wall Bracket	Ticket Booth	3300W	277 V	1	Elec	20 A	1	Near Unit	N/A		JHHD1-1	<20A2G>	1,2

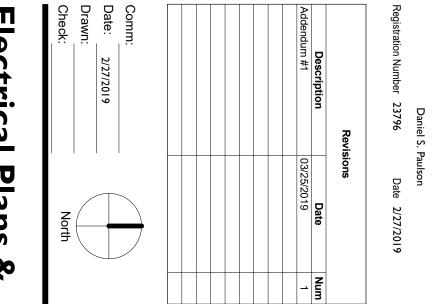
	Light F	Light Fixture Schedule			
	Input Power	Lamp Type	Voltage	Manufacturer	Manufacturer #2
finish, verify finish with architect	47 VA	LED 3000Lm, 4000K	MVOLT	Lithonia #WST LED P3 40K VF MVOLT DNATXD	Hubbell #TRP2-series
finish, integral photocell, verify finish 47 VA	47 VA	LED 3000Lm, 4000K	MVOLT	Lithonia #WST LED P3 40K VF MVOLT PE DNATXD	Hubbell #TRP2-series
o flush base	89 VA	LED 12000Lm, 4000K	MVOLT	Lithonia #DSX0 LED P5 40K T5M MVOLT SPA DDBXD / SSS 25 4C DM19AS DDBXD	Beacon #VP-series
ble	15 VA	LED 1500Lm, 4000K	MVOLT	Hydrel	Hubbell #BUL-series
	41 VA	LED 5000Lm, 4000K	MVOLT	Lithonia #ZL2D L48 5000LM MDD MVOLT 40K 80CRI WH	Columbia #MPS4-series
	49 VA	LED 6000Lm, 4000K	MVOLT	Lithonia #2GTL 4 60L FW A19 EZ1 LP840 ABC	Columbia #LJT24-series
	54 VA	LED 6000Lm, 4000K	MVOLT	Luminaire #LVP751 50W 4000K CC 120-277 CP WHT TX/SD	Columbia #51CF4-series
					Same and the second sec
		Mechanical I	Mechanical Equipment Schedul	nedule	

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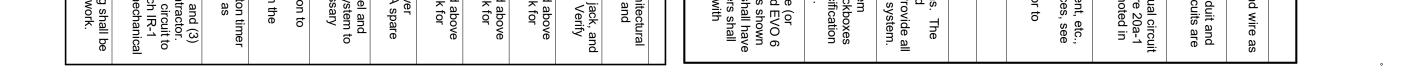
E         Ceiling mounted dev architectural and eng architectural and eng starting work.           E         Ceiling mounted dev the tray sizes and ji F           All back boxes and ji F         All back boxes and ji Tray sizes shown otherwise). Tray sizes shown otherwise). Tray sha mounting hardware, and racks. Refer to a for cabling quantities.           H         For tech panels (TP- documentation by en and racks. Refer to a for cabling quantities.           I         Floorboxes on the fir approved equal); floo poke-thru (or approv attached shall use fu devices shown with a be Legrand EVO 6 s anodized aluminum to be Legrand EVO 6 s anodized aluminum to devices shown with a be ceiling, termin owner install at desired ic provide (6) additional da accessible ceiling, termin owner install at desired id accessible ceiling, termin owner install at desired id accessible ceiling, termin owner install at desired in accessible ceiling, termin owner install at desired id accessible ceiling, termin owner install at desired id accessible ceiling, termin owner install at desired in accessible ceiling, termin accessible ceiling, termin beater units as a packag Electrical contractor shal panel and provide <2		
sarchitectural and engineering plans, notify architectengineer prior to starting work. Ceiling mounted devices shall be a matching white color. All back boxes and junction boxes shall be recessed mounted. Provide Cable Tray as indicated on these plans or enlarged plans. The two tray sizes shown are 18"w,4"T and 12"w, 4"T (unless noted otherwise). Tray shall be basket wire mesh Flextray or equal. Provide a mounting hardware, transitions, and components for a complete system and racks. Refer to sound A/V system block diagrams and specification for cabling quantities, point to point terminations and cable types. Floorboxes on the first floor shall be Legrand RFB 4 cast-in-place (or approved equal). Thore electric hand dryer (Specified in Architectura or approved equal). All floorboxes with junction boxes shall are be tegrand EVO 6 surface-style with bevel (or approved equal) with appropriate activation kits. All floorbox covers shall be tegrand EVO for connections. If the electric hand dryer (Specified in Architecturans). Coordinate data requirements with owner prior to cordering. Verify vide (3) additional data frouce to this space. Drops shall be coiled above esible ceiling, terminated with R45 jacks, and have 30 ft of slack for the reinstall at desired locations. So additional data frouge to this space. Drops shall be coiled above esible ceiling, terminated with R45 jacks, and have 30 ft of slack for the reinstall a desired locations. So additional data frouce to noncetions. So additional data from the data for the recessed in ware 30 ft of slack for the reinstall at desired location is the space. Drops shall be coiled above esible ceiling, terminated with R45 jacks, and have 30 ft of slack for the reinstall at desired locations. So additional data frouce to noncetions is the location of the recessed in the wall at esting 50A KGB and stalles steel cover esible ceiling to the wall. Test of the space is the start of the recessed to the start of the space is the stop of the space is the start of the space is the s		Circuit numbe pole ur schedu For ex refer to archite
Ceiling mounted devices shall be a matching while color. All back boxes and junction boxes shall be recessed mounted. Provide Cable Tray as indicated on these plans or enlarged plans. The two tray sizes shown are 18"w44" and 12"w 4"T (unless noted otherwise). Tray shall be basket wire mesh Flextray or equal. Provide all mounting hardware, transitions, and components for a complete system documentation by engineer, for conduit connectivity between backboxes and racks. Refer to sound AVX system block diagrams and specification for cabling quantities, point to point terminations and cable types. Floorboxes on the first floor shall be Legrand RFB 4 cast-in-place (or approved equal). All foorboxes with junction boxes shown attached shall use funiture fleed assembly all other floorboxe shall have be Legrand EVO6 surface-style with bevel (or approved equal) with anodized aluminum finish. Keyed Notes (All notes may not appear on all sheets) wide 120V connections. Keyed Notes (All notes may not appear on all sheets) wide 120V connections. So this space. Drops shall be colled above easible ceiling, terminated with R45 Jacks, and have 30 to f slack for ner install at desired locations. Wide Gadditional data drops to this space. Drops shall be colled above easible ceiling, terminated with R45 Jacks, and have 30 to f slack for ner install at desired locations. Wide 120V connection to the fire suppression dry pipe control panel and 25" empty. Conduct eccessed in wall as equired. Provide all necessary wide (2) additional data drops to this space. Drops shall be colled above easible ceiling, terminated with R45 Jacks, and have 30 to f slack for ner install at desired locations. Wide 120V connection to the fire suppression dry pipe soften to buildings fire alarm control panel as required. Provide all necessary wide 2 darge box with saps switch for righting control panel and equire eavisite ceiling, terminated with R45 Jacks, and have 30 to f slack for ner install at desired locations, for control in the dry pipe system to build		
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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







## Memorandum

То:	Mayor Hansen and Members of the City Council
From:	Daniel R. Buchholtz, MMC, Administrator, Clerk/Treasurer
Date:	April 10, 2019
Subject:	Small Cell Wireless Aesthetic Standards

The Federal Communications Commission has issued an order addressing the deployment of small wireless facilities, which took effect on January 14, 2019. While the order preempts some local control over small wireless facilities, the FCC concluded that aesthetic requirements are not preempted "if they are (1) reasonable, (2) no more burdensome than those applied to other types of infrastructure deployments, and (3) objective and published in advance." To be objective, aesthetic requirements "must incorporate clearly defined and ascertainable standards, applied in a principled manner."

Adoption and publication of the aesthetic standards must occur by April 15, 2019. Failure to adopt and publish small cell aesthetic requirements by April 15 may prevent the City from imposing aesthetic standards on small wireless facilities within the City. Publication of the requirements will be done on the City's website.

A model policy was developed by the Suburban Rate Authority. City staff utilized that policy in drafting the policy presented to the City Council for adoption. City Attorney Thames has reviewed the proposed policy and had no comments.

Staff recommends approval of the proposed policy. If you have any questions, please don't hesitate to contact me at 763-784-6491.

# **City of Spring Lake Park Small Wireless Aesthetic Standards**

# **Findings**

The City of Spring Lake Park desires the most advanced and highest quality wireless services available. The City also wishes to minimize the negative impacts associated with wireless facility deployments including small wireless facilities. Such negative impacts may include interference with right-of-way sight lines, aesthetic impacts that are inconsistent with the surrounding area, fall zone and clear zone risks, navigation obstacles, interference with future right-of-way improvement or transportation improvement plans, interference with the installation or maintenance of other utilities, and increased visual or noise pollution.

To address such impacts, any person desiring to collocate small wireless facilities or place new wireless support structures in the right-of-way must first obtain a small wireless facility permit pursuant to the City's right-of-way ordinance, Code Chapter 151. Moreover, any person seeking to collocate small wireless facilities on an existing wireless support structure owned or controlled by the City must first enter a standard collocation agreement.

The following aesthetic standards and requirements are intended to maintain the City's aesthetic environment while also allowing for the availability wireless services, including broadband and "5G" services, using small wireless facilities. These standards are intended to establish clear and consistent aesthetic standards for small wireless facility placements in the City and establish a streamlined review and approval process. The City will make these standards publicly available.

These standards apply to all small wireless facility permit applications for placement of small wireless facilities on City-owned and non-City-owned support structures (poles), and the placement or replacement of small wireless support structures in the public right-of-way. Compliance with these standards is a requirement for, and condition of, issuance of a small wireless facility permit. Any installation that does not conform to these standards will be in violation of the associated permit and the City's right-of-way ordinance.

In addition to the following standards, the placement of new support structures for small wireless facilities shall be subject to any conditions specified in the small wireless facility permit. Applications to install small wireless facilities or place new support structures in districts zoned for residential uses or within a historic district established by federal or state law or city ordinance, shall further be subject to any conditions contained in the required conditional use permit authorizing such installation.

With respect to City-owned support structures, these standards additionally seek to:

- 1. establish a menu of design options for providers to select from when applying for new small wireless facility permits associated with City support structures.
- 2. minimize unnecessary placement of new poles by encouraging co-location of small wireless facilities.

- 3. in situations where City support structures will be replaced, require that the structures be of a stealth design such that the maximum amount of facilities, including any wiring, are concealed inside the structure.
- 4. in situations where attachments will be made to existing poles, require that facilities, equipment, cabling, and conduit be concealed through the use of approved shrouding or camouflaging.

#### **Section 1. Site Plans**

Applicants must submit site plans, elevation drawings and structural calculations prepared and signed by a Professional Engineer licensed by the State of Minnesota as detailed below. Site plans must depict any adjoining or nearby existing wireless facilities, with all existing transmission equipment identified; neighboring public improvements; the proposed small wireless facility, with all proposed transmission equipment and other improvements, and; the boundaries of the area surrounding the proposed facility and any associated access or utility easements and setbacks. Site plans must further include:

- 1. <u>Photo Simulations</u>: For all applications, photo simulations must be included. Such photo simulations must be from at least three line-of-site locations near the proposed project site depicting the viewpoints of the greatest pedestrian or vehicular traffic.
- 2. <u>Equipment Specifications</u>: For all equipment depicted on the plans, the applicant must include:
  - a. the manufacturer's name and model number;
  - b. physical dimensions including, without limitation, height, width, depth, volume and weight with mounts and other necessary hardware;
  - c. technical rendering of all external components, including enclosures and all attachment hardware; and
  - d. a selection from the City's approved aesthetic standards.

#### Section 2. Design Standards

The City desires to promote aesthetically acceptable and area conforming wireless facilities using the smallest and least intrusive means available to provide small wireless services to the community. All facilities in the public right-of-way must comply with all applicable provisions in this section.

Antennas: Antennas must be top-mounted and concealed within a radome (a structural, weatherproof enclosure that protects an antenna and is constructed of material that minimally

attenuates the signal transmitted/received by such antenna) or otherwise concealed to the extent feasible. Cable connections, antenna mounts and other hardware must also be concealed. The radome or other concealment must be non-reflective and painted or otherwise colored to match the existing support structure.

<u>Collocation</u>: Collocations between wireless service providers on the same support structure is required wherever feasible. If an applicant chooses to not collocate in areas where options are or appear to be available, the applicant must document that collocation is infeasible.

<u>Concealment</u>: Concealment elements must be incorporated into the proposed design of the small wireless facility installation, and must include approved camouflaging or shrouding techniques.

<u>Pole-Mounted Equipment Cages/Shrouds</u>: When facilities are permitted to be polemounted, facilities other than the antenna(s), electric meter and disconnect switch must be concealed within an equipment shroud. The facilities must be installed at a height that presents the least aesthetic impact, but in no event lower than 15 feet above ground level. The equipment shroud must be non-reflective and painted, wrapped or otherwise colored to match the support structure. Shrouds must be mounted flush to the support where feasible. Standoff mounts must provide the minimum separation distance from the support structure necessary for feasibility.

<u>Existing Street Light Poles</u>: Most of the existing street light poles are not capable of accepting new equipment. Therefore, the provider is required to remove and replace those poles with a combination street light/antenna pole.

<u>New Poles</u>: New support structures must be the same color as neighboring, similar support structures and of the same design characteristics.

<u>Ground-Mounted Equipment</u>: Ground-mounted equipment must be installed below grade or, if technically necessary, concealed in a ground-mounted cabinet. In addition to any applicable requirements in the City's right-of-way ordinance, Code Chapter 151, ground mounted cabinets must:

- 1. be installed flush to the ground;
- 2. be the same color as neighboring, similar support cabinets or other ground-mounted structures;
- 3. on or adjoining sidewalks, trails, or other similar passageways, not interfere in any way with the flow of pedestrian, bicycle or vehicular traffic;
- 4. conform to the American's with Disabilities Act (ADA) including with respect to appropriate sidewalk spacing; and
- 5. not create a safety hazard;

<u>Lights</u>: Unless otherwise required for compliance with FAA or FCC regulations, small wireless facilities shall not include any lights or lighting. This subsection does not prohibit installations on streetlights or the installation of luminaires or additional street lighting on new support structures if and where required by the City.

<u>Health and Safety Regulations</u>: All facilities shall be designed, constructed, operated and maintained in compliance with all generally applicable health and safety standards, regulations, and laws, including without limitation to all applicable regulations for human exposure to RF emissions.

#### **Section 3. Location Criteria**

<u>Traffic Signal Systems</u>: The City of Spring Lake Park, Anoka County, and MnDOT prohibits small cell attachments to all their traffic signal systems.

<u>Privately Owned Poles</u>: The vast majority of street lights within the City's right-of-way are owned by Xcel Energy. Most of the street light poles are not capable of accepting new equipment and thus will need to be removed and replaced with a combination street light/antenna pole. Therefore, the City understands that each company must reach a final agreement with Xcel Energy for collocating and work with Xcel to review and approve individual pole locations. The provider is still responsible to acquire a right-of-way permit through the City.

<u>Obstructions</u>: Any new support structure or other facilities associated with a new or existing support structure must not obstruct access to:

- 1. any existing above-ground or underground right-of-way user facilities, or public facilities;
- 2. any public infrastructure for traffic control, streetlight or public transportation purposes, including without limitation any curb control sign, parking meter, vehicular traffic sign or signal, pedestrian traffic sign or signal, barricade reflectors;
- 3. any public transportation vehicles, shelters, street furniture or other improvements at any public transportation stop (including, without limitation, bus stops, streetcar stops, and bike share stations);
- 4. fire hydrants;
- 5. any doors, gates, sidewalk doors, passage doors, stoops or other ingress and egress points to any building appurtenant to the right-of-way; and/or
- 6. any fire escapes.

#### Section 4. New and Replacement Support Structures

<u>New Support Structures</u>: Any new support structures shall be placed:

- 1. a minimum of 250 feet from any existing support structure or pole.
- 2. at a distance which is the same as the prevailing separation distance among existing structures and poles in the surrounding vicinity as agreed upon by the applicant and City, or determined by the City where agreement cannot be reached.
- 3. as functional streetlights as the City may require, in its reasonable discretion.
- 4. in alignment with existing trees, utility poles, and streetlights.
- 5. an equal distance between trees when possible, with a minimum of 15 feet separation such that no proposed disturbance shall occur within the critical root zone of any tree.
- 6. with appropriate clearance from existing utilities.
- 7. outside of a 20-foot equipment clear zone (for base cabinets less than 18-inches in diameter) or 30-foot clear sight triangle (for base cabinets equal to or greater than 18-inches in diameter) at intersection corners.
- 8. so as not to be located along the frontage of a Historic building, deemed historic on a federal, state, or local level.
- 9. so as not to significantly create a new obstruction to property sight lines.
- 10. at shared property lines if feasible.
- 11. not within 50 feet of the apron of a fire station or other emergency service responder facility.
- 12. outside of the clear zone for trails, sidewalks and streets as appropriate.

<u>Replacement of City-Owned Support Structures</u>: Any replaced support structures shall remain in their existing location unless otherwise permitted by the City. Replacement pole height shall not exceed 50 feet, or the height of the existing pole, whichever is greater.

New and Replacement Structures. All support structures must:

- be constructed of aluminum or steel.
- not exceed 50 feet in total height, or 10 feet above the height of the existing pole, whichever is greater

• where constructed as a light pole, luminaire(s) and luminaire arm(s) must match adjacent city lighting standard and must contain an LED fixture in accordance with City specifications.

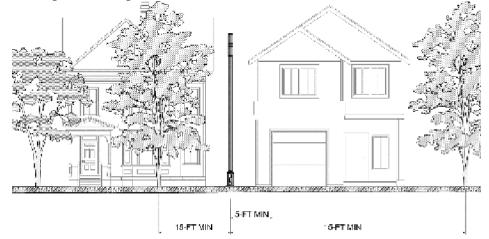
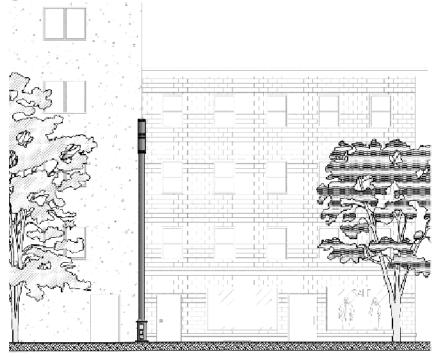


Figure 4-1: Example of Acceptable Location Between Residential Homes

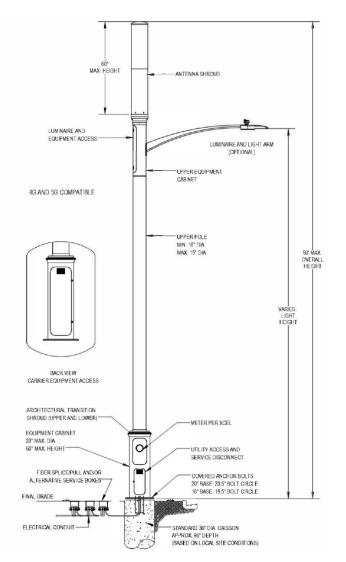




#### Section 5. Menu of Options

The pictures and profile drawings below represent appropriate installation designs for small wireless facilities installations on new and existing support structures in the right of way.

Figure 5-1: Combination Pole with Antenna



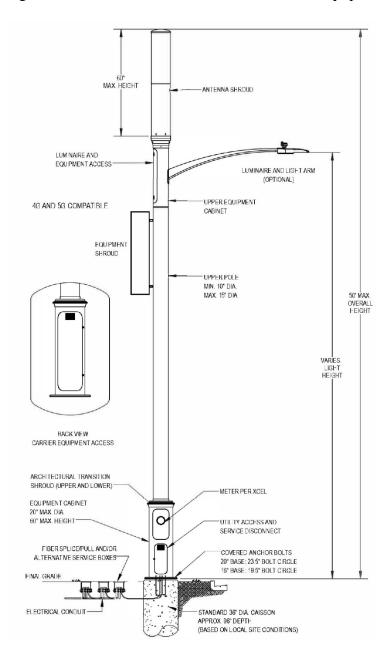


Figure 5-2: Combination Pole with Antenna and Equipment Shroud

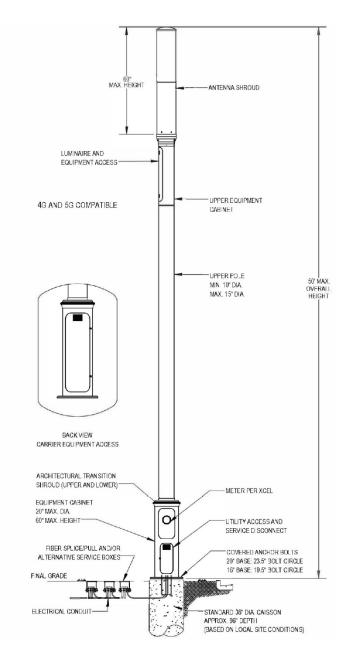


Figure 5-3: Freestanding Small Cell Assembly



# Memorandum

To:	Mayor Hansen and Members of the City Council
From:	Daniel R. Buchholtz, MMC, Administrator, Clerk/Treasurer

Date: April 10, 2019

Subject: Local Surface Water Management Plan Update

As part of the 2040 Comprehensive Plan Update, the City undertook an update of its Local Surface Water Management Plan. Pursuant to State Rules, the plan update was sent to Rice Creek Watershed District and Coon Creek Watershed District for comment. The City has received comments from those agencies and has made the required modifications.

Staff recommends approval of the Local Surface Water Management Plan. If you have any questions, please don't hesitate to contact me at 763-784-6491.



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**Appendix D** City of Spring Lake Park Stormwater Pollution Prevention Program (SWPPP)

**Appendix E** City of Spring Lake Park Ordinances (Construction Site Runoff Ordinance and Floodplain Management Ordinance)

# **EXECUTIVE SUMMARY**

This Local Surface Water Management Plan (LSWMP) has been developed to serve as a comprehensive planning document to guide the City of Spring Lake Park in conserving, protecting, and managing its surface water resources and comply with the requirements detailed in Minnesota Statutes 103B and Minnesota Rules 8410, administered by the Board of Soil and Water Resources (BWSR). This plan is also consistent with the goals and policies of the Metropolitan Council's *2040 Water Resources Policy Plan,* and the watershed districts having authority within the City. This plan may be periodically amended to remain current with local practices and policies.

This document provides an inventory of water resource related information including the results of assessments conducted by other governmental units, both local and state. From this inventory and assessment, Spring Lake Park sets forth its goals and policies and implementation program.

The Coon Creek Watershed District (CCWD) of which the City of Spring Lake Park is a part, requires each City to include a brief discussion of problems in the City and general strategies to address them. The City previously completed a drainage study to identify flood-prone areas throughout the City. Specific areas of concern are discussed later in this report, in the Implementation section (Section 8). To address flood-prone areas and areas with poor drainage throughout the City, the City will consider adding storage to its stormwater features and implementing water quality features where appropriate.

#### The plan is organized as follows:

- **Section 1** offers an introduction to and purpose of the Plan, including the plan content requirements of the local watershed districts.
- Section 2 of this Plan provides an inventory of land and water resources within the City including a description of the physical environment, available and pertinent water resources data, and land use maps.
- **Section 3** includes a comprehensive documentation of the regulatory agencies influencing the management of surface water resources in Spring Lake Park.
- Section 4 describes surface water management plans, studies, and rules in the city.
- **Section 5** identifies the stormwater management agreements between Spring Lake Park and other entities.



- Section 6 provides a current assessment of surface water management in Spring Lake Park, including the National Pollution Discharge Elimination System (NPDES) permitting process, Total Maximum Daily Load (TMDL) discussions, comparison of regulatory standards, and identification of issues and corrective actions.
- Section 7 lists the goals and policies identified to address surface water management needs in the City.
- **Section 8** identifies implementation projects and activities to address assessment items from Section 6 and the goals and policies from Section 7.
- Section 9 outlines the continued administration of this plan with respect to plan updates and amendments.

# SECTION 1 - PURPOSE AND SCOPE

## 1.1 PURPOSE

This Local Surface Water Management Plan (LSWMP) will serve as a comprehensive planning document to guide the City of Spring Lake Park (City) in conserving, protecting, and managing its surface water resources. This plan has been created to meet the requirements detailed in Minnesota Statutes 103B and Minnesota Rules 8410, administered by the Minnesota Board of Water and Soil Resources. This plan is also consistent with the goals and policies of the Metropolitan Council's *2040 Water Resources Policy Plan* (adopted May 2015), and the two watershed management organizations having jurisdiction within the City: Coon Creek Watershed District (CCWD) and Rice Creek Watershed District (RCWD). This plan may be periodically amended to remain current with local practices and policies.

# 1.2 SCOPE

This LSWMP serves multiple purposes including statutory and rule compliance. Minnesota statute 103B.235 defines content for local water management plans. According to the statute's text:

#### Each local plan, in the degree of detail required in the watershed plan, shall:

- (1) describe existing and proposed physical environment and land use;
- (2) define drainage areas and the volumes, rates, and paths of stormwater runoff;
- (3) identify areas and elevations for stormwater storage adequate to meet performance standards established in the watershed plan;
- (4) define water quality and water quality protection methods adequate to meet performance standards established in the watershed plan;
- (5) identify regulated areas; and
- (6) set forth an implementation program, including a description of official controls and, as appropriate, a capital improvement program.

Minnesota Rules 8410, written for the Board of Water and Soil Resources, provide more detail on local plan content. Though the BWSR guidance applies specifically to watershed management organizations, this guidance has historically been used to frame expectations for municipal plans. According to Minnesota Rules 8410, local plans must provide or address:

- 1. Executive summary
- 2. Land and water resource inventory
- 3. Impact on other units of government
- 4. Establishment of goals and policies
- 5. Assessment of problems
- 6. Implementation programs
- 7. Implementation priorities
- 8. Plan contents; amendments
- 9. Annual reporting requirements

The Spring Lake Park LSWMP is structured to provide the information required by 8410 without holding strictly to the outline contained in the rules. Through this document the City provides signposts identifying where a statutory or rulemaking requirement might be addressed.

The LSWMP must also satisfy Metropolitan Council requirements as contained in their 2040 *Water Resources Policy Plan*. These requirements build on those of Rules Chapter 8410.

Beyond state level requirements and those of Metropolitan Council, this plan must conform to the underlying Watershed Management Organization (WMO) Watershed Management Plans. WMOs often outline specific content for local plans that go beyond that required by statute and rule. For Spring Lake Park, the following WMO local plan requirements pertain:

#### Coon Creek Watershed District (CCWD)

The 2013-2023 CCWD Watershed Management Plan and amendments. The CCWD will remain as the permitting authority in the city.

#### Rice Creek Watershed District (RCWD)

The January 2010 RCWD Watershed Management Plan (as amended November 2016). Specific requirements (as detailed in Section 8.3.1 – Content Requirements for Local Water Management Plans) pertain. The Spring Lake Park plan meets the District requirements for Level 1 communities. The RCWD will remain as the permitting authority in the City.

#### This LSWMP is organized as follows:

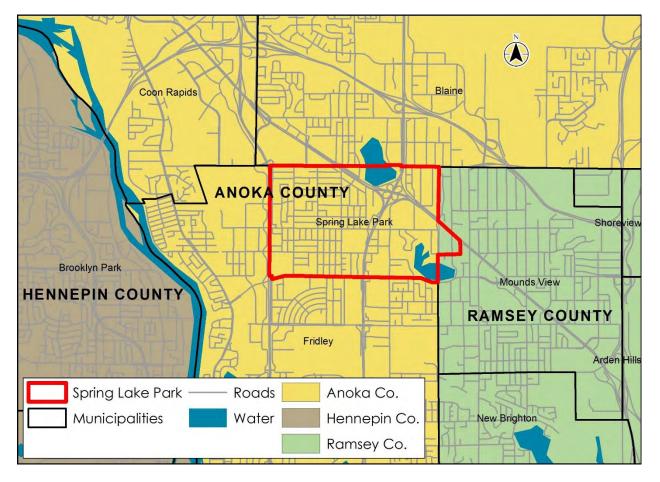
- Section 1: Purpose and scope of the LSWMP
- **Section 2:** Description of the physical setting; the history, natural resources and land uses within the City.
- **Section 3:** Summary of the regulatory agencies having jurisdiction in Spring Lake Park.
- **Section 4:** Identification of related stormwater management studies, plans and reports affecting Spring Lake Park.
- **Section 5:** Presentation of the water resources related agreements within the City.
- **Section 6:** Presentation of a collection of the stormwater management related assessments within the City, identifying stormwater management issues and corrective actions, as well as other regulatory assessments to the addressed by the City.
- **Section 7:** Listing of the goals and policies identified to address surface water management needs in the City.
- **Section 8:** Identification of implementation projects and activities to address assessment items from Section 6 and the goals and policies from Section 7.
- **Section 9:** Outline of the continued administration of this plan.

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# SECTION 2 – PHYSICAL SETTING

# 2.1 LOCATION AND HISTORY

Spring Lake Park is an established residential community located primarily in southern Anoka County, with a small portion of the City's eastern edge within Ramsey County. Bordering communities include Blaine to the north, Mounds View to the east, and Fridley to the west and south, as shown in Figure 2.1.



#### Figure 2.1 - Location Map

The City of Spring Lake Park was established in 1953 and has a total land area of 1,308 acres. The City is now fully urbanized, including a diverse residential population, and a variety of commercial and industrial development. Quick access to three major highways allows for easy access to neighboring communities and the entire metro area. Population and household figures for Spring Lake Park to the year 2040 are shown in Table 2.1.

Year	Population	Households
1990	6,532	2,343
2000	6,772	2,724
2010	6,412	2,672
2020	6,700	2,880
2030	7,000	3,000
2040	7,400	3,200

#### Table 2.1 - Spring Lake Park Population and Households

Source: Metropolitan Council – Spring Lake Park Community Page. Note projections differ slightly from Metropolitan Council *Thrive MSP 2040* and *2015 System Statement for Spring Lake Park* 

# 2.2 TOPOGRAPHY

Topography in the City of Spring Lake Park is influenced primarily by the Anoka Sandplain, which leads to the gently rolling terrain seen today. The physical environment characterizing Spring Lake Park historically included prairies, forests, and wetlands; followed by agricultural fields; and the current urban setting.

Spring Lake Park lies within the Anoka Sandplain. As large glacial blocks from the Grantsburg Sublobe (of the larger Des Moines glacial lobe) melted, glacial streams deposited sand in broad, level plains. Shallow lakes formed as these glacial streams became dammed. The particular glacial lake that covered Spring Lake Park is known as glacial Lake Fridley.

Spring Lake Park slopes gradually from an approximate elevation of 910 at the eastern boundary to approximately 880 at its western boundary. Numerous shallow depressions appear amid this gradual east to west slope.

In the post-glacial period no significant streams have drained Spring Lake Park, though the southwestern part of the City does discharge into Stony Brook Creek.

# 2.3 SOILS

The Soil Conservation Service (SCS) developed a Soil Survey for both Anoka County and Ramsey County. One aspect of this survey characterizes most soil types into Hydrologic Soil Groups (HSG). The HSG reflects a given soil's ability to infiltration stormwater during long-duration storms. The four hydrologic soil groups are: Group A - high infiltration, Group B - moderate infiltration, Group C - slow infiltration, and Group D – very slow infiltration.

According to the Soil Survey, Spring Lake Park includes a mix of urban and wetland soil classifications. The urban soils are not assigned a hydrologic soil group (HSG) due to the level of soil disturbance from construction activities prior to the soil survey. However, prior to

development, soils in the City were characteristic of soils found in the Zimmerman-Isanti-Lino association. These soils are typically found in level to gently-rolling terrain of the Anoka Sandplain and can range from poorly drained to excessively drained. In an undisturbed state, these soils are classified as HSG A and B soils, reflecting a moderate to high infiltration capacity. This classification is consistent with the soil characterizations of long-time city staff.

# 2.4 GEOLOGY

The geology of the region surrounding Spring Lake Park is the result of two different geologic processes:

- Warm, shallow seas covered the area and created conditions for the formation of sedimentary rocks. These formations are present as bedrock in the area.
- Glacial processes have resulted in the development of surficial geology, and therefore, current landforms.

The City's geology is generally characterized by approximately 100 feet of glacial till and outwash overlying sedimentary bedrock. The bedrock units beneath the City are marine sedimentary rocks primarily of the Upper Cambrian to Middle Ordovician ages (±450 to ±500 million years old). Ranging from deeper/older bedrock to relatively shallow/young bedrock, the specific geologic units include the St. Lawrence/Franconia formation, Jordan Sandstone, and the Prairie du Chien group.

Glacial influence on this area began around 2.5 million years ago and continued until about 10,000 years ago. However, present landscape features in this area and across Minnesota were created by the last episode of glaciation. This episode lasted from about 35,000 to about 10,000 years ago. Two major glacial ice sheet movements constituted this episode during what is known as the late Wisconsin glaciation. The first, the Superior lobe, advanced from the north. The second, the Grantsburg sublobe, advanced from the southwest.

In one period of retreat during the Superior lobe glaciation, melt waters deposited a thick layer of glacial outwash made up of sand and gravel over a widespread area including Spring Lake Park. Another layer of till subsequently covered this outwash. This period of glacial activity lasted from about 30,000 to about 20,000 years ago.

The more recent Grantsburg sublobe glaciation took place between 20,000 and 10,000 years ago. The Grantsburg sublobe, in addition to moving and redepositing materials from the Superior lobe, deposited new materials over the area. As the Grantsburg sublobe retreated and melted, large streams were formed that carried significant amounts of sands. These streams deposited broad level plains of sand and gravel that are referred to as the Anoka sandplain.

#### 2.5 GROUNDWATER

In Anoka County, there are four significant aquifers from which groundwater is typically drawn. In order of depth from shallow to deep, they are:

- The Quaternary (or water table) Aquifer: found in glacial deposits.
- The Prairie du Chien-Jordan Aquifer: found in dolomite-sandstone.
- **The Franconia-Ironton-Galesville sandstone Aquifer:** exists beneath a confining layer separating it from the Prairie du Chien-Jordan aquifer.
- **The Mount Simon-Hinckley Aquifer:** located beneath a siltstone, shale, and silty sandstone confining layer that lies between this aquifer and the Franconia-Ironton-Galesville aquifer.

The Franconia-Ironton-Galesville and Mount Simon-Hinckley aquifers are usually utilized as domestic well sources. Groundwater flow direction in the Franconia-Ironton-Galesville aquifer is not well understood, but likely is toward the Mississippi River, while the flow of the Mt. Simon-Hinckley is unknown.

Spring Lake Park obtains its drinking water supply from four municipal wells. Well 1 and Well 2 are multi-aquifer wells capable of drawing from the Franconia-Ironton-Galesville (FIG) aquifer and the Mount Simon-Hinckley aquifer. Well 4 and Well 5 are single-aquifer wells drawing from the Mount Simon-Hinckley aquifer. Well 3 is an abandoned well which was capable of drawing from the same aquifers as Wells 1 and 2.

In 1995, Anoka County, with input from the cities within the County – including Spring Lake Park, produced a Ground Water Protection Assessment that identified activities that should be implemented to protect city water supplies and areas where special measures are most needed. Under the guidance of this document, 10 Anoka County cities collaborated to jointly write a city-level Wellhead Protection Plan (WPP).

In February 2001, Part 1 of the Spring Lake Park Wellhead Protection Plan was prepared. The primary purpose of a WPP Part 1 was to identify potential sources of contamination or areas that would be most susceptible to contamination and develop a plan to protect groundwater supplies in these areas. Part 2 of the City's WHP was prepared in 2008 and approved by the MDH on July 28, 2008. The Wellhead Protection Goals identified in the City's WPP affecting surface water management in the City are included in the goals and policies section (Section 7). The City has been identified as a non-vulnerable city by the MDH. It is anticipated that the city will be granted a 10-year waiver from the MDH requirement to update the WPP sometime in 2018. Per the WPP, a small portion of the City lies in a Drinking Water Supply Management Area (DWSMA). DWSMA areas have requirements which limit infiltration as a stormwater practice. For more information, see the *Minnesota Stormwater Manual*.

## 2.6 CLIMATE/PRECIPITATION

Spring Lake Park has a climate that is uniform. Summers are warm, with a mean temperature of 70.7 degrees in June, July, and August. Winters are cold, having a mean December, January, and February temperature of 16.8 degrees. About 70% of the precipitation occurs in the period of April through September. The yearly precipitation total is roughly 30 inches.

Climate data for the Twin Cities are published by the National Weather Service (NWS) station at Chanhassen, MN. The NWS is a branch of the National Oceanic and Atmospheric Administration (NOAA). Table 2.2 shows a summary of average precipitation data for the area.

					-		•	-	-				
Mont	Jan	Feb	Mar	Apr	Мау	June	July	Aug	Sept	Oct	Nov	Dec	Annua
inche	0.89	0.84	1.79	2.67	3.46	4.52	3.85	4.15	2.79	2.24	1.71	1.12	30.03

Table 2.2 – Average Monthly Precipitation, 1971-2016

Rainfall frequency estimates are used as design tools in water resource projects. Rainfall frequencies are summarized in the National Oceanographic and Atmospheric Administration's (NOAA) Atlas 14-Point Precipitation Frequency Estimates.

Previously, Technical Paper No. 40 (TP-40) Rainfall Frequency Atlas of the United States (NOAA) (published in 1961) was used to determine rainfall frequency estimates. TP-40 was developed using available rainfall information from far fewer stations than exist today; in Minnesota, there are 110 daily observation stations used in TP-40 estimates, whereas there are 320 daily observation stations used in Atlas 14. In addition to the fact that Atlas 14 estimates rely on a denser data network than TP-40, the stations have a longer period of record, and regional frequency analyses and new spatial interpolation techniques are used in the Atlas 14 method.

Table 2.3 lists rainfall frequencies from NOAA Atlas 14 estimates applicable to the City of Spring Lake Park. The data taken from Atlas 14 are solely based on historical rainfall events and are not an extrapolation of data trends to predict future events.

Recurrence Interval (years)	24-hr Rainfall Depth (inches)
1	2.46
2	2.84
5	3.56
10	4.24
25	5.32
50	6.27
100	7.30

Table 2.3 – NOAA Atlas 14 24-Hour Rainfall Depths and Frequency

# 2.7 WATER RESOURCES

The section provides an overview of the water resources in and around the City. Waterbodies classified by the Minnesota Department of Natural Resources (DNR) as public waters, as identified by the Public Waters Inventory (PWI), and wetlands included in the National Wetland Inventory (NWI) are identified on Figure 2.2.

Discussion regarding specific assessments or implementation activities associated with these waterbodies is included in Section 6 and 8 of this LSWMP, respectively. In addition to those identified on Figure 2.2, DNR public waters receiving stormwater runoff from Spring Lake Park are listed in Table 2.4 below.

Туре	Name	DNR ID <sup>1</sup>	LSWMP ID
Lakes	Laddie Lake	2-72P	LL-A1
	Spring Lake	2-71P	SL-A1
Wetlands	Unnamed Wetland	2-681W	RC-A3
Rivers	Mississippi River		
	Rice Creek		
Creeks	Unnamed to Mississippi River (Spring Brook Creek)		

#### Table 2.4 - Minnesota DNR Public Waters List

<sup>1</sup> Source: Minnesota DNR PWI Maps and Lists

#### 2.7.1 MISSISSIPPI RIVER

All Spring Lake Park's surface runoff reaches the Mississippi River, though by various routes. The Mississippi River and its tributaries form the largest river system in North America, draining roughly forty percent of the continental United States. Spring Lake Park is in the Middle Mississippi River Basin (upstream of Saint Anthony Falls) of the Upper Mississippi River (upstream of St. Louis, MO).

According to the US Geological Survey, at gauging station Number 05288500, located at 95th Street in Coon Rapids, the normal elevation of the river is approximately 804.5 feet.

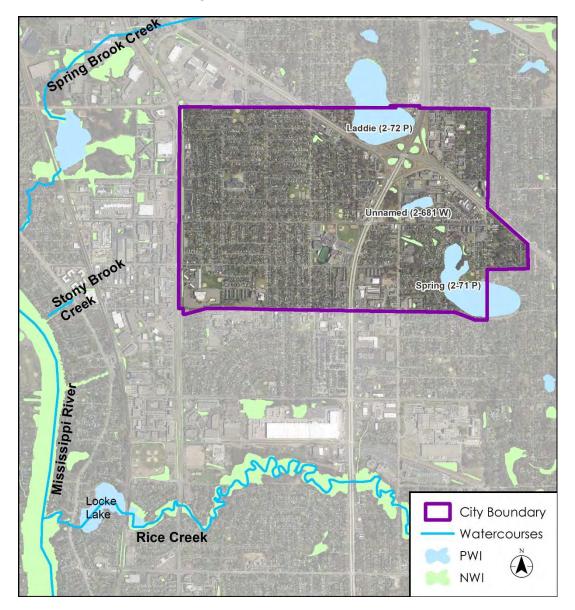
The Minnesota Department of Natural Resources (DNR) classifies the Mississippi River as a warm water game fish resource. It is a DNR public watercourse and has a varying ordinary highwater elevation that generally coincides with the top of the riverbank.

## 2.7.2 PUBLIC DITCHES AND STREAMS

There are no public ditches or streams identified in Spring Lake Park. However, all surface water runoff from the City ultimately reaches one of three streams: Spring Brook Creek, Stony Brook Creek, and Rice Creek.



Rice Creek, which is located south of the city limits, is a relatively large watercourse with a drainage area of approximately 200 square miles. Approximately 429 acres located in the east area of Spring Lake Park are tributary to Rice Creek via the city of Fridley storm sewer system and the TH 65 drainage ditch system. According to a recent survey by DNR Fisheries, Rice Creek has two different types of fisheries. From its confluence with the Mississippi River up to the Locke Lake Dam, the game fish species composition is like that found in the Mississippi River (catfish, smallmouth bass, walleye and northern). Above Locke Lake and upstream to where Rice Creek crosses into the City of Mounds View, game fish are limited to fingerling size walleye.



#### Figure 2.2 - PWI and NWI Map

Stantec

Spring Brook Creek, located to the northwest of the City limits, flows out of a large wetland located in the City of Fridley at its northern border with Coon Rapids. Between this wetland and the Burlington Northern rail yard, the creek is sluggish. Downstream of the rail yard, the stream runs through a steep-sided ravine that extends to its confluence with the Mississippi River. Spring Brook Creek is a DNR public watercourse. Approximately 305 acres located in the northwest area of the City are tributary to Spring Brook Creek.

Approximately 599 acres of Spring Lake Park are tributary to Stony Brook Creek, which is located southwest of the city limits. Spring Lake Park discharges to this creek via culverts under University Avenue in the southwest part of the City. Ditches and culverts predominate in Stony Brook Creek, which is not a DNR public watercourse.

# 2.7.3 LAKES

Laddie Lake (DNR ID 2-72P) is in the northern part of the City, on its border with Blaine and northwest of the TH 65/CSAH 10 interchange. Laddie Lake is approximately 77 acres in size, with a maximum depth of approximately five feet.

Spring Lake (DNR ID 2-71P) is in the southeast corner of the City, on its border with Mounds View. Spring Lake is approximately sixty acres in size, with a maximum depth of approximately eighteen feet. The locations of these lakes are identified in Figure 2.2 and Map 1 in Appendix A.

## 2.7.4 WETLANDS

The Wetland Conservation Act (WCA) was passed in 1991 to maintain and protect wetland areas throughout the State of Minnesota. The WCA created a "no net loss policy" so that there are mitigation measures for drained or filled wetlands. The Act also established that local government units (LGUs) would have administrative responsibility for the implementation of the WCA. The LGUs responsible for administrative responsibility relating to the WCA for the city of Spring Lake Park are CCWD and RCWD.

There are twenty wetland basins identified in the city based on the National Wetlands Inventory map. However, a survey of these locations revealed that there are fifteen jurisdictional wetlands in the City. Three of these are DNR public waters, Laddie Lake, Spring Lake, and an unnamed wetland located northeast of the intersection of Central Avenue and 81st Avenue. The location and boundaries of the Public Waters Wetlands can be obtained from the MnDNR Geospatial Commons: https://gisdata.mn.gov/.

Most of the wetlands in Spring Lake Park are situated in the area east of TH 65 and south of CSAH 10. Of these, the majority are in what may have historically been a natural drainage way or low area between Laddie Lake and Spring Lake. Other sites include a wetland fringe around the south end of Laddie Lake and a few small, isolated wetlands scattered throughout the City. The locations of all NWI wetlands within Spring Lake Park are identified in Figure 2.2. Additional information regarding the assessment of wetlands in Spring Lake Park can also be found in Section 6 of this LSWMP.



# 2.8 NATURAL RESOURCES

The City of Spring Lake Park includes no regional open space elements. Significant local open space elements are in the form of parks, trails, lakes, wetlands, and a public beach. Current city parks incorporate traditional park amenities like athletic fields, picnic areas, play areas, and pedestrian trails.

Two bike trails serve the City. One runs along Osborne Road from the City's eastern boundary to Central Avenue and is provided by Anoka County. Another runs along Central Avenue from Fridley and ends at 81st Avenue NE. Local sidewalks within street boulevards carry the bulk of pedestrian traffic within the City.

#### 2.8.1 RARE FISH, WILDLIFE AND PLANT SPECIES

According to the DNR's County Biological Survey, "rare plants or animals are either protected under the provisions of the Federal or Minnesota Endangered Species Acts, or are being considered for protection". The County Biological Survey Map for Anoka County (Map Series Number 7, 1994) indicates no occurrences of rare plant species but two occurrences of rare animal species within Spring Lake Park. The County Biological Survey map indicates no occurrence of natural communities in Spring Lake Park.

#### 2.9 DRAINAGE SYSTEMS

The bulk of Spring Lake Park's surface water management system was built prior to 1980. As was the practice at that time, stormwater management relied heavily on trunk storm sewer to route stormwater away from impervious areas quickly and discharge this stormwater directly into a nearby receiving waterbody. In many areas of the City, the primary conveyance for surface water runoff is street flow. At points where flows from several streets converge, catch basins are installed to direct flow into pipes. There are no public ditches or streams identified within the City.

The City's current drainage system resulted from the economic realities prevalent during system construction in the 1960s and 1970s. Portions of the system do not meet the City's current 5-year storm sewer design standard. In general, the drainage system has not led to any notable flooding problems, due mainly to the gently rolling terrain providing overflows for localized surface ponding and relatively sandy soils allowing surface ponding to infiltrate prior to impacting adjacent structures. A few areas known to have street flooding issues have been identified. Mitigation plans have been developed for these areas as detail further in the issues and CIP sections of this document.

The storm sewer and stormwater pond system in Spring Lake Park is fully constructed to serve the needs of the City. Modifications to this system continue as small parcel infill development, redevelopment, and street reconstruction activities warrant.

## 2.10 EXISTING FLOOD INSURANCE STUDIES

Federal Emergency Management Agency (FEMA) does not identify a completed Flood Insurance Study (FIS) or any Flood Insurance Rate Maps (FIRM) for Spring Lake Park. Floodplain mapping covering Spring Lake Park provide some basic information benefiting Spring Lake Park and are identified as follows:

- FIRM Map: 27003C0382E
- **FIRM Map:** 27003C0338E
- FIRM Map: 27003C0401E

# 2.11 COMPREHENSIVE PLANNING AND LAND USE

The comprehensive planning process is a systematic, ongoing, forward-looking process of analysis of opportunities and constraints, to formulate a plan to accomplish the community's goals and objectives. The City has a clear and comprehensive understanding of current conditions, influences, and trends that will shape the community's future. The Spring Lake Park's 2040 comprehensive planning process has reviewed these trends and current conditions to aid in creating an effective plan for 2040. Conditions in the City have not changed significantly since previous plans for 2020 and 2030 were completed. Current planning efforts focus on identifying city infrastructure and system needs for 2040, discussion of possible small redevelopment areas, and developing a plan that meets the Metropolitan Council requirements.

Despite its small size, Spring Lake Park includes a variety of land uses including industrial, commercial, park, and single and multi-family residential. Single family residential is the predominant land use in the City. The City also includes two manufactured home parks, and scattered townhomes, duplexes, and apartment buildings.

Commercial uses are concentrated along major transportation corridors in the City: University Avenue, Highway 65, and Highway 10. Commercial businesses consist mainly of retail stores or service providers, with a few office buildings. Industrial uses are mainly clustered the intersection of Highway 10 and Highway 65.

Current land uses within the City are shown in Figure 2.3. Land uses proposed for the 2040 Comprehensive Plan are shown in Figure 2.4. Figure 2.5 illustrates land cover within the city based on MnDNR's Minnesota Land Cover Classification System (MLCCS), as obtained from the Minnesota Department of Natural resources (www.dnr.state.mn.us/mlccs).

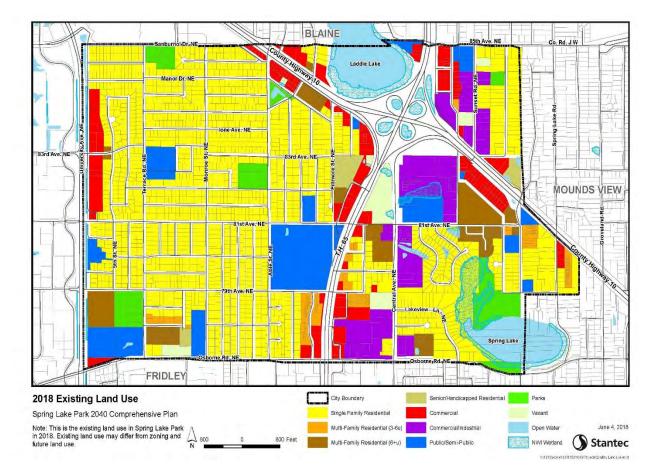


Figure 2.3 - Existing Land Use

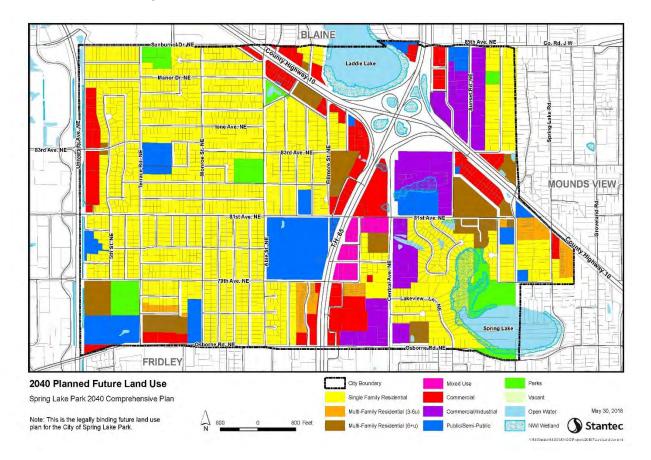


Figure 2.4 - 2040 Comprehensive Plan Land Use

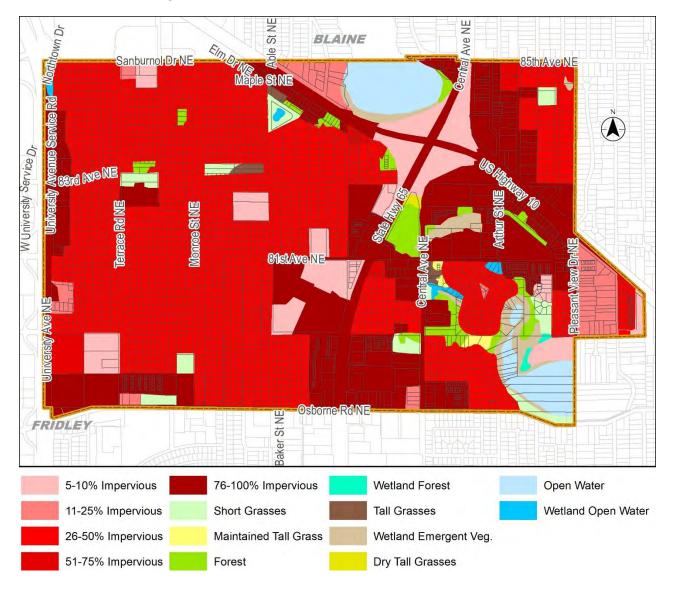


Figure 2.5 – MLCCS Land Cover Classification Map

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# SECTION 3 - REGULATORY SETTING

# 3.1 OVERVIEW

This section describes the City's current surface water resources management programs and practices and the agencies and organizations having roles in the City's management of these resources. Table 3.1 summarizes the City's and other agencies' respective regulatory controls related to water resources management and protection.

#### 3.2 CITY SERVICES

Municipal infrastructure including municipal streets, sanitary sewers, water mains, stormwater management facilities, and park lands within Spring Lake Park are maintained by the City. Drinking water within Spring Lake Park is supplied by several municipal wells within the City. Wastewater is collected in the City sewer system and is ultimately treated at the Metro Wastewater Treatment Facility.

The City will continue the current arrangement with both RCWD and CCWD regarding Wetland Conservation Act (WCA) administration and permitting activities. The City will coordinate site plan review efforts concurrently with RCWD or CCWD for projects in their jurisdiction, but ultimately defer to either RCWD or CCWD for WCA administration and permitting activities.

City staff coordinates with watershed management organizations and other outside agencies in water resource management and conservation. The City's current regulations are available on the City's website at <u>http://www.amlegal.com/codes/client/spring-lake-park\_mn/</u>.

# 3.3 ANOKA COUNTY

Anoka County was officially formed in 1857, separating from Ramsey County to the southeast. The County provides services to Spring Lake Park residents, including health and environmental services and property records. In addition, the Anoka Conservation District helps in planning and implementing wise resource management strategies.

The Anoka County Public Health Department also coordinates the county groundwater planning and management activities within Spring Lake Park. Though not participating in the official metropolitan groundwater planning process, in 1995, Anoka County CHES Department prepared a Groundwater Protection Assessment. Following this effort, Anoka County formed a Water Resources and Supply Management Task Force to monitor water issues and coordinate water management efforts.

# 3.4 RAMSEY COUNTY

Ramsey County was created in 1849 and is one of Minnesota's original nine counties. The County provides many services to Spring Lake Park residents, including health services and property records. County government also includes the Ramsey Conservation District (RCD), which encourages the protection of natural resources.

Official Control	Regulatory Responsibility	Mechanism
Erosion and Sediment Control	City, RCWD, CCWD, RCD	<ul> <li>City Code Chapter 150</li> <li>NPDES General Permit</li> <li>RCWD – Rule D</li> <li>CCWD – Rules in Section 9.4</li> <li>Ramsey Conservation District – Site inspections</li> </ul>
Floodplain	City, RCWD, CCWD	<ul> <li>City Code Chapter 156</li> <li>RCWD – Rule E</li> <li>CCWD – Rules in Section 9.2</li> <li>FEMA FIRM Maps</li> </ul>
Groundwater	City, MDH, CCWD	<ul> <li>NPDES General Permit</li> <li>Wellhead Protection Plan</li> <li>CCWD – Rules in Section 9.3</li> </ul>
Illicit Discharge and Connection	City, CCWD, RCWD	<ul> <li>City Code Chapter 52</li> <li>NPDES General Permit</li> <li>RCWD – Rule H</li> </ul>
Post Construction Runoff Control	City, RCWD, CCWD	<ul> <li>City Code Chapter 150</li> <li>NPDES General Permit</li> <li>RCWD – Rules C and I</li> <li>CCWD - Rules in Sections 9.1, 9.5 and 9.6</li> </ul>
Private Surface Water Facilities Maintenance	City	NPDES General Permit
Wetlands and Public Waters	City, DNR, USACE, RCWD, CCWD	<ul> <li>NPDES General Permit</li> <li>DNR – Public Waters Work Permit</li> <li>USACE – Section 404 of the Clean Water Act</li> <li>RCWD – Rule F (RCWD is the LGU)</li> <li>CCWD – Rules in Section 9.7</li> </ul>
Shoreland	City, DNR	<ul><li>No City official control</li><li>DNR shoreland regulations apply</li></ul>
*Acronyms are	defined in Sections	s 3.2 – 3.16 of this Plan

Table 3.	1 -	Regulatory	Control
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#### 3.5 WATERSHED MANAGEMENT ORGANIZATIONS

In 1955, the Minnesota State Legislature established the Watershed Act. This act provided the means to create watershed districts, special purpose units of local government with broad authority to regulate land use planning, flood control and conservation issues.

In 1982, the legislature approved the Metropolitan Surface Water Management Act, Chapter 103B of Minnesota Statutes. This act requires all metro-area local governments to address surface water management through participation in a Watershed Management Organization (WMO). WMOs are based on watershed boundaries, and can be organized in three ways<sup>1</sup>

- 1. As a Joint Powers Agreement (JPA) between the cities and townships within the watershed;
- 2. As a function of county government, usually administered by the county planning department;
- 3. As a watershed district, a special unit of local government which in addition to operating under Minnesota Statues Chapter 103B, concurrently operates under Minnesota Statues Chapter 103D.

There are forty-six WMOs within the metropolitan area. The powers and duties of these Minnesota statutory authorities include:

- Approval authority over local water management plans.
- Ability to develop rules regarding management of the surface water system.
- Ability to determine a budget and raise revenue to covering administrative and capital improvement costs.
- Regulation of land use and development when one or more of the following apply:
  - The City does not have an approved local plan in place.
  - o The City is in violation of their approved local plan.
  - The City authorizes the watershed toward such regulation.
- Wetland Conservation Act administration when designated as the LGU for a city.
- Other powers and duties as given in statute and JPAs<sup>2</sup>.

Spring Lake Park is located within the jurisdictional boundaries of two watershed districts: the Coon Creek Watershed District and the Rice Creek Watershed District. See Figure 3.1 for the boundaries of these watersheds.

#### 3.5.1 RICE CREEK WATERSHED DISTRICT (RCWD)

Rice Creek Watershed District encompasses approximately 185 square miles of Anoka, Hennepin, Ramsey and Washington counties in Minnesota. Portions of RCWD can be found in the following municipalities: Arden Hills, Birchwood Village, Blaine, Centerville, Circle Pines,

<sup>&</sup>lt;sup>1</sup> Board of Soil and Water Resources website, http://www.bwsr.state.mn.us/

<sup>&</sup>lt;sup>2</sup> Excerpts from State of Minnesota Statute 103B.211

Columbia Heights, Columbus, Dellwood, Falcon Heights, Forest Lake, Fridley, Grant, Hugo, Spring Lake Park, Lexington, Lino Lakes, Mahtomedi, May Township, Mounds View, New Brighton, Scandia, Roseville, Shoreview, Spring Lake Park, Saint Anthony, White Bear Lake, White Bear Township, Willernie.

RCWD updated their rules effective January 2017. They adopted a Watershed Management Plan (WMP) in January 2010, with the most recent Amendment in November 2016. This LSWMP reflects both the updated RCWD WMP and rules. A copy of the RCWD rules is included in Appendix B for reference.

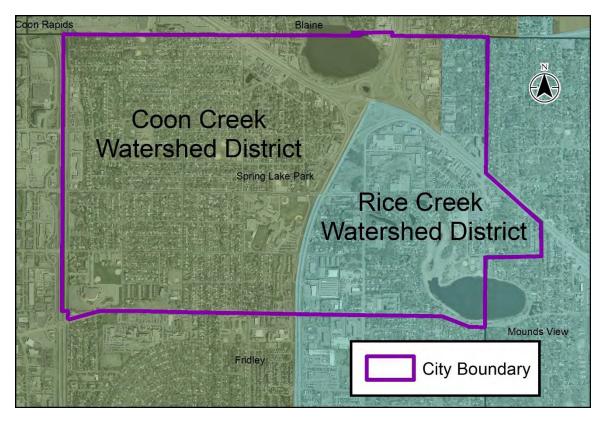


Figure 3.1 - Watershed Management Organization Boundaries

RCWD is active in the regulatory process, issuing permits to ensure that water resources within RCWD are managed in accordance with RCWD goals and policies. In general, as defined in RCWD rules, the types of projects that may be regulated by RCWD include, but are not limited to:

- Land development and redevelopment,
- Road projects,
- Trail projects,
- Utility projects.

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## 3.5.2 COON CREEK WATERSHED DISTRICT (CCWD)

CCWD is charged with managing 107 square miles of water resources in Anoka County, Minnesota, that includes 92 square miles of the Coon Creek watershed plus fifteen square miles that drain directly into the Mississippi River. CCWD was formed by citizen petition in 1959 and has the legal authority and obligation to develop and manage a uniform program of water and related land management under the MN Watershed District Act and the Metropolitan Water Management Act. CCWD has jurisdiction within portions of seven cities: Andover, Blaine, Columbus, Coon Rapids, Fridley, Ham Lake, and Spring Lake Park.<sup>3</sup>

CCWD is currently in the process of updating their 2013-2023 Watershed Management Plan (WMP). The current WMP and all amendments are adopted by reference into this LSWMP. CCWD rules are also adopted by reference. A copy of the current CCWD rules is included in Appendix B.

CCWD administers a permit process for all land disturbing activities that meet the CCWD permit thresholds. Generally, CCWD permits are needed for grading and development, ditch maintenance, culvert installation, water appropriation, public utility & drainage easement crossing, or wetland alteration or exemption projects.

# 3.6 METROPOLITAN COUNCIL

Established by the Minnesota Legislature in 1967, the Metropolitan Council is the regional planning organization for the Twin Cities, seven-county area. The Council manages public transit, housing programs, wastewater collection and treatment, regional parks and regional water resources. Council members are appointed by the Minnesota Governor<sup>4</sup>.

The Metropolitan Council reviews various municipal comprehensive planning documents including local surface water management plans. The Council's *2040 Water Resources Policy Plan* adopted in 2015 includes expectations and requirements for local plans. The Council's plan includes policies and strategies to protect the regions groundwater and surface water.

# 3.7 STATE BOARD OF WATER AND SOIL RESOURCES (BWSR)

The Minnesota Board of Water and Soil Resources (BWSR) works through local government agencies to implement Minnesota's water and soil conservation policies. The BWSR is the administrative agency for soil and water conservation districts, watershed districts, watershed management organizations and county water managers. The BWSR is responsible for implementation of the Metropolitan Surface Water Management Act and the Wetland Conservation Act. Staff members are in eight field offices throughout the state.

First established in 1937 as the State Soil Conservation Committee, the agency became part of the University of Minnesota in the 1950s, transferred to the Department of Natural Resources in

<sup>&</sup>lt;sup>3</sup> Excerpts from the CCWD website: www.cooncreekwd.org

<sup>&</sup>lt;sup>4</sup> Metropolitan Council website, www.metrocouncil.org/about

1971, then transferred to the Department of Agriculture in 1982. In 1987 the State Legislature established the current Board of Water and Soil Resources. The Board consists of seventeen members, appointed by the governor to four-year terms. Multiple state and local agencies are represented on the Board. In 1992, the BWSR adopted rules (8410), establishing the required content for local surface water management plans.

# 3.8 MINNESOTA POLLUTION CONTROL AGENCY (MPCA)

The MPCA is the state's lead environmental protection agency. Created by the State Legislature in 1967, the MPCA is responsible for monitoring environmental quality and enforcing environmental regulations to protect land, air, and water in the state of Minnesota. The MPCA regulates the City's management of wastewater, stormwater and solid waste. The MPCA administers the federal Clean Water Act (CWA) in Minnesota.

The MPCA is the permitting authority in Minnesota for the Municipal Separate Storm Sewer Systems (MS4) program under the National Pollutant Discharge Elimination System (NPDES), the federal program administered by the Environmental Protection Agency to address polluted stormwater runoff. Certain MS4s in Minnesota are subject to stormwater regulation under the Clean Water Act and Minnesota Rule 7090. There are multiple ways for a City or township to be subject to the MPCA's stormwater regulation under the MPCA's general permit. The MPCA regulates the entire jurisdiction of a city (or township) that is located fully or partially within an urbanized area as determined by the latest Decennial Census and that owns or operates an MS4. Consequently, Spring Lake Park has developed a stormwater pollution prevention program (SWPPP) to address six minimum control measures: 1) public education, 2) public involvement, 3) illicit discharge detection and elimination, 4) construction site runoff control, 5) post-construction runoff control, and 6) pollution prevention in municipal operations.

In addition to the NPDES program, the MPCA is required to publish a list of impaired waters; lakes and streams in the state that are not meeting federal water quality standards. For each water body on the list, the MPCA is required to conduct a study to determine the allowable Total Maximum Daily Load (TMDL) for each pollutant that exceeds the standards. The 2016 MPCA list of impaired waters identifies 2,660 TMDL reports needed for 1,808 lakes, rivers and streams in the state. Local governments are required to incorporate completed TMDL studies into their Local Surface Water Management Plans and review their SWPPPs to determine if additional BMPs are needed to comply with the TMDL waste load allocation. Currently, there are no listed waters within the City of Spring Lake Park.

In response to these multiple regulatory activities, the MPCA published the *Minnesota Stormwater Manual*, which is frequently updated, providing stormwater management tools and guidance. The Manual presents a unified statewide approach to stormwater practices.

# 3.9 MINNESOTA DEPARTMENT OF NATURAL RESOURCES (DNR)

Originally created in 1931 as the Department of Conservation, the DNR has regulatory authority over the natural resources of the state. DNR divisions specialize in waters, forestry, fish and wildlife, parks and recreation, land and minerals, and related services. The Division of Waters administers programs in lake management, shoreland management, dam safety, floodplain management, wild and scenic rivers, the Public Waters Inventory (PWI), and permitting of development activity within public waters.

# 3.10 MINNESOTA DEPARTMENT OF HEALTH (MDH)

The MDH manages programs to protect the public health, including implementation of the Safe Drinking Water Act. The MDH has regulatory authority for monitoring water supply facilities such as water wells, surface water intakes, water treatment, and water distribution systems. The MDH also is responsible for the development and implementation of the wellhead protection program.

# 3.11 MINNESOTA ENVIRONMENTAL QUALITY BOARD (EQB)

The EQB is comprised of five citizen members and the heads of ten state agencies that play an important role in Minnesota's environment and development. The EQB develops policy, creates long-range plans and reviews proposed projects that may significantly influence Minnesota's environment.

# 3.12 MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT)

Within the City, MnDOT administers several state highway systems. MnDOT approval is required for any construction activity within state rights-of-way. MnDOT also administers a substantial amount of funding for transportation projects completed in the City. Anticipated activities of MnDOT are periodically published in their State Transportation Improvement Plan.

# 3.13 U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

The EPA develops and enforces the regulations that implement environmental laws enacted by Congress; however, the MPCA bears responsibility for implementing many of the resulting programs within Minnesota. The NPDES program and the List of Impaired Waters are both the result of the Clean Water Act, administered by the EPA.

# 3.14 U.S. ARMY CORP OF ENGINEERS (USACE)

Under Section 404 of the Clean Water Act, including subsequent modifications, the EPA and the USACE regulate the placement of fill into all wetlands of the U.S. In 1993, there was a modification of the definition of "discharge of dredged material" to include incidental discharges associated with excavation. This modification meant that any excavation done within a wetland required the applicant to go through Section 404 permitting procedures. In 1998, however, this

decision was modified so that excavation in wetlands is now regulated by the USACE only when it is associated with a fill action.

# 3.15 FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA manages federal disaster mitigation and relief programs, including the National Flood Insurance Program (NFIP). This program includes floodplain management and flood hazard mapping. Additional information regarding floodplain mapping can be found in Section 2.10.

# 3.16 NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

The Natural Resources Conservation Service (NRCS) is a division of the U.S. Department of Agriculture. Formerly named the Soil Conservation Service (SCS), the NRCS provides technical advice and engineering design services to local conservation districts across the nation. The official soils survey for both Anoka and Ramsey Counties was published by the Soil Conservation Service. The SCS also developed hydrologic calculation methods that are widely used in water resources design.

# 3.17 U.S. GEOLOGICAL SURVEY (USGS)

The USGS provides mapping and scientific study of the nation's landscape and natural resources. USGS maps provide the basis for many local resource management efforts.

# SECTION 4 – RELATED PLANS, STUDIES, AND RULES

# 4.1 CITY OF SPRING LAKE PARK – 2013 LSWMP

The City of Spring Lake Park previous adopted its Local Surface Water Management Plan in 2013 (Resolution 13-18). The 2013 LSWMP was an update of the 2009 LSWMP and included references to new Rice Creek Watershed District and Coon Creek Watershed District information. With the adoption of this 2018 LSWMP, the 2013 Local Surface Water Management Plan will be superseded.

## 4.2 2013-2023 CCWD WATERSHED MANAGEMENT PLAN

The 2013-2023 CCWD Watershed Management Plan (WMP) and amendments are incorporated by reference into this 2018 LSWMP. The 2013-2023 CCWD WMP identifies the mission of the CCWD as follows:

"To manage groundwater and the surface water drainage system to prevent property damage, maintain hydrologic balance, protect water quality for the safety and enjoyment of citizens, and the preservation and enhancement of wildlife habitat."

In addition, CCWD Mission Goals are the primary focus of [CCWD] programs and activities. They distill the various legislative mandates as they apply to the watershed. These goals, as drawn from the mission statement are:

- 1. To prevent property damage from flooding, erosion or degraded water quality.
- 2. To ensure balance between inflow, outflow and storage of water.
- 3. To ensure that water is protected from contamination.
- 4. To provide for a variety of beneficial uses including the safety and enjoyment of the watershed's residents.
- 5. To preserve and enhance wildlife.

The Coon Creek Watershed District seeks to assist people and local units of government in being good stewards of water and related land resources within the watershed. For the period of 2013 to 2023 we have defined the following strategies. In the next ten years the CCWD will:

- 1. Seek to promote collaborative efforts to achieve water and related resource goals.
- 2. Provide information and assistance to encourage and enable locally led, watershed, subwatershed and minor subwatershed scale management.
- 3. Facilitate the growth of performance-based solutions that recognize the multi-scale nature of comprehensive water management.

4. Utilize an adaptive management process that allows the District to continually evaluate the performance of the resource and adjust its programs and activities to increase effectiveness.<sup>5</sup>

Stormwater management implementation items identified in the CCWD WMP impacting Spring Lake Park are included in the system assessment section (Section 6) of this LSWMP. The goals and policies section (Section 7) of this LSWMP reflects the CCWD goals as they apply to Spring Lake Park.

# 4.3 2017 RCWD RULES

RCWD officially adopted revised rules on December 14, 2016, that became effective on January 1, 2017. As stated in the introduction of the rules, "In these rules the [RCWD] seeks to protect the public health and welfare and the natural resources of the [RCWD] by providing reasonable regulation of the modification or alteration of the [RCWD]'s lands and waters to reduce the severity and frequency of flooding and high water, to preserve floodplain and wetland storage capacity, to improve the chemical, physical and biological quality of surface water, to reduce sedimentation, to preserve waterbodies' hydraulic and navigational capacity, to preserve natural wetland and shoreland features, and to minimize public expenditures to avoid or correct these problems in the future."<sup>6</sup>

As the clear majority of Spring Lake Park is fully developed at this time, the primary application of the RCWD rules will be for city street projects and redevelopment projects.

The RCWD rules combine the water quality and volume control requirements into a single requirement. The depth of runoff to be infiltrated varies, depending on the type of project. The City will defer the enforcement of RCWD Water Quality and Volume Control requirement to RCWD and coordinate permitting efforts with RCWD. The 2017 RCWD rules are included in Appendix B.

#### 4.4 2009 CCWD RULES

Current CCWD rules are dated March 2009. As stated in the rules, "The purpose of these rules is to enable the District to evaluate, permit and monitor activities affecting the water and related land resources of the District in an orderly and informed fashion."

"In general, a permit from the Watershed District shall be required for activities affecting the course, current, cross section, quantity, or quality of surface water, groundwater or related land resource features within the Coon Creek Watershed. This includes, but is not limited to drainage, conveyance, retention or detention of water, including lakes and wetlands."<sup>7</sup>

<sup>&</sup>lt;sup>5</sup> Excerpts from the 2013 CCWD WMP

<sup>&</sup>lt;sup>6</sup> Excerpt from RCWD rules, found at http://www.ricecreek.org

<sup>&</sup>lt;sup>7</sup> Excerpt from CCWD rules

As Spring Lake Park is essentially fully developed, CCWD permits would primarily focus on redevelopment activities and City infrastructure improvement projects. The City will coordinate project submittals with the CCWD to determine is a watershed permit is applicable for a given submittal. A copy of the 2009 CCWD rules is included in Appendix B.

# 4.5 SOUTHWEST URBAN LAKE STUDY REPORT: PHASES I & II

RCWD completed Phase I of the Southwest Urban Lake Study. This study analyzed twenty-four urban lakes in the southwest portion of RCWD, which included Spring Lake. This report detailed the first phase of a two-phase study, which included:

- An assessment of existing lake quality data
- Lake-bottom sediment sampling and analysis
- Delineation of sub-watersheds boundaries and land use determinations for each lake studied
- Listing of current impairments for the 24 lakes studied
- Summary of available lake quality data
- Recommendations for additional lake quality monitoring via the Metropolitan Council's Citizen Assisted Monitoring Program (CAMP)
- Identification of available in-lake and watershed BMPs to address impairments of the lakes studied

This report identifies that the existing lake quality data for Spring Lake is limited, with only one full year of sampling in the last ten and recommends that Spring Lake be added to the CAMP in 2008 to begin to compile additional lake quality data. The report also notes that Spring Lake has experienced significant water level fluctuations in the recent past. New data could provide insight into the level of impact the water level fluctuations are having on lake quality.

Phase II of the Southwest Urban Lakes Study was completed in 2009. This phase focused on soliciting input from lake stakeholders to identify any "impairments" to the beneficial uses they identify. This phase used the existing lake quality data and identified impairments to develop Management Action Plans (MAPs) for each of the 24 lakes studied. The Spring Lake's MAP recommends specific BMPs to address the impairments to the beneficial uses identified. Implementation of MAP recommendations will be discussed in the Implementation Section (Section 8) of this LSWMP.

# 4.6 SPRING BROOK PHASE I CLEAN WATER PARTNERSHIP RESOURCE INVESTIGATION

This study, and subsequent implementation projects, involved a few partners including Spring Lake Park, to address poor water quality and stormwater quantity management issues in Spring Brook Creek, and more specifically in the Spring Brook Nature Center. This multi-year project began with studies to better understand the water quality and hydrology problems. Then, using this new knowledge, management strategies were developed and implemented to work toward correcting the problems.



The project focused on the Spring Brook Nature Center Area, where stormwater from the surrounding urbanized watershed enters an impoundment. The water entering the nature center area has two problems:

- It has poor water quality
- During rainfall, intense pulses of water are flushed through the stormwater conveyances and streams, resulting in damage to stream ecology, stream bank erosion, and damage to the impoundment.

A few projects have been constructed to address the above issues, including:

- Drawing down water levels in the impoundment for several years to promote the recovery of aquatic vegetation that had been previously decimated by large pulses of stormwater and sediment. The vegetation is recovering well, and the ecological value of the impoundment within the Nature Center has grown considerably.
- Major restoration of the stream that enters the Nature Center from the east. Previously, the stream was badly eroded and degraded. Through this project the stream was remeandered, erosion issues were corrected, and new infrastructure to handle stormwater pulses was installed. The new infrastructure included several water control structures to prevent downcutting, as well as a diversion mechanism to prevent massive stormwater pulses from damaging the stream in the future.<sup>8</sup>

# 4.7 SPRING LAKE PARK WELLHEAD PROTECTION PLAN

Most ground water quality protection is in the form of Wellhead Protection Planning. The primary purpose of these plans is to identify potential sources of contamination and areas that are most susceptible to contamination, and to put a plan in place to protect groundwater supplies given these data. In 1995 Anoka County, with input from member cities, produced a Ground Water Protection Assessment that identified activities that should be implemented to protect city water supplies and areas where special measures are most needed. Under the guidance of this document, 10 Anoka County cities formed a Joint Powers Organization to jointly write a city-level Wellhead Protection Plan. In 2001 The City completed Part I of their Wellhead Protection Plan. In 2008, the City completed Part 2 of their Wellhead Protection Plan.

Part 1 and Part 2 of the city's Wellhead Protection Plan have been compiled in a combined document posted on the City's website: <u>www.slpmn.org</u>. The Wellhead Protection Goals identified in the City's Wellhead Protection Plan are discussed in the goals and policies Section (Section 7) of this LSWMP.

<sup>&</sup>lt;sup>8</sup> Excerpts from the SCWMO website: http://www.anokanaturalresources.com/scwmo/Spring Brook.htm

#### 4.8 ANOKA CONSERVATION DISTRICT COMPREHENSIVE PLAN

The Anoka Soil and Water Conservation District (Anoka Conservation District or ACD) has prepared a Comprehensive Plan to provide a framework for an overall natural resource management program in Anoka County. Pursuant to this natural resource management program, future annual work plans will be developed to identify objectives and goals within the Comprehensive Plan. The Anoka Conservation District Comprehensive Plan promotes interagency cooperation and coordination for the preservation and conservation of the natural resource base in Anoka County.

This plan identifies many resource conservation issues where the ACD will focus its limited staff and financial resources. The plan provides the framework as to how the ACD will contribute resources to address issues facing natural resource conservation within the county and identifies the services that are available to city's such as Spring Lake Park, including:

- Monitoring the water quality in Laddie Lake
- Streambank restoration projects
- Assisting residents with the designing and finding raingardens retrofits in urban areas
- Providing educational services to assist city's in fulfilling the educational component of their SWPPP

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# **SECTION 5 – WATER RESOURCES RELATED AGREEMENTS**

# 5.1 CITY OF BLAINE

On August 29, 1988, Spring Lake Park entered into a JPA with the City of Blaine to address a number of utility considerations, including stormwater management. At the time of this agreement, Spring Lake Park provided sanitary sewer and storm sewer service to an existing development in Blaine, Poplar Homes. At the time, this site was to be redeveloped and this agreement identifies the responsibilities of each party regarding the various utility considerations. A copy of the agreement is included in Appendix C for reference.

# 5.2 SPRING LAKE TRI-CITY TASK FORCE

Although not an official agreement, the Cities of Spring Lake Park, Mounds View, and Fridley are members of the Spring Lake tri-city task force. Since its inception, the task force has been focusing on the aesthetic, recreational, and functional uses of Spring Lake. It is critical to have consensus among the three bordering cities as to the appropriate lake management strategy to address the identified target uses of Spring Lake.

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# SECTION 6 – CURRENT ASSESSMENT

The following section summarizes the assessment of the City's surface water management system. The assessment includes surface water management issues identified by the City, found in the watershed management plans for Rice Creek Watershed District and Coon Creek Watershed District, or as discussed in a specific plan or study identified in Section 4.

Based on the assessment presented in this section, the City will develop effective surface water management goals and policies (Section 7) and with the coordination of the two WMOs, establish the implementation measures (Section 8) necessary to address surface water management issues and enact the goals and policies.

# 6.1 OFFICIAL CONTROL ASSESSMENT

Codes and ordinances (official controls) are necessary tools supporting implementation of this LSWMP. The intent of assessing the City's existing official controls is to identify the adequacy of these controls to address current regulatory requirements.

After adoption of this LSWMP, all applicable portions of city code will need to be updated to achieve consistency with local watershed plans. Per State statute, this implementation step must be completed within 180 days after adoption of this plan. In addition, periodically codes must be updated to remain consistent with city goals, policies, and practices. Table 6.1 presents an assessment of city codes related to surface water management as listed in Table 3.1 in Section 3.

Official Control	City Code	Current City Assessment
Erosion and Sediment Control	Section 150.200	Last Updated 10-20-2014
Illicit Discharge and Connection	Section 52	Last Updated 10-20-2014
Plan Review and Approval		No current ordinance. Review and update.
Post Construction Runoff Control	Section 150.209	Last Updated 10-20-2014
Private Surface Water Facilities Maintenance		No current ordinance. Review and update.
Wetlands, Public Waters, and LGU Responsibilities		No current ordinance. Easements required per Section 152.016
Floodplain	Section 156	Last Updated 12-07-2015
Shoreland		No current ordinance, DNR Regulations Apply

 Table 6.1 - Surface Water Management Official Control Assessment

## 6.2 SURFACE WATER REGULATORY RESPONSIBILITY ASSESSMENT

The City will coordinate plan review activities with the jurisdictional watershed district. The City defers the enforcement of watershed rules to the jurisdictional watershed district via their existing permit programs, for public and private projects that meet permit thresholds.

For wetland permitting issues, the City defers WCA administration to the jurisdictional watershed district.

#### 6.3 WETLAND MANAGEMENT

As Spring Lake Park is nearly fully developed, the City has not completed a full function and value assessment of the wetlands in the City. However, the City does require that a wetland function and value assessment be performed for any wetland immediately adjacent to new development, redevelopment, or site expansion projects.

The City will continue to recognize RCWD and CCWD as the LGUs responsible for administering the WCA and requiring the completion of wetland function and value assessments consistent with the WCA. The City presumes that the assessments will be done in accordance with the methods defined in the most current version Minnesota Routine Assessment Method (MnRAM) or other acceptable methods.

The City will continue to coordinate wetland management issues with either RCWD or CCWD, depending on the location of the issue. In addition, Spring Lake Park intends to update city code to include wetland management requirements, which reflect consistency with RCWD and CCWD rules and specifically reference the role of RCWD and CCWD in WCA administration in the City.

#### 6.3.1 WETLAND MANAGEMENT AND WETLAND BUFFERS

Spring Lake Park is committed to maintaining wetland buffers. A wetland buffer of undisturbed vegetation around a wetland can provide a variety of benefits. The buffer can consist of trees, shrubs, grasses, wildflowers, or a combination of plant forms. Buffers reduce the impacts of surrounding land uses on wetland functions by stabilizing soil to prevent erosion; filtering solids, nutrients, and other harmful substances; and moderating water level fluctuations during storms. Buffers also provide essential habitat for feeding, roosting, breeding and rearing of young birds and animals; and cover for safety, movement and thermal protection for many species of birds and animals. Buffers can reduce problems related to human activities by blocking noise and glare from lights and reducing disturbance. Wetland buffers will be most effective if the landowners around a wetland make a continuous buffer and connect desirable wetland and upland habitats.

Cutting vegetation, dumping grass clippings or other debris, and trampling should be avoided in buffer areas. If a path is desired through the buffer, it should be mown only as wide as

necessary for walking, and gently meandered so that it does not encourage erosion or carry sediments and nutrients from surrounding areas to the wetland.

Spring Lake Park will continue to defer to the CCWD in identifying wetland buffer standards. The CCWD identifies wetland buffer standards in Section 8.2 (Buffer Strips) of their current rules. The RCWD does not currently have wetland buffer requirements in Spring Lake Park. Wetland buffers are only required in the RCWD for wetlands in Comprehensive Wetland Protection Management Plan (CWPMP) areas, which do not exist in the City.

## 6.4 IMPAIRED WATERS AND TMDL STUDIES

There are no waterbodies within Spring Lake Park currently identified on the state List of Impaired Waters. However, three other waterbodies in adjacent communities receiving discharge from Spring Lake Park are currently identified on the state List of Impaired Waters: Spring Brook Creek, Rice Creek, and Mississippi River. The List of Impaired Waters is known as the 303(d) List from the applicable section of the Federal Clean Water Act, these waters are ones that do not currently meet their designated use due to the impact of a pollutant or stressor. If monitoring and assessment indicate that a waterbody is impaired by one or more pollutants, it is placed on the list.

Responsibility for implementing the requirements of the Federal Clean Water Act falls to the U.S. Environmental Protection Agency. In Minnesota, the EPA delegates much of the program responsibility to the Minnesota Pollution Control Agency (MPCA). Information on the MPCA program can be obtained at the following web address: www.pca.state.mn.us/water/tmdl/index.html

Information for impaired waters identified in adjacent communities receiving flows from Spring Lake Park is identified in Table 6.2 below. The absence of a waterbody from the 303(d) List does not necessarily mean the waterbody is meeting its designated uses. It may be that it has either not been sampled or there is not enough data to make an impairment determination.

Known TMDL Studies affecting the City of Spring Lake Park include:

- o Coon Creek Watershed District TMDL
- o South Metro Mississippi River Sediment TMDL
- Twin Cities Metro Area Chloride TMDL
- o Upper Mississippi River Bacteria TMDL

Impaired Water <sup>2</sup>	Waterbody ID	Year Listed	Affected Use	Pollutant or Stressor	TMDL Target Completion
	07010206-509	2006	Aquatic recreation	Fecal coliform	2015
Mississippi River – Coon Creek to Upper St. Anthony Falls		1998	Aquatic consumption	PCB in fish tissue	2025
T uno		1998	Aquatic consumption	Mercury in fish tissue	2025
Rice Creek – Long	07010206-584	2006	Aquatic life	Aquatic macroinvertebrate bioassessments	2025
Lake to Locke Lake		2014	Aquatic recreation	E. coli	N/A
		2014	Aquatic Life	Fishes bioassessments	2025
County Ditch 17	07010206-557	2006	Aquatic life	Aquatic macroinvertebrate bioassessments	2016
(Spring Brook Creek)		2014	Aquatic recreation	E. coli	2016

Table 6.2 - Impaired Waters Receiving Discharge from Spring Lake Park<sup>1</sup>

<sup>1</sup>From final draft MPCA 2018 303(d) List

<sup>2</sup>The locations of these impaired waters in relation to Spring Lake Park are identified on Figure 2.2.

In addition to the impaired water bodies above, the Twin Cities Metro Area Chloride TMDL lists Spring Brook Creek as a High-Risk Stream having at least one chloride concentration value within 10% of exceeding the water quality standard.

At some point, a strategy would be developed by the MPCA or a delegated agent (Watershed Management Organization, Joint Powers Organization, Cooperative Partnership, municipality, etc.) that would lead to attainment of the applicable water quality standard for these impaired waters. The process of developing this strategy is commonly known as the Total Maximum Daily Load (TMDL) process and involves the following phases:

- 1. Assessment and listing
- 2. TMDL study
- 3. Implementation plan development and implementation
- 4. Monitoring of the effectiveness of implementation efforts

The MPCA has identified a target schedule for starting and completing TMDL studies for each impairment on the 303(d) List and reflected in Table 6.2. The following is an excerpt from the MPCA website describing the program and its need:

"Assessment of all Minnesota's waters will require more monitoring capabilities than MPCA currently has. Significantly more resources need to be dedicated to water quality monitoring to assess all waters. For example, developing an in-depth study for just one waterbody typically requires several years of data collection and analysis.

While current resources do not allow for an adequate assessment of all Minnesota's waters, MPCA officials predict that Minnesota's list of impaired waters will grow to many times its present size as the state expands its existing monitoring program. Once all Minnesota waters have been assessed, more than 10,000 impairments are expected to be included on the state's Impaired Waters List, with impaired waters located in nearly every watershed statewide.

The Impaired Waters Program (Section 303(d)) requires MPCA to prepare a list of impaired waters every two years, which is transmitted to the EPA for review and approval. In addition, MPCA must prioritize these waters and develop an in-depth study of each, called a Total Maximum Daily Load (TMDL) study. TMDL studies are intended to be a first step toward improving water quality and restoring beneficial uses for each impaired water.

EPA requires that TMDLs be developed and completed within 15 years of a waterbody being placed on the 303(d) list. MPCA's Impaired Waters Program exists with the goal of ensuring that impaired waterbodies are listed, TMDLs are developed for each and that waters are eventually restored to meet water quality standards."

Discussion regarding the directives for impaired waters and ultimately TMDL studies addressing the impairments for the waterbodies listed in Table 6.2 is presented in the implementation section (Section 8) of this LSWMP. Section 8 will also identify how the City intends to be involved in these directives and the City's strategy for implementing these directives.

#### 6.5 PHASE II NPDES MS4 PERMIT AND SWPPP

The MPCA is the permitting authority in Minnesota for the National Pollutant Discharge Elimination System (NPDES). The MPCA has designated Spring Lake Park as an NPDES Phase II MS4 community (MN Rules 7090). Spring Lake Park received initial permit coverage in 2003. Coverage was last extended on March 17, 2014. The current NPDES MS4 permit is effective as of August 1, 2013.

As part of the MS4 permit extension process, the City completed a Stormwater Pollution Prevention Program (SWPPP) Application for Reauthorization. The SWPPP Document was approved by MPCA on March 17, 2014 as part of the permit coverage extension.

Spring Lake Park's SWPPP addresses six minimum control measures:

- 1. Public education
- 2. Public involvement
- 3. Illicit discharge detection and elimination
- 4. Construction site runoff control
- 5. Post-construction runoff control
- 6. Pollution prevention in municipal operations

The City's SWPPP contains several best management practices (BMPs) within each of the listed control measures. These were identified using a self-evaluation and input process with City Staff. A copy of the City's current SWPPP is posted on the City's website: <u>www.slpmn.org</u>.

Per the requirements of the MS4 Permit, the City reviews its SWPPP and implementation practices on an annual basis. A report on the implementation actions of the city is submitted to the MPCA annually.

# 6.6 COMPARISON OF REGULATORY STANDARDS

The City is committed to coordinating project review efforts to facilitate RCWD and CCWD permit processed. See Figure 3.1 for the location of the jurisdictional boundaries for these WMOs.

Each WMO has established standards governing stormwater management and protection of natural resources. The governing document for these standards for each WMO is identified as follows:

- Rice Creek Watershed District Rules effective January 2017
- Coon Creek Watershed District Rules effective March 2009

A comparison of current WMO standards, per the governing documents identified above, and the current city stormwater management standards is included in Appendix D. Where the City's standards are not consistent with WMO standards, recommended actions to bring the City's standards into alignment with the WMOs are provided.

# 6.7 SURFACE WATER SYSTEM MODEL

The preparation of this plan included an assessment of the City's current surface water system, including storm sewer, regional stormwater basins, and drainage areas. Data related to the City's surface water system was collected from a variety of sources including:

- City storm sewer base mapping
- RCWD and CCWD
- Site specific development review submittals



• City, County, and MnDOT road projects

As part of the assessment of the City's surface water system, drainage boundaries and flow paths were delineated based on the best available data. A map of the City's surface water system, including drainage boundaries, can be found on Map 1 in Appendix A. The City is divided into three major drainage districts, namely Rice Creek, Stony Brook Creek, and Spring Brook Creek major drainage districts. These major drainage districts are further divided into subdistricts, to account for specific surface water features within these subdistricts.

To address statutory requirements, the City has developed a broad scale hydrologic and hydraulic model for the City, to estimate general flow patterns, rates, and volumes at key locations, including inter-jurisdictional discharges. The City's model is augmented by information for Spring and Laddie Lakes from RCWD and CCWD, respectively. The modeling assessment information is summarized in the table found in Appendix A. The City will consider more detailed modeling efforts within specific sub-districts when the modeling efforts are being driven by a specific issue or projects within Spring Lake Park or a neighboring community. At this time, no specific issues or projects warranting more detailed modeling have been identified.

# 6.8 SURFACE WATER MANAGEMENT ISSUES AND POSSIBLE CORRECTIVE ACTIONS

The list of items presented in Table 6.3 includes some current stormwater management issues or concerns as identified by the documents included in Section 4 of this plan. It is not the intent of this list to include all the current stormwater management issues identified in the documents in Section 4, only those issues with a possibly corrective action that directly affects the City. The implementation of the possible corrective actions will be addressed in the implementation section 8).

The City will be incorporating the possible corrective actions identified in Table 6.3, into the LSWMP goals and policies (Section 7) and/or implementation efforts (Section 8), as necessary.

# 6.9 PUBLIC PARTICIPATION

The City implements a public information and education program through the City website. Future website pages will contain information about different topics concerning water resources within the City, as well as summaries of continuing water resource management programs.

Some possible future topics for the website are listed below:

- Educational articles on stormwater management treatment.
- Educational articles on environmental policies.
- Storm sewer maintenance schedules.
- Watershed district policy changes.
- City policy changes.
- Property owner impacts on water quality.

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lssue Number	Stormwater Issue	Issue Identified by:	Possible Corrective Actions
1	The City has limited financial ability to implement water quality BMPs	City	<ul> <li>The City would like to work with RCWD on funding water quality BMPs.</li> </ul>
2	Water quantity and erosion issues in Spring Brook Creek and wetland, and Stony Brook Creek	CCWD WMP	<ul> <li>Assist CCWD with regular inspection and maintenance of projects within Spring Lake Park.</li> </ul>
3	Portions of the City discharge to downstream impaired waters	MPCA	<ul> <li>Follow strategies put forth by the MPCA and other outside agents to address TMDLs for the impaired water bodies, including the Upper Mississippi River Bacteria TMDL.</li> </ul>
4	Chloride levels approaching TMDL in Spring Brook Creek	MPCA	• Review the findings in the Metro Chloride TMDL regarding high-risk water bodies, and continue to implement action items regarding salt use. The City of Spring Lake Park requires its snowplow operators to attend smart salting trainings to learn salt application rates, equipment calibration and adjust road salt application rates based on weather conditions and pavement temperatures.
5	Low water levels and water quality issues in Spring Lake	City	• Review the findings in the 2009 Southwest Urban Lakes Study regarding low water levels in Spring Lake, and potentially implement the recommended activities
6	Maintenance of private stormwater BMPs	City	<ul> <li>Research, develop, and implement a private stormwater BMP maintenance ordinance</li> </ul>
7	Excessive sediment in ditches, ponds, and wetlands	City	<ul> <li>Continue street sweeping activities twice annually</li> <li>Clean sediment out of existing ditches, ponds, and wetlands</li> </ul>
8	Excessive peak flow rates	City	• Pursue select improvement projects. Enforce stormwater design standards to address peak discharge rates for new development, redevelopment, and site expansion projects. At the time of this plan submittal, the City had not yet completed its drainage report. Once the drainage report is complete, the City will work to identify specific areas that experience flooding, if applicable.

 Table 6.3 – Surface Water Management Issues and Possible Corrective Actions

# SECTION 7 – GOALS AND POLICIES

## 7.1 SUMMARY

Surface water management issues within the City are primarily defined by the requirements of current or pending programs. The goals and policies outlined in this plan are grouped by their relationship to the key issues listed below:

- Section 7.2 Land Development and Redevelopment Goals and policies to prevent flooding and adverse impacts to water resources from land disturbance and impervious surfaces.
- Section 7.3 Resource Management Goals and policies for managing Spring Lake Park's wetlands, lakes, and groundwater, to preserve and protect these resources.
- Section 7.4 Citywide Program Elements Goals and policies for managing water resources and drainage systems on a citywide scale, to effectively achieve surface water management goals.
- Section 7.5 Support of Other Agencies Goals and policies to coordinate local surface water management with the work of watershed management organizations and state agencies.

The following goals and policies reflect current City policy and the City's current SWPPP, as well as additional goals and policies necessary for consistency with the goals and policies of state, regional, and local watershed authorities.

# 7.2 LAND DEVELOPMENT AND REDEVELOPMENT

Overall Goal: Manage land disturbance and increased impervious surfaces to prevent flooding and adverse impacts to water resources through the cooperation with the stormwater management standards identified by the WMOs with jurisdiction in Spring Lake Park.

#### 7.2.1 RUNOFF RATE

Goal: Control the rate of stormwater runoff from development to reduce downstream flooding and erosion.

**Policy 1:** Peak runoff rates from regulated new development, redevelopment, or site expansion projects shall not exceed existing rates for the 2-year (2.84-inches in 24 hours), 10-year (4.24-inches in 24-hours), and 100-year (7.30-inches in 24 hours) rainfall events. Rate control below existing rates may be necessary where downstream capacity issues are identified, which will require coordination with

the local WMOs and adjacent municipalities. Rainfall amounts used for calculating runoff rates shall be per NOAA Atlas 14 as determined by the jurisdictional watershed.

- **Policy 2:** The City will review and update city code as necessary to include the rate control policy identified above. This policy is consistent with the City's SWPPP.
- **Policy 3:** The City will require that the maximum duration for rainfall critical event analysis shall be 24 hours. The City will require the use of the hydrograph method of analysis and the MSE Type III storm distribution, unless otherwise required using NOAA Atlas 14 rainfall depths.

#### 7.2.2 FLOOD PREVENTION AND FLOODPLAIN MANAGEMENT

Goal: Provide adequate storage and conveyance of runoff and control development in flood prone areas to protect the public safety and minimize property damage.

- **Policy 4:** The City will require that the low opening elevation of new structures provide a minimum of 2-feet of freeboard above the 100-year High Water Level (HWL from NOAA Atlas 14 rainfall depths) and 1-foot of freeboard above the emergency overflow of an adjacent pond.
- **Policy 5:** Through on-going site plan reviews, the City will require on-site mitigation for any loss in existing flood storage volume for new developments. For redevelopment sites and sites undergoing minor modifications, the City will act to preserve the existing water storage capacity of storm water facilities and to minimize the frequency and severity of high water issues.
- **Policy 6:** The City will evaluate ongoing capital improvement projects to improve stormwater management facilities in known flood-prone areas

#### 7.2.3 RUNOFF VOLUME

Goal: Reduce pollutant loads and impacts to water bodies and encourage groundwater recharge, by reducing the volume of stormwater runoff from development and redevelopment areas.

- **Policy 7:** The City will defer the enforcement of volume control requirements to RCWD and CCWD for construction projects within their jurisdiction.
- **Policy 8:** The City will review and update city code as necessary to reference the volume control requirements of the jurisdictional watersheds. This policy is consistent with the City's SWPPP.

Goal: Reduce the volume of stormwater runoff from existing developed areas.



- **Policy 9:** The City will coordinate efforts with the local WMOs to minimize impervious surfaces where feasible when reconstructing streets and other paved surfaces and provide volume control mitigation as identified in Policy 7.
- **Policy 10:** Where practical, the City will encourage the use of infiltration BMPs in existing developed areas, taking into consideration site limitations such as soil conditions, depth to groundwater, and maintenance issues.

#### 7.2.4 NUTRIENT AND SEDIMENT LOADING

Goal: Reduce the nutrient and sediment loads discharged from land development or redevelopment.

- **Policy 11:** The City will strive for the non-degradation of receiving waters within the City by enforcing current stormwater management standards, and in cooperation with the local WMOs stormwater management standards.
- **Policy 12:** For the portions of the City within the jurisdiction of RCWD, the nutrient and sediment load requirements are incorporated into RCWD's Rule C. The nutrient and sediment load requirements for projects in CCWD are found in Section 9.4 of their rules.
- **Policy 13:** The City will review and update city code as necessary to reference the nutrient and sediment load requirements of the jurisdictional watersheds. This policy is consistent with the City's SWPPP.
- **Policy 14:** The City shall develop an ordinance to address the maintenance of private stormwater BMPs. This policy is consistent with the City's SWPPP.
- **Policy 15:** The City will require outlet skimming up to the 5-year storm event (3.6-inches in 24 hours) High Water Level in all new stormwater ponds.

#### 7.2.5 EROSION AND SEDIMENT CONTROL

Goal: Prevent sediment from construction sites from entering the City's surface water resources.

- **Policy 16:** The City will review and update city code as necessary to include the erosion and sediment control ordinance as outlined in the NPDES MS4 permit. This policy is consistent with the City's SWPPP.
- **Policy 17:** The City will require that erosion and sediment control practices are consistent with the standards identified in the current MPCA Construction General Permit and the Minnesota Stormwater Manual. This policy is consistent with the City's SWPPP.

#### 7.3 RESOURCE MANAGEMENT

Overall Goal: Protect the City's wetlands, lakes, groundwater, and natural areas to preserve the functions and values of these resources for future generations through the Wetland Conservation Act, buffer standards, groundwater protection rules and coordination with outside agencies.

#### 7.3.1 WETLAND MANAGEMENT

Goal: Protect and preserve wetlands to maintain or improve their function and value.

- **Policy 18:** The City will defer the administration of Wetland Conservation Act (WCA) responsibilities to RCWD and CCWD for the portions of the City that lie within the jurisdictional boundary of each. As projects are submitted, the City will continue to coordinate WCA activities with RCWD or CCWD.
- **Policy 19:** The City will coordinate wetland restoration activities with the local WMOs.
- **Policy 20:** The City will require that runoff from new development, redevelopment, or site expansion projects be treated prior to discharge to wetlands.
- **Policy 21:** The City will require that, prior to development activities or public projects, a wetland delineation must be completed, including a field delineation and report detailing the findings of the delineation.
- **Policy 22:** The City will require that a wetland inventory and assessment be prepared for any new development, redevelopment, or site expansion project immediately adjacent to a wetland. Minnesota Routine Assessment Methodology (current version) is the required method of assessment for evaluating wetland functions and values.
- **Policy 23:** Where required by CCWD rules, appropriate wetland buffers on wetlands will be required.

#### 7.3.2 LAKE MANAGEMENT

Goal: Improve water quality and protect resource values of lakes.

**Policy 24:** The City will cooperate with RCWD and CCWD to implement activities to improve water quality in Spring Lake and Laddie Lake. This includes the findings presented in Phase II of RCWD Southwest Urban Lakes Study.

#### 7.3.3 GROUNDWATER RECHARGE AND PROTECTION

Goal: Protect groundwater resources and groundwater-dependent surface water and natural resources.



- **Policy 25:** The City will cooperate with Anoka County, Ramsey County, the Minnesota Department of Health, and the local WMOs to identify and protect critical groundwater resource areas.
- **Policy 26:** To address the action items identified in the City's 2008 Wellhead Protection Plan (WPP), the Wellhead Protection Goals identified in Chapter 4 of the WPP are incorporated by reference into this LSWMP.
- **Policy 27:** The City will cooperate with other agencies to implement the recommendations identified in the City's Wellhead Protection Plan and Ramsey County Groundwater Quality and Protection Plan.

Goal: Cooperate with other organizations working to protect groundwater resources.

**Policy 28:** The City will cooperate with local WMOs, Anoka County, Ramsey County, and others to implement the recommendations of the Ramsey County Groundwater Quality and Protection Plan and the City's Wellhead Protection Plan, to protect groundwater quality by reducing the potential for transport of storm water pollutants into the groundwater and maintaining the functions of groundwater recharge areas.

#### 7.3.4 NATURAL AREA MANAGEMENT

Goal: Protect and enhance natural areas within the City to provide wildlife habitat and water resource benefits.

- **Policy 29:** The City will support programs to maintain and restore the resource value of natural areas and enhance water based recreational opportunities.
- **Policy 30:** The City will support the efforts of the Department of Natural Resources to enhance fish and wildlife habitats and protect rare and endangered species.

#### 7.4 CITYWIDE PROGRAM ELEMENTS

Overall Goal: Manage water resources and drainage systems on a citywide scale, including monitoring and maintenance of drainage systems, targeted pollution prevention, public education, system reconstruction projects, and equitable collection of supporting funds.

#### 7.4.1 POLLUTION PREVENTION

Goal: Detect and address urban pollutants discharged to storm sewers.

**Policy 31:** The City will actively implement the NPDES Stormwater Pollution Prevention Plan as stated in the most current version of the MS4 permit.

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- **Policy 32:** The City will maintain an effective spill response plan. This policy is consistent with the City's SWPPP.
- **Policy 33:** The City will continue employee training in the operation, maintenance and inspection of stormwater facilities, as included in the SWPPP. This policy is consistent with the City's SWPPP.
- **Policy 34:** The City will inspect public stormwater system facilities for pollutants in accordance with the frequency in their SWPPP and develop an ordinance (if necessary) to address maintenance requirements for private stormwater facilities. This policy is consistent with the City's SWPPP.

#### 7.4.2 MONITORING AND MAINTENANCE

*Goal: Maintain the function and effectiveness of stormwater management structures through monitoring and maintenance.* 

- **Policy 35:** The City will continue to conduct bi-annual street sweeping. This policy is consistent with the City's SWPPP.
- **Policy 36:** The City will continue inspection and maintenance of the City's stormwater conveyance and ponding system as outlined in the City's SWPPP.

#### 7.4.3 PUBLIC EDUCATION

Goal: Inform and educate residents about stormwater pollution, the effects of urban runoff and the need to protect natural resources.

- **Policy 37:** The City will implement a public education and outreach program as identified in the City's MS4 permit, and coordinate these activities with the Anoka Conservation District, Ramsey Conservation District, and local WMOs where feasible to maximize the impact of these efforts. This policy is consistent with the City's SWPPP.
- **Policy 38:** The City will promote citizen and volunteer efforts to protect, restore and enhance local water and natural resources. This policy is consistent with the City's SWPPP.
- **Policy 39:** The City will use available opportunities through its newsletter, public meetings, website, Comprehensive Plan, or interpretive elements at parks and open space sites to inform its residents about the value of local water resources, the effects of stormwater runoff, and opportunities for stewardship of water and natural resources. This policy is consistent with the City's SWPPP.

#### 7.4.4 FUNDING

*Goal:* Secure adequate funding to support implementation of the Local Surface Water Management Plan.

- **Policy 40:** The City will explore available funding opportunities to pay for the implementation of the projects and actions identified in Section 8.
- **Policy 41:** The City will consider grant funding, cost share programs, or other revenue resources to assist with special projects or implementation of plan goals. Potential sources are outlined in Section 8.

#### 7.5 SUPPORT OF OTHER AGENCIES

Overall Goal: Cooperate and coordinate local surface water management with the work of local WMOs and state agencies.

Goal: Facilitate WMO review of development and redevelopment projects and enforcement of watershed standards.

- **Policy 42:** The City will defer to RCWD and CCWD for review and enforcement of RCWD and CCWD stormwater management standards for all new and redevelopment projects within the jurisdiction of RCWD or CCWD in accordance with their permit programs.
- **Policy 43:** The City will review all new development, redevelopment, or site expansion activities in accordance with the City's surface water management standards. The City will notify and include the applicable WMO in development concept reviews. This policy is consistent with the City's SWPPP.

*Goal:* Cooperate with other organizations to complete management plans and studies for water resources in Spring Lake Park.

**Policy 44:** The City will work with local WMOs, Anoka County, Ramsey County, and others when appropriate and as resources are available to participate in resource management plans or studies that benefit water and natural resources in Spring Lake Park.

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# SECTION 8 – IMPLEMENTATION

# 8.1 OFFICIAL CONTROLS

Codes and ordinances (official controls) are necessary tools supporting implementation of this surface water management plan. Many of the stated goals and policies specifically reference city codes that exist or need to be created. The City's MS4 permit includes a summary of ordinances required to comply with NPDES requirements.

The City has reviewed and revised Stormwater Management Practices sections of the city code to achieve consistency with local watershed plans.

Over time, codes must be updated to remain consistent with goals, policies and practices. The City will periodically review the zoning and subdivision regulations related to surface water management. Table 8.1 lists relevant city codes sections and a history of related actions.

The City will work with the RCWD and CCWD to ensure that developments meet the Districts' permitting requirements.

Official Control	City Code Implementation
Erosion and Sediment Control	Ordinance compliant with the MS4 permit - Passed 12-7-2015 (Chapters 52, 150, and 152).
Illicit Discharge and Connection	Ordinance compliant with the MS4 permit – Passed 2-16-2010 (Chapter 52).
Plan Review and Approval	Update Chapters 150 and 156. Include requirement that no local permits or subdivision approvals will be issued without evidence of watershed district review and approval.
Post Construction Runoff Control	Chapter 150.200 to 150.210 amended on 10-20-2014.
Private Surface Water Facilities Maintenance	Create new ordinance per SWPPP BMP 5-10.
Wetlands, Public Waters, and LGU Responsibilities	Add language to Chapters 150 and 156 to reference requirements and LGU responsibilities.
Floodplain	No action is necessary.
Shoreland	DNR Shoreland Regulations apply, no implementation action is necessary.

#### Table 8.1 – City Code Implementation History and Actions

# 8.2 STORMWATER SYSTEM OPERATION AND MAINTENANCE

Spring Lake Park's existing stormwater management system represents a major investment for the City. The ongoing inspection and maintenance of this existing stormwater management system is critical to protecting this valuable investment. Table 8.2 provides the City's stormwater

system inspection and maintenance schedule. The City's stormwater system maintenance responsibilities include the following:

- Street sweeping
- Cleaning of catch basins
- Repair of catch basins and manholes
- Assessing pipe condition (typically by televising)
- Inspection of storm sewer inlet and outlet structures
- Excavation of accumulated sediments from ponds
- Structural treatment devices, including sump manholes and grit chambers

#### Table 8.2 – Surface Water System Inspection and Maintenance Schedule

BMP <sup>1</sup>	Schedule <sup>1</sup>
Catch basins	Inspected every 5 years, cleaned as needed
Trunk storm sewer	Jetted on a scheduled rotation
Stormwater ponds	Inspected every 5 years, cleaned as needed
Stormwater pond inlets/outlets	Inspected every 5 years, cleaned as needed
Structural treatment devices, including sump manholes and grit chambers	Inspected annually, cleaned as needed
Street sweeping	Twice annually

<sup>1</sup>Staff training regarding proper BMP inspection and maintenance procedures occurs annually

Generally, stormwater system maintenance is funded by the City's general fund. However, with the rising cost of system maintenance and new regulatory responsibilities (MS4 permit, TMDL implementation, etc.), it is recommended the City consider options to provide a consistent, dedicated funding source to specifically address the cost of surface water management.

# 8.3 PHASE II NPDES MS4 IMPLEMENTATION

The MPCA has designated Spring Lake Park as an NPDES Phase II MS4 community (MN Rules 7090). Spring Lake Park is currently in the process of submitting documentation for extension of permit coverage. The process involves an evaluation of the City's current SWPPP to identify areas that need expansion or revision to meet the new MS4 permit requirements. Modifications to the City's current SWPPP could include, but are not limited to the following:

• Review of ordinances.

- Continued public education and public involvement efforts. Increase public education partnerships with RCWD and CCWD.
- Ongoing stormwater system mapping and inventory updates.
- Municipal and private facilities inventory.
- Stormwater system treatment effectiveness evaluation and field assessment.

As the City completes the next SWPPP evaluation process, specific SWPPP update tasks and associated costs will be identified. Until these tasks are identified, only general implementation actions are included in Table 8.3. It is recommended that the City consider possible funding options to provide a consistent, dedicated funding source to pay for the ongoing costs associated with the City's SWPPP implementation.

## 8.4 SYSTEM IMPROVEMENT PROJECTS AND ACTIVITIES

Based on the assessment of the City's current stormwater management program and the implementation items in the preceding sections, a list of system improvement projects and activities has been identified. The system improvements identified range from those being driven by regulatory requirements, to others driven more by the functionality of the City's regional stormwater management system. Table 8.3 presents a summary of recommended stormwater and water resource management projects and activities. The proposed project start dates listed in Table 8.3 are based on priorities as identified by the City Council. The actual timing of projects will be largely dependent upon available grant funding. The budget amounts included in this table should be considered planning-level cost estimates, with more specific cost estimates to be determined as the project or activity approaches.

For capital improvement projects, the City will continue to rely on its five-year capital improvement planning process to schedule and plan for funding these projects. This planning process is updated periodically by City staff and reviewed and approved by the City Council. The items listed in Table 8.3 will be used as a reference for projects and activities specific to stormwater and water resources management to be included in the capital improvement planning process.

Project	Description	Estimated Cost	Potential Funding	Comments	Proposed Start
Street Sweeping	Sweep streets once in the spring and once in the fall.	\$8,000 annually	Annual budget	Addresses water quality and excessive sediment issues.	Ongoing
Annual Stormwater System Inspection and Maintenance	Inspection and maintenance of the City's stormwater system	\$2,000 annually	Annual budget	Includes pond and storm sewer inspection, cleaning, and maintenance in accordance with the City's SWPPP.	Ongoing
Annual NPDES Reporting	Writing and administering MS4 annual reports	\$8,000 annually	Annual budget	Addresses maintenance issues.	Ongoing
Review Funding Options	Review funding options available to the City.	\$2,000	Budget	Considers affordability issue.	2019
General SWPPP Implementation	Education coordination with the local WMOs, staff training, website updates, mailings etc.	\$5,000 annually plus city staff time that varies	Annual budget	This is expected to be an on-going activity throughout the term of this LSWMP, should coordinate efforts with the ACD, RCWD, and CCWD	Ongoing
Monroe Street and 81 <sup>st</sup> Avenue Improvements	Provide water management and water quality improvements.	\$500,000	Grants and/or bonding	Provide infiltration and storage as outlined in 2018 SLP drainage report. Addresses water quality and excessive peak flow issues.	2028
Terrace Street and 78 <sup>th</sup> Avenue Improvements	Provide water management and water quality improvements.	\$200,000	Grants and/or bonding	Provide infiltration area as outlined in 2018 SLP drainage report. Addresses water quality and excessive peak flow issues.	2026
Fillmore Street and 83 <sup>rd</sup> Avenue Pond	Water management and quality improvements.	\$50,000	Grants and/or bonding	Enlarge pond and add infiltration per 2018 SLP drainage report. Addresses water quality and excessive peak flow issues.	2019 or 2020
Private Surface Water Facilities Maintenance Ordinance	Draft and implement a private surface water facilities maintenance ordinance.	\$10,000	Budget	Includes an inventory and creating a list of private facilities in the City	2019
Triangle Park Drainage Area	Miscellaneous water quality improvements.	\$70,000	Budget	As outlined in 2018 SLP drainage report. Addresses water quality and excessive peak flow issues.	2018

# Table 8.3 – System Capital Improvement Projects (CIP) and Activities

Project	Description	Estimated Cost	Potential Funding	Comments	Proposed Start
81 <sup>st</sup> Avenue Garfield Area Pond	Water management and quality improvements.	\$499,000	Grant such as RCWD USWR or BWSR WBFPP, and/or bonding	Provide infiltration swale as outlined in 2018 SLP drainage report. Addresses water quality and Spring Lake low water level issues.	2019
North of Hill View Road and east of Pleasant View Drive	Water management and quality improvements	\$10,000	Grant such as RCWD USWR or BWSR WBFPP or private	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2025
Pleasant View Drive and 79 <sup>th</sup> Avenue	Water management and quality improvements	\$15,000	RCWD Demonstration Project	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2020
West of Pleasant View Dr. & south of 81 <sup>st</sup> Ave. (VFW)	Water management and quality improvements	\$100,000	Grant such as RCWD USWR or BWSR WBFPP or private	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2026
East of Spring Lake Park Road and South of County Road 10	Water management and quality improvements	\$5,000	Grant such as RCWD USWR or BWSR WBFPP or private	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2027
East of Spring Lake Park Road and South of County Road 10 (Spring Lake Park Auto)	Park Road Water South of management nty Road and quality pring Lake improvements		Grant such as RCWD USWR or BWSR WBFPP or private	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2028

# Table 8.3 contd. – System Capital Improvement Projects (CIP) and Activities

## CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

# **8.5 FUTURE IMPLEMENTATION ACTIVITIES**

These future activities generally include coordination efforts with other agencies or potential activities that have yet to be finalized. These future implementation activities identified below are relevant to overall stormwater management within the City and should be considered in future Capital Improvement Plan discussions.

# 8.5.1 TOTAL MAXIMUM DAILY LOAD (TMDL) STUDIES

As discussed in Section 6.4, at this time there are no water bodies within Spring Lake Park that are listed on the Minnesota Pollution Control Agency's List of Impaired Waters. However, drainage from Spring Lake Park ultimately discharges into a few impaired waters, including: Spring Brook Creek, Rice Creek, and the Mississippi River.

The City recognizes that the responsibility for completion and implementation of the TMDL studies lies with the primary stakeholders contributing to the impairment. The City intends to cooperate with the local WMOs and other agencies in the development of the TMDL studies, acknowledging that these outside agencies will take the lead on these studies. It is the intention of the City to implement the items/actions identified in future TMDL implementation plans, funding the implementation items/actions as necessary.

The Upper Mississippi River Bacteria TMDL focuses on the bacteria impairments of tributaries of the Mississippi River, including Rice Creek. The City will continue to enforce its animal waste ordinance to reduce bacteria loading to these water bodies. The City will work with the RCWD to identify further strategies to address degraded stormwater runoff quality.

#### 8.5.2 ADDRESS DEGRADED WATER QUALITY IN SPRING LAKE

In 2009, RCWD finalized the Spring Lake Management Action Plan (MAP). This plan summarizes water quality of Spring Lake, and details watershed management approaches. In addition to this plan, RCWD completed Phase II of the Southwest Urban Lakes Study. This study details issues and recommendations for twenty-four lakes within RCWD jurisdiction.

RCWD identifies specific programs on their website (www.ricecreek.org) that are available to provide funding assistance to Spring Lake Park for stormwater management improvements, including:

- RCWD Urban Stormwater Remediation Cost-Share Program
- RCWD Water Quality Grant Program
- RCWD Mini-Grant Program

# 8.5.3 URBAN WATER QUALITY RETROFIT PROJECTS

The City will take advantage of opportunities in developed areas to install retrofit water quality improvement BMPs to improve the overall water quality in the City. The City will also consider working with private property owners to implement improvement projects to improve water



# CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

quality. RCWD identifies specific programs on their website (www.ricecreek.org) that could be applied when partnering with Spring Lake Park, including:

- RCWD Urban Stormwater Remediation Cost-Share Program
- RCWD Water Quality Grant Program
- RCWD Mini-Grant Program

### 8.5.4 CCWD WATER QUANTITY, QUALITY, AND EROSION ISSUES

Spring Lake Park recognizes that certain downstream waters within the jurisdiction of CCWD that receive discharge from the City are sensitive to the quality, volume, and rate of stormwater runoff. Degraded water quality and erosion issues in Spring Brook Creek, Stony Brook Creek, and the Spring Brook wetland have been identified by the CCWD, as identified in Table 6.3. Spring Lake Park will look for opportunities to improve the quality, volume, and rate of stormwater runoff through redevelopment activities within the City. The City will also support, as appropriate, the City of Fridley and the CCWD in developing specific projects aimed at improving water quality and erosion issues within these waters.

# 8.6 POTENTIAL FUNDING

Implementation of the proposed improvements and programs identified in this plan will affect City finances. Below is a listing of various revenue sources that the City will attempt to utilize:

- City Funds including franchise fees, the Stormwater Utility fund, City's General fund.
- Grant and partnership monies from various agencies for projects.
- Cost-share programs for projects being completed by or in RCWD, including watershed district levies (Minnesota Statutes Chapter 103D.905). Specific information regarding the most current RCWD cost share programs can be found on their website.
- Special assessments for local improvements under authority of Statutes Chapter 429.
- Revenue generated by Watershed Management Special Tax Districts provided for under Minnesota Statutes Chapter 473.882.
- Other sources potentially including tax increment financing, tax abatement, state aid, and others.

The City's current primary funding source for improvements identified in this LSWMP is the City's General fund. However, with the rising cost of system maintenance and new regulatory responsibilities (MS4 permit, TMDL implementation, etc.), it is recommended the City consider various funding options to provide a consistent, dedicated funding source to specifically address the cost of surface water management. This recommendation is consistent with Policy 41 in this LSWMP.

# CITY OF SPRING LAKE PARK - LOCAL SURFACE WATER MANAGEMENT PLAN

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# SECTION 9 – ADMINISTRATION

# 9.1 REVIEW AND ADOPTION PROCESS

Review and adoption of this Surface Water Management Plan will follow the procedure outlined in Minnesota Statutes 103B.235:

'After consideration but before adoption by the governing body, each local unit shall submit its water management plan to the watershed management organization for review for consistency with the watershed plan adopted pursuant to section 103B.231...The organization shall approve or disapprove the local plan or parts of the plan. The organization shall have 60 days to complete its review; provided, however, that the watershed management organization shall, as part of its review, consider the comments submitted to it by the Metropolitan Council pursuant to subdivision 3a. If the organization fails to complete its review within the prescribed period, the local plan shall be deemed approved unless an extension is agreed to by the local unit.'

'Concurrently with its submission of its local water management plan to the watershed management organization as provided in subdivision 3, each local unit of government shall submit its water management plan to the Metropolitan Council for review and comment by the council. The council shall have 45 days to review and comment upon the local plan or parts of the plan with respect to consistency with the council's comprehensive development guide for the metropolitan area. The council's 45-day review period shall run concurrently with the 60-day review period by the watershed management organization and shall send a copy of its comments to the local government unit. If the Metropolitan Council fails to complete its review and make comments to the watershed management organization within the 45-day period, the watershed management organization shall complete its review as provided in subdivision 3.'

'After approval of the local plan by the organization, the local government unit shall adopt and implement its plan within 120 days and shall amend its official controls accordingly within 180 days.'

# 9.2 PLAN AMENDMENTS AND FUTURE UPDATES

The Spring Lake Park Local Surface Water Management Plan will be incorporated into the City's Comprehensive Plan, revised every ten years. Periodic amendments following the Comprehensive Plan cycle may be required to incorporate changes in local practices. Plan amendments will be incorporated by following the review and adoption steps outlined above. Major amendments will be sent to the RCWD, CCWD, and Metropolitan Council for review prior to City approval.

# **Appendix A** Stormwater Management System Information



	Appendix A - Surface Water System Information <sup>1</sup>											
	Tributary Area				100-year Storm Event				Basin Area			
Drainage Area ID	Direct	Indirect from Upstream	Total	Basin NWL	Total Runoff Volume	HWL	Storage Volume	Peak Outflow	At NWL	Outlet Size	Comments	
	(acres)	(acres)	(acres)	(feet)	(ac-ft)	(feet)	(ac-ft)	(cfs)	(acres)			
SpBC-A1	50.1	0.0	50.1		16.6			74		15" pipes	Discharges to University Avenue system	
SpBC-A2	80.9	0.0	80.9		35.0			459		27" pipe	Discharges to University Avenue system	
StBC-A1	70.2	0.0	70.2		26.8			251		33" pipe	Discharge to Fridley trunk storm sewer	
StBC-A2	233.0	296.4	529.4		150.6			467		60" pipe	Peak discharge and volume from StBC-A2, A3, and A4 to Fridley trunk storm sewer.	
StBC-A3	138.1	0.0	138.1		53.2					27" pipe	Drains to StBC-A2	
StBC-A4	158.3	0.0	158.3		78.6					36" pipe	Drains to StBC-A2	
LL-A1	174.2	0.0	174.2	903.0	78.6				77.0	15" pipe	Laddie Lake information from the Coon Creek WD Watershed Management Plan.	
SL-A1	144.8	0.0	144.8	902.9	60.8	904.8	180.0	3	60.2	12" pipe	Spring Lake info from the RCWD WMP and Phase 1 Urban Shallow Lakes Report, 100-yr critical event = 10-day runoff event	
RC-A1	124.1	304.4	428.5		113.5			290			Peak discharge and volume from RC-A1, A2, A3, and SL-A1 to Fridley trunk storm sewer.	
RC-A2	71.6	0.0	71.6	899.5	45.9	904.3	13.6	18	1.4	15" pipe	Discharges into the County Rd 35 (Old Central Avenue) storm sewer	
RC-A3	88.0	0.0	88.0		39.7			78		18" pipe	Ties into the County Rd 35 (Old Central Avenue) storm sewer	

<sup>1</sup>Modeling information from City XPSWMM model created for the 2018 LSWMP, unless otherwise noted <sup>·</sup> Updated XPSWMM model includes both piped flow and overland flows (i.e. street flows) experienced during large storm events.

# Appendix B Watershed District Rules Rice Creek Watershed District (RCWD) Coon Creek Watershed District (CCWD)



# **RICE CREEK WATERSHED DISTRICT RULES**

## BOARD APPROVED: DECEMBER 14, 2016 EFFECTIVE DATE: JANUARY 1, 2017

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#### CERTIFICATION OF REVISED WATERSHED DISTRICT RULES

I, Michael J. Bradley, Secretary of the Rice Creek Watershed District Board of Managers, certify that the attached is a true and correct copy of the Rules of the Rice Creek Watershed District as revised and adopted by the Board of Managers on December 14, 2016, and effective January 1, 2017.

Dated: 12-14-2016

lev. Secretai

#### ACKNOWLEDGEMENT

State of Minnesota County of Anoka

This instrument was acknowledged before me on December 14, 2016, by Michael J. Bradley, as Secretary of the Rice Creek Watershed District Board of Managers.



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Notary Public

# **GENERAL POLICY STATEMENT**

The Rice Creek Watershed District (District) is a political subdivision of the State of Minnesota, established under the Minnesota Watershed Law. The District is also a watershed management organization as defined under the Minnesota Metropolitan Surface Water Management Act, and is subject to the directives and authorizations in that Act. Under the Watershed Law and the Metropolitan Surface Water Management Act, the District exercises a series of powers to accomplish its statutory purposes. The District's general statutory purpose is to conserve natural resources through development planning, flood control, and other conservation projects, based upon sound scientific principles.

As required under the Metropolitan Surface Water Management Act, the District has adopted a Watershed Management Plan, which contains the framework and guiding principles for the District in carrying out its statutory purposes. It is the District's intent to implement the Plan's principles and objectives in these rules.

Land alteration affects the rate, volume, and quality of surface water runoff which ultimately must be accommodated by the existing surface water systems within the District. The watershed is large, 186 square miles, and its outlet, Rice Creek, has limited capacity to carry flows. Flooding problems already occur in urbanized areas along Lower Rice Creek and other localized areas.

Land alteration and utilization also can degrade the quality of runoff entering the streams and waterbodies of the District due to non-point source pollution. Lake and stream sedimentation from ongoing erosion processes and construction activities reduces the hydraulic capacity of waterbodies and degrades water quality. Water quality problems already exist in many of the lakes and streams throughout the District.

Projects which increase the rate or volume of stormwater runoff can aggravate existing flooding problems and contribute to new ones. Projects which degrade runoff quality can aggravate existing water quality problems and contribute to new ones. Projects which fill floodplain or wetland areas can aggravate existing flooding by reducing flood storage and hydraulic capacity of waterbodies, and can degrade water quality by eliminating the filtering capacity of those areas.

In these rules the District seeks to protect the public health and welfare and the natural resources of the District by providing reasonable regulation of the modification or alteration of the District's lands and waters to reduce the severity and frequency of flooding and high water, to preserve floodplain and wetland storage capacity, to improve the chemical, physical and biological quality of surface water, to reduce sedimentation, to preserve waterbodies' hydraulic and navigational capacity, to preserve natural wetland and shoreland features, and to minimize public expenditures to avoid or correct these problems in the future.

The District rules include certain rules adopted to implement area-specific Comprehensive Wetland Protection and Management Plans (CWPMP) as provided under the Wetland Conservation Act (WCA). CWPMPs are designed to achieve identified wetland resource management needs within specific drainage areas of the watershed. These rules (within Rule F) apply to a delineated geographic area. Accordingly, a property owner intending an activity subject to District permitting requirements first should determine whether the activity will be governed by the CWPMP rule.

# RELATIONSHIP OF RICE CREEK WATERSHED DISTRICT TO MUNICIPALITIES

The District recognizes that the primary control and determination of appropriate land uses is the responsibility of the municipalities. Accordingly, the District will coordinate permit application reviews involving land development with the municipality where the land is located.

The District intends to be active in the regulatory process to ensure that its water resources are managed in accordance with District goals and policies. Municipalities have the option of assuming a more active role in the permitting process after adoption of a local water management plan approved by the District and adoption and implementation of local ordinances consistent with the approved plan.

The District will also review projects sponsored or undertaken by municipalities and other governmental units, and generally will require permits for governmental projects impacting water resources of the District. These projects include but are not limited to, land development, road, trail, and utility construction and reconstruction.

The District desires to serve as technical advisor to the municipalities in their preparation of local surface water management plans and the review of individual development proposals prior to investment of significant public or private funds. To promote a coordinated review process between the District and the municipalities, the District encourages the municipalities or townships to contact the District early in the planning process.

# **RULE A: DEFINITIONS**

For the purposes of these rules, the following words have the meanings set forth below.

References in these rules to specific sections of the Minnesota Statutes include any amendments, revisions or recodification of those sections.

As Constructed and Subsequently Improved Condition (ACSIC): the geometry of the public drainage system as constructed, including all subsequent legal repairs and alterations.

**Beds of Protected Waters:** all portions of public waters and public waters wetlands located below the ordinary high water level.

**Best Management Practices (BMPs):** measures taken to minimize the negative effects on water resources and systems as referenced in the <u>Minnesota Construction Site Erosion and Sediment Control</u> <u>Planning</u> <u>Handbook (BWSR, 1988)</u>, <u>Protecting Water Quality in Urban Areas (MPCA, 1989)</u> and the <u>Minnesota</u> <u>Stormwater Manual (MPCA, 2006)</u> or similar guidance documents.

**Better Site Design (BSD):** an approach to managing runoff that seeks to attain post development hydrology which mimics the undeveloped condition in terms of volume, rate and timing of runoff. The goals of Better Site Design include reducing the amount of impervious cover, increasing the amount of natural lands set aside for conservation, using pervious areas for more effective stormwater treatment, innovative grading and drainage techniques and through the review of every aspect of the project site planning process. Better Site Design involves techniques applied early in the design process to reduce impervious cover, conserve natural areas and use pervious areas to more effectively treat stormwater runoff and promote a treatment train approach to runoff management.

**Bridge:** a road, path, railroad or utility crossing over a waterbody, wetland, ditch, ravine, road, railroad, or other obstacle.

Bridge Span: the clear span between the inside surfaces of a bridge's terminal supports.

**Channel:** a perceptible natural or artificial depression, with a defined bed and banks that confines and conducts water flowing either continuously or periodically.

**Comprehensive Wetland Protection and Management Plan (CWPMP):** a locally developed comprehensive wetland protection and management plan approved by the Minnesota Board of Soil and Water Resources, pursuant to Minnesota Rules 8420.0830.

**Criteria:** specific details, methods and specifications that apply to all permits and reviews and that guide implementation of the District's goals and policies.

**Critical Duration Flood Event:** the 100-year precipitation or snow melt event with a duration resulting in the maximum 100-year return period water surface elevation. The critical duration flood event is generally either the 100-year, 24-hour rainfall event as found in <u>NOAA Atlas 14</u> or the ten-day snow melt event assumed to be 7.2 inches of runoff occurring on frozen ground (CN=100); however, other durations (e.g., 6-hour) may result in the maximum 100 year return period water surface elevation.

**CWPMP Contributing Drainage Area:** the areas tributary to CWPMP jurisdictional areas from which banked or off-site wetland replacement credits may be used to replace wetland impacts under Rule F.6(c). Figure 4 illustrates the Contributing Drainage Area; however, the precise boundary will be determined on a hydrologic basis at the time of permitting.

**Detention Basin:** any natural or man-made depression that stores stormwater runoff temporarily.

**Development:** any land-disturbing activity resulting in creation or reconstruction of impervious surface including, but not limited to, municipal road construction. Normal farming practices part of an ongoing farming operation shall not be considered development.

**District:** the Rice Creek Watershed District established under the Minnesota Watershed Law, Minnesota Statutes Chapter 103D.

**Drainage System:** a system of open channel, pipe or tile, to drain property, including laterals, improvements, and improvements of outlets, which may or may not be a public system under the jurisdiction of the District under Minnesota Statutes Chapters 103B, 103D, or 103E.

**Effectively Drained Wetland:** an area whose natural hydrology has been altered to the point that it is no longer considered wetland.

**Emergency Overflow (EOF):** a primary overflow to pass flows above the design capacity around the principal outlet safely downstream without causing flooding.

**Excavation:** the displacement or removal of soil, sediment or other material.

**Floodplain:** the areas adjoining a waterbody that are inundated during the 100-year flood.

**Floodway:** the channel of a watercourse, the bed of waterbasins and those portions of adjoining floodplains that must be kept free of encroachment to accommodate the 100-year flood.

Floodway Fringe: the area between the floodway and the boundary of the 100-year flood.

**Flood Management Zone:** land within the Rice Creek Watershed District draining to and entering Rice Creek downstream from the outlets of Baldwin Lake and Golden Lake.

**Freeboard:** vertical distance between the 100-year flood elevation or emergency overflow elevation of a waterbasin or watercourse and the elevation of the regulatory elevation of a structure.

Governmental Project: projects sponsored or paid for by a governmental agency.

**High Quality Wetland:** an existing wetland reflecting a score of "high/high" for the functional indicators "outlet condition" and "vegetative quality", respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

**Impervious Surface:** a compacted surface or a surface covered with material (i.e., gravel, asphalt, concrete, Class 5, etc.) that increases the depth of runoff compared to natural soils and land cover. Including but not limited to roads, driveways, parking areas, sidewalks and trails, patios, tennis courts, basketball courts, swimming pools, building roofs, covered decks, and other structures.

Infiltration: water entering the ground through the soil.

Land-Disturbing Activity: any disturbance to the ground surface that, through the action of wind or water, may result in soil erosion or the movement of sediment into waters, wetlands or storm sewers or onto adjacent property. Land-disturbing activity includes but is not limited to the demolition of a structure or surface, soil stripping, clearing, grubbing, grading, excavating, filling and the storage of soil or earth materials. The term does not include normal farming practices as part of an ongoing farming operation.

**Landlocked Basin:** a waterbasin lacking an outlet at an elevation at or below the water level produced by the critical duration flood event, generally the 10-day snowmelt event.

**Local Government Unit (LGU):** the public body responsible for implementing the Minnesota Wetland Conservation Act, as defined at Minnesota Statutes §103G.005, subdivision 10e.

Low Entry Elevation: the elevation of the lowest opening in a structure.

**Low Floor Elevation:** the elevation of the lowest floor of a habitable or uninhabitable structure, which is often the elevation of the basement floor or walk-out level.

Major Watercourse: any watercourse having a tributary area of 200 acres or more.

**Marginally Degraded Wetland**: an existing wetland reflecting a score of "high/low" or "low/high" for the functional indicators "outlet condition" and "vegetative quality", respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

**Mill, Reclamation and Overlay:** removal of the top layer(s) of an impervious surface (e.g. roadway, parking lot, sport court) by mechanical means, followed by the placement of a new layer of impervious surface, without exposure of the underlying native soil.

**Moderately Degraded Wetland:** an existing wetland reflecting a score of "medium/medium" or "low/medium" for the functional indicators "outlet condition" and "vegetative quality", respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

**Municipal Separate Storm Sewer System (MS4):** the system of conveyances owned or operated by the District and designed or used to collect or convey storm water, and that is not used to collect or convey sewage.

Municipality: any city or township wholly or partly within the Rice Creek Watershed District.

**Native Vegetation:** plant species that are indigenous to Minnesota or that expand their range into Minnesota without being intentionally or unintentionally introduced by human activity and that are classified as native in the Minnesota Plant Database.

**NPDES Permit:** general permit authorization to discharge storm water associated with construction activity under the National Pollutant Discharge Elimination System (NPDES), issued by the Minnesota Pollution Control Agency.

**Non-Degraded Wetland:** an existing wetland reflecting a score of "high/medium" or "medium/high" for the functional indicators "outlet condition" and "vegetative quality", respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

**Non-Invasive Vegetation:** plant species that do not typically invade or rapidly colonize existing, stable plant communities.

**NURP:** Nationwide Urban Runoff Program.

**100-Year Flood Elevation:** the elevation of water resulting from the critical duration flood event.

**Ordinary High Water Level (OHW):** the highest water level elevation that has been maintained for a sufficiently long period of time to leave evidence upon the landscape. The OHW is commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. If an OHW has been established for a waterbody by the Minnesota Department of Natural Resources, it will constitute the OHW under this definition.

**Parcel:** a lot of record in the office of the county recorder or registrar or that otherwise has a defined legal existence.

**Person:** any natural person, partnership, unincorporated association, corporation, limited liability company, municipal corporation, state agency, or political subdivision of the State of Minnesota.

**Political Subdivision:** a municipality, county, town, school district, metropolitan or regional agency, or other special purpose district of Minnesota.

**Pollutant:** Anything that causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind. (This definition is for the purpose of Rule H only and is incorporated from the U.S. EPA model ordinance.)

**Public Linear Project:** a project involving a roadway, sidewalk, trail or utility not part of an industrial, commercial, institutional or residential development.

**Public Waters:** waters identified as public waters under Minnesota Statutes section 103G.005, Subdivision 15.

**Public Waters Wetlands:** all wetlands identified as public waters wetlands under Minnesota Statutes section 103G.005, subdivision 15a.

**Reconstruction:** removal of an impervious surface such that the underlying structural aggregate base is effectively removed and the underlying native soil exposed.

**Resource of Concern:** lakes classified as Tier I, Tier II, Tier III and Tier IV within Table 4-6 of the District's 2010 Watershed Management Plan and subsequently amended Watershed Management Plans approved by BWSR. If an area within the jurisdictional boundary of the District drains to a location outside the District without reaching an ROC, the District will identify the receiving water outside of the District that is the ROC for the purpose of the permit.

**Resource of Concern Drainage Area:** Land draining to a Resource of Concern. The Resource of Concern drainage area excludes lands draining first to an upstream Resource of Concern.

**Seasonal High Water Table:** The highest known seasonal elevation of groundwater as indicated by redoximorphic features such as mottling within the soil.

**Severely Degraded Wetland:** an existing wetland reflecting a score of "medium/low" or "low/low" for the functional indicators "outlet condition" and "vegetative quality", respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

**Site:** All contiguous lots of record on which activity subject to any District rule is proposed to occur or occurs, as well as all other lots of record contiguous to any such lot under common ownership at the time of the permitted activity. Linear right of way does not disturb contiguity. For public linear projects not occurring in conjunction with land development, the term means the portion of right-of-way defined by the project work limits.

Storm Sewer: a pipe system for stormwater conveyance.

Stormwater Pond: Constructed basins placed in the landscape to capture stormwater runoff.

**Structure:** a building with walls and a roof, excluding structures such as pavilions, playgrounds, gazebos, and garbage enclosures.

**Subdivision, Subdivide:** the legal separation of an area, parcel, or tract of land under single ownership into two or more parcels, tracts, lots.

Technical Evaluation Panel (TEP): The body described in Minnesota Rules 8420.0240.

**Upland Habitat Area:** A non-wetland area that is contiguous with an existing, restored, or created wetland and scores "C" or better using the Natural Heritage Ranking methodology.

Waterbasin: an enclosed natural depression with definable banks capable of containing water.

Waterbody: a waterbasin, watercourse or wetland as defined in these Rules.

**Watercourse:** a channel that has definable beds and banks capable of conducting confined runoff from adjacent land.

Wetland: area identified as wetland under Minnesota Statutes section 103G.005, subdivision 19.

**Wetland Management Corridor (WMC):** A contiguous corridor encompassing high priority wetland resources identified at a landscape scale in Figure F1 and refined at the time of individual project permitting at a site level as provided for in Rule F, section 6.

# **RULE B: PROCEDURAL REQUIREMENTS**

- 1. APPLICATION AND NOTICE OF INTENT REQUIRED. Any person undertaking an activity for which a permit is required by these rules must obtain the required permit prior to commencing the activity that is subject to District regulation. Applications for permit must be submitted to the District in accordance with the procedures described in this rule. Required exhibits are specified for each substantive rule below. Applicants are encouraged to contact District staff before submission of an application to review and discuss application requirements and the applicability of specific rules to a proposed project. When the rules require a criterion to be met, or a technical or other finding to be made, the District makes the determination except where the rule explicitly states otherwise. The landowner or, in the District's judgment, easement holder, must sign the permit application and will be the permittee or a co-permittee. For governmental projects, the selected contractor may sign the application on behalf of the governmental applicant.
- 2. FORMS. A District permit application or notice of intent, and District checklist of permit submittal requirements, must be submitted on the forms provided by the District. Applicants may obtain forms from the District office or website at <a href="http://www.ricecreek.org/permits">http://www.ricecreek.org/permits</a>.
- 3. ACTION BY BOARD OF MANAGERS. The Board of Managers shall act within sixty days of receipt of a complete permit application. A complete permit application includes all required information, exhibits, and fees. An application will not be ready for Board consideration unless all substantial technical questions have been addressed and all substantial plan revisions resulting from staff review have been accomplished. Permit decisions will be made by the Board except as delegated to the Administrator by written resolution.
- 4. **ISSUANCE OF PERMITS.** The permit will be issued only after applicant has satisfied all requirements and conditions for the permit, has paid all required District fees, and the District has received any required surety.
- 5. CONDITIONAL APPROVAL PENDING RECEIPT OF CHANGES (CAPROC). The District may conditionally approve an application, but such approval does not result in the issuance of a permit until all conditions precedent to the approval have been resolved. All conditions must be satisfied within twelve (12) months of the date of conditional approval. If a permit is not obtained within the 12-month period, the applicant will be required to reapply for a permit and pay applicable permit fees.
- 6. **PERMIT TERM.** Permits are valid for an eighteen-month period from the date of issuance unless otherwise stated within the permit, suspended or revoked. To extend a permit, the permittee must apply to the District in writing, stating the reasons for the extension. Any plan changes, and related project documents must also be included in the extension application. The District must receive this application at least thirty (30) days prior to the permit expiration date. The District may impose different or additional conditions on a renewal or deny the renewal in the event of a material change in circumstances. On the first renewal, a permit will not be subject to change because of a change in District rules. An extended stormwater management permit for phased development may be issued pursuant to Rule C.13.

- 7. **PERMIT ASSIGNMENT.** A permittee must be assigned when title to the property is transferred or, if the permittee is an easement holder, in conjunction with an assignment of the easement. The District must approve a permit assignment and will do so if the following conditions have been met:
  - (a) The proposed assignee in writing agrees to assume all the terms, conditions and obligations of the permit as originally issued to the permittee;
  - (b) The proposed assignee has the ability to satisfy the terms and conditions of the permit as originally issued;
  - (c) The proposed assignee is not changing the project as originally permitted;
  - (d) There are no violations of the permit conditions as originally issued; and
  - (e) The District has received from the proposed assignee a substitute surety to secure performance of the assigned permit.

Until assignment is approved, the permittee of record as well as the current title owner will be responsible for permit compliance.

8. **PERMIT FEES.** The District will charge applicants permit fees in accordance with a schedule that will be maintained and revised from time to time by the Board of Managers to ensure that permit fees cover the District's actual costs of administrating and enforcing permits. The current fee schedule may be obtained from the District office or the District website at <a href="http://www.ricecreek.org/permits">http://www.ricecreek.org/permits</a>. An applicant must submit the required permit fee to the District at the time it submits its permit application. No permit fee will be charged to the federal government, the State of Minnesota or a political subdivision of the State of Minnesota.

#### 9. PERFORMANCE SURETY.

- (a) **POLICY.** It is the policy of the Board of Managers to conserve the District's water resources by assuring compliance with its rules. The District ensures compliance by requiring a bond or other surety to secure performance of permit conditions and compliance with District rules, as well as protection of District water resources in the event of noncompliance with permit conditions and/or rules. A project for which the applicant is the federal government, the State of Minnesota or a political subdivision of the State of Minnesota is exempt from surety requirements.
- (b) **PERFORMANCE SURETY REQUIREMENT.** A surety or sureties, when required, must be submitted in a form acceptable to the District. When a cash escrow is used, it will be accompanied by an escrow agreement bearing the original signature of the permittee and the party providing the escrow, if not the permittee. The District will require applicants to submit a surety or sureties in accordance with a schedule of types and amounts that will be maintained and revised from time to time by the Board of Managers. The current schedule of surety amounts and acceptable forms and sources as well as surety agreement may be obtained from the District office or the District website at <a href="http://www.ricecreek.org/permits">http://www.ricecreek.org/permits</a>.

An applicant may submit a bond or an irrevocable letter of credit to the District to secure performance of permit conditions for activities for which the required surety amount as determined above is in excess of \$5,000; however, the first \$5,000 of any performance surety must be submitted to the District as a cash escrow. The bond or letter of credit must be submitted before the permit is issued.

#### (c) FORM AND CONTENT OF BOND OR LETTER OF CREDIT.

- (1) The bond or irrevocable letter of credit must be in a form acceptable to the District and from a surety licensed to do business in Minnesota.
- (2) The bond or irrevocable letter of credit must be in favor of the District and conditioned upon the performance of the party obtaining the bond or letter of credit of the activities authorized in the permit, and compliance with all applicable laws, including the District's rules, the terms and conditions of the permit and payment when due of any fees or other charges required by law, including the District's rules. The bond or irrevocable letter of credit must provide that if the bond conditions are not met, the District may make a claim against the bond or letter of credit.
- (d) RELEASE OF PERFORMANCE SURETY. Upon written notification from permittee of completion of the permitted project, the District will inspect the project to determine if it is constructed in accordance with the terms of the permit and District rules. If the project is completed in accordance with the terms of the permit and District rules and the party providing the performance surety does not have an outstanding balance of money owed to the District for the project, including but not limited to unpaid permit fees, the District will release the bond or letter of credit, or return the cash surety if applicable. Final inspection compliance includes, but is not limited to, confirmation that all erosion and sediment control BMPs and stormwater management features have been constructed or installed as designed and are functioning properly, and completion of all required monitoring of wetland mitigation areas. The District may return a portion of the surety if it finds that a portion of the surety is no longer warranted to assure compliance with District rules.

# **RULE C: STORMWATER MANAGEMENT PLANS**

- 1. **POLICY.** It is the policy of the Board of Managers to manage stormwater and snowmelt runoff on a local, regional and watershed basis; to promote natural infiltration of runoff throughout the District to preserve flood storage and enhance water quality; and to address the unique nature of flooding issues within the Flood Management Zone, through the following principles:
  - (a) Maximize water quality and flood control on individual project sites through Better Site Design practices and stormwater management.
  - (b) Minimize land use impacts and improve operational and maintenance efficiency by siting stormwater BMPs, when needed, regionally unless local resources would be adversely affected.
  - (c) Treat stormwater runoff before discharge to surface waterbodies and wetlands, while considering the historic use of District water features.
  - (d) Ensure that future peak rates of runoff are less than or equal to existing rates.
  - (e) Reduce the existing conditions peak rate of discharge along Lower Rice Creek and the rate of discharge and volume of runoff reaching Long Lake, to preserve the remaining floodplain storage volume within Long Lake and mitigate the historic loss of floodplain storage.
  - (f) Preserve remaining floodplain storage volume within the Rice Creek Watershed to minimize flood potential throughout the District.
- **2. REGULATION.** A permit incorporating an approved stormwater management plan is required under this rule for development, consistent with the following:
  - (a) A permit is required for subdivision of an area exceeding one acre. This includes subdivision for single-family residential, multi-unit residential, commercial, industrial, or institutional development.
  - (b) A permit is not required for single-family residential construction on an individual lot of record. If the lot is within a development previously approved by the District, the construction must conform to the previous approval.
  - (c) A permit is required for development, other than Public Linear Projects, that creates or reconstructs 10,000 square feet or more of impervious surface. This threshold is cumulative of all impervious surface created or reconstructed through multiple phases or connected actions of a single complete project, as defined by the District, on a single parcel or contiguous parcels of land under common ownership, development or use.
  - (d) For Public Linear Projects, a permit is required to create 10,000 square feet or more of impervious surface through multiple phases or connected actions of a single complete project, as defined by the District, within a Resource of Concern Drainage Area.
  - (e) Rule C requirements do not apply to sidewalks and trails 10 feet wide or less that are bordered down-gradient by vegetated open space or vegetated filter strip with a minimum width of 5 feet.
  - (f) Rule C requirements do not apply to Bridge Spans and Mill, Reclamation & Overlay projects.
  - (g) Rule C.6 requirements do not apply to single family residential subdivisions creating

seven or fewer lots that:

- (1) Establish no new public roadway; and
- (2) Include no private roadway/driveway serving three or more lots.

Rate control provisions of Rule C.7 still apply.

3. STORMWATER MANAGEMENT PLAN REQUIRED. A stormwater management plan shall be submitted with the permit application for a project equaling or exceeding the threshold of Section 2. The stormwater management plan shall fully address the design and function of the project proposal and the effects of altering the landscape relative to the direction, rate of discharge, volume of discharge and timing of runoff.

# 4. MODELING REQUIREMENTS FOR STORMWATER MANAGEMENT PLANS.

- (a) A hydrograph method or computer program based on <u>NRCS Technical Release #20 (TR-20)</u> and subsequent guidance must be used to analyze stormwater runoff for the design or analysis of discharge and water levels within and off the project site. The runoff from pervious and impervious areas within the model shall be modeled separately.
- (b) In determining Curve Numbers for the post-development condition, the Hydrologic Soil Group (HSG) of areas within construction limits shall be shifted down one classification for HSG B (Curve Number 74) and ½ classification for HSG A (Curve Number 49) to account for the impacts of grading on soil structure unless the project specifications incorporate soil amendments in accordance with District Soil Amendment Guidelines. This requirement only applies to that part of a site that has not been disturbed or compacted prior to the proposed project.
- (c) The analysis of flood levels, storage volumes, and discharge rates for waterbodies and stormwater management basins must include the <u>NOAA</u> Atlas 14 values, as amended, for the 2 year, 10 year and 100 year return period, 24-hour rainfall events and the 10-day snowmelt event (Curve Number 100), in order to identify the critical duration flood event. The District Engineer may require analysis of additional precipitation durations to determine the critical duration flood event. Analysis of the 10-day snowmelt event is not required for stormwater management detention basins with a defined outlet elevation at or below the 100 year return period, 24-hour rainfall event elevation.

# 5. STORMWATER MANAGEMENT PLAN FRAMEWORK.

- (a) When an existing regional BMP is proposed to manage stormwater runoff, the applicant shall show that the BMP was designed and constructed to manage the stormwater runoff from the project site, the applicant has permission to utilize any remaining capacity in the BMP, the BMP is subject to maintenance obligations enforceable by the District, and it is being maintained to its original design.
- (b) A combination of Stormwater BMPs may be used to meet the requirements of section(s) 6, 7, and 8.
- (c) A local surface water management plan or ordinance of the local land use authority may contain standards or requirements more restrictive than these rules. The stormwater management plan must conform to the local surface water management plan or ordinance of the local land use authority.

- (d) The proposed project must not adversely affect off-site water levels or resources supported by local recharge, or increase the potential for off-site flooding, during or after construction.
- (e) A landlocked basin may be provided an outlet only if it:
  - (1) Conforms with District Rule F, as applicable.
  - (2) Provides sufficient dead storage volume to retain the runoff resulting from back-toback 100-year, 24-hour rainfall events.
  - (3) Does not create adverse downstream flooding or water quality conditions as a result of the change in the rate, volume or timing of runoff or a change in drainage patterns.
- (f) A municipality or public road authority may prepare a comprehensive stormwater management plan setting forth an alternative means of meeting the standards of sections 6 and 7 within a defined subwatershed. Once approved by the District and subject to any stated conditions, the plan will apply in place of those sections.

#### 6. WATER QUALITY TREATMENT.

- (a) Development creating or reconstructing impervious surface shall apply Better Site Design (BSD) techniques as outlined in Chapter 4 of the <u>MPCA Minnesota Stormwater</u> <u>Manual</u> as amended (www.stormwater.pca.mn.us). A BSD guidance document and checklist is available on the District's website.
- (b) Sediment shall be managed on-site to the maximum extent practicable before runoff resulting from new or reconstructed impervious surface enters the off-site drainage system.

#### (c) WATER QUALITY TREATMENT STANDARD.

(1) The required water quality treatment volume standard for all projects, except Public Linear Projects, is determined as follows:

Required Water Quality Treatment Volume (ft <sup>3</sup> )	=	Area of New or Reconstructed Impervious Surface (ft <sup>2</sup> )	x	1.1 (in)	÷	TP Removal Factor from Table C1	÷	12 (in/ft)	

(2) The required water quality treatment volume standard for Public Linear Projects is determined as follows:

Required Water		Area of New Impervious				
Quality Treatment	=	Surface (ft <sup>2</sup> )	X	0.75 (in)	÷	12 (in/ft)
Volume (ft <sup>3</sup> )						

- (3) For alternative Stormwater BMPs not found in Table C1 or to deviate from TP Removal Factors found in Table C1, the applicant may submit a TP Removal Factor, expressed as annual percentage removal efficiency, based on supporting technical data, for District approval.
- (4) Stormwater runoff treated by the BMP during a rain event will not be credited towards the treatment requirement.

## TABLE C1. TP REMOVAL FACTORS FOR PROPERLY DESIGNED BMPS.

BMP	BMP Design Variation	TP Removal Factor *		
Infiltration **	Infiltration Feature	1.00		
Water Reuse **	Irrigation	1.00		
Biofiltration	Underdrain	0.65		
Filtration	Sand or Rock Filter	0.50		
Stormwater Wetlands	Shallow Wetland	0.40		
Stormwater Wetlands	Pond/Wetland	0.55		
Stormwater Ponds ***	Wet Pond	0.50		
Stornwater Folius	Multiple Pond	0.60		

Source: Adapted from Table 7.4 from the Minnesota Stormwater Manual, MPCA.

\* Refer to MPCA Stormwater Manual for additional information on BMP performance.

Removal factors shown are average annual TP percentage removal efficiencies intended

solely for use in comparing the performance equivalence of various BMPs.

\*\* These BMPs reduce runoff volume.

\*\*\* Stormwater ponds must also provide 2.5" of dead storage as required by Section 9(d)(2).

#### (d) BMP LOCATIONAL SITING.

- (1) BMPs shall be located either on-site to treat runoff at the point of generation, or regionally within the Resource of Concern Drainage Area.
- (2) If infiltration is feasible on site (see Table C2), on-site or regional BMPs must provide volume control to meet the standard of subsection 6(c). If infiltration is not feasible, any BMP may be used.
- (3) Off-site and/or regional BMPs must be sited in the following priority order:
  - (i) In a downstream location that intercepts the runoff volume leaving the project site prior to the Resource of Concern.
  - (ii) Anywhere within the same Resource of Concern Drainage Area (see Figures C1A-C1E) that results in no greater mass of Total Phosphorus reaching the resource of concern than on-site BMPs.

Туре	Specific Project Site Conditions	Required Submittals		
Potential	Potential Stormwater Hotspots (PSH)	PSH Locations and Flow Paths		
Contamination	Contaminated Soils	Documentation of Contamination Soil Borings		
	Low Permeability Soils (HSG C & D)	Soil Borings		
Physical	Bedrock within three vertical feet of bottom of infiltration area	Soil Borings		
Limitations	Seasonal High Water Table within three vertical feet of bottom of infiltration area	Soil Borings High Water Table		
	Karst Areas	Soil Borings		
Land Use	Utility Locations	Site Map		
Limitations	Nearby Wells (Private and/or Municipal) *	Well Locations		

## TABLE C2. SPECIFIC CONDITIONS THAT MAY RESTRICT INFILTRATION.

\* Refer to Minnesota Stormwater Manual or the Minnesota Department of Health for setback requirements.

- (e) Stormwater runoff from all new and reconstructed impervious surface must be treated for total phosphorus if feasible. Notwithstanding, runoff from undisturbed site impervious surface may be treated in lieu of treating new or reconstructed impervious surface, provided the runoff from that surface drains to the same Resource of Concern as the new/reconstructed surface not being treated. Except for Public Linear projects, the area not treated for phosphorus may not exceed 15 percent of all the new or reconstructed impervious surface. For all untreated surface, TSS must be removed to the maximum extent practicable.. Total water quality treatment volume for the project must be provided in aggregate pursuant to subsections 6(c) and 6(d).
- (f) For single-family residential development, the runoff from impervious surface other than parking or driving surface that, in the District's judgment, cannot reasonably be routed to a stormwater BMP is considered effectively treated for water quality if:
  - (1) The length of the flow path across the impervious surface is less than the length of the flow path across the pervious surface to which it discharges; and
  - (2) The pervious surface is vegetated and has an average slope of five percent or less.
- (g) Banked "volume control" credits and debits established by public entities for Public Linear Projects with the RCWD prior to the effective date of this rule will continue to be recognized and enforced until all credits are used or all debits are fulfilled. Existing credits and debits may be used and fulfilled, respectively, anywhere within the applicant's jurisdiction.

#### 7. PEAK STORMWATER RUNOFF CONTROL.

- (a) Peak stormwater runoff rates for the proposed project at the project site boundary, in aggregate, must not exceed existing peak runoff rates for the 2-year, 10-year and 100-year, 24-hour rainfall events, or a different critical event duration at the discretion of the District Engineer. Notwithstanding, peak runoff may be controlled to this standard in a regional facility consistent with paragraph 7(b). Aggregate compliance for all site boundary discharge will be determined with respect to runoff not managed in a regional facility.
- (b) Any increase in a critical duration flood event rate at a specific point of discharge from the project site must be limited and cause no adverse downstream impact. Table C3 shows the maximum curve numbers that may be utilized for existing condition modeling of those project site areas not covered by impervious surface.
- (c) Within the Flood Management Zone only (see Figure C2), the applicant shall provide peak rate control for the 2, 10 and 100 year 24-hour rainfall events beyond the existing condition peak rate of runoff by reducing the peak rate to ≤80% of the existing condition. This requirement does not apply if the project is a Public Linear Project.

# TABLE C3. CURVE NUMBERS FOR EXISTING CONDITION PERVIOUS AREAS.

Hydrologic Soil Group	Runoff Curve Number *
A	39
В	61
С	74
D	80

\* Curve numbers from <u>NRCS Technical Release #55 (TR-55)</u>.

#### TABLE C4. HYDROPERIOD STANDARDS.

Wetland Susceptibility Class	Permitted Storm Bounce for 2- Year and 10-Year Event *	Inundation Period for 2-Year Event *	Inundation Period for 10-Year Event *	
Highly susceptible	Existing	Existing	Existing	
Moderately susceptible	Existing plus 0.5 ft	Existing plus 1 day	Existing plus 7 days	
Slightly susceptible	Existing plus 1.0 ft	Existing plus 2 days	Existing plus 14 days	
Least susceptible	No limit	Existing plus 7 days	Existing plus 21 days	

Source: Adapted from: <u>Stormwater and Wetlands Planning and Evaluation Guidelines for</u> <u>Addressing Potential Impacts of Urban Stormwater and Snowmelt Runoff on Wetlands</u>.

\* Duration of 24-hours for the return periods utilizing NOAA Atlas 14.

#### 8. BOUNCE AND INUNDATION PERIOD.

- (a) The project must meet the hydroperiod standards found in Table C4 with respect to all down-gradient wetlands.
- (b) Wetland Susceptibility Class is determined based on wetland type, as follows:
  - (1) <u>Highly susceptible wetland types include: sedge meadows, bogs, coniferous bogs, open bogs, calcareous fens, low prairies, coniferous swamps, lowland hardwood forests, and seasonally flooded waterbasins.</u>
  - (2) <u>Moderately susceptible wetland types include: shrub-carrs, alder thickets, fresh</u> (wet) meadows, and shallow & deep marshes.
  - (3) <u>Slightly susceptible wetland types include</u>: floodplain forests and fresh wet meadows or shallow marshes dominated by cattail giant reed, reed canary grass or purple loosestrife.
  - (4) <u>Least susceptible wetland includes severely degraded wetlands.</u> Examples of this condition include cultivated hydric soils, dredge/fill disposal sites and some gravel pits.

#### 9. DESIGN CRITERIA.

- (a) Infiltration BMPs must be designed to provide:
  - (1) Adequate pretreatment measures to remove sediment before runoff enters the primary infiltration area;
  - (2) Drawdown within 48-hours or 72-hours from the end of a storm event, for surface or sub-surface features, respectively. Soil infiltration rates shall be based on the appropriate HSG classification and associated infiltration rates (see Table C5). The least permeable layer of the soil boring column must be utilized in BMP calculations (see Design Criteria (e). Alternate infiltration rates based on a recommendation and certified measurement testing from a licensed geotechnical engineer or licensed soil scientist will be considered. Infiltration area will be limited to horizontal areas subject to prolonged wetting;
  - (3) A minimum of three feet of separation from the Seasonal High Water Table; and
  - (4) Consideration of the Minnesota Department of Health guidance document <u>Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead</u> <u>Protection Areas</u>. Documentation shall be submitted to support implementation of this guidance document and will be accepted at the discretion of the District Engineer.
- (b) Water Reuse BMPs must conform to the following:
  - (1) Design for no increase in stormwater runoff from the irrigated area or project site.
  - (2) Required design submittal packages for water reuse BMPs must include:
    - (i) An analysis using Metropolitan Council Stormwater Reuse Guide 'Water Balance Tool Irrigation Constant Demand' spreadsheet for irrigation practices or 'Water Balance Too Non-Irrigation Constant Demand' Spreadsheet for nonirrigation practices. The tools are available for download at: <u>http://www.metrocouncil.org/wastewater-water/planning/water-supplyplanning/studies-projects-workgroups-(1)/completed-studiesprojects/stormwater-reuse-guide.aspx;</u>

- (ii) Documentation demonstrating adequacy of soils, storage system, and delivery system; and
- (iii) Operations plan.
- (3) Approved capacity of an irrigation practice will be based on:
  - (i) An irrigation rate of 0.5 inches per week over the irrigated pervious area(s) or the rate identified through the completion of the Metropolitan Council Stormwater Reuse Guide 'Water Balance Tool Irrigation Constant Demand' Spreadsheet (whichever is less); or as approved by the District; and
  - (ii) No greater than a 26 week (April 15<sup>th</sup> to October 15<sup>th</sup>) growing season.

An additional water quality treatment capacity beyond 0.5 inches per week may be recognized under a subsection C.5(f) plan or a C.13 phased development permit based on a three-year average of monitoring records of volume irrigated.

- (4) Approved capacity of a non-irrigation practice shall be based on the rate identified through the completion of the Metropolitan Council Stormwater Reuse Guide 'Water Balance Tool Non-Irrigation Constant Demand' spreadsheet, or as approved by the District.
- (c) Biofiltration/filtration BMPs must be designed to provide:
  - (1) Adequate pretreatment measures to remove sediment before runoff enters the primary biofiltration area;
  - (2) Drawdown within 48-hours or 72-hours from the end of a storm event, for surface or sub-surface features, respectively;
  - (3) A minimum of 12-inches of organic material or sand above the rock trench or draintile system; and
  - (4) Drain tile system must be designed above the Seasonal High Water Table.

TABLE C3. SOIL TTPE AND INTIETRATION RATES.							
Hydrologic Soil Group	Soil Textures	Corres	sponding Unified Soil Classification	Infiltration Rate (in/hr)			
		GW	Well-graded gravels, sandy gravels				
	Gravel Sandy Gravel Silty Gravels	GP	Gap-graded or uniform gravels, sandy gravels	1.63			
А	Silly Graveis	GM	Silty gravels, silty sandy gravels				
		sw	Well-graded gravelly sands				
	Sand Loamy Sand Sandy Loam	SP	Gap-graded or uniform sands, gravelly sands	0.8			
В	Loam	SM	Silty sands, silty gravelly sands	0.45			
В	Silt Loam	МН	Micaceous silts, diatomaceous silts, volcanic ash	0.3			
С	Sandy Clay Loam	ML	Silts, very fine sands, silty or clayey fine sands	0.2			
		GC	Clayey gravels, clayey sandy gravels				
		SC	Clayey sands, clayey gravelly sands				
	Clay Loam Silty Clay Loam Sandy Clay	CL	Low plasticity clays, sandy or silty clays				
D	Sandy Clay Silty Clay Clay	OL	Organic silts and clays of low plasticity	0.06			
		СН	Highly plastic clays and sandy clays				
		ОН	Organic silts and clays of high plasticity				

TABLE C5. SOIL TYPE AND INFILTRATION RATES.

Source: Adapted from the "Design infiltration rates" table from the Minnesota Stormwater Manual, MPCA, (January 2014).

- (d) Stormwater ponds must be designed to provide:
  - (1) Water quality features consistent with NURP criteria and accepted design standards for average and maximum depth;
  - (2) A permanent wet pool with dead storage at least equal to the runoff volume from a 2.5-inch rainfall over the area tributary to the pond;
  - (3) An outlet structure capable of preventing migration of floating debris and oils for at least the one-year storm;
  - (4) An identified emergency overflow spillway sufficiently stabilized to convey flows greater than the 100-year critical storm event; and
  - (5) An outlet structure to control the 2-year, 10-year & 100-year frequency events.
- (e) Soil borings (utilizing ASTM D5921 and D5879, as amended) shall be considered for design purposes, and provided to the District, for each proposed BMP. The soil borings must be taken to a depth of at least 5 feet below the bottom of the proposed feature.
- (f) An outfall structure discharging directly to a wetland, public water or public water wetland must incorporate a stilling-basin, surge-basin, energy dissipater, placement of ungrouted natural rock riprap or other feature to minimize disturbance and erosion of natural shoreline and bed resulting from stormwater discharges. Where feasible, outfall structures are to be located outside of the natural feature.

# TABLE C6. LOW FLOOR AND LOW ENTRY FREEBOARD REQUIREMENTS.

Freeboard	Regio Floc Elevati	bd	Basi Wetlar Storm	Detention Basins , Wetlands & Stormwater Ponds		Infiltration and Biofiltration Basins		
	100-yr	EOF	100-yr	EOF	Bottom	100-yr	EOF	EOF
Low Floor	2.0 ft	1.0 ft	0.0 ft	NA	0.0 ft	NA	NA	NA
Low Entry	NA	NA	2.0 ft	1.0 ft	NA	2.0 ft	1.0 ft	0.5 ft

(g) All new residential, commercial, industrial and other habitable or non-habitable structures, and all stormwater BMPs, must be constructed so that the lowest floor and lowest entry elevations comply with Table C6.

The low entry freeboard criterion of Table C6 may be deemed met when the structure does not have the required vertical separation, but is protected from surface flooding to the required elevation by a berm or other natural or constructed topographic feature capable of providing flood protection.

Within a landlocked basin, minimum low floor elevations must be at least one foot above the surveyed basin run out elevation. Where a structure is proposed below the run out elevation of a land-locked basin, the low floor elevation will be a minimum of two feet above the highest water level of either the 10-day snowmelt event or back-to-back 100-year, 24hour rainfalls. Aerial photos, vegetation, soils, and topography may be used to derive a "normal" water elevation for the purpose of computing the basin's 100-year elevation.

- (h) All stormwater management structures and facilities must be designed for maintenance access and be properly operated and maintained in perpetuity to assure that they continue to function as designed. The maintenance responsibility must be memorialized in a document executed by the property owner in a form acceptable to the District and filed for record on the deed. Alternatively, a public permittee may meet its perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District. Regional ponds owned by public entities that are only used to meet the rate control requirements of the District rule do not need a maintenance agreement with the District.
- (i) The permittee must use construction best practices so that the facility as constructed will conform to design specifications and the soil and surrounding conditions are not altered in a way adverse to facility performance.
- (j) Before work under the permit is deemed complete, the permittee must submit as-built plans demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications. If at any time the District finds that the stormwater facility is not performing as designed, on District request the permittee must undertake reasonable investigation to determine the cause of inadequate performance.

#### 10. EASEMENTS.

- (a) Before permit issuance, the permittee must, submit a copy of any plat or easement required by the local land use authority establishing drainage or flowage over stormwater management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year flood elevation, or any other hydrologic feature.
- (b) Before permit issuance, the permittee must convey to the District an easement over the public drainage system specifying a District right of maintenance access over the following minimum widths:
  - (1) For tiled/piped systems, 66 feet wide perpendicular to the direction of flow, centered on the tile line or pipe;
  - (2) For open channel systems, a variable width perpendicular to the direction of flow, to include the open channel itself and all areas within 16.5 feet from the top of the ditch bank.
- (c) Public Linear Projects are exempt from the public drainage system easement requirement of Section 10(b).
- (d) For projects within the District's Comprehensive Wetland Protection and Management Plan (CWPMP) areas, the Wetland Management Corridor (WMC) boundary delineation, buffer and easement requirements found at Rule F.6 apply. As stated in Rule F.5(e), Public Linear Projects are not subject to the requirements of Rule F.6.
- **11. REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.
  - (a) An erosion & sediment control plan and, for projects that require an NPDES permit, a Storm Water Pollution Prevention Plan.

- (b) Property lines and delineation of lands under ownership of the applicant.
- (c) Delineation of the subwatershed contributing runoff from off-site, proposed and existing subwatersheds onsite, emergency overflows, and drainageways.
- (d) Geotechnical analysis including soil borings at all proposed stormwater management facility locations utilizing ASTM D5921 and D5879, as amended.
- (e) Proposed and existing stormwater facilities' location, alignment and elevation.
- (f) Delineation of existing on-site wetland, marshes and floodplain areas.
- (g) Identification of existing and proposed normal, ordinary high and 100-year water elevations on-site.
- (h) Identification of existing and proposed contour elevations within the project site related to NAVD 88.
- (i) Construction plans and specifications of all proposed stormwater management facilities, including design details for outlet control structures.
- (j) Stormwater runoff volume and rate analyses for the 2- 10- and 100-year critical events, existing and proposed conditions utilizing <u>NOAA</u> Atlas 14.
- (k) All hydrologic, water quality and hydraulic computations completed to design the proposed stormwater management facilities.
- (I) Narrative including a project description, discussion of BMP selection, and revegetation plan for the project site.
- (m) Other project site-specific submittal requirements as may be required by the District.

#### 12. EXCEPTIONS.

- (a) Rate control criteria of Section 7 may be waived if the project site discharges directly to a water body with large storage capacity (such as a public water), the volume discharged from the project site does not contribute to a downstream flood peak, and there are no downstream locations susceptible to flooding.
- (b) Section 6 and Section 7 are waived for a portion of a project that paves a gravel roadway if the right-of-way ditch is maintained and does not discharge a concentrated flow directly to a wetland or another sensitive water body.

# 13. EXTENDED PERMIT TERM AND REGIONAL FACILITIES FOR NON-RESIDENTIAL PHASED DEVELOPMENT.

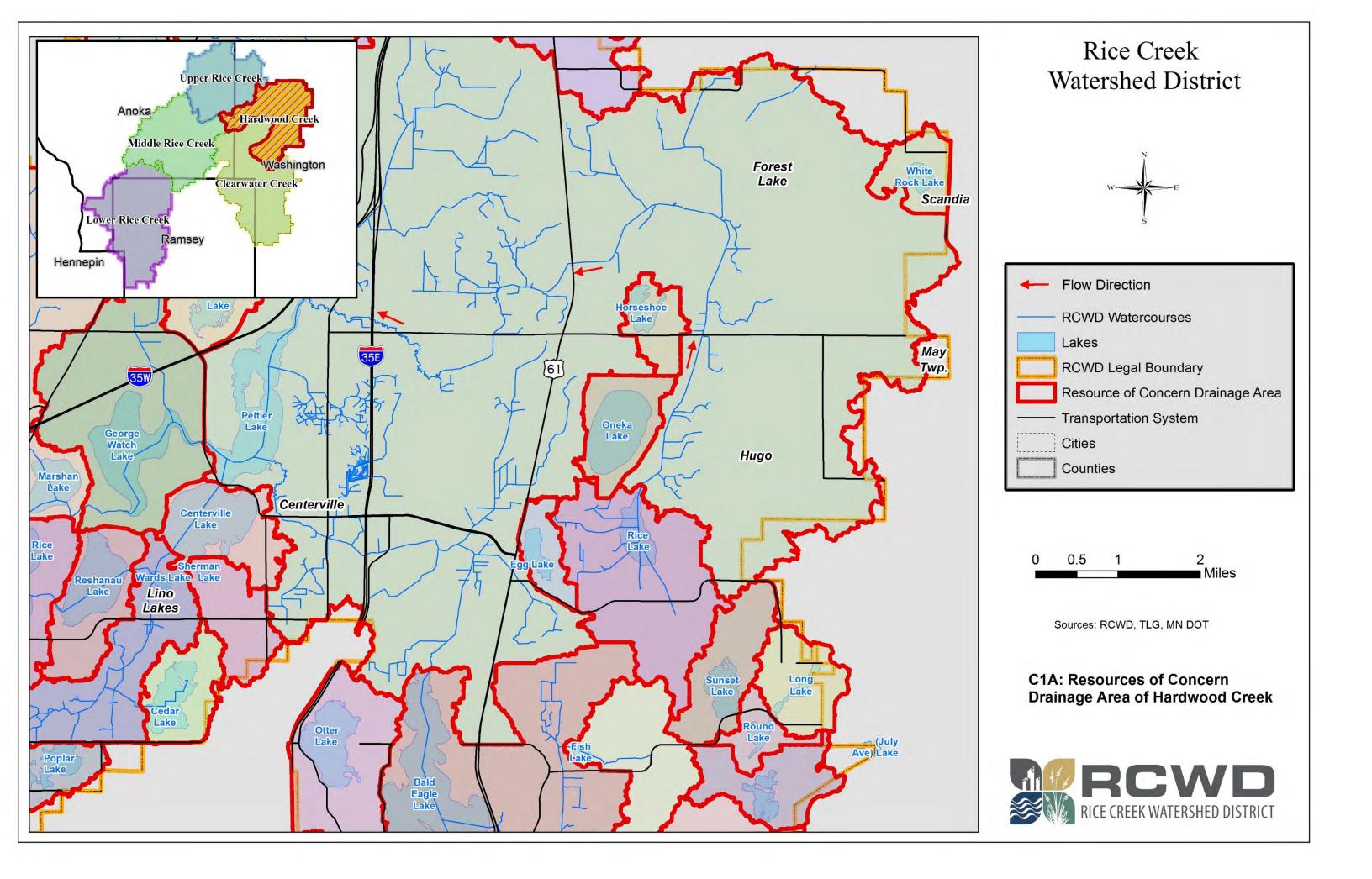
- (a) The following definitions apply to this section:
  - (1) "Area Development Permit" (ADP) means a District stormwater management permit for non-residential development that includes construction of a stormwater management facility explicitly intended to serve compliance requirements for a parcel other than that on which the facility is located.
  - (2) "Phased Development Permit" (PDP) means a District stormwater management permit for non-residential development that includes construction of a stormwater management facility explicitly intended to serve compliance requirements not just

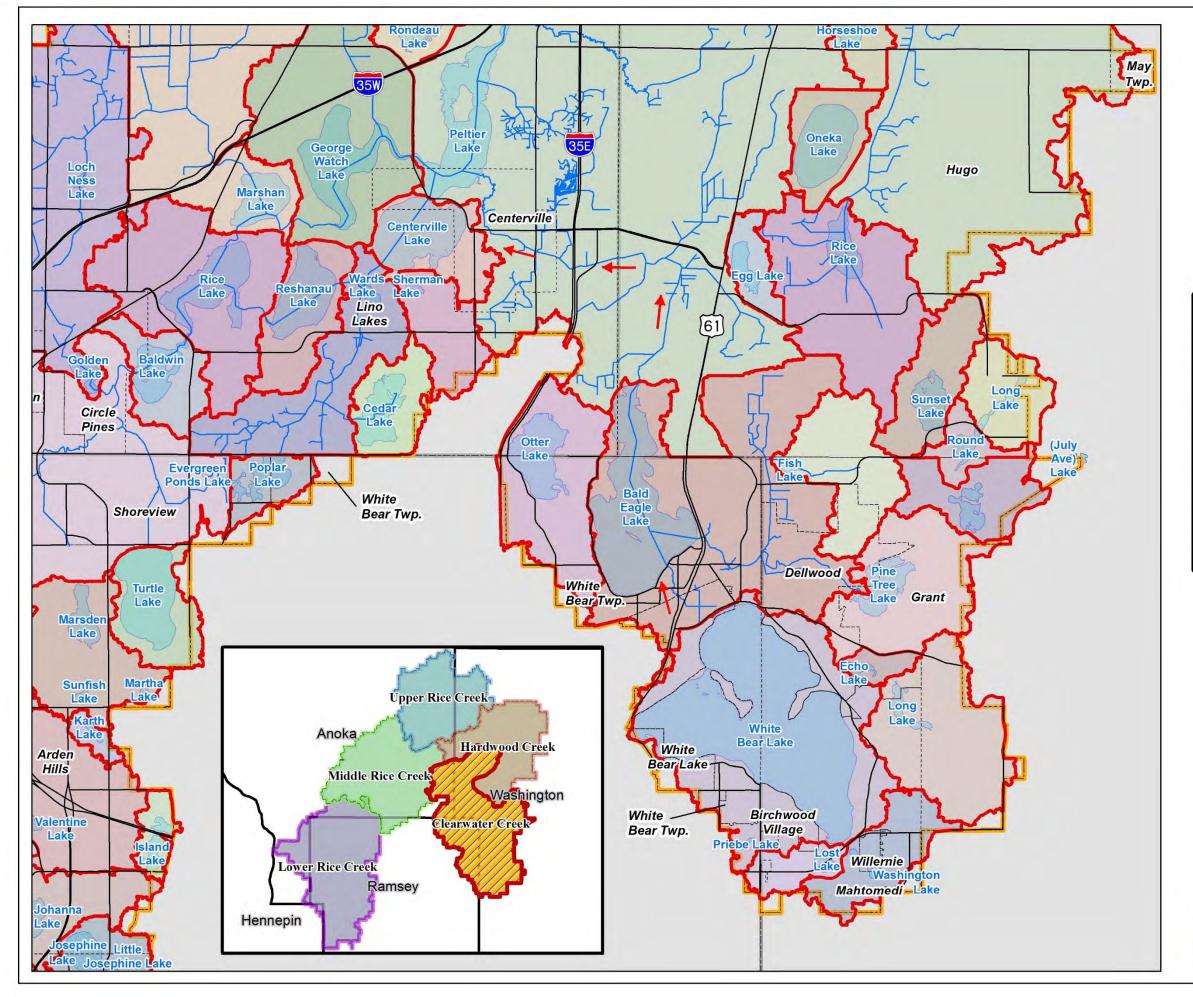
for development under the permit, but also for subsequent development on that parcel or a contiguous parcel under common ownership.

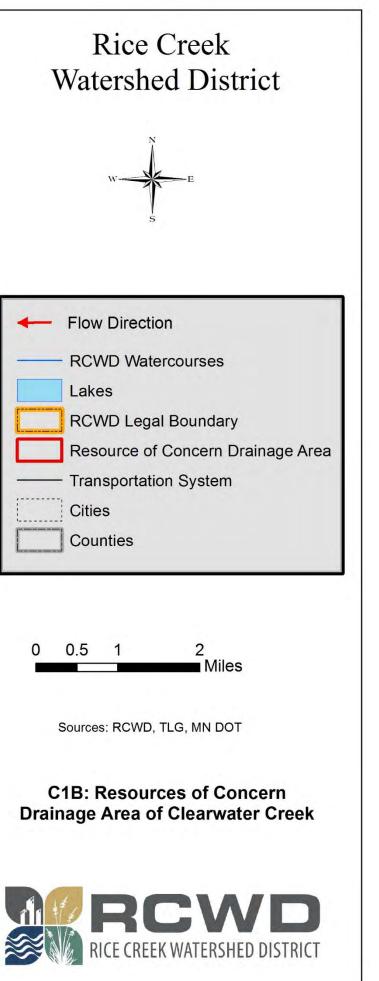
- (b) If an off-site stormwater management facility approved under a prior ADP cannot be used for compliance due to a rule change occurring since the date of ADP approval, the District nevertheless by permit will approve its use, subject to the following:
  - (1) The applicant must demonstrate that the facility was built in compliance with the ADP, that the ADP identified the development site as one that may use the facility, and that the requirements of subsection 5(a), above, are met.
  - (2) If the current rule requires a level of peak flow or volume control, or of water quality treatment, beyond that provided by the off-site facility, the applicant must provide for the additional treatment. This does not disallow use of an existing facility on the ground that it does not meet a sequencing requirement with respect to the BMP location or type.

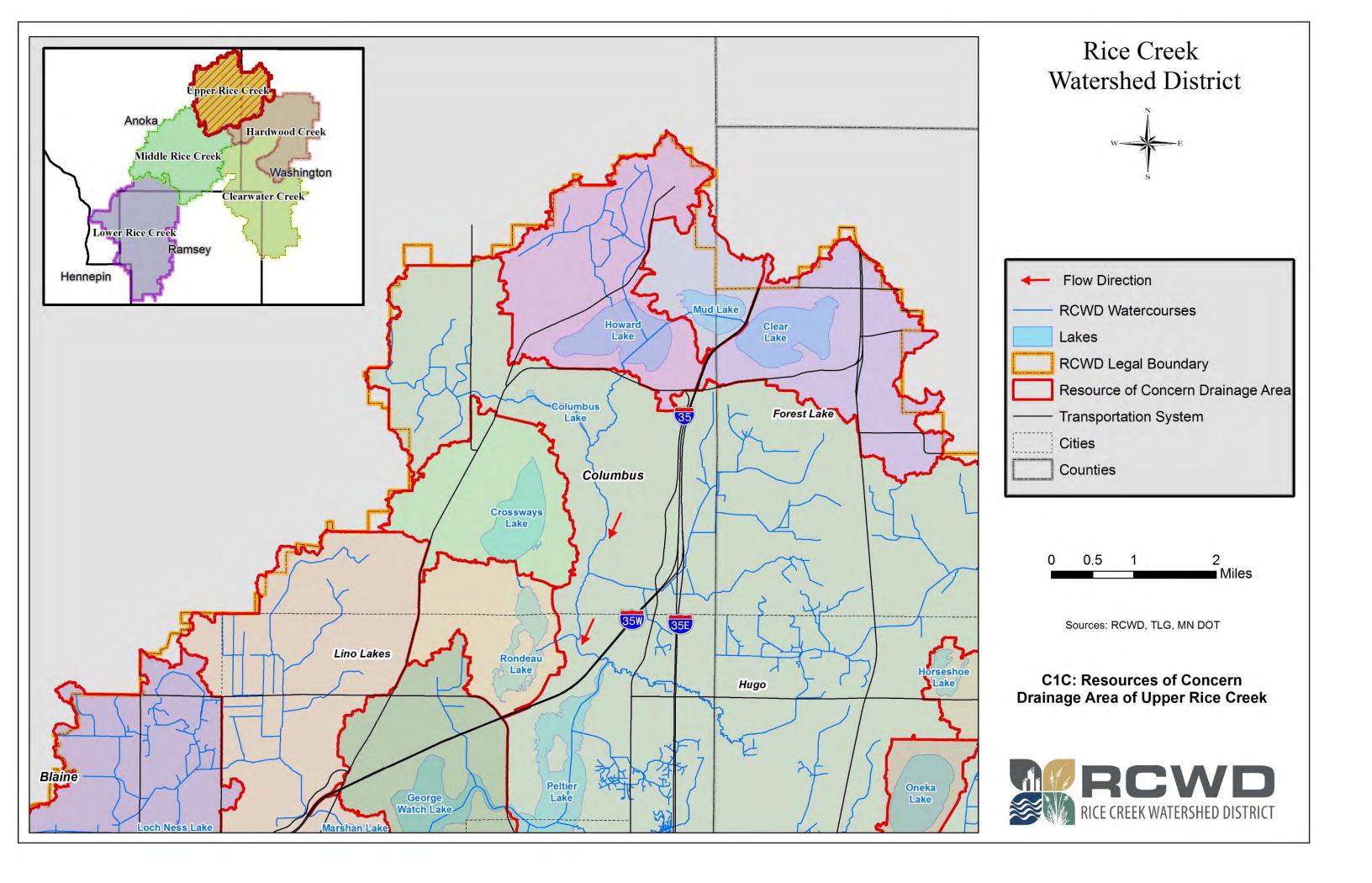
The protection against rule change provided by this subsection 13(b) does not apply if the District makes written findings, on the basis of new knowledge or information, that use of the facility would have a material adverse impact on a water quality, flood management or other specific public interest, or if the approval date of the development permit is more than 10 years after the date of ADP approval.

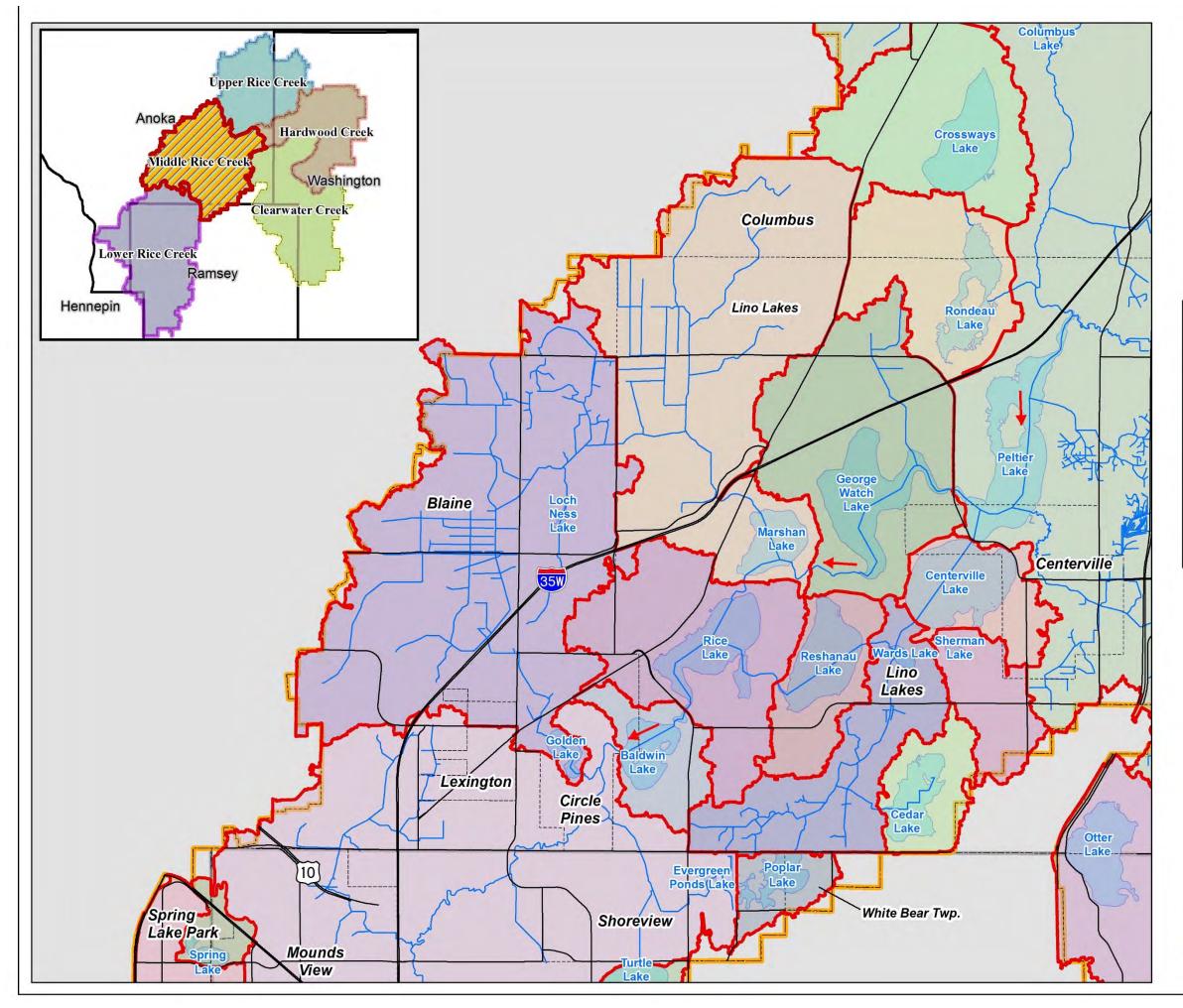
- (c) The District may issue a PDP with a permit term of up to 10 years.
  - (1) During the permit term, development using the stormwater management facilities approved under the PDP will not be subject to a rule change occurring after the date of PDP approval, provided the PDP states the design criteria to which subsequent development will conform and the proposed development meets those criteria.
  - (2) If a PDP is in effect as of December 1, 2014, on request the District will extend the permit expiration date in accordance with this subsection 13(c). In such a case, the requirement that the permit state design criteria is relaxed. However, the applicant must demonstrate the design and constructed capacity of the facilities and the capacity allocated to the proposed development.
  - (3) If a PDP was approved after December 1, 2004 but has expired, an application for a subsequent development phase may be considered under the terms of subsection 13(b), above.
- (d) This section does not apply to an ADP or a PDP approved before December 1, 2004.

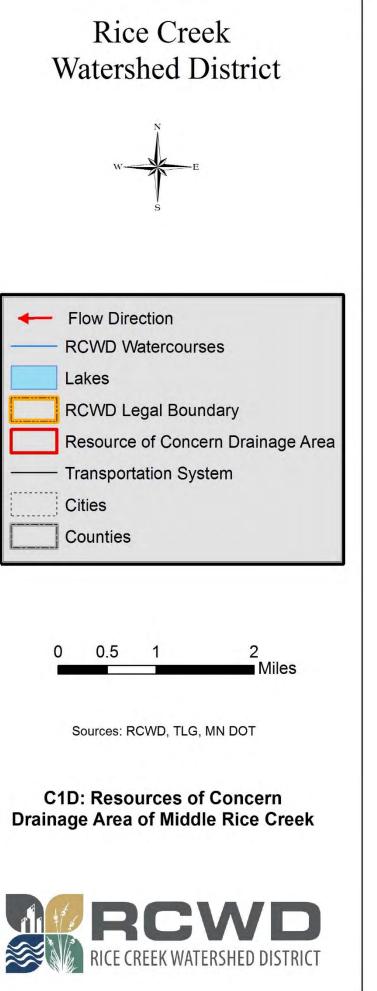


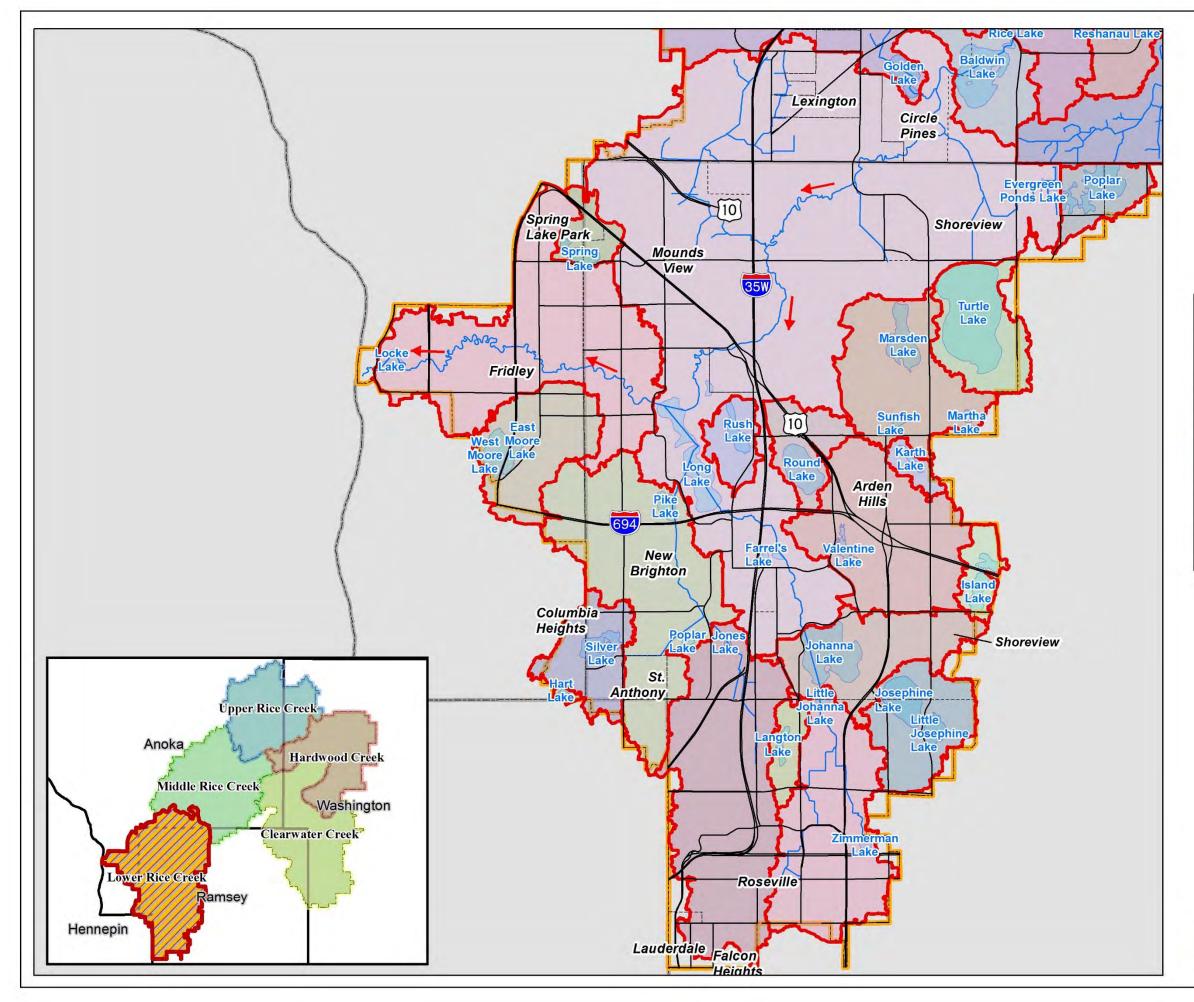


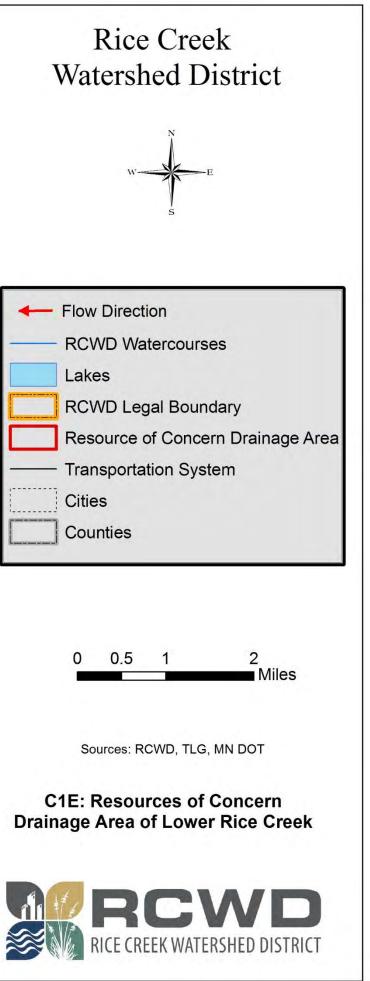


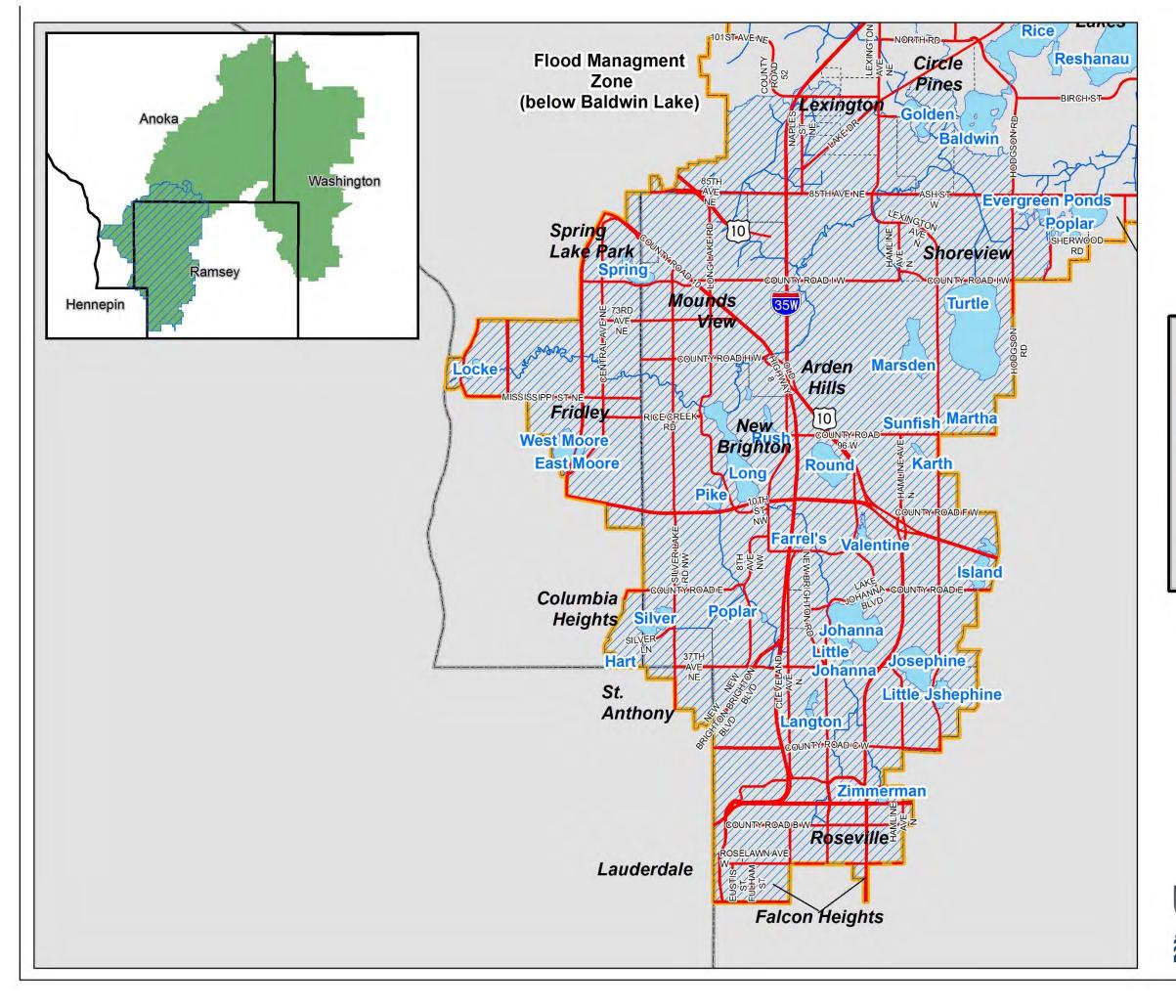


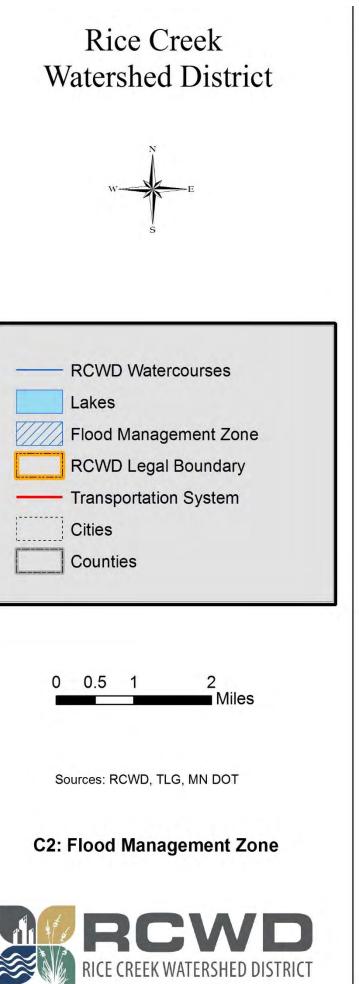












# RULE D: EROSION AND SEDIMENT CONTROL PLANS

1. **POLICY.** It is the policy of the Board of Managers to prevent erosion of soil into surface water systems by requiring erosion and sediment control for land-disturbing activities.

### 2. **REGULATION**.

- (a) An erosion and sediment control plan must be submitted, and a permit received from the District, for:
  - (1) Surface soil disturbance or removal of vegetative cover on one acre or more of land;
  - (2) Surface soil disturbance or removal of vegetative cover on 10,000 square feet or more of land, if any part of the disturbed area is within 300 feet of and drains to a lake, stream, wetland or public drainage system; or
  - (3) Any land-disturbing activity that requires a District permit under a rule other than Rule D.
- (b) A person disturbing surface soils or removing vegetative cover on more than 5,000 square feet of land, or stockpiling on-site more than fifty (50) cubic yards of earth or other erodible material, but not requiring a permit under the criteria of this rule, must submit a notice in advance of disturbance on a form provided by the District and conform the activity to standard best practices established by and available from the District.
- (c) Rule D does not apply to normal farming practices that are part of an ongoing farming operation.
- (d) Rule D does not apply to milling, reclaiming or overlay of paved surfaces that does not expose underlying soils.
- **3. DESIGN CRITERIA FOR EROSION CONTROL PLANS.** The applicant must demonstrate that the standards of Rule C, subsections 7(a) and (b), are met. In addition, Erosion and Sediment Control Plans must comply with the following criteria:
  - (a) Natural project site topography and soil conditions must be specifically addressed to reduce erosion and sedimentation during construction and after project completion.
  - (b) Site erosion and sediment control practices must be consistent with the Minnesota Pollution Control Agency document "Protecting Water Quality in Urban Areas" (1994), as amended, and District-specific written design guidance and be sufficient to retain sediment on-site.
  - (c) The project must be phased to minimize disturbed areas and removal of existing vegetation, until it is necessary for project progress.
  - (d) The District may require additional erosion and sediment control measures on areas with a slope to a sensitive, impaired or special water body, stream, drainage system or wetland to assure retention of sediment on-site.
  - (e) The plan must include conditions adequate to protect facilities to be used for postconstruction stormwater infiltration.

- 4. **REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.
  - (a) An existing and proposed topographic map which clearly indicates all hydrologic features and areas where grading will expose soils to erosive conditions. The Plan must also indicate the direction of all project site runoff.
  - (b) Tabulation of the construction implementation schedule.
  - (c) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
  - (d) Quantification of the total disturbed area.
  - (e) Clear identification of all temporary erosion and sediment control measures that will remain in place until permanent vegetation is established. Examples of temporary measures include, but are not limited to, seeding, mulching, sodding, silt fence, erosion control blanket, and stormwater inlet protection devices.
  - (f) Clear identification of all permanent erosion control measures such as outfall spillways and riprap shoreline protection, and their locations.
  - (g) Clear Identification of staging areas, as applicable.
  - (h) Documentation that the project applicant has applied for the NPDES Permit from the Minnesota Pollution Control Agency (MPCA), when applicable.
  - (i) A stormwater pollution prevention plan for projects that require an NPDES Permit.
  - (j) Delineation of any floodplain and/or wetland area changes.
  - (k) Other project site-specific submittal requirements as may be required by the District.
- 5. CONSTRUCTION ACTIVITY REQUIREMENTS. Any activity subject to a permit under this rule must conform to the standards of the NPDES construction general permit, as amended, regarding construction-site erosion and sediment control.

#### 6. INSPECTIONS.

- (a) The permittee shall be responsible for inspection, maintenance and effectiveness of all erosion and sediment control measures until final soil stabilization is achieved or the permit is assigned (see Rule B), whichever comes first.
- (b) The District may inspect the project site and require the permittee to provide additional erosion control measures as it determines conditions warrant.

#### 7. FINAL STABILIZATION.

- (a) Erosion and sediment control measures must be maintained until final vegetation and ground cover is established to a density of 70%.
- (b) Temporary erosion and sediment control BMPs will be removed after disturbed areas have been permanently stabilized.

# **RULE E: FLOODPLAIN ALTERATION**

- **1. POLICY.** It is the policy of the Board of Managers to:
  - (a) Utilize the best information available in determining the 100-year flood elevation.
  - (b) Preserve existing water storage capacity within the 100-year floodplain of all waterbodies and wetlands in the watershed to minimize the frequency and severity of high water.
  - (c) Enhance floodplain characteristics that promote the natural attenuation of high water, provide for water quality treatment, and promote groundwater recharge.
  - (d) Preserve and enhance the natural vegetation existing in floodplain areas for aquatic and wildlife habitat.
- 2. **REGULATION.** No person may alter or fill land within the floodplain of any lake, stream, wetland, drainage system, major watercourse, or public waters without first obtaining a permit from the District. Shoreline/streambank restoration or stabilization, approved in writing by the District and/or County Conservation District as necessary to control erosion and designed to minimize encroachment and alteration of hydraulic forces, does not require a permit under this Rule.

#### 3. CRITERIA FOR FLOODPLAIN ALTERATION.

- (a) Fill within a designated floodway is prohibited.
- (b) Fill within the floodplain is prohibited unless compensatory floodplain storage volume is provided within the floodplain of the same water body, and within the permit term. If offsetting storage volume will be provided off-site, it shall be created before any floodplain filling by the applicant will be allowed.
- (c) Any structure or embankments placed within the floodplain will be capable of passing the 100-year flood without increasing the elevation of the 100-year flood profile.
- (d) Compensatory floodplain storage volume is not required to extend an existing culvert, modify an existing bridge approach associated with a Public Linear Project, or place spoils adjacent to a public or private drainage channel during channel maintenance, if there is no adverse impact to the 100-Year Flood Elevation.
- (e) Compensatory floodplain storage volume is not required for a one-time deposition of up to 10 cubic yards of fill, per parcel, if there is no adverse impact to the 100-Year Flood Elevation. The one-time deposition does not include public linear projects.
- (f) Floodplain alteration is subject to the District's Wetland Alteration Rule F, as applicable.
- (g) Structures to be built within the 100-year floodplain will have two feet of freeboard between the lowest floor and the 100-year flood profile.

#### 4. DRAINAGE EASEMENTS.

(a) Before permit issuance, the permittee must submit a copy of any plat or easement required by the local land use authority establishing drainage or flowage over stormwater

management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year event, or any other hydrological feature.

- (b) Before permit issuance, the permittee must convey to the District an easement over the public drainage system specifying a District right of maintenance access over the following minimum widths:
  - (1) For tiled/piped systems, 66 feet wide perpendicular to the direction of flow, centered on the tile line or pipe;
  - (2) For open channel systems, a variable width perpendicular to the direction of flow, to include the open channel itself and all areas within 16.5 feet from the top of the ditch bank.
- (c) Public Linear Projects are exempt from the public drainage system easement requirement of Section 4(b).
- 5. **REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.
  - (a) Site plan showing property lines, delineation of the work area, existing elevation contours of the work area, ordinary high water elevations, and 100-year flood elevations. All elevations must be reduced to NAVD 1988 datum.
  - (b) Grading plan showing any proposed elevation changes.
  - (c) Determination by a professional engineer or qualified hydrologist of the 100-year flood elevation before and after the project.
  - (d) Computation of change in flood storage capacity resulting from proposed grading.
  - (e) Erosion and sediment control plan in accordance with District Rule D.
    - (f) Other project site-specific submittal requirements as may be required by the District.

# **RULE F: WETLAND ALTERATION**

- **1. POLICY.** It is the policy of the Board of Managers to:
  - (a) Maintain no net loss in the quantity, quality, and biological diversity of Minnesota's existing wetlands.
  - (b) Increase the quantity, quality, and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands.
  - (c) Avoid direct or indirect impacts from activities that destroy or diminish the quantity, quality, and biological diversity of wetlands.
  - (d) Replace wetland values where avoidance of activity is not feasible or prudent.
  - (e) Accomplish goals of the adopted Comprehensive Wetland Protection and Management Plans (CWPMPs).
- **2. REGULATION.** No person may fill, drain, excavate or otherwise alter the hydrology of a wetland without first obtaining a permit from the District.
  - (a) The provisions of the Minnesota Wetland Conservation Act (WCA), Minnesota Statutes §§103G.221 through 103G.2372, and its implementing rules, Minnesota Rules 8420, apply under this Rule and govern District implementation of WCA as well as District regulation of non-WCA wetland impacts, except where the Rule provides otherwise.
  - (b) This rule does not regulate alteration of incidental wetlands as defined in Minnesota Rules chapter 8420, as amended. An applicant must demonstrate that the subject wetlands are incidental.
  - (c) An activity for which a No-Loss decision has been issued under Minnesota Rules chapter 8420 is subject to the applicable requirements of chapter 8420 but not otherwise subject to this Rule.
  - (d) Clearing of vegetation, plowing or pasturing in a wetland as part of an existing and ongoing farming operation is not subject to this rule unless the activity results in draining or filling the wetland.
- 3. LOCAL GOVERNMENT UNIT. The District intends to serve as the "Local Government Unit" (LGU) for administration of the Minnesota Wetland Conservation Act (WCA), except where a particular municipality in the District has elected to assume that role in its jurisdictional area or a state agency is serving as the local government unit on state land. Pursuant to its regulatory authority under both WCA and watershed law, when the District is serving as the LGU it will require wetland alteration permits for wetland-altering activities both as required by WCA and otherwise as required by this Rule.

### 4. CRITERIA.

(a) When the District is serving as the LGU, it will regulate wetland alterations that are not subject to WCA rules and do not qualify for an exemption at Minnesota Rules 8420.0420 or do not meet the "no-loss" criteria of Minnesota Rules 8420.0415 according to the rules and procedures of WCA, except as specifically provided in this Rule. Alteration under

this paragraph requires replacement at a minimum ratio of 1:1 to ensure no loss of wetland quantity, quality or biological diversity. Replacement activities will be credited consistent with the actions eligible for credit in Minnesota Rules 8420.0526.

- (b) A wetland alteration not subject to WCA that does not change the function of a wetland and results in no net loss of wetland quantity, quality or biological diversity is exempt from the replacement requirement in Section 4(a) of this Rule.
- (c) The wetland replacement exemptions in Minnesota Rules 8420.0420 are applicable under this Rule, except as modified within CWPMP areas under Section 6.
- (d) Alterations in wetlands for the purposes of wildlife enhancement must be certified by the local Soil and Water Conservation District as compliant with the criteria described in <u>Wildlife</u> <u>Habitat Improvements in Wetlands: Guidance for Soil and Water Conservation Districts and Local Government Units</u>.
- **5. ADDITIONAL DISTRICT REQUIREMENTS.** In addition to the wetland replacement plan components and procedures in WCA, the following more specific requirements will apply to the District's review of WCA and, except as indicated, non-WCA wetland alterations:
  - (a) Applicants must adequately explain and justify each individual contiguous wetland alteration area in terms of impact avoidance and minimization alternatives considered.
  - (b) Where the wetland alteration is proposed in the context of land subdivision, on-site replacement wetland and buffer areas, as well as buffers established undersection 6(e), must:
    - (1) Be located within a platted outlot.
    - (2) Be protected from future encroachment by a barrier (i.e. stormwater pond, infiltration basin, existing wetland, tree line, fence, trail or other durable physical feature).
    - (3) Have boundaries posted with signage approved by the District identifying the wetland/buffer protected status. On installation, the applicant must submit a GIS shapefile, or CADD file documenting sign locations.
  - (c) The upland edge of new wetland creation must have an irregular and uneven slope. The slope must be no steeper than 8:1 over the initial 25 feet upslope from the projected wetland elevation contour along at least 50 percent of the upland/wetland boundary and no steeper than 5:1 along the remaining 50 percent of the boundary.
  - (d) The District will not allow excess replacement credits to be used for replacement on a different project unless the credits were designated for wetland banking purposes in the original application in accordance with WCA rules and have been deposited into the WCA wetland banking system.
  - (e) Within the boundary of a District developed and BWSR approved CWPMP (see Figure F1), Rule F and WCA are further modified to include Section 6. Public Linear Projects located in a CWPMP jurisdictional area and not part of an industrial, commercial, institutional or residential development are not subject to Section 6 of this Rule.

6. COMPREHENSIVE WETLAND PROTECTION AND MANAGEMENT PLANS. All District Comprehensive Wetland Protection and Management Plans (CWPMPs) are incorporated into this Rule. The specific terms of Rule F will govern, but if a term of Rule F is susceptible to more than one interpretation, the District will apply the interpretation that best carries out the intent and purposes of the respective CWPMP.

### (a) **PRE-APPLICATION REVIEW.**

- (1) In cases where wetland fill, excavation or draining, wholly or partly, is contemplated, the applicant is encouraged to submit a preliminary concept plan for review with District staff and the Technical Evaluation Panel (TEP) before submitting a formal application. The following will be examined during pre-application review:
  - (i) Sequencing (in accordance with WCA and Federal Clean Water Act requirements, reducing the size, scope or density of each individual proposed action, and changing the type of project action to avoid and minimize wetland impacts).
  - (ii) Wetland assessment.
  - (iii) Applying Better Site Design principles as defined in Rule A.
  - (iv) Integrating buffers and other barriers to protect wetland resources from future impacts.
  - (v) Exploring development code flexibility, including conditional use permits, planned unit development, variances and code revisions;
  - (vi) Reviewing wetland stormwater susceptibility (see Rule C.8) and coordinating Wetland Management Corridor (WMC) establishment with existing adjacent WMCs.
- (2) At the pre-application meeting, the applicant shall provide documentation sufficient to assess project alternatives at a concept level and such other information as the District specifically requests.
- (3) On receipt of a complete application, the District will review and act on the application in accordance with its procedural rules and WCA procedures.
- (4) The TEP shall be consulted on decisions related to replacement plans, exemptions, no-loss, wetland boundaries and determination of the WMC.

### (b) WETLAND MANAGEMENT CORRIDORS.

- (1) At the time of permitting, the preliminary Wetland Management Corridor (WMC) boundary (see Figure F1) will be adjusted in accordance with subsections F(6)(b)(2) and (3), below. Notwithstanding, within the Columbus CWPMP, commercial/Industrial zoned areas within Zone 1 will remain outside of the WMC (see Figure F2).
- (2) The applicant must delineate the site level WMC when wetland impacts are proposed:
  - (i) Within the Preliminary WMC; or
  - (ii) Within 150 feet of the Preliminary WMC and greater than the applicable *de minimis* exemption amount, per Minnesota Rules 8420.0420;

If the proposed project does not meet criterion (b)(2)(i) or (b)(2)(i), above, an applicant may accept the Preliminary WMC boundary on the project site, as made more precise on a parcel basis by the use of landscape-scale delineation methods applied or approved by the District and need not comply with Section 6(b)(3) and 6(b)(4).

- (3) The applicant shall complete a wetland functional analysis using MnRAM 3.4 (or most recent version) when defining the site level WMC boundary.
  - (i) The WMC boundary will be expanded to encompass any delineated wetland lying in part within the preliminary WMC and any wetland physically contiguous with (not separated by upland from) the landscape-scale WMC.
  - (ii) The District, in its judgment, may retract the WMC boundary on the basis of site-level information demonstrating that the retraction is consistent with the associated CWPMP and does not measurably diminish the existing or potential water resource functions of the WMC. In making such a decision, the District may consider relevant criteria including wetland delineation, buffer and floodplain location, WMC connectivity, protection of surface waters and groundwater recharge, and whether loss would be reduced by inclusion of compensating area supporting WMC function.
  - (iii) If the site level functional analysis shows the presence of Non-degraded or High Quality wetland within 50 feet of the site level WMC, the WMC will be expanded to the lateral extent of the Non-degraded or High Quality wetland boundary plus the applicable buffer as defined in section 6(e).
  - (iv) If the WMC lies within or contiguous to the parcel boundaries of the project, the lateral extent of the final WMC may be increased by the applicant to include all wetland or other action eligible for credit contiguous with the site level WMC. The extended WMC boundary must connect property to the WMC boundary on adjacent properties and reflect local surface hydrology.
- (4) A map of the final WMC boundary must be prepared and submitted to the District for approval. The map will reflect any change to the boundary as a result of the permitted activity. A GIS shapefile or CADD file of the final WMC boundary shall be submitted to the District.
- (5) A variance from a requirement of Section 6(b) otherwise meeting the criteria of District Rule L may be granted if the TEP concurs that the wetland protection afforded will not be less than that resulting from application of standard WCA criteria.

### (c) WETLAND REPLACEMENT.

- (1) The wetland replacement exemptions in Minnesota Rules 8420.0420 are not applicable within CWPMP areas, except as follows:
  - (i) The agricultural, wetland restoration, utilities, *de minimis* and wildlife habitat exemptions found at Minnesota Rules 8420.0420, subparts 2, 5, 6, 8 and 9, respectively, are applicable, subject to the scope of the exemption standards found at Minnesota Rules 8420.0420, subpart 1.

- (ii) The drainage exemption, Minnesota Rules 8420.0420, subpart 3, is applicable if the applicant demonstrates, through adequate hydrologic modeling, that the drainage activity will not change the hydrologic regime of a CWPMP-mapped high quality wetland (see Figure F3) within the boundary of a WMC. Wetland and plant community boundaries will be field-verified.
- (iii) Buffer and easement requirements of Section 6(e) and 6(f) do not apply to wetland alterations that qualify for one of the exemptions listed in Section 6(c)(1)(i), unless the project of which the wetland alteration is a part is subject to Rule C.10(d).
- (2) Replacement plans will be evaluated and implemented in accordance with Minnesota Rules 8420.0325 through 8420.0335, 8420.0500 through 08420.0544 and 8420.0800 through 8420.0820, except that the provisions of this Rule will apply in place of Minnesota Rules 8420.0522, and 8420.0526. The foundation of the CWPMPs is to limit impact to, and encourage enhancement of, high-priority wetlands and direct unavoidable impact to lower-priority wetlands in establishing the WMC. In accordance with Minnesota Rules 8420.0515, subpart 10, this principle will guide sequencing, replacement siting, WMC boundary adjustment and other elements of replacement plan review. The District will use the methodology of Minnesota Rules 8420.0522, subpart 2 to determine wetland replacement requirements for partially drained wetlands.
- (3) A replacement plan must provide at least one replacement credit for each wetland impact acre, as shown in Table F1. The replacement methods must be from the actions listed in Table F2 or an approved wetland bank consistent with Section 6(d)(1).
- (4) Acres of impact and replacement credit are determined by applying the following two steps in order:
  - (i) Multiply actual wetland acres subject to impact by the ratios stated in Table F1.
  - (ii) Calculate the replacement credits by multiplying the acreage for each replacement action by the percentage in Table F2. All replacement areas that are not within the final WMC will receive credit based on a replacement location outside the final WMC. However, when the replacement area is within the parcel boundaries of the project and there is no Preliminary WMC within those boundaries, and there is no opportunity to extend the WMC boundary from adjacent parcels of land, then the mitigation area will be credited as replacement inside the final WMC. If an applicant intends replacement also to fulfill mitigation requirements under Section 404 of the Clean Water Act, then the applicant may elect replacement credit based on a replacement location outside the final WMC.
- (5) The replacement plan must demonstrate that non-exempt impacts will result in no net loss of wetland hydrological regime, water quality, or wildlife habitat function through a wetland assessment methodology approved by BWSR pursuant to the Wetland Conservation Act, Minnesota Statutes §103G.2242.

	Anoka County		Washington County	
Wetland Degradation Type	Outside WMC	Inside WMC	Outside WMC	Inside WMC
Moderately or Severely Degraded Wetland	1:1	2:1	2:1	3:1
Marginally or Non-Degraded Wetland	1.5:1	2.5:1	2.5:1	3.5:1
High Quality Wetland and/or hardwood, coniferous swamp, floodplain forest or bog wetland communities of any quality	2:1	3:1	3.5:1	4:1

### TABLE F1. WETLAND REPLACEMENT RATIOS FOR CWPMP AREAS.

### TABLE F2. ACTIONS ELIGIBLE FOR CREDIT FOR CWPMP AREAS.

Actions Eligible for Credit	Inside of the Final WMC	Outside of the Final WMC		
Wetland Restoration				
Hydrologic and vegetative restoration of moderately and severely degraded wetland	up to 75% Determined by LGU and TEP	up to 50% Determined by LGU and TEP		
Hydrologic and vegetative restoration of effectively drained, former wetland	100%	75%		
Wetland Creation	•			
Upland to wetland conversion	50%	50%		
Wetland Protection & Prese	rvation			
Protection via conservation easement of wetland previously restored consistent with MN Rule 8420.0526 subpart 6	up to 75% Determined by LGU and TEP	up to 75% Determined by LGU and TEP		
<b>Columbus CWPMP Only:</b> Preservation of wetland or wetland/upland mosaic (requires a 3rd party easement holder and other matching action eligible for credit)	25% Determined by LGU and TEP	12.5% Determined by LGU and TEP		
Restoration or protection of wetland of exceptional natural resource value consistent with MN Rule 8420.0526, subpart 8	Up to 100% Determined by LGU and TEP	Up to 100% Determined by LGU and TEP		
Buffers				
Non-native, non-invasive dominated buffer around other action eligible for credit, consistent with Section 6(e)	10%	10%		
Native, non-invasive dominated buffer around other action eligible for credit, consistent with Section 6(e)	25%	25%		
Upland habitat area contiguous with final WMC wetland (2 acre minimum), as limited by Rule F.6(e)(5)	100%	NA		
Vegetative Restoration				
Positive shift in MnRAM assessment score for "Vegetative Integrity" from "Low" to "Medium" or "High"	Up to 50% Determined by LGU and TEP	NA		

- (6) The location and type of wetland replacement will conform as closely as possible to the following standards:
  - (i) No wetland plant community of high or exceptional wildlife habitat function and high or exceptional vegetative integrity, as identified in the required wetland assessment, may be disturbed.
  - (ii) No replacement credit will be given for excavation in an upland natural community with Natural Heritage Program rank B or higher, or with identified Endangered, Threatened or Special Concern species.
- (7) In the Columbus CWPMP only, preservation credit can be used for up to 50% of the wetland replacement required. The remaining 50% must be supplied by a non-preservation replacement action as shown within Table F2. Additionally:
  - (i) All other eligible actions for credit within this rule must be considered before preservation is approved as an action eligible for credit.
  - (ii) The Technical Evaluation Panel must find that there is a high probability that, without preservation, the wetland area to be preserved would be degraded or impacted and that the wetland meets the criteria of Minnesota Rules 8420.0526 subpart 9.A through 9.D.
  - (iii) Non-degraded, High Quality, and Moderately Degraded wetland is eligible for Preservation Credit within Zone 1 (see Figure F2).
  - (iv) Non-degraded and High Quality wetland is eligible for Preservation Credit within Zone 2 (see Figure F2).
  - (v) Wetland ranked "Low" for "vegetative integrity" is not eligible for replacement credit through Preservation.
  - (vi) Banked preservation credit may be used only within the Columbus CWPMP area (see Figure F1).
- (8) Replacement credit for Wetland Protection and Preservation (see Table F2) requires that a perpetual Conservation Easement be conveyed to and accepted by the District. The easement must encompass the entire replacement area, and must provide for preservation of the wetland's functions by the fee owner and applicant. The applicant must provide a title insurance policy acceptable to the District, naming the District as the insured. The fee owner and the applicant also must grant an access easement in favor of the District, the local government unit and any other state, local or federal regulatory authority that has authorized use of credits from the mitigation site for wetland replacement. The fee owner must record or register these easements on the title for the affected property.

- (9) Replacement credit for Vegetative Restoration (see Table F2) may be granted only for wetland communities scoring "Low" for Vegetative Integrity. The TEP must find that there is a reasonable probability for restoration success.
- (10) Unless a different standard is stated in the approved replacement or banking plan, the performance standard for upland and wetland restored or created to generate credit is establishment, by the end of the WCA monitoring period, of a medium or high quality plant community ranking with 80% vegetative coverage consisting of a native, non-invasive species composition.
- (11) Notwithstanding any provision in this rule to the contrary, for wetland impacts resulting from public drainage system repairs undertaken by the Rice Creek Watershed District that are exempt from Clean Water Act Section 404 permit requirements but are not exempt from replacement under Section 6(c)(1) of this Rule, replacement may occur subject to the following priority of replacement site sequencing:
  - (i) Within bank service areas 6 or 7 or with the concurrence of governing board of the local county or watershed district, within any county or watershed district whose county water plan, watershed management plan, or other water resource implementation plan contains wetland restoration as a means of implementation.
  - (ii) Throughout the state in areas determined to possess less than 80% of pre-settlement wetland acres.
- (12) A variance from a requirement of Section 6(c) otherwise meeting the criteria of District Rule L may be granted if the TEP concurs that the wetland protection afforded will not be less than that resulting from application of standard WCA criteria.

#### (d) WETLAND BANKING.

- (1) Replacement requirements under Section 6(c) of this Rule may be satisfied in whole or part by replacement credits generated off-site within any CWPMP area, but not by credits generated outside of a CWPMP area except as provided in Section 6(d)(5).
- (2) The deposit of replacement credits created within a CWPMP area for banking purposes and credit transactions for replacement will occur in accordance with Minnesota Rules 8420.0700 through 8420.0745. Credits generated within a CWPMP area may be used for replacement within or outside of a CWPMP area.
  - (i) The District will calculate the amount of credit in accordance with the standard terms of WCA. This measure of credit will appear in the BWSR wetland banking account.

- (ii) The District also will calculate the amount of credit in accordance with Section 6(c) of this rule. The District will record this measure of credit internally within the CWPMP's wetland bank accounting. The District will adjust this internal account if the BWSR account is later debited for replacement outside of a CWPMP area. Where credits are used for replacement within a CWPMP area, the District will convert credits used into standard WCA credits so that the BWSR account is accurately debited.
- (3) To be recognized, bank credit from Preservation in the Columbus CWPMP (see Table F2) must be matched by an equal amount of credit from a non-Preservation replacement action.
  - (i) Credit derived from Preservation as the replacement action may be used only within the Columbus CWPMP boundary.
  - (ii) If the matching non-Preservation credit is used outside of the Columbus CWPMP area, the Preservation credit within the Columbus CWPMP wetland bank account will be debited in the amount of the matching non-Preservation credit.
- (5) Banked wetland credit created outside of the CWPMP areas, but within the CWPMP Contributing Drainage Area, may be used to replace impact within the CWPMP areas. An applicant proposing to use credits under this paragraph must field verify at the time of application that the banked wetlands are located within the CWPMP Contributing Drainage Area.
- (6) Credits generated under an approved wetland banking plan, inside a CWPMP or its contributing drainage area (See Figure F4), utilized to replace impact within a CWPMP area will be recognized in accordance with the approved banking plan.
- (e) **VEGETATED BUFFERS.** Vegetated buffers are required to be established adjacent to wetlands within CWPWP areas as described below.
  - (1) Wetland buffer will consist of non-invasive vegetated land; that is not cultivated, cropped, pastured, mowed, fertilized, used as a location for depositing snow removed from roads, driveways or parking lots, subject to the placement of mulch or yard waste, or otherwise disturbed except for periodic cutting or burning that promotes the health of the buffer, actions to address disease or invasive species, or other actions to maintain or improve buffer or habitat area quality, each as approved in writing by District staff. The application must include a vegetation management plan for District approval. For public road authorities, the terms of this subsection will be modified as necessary to accommodate safety and maintenance feasibility needs.
  - (2) Buffer adjacent to wetland within the final WMC must average at least 50 feet in width, measure at least 25 feet at all points, and meet the average width at all points of concentrated inflow. For private projects dedicating

public right of way, the buffer requirement may be reduced based on compelling need and a TEP recommendation to the District in support that the wetland protection afforded is reasonable given the circumstances.

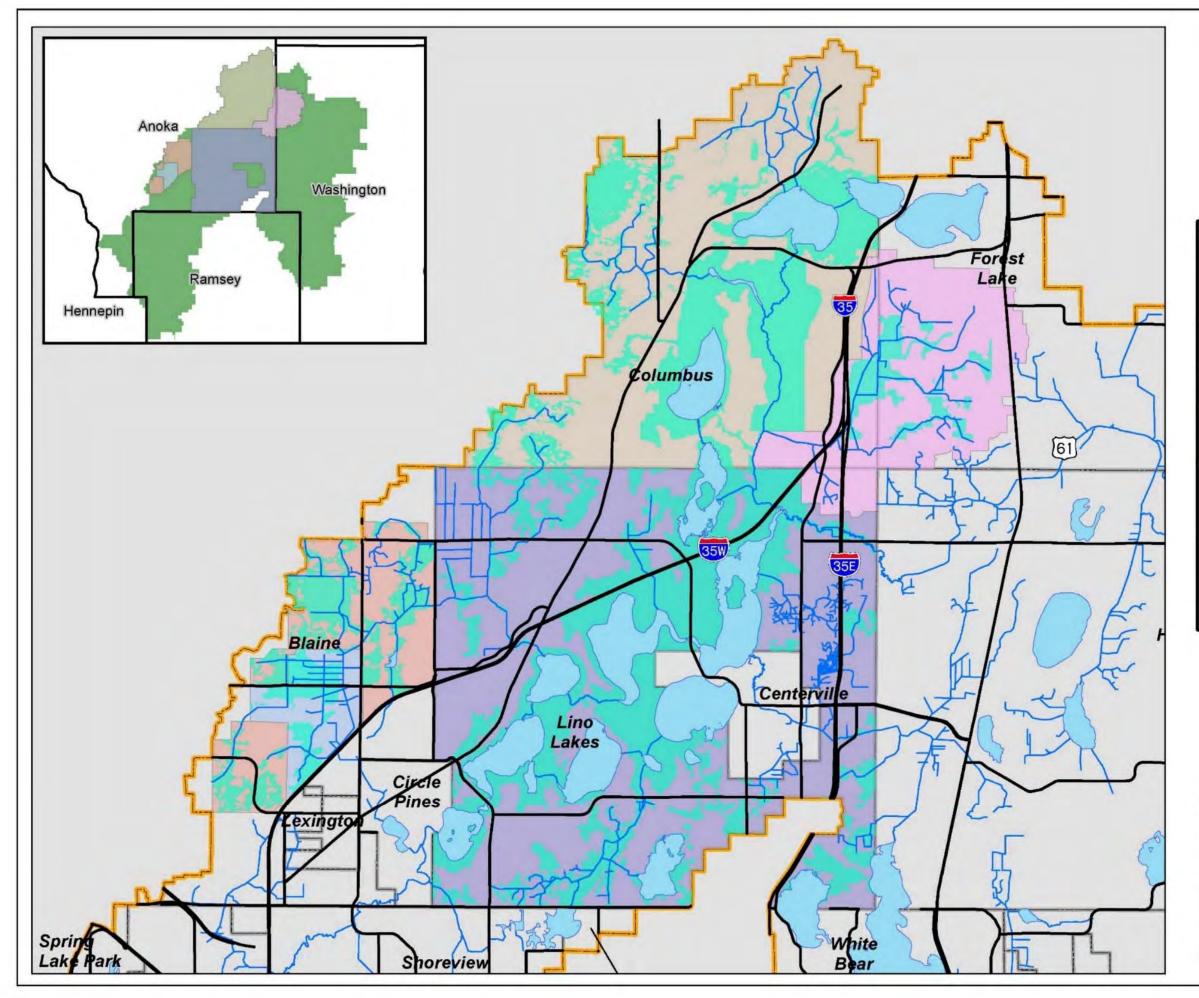
- (3) Buffer adjacent to wetland restored, created or preserved for replacement credit, not within the final WMC, must meet the minimum width standards as described in MN Rule 8420.0522, subpart 6.
- (4) Buffer adjacent to High Quality Wetland, or to replacement wetland adjacent to High Quality Wetland, must be at least 50 feet wide at all points. For private projects dedicating public right of way, the minimum width may be reduced based on compelling need and a District finding that the wetland protection afforded is reasonable given the circumstances. In making this finding, the District will give substantial weight to the TEP recommendation.
- (5) The area of buffer for which replacement credit is granted must not exceed the area of the replacement wetland except and specific to when the buffer is to meet the 50- foot requirement of Sections 6(e)(2) and 6(e)(4) and is further limited to the buffer area required to encapsulate another action eligible for credit.
- (6) Buffer receiving replacement credit as upland habitat area contiguous with the final WMC must be at least two acres in size.
- (7) No above- or below-ground structure or impervious surface may be placed within a buffer area permanently or temporarily, except as follows:
  - (i) A structure may extend or be suspended above the buffer if the impact of any supports within the buffer or habitat area is negligible, the design allows sufficient light to maintain the species shaded by the structure, and the structure does not otherwise interfere with the function afforded by the buffer.
  - (ii) A public utility, or a structure associated with a public utility, may be located within a buffer on a demonstration that there is no reasonable alternative that avoids or reduces the proposed buffer intrusion. The utility or structure shall minimize the area of permanent vegetative disturbance.
  - (iii) Buffer may enclose a linear surface for non-motorized travel no more than 10 feet in width. The linear surface must be at least 25 feet from the wetland edge. The area of the linear surface will not be eligible for replacement credit. For projects proposing nonmotorized travel no more than 10 feet in width, the linear surface may be reduced to less than 25 feet from the wetland edge based on compelling need and a TEP recommendation to the District in support that the wetland protection afforded is reasonable given the circumstances.

- (iv) A stormwater features that is vegetated consistent with Section 6(e)(1), including NURP ponds, may be located within buffer and count toward buffer width on site-specific approval.
- (8) Buffer area is to be indicated by permanent, freestanding markers at the buffer edge, with a design and text approved by District staff in writing. A marker shall be placed at each lot line, with additional markers placed at an interval of no more than 200 feet and as necessary to define variation in a meandering boundary. If a District permit is sought for a subdivision, the monumentation requirement will apply to each lot of record to be created. On public land or right-of-way, the monumentation requirement may be satisfied by the use of markers flush to the ground, breakaway markers of durable material, or a vegetation maintenance plan approved by District staff in writing.
- (9) As a condition of permit issuance under this Rule, a property owner must file on the deed a declaration in a form approved by the District establishing a vegetated buffer area adjacent to the delineated wetland edge within the final WMC and other wetland buffers approved as part of a permit under this Rule. The declaration must state that on further subdivision of the property, each subdivided lot of record shall meet the monumentation requirement of Section 6(e)(8). On public land or right-of-way, in place of a recorded declaration, the public owner may execute a written maintenance agreement with the District. The agreement will state that if the land containing the buffer area is conveyed to a private party, the seller must file on the deed a declaration for maintenance in a form approved by the District.
- (10) Buffer may be disturbed to alter land contours or improve buffer function if the following criteria are met:
  - (i) An erosion control plan is submitted under which alterations are designed and conducted to expose the smallest amount of disturbed ground for the shortest time possible, fill or excavated material is not placed to create an unstable slope, mulches or similar materials are used for temporary soil coverage, and permanent vegetation is established as soon as possible after disturbance is completed.
  - (ii) Wooded buffer and native riparian canopy trees are left intact;
  - (iii) When disturbance is completed, sheet flow characteristics within the buffer are improved; average slope is not steeper than preexisting average slope or 5:1 (horizontal: vertical), whichever is less steep; preexisting slopes steeper than 5:1 containing dense native vegetation will not require regrading; the top 18 inches of the soil profile is not compacted, has a permeability at least equal to the permeability of the preexisting soil in an uncompacted state and has organic matter content of between five and 15 percent; and habitat diversity and riparian shading are maintained or improved. Any stormwater feature within the buffer will not have exterior slopes greater than 5:1.

- (iv) A re-vegetation plan is submitted specifying removal of invasive species and establishment of native vegetation suited to the location.
- (v) A recorded Declaration or, for a public entity, maintenance agreement is submitted stating that, for three years after the project site is stabilized, the property owner will correct erosion, maintain and replace vegetation, and remove invasive species to establish permanent native vegetation according to the re-vegetation plan.
- (vi) Disturbance is not likely to result in erosion, slope failure or a failure to establish vegetation due to existing or proposed slope, soil type, root structure or construction methods.
- (11) Material may not be excavated from or placed in a buffer, except for temporary placement of fill or excavated material pursuant to duly-permitted work in the associated wetland, or pursuant to paragraph 6(e)(10) of this Rule.
- (f) **EASEMENT.** The property owner must convey to the District and record or register, in a form acceptable to the District, a perpetual, assignable easement granting the District the authority to monitor, modify and maintain hydrologic and vegetative conditions within the WMC wetland and buffer adjacent to WMC wetland, including the authority to install and maintain structural elements within those areas and reasonable access to those areas to perform authorized activities. The WMC shall be identified and delineated as part of the recorded easement.
- (g) **PARTIAL ABANDONMENT.** As a condition of permit issuance, the District may require a property owner to petition the District for partial abandonment of a public drainage system pursuant to Minnesota Statutes §103E.805. A partial abandonment under this Section may not diminish a benefited property owner's right to drainage without the owner's agreement.
- **7. REQUIRED EXHIBITS.** The following exhibits must accompany a permit application for both WCA and non-WCA wetland alterations.
  - (a) SITE PLAN. An applicant must submit one full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version of a site plan showing:
    - (1) Property lines and delineation of lands under ownership of the applicant.
    - (2) On-site location of all public and private ditch systems
    - (3) Existing and proposed elevation contours, including the existing run out elevation and flow capacity of the wetland outlet, and spoil disposal areas.
    - (4) Area of wetland to be filled, drained, excavated or otherwise altered.

- (b) WETLAND DELINEATION REPORT. An applicant must submit one hard copy and one electronic copy of a wetland delineation report conforming to a methodology authorized for WCA use and otherwise consistent with Minnesota Board of Water & Soil Resources guidance. The following requirements and clarifications apply to submittals of wetland delineation reports to the District and supplement the approved methodology and guidance:
  - (1) Wetland delineations should be conducted and reviewed during the period of May 1 October 15. The District may accept delineations performed outside this time frame on a case-by-case basis. The District will determine if there is sufficient information in the report and visible in the field at the time to assess the three wetland parameters (hydrophytic vegetation, hydric soils, hydrology) in relation to the placement of the wetland delineation line. If proper assessment of the delineation is not possible, the District may consider the application incomplete until appropriate field verification is possible.
  - (2) An applicant conducting short- or long-term wetland hydrology monitoring for the purpose of wetland delineation/determination must coordinate with the District prior to initiating the study.
  - (3) For a project site with row-cropped agricultural areas, the wetland delineation report must include a review of Farm Service Agency aerial slides (if available) for wetland signatures per <u>Guidance for Offsite Hydrology/Wetland</u> <u>Determinations (July 1, 2016)</u>, as amended, and Section 404 Clean Water Act or subsequent State-approved guidance. This review is to be considered along with field data and other pertinent information, and is not necessarily the only or primary basis for a wetland determination in an agricultural row-cropped area.
  - (4) The wetland delineation report must follow current BWSR/ACOE Guidance for Submittal of Delineation Reports, and include:
    - (i) Documentation consistent with the 1987 Corps of Engineers Wetlands Delineation Manual and Northcentral and Northeast Regional Supplement.
    - (ii) National Wetland Inventory (NWI) map, Soil Survey Map, and Department of Natural Resources (DNR) Protected Waters Map of the area being delineated.
    - (iii) Results of a field investigation of all areas indicated as potential wetland by mapping sources including: NWI wetlands, hydric soil units, poorly drained or depressional areas on the Soil Survey Map, and DNR Protected Waters or Wetlands.
    - (iv) Classifications of each delineated wetland using the following systems:
      - <u>Classification of Wetlands and Deep Water Habitats of the United</u> <u>States (Cowardin et al. 1979)</u>
      - Fish and Wildlife Service Circular 39 (Shaw and Fredine 1971)
      - <u>Wetland Plants and Plant Communities of Minnesota and Wisconsin</u> (Eggers & Reed, 3rd Edition, 2011)

- (v) A survey map (standard land survey methods or DGPS) of delineated wetland boundaries.
- (5) As a condition of District approval of any wetland delineation, applicants shall submit X/Y coordinates (NAD 83 state plane south coordinate system) and a GIS shapefile of the delineated wetland boundaries. All data shall be collected with a Trimble Geoexplorer or equivalent instrument with sub-meter accuracy.
- (c) WETLAND REPLACEMENT PLAN APPLICATION. An applicant submitting a plan involving a wetland alteration requiring replacement must submit five copies of a replacement plan application and supporting materials conforming to WCA replacement plan application submittal requirements and including the following additional documents:
  - (1) Plan sheet(s) clearly identifying, delineating, and denoting the location and size of each wetland impact area and all replacement actions for credit.
  - (2) Plan sheet(s) with profile views and construction specifications of each replacement wetland including proposed/estimated normal water level, proposed/estimated boundary of replacement wetland, topsoiling specifications (if any), grading specifications, and wetland/buffer seeding specifications.
- (d) **FUNCTIONS AND VALUES ASSESSMENT.** An applicant must submit a before-and-after wetland functions and values assessment using a WCA-accepted methodology for a project in a CWPMP area or otherwise involving at least one acre of wetland impact requiring replacement.
- (e) Erosion and sediment control plan in accordance with District Rule D.
- (f) On District request, the applicant will conduct an assessment of protected plant or animal species within the project site, where such assessment is not available from existing sources.
- (g) Other project site-specific submittal requirements as may be required by the District.



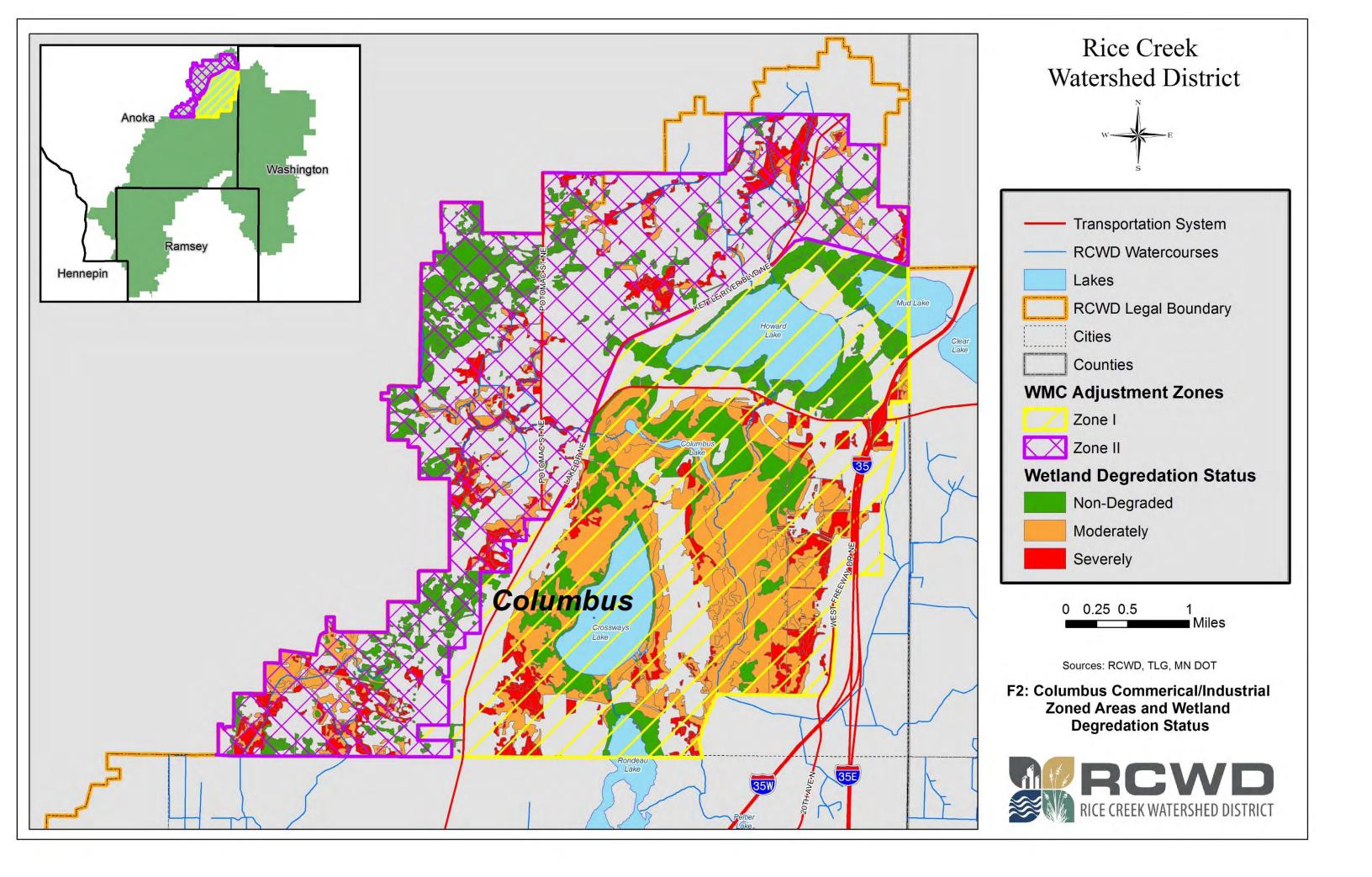
	Rice Creek Watershed District
	- Major Roads
	- RCWD Watercourses
	Lakes
	Wetland Management Corridor
[	Cities
	RCWD Legal Boundary
	Counties
CWF	PMPs
	Village Meadows
	Anoka County Ditch 53-62
	Anoka/Washington Judicial Ditch 4
	Lino Lakes CWPMP
	Columbus CWPMP

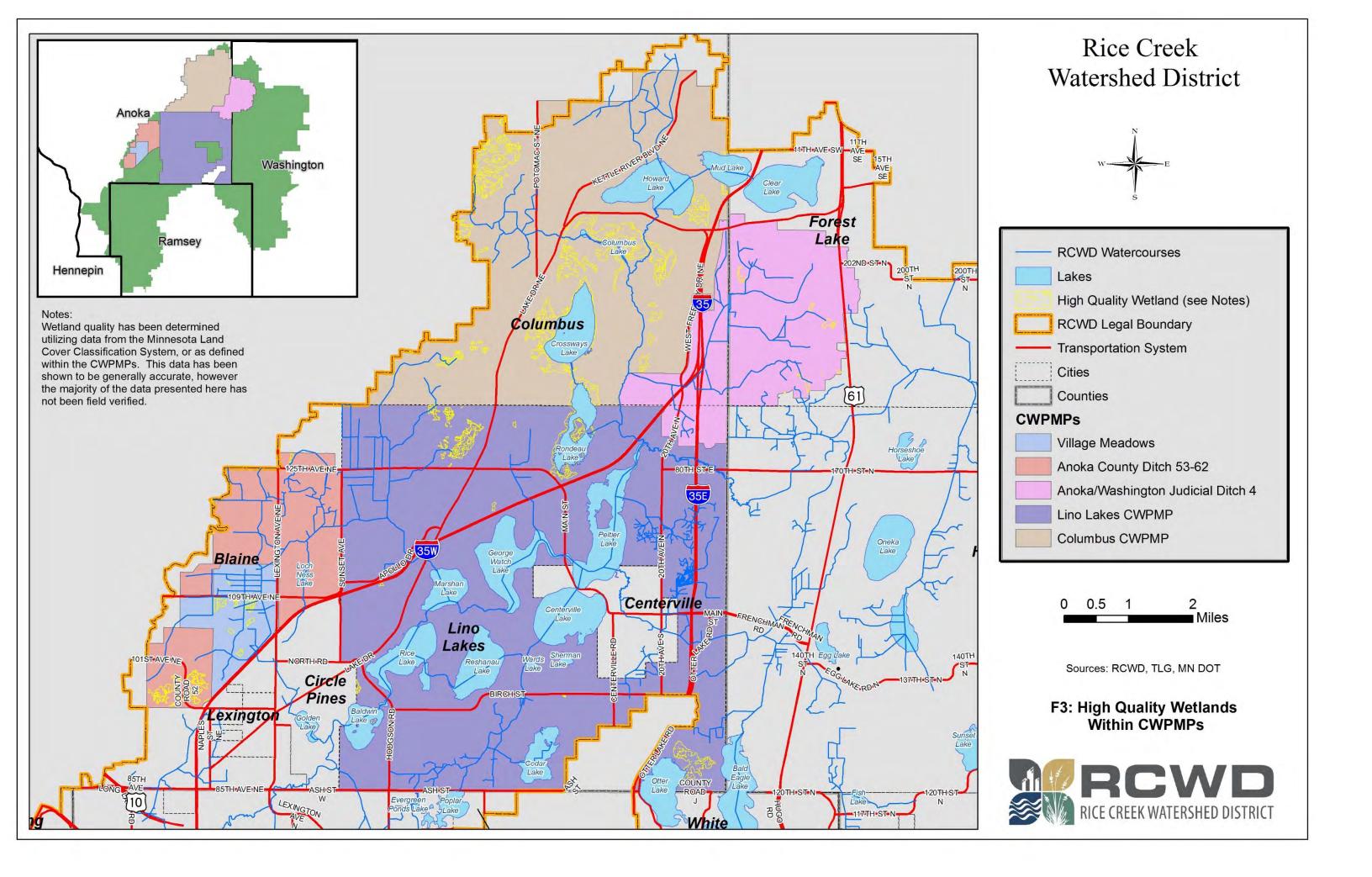
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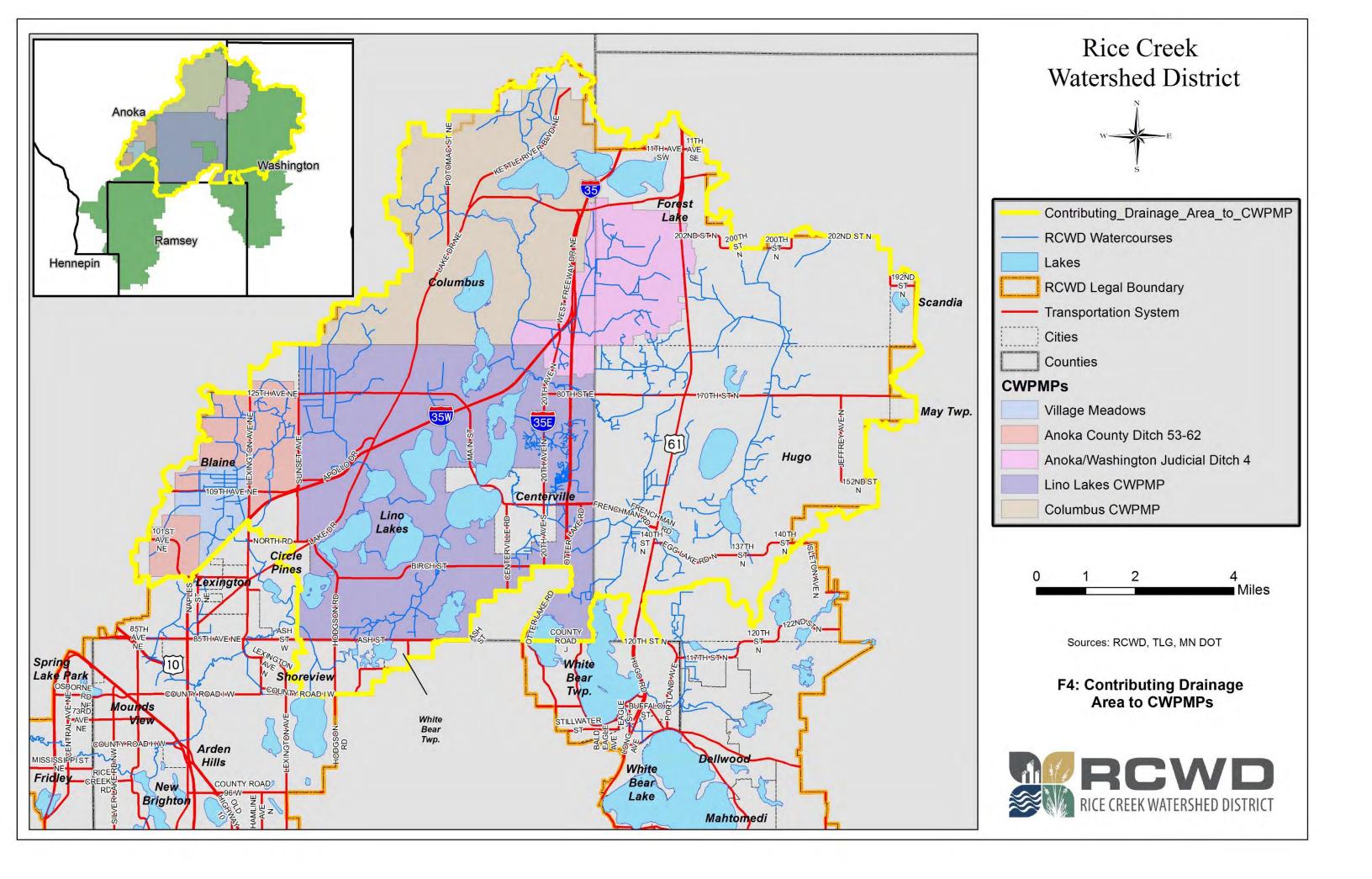
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F1: Comprehensive Wetland Protection and Management Plan Boundaries and Wetland Management Corridor









# RULE G: CROSSINGS OF NATURAL & ARTIFICIAL CONVEYANCE SYSTEMS

- 1. **POLICY.** It is the policy of the Board of Managers to preserve the capacity of the present drainage systems to accommodate future needs.
- 2. **REGULATION.** No person may construct, improve, repair or alter the hydraulic characteristics of a utility, bridge or culvert structure (i.e., crossing) on a creek, public drainage system or major watercourse in the District, without first obtaining a permit from the District.
- 3. CRITERIA. A permit application for a crossing of a public drainage system will not obligate the District, in its function as drainage authority, to investigate or hold proceedings to establish the As Constructed and Subsequently Improved Condition (ACSIC) of the drainage system. Permit issuance is not a warranty and the crossing owner will remain responsible should the crossing at any time be found to be an obstruction or subject to future modification or replacement under the drainage law. In addition, a crossing must:
  - (a) Preserve existing design hydraulic capacity or, if on a public drainage system, hydraulic capacity conforming to the drainage right of benefited lands consistent with existing drainage proceedings.
  - (b) Retain existing navigational capacity.
  - (c) Not adversely affect water quality.
  - (d) Be designed to allow for future erosion, scour, and sedimentation considerations.
  - (e) Be designed for maintenance access and be maintained in perpetuity to continue to meet the criteria of Section 3. The maintenance responsibility must be memorialized in a document executed by the property owner in a form acceptable to the District and filed for record on the deed. Alternatively, a public permittee may meet its perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District.
- 4. SUBSURFACE CROSSINGS. A crossing beneath a creek, public drainage system or major watercourse must maintain adequate vertical separation from the bed of the watercourse. The District will determine adequate separation by reference to applicable guidance and in view of relevant considerations such as soil condition, the potential for upward migration of the utility, and the likelihood that the bed elevation may decrease due to natural processes or human activities. The District also will consider the feasibility of providing separation and the risks if cover diminishes. Nothing in this paragraph diminishes the crossing owner's warranty or responsibility under Section 3, above. The applicant must submit a record drawing of the installed utility.
- 5. **REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.
  - (a) Construction details showing:
    - (1) Size and description of structure including existing and proposed flow line (invert) elevations.

- (2) Existing and proposed elevations of utility, bridge or culvert.
- (3) End details with flared end sections or other appropriate energy dissipaters.
- (4) Emergency overflow elevation and route.
- (b) Narrative describing construction methods and schedule
- (c) Erosion and sediment control plan in accordance with District Rule D.
- (d) Computations of watershed area, peak flow rates and elevations, and discussion of potential effects on water levels above and below the project site.
- 6. **EXCEPTION.** Criterion 3(a) may be waived if the applicant can demonstrate with supporting hydrologic calculations the need for an increase in discharge rate in order to provide for reasonable surface water management in the upstream area and that the downstream impacts of the increased discharge rate can be reasonably accommodated and will not exceed the existing rate at the municipal boundary.

# RULE H: ILLICIT DISCHARGE AND CONNECTION

- 1. **POLICY.** It is the policy of the Board of Managers to:
  - (a) Regulate the contribution of pollutants to the District's Municipal Separate Storm Sewer System (MS4) by any user;
  - (b) Prohibit Illicit Connections and Discharges to the District's MS4;
  - (c) Carry out inspection and monitoring procedures necessary to ensure compliance with this Rule under statutory and related authority.
- 2. **PROHIBITION**. No person shall discharge or cause to be discharged into a public drainage system within the District any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater.
- **3. EXCEPTIONS.** The commencement, conduct or continuance of any illegal discharge to the waters of the District is prohibited except as described as follows:
  - (a) The following discharges are exempt from discharge prohibitions established by this rule:
    - (1) Water line flushing or other potable water sources
    - (2) Landscape irrigation or lawn watering
    - (3) Diverted stream flows
    - (4) Rising ground water
    - (5) Ground water infiltration to storm drains
    - (6) Uncontaminated pumped ground water
    - (7) Foundation and footing drains
    - (8) Firefighting activities
  - (b) Discharges specified in writing by the District, or other federal, state or local agency as being necessary to protect the public health and safety.
  - (c) Dye testing is an allowable discharge, but requires a verbal notification to the District prior to the time of the test.
  - (d) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

#### 4. ILLICIT CONNECTIONS PROHIBITED

- (a) The construction, use, maintenance or continued existence of illicit connections to the public drainage system is prohibited.
- (b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- (c) A person is considered to be in violation of this rule if the person connects a line conveying sewage to the public drainage system, or allows such a connection to continue.

# RULE I: DRAINAGE SYSTEMS

- **1. POLICY.** It is the policy of the Board of Managers to regulate new construction, improvement or repair of drainage systems (open and tiled) for the following purposes:
  - (a) To preserve the capacities of drainage systems to accommodate future needs.
  - (b) To improve water quality and prevent localized flooding.
  - (c) To prevent the loss of drainage.
- 2. **REGULATION.** No drainage system may be altered, constructed, improved or repaired without first obtaining a permit from the District. The permit is in addition to any formal procedures or District approvals that may be required under Minnesota Statutes Chapter 103E or other drainage law. The Board of Managers may waive the requirement of a permit under this rule for repair to a drainage system if the applicant proposes to repair a tiled system of less than fifty feet in length, and where such repair would not alter the invert of the system.
- **3. CRITERIA.** A project proposing to alter, construct, improve or repair a drainage system must:
  - (a) Comply with orders or findings issued by the District or a previous Drainage Authority.
  - (b) Comply with all Federal, State and District wetland protection rules and regulations.
  - (c) Demonstrate that such activity will not adversely impact upstream and/or downstream water quality or quantity.
  - (d) Provide stable channel and outfall.
  - (e) Demonstrate concurrence with regional pond or subdivision drainage plans approved by the District, if applicable.
  - (f) Conform to District Rule F (Wetland Alteration), as applicable.
  - (g) If drainage system is proposed to outlet a landlocked basin, provide sufficient dead storage volume to retain back-to-back 100-year, 24-hour rainfalls and runoff.
  - (h) Be designed for maintenance access and be maintained in perpetuity to avoid constituting an obstruction and otherwise to continue to meet the criteria of Section 3. The maintenance responsibility must be memorialized in a document executed by the property owner in a form acceptable to the District and filed for record on the deed. Alternatively, a public permittee may meet its perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District.
- **4. REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches).
  - (a) Map showing location of project and tributary area.
  - (b) Existing and proposed cross sections and profile of affected area.
  - (c) Description of bridges or culverts required.
  - (d) Narrative and calculations describing wetland impacts and effects on water levels above and below the project site.
  - (e) Erosion and sediment control plan in accordance with District Rule D.
  - (f) Hydrologic and hydraulic analysis of the proposed project.

### **RULE J: APPROPRIATION OF PUBLIC WATERS**

- **1. POLICY.** It is the policy of the Board of Managers to regulate the appropriation of public waters as follows.
- **2. REGULATION.** A permit from the District is required for the appropriation of water from:
  - (a) A public waterbasin or wetland that is less than 500 acres and is wholly within Hennepin or Ramsey County.
  - (b) A protected watercourse within Hennepin or Ramsey County that has a drainage area of less than 50 square miles.
- **3. CRITERIA.** A permit applicant for appropriation of public waters as described above must complete and submit to the District an appropriation checklist. The appropriation checklist form may be obtained from the District office.

# RULE K: ENFORCEMENT

- 1. VIOLATION OF RULES IS A MISDEMEANOR. Violation of these rules, a stipulation agreement made, or permit issued by the Board of Managers under these rules, is a misdemeanor subject to a penalty as provided by law.
- 2. DISTRICT COURT ACTION. The District may exercise all powers conferred upon it by Minnesota Statutes Chapter 103D in enforcing these rules, including criminal prosecution, injunction, or action to compel performance, restoration or abatement.
- **3. ADMINISTRATIVE ORDER.** The District may issue a cease and desist or compliance order when it finds that a proposed or initiated project presents a serious threat of soil erosion, sedimentation, or an adverse effect upon water quality or quantity, or violates any rule or permit of the District.

# **RULE L: VARIANCES**

- 1. VARIANCES AUTHORIZED. The Board of Managers may hear a request for variance from a literal provision of these rules where strict enforcement would cause undue hardship or practical difficulty because of circumstances unique to the property under consideration. The Board of Managers may grant a variance if an applicant demonstrates that such action will be in keeping with the spirit and intent of these rules and in doing so may impose conditions on the variance as necessary to find that it meets the standards of section 2, below. A variance request must be addressed to the Board of Managers as part of a permit application and must address each of the four criteria listed in the standard.
- 2. **STANDARD.** In order to grant a variance, the Board of Managers must determine that:
  - (a) Special conditions apply to the structures or lands under consideration that do not apply generally to other land or structures in the District.
  - (b) Because of the unique conditions of the property involved, undue hardship or practical difficulty to the applicant would result, as distinguished from mere inconvenience, if the strict letter of the rules were applied. Economic considerations alone do not constitute undue hardship or practical difficulty if any reasonable use of the property exists under the terms of the District's rules.
  - (c) The proposed activity for which the variance is sought will not adversely affect the public health, safety or welfare; will not create extraordinary public expense; and will not adversely affect water quality, water control or drainage in the District.
  - (d) The intent of the District's rules is met.
- **3. PRACTICAL DIFFICULTY DEFINED.** In evaluating practical difficulty, the Board of Managers will consider the following factors:
  - (a) How substantial the variation is from the rule provision;
  - (b) The effect of the variance on government services;
  - (c) Whether the variance will substantially change the character of watershed resources or be a substantial detriment to neighboring properties;
  - (d) Whether the practical difficulty can be alleviated by a technically and economically feasible method other than a variance;
  - (e) How the practical difficulty occurred, including whether the landowner created the need for the variance; and
  - (f) In light of all of the above factors, whether allowing the variance will serve the interests of justice.
- **4. TERM.** A variance expires on expiration of the CAPROC approval or permit associated with the variance request.
- **5. VIOLATION.** A violation of any condition set forth in a variance is a violation of the District permit that it accompanies and automatically terminates the variance.

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9.0	APPROVAL STANDARDS
9.1	Drainage
9.2	Floodplain
9.3	Groundwater
9.4	Soils And Erosion Control
9.5	Stormwater
9.6	Water Quality
9.7	Wetlands
9.8	Wildlife

# 9.0 APPROVAL STANDARDS

All permit applicants must comply with the applicable standards set forth in this section:

9.1 DRAINAGE	
Policy	<ol> <li>It is the policy of the District to:         <ol> <li>Maintain ditch and conveyance systems within the watershed to fulfill the role identified within the District's Comprehensive Management Plan and the drainage law.</li> <li>Promote, preserve and enhance the water and related land resources of the Coon Creek Watershed.</li> <li>Protect the water and related land resources of the Coon Creek Watershed from the adverse effects resulting from poor or</li> </ol> </li> </ol>
	<ul> <li>incompatible land use activities.</li> <li>4. Encourage compatibility between land use activities upstream and down stream.</li> <li>5. Regulate land-disturbing activities affecting the course, current, cross section and quality of ditches and water courses.</li> <li>6. Regulate improvements by riparian property owners of the bed, banks, and shores of lakes, streams, and wetlands for preservation and beneficial use.</li> <li>7. Protect stream channels from degradation.</li> <li>8. To regulate crossings of ditches and watercourses in the District to maintain channel profile stability and conveyance capacity.</li> </ul>
Scope and Applicability	<ul><li>This policy, regulation and criteria apply to:</li><li>1. All public and private ditches within the Watershed District.</li></ul>
Regulation	This permit requirement is in addition to any procedures that may be required for public ditches under Minnesota Statutes 103E or other ditch law.

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No person shall commence a land disturbing activity in or adjacent to a ditch or conveyance without:

- 1. Submitting plans for work within and/or adjacent to public or private ditches, or water courses <u>and</u>
- 2. Obtaining a permit from the District.

No person shall construct, improve, repair or alter the hydraulic characteristics of a bridge profile control or culvert structure on a creek, public ditch or major watercourse in the District, without first obtaining a permit from the District.

Every person owning property through which a ditch or watercourse passes, or such person's lessee, shall keep and maintain that part of the ditch or watercourse within the property, free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, obstruct or significantly retard the flow of water, or access for maintenance or repair of the watercourse.

In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

The natural drainage system shall be used as far as is feasible for storage and flow of runoff. Stormwater drainage may be discharged to wetlands, retention basins or other treatment facilities. Temporary storage areas or retention basins scattered throughout developed areas shall be encouraged to reduce peak flow, erosion damage, and construction cost.

The widths of a constructed waterway shall be sufficiently large to adequately channel runoff from a ten (10) year storm. Adequacy shall be determined by the expected runoff when full development of the drainage area is reached.

No fences or structures shall be constructed across the waterway that will reduce or restrict the flow of water.

The banks of the waterway shall be protected with permanent vegetation.

The gradient of the waterway bed should not exceed a grade that will result in a velocity that will cause erosion of the banks of the waterway.

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	The bed of the waterway should be protected with turf, sod, or rip-rap. If turf or sod will not function properly, rip-rap shall be used. Rip-rap, in conformity with engineering specifications, shall consist of MnDOT 3601 material ClassA with filter blanket Type 1.
	If the flow velocity in the waterway is such that erosion of the turn side wall will occur and said velocity cannot be decreased by velocity control structures, then rip-rap shall replace turf on the side walls.
	Sediment Control of Waterways To prevent sedimentation of waterways, pervious and impervious sediment traps and other sediment, control structures shall be incorporated throughout the contributing watershed.
	Temporary pervious sediment traps could consist of a construction of bales of hay, per plan requirements. Such structures would serve as temporary sediment control features during the construction stage of development. Development of housing and other structures shall be restricted from the area on either side of the waterway required to convey a one hundred (100) year storm.
	Permanent impervious sediment control structures consist of sediment basins (debris basins, desilting basins, or silt traps) and shall be utilized to remove sediment from runoff prior to its disposal in any permanent body of water or stream.
Standards	<ol> <li>Public ditches shall be inspected using the criteria in the District's Comprehensive Management Plan.</li> <li>Prior to realignment or repair, alternative measures to conserve, allocate and use the water should be considered (versus removing it from the area and watershed.)</li> <li>The need for repair of the ditch shall be determined.</li> </ol>
	<ul> <li>A permit application for construction, improvement or repair of a public or private drainage system in the District must:</li> <li>1. Identify all public drainage ditches on the site, including ditch number and year of establishment;</li> <li>2. Identify the acres of agricultural land directly affected by the ditch.</li> <li>3. Identify the trend in land use for the affected drainage area.</li> </ul>

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4.	Determine the drainage needs and flooding characteristics for
	land upstream and downstream.

- 5. Determine the primary role of the ditch in providing for agricultural drainage and/or stormwater conveyance.
- 6. Provide the approved/as-built elevations and grades of the public ditch through the subject property.
- 7. Demonstrate that such proposed activity will not adversely impact down stream water quality or quantity.
- 8. Provide stable channel and outfall.
- 9. Comply with all federal, state and District wetland protection rules and regulations.
- 10. Demonstrate concurrence with regional pond or subdivision drainage plans approved by the District, if applicable.
- 11. If a drainage system is proposed to outlet a landlocked basin, provide sufficient dead storage volume to retain back-to-back 100-year, twenty-four- hour rainfalls and runoff.

Bridge and Culvert Crossings. Crossings must:

- 1. Provide equivalent hydraulic capacity as existing condition.
- 2. Retain existing navigational capacity.
- 3. Not adversely affect water quality.
- 4. Represent the minimal impact solution to a specific need with respect to all other alternatives.
- 5. Be constructed to allow for future erosion, scour and sedimentation considerations.

# **Exhibits** The applicant must submit with its permit application the following.

For construction, improvement or repair of a public or private drainage system:

- 1. Map showing section of the ditch to be maintained.
- 2. Depth, in feet, proposed to be dredged.
- 3. Plan for placement of dredge material
- 4. Plan for final vegetative cover of dredge. Evidence that the affected property owners have been contacted and will allow access for maintenance purposes.

For construction or installation of crossings:

- 1. Construction details showing:
  - (1) Existing and proposed flow line (invert) elevations.
  - (2) End details with flared end sections, wingwalls and/or riprap (energy dissipators).
  - (3) Size and description of structure.

- (4) Emergency overflow elevation and route.
- 2. Construction schedule.
- 3. Narrative describing construction methods.
- 4. An erosion control plan that complies with these rules.
- 5. Computations of watershed area, peak flow rates and elevations, and discussion of potential effects on water levels above and below the project area.

9.2 FLOODPLAIN Policy	<ol> <li>It is the policy of the District to</li> <li>To secure safety from floods.</li> <li>To prevent loss of life, property damage, and the losses and risks associated with flood conditions.</li> <li>To preserve the location, character, and extent of natural drainage courses.</li> <li>To preserve the natural integrity of drainage patterns</li> <li>To provide a storm and surface water system capable of handling a 100 year storm.</li> </ol>			
Scope and Applicability	<ol> <li>This policy, regulation and standards apply to:</li> <li>The channel and channel bed and the lands and waters adjoining a wetland, lake or water course that has been, or hereafter may be covered by the 100 year flood.</li> <li>All lands transitional between upland and lowland that are inundated or saturated by surface water or groundwater during the 100 year flood.</li> </ol>			
Regulation	<ul> <li>No person shall alter or fill below the 100-year critical flood elevation of any waters, wetlands, and ditch or conveyance system within the Watershed, without first obtaining a permit from the District.</li> <li>Proposed projects that affect the conveyance capacity of channels or crossings shall document that equivalent hydraulic capacity is provided. When hydraulic equivalents are not desired or feasible for the proposed project, the District will review hydraulic information prepared by the sponsor which details easement acquisition or permission for increased flood levels (upstream or downstream of the project) emergency overflow elevations, and assessment of the adequacy of the outlet as generally described in</li> </ul>			
Standards	<ol> <li>M.S. 103E</li> <li>The existence of floodplain on the property must be determined.</li> <li>Proposed floodplain impacts must be identified and quantified         <ol> <li>Such encroachment cannot lie within the floodway and can not result in a violation of State or District floodplain, shoreland or wetland policies.</li> <li>Construction or development subject to flood damage will have a minimum floor elevation of at least 1 foot above the 100-year flood profile.</li> <li>Any structures, facilities, or embankments within the floodplain shall be capable of passing the 100-year flood</li> </ol> </li> </ol>			

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	<ul> <li>without increasing the elevation of the 100-year flood profile or creating excessive velocities as determined by the District.</li> <li>3. The floodplain storage volume after encroachment is equal to or greater than the floodplain storage volume prior to encroachment within the relevant reach (Compensatory storage must be provided).</li> </ul>				
Exhibits	<ul> <li>The applicant must submit with its permit application the following: <ol> <li>Site plan showing boundary lines, delineation and existing elevation contours of the work area, ordinary high water level, and 100-year critical flood elevation. All elevations shall be referenced to NAVD (1988 datum)</li> <li>Grading plan showing any proposed elevation changes</li> <li>Preliminary plat of any proposed subdivision</li> <li>Determination by a registered professional engineer of the 100-year critical flood elevation before and after the proposed activity.</li> <li>Computation of the change in flood storage capacity as a result of the proposed alteration or fill</li> <li>Erosion and sediment control plan which complies with these Rules</li> <li>Soil boring logs and report if available</li> </ol> </li> </ul>				

9.3 GROUNDWATER					
Policy	<ol> <li>It is the policy of the District to         <ol> <li>To implement the purpose and intent of the water quality provisions of the District's Comprehensive Management Plan as they may relate to ground water.</li> <li>To maintain the present and natural rate of recharge to the surficial aquifer, and when possible, enhance the rate of recharge.</li> <li>To ensure a dependable water supply and ensure the integrity of natural drainage patterns.</li> <li>To protect fresh water supplies from the dangers of drought, overdraft, pollution, or mismanagement.</li> <li>To define the roles and responsibilities of governmental units in implementing land use controls for the protection of groundwater quality</li> <li>To prevent property damage, and the losses and risks</li> </ol> </li> </ol>				
	associated with flood conditions that may arise from high water tables.				
Scope and Applicability	<ul> <li>This policy, regulation and standards apply to:</li> <li>1. All wetlands</li> <li>2. All high water table outwash and organic soils</li> <li>3. All high infiltration soils</li> <li>4. All appropriation of groundwater</li> </ul>				
Regulation	A person must submit a permit application and obtain a permit from the District for appropriation or disposal of groundwater.				
	The withdrawal of ground and surface water and the location of the place of discharge thereof shall conform to the standards of the Minnesota Pollution Control Agency and the Department of Natural Resources Consider alternative measures to conserve, allocate and use ground water, versus removing the water from the area and watershed.				
	Demonstrate that at a minimum, recharge from the one inch storm from impervious surfaces will be infiltrated.				
	Infiltration shall not be allowed within a one year travel zone of a public well as determined by the municipal well-head protection plan				

Standards	An applicant must demonstrate compliance with the following standards:			
	<ol> <li>The quality of water infiltrated to the water table or surficial aquifer shall remain unchanged or improved by the land disturbance activity.</li> </ol>			
	2. Low floors must be at least 2 feet above high water table elevation or mottled soils, which ever is higher, unless the applicant can show that the potential for property damage, and the losses and risks associated with high water table conditions are nonexistent or acceptably remote or as required by local ordinance			
	3. Ground water may not be discharged in a manner that causes erosion or flooding of the site or receiving channels or a wetland.			
	<ol> <li>Water pumped from a project site shall be treated by temporary sedimentation basins, grit chambers, sand filters or other appropriate controls designed and used to remove particles of 100 microns or greater for the highest pumping rate.</li> </ol>			
	<ol> <li>The withdrawal from the Surficial Aquifer and the location of the place of discharge thereof shall conform to the standards of the Minnesota Pollution Control Agency and the Department of Natural Resources.</li> </ol>			
Exhibits	The applicant must submit with its permit application the following:			
	1. A grading plan showing final grades and low floor elevation of any structures proposed for the site			
	<ol> <li>The infiltration rates and the dewatering site and place of discharge</li> </ol>			
	3. The location, rate, and place of discharge			
	4. A geotechnical report that addresses the availability and depth to ground water and soil mottling.			

# 9.4 SOILS AND EROSION CONTROL

9.4 SOILS AND ER		
Policy	<ol> <li>It is the policy of the District to:         <ol> <li>To reduce the siltation into, and the pollution of water bodies and streams.</li> <li>To guide, regulate and control the design, construction, use and maintenance of development to promote water quality and prevent pollution.</li> <li>To control and minimize pollution caused by erosion and sedimentation.</li> <li>To reduce siltation to, and the pollution of, water bodies and streams.</li> </ol> </li> </ol>	
Scope and Applicability	<ol> <li>This policy, regulation and standards apply to:         <ol> <li>Land disturbing activities on lands within the Coon Cree Watershed District of 1 acre or more of cumulative disturbance.</li> <li>Land disturbing activities within 100 feet of 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> order streams, lakes, or type 3, 4, 5 wetlands</li> <li>Land disturbing activities within 50 feet of 1<sup>st</sup> and 2<sup>nd</sup> order streams, or type 1, 2, 6 or 7 wetlands</li> <li>Those land disturbing activities involving excavation or filling or a combination of excavation and filling of dirt, sand or other excavation or fill material including the laying, repairing, replacing or enlarging of an underground pipe or facility where it crosses a public ditch or waters of the state.</li> </ol> </li> </ol>	
Regulation	<ul> <li>A person must submit a permit application and obtain a permit from the District incorporating an erosion control plan before commencing an activity described in the scope and applicability section above.</li> <li>Sediment Control of Waterways <ol> <li>To prevent sedimentation of waterways, pervious and impervious sediment traps and other sediment, control structures shall be incorporated throughout the contributing watershed.</li> <li>Temporary pervious sediment traps could consist of a construction of bales of hay, per plan requirements. Such structures would serve as temporary sediment control features during the construction stage of development. Development of housing and other structures shall be restricted from the area on either side of the waterway required to convey a one hundred (100) year storm.</li> </ol> </li> </ul>	

	3. Permanent impervious sediment control structures consist of sediment basins (debris basins, desilting basins, or silt traps) and shall be utilized to remove sediment from runoff prior to its disposal in any permanent body of water or stream.
	Soils Information: If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil sits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.
Exceptions	<ul><li>The following land-disturbing activities are excepted from the above requirements:</li><li>1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources</li><li>2. Existing nursery or agricultural operations conducted as a permitted main or accessory use.</li></ul>
Standards	<ul> <li>An applicant for an erosion and sediment control permit must demonstrate compliance with the following standards:</li> <li>1. The Soils affected by the proposal must be identified</li> <li>2. Soils with a soil-erodibility factor of 0.15 or greater need special attention through the use of best management practices</li> <li>3. Disturbed areas must be stabilized with vegetation within 14 days.</li> <li>4. Adjacent properties must be protected from sediment deposition.</li> <li>5. Sedimentation, skimming, and nutrient removal are to be provided to the maximum extent practical for stormwater runoff prior to discharge to waters of the District. It is understood that there are occasions when it may be necessary to use a portion of a protected basin to serve as a sediment trap and to provide skimming facilities.</li> <li>6. Plans and specifications must conform to the provisions of all pertinent Minnesota Pollution Control Agency Manuals</li> <li>7. All erosion and sediment controls proposed for compliance must be in place before any land-disturbing activity begins.</li> <li>8. Any area of land from which the natural vegetative cover has been either partially or wholly cleared or removed by development activities shall be revegetated within 14 days from the substantial completion of such clearing and</li> </ul>

construction. The following criteria shall apply to revegetation efforts:

<ul> <li>of utilities, infrastructure, and buildings; and final grading a landscaping. Sequencing shall identify the expected date or which clearing will begin and the duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment o permanent vegetation.</li> <li>3. All erosion and sediment control measures necessary to meet the objectives of this local regulation throughout all phases of construction and after completion of development of the site Depending upon the complexity of the project, the drafting and implementation of intermediate plans may be required a the close of each season.</li> <li>4. Seeding mixtures and rates, types of sod, method of seed be preparation, expected seeding dates, type and rate of fertilizapplication, and kind and quantity of mulching for both temporary and permanent vegetative control measures</li> <li>5. Provisions for maintenance of control facilities, including</li> </ul>		<ul> <li>a) Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area.</li> <li>b) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.</li> <li>c) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.</li> </ul>
easements and estimates of the cost of maintenance.	Exhibits	<ul> <li>following:</li> <li>1. A natural resource map identifying soils, forest cover, and resources protected under other provisions of this rule, city rule or state statute</li> <li>2. A sequence or construction of the development site, including; clearing and grubbing, rough grading, construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin and the duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.</li> <li>3. All erosion and sediment control measures necessary to meet the objectives of this local regulation throughout all phases of construction and after complexity of the project, the drafting and implementation of intermediate plans may be required at the close of each season.</li> <li>4. Seeding mixtures and rates, types of sod, method of seed bed preparation, expected seeding dates, type and rate of fertilizer application, and kind and quantity of mulching for both temporary and permanent vegetative control measures</li> </ul>

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6. Explanation of how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

# 9.5 STORMWATER

It is the policy of the District to **Policv** 1. To promote, preserve and enhance the water and related land resources of the Coon Creek Watershed. 2. To implement the nondegradation requirements of the NPDES program using 1988 as the baseline year and load allocation reductions or management practices noted in a District adopted Total Maximum Daily Loads (TMDLs) implementation plan 3. To protect water and related land resources of the Coon Creek Watershed from the adverse effects resulting from poor or incompatible land use activities. 4. To implement applicable TMDLs 5. To encourage compatibility between land use activities upstream and down stream and natural resource capacity. 6. To regulate land-disturbing activities affecting the course, current or cross section of ditches and water courses. 7. Regulate improvements by riparian property owners of the bed, banks, and shores of lakes, streams, and wetlands for preservation and beneficial use. Scope and This policy, regulation and standards apply to: Applicability 1. Land disturbing activities of 1 acre or greater of cumulative impact 2. Work adjacent to lakes or wetlands, 3. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Land Uses) A person must submit a permit application and obtain a permit Regulation from the District incorporating a stormwater plan before commencing an activity described in the scope and applicability section above. Unless determined by the District to be exempt or granted a waiver, the following shall be addressed for stormwater management at all sites: 1. All site designs shall establish stormwater management practices to control the peak flow rates of stormwater discharge associated with the 1, 10, 25, and 100 year design storms and reduce the generation of stormwater. 2. All stormwater management practices will be designed so that the specific storm frequency storage volumes (e.g. recharge, water quality, channel protection, 10 year and 100 year) as identified in the current Minnesota Pollution Control Agency

**Standards** 

<u>Stormwater Design Manual</u> are met, unless the District grants the applicant a waiver or the applicant is exempt from such requirements.

- 3. Stormwater volume management practices shall be the equivalent of infiltrating the first inch of precipitation
- 4. These practices should seek to utilize pervious areas for stormwater treatment and to infiltrate stormwater runoff from driveways, sidewalks, rooftops, parking lots and landscaped areas to the maximum extent practical to provide treatment for both water quantity and quality.
- 5. In addition, if regulatory, hydrologic, topographic or landscape conditions (e.g. drainage sensitive uses, TMDL or nondegradation requirements) warrant greater control than that provided by the minimum control requirements, the District reserves the right to impose additional requirements deemed necessary to control the volume, timing and rate of runoff.
- 6. Applicants shall consult the <u>Minnesota Pollution Control</u> <u>Agency Stormwater Design Manual</u> for guidance on the factors that determine site design feasibility when selecting a stormwater management practice. Stormwater management practices for a site shall be chosen based on the physical conditions of the site. Among the factors that should be considered:
  - Topography
  - Maximum Drainage Area
  - Depth to Water Table
  - Soils
  - Slopes
  - Terrain
  - Head
  - Location in relation to environmentally sensitive features or urban areas.
- 1. Stormwater leaving the site must be routed to a public drainage system
  - 2. Drainage sensitive uses downstream from the proposed site must be accounted for and their ability to discharge in a timely manner must be assured.
  - 3. Stormwater plans must ensure that discharge rates from the proposal are controlled such that within Drainage-Sensitive Uses Areas the post-development 100-year peak flow rate shall not exceed predevelopment 25-year peak flow rate (by subwatershed)

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- 4. In Non-Drainage Sensitive Uses Areas the post-development 100-year peak flow rate shall not exceed predevelopment 100-year peak flow rate (by subwatershed)
- 5. The proposal must infiltrate the first one inch of precipitation

# **Exhibits** The applicant must submit with its permit application the following:

- <u>Topographic Base Map</u>: A 1" = 200' topographic base map of the site which extends a minimum of 50 feet beyond the limits of the proposed development and indicates existing surface water drainage including streams, ponds, culverts, ditches, and wetlands; current land use including all existing structures; locations of utilities, roads, and easements; and significant natural and manmade features not otherwise shown.
- 2. <u>Calculations</u>: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in this rule. Such calculations shall include
  - a. Description of the design storm frequency, intensity and duration,
  - b. Time of concentration,
  - c. Soil Curve Numbers or runoff coefficients,
  - d. Peak runoff rates and total runoff volumes for each watershed area,
  - e. Infiltration rates determined by site flooding or double ring infiltrometer, where applicable,
  - f. Culvert capacities,
  - g. Flow velocities,
  - h. Data on the increase in rate and volume of runoff for the design storms referenced in the Stormwater Design Manual,
  - i. Documentation of sources for all computation methods and field test results.
- 3. <u>Soils Information</u>: If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil sits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.
- 4. <u>Maintenance Plan</u>: The design and planning of all stormwater management facilities shall include detailed maintenance and repair plan as described in section 13 of these rules.

- 5. <u>Landscaping plan</u>: The applicant must present a detailed plan for management of vegetation at the site after construction is finished as described in section 13.2 of these rules
- 6. <u>Maintenance Easements</u>: The applicant must ensure access to all stormwater treatment practices at the site for the purpose of inspection and repair by securing all the maintenance easements needed on a permanent basis. These easements will be recorded with the plan and will remain in effect even with transfer of title to the property.
- 7. <u>Erosion and Sediment Control Plans for Construction of</u> <u>Stormwater Management Measures</u>: The applicant must prepare an erosion and sediment control plan for all construction activities related to implementing any on-site stormwater management practices.

# 9.6 WATER QUALITY

9.6 WATER QUALIT						
Policy	It is the policy of the I	District to				
	1. To control and minimize pollution caused by erosion and sedimentation.					
	2. To reduce siltation to, and the pollution of water bodies and streams.					
	3. To preserve and improve the quality of the lakes and wetlands within the watershed					
	4. Improve the quality of the surface and subsurface discharges to the lakes and wetlands within the watershed by limiting nutrients and other contaminants					
	5. To pursue non-degradation of the waters of the District					
Scope and Applicability	<ul> <li>This policy, regulation and standards apply to:</li> <li>1. Land disturbing activities of 1 acre or more of cumulative disturbance. Projects containing greater than or equal to 1 acre of impervious surface shall contain storm-water detention, erosion and sediment control and pollution prevention BMPs.</li> </ul>					
	2. Work adjacent to courses	or discharging into we	tlands, lakes or water			
Regulation	A person must submit a permit application and obtain a permit from the District incorporating a stormwater plan before commencing an activity described in the scope and applicability section above. Unless determined by the District to be exempt or granted a waiver, the following shall be addressed for water quality management at all sites:					
	All discharges into we		-			
	Waterbody	management practice				
	1 <sup>st</sup> 2 <sup>nd</sup> order stream	nyurology	<b>BMP</b> Sedimentation			
	Type 1,2 6,7 wetland	Temporarily flooded Saturated Seasonally flooded or saturated	basin or equivalent designed for 0.5 inch			
	3 <sup>rd</sup> , 4 <sup>th</sup> 5 <sup>th</sup> order stream		NURP/Walker/Wet Pond or equivalent sized for 2.5 inch			
		Permanently flooded Artificially flooded	rainfall			

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The proposal shall not cause extreme fluctuations of water levels or temperature changes in wetlands or streams.

The proposal shall not detrimentally affect the existing water quality of the receiving water.

All stormwater management practices shall be designed to convey stormwater to allow for the maximum removal of pollutants and reduction of flow velocities. These shall include, but not be limited to:

- a. Maximizing of flowpaths, where appropriate, from inflow points to outflow points
- b. Protection of inlet and outfall structures
- c. Elimination of erosive flow velocities
- d. Providing of underdrain systems, where applicable

For new development, structural stormwater treatment practices shall be designed to remove  $\underline{80\%}$  of the average annual post development total suspended solids (TSS) unless otherwise specified by a TMDL or nondegradation requirement.

All stormwater treatment practices shall have an acceptable form of water quality pretreatment, in accordance with the pretreatment requirements found in the current stormwater design manual.

All stormwater runoff generated from new development shall not discharge untreated stormwater directly into jurisdictional wetlands or local water bodies without adequate treatment. Where such discharges are proposed, the impact proposed on wetland function shall be assessed using a method acceptable to the District. In no case shall the impact on wetland function or value be allowed to degrade the current function as identified in the District's Comprehensive Water Management Plan.

Stormwater discharges to critical areas with sensitive resources or where a TMDL is in place may be subject to additional performance standards, or may need to utilize or restrict certain stormwater management practices.

Stormwater discharges from land uses or activities with higher potential pollutant loadings, may require the use of specific structural STPs and pollution prevention practices.

Standards	<ul> <li>It is presumed that a Stormwater Treatment Practices (STP) complies with this performance standard if it is:</li> <li>1. Sized to capture the prescribed water quality volume</li> <li>2. Designed in accordance with specific design standards outline in an approved stormwater design manual</li> <li>3. Constructed properly</li> <li>4. Maintained properly</li> </ul>
Exhibits	The applicant must submit with its permit application the exhibits for 9.5 Stormwater

9.7 WETLANDS Policy	<ol> <li>It is the policy of the District to</li> <li>To provide for the protection, preservation, proper maintenance and use of wetlands.</li> <li>To minimize the disturbance to wetlands and to prevent damage from excessive sedimentation, eutrophication or pollution.</li> <li>To protect and enhance the ecological function of wetlands</li> </ol>		
Scope and Applicability	and the benefits and values they provide to society This policy, regulation and standards apply to: All lands transitional between upland and lowland that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation		
Regulation	Any person proposing to impact wetland by draining, filling, or excavating must submit a permit application and obtain a permit from the District. Stormwater drainage may be discharged to wetlands provided appropriate pretreatment of said discharge accomplished. Diversion of stormwater to wetlands shall be considered for existing or planned surface drainage provided such diversion is in compliance with state law and all necessary easements have been obtained. Wetlands used for stormwater shall provide for natural or artificial water level control.		
Standards	The Minnesota Wetland Conservation Act (WCA), as amended, and its implementing rules contained in Minnesota Rules chapter 8420, as amended, are incorporated as part of this rule and govern all draining, filling and excavating in wetlands. Any person proposing to impact a wetland in the District is subject to and must establish compliance with the Wetland Conservation Act, as amended, standards and criteria, including but not limited to sequencing and replacement.		
	<ul> <li>Within area(s) delineated as wetland, the applicant and property owner shall not:</li> <li>1. Fill or place materials, substances or other objects, nor erect or construct any type of structure, temporary or</li> </ul>		

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permanent, except as specified in the Wetland Conservation Act..

- 2. Drain or cause to be drained through ditching pumping or alteration of the wetlands water source or actions which adversely change the wetlands hydroperiod such that the wetland can become nonwetland, except as specified in the Wetland Conservation Act..
- 3. Excavate or dig except as specified in the Wetland Conservation Act..
- 4. Clear vegetation, pond water or alter the landscape position in a manner that results in adverse environmental impact

Discharges into wetlands should not cause extreme fluctuations of water levels. Discharges that exceed the standards below shall be considered and regulated as adverse impact

Wetland Type	-Sedge Meadows -Type 8 -Seasonally Flooded Basins	Scrub-Shrub Wet- Meadows Type 4 &5	-Floodplain forests Type 4 &5	Cultivated hydric soil Sand/gravel pit
Standard				
Storm Bounce	Existing	Existing + 0.5 ft	Existing + 1 ft	No limit
Discharge Rate	Existing	Existing	Existing or less	Existing or less
Inundation on 1-2yr event	Existing	Existing + 1 day	Existing + 2 days	Existing + 7 days
Inundation for 10 yr event	Existing	Existing + 7 days	Existing + 14 days	Existing + 21 days
Run out control	No change	No change	0'-1 ft above RO	0-4 ft above RO

RO= Run Out

## Exhibits

The applicant must submit with its permit application the following:

1. A site plan showing property lines and delineation of lands in which the applicant has an ownership or legal interest; existing and proposed elevation contours, including existing runout elevation and flow capacity of the wetland outlet; and area of the wetland proposed to be filled, drained, or excavated

- 2. A complete delineation of all existing wetland(s), including data sheets with complete and detailed information on field indicators (soils, vegetation and hydrology) and summary report. Wetland delineations must be performed during the normal growing season for this part of Minnesota. Wetland boundaries must be staked in the field and easily identifiable.
- 3. The total wetland acres, wetland types and number of jurisdictional wetland basins on the property
- 4. Identification of existing and proposed watershed for each wetland basin and the depth and duration for all proposed stormwater discharges.
- 5. The size and nature of proposed impact to each wetlands and the reason the impact is unavoidable shall be identified
- 6. The wetland dependence of each proposed impact of the project shall be determined.
- 7. The nature and scope of the appropriate Wetland Conservation Act exemption shall be noted if applicable.
- 8. Alternatives to avoid and minimize each proposed impact.

9.8 WILDLIFE Policy	<ol> <li>It is the policy of the District to</li> <li>To prevent loss of wildlife and vegetation and the habitats on which they depend.</li> <li>To protect, preserve and manage unique resource areas and unique and/or endangered species of plants and animals that populate these areas from adverse impacts associated with land use change.</li> </ol>
Scope and Applicability	<ol> <li>This policy, regulation and standards apply to:</li> <li>Endangered species,</li> <li>Threatened species</li> <li>Special concern species, elements or communities</li> </ol>
Regulation	No person shall impact an endangered species, threatened species, special concern species <u>or elements</u> , or communities, without first obtaining a permit from the District.
Standards	<ul> <li>Applicant must: <ol> <li>Establish the presence of endangered, threatened or special concern species or communities on-site and the source of that information.</li> <li>Assess the potential effect on wildlife and vegetation and the habitats on which they depend.</li> <li>The District may require applicant to provide a habitat management plan when the District determines applicant cannot avoid direct or indirect impacts on the habitat in question.</li> </ol> </li> <li>Assessment of significant adverse impacts should be based on the following factors: <ol> <li>The amount of vegetation/habitat removal and/or alteration within the development site</li> <li>The amount of habitat of similar type and quality within the development site that remains contiguous</li> <li>The existing and proposed amount of lot coverage</li> <li>Mitigation efforts that directly address the negative effects of the proposed land use on wildlife habitat.</li> </ol></li></ul>

# Appendix C City of Blaine Joint Powers Agreement



#### JOINT FOWERS AGREEMENT FOR THE PROVISION OF SANITARY SEWER AND STORM WATER DRAINAGE BETWEEN THE CITY OF SPRING LAKE PARK AND THE CITY OF BLAINE

This agreement made and entered into this <u>29th</u> day of <u>August</u>, 1988, by and between the City of Spring Lake Park, a municipal corporation and political subdivision of the State of Minnesota, hereinafter referred to as "Spring Lake Park," and the City of Blaine, a municipal corporation and political subdivision of the State of Minnesota, hereinafter referred to as "Blaine."

#### WITNESSETH:

WHEREAS, Spring Lake Fark does presently provide sanitary sewer and storm water drainage for a portion of Blaine described as Poplar Homes and Lot 13, Auditor's Subdivision Number 19, and;

WHEREAS, said area is presently being redeveloped, and;

WHEREAS, the parties to this Agreement jointly desire to continue said provision of services.

NOW. THEREFORE, IT IS MUTUALLY STIPULATED AND AGREED:

- 1. Spring Lake Park agrees to continue to provide sanitary sewer and storm water drainage to said site by the existing infrastructure under the existing terms and conditions.
- 2. Blaine agrees that all costs incurred in reconstructing connections to existing infrastructure shall be borne by Blaine, and the site of construction shall be restored to no less than original condition.
- Blaine shall provide Spring Lake Park with notice and plans relating to said reconstruction regarding existing infrastructure.
- 4. Blaine agrees that the volume of existing storm water drainage to Spring Lake Park will not be increased as a result of said Redevelopment of the site.

 Blaine agrees that it shall require any driveway along the eastern boundary of the proposed senior housing site to approximately align with the existing centerline of Monroe Street.

IN WITNESS WHEREOF, the parties of this Agreement have hereunto set their hands on the dates written below:

CITY OF SPRING LAKE PARK CITY OF BLAINE By: By: Don Masterson, Mayor Elwyn Tinklenberg, Mayor September 1 , 1988 August 29 Dated: , 1988 Dated: ul By: By: Jas Donald B. Busch, Clerk/Treas. Donald G. Poss, City Manager

Dated:

September 1 \_\_\_\_, 1988

Appendix D City of Spring Lake Park Stormwater Pollution Prevention Program (SWPPP)





# MS4 SWPPP Application for Reauthorization

for the NPDES/SDS General Small Municipal Separate Storm Sewer System (MS4) Permit MNR040000 reissued with an effective date of August 1, 2013 Stormwater Pollution Prevention Program (SWPPP) Document

Doc Type: Permit Application

**Instructions:** This application is for authorization to discharge stormwater associated with Municipal Separate Storm Sewer Systems (MS4s) under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit Program. **No fee** is required with the submittal of this application. Please refer to "Example" for detailed instructions found on the Minnesota Pollution Control Agency (MPCA) MS4 website at <a href="http://www.pca.state.mn.us/ms4">http://www.pca.state.mn.us/ms4</a>.

**Submittal:** This *MS4 SWPPP Application for Reauthorization* form must be submitted electronically via e-mail to the MPCA at <u>ms4permitprogram.pca@state.mn.us</u> from the person that is duly authorized to certify this form. All questions with an asterisk (\*) are required fields. All applications will be returned if required fields are not completed.

Questions: Contact Claudia Hochstein at 651-757-2881 or <u>claudia.hochstein@state.mn.us</u>, Dan Miller at 651-757-2246 or <u>daniel.miller@state.mn.us</u>, or call toll-free at 800-657-3864.

## General Contact Information (\*Required fields)

MS4 permittee name: <u>City of Spring Lake Park</u> (city, county, municipality, gover	rnment agency	or other entity)	*County: Ar	noka/Ramsey
Mailing address: <u>1301 81<sup>st</sup> Avenue NE</u>				
City: Spring Lake Park	*State:	MN	*Zip code:	55432
Phone (including area code): 763-784-6491		*E-mail: info@	slpmn.org	
MS4 General contact (with Stormwater Pollution	Prevention	Program [SWPI	PP] implementat	ion responsibility)
*Last name:Buchholtz		*First name	: Daniel	
(department head, MS4 coordinator, consult	tant, etc.)			
Title: City Administrator				
Mailing address: 1301 81st Avenue NE				
City: Spring Lake Park	*State:	MN	*Zip code:	55432
Phone (including area code):763-784-6491		*E-mail: dbuc	hholtz@slpmn.org	]
Preparer information (complete if SWPPP appli	cation is pre	epared by a party	/ other than MS4	General contact
Last name: Schleeter		First name	: Brad	
(department head, MS4 coordinator, consult	tant, etc.)			
Title: Project Manager				
Title: _ Project Manager Mailing address: _ 2335 W Highway 36				
	State:	MN	Zip code:	55113

### Verification

- 1. I seek to continue discharging stormwater associated with a small MS4 after the effective date of this Permit, and shall submit this *MS4 SWPPP Application for Reauthorization* form, in accordance with the schedule in Appendix A, Table 1, with the SWPPP document completed in accordance with the Permit (Part II.D.). 🛛 Yes
- 2. I have read and understand the NPDES/SDS MS4 General Permit and certify that we intend to comply with all requirements of the Permit. X Yes

### Certification (All fields are required)

Yes - I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted.

I certify that based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of civil and criminal penalties.

This certification is required by Minn. Stat. §§ 7001.0070 and 7001.0540. The authorized person with overall, MS4 legal responsibility must certify the application (principal executive officer or a ranking elected official).

By typing my name in the following box, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing my application.

Name:	Daniel Buchholtz					
	(This document has b	een electronically signed)				
Title:	City Administrator, C	lerk-Treasurer	Dat	e (mm/dd/yyyy):	12/30/13	
Mailing	address: <u>1301 81<sup>s</sup></u>	<sup>t</sup> Avenue NE				
City:	Spring Lake Park		State: MN		Zip code:	55432
Phone	(including area code):	763-784-6491	E-mail:	dbuchholtz@slp	omn.org	
		<b>Note:</b> The applic processed witho				

# I. Partnerships: (Part II.D.1)

A. List the **regulated small MS4(s)** with which you have established a partnership in order to satisfy one or more requirements of this Permit. Indicate which Minimum Control Measure (MCM) requirements or other program components that each partnership helps to accomplish (List all that apply). Check the box below if you currently have no established partnerships with other regulated MS4s. If you have more than five partnerships, hit the tab key after the last line to generate a new row.

□ No partnerships with regulated small MS4s

Name and description of partnership	MCM/Other permit requirements involved
Rice Creek Watershed District	
The District provides us with various stormwater related articles that are included in our newsletters and handouts/brochures	
City coordinates plan review activities with the District	MCM 1, MCM 5
Coon Creek Watershed District	
The District provides us with various stormwater related articles that are included in our newsletters and handouts/brochures	
City coordinates plan review activities with the District	MCM 1, MCM 5
Coordinate spill response capabilities with the Cities of Blaine and Mounds View, through the Spring Lake Park/Blaine/Mounds View Fire Department.	MCM 3

B. If you have additional information that you would like to communicate about your partnerships with other regulated small MS4(s), provide it in the space below, or include an attachment to the SWPPP Document, with the following file naming convention: *MS4NameHere\_Partnerships*.

# II. Description of Regulatory Mechanisms: (Part II.D.2)

#### **Illicit discharges**

- A. Do you have a regulatory mechanism(s) that effectively prohibits non-stormwater discharges into your small MS4, except those non-stormwater discharges authorized under the Permit (Part III.D.3.b.)?
  - 1. If yes:
    - a. Check which type of regulatory mechanism(s) your organization has (check all that apply):

Ordinance	Contract language
Policy/Standards	Permits
🗌 Rules	
Other, explain:	

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

Storm Water Illicit Discharge and Illicit Connection Ordinance (Section 52)

Direct link:

- Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere\_IDDEreg.*
- 2. If no:

Describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

We have a strong Storm Water Illicit Discharge and Illicit Connection ordinance (Chapter 52 in City Code) that meets the majority of what the MPCA considers an effective regulatory mechanism for illicit discharges. A copy of this ordinance is attached for reference. We will revise this ordinance to address the following MS4 permit requirements:

- Clearly prohibit non-stormwater discharges to your MS4 or watercourses
- Clearly define non-stormwater

We will complete these ordinance updates within 12 months of the date permit coverage is extended.

#### Construction site stormwater runoff control

- A. Do you have a regulatory mechanism(s) that establishes requirements for erosion and sediment controls and waste controls? X Yes I No
  - 1. If yes:
    - a. Check which type of regulatory mechanism(s) your organization has (check all that apply):

🛛 Ordinance	Contrac
🛛 Policy/Standards	Permits
Rules	
Other, explain:	

Contract language

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

- Construction Site Runoff Control Ordinance (Section 150.200)
- Local Surface Water Management Plan Section 7.2.5

Direct link:

- Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere\_CSWreg.*
- B. Is your regulatory mechanism at least as stringent as the MPCA general permit to Discharge Stormwater Associated with Construction Activity (as of the effective date of the MS4 Permit)? □Yes ⊠ No

If you answered **yes** to the above question, proceed to C.

If you answered **no** to either of the above permit requirements listed in A. or B., describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

B: We will update our Construction Site Runoff Control Ordinance and other construction site stormater runoff control regulatory mechanisms to be at least as stringent as the MPCA Construction Stormwater (CSW) permit. We will use the Construction Site Stormwater Runoff Control guidance documents provided by the MPCA to review the City's existing regulatory mechanisms to identify any deficiencies with the CSW Permit. We will complete this review and subsequent updates to our regulatory mechanisms within 12 months of the date permit coverage is extended.

C. Answer **yes** or **no** to indicate whether your regulatory mechanism(s) requires owners and operators of construction activity to develop site plans that incorporate the following erosion and sediment controls and waste controls as described in the Permit (Part III.D.4.a.(1)-(8)), and as listed below:

1.	Best Management Practices (BMPs) to minimize erosion.	🛛 Yes	🗌 No
2.	BMPs to minimize the discharge of sediment and other pollutants.	🛛 Yes	🗌 No
3.	BMPs for dewatering activities.	🛛 Yes	🗌 No
4.	Site inspections and records of rainfall events	🛛 Yes	🗌 No
5.	BMP maintenance	🛛 Yes	🗌 No
6.	Management of solid and hazardous wastes on each project site.	🛛 Yes	🗌 No
7.	Final stabilization upon the completion of construction activity, including the use of perennial	🗌 Yes	🛛 No
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vegetative cover on all exposed soils or other equivalent means.

8. Criteria for the use of temporary sediment basins.



If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C.7 - we will revise the ordinance section on final stabilization to specifically mention the use of perennial vegetative cover on all exposed soils and complete this action within 12 months of the date permit coverage is extended.

#### Post-construction stormwater management

- A. Do you have a regulatory mechanism(s) to address post-construction stormwater management activities?
   ☑ Yes □ No
  - 1. If yes:
    - a. Check which type of regulatory mechanism(s) your organization has (check all that apply):

Ordinance	Contract language		
Policy/Standards	Permits		
Rules			
Other, explain:			

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

<ul> <li>Site Plan Review O</li> </ul>	rdinance (Sectior	156.115)
--	-------------------	----------

- Local Surface Water Management Plan	Section 7.2.1 to 7.2.4
---------------------------------------	------------------------

Direct link:

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere\_PostCSWreg*.

B. Answer **yes** or **no** below to indicate whether you have a regulatory mechanism(s) in place that meets the following requirements as described in the Permit (Part III.D.5.a.):

1.	<ol> <li>Site plan review: Requirements that owners and/or operators of construction activity submit site plans with post-construction stormwater management BMPs to the permittee for review an approval, prior to start of construction activity.</li> </ol>				🛛 No	
2.	co pra for	<b>Conditions for post construction stormwater management:</b> Requires the use of any combination of BMPs, with highest preference given to Green Infrastructure techniques and practices (e.g., infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc.), necessary to meet the following conditions on the site of a construction activity to the Maximum Extent Practicable (MEP):				
	a.		new development projects – no net increase from pre-project conditions (on an annual grage basis) of:	🗌 Yes	🛛 No	
		1) 2) 3)	Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)). Stormwater discharges of Total Suspended Solids (TSS). Stormwater discharges of Total Phosphorus (TP).			
	b.		redevelopment projects – a net reduction from pre-project conditions (on an annual rage basis) of:	🗌 Yes	🛛 No	
		1) 2) 3)	Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)). Stormwater discharges of TSS. Stormwater discharges of TP.			
3.	St	ormv	vater management limitations and exceptions:			
	a. Limitations					
		1)	<ul> <li>Prohibit the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) when the infiltration structural stormwater BMP will receive discharges from, or be constructed in areas:</li> <li>a) Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the MPCA.</li> <li>b) Where vehicle fueling and maintenance occur.</li> </ul>	☐ Yes	⊠ No	

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			c)	With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.		
			d)			
		2)	stor revie impa a) b) c)	trict the use of infiltration techniques to achieve the conditions for post-construction mwater management in the Permit (Part III.D.5.a(2)), without higher engineering ew, sufficient to provide a functioning treatment system and prevent adverse acts to groundwater, when the infiltration device will be constructed in areas: With predominately Hydrologic Soil Group D (clay) soils. Within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features. Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13. Where soil infiltration rates are more than 8.3 inches per hour.	☐ Yes	No No
		3)	cont in th exce med	linear projects where the lack of right-of-way precludes the installation of volume trol practices that meet the conditions for post-construction stormwater management a Permit (Part III.D.5.a(2)), the permittee's regulatory mechanism(s) may allow eptions as described in the Permit (Part III.D.5.a(3)(b)). The permittee's regulatory chanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way ng the project planning process.	☐ Yes	🛛 No
4.	stor acti	rmwa vity a	iter d	rovisions: The permittee's regulatory mechanism(s) shall ensure that any ischarges of TSS and/or TP not addressed on the site of the original construction ddressed through mitigation and, at a minimum, shall ensure the following are met:		
	a. '			n project areas are selected in the following order of preference:	🗌 Yes	
			Loca	ations that yield benefits to the same receiving water that receives runoff from the inal construction activity.		
		2)	cato	ations within the same Minnesota Department of Natural Resource (DNR) hment area as the original construction activity.		
		3)		ations in the next adjacent DNR catchment area up-stream		
		4)		ations anywhere within the permittee's jurisdiction.		
	b.	retro	ofit o	n projects must involve the creation of new structural stormwater BMPs or the fexisting structural stormwater BMPs, or the use of a properly designed regional all stormwater BMP.	☐ Yes	🛛 No
	C.			maintenance of structural stormwater BMPs already required by this permit cannot to meet mitigation requirements of this part.	🗌 Yes	🛛 No
	d.			n projects shall be completed within 24 months after the start of the original tion activity.	🗌 Yes	🛛 No
	e.			nittee shall determine, and document, who will be responsible for long-term ance on all mitigation projects of this part.	🗌 Yes	
	f.	for r the perr	nitiga cond nitte	rmittee receives payment from the owner and/or operator of a construction activity ation purposes in lieu of the owner or operator of that construction activity meeting litions for post-construction stormwater management in Part III.D.5.a(2), the e shall apply any such payment received to a public stormwater project, and all must be in compliance with Part III.D.5.a(4)(a)-(e).	☐ Yes	🛛 No
5.	meo and BM con only that	chani I own Ps no ditior / incl t are	ism(s iers o ot ow ns foi udes direc	naintenance of structural stormwater BMPs: The permittee's regulatory s) shall provide for the establishment of legal mechanisms between the permittee or operators responsible for the long-term maintenance of structural stormwater and or operated by the permittee, that have been implemented to meet the r post-construction stormwater management in the Permit (Part III.D.5.a(2)). This structural stormwater BMPs constructed after the effective date of this permit and thy connected to the permittee's MS4, and that are in the permittee's jurisdiction. chanism shall include provisions that, at a minimum:		
	a.	ope stru	ratec ctura	e permittee to conduct inspections of structural stormwater BMPs not owned or I by the permittee, perform necessary maintenance, and assess costs for those Il stormwater BMPs when the permittee determines that the owner and/or operator ructural stormwater BMP has not conducted maintenance.	☐ Yes	🛛 No
	b.	resp	oonsi	conditions that are designed to preserve the permittee's right to ensure maintenance bility, for structural stormwater BMPs not owned or operated by the permittee, when sponsibilities are legally transferred to another party.	🗌 Yes	🛛 No
	C.	Incl	ude d	conditions that are designed to protect/preserve structural stormwater BMPs and ures that are implemented to comply with the Permit (Part III.D.5.a(2)). If site	🗌 Yes	🛛 No

configurations or structural stormwater BMPs change, causing decreased structural stormwater BMP effectiveness, new or improved structural stormwater BMPs must be implemented to ensure the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) continue to be met.

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within twelve (12) months of the date permit coverage is extended, these permit requirements are met:

B.2 - B.5: We will update our Code of Ordinances to adopt by reference our currently adopted Local Surface Water Management Plan (LSWMP) that will be updated to specifically address B.2 - B.5. This will create a direct tie from our Code of Ordinances to the regulatory mechanisms (City policies and standards found in the LSWMP) that address the post-construction stormwater management requirements in B.2 to B.5.

B.1: We will update our Code of Ordinances to require that owners and/or operators of construction activity submit site plans with post-construction stormwater management BMPs (meeting City stormwater standards) to the City for review and approval prior to the start of construction activity.

B.2.a-b: While our LSWMP identifies general goals to reduce runoff volume and TP and TSS loading, the LSWMP sections will be updated to specifically reference the requirements of B.2.a, and B.2.b.

B.3.a.(1)-(2): our LSWMP references some limitations and exceptions for infiltration, however, this section will be updated to include the entire list of prohibitions and restrictions in B.3.a.(1)-(2).

B.3.a.(3): We will update our LSWMP to include a requirement that specifically addresses the linear project requirements in B.3.a.(3).

*B.4.a-f:* We will update our LSWMP to include a requirement that specifically addresses offsite stormwater mitigation that meets the requirements in *B.4.* 

B.5.a-c: We will update our LSWMP to include a requirement that specifically addresses long-term maintenance of structural stormwater BMPs not owned or operated by the City that meets the requirements in B.5. All of the actions identified above will be completed within 12 months of the date permit coverage is extended.

# III. Enforcement Response Procedures (ERPs): (Part II.D.3)

A. Do you have existing ERPs that satisfy the requirements of the Permit (Part III.B.)?

□ Yes ⊠ No

- 1. If **yes**, attach them to this form as an electronic document, with the following file naming convention: *MS4NameHere\_ERPs*.
- 2. If **no**, describe the tasks and corresponding schedules that will be taken to assure that, with twelve (12) months of the date permit coverage is extended, these permit requirements are met:

We will amend our Storm Water Ilicit Discharge and Illicit Connection Ordinance and our Construction Site Runoff Control Ordinance to include all of the ERP documentation requirements in Part III.B.2 of the MS4 Permit. This action could include an adoption by reference in the ordinances to a seperate ERP document.

We will include a requirement in our SWMP that identifies ERPs for Post-Construction Stormwater Management, including the documentation requirements as identified in Part III.B.2 of the MS4 Permit.

All of the actions identified above will be completed within 12 months of the date permit coverage is extended.

B. Describe your ERPs:

Sections 52.12, 52.13, and 52.99 in our Storm Water Illicit Discharge and Illicit Connection Ordinance describe ERPs, as follows:

- Suspension of Storm Sewer System Access
- --- Suspension due to illicit discharges in emergency situations
- --- Suspension due to the detection of illicit discharge

- Enforcement

--- Notice of violation

---Abatement of a violation

---Bill for abatement and/or restoration

- Penalty

Sections 150.210 and 150.999 in our Construction Site Runoff Control Ordinance describe ERPs, as follows:

- Enforcement Procedures

---Right of entry

--- Notification by city of failure of the stormwater pollution prevention plan

- --- Failure to conduct corrective work
- --- Action against the financial security
- --- Emergency action
- Penalty

## IV. Storm Sewer System Map and Inventory: (Part II.D.4.)

A. Describe how you manage your storm sewer system map and inventory:

We periodically review and update our Surface Water System Map found in our Local Surface Water Management Plan. We have pond inventory information available in GIS, but need to compile this information to meet the inventory requirements.

B. Answer **yes** or **no** to indicate whether your storm sewer system map addresses the following requirements from the Permit (Part III.C.1.a-d), as listed below:

1.	The permittee's entire small MS4 as a goal, but at a minimum, all pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes.	🛛 Yes	🗌 No
2.	Outfalls, including a unique identification (ID) number assigned by the permittee, and an associated geographic coordinate.	🛛 Yes	🗌 No

3.	Structural stormwater BMPs that are part of the permittee's small MS4.	🛛 Yes	🗌 No
4	All receiving waters	□ Yes	🖾 No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

We will add unique ID numbers on our Surface Water System Map to all waters receiving flow from our MS4. This task will be completed within 12 months of the date permit coverage is extended.

C. Answer **yes** or **no** to indicate whether you have completed the requirements of 2009 Minnesota Session Law, Ch. 172. Sec. 28: with the following inventories, according to the specifications of the Permit (Part III.C.2.a.-b.), including:

1.	All ponds within the permittee's jurisdiction that are constructed and operated for purposes of	🗌 Yes	🛛 No
	water quality treatment, stormwater detention, and flood control, and that are used for the		
	collection of stormwater via constructed conveyances.		

- 2. All wetlands and lakes, within the permittee's jurisdiction, that collect stormwater via constructed 🗌 Yes 🖾 No conveyances.
- D. Answer yes or no to indicate whether you have completed the following information for each feature inventoried.

1.	A unique identification (ID) number assigned by the permittee.	🗌 Yes	🖂 No
2.	A geographic coordinate.	🗌 Yes	🛛 No
3.	Type of feature (e.g., pond, wetland, or lake). This may be determined by using best professional	🗌 Yes	🛛 No
	judgment.		

If you have answered **yes** to all above requirements, and you have already submitted the Pond Inventory Form to the MPCA, then you do not need to resubmit the inventory form below.

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

Sections C and D: we will update our Surface Water System Map and GIS inventory information to include the pond inventory documentation requirements required in the MS4 Permit. This task will be completed within 12 months of the date permit coverage is extended.

E. Answer **yes** or **no** to indicate if you are attaching your pond, wetland and lake inventory to the MPCA on the form provided on the MPCA website at: <u>http://www.pca.state.mn.us/ms4</u>, according to the specifications of Permit (Part III.C.2.b.(1)-(3)). Attach with the following file naming convention: *MS4NameHere\_inventory*.

If you answered **no**, the inventory form must be submitted to the MPCA MS4 Permit Program within 12 months of the date permit coverage is extended.

# V. Minimum Control Measures (MCMs) (Part II.D.5)

#### A. MCM1: Public education and outreach

 The Permit requires that, within 12 months of the date permit coverage is extended, existing permittees revise their education and outreach program that focuses on illicit discharge recognition and reporting, as well as other specifically selected stormwater-related issue(s) of high priority to the permittee during this permit term. Describe your current educational program, including any high-priority topics included:

Our public education and outreach program includes stormwater related articles in our City newsletter, stormwater related brochures available at City Hall, cable access programming of stormwater related material, pet waste signage in City parks, and a 30-day public notice for our annual MS4 public meeting.

2. List the categories of BMPs that address your public education and outreach program, including the distribution of educational materials and a program implementation plan. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the U.S. Environmental Protection Agency's (EPA) *Measurable Goals Guidance for Phase II Small MS4s* (http://www.epa.gov/npdes/pubs/measurablegoals.pdf).

Established BMP categories	Measurable goals and timeframes
Stormwater related articles	Include at least 1 stormwater related article in each edition of our newsletter.
Stormwater related brochures	Make at least 3 stormwater related brochures available at City Hall continuously. These brochures may periodically be mailed to residents in a utility billing.
30-day public notice for annual stormwater meeting	Publicly notice the annual stormwater meeting at least 30 days prior to the meeting in the local newspaper and posted at City Hall.
Local access cable	Air at least 1 stormwater related segment on our local access cable channel annually.
Pet waste signage	Maintain the existing pet waste signage in 6 city parks continuously.
BMP categories to be implemented	Measurable goals and timeframes
Create a City stormwater webpage	Create a page on our website dedicated to stormwater related information, updates, links, and references. The webpage will include illicit discharge recognition and reporting information for users, as well as our stormwater hotline and other contact information for reporting illicit discharges. This work will be completed within 12 months of the date permit coverage is extended.
Program evaluation	At least twice during the permit term, we will evaluate our public education and outreach program to determine if the current program efforts address the most pressing stormwater related issues in Spring Lake Park.

If you have more than five categories, hit the tab key after the last line to generate a new row.

3. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

#### B. MCM2: Public participation and involvement

1. The Permit (Part III.D.2.a.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement a public participation/involvement program to solicit public input on the SWPPP. Describe your current program:

Our public participation and involvement program includes our annual MS4 stormwater public meeting, an annual Spring and Fall clean-up days, our Adopt-A-Rain Garden Program for residents who committed to maintaining a rain garden, and our stormwater hotline for residents to register complaints, report stormwater related violations, or provide input on our stormwater program.

2. List the categories of BMPs that address your public participation/involvement program, including solicitation and documentation of public input on the SWPPP. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs.

Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<u>http://www.epa.gov/npdes/pubs/measurablegoals.pdf</u>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Annual MS4 stormwater public meeting	Hold an annual meeting for the length of the permit cycle to present our stormwater program and take written or oral comments on this program.
Stormwater hotline	Continue to monitor our hotline for citizens to register complaints regarding erosion and sediment control violations, report illicit discharges or illicit connections, or provide input on our stormwater program. Comments are regularly logged and distributed to the appropriate staff members.
Spring and Fall recycling drop off day	We conduct a recycling drop off day annually in the spring and fall to allow the public to dispose of tires, furniture, scrap metal, wood, appliances, electronics, and other non-hazardous waste material.
BMP categories to be implemented	Measurable goals and timeframes
Watershed District coordination meeting	At least once during the permit term, we will invite staff from both the Rice Creek Watershed District and Coon Creek Watershed District to a public meeting to inform staff, city officials, and the public about news, updates, and programs being offered by the District.
Storm structure stenciling	The City will continue to re-stencil all City catch basins within the permit term.
SWPPP document availability	Post the City's MS4 Permit Application and SWPPP Document on the City's stormwater webpage.

3. Do you have a process for receiving and documenting citizen input? Xes I No

If you answered **no** to the above permit requirement, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

#### C. MCM 3: Illicit discharge detection and elimination

result in an illicit discharge.

1. The Permit (Part III.D.3.) requires that, within 12 months of the date permit coverage is extended, existing permittees revise their current program as necessary, and continue to implement and enforce a program to detect and eliminate illicit discharges into the small MS4. Describe your current program:

We have a Storm Water Illicit Discharge and Illicit Connection ordinance that regulates illicit discharge and connections to our MS4. This ordinance identifies the proper procedure once an illicit discharge or connection is identified, including violations, enforcement, and penalties for non-compliance. We have a Surface Water System Map that identifies the City's MS4 system. Staff in our public works department are trained in proper procedures for inspecting and identifying illicit discharges and connections during dry-weather inspections.

2. Does your Illicit Discharge Detection and Elimination Program meet the following requirements, as found in the Permit (Part III.D.3.c.-g.)?

a.	Incorporation of illicit discharge detection into all inspection and maintenance activities conducted under the Permit (Part III.D.6.ef.)Where feasible, illicit discharge inspections shall be conducted during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation).	🛛 Yes	🗌 No
b.	Detecting and tracking the source of illicit discharges using visual inspections. The permittee may also include use of mobile cameras, collecting and analyzing water samples, and/or other detailed procedures that may be effective investigative tools.	🛛 Yes	🗌 No
C.	Training of all field staff, in accordance with the requirements of the Permit (Part III.D.6.g.(2)), in illicit discharge recognition (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation.	🛛 Yes	🗌 No
d.	Identification of priority areas likely to have illicit discharges, including at a minimum, evaluating land use associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could	🗌 Yes	🛛 No

e. Procedures for the timely response to known, suspected, and reported illicit discharges.	
---	--

Procedures for investigating locating and eliminating the source of illicit discharges f.

g.

Procedures for investigating, locating, and eliminating the source of illicit discharges.	🗌 Yes	🛛 No
Procedures for responding to spills, including emergency response procedures to prevent spills from	🗌 Yes	🛛 No
entering the small MS4. The procedures shall also include the immediate notification of the		
Minnesota Department of Public Safety Duty Officer, if the source of the illicit discharge is a spill or		
leak as defined in Minn. Stat. § 115.061.		

☐ Yes ⊠ No

h When the source of the illicit discharge is found, the permittee shall use the ERPs required by the ⊠ Yes □ No Permit (Part III.B.) to eliminate the illicit discharge and require any needed corrective action(s).

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met;

C.2.d: we will update our illicit discharge and inspection program to identify priority areas likely to have illicit discharges. This identification process will evaluate land use associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge.

C.2.e: we will update our illicit discharge and inspection program to identify a formal procedure for responding to known, suspected, and reported illicit discharges.

C.2.f: we will update our illicit discharge and inspection program to identify a formal procedure for investigating, locating, and eliminating the source of illicit discharges.

C.2.g: we will update our illicit discharge and inspection program to identify procedures for responding to spills, including emergency response procedures to prevent spills from entering our MS4. This procedure will include the immidiate notification of the Minnesota Department of Public Safety Duty Officer, if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. 115.061.

All of these actions will be completed within 12 months of the date permit coverage is extended.

List the categories of BMPs that address your illicit discharge, detection and elimination program. Use the first table for 3. categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's Measurable Goals Guidance for Phase II Small MS4s (http://www.epa.gov/npdes/pubs/measurablegoals.pdf).

If you have more than five categories, hit the tab key after the last line to generate a new row.

egularly update our existing Surface Water System Map to clude recently constructed infrastructure. Intinue to enforce our existing Storm Water Illicit Discharge d Illicit Connection ordinance ontinue to inspect and document illicit discharge and nnection inspections during dry-weather conditions. We will ntinue to document all inspections, results, and actions cessary to eliminate the illicit discharge or connection. Ontinue our ongoing City staff training on the types of tentially illicit discharges, connections, and common illegal mping within the City and how to identify them.
d Illicit Connection ordinance ontinue to inspect and document illicit discharge and nnection inspections during dry-weather conditions. We will ntinue to document all inspections, results, and actions cessary to eliminate the illicit discharge or connection. ontinue our ongoing City staff training on the types of tentially illicit discharges, connections, and common illegal
nnection inspections during dry-weather conditions. We will ntinue to document all inspections, results, and actions cessary to eliminate the illicit discharge or connection. ontinue our ongoing City staff training on the types of tentially illicit discharges, connections, and common illegal
tentially illicit discharges, connections, and common illegal
easurable goals and timeframes
clude illicit discharge information on our stormwater bpage, including the stormwater hotline number for reporting cit discharges or connections. This work will be completed thin 12 months of the date permit coverage is extended.
eate a map identifying priority areas and outfalls in these eas that should be inspected more frequently. This work will completed within 12 months of the date permit coverage is tended.
gh priority areas and high priority outfalls will be inspected nually.
ithin 12 months of the date permit coverage is extended, view our current illicit discharge documentation form to verify

4. Do you have procedures for record-keeping within your Illicit Discharge Detection and Elimination (IDDE) program as specified within the Permit (Part III.D.3.h.)? □ Yes ⊠ No

If you answered **no**, indicate how you will develop procedures for record-keeping of your Illicit Discharge, Detection and Elimination Program, within 12 months of the date permit coverage is extended:

We will update our illicit discharge and connection program to include the documentation requirements identified in the MS4 permit Part III.D.3.h. within 12 months of the date permit coverage is extended.

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

#### D. MCM 4: Construction site stormwater runoff control

1. The Permit (Part III.D.4) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a construction site stormwater runoff control program. Describe your current program:

We have a Construction Site Runoff Control ordinance that regulates land disturbing activity. The ordinance describes the City SWPPP submittal procedures, the City review process, minimum construction site BMPs, and enforcement procedures. City staff or a designated agent will continue to perform construction site ESC inspections for land disturbing activity in the City. We have a site plan review procedure in place to determine if an application meets City requirements. Prior to land disturbing activities, we hold a preconstruction meeting to discuss stormwater runoff, ESC BMPs, construction staging, and other issues associated with grading activities.

2. Does your program address the following BMPs for construction stormwater erosion and sediment control as required in the Permit (Part III.D.4.b.):

a.		e you established written procedures for site plan reviews that you conduct prior to the start of struction activity?	🛛 Yes	🗌 No		
b.	con	es the site plan review procedure include notification to owners and operators proposing struction activity that they need to apply for and obtain coverage under the MPCA's general mit to <i>Discharge Stormwater Associated with Construction Activity No. MN R100001</i> ?	🛛 Yes	🗌 No		
C.	non	es your program include written procedures for receipt and consideration of reports of compliance or other stormwater related information on construction activity submitted by the lic to the permittee?	🛛 Yes	🗌 No		
d.		ve you included written procedures for the following aspects of site inspections to determine npliance with your regulatory mechanism(s):				
	1)	Does your program include procedures for identifying priority sites for inspection?	🗌 Yes	🛛 No		
	2)	Does your program identify a frequency at which you will conduct construction site inspections?	🗌 Yes	🛛 No		
	3)	Does your program identify the names of individual(s) or position titles of those responsible for conducting construction site inspections?	🗌 Yes	🛛 No		
	4)	Does your program include a checklist or other written means to document construction site inspections when determining compliance?	🛛 Yes	🗌 No		
e.		es your program document and retain construction project name, location, total acreage to be urbed, and owner/operator information?	🛛 Yes	🗌 No		
f.		es your program document stormwater-related comments and/or supporting information used to ermine project approval or denial?	🛛 Yes	🗌 No		
g.		es your program retain construction site inspection checklists or other written materials used to ument site inspections?	🛛 Yes	🗌 No		
	If you answered <b>no</b> to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.					
	<b></b> · · · · · · · · · · · · · · · · · ·					

D.2.d.1): we will update our construction site stormwater runoff control program to include a procedure to identify priority sites for inspection.

D.2.d.2): we will update our construction site stormwater runoff control program to identify construction site inspection frequencies.

D.2.d.3): we will update our construction site stormwater runoff control program to identify position titles of those responsible for conducting construction site inspections.

All of these actions will be completed within 12 months of the date permit coverage is extended.

3. List the categories of BMPs that address your construction site stormwater runoff control program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<u>http://www.epa.gov/npdes/pubs/measurablegoals.pdf</u>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Ordinance	Continue to enforce existing Construction Site Runoff Control ordinance.
Plan review process	Continue to implement our plan review procedures.
Inspections	Continue weekly inspections (or following a 0.5-inch rainfall event) for all active construction projects during the growing season.
Preconstruction meeting	Prior to land disturbing activity, we will continue to hold a pre- construction meeting.
BMP categories to be implemented	Measurable goals and timeframes
Plan review checklist	Create a plan review checklist construction site stormwater runoff control requirements that clearly states submittal requirements. This checklist will be developed within 12 months of the date permit coverage is extended.
Program updates	Make the necessary updates to our construction stormwater program as indicated above within 12 months of the date permit coverage is extended.
Ordinance updates	Revise our Construction Site Runoff Control ordinance as necessary to meet MS4 permit requirements within 12 months of the date permit coverage is extended.

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

**Public Works Director** 

#### E. MCM 5: Post-construction stormwater management

1. The Permit (Part III.D.5.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a post-construction stormwater management program. Describe your current program:

We have a Site Plan Review ordinance that outlines basin submittal requirements and a submittal review process. Our adopted Local Surface Water Management Plan identifies our current post-construction stormwater management requirements. We coordinate our plan review activities with either the Rice Creek Watershed District or Coon Creek Watershed District, which both have grading or land disturbance permits.

2.	Have you established written procedures for site plan reviews that you will conduct prior to the start of	🛛 Yes 🗌 No
	construction activity?	

- 3. Answer **yes** or **no** to indicate whether you have the following listed procedures for documentation of post-construction stormwater management according to the specifications of Permit (Part III.D.5.c.):
  - a. Any supporting documentation that you use to determine compliance with the Permit (Part III.D.5.a), including the project name, location, owner and operator of the construction activity, any checklists used for conducting site plan reviews, and any calculations used to determine compliance?
  - b. All supporting documentation associated with mitigation projects that you authorize?

🗌 Yes 🛛 No

🗌 Yes 🛛 No

- c. Payments received and used in accordance with Permit (Part III.D.5.a.(4)(f))?
- d. All legal mechanisms drafted in accordance with the Permit (Part III.D.5.a.(5)), including date(s) of Yes X No the agreement(s) and names of all responsible parties involved?

If you answered **no** to any of the above permit requirements, describe the steps that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

*E.3.a:* we will update our post construction stormwater management program to include a list of documentation requirements that meets MS4 permit requirements.

*E.3.b:* we will update our post construction stormwater management program to include the documentation requirements for any stormwater mitigation projects deemed acceptable by the City.

E.3.c: we will update our post construction stormwater management program to include a procedure for how funds are collected and spent from a pay-in-lieu of constructing stormwater BMPs.

E.3.d: we will update our post construction stormwater management program to identify long term maintenance requirements for BMPs not owned or operated by the City. The Rice Creek Watershed District and Coon Creek Watershed District both require that a long term maintenance agreement be completed for any new BMP constructed in the City, so we will develop a procedure to file and track these agreements.

All of these activities will be completed within 12 months of the date permit coverage is extended.

4. List the categories of BMPs that address your post-construction stormwater management program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<u>http://www.epa.gov/npdes/pubs/measurablegoals.pdf</u>)</u>. **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Ordinance	Continue to enforce existing Site Plan Review ordinance.
Stormwater design standards	Our Local Surface Water Management Plan includes stormwater design requirements and references to Rice Creek Watershed District and Coon Creek Watershed District standards to guide the installation of stormwater BMPs aimed at reducing pollutant loads from new, redevelopment, and linear projects.
Plan review process	Continue to implement our plan review procedures
BMP categories to be implemented	Measurable goals and timeframes
Ordinance updates	Revise City Code as necessary to meet MS4 permit post- construction stormwater requirements within 12 months of the date permit coverage is extended. This will include an updated reference to the design standards in the City's Local Surface Water Management Plan.
Plan review checklist	Create a plan review checklist for post-construction requirements that clearly states submittal requirements. This checklist will be developed within 12 months of the date permit coverage is extended.
Project information documentation	Within 12 months of the date permit coverage is extended, we will develop a project information document, likely in conjunction with the plan review checklist, that meets the MS4 Permit requirements.

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

#### F. MCM 6: Pollution prevention/good housekeeping for municipal operations

 The Permit (Part III.D.6.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement an operations and maintenance program that prevents or reduces the discharge of pollutants from the permittee owned/operated facilities and operations to the small MS4. Describe your current program:

We inspect all city owned and maintained structural pollution control devices annually and city owned and maintained ponds and outfalls at a minimum 20% per year. We inspect stockpiles, storage and handling areas regularily and sweep City streets at least bi-annually. Maintenance staff are trained annually on the following practices:

- Proper handling, storage, and application procedures for municipal lawn care products

- Proper handling, storage, and application procedures for street de-icing products and awareness of possible new products.

- Fleet and bulding operation and maintenance

- Hazardous material storage and recycling program
- Stormsewer maintenance
- Erosion and sediment control BMP maintenance
- 2. Do you have a facilities inventory as outlined in the Permit (Part III.D.6.a.)?
- 3. If you answered **no** to the above permit requirement in question 2, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

We will prepare a facilities inventory as outlines in the MS4 permit Part III.D.6.a. and complete this inventory within 2 months of the date permit coverage is extended.

4. List the categories of BMPs that address your pollution prevention/good housekeeping for municipal operations program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. For an explanation of measurable goals, refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (http://www.epa.gov/npdes/pubs/measurablegoals.pdf).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes		
Structural stormwater BMPs, pond, and outfall inspections	Continue to inspect Structural stormwater BMPs annually, and ponds and outfalls at least once within the permit term. We use an inspection form that meets the documentation requirements in the MS4 permit.		
Street sweeping	Continue sweeping City streets at least twice annually.		
Staff training	Continue ongoing training of staff covering a variety of stormwater related topics as identified above.		
Stormsewer and sanitary sewer maintenance program	Continue current stormsewer and sanitary sewer inspection and maintenance programs.		
BMP categories to be implemented	Measurable goals and timeframes		
Stockpile, and storage and handling area inspections	Increase current inspection frequency to quarterly inspections of City owned and operated stockpiles, and storage and material handling areas.		
Facilities inventory	Complete a facilities inventory of City owned and operated facilities within 12 months of the date permit coverage is extended.		
Pond assessment	Relying on the guidance provided by the MPCA, we will develop a procedure for determining the TP and TSS treatment effectiveness of City owned ponds within the length of permit term.		
<ul> <li>5. Does discharge from your MS4 affect a Source Water Protection Area (Permit Part III.D.6.c.)? Xes No</li> <li>a. If no, continue to 6.</li> <li>b. If yes, the Minnesota Department of Health (MDH) is in the process of mapping the following items. Maps are available at <a href="http://www.health.state.mn.us/divs/eh/water/swp/maps/index.htm">http://www.health.state.mn.us/divs/eh/water/swp/maps/index.htm</a>. Is a map including the following items available for your MS4:</li> </ul>			
<ol> <li>Wells and source waters for drinking water su vulnerable under Minn. R. 4720.5205, 4720.52</li> </ol>			
<ol> <li>Source water protection areas for surface inta assessments conducted by or for the Minneso Safe Drinking Water Act, U.S.C. §§ 300j – 132</li> </ol>	ota Department of Health under the federal		
C. Have you developed and implemented BMPs to pr sources?	rotect any of the above drinking water 🛛 Yes 🗌 No		
Have you developed procedures and a schedule for the purpose of determining the TSS and 🛛 Yes 🖾 No			

TP treatment effectiveness of all permittee owned/operated ponds constructed and used for the collection and treatment of stormwater, according to the Permit (Part III.D.6.d.)?

- Do you have inspection procedures that meet the requirements of the Permit (Part III.D.6.e.(1)- Yes No (3)) for structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas?
- 8. Have you developed and implemented a stormwater management training program commensurate with each employee's job duties that:

a.	Addresses the importance of protecting water quality?	🗌 Yes	🛛 No
b.	Covers the requirements of the permit relevant to the duties of the employee?	🗌 Yes	🛛 No
C.	Includes a schedule that establishes initial training for new and/or seasonal employees and recurring training intervals for existing employees to address changes in procedures, practices, techniques, or requirements?	🗌 Yes	🛛 No
Do \	you keep documentation of inspections maintenance and training as required by the Permit		

9. Do you keep documentation of inspections, maintenance, and training as required by the Permit Xes No (Part III.D.6.h.(1)-(5))?

If you answered **no** to any of the above permit requirements listed in **Questions 5 – 9**, then describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

6. We will develop procedures for determining the TP and TSS treatment effectiveness of City owned ponds.

7. We inspect structural stormwater BMPs annually, and ponds and outfalls once within the permit cycle. However, we are currently only inspecting stockpile, storage and material handling areas annually. This will be changed to quarterly to meet the MS4 Permit requirements.

8. We have an employee stormwater training program, however, we will improve our training program to meet the requirements of the MS4 Permit, specifically items 8a, 8b, and 8c identified above.

We will complete these tasks within 12 months of the date permit coverage is extended.

10. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

# VI. Compliance Schedule for an Approved Total Maximum Daily Load (TMDL) with an Applicable Waste Load Allocation (WLA) (Part II.D.6.)

- A. Do you have an approved TMDL with a Waste Load Allocation (WLA) prior to the effective date Yes X No of the Permit?
  - 1. If no, continue to section VII.
  - 2. If **yes**, fill out and attach the MS4 Permit TMDL Attachment Spreadsheet with the following naming convention: *MS4NameHere\_TMDL*.

This form is found on the MPCA MS4 website: http://www.pca.state.mn.us/ms4.

#### VII. Alum or Ferric Chloride Phosphorus Treatment Systems (Part II.D.7.)

- A. Do you own and/or operate any Alum or Ferric Chloride Phosphorus Treatment Systems which are regulated by this Permit (Part III.F.)?
- 🗌 Yes 🛛 No

- 1. If **no**, this section requires no further information.
- If yes, you own and/or operate an Alum or Ferric Chloride Phosphorus Treatment System within your small MS4, then you must submit the Alum or Ferric Chloride Phosphorus Treatment Systems Form supplement to this document, with the following naming convention: MS4NameHere\_TreatmentSystem. This form is found on the MPCA MS4 website: <u>http://www.pca.state.mn.us/ms4</u>.

#### VIII. Add any Additional Comments to Describe Your Program

## Appendix E City of Spring Lake Park Ordinances Construction Site Runoff Ordinance Floodplain Management District Ordinance



#### **CONSTRUCTION SITE RUNOFF CONTROL**

#### **§** 150.200 INTENT.

To promote the health, safety and general welfare of the citizens of Spring Lake Park, Minnesota by requiring proper storm water management practices for construction activity.

(Ord. 365, passed 2-16-2010)

#### § 150.201 STATUTORY AUTHORITY.

These regulations are adopted pursuant to M.S. § 462.351.

(Ord. 365, passed 2-16-2010)

#### **₽**§ 150.202 FINDINGS.

The City of Spring Lake Park hereby finds that uncontrolled land disturbing activity at construction sites are subject to soil erosion and other pollutants which enter into receiving water bodies adversely affecting the public health, safety and general welfare by impacting water quality, creating nuisances and impairing other beneficial uses of environmental resources.

(Ord. 365, passed 2-16-2010)

#### **₿ 150.203 PURPOSE.**

The purpose of this subchapter is to promote, preserve and enhance the natural resources within the City of Spring Lake Park and protect them from adverse effects occasioned by poorly sited development or incompatible activities by regulating land disturbing activities that would have an adverse and potentially irreversible impact on water quality; by minimizing conflicts and encouraging proper installation and maintenance of Best Management Practices (BMPs) for land disturbing activities, and by requiring detailed review standards and procedures for land disturbing activities proposed for such areas, thereby achieving a balance between development, redevelopment and protection of water quality.

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

#### **§** 150.204 DEFINITIONS.

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning. When inconsistent with the context, words used in the present tense include future tense, words in the plural number include the singular number and words in the singular number include the plural number. The word "shall is always mandatory and not merely directive.

**APPLICANT.** Any person who wishes to obtain a building permit, zoning or subdivision approval.

**BEST MANAGEMENT PRACTICE (BMP).** Erosion and sediment control and water quality management practices that are the most effective and practicable means of controlling, preventing and minimizing the degradation of surface water, including construction-phasing, minimizing the length of time soil areas are exposed, prohibitions and other management practices published by state or designated area-wide planning agencies.

**DETENTION FACILITY.** A permanent natural or man-made structure, including wetlands, for the temporary storage of runoff which contains a permanent pool of water.

**DISCHARGE.** The release, conveyance, channeling, runoff or drainage of storm water including snowmelt from a construction site.

**EXPOSED SOIL AREAS.** All areas of a construction site where the vegetation (trees, shrubs, brush, grasses, and the like) or impervious surface has been removed, thus rendering the soil more prone to erosion. This includes topsoil stockpile areas, borrow areas and disposal areas within the construction site It does not include stockpiles or surcharge areas of gravel, concrete or bituminous. Once soil is exposed it is considered "exposed soil," until it meets the definition of **FINAL STABILIZATION**.

**FINAL STABILIZATION.** Means that all soil-disturbing activities at the site have been completed and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures have been employed. Simply sowing grass is not considered **FINAL STABILIZATION**.

*LAND DISTURBING OR DEVELOPMENT ACTIVITIES.* Any change of the land surface including removing vegetative cover, excavating, filling, grading and the construction of any structure.

**PERSON.** Any individual, firm, corporation partnership, franchise, association or governmental entity.

PUBLIC WATERS. Waters of the state as defined in M.S. § 103G.005, Subd. 15.

**RETENTION FACILITY.** A permanent natural or man-made structure that provides for the storage of storm water runoff by means of a permanent pool of water.

SEDIMENT. Solid matter carried by water, sewage, or other liquids.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP).** A joint storm water and erosion and sediment control plan containing the requirements of this subchapter, that when implemented will decrease soil erosion on a parcel of land and off-site nonpomt pollution due to sedimentation.

*STRUCTURE.* Anything manufactured, constructed or erected which is normally attached to or positioned on land, including portable structures earthen structures, roads, parking lots, paved storage areas, fences and retaining walls.

**WATERS OF THE STATE.** As defined in M.S. § 115.01, Subd. 22 the term **WATERS OF THE STATE** means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies of accumulations of water, surface or underground natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

**WETLANDS.** Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this definition, **WETLANDS** must have the following three attributes:

(1) Have a predominance of hydric soils;

(2) Are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and

(3) Under normal circumstances support a prevalence of such vegetation.

(Ord. 365, passed 2-16-2010)

#### **₽**§ 150.205 SCOPE AND EFFECT.

(A) Applicability. Every applicant for a building permit, subdivision approval, or a permit to allow land disturbing activities greater than or equal to one acre or part of a larger common plan or development greater or equal to one acre, must submit a Storm Water Pollution Prevention Plan (SWPPP) to the Zoning Administrator. No building permit, subdivision approval, or permit to allow land disturbing activities shall be issued until approval of the SWPPP or a waiver of the approval requirement has been obtained in strict conformance with the provisions of this subchapter. The provisions of division (B) of this section apply to all land, public or private.

(B) *Exemptions*. The provisions of this subchapter do not apply to:

(1) Any part of a subdivision if a plat for the subdivision has been approved by the City Council on or before the effective date of this subchapter;

(2) A lot for which a building permit has been approved on or before the effective date of this subchapter;

(3) Installation of fences, signs, telephone and electric poles and other kinds of posts or poles;

(4) Emergency work to protect life, limb or property; or

(5) Tilling, planting or harvesting of agricultural, horticultural or forestry crops.

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

#### **§** 150.206 [RESERVED.]

#### **§ 150.207** [RESERVED.]

#### **§** 150.208 MINIMUM CONSTRUCTION SITE BEST MANAGEMENT PRACTICES.

(A) No SWPPP which fails to meet the standards contained in this section, or as described in the NPDES Construction General Permit, shall be approved by the City Council or designated representative.

(B) *Site dewatering.* Water pumped from the site shall be treated by temporary sedimentation basins, grit chambers, sand filters, upflow chambers, hydrocyclones, swirl concentrators or other appropriate BMPs for dewatering activities described in the NPDES Construction General Permit, Part IV, D. Water may not be discharged in a manner that causes nuisance conditions, erosion, scour, or flooding of the site or receiving channels or a wetland. All discharge points must be adequately protected from erosion and scour. The discharge must be dispersed over

natural rock riprap, sand bags, plastic sheeting or other accepted energy dissipation measures. Adequate sedimentation control measures are required for discharge water that contains suspended solids.

(C) *Construction site waste*. Management of solid and hazardous wastes on site shall meet the requirements of the NPDES Construction General Permit, Part IV, F.

(1) Solid waste and material disposal. All waste, unused building material (including garbage debris, cleaning wastes, wastewater, toxic materials or hazardous materials), collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.

(2) *Hazardous materials*. Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spill leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.

(3) *Liquid Waste*. All other non-storm water discharges (concrete truck washout, vehicle washing, maintenance spills, and the like) conducted during the construction activity shall not be discharged to the municipal storm sewer, wetlands, natural dramageways or waters of the state.

(4) *Sanitary facilities*. Adequate on-site sanitary facilities shall be provided in convenient location(s) for all persons who work on the site.

(D) *Tracking*. Vehicle tracking of sediment onto paved surfaces must be removed by street sweeping as needed to prevent discharge of sediment-laden water from entering the city storm sewer system.

(E) *Drain inlet protection*. All storm drain inlets shall be protected during construction with control measures approved by the City Engineer until final establishment has been accomplished or until approval from the city.

(F) *Site runoff control.* Channelized runoff from adjacent areas passing through the site shall be diverted around disturbed areas, if practical. Diverted runoff shall be conveyed in a manner that will not erode the conveyance at receiving channels. All temporary or permanent drainage channels must be stabilized within 24 hours of being connected to a water of the state. Sediment control is required along channel edges to reduce sediment reaching the channel. This site shall include, as applicable, BMPs to minimize erosion described in the NPDES Construction Permit, Part IV, B.

(G) *Site phasing*. All activities on the site shall be conducted in a logical sequence to minimize the area of base soil exposed at any one time.

(H) Soil stabilization. All exposed soil left inactive for 14 or more days must have temporary or permanent stabilization year round.

(I) *Temporary sediment basins*. For sites with more than ten acres disturbed at one time, or if a channel originates in the disturbed area one or more temporary or permanent sedimentation basins shall be constructed. Each sedimentation basin shall have a surface area of at least 1% of the area draining to the basin and at least three feet of depth and constructed in accordance with

accepted design specifications. Sediment shall be removed to maintain a depth of three feet. The basin discharge rate shall also be sufficiently low as to not cause erosion, scour, or flooding along the discharge channel or the receiving water. The use and management of site temporary sediment basins shall meet the requirements of the NPDES Construction General Permit, Part III, C.

(J) Sediment control. Silt fence or equivalent sediment control measures shall be placed along all side slopes and down slope sides of the site. If a channel or area of concentrated runoff passes through the site, silt fence shall be placed along the channel edges to reduce sediment reaching the channel. The use of silt fence or equivalent sediment control BMPs, as applicable, shall be used to minimize the discharge of sediment and other pollutants, as described in NPDES Construction General Permit, Part IV, C, and must include a maintenance and inspection schedule.

(K) Stockpile protection. Any soil or dirt storage piles containing more than ten cubic yards of material should not be located with a downslide drainage length of less than 25 feet from the toe of the pile to a roadway or drainage channel. If remaining for more than seven days, they shall be temporarily stabilized by mulch, vegetation, tarps, or other means and enclosed by a silt fence or equivalent sediment control measures. Stockpiles which will be in existence for less than seven days shall be enclosed by silt fence or equivalent sediment control measure around the pile. Instreet utility repair or construction soil or dirt storage piles located closer than 25 of a roadway or drainage channel must be covered with tarps or suitable alternative control, if exposed for more than seven days.

(L) Inspection and maintenance. All stormwater management BMPs shall be inspected weekly or after every 1/2-inch rain event by the applicant. If sediment has reached 1/3 the capacity of the sediment control practice, appropriate maintenance or replacement of the BMP must be completed to ensure maximum effectiveness. All site inspections, records of rainfall events and BMP maintenance shall comply with the requirements of the NPDES Construction General Permit, Part IV, E.

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

#### **§ 150.209 COMPLETION OF WORK.**

Work will be considered complete when all exposed soil areas have undergone final stabilization, as defined in § 150.204; is constructed to finish grade, is in conformance with all permit conditions, including the NPDES Construction General Permit, Part IV, G, and is to the satisfaction of the city. The applicant or representative shall notify the city when the land disturbing operations are ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion control measures, have been completed and final stabilization has occurred in accordance with this subchapter

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

#### **§ 150.210 ENFORCEMENT PROCEDURES.**

(A) *Right of entry*. The applicant shall promptly allow the city and its authorized representatives, upon presentation of identification, to:

(1) Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations, inspections or surveys;

(2) Bring such equipment upon the permitted site as is necessary to conduct such surveys and investigations;

(3) Examine and copy any hooks, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of this permitted site;

(4) Inspect the stormwater pollution control measures; and

(5) Sample and monitor any items or activities pertaining to stormwater pollution control measures.

(B) Notification by city of failure of the SWPPP. If upon inspection by the city or designated representative, the applicant fails to implement the erosion and sediment control practices outlined in the approved SWPPP or minimum BMP standards outlined in § 150.208, the city will notify the applicant with a letter of failure which outlines the issues of noncompliance and a timeline for completion of any work to bring the site into compliance.

(C) *Failure to conduct corrective work.* When an applicant fails to conform to any provision of this policy within the time stipulated, the city may take the following actions:

(1) Issue a stop work order, withhold the scheduling of inspections, and/or the issuance of a certificate of occupancy;

(2) Revoke any permit issued by the city to the applicant for the site in question or any other of the applicant's sites within the city's jurisdiction;

(3) Direct the correction of the deficiency by city forces or by a separate contract. The issuance of a permit constitutes a right-of-entry for the city or its contractor to enter upon the construction site for the purpose of correcting deficiencies in erosion or sediment control; and

(4) All costs incurred by the city in correcting storm water pollution control deficiencies must be reimbursed by the applicant. If payment is not made within 30 days after costs are incurred by the city, the city may assess the remaining amount against the property. As a condition of the permit, the owner shall waive notice of any assessment hearing to be conducted by the city, concur that the benefit to the property exceeds the amount of the proposed assessment and waive all rights by virtue of M.S. § 429.081 to challenge the amount or validity of assessment.

(D) Action against the financial security. If appropriate actions by the applicant have not been completed within seven days after notification by the city, the city may act against the financial security if any of the conditions listed below exist. The city shall use funds from this security to finance any corrective or remedial work undertaken by the city or a contractor under contract to the city and to reimburse the city for all direct costs incurred in the process of remedial work including, but not limited to, staff tune and attorney's fees.

(1) The applicant ceases land disturbing activities and/or filling and abandons the work site prior to completion of the city-approved grading plan.

(2) The applicant fails to conform to any city approved grading plan and/or the SWPPP as approved by the city, or related supplementary instructions.

(3) The techniques utilized under the SWPPP fail within one year of installation.

(4) The applicant fails to reimburse the city for corrective action taken.

(E) *Emergency action.* If circumstances exist such that noncompliance with this subchapter poses an immediate danger to the public health, safety and welfare, as determined by the City Administrator, the city may take emergency preventative action. The city shall also take every reasonable action possible to contact and direct the applicant to take any necessary action. Any cost to the city may be recovered from the applicant's financial security.

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

#### **₽**§ 150.999 PENALTY.

(A) Any person violating any provision of this chapter for which no specific penalty is prescribed shall be subject to  $\S 10.99$ .

(B) Any person, firm or corporation failing to comply with or violating any of the provisions of  $\S$  <u>150.200</u> through <u>150.210</u> shall be deemed guilty of a misdemeanor and subject to a fine or imprisonment or both. All land use and building permits must be suspended until the applicant has corrected the violation. Each day that a separate violation exists constitutes a separate offense.

#### (Ord. 365, passed 2-16-2010)

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## **CHAPTER 156: FLOODPLAIN MANAGEMENT DISTRICT**

Section

- <u>156.001</u> Statutory authorization and purpose
- <u>156.002</u> General provisions
- 156.003 Definitions
- 156.004 Establishment of Floodplain District
- 156.005 Permitted uses and standards in the Floodplain District Administration
- 156.007 Nonconformities
- 156.008 Amendments

156.999 Penalties and enforcement

#### § 156.001 STATUTORY AUTHORIZATION AND PURPOSE.

(A) *Statutory authorization.* The Legislature of the State of Minnesota, has, in M.S. Chapter 103F and Chapter 462, delegated the responsibility to local government units to adopt regulations designed to minimize flood losses.

(B) Purpose.

(1) This chapter regulates development in the flood hazard areas of Spring Lake Park, Minnesota. These flood hazard areas are subject to periodic inundation, which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base. It is the purpose of this chapter to promote the public health, safety, and general welfare by minimizing these losses and disruptions.

(2) *National Flood Insurance Program compliance*. This chapter is adopted to comply with the rules and regulations of the National Flood Insurance Program codified as 44 Code of Federal Regulations Parts 59 -78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program.

(3) This chapter is also intended to preserve the natural characteristics and functions of watercourses and floodplains in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits and enhance community and economic development.

(Ord. 420, passed 12-7-2015)

#### **§ 156.002 GENERAL PROVISIONS.**

(A) Lands to which chapter applies. This chapter applies to all lands within the jurisdiction of the city shown on the Flood Insurance Rate Maps adopted in § <u>156.002</u>(B) as being located within the boundaries of the Floodplain District. The Floodplain District is an overlay district

that is superimposed on all existing zoning districts. The standards imposed in the overlay districts are in addition to any other requirements in this chapter. In case of a conflict, the more restrictive standards will apply.

(B) Adoption of flood insurance study and maps. The following maps together with all attached material are hereby adopted by reference and declared to be a part of the Official Zoning Map and this chapter. The attached material includes the Flood Insurance Study for Anoka County, Minnesota, and Incorporated Areas and the Flood Insurance Rate Map enumerated below, all dated December 16,2015 and all prepared by the Federal Emergency Management Agency. These materials are on file in the Office of the Administrator, Clerk/Treasurer.

- (1) 27003C0338E;
- (2) 27003C0382E; and
- (3) 27003C0401E.

(C) *Interpretation.* The boundaries of the Floodplain District are determined by scaling distances on the Flood Insurance Rate Map.

(1) Where a conflict exists between the floodplain limits illustrated on the Official Zoning Map and actual field conditions, the flood elevations must be the governing factor. The Zoning Administrator must interpret the boundary location based on the ground elevations that existed on the site on the date of the first National Flood Insurance Program map showing the area within the regulatory floodplain, and other available technical data.

(2) Persons contesting the location of the district boundaries will be given a reasonable opportunity to present their case to the Planning Commission and to submit technical evidence.

(D) *Abrogation and greater restrictions*. It is not intended by this chapter to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter imposes greater restrictions, the provisions of this chapter prevail. All other chapter inconsistent with this chapter are hereby repealed to the extent of the inconsistency only.

(E) *Warning and disclaimer of liability*. This chapter does not imply that areas outside the Floodplain Districts or land uses permitted within such districts will be free from flooding or flood damages. This chapter does not create liability on the part of the city or any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

(F) *Severability*. If any section, clause, provision, or portion of this chapter is adjudged unconstitutional or invalid by a court of law, the remainder of this chapter shall not be affected and shall remain in full force.

(G) Annexations. The Flood Insurance Rate Map panels adopted by reference into division (B) above may include floodplain areas that lie outside of the corporate boundaries of the city at the time of adoption of this chapter. If any of these floodplain areas are annexed into the city after the date of adoption of this chapter, the newly annexed floodplain lands will be subject to the provisions of this chapter immediately upon the date of annexation.

(Ord. 420, passed 12-7-2015)

#### **§ 156.003 DEFINITIONS.**

Unless specifically defined below, words of phrases used in this chapter must be interpreted so as to give them the same meaning as they have in common usage and so as to give this chapter its most reasonable application.

**BASE FLOOD ELEVATION.** The elevation of the **REGIONAL FLOOD**, as defined. The term **BASE FLOOD ELEVATION** is used in the flood insurance survey.

**DEVELOPMENT.** Any man-made change to improved or unimproved real estate including, but not limited to, buildings, manufactured homes, and other structures, recreational vehicles, mining, dredging, filling, grading, paving, excavation, drilling operations, or storage of materials or equipment.

*FARM FENCE*. A fence as defined by M.S. § 344.02 Subd. 1(a) - (d). An open type fence of posts and wire is not considered to be a structure under this chapter. Fences that have the potential to obstruct flood flows, such as chain link fences and rigid walls, are not permitted in the Floodplain District.

**FLOOD FRINGE.** The portion of the floodplain located outside of the floodway. Flood fringe is synonymous with the term "floodway fringe" used in the Flood Insurance Study, Anoka County, Minnesota and Incorporated Areas.

**FLOODPLAIN.** The areas adjoining a watercourse which have been or hereafter may be covered by the regional flood.

**FLOODWAY.** The bed of a wetland or lake and the channel of a watercourse and those portions of the adjoining floodplain which are reasonably required to carry or store the regional flood discharge.

*HISTORIC STRUCTURE.* Defined in 44 Code of Federal Regulations, Part 59.1, as may be amended from time to time.

**MANUFACTURED HOME.** A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term **MANUFACTURED HOME** does not include the term **RECREATIONAL VEHICLE**.

**OBSTRUCTION.** Any dam, wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation, channel modification, culvert, building, wire, fence (with the exception of farm fences), stockpile, refuse, fill, structure, or matter in, along, across, or projecting into any channel, watercourse, or regulatory floodplain which may impede, retard, or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water.

**RECREATIONAL VEHICLE.** A vehicle that is built on a single chassis, is 400 square feet or less when measured at the largest horizontal projection, is designed to be self-propelled or permanently towable by a light duty truck, and is designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use. For the purposes of this chapter, the term **RECREATIONAL VEHICLE** is synonymous with the term "travel trailer/travel vehicle."

**REGIONAL FLOOD.** A flood which is representative of large floods known to have occurred generally in Minnesota and reasonably characteristic of what can be expected to occur on an average frequency in the magnitude of the 1% chance/100-year recurrence interval. **REGIONAL FLOOD** is synonymous with the term **BASE FLOOD** used in the Flood Insurance Study.

**REGULATORY FLOOD PROTECTION ELEVATION.** An elevation no lower than one foot above the elevation of the regional flood plus any increases in flood elevation caused by encroachments on the floodplain that result from designation of a floodway.

*STRUCTURE.* Anything constructed or erected on the ground or attached to the ground, including, but not limited to, buildings, factories, sheds, detached garages, cabins, manufactured homes, and other similar items.

**SUBSTANTIAL DAMAGE.** Damage of any origin sustained by a structure where the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT. Within any consecutive 365-day period, any reconstruction, rehabilitation (including normal maintenance and repair), repair after damage, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either: (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or (2) any alteration of a *HISTORIC STRUCTURE* provided that the alteration will not preclude the structure's continued designation as a *HISTORIC STRUCTURE*.

**ZONING ADMINISTRATOR.** The appointed Administrator, Clerk/Treasurer of the city or his/her designee.

(Ord. 420, passed 12-7-2015)

#### **§ 156.004 ESTABLISHMENT OF FLOODPLAIN DISTRICT.**

(A) *Areas included.* The Floodplain District for the city includes those areas designated as AE Zones on the Flood Insurance Rate Maps adopted in § <u>156.002</u>(B). The Floodplain District is an overlay district to all existing land use districts. The requirements of this chapter apply in addition to other legally established regulations of the community. Where this chapter imposes greater restrictions, the provisions of this chapter apply.

(B) *Compliance*. No new structure or land shall hereafter be used and no structure shall be constructed, located, extended, converted, or structurally altered without full compliance with the terms of this chapter and other applicable regulations. Within the Floodplain District, all uses not listed as permitted uses in § 156.005 are prohibited.

(Ord. 420, passed 12-7-2015)

# **§ 156.005 PERMITTED USES AND STANDARDS IN THE FLOODPLAIN DISTRICT.**

(A) *Permitted uses.* The following uses are permitted within the Floodplain District without a permit provided that they are allowed in any underlying zoning district and not prohibited by any other ordinance; and provided that they do not require structures, fill, obstructions, excavations, drilling operations, storage of materials or equipment or any other form of development as defined in this chapter. If the use does require fill, obstruction, excavation, storage of materials or any other form of development as defined in this chapter. If the use does require fill, obstruction, excavation, storage of materials or any other form of development as defined in this chapter, a permit and compliance with division (B) of this section is required. The permit requirement may be waived if there is an application for a public waters work permit from the Department of Natural Resources.

(1) Agricultural uses such as general farming, pasture, grazing, forestry, sod farming, and wild crop harvesting. Farm fences that do not obstruct flood flows are permitted.

(2) Outdoor plan nurseries and horticulture.

(3) Private and public recreational uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, shooting preserves, target ranges, hunting and fishing areas, and single or multiple purpose recreational trails.

(4) Lawns, gardens, parking areas and play areas.

(5) Railroads, roads, bridges, utility transmission lines, pipelines and other public utilities, provided that the Department of Natural Resources is notified at least ten days prior to issuance of any permit.

(B) Standards for permitted uses.

(1) The use must have low flood damage potential.

(2) The use must not cause any increase in the stage of the 1% chance or regional flood or cause an increase in flood damages in the reach or reaches affected. This provision applies to structures (temporary or permanent), fill (including fill for roads and levees), deposits, obstructions, storage of materials or equipment, and all other uses.

(3) Floodplain developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

(4) Public utilities, roads, railroad tracks and bridges to be located within the floodplain must be designed in accordance with divisions (B)(2) and (B)(3) above, or must obtain a Conditional Letter of Map Revision meeting the requirements of 44 CFR 603(d).

(a) When failure or interruption of these public facilities would result in danger to the public health or safety or where such facilities are essential to the orderly functioning of the area, such facilities must be elevated to the regulatory flood protection elevation.

(b) Where failure or interruption of service would not endanger public health or safety, minor or auxiliary roads, railroads or utilities may be constructed at a lower elevation.

(5) New or replacement water supply systems and sanitary sewage systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.

(Ord. 420, passed 12-7-2015)

#### **₽**§ 156.006 ADMINISTRATION.

(A) *Zoning Administrator*. A Zoning Administrator, or other official designated by the City Council, must administer and enforce this chapter.

(B) Development approvals. Any construction, enlargement, alteration, repair, improvement, moving or demolition of any building or structure must comply with the requirements of this chapter. No mining, dredging, filling, grading, paving, excavation, obstruction, drilling operation or other form of development as defined in § 156.003 are allowed, other than the uses permitted in division (A) of § 156.005 and the activities allowed under § 156.007.

(C) *Permit required.* A permit must be obtained from the Zoning Administrator prior to conducting the following activities:

(1) Expansion, change, enlargement, or alteration of a nonconforming use as specified in  $\frac{156.007}{1000}$ . Normal maintenance and repair also requires a permit if such work, separately or in conjunction with other planned work, constitutes a substantial improvement as defined in  $\frac{156.003}{156.003}$ .

(2) Any use that requires fill, obstruction, excavation, storage of materials, or any other form of development as defined in  $\frac{156.003}{2}$ .

(a) Permit applications must be submitted to the Zoning Administrator on forms provided for that purpose and shall include the following where applicable: plans drawn to scale, showing the nature, location, dimensions, and elevations of the lot; existing or proposed structures, fill, or storage of materials; and the location of the foregoing in relation to the stream channel.

(b) Prior to granting a permit, the Zoning Administrator must verify that the applicant has obtained all necessary state and federal permits.

(D) Variances.

(1) An application for a variance to the provisions of this chapter will be processed and reviewed in accordance with applicable state statutes and  $\frac{152.095}{5}$ .

(2) A variance must not allow a use that is not allowed in that district, permit a lower degree of flood protection than the regulatory flood protection elevation for the particular area, or permit standards lower than those required by state law.

(3) The following additional variance criteria of the Federal Emergency Management Agency must be met:

(a) Variances must not be issued by a community within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.

(b) Variances may only be issued by a community upon: (1) a showing of good and sufficient cause; (2) a determination that failure to grant the variance would result in exceptional hardship to the applicant; and (3) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create

nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(c) Variances may only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(4) The Zoning Administrator must submit hearing notices for proposed variances to the Department of Natural Resources sufficiently in advance to provide at least ten days' notice of the hearing. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.

(5) A copy of all decisions granting variances must be forwarded to the Commissioner of the Department of Natural Resources within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.

(6) The Zoning Administrator must notify the applicant for a variance that: (1) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage; and (2) such construction below the base or regional flood level increases risks to life and property;

(7) The Zoning Administrator must maintain a record of all variance actions, including justification for their issuance, and must report such variances in an annual or biennial report to the Administrator of the National Flood Insurance Program, when requested by the Federal Emergency Management Agency.

(E) *Notifications for watercourse alterations.* Before authorizing any alteration or relocation of a river or stream, the Zoning Administrator must notify adjacent communities. If the applicant has applied for a permit to work in public waters pursuant to M.S. § 103G.245, this will suffice as adequate notice. A copy of the notification must also be submitted to the Chicago Regional Office of the Federal Emergency Management Agency (FEMA).

(F) Notification to FEMA When Physical Changes Increase or Decrease Base Flood Elevations. As soon as is practicable, but not later than six months after the date such supporting information becomes available, the Zoning Administrator must notify the Chicago Regional Office of FEMA of the changes by submitting a copy of the relevant technical or scientific data.

(Ord. 420, passed 12-7-2015)

#### § 156.007 NONCONFORMITIES.

(A) Continuance of non-conformities. A use, structure, or occupancy of land which was lawful before the passage or amendment of this chapter but which is not in conformity with the provisions of this chapter may be continued subject to the following conditions. Historic structures, as defined in § <u>156.003</u>, are subject to the provisions of divisions (A)(1) - (4) of this section.

(1) A nonconforming use, structure, or occupancy must not be expanded, changed, enlarged, or altered in a way that increases its nonconformity. There shall be no expansion to the outside dimensions of any portion of a nonconforming structure located within the Floodplain District.

(2) The cost of all structural alterations or additions to any nonconforming structure over the life of the structure may not exceed 50% of the market value of the structure unless the conditions of this section are satisfied. The cost of all structural alterations and additions must include all costs such as construction materials and a reasonable cost placed on all manpower or labor. If the cost of all previous and proposed alterations and additions exceeds 50% of the market value of the structure, then the structure must meet the standards of division (B) of this section.

(3) If any nonconforming use, or any use of a nonconforming structure, is discontinued for more than one year, any future use of the premises must conform to this chapter. The assessor must notify the Zoning Administrator in writing of instances of nonconformities that have been discontinued for a period of more than one year.

(4) If any nonconformity is substantially damaged, as defined in § 156.003, it may not be reconstructed unless it is located in the flood fringe portion of the floodplain and it is reconstructed in accordance with the standards of division (B) of this section.

(5) Any substantial improvement, as defined in § 156.003, to a nonconforming structure, then the existing nonconforming structure must be located in the flood fringe portion of the floodplain and meet the requirements of division (B) of this section.

(B) *Standards for reconstruction of nonconforming structures.* The following standards and procedures apply to nonconforming structures in the flood fringe portion of the floodplain, as allowed under division (A) of this section.

(1) All structures, including manufactured homes, must be elevated on fill so that the lowest floor including basement floor is at or above the regulatory flood protection elevation. The finished fill elevation for structures shall be no lower than one foot below the regulatory flood protection elevation and the fill shall extend at such elevation at least 15 feet beyond the outside limits of the structure.

(2) Fill must be properly compacted and the slopes must be properly protected by the use of riprap, vegetative cover or other acceptable method.

(3) Floodplain developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

(4) All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state or local anchoring requirements for resisting wind forces.

(5) On-site sewage treatment and water supply systems. Where public utilities are not provided: (1) on-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems; and (2) new or replacement on-site sewage treatment systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and they shall not be subject to impairment or contamination during times of flooding. Any sewage treatment system designed in accordance

with the state's current statewide standards for on-site sewage treatment systems shall be determined to be in compliance with this section.

(6) *Certification*. The applicant is required to submit certification by a registered professional engineer, registered architect, or registered land surveyor that the finished fill and building elevations were accomplished in compliance with the provisions of this chapter. Floodproofing measures must be certified by a registered professional engineer or registered architect.

(7) *Record of first floor elevation.* The Zoning Administrator must maintain a record of the elevation of the lowest floor (including basement) of all new structures and alterations to existing structures in the floodplain. The Zoning Administrator must also maintain a record of the elevation to which structures and alterations or additions to structures are floodproofed.

(Ord. 420, passed 12-7-2015)

#### § 156.008 AMENDMENTS.

(A) *Floodplain designation: restrictions on removal.* The floodplain designation on the Official Zoning Map shall not be removed from floodplain areas unless it can be shown that the designation is in error or that the area has been filled to or above the elevation of the regulatory flood protection elevation and is contiguous to lands outside the floodplain. Special exceptions to this rule may be permitted by the Commissioner of the Department of Natural Resources if the Commissioner determines that, through other measures, lands are adequately protected for the intended use.

(B) *Amendments require DNR and FEMA approval.* All amendments to this chapter must be submitted to and approved by the Commissioner of the Department of Natural Resources (DNR) prior to adoption. The Commissioner of the DNR must approve the amendment prior to community approval.

(C) *Map amendments require ordinance amendments*. The Floodplain District regulations must be amended to incorporate any revisions by the Federal Emergency Management Agency to the floodplain maps adopted in § <u>156.002</u>(B).

(Ord. 420, passed 12-7-2015)

#### **₿**§ 156.999 PENALTIES AND ENFORCEMENT.

(A) *Violation constitutes a misdemeanor.* Violation of the provisions of this chapter or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with grants of variances) constitutes a misdemeanor and is punishable as defined by law.

(B) *Other lawful action*. Nothing in this chapter restricts the city from taking such other lawful action as is necessary to prevent or remedy any violation. If the responsible party does not appropriately respond to the Zoning Administrator within the specified period of time, each additional day that lapses will constitute an additional violation of this chapter and will be prosecuted accordingly.

(C) *Enforcement*. In responding to a suspected ordinance violation, the Zoning Administrator and City Council may utilize the full array of enforcement actions available to it including but not limited to prosecution and fines, injunctions, after-the-fact permits, orders for corrective measures or a request to the National Flood Insurance Program for denial of flood insurance availability to the guilty party. The city must act in good faith to enforce these official controls and to correct ordinance violations to the extent possible so as not to jeopardize its eligibility in the National Flood Insurance Program.

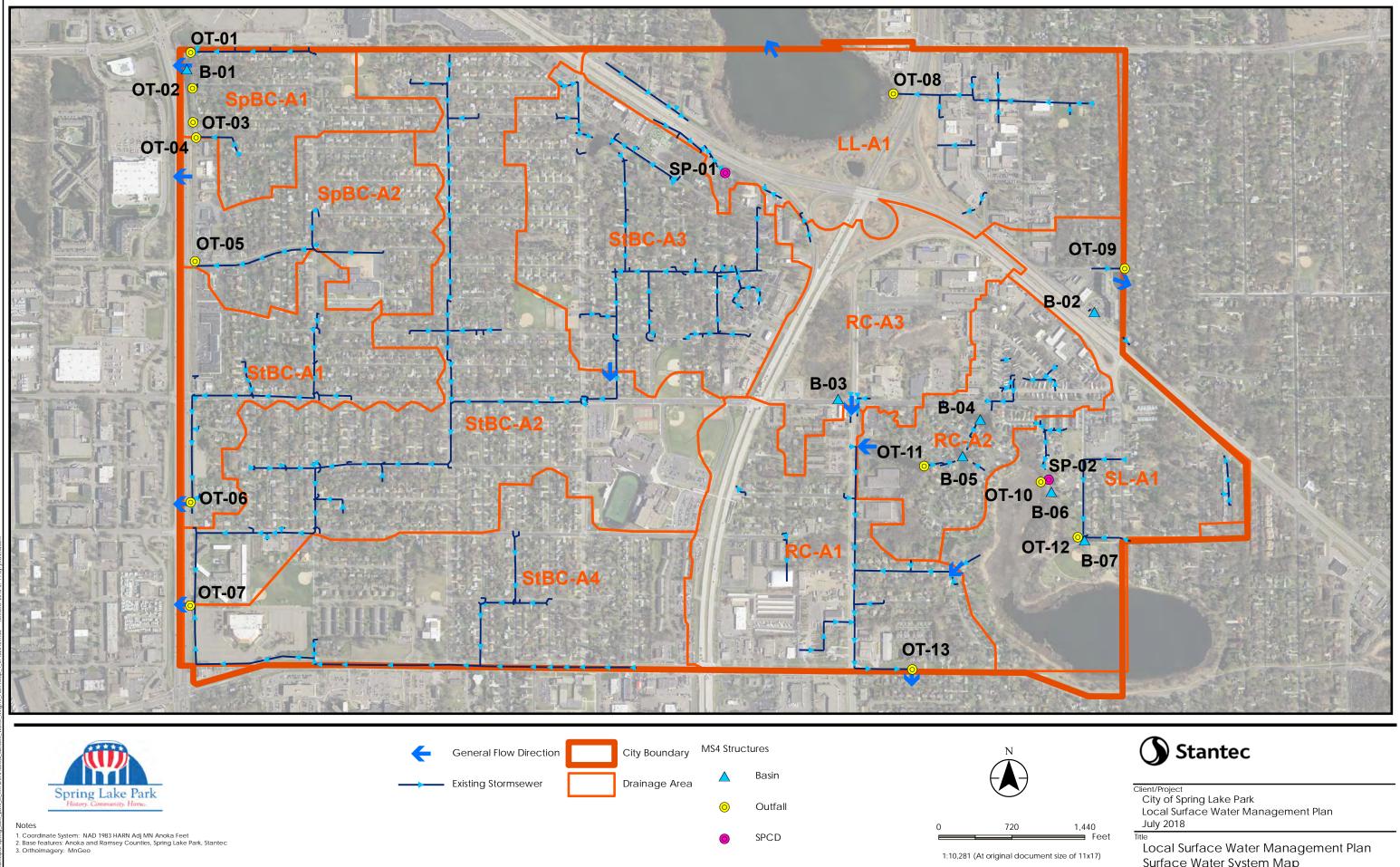
#### (Ord. 420, passed 12-7-2015)

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Surface Water System Map



#### City of Spring Lake Park Engineer's Project Status Report

To:	Council Members and Staff	Re: Status Report for 4.15.19 Meeting (no fooling)
From:	Phil Gravel	File No.: R-18GEN

Note: Updated information is shown in *italics*.

#### MS4 Permit (193802936).

Annual Training was completed in December. 2019 Report and Public Meeting will be completed in June.

#### Local Surface Water Management Plan (LSWMP) (193803949).

Rice Creek Watershed has approved. Coon Creek Watershed has given conditional approval. *Currently* working with the Administrator on Ordinance revisions. Council needs to formally "adopt" the plan.

#### 2018 Sanitary Sewer Lining Project (193804547).

Project included lining in the northeast area of the city. Service wye grouting continues (work has been slow due to weather and equipment problems). Terry Randall is monitoring the work.

#### 2019 Sanitary Sewer Lining Project (193804547).

This project includes sewer lining in the area near TH65 and Osborne Rd. The City Council authorized the obtaining bids at the February 19<sup>th</sup> meeting. *Plans and specs are being prepared*.

#### 2019 Street Seal Coat and Crack Fill Project (193804625).

This project includes streets in the area north of 81st Avenue between Monroe and Able. *Const. Contracts have been sent to Allied Blacktop and will be returned to city for processing.* 

**Wells 4 and 5 (193804554):** Contractor is Keys Well Drilling. Well 4 was video inspected on October 31 and found to be in good condition. Well 4 is now operating. Well 5 rehabilitation work is nearly complete.

Arthur Street (Well 5) Water Treatment Plant Evaluation (193801776 Task 300): A list of identified issues has been reviewed by the Administrator and Public Works Director. *Filter media has been replaced. A comprehensive plant maintenance project is being considered.* 

# **Bituminous Trail (on Osborne Rd. from TH 65 to Central Avenue)(193804584):** Plans and specifications have been prepared. Bids will be received on April 30<sup>th</sup>.

**Garfield Pond Improvements Project (19380xxxx):** This project is located along 81<sup>st</sup> Avenue on the south side of the intersection of 81<sup>st</sup> and Arthur. This project was identified through the LSWMP preparation process because of flooding and water quality issues. The Rice Creek Watershed District (RCWD) has approved a grant application for partial project funding. *Next steps will include initial communication with neighbors most impacted by the potential project*.

**Hy-Vee Project.** Site utility work is substantially complete.

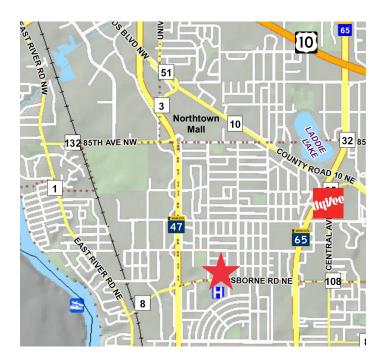
*Hy-Vee has prepared separate construction plan sets for 81<sup>st</sup> Avenue/Highway 65 and for CSAH 35 (Central Avenue). A Preconstruction Conference for the road work will be held on April 16<sup>th</sup>.* 

Feel free to contact Harlan Olson, Phil Carlson, Jim Engfer, Mark Rolfs, Ryan Capelle, Marc Janovec, Ailsa Mcculloch, Peter Allen, or me if you have any questions or require any additional information.





# 3.00 acres of Retail/Office Land for Sale



#### Highlights and Features:

- Lot 1 Block 1 Spring Lake Commons
- Close proximity to Trunk Highways 47 and 65
- C-3, Office Commercial, Zoning
- All utilities to the site
- PID #02-30-24-43-0127
- Municipally owned
- Located on Metro Transit bus lines 10 and 824
- Across street from Mercy Hospital Unity Campus, Allina Clinic and North Memorial Clinic

#### **Demographics and Traffic Counts:**

- 2018 Population: 1 mile 6,531, 3 miles 40,528, and 5 miles - 118,441
- 2018 Average Household Income: 1 mile \$61,739, 3 miles - \$67,495, and 5 miles - \$69,612
- Traffic Counts: 10,400 vpd on Osborne Rd, 31,000 vpd on Highway 47 and 31,170 vpd on Highway 65

#### Land Available:

- 3.00 acres (130,825 sf)
- Sale Price: \$595,000 (\$4.55 psf)



For More Information, Contact:

Daniel Buchholtz, City Administrator 763-784-6491 | dbuchholtz@slpmn.org

# CORRESPONDENCE

#### Supporting Minnesota's Vital System of Transportation



Broadway Bridge (Bridge 4930), City of St. Peter

Minnesota's economic strength and vitality depends on an effective transportation system. To support the state's system of streets, roads and bridges, the Minnesota Department of Transportation distributes funds for highway maintenance and construction to counties, cities and townships based on a formula determined by the legislature.

The department's State Aid for Local Transportation division works closely with local levels of government to ensure the state maintains a safe, effective and coordinated highway network.

Monies from the Minnesota Highway Users Tax Distribution Fund are used to support more than 100,000 miles of trunk highways, county state aid highways, municipal state aid streets and township roads.

The HUTDF is a dedicated funding source comprised primarily of fuel tax revenues, license fees, motor vehicle sales tax revenue and interest.

For fiscal year 2019, MnDOT distributed over \$920 million to local governments from the HUTDF.

In addition to funding support, the SALT division provides technical assistance in highway and bridge design, construction and maintenance; authorizes grants for local road and bridge construction; coordinates local federally funded projects; and provides overall management of the state aid system.

SALT links MnDOT with city and county engineers to transfer technical expertise and determine ways to improve the state's transportation system.

#### Trunk Highway 11,733 County State Aid Highways <sup>1</sup> 30,618 Municipal State Aid Streets<sup>2</sup> 3,681

Minnesota Roads

139,591 miles

13.934

55,065

18,925

5,635

#### <sup>1</sup> In 87 counties

County Roads

Township Roads

Other Municipal Streets

Other Minor Systems

<sup>2</sup> In 148 cities of population greater than 5,000

	Bridges	
Trunk Highways	3,995	
County Roads	8,202	
City Streets	1,554	
Township Roads	6,276	
	20,027 bridges	

# 2019



mndot.gov/stateaid 651-366-3800 January 2019

# DEPARTMENT OF TRANSPORTATION

# Local Roads And Bridges Highway Users Tax Distribution Fund

#### STATE AID FOR LOCAL TRANSPORTATION

Minnesota Highway Distribution Fund 2019	y Users Tax		Town Bridge Account \$18,176,552	<ul> <li>Apportioned to individual counties based on the needs of the deficient township bridges.</li> <li>Less unallocated account, which can be used by any county.</li> <li>For the replacement of deficient township bridges</li> </ul>
<b>FUEL TAX REVENUE</b> \$934,800,000		<b>5% - \$</b> 113,603,450 Town Bridge Account - 16% Town Road Account - 30.5% Flexible Hwy. Account - 53.5%	Town Road Account \$34,649,052	<ul> <li>Apportioned to individual counties based on township road mileage open to traffic at least eight months/year.</li> <li>For the construction and maintenance of township roads.</li> </ul>
GAS LICENSE FEES \$810,200,000 Minnesota	Collection Costs and Refunds to Department of Natural Resources, Public Safety, Revenue, etc. \$37,219,000		Flexible Highway Account \$59,903,202	• Apportioned to individual agencies for the restoration of former trunk highways that have been turned back to the municipalities or counties and designated state aid.
MOTOR VEHICLE SALES TAX \$478,920,000				Trunk Highway
SALE SOLUTIONER INTEREST/OTHER	<b>Regular Distribution</b> \$2,158,465,550	<b>Regular 95% - \$2,158,4</b> Trunk Highway Fund - County State Aid Highway Municipal State Aid Street	- 62% Fund - 29%	Fund To MnDOT \$1,338,248,641
\$97,368,000				

\*Net distribution after adjustments and deductions

#### County State Aid Highway Fund\*

	<b>CSAH Distribution</b> \$615,574,528	<ul> <li>Distributed to 87 counties based on: <ul> <li>Apportionment Sum (68%)</li> <li>10% equalization</li> <li>10% motor vehicle registration</li> <li>30% lane miles</li> <li>50% CSAH money needs</li> </ul> </li> <li>Excess sum (32%) <ul> <li>40% motor vehicle registration</li> <li>60% CSAH money needs</li> </ul> </li> <li>Used to construct (60%) and maintain (40%) each county's CSAH system</li> </ul>
Ļ	<b>DEDUCTIONS</b> \$17,178,094	<ul> <li>Used for administration, disaster and research</li> </ul>
	\$4,651,697	• Used for roads providing access to recreation areas in cooperation with the DNR, State Park Road Account

#### Municipal State Aid Street Fund\*

-,	MSAS Apportionment \$192,465,830	<ul> <li>Apportioned to 148 municipalities based on: <ul> <li>50% population</li> <li>50% MSAS money needs</li> </ul> </li> <li>Used to construct and maintain each municipality's MSAS system</li> </ul>
L,	<b>DEDUCTIONS</b> \$4,979,011	• Used for administration, disaster and research





Friday, April 05, 2019

Dear City Administrator Dan Buchholtz,

The Board of Family Promise in Anoka County would like to invite you to our Annual Out of the Box Breakfast at the Tournament Players Club Twin Cities Golf Course in Blaine on May 9, 2019 at 7:30 a.m. You will have an opportunity to learn more about our program serving children and families experiencing homelessness in Anoka County. Our guest speaker this year is the newly appointed Chief Resilience Officer for the City of Minneapolis, Ron Harris. Ron is working to address issues of affordable housing, climate adaptation needs, and the impact of economic inequality within the community. He will translate these issues into concerns that also affect Anoka County and how we can all work together to create change in our community.

Homelessness is an issue throughout Anoka County. It may not be visible in the traditional sense, but it does exist and will not go away without support from the community. We are the only program serving families experiencing homeless in Anoka County and your support would be appreciated. Anoka County and other cities are providing annual financial support. We would like to request that your city consider this, as well as considering an individual contribution. We would welcome the opportunity to talk about other partnerships as well.

We hope that you can join us on May 9, 2019 and learn more about this critical issue and how you and your community can be part of the solution. Please feel free to invite others from your community, and if you would like to reserve a table (8-10) please let us know. You can RSVP by calling our office at 763-568-7349, email us at <u>events@familypromiseanoka.org</u> or visit our website <u>www.familypromiseanoka.org/events</u>.

Sincerely, Kelly Eisenbraun

Board of Directors- Development Committee Chair kelly.eisenbraun@familypromiseanoka.org 612-419 -6112





# News and Upcoming Events

## **2018: A YEAR IN REVIEW**

As we look back on the last year at Family Promise in Anoka County, we are incredibly thankful for the work our volunteers have done to help assist families struggling in our community. Our Interfaith Hospitality Network of faith communities served families with heart and offered them dignity in their time of difficulty and despair. Due to a tightened housing market that made it difficult to find affordable housing, we saw a major increase in the length of stay for our families – an average of just under 70 days. While these longer stays can be stressful for the families, our volunteers helped lift them up and keep them positive. Ultimately, 70% of our families were able to exit into permanent housing of their own!

Knowing that a lack of affordable housing is one of the biggest barriers families face, we worked hard to help in that respect. In 2018 we undertook two major housing projects. The first, Home for keeps, provided permanent manufactured homes to two families. For our second project, we acquired and renovated a house in Spring Lake Park to use as a bridge housing unit. This project allows families the autonomy of living on their own while also allowing them more time to work to achieve permanent housing.

The year also saw the beginning of our Breaking Barriers program. This twice-per-month evening program features an evening meal and a presentation focused on providing tools to help families achieve and retain financial and housing stability. The program is for both our current families as well as graduates of our program, and has been a big success!

In December, we celebrated the holiday season with our first ever Family Promise Christmas Party. In addition to the families in our program, seven former guest families participated. The party included a meal, games, arts and crafts, and professional family photos. Each individual left with gifts and gift cards as a way to ensure they all got something they wanted for Christmas. In the words of one of the former guests, it was "the best Christmas ever."

Thanks to everyone who supported Family Promise through volunteer time and donations, 2018 was a success, and we look with anticipation on what 2019 will bring!

### Mark Your Calendar!

Out of the Box Breakfast Thursday, May 9 7:30 am TPC Clubhouse, Blaine Contact us for sponsorship opportunities

Hotdish for Homelessness Featuring Bob Stromberg Thursday, September 19 6:30 pm Lord of Life, Ramsey

Visit our website for more details on these programs as the dates approach.

## A LOOK TO THE FUTURE

In the past two years, Family Promise has been active in creating new programs and initiatives to improve the lives of families experiencing homelessness in Anoka County. New initiatives such as Home for Keeps, Breaking Barriers, and our new Bridge House have come out of this drive.

The Board of Directors and staff of Family Promise in Anoka County continue to look for ways to serve more families, to serve families better, and to serve families more deeply. Over the next year, we will be investigating long-term changes to our program and delivery that may include moving our Day Center or changing to a Static Site model where families would stay in one place and volunteers would come to them. While none of these changes are imminent, we are taking exciting steps exploring these opportunities for growth!

# Family Promise in Anoka County

# Annual Report 2018 in Review

Family Promise in Anoka County provides temporary shelter, hospitality, and case management to assist families experiencing homelessness achieve housing independence.

## **2018 BY THE NUMBERS**

16 IHN families served
50% lived in their vehicle
70 days average stay for families in our program
100% improved income
34 children served
3200 bed nights provided
9500 meals provided
2 permanent homes given through Home for Keeps
1 new Bridge Housing unit
950 individual volunteers
344 individual donors

Over 70% of the families served in 2018 moved into stable, independent housing.

## **OVERVIEW OF FAMILY PROMISE**

Family Promise in Anoka County is a program that has served families experiencing homelessness in Anoka County since 2010. Guests of our Interfaith Hospitality Network program (IHN) receive overnight shelter, three meals a day, and warm hospitality from a network of volunteers and 17 partner congregations. These congregations take turns opening their facilities for a week at a time to house the guests for the evening and overnight hours. Each morning, guests are transported to our Day Center in Ramsey where they can access computers and internet, meet with transportation to their jobs or school, shower, wash laundry, securely store personal items, and work with our case manager to help them move toward housing independence.

Recently, Family Promise added additional programming to serve more families and have greater impact in the community. Our Home for Keeps program uses volunteers to renovate and restore manufactured homes, helping a struggling family to move from homelessness to homeownership in just a short time. Our Breaking Barriers program provides educational opportunities focused especially on financial management to guests and recent graduates. A new Bridge House gives a family a place to stay as they transition from our IHN program into their own permanent housing.

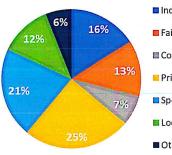
Family Promise would not be possible without the generous community support we receive through volunteers, donations, and in-kind gifts. Homelessness is a community problem, and Family Promise offers an community response! Call or email to find out how you can join the Family Promise network and make an impact in Anoka County.

## **2018 FINANCIAL OVERVIEW**

Family Promise in Anoka County works hard to be good stewards of the funds given to us by our donors and partners. Last year continued on a trend of growth in financial support of our programs!

In 2018, Family Promise received \$232,000 in donations and community support. We are able to keep our costs low by leveraging volunteer labor and in-kind gifts, which are not included in this dollar amount. Volunteers provide over 85% of the work of the Family Promise program. That time, along with inkind gifts, is valued at nearly three times our budget!





Individual Donors
 Faith Communities
 Community Organizations
 Private Foundations
 Special Events
 Local Government
 Other

### DEPARTMENT OF HEALTH

# Protecting, Maintaining and Improving the Health of All Minnesotans

April 5, 2019

Spring Lake Park City Council c/o Mr. Dan Buchholtz, Administrator Spring Lake Park City Hall 1301 81st Avenue NE Spring Lake Park, Minnesota 55432

Dear Council Members:

SUBJECT: Sanitary Survey Report for Spring Lake Park Public Water System (PWS), Anoka County, PWSID 1020029

Enclosed is a copy of the sanitary survey report summarizing an on-site inspection of your Community Public Water System. This report includes a review of the system's water source, facilities, equipment, operation, maintenance, and monitoring compliance for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water. Technical and management information regarding the operation of the system may also be provided. Conducting sanitary surveys on a regular basis is an important element in preventing contamination of drinking water supplies and in maintaining compliance with the National Primary Drinking Water Standards. Kenneth Prokott was present during this inspection.

Please take appropriate action to address any deficiencies or recommendations identified within this report. A deficiency may lead to a contamination of the water supply or failure of the system to be in compliance with the Safe Drinking Water Act. The enclosed report must be kept on file and made available for public review for not less than ten (10) years.

The Minnesota Department of Health (MDH) continues to monitor your PWS for contaminants identified by state and federal drinking water regulations. The results of such monitoring are not part of this report. They are sent to you under separate cover as they become available.

If you have questions concerning the information contained in the report, please contact me at 651/201-4683.

Sincerely,

Brian A. Noma, P.E. Public Health Engineer Section of Drinking Water Protection P.O. Box 64975 St. Paul, Minnesota 55164-0975

BAN Enclosures cc: Water Superintendent

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### MINNESOTA DEPARTMENT OF HEALTH Section of Drinking Water Protection Sanitary Survey Report



System Name: Spring Lake Park PWSID: 1020029 System Contact: Terry Randall, Public Works Director Survey Date: 02/20/2019 Surveyor: Brian A. Noma, P.E. PWS Type: Community

### Requirements and Recommendations

### Water Source

As a reminder, it is required that a well for a community public water supply be located according to distances specified in Minn.Rules 4725.4450, including not less than 50 feet from a source of contamination including buried sewers (except as specified in Minn. Rules 4725.5850).

Well no. 5 was temporarily out of service at the time of the sanitary survey inspection.

### Pumps/Pump Facilities and Controls

No deficiencies observed.

### **Treatment**

No deficiencies observed. (Arthur Street Plant was temporarily out of service at the time of the sanitary survey inspection).

### Water Storage

It is required that the overflow for the water storage structure be outfitted with a 24-mesh corrosion resistant screen, extend to within 12-24 inches of the ground and be discharged over a splash plate. [Recommended Standards for Water Works 7.0.7.]. At the time of the inspection the overflow pipe was not accessible due to the depth of the snow.

### **Distribution**

It is recommended that dead ends in the distribution system be minimized by looping. If looping is not feasible, a fire hydrant, approved flushing hydrant or blow off for flushing purposes must be used at the dead ends to maintain water quality and/or chlorine residual. [Recommended Standards for Water Works 8.0]

### Monitoring/Reporting Data Verification

The following applicable records are required to be maintained by the water supply system:

a. Coliform bacteria results - 5 years

- b. Chlorine residual results 5 years
- c. Chemical results 10 years
- d. Sanitary survey reports 10 years
- e. All lead and copper materials 12 years
- f. Consumer confidence reports 3 years
- g. Public Notices 3 years
- h. Fluoride quarterly results and monthly reports 1 year
- i. Turbidity results 3 years

[Minn. Rules 4720.0350]





System Name: Spring Lake Park PWSID: 1020029 System Contact: Terry Randall, Public Works Director . Survey Date: 02/20/2019 Surveyor: Brian A. Noma, P.E. PWS Type: Community

### **Requirements and Recommendations**

### Water System Management/Operation

As a reminder, engineering plans for new, modifications to, or additions to the water supply system, including watermains, are required to be properly submitted to the Minnesota Department of Health for review. All plans must be approved prior to the start of construction. [Minn. Rules 4720.0010]

To ensure security, it is recommended that a daily check of critical system components be conducted, including confirmation that all doors and access hatches are locked.

### **Operator Compliance with State Requirements**

The certified operators are required to qualify themselves by attending waterworks operators training seminars offered throughout the state. Continuing education is valuable experience for anyone engaged in this field. The required contact hours in the previous 3 years for certification renewal are:

Class A 32 contact hours Class B 24 contact hours Class C 16 contact hours Class D 8 contact hours Class E 4 contact hours [Minn. Rules 9400.1200]



# MINNESOTA DEPARTMENT OF HEALTH Section of Drinking Water Protection Sanitary Survey Report



<u>E.Coli</u>

System Name: Spring Lake Park PWSID: 1020029 System Contact: Terry Randall, Public Works Director Survey Date: 02/20/2019 Surveyor: Brian A. Noma, P.E. PWS Type: Community

# **Bacteriological Results and Chlorine Residuals**

Date	Sampling Location	Chlorine Residual <u>Free / Total</u>	Coliform <u>Bacteria</u>
02/20/2019	City Hall	/ 0.46	Absent
02/20/2019	Super America	/ 0.70	Absent
02/20/2019	Holiday	/ 0.85	Absent
02/20/2019	Lion's Den	/ 0.53	Absent
02/20/2019	Emmanuel Church	/ 0.34	Absent

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# System Name: Spring Lake Park PWSID: 1020029 System Contact: Terry Randall, Public Works Director

### Survey Date: 02/20/2019 Surveyor: Brian A. Noma, P.E. PWS Type: Community

# **Contact Information**

Name	Address	Phone/Email	
Contact			
Terry Randall, Public		Business Phone 1	763/784-6491
Works Director		Business Phone 2	763/792-7227
		Email	trandall@slpmn.org
Owner/Responsible Part	У		
Spring Lake Park City	c/o Mr. Dan Buchholtz,	Business Fax	763/792-7257
Council	Administrator Spring Lake Park City Hall	Business Phone 1	763/784-6491
	1301 81st Avenue NE	Email	dbuchholtz@slpmn.org
	Spring Lake Park, MN 55432		
Financial			
Spring Lake Park City	c/o Ms. Nancy Kelm, Utility Billing	Business Phone 1	763/792-7213
Council	Spring Lake Park City Hall	Email	nkelm@slpmn.org
	1301 81st Avenue N.E. Spring Lake Park, MN 55432		
Sample Bottles/General Spring Lake Park Water		Business Phone 1	763/784-6491
Superintendent	1301 81st Avenue NE Spring Lake Park, MN 55432	Email	TRandall@slpmn.org
·			
Emergency Workday		Business Fax	763/792-7257
Terry Randall - Public Works Director		Cell Phone	763/360-4973
		Email	trandall@slpmn.org
		Pager	612/526-0303
Ken Prokott		Business Phone 1	763/784-6491
		Cell Phone	763/360-4974
Emergency After-Hours			
Anoka County Dispatch		Business Phone 1	763/427-1212
Consumer Confidence F	Report		
Terry Randall	•	Business Phone 1	763/784-6491
		Email	trandall@slpmn.org
<b>Classification Inform</b>	nation		
Owner Type:	Municipal	Population:	6450
System Class:	С	Service Connections	
Service Area Characterist	ics: Municipal	Class Points:	46
<b>Certified Operators</b>	·		
Name	Class Expiration Date	Name	Class Expiration Date
Randall, Terry P.	C 06/30/2019	Turbitt, Benjamin M.	C 04/30/2020





System Name: Spring Lake Park PWSID: 1020029

# Survey Date: 02/20/2019 Surveyor: Brian A. Noma, P.E.

System Contact: Terry Randall, Public Works Director

PWS Type: Community

### **Certified Operators**

<u>Name</u> Prokott, Kenneth N	<u>Class</u> I. D	Expiration Date 05/31/2020	<u>Name</u>	Class Expiration Date
Production To	tals			
Design Capacity: Average Daily: Highest Daily:	699,452 Gallo 1,404,000 Gallo		Emergency Capacity: Storage Capacity:	1,440,000 Gallons per Day 750,000 Gallons

### Source Information

<u>Well #1</u>		
Unique Well No.:	00206638	Source Type: Groundwater
Туре:	Well	Pump Capacity (gpm): 1000
Status:	Active	Pumping Rate (gpm): 1000
Availability:	Primary	Emergency Capacity: 1000 Gallons per Minute
Year Constructed:	1961	Static Depth (ft): 115
Well Depth (ft):	741	Drawdown (ft): 102
Casing Depth (ft):	350	Pump Type: Vertical Turbine
Casing Diameter (in):	16	Vulnerable: No
Screen Length (ft):		Last Rehabilitated: 2015
Aquifer:	Tunnel City-Mt.Simon	

### <u>Well #2</u>

Unique Well No.:	00223294	Source Type:	Groundwater
Туре:	Well	Pump Capacity (gpm):	1000
Status:	Active	Pumping Rate (gpm):	1000
Availability:	Primary	Emergency Capacity:	1000 Gallons per Minute
Year Constructed:	1965	Static Depth (ft):	115
Well Depth (ft):	694	Drawdown (ft):	
Casing Depth (ft):	329	Pump Type:	Submersible
Casing Diameter (in):	16	Vulnerable:	No
Screen Length (ft):		Last Rehabilitated:	2013
Aquifer:	Tunnel City-Mt.Simon		





System Name: Spring Lake Park PWSID: 1020029 System Contact: Terry Randall, Public Works Director Survey Date: 02/20/2019 Surveyor: Brian A. Noma, P.E. PWS Type: Community

### <u>Well #4</u>

Unique Well No.: 00180920 Type: Well Status: Active Availability: Primary Year Constructed: 1982 Well Depth (ft): 726 Casing Depth (ft): 533 Casing Diameter (in): 16 Screen Length (ft): Aquifer: Mt. Simon

#### Well #5

Unique Well No.: 00563006 Type: Well Status: Active Availability: Primary Year Constructed: 1998 Well Depth (ft): 783 Casing Depth (ft): 650 Casing Diameter (in): 18 Screen Length (ft): Aquifer: Mt. Simon-Hinckley

### Interconnect - Blaine

Type: Consecutive Connection Source Ty Status: Active Design Capa Availability: Emergency Emergency Capa

Purchases From: 1020006 Blaine

### Interconnect - Mounds View

 Type: Consecutive Connection
 Source Type: Pu

 Status: Active
 Design Capacity:

 Availability: Emergency
 Emergency Capacity:

Purchases From: 1620008 Mounds View

Source Type: Groundwater Pump Capacity (gpm): 1000 Pumping Rate (gpm): 1000 Emergency Capacity: Static Depth (ft): 182 Drawdown (ft): 42 Pump Type: Vertical Turbine Vulnerable: No Last Rehabilitated: 2018

Source Type: Groundwater Pump Capacity (gpm): 1000 Pumping Rate (gpm): 1000 Emergency Capacity: Static Depth (ft): 213 Drawdown (ft): 45 Pump Type: Vertical Turbine Vulnerable: No Last Rehabilitated: 2019

Source Type: Purchased Groundwater Design Capacity: Emergency Capacity: Pump: I

Source Type: Purchased Groundwater Design Capacity: Emergency Capacity: Pump:





System Name: Spring Lake Park PWSID: 1020029 System Contact: Terry Randall, Public Works Director Survey Date: 02/20/2019 Surveyor: Brian A. Noma, P.E. PWS Type: Community

#### Treatment Information Arthur Street Treatment Plant Treatment Plant Type: Source Water: Groundwater Status: Active **Design Capacity:** 1,000 Gallons per Minute Availability: Primary Emergency Capacity: **Treatment Objective** Treatment Process Mechanism Disinfection Chlorine/Gas Fluoride (Z) Fluoridation/Hydrofluosilicic acid Iron removal Filtration (Pressure)/Patented sand Oxidation - chemical/Potassium permanganate Manganese removal Filtration (Pressure)/Patented sand Oxidation - chemical/Potassium permanganate Other Backwash recvcle Radionuclides removal Filtration (Pressure)/Patented sand Oxidation - chemical/Manganese sulfate Oxidation - chemical/Potassium permanganate Terrace Park Treatment Plant Type: Treatment Plant Source Water: Groundwater Status: Active 2,000 Gallons per Minute Design Capacity: Availability: Primary Emergency Capacity: 1,000 Gallons per Minute **Treatment Objective Treatment Process Mechanism** Disinfection Chlorine/Gas Fluoride (Z) Fluoridation/Hydrofluosilicic acid Iron removal Filtration (Pressure)/Patented sand Oxidation - chemical/Potassium permanganate Manganese removal Filtration (Pressure)/Patented sand Oxidation - chemical/Potassium permanganate Other Backwash recycle Radionuclides removal Filtration (Pressure)/Patented sand Oxidation - chemical/Manganese sulfate Oxidation - chemical/Potassium permanganate

Storage Information			
East Tower			
Type: Storage-Elevated Status: Active	Capacity: 5 Availability: Chlorination:	500,000	Gallons Primary
West Tower	Quere site		
Type: Storage-Elevated	1 2	250,000	Gallons
Status: Active	Availability:		Primary
	Chlorination:		





System Name: Spring Lake Park PWSID: 1020029 System Contact: Terry Randall, Public Works Director Survey Date: 02/20/2019 Surveyor: Brian A. Noma, P.E. PWS Type: Community

# Bacteriological Sample Site Plan

### Distribution

Distribution					
	D Sample Location	<u>Status</u>	Notes		
01	City Hall	Active	1301 81st Ave. N.E.		
02	Emmanual Christian Center	Active	7777 University Ave.		
03	McDonald's	Active			
04	Spring Lale Park Baptist Church	Active	8498 Sunset		
05	8437 University Ave.	Active			
06	8000 Central Ave.	Active			
07	8101 University Ave.	Active			
08	892 Highway 10	Active			
09	Old Hardee's Building	Active			
10	Prince of Peace Church	Active			
11	Champion Auto	Active			
12	Go Gas	Active	7701 Highway 65		
13	Povlitskies	Active			
14	8035 Spring Lake Park Road	Active			
15	Brew & Grow	Active			
16	Trucking Company	Active			
17	Lion's Den (Warming House)	Active	520 Sanburnol		
18	Fire Station No. 1	Active	1710 Highway 10		
19	Harsted Buildng	Active	1625 Highway 10		
20	8329 Central Ave.	Active			
21	Key's Cafe	Active	8299 University Ave.		
22	Collin Realty	Active	7766 Highway 65		
23	Mudd Springgers	Active			
24	Spring Lake Park Lumber	Active			
25	Morgan Building	Active	8463 Terrace		

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Correspondences





NEWS AND INFORMATION

FOR PUBLIC WATER SUPPLIERS IN MINNESOTA

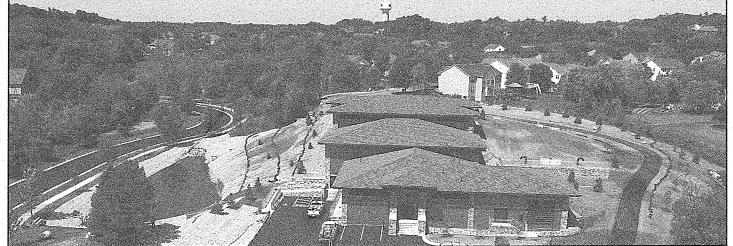
# Sandeep Burman Named MDH Drinking Water Protection Section Manager

Sandeep Burman began as the manager of the Drinking Water Protection Section at the Minnesota Department of Health (MDH) November 14, succeeding Randy Ellingboe.

Sandeep has an educational background in hydrogeology and civil engineering. He did his undergraduate work in India and came to the University of Minnesota in 1991 for a masters degree, just in time for the Twins' World Series victory and the Halloween blizzard. An amateur mountain climber in India, he had to switch activities in the flatlands of Minnesota, and he now likes to hike, bike, and camp in Minnesota's state parks, and also canoe in the Boundary Waters Canoe Area. As the picture shows, he is also willing to participate in other adventure sports, such as MDH "welcome" lunches at White Castle.

After graduate school, Sandeep began working at the Minnesota Pollution Control Agency (MPCA) as a hydrologist in the Rochester district office, alongside staff in the MDH drinking water program. He became a supervisor in the Petroleum Cleanup Program and moved to the St. Paul office. He then moved to the Superfund Program, dealing with the cleanup and redevelopment of polluted industrial sites. Throughout his MPCA career he has remained heavily involved with drinking water issues.

He most recently managed the MPCA's Site Remediation & Redevelopment Section and has strong working relationships across a broad spectrum of stakeholders, including regulated parties, communities, local/state government (including MDH), federal agencies, and national organizations.



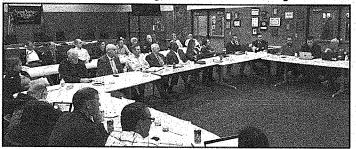
# Chanhassen Enhances Aesthetics of Water and Community

Ten years ago, before million-dollar mansions began dotting the landscape on the western side of Chanhassen, the city purchased property and posted it as the future site of a water treatment plant. That didn't assuage the angst of incoming residents, who were vocal about how a water plant would affect the look of the neighborhood. Working together, Chanhassen and the homeowners association developed a plan for a facility that blended in with prairie-themed architecture and landscaping. The pleasing aesthetics apply to more than just the water plant; the residents of the higher elevations of the city are getting better looking and tasting water, thanks to the treatment to remove iron and manganese from the water. Read more on page 4.

Spring 2019 & Volume Twenty-six/3

Inside: Water Operator School News Water Tending School Advisories vs. Orders/Lead in Drinking Water Lewis & Clark Completed in Minnesota

### St. Anthony Stands Ready



On Monday, November 19, St. Anthony Village had a working-group meeting in lieu of its regular city council meeting. The mayor and council members were joined by other city officials—including public-works director Jay Hartman and fire chief Mark Sitarz—as well as representatives from the Minnesota Department of Health (MDH), Hennepin and Ramsey counties, and WSB & Associates, the city's engineering firm. The group walked through a scenario of a water contamination incident. In addition, Nick Eggers of Hastings was present to report on his city's response to a boil water advisory it had to issue earlier in the year.

With some members of the public present, the group walked through the steps it would follow to respond to an incident with emphasis on public notification and communication.

MDH district engineers Brian Noma and Jon Groethe, who have experience in working with cities that have had to respond to contamination problems, guided the group through the process that is followed in these situations.

St. Anthony Village, a city of approximately 9,200 residents, has a filtration plant to remove iron and manganese. It recently added ultraviolet light technology to address 1, 4 dioxane from the city wells, a result of contaminated soil and groundwater from chemicals used at the former Twin Cities Army Ammunition Plant, which was located in nearby Arden Hills.

While St. Anthony Village has not had contamination emergencies with its drinking water, it organized this discussion to prepare in case there are incidents in the future. Mayor Jerry Faust was grateful for the participation of all involved and said they feel confident they can deal with situations that may occur to the drinking water system, whether it be from system contamination, damage to the distribution system, a power failure, or a nature disaster.

More information on the new treatment plant is at https:// tinyurl.com/ybcpdxbj.

# **New MDH Engineer: Jenny Soltys**



Jenny Soltys is the new Minnesota Department of Health engineer for the Central-North District (working out of the St. Cloud office). She grew up in northeast Minneapolis and lived in various places around the state before landing in

her current home in Isanti. Her work experience includes Metropolitan Council Environmental Services, Capitol Region Watershed District, University of Minnesota in St. Paul, and Cedar Creek Science and Ecosystem Reserve in East Bethel, where she was part of a controlled-burn crew that managed burns throughout a 6,500-acre research site. Jenny has six nieces and one nephew, who gave her a tiny Bengal cat named Emmy, ranging in age from 3 to 13. She enjoys exploring the lakes and woods in Minnesota's northlands.

### **Chuck Brackin Dies**

Former Bemidji water superintendent Chuck Brackin died November 11 at 75. Born in Mississippi, Chuck moved to Bemidji when he was five and started working for the city in 1963, retiring as water superintendent in 1999.

According to his obituary in the *Bemidji Pioneer*, he enjoyed hunting and fishing and won many fishing tournaments.

Larry Cole, who was the Minnesota Department of Health engineer in that area, remembered Chuck:

"Chuck and I started our careers around the same time and worked with each other until he retired in '99. He knew more about walleye fishing on my favorite lake than I will ever know. He would have a stringer of fish while a lot of us were leaving with a couple of perch. Chuck was very professional about his job and worried and worked hard to solve the 'red water' problems in the Nymore neighborhood. He introduced chlorination when it was not popular to do so and fought hard to maintain the residual throughout the system. That treatment, coupled with polyphosphate and a vigorous flushing program, did ease the number of complaints. He knew treatment of the iron was the best solution and set in motion a plan to treat the water. He worked to consolidate the city's sources so that such treatment would be possible. Chuck always had a good sense of humor and his impish smile always found its way into the conversation. The city water system was greatly improved under Chuck's guidance."

Services were held in mid-November with Father Chuck Huck officiating. Brackin was buried in Greenwood Cemetery in Bemidji.

# How Long Is Long Enough?

Wondering how long you need to keep your compliance records? Check out the U. S. Environmental Protection Agency's *Record Keeping Rules—A Quick Reference Guide:* https://tinyurl.com/ycds7kvz

### **Useful New Videos**

New from the Minnesota Department of Health:

How to Collect a Drinking Water Total Coliform Sample: https://tinyurl.com/y7me9cr6 Drinking Water Sample Collection (6 videos): https://tinyurl.com/y8dh5zme Sample Collection Procedures (videos and more): http://www.health.state.mn.us/watersampling

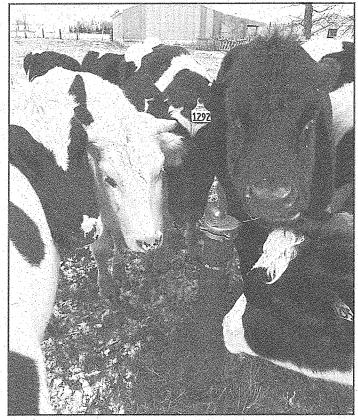
# Water Tending School at Water Bar



Minnesotans have been bellying up to the Water Bar all over the state. A combination of water, art, and social infrastructure, Water Bar is holding free water tending schools at its studio in Northeast Minneapolis. The workshops include storytelling sessions (shown above) and training on serving water from different sources (shown below). The workshops are for water professionals, artists, and others to share water stories, make new connections, and practice serving water. Water tenders who become certified will have access to a Water Bar pop-up kit and other artist-designed resources to develop and lead their own engagement programs.



# Our Latest Collaboration with the Department of Agriculture



Luke Pickman, a hydrologist in the Minnesota Department of Health Source Water Protection Section, came across a great find while doing some well locating in Foreston, Minnesota.

# Twins Install Self-Irrigating "Living Wall" for Batter's Eye

Keeping with the Minnesota Twins' commitment to sustainability at Target Field, the team announced that its batter's eye (the backdrop for hitters) will be a selfirrigating "living wall."

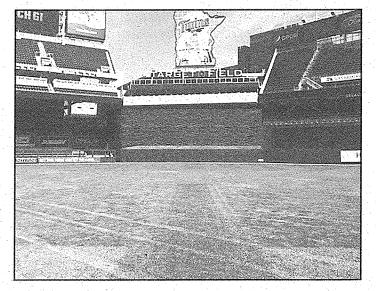


playability and aesthetics," said Twins president Dave St. Peter. "We believe the living wall concept delivers on both fronts, while further enhancing the ballpark's sustainability platform."

At 2,280 square feet, the living wall will be among the largest in the contiguous United States and will incorporate approximately 5,700 sea-green juniper plants, individually installed and secured in a tiered, multiple-tray system attached to the existing batter's eye wall structure. According to the Twins, "Together, the junipers will create a consistent, stationary background of lush greenery, without variations in color or texture, to provide both beauty and a world-class hitter's backdrop."

A rainwater recycle system by Pentair, Inc. of Minneapolis will provide the irrigation. Since the opening of Target Field in 2010, water sustainability has been a focus of the ballpark in a partnership between the Twins and Pentair. (For more on Target Field and water, go to https://tinyurl.com/cvplvjc.)

"Since the removal of the original trees, which were part of Target Field's batter's eye in 2010, the Twins have been searching for the right solution which balances



# **Chanhassen Water Plant Becomes a Good Neighbor**

Chanhassen is another of the growing outer ring of Twin Cities suburbs that is constantly keeping up with the increasing number of residents. Into the early part of the 21st century, the city was able to supply safe water to its citizens with the addition of chlorine and fluoride at its five wells.

In 2006 Chanhassen opened its

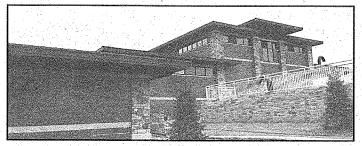
first water treatment plant, which removed iron and manganese. Located on the eastern edge of the city, the plant serviced the low pressure zone, which wrapped around the higher portions of Chanhassen, leaving an enclave on the west side that did not receive treated water. Within this area, the city owned land and had plans to build a second treatment plant.

Before this happened, the surrounding area was being filled with large homes, along with residents who became concerned about having a utilitarian facility in their midst. The city and its engineering firm, WSB & Associates, Inc. of St. Paul, moved forward with plans for a water treatment plant while also meeting with representatives of the homeowners association in the Lake Harrison neighborhood. Greg Johnson, manager of WSB's water/wastewater group, said one of the representatives was an architect who had ideas about the design of the plant.

Eventually, the parties settled on a prairie-themed look for the building and the grounds that was satisfactory to all involved. The facility was built into a hillside, which required a great deal of earth moving, although it provides a pleasing appearance and partially camouflages some elements of the facility.

City engineers Paul Oehme and George Bender pointed out how the backwash holding tank was built into hill, some below ground with part projecting over it, surrounded by a rock wall that blends in with the exterior of the building. A hill over one side of the tank has 13 feet of styrene blocks over the tank, rather than soil, to save on structural reinforced concrete costs.

Johnson said they used pilot testing to come up with a design for pressure aeration, detention, and gravity filters. The main difference between the new plant and the east water treatment plant is the addition of a detention tank. Incoming water is fed air with chlorine for the oxidation of iron in the detention tank. Sodium permanganate is added to oxidize manganese. The water rises and falls over baffles and then a weir, getting 15 minutes of detention. "The water flows like a waterfall," said Bender.



The backwash holding tank is partially surrounded by the rock wall on the right.



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After detention, the water splits before reaching the filters, which consist of two banks of three anthracite greensand filters each. Both the east and west plants pump into the low-pressure zone, the main zone in the city. The west plant is able to service the higher areas and has been oversized for the ultimate buildout of the community. "This plant straddles

the high and low zone," said utility superintendent Kevin Crooks. "We're set."

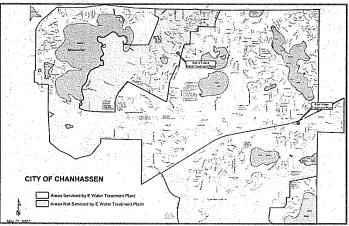
As construction was beginning in mid-2017, the utility began feeding orthophosphate into the system for corrosion control. Doing so avoided potential problems with lead and copper. Oehme said this was one of the lessons they learned from their experiences with construction of the first treatment plant.

The plant can produce nine million gallons per day. It was designed to account for anticipated growth. Chanhassen's population is currently 24,000 and is projected to be 35,000 by 2040. An additional challenge is dealing with large seasonal swings in demand. Because of high residential irrigation during the warmer months, the utility uses threeand-a-half times more water in the summer than in the winter.

Chanhassen bonded for this project and included it as part of long-term rate planning. The total project cost approximately \$16.5 million, which includes the treatment plant, engineering, water-main improvements, and chemical equipment.

The west treatment plant went on-line August 3, 2018. The city performed frequent flushing in the early stages to deal with discoloration issues that are common with such projects. Oehme said they've gotten a few calls about the initial issues with the water and are pleased that they are getting increasing feedback from residents about the improved quality of the water.

Simon McCormack, the district engineer for the Minnesota Department of Health, hailed the city's efforts to connect stand-alone wells to the treatment plant and come up with a design that works for the neighbors. "This is a prime example of community collaboration in action," he said.



A 2007 map, produced shortly after the east treatment plant was constructed, shows the areas served and not served by the plant. The shaded area toward the left and top shows the site of the west treatment plant and the area now served by it.

### **Minnesota Department of Health Topics**

### By Carly Edson, Minnesota Department of Health

### What Is MDH Doing about Lead in Drinking Water?

Lead and Copper Rule (LCR) revisions: The LCR within the Safe Drinking Water Act (SDWA) directs how lead is regulated in drinking water. The LCR requires public water systems to test drinking water at high-risk taps to assess the performance of the overall distribution system. If more than 10 percent of samples have lead levels above the action level of 15 parts per billion (ppb), the system is required to take action by providing consumer notification and taking steps to reduce lead exposure.

The rule has been undergoing revisions for the past several years. MDH has provided comment on the rule revisions to U.S. Environmental Protection Agency (EPA), but it is unclear when the final versions of revisions will be posted for comment. In the meantime, MDH is continuing to provide technical assistance and enforcement of the current rule. MDH will communicate updates from EPA about the rule revision.

**Reducing lead in school drinking water:** As of July 1, 2018, all public and charter schools in Minnesota were required to adopt testing plans for lead in water. MDH worked with the Minnesota Department of Education (MDE) to disseminate information about the rule change to schools and public water systems. MDH and MDE also created a techni-

cal guidance manual and communication toolkit for schools (resources available at Drinking Water in Schools [http://www.health.state.mn.us/divs/eh/water/schools]). MDH continues to work with MDE to provide technical assistance related to implementation of this new rule.

The Drinking Water Protection Section at MDH is collaborating with other lead programs at MDH, such as the Health Risk Intervention Unit, to apply for a Lead Testing in School and Child Care Program Drinking Water Grant from the EPA. This grant is available under the Water Infrastructure Improvements for the Nation Act and is planned to start in late 2019.

**Report on removing lead from drinking water:** MDH is releasing a new report on the cost of removing lead exposure through drinking water, in collaboration with the University of Minnesota. This report found that the two primary sources for lead in drinking water are lead service lines and premise plumbing. The report also found that for every \$1 spent on addressing lead in drinking water in Minnesota, we will see at least \$2 in benefits. Benefits include lower levels of lead poisoning leading to higher earning potential due to fewer IQ points lost.

### Be Ready for Floods

The longer days and warmer temperatures of spring may seem like a long way away, but it's not too soon to start planning for spring flooding. If you're concerned about potential flooding, get started today:

- Review Flood Resilience: A Basic Guide for Water and Wastewater Utilities (https://tinyurl.com/y973x536)
- Join MnWARN, a statewide Water/Wastewater Agency Response Network (http://www.mnwarn.org)
- Talk to your MDH District Engineer
- Familiarize yourself with the resources available at Drinking Water Safety in Emergencies (https://tinyurl.com/y99q2s7g) If you anticipate or are experiencing flooding, call the State Duty Officer to be put in contact with MDH 24/7.

### Minnesota Water Research Fund

Bernie Bullert, a legend in the water profession in Minnesota and nationwide, began the Minnesota Water Research Fund through the University of Minnesota's College of Science & Engineering in 2015. The fund provides research support for faculty and students of the Department of Civil, Environmental, and Geo-Engineering working in water resources management and water treatment. The research conducted solves current and emerging water quality problems and also helps trains students.

Bernie, a leader in the water utility departments for St. Paul and Minneapolis, said, "That still leaves the rest of the state of Minnesota!" Recognizing the communities outside the Twin Cities that face water problems, Bernie responded by starting this fund. Go to http://www.cege.umn.edu for more information.

To Donate to the Minnesota Water Research Fund: https://tinyurl.com/ydg7e9qc

### Lewis & Clark Completed in Minnesota

"This is what government is all about," said Representative Rod Hamilton during a December 12 celebration to mark the connection of the Lewis & Clark Rural Water System to the city of Worthington. Conceived in 1988 as a way of serving water-challenged areas in South Dakota, Iowa, and Minnesota, the Lewis & Clark project takes water from a series of wells that tap into an aquifer adjacent to the Missouri River near Vermillion, South Dakota. The water is delivered to communities as far away as 125 miles. The water first reached Minnesota in 2015, reaching Rock County Rural Water District. By the end of 2018, it's journey through Minnesota was complete. In addition to Worthington, Minnesota partners in the project are Rock County Rural Water District, Lincoln-Pipestone Rural Water System, and Luverne. Worthington mayor Mike Kuhle called the connection a "game changer" in terms of the quality of life the water brings to their city.



# Southeast School

Here is the agenda for the March 13-15 Southeast Water Operators School at the Rochester Event Center (new location), 7333 Airport View Drive SW, Rochester 55902, 507-529-0033. Participants in the school will receive 16 credit hours for their attendance.

Registration will begin at 7:00 a.m. on March 13 with the breakfast beginning at 7:30 on Wednesday and sessions starting at 7:45 on Thursday, and 8:00 on Friday.

The certification exams will be held at 9:00 a.m. on Friday at the Minnesota Department of Health, 18 Wood Lake Drive SE, Rochester 55904-5306.

### Wednesday, March 13

### 7:30 to noon

- · Breakfast with Water Equation and guest speaker Rod Volker
- Retirement Planning-Minnesota State Retirement System
- Stormwater Education
- Understanding Minnesota's Changing Climatology

### 1:00 to 3:45

- Product Show with Water Taste Test and TopOps
- · Operator Interface following Product Show

# Thursday, March 14

Exam prep for C-D licenses in the morning and afternoon.

### 7:45 to 11:30

- Safety
- Automatic Flushing, Pressure Monitoring
- · How to Make Your Water Tower Last More than 100 Years
- Minnesota Department of Health Update

### 12:30 to 3:00

- Minnesota Department of Transportation Safety
- Iron and Manganese Removal
- Hastings Boil Water Advisory

# Friday, March 15

### 8:00 to noon

- Southeast District Business Meeting
- Asset Management
- Water Treatment Hazards
- · Hands-on Sessions at Core and Main

# Metro School

Here is the agenda for the 2019 Metro Waterworks Operators School at the Earle Brown Heritage Center, 6155 Earle Brown Drive, Brooklyn Center 55430, 763-569-6300. Participants in the school will receive 16 credit hours for their attendance.

Registration will begin at 6:45 a.m. on April 2 with the sessions beginning at 8:00 on Tuesday, 7:00 on Wednesday and 8:30 on Thursday. Sign-ups will take place during registration on Tuesday for the off-site tours on Wednesday. Priority for the St. Paul Tunnel tour will be given to those who signed up last year, when the tour did not take place.

# **Tuesday, April 2**

### 8:00 to 11:30

- The Power of Focus
- The State of Operator Education
- Security Forensics

- Leadership Session
  - Respect in the Workplace
  - · Leadership for Succession Planning
  - Lessons from My Dad

### Distribution Session

- Arc Flash: A Blast Is No Fun
- Mainbreaks
- · Generator Operation and Maintenance

Stay apprised of agenda updates at http://www.health.state. mn.us/divs/eh/water/wateroperator/trng/metro.html

or

### Wednesday, April 3

Breakfast

Exam prep for C-D licenses in the morning and afternoon and study session for A-B licenses.

### 8:15 to 11:30

Off-site tours of St. Paul Tunnels, Minneapolis Water Plant, **Keys Well Drilling** 

or

### 12:30 to 3:30

**Business Solutions Session** 

- Gopher State One-Call Technology
- Meter Technology and Customer Portal
- Mobile Computing

### Treatment Session

- Iron and Manganese Removal
- Corrosion Inhibitors
- Well Pump Operation and Maintenance

# Thursday, April 4

• Product Exposition with mini-sessions, Hydrant Hysteria, Gimmicks and Gadgets Certification exams begin at 8:30.

Also: The Northeast District will hold its spring school May 9-11 in Grand Rapids. The agenda is being developed and will be posted at http://www.health.state.mn.us/divs/eh/water/wateroperator/trng/northeast.html.

### 12:15 to 3:30

# **Southwest and Northeast Schools**

The Southwest District will hold its spring school on Wednesday, April 17 at the Redwood Area Community Center in Redwood Falls. Registration will begin at 7:30 a.m. with the sessions starting at 8:00.

The Northeast District will hold its spring school from Wednesday, May 8 to Friday, May 10 at the Timberlake Lodge in Grand Rapids. Registration begins at 8:00 a.m. on May 8 with the sessions starting at 8:30.

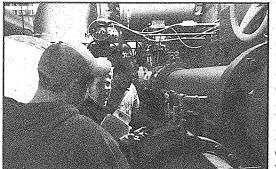
More information is available through http://health.state.mn.us/divs/eh/water/wateroperator/trng/wat\_op\_sched.html.

Information on all district schools is at http://health.state.mn.us/divs/eh/water/wateroperator/trng/wat\_op\_sched.html Register for the schools http://www.mnawwa.org/events/event\_list.asp

Go to https://www.mnawwa.org/events/event\_list.asp to register for all schools and workshops

# Surface-Water Optimization Training in Minnesota

By David Rindal, Minnesota Department of Health



The Minnesota Department of Health (MDH) has introduced surface-water optimization training through a series of three events in late 2018 through June 2019. This training, which uses concepts similar to both the U.S. Environmental Protection Agency (EPA) Area-Wide Optimization Program (AWOP) and American Water Works Association (AWWA) Partnership for Safe Water (PSW), is being performed in conjunction with Process Applications, Inc.

The first of the three new Minnesota training programs was held in December in Fairmont. Nine operators and six regulatory engineers representing Minnesota and Iowa utilities and agencies attended and learned about data development, performance assessment, and optimization goals for surfacewater treatment process control.

MDH revived optimization concepts that have existed for decades because there is increasing need for operator and regulatory staff training around practical treatment skills and plant performance assessment. The more stringent performance goals expected of an optimized surface-water utility will help provide greater public health protection, allow utilities to respond to crises more strategically, and improve treatment plant resiliency as surface water sources are affected by climate change and impaired quality.

By partnering and collaborating with other organizations and regulatory agencies, we hope to establish a multiple-barrier approach to public health protection by implementing process control programs where regulations do not currently exist. The primary MDH goal is to sustain and support the adoption of optimization concepts in a long-term, sustainable approach that enhances the capability of water system operators at utilities of all sizes. Optimization offers a potential cost-effective compliance approach by focusing on improving operations rather than making costly capital improvements. Participants in this training series should walk away with abilities to analyze turbidity data, identify areas of needed improvement, and troubleshoot treatment.

Additional training will be held April 23-25, 2019 in Two Harbors and June 18-20 in Fergus Falls.

More information is at http://www.health.state.mn.us/divs/eh/water/wateroperator/trng/wat\_op\_sched.html.

# **Reminder to All Water Operators**

When submitting water samples for analyses, remember to do the following:

- Take coliform samples on the distribution system, not at the wells or entry points.
- Write the Date Collected, Time Collected, and Collector's Name on the laboratory request form.
- Attach the label to each bottle (do not attach labels to the lab form).
- Include laboratory request forms with submitted samples.
- Use something other than a rollerball or gel pen (the ink may run).

- Consult your monitoring plan(s) prior to collecting required compliance samples.

Notify your Minnesota Department of Health district engineer of any changes to your systems.

If you have questions, call the Minnesota Department of Health contact on the back of all sample instruction forms.

# Words to Live By

A story is data with a soul.

-Brene Brown

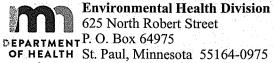
Your worst day is still better than the best day of most of the people in the world.

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—Kelsey Tainsh



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# CALENDAR

#### Minnesota Section, American Water Works Association

\*March 13-15, Southeast Water Operators School, Rochester Event Center Contact Doug Klamerus,507-280-1508. \*April 2-4, Metro Water Operators School, Earle Brown Heritage Center, Brooklyn Center. Contact Jeanette Boothe, 651-201-4697, or Stew Thornley, 651-201-4655. \*April 17, Southwest Water Operators School, Redwood Area Community Center, Redwood Falls. Contact Kyle Hinrichs, 507-381-0220.

\*May 8-10, Northeast Water Operators School, Timberlake Lodge, Grand Rapids. Contact Corey Lubovich, 218-262-7725.

Information for all district schools, including agendas: http://www.health.state.mn.us/water/wateroperator/trng/schoolagendas.html

> Minnesota Rural Water Association (MRWA) Contact Teri Osterman, 800-367-6792.

\*March 5-7, Technical Conference, St. Cloud \*May 1, Water Operation & Maintenance, Willmar \*June 12, Safe Drinking Water Compliance, Wahkon

### \*Includes a water operator certification exam.

For an up-to-date list of events, see the training calendar on the MDH web site: http://health.state.mn.us/water/wateroperator/trng/wat op sched.html