# Site Development Plans

# ROHN INDUSTRIES TRAILER STORAGE

St. Paul, Minnesota

Presented by:
Venture Pass Partners

### **CONSULTANT CONTACT LIST:**

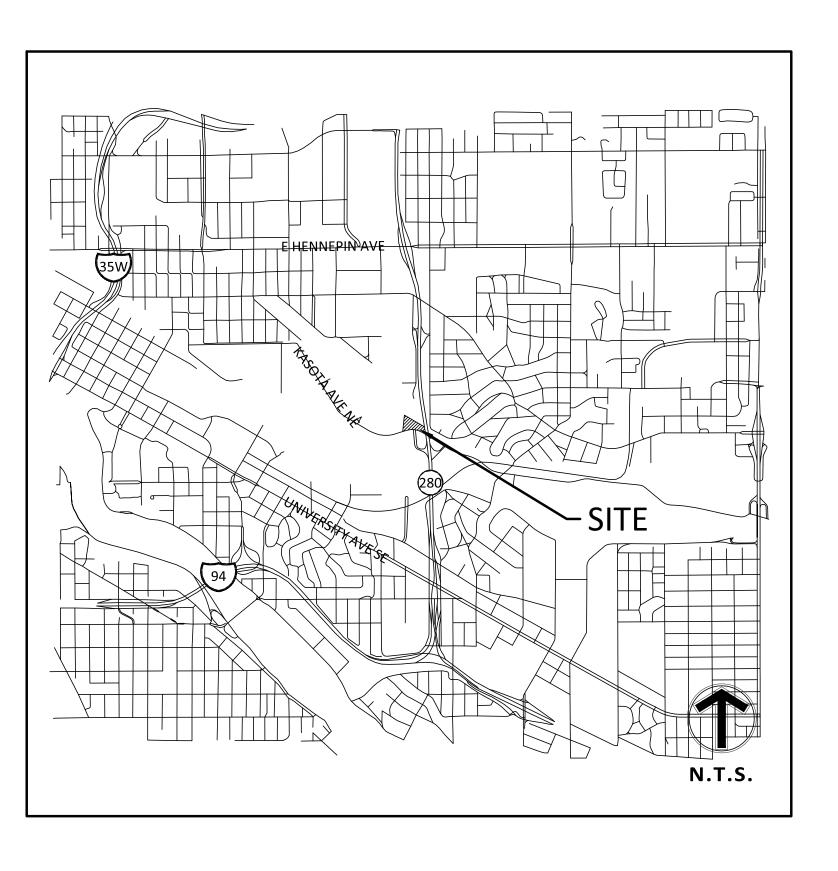
DEVELOPER/OWNER
VENTURE PASS PARTNERS, LLC
19620 WATERFORD COURT
SHOREWOOD, MN 55331
TEL 612-801-4313
CONTACT: RANDY RAUWERDINK

GEOTECHNICAL
BRAUN INTERTEC
11001 HAMPSHIRE AVENUE SOUTH
MINNEAPOLIS, MN 55438
TEL 952-995-2000
FAX 952-995-2020
CONTACT: ROBERT JANSSEN, PE

CIVIL ENGINEER
SAMBATEK
12800 WHITEWATER DRIVE, SUITE 300
MINNETONKA, MN 55343
TEL 763-476-6010
FAX 763-476-8532
CONTACT: CHAD AYERS, PE, LEED AP

SURVEYOR
SUNDE LAND SURVEYING, LLC
9001 EAST BLOOMINGTON FREEWAY, SUITE 118
BLOOMINGTON, MN 55420
TEL 952-881-2455
FAX 952-888-9526
CONTACT: ARLEE CARLSON, PLS

LANDSCAPE ARCHITECT
SAMBATEK
12800 WHITEWATER DRIVE, SUITE 300
MINNETONKA, MN 55343
TEL 763-476-6010
FAX 763-476-8532
CONTACT: WILLIAM DELANEY, PLA



VICINITY MAP NO SCALE

SHEET	DESCRIPTION
C1.01	TITLE SHEET
C3.01	SITE PLAN
C4.01	GRADING PLAN
C5.01	EROSION CONTROL PHASE 1
C5.02	EROSION CONTROL PHASE 2
C5.03	EROSION CONTROL NOTES AND DETAILS
C5.04	SWPPP NARRATIVE
C5.05	SWPPP NARRATIVE
C6.01	UTILITY PLAN
C9.01	DETAILS
C9.02	DETAILS
L1.01	LANDSCAPE PLAN
L1.02	LANDSCAPE DETAILS-NOTES
ATTACHED	
C2.01	ALTA/NSPS LAND TITLE SURVEY

Sambatek com

00 Whitewater Drive, Suite 300 Minnetonka, MN 55343 763.476.6010 telephone

Engineering | Surveying | Planning | Environmenta

Client
VENTURE PASS
PARTNERS

Project
ROHN
INDUSTRIES
TRAILER
STORAGE

Location
ST PAUL,
MINNESOTA

2495 KASOTA AVENUE

# Certification

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 st

ad M. Avers

Chad M. Ayers
Registration No. 41301 Date: 08/09/2019

If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

### Summary

Designed: CMA Drawn: MLL
Approved: CMA Book / Page:
Phase: PRELIM Initial Issue: 08/09/2019

### | Revision History

No.Date By Submittal / Revision

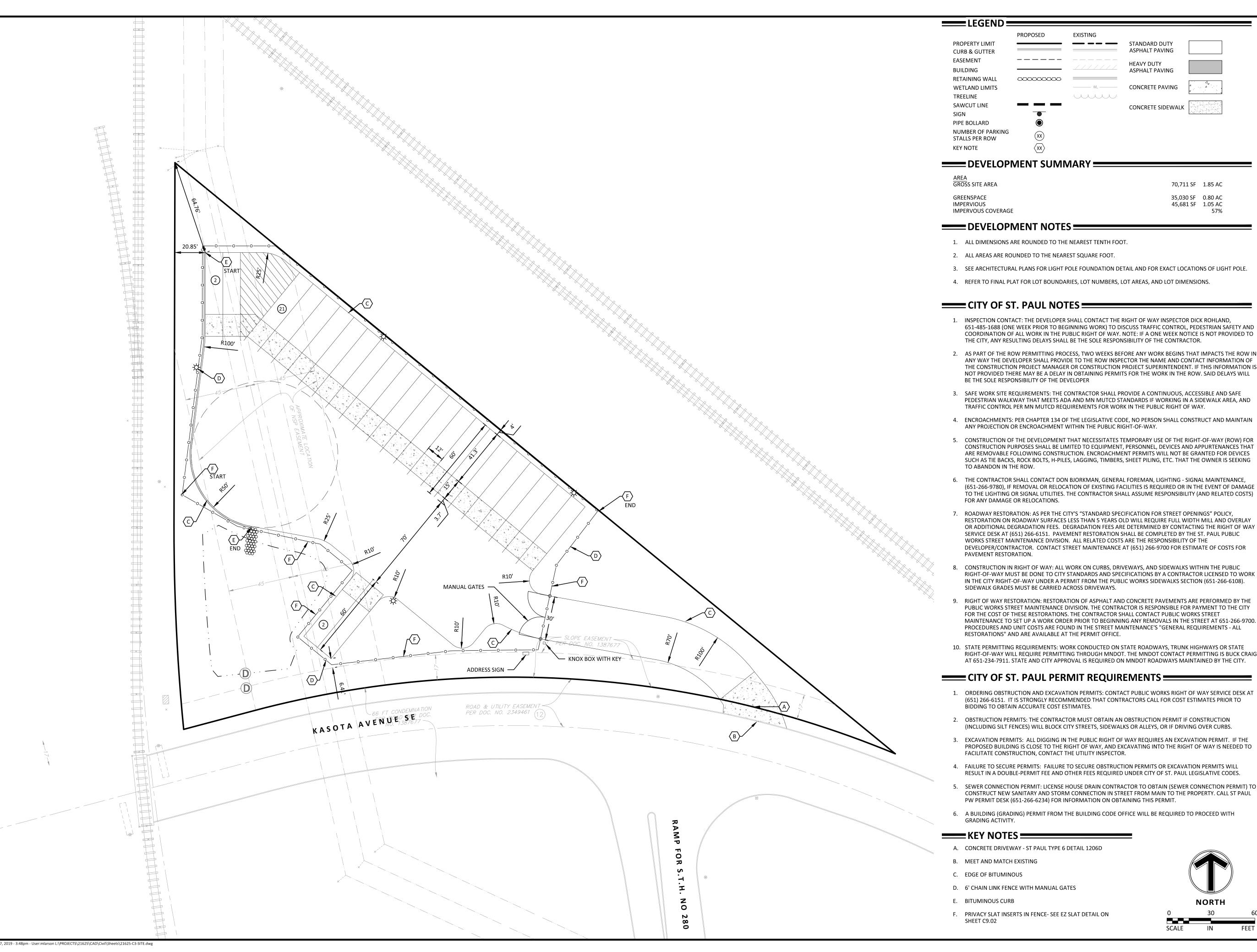
08/09/2019 MLL SITE PLAN REVIEW
10/01/2019 MLL CITY COMMENT RESPONSE
10/17/2019 MLL CITY STORMWATER

Sheet Title
TITLE SHEET

Sheet No. Revision

21625

C1.01





12800 Whitewater Drive, Suite 300 Minnetonka, MN 55343 763.476.6010 telephone 763.476.8532 facsimile

Engineering | Surveying | Planning | Environmental

Client **VENTURE PASS PARTNERS** 

Project **ROHN INDUSTRIES TRAILER STORAGE** 

Location ST PAUL, **MINNESOTA** 

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No. Date By Submittal / Revision

08/09/2019 MLL SITE PLAN REVIEW 10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER COMMENT RESPONSE

**Sheet Title** 

**Sheet No. Revision** C3.01

Project No.

Oct 17, 2019 - 3:48pm - User:mlarson L:\PROJECTS\21625\CAD\Civil\Sheets\21625-C3-SITE.dwg

**CITY OF ST. PAUL PERMIT REQUIREMENTS** 

PROPOSED

STANDARD DUTY **ASPHALT PAVING** 

ASPHALT PAVING

**CONCRETE PAVING** 

**CONCRETE SIDEWALK** 

70,711 SF 1.85 AC

35,030 SF 0.80 AC

45,681 SF 1.05 AC

**HEAVY DUTY** 

- 1. ORDERING OBSTRUCTION AND EXCAVATION PERMITS: CONTACT PUBLIC WORKS RIGHT OF WAY SERVICE DESK AT (651) 266-6151. IT IS STRONGLY RECOMMENDED THAT CONTRACTORS CALL FOR COST ESTIMATES PRIOR TO BIDDING TO OBTAIN ACCURATE COST ESTIMATES.
- 2. OBSTRUCTION PERMITS: THE CONTRACTOR MUST OBTAIN AN OBSTRUCTION PERMIT IF CONSTRUCTION (INCLUDING SILT FENCES) WILL BLOCK CITY STREETS, SIDEWALKS OR ALLEYS, OR IF DRIVING OVER CURBS.
- 3. EXCAVATION PERMITS: ALL DIGGING IN THE PUBLIC RIGHT OF WAY REQUIRES AN EXCAVATION PERMIT. IF THE PROPOSED BUILDING IS CLOSE TO THE RIGHT OF WAY, AND EXCAVATING INTO THE RIGHT OF WAY IS NEEDED TO FACILITATE CONSTRUCTION, CONTACT THE UTILITY INSPECTOR.
- 4. FAILURE TO SECURE PERMITS: FAILURE TO SECURE OBSTRUCTION PERMITS OR EXCAVATION PERMITS WILL RESULT IN A DOUBLE-PERMIT FEE AND OTHER FEES REQUIRED UNDER CITY OF ST. PAUL LEGISLATIVE CODES.
- 5. SEWER CONNECTION PERMIT: LICENSE HOUSE DRAIN CONTRACTOR TO OBTAIN (SEWER CONNECTION PERMIT) TO CONSTRUCT NEW SANITARY AND STORM CONNECTION IN STREET FROM MAIN TO THE PROPERTY. CALL ST PAUL PW PERMIT DESK (651-266-6234) FOR INFORMATION ON OBTAINING THIS PERMIT.

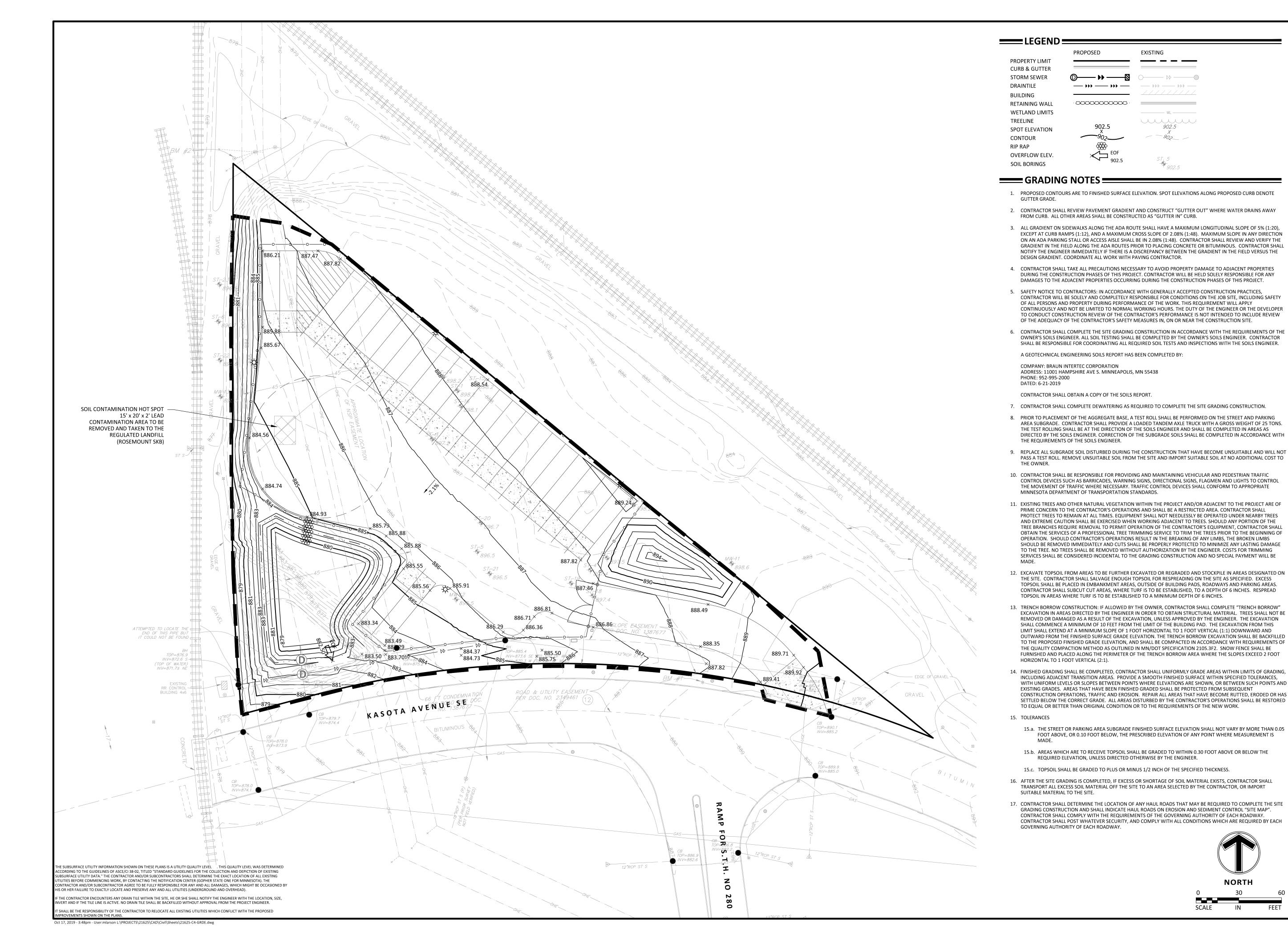
SCALE

IN

FEET

6. A BUILDING (GRADING) PERMIT FROM THE BUILDING CODE OFFICE WILL BE REQUIRED TO PROCEED WITH GRADING ACTIVITY.

- A. CONCRETE DRIVEWAY ST PAUL TYPE 6 DETAIL 1206D
- B. MEET AND MATCH EXISTING
- C. EDGE OF BITUMINOUS
- D. 6' CHAIN LINK FENCE WITH MANUAL GATES
- F. PRIVACY SLAT INSERTS IN FENCE- SEE EZ SLAT DETAIL ON





**EXISTING** 

WWW.

12800 Whitewater Drive, Suite 300 Minnetonka, MN 55343 763.476.6010 telephone

763.476.8532 facsimile Engineering | Surveying | Planning | Environmental

Client **VENTURE PASS PARTNERS** 

**Project ROHN INDUSTRIES TRAILER STORAGE** 

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2495 KASOTA AVENUE

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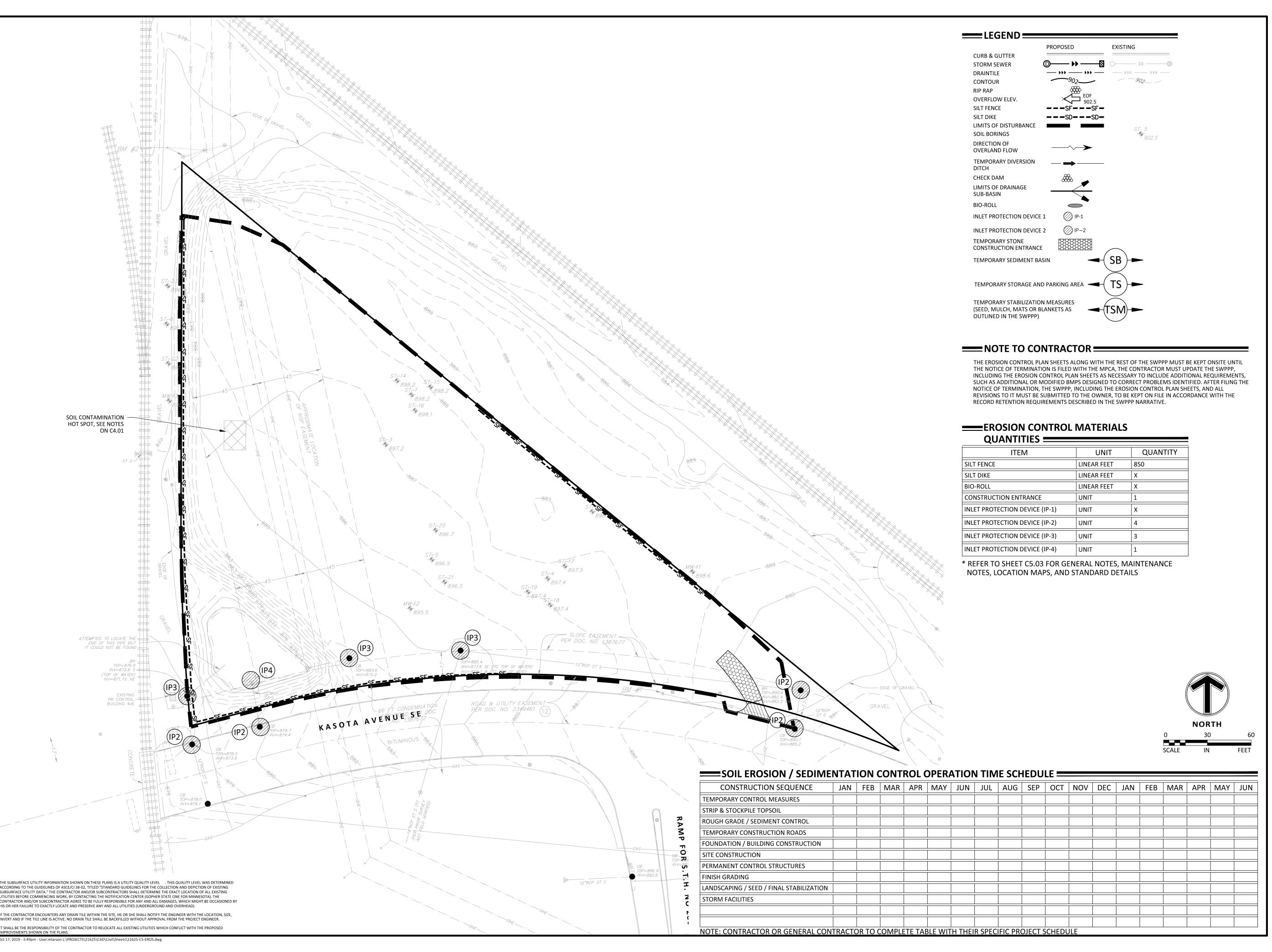
### **Revision History**

No. Date By Submittal / Revision 08/09/2019 MLL SITE PLAN REVIEW 10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER

COMMENT RESPONSE

# **Sheet Title GRADING PLAN**

**Sheet No. Revision** C4.01





12800 Whitewater Drive, Suite 300 Minnetonka, MN 55343 763.476.6010 telephone 763.476.8532 facsimile

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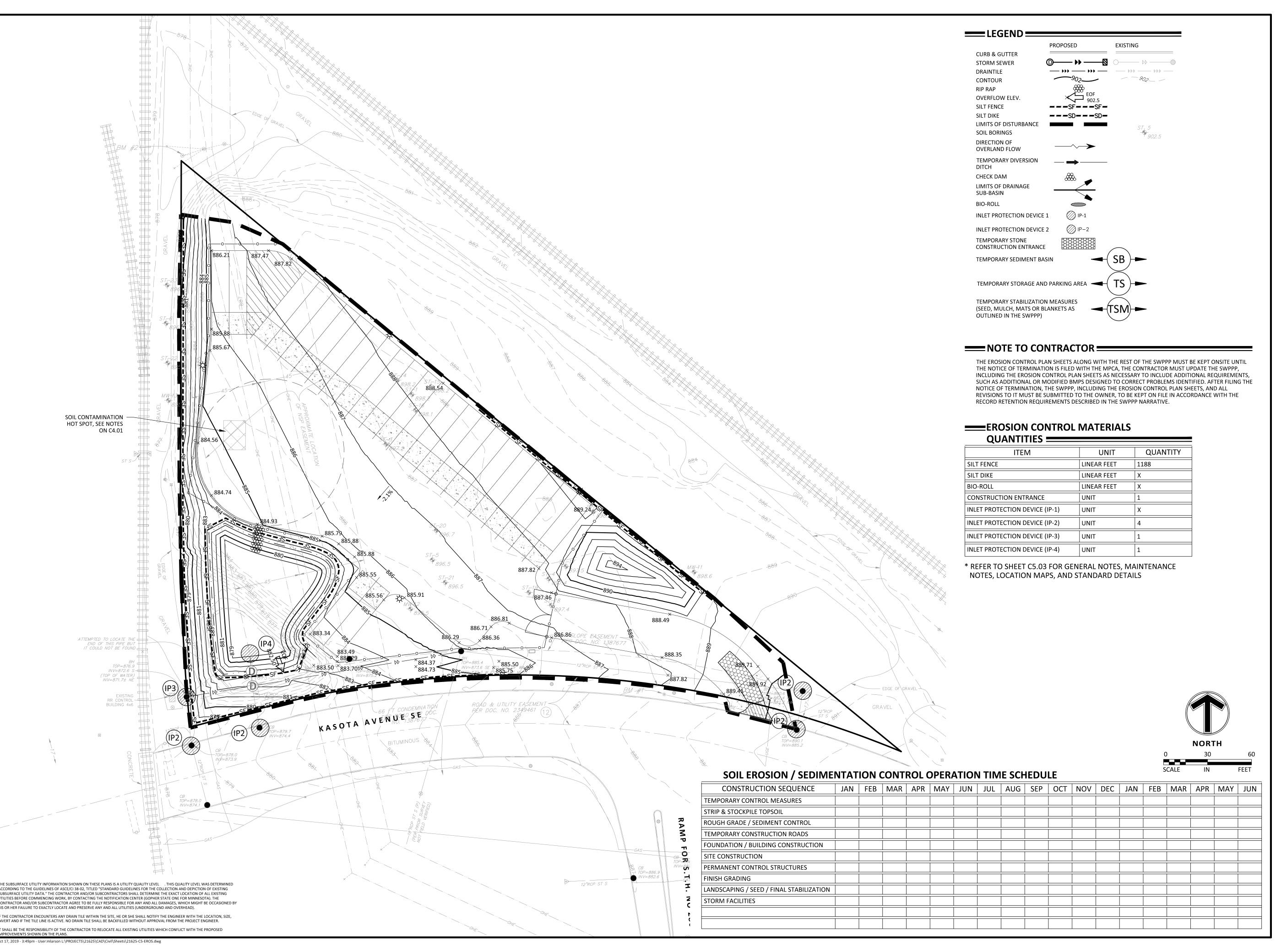
**Sheet Title EROSION CONTROL** PHASE 1

**Sheet No. Revision** 

C5.01

Project No.

21625





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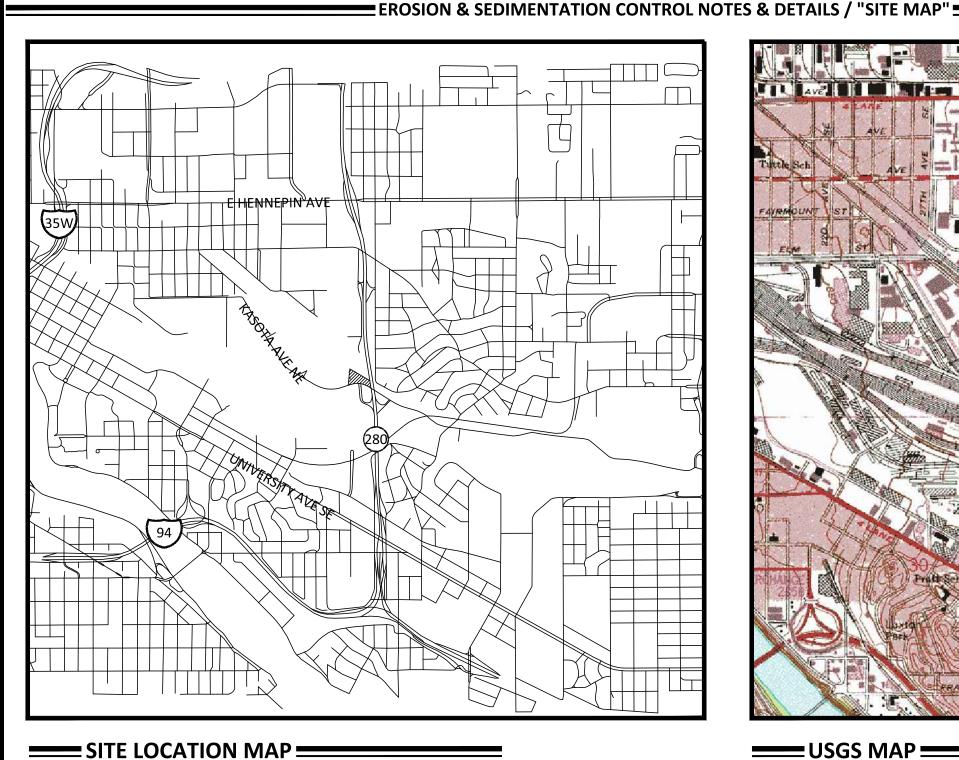
08/09/2019 MLL SITE PLAN REVIEW 10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER COMMENT RESPONSE

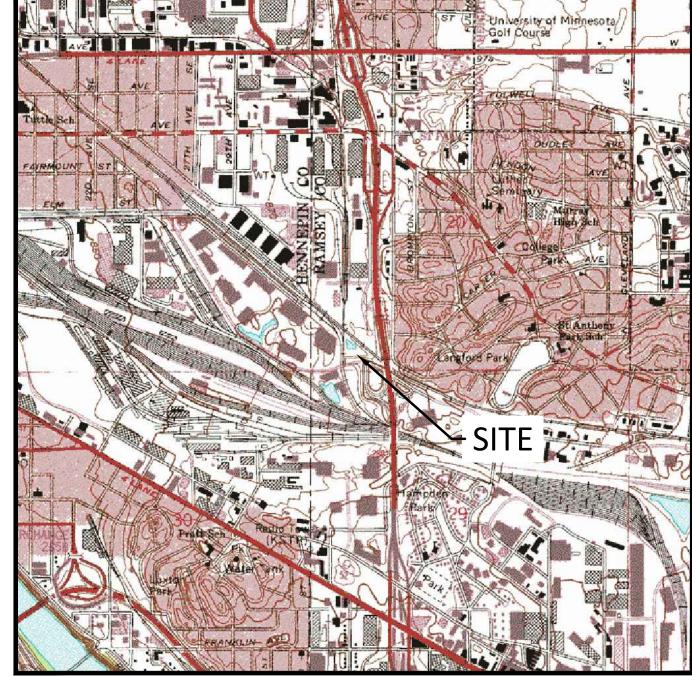
**Sheet Title EROSION CONTROL** PHASE 2

**Sheet No. Revision** 

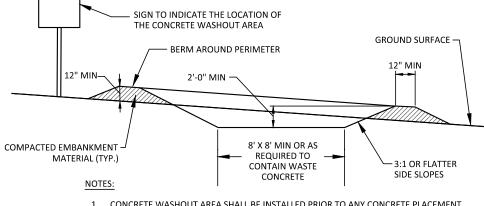
21625

**C5.02** 





# NOT TO SCALE



- CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT 2. CONCRETE WASHOUT AREA SHALL BE LINED WITH MINIMUM 10 MIL THICK PLASTIC
- VEHICLE TRACKING CONTROL IS REQUIRED IF ACCESS TO CONCRETE WASHOUT AREA IS
- SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
- THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
- 6. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN ACCEPTED WASTE SITE. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE
- SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER ACCEPTED BY THE

# **CONCRETE WASHOUT AREA**

FILTER BERM

2" -3" CLEAN STONE

STORAGE AREA

# POLYESTER SLEEVE POLYESTER SLEEVE FILTER ASSEMBLY MANHOLF COVER MANHOLE COVER ASSEMBLY IN-PLACE ELEVATION VIEW

- SPECIFICATIONS AND STANDARDS AISC MANUAL OF STEEL CONSTRUCTION, 9TH
- 29 CFR 1926-OSHA SAFETY AND HEALTH STANDARDS
- DESIGN LOADS ALLOWABLE AXLE WEIGHT LOAD
- SAFETY FACTOR WATER FLOW RATE (THROUGH POLYESTER FILTER)
- MAXIMUM OVERFLOW RATE

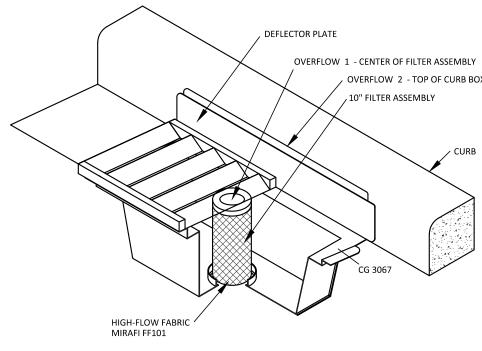
### 0.476 CFS @ 3" HEAD 1.074 CFS @ 15" HEAD 1.113 CFS @ 6" HEAD 1.575 CFS @ 12" HEAD

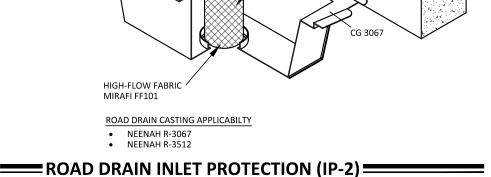
### ROAD DRAIN INLET PROTECTION TOP SLAB MODEL (IP-3)

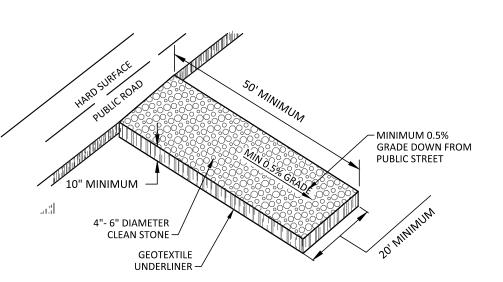
PIPE INVERT

GEOTEXTILE LINER FOR

**CROSS-SECTION** 







==== AREA SUMMARY IN ACRES =====

1.05 AC±

0.00 AC±

0.77 AC±

1.82 AC±

0.00 AC±

1.05 AC±

PAVEMENT AREA

**BUILDING AREA** 

TOTAL DISTURBED

DEVELOPER/OWNER:

19620 WATERFORD CT

EXCELSIOR. MN 55331

(612)-963-9107

SUPERINTENDEN<sup>T</sup>

VENTURE PASS PARTNERS

PRE - CONSTRUCTION IMPERVIOUS

POST - CONSTRUCTION IMPERVIOUS

TE OPERATOR / GENERAL CONTRACTOR

**SEEDED AREA** 

ROCK EXIT DRIVE

### **GENERAL EROSION NOTES:**

- 1. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME. WHERE A CONFLICT EXISTS BETWEEN LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS AND SAMBATEK STANDARD SPECIFICATIONS, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
- 2. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THIS DRAWING (EROSION & SEDIMENTATION CONTROL PLAN-ESC PLAN), THE STANDARD DETAILS, THE PLAN NARRATIVE AND ITS APPENDICES PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING & SUBMITTING THE APPLICATION FOR THE MPCA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE SWPPP AND THE STATE OF MINNESOTA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT, ISSUED AUGUST 1, 2018) AND BECOME FAMILIAR WITH THE CONTENTS. THE SWPPP AND ALL OTHER RELATED DOCUMENTS MUST BE KEPT AT THE SITE
- 4. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED BY THE SWPPP & PERMITS, CONTRACTOR SHALL OVERSEE THE INSPECTION & MAINTENANCE OF THE BMP'S AND EROSION PREVENTION FROM BEGINNING OF CONSTRUCTION AND UNTIL CONSTRUCTION IS COMPLETED, IS APPROVED BY ALL AUTHORITIES, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA BY EITHER THE OWNER OR OPERATOR AS APPROVED ON PERMIT. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- 5. CONTRACTOR SHALL COMPLY WITH TRAINING REQUIREMENTS IN PART 21.1-21.3 OF THE GENERAL PERMIT
- 6. BMP'S AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- 7. ESC PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT AL
- 8. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THE ESC PLANS SHALL BE CLEARLY DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS. GROUND DISTURBING ACTIVITIES MUST NOT OCCUR OUTSIDE
- 9. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
- 10. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) MUST BE LIMITED TO A DEFINED AREA OF THE SITE AND SHALL BE CONTAINED AND PROPERLY TREATED OR DISPOSED. NO ENGINE DEGREASING IS ALLOWED ON SITE
- 11. ALL LIQUID AND SOLID WASTES GENERATED BY CONCRETE WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. A COMPACTED CLAY LINER IS NOT ACCEPTABLE. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. SELF-CONTAINED CONCRETE WASHOUTS ON CONCRETE DELIVERY TRUCKS ARE ALLOWED.
- 12. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND
- 13. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- 14. SOLID WASTE: COLLECTED SEDIMENT, ASPHALT & CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION & DEMOLITION DEBRIS & OTHER WASTES MUST BE DISPOSED C PROPERLY & MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
- 15. HAZARDOUS MATERIALS: OIL, GASOLINE, PAINT & ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE, RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM, STORAGE & DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA
- 16. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE SWPPP, SHALL BE INITIATED AS SOON AS PRACTICABLE AND PRIOR TO SOIL DISTURBING ACTIVITIES UPSLOPE.
- MN/DOT SEED MIXTURE NUMBER 21-111 OR 21-112 DEPENDING ON THE SEASON OF PLANTING (SEE MN/DOT SPECIFICATION SECTION 2575.3) SEEDING METHOD AND APPLICATION RATE SHALL CONFORM TO MN/DOT SPECIFICATION SECTION 2575.3. TEMPORARY MULCH SHALL BE APPLIED IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3F1 AND 2575.3G. ALTERNATIVELY HYDRAULIC SOIL STABILIZER IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3H MAY BE USED IN PLACE OF TEMPORARY MULCH.
- 18. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED. THESE AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE TIME TABLE DESCRIBED ABOVE. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN FOR VEGETATIVE COVER.
- 19. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM CONVEYANCES & FROM TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN, CONVEYANCES, OR DRAINAGEWAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEANOUT OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.
- 20. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BMP'S. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
- 21. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS & CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB & GUTTER SYSTEMS OR CONDUITS & DITCHES.
- 22. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION
- 23. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, CHECK DAMS, INLET PROTECTION DEVICES, ETC.) TO PREVENT EROSION.
- 24. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS

### **MAINTENANCE NOTES:**

- ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. THE DESIGNATED CONTACT PERSON NOTED ON THIS PLAN MUST ROUTINELY INSPECT THE CONSTRUCTION ON SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
- ALL SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
- 2. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS (SEE PART 10.1-10.5 OF THE GENERAL PERMIT).
- SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT BEING DEPOSITED BY EROSION. CONTRACTOR MUST REMOVE ALI DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. THE REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. CONTRACTOR SHALL USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED. REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS, CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING
- 4. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF-SITE PAVED SURFACES, WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME TO COMPLY WITH PART 9.11-9.12 OF THE GENERAL PERMIT.
- CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPS, AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS, FOR THE DURATION OF THE CONSTRUCTION WORK AT THE SITE. THE PERMITTEE(S) ARE RESPONSIBLE UNTIL ANOTHER PERMITTEE HAS ASSUMED CONTROL (ACCORDING TO PART 3.1 TO 3.8 OF THE MPCA GENERAL PERMIT) OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED OR THE SITE HAS UNDERGONE FINAL STABILIZATION, AND A (N.O.T.)
- 6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).
- 7. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITIES IS REACHING THE INFILTRATION AREA AND THESE AREAS ARE PROTECTED FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INFILTRATION AREA.

# **SEQUENCE OF CONSTRUCTION**

- 1. INSTALL STABILIZED CONSTRUCTION ENTRANCES
- PREPARE TEMPORARY PARKING AND STORAGE AREA.
- CONSTRUCT THE SILT FENCES ON THE SITE.
- 4. INSTALL INLET PROTECTION DEVICES ON EXISTING STORM STRUCTURES, AS SHOWN ON THE PLAN. CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS, AS REQUIRED.
- HALT ALL ACTIVITIES AND CONTACT THE CIVIL ENGINEERING CONSULTANT TO PERFORM INSPECTION OF BMPs. GENERAL CONTRACTOR SHALL SCHEDULE
- AND CONDUCT STORM WATER PRE-CONSTRUCTION MEETING WITH ENGINEER AND ALL GROUND DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.
- 7. CLEAR AND GRUB THE SITE.
- 8. BEGIN GRADING THE SITE.
- 9. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.

### PHASE II:

- 1. TEMPORARILY SEED DENUDED AREAS.
- INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS
- INSTALL RIP RAP AROUND OUTLET STRUCTURES.
- 4. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
- PREPARE SITE FOR PAVING.
- 6. PAVE SITE.
- INSTALL INLET PROTECTION DEVICES.
- COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING. 9. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED), IF REQUIRED BY THE CONTRACT

12800 Whitewater Drive, Suite 300 763.476.6010 telephone

763.476.8532 facsimile Engineering | Surveying | Planning | Environmenta

Client **VENTURE PASS PARTNERS** 

**Project ROHN INDUSTRIES TRAILER STORAGE** 

Location ST PAUL,

2495 KASOTA AVENUI

# Certification

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

Chad M. Ayers

Minnetonka, MN office.

Phase: PRELIM

Registration No. 41301 Date: 08/09/2019 If applicable, contact us for a wet signed copy of this

plan which is available upon request at Sambatek's,

# Summary

Designed: сма Drawn: MLL Approved: CMA Book / Page: Initial Issue: 08/09/2019

# **Revision History**

No. Date By Submittal / Revision

08/09/2019 MLL SITE PLAN REVIEW 10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER COMMENT RESPONSI

**Sheet Title EROSION CONTROL NOTES AND DETAILS** 

**Sheet No. Revision** 

C5.03

Project No.

ROCK PIPE INLET PROTECTION (IP-4)

### SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

### 1.1 PROJECT/SITE INFORMATION

ROHN INDUSTRIES TRAILER STORAGE 2495 KASOTA AVENUE CITY: ST PAUL STATE: MN ZIP CODE: 55108 COUNTY: RAMSEY

THE PROPOSED PROJECT IS THE CONSTRUCTION OF A TRAILER PARKING FACILITY AT KASOTA AVENUE AND HIGHWAY 280.

NPDES PERMIT NUMBER:

### 1.2 CONTACT INFORMATION/RESPONSIBLE PARTIES

COMPANY/ORGANIZATION NAME: CONTACT NAME ADDRESS: CITY, STATE, ZIP CODE: TELEPHONE NUMBER:

### GENERAL CONTRACTOR (TO BE COMPLETED BY GENERAL CONTRACTOR):

COMPANY/ORGANIZATION NAME: CONTACT NAME ADDRESS:

CITY, STATE, ZIP CODE: TELEPHONE NUMBER:

FAX/EMAIL:

INSERT AREA OF CONTROL (IF MORE THAN ONE OPERATOR AT SITE):

THE GENERAL CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE MINNESOTA GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM PERMIT PROGRAM (GENERAL PERMIT). THE GENERAL CONTRACTOR MUST COMPLY WITH ANY LOCAL GOVERNING AGENCY (LGU) HAVING IURISDICTION CONCERNING FROSION AND SEDIMENT CONTROL. THE GENERAL CONTRACTOR SHALL BE REQUIRED TO BE A CO-APPLICANT WITH THE OWNER. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL DEVICES. THE "APPLICATION FOR GENERAL STORM-WATER PERMIT FOR CONSTRUCTION ACTIVITY (MN R100001)" SHALL BE COMPLETED BY THE GENERAL CONTRACTOR AND SUBMITTED ONLINE, ALONG WITH THE REQUIRED APPLICATION FEE, THROUGH THE MPCA'S WEBSITE.

UNLESS NOTIFIED BY THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) TO THE CONTRARY, APPLICANTS WHO SUBMIT A COMPLETE APPLICATION FORM IN ACCORDANCE WITH THE REQUIREMENTS OF THE GENERAL PERMIT ARE AUTHORIZED TO DISCHARGE STORM WATER FROM THE CONSTRUCTION SITE UNDER THE TERMS AND CONDITIONS OF THIS PERMIT SEVEN (7) CALENDAR DAYS THE ONLINE APPLICATION PROCESS IS COMPLETE(HTTPS://NETWEB.PCA.STATE.MN.US/PRIVATE/).

(NOTE: ALL PROJECTS UNDER 50 ACRES MUST SUBMIT THE PERMIT APPLICATION USING THE ONLINE PROCESS. MAILED APPLICATIONS ARE ONLY ACCEPTED FOR PROJECTS THAT DISTURB 50 OR MORE ACRES, AND HAVE A DISCHARGE POINT WITHIN 1 MILE OF A PROTECTED WATER.)

ADDITIONALLY, AUTHORIZATION WILL BE DELAYED UNDER THE FOLLOWING CIRCUMSTANCES:

- IF THE PROJECT DISTURBS 50 ACRES OR MORE AND HAS A DISCHARGE POINT WITHIN 1 MILE AND FLOWS TO AN IMPAIRED OR SPECIAL WATER WHOSE DISCHARGE MAY REACH AN IMPAIRED OR SPECIAL WATER LISTED IN SECTION 23 OF THE GENERAL PERMIT THE APPLICANT SHALL SUBMIT THE STORM WATER POLLUTION PREVENTION PLAN AND A COMPLETED APPLICATION AT LEAST 30 CALENDAR DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. UNLESS NOTIFIED BY THE MPCA TO THE CONTRARY, COVERAGE BECOMES EFFECTIVE 30 CALENDAR DAYS AFTER THE POSTMARKED DATE OF THE COMPLETED APPLICATION.
- IF THE PROJECT INCLUDES ALTERNATIVE METHODS THE APPLICATION AND TWO ALTERNATIVE TREATMENT PLANS MUST BE SUBMITTED A MINIMUM OF 90 DAY BEFORE CONSTRUCTION STARTS.

### **EROSION & SEDIMENT CONTROL SUBCONTRACTOR (RESPONSIBLE FOR IMPLEMENTING &** UPDATING SWPPP - TO BE COMPLETED BY CONTRACTOR):

COMPANY/ORGANIZATION NAME: CONTACT NAME: ADDRESS:

CITY, STATE, ZIP CODE: **TELEPHONE NUMBER** FAX/EMAIL

### **EROSION & SEDIMENT CONTROL INSPECTOR (SEE PART 6.1 OF THIS SWPPP FOR MORE** INFORMATION ON INSPECTION RESPONSIBILITIES- TO BE COMPLETED BY CONTRACTOR):

COMPANY/ORGANIZATION NAME: CONTACT NAME: ADDRESS: CITY, STATE, ZIP CODE: TELEPHONE NUMBER FAX/EMAIL:

### GROUND DISTURBING SUBCONTRACTOR(S)

COMPANY/ORGANIZATION NAME CONTACT NAME: ADDRESS: CITY, STATE, ZIP CODE: TELEPHONE NUMBER: FAX/FMAII

THE GENERAL CONTRACTOR SHALL PROVIDE A CHAIN OF RESPONSIBILITY WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE AND THE NOT SUBMITTED.

### THIS SWPPP WAS PREPARED BY:

COMPANY/ORGANIZATION NAME: SAMBATEK CONTACT NAME: MEGAN LARSON ADDRESS: 12800 WHITEWATER DR SUITE 300 CITY, STATE, ZIP CODE: MINNETONKA, MN 55343 **TELEPHONE NUMBER: 763-476-6010** FAX/EMAIL: MLARSON@SAMBATEK.COM

### **SWPPP DESIGNER CERTIFICATION CARD:**

University of Minnesota Megan Larson

Construction Installer (May 31 2022) Design of Construction SWPPP (May 31 2022)

### 1.3 NATURE OF CONSTRUCTION ACTIVITY

### **NATURE OF CONSTRUCTION:**

THIS SWPPP HAS BEEN PREPARED FOR MAJOR ACTIVITIES ASSOCIATED WITH CONSTRUCTION OF ROHN INDUSTRIES TRAILER STORAGE IN ST PAUL. CONSTRUCTION WILL INCLUDE GRADING AND PAVING OF THE PARKING AREA AND STORMWATER IMPROVEMENTS, INCLUDING EXPANDING THE EXISTING STORMWATER POND.

ANTICIPATED APPROXIMATE TIMELINES:

ESTIMATED PROJECT START DATE: XX/XX/XX **ESTIMATED PROJECT COMPLETION DATE:** XX/XX/XX

### 1.4 SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

A GEOTECHNICAL INVESTIGATION BY BRAUN INTERTEC GENERALLY FOUND A TOPSOIL LAYER OF LESS THAN 1' OVER A SILTY SAND FILL LAYER. THIS LAYER INCLUDES DEBRIS INCLUDING GLASS, CONCRETE, GRAVEL, BRICK, WOOD, PAPER, AND COAL. THE FILL LAYER RANGES FROM 14-22 FEET AND WAS ENCOUNTERED AT ALL BORINGS. THE NATIVE SOILS BENEATH THE FILL IS A SANDY LEAN CLAY (GLACIAL TILL), LEAN CLAY OR SILT (ALLUVIUM), OR ORGANIC CLAY (SWAMP DEPOSIT).

PREVIOUS ENVIRONMENTAL INVESTIGATIONS INDICATED THE PROPERTY SUPPORTED A PORTION OF THE FLM STREET ASH DUMP, FURTHER INVESTIGATION WAS CONDUCTED BY LANDMARK ENVIRONMENTAL AND THE SITE WAS IDENTIFIED AS A RECOGNIZED ENVIRONMENTAL CONDITIONS. SEE THE FULL GEOTECHNICAL REPORT BY BRAUN INTERTEC AND THE PHASE 1, PHASE 2, AND VRAP REPORTS FROM LANDMARK ENVIRONMENTAL FOR FURTHER INFORMATION.

THE SITE GENERALLY SLOPES TOWARDS AN EXISTING POND ON THE SW CORNER OF THE SITE AROUND 2-3 PERCENT. SLOPES ARE AROUND 3:1 ON THE WEST EDGE OF THE SITE AND SURROUNDING THE POND. THROUGH CONSTRUCTION, THE PARKING LOT WILL MAINTAIN THE 2-3 PERCENT SLOPE

TOWARDS THE SW CORNER. THE 3:1 SLOPES ON THE WEST EDGE AND AROUND THE POND

### **DRAINAGE PATTERNS:**

WILL REMAIN, BUT THE POND WILL BE EXPANDED.

THE SOUTH PORTION OF THE SITE DRAINS OVERLAND TO THE EXISTING POND. THE REMAINDER OF THE SITE DRAINS UNCONTROLLED OFFSITE.

IN THE PROPOSED CONDITION. THE POND WILL BE EXPANDED AND A MAJORITY OF THE SITE WILL DRAIN OVERLAND TO THE POND. THE POND WILL ROUTE TO A FILTRATION DEVICE BEFORE CONTINUING TO DOWNSTREAM RECEIVING WATERS. THE NORTH SIDE OF THE SITE AND THE WEST WILL CONTINUE TO FLOW OVERLAND OFFSITE.

### **VEGETATION:**

THE CURRENT SITE IS COVERED WITH NATIVE ROUGH VEGETATION. IN THE PROPOSED CONDITION, THE GREEENSPACE WILL BE PLANTED WITH NATIVE GRASSES.

RAINFALL INFORMATION - THE AVERAGE TOTAL ANNUAL PRECIPITATION IS ABOUT 28.32 INCHES. OF THIS ABOUT 17.31 INCHES, OR 61 PERCENT, USUALLY FALLS IN MAY THROUGH SEPTEMBER. THE AVERAGE ANNUAL SNOWFALL IS 57.3 INCHES.

### 1.5 CONSTRUCTION SITE ESTIMATES

### **PROJECT AREA SUMMARY:**

TOTAL PROJECT AREA: 1.85 ACRES CONSTRUCTION SITE AREA TO BE DISTURBED: 1.82 ACRES

### **IMPERVIOUS AREAS:**

IMPERVIOUS AREA BEFORE CONSTRUCTION (ACRES): 0 IMPERVIOUS AREA AFTER CONSTRUCTION (ACRES): 1.05

### 1.6 RECEIVING WATERS

### CONSTRUCTION PHASE STORM WATER SYSTEM DESCRIPTION:

DURING CONSTRUCTION, EROSION AND SEDIMENT CONTROL DEVICES (SILT FENCE, INLET PROTECTION, SILT DIKES, ETC.) WILL WORK TO PREVENT SEDIMENT FROM LEAVING THE SITE AND THEREBY PROTECTING RECEIVING WATERS.

### **DESCRIPTION OF RECEIVING WATERS:**

STORMWATER LEAVING THE SITE ENTERS THE STORM SEWER SYSTEM IN KASOTA AVE AND OUTLETS TO MALLARD MARSH. THERE ARE NO IMPAIRED WATERS WITHIN 1 MILE OF THE

### 1.7 SITE FEATURES AND SENSITIVE AREAS TO BE PROTECTED

DUE TO THE PRESENCE OF EXISTING CONTAMINATED SOILS ON THE PROJECT SITE, EXTRA MEASURES WILL BE REQUIRED FOR HANDLING AND DISPOSAL OF CONTAMINATED SOILS. SEE THE FINAL VOLUNTARY RESPONSE ACTION PLAN FROM LANDMARK ENVIRONMENTAL DATED JUNE 2019.

### 1.8 POTENTIAL SOURCES OF POLLUTION

POTENTIAL SOURCES OF SEDIMENT AND OTHER POLLUTANTS TO STORMWATER RUNOFF: CONSTRUCTION PHASE POLLUTANT SOURCES ANTICIPATED AT THE SITE ARE DISTURBED (BARE) SOIL, VEHICLE FUELS AND LUBRICANTS, CHEMICALS ASSOCIATED WITH BUILDING CONSTRUCTION, AND BUILDING MATERIALS. WITHOUT ADEQUATE CONTROL THERE IS THE POTENTIAL FOR EACH TYPE OF POLLUTANT TO BE TRANSPORTED BY STORM WATER. (DESCRIBE ANY ADDITIONAL ANTICIPATED SOURCES OF SEDIMENT/POLLUTANTS)

### 1.9 ENDANGERED/THREATENED SPECIES

THERE ARE NO KNOWN THREATENED OR ENDANGERED SPECIES ON OR NEAR THE CONSTRUCTION SITE.

### 1.10 HISTORIC PRESERVATION

THERE ARE NO KNOWN HISTORIC SITES ON OR NEAR THE CONSTRUCTION SITE.

### 1.11 APPLICABLE FEDERAL, TRIBAL, STATE OR LOCAL PROGRAMS

LOCAL GOVERNING UNIT (LGU) REQUIREMENTS: (DESCRIBE CITY, WATERSHED, SWCD, ETC. REQUIREMENTS)

### 1.12 MITIGATION MEASURES FROM ENVIRONMENTAL **REVIEWS/TMDLS/IMPAIRED WATERS**

### 1.13 MAPS

### **EROSION AND SEDIMENT CONTROL PLANS:**

THE FOLLOWING SITE DEVELOPMENT PLAN SHEETS ARE AN INTEGRAL PART OF THIS SWPPP:

C-5.01 - PHASE I EROSION AND SEDIMENTATION CONTROL PLAN/"SITE MAP" C-5.02 - PHASE II EROSION AND SEDIMENTATION CONTROL PLAN/"SITE MAP" C-5.03 - EROSION AND SEDIMENTATION CONTROL DETAILS C-5.03 - EROSION AND SEDIMENTATION CONTROL NOTES/"SITE MAP"

### **SECTION 2: EROSION AND SEDIMENT CONTROL BMPS**

### **EROSION CONTROL BMPS:**

THE PURPOSE OF EROSION CONTROL IS TO PREVENT SOIL PARTICLES FROM BECOMING SUSPENDED IN WATER AND BEING TRANSPORTED TO EITHER DOWNSTREAM SURFACE WATERS OR DOWNSTREAM PROPERTIES.

APPROPRIATE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION MUST BE PLANNED FOR AND IMPLEMENTED.

IN THE NATURAL CONDITION, SOIL IS STABILIZED BY NATIVE VEGETATION. THE PRIMARY TECHNIQUE TO BE USED AT THIS PROJECT FOR FINAL STABILIZATION OF SITE SOIL WILL BE TO PROVIDE A PROTECTIVE COVER OF VEGETATION, PAVEMENT, OR BUILDING.

ALL EXPOSED AREAS MUST BE STABILIZED AS SOON AS POSSIBLE (BUT NO LATER THAN THE NEXT WORK DAY) TO LIMIT SOIL EROSION, BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G. CLEAN AGGREGATED STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES ARE EXEMPT FROM THIS REQUIREMENT, BUT MUST COMPLY WITH SECTION 2.7 OF THIS SWPPP (SECTION 8.4, 9.9, 9.10, AND 23.9 OF THE GENERAL PERMIT).

### **SEDIMENT CONTROL BMPS:**

THE PURPOSE OF SEDIMENT CONTROL IS TO PREVENT SOIL PARTICLES THAT HAVE BEEN SUSPENDED IN WATER FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS. SEDIMENT CONTROL BMPS HAVE BEEN DESIGNED AS

IF THE DOWN GRADIENT TREATMENT SYSTEM IS OVERLOADED, THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING ADDITIONAL UP GRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE THE OVERLOADING AND MUST AMEND THE SWPPP TO IDENTIFY THE ADDITIONAL PRACTICES.

SEDIMENT CONTROL PRACTICES MUST ALWAYS BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS AND BE LOCATED UPGRADIENT OF ANY BUFFER ZONES. THE PERIMETER SEDIMENT CONTROL PRACTICES MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES MUST REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ACHIEVED (SEE SECTION 8 OF THIS SWPPP)

THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE RE-INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT RAIN EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.

### 2.1 MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES **AND SOIL**

CONSTRUCTION IS TO BE PHASED IN ACCORDANCE WITH THE PHASING PLAN ON SHEET C3.1 SUCH THAT EROSION AND SEDIMENT LOSS TO DOWNSTREAM RECEIVING WATERS IS MINIMIZED.

### 2.2 PRESERVE 50 FOOT NATURAL BUFFER

THE CONTRACTOR MUST PRESERVE A 50 FOOT NATURAL BUFFER WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECTS EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. THE CONTRACTOR IS NOT REQUIRED TO ENHANCE THE QUALITY OF THE VEGETATION THAT ALREADY EXISTS IN THE BUFFER OR PROVIDE VEGETATION IF NONE EXISTS.

### 2.3 CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT

MEASURES SHOULD BE TAKEN TO ENSURE THAT "CLEAN" RUNOFF FROM OFF SITE IS DIVERTED AROUND DISTURBED AREAS ON SITE. CARE SHOULD BE TAKEN THAT RE-ROUTING OFF SITE RUNOFF DOES NOT RESULT IN FLOODING OR OTHER ISSUES ON ADJACENT PROPERTIES.

### **BMP DESCRIPTION**: TEMPORARY DIVERSION DITCH

INSTALLATION SCHEDULE: INSTALL TEMPORARY DIVERSION DITCHES AS SHOWN ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO UP GRADIENT GROUND DISTURBING ACTIVITIES

MAINTENANCE AND INSPECTION REQUIREMENTS: THE WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER. THIS STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. THE REMAINDER OF THE DITCH MUST BE STABILIZED WITHIN 14 DAYS OF CONNECTING TO A SURFACE WATER AND AFTER CONSTRUCTION HAS CEASED.

TEMPORARY OR PERMANENT DITCHES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DO NOT NEED TO BE STABILIZED, BUT MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM

DITCHES MUST BE INSPECTED EVERY 7 DAYS, AND WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. ANY SEDIMENT DEPOSITED IN DIVERSION DITCHES MUST BE REMOVED AND ANY EXPOSED SOILS STABILIZED WITHIN 7 DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. IF PRECLUDED, NOTE REASON FOR DELAY ON MAINTENANCE LOG.

**RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):** 

### 2.4 STABILIZE SOILS

1. TEMPORARY SEEDING - DISTURBED AREAS THAT ARE NOT YET AT FINAL GRADE BUT THAT WILL NOT BE ACTIVELY WORKED FOR 14 DAYS OR MORE MUST BE TEMPORARILY STABILIZED. TEMPORARY STABILIZATION MUST BE INITIATED IMMEDIATELY WHERE WORK HAS TEMPORARILY CEASED AND MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER WORK IN THAT PORTION OF THE SITE HAS TEMPORARILY CEASED. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH MN/DOT SEED MIXTURE NUMBER 21-111 OR 21-112 DEPENDING ON THE SEASON OF PLANTING (SEE MN/DOT SPECIFICATION SECTION 2575.3) SEEDING METHOD AND APPLICATION RATE SHALL CONFORM TO MN/DOT SPECIFICATION SECTION 2575.3. TEMPORARY MULCH SHALL BE APPLIED IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3C. ALTERNATIVELY, HYDRAULIC SOIL STABILIZER IN ACCORDANCE WITH MN/DOT SPECIFICATION SECTION 2575.3E MAY BE USED IN PLACE OF TEMPORARY MULCH.

2 PERMANENT STARILIZATION - ALL AREAS AT FINAL GRADE MUST BE STARILIZED WITHIN 14 DAYS AFTER COMPLETION OF THE MAJOR CONSTRUCTION ACTIVITY. PERMANENT STABILIZATION MUST BE INITIATED IMMEDIATELY WERE WORK HAS PERMANENTLY CEASED AND MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED. SEEDED AREAS SHALL BE PROTECTED WITH MULCH. PERMANENT MULCH SHALL CONFORM. TO MN/DOT SPECIFICATION 3882. TYPE 3 AT 2 TONS/ACRE AND SHALL BE DISK ANCHORED. HYDRAULIC SOIL STABILIZER MAY BE USED IN PLACE OF MULCH IF APPROVED BY CIVIL ENGINEER. IF HYDRAULIC SOIL STABILIZER IS USED, IT SHALL BE MN/DOT TYPE 6. (DESCRIBE THE PERMANENT STABILIZATION).

### 2.5 PROTECT SLOPES

**STEEP SLOPE AREAS** - THE CONTRACTOR MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT THAT HAVE STEEP SLOPES (3:1 OR STEEPER). FOR THOSE SLOPED AREAS WHICH MUST BE DISTURBED, THE CONTRACTOR MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES, SUCH AS DRAINING AND TERRACING. SLOPES STEEPER THAN 3:1 MUST BE PROTECTED BY EROSION CONTROL BLANKETS.

**BMP DESCRIPTION:** EROSION CONTROL BLANKET

**INSTALLATION SCHEDULE:** INSTALL EROSION CONTROL BLANKETS AS SHOWN ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, WITHIN THE TIMEFRAME ALLOWED FOR STABILIZATION AFTER WORK HAS CEASED IN AN AREA, DEPENDING ON THE LOCATION (I.E. 24 HOURS, 7 DAYS, 14 DAYS)

MAINTENANCE AND INSPECTION REQUIREMENTS: TO FUNCTION PROPERLY, EROSION CONTROL BLANKETS MUST BE IN CONTACT WITH THE SOIL BENEATH THE BLANKET. BLANKETS MUST BE SECURED PER THE CONSTRUCTION DETAIL PROVIDED WITH THE SWPPP PLAN SHEETS. INSPECT BLANKETS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. REPAIR, REPLACE, OR SUPPLEMENT NON-FUNCTIONAL BLANKETS WITHIN 3 DAYS OR BY THE NEXT RAIN EVENT, WHICHEVER COMES FIRST.

**RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):** 

### 2.6 PROTECT STORM DRAIN INLETS

ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE MEANS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED AND PERMITTEE(S) HAVE RECEIVED WRITTEN CORRESPONDENCE FROM THE JURISDICTIONAL AUTHORITY (E.G. CITY/COUNTY/TOWNSHIP/MNDOT/ETC.) VERIFYING THE NEED FOR REMOVAL. THE WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THIS SWPPP.

INSTALLATION SCHEDULE: INSTALL INLET PROTECTION IN EXISTING STRUCTURES AS DIRECTED ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO BEGINNING GROUND DISTURBING ACTIVITIES UP GRADIENT OF THE INLET. INSTALL INLET

PROTECTION ON NEW STRUCTURES AS SOON AS THE STRUCTURES ARE PUT INTO USE.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT SILT FENCE EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. SEDIMENT ACCUMULATIONS SHOULD BE REMOVED WHEN SEDIMENT BUILD-UP REACHES 1/2 THE HEIGHT OF THE SILT FENCE. THIS MAINTENANCE MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE)

**BMP DESCRIPTION:** SILT FENCE INLET PROTECTION

### **BMP DESCRIPTION:** INLET PROTECTION (INLET INSERT DEVICE)

INSTALLATION SCHEDULE: INSTALL INLET PROTECTION IN EXISTING STRUCTURES AS DIRECTED ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO BEGINNING GROUND DISTURBING ACTIVITIES UP GRADIENT OF THE INLET. INSTALL INLET PROTECTION ON NEW STRUCTURES AS SOON AS THE STRUCTURES ARE PUT INTO USE.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT INLET PROTECTION EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. SEDIMENT ACCUMULATIONS SHOULD BE REMOVED WHEN SEDIMENT BUILD-UP REACHES 1/2 THE CAPACITY OF THE DEVICE, OR, IF MORE STRINGENT, IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. THIS MAINTENANCE MUST BE COMPLETED WITHIN 24 HOURS OF

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE)

### 2.7 ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS

ALL STRUCTURAL SEDIMENT CONTROLS INTENDED TO RECEIVE AND TREAT CONSTRUCTION RUNOFF MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND ALTERATION CAN BEGIN AND

MUST STAY IN OPERATION UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED.

TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.

### **BMP DESCRIPTION:** SILT FENCE

INSTALLATION SCHEDULE: INSTALL SILT FENCE AS DIRECTED ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO COMMENCING UP GRADIENT LAND DISTURBING ACTIVITIES.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT SILT FENCE EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. SEDIMENT ACCUMULATIONS SHOULD BE REMOVED WHEN SEDIMENT BUILD-UP REACHES 1/2 THE HEIGHT OF THE SILT FENCE. THIS MAINTENANCE MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY.

**RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):** 

### **BMP DESCRIPTION: BIOLOGS**

INSTALLATION SCHEDULE: INSTALL BIOLOGS AS DIRECTED ON THE SWPPP PLAN SHEETS, AND AS NEEDED THROUGHOUT CONSTRUCTION, PRIOR TO COMMENCING UP GRADIENT LAND DISTURBING ACTIVITIES.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT BIOLOGS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. SEDIMENT ACCUMULATIONS SHOULD BE REMOVED WHEN SEDIMENT BUILD-UP REACHES 1/2 THE HEIGHT OF THE BIOLOG. THIS MAINTENANCE MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

### 2.8 RETAIN SEDIMENT ON-SITE

ANY OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACT (E.G. FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS

### **BMP DESCRIPTION:** TEMPORARY SEDIMENTATION BASIN

**INSTALLATION SCHEDULE:** INSTALL TEMPORARY SEDIMENTATION BASIN PRIOR TO BEGINNING UPSLOPE LAND DISTURBING ACTIVITIES. IF THIS IS NOT POSSIBLE DUE TO EXISTING TOPOGRAPHY, LIMIT DISTURBANCE TO ONLY THOSE AREAS NECESSARY TO INSTALL TEMPORARY SEDIMENTATION BASIN.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT TEMPORARY SEDIMENTATION BASINS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE VOLUME OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. THIS MAINTENANCE MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS. IF CONDITIONS DO NOT ALLOW MAINTENANCE TO BE PERFORMED WITHIN 72 HOURS, DOCUMENT THE CAUSE OF DELAY ON THE MAINTENANCE FORM. REFER TO SECTION 3.1 OF THIS SWPPP FOR BASIN DRAINING GUIDELINES.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

### 2.9 ESTABLISH VEHICLE TRACKING PADS

VEHICLE TRACKING PADS HAVE BEEN DESIGNED TO PREVENT SEDIMENT TRACK OFF. IF THERE IS EVIDENCE OF SEDIMENT TRACKING FROM VEHICLES IN PAVED AREAS, THE SEDIMENT MUST BE REMOVED BY STREET SWEEPING OR OTHER METHOD AS SOON AS FEASIBLY POSSIBLE, BUT NO LONGER THAN 24 HOURS AFTER DISCOVERY. (SECTION 9.11 AND 9.12 OF THE GENERAL

### **BMP DESCRIPTION:** VEHICLE TRACKING PAD

INSTALLATION SCHEDULE: INSTALL VEHICLE TRACKING PAD AS SHOWN ON THE SWPPP PLAN SHEETS AS SOON AS POSSIBLE AT THE BEGINNING OF CONSTRUCTION ACTIVITIES. INSTALL ADDITIONAL VEHICLE TRACKING PADS AS NEEDED THROUGHOUT CONSTRUCTION.

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT VEHICLE TRACKING PADS EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. VEHICLE TRACKING PADS MUST BE PERIODICALLY 'REFRESHED' TO ENSURE PROPER FUNCTIONALITY. MAINTENANCE SHOULD BE PERFORMED WHEN THE EXIT APPEARS SMOOTH AND COMPACTED OR WHEN THE VEHICLE TRACKING PAD CEASES TO FUNCTION PROPERLY. VEHICLE TRACKING PAD LOCATIONS SHOULD BE INSPECTED FOR SIGNS OF OFF-SITE SEDIMENT TRACKING. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY. STREET SWEEPING MUST BE USED IF VEHICLE TRACKING PADS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.

RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

12800 Whitewater Drive, Suite 300 763,476,6010 telephone

763.476.8532 facsimile Engineering | Surveying | Planning | Environmental

# Client **VENTURE PASS**

**Project INDUSTRIES TRAILER STORAGE** 

Location ST PAUL,

2495 KASOTA AVENU

# Certification

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

Chad M. Ayers

Registration No. 41301 Date: 08/09/2019 If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

### Summary

Designed: сма Drawn: MLL Approved: CMA Book / Page: Phase: PRELIM Initial Issue: 08/09/2019

### **Revision History** No. Date By Submittal / Revision

08/09/2019 MLL SITE PLAN REVIEW 10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER COMMENT RESPONSI

**Sheet Title SWPPP** 

**Sheet No. Revision** 

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### 2.10 CONTROL STORMWATER DISCHARGE POINTS

- 1. PIPE OR OTHER TEMPORARY OR PERMANENT OUTLETS MUST BE STABILIZED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
- 2. STABILIZE THE NORMAL WETTED PERIMETER OF A DRAINAGE DITCH OR SWALE WITHIN 200 FEET OF THE PROPERTY EDGE WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER. THE REMAINDER OF THE DITCH MUST BE STABILIZED WITHIN 14 CALENDAR DAYS OF CONNECTION.

### 2.11 CHEMICAL EROSION AND SEDIMENT CONTROL BMPS

POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS MUST BE APPLIED AFTER CONVENTIONAL EROSION AND SEDIMENT CONTROL DEVICES ARE UTILIZED. CHEMICALS MAY ONLY BE APPLIED WHERE TREATED STORMWATER IS DIRECTED TO A SEDIMENT CONTROL SYSTEM WHICH ALLOWS FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE. CONSIDERATION MUST BE GIVEN WHEN SELECTING CHEMICALS TO THE EXPECTED SOIL TYPES TO BE EXPOSED DURING CONSTRUCTION, AND TO THE EXPECTED TURBIDITY, PH AND FLOW RATE OF STORMWATER FLOWING INTO THE CHEMICAL TREATMENT SYSTEM OR AREA. IF CHEMICALS ARE PART OF THE EROSION CONTROL PLAN, THEY MUST BE USED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, AND WITH DOSING SPECIFICATION AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR PROVIDER/SUPPLIER OF THE APPLICABLE CHEMICALS.

### **SECTION 3: DEWATERING & BASIN DRAINING**

### 3.1 DEWATERING AND BASIN DRAINING

ALLOWABLE NON-STORMWATER DISCHARGES, AS DEFINED BY THE GENERAL PERMIT, ARE LIMITED TO DEWATERING AND BASIN DRAINING. DEWATERING OR BASIN DRAINING THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPS, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM LANDOWNERS. THE CONTRACTOR MUST ENSURE THAT DISCHARGE POINTS ARE 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. ALL WATER FROM DEWATERING OR BASIN DRAINING MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES. OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND. IF THE CONTRACTOR ELECTS TO UTILIZE FILTERS WITH BACKWASH WATER, THE CONTRACTOR MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE CONTRACTOR MUST REPLACE AND CLEAN THE FILTER MEDIA USED IN DEWATERING DEVICES WHEN REQUIRED TO RETAIN ADEQUATE FUNCTION. CONTRACTOR SHALL OBTAIN A WATER USE (APPROPRIATION) PERMIT FROM THE MINNESOTA DNR FOR DEWATERING ACTIVITIES THAT WILL WITHDRAW MORE THAN 10,000 GALLONS OF WATER PER DAY OR 1 MILLION GALLONS PER YEAR.

### **SECTION 4: GOOD HOUSEKEEPING BMPS**

### 4.1 MATERIAL HANDLING AND WASTE MANAGEMENT

- 1. **SOLID WASTE DISPOSAL** NO SOLID MATERIALS, INCLUDING CONSTRUCTION AND DEMOLITION MATERIALS, COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, SHALL BE ALLOWED TO BE CARRIED FROM THE SITE WITH STORM WATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED PERIODICALLY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE. DISPOSAL OF SOLID WASTES MUST COMPLY WITH MPCA REQUIREMENTS
- 2. **GROUNDWATER PROTECTION SUBSTANCES THAT HAVE THE POTENTIAL FOR** POLLUTING SURFACE AND/OR GROUNDWATER MUST BE CONTROLLED BY WHATEVER MEANS NECESSARY IN ORDER TO ENSURE THAT THEY DO NOT DISCHARGE FROM THE SITE. AS AN EXAMPLE, SPECIAL CARE MUST BE EXERCISED DURING EQUIPMENT FUELING AND SERVICING OPERATIONS. IF A SPILL OCCURS, IT MUST BE CONTAINED AND DISPOSED OF SO THAT IT WILL NOT FLOW FROM THE SITE OR ENTER GROUNDWATER, EVEN IF THIS REQUIRES REMOVAL, TREATMENT, AND DISPOSAL OF SOIL. IN THIS REGARD, POTENTIALLY POLLUTING SUBSTANCES SHOULD BE HANDLED IN A MANNER CONSISTENT WITH THE IMPACT THEY REPRESENT.
- 3. SANITARY FACILITIES ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY SEPTIC SYSTEM REGULATIONS. PORTABLE TOILETS MUST BE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE WHERE REQUIRED BY STATE OR LOCAL REGULATIONS. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND BE SERVICED BY A COMMERCIAL OPERATOR.

### 4.2 ESTABLISH PROPER STORAGE, HANDLING & DISPOSAL **PRACTICES**

HAZARDOUS MATERIALS & TOXIC WASTE (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS. PAINT SOLVENTS. PETROLEUM-BASED PRODUCTS. WOOD PRESERVATIVES. ADDITIVES, CURING COMPOUNDS, AND ACIDS) MUST BE STORED IN WATERPROOF CONTAINERS WITH SECONDARY CONTAINMENT, AND THEIR LOCATION(S) MUST BE NOTED ON THE SWPPP MAP. EXCEPT DURING APPLICATION, THE CONTENTS MUST BE KEPT IN TRUCKS OR WITHIN STORAGE FACILITIES IN ACCORDANCE WITH SECTION 12.4 OF THE GENERAL PERMIT. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MCPA REGULATIONS. RUNOFF CONTAINING SUCH MATERIAL MUST BE COLLECTED, REMOVED FROM THE SITE, TREATED, AND DISPOSED AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL

BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS AND PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS AND LANDSCAPE MATERIALS MUST BE UNDER COVER BY PLASTIC SHEETING OR TEMPORARY ROOFS TO PREVENT DISCHARGE, OR PROTECTED BY SIMILAR EFFECTIVE MEANS TO PREVENT CONTACT WITH STORMWATER.

### 4.3 DESIGNATE WASHOUT AREAS

THE CONTRACTOR SHALL DESIGNATE AREAS FOR CONCRETE AND OTHER (STUCCO, PAINT, FOR RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS RELATED TO THE CONSTRUCTION ACTIVITY) WASHOUTS, AND NOTE THE LOCATIONS ON THE SITE MAP. ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS MUST BE CONTAINED IN A LEAK PROOF CONTAINMENT FACILITY OR IMPERMEABLE LAYER. A COMPACTED CLAY LINER IS NOT AN ACCEPTABLE IMPERMEABLE LAYER. THE LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND. AND THERE MUST NOT BE RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTE MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM SITE WORKERS TO UTILIZE PROPER FACILITIES FOR DISPOSAL OF CONCRETE AND OTHER WASTES.

**BMP DESCRIPTION:** CONCRETE WASHOUT

**INSTALLATION SCHEDULE: PRIOR TO CONCRETE WORK.** 

MAINTENANCE AND INSPECTION REQUIREMENTS: INSPECT CONCRETE WASHOUTS FOR EVIDENCE OF DISCHARGE EVERY 7 DAYS OR WITHIN 24 HOURS AFTER A 0.5" 24-HOUR RAIN EVENT. REPAIR, REPLACE OR SUPPLEMENT NON-FUNCTIONING CONCRETE WASHOUTS WITHIN 3 DAYS OR BY THE NEXT USE, WHICHEVER COMES FIRST

### RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

### 4.4 ESTABLISH PROPER EQUIPMENT/VEHICLE FUELING AND MAINTENANCE PRACTICES

THE CONTRACTOR SHALL DESIGNATE AREAS FOR EQUIPMENT FUELING, CLEANING, MAINTENANCE AND REPAIR, AND NOTE THE LOCATION(S) ON THE SWPPP SITE MAPS. RUNOFF MUST BE CONTAINED WITHIN THE DESIGNATED AREAS (I.E. THROUGH USE OF A TEMPORARY BERM). THE AREAS MUST NOT BE LOCATED IN ANY SURFACE WATER. SPECIAL CARE MUST BE EXERCISED DURING EQUIPMENT FUELING AND SERVICING OPERATIONS. IF A SPILL OCCURS, IT MUST BE CONTAINED AND DISPOSED OF SO THAT IT WILL NOT FLOW FROM THE SITE OR ENTER GROUNDWATER, EVEN IF THIS REQUIRES REMOVAL, TREATMENT, AND DISPOSAL OF SOIL. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. NO ENGINE DEGREASING IS ALLOWED ON SITE.

### 4.5 CONTROL EQUIPMENT/VEHICLE WASHING

THE CONTRACTOR SHALL DESIGNATE LOCATION(S) FOR VEHICLE WASHING, AND NOTE THE LOCATION(S) ON THE SWPPP SITE MAP. RUNOFF FROM THE WASHING AREA MUST BE CONTAINED IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND WASTE FROM THE WASHING ACTIVITY MUST BE PROPERLY DISPOSED OF. THE CONTRACTOR MUST PROPERLY USE AND STORE SOAPS, DETERGENTS AND SOLVENTS. ENGINE DEGREASING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES IS ALSO PROHIBITED.

### 4.6 SPILL PREVENTION AND CONTROL PLAN

- 1. ACCIDENTAL SPILL DISCHARGE OF OIL OR OTHER HAZARDOUS SUBSTANCES IS SUBJECT TO REPORTING AND CLEAN UP REQUIREMENTS. IN CASE OF AN ACCIDENTAL SPILL, THE MINNESOTA POLLUTION CONTROL AGENCY IS TO BE NOTIFIED AT THEIR 24-HOUR **TELEPHONE NUMBER: 651-649-5451**. REFER TO SECTION 12 OF THE GENERAL PERMIT.
- 2. GROUNDWATER PROTECTION SUBSTANCES THAT HAVE THE POTENTIAL FOR POLLUTING SURFACE AND/OR GROUNDWATER MUST BE CONTROLLED BY WHATEVER MEANS NECESSARY IN ORDER TO ENSURE THAT THEY DO NOT DISCHARGE FROM THE SITE. AS AN EXAMPLE, SPECIAL CARE MUST BE EXERCISED DURING EQUIPMENT FUELING AND SERVICING OPERATIONS. IF A SPILL OCCURS, IT MUST BE CONTAINED AND DISPOSED OF SO THAT IT WILL NOT FLOW FROM THE SITE OR ENTER GROUNDWATER, EVEN IF THIS REQUIRES REMOVAL, TREATMENT, AND DISPOSAL OF SOIL. IN THIS REGARD, POTENTIALLY POLLUTING SUBSTANCES SHOULD BE HANDLED IN A MANNER CONSISTENT WITH THE IMPACT THEY REPRESENT.

### **SECTION 5: POST-CONSTRUCTION BMPS**

[DESCRIBE PERMANENT STORM WATER SYSTEM, AND INCLUDE REFERENCE TO DESIGN CALCULATIONS. REFER TO SECTION 15, 16, 17, 18, AND 19 OF THE GENERAL PERMIT, AS WELL AS LGU REQUIREMENTS. NOTE: THE 2018 GENERAL PERMIT REQUIRES INFILTRATION OF THE WATER QUALITY VOLUME (1" OVER THE NEW IMPERVIOUS)]

### **BMP DESCRIPTION:** SUMP MANHOLE

### INSTALLATION SCHEDULE: ALONG WITH STORM SEWER NETWORK

MAINTENANCE AND INSPECTION REQUIREMENTS: PRACTICE SHOULD BE INSPECTED (AND CLEANED OUT IF DEEMED NECESSARY) SEMI-ANNUALLY TO ENSURE THAT SEDIMENT IS NOT BEGINNING TO WASH OUT DURING STORM EVENTS. DEVICES SHOULD BE CLEANED OUT AT LEAST ONCE PER YEAR OR AS NEEDED.

### RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE)

### **BMP DESCRIPTION: FILTRATION BASIN**

**INSTALLATION SCHEDULE:** THE FILTRATION BASIN WILL BE INSTALLED DURING THE INITIAL GRADING FOR THE SITE. THE STORM SEWER SYSTEM WILL THEN BE CONNECTED INTO THE FILTRATION BASIN.

MAINTENANCE AND INSPECTION REQUIREMENTS: ONCE CONSTRUCTION IS COMPLETE, THE BASIN WILL BE INSPECTED AND CLEARED OF ANY SEDIMENT BUILD-UP TWICE PER YEAR AND AS NEEDED. INSPECTION WILL ALSO INCLUDE CHECKING FOR EROSION ISSUES ALONG THE SLOPES OF THE BASIN AND CLEANING ANY DEBRIS FROM THE INLET PIPES.

### RESPONSIBLE STAFF (CONTRACTOR TO COMPLETE):

### **SECTION 6: INSPECTIONS**

### **6.1 INSPECTIONS**

### 1. INSPECTION FREQUENCY AND RESPONSIBILITY

BETWEEN THE TIME THIS SWPPP IS IMPLEMENTED AND FINAL SITE STABILIZATION IS ACHIEVED AND THE NOTICE OF TERMINATION FILED WITH THE MPCA, ALL DISTURBED AREAS AND POLLUTANT CONTROLS MUST BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER. THE PURPOSE OF SITE INSPECTIONS IS TO ASSESS PERFORMANCE OF POLITITANT CONTROLS. THE INSPECTIONS WILL BE CONDUCTED BY THE CONTRACTOR'S DESIGNATED REPRESENTATIVE. BASED ON THESE INSPECTIONS, THE CONTRACTOR WILL DECIDE WHETHER IT IS NECESSARY TO MODIFY THIS SWPPP, ADD OR RELOCATE STRUCTURAL BMPS, OR WHATEVER ELSE MAY BE NEEDED IN ORDER TO PREVENT POLLUTANTS FROM LEAVING THE SITE VIA STORM WATER RUNOFF. IF THE SWPPP REQUIRES MODIFICATION, THOSE CHANGES TO THE SWPPP MUST BE DOCUMENTED. THE CONTRACTOR HAS THE DUTY TO CAUSE POLLUTANT CONTROL MEASURES TO BE REPAIRED, MODIFIED, MAINTAINED, SUPPLEMENTED, OR WHATEVER ELSE IS NECESSARY IN ORDER TO ACHIEVE EFFECTIVE POLLUTANT CONTROL.

2. INSPECTION PROCEDURES - EXAMPLES OF PARTICULAR ITEMS TO EVALUATE DURING SITE INSPECTIONS ARE LISTED BELOW. THIS LIST IS NOT INTENDED TO BE COMPREHENSIVE. DURING EACH INSPECTION THE INSPECTOR MUST EVALUATE OVERALL POLLUTANT CONTROL SYSTEM PERFORMANCE AS WELL AS PARTICULAR DETAILS OF INDIVIDUAL SYSTEM COMPONENTS. ADDITIONAL FACTORS SHOULD BE CONSIDERED AS APPROPRIATE TO THE CIRCUMSTANCES.

### A. PRE-INSPECTION PREPARATION:

- 1. INSPECTORS SHOULD BE FAMILIAR WITH THE SWPPP, INCLUDING THE EROSION AND SEDIMENT CONTROL PLANS, PAST INSPECTION REPORTS, AND MAINTENANCE LOGS.
- 1. BEFORE ENTERING THE SITE, OBSERVE THE SURROUNDINGS AND VARIOUS STAGES OF CONSTRUCTION. NOTE AREAS FOR IN-DEPTH REVIEW AND ANY POTENTIAL
- 2. THIS IS A GOOD TIME TO VIEW CONSTRUCTION SITE VEHICLE TRACKING PAD LOCATIONS AND PERIMETER CONTROLS.

### C. RECORDS REVIEW:

- 1. VERIFY THAT A COPY OF THE SWPPP AND APPLICATION FOR THE NPDES STORM WATER PERMIT, AND COPIES OF ALL CONSTRUCTION SITE INSPECTIONS ARE ON
- 2. VERIFY THAT THE TIMING FOR INSTALLATION OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS, AS WELL AS CONSTRUCTION PHASING, IS GENERALLY
- 3. SWPPPS ARE INTENDED TO BE DYNAMIC DOCUMENTS, VERIFY THAT AMENDMENTS OR CHANGES TO THE SWPPP ARE BEING MADE WHEN:
- A. A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVE A SIGNIFICANT EFFECT ON STORM WATER DISCHARGES
- B. INSPECTIONS INDICATE THE SWPPP IS NOT EFFECTIVE
- C. THE SWPPP IS NOT CONSISTENT WITH THE TERMS OF THE GENERAL PERMIT

### D. SITE INSPECTION (NOTE TIMELINES FOR MAINTENANCE INCLUDED IN INSPECTION/MAINTENANCE REPORT)

- 1. INSPECT DISCHARGE POINTS DOWNSTREAM AND OFF-SITE AREAS FOR SIGNS
- 2. INSPECT PERIMETER CONTROLS:
- A. HAVE PERIMETER CONTROLS BEEN PROPERLY INSTALLED AND
- B. ARE VEHICLE TRACKING PADS FUNCTIONING PROPERLY? ARE ADDITIONAL ENTRANCES/EXITS BEING USED THAT ARE NOT STABILIZED?
- C. ALL STORM DRAINS MUST BE PROTECTED AND TEMPORARY STOCKPILES MUST HAVE SEDIMENT CONTROLS INSTALLED.
- D. ALL EXPOSED SOILS MUST HAVE TEMPORARY OR PERMANENT EROSION PROTECTION WITHIN 14 DAYS OF INACTIVITY
- 3. COMPARE BMPS IN THE SWPPP WITH CONSTRUCTION SITE CONDITIONS: ARE REQUIRED BMPS IN PLACE: ARE ADDITIONAL BMPS NEEDED: ARE BMPS IN PLACE PROPERLY INSTALLED AND MAINTAINED?
- 4. INSPECT AREAS THAT HAVE BEEN DISTURBED AND ARE NOT CURRENTLY BEING WORKED. ANY UNSEEDED OR UNMULCHED BARE AREAS THAT HAVE BEEN IDLE FOR 14 DAYS SHOULD BE NOTED.
- 5. INSPECT AREAS WITH FINAL STABILIZATION. IN ORDER FOR FINAL STABILIZATION TO BE ACHIEVED, AREAS MUST HAVE A UNIFORM COVER WITH A DENSITY OF 70% OVER ENTIRE AREA. TEMPORARY BMPS SHOULD BE REMOVED AND AREAS DISTURBED BY REMOVAL SEEDED AS NECESSARY.

### E. EXIT INTERVIEW: 1. DEBRIEF THE PERSON IN CHARGE. EXPLAIN THE IDENTIFIED DEFICIENCIES

- F. A COPY OF THE COMPLETED INSPECTION REPORT MUST BE KEPT WITH THE SWPPP ON SITE.
- THE INSPECTION REPORT USED SHOULD INCLUDE, AT A MINIMUM, THE

### FOLLOWING:

- DATE & TIME OF INSPECTION
- NAME OF INSPECTOR(S)

AND ANY AREAS OF CONCERN.

- FINDINGS OF INSPECTIONS AND RECOMMENDATIONS FOR CORRECTIVE
- CORRECTIVE ACTIONS TAKEN, INCLUDING DATES, TIMES AND NAMES OF PARTY COMPLETING MAINTENANCE
- DATE & AMOUNT OF RAINFALL
- RECORD OF ALL POINTS OF DISCHARGE FROM THE PROPERTY AND
- DESCRIPTION OF DISCHARGE NOTE TO UPDATE THE SWPPP

### **6.2 DELEGATION OF AUTHORITY**

### **DULY AUTHORIZED REPRESENTATIVE(S) OR POSITION(S):**

COMPANY OR ORGANIZATION NAME:

POSITION:

ADDRESS:

CITY, STATE, ZIP CODE:

TELEPHONE NUMBER: FAX/EMAIL:

### **6.3 CORRECTIVE ACTION LOG**

THE INSPECTION/MAINTENANCE FORM, AVAILABLE UPON REQUEST, INCORPORATES BOTH INSPECTION AND MAINTENANCE REPORTING INTO A SINGLE FORM. THIS FORM ALSO SPECIFIES THE TIME ALLOWED FOR CORRECTIONS TO BE PERFORMED. IF THE PARTY PERFORMING INSPECTIONS CHOOSES TO USE ANOTHER INSPECTION FORM, A SEPARATE CORRECTIVE ACTION LOG MUST BE PROVIDED.

### **SECTION 7: RECORD KEEPING AND TRAINING**

### 7.1 RECORDKEEPING

RECORD RETENTION - THE OWNER MUST KEEP THE SWPPP INCLUDING ALL CHANGES MADE TO IT DURING CONSTRUCTION (SEE SECTION 7.2 OF THIS SWPPP), ALONG WITH THE FOLLOWING ADDITIONAL RECORDS ON FILE FOR THREE YEARS AFTER COMPLETION OF THE CONSTRUCTION PROJECT (FINAL STABILIZATION AND NOTICE OF TERMINATION):

- 1. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT
- 2. RECORDS OF ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION 3. ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER
- BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE 4. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT SYSTEMS

### 7.2 AMENDMENTS

THE CONTRACTOR SHALL KEEP A RECORD LOG OF ALL MODIFICATIONS TO THE SWPPP. AN EXAMPLE OF A SWPPP UPDATE LOG FORM CAN BE PROVIDED UPON REQUEST

MODIFICATIONS TO THE SWPPP - THIS SWPPP INTENDS TO CONTROL WATER-BORNE AND LIQUID POLLUTANT DISCHARGES BY SOME COMBINATION OF INTERCEPTION, FILTRATION, AND CONTAINMENT. THE GENERAL CONTRACTOR AND SUBCONTRACTORS IMPLEMENTING THIS SWPPP MUST REMAIN ALERT TO THE NEED TO PERIODICALLY REFINE AND UPDATE THI SWPPP IN ORDER TO ACCOMPLISH THE INTENDED GOALS. THIS SWPPP MUST BE AMENDED AS NECESSARY DURING THE COURSE OF CONSTRUCTION IN ORDER TO KEEP IT CURRENT WITH THE POLLUTANT CONTROL MEASURES UTILIZED AT THE SITE. AMENDING THE SWPPP DOES NOT MEAN THAT IT HAS TO BE REPRINTED. IT IS ACCEPTABLE TO ADD ADDENDA, SKETCHES, NEW SECTIONS, AND/OR REVISED DRAWINGS. THIS SWPPP MUST BE UPDATED AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS, SUCH AS ADDITIONAL OR MODIFIED BMPS, DESIGNED TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER

- 1. THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS.
- 2. INSPECTIONS OR INVESTIGATIONS BY SITE OPERATORS, LOCAL, STATE OR FEDERAL OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS OR THAT THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD
- 3. THE SWPPP IS NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY, OR THE SWPPP IS NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF THE GENERAL PERMIT
- 4. THE MPCA HAS DETERMINED THAT THE PROJECT'S STORM WATER DISCHARGES MAY CAUSE OR CONTRIBUTE TO NON-ATTAINMENT OF ANY APPLICABLE WATER STANDARD, OR THAT THE SWPPP DOES NOT INCORPORATE REQUIREMENTS RELATED TO AN APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL) IMPLEMENTATION PLAN. IN THIS CASE, THE SWPPP MUST BE UPDATED OR A SUPPLEMENTAL BMP ACTION PLAN DEVELOPED TO ADDRESS THE IDENTIFIED CONCERNS.

# 7.3 TRAINING

THE PERMITTEE(S) MUST FULFILL TRAINING REQUIREMENTS AND INCLUDE RECORDS OF TRAINING IN THE SWPPP. REFRESHER TRAINING MUST BE ATTENDED EVERY THREE YEARS STARTING THREE YEARS, FROM THE ISSUANCE OF THE 2018 GENERAL PERMIT (ISSUED 8/1/18). INDIVIDUALS REQUIRED TO BE TRAINED INCLUDE:

- 1. INDIVIDUALS PREPARING THE SWPPP
- 2. INDIVIDUALS OVERSEEING IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS. ONE OF THESE INDIVIDUALS MUST BE

AVAILABLE FOR AN ON SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA.

3. INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS. AT LEAST ONE INDIVIDUAL ON A PROJECT MUST BE TRAINED IN THESE JOB DUTIES.

THE CONTENT AND EXTENT OF TRAINING MUST BE COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES WITH REGARD TO ACTIVITIES COVERED UNDER THE GENERAL PERMIT. AT LEAST ONE INDIVIDUAL TRAINED IN THE IOB DUTIES LISTED ABOVE MUST BE PRESENT ON THE SITE OR AVAILABLE TO THE SITE IN 72 HOURS.

### TRAINING DOCUMENTATION MUST INCLUDE:

DISTRICTS, OR THE MPCA.

- 1. NAMES OF PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED
- 2. DATES OF TRAINING AND NAMES OF INSTRUCTOR AND ENTITY PROVIDING TRAINING 3. CONTENT OF TRAINING COURSE, INCLUDING NUMBER OF HOURS OF TRAINING
- 4. DOCUMENTATION MUST BE KEPT WITH THE SWPPP. TRAINING RECORD/CERTIFICATION TEMPLATE IS AVAILABLE UPON REQUEST.

INDIVIDUALS MUST BE TRAINED BY LOCAL, STATE, FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, OR PERMANENT STORMWATER MANAGEMENT SUCH AS THE UNIVERSITY OF MINNESOTA, MINNESOTA EROSION CONTROL ASSOCIATION, SOIL AND WATER CONSERVATION

### **SECTION 8: FINAL STABILIZATION / PERMIT TERMINATION**

FINAL STABILIZATION - TO ACHIEVE FINAL STABILIZATION OF THE SITE. THE CONTRACTOR WILL IMPLEMENT THE FOLLOWING MEASURES AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED.

- 1. ALL SOILS MUST BE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OVER THE ENTIRE PERVIOUS SURFACE AREA, OR BY OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER FROSIVE CONDITIONS. REFER TO LANDSCAPING PLANS/SPECIFICATIONS FOR TYPE OF VEGETATIVE COVER.
- 2. THE PERMANENT STORMWATER MANAGEMENT SYSTEM IS CONSTRUCTED, MEETS ALL REQUIREMENTS IN SECTIONS 15. 16. 17. 18. AND 19 OF THE GENERAL PERMIT AND IS OPERATING AS DESIGNED. TEMPORARY OR PERMANENT SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS HAVE BEEN CLEAN OF ANY ACCUMULATED SEDIMENT. ALL SEDIMENT HAS BEEN REMOVED FROM CONVEYANCE SYSTEMS AND DITCHES ARE STABILIZED WITH PERMANENT COVER.
- 3. ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPS MUST BE
- 4. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES FINAL STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE.
- 5. FOR RESIDENTIAL CONSTRUCTION ONLY, INDIVIDUAL LOTS ARE CONSIDERED FINALLY STABILIZED IF THE STRUCTURE(S) ARE FINISHED AND TEMPORARY FROSION PROTECTION AND DOWNGRADIENT PERIMETER CONTROL HAS BEEN COMPLETED AND THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER. ADDITIONALLY, THE PERMITTEE HAS DISTRIBUTED THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER TO INFORM THE HOMEOWNER OF THE NEED FOR, AND BENEFITS OF, PERMANENT COVER.

PERMIT TERMINATION - TO ACHIEVE PERMIT TERMINATION FOR THE SITE, PERMITTEES MUST COMPLY WITH SECTIONS 4 & 13 OF THE GENERAL PERMIT.



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Client **VENTURE PASS PARTNERS** 

**Project INDUSTRIES TRAILER STORAGE** 

Location ST PAUL,

2495 KASOTA AVENU

# Certification

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

Chad M. Ayers Registration No. 41301 Date: 08/09/2019

If applicable, contact us for a wet signed copy of this

plan which is available upon request at Sambatek's,

# Minnetonka, MN office.

Summary Designed: сма Drawn: MLL Approved: CMA Book / Page:

# **Revision History**

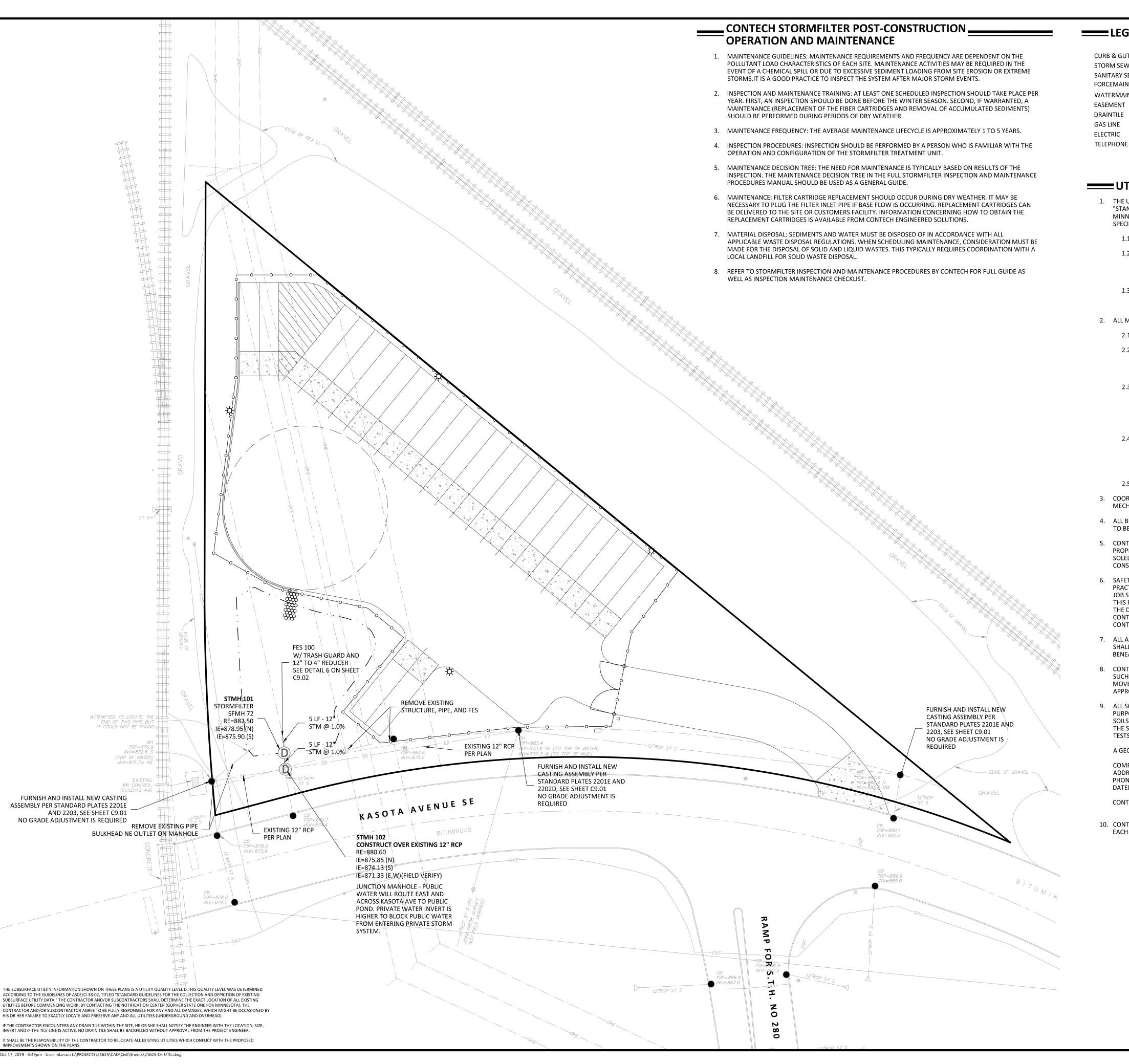
Phase: PRELIM Initial Issue: 08/09/2019

No. Date By Submittal / Revisior 08/09/2019 MLL SITE PLAN REVIEW 10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER

COMMENT RESPONSI

**Sheet Title SWPPP** 

**Sheet No. Revision** 



====LEGEND =

**CURB & GUTTER** STORM SEWER SANITARY SEWER WATERMAIN

FORCEMAIN (SAN.) **EASEMENT DRAINTILE GAS LINE** 

**EXISTING** 

### UTILITY CONSTRUCTION NOTES =

PROPOSED

- 1. THE UTILITY IMPROVEMENTS FOR THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD UTILITIES SPECIFICATIONS" AS PUBLISHED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), EXCEPT AS MODIFIED HEREIN. CONTRACTOR SHALL OBTAIN A COPY OF THESE
  - 1.1. ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY REQUIREMENTS.
  - 1.2. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP WATERMAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE THE LIABILITY OF CONTRACTOR.
  - 1.3. A MINIMUM VERTICAL SEPARATION OF 18 INCHES AND HORIZONTAL SEPARATION OF 10-FEET BETWEEN OUTSIDE PIPE DIAMETERS IS REQUIRED AT ALL WATERMAIN AND SEWER MAIN (BUILDING, STORM AND SANITARY) CROSSINGS.
- 2. ALL MATERIALS SHALL BE AS SPECIFIED IN CEAM SPECIFICATIONS EXCEPT AS MODIFIED HEREIN.
  - 2.1. ALL MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY.
  - 2.2. ALL SANITARY SEWER TO BE PVC SDR-35, UNLESS NOTED OTHERWISE.
  - 2.2.1. ALL SANITARY SEWER SERVICES TO BUILDING SHALL BE PVC SCH 40 CONFORMING TO ASTM D2665.
  - 2.3. ALL WATERMAIN TO BE DUCTILE IRON CLASS 52, UNLESS NOTED OTHERWISE.
    - 2.3.1. ALL WATERMAIN TO HAVE 7.5-FEET OF COVER OVER TOP OF WATERMAIN.
    - 2.3.2. PROVIDE THRUST BLOCKING AND MECHANICAL JOINT RESTRAINTS ON ALL WATERMAIN JOINTS PER CITY STANDARDS.
  - 2.4. ALL STORM SEWER PIPE TO BE SMOOTH INTERIOR DUAL WALL HDPE PIPE WITH WATER TIGHT GASKETS, UNLESS NOTED OTHERWISE.
  - 2.4.1. ALL STORM SEWER PIPE FOR ROOF DRAIN SERVICES TO BUILDING SHALL BE PVC SCH 40
  - 2.5. RIP RAP SHALL BE Mn/DOT CLASS 3.

CONFORMING TO ASTM D2665.

- 3. COORDINATE ALL BUILDING SERVICE CONNECTION LOCATIONS AND INVERT ELEVATIONS WITH MECHANICAL CONTRACTOR PRIOR TO CONSTRUCTION.
- 4. ALL BUILDING SERVICE CONNECTIONS (STORM, SANITARY, WATER) WITH FIVE FEET OR LESS COVER ARE TO BE INSULATED FROM BUILDING TO POINT WHERE 5-FEET OF COVER IS ACHIEVED.
- CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
- 6. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
- 7. ALL AREAS OUTSIDE THE PROPERTY BOUNDARIES THAT ARE DISTURBED BY UTILITY CONSTRUCTION SHALL BE RESTORED IN KIND. SODDED AREAS SHALL BE RESTORED WITH 6 INCHES OF TOPSOIL PLACED BENEATH THE SOD.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARDS.
- ALL SOILS TESTING SHALL BE COMPLETED BY AN INDEPENDENT SOILS ENGINEER. EXCAVATION FOR THE PURPOSE OF REMOVING UNSTABLE OR UNSUITABLE SOILS SHALL BE COMPLETED AS REQUIRED BY THE SOILS ENGINEER. THE UTILITY BACKFILL CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE SOILS ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOILS TESTS AND SOIL INSPECTIONS WITH THE SOILS ENGINEER.
- A GEOTECHNICAL ENGINEERING REPORT HAS BEEN COMPLETED BY:

COMPANY: BRAUN INTERTEC CORPORATION ADDRESS: 11001 HAMPSHIRE AVENUE SOUTH, MINNEAPOLIS, MN 55438 PHONE: 952-995-2000 DATED: 952-995-2020

CONTRACTOR SHALL OBTAIN A COPY OF THIS SOILS REPORT.

10. CONTRACTOR AND MATERIAL SUPPLIER SHALL DETERMINE THE MINIMUM DIAMETER REQUIRED FOR EACH STORM SEWER STRUCTURE.

SCALE

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# Client **VENTURE PASS PARTNERS**

**Project ROHN INDUSTRIES TRAILER STORAGE** 

# Location ST PAUL, **MINNESOTA**

2495 KASOTA AVENUE

# **Certification**

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Chad M. Ayers

Registration No. 41301 Date: 08/09/2019 If applicable, contact us for a wet signed copy of this

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# Summary

Minnetonka, MN office.

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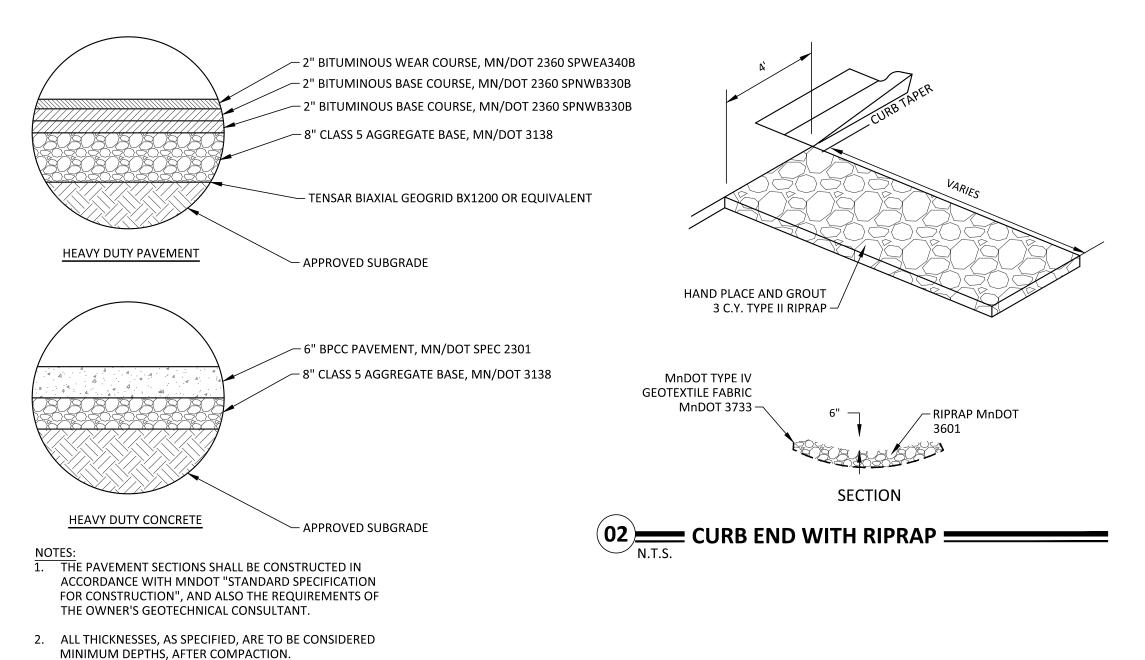
# **Revision History**

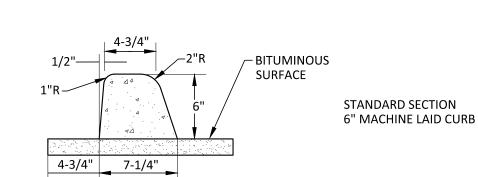
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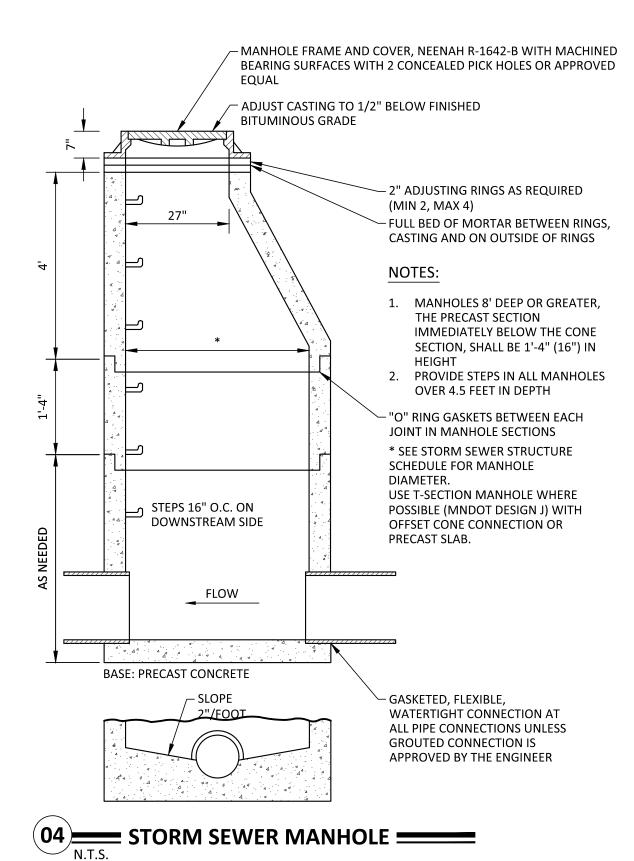
08/09/2019 MLL SITE PLAN REVIEW 10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER COMMENT RESPONSE

# **Sheet Title UTILITY PLAN**

**Sheet No. Revision** C6.01



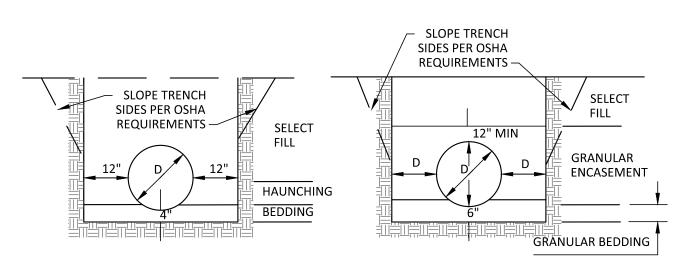




3. MN/DOT SPEC. 2357 BITUMINOUS TACK COAT SHALL BE PLACED BETWEEN SUCCESSIVE BITUMINOUS LIFTS AND

AGAINST ABUTTING CONCRETE CURB EDGES.

PAVEMENT SECTIONS =



### REINFORCED CONCRETE PIPE OR DIP

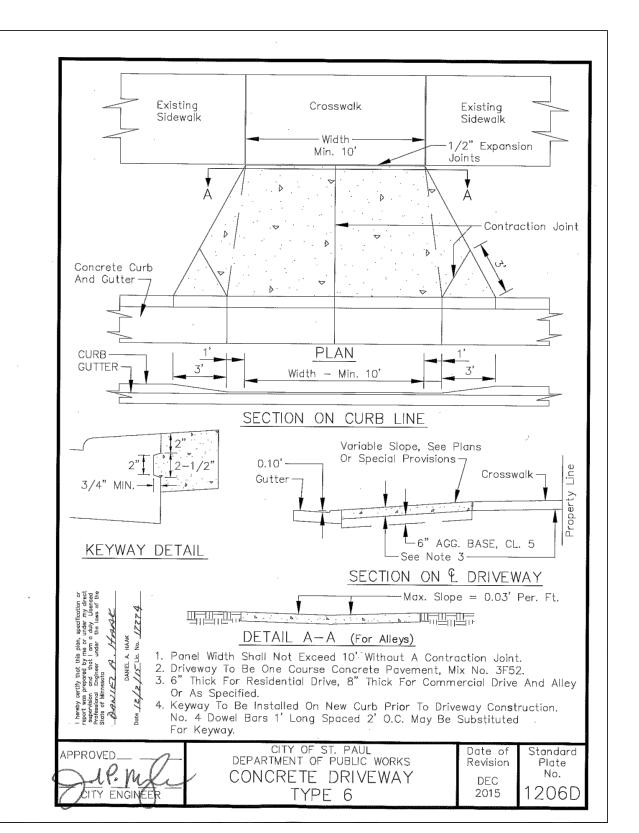
03 BITUMINOUS CURB

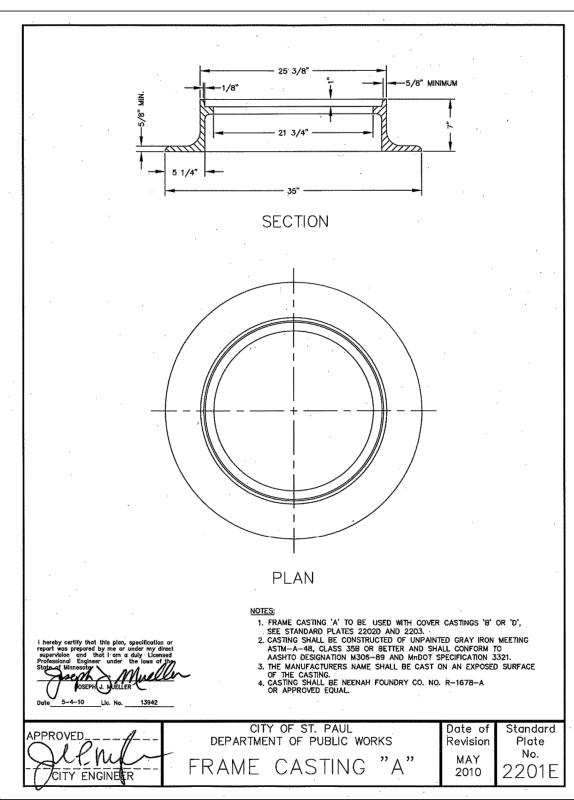
- 1. BEDDING AND HAUNCHING MATERIAL SHALL BE ASTM D2321-CI.I, II, III, OR IV A SOILS, AND SHALL BE SHAPED TO THE BOTTOM OF THE PIPE. COMPACT BEDDING MATERIAL TO 95% STANDARD PROCTOR.
- 2. SELECT FILL SHALL BE SELECT MATERIAL FREE OF LARGE ROCKS (3"+) AND SHALL BE PLACED IN 8" MAX. LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR.

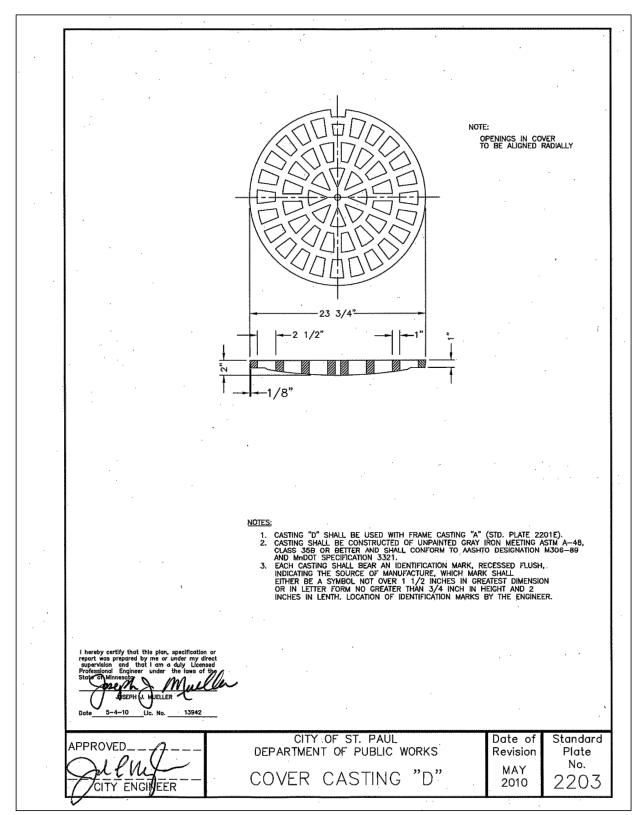
### FLEXIBLE PIPE: INCLUDES CORRUGATEDMETAL PIPE CORRUGATED POLYETHYLENE PIPE AND/OR POLYVINYL

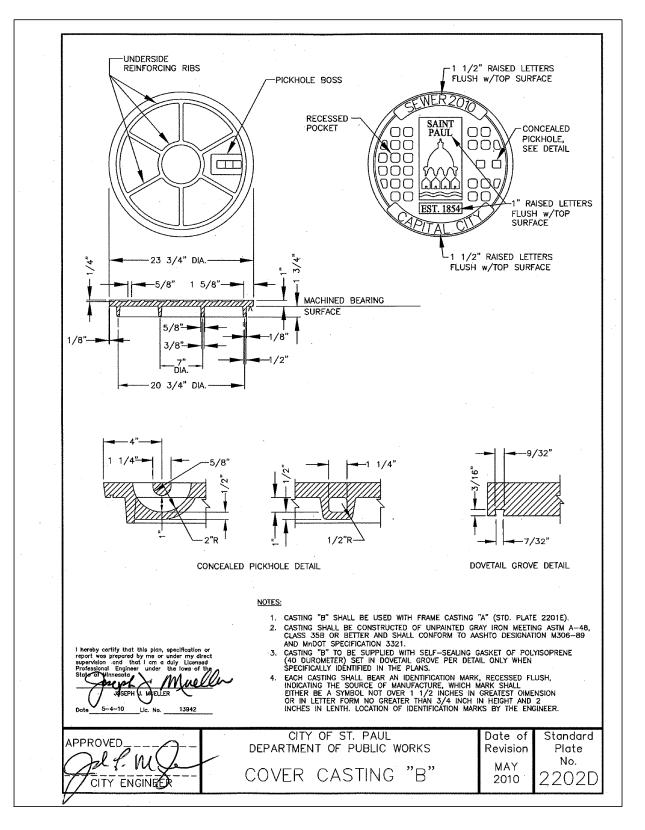
- CHLORIDE PIPE GRANULAR BEDDING AND ENCASEMENT MATERIAL SHALL BE CLASS I OR II (REF. ASTM D2321 OR MN/DOT 3149.2F) GRANULAR MATERIAL, AND SHALL BE COMPACTED
- TO 95% STANDARD PROCTOR. 2. SELECT FILL PLACEMENT AND COMPACTION. SAME AS FOR RCP. NOTE: FOR HDPE INSTALLED BELOW
- EXISTING OR FUTURE GROUND WATER ELEVATIONS, PIPE BEDDING AND ENCASEMENT SHALL BE CLASS I, CRUSHED ROCK PER ASTM D2321.













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Client **VENTURE PASS PARTNERS** 

**Project ROHN INDUSTRIES TRAILER STORAGE** 

Location ST PAUL, **MINNESOTA** 

2495 KASOTA AVENUE

# Certification

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Chad M. Ayers

Registration No. 41301 Date: 08/09/2019 If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

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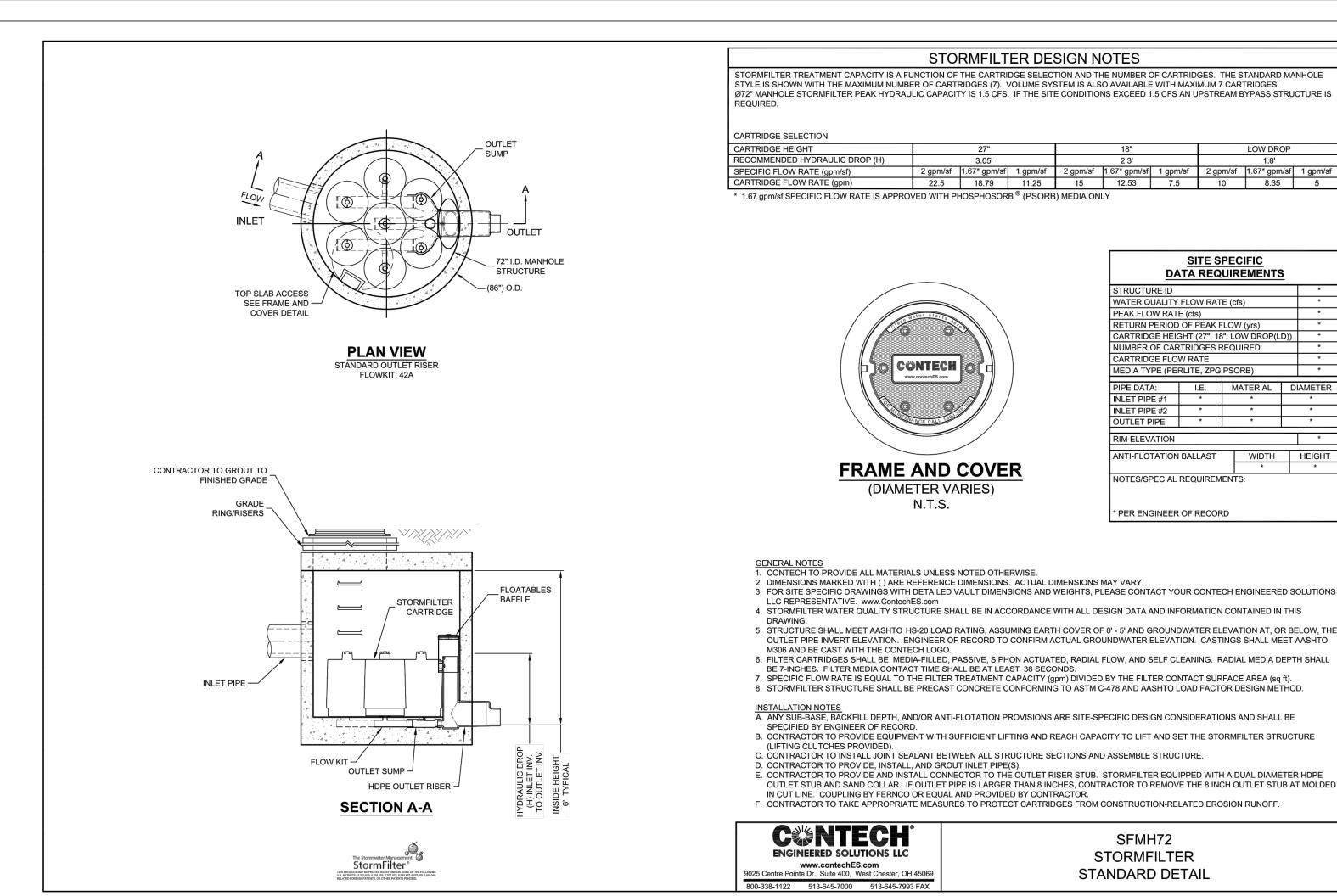
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**Sheet Title DETAILS** 

**Sheet No. Revision** 

21625

C9.01



**Step 3.** Push the vertical slat

cutout notch.

SLAT NAME

EZ™ SLAT

EZ™ Slat Specifications

SUBMITTED BY:

into the horizontal channel until

the locking catch snaps into the

SLAT MESH WIRE WIDTH SIZE GAUGE

9, 11 OR 10 LINEAR 11 1/2 FEET

INSTALLATION INSTRUCTIONS

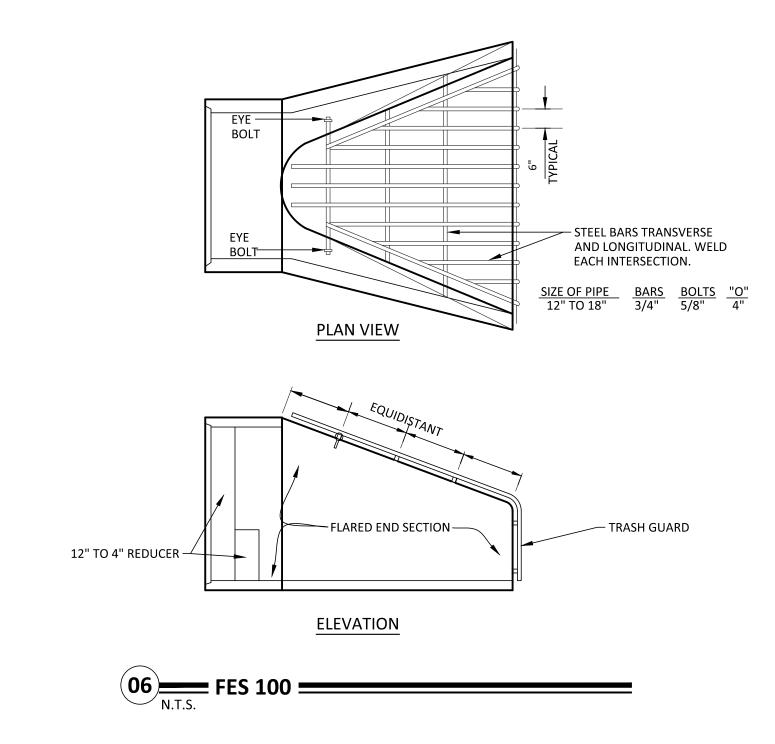
(Suggested installation instructions. Instructions vary per job site conditions)

**Step 2.** Insert slats vertically with the

beveled/notched end downward until slat

engages and interlocks with the bottom

Slat end view







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COMMENT RESPONSE

**Sheet Title DETAILS** 

**Sheet No. Revision** 

21625

C9.02

Project No.

**Step 1.** Insert the bottom channel horizontally

into the first diamond at the bottom of the

These simply installed slats provide a

PROJECT:

OWNER/GENERAL CONTRACTOR:

beautifully finished fence.

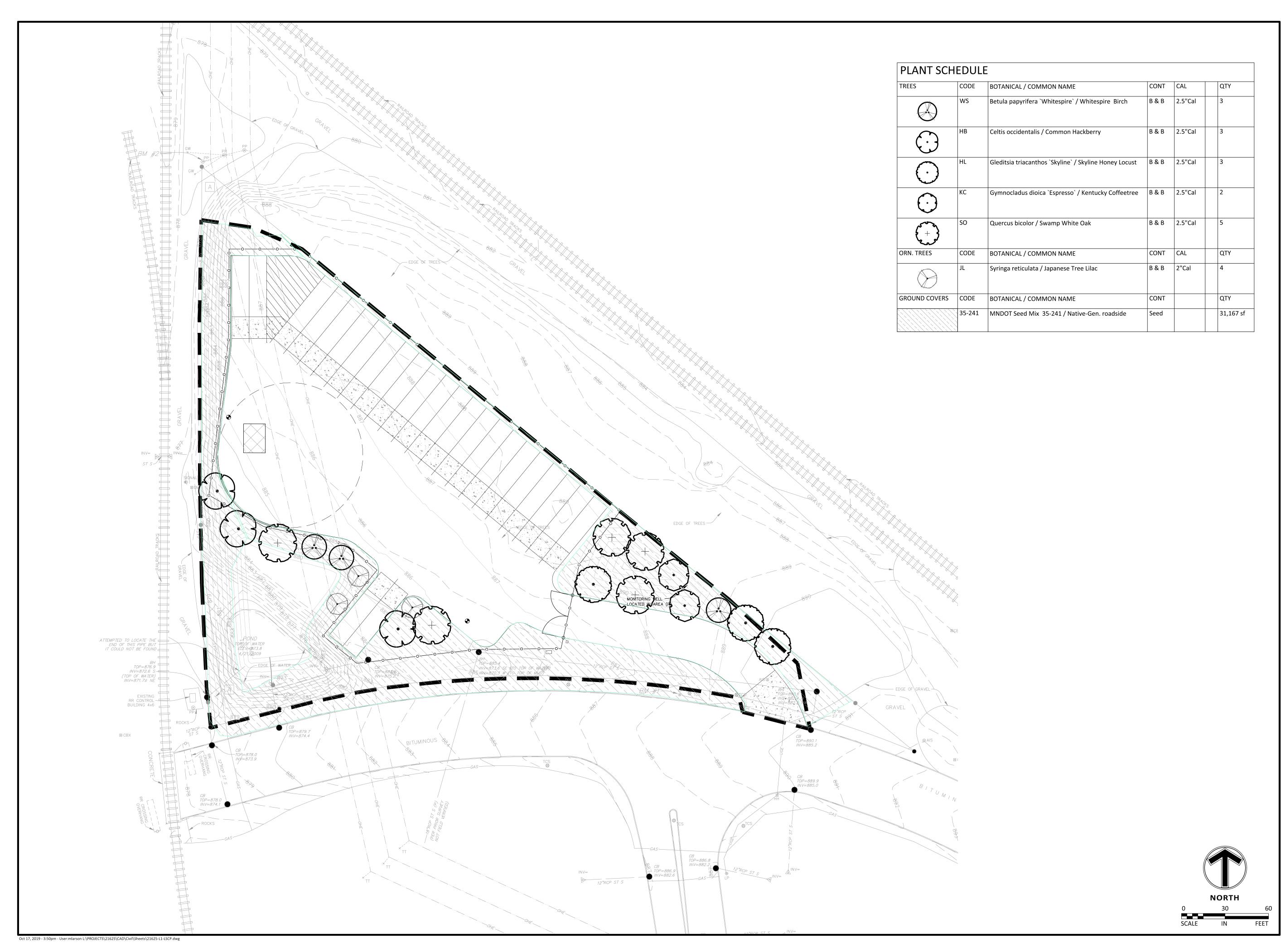
EZ™ Fence Slats

Slat Source

130 West 700 South, Smithfield, UT 84335

eprivacylink.com • 1-800-574-1076

fence with open side facing up.



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Client **VENTURE PASS** 

**PARTNERS** 

Project **ROHN INDUSTRIES TRAILER STORAGE** 

Location ST PAUL, **MINNESOTA** 

2495 KASOTA AVENUE

# Certification

I hereby certify that this survey, plan 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.

William Staney

William Delaney

Registration No. 40252 Date: 08/09/2019 This certification is not valid unless wet signed in blue ink. If applicable, contact us for a wet signed copy of this survey which is available upon request at Sambatek, Minnetonka, MN office.

# Summary

Designed: CMA Drawn: MLL Approved: CMA Book / Page: Phase: PRELIM Initial Issue: 08/09/2019

# **Revision History**

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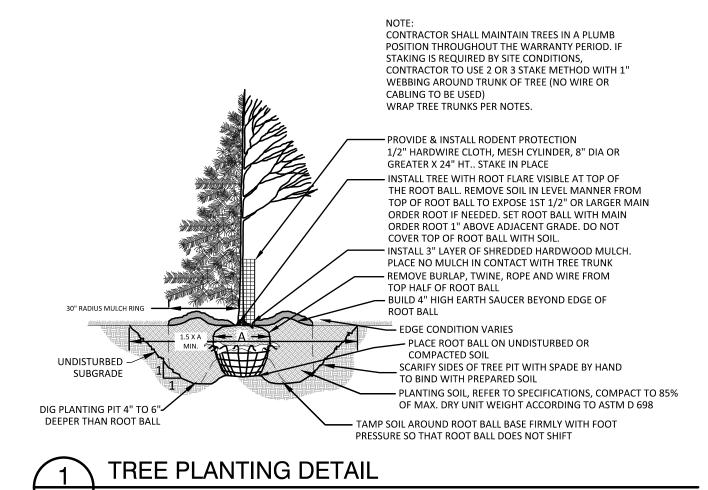
10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER COMMENT RESPONSE

**Sheet Title LANDSCAPE PLAN** 

**Sheet No. Revision** 

Project No.

21625



### **GENERAL NOTES:**

THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH THE EXISTING

- CONDITIONS RELATING TO THE NATURE AND SCOPE OF THE WORK. 2. THE CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE
- ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT. 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES,
- REGULATIONS, AND PERMITS GOVERNING THE WORK. 4. THE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION. DAMAGE TO SAME SHALL BE REPAIRED AND/OR
- REPLACED AT NO ADDITIONAL COST TO THE OWNER. 5. LOCATE AND VERIFY ALL UTILITIES, INCLUDING IRRIGATION LINES, WITH THE OWNER FOR PROPRIETARY UTILITIES AND GOPHER STATE ONE CALL 48 HOURS BEFORE DIGGING. CONTRACTOR
- SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ANY DAMAGES TO SAME. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS TO FACILITATE PLANT RELOCATION.
- 6. THE LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE
- THE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.
- 8. THE PLAN TAKES PRECEDENCE OVER THE LANDSCAPE LEGEND IF DISCREPANCIES EXIST. QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.
- THE SPECIFICATIONS TAKE PRECEDENCE OVER THE PLANTING NOTES AND GENERAL NOTES. 10. EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED TO THE DRIP LINE FROM ALL CONSTRUCTION TRAFFIC, STORAGE OF MATERIALS ETC. WITH 4' HT. ORANGE PLASTIC SAFETY FENCING ADEQUATELY SUPPORTED BY STEEL FENCE POSTS 6' O.C. MAXIMUM SPACING.
- 11. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED. 12. CONTRACTOR SHALL REQUEST IN WRITING, A FINAL ACCEPTANCE INSPECTION.

### **PLANTING NOTES:**

1. NO PLANTS SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.

- 2. A GRANULAR PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANT BEDS AT THE MANUFACTURERS RECOMMENDED RATE PRIOR TO PLANT INSTALLATION.
- 3. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS.
- 4. OVERSTORY TREES SHALL BEGIN BRANCHING NO LOWER THAN 6' ABOVE PAVED SURFACES. 5. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE AND BE
- CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE LANDSCAPE LEGEND.
- 6. PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.
- 7. ALL TREES MUST BE STRAIGHT TRUNKED AND FULL HEADED AND MEET ALL REQUIREMENTS
- 8. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION.
- 9. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
- 10. ALL PLANT MATERIAL QUANTITIES, SHAPES OF BEDS AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN AND ADJUSTED TO CONFORM TO THE EXACT CONDITIONS OF THE SITE. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIALS PRIOR
- TO INSTALLATION. 11. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED
- 12. MULCH: SHREDDED HARDWOOD MULCH, CLEAN AND FREE OF NOXIOUS WEEDS OR OTHER DELETERIOUS MATERIAL, IN ALL MASS PLANTING BEDS AND FOR TREES, UNLESS INDICATED AS ROCK MULCH ON DRAWINGS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON-SITE FOR APPROVAL. DELIVER MULCH ON DAY OF INSTALLATION. USE 3" FOR SHRUB BEDS, TREE RINGS. AND 3" FOR PERENNIAL/GROUND COVER BEDS. UNLESS OTHERWISE DIRECTED.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MULCHES AND PLANTING SOIL QUANTITIES TO COMPLETE THE WORK SHOWN ON THE PLAN.
- 14. USE ANTI-DESICCANT (WILTPRUF OR APPROVED EQUAL) ON DECIDUOUS PLANTS MOVED IN LEAF AND FOR EVERGREENS MOVED ANYTIME. APPLY AS PER MANUFACTURER'S INSTRUCTION. ALL EVERGREENS SHALL BE SPRAYED IN THE LATE FALL FOR WINTER PROTECTION DURING WARRANTY
- 15. WRAP ALL SMOOTH-BARKED DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO DECEMBER 1 AND REMOVE WRAPPING AFTER MAY 1. TREE WRAPPING MATERIAL SHALL BE WHITE TWO-WALLED PLASTIC SHEETING APPLIED FROM TRUNK FLARE TO THE FIRST BRANCH.
- 16. ALL DECIDUOUS, PINE, AND LARCH PLANTINGS SHALL RECEIVE RODENT PROTECTION PER MNDOT 2571.31.2
- 17. PLANTING SOIL FOR TREES, SHRUBS AND GROUND COVERS: FERTILE FRIABLE LOAM CONTAINING A LIBERAL AMOUNT (4% MIN.) OF HUMUS AND CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL COMPLY WITH MNDOT SPECIFICATION 3877 TYPE B SELECT TOPSOIL. MIXTURE SHALL BE FREE FROM HARDPACK SUBSOIL, STONES, CHEMICALS, NOXIOUS WEEDS, ETC. SOIL MIXTURE SHALL HAVE A PH BETWEEN 6.1 AND 7.5 AND 10-0-10 FERTILIZER AT THE RATE OF 3 POUNDS PER CUBIC YARD. IN PLANTING BEDS INCORPORATE THIS MIXTURE THROUGHOUT THE ENTIRE BED IN A 6" LAYER AND ROTO-TILLING IT INTO THE TOP 12" OF SOIL AT A 1:1 RATIO.ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HEELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED.
- 18. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT EACH EXCAVATED TREE AND SHRUB PIT WILL PERCOLATE PRIOR TO INSTALLING PLANTING MEDIUM AND PLANTS. THE CONTRACTOR SHALL FILL THE BOTTOM OF SELECTED HOLES WITH SIX INCHES OF WATER AND CONFIRM THAT THIS WATER WILL PERCOLATE WITHIN A 24-HOUR PERIOD. IF THE SOIL AT A GIVEN AREA DOES NOT DRAIN PROPERLY, A PVC DRAIN OR GRAVEL SUMP SHALL BE INSTALLED OR THE PLANTING SHALL BE RELOCATED IF DIRECTED BY THE LANDSCAPE ARCHITECT.
- 19. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO PLANNED DELIVERY. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF BEGINNING PLANT INSTALLATION.

20. SEASONS/TIME OF PLANTING AND SEEDING: NOTE: THE CONTRACTOR MAY ELECT TO PLANT IN

OFF-SEASONS ENTIRELY AT HIS/HER RISK. 20.1. POTTED PLANTS:

DECIDUOUS /B&B 20.2. 4/1 - 6/1; 9/21 - 11/1 20.3. **EVERGREEN POTTED PLANTS:** 20.4. EVERGREEN B&B:

TURE/LAWN SEEDING: 20.5 20.6. NATIVE MIX SEEDING

PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, MULCHING, A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES. HOWEVER, THE CONTRACTOR SHALL CONTINUE TO BE RESPONSIBLE FOR KEEPING THE TREES PLUMB THROUGHOUT THE GUARANTEE PERIOD.

22. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL LANDSCAPE LEGEND SPECIFICATIONS.

THOROUGHLY WATER ALL PLANTS ONCE A WEEK. IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.

### SEED NOTES:

TURF ESTABLISHMENT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROVISIONS OF THE MN/DOT 2105 AND 2575 EXCEPT AS MODIFIED BELOW:

1. ALL DISTURBED AREAS TO RECEIVE NATIVE SEED, ARE TO RECEIVE PLANTING SOIL, SEED, MULCH, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. FOR SLOPES STEEPER THAN 3:1 OR IN DRAINAGE SWALES INSTALL EROSION CONTROL BLANKET.

### **GENERAL TREE SPECIFICATIONS:**

1. ALL STREET AND PARKING LOT TREES SHALL BE LIMBED UP TO THE FOLLOWING HEIGHTS:

1.1. 2" CAL. TREES: LOWEST BRANCH 6' HT.

1.2. 3" CAL.+ TREES: LOWEST BRANCH 7' HT. 2. TREE CANOPY WIDTH SHALL BE RELATIVE TO HEIGHT/CALIPER OF TREE AND TYPE OF TREE.

- 2.1. 1" CALIPER/6-8' HT: 3-4' WIDTH MIN.
- 2" CALIPER/12-14' HT: 4-5' WIDTH MIN. 2.3. 3" CALIPER/14-16' HT: 6-7' WIDTH MIN.
- 3. CANOPY TREES SHALL NOT HAVE CO-DOMINATE LEADERS IN LOWER HALF OF TREE CROWN. ALL TREES SHALL HAVE SYMMETRICAL OR BALANCED BRANCHING ON ALL SIDES OF THE TREE.
- TREES SHALL NOT BE TIPPED PRUNED. TREES SHALL BE FREE OF PHYSICAL DAMAGE FROM SHIPPING AND HANDLING. DAMAGED TREES
- SHALL BE REJECTED.
- SUMMER DUG TREES SHALL HAVE ROOTBALL SIZE INCREASED BY 20%

. TREES WHICH EXCEED RECOMMENDED CALIPER TO HEIGHT RELATIONSHIP SHALL BE REJECTED.

4/1 - 6/1; 9/21 - 11/1

4/1 - 6/1; 9/21-11/1 4/1 - 5/1; 9/21 - 11/1

4/1 - 6/1; 7/20 - 9/20 4/15 - 7/20; 9/20-10/20

21. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN

23. HAND WATERING DURING ESTABLISHMENT: MAINTAIN A WATERING SCHEDULE WHICH WILL

# ST PAUL, **MINNESOTA**

SCALE

IN

2495 KASOTA AVENUI

# Certification

I hereby certify that this survey, plan 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.

12800 Whitewater Drive, Suite 300

Engineering | Surveying | Planning | Environmental

**VENTURE PASS** 

**PARTNERS** 

Client

**Project** 

**ROHN** 

**INDUSTRIES** 

**TRAILER** 

**STORAGE** 

Location

Minnetonka, MN 55343 763.476.6010 telephone 763.476.8532 facsimile

William Stalancy

William Delaney

Registration No. 40252 Date: 08/09/2019 This certification is not valid unless wet signed in blue ink. If applicable, contact us for a wet signed copy of this survey which is available upon request at

### Summary

Sambatek, Minnetonka, MN office.

Designed: CMA Drawn: MLL Approved: CMA Book / Page: Phase: PRELIM Initial Issue: 08/09/2019

# **Revision History**

No. Date By Submittal / Revision

08/09/2019 MLL SITE PLAN REVIEW 10/01/2019 MLL CITY COMMENT RESPONSE 10/17/2019 MLL CITY STORMWATER COMMENT RESPONS

# **Sheet Title LANDSCAPE DETAILS-NOTES**

**Sheet No. Revision** 

Project No.

Oct 17, 2019 - 3:50pm - User:mlarson L:\PROJECTS\21625\CAD\Civil\Sheets\21625-L1-LSCP.dwg