

CITY OF BAXTER
COUNTY OF CROW WING
STATE OF MINNESOTA

**STORMWATER FACILITIES MAINTENANCE AGREEMENT
WITH ACCESS RIGHTS AND COVENANTS**

This STORMWATER FACILITIES MAINTENANCE AGREEMENT, made and entered into this ____ day of _____, 2026, is entered into by and between Skillings Properties, LLC, 2257 Cottage Wood Drive SW, Nisswa, MN 56468, a Minnesota limited liability company (the “Owner”) and the City of Baxter, a municipal corporation under the laws of Minnesota, 13190 Memorywood Drive, Baxter, MN 56425 (the “City”) for the benefit of the City, the Owner, the successors in interest to the City or the Owner, and the public generally.

WITNESSETH

WHEREAS, the Owner is the owner of property located in the City of Baxter, Crow Wing County, Minnesota, legally described in **Attachment A**, attached hereto and incorporated herein (the “Property”); and

WHEREAS, the Owner is constructing a commercial building with surface parking on the Property, and has submitted plans, a copy of which is attached hereto as **Attachment B** and incorporated herein (the “Plans”), as approved or to be approved by the City, which provides for structures connecting to the regional stormwater system on the Property (the “Facilities”); and

WHEREAS, as a condition of its approval of the Plans, the City has required the Owner to enter into this Agreement, which governs the maintenance of the Facilities on the Property, subject to the conditions in **Attachment C**.

NOW, THEREFORE, in consideration of the foregoing premises, and for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

- (1) For purposes of this Agreement, the Owner shall perform the following operational maintenance activities on the Facilities on a regular basis or as needed:
 - a) Sweeping of sediment from parking lot,
 - b) Removal of trash and debris,
 - c) Inspection of inlets and outlets,
 - d) Removal of sediments when the storage volume or conveyance capacity of the stormwater management system is below design levels,
 - e) Ensure systems designed for infiltration are drawing down within 48 hours, and
 - f) Stabilization and restoration of eroded areas.
- (2) The Owner shall perform the following specific operational maintenance activities as required by the City, depending on the type of permitted system that is part of the Facilities, in addition to the practices listed in Section (1), above.

- a) Retention, swale and underdrain systems shall include provisions for:
 - 1. Mowing and removal of grass clippings, and
 - 2. Aeration, tilling, or replacement of topsoil as needed to restore the percolation capability of the system. If tilling or replacement of the topsoil is utilized, vegetation must be established on the disturbed surfaces.
 - b) Exfiltration systems shall include provisions for removal of sediment and debris from pretreatment or sediment collection systems.
 - c) Wet detention systems shall include provisions for operational maintenance of the littoral zone. Replanting shall be required if the percentage of vegetative cover falls below the permitted level. It is recommended that native vegetation be maintained in the littoral zone as part of the system's operation and maintenance plan. Undesirable species such as cattail and exotic plants should be controlled if they become a nuisance.
 - d) Dry detention systems shall include provisions for mowing and removal of grass clippings.
- (3) The Owner shall be solely responsible for maintenance of the Facilities and shall bear all costs of maintenance costs. The Owner shall complete an annual report, certified by a qualified individual. The report shall include written documentation of an inspection schedule, dates of inspection, maintenance activities, and certification that the Facilities are functioning. The Owner shall make records of the installation and of all maintenance and repairs, and shall retain records for at least ten years. These records shall be made available during inspection of the Facilities and at other reasonable times upon request by the City Engineer or designee. If the Facilities are not functioning as designed and permitted, operational maintenance must be performed promptly to restore the system. If operational maintenance measures are insufficient to enable the system to meet the design and performance standards, the Owner must either replace the system or construct an alternative design on the existing system.
- (4) Upon the City's inspection and in the event the Owner fails to maintain the Facilities in good working condition acceptable to the City, and such failure continues for 30 days after notice and demand for cure, the City may undertake without a public hearing, to enter upon the Property and take such reasonable steps as are necessary to correct deficiencies identified in the inspection report and authorize the City to assess the final cost of the corrections against the Property pursuant to Minn. Stat. Chapter 444 or Minn. Stat. Chapter 429, if no payment is received from Owner within 30 days after the City submits an invoice for payment. The Owner waives any appeal rights otherwise available pursuant to Minnesota Statute section 429.081 and acknowledges that the benefit from the performance of the work by the City as outlined in this section equals or exceeds the amount of the charges and assessments. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Owner outside of the easement for the stormwater management facilities. It is expressly understood and agreed that the City is under no obligation to routinely maintain or repair the Facilities, and in no event shall this Agreement be construed to impose any such obligation on the City. During any period of entry by the City on the Property, the City and its agents shall access the Facilities in a manner that does not unreasonably interfere with the use of the Owner's Property by the Owner or its tenants.
- (5) The Owner grants the City or its agents or contractor the right of entry at reasonable times and in a reasonable manner for the purpose of inspecting, operating, installing, constructing, reconstructing, maintaining, or repairing the Facilities. The Owner grants to the City the

necessary easements and right-of-way and maintain perpetual access from public rights-of-way to the Facilities for the City or its agent or contractor. The Owner agrees to grant and execute such other easements defining the Facilities as may be required by the City.

- (6) This Agreement shall inure to the benefit of and shall be binding upon the Owner and the City and their respective successors, agents and assignees, and shall be binding upon all future owners of all or any part of the Property for so long as the City deems the system remains required and operating at the Property. In the event the system is no longer needed for operation of the Property as determined by the City, the parties may terminate this Agreement in a writing recorded at the office of the County Recorder. However, nothing in this Agreement, expressed or implied, shall give to any other person or entity any benefit or legal or equitable right, remedy or claim under this Agreement. This Agreement, at the option of the City, may be placed on record with the Crow Wing County Recorder so as to give notice hereof to subsequent purchases and encumbrances.
- (7) The Owner, its heirs, administrators, executors, assigns and any other successor interest shall indemnify and hold harmless the City and its officers, agents and employees for any and all damages, accidents, casualties, occurrences, claims or attorney's fees which might arise or be asserted, in whole or in part, against the City from the construction, presence, existence, or maintenance of the Facilities subject to this Agreement. In the event a claim is asserted against the City, its officers, agents or employees, the City shall notify the Owner and the Owner shall defend at the Owner's expense any suit based on such claim. If any judgment or claim against the City, its officers, agents or employees, shall be allowed the Owner shall pay all costs and expenses in connection therewith. The City will not indemnify, defend or hold harmless in any fashion the Owner from any claims arising from this Agreement, regardless of any language in any attachment or other document that the Owner may provide.
- (8) No waiver of any provision of this Agreement shall affect the right of any party thereafter to enforce such provisions or to exercise any right or remedy available.
- (9) This Agreement supersedes any prior or contemporaneous representations or agreements, where written or oral, because the parties and constitutes the entire agreement. Any modification of this Agreement shall require a written agreement signed by the parties.

IN WITNESS THEREOF, the parties hereto acting through their duly authorized agents have caused this Agreement to be signed, sealed and delivered:

[SIGNATURES APPEAR ON PAGES 4 AND 5]

OWNER:
Skillings Properties, LLC, a Minnesota limited liability company

By: _____
Justin Skillings
Its:

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

On this _____ day of _____, 2026, before me a Notary Public within and for said County, personally appeared Justin Skillings, to me personally known, who being by me duly sworn, did say that he is the _____ of Skillings Properties LLC, a Minnesota limited liability company, on behalf of the entity.

Notary Public

CITY:
CITY OF BAXTER, MINNESOTA

By: _____
Darrel L. Olson
Its Mayor

Attest: _____
Kelly Steele
Its Assistant City Administrator/City Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF CROW WING)

The foregoing instrument was acknowledged before me this __ day of _____, 2026, by Darrel L. Olson and Kelly Steele, the Mayor and Assistant City Administrator/City Clerk of the City of Baxter, a municipal corporation under the laws of Minnesota, on behalf of the corporation.

Notary Public
My commission expires: _____

AFTER RECORDING, RETURN TO:
Greta Bjerkness (#0390575)
Kennedy & Graven, Chartered (GLB)
150 South Fifth Street, Suite 700
Minneapolis, MN 55402
(612) 337-9300

ATTACHMENT A
THE PROPERTY

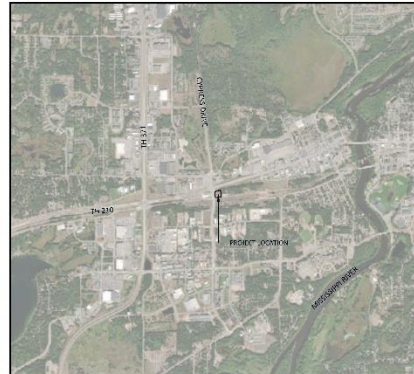
THAT PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER (NW1/4 NE1/4), SECTION 8, TOWNSHIP 133 NORTH, RANGE 28 WEST, CROW WING COUNTY, MINNESOTA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 8; THENCE NORTH 00 DEGREES 07 MINUTES 55 SECONDS EAST, BEARINGS ARE BASED ON THE CITY OF BAXTER COORDINATE SYSTEM, ALONG THE WEST LINE OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER A DISTANCE OF 346.48 FEET TO THE INTERSECTION WITH THE NORTHERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN SANTE FE RAILWAY COMPANY; THENCE NORTH 82 DEGREES 26 MINUTES 17 SECONDS EAST, ALONG SAID NORTHERLY RIGHT-OF-WAY LINE A DISTANCE OF 1482.58 FEET TO RIGHT OF WAY BOUNDARY CORNER B171 AS SHOWN ON CITY OF BAXTER RIGHT OF WAY PLAT NO. 11, AS OF RECORD IN THE OFFICE OF THE COUNTY RECORDER, THE POINT OF BEGINNING OF THE TRACT TO BE DESCRIBED; THENCE CONTINUING NORTH 82 DEGREES 26 MINUTES 17 SECONDS EAST, ALONG SAID NORTHERLY RIGHT-OF-WAY LINE A DISTANCE OF 228.22 FEET; THENCE NORTH 07 DEGREES 33 MINUTES 43 SECONDS WEST A DISTANCE OF 274.00 FEET TO THE INTERSECTION WITH THE SOUTHERLY RIGHT OF WAY LINE OF MINNESOTA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY PLAT NO. 18-93, AS OF RECORD IN THE OFFICE OF THE COUNTY RECORDER; THENCE SOUTH 72 DEGREES 53 MINUTES 44 SECONDS WEST, ALONG SAID SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 152.74 FEET TO RIGHT OF WAY BOUNDARY CORNER B115 AS SHOWN ON SAID CITY OF BAXTER RIGHT OF WAY PLAT NO. 11; THENCE 137.91 FEET SOUTHWESTERLY ALONG A NONTANGENTIAL CURVE CONCAVE TO THE SOUTHEAST, ALONG THE EASTERLY RIGHT OF WAY LINE OF SAID CITY OF BAXTER RIGHT OF WAY PLAT NO. 11, SAID CURVE HAVING A RADIUS OF 95.60 FEET, A CENTRAL ANGLE OF 82 DEGREES 39 MINUTES 11 SECONDS AND A CHORD THAT BEARS SOUTH 31 DEGREES 34 MINUTES 00 SECONDS WEST; THENCE SOUTH 09 DEGREES 45 MINUTES 35 SECONDS EAST, ALONG SAID EASTERLY RIGHT OF WAY LINE, TANGENT TO THE LAST DESCRIBED CURVE, A DISTANCE OF 19.74 FEET; THENCE 120.00 FEET SOUTHERLY ALONG A NONTANGENTIAL CURVE, CONCAVE TO THE WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, SAID CURVE HAVING A RADIUS OF 1959.00 FEET, A CENTRAL ANGLE OF 03 DEGREES 30 MINUTES 35 SECONDS AND A CHORD THAT BEARS SOUTH 08 DEGREES 00 MINUTES 17 SECONDS EAST; THENCE SOUTH 09 DEGREES 40 MINUTES 42 SECONDS EAST, ALONG SAID EASTERLY RIGHT OF WAY LINE A DISTANCE OF 11.04 FEET TO THE POINT OF BEGINNING.

PID: 40080799

ATTACHMENT B THE PLANS

JACS E BIKES PRELIMINARY PLANS JUSTIN SKILLINGS BAXTER, MINNESOTA



LOCATION MAP

NOT TO SCALE

GENERAL NOTES

1. WORK TO BE COMPLETED IN ACCORDANCE WITH MINNESOTA STANDARD SPECIFICATIONS FOR CONSTRUCTION (CURRENT EDITION) AND THE CITY OF BAXTER STANDARD SPECIFICATIONS AND STANDARD PLANS.
2. THE UNDERSIDE OF ALL UTILITIES SHALL BE FINISHED TO THE FINISHED GRADE OF THE UTILITIES. THE FINISHED GRADE OF THE UTILITIES SHALL BE DETERMINED BY THE CITY OF BAXTER.
3. TOPOGRAPHIC SURVEY SHALL BE CONDUCTED BY THE CITY OF BAXTER.
4. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF BAXTER.
5. CONTRACTOR TO CONTACT OWNER FOR ANY UTILITY LOCATES IF NEEDED.
6. ALL ROADWAYS SHALL BE FINISHED TO THE FINISHED GRADE OF THE ROADWAYS.

GRADING NOTES

1. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO BEGINNING DEMOLITION OR GRADING OPERATIONS.
2. ALL SPOT ELEVATIONS ARE TO BE USED FOR FINISHING, CONCRETE, GRADE, ETC. ETC. ELEVATIONS ON CURBS ARE ARE TO FINISH LINE UNLESS NOTED.
3. EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN THE PROJECT GRADING LIMITS AND STOPPIED ON SITE. GRADING OPERATIONS SHALL BE LIMITED TO THE AREAS SHOWN ON THE PLANS. STABILIZE STOCKPILES PER THE SWPPP.
4. IF UNDER 1000 LBS SHALL BE USED ON SITE. IF OVER 1000 LBS SHALL BE USED ON SITE. STABILIZE STOCKPILES PER THE OWNER.
5. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES WITHIN THE PROJECT GRADING LIMITS.
6. NOTIFY THE OWNER OF ANY EROSION CONTROL DEVICES.

UTILITY NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY PERMITS FOR DEMOLITION OPERATIONS (IF NECESSARY).
2. PROVIDE 12 INCHES OF HORIZONTAL SEPARATION AND 18 INCHES OF VERTICAL SEPARATION BETWEEN WATER AND SANITARY SEWER.
3. WATER AND SANITARY SEWER SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY (MNDOL) REQUIREMENTS.
4. INSTALL WATER MAIN SERVICE AT MINIMUM DEPTH OF 6 FEET.
5. CONTRACTOR SHALL CONDUCT COORDINATE WATER AND SANITARY SEWER SERVICE CONNECTIONS WITH THE CITY OF BAXTER FOR INSPECTIONS.
6. INSTALL SANITARY SEWER SERVICE LINES WITH MINIMUM 2 INCH GRADE.

EROSION CONTROL NOTES

1. REMOVE ALL EXISTING EROSION CONTROL DEVICES USING THE FOLLOWING MINIMUM PAYMENTS:
 - A) TEMPORARY SEEDING (AS NEEDED) - \$275 PER ACRE WITH FERTILIZER TYPE 1 (COMMERCIAL) ANALYSIS \$12-10-20 AT 100 LBS/AC
 - B) FINAL SEEDING - \$275 PER ACRE WITH FERTILIZER TYPE 1 (COMMERCIAL) ANALYSIS \$12-10-20 AT 100 LBS/AC
2. SEE SWPPP ON SITE FOR ADDITIONAL NOTES FOR STORMWATER MANAGEMENT & EROSION CONTROL.

GOPHER STATE ONE CALL

811 (811) 454-0002 (800) 252-2119
gopherstateonecall.org

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING Gopher State One Call for UTILITY LOCATES.

THE CONTRACTOR SHALL CONTACT Gopher State One Call IN ADVANCE OF ANY GRADING OR EXCAVATION AS REQUIRED BY STATE STATUTE. THE CONTRACTOR, AT NO COST TO THE OWNER, SHALL BE RESPONSIBLE FOR ANY REQUIRED UTILITY REPAIRS RESULTING FROM THE WORK.

SHEET INDEX

C0	TITLE SHEET
C1	SITE PLAN
C2	GRADING PLAN
C3	UTILITY PLAN
C4	EROSION & SEDIMENT CONTROL PLAN
C5	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
C6	PLANTING PLAN
C7	MISCELLANEOUS DETAILS
MNDOT STANDARD PLANS - TEMPORARY EROSION CONTROL	
2 of 8	FILTER BERMS, SEDIMENT CONTROL LOGS & BALE BARRIERS
3 of 8	DITCH CHECKS
4 of 8	STORM DRAIN INLET PROTECTION
5 of 8	STABILIZED CONSTRUCTION EXIT
6 of 8	SILT FENCE
8 OF 8	CULVERT END CONTROLS
MNDOT STANDARD PLANS - PERMANENT EROSION CONTROL	
1 of 3	ALONG DITCHES, ROADWAYS & FLUMES
2 of 3	TURF ESTABLISHMENT DETAIL AT CULVERT ENDS
3 of 3	BLANKET STAPLE PATTERN FOR SLOPES

PROJECT CONTACTS

OWNER

SKILLINGS PROPERTIES, LLC
JUSTIN SKILLINGS
2257 COTTAGE WOOD DRIVE SW
MISSOULA, MN 56468
justinskilling@gmail.com

ENGINEER

CHRISTOPHER L. SONMOR, PE
SONMOR CONSULTING, LLC
967 CUII, MINNEAPOLIS, MN
FAST CUII, IAKF, MN 56401
chr19@sonmorconsulting.com
(952) 270-8394 (M)

SONMOR
CONSULTING

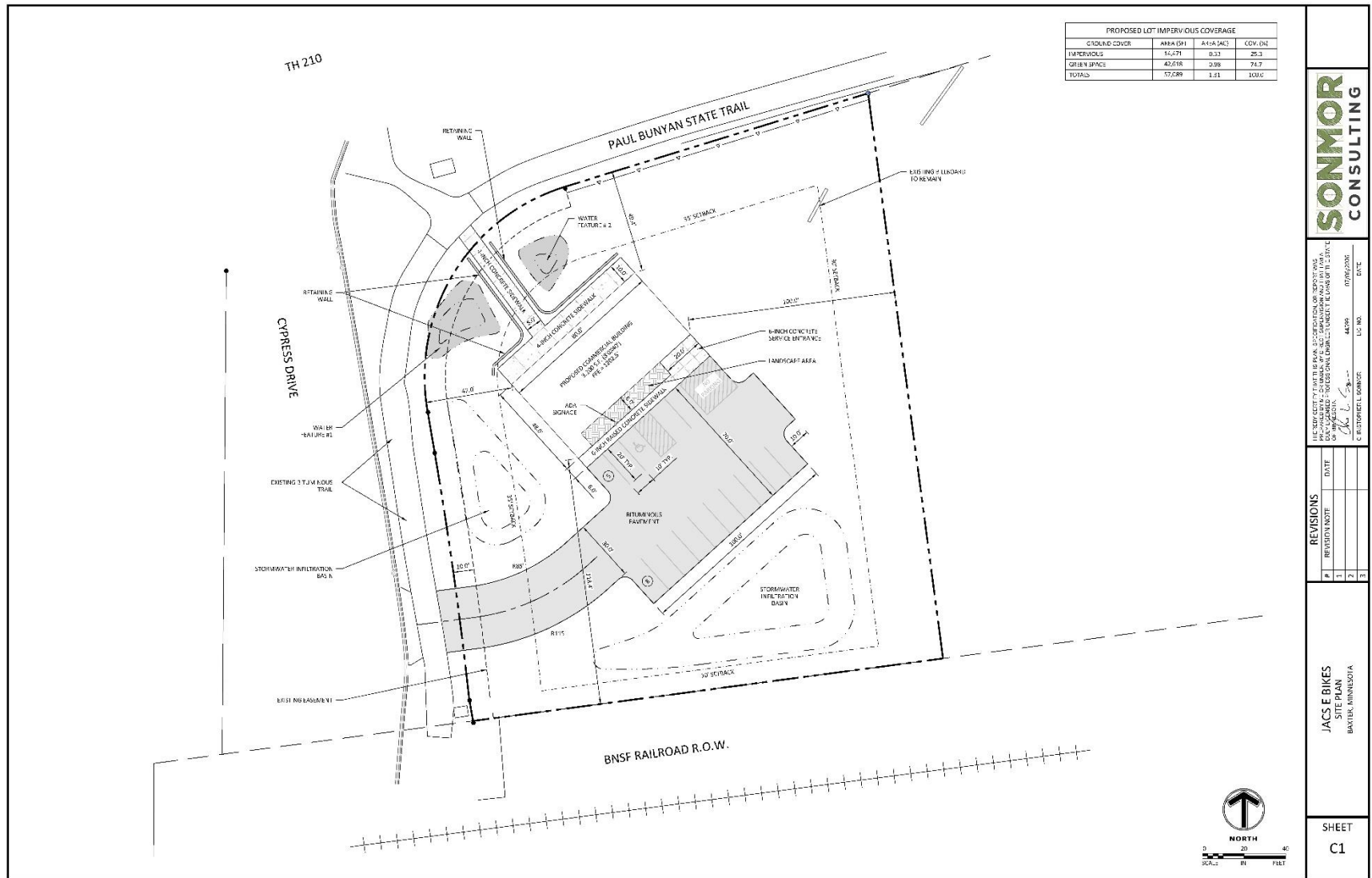
IF PREPARED BY AN ENGINEER, THE ENGINEER'S NAME AND LICENSE NUMBER SHALL BE PLACED ON THE TITLE SHEET OF ANY SET OF PLANS. THE ENGINEER'S NAME AND LICENSE NUMBER SHALL BE PLACED ON THE TITLE SHEET OF ANY SET OF PLANS. THE ENGINEER'S NAME AND LICENSE NUMBER SHALL BE PLACED ON THE TITLE SHEET OF ANY SET OF PLANS.

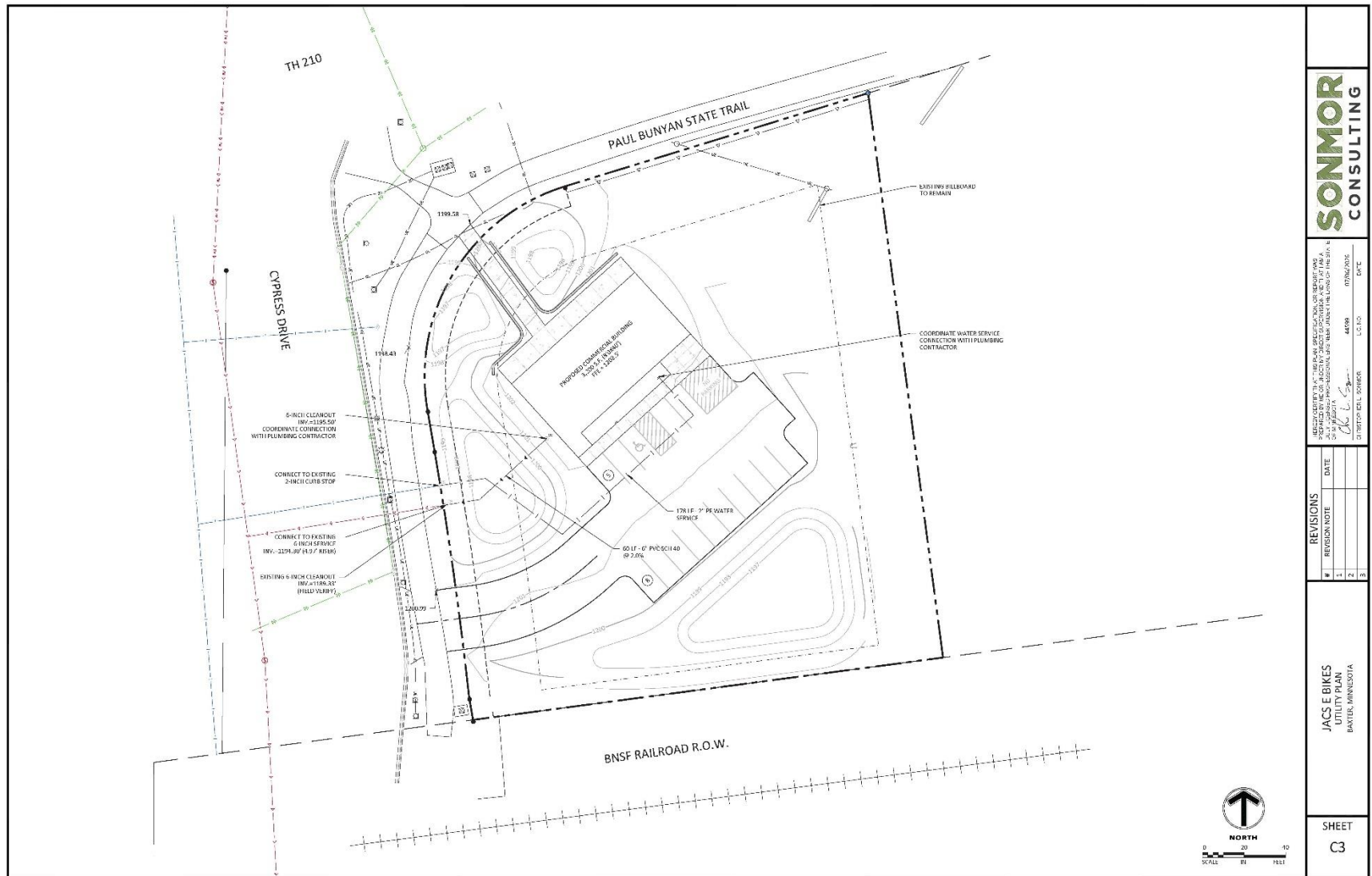
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JACS E BIKES
TITLE SHEET
BAXTER, MINNESOTA

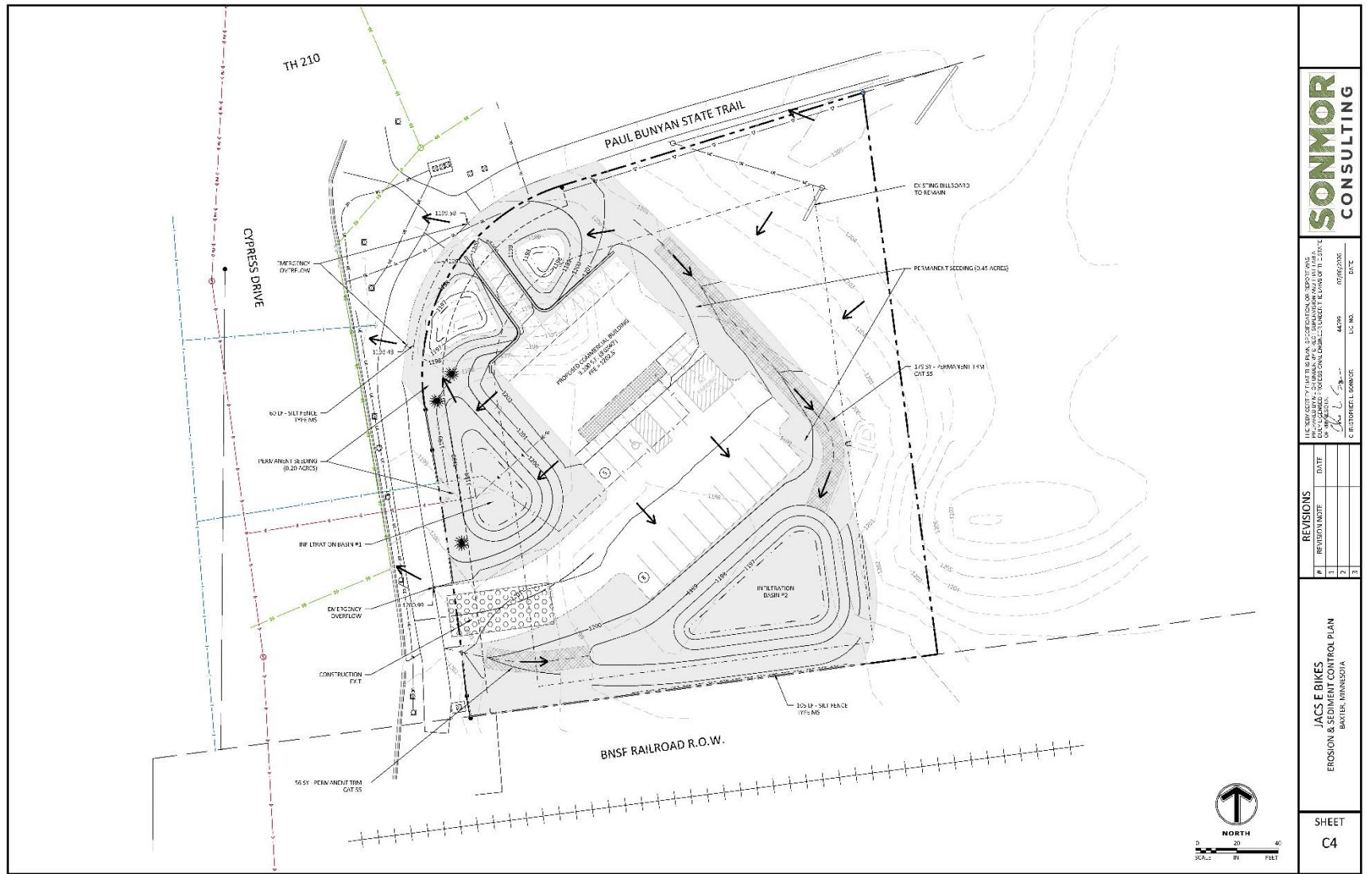
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PRELIMINARY PLANS FOR PERMIT SUBMITTAL ONLY - NOT FOR CONSTRUCTION





PRELIMINARY PLANS FOR PERMIT SUBMITTAL ONLY - NOT FOR CONSTRUCTION



PRELIMINARY PLANS FOR PERMIT SUBMITTAL ONLY - NOT FOR CONSTRUCTION

1. GENERAL INFORMATION

A. PROJECT DESCRIPTION & LOCATION

- A.1. THE PROJECT IS LOCATED IN BAXTER, MINNESOTA ON CROW WING COUNTY PID 40080799. THE PROPERTY LIES IN THE SOUTHEAST QUAD OF THE INTERSECTION OF CYPRESS DRIVE & TH 210.
- A.2. THE PROJECT INCLUDES THE CONSTRUCTION OF A COMMERCIAL BUILDING, BITUMINOUS PARKING LOT & DRIVEWAY, CONCRETE WALKS & STORMWATER FACILITIES.
- A.3. CONSTRUCTION WILL BEGIN IN THE SUMMER/FALL OF 2026.
- A.4. FINAL RESTORATION IS TO BE COMPLETED BY THE SUMMER OF 2027.

B. PERMITTEE & CO-PERMITTEE

THE CONTRACTOR SHALL BE THE CO-PERMITTEE WITH THE OWNER ON THE NPDES CONSTRUCTION STORMWATER PERMIT APPLICATION.

OWNER
SKILLINGS PROPERTIES
JUSTIN SKILLINGS
2257 COTTAGE WOODS DRIVE SW
NISSWA, MINNESOTA 56468
justinskilling@gmail.com

CONTRACTOR
TO BE DETERMINED

C. SWPPP CERTIFICATIONS

SWPPP DESIGNER
CHRISTOPHER L. SONMOR
SONMOR CONSULTING, LLC
CERTIFICATION EXPIRES: 2027

SWPPP INSTALLER/SITE MANAGER
TO BE DETERMINED

D. IMPERVIOUS AREA CALCULATIONS

TOTAL DISTURBED AREA:	1.3-ACRES
EXISTING IMPERVIOUS AREA:	0.0-ACRES
PROPOSED IMPERVIOUS AREA:	0.4-ACRES
TOTAL CHANGE IN IMPERVIOUS AREA:	1.0-ACRES

2. RECEIVING WATERS

THE PROJECT IS DESIGNED TO COLLECT AND INFILTRATE THE 100-YEAR, 24-HOUR STORM EVENT ON SITE (100% VOLUME REDUCTION). IN THE EVENT OF A LARGER STORM EVENT, THE SITE WILL OVERFLOW TO THE CYPRESS DRIVE/TH 210 RIGHT-OF-WAY.

3. PROJECT PLANS & SPECIFICATIONS

- A. THE JACS E BIKES PRELIMINARY PLANS & DRAINAGE REPORT TOGETHER WITH THIS DOCUMENT MAKE UP THE COMPLETE SWPPP.
- B. EROSION & SEDIMENT CONTROL PLANS & DETAILS ARE INCLUDED IN THE CONSTRUCTION PLANS.
- C. REFER TO THE DRAINAGE REPORT FOR ALL PERMANENT STORMWATER BMP MODEL RESULTS AND CALCULATIONS.

4. EROSION PREVENTION & SEDIMENT CONTROL PRACTICES

- A. PRIOR TO BEGINNING GRADING OPERATIONS, THE CONTRACTOR SHALL INSTALL ALL TEMPORARY EROSION & SEDIMENT CONTROL DEVICES AS INDICATED IN THE CONSTRUCTION PLANS.
- B. ALL DISTURBED SOILS NOT ACTIVELY WORKED FOR A PERIOD OF 7 DAYS SHALL BE STABILIZED. STABILIZATION INCLUDES, BUT IS NOT LIMITED TO TEMPORARY SEED/MULCH, HYDRAULIC MULCH & EROSION CONTROL BLANKET.
- C. CONTRACTOR SHALL MINIMIZE CONSTRUCTION ACTIVITY IN AREAS PROPOSED FOR INFILTRATION.
- D. GRADING OPERATIONS SHALL BE PHASED AND SEQUENCED TO MINIMIZE DISTURBED AREA AND DURATION OF EXPOSED SOILS.
- E. WHEN POSSIBLE, ROUTE STORMWATER RUNOFF THROUGH VEGETATED AREAS.
- F. USE PERIMETER SILT FENCE AROUND TOPSOIL STOCKPILES. TEMPORARY SEED OR STABILIZE STOCKPILES.
- G. DISCHARGE OF TURBID OR SEDIMENT-LADEN WATERS (IF APPLICABLE) FROM DEWATERING OPERATIONS SHALL BE ROUTED THROUGH A SEDIMENT CONTROL DEVICE (SEDIMENT TRAP, BASIN OR FILTER BAG) OR A TEMPORARY SEDIMENTATION BASIN PRIOR TO DISCHARGE TO A SURFACE WATER. WHEN POSSIBLE, USE A WELL-VEGETATED AREA TO INFILTRATE AND TREAT WATER PRIOR TO DISCHARGE.
- H. IF NUISANCE CONDITIONS RESULT FROM THE THE DISCHARGE, THE PERMITTEE SHALL CEASE DEWATERING OPERATIONS IMMEDIATELY AND CORRECTIVE ACTION MUST OCCUR BEFORE DEWATERING IS RESUMED.
- I. ANY DEWATERING DISCHARGE THAT CONTAINS OIL OR GREASE SHALL BE ROUTED THROUGH A OIL-WATER SEPARATOR OR FILTRATION DEVICE.
- J. DISCHARGE FROM DEWATERING OPERATIONS MUST BE PERFORMED IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOURING AT THE DISCHARGE POINT.

K. ANTICIPATED EROSION & SEDIMENT CONTROL DEVICES & INSTALLATION SEQUENCING IS AS FOLLOWS:

- K.1. CONSTRUCTION EXIT (LS) - PRIOR TO BEGINNING GRADING OPERATIONS
- K.2. SILT FENCE (LF) - PRIOR TO BEGINNING GRADING OPERATIONS
- K.3. TEMPORARY SEEDING (AC) - AS NEEDED DURING GRADING OPERATIONS
- K.4. EROSION CONTROL BLANKET (SY) - INSTALL AT TIME OF FINAL TURF ESTABLISHMENT
- K.5. BIOROLL (EA) - INSTALL IN DITCHES AT TIME OF FINAL TURF ESTABLISHMENT
- K.6. PERMANENT SEEDING (AC) - FINAL TURF ESTABLISHMENT
- L. IF CONSTRUCTION EXIT IS OBSERVED TO BE FULL OF SEDIMENT OR SEDIMENT IS BEING TRACKED ONTO PUBLIC STREETS, THE CONSTRUCTION EXIT SHALL BE IMMEDIATELY REPLACED OR REPAIRED. THE CONTRACTOR SHALL SWEEP OR REMOVE ANY SEDIMENT TRACKED ONTO PUBLIC ROADWAYS WITHIN 24 HOURS.
- M. WHEN/IF INLET PROTECTION DEVICES BECOME CLOGGED OR ARE FULL TO 1/3 OF THEIR DESIGNED CAPACITY, CLEAN OR REPLACE THE DEVICE WITHIN 24 HOURS OF OBSERVATION OF THE DEVICE BEING CLOGGED.
- N. IF SEDIMENT IS OBSERVED AT PIPE OUTFALLS, THE SEDIMENT SHALL BE REMOVED WITHIN 24 HOURS. THE SOURCE OF THE SEDIMENT SHALL BE IDENTIFIED AND CORRECTED.

5. PERMANENT STORMWATER MANAGEMENT SYSTEM

- A. STORMWATER RUNOFF IS MANAGED ON-SITE UTILIZING ON-SITE STORMWATER BASINS TO COLLECT & INFILTRATE THE 100-YEAR, 24-HOUR STORM EVENT.

6. INSPECTION & MAINTENANCE ACTIVITIES

- A. THE CONTRACTOR SHALL PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR FOR THE PROJECT.
- B. THE EROSION CONTROL SUPERVISOR SHALL BE TRAINED TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND MANAGEMENT OF ALL EROSION PREVENTION & SEDIMENT CONTROL PRACTICES FOR THE DURATION OF THE PROJECT.
- C. THE EROSION CONTROL SUPERVISOR SHALL PERFORM ROUTINE INSPECTIONS EVERY 7 DAYS OR FOLLOWING A RAIN EVENT OF 1/2-INCH OR GREATER IN 24 HOURS.
- D. ALL INSPECTION LOGS SHALL BE KEPT ON SITE WITH THE NPDES PERMIT DOCUMENTATION.

7. POLLUTION PREVENTION MANAGEMENT MEASURES

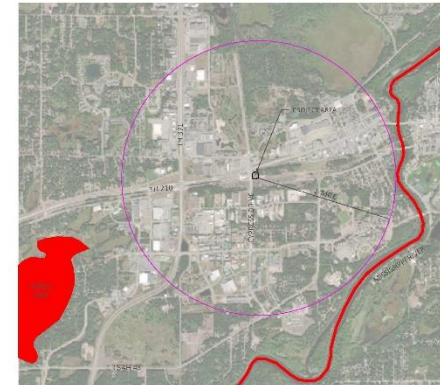
- A. THE CONTRACTOR SHALL HAVE A SPILL CONTAINMENT PLAN IN PLACE IN THE EVENT OF A SPILL.
- B. DISPOSAL BINS SHALL BE AVAILABLE ON SITE FOR COLLECTION OF SOLID WASTE. ALL SOLID WASTE SHALL BE DISPOSED OF IN ACCORDANCE WITH MPCA REQUIREMENTS.
- C. ALL HAZARDOUS MATERIALS INCLUDING BUT NOT LIMITED TO FUEL, GAS & OILS SHALL BE PROPERLY CONTAINED ON SITE TO PREVENT CONTAMINATION OR POLLUTION FROM SPILLS OR LEAKS.
- D. PORTABLE TOILETS SHALL BE PLACED ON SITE AND BE SECURE AND UNABLE TO BE TIPPED. WASTE SHALL BE DISPOSED OF IN ACCORDANCE WITH MPCA REQUIREMENTS.

8. PERMIT TERMINATION CONDITIONS

- A. FINAL STABILIZATION OF THE DISTURBED AREAS IS TO BE COMPLETED BY SEEDING WITH WITH THE SEED MIXTURES AS IDENTIFIED IN THE CONSTRUCTION PLANS.
- B. PRIOR TO THE OWNER TAKING POSSESSION OF THE NEW STORMWATER TREATMENT AND COLLECTION SYSTEMS, ALL FACILITIES SHALL BE CLEANED AND FREE OF SEDIMENT AND DEBRIS.
- C. WHEN FINAL TURF ESTABLISHMENT REACHES 70% COVERAGE, TEMPORARY EROSION & SEDIMENT CONTROL DEVICES CAN BE REMOVED. THOSE MAY INCLUDE, BUT NOT BE LIMITED TO SILT FENCE, BIOROLL, INLET/OUTLET PROTECTION, & CONSTRUCTION EXITS.

9. SPECIAL OR IMPAIRED WATER

- A. THE MISSISSIPPI RIVER IS LOCATED WITHIN 1-MILE OF THE SITE. IT IS IMPAIRED FOR ACQUATIC CONSUMPTION & AQUATIC LIFE.
- B. STORMWATER IS MANAGED ON SITE WITH NO DISCHARGE TO THE MISSISSIPPI RIVER.



IMPAIRED & SPECIAL WATERS MAP

1" = 2,000'

ESTIMATED QUANTITIES

SITE

1. CONSTRUCTION EXIT - 1 LUMP SUM
2. SILT FENCE (SINGLE ROW) - 165 LINEAR FEET
3. PERMANENT TRM CAT 55 - 235 SQ YD
4. PERMANENT SEEDING - 0.55 ACRES
5. TEMPORARY SEEDING - 1.0 ACRES (AS NEEDED)

SONMOR
CONSULTING

THE USER CERTIFIES THAT THE FINAL SPECIFICATION OF REPORT AND DATA HAS BEEN REVIEWED AND APPROVED FOR SUBMITTAL TO THE STATE OF MINNESOTA. THE USER CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. THE USER CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. THE USER CERTIFIES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

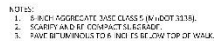
DATE: 08/26/2026
BY: JCS
FOR: JACS E BIKES

REVISIONS	DATE	REVISION NOTE
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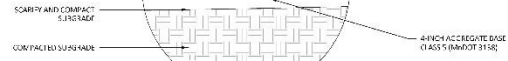
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STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
BAXTER, MINNESOTA

SHEET
C5

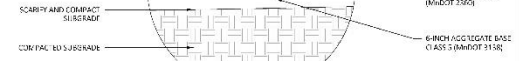
PRELIMINARY PLANS FOR PERMIT SUBMITTAL ONLY - NOT FOR CONSTRUCTION



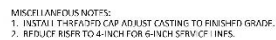
PAVE-01



PAVE-02

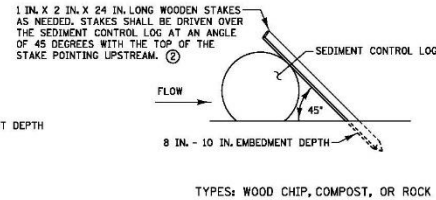
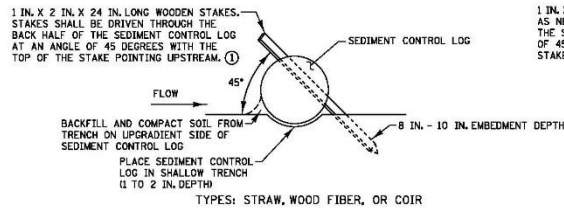


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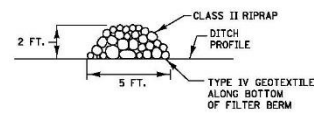
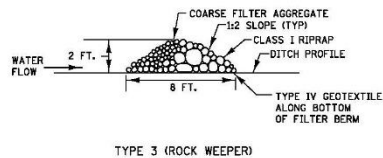


SSWR-01

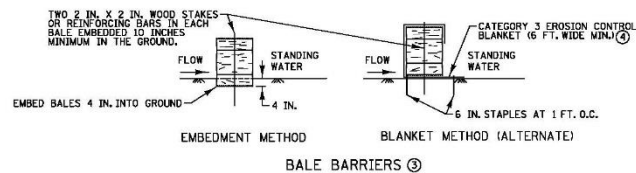
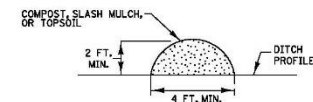
SHEET
C7



SEDIMENT CONTROL LOGS



FILTER BERMS



NOTES:

SEE SPECS. 2573, 3149, 3874, 3882, 3886, & 3897.

- ① SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1 FOOT FOR DITCH CHECKS OR 2 FEET FOR OTHER APPLICATIONS.
- ② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS, STAKES SHALL BE INCIDENTAL.
- ③ TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6 INCH MAX. DEPTH). BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14 IN. X 18 IN. X 36 IN. LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.
- ④ INSTEAD OF TRENCHING, PLACE BALE ON THE BLANKET AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

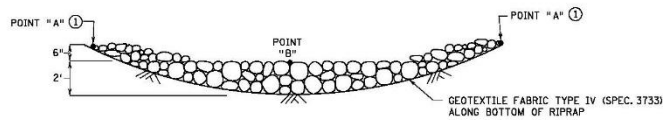
REVISION:
APPROVED: 2-28-2017
CHIEF ENVIRONMENTAL OFFICER



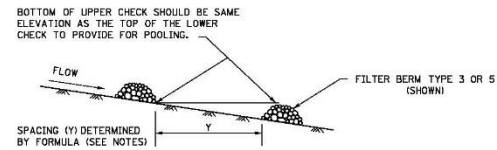
STATE DESIGN ENGINEER

REVISED:
APPROVED: 2-28-2017

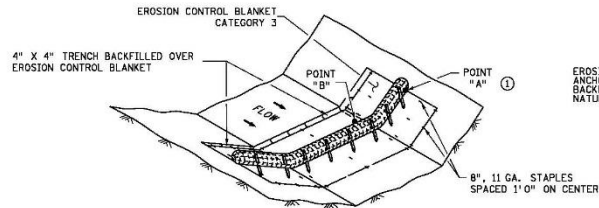
TEMPORARY SEDIMENT CONTROL
FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS
STANDARD PLAN 5-297.405 2 OF 8



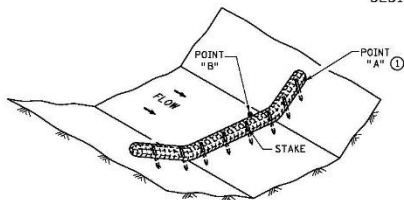
ROCK DITCH CHECKS
FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) ②③
(FOR USE ON ROUGH GRADED AREAS)



DITCH CHECK SPACING
(FOR ALL FILTER BERM TYPES)



SEDIMENT CONTROL LOG TYPE BLANKET SYSTEM ④



SEDIMENT CONTROL LOG TYPE WOOD FIBER, OR TYPE COMPOST ⑤
(FOR USE ON ROUGH GRADED AREAS)

NOTES:

SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.

FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH THE ENDS FACING UPSTREAM.

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

$$\text{APPROXIMATE SPACING OF DITCH CHECKS (FT.)} = Y = \frac{\text{DITCH CHECK HEIGHT (FT.)}}{\% \text{ CHANNEL SLOPE}} \times 100$$

① POINT "A" MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

② PERMANENT ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT, A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

③ DITCH GRADE 3% - 5%, MAX. FLOW VELOCITY 12 FT./SEC..

④ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 4.5 FT./SEC..

⑤ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 1.5 FT./SEC..

REVISION:
APPROVED: 2-28-2017
<i>[Signature]</i>
CHIEF ENVIRONMENTAL OFFICER



[Signature]
STATE DESIGN ENGINEER

REVISED:

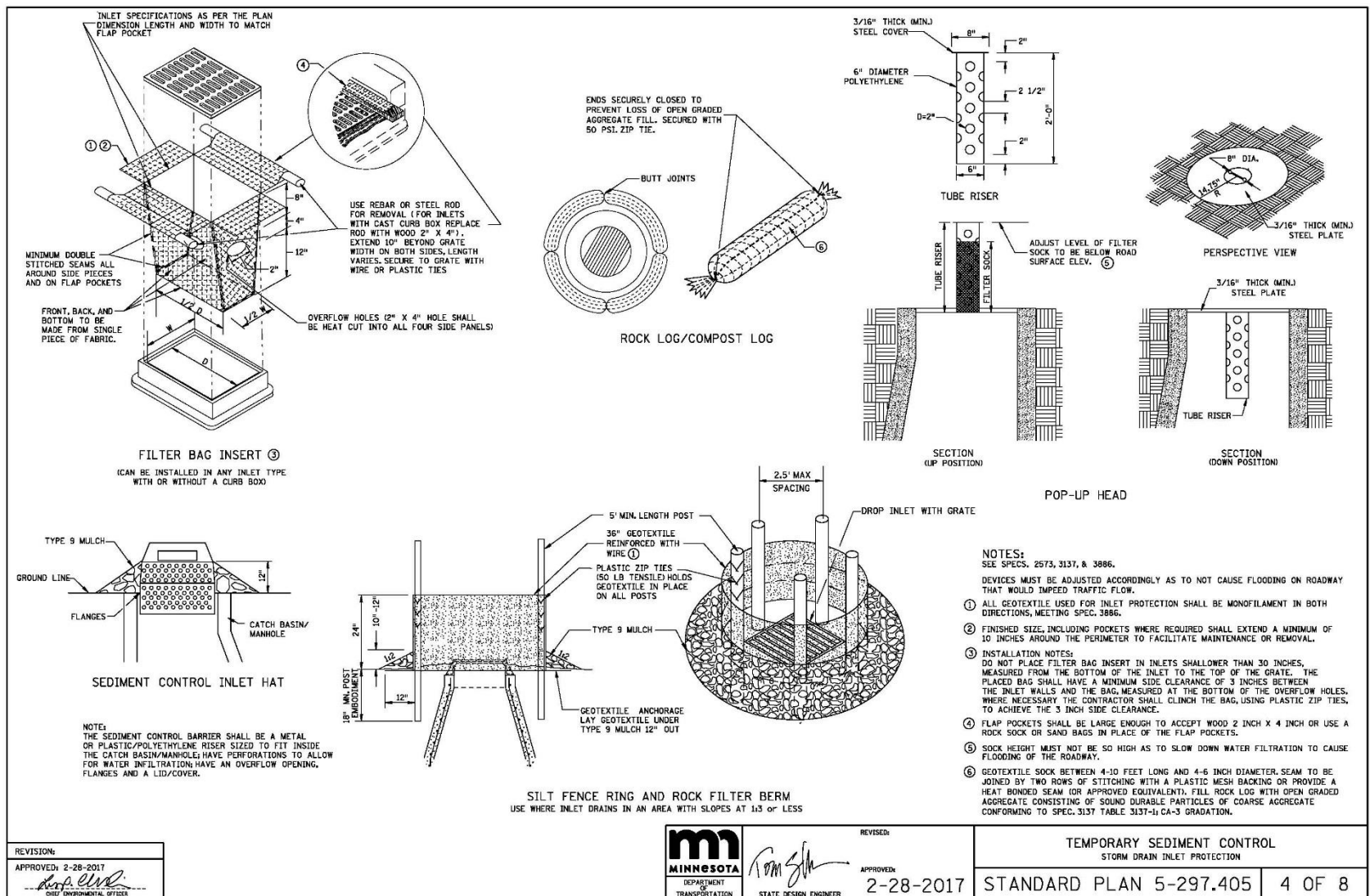
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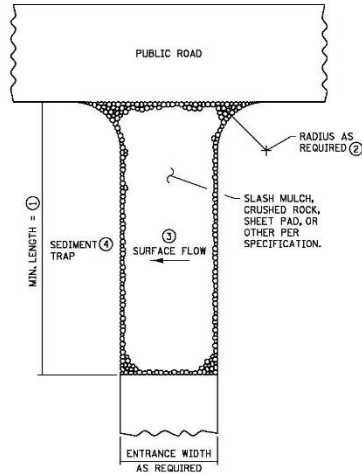
2-28-2017

TEMPORARY SEDIMENT CONTROL
DITCH CHECK

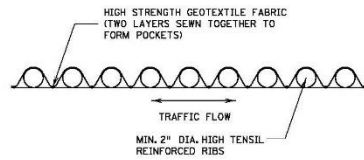
STANDARD PLAN 5-297.405

3 OF 8

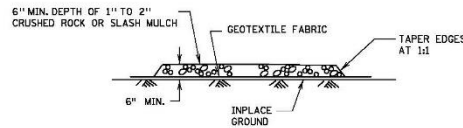




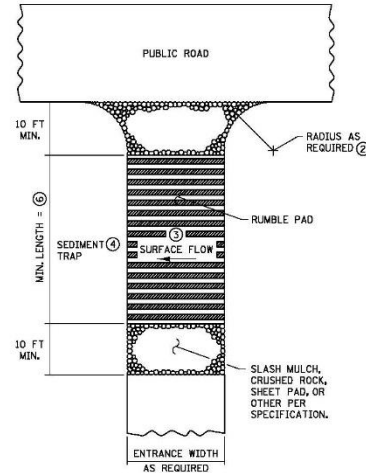
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT ⑤⑦



SHEET PAD



RUMBLE PAD



RUMBLE PAD CONSTRUCTION EXIT ⑤⑦

NOTES:

SEE SPECS. 2973 & 3682.

- ① MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.
- ② PROVIDE RADIUS OF PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.
- ③ IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO PUBLIC ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE. IF SURFACE GRADING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.
- ④ IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.
- ⑤ IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.
- ⑥ MINIMUM LENGTH OF RUMBLE PAD SHALL BE 20 FEET, OR AS REQUIRED TO REMOVE SEDIMENT FROM TIRES. IF SIGNIFICANT SEDIMENT IS TRACKED FROM THE SITE, THE RUMBLE PAD SHALL BE LENGTHENED OR THE DESIGN MODIFIED TO PROVIDE ADDITIONAL VIBRATION. WASH-OFF LENGTH SHALL BE AS REQUIRED TO EFFECTIVELY REMOVE CONSTRUCTION SEDIMENT FROM VEHICLE TIRES.
- ⑦ MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.

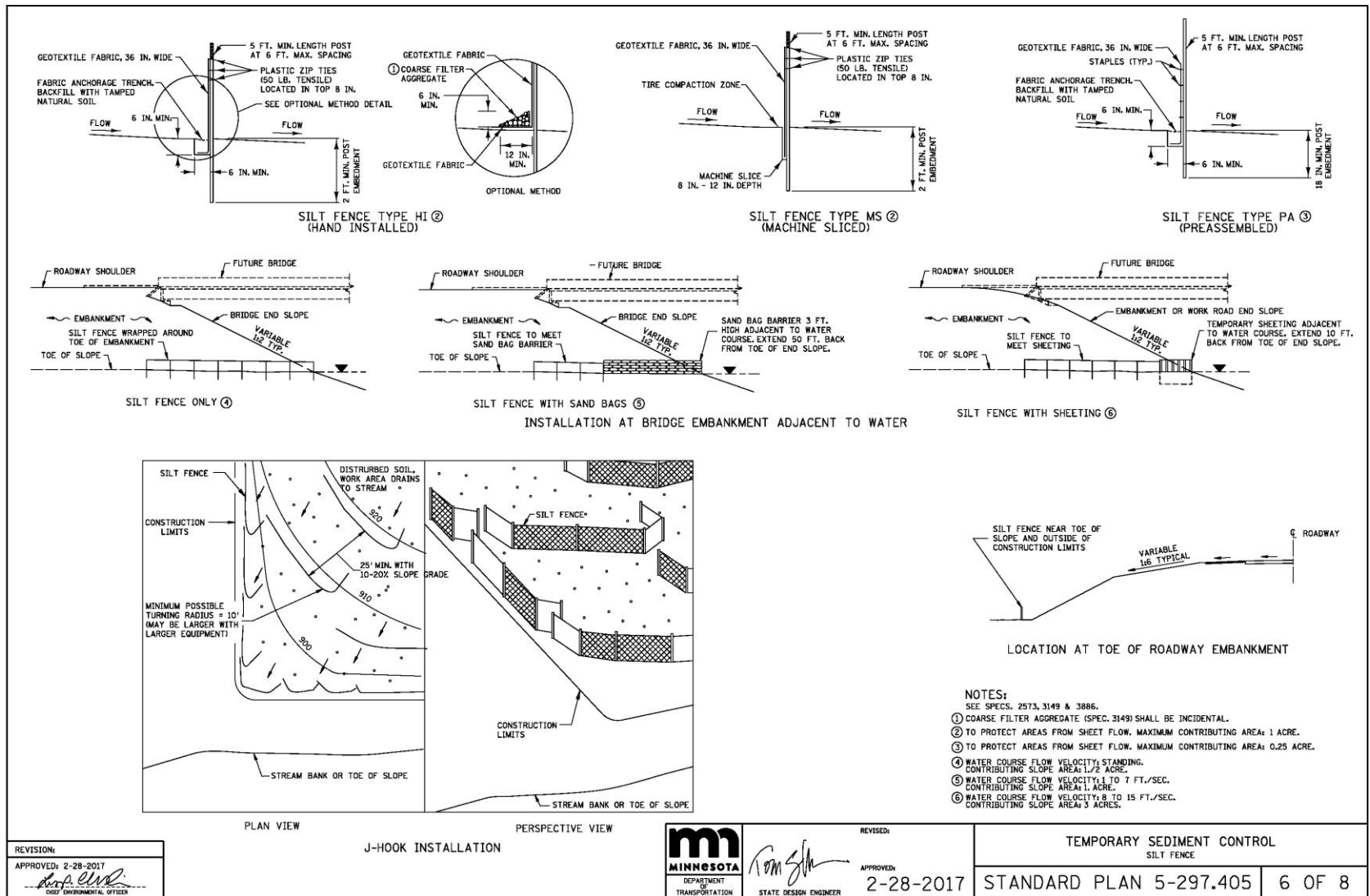
REVISION:
APPROVED: 2-28-2017
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CHIEF ENVIRONMENTAL OFFICER

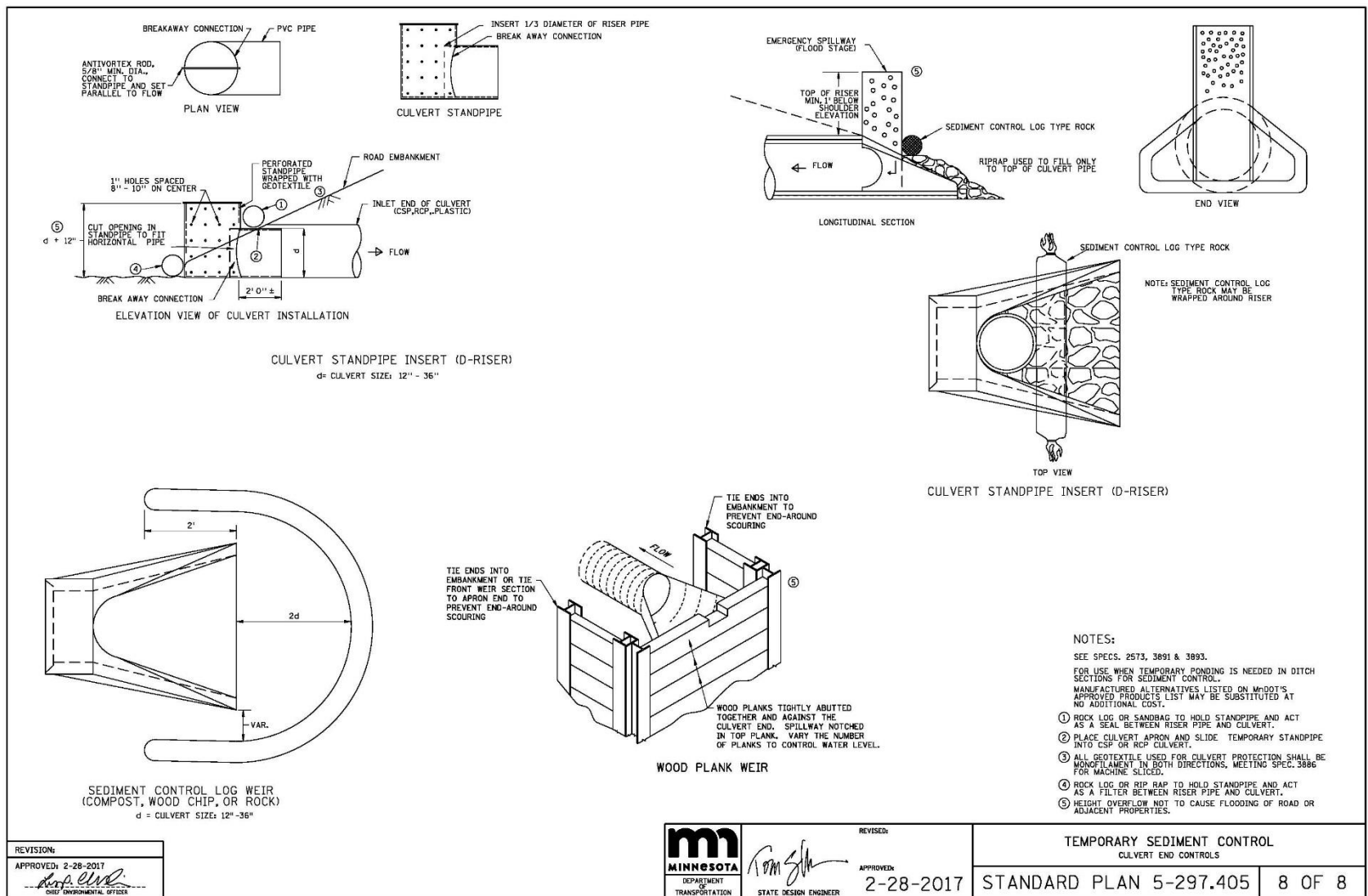


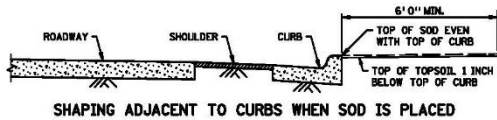
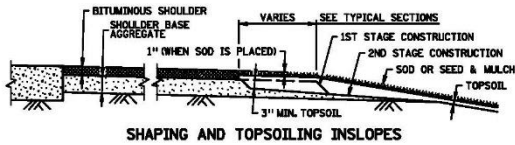
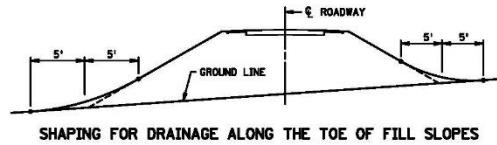
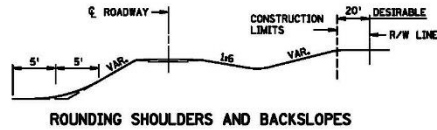
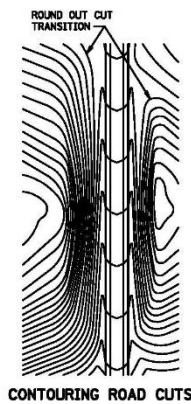
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REVISED:
APPROVED: 2-28-2017

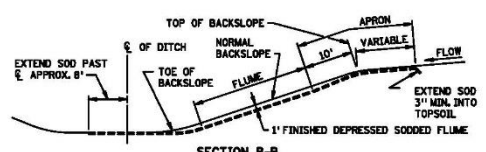
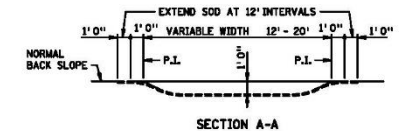
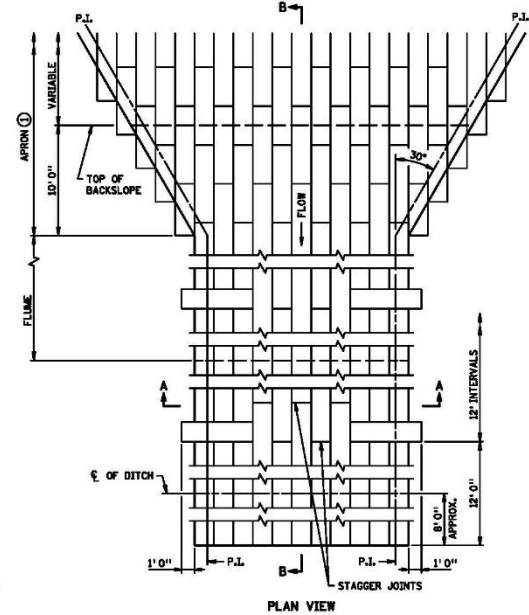
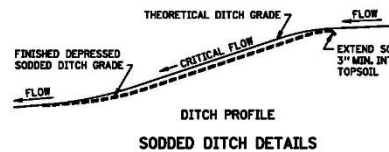
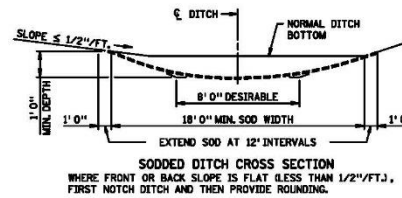
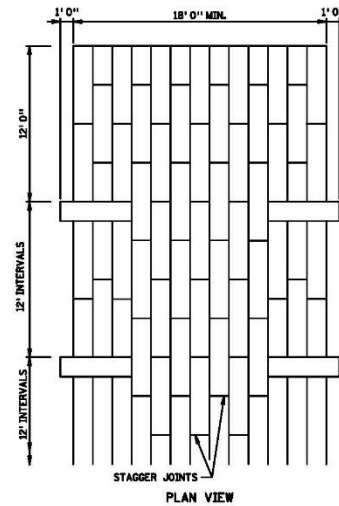
TEMPORARY SEDIMENT CONTROL
STABILIZED CONSTRUCTION EXIT
STANDARD PLAN 5-297.405 5 OF 8



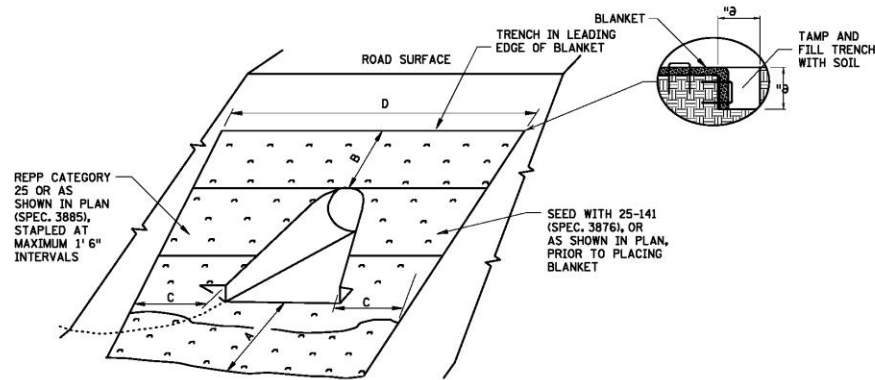




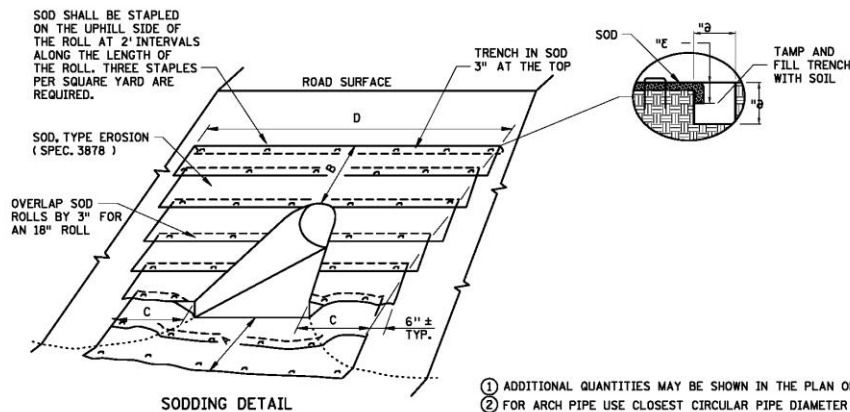
NOTES:
SEE SPEC. 257B.3 FOR ADDITIONAL INFORMATION.
① CONSTRUCT TAPER AS DIRECTED BY THE ENGINEER.



LEAD EXPERT OFFICE LYNN CLARKOWSKI CHIEF ENVIRONMENTAL OFFICER OFFICE OF ENVIRONMENTAL STEWARDSHIP		PERMANENT EROSION CONTROL ALONG ROADWAYS, DITCHES AND FLUMES	APPROVED: 02-28-2017 REVISED:	STANDARD PLAN 5-297.404	1 OF 3
		STANDARD PLAN	STATE PROJ. NO. TRUNK HWY.	SHEET NO. TOTAL SHEETS	



ROLLED EROSION PREVENTION PRODUCT (BLANKET) & SEED DETAIL



- ① ADDITIONAL QUANTITIES MAY BE SHOWN IN THE PLAN OR REQUIRED BY THE ENGINEER.
② FOR ARCH PIPE USE CLOSEST CIRCULAR PIPE DIAMETER AND APRON SLOPE. DIAMETERS LARGER THAN 72" REQUIRE SPECIAL DESIGNS.

CULVERT INLET APRON ①									
CULVERT DIAMETER ②	SOD OR REPP (SQ. YDS.)						"A"	"B"	"C"
	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1/4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1/6 SLOPE (PLATE 3148)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1/6 SLOPE (PLATE 3128)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1/4 SLOPE (PLATE 3128)			
15"	9	9	8	8	N/A	N/A	3'	1.5'	3'
18"	13	12	12	14	16	N/A	3'	3'	13'
21"	14	14	14	16	18	14	3'	3'	17'
24"	16	15	16	19	21	17	3'	3'	18'
27"	N/A	20	N/A	N/A	N/A	N/A	3'	4.5'	3'
30"	23	22	25	30	32	N/A	3'	4.5'	22'
36"	34	34	39	48	51	37	4.5'	4.5'	27'
42"	43	40	51	64	N/A	N/A	4.5'	6'	30'
48"	54	50	66	82	N/A	N/A	4.5'	7.5'	34'
54"	65	58	81	102	N/A	N/A	4.5'	9'	37'
60"	69	59	91	115	N/A	N/A	4.5'	9'	39'
66"	69	63	N/A	N/A	N/A	N/A	4.5'	9'	45'
72"	78	72	99	122	N/A	N/A	4.5'	10.5'	45'

CULVERT OUTLET APRON ①									
CULVERT DIAMETER ②	SOD OR REPP (SQ. YDS.)						"A"	"B"	"C"
	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1/4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1/6 SLOPE (PLATE 3148)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1/6 SLOPE (PLATE 3128)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1/4 SLOPE (PLATE 3128)			
15"	10	10	9	10	N/A	N/A	4.5'	1.5'	3'
18"	13	13	12	14	15	N/A	6'	1.5'	3'
21"	16	14	16	18	19	15	6'	1.5'	3'
24"	18	18	19	21	22	18	7.5'	1.5'	3'
27"	N/A	19	N/A	N/A	N/A	N/A	7.5'	1.5'	3'
30"	23	23	24	28	29	N/A	9'	1.5'	3'
36"	36	35	38	47	48	37	10.5'	1.5'	4.5'
42"	43	40	47	58	N/A	N/A	12'	1.5'	4.5'
48"	50	45	57	70	N/A	N/A	13.5'	1.5'	4.5'
54"	57	50	67	84	N/A	N/A	15'	1.5'	4.5'
60"	74	63	90	113	N/A	N/A	16.5'	1.5'	6'
66"	75	67	N/A	N/A	N/A	N/A	16.5'	1.5'	6'
72"	77	70	92	114	N/A	N/A	16.5'	1.5'	6'

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

AREA SHOWN IN SQUARE YARDS IS FOR ONE CULVERT END.

QUANTITIES ARE CALCULATED TO INCLUDE SOD REQUIRED TO PROVIDE A 3" OVERLAP ON ALL 18" WIDE ROLLS. THIS ALLOWS FOR SHRINKAGE OF THE SOD.

FOR PIPE ARCHES USE EQUIVALENT PIPE DIAMETER TO APPROXIMATE AREA.

FOR CORRUGATED POLYETHYLENE PIPE METAL APRON (PLATE 3129), USE THE METAL APRON COLUMN (PLATE 3123).

AREAS AND DIMENSIONS ARE APPROXIMATE AND ARE BASED ON APRON SIDE SLOPES OF NO STEEPER THAN 1:2, UNLESS INDICATED AS FOR SAFETY APRONS.

CARE SHOULD BE TAKEN IN SELECTING SOD TO STABILIZE THE APRON. RIP-RAP SHOULD BE USED FOR FLOW VELOCITIES GREATER THAN 6 FPS.

LEAD
EXPERT
OFFICE

MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER
OFFICE OF
ENVIRONMENTAL STEWARDSHIP



PERMANENT EROSION CONTROL
TURF ESTABLISHMENT DETAIL AT CULVERT ENDS

APPROVED: 01-08-2020
REVISED:

THOMAS STYBICKI
STATE DESIGN ENGINEER

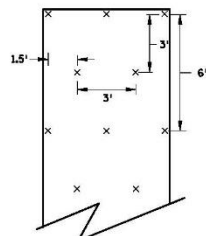
STANDARD
PLAN
5-297.404

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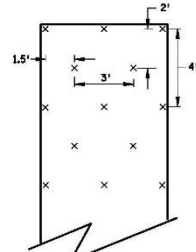
STANDARD PLAN

STATE PROJ. NO.
TRUNK HWY.

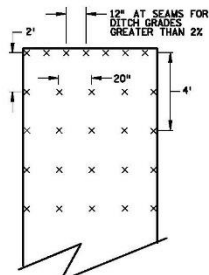
SHEET NO.
TOTAL SHEETS



SLOPES FLATTER THAN 1:2
120 STAPLES PER 100 SQ YD

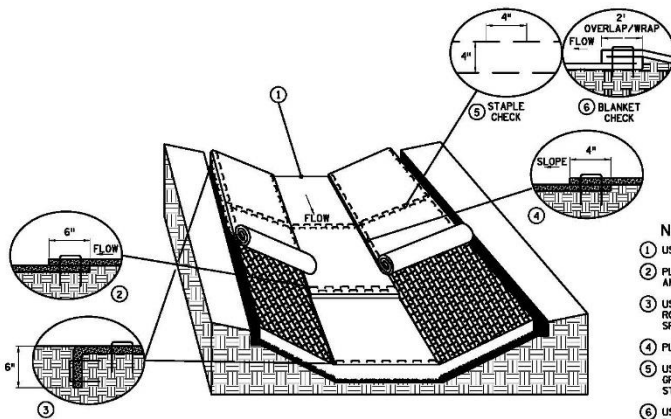
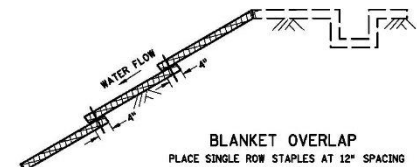
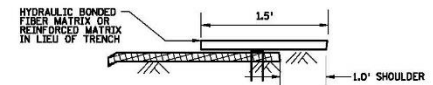
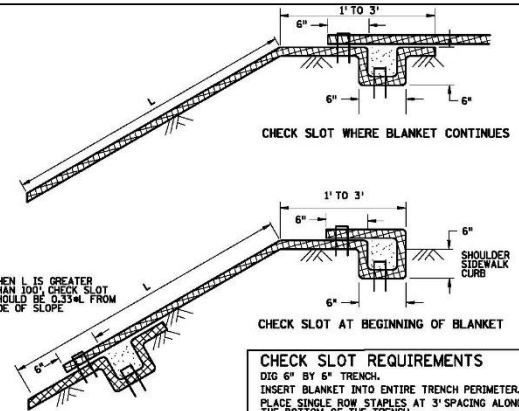


SLOPES 1:2 TO 1:1
170 STAPLES PER 100 SQ YD

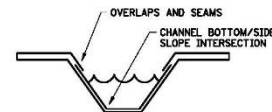


CHANNEL AND DITCH APPLICATIONS
350 STAPLES PER 100 SQ YD

BLANKET STAPLE PATTERN



DITCH BLANKET STAPLE DETAIL



DITCH BLANKET CRITICAL POINTS ⑦

NOTES:

- ① USE CHECK SLOT DETAIL (NO ALTERNATES).
- ② PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER.
- ③ USE 6" X 6" TRENCH TO PLACE BLANKET, PLACE SINGLE ROW OF STAPLES ON TOP AND TRENCH SIDES AT 12" SPACING. BACKFILL TRENCH WITH SOIL AND TAMP.
- ④ PLACE SINGLE ROW OF STAPLES AT 12" SPACING.
- ⑤ USE STAPLE CHECK FOR CHANNEL SLOPES LESS THAN 2.5%. GRADE AT 100' INTERVALS. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND AT 4" SPACING.
- ⑥ USE BLANKET CHECKS FOR THE FOLLOWING SLOPES:
2.5%-3% 100' INTERVALS
3%-5% 50' INTERVALS
5%-7% 25' INTERVALS
- ⑦ CRITICAL POINTS SHALL BE SECURED WITH PROPER STAPLE PATTERNS.

GENERAL BLANKET INSTALLATION REQUIREMENTS

REPP = ROLLED EROSION PREVENTION PRODUCT.
PREPARE SOIL AS PER SPECIFICATION 2574.
LAY PARALLEL OR PERPENDICULAR TO THE DIRECTION OF WATER FLOW.
OVERLAP ADJACENT STRIP EDGES A MINIMUM OF 4".
OVERLAP BLANKET 6" MINIMUM AT EACH END; OVERLAP BOTTOM END OF UPPER BLANKET OVER TOP END OF LOWER BLANKET. STAPLE ALONG OVERLAP EVERY 1.5'.
THE UPPERMOST BLANKET OF ALL SLOPE APPLICATIONS MUST START IN A CHECK SLOT. IF SLOPE LENGTH (L) IS 100' OR GREATER, INSERT BLANKET INTO A CHECK SLOT 1/3 FROM THE BOTTOM OF THE SLOPE.

LEAD
EXPERT
OFFICE

MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER
OFFICE OF
ENVIRONMENTAL STEWARDSHIP



PERMANENT EROSION CONTROL
REPP (BLANKET) STAPLE PATTERN FOR SLOPES

APPROVED: 01-08-2020
REVISED:

THOMAS STYBICKI
STATE DESIGN ENGINEER

STANDARD
PLAN
5-297.404

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STANDARD PLAN

STATE PROJ. NO.
TRUNK HWY.

SHEET NO.
TOTAL SHEETS

ATTACHMENT C: CITY OF BAXTER ENGINEERING STANDARDS FOR STORM WATER TREATMENT FACILITIES

The storm water treatment facilities listed below only apply if the facility is incorporated into the storm water treatment of the Property. If a storm water treatment facility listed below is incorporated into the treatment of the storm water in the future, the owner shall immediately implement the maintenance requirements listed below.

Sweeping Maintenance Requirements

1. Sweep sediment from parking lot a minimum of 4 times a year, more as needed.

Pond Maintenance Requirements

2. Inspection, maintenance reporting and certification by a professional engineer (Provided by Owner). Information must be submitted to the City as requested by the City Engineer.
3. Excavate pond to original design capacity when one half (1/2) of the wet volume of the pond is lost due to sediment deposition.
4. Remove floatable debris in and around the pond area including, but not limited to: oils, gases, debris and other pollutants.
5. Maintain landscape adjacent to the facility per original design, including but not limited to: maintenance of the buffer strip and other plant materials as per original plan design.
6. Maintenance of all erosion control measures including but not limited to: rip rap storm sewer outlets, catch basin inlets, etc.

Environmental Manhole Maintenance Requirements

1. Annual inspection, maintenance reporting and certification by a professional engineer (Provided by Owner). Information must be submitted to the City annually.
2. Maintenance should be performed once the sediment or oil depth exceeds the established requirements recommended by the manufacturer.
3. Maintenance should occur immediately after a spill takes place. Appropriate regulatory agencies should also be notified in the event of a spill.
4. Disposal of materials shall be in accordance with local, state and federal requirements as applicable.

Rain Garden Maintenance Requirements

1. Inlet and Overflow Spillway – Remove any sediment build-up or blockage and correct any erosion.
2. Vegetation
 - a. Maintain at least 80% surface area coverage of plants approved per plan.
 - b. Removal of invasive plants and undesirable woody vegetation.
 - c. Removal of dried, dead and diseased vegetation.
 - d. Re-mulch void or disturbed/exposed areas.
3. Annual inspection and maintenance efforts must be documented and submitted to the City.

Stormwater Basin Maintenance Requirements

1. Ongoing and as needed:
 - a. Prune and weed to maintain appearance
 - b. Remove trash and debris
 - c. Maintain at least 80% surface area coverage of plants approved per plan.
 - d. Removal of invasive plants and undesirable woody vegetation.
 - e. Removal of dried, dead and diseased vegetation.
 - f. Re-mulch void or disturbed/exposed areas.
2. Semi-annually:
 - a. Remove sediment from inflow points (off-line systems)
 - b. Inspect aggregate filter system and clean as needed
 - c. Shrubs should be inspected to evaluate health. Remove dead and diseased vegetation.
3. Annually:
 - a. Inspect and remove any sediment and debris build-up in pre-treatment areas
 - b. Inspect inflow points and bioretention surface for buildup of road sand associated with spring melt period. Remove and replant as necessary.
4. 2 to 3 years:
 - a. Test pH of planting soils. If pH is below 5.2, add limestone. If pH is 7.0 to 8.0, add iron sulfate plus sulfur.
5. Annual inspection and maintenance efforts must be documented and submitted to the City.