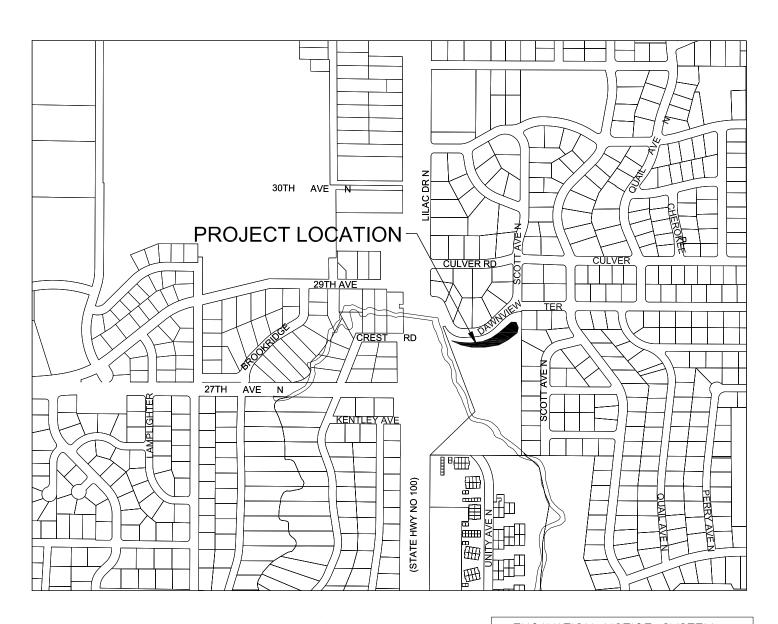
BRIARWOOD NATURE AREA WATER QUALITY IMPROVEMENT PROJECT

FOR THE

CITY OF GOLDEN VALLEY

CREATION OF A STORMWATER POND, IRON AND SAND FILTRATION SYSTEM, CONSTRUCTION PLAN FOR: STORM SEWER, AND VEGETATION RESTORATION

LOCATED AT: SOUTH OF DAWNVIEW TERRACE AND EAST OF UNITY AVENUE



TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-2, ENTITLED OF EXISTING SUBSURFACE UTILITY DATA."

EXCAVATION NOTICE SYSTEM

A CALL TO GOPHER STATE ONE (651-454-0002) IS REQUIRED A MINIMUM OF 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION

GOVERNING SPECIFICATIONS

DAWNVIEW NATURITEM 5A DAWNVIEW NATURAL DAWNVIEW NATURA DA

PROJECT SPECIAL PROVISIONS

TRANSPORTATION "STANDARD

SPECIFICATIONS FOR CONSTRUCTION.

THE 2005 EDITION

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL COMFORM TO THE MN MUTCD INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. DATED JANUARY, 2004. ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE

STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY ENGINEERS ASSOCIATION OF MINNESOTA STANDARD UTILITIES SPECIFICATIONS.

SHEET NO. DESCRIPTION TITLE SHEET
EXISTING CONDITIONS PLAN
GRADING PLAN STORM SEWER PLAN 5-6 7-10 SWPPP EROSION & SEDIMENT CONTROL/STAGING PLAN

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED



701 Xenia Avenue South, Suite 300 Minneapolis, MN 55416

763-541-4800 - Fax 763-541-170 INFRASTRUCTURE | ENGINEERING | PLANNING | CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PETER R. WILLENBRING

DATE 02/18/2014

LIC. NO. 15998

PLAN REVIEW:

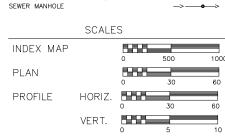
02/18/2014 CITY COMMENTS

Prepared for:

City of Golden Valley 7800 Golden Valley Road Golden Valley, Minnesota 55427 (763) - 593 - 8000

WSB PROJECT 2032-08 CITY PROJECT NO. 12-26

SHEET NO. 1 OF 11 SHEETS



STATE LINE COUNTY LINE

SECTION LINE

QUARTER LINE SIXTEENTH LINE

RIGHT-OF-WAY LINE

CONTROL OF ACCES LINE

CORPORATE OR CITY LIMITS

RAILROAD RIGHT-OF-WAY RIVER OR CREEK

TRUNK HIGHWAY CENTER LINE

PROPERTY LINES (EXCEPT LAND LINES) VACATED PLATTED PROPERTY

SLOPE FASEMENT PRESENT RIGHT-OF-WAY

RETAINING WALL

DRAINAGE DITCH

RAILROAD

DRY RUN

CULVERT

HEDGE

TIMBER ORCHARD

BRUSH NURSERY CATCH BASIN

CATTLE GUARD

F - FRAME S - STONE

IRON ROD OR PIPE

B - BRICK

WOODEN HUB GRAVEL PIT

ROCK QUARRY

POWER POLE LINE

SAND PIT BORROW PIT

ANCHOR STREET LIGHT

GAS MAIN

CONDUIT

WATER MAIN

OVERPASS (HIGHWAY OVER)

UNDERPASS (HIGHWAY UNDER)

BUILDING (ONE STORY FRAME)

C - CONCRETE T - TILE ST- STUCCO

UTILITY SYMBOLS

MONUMENT (STONE, CONCRETE, OR METAL)

TELEPHONE OR TELEGRAPH POLE LINE JOINT TELEPHONE AND POWER ON POWER POLE ON TELEPHONE POLES

PEDESTAL (TELEPHONE CABLE TERMINAL)

TELEPHONE CABLE IN CONDUIT

ELECTRIC CABLE IN CONDUIT

BURIED TELEPHONE CABLE

BURIED ELECTRIC CABLE

AERIAL TELEPHONE CABLE

SEWER (SANITARY OR STORM)

TELEPHONE MANHOLE ELECTRIC MANHOLE

DROP INLET

GUARD RAIL BARBED WIRE FENCE

WOVEN WIRE FENCE

RAILROAD CROSSING SIGN RAILROAD CROSSING BELL ELECTRIC WARNING SIGN CROSSING GATE MEANDER CORNER SPRINGS MARSH

CHAIN LINK FENCE RAILROAD SNOW FENCE STONE WALL OR FENCE

TOWNSHIP OR RANGE LINE

- -

NAME ⇒

SIZE ⇒

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<u>___x___x</u>__x__

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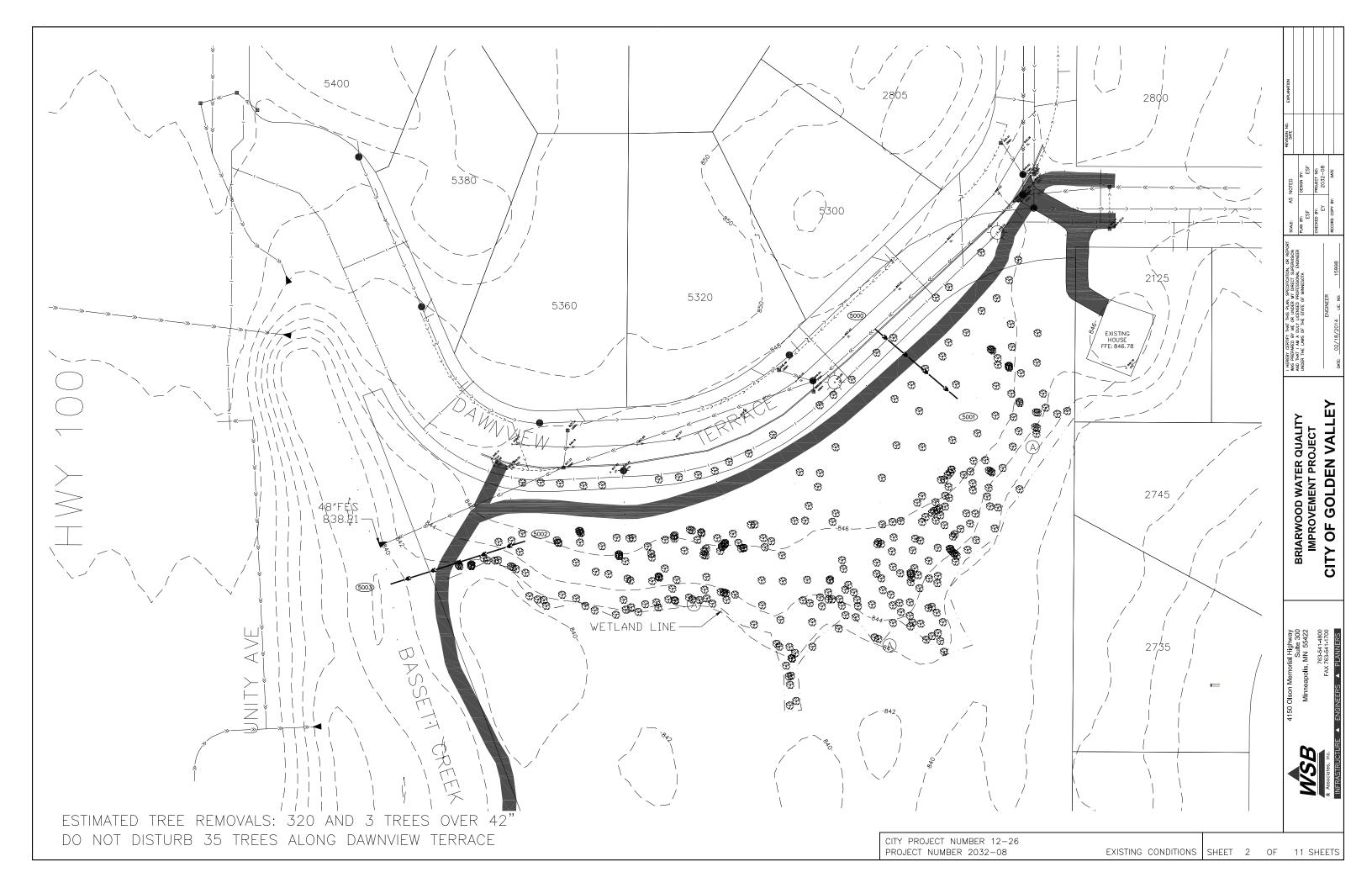
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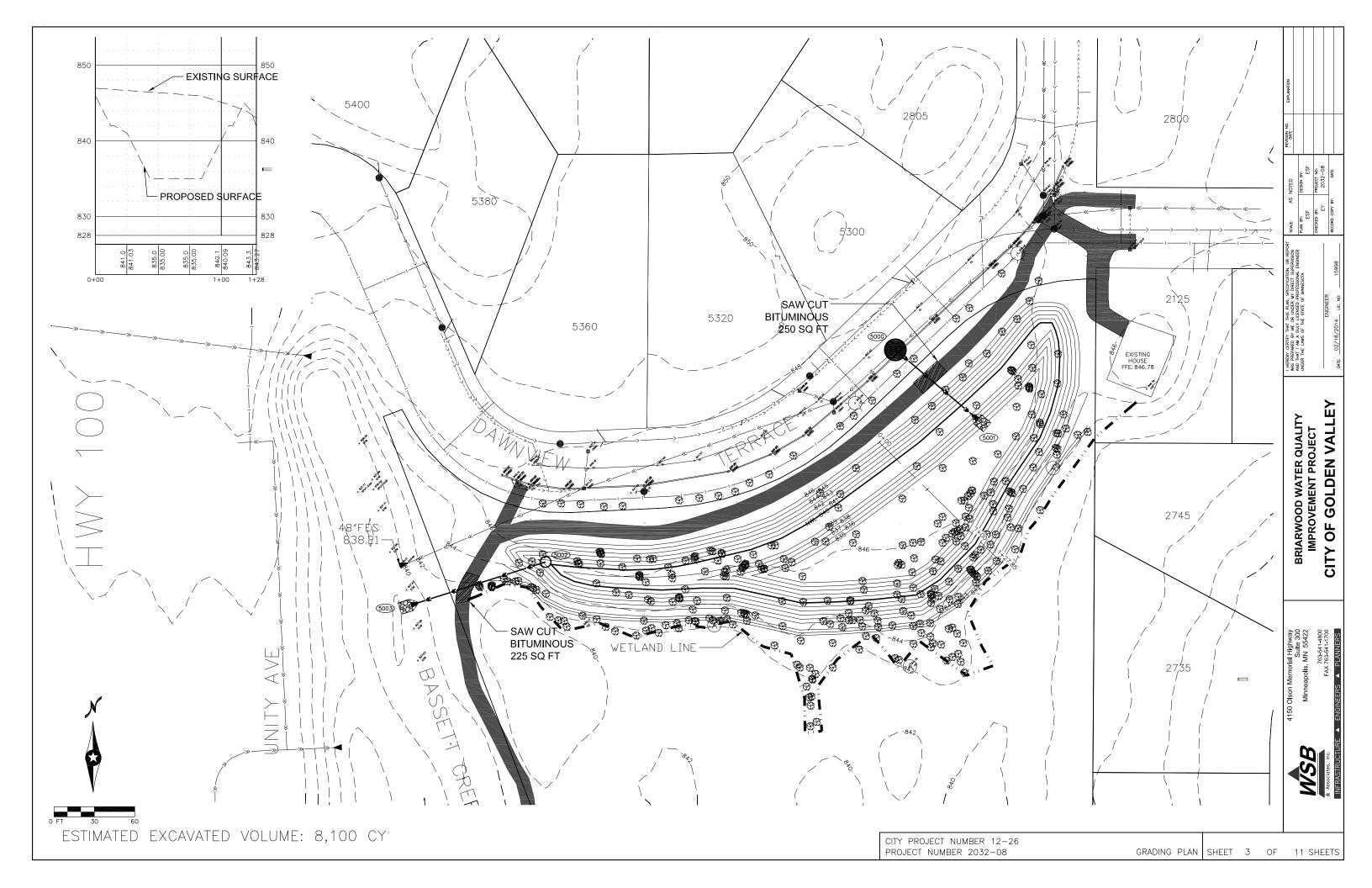
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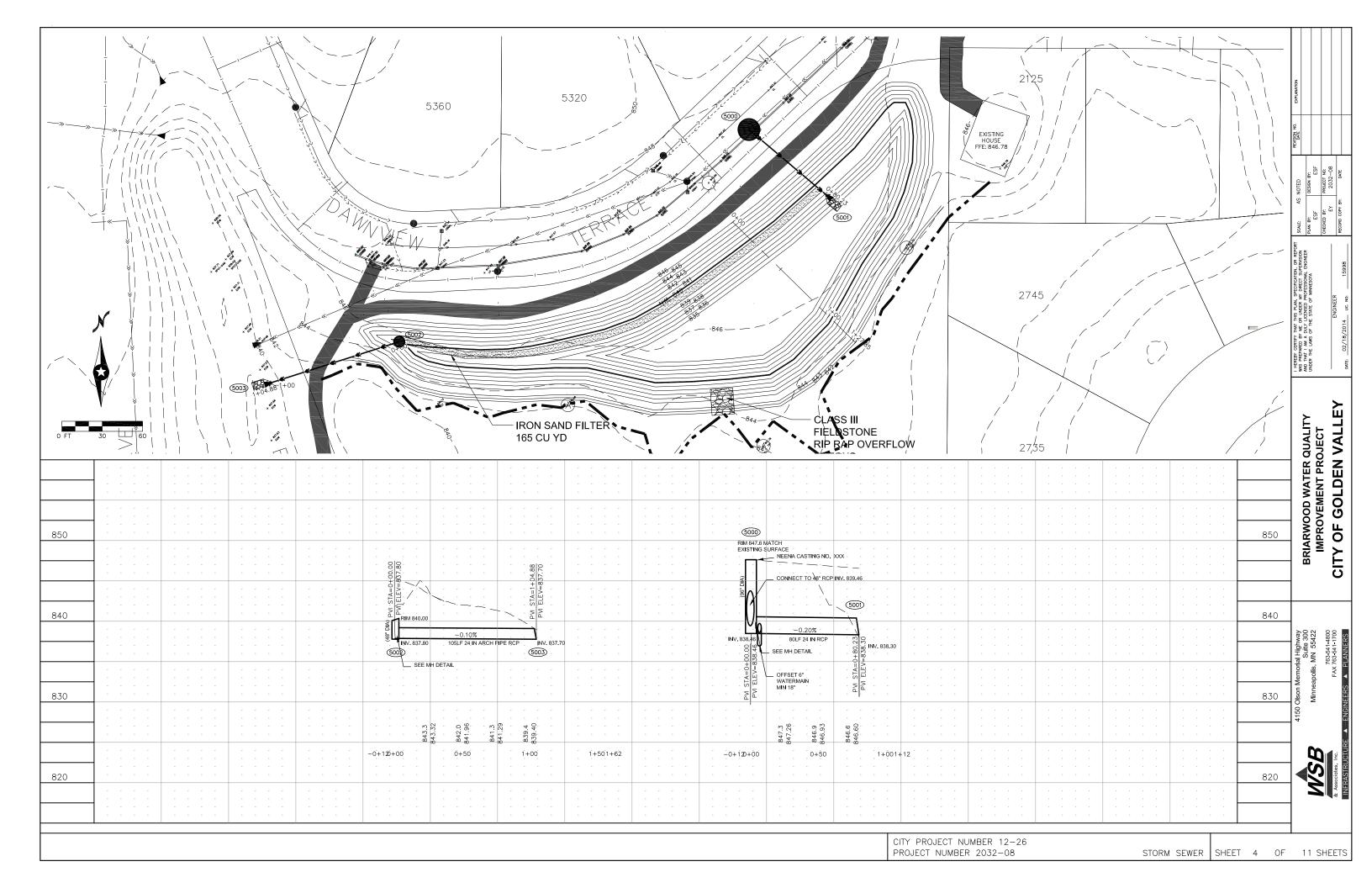
— P-BUR-

→ T-AE **→**

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF PRIVATE UTILITIES IS NOT GUARANTEED TO DETERMINE THE TYPE AND LOCATION OF PRIVATE UTILITIES "STANDARD GUIDELINES FOR THE COLLECTION AND DEDICATION







NOTES:

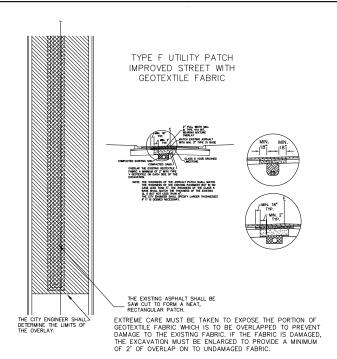
1. MINIMUM OF FOUR (4) 11% BENDS

2. % THE RODS INSTALLED WHERE NECESSARY TO RESTRAIN ALL JOINTS

3. INSULATION IS REQUIRED WHEN 18" MINIMUM IS NOT MET

ND SCALE

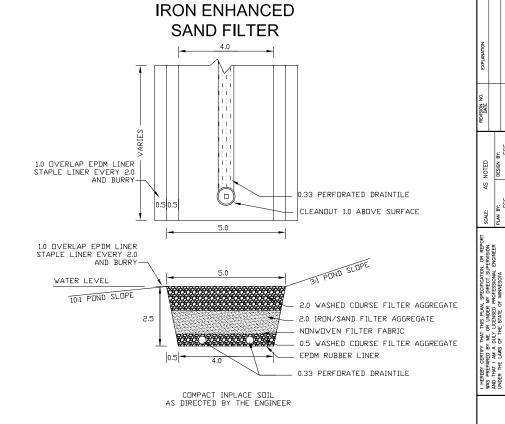
Special Details Watermain Offset

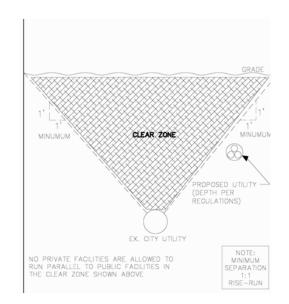


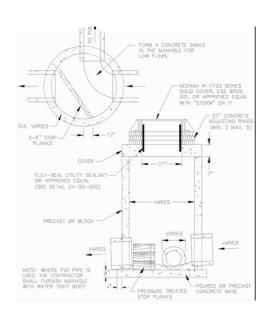
EXCAVATIONS SHALL BE COMPACTED IN NO GREATER THAN 6" LIFTS.

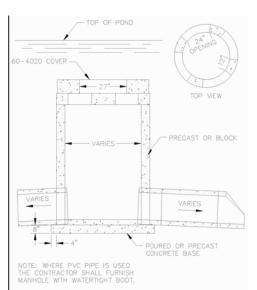
AN INSPECTION BY THE CITY IS REQUIRED WHEN THE EXCAVATION HAS BEEN FILLED TO THE EXISTING GEOTEXTILE FABRIC AND BEFORE PLACEMENT OF SAND AND ALSO WHEN IT IS FILLED TO THE TOP OF THE CLASS 5, BEFORE PLACEMENT OF ASPHALT.

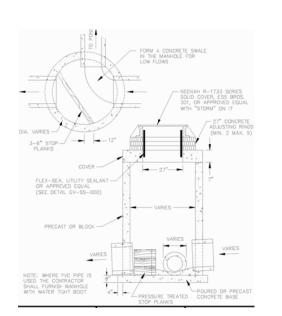
THE CONTRACTOR SHALL PROVIDE A DENSITY TEST ON THE COMPACTED SOILS FROM A TESTING COMPANY APPROVED BY THE CITY.









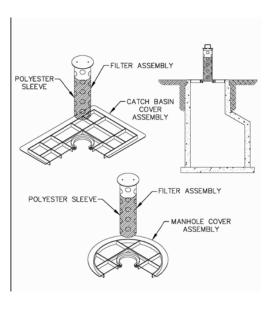


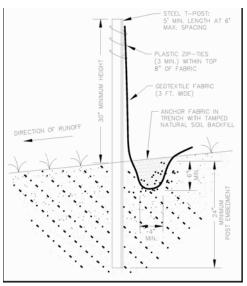
BRIARWOOD WATER QUALITY IMPROVEMENT PROJECT CITY

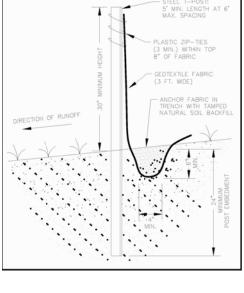
emorfal Highway Suite 300 polis, MN 55422 763-541-4800 FAX 763-541-1700

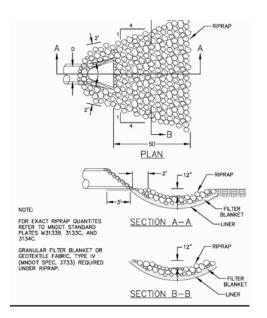


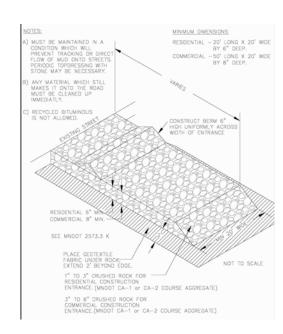
CITY PROJECT NUMBER 12-26 .PROJECT NUMBER 2032-08



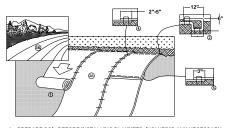








EROSION CONTROL BLANKET INSTALLATION DETAIL



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.

2. BEGIN AT THE TOP OF THE SLO, AND SELV.

2. BEGIN AT THE TOP OF THE SLO, AND SELV.

DEEP & 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLESISTAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING, APPLY SEED TO COMPACTED SOIL, AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL, SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLESISTAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.

- 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNDICLL WITH APPROPRIATE SIDE IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHICH USING OFFIDMAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (Scm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

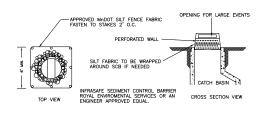
NOTE:
"IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER
THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

PROJECT NUMBER 2032-08

DEFLECTOR PLATE
OVERFLOW #1-CENTER OF FILTER ASSEMBLY
10" FILTER ASSEMBLY

WIMCO MODEL # CG-3067 HIGH-FLOW INLET PROTECTION OR APROVED EQUAL

CURB AND GUTTER INLET PROTECTION NO SCALE



REAR YARD INLET PROTECTION NO SCALE

CITY PROJECT NUMBER 12-26

SHEET 6

I HERED CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA **GOLDEN VALLEY** BRIARWOOD WATER QUALITY IMPROVEMENT PROJECT

OF

CITY

tal Highway Suite 300 , MN 55422

OF 11 SHEETS

THIS NARRATIVE IS TO SERVE AS A GUIDANCE PLAN AND MUST BE AMENDED AND MODIFIED AS SITE CONDITIONS CHANGE DURING CONSTRUCTION.

PROJECT LOCATION/DESCRIPTION

PROJECT/SITE NAME: PROJECT NUMBERS: PROJECT LOCATION:

BRIARWOOD NATURE AREA WATER QUALITY IMPROVEMENT PROJECT

CITY NO 12-26 WSB 2032-08

STREET: DAWNVIEW TERRACE

CITY/TOWNSHIP: GOLDEN VALLEY COUNTY: HENNEPIN

STATE: MINNESOTA ZIP: 55367 LATITUDE/LONGITUDE: 45.0084/-93.3471 SECTION: 7

TOWNSHIP: 29 RANGE: 24

CONTACT INFORMATION/RESPONSIBLE PARTIES

THE CITY OF GOLDEN VALLEY OWNS THE LAND, ADJACENT ROADS, AND EASEMENT AREAS ASSOCIATED WITH THE PROJECT. THE CITY OF GOLDEN VALLEY IS THE OWNER PERMITTEE APPLYING FOR PERMIT COVERAGE AND WILL BE RESPONSIBLE FOR DEVELOPING THIS SWPPP AND ENSURING THE LONG-TERM MAINTENANCE OF THE POST-CONSTRUCTION PERMANENT STORMWATER MANAGEMENT SYSTEM, AS SPECIFIED IN THE SWPPP. THE CITY OF GOLDEN VALLEY WILL ENSURE THAT THE DESCRIBED WORK IN THE SWPPP IS BEING COMPLETED BY THE PRIMARY CONTRACTOR.

OWNER/PERMITTEE:

CITY OF GOLDEN VALLEY (JEFF OLIVER, CITY ENGINEER)

7800 GOLDEN VALLEY ROAD

GOLDEN VALLEY, MN 55427

763-593-8000/JOLIVER@GOLDENVALLEYMN.GOV

THE PRIMARY CONTRACTOR WILL ENTER INTO A CONTRACT WITH THE CITY OF GOLDEN VALLEY TO COMPLETE THE REQUIRED WORK FOR THIS PROJECT. THE PRIMARY CONTRACTOR WILL BECOME (UNDER CONTRACT) A CO-PERMITTEE ON THE NPDES PERMIT (THROUGH EXECUTION OF A NPDES PERMIT MODIFICATION FORM), AND THEREBY AGREE TO IMPLEMENT THIS SWPPP IN COOPERATION WITH THE CITY OF GOLDEN VALLEY. THE PRIMARY CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A CHAIN OF RESPONSIBILITY PRIOR TO STARTING CONSTRUCTION (REFER TO SWPPF AMENDMENT SECTION). THE NPDES PERMIT MODIFICATION FORM SHALL BE SUBMITTED TO THE MPCA AFTER THE PROJECT IS AWARDED TO THE PRIMARY CONTRACTOR, PRIOR TO LETTING THE PROJECT.

THE PRIMARY CONTRACTOR WILL ENSURE THAT INDIVIDUALS OVERSEEING OR IMPLEMENTING THE SWPPP HAVE BEEN PROPERLY TRAINED AND THAT CERTIFICATIONS WILL BE MADE AVAILABLE UPON REQUEST. THIS INCLUDES ANY SUB-CONTRACTORS THAT THE PRIMARY CONTRACTOR EMPLOYS UNDER SEPARATE CONTRACT. THE PRIMARY CONTRACTOR WILL PROVIDE THE CONTACT INFORMATION FOR THE SITE SUPERINTENDENT/FOREMAN, ESC SUPERVISOR, AND BMP INSTALLERS.

THE PRIMARY CONTRACTOR WILL PERFORM A PRECONSTRUCTION SITE VISIT TO ADDRESS ANY AREAS OF CONCERN PERTAINING TO ENVIRONMENTAL COMPLIANCE, THE PRIMARY CONTRACTOR WILL IMPLEMENT AND MAINTAIN BMPS FOR THE DURATION OF CONSTRUCTION PROJECT. THE PRIMARY CONTRACTOR WILL COMPLETE THE REQUIRED SITE INSPECTIONS TO REMAIN IN COMPLIANCE WITH NEDES PERMIT REQUIREMENTS PART II.B, II.C, III.B-F, IV, V, AND APPLICABLE CONSTRUCTION ACTIVITY REQUIREMENTS FOUND IN APPENDIX A, PART C.

CONTRACTOR/PERMITTEE: (TO BE DETERMINED THROUGH TRANSFER OF NPDES-CSW PERMIT)

WSB & ASSOCIATES HAS BEEN CONTRACTED BY THE CITY OF GOLDEN VALLEY TO DEVELOP THE SWPPP PLAN FOR THIS PROJECT. THIS SWPPP WAS PREPARED BY AN INDIVIDUAL THAT HAS BEEN PROPERLY TRAINED TO ADHERE TO THE REQUIREMENTS OF THE MPCA AND THE NPDES PERMIT. CERTIFICATION CARDS ARE AVAILABLE UPON REQUEST. WSB & ASSOCIATES WILL OFFER GUIDANCE FOR COMPLIANCE WITH THE NPDES PERMIT BEFORE, DURING, AND AFTER CONSTRUCTION OF THE PROJECT.

SWPPP DEVELOPER:

WSB & ASSOCIATES, INC. (ERICK FRANCIS) 701 XENIA AVE. SOUTH, SUITE 300

MINNEAPOLIS, MN 55416

763-512-5251/EFRANCIS@WSBENG.COM

WATER RESOURCE ENGINEER:

WSB & ASSOCIATES, INC. (PETE WILLENBRING) 701 XENIA AVE. SOUTH, SUITE 300

MINNEAPOLIS, MN 55416

763-287-7188/PWILLENBRING@WSBENG.COM

AGENCY CONTACTS				
AGENCY	PERMIT	NAME	PHONE NUMBER/E-MAIL	
MPCA (EMERGENCY)	N/A	STATE DUTY OFFICER	1-800-422-0798	
MPCA	NPDES-CSW #C000XXXXX	TYLER HASTINGS	651-757-2882/TYLER.HASTINGS@STATE.MN.US	
ACOE	N/A	N/A	N/A	
DNR	N/A	N/A	N/A	
BASSETT CREEK WSC	WCA	N/A	N/A	
WATERSHED DISTRICT	N/A	N/A	N/A	

PROJECT DESCRIPTION & SCHEDULE

THIS PROJECT CONSISTS OF THE EXCAVATION OF AN APPROXIMATELY 8,000 CUBIC YARD WATER QUALITY POND ON THE DOWNSTREAM END OF AN 182 ACRE WATERSHED THAT CURRENTLY HAS NO PRETREATMENT WHEN IT DISCHARGES INTO BASSETT CREEK. IN ADDITION, THIS POND WILL BE INCORPORATING AN IRON ENHANCED SAND FILTER TO PROVIDE ADDITIONAL PHOSPHORUS REMOVAL.

TENTATIVE CONSTRUCTION SCHEDULE (CONTRACTOR SHOULD PROVIDE	ESTIMATED CONSTRUCTION SCHEDULE TO THE ENGINEER)
CONSTRUCTION ACTIVITIES:	ESTIMATED DATES OF SOIL DISTURBANCE ACTIVITIES:
CLEARING AND GRUBBING OPERATIONS	SEPTEMBER - OCTOBER 2014
POND EXCAVATION	OCTOBER - NOVEMBER 2014
STORM SEWER INSTALLATION	OCTOBER - NOVEMBER 2014
VEGETATION ESTIBLISHMENT AND LANDSCAPING	OCTOBER - NOVEMBER 2014

PRE-CONSTRUCTION IMPERVIOUS SURFACE AND DISTURBED AREA CALCULATIONS

TOTAL AREA TO BE DISTURBED = 1.05 ACRES IMPERIOUS AREA: PRE-CONSTRUCTION = 0.0

NET INCREASE OF IMPERVIOUS AREA = 0.0

LOCATION OF SWPPP COMPONENTS		
DESCRIPTION	TITLE	LOCATION
SWPPP NARRATIVE	STORM WATER POLLUTION PREVENTION PLAN NARRATIVE	SHEET 7
SITE CONDITIONS	STORM WATER POLLUTION PREVENTION PLAN NARRATIVE	SHEET 7
SITE MAP	STEEP SLOPES (3:1), IMPERVIOUS SURFACES, POTENTIAL POLLUTANT GENERATING ACTIVITIES, SOILS, WATER RESOURCES, DNR FISH EXCLUSION "WORK IN WATER RESTRICTIONS- REFER TO SWPPP"	PROJECT SPECIFICATIONS
CONSTRUCTION PHASING/STAGING & AREAS NOT TO BE DISTURBED	STORM WATER POLLUTION PREVENTION PLAN NARRATIVE	SHEET 3
DIRECTION OF FLOW (PRE- & POST- CONSTRUCTION	DRAINAGE PLAN	SHEET 3
TEMPORARY EROSION & SEDIMENT CONTROL BMPS	TEMPORARY EROSION AND SEDIMENT CONTROL PLAN	SHEET 11
PERMANENT EROSION CONTROL BMPS	TURE ESTABLISHMENT PLAN	SHEET 11
STORM SEWER	DRAINAGE PLAN	SHEET 4
GRADING	GRADING PLAN	SHEET 3
ESTIMATED BMP QUANTITIES	ESTIMATED QUANTITIES	PROJECT SPECIFICATIONS
BMP DETAILS		SHEET 6
HYDROLOGIC/WATER QUALITY MODELING		PROJECT SPECIFICATIONS

EXISTING SITE CONDITIONS, SOILS, & EXPECTED PRECIPITATION

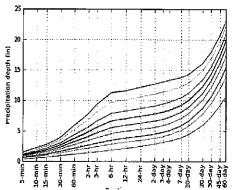
SOILS AND NATIVE TOPSOIL: NATIVE TOPSOIL WILL BE STRIPPED AND STOCKPILED FOR FINAL GRADING OPERATIONS, WHERE INDICATED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. METHODS AND EQUIPMENT TO MINIMIZE SOIL COMPACTION (IN PROPOSED INFILTRATION AREAS, DRIP LINE OF TREES TO BE PRESERVED, ETC.) SHALL BE DETERMINED BY THE CONTRACTOR'S SWPPP AMENDMENT. THE FOLLOWING USDA-NRCS MAPPED SOILS ARE SHOWN AS "NOT HIGHLY BRODIBLE", POTENTIALLY HIGHLY ERODIBLE, AND HIGHLY ERODIBLE" ON THE SWPPP SITE MAP.

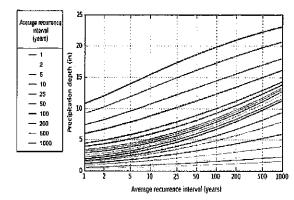
USDA-NRCS MAPPED SOIL SURVEY UNIT NO., NAME, TEXTURE,	APPROXIMATI	C PARTICLE SIZE R	ANGE (MM)
SLOPE PERCENTAGE	SAND (0.05-	SILT (0.002-	CLAY (<0002)
	2,00)	0.05)	
U1A URBAN LAND	50-70%	0-50%	15-20%
U2A UDORTHENTS	20-50%	50-87%	0-27%

EXPLAN									
DATE									
AS NOTED		DESIGN BY:	ESF	PROJECT NO:	20.42-UB		CATE		
SCALE: AS		PLAN 8T:	ESF	CHECKED BY:	ሬ	5	RECORD CORY RY:		
WAS OBSTACK BY LICE OF HANDED AN DIDECT SHIPPONDON	AND THAT I AM A DIES INCOMED DEDERACIONAL PRODUCES	INTER THE PART OF THE CENTS OF MINISTERS	מעפטר וור בעום כן וור פוטור כן וווואפסטי			FNGINFER		DATE: 02/18/2014 LC NO. 15998	

GOLDEN VALLE BRIARWOOD WATER QUALITY IMPROVEMENT PROJECT OF.







— 5-min

--- 30-min

--- 60-min

--- 24¥

— 3-hr

- 14

--- 12-hr

— 2-day

— 7-day

-- 10-da

--- 20-day

— 30-day

--- 45-day

--- 60-day

DESCRIPTION OF RECEIVING WATERS: THIS HAS PROJECT WILL DISCHARGE DIRECTALLY INTO BASSETT CREEK.

HYDROLOGIC AND WATER QUALITY MODELING DATA IS AVAILABLE UPON REQUEST.

DESCRIPTION OF IMPAIRED WATERS OR WATER SUBJECT TO TMDLS: A SPECIAL AND IMPAIRED WATERS SEARCH WAS COMPLETED USING THE MPCA SEARCH ENGINE (HTTP://PCA-GIS02.PCA.STATE.MN.US/CSW/INDEX.HTML) ON 1/22/2014. BASED ON THAT REVIEW, THIS SEGMENT OF BASSETT CREEK REQUIRES A TMDL PLAN TO BE WRITTEN FOR: CHLORIDE; FECAL COLIFORM; FISHES BIOASSESSMENTS. THESE IMPAIRMENTS AFFECT AQUATIC LIFE, AQUATIC RECREATION.

ADDITIONAL EMPS FOR SPECIAL OR IMPAIRED WATERS DURING CONSTRUCTION ACTIVITY (APPENDIX A)

ALL REQUIREMENTS IN APPENDIX A ARE IN ADDITION TO BMPS ALREADY SPECIFIED IN THE PERMIT. WHERE PROVISIONS OF APPENDIX A CONFLICT WITH REQUIREMENTS ELSEWHERE IN THE PERMIT, THE PROVISIONS IN APPENDIX A TAKE PRECEDENCE. ALL BMPS USED TO COMPLY WITH THIS APPRINDIX MUST BE DOCUMENTED IN THE SWPPP FOR THE PROJECT (APPENDIX A).

C.1.A EXPOSED SOILS: CONTRACTOR SHALL STABILIZE ALL EXPOSED SOIL AREAS WITHIN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT POPTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED (APPENDIX A.C.1.A).

C.1.B TEMPORARY BASIN: CONTRACTOR DOES NOT NEED TO ADHERE TO THE REQUIREMENTS DESCRIBED IN PART III.B. 1-5 OF THE NPDES CONSTRUCTION PERMIT FOR COMMON DRAINAGE LOCATIONS BECAUSE THE PROJECT WILL NOT DISTURB 5 ACRES AND THE PROJECT IS TO DEVELOP A FURTURE TREATMENT POND THAT WILL SERVE AN AREA.

C.4 ENHANCED RUNOFF CONTROLS: THE PERMANENT STORMWATER MANAGEMENT SYSTEM MUST BE DESIGNED SUCH THAT THE PRE- AND POST-PROJECT RUNOFF RATE AND VOLUME FROM THE 1 AND 2-YEAR 24-HOUR PRECIPITATION EVENTS REMAIN THE SAME OR ARE

POTENT	IAL CONTAMINATED PRO	PERTIES
SITE ID	RISK CLASSIFICATION	ENVIRONMENTAL CONCERNS
1	LOW	MISCELLANROUS FILL
707 Va (6	TRCING & RDFRG NOT T	

THE PRESERVED AREAS OF EXISTING VEGETATION WILL BE IDENTIFIED ON THE PLAN SHEETS AS "DO NOT DISTURB AREA". THERE IS NO CONSTRUCTION PHASING OR STAGING DEFINED BY THE OWNER FOR THIS PROJECT. THE SCHEDULE FOR INSTALLING TEMPORARY BMPS SHALL BE INCORPORATED INTO THE CONTRACTOR'S SCHEDULE FOR EACH CONSTRUCTION STAGE AND PRESENTED TO THE OWNER'S REPRESENTATIVE. THE PROJECT'S CONSTRUCTION PHASING AND STAGING IS DEFINED BY THE "CONSTRUCTION STAGING & TRAFFIC CONTROL PLAN" AND PROJECT SPECIFICATIONS.

ENVIRONMENTALLY SENSITIVE AREAS

STEEP SLOPES: EXISTING AND PROPOSED SLOPES 1 IN 3 (33.33% AND STEEPER) THAT ARE PROPOSED TO BE DISTURBED ARE ILLUSTRATED ON THE GRADING PLAN. STEEP SLOPES MAYBE TEMPORARILY CREATED DURING GRADING OPERATIONS, AT WHICH TIME TEMPORARY BMPS MUST BE IMPLEMENTED BY THE CONTRACTOR (THROUGH AN APPROVED SWPPP AMENDMENT) WITHIN 14 DAYS OF NO

CONTAMINATED PROPERTIES: THE MPCA'S "WHAT'S IN MY NEIGHBORHOOD" DATABASE (PCA-GISO2.PCA.STATE.MN.US/WIMN2/INDEX.HTML) WAS REVIEWED ON 01/22/2014. THE RESULTS OF THIS REVIEW SHOW NO KNOWN CONTAMINATED PROPERTIES OR LEAK SOURCES LOCATED WITHIN AND ADJACENT TO THE PROJECT LIMITS. NO PRE-EXISTING HAZARDOUS MATERIALS OR WASTES ARE ANTICIPATED TO BE IMPACTED BY THE PROJECT.

STORMWATER FOLLUTION MITIGATION MEASURES (AS IDENTIFIED FROM ENVIRONMENTAL REVIEW): NO FORMAL ENVIRONMENTAL REVIEW WAS REQUIRED FOR THIS PROJECT, THEREFORE, NO ADDITIONAL STORMWATER RELATED MITIGATION MEASURES APPLY.

KARST AREAS: THERE ARE NO KNOWN KARST AREAS WITHIN OR ADJACENT TO THE PROJECT LIMITS.

SITE PLAN REQUIRED AREAS: NO AREAS OF "HIGH ENVIRONMENTAL RISKS" ARE KNOWN TO BE LOCATED WITHIN OR IMMEDIATELY ADJACENT TO THE PROJECT LIMITS.

FLOOD CONTINGENCY PLAN: A FEW PROJECT ACTIVITIES ARE LOCATED WITHIN A 100-YEAR FLOODPLAIN OR FLOODWAY, THEREFORE, A FLOOD CONTINGENCY PLAN IS REQUIRED. THE PROJECT ENGINEER (AT THEIR DISCRETION) WILL REQUIRE A PREVENTATIVE FLOOD CONTINGENCY PLAN FOR SPECIFIC PROJECT ACTIVITIES AND AREAS THAT ARE NOT LOCATED IN A 100-YEAR FLOODPLAIN OR

FISH EXCLUSION DATES: CONTRACTOR IS PROHIBITED FROM CONDUCTING IN-STREAM WORK DURING THE FISH SPAWNING AND MIGRATION DATES OF APRIL 15 TO JUNE 30 FOR NON-TROUT WATERS. IF WORK MUST BE CONDUCTING DURING THIS TIMEFRAME, CONTRACTOR SHALL CONTACT THE LOCAL DNR FISMERIES MANAGER FOR WRITTEN APPROVAL PRIOR TO CONDUCTING THE IN-STREAM WORK.

AQUATIC INVASIVE SPECIES: THERE ARE NO KNOWN ENDANGERED SPECIES WITHIN THE PROJECT AREA. IF AN ENDANGERED SPECIES ARE ENCOUNTERED THE CONTRACTOR WILL CEASE OPERATIONS AND WILL DEVELOP AN ALTERNATE PLAN TO PROTECT THE SPECIFIC ENDANGERED SPECIES.

THERE ARE WETLANDS ON THE SOUTHERLY PROJECT BOUNDARY AND MUST BE PROTECTED TO THE MAXIMUM EXTENT POSSIBLE. WETLAND IMPACTS ARE NOT ANTICIPATED AS PART OF THIS PROJECT.

POTENTIAL SOURCES OF P	OLLUTI ON	
CONSTRUCTION ACTIVITI	ES ASSOCIATED WITH POTENTIAL	POLLUTANTS
(CHECK IF POLLUTANT A	PPLIES TO SITE.)	
ACTIVITY TYPE	POLLUTANT	VISUALLY OBSERVABLE
COTE DICHUDDANCE		

SOIL DISTURBANCE		
M INSTALLATION OF STABILIZED EXITS, TURBID WATER, CLOUDY AIR SEDIMENT AND EROSION CONTROL BMPS	SEDIMENT AND ORGANICS,	, FUGITIVE DUST
☑ CLEAR/GRUB	SEDIMENT AND ORGANICS, FUGITIVE DUST	TURBID WATER, CLOUDY AIR
☐ IMPORT/EXPORT OPERATIONS	SEDIMENT, FUGITIVE DUST	TURBID WATER, CLOUDY AIR

PROJECT NUMBER 2032-08

CITY PROJECT NUMBER 12-26

SWPPP NOTES | SHEET 8

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OF 11 SHEETS

CONSTRUCTION ACTIVITIES ASSOCIATED WI		
(CHECK IF POLLUTANT APPLIES TO SITE.)		
ACTIVITY TYPE	POLLUTANT	VISUALLY OBSERVABLE
SOIL DISTURBANCE	- -	
☑ INSTALLATION OF STABILIZED EXITS, TURBID WATER, CLOUDY AIR SEDIMENT AND EROSION CONTROL BMPS	SEDIMENT AND ORGANICS,	FUGITIVE DUST
☑ REMOVALS/COMPACTION	SEDIMENT, FUGITIVE DUST	TURBID WATER, CLOUDY AIR
☑ MASS/FINE GRADING	SEDIMENT, FUGITIVE DUST	TURBID WATER, CLOUDY AIR
☑ EXCAVATIONS, TRENCHING	SEDIMENT, FUGITIVE DUST	TURBID WATER, CLOUDY AIR
☑ TOPSOIL STRIPPING, STOCKPILING	SEDIMENT, FUGITIVE DUST	TURBID WATER, CLOUDY AIR
ASPHALT		
STREET CONSTRUCTION, IMPROVEMENTS	HYDROCARBONS, FUGITIVE DUST	OILY SHEEN, CLOUDY AIR
STREET REMOVAL, DEMOLITION	HYDROCARBONS, FUGITIVE DUST	OILY SHEEN, CLOUDY AIR
CONCRETE LADEN LIQUID	*********	
☑ CURB AND GUTTER, MANHOLE STRUCTURES	РН	CLOUDY TO MILKY WATER
SIDEWALKS, DRIVEWAY APRONS	РН	CLOUDY TO MILKY WATER
☑ FOUNDATIONS, BRIDGE ABUTMENTS	PH	CLOUDY TO MILKY WATER
☑ WET/DRY PAVEMENT CUTTING, REMOVAL/DEMO	PH, FUGITIVE DUST	CLOUDY TO MILKY WATER, CLOUDY AIR
MASONRY, WASHOUT/CLEAN UP	PH	CLOUDY TO MILKY WATER
GENERAL	·	<u> </u>
☑ LANDSCAPE	CONTAINERS, MULCH, SOIL, ORGANIC MATERIALS,	VARIES
OTHER POTENTIAL SOURCES OF POLLUTION:		`

POLLUTION PREVENTION MANAGEMENT MEASURES

CONTRACTOR WILL COMPLY WITH ALL OF THE POLLUTION PREVENTION AND MANAGEMENT MEASURES IDENTIFIED IN THE NPDES-CSW PERMIT. CONTRACTOR WILL SUBMIT A SPILL PREVENTION AND COUNTER MEASURE PLAN (SPCMP) TO THE ENGINEER PRIOR TO ANY
CONSTRUCTION ACTIVITY. THE SPCMP MUST SATISFACTORILY ADDRESS (AT A MINIMUM) THE FOLLOWING NPDES REQUIREMENTS BY THE
PROPOSED IMPLEMENTATION AND MAINTENANCE OF APPROPRIATE BMPS:

NO-EXPOSURE: CONSTRUCTION AND BUILDING PRODUCTS (THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS), PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPING MATERIALS MUST BE UNDER COVER (PLASTIC SHEETING OR TEMPORARY ROOFS) TO MINIMIZE CONTACT WITH STORMWATER AND PRECIPITATION.

SOLID WASTE: (SEDIMENT, ASPHALT, CONCRETE MILLINGS, CONSTRUCTION, AND DEMOLITION DEBRIS) AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND SHALL COMPLY WITH MPCA DISPOSAL REQUIREMENTS (CH. 7035).

HAZARDOUS MATERIALS: (E.G. GAS, DIESEL, OIL, ANTIFREEZE, PAINT SOLVENTS, SOAPS, DETERGENTS, WOOD PRESERVATIVES, CLEANING SOLVENTS, CURING COMPOUNDS, ACIDS, ETC.) MUST BE STORED IN SEALED CONTAINERS (WITH SECONDARY SPILL CONTAINMENT) IN RESTRICTED ACCESS AREAS TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTES AND MATERIALS MUST BE IN COMPLIANCE WITH MPCA REGULATIONS (CH. 7045).

PORTABLE TOILETS: MUST BE POSITIONED AND SECURED SO THEY ARE NOT TIPPED OR KNOCKED OVER (PART IV.F.1.E).

EQUIPMENT/VEHICLE FUELING, EXTERNAL WASHING, AND MAINTENANCE PRACTICES: WHEN VEHICLE FUELING OR EXTERNAL WASHING MUST OCCUR ON-SITE, THE ACTIVITY IS LIMITED TO A CONTAINED PORTION OF THE STAGING AREA, UNLESS INFEASIBLE THROUGH SWPPP AMENDMENT. PROCEDURES FOR SPILL RESPONSE AND MATERIALS FOR CONTAINMENT AND CLEAN UP (DRIP PANS, DRY ABSORBENTS, AND SPILL KITS) WILL BE AVAILABLE AT ALL TIMES ON-SITE. ENGINE DEGREASING IS PROHIBITED ON-SITE.

CONCRETE, STUCCO, AND OTHER WASHOUT WASTES: CONTRACTORS/SITE OPERATOR MUST SUBMIT A CONCRETE WASHOUT PLAN TO THE PROJECT ENGINEER FOR APPROVAL, IF WASHOUT OPERATIONS WILL BE CONDUCTED ON-SITE. TEMPORARY OR LONG-TERM STORAGE OF WASHOUT WASTE IS PROHIBITED ON-SITE (SLURRY MUST BE HAULED IMMEDIATELY OFF-SITE). ALL LIQUID AND SOLID WASTES MUST NOT CONTACT THE GROUND, AND THERE MUST NOT BE RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS.

<u>BURNING:</u> BURNING OF GARBAGE, CONSTRUCTION DEBRIS, TREES, BRUSH, OR OTHER VEGETATIVE MATERIAL IS NOT ALLOWED ON SITE, ILESS PRIOR APPROVAL IS GRANTED BY THE PROJECT ENGINEER.

APPLICABLE FEDERAL, TRIBAL, STATE OR LOCAL PROGRAMS

THE PROJECT FALLS UNDER THE JURISDICTION OF SEVERAL ENTITIES, AS IDENTIFIED IN THE "AGENCY CONTACTS' TABLE OF PAGE 1 OF THE SWPPP. THE MORE STRINGENT OF LOCAL VS. STATE VS. FEDERAL RULES SHALL APPLY WHERE THEY CONFLICT. INFORMATION PERTAINING TO THE STATE NPDES PERMIT CAN BE FOUND AT: (HTTP://www.PCA.STATE.MN.US/INDEX.PHP/WATER/WATER-TYPES-AND-PROGRAMS/STORMWATER/CONSTRUCTION-STORMWATER/INDEX.HTML)

SEQUENCE OF CONSTRUCTION/TIMING OF BMP INSTALLATION:

NO CONSTRUCTION OPERATIONS, INCLUDING REMOVALS, THAT REQUIRE EROSION & SEDIMENT CONTROL PER THE SWPPP CAN COMMENCE UNTIL THE CONTRACTOR'S EROSION CONTROL SUPERVISOR CERTIFIES THE PROPER INSTALLATION OF BMP'S AND A CHAIN OF RESPONSIBILITY FOR SWPPF IMPLEMENTATION IS CREATED FOR ALL OPERATORS ON THE SITE. PERIMETER SEDIMENT CONTROLS (SILT FENCE, INLET PROTECTION, CONSTRUCTION ENTRANCES, BTC.) SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ACHIEVED. CONTRACTOR SHALL IMPLEMENT THE NECESSARY ON SITE BMP'S IN ACCORDANCE WITH THE NPDES PERMIT REQUIREMENTS TO PREVENT NUISANCE CONDITIONS (MN RULES 7050.2010) FROM ANY DISCHARGES UNDER COVERAGE OF THE NPDBS PERMIT. IN SOME CASES, MULTIPLE OR REDUNDANT APPLICATIONS OF SOME BMP'S MAY BE NEEDED TO MEET THESE REQUIREMENTS.

INSPECTION, RECORD KEEPING, & SWPPP AMENDMENTS

- 1. THE SWPPP CHAIN OF RESPONSIBILITY MUST BE AMENDED BY THE PRIMARY CONTRACTOR WHEN THE IDENTITY OF RESPONSIBLE OPERATORS (SUB-CONTRACTORS) ARE KNOWN.
- 2. THE CONTRACTOR/SITE OPERATOR MUST INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. THE CONTRACTOR SHALL PROVIDE A RAINFALL GAUGE ON-SITE, WITHIN ONE MILE OF THE SITE, OR SOURCE OF THE WEATHER REPORTING SYSTEM THAT USES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES. THE LOCATION AND SOURCE OF THE RAINFALL GAUGE OR REPORTING SYSTEM MUST BE DOCUMENT IN THE FIRST SWPPP INSPECTION REPORT
- 3. ALL INSPECTIONS AND MAINTENANCE CONDUCTED MUST BE RECORDED IN WRITING AND RETAINED WITH THE SWPPP IN ACCORDANCE WITH PART III.D OF THE NPDES CONSTRUCTION PERMIT. AMENDMENTS TO THE SWPPP WILL BE MADE BY THE PROJECT ENGINEER OR THE CONTRACTOR AFTER WRITTEN APPROVAL BY THE PROJECT OWNER (OR DESIGNATED REPRESENTATIVE). RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
 - A. DATE, TIME, AND NAME OF PERSON(S) CONDUCTING INSPECTIONS;
 - B. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
 - C. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); INCLUDING DOCUMENTATION/PHOTOS OF IMPLEMENTED BMPS INTENDED TO CORRECT A PROBLEM BUT FAILED.
 - D. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCH (0.5 INCHES) IN 24 HOURS;
 - E. DOCUMENTATION OF CHANGES MADE TO THE SWPPP
- 4. THE SWPPP SHALL BE AMENDED TO INCLUDE ADDITIONAL OR MODIFIED EMPS, DESIGNED TO CORRECT IDENTIFIED PROBLEMS OR ADDRESS SITUATIONS UNDER PART III.A.5 OF THE NPDES PERMIT.
 - A. THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAVE A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS;
 - B. 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 DEGRADATION (E.G. NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2); OR
 - C. THE SWPPP IS NOT ACHIEVING THE GENERAL OBJECTIVES OF MINIMIZING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY, OR THE SWPPP IS NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF
 - D. THE MPCA NOTIFIES THE PERMITTEE(S) IN WRITING THAT THE PROJECT'S STORMWATER DISCHARGES MAY CONTRIBUTE TO NON-ATTAINMENT OF ANY APPLICABLE WATER QUALITY STANDARDS, IMPAIRED WATERS STANDARDS, AND/OR TMDL WASTE LOAD ALLOCATIONS. IN RESPONSE, THE PERMITTEE(S) MUST DEVELOP A SUPPLEMENTAL BMP ACTION PLAN OR
- 5. THE SWPPP (ORIGINAL OR COPIES), ALL CHANGES TO THE SWPPP, PROJECT MANUAL, AND INSPECTIONS/MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE CONTRACTOR/SITE OPERATOR WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN THE FIELD OFFICE OR ON SITE VEHICLE DURING NORMAL WORKING HOURS.
- 6. THE CONTRACTOR/SITE OPERATOR MUST ASSIGN A TRAINED INDIVIDUAL(S) (PURSUANT TO PART III.A.3) TO OVERSEE THE IMPLEMENTATION, MAINTENANCE, AND REPAIR OF BMPS. THIS INDIVIDUAL(S) SHALL ALSO PERFORM INSPECTIONS, REVISE/AMEND THE SWPPP (DOCUMENT IN SWPPP AS NECESSARY), AND BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE PERMITTED OWNER (OR ITS DESIGNEE), LOCAL GOVERNMENT UNITS, OR MPCA. (PART III.F

EROSION CONTROL PRACTICES & PROCEDURES
ALL EXPOSED SOIL AREAS SHALL BE STABILIZED WITHIN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. ALL EXPOSED SOILS WITHIN 200 FEET AND DRAINING TO A DNR PUBLIC WATERS MUST BE STABILIZED WITHIN 24 HOURS OF TEMPORARILY OR PERMANENTLY CEASING WORK, DURING THE FISH SPAWNING PERIOD. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES ARE EXEMPT FROM THIS REQUIREMENT.

TEMPORARY BEST MANAGEMENT PRACTICES

TEMPORARY STABILIZATION BMPS SHALL ONLY BE IMPLEMENTED WHEN PERMANENT STABILIZATION BMPS CANNOT BE IMPLEMENTED

RAPID STABILIZATION METHOD #3: THIS WORK SHALL CONSIST OF OPERATIONS NECESSARY TO RAPIDLY STABILIZE SMALL CRITICAL AREAS WITHIN 200FT OF SURFACE WATERS, TO PREVENT OFF SITE SEDIMENTATION AND OR TO COMPLY WITH PERMIT REQUIREMENTS. INSTALL PER MNDOT SPECIFICATIONS 2575.3N.

TEMPORARY/PERMANENT DRAINAGE DITCHES & SWALES: THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH, CHANNEL, OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN THE LAST 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER WITHIN 24 HOURS OR CONNECTION. STABILIZATION REMAINING OF THE REMAINING PORTIONS OF THE CHANNEL MUST BE STABILIZED WITHIN 14 DAYS . ALL STORMWATER CONVEYANCE CHANNELS MUST USE EROSION CONTROL AND VELOCITY DISSIPATION DEVICES WITHIN AND ALONG THE LENGTH OF THE CHANNEL AND AT ANY OUTLETS. TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A TEMPORARY SEDIMENT CONTAINMENT SYSTEM (WITH PROPERLY DESIGNED ROCK DITCH CHECKS, BIO ROLLS, SILT DIKES ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM. MULCH, HYDROMULCH, TACKIFIER, OR POLYARCRYLAMIDE BELOW THE WETTED PERIMETER OF A DITCH, SWALE, OR OTHER SURFACE WATER CONVEYANCE IS NOT ACCEPTABLE STABILIZATION. RAPID STABILIZATION METHOD #3 (WOOD FIBER, NATURAL NET ONLY) IS AN ACCEPTABLE BMP FOR THESE AREAS.

DUST CONTROL: DUST FROM THE SITE WILL BE CONTROLLED BY USING A MOBILE PRESSURE-TYPE DISTRIBUTOR TRUCK TO APPLY POTABLE WATER TO DISTURBED AREAS. THE MOBILE UNIT WILL APPLY WATER AT A RATE NECESSARY TO PREVENT RUNOFF AND

TEMPORARY WINTER COVER: AREAS OF EXPOSED SOILS THAT ARE NOT COMPLETED BEFORE THE WINTER WILL BE STABILIZED WITH TYPE #3 (CERTIFIED AS WEED FREE) ADJACENT TO WETLAND OR STORMWATER PONDS. ALL OTHER DISTURBED AREAS SHALL BE STABILIZED WITH TYPE #1 MULCH, UNLESS ALTERNATIVE MORE PROTECTIVE BMPS ARE SPECIFIC WITHIN THE SWPPP. THE PROJECT AREA WILL POTENTIALLY BE STILL ACTIVE OVER THE 2014-2015 WINTER SEASON. ALL EXPOSED SOILS SHALL BE STABILIZED BEFORE CONSTRUCTION IS COMPLETED FOR THE 2014 SEASON.

PERMANENT BEST MANAGEMENT PRACTICES

HYDRO-MULCH TYPE #5: HYDRAULIC SOIL STABILIZER IN COMBINATION WITH A TACKIFIER WILL BE INSTALLED PER MANUFACTURES SPECIFICATIONS TO EXPOSED SOILS AREAS TO PROVIDE PERMANENT COVER FOR VEGETATION ESTABLISHMENT.

EROSION CONTROL BLANKETS/MATS: CONTRACTOR SHALL VERIFY DURING REGULAR INSPECTIONS THAT NO GULLIES, RILLS, OR SCOUR HOLES HAVE FORMED UNDER EROSION CONTROL BLANKETS AND MATS. ALL REPAIRS MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS

STORM SEWER OUTLETS: PIPE OUTLETS MUST HAVE TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER HYDRAULIC CONNECTION TO A RECEIVING SURFACE WATER.

SEDIMENT CONTROL PRACTICES & PROCEDURES

THE CONTRACTOR/SITE OPERATOR ARE RESPONSIBLE FOR THE INSTALLATION, OPERATION, AND CONTINUED MAINTENANCE OF ALL 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, UNTIL FINAL STABILIZATION IS ACHIEVED, ALL BMPS MUST BE ADEQUATELY LOCATED, DESIGNED, INSTALLED, AND MAINTAINED TO PREVENT EROSION FROM A MINIMUM 0.5 INCH TOTAL RAINFALL EVENT WITHIN 24 HOURS.

ALL NONFUNCTIONAL BMPS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS UNLESS ANOTHER TIME FRAME IS SPECIFIED IN THE SWPPP, ALL ERODED MATERIAL THAT LEAVES THE SITE SHALL BE COLLECTED BY THE CONTRACTOR AND RETURNED TO THE SITE AT THE CONTRACTOR'S EXPENSE AND INCIDENTAL TO THE PROJECT COST.

DOWN GRADIENT SYSTEMS: IF THE DOWN GRADIENT TREATMENT SYSTEM IS OVERLOADED, ADDITIONAL UP GRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS MUST BE INSTALLED TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES.

PERIMETER CONTROL BMPS (SILT FENCES, CHIP SACKS, BIOROLLS, ETC.): PERIMETER CONTROL BMPS SHALL BE PLACED, AS CLOSE AS POSSIBLE TO FOLLOW A SINGLE CONTOUR ELEVATION. 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. ALL REPAIRS MUST BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS

TEMPORARY AND PERMANENT SEDIMENTATION BASINS: WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN MUST BE PROVIDED PRIOR TO RUNOFF LEAVING THE CONSTRUCTION SITE OR ENTERING SURFACE WATERS. ALL TEMPORARY BASINS SHALL BE CONSTRUCTED AND OPERATIONAL PRIOR TO GRADING TEN (10) OR MORE ACRES PER THE PLANS AND SPECIFICATIONS, OR TO THE MINIMUM STANDARDS SPECIFIED IN PART III.COF THE NPDES CONSTRUCTION PERMIT. BASINS MUST BE DRAINED AND SEDIMENT REMOVED WHEN THE DEPTH OF COLLECTED SEDIMENT 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 (PART IV.E.4.B).

TEMPORARY STOCKPILES: ALL STOCKPILES MUST HAVE SILT FENCE OR EQUIVALENT PERIMETER SEDIMENT CONTROLS IMPLEMENTED AND MAINTAINED AT ALL TIMES. PILES CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE TO PREVENT STORMWATER RUN-ON INTO THE STOCKPILE (PART IV.C.5).

CONSTRUCTION SITE ENTRANCE/VEHICLE TRACKING: CONTRACTOR MUST MINIMIZE SEDIMENT FROM LEAVING THE CONSTRUCTION SITE (OR ONTO STREETS WITHIN THE SITE) BY IMPLEMENTING BMPS SUCH AS ROCK PADS. SLASH MULCH. CONCRETE OR STEEL WASH RACKS. OR EQUIVALENT SYSTEMS. STREET SWEEPING MUST BE USED DAILY DURING CONSTRUCTION OPERATIONS IF SUCH BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES (ON AND OFF-SITE) WITHIN 24 HOURS OF DISCOVERY, OR SOONER AS DIRECTED BY THE PROJECT OWNER TO COMPLY WITH PART IV. C. 6 OF THE NPDES CONSTRUCTION PERMIT. MULTIPLE STREET SWEEPINGS AT THE CONTRACTOR'S EXPENSE MAY BE REQUIRED ON ALL ENTRY/BXIT POINTS TO THE SITE AT THE DISCRETION OF THE PROJECT OWNER.

SURFACE WATERS: INCLUDING OFF-SITE AND DOWNSTREAM DRAINAGE DITCHES, CATCH BASINS, AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. THE REMOVAL AND STABILIZATION OF EXPOSED SOILS MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS. THE

PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AGENCIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK (PART IV.E.S.C).

INLET PROTECTION: ALL STORM DRAIN INLETS (INCLUDING DOWN GRADIENT, OFF-SITE) MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. SILT FENCE IS NOT AN ACCEPTABLE CATCH BASIN INLET PROTECTION BMP. CONTACTOR SHALL CLEAN, REMOVE AND DISPOSE OF SEDIMENT, AND/OR REPLACE STORM DRAIN INLET PROTECTION ON A ROUTINE BASIS TO ENSURE THE DEVICE IS FULLY FUNCTIONAL PRIOR TO THE NEXT FORECASTED PRECIPITATION EVENT (30% OR GREATER). INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED AND THE PERMITTEE (S) HAVE RECEIVED WRITTEN CORRESPONDENCE FROM THE JURISDICTIONAL AUTHORITY (E.G. CITY/COUNTY/TOWNSHIP/MNDOT ENGINEER) VERIFYING THE NEED FOR REMOVAL. WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THE SWPPP AND AVAILABLE WITHIN 72 HOURS UPON REQUEST. PERMISSION TO REMOVE INLET PROTECTION BASED ON A SPECIFIC SAFETY CONCERN MUST STILL BE OBTAINED FROM THE LOCAL JURISDICTIONAL AUTHORITY WITHIN 30 DAYS OF REMOVAL (PART IV.C.4).

CHEMICAL TREATMENTS: CONTRACTOR MUST AMEND THE SWPPP TO INCLUDE THE INTENDED USES AND LOCATIONS OF FLOCCULANTS, POLYMERS, AND OTHER SEDIMENTATION TREATMENT CHEMICALS. CHEMICAL TREATMENTS MAY ONLY BE APPLIED IN AREAS WHERE TREATED STORMWATER IS DIRECTED TO A RECEIVING SEDIMENT CONTROL SYSTEM (NOT DIRECTLY DISCHARGED TO NATURAL WATER BODIES). THIS INCLUDES DOCUMENTING THE EXPECTED SOIL TYPES, MANUFACTURER'S RECOMMENDED DOSING, APPLICATION RATES/OUANTITIES. AND MONITORING RESULTS (TURBIDITY, PH).

DEWATERING, STREAM DIVERSION, AND BASIN DRAINING

DEWATERING, STREAM DIVERSION, OR BASIN DRAINING IS ANTICIPATED DURING CONSTRUCTION OF THIS PROJECT. DITCH REALIGNMENT, CULVERT CONSTRUCTION, AND NEW POND GRADING WILL REQUIRE SITE DEWATERING. WHEN DEWATERING OR BASIN DRAINING IS REQUIRED, THE CONTRACTOR SHALL SUBMIT A DEWATERING PLAN AND NARRATIVE TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO UNDERTAKING THESE ACTIVITIES. DEWATERING PLAN MUST INCLUDE BMP'S TO PREVENT SEDIMENT TRANSPORT, EROSTON, AND ADVERSE IMPACTS TO DOWNSTREAM RECEIVING WATERS. THE DEWATERING PLAN MUST ALSO INCLUDE ANY SPECIFIC CHEMICAL TREATMENTS (FLOC, POLYMERS, ETC.) THAT WILL BE USED (REFER TO "SEDIMENT CONTROL PRACTICES & PROCEDURES") IF AN APPROVED TMDL WASTE LOAD ALLOCATION IS ESTABLISHED FOR CONSTRUCTION ACTIVITIES ON A RECEIVING WATERBODY, THE CONTRACTOR MUST IMPLEMENT ALL NECESSARY BMP'S TO MEET THE ASSIGNED WLA. THE DEWATERING PLAN AND DNR APPROPRIATIONS PERMIT WILL BECOME PART OF THE SWPPP, WATER THAT IS TURBED OR HAS SEDIMENT MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN (AND/OR OTHER APPROPRIATE BMPS) ON THE PROJECT SITE WHENEVER POSSIBLE. DISCHARGE FROM THE TEMPORARY OR PERMANENT SEDIMENTATION BASIN MUST BE VISUALLY CHECKED TO ENSURE ADEQUATE TREATMENT IS OBTAINED IN THE BASIN AND THAT NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2), IMPACTS TO WETLANDS, AND EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES WILL NOT RESULT FROM THE DISCHARGE. 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 (PART IV.D.1).

FINAL STABILIZATION IS ACHIEVED WHEN THE FOLLOWING THREE PARAMETERS ARE COMPLETED, PRIOR TO SUBMISSION OF THE PERMIT MODIFICATION FORM TO MPCA. SEE PERMANENT EROSION CONTROL PRACTICES FOR SPECIFIC METHODS AND APPLICATIONS.

- 1. 70% VEGETATIVE COVER: ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL EXPOSED SOILS ARE STABILIZED BY A INTEGRM. LIVE PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSIVE CONDITIONS.
- 2. FINAL CLEAN OUT OF PERMANENT STORMWATER MANAGEMENT SYSTEMS & CONVEYANCE SYSTEMS: ALL SEDIMENT MUST BE REMOVED FROM PERMANENT STORMWATER MANAGEMENT SYSTEMS, CONVEYANCE SYSTEMS, AND DITCHES MUST BE STABILIZED WITH PERMANENT
- 3. REMOVAL OF ALL TEMPORARY BMPS: PRIOR TO SUBMISSION OF THE NOT, ALL TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPS (SUCH AS SILT FENCE) MUST BE REMOVED ON THE PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE. BMPS DESIGNED TO DECOMPOSE ON SITE (SUCH AS SOME COMPOST LOGS) MAY BE LEFT IN

SEED MIX(S) PRAIRIE RESTORATION INC. (PRI) SHORELINE GRASS MIX OR SAVANNA GRASS MIX TO BE APPLIED AT @ 20 LBS/AC. 5400 PRI SHORELINE SEED MIX, SEEDED AREAS TO BE STAKED IN THE FIELD. PRI SAVANNA SEED MIX, SEEDES AREAS TO BE STAKED IN THE FIELD. SPECIAL NOTE: THE PLACEMENT OF THESE SEED MIXES WILL BE DIRECTED BY THE ENGINEER IN THE FIELD ADDITIONAL TEMPORARY SEED: WINTER WHEAT IS REQUIRED BE MIXED INTO PRI MIXES @ 50 LBS/AC TO PROVIDE A FAST GROWING VEGETATIVE COVER. 5380 DISTURBED AREAS SHALL BE STABILIZED WITH CATEGORY III EROSION CONTROL BLANKET SITE ACCESS AND LIMITS OF CONSTRUCTION ARE IDENTIFIED ON THE PLANS. ACTUAL ACCESS ROUTES AND LIMITS OF CONSTRUCTION WILL BE STAKED IN THE FIELD BY THE ENGINEER. CONTRACTOR MAY OBTAIN ADDITIONAL ACCESS AT THEIR OWN EXPENSE. I HEREBY CERTIFY THAT THIS PLAN, WAS PREPARED BY ME OR UNDER M AND THAT I AM A DULY LICENSED P! UNDER THE LAWS OF THE STATE OF GENERAL CONSTRUCTION NOTES

1. CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO WORK.

2. EXISTING BOADS, PARKING LOTS, TRAILS, FENCES SIGNS, UTILITIES, IRRIGATION SYSTEMS AND ALL OTHER ASSOCIATED AND EXISTING FACILITY SITE FEATURES SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE THAT OCCURS TO EXISTING FACILITIES.

3. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL BMPS PRIOR TO COMMENCEMENT OF GRADING.

4. ALL TREES WITH A DIAMETER OF 4 INCHES OR LARGER SHALL BE MARKED FOR REMOVAL BY WONER OR OWNER'S REPRESENTATIVE. TREES REMOVED THAT ARE NOT MARKED SHALL BE REPLACED IN KIND AT CONTRACTORS EXPENSE.

3. ALL DISTURBED AREAS AND WITH THE PRIOR OF THE 5320 5360 EXISTING HOUSE FFE: 846.78 ROULES AND STOCKPILE.
SEED BED SHALL BE PREPARED WITH A MINIMUM OF 4 INCHES OF TOPSOIL WITH NO EXTRANEOUS MATERIAL OVER 1/2
INCHES ON THE SURFACE.
EROSION CONTROL BLANKET SHALL BE MNDOT CATEGORY III OR OTHERWISE AS SPECIFIED.
VEGETATIVE AND BIOENGINEERING SOLUTIONS SHALL BE INCORPORATED WHEREVER APPROPRIATE AND FEASIBLE. TREE AND STUMP REMOVAL NOTE
THE ENGINEER WILL SELECT THE TREES AND STUMPS THAT ARE TO BE REMOVED TO GAIN ACCESS TO AND TO PROVIDE THE
REQUIRED MAINTENANCE AREAS THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TREES, BRUSH, STUMPS, AND
ROOTS FROM THE AREA DESIGNATED FOR CLEARING AND GRUBBING. **GOLDEN VALLEY** BRIARWOOD WATER QUALITY IMPROVEMENT PROJECT UTILITY COORDINATION AND CONFLICT: UTILITY LOCATE INFORMATION IS LOCATED IN AN A APPENDIX OF THE SPECIFICATIONS AND NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL SCHEDULE OR REDIRECT HISAHER WORK TO ENSURE THAT UTILITY COMPANY RELOCATES. INSTALLATIONS AND OR REMOVALS DO NOT IMPEDE PROGRESS OF THE PROJECT. THE CONTRACTOR SHALL ALSO COORDINATE ALL UNANTICIPATED UTILITY RELOCATIONS OR ADJUSTMENTS DETERMINED TO BE NECESSARY TO COMPLETE THE WORK NO CLAIMS FOR EXTRA COMPENSATION TO PERFORM THE WORK IN ACCORDANCE WITH THE PLANS THAT ARE DUE TO CONFLICTS WITH IN-PLACE UTILITIES SHALL BE CONSIDERED. CONTRACTOR RESPONSIBILITY
CONTRACTOR IS RESPONSIBILITY
THE PROJECT AREA, INCLUDING AREAS THAT HAVE BEEN RESTORED AND AREAS
THAT HAVE DEEN COMPLETED, CONSTRUCTION EQUIPMENT, AND CONSTRUCTION MATERIALS DURING ADVERSE.
HIM HAVE NO THE DEEN COMPLETED, CONSTRUCTION EQUIPMENT, AND CONSTRUCTION MATERIALS DURING ADVERSE.
BE ADD TO THE CONTRACTOR FOR ADDITIONAL COSTS INCURRED FOR REPAIR OR REPLACEMENT OF ANY DAMAGE THAT MAY
OCCUPADED TO ADVESSE WEATHER CONDITIONS. The State of the EROSION AND SEDIMENT CONTROL NOTES LOCATION OF SILT FENCE SHOWN ON THE PLAN IS APPROXIMATE AND WILL BE STAKED IN THE 2745 / **PF** ACCESS ROUTES MUST BE REGULARLY MAINTAINED AND IF ARE NOT BEING ACTIVELY USED MUST BE STABILIZED WITHIN 48 HOURS WITH A TEMPORARY SEED MIX AND STRAW MULCH. CITY EXPOSED SOILS IMMEDIATELY ADJACENT TO THE CREEK, WHICH ARE NOT ACTIVELY BEING WORKED MUST TO BE STABILIZED WITHIN 48 HOURS WITH A TEMPORARY SEED MIX AND STRAW MULCH. THE CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION AND SEDIMENT CONTROL DEVICES FOR ALL STOCKPILES. ROCK CONSTRUCTION ENTRANCES MUST BE INSTALLED AT EACH ACCESS POINT PRIOR TO STREETS, DRIVEWAYS, AND PARKING LOTS IN AND ADJACENT TO THE PROJECT SHALL REMAIN CLEAN AND PASSABLE AT ALL TIMES. ANY SEDIMENT OR DEBRIS SHALL BE REMOVED WITHIN 24 HOURS, OR AS OFTEN TO ENSURE PUBLIC SAFETY. Suite 300 Suite 300 MN 55422 DEWATERING WILL REQUIRE AN ADDITIONAL SITE PLAN. WETLAND LINE

CITY PROJECT NUMBER 12-26

PROJECT NUMBER 2032-08

EROSION AND SEDIMENT CONTROL

AND STAGING PLAN

SHEET 11 OF 11 SHEETS