

CITY OF EAST GULL LAKE, MINNESOTA

CONSTRUCTION PLANS FOR

SITE GRADING, UTILITIES, TURF RESTORATION

WES HANSON GULL LAKE RESIDENCE

GOVERNING SPECIFICATIONS
THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF
TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION"
SHALL GOVERN EXCEPT AS MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

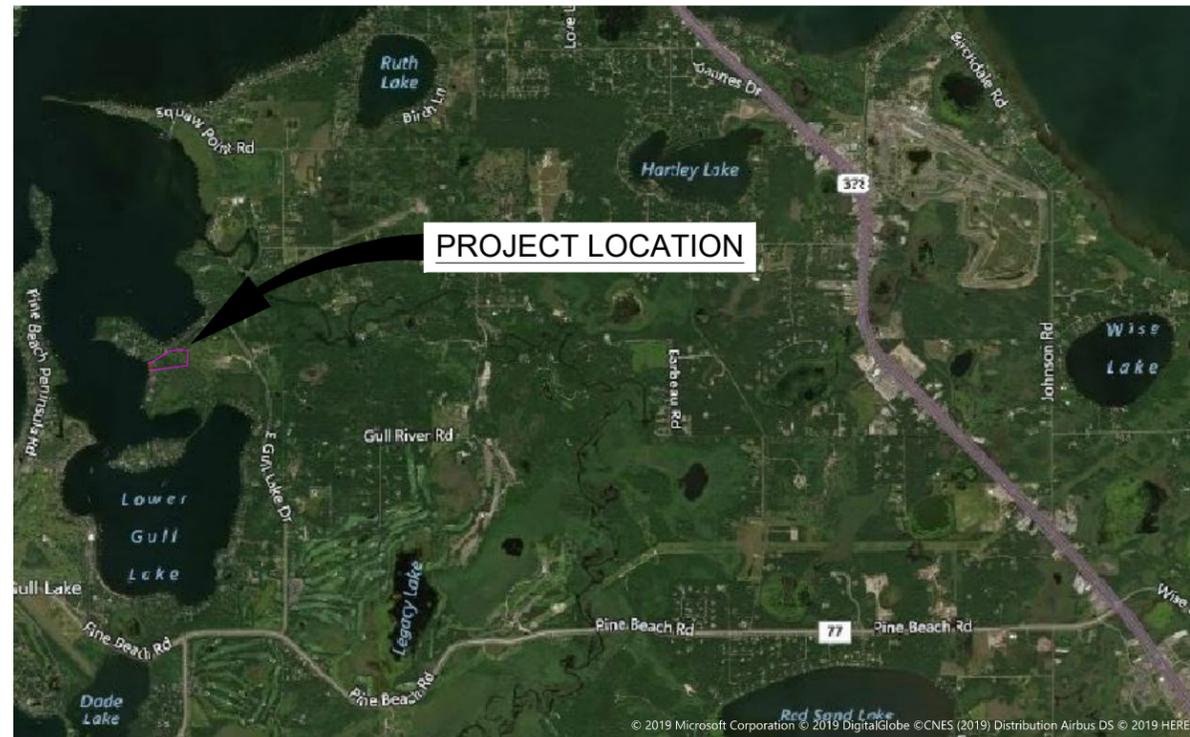
ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE
MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST
FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SITE GRADING
3	UTILITY PLAN
4-7	SWPPP

THIS PLAN CONTAINS 7 SHEETS.

EXISTING	
	RIGHT OF WAY
	PERMANENT EASEMENT
	PROPERTY LINE
	HORIZONTAL CONTROL POINT
	BENCHMARK
	SURVEY MARKER
	SOIL BORING
	SANITARY SEWER AND MANHOLE
	FORCE MAIN AND LIFT STATION
	SANITARY SEWER SERVICE & CLEANOUT
	WATER MAIN, HYDRANT, VALVE AND MANHOLE
	WATER SERVICE AND CURB STOP BOX
	STORM SEWER, MANHOLE AND CATCH BASIN
	CULVERT AND APRON ENDWALL
	GAS MAIN, VALVE, VENT AND METER
	HANDHOLE
	BURIED FIBER OPTIC CABLE AND MANHOLE
	BURIED PHONE CABLE, PEDESTAL AND MANHOLE
	BURIED TV CABLE, PEDESTAL AND MANHOLE
	BURIED ELECTRIC CABLE, PEDESTAL, MANHOLE, TRANSFORMER AND METER
	OVERHEAD WIRE, POLE AND GUY WIRE
	LIGHT POLE
	TRAFFIC SIGNAL
	STREET NAME SIGN
	SIGN (NON STREET NAME)
	RAILROAD TRACKS
	DECIDUOUS AND CONIFEROUS TREE
	BUSH / SHRUB AND STUMP
	EDGE OF WOODED AREA
	WETLAND
	BUILDING
	FENCE (UNIDENTIFIED)
	BARBED WIRE FENCE
	CHAIN LINK FENCE
	ELECTRIC WIRE FENCE
	WOOD FENCE
	WOVEN WIRE FENCE
	PLATE BEAM GUARDRAIL
	CABLE GUARDRAIL
	POST / BOLLARD
	RETAINING WALL
	PROPOSED
	STREET CENTERLINE
	RIGHT-OF-WAY
	PERMANENT EASEMENT
	TEMPORARY EASEMENT
	CONSTRUCTION LIMITS
	SANITARY SEWER, BULKHEAD AND MANHOLE
	FORCE MAIN
	SANITARY SERVICE AND CLEANOUT
	WATER MAIN, TEE, HYDRANT, BULKHEAD AND VALVE
	WATER VALVE MANHOLE, REDUCER, BEND AND CROSS
	WATER SERVICE AND CURB STOP BOX
	STORM SEWER, MANHOLE AND CATCH BASIN
	CULVERT AND APRON ENDWALL
	DRAIN TILE
	DITCH / SWALE
	RIPRAP
	STREET NAME SIGN
	SIGN (NON STREET NAME)
	RETAINING WALL



PROJECT LOCATION



APPROVED: _____
CITY ENGINEER OF _____ DATE _____

APPROVED: _____
COUNTY ENGINEER _____ DATE _____

EAST GULL LAKE, MINNESOTA

PHONE: 218.855.1700
416 S 6TH ST, STE 200
BRAINERD, MN 56401-3540
www.sehinc.com

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.

CHAD T. KATZENBERGER, PE
Date: 09/27/19 Lic. No. 46613

FILE NO.
WHASB 152572

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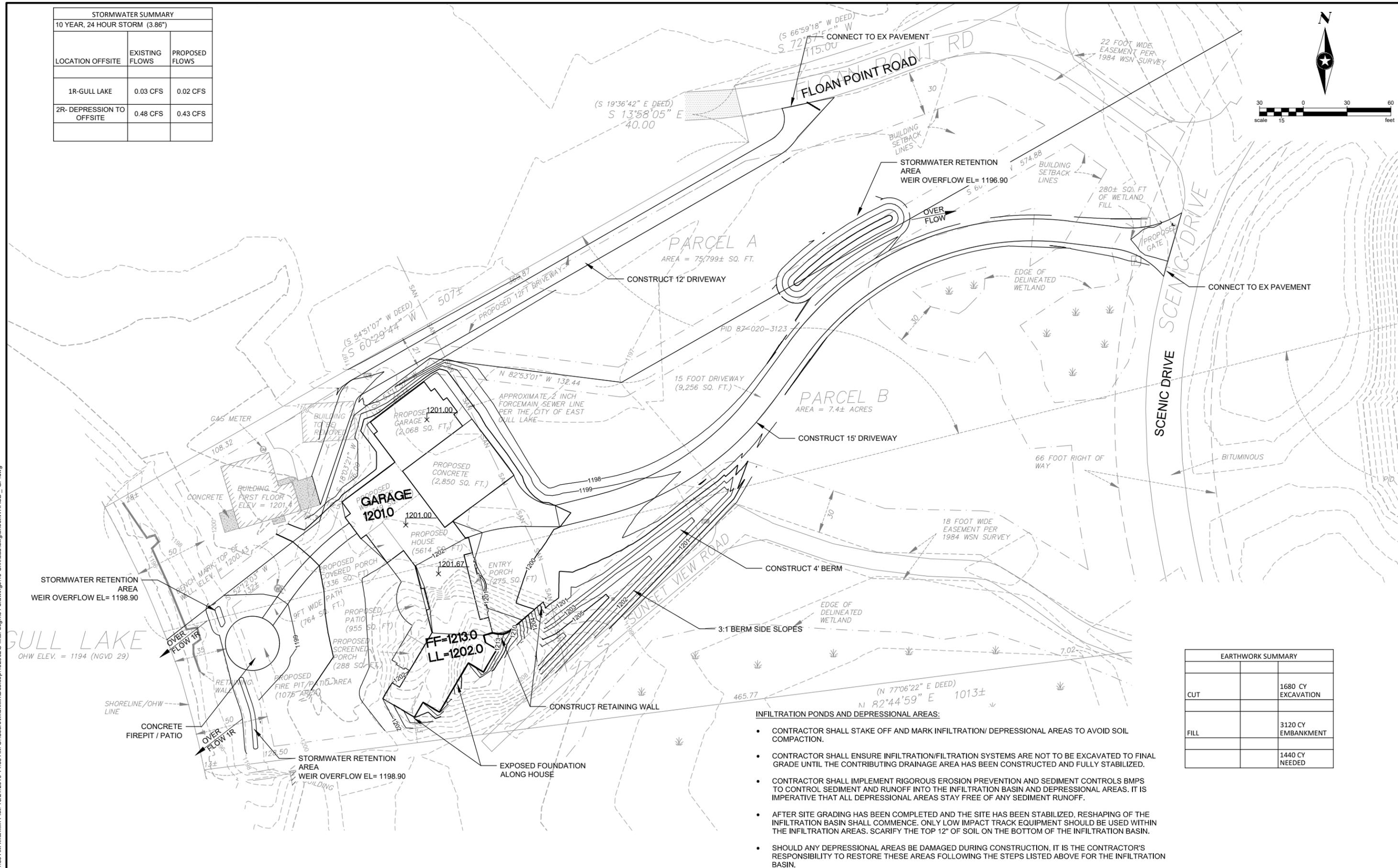
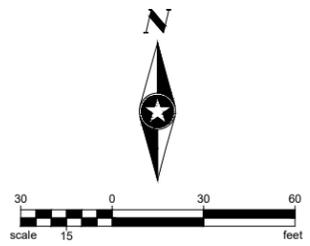
NOTE:
THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

THE CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.



Know what's below.
Call before you dig.

STORMWATER SUMMARY		
10 YEAR, 24 HOUR STORM (3.86")		
LOCATION OFFSITE	EXISTING FLOWS	PROPOSED FLOWS
1R-GULL LAKE	0.03 CFS	0.02 CFS
2R- DEPRESSION TO OFFSITE	0.48 CFS	0.43 CFS



EARTHWORK SUMMARY	
CUT	1680 CY EXCAVATION
FILL	3120 CY EMBANKMENT
	1440 CY NEEDED

- INFILTRATION PONDS AND DEPRESSIONAL AREAS:**
- CONTRACTOR SHALL STAKE OFF AND MARK INFILTRATION/ DEPRESSIONAL AREAS TO AVOID SOIL COMPACTION.
 - CONTRACTOR SHALL ENSURE INFILTRATION/FILTRATION SYSTEMS ARE NOT TO BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED.
 - CONTRACTOR SHALL IMPLEMENT RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS BMPs TO CONTROL SEDIMENT AND RUNOFF INTO THE INFILTRATION BASIN AND DEPRESSIONAL AREAS. IT IS IMPERATIVE THAT ALL DEPRESSIONAL AREAS STAY FREE OF ANY SEDIMENT RUNOFF.
 - AFTER SITE GRADING HAS BEEN COMPLETED AND THE SITE HAS BEEN STABILIZED, RESHAPING OF THE INFILTRATION BASIN SHALL COMMENCE. ONLY LOW IMPACT TRACK EQUIPMENT SHOULD BE USED WITHIN THE INFILTRATION AREAS. SCARIFY THE TOP 12" OF SOIL ON THE BOTTOM OF THE INFILTRATION BASIN.
 - SHOULD ANY DEPRESSIONAL AREAS BE DAMAGED DURING CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE THESE AREAS FOLLOWING THE STEPS LISTED ABOVE FOR THE INFILTRATION BASIN.

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DRAWN BY: RVH
 DESIGNER: KLF
 CHECKED BY: CK

DESIGN TEAM	NO.	BY	DATE	REVISIONS

PHONE: 218.855.1700
 416 S 6TH ST, STE 200
 BRAINERD, MN 56401-3540
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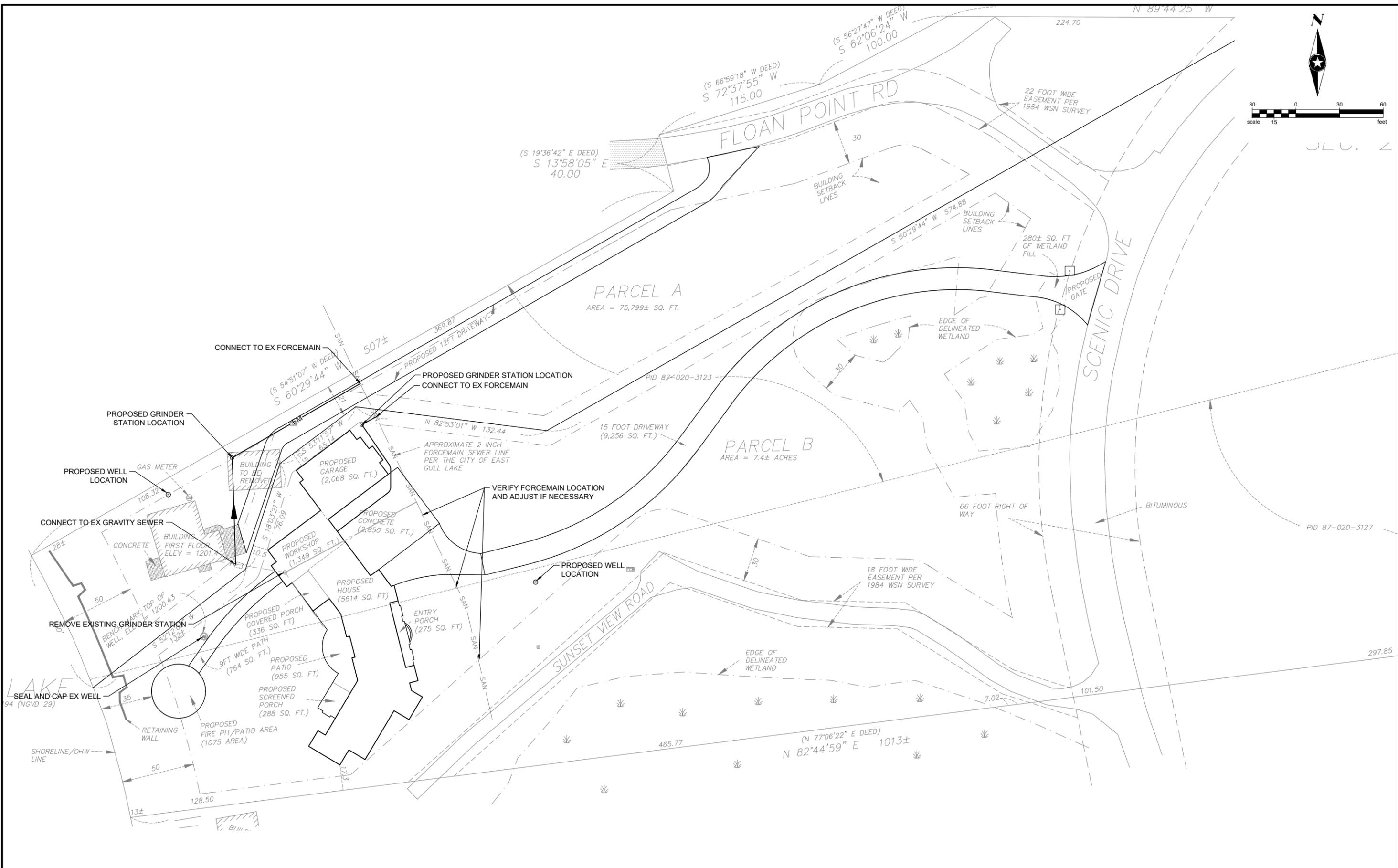
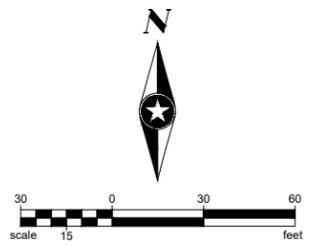
**EAST GULL LAKE,
 MINNESOTA**

**SITE PLAN / GRADING
 EGL HANSON**

FILE NO.
 WHASB 152572

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CHECKED BY:	CTK
DESIGN TEAM	

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**EAST GULL LAKE,
MINNESOTA**

**UTILITY PLAN
EGL HANSON**

FILE NO.
WHASB152572

3
7

SWPPP SUMMARY/OVERVIEW:

THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF NPDES PERMIT MN R100001, PART III, SUBPART A. THIS SWPPP INCLUDES A COMBINATION OF NARRATIVE AND PLAN SHEETS THAT DESCRIBE THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT PLAN FOR THE PROJECT.

PROJECT INFORMATION:

LOCATION:	EAST GULL LAKE, MINNESOTA
LATITUDE/LONGITUDE: :	46.403646, -94.363298
PROJECT DESCRIPTION:	WES HANSON GULL LAKE RESIDENCE
SOIL DISTURBING ACTIVITIES:	GRADING AND UTILITIES

CONTACTS:

OWNER:	WES HANSON
CONTACT:	MATT SCHMIDT
ADDRESS:	34103 COUNTY ROAD 3, CROSS LAKE, MN 56442
PHONE:	218.692.1760
EMAIL:	matt@weshansonbuilders.com

ENGINEER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
CONTACT:	KARI FRANKLIN
PHONE:	320.229.4342
EMAIL:	kfranklin@sehinc.com
PROJECT NO.:	WHASB 152572

KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY

THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPs WHO WILL OVERSEE THE IMPLEMENTATION OF THE SWPPP, INCLUDING: INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs. THE GENERAL CONTRACTOR SHALL ATTACH CONTACT INFORMATION TO THE SWPPP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

CONTRACTOR: _____
 CONTACT: _____
 PHONE: _____
 EMAIL: _____

THE CONTRACTOR SHALL ESTABLISH A CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUB-CONTRACTORS ON SITE TO ENSURE THE SWPPP IS BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER AND ATTACH TO THE SWPPP PRIOR TO ANY CONSTRUCTION ACTIVITY.

GENERAL SWPPP RESPONSIBILITIES:

THE CONTRACTOR SHALL KEEP THE SWPPP, INCLUDING ALL AMENDMENTS AND INSPECTION AND MAINTENANCE RECORDS ON SITE DURING CONSTRUCTION.

THE SWPPP WILL BE AMENDED AS NEEDED AND/OR AS REQUIRED BY PROVISIONS OF THE PERMIT. AMENDMENTS WILL BE APPROVED BY BOTH THE OWNER AND CONTRACTOR AND WILL BE ATTACHED OR OTHERWISE INCLUDED WITH THE SWPPP DOCUMENTS. THE SWPPP AMENDMENTS SHALL BE INITIATED, FACILITATED, AND PROCESSED BY THE CONTRACTOR. THE SWPPP AND AMENDMENTS SHALL BE KEPT ON SITE BY THE CONTRACTOR WHENEVER CONSTRUCTION ACTIVITY IS IN PROGRESS.

THE CONTRACTOR SHALL DOCUMENT AMENDMENTS TO THE SWPPP AS A RESULT OF INSPECTION(S) WITHIN 7 DAYS.

BOTH THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER TERMINATION AND/OR TRANSFER OF THE PERMIT.

LONG TERM OPERATION AND MAINTENANCE

THE OWNER WILL BE RESPONSIBLE OR WILL OTHERWISE IDENTIFY WHO WILL BE RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM(S).

THE OWNER WILL PREPARE AND IMPLEMENT A PERMANENT STORMWATER TREATMENT SYSTEM(S) MAINTENANCE PLAN.

TRAINING DOCUMENTATION:

PREPARER/DESIGNER OF SWPPP:	KARI FRANKLIN
EMPLOYER:	SHORT ELLIOTT HENDRICKSON, INC.
TRAINING AND DATE OBTAINED:	DESIGN OF CONSTRUCTION SWPPP (MAY 31, 2022)
NAME OF INSTRUCTOR(S):	UNIVERSITY OF MINNESOTA

THE CONTRACTOR (OPERATOR) SHALL ADD TO THE SWPPP TRAINING RECORDS FOR THE FOLLOWING PERSONNEL:

- INDIVIDUALS OVERSEEING THE IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP
- INDIVIDUALS PERFORMING INSPECTIONS
- INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs

TRAINING MUST RELATE TO THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES AND SHALL INCLUDE:

- 1) DATES OF TRAINING
- 2) NAME OF INSTRUCTORS
- 3) CONTENT AND HOURS OF TRAINING

THE CONTRACTOR SHALL ENSURE THAT THE INDIVIDUALS ARE TRAINED BY LOCAL, STATE, FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, PERIMETER CONTROL, PERMANENT STORMWATER MANAGEMENT AND THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT.

PROJECT SUMMARY:

TOTAL PROJECT AREA:	9.2 AC
TOTAL DISTURBED AREA:	1.7 AC
PRE-CONSTRUCTION IMPERVIOUS AREA:	0.8 AC
POST-CONSTRUCTION IMPERVIOUS AREA:	1.1 AC
IMPERVIOUS AREA ADDED:	0.3 AC

RECEIVING WATER(S) WITHIN ONE MILE FROM PROJECT BOUNDARIES:

(<http://pca-gis02.pca.state.mn.us/CSW/index.html>)

ID	NAME	TYPE	SPECIAL WATER CLASSIFICATION	TMDL
NA	GULL	LAKE	NO SPECIAL WATER CLASSIFICATION	NONE

ADDITIONAL BMPs AND/OR ACTIONS REQUIRED:
NONE NEEDED

DOES THE PROJECT DISCHARGE TO A CALCAREOUS FEN:	NO
IS THE PROJECT LOCATED IN A KARST AREA:	NO
PROJECTS LOCATED IN KARST AREA MEASURES IMPLEMENTED TO ENSURE PROTECTION OF DRINKING WATER SUPPLY:	NONE NEEDED

SITE SOIL INFORMATION: (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>)

(SOIL INFORMATION PROVIDED IS FOR NPDES PERMIT INFORMATION ONLY. SOIL INFORMATION WAS OBTAINED FROM THE USGS WEBSITE. THE CONTRACTOR SHALL NOT RELY ON THIS SOIL INFORMATION FOR CONSTRUCTION PURPOSES.)

SOIL NAME:	HYDROLOGIC CLASSIFICATION:
MENAHGA LOAMY SAND, 1 TO 30 PERCENT SLOPES	A
RIFLE-RIFLE, PONDED, COMPLEX 0 TO 1 PERCENT SLOPES	A/D

IMPLEMENTATION SEQUENCE:

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING SEQUENCE. THE ENGINEER MAY APPROVE ADJUSTMENTS TO THE SEQUENCE AS NEEDED.

1.	INSTALL PERIMETER CONTROL AND STABILIZE DOWN GRADIENT BOUNDARIES
2.	COMPLETE SITE GRADING
3.	INSTALL UTILITIES, STORM SEWER, INLET PROTECTION, CURB & GUTTER, PAVING
4.	COMPLETE FINAL GRADING AND STABILIZE DISTURBED AREAS
5.	AFTER CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ACCUMULATED SEDIMENT, REMOVE BMPs, AND RE-STABILIZE ANY AREAS DISTURBED BY THEIR REMOVAL.

THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE SWPPP:

1. GRADING PLAN SHEETS
2. SWPPP NOTE AND DETAIL SHEETS

INFILTRATION/FILTRATION DESIGN PARAMETERS:

DESIGN INFILTRATION RATE:	0.4 IN/HR
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CONTRACTOR SHALL ENSURE INFILTRATION/FILTRATION SYSTEMS ARE NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED.

CONTRACTOR SHALL IMPLEMENT RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS BMPs SHALL BE USED TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION/FILTRATION AREA(S).

CONTRACTOR SHALL STAKE OFF AND MARK INFILTRATION/FILTRATION AREA(S) TO AVOID SOIL COMPACTION.

THE CONTRACTOR SHALL COMPLETE ON-SITE TESTING TO VERIFY INFILTRATION/FILTRATION RATES AFTER ALL CONSTRUCTION IS COMPLETE.

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DRAWN BY: RVH					
DESIGNER: KLF					
CHECKED BY: CTZ					
DESIGN TEAM	NO.	BY	DATE	REVISIONS	



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Date: 09/27/19 CHAD T. KATZENBERGER, PE
Lic. No. 46613

EAST GULL LAKE,
MINNESOTA

SWPPP
EGL HANSON

FILE NO.
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7

EROSION PREVENTION MEASURES AND TIMING:

THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION MEASURES FOR THE PROJECT.

EROSION PREVENTION MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL EROSION PREVENTION MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL PLAN AND IMPLEMENT APPROPRIATE CONSTRUCTION PRACTICES AND CONSTRUCTION PHASING TO MINIMIZE EROSION AND RETAIN VEGETATION WHENEVER POSSIBLE.

THE CONTRACTOR SHALL DELINEATE AREAS NOT TO BE DISTURBED AND/OR TO BE PROTECTED WITH FLAGS, STAKES, SIGNS, SILT FENCE, OR OTHER MEANS NECESSARY TO PROTECT THESE AREAS BEFORE CONSTRUCTION BEGINS ON THE SITE.

THE CONTRACTOR SHALL STABILIZE OF ALL EXPOSED SOILS IMMEDIATELY TO LIMIT SOIL EROSION. IN NO CASE SHALL ANY EXPOSED AREAS, INCLUDING STOCK PILES, HAVE EXPOSED SOILS FOR MORE THAN 7 DAYS WITHOUT PROVIDING TEMPORARY OR PERMANENT STABILIZATION.

DRAINAGE PATHS, DITCHES, AND/OR SWALES SHALL HAVE TEMPORARY OR PERMANENT STABILIZATION WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER OR 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THE DITCH/SWALE HAS TEMPORARILY OR PERMANENTLY CEASED.

THE CONTRACTOR SHALL COMPLETE THE STABILIZATION OF ALL EXPOSED SOILS WITHIN 24 HOURS THAT LIE WITHIN 200 FEET OF PUBLIC WATERS PROMULGATED "WORK IN WATER RESTRICTIONS" BY THE MN DNR DURING SPECIFIED FISH SPAWNING TIMES.

THE CONTRACTOR SHALL IMPLEMENT STORMWATER CONVEYANCE CHANNELS WHEN APPROPRIATE TO ROUTE WATER AROUND UNSTABILIZED AREAS ON SITE TO REDUCE EROSION.

THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL BMPs AND VELOCITY DISSIPATION DEVICES ALONG CONSTRUCTED STORMWATER CONVEYANCE CHANNELS AND OUTLETS.

THE CONTRACTOR SHALL STABILIZE TEMPORARY AND/OR PERMANENT DRAINAGE DITCHES OR SWALES WITHIN 200 LINEAL FEET FROM PROPERTY EDGE, OR DISCHARGE POINT(S) WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.

TEMPORARY OR PERMANENT DITCHES OR SWALES USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

THE CONTRACTOR SHALL NOT UTILIZE HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILIAR EROSION PREVENTION PRACTICES AS A FORM OF STABILIZATION FOR TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES.

THE CONTRACTOR SHALL ENSURE PIPE OUTLETS HAVE TEMPORARY OR PERMANENT ENERGY DISSIPATION WITH IN 24 HOURS OF CONNECTION TO A SURFACE WATER.

THE CONTRACTOR SHALL DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. VELOCITY DISSIPATION DEVICES MUST BE USED TO PREVENT EROSION WHEN DIRECTING STORMWATER TO VEGETATED AREAS.

SEDIMENT CONTROL MEASURES AND TIMING:

THE CONTRACTOR IS RESPONSIBLE FOR ALL SEDIMENT CONTROL MEASURES FOR THE PROJECT.

SEDIMENT CONTROL MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL MEASURES ARE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADE LAND DISTURBING ACTIVITIES BEGIN. THESE MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

THE CONTRACTOR SHALL ENSURE THERE ARE NO UNBROKEN SLOPE LENGTH GREATER THAN 75 FEET ON SLOPES 3:1 OR STEEPER.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL PRACTICES REMOVED OR ADJUSTED FOR SHORT-TERM ACTIVITIES BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE REINSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

THE CONTRACTOR SHALL ENSURE STORM DRAIN INLETS AND CULVERT INLETS ARE PROTECTED BY APPROPRIATE BMPs DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAS BEEN STABILIZED. INLET AND CULVERT PROTECTION SHALL CONFORM TO THE 2014 MNDOT SPECIFICATIONS 2573.

THE CONTRACTOR SHALL ENSURE STOCK PILES ARE PROVIDED WITH AN EFFECTIVE SEDIMENT PERIMETER CONTROL AND STOCK PILES SHALL NOT BE PLACED IN ANY TYPE OF SURFACE WATER OR NATURAL BUFFER.

THE CONTRACTOR SHALL INSTALL PERIMETER CONTROL AROUND ALL STAGING AREAS, BORROW PITS, AND AREAS CONSIDERED ENVIRONMENTALLY SENSITIVE.

THE CONTRACTOR SHALL ENSURE VEHICLE TRACKING BE MINIMIZED WITH EFFECTIVE BMPs. WHERE THE BMPs FAIL TO PREVENT SEDIMENT FROM TRACKING ONTO STREETS THE CONTRACTOR SHALL CONDUCT STREET SWEEPING TO REMOVE ALL TRACKED SEDIMENT.

THE CONTRACTOR SHALL IMPLEMENT CONSTRUCTION PRACTICES TO MINIMIZE SOIL COMPACTION.

THE CONTRACTOR SHALL ENSURE ALL CONSTRUCTION ACTIVITY REMAIN WITHIN PROJECT LIMITS AND THAT ALL IDENTIFIED RECEIVING WATER BUFFERS ARE MAINTAINED.

THE CONTRACTOR SHALL NOT UTILIZE SEDIMENT CONTROL CHEMICALS ON SITE.

DEWATERING AND BASIN DRAINING ACTIVITIES:

THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL DEWATERING AND SURFACE DRAINAGE REGULATIONS.

WATER FROM DEWATERING ACTIVITIES SHALL DISCHARGE TO A TEMPORARY AND/OR PERMANENT SEDIMENT BASIN.

IF WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN, IT SHALL BE TREATED WITH OTHER APPROPRIATE BMPs, TO EFFECTIVELY REMOVE SEDIMENT.

DISCHARGE THAT CONTAINS OIL OR GREASE MUST BE TREATED WITH AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE PRIOR TO DISCHARGE.

DISCHARGE POINTS SHALL BE PROTECTED FROM EROSION AND SCOUR.

DISCHARGE WATER SHALL BE DISPERSED OVER AN ACCEPTED ENERGY DISSIPATION MEASURE.

WATER FROM DEWATERING SHALL BE DISCHARGED IN A MANNER THAN DOES NOT CAUSE NUISANCE CONDITIONS, EROSION, OR INUNDATION OF WETLANDS.

BACKWASH WATER USED FOR FILTERING SHALL BE HAULED AWAY FOR DISPOSAL, RETURNED TO THE BEGINNING OF TREATMENT PROCESS, OR INCORPORATED INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE CONTRACTOR SHALL REPLACE AND CLEAN FILTER MEDIAS USED IN DEWATERING DEVICES WHEN REQUIRED TO MAINTAIN ADEQUATE FUNCTION.

INSPECTION AND MAINTENANCE:

ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS, AND REMOVAL OF BMPs IS TO BE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS.

THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING SITE INSPECTIONS, AND BMP MAINTENANCE TO ENSURE COMPLIANCE WITH THE PERMIT REQUIREMENTS.

THE CONTRACTOR SHALL INSPECT THE CONSTRUCTION SITE ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

THE CONTRACTOR SHALL DOCUMENT A WRITTEN SUMMARY OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES CONDUCTED WITHIN 24 HOURS OF OCCURRENCE. RECORDS OF EACH ACTIVITY SHALL INCLUDE THE FOLLOWING:

- DATE AND TIME OF INSPECTIONS;
- NAME OF PERSON(S) CONDUCTING INSPECTION;
- FINDINGS AND RECOMMENDATIONS FOR CORRECTIVE ACTIONS IF NECESSARY;
- CORRECTIVE ACTIONS TAKEN;
- DATE AND AMOUNT OF RAINFALL EVENTS;
- POINTS OF DISCHARGE OBSERVED DURING INSPECTION AND DESCRIPTION OF THE DISCHARGE
- AMENDMENTS MADE TO THE SWPPP.

THE CONTRACTOR SHALL SUBMIT A COPY OF THE WRITTEN INSPECTIONS TO THE ENGINEER AND OWNER ON A MONTHLY BASIS. IF MONTHLY INSPECTION REPORTS ARE NOT SUBMITTED, MONTHLY PAYMENTS MAY BE HELD.

THE CONTRACTOR SHALL KEEP THE SWPPP, ALL INSPECTION REPORTS, AND AMENDMENTS ONSITE. THE CONTRACTOR SHALL DESIGNATE A SPECIFIC ONSITE LOCATION TO KEEP THE RECORDS

THE CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY BMP'S, AS WELL AS EROSION AND SEDIMENT CONTROL BMP'S.

THE CONTRACTOR SHALL INSPECT EROSION PREVENTION AND SEDIMENTATION CONTROL BMPs TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUNCTIONAL BMPs SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPs WITHIN 24 HOURS OF FINDING. THE CONTRACTOR SHALL INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:

PERIMETER CONTROL DEVICES, INCLUDING SILT FENCE SHALL BE REPAIRED, OR REPLACED, WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE DEVICE HEIGHT. THESE REPAIRS SHALL BE MADE WITHIN 24 HOURS OF DISCOVERY.

TEMPORARY AND PERMANENT SEDIMENT BASINS SHALL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY.

SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. THE CONTRACTOR SHALL REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. THE CONTRACTOR SHALL RE-STABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY, UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL CONSTRAINTS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND OBTAIN ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE INSPECTED DAILY FOR EVIDENCE OF SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.

IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANOR AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.

INFILTRATION AREAS SHALL BE INSPECTED FOR SIGNS OF SEDIMENTATION AND COMPACTION.

POLLUTION PREVENTION MANAGEMENT MEASURES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MANAGEMENT MEASURES.

ALL POLLUTION PREVENTION MEASURES ARE CONSIDERED INCIDENTAL TO THE MOBILIZATION BID ITEM, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE FOR INFORMING ALL VISITORS AND/OR PERSONNEL ON-SITE OF THE POLLUTION PREVENTION MANAGEMENT MEASURES. POLLUTION PREVENTION MANAGEMENT MEASURES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL, IN COMPLIANCE WITH MPCA DISPOSAL REQUIREMENTS, OF ALL HAZARDOUS MATERIALS, SOLID WASTE, AND PRODUCTS ON-SITE.

THE CONTRACTOR SHALL ENSURE BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS ARE KEPT UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS ARE COVERED TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE HAZARDOUS MATERIALS AND TOXIC WASTE IS PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.

THE CONTRACTOR SHALL ENSURE ASPHALT SUBSTANCES USED ON-SITE ARE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

THE CONTRACTOR SHALL ENSURE PAINT CONTAINERS AND CURING COMPOUNDS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT AND/OR CURING COMPOUNDS SHALL NOT BE DISCHARGED INTO THE STORM SEWER SYSTEM AND SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURE'S INSTRUCTION.

THE CONTRACTOR SHALL ENSURE SOLID WASTE BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH. 7035.

THE CONTRACTOR SHALL ENSURE POTABLE TOILETS ARE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R, CH. 7041.

THE CONTRACTOR SHALL MONITOR ALL VEHICLES ON-SITE FOR LEAKS AND RECEIVE REGULAR PREVENTION MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES AND ENGINE DEGREASING ARE PROHIBITED AT THE CONSTRUCTION SITE.

THE CONTRACTOR SHALL ENSURE WASHOUT WASTE MUST CONTACT THE GROUND AND BE PROPERLY DISPOSED OF IN COMPLIANCE WITH MPCA RULES.

THE CONTRACTOR SHALL INCLUDE SPILL KITS WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES. SECONDARY CONTAINMENT MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ENSURE SPILLS ARE CONTAINED AND CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORM WATER CONVEYANCE SYSTEM SHALL BE REPORTED TO THE MINNESOTA DUTY OFFICER AT 1.800.422.0798.

FINAL STABILIZATION:

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING FINAL STABILIZATION OF THE ENTIRE SITE. FINAL STABILIZATION INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

ALL SOIL DISTURBING ACTIVITIES HAVE BEEN COMPLETED.

ALL EXPOSED SOILS HAVE BEEN UNIFORMLY STABILIZED WITH AT LEAST 70% VEGETATION COVERAGE.

PERMANENT STORM WATER MANAGEMENT SYSTEM(S) ARE CONSTRUCTED AND ARE OPERATING AS DESIGNED.

ALL DRAINAGE DITCHES, PONDS, AND ALL STORM WATER CONVEYANCE SYSTEMS HAVE BEEN CLEARED OF SEDIMENT AND STABILIZED WITH PERMANENT COVER TO PRECLUDE EROSION.

ALL TEMPORARY BMPs HAVE BEEN REMOVED AND PROPERLY DISPOSED OF.

IN RESIDENTIAL CONSTRUCTION, INDIVIDUAL LOTS ARE CONSIDERED FINALLY STABILIZED IF THE STRUCTURE(S) ARE FINISHED AND TEMPORARY EROSION PROTECTION AND DOWNGRADIENT PERIMETER CONTROL HAS BEEN COMPLETED, THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER, AND THE HOMEOWNER HAS BEEN PROVIDED A "HOMEOWNER FACT SHEET" BY THE CONTRACTOR TO INFORM THE HOMEOWNER OF THE NEEDS FOR, AND BENEFITS OF, PERMANENT COVER.

FINAL STABILIZATION SHALL BE PREFORMED IN ACCORDANCE WITH MNDOT 2014 SPECIFICATION 2575.

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DRAWN BY:	RVH
DESIGNER:	KLF
CHECKED BY:	CTZ
DESIGN TEAM	

NO.	BY	DATE	REVISIONS



PHONE: 218.855.1700
416 S 6TH ST, STE 200
BRainerd, MN 56401-3540
www.sehinc.com

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.

Chad T. Katzenberger
Date: 09/27/19 Lic. No. 46613

CHAD T. KATZENBERGER, PE

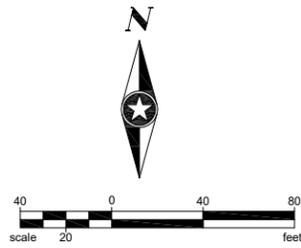
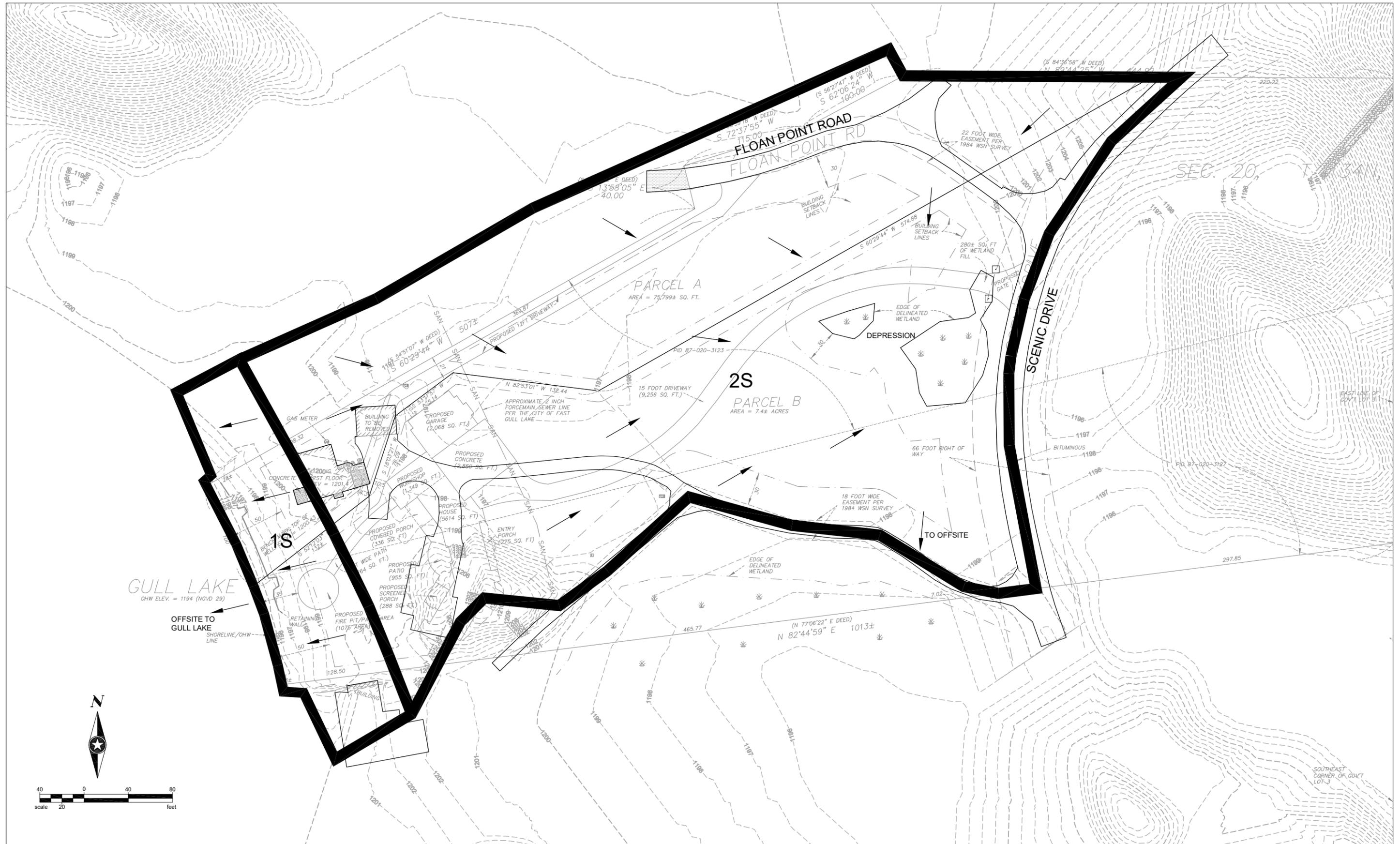
EAST GULL LAKE, MINNESOTA

SWPPP EGL HANSON

FILE NO. WHASB152572

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DESIGNER:	KLF
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DESIGN TEAM	

NO.	BY	DATE	REVISIONS

SEH
 PHONE: 218.855.1700
 416 S 6TH ST, STE 200
 BRAINERD, MN 56401-3540
 www.sehinc.com

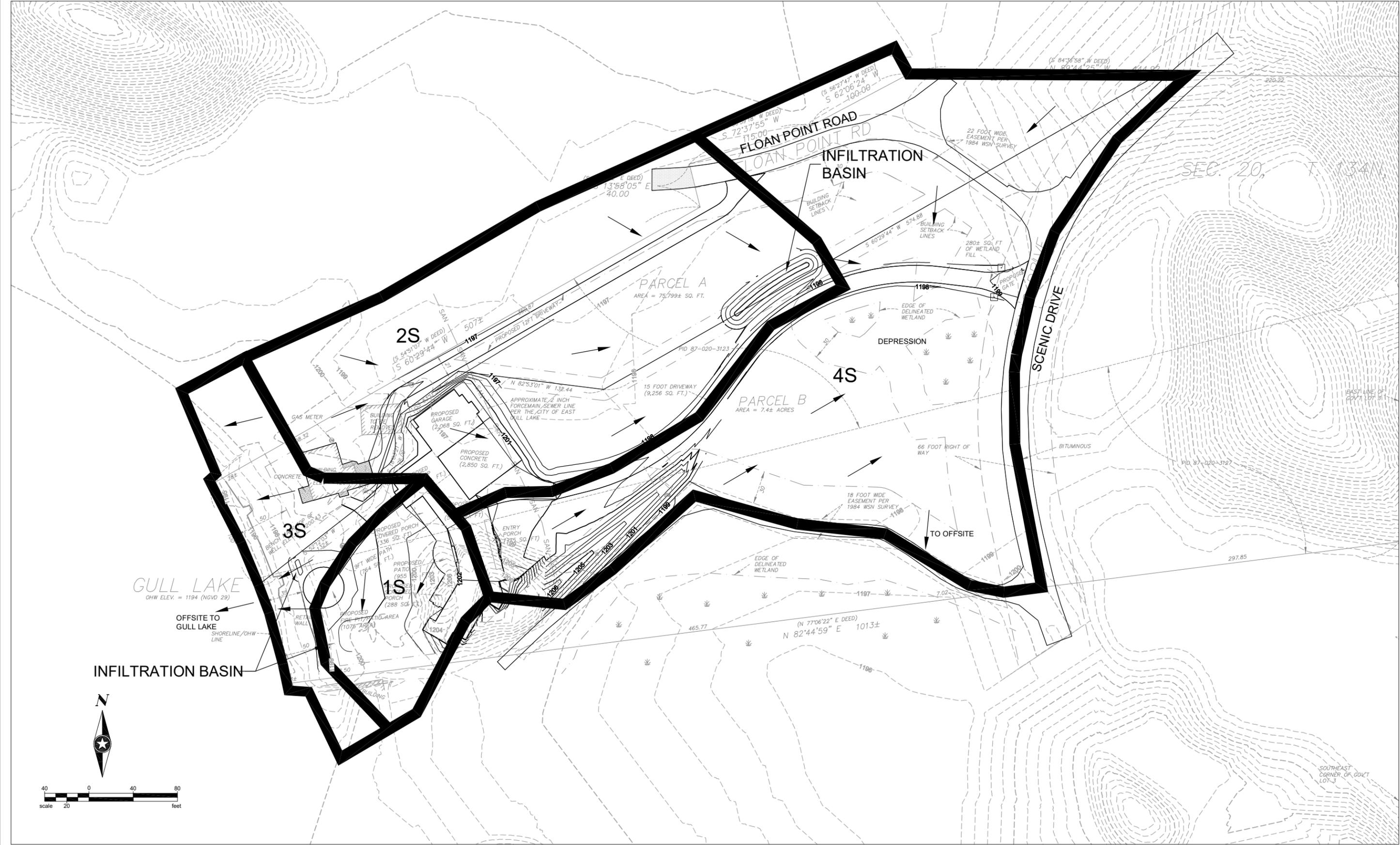
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Chad T. Katzenberger
 CHAD T. KATZENBERGER, PE
 Date: 09/11/19 Lic. No. 46613

**EAST GULL LAKE,
 MINNESOTA**

**EXISTING DRAINAGE
 EGL HANSON**

FILE NO. **6**
 WHASB152572
7

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INfiltration BASIN



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Chad T. Katzenberger
 CHAD T. KATZENBERGER, PE
 Date: 09/27/19 Lic. No. 46613

**EAST GULL LAKE,
 MINNESOTA**

**PROPOSED DRAINAGE
 EGL HANSON**

FILE NO.	7
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