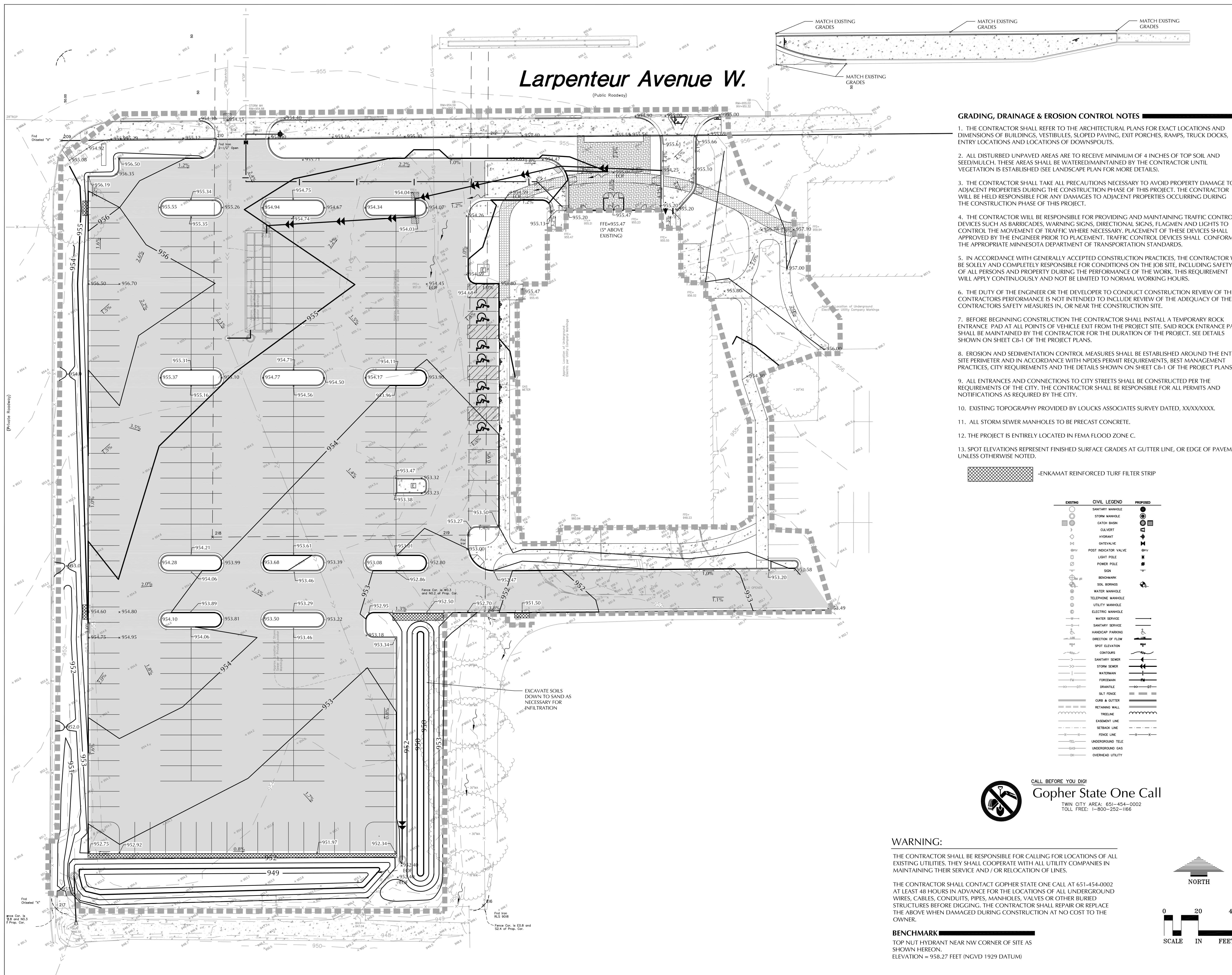


Larpenteur Avenue W.



GRADING, DRAINAGE & EROSION CONTROL NOTES

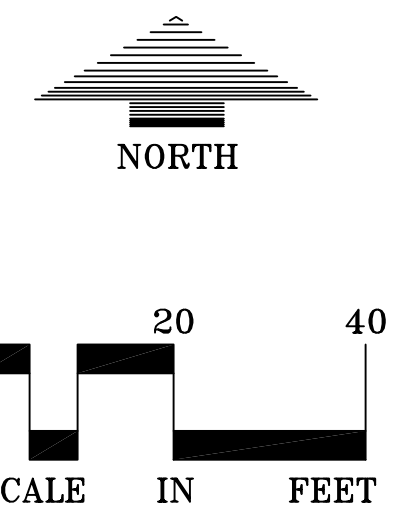
1. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF BUILDINGS, VESTIBULES, SLOPED PAVING, EXIT PORCHES, RAMPS, TRUCK DOCKS, ENTRY LOCATIONS AND LOCATIONS OF DOWNSPOUTS.
2. ALL DISTURBED UNPAVED AREAS ARE TO RECEIVE MINIMUM OF 4 INCHES OF TOP SOIL AND SEED/MULCH. THESE AREAS SHALL BE WATERED/MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION IS ESTABLISHED (SEE LANDSCAPE PLAN FOR MORE DETAILS).
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASE OF THIS PROJECT. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGES TO ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASE OF THIS PROJECT.
4. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE APPROPRIATE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARDS.
5. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
6. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTORS PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTORS SAFETY MEASURES IN, OR NEAR THE CONSTRUCTION SITE.
7. BEFORE BEGINNING CONSTRUCTION THE CONTRACTOR SHALL INSTALL A TEMPORARY ROCK ENTRANCE PAD AT ALL POINTS OF VEHICLE EXIT FROM THE PROJECT SITE. SAID ROCK ENTRANCE PAD SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE PROJECT. SEE DETAILS SHOWN ON SHEET C8-1 OF THE PROJECT PLANS.
8. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE ESTABLISHED AROUND THE ENTIRE SITE PERIMETER AND IN ACCORDANCE WITH NPDES PERMIT REQUIREMENTS, BEST MANAGEMENT PRACTICES, CITY REQUIREMENTS AND THE DETAILS SHOWN ON SHEET C8-1 OF THE PROJECT PLANS.
9. ALL ENTRANCES AND CONNECTIONS TO CITY STREETS SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF THE CITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND NOTIFICATIONS AS REQUIRED BY THE CITY.
10. EXISTING TOPOGRAPHY PROVIDED BY LOUCKS ASSOCIATES SURVEY DATED, XX/XX/XXXX.
11. ALL STORM SEWER MANHOLES TO BE PRECAST CONCRETE.
12. THE PROJECT IS ENTIRELY LOCATED IN FEMA FLOOD ZONE C.
13. SPOT ELEVATIONS REPRESENT FINISHED SURFACE GRADES AT GUTTER LINE, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

-ENKAMAT REINFORCED TURF FILTER STRIP

EXISTING	CIVIL LEGEND	PROPOSED
	SANITARY MANHOLE	
	STORM MANHOLE	
	CATCH BASIN	
	CLVERT	
	HYDRANT	
	GATEVALVE	
	POST INDICATOR VALVE	
	LIGHT POLE	
	POWER POLE	
	SIGN	
	BENCHMARK	
	SOIL BORNDS	
	WATER MANHOLE	
	TELEPHONE MANHOLE	
	UTILITY MANHOLE	
	ELECTRIC MANHOLE	
	WATER SERVICE	
	SANITARY SERVICE	
	HANDICAP PARKING	
	DIRECTION OF FLOW	
	SPOT ELEVATION	
	CONTOURS	
	SANITARY SEWER	
	STORM SEWER	
	WATERMAN	
	FORSEMAN	
	DRANTILE	
	SILT FENCE	
	GURB & GUTTER	
	RETAINING WALL	
	TREELINE	
	EASEMENT LINE	
	SETBACK LINE	
	FENCE LINE	
	UNDERGROUND TELE	
	UNDERGROUND GAS	
	OVERHEAD UTILITY	

CALL BEFORE YOU DIG!
Gopher State One Call
 TWIN CITY AREA: 651-454-0002
 TOLL FREE: 1-800-252-1166

WARNING:
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BENCHMARK
 TOP NUT HYDRANT NEAR NW CORNER OF SITE AS SHOWN HEREON.
 ELEVATION = 958.27 FEET (NGVD 1929 DATUM)



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LOUCKS ASSOCIATES

GREINER CONSTRUCTION

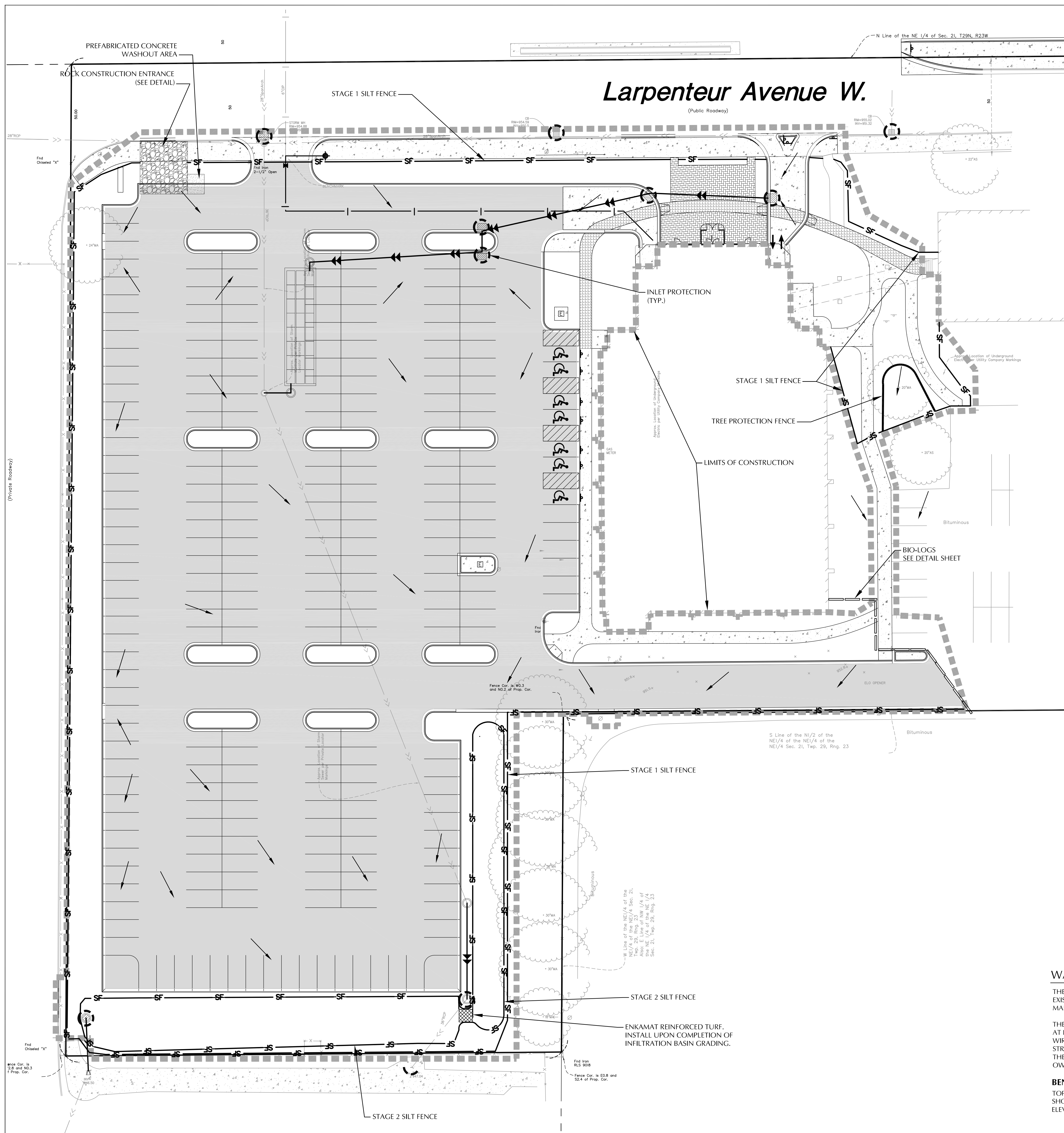
City Submittal
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 St. Paul, MN 55108
 Project 2011017TIES

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Watershed Comments	July 10, 2012
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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota
 Signature *Michael J. St. Martin*
 Printed Name Michael J. St. Martin, P.E.
 Registration Number 24440

11273
 GRADING PLAN
 C3-1



STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES

- THE NATURE OF THIS PROJECT WILL CONSIST OF DEMOLISHING/REMOVING BUILDINGS AND PAVEMENTS, REPLACING WATERMAIN, GRADING TWO FILTRATION BASINS, AND ROUGH GRADING FOR A FUTURE PARKING LOT.
 - THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES ARE AS FOLLOWS:
 - INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE PADIS.
 - INSTALLATION OF STAGE 1 SILT FENCE AROUND SITE.
 - INSTALL STAGE 2 SILT FENCE AROUND ALL STRUCTURES.
 - CLEAR AND GRUB.
 - CONSTRUCT SEDIMENTATION BASIN.
 - INSTALL EROSION CONTROL BLANKET ON BASIN.
 - INSTALL STAGE 2 SILT FENCE AROUND BASIN.
 - REMOVE PAVEMENTS.
 - INSTALL UTILITIES AND STRUCTURES.
 - ROUGH GRADING OF SITE.
 - STABILIZE DENUDATED AREAS AND STOCKPILES.
 - REMOVE ACCUMULATED SEDIMENT FROM BASIN.
 - STABILIZE REMAINDER OF SITE WITH SEED MIX AND EROSION CONTROL BLANKETS.
 - CONSTRUCT INFILTRATION BASINS.
 - WHEN ALL CONSTRUCTION/DEMOLITION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.
 - SITE DATA:
 - AREA TO BE DISTURBED = 3.25 ac.

	PRIOR TO CONSTRUCTION	POST CONSTRUCTION
IMPERVIOUS AREA	3.20 ac.	2.81 ac.

SOIL TYPES: SEE SOILS REPORT
 POST CONSTRUCTION RUNOFF COEFFICIENT: CN=87
 - THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE IDENTIFIED WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC. BEFORE CONSTRUCTION BEGINS.
 - CONSTRUCTION ACTIVITY - EROSION PREVENTION PRACTICES TIME AN AREA CAN REMAIN OPEN WHEN NOT ACTIVELY WORKED:

TYPE OF SLOPE	BEING WORKED:
STEEPER THAN 3:1	7 DAYS
10:1 TO 3:1	7 DAYS
FLATTER THAN 10:1	7 DAYS
 - ON SLOPES 3:1 OR GREATER MAINTAIN SHEET FLOW AND MINIMIZE RILLS AND/OR GULLIES. SLOPE LENGTHS CAN NOT BE GREATER THAN 75 FEET. INSTALL EROSION CONTROL BLANKETS ON ALL SLOPES 3:1 OR STEEPER.
 - ALL STORM DRAINS AND INLETS MUST BE PROTECTED UNTIL ALL SOURCES OF POTENTIAL DISCHARGE ARE STABILIZED.
 - KEEP EQUIPMENT OUT OF INFILTRATION AREAS DURING CONSTRUCTION. DO NOT CONSTRUCT INFILTRATION BASINS UNTIL SITE IS STABILIZED IF POSSIBLE. USE FORK BUCKET TO EXCAVATE INFILTRATION BASINS.
 - CONTRACTOR TO PERFORM DAILY STREET SWEEPING TO REMOVE DUST, SEDIMENT, AND ANY MATERIAL FROM THE ONSITE CONSTRUCTION. DUST CONTROL MEASURES MUST BE PERFORMED DURING DEMOLITION.
 - TEMPORARY SOIL STOCKPILES MUST HAVE EFFECTIVE SEDIMENT CONTROL AND CAN NOT BE PLACED IN SURFACE WATERS OR STORM WATER CONVEYANCE SYSTEMS. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT AMOUNT OF SILT, CLAY, OR ORGANIC COMPOUNDS ARE EXEMPT EX: CLEAN AGGREGATE STOCK PILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES.
 - SEDIMENT LADEN WATER MUST BE DISCHARGED TO A SEDIMENTATION BASIN WHENEVER POSSIBLE. IF NOT POSSIBLE, IT MUST BE TREATED WITH THE APPROPRIATE BMP'S.
 - SOLID WASTE MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
 - EXTERNAL WASHING OF CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. AREA MUST BE IN A CONTAINED LOCATION WITH A LINER. WASHOUT WASTE TO BE REMOVED AND PROPERLY DISPOSED OF FOLLOWING ALL STATE AND LOCAL REGULATIONS.
 - NO ENGINE DEGREASING IS ALLOWED ON SITE.
 - THE OWNER WHO SIGNS THE NPDES PERMIT APPLICATION IS A PERMITTEE AND IS RESPONSIBLE FOR COMPLIANCE WITH ALL TERMS AND CONDITIONS OF THE PERMIT. THE OPERATOR (CONTRACTOR) WHO SIGNS THE NPDES PERMIT APPLICATION IS A PERMITTEE FOR PARTS II.B., PART II.C AND PART IV. OF THE NPDES PERMIT AND IS JOINTLY RESPONSIBLE WITH THE OWNER FOR COMPLIANCE WITH THOSE PORTIONS OF THE PERMIT.
 - TERMINATION OF COVERAGE-PERMITTEE(S) WISHING TO TERMINATE COVERAGE MUST SUBMIT A NOTICE OF TERMINATION (N.O.T.) TO THE MPCA. ALL PERMITTEES MUST SUBMIT A N.O.T. WITHIN 30 DAYS AFTER ONE OR MORE OF THE FOLLOWING CONDITIONS HAVE BEEN MET:
 - FINAL STABILIZATION, PER NPDES PERMIT PART IV.C. AND DEFINITION IN APPENDIX B HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE.
 - ANOTHER OWNER HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
 - INSPECTIONS
 - INITIAL INSPECTION FOLLOWING SILT FENCE INSTALLATION BY CITY REPRESENTATIVE IS REQUIRED.
 - EXPOSED SOIL AREAS: ONCE EVERY 7 DAYS AND WITHIN 24 HOURS FOLLOWING A 0.25" OVER 24 HOURS RAIN EVENT.
 - STABILIZED AREAS: ONCE EVERY 30 DAYS
 - FROZEN GROUND: AS SOON AS RUNOFF OCCURS OR PRIOR TO RESUMING CONSTRUCTION.
 - A THIRD PARTY EROSION CONTROL INSPECTION SHALL OCCUR ON A WEEKLY BASIS. A MONTHLY REPORT COMBINING THE PREVIOUS WEEKS REPORTS SHALL BE SUBMITTED TO THE CITY OF ST. PAUL.
 - OWNER MUST KEEP RECORDS OF ALL PERMITS REQUIRED FOR THE PROJECT, ALL INSPECTIONS AND MAINTENANCE, PERMANENT OPERATION AND MAINTENANCE AGREEMENTS, AND REQUIRED CALCULATIONS FOR TEMPORARY AND PERMANENT STORM WATER MANAGEMENT SYSTEMS. THESE RECORDS MUST BE RETAINED FOR THREE YEARS.
 - SWPPP MUST BE AMENDED WHEN:
 - THERE IS A CHANGE IN DESIGN, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAS SIGNIFICANT EFFECT ON DISCHARGE.
 - INSPECTIONS INDICATE THAT THE SWPPP IS NOT EFFECTIVE AND DISCHARGE IS EXCEEDING WATER QUALITY STANDARDS.
 - THE BMP'S IN THE SWPPP ARE NOT CONTROLLING POLLUTANTS IN DISCHARGES OR IS NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF THE PERMIT.
 - THE RESPONSIBLE PARTY FOR MAINTAINING THE SITE AFTER THE CONSTRUCTION CONTRACT IS CONCLUDED IS THE ST. PAUL PORT AUTHORITY. CONTACT MONTE HILLMAN 651-224-5686.
- SILT FENCE REQUIRED MAINTENANCE:
- WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF SILT FENCE IT MUST BE REMOVED WITHIN 24 HOURS.
 - REPAIR OR REPLACE DISFUNCTIONAL SILT FENCE WITHIN 24 HOURS.



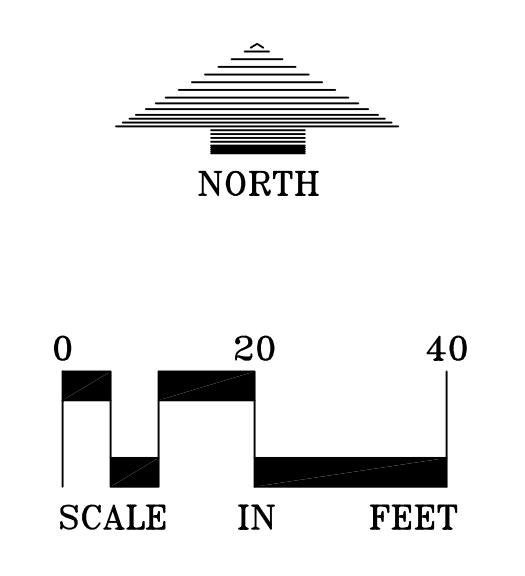
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