

GENERAL NOTES:

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES, AFFECTING THIS WORK, PRIOR TO CONSTRUCTION.
2. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, COMMUNICATIONS, CABLE TV, SANITARY AND STORM SEWERS, ON AND/OR ADJACENT TO THE SITE, REMOVE OR CAP AS NECESSARY.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL MINNESOTA ONE CALL "GOPHER STATE" AT 1-800-252-1166, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO ARRANGE FOR FIELD LOCATIONS OF BURIED UTILITIES.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED, BY THE CONTRACTOR OR SUBCONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT INSPECTION AND CERTIFICATION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTIONS/REQUIREMENTS.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL PRE-CAST AND MANUFACTURED ITEMS TO THE OWNER'S ENGINEER FOR APPROVAL, PRIOR TO ORDERING. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. ALL UTILITY SERVICE STUB-OUTS (WATER, SANITARY SEWER, etc.) ARE TO BE INSTALLED TO WITHIN 5' OF BUILDING(S), UNLESS OTHERWISE NOTED ON PLANS.
8. CONTRACTOR TO COORDINATE WITH THE APPLICABLE ELECTRIC UTILITY SUPPLIER REGARDING ANY NECESSARY RELOCATIONS(S) OF UNDERGROUND AND/OR OVERHEAD ELECTRIC FACILITIES, AND FOR THE LOCATION AND INSTALLATION OF TRANSFORMER PAD(S) AND ASSOCIATED ELECTRIC FACILITIES.
9. SAFETY: DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL.
10. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
11. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF MINNESOTA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS.
12. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, Mdot INDICES AND GOVERNING JURISDICTION FACILITY DESIGN GUIDELINES (LATEST EDITIONS).
13. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTORS INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY "ON-SITE PIPING PERMITS" (IF REQUIRED) FOR CONSTRUCTION OF THE PROPOSED UTILITY FACILITIES. THIS PERMIT MUST BE OBTAINED BY A DULY LICENSED PLUMBING CONTRACTOR (OR CLASS A GENERAL CONTRACTOR) PRIOR TO THE START OF CONSTRUCTION. THESE PLANS AND ANY SUBSEQUENT REVISIONS TO THESE PLANS, THAT ARE ISSUED BY THE ENGINEER, WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THIS PERMIT.
11. AS GRAPHIC INFORMATION DEPICTED ON THESE PLANS HAS BEEN COMPILED TO REDUCTION BY SCALE AS APPROPRIATE AS POSSIBLE. HOWEVER, DUE TO REPRODUCTIVE DISTORTION, REDUCTION, AND/OR REVISIONS, INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE SCALED FOR CONSTRUCTION PURPOSES.
12. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION.
13. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.
14. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH ANY OTHER WORK BEING PERFORMED ON-SITE BY OTHER CONTRACTORS/ SUBCONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE GENERAL CONTRACTOR TO COORDINATE AND SCHEDULE ITS ACTIVITIES ACCORDINGLY.

AS-BUILT:

UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION, CERTIFIED BY A REGISTERED LAND SURVEYOR. THIS "AS-BUILT" INFORMATION SHALL INCLUDE INVERT ELEVATIONS, DRAINAGE STRUCTURES, WEIRS, LOCATIONS OF STRUCTURES FOR ALL UTILITIES INSTALLED, AS WELL AS TOP OF BANK, TOE OF SLOPE AND GRADE BREAK LOCATIONS AND ELEVATIONS FOR POND AND DITCH/SWALE CONSTRUCTION. NO ENGINEERS CERTIFICATIONS FOR CERTIFICATE OF OCCUPANCY (C.O.) PURPOSES WILL BE MADE UNTIL THIS INFORMATION HAS BEEN RECEIVED AND APPROVED BY THE OWNER'S ENGINEER.

TESTING AND INSPECTION REQUIREMENTS (WATER):

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED, AS-BUILT, AND ACCEPTED BY THE OWNER'S ENGINEER. PRESSURE TESTS TO BE IN ACCORDANCE WITH APPLICABLE WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY THE OWNER'S ENGINEER AND APPLICABLE AGENCY INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.
2. CONTRACTOR SHALL ARRANGE FOR CHLORINATION AND BACTERIOLOGICAL SAMPLING, AND OBTAIN CLEARANCE OF DOMESTIC AND FIRE LINE WATER SYSTEMS). COPIES OF ALL BACTERIOLOGICAL TEST RESULTS ARE TO BE SUBMITTED TO THE OWNER'S ENGINEER, IMMEDIATELY UPON COMPLETION OF THE WATER SYSTEM, FOR CERTIFICATION PURPOSES.

CLEARING AND SITE PREPARATION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE EROSION CONTROL DEVICES, AS SHOWN ON THE CONSTRUCTION PLANS, PRIOR TO ANY SITE CLEARING. REFER TO THE "EROSION CONTROL NOTES" SECTION CONTAINED HEREIN FOR ADDITIONAL REQUIREMENTS.
2. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN, AS INDICATED ON THE CONSTRUCTION PLANS, SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL TREE ORDINANCES, AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO (TREES) SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND THE LOCAL AGENCY HAVING JURISDICTION OVER THESE ACTIVITIES.

THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL, IMMEDIATELY FOLLOWING CONSTRUCTION.

4. STRIPPED TOPSOIL REMOVED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED, TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING, OR GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE. PROVIDED THE MATERIAL IS DEEMED SUITABLE BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO EITHER BE STOCKPILED ON-SITE, AS DIRECTED BY THE OWNER OR OWNERS ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING EXCESS EARTHWORK FROM THE SITE.
5. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE, BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.
6. THE CONTRACTOR IS TO PREPARE THE SITE IN ACCORDANCE WITH THE SOILS REPORT, COPIES OF WHICH ARE AVAILABLE THROUGH THE OWNER OR SOILS TESTING COMPANY DIRECTLY.

EROSION CONTROL NOTES:

1. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIERS (HAY BALES OR SILTATION CURTAINS) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTORS IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
2. THE CONTRACTOR SHALL LIMIT THE DISCHARGE OF TURBID WATERS OFF-SITE, OR INTO ON-SITE/OFF-SITE WETLANDS (IF APPLICABLE), TO NO MORE THAN THE SPECIFIED NTUS (NEPHELOMETRIC TURBIDITY UNITS) GOVERNED BY THE APPLICABLE GOVERNING JURISDICTION, ABOVE BACKGROUND LEVELS.
3. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.
4. CONTRACTOR SHALL INSPECT AND MAINTAIN ON A DAILY BASIS ALL EROSION/SEDIMENTATION CONTROL FACILITIES.
5. THE CONTRACTOR SHALL ENSURE THAT SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF THE DEPTH OF THE SILTATION CONTROL BARRIER SHALL BE IMMEDIATELY REMOVED AND PLACED IN UPLAND AREAS.
6. CONTRACTOR SHALL MAKE SURE THAT UNDEE SOIL/SAND IS NOT TRACKED OFFSITE, IF IT BECOMES AN ISSUE, CONTRACTOR SHALL ADD A CONSTRUCTION ENTRANCE WITH SEDIMENT REMOVAL (GRAVEL DRIVE) AND SHALL REMOVE ANY SEDIMENT/SOIL TRACKED OFFSITE DAILY OR SOONER.

CONSTRUCTION SITE WORK TESTING:

1. ALL SITE WORK CONSTRUCTION TESTING SHALL BE PERFORMED BY A CERTIFIED/LICENSED GEOTECHNICAL ENGINEERING FIRM.
2. ALL SITE WORK CONSTRUCTION TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECTS GEOTECHNICAL REPORT AND/OR THE TESTING PARAMETERS OF THE LOCAL MUNICIPALITY/AGENCY HAVING JURISDICTION OVER THE SITE WORK. THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
3. COPIES OF PASSING TEST RESULTS SHALL BE PROVIDED TO THE DEVELOPER, ENGINEER OF RECORD, CONTRACTOR AND LOCAL MUNICIPALITY/AGENCY FOR PURPOSES, SUCH AS, BUT NOT LIMITED TO, CERTIFICATION, AND ACCEPTANCE OF FACILITIES BY THE DEVELOPER AND/OR MUNICIPALITY/AGENCY.
4. THE SERVICES OF A CONSTRUCTION TESTING GEOTECHNICAL FIRM SHALL BE RETAINED BY THE DEVELOPER, UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
5. ENGINEER WILL NOT BE RESPONSIBLE FOR SCHEDULING, COORDINATION OR EVALUATION OF THE SOILS TESTING AND CERTIFICATIONS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER TO MAKE THE NECESSARY ARRANGEMENTS DIRECTLY WITH THE SOILS TESTING LABORATORY/GEOTECHNICAL FIRM AND THE SITE CONTRACTOR.

TESTING AND INSPECTION REQUIREMENTS (SANITARY):

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNERS ENGINEER AND APPLICABLE MUNICIPALITY/AGENCY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS). THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS ASSOCIATED WITH A TELEVISED INSPECTION (TV) OF THE PROPOSED GRAVITY SEWER LINE. THE CONTRACTOR SHALL PROVIDE COPIES OF THE TV INSPECTION TAPE TO THE ENGINEER, THE OWNER AND THE APPLICABLE MUNICIPALITY/AGENCY.
2. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. THE SCHEDULING, COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTORS RESPONSIBILITY.
3. ALL FORCE MAINS (IF APPLICABLE) SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. THE SCHEDULING, COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTORS RESPONSIBILITY.
4. ALL FORCE MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST 18 INCHES ABOVE THE MAIN LINES.
5. SANITARY SEWER MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST 18 INCHES ABOVE THE MAIN LINES.
6. THE FORCE MAIN.

PAVING AND GRADING NOTES:

1. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS OR AS DIRECTED BY THE OWNER, THE OWNERS ENGINEER, OR OWNERS SOILS TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. Dewatering methods shall be used AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.
3. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER'S SOILS TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS.
4. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADES UNLESS OTHERWISE NOTED.
5. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. CONTRACTOR TO COORDINATE WITH OWNER'S ENGINEER PRIOR TO ANY ELEVATION CHANGES.
6. CONTRACTOR SHALL SAW CUT, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT, PER DETAILS HEREIN.
7. CURBING SHALL BE PLACED AT THE EDGES OF ALL PAVEMENT, UNLESS OTHERWISE NOTED. REFER TO THE LATEST EDITION OF Mn.D.O.T. "Mdot DESIGN MANUAL" FOR DETAILS AND SPECIFICATIONS OF ALL Mn.D.O.T. TYPE CURB AND GUTTERS CALLED FOR IN THESE PLANS.
8. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE SOILS ENGINEER FOR APPROVAL.
9. CONTRACTOR TO PROVIDE A 1/2" TO 1" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER AT ABUTMENT OF CONCRETE AND OTHER MATERIALS (STRUCTURES, OTHER PLACED CONCRETE, ETC.)
10. ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH Mn.D.O.T. DESIGN STANDARDS.
11. THE CONTRACTOR WILL STABILIZE, BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS, ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.

TESTING AND INSPECTION REQUIREMENTS (PAYING/GRADING):

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH SITE SPECIFIC GEOTECHNICAL REPORT FOR THE SITE, AS WELL AS THE TESTING SCHEDULE REQUIRED BY Mdot AND THE AFFECTED MUNICIPALITY. UPON COMPLETION OF WORK, THE SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND OWNERS ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.
2. A QUALIFIED TESTING LABORATORY SHALL PERFORM ALL TESTING NECESSARY TO ASSURE COMPLIANCE OF THE IN-PLACE MATERIALS AS REQUIRED BY THESE PLANS AND THE VARIOUS AGENCIES. SHOULD ANY RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET THE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COSTS OF SAID RETESTING.

SANITARY SYSTEM NOTES:

1. ALL DIP PIPE SHALL BE CLASS 50 OR HIGHER. ADEQUATE MEASURES AGAINST CORROSION SHALL BE UTILIZED.
2. ALL PVC PIPE SHALL BE SOLID WALL POLYVINYL CHLORIDE PIPE AND COMPLY WITH ASTM D 3034 AND ALL APPLICABLE ASTM DOCUMENTS AS COVERED IN SECTION No. 2 OF ASTM D 3034. MAIN LINES SHALL BE A MINIMUM OF 8" DIAMETER, AND LATERALS SHALL BE A MINIMUM 6" DIAMETER.
3. ALL SANITARY SEWER MAINS, LATERALS AND FORCE MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER, UNLESS OTHERWISE NOTED ON PLANS.
4. ALL GRAVITY SEWERS MUST BE SDR 35 PVC OR DIP CLASS 54 PIPE. ALTERNATIVES MUST BE APPROVED BY APPLICABLE JURISDICTION/ENGINEER OF RECORD. ELASTOMERIC GASKET JOINTS SHALL BE UTILIZED FOR PVC PIPE, AND SHALL COMPLY WITH ASTM F477, ASTM D3231 & ASTM F1336. JOINTS SHALL COMPLY WITH ASTM D3212.
5. ALL PVC FORCE MAINS (IF REQUIRED) SHALL BE CLASS 200, DR 14 FOR 4" DIAMETER, AND CLASS 150, DR 18 FOR 6" TO 12" DIAMETER PIPE, IN ACCORDANCE WITH AWWA C900 STANDARDS. PVC FORCE MAIN PIPE SMALLER THAN 4" DIAMETER SHALL BE CLASS 200, SDR 21, IN ACCORDANCE WITH ASTM D 2241. FORCE MAINS SHALL BE SPIRAL WRAPPED WITH 2 INCH WIDE DARK GREEN STICK-ON VINYL TAPE. FORCE MAINS WITHIN THE RIGHT-OF-WAY SHALL BE CLASS 52 DIP, MINIMUM 3" DIAMETER.
6. ALL SANITARY MANHOLES SHALL BE LOCATED NO MORE THAN 400 FEET APART AND SHALL CONFORM TO THE DETAILS CONTAINED HEREIN, AS WELL AS WITH ASTM C478.
7. ALL DUCTILE IRON PIPE SHALL MEET REQUIREMENTS OF AWWA C151, ANSI SPEC. A21.51.
8. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE PROVIDED WITH A VIRGIN POLYETHYLENE INTERIOR LINING COMPLYING WITH ASTM D 1248 (40 MILS THICK) HEAT BONDED TO THE INTERIOR OF ALL PIPES. ALL DIP PIPE SHALL HAVE A STANDARD OUTSIDE COATING COMPLYING WITH ASTM C151-8.1.
9. ALL SLOPES FOR GRAVITY SEWER MAINS AND SERVICE CONNECTIONS SHALL COMPLY WITH THE FOLLOWING MINIMUM GRADES: 6" @ 1.00%, 8" @ 0.50%.
10. ALL SANITARY SEWER WORK SHALL CONFORM WITH APPLICABLE JURISDICTIONAL STANDARD SPECIFICATIONS.
11. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING PROPOSED FACILITIES TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION(S) OF EXISTING CONNECTION POINT(S) AND NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
12. SANITARY SEWER MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST 18 INCHES ABOVE THE MAIN LINES.
13. FORCE MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST 18 INCHES ABOVE THE FORCE MAIN.

WATER SYSTEM NOTES:

1. SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS SHOULD ALWAYS CROSS UNDERNEATH WATER MAINS. INSTALLATIONS OF SANITARY SEWERS, FORCE MAINS AND STORM SEWERS, AT CROSSINGS OF WATER MAINS, SHALL BE PERFORMED SO AS TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE, WHENEVER POSSIBLE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS SHALL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS. WHERE SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP), AT THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED.). SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO (2) JOINTS IN LIEU OF DIP. THE SANITARY SEWER MAY BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE, AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT THE CROSSING, WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER WATER MAINS. THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES, AND 10 FEET BETWEEN JOINTS CENTERED AT THE POINT OF CROSSING, SHALL BE REQUIRED. THE WATER MAIN SHALL BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN. ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (I.E., PIPES CENTERED ON THE CROSSING), WHERE A PROPOSED PIPE CONFLICTS WITH AN EXISTING PIPE. THE PROPOSED PIPE SHALL BE CONSTRUCTED OF DIP, AND THE CROSSING SHALL BE ARRANGED SO AS TO SATISFY THE REQUIREMENTS IDENTIFIED ABOVE.
2. A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER (INCLUDING FORCE MAINS) AND EXISTING OR PROPOSED WATER MAINS, IN PARALLEL INSTALLATIONS, WHENEVER POSSIBLE. THE DISTANCE FOR SEPARATION SHALL BE MEASURED EDGE TO EDGE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE INSTALLED IN A SEPARATE TRENCH, OR IN AN UNDISTURBED EARTH SHELF, LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN, AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE, AND WATER AND SEWER JOINTS SHALL BE STAGGERED, WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES. IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP (IF AVAILABLE IN THE SIZE PROPOSED), WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE LOCATED ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (I.E., STAGGERED JOINTS).
3. ALL DIP PIPE SHALL BE MW CLASS 50 OR PRESSURE CLASS 250. REFER TO NOTE # 8 BELOW FOR ADDITIONAL DIP SPECIFICATIONS. ADEQUATE MEASURES AGAINST CORROSION SHALL BE UTILIZED.
4. ALL WATER MAIN PIPE FITTINGS AND APPURTENANCES SHALL BE INSTALLED TO COMPLY WITH APPLICABLE UTILITY DEPARTMENT SPECIFICATIONS.
5. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 36 INCHES OF COVER, WHERE POSSIBLE, 48" MAXIMUM COVER.
6. ALL WATER SERVICE LINES, VALVES AND METERS SHALL BE INSTALLED TO COMPLY WITH APPLICABLE MUNICIPALITY/AGENCY DEPARTMENT STANDARDS AND SPECIFICATIONS.
7. THRUST BLOCKING/RESTAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS, IN ACCORDANCE WITH APPLICABLE UTILITY DEPT. SPECIFICATIONS.
8. ALL DUCTILE IRON PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C151/A21.51. PIPE SHALL BE FURNISHED IN 18 OR 20 FOOT SECTIONS, PIPE THICKNESS SHALL BE CLASS 50, UNLESS OTHERWISE SPECIFIED..
9. ALL WATER SYSTEM CONSTRUCTION, UP TO AND INCLUDING POINT OF METERING AND BACK FLOW PREVENTION (IF REQUIRED), SHALL BE BUILT ACCORDING TO THE PREVIOUSLY REFERENCED STANDARDS AND SPECIFICATIONS.
10. ALL ON-SITE FIRE HYDRANTS SHALL BE PAINTED WITH HIGH GRADE ENAMEL FEDERAL. COLOR SHALL COMPLY WITH APPLICABLE UTILITY HAVING JURISDICTION, AND BE OSHA APPROVED, AND MUST BE LOCATED A MINIMUM OF 6 FEET, OR AS APPROVED BY THE APPLICABLE JURISDICTION, FROM THE EDGE OF PAVEMENT OR BACK OF CURB. OTHERWISE BOLLARDS WILL BE REQUIRED FOR PROTECTION. ALL FIRE HYDRANTS SHALL COMPLY WITH AWWA STANDARDS C502-80 THEREOF.
11. CONTRACTOR TO INSTALL TEMPORARY BLOWOFFS, AT THE END(S) OF PROPOSED WATER MAINS AND SERVICE LATERALS TO BUILDING(S), TO ASSURE ADEQUATE FLUSHING AND DISINFECTION/CHLORINATION.
12. ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA MANUAL M23, CONCERNING HYDROSTATIC TESTING OF PVC PIPING. OFF-SITE UTILITIES HYDROSTATIC TESTING TO BE WITNESSED BY MUNICIPAL UTILITY DEPARTMENT INSPECTOR.
13. ALL WATER MAINS SHALL BE STERILIZED IN ACCORDANCE WITH THE APPLICABLE SECTION OF THE LATEST AWWA SPECIFICATION C651 AND JURISDICTIONAL UTILITY DEPARTMENT SPECIFICATIONS.
14. ALL PVC WATER MAIN, 4" TO 12" DIAMETER PIPING, SHALL CONFORM TO AWWA C900 (OR 18) STANDARD SPECIFICATIONS, PRESSURE CLASS 150 PSI. ALL PVC WATER MAIN PIPING LESS THAN 4" DIAMETER SHALL BE SCHEDULE 80, PRESSURE CLASS 200 PSI.
15. ALL PVC WATER MAINS SHALL HAVE A SUITABLE MAGNETIC LOCATOR TAPE BURIED OVER THE WATER MAIN, BURIED NO LESS THAN 18 INCHES ABOVE MAIN LINES. THE TAPE SHALL BE AT LEAST 5-1/2 MILS THICK, 2 INCH MINIMUM WIDTH, AND MADE WITH AN ALUMINUM MATERIAL SANDWICHED BETWEEN 2 LAYERS OF POLYETHYLENE. IT SHALL HAVE IMPRINTED, IN PERMANENT BLACK INK WITH ONE INCH TALL LETTERS, "CAUTION: WATER LINE BURIED BELOW", ON BLUE BACKGROUND. THE TAPE SHALL BE CONTINUOUS BETWEEN VALVES, AND SECURED TO EACH VALVE. WHERE OTHER LINES OR SERVICE LINES JOIN THE WATER MAIN, THE TAPE USED FOR DETECTION OF THESE LINES SHALL BE SECURED TO THE MAIN LINE TAPE.
16. FIRE LINES SHALL BE INSTALLED BY A CONTRACTOR, DULY LICENSED BY THE STATE OF MINNESOTA FIRE MARSHALLS' OFFICE. CONTRACTOR TO VERIFY REQUIREMENTS PRIOR TO CONSTRUCTION OF THE FIRE PROTECTION SYSTEM.
17. FIRE PROTECTION SHALL MEET ALL THE REQUIREMENTS OF THE APPLICABLE MUNICIPALITY OR COUNTY.

GENERAL NOTES:

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES, AFFECTING THIS WORK, PRIOR TO CONSTRUCTION.
2. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, COMMUNICATIONS, CABLE TV, SANITARY AND STORM SEWERS, ON AND/OR ADJACENT TO THE SITE, REMOVE OR CAP AS NECESSARY.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL MINNESOTA ONE CALL "GOPHER STATE" AT 1-800-252-1166, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO ARRANGE FOR FIELD LOCATIONS OF BURIED UTILITIES.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED, BY THE CONTRACTOR OR SUBCONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT INSPECTION AND CERTIFICATION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTIONS/REQUIREMENTS.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL PRE-CAST AND MANUFACTURED ITEMS TO THE OWNER'S ENGINEER FOR APPROVAL, PRIOR TO ORDERING. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. ALL UTILITY SERVICE STUB-OUTS (WATER, SANITARY SEWER, etc.) ARE TO BE INSTALLED TO WITHIN 5' OF BUILDING(S), UNLESS OTHERWISE NOTED ON PLANS.
8. CONTRACTOR TO COORDINATE WITH THE APPLICABLE ELECTRIC UTILITY SUPPLIER REGARDING ANY NECESSARY RELOCATIONS(S) OF UNDERGROUND AND/OR OVERHEAD ELECTRIC FACILITIES, AND FOR THE LOCATION AND INSTALLATION OF TRANSFORMER PAD(S) AND ASSOCIATED ELECTRIC FACILITIES.
9. SAFETY: DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL.
10. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
11. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF MINNESOTA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS.
12. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, Mdot INDICES AND GOVERNING JURISDICTION FACILITY DESIGN GUIDELINES (LATEST EDITIONS).
13. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTORS INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY "ON-SITE PIPING PERMITS" (IF REQUIRED) FOR CONSTRUCTION OF THE PROPOSED UTILITY FACILITIES. THIS PERMIT MUST BE OBTAINED BY A DULY LICENSED PLUMBING CONTRACTOR (OR CLASS A GENERAL CONTRACTOR) PRIOR TO THE START OF CONSTRUCTION. THESE PLANS AND ANY SUBSEQUENT REVISIONS TO THESE PLANS, THAT ARE ISSUED BY THE ENGINEER, WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THIS PERMIT.
11. AS GRAPHIC INFORMATION DEPICTED ON THESE PLANS HAS BEEN COMPILED TO REDUCTION BY SCALE AS APPROPRIATE AS POSSIBLE. HOWEVER, DUE TO REPRODUCTIVE DISTORTION, REDUCTION, AND/OR REVISIONS, INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE SCALED FOR CONSTRUCTION PURPOSES.
12. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION.
13. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.
14. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH ANY OTHER WORK BEING PERFORMED ON-SITE BY OTHER CONTRACTORS/ SUBCONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE GENERAL CONTRACTOR TO COORDINATE AND SCHEDULE ITS ACTIVITIES ACCORDINGLY.

AS-BUILT:

UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION, CERTIFIED BY A REGISTERED LAND SURVEYOR. THIS "AS-BUILT" INFORMATION SHALL INCLUDE INVERT ELEVATIONS, DRAINAGE STRUCTURES, WEIRS, LOCATIONS OF STRUCTURES FOR ALL UTILITIES INSTALLED, AS WELL AS TOP OF BANK, TOE OF SLOPE AND GRADE BREAK LOCATIONS AND ELEVATIONS FOR POND AND DITCH/SWALE CONSTRUCTION. NO ENGINEERS CERTIFICATIONS FOR CERTIFICATE OF OCCUPANCY (C.O.) PURPOSES WILL BE MADE UNTIL THIS INFORMATION HAS BEEN RECEIVED AND APPROVED BY THE OWNER'S ENGINEER.

TESTING AND INSPECTION REQUIREMENTS (WATER):

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED, AS-BUILT, AND ACCEPTED BY THE OWNER'S ENGINEER. PRESSURE TESTS TO BE IN ACCORDANCE WITH APPLICABLE WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY THE OWNER'S ENGINEER AND APPLICABLE AGENCY INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.
2. CONTRACTOR SHALL ARRANGE FOR CHLORINATION AND BACTERIOLOGICAL SAMPLING, AND OBTAIN CLEARANCE OF DOMESTIC AND FIRE LINE WATER SYSTEMS). COPIES OF ALL BACTERIOLOGICAL TEST RESULTS ARE TO BE SUBMITTED TO THE OWNER'S ENGINEER, IMMEDIATELY UPON COMPLETION OF THE WATER SYSTEM, FOR CERTIFICATION PURPOSES.

DESIGNED BY: JH	DRAWN BY: JH	ISSUE DATE: 03/11/22	JOB NO.: 21-517	REVISION DESCRIPTION
CHECKED BY: TC	APPROVED BY: DD			
NO.	BY	DATE		



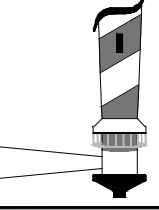
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MINNESOTA.

SIGNATURE: *[Signature]*
NAME: DANIEL DEHON
DATE: 10/20/2021 LICENSE NUMBER: 99701

DANIEL DEHON, PE #59701

LAND DEVELOPMENT ENGINEERS
8345 GUNN HIGHWAY
TAMPA, FL 33626

BEACON CIVIL ENGINEERING



TAKE 5
CAR WASH

8108 OLD CARRIAGE CT
CITY OF SHAKOPEE
SHAKOPEE, MN

SHEET NUMBER:	CONSTRUCTION NOTES	SHEET NUMBER: C-1
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DEMOLITION NOTES

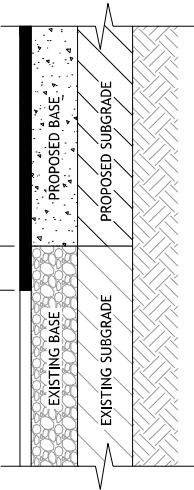
1. ALL ITEMS NOT CALLED OUT TO BE REMOVED/RELOCATED SHALL BE PROTECTED DURING ALL THE PHASES OF CONSTRUCTION UNTIL FINAL ACCEPTANCE BY THE GOVERNING JURISDICTIONS.
2. CONTRACTORS SHALL COORDINATE WITH ALL UTILITY COMPANIES CONCERNING THE ABANDONMENT, RELOCATION AND/OR DEMOLITION OF UTILITIES PRIOR TO CONSTRUCTION. NO WORK IS TO BE PERFORMED ON LIVE LINES UNLESS APPROVED IN WRITING BY THE UTILITY IN ALL CASES. A REPRESENTATIVE FROM THE UTILITY SHALL BE PRESENT FOR INITIAL ABANDONMENT AND/OR LIVE CUTS. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR UTILITIES AND SHALL PROTECT THEM AT ALL TIMES.
3. THE CONTRACTOR IS FULLY AND COMPLETELY RESPONSIBLE FOR LOCATION, VERIFICATION, PROTECTION, STORAGE, MAINTENANCE, DEMOLITION, REMOVAL, RELOCATION OR ALTERATION OF ALL EXISTING SITE UTILITIES, SITE IMPROVEMENTS, STRUCTURES, OR CONSTRUCTION ELEMENTS AS REQUIRED TO COMPLETE THE WORK THAT ARE SHOWN ON THE PLANS AND OR THAT ARE OBSERVABLE IN THE FIELD, WHETHER CONSPICUOUSLY VISIBLE OR NOT. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING IMPROVEMENTS, UTILITIES, AND SITE CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION.
4. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS WITH ALL DEMOLITION ACTIVITIES. IF ADDITIONAL REQUIREMENTS ARE REQUIRED FOR HAZARDOUS WASTE REMOVAL INCLUDING BUT NOT LIMITED TO ASBESTOS, SEPTIC FIELDS, LEAD, PCB, TCP, OR OTHER WASTE OR CONTAMINANT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH MANDATES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE PROCUREMENT OF ALL NECESSARY PERMITS.
6. THE CONTRACTOR SHALL COORDINATE ALL TREE AND LANDSCAPE REMOVAL WITH THE LANDSCAPE PLANS. CONTRACTOR SHALL NOTIFY E.O.R. IF ANY DISCREPANCIES OCCUR BETWEEN THE DEMOLITION PLAN AND THE LANDSCAPE PLANS.
7. SAWCUT DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD STAKE AND CONSULT ENGINEER OF RECORD PRIOR TO CONSTRUCTION, IF NECESSARY.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION. SUCH REPAIRS SHALL BE PERFORMED AT THE CONTRACTOR'S SOLE EXPENSE.
9. THE CONTRACTOR SHALL NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS IT IS IN STRICT ACCORDANCE WITH GOVERNING JURISDICTIONS(S). THE PROJECT PLANS, AND SPECIFICATIONS.
10. ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES SHALL BE BACKFILLED BY THE CONTRACTOR WITH APPROVED MATERIALS, AND SHALL BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND IN COMPLIANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. BACKFILLING SHALL OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND SHALL BE DONE SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE.
11. THE USE OF EXPLOSIVES IS PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES.
12. CONTRACTOR SHALL CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, AND OTHER ADJACENT FACILITIES. A.O.T. PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
13. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT OCCUR OR BE STORED OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT WRITTEN PERMISSION OF THE OWNER(S) AND ALL GOVERNMENTAL AGENCIES HAVING JURISDICTION.
14. THE CONTRACTOR SHALL USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. ONCE THE DEMOLITION PHASE BEGINS, ADJACENT STRUCTURES AND OPERATIONS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS FOR SAFEGUARDING THE SITE DURING DEMOLITION/CONSTRUCTION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
15. THE CONTRACTOR IS RESPONSIBLE FOR SAFEGUARDING THE SITE DURING DEMOLITION/CONSTRUCTION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
16. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITY.
17. ALL DEMOLITION WASTE AND DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR SHALL MAINTAIN RECORDS TO PROVE PROPER DISPOSAL ACTIVITIES. TO BE PROVIDED TO THE OWNER UPON REQUEST. UNDER NO CIRCUMSTANCES SHALL DEBRIS BE BURIED ON THE SUBJECT SITE.
18. THE CONTRACTOR SHALL NOT IMPACT ANY WETLANDS THROUGH CONSTRUCTION ACTIVITIES IN ANY WAY UNLESS APPROVED BY E.O.R. AND GOVERNING JURISDICTIONS(S).
19. BEACON CIVIL ENGINEERING AND THE E.O.R. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SAFE AND SYSTEMATIC MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
20. THE DEMOLITION PLAN IS INTENDED TO IDENTIFY THE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED, RELOCATED, OR MADE AWARE OF. THE DEMOLITION PLAN DOES NOT PROVIDE DIRECTION AS TO THE MEANS AND METHODS USED TO ACCOMPLISH THAT WORK. ALL MEANS AND METHODS UTILIZED ARE TO BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE. ALL WELLS TO BE ABANDONED BY A MINNESOTA LICENSED WATER WELL CONTRACTOR IN ACCORDANCE WITH JURISDICTIONAL RULE.
22.

NOTES:

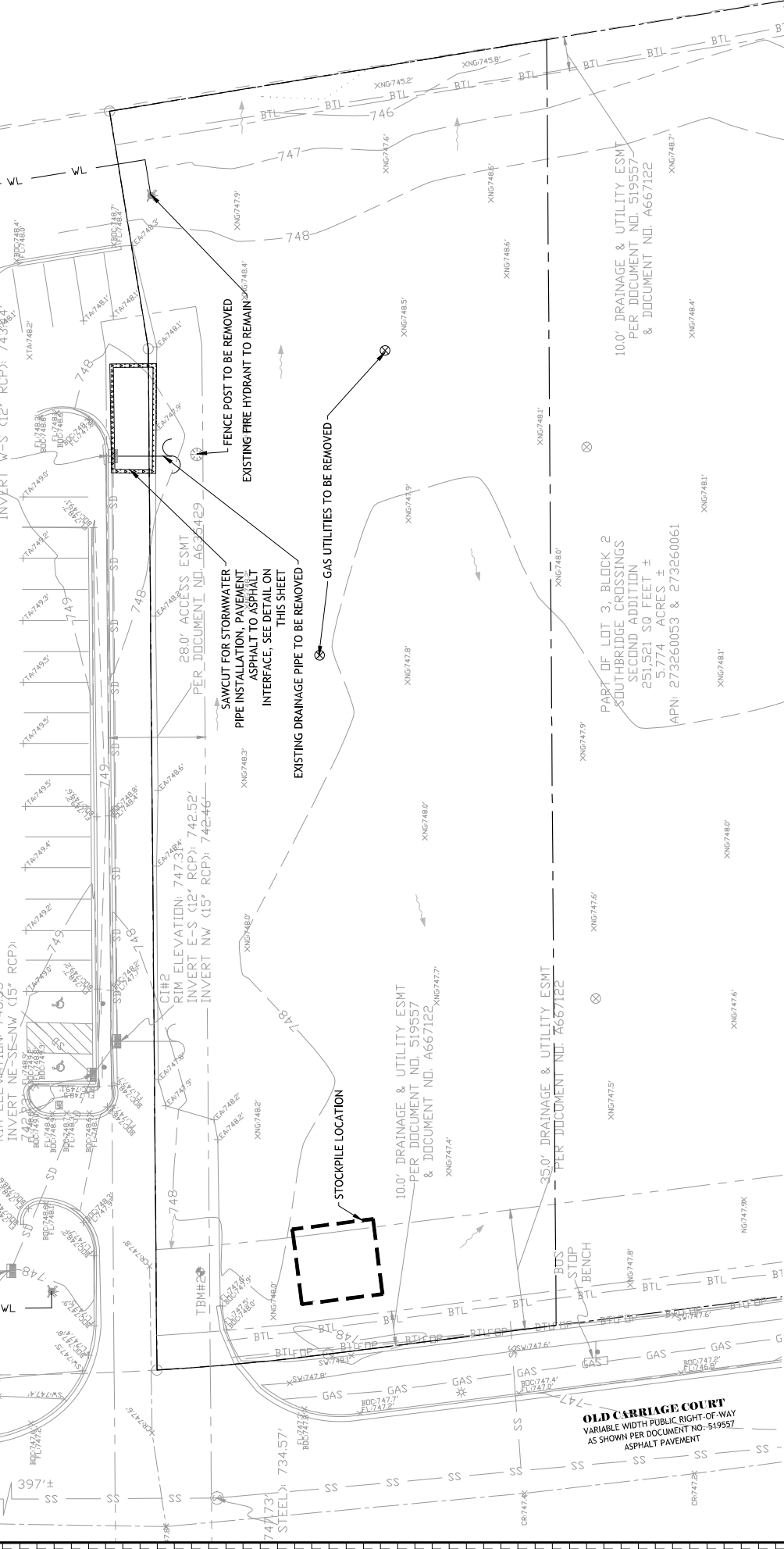
1. PROVIDE ASPHALT SPLICE AT ALL TRANSITIONS BETWEEN NEW AND EXISTING PAVEMENT SECTIONS.
2. 12-INCH MINIMUM ASPHALT REMOVAL MAY VARY AT THE DISCRETION OF THE OWNER'S JURISDICTIONAL REPRESENTATIVE. (MORE BUT NOT LESS THAN 12 INCHES)
3. RESTORE EXISTING BASE TO ORIGINAL CONDITION OR BETTER.

ASPHALT PAVEMENT INTERFACE DETAIL
N.T.S.

SAWCUT, REMOVE AND
REPLACE 12" OF EXISTING
ASPHALT PAVEMENT



SCOTT COUNTY STATE AID HIGHWAY NO. 21
(A.K.A. COUNTY ROAD 18)
VARIABLE WIDTH PUBLIC RIGHT-OF-WAY
AS SHOWN PER DOCUMENT NO. 820761
ASPHALT PAVEMENT



W—BEACON—E
CIVIL ENGINEERING



SCALE : 1" = 20'

SURVEY LEGEND

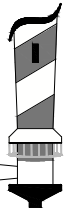
- FOUND MONUMENT (AS NOTED)
- SET MONUMENT (AS NOTED)
- COMPUTED POINT
- HANDICAP-PARKING
- FIRE HYDRANT
- LIGHT
- SANITARY MANHOLE
- BOLLARD
- POWER POLE
- ELECTRIC METER
- ELECTRIC BOX
- ELECTRIC PEDESTAL
- WATER METER
- WATER VALVE
- DRAIN GRATE
- STORM MANHOLE
- FIBER OPTIC WALLT
- CLEANOUT
- OVERHANG
- K/P
- N/W
- C/L
- MEASURED/CALCULATED DIMENSION
- RECORD DIMENSION
- NOW OR FORMERLY
- N/F
- BUILDING HEIGHT LOCATION
- B.H.L.
- P.O.B.
- BOUNDARY LINE
- EASEMENT LINE
- RIGHT-OF-WAY LINE
- CENTERLINE
- FENCE LINE
- OVERHEAD POWER LINE
- UNDERGROUND WATER LINE
- SETBACK LINE

LEGEND

- PROPOSED SAW-CUT LIMITS. SEE NEW PAVEMENT INTERFACE DETAIL THIS SHEET
- STOCKPILE LOCATION
- EXISTING DRAINAGE FLOW ARROW

LAND DEVELOPMENT ENGINEERS
8345 GUNN HIGHWAY
TAMPA, FL 33626

BEACON
CIVIL ENGINEERING



TAKE 5
CAR WASH

8108 OLD CARRIAGE CT
CITY OF SHAKOPEE
SHAKOPEE, MN

SHEET NAME:
EXISTING
CONDITIONS AND
DEMOLITION PLAN

SHEET NUMBER:
C-2.0

SHEET NAME:

EXISTING
CONDITIONS AND
DEMOLITION PLAN

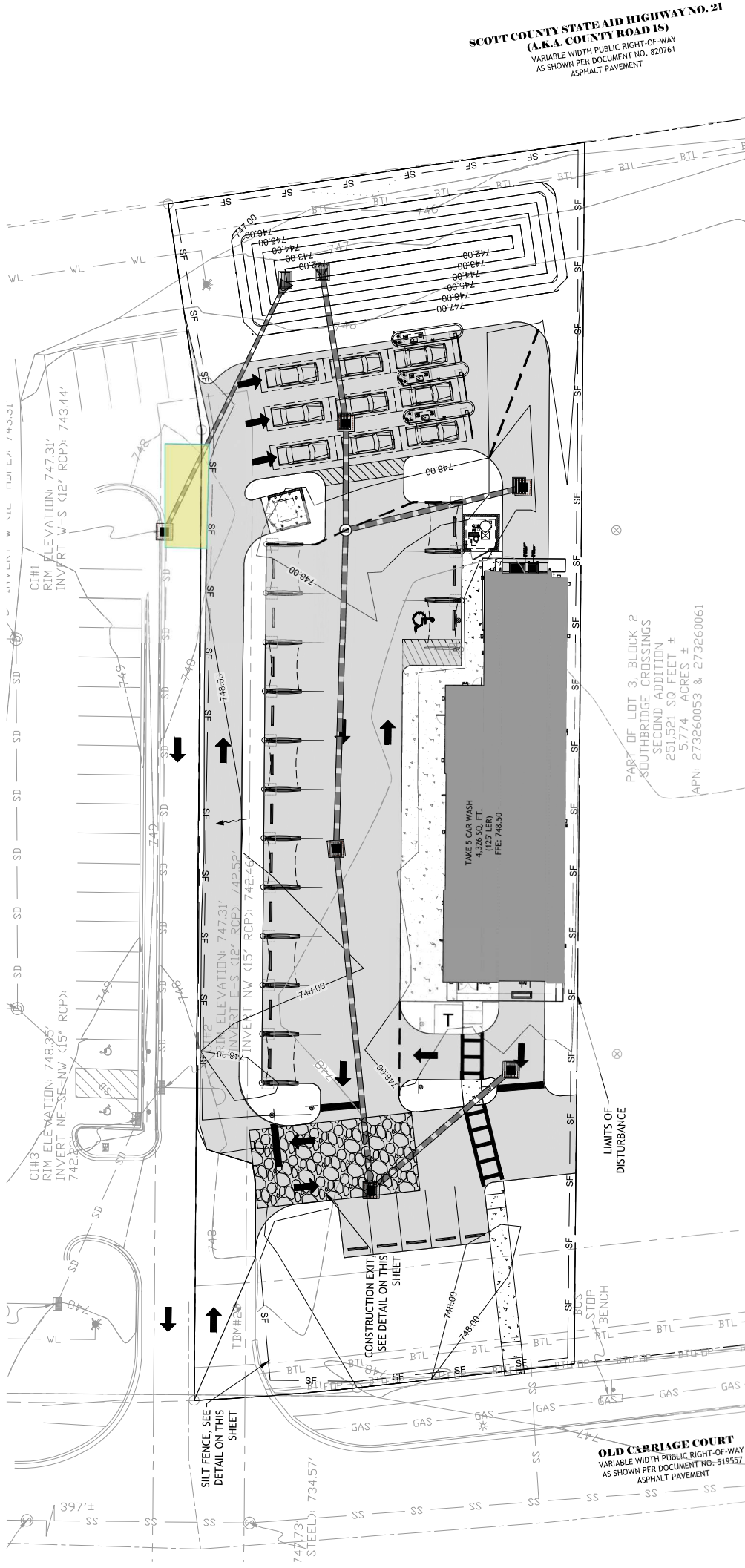
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C-2.0

CULTURAL RESOURCES NOTE
NO CULTURAL RESOURCES HAVE BEEN IDENTIFIED ON THIS SITE.

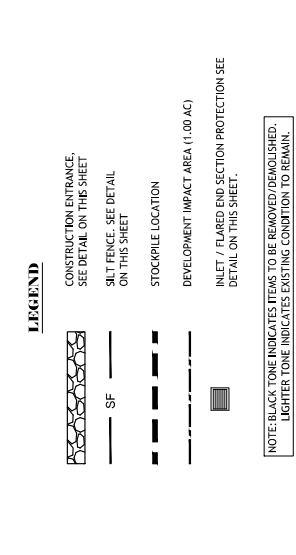
CONTRACTOR SHALL MATCH PROPOSED PAVEMENT THICKNESS TO EXISTING PAVEMENT THICKNESS

NOTE: BLACK TONE INDICATES ITEMS TO BE REMOVED/DEMOLISHED.
LIGHTER TONE INDICATES EXISTING CONDITION TO REMAIN.

VERTICAL DATUM
ELEVATIONS SHOWN HEREIN ARE BASED ON THE (NAVD) 88 AND SAID ELEVATIONS ARE BASED ON BENCHMARKS RESEARCHED BY THE SURVEYOR



SCOTT COUNTY STATE AID HIGHWAY NO. 21
(A.K.A. COUNTY ROAD 18)
VARIABLE WIDTH PUBLIC RIGHT-OF-WAY
AS SHOWN PER DOCUMENT NO. 820761
ASPHALT PAVEMENT



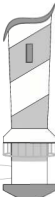
ENVIRONMENTAL NOTE
THE SUBJECT PLAN SET PRODUCED BY BEACON CIVIL ENGINEERING DO NOT DEPICT ENVIRONMENTAL CONDITIONS OR ANY ASSURANCE REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS OF THE SITE AND HAS REVIEWED OTHER ENVIRONMENTAL SERVICES RELATED TO, BUT NOT LIMITED TO, THE DETERMINATION OF THE POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY FOR THE SUBJECT PROJECT. IF ANY ENVIRONMENTAL CONTAMINATION OR WASTE IS DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS.

CULTURAL RESOURCES NOTE
NO CULTURAL RESOURCES HAVE BEEN IDENTIFIED ON THIS SITE.

CITY OF SHAKOPEE EROSION & SEDIMENT NOTES

- NO LAND DISTURBING ACTIVITY SHALL OCCUR UNTIL A CITY OF SHAKOPEE BUILDING PERMIT HAS BEEN ISSUED.
- ALL EROSION & SEDIMENT CONTROL WORK SHALL COMPLY WITH THE CITY CODE 150.57 AND CITY DESIGN CRITERIA.
- BEST MANAGEMENT PRACTICES (BMPs) REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED IN THE CURRENT EDITIONS OF THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.
- ALL BMPs SELECTED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS AND ESTIMATED DURATION OF USE.
- ALL WORK AND MATERIALS SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED PLANS. ANY DEVIATION FROM THE APPROVED PLANS SHALL REQUIRE WRITTEN APPROVAL FROM THE CITY OF SHAKOPEE.
- A COPY OF THESE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, SHRUBS, GRASS AND OTHER VEGETATIVE COVER.
- ESTABLISH A PERMANENT VEGETATIVE COVER ON ALL EXPOSED SOILS IF LAND IS COMING OUT OF FARMING PRODUCTION. PLANT AS SOON AS POSSIBLE TO
- ESTABLISH A DENSE GRASS FILTER PRIOR TO CONSTRUCTION AND TO MINIMIZE WEED GROWTH.
- THE BOUNDARIES OF THE LAND DISTURBANCE LIMITS SHOWN ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. NO LAND DISTURBANCE ALLOWED BEYOND THE LIMIT LINE.
- ALL SEDIMENT AND EROSION CONTROL FACILITIES (BMPs) SHALL BE INSTALLED AND IN OPERATION PRIOR TO LAND DISTURBANCE ACTIVITIES AND THEY SHALL
- BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR EROSION IS PASSED.
- THE BMPs SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE PERMITTEE/CONTRACTOR SHALL ANTICIPATE THAT MORE BMPs WILL BE NECESSARY AND SHALL
- PROVIDE ALL ADDITIONAL BMPs OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED TO PROTECT WATER AND SOIL RESOURCES
- THE BMPs SHALL BE INSPECTED DAILY BY THE PERMITTEE/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- LAND DISTURBING ACTIVITIES SHALL OCCUR IN INCREMENTS OF WORKABLE SIZE SUCH THAT ADEQUATE BMP CONTROL CAN BE PROVIDED THROUGHOUT ALL PHASES OF CONSTRUCTION. THE SMALLEST PRACTICAL AREA SHALL BE EXPOSED OR OTHERWISE DISTURBED AT ANY ONE TIME.
- OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SLOPES LEAVING TRACK GROOVES PERPENDICULAR TO THE SLOPE. DO NOT BACK-BLADE.
- LEAVE A ROUGH SURFACE TO MINIMIZE EROSION.
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED UPON COMPLETION OF BACKFILL AND ROUGH GRADING OF THE LOT. TEMPORARY MULCH AND
- SEED SHALL COVER ALL EXPOSED SOILS UNTIL FINAL LOT GRADING IS COMPLETED AND THE PERMANENT TURF (SOIL OR SEED) IS ESTABLISHED.
- ALL STABILIZED AREAS RE-DISTURBED BY UTILITY INSTALLATIONS AND OTHER CONSTRUCTION ACTIVITIES REQUIRE THAT TEMPORARY MULCH AND SEED BE REINSTALLED.
- TEMPORARY SEED SHALL BE MINDOT MIX 130B @ 100LBS PER ACRE OR APPROVED EQUAL. PERMANENT SEED SHALL BE MINDOT MIX 60B @ 100LBS PER ACRE OR APPROVED EQUAL. TEMPORARY MULCH SHALL BE MINDOT TYPE I (CLEAN OAT STRAW) @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE

LAND DEVELOPMENT ENGINEERS
TAMPA, FL 33626
8345 GUNN HIGHWAY
CIVIL ENGINEERING
BEACON



TAKE 5
CAR WASH

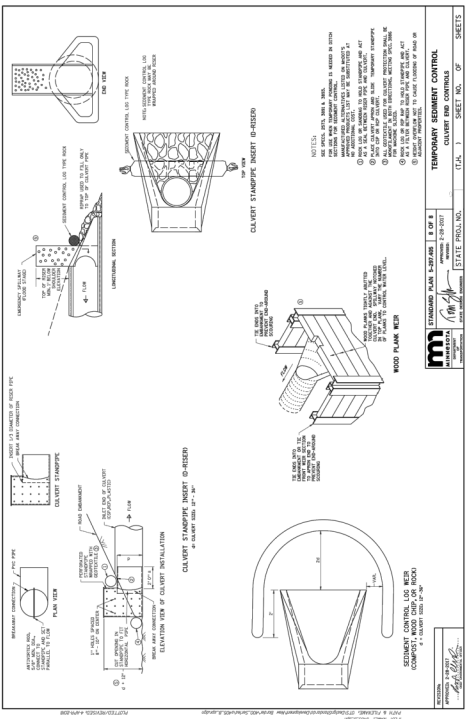
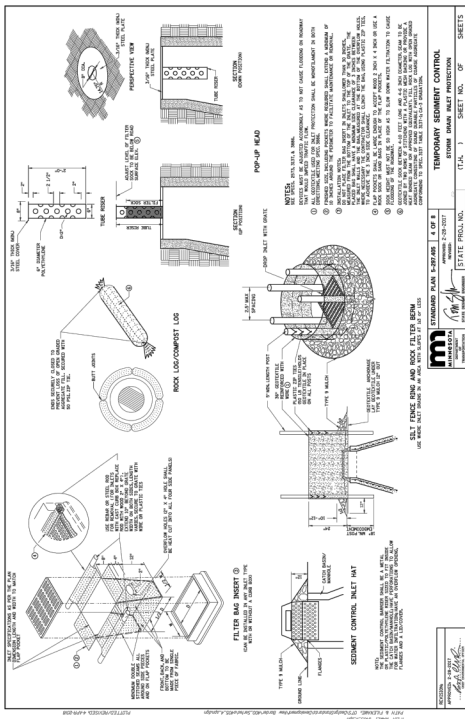
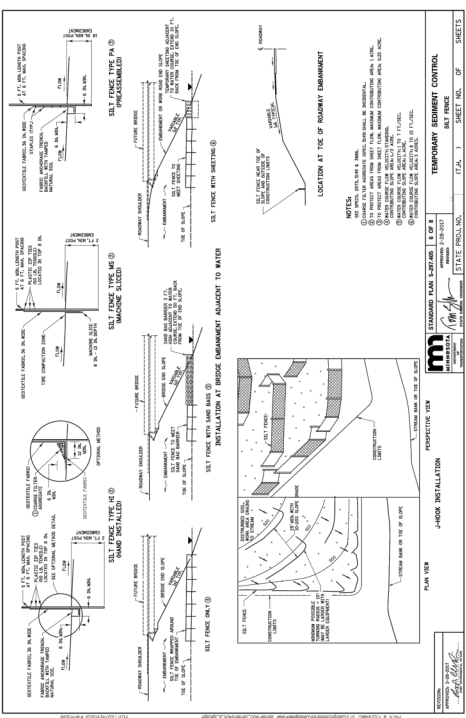
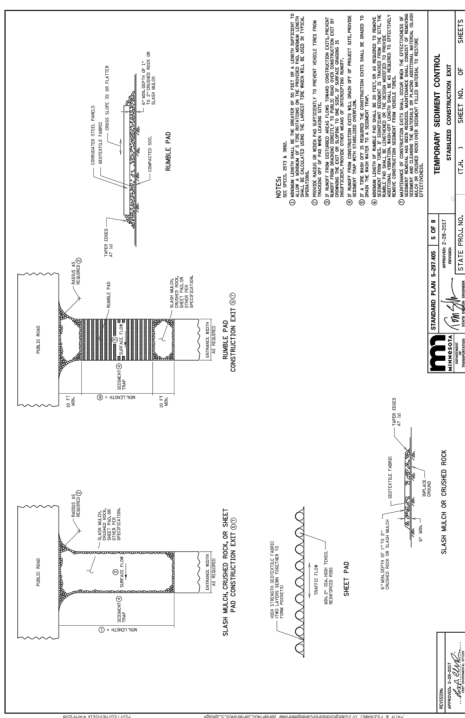
8108 OLD CARRIAGE CT
CITY OF SHAKOPEE
SHAKOPEE, MN

SHEET NAME:

SWPPP PLAN

SHEET NUMBER:

C-3.0



SITE DESCRIPTION:

PROJECT NAME AND LOCATION INFORMATION:		8108 OLD CARRIAGE CT SHAKOPEE, MN 55379
DESCRIBE THE NATURE OF THE CONSTRUCTION ACTIVITY:	CONSTRUCT A 1-STORY BUILDING AND STORMWATER PONDS FOR PROPOSED RINOFF FROM IMPERVIOUS AREAS. UNDERGROUND UTILITIES WILL BE INSTALLED THROUGHOUT THE DEVELOPMENT.	
DESCRIBE THE INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:	THE SEQUENCE OF MAJOR SOIL DISTURBANCE WILL START WITH THE CLEARING THE LAND AND EXCAVATING PROPOSED AREA OF ADDITION. THE INSTALLATION OF UTILITIES WILL FOLLOW AFTER THE ROAD GRADE ARE ROUGHED IN. FINAL PAD GRADES.	
TOTAL AREA OF THE SITE:	1.00 AC	
TOTAL AREA OF THE SITE TO BE DISTURBED:	1.00 AC	
EXISTING DATA DESCRIBING THE SOIL OR QUALITY OF ANY STORMWATER DISCHARGE FROM THE SITE:	SEE GEOTECHNICAL REPORT	
EXISTING DATA DESCRIBING THE SOIL OR QUALITY OF ANY STORMWATER DISCHARGE FROM THE SITE:	SEE GEOTECHNICAL REPORT	
ESTIMATE THE DRAINAGE AREA SIZE FOR EACH DISCHARGE POINT:	BASIN 1 - 1.00 AC	
LATITUDE AND LONGITUDE OF EACH DISCHARGE POINT AND IDENTIFY THE RECEIVING WATER OR ARA FOR EACH DISCHARGE POINT:	BASIN 1 - 44° 46'49"-44° 44' N, 93° 24' 48"-28° W RECEIVING WATER: EXISTING STORM SYSTEM	
GIVE A DETAILED DESCRIPTION OF ALL CONTROLS, BEST MANAGEMENT PRACTICES (BMPs) AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE FOR EACH ACTIVITY IDENTIFIED IN THE INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES SECTION. PROVIDE TIME FRAMES IN WHICH THE CONTROLS WILL BE IMPLEMENTED. NOTE: ALL CONTROLS SHALL BE CONSISTENT WITH PERFORMANCE STANDARDS FOR EROSION AND SEDIMENT CONTROL AND STORMWATER TREATMENT SET FORTH IN THE CITY OF BRIDGETON, GEORGIA ENVIRONMENTAL CODE MANUAL AND ANY SUBSEQUENT AMENDMENTS.		
1. PRIOR TO CLEARING, A SILT FENCE (TRENCHED 4 INCHES DEEP AND BACKED FILLED ON THE UPHILL SIDE), SHALL BE INSTALLED AROUND THE PERIMETER OF THE SITE. 2. DURING THE CLEARING, GRUBBING, AND SITE GRADING STAGES, AREAS THAT ARE DISTURBED MORE THAN 7 DAYS SHALL BE STABILIZED RYE GRASS. 3. AFTER THE INITIAL SITE GRADING WORK, ALL PROPOSED INLETS/OUTFALLS, ONCE INSTALLED, SHALL BE PROTECTED FROM EROSION AND SEDIMENT RUNOFF USING PROPERLY INSTALLED INLET PROTECTION. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENT STABILIZATION METHODS IF OTHER METHODS ARE UTILIZED, THIS SWPPP WILL BE MODIFIED. 4. ALL INSTALLATION SHALL BE COMMENCED AS DEPICTED ON THE ATTACHED SITE PLAN AND DETAIL SHEET. DESCRIBE ALL TEMPORARY AND PERMANENT STABILIZATION PRACTICES: STABILIZATION PRACTICES INCLUDE: TEMPORARY SEEDING, MULCHING, PERMANENT SEEDING, GEOTEXTILES, SODSTABILIZATION, VEGETATIVE BUFFER STRIPS, PROTECTION OF TREES, VEGETATIVE PRESERVATIONS, ETC. 1. TEMPORARY SEEDING SHALL BE RYE GRASS APPLIED AT THE MANUFACTURES RECOMMENDATION TO ANY DISTURBED AREAS THAT ARE INACTIVE MORE THAN 7 DAYS. 2. MULCHING PRACTICES AND SOD SHALL BE APPLIED TO THE PARKING LOT ISLANDS.		
DESCRIBE ALL STRUCTURAL CONTROLS TO BE IMPLEMENTED TO DIVERT STORMWATER FLOW FROM EXPOSED SOILS AND STABILIZED AREAS. TEMPORARY CONTROLS INCLUDE: SOD, STABILIZATION, VEGETATIVE BUFFER STRIPS, CHECK DAMS, SUBSURFACE DRAINS, PIPE SLOPE DRAINS, LEVEL SPREADERS, STORM DRAIN INLET PROTECTION, ROCK OUTLET PROTECTION, REINFORCED SOIL RETAINING SYSTEMS, GABIIONS, COAGULATING AGENTS AND TEMPORARY OR PERMANENT SEDIMENT BASINS.		
DESCRIBE ALL SEDIMENT BASINS TO BE IMPLEMENTED FOR AREAS THAT WILL DISTURB 10 OR MORE ACRES AT ONE TIME. THE SEDIMENT BASINS (OR AN EQUIVALENT ALTERNATIVE) SHOULD BE ABLE TO PROVIDE 3,400 CUBIC FEET OF STORAGE FOR EACH ACRE DRAINED. TEMPORARY SEDIMENT BASINS (OR AN EQUIVALENT ALTERNATIVE) ARE RECOMMENDED FOR DRAINAGE AREAS UNDER 10 ACRES.		
DESCRIBE ALL PERMANENT STORMWATER MANAGEMENT CONTROLS SUCH AS, BUT NOT LIMITED TO, DETENTION OR RETENTION SYSTEMS OR VEGETATED SWALES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS.		

DESCRIBE IN DETAIL CONTROLS FOR THE FOLLOWING POTENTIAL POLLUTANTS:

WASTE DISPOSAL. THIS MAY INCLUDE CONSTRUCTION DEBRIS, CHEMICALS, LITTER, AND SANITARY WASTES:	ALL CONSTRUCTION MATERIALS AND DEBRIS WILL BE PLACED IN A DUMPSTER AND HAILED OFF SITE TO A LANDFILL OR OTHER PROPER DISPOSAL. THE DUMPSTER SHALL BE LOCATED AS SHOWN ON THE SITE PLAN. NO MATERIALS WILL BE BURNED ON SITE. TO BE COMPLETED BY CONTRACTOR.
OFFSITE VEHICLE TRACKING FROM CONSTRUCTION ENTRANCES/EXITS:	OFFSITE VEHICLE TRACKING OF SEDIMENTS AND DUST GENERATION WILL BE MINIMIZED VIA A ROCK CONSTRUCTION ENTRANCE. DAILY STREET SWEEPING AND THE USE OF WATER TO KEEP DUST DOWN. TO BE COMPLETED BY CONTRACTOR.
THE PROPER APPLICATION RATES OF ALL FERTILIZERS, HERBICIDES AND PESTICIDES USED AT THE CONSTRUCTION SITE:	FERTILIZERS AND PESTICIDES WILL BE USED AT A MINIMUM AND IN ACCORDANCE WITH THE MANUFACTURER'S SUGGESTION. APPLICATION RATES. THE FERTILIZER AND PESTICIDES WILL BE STORED IN A COVERED SHED. AS INDICATED ON SITE PLAN. TO BE COMPLETED BY CONTRACTOR.
THE STORAGE, APPLICATION, GENERATION AND MIGRATION OF ALL TOXIC SUBSTANCES:	A SPILL PREVENTION PLAN IS IN PLACE. A DOUBLE WALLED FUEL TANK SHALL BE USED FOR ALL FUEL. ALL FUEL TANKS SHALL BE PROTECTED FROM BEING DISCHARGED IN THE STORMWATER RUNOFF. ALL PLANTS AND OTHER CHEMICALS WILL BE STORED IN A LOCKED COVERED SHED AS INDICATED ON SITE MAP. TO BE COMPLETED BY CONTRACTOR.
OTHER:	PORT-O-LETS WILL BE PLACED AWAY FROM STORM SEWER SYSTEMS, FERTILIZERS, PESTICIDES, AND OTHER TOXIC SUBSTANCES. SPECIFIC PLACEMENT IS DEPICTED ON THE SITE MAP. NO VEHICLE MAINTENANCE SHALL BE CONDUCTED ON-SITE. TO BE COMPLETED BY CONTRACTOR.

PROVIDE A DETAILED DESCRIPTION OF THE MAINTENANCE PLAN FOR ALL STRUCTURAL AND NON-STRUCTURAL CONTROLS TO ASSURE THAT THEY REMAIN IN GOOD AND EFFECTIVE OPERATING CONDITION.	
1. SILT FENCE SHALL BE INSPECTED AT LEAST WEEKLY. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. 2. MAINTENANCE SHALL BE PERFORMED ON THE ROCK ENTRANCE WHEN ANY VOIDS SPACES ARE FULL OF SEDIMENT. 3. MAINTENANCE SHALL BE PERFORMED IMMEDIATELY AFTER EACH RAIN EVENT AND ANY REQUIRED REPAIRS TO THE SILT FENCE OR FILTER FABRIC SHALL BE PERFORMED IMMEDIATELY. 4. BARE AREAS OF THE SITE THAT WERE PREVIOUSLY SEEDED SHALL BE RESEED PER MANUFACTURES INSTRUCTIONS. 5. MULCH AND SOD THAT HAS BEEN WASHED OUT SHALL BE REPLACED IMMEDIATELY. 6. MAINTAIN ALL OTHER AREAS OF THE SITE WITH PROPER CONTROLS AS NECESSARY. TO BE COMPLETED BY CONTRACTOR.	INSPECTIONS: DESCRIBE THE INSPECTION AND INSPECTION DOCUMENTATION PROCEDURES, AS REQUIRED BY PART V.D.4. OF THE PERMIT. INSPECTIONS MUST OCCUR AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.50 INCHES OR GREATER (SEE ATTACHED FORM).
QUALIFIED PERSONNEL WILL INSPECT ALL POINTS OF DISCHARGE. ALL DISTURBED AREAS OF CONSTRUCTION THAT HAVE NOT BEEN STABILIZED, CONSTRUCTED AREAS AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE AT LEAST ONE EVERY 7 CALENDAR DAYS OR WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT THAT IS 0.5 INCHES OR GREATER. WHERE SITES HAVE BEEN FULLY STABILIZED, SAID INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE A MONTH UNTIL THE NOTICE OF TERMINATION IS FILED. TO BE COMPLETED BY CONTRACTOR.	
IDENTIFY AND DESCRIBE ALL SOURCES OF NON-STORMWATER DISCHARGES AS ALLOWED IN PART IV.A.3. OF THE PERMIT. FLOWS FROM FIRE FIGHTING ACTIVITIES DO NOT HAVE TO BE LISTED OR DESCRIBED.	
IT IS EXPECTED THAT THE FOLLOWING NON-STORMWATER DISCHARGE MAY OCCUR FROM THE SITE CONSTRUCTION PERIODS: WATER FROM WATER LINE FLUSHING, PAVEMENT WASH WATER (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED), AND UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION). IF SAID DISCHARGES DO OCCUR, THERE WILL BE NO DISCHARGE OF TOXIC OR HAZARDOUS MATERIALS TO THE STORMWATER SYSTEM. ANY PUMPED WATER FROM THE STORMWATER POND SHALL BE TREATED SO AS TO NOT ALLOW A DISCHARGE OF POLLUTED STORMWATER. TREATMENT CAN INCLUDE SILT FENCE, SETTLING PONDS, THE PROPER USE OF FLOCCULATING AGENTS OR OTHER APPROPRIATE MEANS. TO BE COMPLETED BY CONTRACTOR.	

THIS SWPPP MUST CLEARLY IDENTIFY, FOR EACH MEASURE IDENTIFIED WITHIN THE SWPPP, THE CONTRACTOR(S) OR SUBCONTRACTOR(S) THAT WILL IMPLEMENT EACH MEASURE. ALL CONTRACTOR(S) AND SUBCONTRACTOR(S) IDENTIFIED IN THE SWPPP MUST SIGN THE FOLLOWING CERTIFICATION:

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF GEORGIAGENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER."

STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT FORM

INSPECTIONS MUST OCCUR AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 1.00 INCHES OR GREATER

PROJECT NAME: _____ MINNESOTA NURP STORMWATER IDENTIFICATION NUMBER: _____

LOCATION	RAIN DATA	TYPE OF CONTROL (SEE BELOW)	DATE INSTALLED/MODIFIED	CURRENT CONDITION (SEE BELOW)	CORRECTIVE ACTION/OTHER REMARKS

CONDITION CODE:
G = GOOD M = MARGINAL, NEEDS MAINTENANCE OR REPLACEMENT SOON P = POOR, NEEDS IMMEDIATE MAINTENANCE OR REPLACEMENT C = NEEDS TO BE CLEANED O = OTHER

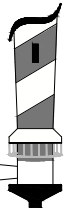
CONTROL TYPE CODE:

1. SILT FENCE	10. STORM DRAIN INLET PROTECTION	19. REINFORCED SOIL RETAINING SYSTEM	28. TREE PROTECTION
2. EARTH DIKES	11. VEGETATIVE BUFFER STRIP	20. GABIION	29. DETENTION POND
3. STRUCTURAL DIVERSION	12. VEGETATIVE PRESERVATION AREA	21. SEDIMENT BASIN	30. RETENTION POND
4. SWALE	13. RETENTION POND	22. TEMPORARY SEED / SOD	31. WASTE DISPOSAL / HOUSEKEEPING
5. SEDIMENT TRAP	14. CONSTRUCTION ENTRANCE STABILIZATION	23. PERMANENT SEED / SOD	32. DAM
6. CHECK DAM	15. PERIMETER DITCH	24. MULCH	33. SAND BAG
7. SUBSURFACE DRAIN	16. CURB AND GUTTER	25. HAY BALES	34. OTHER
8. PIPE SLOPE DRAIN	17. PAVED ROAD SURFACE	26. GEOTEXTILE	
9. LEVEL SPREADERS	18. ROCK OUTLET PROTECTION	27. RIP-RAP	

THE ABOVE SIGNATURE ALSO SHALL CERTIFY THAT THIS FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE STATE OF GEORGIAGENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES IF THERE ARE NOT ANY INCIDENTS OF NON-COMPLIANCE IDENTIFIED ABOVE.

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

BEACON
CIVIL ENGINEERING
LAND DEVELOPMENT ENGINEERS
8345 GUNN HIGHWAY
TAMPA, FL 33626



TAKE 5
CAR WASH

8108 OLD CARRIAGE CT
CITY OF SHAKOPEE
SHAKOPEE, MN

SHEET NAME:
SWPPP
CONSTRUCTION
DETAILS
SHEET NUMBER:
C-3.1



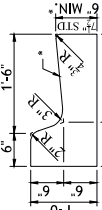
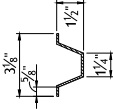
I HEREBY CERTIFY THAT THE PLAN, SPECIFICATIONS, AND ATTACHMENTS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MINNESOTA.

SIGNATURE: _____
NAME: DANIEL DOUGLAS DEKON
LICENSED: 12/20/2021 LICENSE NUMBER: 99701

DANIEL DEKON, PE #59701

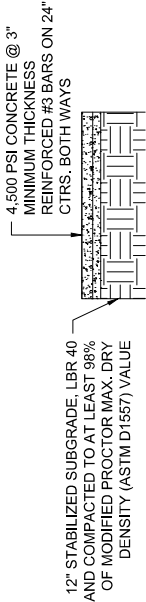
METAL POST DETAIL

WEIGHT OF POST SHALL BE 2 LBS./FT. MIN.



TYPE F CURB

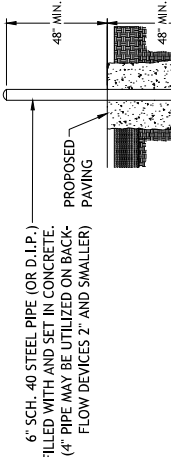
* WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE "LIP" SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.



- NOTES
- SUBGRADE SOILS MUST BE DENSIFIED TO AT LEAST 98% MPMD TO A DEPTH OF AT LEAST 1-FOOT DIRECTLY BELOW THE BOTTOM OF CONCRETE SLAB.
 - THE SURFACE OF THE SUBGRADE SOILS MUST BE SMOOTH, AND ANY DISTURBANCES OR WHEEL RUTTING CORRECTED PRIOR TO PLACEMENT OF CONCRETE.
 - THE SUBGRADE SOILS MUST BE MOISTENED PRIOR TO PLACEMENT OF CONCRETE.
 - CONCRETE PAVEMENT THICKNESS SHOULD BE UNIFORM THROUGHOUT, WITH EXCEPTION TO THE THICKENED EDGES (CURB OR FOOTING).
 - THE BOTTOM OF THE PAVEMENT SHOULD BE SEPARATED FROM THE ESTIMATED SHWT LEVEL BY AT LEAST 24 INCHES.
 - SLAB THICKNESS FOR STANDARD DUTY CONCRETE PAVEMENTS ARE BASED ON (1) THE SUBGRADE SOILS DENSIFIED TO AT LEAST 98% MPMD, (2) MODULUS OF SUBGRADE REACTION (K) EQUAL TO 150 PCI, (3) A 30-YEAR DESIGN LIFE, AND (4) TOTAL EQUIVALENT 18 KIP SINGLE AXLE LOADS (ESAL) OF 45,000.
 - MAXIMUM CONTROL JOINT SPACING SHALL BE 10x10'.

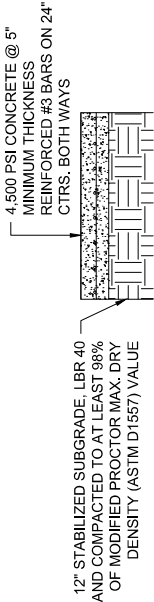
LIGHT DUTY CONCRETE PAVEMENT SECTION

N.T.S.



BOLLARD GUARD POST

N.T.S.



- NOTES
- SUBGRADE SOILS MUST BE DENSIFIED TO AT LEAST 98% MPMD TO A DEPTH OF AT LEAST 1-FOOT DIRECTLY BELOW THE BOTTOM OF CONCRETE SLAB.
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 - SLAB THICKNESS FOR STANDARD DUTY CONCRETE PAVEMENTS ARE BASED ON (1) THE SUBGRADE SOILS DENSIFIED TO AT LEAST 98% MPMD, (2) MODULUS OF SUBGRADE REACTION (K) EQUAL TO 150 PCI, (3) A 30-YEAR DESIGN LIFE, AND (4) TOTAL EQUIVALENT 18 KIP SINGLE AXLE LOADS (ESAL) OF 45,000.
 - MAXIMUM CONTROL JOINT SPACING SHALL BE 10x10'.

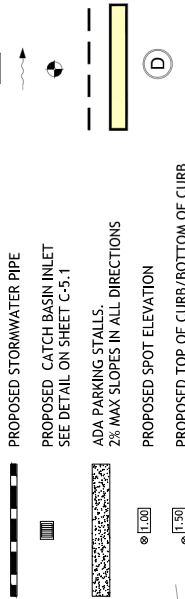
HEAVY DUTY CONCRETE PAVEMENT SECTION

N.T.S.

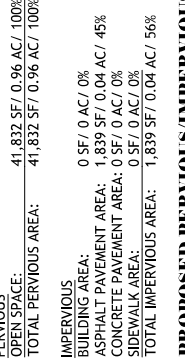
TRAFFIC SIGN SPECIFICATIONS

ALL SIGNS SHALL BE 24" X 36" OR 36" X 48" OR 48" X 72" OR 72" X 96" OR 96" X 120" OR 120" X 144" OR 144" X 168" OR 168" X 192" OR 192" X 216" OR 216" X 240" OR 240" X 264" OR 264" X 288" OR 288" X 312" OR 312" X 336" OR 336" X 360" OR 360" X 384" OR 384" X 408" OR 408" X 432" OR 432" X 456" OR 456" X 480" OR 480" X 504" OR 504" X 528" OR 528" X 552" OR 552" X 576" OR 576" X 600" OR 600" X 624" OR 624" X 648" OR 648" X 672" OR 672" X 696" OR 696" X 720" OR 720" X 744" OR 744" X 768" OR 768" X 792" OR 792" X 816" OR 816" X 840" OR 840" X 864" OR 864" X 888" OR 888" X 912" OR 912" X 936" OR 936" X 960" OR 960" X 984" OR 984" X 1008" OR 1008" X 1032" OR 1032" X 1056" OR 1056" X 1080" OR 1080" X 1104" OR 1104" X 1128" OR 1128" X 1152" OR 1152" X 1176" OR 1176" X 1200" OR 1200" X 1224" OR 1224" X 1248" OR 1248" X 1272" OR 1272" X 1296" OR 1296" X 1320" OR 1320" X 1344" OR 1344" X 1368" OR 1368" X 1392" OR 1392" X 1416" OR 1416" X 1440" OR 1440" X 1464" OR 1464" X 1488" OR 1488" X 1512" OR 1512" X 1536" OR 1536" X 1560" OR 1560" X 1584" OR 1584" X 1608" OR 1608" X 1632" OR 1632" X 1656" OR 1656" X 1680" OR 1680" X 1704" OR 1704" X 1728" OR 1728" X 1752" OR 1752" X 1776" OR 1776" X 1800" OR 1800" X 1824" OR 1824" X 1848" OR 1848" X 1872" OR 1872" X 1896" OR 1896" X 1920" OR 1920" X 1944" OR 1944" X 1968" OR 1968" X 1992" OR 1992" X 2016" OR 2016" X 2040" OR 2040" X 2064" OR 2064" X 2088" OR 2088" X 2112" OR 2112" X 2136" OR 2136" X 2160" OR 2160" X 2184" OR 2184" X 2208" OR 2208" X 2232" OR 2232" X 2256" OR 2256" X 2280" OR 2280" X 2304" OR 2304" X 2328" OR 2328" X 2352" OR 2352" X 2376" OR 2376" X 2400" OR 2400" X 2424" OR 2424" X 2448" OR 2448" X 2472" OR 2472" X 2496" OR 2496" X 2520" OR 2520" X 2544" OR 2544" X 2568" OR 2568" X 2592" OR 2592" X 2616" OR 2616" X 2640" OR 2640" X 2664" OR 2664" X 2688" OR 2688" X 2712" OR 2712" X 2736" OR 2736" X 2760" OR 2760" X 2784" OR 2784" X 2808" OR 2808" X 2832" OR 2832" X 2856" OR 2856" X 2880" OR 2880" X 2904" OR 2904" X 2928" OR 2928" X 2952" OR 2952" X 2976" OR 2976" X 3000" OR 3000" X 3024" OR 3024" X 3048" OR 3048" X 3072" OR 3072" X 3096" OR 3096" X 3120" OR 3120" X 3144" OR 3144" X 3168" OR 3168" X 3192" OR 3192" X 3216" OR 3216" X 3240" OR 3240" X 3264" OR 3264" X 3288" OR 3288" X 3312" OR 3312" X 3336" OR 3336" X 3360" OR 3360" X 3384" OR 3384" X 3408" OR 3408" X 3432" OR 3432" X 3456" OR 3456" X 3480" OR 3480" X 3504" OR 3504" X 3528" OR 3528" X 3552" OR 3552" X 3576" OR 3576" X 3600" OR 3600" X 3624" OR 3624" X 3648" OR 3648" X 3672" OR 3672" X 3696" OR 3696" X 3720" OR 3720" X 3744" OR 3744" X 3768" OR 3768" X 3792" OR 3792" X 3816" OR 3816" X 3840" OR 3840" X 3864" OR 3864" X 3888" OR 3888" X 3912" OR 3912" X 3936" OR 3936" X 3960" OR 3960" X 3984" OR 3984" X 4008" OR 4008" X 4032" OR 4032" X 4056" OR 4056" X 4080" OR 4080" X 4104" OR 4104" X 4128" OR 4128" X 4152" OR 4152" X 4176" OR 4176" X 4200" OR 4200" X 4224" OR 4224" X 4248" OR 4248" X 4272" OR 4272" X 4296" OR 4296" X 4320" OR 4320" X 4344" OR 4344" X 4368" OR 4368" X 4392" OR 4392" X 4416" OR 4416" X 4440" OR 4440" X 4464" OR 4464" X 4488" OR 4488" X 4512" OR 4512" X 4536" OR 4536" X 4560" OR 4560" X 4584" OR 4584" X 4608" OR 4608" X 4632" OR 4632" X 4656" OR 4656" X 4680" OR 4680" X 4704" OR 4704" X 4728" OR 4728" X 4752" OR 4752" X 4776" OR 4776" X 4800" OR 4800" X 4824" OR 4824" X 4848" OR 4848" X 4872" OR 4872" X 4896" OR 4896" X 4920" OR 4920" X 4944" OR 4944" X 4968" OR 4968" X 4992" OR 4992" X 5016" OR 5016" X 5040" OR 5040" X 5064" OR 5064" X 5088" OR 5088" X 5112" OR 5112" X 5136" OR 5136" X 5160" OR 5160" X 5184" OR 5184" X 5208" OR 5208" X 5232" OR 5232" X 5256" OR 5256" X 5280" OR 5280" X 5304" OR 5304" X 5328" OR 5328" X 5352" OR 5352" X 5376" OR 5376" X 5400" OR 5400" X 5424" OR 5424" X 5448" OR 5448" X 5472" OR 5472" X 5496" OR 5496" X 5520" OR 5520" X 5544" OR 5544" X 5568" OR 5568" X 5592" OR 5592" X 5616" OR 5616" X 5640" OR 5640" X 5664" OR 5664" X 5688" OR 5688" X 5712" OR 5712" X 5736" OR 5736" X 5760" OR 5760" X 5784" OR 5784" X 5808" OR 5808" X 5832" OR 5832" X 5856" OR 5856" X 5880" OR 5880" X 5904" OR 5904" X 5928" OR 5928" X 5952" OR 5952" X 5976" OR 5976" X 6000" OR 6000" X 6024" OR 6024" X 6048" OR 6048" X 6072" OR 6072" X 6096" OR 6096" X 6120" OR 6120" X 6144" OR 6144" X 6168" OR 6168" X 6192" OR 6192" X 6216" OR 6216" X 6240" OR 6240" X 6264" OR 6264" X 6288" OR 6288" X 6312" OR 6312" X 6336" OR 6336" X 6360" OR 6360" X 6384" OR 6384" X 6408" OR 6408" X 6432" OR 6432" X 6456" OR 6456" X 6480" OR 6480" X 6504" OR 6504" X 6528" OR 6528" X 6552" OR 6552" X 6576" OR 6576" X 6600" OR 6600" X 6624" OR 6624" X 6648" OR 6648" X 6672" OR 6672" X 6696" OR 6696" X 6720" OR 6720" X 6744" OR 6744" X 6768" OR 6768" X 6792" OR 6792" X 6816" OR 6816" X 6840" OR 6840" X 6864" OR 6864" X 6888" OR 6888" X 6912" OR 6912" X 6936" OR 6936" X 6960" OR 6960" X 6984" OR 6984" X 7008" OR 7008" X 7032" OR 7032" X 7056" OR 7056" X 7080" OR 7080" X 7104" OR 7104" X 7128" OR 7128" X 7152" OR 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LEGEND



EXISTING PERVIOUS/IMPERVIOUS



GRADING & DRAINAGE NOTES

- JURISDICTIONAL LAND DISTURBANCE PERMIT SHALL BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION AND BE VISIBLE TO THE PUBLIC.
- TWO PERMANENT BENCHMARKS ON-SITE SHALL BE ESTABLISHED BY CONTRACTOR PRIOR TO STARTING CONSTRUCTION.
- PROPOSED SPOT ELEVATIONS ARE TO THE TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
- ALL REQUIRED FILL SHALL BE CLEAN, SUITABLE MATERIAL.
- ALL AREAS DISTURBED OUTSIDE LIMITS OF GRADING SHOWN ON THE PLANS SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER BY THE CONTRACTOR.
- CONTRACTOR SHALL MEET AND MATCH EXISTING (M.E.) PAVEMENT ALONG SAW-CUT LIMITS.
- LENGTH OF PROPOSED RIP-RAP PADS AT PIPE OUTLET STRUCTURES SHALL BE A MINIMUM LENGTH OF SIX TIMES THE DIAMETER OF THE PIPE, IF APPLICABLE.
- ALL FILL SHOULD BE PLACED IN THIN, HORIZONTAL LOOSE LIFTS, MAXIMUM 6 INCHES, AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698). A MINNESOTA REGISTERED PROFESSIONAL SOILS ENGINEER SHALL CERTIFY THE SOIL COMPACTION PRIOR TO THE INSTALLATION OF PAVEMENTS, CURBS, SIDEWALKS OR FOOTINGS OF ANY TYPE. COMPACTION OF THE UPPER 8 INCHES OF SOIL BENEATH PAVEMENTS AND SLAB-ON-GRADE SHOULD BE COMPACTED TO AT LEAST 98%.
- STORMWATER PONDS AND OUTLET STRUCTURES SHALL BE FULLY CONSTRUCTED AND OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION OR GRADING ON THE SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- REFER TO LANDSCAPE PLAN FOR REQUIRED TREE AND GROUND COVER PLANTINGS.
- SURFACE GRADE SLOPES SHALL BE A MINIMUM OF 1.00%.
- 4:1 MAXIMUM CUT AND FILL SLOPES
- ADA ACCESSIBLE AREAS SHALL NOT HAVE A MAXIMUM CROSS-SLOPE THAT EXCEEDS 2.00% AND MAX LONGITUDINAL SLOPE OF 5.00% UNLESS A RAMP IS SPECIFIED. IF DISCREPANCIES OCCUR CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD IMMEDIATELY TO CONFIRM DESIGN TO ENSURE ADA ACCESSIBLE STANDARDS ARE MET.
- ALL TRENCHING AND BACKFILL OPERATIONS SHALL COMPLY WITH GOVERNING JURISDICTIONAL STANDARDS. **SEE SHEET C-5.1 FOR PIPE TRENCHING DETAILS.**
- SEE SHEET C-5.0 AND C-5.1 FOR DETAILS.
- ALL INLET GRATES SUBJECTED TO VEHICLE LOADING SHALL MEET H-20 TRAFFIC LOADING STANDARDS.

BUILDING ACCESS AND PROTECTION NOTES

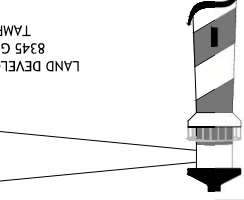
- THE CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES AROUND AND TO ALL BUILDINGS UNDER CONSTRUCTION WITH A MINIMUM WIDTH OF 20 FT. THE ACCESS TO BUILDINGS WITH SPRINKLER OR STANDPIPE SYSTEMS SHALL BE WITHIN 40 FT OF THE FIRE DEPARTMENT CONNECTION ACCORDING TO NFPA 1141 3-1.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING IN ALL AREAS AROUND BUILDING.

NO.	BY	DATE	REVISION DESCRIPTION
DESIGNED BY: JH	DRAWN BY: JH	ISSUE DATE: 03/11/22	ISSUED FOR PERMITTING
CHECKED BY: TC	APPROVED BY: DO	JOB NO.: 21-97	



BEACON CIVIL ENGINEERING
TAMPA, FL 33626
LAND DEVELOPMENT ENGINEERS
8345 GUNN HIGHWAY
TAMPA, FL 33626

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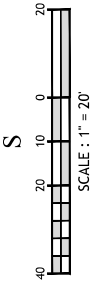
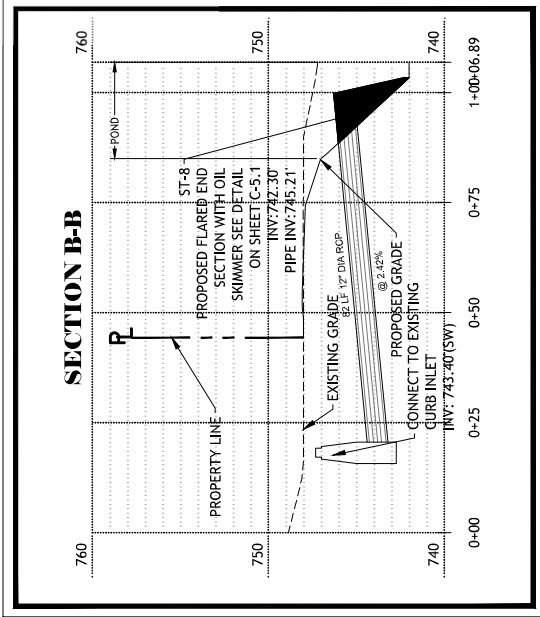


TAKE 5 CAR WASH

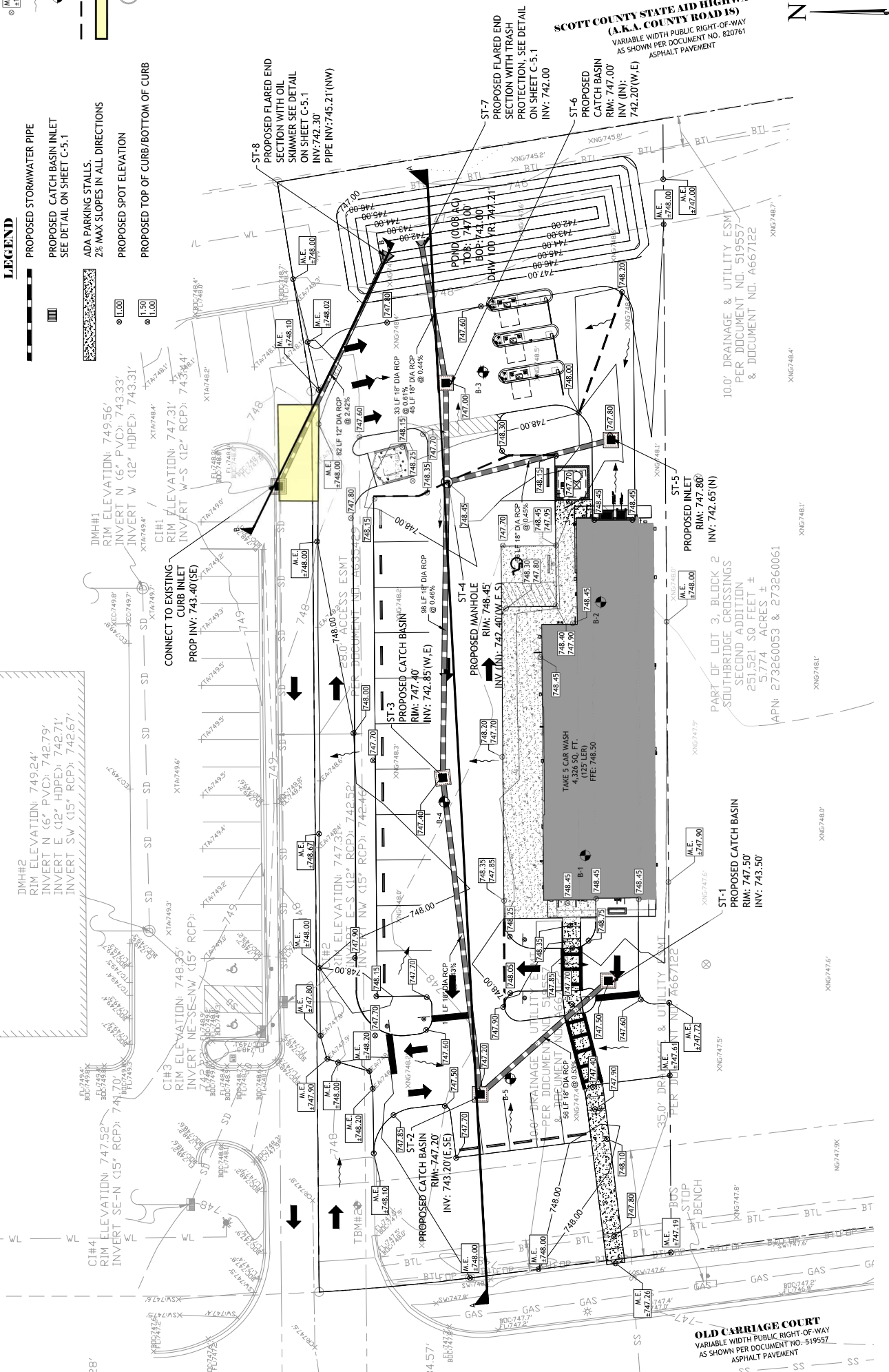
8108 OLD CARRIAGE CT
CITY OF SHAKOPEE
SHAKOPEE, MN

GRADING & DRAINAGE PLAN

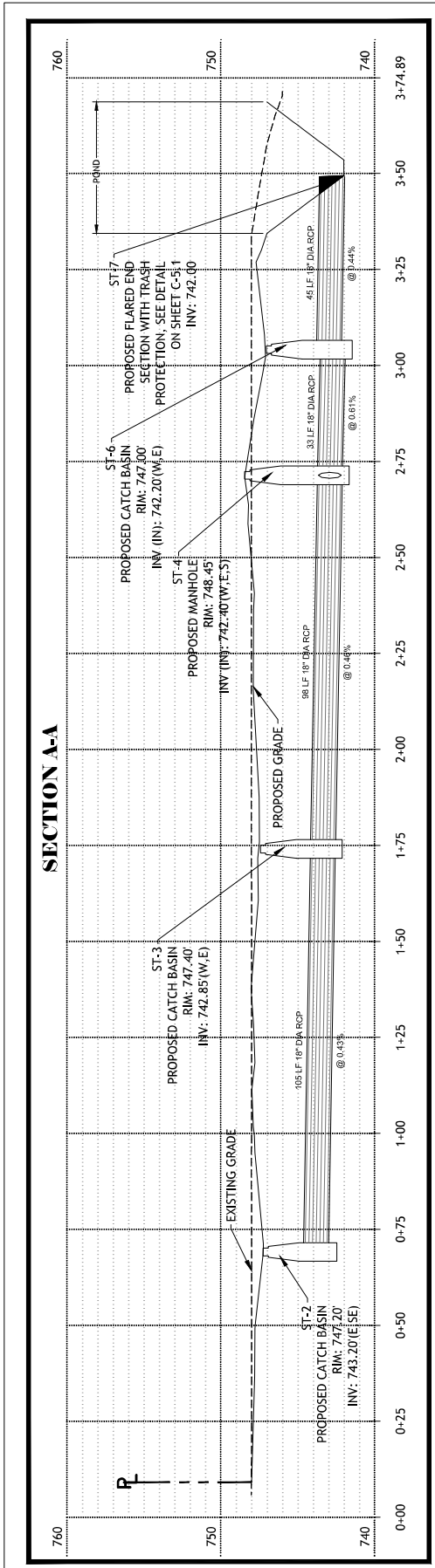
C-5.0



W—BEACON—E
CHALLENGING



VERTICAL DATUM
ELEVATIONS SHOWN HEREIN ARE BASED ON THE (NAVD) 88 AND SAID ELEVATIONS ARE BASED ON BENCHMARKS RESEARCHED BY THE SURVEYOR



ALL CONNECTION TO EXISTING PIPE SHALL BE
CORED-DRILLED AND FATTERED WITH WATER TIGHT BOUT

SMH#1
RIM ELEVATION: 748.35'
INVERT N 10" PVC: 737.00'
INVERT S 12" STEEL: 736.28'

SMH#2
RIM ELEVATION: 747.73'
INVERT N 8" STEEL: 734.57'
CONTRACTOR TO
COORDINATE WITH GAS
COMPANY FOR CONNECTIONS
REQUIREMENTS AND
SPECIFICATIONS

OLD CARRIAGE COURT
VARIABLE WIDTH PUBLIC RIGHT-OF-WAY
AS SHOWN PER DOCUMENT NO. 519557
ASPHALT PAVEMENT

CONTRACTOR TO COORDINATE
WITH UTILITY OWNER FOR
CONNECTIONS REQUIREMENTS
AND SPECIFICATIONS

BUILDING NOT A PART OF SURVEY



W—BEACON—E
CIVIL ENGINEERING



LEGEND

- PROPOSED WATER PIPE
 - PROPOSED SANITARY PIPE
 - PROPOSED GAS PIPE
 - PROPOSED UNDERGROUND ELECTRICAL
 - PROPOSED UNDERGROUND TELECOMMUNICATIONS
 - PROPOSED WATER METER AND BACKFLOW PREVENTER
 - PROPOSED WATER VALVE
 - PROPOSED SANITARY SEWER CLEANOUT
 - PROPOSED SANITARY SEWER MANHOLE
- UTILITY CROSSING INDICATOR. SEE UTILITY CROSSING TABLE,
THIS SHEET, FOR DETAILS

UTILITY NOTES

1. REFER TO SHEET C-6.1 FOR UTILITY DETAILS.
2. REFER TO MEP PLANS FOR ALL UTILITY LEADS INTO BUILDING.
3. SANITARY SEWER PIPES SHALL HAVE A MINIMUM SLOPE OF 1.00%.
4. PRIOR TO STARTING CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND THEIR LOCATIONS AND ELEVATIONS. IF ANY DISCREPANCIES OCCUR, THE CONTRACTOR SHALL ALERT ENGINEER IMMEDIATELY.
5. ALL PUBLIC UTILITIES INSPECTIONS SHALL BE SCHEDULED BY THE CONTRACTOR AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.
6. ALL DEMOLITION AND CONSTRUCTION WORK PERFORMED SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING JURISDICTIONAL CODES.
7. ALL UTILITY CONDUIT MATERIAL FOR TELEPHONE, CABLE, AND ELECTRIC SHALL BE INSTALLED PER UTILITY PROVIDER SPECIFICATIONS BY THE CONTRACTOR.
8. CONTRACTOR SHALL BUILD CONCRETE TRANSFORMER PAD AND INSTALL SCHEDULE 80 PVC CONDUIT AND PULL STRING WITH SWEEPING BENDS, IF APPLICABLE BY ELECTRIC COMPANY.
9. ALL SANITARY GRAVITY PIPES, SERVICE LATERALS, AND FITTINGS SHALL BE MATERIALS APPROVED BY THE GOVERNING JURISDICTION.
10. ALL NON-METALLIC PIPE WILL BE INSTALLED WITH 2 PAIR, 10 GAUGE, COPPER TRACE WIRE.
11. CONTRACTOR SHALL COORDINATE WITH GOVERNING JURISDICTIONS(S) FOR ANY PROPOSED WET TAPS AND R.O.W. CONNECTIONS.
12. ALL UTILITIES SHALL MAINTAIN AT LEAST 7.5 FEET OF COVER FROM TOP OF PIPE TO SURFACE ELEVATION. CONTRACTOR SHALL DEFLECT WATER AND FORCE MAINS AS NECESSARY TO ACHIEVE MINIMUM GOVERNING JURISDICTIONS(S) SEPARATION REQUIREMENTS. IF MINIMUM COVERAGE IS NOT ABLE TO BE OBTAINED, SUFFICIENT INSTALLATION SHALL BE PROVIDED TO PREVENT FREEZING.
13. CONTRACTOR MUST COORDINATE THE SHUTDOWN OF THE EXISTING POTABLE WATER, WASTEWATER FORCEMAIN, OR RECLAIMED WATER MAIN WITH GOVERNING JURISDICTIONS(S), IF NECESSARY.
14. OVER STORY TREES SHALL NOT BE LOCATED WITHIN 12 FT OF ANY PUBLIC UNDERGROUND OR OVERHEAD UTILITY LINE.
15. CONTRACTOR SHALL VERIFY LOOP DETECTORS TO AVOID UTILITY CONFLICTS PRIOR TO CONSTRUCTION, IF APPLICABLE.
16. CONTRACTOR SHALL PROTECT ALL UTILITIES OUTSIDE LIMITS OF CONSTRUCTION UNLESS OTHERWISE NOTED IN THE CONSTRUCTIONS PLANS OR SPECIFICATIONS.
17. ALL DISTURBED AREAS WITHIN THE SIDEWALK/ CURB AND GUTTER/ ROAD PAVEMENT SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITIONS.
18. THE SANITARY SEWER SYSTEM IN ALL ITS ENTIRETY IS PRIVATELY OWNED AND MAINTAINED WITHIN PROPERTY BOUNDARIES.
19. THE LOCATION OF ALL NEWLY INSTALLED FIRE HYDRANTS SHALL BE IDENTIFIED WITH A BLUE REFLECTIVE PAVEMENT MARKER INSTALLED ON THE ROADWAY, PERPENDICULAR TO THE FIRE HYDRANT. THE REFLECTIVE MARKER WILL BE LOCATED IN THE CENTER OF THE LANE CLOSEST TO THE HYDRANT, IF APPLICABLE.
20. IF APPLICABLE, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE FLOW TESTING AND COLOR CODING OF ALL NEWLY INSTALLED FIRE HYDRANTS IN THE GOVERNING JURISDICTIONS(S) RIGHT OF WAY AND UTILITY EASEMENTS THAT ARE TO BE DEDICATED TO GOVERNING JURISDICTIONS(S) PRIOR TO THE FINAL INSPECTION OF THE PROJECT. THE CONTRACTOR SHALL REFER TO NFPA STANDARD 291 FOR FLOW TESTING AND COLOR CODING METHODS AND PROCEDURES.
21. ALL PROPOSED WATER SUPPLY AND FIRE HYDRANTS SHALL COMPLY NFPA-1, CHAPTER 18.3.
22. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD (E.O.R.) 72 HOURS IN ADVANCE OF ALL INSPECTIONS THAT REQUIRE THE E.O.R. OR E.O.R. REPRESENTATIVES PRESENCE.
23. CONTRACTOR SHALL DEFLECT ALL PROPOSED WATER MAINS AND FORCE MAINS TO ACHIEVE 18" MIN. VERTICAL CLEARANCE FROM ALL EXISTING AND PROPOSED UTILITIES.
24. CONTRACTOR SHALL ADJUST TOP OF ALL CLEANOUTS, VALVES, AND STRUCTURE RIMS TO BE FLUSH WITH FINAL GRADE.
25. ALL TRENCHING AND BACKFILL OPERATIONS SHALL COMPLY WITH GOVERNING JURISDICTIONAL STANDARDS. **SEE SHEET C-5.1 AND C-6.1 FOR PIPE TRENCHING DETAILS.**

100' DRAINAGE & UTILITY ESMT
PER DOCUMENT NO. 519557
& DOCUMENT NO. A667122

APN: 273260053 & 273260061

PART OF LOT 3, BLOCK 2
SOUTHBIDGE CROSSINGS
SECOND ADDITION
251,521 SQ FEET ±
5.774 ACRES ±

PROPOSED TRANSFORMER
METER AND BACK
FLOW PREVENTER SEE
DETAIL ON SHEET C-6.1

PER DOCUMENT NO. A667122

PER DOCUMENT NO. 519557

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BEACON
CIVIL ENGINEERING
LAND DEVELOPMENT ENGINEERS
8345 GUNN HIGHWAY
TAMPA, FL 33626

TAKE 5
CAR WASH

8108 OLD CARRIAGE CT
CITY OF SHAKOPEE
SHAKOPEE, MN

UTILITY PLAN

SHEET NUMBER:
C-6.0

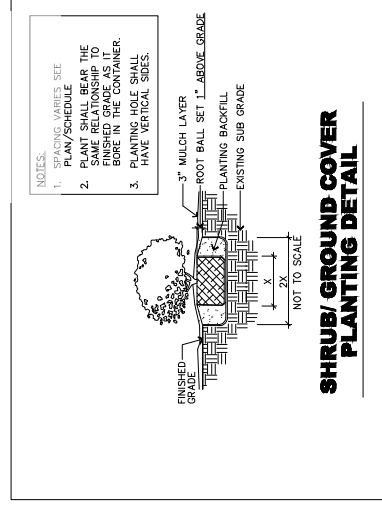
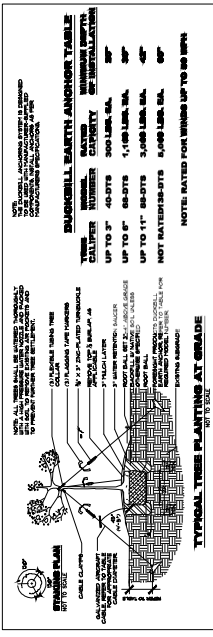
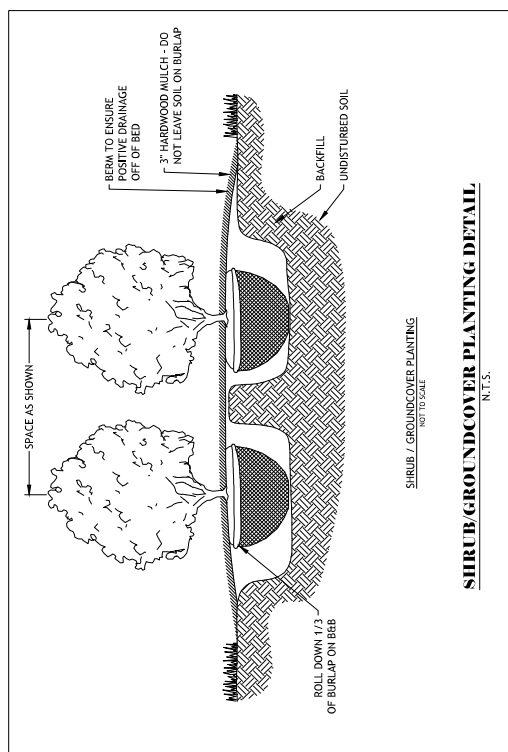
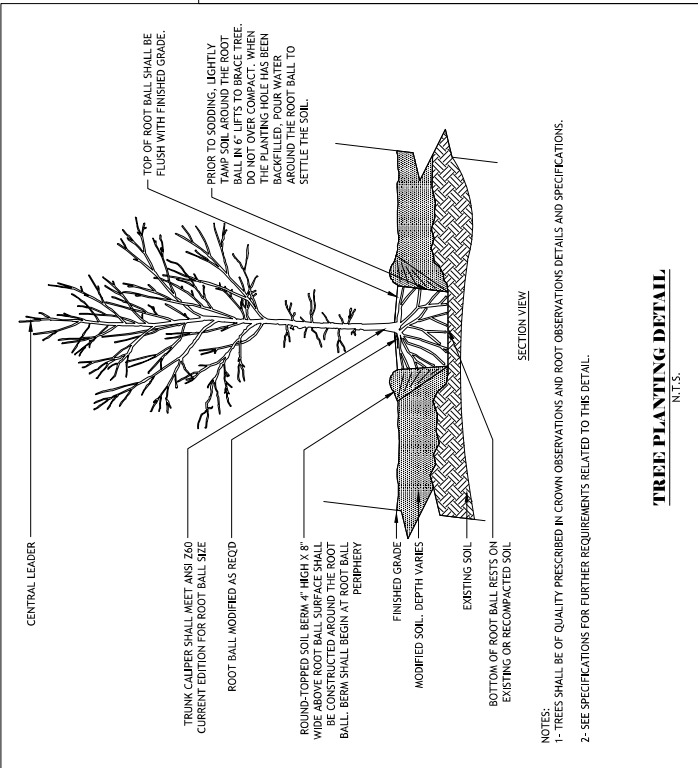
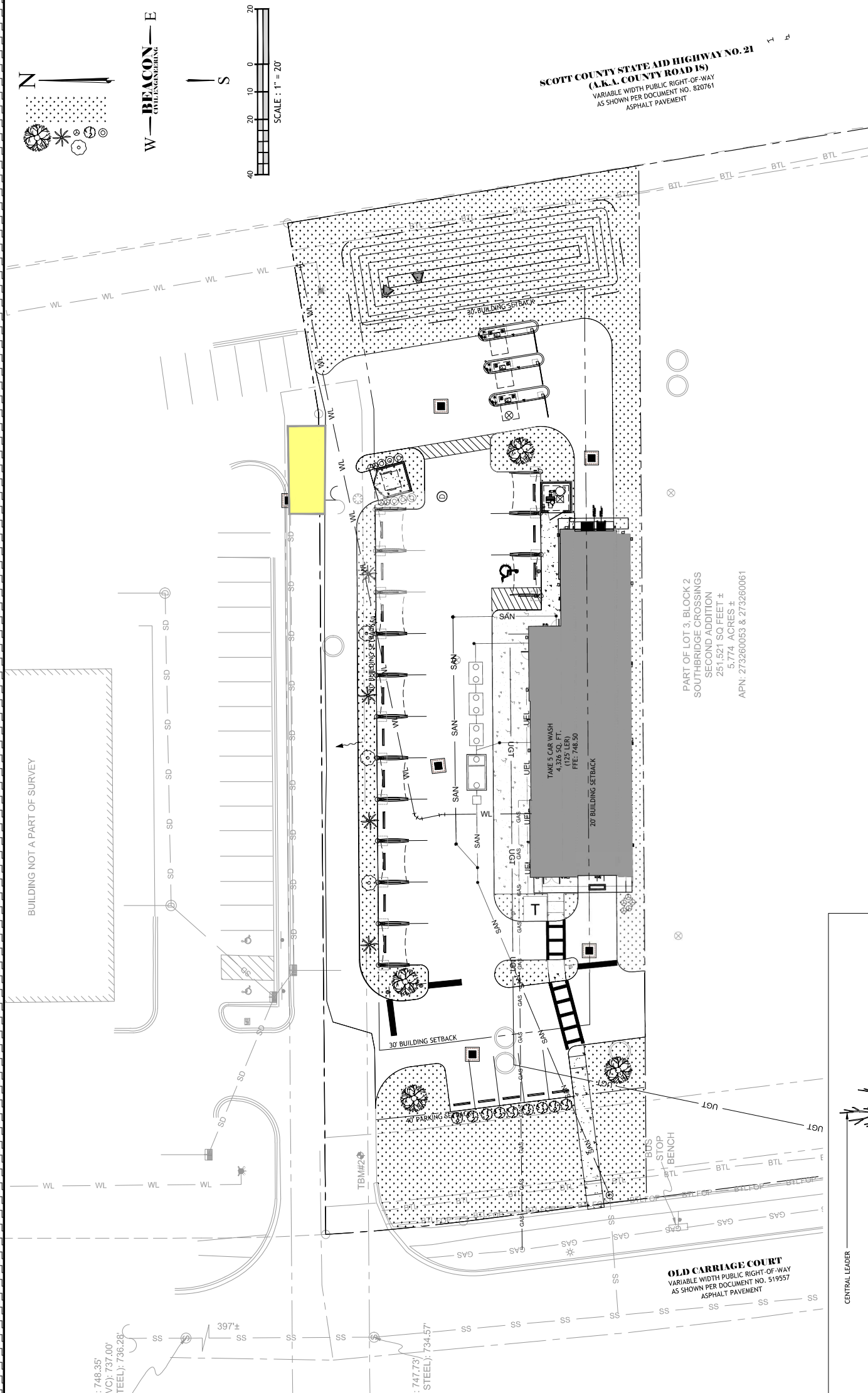
ISSUED FOR PERMITTING					
DESIGNED BY:	JH	DRAWN BY:	JH	ISSUE DATE:	03/11/22
CHECKED BY:	TC	APPROVED BY:	DO	JOB NO.:	21-517
NO.	BY	DATE	REVISION DESCRIPTION		



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

SIGNATURE: [Signature]
NAME: DANIEL DEJON
DATE: 10/20/2021 LICENSE NUMBER: 59701

DANIEL DEJON, PE #59701



PLANTING SCHEDULE		TREES	SPECIES	SIZE
SYMBOL	QUANT.			
	4	<i>Betula nigra</i> River Birch	3' CAL.	
	3	<i>Tilia americana</i> 'Bluecloud' Boulevard Linden	2' CAL.	
	4	<i>Picea glauca</i> 'Densata' Black Hills Spruce	2' CAL.	
	6	<i>Spiraea niponica</i> Snowboard Spraea	36" HT.	
	9	<i>Juniperus x pfitzerana</i> Sea Green Juniper	36" HT.	
	9	<i>Physocarpus opulifolius</i> Tiny Wine Hiebark	1 GAL.	
		<i>Poa pratensis</i> Kentucky Bluegrass		

IRRIGATION NOTE:
A PERMANENT IN-GROUND IRRIGATION SYSTEM IS PROPOSED FOR THIS PROPERTY. THE PROPOSED IRRIGATION SYSTEM WILL COMPLY WITH GOVERNING JURISDICTIONAL STANDARDS. THE SYSTEM SHALL PROVIDE 100% COVERAGE OF THE LANDSCAPE IMPROVEMENTS PROPOSED. OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF IRRIGATION SYSTEM.

IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF THE PRESENCE OF STATE OR FEDERALLY PROTECTED PLANT AND/OR ANIMAL SPECIES IS DISCOVERED, PASCO COUNTY AND APPLICABLE AGENCIES SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE PLANT AND/OR ANIMAL SPECIES FOUND ON THE SITE. ALL WORK IN THE AFFECTED AREA SHALL COME TO AN IMMEDIATE STOP UNTIL ALL PERTINENT PERMITS HAVE BEEN OBTAINED. AGENCY WRITTEN AUTHORIZATION TO COMMENCE ACTIVITIES HAS BEEN GIVEN, OR UNLESS COMPLIANCE WITH STATE AND FEDERAL GUIDELINES CAN BE DEMONSTRATED.

ISSUED FOR PERMITTING																				I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS, AND NOTES WERE 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. SIGNATURE: <i>Daniel Dehon</i> NAME: DANIEL DOUGLAS DEHON DATE: 10/20/2022 LICENSE NUMBER: 59701									
DISIGNED BY: JH CHECKED BY: TC JOB NO.: 21-517										DATE: 03/11/22 APPROVED BY: DD REVISION DESCRIPTION										DANIEL DEHON, PE #59701									
 LAND DEVELOPMENT ENGINEERS 8345 GUNN HIGHWAY TAMPA, FL 33626 																													
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