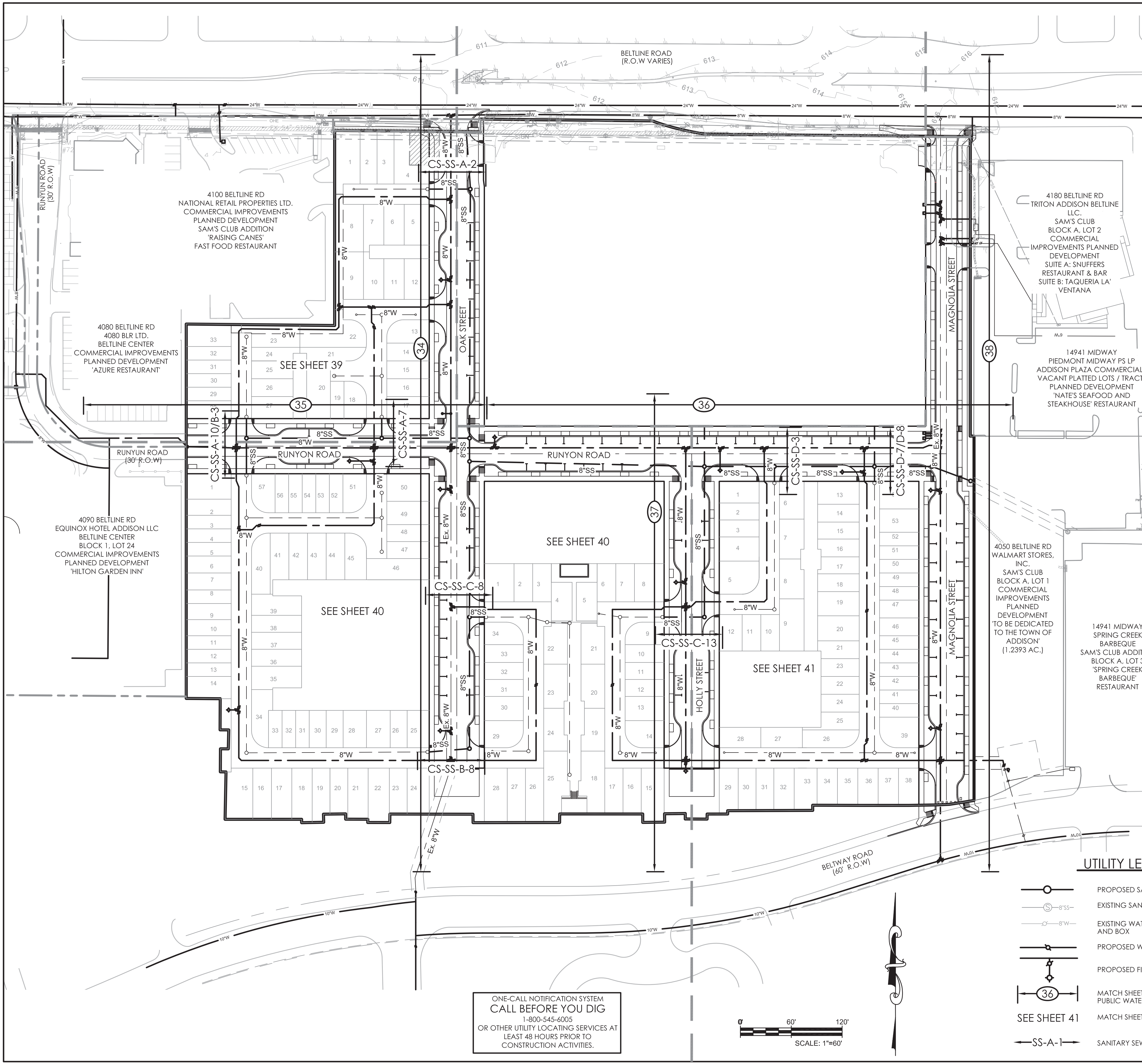


GENERAL WATER & SEWER NOTES

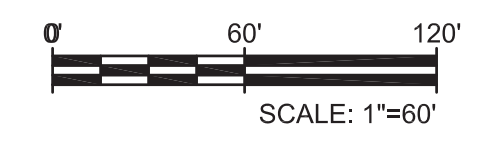
- REFER TO SHEET 3 "GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS" FOR THE GENERAL CONSTRUCTION NOTES FOR THIS PROJECT.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION AS PUBLISHED BY NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND ANY AND ALL AMENDMENTS BY THE TOWN OF ADDISON, AS WELL AS STANDARD CONSTRUCTION DETAILS OF THE TOWN OF ADDISON.
- PRIOR TO COMMENCING CONSTRUCTION, THE TOWN OF ADDISON, THE CONSULTING ENGINEERS, THE SUCCESSFUL CONTRACTOR, UTILITY COMPANIES, AND ANY OTHER AFFECTED PARTIES SHALL CONVENE FOR PRE-CONSTRUCTION CONFERENCE AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FROM THE TOWN OF ADDISON PRIOR TO WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.
- IF THE CONTRACTORS RESPONSIBILITY TO CONTACT ANY PUBLIC UTILITY COMPANIES FOR LOCATION OF EXISTING FACILITIES IN OR NEAR THE WORK AREAS, THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
  - TOWN OF ADDISON (WATER, SEWER, SIGNALS) ATMOS ENERGY (GAS)
  - ONCOR ELECTRIC DELIVERY VERIZON MCI
  - AT&T (SOUTHWESTERN BELL) TIME-WARNER CABLE
- THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER (5X SETS EACH), FOR APPROVAL OF ALL MATERIALS TO BE ADDED TO THE PUBLIC INFRASTRUCTURE, PRIOR TO INCORPORATING MATERIALS INTO THE JOB.
- THE CONTRACTOR SHALL PROVIDE AND SUBMIT TO THE TOWN OF ADDISON (FOUR SETS EACH), AN APPROVED TRENCH SAFETY PLAN, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS, FOR THE INSTALLATION OF UTILITIES GREATER THAN FIVE (5) FEET IN DEPTH.
- AT TIME OF COMPLETION AND FINAL ACCEPTANCE THE CONTRACTOR SHALL PROVIDE A MAINTENANCE BOND FOR PUBLIC INFRASTRUCTURE WORK IN THE FOLLOWING AMOUNTS:
  - 100% FOR VALUATIONS LESS THAN OR EQUAL TO \$50,000
  - \$5,000 FOR VALUATIONS GREATER THAN \$5,000 AND LESS THAN \$50,000
  - 10% FOR VALUATIONS GREATER THAN \$50,000
- THE CONTRACTOR SHALL FULLY COMPLY WITH, AND SUPPLEMENT AS NECESSARY, THE CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN WHILE CONDUCTING HIS ACTIVITIES ON THIS PROJECT.
- THE TOWN OF ADDISON INFRASTRUCTURE DEPARTMENT WILL APPROVE THE TRAFFIC CONTROL PLAN AND WORKING HOURS, CONTACT THE CITY ENGINEER OR THE INFRASTRUCTURE INSPECTOR AT (972) 450-2847
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT, AND SUPPLEMENT AS NECESSARY, THE TRAFFIC CONTROL MEASURES ON THIS PROJECT, INCLUDING PROVIDING ADEQUATE FLAGMEN, SIGNAGE, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION IN ACCORDANCE WITH TEXAS MANUAL OF UNIFORM CONTROL DEVICES. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS OR PROVIDE AN ALL-WEATHER DETOUR AROUND THE CONSTRUCTION SITE, INCLUDING PUBLIC NOTIFICATION AND SIGNING.
- TEMPORARY OR PERMANENT BARRICADES SHALL REMAIN AT ALL POINTS OF INGRESS OR EGRESS TO PREVENT PUBLIC USE UNTIL THE WORK RECEIVES FINAL ACCEPTANCE.
- THE CONTRACTOR SHALL COVER ALL OPEN EXCAVATIONS WITH ANCHORED STEEL PLATING, DURING NON-WORKING HOURS, WHEN IN EXISTING ROADWAYS AND TRAFFIC AREAS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION, INCLUDING PROVIDING TEMPORARY STRUCTURES OR IMPROVEMENTS AS NECESSARY FOR THE SAFETY OF THE PUBLIC.
- THE CONTRACTOR WILL PROVIDE A GEOTECHNICAL LABORATORY TO PERFORM APPROPRIATE TESTING DURING CONSTRUCTION ACTIVITIES. ANY TEST THAT FAILS TO MEET CITY REQUIREMENTS SHALL BE RETESTED AT THE CONTRACTOR'S EXPENSE.
- ROUGH GRADING SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF WATER AND SANITARY SEWER FACILITIES.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS FOR THE SUPPORT AND PROTECTION OF ALL UTILITY POLES, FENCES, TREES, SHRUBS, GAS MAINS, TELEPHONE CABLES, ELECTRIC CABLES, DRAINAGE PIPES, UTILITY SERVICES, AND ALL OTHER UTILITIES AND STRUCTURES BOTH ABOVE GROUND AND BELOW GROUND, THE COST OF WHICH SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ASSURE PROPER DEPTHS AND ALL TCEG REQUIRED CLEARANCES ARE ACHIEVED. IN THE EVENT OF CONFLICT BETWEEN WATER LINES AND STORM DRAIN OR SANITARY SEWER PIPING, THE CONTRACTOR SHALL ADJUST THE WATER LINE DOWNWARDS IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S RECOMMENDATIONS ON THE PIPE DEFLECTION AND JOINT STRESS ARE NOT EXCEEDED.
- THE CONTRACTOR SHALL VERIFY THE SIZE, TYPE, ELEVATION, CONFIGURATION, AND ANGLULATION OF EXISTING WATER, SANITARY SEWER AND UTILITY LINES PRIOR TO CONSTRUCTION OF THE NEW MATERIALS. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING FACILITIES DAMAGED BY HIS ACTIVITIES.
- ALL WATER MAIN MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON'S WATER SYSTEM REQUIREMENTS.
- ALL WATER MAINS TWELVE-INCH (12") DIAMETER AND SMALLER SHALL BE ANSI/AWWA C-900 PVC PRESSURE PIPE WITH CAST IRON (CI) JOINTS. WHEN PIPE PENETRATES WATER WALLS IT SHALL BE DUCTILE IRON, PIPE JOINTS SHALL BE RUBBER RING AND INTEGRAL THICKENED BELL ASSEMBLED WITH A FACTORY SUPPLIED LUBRICANT. WATER MAINS SHALL HAVE A MINIMUM CLASS RATING OF 150 PSI FOR DOMESTIC USE AND A MINIMUM CLASS RATING OF 200 PSI FOR FIRE LINE/HYDRANT LEAD APPLICATIONS. JOINT MATERIAL FOR PVC SHALL CONFORM TO ASTM F471.
- EMBEDMENT FOR WATER AND SEWER MAINS SHALL COMPLY WITH NCTCOG CLASS B+ EMBEDMENT OF CRUSHED STONE TO THE SPRING LINE OF THE PIPE, WITH SAND (1/2" MIN) OVER THE PIPE. THE LAYER OF GEO-TEXTILE FABRIC SHALL BE PLACED ON TOP OF THE STONE PRIOR TO THE PLACEMENT OF THE SAND.
- THE MINIMUM COVER BELOW THE TOP OF CURB AT STREET TO TOP OF THE PIPE SHOULD BE AS FOLLOWS:
  - LINES LARGER THAN SIXTEEN-INCH (16") SHALL HAVE A MINIMUM OF SIX FEET (6') OF COVER WHICH IS SUFFICIENT TO ALLOW WATER AND SEWER AND OTHER UTILITIES TO GO OVER THE LARGE MAIN.
  - SIXTEEN-INCH (16") MAINS SHALL HAVE A MINIMUM COVER OF FIVE FEET (5')
  - TWELVE-INCH (12") AND SMALLER MAINS SHALL HAVE A MINIMUM COVER OF FOUR FEET (4')
- THE CONTRACTOR SHALL SUPPLY AND INSTALL ANY ADDITIONAL BENDS WITH THRUST BLOCKING AND OTHER APPURTENANCES REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS. THE CONTRACTOR MAY FULL PIPE AS NEEDED AT THE BENDS WHERE THE DEFLECTION ANGLE OF THE PIPE DOES NOT MATCH THE ANGLE OF THE BEND PROVIDED THE PIPE DEFLECTION IS WITHIN TOLERABLE MANUFACTURERS LIMITS. THE COST FOR ADDITIONAL BENDS AND BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- ALL VALVES AND DUCTILE IRON FITTINGS SHALL BE POLYETHYLENE WRAPPED.
- HORIZONTAL BLOCKING FOR WATER LINES HAS BEEN OMITTED FOR CLARITY; HOWEVER, BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' STANDARD DETAILS.
- ALL FITTINGS SHALL BE DUCTILE IRON, FULL BODIED, MECHANICAL JOINT TYPE WITH RESTRAINING GLANDS, AND HAVE A MINIMUM RATED WORKING PRESSURE OF 250 PSI. FITTINGS SHALL BE WRAPPED WITH 3-MIL POLY PRIOR TO BACKFILL.
- ALL VALVES AND FITTINGS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED. THRUST BLOCKING SHALL BE MINIMUM 3000 PSI CONCRETE AND SHALL BE ABLE TO WITHSTAND A MINIMUM 200 PSI TEST PRESSURE.
- THRUST BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AUTHORITIES' STANDARD DETAILS. DO NOT COVER BELLS OR FLANGES WITH CONCRETE. THE CONTRACTOR SHALL REMOVE EXISTING THRUST BLOCKING OR RESTRAINTS WHERE NECESSARY TO ALLOW THE WORK TO PROCEED, AND SHALL REPLACE THE THRUST BLOCKS WHERE REQUIRED, THE COST TO REMOVE, REPLACE OR PROVIDE THRUST BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- TRACER WIRE SHALL BE PLACED ON PIPE PRIOR TO EMBEDMENT, WIRE SHALL BE #12 PLASTIC COATED COPPER WIRE, TIED TO ALL VALVES AND FIRE HYDRANTS, AND EXTENDING TO SIX (6) INCHES ABOVE FINISHED GRADE ALONG THE OUTSIDE OF ALL VALVE STACKS AND HYDRANTS.
- FINISH BACKFILL SHALL BE NATIVE SOIL FREE OF ALL ROCKS AND CLOCS GREATER THAN THREE INCHES IN DIAMETER, COMPACTED TO 95% STANDARD PROCTOR DENSITY, IN SIX (6) INCH MAXIMUM LOOSE LIFTS, WITH ZERO TO PLUS THREE (3) OPTIMUM MOISTURE.
- NO PERSON SHALL OPEN, TURN OFF, INTERFERE WITH, ATTACH ANY HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE TOWN OF ADDISON. CALL THE TOWN INFRASTRUCTURE DEPARTMENT TO SCHEDULE ALL VALVE OPERATIONS (972-450-2847).
- THE TOWN OF ADDISON WILL REMOVE EXISTING WATER METERS NOT USED FOR PROPOSED DEVELOPMENT. CONTRACTOR SHALL REMOVE ALL SERVICES TO THE METER AS DIRECTED BY THE INFRASTRUCTURE DEPARTMENT. REMOVE METERS AND METER LIDS IN A WAY AS TO NOT DAMAGE THE METER OR LID AND DESTROY THE SALVAGED METERS TO THE TOWN OF ADDISON. CONTRACTOR SHALL KILL EXISTING DEADHEAD SERVICE FOR REMOVED METERS AT THE MAIN LINE.
- THE CONTRACTOR SHALL COMPLETELY REMOVE AND DEPOSE OF EXISTING 8" WATER MAIN AFTER FINAL COMPLETION AND ACCEPTANCE OF NEW 12" WATER MAIN.
- THE CONTRACTOR SHALL REPLACE EXISTING SERVICE LINES, DESIGNATED TO REMAIN, FROM THE EXISTING METERS TO NEW WATER MAIN WITH NEW COPPER (TYPE K ONLY) LINES. NEW SIZES TO BE THE SAME AS EXISTING WITH A MINIMUM OF 1" DIAMETER.
- ALL WASTEWATER MAIN PIPING SHALL MEET THE EXTRA STRENGTH REQUIREMENTS OF ASTM SPECIFICATION D3034 (SDR-35). PIPE SHALL HAVE BELL AND SPIGOT TYPE JOINTS, CONSISTING OF INTEGRAL WALL SECTION WITH FACTORY INSTALLED COMPRESSION RUBBER RING GASKET, SECURELY LOCKED IN BELL GROOVE TO PROVIDE POSITIVE SEAL UNDER ALL INSTALLATION CONDITIONS. PIPE SHALL BE LAID WITH THE BELL END IN THE UPSTREAM SIDE.
- ALL SEWER MANHOLES WITH PRESSURE TYPE FRAME AND COVERS SHALL HAVE THE INTERIOR SURFACE COATED WITH AN EPOXY COATING (RAVEN 405 OR APPROVED EQUAL), MINIMUM 40 MILS THICKNESS, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- ALL EXISTING AND PROPOSED IMPROVEMENTS (VALVES, MANHOLES, FIRE HYDRANTS, WATER METERS, ETC.) SHALL BE ADJUSTED TO FINAL FINISHED GRADE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL STAMP A 2-INCH "W" AND A 2-INCH "S" IN THE CURB AT THE LOCATION OF THE WATER AND SEWER SERVICE LINES RESPECTIVELY. A 2-INCH "C" SHALL MARK CONDUITS CROSSING PAVEMENT, AND A 2-INCH "V" SHALL MARK WATER VALVES, WITH THE "POINT" OF THE "V" TOWARD THE VALVE.
- WATER LINES SHALL BE TESTED BOTH BACTERIOLOGICALLY AND HYDROSTATICALLY. WATER MAINS SHALL BE HYDROSTATICALLY TESTED AT 150PSI FOR FOUR (4) HOURS. FIRE LINES SHALL BE HYDROSTATICALLY TESTED AT 200PSI FOR TWO (2) HOURS. ALL BLEEDER LINES SHALL BE REMOVED UPON COMPLETION OF TESTING (USUALLY 24 HOURS) UNLESS OTHERWISE NOTED.
- HEAVILY CHLORINATED WATER (3.5 MG/L OR GREATER FREE CHLORINE) RESULTING FROM WATER LINE STERILIZATION SHALL BE DIRECTED TO THE SANITARY SEWER AFTER MANDATORY CHLORINE RESIDUE TIME (USUALLY 24 HOURS) UNLESS OTHERWISE NOTED.
- ALL WASTEWATER MAINS SHALL BE CAMERA INSPECTED BY THE CONTRACTOR AFTER THE INSTALLATION OF ALL UTILITIES AND PRIOR TO FINAL ACCEPTANCE OF NEW WASTEWATER FACILITIES.
- THE CONTRACTOR SHALL PROVIDE VERIFICATION OF COMPLETION AND COMPLIANCE OF ALL REQUIRED TESTS (PRESSURE, BACTERIOLOGICAL, BACKFLOW, VACUUM, MANHOLE, VHS VIDEO OF SANITARY SEWER ETC.) TO THE TOWN OF ADDISON.
- THE CONTRACTOR SHALL CALL (972) 450-2847 TO REQUEST A FINAL WALK-THROUGH INSPECTION OF THE PUBLIC INFRASTRUCTURE WORK.
- ANY ADJACENT PROPERTIES AFFECTED BY THE CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.
- BLUE REFLECTORIZED BUTTONS ARE TO BE INSTALLED IN THE CENTER OF THE DRIVE LANE NEAREST THE OUTSIDE CURB OPPOSITE ALL FIRE HYDRANTS.



UTILITY LEGEND

- PROPOSED SANITARY SEWER AND MANHOLE
- EXISTING SANITARY SEWER AND MANHOLE
- EXISTING WATERLINE WITH GATE VALVE AND BOX
- PROPOSED WATER LINE AND VALVE
- PROPOSED FIRE HYDRANT ASSEMBLY
- MATCH SHEET FOR PLAN AND PROFILE OF PUBLIC WATERLINE AND SANITARY SEWER
- MATCH SHEET FOR PUBLIC WATERLINE ONLY
- SANITARY SEWER CROSS SECTION PROFILE

ONE-CALL NOTIFICATION SYSTEM  
CALL BEFORE YOU DIG  
1-800-545-6005  
OR OTHER UTILITY LOCATING SERVICES AT  
LEAST 48 HOURS PRIOR TO  
CONSTRUCTION ACTIVITIES.



2017/12/22

SAWYER ENGINEERING, LLC  
TBE FIRM NUMBER F-9171

<p><b>TOWN OF ADDISON</b> DALLAS COUNTY, TEXAS</p> <p>IMPROVEMENT PLANS ADDISON GROVE</p> <p>OVERALL WATER &amp; SANITARY SEWER LAYOUT &amp; NOTES</p>					
<b>SAWYER</b>		ENGINEERING, LLC TBE: F-9171		1520 OLIVER STREET HOUSTON, TEXAS 77007 (832) 553-5948	
PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET
CDP	JDS	JDS	MAY 2017		33