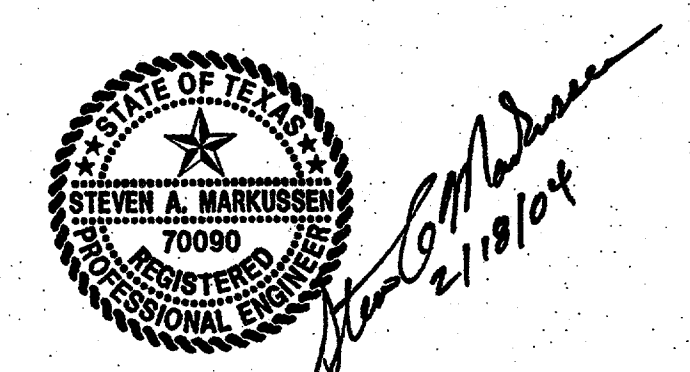


LEGEND

B	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TEB	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
STC	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/TRAPEZOIDAL CAP SET
(C.M.)	CONTROLLING MONUMENT
---	PROPERTY LINE
- - -	FENCE
---	OVERHEAD UTILITY LINE
---	UNDERGROUND WATER LINE
---	UNDERGROUND ELECTRIC LINE
---	UNDERGROUND TELEPHONE LINE
---	UNDERGROUND CABLE LINE
---	UNDERGROUND SANITARY SEWER LINE

NOTE:
ALL UTILITY CONNECTION POINTS TO THE BUILDINGS ARE APPROXIMATE LOCATIONS PROVIDED BY THE MEP. THE CONTRACTOR IS TO COORDINATE WITH MEP FOR FINAL HORIZONTAL UTILITY CONNECTION LOCATIONS ONCE THE BUILDINGS ARE SET IN PLACE.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY STEVEN A. MARKUSSEN, P.E. 70090 ON 02/18/2004. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER AUTHORIZATION BY THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

WATER AND SANITARY SEWER GENERAL NOTES

- UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL BE CLASS "A", (3000 PSI).
- ALL WATER MAINS SHALL BE PVC C900, DR 18, CLASS 150; ALL FIRE SERVICE MAINS SHALL BE DR 14 CLASS 200 GRADE.
- WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
- ALL WATER MAINS UNLESS OTHERWISE NOTED SHALL HAVE A MINIMUM COVER OF 48" BELOW FINISHED GRADE.
- SANITARY SEWER PIPE SHALL BE PVC SDR-35.
- WHEN WATER MAINS AND SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES, WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES SHALL APPLY:
 - WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING ASTM SPECIFICATIONS WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 150 PSI. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.
 - WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF SIX INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
 - WHERE A SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
 - WHERE A SEWER CROSSES OVER A WATERLINE ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE, THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRING LINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.

- CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL TIE A 1" WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36" OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OF ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
- ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
- THE UTILITY CONTRACTOR SHALL INSTALL THE WATER SERVICES TO A POINT TWO (2') FEET BACK OF THE CURB LINE AT A DEPTH OF 12 INCHES. THE METER BOX SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AFTER THE PAVING CONTRACTOR HAS COMPLETED THE FINE GRADING BEHIND THE BACK OF THE CURB. EACH SERVICE LOCATION WILL BE MARKED ON THE CURB, WITH A BLUE LETTER "W" BY THE UTILITY CONTRACTOR AND TIED TO PROPERTY CORNERS ON THE "RECORD DRAWINGS".
- ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
- UTILITY TRENCHES SHALL BE BACKFILLED WITH MATERIAL MEETING MCTCOG ITEM 6.2.10 AND MECHANICALLY COMPACTED IN 8" LIFTS TO THE TOP OF THE SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
- VALVE BOXES SHALL BE FURNISHED AND SET ON EACH GATE VALVE. AFTER THE FINAL CLEAN-UP AND ALIGNMENT HAS BEEN COMPLETED, THE CONTRACTOR (UTILITY) SHALL POUR A CONCRETE BLOCK 24"x24"x8" AROUND ALL VALVE BOX TOPS TO MATCH THE FINISHED GRADE.
- IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTORS EXPENSE.
- ALL SANITARY SEWER LATERALS TO TEMPORARY BUILDINGS AS SHOWN ARE TO END AT A POINT 5' OFF BUILDING FACE WITH A FLOWLINE 3' BELOW FINISHED GRADE.
- SEE SHEET CO.2 FOR EMBEDMENT, COMPACTION, AND PAVEMENT DETAILS.

- Meters to be placed in easement.
- Provide individual bldg. shut-off valves in valve stack/curb valve box
- Double Check Valve Assembly required on each 2" service prior to T
- All water lines must pass bacteriological sampling (fire/dom)
- Meters shall have electronic encoder registers with back pad.

BENCH MARKS

BM #3:	Cut "+" in walk on outside of curved drive near southeast corner of lower school.	Elev. 588.08
BM #4:	"+" cut - west end conc. headwall, north side Spring Valley, at southeast corner campus.	Elev. 578.47
BM #5:	"+" cut in walk at southeast corner intersection of drive along south side of preschool building and north-south drive into site from Spring Valley.	Elev. 588.20
BM #9:	"+" cut at NEC of electric MH on north side cafeteria, south side of drive along north side of campus.	Elev. 602.80
BM #10:	"+" cut on conc. step near northwest corner of upper school.	Elev. 598.85
BM #11:	"+" cut on conc. step on walk exiting west side of library.	Elev. 598.44
BM #12:	"+" cut at intersection of walk along west side of lower school and walk along south side Lower school.	Elev. 587.78