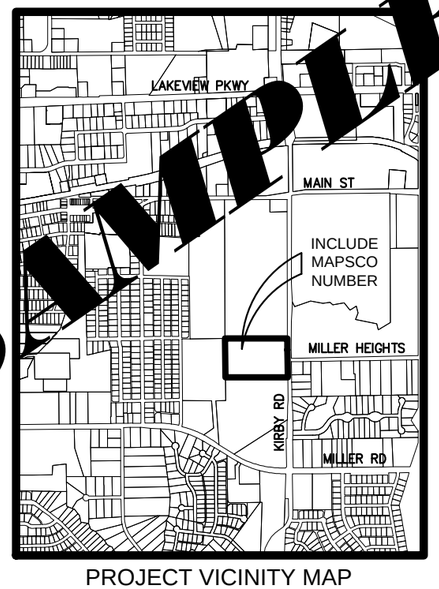
(DEVELOPMENT NAME)
ADDRESS
CITY OF ROWLETT, TEXAS

CONSTRUCTION PLANS

Rowlett
TEXAS

SAMPLE



PROJECT VICINITY MAP

(Plan date)

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ENSURE ALL SHEETS ARE LISTED IN THE INDEX OF SHEETS

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SAMPLE SHEETS

OWNER:

NAME
ADDRESS
PHONE

SUBMITTED BY: FIRM NAME

NAME
ADDRESS
PHONE
TX REG. #

ENGINEERING FIRM LOGO

(ENG. SEAL)

(ENG. SIGNATURE) (DATE)

ENGINEER NAME, PE DATE

Rowlett TEXAS

(plan date)

(development name) – PAVING, DRAINAGE, WATER & WASTEWATER

CITY PROJECT NAME
CITY CONTRACT NUMBER
CITY OF ROWLETT, TEXAS

CONSTRUCTION PLANS

Rowlett
TEXAS

SIGNATURE: DIRECTOR OF PUBLIC WORKS

SIGNATURE: CITY CIVIL ENGINEER

OWNER:
NAME
ADDRESS
PHONE

SUBMITTED BY: FIRM NAME
NAME
ADDRESS
PHONE
TX REG. #

ENGINEERING FIRM LOGO

(ENG. SEAL)

(ENG. SIGNATURE) (DATE)

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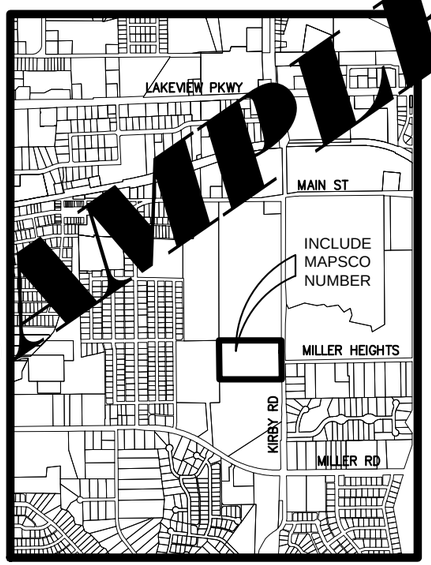

PROJECT VICINITY MAP

BID ADVERTISEMENT MONTH AND YEAR

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SAMPLE SHEETS

SIMPLE

Rowlett TEXAS

CITY CONTRACT NUMBER 20__—XXX—⊗—PAGE NUMBERS — PAVING, DRAINAGE, WATER & WASTEWATER

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CONSTRUCTION STANDARDS OF THE CITY OF ROWLETT AND GOVERNED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENT'S (NCTCOG) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
2. IN CASE OF CONFLICT OR CONTRADICTIONS BETWEEN THE CONSTRUCTION STANDARDS FOR THE CITY OF ROWLETT THE FOLLOWING HIERARCHY SHALL PRESIDE: CITY OF ROWLETT CONSTRUCTION STANDARD DETAILS AND GENERAL NOTES, NCTCOG SPECIFICATIONS, OTHERS APPROVED IN PLANS.
3. TEXAS DEPARTMENT OF TRANSPORTATION APPROVAL MUST BE OBTAINED PRIOR TO ANY CONSTRUCTION IN STATE HIGHWAY RIGHT-OF-WAY AND A TXDOT UTILITY PERMIT SHALL BE OBTAINED BY CONTRACTOR.
4. A RIGHT-OF-WAY PERMIT (ISSUED BY ROWLETT PUBLIC WORKS DEPARTMENT) IS REQUIRED PRIOR TO ANY CONSTRUCTION IN CITY ROW AND EASEMENTS.
5. THE LOCATION OF UNDERGROUND FACILITIES INDICATED ON THE PLANS IS TAKEN FROM PUBLIC RECORDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND FACILITIES. UNDERGROUND FACILITY OWNER'S TELEPHONE NO. OR CONTACT INFO AVAILABLE FROM PUBLIC WORKS DEPARTMENT.
6. WHERE EXISTING UTILITIES OR SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES OR SERVICE LINES WITH THE CURRENT STANDARDS FOR MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY AT ONCE OF ANY CONFLICTS IN GRADES AND ALIGNMENT.
7. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U. S. DEPARTMENT OF LABOR, OSHA, "CONST. SAFETY AND HEALTH REGULATIONS.", VOL. 29, SUBPART P. PG. 128 – 137, AND ANY AMENDMENTS THERETO.
8. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. IN THE EVENT THAT SIGNIFICANT EROSION OCCURS AS A RESULT OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITION OR IMPROVE THE ERODED AREA AS SOON AS POSSIBLE.
9. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE DITCHES, IRRIGATION, SODDING OR SEEDING, DRIVEWAYS, PRIVATE YARDS, AND ROADWAYS.
10. NO CHANGES IN THE APPROVED CONSTRUCTION PLANS SHALL OCCUR UNLESS APPROVED BY THE PW DIR. OR DESIGNEE. A SUBSEQUENTLY, A CHANGE ORDER MUST BE OBTAINED FROM THE DESIGN ENGINEER. THE DIRECTOR OF PUBLIC WORKS OR DESIGNEE MAY APPROVE ANY DERIVATIONS FROM THE STATE REGULATIONS.
11. ALL TRENCH COMPACTION DENSITY TESTING SHALL BE COORDINATED BY THE CONTRACTOR WITH THE TESTING LAB AND IN ACCORDANCE WITH THE CITY OF ROWLETT STANDARDS. THE RESULTS OF THE TRENCH COMPACTION DENSITY TESTS SHALL BE SHOWN ON THE AS-BUILT PROFILE SHEETS AT THE LOCATION OF THE TEST. THE CITY WILL NOT ACCEPT THE INSTALLATION OF THE UTILITY UNTIL THE AS-BUILTS WITH THE TESTING RESULTS HAVE BEEN SUBMITTED TO THE PW DIR. OR DESIGNEE.
12. THE ON-SITE UTILITIES SHALL BE INSTALLED, HAVE PASSED THE REQUIRED TESTS, AND IN SERVICE BEFORE ANY PAVING OPERATIONS MAY BEGIN.
13. ALL FRANCHISE UTILITIES SHALL BE INSTALLED PRIOR TO INSTALLATION OF PUBLIC IMPROVEMENTS BY THE CITY OF ROWLETT.

WATER GENERAL NOTES

1. ALL WATER METERS SHALL BE SIZED AND INSTALLED BY CITY PERSONNEL.
2. FIRE HYDRANTS SHALL BE LOCATED OUTSIDE OF EXISTING OR PROPOSED SIDEWALKS. NO OBSTRUCTIONS SHALL BE WITHIN 4 FEET IN ALL DIRECTIONS AROUND A FIRE HYDRANT.
3. ALL PVC PIPE WATER LINES SHALL CONFORM TO AWWA STANDARD C-900 WITH A DR RATIO OF 18. CLASS 150, BLUE IN COLOR, WITH NSF SEAL, PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS, TCEQ, TSFMO, AND CITY OF ROWLETT FLUSHING AND TESTING STANDARDS.
4. WATER MAINS SHALL HAVE A MINIMUM OF 42" COVER TO TOP OF PIPE.
5. SERVICE LINE SADDLES FOR PVC PIPE SHALL BE LOW LEAD DOUBLE STRAP BRONZE/BRASS AND CORP STOP AND ANGLE STOP (CURB STOP), SHALL BE COMPRESSION-TYPE WITH STAINLESS STEEL TUBE LINERS.
6. ALL WATER LINES SHALL BE EMBEDDED IN ACCORDANCE WITH STANDARD CONSTRUCTION DETAILS. BACKFILL SHALL BE COMPACTED TO 98% STANDARD PROCTOR DENSITY.
7. SERVICE LOCATION TO BE SAW-CUT ON CURB WITH ONE "I" SAW-MARK 2" HIGH PAINTED BLUE. WATER SERVICES SHALL BE LOCATED WITHIN 2 FEET OF THE PROPERTY LINE.
8. ALL SERVICES TO METER SHALL BE 1" SDR-9 CLASS 200 POLYETHYLENE CTS OUTSIDE DIAMETER UNLESS OTHERWISE NOTED.
9. ALL FITTINGS SHALL BE MADE IN USA AND FROM DUCTILE IRON C110, FURNISHED WITH MECHANICAL JOINT OR FLANGED ENDS, AND HAVE A MINIMUM PRESSURE RATING OF 250 PSI. MEGA-LUG RESTRAINING GLANDS SHALL ALSO BE USED ON ALL FITTINGS. DOMESTIC ONLY – NO FOREIGN MANUFACTURED FITTINGS ALLOWED.
10. ALL DUCTILE IRON FITTINGS SHALL BE WRAPPED WITH AN 8 MIL MINIMUM THICKNESS POLYETHYLENE MATERIAL PER AWWA STANDARD C-150.
11. ALL WATER MAINS SHALL HAVE CONCRETE THRUST BLOCKING AT ALL TEES, BENDS, PLUGS, AND HYDRANTS PER THE CITY OF ROWLETT DETAIL SHEET. ALL VERTICAL BENDS AND FIRE LINE RISERS SHALL HAVE SS ALL-THREADS INSTALLED.
12. CURB STOPS SHALL BE TESTED FOR LEAKAGE AND FULL FLOW WHEN SYSTEM IS PRESSURE TESTED.
13. ALL FIRE HYDRANT ASSEMBLIES SHALL BE EQUIPPED WITH A 6" GATE VALVE AND BOX. ALL VALVES AND FIRE HYDRANTS ARE TO BE PER CITY SPECIFICATIONS. ONLY MUELLER AND AMERICAN FLOW CONTROL HYDRANTS ARE ACCEPTED.
14. ANY WATER VALVES LOCATED WITHIN PAVEMENT AREAS SHALL BE ADJUSTED TO FINAL GRADE BY THE PAVING CONTRACTOR.
15. ALL RISERS OVER WATER VALVES SHALL BE 6" PVC C900 PIPE WITH A BASS & HAYES # 304-1 CAST IRON ASSEMBLY ON TOP.
16. ALL TRENCHES OF WATER MAINS SHALL BE INSTALLED WITH A BLUE METALLIC TAPE LOCATED TWO FEET BELOW THE TOP OF TRENCH. TRENCH-LESS TECHNOLOGY IS NOT REQUIRED TO INSTALL BLUE METALLIC TAPE.
17. ALL TRENCHES SHALL BE COMPACTION TESTED AT THE RATE OF ONE TEST PER 150 L.F. OF TRENCH PER LIFT. LIFTS SHALL BE NO GREATER THAN 12" LOOSE. TESTS SHALL BE STAGGERED SO THAT TESTS OF ADJACENT LIFTS ARE NOT DIRECTLY OVER THE PREVIOUS LIFT. THE TESTING LAB SHALL PROVIDE THE LOCATION OF ALL RESULTS ON A PLAN AND PROFILE SHEET PRIOR TO TRENCH ACCEPTANCE. THE PAVING CONTRACTOR SHALL NOT BEGIN WORK UNTIL THE CITY OF ROWLETT HAS APPROVED ALL TRENCH WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RETEST.
18. THE ONSITE UTILITIES SHALL BE INSTALLED, HAVE PASSED THE REQUIRED TESTS, AND IN SERVICE BEFORE ANY PAVING OPERATIONS MAY BEGIN.
19. ALL VALVES CONNECTING TO TEES MUST BE FLANGED.

CITY OF ROWLETT FLUSHING AND TESTING STANDARDS

1. ALL REPRESENTATIVES OF THE CITY OF ROWLETT OVERSEEING THE FLUSHING, HYDROSTATIC TESTING, AND SAMPLING PROCEDURES SHALL HAVE A MINIMUM CLASS C WATER DISTRIBUTION OPERATOR LICENSE FROM TCEQ.
2. All UNDERGROUND AND ABOVEGROUND FIRE LINE CONNECTIONS TO THE SPRINKLER SYSTEM SHALL BE INSPECTED BY AN APPROVED TSMO-RME-UNDERGROUND AND ABOVEGROUND FIRE MAIN REPRESENTATIVE.
3. A LICENSED TCEQ-CITY REPRESENTATIVE SHALL BE PRESENT WHEN THE CITY WATER SUPPLY IS ACCESSED FOR INSTALLATION OF ANY NEW CONNECTIONS AND FITTINGS.
4. ALL WATER SAMPLING LOCATIONS FOR THE BACTERIOLOGICAL TESTING SHALL BE COORDINATED WITH THE TCEQ LICENSED CITY OF ROWLETT ONLY.
5. ALL PIPE LENGTHS OVER 20' SHALL COMPLY WITH BACTERIOLOGICAL TESTING.
6. ALL FIRE LINE BACTERIOLOGICAL, HYDROSTATICAL TESTING, AND FLUSHING SHALL COMPLY WITH TCEQ, AWWA, AND THE TSMO REQUIREMENTS AND STANDARDS.
7. ALL FIRE LINES SHALL BE FLUSHED BEFORE THE HYDROSTATIC TEST OF 200 PSI FOR 3 HOURS, AND DURING THE REMOVAL OF CHLORINE RESIDUAL AS REQUIRED BY THE TSFMO.
8. ALL WATER PIPES SHALL BE FLUSHED FROM A MINIMUM 4" OPENING FOR 6" PIPES.
9. ALL WATER LOADED INTO THE WATER PIPE SHALL BE FROM THE IMMEDIATE CONNECTION POINT SOURCE FROM THE CITY OF ROWLETT WATER SUPPLY.
10. THE CONTRACTOR SHALL NOT LOAD OR TEST ANY PORTION OF THE NEW WATER PIPE AFTER THE CONNECTION TO THE CITY WATER MAIN HAS OCCURRED, WITHOUT DIRECTION FROM THE TCEQ LICENSED CITY REPRESENTATIVE.
11. A TCEQ LICENSED CITY REPRESENTATIVE SHALL BE ONSITE ALL TIMES DURING ALL TESTING PROCESSES. THE TCEQ LICENSED CITY REPRESENTATIVE SHALL CHECK ALL VALVES AND SAMPLE POINT PRIOR TO ANY TESTING.
12. ALL FLUSHING AND TESTING SHALL BE SCHEDULED WITH THE TCEQ LICENSED CITY REPRESENTATIVE 24 HOURS IN ADVANCE.
13. THE BACTERIOLOGICAL SAMPLING SHALL BE PERFORMED BY COORDINATION AND DIRECTION FROM THE TCEQ LICENSED CITY REPRESENTATIVE ONLY.
14. THERE SHALL BE NO USE OF WATER BY ANY CONTRACTOR AT ANY TIME WITHOUT A REGISTERED CITY WATER METERING DEVICE.
15. ALL VALVES SHALL BE OPERATED BY TCEQ LICENSED CITY REPRESENTATIVES ONLY.
16. THERE SHALL BE NO PIPE DOPE AN ANY NEW FITTING. TEFLON TYPE TAPE ONLY APPLIED TO THREADED FITTINGS.
17. ALL FLUSHING OF NEW WATER MAINS SHALL BE COORDINATED AND APPROVED BY THE TCEQ LICENSED CITY REPRESENTATIVE PRIOR TO HYDROSTATIC TESTING OF 150 PSI FOR 4 HOURS.
18. FLUSHING: FLOW THE REQUIRED RATE UNTIL CLEAR AND TEST FOR CHLORINE RESIDUAL FROM FIRE HYDRANT OR END PIPE. FLUSH AT FLOWS NOT LESS THAN 390 GPM FOR 4" PIPE, 880 GPM FOR 6" PIPE, 1560 GPM FOR 8" PIPE, 2440 GPM FOR 10" PIPE, AND 3520 GPM FOR 12" PIPE. WHEN SUPPLY CANNOT PRODUCE STIPULATED FLOW RATES, OBTAIN MAXIMUM AVAILABLE.
19. THE FIRE LINES SHALL BE HYDROSTATIC TESTED FROM THE CITY SUPPLY VALVE TO THE FIRE RISER FLANGE AT 200 PSI FOR 3 HOURS AFTER FLUSHING IS COMPLETE. THE FIRE LINE SHALL BE BACTERIOLOGICAL TESTED.
20. THE HYDROSTATIC TESTING SHALL BE COMPLETED BEFORE CHLORINE IS ADDED TO THE WATER PIPE.
21. THE CONTRACTOR SHALL INSTALL STAINLESS STEEL, OR ALL BRASS HOSE BIB SAMPLING PORTS AT MAXIMUM 1000' LOCATIONS, PIPE EXTENSIONS, AND POINTS ON THE WATER MAIN AS DESIGNATED BY THE TCEQ LICENSED CITY REPRESENTATIVE.
22. THERE SHALL BE NO SAMPLING FROM FIRE HYDRANTS.
23. THE TCEQ LICENSED CITY REPRESENTATIVE SHALL OVERSEE THE LOADING OF CHLORINE AND SHALL ASSURE THE MINIMUM TSMO RELEASE OPENINGS ARE IN PLACE PRIOR TO LOADING PROCEDURES.
24. THE TCEQ LICENSED CITY REPRESENTATIVE SHALL TAKE RESIDUAL SAMPLES OF CHLORINE AT THE RELEASE OPENINGS TO ASSURE MINIMUM 100 mg/liter IS THOROUGHLY PRESENT AND DISTRIBUTED EVENLY IN ALL SECTIONS OF THE PIPING.
25. THE ENTIRE WATER SYSTEM SHALL BE THOROUGHLY FLUSHED FROM THE SAME TSFMO REQUIRED OPENINGS, FREE OF HEAVY CHLORINE, DE-CHLORINATION MAY BE REQUIRED IN CERTAIN AREAS TO REACH NOMINAL CITY WATER SYSTEM RESIDUAL.
26. THE TCEQ LICENSED CITY REPRESENTATIVE ONLY SHALL TAKE WATER SAMPLES TO NORTH TEXAS MUNICIPAL WATER DISTRICT. THE SAMPLE RESULTS WILL BE AVAILABLE AFTER 24 HOURS.
27. A NEGATIVE RESULT WILL BE PASSING AND THE SYSTEM PLACED ONLINE. A LETTER OF RELEASE FOR THE WATER LINE WILL BE ISSUED FOR THE INSTALLATION OF SERVICE METERS AND/ OR THE WATER SUPPLY FOR FIRE LINE TESTING MET ALL TCEQ, AWWA, TSFMO, AND CITY REQUIREMENTS.
28. A POSITIVE RESULT FOR HEAVY BACTERIA OR TOTAL COLIFORM WILL REQUIRE SAMPLING AGAIN THE NEXT DAY THE LAB IS OPEN. AFTER THREE FAILED SAMPLES, THE WATER PIPES SHALL BE FLUSHED, RE-CHLORINATED FOR 24 HOURS, AND FLUSHED AGAIN BEFORE SAMPLING CONTINUES. THE CONTRACTOR IS RESPONSIBLE FOR MONETARY REIMBURSEMENT TO THE CITY FOR WATER LOSS DURING THE RE-SAMPLING PROCESS. ADDITIONAL FAILED SAMPLES WILL REQUIRE EXPOSURE OF SERVICE FITTINGS TO ASSURE NO PIPE DOPE WAS USED ON ANY FITTINGS, ISOLATION OF THE FAILED AREA, AND POSSIBLY DISCONNECTION OF THE WATER PIPE TO BE CLEANED, SWABBED, OR REPLACE PIPE AND MATERIAL. THE USE OF A PIG SHALL NOT SUBSTITUTE THE THE FLUSHING REQUIREMENTS.

SANITARY SEWER GENERAL NOTES

1. SANITARY SEWER LINES SHALL BE SDR 35 PVC PIPE, GREEN IN COLOR, UNLESS OTHERWISE NOTED ON THE CONSTRUCTION PLANS, OR OVER 9' IN DEPTH USE ASTM D3034, OR ENGINEER'S RECOMMENDATION. ONE JOINT OF 150-PSI PRESSURE RATED PIPE SHALL BE INSTALLED UNDER ALL PROPOSED WATER PIPE CROSSINGS.
2. THE CONTRACTOR SHALL ENSURE THAT TCEQ MINIMUM SEPARATION REQUIREMENTS BETWEEN WATER LINES AND SANITARY SEWER LINES ARE MET. SHOULD MINIMUM SEPARATION NOT BE MET FOLLOW CURRENT TCEQ STANDARDS AND DESIGN.
3. PIPE SHALL BE BEDDED PER CITY OF ROWLETT STANDARD DETAILS AND PLACED AS DIRECTED THEREIN. BACKFILL SHALL COMPACTED TO 98% STANDARD PROCTOR DENSITY +2% MOISTURE AS DIRECTED BY LAB.
4. ALL TRENCHES OF SANITARY SEWER MAINS SHALL BE INSTALLED WITH A GREEN METALLIC TAPE LOCATED TWO FEET BELOW THE TOP OF TRENCH.
5. AFTER COMPLETION OF ALL TESTING (I.E. MANDREL & AIR) CONTRACTOR SHALL PERFORM A TELEVISION CAMERA INSPECTION AND PROVIDE DVD OR MEMORY STICK TO THE PUBLIC WORKS DEPARTMENT. DEFLECTION AND A LOW-PRESSURE AIR TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF ROWLETT STANDARDS, NCTCOG, AND TCEQ.
6. THE FINAL LOW PRESSURE AIR TEST SHALL TAKE PLACE AFTER THE FRANCHISE UTILITIES HAVE BEEN INSTALLED TO ENSURE NO DAMAGE WAS DONE TO THE SANITARY SEWER LINE AND SERVICES DURING THE INSTALLATION OF THE FRANCHISE UTILITIES.
7. A 2" HIGH "II" SAW-MARK SHALL BE SAWED ON THE CURB AND PAINTED GREEN TO MARK THE LOCATION OF THE SEWER SERVICES.
8. ALL SANITARY SEWER MANHOLES SHALL BE A MINIMUM OF 5-FT. DIAMETER INTERIOR IN ACCORDANCE WITH STANDARD COR DETAILS UNLESS OTHERWISE SHOWN IN THE CONSTRUCTION PLANS. INTERIOR DROPS 5-FT MINIMUM FOR INTERIOR.
9. CONTRACTOR SHALL PLACE A 3/4" PLYWOOD FALSE BOTTOM IN ALL SANITARY SEWER MANHOLES BEFORE PAVING CONTRACTOR COMMENCES WORK.
10. RIM ELEVATIONS OF THE PROPOSED SANITARY SEWER MANHOLES IN STREETS SHALL BE CONSTRUCTED 14" BELOW FINAL FINISHED GRADES BY UTILITY CONTRACTOR AND ADJUSTED BY CONTRACTOR TO FINISHED GRADE AT TIME OF PAVING. MAXIMUM INTERIOR RISE FROM CONE TO TOP COVER IS 23 INCHES OR PER NCTCOG.
11. ALL TRENCHES SHALL BE COMPACTION TESTED AT THE RATE OF ONE TEST PER 150 L.F. OF TRENCH PER LIFT. LIFTS SHALL BE NO GREATER THAN 12" LOOSE. TESTS SHALL BE STAGGERED SO THAT TESTS OF ADJACENT LIFTS ARE NOT DIRECTLY OVER THE PREVIOUS LIFT. IF THE DISTANCE BETWEEN MANHOLES EXCEEDS 300 L.F., A MINIMUM OF 2 TESTS PER LIFT SHALL BE TAKEN. THE TESTING LAB SHALL PROVIDE THE LOCATION OF ALL RESULTS ON A PLAN AND PROFILE SHEET PRIOR TO TRENCH ACCEPTANCE. THE PAVING CONTRACTOR SHALL NOT BEGIN WORK UNTIL THE CITY OF ROWLETT HAS APPROVED ALL TRENCH WORK.
12. THE INTERIOR OF ALL MANHOLES SHALL BE LINED WITH AN EPOXY COATING AND SHALL BE RAVEN LINING 405 OR APPROVED EQUAL AND SPARK TESTED, AT A MINIMUM THICKNESS OF 125 MILS OR AS APPROVED BY PUBLIC WORKS DIRECTOR OR DESIGNEE USING CONDITION TYPE INDEX.
13. ALL MANHOLES SHALL BE VACUUM TESTED TO ENSURE THE MANHOLE IS WATER TIGHT.
14. ALL TRENCH COMPACTION DENSITY TESTING SHALL BE COORDINATED BY THE CONTRACTOR WITH THE TESTING LAB AND IN ACCORDANCE WITH THE CITY OF ROWLETT STANDARDS. THE RESULTS OF THE TRENCH COMPACTION DENSITY TESTS SHALL BE SHOWN ON THE AS-BUILT PROFILE SHEETS AT THE LOCATION OF THE TEST. THE CITY WILL NOT ACCEPT THE INSTALLATION OF THE UTILITY UNTIL THE AS-BUILTS WITH THE TESTING RESULTS HAVE BEEN SUBMITTED TO THE PUBLIC WORKS DIRECTOR OR DESIGNEE.
15. ALL PRECAST MANHOLES SHALL HAVE SECTIONS WITH A SINGLE OFFSET JOINT WITH PROFILE RUBBER GASKETS AND SHALL CONFORM TO ASTM C478 AND C443.

STORM SEWER GENERAL NOTES

1. ALL STORM SEWER AND CULVERT PIPE AND FITTINGS IN THE ROW SHALL BE ASTM C76, CLASS III REINFORCED CONCRETE PIPE (RCP), INSTALLED WITH COMPRESSIVE TYPE JOINTS.
2. AFTER COMPLETION OF ALL THE STORM DRAIN INSTALLATION, THE CONTRACTOR SHALL PERFORM A TELEVISION CAMERA INSPECTION OF THE PIPE AND PROVIDE DVD OR MEMORY STICK TO THE PUBLIC WORKS DEPARTMENT.
3. THE MINIMUM SIZE OF STORM DRAIN LINES SHALL BE EIGHTEEN (18) INCHES, OR AS APPROVED BY PUBLIC WORKS DIRECTOR OR DESIGNEE FOR DRIVE APPROACHES.
4. PIPE SHALL BE BEDDED IN CLASS II, OR BETTER, MATERIAL AS DEFINED IN ASTM D-2321, AND PLACED AS DIRECTED THEREIN. BACKFILL SHALL BE NATIVE MATERIAL COMPACTED TO 98% STANDARD PROCTOR DENSITY +2% MOISTURE. ALL PIPE SIZE CHANGE COLLARS AND FITTINGS SHALL BE PRECAST AND MANUFACTURED. COLLARS OR FITTINGS TO BE FIELD MADE FOR PIPE TO JUNCTION BOX SHALL HAVE WIRE MESH REINFORCING IN COLLAR.
5. ALL TRENCHES SHALL BE COMPACTION TESTED AT THE RATE OF ONE TEST PER 150 L.F. OF TRENCH PER LIFT. LIFTS SHALL BE NO GREATER THAN 12" LOOSE. TESTS SHALL BE STAGGERED SO THAT TESTS OF ADJACENT LIFTS ARE NOT DIRECTLY OVER THE PREVIOUS LIFT. IF THE DISTANCE BETWEEN MANHOLES EXCEEDS 300 L.F., A MINIMUM OF 2 TESTS PER LIFT SHALL BE TAKEN. THE TESTING LAB SHALL PROVIDE THE LOCATION OF ALL RESULTS ON A PLAN AND PROFILE SHEET PRIOR TO TRENCH ACCEPTANCE. THE PAVING CONTRACTOR SHALL NOT BEGIN WORK UNTIL THE CITY OF ROWLETT HAS APPROVED ALL TRENCH WORK.
6. ALL TRENCH COMPACTION DENSITY TESTING SHALL BE COORDINATED BY THE CONTRACTOR WITH THE TESTING LAB AND IN ACCORDANCE WITH THE CITY OF ROWLETT STANDARDS. THE RESULTS OF THE TRENCH COMPACTION DENSITY TESTS SHALL BE SHOWN ON THE AS-BUILT PROFILE SHEETS AT THE LOCATION OF THE TEST. THE CITY SHALL NOT ACCEPT THE INSTALLATION OF THE UTILITY UNTIL THE AS-BUILTS WITH THE TESTING RESULTS HAVE BEEN SUBMITTED TO THE PW DIRECTOR OR DESIGNEE.

PAVING GENERAL NOTES

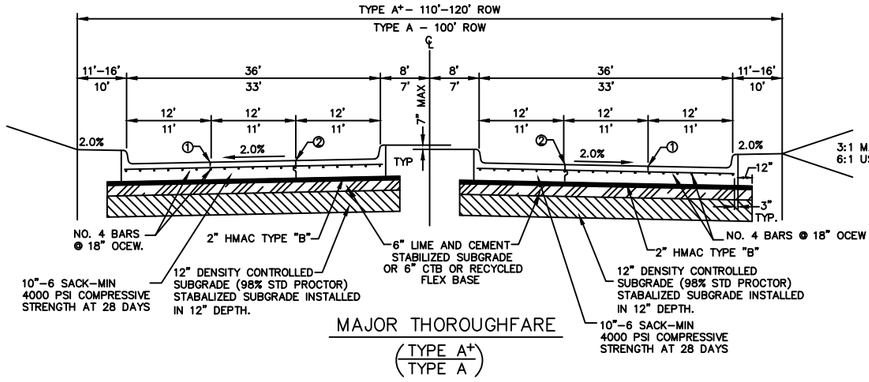
1. ALL FILL WITHIN THE ROW SHALL BE COMPACTED TO A DENSITY OF AT LEAST NINETY-EIGHT (98%) PERCENT STANDARD PROCTOR AS PER ASTM D 698 AT OR ABOVE OPTIMUM MOISTURE CONTENT. LIFTS SHALL BE AS SPECIFIED PER THE SOILS LAB RECOMMENDATION AND AS APPROVED BY THE CITY. ALL FILL SHALL BE TESTED AS INSTALLED AND CERTIFIED BY AN APPROVED SOILS LABORATORY.
2. ALL FILL OUTSIDE OF THE ROW SHALL BE COMPACTED TO A DENSITY OF AT LEAST NIFIVEY-EIGHT (98%) PERCENT STANDARD PROCTOR AS PER ASTM D 698 AT OR ABOVE OPTIMUM MOISTURE CONTENT. LIFTS SHALL BE AS SPECIFIED PER THE SOILS LAB RECOMMENDATION AND AS APPROVED BY THE CITY. ALL FILL SHALL BE TESTED AS INSTALLED AND CERTIFIED BY AN APPROVED SOILS LABORATORY.
3. ALL STREET CROSS SECTIONS SHALL BE DESIGNED ACCORDING TO RECOMMENDATIONS FROM A GEOTECHNICAL REPORT. AT A MINIMUM, THE STREET SHALL BE CONSTRUCTED ON 6" INCHES OF STABILIZED SUBGRADE (LIME AND CEMENT) AS SOIL TESTS INDICATES, OR 6" RECYCLED CTB FLEX BASE. COMPACTION SHALL BE NINETY-EIGHT (98%) PERCENT DENSITY AS PER AASHTO DESIGNATION T180. DENSITY TESTS SHALL BE TAKEN EVERY 150' PER LANE OR LESS, AS REQUIRED BY PUBLIC WORKS DIRECTOR OR DESIGNEE.
4. CURB AND GUTTER SHALL CONSIST OF CONCRETE AND PAVEMENT SHALL BE REINFORCED CONCRETE AT LEAST SIX (6") INCHES THICK (OR THICKER IF SPECIFIED BY GEOTECHNICAL REPORT) AND AT LEAST THIRTY-ONE (31') FEET WIDE (B-B) FOR RESIDENTIAL STREETS.
5. THE PARKWAYS AND STREETS SHALL BE ROUGH CUT TO A PLUS OR MINUS ONE-TENTH (0.1') FEET OF THEIR RESPECTIVE FINAL GRADES.
6. INDIVIDUAL WATER AND SEWER SERVICES SHALL HAVE A SUITABLE MARKER ("I" SAW-MARK FOR WATER PAINTED BLUE AND "II" SAW-MARK FOR SANITARY SEWER PAINTED GREEN) SAW-CUT ON THE FACE OF THE CURB, OR IF NO CURB IS CONSTRUCTED, ON THE TOP OF THE PAVEMENT. THE MARKS SHALL BE A MINIMUM OF TWO (2") INCHES IN HEIGHT AND WIDTH. WATER SERVICE SHALL BE LOCATED AT THE APPROPRIATE CORNER OF THE FRONT OF THE LOT, WITH THE SEWER SERVICE AT THE CENTER OF THE FRONT OF THE LOT.
7. THE CONTRACTOR SHALL PROCEED WITH PAVING NO MORE THAN TWENTY-FOUR (24) HOURS AFTER DENSITY/MOISTURE TESTS HAVE BEEN TAKEN AND PASSED BY A REGULAR TESTING FIRM. COPIES OF THE TEST RESULTS TEST RESULTS SHALL BE FURNISHED TO THE CITY. IN THE EVENT PAVING OPERATIONS HAVE NOT COMMENCED WITHIN THE TWENTY-FOUR (24) HOUR LIMIT, A RETEST SHALL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR SHALL ADJUST MANHOLE RIM ELEVATIONS, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC. TO FINISHED GRADE AT THE TIME OF PAVING.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMANENT SURVEY REFERENCE MONUMENTS INCLUDING CONCRETE MONUMENTS AT ALL BOUNDARY CORNERS AND BRASS CAPS ON ONE HEADWALL OF EACH CULVERT WITHIN OR AT THE PERIMETER OF THE DEVELOPMENT.
10. THE CONTRACTOR SHALL INSTALL A BLUE REFLECTOR IN THE STREET CENTERLINE AT THE LOCATION OF EACH FIRE HYDRANT.
11. ANY CONTRACTOR, INTENT ON USING A TEMPORARY BATCH PLANT IN THE CITY OF ROWLETT MUST RECEIVE A PERMIT FROM THE ZONING DEPARTMENT AS WELL AS THE FIRE DEPARTMENT.
12. ALL STREETS SHALL HAVE A MINIMUM 30' CURB RADIUS.
13. ALL FIRE LANES SHALL HAVE CONCRETE SURFACE AND MEET CITY PAVING STANDARDS AND CURRENT INTERNATIONAL FIRE CODES. FIRE LANES SHALL BE CONSTRUCTED TO SUPPORT A MINIMUM VEHICLE LOAD OF (75,000 POUNDS). THE PUBLIC WORKS DIRECTOR OR DESIGNEE AND FIRE MARSHALL SHALL APPROVE ANY DEVIATIONS. THE FIRE LANE SHALL HAVE A MINIMUM THIRTY FOOT (30') INSIDE TURNING RADIUS AND A FIFTY-FOUR FOOT (54') OUTSIDE TURNING RADIUS.
14. THE SUB-GRADE SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE WATER TRUCK OR DUMP TRUCK AND OBSERVED BY THE CONSTRUCTION INSPECTOR OR CITY ENGINEER PRIOR TO PAVING.
15. THE CONTRACTOR SHALL PREPARE ALL TRAFFIC CONTROL PLANS AND SUBMIT TO THE CITY PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS FOR WORK WITHIN THE CITY. THE PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE CURRENT EDITION OF THE MUTCD AND AS MODIFIED WITH THE TXDOT TMUTCD SUPPLEMENT AND CITY ORDINANCES. THE PLAN SHALL ADDRESS THE REQUIREMENTS FOR ALL ELECTRONIC MESSAGE/ARROW BOARDS, SIGNS, BARRICADES, FLAGMEN, LIGHTS, HOURS OR CONSTRUCTION, AND OTHER DEVICES AS NECESSARY FOR SAFE TRAFFIC CONTROL.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE TRAFFIC CONTROL FOR THE PROJECT IN ACCORDANCE WITH TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES STANDARDS.
17. FOLLOWING COMPLETION OF THE PAVING IMPROVEMENTS, THE CONTRACTOR SHALL SUBMIT AN AS-BUILT FIELD SURVEY TO THE CITY VERIFYING THAT THE LOT GRADING PLAN WAS ADHERED TO IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS BEFORE THE ACCEPTANCE OF THE PROJECT.
18. PRIOR TO ACCEPTANCE OF THE IMPROVEMENTS, AN INSPECTION BY TDLR, OR A REGISTERED ACCESSIBILITY SPECIALIST SHALL BE CONDUCTED AND ALL SUBSEQUENT WORK RESULTING FROM THE INSPECTION MUST BE COMPLETED.

Rowlett TEXAS **CITY OF ROWLETT, TEXAS**
DEPARTMENT OF PUBLIC WORKS

STANDARD GENERAL NOTES

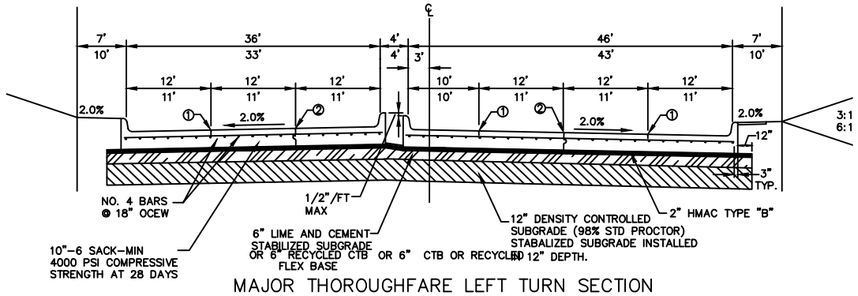
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE: 10-2013		
CHECKED:			



MAJOR THOROUGHFARE

(TYPE A+ / TYPE A)

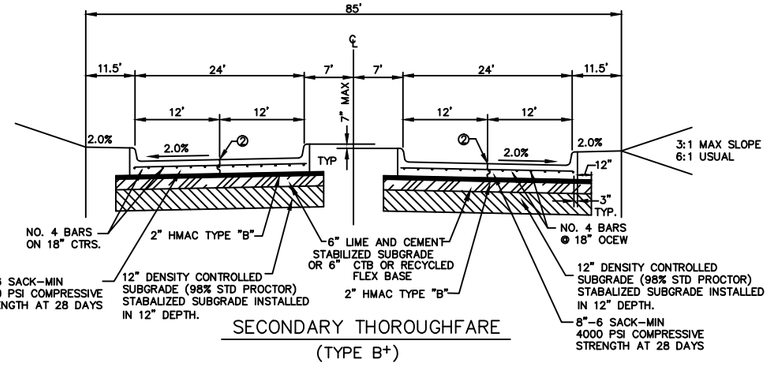


MAJOR THOROUGHFARE LEFT TURN SECTION

(TYPE A+ / TYPE A)

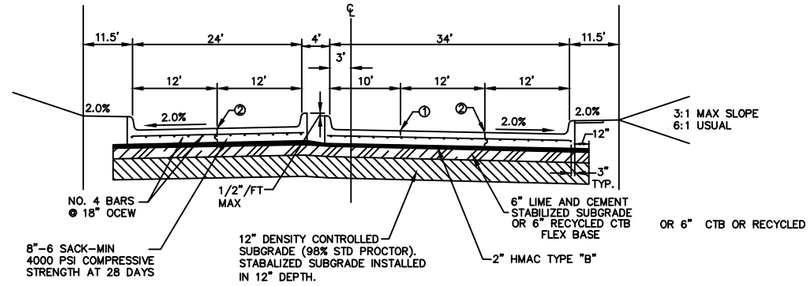
NOTES

1. SAWED LONGITUDINAL DUMMY JOINT
2. CONSTRUCTION JOINT (FULL WIDTH PVMT. IS ALLOWED WHERE APPROVED BY CITY OF ROWLETT). DELETE IF PAVING IS 25 FT. WIDTH & TO BE WIDENED LATER.
3. SUBGRADE SHALL BE INTIALLY SCARIFIED TO A DEPTH OF 12" REMIX THE TOP 6" AND RECOMPACT TO 98% PROCTOR DENSITY IN COMPLIANCE WITH TEX 113–E. SUBGRADE SHALL BE STABALIZED MINIMUM * LBS/SY. OF HYDRATED LIME AND MINIMUM * LBS/SY. OF PORTLAND CEMENT.
4. LIME SHALL BE APPLIED AT 6% MINIMUM BY WEIGHT. LIME SERIES TEST MAY BE REQUIRED AT CITY'S DISCRETION FOR GREATER QUANITIES.
5. CEMENT SHALL BE APPLIED AT 5% MINIMUM BY WEIGHT. CEMENT SERIES MAY BE REQUIRED AT CITY'S DISCRETION FOR GREATER QUANITIES.
6. 6" RECYCLED CTB FLEX BASE MAY BE USED IN LIEU OF LIME AND CEMENT STABILIZATION.
7. PUBLIC WORKS DIRECTOR OR DESIGNEE MAY ALLOW CEMENT TREATED BASE TO REPLACE LIME AND CEMENT WHEN AREAS CANNOT BE SUCCESFULLY INSTALLED WITH LIME AND CEMENT, AND/OR INCREASE CONCRETE THICKNESS.



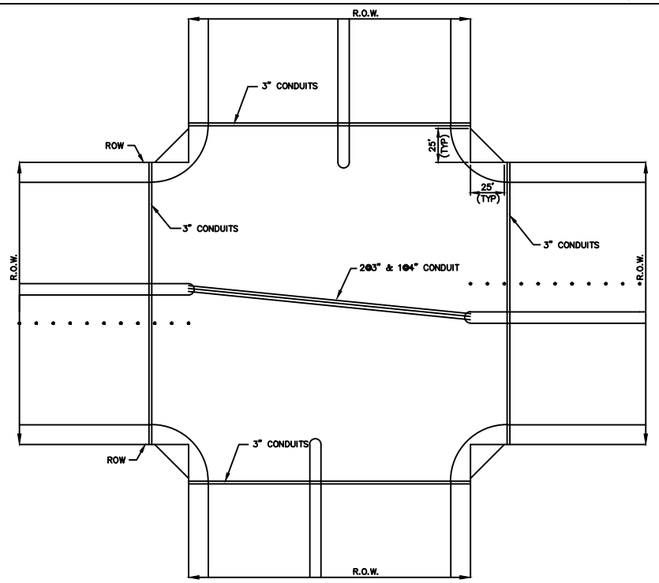
SECONDARY THOROUGHFARE

(TYPE B+)



SECONDARY THOROUGHFARE LEFT TURN SECTION

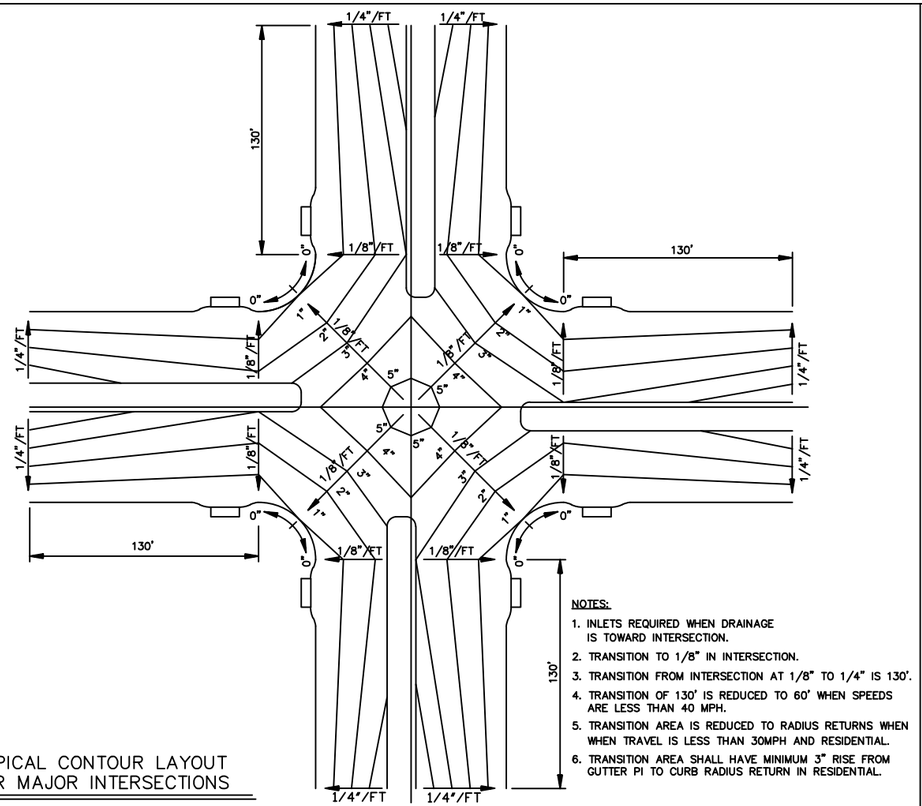
(TYPE B+)



NOTES:

1. 2Ø3" & 1Ø4" PVC TO BE INSTALLED CONTINUOUS ACROSS INTERSECTION, EXTENDING TO MIN. 2' BEHIND CURBS AND COMPLETELY OUT OF ANY PAVING, OR TO RIGHT–OF–WAY AT A DEPTH OF 2' BELOW THE BOTTOM OF PAVING.
2. RED MARKER TAPE IS TO BE INSTALLED ON THE ENDS OF THE CONDUIT. END OF CONDUIT SHALL ALSO BE SEALED.
3. THE EXACT LOCATIONS WHERE THE CONDUIT CROSSES UNDER THE PAVING ARE TO BE CHISELED WITH AN "X" ON THE CURB OR PAVING. LOCATION TIES SHALL BE RECORDED AND SUBMITTED TO THE CITY ENGINEER.
4. A NYLON CORD SHALL BE PLACED IN ALL CONDUITS. THIS CORD SHALL EXTEND A MINIMUM OF 1' FROM THE END OF THE CONDUIT A PVC RISER SHALL BE EXTENDED TO TOP OF PAVING OR GROUND WITH CAP FOR RIGHT OF WAYS AND INTO A PROPER LOAD RATED VAULT IF IN MEDIAN NOSE PAVING.

TYPICAL CONDUIT LAYOUT



TYPICAL CONTOUR LAYOUT FOR MAJOR INTERSECTIONS

NOTES:

1. INLETS REQUIRED WHEN DRAINAGE IS TOWARD INTERSECTION.
2. TRANSITION TO 1/8" IN INTERSECTION.
3. TRANSITION FROM INTERSECTION AT 1/8" TO 1/4" IS 130'.
4. TRANSITION OF 130' IS REDUCED TO 60' WHEN SPEEDS ARE LESS THAN 40 MPH.
5. TRANSITION AREA IS REDUCED TO RADIUS RETURNS WHEN WHEN TRAVEL IS LESS THAN 30MPH AND RESIDENTIAL.
6. TRANSITION AREA SHALL HAVE MINIMUM 3" RISE FROM GUTTER PI TO CURB RADIUS RETURN IN RESIDENTIAL.

GENERAL NOTES

1. ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT.
2. CURBS SHALL MEET THE SAME STRENGTH AS SPECIFIED FOR THE CONCRETE PAVEMENT.
3. DETAIL AND ARRANGEMENT OF JOINTS, ALL TYPES, SHALL BE AS SHOWN ON SHEET SD–3 OF THE STANDARD CONSTRUCTION DETAILS.
4. BAR LAP LENGTH SHALL BE 30 DIAMETERS. (12" MINIMUM)
5. DENSITY CONTROLLED SUBGRADE SHALL BE COMPACTED TO A DENSITY NOT LESS THAN 98 PERCENT STANDARD PROCTOR DENSITY AND MOISTURE AT +2% LABORATORY TESTS SHALL BE SUBMITTED TO PUBLIC WORKS DIRECTOR OR DESIGNEE FOR APPROVAL PRIOR TO INSTALLING LIME AND CEMENT SUBGRADE.
6. BAR CHAIRS OR AN APPROVED SUPPORTING DEVICE SHALL BE FURNISHED.
7. CROSS SLOPE SHALL BE 2.0% MINIMUM UNLESS APPROVED BY PUBLIC WORKS DIRECTOR OR DESIGNEE.
8. ALL MEDIANS & PARKWAYS SHALL BE SEEDED OR SODDED WITH BERMUDA GRASS OR RYE GRASS, DEPENDING ON THE TIME OF YEAR. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING UNTIL 95% COVERAGE IS ESTABLISHED AND APPROVED BY CITY ENGINEER. PRIVATE PROPERTY SHALL BE SAME GRASS AS EXISTING.
9. FLYASH MAY BE INCORPORATED INTO THE MIX DESIGN (UP TO 20% BY WEIGHT) ONLY WHEN SLIPFORMS ARE USED AT LB/LB RATIO REDUCTION AND APPROVED BY PUBLIC WORKS DIRECTOR OR DESIGNEE. NO FLYASH ALLOWED WHEN AMBIENT TEMPERATURE IS BELOW 60 DEGREES.
10. TRAFFIC SHALL NOT BE PLACED ON PAVING UNTIL 14 DAYS CURING IS COMPLETE, OR 7 DAYS AT FULL STREGNTH, AND LAB RESULTS MEET 100% REQUIRED STRENGTH. PAVEMENT MAY BE OPENED TO TRAFFIC AFTER 4 DAYS IF USING TYPE III CEMENT/ 5000 PSI AND LAB RESULTS MEET 100% REQUIRED STRENGTH. CONCRETE PAVING SHALL NOT BE ACCESSED UNTIL CRACK SEAL INSTALLED.
11. MESSAGE BOARDS AND ARROW BOARDS REQUIRED ON ALL MAJOR AND SECONDARY THOROUGHFARES AND MESSAGE BOARDS SHALL BE PLACED AT LEAST 7 DAYS PRIOR TO CLOSURES AND DETOURS.
12. ALL TRAFFIC CONTROL BARRICADES & SIGNS SHALL MEET ALL REQUIREMENTS OF THE LATEST ADOPTED TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

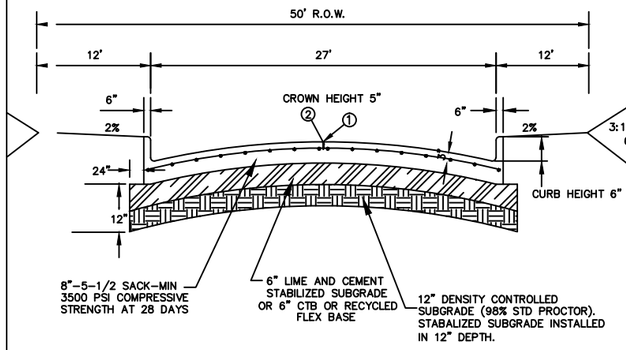
REV.	COMMENTS	BY	DATE

CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

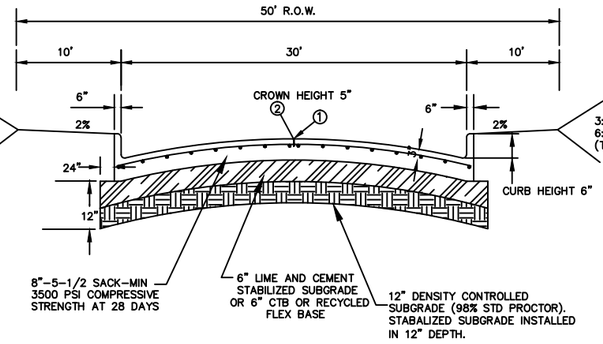
STANDARD CONSTRUCTION DETAILS PAVING

STRAIGHT CROWN STREETS

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–1
CHECKED:			



TYPICAL RESIDENTIAL
TYPE R-1A



TYPICAL RESIDENTIAL
TYPE R-1

STREET TYPE	STREET WIDTH (W)	R.O.W. WIDTH	P
RESIDENTIAL / R-1A	27'	50'	12'
RESIDENTIAL / R-1	30'	50'	10'

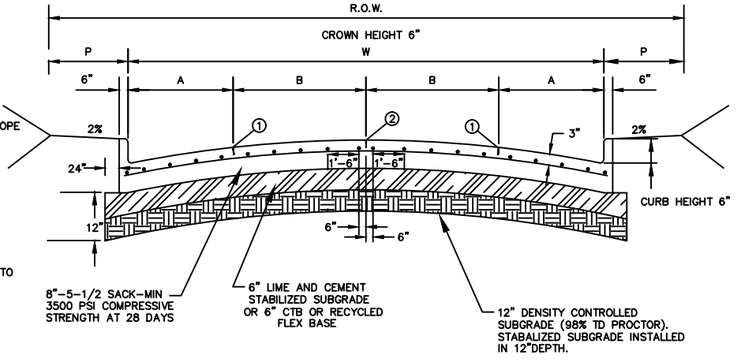
TYPE R-1 & R-1A PAVEMENT

① SAWED LONGITUDINAL DUMMY JOINT.

② CONSTRUCTION JOINT (HALF WIDTH PAVEMENT IS ALLOWED WHERE APPROVED BY PW DIRECTOR OR DESIGNEE).

NOTES

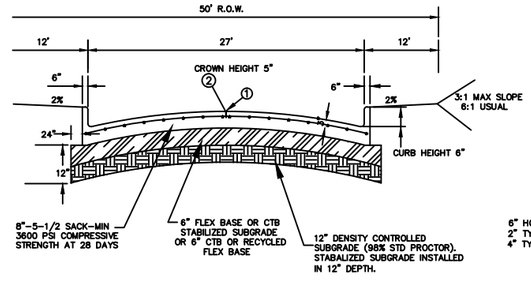
1. 12" MOISTURED DENSITY CONTROLLED SUBGRADE AT 98% COMPACTION TO COMPLY WITH NCTCOG "SUBGRADE PREPARATION". MOISTURE CONTENT SHALL BE WITHIN PLUS 2 OPTIMUM.
2. LIME SHALL BE APPLIED AT 6% MIN. BY WEIGHT A LIME SERIES TEST MAY BE REQUIRED AT CITY'S DESCRETION.
3. CEMENT SHALL BE APPLIED AT 5% MIN. BY WEIGHT A CEMENT SERIES TEST MAY BE REQUIRED AT CITY'S DESCRETION.
4. PUBLIC WORKS DIRECTOR OR DESIGNEE MAY ALLOW CEMENT TREATED BASE TO REPLACE LIME AND CEMENT WHEN AREAS CANNOT BE SUCCESFULLY INSTALLED WITH LIME AND CEMENT, AND/ OR INCREASE CONCRETE THICKNESS.
5. FIRE LANE SUBGRADE SHALL MEET MINIMUM CITY LIME REQUIRMENTS FOR STREETS. FIRE LANE SHALL BE 6" CONCRETE PAVING AT 3500 PSI UNLESS OTHERWISE NOTED. ALTERNATE SUBGRADE TREATMENT OR ADDITIONAL 2" OF CONCRETE DEPTH MAY BE SUBSTITUTED WITH GEOTECHNICAL REPORT RECOMENDATION. ALL FIRE LANES SHALL BE CAPABLE OF SUPPORTING A MINIMUM 75,000-POUND LOAD.
6. ALL REINFORCING BARS SHALL BE MADE IN USA # 4 REINFORCING STEEL REBAR TO BE SPACED ON 18" OCEW.



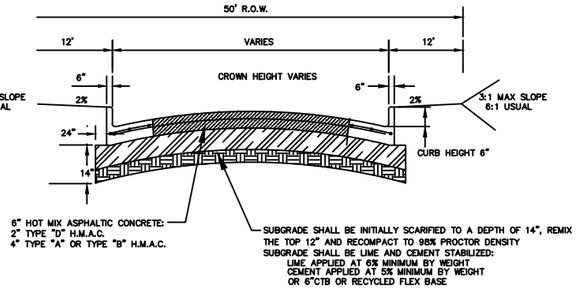
STREET TYPE	STREET WIDTH (W)	A	B	R.O.W. WIDTH	P
COLLECTOR / R-2	36'	8'	12'	60'	12'
COLLECTOR / B	44'	11'	11'	65'	12'

TYPE R-2 & B PAVEMENT

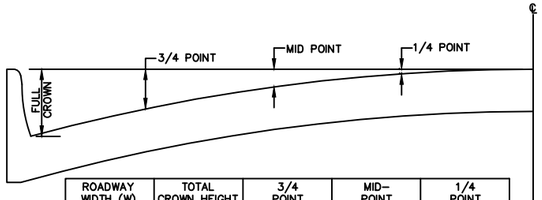
REINFORCED CONCRETE PAVEMENT



TYPICAL RESIDENTIAL REPAIR
TYPE R-1A



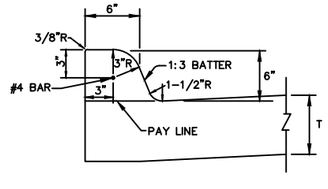
TYPICAL RESIDENTIAL OR ASPHALT W-C&G
TYPE R-A-C&G



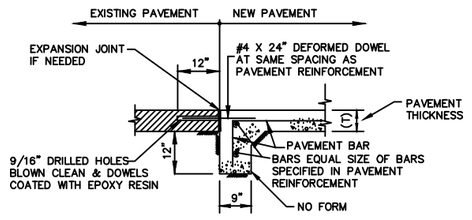
ROADWAY WIDTH (W)	TOTAL CROWN HEIGHT	3/4 POINT	MID-POINT	1/4 POINT
27'	5"	2-3/4"	1"	3/8"
30'	5"	2-7/8"	1-1/4"	3/8"
36'	6"	3-3/8"	1-1/2"	3/8"
40'	6"	3-3/8"	1-1/2"	3/8"
48'	8"	4-1/8"	2"	1/2"

TABLE OF CROWN HEIGHTS AND ORDINATES
FOR VARIOUS PARABOLIC SECTIONS

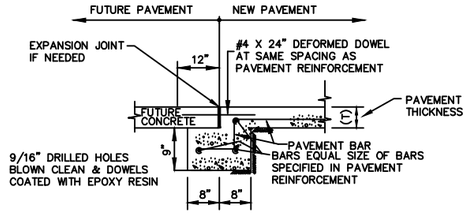
SLIP-FORM PAVEMENT MUST MEET CROWN GRADES AT GUTTERS, MID-POINTS, & C/L'S



INTEGRAL CURB



STREET HEADER AT EXISTING PAVEMENT



FUTURE PAVEMENT HEADER W/DOWELS

NOTES:

1. PAVEMENT REINFORCING BARS SHALL BE BENT DOWN INTO HEADER. PAVEMENT AND HEADER SHALL BE MONOLITHIC.
2. DRILL 1-1/8" DIA. HOLE – INSIDE SHALL BE BLOWN CLEAN AND COATED W/EPOXY RESIN.
3. INSTALL 1" DIA. SMOOTH DOWELS X 1'-10" AT 2'-0" SPACING. COAT DOWELS W/APPROVED EPOXY RESIN BEFORE INSERTION INTO DRILLED HOLE.

HEADER DETAILS

GENERAL NOTES

1. ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT.
2. CURBS SHALL MEET THE SAME STRENGTH AS SPECIFIED FOR THE CONCRETE PAVEMENT.
3. DETAIL AND ARRANGEMENT OF JOINTS, ALL TYPES, SHALL BE AS SHOWN ON SHEET SD-3 OF THE STANDARD CONSTRUCTION DETAILS.
4. BAR LAP LENGTH SHALL BE 30 DIAMETERS. (12" MINIMUM)
5. DENSITY CONTROLLED SUBGRADE SHALL BE COMPACTED TO A DENSITY NOT LESS THAN 98 PERCENT STANDARD PROCTOR DENSITY AND MOISTURE AT +2%. LABORATORY TESTS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO INSTALLING LIME AND CEMENT SUBGRADE.
6. BAR CHAIRS OR AN APPROVED SUPPORTING DEVICE SHALL BE FURNISHED.
7. CROSS SLOPE SHALL BE 2.0% MINIMUM UNLESS APPROVED BY ENGINEERING DEPARTMENT.
8. ALL MEDIANS & PARKWAYS SHALL BE SEEDED OR SODDED WITH BERMUDA GRASS OR RYE GRASS, DEPENDING ON THE TIME OF YEAR. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING UNTIL 95% COVERAGE IS ESTABLISHED AND APPROVED BY CITY ENGINEER. PRIVATE PROPERTY SHALL BE SAME GRASS AS EXISTING.
9. FLYASH MAY BE INCORPORATED INTO THE MIX DESIGN (UP TO 20% BY WEIGHT) ONLY WHEN SLIPFORMS ARE USED AT LB/LB RATIO REDUCTION WITH PUBLIC WORKS DIRECTOR OR DESIGNEE'S APPROVAL. NO FLY ASH ALLOWED WHEN AMBIENT TEMPERATURE IS BELOW 60 DEGREES.
10. TRAFFIC SHALL NOT BE PLACED ON PAVING UNTIL 14 DAYS CURING IS COMPLETE AND LAB RESULTS MEET 100% REQUIRED STRENGTH. PAVING MAY BE OPENED TO TRAFFIC AFTER 4 DAYS IF USING TYPE III CEMENT/5000 PSI AND LAB RESULTS MEET 100% REQUIRED STREGNTH. CONCRETE PAVING SHALL NOT BE ACCESSED UNTIL CRACK SEAL INSTALLED.
11. MESSAGE BOARDS AND ARROW BOARDS REQUIRED ON ALL MAJOR AND SECONDARY THOROUGHFARES. MESSAGE BOARDS SHALL BE PLACED AT LEAST 7 DAYS PRIOR TO CLOSURES AND DETOURS.
12. ALL TRAFFIC CONTROL BARRICADES & SIGNS SHALL MEET ALL REQUIREMENTS OF THE LATEST ADOPTED TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
13. MINIMUM PAVING THICKNESSES:
TYPICAL RESIDENTIAL: 8" RCP OVER 6" STABILIZED SUBGRADE
TYPICAL COLLECTOR: 8" RCP OVER 6" STABILIZED SUBGRADE
MAJOR THOROUGHFARE: 10" RCP OVER 2" HMAC OVER 6" STABILIZED SUBGRADE
SECONDARY THOROUGFARE: 8" RCP OVER 2" HMAC OVER OVER 6" STABILIZED SUBGRADE
TYPICAL ALLEY: 8" OVER 6" STABILIZED SUBGRADE
FIRE LANE AND COMMERCIAL DRIVE: 6" OVER 6" STABILIZED SUBGRADE
PRIVATE PARKING: 5" OVER 6" STABILIZED SUBGRADE

REV.	COMMENTS	BY	DATE
2011	FULL SHEET REVISION	MTTSR	OCT. 2011

Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
PAVING

STRAIGHT CROWN STREETS

DESIGN: MTTSR	SCALE: NTS	PROJECT NO.	SHEET
DRAWN: MTTSR	DATE:		SD-2
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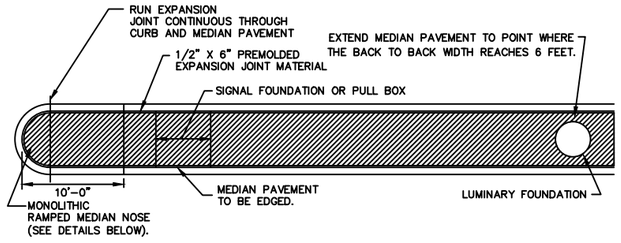
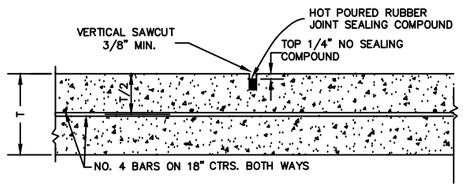
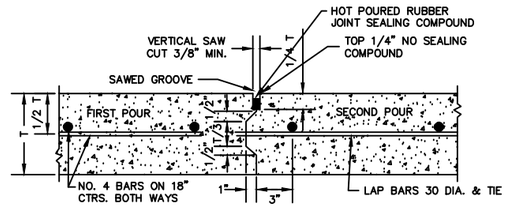


DETAIL OF MEDIAN PAVEMENT



SAWED DUMMY JOINT

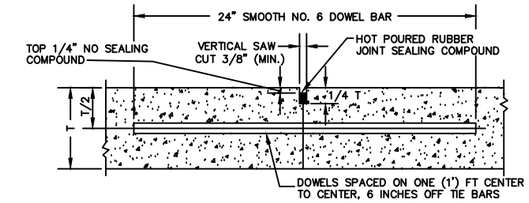
T = PAVEMENT THICKNESS



NOTE:
CONTRACTOR SHALL PROTECT KEYWAY PRIOR TO SECOND POUR. IF LONGITUDINAL KEYWAY IS DAMAGED, CONTRACTOR SHALL REPAIR WITH THE USE OF LONGITUDINAL BUTT JOINT. DRILL AND EPOXY DOWELS INTO FIRST POUR.

TYPICAL CONSTRUCTION JOINT

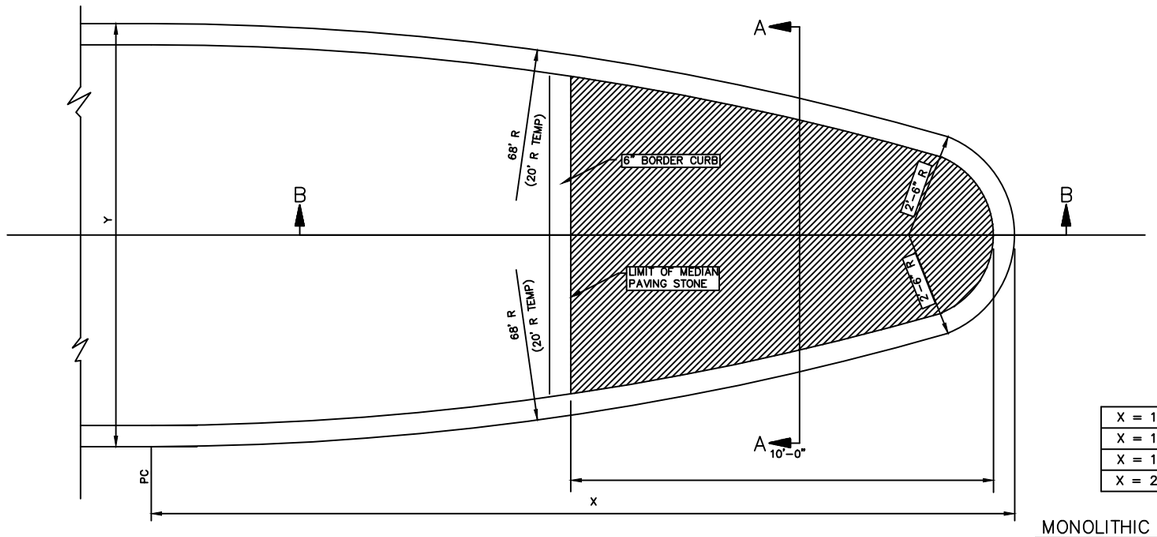
TRANSVERSE AND LONGITUDINAL JOINTS
T = PAVEMENT THICKNESS

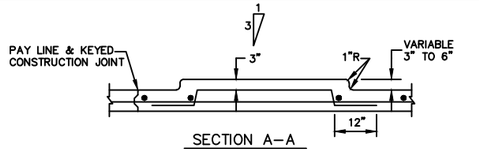


NOTES:
1. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTOR'S OPTION.
2. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG. DRILLING BY HAND IS NOT ACCEPTABLE; PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.
3. A KEYWAY SHALL BE USED IN PAVEMENT 8" THICK AND GREATER.

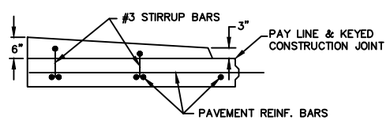
LONGITUDINAL BUTT JOINT

T = PAVEMENT THICKNESS





SECTION A–A



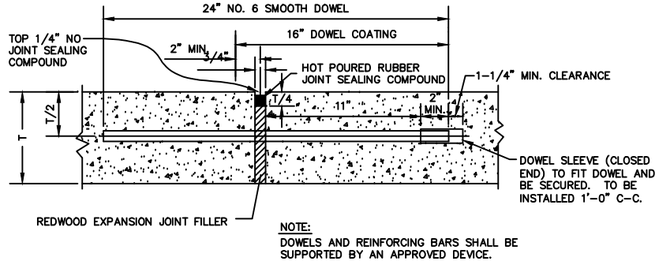
NOTE:
MONOLITHIC MEDIAN NOSE & PAVEMENT WITHIN PAY LINES SHALL BE PAID FOR PER EACH, COMPLETE IN PLACE.

SECTION B–B

DIMENSIONS OF MEDIAN NOSE

X = 13.90'	Y = 7'–0"	X = 26.36'	Y = 14'–0"
X = 16.44'	Y = 8'–0"	X = 29.89'	Y = 17'–0"
X = 18.06'	Y = 9'–0"	X = 32.93'	Y = 20'–0"
X = 20.42'	Y = 10'–0"	X = 36.47'	Y = 24'–0"

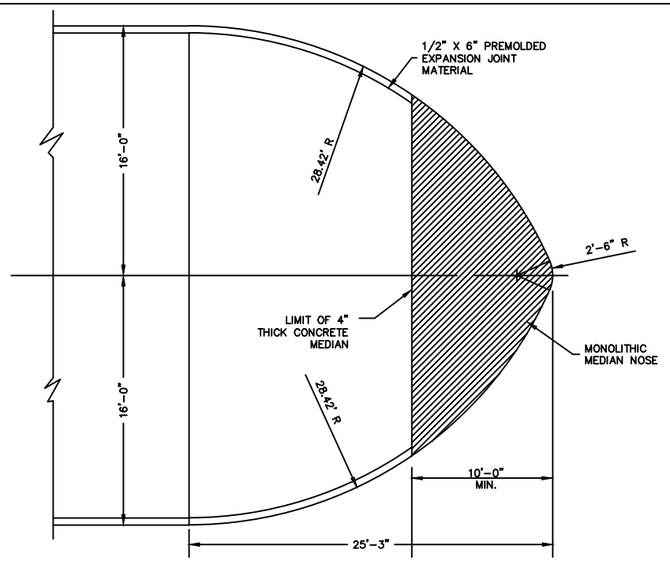
MONOLITHIC MEDIAN NOSE



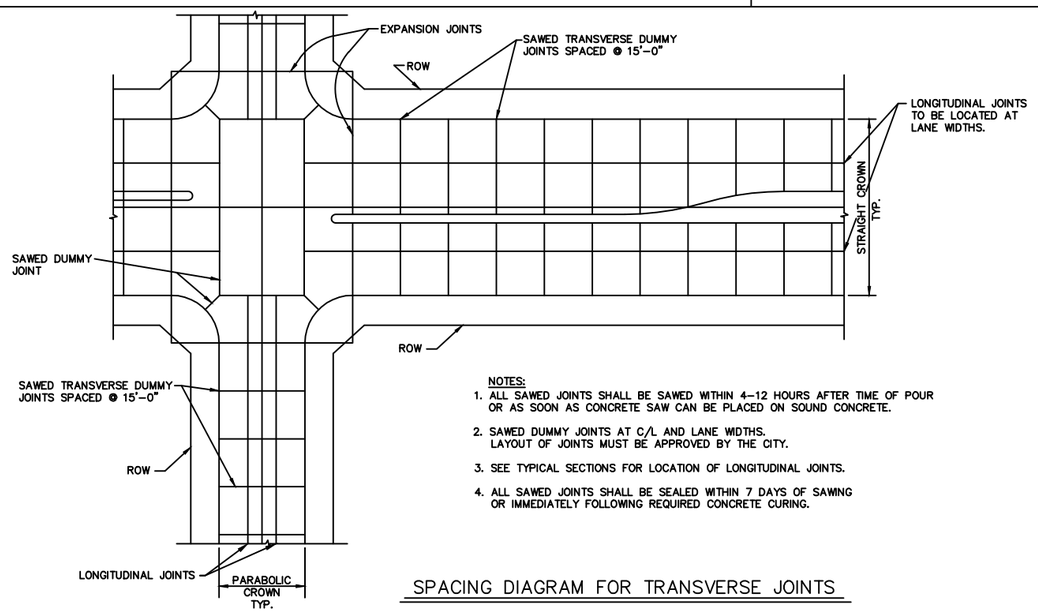
NOTE:
DOWELS AND REINFORCING BARS SHALL BE SUPPORTED BY AN APPROVED DEVICE.

TRANSVERSE EXPANSION JOINT

(SPACED 300 FT. MAXIMUM; LOCATE AT INTERSECTIONS, PC'S & PT'S, AND VERTICAL CURVES W/GRADE CHANGE GREATER THAN 5 DEGREES)
T = PAVEMENT THICKNESS



DETAIL OF NOSE FOR 32' WIDE MEDIAN ISLAND



NOTES:
1. ALL SAWED JOINTS SHALL BE SAWED WITHIN 4–12 HOURS AFTER TIME OF POUR OR AS SOON AS CONCRETE SAW CAN BE PLACED ON SOUND CONCRETE.
2. SAWED DUMMY JOINTS AT C/L AND LANE WIDTHS. LAYOUT OF JOINTS MUST BE APPROVED BY THE CITY.
3. SEE TYPICAL SECTIONS FOR LOCATION OF LONGITUDINAL JOINTS.
4. ALL SAWED JOINTS SHALL BE SEALED WITHIN 7 DAYS OF SAWING OR IMMEDIATELY FOLLOWING REQUIRED CONCRETE CURING.

SPACING DIAGRAM FOR TRANSVERSE JOINTS

REV.	COMMENTS	BY	DATE

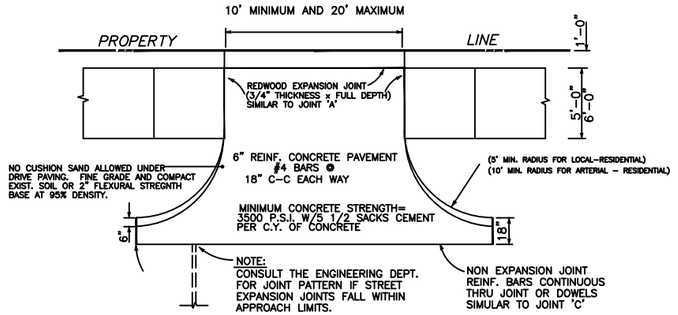
CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
PAVING

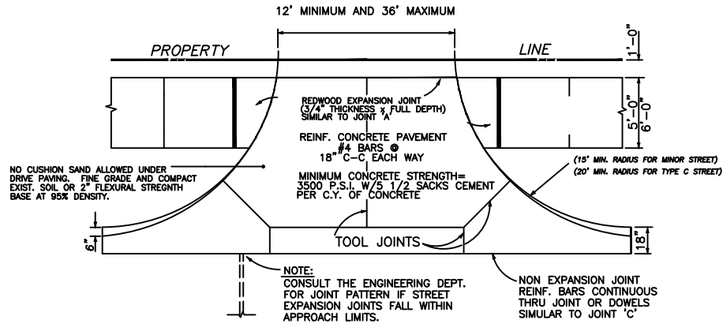
STRAIGHT CROWN STREETS

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–3
CHECKED:			

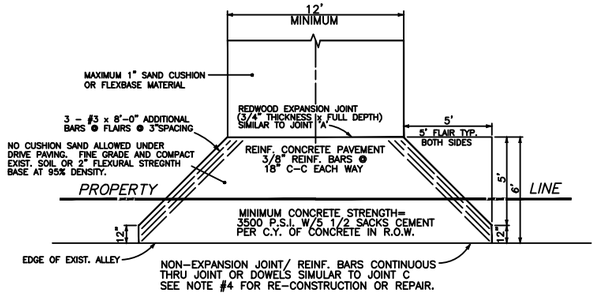
TYPICAL RESIDENTIAL DRIVEWAY



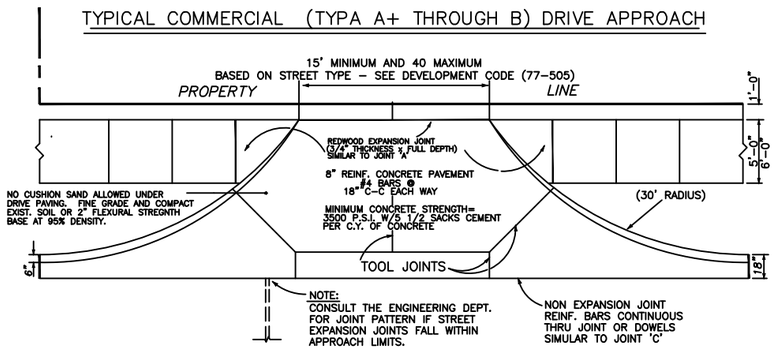
TYPICAL COMMERCIAL (TYPE C AND MINOR) DRIVEWAY



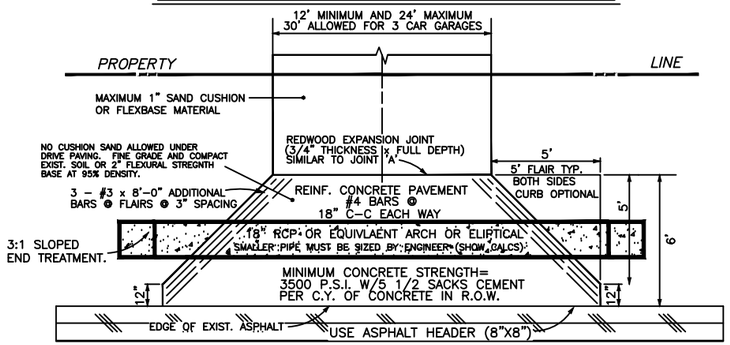
TYPICAL RESIDENTIAL DRIVEWAY APPROACH TO ALLEY



TYPICAL COMMERCIAL (TYPA A+ THROUGH B) DRIVE APPROACH



RESIDENTIAL DRIVE ABUTTING ASPHALT STREET

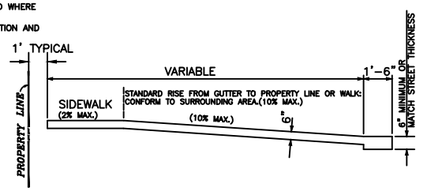


GENERAL DRIVE NOTES:

1. CONCRETE PAVING SHALL NOT BE LESS THAN 3500 P.S.I. IN APPROACH AND OUTSIDE APPROACH.
2. REINFORCE CONCRETE PAVING WITH MINIMUM #4 REINF. BARS @ 18" C-C TRANSVERSE & NOT MORE THAN 18" C-C LONGITUDINAL.
3. 6"MIN.-12"MAX. MONOLITHIC CURB OR NCTCOG 802.2 (SD-2180) SHALL BE INSTALLED WHEN A MAXIMUM VERTICLE RISE IN R.O.W. IS 3:1 SLOPE OR GREATER, OR WHERE NECESSARY OR AS DIRECTED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE.
4. ALLEY RE-CONSTRUCTION OR REPAIR REQUIRES INSTALATION OF REDWOOD EXPANSION JOINT "A" AT EDGE OF ALLEY.
5. DOWELLING SHALL BE INTO FULLY CURED CONCRETE ONLY.
6. TRAFFIC/ EQUIPMENT ACCESS FOR ANY NEW PAVING SHALL BE 14 DAYS OR ON FULLY CURED CONCRETE AS APPROVED BY OWNER UNLESS TYPE III CEMENT IS USED, THEN PAVEMENT MAY OPENED AFTER 4 DAYS.
7. FORMS SHALL REMAIN IN PLACE FOR CURING PER LATEST VERSION NCTCOG.
8. AFTER CURB & GUTTER ABUTTING STREET HAS BEEN SAWCUT AND REMOVED, NO MORE THAN 72 HOURS IS ALLOWED BEFORE DRIVE APPROACH CONCRETE IS PLACED.
9. A BUILDING PERMIT IS REQUIRED FOR DRIVE PAVING OVER 100 SF. A RIGHT-OF-WAY PERMIT IS REQUIRED, AND RIGHT-OF-WAY INSPECTION FOR ANY AREAS IN THE RIGHT-OF-WAY OR EASEMENT.
10. FINAL INSPECTION AND ACCEPTANCE OF THE DRIVE APPROACH BY COR PUBLIC WORKS WILL BE REQUIRED. ANY DEFECTS, INCLUDING CRACKING WILL BE REMOVED AND REPLACED.
11. IF WATER METERS, VALVES, MANHOLES, AND CLEAN-OUTS ARE IN PAVING AREAS THEY SHALL MEET COR ENGINEERING STANDARDS AND FIRE CODE FOR LOAD RATING.

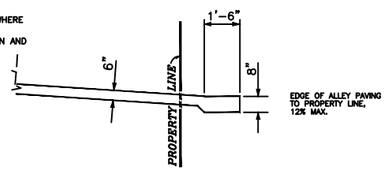
TYPICAL DRIVE SECTION

NOTES: ADA REQUIRMENTS MUST BE SATISFIED WHERE SIDEWALK MEETS DRIVE APPROACH.
DETAILS TO APPLY TO ALL CONSTRUCTION AND RECONSTRUCTION OF ANY DRIVEWAY.

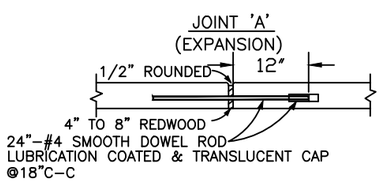


SECTION FOR ALLEY DRIVE APPROACH

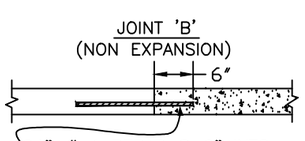
NOTES: ADA REQUIRMENTS MUST BE SATISFIED WHERE SIDEWALK MEETS DRIVE APPROACH.
DETAILS TO APPLY TO ALL CONSTRUCTION AND RECONSTRUCTION OF ANY DRIVEWAY.



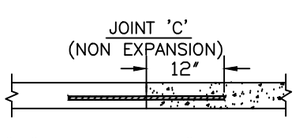
DOWELLING DETAILS



NOTE: FOR ALLEY, WALK, OR DRIVE CONSTRUCTED IN R.O.W. AND/OR HAS VERTICAL OR HORIZONTAL CHANGES USE JOINT 'A'



NOTE: IF NEW WALK OR DRIVE TO BE ADJOINING EXISTING CONCRETE WALK OR DRIVE USE JOINT 'B'.



NOTE: IF NEW DRIVE, FIRE LANE, OR ALLEY IS ADJOINING EXISTING ALLEY, FIRE LANE, OR STREET USE JOINT 'C'.

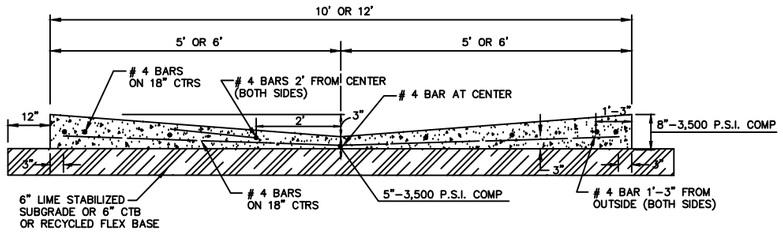
REV.	COMMENTS	BY	DATE

Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
PAVING

DRIVEWAY DETAILS

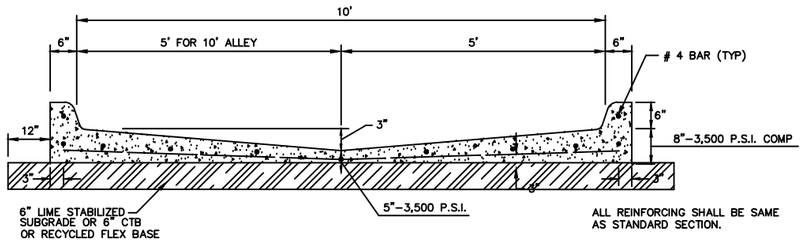
DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-4
CHECKED:			



STANDARD 10' & 12' ALLEY SECTION

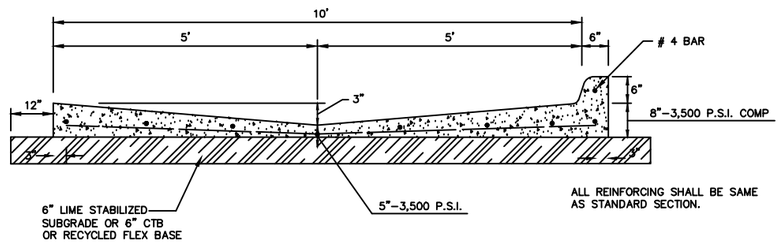
NOTES:

1. ALL NEW CONSTRUCTION SHALL HAVE 12' WIDE ALLEYS IN 20' ROW.
2. CURB SHALL TRANSITION TO ZERO BEFORE SIDEWALK.



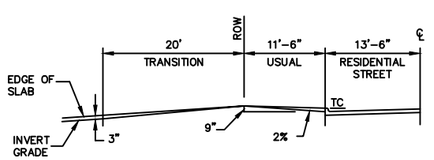
STANDARD ALLEY SECTION WITH CURBS

NOTE: CURBS NOT ALLOWED IN RESIDENTIAL AREAS EXCEPT AS APPROVED BY THE CITY.

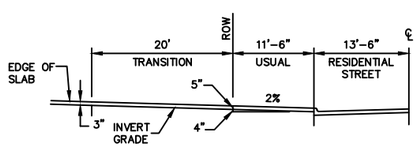


ALTERNATE 10' ALLEY SECTION/CURB

NOTE: CURBS NOT ALLOWED IN RESIDENTIAL AREAS EXCEPT AS APPROVED BY THE CITY.

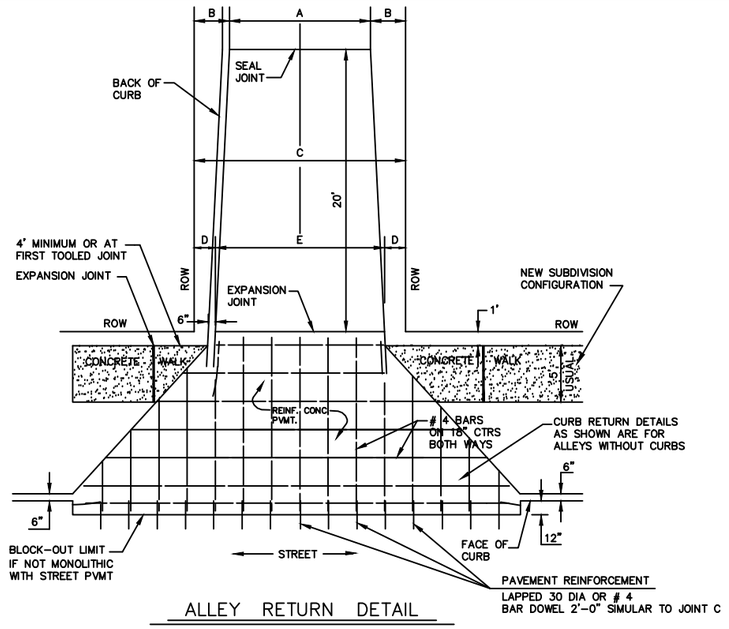


TYPE I ALLEY ENTRANCE

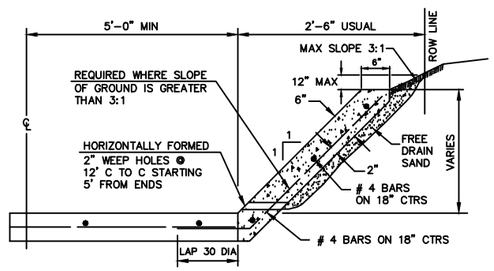


TYPE II ALLEY ENTRANCE

ALLEY WIDTH	A	B	C	D	E
10'	10'	2'-6"	15'	1'-6"	12'
12'	12'	4'-0"	20'	3'-0"	14'



ALLEY RETURN DETAIL



ALLEY SLOPE PROTECTION

GENERAL NOTES FOR ALLEYS AND DRIVEWAYS

1. CONCRETE FOR ALLEY RETURNS AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS IDENTICAL TO THAT SPECIFIED FOR THE STREET PAVEMENT OR BASE WHEN BUILT AS COMPONENTS OF A CONCRETE PAVING PROJECT. WHEN BUILT SEPARATELY, THE STRENGTH SHALL BE AS SPECIFIED ON THE CONSTRUCTION PLANS.
2. CONCRETE FOR ALLEY PAVEMENT SHALL BE OF THE STRENGTH SPECIFIED ON THE CONSTRUCTION PLANS. (3,500 P.S.I. MINIMUM COMPRESSIVE)
3. SPACING AND CONSTRUCTION OF JOINTS SHALL CONFORM TO STREET PAVEMENT DETAILS.
4. FREE DRAINING SAND SHALL MEET THE FOLLOWING GRADATION.

SIEVE SIZE	% PASSING
# 4	90-100
# 16	70-100
# 50	20-70
# 100	5-40
# 200	0-10

GENERAL ALLEY NOTES:

1. CONCRETE PAVING SHALL BE 3500 P.S.I.
2. REINFORCE CONCRETE PAVING WITH MINIMUM #4 REINF. BARS @ 18" C-C TRANSVERSE & NOT MORE THAN 18" C-C LONGITUDINAL.
3. 6"MIN.-12"MAX. MONOLITHIC CURB OR NCTCOG 802.2 (SD-2180) SHALL BE INSTALLED WHEN A MAXIMUM VERTICLE RISE IN R.O.W. IS 3:1 SLOPE OR GREATER, OR WHERE NECESSARY, OR AS DIRECTED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE.
4. ALLEY RE-CONSTRUCTION OR REPAIR REQUIRES INSTALATION OF REDWOOD EXPANSION JOINT "A" AT EDGE OF ALLEY.
5. DOWELLING SHALL BE INTO FULLY CURED CONCRETE ONLY.
6. TRAFFIC/ EQUIPMENT ACCESS FOR ANY NEW PAVING SHALL BE 14 DAYS OR ON FULLY CURED CONCRETE AS APPROVED BY CITY UNLESS TYPE III CEMENT IS USED, THEN PAVEMENT MAY OPEN AFTER 4 DAYS.
7. FORMS SHALL REMAIN IN PLACE FOR CURING PER LATEST VERSION NCTCOG.
8. AFTER CURB & GUTTER ABUTTING STREET HAS BEEN SAWCUT AND REMOVED, NO MORE THAN 72 HOURS IS ALLOWED BEFORE DRIVE APPROACH CONCRETE IS PLACED.
9. IF WATER METERS, VALVES, MANHOLES, AND CLEAN-OUTS ARE IN PAVING AREAS THEY SHALL MEET COR ENGINEERING STANDARDS AND FIRE CODE FOR LOAD RATING.
10. ALLEY PAVING SHALL MEET STREET REQUIRMENTS FOR SD-1 AND SD-2.

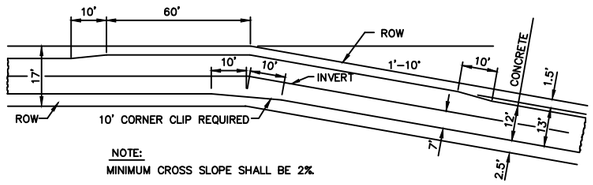
REV.	COMMENTS	BY	DATE

Rowlett TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
PAVING

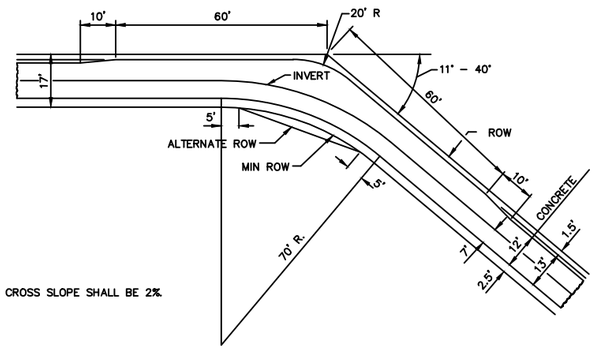
ALLEY SECTIONS & RETURNS

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-5
CHECKED:			



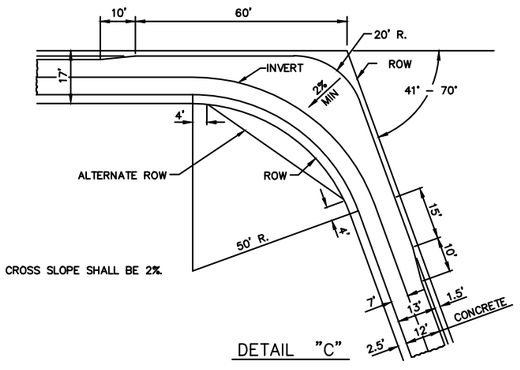
NOTE:
MINIMUM CROSS SLOPE SHALL BE 2%.

DETAIL "A"



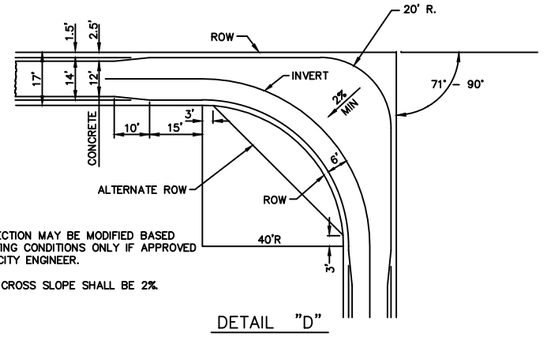
NOTE:
MINIMUM CROSS SLOPE SHALL BE 2%.

DETAIL "B"



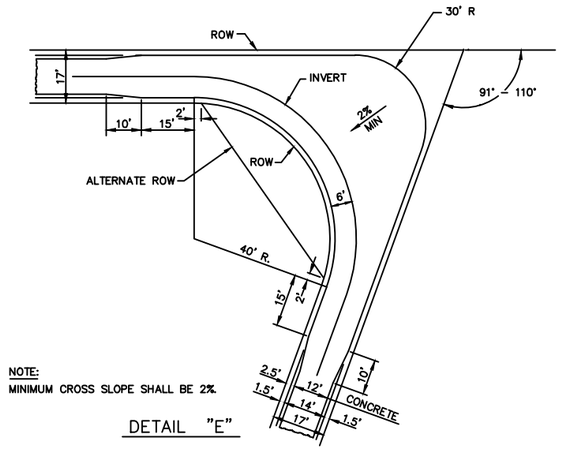
NOTE:
MINIMUM CROSS SLOPE SHALL BE 2%.

DETAIL "C"



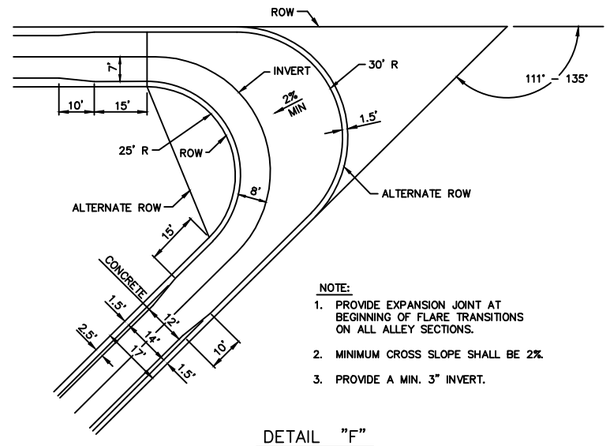
NOTES:
1. ALLEY SECTION MAY BE MODIFIED BASED ON EXISTING CONDITIONS ONLY IF APPROVED BY THE CITY ENGINEER.
2. MINIMUM CROSS SLOPE SHALL BE 2%.

DETAIL "D"



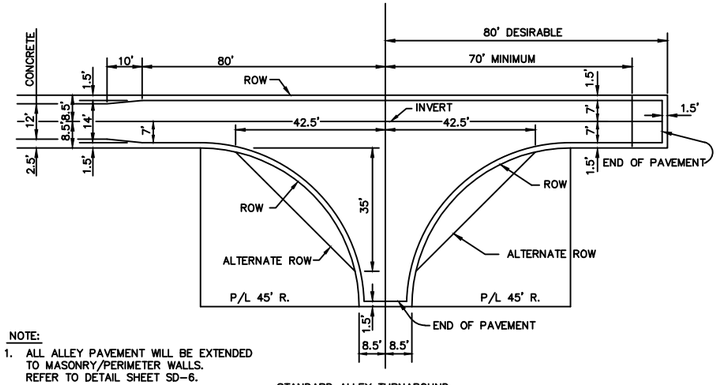
NOTE:
MINIMUM CROSS SLOPE SHALL BE 2%.

DETAIL "E"



NOTE:
1. PROVIDE EXPANSION JOINT AT BEGINNING OF FLARE TRANSITIONS ON ALL ALLEY SECTIONS.
2. MINIMUM CROSS SLOPE SHALL BE 2%.
3. PROVIDE A MIN. 3" INVERT.

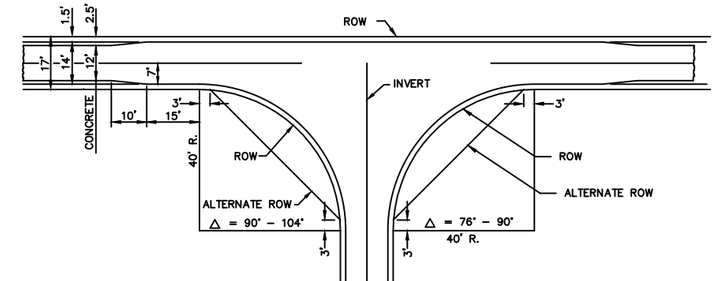
DETAIL "F"



NOTE:
1. ALL ALLEY PAVEMENT WILL BE EXTENDED TO MASONRY/PERIMETER WALLS. REFER TO DETAIL SHEET SD-6.
2. MINIMUM CROSS SLOPE SHALL BE 2%.

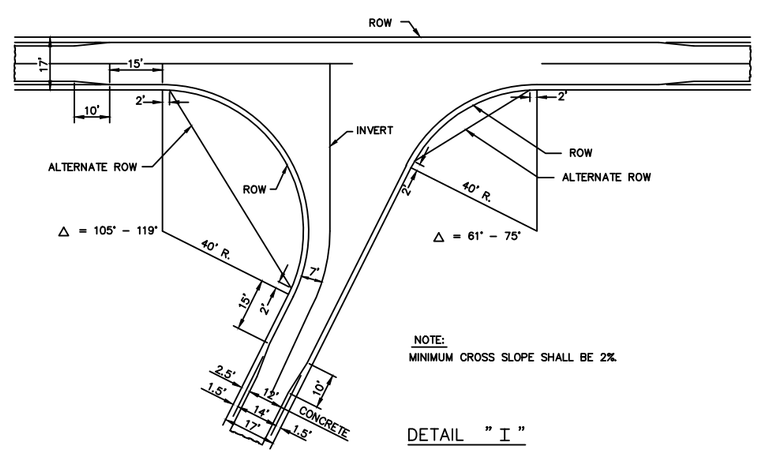
STANDARD ALLEY TURNAROUND FOR GARBAGE TRUCKS

DETAIL "G"



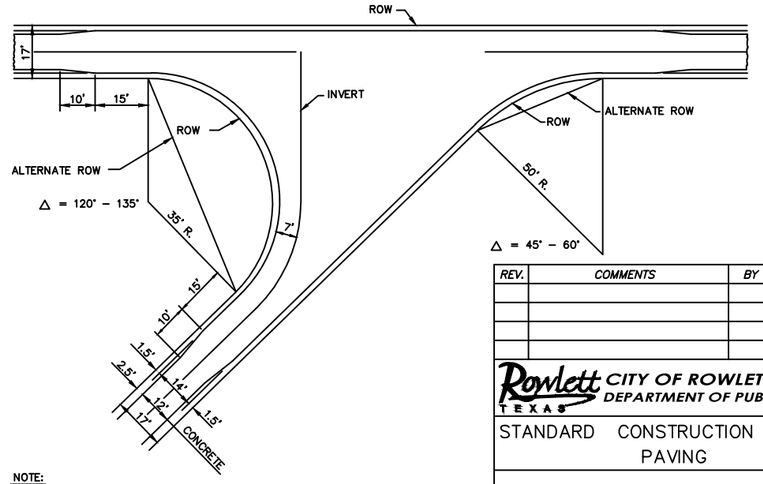
NOTE:
MINIMUM CROSS SLOPE SHALL BE 2%.

DETAIL "H"



NOTE:
MINIMUM CROSS SLOPE SHALL BE 2%.

DETAIL "I"



NOTE:
MINIMUM CROSS SLOPE SHALL BE 2%.

DETAIL "J"

REV.	COMMENTS	BY	DATE

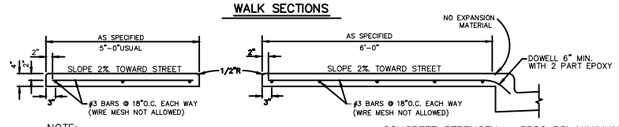
Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
PAVING

ALLEY
PAVING AND RIGHT-OF-WAY DETAILS

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-6
CHECKED:			

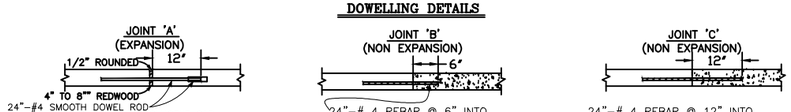
WALK SECTIONS



NOTE:
SIDEWALK SHALL BE PLACED ON WELL COMPACTED 1" FLEXBASE MATERIAL.

- CONCRETE STRENGTH = 3500 PSI, MINIMUM 5 SACKS OF CEMENT PER CUBIC YARD
- CONTRACTOR SHALL USE WHITE PIGMENTED CURING COMPOUND

DOWELLING DETAILS



NOTE: FOR ALLEY, WALK, OR DRIVE CONSTRUCTED IN R.O.W. AND/OR HAS VERTICAL OR HORIZONTAL CHANGES USE JOINT 'A'

24"-# 4 REBAR @ 6" INTO EXISTING CONCRETE SLAB USING 2-PART EPOXY.

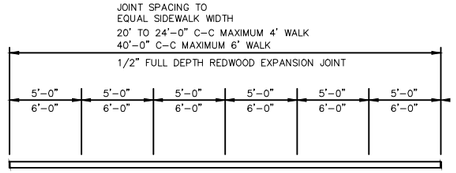
NOTE: IF NEW WALK OR DRIVE TO BE ADJOINING EXISTING CONCRETE WALK OR DRIVE USE JOINT 'B'.

24"-# 4 REBAR @ 12" INTO EXISTING CONCRETE SLAB USING 2-PART EPOXY.

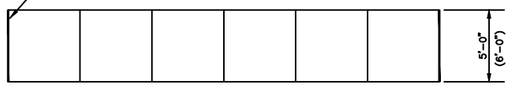
NOTE: IF NEW DRIVE, FIRE LANE, OR ALLEY IS ADJOINING EXISTING ALLEY, FIRE LANE, OR STREET USE JOINT 'C'.

CONCRETE SIDEWALKS

SIDE ELEVATION



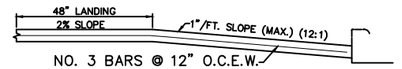
TOP ELEVATION



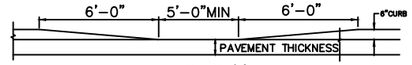
SIDEWALK NOTES

1. A MINIMUM 36" CLEARANCE WIDTH IS REQUIRED FOR ALL WALKS.
2. RUNNING SLOPE SHALL NOT EXCEED 1:12 OR THE LEAST POSSIBLE SLOPE AS DIRECTED BY THE CITY.
3. CROSS SLOPE SHALL NOT EXCEED 2%.
4. SIDEWALKS LESS THAN 5 FEET WIDE IN CONTINUOUS WIDTH SHALL PROVIDE PASSING SPACE AT INTERVALS NOT TO EXCEED 200 L.F.; PASSING SPACE SHALL CONSIST OF A 60"x60" MINIMUM CLEAR SPACE OR AT THE INTERSECTION OF ANOTHER SIDEWALK, LEADWALK, ALLEY OR OTHER PAVED AREA WITH A MINIMUM 36" WIDTH.
5. PROTRUDING OBJECTS SHALL NOT EXCEED 4" VERTICALLY INTO ANY SIDEWALK WIDTH AND SHALL NOT REDUCE THE CLEARANCE WIDTH LESS THAN 36".
6. SIDEWALKS SHALL NOT BE LOCATED OVER GRATINGS HAVING AN OPENING GREATER THAN 1/2" IN ANY DIRECTION.
7. SIDEWALKS SHALL NOT HAVE ANY OBSTRUCTIONS IN THE PATHWAY GREATER THAN 1/8".
8. RECESS REDWOODS 1/4" MINIMUM TO ELIMINATE PROTRUTIONS ABOVE CONCRETE.

CURB RAMPS



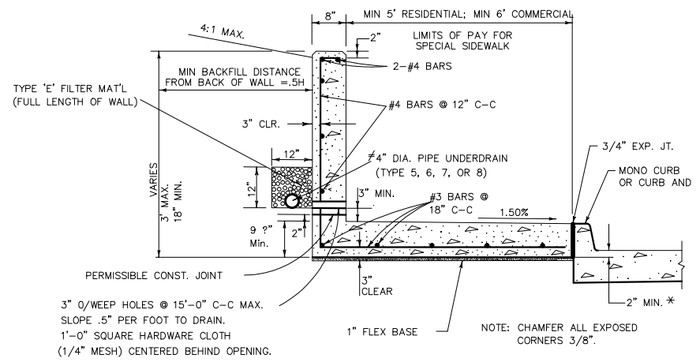
SECTION "C"
NOT TO SCALE



SECTION 'A'
NOT TO SCALE

CURB RAMP NOTES:

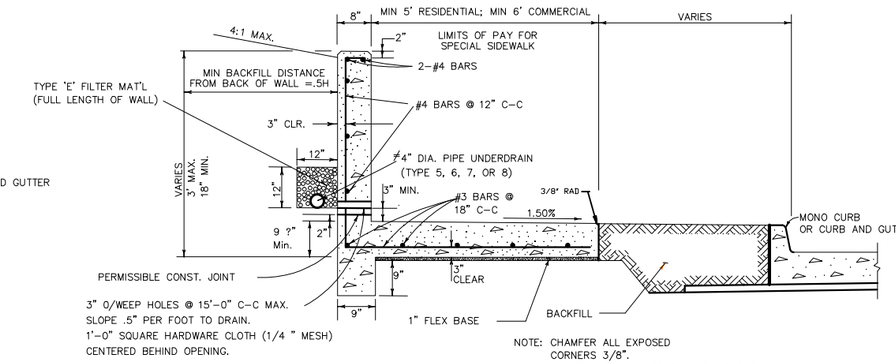
1. RAMP DETAILS SHALL COMPLY WITH TXDOT PED-05 STANDARD DRAWINGS
2. RAMPS SHALL BE PROVIDED AT ALL CORNERS OF STREET INTERSECTIONS OR WHERE THERE IS PROPOSED SIDEWALK & CURB. RAMPS MAY ALS BE PLACED AS SHOWN ON THE PLA OR AS DIRECTED BY THE ENGINEER.
3. A MIN. 48" LANDING SHALL BE PROV AT THE TOP OF CURB RAMPS WITH A MAXIMUM SLOPE 2% IN ALL DIRECTIONS.
4. CURB RAMPS SHALL BE LOCATED ENTIRELY WITHIN ANY CROSSWALK MARKINGS.



≠SLOPE TO DRAIN AND CONNECT TO STORM DRAIN. IF, IN THE OPINION OF THE ENGINEER, USE OF UNDERDRAIN IS IMPRACTIAL, WEEP HOLES MAY BE USED.

*2" MIN. REQUIRED FOR LATERAL SUPPORT.

SIDEWALK ADJACENT TO CURB



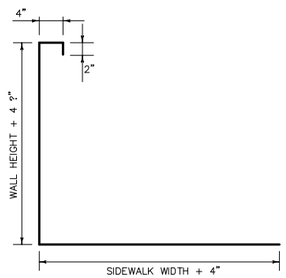
≠SLOPE TO DRAIN AND CONNECT TO STORM DRAIN. IF, IN THE OPINION OF THE ENGINEER, USE OF UNDERDRAIN IS IMPRACTIAL, WEEP HOLES MAY BE USED.

NOTE: CHAMFER ALL EXPOSED CORNERS 3/8".
PLACE CURB AND COMPACT PAVEMENT BACKFILL BEFORE BACKFILLING BEHIND WALL

SIDEWALK REMOTE FROM CURB

SPECIAL CONCRETE SIDEWALK w/ RETAINING WALL

1. Minimum compressive design strength of the concrete shall be 4,000psi at 28 days, 6 sack minimum cement content.
2. Minimum grade of reinforcing steel is to be ASTM A615 grade 60.
3. All distances to reinforcing steel refer to clear concrete cover over reeinforcing steel unless otherwise noted.
4. Minimum reinforcing steel lap is to be (30) bar diameters.
5. Maximum spacing of expansion joints shall be 120-feet. An expansion joint shall be placed at each property line and paving redwoods. Expansion joints shall be continuous through wall and associated walk.
6. All exposed edges shall have a 3/4 inch chamfer.
7. Sidewalk shown is minimum width. Consult paving plans for clear sidewalk width.



REINFORCING STEEL DETAIL

Pedestrian Facilities General Notes

1. All slopes are maximum allowable. The least possible slope that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
2. A minimum 5' sidewalk width is required. When a sidewalk abuts the back of curb, a 5' sidewalk width is required if site conditions allow. Where a 5' sidewalk can not be provided due to site constraints, a minimum 3' sidewalk will be allowed for minimal distances with City approval. 5'x 5' passing areas at intervals not to exceed 200' are required for all sidewalks under 5'..
3. Landings shall be 5'x 5' minimum with a maximum 2% slope in any direction.
4. Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
5. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
6. Curb ramps with returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planting or other non-walking surface or because the side approach is substantially obstructed. Otherwise, provide flared sides.
7. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
8. To serve as a pedestrian refuge area, the median should be a minimum of 5' wide. Medians should be designed to provide accessible passage over or through them.
9. Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
10. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall be aligned with theoretical crosswalks, or as directed by the Engineer.
11. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.
12. Handrails are not required on curb ramps; however, handrails should be installed when ramp is perpendicular to a drop off or slope greater than 4:1.
13. Provide curb ramps wherever an accessible route crosses (penetrates) a curb.
14. Separate curb ramp and landings from adjacent sidewalk and any other elements with premold or board joint of 3/4" unless otherwise directed by the Engineer.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Flare slope shall not exceed 10% measured along curb line.

REV.	COMMENTS	BY	DATE

Rowlett TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
CONCRETE SIDEWALKS

CURB RAMP &
DOWELLING DETAILS

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-7
CHECKED:			

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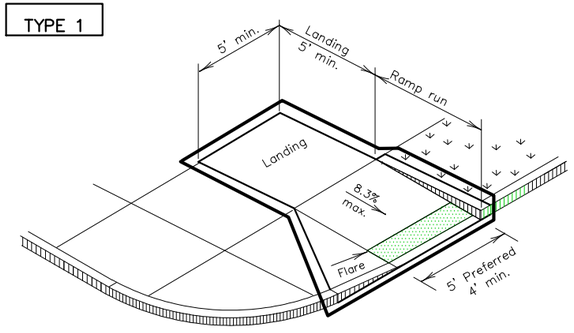
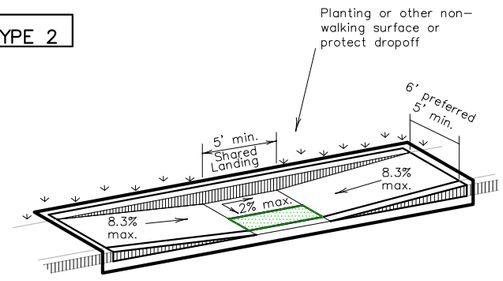
TYPE 1



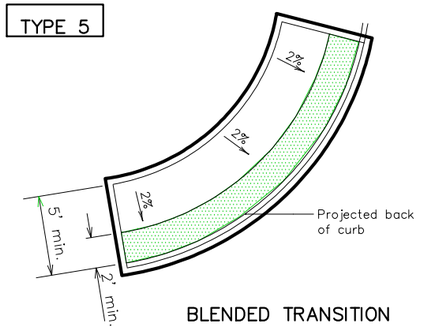
PERPENDICULAR CURB RAMP

TYPE 2



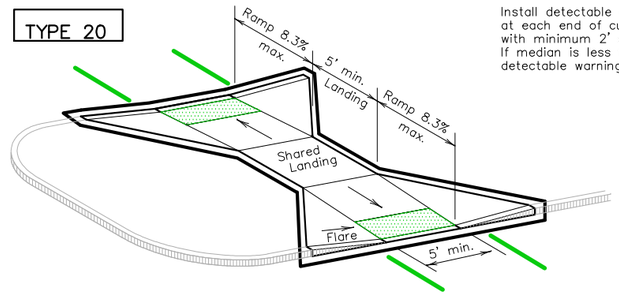
PARALLEL CURB RAMP
(Use only where water will not pond in the landing.)

TYPE 5



BLENDED TRANSITION

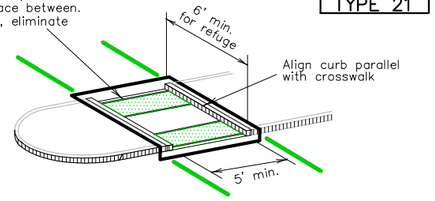
TYPE 20



Install detectable warning surface at each end of cut–through ramp with minimum 2' smooth surface between. If median is less than 6' wide, eliminate detectable warning surfaces.

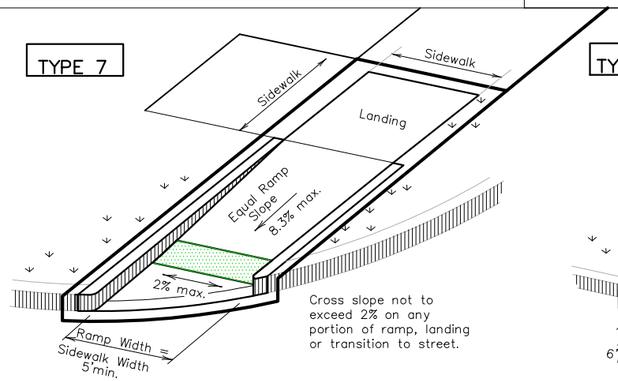
CURB RAMPS AT MEDIAN ISLANDS

TYPE 21



Curb details are shown elsewhere in the plans.

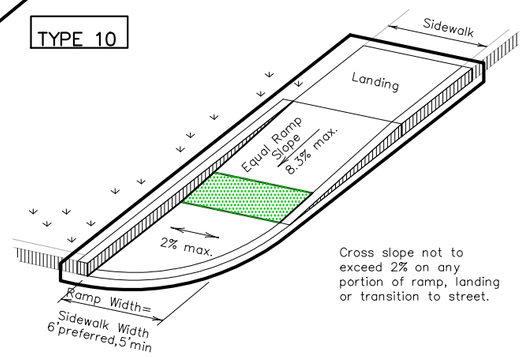
TYPE 7



Cross slope not to exceed 2% on any portion of ramp, landing or transition to street.

(Sidewalk set back from curb)

TYPE 10

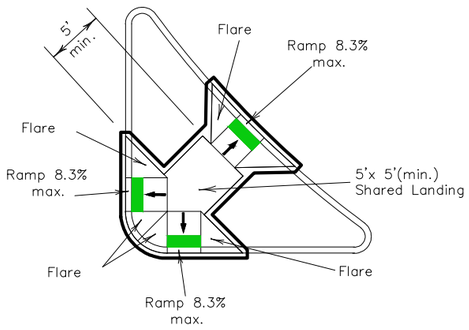


Cross slope not to exceed 2% on any portion of ramp, landing or transition to street.

(Sidewalk adjacent to curb)

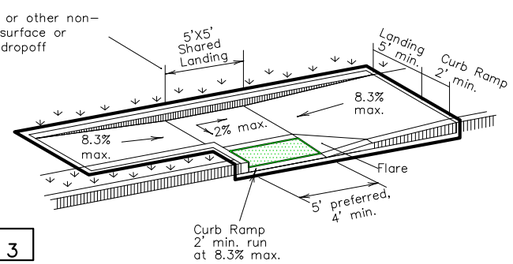
DIRECTIONAL RAMPS WITHIN RADIUS

TYPE 22

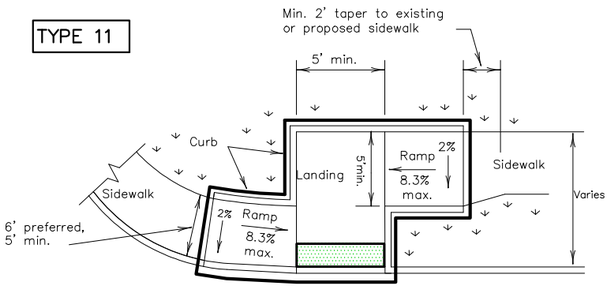


COMBINATION ISLAND RAMPS

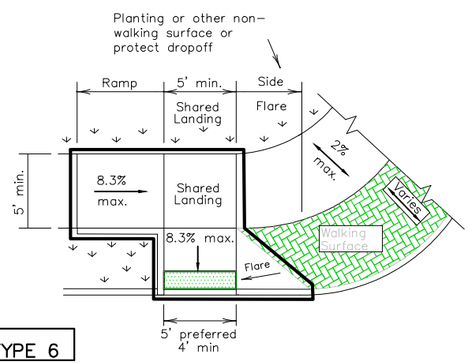
TYPE 3



TYPE 11



OFFSET PARALLEL CURB RAMP



TYPE 6

COMBINATION CURB RAMPS

NOTES / LEGEND:

See General Notes on sheet 2 of 4 for more information.

Denotes planting or non–walking surface not part of pedestrian circulation path.

Ramp Limits of Payment

Detectable Warning Surface

SHEET 1 OF 4

PEDESTRIAN FACILITIES CURB RAMPS

PED–12A

FILE: ped12a.dgn	DN: TxDOT	CK: RM	DW: TxDOT	CK: VP	
©TxDOT March 2002	CONT	SECT	JOB	HIGHWAY	
REVISIONS					
VP June 13, 2012	DIST	COUNTY		SHEET NO.	
10/2013 Type 7 edited by COR					

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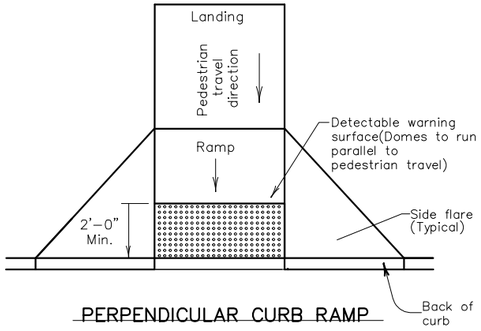
General Notes

Curb Ramps

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5'x 5' passing areas at intervals not to exceed 200' are required.
4. Landings shall be 5'x 5' minimum with a maximum 2% slope in any direction.
5. Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Handrails are not required on curb ramps. Provide curb ramps wherever on accessible route crosses (penetrates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

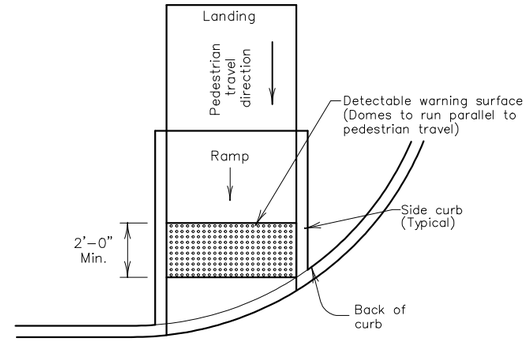
Detectable Warning Material

18. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
19. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
22. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.



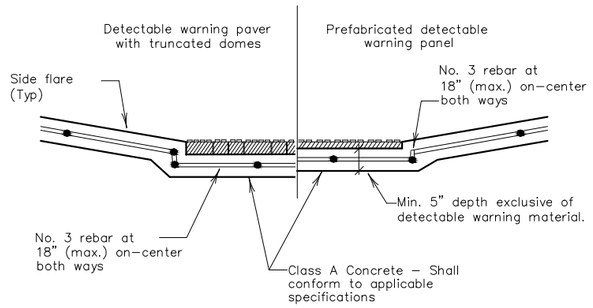
PERPENDICULAR CURB RAMP

Typical placement of detectable warning surface on sloping ramp run.

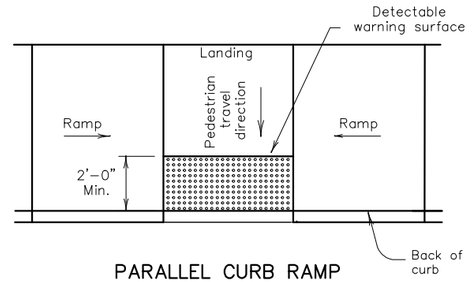


DIRECTIONAL CURB RAMP

Typical placement of detectable warning surface on sloping ramp run.



SECTION: CURB RAMP AT DETECTABLE WARNING



PARALLEL CURB RAMP

Typical placement of detectable warning surface on landing at street edge.

DETECTABLE WARNINGS

Detectable Warning Pavers

24. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

Sidewalks

26. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
28. Street grades and cross slopes shall be as shown elsewhere in the plans.
29. Changes in level greater than 1/4 inch are not permitted.
30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
33. Sidewalk details are shown elsewhere in the plans.

Texas Department of Transportation

Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: RM	DW: TxDOT	CK: VP
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REVISIONS				
VP June 13, 2012	DIST	COUNTY		SHEET NO.

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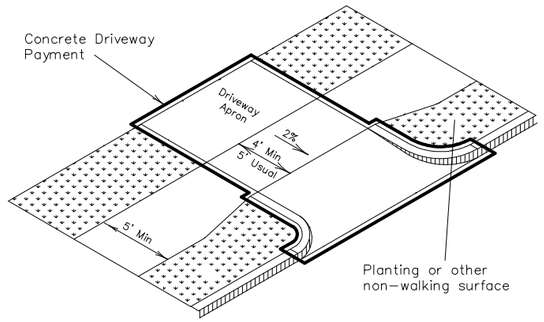
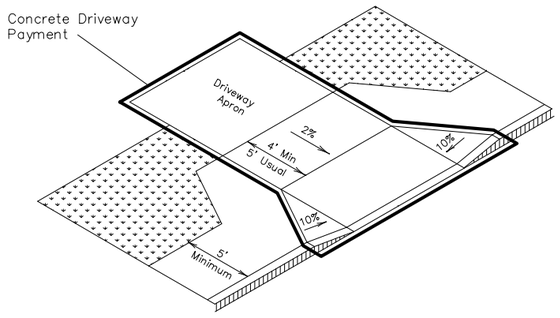
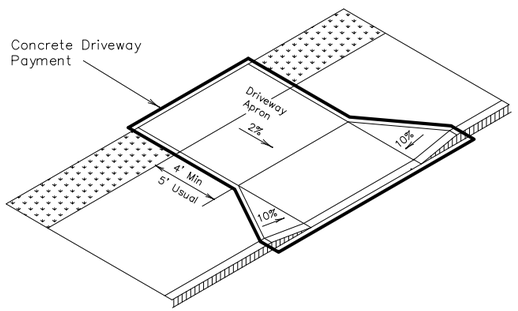


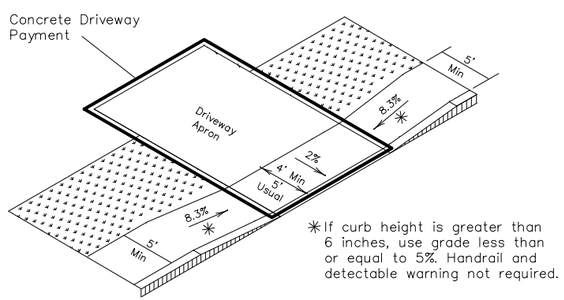
Setback sidewalk



Apron offset sidewalk



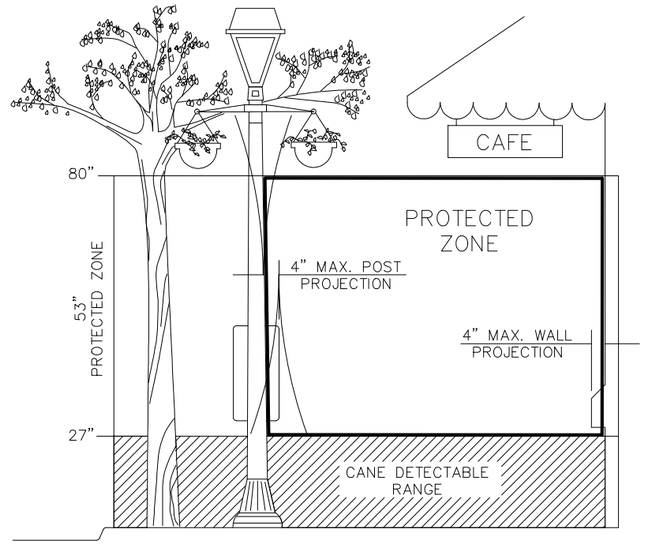
Wide sidewalk



*If curb height is greater than 6 inches, use grade less than or equal to 5%. Handrail and detectable warning not required.

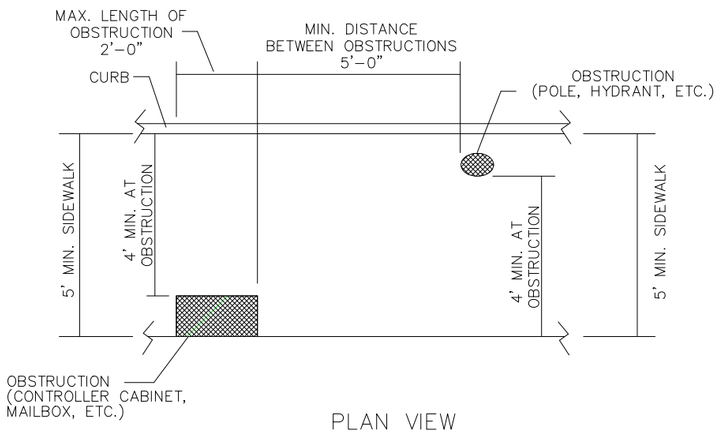
Ramp sidewalk

SIDEWALK TREATMENT AT DRIVEWAYS



PROTECTED ZONE

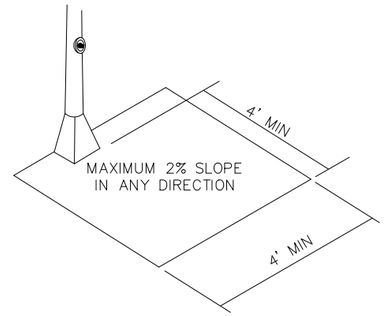
In pedestrian circulation area, maximum 4" projection for post or wall mounted objects between 27"and 80" above the surface.



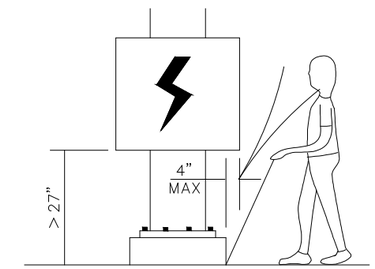
PLAN VIEW

PLACEMENT OF STREET FIXTURES

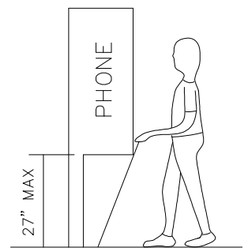
(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' x 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)



CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



When an obstruction of a height greater than 27" from the surface would create a protrusion of more than 4" into the pedestrian circulation area, construct additional curb or foundation at the bottom to provide a maximum 4" overhang.



Protruding objects of a height ≤27" are detectable by cane and do not require additional treatment.

DETECTION BARRIER FOR VERTICAL CLEARANCE <80"

Texas Department of Transportation

Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: RM	DW: TxDOT	CK: VP
©TxDOT March 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
VP June 13, 2012	DIST	COUNTY		SHEET NO.

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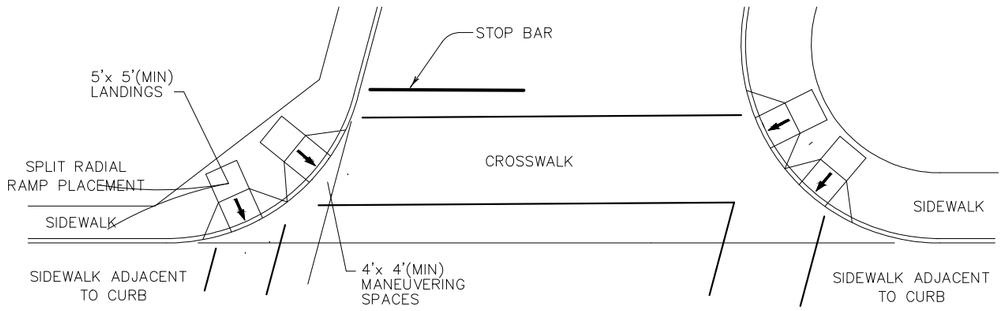
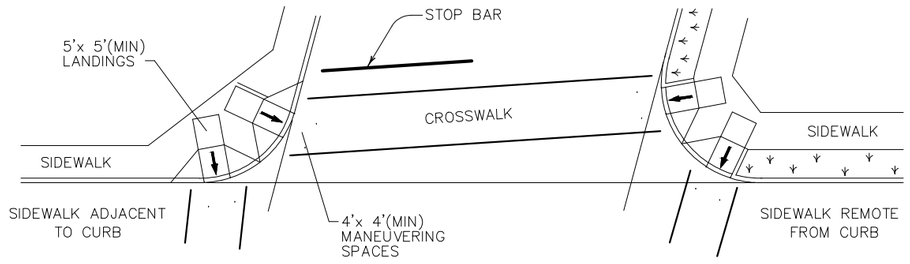
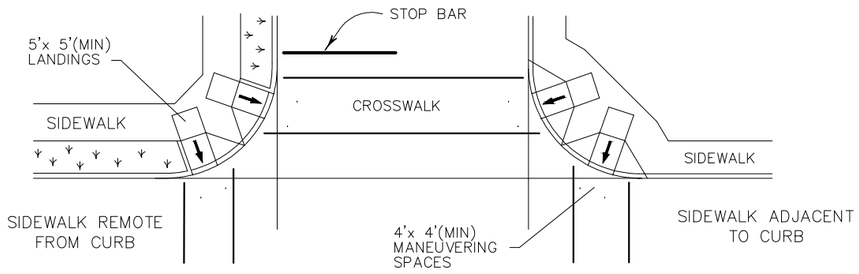


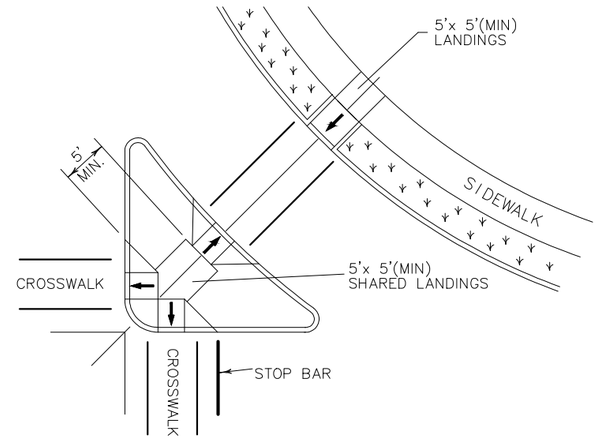
SKEWED INTERSECTION WITH "LARGE" RADIUS



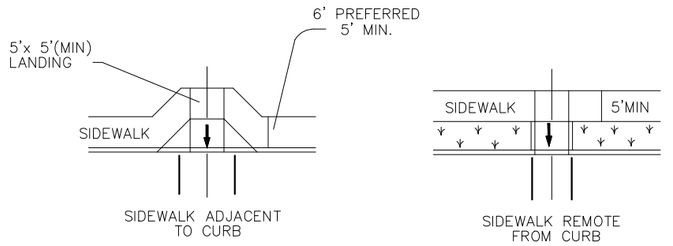
SKEWED INTERSECTION WITH "SMALL" RADIUS



NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT
PERPENDICULAR RAMPS

TYPICAL CROSSING LAYOUTS

SHEET 4 OF 4

Texas Department of Transportation | Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: RM	DW: TxDOT	CK: VP			
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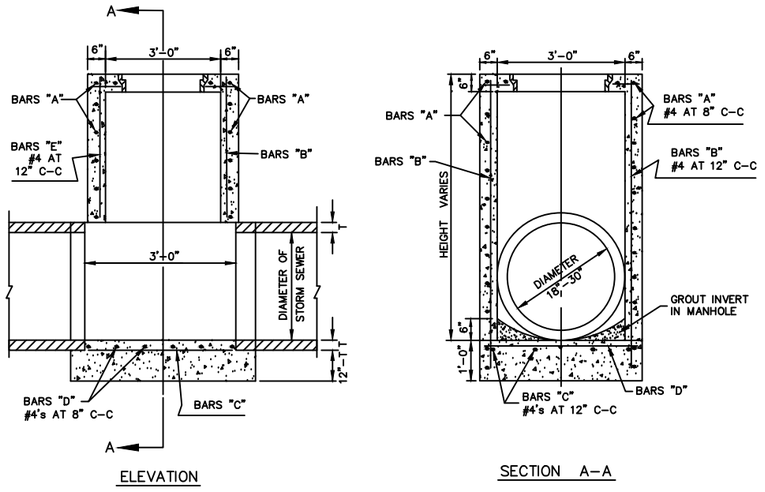
REVISIONS							
VP June 13, 2012	DIST	COUNTY		SHEET NO.			

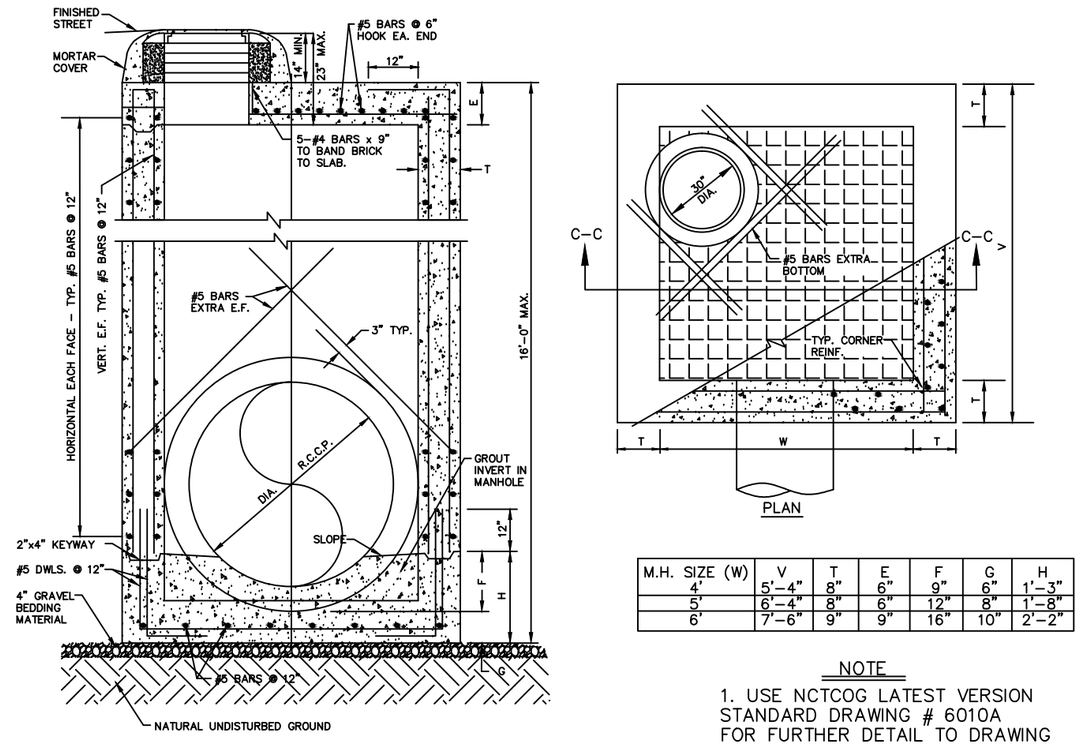


TYPE A STORM SEWER MANHOLE

(FOR PIPE 18" TO 30" IN DIAMETER)

NOTES:

1. STORM SEWER MANHOLES FOR 18" & 24" DIAMETER STORM SEWERS MAY BE CIRCULAR WITH A MINIMUM DIAMETER OF 4' OR 3' SQUARE AS SHOWN.
2. ALL CONCRETE SHALL BE 6-SACK, 4000 PSI MIN.



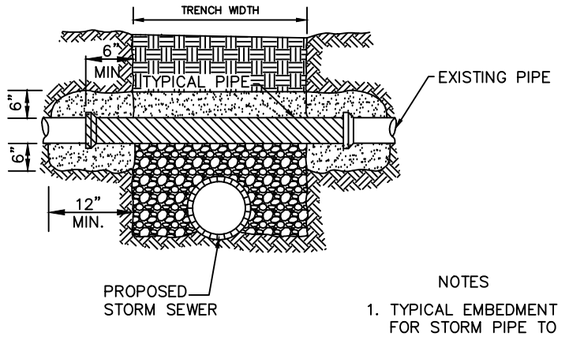
M.H. SIZE (W)	V	T	E	F	G	H
4'	5'-4"	8"	6"	9"	6"	1'-3"
5'	6'-4"	8"	6"	12"	8"	1'-8"
6'	7'-6"	9"	9"	16"	10"	2'-2"

NOTE

1. USE NCTCOG LATEST VERSION STANDARD DRAWING # 6010A FOR FURTHER DETAIL TO DRAWING

TYPE B STORM SEWER MANHOLE

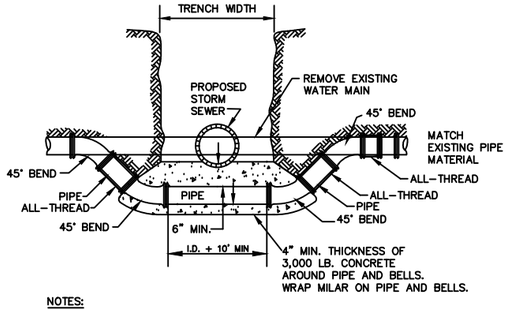
(FOR PIPE 33" TO 78" IN DIAMETER)



NOTES

1. TYPICAL EMBEDMENT FOR STORM PIPE TO BOTTOM TYPICAL PIPE, THEN TYPICAL EMBEDMENT FOR CROSSING PIPE.

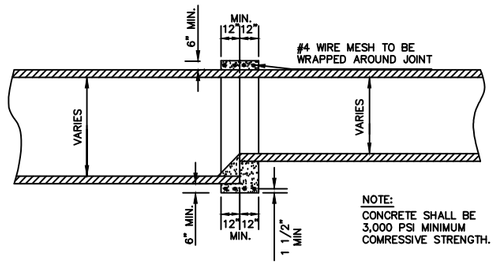
DETAIL OF UTILITY SUPPORT



NOTES:

1. MEGA-LUG RETAINER GLANDS SHALL BE INSTALLED ON ALL FITTINGS.
2. CONCRETE TRUST BLOCKS SHALL BE CONSTRUCTED ON ALL BENDS.
3. STAINLESS STEEL ALL-THREADS SHALL BE INSTALLED AT VERTICAL 45 BENDS AND VERTICAL PIPE CONNECTIONS.
4. MINUMUM 5 FEET C-900 OR USE ANCHOR NIPPLE WITH NO ALL-THREAD.
5. CLEARANCE SHALL COMPLY WITH TCEQ.

DETAIL FOR WATER MAIN LOWERING



NOTE:

1. CONCRETE COLLAR SHALL BE USED TO CONNECT TO EXISTING PIPES ONLY. ALL OTHER CONNECTIONS SHALL BE PRE-FAB.
2. ALL PIPE GAPS SHALL BE WRAPPED WITH STEEL MESH THEN GROUT ALL PIPE CONNECTION POINTS EVENLY.

DETAIL OF CONCRETE COLLAR FOR PIPE CONNECTIONS

NOTES:

1. CONCRETE COLLAR SHALL BE USED TO CONNECT TO EXISTING PIPES ONLY. ALL OTHER CONNECTIONS SHALL BE PRE-FAB.
2. CONCRETE COLLAR SHALL BE 3000 PSI COMPRESSIVE STRENGTH OR GREATER.
3. ALL STORMWATER STRUCTURES SHALL BE MINIMUM 6 SACK-4000 PSI COMPRESSIVE STRENGTH.
4. STORMWATER STRUCTURES NOT SHOWN SHALL BE CONSTRUCTED PER LATEST VERSION NCTCOG PUBLIC WORKS CONSTRUCTION STANDARDS OR LATEST TXDOT AS APPROVED BY CITY ENGINEER.
5. TESTING WILL BE REQUIRED ON ALL CAST-IN-PLACE STRUCTURES

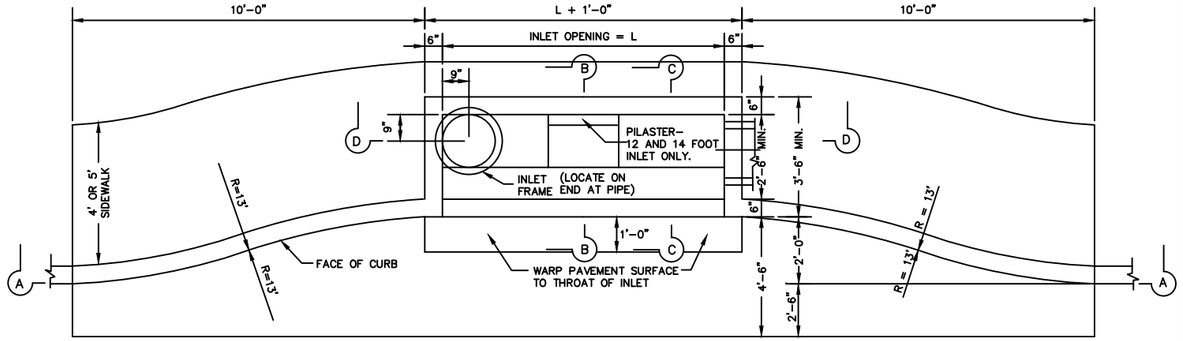
REV.	COMMENTS	BY	DATE

Rowlett TEXAS — CITY OF ROWLETT, TEXAS — DEPARTMENT OF PUBLIC WORKS

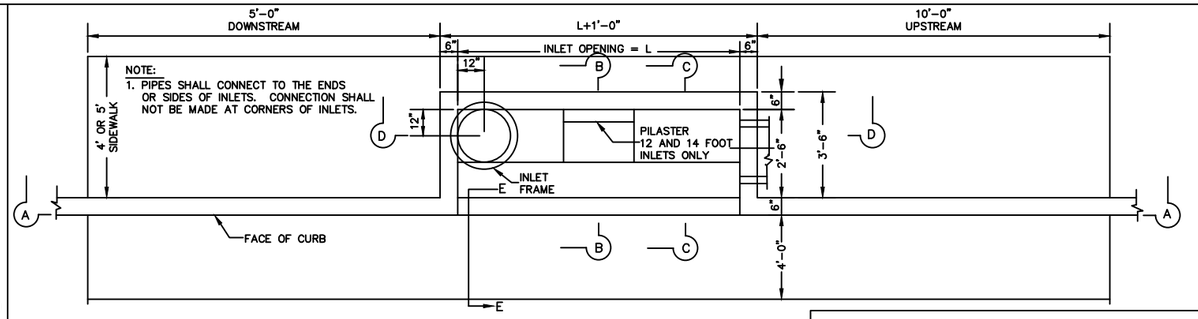
STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE

TYPICAL STORM MANHOLES
UTILITY SUPPORT
WATER MAIN LOWERING
CONCRETE COLLAR

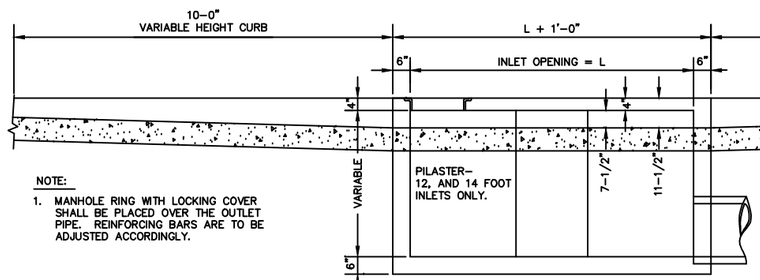
DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-8
CHECKED:			



PLAN – RECESSED INLET

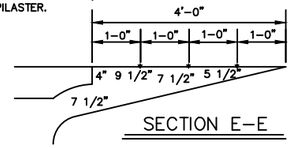


PLAN – STANDARD INLET

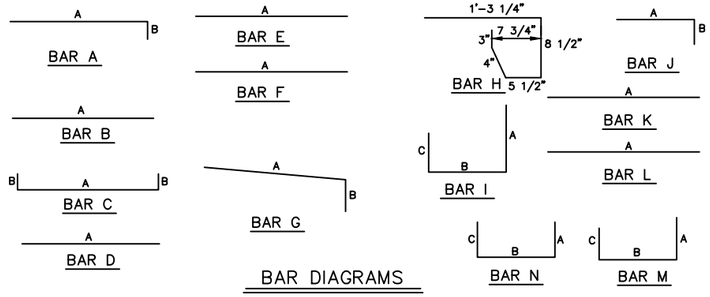


SECTION A–A RECESSED AND STANDARD INLETS

10, 12, AND 14 FOOT INLETS



SECTION E–E



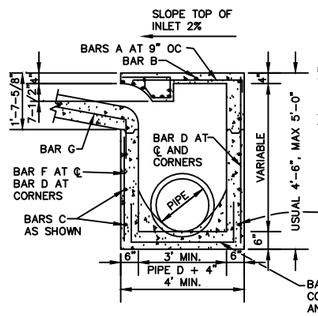
BAR DIAGRAMS

REINFORCING STEEL SCHEDULE

DIMENSIONS SHOWN ARE FOR MAXIMUM SIZE INLETS

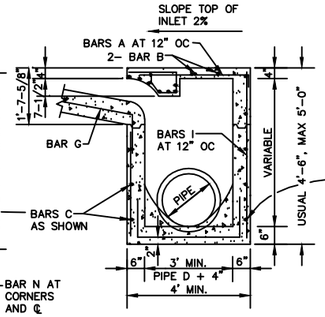
INLET LENGTH	BAR TYPE	BAR DIA. (1/8IN.)	NO. REQ'D	BAR DIMENSIONS A	B	C
4	A	3	6	3'-2"	0'-3"	–
	B	3	1	2'-10"	–	–
	C	4	15	4'-8"	0'-6"	–
	D	4	5	4'-8"	–	–
	F	4	1	3'-2"	–	–
	G	3	5	2'-0"	1'-3"	–
	H	3	3	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
6	A	3	9	3'-2"	0'-3"	–
	B	3	1	4'-10"	–	–
	C	4	15	6'-8"	0'-6"	–
	D	4	5	4'-8"	–	–
	F	4	1	3'-2"	–	–
	G	3	5	2'-0"	1'-3"	–
	H	3	3	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
8	A	3	12	3'-2"	0'-3"	–
	B	3	1	6'-10"	–	–
	C	4	15	8'-8"	0'-6"	–
	D	4	5	4'-8"	–	–
	F	4	1	3'-2"	–	–
	G	3	5	2'-0"	1'-3"	–
	H	3	4	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
10	A	3	10	3'-2"	0'-3"	–
	B	3	2	8'-10"	–	–
	C	4	16	10'-8"	0'-6"	–
	D	4	4	4'-8"	–	–
	E	5	6	10'-8"	–	–
	G	3	5	2'-0"	1'-3"	–
	H	3	15	*	*	*
	I	4	8	4'-8"	3'-2"	3'-2"
	L	4	5	4'-3"	–	–
12	A	3	12	3'-2"	0'-3"	–
	B	3	12	10'-10"	–	–
	C	4	16	12'-8"	0'-6"	–
	D	4	4	4'-8"	–	–
	E	5	6	12'-8"	–	–
	G	3	5	2'-0"	1'-3"	–
	H	3	18	*	*	*
	I	4	10	4'-8"	3'-2"	3'-2"
	J	5	9	3'-2"	1'-3"	–
	K	4	5	2'-3"	–	–
	L	4	5	4'-3"	–	–
	M	5	9	4'-3"	3'-2"	3'-9"
14	A	3	14	3'-2"	0'-3"	–
	B	3	2	10'-10"	–	–
	C	4	16	14'-8"	0'-6"	–
	D	4	4	4'-8"	–	–
	E	5	6	14'-8"	–	–
	G	3	5	2'-0"	1'-3"	–
	H	3	21	*	*	*
	I	4	12	4'-8"	3'-2"	3'-2"
	J	5	9	3'-2"	1'-3"	–
	K	4	5	2'-3"	–	–
	L	4	5	4'-3"	–	–
	M	5	9	4'-3"	3'-2"	3'-9"

* SEE DIAGRAM FOR DIMENSIONS

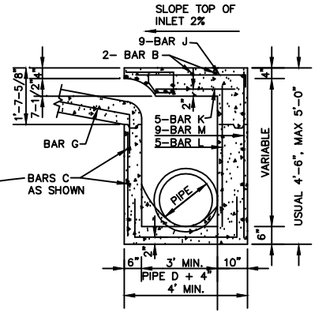


SECTION B–B

10 FOOT INLETS

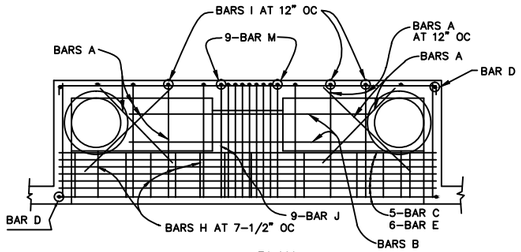


SECTION C–C



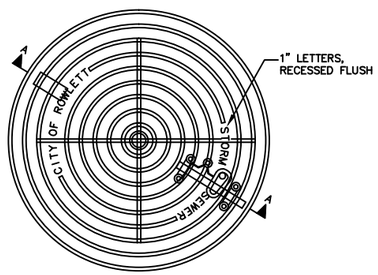
SECTION B–B

12 AND 14 FOOT INLETS ONLY

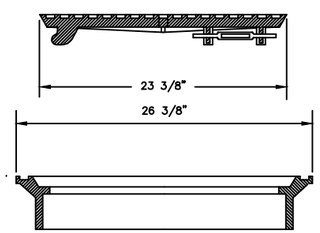


PLAN

12 AND 14 FOOT INLETS ONLY



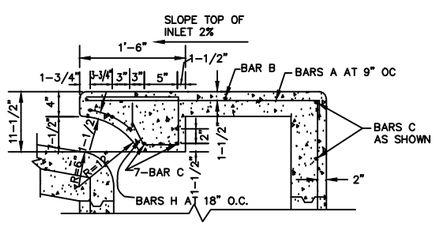
PLAN OF FRAME



SECTION OF FRAME AND COVER

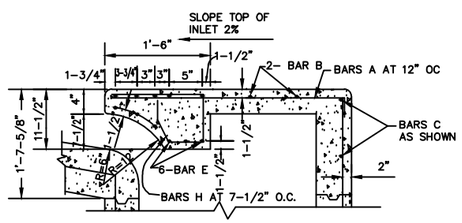
BASS & HAYS 224L OR EQUAL

INLET FRAME AND COVER



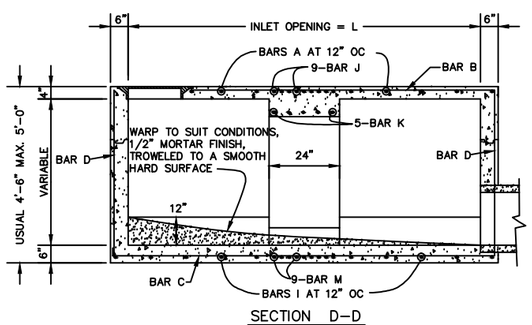
SECTION C–C

10 FOOT INLETS



SECTION C–C

12 AND 14 FOOT INLETS ONLY



SECTION D–D

12 AND 14 FOOT INLETS ONLY

NOTES:
1. MARK SIDE OF INLET BOX WITH "X" WHERE PIPE EXITS THE BOX.
2. ALL CONCRETE SHALL BE MINIMUM OF 6–SACK

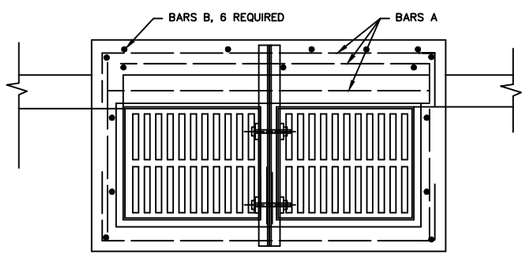
REV.	COMMENTS	BY	DATE

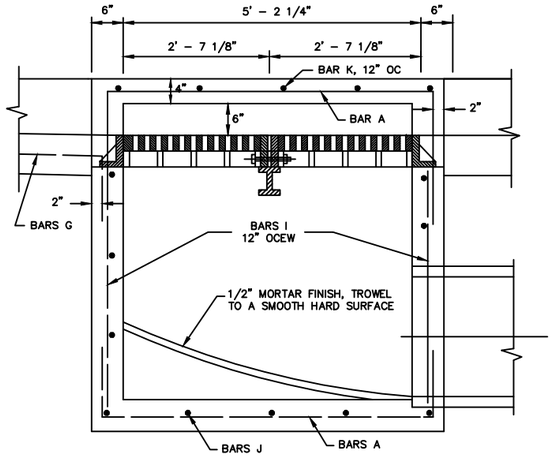
ROWLETT TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE

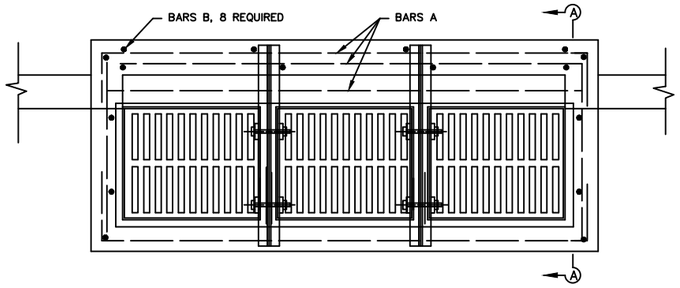
CURB INELTS

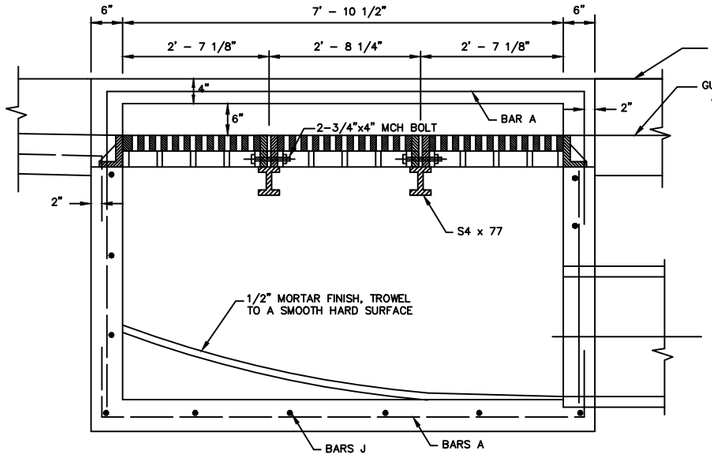
DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–9
CHECKED:			



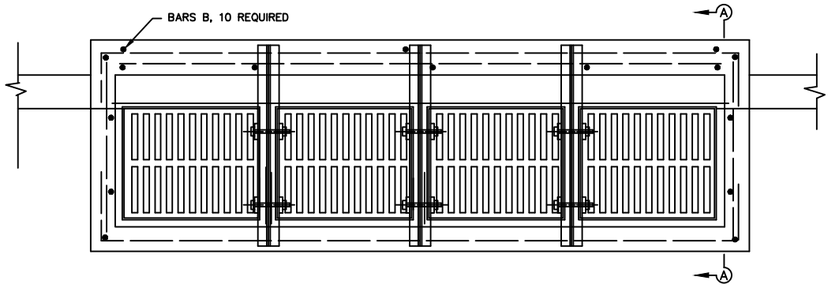


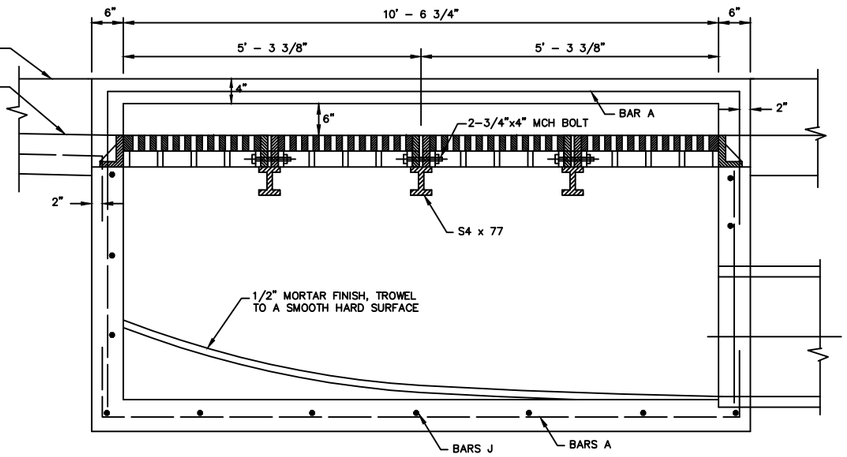
TWO GRATE INLET



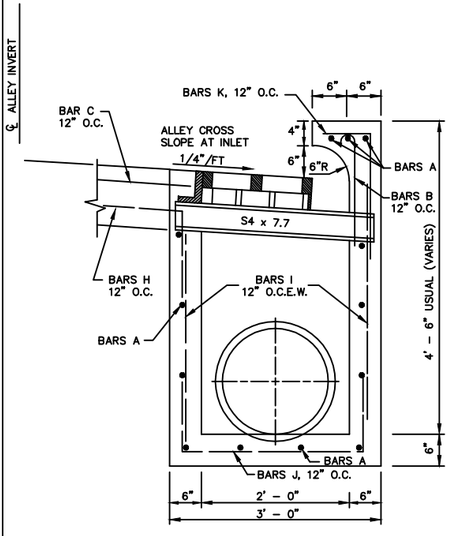


THREE GRATE INLET

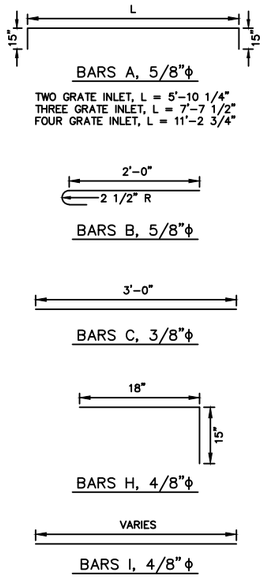


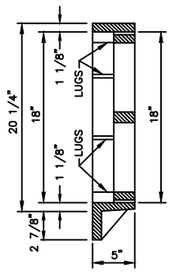


FOUR GRATE INLET



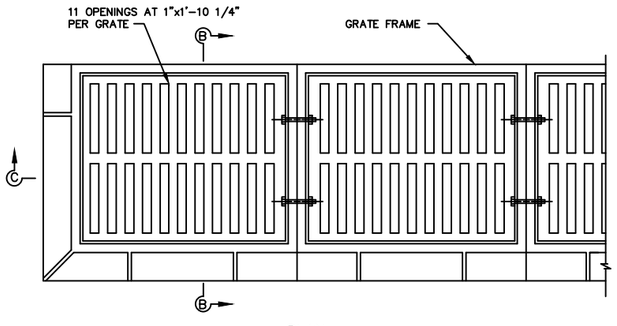
SECTION A–A



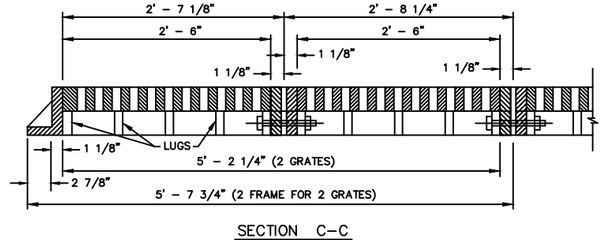


SECTION B–B

NOTE: GRATE AND FRAME SHALL BE PATTERN NO. 814 AS MANUFACTURED BY BASS & HAYES FOUNDRY, INC., OR APPROVED EQUAL.



PLAN



SECTION C–C

GRATE DETAILS

GENERAL NOTES

1. ALL LAPS AND EXTENSIONS OF REINFORCING BARS SHALL BE 36 BAR DIAMETERS UNLESS NOTED OTHERWISE.
2. TACK WELD GRATES IN PLACE.
3. PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER ANY CORNER, OR AT PILASTER.
4. THIS STANDARD SHEET IS FOR INFORMATIONAL PURPOSES ONLY. COMBINATION CURB & GRATE INLETS ARE ALLOWED, BUT ONLY THE CURB OPENINGS ARE CONSIDERED IN INLET SIZING.
5. COMBINATION INLET IS ONLY ALLOWED IN ALLEYS, SEE SHEET SD–11 FOR DETAILS.
6. ALL CONCRETE SHALL BE MINIMUM 6–SACK & 4000 PSI.

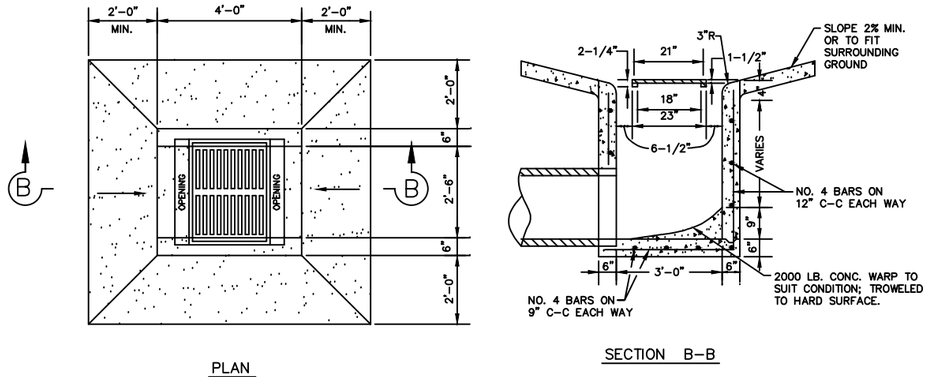
REV.	COMMENTS	BY	DATE

Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE

COMBINATION GRATE INLETS

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–10
CHECKED:			



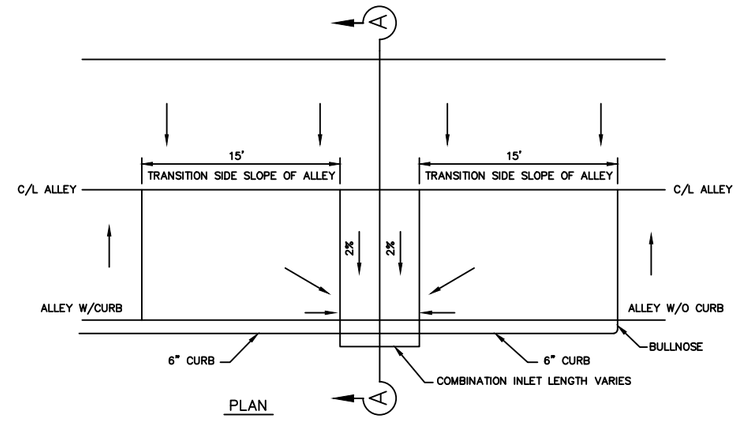
PLAN

SECTION B–B

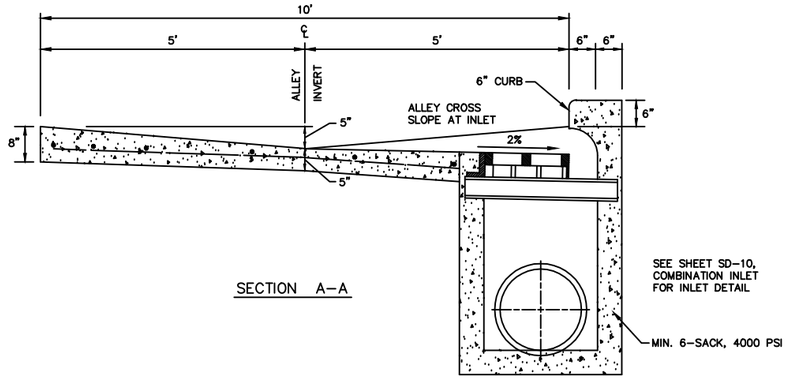
NOTES:

1. BASS & HAYS GRATE & FRAME PATTERN NO. VFG 18 x 30; WEIGHT: 125 LBS. (OR EQUIVALENT)
2. TO BE USED IN ROW'S ADJACENT TO ROADWAY

STANDARD GRATE INLET

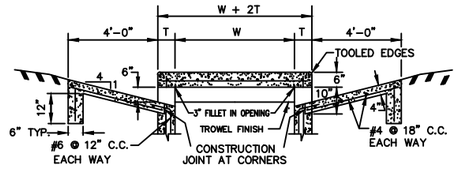


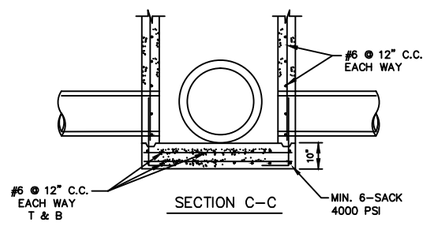
PLAN



SECTION A–A

ALLEY COMBINATION INLET

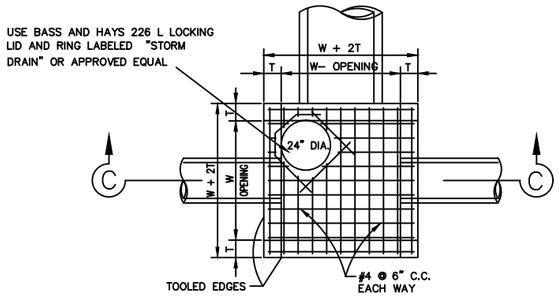




SECTION C–C

INLET SIZE	T	W
2' SQUARE	7"	2'-0"
4' SQUARE	7"	4'-0"
5' SQUARE	8"	5'-0"
6' SQUARE	9"	6'-0"
7' SQUARE	9"	7'-0"
8' SQUARE	9"	8'-0"

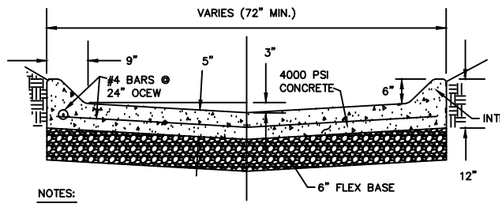
FOR LOWER PORTION OF 2' SQUARE DROP INLET USE REINF. STEEL DETAILS OF 4' SQUARE MANHOLE AND ELIMINATE INLET RING AND COVER.



STANDARD TYPE 'Y' INLET

GENERAL NOTES:

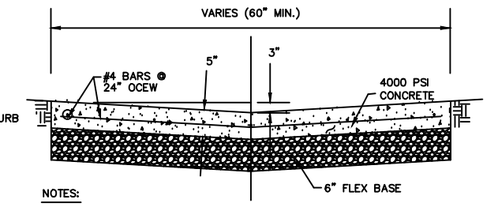
1. MATERIAL AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR CONCRETE MANHOLES.
2. LAYERS OF REINFORCED STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACES SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. EXCAVATION FOR MANHOLE TO BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLE.
4. FOR DETAILS OF REINFORCING OF LOWER PORTIONS OF INLET SEE APPROPRIATE SQUARE MANHOLE DETAILS.
5. DEPTH OF DROP INLET FROM FINISHED GRADE TO FLOW LINE OF INLET IS VARIABLE. APPROXIMATE DEPTH WILL BE SHOWN ON PLANS AT LOCATION OF INLET.
6. ALL STANDARD DROP INLETS SHALL HAVE ONE OPENING ON EACH SIDE UNLESS SHOWN ON PLANS.



NOTES:

1. IF FLUME IS 7' OR WIDER, USE PIPE BOLLARDS 7' X 6" DIA., AND FILL WITH CONCRETE. PLACE AT BOTH START AND END OF FLUME. BURY TO 4' DEPTH.
2. CONTRACTOR WILL SOD SIDE SLOPES AS SPECIFIED.
3. 6" MINIMUM FLEXURAL STRENGTH BASE COMPACTED TO 98% STANDARD PROCTOR UNDER CONCRETE FOR CURBED OR NON–CURBED FLUME..

CURBED FLUME



NOTES:

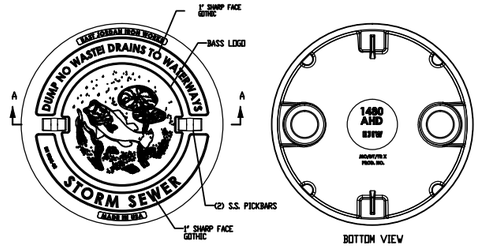
1. IF FLUME IS 7' OR WIDER, USE PIPE BOLLARDS 7' X 6" DIA., AND FILL WITH CONCRETE. PLACE AT BOTH START AND END OF FLUME. BURY TO 4' DEPTH.
2. CONTRACTOR WILL SOD SIDE SLOPES AS SPECIFIED.
3. 6" MINIMUM FLEXURAL STRENGTH BASE COMPACTED TO 98% STANDARD PROCTOR UNDER CONCRETE FOR CURBED OR NON–CURBED FLUME..

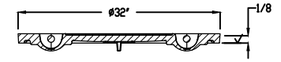
NON–CURBED FLUME

NOTE:

TESTING WILL BE REQUIRED ON ALL CAST–IN–PLACE STRUCTURE

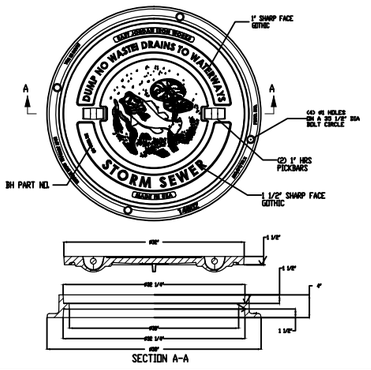
1480A Cover





SECTION A–A

1480A Z Assembly



SECTION A–A

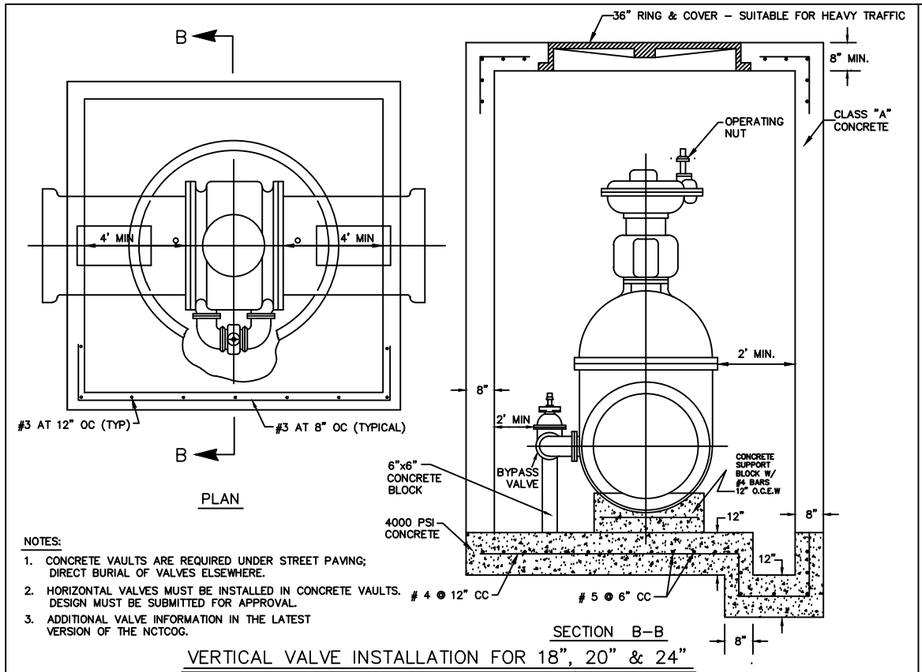
REV.	COMMENTS	BY	DATE

CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE

GRATE INLET
STANDARD "Y" INLET
ALLEY COMBINATION INLET
CURBED AND NON–CURBED FLUME

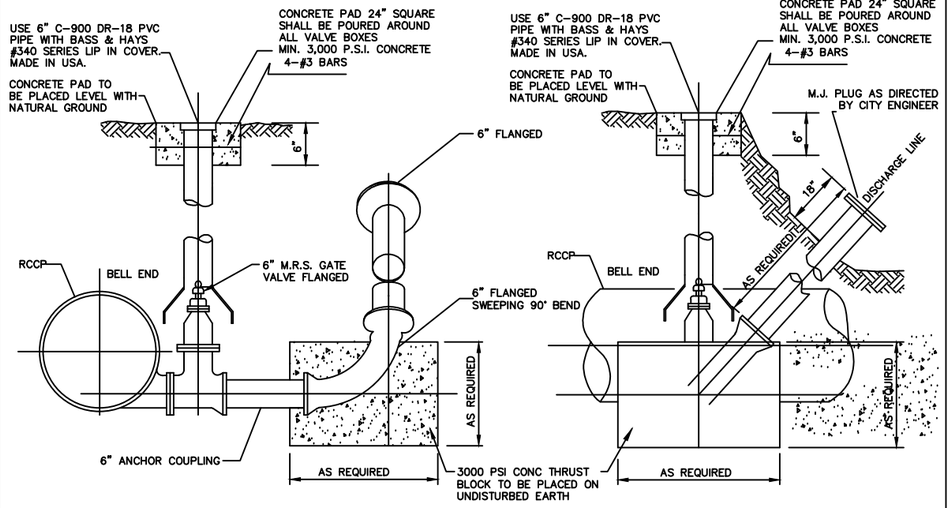
DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–11
CHECKED:			



NOTES:

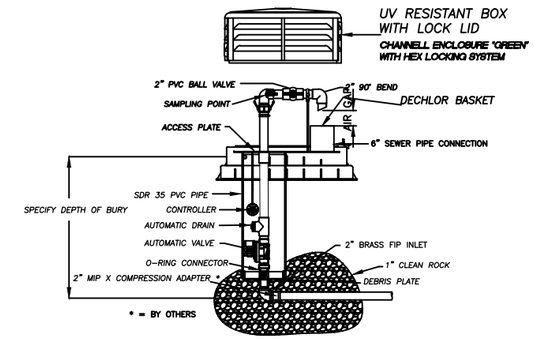
1. CONCRETE VAULTS ARE REQUIRED UNDER STREET PAVING; DIRECT BURIAL OF VALVES ELSEWHERE.
2. HORIZONTAL VALVES MUST BE INSTALLED IN CONCRETE VAULTS. DESIGN MUST BE SUBMITTED FOR APPROVAL.
3. ADDITIONAL VALVE INFORMATION IN THE LATEST VERSION OF THE NCTCOG.

VERTICAL VALVE INSTALLATION FOR 18", 20" & 24"



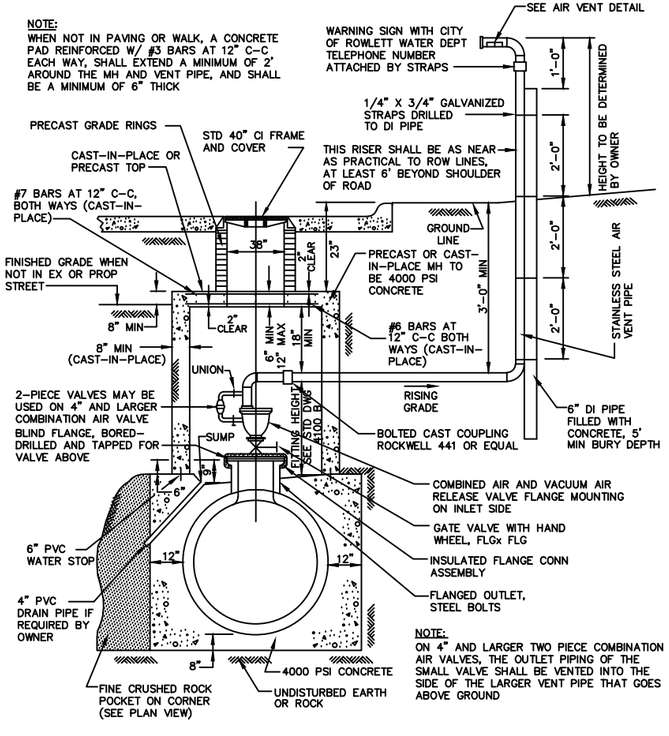
BLOW OFF VALVE DETAIL

#9800 AUTOMATIC FLUSHING DEVICE



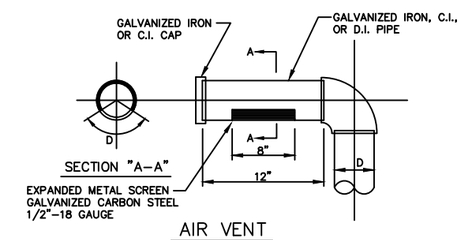
AUTOMATIC FLUSHING DEVICE SHALL HAVE A 2" BRASS FIP INLET, LEADING VERTICALLY INTO A 2" AUTOMATIC SOLENOID VALVE. AUTOMATIC SOLENOID VALVE SHALL HAVE A 150 PSI RATING. EACH UNIT SHALL BE FURNISHED WITH A STAND–ALONE VALVE CONTROLLER. VALVE CONTROLLER WILL NOT REQUIRE A SECOND HAND–HELD DEVICE FOR PROGRAMMING. CONTROLLER MUST HAVE MINIMUM OF 12 POSSIBLE FLUSHING CYCLES PER DAY, UP TO 6 HOURS PER CYCLE AND SHALL BE SUBMERSIBLE TO 12 FEET, OPERATE WITH 9 VOLT BATTERY(COMPARTMENT HOLDS TWO BATTERIES) AND HAVE RESIN–SEALED ELECTRICAL COMPONENTS. SOLENOID HALL HAVE NO LOOSE PARTS WHEN REMOVED FROM VALVE. EACH UNIT SHALL HAVE A DOUBLE–VALVE, ALL BRASS, SAMPLING POINT. REMOVAL OF 2" SOLENOID VALVE SHALL BE POSSIBLE VA AN O–RING CONNECTOR LOCATED UNDER THE VALVE. AFTER REMOVAL OF STAINLESS STEEL ACCESS PLATE. VALVE ASSEMBLY SHALL BE HOUSED IN A PVC ENCLOSURE AND EACH UNIT SHALL BE SELF–DRAINING, NON–FREEZING, ALL ABOVE–GROUND COMPONENTS SHALL BE CONTAINED WITHIN A UV–RESISTANT LOCKING COVER, AS MANUFACTURED BY KUPPERLE FOUNDRY COMPANY. MODEL#9800 ST. LOUIS, MO. 1–800–231–3990, OR APPROVED EQUAL.

Note: Flush water lines free of debris before installation

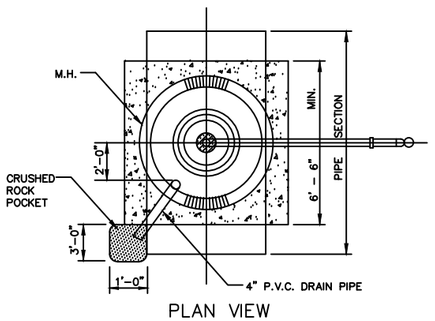


AIR RELEASE VALVE

NOTE:
ON 4" AND LARGER TWO PIECE COMBINATION AIR VALVES, THE OUTLET PIPING OF THE SMALL VALVE SHALL BE VENTED INTO THE SIDE OF THE LARGER VENT PIPE THAT GOES ABOVE GROUND



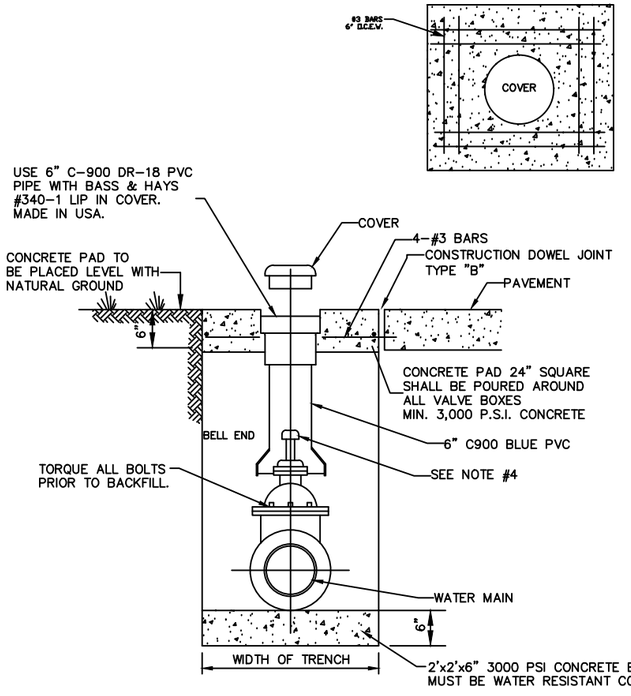
AIR VENT



PLAN VIEW

AIR VALVE	GATE VALVE	FLG. OUTLET	MIN. FITTING HEIGHT	VENT PIPE D	M.H. DIA.
2"	2"	8"	26"	2"	5'
3"	3"	18"	31"	3"	5'
4"	4"	18"	38"	4"	5'
6"	6"	18"	46"	6"	5'
8"	8"	18"	53"	8"	6'
10"	10"	20"	62"	10"	6'
12"	12"	24"	72"	12"	6'

TYPICAL AIR AND VACUUM–AIR RELEASE VALVE INSTALLATION



TYPICAL VALVE SETTING AND BOX

NOTES:

1. 4–12" RS GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C–509.
2. ALL VALVES NEXT TO FITTINGS SHALL BE FLANGED. ALL OTHERS SHALL BE MECHANICAL JOINT.
3. ALL VALVES SHALL BE COMPLETELY WRAPPED TO STEM WITH 8–MIL POLYETHELENE & TAPED WITH BLACK MECHANICAL TAPE.
4. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHOSE OPERATING NUT IS LOCATED IN EXCESS OF 4' BELOW THE TOP OF THE VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 2' TO 4' OF VALVE BOX LID.
5. THE LOCATION OF ALL VALVES AND SERVICES SHALL BE MARKED ON THE STREET OR ALLEY CURB, AND PAINTED BLUE, NO SPRAY PAINT ALLOWED.
6. ALL VALVES SHALL BE DIRECTLY CONNECTED TO TEE OR FITTINGS.
7. 5' MINIMUM C–900 PIPE BETWEEN FITTINGS OR USE ANCHOR COUPLING. USE ALL–THREADS FOR ALL VERTICAL BENDS.

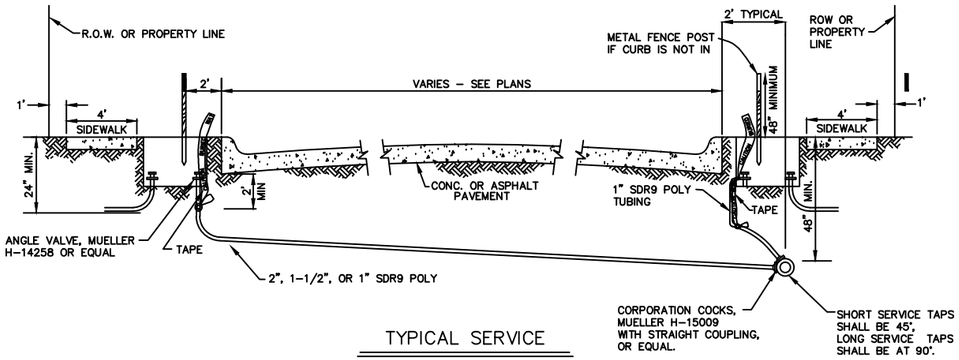
REV.	COMMENTS	BY	DATE

Rowlett TEXAS — CITY OF ROWLETT, TEXAS DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
WATER

VALVES
AIR RELEASE VALVES
AUTOMATIC FLUSHING

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–12
CHECKED:			



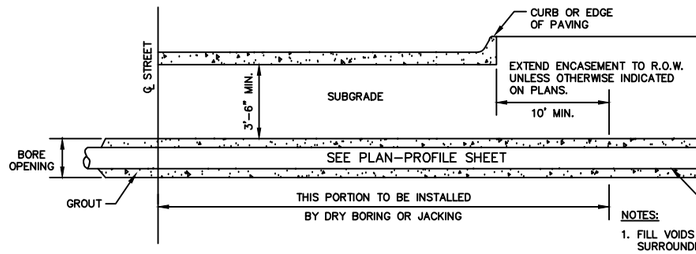
TYPICAL SERVICE

NOTES:
1. SDR9 POLYETHYLENE TUBING CL200 CTS ONLY WITH STAINLESS STEEL TUBE INSERTS.
2. ALL BRASS FITTINGS TO BE MUELLER OR APPROVED EQUAL.
3. DOUBLE STRAP BRASS OR BRONZE TAPPING SLEEVES ONLY.
4. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO FURNISH & INSTALL THE METER BOX AND THE CURB STOP.
5. ON NON-CURB & GUTTERED STREETS, SERVICE LINE TO BE TWO (2') FT BELOW DITCH FLOW LINE.
6. WATER METERS SHALL BE LOCATED AT THE BACK OF CURB.
7. ABANDONED SERVICES AND SAMPLE PORTS TO BE PLUGGED AT CORPORATION WITH APPROVED COR FITTING.
8. SAMPLE PORTS AND CHLORINE LOADING PORTS USED FOR TESTING SHALL BE PLUGGED AT AT CORPORATION WITH APPROVED COR FITTING WITHIN 72 HOURS OF PLACING WATER LINE ONLINE AND BEFORE ANY FREEZING WEATHER EVENT
9. METER BOXES IN TRAFFIC WAYS MUST BE APPROVED BY THE CITY.

PIPE SIZE (IN.)	MINIMUM BEARING AREA AGAINST UNDISTURBED SOIL (SQ. FT.)					
	A	B	C	D	E	F
4	2	2	1	1	1	2
6	4	3	3	1	1	3
8	8	5	4	2	1	5
10	12	8	6	3	2	8
12	16	12	9	5	2	12
14	22	15	12	6	3	15
16	29	20	16	8	4	20
18	36	25	20	10	5	25
20	44	32	24	12	6	32
24	64	45	35	18	9	45
30	100	71	54	28	14	71

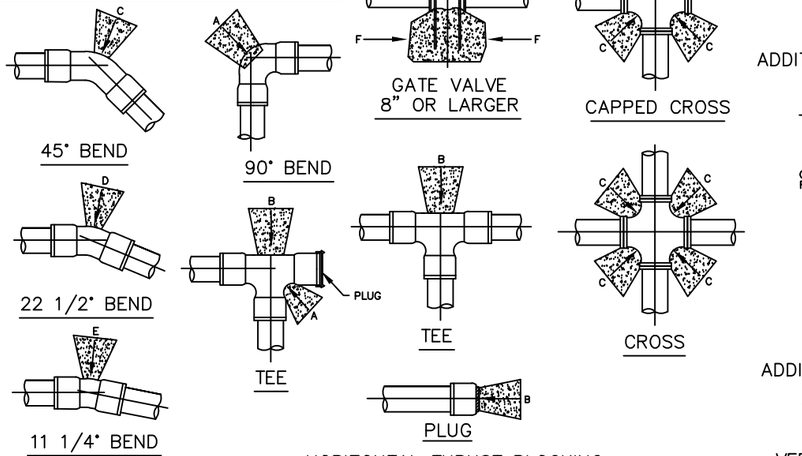
NOTES:
1. THRUST IS BASED ON A WORKING PRESSURE OF 150 PSI.
2. BEARING AREA IS BASED ON A SAFE SOIL BEARING LOAD OF 1500 PSI.
3. BLOCKING SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF THE JOINT.
4. FORM MATERIAL REQUIRED FOR POURING AND BLOCKING AT FITTINGS AND BENDS OR FOR BLOCKING AT FIRE HYDRANT.
5. STAINLESS STEEL ALL-THREADS TO BE USED FOR VERTICAL BENDS, AND ALL FIRE LINE RISERS
6. BELL RESTRAINTS OR MEGA-LUGS MAY BE NEEDED FOR FIRE RISERS TO CONNECT STAINLESS STEEL ALL-THREADS.

PIPE SIZE (IN.)	VERT. BEND	CUBIC FEET	A (FT.)	D (IN.)	L (FT.)
4	11 1/4°	3	1.0	3/4	0.5
	22 1/2°	6	2.0		1.5
	45°	10	2.2		2.0
	90°	19	2.7		
6	11 1/4°	6	1.5	3/4	1.0
	22 1/2°	12	2.3		2.0
	45°	23	3.0		
	90°	43	3.5		
8	11 1/4°	11	2.5	3/4	2.0
	22 1/2°	21	2.8		2.5
	45°	41	3.5		
	90°	76	4.3		
10	11 1/4°	17	2.7	3/4	2.0
	22 1/2°	33	3.3		3.5
	45°	64	4.0		
	90°	119	5.0		
12	11 1/4°	24	3.0	3/4	2.5
	22 1/2°	47	3.7		4.0
	45°	93	4.6		
	90°	172	5.6		
14	11 1/4°	32	3.3	1	2.5
	22 1/2°	64	4.0		4.5
	45°	126	5.1		
	90°	233	6.2		
16	11 1/4°	43	3.5	1	3.0
	22 1/2°	84	4.4		4.5
	45°	166	5.5		
	90°	305	6.8		
18	11 1/4°	54	3.8	1	3.0
	22 1/2°	107	4.8		4.5
	45°	209	5.9		
	90°	386	7.3		
20	11 1/4°	66	4.0	1	3.5
	22 1/2°	132	5.1		5.0
	45°	258	6.4		
	90°	477	7.8		
24	11 1/4°	95	4.6	1 1/4	4.0
	22 1/2°	190	5.8		6.0
	45°	371	7.2		
	90°	686	8.8		
30	11 1/4°	149	5.3	1 1/2	4.5
	22 1/2°	296	6.7		7.0
	45°	580	8.3		
	90°	1071	10.2		

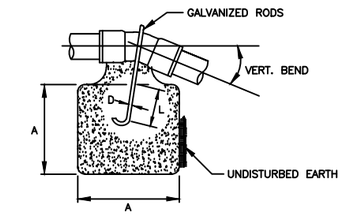


HALF-SECTION
TYPICAL ROADWAY CROSSING
BY BORE

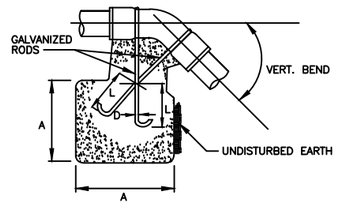
NOTES:
1. FILL VOIDS BETWEEN ENCASEMENT PIPE AND THE SURROUNDING GROUND COMPLETELY WITH GROUT.
2. CASING PIPE SHALL BE COATED FROM MANUFACTURER.
3. PIPE IN CASING SHALL BE INSTALLED WITH RACI CASING SPACERS OR APPROVED EQUAL PRODUCT. THE SPACERS WILL BE LOCATED ON 6-1/2' (FT) CENTERS FOR ALL TYPES OF PVC CARRIER PIPE.
4. RACI SPACERS SHALL BE INSTALLED AT BELL MARK WITH BELL RESTRAINTS TO PREVENT OVER-BELLING, AND AT INTERVALS SPECIFIED BY MANUFACTURER.
5. UNIFLANGE BELL RESTRAINT TO BE INSTALLED WHEN PIPE IS PRESSURE PIPE.
6. ENDS SHALL BE SEALED WITH RUBBER BOOT AND STAINLESS STEEL BANDS.
7. BORES SHALL BE BY DRY BORES ONLY.



HORIZONTAL THRUST BLOCKING

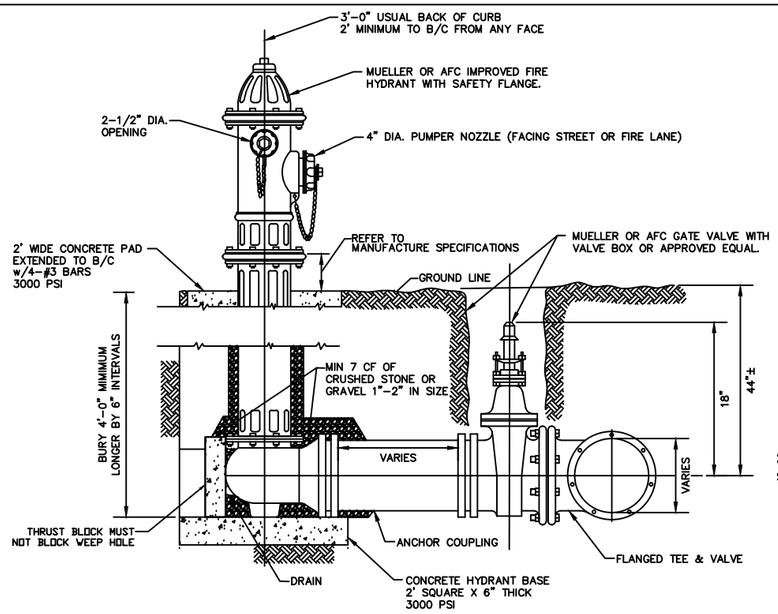


ADDITIONAL VERTICAL BLOCKING FOR 11 1/4°, 22 1/2°, & 30° BENDS

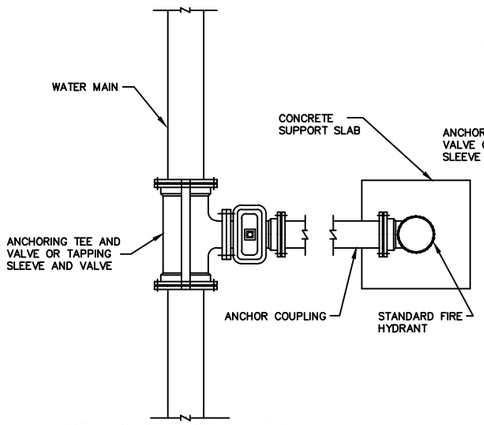


ADDITIONAL VERTICAL BLOCKING FOR 45° & 90° BENDS

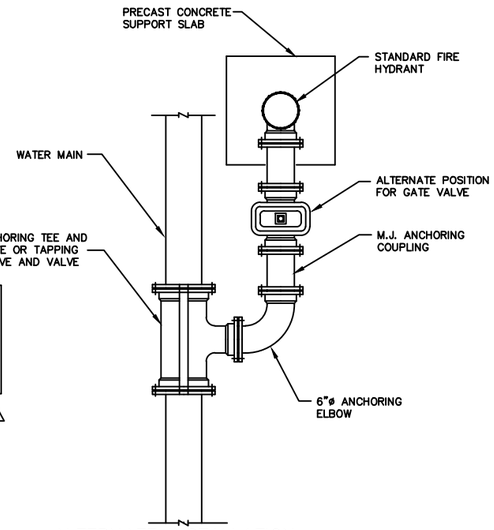
VERTICAL THRUST BLOCKING



STANDARD FIRE HYDRANT INSTALLATION



STANDARD INSTALLATION



ALTERNATE INSTALLATION

NOTES:
1. IN GENERAL, ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE FOR WATER AND SANITARY SEWER IMPROVEMENTS. FIRE HYDRANTS SHALL HAVE A 5-1/4" MINIMUM VALVE OPENING AND WITH A BARREL APPROXIMATELY 7" INSIDE DIAMETER. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE. ALL HYDRANTS SHALL BE MUELLER OR AFC.
2. FIRE HYDRANTS ARE NOT TO BE PLACED IN SIDEWALK.
3. FIRE HYDRANTS SHALL BE 4' MINIMUM BURY.
4. FIRE HYDRANT SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE FROM AND INCLUDING HYDRANT SHOE TO TOP OF CONCRETE PAD. TRIM POLY WRAP AT TOP OF CONCRETE PAD. THE HYDRANT DRAIN SHALL NOT BE WRAPPED TO INSURE PROPER DRAINAGE OF THE BARREL CHAMBERS.
5. DO NOT COVER WEEP HOLES WITH THRUST BLOCKING.
6. BONNET TO FLANGE COLOR CODED FOR MAIN SIZE ACCORDING TO ROWLETT STANDARDS REMAINDER OF HYDRANT ABOVE GROUND SHALL BE PAINTED ALUMINUM. HYDRANTS SHALL BE THOROUGHLY CLEANED FREE OF DIRT AND OIL PRIOR TO PAINTING.
7. ALL DUCTILE IRON PARTS AND PIPE ARE TO BE POLYWRAPPED.
8. WATER SERVICES SHALL NOT BE CONNECTED TO FIRE HYDRANT LINES.
9. HYDRANT SHALL BE ANCHORED USING ANCHOR COUPLINGS.
10. ALL WATER MAIN VALVES CONNECTED TO TEES SHALL BE FLANGED FITTINGS.
11. NO MORE THAN 1 RISER EXTENSION SHALL BE USED AND SHALL BE MADE BY FIRE HYDRANT MANUFACTURER.

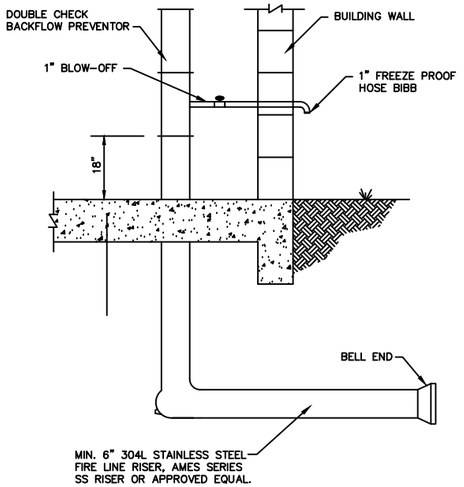
REV.	COMMENTS	BY	DATE

Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
WATER

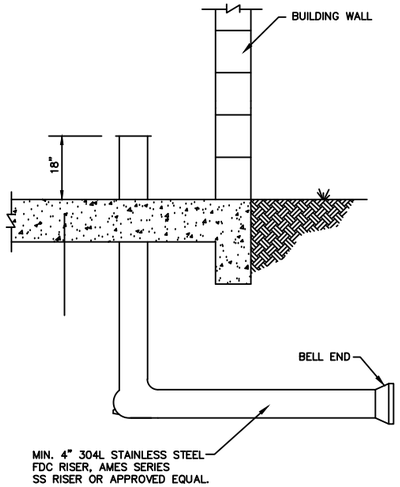
FIRE HYDRANT SERVICE CONNECTIONS THRUST BLOCKING

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-13
CHECKED:			



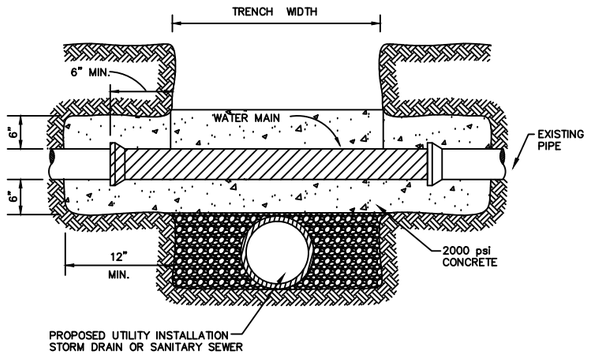
FIRE LINE RISER DETAIL

NOT TO SCALE



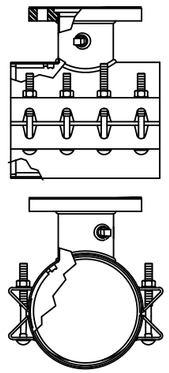
FIRE DEPARTMENT CONNECT DETAIL

NOT TO SCALE



* WHERE A MINIMUM CLEARANCE OF 10'-0" (HORIZONTAL AND/OR VERTICAL) CANNOT BE OBTAINED, THEN THE POTABLE WATER MAIN SHALL BE CONCRETE ENCASED FOR 10'-0" EACH SIDE OF THE INTERSECTION OF THE INSTALLED UTILITY LINE.

CONCRETE ENCASEMENT UTILITY SUPPORT



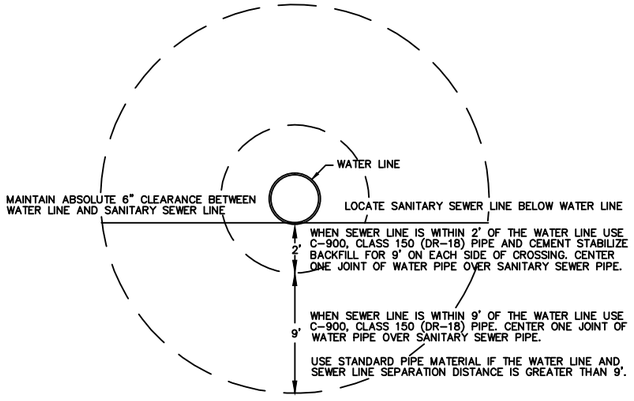
1. TAPPING SLEEVE SHALL BE POWERSEAL MODEL 3490 TYPE 304 STAINLESS STEEL WITH CARBON STEEL FLANGE OR APPROVED EQUAL. SLEEVE SHALL BE RATED AT 250 PSI AND MUST HAVE A TEST PLUG.
2. TAPPING VALVE SHALL BE AVK RESILIENT SEATED GATE VALVE SERIES 25 MJFL OR MUELLER T-2360 RESILIENT WEDGE TAPPING VALVE WITH MJFL. VALVE SHALL BE RATED AT 250 PSI.
3. TAPPING SLEEVE AND VALVE SHALL BE FULL PORT TO ACCEPT FULL SIZE SHELL CUTTER.
4. STEEL FLANGE SHALL MEET AWWA C207.

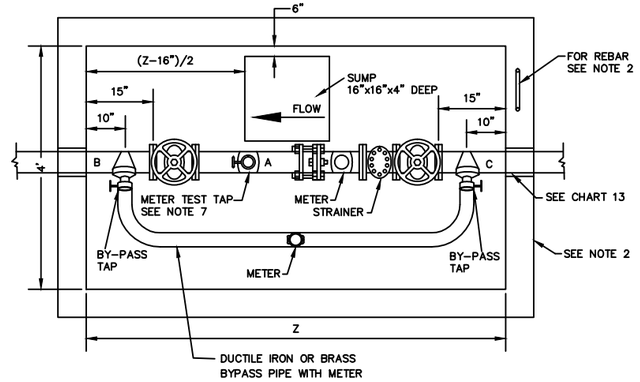
TAPPING SLEEVE AND VALVE

NOTES

1. THE SANITARY SEWER LINE SHALL BE LOCATED BELOW THE WATER LINE.
2. ONE WATER PIPE SEGMENT SHALL BE CENTERED OVER THE SANITARY SEWER PIPE SUCH THAT THE JOINTS OF THE WATER PIPE ARE EQUIDISTANT AND AT LEAST 9' HORIZONTALLY FROM THE CENTERLINE OF THE SANITARY SEWER PIPE.
3. WHERE CEMENT STABILIZED SAND BEDDING IS REQUIRED, THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES ABOVE AND FOUR INCHES BELOW THE SANITARY SEWER PIPE.
4. MAINTAIN 9' SEPARATION BETWEEN FIRE HYDRANTS AND SANITARY SEWER LINES.
5. MAINTAIN 9' SEPARATION BETWEEN SANITARY SEWER MANHOLES AND WATER LINES.
6. REFER TO CURRENT TECQ "DESIGN CRITERIA FOR SEWAGE SYSTEMS: SEPARATION DISTANCES".

WATER/SANITARY SEWER SEPARATION

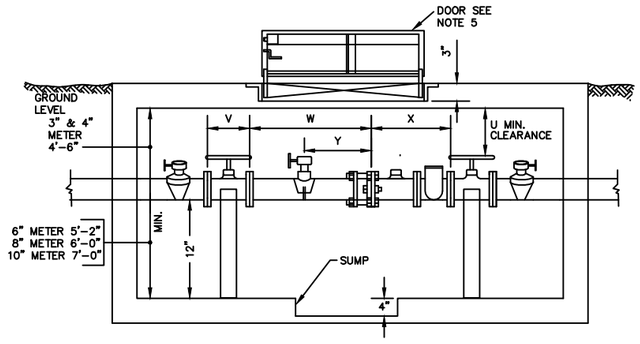




METER VAULT AND BYPASS – PLAN

METER VAULT AND BY-PASS SPECIFICATIONS

1. NOTIFY THE PUBLIC WORKS DEPARTMENT PRIOR TO CONSTRUCTION OF VAULT OR BY-PASS ASSEMBLY.
2. THE METER VAULT CAN BE EITHER POURED IN PLACE OR PREFABRICATED. CONCRETE SHALL BE 6" THICK AND BE 3,000 P.S.I. WITH #4 REINFORCEMENT STEEL ON 12" CENTERS EACH WAY. USED IN NON-PAVING AREAS.
3. THE VAULT WILL NOT BE PUT IN ANY DRIVE OR PARKING AREAS AND MUST BE LOCATED IN A UTILITY EASEMENT.
4. A DRAWING WITH THE EXACT MEASUREMENTS OF THE METER VAULT AND BY-PASS WILL BE SUBMITTED TO THE CITY FOR APPROVAL FOR ALL METERS 3" AND LARGER.
5. THE VAULT LID SHALL BE A BILCO LID, TYPE K-5 SINGLE LEAF DESIGN. ANGLE FRAME IS 1/4" STEEL WITH STRAP ANCHORS BOLTED TO THE EXTERIOR. THE LEAF IS 1/4" STEEL DIAMOND PATTERN PLAT, PIVOTING ON TORSION BARS FOR EASY OPERATION. THE MINIMUM LIVE LOAD CAPACITY IS 150 LBS. PER SQUARE FOOT. THE SIZE OF THE LID IS 3'-6" X 3'-6" ALUMINUM. LARGER VAULTS WILL REQUIRE BILCO DOUBLE DOORS AS SPECIFIED BY THE ENGINEER.
6. THE LID SHALL BE PAINTED WITH 43-38 TNEMEC DIFFUSED ALUMINUM PAINT OR APPROVED EQUAL.
7. THE CONTRACTOR SHALL MAKE THE BY-PASS AND METER TEST TAP INSIDE THE VAULT. IF THE SERVICE IS USED AS A STRICTLY DOMESTIC OR A DOMESTIC/IRRIGATION COMBINATION, TAP "A" ON THE DRAWINGS IS NOT NECESSARY. IF THE SERVICE IS USED STRICTLY FOR IRRIGATION, TAP "A" IS REQUIRED. TAP "A" MUST BE AT LEAST TWO PIPE DIAMETERS DOWNSTREAM OF THE METER. TAPS "B" AND "C" MUST BE MADE AT AN APPROXIMATE 45° ANGLE ON EACH END OF THE PIPE AND CENTERED 10 INCHES AWAY FROM THE WALL.
8. THE STRAINER AND METER WILL BE PROVIDED BY THE CITY OF ROWLETT AT THE CONTRACTOR'S EXPENSE. THE STRAINER, METER, AND FLEXIBLE COUPLING (PROVIDED BY THE CONTRACTOR) WILL NOT BE INSTALLED UNTIL THE METER VAULT AND APPURTENANCES ARE ACCEPTED BY THE CITY OF ROWLETT.
9. THE GATE VALVES SHALL BE MUELLER NO. A-2380-6 FOR 3" AND MUELLER A-2078-6 FOR 4" AND UP, FLANGED BOTH ENDS.
10. THE BOTTOM OF THE METER VAULT MUST BE 6" THICK CONCRETE WITH #4 REBAR ON 12" CENTERS AND HAVE A 4" FILL SAND CUSHION UNDERNEATH. A SUMP 4" DEEP AND 12" IN DIAMETER SHALL BE INSTALLED TO ONE SIDE OF THE CENTER OF THE BOTTOM SLAB. IF PRECAST VAULT IS USED, WHERE SIDES JOIN THE BOTTOM, A LAYER OF RAM-NEK SHALL BE USED TO SEAL THE JOINT.
11. UNDER EACH VALVE WILL BE A CONCRETE SUPPORT.
12. DEPTH OF VAULT SHALL BE A MINIMUM OF 4-1/2 FEET FROM FINISHED GROUND TO FLOOR OF VAULT.



METER VAULT AND BYPASS – ELEVATION

METER VAULT													
DOMESTIC							IRRIGATION						
METER SIZE	U	V	W	X	Y	Z	METER SIZE	U	V	W	X	Y	Z
3"	25"	8"	11-1/2"	24"		6'-10"	3"	25"	8"	16-1/2"	19"	9"	6'-10"
4"	22"	9"	13-1/2"	29"		7'-7"	4"	22"	9"	19-1/2"	23"	10"	7'-7"
6"	26"	10-1/2"	13-1/2"	33"		8'-2"	6"	26"	10-1/2"	19-1/2"	27"	13"	8'-2"
							8"	31"	11-1/2"	25-1/2"	30"	17"	9'-1"
							10"	37"	13	29-1/2"	41"	21"	10'-7"

PIPE SIZE	BYPASS TAPS	LINK SEALS			
		CAST-IN-PLACE		CORED WALLS	
	2" SERVICE SADDLES	WALL SLEEVE MODEL NUMBER	NUMBER AND MODEL OF LINK SEALS	CORE SIZE	NUMBER AND MODEL OF LINK SEALS
3"	ROCKWELL NO. 317-045514-000	WS-6-28-S-6	5 NO. LS-325-C	6"	5 NO. LS-325-C
4"	ROCKWELL NO. 317-045314-000	WS-8-32-S-6	5 NO. LS-400-C	8"	5 NO. LS-400-C
6"	ROCKWELL NO. 317-076014-000	WS-10-36-S-6	7 NO. LS-400-C	10"	7 NO. LS-400-C
10"	ROCKWELL NO. 317-12124-000	WS-14-37-S-6	12 NO. LS-325-C	14"	11 NO. LS-425-C

NOTES:

1. ALL SERVICES SADDLES SHALL HAVE BRASS NIPPLES AND NO. 7500 BRASS OR APPROVED EQUAL GATE VALVES.
2. BREAKING OF THE WALL WITH A JACKHAMMER OR USING PRE-CAST KNOCK OUT PANELS WILL NOT BE PERMITTED.
3. APPROVED EQUAL WILL BE ALLOWED FOR ALL ITEMS SPECIFIED.

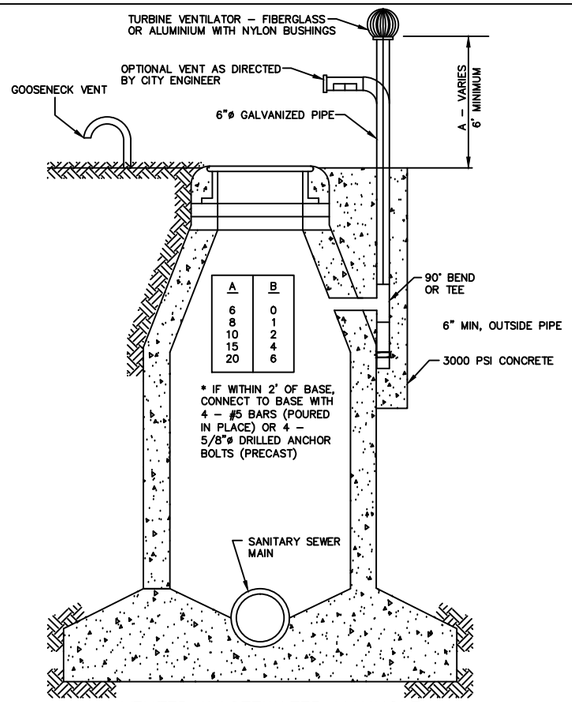
REV.	COMMENTS	BY	DATE
2013	COMPLETE SHEET REVISION	MTTSR	07/19/2013
2013	ADDED TAPPING SLEEVE	SDJR	10/25/2013

ROWLETT TEXAS — CITY OF ROWLETT, TEXAS DEPARTMENT OF PUBLIC WORKS

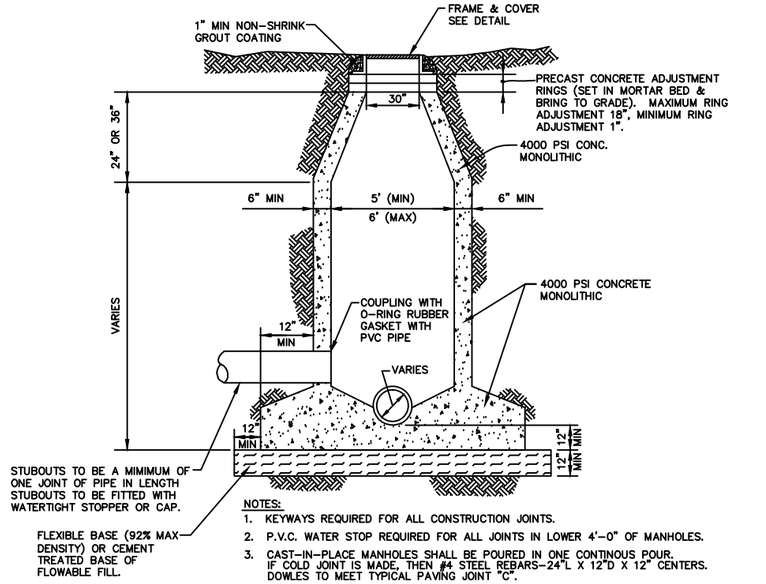
STANDARD CONSTRUCTION DETAILS
WATER

WATER GENERAL NOTES
METER VAULTS, TAPPING SLEEVES AND VALVES, FIRE RISERS AND TCEQ REQUIREMENTS

DESIGN:	MTTSR	SCALE:	NOTED	PROJECT NO.	SHEET
DRAWN:	MTTSR	DATE:	10/2013		SD-14
CHECKED:	SDJR				



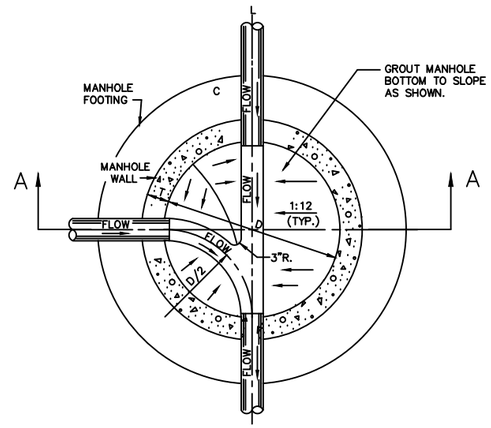
VENTED WASTEWATER MANHOLE



NOTES:

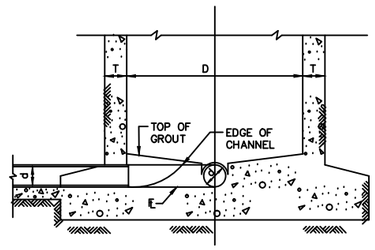
1. KEYWAYS REQUIRED FOR ALL CONSTRUCTION JOINTS.
2. P.V.C. WATER STOP REQUIRED FOR ALL JOINTS IN LOWER 4'–0" OF MANHOLES.
3. CAST–IN–PLACE MANHOLES SHALL BE POURED IN ONE CONTINOUS POUR. IF COLD JOINT IS MADE, THEN #4 STEEL REBARS–24"L X 12"D X 12" CENTERS. DOWLES TO MEET TYPICAL PAVING JOINT "C".
4. IF FALSE MANHOLE BOTTOMS ARE REQUIRED, THEY SHALL BE CONSTRUCTED, INSTALLED, & REMOVED PER NCTCOG.
5. ALL MANHOLES SHALL BE EPOXY LINED INTERIOR AND SEALED EXTERIOR FOR CORROSION RESISTANCE AS APPROVED BY CITY.
6. LINKSEAL GASKET SHALL BE USED ON EXISTING PIPE FOR CAST IN PLACE MANHOLES.
7. TESTING REQUIRED ON ALL CAST IN PLACE STRUCTURES

STANDARD CAST–IN–PLACE MANHOLE



PLAN
N.T.S.

T = WALL THICKNESS
D = MANHOLE DIAMETER
d = PIPE DIAMETER



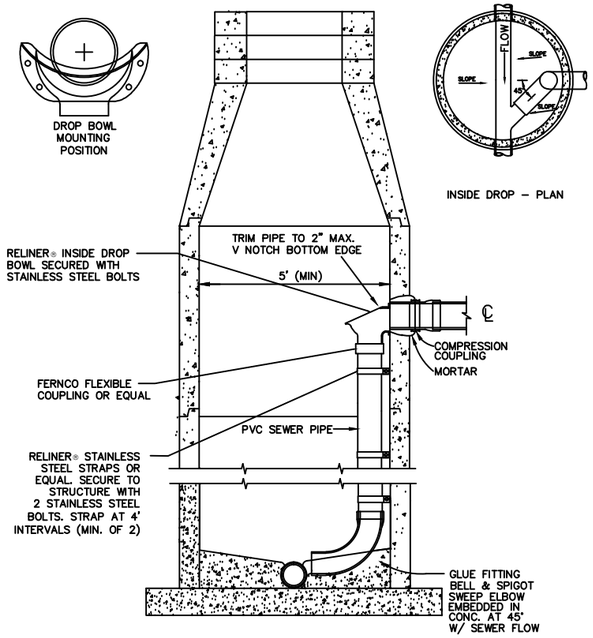
SECTION A–A
N.T.S.

NOTE:
REFER TO MANHOLE STANDARD DRAWINGS FOR ADDITIONAL DETAIL OF M.H.

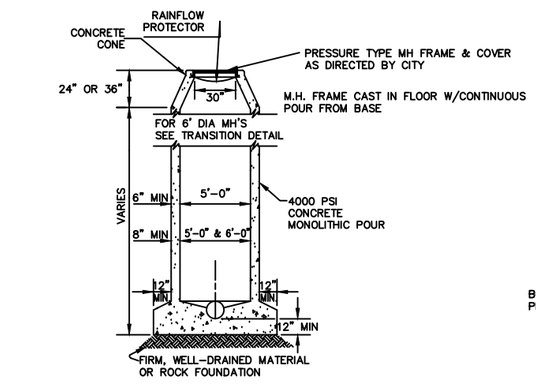
WASTEWATER MANHOLE LINE INTERSECTION

GENERAL NOTES

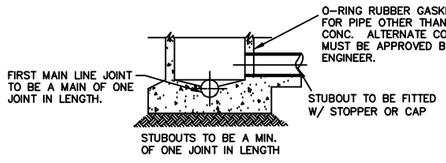
1. SANITARY SEWER PIPE MAINS LESS THAN 10' DEPTH SHALL BE PVC SDR–35 PIPE. SEWER PIPE GREATER THAN 10' DEPTH SHALL BE PVC SDR–26 PIPE. LATERALS SHALL BE PVC SDR–26 PIPE.
2. SANITARY SEWER PIPE JOINTS SHALL CONFORM TO CURRENT ASTM DESIGNATIONS FOR PVC PIPE.
3. ALL SANITARY SEWER LATERALS SHALL INCLUDE 4" TEE, WYE BEND, PIPE, AND STOPPER INSTALLED AT THE CENTER OF EACH LOT, UNLESS OTHERWISE INDICATED ON PLANS. 6" OR LARGER LATERALS REQUIRE M.H. AT MAIN SEWER PIPE.
4. UNLESS OTHERWISE NOTED, ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE CITY OF ROWLETT STANDARD SPECIFICATIONS.
5. DROP MANHOLE REQUIRED FOR CONNECTIONS GREATER THAN 2' HEIGHT FROM MAIN FLOWLINE TO 18" DIAMETER OR LARGER PIPE.
6. THE LOCATION OF ALL MANHOLES, CLEANOUTS, AND SERVICES SHALL BE MARKED ON THE STREET OR ALLEY CURB, AS DIRECTED BY THE CITY ENGINEER.
7. SPACING OF MANHOLES AND CLEANOUTS SHALL BE AS SPECIFIED IN THE CITY OF ROWLETT WATER UTILITIES DESIGN MANUAL OR AS DIRECTED BY THE PW DIRECTOR.
8. MANHOLES CONSTRUCTED IN LOCATIONS SUBJECT TO SUBMERSION, SHALL BE WATER–TIGHT TYPE 'S' MANHOLES.
9. NO SEWER SERVICE LINE CONNECTIONS SHALL BE CONSTRUCTED DEEPER THAN 15 FEET,
10. ALL NEW MANHOLES SHALL BE LINED WITH MINIMUM 100 MIL THICKNESS RAVEN 405 OR APPROVED EQUAL. ENGINEER WILL APPROVE COATING THICKNESS FOR COR STANDARD CONDITION TYPE OF MANHOLE.
11. MINIMUM SIZE FOR SEWER MAIN SHALL BE 8" NOMINAL DIAMETER.
12. MINIMUM SIZE FOR ALL MANHOLE RINGS AND LIDS IS 30".



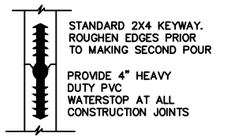
DROP MANHOLE



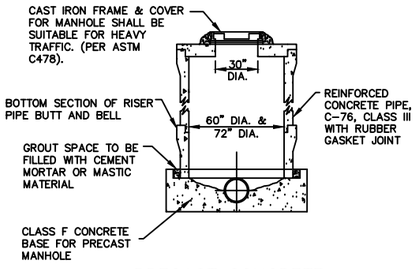
STANDARD MANHOLE



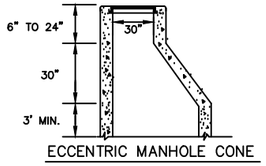
STANDARD MANHOLE



KEYWAY WITH WATERSTOP



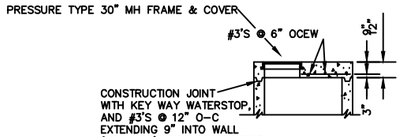
PRECAST CONCRETE FLAT TOP MANHOLE



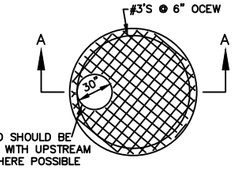
ECCENTRIC MANHOLE CONE

CLASSES OF CONCRETE

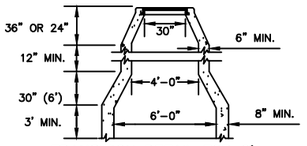
CLASS OF CONCRETE	SACKS OF CONCRETE PER CUBIC YARD	MIN. COMPRESSIVE STRENGTH AT 28 DAYS	MAX. WATER CEMENT RATIO
A	5	3000	6.5
B	4	2000	8.0
C	6.5	4200	5.5



SECTION A–A



ROOF STEEL LAYOUT



TRANSITION DETAIL FOR 6'

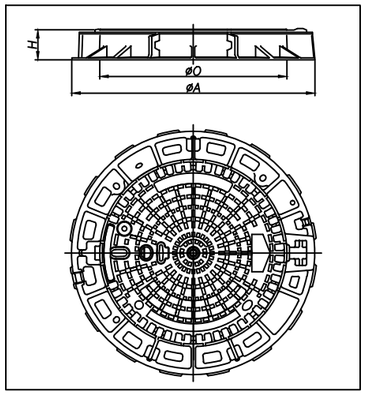
REV.	COMMENTS	BY	DATE

Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
SANITARY SEWER

MANHOLES
TRANSITIONS & ROOF OPTIONS

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–15
CHECKED:			



Manhole cover and frame shall be called PAMREX or approved equal. Cover and frame shall be manufactured from Ductile Iron.

Covers shall be hinged and incorporate a 90 degree blocking system to prevent accidental closure. Covers shall be one man operable using standard tools and shall be capable of withstanding a test load of 80,000 lbs.

Frames shall be circular, incorporate a seating ring and a fitted plug in the hinge housing, and be available in 32 inch clear opening. The frame depth shall not exceed 5 inches, and the flange shall incorporate bedding slots, bolt holes, and lifting eyes.

All components shall be black coated.

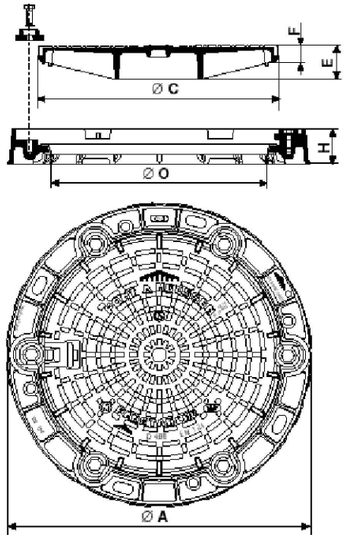
Frame weight: 107 lbs.
Cover weight: 162 lbs.
Total weight: 269 lbs.

DIMENSIONS (INCHES)			WEIGHT (lbs)		REFERENCE
A	O	H	COVER AND FRAME	COVER ONLY	
39.4	31.5	5	269	162	RE 32 R8 FD

INLET COVERS FOR LOCATIONS WHERE THE RIM ELEVATIONS ARE BELOW THE 100 YEAR FLOOD PLANE ELEVATION SHALL BE PAMTIGHT 32" BOLT DOWN RING AND COVER OR APPROVED EQUAL

PAMREX 32 INCH MANHOLE COVER AND FRAME

NTS



Manhole cover and frame shall be called CAMSEAL , PAMTIGHT or approved equal. Cover and frame shall be manufactured from Ductile Iron.

Covers shall be fastened to the frame by six clamping claws held by stainless steel bolts. Covers shall incorporate a sealed handling box and be one man operable using standard tools, and shall be capable of withstanding a test load of 80,000 lbs.

Frames shall be circular and be available in a 32 inch clear opening. The frame depth shall not exceed 4 inches, and the flange shall incorporate bedding slots and bolt holes.

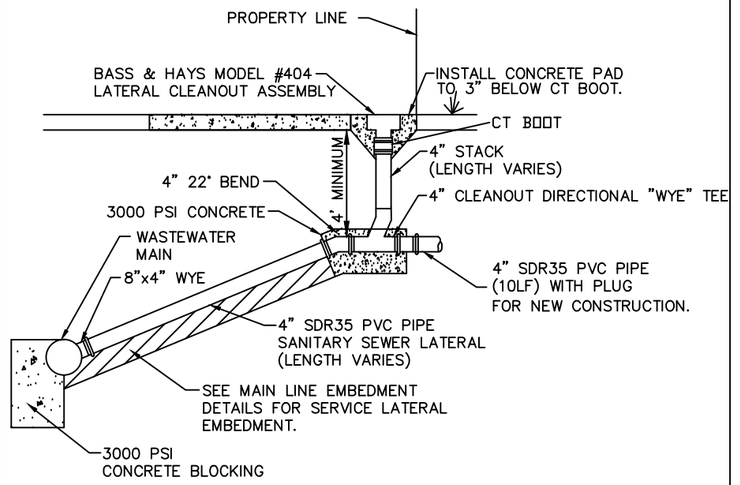
Cover and frame shall incorporate a seating ring to prevent ingress and escape of air and water to 1 bar positive or negative rating. Cover and frame shall be black coated.

Frame weight: 167 lbs. Cover weight: 185 lbs. Total weight: 352 lbs.

CAMSEAL / PAMTIGHT is available from Jim Cox Sales, Inc. (800) 838-7377

CAMSEAL / PAMTIGHT 32 INCH MANHOLE COVER AND FRAME

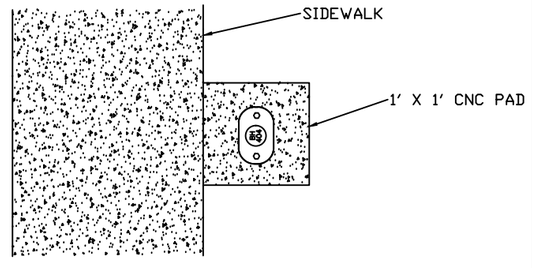
NTS



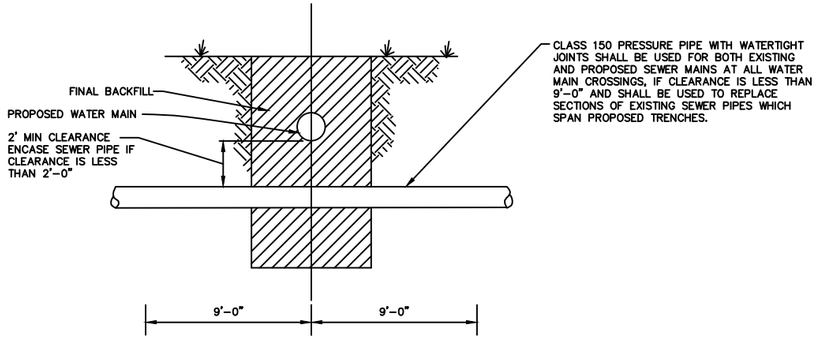
NOTES:

1. WASTEWATER CLEANOUT SHALL BE BASS & HAYS #404
2. SLOPE OF LATERAL TO BE 1% MIN, 2% MAX UNLESS INSTRUCTED OTHERWISE BY OWNER.
3. THE WASTEWATER LATERAL SHALL BE CONNECTED TO BUILDING LATERAL AND CONSTRUCTED IN SUCH MANNER AS TO CLEAR EXISTING UTILITIES AND PROPOSED FACILITIES SUCH AS STORM SEWER MAINS, PAVING, SIDEWALKS, RETAINING WALLS, ETC. VERTICAL BENDS (22.5° MAX) MAY BE USED IF APPROVED BY CITY.
4. THE MAINLINE LATERAL CONNECTION TO THE PRIVATE BUILDING LATERAL SHALL BE 10' FEET INTO PROPERTY.
5. THE CLEANOUT STACK & CASTING MAY BE PLACED IN THE PARKWAY, VEHICLE TRAFFIC AREAS, OR SIDEWALK AS APPROVED BY CITY.

TYPICAL SERVICE CONNECTION DETAIL



PLAN VIEW – CONCRETE PAD



SEWER AT WATER CROSSINGS & TRENCH SPANS

NOTES:

1. ALL MANHOLE RINGS AND LIDS SHALL BE COATED FOR CORROSION RESISTANCE BY MANUFACTUER.
2. ALL MANHOLE RINGS AND LIDS SHALL BE MINIMUM 30" DIAMETER.
3. ALL MANHOLE RINGS AND LIDS SHALL BE DOMESTIC MATERIAL ONLY.
4. ALL WATER CROSSINGS AND WASTEWATER CROSSINGS SHALL COMPLY WITH TCEQ REQUIREMENTS.

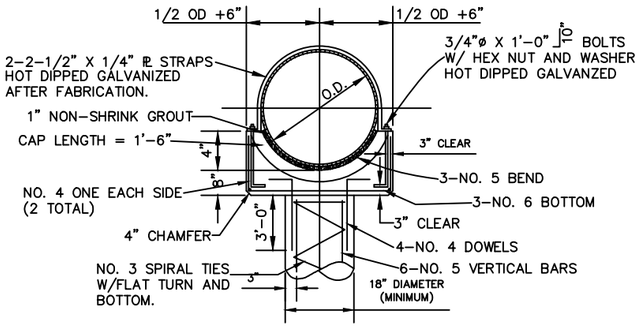
REV.	COMMENTS	BY	DATE

Rowlett TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

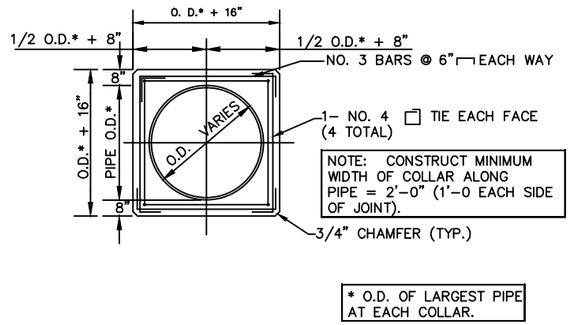
STANDARD CONSTRUCTION DETAILS
SANITARY SEWER

BORE W/CASING & CARRIER PIPE
MANHOLE COVERS – TYPICAL SERVICE
TRENCH CROSSING

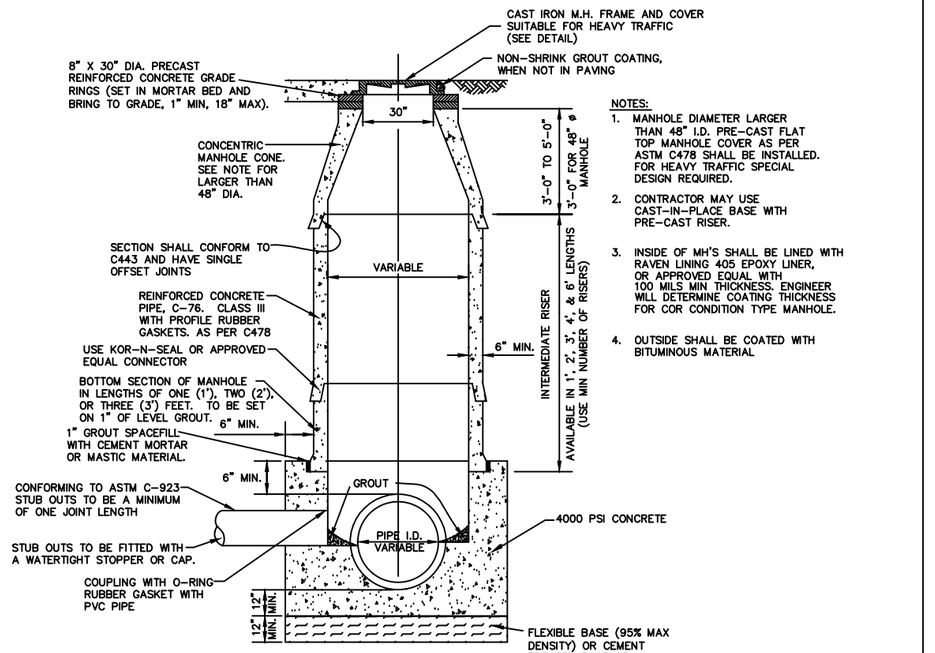
DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-16
CHECKED:			



AERIAL CROSSING PIER CAP DETAIL



AERIAL CROSSING CONCRETE COLLAR DETAIL



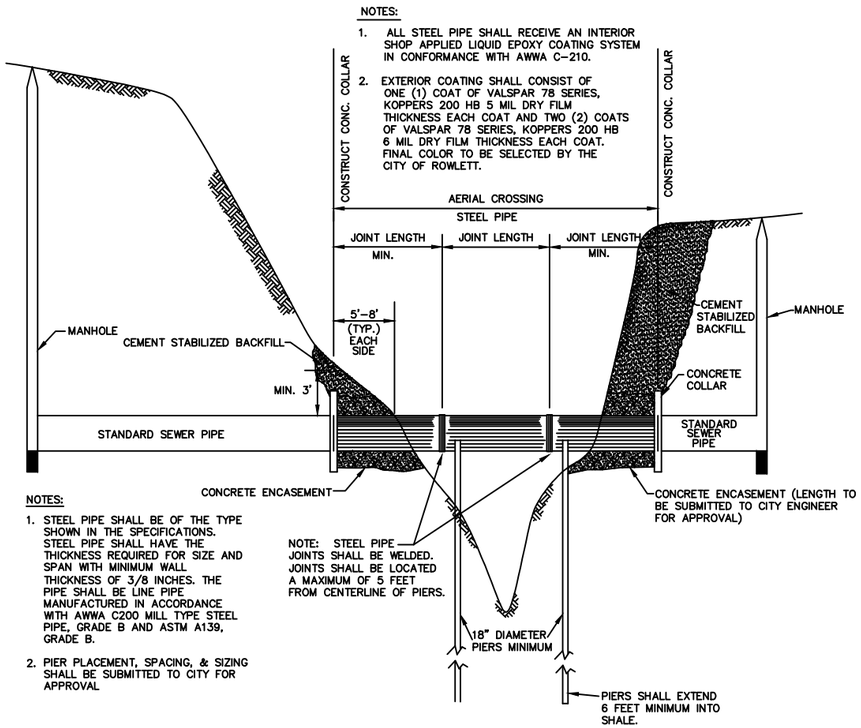
NOTES:

1. MANHOLE DIAMETER LARGER THAN 48" I.D. PRE-CAST FLAT TOP MANHOLE COVER AS PER ASTM C478 SHALL BE INSTALLED. FOR HEAVY TRAFFIC SPECIAL DESIGN REQUIRED.
2. CONTRACTOR MAY USE CAST-IN-PLACE BASE WITH PRE-CAST RISER.
3. INSIDE OF MH'S SHALL BE LINED WITH RAVEN LINING 405 EPOXY LINER, OR APPROVED EQUAL WITH 100 MILS MIN THICKNESS. ENGINEER WILL DETERMINE COATING THICKNESS FOR COR CONDITION TYPE MANHOLE.
4. OUTSIDE SHALL BE COATED WITH BITUMINOUS MATERIAL

PRECAST CONCRETE PIPE MANHOLE

NOTES:

1. ALL STEEL PIPE SHALL RECEIVE AN INTERIOR SHOP APPLIED LIQUID EPOXY COATING SYSTEM IN CONFORMANCE WITH AWWA C-210.
2. EXTERIOR COATING SHALL CONSIST OF ONE (1) COAT OF VALSPAR 78 SERIES, KOPPERS 200 HB 5 MIL DRY FILM THICKNESS EACH COAT AND TWO (2) COATS OF VALSPAR 78 SERIES, KOPPERS 200 HB 6 MIL DRY FILM THICKNESS EACH COAT. FINAL COLOR TO BE SELECTED BY THE CITY OF ROWLETT.



NOTES:

1. STEEL PIPE SHALL BE OF THE TYPE SHOWN IN THE SPECIFICATIONS. STEEL PIPE SHALL HAVE THE THICKNESS REQUIRED FOR SIZE AND SPAN WITH MINIMUM WALL THICKNESS OF 3/8 INCHES. THE PIPE SHALL BE LINE PIPE MANUFACTURED IN ACCORDANCE WITH AWWA C200 MILL TYPE STEEL PIPE, GRADE B AND ASTM A139, GRADE B.
2. PIER PLACEMENT, SPACING, & SIZING SHALL BE SUBMITTED TO CITY FOR APPROVAL

AERIAL CROSSING DETAIL

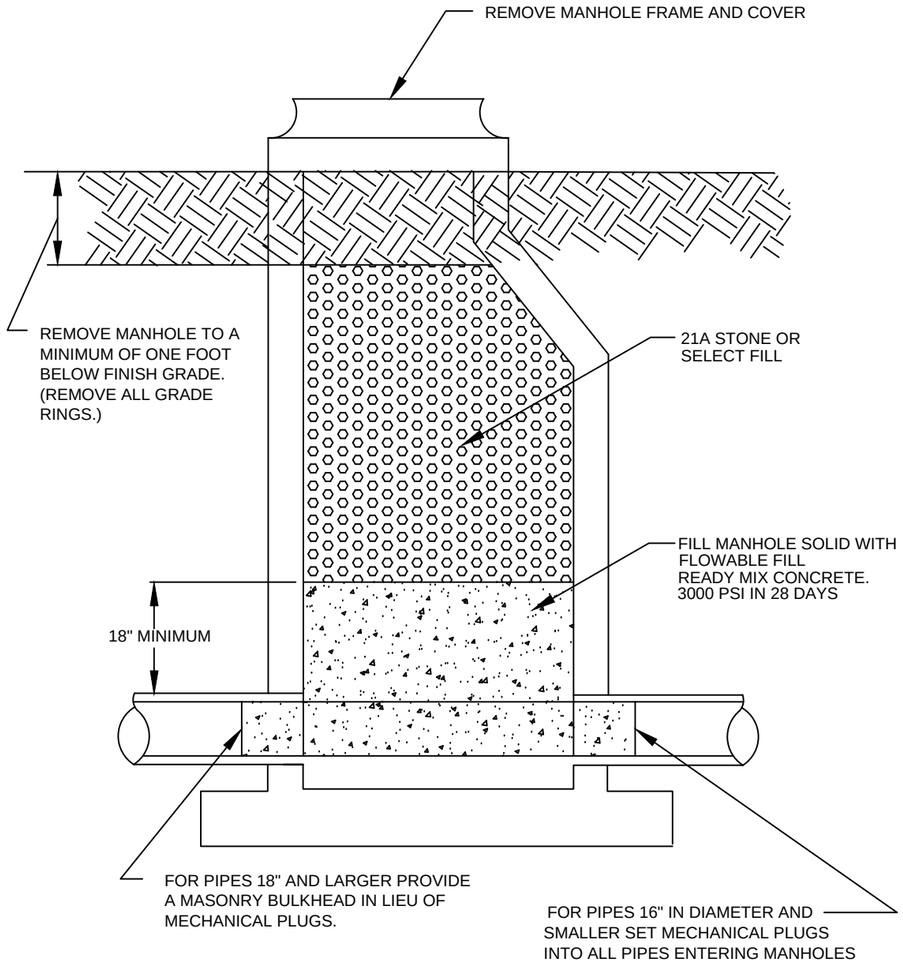
REV.	COMMENTS	BY	DATE

CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

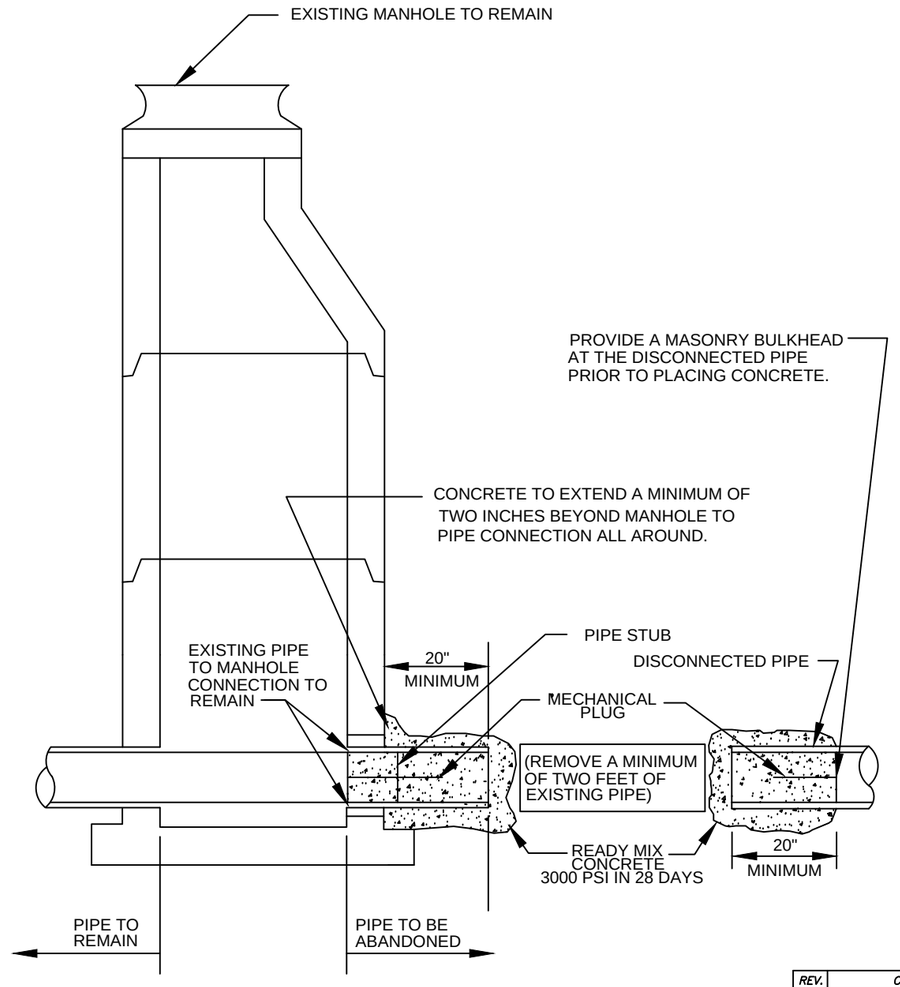
STANDARD CONSTRUCTION DETAILS
SANITARY SEWER

AERIAL CROSSING,
PRECAST CONCRETE PIPE MANHOLE

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-17
CHECKED:			



SANITARY SEWER MANHOLE ABANDONMENT



SANITARY SEWER PIPE ABANDONMENT AT A MANHOLE

REV.	COMMENTS	BY	DATE

Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
SANITARY SEWER

AERIAL CROSSING,
PRECAST CONCRETE PIPE MANHOLE

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DRAWN:	DATE: 10/2013		SD-17B
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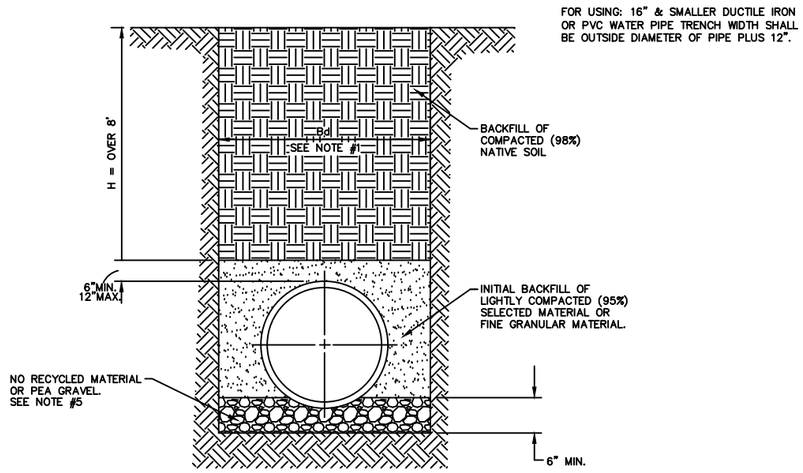
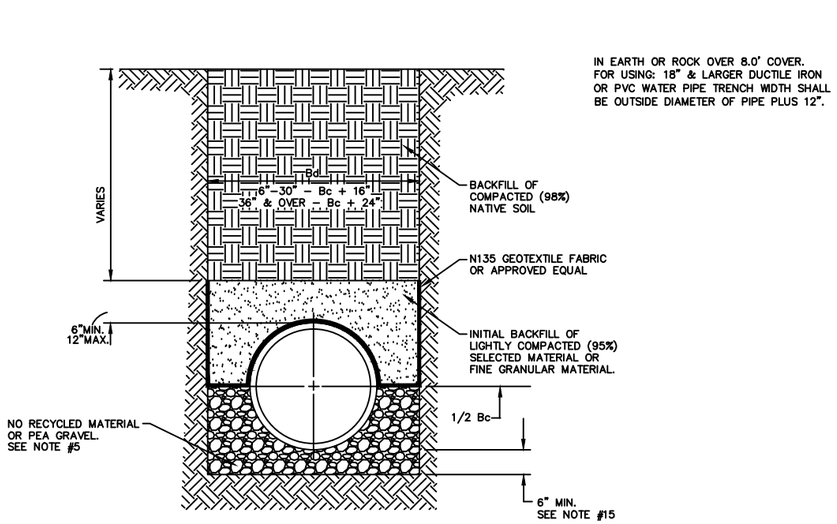
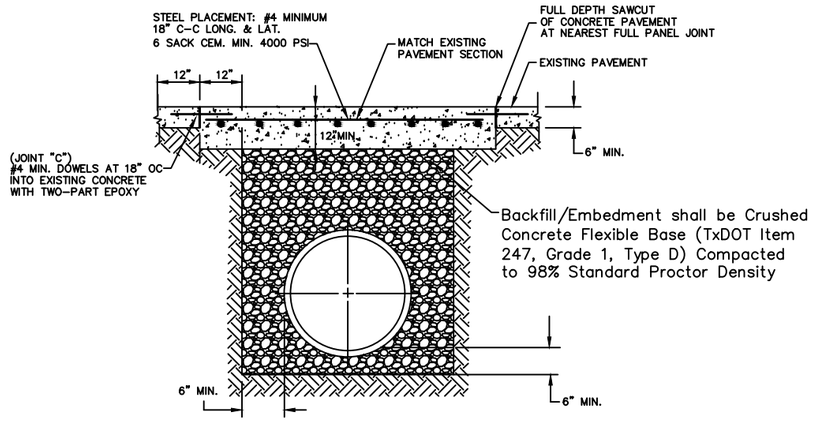


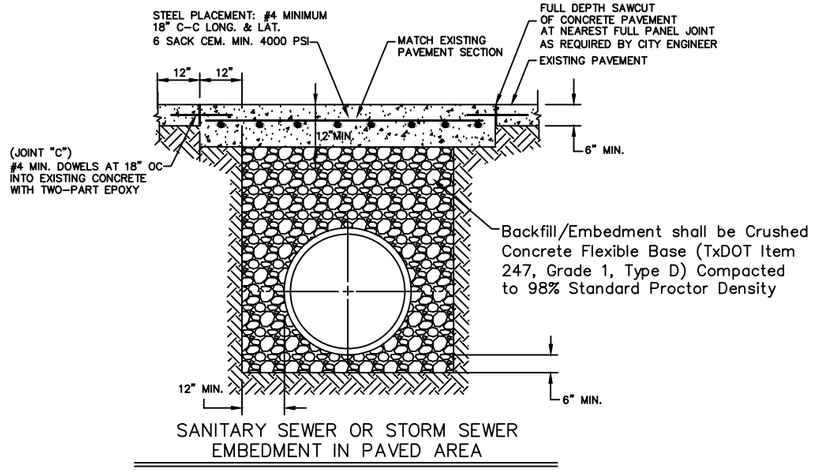
EMBEDMENT FOR WATER



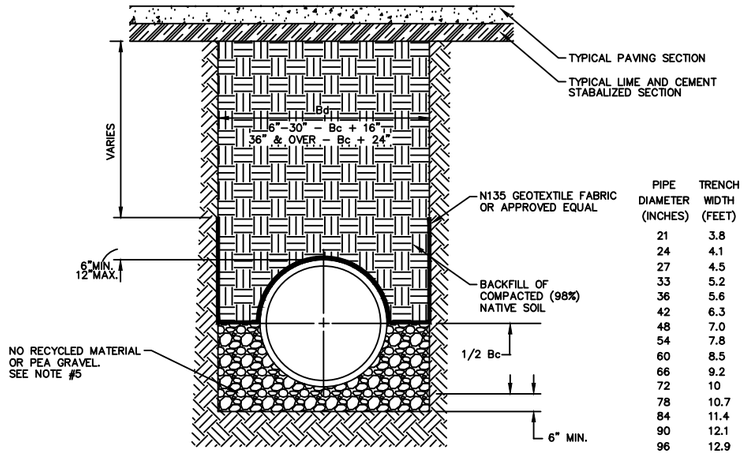
EMBEDMENT FOR SANITARY SEWER



WATER
EMBEDMENT IN PAVED AREA



SANITARY SEWER OR STORM SEWER
EMBEDMENT IN PAVED AREA



PIPE DIAMETER (INCHES)	TRENCH WIDTH (FEET)
21	3.8
24	4.1
27	4.5
33	5.2
36	5.6
42	6.3
48	7.0
54	7.8
60	8.5
66	9.2
72	10
78	10.7
84	11.4
90	12.1
96	12.9

EMBEDMENT FOR STORM SEWER

NOTES:

1. TYPE OF EMBEDMENT OR ENCASEMENT SHALL BE SHOWN IN THE PROFILES FOR ALL LINES. LOAD CALCULATIONS SHALL BE SUBMITTED TO THE PW DIR. OR HIS DESIGNEE.
2. NO WATER JETTING OR FLOODING ALLOWED UNDER PAVEMENTS. NO WATER JETTING OR FLOODING ALLOWED IN CLAY MATERIALS. JETTING PROCEDURE SHALL BE APPROVED BY THE PW DIRECTOR. OR HIS DESIGNEE.
3. ALL EMBEDMENT MATERIALS SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY EXCEPT UNDER FUTURE PAVING. UNDER FUTURE PAVING, EMBEDMENT MATERIALS SHALL BE COMPACTED TO 98% STANDARD PROCTOR DENSITY.
4. CLASS B CONCRETE MIN. 4 SACK, WATER CEMENT RATIO 8; 28-DAY MINIMUM STRENGTH, 2000 PSI.
5. CRUSHED STONE GRADATION (AGGREGATE GRADE 4)

SIEVE SIZE	% RETAINED
3/4 INCH	0
1/2 INCH	0-5
3/8 INCH	5-30
NO. 4	75-100

6. GRANULAR MATERIAL SHALL BE FREE FLOWING SUCH AS SAND OR HYDRAULICALLY GRADED CRUSHED STONE FINES, OR MIXED SAND & GRAVEL OR SANDY LOAM. THE MATERIAL SHALL BE FREE OF CLAY AND ORGANIC MATTER AND SHALL NOT CONTAIN LUMPS OR STONES OVER 2 INCHES IN DIAMETER.
7. SELECT MATERIAL SHALL BE GRAVEL, FINE ROCK CUTTINGS, SAND, SANDY LOAM, AND MATERIALS FREE OF CLAY AND ORGANIC MATTER. ROCK CUTTINGS SHALL HAVE NO DIMENSION OVER 2 INCHES.
8. FOR MAINS 30" ø OR LARGER, USE 1/8 Bc SHALL BE TAKEN AS 6".
9. CEMENT STABILIZED BACKFILL SHALL CONSIST OF A MIXTURE OF CLEAN SAND AND TWO (2) SACKS OF CEMENT PER CUBIC YARD OF SAND. ALL MATERIALS SHALL BE MIXED IN A CONCRETE MIXER OR TRANSIT MIXER. THE STABILIZED BACKFILL SHALL BE COMPACTED IN A MOIST CONDITION.
10. FLEXIBLE BASE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN TxDOT ITEM 247, "FLEXIBLE BASE", AND SHALL BE A TYPE D, GRADE 1 MATERIAL.
11. ASPHALT STABILIZED BASE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN TxDOT ITEM 292, "ASPHALT STABILIZED BASE", GRADE 2.
12. TRENCH SAFETY PROVISIONS SHALL APPLY ON ALL TRENCHES AND EXCAVATIONS.
13. BARRICADE AND TRAFFIC CONTROL PLANS SHALL BE REQUIRED AND SHALL HAVE THE APPROVAL THE CITY ENGINEER.
14. IF CLASS "D-" EMBEDMENT IS SPECIFIED AND IF LIGHTLY COMPACTED SELECT MATERIAL IS USED FOR INITIAL BACKFILL, A SPECIAL DESIGN SHALL BE PROVIDED FOR 60" DIAMETER AND LARGER PIPE. THIS COULD BE APPLICABLE TO CLASS "C" EMBEDMENT.
15. IN ROCK TRENCHES, THE MINIMUM UNDERCUT WILL BE 6" EXCEPT WHERE CONCRETE CRADLE IS USED.

REV.	COMMENTS	BY	DATE

ROWLETT TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
UTILITIES

EMBEDMENT and STREET REPAIR

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
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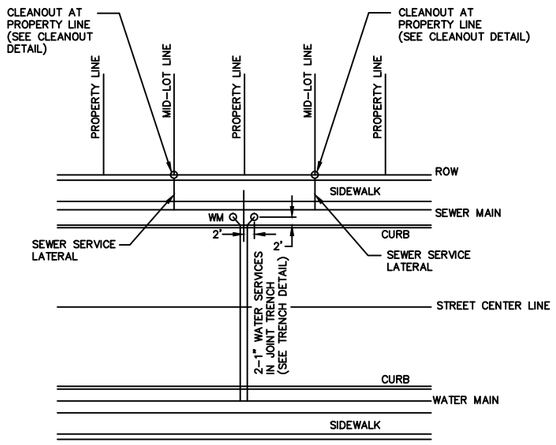
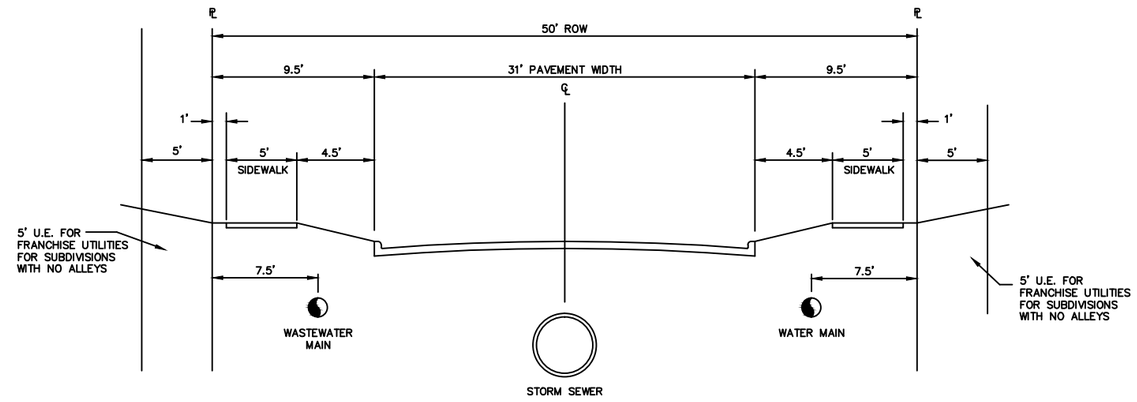
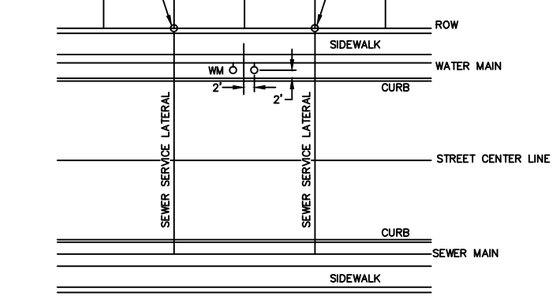


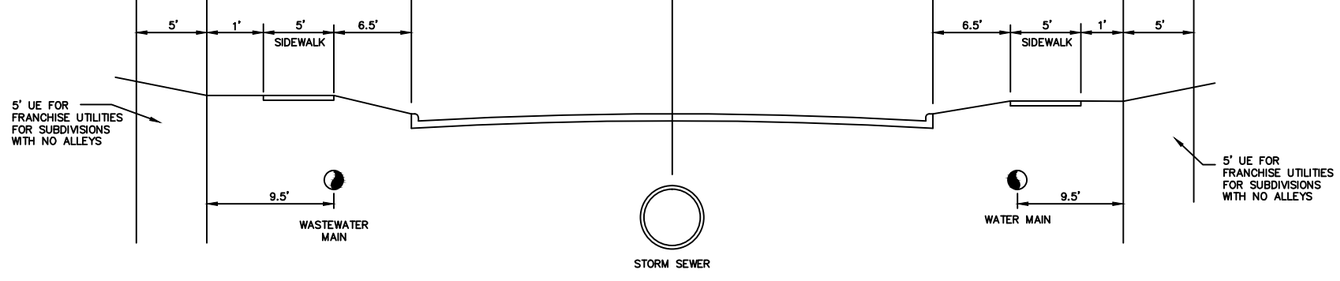
SHORT SEWER & LONG WATER SERVICE DETAIL



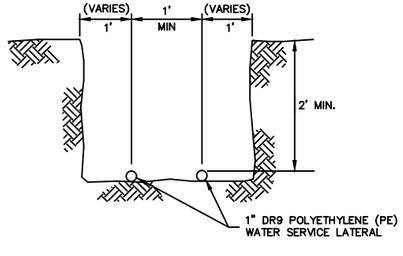
MINOR RESIDENTIAL STREET



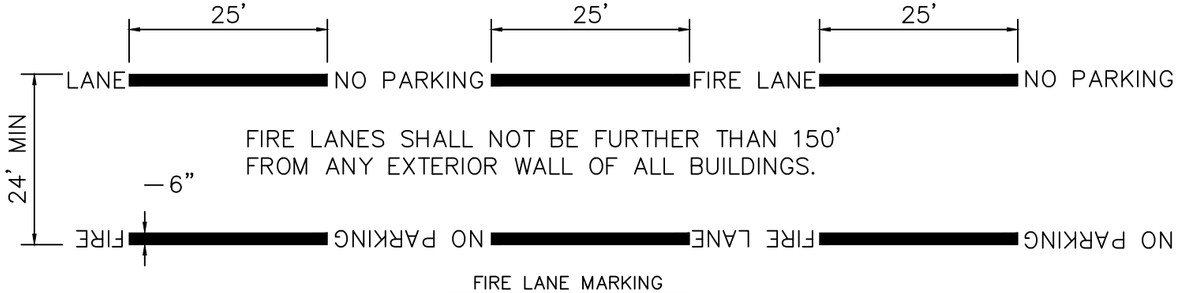
LONG SEWER & SHORT WATER SERVICE DETAIL



RESIDENTIAL COLLECTOR STREET



TYPICAL RESIDENTIAL WATER SERVICE JOINT TRENCH DETAIL



FIRE LANE MARKING

REV.	COMMENTS	BY	DATE

Rowlett TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
WATER AND SANITARY SEWER

UTILITY LOCATIONS & MISC

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE: 11-09-2010		SD-19
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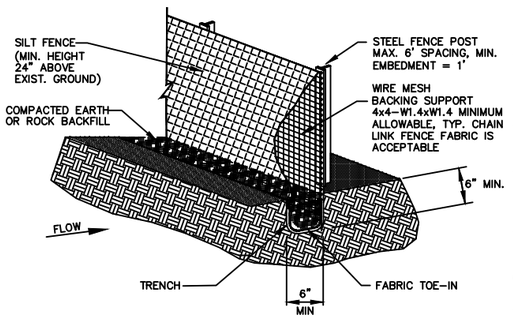
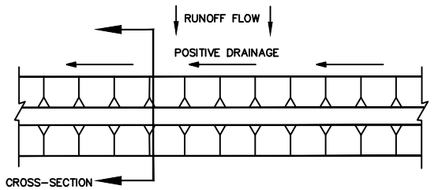


ISOMETRIC PLAN VIEW

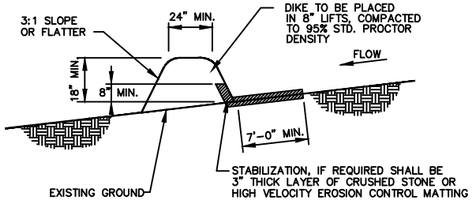
GENERAL NOTES – SILT FENCE

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE MADE EVERY 7 DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF A 1/2" RAINFALL EVENT. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

REINFORCED SILT FENCE



PLAN VIEW



CROSS SECTION

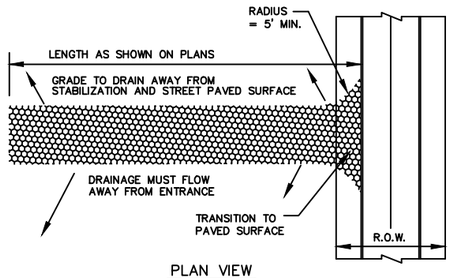
GENERAL NOTES – DIVERSION DIKE

1. ALL DIKES SHALL BE PLACED IN 8" LIFTS OR LESS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. ALL DIVERSION DIKES SHALL HAVE POSITIVE DRAINAGE TO A CONTROLLED OUTLET.
3. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL HAVE ITS OUTLET FLOW DIRECTED TO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE.
4. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED AREA SHALL BE CONVEYED TO A SEDIMENT TRAP SUCH AS A ROCK BERM, TEMPORARY SEDIMENT TRAP OR SEDIMENT BASIN, OR TO AN AREA PROTECTED BY ANY OF THESE MEASURES.
5. STABILIZATION IS REQUIRED WHEN VELOCITIES EXCEED 6 FEET PER SECOND OR WHEN GRADES EXCEED 2.0%. STABILIZATION SHALL BE CRUSHED STONE PLACED IN A LAYER OF AT LEAST 3-INCH THICKNESS OR HIGH VELOCITY EROSION CONTROL MATTING. VEGETATION MAY BE USED FOR VELOCITIES LESS THAN 6 FEET PER SECOND.
6. INSPECTION SHALL BE CONDUCTED EVERY TWO WEEKS OR AFTER EACH 1/2" RAINFALL EVENT.

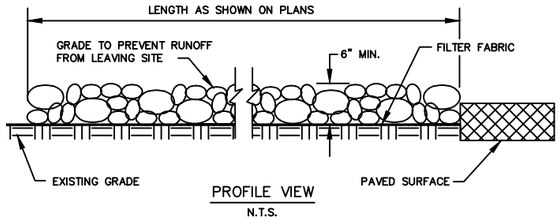
DIVERSION DIKE

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES

1. STONE SHALL BE 3 TO 5 INCH DIAMETER CRUSHED ROCK OR ACCEPTABLE CRUSHED PORTLAND CEMENT CONCRETE.
2. LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 30 FEET FOR LOTS WHICH ARE LESS THAN 150 FEET FROM EDGE OF PAVEMENT. THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 50 FEET.
3. THE THICKNESS SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.



PLAN VIEW
N.T.S.

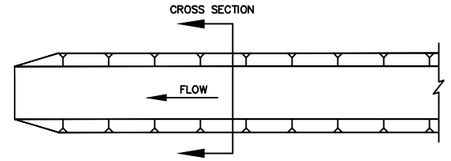


PROFILE VIEW
N.T.S.

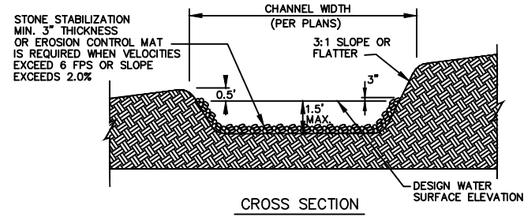
STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES – INTERCEPTOR SWALE

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
2. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS-SECTION AS REQUIRED TO MEET CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE DISPOSED OF IN AN APPROVED SPOILS SITE SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
4. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED UPLAND AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
5. THE ON-SITE LOCATION MAY NEED TO BE ADJUSTED TO MEET FIELD CONDITIONS IN ORDER TO UTILIZE THE MOST SUITABLE OUTLET.
6. STABILIZATION IS REQUIRED WHEN VELOCITIES EXCEED 6 FEET PER SECOND OR WHEN GRADES EXCEED 2.0%. STABILIZATION SHALL BE CRUSHED STONE PLACED IN A LAYER OF AT LEAST 3 INCHES THICKNESS OR HIGH VELOCITY EROSION CONTROL MATTING. VEGETATION MAY BE USED FOR VELOCITIES LESS THAN 6 FEET PER SECOND.
7. MINIMUM COMPACTION FOR THE SWALE SHALL BE 90 PERCENT STANDARD PROCTOR.

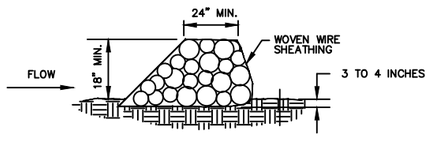


PLAN VIEW

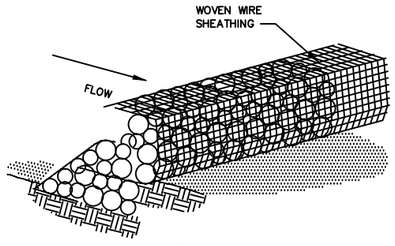


CROSS SECTION

INTERCEPTOR SWALE



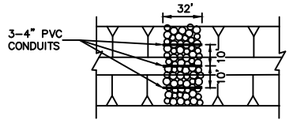
CROSS SECTION



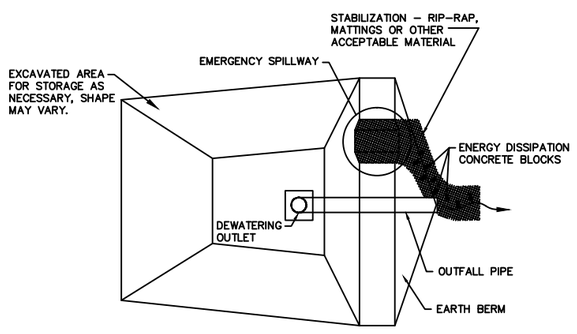
ISOMETRIC PLAN VIEW

GENERAL NOTES – ROCK BERM

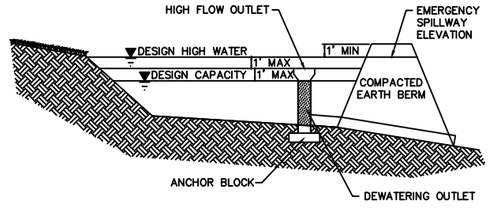
1. USE ONLY OPEN-GRADED ROCK 4-8 INCHES IN DIAMETER FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK 3-5 INCHES IN DIAMETER FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE SIZE OF 20 GAUGE AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.
3. THE ROCK BERM SHALL BE INSPECTED EVERY TWO WEEKS OR AFTER EACH 1/2" RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
6. ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN PERIMETER PROTECTION.



ROCK BERM



PLAN VIEW



CROSS SECTION

* MAXIMUM DRAINAGE AREA CONTRIBUTING TO THE BASIN SHALL BE 10 ACRES.

* MINIMUM CAPACITY OF THE BASIN SHALL PROVIDE STORAGE FOR THE CALCULATED VOLUME OF RUNOFF FROM A 2-YEAR, 24-HOUR STORM PER DISTURBED ACRE OF DRAINAGE AREA. WHERE NO SUCH CALCULATION HAS BEEN PERFORMED, THE MINIMUM CAPACITY OF THE BASIN SHALL BE 3,600 CUBIC FEET PER DISTURBED ACRE OF CONTRIBUTING DRAINAGE AREA.

SEDIMENT BASIN

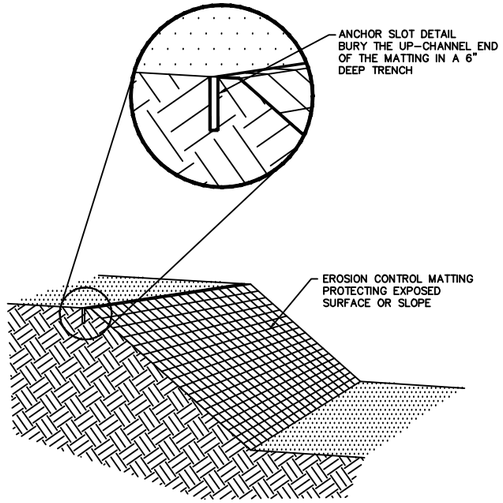
REV.	COMMENTS	BY	DATE

Rowlett TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

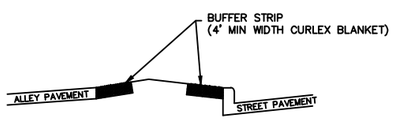
STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE

EROSION & SEDIMENTATION CONTROL
(SHEET 1 OF 2)

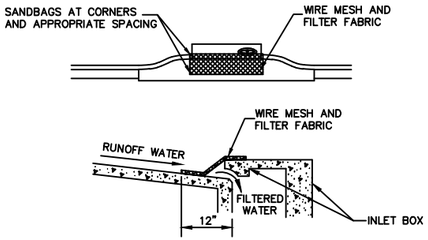
DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD-20
CHECKED:			



EROSION CONTROL MATTINGS



EROSION CONTROL BUFFER STRIP

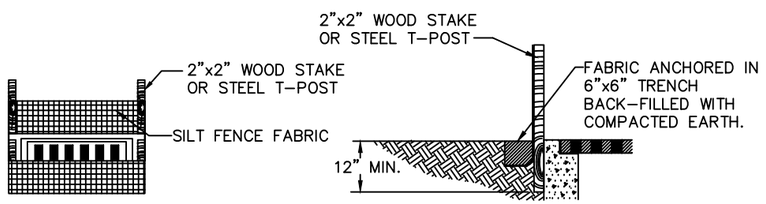


CURB INLET PROTECTION

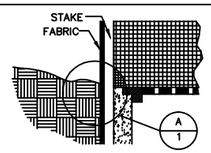
SEDIMENT BARRIER AT INLETS

GENERAL NOTES – EROSION CONTROL MATTINGS

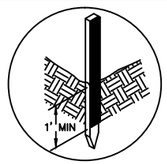
1. EROSION CONTROL SHALL COMPLY WITH THE LATEST EDITION OF THE NCTCOG.
2. STRIPS OF MATTING SHALL BE INSTALLED PARALLEL TO THE DIRECTION OF FLOW OVER THE SURFACE WHICH IS TO BE PROTECTED.
3. THE UP–CHANNEL END OF THE MATTING SHALL BE BURIED IN A TRENCH MEASURING 6 INCHES DEEP AND 6 INCHES WIDE FOR THE ENTIRE WIDTH OF THE END. THE SOIL SHALL BE BACKFILLED INTO THE TRENCH AND TAMPED FIRMLY. STAPLES SHALL BE PLACED EVERY 12 INCHES ALONG THE END OF THE MATTING.
4. EDGES OF ADJACENT STRIPS OF MATTING SHALL BE OVERLAPPED A MINIMUM OF 4 INCHES AND SHALL BE STAPLED EVERY 3 FEET ALONG THE OVERLAP.
5. WHEN JOINING STRIPS OF MATTING END TO END, A TRENCH SIMILAR TO THE ONE DUG AT THE BEGINNING OF THE ORIGINAL STRIP SHALL BE DUG WITH THE UP–CHANNEL END OF THE NEW STRIP BEING PLACED IN A LIKE MANNER IN THE TRENCH AS THE BEGINNING END OF THE ORIGINAL STRIP, THE END OF THE STRIP BEING FOLDED UNDER AT LEAST 12 INCHES. STAPLES SHALL BE INSTALLED AT 12 INCH INTERVALS ALONG THE WIDTH OF THE STRIP NOT MORE THAN 6 INCHES FROM THE TRENCH.
6. IN SITUATIONS WHERE ERODIBLE SOILS, STEEP SLOPES, OR HIGH VELOCITY FLOWS ARE ENCOUNTERED, A FOLD OF THE MATTING SHALL BE INSERTED INTO A 6 INCH TRENCH AND TAMPED FIRMLY. STAPLES SHALL BE INSTALLED AT 12 INCH INTERVALS ALONG THE TRENCH.
7. STAPLES FOR ANCHORING SOIL STABILIZING MATERIALS SHALL BE MADE OF 10 GAUGE WIRE OR HEAVIER. THEY SHALL BE 6 TO 10 INCHES IN LENGTH, WITH THE LONGER STAPLES BEING USED IN LOOSE OR UNSTABLE SOILS. THERE SHALL BE ONE STAPLE FOR EACH FOUR (4) SQUARE FEET OF MATTING TO ASSURE PROPER BONDING BETWEEN THE SOIL AND THE MAT MATERIAL.



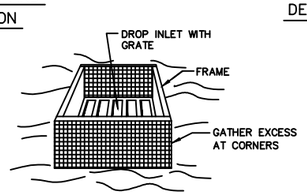
I. STANDARD INSTALLATION



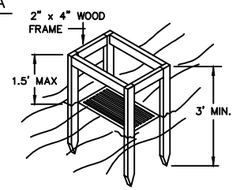
ELEVATION OF STAKE AND FABRIC ORIENTATION



DETAIL A



PERSPECTIVE VIEW



PERSPECTIVE VIEW

II. ALTERNATE INSTALLATION

INLET PROTECTION FILTER BARRIER

SPECIFIC APPLICATION:

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT TO EXCEED 1 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREETS OR HIGHWAY MEDIANS.

REV.	COMMENTS	BY	DATE

Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE

EROSION & SEDIMENT CONTROL
(SHEET 2 OF 2)

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–21
CHECKED:			

Duralight - Internally Illuminated LED Street Name Sign Specifications

The sign body shall be light weight for easy installation and made of aluminum. All hardware shall be stainless steel.

The standard sign assembly height is 22" with standard widths of:

72 inches (6 foot)
Maximum length 96 inches (8 foot)

Letter Size: Initial Upper Case 10 inches, lower case 8 inches and 4 inch block numbers. Single sided signs.

Different sizes for special sign requirement are also available upon request. **All signs shall be 3 maximum of thickness.**

The maximum weight of the sign (without mounting hardware) should not exceed 70 lbs. for the 96-inch, 40 lbs. for 72 inches, and 15 lbs. for 48 inches signs.

Drain holes shall be positioned on the bottom of the sign to allow the draining of any water condensation in the enclosure.

The finish of the aluminum sign assembly shall be powder coated per request of the city.

A quality assurance program meeting MIL-STD-883 at the factory of the manufacturer is preferred.

The Sign face shall be made of strong polycarbonate material with UV and abrasion resistance.

Sheeting, including material and grades, shall be approved by end users before cutting. Letterings, including font and spelling, shall be reviewed and approved before making the signs.

The entire surface of the sign panel must be evenly illuminated with a minimum average brightness reading at the letters of 330 candelas per square meter cd/m² (31 candelas per square foot).

The manufacturer shall have a minimum six (6) years of experience in the manufacturing of traffic related products LED traffic control related products, and shall be ISO 9001-2000 International Quality System certified .

Maintenance: The sign shall be designed in a way that the replacement of sign face sheeting can be performed in the field without the need to remove the sign.

The sign shall be designed in a way that the replacement of LED modules can be performed in the field without the need to remove the sign in case any LED on the sign is burned out.

The sides of the sign assembly facing traffic shall have removable faces mounted in an aluminum U-channel cover that is tightened at the bottom. The frame for these sides shall be of one-piece construction.

Letter Spacing and Width: All letter and spacing shall be in compliance with minimum recommendation. Letters/Legends requiring lengths in excess of the maximum size of the sign face shall be adjusted, condensing the letters/legend to fit the sign.

The sign assembly, including the sign panel and mounting assemblies shall be designed, tested, and constructed so that no permanent deformation, warping, or failure will occur when subjected to 110 mph wind loads.

The sign shall be equipped with solid-state high power white LED light strips utilizing state-of-the-art hi-flux LED's with an efficient heat-dissipating feature.

LED light engine maximum power values shall not exceed 100 W for a 6-ft. sign that is illuminated on both sides and 135 W for an 8 ft. sign illuminated on both sides.

The LED light strip modules shall have a power supply regulating the voltage and current to preserve the life of the LED's. The sign shall operate on 120 VAC (nominal). The sign shall be able to operate over the temperature range of -40°C to +74°C.

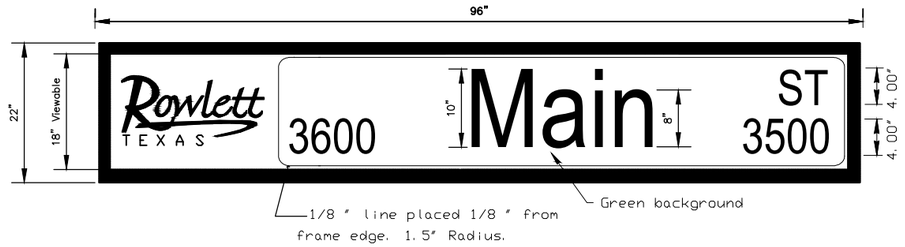
Life expectancy of the LED sign shall be a minimum of 100,000 hours with a 50% duty cycle.

A secondary reflecting device shall be installed at the top and bottom edges of the sign to help spread the light evenly over the sign face.

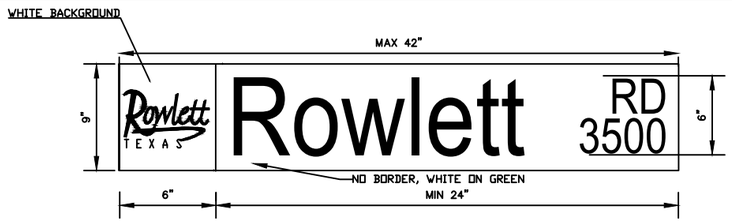
Mast arm mounting brackets shall be included with each sign.

A photo cell shall be provided, if requested, for each sign for on and off electrical switching control of the sign.

Manufacturer shall provide a minimum of three (3) years warranty on the LED sign.



ILLUMINATED STREET SIGN



NOTES:
1. CONTRACTOR SHALL PLACE SIGNS IN CONFORMANCE WITH THE CURRENT "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
2. BLOCK NUMBERS (CARDINAL DIRECTION) SHALL BE INCLUDED ON SIGNS AND VERIFIED PRIOR TO SIGN FABRICATION.
3. CONTRACTOR SHALL SUBMIT THE SIGN DESIGN TO THE CITY OF ROWLETT FOR APPROVAL PRIOR TO SIGN FABRICATION.
4. ALPHABETS AND LATERAL SPACING BETWEEN LETTERS AND NUMERALS SHALL CONFORM WITH THE STATE OF TEXAS "STANDARD HIGHWAY SIGN DESIGNS, 2010", LATEST EDITION AND ANY APPROVED CHANGES THERETO.
5. LATERAL SPACING OF TEXT SHALL BE AS TO PROVIDE A BALANCED APPEARANCE.
6. SIGN BACKGROUNDS SHALL BE OF FLAT SURFACE REFLECTIVE SHEETING (TYPE IX SHEETING) CONFORMING WITH THE CITY OF ROWLETT SPECIFICATIONS.
   A. SIGN LEGENDS SHALL BE APPLIED USING E. C. FILM ONLY.
   B. SHEETING AND EC FILM MUST BE FROM MATCHING SIGNING SYSTEM (3M).
7. SIGN BLANKS SHALL BE 9" AND MADE OF EXTRUDED ALUMINUM 0.125" THICK.
8. CITY OF ROWLETT LOGO STICKER (6" X 9") WILL BE PROVIDED TO THE CONTRACTOR BY THE CITY.
9. CONTRACTOR SHALL CONTACT WADE WILLIAMS WITH THE CITY OF ROWLETT (972-412-6168) TO OBTAIN LOGOS AND VERIFY THE PLACEMENT OF LOGO ON THE STREET NAME SIGN AT COST TO THE CONTRACTOR .
10. ALL FOUR-SIDED SIGNS SHALL HAVE 1.5-INCH RADIUS CORNERS. ALL SIGNS SHALL BE EC FILM OVER TYPE XI (DG3) SHEETING. ALL SIGN SIZES AND FONTS SHALL CONFORM TO CURRENT TEXAS MUTCD. ALL GROUND MOUNTED SIGNS SHALL BE GALVANIZED 12-GAUGE GROUND MOUNTED SIGN SYSTEMS. THE SYSTEM SHALL CONSIST OF THE FOLLOWING THREE ELEMENT:
   A) 12-FOOT LONG 2-3/8" INCH ROUND POLES WITH HOLES.
   B) 30-INCH LONG ROUND BASE

NON–ILLUMINATED STREET SIGN

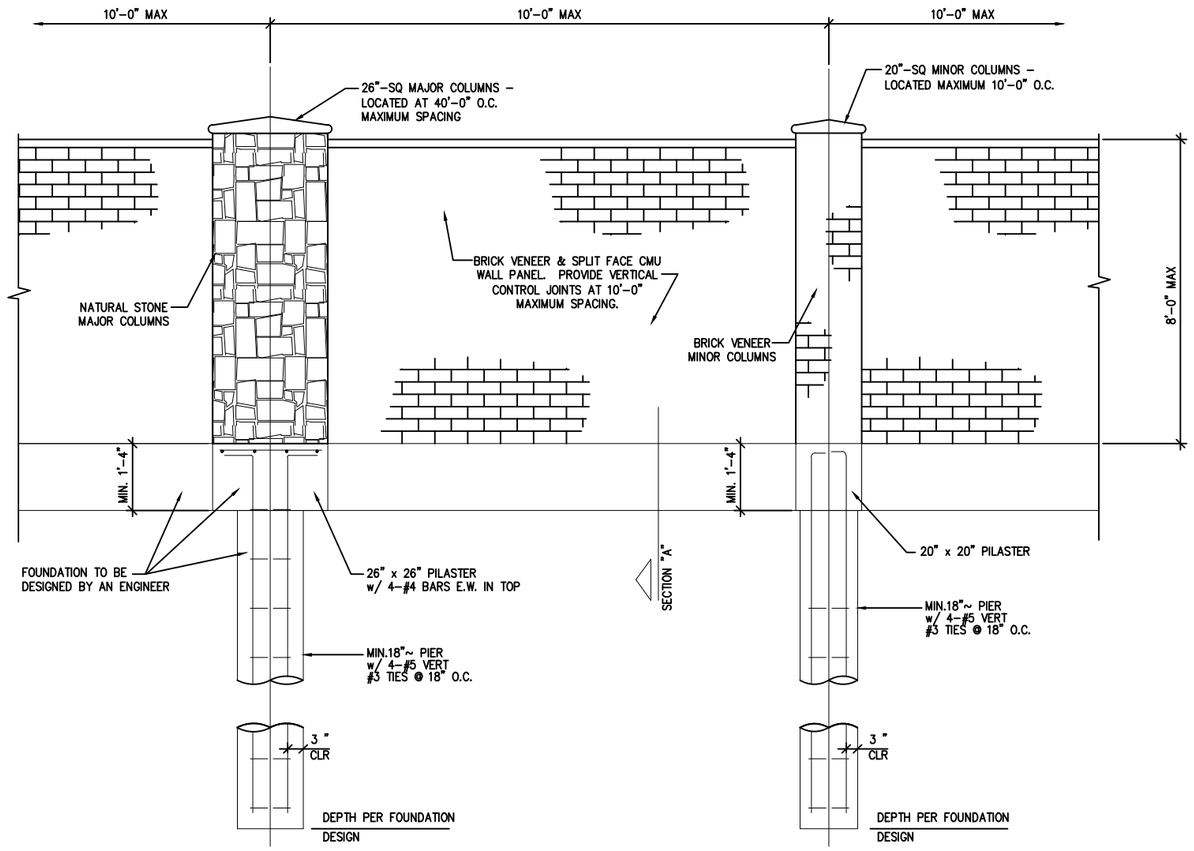
REV.	COMMENTS	BY	DATE

Rowlett TEXAS CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS

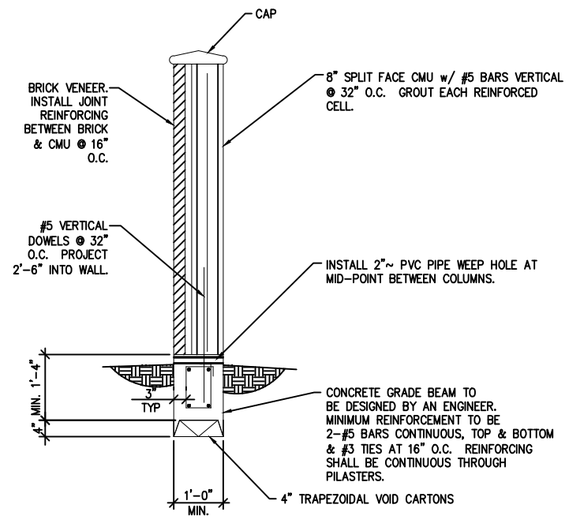
STREET SIGNS

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE:		SD–22
CHECKED:			

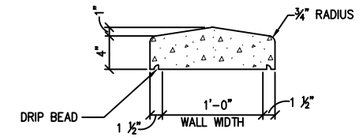


TYPICAL SCREEN WALL ELEVATION

N.T.S.

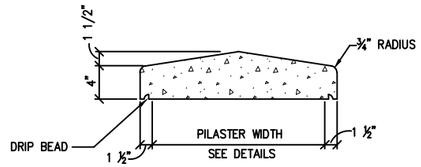


SECTION 'A'



WALL CAP DETAIL

N.T.S.



PILASTER CAP DETAIL

N.T.S.

GENERAL PROVISIONS

VERIFY AND ESTABLISH DIMENSIONS, CLEARANCES, AND FIELD CONDITIONS INCLUDING THE LOCATION OF UTILITIES PRIOR TO THE START OF DEMOLITION, EXCAVATION AND FABRICATION. COORDINATE CONSTRUCTION WITH ALL TRADES INVOLVED ON THE PROJECT.

DRAWINGS SHOW TYPICAL CONSTRUCTION REQUIREMENTS BASED ON AVAILABLE INFORMATION. IF FIELD CONDITIONS DIFFER FROM THOSE SHOWN ON THE DRAWINGS, SUBMIT PROPOSED MODIFICATIONS TO D&E STRUCTURES FOR REVIEW BEFORE PROCEEDING.

DESIGN CRITERIA

DESIGN CODES AND SPECIFICATIONS

DESIGN SHALL CONFORM TO MINIMUM SPECIFICATIONS AS OUTLINED IN ORDINANCE NO. 7-20-99.

ICC, INTERNATIONAL BUILDING CODE, 2003 EDITION
ASCE, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES. SEI/ASCE 7-02.
ACI, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE. ACI 318-02/318R-02.
ACI, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES. ACI 530-02.

DESIGN LOADS

WIND LOADS IBC 2003 EDITION, SEI/ASCE 7-02.

BASIC WIND SPEED .....90 MPH
IMPORTANCE FACTOR.....1.0
EXPOSURE CATEGORY.....B
CALCULATED WIND PRESSURE .....12 PSF
SPECIFIED WIND PRESSURE .....24 PSF - GOVERNS

CONCRETE

ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND THE ACI SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

ALL POURED IN PLACE CONCRETE SHALL:

DEVELOP 3000 PSI COMPRESSIVE STRENGTH IN 28 DAYS.
BE MADE WITH TYPE I OR II CEMENT.
CONTAIN 5 PERCENT ENTRAINED AIR.

DELIVERY OF TRANSIT MIXED CONCRETE SHALL CONFORM TO ASTM C94.

MASONRY

ALL MASONRY WORK SHALL CONFORM TO CHAPTER 21 OF THE IBC, THE BRICK INSTITUTE OF AMERICA 'RECOMMENDED PRACTICE FOR ENGINEERED BRICK MASONRY', AND THE AMERICAN CONCRETE INSTITUTE 'SPECIFICATION' & 'BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530.1-02 & ACI 530.1-02).

COMPLETELY FILL ALL HEAD AND BED JOINTS WITH MORTAR. JOINTS ARE TO BE TOOLED CONCAVE OR CUT FLUSH.

FILL ALL CAVITIES WITHIN COLUMNS SOLIDLY WITH 2500 PSI CONCRETE GROUT.

BRICK SHALL HAVE A UNIT COMPRESSIVE STRENGTH ON GROSS AREA EXCEEDING 6500 PSI. F'm = 2600 PSI.

CMU SHALL HAVE A UNIT COMPRESSIVE STRENGTH ON GROSS AREA EXCEEDING 1900 PSI. F'm = 1500 PSI.

MORTAR MIX SHALL BE TYPE S, ASTM C270. PROPORTIONS SHALL BE BY VOLUME AS FOLLOWS:
1 PART PORTLAND CEMENT
1/4 PART LIME
3 1/4 PARTS DAMP LOOSE MORTAR SAND

THE USE OF MASONRY CEMENT IS PROHIBITED. USE ONLY PORTLAND CEMENT AND LIME OR MORTAR CEMENT.

REINFORCING STEEL

ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60, EXCEPT #3 BARS MAY BE GRADE 40.

MASONRY JOINT REINFORCEMENT SHALL BE ASTM A951, LADDER OR TRUSS TYPE, WITH THREE 9 GAGE LONGITUDINAL WIRES.

FABRICATE AND PLACE REINFORCEMENT PER ACI 315 AND THE CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS."

PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING IN THE POSITIONS SHOWN.

MATERIAL COLORS

BRICK: HANSON PROVIDENCE BRICK
GROUT: STONE PILASTER (BUFF WHITE)
BRICK (STANDARD GRAY)
CAP: BUFF WHITE
STONE: HAND-CUT LIMESTONE, CLASSIFICATION III (HIGH DENSITY) PER ASTM C 568 - (DENSITY: 150 LB/CU. FT.(2400kg/cu. m), ABSORPTION BY WEIGHT: 5 PERCENT MAXIMUM, MODULUS OF RUPTURE: 800 PSI (5.5 MPa) MINIMUM)

SPECIAL DESIGN NOTE:

THE FOUNDATION AND STRUCTURAL DESIGN OF THE SCREENING WALL SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS. THIS DESIGN SHALL BE SUBMITTED AS A SHOP DRAWING TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION OF THE SCREENING WALL.

REV.	COMMENTS	BY	DATE

ROWLETT TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
SCREENING WALL

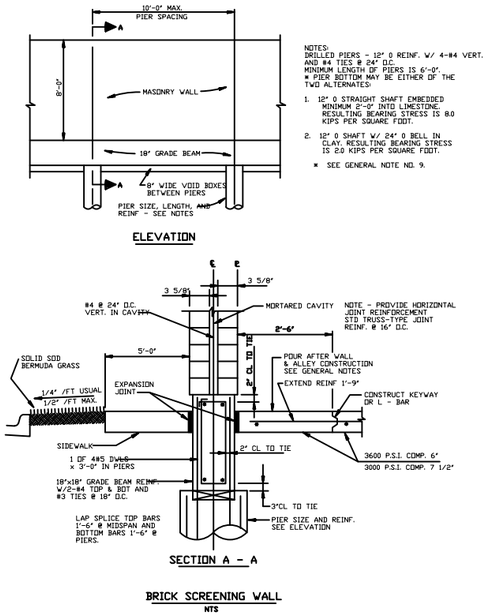
SCREENING WALL DETAILS
SHEET 1 OF 2

DESIGN:	SCALE: NTS	PROJECT NO.	SHEET
DRAWN:	DATE: 10-2013		SD-23
CHECKED:			

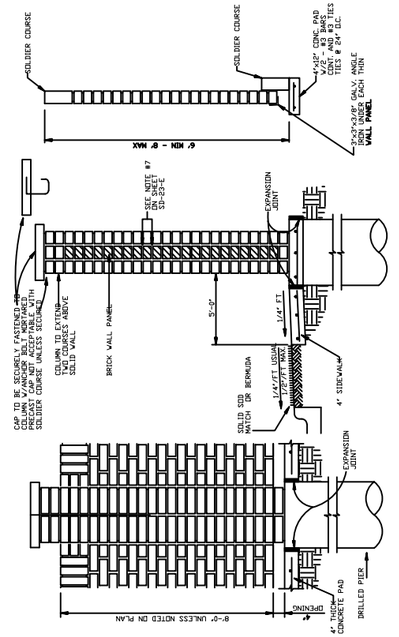
GENERAL NOTES

1. CONCRETE - MINIMUM STRENGTH, 4000 P.S.I. @ 28 DAYS.
2. REINFORCEMENT - ASTM A 36.
3. MASONRY - COMPRESSIVE STRENGTH SHALL BE ACHIEVED AS PRESCRIBED BY MSJC SPECIFICATION IN SECTION 1.4B AND THE INTERNATIONAL BUILDING CODE UTILIZING ASTM C-270 AND ASTM C-780 BY UTILIZING ASTM GUIDE C-1586, 2000 PSI MIN. THE STRUCTURAL ENGINEER MAY REQUIRE ADDITIONAL COMPRESSIVE STRENGTH.
4. WIND LOAD - 20 P.S.F.
5. PIER BEARING STRESSES - SEE BRICK SCREENING WALL NOTES.
6. MORTAR - TYPE 'S'.
7. PROVIDE CONTROL JOINTS @ 50 FEET.
8. PROVIDE EXPANSION JOINTS @ 200 FEET ON CENTER MAXIMUM.
9. WHERE THERE IS NO ALLEY PAVEMENT, PROVIDE MINIMUM 9 FEET IN CLAY OR 6'-0" MINIMUM WITH 3'-0" MINIMUM INTO ROCK.
10. ALL EXPOSED CONCRETE SHALL HAVE A RUBBED FINISHED SURFACE.
11. SIDEWALKS ADJACENT TO WALLS MUST BE 5'-0" MINIMUM WIDTH FROM ALL PORTIONS OF THE WALL (INCLUDING PILASTERS, COLUMNS, ETC.).
12. MAXIMUM PILASTER SPACING 40 FEET.
13. WALLS ON THE LINE OF SIGHT EASEMENT AT CORNERS, WILL NOT HAVE A TOP ELEVATION GREATER THAN 30" ABOVE THE NEAREST GUTTER ELEVATION.
14. THE WALL SHALL BE EIGHT FEET IN HEIGHT AS MEASURED FROM THE NEAREST ALLEY EDGE OR SIDEWALK GRADE, WHICHEVER IS HIGHER. THE COLOR OF THE WALL SHALL BE LIMITED TO EARTH-TONE COLORS, EXCLUDING GRAY, GREEN AND WHITE. THE COLOR OF THE WALL SHALL BE UNIFORM ON EACH SIDE OF A THOROUGHFARE FOR THE ENTIRE LENGTH BETWEEN TWO INTERSECTING THOROUGHFARES, UNLESS OTHERWISE APPROVED BY THE ENGINEERING DEPARTMENT. THE FINISH OF THE WALL SHALL BE CONSISTENT ON ALL SURFACES.

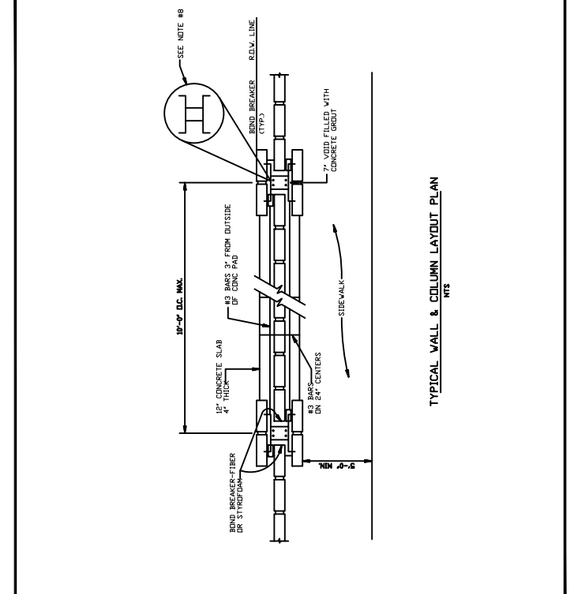
CITY OF ROWLETT DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	GENERAL NOTES BRICK SCREENING WALLS	STANDARD CONSTRUCTION DETAILS		
		DATE: MARCH 2013	REV DATE: MARCH 2013	SHEET: SD-23-A



CITY OF ROWLETT DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	BRICK SCREENING WALL	STANDARD CONSTRUCTION DETAILS		
		DATE: MARCH 2013	REV DATE: MARCH 2013	SHEET: SD-23-B



CITY OF ROWLETT DEPARTMENTR OF PUBLIC WORKS ENGINEERING DIVISION	ELEVATION BRICK SCREENING WALL	STANDARD CONSTRUCTION DETAILS		
		DATE: MARCH 2013	REV DATE: MARCH 2013	SHEET: SD-23-C

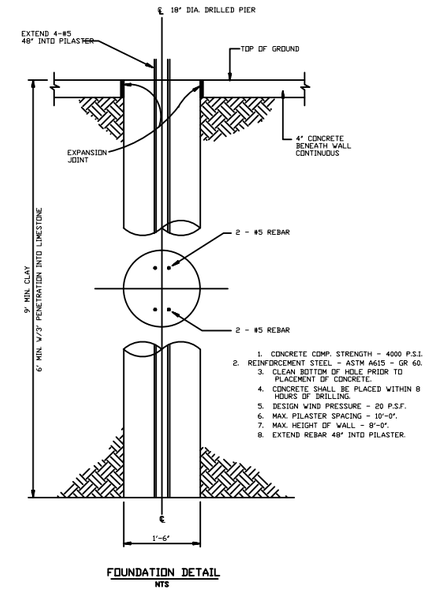


CITY OF ROWLETT DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	TYPICAL WALL & COLUMN LAYOUT PLAN BRICK SCREENING WALL	STANDARD CONSTRUCTION DETAILS		
		DATE: MARCH 2013	REV DATE: MARCH 2013	SHEET: SD-23-D

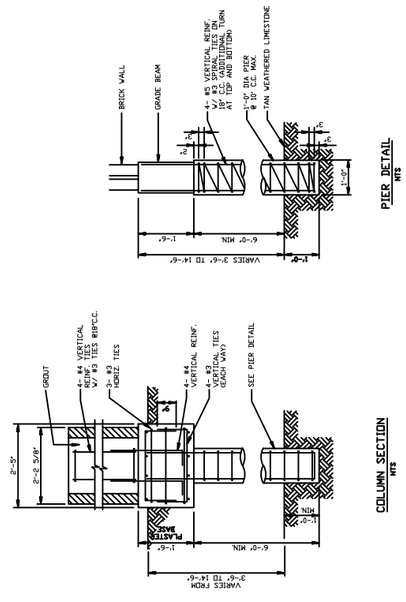
GENERAL NOTES

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 P.S.I. AT 28 DAYS.
2. REINFORCING STEEL SHALL BE NEW BILLET STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A-615-GR.60.
3. CONCRETE FOR DRILLED PIERS SHALL BE PLACED WITHIN 8 HOURS OF DRILLING PIER HOLES.
4. BRICK MASONRY SHALL BE AS SPECIFIED IN ITEM 2.3.6 OF THE SPECIAL PROVISIONS.
5. MORTAR SHALL BE TYPE 'S'.
6. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 'RECOMENDED PRACTICE FOR ENGINEERED BRICK MASONRY' - BRICK INSTITUTE OF AMERICA.
7. USE #9 GAUGE 1 3/4" WIDE GALVANIZED LADDER WIRE TO EXTEND HORIZONTAL IN WALL PANEL DURAWALL CORP. FOR EVERY COURSE.
8. #9 GAUGE WIRE FAFBRICATED AS SHOWN BETWEEN EACH COURSE OF COLUMN BRICK.
9. THE WALL SHALL BE MIN SIX AND MAX EIGHT FT IN HEIGHT AS MEASURED FROM THE NEAREST ALLEY EDGE OR SIDEWALK GRADE, WHICHEVER IS HIGHER. THE COLOR OF THE WALL SHALL BE LIMITED TO EARTH-TONE COLORS, EXCLUDING GRAY, GREEN AND WHITE. THE COLOR OF THE WALL SHALL BE UNIFORM ON EACH SIDE OF A THOROUGHFARE FOR THE ENTIRE LENGTH BETWEEN TWO INTERSECTING TYPE A, B, OR C THOROUGHFARES, UNLESS OTHERWISE APPROVED BY THE ENGINEERING DEPARTMENT. THE FINISH OF THE WALL SHALL BE CONSISTENT ON ALL SURFACES.
10. SCREENING WALLS SHALL BE LOCATED AT THE PROPERTY LINE. A HOME OWNERS ASSOCIATION WILL BE ESTABLISHED AND SHALL PROVIDE MAINTENANCE FOR THE REFERENCED WALL.

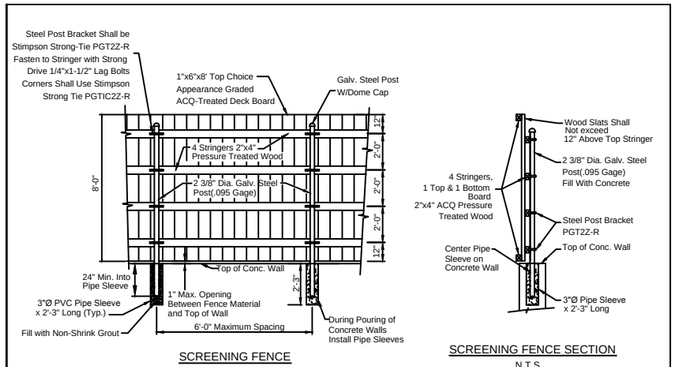
CITY OF ROWLETT DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	GENERAL NOTES PIER AND COLUMN DETAILS FOR BRICK SCREENING WALLS	STANDARD CONSTRUCTION DETAILS		
		DATE: MARCH 2013	REV DATE: MARCH 2013	SHEET: SD-23-E



CITY OF ROWLETT DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	FOUNDATION DETAIL SCREENING WALL	STANDARD CONSTRUCTION DETAILS		
		DATE: MARCH 2013	REV DATE: MARCH 2013	SHEET: SD-23-F



CITY OF ROWLETT DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	COLUMN SECTION PIER DETAIL	STANDARD CONSTRUCTION DETAILS		
		DATE: MARCH 2013	REV DATE: MARCH 2013	SHEET: SD-23-G



NOTE:
1. Slats & Post Adapters Shall Be Attached to Stringer Using Wood Screws (No Nails Allowed), Use 2" Coated Wood Screws - 2 per Stringer (8 Total Per Slat). All Fasteners Shall be Hot Dipped Galvanized or Other Approved Corrosion Resistant Material.
2. All Wood Shall be ACQ-Pressure Treated Pine or Equal.
3. All Metal Posts Shall be 2 3/8" I.D. (.095 Gauge) Standard Pipe Gangue Steel Posts, All Steel Shall be Hot Dip Galvanized.
4. Details Show Acceptable Finish Surface. Wood Screen Designs May Include Board on Board, Board & Batten, Solid Panel, or Other, Provided That in Any Case The Wood Screen is Visually Opaque. No. Gap of More Than 1/8" Between Slats

CITY OF ROWLETT DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	WOOD PRIVACY FENCE DETAIL			
		DATE: 12/11/13	REV DATE:	SHEET: SD-23-H

REV.	COMMENTS	BY	DATE

ROWLETT TEXAS — CITY OF ROWLETT, TEXAS
DEPARTMENT OF PUBLIC WORKS

STANDARD CONSTRUCTION DETAILS
SCREENING WALL

SCREENING WALL DETAILS
SHEET 2 OF 2

DESIGN:	SCALE: NOTED	PROJECT NO.	SHEET
DRAWN:	DATE: 12-2013		SD-24
CHECKED:			