

**GENERAL:**

- CONTRACTOR IS RESPONSIBLE FOR CLEANING UP ALL DIRT OFF THE STREET AS A RESULT OF HIS CONSTRUCTION ACTIVITIES DURING CONTRACT PERIOD.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ADJOINING PAVEMENT WHICH RESULTED FROM HIS CONSTRUCTION ACTIVITIES.
- BRIDGE APPROACH SLABS OR SLABS AT SPECIAL LOCATIONS SHALL BE DESIGNED TO ACCOMMODATE FIELD REQUIREMENTS AND CONDITION, SUBJECT TO APPROVAL BY THE PARISH ENGINEER.
- CONTRACTOR IS REQUIRED TO EXTEND EMBANKMENTS/SUB-BASE MINIMUM OF 2 FEET BEYOND THE EDGE OF CONCRETE PAVEMENT OR ONE FOOT OF BASE COURSE (STONE).
- CONTRACTOR WILL KEEP ONE LANE OF TRAFFIC OPEN AT ALL TIMES.
- AS IS POSSIBLE WITHOUT COST, THE GUTTER LINE OF THE ROADWAY SHALL BE ADJUSTED FOR SMOOTH FLOW OF SURFACE RUN-OFF TO THE NEAREST DRAINAGE INLET.
- ALL TRAFFIC CONTROL DETAILS SHALL BE APPROVED BY THE PARISH ENGINEER.
- ALL DRAWINGS / DETAILS / FIGURES INCLUDED IN THESE DOCUMENTS ARE STANDARD AND ARE SUBJECT TO ADJUSTMENTS DICTATED BY ENGINEER OR EXISTING FIELD CONDITIONS.
- ALL EX. STRUCTURES AFFECTED BY CONSTRUCTION SHALL BE ADJUSTED TO MEET PROP. GRADE AND ALIGNMENT.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES (PRIVATE AND PUBLIC) (INCLUDING STORM DRAINAGE PIPES OR STRUCTURES) BEFORE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH, AND SIZE OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS (NO DIRECT PAY).
- THE CONTRACTOR SHALL FIELD VERIFY THE LENGTH AND SIZE OF ALL REQUIRED WATER LINES AND DETERMINE THE PIPE SIZES.
- IN THE EVENT OF A DISCOVERY OF ANY ERRORS FOUND IN THE DRAWINGS, OR PROBLEMS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. IF ENGINEER IS NOT NOTIFIED, THE CONTRACTOR SHALL TAKE RESPONSIBILITY FOR THE COST OF ANY WORK AND MATERIALS USED.
- THE CONTRACTOR IS RESPONSIBLE FOR MONITORING CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD AND CLEARING ANY DEBRIS AND SEDIMENT CAUSED BY CONSTRUCTION, STORM DRAINAGE SYSTEMS ARE TO BE CLEANED AT THE COMPLETION OF THE PROJECT (NO DIRECT PAY).
- PRIOR TO COMMENCING ANY WATER LINE INSTALLATION, CONTRACTOR SHALL INVESTIGATE LOCATIONS OF PUBLIC AND PRIVATE UTILITIES THAT MAY BE IN CONFLICT WITH THE WATER LINE INSTALLATION.
- CONTRACTOR TO TAKE NECESSARY PRECAUTIONS TO PREVENT WATER LINE FAILURE DUE TO THRUST WHEN EXCAVATING NEAR WATER LINES AND FIRE HYDRANTS.
- WARNING CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING OVERHEAD AND SUBSURFACE UTILITIES IN AREA OF CONSTRUCTION. (NO DIRECT PAY) ALL WORK IN THE AREA SHALL BE THOROUGHLY COORDINATED WITH UTILITY COMPANY OWNER. COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- NOISE CONTROL - CONTRACTOR SHALL TAKE REASONABLE MEASURES TO AVOID UNNECESSARY NOISE APPROPRIATE FOR THE AMBIENT SOUND LEVELS IN THE AREA DURING WORKING HOURS. ALL CONSTRUCTION MACHINERY AND VEHICLES SHALL BE EQUIPPED WITH PRACTICAL SOUND MUFFLING DEVICES AND OPERATED IN A MANNER TO CAUSE THE LEAST NOISES, CONSISTENT WITH EFFICIENT PERFORMANCE OF THE WORK.
- DUST - CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PREVENT UNNECESSARY DUST. EACH SURFACE SUBJECT TO DUSTING SHALL BE KEPT MOIST WITH WATER OR BY APPLICATION OF CHEMICAL DUST SUPPRESSANT. DUSTY MATERIALS IN PILES OR TRANSIT SHALL BE COVERED TO PREVENT BLOWING. (NO DIRECT PAY).
- CONTRACTOR SHALL GIVE THOSE AFFECTED BY CONSTRUCTION 48 HOURS NOTICE PRIOR TO DISRUPTION OF DRIVEWAYS, DRIVEWAYS, OR TEMPORARY DRIVEWAYS SHALL BE OPEN AT ALL TIMES. CONTRACTOR TO GIVE ALL RESIDENTS AT LEAST 48 HOURS NOTICE PRIOR TO DISRUPTION OF WATER SERVICE DUE TO TIE-IN WORK OR ANY OTHER RELATED WORK THAT WILL DISRUPT NORMAL WATER SERVICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZING THE EXISTING BASE COURSE UNDER EXISTING PAVEMENT BEYOND THE LIMITS OF REMOVAL. NO DIRECT PAYMENT SHALL BE MADE FOR ADDITIONAL GRANULAR MATERIAL OR BASE MATERIAL UNLESS THE CONTRACTOR IS AGREED UPON.
- CONTRACTOR SHALL REGRADE ALL AREAS AFFECTED BY CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE. WORK SHALL BE IN A WORKMAN LIKE MANNER AND IN ACCORDANCE WITH A/E REQUIREMENTS. IF CONTRACTOR DETERMINES THAT ANY AREAS AFFECTED BY CONSTRUCTION CANNOT BE REGRADED TO DRAIN, CONTRACTOR SHALL DOCUMENT (I.E. TAKE ELEVATIONS, PICTURES, ETC.) THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- ANY MATERIALS REMOVED DURING CONSTRUCTION AND DEEMED UNUSABLE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED OFF SITE TO A LOCATION APPROVED BY THE PARISH ENGINEER AND PUBLIC WORKS DEPT. (BEYOND THE LIMITS OF THE PROJECT) AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PROVIDE FOR AND MAINTAIN THROUGH AND LOCAL TRAFFIC AT ALL TIMES AND SHALL CONDUCT OPERATIONS IN SUCH A MANNER AS TO CAUSE THE LEAST POSSIBLE INTERFERENCE WITH TRAFFIC AND BUSINESS.
- CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES AND MAY BE REQUIRED TO CUT TEMPORARY DRAINAGE TRENCHES IN SHOULDER AS DIRECTED BY THE PROJECT ENGINEER ANY MATERIAL DEPOSITED IN ANY DRAINAGE FEATURE (DITCHES, CROSS DRAINS, ETC.) DURING CONSTRUCTION SHALL BE CLEANED OUT BEFORE FINAL ACCEPTANCE BY THE CONTRACTOR.
- RAISED PAVEMENT MARKERS SHALL BE PLACED AS DIRECTED BY THE PROJECT ENGINEER. COST SHALL BE INCLUDED IN PRICE BID FOR ITEM # 731-02-0010.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LIVING OUT THE WORK AND VERIFYING ALL MEASUREMENTS AND GRADES PRIOR TO BEGINNING OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE PROJECT CENTERLINE AND ANY NECESSARY TEMPORARY BENCH MARKS FOR CONSTRUCTION PURPOSES BEFORE DESTROYING EXISTING MONUMENTS/INALS/CROSS CUTS, ETC.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO ESTABLISH GRADES TO ASCERTAIN POSITIVE DRAINAGE TO THE NEAREST CATCH BASINS OR DROP INLETS WITHOUT HOLDING WATER IN ROADWAYS.

**CONCRETE ROADWAY**

- ALL CONCRETE ROADWAY DIRECTLY AFFECTED BY CONSTRUCTION OR DAMAGED AS THE RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER AND APPROVED BY ST BERNARD PARISH.
- TRANSVERSE (EXPANSION OR CONTRACTION) LONGITUDINAL AND CONSTRUCTION JOINTS SHALL ALL BE INSTALLED IN ACCORDANCE WITH ST. BERNARD PARISH STANDARDS. IN CASES WHERE THE SECTION OF ROADWAY TO BE RESTORED ABUTS AN EXISTING ROADWAY, ALL TRANSVERSE AND LONGITUDINAL JOINTS SHALL LINE UP AND BE OF THE SAME TYPE AS THE EXISTING JOINTS (EXPANSION, CONTRACTION, ETC.) AND, IN ADDITION, INCLUDE THE MINIMUM NUMBER AND SPACING OF EXPANSION JOINTS SHOWN IN THE STANDARDS.
- PRIOR TO RESTORATION OF THE ROADWAY, THE ENGINEER SHALL FORWARD TO THE PARISH ENGINEER A CONCRETE MIX SUBMITTAL PREPARED BY A REPUTABLE TESTING LABORATORY FOR APPROVAL.
- THE THICKNESS OF THE CONCRETE PAVEMENT IS AS SHOWN IN THE CONCRETE PAVEMENT DETAIL.
- THE FINAL ROADWAY SHALL HAVE BURLAP SACK/DRAG FINISH AS STIPULATED UNDER LOUISIANA "STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES" LATEST EDITION.
- DENSITY TESTS WILL BE REQUIRED FOR ALL ROADWAY BASE MATERIALS WHERE REQUIRED IN THE CONTRACT. THE CONTRACTOR SHALL NOT BE ALLOWED TO RESTORE THE ROADWAY UNTIL ALL DENSITY TESTS HAVE BEEN COMPLETED AND THE RESULTS MEET DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS.
- THE CONTRACTOR SHALL GIVE A MINIMUM NOTICE OF 24 HOURS (EXCLUDING WEEKENDS AND HOLIDAYS) TO THE ENGINEER AND THE ASSIGNED TESTING LABORATORY PRIOR TO THE POURING OF ANY CONCRETE FOR ROADWAY RESTORATION.
- CONCRETE REQUIREMENTS - SEE TECH. SPECIFICATIONS
- THE PAVEMENT SHALL NOT BE OPENED TO TRAFFIC UNTIL A COMPRESSIVE STRENGTH OF 4,000 PSI IS ATTAINED. IN NO CASE SHALL THE PAVEMENT BE OPENED TO TRAFFIC WITHIN A THREE (3) DAY PERIOD AFTER THE CONCRETE HAS BEEN PLACED.
- DENSITY REQUIREMENTS (STANDARD PROCTOR)
  - A. BASE COURSE (SAND) - 97%
  - B. BASE COURSE (STONE) - 95%
  - C. SUB-BASE (SAND) - 97%
- TESTING REQUIREMENTS (SUBJECT TO ADJUSTMENT BY ENGINEER)
  - A. ONE BASE THICKNESS VERIFICATION PER EACH PATCH LOCATION (FULL WIDTH ROADWAY REPAIR) WILL BE CONSIDERED TWO PATCH LOCATIONS IF WORK IS PERFORMED IN TWO CONSTRUCTION STAGES)
  - B. ONE DENSITY TEST ON SUB-BASE (IF APPLICABLE) AND BASE MATERIAL PER EACH PATCH LOCATION
  - C. ONE SLUMP TEST MINIMUM PER 50 CUBIC YARDS OF CONCRETE OR FRACTION THEREOF.
  - D. THREE (3) CYLINDERS MINIMUM PER 50 CUBIC YARDS OF CONCRETE OR FRACTION THEREOF.
- ADDITIONAL DENSITIES, SLUMP, CYLINDERS, CORES, ETC., WILL BE REQUIRED FOR ISOLATED AREAS. ENGINEER MAY ORDER FURTHER TESTING TO VERIFY THICKNESS, OR AS A RESULT OF A FAILED TEST.
- ANY "FAILED" FIELD TEST MUST BE RESTESTED AND THE COSTS ASSOCIATED WITH THE "FAILED" TEST ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL CONCRETE PAVEMENT INSTALLED WITH THIS PROJECT SHALL BE CONSTRUCTED TO INSURE POSITIVE DRAINAGE TO EXISTING & PROPOSED CATCH BASINS.
- THERE SHALL BE NO COST ADJUSTMENT OR ACCEPTANCE FOR PAVEMENT THICKNESS DEFICIENCIES. IF THE CONCRETE CORE IS LESS THAN SPECIFIED, TWO ADDITIONAL CORES ON THE SAME SLAB WITHIN A 5' RADIUS MUST BE TAKEN. IF ONE OF THESE CORES IS LESS THAN SPECIFIED, THEN THE ENTIRE PANEL (JOINT TO JOINT) MUST BE REMOVED AND AN ADDITIONAL CORE ON OTHER PANELS POURED WITHIN THE SAME CORE FRAME MUST BE TAKEN.
- ALL CONSTRUCTION MATERIAL AND PROCEDURES SHALL CONFORM TO THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES LATEST EDITION UNLESS OTHERWISE SPECIFIED. DEVIATIONS FROM THESE SPECIFICATIONS SHALL HAVE TO BE APPROVED BY PARISH ENGINEER.
- ALL STRUCTURES WITHIN THE PAVEMENT AREA SHALL BE ISOLATED (BOXED OUT) BY MEANS OF AN APPROVED CIRCULAR, SQUARE OR RECTANGULAR JOINT AROUND THEM.
- WHENEVER NEW PAVING INTERSECTS OR MEETS EXISTING PAVING THAT IS TO REMAIN, THE GRADES OF THE NEW PAVING SURFACE SHALL MATCH THE GRADE OF THE EXISTING PAVING.
- ALL CONCRETE PAVEMENT SHALL HAVE A STRENGTH OF 4000 PSI OR GREATER. SIDEWALK, RAMPS, DRIVEWAYS, ET, SHALL MEET THE MINIMUM STRENGTH.

**WATER DISTRIBUTION SYSTEM:**

- THE CONTRACTOR SHALL FURNISH ALL LABOR, SUPERVISION, MATERIALS, EQUIPMENT, SERVICES AND PERMITS NECESSARY TO CONSTRUCT THE WATER DISTRIBUTION SYSTEM AS SHOWN ON THE PLANS.
- PRIOR TO SUBMITTING A BID THE CONTRACTOR SHALL OBTAIN THE REQUIREMENTS OF THE WATER AUTHORITY (ST. BERNARD PARISH), WORK IS TO BE PERFORMED AND, INCLUDE THE COSTS OF THESE REQUIREMENTS IN THE PRICE BID FOR THE WORK. THE TYPE OF MATERIALS AND THE MANUFACTURER'S BRAND OF PIPE, VALVES, HYDRANTS, ETC. REQUIRED BY THE WATER AUTHORITY WILL BE USED, WHENEVER THE REQUIREMENTS OF THE WATER AUTHORITY ARE MORE STRINGENT THAN THESE SPECIFICATIONS, THEY WILL BE FOLLOWED.
- INCLUDED IN THE WORK SHALL BE A COMPLETE DISTRIBUTION SYSTEM INCLUDING ALL FITTINGS, VALVES, TIE-INS, CONNECTIONS, THRUST BLOCKS, CHLORINATION AND PRESSURE TESTING. THE CONTRACTOR SHALL INDUCE IN HIS BID ALL OF THE FITTINGS AND LENGTHS OF PIPE NECESSARY TO AVOID CONFLICTS WITH OTHER UTILITIES AND STRUCTURES.
- PLASTIC PIPE SHALL BE RIBBED POLYVINYL CHLORIDE CULVERT PIPE AND SHALL CONFORM TO ASTM F794, SERIES 46, HIGH PERFORMANCE POLYPROPYLENE PIPE SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATION AND SHALL MEET OR EXCEED ASTM F2881 AND AASHTO M330. ONLY PIPE ON THE STATE OF LOUISIANA QUALIFIED PRODUCTS LIST 66 WILL BE PERMITTED WITH TYPE 3 JOINTS.
- ALL PIPE JOINTS SHALL BE WRAPPED WITH A 36" WIDE PIECE OF PLASTIC FILTER CLOTH (LA D.O.T.D. SPECIFICATIONS FOR ROADS AND BRIDGES 2016 EDITION, SECTION 1019) CENTERED ON THE JOINT AND LAPPED 36".
- TRENCHES WITHIN STREET RIGHT-OF-WAY SHALL BE BACKFILLED WITH PUMPED RIVER SAND. OTHER TRENCHES MAY BE BACKFILLED WITH SELECT MATERIAL FROM EXCAVATION.
- DRAIN DITCHES CROSSING THE RIGHT-OF-WAY SHALL BE MUCKED OUT (MINIMUM OF 24") UNTIL GOOD SOIL IS REACHED. WHEREVER IS GREATER AND FILLED WITH PUMPED RIVER SAND, WHERE DITCHES CROSSES THE LOTS, IT SHALL BE MUCKED OUT AND FILLED WITH SELECT MATERIAL AND MATERIAL FROM EXCAVATION.
- THE CONTRACTOR SHALL ADJUST THE ELEVATIONS OF THE NEW SIDEWALKS SO AS TO ALLOW DRAINAGE AWAY FROM THE PROPERTY AT ALL TIMES. SIDEWALK ELEVATIONS MAY BE ADJUSTED TO ALLOW DRAINAGE THROUGH DRIVEWAYS WITH DEPRESSED CURBS.
- TESTING REQUIREMENTS FOR DRIVEWAYS, SIDEWALKS, AND HANDICAPPED RAMPS SHALL FOLLOW THE SPECIFICATIONS PROVIDED WITH THIS PROJECT.

**DRAINAGE NOTES:**

- PLASTIC PIPE SHALL BE RIBBED POLYVINYL CHLORIDE CULVERT PIPE AND SHALL CONFORM TO ASTM F794, SERIES 46, HIGH PERFORMANCE POLYPROPYLENE PIPE SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATION AND SHALL MEET OR EXCEED ASTM F2881 AND AASHTO M330. ONLY PIPE ON THE STATE OF LOUISIANA QUALIFIED PRODUCTS LIST 66 WILL BE PERMITTED WITH TYPE 3 JOINTS.
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- TESTING REQUIREMENTS FOR DRIVEWAYS, SIDEWALKS, AND HANDICAPPED RAMPS SHALL FOLLOW THE SPECIFICATIONS PROVIDED WITH THIS PROJECT.

**DRIVEWAYS AND SIDEWALKS**

- ALL DRIVEWAYS REMOVED SHALL BE REPLACED IN KIND UNLESS OTHERWISE NOTED.
- THE EXACT LIMITS OF REMOVAL AND REPLACEMENT OF DRIVEWAYS (CONCRETE, ASPHALT, BRICK, STONE, SLATE, ETC.) SHALL BE DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL NOT REMOVE ANY DRIVEWAY WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- THE CONTRACTOR IS REQUIRED TO SAW CUT (FULL DEPTH) SIDEWALKS DRIVEWAYS, STRAIGHT LINE BETWEEN OLD AND NEW WORK.
- ALL SIDEWALKS, DRIVEWAYS (CONCRETE, BRICK, STONE, SLATE, ETC.) DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, WHICH IN THE OPINION OF THE ENGINEER ARE OUTSIDE THE LIMITS OF THE ROADWAY CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL ADJUST THE ELEVATIONS OF THE NEW SIDEWALKS SO AS TO ALLOW DRAINAGE AWAY FROM THE PROPERTY AT ALL TIMES. SIDEWALK ELEVATIONS MAY BE ADJUSTED TO ALLOW DRAINAGE THROUGH DRIVEWAYS WITH DEPRESSED CURBS.
- TESTING REQUIREMENTS FOR DRIVEWAYS, SIDEWALKS, AND HANDICAPPED RAMPS SHALL FOLLOW THE SPECIFICATIONS PROVIDED WITH THIS PROJECT.

**HORTICULTURE REQUIREMENTS**

- ALL TREE REMOVALS, BRANCH PRUNING OR ROOT CUTTING SHALL BE PERFORMED BY A LOUISIANA LICENSED ARBORIST, APPROVED BY ST. BERNARD PARISH, AN URBAN FORESTER PERMIT SHALL BE OBTAINED BY THE CONTRACTOR.
- ALL EXISTING TREES, SHRUBS, AND VEGETATION DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN KIND OR REPAIRED AT NO DIRECT PAY.
- ALL TREES EXCEPT THOSE ON RIGHT-OF-WAY GREEN SPACE NEAR ANY EXCAVATION OR CONSTRUCTION OF ANY BUILDING, STRUCTURE, OR STREET WORK, SHALL BE GUARDED WITH A GOOD SUBSTANTIAL FENCE, FRAME, OR BOX. THE "CONSTRUCTION TREE GUARD" SHALL BE NOT LESS THAN FOUR (4) FEET HIGH AND EIGHT (8) FEET SQUARE, OR AT A DISTANCE OF EIGHT FEET FROM THE EXCAVATION. THE GUARD SHALL BE BURIED AT BREAST HEIGHT (DBH) IN INCHES, WHICHEVER IS GREATER. ALL BUILDING MATERIAL, DIRT, OR OTHER DEBRIS SHALL BE KEPT OUTSIDE THE CONSTRUCTION TREE GUARD.
- ALL DISTURBED GRASS AREAS SHALL BE REPLACED WITH SOD TO MATCH THE EXISTING.

**PAVING NOTES:**

- UNLESS OTHERWISE SHOWN, ALL PAVEMENT SHALL MEASURE 26' BACK TO BACK OF CURB AND 20' IN FRONT OF CURB. THE THICK MINIMUM REQUIRED BY STAGGERED CORES TAKEN AT A MAXIMUM OF 20' INTERVAL.
- PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH SECTIONS 601 & 901 OF THE DOTD STANDARD SPECIFICATION FOR ROADS AND BRIDGES (LATEST EDITION) AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- IMMEDIATELY AFTER COMPLETION FINISHING OPERATIONS AND AS SOON AS MARING OF CONCRETE WILL OCCUR, THE PAVEMENT'S SURFACE SHALL BE CURED BY COATING WITH A WATER PIGMENT. COATING SHALL CONFORM TO DOTD STANDARD SPECIFICATION FOR ROADS AND BRIDGES LATEST EDITION.
- CONTRACTOR SHALL USE THE NECESSARY SAND BASE TO BRING THE ROADWAY GRADES SHOWN ON THE PLANS. THIS MAY REQUIRE MORE THAN THE MINIMUM SAND BASE.
- JOINT SEALER SHALL BE IN ACCORDANCE WITH SECTION 1005.02 OF DOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 200 EDITION. THE SEALANT AND BACKER MATERIAL SHALL BE APPROVED PRODUCT LIST IN DOTD'S QUALIFIED PRODUCT LIST.

**ASPHALT ROADWAY**

- SAW CUTTING USING A CONCRETE CUTTING TYPE SAW TO MAKE A TRUE STRAIGHT LINE FULL DEPTH SHALL BE REQUIRED ALONG THE ENTIRE LIMITS OF THE AFFECTED AREA OF REMOVAL. UNLESS OTHER METHODS ARE AUTHORIZED BY THE PARISH ENGINEER.
- REQUIREMENT 3 SPECIFIED UNDER CONCRETE ROADWAY SHALL ALSO APPLY FOR ASPHALT.
- JOB MIX FORMULA, PG 70-22 (LEVEL 1), PER LA DOTD STANDARDS, 2016 EDITION
- ALL CONSTRUCTION MATERIALS, PROCEDURES, TESTING, FINISHING, ETC., SHALL CONFORM TO THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (2016 LATEST EDITION) DEVIATIONS FROM THESE SPECIFICATIONS SHALL HAVE TO BE APPROVED BY THE PARISH ENGINEER.
- DENSITY REQUIREMENTS (STANDARD PROCTOR)
  - A. BASE COURSE (SAND) - 97%
  - B. BASE COURSE (STONE) - 95%
  - C. SUB-BASE (SAND) - 97%
- TESTING REQUIREMENTS (SUBJECT TO ADJUSTMENT BY ENGINEER)
  - A. ONE BASE THICKNESS VERIFICATION PER EACH PATCH LOCATION (FULL WIDTH ROADWAY REPAIR) WILL BE CONSIDERED TWO PATCH LOCATIONS IF WORK IS PERFORMED IN TWO CONSTRUCTION STAGES)
  - B. ONE DENSITY TEST ON SUB-BASE (IF APPLICABLE) AND BASE MATERIAL PER EACH PATCH LOCATION
- CORRODED METAL PIPE SHALL CONFORM TO LDADOT SPECIFICATIONS.
- 21-INCH OR SMALLER DIAMETER SHALL HAVE 14 GAUGE THICKNESS AND 24-INCH OR LARGER DIAMETER SHALL HAVE 12 GAUGE THICKNESS.

- THE CONTRACTOR IS RESPONSIBLE TO CHECK WITH THE UTILITY OWNER OR HIS REPRESENTATIVE FOR COORDINATION OF ALL TESTING NECESSARY TO SECURE APPROVAL FROM THE UTILITY OWNER FOR HIS WORK. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF ALL TESTING ASSOCIATED WITH VERIFYING THAT CONSTRUCTION IS IN COMPLIANCE WITH PLANS AND SPECIFICATIONS.
- SEWER SERVICE/HOUSE CONNECTIONS CONNECTED TO A TERMINAL MANHOLE SHALL BE CONNECTED AT THE INVERT OF THE TERMINAL MANHOLE.
- SEWER AND WATER MAINS SHALL BE LAID IN SEPARATE TRENCHES NOT LESS THAN SIX (6') FEET APART HORIZONTALLY. WHEN INSTALLED IN PARALLEL, CROSSING WATER AND SEWER MAINS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF EIGHTEEN (18') INCHES. THE SEWER LINE SHALL BE LAID LOWER IN ELEVATION THAN THE WATER LINE.
- STEPS WILL NOT BE INSTALLED UNLESS DIRECTED BY THIS UTILITY OPERATOR AND DETAILS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY WHEN DEEMED NEEDED BY THE UTILITY OPERATOR.
- THE CONTRACTOR SHALL FURNISH A HOSE DOWN WATER LINE, MIN. 1" IN DIAMETER WITH HOSE BIB TO EACH SEWER LIFT STATION AND/OR SEWER TREATMENT PLANT AREA.
- IDENTIFICATION OR TRACER WIRE SHALL BE BURIED IN THE TRENCH ABOVE THE PIPE.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES.
- INFILTRATION SHALL NOT EXCEED 15 GALLON/INCH OF DIAMETER/MILE OF PIPE/24 HOURS.
- ALL LOTS MUST BE PROVIDED WITH A SEWER SERVICE/HOUSE CONNECTION (HC). SEWER HC, IF PRACTICAL, SHALL BE INSTALLED PERPENDICULAR TO THE SEWER MAIN. ALL SEWER HC INSTALLED BY THE CONTRACTOR SHALL BE PROPERLY PLUGGED. LOCATION OF ALL HC SHALL BE MARKED BY IMPRESSING LETTERS HC IN THE FACE OF THE STREET CURB, EDGES OF STREET, OR MARKED WITH AN APPROVED MARKER. END OF HC SHALL BE MARKED BY EXTEND THE 6" HC FROM CLEANOUT LOCATION VERTICALLY MIN.3' ABOVE GRADE AT THE END OF HC.
- MANHOLE CONNECTIONS (CONNECTION OF SEWER PIPES TO MANHOLES) SHALL BE WATERTIGHT. CONNECTION OF PVC SEWER PIPE TO MANHOLES WITH CONCRETE GROUT, WITHOUT SOME FORM OF APPROVED MANHOLE CONNECTOR OR WATER STOP, SHALL NOT BE PERMITTED.
- PROVIDE RESTRAINED JOINT FITTINGS ON ALL FORCE MAIN JOINTS WITHIN 20' OF ANY BENDS FOR PVC OR DUCTILE IRON PIPE.
- SEWER GRAVITY LINES SHALL INCLUDE GEOTEXTILE FABRIC WRAPPED AROUND 6" LIMESTONE BEDDING.

**SEWER NOTES:**

- THE CONTRACTOR SHALL FURNISH ALL LABOR, SUPERVISION, MATERIALS, EQUIPMENT, SERVICES AND PERMITS NECESSARY TO CONSTRUCT THE SEWER DISTRIBUTION SYSTEM AS SHOWN ON THE PLANS.
- THE SLOPE OF ALL SEWER MAINS TO BE A MINIMUM OF 0.004 FT./FT., OR AS OTHERWISE SHOWN ON PLAN.
- PRE-CAST CONCRETE MANHOLES (ASTM A48, CLASS 20) MAY BE USED AS APPROVED BY THE ENGINEER. ZYPLEX ADDITIVE SHALL BE INCLUDED IN MIX.
- EXFILTRATION SHALL NOT EXCEED 15 GALLON/INCH/MILE PIPE/24 HOUR PERIOD.
- THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH AN "AS-BUILT" PLAN SHOWING THE DISTANCE FROM THE NEAREST MANHOLE TO EACH HOUSE CONNECTION, THE DISTANCE FROM THE NEAREST MANHOLE TO DOWNSTREAM MANHOLE, ETC. DISTANCE OF HC FROM DOWNSTREAM MANHOLE. THIS DISTANCE SHALL BE MEASURED ALONG THE CENTERLINE OF THE MANHOLE AND SHALL BE EQUAL TO THE LENGTH OF THE INVERT. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH A DRAWING OF THE MANHOLE INVERT ON THE PROJECT LINE TO THE PROJECTION POINT OF EACH HC (AT PROPERTY LINE) ONTO THE MAIN.
  - ELEVATION OF SERVICE CONNECTIONS AT THE PROPERTY LINE.
  - THE INVERT AND TOP OF CASTING ELEVATIONS AND DEPTHS OF EACH MANHOLE.
  - PIPE INVERTS AT MANHOLES.
  - THE CENTER TO CENTER DISTANCES OF CONSECUTIVE MANHOLES.
- ALL CUTS UNDER DRIVEWAYS OR STREETS TO BE BACK-FILLED WITH SIMILAR MATERIAL AS EXISTING FOR THE DRIVE SURFACE, AND OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER AND COMPACTED TO 95% STD. PROCTOR, BORING BEHIND ROADWAYS IS AN ACCEPTABLE ALTERNATIVE. CONTRACTOR TO ASSUME ALL LIABILITY FOR STREET DAMAGE RESULTING FROM EXCAVATION OR BORING ACTIVITY AND SHALL REPAIR AND REPAVE ANY DAMAGE RESULTING FROM HIS CONSTRUCTION ACTIVITIES.
- ALL CUTS UNDER DRIVEWAYS OR STREETS TO BE BACK-FILLED WITH SIMILAR MATERIAL AS EXISTING FOR THE DRIVE SURFACE, AND OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER AND COMPACTED TO 95% STD. PROCTOR, BORING BEHIND ROADWAYS IS AN ACCEPTABLE ALTERNATIVE. CONTRACTOR TO ASSUME ALL LIABILITY FOR STREET DAMAGE RESULTING FROM EXCAVATION OR BORING ACTIVITY AND SHALL REPAIR AND REPAVE ANY DAMAGE RESULTING FROM HIS CONSTRUCTION ACTIVITIES.
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- THE CONTRACTOR SHALL USE TIMBER SHEETING OR TRENCH BOX, WHEN NECESSARY TO CONTROL THE WIDTH AND STABILITY OF EXCAVATION AND TO PROVIDE SAFE WORKING CONDITIONS FOR HIS WORKMEN AND SUBCONTRACTORS.
- MANHOLES SHALL BE PRECAST REINFORCED CONCRETE CONFORMING TO ASTM A48. MANHOLE RISERS AND TOPS CONFORMING TO ASME C-478 WITH JOINTS OF TRAM-NEK® PERFORMED PLASTIC ROPE AS MANUFACTURED BY K.T. SYNDER, HOUSTON, TEXAS OR ASTM C-443 RUBBER GASKET.
- DROP SEWER MANHOLES SHALL BE INSTALLED WHEN THE VERTICAL DISTANCE FROM THE MANHOLE INVERT TO THE SEWER MAIN INVERT EXCEEDS THREE (3) FEET.
- ALL MANHOLE TOPS SHALL BE CONSTRUCTED AT LEAST ONE FOOT ABOVE THE HIGHEST FLOOD ELEVATION. IF THIS IS NOT FEASIBLE, MANHOLE FRAME AND COVER TO BE WATER TIGHT SHALL BE EQUAL TO NEENAH FOUNDRY CO. R-1916D.
- ALL MANHOLE FRAMES, COVERS, AND STEPS SHALL BE ASPHALT COATED.
- FORCE MAIN CONNECTIONS TO A PROPOSED MANHOLE 8' OR LESS IN DEPTH SHALL BE MADE FROM UNDERNEATH THROUGH THE BOTTOM CENTER OF THE MANHOLE.
-