

WATER MAIN DISTRIBUTION

- ALL WATER MAINS 4" OR LARGER SHALL BE POLYVINYL CHLORIDE PIPE, SDR 18, CLASS 150, WITH GASKET JOINTS IN CONFORMANCE WITH A.S.T.M. A21.1/A.W.W.A. ALL WATER MAINS NOTED D.I.P. SHALL BE RIGID, DUCTILE IRON PIPE IN COMPLIANCE WITH A.S.T.M./A.W.W.A. C151-02.
- ALL FITTINGS AND VALVES SHALL BE CLASS 150 CAST IRON WITH MECHANICAL JOINTS IN CONFORMANCE WITH A.S.T.M./A.W.W.A. C110-03/A21.11-03, C111/A21.11-01, C500-02, C104-03/A21.4-03, C502-05, C504-00, C508-93, C509-01.
- THE CONTRACTOR SHALL DEFLECT PIPE JOINTS AS REQUIRED FOR PROPER ALIGNMENT AS SHOWN ON PLANS, BUT SHALL NOT EXCEED 75% OF THE PIPE MANUFACTURER'S RECOMMENDATIONS ON MAXIMUM DEFLECTION.
- ALL BARRAGED WATER MAINS SHALL NOT BE PLACED INTO SERVICE UNTIL TESTED AND APPROVED BY THE BROWARD COUNTY HEALTH DEPARTMENT WITH RESPECT TO BACTERIOLOGICAL ANALYSIS. THE CONTRACTOR SHALL PRESSURE TEST ALL WATER MAINS FOR COMPLIANCE WITH CITY OF COCONUT CREEK UTILITIES STANDARDS. IN THE EVENT OF A FAILURE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE UTILITIES & ENGINEERING DEPARTMENT, WHO WILL OBSERVE THE TEST. THIS ENGINEER SHALL BE NOTIFIED 48 HOURS IN ADVANCE. TESTING SHALL BE IN CONFORMANCE WITH ANSI/A.W.W.A. C500-05. ALLOWABLE LEAKAGE FORMULA = $Q = S \times D \times \sqrt{P/148,200}$ WHERE: Q = ALLOWABLE LEAKAGE IN GPH S = LENGTH OF LINE IN FEET P = AVERAGE TEST PRESSURE (PSI)

- AFTER SUCCESSFUL PRESSURE TEST, THE MAIN SHALL BE FLUSHED AND DEBRIS SHALL BE REMOVED FROM THE LIMITS OF CONSTRUCTION, AND DISPOSED OF AT A LOCATION TO BE SELECTED BY THE ARCHITECT.
- DURING CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE A REGISTERED LAND SURVEYOR DEVELOP RECORD DRAWINGS OF ALL INSTALLATIONS AND UPON COMPLETION SAID DRAWINGS SHALL BE FOR BY THE CONTRACTOR. RECORD INFORMATION TO BE PAID FOR BY THE CONTRACTOR.
- ALL INSTALLATIONS SHALL BE CONSTRUCTED IN CONFORMANCE WITH CITY OF COCONUT CREEK, AND A.S.T.M./A.W.W.A. C500-05, LATEST REVISIONS.
- THE CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND MARKERS DURING CONSTRUCTION.
- ALL UNSUITABLE MATERIAL, SUCH AS MUCK, MARL, AND DEBRIS SHALL BE REMOVED FROM THE LIMITS OF CONSTRUCTION, AND DISPOSED OF AT A LOCATION TO BE SELECTED BY THE ARCHITECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE PLANS. DEPARTMENT FIELD SURVEY ALL UTILITIES INVOLVED PRIOR TO THE START OF CONSTRUCTION. ALL ADDITIONAL UTILITIES LOCATED SHALL BE SHOWN ON RECORD DRAWINGS.
- A PRE-CONSTRUCTION MEETING SHALL BE ARRANGED BY THE CONTRACTOR PRIOR TO STARTING ANY WORK. THIS ENGINEER, AND THE CITY OF COCONUT CREEK ENGINEERING REPRESENTATIVE PRESENT.
- THE SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT ALL UNDERGROUND INSTALLATION OF ANY KIND THAT WILL COME UNDER THE PAVEMENT OR WITHIN 10 FEET OF ITS EDGES WILL BE INSTALLED AND ACCEPTED PRIOR TO CONSTRUCTION OF THE BASE WATER MAINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES LOCATED PRIOR TO THE COMMENCEMENT AT THE TOP OF THE CONDUIT EVERY 12 INCHES TO THE BOTTOM OF THE BASE. BACKFILL SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM-1180. TESTS SHALL BE TAKEN AT 200 FEET INTERVALS.
- SIX COPIES OF SHOP DRAWINGS OF ALL MATERIALS BEING USED SHALL BE SUBMITTED TO THIS ENGINEER PRIOR TO INSTALLATION OR FABRICATION.
- PORTABLE WATER SERVICE WILL BE PROVIDED BY THE CITY OF COCONUT CREEK UTILITIES. CONTRACTOR TO SUPPLY DRINKING WATER DURING CONSTRUCTION.
- POLYETHYLENE (P.E.) PRESSURE PIPE TUBING SHALL MEET THE REQUIREMENTS OF A.S.T.M./A.W.W.A. C901-02.
- SANITARY SEWERS AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHEREVER POSSIBLE. SANITARY SEWERS AND FORCE MAINS CROSSING WATER MAINS SHALL BE LAD TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE. WHERE SANITARY SEWER FORCE MAINS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTH OF DIP MUST BE USED TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 12 INCHES ABOVE THE WATER MAIN. ALL GROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND CROSSINGS (PIPES CENTERED ON THE CROSSING) WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

- A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHEN- EVER POSSIBLE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAD IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHEET LOCATED ON ONE SIDE OF THE SEWER MAINS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP. THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM THE JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
- ALL DIP SHALL BE CEMENT LINED CLASS 50 OR HIGHER, ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN.
- ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320, F.A.C.

RECORD INFORMATION – WATER

- THE FOLLOWING RECORD INFORMATION SHALL BE PROVIDED BY THE CONTRACTOR AND PREPARED BY A REGISTERED LAND SURVEYOR:
- "AS BUILT" DISTANCE OF WATER MAIN FROM PROPERTY LINE, BASE LINE, OR OTHER EASILY IDENTIFIABLE ITEM.
 - DISTANCE BETWEEN ALL FITTINGS AND VALVES, SERVICE LINES, BLOW-OFFS, FIRE HYDRANTS, SERVICE LINE TAP & END, ETC.
 - ELEVATION TOP OF PIPE AT 100 FOOT INTERVALS, AND AT ALL FITTINGS AND VALVES, AND FINISHED GRADE ELEVATIONS AT THE SAME POINTS ABOVE THE MAIN.
 - TYPE OF MATERIALS INSTALLED, INCLUDING LOCATIONS OF CHANGE OF MATERIAL DUE TO CONFLICTS, ETC.
 - "AS BUILT" SKETCHES OF ALL CONFLICTS INCLUDING, BUT NOT LIMITED TO, WATER MAIN CROSSING SEWER MAIN AND WATER MAIN CROSSING STORM DRAINAGE PIPES.
 - PROVIDE 1 SET OF MYNAPS, 1 SET OF PAPER PRINTS AND 1 CERTIFIED MYS FILE ELECTRONIC VERSION ON CD.
 - PROVIDE LEGAL DESCRIPTION AND SKETCH OF ALL NEW UTILITY EASEMENTS.

FIELD OBSERVATIONS – WATER

- AS REQUIRED BY PERMIT CONDITIONS AND/OR THE OWNER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD 48 HOURS IN ADVANCE TO OBSERVE THE FOLLOWING:
 - WATER MAIN TRENCH PRIOR TO BACKFILL.
 - PIPE JOINTS PRIOR TO BACKFILL.
 - THRUST BLOCK LOCATIONS PRIOR TO BACKFILL.
 - CONNECTIONS TO EXISTING WATER MAINS.
 - CONFLICTS WITH OTHER UNDERGROUND UTILITIES PRIOR TO BACKFILL.
 - REMOVAL OF EXISTING WATERMAINS.
 - WATER MAIN PRESSURE TEST.
 - FINAL OBSERVATION AT JOB COMPLETION.
 - A MINIMUM OF ONE FIELD OBSERVATION BY THE ENGINEER OF RECORD IS REQUIRED NEAR THE COMPLETION OF THE WATER MAINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING GENERAL PERFORMANCE OF THE DESIGN.

RECORD INFORMATION – SEWER

- THE FOLLOWING RECORD INFORMATION SHALL BE PROVIDED BY THE CONTRACTOR AND PREPARED BY A REGISTERED LAND SURVEYOR:
- TYPE OF MATERIALS INSTALLED, MAINS AND SERVICES.
 - "AS BUILT" SKETCHES OF ALL CONFLICTS INCLUDING, BUT NOT LIMITED TO, WATER MAIN CROSSING SEWER MAIN AND SEWER MAIN CROSSING STORM DRAINAGE PIPES.
 - "AS BUILT" SEWER CLEANOUT INVERT ELEVATIONS.
 - "AS BUILT" MANHOLE RIM AND INVERT ELEVATIONS.
 - "AS BUILT" DISTANCE OF SEWER LINE FROM PROPERTY LINE, BASE LINE, OR OTHER EASILY IDENTIFIABLE ITEM.
 - DISTANCE BETWEEN ALL FITTINGS AND VALVES, SERVICE LINES, BLOW-OFFS, SERVICE LINE TAP & END, ETC.
 - ELEVATION TOP OF PIPE AT 100 FOOT INTERVALS, AND AT ALL FITTINGS AND VALVES, AND FINISHED GRADE ELEVATIONS AT THE SAME POINTS ABOVE THE MAIN.

FIELD OBSERVATIONS – SEWER

- AS REQUIRED BY PERMIT CONDITIONS AND/OR THE OWNER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD 48 HOURS IN ADVANCE TO OBSERVE THE FOLLOWING:
 - SEWER MAIN/FORCE TRENCH PRIOR TO BACKFILL.
 - PIPE JOINTS PRIOR TO BACKFILL.
 - SEWER LATERALS PRIOR TO BACKFILL.
 - CONNECTIONS TO EXISTING UNDERGROUND UTILITIES PRIOR TO BACKFILL.
 - FINAL OBSERVATION AT JOB COMPLETION.
 - A MINIMUM OF ONE FIELD OBSERVATION BY THE ENGINEER OF RECORD IS REQUIRED NEAR THE COMPLETION OF THE SEWER MAINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING GENERAL PERFORMANCE OF THE DESIGN.
 - ALL DIP SHALL BE CLASS 50 OR HIGHER, ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN.

SEWER COLLECTION SYSTEM

- ALL SANITARY SEWER LINES NOTED DVC SHALL BE POLYVINYL CHLORIDE PIPE, SDR 35 IN CONFORMANCE WITH A.S.T.M. D2034-74 AND SHALL BE INSTALLED IN CONFORMANCE WITH A.S.T.M. C12.77.
- ALL SANITARY SEWER NOTED D.I.P. SHALL BE DUCTILE IRON PIPE IN CONFORMANCE WITH A.S.T.M./A.W.W.A. C151/A21.51-86, WITH WALL THICKNESS CLASS 50 PER A.S.T.M./A.W.W.A. C150/A21.50-81 (1989).
- ALL SANITARY SEWER SERVICE LINES SHALL BE 6 INCH DIAMETER AND TERMINATE WITH A WATERSTOP FLANG BEHIND THE POINT OF INFILTRATION/EXFILTRATION TESTS AND SEWER LINE LAMPING SHALL BE CONDUCTED BY THE CONTRACTOR AS REQUIRED BY THE CITY OF COCONUT CREEK ENGINEERING AND FINISHED REPRESENTATIVE OBSERVING THE TEST. LAMPING SHALL BE CONDUCTED PRIOR TO CONSTRUCTION OF THE BASE IN PAVED LOCATIONS.
- DURING CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE A REGISTERED LAND SURVEYOR DEVELOP RECORD DRAWINGS OF ALL INSTALLATIONS AND UPON COMPLETION SAID DRAWINGS SHALL BE FOR BY THE CONTRACTOR. RECORD INFORMATION TO BE PAID FOR BY THE CONTRACTOR.
- ALL INSTALLATIONS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE STANDARDS OF THE CITY OF COCONUT CREEK ENGINEERING DEPARTMENT.
- CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND MARKERS DURING CONSTRUCTION.
- ALL UNSUITABLE MATERIAL, SUCH AS MUCK, MARL, AND DEBRIS SHALL BE REMOVED FROM THE LIMITS OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE PLANS. CONTRACTOR SHALL CALL THE UTILITY TOLL FREE NUMBER (1-800-432-4770) AND NOTIFY ALL UTILITIES INVOLVED PRIOR TO CONSTRUCTION. ANY ADDITIONAL UTILITIES LOCATED SHALL BE SHOWN ON RECORD DRAWINGS.
- A PRE-CONSTRUCTION MEETING SHALL BE ARRANGED BY THE CONTRACTOR PRIOR TO ANY WORK. THIS ENGINEER AND THE CITY OF COCONUT CREEK UTILITIES REPRESENTATIVE PRESENT.
- ALL SEWER LINES SHALL HAVE A MINIMUM OF 36 INCHES OF COVER FOR P.C. AND 30 INCHES FOR DIP.
- SANITARY SEWER SERVICE WILL BE PROVIDED BY DAVID UTILITIES.
- SIX COPIES OF SHOP DRAWINGS OF ALL MATERIALS BEING USED SHALL BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO INSTALLATION OR FABRICATION.
- ALL LOCATIONS WHERE UNDERGROUND UTILITIES HAVE BEEN BACKFILLED UNDER PAVEMENT, DENSITY TESTS TO THE COMPLETED BACKFILL MATERIAL WILL BE REQUIRED PRIOR TO BASE COURSE INSTALLATION. A COPY OF THE TESTS SHALL BE SENT TO THE ENGINEER OF RECORD. THE TESTS SHALL BE MADE TO THE COMMENCEMENT AT THE TOP OF CONDUIT EVERY 12 INCHES TO BOTTOM BASE. BACKFILL SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM-1180. TEST TO BE SUPPLIED AT 200 FEET INTERVALS.
- SANITARY SEWERS AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHEREVER POSSIBLE. SANITARY SEWERS AND FORCE MAINS CROSSING WATER MAINS SHALL BE LAD TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE. WHERE SANITARY SEWER FORCE MAINS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DIP. THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM THE JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
- ALL GROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND CROSSINGS (PIPES CENTERED ON THE CROSSING) WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

- A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHEN- EVER POSSIBLE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAD IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHEET LOCATED ON ONE SIDE OF THE SEWER MAINS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP. THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM THE JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
- ALL DIP SHALL BE CLASS 50 OR HIGHER, ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN.

PAVING, GRADING AND DRAINAGE

- SUBGRADE SHALL BE COMPACTED AND STABILIZED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM-1180, WITH A MIN. LB. OF 40. DENSITY TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO THE START OF PAVING. A MINIMUM OF 8 TESTS ARE REQUIRED AS DIRECTED BY THE ENGINEER.
- LIMBROCK SHALL MEET THE REQUIREMENTS OF THE TOWN OF DAVID ENGINEERING DEPARTMENT.
- LIMBROCK BASE SHALL BE COMPACTED TO 98% OF MAXIMUM DENSITY. LATERALS SHALL BE INSTALLED AND APPROVED BY THE ENGINEER. DENSITY TEST RESULTS PRIOR TO ASPHALT PLACEMENT. PROVIDE ONE TEST FOR EVERY 8000 SQUARE FEET OF AREA TO BE PAVED, 8 TESTS MINIMUM. REQUIREMENT OF SECTION 333 OF THE 1996 D.O.T. STANDARD SPECIFICATIONS.
- REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM SPECIFICATIONS DESIGNATION C78-79 TABLE III, WALL B, OR LATEST REVISION THEREOF AND SECTION 944 OF THE 1992 D.O.T. STANDARD SPECIFICATIONS. ALL CONCRETE SHALL BE ADDED TO GROOVE JOINTS, AND RUBBER GASKETS.
- CORROGATED ALUMINUM PIPE SHALL MEET THE REQUIREMENTS OF SECTION 333 OF THE 1996 D.O.T. STANDARD SPECIFICATIONS (OR LATEST REVISION THEREOF).
- ALL CONCRETE SHALL DEVELOP A MINIMUM OF 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES WHETHER SHOWN OR NOT ON PLANS. CONTRACTOR SHALL CALL THE UTILITY TOLL FREE NUMBER (1-800-432-4770) AND NOTIFY ALL UTILITIES INVOLVED PRIOR TO CONSTRUCTION. ANY ADDITIONAL UTILITIES FOUND SHALL BE SHOWN ON RECORD DRAWINGS.
- THE SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT ALL UNDERGROUND INSTALLATIONS OF ANY KIND THAT WILL COME UNDER THE PAVEMENT OR WITHIN 10 FEET OF ITS EDGES WILL BE INSTALLED, TESTED AND ACCEPTED PRIOR TO CONSTRUCTION OF THE BASE.
- CITY OF COCONUT CREEK REGULATIONS SHALL GOVERN CONSTRUCTION, WHERE APPLICABLE, CURRENT STATE STANDARDS SHALL BE IN FORCE.
- ALL ELEVATIONS REFER TO N.G.V.D. DATUM.
- IF MUCK IS ENCOUNTERED, IT MUST BE COMPLETELY REMOVED FROM THE LIMITS OF THE PAVING AND FILL WITHIN AND DEPTH OF ALL DRAINAGEFEDS TO TWO FEET BELOW SUBGRADE/SHOULDER ELEVATION.
- PRIME COAT SHALL BE APPLIED AT A MINIMUM RATE OF 0.25 GAL./SQ. YD USING AN RG-70, WC-30 GRADE MATERIAL.
- BEFORE CONSTRUCTION OF THE LIMBROCK BASE MAY COMMENCE, IT WILL BE NECESSARY FOR A CHEMICAL AND SEVE ANALYSIS OF THE SUBGRADE. ANALYSIS RESULTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD.
- ALL LOCATIONS WHERE UNDERGROUND UTILITIES HAVE BEEN BACKFILLED UNDER PAVEMENT, DENSITY TESTS OF THE COMPLETED BACKFILL MATERIAL WILL BE REQUIRED PRIOR TO BASE COURSE INSTALLATION. A COPY OF THE TESTS SHALL BE SENT TO THE ENGINEER OF RECORD. THE TESTS SHALL BE MADE TO THE COMMENCEMENT AT THE TOP OF CONDUIT EVERY 12 INCHES TO BOTTOM OF BASE. BACKFILL SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM - 1180. TEST TO BE SUPPLIED AT 50 FEET INTERVALS.
- A PRE-CONSTRUCTION MEETING WILL BE REQUIRED TO PLAN TESTING, AND DISCUSS IN GENERAL ALL REQUIREMENTS RELATED TO RECORD INFORMATION FOR THIS MEETING.
- RECORD INFORMATION OBTAINED BY A PROFESSIONAL LAND SURVEYOR ENGINEER OF RECORD PRIOR TO FINAL ACCEPTANCE OF THE SYSTEM RECORD INFORMATION TO BE PAID FOR BY THE CONTRACTOR.
- SIX COPIES OF SHOP DRAWINGS OF ALL MATERIAL BEING USED SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO INSTALLATION.
- "AS-BUILT" DRAWINGS OF TOP OF ROCK ELEVATIONS SHALL BE SUBMITTED TO THIS ENGINEER AND THE CITY OF COCONUT CREEK PRIOR TO ASPHALT PLACEMENT.
- THE FINISHED SURFACE OF THE BASE COURSE AND THE WEARING COURSE SHALL NOT VARY MORE THAN 1/4" FROM THE TEMPLATE ANY IRREGULARITIES EXCEEDING THIS LIMIT SHALL BE CORRECTED PRIOR TO PROCEEDING TO THE NEXT CONSTRUCTION STEP.

RECORD INFORMATION – PAVING, GRADING & DRAINAGE

- THE FOLLOWING RECORD INFORMATION SHALL BE PROVIDED BY THE CONTRACTOR AND PREPARED BY A REGISTERED LAND SURVEYOR:
- "AS BUILT" RIM ELEVATIONS OF ALL DRAINAGE STRUCTURES.
 - "AS BUILT" INVERT ELEVATIONS OF ALL DRAINAGE PIPE.
 - "AS BUILT" ELEVATION OF TOP OF ROCK IN PAVED LOCATIONS.
 - "AS BUILT" LENGTH OF DRAINFIELD INSTALLATIONS.
 - "AS BUILT" SLOPE/RETENTION AREA SIZES AND ELEVATIONS.
 - "AS BUILT" SMALLER/RETENTION AREA SECTIONS-100' MAX.

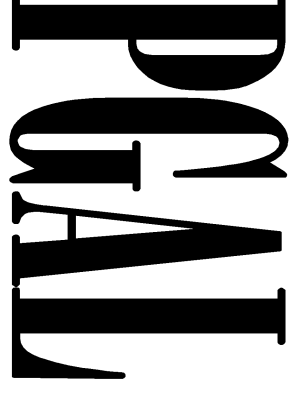
FIELD OBSERVATION – PAVING, GRADING & DRAINAGE

- AS REQUIRED BY PERMIT CONDITIONS AND/OR THE OWNER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD 48 HOURS IN ADVANCE TO OBSERVE THE FOLLOWING:
 - DRAINFIELD INSTALLATIONS PRIOR TO BACKFILL.
 - DRAINAGE TRENCHES PRIOR TO BACKFILL.
 - PIPE JOINTS PRIOR TO BACKFILL.
 - INLETS PRIOR TO BACKFILL.
 - CONFLICTS WITH OTHER UNDERGROUND UTILITIES PRIOR TO BACKFILL.
 - COMPACTED SUBGRADE.
 - COMPACTED BASE COURSE.
 - PRIME COAT PRIOR TO ASPHALT.
 - FINISHED ASPHALT.
 - FINAL OBSERVATION AT JOB COMPLETION.
 - A MINIMUM OF ONE FIELD OBSERVATION BY THE ENGINEER OF RECORD IS REQUIRED NEAR THE COMPLETION OF THE PAVING FOR DRAINAGE STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING GENERAL PERFORMANCE OF THE DESIGN.

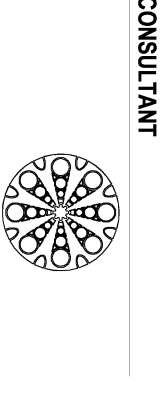
SWM PERMIT SUBMITTAL



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**DeRose Design
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CONSTRUCTION • WATER RESOURCES
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CORPORATE OFFICE - APOPKA, FLORIDA 32703

PROJECT TITLE
**TEMPORARY RESIDENTIAL
MODULARS & ROAD
WIDENING**

PROJECT NUMBER
R1001944.00

PROJECT LOCATION
7800 LYONS ROAD
COCONUT CREEK, FLORIDA
DATE OF ISSUE
MARCH 28, 2013

REVISIONS

SWM PERMIT SUBMITTAL 5.13.13

DESIGNER
LDR

CHECKED BY
RW

DRAWN BY
RW

SUBMITTAL PHASE/
SET DESCRIPTION
DRC SITE PLAN MODIFICATION

APPROVED

DATE
DATE: 03/28/2013
DRAWN BY: RW
CHECKED BY: RW
DESIGNED BY: LDR
LAWRENCE DEROSE, P.E.
LICENSED ENGINEER NO. 20989
STATE OF FLORIDA

NOTE: To the best of my knowledge, the information furnished herein complies with the applicable minimum building codes and applicable minimum life safety standards.

SHEET TITLE
SHEET NUMBER

