

GENERAL NOTES

CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE CONFORMANCE TO THESE REQUIREMENTS BY ALL SUBCONTRACTORS.

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
 - a. RECORD SURVEY PREPARED BY MCLAUGHLIN ENGINEERING COMPANY, DATED 05/30/07.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT HE/SHE HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE.

2. ALL HANDICAPPED PARKING SPACES SHALL BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 4151 ET SEQ.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE THIS PROJECT IS TO BE CONSTRUCTED.

3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY UNDERSTOOD ALL PERMITS AND APPROVALS. CONTRACTOR SHALL REVIEW AND APPROVE BY THE PERMITTING AUTHORITIES. CONTRACTOR SHALL HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.

4. THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE REQUIREMENTS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES HAVING JURISDICTION OVER THIS PROJECT.

6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.

7. THE RECORD SURVEY PREPARED BY MCLAUGHLIN ENGINEERING COMPANY, DATED 05/30/07, SHALL BE CONSIDERED A PART OF THESE PLANS.

8. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL INFORMATION AND NOTIFY BOHLER ENGINEERING IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.

9. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HOURS TO BE DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO THE GIVING OF SUCH NOTIFICATION AND THE ENGINEER'S WRITTEN AUTHORIZATION OF SUCH ADDITIONAL WORK.

10. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY LOCATIONS.

11. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE SITE PLAN AND LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER OF ANY DISCREPANCIES.

12. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ALL GOVERNMENTAL AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.

13. THE CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT AND CONTIGUOUS STRUCTURES.

14. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, ETC. WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA.

15. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL, INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND AND ACCESSORY EQUIPMENT DURING CONSTRUCTION. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY SHALL RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE EXISTING CONDITIONS, AND IN CONFORMANCE WITH APPLICABLE CODES. CONTRACTOR IS RESPONSIBLE TO DOCUMENT EXISTING DAMAGE AND NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.

16. ALL CONCRETE SHALL HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.

17. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS / MEANS FOR COMPLETION OF THE WORK DEPICTED NEITHER ON THESE PLANS, NOR FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

18. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY NOR HAS THE ENGINEER OF RECORD BEEN RETAINED FOR SUCH PURPOSES.

19. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKERS COMPENSATION INSURANCE, EMPLOYERS' LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR POLICY POLICIES REVIEWED BY BOHLER ENGINEERING AND ITS SUB-CONSULTANTS AS ADDITIONAL NAMED INSURERS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS BOHLER ENGINEERING AND ITS SUB-CONSULTANTS FROM THE DESIGN AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.

20. BOHLER ENGINEERING WILL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS, CONSTRUCTION MEANS AND/OR METHODS. COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. BOHLER ENGINEERING'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO ITS ATTENTION, IN WRITING, BY THE CONTRACTOR. BOHLER ENGINEERING WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

21. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING NOR THE PRESENCE OF BOHLER ENGINEERING OR ITS EMPLOYEES AND SUB-CONSULTANTS AT A CONSTRUCTION / PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND ANY HEALTH OR SAFETY REGULATIONS REQUIRED BY ANY REGULATORY AGENCIES. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.

22. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS RELATED TO SAME.

23. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL, EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM SHOULD BE INCLUDED IN THE CONTRACTOR'S PRICE.

24. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

25. CONTRACTOR SHALL CONFIRM ADA ACCESSIBILITY PRIOR TO INSTALLING FINISHING COURSES OF SIDEWALKS AND PARKING AREAS.

26. UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A RECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER AND THE ENGINEER OF RECORD.
27. ALL UTILITY EASEMENTS TO BE SECURED PRIOR TO CONSTRUCTION (IF REQUIRED) PRIOR TO CERTIFICATE OF OCCUPANCY. THESE EASEMENTS SHALL BE SKETCHED, DESCRIBED, AND RECORDED AT THE SOLE COST OF THE CONTRACTOR.

28. CONTRACTOR SHALL PROVIDE MINIMUM 48 HOUR NOTICE TO ENGINEER AND APPLICABLE AGENCIES FOR SCHEDULING INSPECTIONS.

29. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD AND CITY OF COCONUT CREEK FOR THE FOLLOWING: CATCH BASINS, FIRE HYDRANTS, VALVES, AND ALL REQUIRED ACCESSORIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY APPROVALS IF REQUIRED.

30. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY.

31. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH M.U.T.C.D. AND APPROVED BY CITY OF COCONUT CREEK AND BROWARD COUNTY WHERE APPLICABLE PRIOR TO IMPLEMENTATION.

32. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.

33. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION FROM CITY OF COCONUT CREEK.

34. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR FOR ANY NECESSARY CONSTRUCTION, PAVEMENT MARKING AND SIGNAGE OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AND MAINTAIN SAFE WALK ROUTES. ALL RESTORED TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE GOVERNING AGENCY'S TRAFFIC ENGINEERING STANDARDS.

SANITARY SEWER NOTES:

- A. GENERAL:
 1. DISTANCE AND LENGTHS SHOWN ON PLANS REFERENCE THE CENTER OF STRUCTURES.

- B. MATERIALS:
 1. ALL PVC SEWER PIPE AND FITTINGS SHALL BE NON-PRESSURE POLY(VINYL CHLORIDE) (PVC) MANUFACTURED IN ACCORDANCE WITH ANSII/AWWA C900-99 OR LATEST REVISION, WITH PUSH-ON RUBBER GASKET JOINTS. (24" SHALL BE DR-22)

2. DUCTILE IRON PIPE (DIP) SHALL BE CEMENT OR POLYURETHANE COATED AND SHALL HAVE A COAL TAR EPOXY COATING, MANUFACTURED IN ACCORDANCE WITH ANSII/AWWA C151-92 OR LATEST REVISION. MINIMUM WALL THICKNESS CLASS 52 (4"-12") & CLASS 51 (14"-20") (UNLESS OTHERWISE SPECIFIED).

3. ALL FITTINGS AND ACCESSORIES SHALL BE AS MANUFACTURED OR SUPPLIED BY THE PIPE MANUFACTURER OR APPROVED EQUAL.

- C. INSTALLATION:
 1. PIPE AND FITTINGS:

- a. SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, AND THE UNIBELL PLASTICS PIPE ASSOCIATION'S RECOMMENDED PRACTICES FOR THE INSTALLATION OF PVC SEWER PIPE."

- b. D.I.P. SHALL BE INSTALLED IN ACCORDANCE WITH ANSII/AWWA C900-99 OR LATEST REVISION.
- c. BEDDING AND INITIAL BACKFILL (12 INCHES) OVER SEWER MAINS AND SERVICES SHALL BE SAND WITH NO ROCK LARGER THAN 1" IN DIAMETER. PEA ROCK OR 3/4" WASHED ROCK WILL BE USED IN WATER OR OTHER UNSUITABLE BEDDING EXISTS AT THE DISCRETION OF THE CITY OF COCONUT CREEK. ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6" IN DIAMETER.

3. SERVICE:
 1. MINIMUM SLOPE OF ALL SERVICE LINES SHALL BE AS INDICATED IN THE FLORIDA BUILDING CODE.

- b. SERVICE LATERALS SHALL TERMINATE AT A DEPTH 30" BELOW FINISHED GRADE OR AS INDICATED ON PLUMBING PLAN.

- c. EACH SERVICE CONNECTION SHALL BE PLUGGED WATER-TIGHT WITH AN APPROVED PLUG.

- d. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2"x4" TREATED STAKE PAINTED BLUE, EXTENDING 18" ABOVE GRADE.

- e. CONTRACTOR SHALL ROUGH IN RISER TO 1 FOOT ABOVE FINISHED GRADE AND PLUG AT PROJECT COMPLETION, CUT BACK TO FINISHED GRADE.

- f. CONNECTION OF SERVICES TO BUILDINGS PLUMBING SHALL BE COORDINATED WITH THE CITY'S BUILDING AND ZONING DEPARTMENT, PLUMBING SECTION.

- D. TESTING:
 1. AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.

2. AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND ANY HEALTH OR SAFETY REGULATIONS REQUIRED BY ANY REGULATORY AGENCIES.

3. MANHOLE LEAKAGE TEST SHALL NOT EXCEED FOUR GALLONS PER DAY PER UNIT. NO VISIBLE LEAKAGE ALLOWED.

4. SEWER PIPE LEAKAGE ALLOWABLE SHALL NOT EXCEED 150 GALLONS PER DAY PER INCH DIAMETER PER MILE IN ATWOO HOUR TEST PERIOD FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED AND ALL LINES SHALL BE T.V. INSPECTED.

5. SANITARY SEWER SHALL BE TELEVIEWED AND LAMPED AT DEVELOPER'S EXPENSE, PRIOR TO FINAL ACCEPTANCE. OWNER/ CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY DEFICIENCIES PRIOR TO CERTIFICATION TO ANY AGENCY.

6. VISIBLE INFILTRATION LEAKAGE INTO MANHOLES AND SEWER PIPE SHALL NOT BE PERMITTED.

WATER DISTRIBUTION AND/OR SANITARY SEWER FORCE MAIN SYSTEM

- A. GENERAL:

1. NO CONNECTIONS TO THE EXISTING LINES SHALL BE MADE UNTIL PRESSURE TESTS, FOR THE WATER AND SEWER FORCE MAINS, AND BACTERIOLOGICAL TESTS HAVE BEEN PERFORMED TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM.

2. BEDDING AND INITIAL BACKFILL FOR MAINS SHALL BE SAND WITH NO ROCKS LARGER THAN 1" IN DIAMETER

3. USE "DETECTO" TAPE ON ALL PVC MAINS (18" ABOVE), AND USE "NON-DETECTO" TAPE ON ALL D.I.P. MAINS (18" ABOVE).

4. A THREE (3) FOOT HORIZONTAL SEPARATION IS REQUIRED BETWEEN WATER MAINS AND OBSTRUCTIONS (I.E. CATCH BASINS, POWER POLES, ETC.). FIVE (5) FOOT OF SEPARATION IS REQUIRED BETWEEN WATER MAINS AND TREES.

- B. MATERIALS:

1. DUCTILE IRON PIPE (DIP) SHALL BE CLASS 52 UP TO 12" SIZE & CLASS 51 FOR 14" AND LARGER WITH INTERIOR CEMENT LINING AND BITUMINOUS COATED OUTSIDE. WATER MAIN & EPOXY LINED & COATED FORCE MAIN MANUFACTURED IN ACCORDANCE WITH ANSII/AWWA C151/A21.51-91 OR LATEST REVISION. THE PIPE SHALL WITHSTAND A WORKING PRESSURE OF 350 PSI. THE JOINTS SHALL BE BELLOWS JOINT PUSH-ON TYPE UNLESS OTHERWISE NOTED ON THE PLANS.

2. ALL PVC MAINS SHALL BE SERIES 1120, CLASS 150 (DR 18) PRESSURE PIPE CONFORMING TO ANSII/AWWA C900-99 OR LATEST REVISION, AND SHALL HAVE PUSH-ON JOINTS, AND IRON PIPE 6" (D.I.P. ON-SITE ONLY)

3. FITTINGS FOR MAINS 4" AND LARGER SHALL BE DUCTILE IRON MECHANICAL JOINT CONFORMING TO ANSII/AWWA C110-93 OR LATEST REVISION, COMPLETE WITH GLANDS, GASKETS, BOLTS AND NUTS. ALL FITTINGS SHALL BE CEMENT LINED AND SEAL COATED WITH THE SAME MATERIAL AS THE PIPE & USE MEGALUG SERIES 1100 RESTRAINED JOINT ADAPTERS.

4. VALVES SHALL BE GATE VALVES, IRON BODY, FULLY RESILIENT SEAT BRONZED MOUNTED NON-RISING STEM, RATED AT 200 PSI AND CONFORMING TO ANSII/AWWA C508-47 OR LATEST REVISION, AND SHALL HAVE THE FOLLOWING:
 - a. GATE VALVES 4" AND LARGER SHALL BE MUELLER A-280-20, RESILIENT SEATED GATE VALVES SHALL BE AMERICAN 500/500 LINE OR CLOW F-6100, CONFORMING TO ANSII/AWWA C509-47.

- b. TAPPING VALVES SHALL BE MUELLER H667 OR APPROVED EQUAL.

- c. GATE VALVES 3" OR LESS SHALL BE NIBCO N-133 OR N-138 WITH MALLEABLE HAND WHEELS. NO SUBSTITUTIONS ALLOWED.

5. TAPPING SLEEVES SHALL BE MUELLER H615 OR APPROVED EQUAL PER CITY OF COCONUT CREEK.

6. VALVE BOXES SHALL BE TYLER/ERUNION 4615 OR APPROVED EQUAL PER CITY OF COCONUT CREEK.

7. RETAINER GLANDS SHALL CONFORM TO ANSII/AWWA C11/A21.11-90 OR LATEST REVISION. ALL GLANDS SHALL BE MANUFACTURED FROM DUCTILE IRON AS LISTED UNDER WRITERS LABORATORIES FOR 250 PSI MINIMUM WATER PRESSURE RATING, CLOW CORPORATION MODEL F-1058 OR STANDARD FIRE PROTECTION EQUIPMENT COMPANY OR APPROVED EQUAL.
8. DRESSER COUPLINGS SHALL BE REGULAR BLACK COUPLINGS WITH PLAIN GASKETS FOR GALVANIZED STEEL PIPE. THEY SHALL BE DRESSER STYLE 90, NO SUBSTITUTIONS ALLOWED.

9. FIRE HYDRANTS SHALL HAVE A 6" 1/4" MAIN VALVE OPENING, PUMPER NOZZLE TO BE 18" FROM FINISH GRADE. ALL HYDRANTS TO BE INSTALLED WITH ANCHORING TEE AND CONTROL VALVE. FIRE HYDRANT SHALL COMPLY WITH ANSII/AWWA C502-85 (OR LATEST REVISION). HYDRANTS SHALL BE KENNEDY GUARDIAN 4-1/4" OR APPROVED EQUAL. BLUE REFLECTIVE PAINT MARKER REQUIRED IN CENTER OF NEAREST DRIVING LANE FOR FIRE HYDRANTS.

- C. SERVICE CONNECTION:

1. CORPORATION STOPS SHALL BE MANUFACTURED OF BRASS ALLOY IN ACCORDANCE WITH ASTM B-82 WITH THREADED ENDS, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.

2. CURB STOPS SHALL BE MUELLER OR APPROVED EQUAL.

3. METER STOPS SHALL BE 90° LOCK WING TYPE AND SHALL BE OF BRONZE CONSTRUCTION IN ACCORDANCE WITH ASTM B-82. METER STOPS SHALL BE CLOSED BOTTOM DESIGN AND RESILIENT "O" RING SEALED AGAINST EXTERNAL LEAKAGE AT THE TOP. STOPS SHALL BE SUPPLIED WITH ANCHORING TEE AND CONTROL VALVE, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.

4. SERVICE PIPING SHALL BE TYPE 'K' DRAWN COPPER.

- D. INSTALLATION:

1. GENERAL:
 1. CONNECTION OF ALL NEW SYSTEMS TO EXISTING MAINS SHALL BE DONE BY USING ONE OF THE FOLLOWING METHODS:

- a. METHOD A PER BROWARD COUNTY PUBLIC HEALTH UNIT STANDARDS WHICH INVOLVES A REDUCED SIZE TEMPORARY CONNECTION BETWEEN THE EXISTING MAIN AND THE NEW ONE.

- b. METHOD B PER BROWARD COUNTY PUBLIC HEALTH UNIT STANDARDS, WHICH INVOLVES A DIRECT CONNECTION BETWEEN THE NEW AND EXISTING MAINS USING TWO GATE VALVES SEPARATED BY A SERVICE WITH A VENT PIPE.

- c. METHOD C APPROVED BY THE BROWARD COUNTY PUBLIC HEALTH UNIT, WHICH INVOLVES A TAP WITH ONE GATE VALVE REQUIRING DISINFECTION OF THE NEW SYSTEM PRIOR TO CONDUCTING THE PRESSURE TEST.

2. BEDDING:
 1. BEDDING AND INITIAL BACKFILL (12 INCHES ABOVE PIPE) FOR 8" PIPE SHALL BE SAND WITH NO ROCK LARGER THAN 1" IN DIAMETER. PEA ROCK OR 3/4" WASHED ROCK WILL BE USED IN WATER OR OTHER UNSUITABLE BEDDING EXISTS AT THE DISCRETION OF THE CITY OF COCONUT CREEK. ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6" IN DIAMETER.

3. PVC PIPE:
 1. AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.

2. AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND ANY HEALTH OR SAFETY REGULATIONS REQUIRED BY ANY REGULATORY AGENCIES.

3. MANHOLE LEAKAGE TEST SHALL NOT EXCEED FOUR GALLONS PER DAY PER UNIT. NO VISIBLE LEAKAGE ALLOWED.

4. SEWER PIPE LEAKAGE ALLOWABLE SHALL NOT EXCEED 150 GALLONS PER DAY PER INCH DIAMETER PER MILE IN ATWOO HOUR TEST PERIOD FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED AND ALL LINES SHALL BE T.V. INSPECTED.

5. SANITARY SEWER SHALL BE TELEVIEWED AND LAMPED AT DEVELOPER'S EXPENSE, PRIOR TO FINAL ACCEPTANCE. OWNER/ CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY DEFICIENCIES PRIOR TO CERTIFICATION TO ANY AGENCY.

6. VISIBLE INFILTRATION LEAKAGE INTO MANHOLES AND SEWER PIPE SHALL NOT BE PERMITTED.

7. RETAINER GLANDS SHALL CONFORM TO ANSII/AWWA C11/A21.11-90 OR LATEST REVISION. ALL GLANDS SHALL BE MANUFACTURED FROM DUCTILE IRON AS LISTED UNDER WRITERS LABORATORIES FOR 250 PSI MINIMUM WATER PRESSURE RATING, CLOW CORPORATION MODEL F-1058 OR STANDARD FIRE PROTECTION EQUIPMENT COMPANY OR APPROVED EQUAL.

8. DRESSER COUPLINGS SHALL BE REGULAR BLACK COUPLINGS WITH PLAIN GASKETS FOR GALVANIZED STEEL PIPE. THEY SHALL BE DRESSER STYLE 90, NO SUBSTITUTIONS ALLOWED.

9. FIRE HYDRANTS SHALL HAVE A 6" 1/4" MAIN VALVE OPENING, PUMPER NOZZLE TO BE 18" FROM FINISH GRADE. ALL HYDRANTS TO BE INSTALLED WITH ANCHORING TEE AND CONTROL VALVE. FIRE HYDRANT SHALL COMPLY WITH ANSII/AWWA C502-85 (OR LATEST REVISION). HYDRANTS SHALL BE KENNEDY GUARDIAN 4-1/4" OR APPROVED EQUAL. BLUE REFLECTIVE PAINT MARKER REQUIRED IN CENTER OF NEAREST DRIVING LANE FOR FIRE HYDRANTS.

10. CORPORATION STOPS SHALL BE MANUFACTURED OF BRASS ALLOY IN ACCORDANCE WITH ASTM B-82 WITH THREADED ENDS, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.

11. CURB STOPS SHALL BE MUELLER OR APPROVED EQUAL.

12. METER STOPS SHALL BE 90° LOCK WING TYPE AND SHALL BE OF BRONZE CONSTRUCTION IN ACCORDANCE WITH ASTM B-82. METER STOPS SHALL BE CLOSED BOTTOM DESIGN AND RESILIENT "O" RING SEALED AGAINST EXTERNAL LEAKAGE AT THE TOP. STOPS SHALL BE SUPPLIED WITH ANCHORING TEE AND CONTROL VALVE, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.

13. SERVICE PIPING SHALL BE TYPE 'K' DRAWN COPPER.

14. CONNECTION OF ALL NEW SYSTEMS TO EXISTING MAINS SHALL BE DONE BY USING ONE OF THE FOLLOWING METHODS:

- a. METHOD A PER BROWARD COUNTY PUBLIC HEALTH UNIT STANDARDS WHICH INVOLVES A REDUCED SIZE TEMPORARY CONNECTION BETWEEN THE EXISTING MAIN AND THE NEW ONE.

- b. METHOD B PER BROWARD COUNTY PUBLIC HEALTH UNIT STANDARDS, WHICH INVOLVES A DIRECT CONNECTION BETWEEN THE NEW AND EXISTING MAINS USING TWO GATE VALVES SEPARATED BY A SERVICE WITH A VENT PIPE.

- c. METHOD C APPROVED BY THE BROWARD COUNTY PUBLIC HEALTH UNIT, WHICH INVOLVES A TAP WITH ONE GATE VALVE REQUIRING DISINFECTION OF THE NEW SYSTEM PRIOR TO CONDUCTING THE PRESSURE TEST.

2. BEDDING:
 1. BEDDING AND INITIAL BACKFILL (12 INCHES ABOVE PIPE) FOR 8" PIPE SHALL BE SAND WITH NO ROCK LARGER THAN 1" IN DIAMETER. PEA ROCK OR 3/4" WASHED ROCK WILL BE USED IN WATER OR OTHER UNSUITABLE BEDDING EXISTS AT THE DISCRETION OF THE CITY OF COCONUT CREEK. ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6" IN DIAMETER.

3. PVC PIPE:
 1. AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.

2. AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND ANY HEALTH OR SAFETY REGULATIONS REQUIRED BY ANY REGULATORY AGENCIES.

3. MANHOLE LEAKAGE TEST SHALL NOT EXCEED FOUR GALLONS PER DAY PER UNIT. NO VISIBLE LEAKAGE ALLOWED.

4. SEWER PIPE LEAKAGE ALLOWABLE SHALL NOT EXCEED 150 GALLONS PER DAY PER INCH DIAMETER PER MILE IN ATWOO HOUR TEST PERIOD FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED AND ALL LINES SHALL BE T.V. INSPECTED.

5. SANITARY SEWER SHALL BE TELEVIEWED AND LAMPED AT DEVELOPER'S EXPENSE, PRIOR TO FINAL ACCEPTANCE. OWNER/ CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY DEFICIENCIES PRIOR TO CERTIFICATION TO ANY AGENCY.

6. VISIBLE INFILTRATION LEAKAGE INTO MANHOLES AND SEWER PIPE SHALL NOT BE PERMITTED.

7. RETAINER GLANDS SHALL CONFORM TO ANSII/AWWA C11/A21.11-90 OR LATEST REVISION. ALL GLANDS SHALL BE MANUFACTURED FROM DUCTILE IRON AS LISTED UNDER WRITERS LABORATORIES FOR 250 PSI MINIMUM WATER PRESSURE RATING, CLOW CORPORATION MODEL F-1058 OR STANDARD FIRE PROTECTION EQUIPMENT COMPANY OR APPROVED EQUAL.

8. DRESSER COUPLINGS SHALL BE REGULAR BLACK COUPLINGS WITH PLAIN GASKETS FOR GALVANIZED STEEL PIPE. THEY SHALL BE DRESSER STYLE 90, NO SUBSTITUTIONS ALLOWED.

9. FIRE HYDRANTS SHALL HAVE A 6" 1/4" MAIN VALVE OPENING, PUMPER NOZZLE TO BE 18" FROM FINISH GRADE. ALL HYDRANTS TO BE INSTALLED WITH ANCHORING TEE AND CONTROL VALVE. FIRE HYDRANT SHALL COMPLY WITH ANSII/AWWA C502-85 (OR LATEST REVISION). HYDRANTS SHALL BE KENNEDY GUARDIAN 4-1/4" OR APPROVED EQUAL. BLUE REFLECTIVE PAINT MARKER REQUIRED IN CENTER OF NEAREST DRIVING LANE FOR FIRE HYDRANTS.

10. CORPORATION STOPS SHALL BE MANUFACTURED OF BRASS ALLOY IN ACCORDANCE WITH ASTM B-82 WITH THREADED ENDS, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.

11. CURB STOPS SHALL BE MUELLER OR APPROVED EQUAL.

12. METER STOPS SHALL BE 90° LOCK WING TYPE AND SHALL BE OF BRONZE CONSTRUCTION IN ACCORDANCE WITH ASTM B-82. METER STOPS SHALL BE CLOSED BOTTOM DESIGN AND RESILIENT "O" RING SEALED AGAINST EXTERNAL LEAKAGE AT THE TOP. STOPS SHALL BE SUPPLIED WITH ANCHORING TEE AND CONTROL VALVE, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.

13. SERVICE PIPING SHALL BE TYPE 'K' DRAWN COPPER.

14. CONNECTION OF ALL NEW SYSTEMS TO EXISTING MAINS SHALL BE DONE BY USING ONE OF THE FOLLOWING METHODS:

- a. METHOD A PER BROWARD COUNTY PUBLIC HEALTH UNIT STANDARDS WHICH INVOLVES A REDUCED SIZE TEMPORARY CONNECTION BETWEEN THE EXISTING MAIN AND THE NEW ONE.

- b. METHOD B PER BROWARD COUNTY PUBLIC HEALTH UNIT STANDARDS, WHICH INVOLVES A DIRECT CONNECTION BETWEEN THE NEW AND EXISTING MAINS USING TWO GATE VALVES SEPARATED BY A SERVICE WITH A VENT PIPE.

- c. METHOD C APPROVED BY THE BROWARD COUNTY PUBLIC HEALTH UNIT, WHICH INVOLVES A TAP WITH ONE GATE VALVE REQUIRING DISINFECTION OF THE NEW SYSTEM PRIOR TO CONDUCTING THE PRESSURE TEST.

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