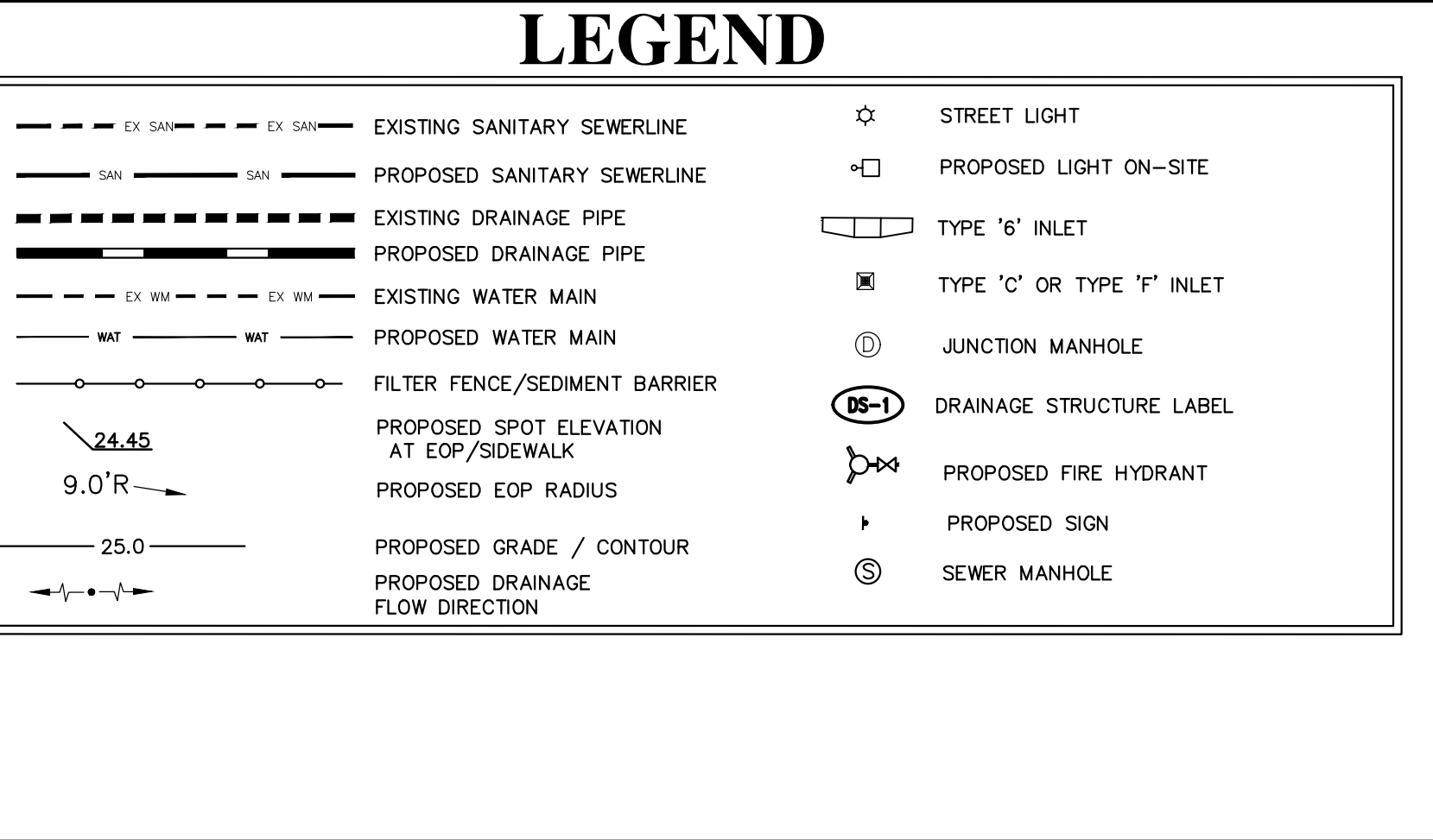


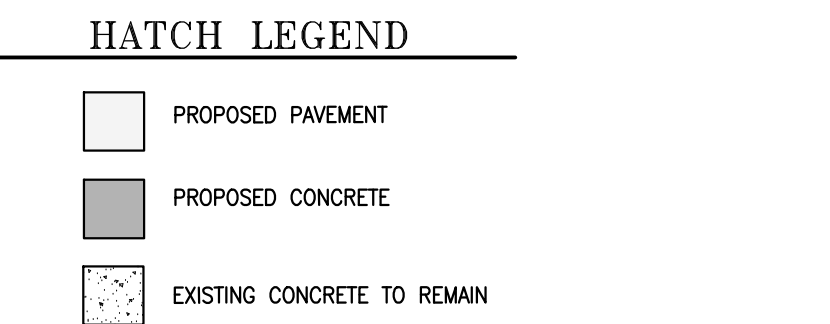
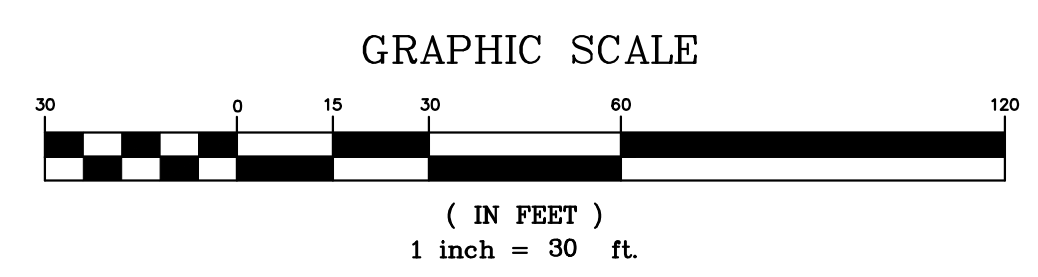
- NOTES**
- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SODED, SEED AND MULCH IS NOT ACCEPTABLE.
 - ANY DAMAGE TO THE EXISTING INFRASTRUCTURE, INCLUDING SIDEWALKS, BY THE CONTRACTOR MUST BE REPLACED PRIOR TO FINAL INSPECTION. SIDEWALK PATCHING IS NOT ACCEPTABLE.
 - CURB RAMPS MUST MEET THE REQUIREMENTS OF FOOT STANDARD INDEX 304.
 - ALL STRIPING WITHIN THE RIGHT-OF-WAY SHALL BE THERMOPLASTIC.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING PUBLIC ROADWAY, CURBS, GUTTERS, SIDEWALKS, DRAINAGE SYSTEMS AND UTILITIES AS A DIRECT RESULT OF NEW CONSTRUCTION. ROAD IMPROVEMENTS SUCH AS BUT NOT LIMITED TO RESURFACING MAYBE REQUIRED.
 - THE SITE DRAINAGE AND CONSTRUCTION IMPROVEMENTS SHALL NOT ADVERSELY IMPACT ADJOINING PROPERTIES AND/OR ROADWAYS.
 - INDIAN RIVER COUNTY TRAFFIC ENGINEERING HAS UNDERGROUND CONDUIT FOR TRAFFIC SIGNAL INTERCONNECTIONS IN THIS AREA AS WELL AS OTHER TRAFFIC SIGNAL EQUIPMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT SUNSHINE STATE ONE CALL SYSTEM AT 1-800-432-4770 FOR LOCATIONS OF THIS EQUIPMENT AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
 - CONSTRUCT GRADE TRAP IN ACCORDANCE WITH CHAPTER 646-6 OF THE FLORIDA ADMINISTRATIVE CODE FOR ANY FOOD PREPARATION FACILITY AND SUBMIT TO THE ENVIRONMENTAL HEALTH DEPARTMENT FOR APPROVAL.
 - CONTRACTOR TO FIELD VERIFY ALL REPORTED INVERTS AND UTILITIES AND REPORT TO ENGINEER.
 - ANY CONFLICTS WITH THE PLANS AND EXISTING UTILITIES, DRAINAGE, ETC TO BE REPORTED TO ENGINEER FOR RESOLUTION OF ISSUES.
 - SIGNS AND PAVEMENT MARKINGS ARE TO CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE INDIAN RIVER COUNTY TYPICAL DRAWINGS FOR ROADWAY SIGNING, STRIPING AND GEOMETRICS.
 - ALL PAVEMENT MARKINGS ARE TO CONSIST OF 30 MIL EXTRUDED THERMOPLASTIC.
 - RAISED REFLECTIVE PAVEMENT MARKINGS (RPM'S) ARE TO CONSIST OF 4-INCH SQUARE MONO-DIRECTIONAL WHITE AND BI-DIRECTIONAL YELLOW.
 - LANE LINE RPM'S ON THE 4 (OR MORE) LANE PORTION OF ANY DIVIDED ROADWAY SHALL BE BI-DIRECTIONAL WHITE/RED.
 - RPM'S SHALL BE POSITIONED IN ACCORDANCE WITH FOOT INDEX 17352 AND THIS PLAN, BUT INSTALLED ON THE STRIPE IN ACCORDANCE WITH INDIAN RIVER COUNTY STANDARD.
 - TRUNKER ENCLOSURES TO BE CONSTRUCTED WITH THE BUILDINGS STYLE OF ARCHITECTURE AND MATERIALS/COLOURS.

- PROPOSED DRAINAGE STRUCTURES**
- DS-1 CONTROL STRUCTURE SEE SHEET 10
 - DS-1A TYPE 'C' INLET TOP = 11.55' E. INV = 7.50' BOTTOM = 7.00'
 - DS-2 MODIFIED TYPE 'C' INLET TOP = 13.00' N. INV = 9.25' S. INV = 9.25' E. INV = 9.25' NW. INV = 9.50' SE. INV = 9.50' BOTTOM = 8.25'
 - DS-3 MODIFIED TYPE 'C' INLET TOP = 13.00' W. INV = 8.95' N. INV = 8.95' E. INV = 7.95' BOTTOM = 7.95'
 - DS-4 MODIFIED TYPE 'C' INLET TOP = 13.00' W. INV = 8.70' N. INV = 8.70' E. INV = 7.70' BOTTOM = 7.70'
 - DS-5 MODIFIED TYPE 'C' INLET TOP = 13.00' W. INV = 8.45' N. INV = 8.45' E. INV = 8.45' BOTTOM = 6.45'
 - DS-6 MODIFIED TYPE 'C' INLET TOP = 13.00' N. INV = 9.05' SE. INV = 9.05' SW. INV = 9.50' BOTTOM = 8.05'
 - DS-7 MODIFIED TYPE 'C' INLET TOP = 13.00' NW. INV = 9.25' S. INV = 9.25' E. INV = 9.50' NE. INV = 9.50' BOTTOM = 8.25'
 - DS-8 MODIFIED TYPE 'C' INLET TOP = 13.00' SE. INV = 9.50' SW. INV = 9.50' BOTTOM = 8.50'
 - DS-9 MODIFIED TYPE 'C' INLET TOP = 13.00' S. INV = 10.00' E. INV = 8.00' NW. INV = 8.00' SE. INV = 8.00' BOTTOM = 6.00' NOTE: INLET REQUIRES A SUMP PUMP TO DISCHARGE RUNOFF. PUMP IS MINIMUM 200 GPM.
 - DS-10 MODIFIED TYPE 'C' INLET (PHASE 2) TOP = 10.00' S. INV = 10.00' E. INV = 8.50' BOTTOM = 8.50'

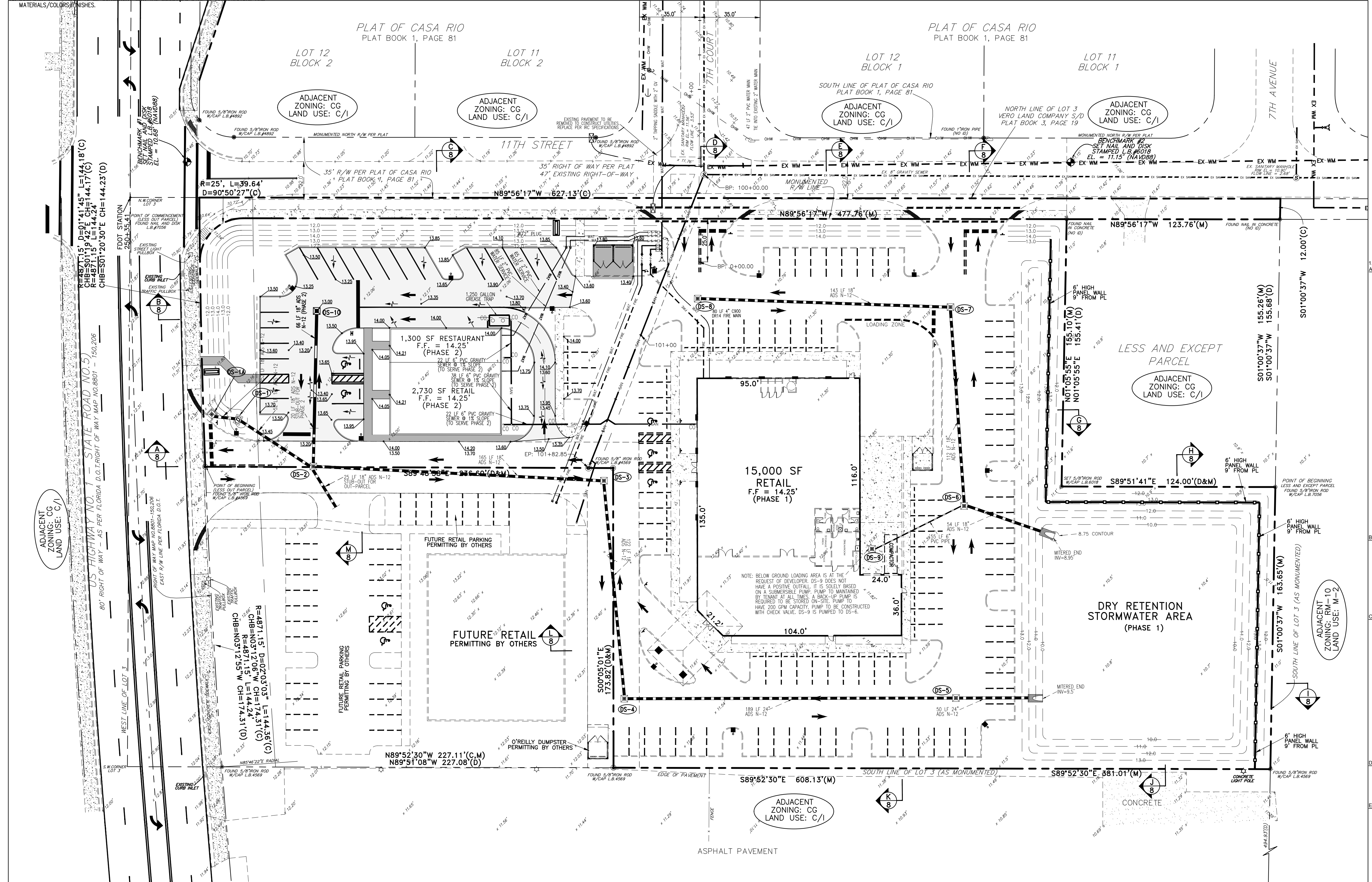
- EXISTING & PROPOSED SEWER STRUCTURES**
- ES-1 EXISTING SEWER MANHOLE TOP = 11.56' EX. N. INV = 3.53' EX. E. INV = 3.53' EX. S. INV = 8.25' EX. W. INV = 8.25'
 - ES-2 PROPOSED SEWER MANHOLE TOP = 13.10' S. INV = 9.00'



- Legend & Abbreviations: (symbols not scaleable for size)**
- PLS - PROFESSIONAL LAND SURVEYOR
 - PSM - PROFESSIONAL SURVEYOR & MAPPER
 - LS - LAND SURVEYING BUSINESS
 - CL - CENTERLINE
 - R - RADIUS
 - L - LENGTH
 - Δ - DELTA ANGLE
 - EP - EDGE OF PAVEMENT
 - BC - BACK OF CURB
 - B.M. - BENCHMARK
 - POC - POINT OF COMMENCEMENT
 - POB - POINT OF BEGINNING
 - PCP - (PCP) PERMANENT CONTROL POINT
 - PRM - PERMANENT CONTROL POINT (PRM) PERMANENT REFERENCE MONUMENT
 - POB - PERMANENT REFERENCE MONUMENT
 - O - (P) IRON PIPE
 - IP - IRON PIPE
 - IRC - (CM) IRON ROD & CAP
 - IRC - IRON ROD & CAP
 - CM - (CM) CONCRETE MONUMENT
 - CM - CONCRETE MONUMENT
 - FD - FOUND
 - (M) - MEASURED
 - (P) - PLAT
 - (C) - CALCULATED
 - TCB - TRAFFIC CONTROL BOX
 - CUY WIRE
 - WOOD UTILITY POLE
 - TELEPHONE SERVICE
 - CABLE TV BOX
 - ELECTRIC BOX
 - LIGHT POST
 - WELL
 - HYDRANT
 - GATE VALVE
 - IRRIGATION VALVE
 - SANITARY MANHOLE
 - WATER METER
 - CURB INLET
 - SURFACE INLET
 - MITERED END SECTION
 - CONCEPTUAL DRAINAGE
 - STREET SIGN
 - PROPOSED GRADE
 - NAVD - NORTH AMERICAN VERTICAL DATUM
 - AC - TYPICAL ELEVATION
 - AC - AIR CONDITIONER
 - CONC. - CONCRETE
 - F.F. - FINISH FLOOR
 - BSB - BUILDING SETBACK LINE
 - EL. ELEV. - ELEVATION
 - R/W - RIGHT OF WAY
 - AB - AS-BUILT
 - PK - PARKER-KALON



- 1. SUBMITTALS**
- A. PRODUCT DATA AND SHOP DRAWINGS**
- FOR ALL SITE WORK CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT PRODUCT DATA IN THE FORM OF MANUFACTURERS' CUT SHEETS AND CATALOG DATA FOR ALL PRODUCTS, MATERIAL AND EQUIPMENT CLEARLY INDICATING THE SPECIFIC PART OR PRODUCT CATALOG NUMBERS FOR APPROVAL.
 - THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PRODUCTS, MATERIALS AND EQUIPMENT REQUIRED TO BE FABRICATED, OR WHEN STANDARD PUBLISHED PRODUCT DATA IS NOT AVAILABLE FOR USE.
 - SUBMIT 6 COPIES OF REQUESTED INFORMATION, NEATLY BOUND AND INDEXED PER CATEGORY FOR THE FOLLOWING:
 - A. UTILITIES:** ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, PUMP STATION EQUIPMENT, COMPONENTS AND STRUCTURES, AND ALL OTHER UTILITY SYSTEM PRODUCTS, MATERIALS AND COMPONENTS AND SIMILAR CONTROLS.
 - B. DRAINAGE:** ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, LIDS, GASKETS AND SIMILAR, AND ALL OTHER DRAINAGE SYSTEM PRODUCTS, MATERIALS, AND COMPONENTS AND SIMILAR CONTROLS.
 - C. PAVING AND GRADING:** ALL CERTIFICATIONS AND LAB ANALYSIS RESULTS FOR PAVEMENT, BASE, SUBGRADE, AND FILL MATERIALS. INCLUDE EVIDENCE (CERTIFICATIONS) THAT THE MATERIALS PROPOSED TO BE USED MEET OR EXCEED FOOT SPECIFICATIONS AND THE CONTRACT DOCUMENTS.
 - D. SIGNING AND PAVEMENT MARKING:** SIGN AND PAVEMENT MARKING PRODUCTS AND MATERIALS, AND EVIDENCE THAT THE PRODUCTS AND MATERIALS PROPOSED TO BE USED MEET OR EXCEED REQUIREMENTS SPECIFIED IN THE CONTRACT DOCUMENTS, LOCAL ENGINEERING DEPARTMENT, MUTCO AND FOOT SPECIFICATIONS.
 - E. IRRIGATION:** ALL PIPE, FITTINGS, VALVES, OTHER MISCELLANEOUS APPURTENANCES, CONTROLS, PUMP STATION EQUIPMENT, COMPONENTS AND STRUCTURES, AND ALL OTHER UTILITY SYSTEM PRODUCTS, MATERIALS AND COMPONENTS AND SIMILAR CONTROLS, S.WELLS, AND/OR OTHER IRRIGATION SOURCES. THE CONTRACTOR SHALL SUBMIT AN IRRIGATION COORDINATION DRAWING, INDICATING CONTRACTOR'S PROPOSED LOCATION OF MAIN LINES, SECONDARY LINES, HEAD LOCATIONS, PANEL, SENSOR, CONTROL VALVE AND VALVE LOCATIONS. THIS DRAWING SHOULD CLEARLY DEPICT ADJUSTMENTS OR CHANGES THE CONTRACTOR PROPOSES. THE DRAWINGS SHALL INDICATE ALL PROPOSED SUBSTITUTIONS OF SIZE, MATERIAL, AND/OR MANUFACTURER.
 - ALLOW TWO WEEKS FOR THE ENGINEER TO COMPLETE REVIEW OF PRODUCT DATA AND SHOP DRAWINGS. ENGINEER CERTIFICATION, AND AS PER PROJECT SPECIFICATIONS, LOCAL UTILITIES DEPARTMENT, AND FIELD REQUIREMENTS. ONCE INFORMATION HAS LEFT ENGINEER'S OFFICE, ITEMS REQUIRING A LONG LEAD TIME SHOULD BE SUBMITTED AS SOON AS POSSIBLE.
 - THE CONTRACTOR SHALL PROVIDE A STAMP INDICATING HIS REVIEW AND APPROVAL, INITIALED OR SIGNED, CERTIFYING TO REVIEW OF SUBMITTALS, VERIFICATION OF PRODUCTS, FIELD MEASUREMENTS AND FIELD CONSTRUCTION CRITERIA, AND COORDINATION OF THE INFORMATION WITHIN THE SUBMITTAL WITH THE REQUIREMENTS OF THE WORK AND OF CONTRACT DOCUMENTS, INCLUDING PLANS AND SPECIFICATIONS OF OTHER DESIGN PROFESSIONALS (I.E., ARCHITECT, MECHANICAL, ELECTRICAL AND STRUCTURAL ENGINEERS).
- B. TESTING**
- WATER, PRESSURE (MAIN AND TAPS), BACTERIOLOGICAL, BACKFLOW PREVENTOR TESTS AND CERTIFICATION, AND AS PER PROJECT SPECIFICATIONS, LOCAL UTILITIES DEPARTMENT, AND FIELD REQUIREMENTS.
 - SEWER, EXFL, TV, AND BACKFILL DENSITIES, PRESSURE TEST (MANS AND TAPS) LIFT STATION START-UP, ALL PER PROJECT SPECIFICATIONS, COVS AND FDEP REQUIREMENTS.
 - DRAINAGE, EXFL, LAUNCHING FIELD, AND BACKFILL DENSITIES PER PROJECT SPECIFICATIONS AND LOCAL ENGINEERING REQUIREMENTS.
 - EXHIBITWORK & PAVING, DENSITIES, LBR'S AND FBV'S AS PER PROJECT SPECIFICATIONS AND LOCAL ENGINEERING REQUIREMENTS.
 - SUBMIT ALL TEST RESULTS FOR ENGINEERING REVIEW WITHIN 3 DAYS OF TESTING. FAILURE TO PROVIDE TEST RESULTS, OR PROVIDING FAILING TEST RESULTS WILL BE GROUNDS FOR DELAY AND/OR REJECTION OF PAY REQUEST APPLICATIONS.
- C. AS-BUILTS**
- GRADING, LOCATION AND ELEVATION OF ALL CONCRETE AND PAVEMENT (VEHICLE USE AND PEDESTRIAN USE IMPROVEMENTS) AT HOLLOW POINTS, EDGE OF PAVEMENT, AND CENTERLINE AT 50' ON CENTER AND AT CHANGE OF DIRECTION, GRADE BREAKS, PROPERTY LINES (CROSS SECTIONS 50' ON CENTER), TOP OF BANK AND T.O.E. OF SLOPE AND/OR CENTERLINE OF SWALES AND RETENTION AREAS; CROSS SECTIONS 50' ON CENTER ON STORMWATER LAKES FROM TOP TO BOTTOM, MECHANICAL PADS AND FINISHED FLOOR ELEVATIONS; DETAILED LOCATION AND TOPOGRAPHY OF DRIVEWAY TURNOUTS.
 - WATER AND SEWER FORCE MAINS, LOCATION, TOP ELEVATION AND STATE PLANE COORDINATES AT ALL FITTINGS, VALVES, CHANGES OF DIRECTION AND AT 100' ON CENTER.
 - GRAVITY SEWER:
 - SEWER STRUCTURES: DIAMETER OR SIZE, AND LOCATION AND ELEVATION OF STRUCTURES, TOP, BOTTOMS, AND SEWER INVERTS.
 - MANS AND LATERALS: LOCATION AND INVERT ELEVATIONS AT CONNECTIONS, FITTINGS, AND TERMINATION.
 - LIFT STATIONS: HORIZONTAL LAYOUT AND LOCATION OF ALL EQUIPMENT, PANELS, VAULTS, WET WELL, VALVES; LOCATION OF CONDUIT RUNS AND WATER SERVICE HOSE BIBB; LOCATION AND INVERT ELEVATIONS OF GRANTY AND FORCE MAINS TO AND FROM LIFT STATION; WET WELL DIAMETER, TOP AND BOTTOM ELEVATIONS; PUMP(S) SIZE, TYPE, DISCHARGE DIAMETER, MANUFACTURER AND MODEL #.
 - DRAINAGE: ALL STRUCTURES DIAMETER OR SIZE, LOCATION, AND ELEVATION OF TOP, BOTTOM, AND INVERT ELEVATIONS; ALL PIPES, DIAMETER, TYPE/MATERIAL, LOCATION AND INVERT ELEVATION AT CONNECTIONS, FITTINGS, AND TERMINATION POINTS.
 - IRRIGATION: ALL LINES, SYSTEM EQUIPMENT COMPONENTS, MATERIALS INCLUDING PIPES, VALVES, FITTINGS, SPRINKLER HEADS AND MISCELLANEOUS APPURTENANCES.
- D. OPERATION AND MAINTENANCE MANUALS**
- CONTRACTOR SHALL PROVIDE THE OWNER WITH OPERATION AND MAINTENANCE MANUALS FOR ALL OPERABLE EQUIPMENT (PUMP STATIONS AND CONTROLS, AUTOMATIC CONTROL VALVES, AND OTHER AUTOMATED EQUIPMENT, CONTROL PANELS, ETC.).
 - OPERATION AND MAINTENANCE MANUALS SHALL BE SUBMITTED AS A PRE-REQUISITE TO THE PROJECT BEING DEEMED SUBSTANTIALLY COMPLETE.
- E. WARRANTY**
- THE CONTRACTOR SHALL PROVIDE ALL WARRANTIES, CERTIFICATIONS, GUARANTEES, AND WARRANTY BONDS AS SPECIFIED IN THE CONTRACT DOCUMENTS AND PERMIT CONDITIONS INCLUDING:
- UTILITY MAINTENANCE BOND - FOR ALL PUBLIC WATER AND SEWER UTILITIES INFRASTRUCTURE (25% OF CONTRACT VALUE)
 - ENGINEERING MAINTENANCE BOND - FOR ALL PAVING, GRADING, AND DRAINAGE IMPROVEMENTS AND INFRASTRUCTURE (25% OF CONTRACT VALUE)
- 4. OWNER TRAINING**
- THE CONTRACTOR SHALL INCLUDE 2 HOURS OF OWNER TRAINING FOR EACH WATER, SEWER, DRAINAGE, AND IRRIGATION SYSTEMS FOR ALL OPERABLE EQUIPMENT AND SHALL INCLUDE THE TIME FOR INITIAL ADJUSTMENTS OF EQUIPMENT AND TIME FOR ONE FOLLOW-UP VISIT AND ADJUSTMENTS OF EQUIPMENT 60 DAYS AFTER END OPERATIONAL TIME WITH THE EQUIPMENT.



SCHULKE, BITTLE & STODDARD, L.L.C.
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 1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960
 TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com

ENGINEER CERTIFICATION

DATE: SHEET 6B PROJECT NO.