

WATER & SEWER UTILITY NOTES

1. ALL CONSTRUCTION SHALL MEET OR EXCEED THE ASU REQUIREMENTS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE SPECIFICATIONS AND DETAILS FROM THE LOCAL AGENCY.
2. THE CONTRACTOR SHALL CONSTRUCT GRASSY SLOPE TERRAINS, MANHOLES AND GRASSY SLOPE SITES AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE DESIGN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND ANY RESOLUTION AND ORDINANCE OF ANY AGENCY. THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FIXING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR OR ENGINEER SHALL HAVE ANY DAMAGES SUSTAINED OR LOSS INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITY OR STRUCTURE, NOT FOR TEMPORARY BRACING AND SHORING, AT THE SAME AS IT IS NECESSARY TO SHORE, BRACE, SINK OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERPROOF JUMP WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMED AND LOCATED ACCORDING TO THE PLANS.
5. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINES OF ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, REQUIRES IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING DELIVERED TO THE SITE.
7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AROSES TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
8. UNDERGROUND LINES SHALL BE AS-BUILT BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR BEFORE BACK FILLING.
9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANHOLE TEST ON GRASSY SLOPES. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.
10. ALL PIPES AND CONNECTIONS ARE TO BE RESTRAINED IN ACCORDANCE WITH THE DETAILS OR JURISDICTIONAL AGENCY REQUIREMENTS, WHICHEVER IS MOST STRINGENT.
11. ALL LINES LABELED "TIRE" SHALL BE INSTALLED BY A CERTIFIED FIRE SPRINKLER INSTALLER.

12. WATER DISTRIBUTION SYSTEM MATERIALS (INCLUDING SERVICES) AND INSTALLATION SHALL CONFORM TO THE SPECIFICATIONS OF THE LOCAL WATER PROVIDER AS PROVIDED IN THEIR STANDARD SPECIFICATIONS MANUAL AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN SPECIFICATION MANUALS PRIOR TO BEGING THE PROJECT.
13. ALL POTABLE WATER MAINS AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH F.A.C. 62-555.200(1)(8)(3), USING BLUE AS THE PREDOMINANT COLOR. UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE WILL HAVE A COLOR-EXTENDED BLUE SURFACE. IT WILL BE BLACK OR BLACK WITH BLUE STRIPES. UNDERGROUND IRON, OR APPLIED TO THE PIPE WALL, PIPE STRIPPED DURING THE MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING AND AFTER INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE ON THE PIPE, WITH SPACES, AND THE AXIS OF THE PIPE, AND THAT IS LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE. GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE, OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.
14. ALL WATER MAINS ARE DESIGNED FOR A MINIMUM WORKING PRESSURE OF 150 PSI, HAVE COMPRESSION TYPE BALL JOINTS, AND BE EITHER ANSI/AWWA C105-A12.51-01 DUCTILE IRON PIPE (D.I.P.), CLASS 50 FOR 6" DIAMETER PIPE AND LARGER AND CLASS 51 IF PIPE DIAMETER IS SMALLER THAN 6" OR ANSI/AWWA C900-91, P.V.C. PIPE WITH A MAXIMUM SDR OF 18. ALL 4" DIAMETER MAINS SHALL BE GEMENT LINED AND SEAL COATED IN ACCORDANCE WITH ANSI/AWWA STANDARDS. ALL P.V.C. FORCE MAINS SHALL BE COATED OUTSIDE WITH AN AUTOMATIC COATING APPLICATOR ONE MIL THICK. ALL 4" DIAMETER MAINS SHALL BE COATED INSIDE WITH POLYETHYLENE GLYCOL (PEGL) OR PROTECTOR 401 CERAMIC EPoxy COMPLYING WITH A.S.T.M. DESIGNATION D 1245 AND HAVE A MINIMUM N-VALUE OF 0.02. SEE PROJECT SPECIFICATIONS MANUAL FOR MORE DETAILS. ALL 4" DI.P. PIPE SHALL BE LEAD WITH A MINIMUM OF 30" COVER. UNDER, ALL P.V.C. PIPE SHALL BE LEAD WITH A MINIMUM OF 30" COVER.
15. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT WILL HAVE TO VACUUM-A TIGHT VACUUM-TIGHT, OR AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER, STORMWATER FORCE MAIN, OR PIPELINE (CONVEYING RECLAIMED WATER), A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LEAD TO THE BOTTOM OF THE EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER). A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER, STORMWATER FORCE MAIN, OR PIPELINE (CONVEYING RECLAIMED WATER).
16. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER MAIN WILL BE LEAD SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER MAIN WILL BE LEAD SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE.
17. THE WATER-SYSTEM SHALL BE CLEANED, FLUSHED AND TESTED FOR A PERIOD OF NOT LESS THAN 2 HOURS AT A MINIMUM STANDARD PRESSURE OF 150 PSI WITH AN ALLOWABLE LEAKAGE NOT TO EXCEED THE ALLOWABLE GALS/HR IN ACCORDANCE WITH THE ANSI/AWWA C-600-05 STANDARD SECTION 4.2.2.

(EQUATION Q = $\frac{LD \cdot P}{148,000}$)

18. AFTER THE PRESSURE TEST, THE SYSTEM SHALL BE DISINFECTED. DISINFECTION SHALL BE IN ACCORDANCE WITH ANS/AWWA C651-05 STD. BACTERIOLOGICAL TESTS SHALL BE TAKEN TWO (2) CONSECUTIVE DAYS, AT LEAST 24 HOURS APART AND SHALL BE AT LEAST ONE SAMPLE PER 1,000 FEET OF MAIN IN THE SYSTEM. THE SAMPLE SHALL HAVE A HETEROTROPHIC PLATE COUNT (HPC) LESS THAN 500 CFU/ML AND SHALL BE FREE OF COLIFORM BACTERIA.
19. WATER SYSTEM PRESSURE TESTS SHALL BE FOR 2 HOURS AT LINE PRESSURE AFTER THE 150 PSI TEST A DISINFECTED. DISINFECTION SHALL BE IN ACCORDANCE WITH ANS/AWWA C651-05 STD.
20. AT THE TIME OF BACTERIOLOGICAL SAMPLING, CHLORINE RESIDUE DETERMINATION SHALL BE MADE TO INSURE THAT CHLORINE CONCENTRATION IN THE MAIN IS NO HIGHER THAN THAT GENERALLY IN THE SYSTEM (3.0 MG/L FREE OR 4.0 MG/L COMBINED MAXIMUM), OR LESS THAN 0.2 MG/L FREE OR 0.6 MG/L COMBINED. THE RESULT SHALL BE REPORTED ALONG WITH THE BACTERIOLOGICAL TEST RESULTS. ALL TESTING SHALL BE COORDINATED AND PAID FOR BY THE CONTRACTOR.
21. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY AND/OR DRAIN CONNECTION LOCATIONS. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
22. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF ANY EXISTING UTILITY MAIN, STRUCTURES AND/OR APPURTENANCES DURING CONNECTION.
23. LOCATION & LAYOUT OF CABLES, ELECTRIC & TELECOMMUNICATION UTILITY LINES AND SERVICES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. ACTUAL LOCATION & LAYOUT OF UTILITIES & SERVICES ARE TO BE PER THE APPROPRIATE UTILITY PROVIDER.
24. ALL BUILDING FEATURES AND DIMENSIONS TO BE COORDINATED WITH ARCHITECTURAL PLANS ON THE APPROVED BUILDING PERMIT PLAN SET. ANY DISCREPANCIES WITH THE CIVIL CONSTRUCTION DOCUMENTS PLANS TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.
25. ALL SEWER AND WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATORY AGENCIES' RULES AND REGULATIONS.
26. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.

EXISTING UTILITIES

EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SINK OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.

INTERRUPTION OF EXISTING UTILITIES

ANY CONSTRUCTION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR NOTICE TO, AND WRITTEN APPROVAL BY THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUTDOWN TO ASSESS THE SCOPE OF WORK. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR. EACH CUSTOMER AFFECTED BY THE SHUT DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

SURVEY DATA

- THE CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO SURVEY MARKERS DURING CONSTRUCTION. ANY SURVEY MARKERS DAMAGED DURING CONSTRUCTION WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
2. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.
3. ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 1988).
- MINIMUM REQUIRED "AS-BUILT" INFORMATION**
1. ALL AS-BUILT INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR, AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
2. STORM DRAINAGE:
- A. TOP ELEVATION OF EACH MANHOLE FRAME AND COVER / GRATE AS WELL AS ALL OTHER STRUCTURES (HEADWALLS, CONTROL STRUCTURES, ETC.).
 - B. INVERT ELEVATION OF EACH LINE ENTERING AND LEAVING EACH STRUCTURE, INCLUDING UNDERDRAIN PIPES.
 - C. INVERTS OF ALL MITERED END SECTIONS
 - D. ACTUAL LENGTH AND GRADE OF PIPE BETWEEN THE STRUCTURES
 - E. INVERT ELEVATION AND TWO HORIZONTAL TIES FROM PERMANENT VISIBLE OBJECTS TO ALL STORM STUB-OUTS.
- F. CONTRACTOR SHALL PROVIDE ACCURATE AS-BUILT DIMENSIONS AND ELEVATIONS OF THE STORM WATER MANAGEMENT AREAS IMMEDIATELY AFTER FINAL GRADING AND PRIOR TO SEEDING OR SOODING OF THE SLOPES. AT A MINIMUM, THE CONTRACTOR SHALL PROVIDE CROSS SECTIONS ON ALL SIDES OF THE WATER MANAGEMENT AREAS AT 100-FOOT INTERVALS. THE CROSS SECTIONS SHALL BE PROVIDED FROM TOP OF BANK TO THE SLOPE BREAK. BELOW CONTROL ELEVATION, THE ENGINEER'S APPROVAL IS REQUIRED PRIOR TO GRASSING OF THE BANK. IF ANY MODIFICATIONS ARE SPECIFIED, ADDITIONAL AS-BUILTS MAY BE REQUIRED.
3. UTILITY CROSSING SEPARATION INFORMATION FOR THAT PROVIDED ON THE PLANS VERIFYING:
- A. FINISHED GRADE AT THE LOCATION OF THE CROSSING WITH SIZE AND MATERIAL OF EACH PIPE
 - B. BOTTOM ELEVATION OF TOP PIPE
 - C. TOP ELEVATION OF BOTTOM PIPE
 - D. CLEARANCE BETWEEN EACH PIPE
4. ALL OTHER REQUIREMENTS LISTED SHALL CONFORM TO THE AASJ DOCUMENTATION.
- A. LOCATIONS AND DEPTHS OF UNDERGROUND UTILITIES.
 - B. REVISIONS TO ROUTING OF PIPING AND CONDUTES.
 - C. REVISIONS TO ELECTRICAL CIRCUITRY.
 - D. ACTUAL EQUIPMENT LOCATIONS.
 - E. CHANGES MADE BY CHANGE ORDER OR CONSTRUCTION CHANGE DIRECTIVE.
 - F. CHANGES MADE FOLLOWING ENGINEER'S WRITTEN ORDERS.
 - G. DETAILS NOT ON THE ORIGINAL CONTRACT DRAWINGS.
 - H. FIELD RECORDS FOR VARIABLE AND CONCEALED CHANNELS.
- I. ALL RECORDS, FITTINGS, TEES, BENDS, VALVES, ETC. SHALL BE LOCATED BY STATION/OFFSET (OR METHOD APPROVED BY ENGINEER) AND ELEVATION OF TOP OF PIPE FOR ALL CONSTRUCTED SLEEVING. AS-BUILTS FOR ALL SLEEVING DEPICTING TOP OF PIPE AT 100-FOOT INTERVALS MUST BE PROVIDED.
- J. RECORD DRAWINGS SHALL INDICATE AS-BUILT DATA FOR EVERY ELEVATION SHOWN ON THE PLANS.
- K. IF A NEW BENCHMARK LOCATION IS ESTABLISHED, CONTRACTOR SHALL PROVIDE A BENCH LOG CLOSURE TO THE CLOSEST EXISTING BENCHMARKS IN BOTH DIRECTIONS. ALL BENCHMARK DATA SHALL BE SUBMITTED BY A REGISTERED LAND SURVEYOR.
- L. IDENTIFICATION OF ADDENDUM ITEMS ISSUED DURING BIDDING PERIOD.
- M. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL AS-BUILT DATA FOR UTILITIES AND SLEEVING IS COLLECTED PRIOR TO PAVEMENT SECTION CONSTRUCTION. PRELIMINARY UTILITY AS-BUILTS MUST BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO PAVEMENT SECTION CONSTRUCTION.
- N. PRESSURE SYSTEMS (WATER, FORCE MAIN AND RECLAIMED):
- i. ACTUAL LENGTHS BETWEEN BRANCHES AND VALVES ALONG THE MAIN RUN.
 - ii. TOP OF PIPE AND FINISHED GRADE ELEVATIONS AT 100' INTERVALS.
 - iii. LOCATE WITH MEASUREMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS/ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES).
 - iv. AS-BUILT INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
- V. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD COMPLETE SETS OF AS-BUILT CONSTRUCTION DRAWINGS AS REQUIRED FOR SUBMITS AND APPROVAL. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS TO BE SHOWN AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR.
- vi. ALL OTHER REQUIRED PRESSURE PIPE INFORMATION IN ACCORDANCE WITH THE AS-BUILT REQUIREMENTS OF AASJ.

PHASING NOTES

1. CONTRACTOR MAY PHASE EROSION AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH SITE CONSTRUCTION PHASING.
2. CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION AREA IS SEPARATED FROM THE AREA NOT UNDER CONSTRUCTION WITH A TEMPORARY CHAIN LINK FENCE AND ENSURE THE SAFETY OF THE PUBLIC.

SEQUENCE OF CONSTRUCTION

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

- PHASE 1:
1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND INSTALL SILT FENCE, TURBIDITY BARRIER AND INLET PROTECTION. CONTRACTOR TO OBTAIN APPROVAL FROM JURISDICTION HAVING AUTHORITY THAT ALL SOIL EROSION CONTROL MEASURES WERE INSTALLED PROPERLY.
 2. PERFORM CLEANING AND GRUBBING AND DEMOLITION.
- PHASE 2:
1. PERFORM MASS GRADING, ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS.
 2. CONSTRUCT PROPOSED DRAINAGE INFRASTRUCTURE.
 3. TEMPORARILY SEED WITH PURE LIVE SEED, THROUGHOUT CONSTRUCTION, DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE OR AS REQUIRED BY GENERIC PERMIT.
 4. CONSTRUCT PROPOSED IMPROVEMENTS.
 5. COMPLETE FINAL GRADING AND FINAL STABILIZATION.
 6. REMOVE TEMPORARY EROSION CONTROL MEASURES.

NOTES

1. CONTRACTOR TO CONSIDER POTENTIAL DEMATERING ACTIVITIES WHEN PREPARING BID DOCUMENTS FOR THIS PROJECT.
2. CONTRACTOR SHALL OBTAIN ANY NECESSARY DEMATERING PERMITS AS SITE CONDITIONS AND CONSTRUCTION ACTIVITIES REQUIRE.
3. CONTRACTOR TO USE BMP'S TO ENSURE COMPLIANCE WITH NPDES AND WATER MANAGEMENT DISTRICT REGULATIONS FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES AND DEMATERING OPERATIONS.
4. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR, OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.

**STANDARD
ABBREVIATION FOR
ENTIRE PLAN SET**

AC	ACRES
ADA	AMERICANS WITH DISABILITY ACT
AHJ	AUTHORITY HAVING JURISDICTION
ARCH	ARCHITECTURAL
BC	BOTTOM OF CURB
BLDG	BUILDING
BM	BENCHMARK
CF	CUBIC FEET
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
C/O	CLEANOUT
CONC	CONCRETE
CY	CUBIC YARDS
DEP	DEPRESSED
DIP	DUCTILE IRON PIPE
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EOR	ENGINEER OF RECORD
EW	END WALL
EX	EXISTING
FES	FINISHED END SECTION
FTE	FINISHED FLOOR ELEVATION
FI	FIRE HYDRANT
G	GRADE
GR	GRATE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
HOR	HORIZONTAL
HW	HEADWALL
INT	INTERSECTION
INV	INVERT
LF	LINEAR FOOT
LOC	LIMITS OF CLEARING
LOD	LIMITS OF DISTURBANCE
LP	LOW POINT
MAX	MAXIMUM
MIN	MINIMUM
MJ	MANHOLE
MJ	MECHANICAL JOINT
OC	ON CENTER
PC	POINT OF CURVATURE
PCR	POINT OF COMPOUND CURVATURE, CURB RETURN
PI	POINT OF INTERSECTION
PROP	PROPOSED
PT	POINT OF TANGENCY
PTC	POINT OF TANGENCY, CURB RETURN
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
S	SLOPE
SAN	SANITARY SEWER
SF	SQUARE FEET
STA	STATION
STM	STORM
SW	SIDEWALK
TC	TOP OF CURB
TPF	TREE PROTECTION FENCE
TYP	TYPICAL
UG	UNDERGROUND
VF	VERIFY IN FIELD
W/L	WATER LINE
±	PLUS OR MINUS
°	DEGREE
ø	DIAMETER
#	NUMBER

GRAPHIC LEGEND

	PROPERTY LINE (PARCEL IN QUESTION)
	OFF-SITE PROPERTY LINES
	EXIST. CURB
	EXIST. EDGE OF PAVEMENT
	PROP. CURB
	PROP. CURB TRANSITION
	PROP. EDGE OF PAVEMENT
	PROP. SAWCUT LINE
	EXIST. CABLE LINE
	PROP. CABLE LINE
	EXIST. ELECTRIC LINE
	PROP. ELECTRIC LINE
	EXIST. FIBER OPTIC LINE
	PROP. FIBER OPTIC LINE
	EXIST. GAS LINE
	PROP. GAS LINE
	EXIST. OVERHEAD WIRES
	PROP. OVERHEAD WIRES
	EXIST. TELEPHONE LINE
	PROP. TELEPHONE LINE
	EXIST. WATER LINE
	PROP. WATER LINE
	EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
	PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
	EXIST. SANITARY SEWER LINE
	PROP. SANITARY SEWER LINE
	EXIST. STORM DRAIN LINE
	PROP. STORM DRAIN LINE
	EXIST. MINOR CONTOUR & ELEVATION
	EXIST. MAJOR CONTOUR & ELEVATION
	PROP. FINISH GRADE CONTOUR & ELEVATION
	PROP. LIMIT OF DISTURBANCE
	SOIL DELINEATION LINE
	PROP. DIRECTION OF DRAINAGE FLOW ARROW
	EXIST. SPOT ELEVATIONS
	PROP. GRADE SPOT ELEV.
	PROP. GRADE SPOT ELEV. (HIGH POINT)
	PROP. GRADE SPOT ELEV. (MEET EXIST.)
	PROP. TOP OF CURB & FINISHED GRADE OF CURB ELEV.
	PROP. FINISHED FLOOR ELEV.
	PROP. TOP OF WALL & FINISHED GRADE 0' LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
	EXIST. CONCRETE UTILITY POLE
	EXIST. WOOD UTILITY POLE
	EXIST. CITY METER
	EXIST. LIGHT POLE
	EXIST. BUILDING LIGHT
	EXIST. SHOE BOX LIGHT
	EXIST. COBRA LIGHT POLE
	EXIST. TRAFFIC SIGNAL POLE
	EXIST. SANITARY MANHOLE
	EXIST. STORM MANHOLE
	EXIST. "B" INLET
	EXIST. YARD INLET
	EXIST. FLARED END SECTION
	EXIST. HEADWALL
	EXIST. MONITORING WELL
	APPROX. TEST PIT LOCATION
	EXIST. FIRE HYDRANT
	EXIST. WATER VALVE
	EXIST. WATER METER
	EXIST. GAS VALVE
	EXIST. GAS METER
	EXIST. ELECTRIC PULLBOX
	EXIST. ELECTRIC METER
	EXIST. ELECTRIC BOX
	EXIST. CLEAN OUT
	EXIST. SEWER VALVE
	EXIST. WELL
	EXIST. WATER SHUT OFF VALVE
	EXIST. TELEPHONE BOX
	EXIST. CABLE TV BOX
	PROP. WATER VALVE
	PROP. GAS VALVE
	PROP. STORM CLEANOUT
	PROP. SANITARY CLEANOUT
	PROP. AREA LIGHT
	PROP. OUTLET CONTROL STRUCTURE
	PROP. DRAINAGE MANHOLE
	PROP. SANITARY SEWER MANHOLE
	PROP. "C" INLET
	PROP. "E" INLET
	PROP. YARD INLET
	PROP. FLARED END SECTION
	PROP. MITERED END SECTION
	PROP. HEADWALL

