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OLD COACHMAN / SPECTRUM FIELD RCW PIPE REPAIR



CITY OFFICIALS

George N. Cretekos Jay Polglaze Dr. Bob Cundiff David Allbritton Hoyt Hamilton William B. Horne II Mayor Councilmember Councilmember Councilmember Councilmember City Manager

Tara L. Kivett, P.E. City Engineer

Approved For Construction

CITY ENGINEER Tara L. Kivett, P.E. #86611

Date Approved

100% SUBMITTAL 03/25/2020 City Project No. 17-0056-UT City Plan Set No.

AS-BUILT DRAWINGS NOTES

1. AS-BUILT DRAWINGS

THE CONTRACTOR SHALL KEEP AND MAINTAIN ONE SET OF BLUEPRINTS, AS-BUILT DRAWINGS, IN GOOD ORDER AND LEGIBLE CONDITION TO BE CONTINUOUSLY MARKED-UP AT THE JOB SITE. THE CONTRACTOR SHALL MARK AND ANNOTATE NEATLY AND CLEARLY ALL PROJECT CONDITIONS, LOCATIONS, CONFIGURATIONS AND ANY OTHER CHANGES OR DEVIATIONS WHICH MAY VARY FROM THE DETAILS REPRESENTED ON THE ORIGINAL CONTRACT PLANS, INCLUDING REVISIONS MADE NECESSARY BY ADDENDA, SHOP DRAWINGS, AND CHANGE ORDERS DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL RECORD THE HORIZONTAL AND VERTICAL LOCATIONS. IN THE PLAN AND PROFILE. OF ALL BURIED UTILITIES THAT DIFFER FROM THE LOCATIONS INDICATED OR WHICH WERE NOT INDICATED ON THE CONTRACT PLANS AND BURIED (OR CONCEALED), CONSTRUCTION AND UTILITY FEATURES WHICH ARE REVEALED DURING THE CONSTRUCTION PERIOD.

THE AS-BUILT DRAWINGS SHALL BE AVAILABLE FOR INSPECTION BY THE ENGINEER, ENGINEER'S CONSULTANT, AND THE OWNER'S REPRESENTATIVE AT ALL TIMES DURING THE PROGRESS OF THE PROJECT.

THE AS-BUILT DRAWINGS SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE, OR HIS DESIGNEE, FOR ACCURACY AND COMPLIANCE WITH THE REQUIREMENTS OF "AS-BUILT DRAWINGS" PRIOR TO SUBMITTAL OF THE MONTHLY PAY REQUESTS. THE PAY REQUESTS SHALL BE REJECTED IF THE MARKED-UP REDLINE PRINTS DO NOT CONFORM TO THE "AS-BUILT DRAWINGS" REQUIREMENTS. AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE OWNER INSPECTOR FOR APPROVAL UPON COMPLETION OF THE PROJECT AND PRIOR TO ACCEPTANCE OF FINAL PAY REQUEST. FINAL PAY REQUEST SHALL NOT BE PROCESSED UNTIL AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE ENGINEER OR THE ENGINEER'S CONSULTANT FOR ACCURACY AND COMPLETENESS.

PRIOR TO PLACING NEW POTABLE WATER MAINS IN SERVICE, THE CONTRACTOR SHALL PROVIDE THE ENGINEER INTERSECTION DRAWINGS, AS SPECIFIED FOR THE WATER MAINS. THE OWNER'S ACCEPTANCE OF THE "AS-BUILT DRAWINGS" DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE AS-BUILT DRAWINGS.

1.1. GENERAL

THE CONTRACTOR SHALL PREPARE AN "AS-BUILT SURVEY" PER CHAPTER 5J-17.052, FLORIDA ADMINISTRATIVE CODE (SEE DEFINITION BELOW), SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. THE CONTRACTOR WILL DELIVER TO THE OWNER TWO HARD COPIES OF SIGNED AND SEALED AS-BUILT DRAWINGS AND AN AUTOCAD FILE.

5J-17.050 DEFINITION: (10)(A) AS-BUILT SURVEY: A SURVEY PERFORMED TO OBTAIN HORIZONTAL AND/OR VERTICAL DIMENSIONAL DATA SO THAT CONSTRUCTED IMPROVEMENTS MAY BE LOCATED AND DELINEATED: ALSO KNOWN AS RECORD SURVEY.

THIS SURVEY SHALL BE CLEARLY TITLED "AS-BUILT SURVEY" AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. THE SURVEY MUST BE DELIVERED TO THE OWNER OF CLEARWATER CONSTRUCTION DIVISION UPON SUBSTANTIAL COMPLETION OF THE PROJECT.

1.2. SANITARY AND STORM SEWER PIPING SYSTEMS

MANHOLES AND INLETS SHALL BE LOCATED BY SURVEY COORDINATES (NORTHING, EASTING AND ELEVATION) BASED ON THE APPROVED HORIZONTAL AND VERTICAL DATUM OR UTILIZE THE STATIONING SUPPLIED ON THE CONSTRUCTION PLANS. NEW AND REPLACED SERVICE CONNECTIONS SHALL BE DIMENSIONED TO THE NEAREST DOWNSTREAM MANHOLE. ALL MANHOLES, CLEANOUTS AND CATCH BASIN INVERT AND RIM ELEVATIONS, MANHOLE AND CATCH BASIN DIMENSIONS, PIPE SIZES, AND PIPE MATERIAL SHALL ALSO BE NOTED ON THE 2.3. PLAN VIEW AND ALSO ON THE PROFILE IF ONE EXISTS. THE TERMINAL ENDS OF ALL SUBDRAINS, INVERTS OF ALL PIPE IN STRUCTURES, AND THE FLOW LINE OF INLETS SHALL ALSO BE NOTED ON THE PLAN VIEW AND ALSO ON THE PROFILE IF ONE EXISTS.

PIPE MATERIALS AND AREAS OF SPECIAL CONSTRUCTION SHALL BE NOTED.

1.3. PRESSURE PIPE CONSTRUCTION (WATER, RECLAIMED WATER, FORCEMAIN) ALL PIPES SHALL BE LOCATED BY SURVEY COORDINATES (NORTHING, EASTING AND ELEVATION) BASED ON THE APPROVED HORIZONTAL AND VERTICAL DATUM OR UTILIZE THE STATIONING SUPPLIED ON THE CONSTRUCTION PLANS. COORDINATES SHALL BE AT ALL PIPE BENDS, TEES, VALVES, REDUCERS, AND DEFLECTIONS. ALSO ALL NEW AND REPLACED SERVICE CONNECTIONS FOR POTABLE AND RECLAIMED WATER WILL BE LOCATED AS DESCRIBED ABOVE. ADDITIONALLY THERE MUST BE SURVEY COORDINATES NO FURTHER THAN 100 FEET APART ON LINEAR TYPE CONSTRUCTION AND SHALL DENOTE TOP OF PIPE 4762 OR E-MAIL ADDRESS THOMAS.MAHONY@MYCLEARWATER.COM. ELEVATION AT THOSE POINTS.

1.4. HORIZONTAL AND VERTICAL CONTROL

THE AS-BUILT SURVEY SHALL BE BASED ON THE ORIGINAL DATUM USED FOR THE CONSTRUCTION DESIGN PLANS OR IF REQUIRED BY THE OWNER THE DATUM SHALL BE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983/90 (HORIZONTAL) AND THE NORTH AMERICAN VERTICAL DATUM OF 1988. THE UNIT OF MEASUREMENT SHALL BE THE UNITED STATES FOOT. ANY DEVIATION OR USE OF ANY OTHER DATUM, (HORIZONTAL AND OR VERTICAL). MUST BE APPROVED BY THE OWNER OF CLEARWATER ENGINEERING DEPARTMENT.

1.5. STANDARDS

THE AS-BUILT SURVEY SHALL MEET THE MINIMUM TECHNICAL STANDARDS PER CHAPTER 5J-17 AND THE CLEARWATER CAD STANDARDS SET FORTH BELOW. IN ADDITION TO LOCATING ALL IMPROVEMENTS THAT PERTAIN TO THE AS-BUILT SURVEY IT IS THE REQUIREMENT OF THE OWNER TO HAVE MINIMUM LOCATION POINTS AT EVERY CHANGE IN DIRECTION AND NO MORE THAN 100 FEET APART ON ALL PRESSURE PIPES.

1.6. OTHER

THE AS-BUILT DRAWINGS SHALL REFLECT ANY DIFFERENCES FROM THE ORIGINAL CONTRACT PLANS, IN THE SAME LEVEL OF DETAIL AND UNITS OF DIMENSIONS AS THE PLANS.

2. CAD STANDARDS

2.1. LAYER NAMING

2.1	.1. PREFIX	ES AND SUFFIXES
	DI	PREFIX DENOTES DIGITIZED OR SCANNED ENTITIES
	EP	PREFIX DENOTES EXISTING POINTS - FIELD COLLECTED
	EX	PREFIX DENOTES EXISTING ENTITIES - LINE WORK AND SYMBOLS
	PR	PREFIX DENOTES PROPOSED ENTITIES - LINE WORK AND SYMBOLS
	FU	PREFIX DENOTES FUTURE ENTITIES (PROPOSED BUT NOT PART OF THIS CONTRACT) - LINE WORK AND SYMBOLS
	ТХ	SUFFIX DENOTES TEXT – USE FOR ALL TEXT, NO MATTER THE PREFIX

LAYER NAMING DEFINITIONS: 2.1.2.

GAS	GAS LINES AND APPURTENANCES
ELEC	POWER LINES AND APPURTENANCE
PHONE	TELEPHONE LINES AND APPURTENA
CABLE	CABLE TV LINES AND APPURTENANC
BOC	CURBS
WALK	SIDEWALK
WATER	WATER LINES AND APPURTENANCES
STORM	STORM LINES AND APPURTENANCES
TREES	TREES, BUSHES, PLANTERS
SANITARY	SANITARY LINES AND APPURTENAN
FENCE	ALL FENCES
BLDG	BUILDINGS, SHEDS, FINISHED FLOOP
DRIVE	DRIVEWAYS
EOP	EDGE OF PAVEMENT WITHOUT CURI
TRAFFIC	SIGNAL POLES, CONTROL BOXES
TOPBANK	TOP OF BANK
TOESLOPE	TOE OF SLOPE
TOPBERM	TOP OF BERM
TOEBERM	TOE OF BERM
SEAWALL	SEAWALL
CONCSLAB	CONCRETE SLABS
WALL	WALLS, EXCEPT SEAWALL
SHORE	SHORELINE, WATER ELEVATION
CL	CENTERLINE OF ROAD
CLD	CENTERLINE OF DITCH
CLS	CENTERLINE OF SWALE
CORNER	PROPERTY CORNERS, MONUMENTA
BENCH	BENCHMARK, TEMPORARY BENCHM

2.2. LAYER PROPERTIES ALL LAYERS WILL USE STANDARD AUTOCAD LINETYPES, BYLAYER. ALL LAYERS WILL USE STANDARD AUTOCAD COLORS, BYLAYER. ALL TEXT WILL USE STANDARD AUTOCAD FONTS.

TEXT STYLES

TEXT STYLE FOR EX LAYERS WILL USE THE SIMPLEX FONT, OBLIQUE ANGLE OF 0°, AND A TEXT HEIGHT OF .008 TIMES THE PLOT SCALE. TEXT STYLE FOR PR AND FU LAYERS WILL USE THE SIMPLEX FONT, OBLIQUE ANGLE OF 22.5°, AND A TEXT HEIGHT OF .010 TIMES THE PLOT SCALE.

2.4. DELIVERABLES

THE AS-BUILT SURVEY SHALL BE PRODUCED ON BOND MATERIAL, 24" X 36" AT A SCALE OF 1"=20' UNLESS APPROVED OTHERWISE. THE CONSULTANT SHALL DELIVER TWO HARD COPIES AND ONE DIGITAL COPY OF ALL DRAWINGS. REQUESTED FILE FORMATS ARE: AUTODESK DWG AND ADOBE PDF FILES.

PLEASE ADDRESS ANY QUESTIONS REGARDING FORMAT TO MR. TOM MAHONY, AT (727) 562-

VAS								
ATERV		RECORD	DRAWINGS					
N/O	SURVEYED BY:		DRAWN BY:					
∠н2	REVIEWED BY:							
JECTS		PROJECT ENGINE	ER	DATE				
PRO.	APPROVED BY:							
ŝ		Y ENGINEER MICHAEL D. QUI	LLEN, P.E. # 33721	DATE	REVISION	BY	DATE	

TREE PROTECTION SCOPE:

WHERE PROPOSED SITE IMPROVEMENTS INVOLVE ANY CONSTRUCTION ACTIVITIES ADJACENT TO ANY PROTECTED TREES, PARTICULARLY BENEATH THE DRIPLINE/CANOPY OF AN EXISTING TREE, THE CONTRACTOR WILL BE REQUIRED TO INSTALL THE CITY'S APPROVED TREE BARRICADES. THE REQUIRED CITY TREE BARRICADES MUST BE INSTALLED, INSPECTED AND APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE, PRIOR TO MOBILIZATION OR THE START OF CONSTRUCTION ACTIVITIES ADJACENT TO ANY PROTECTED TREE. CONSTRUCTION ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO THE STAGING, STORAGE OR PARKING OF VEHICLES, EQUIPMENT, MATERIALS AND DEBRIS. IN ADDITION, AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST SHALL PERFORM, OR DIRECTLY SUPERVISE ANY AND ALL REQUIRED TREE TRIMMING/PRUNING ACTIVITIES REQUIRED BY THE CONSTRUCTION. THE CITY'S ENGINEERING REPRESENTATIVE FOR TREE PROTECTION ISSUES IS TIM KURTZ, SENIOR LANDSCAPE ARCHITECT, IN THE CITY OF CLEARWATER'S ENGINEERING DEPARTMENT AT (727) 562-4737.

TREE PROTECTION NOTES:

- 1. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADHERING TO ALL TREE PROTECTION MEASURES REQUIRED BY THE CITY OF CLEARWATER'S CODES, ORDINANCES AND STANDARD SPECIFICATIONS. THIS WILL INCLUDE ALL TREE BARRICADES, ROOT PRUNING AND TREE TRIMMING/PRUNING ACTIVITIES. THESE REQUIREMENTS WILL APPLY WITHIN THE SPECIFIED "LIMITS OF WORK," AND WILL ALSO BE APPLICABLE IN ALL AREAS WHERE THE CONTRACTOR AND/OR HIS SUBCONTRACTORS STAGE, STORE OR PARK VEHICLES, EQUIPMENT, MATERIALS AND DEBRIS.
- 2. ALL TREE PRUNING AND/OR ROOT PRUNING ON EXISTING TREES TO BE PRESERVED WILL ONLY BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST. FURTHERMORE, ALL TREE WORK SHALL CONFORM TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) 2001, AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS - TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE - STANDARD PRACTICES (PRUNING) ANSI A-300.
- 3. WHERE CALLED FOR ON THE PLANS, INSTALL TREE BARRICADES, EROSION CONTROL/SILT FENCING OR OTHER APPROVED PROTECTIVE BARRIERS AROUND ALL TREES TO BE PRESERVED, PER CITY STANDARD DETAIL. WHERE APPLICABLE, PROTECTIVE BARRIERS WILL BE PLACED IN ROOT PRUNE TRENCHES.
- 4. PRIOR TO ANY FIELD CHANGES TAKING PLACE, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE POTENTIAL IMPACTS TO EXISTING TREES WITH HIS CERTIFIED ARBORIST, AND INCLUDE ANY AND ALL RECOMMENDED TREE PROTECTION MEASURES IN HIS PROPOSAL TO MODIFY THE APPROVED DESIGN. THE CITY'S ENGINEERING REPRESENTATIVE MUST APPROVE, IN WRITING, ANY CHANGES TO THE APPROVED DESIGN PRIOR TO IMPLEMENTATION OF SAID CHANGE.
- 5. THE CONTRACTOR WILL AVOID ANY OPEN EXCAVATIONS, FILL OR OTHER CONSTRUCTION ACTIVITIES WHENEVER POSSIBLE WITHIN THE "CRITICAL ROOT ZONE" OF ANY EXISTING TREE (I.E., UNDER THE DRIPLINE/CANOPY).
- 6. WHERE CONSTRUCTION ACTIVITIES ARE ANTICIPATED TO LAST FOR AN EXTENDED PERIOD OF TIME NEAR EXISTING TREES, THE CONTRACTOR SHALL INSTALL AND MAINTAIN CITY APPROVED TREE BARRICADES AS SHOWN IN THE STANDARD DETAILS AND APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE.
- 7. WOODCHIPS, MULCH OR ANOTHER CUSHIONING SURFACE MATERIAL APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE SHALL BE PLACED TO A MINIMUM DEPTH OF 10" OVER AREAS WHERE ROOTS ARE PRESENT AND CONSTRUCTION TRAFFIC OCCURS.
- 8. ALL TREE PROTECTION MEASURES SHALL REMAIN IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL THE CITY'S ENGINEERING REPRESENTATIVE AUTHORIZES REMOVAL.
- 9. THE CONTRACTOR WILL COORDINATE WITH THE CITY'S ENGINEERING REPRESENTATIVE, TIM KURTZ @ (727) 562-4737, TO OBTAIN APPROVAL IN ADVANCE OF ANY AND ALL WORK WITHIN THE CRITICAL ROOT ZONE OF ANY EXISTING TREE.

TREE LOCATION:

- 1. ALL TREE PRUNING AND/OR ROOT PRUNING ON EXISTING TREES TO REMAIN SHALL ONLY BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST. FURTHERMORE, ALL TREE WORK SHALL CONFORM TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) 2001, AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS - TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE - STANDARD PRACTICES (PRUNING) ANSI A300.
- 2. WHERE REQUIRED, INSTALL TREE BARRICADES, EROSION CONTROL/SILT FENCING OR OTHER APPROVED PROTECTIVE BARRIERS AROUND ALL TREES TO BE PRESERVED, PER CITY STANDARD DETAIL. WHERE APPLICABLE PROTECTIVE BARRIERS SHALL BE PLACED IN ROOT PRUNE TRENCHES.
- 3. CONSTRUCTION MATERIALS, VEHICLES, EQUIPMENT, SOILS, DEBRIS AND SUPPLIES SHALL NOT BE STORED WITHIN THE DRIP LINE/PROTECTIVE BARRIER AREA UNDER ANY TREE TO REMAIN.
- 4. VEHICLES UNDER ANY TREE SHALL NOT BE PARKED WITHIN THE DRIP LINE/PROTECTIVE BARRIER AREA OF THE TREE INCLUDING STAGING AREAS.
- 5. WOODCHIPS, MULCH OR ANOTHER CUSHIONING SURFACE MATERIAL APPROVED BY THE CITY'S REPRESENTATIVE SHALL BE PLACED TO A MINIMUM DEPTH OF 10 INCHES OVER AREAS WHERE ROOTS ARE PRESENT AND CONSTRUCTION TRAFFIC OCCURS.
- 6. ALL TREE PROTECTION MEASURES SHALL REMAIN IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL THE CITY'S REPRESENTATIVE AUTHORIZES REMOVAL.

INVESTIGATE BEFORE YOU EXCAVATE	CLEARWATER PUBLIC UTILITIES RECLAIMED WATER JERRY WELLS (727) 562–4960 Ext. 7226	MCI DEAN BOYERS (972) 729–6016
CALL LOCAL PUBLIC UTILITY NOTIFICATION CENTER	CLEARWATER PUBLIC UTILITIES WASTEWATER COLLECTION ANDREW BLAUVELT (727) 562-4960 Ext. 7216	VERIZON FLORIDA, INC. RAUL OJEDA, OSP ENGINEERING (727) 562–1130
TOLL FREE 1-800-432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE	CLEARWATER PUBLIC UTILITIES POTABLE WATER TERRY LABELLE (727) 562–4960 Ext. 7234	VERIZON FLORIDA, INC. FIOS FIBER OPTIC PETER BRENNAN
	PINELLAS COUNTY UTILITIES JAY PERKINS (727) 464–3536	(727) 462–1760 KNOLOGY BROADBAND OF FLORIDA JAY YOUNG
	PINELLAS COUNTY PUBLIC WORKS GENE CROSSON (727) 464–3404	(727) 229–0856 FIBERLIGHT LLC CHRIS PANCIONE
	BRIGHTHOUSE NETWORKS,LLC DON ANTHONY (727) 329–2810	(954) 596–5144 P.E.A. Inc. (FOR AT&T AND TELEPORT) STEFAN FRIKSSON
	FLORIDA DEPARTMENT OF TRANSPORTATION CHRISTOPHER GREGORY (727) 570–5101	(407) 578-8000 TELECOMMINICATIONS MANAGEMENT PINELLAS CHRIS DUSCH
	SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT CHAZ LARICHE (813) 985-7481 x2092	(727) 464–3490 PROGRESS ENERGY DISTRIBUTION NICK KOULIANOS
	CLEARWATER GAS BRUCE GRIFFIN (727) 562–4900 Ext. 7407	(727) 562–5639 PROGRESS ENERGY TRANSMISSION KAIYA HALL
	FPL FIBERNET DANNY HASKETT (305) 552–2024	(407) 942-9243 PROGRESS ENERGY HOT OIL
	PINELLAS COUNTY HWY/ENG. JORGE QUINTAS (727) 464–8900	(727) 827–6134 FLORIDA GAS TRANS
	LEVEL 3 COMMUNICATION LLC RICK MILLER (512) 742–1479	JOSEPH SANCHEZ (407) 838–7171
	INVESTIGATE BEFORE YOU EXCAVATE	
VATER, FLORIDA	SUNSHINE STATE	

OF FLORIDA

www.callsunshine.com

(800) 432-4770

MIN. 48 HOURS

BEFORE YOU EXCAVATE

CITY OF CLEARY ENGINEERING DEPARTMENT 100 S. MYRTLE AVE. CLEARWATER, FL 33756

7650 West Courtney Campbell Causeway Suite 700 Tampa, Florida 33607 Ph: (813) 286-1711 Fax: (813) 286-6587

Florida Engineering Number: 000002

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ATION **IARKS** OTHER LAYERS MAY BE CREATED AS REQUIRED, USING ABOVE FORMAT.

ROOT PRUNING SCOPE:

WHERE PROPOSED CONSTRUCTION IMPROVEMENTS INVOLVE EXCAVATION AND/OR IMPACTS TO THE CRITICAL ROOT ZONE OF PROTECTED TREES, THE CONTRACTOR SHALL BE REQUIRED TO HAVE AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST PERFORM, OR DIRECTLY SUPERVISE ROOT PRUNING TO REDUCE THE IMPACTS OF CONSTRUCTION. THE CRITICAL ROOT ZONE IS FOULVALENT TO THE TREE'S DRIPLINE. PRIOR TO ANY CLEARING, GRUBBING OR EXCAVATION ACTIVITIES, THE AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS AT THE POINT WHERE GRUBBING OR EXCAVATION IMPACTS THE ROOT SYSTEM. ROOTS CAN BE PRUNED UTILIZING SPECIFIED ROOT PRUNING EQUIPMENT DESIGNED FOR THAT PURPOSE OR BY HAND DIGGING A TRENCH AND PRUNING ROOTS WITH A PRUNING SAW. CHAIN SAW OR OTHER EQUIPMENT DESIGNED FOR TREE PRUNING. ROOT PRUNING BY TRENCHING EQUIPMENT OR EXCAVATION EQUIPMENT IS STRICTLY PROHIBITED. ROOTS LOCATED IN THE CRITICAL ROOT ZONE THAT WILL BE IMPACTED BY CONSTRUCTION ACTIVITIES SHALL BE PRUNED TO A MINIMUM DEPTH OF 18 INCHES BELOW EXISTING GRADE OR TO THE DEPTH OF THE PROPOSED IMPACT IF LESS THAN 18 INCHES FROM EXISTING GRADE. ON ALL ENGINEERING DEPARTMENT PROJECTS, THE CITY'S REPRESENTATIVE FOR ROOT PRUNING ISSUES IS TIM KURTZ, SENIOR LANDSCAPE ARCHITECT, WHO CAN BE REACHED AT (727) 562-4737.

ROOT PRUNING NOTES:

- 1. ROOT PRUNING CAN ONLY BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST.
- 2. ANY PROPOSED ROOT PRUNING TRENCHES SHALL BE IDENTIFIED (I.E. STAKED OR PAINTED) ON SITE, INSPECTED AND APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE PRIOR TO ACTUAL ROOT PRUNING.
- 3. ROOT PRUNING WILL BE PREFORMED AS FAR IN ADVANCE OF OTHER CONSTRUCTION ACTIVITIES AS IS FEASIBLE, BUT AT A MINIMUM WILL BE PERFORMED PRIOR TO ANY IMPACTS TO THE SOIL. ASSOCIATED TREE PROTECTION MEASURES SHOULD BE IMPLEMENTED UPON COMPLETION OF SAID ROOT PRUNING.
- 4. IF THERE IS A LIKELIHOOD OF EXCESSIVE WIND AND/OR RAIN EXCEPTIONAL CARE WILL BE TAKEN ON ANY ROOT PRUNING ACTIVITIES.
- 5. ROOT PRUNING WILL BE LIMITED TO A MINIMUM OF TWELVE INCHES PER ONE INCH OF THE TRUNK DIAMETER FROM THE TREE BASE. ANY EXCEPTION MUST BE APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE PRIOR TO SAID ROOT PRUNING.
- 6. ROOTS WILL BE CUT CLEANLY, AS FAR FROM THE TRUNK OF THE TREE AS POSSIBLE. ROOT PRUNING WILL BE DONE TO A MINIMUM DEPTH OF 18" FROM EXISTING GRADE, OR TO THE DEPTH OF THE DISTURBANCE IF LESS THAN 18".
- 7. ROOT PRUNING WILL BE PERFORMED USING A DOSCOCIL ROOT CUTTING MACHINE OR EQUIVALENT. ALTERNATE EQUIPMENT OR TECHNIQUES MUST BE APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE, PRIOR TO ANY WORK ADJACENT TO TREES TO BE PRESERVED.
- 8. ROOT PRUNING WILL BE COMPLETED, INSPECTED AND ACCEPTED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION OR OTHER IMPACTS TO THE CRITICAL ROOT ZONES OF TREES TO BE PROTECTED.
- 9. EXCAVATIONS IN AN AREA WHERE ROOT ARE PRESENT WILL NOT CAUSE THE TEARING OR RIPPING OF TREE ROOTS. ROOTS MUST FIRST BE CLEANLY SEVERED PRIOR TO CONTINUING WITH THE EXCAVATION, OR TUNNELED AROUND TO PREVENT DAMAGE TO THE ROOT.
- 10. TREE ROOTS WILL NOT BE EXPOSED TO DRYING OUT. ROOT ENDS MUST BE COVERED WITH NATIVE SOIL OR BURLAP AND KEPT MOIST UNTIL FINAL BACKFILL OR FINAL GRADES HAVE BEEN ESTABLISHED.
- 11. WHEN DEEMED APPROPRIATE (E.G., DURING PERIODS OF DROUGHT) THE CITY REPRESENTATIVE MAY REQUIRE A TEMPORARY IRRIGATION SYSTEM BE UTILIZED IN THE REMAINING CRITICAL ROOT ZONES OF ROOT PRUNED TREES.

NOTE:

THE ABOVE INFORMATION IS INTENDED FOR USE ON PROJECTS WHERE CONSTRUCTION IMPACTS TO EXISTING TREES ARE LIKELY OR EVEN UNAVOIDABLE. WHILE THIS INFORMATION COVERS A VARIETY OF SITUATIONS, IT CANNOT ADDRESS EVERY ONE. IN THE EVENT THERE ARE QUESTIONS OR CONCERNS REGARDING TREE PROTECTION ON A PROJECT, PLEASE CONTACT THE CITY'S PROJECT INSPECTOR. IF THEY ARE UNAVAILABLE, PLEASE CONTACT TIM KURTZ, SENIOR LANDSCAPE ARCHITECT IN THE PUBLIC WORKS ADMINISTRATION AT 727-562-4737.

EROSION AND SEDIMENT CONTROL:

- 1. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY STREETS, STORM SEWERS, AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN THE SYSTEM TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. THE CONTRACTOR IS REQUIRED TO OBTAIN NPDSS, SWPPP PERMITS AND MAINTAIN BMPS.
- 2. THE CONTRACTOR SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL RETENTION AND DETENTION FACILITIES AND ALL LANDSCAPE BUFFERS, THROUGH THE DURATION OF THE PROJECT. AND UNTIL THE WORK IS ACCEPTED BY THE OWNER. ALL DISRUPTED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION

DEWATERING:

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING, TESTING AND OBTAINING ANY PERMITS ASSOCIATED WITH DEWATERING ACTIVITIES AS OUTLINED IN THE CONTRACT DOCUMENTS, INCLUDING FEES FOR SUCH.
- 2. DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY, AND SHALL ROUTE DISCHARGE WATER IN SUCH A MANNER TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM SITE.
- 4. IF DEWATERING WILL BE NECESSARY FOR EXCAVATION OR UTILITY INSTALLATION. THE CONTRACTOR SHALL OBTAIN A STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUNDWATER FROM ANY UNCONTAMINATED SITE ACTIVITY (FDEP DOCUMENT 62-621.300(2)). COPIES OF THE PERMIT AND REQUIRED TEST RESULTS SHALL BE SUBMITTED TO THE CITY OF CLEARWATER ENGINEERING DEPARTMENT. IF THE CONTRACTOR IS CONSIDERING THE CITY STORMWATER SYSTEM AS A POINT OF DISCHARGE, PRIOR APPROVAL IS REQUIRED.
- 5. FOR MORE DETAILS ON CITY DEWATERING REQUIREMENTS, REFER TO PARAGRAPH 12 OF SECTION IV -TECHNICAL SPECIFICATIONS FROM THE CONTRACT DOCUMENTS.

100% SUBMITTAL 03/25/2020

COACHMAN / SPECTRUM FIELD RCW PIPE REPAIR GENERAL NOTES

DWG NAME:	FIELD BOOK:	SURVEYED BY:	SCALE:		
2 GENERAL NOTES.DWG	N/A	N/A	VERT.		
CONTRACT NO .:	DATE DRAWN:	DRAWN BY:	1	SEE	
17-0056-UT	3/16/20	J. SCHEUERMAN	HORIZ.	JLL	ADUVL
JOB NO.:	DESIGNED BY:	CHECKED BY:	SHEET NO .:		
60620148	B. HANDJIEV	D. WILCOX	2	OF	9
APPROVED FOR CONSTRUCTION					

SYMBOLS, STRUCTURES & FEATURES

<u>PROPOSED</u>

PIPE SIZE (INCHES)

FLUID DESIGNATION

PIPE FITTING TYPE

──── XX ───►

-**—** F.H.

PLUG 🕝

-REDUCER

BLOW-OFF

f^{H+I}-س 1" HB

CB 📢

PIPE MATERIAL

___ XX _____

() мн

WYE-

VALVE

WM

🕂 вм

__/_/_/___

24' ASPHALT PAVEMENT

so s<u>e</u>

4:1∧

____ FO _____

_____ F0 _____

× 92.5

14-S ALLERS

 \bigcirc

I I I S S S

тв−11 ⊕

6' CHAIN LINK

-(A)-

CROSS, TEE





DATE

CITY ENGINEER MICHAEL D. QUILLEN, P.E. # 33721

EVISION	

BY DATE

DESCRIPTION

TYPICAL PIPE IDENTIFICATION

SINGLE-LINE PIPE DOUBLE-LINE PIPE

MANHOLE, WATER TIGHT

FIRE HYDRANT ASSEMBLY (INCLUDES VALVE)

SINGLE-LINE PIPING, VALVES, AND FITTINGS

AIR RELEASE VALVE HOSE BIBB / CONNECTION, SIZE

VALVE VAULT WATER METER ELECTRIC MANHOLE/VAULT

TELEPHONE CABLE, MANHOLE/VAULT & BOX

BENCHMARK TEST BORING

LIMITED ACCESS RIGHT OF WAY (LA R/W) RIGHT OF WAY (R/W) PROPERTY LINE (PL) PROPERTY CORNERS : IRON PIPE IRON ROD CONCRETE MONUMENT

FENCE, SIZE & TYPE BUILDING/STRUCTURE PAVEMENT, SIZE & TYPE CATCH BASIN

CULVERT OR BRIDGE CROSSING A ROAD RAILROAD TRACKS (R/R) SIGNS

POLE, POWER POLE & COMBINATION POLE SOIL PENETRATIONS

SLOPE

CONTOURS SPOT ELEVATIONS STORM WATER FLOW STREAM (SMALL)/DITCH, SWALE SHORE LINE

STORM DRAINAGE PIPE

STORM DRAINAGE MANHOLE/INLET

RAW WATER RECLAIMED WATER

POTABLE WATER

GAS MAIN

FORCE MAIN SANITARY SEWER

GRAVITY PIPE FIBER OPTIC

OVER HEAD ELECTRIC BURRIED TELEPHONE

STORM DRAINAGE PIPE CABLE TV

CHAIN LINK

FENCE TREE BARICADE

STANDARD VISIBILTY BLACK PROPOSED FEATURES

> GRAY EXISTING FEATURES

<u>SYMBOLS</u> <u>GENERAL</u> ADJUSTABLE ANGLE APPROXIMATE BENCH MARK BETWEEN BOTTOM OF SLAB BUILDING CAPACITY CENTER LINE CENTER TO CENTER CI FANOUT CONCRETE CONDITION CONTINUATION CONNECTION CUBIC FOOT CUBIC INCH CUBIC YARD DEGREE DIAMETER DIAGONAL DIMENSION DISCHARGE DRAWING EACH EACH WAY EACH FACE ELEVATION EQUIPMENT EXISTING FINISH FINISH FLOOR FLEXIBLE FLOOR DRAIN GALLON GAUGE GRADE HIGH HIGH POINT HIGH WATER LEVEL HORIZONTAL HORSEPOWER INSIDE DIAMETER INTERMEDIATE LINEAR FOOT LONG LOW WATER LEVEL LOW POINT MANHOLE MANUFACTURER MATERIAL MAXIMUM MECHANICAL MINIMUM MOUNTED NOMINAL NOT IN CONTRACT NOT TO SCALE NUMBER ON CENTERS OPERATOR OPTION OPPOSITE OPENING OR EQUAL OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MIN SECTION SHEET SIDEWALK SIMILAR SPECIFICATIONS SQUARE SQUARE FOOT SQUARE INCH SQUARE YARD STANDARD STANDARD DIMENSION STATION SYMMETRICAL TEMPORARY THICK THREADED

ADJUSTABLE ANGLE	ADJ.
APPROXIMATE	APPROX.
BENCH MARK BETWEEN	BM BTWN.
BOTTOM OF SLAB	B.O.S. BLDC
CAPACITY	CAP.
CENTER LINE CENTER TO CENTER	ዊ_ C.C.
CLEANOUT	C.O.
CONDITION	CONC. COND.
	CONT.
CUBIC FOOT	CU. FT.
CUBIC INCH CUBIC YARD	CU. IN. CU. YD.
DEGREE	DEG.
DIAGONAL	DIA. DIAG.
DIMENSION	DIM. DISC
DRAWING	DWG.
EACH EACH WAY	EA. E.W.
EACH FACE	E.F.
EQUIPMENT	EQUIP.
EXISTING	EXIST.
FINISH FLOOR	F.F.
FLEXIBLE FLOOR DRAIN	FLEX. F D
GALLON	GAL
GAUGE GRADE	GA. GR
HIGH	Н.
HIGH POINT HIGH WATER LEVEL	H.PT. H.W.L.
HORIZONTAL	HORIZ.
INSIDE DIAMETER	п.р. I.D.
	INT.
LINEAR POOT	L.F. LG., L.
LOW WATER LEVEL	L.W.L. L.PT.
MANHOLE	MH
MANUFACTURER	MFR. MTL.
	MAX.
MINIMUM	MIN.
MOUNTED	MTD. NOM
NOT IN CONTRACT	N.I.C.
NOT TO SCALE NUMBER	N.I.S. NO., #
ON CENTERS	0.C. "
OPTION	OPER. OPT.
OPPOSITE OPFNING	OPP. OPNG
OR EQUAL	0/E
	0.D.
OUTSIDE DIAMETER PLATE	PL.
OUTSIDE DIAMETER PLATE POINT	PL. PT.
outside diameter Plate Point Pound Pressure	PL. PT. LB. PRES.
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED PADIUS	PL. PT. LB. PRES. PROP. BAD B
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED	PL. PT. LB. PRES. PROP. RAD., R. REQ'D.
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M.
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE SECTION SHFFT	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M. SEC. SH., SHT.
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE SECTION SHEET SIDEWALK	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M. SEC. SH., SHT. SDWK.
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE SECTION SHEET SIDEWALK SIMILAR SPECIFICATIONS	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M. SEC. SH., SHT. SDWK. SIM. SPECS.
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE SECTION SHEET SIDEWALK SIMILAR SPECIFICATIONS SQUARE SOLUARE FOOT	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M. SEC. SH., SHT. SDWK. SIM. SPECS. SQ. FT
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE SECTION SHEET SIDEWALK SIMILAR SPECIFICATIONS SQUARE SQUARE SQUARE FOOT SQUARE INCH	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M. SEC. SH., SHT. SDWK. SIM. SPECS. SQ. SQ. FT. SQ. IN.
OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE SECTION SHEET SIDEWALK SIMILAR SPECIFICATIONS SQUARE SQUARE SQUARE FOOT SQUARE INCH SQUARE YARD STANDARD	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M. SEC. SH., SHT. SDWK. SIM. SPECS. SQ. SQ. FT. SQ. IN. SQ. YD. STD.
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OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE SECTION SHEET SIDEWALK SIMILAR SPECIFICATIONS SQUARE SQUARE SQUARE FOOT SQUARE INCH SQUARE YARD STANDARD DIMENSION RATIO STANDARD DIMENSION RATIO STATION SYMMETRICAL	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M. SEC. SH., SHT. SDWK. SIM. SPECS. SQ. SQ. FT. SQ. IN. SQ. YD. STD. S.D.R. STA. SYMM.
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OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE SECTION SHEET SIDEWALK SIMILAR SPECIFICATIONS SQUARE SQUARE SQUARE FOOT SQUARE INCH SQUARE YARD STANDARD STANDARD DIMENSION RATIO STANDARD DIMENSION RATIO STATION SYMMETRICAL TEMPORARY THICK THREADED	PL. PT. LB. PRES. PROP. RAD., R. REQ'D. R/W, R.O.W. RM. R.P.M. SEC. SH., SHT. SDWK. SIM. SPECS. SQ. SQ. FT. SQ. IN. SQ. YD. STD. S.D.R. STA. SYMM. TEMP. THK. THD.
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ABBREVIATIONS

<u> PIPE / JOINTS</u>	<u>SYMBOLS</u>
BLACK IRON PIPE	BIP
BLACK STEEL PIPE BUTT WELD	BSP
CAST IRON CAST IRON PIPE	CI CIP
CAST IRON SOIL PIPE	CISP
COPPER PIPE	COP
DUCTILE IRON	DI
EXPANSION FLANGE	EXP FLG
GALVANIZED STEEL PIPE	GS
JOINT	JT
MECHANICAL JOINT METAL REINFORCED PLASTIC PIPE	MJ MRPP
	PE
POLYVINYLCHLORIDE (DOUBLE CONTAIL	NED) PVC-D
PUSH-ON JOINT REINFORCED CONCRETE PIPE	PJ RCP
SCHEDULE STAINLESS STEEL	SCH S.STL
STEEL PIPE	STL
VITRIFIED CLAY PIPE	VCP
RESTRAINED JOINT WALL SLEEVE	RJ WS
WALL PIPE (WITH WATER STOP)	WP
VALVES, FITTINGS, ETC.	:
ACTUATED BUTTERFLY VALVE	
AIR RELEASE VALVE	ARV
AIR/VACUUM RELEASE VALVE BALL CHECK VALVE	AVRV BACV
BALL VALVE BLIND FLANGE	BV BF
	BFV
CHECK VALVE, SWING/GLOBE	CV
ELBOW ELECTRIC VALVE ACTUATOR	ELL EVA
ELEVATED GEAR OPERATOR	EGO FJ
FIRE HYDRANT	FH
FLANGE	FLG
FLANGED ADAPTOR FLEXIBLE COUPLING	FA FC
	GV
HARNESSED FLANGED COUPLING ADAF	PTER HFCA
KNIFE GATE VALVE	KGV
MECHANICAL JOINT ORIFICE PLATE	MJ O.P.
RUBBER FLAPPER CHECK VALVE	RFC
SILENT CHECK VALVE SOLENOID VALVE	SCV SV
VACUUM RELEASE VALVE VALVE BOX	VRV VB
EQUIPMENT DESIGNATIC	NS
	ARC
BACKWASH SUPPLY PUMP	AS BSP
BIOFILTER BLENDER	BF BL
BLOWER BRIDGE CRANE	BW BR
BULK STORAGE TANK CHLORINE SOLUTION PUMP	BST CSP
CHLORINE FEED PUMP CHLORINATOR	CFP CHL
CLOSED COOLING WATER PUMP	CCWP
DEGAS SEPERATOR	DGS
DRAFT TUBE MIXER	DTM
	DT FN
-XPANSION TANK FILTER	EXPT F
FLAME ARRESTOR FLUORINATOR	FA FL
GAS HOLDER GENERATOR	GH GEN
GRANULAR ACTIVATED CARBON VESSE HEAT EXCHANGER	EL GAC HX
HIGH SERVICE PUMP	HSP H
ON EXCHANGE VESSEL	IE MY
MOTOR	MA
DEN LOOP COOLING WATER PUMP DZONE FLASH REACTOR	OLCWP
DZONE GENERATOR PNEUMATIC EJECTOR	OZG PE
POWER SUPPLY UNIT PUMP	PSU P
SIDE STREAM PUMP SILENCER	SSP
STORAGE TANK	SK T
TRANSFER PUMP	TP
IRULLEY VACUUM COMPRESSOR	TR VC

NOTE: THIS GENERAL LEGEND IS FOR GENERAL REFERENCE. NOT ALL ABBREVIATIONS, SYMBOLS, MATERIALS, OR FITTINGS, ETC. ARE NECESSARILY USED IN THIS DESIGN. INDIVIDUAL DISCIPLINE STANDARD LEGENDS MAY SUPERCEDE THIS GENERAL LEGEND.

CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 S. MYRTLE AVE. CLEARWATER, FL 33756



VAPORIZER WASHER

> OLD COACHM RCW LEGEND

W

PROCES LIQUID & G AIR, INSTRU

			VA	LVE	<u>S, PIP</u>	<u>ES</u>	<u>& FIT</u>	<u>TINGS</u>	3
PROCESS NOMENCLATURE					(SINGL	_E—l	_INE)		
		<u>SYN</u> FXISTING	PROPC)SFD		DE	<u>SCRIPTIC</u>	<u>)N</u>	
AIR, INSTRUMENT SUPPLY AIR PIPE AIR PIPE – ATMOSHERIC	IA AIR AAR			<u></u>		UNCI A	SSIFIED. TYPF	AS SHOWN ON	THE
AIR PIPE – HIGH PRESSURE PROCESS AIR PIPE – INTAKE PROCESS	AHP AIP			, ₩		DRAWII FLOW	NGS ADJACEN ⁻ METER	T TO SYMBOL	
AIR PIPE - LOW PRESSURE PROCESS AMMONIA GAS AMMONIA SOLUTION	ALP AG AS			<u> </u>		TELES	COPING VALVE (UN)	:	
BASIN DRAIN BYPASS	BDR BYP			,		QUICK	CONNECT CC	OUPLING	
CLOSED LOOP COOLING WATER, RETURN CLOSED LOOP COOLING WATER, SUPPLY CHEMICAL DRAIN	CCWR CCWS CDR			└──		PRESS BACKP	URE CONTROL	L VALVE STAINING VALVE	
CHEMICAL DRAIN CHLORINE GAS CHLORINE SOLUTION	CG CS					VALVE	WITH HOSE E	END	
COLD WATER COMPRESSED AIR DEIONIZED WATER	CDW CPA					GATE	VALVE		
DEIONIZED WATER DILUTION WATER DISINFECTED WATER	DW DW DW					SILENT	GATE VALVE CHECK VALV	E (GLOBE STYL	E)
DRAIN EFFLUENT	DR EFF					BALL \ 3—WAY	VALVE 7 BALL VALVE		
EXHAUST (GAS) FILTER EFFLUENT FINISHED WATER	EXH FE FW		T L						
FLOOR DRAIN FLUORIDE SOLUTION	FD FL			⊢		4-WAY	A BALL VALVE		
FLUSH WATER GAC BACKWASH DRAIN GAC BACKWASH SUPPLY	FLW GBD GBS					NEEDL	VALVE E VALVE		
GAC TREATED WATER GASEOUS OXYGEN	GTW GOX					PINCH DIAPHF	VALVE RAGM VALVE		
GASEOUS OXYGEN ECONOMIZER GROUND STORAGE TANK	GOXE GST HDS					BUTTEI PLUG	RFLY VALVE VALVE		
HIGH PRESSURE WATER HYDRAULIC FLUID	HPW HF								
HYDROGEN SULFIDE INFLUENT	H2S INF								
INFLUENT RECYCLE LIQUID OXYGEN LUBRICATION GREASE	IR LOX LG		7	/ALV	<u>ES, PI</u>			<u>ITTINGS</u>	
LUBRICATION OIL MAIN DRAIN	LO MDR			CATE					
MICROFILTRATION MIXED LIQUOR	MF ML	MJ FILLINGS	FLG FITTINGS	VALVE	VALVE VA	ALVE	CHECK CHEC VALVE VALV	NG FLANGE P CK COUPLING COU VE ADAPTER	IPE PLING
NITROGEN GAS NITROGEN SUPPLY GAS NON-POTABLE WATER	N2 NS NPW			92 M		M	1		∎
OFF GAS OPEN LOOP COOLING WATER, RETURN	OFG OCWR			зM		H			≣
OPEN LOOP COOLING WATER, SUPPLY OVERFLOW OZONATED WATER	OCWS OF OZW								
OZONE GAS OZONE PURGE	O3 OZP								
OZONE SYSTEM SUPPLIER PERMEATE PLANT WATER	OSS PERM WTP								
PLANT WATER PLANT SERVICE WATER POTABLE WATER	PSW PW								
POTABLE WATER, COLD POTABLE WATER, HOT	PWC PWH								
RAW SEWAGE RAW WATER	RS RAW								
RAW WATER SIDESTREAM RECIRCULATION PUMP RECLAIMED WATER	RWS RP RCWM				SECTION LETTE	ER			
RECYCLE REJECT	REC REJ		A	× '	DENTIFICATION				
RETURN ACTIVATED SLUDGE RETURN EFFLUENT WATER	RAS REW		M-	8/~	DRAWING N	NO. WHER	E		
RO REJECT SAMPLE	REJ SAMP		SF	CTIC	N TAF		-		
SEAL WATER SECONDARY EFFLUENT SODIUM HYPOCHLORITE	SEW SE NAOCL		JL						
SUMP PUMP DISCHARGE TREATED WATER	SPD TW VAC								
VENT, CHEMICAL	VT VTC		SUBTITLE	[(IF	REQUIRE	D)			
WASH WATER WASTE ACTIVATED SLUDGE	WAW WAS		SECTION LE			•			
WATER, CHLORINATED PLANT EFFLUENT WATER, DISTILLED WELL WATER	WCL WD WELW		DRAWING NO	D. WHERE	A	SEC	CTION		
SANITARY SEWER					M-8	SCALE			
SANITARY SEWER, GRAVITY SANITARY SEWER, FORCE MAIN	SAN FM								
STORMWATER STORM DRAIN	SD		IDENTIFICAT						
STORM FLOW BYPASS STORMWATER UNDERDRAIN	SFB SW UD		DRAWING NO.	WHERE	M-8				
POWER & FUEL ELECTRIC CABLE/DUCT BANK			DETAIL IS DR	AWN ' 〒 ヘ ! !					
FUEL LINE FUEL OIL	FL FO		DE	IAIL	IARG				
FUEL OIL RETURN FUEL OIL SUPPLY LOW PRESSURF NATURAL GAS	FOR FOS L PNG		511	ו ודודם			D)		
NATURAL GAS NATURAL GAS LINE	LPNG LPNG		<u> </u>	DETAIL LE	= \"				
COMMUNICATION FIBER OPTIC	FO		 			<u> </u>	<u> ΔΕΤΑ</u>		
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				FIELD BOO					
DACHMAN / SPECTRU	JM FIELD	2 GENERAL	NOTES.DWG	DATE DRA	N/A WN: /20	DRAWN	N/A BY:	VERT.	ABOVE
ROW PIPE REPAIR		1/-0056- JOB NO.: 60620148	01	う/16 DESIGNED R	/ 20 BY: HANDJIFV	J. S CHECKE	D BY: WILCOX	HORIZ. SHEET NO.: 3 OF	9
LEGEND & ABBREVIATION	S	APPROVED FOR CONSTRUCTION	२	<u></u> .				<u> </u>	









CITY OF CLEARWATER, FLORIDA Engineering department 100 S. Myrtle ave. Clearwater, FL 33756	NVESTIGATE BEFORE YOU EXCAVATE SUNSHINE STATE ONE CALL OF FLORIDA www.callsunshing.com (800) 432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE	AECOM 7650 West Courtney Campbell Causeway Suite 700 Tampa, Florida 33607 Ph: (813) 286–1711 Fax: (813) 286–6587 Florida Engineering Number: 000002	OLD COACH R(

OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT	NVESTIGATE BEFORE YOU EXCAVATE CALL 811 SUNSHINE STATE	AECOM	OLD CO
100 S. MYRTLE AVE. CLEARWATER, FL 33756	OF FLORIDA WWW.callsunshine.com (800) 432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE	7650 West Courtney Campbell Causeway Suite 700 Tampa, Florida 33607 Ph: (813) 286–1711 Fax: (813) 286–6587 Florida Engineering Number: 000002	PIPE

NOTES:

- 1) FOR PLAN VIEW SEE SHEET 4.
- 2) DUCTILE IRON PIPE & FITTINGS ALONG BRIDGE SHALL BE RESTRAINED TR-FLEX PIPE BY US PIPE OR APPROVED EQUAL.
- 3) DURING INSTALLATION EACH TR-FLEX JOINT (OR EQUAL) SHALL BE FULLY EXTENDED TO REMOVE SLACK & ENGAGE RESTRAINT TO PREVENT JOINT DEFLECTION UPON PRESSURIZATION.
- 4) PRESSURIZATION SHALL BE PERFORMED SLOWLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION TO MINIMIZE JOINT DEFLECTION.
- 5) REFER TO TECHNICAL SPECIAL PROVISIONS FOR PIPE COATING REQUIREMENTS.
- 6) LOCATE 12" RCW ALONG CENTERLINE OF BRIDGE.
- 7) REFER TO TECHNICAL SPECIAL PROVISIONS FOR REQUIREMENTS OF THE PROPOSED BRIDGE.
- 8) PROVIDE MINIMUM 5 FT TALL LOCKABLE GATE AT EACH END OF BRIDGE TO PREVENT UNAUTHORIZED ACCESS.

CITY ENGINEER MICHAEL D. QUILLEN, P.E. # 33721

DATE

BY DATE

REVISION

Florida Engineering Number: 000002

MIN. 48 HOURS

BEFORE YOU EXCAVATE

- TRENCHES LOCATED UNDER PAVEMENT OR INSIDE THE 2" HORIZONTAL TO 1' VERTICAL SLOPE, DOWNWARD FROM ROADWAY SHOULDER OR THE BACK OF CURB AND, FROM SPRING LINE TO BOTTOM OF SUB-GRADE OR THE FINISHED SURFACE OF THE EMBANKMENT, AS APPROPRIATE, SHALL BE COMPACTED TO A DENSITY OF 100% AS DETERMINED BY AASHO T-99 METHOD C.
 TRENCHES LOCATED OUTSIDE OF THE 2' HORIZONTAL TO 1' VERTICAL SLOPE DOWNWARD FROM ROADWAY
- SHOULDER OR THE BACK OF CURB AND WHERE NO VEHICULAR TRAFFIC WILL PASS OVER THE TRENCHES, BACK FILL SHALL BE COMPACTED TO A DENSITY APPROXIMATELY EQUAL TO THAT SOIL ADJACENT TO THE TRENCH BUT NOT LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY AASHO T-99 METHOD-C.
- 3. REPLACEMENT OF THE PAVED SURFACES SHALL BE MADE IN ACCORDANCE TO APPLICABLE LOCAL REGULATIONS.

	RECORD	DRAWINGS				
SURVEYED BY:		DRAWN BY:				
REVIEWED BY:		1				
	PROJECT ENGINE	ER	DATE			
APPROVED BY:						
l —	CITY ENGINEER MICHAEL D. QUI	ILLEN, P.E. # 33721	DATE	REVISION	BY	DATE

D.I.P. IS TO BE USED IN PLACE OF P.V.C. OR V.C.P. FOR A MIN. OF 10' EACH WAY FROM € OF WATER MAIN WHEN THE VERTICAL CLEARANCE BETWEEN WATER/SEWER/FORCE MAINS/RECLAIMED AND STORM MAINS IS 18" OR LESS.

P.V.C. OR V.C.P. SAN. SEWER GRAVITY MAIN SAN. SEWER FORCE MAIN RECLAIMED WATER MAIN

VERTICAL CLEARANCE

STORM DRAIN

2

STANDARD DETAIL MAIN & CLEARANCES

CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 S. MYRTLE AVE. CLEARWATER, FL 33756

OLD COACHMAN / SPECTRUM FIELD RCW PIPE REPAIR DETAILS (2)

100% SUBMITTAL 03/25/2020

DWG NAME:	FIELD BOOK:	SURVEYED BY:	SCALE:		
8 DETAILS.DWG	N/A	N/A	VERT.		
CONTRACT NO.:	DATE DRAWN:	DRAWN BY:		SEE	
17-0056-UT	3/25/20	J. SCHEUERMAN	HORIZ.	JLL /	
JOB NO.:	DESIGNED BY:	CHECKED BY:	SHEET NO .:		
60620148	B. HANDJIEV	D. WILCOX	9	OF	9
APPROVED FOR CONSTRUCTION					