

Palm River Public Utilities Renewal Project

Area 4 Construction Plans (Bid Plans)

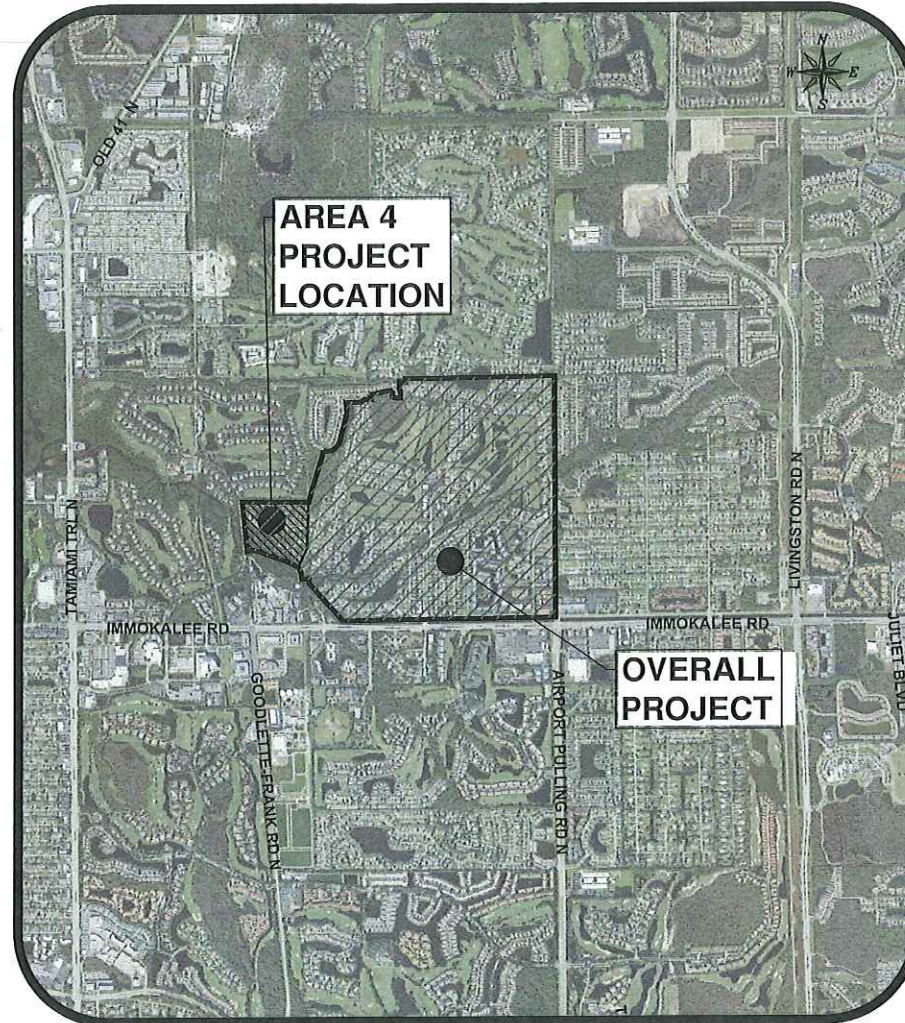
Located in Collier County, Florida

Sections 22 & 23, Township 48 South, Range 25 East

Plans Prepared For:



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Location Map

N.T.S.

Prepared by:



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GOVERNING SPECIFICATIONS:

STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, F.D.O.T. DESIGN STANDARDS DATED F.Y. 2020-2021, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED F.Y. 2020-2021.

COLLIER COUNTY UTILITY STANDARDS MANUAL, DATED JULY, 2018



Digitally signed by Allyson M. Holland, P.E.
 Date: 2024.02.22 10:24:55 -05'00'

This item has been digitally signed and sealed by Allyson M. Holland, P.E. on the date adjacent to the seal using the authentication code. For verification of this document, the seal must be opened and verified and the SM authentication code must be verified on any electronic copies.

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Know what's below.
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 FILE NAME: CCU277A-COVER-AREA_4.DWG
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SUBMITTAL
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Palm River Public Utilities Renewal Project
 Area 4 Construction Plans



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GENERAL NOTES:

- ALL ELEVATIONS REFER TO NATIONAL AMERICAN VERTICAL DATUM OF 1988 (NAVD-88). THE CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD-29) IS +1.234'.
- THE CONTRACTOR SHALL POTHOLE TO LOCATE (HORIZONTALLY AND VERTICALLY) ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND PROVIDE IN WRITING ANY DISCREPANCIES TO THE COUNTY. EXTREME CAUTION TO BE USED WHEN EXCAVATING, AS NUMBER AND LOCATION OF EXISTING UTILITIES ARE BASED ON RECORD INFORMATION THAT HAS NOT BEEN FIELD VERIFIED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY DURING CONSTRUCTION TO PROTECT EXISTING UTILITIES. DAMAGE TO EXISTING UTILITIES AND PROPERTY DURING CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED AT CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS REQUIRED TO CONTACT ALL UTILITY OWNERS PRIOR TO CONSTRUCTION COMMENCEMENT AND COORDINATE WITH UTILITY OWNERS DURING CONSTRUCTION. THE PRESENCE OF EXISTING UTILITIES ARE LIKELY IN THE PROJECT AREA. CONTRACTOR TO COORDINATE WITH, BUT NOT LIMITED TO, THESE UTILITIES PRIOR TO AND DURING CONSTRUCTION.

SERVICE PROVIDER	UTILITY COMPANY	TELEPHONE
ELECTRIC	FLORIDA POWER & LIGHT (24 HOUR EMERGENCY)	(239) 353-6070
TELEPHONE	CENTURY LINK	(606) 339-1811
CABLE TV	COMCAST	(239) 432-1050
UNDERGROUND FACILITY LOCATION SERVICES	SUNSHINE ONE CALL	811 or (606) 432-4770
WASTEWATER	COLLIER COUNTY	(239) 252-6858
WATER	COLLIER COUNTY	(239) 252-6245
GAS	TECO ENERGY	(877) 832-6747
COMMUNICATIONS	GRUWAN CASTLE FIBER	(666) 787-2637
COMMUNICATIONS	SUMMIT BROADBAND	(239) 444-0400
STORMWATER	COLLIER COUNTY	(239) 252-8192

- CONTRACTOR SHALL STAKE THE LOCATION OF EACH PROPERTY CORNER AT THE ROW/EASEMENT LINE ALONG THE ENTIRE PROJECT WITHIN 10 DAYS OF NIP AND MAINTAIN THE STAKES THROUGHOUT THE DURATION OF THE PROJECT.
- EXISTING FACILITIES IN THE ROW/EASEMENT INCLUDING (BUT NOT LIMITED TO) DRIVEWAYS, SIDEWALK, IRRIGATION SYSTEMS, MAILBOXES, AND SOD SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN WHAT EXISTED PRIOR TO COMMENCING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER, TO THE SATISFACTION OF THE COUNTY.
- CONTRACTOR TO COORDINATE WITH PROPERTY OWNERS TO LOCATE IRRIGATION SYSTEMS IN THE ROW/EASEMENT. CONTRACTOR SHALL TEMPORARILY CONNECT IRRIGATION COMPONENTS DURING CONSTRUCTION TO ENSURE CONTINUED USE OF IRRIGATION SYSTEMS. DURING PROJECT RESTORATION, CONTRACTOR SHALL REINSTALL/REPLACE IRRIGATION SYSTEMS TO A CONDITION EQUAL TO OR BETTER THAN WHAT EXISTED PRIOR TO COMMENCING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPLACE/REPAIR ANY EXISTING LANDSCAPING, SOD, IRRIGATION SYSTEMS, FENCING, ETC. ON PRIVATE PROPERTY THAT MAY HAVE BEEN DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO REPLACE OR REPAIR DAMAGED PROPERTY OR IMPROVEMENTS TO A CONDITION EQUAL TO OR BETTER THAN EXISTED PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER AND COLLIER COUNTY FOR ACCESS TO PRIVATE PROPERTY VIA RIGHT OF ENTRY.
- CONTRACTOR SHALL RELOCATE OR ADJUST MAILBOXES AS NECESSARY WITH THE PROPOSED CONSTRUCTION AND SHALL REPAIR, ADJUST, AND/OR REPLACE ITEM AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER. MAILBOXES REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE AT A MINIMUM TEMPORARILY REINSTALLED AND/OR REPLACED PER FOOT STANDARD INDEX NO. 110-200 OR TO MATCH THE PRECONSTRUCTION CONDITION AS APPROVED BY THE OWNER. TEMPORARILY REPLACED AND/OR REINSTALLED MAILBOX SHALL BE INSTALLED PER USPS GUIDELINES (41"-45" ABOVE GRADE TO BOTTOM OF MAILBOX WITH THE FRONT OF THE MAILBOX 6"-8" FROM THE EOP).
- THE CONTRACTOR IS REQUIRED TO ADJUST ALL VALVE BOXES, MANHOLE RIMS, GRATES, ETC. AS NECESSARY TO MATCH PROPOSED GRADES. PAVEMENT AROUND VALVES, MANHOLES, AND METER BOXES SHALL BE FLUSH WITH ACCESS TO ALL UTILITIES MAINTAINED AT ALL TIMES. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK AS THE COST IS INCIDENTAL TO CONSTRUCTION.
- ALL SURVEY MONUMENTS, INCLUDING PROPERTY CORNERS, WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A MONUMENT IS IN DANGER OF BEING DISTURBED, THE CONTRACTOR SHALL PROPERLY REFERENCE ITS LOCATION AND RESET THE MONUMENT AS REQUIRED BY THE CONTRACTOR'S FLORIDA LICENSED SURVEYOR, AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL NOTIFY THE COUNTY PROJECT MANAGER OF ANY ENCROACHMENT ONTO PRIVATE PROPERTY A MINIMUM OF 14 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- CONTRACTOR TO PROVIDE SILT FENCE, STACKED SYNTHETIC BALES AND OTHER APPROPRIATE MEASURES TO EFFECT THE FILTRATION OF SURFACE WATER FLOWS AND TO PROVIDE EROSION PROTECTION DURING CONSTRUCTION ACTIVITIES. PROTECTION IS TO BE MAINTAINED DURING THE CONSTRUCTION PERIOD UNTIL DISTURBED SOILS HAVE BEEN STABILIZED WITH GRASS OR SUITABLE EROSION PROTECTION TREATMENT.
- EXISTING DRAINAGE PATTERNS (ONSITE AND OFFSITE) SHALL BE MAINTAINED DURING CONSTRUCTION.
- SHOP DRAWINGS FOR ANY EQUIPMENT AND MATERIAL MUST BE APPROVED PRIOR TO FABRICATION AND INSTALLATION.
- CONTRACTOR SHALL RETAIN, ON THE WORK SITE, COPIES OF ALL PERMITS NECESSARY FOR CONSTRUCTION.
- CONTRACTOR IS REQUIRED TO OBTAIN FROM THE ENGINEER OF RECORD AND COUNTY PROJECT MANAGER WRITTEN APPROVAL FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
- CONTRACTOR SHALL REPORT ALL FIELD CHANGES TO THE ENGINEER OF RECORD, CEI REPRESENTATIVE, AND COUNTY PROJECT MANAGER WITHIN 24 HOURS.
- CLEARING AND GRUBBING SHALL BE LIMITED TO THE ROW/EASEMENT ONLY. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS DISTURBED BY THEIR WORK. ALL DISTURBED AREAS SHALL BE SODDED TO MATCH EXISTING CONDITIONS WITH SOD SET NO MORE THAN 1/4" BELOW ADJACENT DRIVEWAYS. WHERE NEW SOD IS INSTALLED, THE YARD WILL FIRST BE EVALUATED BY CONTRACTOR, PROJECT CEI INSPECTOR, AND COLLIER COUNTY PROJECT MANAGER TO DETERMINE THE PERCENTAGE OF COVERAGE AND SPECIES OF SOD INSTALLED IN THE SUBJECT LAWN. (SEE PRECONSTRUCTION ASSESSMENT FORM). IF THE EXISTING LAWN HAS 50% OR GREATER MAJORITY OF ONE SPECIFIC SOD SPECIES, THEN THAT SPECIES WILL BE REINSTALLED IN DISTURBED AREAS. IF THERE IS ANY QUESTION CONCERNING SOD TYPE TO BE USED, THE CONTRACTOR SHALL COORDINATE WITH COUNTY AND/OR PROPERTY OWNER. NEWLY INSTALLED SOD SHALL BE WATERED UNTIL ESTABLISHED/ROOTED. IF SOD IS REQUIRED TO BE REINSTALLED DURING THE COURSE OF CONSTRUCTION FOR WHATEVER REASON, CONTRACTOR SHALL BE REQUIRED TO WATER REINSTALLED SECTIONS UNTIL THEY ARE ESTABLISHED/ROOTED.
- SURVEY LAYOUT AND RECORD DRAWINGS ARE TO BE PERFORMED BY A FLORIDA LICENSED LAND SURVEYOR PROVIDED BY THE CONTRACTOR AND SHALL INCLUDE PROPERTY CORNERS AND ROW/EASEMENT LINES. ALL ELEVATIONS MUST REFER TO NAVD-88. AS-BUILTS/RECORD DRAWINGS SHALL INCLUDE VALVE & HYDRANT MANUFACTURER, SIZE, & MODEL NUMBER.
- AFTER SUBSTANTIAL COMPLETION AND PRIOR TO FINAL COMPLETION, THE CONTRACTOR SHALL ACCURATELY RECORD AND PLOT THE LOCATIONS AND DEPTHS OF ALL IMPROVEMENTS INSTALLED ON A FINAL SET OF RECORD DRAWINGS WHICH SHALL BE DELIVERED TO THE ENGINEER OF RECORD, CEI REPRESENTATIVE, AND COLLIER COUNTY PROJECT MANAGER.

GENERAL NOTES (cont.)

- CONTRACTOR IS RESPONSIBLE FOR STORING ALL MATERIALS FOR THE PROJECT, INCLUDING ALL MATERIALS PURCHASED BY COLLIER COUNTY, IN A SECURED, FENCED-IN STORAGE AREA. CONTRACTOR IS TO PROVIDE LEASE AGREEMENT WITH PROPERTY OWNER, ROW PERMITS, AND TEMPORARY USE PERMITS TO THE EOR AND COUNTY PROJECT MANAGER WITHIN TEN (10) DAYS OF THE ISSUED NOTICE TO PROCEED. NO MATERIAL MAY BE STORED WITHIN THE ROW/EASEMENT, UNLESS DIRECTED BY COLLIER COUNTY. ALL MATERIAL STORED SHALL BE COVERED, PER THE MANUFACTURER'S RECOMMENDATIONS AND COUNTY SPECIFICATIONS.
- ALL STORAGE LOTS USED FOR THE PROJECT MUST BE MAINTAINED DAILY INCLUDING, BUT NOT LIMITED TO; MOWING AND WEEDING, LITTER REMOVAL, FENCE AND SCREEN REPAIR AS NEEDED, DAILY SWEEPING AND DUST CONTROL, AND PERMIT RENEWAL AS REQUIRED.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING UTILITY SERVICE AT ALL TIMES DURING CONSTRUCTION WITHIN THE PROJECT LIMITS. THIS INCLUDES HAVING A SUPPLY OF WATER AND WASTEWATER REPAIR MATERIALS ONSITE THAT MATCHES EXISTING IN THE EVENT OF A BREAK.
- CONTRACTOR MUST PROVIDE A TWO (2) WEEK LOOK AHEAD FOR ALL CONSTRUCTION ACTIVITIES EVERY TWO (2) WEEKS AND ATTEND ALL MEETINGS AT THE COUNTY'S DISCRETION. ADDITIONALLY, THE CONTRACTOR SHALL PROVIDE AN UPDATED, COMPLETE PROJECT GANTT SCHEDULE WITH EVERY MONTHLY PAY APPLICATION.
- CONTRACTOR SHALL NOT LEAVE TRENCHES OR HOLES OPEN OVER NIGHT OR OVER WEEKENDS/HOLIDAYS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A THIRD-PARTY INDEPENDENT CONSULTANT TO PERFORM VIBRATION MONITORING ADJACENT TO EXISTING HOMES AND STRUCTURES DURING ALL CONSTRUCTION ACTIVITIES. THE MONITORING EQUIPMENT SHALL BE LOCATED WITHIN THE EQUIPMENT MANUFACTURER'S ALLOWABLE TOLERANCE DISTANCE FROM CONSTRUCTION ACTIVITIES AT ALL TIMES. ALL MONITORING SHALL BE DONE AT THE LIMITS OF THE ROW. PAYMENT SHALL BE INCIDENTAL TO THE PROJECT. REPORTS SHALL INCLUDE LOCATION OF THE EQUIPMENT, TIME, AND MAXIMUM PEAK PATH VELOCITY (PPV), EITHER ONCE PER DAY, IF THE VIBRATION MONITOR IS NOT RELOCATED, OR UPON EACH RELOCATION OF THE VIBRATION MONITORING DEVICE. UPON EITHER DETECTING VIBRATION LEVELS REACHING 0.5 INCHES PER SECOND OR DAMAGE TO THE STRUCTURE, IMMEDIATELY STOP THE SOURCE OF VIBRATION, BACKFILL ANY OPEN EXCAVATIONS, NOTIFY THE ENGINEER AND PROVIDE A CORRECTIVE ACTION PLAN FOR ACCEPTANCE BY THE ENGINEER. VIBRATION MONITORING AND REPORTING SHALL FOLLOW THE U.S. BUREAU OF MINES STANDARDS AND REPORTS SHALL BE SIGNED AND SEALED BY A STATE OF FLORIDA PROFESSIONAL ENGINEER AND DELIVERED WEEKLY TO THE COUNTY PROJECT MANAGER, EOR, AND CEI.
- ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- WORK AREAS ARE TO BE CLEANED ON A DAILY BASIS INCLUDING, BUT NOT LIMITED TO LITTER COLLECTION, STREET SWEEPING AND DAILY WATERING. (TO BE COMPLETED THROUGHOUT THE WORK DAY AS NEEDED).
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ROW, TREE REMOVAL, AND DEWATERING PERMITS.
- ALL CONTRACTORS AND REPRESENTATIVES ONSITE MUST HAVE COLLIER COUNTY CONTRACTOR IDENTIFICATION BADGES ON THEIR PERSON, CLEARLY DISPLAYED, AT ALL TIMES.
- AT THE CONCLUSION OF EACH WORK DAY, CONTRACTOR TO ENSURE ALL ROADS AND DRIVEWAYS ARE RETURNED TO AN OPERABLE MANNER.

TRAFFIC CONTROL NOTES:

- ACCESS ONTO EXISTING STREETS AND DRIVES SHALL BE MAINTAINED AT ALL TIMES TO LOCAL TRAFFIC, DELIVERY VEHICLES, POSTAL VEHICLES, EMERGENCY VEHICLES, PUBLIC TRANSPORTATION, SOLID WASTE & RECYCLING VEHICLES, AND PROPERTY OWNERS, RESPECTIVELY. CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES ON PUBLIC OR PRIVATE ROADWAYS.
- COORDINATION WITH THE FOLLOWING AGENCIES, ABOVE AND BEYOND THE COLLIER COUNTY ROAD ALERT, MAY BE REQUIRED THROUGHOUT THE DURATION OF CONSTRUCTION: USPS, COLLIER COUNTY SHERIFF'S OFFICE, FIRE DEPARTMENT AND EMS, WASTE MANAGEMENT (GARBAGE AND RECYCLING), AND COLLIER COUNTY PUBLIC SCHOOLS (SCHOOL BUS ROUTES). ADDITIONALLY, IF REQUIRED BY THE USPS, A 'MAILBOX BANK' SHALL BE INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL CHARGE.
- TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH FOOT STANDARD PLANS, INDEX 102-600 SERIES.
- WHERE FLAGGER AND WORKER SIGNS ARE USED, THE SIGNS SHALL BE COVERED OR REMOVED DURING PERIODS WHEN CONSTRUCTION OPERATIONS ARE SUSPENDED SUCH AS NIGHTS, WEEKENDS, AND HOLIDAYS.
- PLACEMENT OF ALL CONSTRUCTION SIGNS SHALL BE FIELD LOCATED AND CONTRACTOR SHALL ENSURE CONSTRUCTION SIGNS ARE NOT IN CONFLICT WITH EXISTING SIGNS. EXISTING SIGNS NOT IN USE OR IN CONFLICT WITH LANE OR ROAD CLOSURE SHALL BE COVERED TEMPORARILY.
- LANE CLOSURES SHALL BE SCHEDULED AS FOLLOWS:
 - ONE TRAVEL LANE SHALL BE KEPT OPEN WITHIN THE WORK AREA THROUGHOUT THE DURATION OF CONSTRUCTION, EXCEPT WHEN A ROAD CLOSURE IS PERMITTED BY THE COUNTY.
 - THE LOCATION AND DURATION OF EACH LANE CLOSURE INCLUDING TURN LANES, SHALL BE APPROVED BY THE COUNTY
 - NO WORK SHALL BE DONE REQUIRING A LANE CLOSURE BETWEEN THE FOLLOWING HOURS:
 - FROM 7:00 AM TO 9:00 AM, AND 4:00PM TO 6:00 PM, MONDAY THROUGH FRIDAY, UNLESS APPROVED BY COUNTY.
 - WEEKENDS, HOLIDAYS, AND SPECIAL EVENT DAYS, AS PERMITTED BY THE COUNTY.
 - EMERGENCIES AS DEEMED NECESSARY BY COLLIER COUNTY EMERGENCY MANAGEMENT, LAW ENFORCEMENT AUTHORITIES OR THE COUNTY
- THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION OPERATIONS IN SUCH A WAY THAT WILL MAINTAIN ACCESS TO ALL SIDE STREETS AND DRIVEWAYS AT ALL TIMES. A FLAGGER SHALL BE USED WHEN 2-WAY ACCESS, E.G. LANE CLOSURES TO A SIDE STREET IS NOT PROVIDED TO DIRECT VEHICLES ENTERING OR EXITING THE SIDE STREET. ADDITIONAL FLAGGERS MAY BE NECESSARY WHEN THE WORK ZONE INCLUDES A SIDE STREET.
- UTILITY RELOCATION WORK SHALL BE COORDINATED BY THE CONTRACTOR TO AVOID ANY CONFLICT WITH THE VARIOUS PHASES OF THE TRAFFIC CONTROL PLAN.
- EXISTING ROADWAY PATCHING SHALL BE COMPLETED IN CONJUNCTION WITH WATER, WASTEWATER, AND STORMWATER CONSTRUCTION. FINAL OVERLAY SHALL NOT BEGIN UNTIL ALL TESTING OF WATER & WASTEWATER SYSTEMS ARE COMPLETED, NEW SERVICES (WATER & WASTEWATER) ARE INSTALLED, & EXISTING WATER, WASTEWATER, & STORMWATER MAINS ARE ABANDONED OR REMOVED. EXISTING PAVEMENT SHALL BE MILLED ADJACENT TO CURB, GUTTERS, & OTHER IDENTIFIED LOCATIONS. SEE STRIPING PLANS FOR STRIPING REQUIREMENTS. TEMPORARY STRIPING (PAINTED) SHALL BE INSTALLED IMMEDIATELY FOLLOWING OVERLAY. THE PERMANENT THERMO-PLASTIC STRIPING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION OF ASPHALT CURING TIME. CONTRACTOR SHALL FIELD VERIFY REQUIREMENTS WITH OWNER & COLLIER COUNTY GROWTH MANAGEMENT - DEVELOPMENT REVIEW DIVISION PRIOR TO STRIPING.
- ALL SIGN RELATED WORK TO BE COORDINATED WITH FELIX BURGOS, 239-253-3160, TO MAINTAIN INTEGRITY OF THE COUNTY'S SIGN ASSET DATABASE. ALL REMOVED SIGNS SHALL BE RETURNED TO COLLIER COUNTY TRAFFIC OPERATIONS AT 2885 HORSESHOE DR., NAPLES, FL 34104. CONTRACTOR TO FOLLOW TRAFFIC OPERATIONS SIGNING AND PAVEMENT MARKINGS SPECIAL PROVISION DETAILS WHICH INDICATE USING A 2.5'X2.5' GALVANIZED METAL SQUARE TUBULAR SIGN POST.

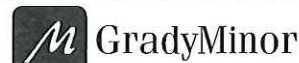
WATER and WASTEWATER NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, ROADWAY AND TRAFFIC STANDARDS, (LATEST EDITION), COLLIER COUNTY'S DEVELOPMENT STANDARDS AND SPECIFICATIONS, AND COLLIER COUNTY WATER-SEWER DISTRICT UTILITIES STANDARDS MANUAL.
- OWNER HAS OBTAINED ALL FDEP WATER AND WASTEWATER CONSTRUCTION PERMITS.
- ALL COLLIER COUNTY WATER-SEWER DISTRICT UTILITIES (DESIGN CRITERIA, SPECIFICATIONS, AND DETAILS) ARE APPLICABLE TO THIS PROJECT AND ARE MADE PART OF THE CONTRACT DOCUMENTS BY REFERENCE TO CURRENT COUNTY UTILITY STANDARDS, LOCATED AT THE FOLLOWING WEB ADDRESS: <https://www.colliercounty.gov/government/public-utilities/water-sewer-distric-utilities-and-project-management/resources> IN THE EVENT OF CONFLICT BETWEEN THE COUNTY UTILITY STANDARDS AND THESE SPECIFICATIONS AND DRAWINGS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- DESIGN IS BASED UPON SURVEY PERFORMED BY GRADYMINOR IN 2022. DESIGN IS ALSO BASED ON RECORD DRAWINGS PROVIDED BY COLLIER COUNTY.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL LOCATE BY POTHOLING OR SOFT DIGGING ALL UTILITIES WITHIN THE LIMITS OF THE PROJECT AND PROVIDE THE COUNTY, EOR, AND CEI A REPORT (BEFORE CONSTRUCTION) OF THE FINDINGS AT EACH LOCATION THAT INCLUDES THE STATION AND OFFSET, LOCATION, UTILITY TYPE, DEPTH FROM GRADE, SIZE, MATERIAL, DATE, TIME, AND A MINIMUM OF (2) PICTURES (AN OVERALL SITE PICTURE AND A PICTURE OF THE UTILITY FOUND). THE CONTRACTOR SHALL MARK THE FOUND UTILITY WITH A WOODEN LATH AND RIBBON, WITH THE UTILITY TYPE FOUND, SIZE, AND DEPTH WRITTEN ON THE LATH.
- WATER MAIN DISINFECTION SHALL BE PER AMERICAN WATER WORKS ASSOCIATION (AWWA) C651 (CURRENT EDITION) AND COLLIER COUNTY TECHNICAL SPECIFICATION 025400, WHICH REQUIRES BACTERIAL SAMPLING POINTS AT THE BEGINNING OF EACH NEW MAIN TO BE CLEARED FOR USE, AT 1000-FOOT INTERVALS, AND ALL DEAD ENDS. PERMANENT SAMPLING POINTS ARE REQUIRED EVERY 3000 FEET OR ONE AT 2/3 OF THE LENGTH FROM THE POINT OF CONNECTION IF THE NEW WATER MAIN IS LESS THAN 3000 FEET LONG.
- THE CONTRACTOR SHALL NOTIFY COLLIER COUNTY PUBLIC UTILITIES DEPARTMENT AT LEAST 10 CALENDAR DAYS IN ADVANCE OF ALL PLANNED SERVICE INTERRUPTIONS & REQUESTS FOR VALVE OPERATION, AND RECEIVE COUNTY PROJECT MANAGER'S APPROVAL BEFORE PROCEEDING WITH PLANNED INTERRUPTIONS. ONLY COUNTY EMPLOYEES ARE PERMITTED TO OPERATE VALVES.
- THE CONTRACTOR SHALL PROVIDE 10 DAYS WRITTEN NOTICE TO THE ENGINEER OF RECORD, CEI REPRESENTATIVE, AND COLLIER COUNTY PROJECT MANAGER PRIOR TO THE FOLLOWING ACTIVITIES:
 - COMMENCEMENT
 - CHANGES TO APPROVED SCHEDULES, SUBCONTRACTORS, AND RESIDENT SUPERINTENDENT
 - WATER SYSTEM
 - HOT TAPS
 - PRESSURE TESTS
 - CHLORINATION OF WATER MAINS
 - FLUSHING
 - BACTERIOLOGICAL SAMPLING
 - FINAL CONNECTION OF NEW MAINS
 - BEGINNING AC PIPE REMOVAL
 - FINAL ABANDONMENT OF EXISTING MAINS
 - WATER SERVICE AND WATER METER SWITCH OVER
 - BACKFLOW DEVICE INSTALLATION
 - WASTEWATER SYSTEM
 - TESTING OF BYPASS PUMP STATION
 - INFILTRATION/EXFILTRATION TESTS
 - LAUNCHING OF SEWER LINE
 - TELEVISION AND INSPECTION OF SEWER LINES
- ALL WATER SERVICES SHALL BE 2" AT THE CONNECTION TO WATER MAIN AND 2" POLYETHYLENE SERVICE PIPING TO THE CURB STOP.
- ALL WATER METER BOXES AND BACKFLOW PREVENTERS SHALL BE REPLACED (NEW BACKFLOW PREVENTER SHALL BE INSTALLED IF ONE DOES NOT EXIST).
- ALL VACANT PROPERTIES SHALL RECEIVE A WATER SERVICE LINE AND METER BOX WITH A LOCKED CURB STOP IN THE METER BOX AND A SEWER SERVICE.
- ALL WATER SERVICES (METER, METER BOX, BACKFLOW, ETC) SHALL BE LEVELLED AND PLUMBED AFTER INSTALLATION. METER BOXES SHALL BE KEPT FREE OF DEBRIS AND METERS SHALL REMAIN ACCESSIBLE THROUGHOUT THE DURATION OF THE PROJECT.
- NEW WATER MAIN AND SERVICE PIPING (FROM MAIN TO CURB STOP AT METER) SHALL BE CONSTRUCTED, PRESSURE TESTED, FULL BORE FLUSHED, & BACTERIOLOGICALLY CLEARED FOR FDEP CLEARANCE. CONTRACTOR SHALL COORDINATE ALL WATER SYSTEM SAMPLING WITH COUNTY. UPON FDEP CLEARANCE, WATER MAIN SHALL BE PLACED INTO SERVICE. NEW WATER SERVICES SHALL BE CONNECTED AT EXISTING METER LOCATIONS OR TO THE PRIVATE WATER SERVICE PIPING (COORDINATE TEMPORARY SHUTDOWNS WITH INDIVIDUAL OWNERS) ONCE THE WATER SYSTEM IS CLEARED FOR USE. EXISTING WATER MAINS SHALL REMAIN IN SERVICE FOR ONE (1) WEEK TO ALLOW VERIFICATION OF RECONNECTION OF ALL SERVICES (COUNTY WILL TEMPORARILY SHUT DOWN LINE FOR VERIFICATION). UPON VERIFICATION, CONTRACTOR CAN COMPLETE ABANDONMENT OF EXISTING WATER MAINS. PRIOR TO BEGINNING PRESSURE TESTING OF WATER MAINS, CONTRACTOR TO ENSURE ALL AIR HAS BEEN REMOVED FROM THE MAIN AND THE WATER MAIN HAS PASSED A TWO (2) HOUR MINIMUM PRETEST.
- AFTER POTABLE WATER SERVICES ARE CONNECTED TO A RESIDENCE, THE CONTRACTOR SHALL FLUSH THE SYSTEM USING A SPIGOT LOCATED ON THE OUTSIDE OF THE HOME, WITH THE PROPERTY OWNER'S PERMISSION.
- CONTRACTOR SHALL USE 45° BENDS WITH MEGALUGS AT CONFLICTS WITH RESTRAINTS PER COLLIER COUNTY DETAIL G-4.
- NOT ALL PROPOSED BENDS ARE SHOWN IN THE PLANS. ADDITIONAL FITTINGS MAY BE REQUIRED TO BEND THE WATER MAIN OR FORCE MAIN AS REQUIRED.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL REFLECTIVE PAVEMENT MARKERS PER COLLIER COUNTY/NFPA STANDARDS AT PROPOSED FIRE HYDRANTS.
- THE TOP OF ALL WATER AND FORCE MAINS SHALL BE INSTALLED A MINIMUM OF 30" AND A MAXIMUM OF 48" BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED.
- ALL WATER SERVICE TAPPING SADDLES SHALL BE STAINLESS STEEL FORD MODEL FS313 OR ROMAX MODEL 306.
- VALVE BOXES SHALL NOT BE PLACED IN DRIVEWAYS, UNLESS OTHERWISE NOTED.
- IN CASE OF ANY SERVICE INTERRUPTION DUE TO THE CONTRACTOR'S ACTIVITIES, COLLIER COUNTY WILL CALL THE CONTRACTOR, AND IF THEY DO NOT RESPOND VIA PHONE WITHIN 1 HOUR AND ARRIVE ONSITE WITHIN THE SECOND HOUR, THE COUNTY WILL COMPLETE THE REPAIR AND INVOICE THE CONTRACTOR. THE CONTRACTOR WILL BE INVOICED ON A TIME AND MATERIAL (T&M) BASIS, WITH A MINIMUM OF 2 HOURS AT \$82 AN HOUR. PRIVATE WATER CHARGES AS A RESULT OF THE CONTRACTOR'S WORK SHALL BE PAID FOR BY THE CONTRACTOR.
- LOCATION MARKERS ARE TO BE PLACED AT THE FOLLOWING LOCATIONS:
 - EVERY ONE HUNDRED (100) FEET ALONG THE PROPOSED WATER MAIN AND FORCE MAIN
 - ONE (1) AT EVERY SERVICE LATERAL END
 - ONE (1) AT EVERY FITTING, BEND, OR CHANGE IN ALIGNMENT, AND VALVES
 - TWO (2) ON LONG SERVICES, ONE AT MAIN AND ONE NEAR ROAD
 - ONE (1) ON SHORT SERVICES, NEAR THE ROAD
- THERE MAY BE ADDITIONAL EXISTING WATER SERVICES THAT ARE NOT SHOWN ON THE CONSTRUCTION PLANS. THE CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES WHETHER SHOWN OR NOT. ALL SERVICES SHALL BE REPLACED WITH NEW MATERIAL TO THE ROW. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER AND COLLIER COUNTY FOR ACCESS TO PRIVATE PROPERTY VIA SIGNED RIGHT-OF-ENTRY FORMS.
- CONTRACTOR TO UTILIZE METALLIZED TAPE AND MARKER BALLS FOR ALL UNDERGROUND PIPING PER COUNTY STANDARDS. ADDITIONALLY, TRACKING/LOCATING WIRE SHALL BE USED FOR HORIZONTAL DIRECTIONAL DRILLS PER COUNTY STANDARDS.
- CONTRACTOR SHALL INSTALL AIR RELEASE VALVES (ARV) AT ALL HIGH POINTS AS DETERMINED BY THE APPROVED AS-BUILT PROFILE IN ADDITION TO THE AIR RELEASE VALVES SHOWN ON THE DRAWINGS. NECESSITY AND LOCATION OF ARV TO BE DETERMINED IN THE FIELD.
- CONTRACTOR SHALL ASSUME ALL EXISTING MAINS ARE UNRESTRAINED AT THE CONNECTION POINTS AND SHALL RESTRAIN THE MAINS IN ACCORDANCE WITH THE COLLIER COUNTY WATER-SEWER DISTRICT UTILITIES STANDARDS MANUAL.
- ALL WATER MAIN HARDWARE (NUTS, BOLTS, WASHERS, ETC.) SHALL BE 316 STAINLESS STEEL.
- ALL BELOW GRADE METALLIC WATER MAIN APPURTENANCES SHALL BE FUSION-BONDED EPOXY COATED ON ALL EXTERIOR SURFACES ACCORDING TO AWWA C-116 AND SHALL HAVE TRENTON WAX-TAPE PROTECTIVE COATING APPLIED ACCORDING TO THE APPLICATION STANDARDS SET FORTH IN AWWA C217-09 AND THE MANUFACTURER'S INSTRUCTIONS. THE WAX-TAPE SHALL BE APPLIED ABOVE GRADE AND INSPECTED BY THE COUNTY'S INSPECTOR/DESIGNEE PRIOR TO BEING PLACED IN THE TRENCH. THE WAX-TAPE COATING SHALL CONSIST OF THREE COMPONENTS: PRIMER, WAX-TAPE, AND OUTER WRAP.



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY:	A.M.H.
DRAWN BY:	D.M.S.
APPROVED:	J.A.F.
JOB CODE:	CCU277A
SCALE:	N/A



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 Bonita Springs: 239.947.1144 www.GradyMinor.com Fort Myers: 239.690.4300

O. Grady Minor and Associates, P.A.
 3800 Via Del Rey
 Bonita Springs, Florida 34134

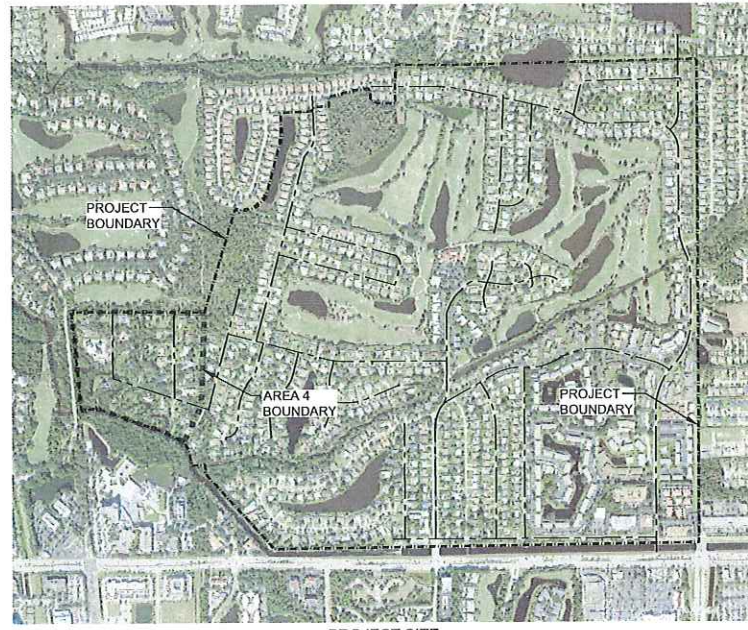
Palm River Public Utilities Renewal Project

GENERAL NOTES

ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

ALLYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

MUNICIPALITY:	Collier County
SEC/TWN/RGB:	22&23/48S/25E
DATE:	DECEMBER, 2023
SUBMITTAL TYPE:	BID
SHEET	2 OF 20



PROJECT SITE
SCALE: 1" = 1000'



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: AM.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: VERT.
 HORIZ.

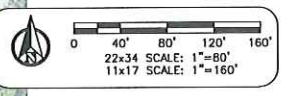
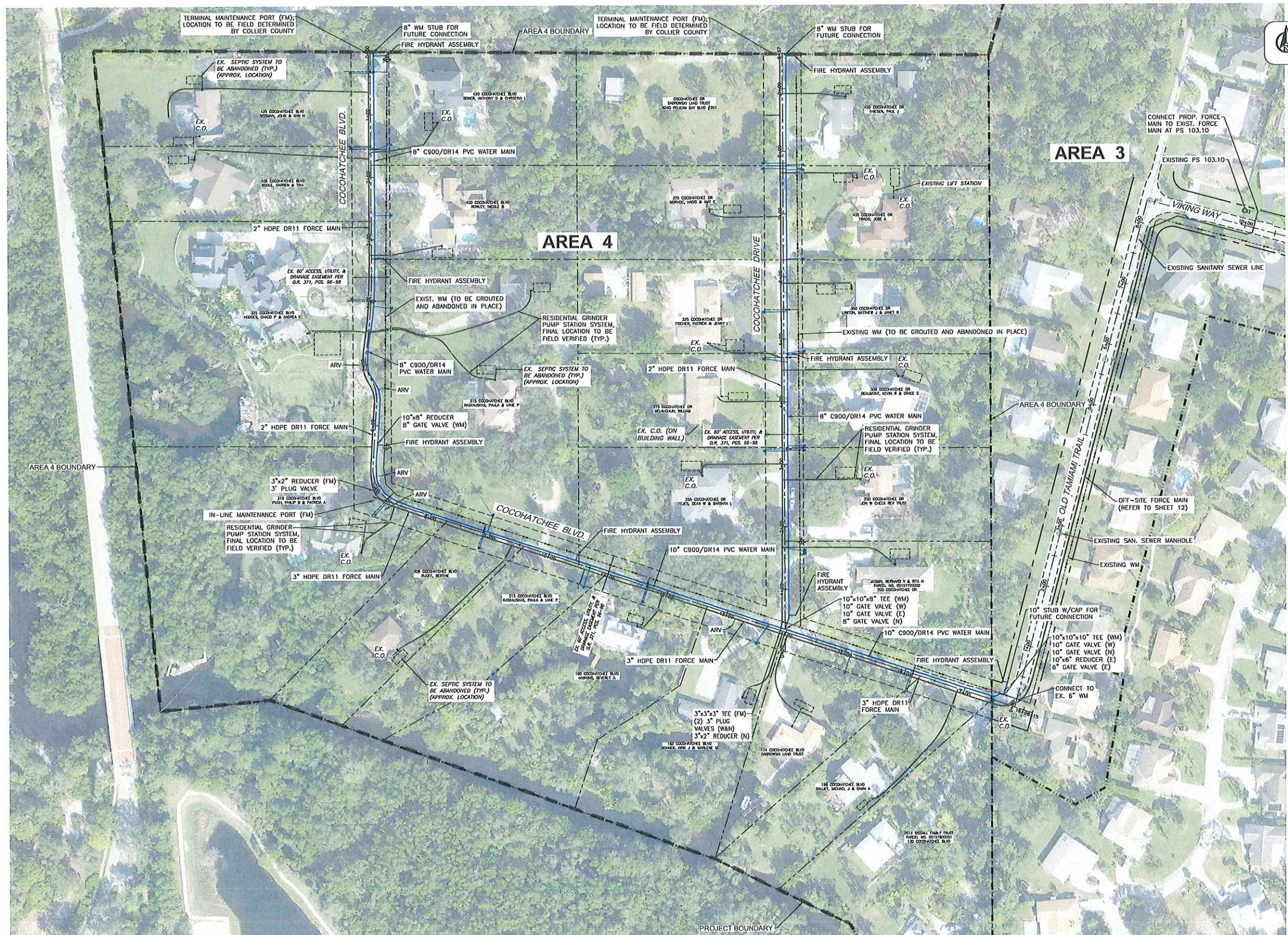
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Palm River Public Utilities Renewal Project
AERIAL MAP and SHEET LAYOUT
 ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

ALLYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

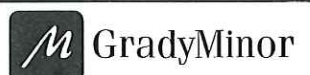
MUNICIPALITY: Collier County
 SEC/TWN/RGE: 22&23/48S/25E
 DATE: DECEMBER, 2023
 SUBMITTAL TYPE: BID
 SHEET 4 OF 20

G:\ENGINEERING\PROJ-ENG\AREA 4\DWG\SUBMITTAL\TYPE\CONST\AERIAL AND SHEET MAP 12/18/2023 12:13 PM



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: 1"=80'



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Q. Grady Minor and Associates, P.A.
 3800 Via Del Rey
 Bonita Springs, Florida 34134

PALM RIVER PUBLIC UTILITIES RENEWAL PROJECT

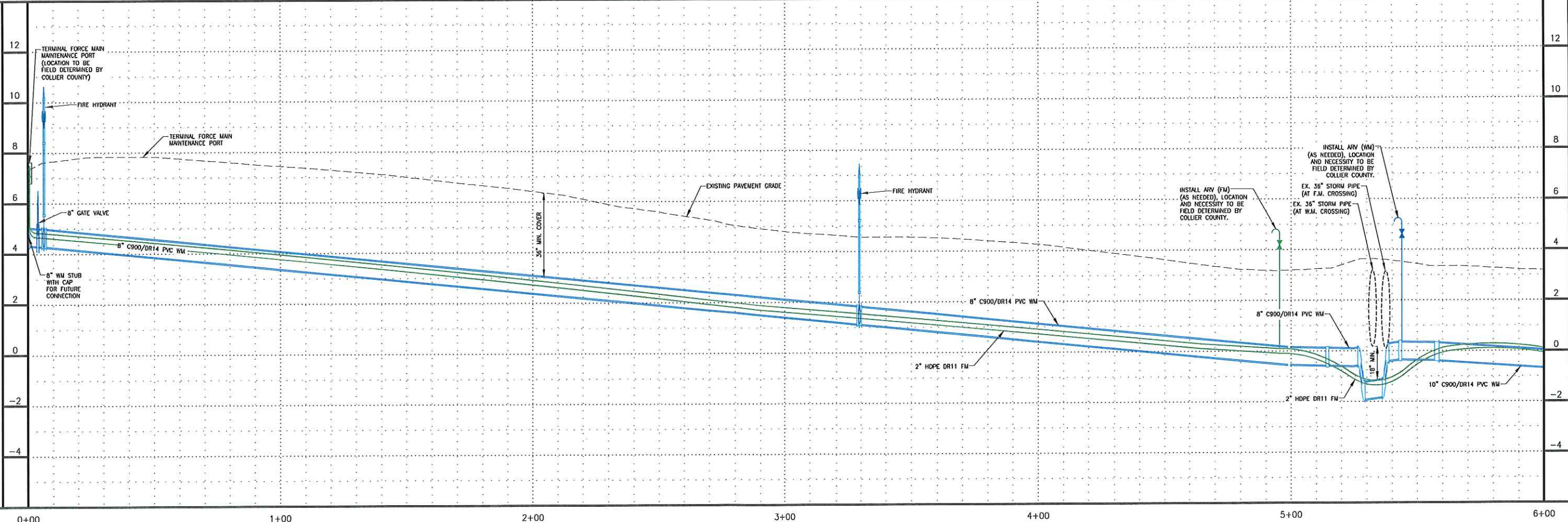
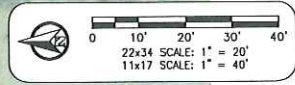
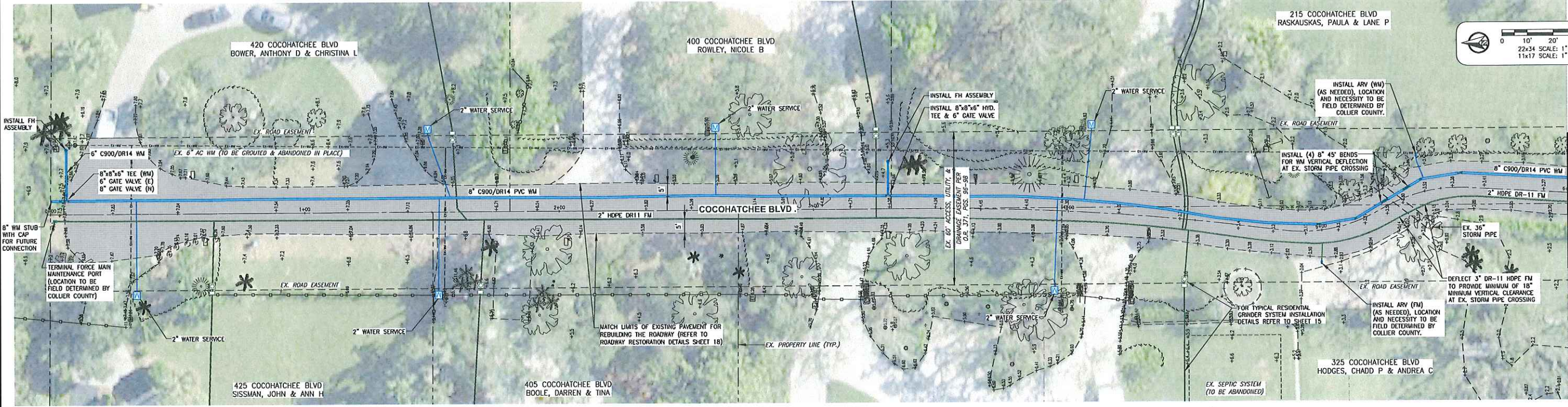
**AREA 4
 OVERALL UTILITY LAYOUT**

ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

ALYSON N. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

MUNICIPALITY: COLLIER COUNTY
 SEC/TWN/RGB: 22&23/48S/25E
 DATE: FEBRUARY, 2024
 SUBMITTAL TYPE: BID
 SHEET 5 OF 20

G:\ENGINEERING\PROJ-ENG\CCU277A\AREA 4\DWGS\SUBMITTAL\TYPE\CONST\CCU277A-AREA 4_2/12/2024_8:09 AM



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: VERT. 1" = 2'
 HORIZ. 1" = 20'

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 Bonita Springs: 239.947.1144 www.GradyMinor.com Fort Myers: 239.690.4380

PALM RIVER PUBLIC UTILITIES RENEWAL PROJECT

PLAN and PROFILE
 COCOHATCHEE BLVD.
 STA. 0+00 TO STA. 6+00

ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

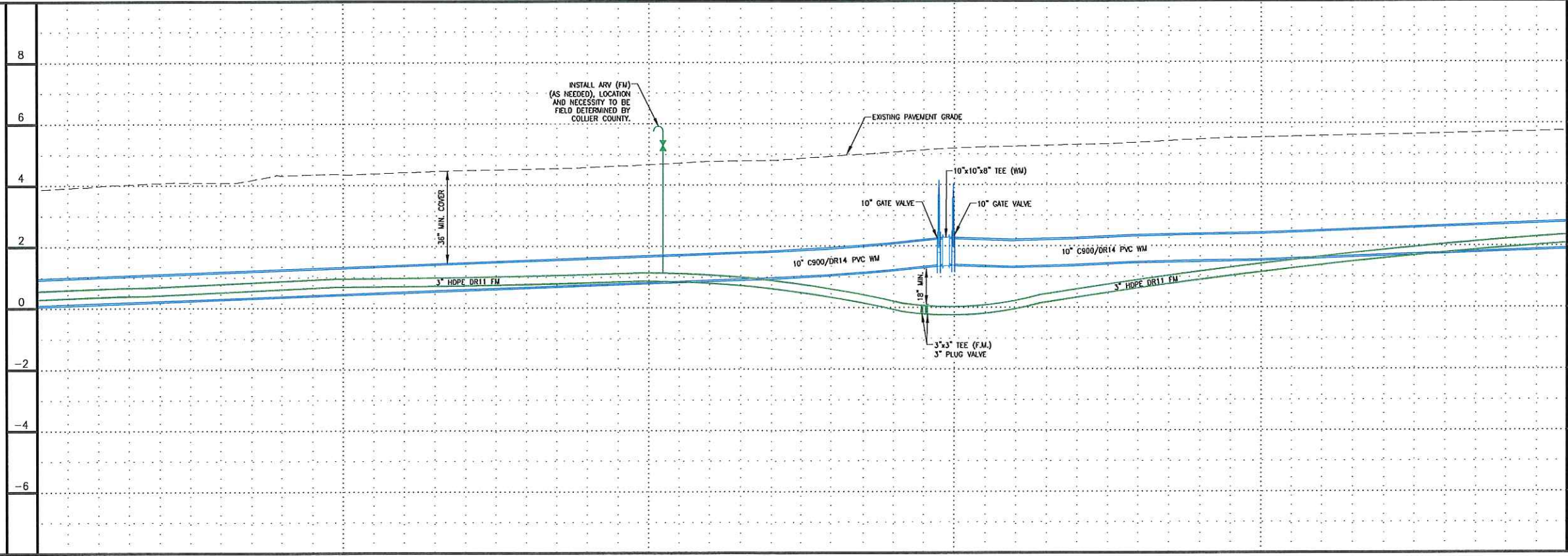
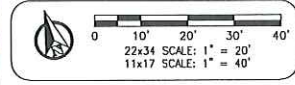
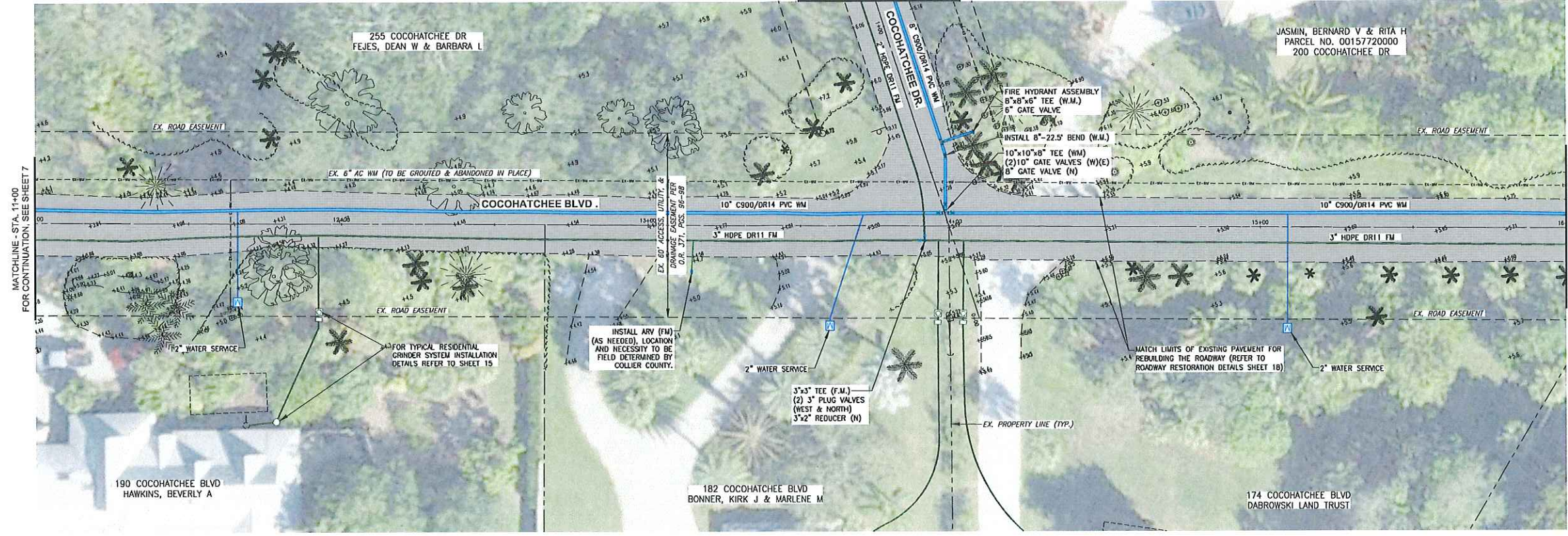
MUNICIPALITY: COLLIER COUNTY
 SEC/TWN/RGE: 22&23/48S/25E
 DATE: FEBRUARY, 2024
 SUBMITTAL TYPE: BID

ALYSSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

SHEET 6 OF 20

G:\ENGINEERING\PROJ-ENG\CCU277A\AREA 4\DWG\SUBMITTAL\TYPE\CONST\CCU277A_UTIL_EXP_AREA4_2/7/2024_11:08 AM

MATCHLINE - COCOHATCHEE DR.
FOR CONTINUATION, SEE SHEET 10



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: VERT. 1" = 2'
 HORIZ. 1" = 20'

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Q. Grady Minor and Associates, P.A.
 3800 Via Del Rey
 Bonita Springs, Florida 34134

PALM RIVER PUBLIC UTILITIES RENEWAL PROJECT

PLAN and PROFILE
 COCOHATCHEE BLVD.
 STA. 11+00 TO STA. 16+00

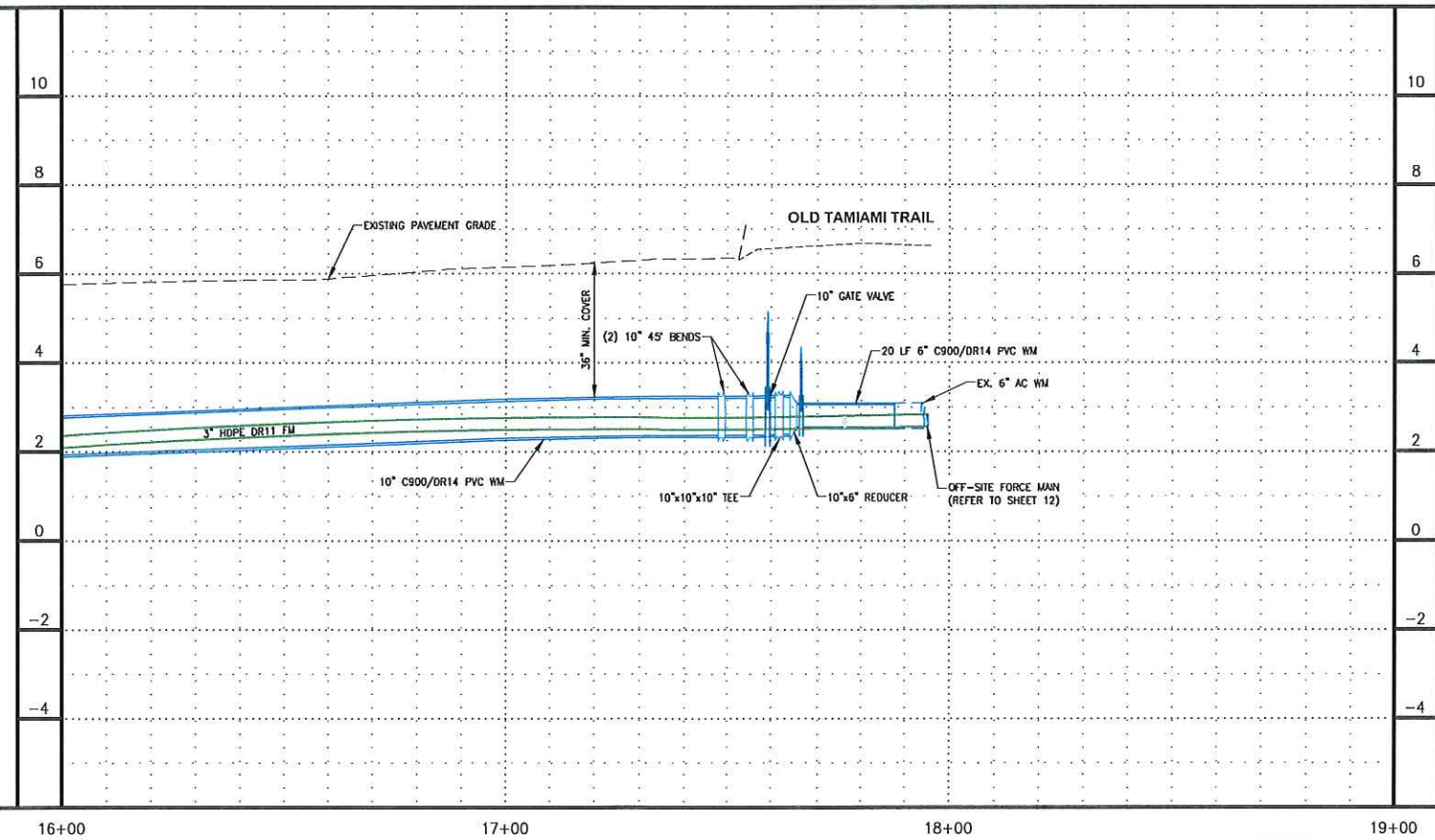
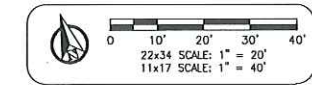
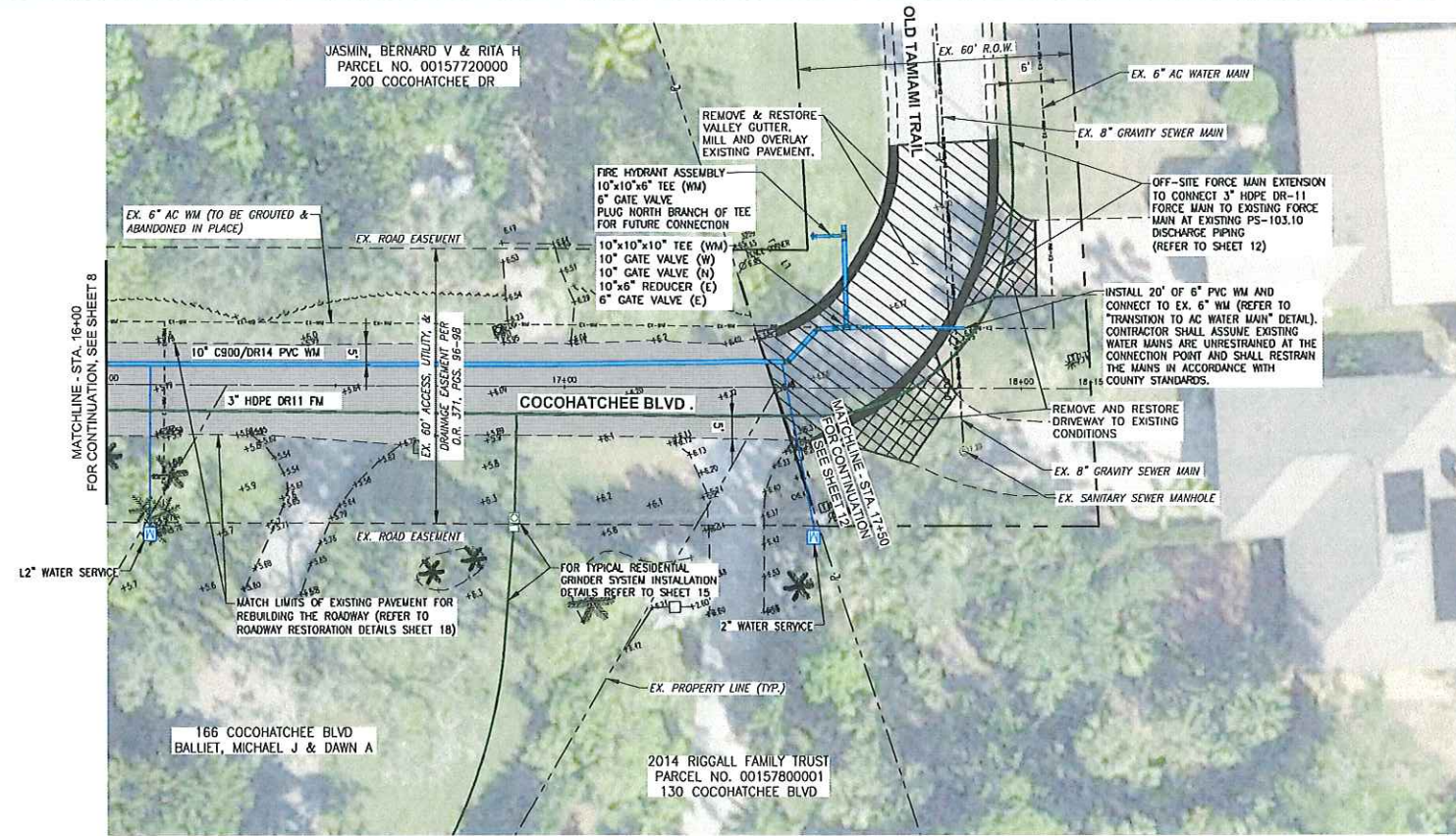
ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

MUNICIPALITY: COLLIER COUNTY
 SEC./TWN/RGE: 22&23/48S/25E
 DATE: FEBRUARY, 2024
 SUBMITTAL TYPE: BID

ALLYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

SHEET 8 OF 20

G:\ENGINEERING\PROJ-ENG\CCU277A\AREA 4\GIDWGS\SUBMITTAL\CONS\CCU277A-UTIL_EXP_AREA4 2/12/2024 8:12 AM



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: VERT. 1" = 2'
 HORIZ. 1" = 20'

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 3800 Via Del Rey
 Bonita Springs, Florida 34134

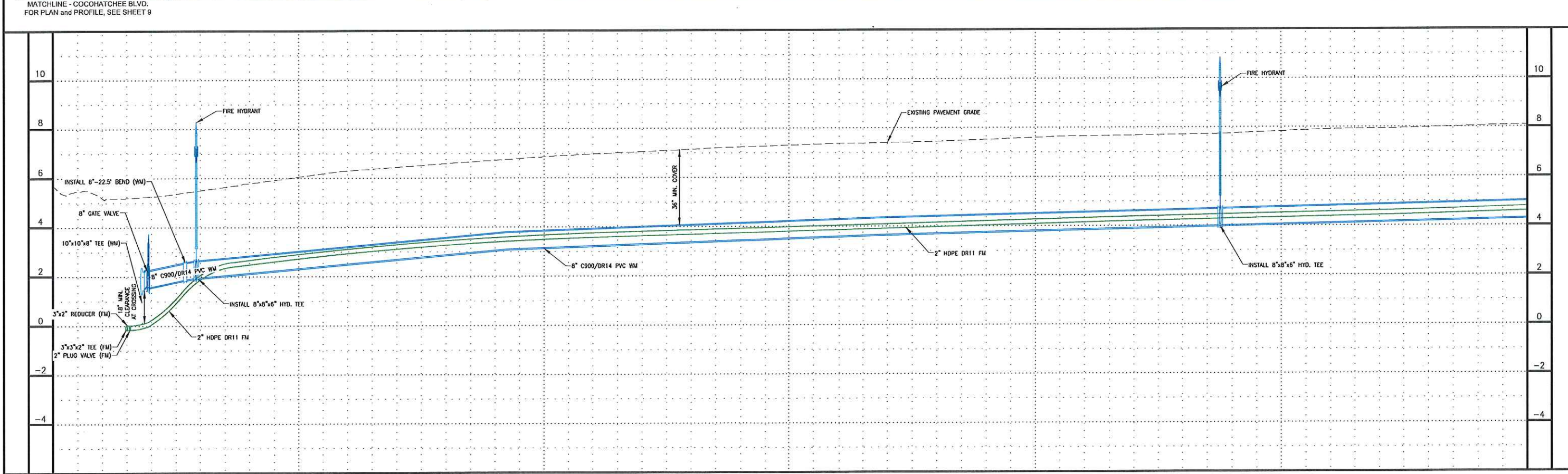
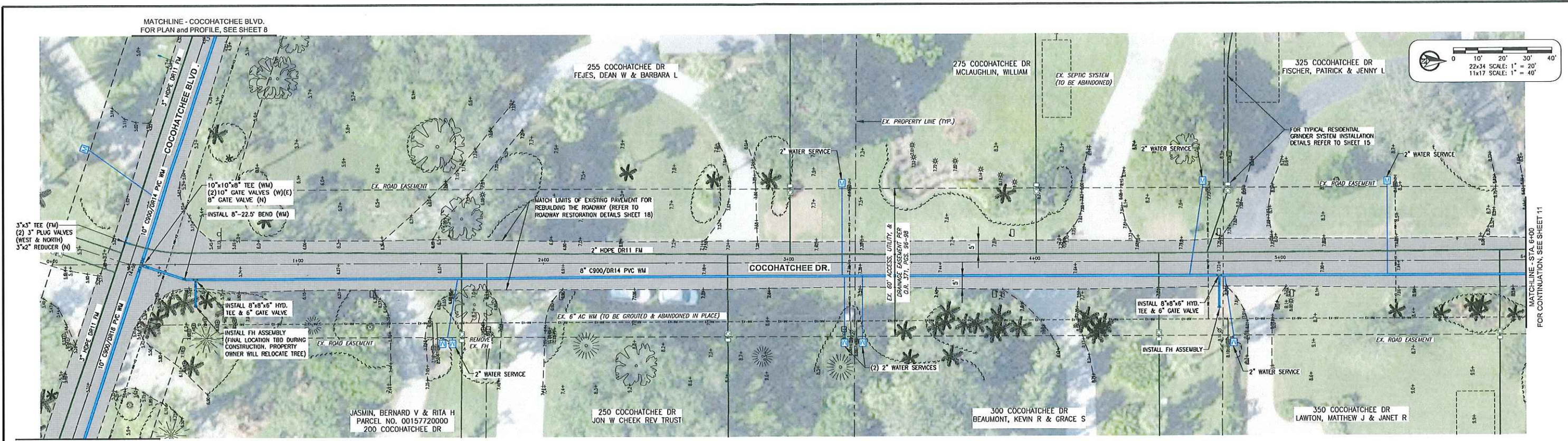
PALM RIVER PUBLIC UTILITIES RENEWAL PROJECT

PLAN and PROFILE
 COCOHATCHEE BLVD.
 STA. 16+00 TO END

ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

MUNICIPALITY: COLLIER COUNTY	ALYSSON M. HOLLAND, P.E. FLORIDA P.E. LICENSE NO. 70177
SEC./TWN./RGE: 22&23/48S/25E	
DATE: FEBRUARY, 2024	
SUBMITTAL TYPE: BID	
SHEET 9 OF 20	

G:\ENGINEERING\PROJ-ENG\CCU277A\AREA 4\GIDWGS\SUBMITTAL\TYPE\CONST\CCU277A UTIL_B&P_AREA4_2/7/2024_11:15 AM



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: VERT. 1" = 2'
 HORIZ. 1" = 20'

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 Bonita Springs, Florida 34134

PALM RIVER PUBLIC UTILITIES RENEWAL PROJECT

PLAN and PROFILE
 COCOHATCHEE DR.
 STA. 0+00 TO 6+00

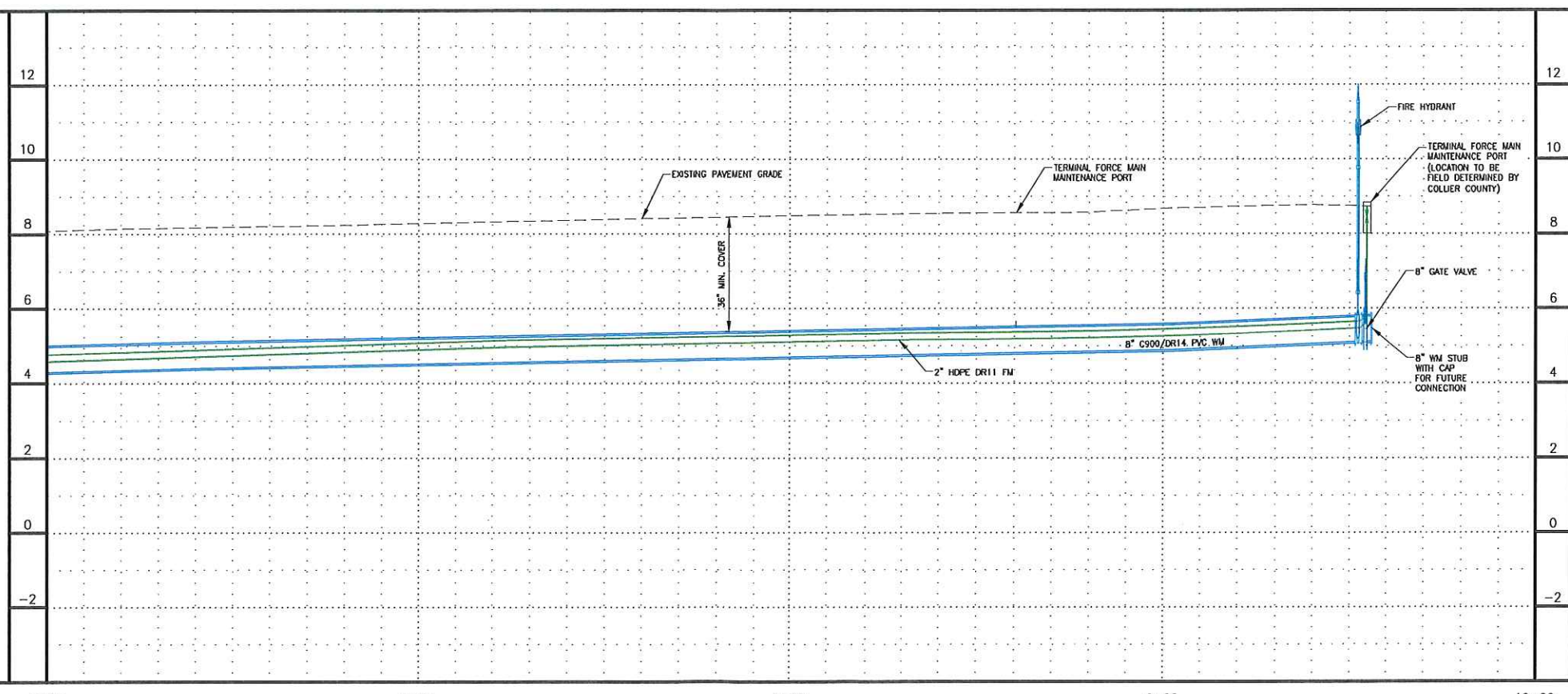
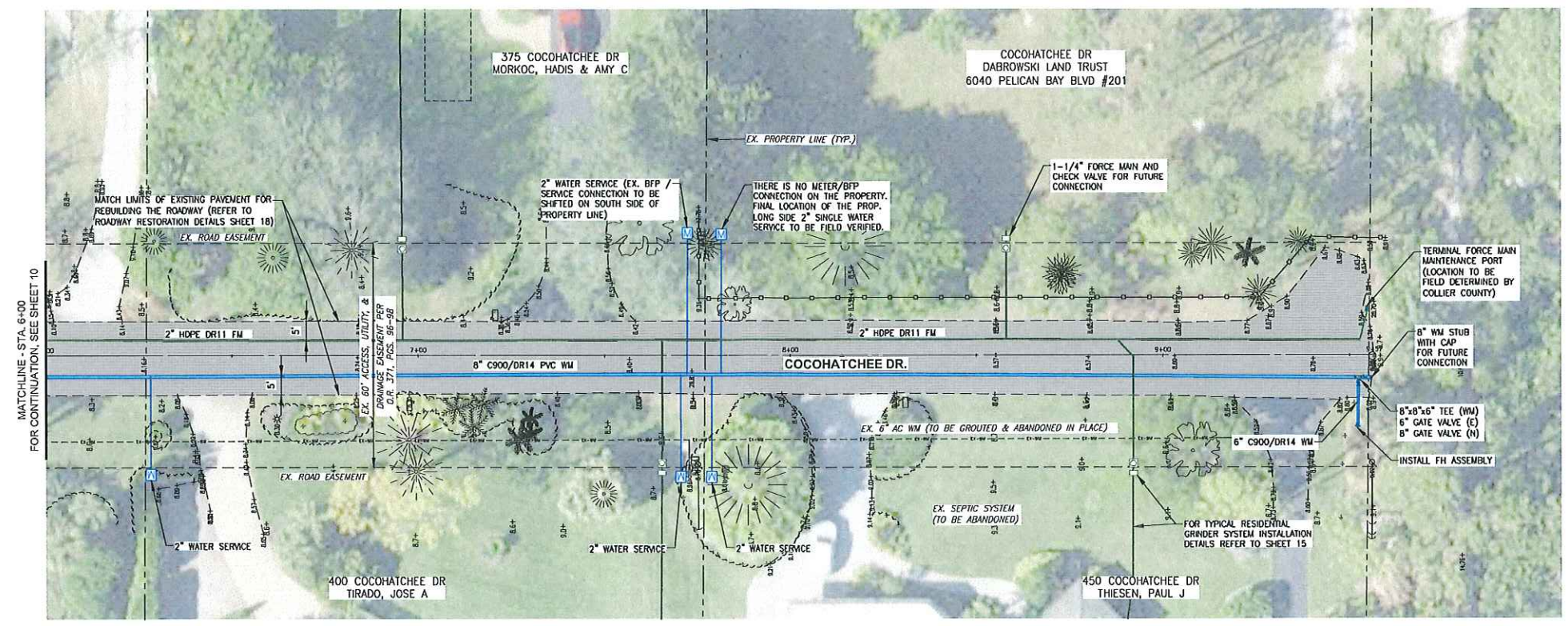
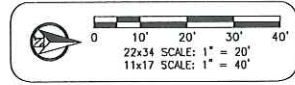
ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

MUNICIPALITY: COLLIER COUNTY
 SEC/TWN/RGE: 22&23/48S/25E
 DATE: FEBRUARY, 2024
 SUBMITTAL TYPE: BID

ALYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

SHEET 10 OF 20

G:\ENGINEERING\PROJ-ENG\CCU277A\AREA 4\DWG\SUBMITTYPE\CONST\CCU277A_UTIL_PAP_AREA4_2/7/2024_11:43 AM



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: VERT. 1" = 2'
 HORZ. 1" = 20'

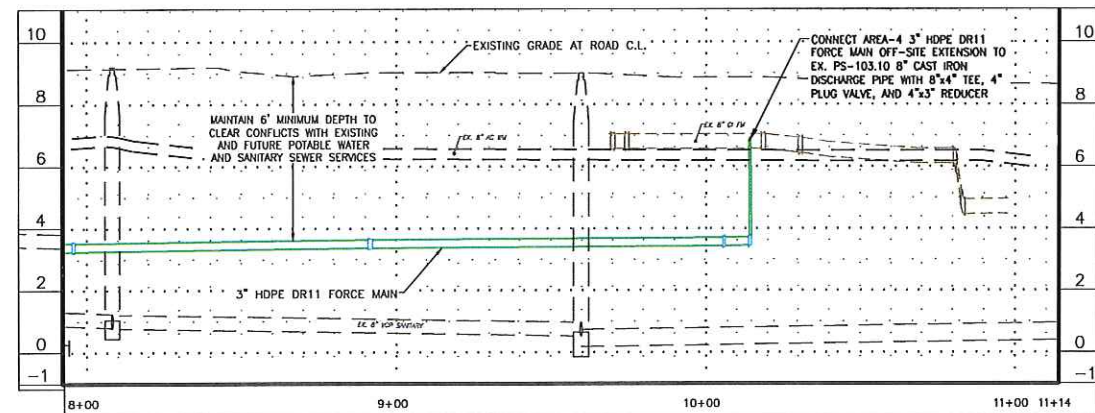
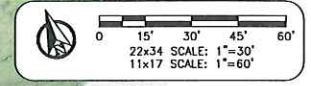
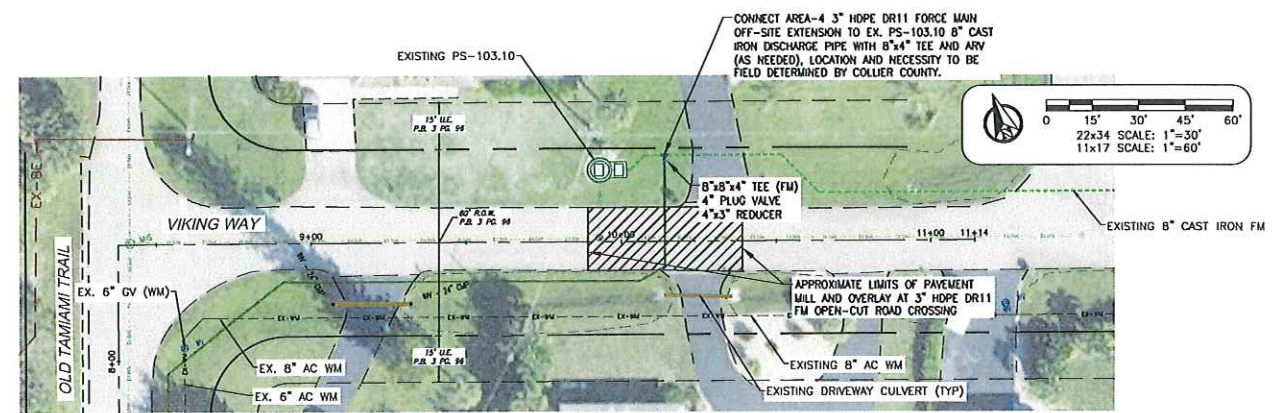
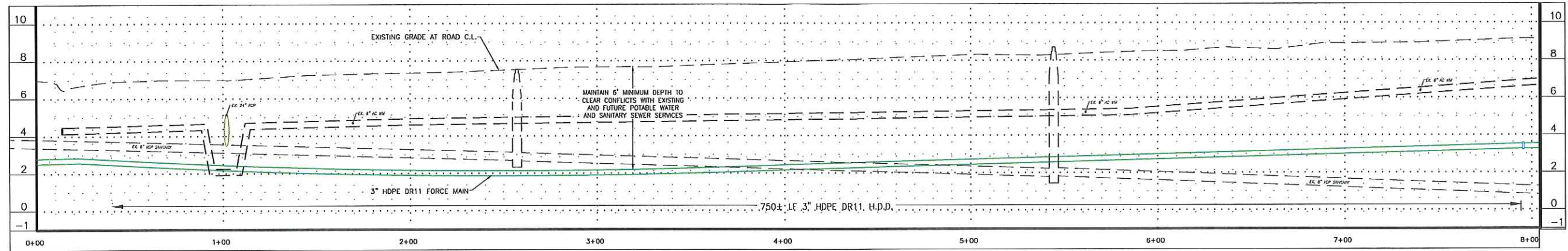
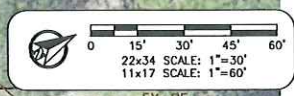
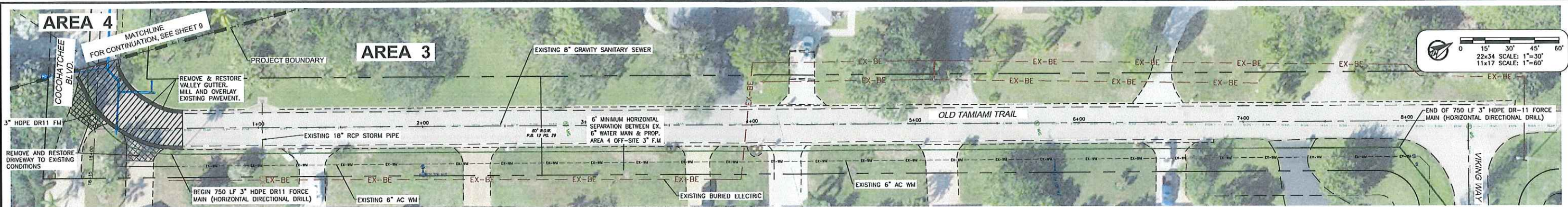
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PALM RIVER PUBLIC UTILITIES RENEWAL PROJECT
 PLAN and PROFILE
 COCOHATCHEE DR.
 STA. 6+00 to END
 ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)-1.234'

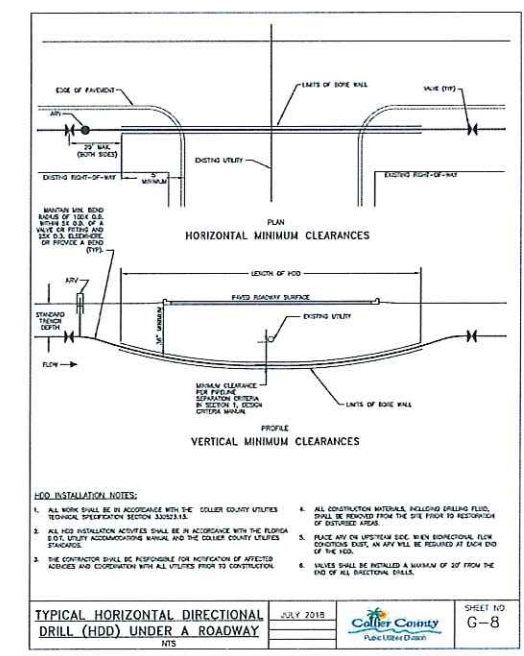
MUNICIPALITY: COLLIER COUNTY
 SEC./TWN/RGE: 22&23/4BS/25E
 DATE: FEBRUARY, 2024
 SUBMITTAL TYPE: BID
 SHEET 11 OF 20

ALYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

G:\ENGINEERING\PROJ-ENG\CCU277A\AREA 4\DWG\SUBMITTAL\CONSTR\CCU277A_UTIL_EXP_AREA4_2/7/2024_11:52 AM



NOTE:
 LOCATION OF THE PROPOSED 3" HDPE FORCE MAIN CONNECTION TO THE EXISTING DISCHARGE PIPING OF THE EXISTING SANITARY SEWER PUMP STATION (PS-103.10) AND ARV SHALL BE FIELD DETERMINED AND APPROVED BY COLLIER COUNTY UTILITIES.



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: 1"=30'

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 Bonita Springs: 239.947.1144 www.GradyMinor.com Fort Myers: 239.690.4380

PALM RIVER PUBLIC UTILITIES RENEWAL PROJECT

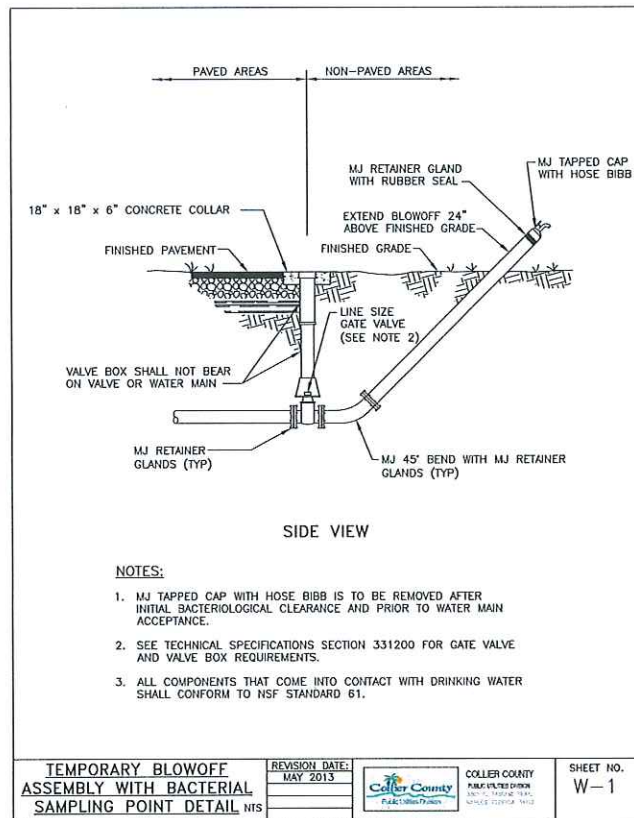
**AREA 4
 OFF-SITE FORCE MAIN
 (CONNECTION TO EXISTING FORCE MAIN)**

ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

MUNICIPALITY: COLLIER COUNTY
 SEC./TWN./RGE: 22&23/48S/25E
 DATE: DECEMBER, 2023
 SUBMITTAL TYPE: BID
 SHEET 12 OF 20

ALLYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

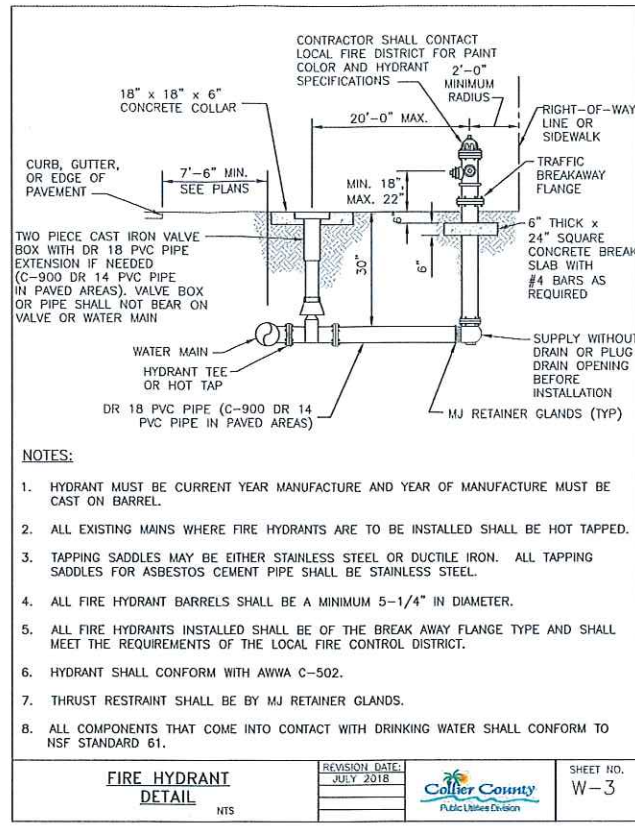
G:\ENGINEERING\PROJ-ENG\C\CCU277A\AREA 4\DWGS\SUBMITTAL\TYPE\CONS\CCU277A-AREA 4-OFF-SITE-FM-EXH 12/15/2023 3:45 PM



NOTES:

1. MJ TAPPED CAP WITH HOSE BIBB IS TO BE REMOVED AFTER INITIAL BACTERIOLOGICAL CLEARANCE AND PRIOR TO WATER MAIN ACCEPTANCE.
2. SEE TECHNICAL SPECIFICATIONS SECTION 331200 FOR GATE VALVE AND VALVE BOX REQUIREMENTS.
3. ALL COMPONENTS THAT COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF STANDARD 61.

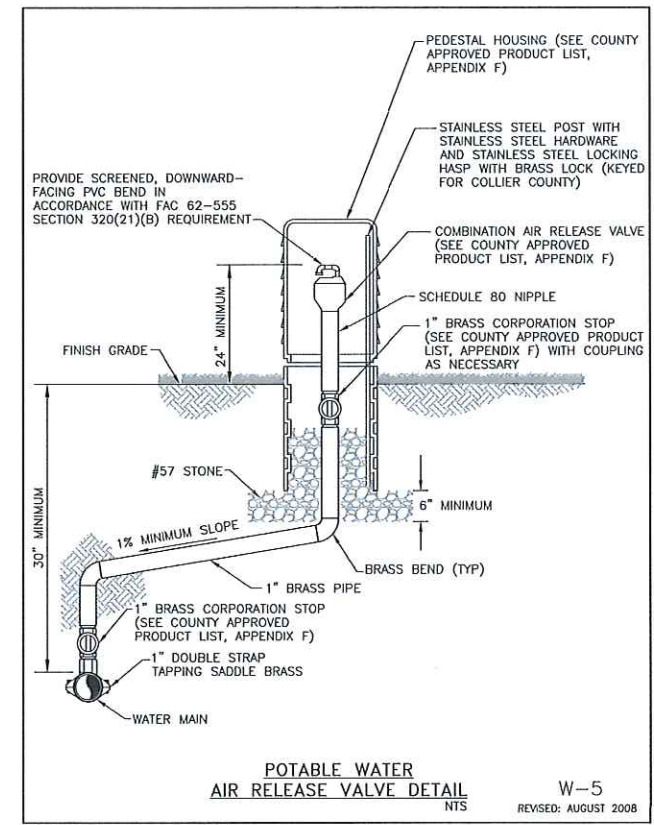
TEMPORARY BLOWOFF ASSEMBLY WITH BACTERIAL SAMPLING POINT DETAIL NTS	REVISION DATE: MAY 2013	COLLIER COUNTY PUBLIC UTILITIES DIVISION <small>800 N. COLLEEN BLVD. PALM BEACH, FL 33408</small>	SHEET NO. W-1
	NTS		



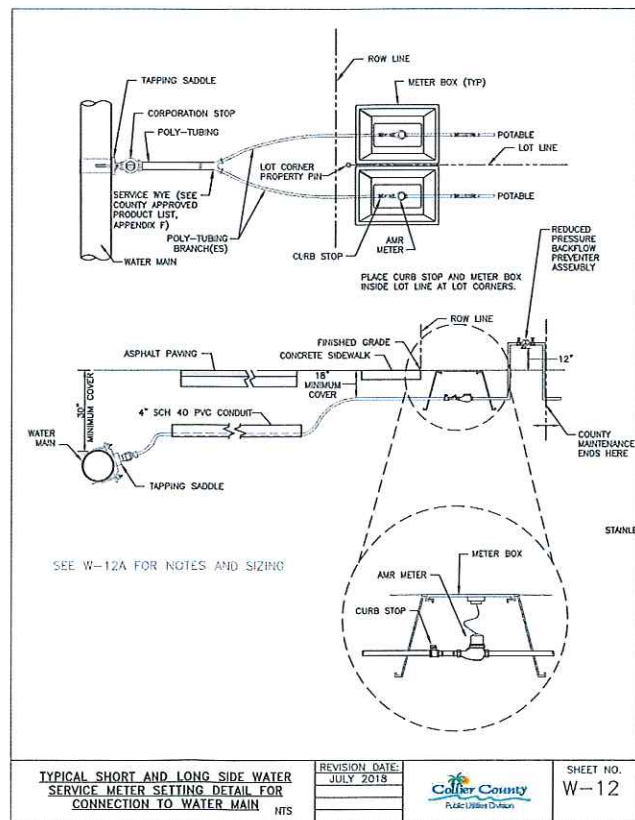
NOTES:

1. HYDRANT MUST BE CURRENT YEAR MANUFACTURE AND YEAR OF MANUFACTURE MUST BE CAST ON BARREL.
2. ALL EXISTING MAINS WHERE FIRE HYDRANTS ARE TO BE INSTALLED SHALL BE HOT TAPPED.
3. TAPPING SADDLES MAY BE EITHER STAINLESS STEEL OR DUCTILE IRON. ALL TAPPING SADDLES FOR ASBESTOS CEMENT PIPE SHALL BE STAINLESS STEEL.
4. ALL FIRE HYDRANT BARRELS SHALL BE A MINIMUM 5-1/4\"/>

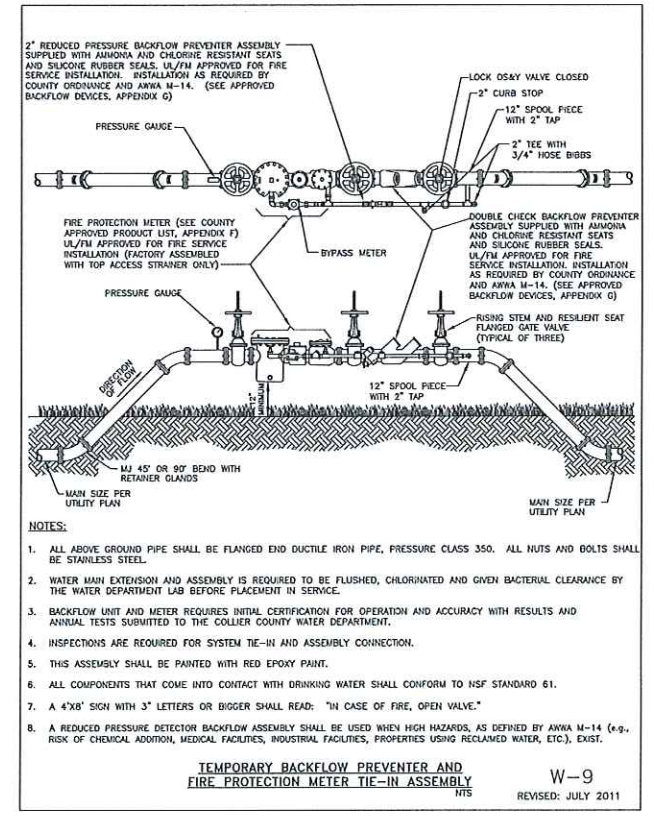
FIRE HYDRANT DETAIL NTS	REVISION DATE: JULY 2018	COLLIER COUNTY PUBLIC UTILITIES DIVISION	SHEET NO. W-3
	NTS		



POTABLE WATER AIR RELEASE VALVE DETAIL NTS	REVISION DATE: AUGUST 2008	SHEET NO. W-5
	NTS	



TYPICAL SHORT AND LONG SIDE WATER SERVICE METER SETTING DETAIL FOR CONNECTION TO WATER MAIN NTS	REVISION DATE: JULY 2018	COLLIER COUNTY PUBLIC UTILITIES DIVISION	SHEET NO. W-12
	NTS		



TEMPORARY BACKFLOW PREVENTER AND FIRE PROTECTION METER TIE-IN ASSEMBLY NTS	REVISION DATE: JULY 2011	SHEET NO. W-9
	NTS	



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY:	A.M.H.
DRAWN BY:	D.M.S.
APPROVED:	J.A.F.
JOB CODE:	CCU277A
SCALE:	N/A

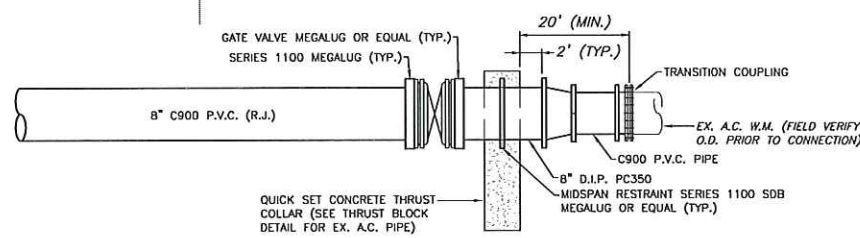
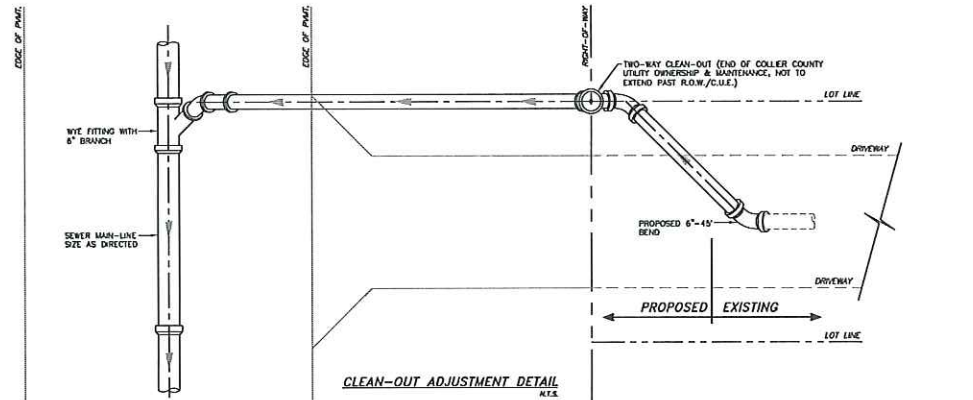
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Palm River Public Utilities Renewal Project
WATER DETAILS
 ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

ALLYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

MUNICIPALITY:
 Collier County
 SEC/TIN/RGB:
 22&23/48S/25E
 DATE:
 DECEMBER, 2023
 SUBMITTAL TYPE:
 BID
 SHEET 13 OF 20

C:\ENGINEERING\PROJ-ENR\CCU277A\AREA 4\DTWGS\SUBMITTAL\TYPE\CONSTR\WATER DETAIL 1 12/18/2023 11:23 AM

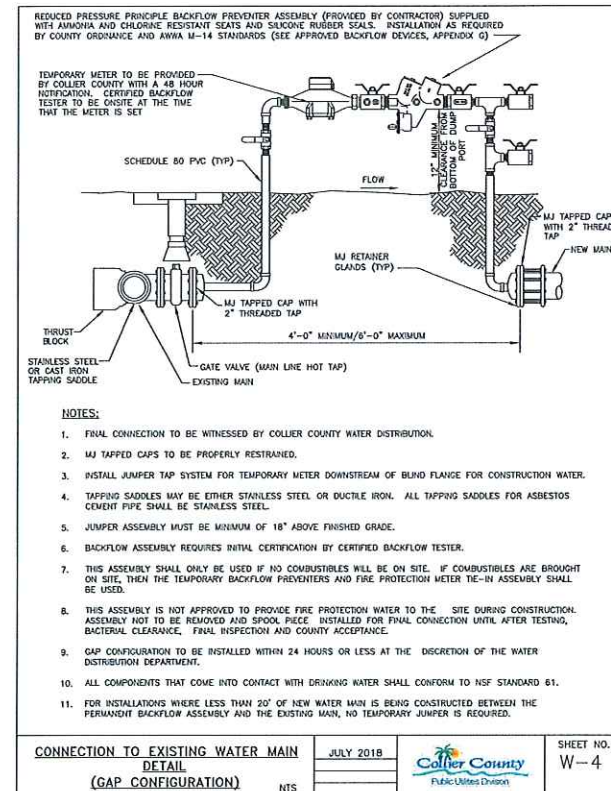
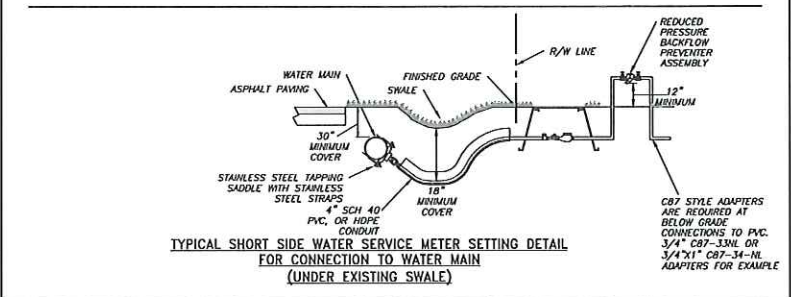
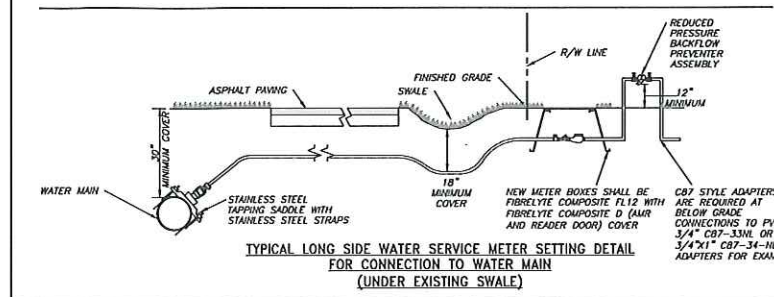
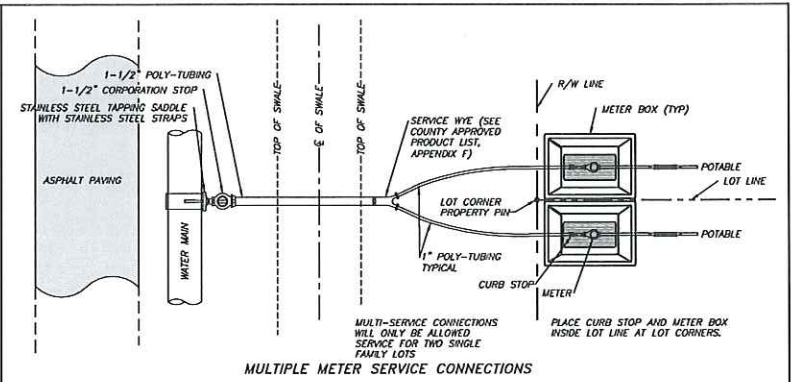
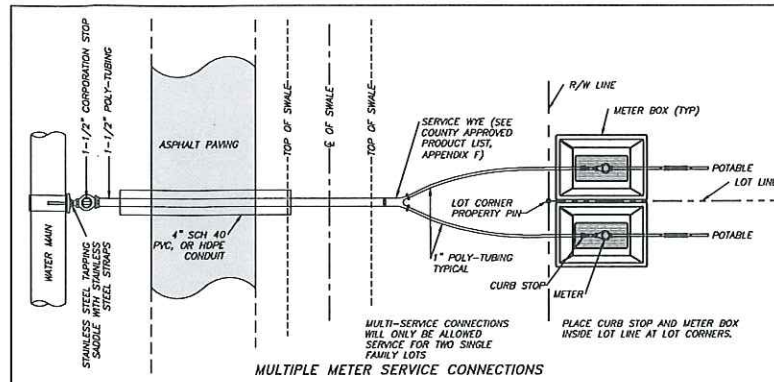


PIPE DIAMETER	①	②	③	④	⑤	NUMBER OF THE BODS REQUIRED	CY.
4"	9"	36"	30"	16"	3'-10"	2	.85
6"	12"	36"	31"	15"	4'-8"	2	1.00
8"	12"	36"	22"	14"	4'-8"	2	1.04
10"	12"	36"	23"	13"	4'-10"	2	1.07
12"	16"	36"	24"	12"	6'-0"	2	1.33
16"	16"	36"	28"	4"	8'-4"	4	1.41

NOTES:

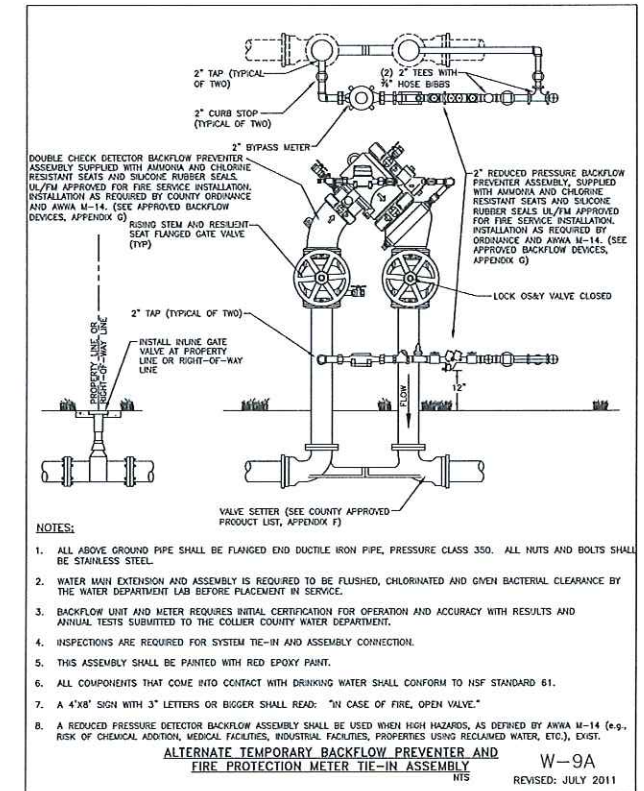
- CONTRACTOR SHALL COMPLETE CLEANING AND DISINFECTION PER SPECIFICATIONS PRIOR TO COMPLETING CONNECTION TO A.C. W.M. CONTRACTOR TO SWAB CONNECTIONS IN ACCORDANCE WITH AWWA AND PERMITTING REQUIREMENTS.
- CONTRACTOR SHALL WAIT TO PRESSURIZE THE PIPELINE UNTIL THRUST COLLAR IS CURED.
- CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF ALL CONNECTION JOINTS FOR LEAKAGE PRIOR TO BACKFILLING (IN PRESENCE OF ENGINEER) AND PRESSURE TEST BETWEEN VALVES.
- NEW PIPE JOINTS PER COLLIER COUNTY DETAIL G-10 (DEAD ENDS).
- ALL RESTRAINING DEVICES SHALL HAVE MEGABOND (OR EQUAL) COATING AND SS HARDWARE.
- CONTRACTOR SHALL FILL TRENCH WITH EXCAVATABLE FLOWABLE FILL TO 6 INCHES ABOVE TOP OF PIPES.

TRANSITION TO A.C. WATERMAIN DETAIL
NOT TO SCALE



- NOTES:**
- FINAL CONNECTION TO BE WITNESSED BY COLLIER COUNTY WATER DISTRIBUTION.
 - MJ TAPPED CAPS TO BE PROPERLY RESTRAINED.
 - INSTALL JUMPER TAP SYSTEM FOR TEMPORARY METER DOWNSTREAM OF BLIND FLANGE FOR CONSTRUCTION WATER.
 - TAPPING SADDLES MAY BE EITHER STAINLESS STEEL OR DUCTILE IRON. ALL TAPPING SADDLES FOR ASBESTOS CEMENT PIPE SHALL BE STAINLESS STEEL.
 - JUMPER ASSEMBLY MUST BE MINIMUM OF 18" ABOVE FINISHED GRADE.
 - BACKFLOW ASSEMBLY REQUIRES INITIAL CERTIFICATION BY CERTIFIED BACKFLOW TESTER.
 - THIS ASSEMBLY SHALL ONLY BE USED IF NO COMBUSTIBLES WILL BE ON SITE. IF COMBUSTIBLES ARE BROUGHT ON SITE, THEN THE TEMPORARY BACKFLOW PREVENTERS AND FIRE PROTECTION METER TIE-IN ASSEMBLY SHALL BE USED.
 - THIS ASSEMBLY IS NOT APPROVED TO PROVIDE FIRE PROTECTION WATER TO THE SITE DURING CONSTRUCTION. ASSEMBLY NOT TO BE REMOVED AND SPOOK PIECE INSTALLED FOR FINAL CONNECTION UNTIL AFTER TESTING, BACTERIAL CLEARANCE, FINAL INSPECTION AND COUNTY ACCEPTANCE.
 - GAP CONFIGURATION TO BE INSTALLED WITHIN 24 HOURS OR LESS AT THE DISCRETION OF THE WATER DISTRIBUTION DEPARTMENT.
 - ALL COMPONENTS THAT COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF STANDARD 61.
 - FOR INSTALLATIONS WHERE LESS THAN 20' OF NEW WATER MAIN IS BEING CONSTRUCTED BETWEEN THE PERMANENT BACKFLOW ASSEMBLY AND THE EXISTING MAIN, NO TEMPORARY JUMPER IS REQUIRED.

CONNECTION TO EXISTING WATER MAIN DETAIL (GAP CONFIGURATION) NTS
JULY 2018
Collier County Public Utilities Division
SHEET NO. W-4



- NOTES:**
- ALL ABOVE GROUND PIPE SHALL BE FLANGED END DUCTILE IRON PIPE, PRESSURE CLASS 350. ALL NUTS AND BOLTS SHALL BE STAINLESS STEEL.
 - WATER MAIN EXTENSION AND ASSEMBLY IS REQUIRED TO BE FLUSHED, CHLORINATED AND GIVEN BACTERIAL CLEARANCE BY THE WATER DEPARTMENT LAB BEFORE PLACEMENT IN SERVICE.
 - BACKFLOW UNIT AND METER REQUIRES INITIAL CERTIFICATION FOR OPERATION AND ACCURACY WITH RESULTS AND ANNUAL TESTS SUBMITTED TO THE COLLIER COUNTY WATER DEPARTMENT.
 - INSPECTIONS ARE REQUIRED FOR SYSTEM TIE-IN AND ASSEMBLY CONNECTION.
 - THIS ASSEMBLY SHALL BE PAINTED WITH RED EPOXY PAINT.
 - ALL COMPONENTS THAT COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF STANDARD 61.
 - A 4"x8" SIGN WITH 3" LETTERS OR BIGGER SHALL READ: "IN CASE OF FIRE, OPEN VALVE."
 - A REDUCED PRESSURE DETECTOR BACKFLOW ASSEMBLY SHALL BE USED WHEN HIGH HAZARDS, AS DEFINED BY AWWA M-14 (e.g., RISK OF CHEMICAL ADDITION, MEDICAL FACILITIES, INDUSTRIAL FACILITIES, PROPERTIES USING RECLAIMED WATER, ETC.), EXIST.
- ALTERNATE TEMPORARY BACKFLOW PREVENTER AND FIRE PROTECTION METER TIE-IN ASSEMBLY
W-9A
REVISED: JULY 2011



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
DRAWN BY: D.M.S.
APPROVED: J.A.F.
JOB CODE: CCU277A
SCALE: N/A

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Palm River Public Utilities Renewal Project
WATER DETAILS
ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

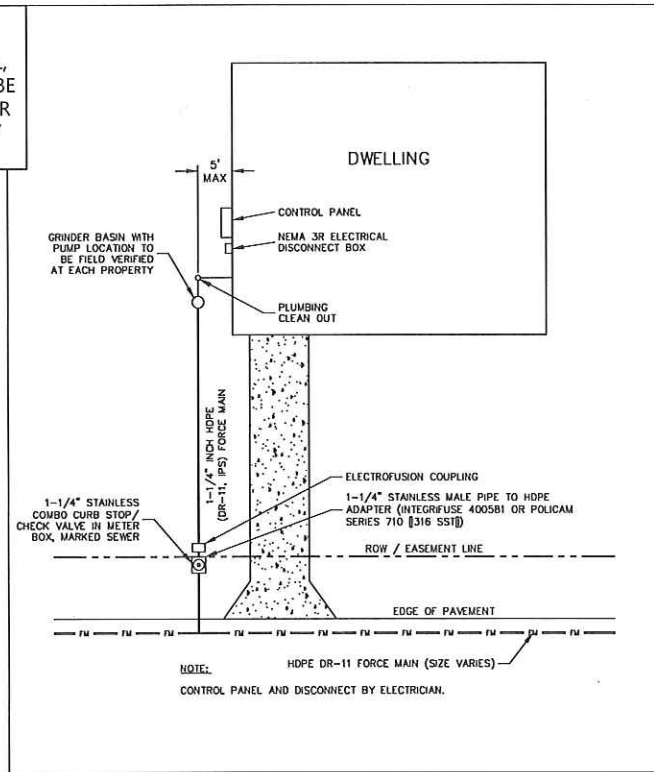
ALYSON M. HOLLAND, P.E.
FLORIDA P.E. LICENSE NO. 70177

MUNICIPALITY: Collier County
SEC./TWN./RGE: 22&23/48S/25E
DATE: DECEMBER, 2023
SUBMITTAL TYPE: BID
SHEET 14 OF 20

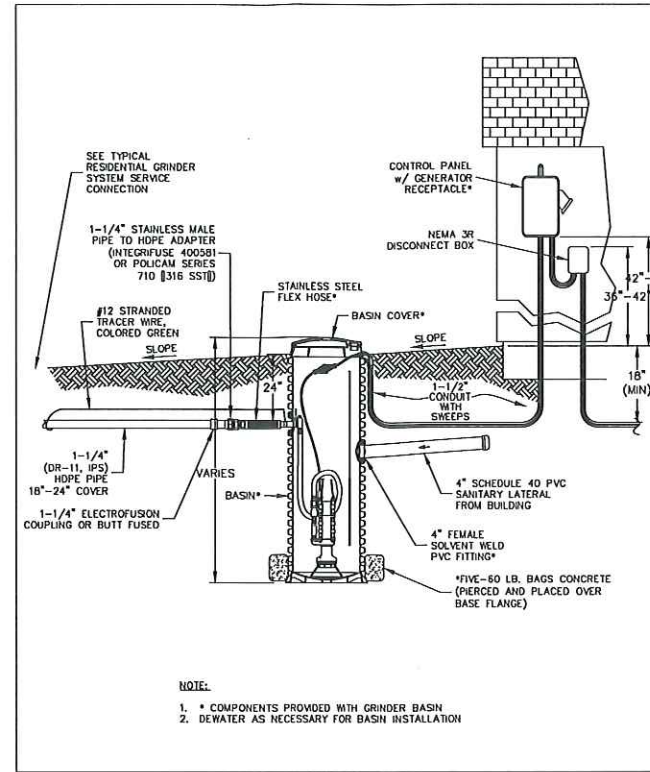
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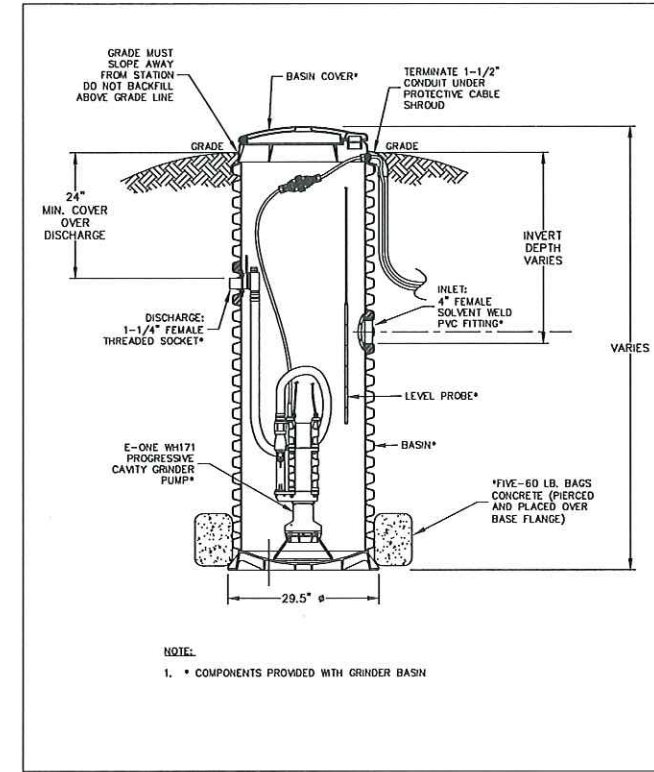
LOCATION OF PUMP STATION, PANEL, DISCONNECT, AND FORCE MAIN TO BE DETERMINED IN THE FIELD BY COLLIER COUNTY AND INDIVIDUAL PROPERTY OWNERS.



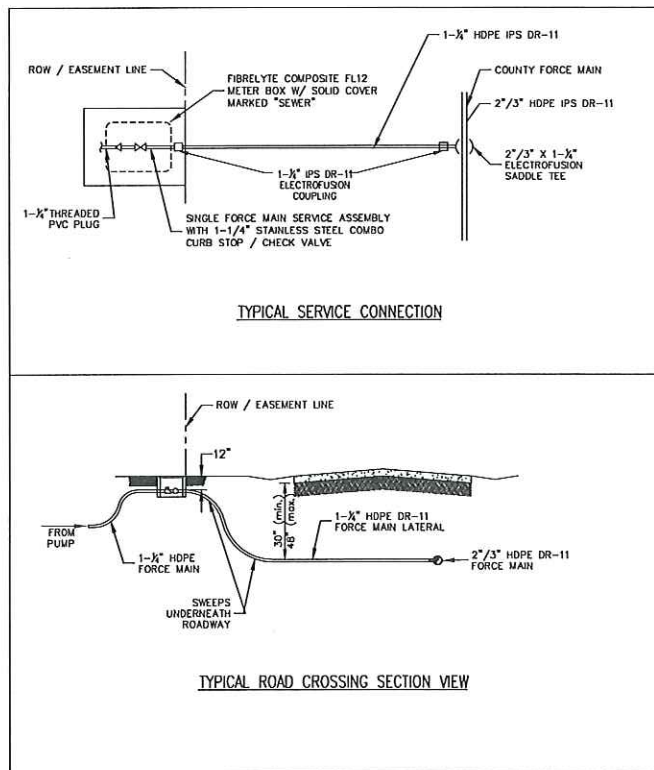
TYPICAL RESIDENTIAL GRINDER SYSTEM (PLAN VIEW)



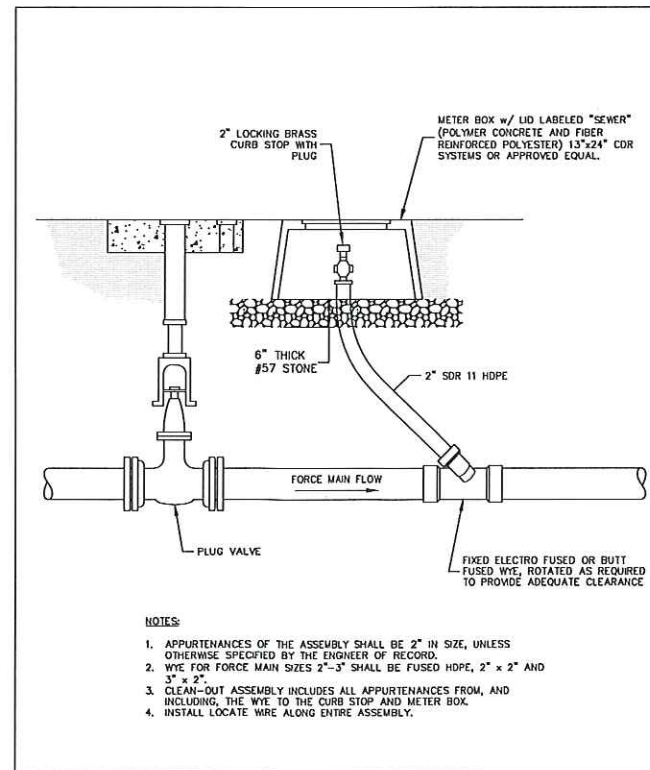
TYPICAL RESIDENTIAL GRINDER SYSTEM SECTION VIEW



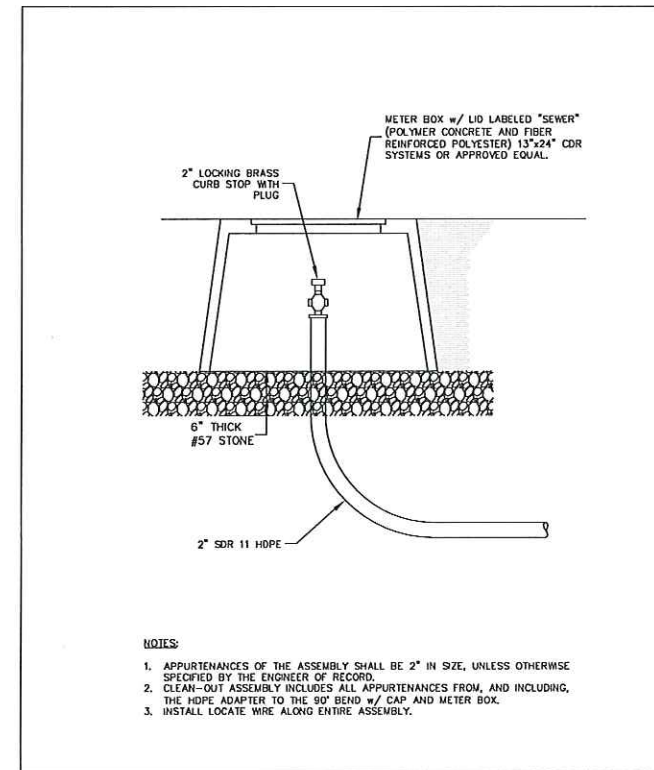
TYPICAL RESIDENTIAL GRINDER SYSTEM TYPICAL WET WELL



TYPICAL RESIDENTIAL GRINDER SYSTEM SERVICE CONNECTIONS



TYPICAL RESIDENTIAL GRINDER SYSTEM IN-LINE MAINTENANCE PORT DETAIL



TYPICAL RESIDENTIAL GRINDER SYSTEM TERMINAL MAINTENANCE PORT DETAIL



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY:	AM.H.
DRAWN BY:	D.M.S.
APPROVED:	J.A.F.
JOB CODE:	CCU277A
SCALE:	N/A

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3800 Via Del Rey
Bonita Springs, Florida 34134
Business LC 26000266

Palm River Public Utilities Renewal Project

SANITARY SEWER DETAILS

ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

MUNICIPALITY:
Collier County

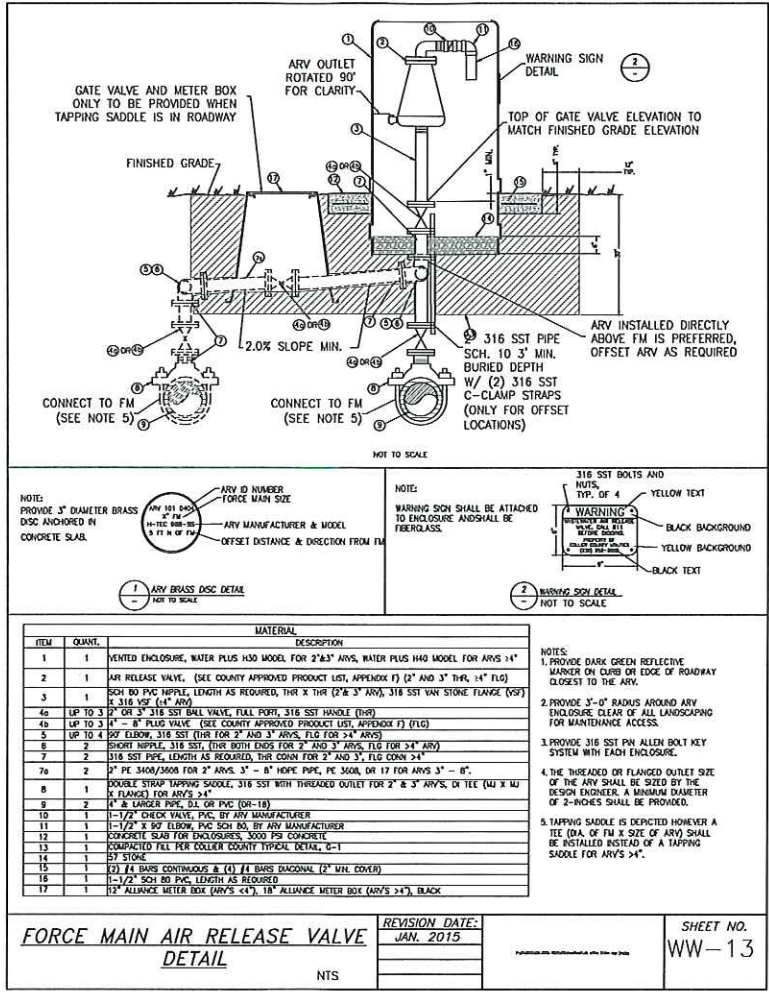
SEC/TWN/RGE:
22&23/48S/25E

DATE:
DECEMBER, 2023

SUBMITTAL TYPE:
BID

ALYSON M. HOLLAND, P.E.
FLORIDA P.E. LICENSE NO. 70177

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REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
 DRAWN BY: D.M.S.
 APPROVED: J.A.F.
 JOB CODE: CCU277A
 SCALE: N/A

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Palm River Public Utilities Renewal Project

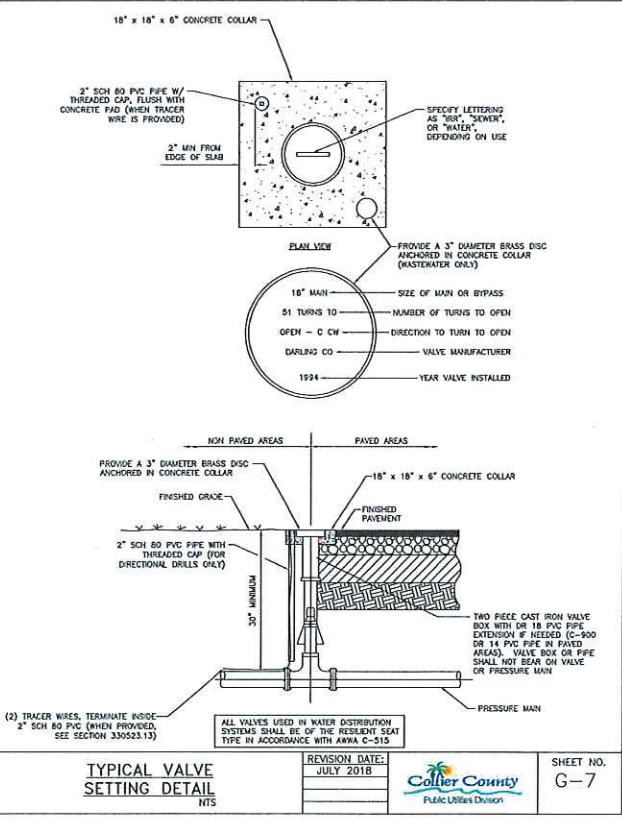
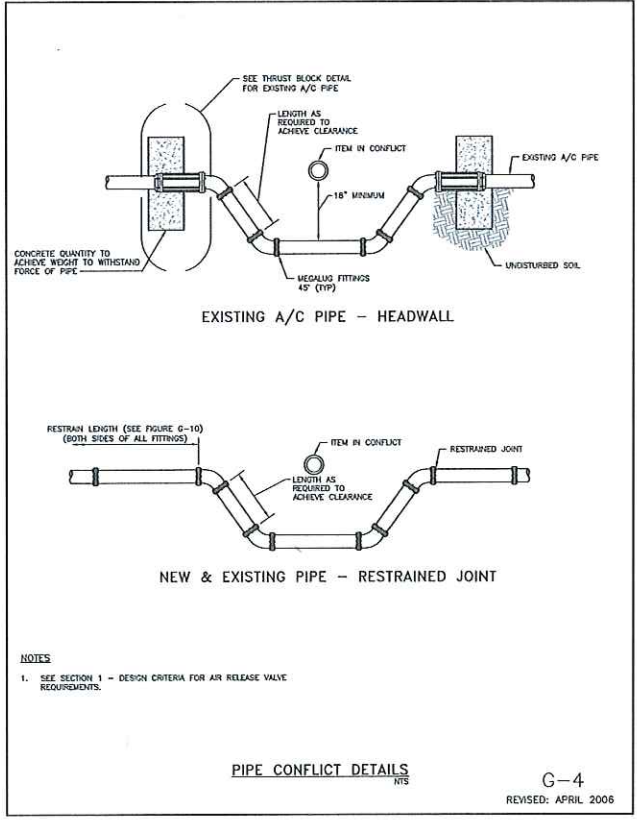
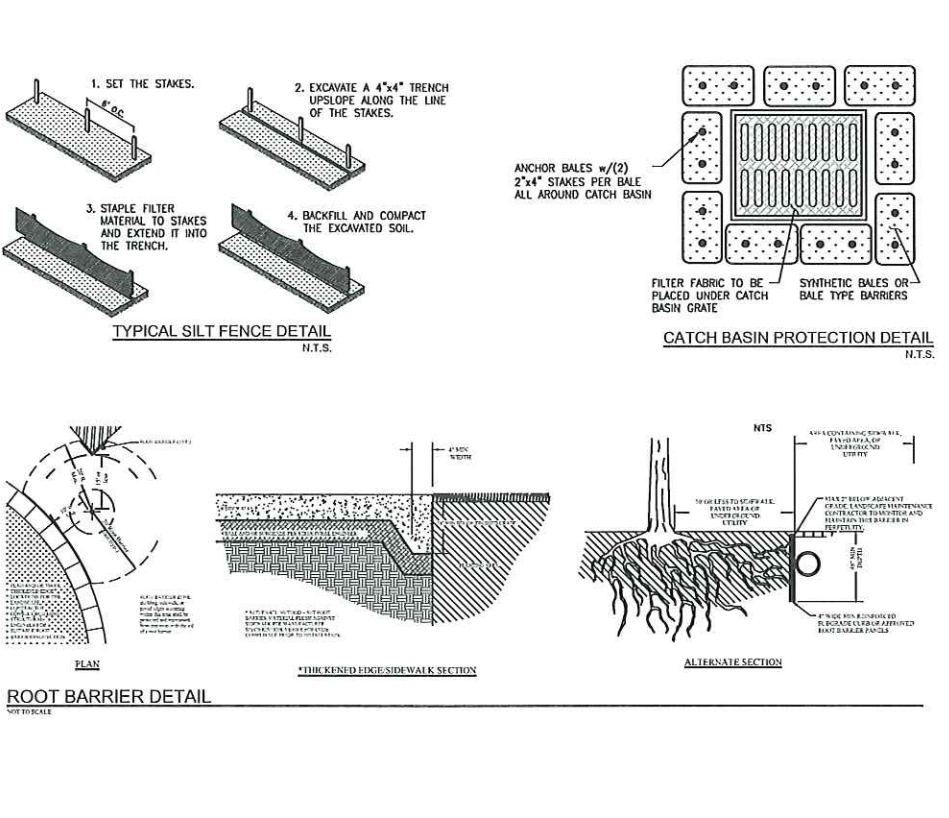
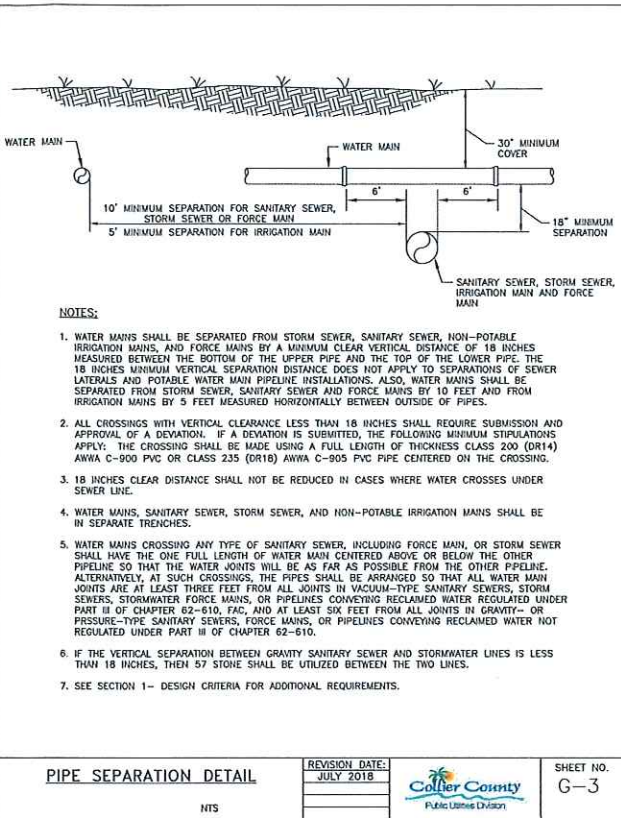
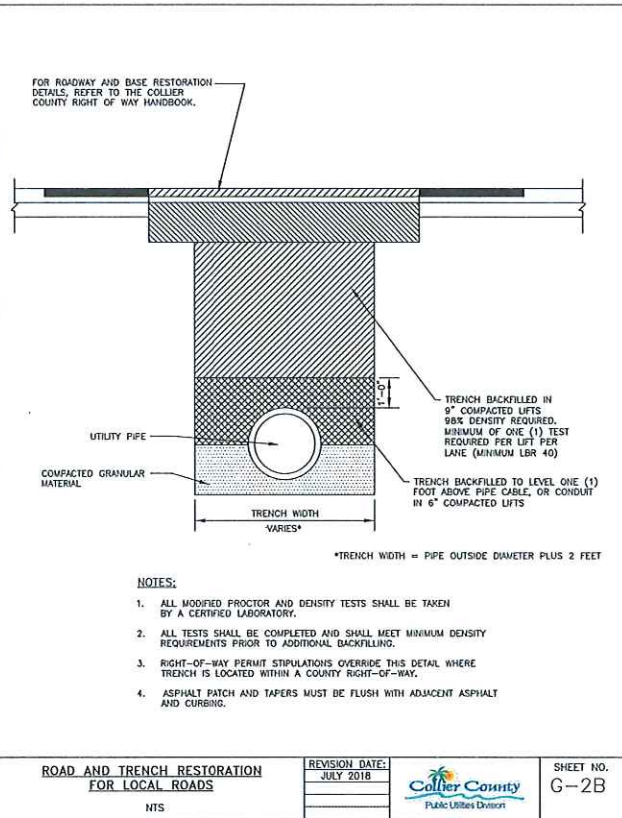
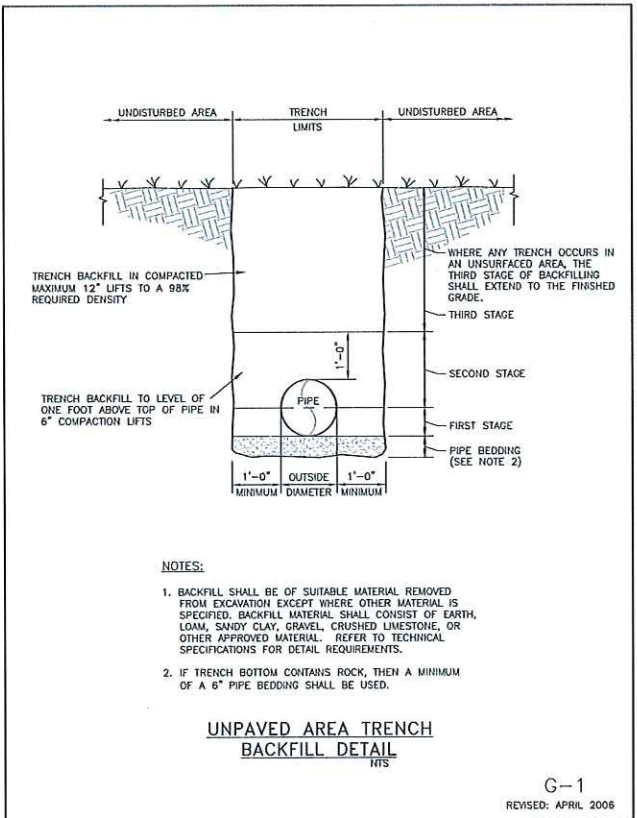
SANITARY SEWER DETAILS

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 CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

MUNICIPALITY: Collier County
 SEC./TWN./RGE: 22&23/4BS/25E
 DATE: DECEMBER, 2023
 SUBMITTAL TYPE: BID
 SHEET 16 OF 20

ALLYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

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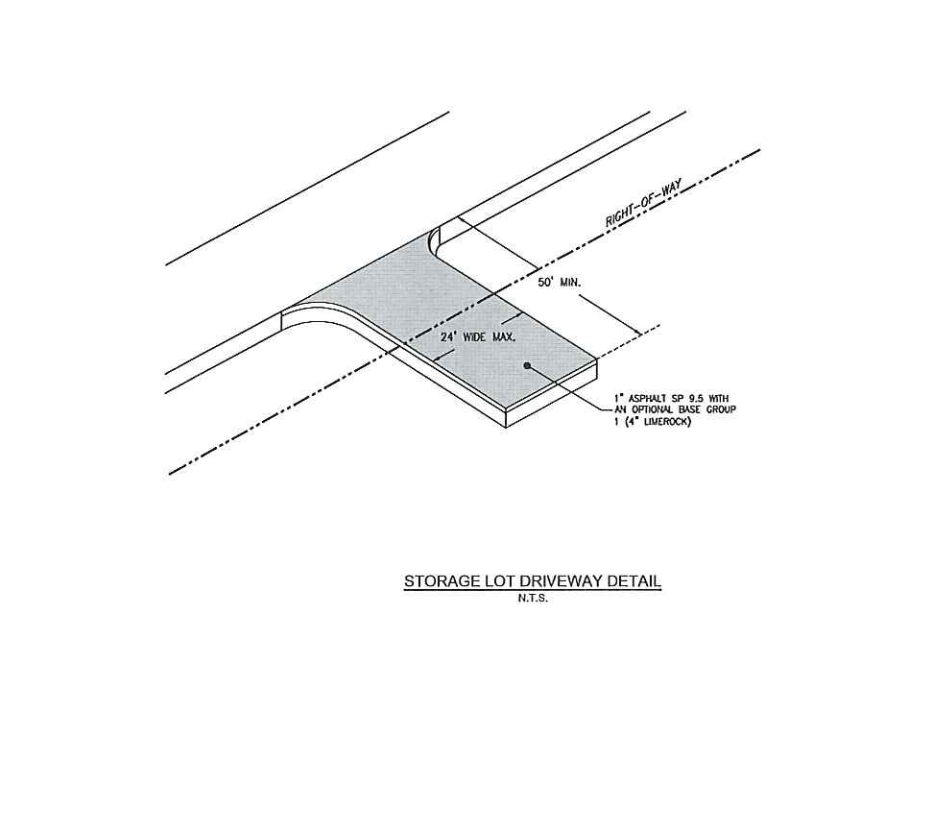


PIPE RESTRAINT SCHEDULE
NTS

REVISION DATE: JULY 2018
SHEET NO. G-10
REVISED: APRIL 2006

PIPE SIZE IN INCHES	RESTRAINED PIPE LENGTH IN FEET (1)				
	90'	45'	22-1/2'	11-1/4'	45'
4	23	9	5	2	55
6	32	13	6	3	77
8	40	17	8	4	100
10	48	20	10	5	120
12	56	23	11	6	141
16	71	29	14	7	181
18	77	32	15	8	200
20	84	35	17	9	218
24	96	40	19	10	253
30	112	47	22	11	303
36	127	53	25	13	350

PIPE SIZE IN INCHES	RESTRAINED PIPE LENGTH IN FEET (1)	
	TEE (3)	REDUCER (4)
6 x 4	0	40
6 x 6	0	34
8 x 4	0	72
8 x 8	55	74
10 x 10	75	75
12 x 4	0	122
12 x 8	31	75
12 x 12	95	75
16 x 6	0	153
16 x 10	44	107
16 x 16	134	108
18 x 8	0	157
18 x 12	68	108
18 x 18	152	108
20 x 10	20	161
20 x 16	120	77
20 x 20	170	77
24 x 12	37	187
24 x 18	132	109
24 x 24	204	109
30 x 16	78	213
30 x 20	138	165
30 x 30	252	165
36 x 18	84	259
36 x 24	170	191
36 x 36	298	191



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: A.M.H.
DRAWN BY: D.M.S.
APPROVED: J.A.F.
JOB CODE: CCU277A
SCALE: N/A

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3800 Via Del Rey
Bonita Springs, Florida 34134

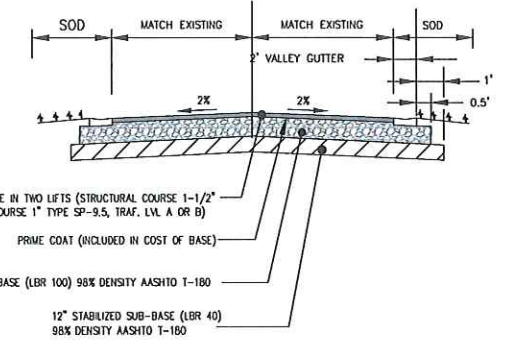
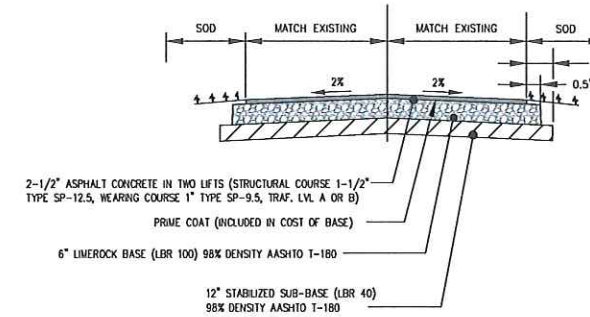
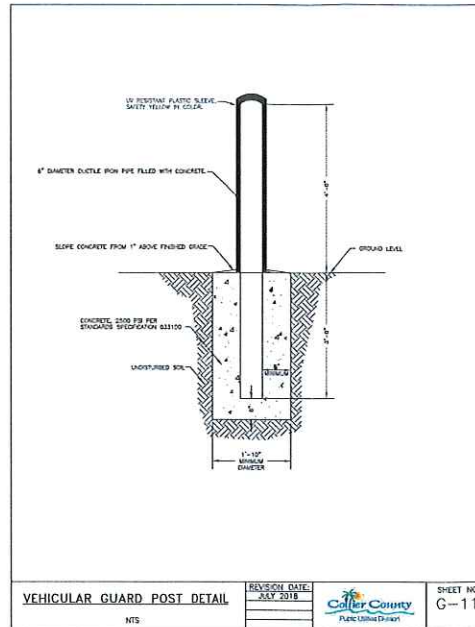
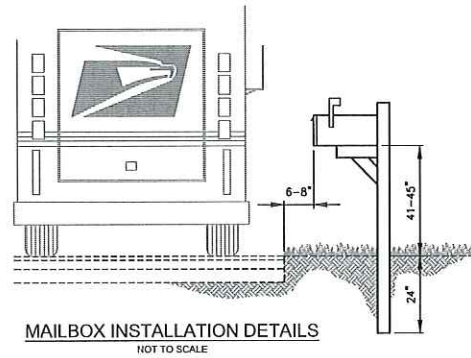
Palm River Public Utilities Renewal Project

GENERAL DETAILS

ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

ALYSON M. HOLLAND, P.E.
FLORIDA P.E. LICENSE NO. 70177

MUNICIPALITY: Collier County
SEC/TWN/RGE: 22&23/48S/25E
DATE: DECEMBER, 2023
SUBMITTAL TYPE: BID
SHEET 17 OF 20

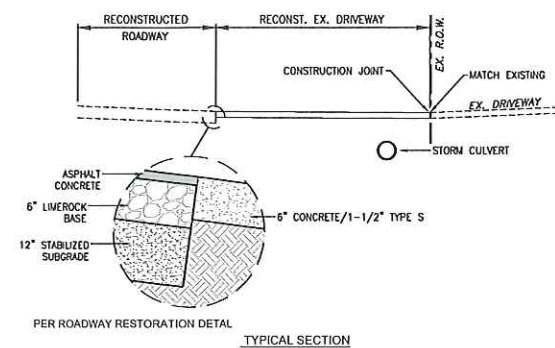
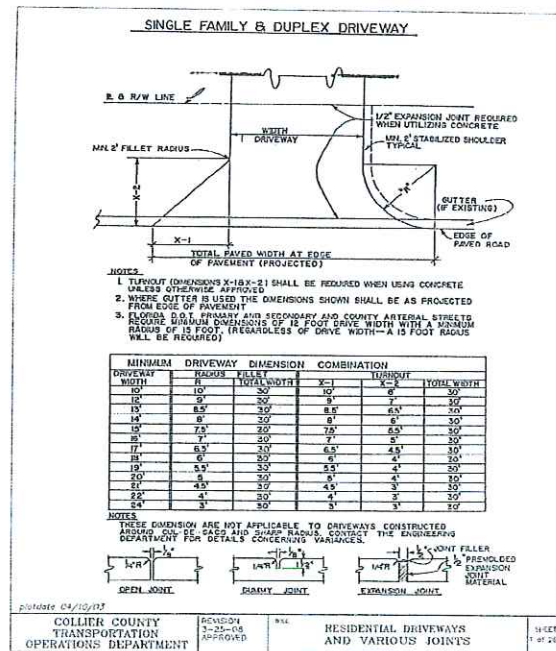


LOCAL ROADS

NOTES:

1. TOP OF SOD MUST BE 1\"/>

ROADWAY RESTORATION DETAILS



CONCRETE DRIVEWAY CONSTRUCTION NOTES:

1. SAW CUT IN A STRAIGHT LINE THE EXISTING EDGE OF PAVEMENT & EXISTING DRIVEWAY (WHERE APPLICABLE) AT MATCH LINE.
2. CONSTRUCT NEW DRIVEWAY ON COMPACTED, CLEAN FILL 98 MOD. PROCTOR.
3. NEW DRIVEWAYS TO BE A MINIMUM 6-INCHES THICK WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
4. CONCRETE DRIVEWAYS MUST BE REINFORCED WITH WELDED WIRE FABRIC (6"x6", #10/#10), OR EQUAL.
5. TOOL ALL EDGES & APPLY MED. BROOM FINISH. STRIKE CONTRACTION JOINTS ACROSS THE WIDTH OF DRIVEWAY AT 10' O.C.
6. CONSTRUCT THICKENED EDGE AT ALL CROSSWALK RAMPS.
7. BLEND IN EXISTING DRIVEWAY AT TERMINATION OF NEW APRON WITH LIKE MATERIAL (GRAVEL) AT PROPERTY LINE.
8. IN CASES WHERE NEW CONCRETE IS PLANNED ADJACENT TO EXISTING CONCRETE, A 1/2" EXPANSION JOINT IS REQUIRED.
9. DRIVEWAYS SLOPED LESS THAN 2% FROM THE PROPERTY LINE TO THE EDGE OF PAVEMENT SHALL BE PROVIDED WITH A 1% CROSS SLOPE.

ASPHALT DRIVEWAY CONSTRUCTION NOTES:

1. SAW CUT IN A STRAIGHT LINE THE EXISTING EDGE OF PAVEMENT & EXISTING DRIVEWAY (WHERE APPLICABLE) AT MATCH LINE.
 2. DRIVEWAYS FOR RESIDENTIAL USE SHALL BE CONSTRUCTED ON A STABILIZED SUBGRADE USING A MINIMUM OF SIX INCHES OF COMPACTED LIMEROCK BASE OF FOUR INCHES OF ABC-3 ("BLACK BASE") WITH ONE AND ONE-HALF INCHES OF ASPHALT CONCRETE SURFACE COURSE, CONFORMING TO F.D.O.T. SPECIFICATIONS FOR TYPE S.
 3. DRIVEWAYS FOR MULTI-FAMILY, COMMERCIAL OR INDUSTRIAL USE SHALL BE CONSTRUCTED ON A STABILIZED SUBGRADE, USING A MINIMUM OF EIGHT INCHES OF COMPACTED LIMEROCK BASE (LBR-100) OR SIX INCHES OF ABC-3 ("BLACK BASE") WITH TWO INCHES OF ASPHALT CONCRETE SURFACE COURSE CONFORMING TO F.D.O.T. SPECIFICATIONS FOR TYPE S.
 4. BLEND IN EXISTING DRIVEWAY AT TERMINATION OF NEW APRON WITH LIKE MATERIAL (GRAVEL) AT PROPERTY LINE.
 5. DRIVEWAYS SLOPED LESS THAN 2% FROM THE PROPERTY LINE TO THE EDGE OF PAVEMENT SHALL BE PROVIDED WITH A 1% CROSS SLOPE.
- BRICK PAVEMENT CONSTRUCTION NOTES:
1. REMOVE EX. BRICKS TO R.O.W. LINE & STACK AWAY FROM WORK AREA.
 2. BRICKS SHALL BE SET ON 6" FLOWABLE FILL OR STABILIZED SUBGRADE.
 3. ENSURE ELEVATION OF DRIVEWAY MATCHES ELEVATION AT E.O.P. & SLOPES UPWARDS TOWARD R.O.W.

DRIVEWAY DETAIL NOT TO SCALE



REVISION	DATE	DESCRIPTION

DESIGNED BY:	A.M.H.
DRAWN BY:	D.M.S.
APPROVED:	J.A.F.
JOB CODE:	CCU277A
SCALE:	N/A

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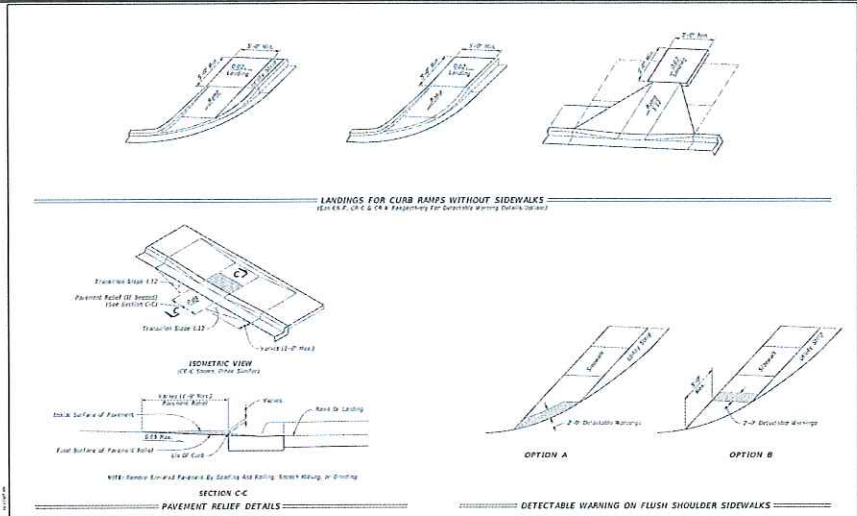
Palm River Public Utilities Renewal Project

MISCELLANEOUS DETAILS

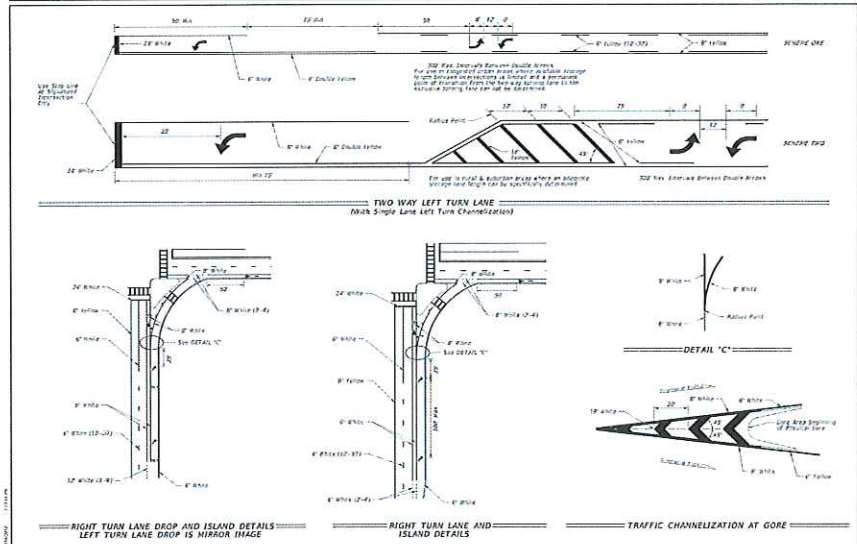
ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS (+)1.234'

ALLYSON M. HOLLAND, P.E.
 FLORIDA P.E. LICENSE NO. 70177

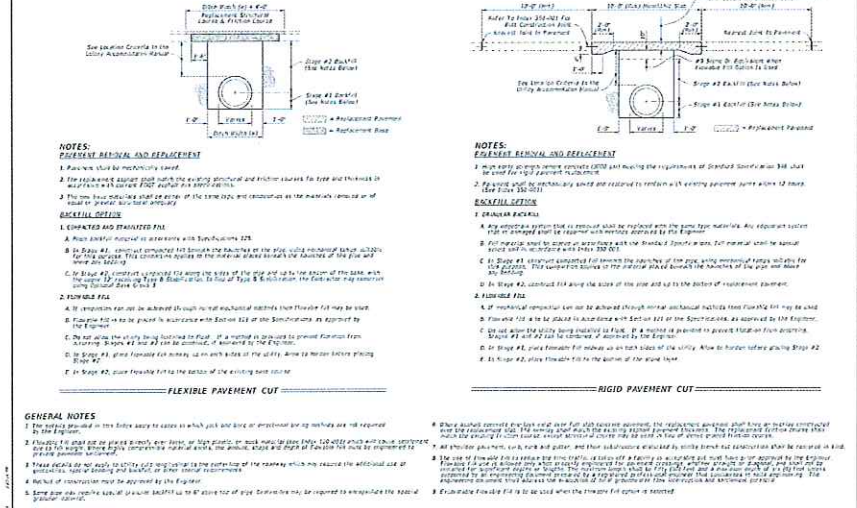
MUNICIPALITY: Collier County
 SEC/TMN/RGB: 22&23/48S/25E
 DATE: DECEMBER, 2023
 SUBMITTAL TYPE: BID
 SHEET 18 OF 20



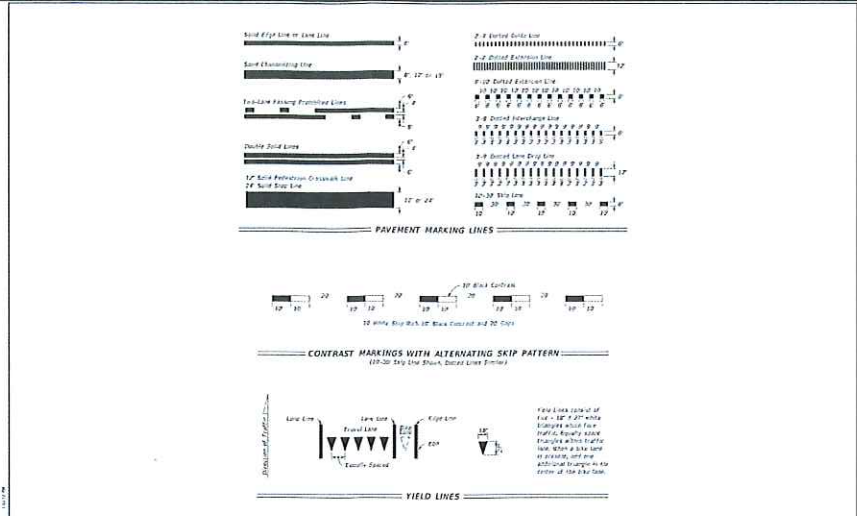
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7/11/18	REVISED	FDOT	FY 2019-20 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS
			522-002	6 of 8



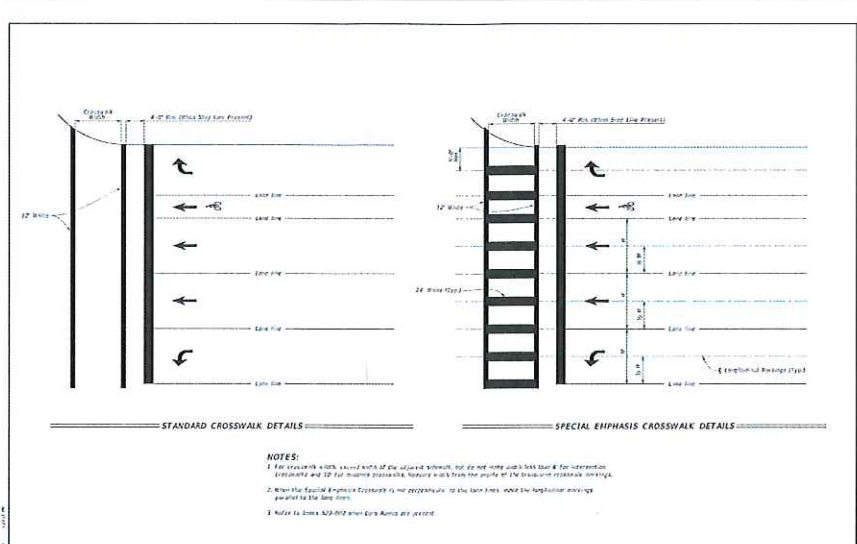
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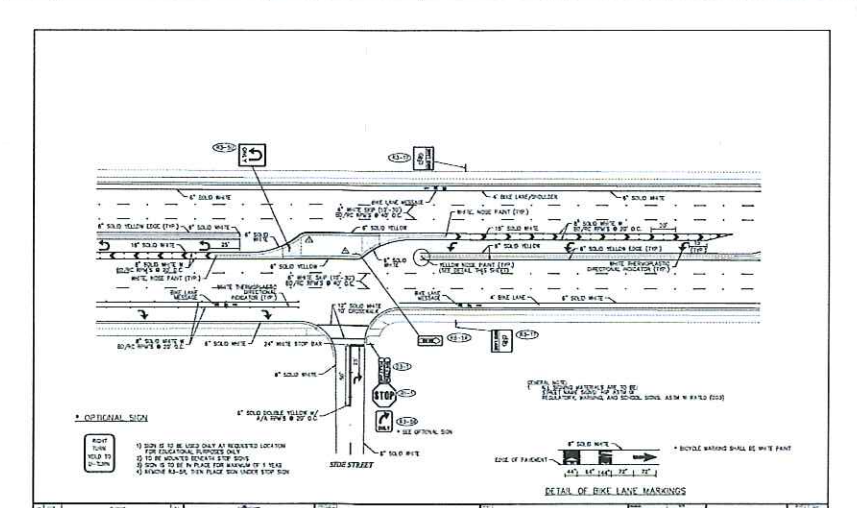
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			125-001	1 of 2



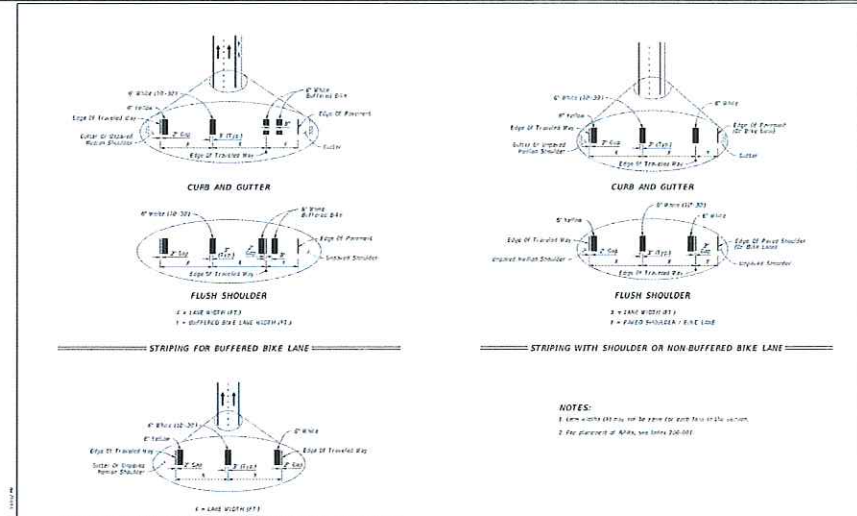
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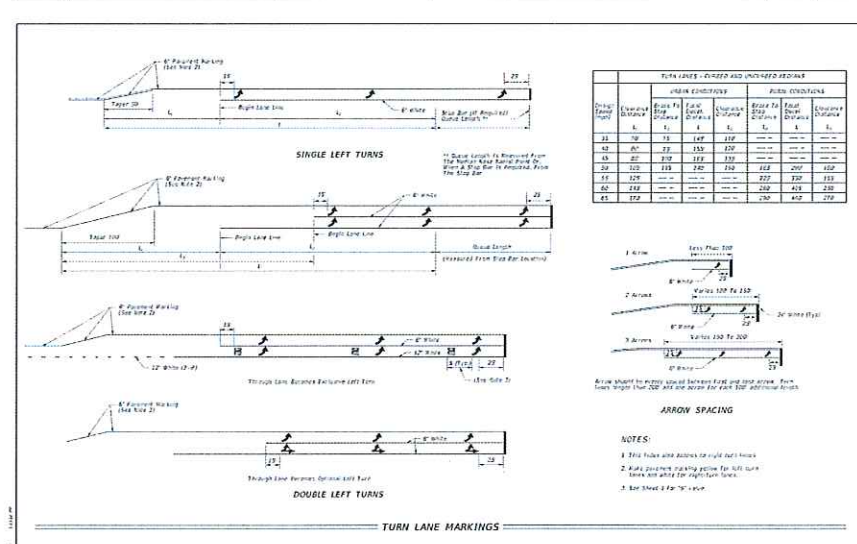
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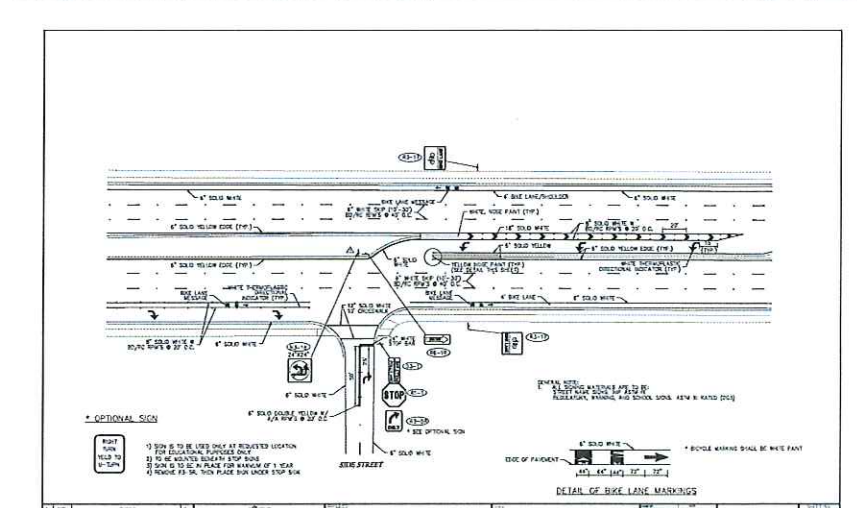
DATE	DESCRIPTION	PROJECT	INDEX	SHEET
7/11/18	REVISED	FDOT	FY 2019-20 STANDARD PLANS	UTILITY ADJUSTMENTS THRU EXISTING PAVEMENT
			125-001	1 of 2



DATE	DESCRIPTION	PROJECT	INDEX	SHEET
7/11/18	REVISED	FDOT	FY 2019-20 STANDARD PLANS	PAVEMENT MARKINGS
			711-001	3 of 13



DATE	DESCRIPTION	PROJECT	INDEX	SHEET
7/11/18	REVISED	FDOT	FY 2019-20 STANDARD PLANS	PAVEMENT MARKINGS
			711-001	11 of 13



DATE	DESCRIPTION	PROJECT	INDEX	SHEET
7/11/18	REVISED	FDOT	FY 2019-20 STANDARD PLANS	UTILITY ADJUSTMENTS THRU EXISTING PAVEMENT
			125-001	1 of 2



DESIGNED BY:	A.M.H.
DRAWN BY:	D.M.S.
APPROVED:	J.A.F.
JOB CODE:	CCU277A
SCALE:	N/A

DESIGNED BY: A.M.H.

DRAWN BY: D.M.S.

APPROVED: J.A.F.

JOB CODE: CCU277A

SCALE: N/A

GradyMinor

Civil Engineers • Land Surveyors • Planners • Landscape Architects

Cert. of Auth. EB 0005151 Cert. of Auth. LB 0005151

3800 Via Del Rey
Bonita Springs, Florida 34134

Bonita Springs: 239.947.1144 www.GradyMinor.com Fort Myers: 239.690.4380

Palm River Public Utilities Renewal Project

MISCELLANEOUS DETAILS

ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88)
CONVERSION FACTOR TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) IS +1.234'

ALLYSON M. HOLLAND, P.E.
FLORIDA P.E. LICENSE NO. 70177

MUNICIPALITY: Collier County

SEC./TWN./RGE: 22&23/48S/25E

DATE: DECEMBER, 2023

SUBMITTAL TYPE: BID

SHEET 19 OF 20

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