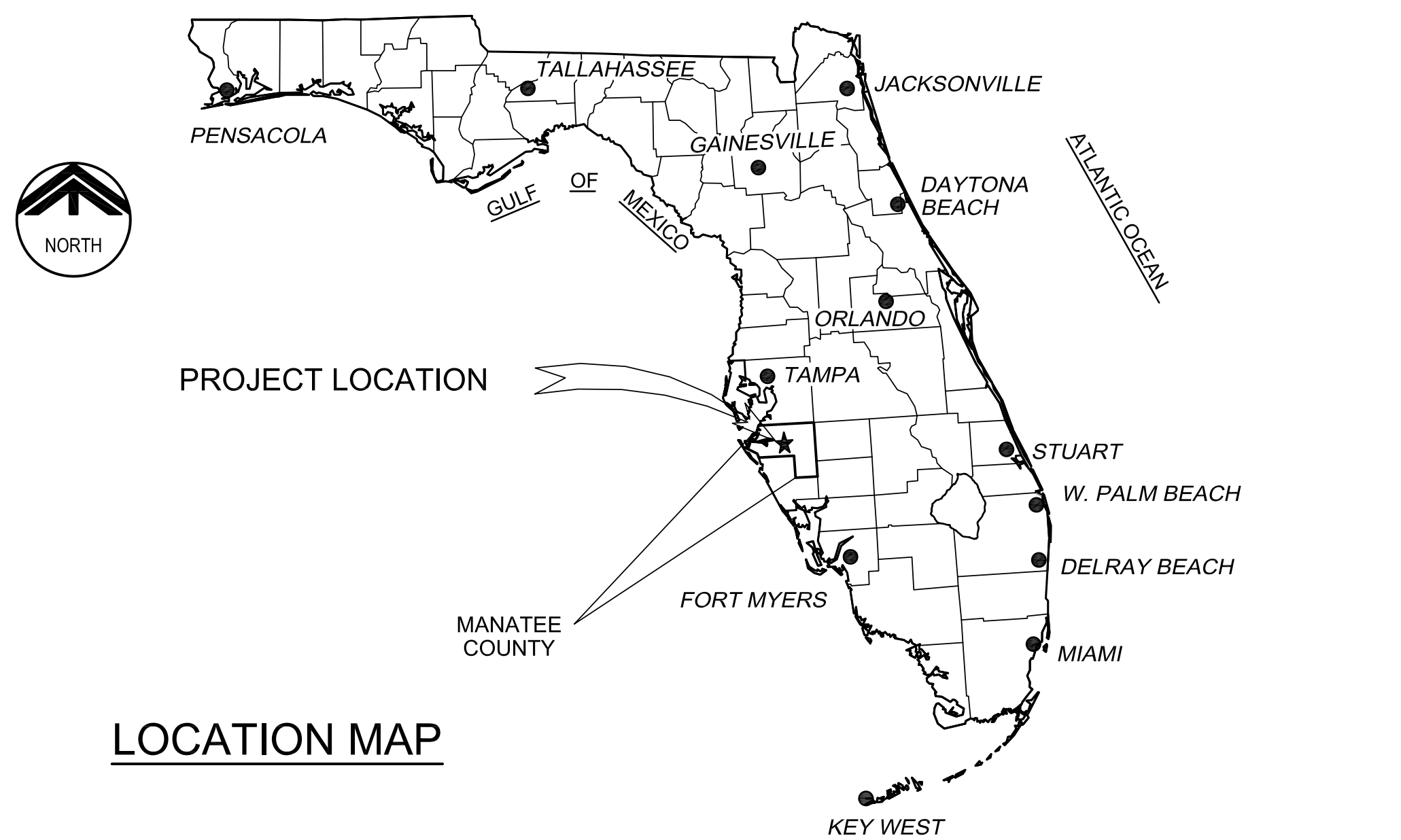
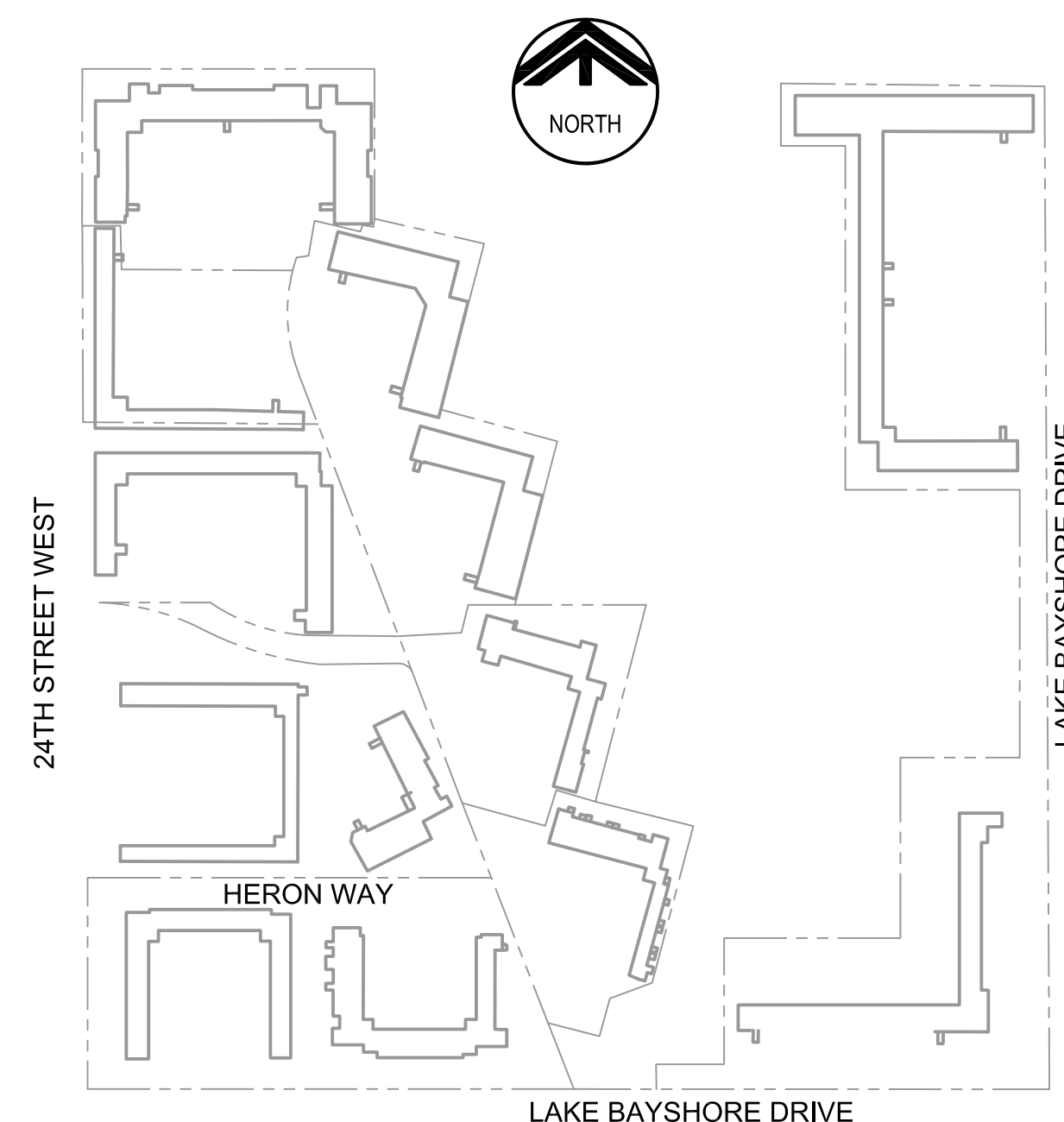


MANATEE COUNTY GOVERNMENT PUBLIC WORKS DEPARTMENT (MANATEE COUNTY, FLORIDA) BAYSHORE ON THE LAKES WATERLINE REPLACEMENT MANATEE COUNTY PROJECT NO. 6072470

NOVEMBER 2010

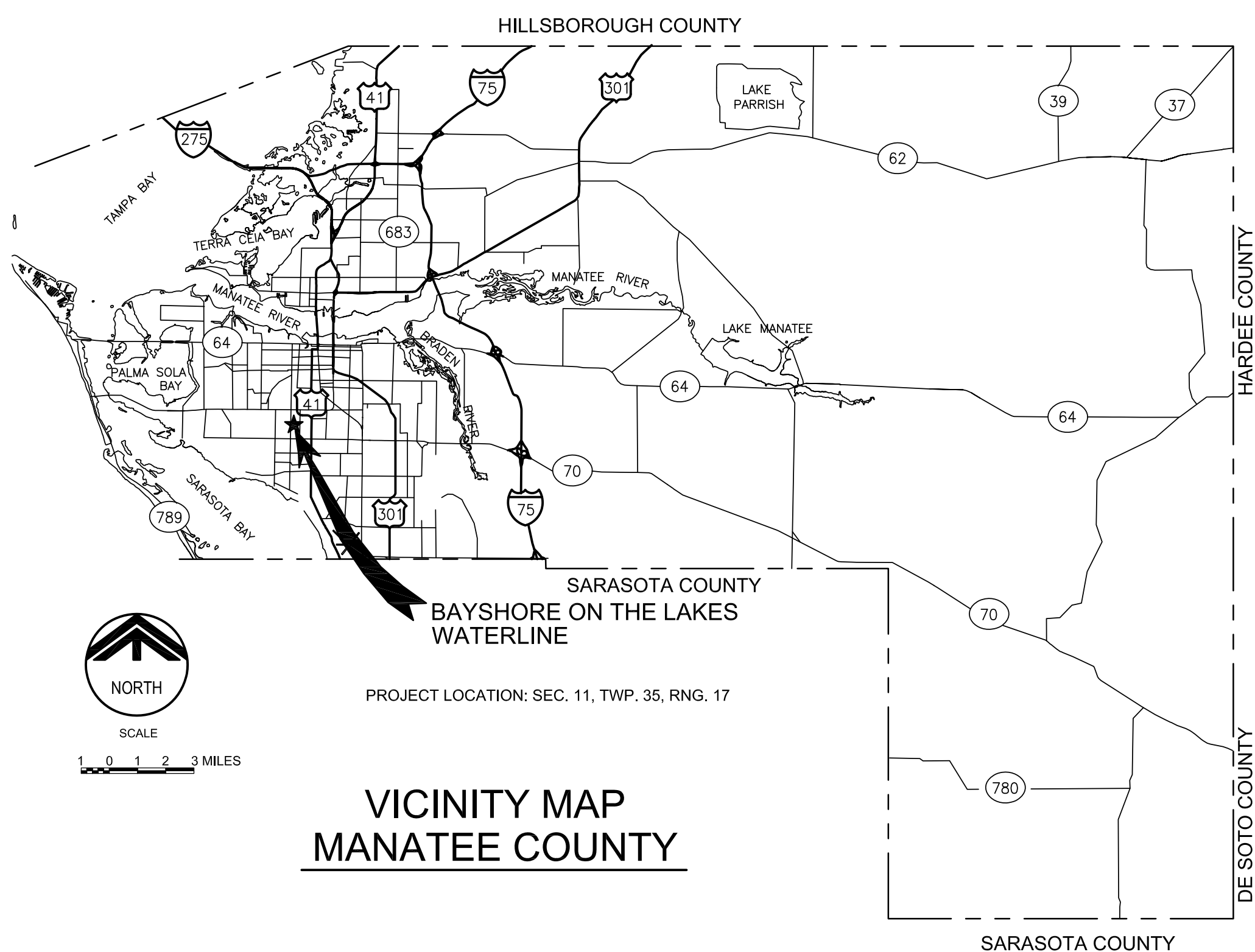


LOCATION MAP



401 NORTH CATTLEMEN ROAD, SUITE 306
SARASOTA, FLORIDA 34232
PHONE: (941) 371-9832 FAX: (941) 371-9873
CA 00008571

DWG NO	TITLE
GENERAL	
G-01	COVER SHEET
G-02	KEY PLAN
G-03	GENERAL NOTES
G-04	EXISTING CONDITIONS I
G-05	EXISTING CONDITIONS II
G-06	EXISTING CONDITIONS III
G-07	EXISTING CONDITIONS IV
CIVIL	
P-01	WATERLINE PLAN
P-02	WATERLINE PLAN
P-03	WATERLINE PLAN
P-04	WATERLINE PLAN
P-05	SERVICE CONNECTION & METER SCHEDULE
TYPICAL DETAILS	
T-01	TYPICAL DETAILS
T-02	TYPICAL DETAILS
T-03	TYPICAL DETAILS
T-04	WATERLINE DETAILS
T-05	EROSION CONTROL DETAILS
T-06	CROSSING DETAILS FOR DWG P-03
T-07	BEST MANAGEMENT PRACTICES
T-08	BEST MANAGEMENT PRACTICES

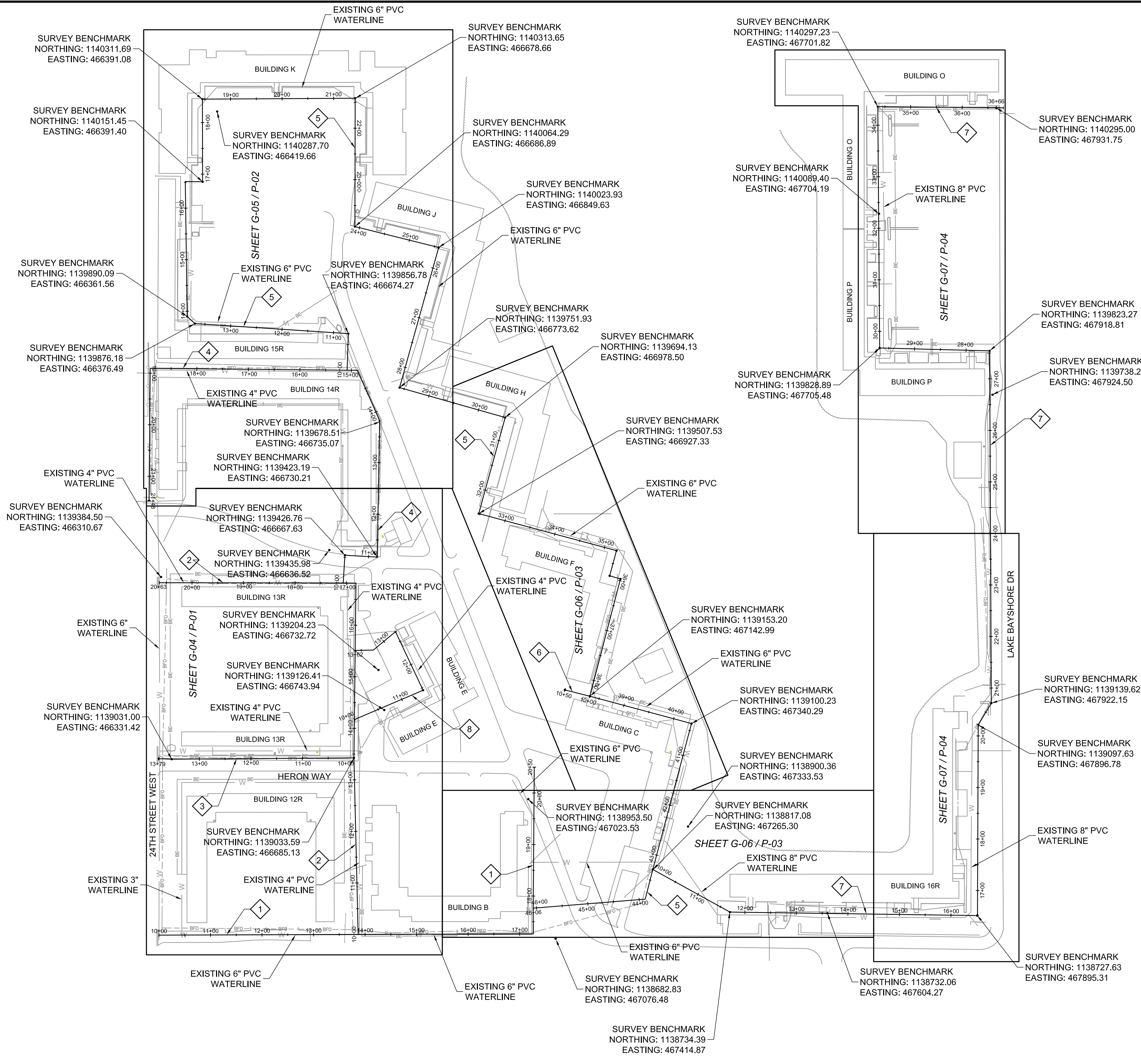
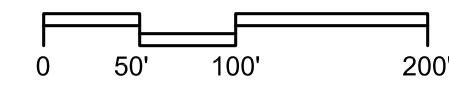


VICINITY MAP
MANATEE COUNTY

G. DEAN MILTON, P.E.
BOARD OF PROFESSIONAL
ENGINEERS NO.: 52719

DATE: _____

Last Opened by: 11-23-10 08:26am DPerry



LEGEND

- 1 BASELINE A
- 2 BASELINE B
- 3 BASELINE C
- 4 BASELINE E
- 5 BASELINE F
- 6 BASELINE G
- 7 BASELINE H
- 8 BASELINE I

LINETYPE LEGEND

- W EXISTING WATERLINE
- S EXISTING SANITARY SEWER
- SD EXISTING STORM DRAIN
- FM EXISTING FORCEMAIN
- BE EXISTING BURIED ELECTRIC
- OHL EXISTING OVERHEAD ELECTRIC
- G EXISTING GAS LINE
- BT EXISTING BURIED TELEPHONE
- BFO EXISTING BURIED FIBEROPTIC
- UNK EXISTING UNKNOWN UTILITY
- EXISTING FENCE
- EDGE OF WATER

SYMBOL LEGEND

●	CAPPED IRON ROD FOUND
○	CAPPED IRON ROD SET
●	NAIL & DISK FOUND
○	NAIL & DISK SET
■	CATCH BASIN
■	GRATE INLET
⊙	DRAINAGE MANHOLE
⊙	SIGN
□	TELEPHONE WIRE BOX
⊙	CEDAR TREE
⊙	CITRUS TREE
⊙	MISC. TREE
⊙	OAK TREE
⊙	PALM TREE
⊙	PINE TREE
⊙	SANITARY CLEAN OUT
⊙	CONCRETE LIGHT POLE
⊙	FIRE HYDRANT
⊙	GUY ANCHOR
⊙	SANITARY MANHOLE
⊙	METAL LIGHT POLE
⊙	WATER METER
⊙	SPRINKLER HEAD
⊙	TELEPHONE SERVICE
⊙	TELEPHONE BOX
⊙	TRANSFORMER
⊙	SANITARY VALVE
⊙	WATER VALVE
⊙	WOOD POWER POLE
⊙	UNDERGROUND PROPANE
⊙	AIR RELEASE VALVE

REV	DATE	BY	DESCRIPTION

DESIGNED GDM	G. DEAN MILTON, P.E. BOARD OF PROFESSIONAL ENGINEERS NO.: 52719
DRAWN DVP	
CHECKED TFT	
DATE NOVEMBER 2010	

DATE: _____

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 SARASOTA, FL 34232

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MANATEE COUNTY

BAYSHORE ON THE LAKES WATERLINE REPLACEMENT










 KEY PLAN

VERIFY SCALES	JOB NO. 7880F.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. G-02
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

GENERAL NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF MANATEE COUNTY PUBLIC WORKS, UTILITY STANDARDS (MARCH 2009) AND ALL PERMITS GOVERNING FEDERAL, STATE AND LOCAL AGENCIES.
- EXISTING UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN LOCATED FROM THE BEST AVAILABLE SURVEY DATA AND RECORDS AND THEIR LOCATIONS MUST ONLY BE CONSIDERED AS APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS AND ANY OTHER UTILITIES WHICH MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN THE AREA AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION. CALL FLORIDA SUNSHINE STATE ONE CALL CENTER AT 1-800-432-4770. ALL COORDINATION AND REQUIRED UTILITY COMPANY TEMPORARY PROTECTION SHALL ALL BE AT THE CONTRACTOR'S EXPENSE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE UNINTERRUPTION OF SERVICE AND REPLACEMENT OF DAMAGED UTILITIES. UTILITY COMPANIES WITH LOCATED FACILITIES WITHIN THE PROJECT AREA INCLUDE: TECO/PEOPLES GAS CO., VERIZON FLORIDA INC., FLORIDA POWER & LIGHT, BRIGHTHOUSE NETWORKS, MANATEE COUNTY.
- DUE TO THE NATURE OF THE PROJECT SITE, THE HORIZONTAL SEPARATION OF NEW WATERLINES SHALL COMPLY WITH THE REQUIREMENTS OF FAC 62-555.314. NEW WATER LINES SHALL BE INSTALLED TO PROVIDE A HORIZONTAL SEPARATION OF AT LEAST 6 FEET, AND PREFERABLY 10 FEET, BETWEEN THE OUTSIDE OF THE WATERLINE AND THE OUTSIDE OF ANY GRAVITY SANITARY SEWER OR WASTEWATER FORCE MAIN. THE MINIMUM SEPARATION DISTANCE BETWEEN THE WATERLINES AND GRAVITY SANITARY SEWER CAN BE REDUCED TO 3 FEET WHERE THE BOTTOM OF THE WATERLINE IS AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER. NEW WATER LINES SHALL BE INSTALLED TO PROVIDE A HORIZONTAL SEPARATION OF AT LEAST 3 FEET BETWEEN THE OUTSIDE OF THE WATERLINE AND THE OUTSIDE OF ANY STORM SEWER OR STORMWATER FORCE MAIN.
- DUE TO THE NATURE OF THE PROJECT SITE, THE VERTICAL SEPARATION OF NEW WATERLINES SHALL COMPLY WITH THE REQUIREMENTS OF FAC 62-555.314. NEW WATERLINES SHALL BE INSTALLED SO THAT THE OUTSIDE OF THE WATERLINE IS AT LEAST 6 INCHES, PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF ANY GRAVITY SANITARY SEWER OR STORM SEWER. WATER LINES SHALL BE INSTALLED SO THAT THE WATERLINE IS AT LEAST 12 INCHES ABOVE OR BELOW ANY PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCEMAIN OR STORMWATER FORCE MAIN. AT THE CROSSINGS ONE FULL LENGTH OF WATERLINE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THAT THE WATERLINE JOINTS ARE ARE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE.
- THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY AND SHALL PROVIDE ALL NECESSARY SHEETING, SHORING AND BRACING TO PROTECT ADJACENT STRUCTURES, UTILITIES AND PAVEMENT OR TO MINIMIZE TRENCH WIDTH ALL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE HAY BALES AND/OR SILT FENCES AROUND THE CONSTRUCTION ACTIVITY AS NECESSARY TO PREVENT THE TRANSPORTATION OF SEDIMENTS DOWNSTREAM INTO STREETS, STORM SEWERS, OPEN DITCHES, LAKES, RETENTION PONDS, PRIVATE PROPERTY, ETC. AND SHALL PERFORM ALL NECESSARY INSPECTIONS AND MAINTENANCE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNING AGENCY REQUIREMENTS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S CONSTRUCTION MANAGER REGARDING ANY CONFLICTS OR DISCREPANCIES ARISING DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES, STRUCTURES OR UTILITIES CAUSED BY CONSTRUCTION OPERATIONS WHICH HAVE BEEN PREVIOUSLY LOCATED BY THEIR RESPECTIVE OWNERS.
- CONNECTIONS TO EXISTING FACILITIES SHALL BE DONE IN THE PRESENCE OF THE UTILITY OWNER AND THE ENGINEER. THE CONTRACTOR SHALL GIVE AT LEAST 2 WEEKS NOTICE TO ALL PARTIES CONCERNED PRIOR TO BEGINNING WORK.
- ALL ADDITIONAL EXCAVATION AND DEMOLITION MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS OF COMPLIANCE WITH THESE REGULATIONS.
- ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY DAMAGED ITEMS SUCH AS DRIVEWAYS, MAILBOXES, STREET SIGNS, FENCES, ETC. AS DEEMED NECESSARY BY THE COUNTY AUTHORITY AND/OR ENGINEER.
- THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL APPLICABLE PERMITS.
- ALL FITTINGS USED ON THIS PROJECT SHALL BE DUCTILE IRON UNLESS OTHERWISE SHOWN. ALL MECHANICAL JOINT FITTINGS AND VALVES ARE TO BE RESTRAINED USING THE "MEGA-LUG" SYSTEM OR EQUAL.

- THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER DUE TO RESIDENTIAL COMPLAINTS, INSTALL NOISE ABATEMENT Baffles POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR'S WORK SHALL BE SCHEDULED BETWEEN 8:00 AM AND 7:00 PM WITH A MAXIMUM OF 10 HOURS PER DAY AND 5 DAYS PER WEEK. SHOULD THE CONTRACTOR REQUIRE MORE WORK HOURS TO MAINTAIN THE CONTRACT SCHEDULE, A REQUEST SHALL BE SUBMITTED IN WRITING TO THE ENGINEER STATING THE REASON WHY AND HOW MANY ADDITIONAL HOUR ARE NEEDED. ALSO, THE CONTRACTOR SHALL REQUEST IN WRITING TO THE ENGINEER WITH A MINIMUM OF 72 HOURS ADVANCE NOTICE OF ANY PLANS FOR WORKING ON ANY WEEKEND DAYS OR OBSERVED NATIONAL HOLIDAYS. SHOULD THE ENGINEER APPROVE THE REQUEST FOR ADDITIONAL HOURS, THE CONTRACTOR SHALL REIMBURSE THE OWNER FOR ACTUAL COSTS FOR RESIDENT INSPECTION INCURRED DURING THE ADDITIONAL HOURS APPROVED. THE HOURLY RATE FOR THESE ADDITIONAL HOURS WILL BE \$90.00 PER HOUR.
- THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING: "STATE OF FLORIDA MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS", "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", MANATEE COUNTY STANDARDS, APPLICABLE FDOT 600 SERIES STANDARD INDEXES FOR TRAFFIC CONTROL THROUGH WORK ZONES AND "FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
- THE CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN (TCP). THE TCP SHALL BE PREPARED IN CONFORMANCE WITH AND IN THE FORM OUTLINED IN THE CURRENT VERSION OF THE "ROADWAY PLANS PREPARATION MANUAL". THE PLAN SHALL INDICATE A TCP FOR EACH PHASE OF THE CONTRACTOR'S ACTIVITY.
- THE CONTRACTOR SHALL FULLY IMPLEMENT THE TCP PRIOR TO COMMENCEMENT OF ANY POTENTIAL TRAFFIC DISTURBING ACTIVITIES. IN NO CASE SHALL THE CONTRACTOR BEGIN WORK USING THE TCP UNTIL SUCH PLAN HAS BEEN APPROVED IN WRITING BY MANATEE COUNTY AND THE PROJECT ENGINEER. EXCEPT IN AN EMERGENCY, NO CHANGES TO THE APPROVED PLAN WILL BE ALLOWED UNTIL WRITTEN APPROVAL TO CHANGE SUCH PLAN HAS BEEN RECEIVED. THE TCP SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.
- THE CONTRACTOR SHALL PROVIDE PROPER WARNING SIGNS, BARRICADES, TEMPORARY FENCING AND OTHER APPROPRIATE SAFETY DEVICES DURING THE EXECUTION OF THE WORK TO PROVIDE PUBLIC PROTECTION AND SAFETY.
- MAINTENANCE OF TRAFFIC SIGNS AND OTHER TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR DURING CONSTRUCTION AS REQUIRED BY THE FDOT.
- THE CONTRACTOR SHALL PROVIDE ACCESS FOR TRAFFIC AT ALL TIMES DURING CONSTRUCTION, INCLUDING MINIMUM PARKING SPACES FOR RESIDENTS.
- NOTIFY THE ENGINEER 48 HOURS PRIOR TO COMMENCEMENT OF OPEN-CUTTING ANY COUNTY ROAD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TO THE ENGINEER, A SILTATION/EROSION PLAN MEETING ALL REQUIREMENTS OF FDOT INDEX NO.'S 102 AND 103 FOR APPROVAL AND INSTALLATION PRIOR TO ANY CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE AND SCHEDULE TIE-INS TO MINIMIZE DOWNTIME.
- THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL CLEARED VEGETATION WITHIN 5 DAYS OF CLEARING AND GRUBBING WORK.
- ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE PIPE AND HEADWALLS WHETHER SHOWN ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH FDOT STANDARDS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF WAY LINES, BASELINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT.
- FIELD DEFLECTIONS FOR THE PIPELINES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS. OTHERWISE APPROPRIATE FITTING SHALL, AT NO ADDITIONAL COST, BE USED. CONTRACTOR SHALL DETERMINE AND PROVIDE FITTINGS AS REQUIRED FOR DEFLECTIONS BASED UPON FIELD CONDITIONS WHERE SPECIFIC FITTING REQUIREMENTS ARE NOT IDENTIFIED.

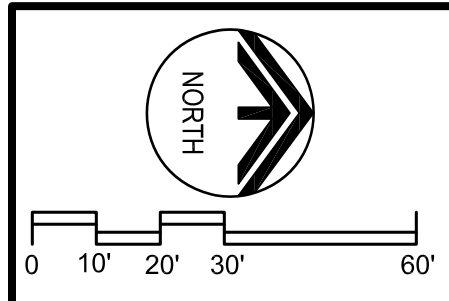
- RESTORATION SHALL INCLUDE AT A MINIMUM, SOLID SODDING FOR ALL UNPAVED AREAS DISTURBED BY THE CONTRACTOR'S OPERATION.
- ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM ROAD PAVEMENTS, DRIVEWAYS, SIDEWALKS AND DRAINAGE SWALES AND EXISTING PATTERNS RESTORED AT THE COMPLETION OF WORK EACH DAY.
- ALL FILL AND ROAD MATERIALS EXCAVATED SHALL BE DISPOSED OF IN ACCORDANCE WITH THE SPECIFICATIONS.
- NOTIFY PROPERTY OWNER AND ENGINEER 72 HOURS IN ADVANCE OF ALL PLANNED UTILITY INTERRUPTION AND ROADWAY OR PARKING AREA CUTS.
- ALL DRIVEWAYS, SIDEWALKS AND OTHER RIGHT-OF-WAY OR EASEMENT ENCROACHMENTS SHALL BE RESTORED EQUAL TO OR BETTER THAN EXISTING CONDITIONS. COMMERCIAL DRIVEWAYS SHALL REMAIN OPERATIVE DURING NORMAL BUSINESS HOURS UNLESS A DETOUR IS PROVIDED AND APPROVED BY THE ENGINEER.
- ALL BURIED DIP SHALL BE ENCASED IN POLYETHYLENE SLEEVES PER AWWA-C105.
- ALL TRENCHING FOR NEW WATERLINES SHALL BE PER MANATEE COUNTY DETAILS AS NOTED BELOW
 - UNDER UNIMPROVED SURFACE 
 - WITHIN ASPHALT PAVEMENT 
 - WITHIN CONCRETE PAVEMENT 
 - WITHIN CONCRETE DRIVEWAY 
- WATER PIPELINES INSTALLED UNDER EXISTING PAVEMENT, CONCRETE ROADS OR PARKING LOTS SHALL BE DUCTILE IRON WITH TYPE "K" COPPER OR 316 SS SCHEDULE 40 SERVICES.
- DUCTILE IRON PIPE SHALL CONFORM TO AWWA C110 AND AWWA C151 AND SHALL BE PRESSURE CLASS 350.
- ALL DUCTILE IRON PIPE SHALL HAVE A STANDARD 1 MIL ASPHALTIC COATING PER AWWA C151 ON THE EXTERIOR AND SHALL HAVE A STANDARD THICKNESS CEMENT LINING ON THE INSIDE IN ACCORDANCE WITH AWWA C104. ALL DUCTILE OR GRAY IRON FITTINGS SHALL HAVE STANDARD THICKNESS CEMENT LININGS ON THE INSIDE PER AWWA C104 AND AN ASPHALTIC EXTERIOR COATING OR A FACTORY APPLIED FUSION BONDED EPOXY COATING BOTH INSIDE AND OUTSIDE IN ACCORDANCE WITH AWWA C550.
- THRUST RESTRAINT DEVICES FOR DUCTILE IRON PIPE SHALL BE EITHER CAST-IN-PLACE CONCRETE THRUST BLOCKS OR RESTRAINED JOINT LENGTH PER TYPICAL DETAIL. CAST-IN-PLACE CONCRETE FOR THRUST BLOCKS SHALL HAVE A 28-DAY STRENGTH OF 3000 PSI. RESTRAINED JOINT SHALL BE PUSH-ON RESTRAINED OR MECHANICALLY RESTRAINED JOINT.
- ALL FITTINGS FOR PVC PIPE SHALL BE DUCTILE OR GRAY IRON WITH MECHANICAL JOINTS AND SHALL CONFORM TO AWWA C110 OR AWWA C153.
- ALL WATER PIPELINES INSTALLED IN TRENCHES SHALL HAVE A CONTINUOUS, NO.10 GAUGE SOLID COPPER WIRE ATTACHED TO THE PIPE WITH MINIMUM 30-MILS POLYETHYLENE INSULATION RATED UF OR USE. THE WIRE INSULATION SHALL BE COLOR CODED BLUE, LAID ON TOP OF THE PIPE AND SECURED IN PLACE AT EVERY JOINT AND AT 5-FOOT INTERVALS.
- ALL WATER PIPELINES INSTALLED IN TRENCHES SHALL BE MARKED WITH WARNING TAPE BURIED DIRECTLY OVER THE PIPE CONTINUOUSLY. 3-INCH WIDE WARNING TAPE SHALL BE PLACED 12-INCHES BELOW FINISHED GRADE OR 6-INCH WIDE WARNING TAPE SHALL BE PLACED BETWEEN 12 AND 24-INCHES BELOW FINISHED GRADE. RESTRAINED JOINT SHALL BE PUSH-ON RESTRAINED OR MECHANICALLY RESTRAINED JOINT.
- ALL PROPOSED FACILITIES SHALL HAVE A MINIMUM DEPTH OF COVER OF 36-INCHES.
- CONTRACTOR SHALL RESTORE EACH STREET OR PARKING AREAS WITHIN THREE (3) WEEKS OF STARTING WORK ON THAT STREET OR PARKING AREA.
- RESTRAIN PIPE LENGTHS PER DETAILS  AND .
- WHERE REMOVAL OF EXISTING FIRE HYDRANTS ARE CALLED FOR ON THE DRAWINGS, REMOVE HYDRANT, BARRELL CONCRETE PAD, THRUST BLOCK AND PIPING UP TO ISOLATION VALVE. CLOSE GATE VALVE AND INSTALL PLUG.
- ALL PROPOSED SERVICE CONNECTIONS PER DETAILS  OR .
- ALL EXISTING TREES ARE TO BE PROTECTED DURING CONSTRUCTION. REMOVAL OF TREES ARE NOT ALLOWED WITHOUT WRITTEN PERMISSION OF THE COUNTY AND PROPERTY OWNER.
- CONTRACTOR SHALL PREPARE RECORD DRAWINGS IN ACCORDANCE WITH MANATEE COUNTY PUBLIC WORKS, UTILITY STANDARDS (MARCH 2009).

BASIC CONSTRUCTION SEQUENCE:

- INSTALL NEW WATER LINE, SERVICES AND APPURTENANCES.
- CONNECT NEW WATER LINE TO EXISTING.
- PRESSURE TEST AND BACTERIAL TEST NEW WATER LINES.
- CONNECT NEW SERVICES TO NEW WATER LINES AFTER MANATEE COUNTY D.O.H. APPROVAL
- GROUT EXISTING WATER LINES

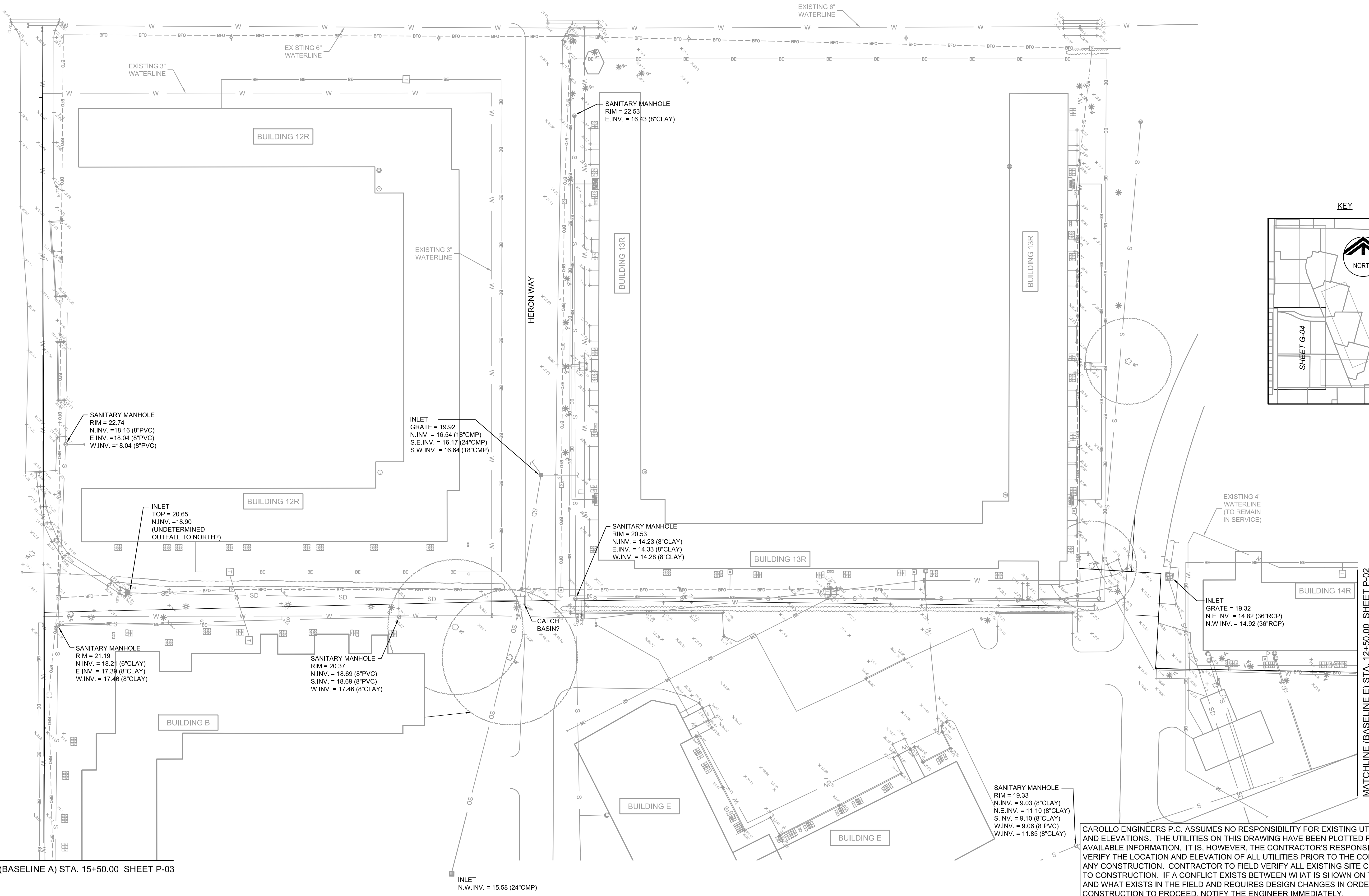
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				DESIGNED GDM	G. DEAN MILTON, P.E. BOARD OF PROFESSIONAL ENGINEERS NO.: 52719			 Engineers...Working Wonders With Water™ 401 NORTH CATTLEMEN ROAD, SUITE 306 SARASOTA, FL 34232 PHONE: (941) 371-9832 FAX: (941) 371-9873 CA 00008571	MANATEE COUNTY		VERIFY SCALES	JOB NO. 7880F.10
				DRAWN DVP					BAYSHORE ON THE LAKES WATERLINE REPLACEMENT		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO.
				CHECKED TFT							0  1"	G-03
				DATE NOVEMBER 2010		DATE: _____			GENERAL NOTES		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
REV	DATE	BY	DESCRIPTION									

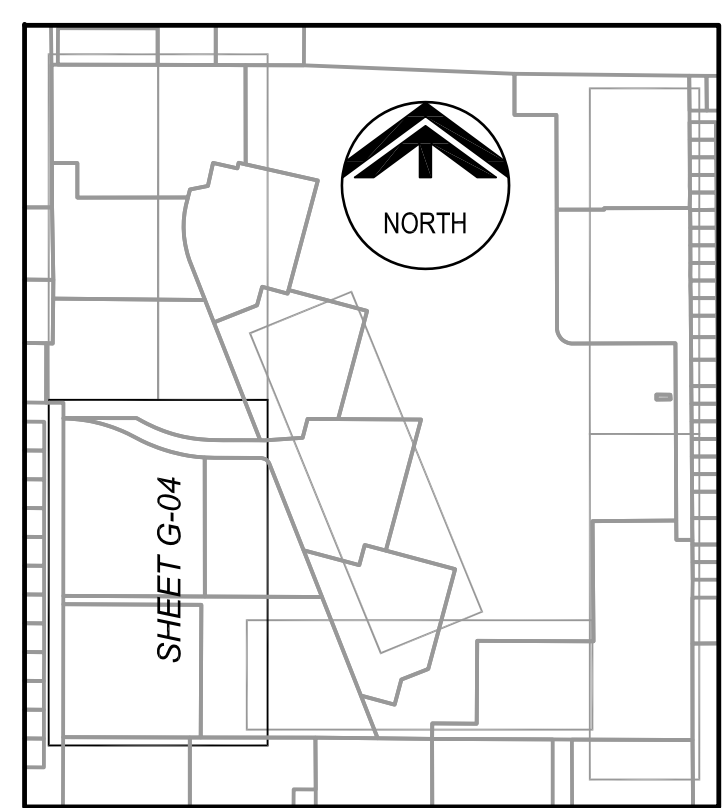


24TH ST W

24TH ST W



KEY



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REV	DATE	BY	DESCRIPTION

DESIGNED GDM	G. DEAN MILTON, P.E. BOARD OF PROFESSIONAL ENGINEERS NO.: 52719
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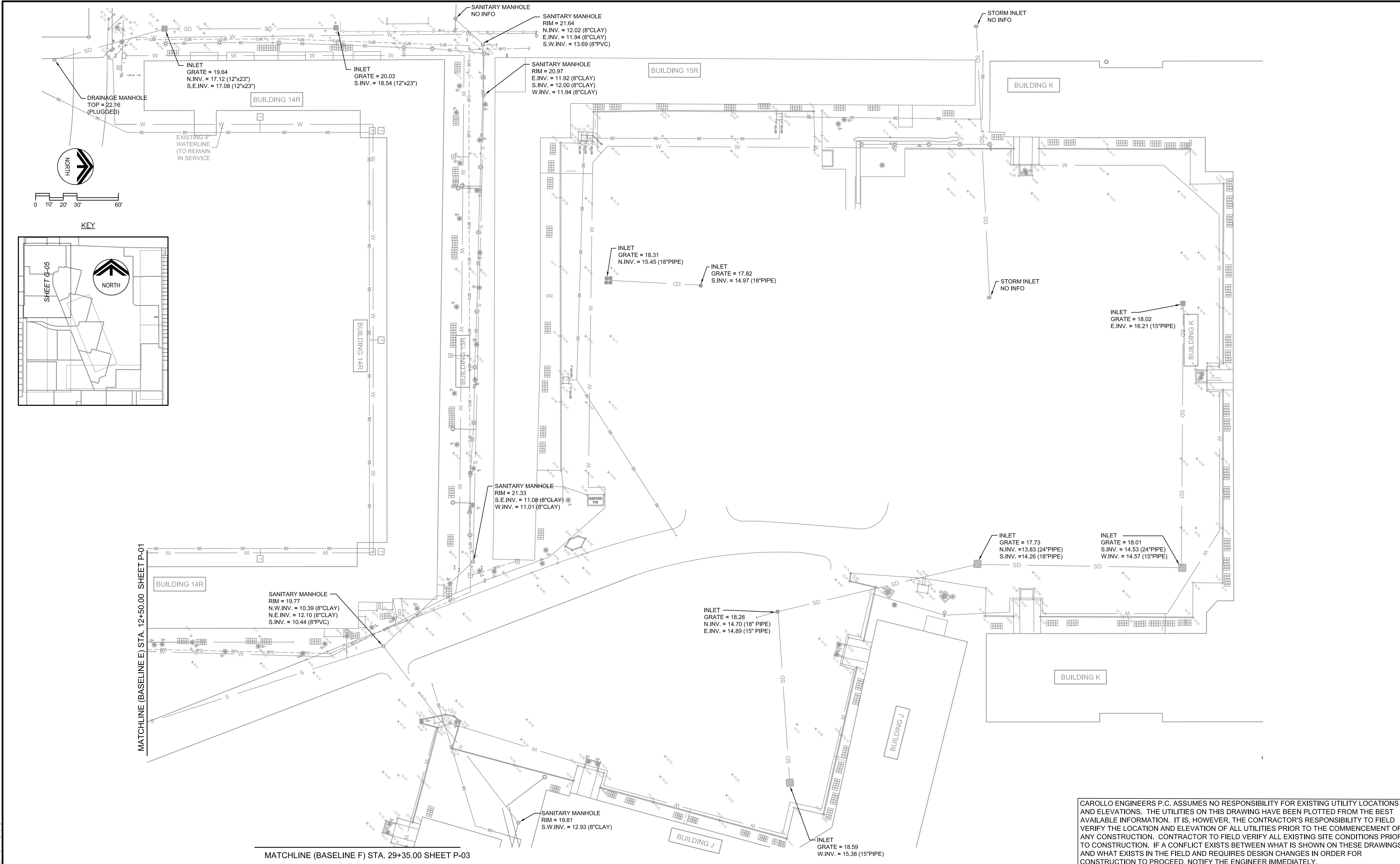
DATE: _____

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SARASOTA, FL 34232
PHONE: (941) 371-9832 FAX: (941) 371-9873
CA 00008571

MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT
EXISTING CONDITIONS I

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING	JOB NO. 7880F.10
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO. G-04



CAROLLO ENGINEERS P.C. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD AND REQUIRES DESIGN CHANGES IN ORDER FOR CONSTRUCTION TO PROCEED, NOTIFY THE ENGINEER IMMEDIATELY.

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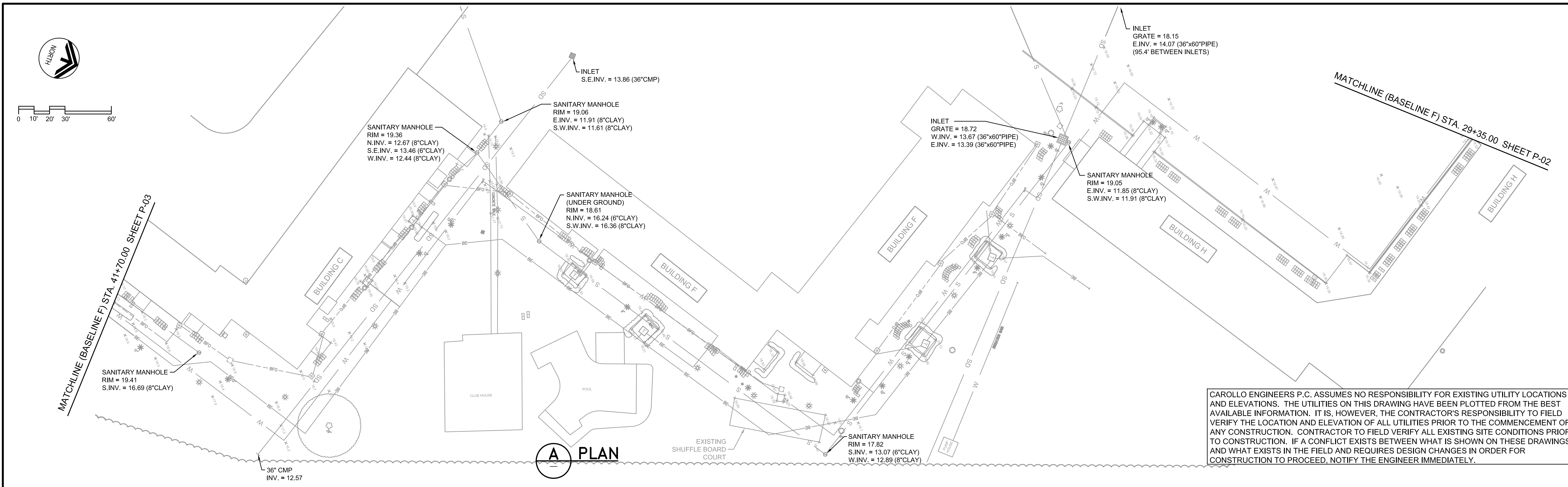
DESIGNED GDM	G. DEAN MILTON, P.E. BOARD OF PROFESSIONAL ENGINEERS NO.: 52719
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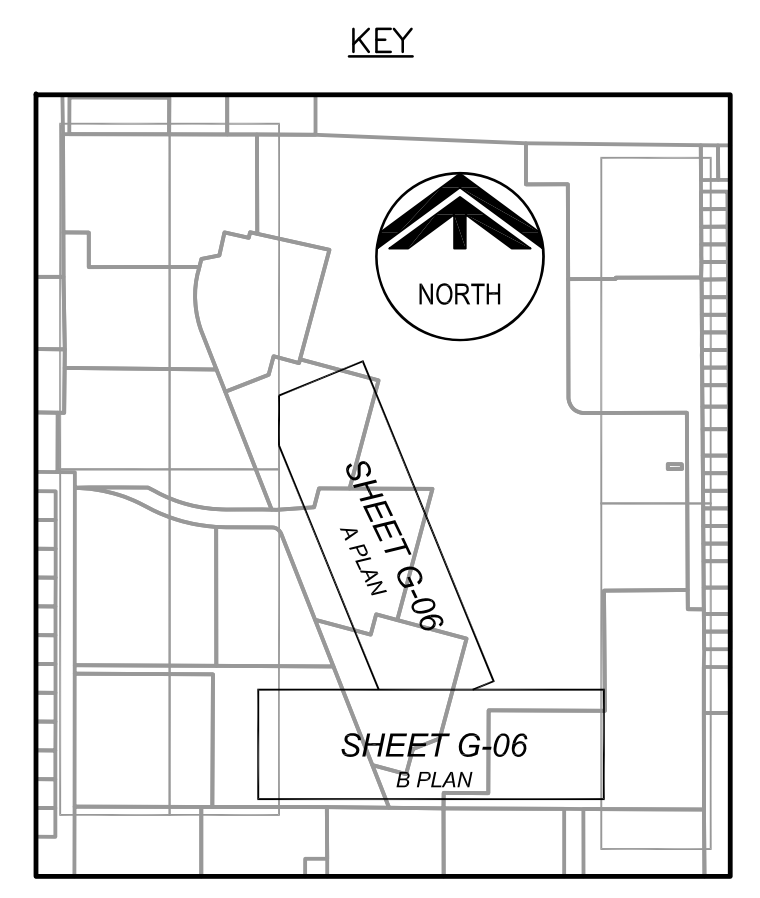
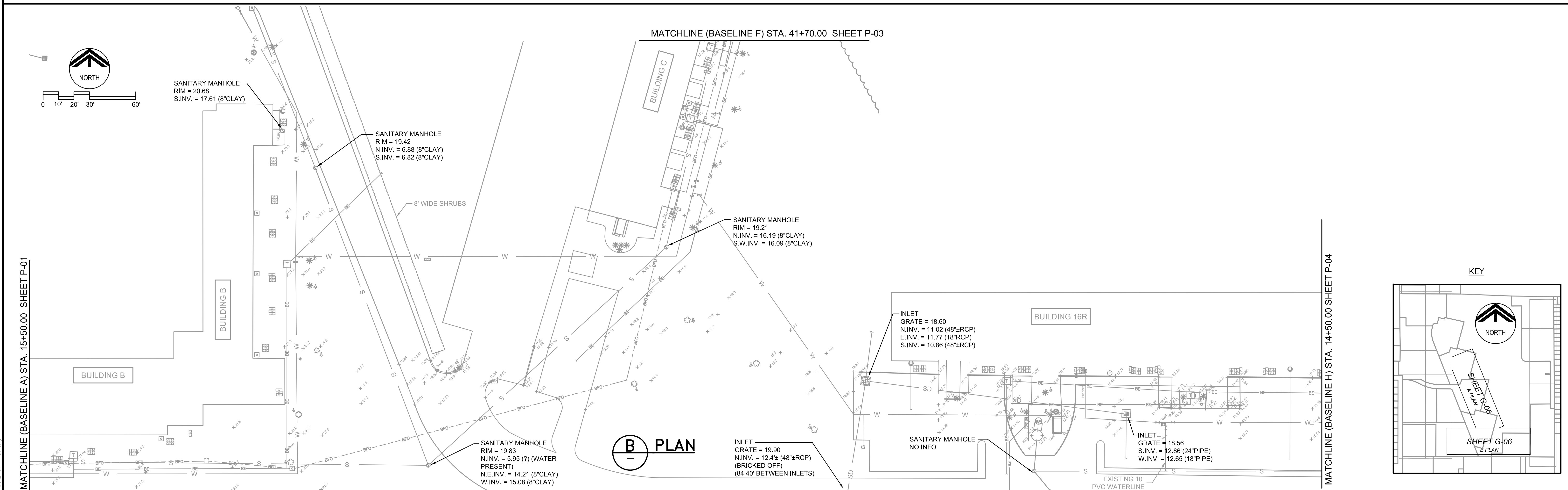
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CA 00008571

MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT
EXISTING CONDITIONS II

VERIFY SCALES	JOB NO. 7880F.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. G-05
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	



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REV	DATE	BY	DESCRIPTION

DESIGNED GDM	G. DEAN MILTON, P.E. BOARD OF PROFESSIONAL ENGINEERS NO.: 52719
DRAWN DVP	
CHECKED TFT	
DATE NOVEMBER 2010	

DATE	DATE

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MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT
EXISTING CONDITIONS III

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING

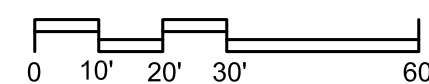
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7880F.10

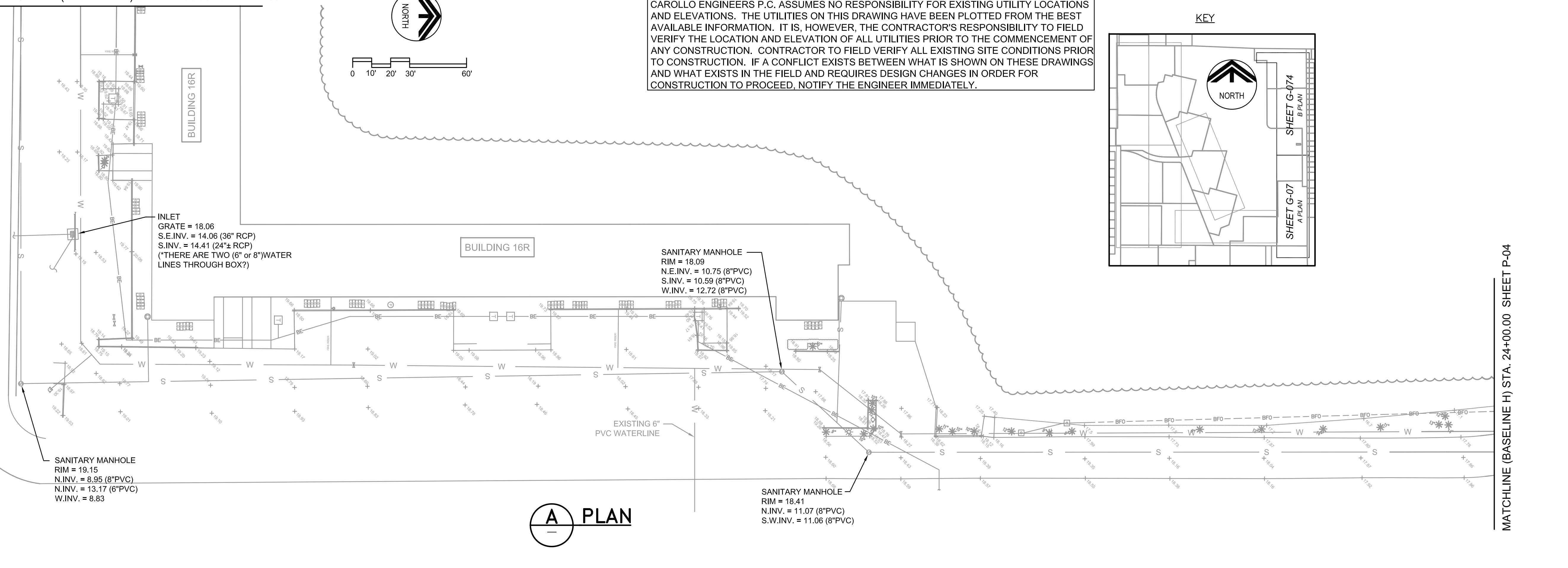
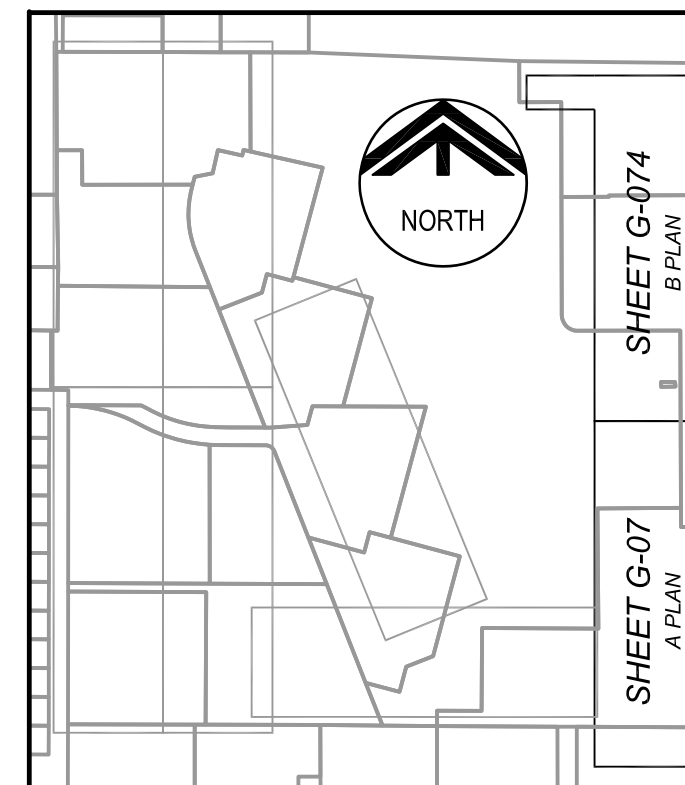
DRAWING NO.
G-06

MATCHLINE (BASELINE H) STA. 14+50.00 SHEET P-03



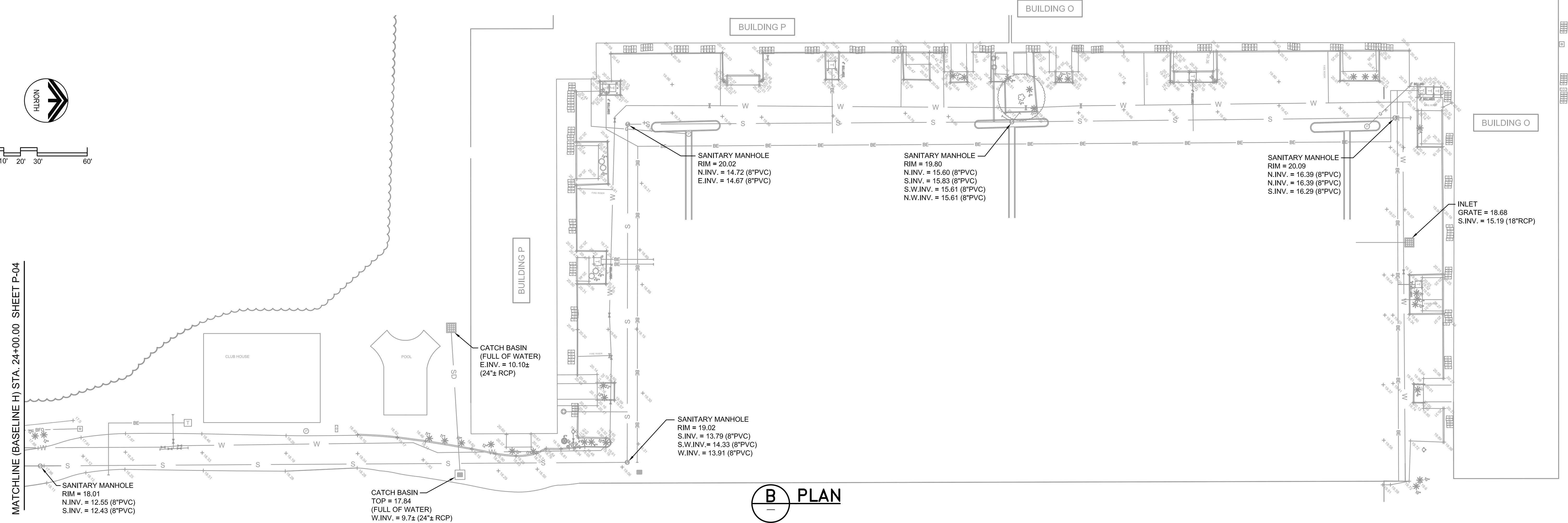
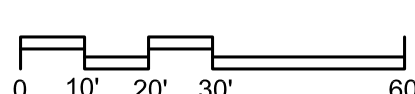
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KEY



A PLAN

MATCHLINE (BASELINE H) STA. 24+00.00 SHEET P-04



B PLAN

MATCHLINE (BASELINE H) STA. 24+00.00 SHEET P-04

Last Opened By: 11-23-10 08:27am DPerry

REV	DATE	BY	DESCRIPTION

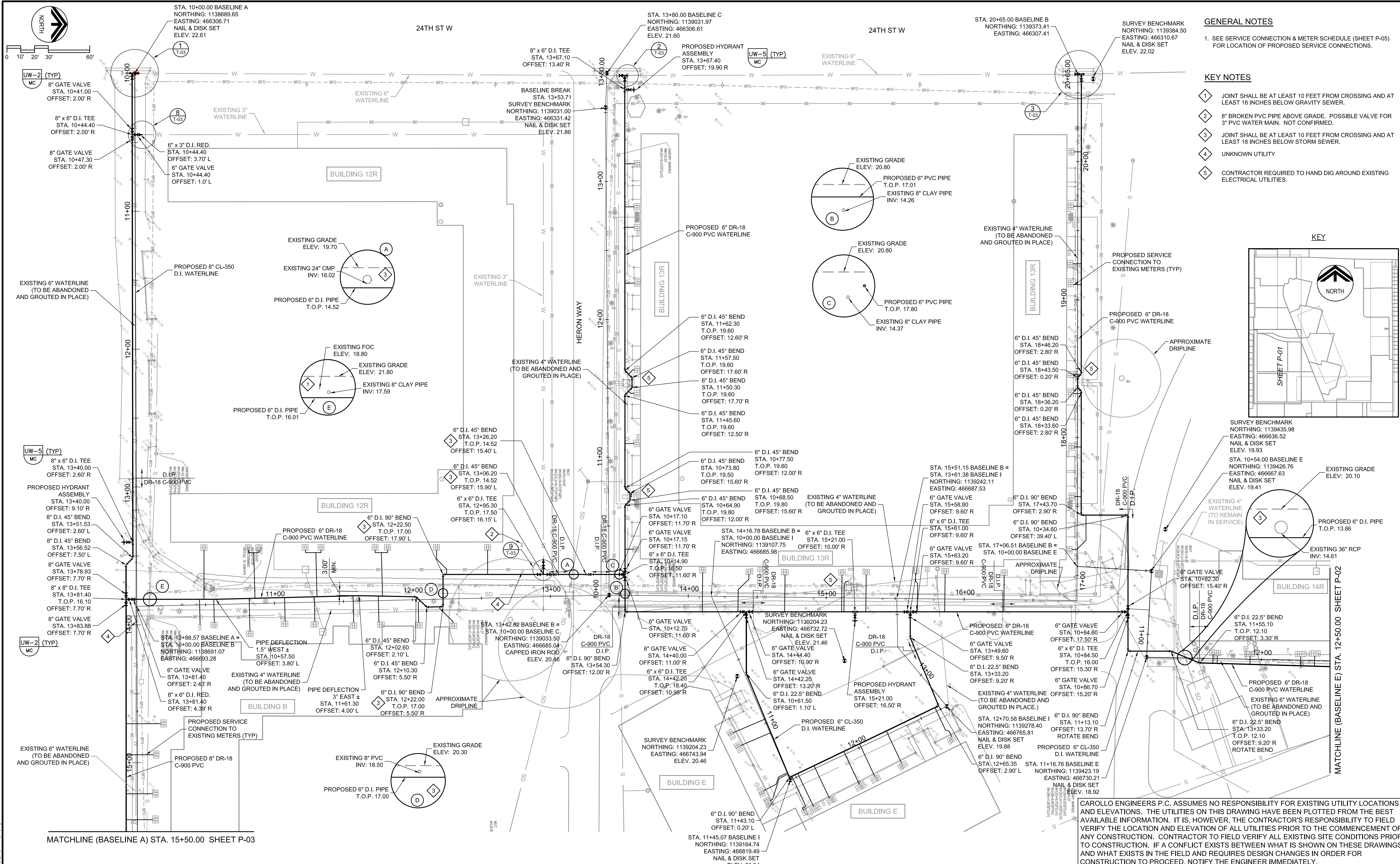
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DATE NOVEMBER 2010	DATE: _____

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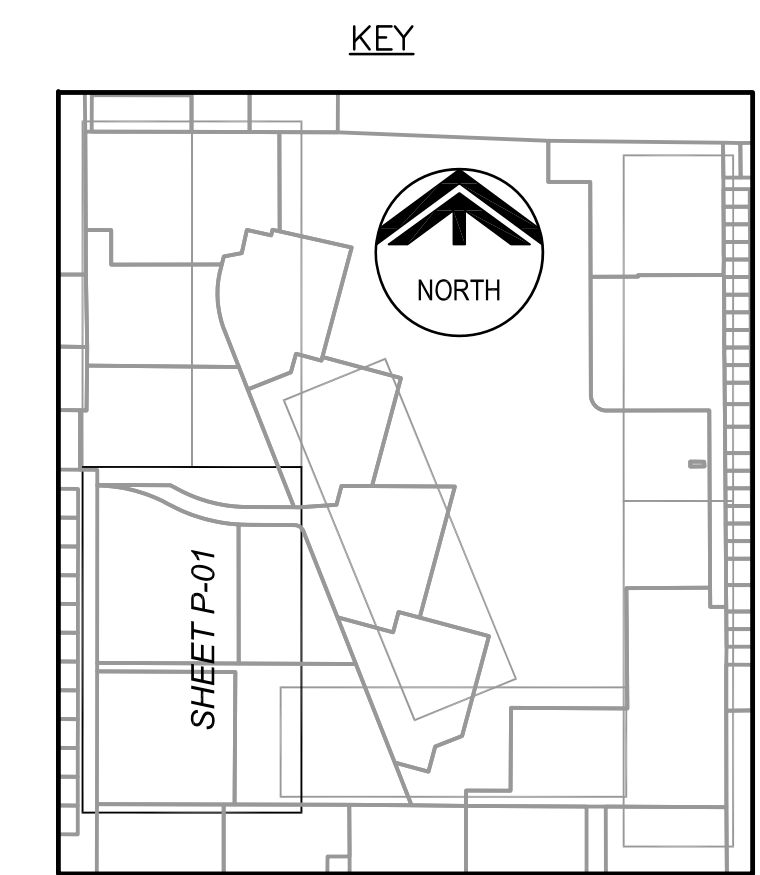
MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT
EXISTING CONDITIONS IV

VERIFY SCALES
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JOB NO. 7880F.10
DRAWING NO. G-07



- GENERAL NOTES**
- SEE SERVICE CONNECTION & METER SCHEDULE (SHEET P-05) FOR LOCATION OF PROPOSED SERVICE CONNECTIONS.
- KEY NOTES**
- JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND AT LEAST 18 INCHES BELOW GRAVITY SEWER.
 - 8\"/>



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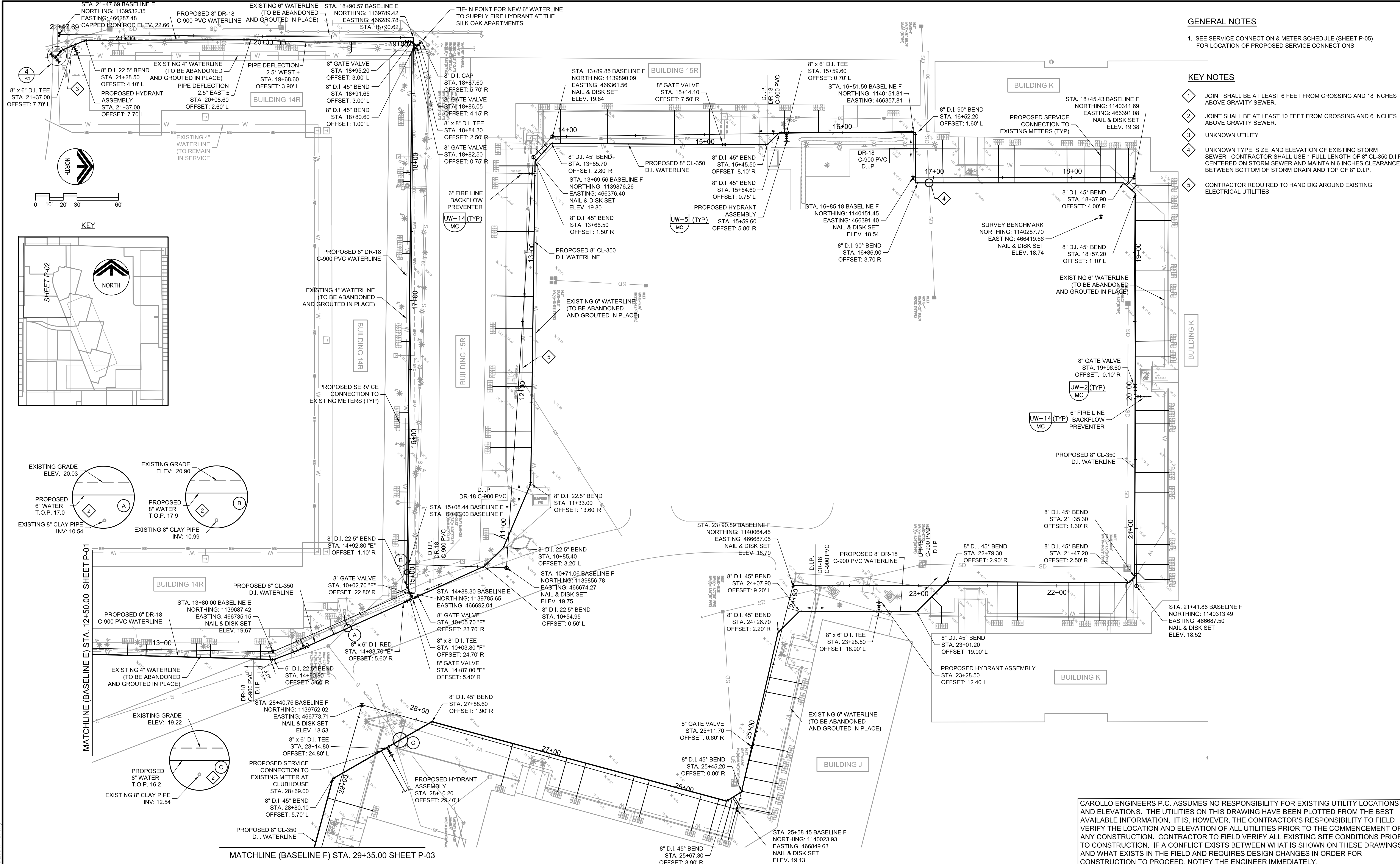
DATE	DATE
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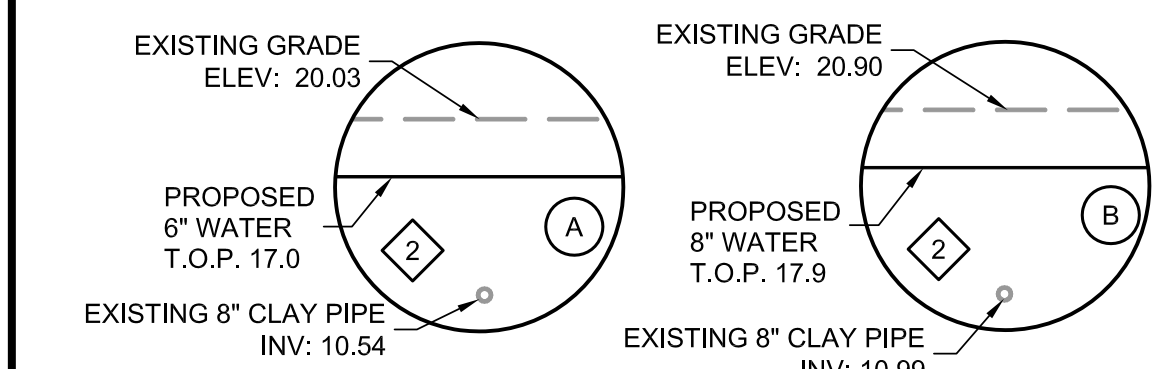
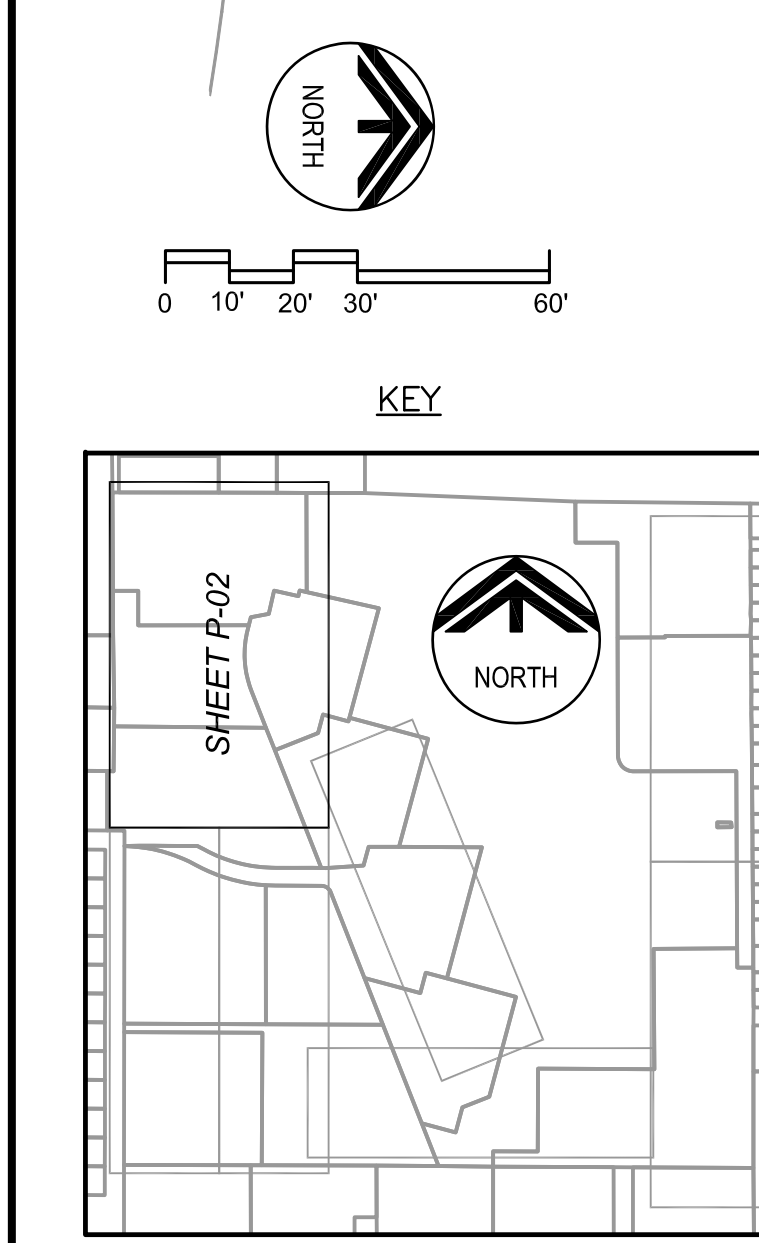
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MANATEE COUNTY	
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT	
WATERLINE PLAN	
BASLINE A STA. 10+00 TO 15+50.00	BASLINE E STA. 10+00 TO 12+50.00
BASLINE B STA. 10+00 TO 20+65.00	BASLINE I STA. 10+00 TO 13+61.38
BASLINE C STA. 10+00 TO 13+80.00	

VERIFY SCALES	JOB NO. 7880F.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. P-01
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	



- GENERAL NOTES**
- SEE SERVICE CONNECTION & METER SCHEDULE (SHEET P-05) FOR LOCATION OF PROPOSED SERVICE CONNECTIONS.
- KEY NOTES**
- JOINT SHALL BE AT LEAST 6 FEET FROM CROSSING AND 18 INCHES ABOVE GRAVITY SEWER.
 - JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND 6 INCHES ABOVE GRAVITY SEWER.
 - UNKNOWN UTILITY
 - UNKNOWN TYPE, SIZE, AND ELEVATION OF EXISTING STORM SEWER. CONTRACTOR SHALL USE 1 FULL LENGTH OF 8" CL-350 D.I.P. CENTERED ON STORM SEWER AND MAINTAIN 6 INCHES CLEARANCE BETWEEN BOTTOM OF STORM DRAIN AND TOP OF 8" D.I.P.
 - CONTRACTOR REQUIRED TO HAND DIG AROUND EXISTING ELECTRICAL UTILITIES.



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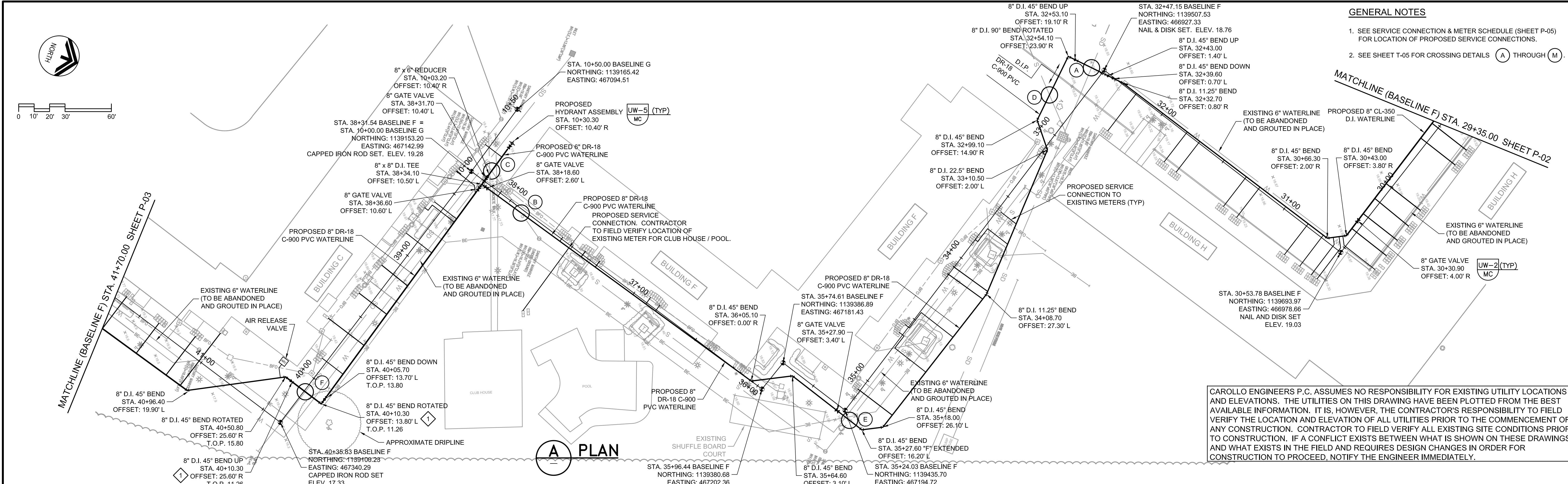
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MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT
WATERLINE PLAN
BASELINE E STA. 12+50.00 TO 21+47.69
BASELINE F STA. 10+00.00 TO 29+35.00

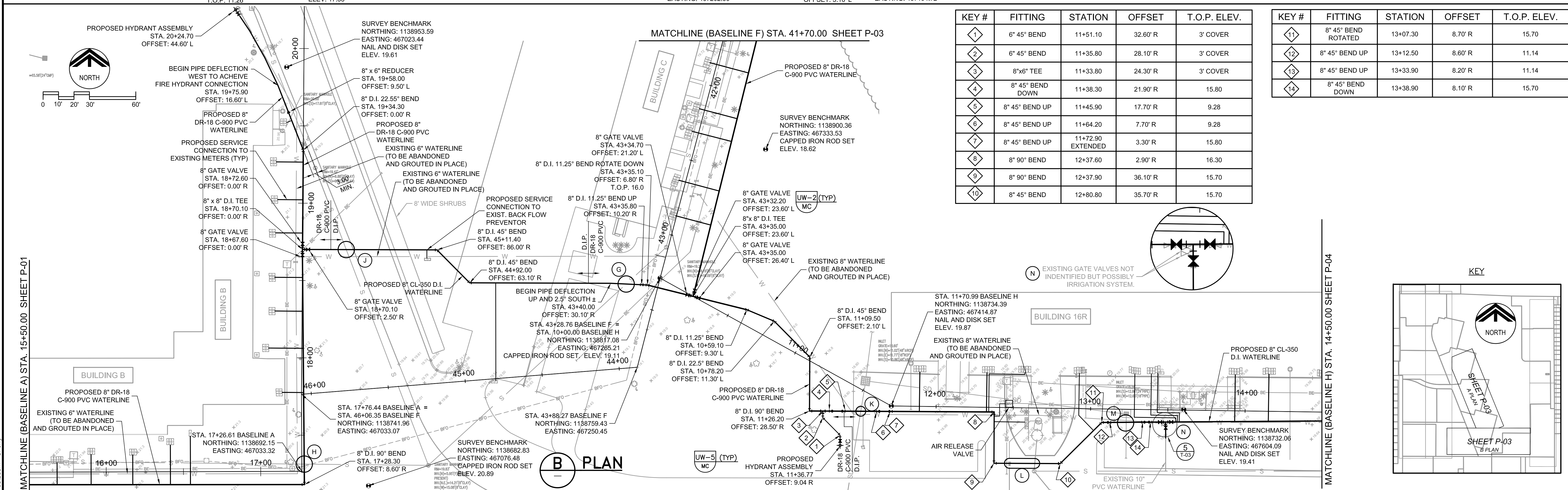
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7880F.10 DRAWING NO. P-02
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- GENERAL NOTES**
- SEE SERVICE CONNECTION & METER SCHEDULE (SHEET P-05) FOR LOCATION OF PROPOSED SERVICE CONNECTIONS.
 - SEE SHEET T-05 FOR CROSSING DETAILS (A) THROUGH (M)

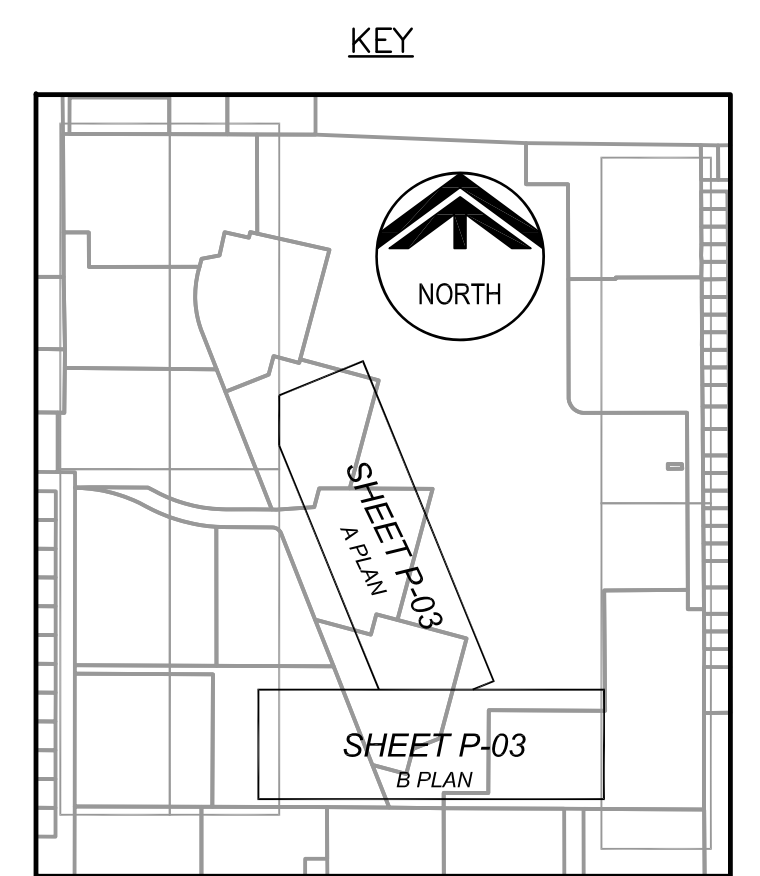
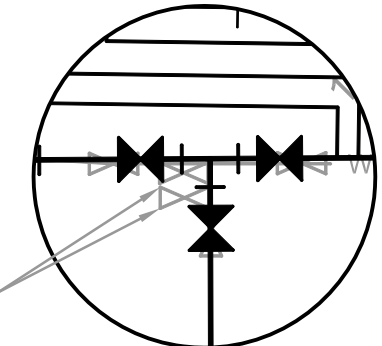
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A PLAN



KEY #	FITTING	STATION	OFFSET	T.O.P. ELEV.
1	6" 45° BEND	11+51.10	32.60' R	3' COVER
2	6" 45° BEND	11+35.80	28.10' R	3' COVER
3	8"x6" TEE	11+33.80	24.30' R	3' COVER
4	8" 45° BEND DOWN	11+38.30	21.90' R	15.80
5	8" 45° BEND UP	11+45.90	17.70' R	9.28
6	8" 45° BEND UP	11+64.20	7.70' R	9.28
7	8" 45° BEND UP EXTENDED	11+72.90	3.30' R	15.80
8	8" 90° BEND	12+37.60	2.90' R	16.30
9	8" 90° BEND	12+37.90	36.10' R	15.70
10	8" 45° BEND	12+80.80	35.70' R	15.70

KEY #	FITTING	STATION	OFFSET	T.O.P. ELEV.
11	8" 45° BEND ROTATED	13+07.30	8.70' R	15.70
12	8" 45° BEND UP	13+12.50	8.60' R	11.14
13	8" 45° BEND UP	13+33.90	8.20' R	11.14
14	8" 45° BEND DOWN	13+38.90	8.10' R	15.70



B PLAN

REV	DATE	BY	DESCRIPTION

DESIGNED
GDM
DRAWN
DVP
CHECKED
TFT
DATE
NOVEMBER 2010

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BOARD OF PROFESSIONAL ENGINEERS NO.: 52719

MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT

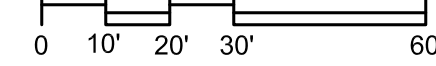
WATERLINE PLAN
BASELINE A STA. 15+50 TO 20+27
BASELINE F STA. 29+35 TO 46+06
BASELINE H STA. 10+00 TO 14+50

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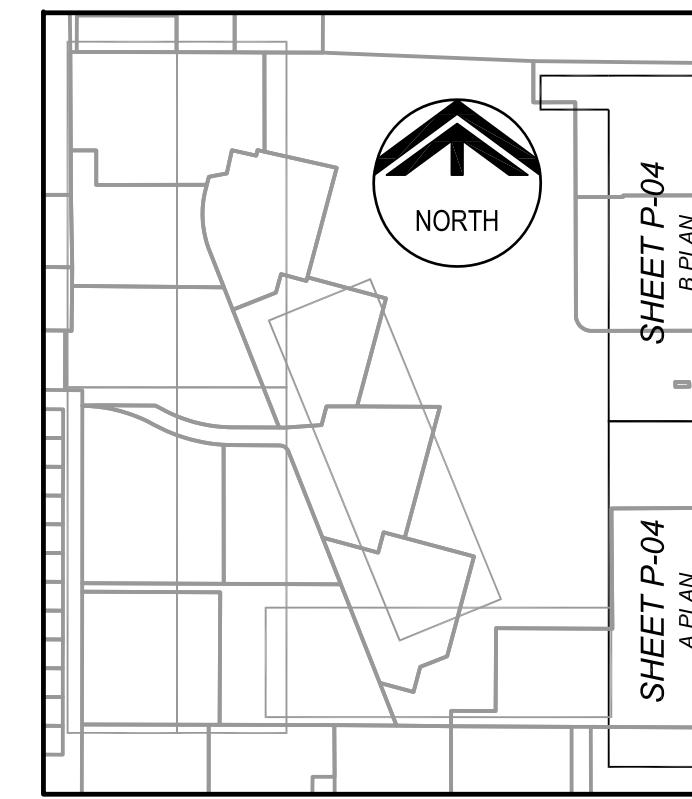
VERIFY SCALES
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JOB NO.
7880F.10
DRAWING NO.
P-03



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KEY

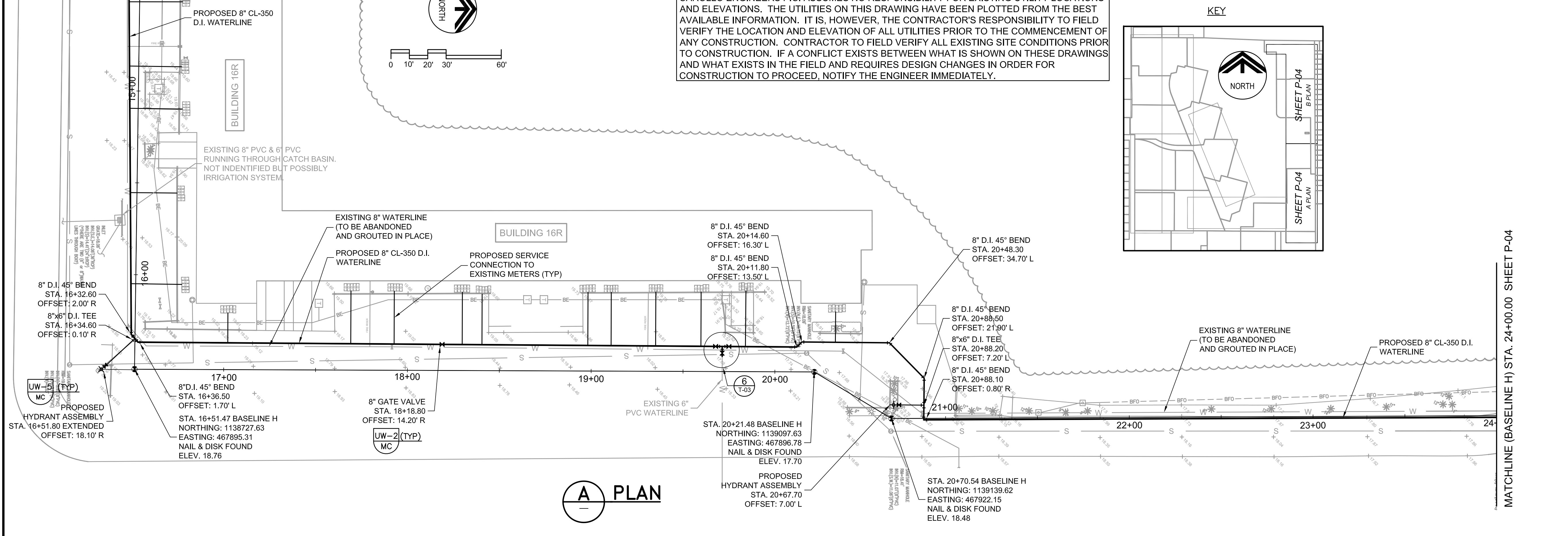


GENERAL NOTES:

- SEE SERVICE CONNECTION & METER SCHEDULE (SHEET P-05) FOR LOCATION OF PROPOSED SERVICE CONNECTIONS.

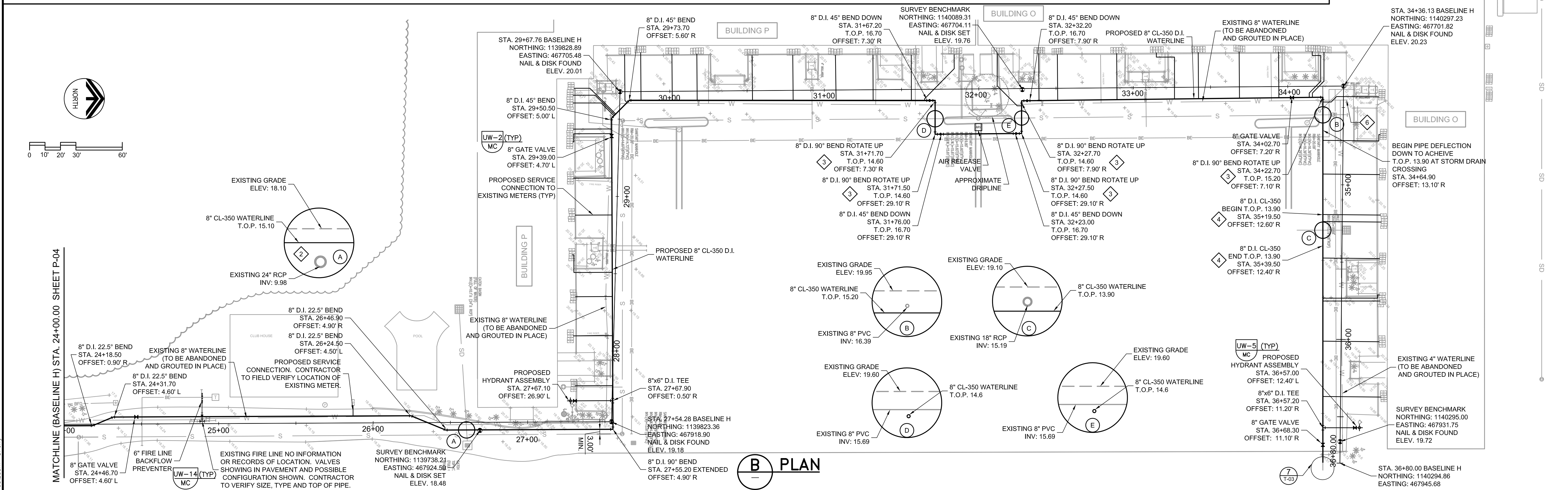
KEY NOTES

- JOINT SHALL BE AT LEAST 6 FEET FROM CROSSING AND AT LEAST 6 INCHES ABOVE GRAVITY SEWER.
- JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND AT LEAST 6 INCHES ABOVE STORM DRAIN.
- JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND AT LEAST 6 INCHES ABOVE SANITARY SEWER.
- JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND AT LEAST 6 INCHES BELOW STORM DRAIN.
- CONTRACTOR TO FIELD VERIFY CONNECTION POINT FOR METERS ON BACK SIDE OF BUILDING O.
- RECORD INFORMATION FOR THIS AREA INDICATES AN 8" TEE, 8"x6" REDUCER AND A 6" GATE VALVE NOT FOUND BY SURVEY.



A PLAN

MATCHLINE (BASELINE H) STA. 24+00.00 SHEET P-04



B PLAN

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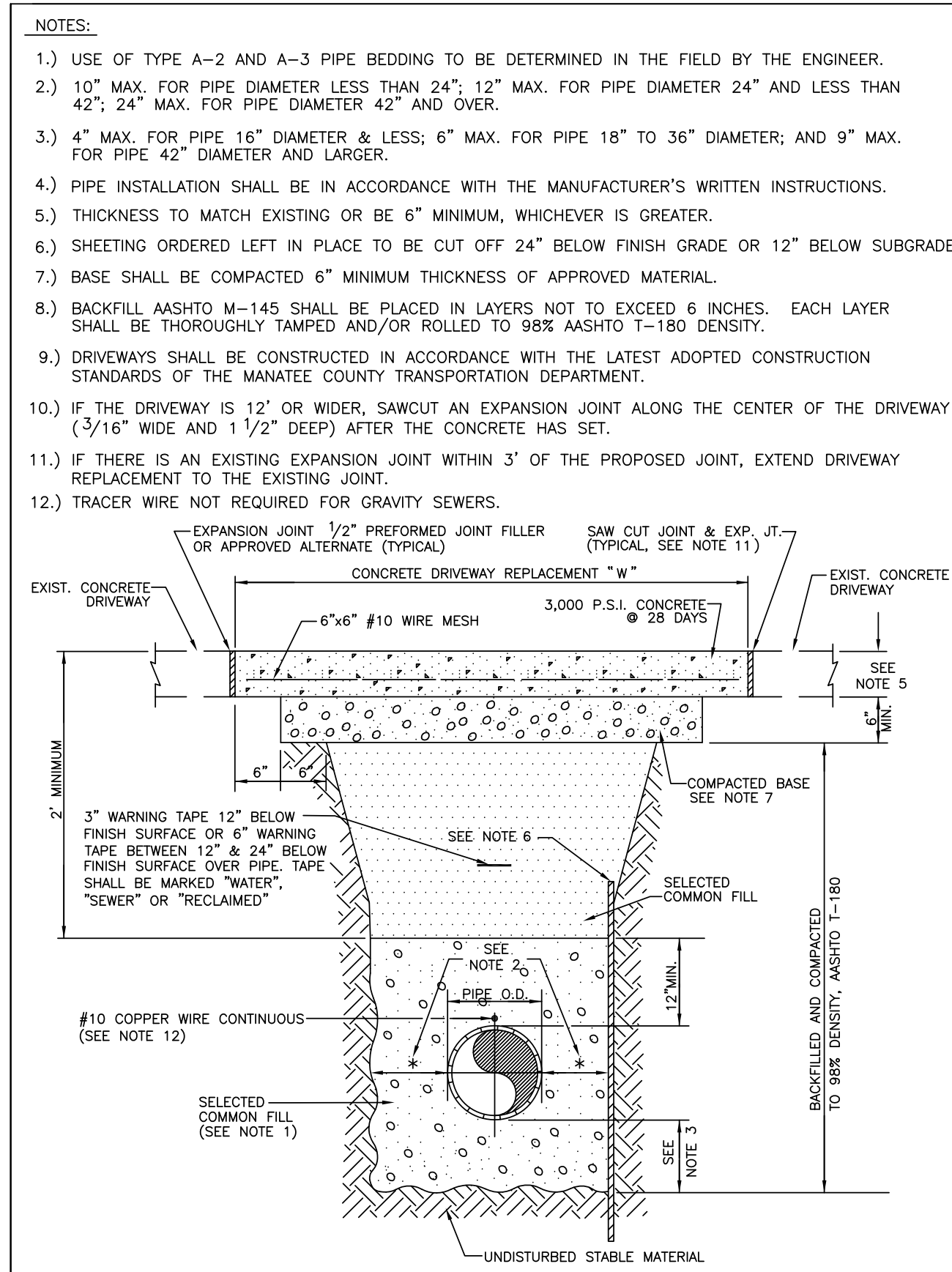
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MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT
WATERLINE PLAN
BASELINE H STA. 14+50 TO 36+80.00

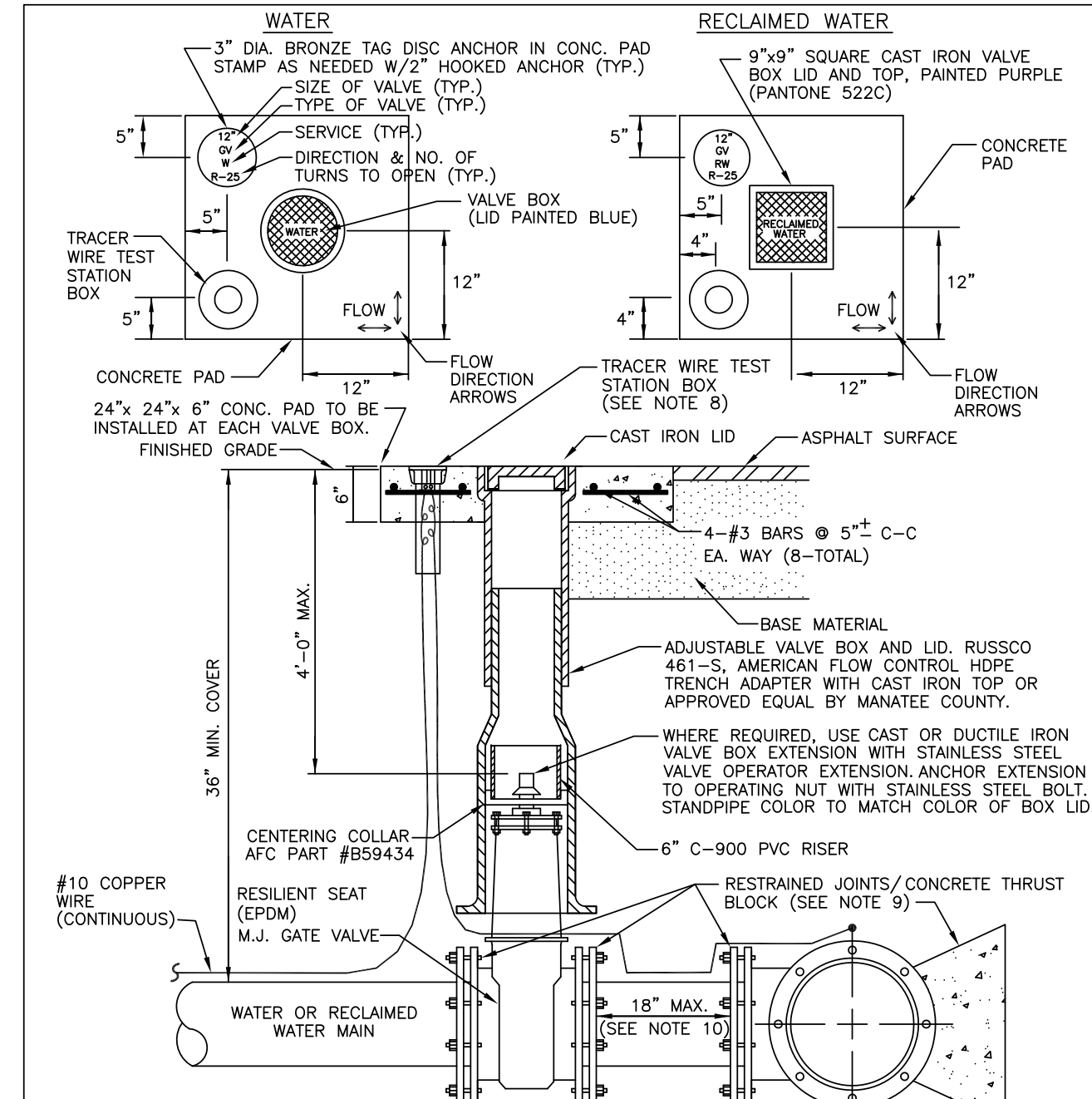
VERIFY SCALES
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JOB NO.
7880F.10
DRAWING NO.
P-04

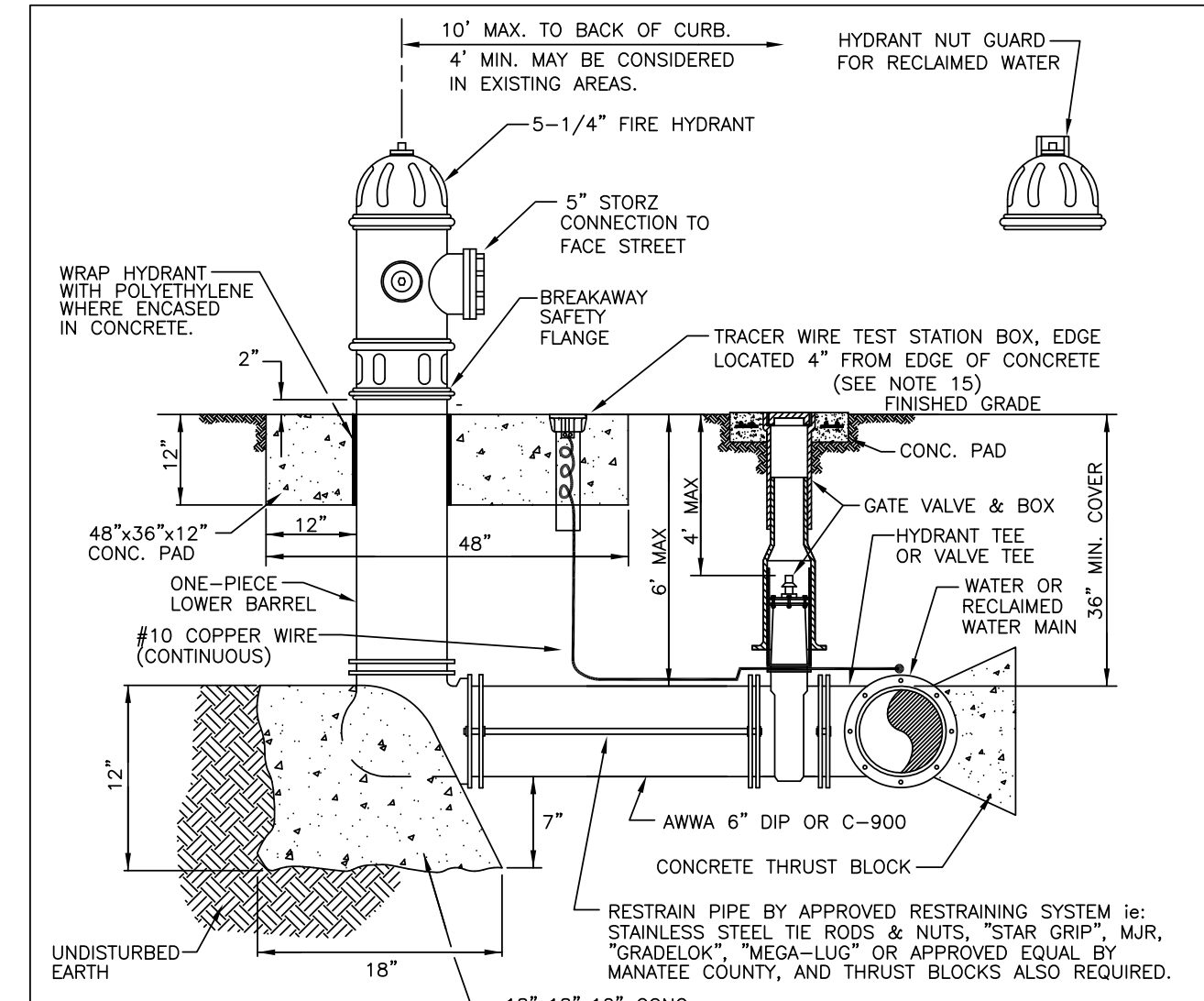
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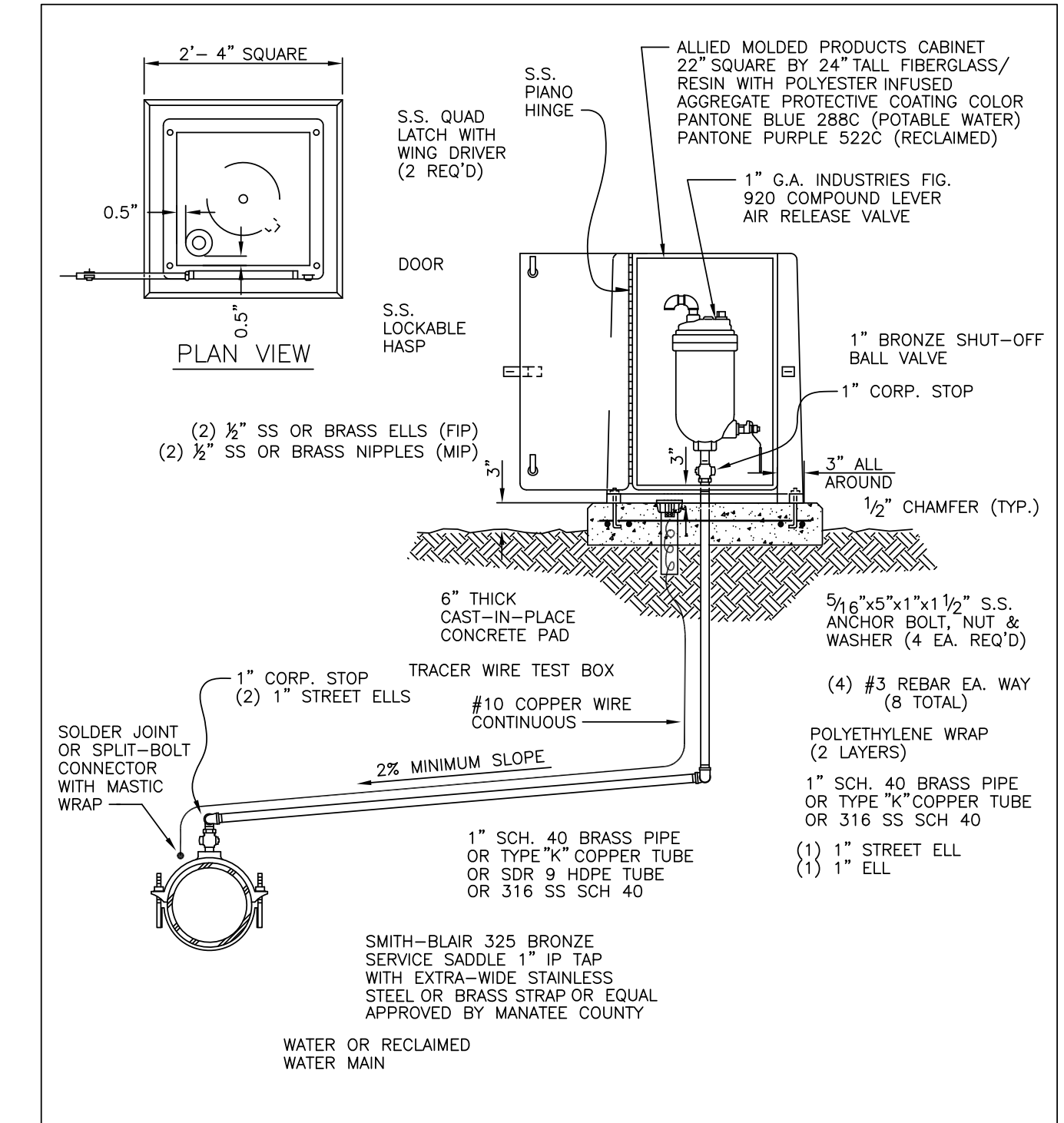
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH CONCRETE DRIVEWAY SURFACE TYPE A-1 PIPE BEDDING	UG-14
REV. BY	DATE	MARCH 17, 2009 DATE OF APPROVAL	
CLB/KE	03/05		
JAA/JB	10/08		
JAA/JEA	02/09		



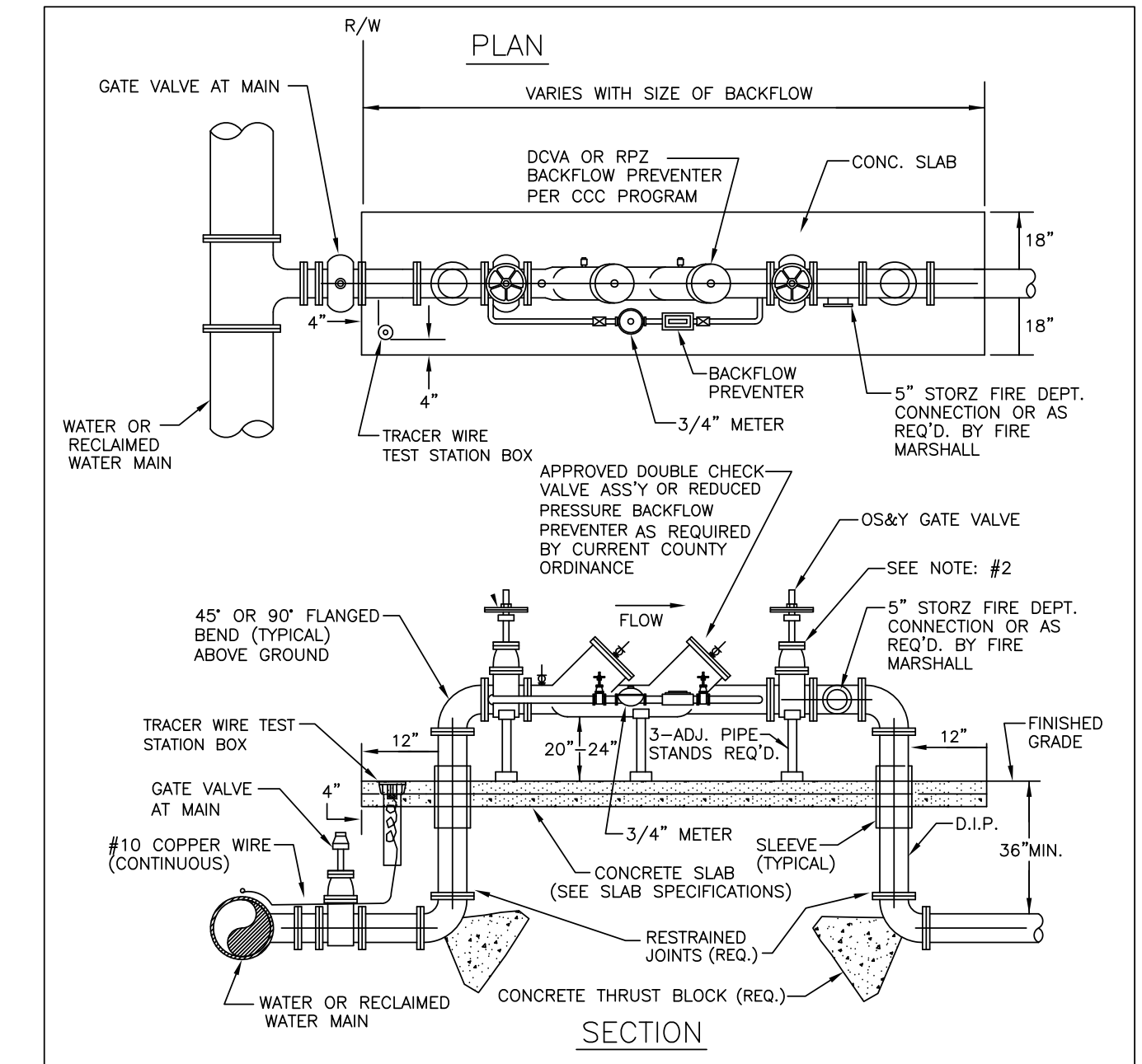
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		GATE VALVE, BOX, LID AND TAG	UW-2
REV. BY	DATE	MARCH 17, 2009 DATE OF APPROVAL	
CLB/KE	03/05		
JAA/JB	09/08		
JAA/JEA	02/09		



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		FIRE HYDRANT ASSEMBLY	UW-5
REV. BY	DATE	MARCH 17, 2009 DATE OF APPROVAL	
CLB/KE	03/05		
JAA/JB	10/08		
JAA/JEA	02/09		



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		ABOVE-GROUND AIR RELEASE VALVE ASSY. FOR 12-INCH AND SMALLER WATER MAINS	UW-9
REV. BY	DATE	MARCH 17, 2009 DATE OF APPROVAL	
JAA/JB	10/08		
JAA/JB	02/09		
JAA/JEA	02/09		



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		3" AND ABOVE FIRE LINE BACKFLOW PREVENTER	UW-14
REV. BY	DATE	MARCH 17, 2009 DATE OF APPROVAL	
CLB/KE	02/05		
JAA/JB	10/08		
JAA/JEA	02/09		

DESIGNED	GDM
DRAWN	DVP
CHECKED	TFT
DATE	NOVEMBER 2010
BY	
DATE	
DESCRIPTION	

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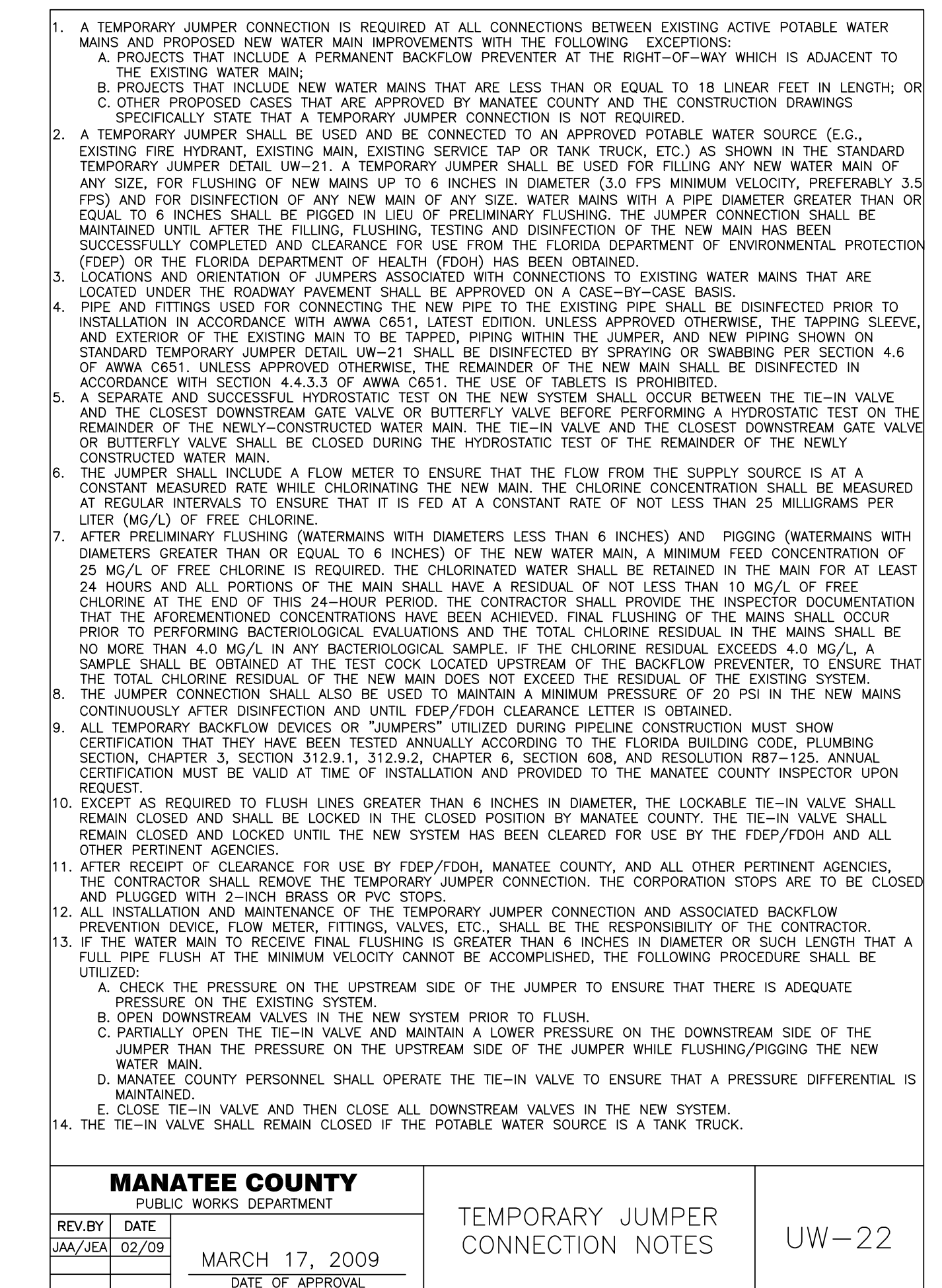
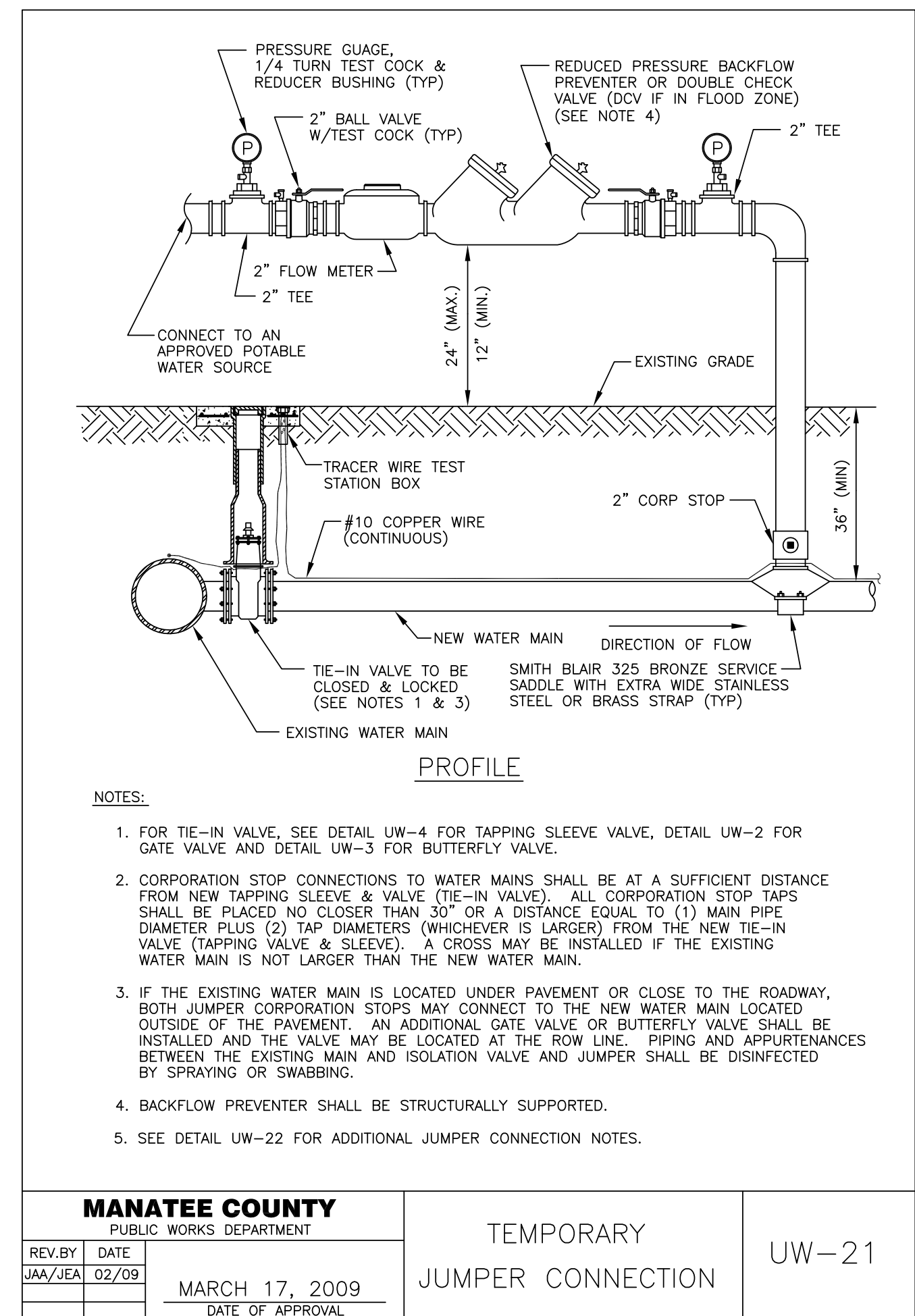
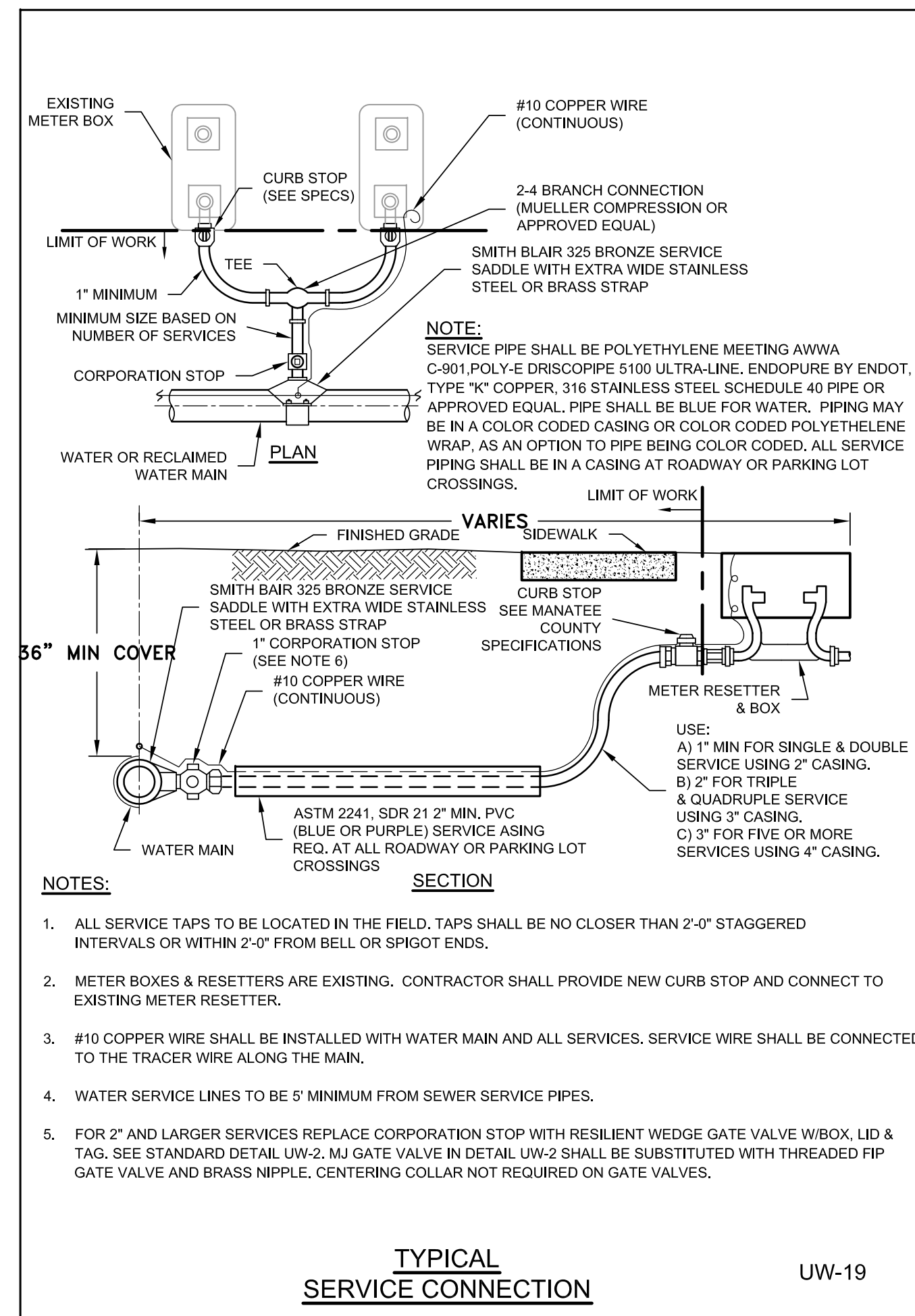
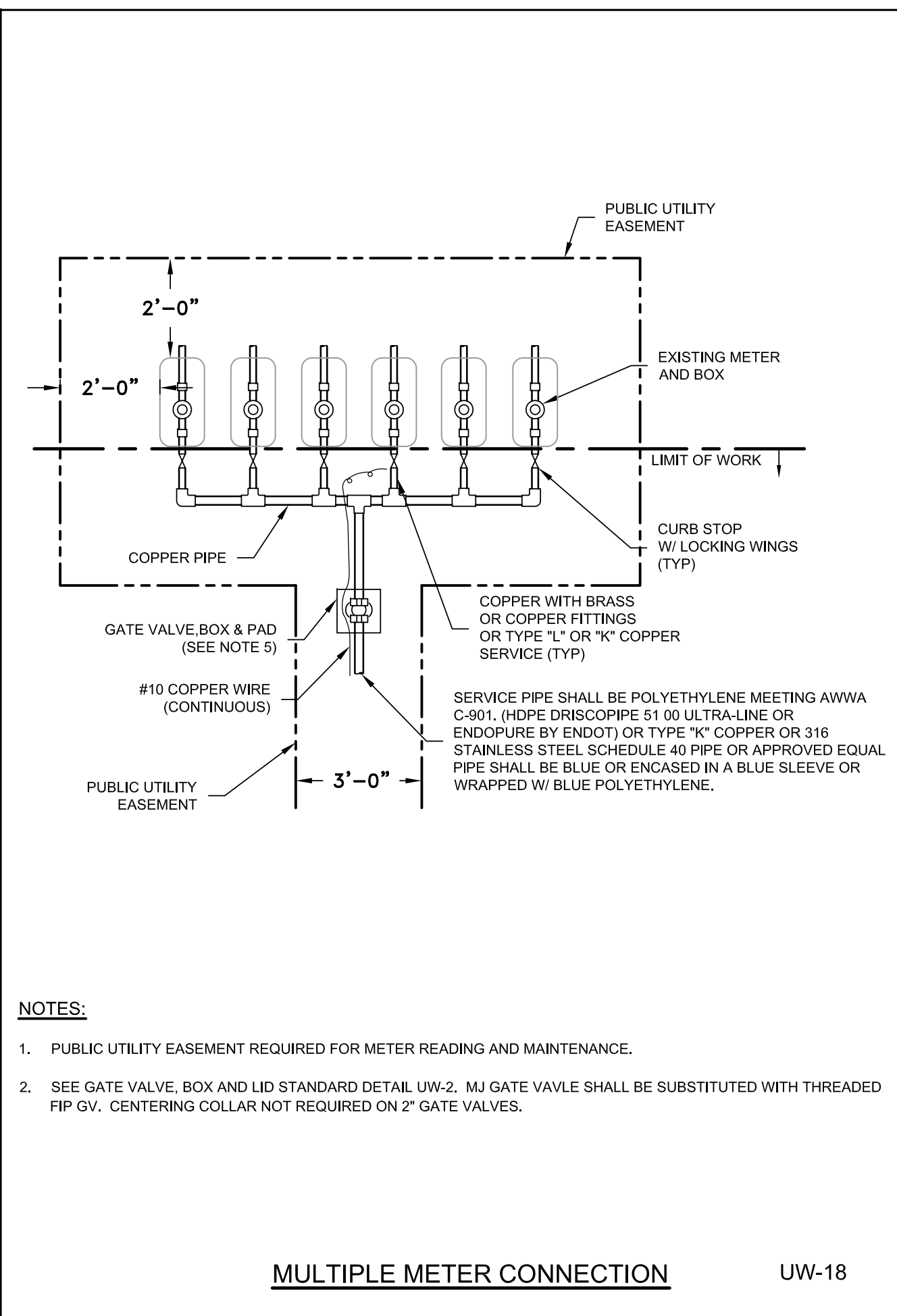
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MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT

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JOB NO. 7880F.10
DRAWING NO. T-02

TYPICAL DETAILS



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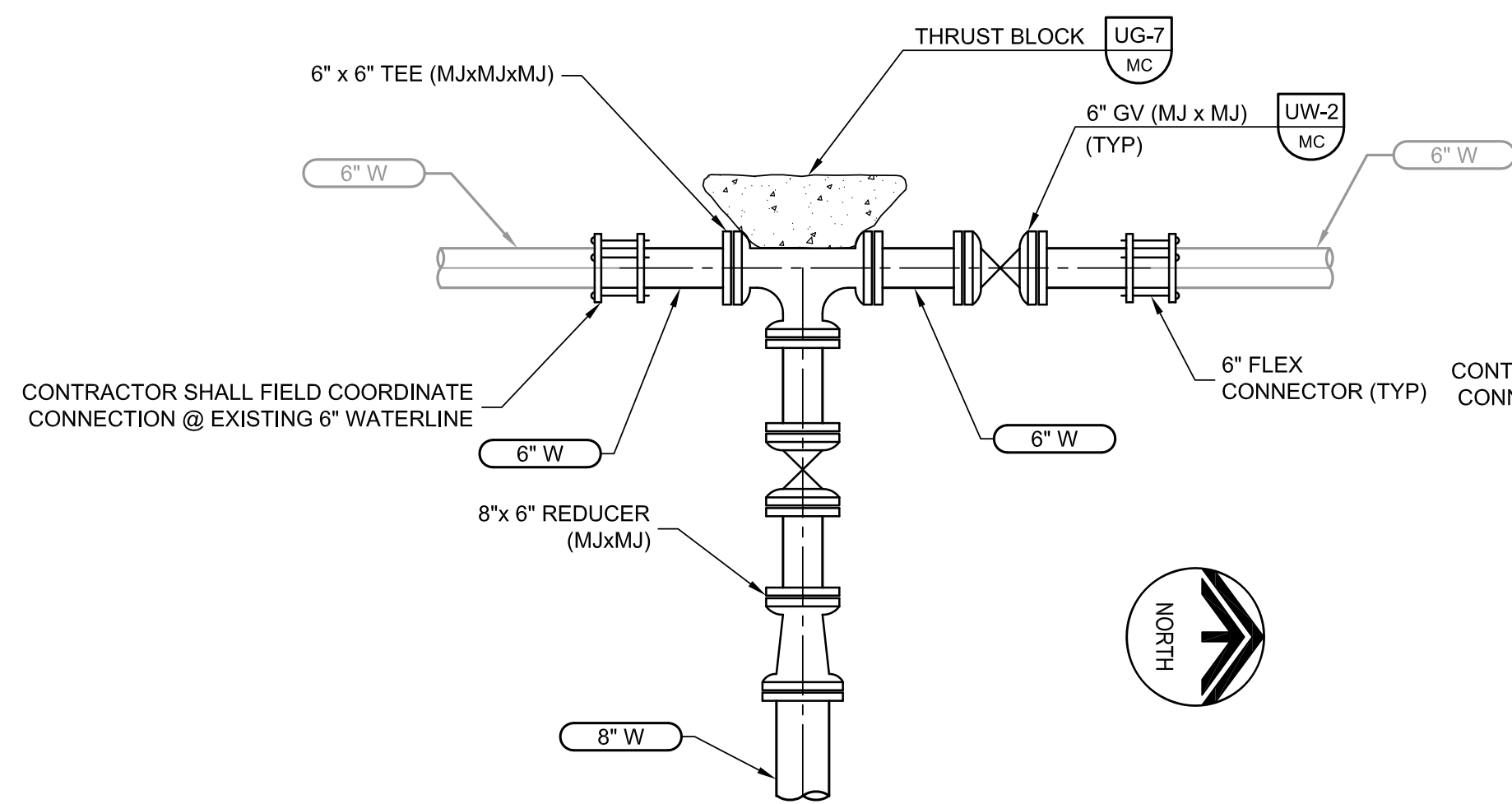
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MANATEE COUNTY

BAYSHORE ON THE LAKES WATERLINE REPLACEMENT

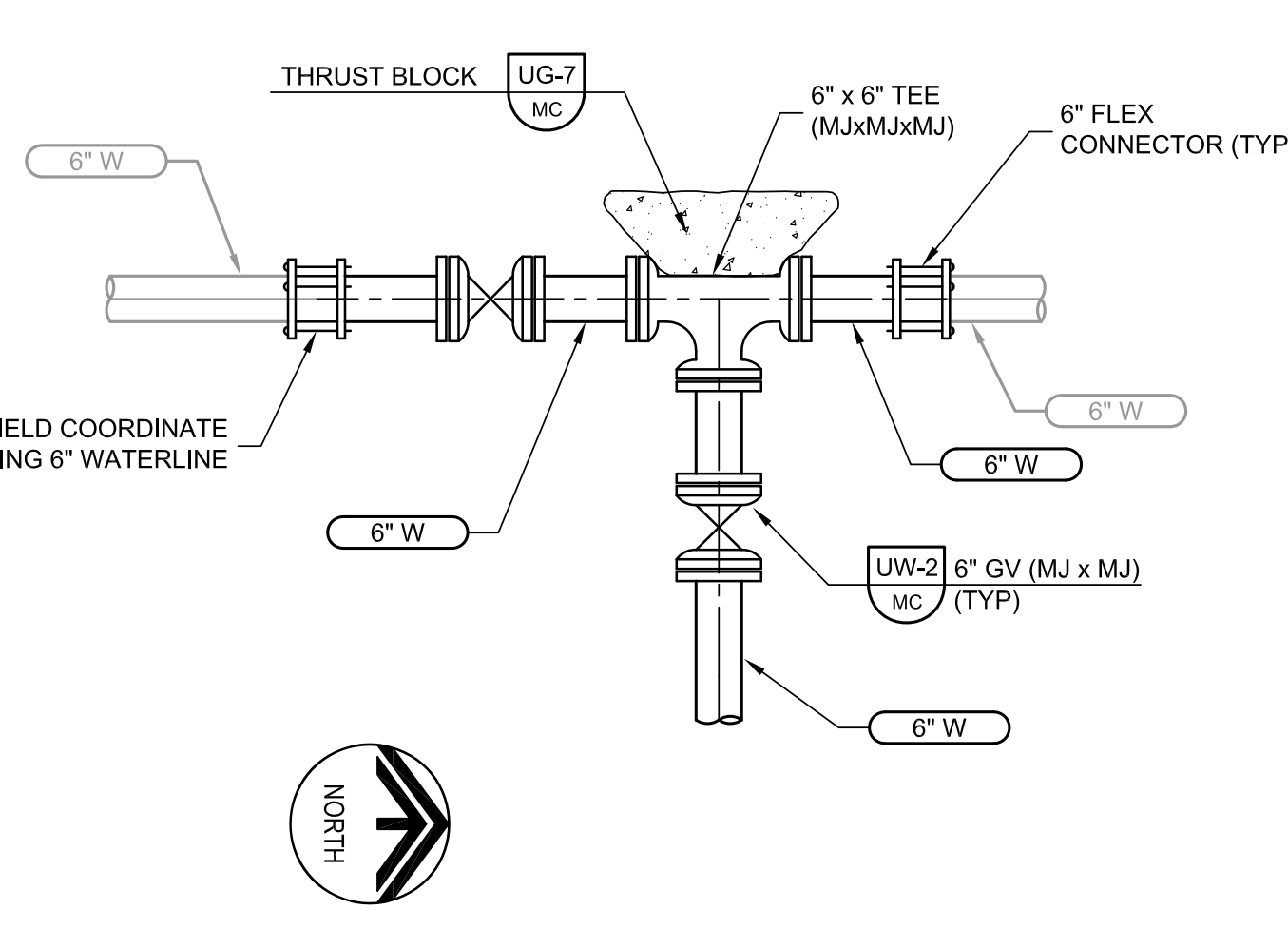
TYPICAL DETAILS

VERIFY SCALES	JOB NO. 7880F.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. T-03
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	



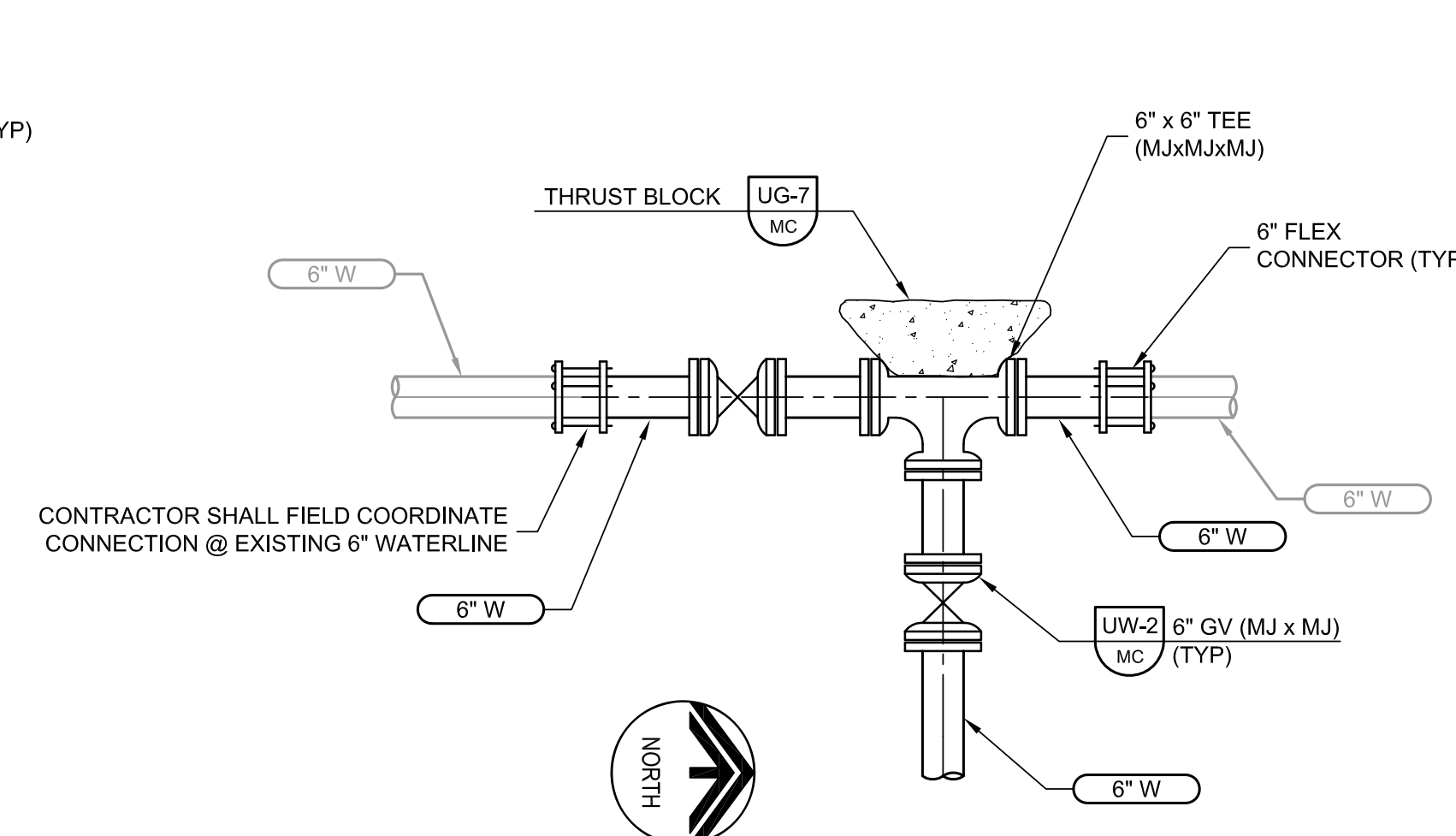
1 DETAIL – NEW 8” WATERLINE CONNECTION

P-01 SCALE: NTS
FILE: 7880F10-01-110-403.DWG



2 DETAIL– NEW 6” WATERLINE TIE-IN

P-01 SCALE: NTS
FILE: 7880F10-01-110-403.DWG

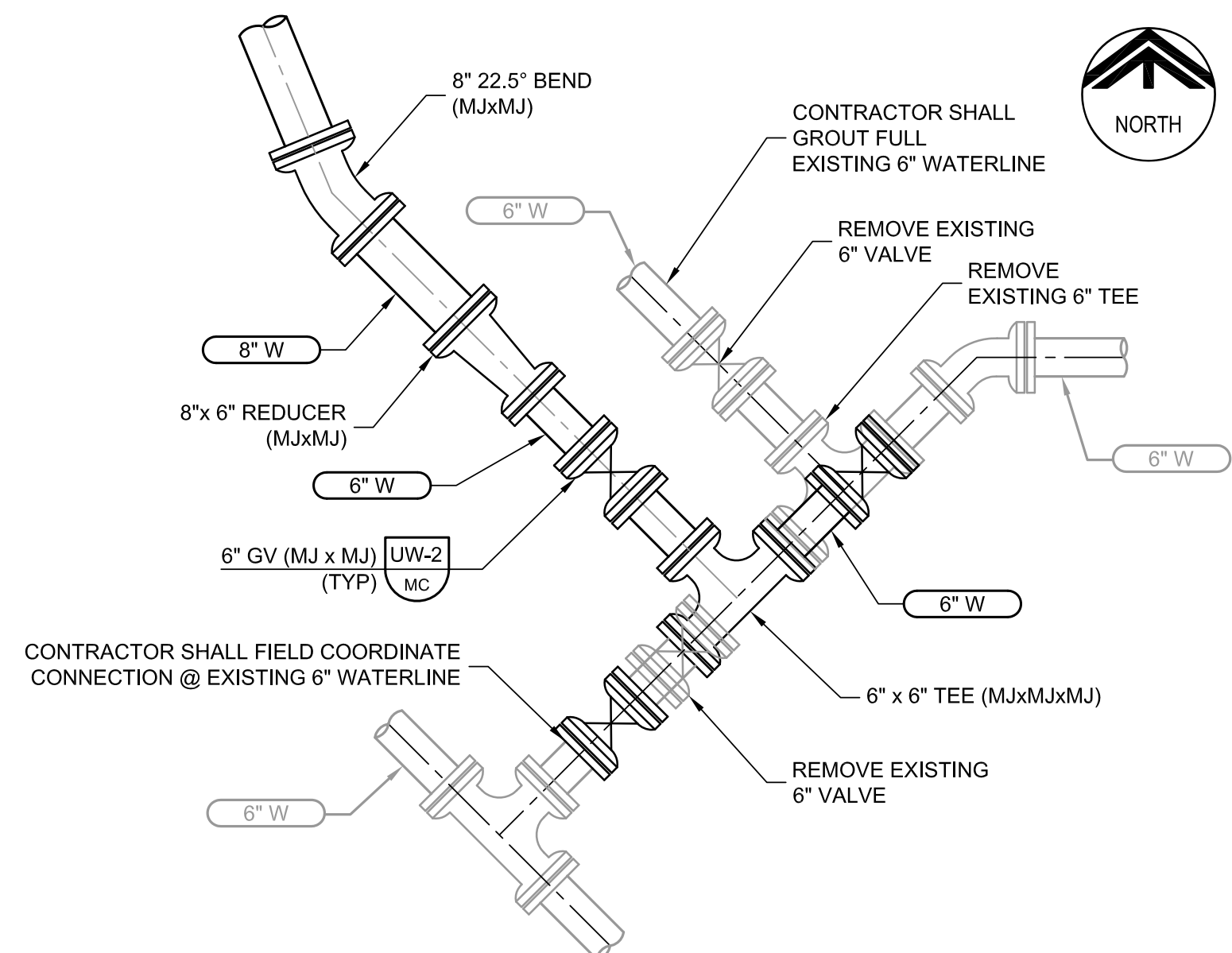


3 DETAIL– NEW 6” WATERLINE TIE-IN

P-01 SCALE: NTS
FILE: 7880F10-01-110-403.DWG

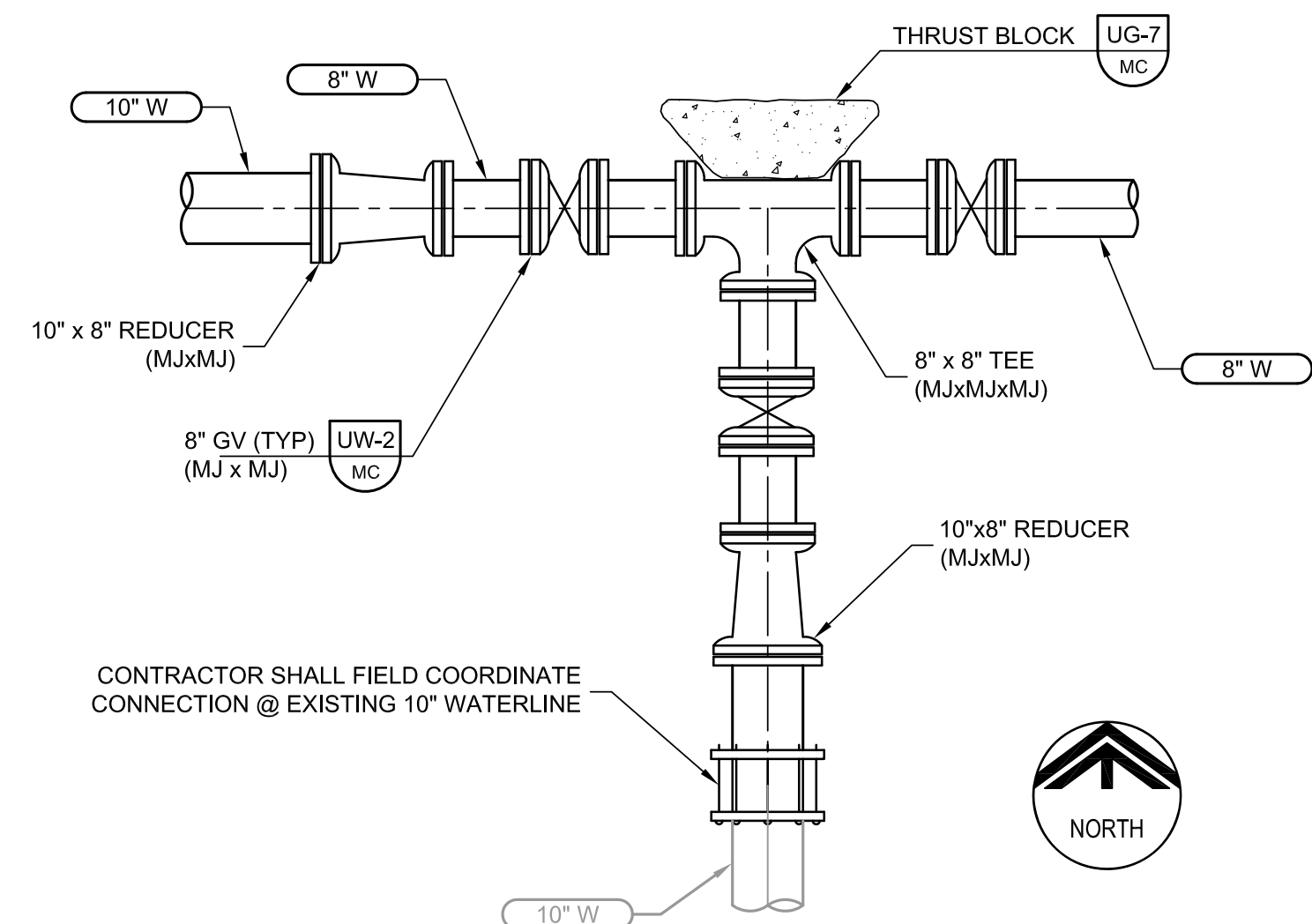
NOTES:

- PIPELINE DIAMETER VARIES THROUGHOUT SYSTEM (6-INCH, 8-INCH OR 10-INCH). USE APPROPRIATE SIZE VALVES AND FITTINGS.
- ALL MECHANICAL JOINTS SHALL BE RESTRAINED.



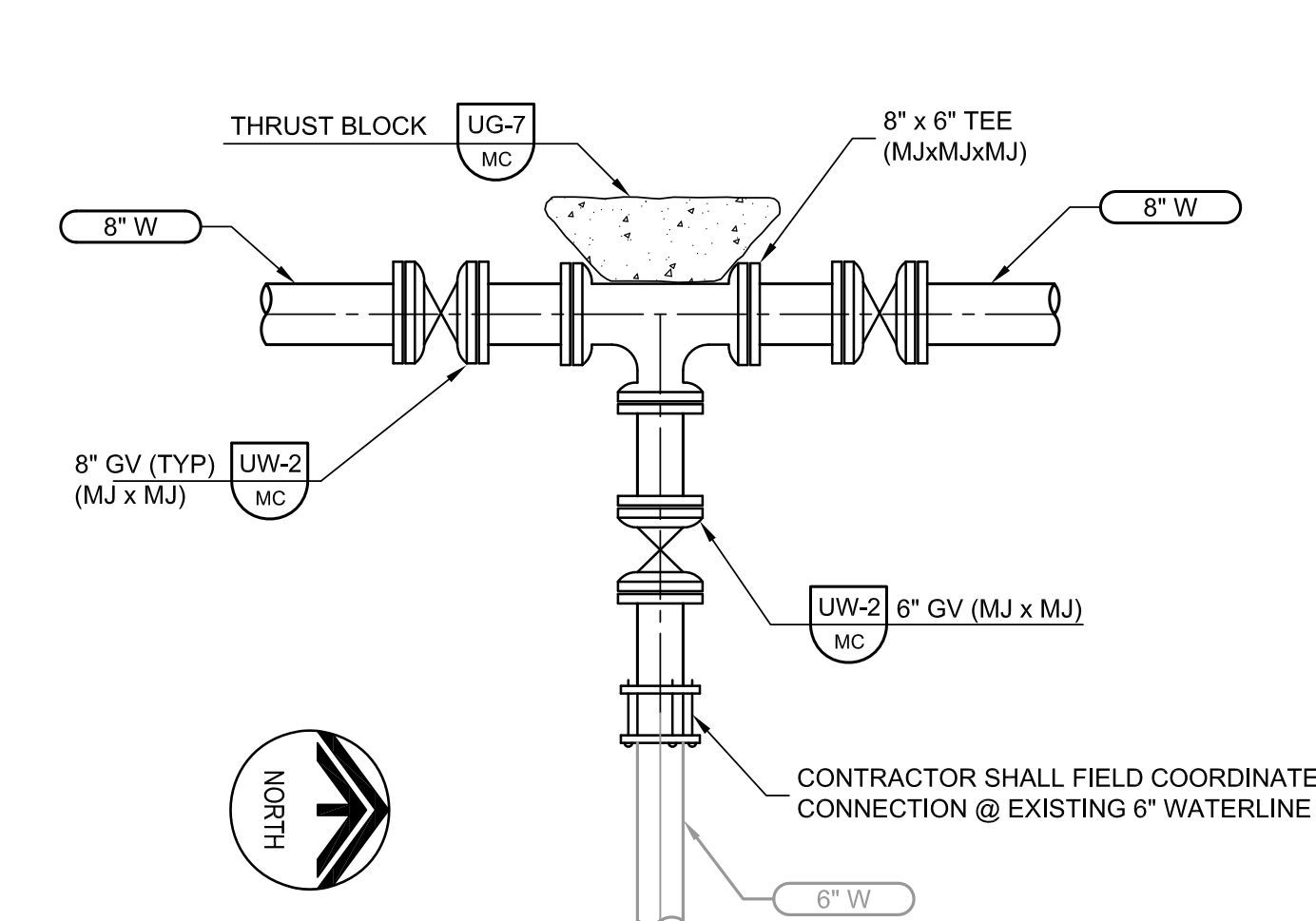
4 DETAIL – NEW 6” WATERLINE TIE-IN

P-02 SCALE: NTS
FILE: 7880F10-01-110-403.DWG



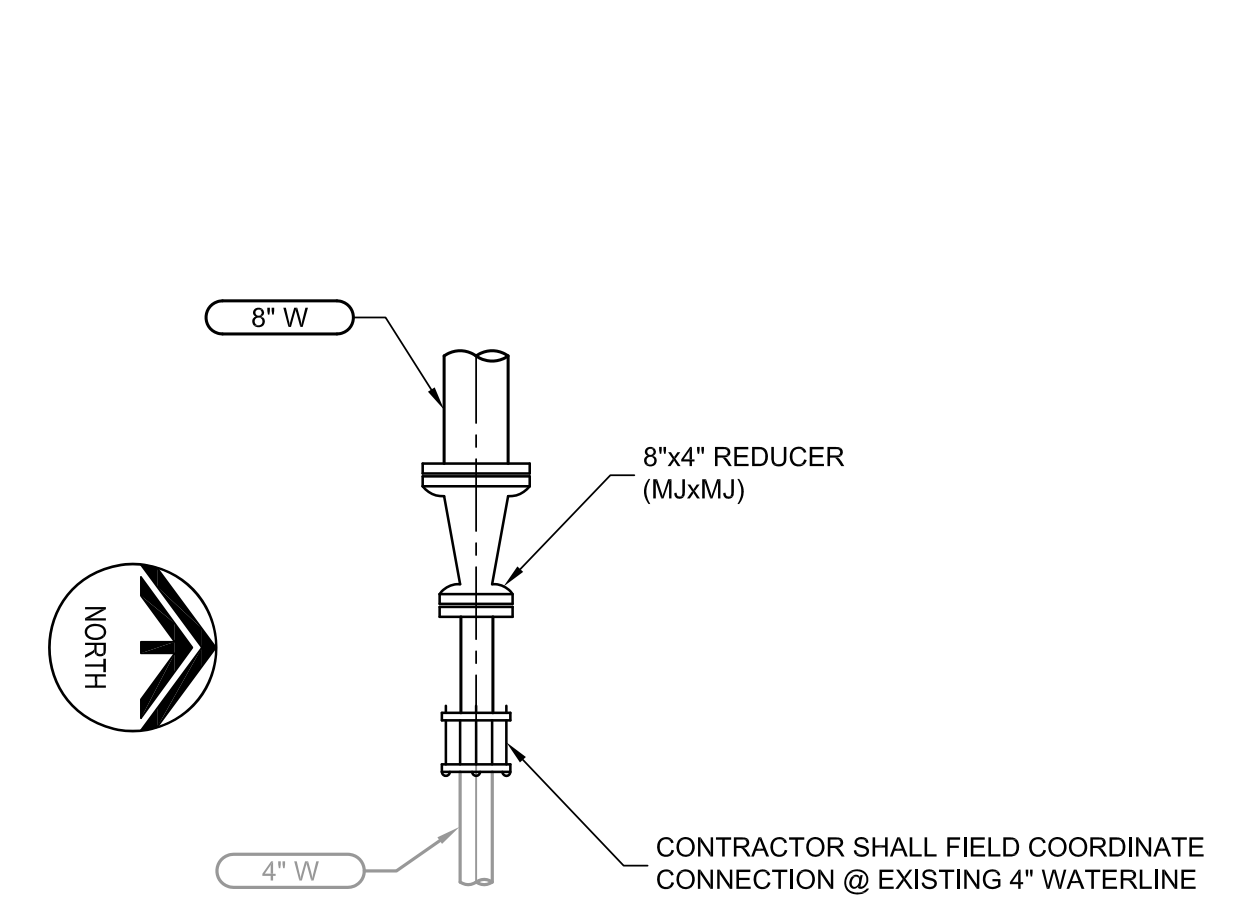
5 DETAIL– NEW 8” WATERLINE TIE-IN

P-03 SCALE: NTS
FILE: 7880F10-01-110-403.DWG



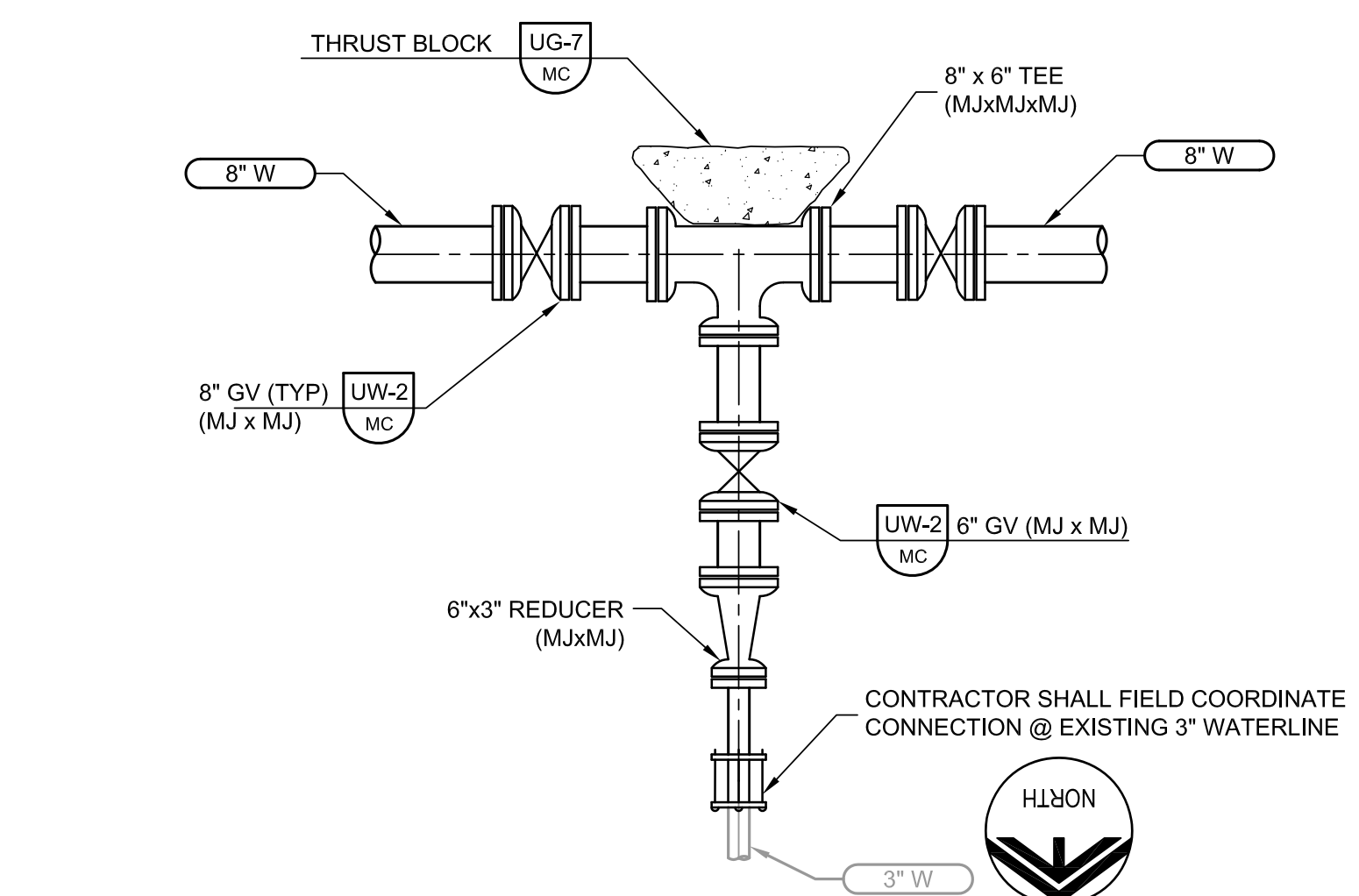
6 DETAIL– NEW 8” WATERLINE TIE-IN

P-04 SCALE: NTS
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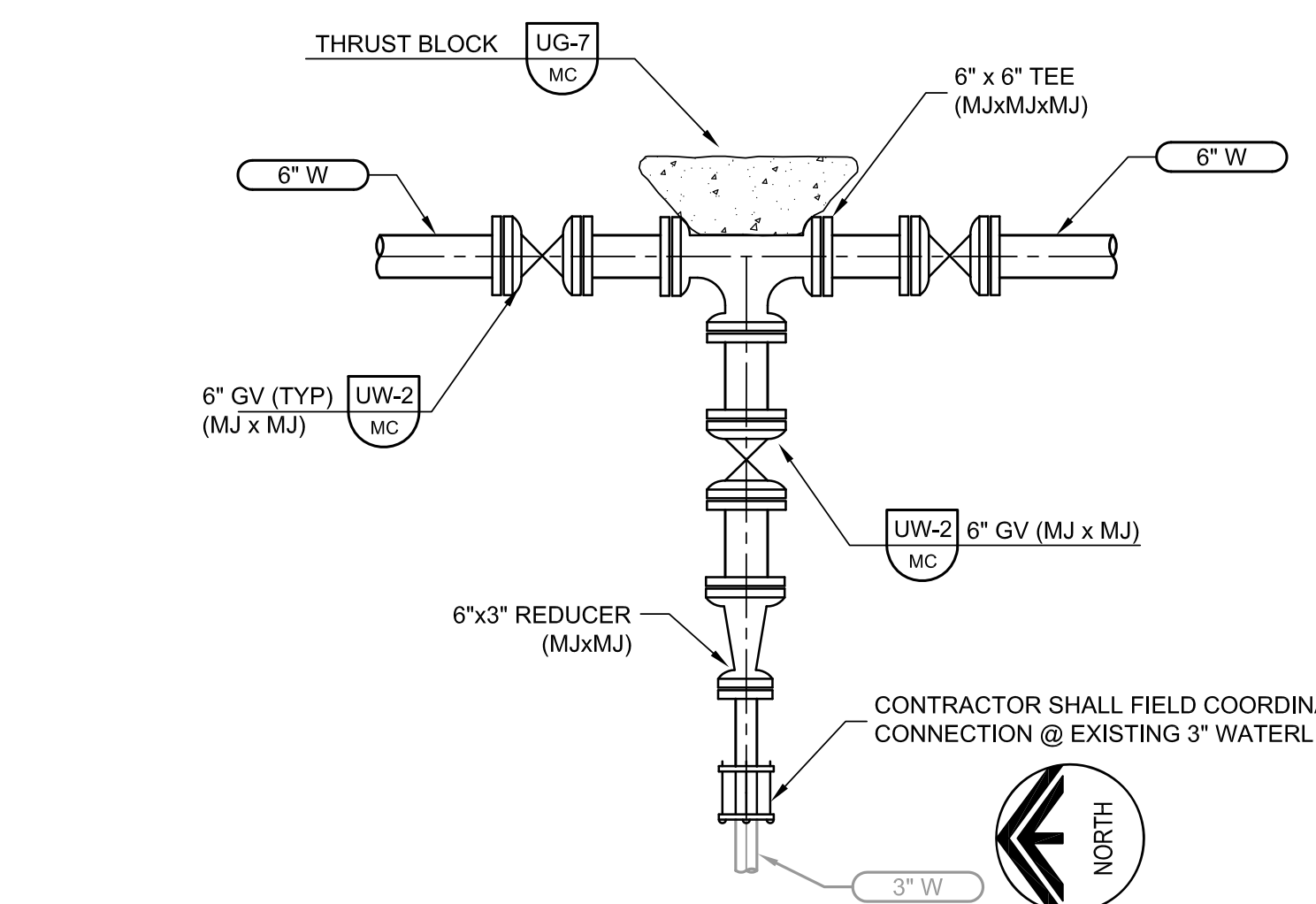
7 DETAIL– NEW 8” WATERLINE TIE-IN

P-04 SCALE: NTS
FILE: 7880F10-01-110-403.DWG



8 DETAIL– NEW 8” WATERLINE TIE-IN

P-04 SCALE: NTS
FILE: 7880F10-01-110-403.DWG



9 DETAIL– NEW 6” WATERLINE TIE-IN

P-04 SCALE: NTS
FILE: 7880F10-01-110-403.DWG

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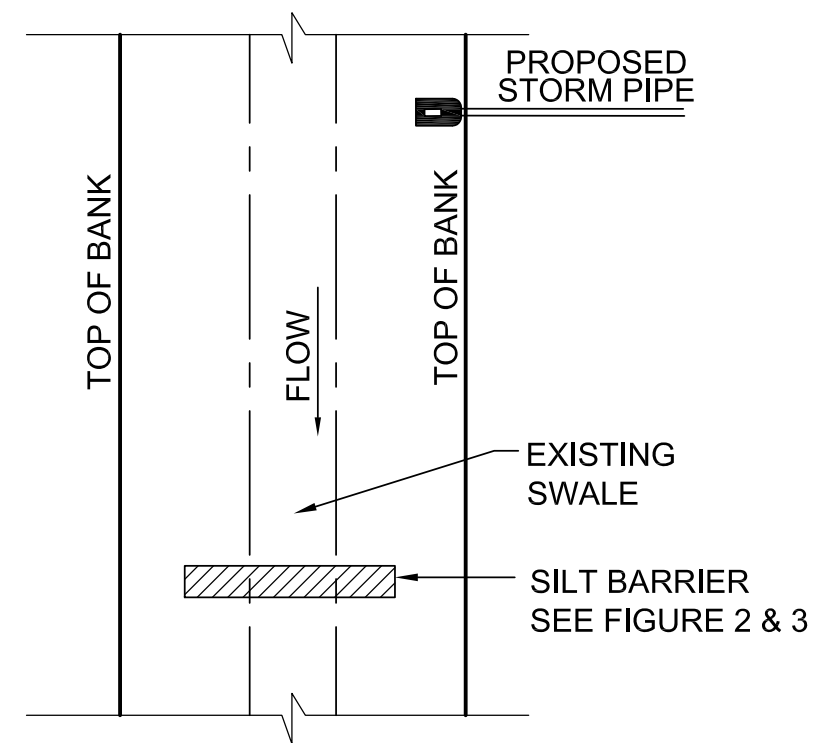
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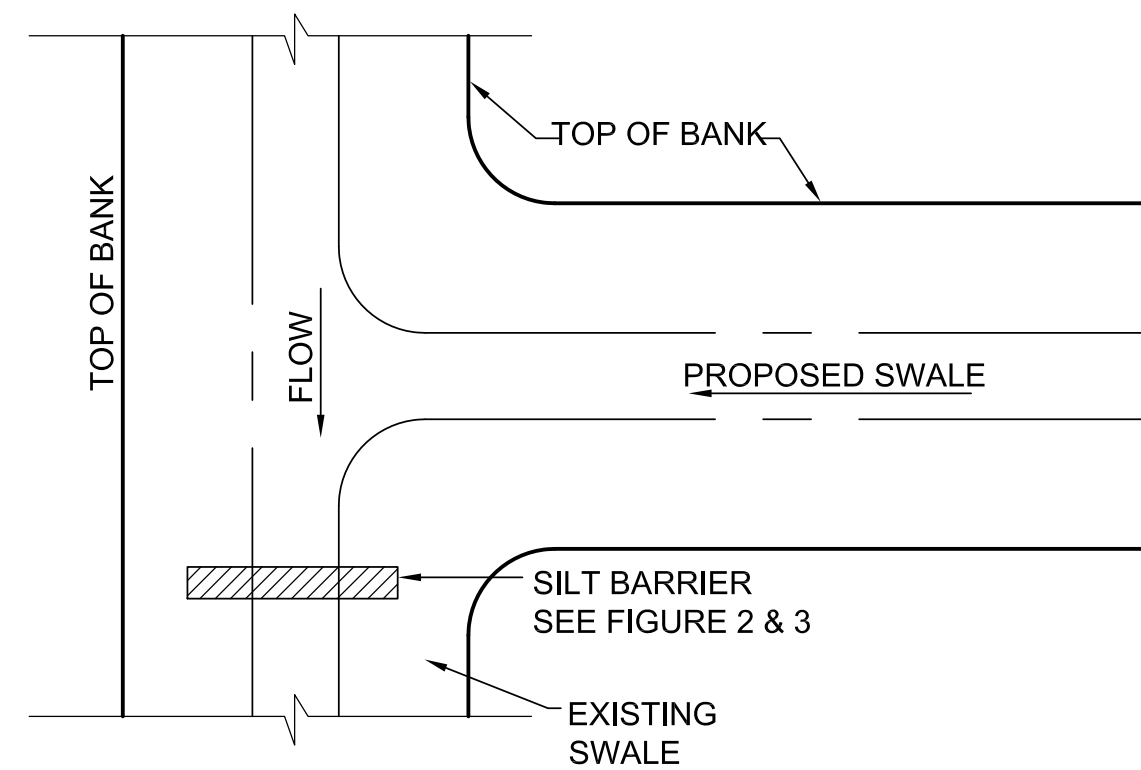
WATERLINE DETAILS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

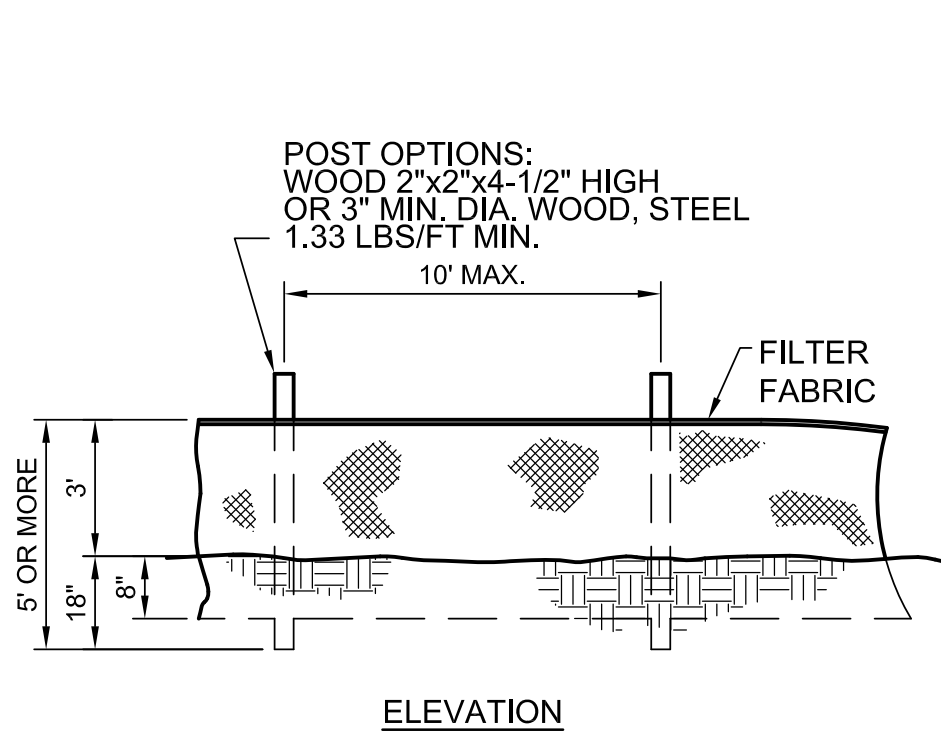
JOB NO.
7880F.10
DRAWING NO.
T-04



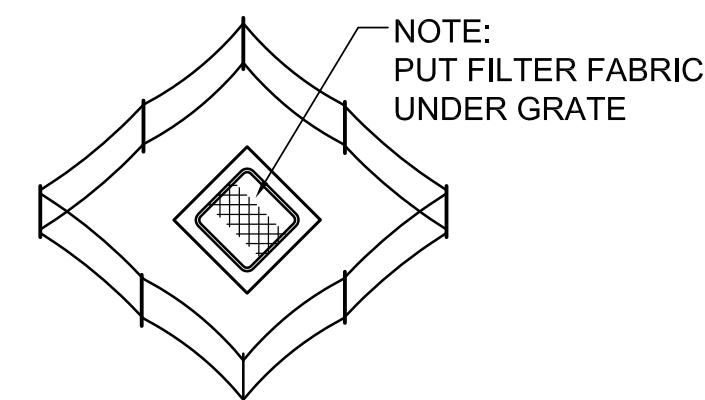
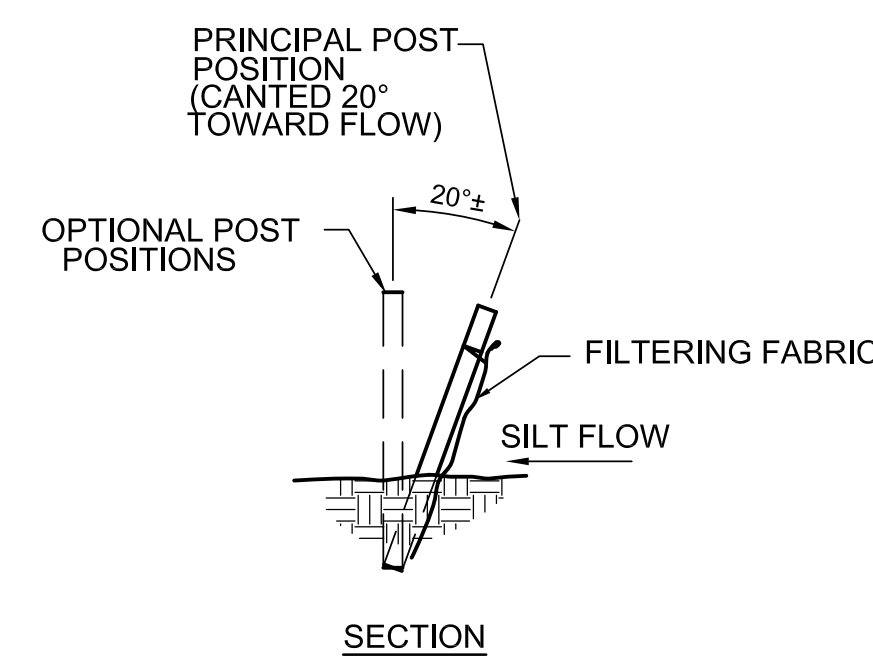
SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE



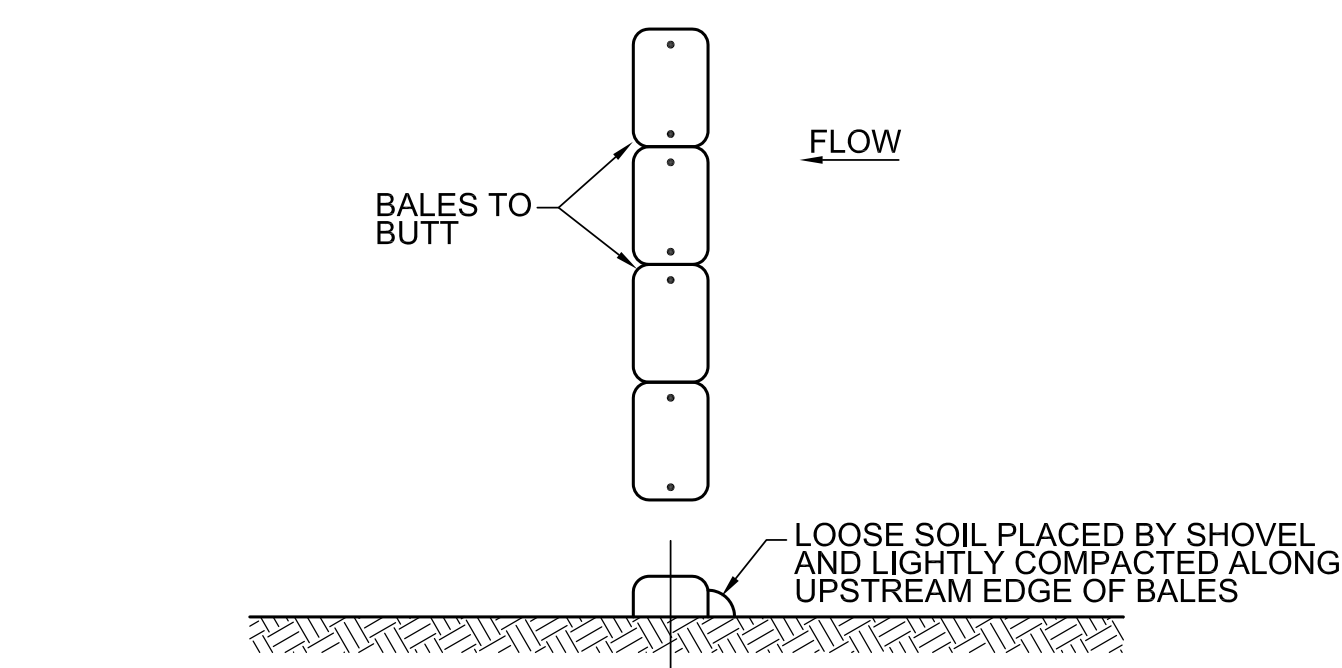
SILT BARRIER AT CONNECTION OF SWALE TO EXISTING SWALE



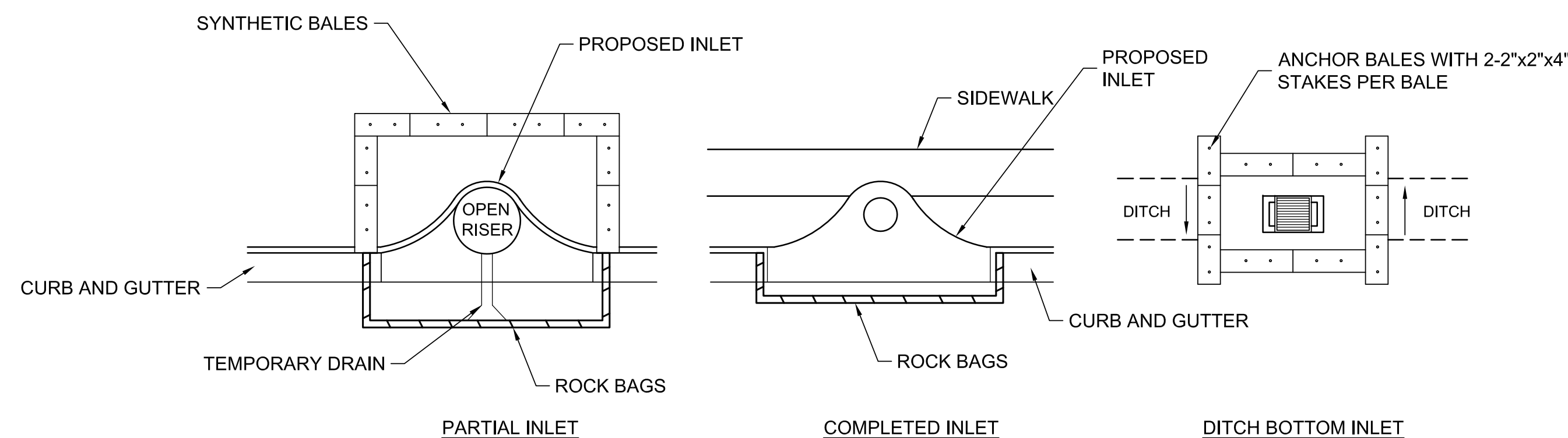
TYPICAL SILT FENCE



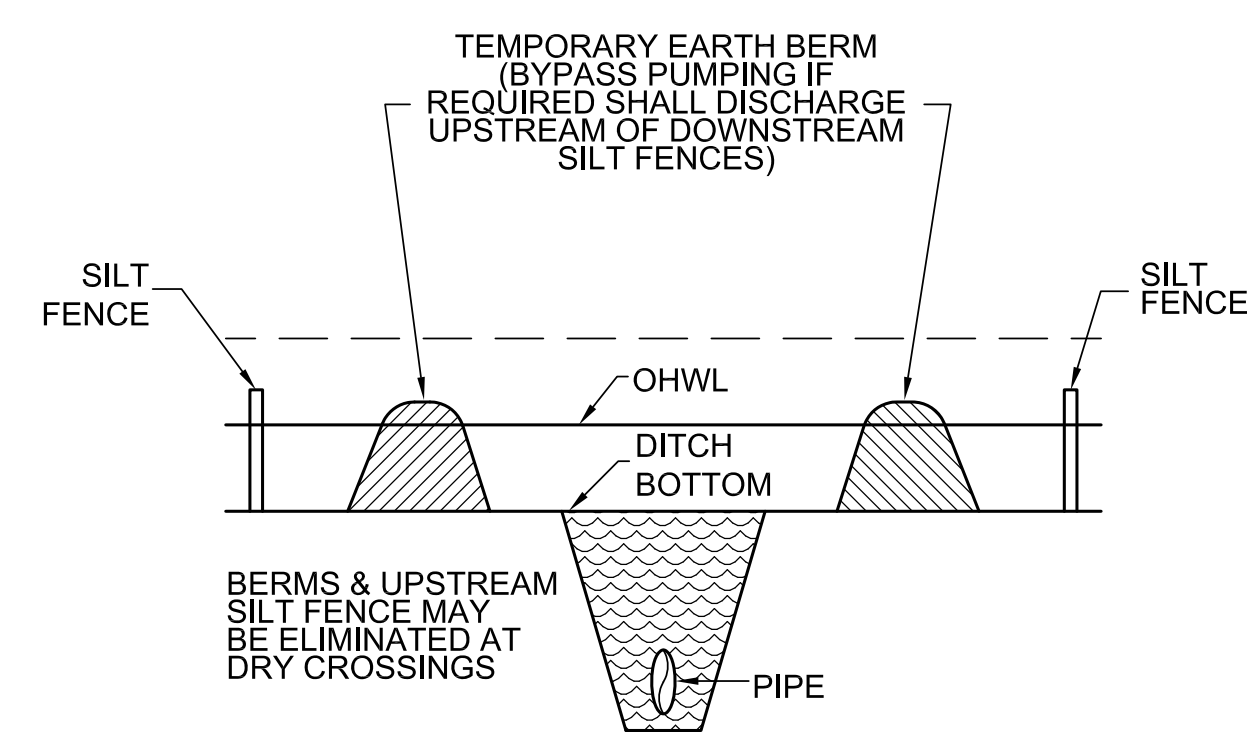
PROTECTION AROUND DITCH BOTTOM INLETS



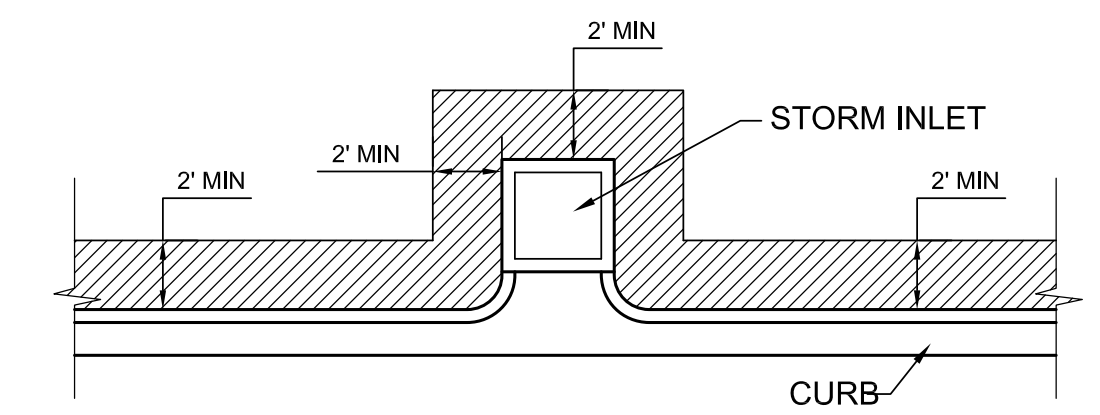
TYPICAL STAKED HAY BALES



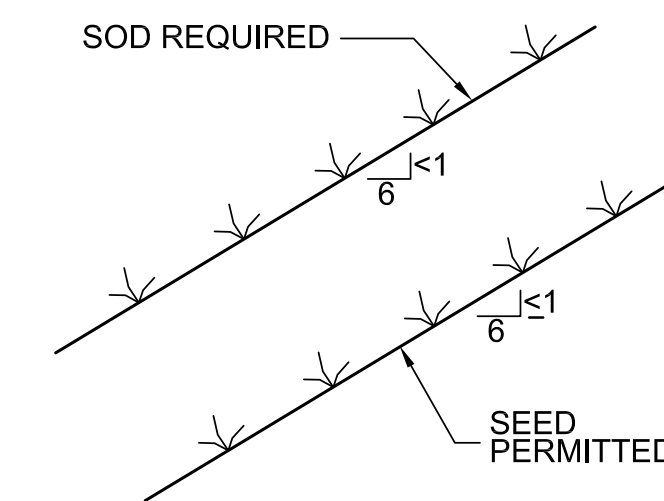
SYNTHETIC BALE PROTECTION AROUND INLETS OF SIMILAR STRUCTURES



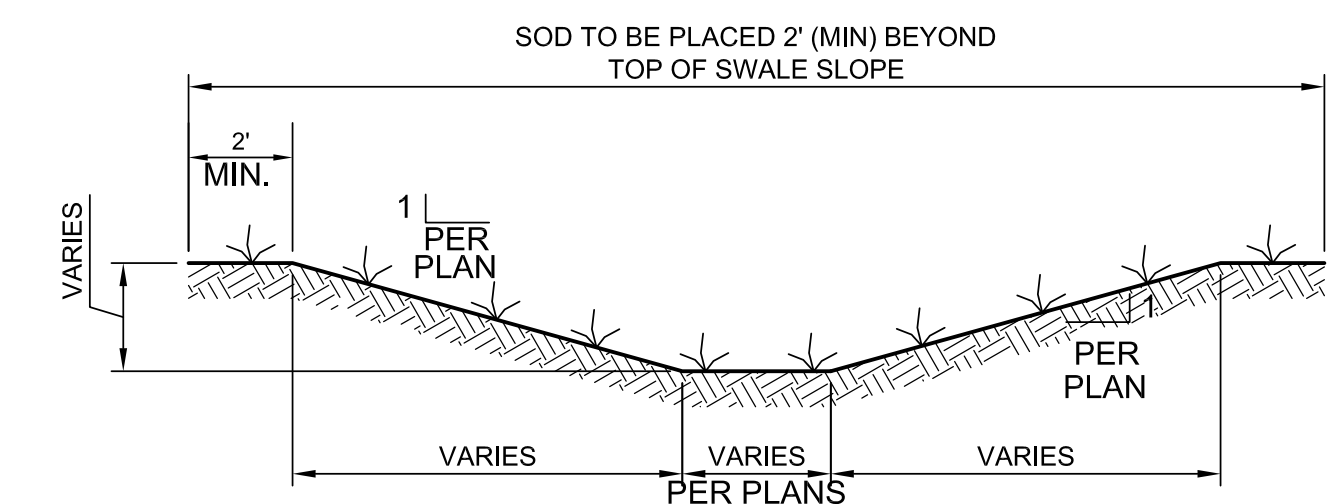
UNDERGROUND PIPE CROSSING



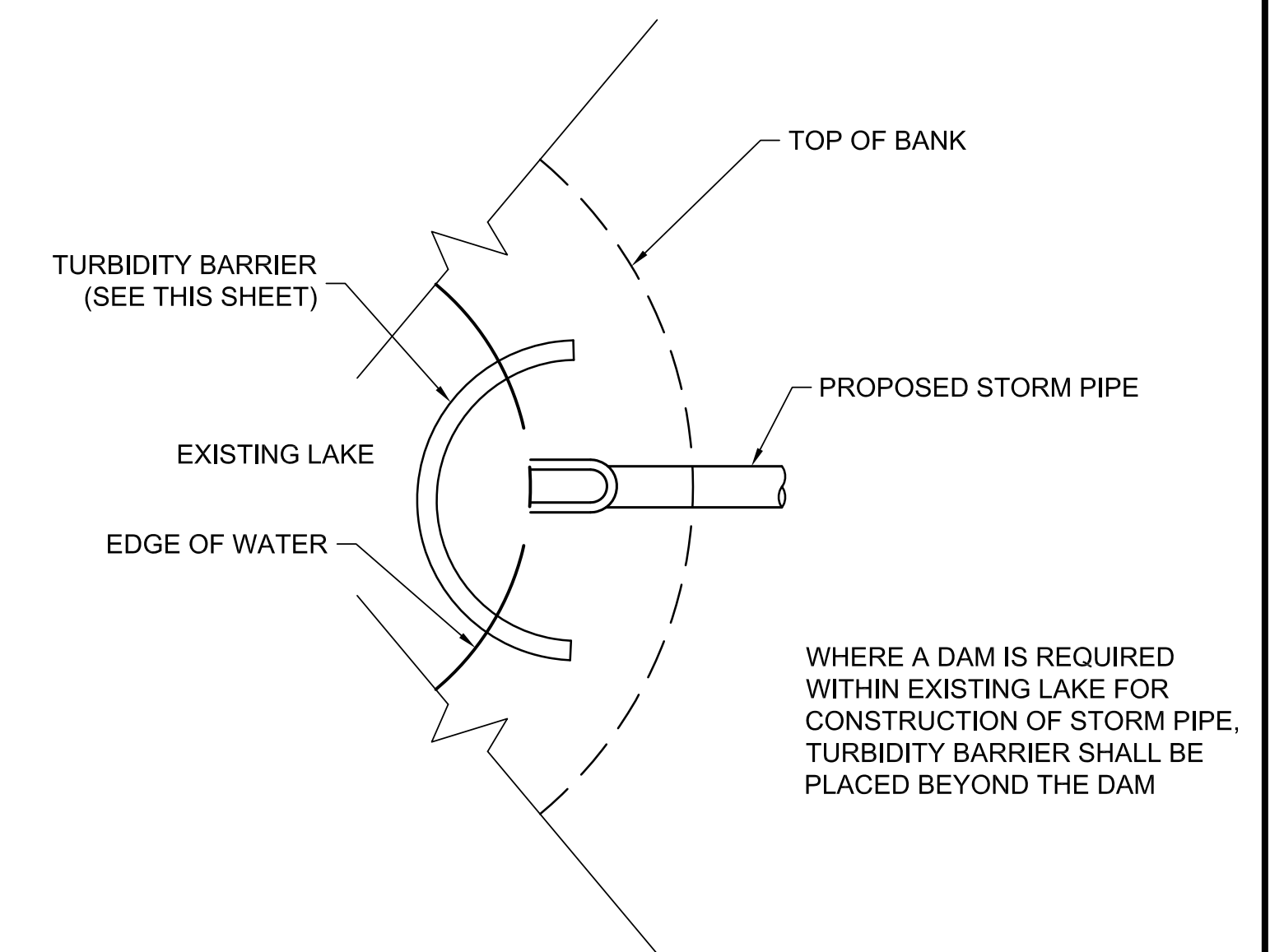
SOD ALONG CURB AND AROUND INLET



GRASS SLOPES



TYPICAL SWALE SECTION



TURBIDITY BARRIER AT CONNECTION OF STORM PIPE TO EXISTING LAKE

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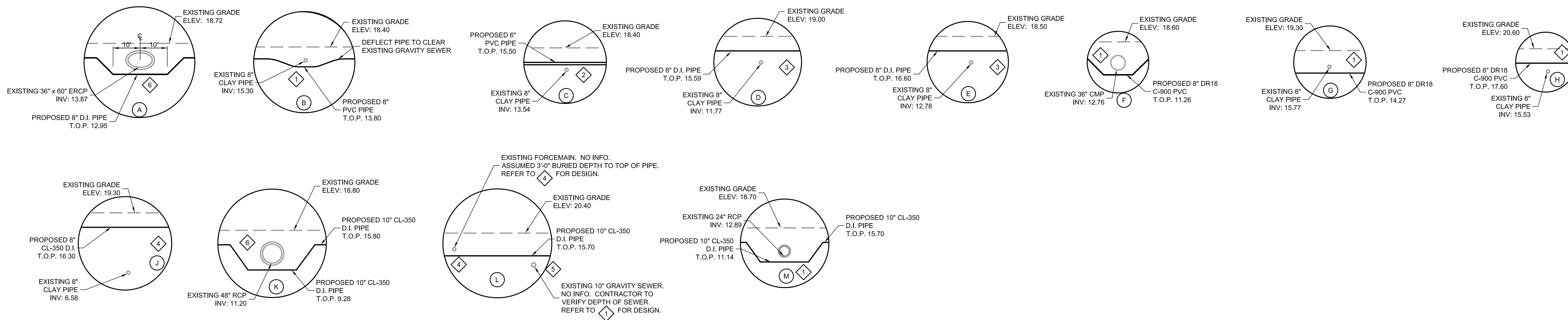
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MANATEE COUNTY
BAYSHORE ON THE LAKES WATERLINE REPLACEMENT
EROSION CONTROL DETAILS

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7880F.10 DRAWING NO. T-05
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CROSSING DETAILS FOR DRAWING P-03



KEY NOTES

- 1 JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND AT LEAST 18 INCHES BELOW STORM SEWER OR GRAVITY SEWER.
- 2 JOINT SHALL BE AT LEAST 6 FEET FROM CROSSING AND AT LEAST 6 INCHES ABOVE GRAVITY SEWER.
- 3 JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND AT LEAST 18 INCHES ABOVE STORM SEWER OR GRAVITY SEWER.
- 4 JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND AT LEAST 6 INCHES ABOVE STORM SEWER OR GRAVITY SEWER.
- 5 JOINT SHALL BE AT LEAST 6 FEET FROM CROSSING AND AT LEAST 6 INCHES ABOVE STORM SEWER OR GRAVITY SEWER.
- 6 JOINT SHALL BE AT LEAST 10 FEET FROM CROSSING AND AT LEAST 6 INCHES BELOW STORM SEWER OR GRAVITY SEWER.

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REV	DATE	BY	DESCRIPTION

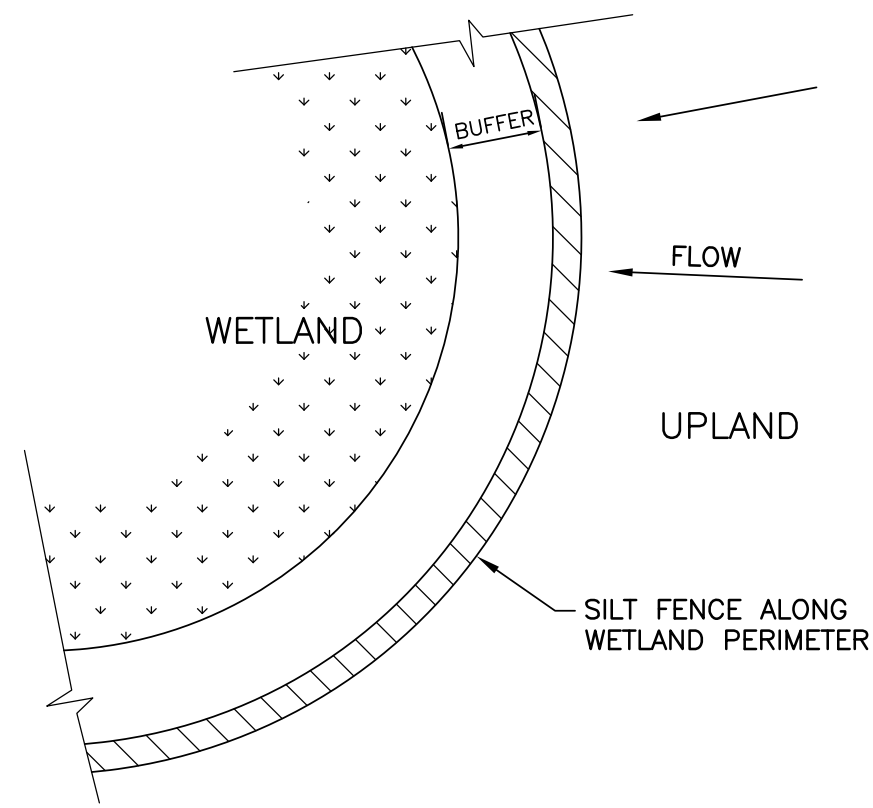
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CHECKED TFT	
DATE NOVEMBER 2010	

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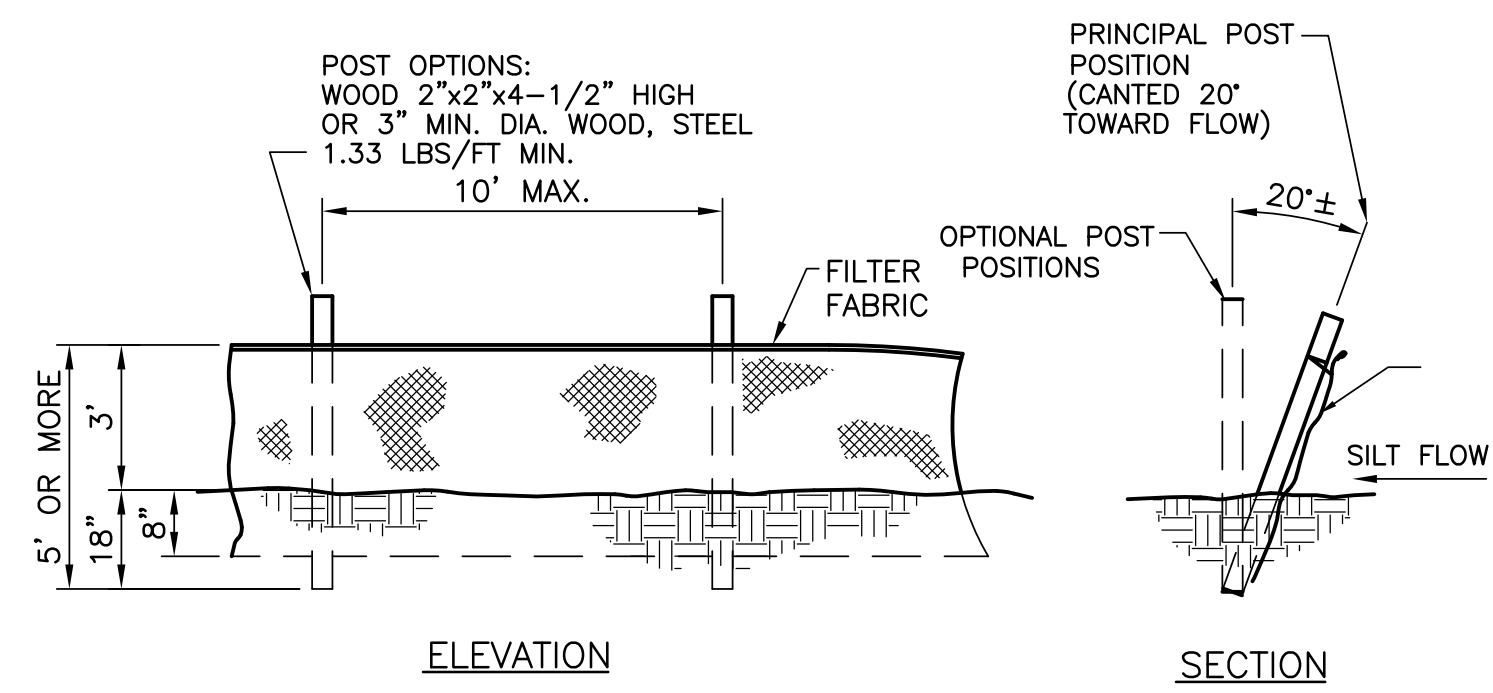
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MANATEE COUNTY
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CROSSING DETAILS

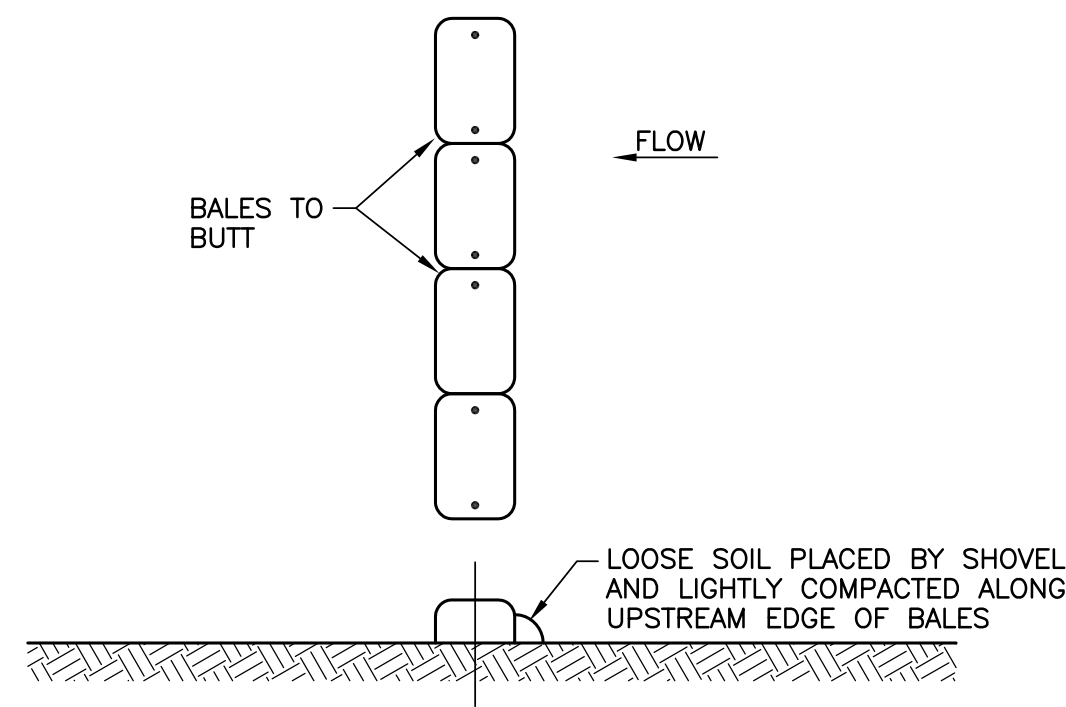
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7880F.10 DRAWING NO. T-06
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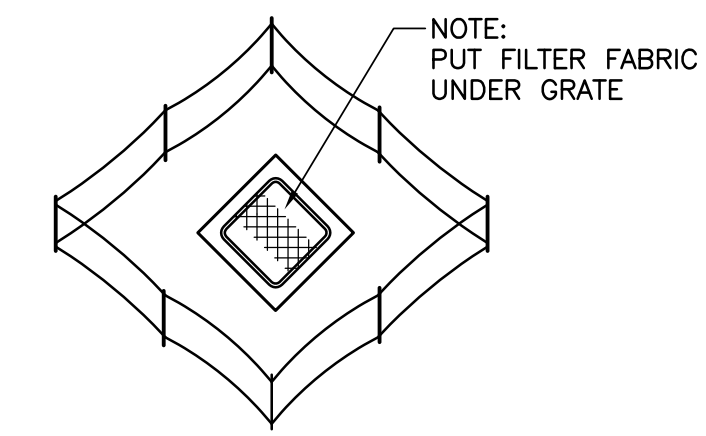
C303 WETLAND PROTECTION
TYP J 01-28-05



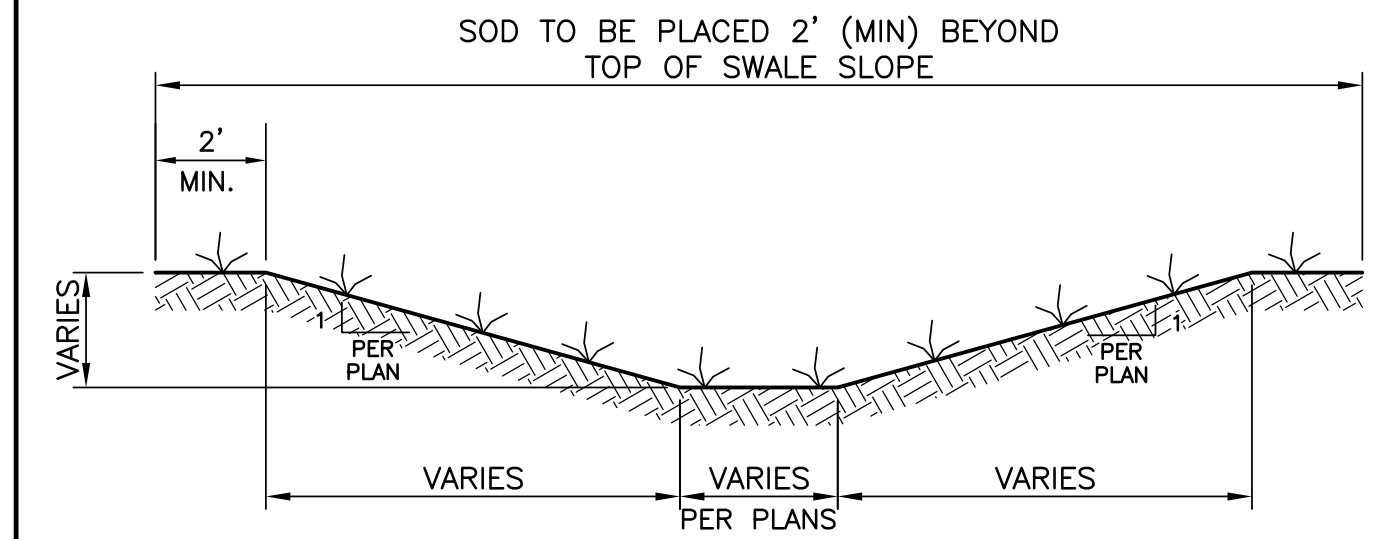
C304 TYPICAL SILT FENCE
TYP J 01-28-05



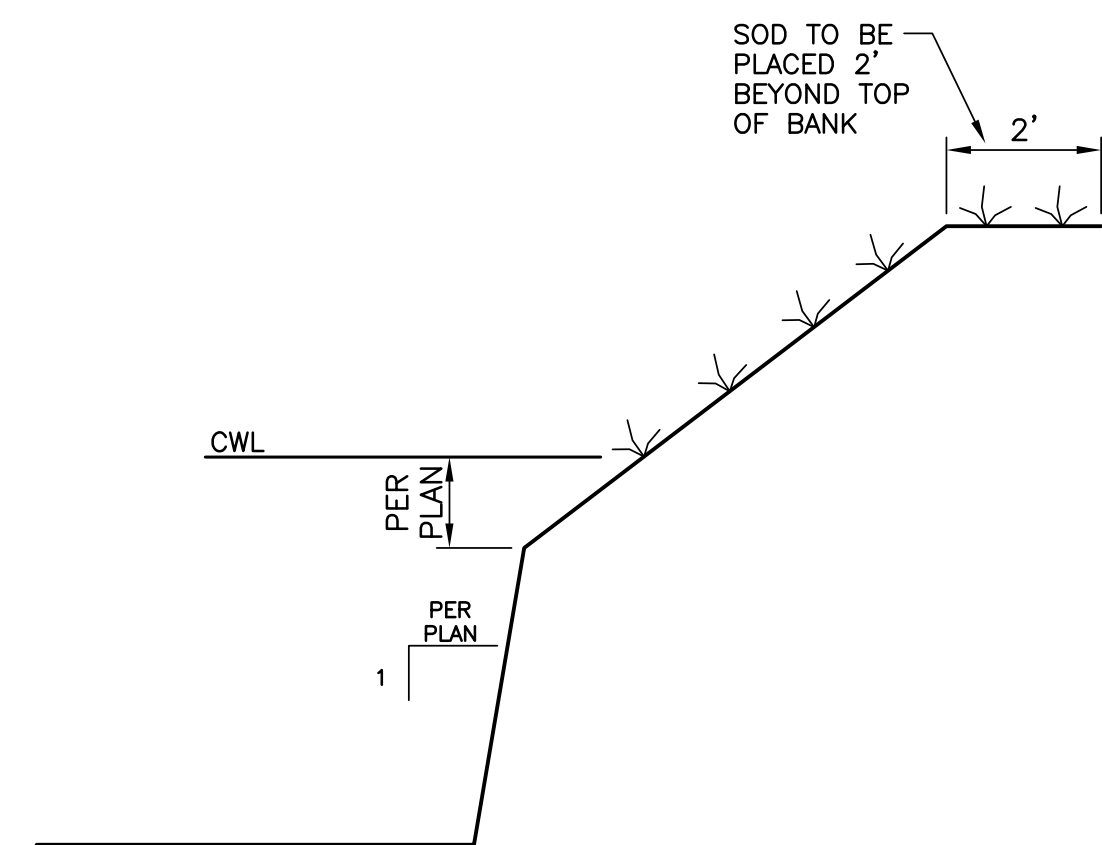
C305 TYPICAL STAKED HAY BALES
TYP J 01-28-05



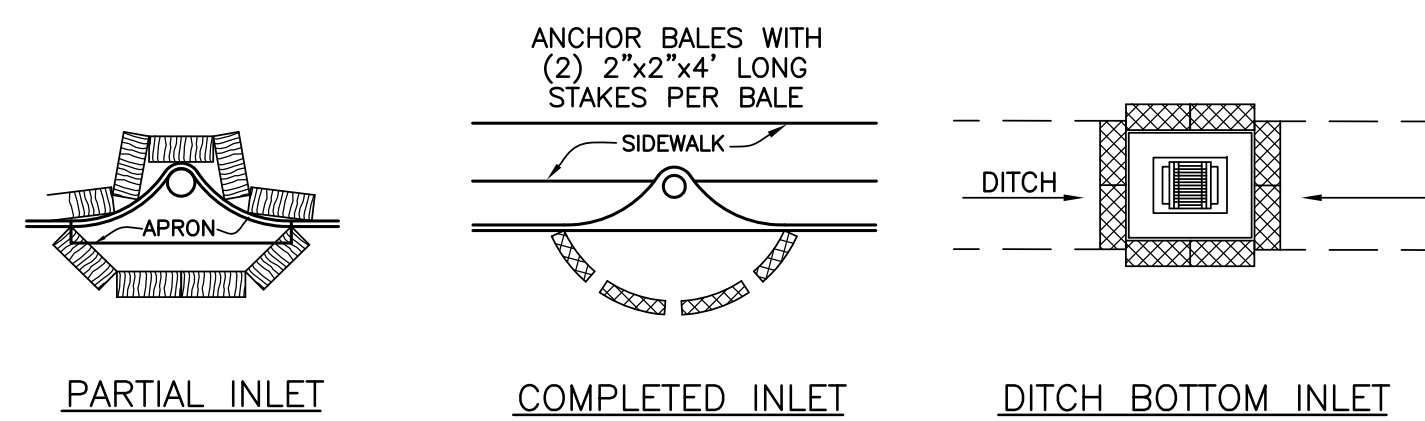
C306 PROTECTION AROUND DITCH
TYP J BOTTOM INLETS 01-28-05



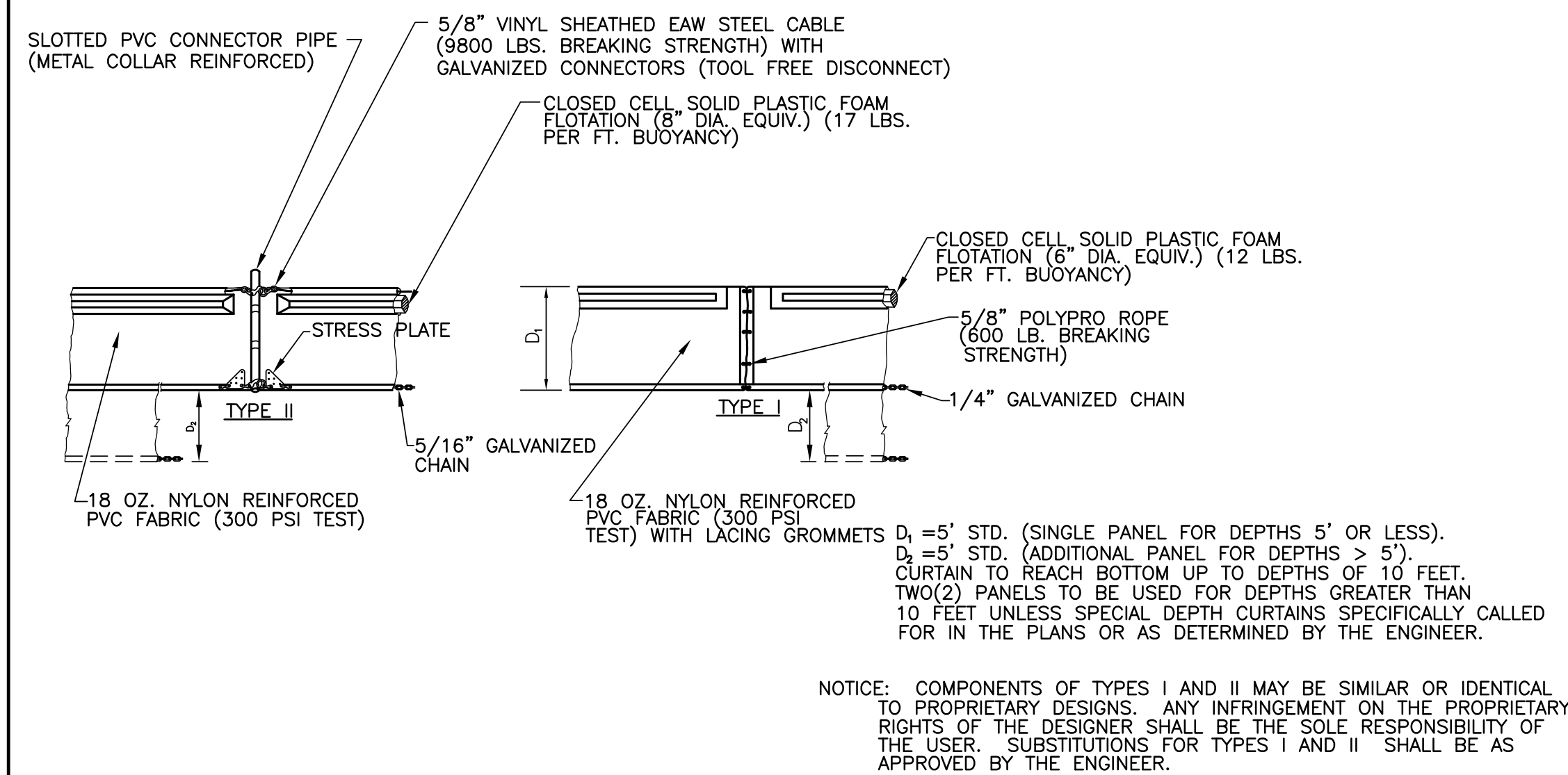
C307 TYPICAL SWALE SECTION
TYP J 01-28-05



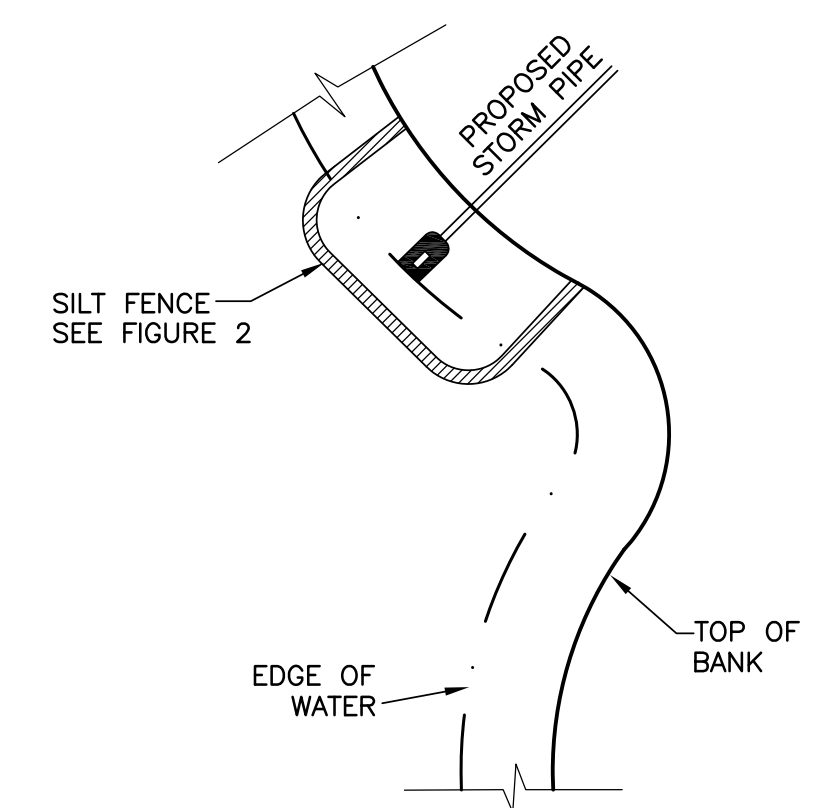
C308 TYPICAL RETENTION/DETENTION
TYP J POND SECTION 01-28-05



C309 PROTECTION AROUND INLETS
TYP J OR SIMILAR STRUCTURES 01-28-05



C310 FLOATING TURBIDITY BARRIERS
TYP J 01-28-05



C311 SILT BARRIER AT CONNECTION OF
TYP J STORM PIPE TO EXISTING LAKE 01-28-05

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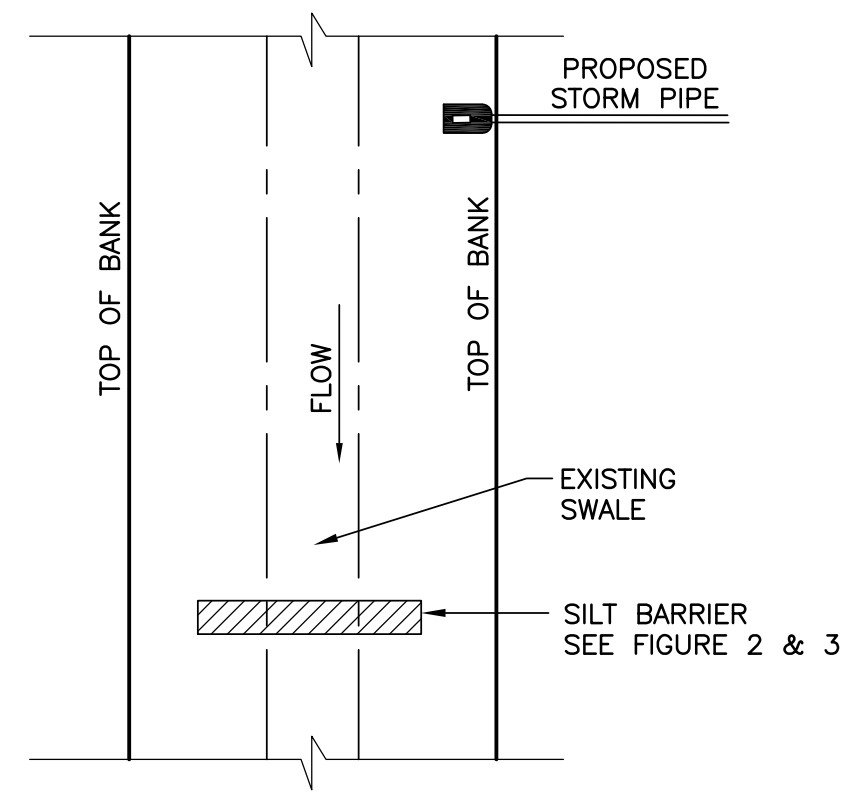
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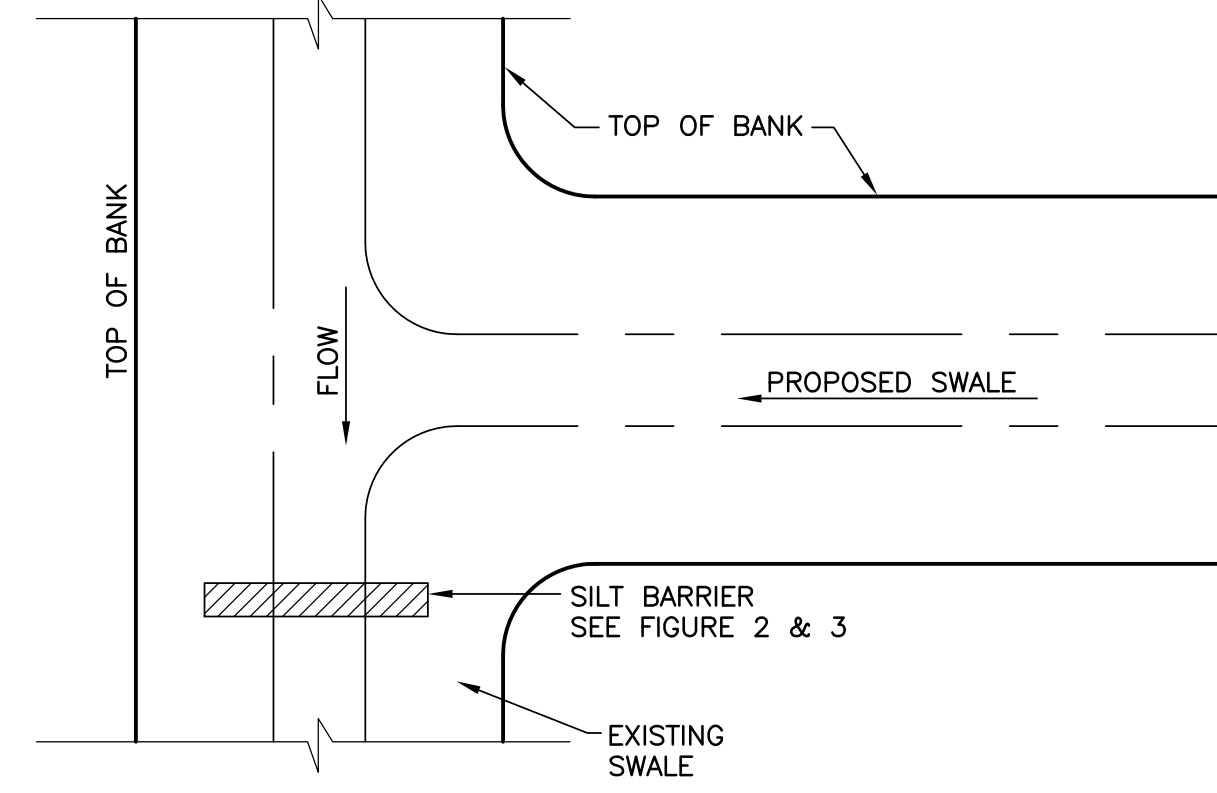
MANATEE COUNTY
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BEST MANAGEMENT PRACTICES

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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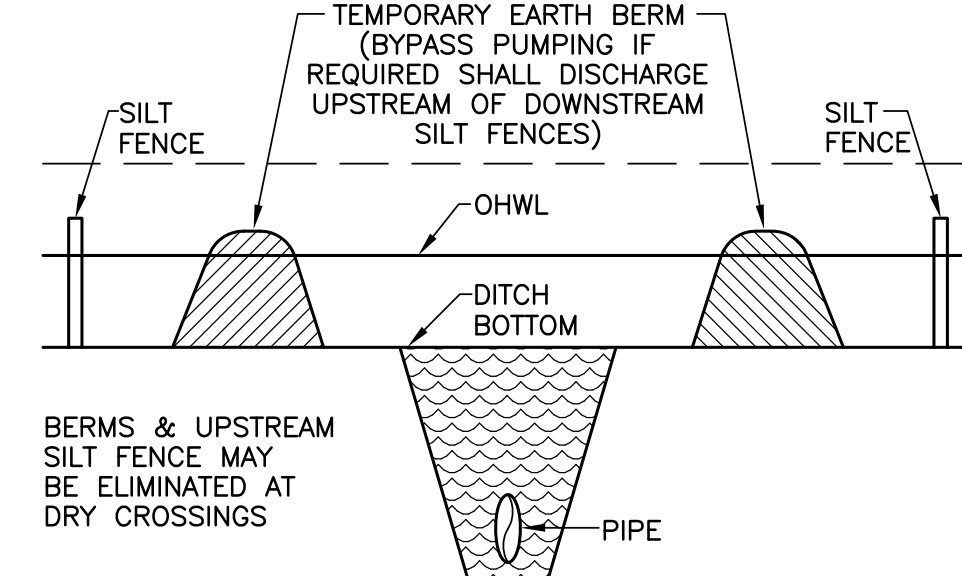
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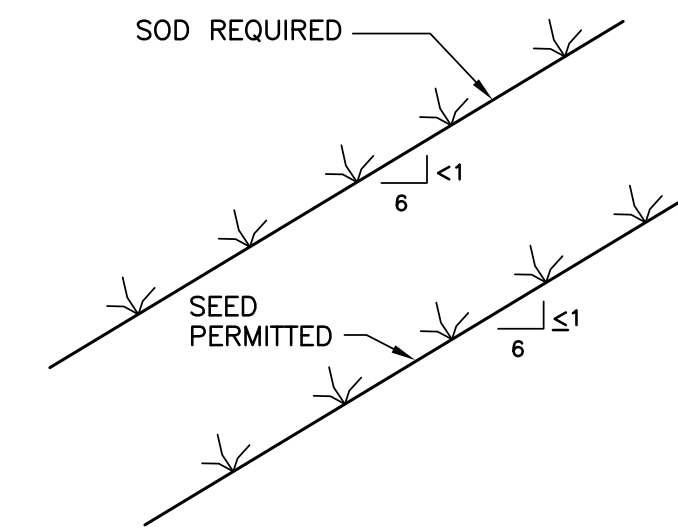
C312 SILT BARRIER AT CONNECTION OF
TYP J STORM PIPE TO EXISTING SWALE 01-28-05



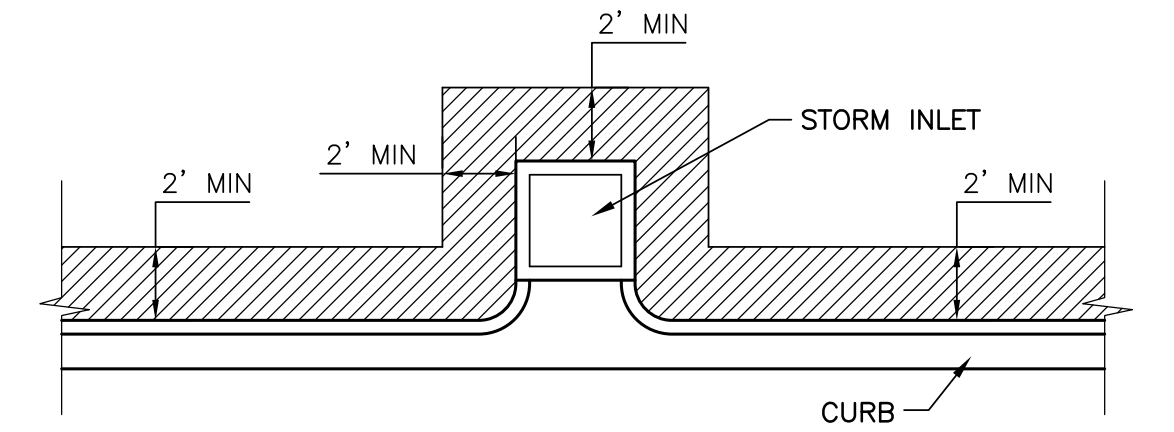
C313 SILT BARRIER AT CONNECTION OF
TYP J SWALE TO EXISTING SWALE 01-28-05



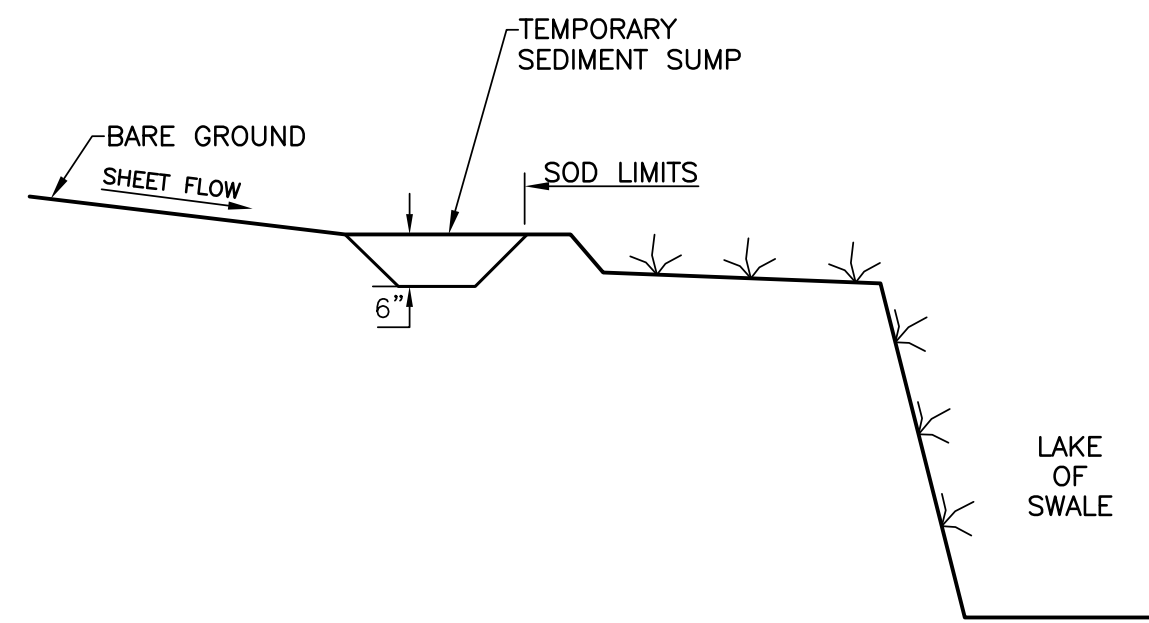
C314 UNDERGROUND PIPE CROSSING
TYP J 01-28-05



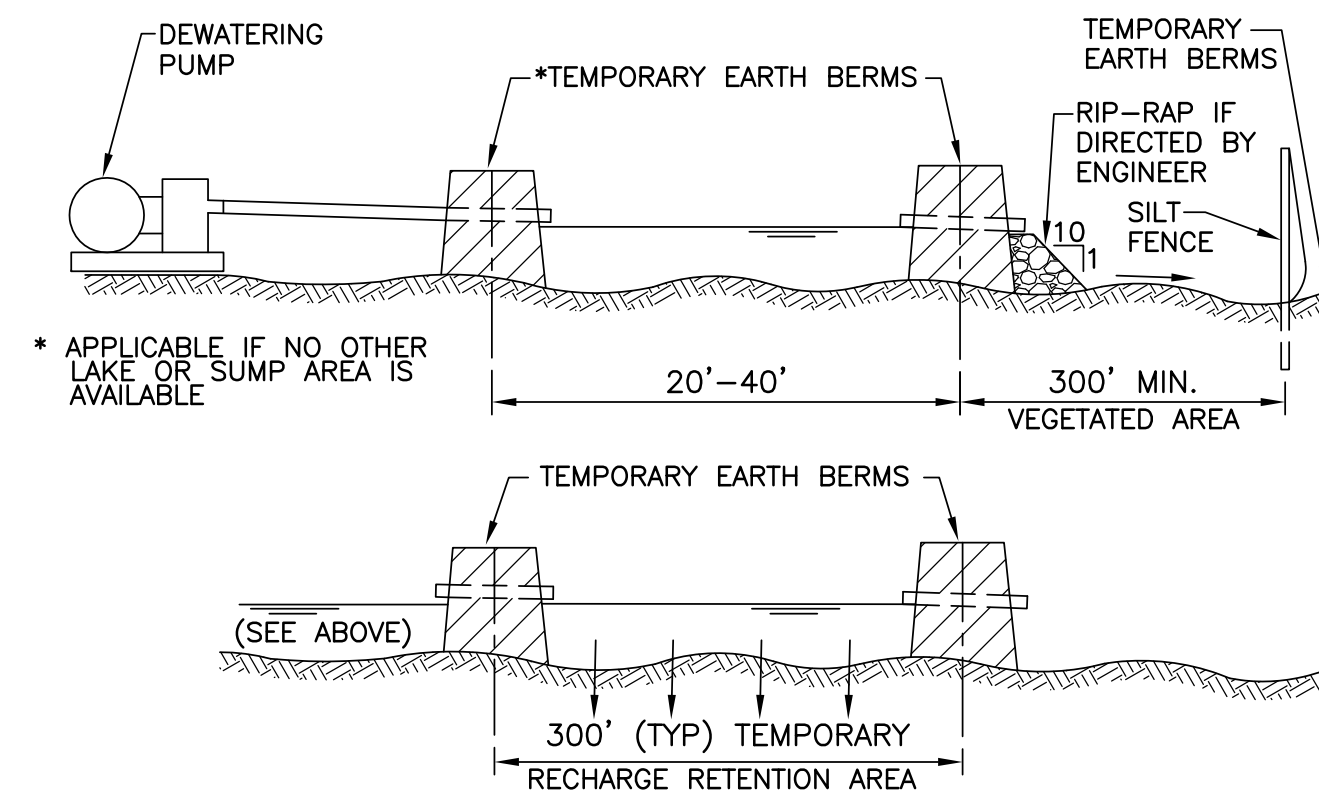
C315 GRASS SLOPES
TYP J 01-28-05



C316 SOD ALONG CURB AND AROUND INLET
TYP J 01-28-05



C317 TEMPORARY SEDIMENT SUMP
TYP J 01-28-05



C318 TYPICAL DEWATERING DISCHARGE PLAN
TYP J 01-28-05

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JOB NO.
7880F.10
DRAWING NO.
T-08