

7TH AND SHELTER BAY DRIVE DRAINAGE IMPROVEMENTS

FOR

CITY OF KEY COLONY BEACH, FLORIDA

M & A Project No. 0604-20-1



FREDDIE FOSTER
MAYOR

JOEY RASPE
VICE-MAYOR

THOMAS HARDING
COMMISSIONER/SECRETARY/TREASURER

TOM DIFRANSICO
COMMISSIONER

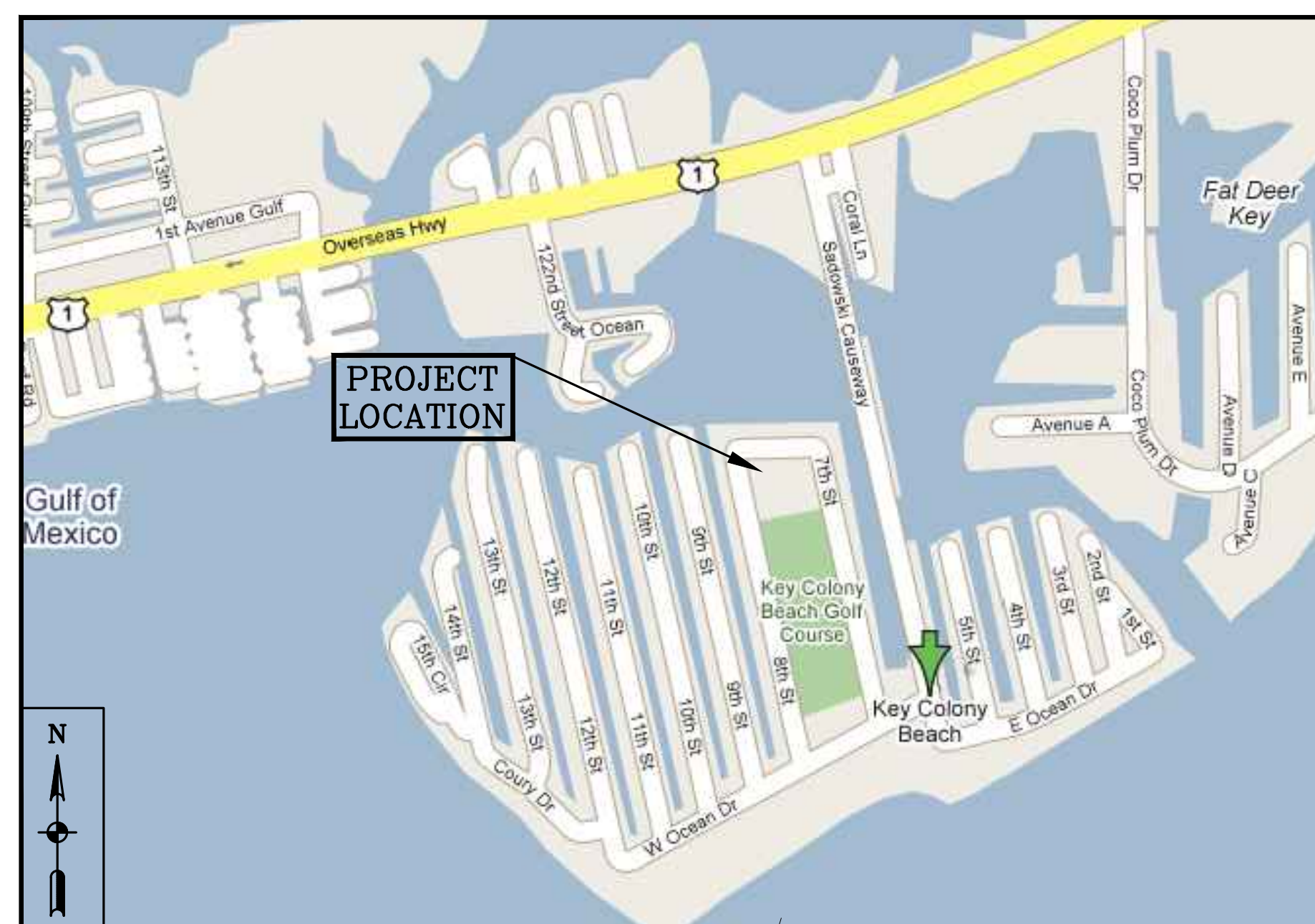
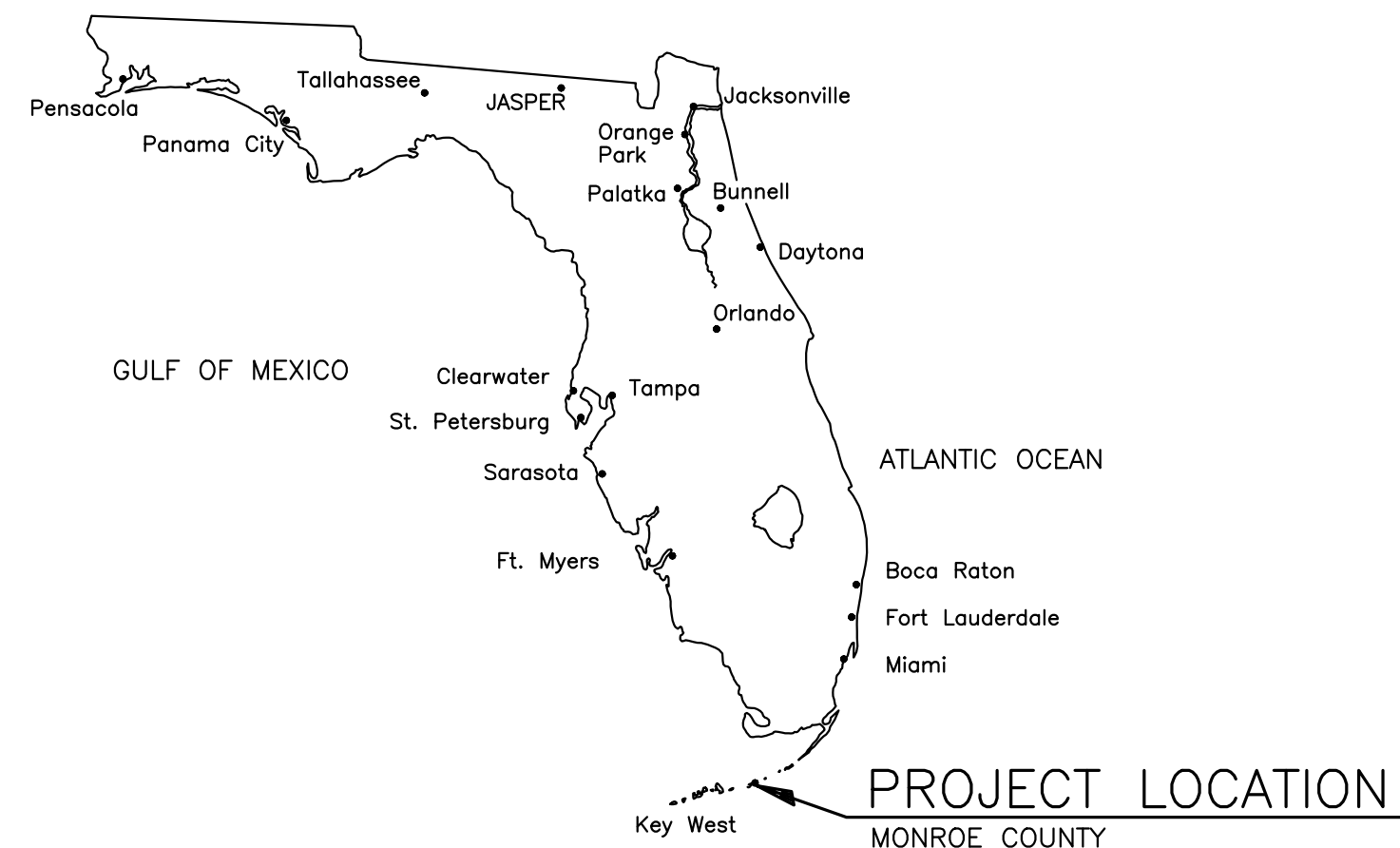
DOUG COLONELL
COMMISSIONER

SILVIA GRANSEE
CITY CLERK

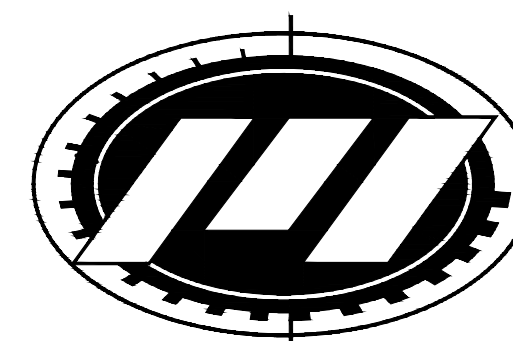
JOHN BARTUS
CITY ADMINISTRATOR

D R A W I N G I N D E X

SHEET NO.	SHEET TITLE
1	COVER SHEET
2	GENERAL NOTES, ABBREVIATIONS & LEGEND
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4	PRE-DEVELOPMENT PLAN
5	POST-DEVELOPMENT PLAN
6	SITE DEMOLITION PLAN
7	8TH STREET DRAINAGE PLAN
8	SHELTER BAY DRIVE & 7TH STREET DRAINAGE PLAN
9	7TH STREET DRAINAGE PLAN
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14	WET DETENTION POND - PLANTING BLOW UP
15	SECTIONS
16	TYPICAL DETAILS
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20	SWPPP DETAILS
21	WET DETENTION POND - ELECTRICAL SITE PLAN & ONE-LINE DIAGRAM
22	ELECTRICAL DETAILS



VICINITY MAP



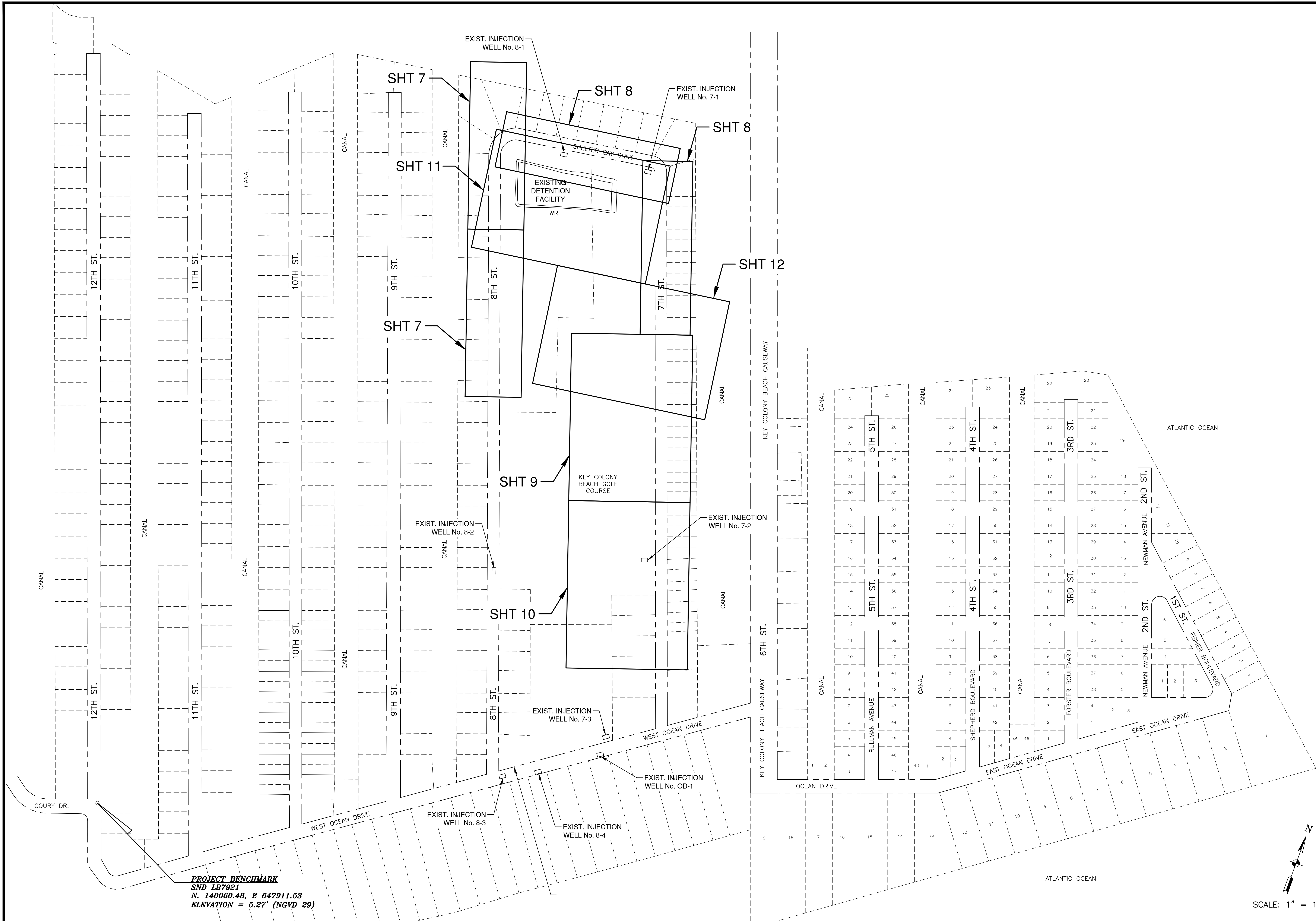
MITTAUER
& ASSOCIATES, INC.
CONSULTING ENGINEERS

580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073
TEL. (904) 278-0030 FAX. (904) 278-0840 FLORIDA LICENSE RY-6569

BID SET

02/13/25

M:\CAD Files\Key Colony Beach\06042017 7th and Shelter Bay Drive Drainage Improvements\Design\SH13.dwg, 2/10/2025 11:20:12 AM



DESIGN		MPT	DATE		NO	DATE	BY	REVISION DESCRIPTION
DRWN	JRS	02/13/25						
PROJ MGR	JRS	02/13/25						
1 INCH								

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CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
Key Map
Monroe County, Florida

JOB NO.
0604-20-1
SHEET NO.
3

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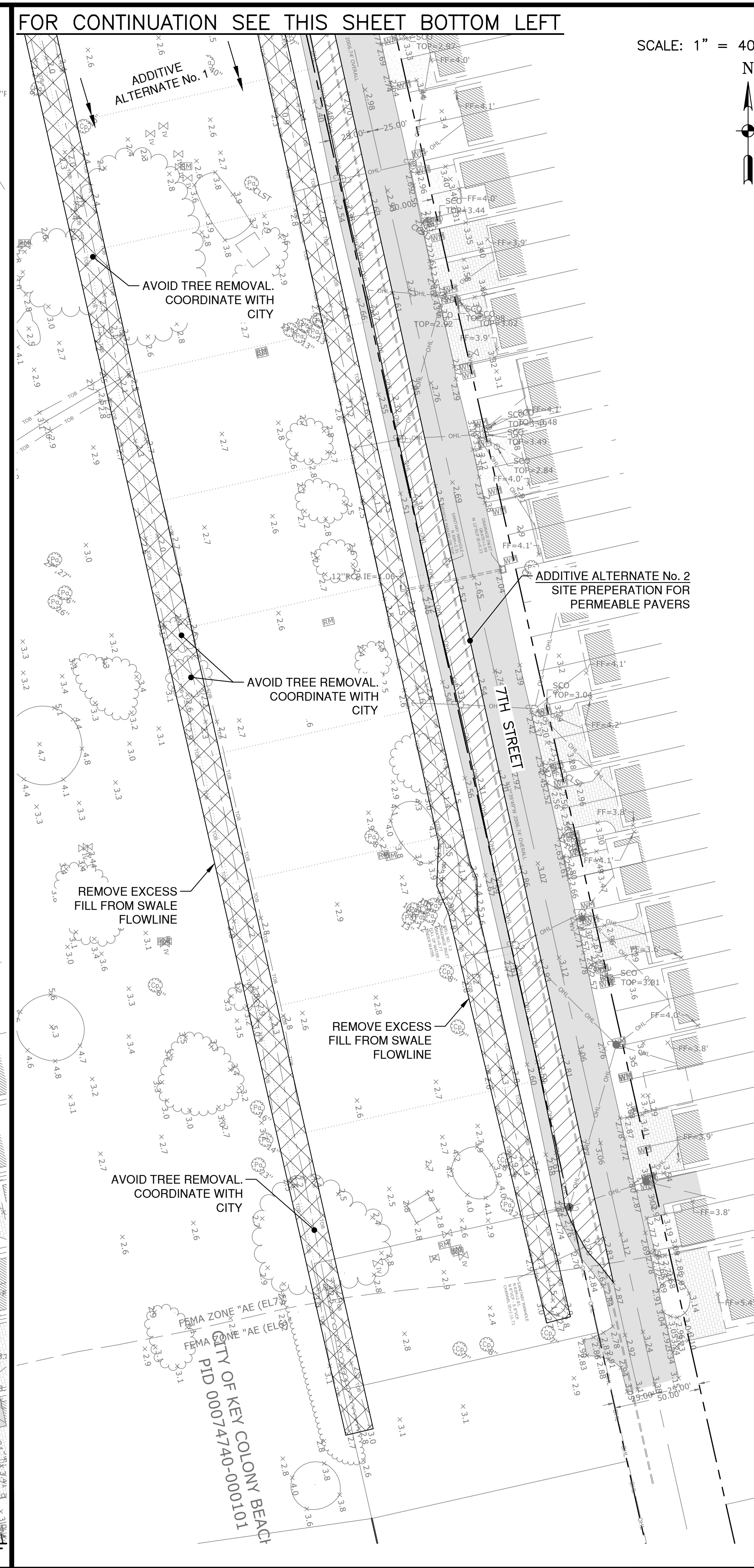


CITY OF KEY COLONY BEACH 7th and Shelter Bay Drive Drainage Improvements Post-Development Plan Monroe County, Florida		MITTALUER & ASSOCIATES, INC. CONSULTING ENGINEERS 580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073 TEL. (904) 278-0030 FAX. (904) 278-0840 FLORIDA RY NO. 6569		DESIGN: MPT, MAL, JRS DATE: 02/13/25 PROJ. MGR. DATE		NO. DATE BY		REVISION DESCRIPTION	
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FOR CONTINUATION SEE THIS SHEET TOP RIGHT



SCALE: 1" = 40'

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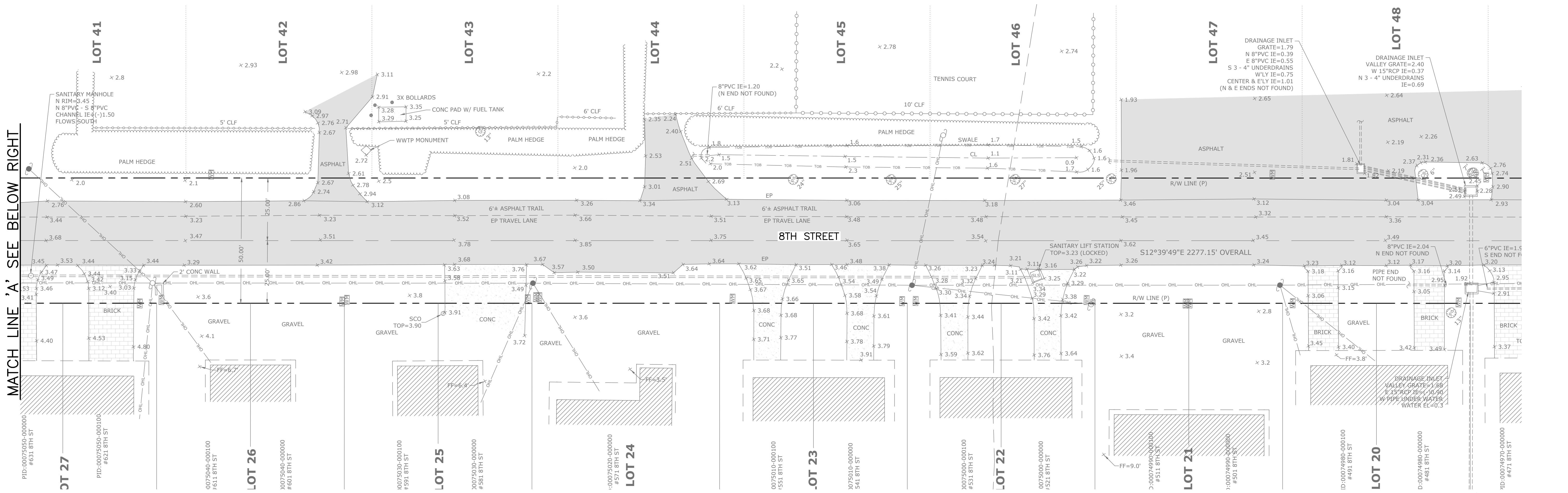
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MPT					
JRS					

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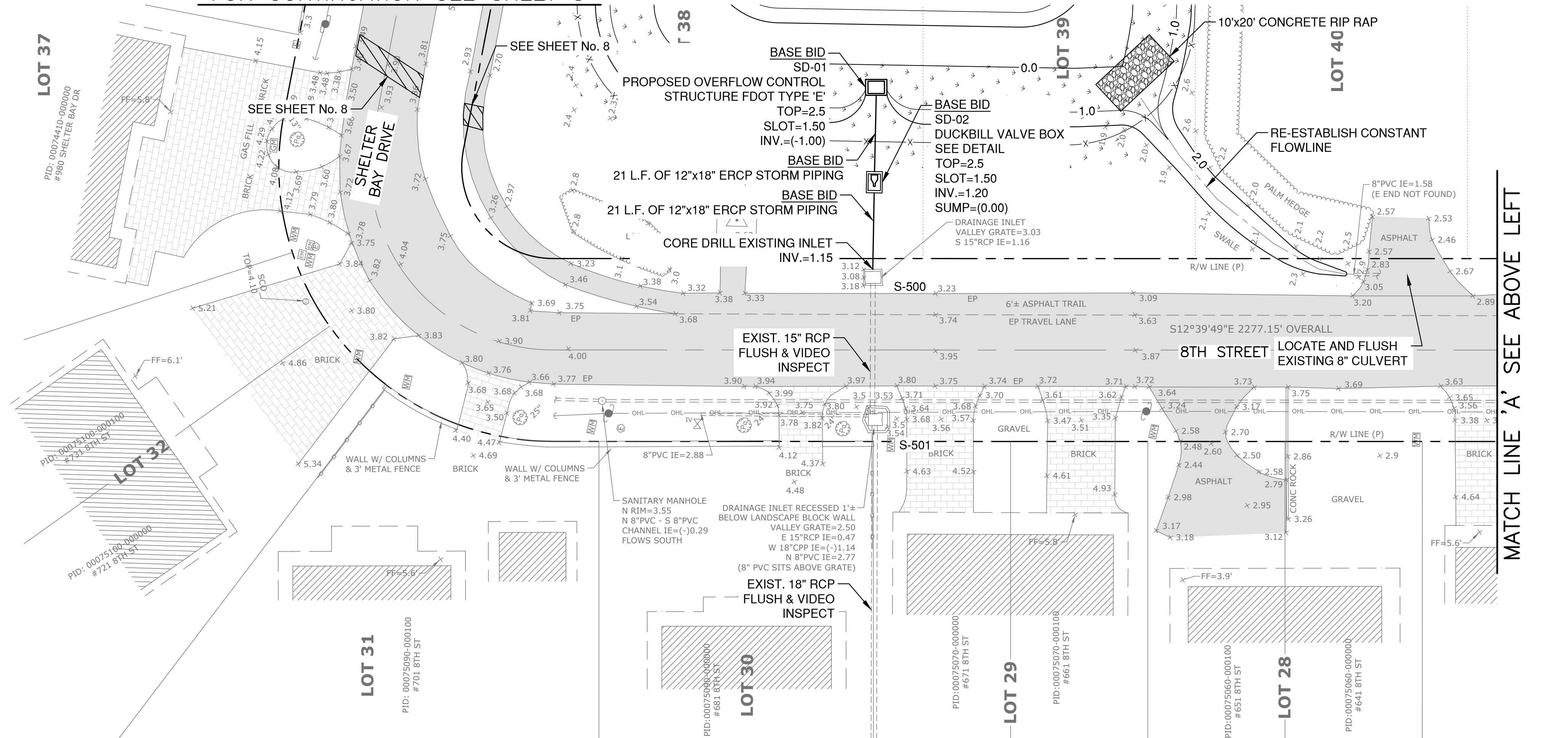
CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
Site Demolition Plan
Monroe County, Florida

JOB NO. 0604-20-1
SHEET NO. 6

MATCH LINE 'A' SEE BELOW RIGHT



FOR CONTINUATION SEE SHEET 8



SCALE: 1" = 20'

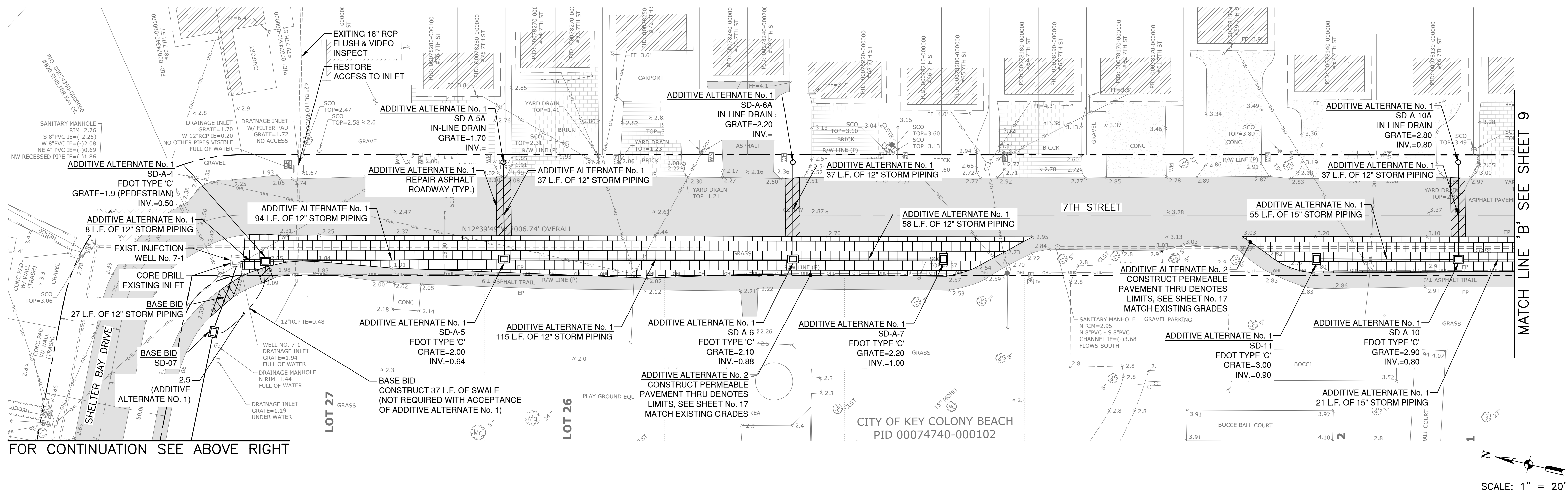
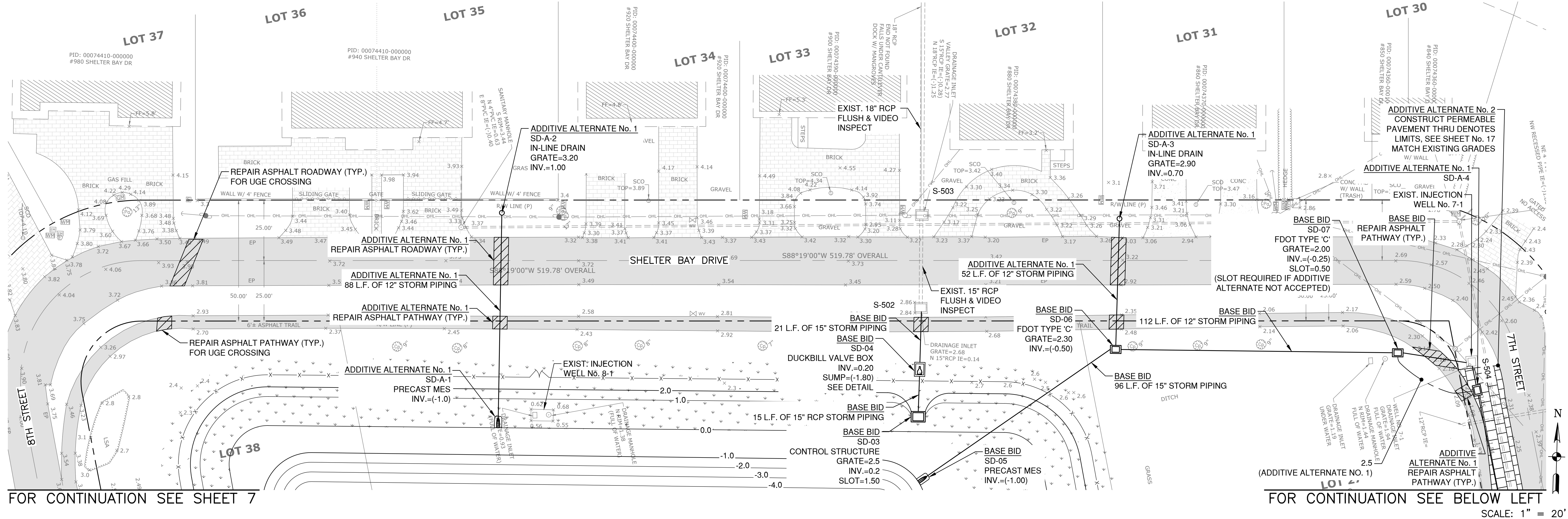
SCALE: 1" = 20'

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DESIGNER	DATE	PROJECT	DATE	BY	REVISION
MPT	02/13/25	JRS	02/13/25		
DRW		PROJ			
1 INCH					

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CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
8th Street Drainage Plan
Monroe County, Florida

JOB NO.
0604-20-1
SHEET NO.
7



REVISION DESCRIPTION	
NO	DATE

DESIGN	DATE	BY
MPT	02/13/25	
DRWN		
JRS		
PROJ		
MGR		

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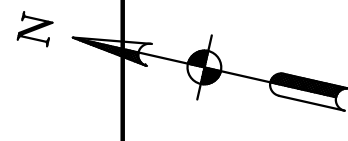
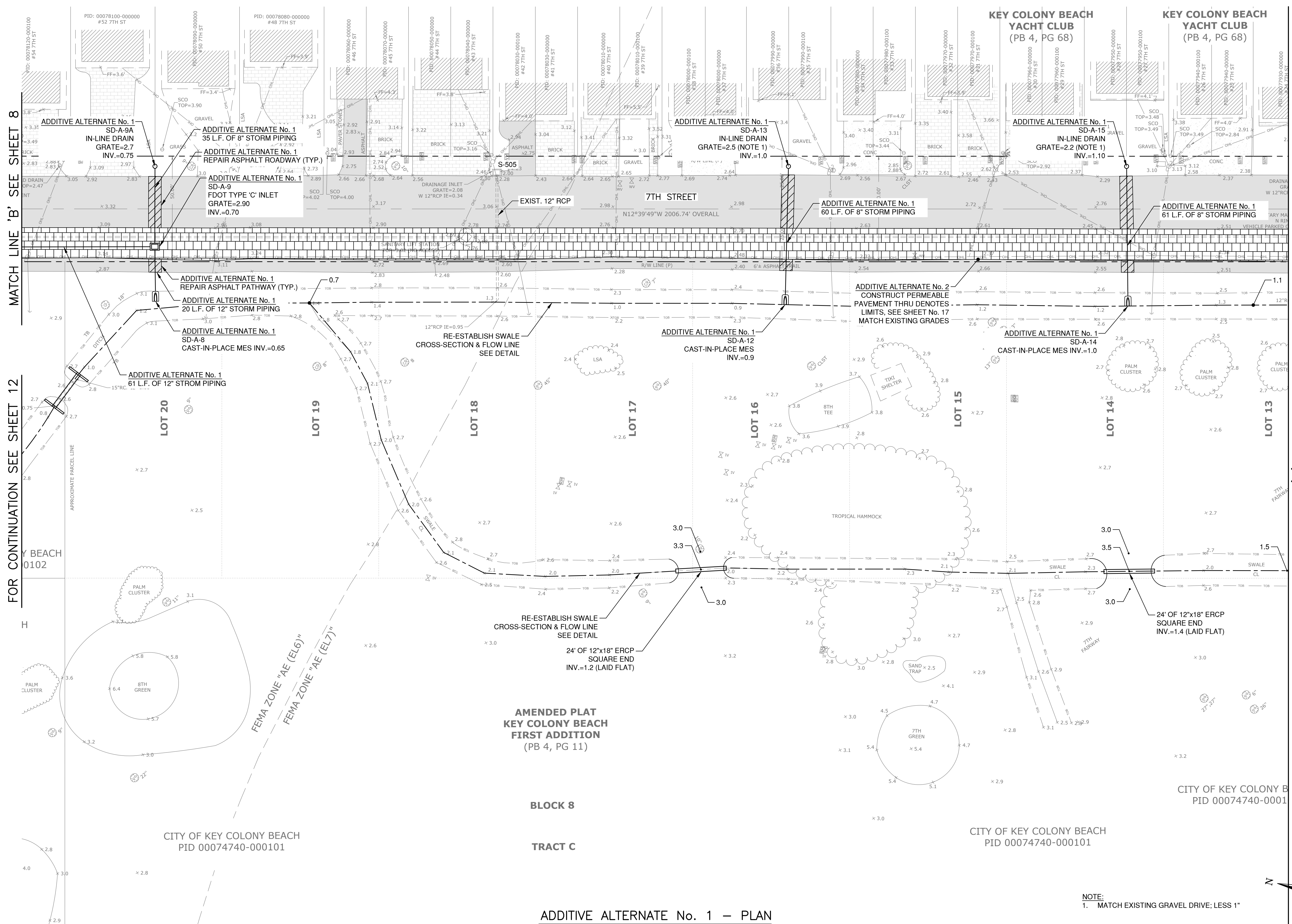
CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
Shelter Bay Drive & 7th Street Drainage Plan
Monroe County, Florida

JOB NO. 0604-20-1
SHEET NO. 8

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FOR CONTINUATION SEE SHEET 12

MATCH LINE 'B' SEE SHEET 8



SCALE: 1" = 20'

NOTE:
1. MATCH EXISTING GRAVEL DRIVE; LESS 1"

ADDITIVE ALTERNATE No. 1 - PLAN

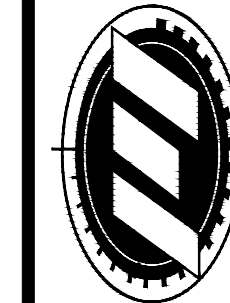
BLOCK 8

TRACT C

AMENDED PLAT
KEY COLONY BEACH
FIRST ADDITION
(PB 4, PG 11)

CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
7th Street Drainage Plan
Monroe County, Florida

JOB NO.
0604-20-1
SHEET NO.
9

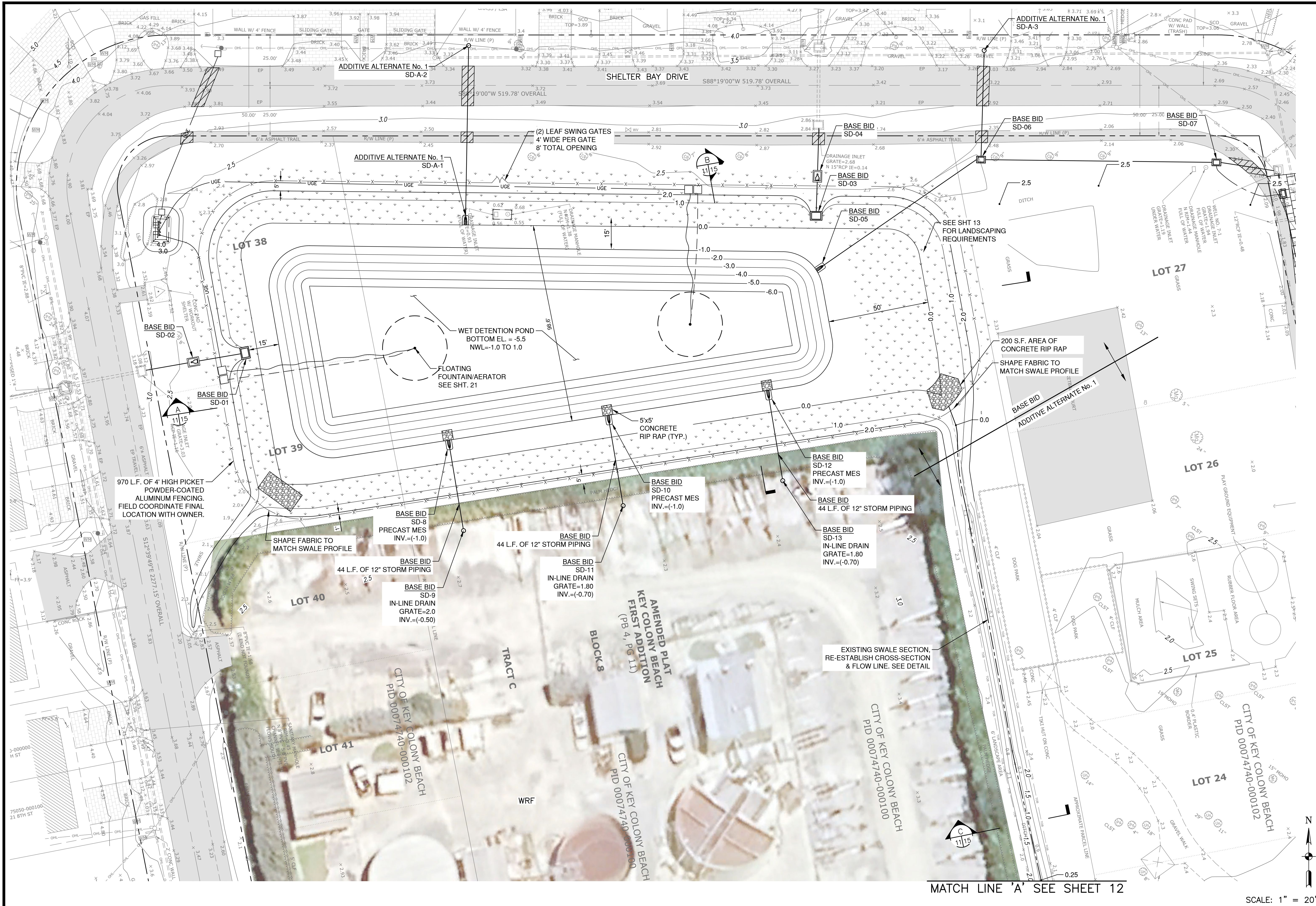


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PROJECT: MGR.
DATE: 02/13/25

NO. DATE BY

REVISION DESCRIPTION



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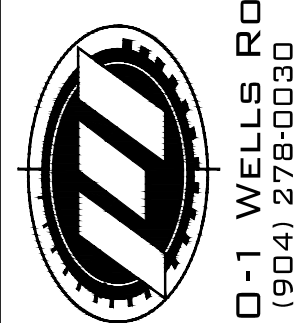
CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
Wet Detention Pond - Grading Plan
Monroe County, Florida

JOB NO. 0604-20-1
SHEET NO. 11



DESIGN
MPT
DRAWN
MAL
PROJ
JRS
MGR.

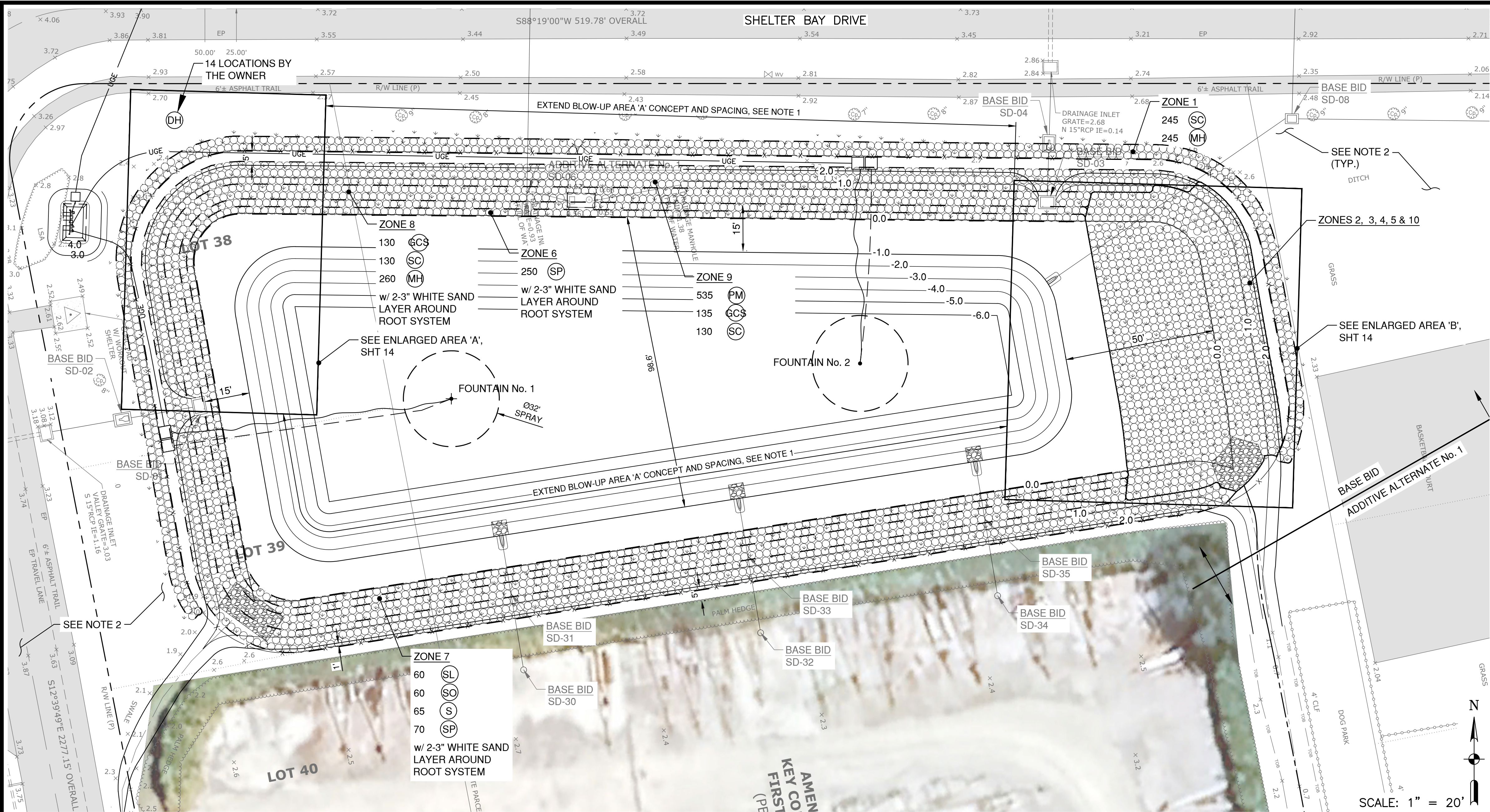
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CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
Wet Detention Pond - Grading Plan
Monroe County, Florida

JOB NO.
0604-20-1
SHEET NO.

12



PLANT INSTALLATION

1. Install all plants according to Florida Department of Transportation Index Number 544 Landscape Installation (<http://www.fdot.gov>).
2. Do not install groundcovers or shrubs on top of or into the rootball of new trees.
3. Contractor shall verify project site conditions and final quantities based on the plans prior to bidding and pricing. In the occurrence of a discrepancy between the plans and the plant list, the plans shall take precedence.
4. All plants shall conform to the specifications on the plant list or plant schedule.
5. All plants shall be Florida No. 1 Grade or better according to the Florida Grades and Standards Handbook.
6. All plants shall be nursery-grown containerized or b&b stock.
7. All plants shall be in good health, vigorous, evenly branched, and thickly foliated when in leaf. All plants shall be free of disease, insects, including eggs and larvae, as well as have a healthy, developed root system. They should also be free of physical damage or adverse conditions that would prevent thriving growth.
8. Plant material, tree locations, and bed outlines shall be staked or flagged on site by the contractor and shall be adjusted as required to fit actual as-built conditions on site and approved by the owner or owner's representative prior to installation.
9. Unless otherwise specified, all existing plant material within the areas of new construction as shown on the plans shall be removed and properly disposed of off of the project site. Plant material outside of these areas shall remain and shall be replaced with like kind if killed or damaged via landscape installation activities (see general installation instructions and tree and existing vegetation protection).
10. Planting beds shall be shovel-cut to form a uniform, clean line between beds and lawn areas.
11. Remove all synthetic material surrounding the rootball, including strapping, and remove all material including burlap and wire basket from top third of root ball prior to backfilling. Failure to take these measures will result in rejection of the installed tree.
12. Shade trees shall be planted a minimum of 4 feet from any edge of pavement and 15 feet from overhead electric lines as measured from the at-grade centerline (refer to local provider to verify specific requirements).
13. All plant material shall be warranted for a period of one year from the date of Final Acceptance of the work and not the date on which it was installed.
14. Contractor shall provide all fine surface grading preparation for planting and shall maintain all finished grade requirements according to the plans, and ensure positive drainage. Report any drainage problems associated with finished grade or finished soil characteristics to the owner and the landscape architect.
15. Coordinate construction of planting areas with installation of irrigation system or hose bibs as specified.
16. Contractor shall provide white sand for all newly installed landscape areas. Provide a minimum 5' diameter mulch ring for all installed trees. Provide uniform coverage for all landscape beds.
17. Install sod as specified in the plans, according to the Florida Department of Transportation Standard Specification Section 570 Performance Turf (<http://www.fdot.gov>) unless otherwise stated herein.
18. Contractor shall provide certified, healthy sod, free of weeds, disease, fungus, insects, or nematodes.
19. Contractor is responsible for maintaining all stockpiled and installed landscape material during the construction period through Final Acceptance, including required weeding, pest control, fertilization, pruning, and any other measure necessary to ensure healthy and vigorous plants are provided at Final Acceptance. The owner shall provide maintenance during the warranty period following Final Acceptance, unless otherwise specified in the contract documents.
20. Contractor shall maintain all staking and guying materials and correct tree leaning or tilting during the warranty period. Contractor shall ensure that tree trunks and branches are not damaged or growth restricted by strapping or guying materials. Contractor shall be responsible for removal of all above-ground staking and guying material at the end of the warranty period.

SOILS

1. Contractor shall minimize soil compaction to all new planting areas by limiting access to those areas designated for planting purposes only. Contractor shall not store, clean, or empty equipment or materials within any area specified for preservation or new plant installation.
2. Prior to plant installation, contractor shall conduct a soil test in at least three locations on the site that best represent the plant distribution and conditions shown on the planting plan. The soil test shall be conducted by an independent laboratory qualified to test soils. The test shall be conducted to determine:
 - 2.1. Soil type
 - 2.2. Soil pH
 - 2.3. Nutrient content
 - 2.4. Recommended amendments
3. Contractor shall furnish a copy of the soil report(s) along with the contractor's recommended amendments to the landscape architect and the owner prior to initiating plant installation. Contractor shall not initiate plant installation without a written or verbal response from the landscape architect or owner indicating receipt of the report and agreement with the amendment approach.
4. At a minimum, contractor shall provide 5-8 percent organic pine bark compost uniformly throughout the planting soils prior to plant installation. Do not apply synthetic fertilizer to any planting area without the approval of the landscape architect or owner.

GENERAL INSTALLATION INSTRUCTIONS

1. Contractor shall furnish all labor, materials, and insurance to complete the work as shown in the plan.
2. Contractor is responsible for acquiring all required permits and associated fees to complete the work.
3. Contractor shall locate and visibly mark all buried utilities prior to construction and notify the owner of any conflicts.
4. Contractor shall demolish and remove from the premises all pavement, sod and other materials required to implement the plan.
5. All work shall be completed in a timely manner and in accordance with standard industry practices.
6. Contractor shall coordinate a work plan with the owner prior to starting work and shall comply with all state and federal requirements for work safety.
7. Contractor shall coordinate an approved staging area with the owner prior to starting the work and shall maintain a clean and orderly site throughout the construction period and shall properly dispose of all trash and removed materials.
8. Contractor shall proceed with approved work in an orderly and timely fashion.
9. Contractor shall prevent offsite erosion, both by wind and rain, during construction using adequate means such as silt fencing, hay bales, and drain socks.
10. Contractor shall provide all new materials in first quality condition.
11. Substitutions shall be rejected unless approved by the owner prior to installation.
12. Contractor shall repair and/or replace at contractor's cost and in an expedient manner any utilities, pipes, conduit, cables, fences, pavement, plant material, or any other existing property within or abutting the project site damaged by contractor during the course of the project.
13. Contractor shall notify the owner at least one week in advance for a substantial completion inspection. The owner shall provide a punch list to the contractor outlining items to be completed by the contractor. Contractor shall complete punch list items in timely manner before calling for a final inspection by the owner.
14. Final payment for the work shall not be issued until a final inspection is completed and approved by the owner.
15. All work shall be warranted against defects and failure for at least 1 year following the final acceptance.
16. Contractor shall clean site of all construction debris, materials, and trash. Disturbed areas shall be fine-graded and landscaped according to the plans, or sodded with specified sod. Site must be clean and neat before a final acceptance and payment will be issued.

PLANT LIST (SEE NOTE 1)								
QTY	ABV	BOTANICAL NAME	COMMON NAME	CAL IN/CONT	HT/SPD	SPACING/OC	CANOPY	ORIGIN
TREES								
16	DH	Ilex cassine	Dahoon Holly	7	20-30' / 8-12'	40' OC	Yes	Native
								TOTALS
SHRUBS AND GRASSES								
480	GCS	Eleocharis cellulosa	Gulf Coast Spikerush	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
60	DF	Tripsacum floridanum	Dwarf Fakahatchee Grass	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
740	SC	Sporobolus bakeri	Sand Cord Grass	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
700	PM	Muhlenbergia capillaris	Pink Muhly Grass	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
660	MH	Sporobolus pumilus	Marsh Hay Cord Grass	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
130	SL	Crinum asiaticum	Swamp Lily	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
490	SO	Borrchia frutescens	Sea Ox-Eye Daisy	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
-	SB	Fourwing saltbush	Salt Bush	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
570	SP	Sesuvium portulacastrum	Sea Purselane	1 gal	2-3' / 2-3'	2.5' OC	NO	Native
-	DI	Iris hexagona	Dixie Iris	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
100	S	Salicornia europaea	Samphire	3 gal	2-3' / 2-3'	2.5' OC	NO	Native
SOD								
SEE NOTE 2	SOD	Stenotaphrum secundatum	St. Augustine	N/A	Certified solid sod	SF	NO	Non-native
								TOTALS

NOTES:

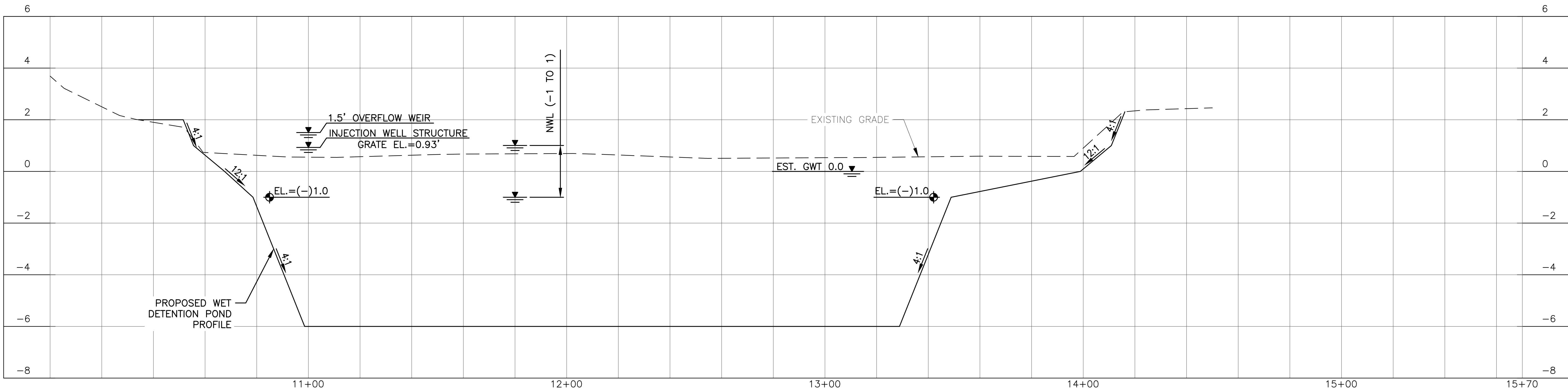
1. CONTRACTOR SHALL COORDINATE WITH THE CITY REPRESENTATIVE(S) TO CONFIRM PLANTING SELECTIONS, LOCATIONS & SPACING BEFORE ORDERING AND INSTALLING PLANT VEGETATION.
2. CONTRACTOR SHALL SOD ALL DISTURBED AREAS. FINAL QUANTITY BASED ON CONTRACTOR'S ACTIVITIES. SODDING SHALL EXTEND FROM THE UPLAND SIDE OF THE LANDSCAPE AREAS THRU ALL DISTURBED AREAS.
3. SEE SHT 2 FOR LANDSCAPE NOTES.

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DRAWN: MAL
PROJECT MGR: JRS
DATE: 02/13/25
1 INCH = 20 FEET

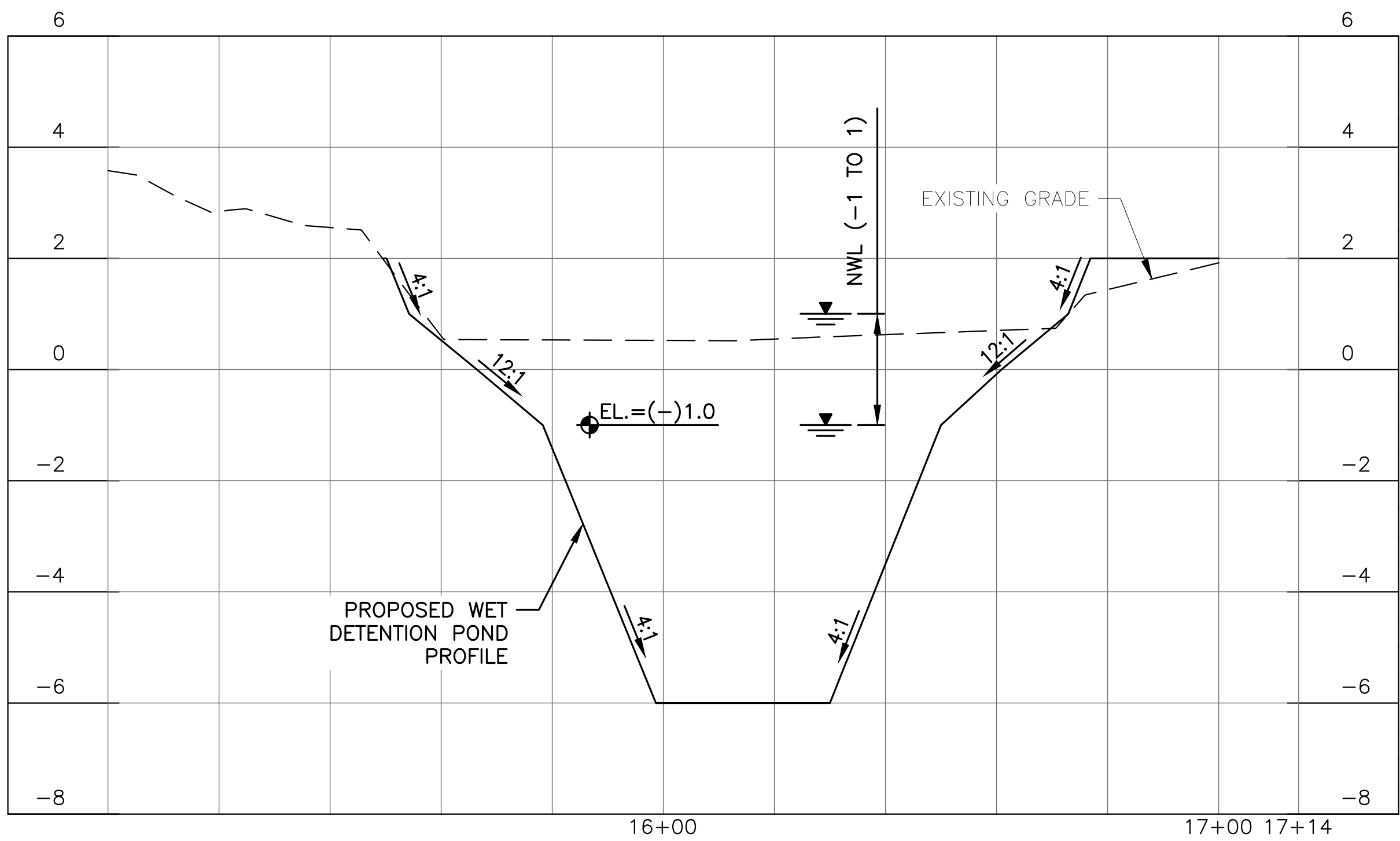
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FLORIDA RY NO. 6569

CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
Wet Detention Pond – Planting Plan
Monroe County, Florida

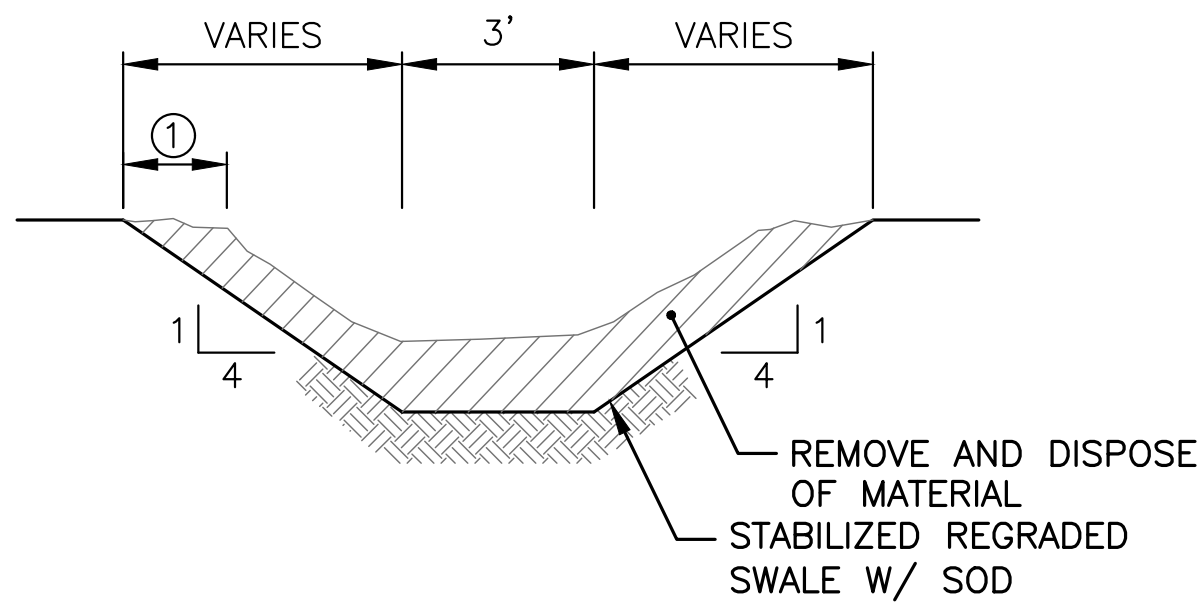
JOB NO.
0604-20-1
SHEET NO.
13



POND PROFILE
SCALE: 1"=20' H
1"=2' V



POND PROFILE
SCALE: 1"=20' H
1"=2' V



NOTES:
1. IF CONSTRUCTION OF NEW SIDE SLOPES.

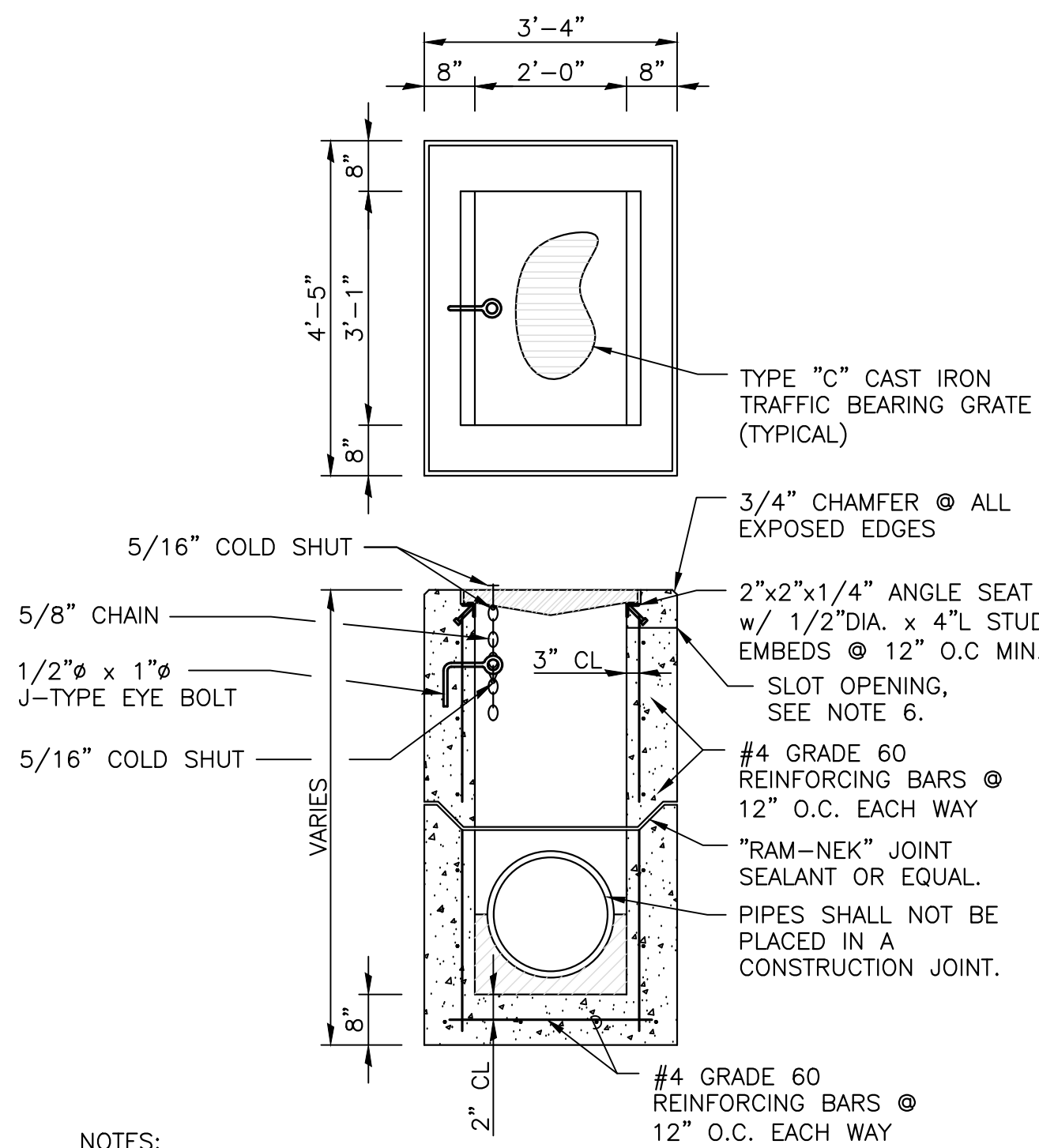
SWALE SECTION
SCALE: NTS

DESIGN: MPT, MAL, JRS
DATE: 02/13/25
1"=1'

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CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
Sections
Monroe County, Florida

JOB NO.
0604-20-1
SHEET NO.

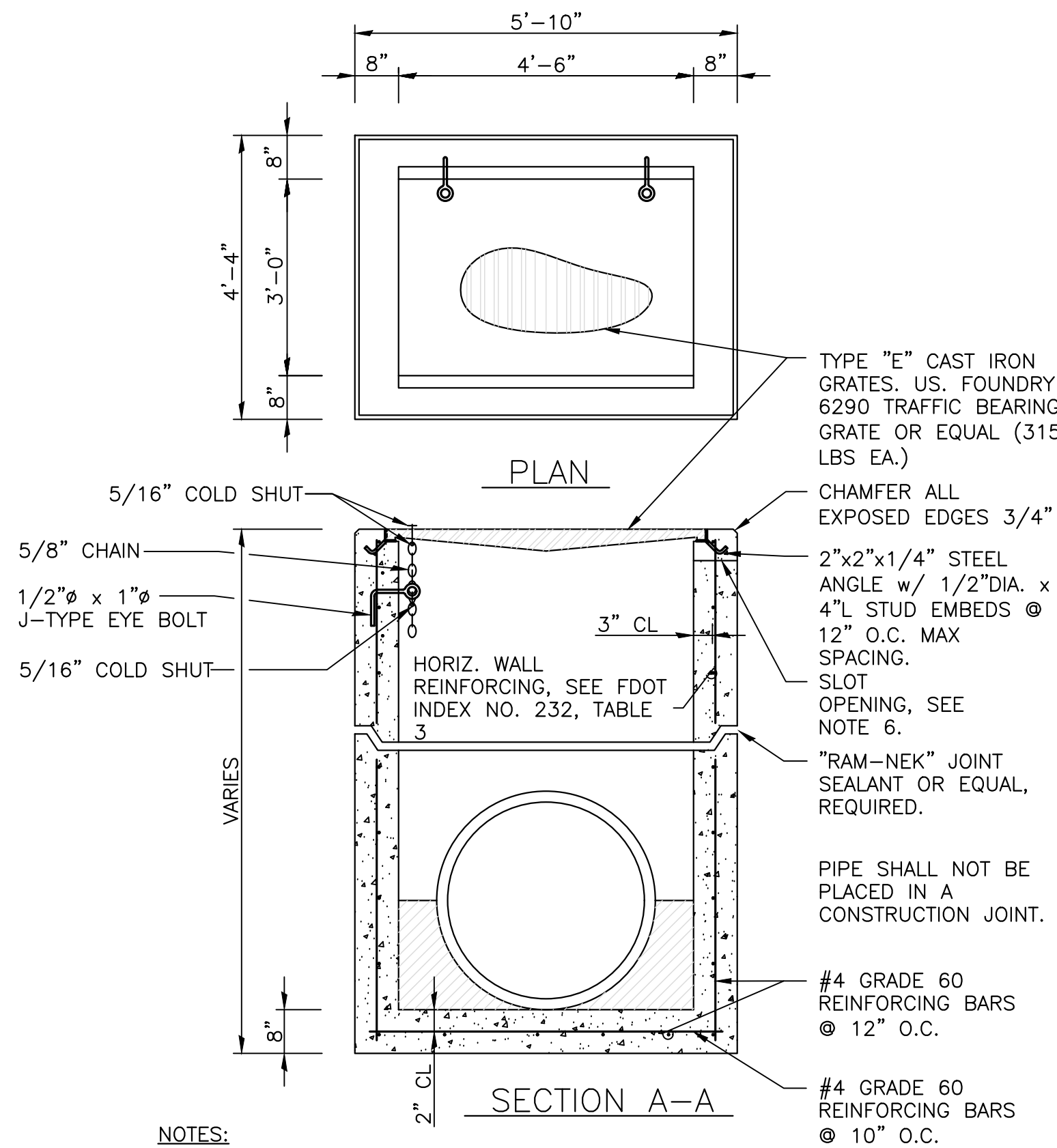


NOTES:

- CONCRETE SHALL HAVE A MINIMUM DESIGN STRENGTH OF 4,000 PSI.
- MINIMUM SOIL BEARING CAPACITY OF 2,000 PSF.
- GRATE DESIGN FLOW RATE 5 CFS (50% CLOGGED).
- STRUCTURE SHALL MEET ALL STANDARDS FOR AN FDOT TYPE "C" INLET.
- MAXIMUM PIPE SIZES:
2'-0" WALL - 18" PIPE
3'-1" WALL - 24" PIPE
- WHERE SLOTS ARE REQUIRED, THE SLOT SHALL EXTEND THE FULL WIDTH OF THE WALL, UNLESS NOTED OTHERWISE. EACH OPENING SHALL BE PROTECTED BY #4 HORIZONTAL REBAR @ 4" O.C. SLOT PROTECTION IS NOT REQUIRED AT A POND CONTROL STRUCTURE.
- GRATE BEARING SHALL BE FULLY SUPPORTED BY A SEAT ANGLE ACROSS THE OPENING.

TYPICAL TYPE "C" INLET STRUCTURE

1/2" = 1'-0"

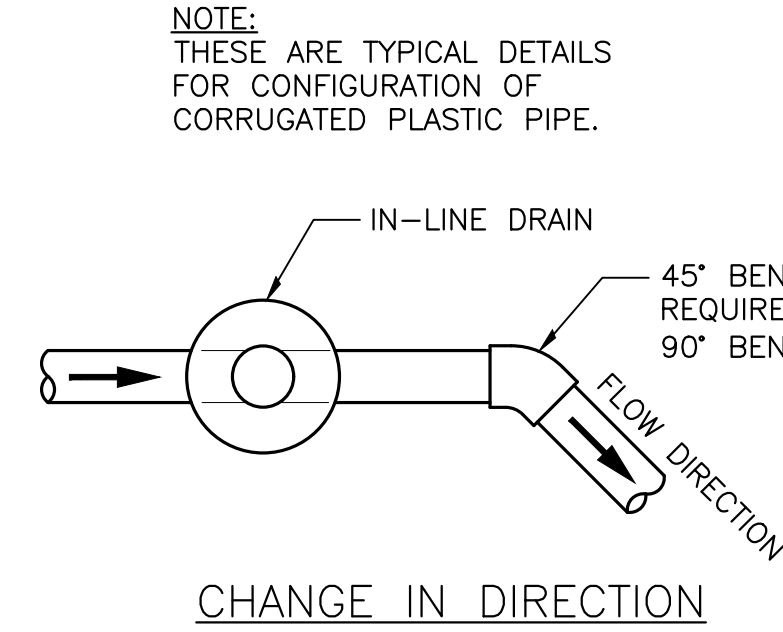


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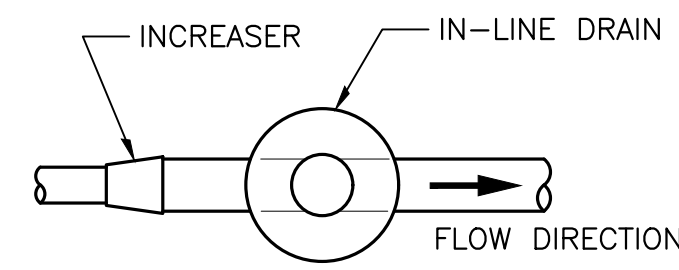
- CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4,000 PSI.
- SOIL SHALL HAVE MINIMUM BEARING CAPACITY OF 2,000 PSF.
- STRUCTURE SHALL MEET ALL STANDARDS FOR FDOT TYPE "E" INLET STRUCTURES.
- DESIGN FLOW RATE (50% CLOGGED) = 10 CFS
- MAXIMUM PIPE SIZES:
3'-0" WALL - 24" PIPE
4'-6" WALL - 36" PIPE
- ALL SLOTS SHALL BE 18" WIDE.
- WHERE SLOTS ARE REQUIRED, THE SLOT SHALL EXTEND THE FULL WIDTH OF THE WALL, UNLESS NOTED OTHERWISE. EACH OPENING SHALL BE PROTECTED BY #4 HORIZONTAL REBAR @ 4" O.C. SLOT PROTECTION IS NOT REQUIRED AT A POND CONTROL STRUCTURE.

TYPICAL TYPE "E" FDOT INLET STRUCTURE

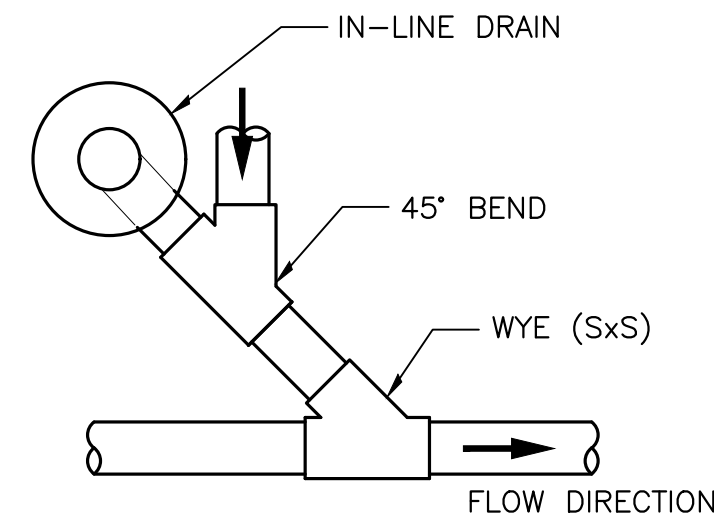
1/2" = 1'-0"



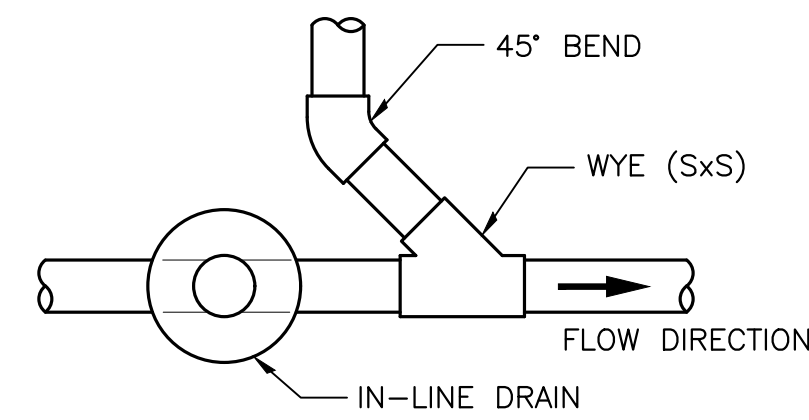
CHANGE IN DIRECTION



INCREASE IN PIPE SIZE



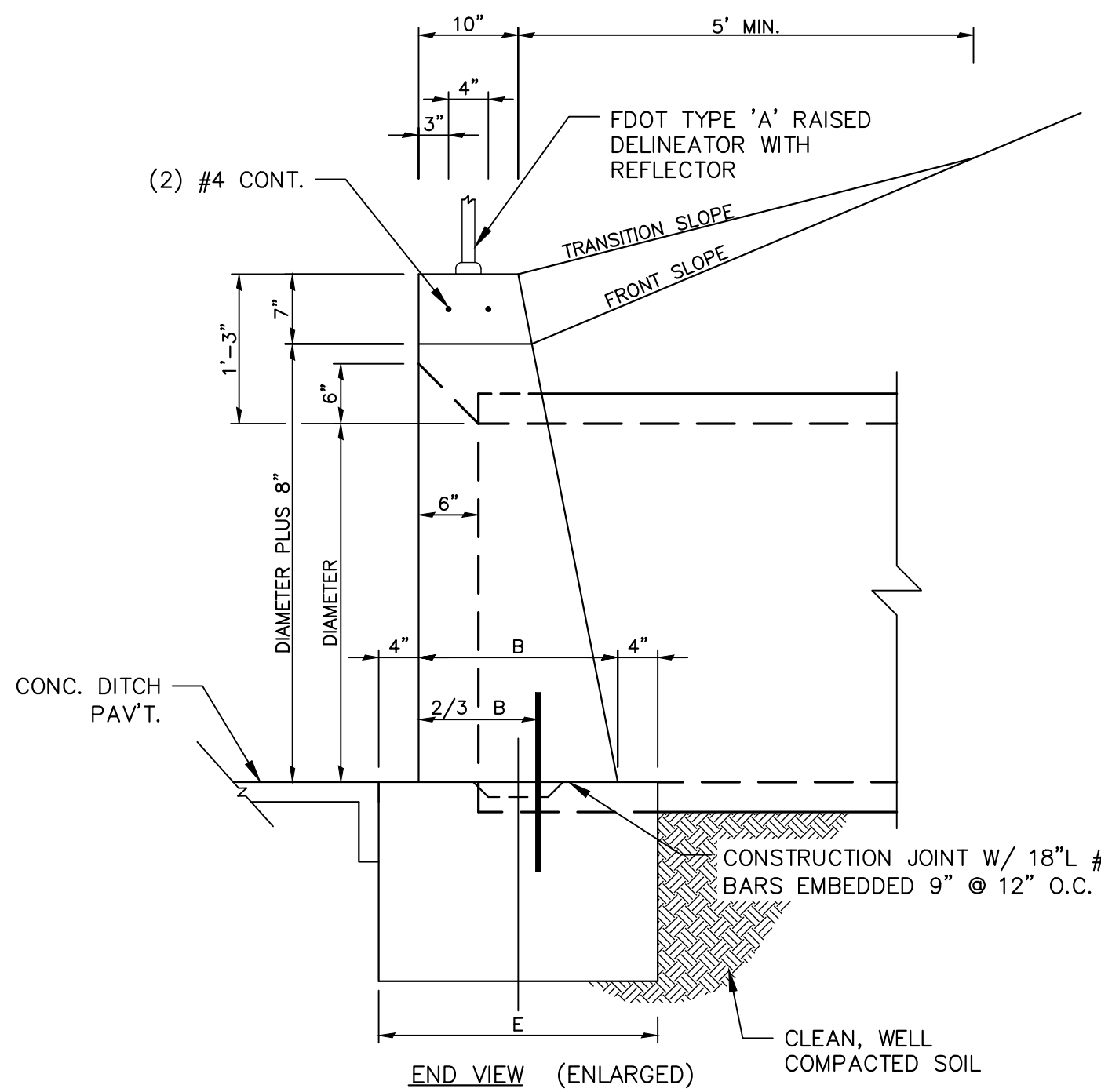
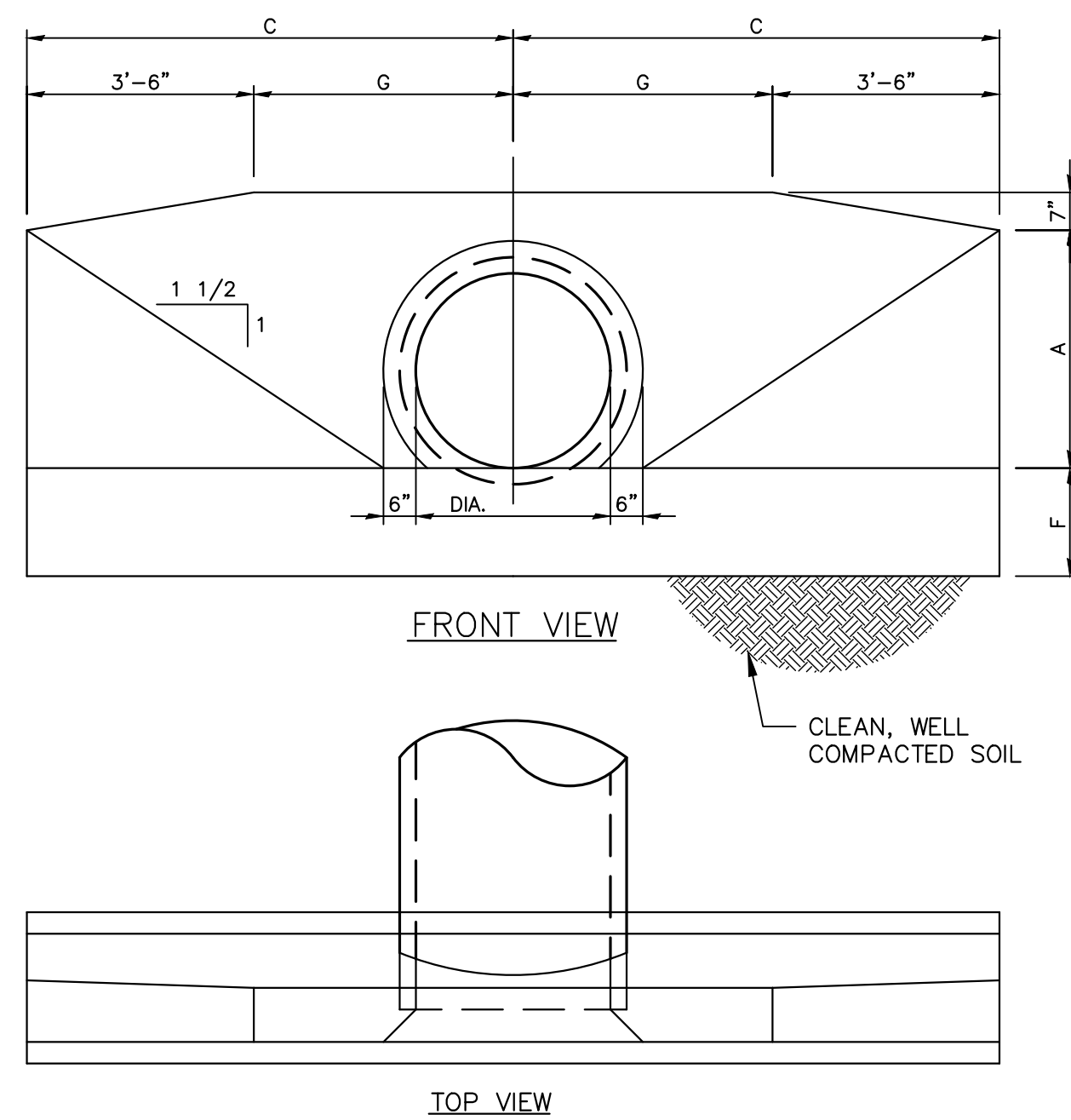
TIE-IN / JUNCTION



TIE-IN / JUNCTION

TYPICAL IN-LINE DRAIN CONNECTION DETAILS

NTS



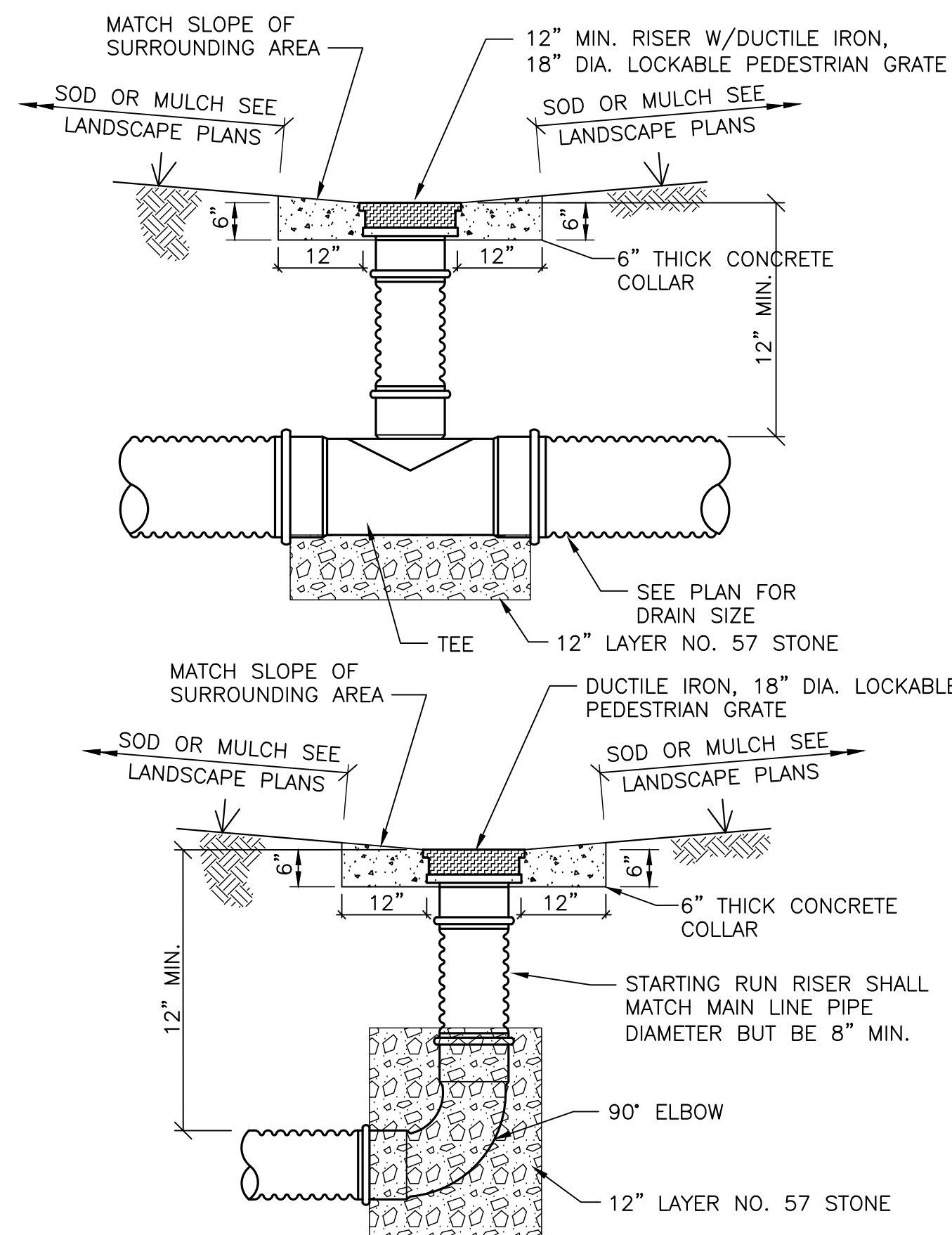
STRAIGHT CONCRETE HEADWALL

NTS

NOTES:

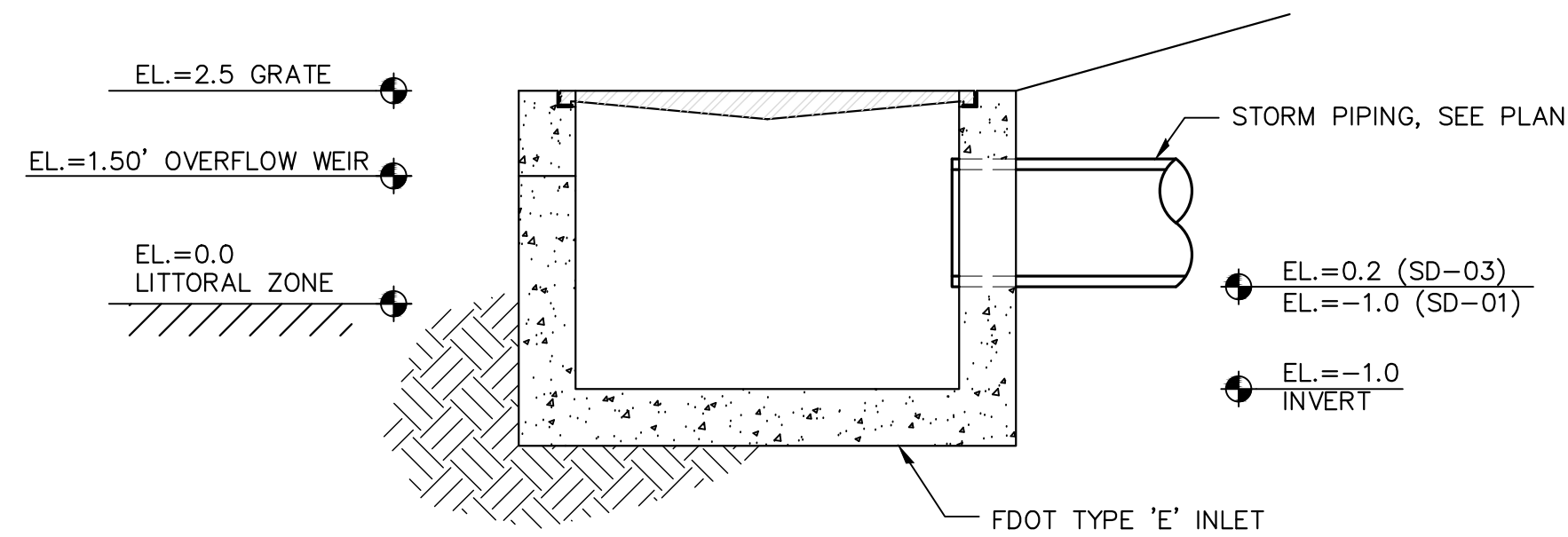
- ENDWALLS MAY BE CAST IN PLACE OR PRECAST CONCRETE. REINFORCING STEEL SHALL BE GRADE 60. ADDITIONAL STEEL FOR THE HANDLING OF PRECAST UNITS SHALL BE DETERMINED BY THE CONTRACTOR OR THE SUPPLIER.
- ALL EXPOSED CORNERS AND EDGES OF CONCRETE ARE TO BE CHAMFERED 3/4".
- CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C-478 FOR PRECAST UNITS AND HAVE A MINIMUM STRENGTH OF 4,000 PSI REGARDLESS OF CONSTRUCTION TYPE.

DIA.	OPENING AREA	DIMENSIONS									
		NUMBER OF PIPES				A	B	C	E	F	G
15"	1.23	2.46	3.69	4.92	1'-11"	1'-2"	4'-0"	1'-10"	1'-2"	0'-6"	2'-7"
18"	1.77	3.54	5.31	7.08	2'-2"	1'-3"	4'-6"	1'-11"	1'-3"	1'-0"	2'-10"
24"	3.14	6.28	9.42	12.56	2'-8"	1'-4"	5'-6"	2'-0"	1'-4"	2'-0"	3'-5"
36"	7.07	14.14	21.21	28.28	3'-8"	1'-8"	7'-6"	2'-4"	1'-8"	4'-0"	5'-1"
42"	9.62	19.24	28.86	38.48	4'-2"	1'-10"	8'-6"	2'-6"	2'-0"	6'-0"	6'-0"



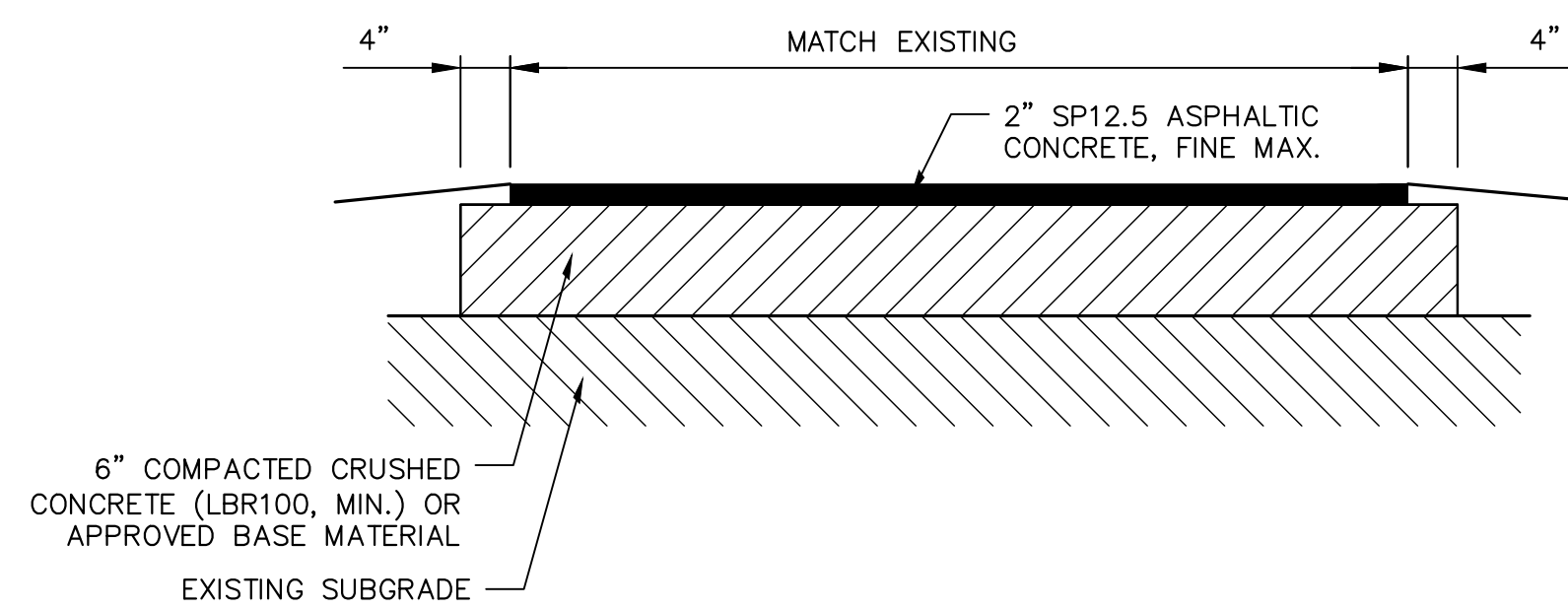
TYPICAL PVC IN-LINE DRAIN

NTS



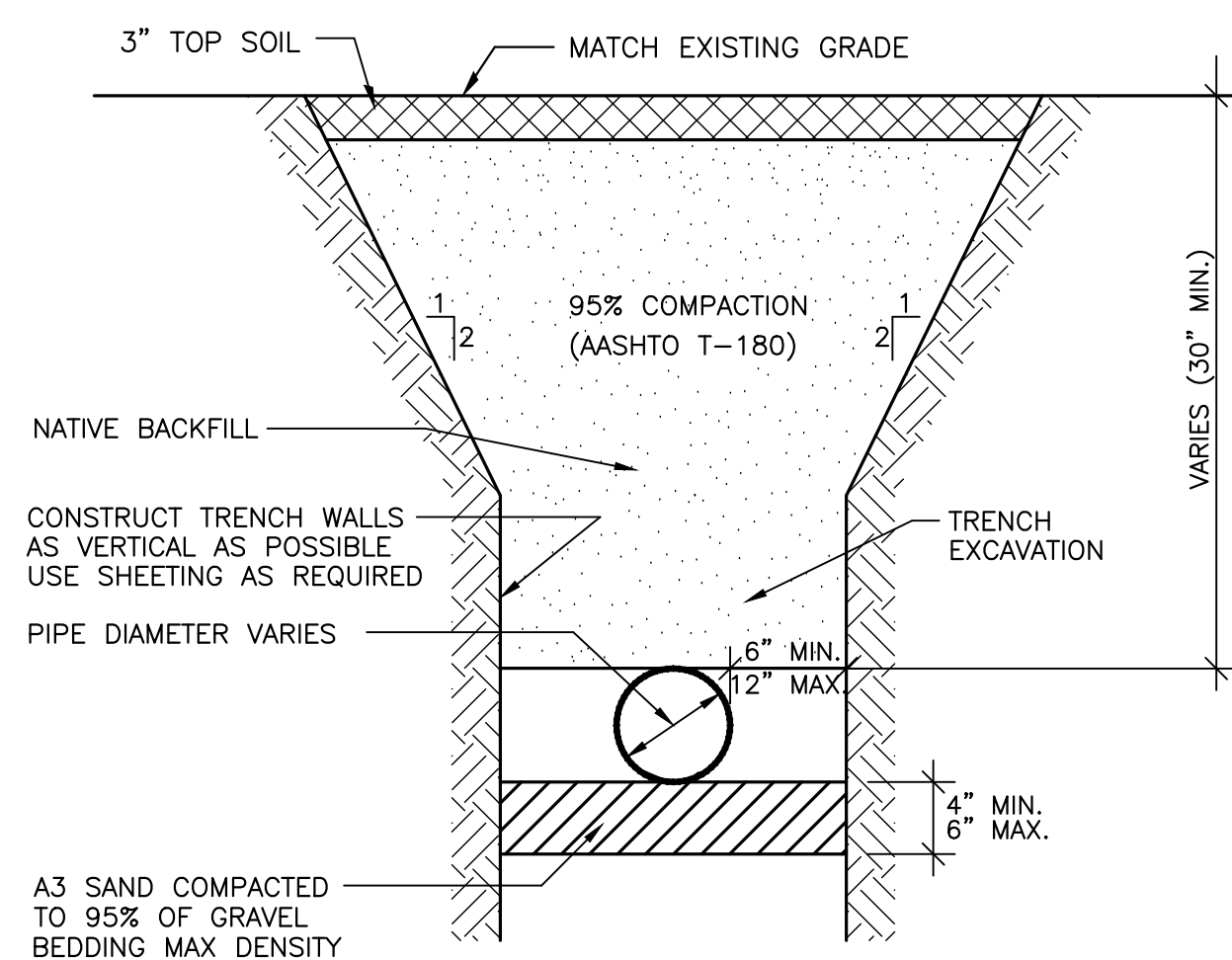
POND OVERFLOW STRUCTURE DETAIL

1/2" = 1'-0"



ASPHALT PATHWAY DETAIL

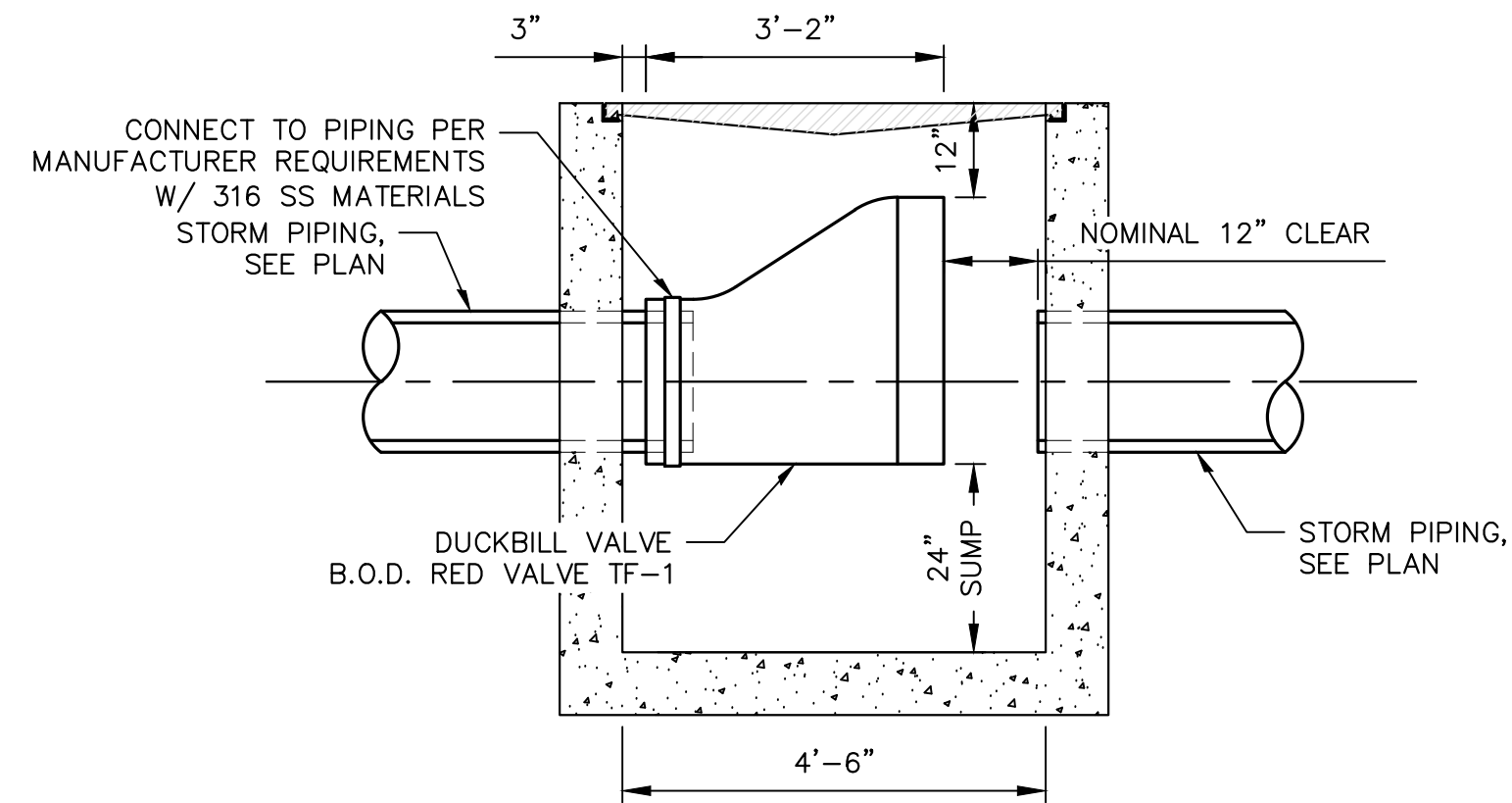
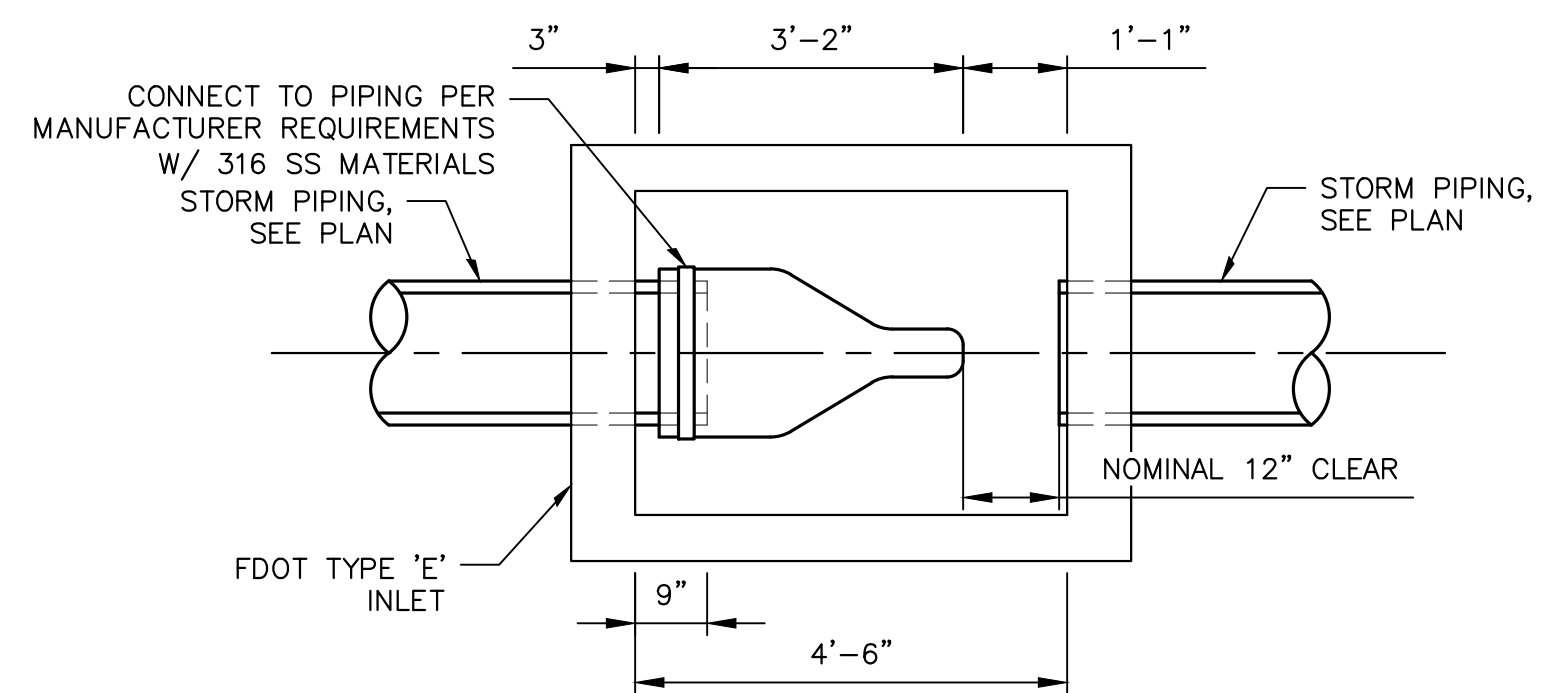
NTS



NOTE:
ALL JOINTS SHALL BE RESTRAINED

TRENCH DETAIL - UNIMPROVED AREA

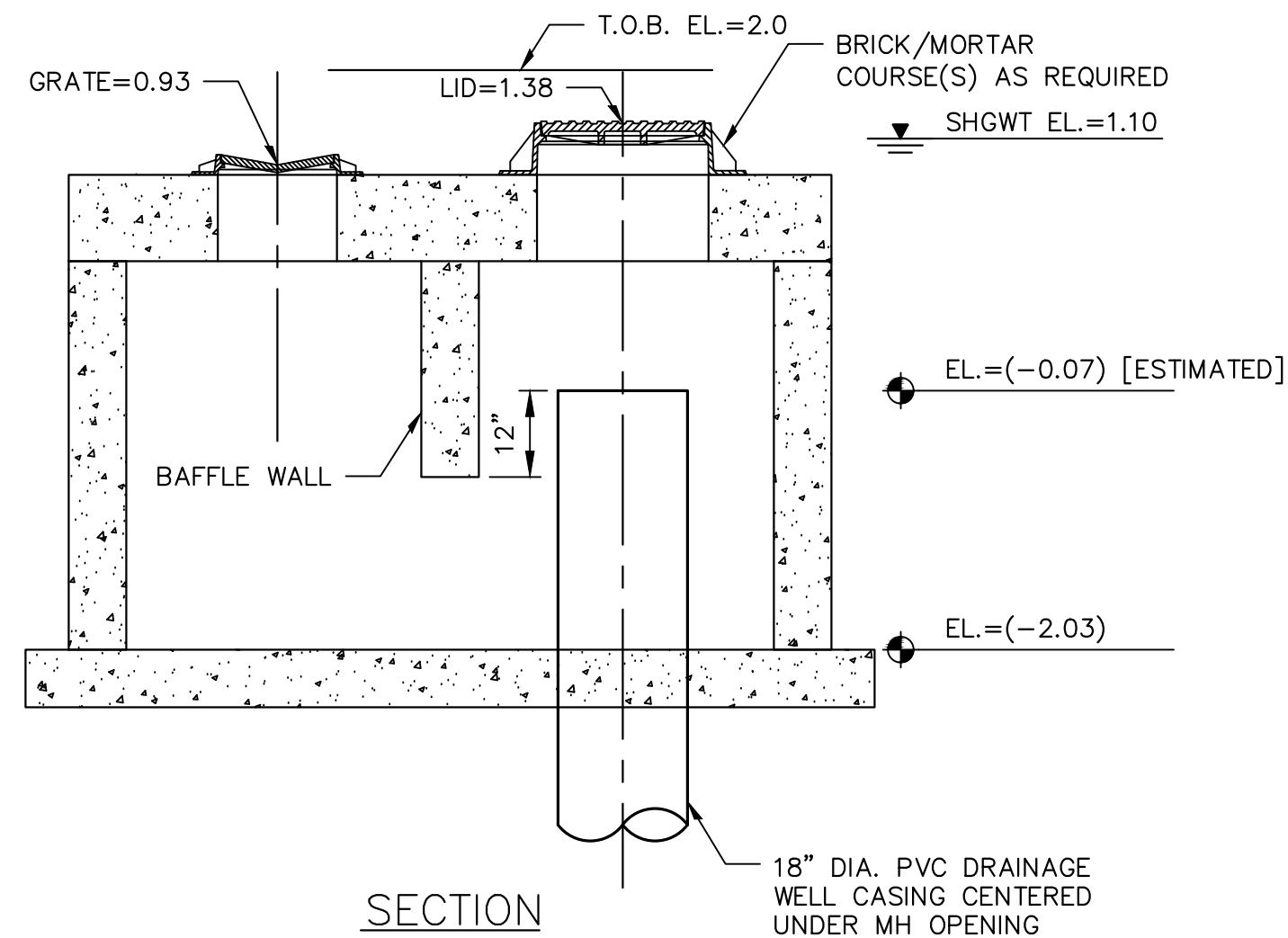
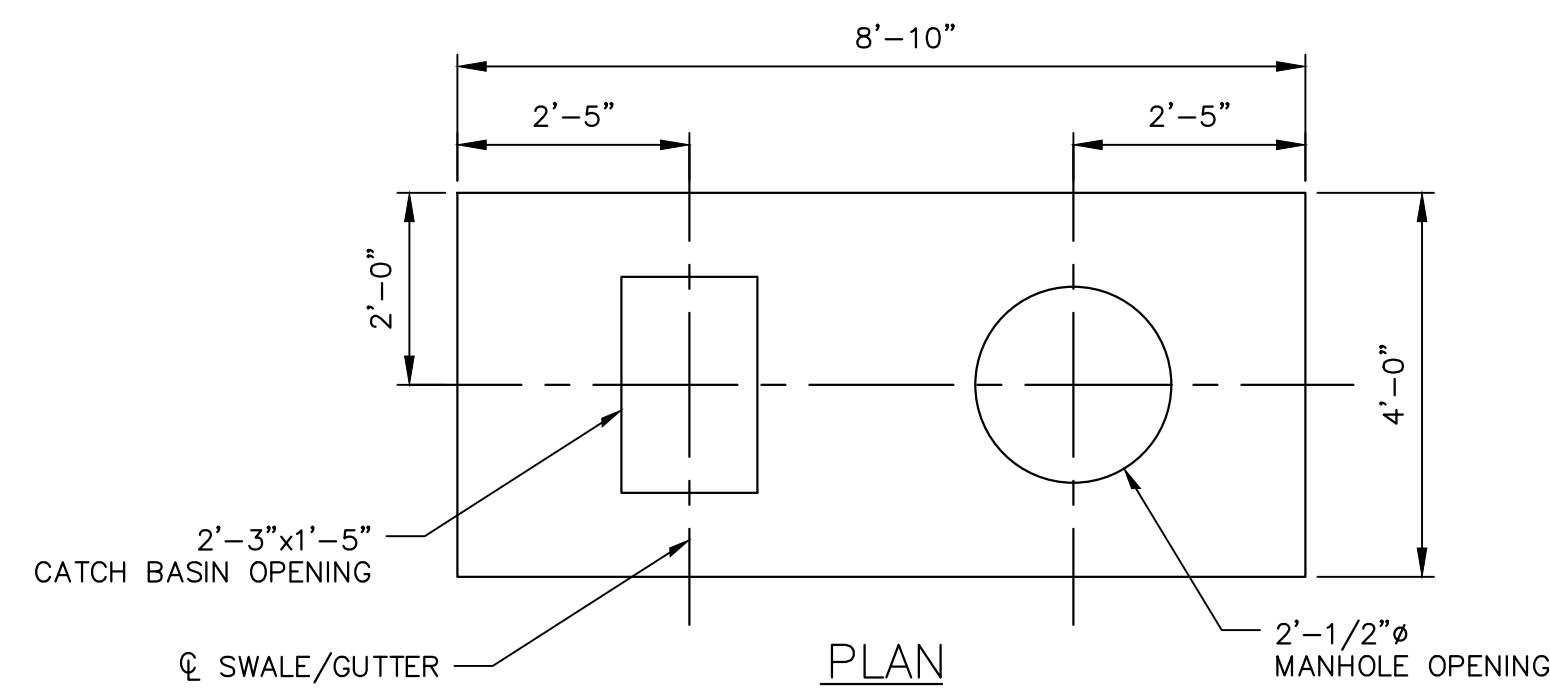
NTS



SECTION

DUCK BILL VALVE BOX DETAIL

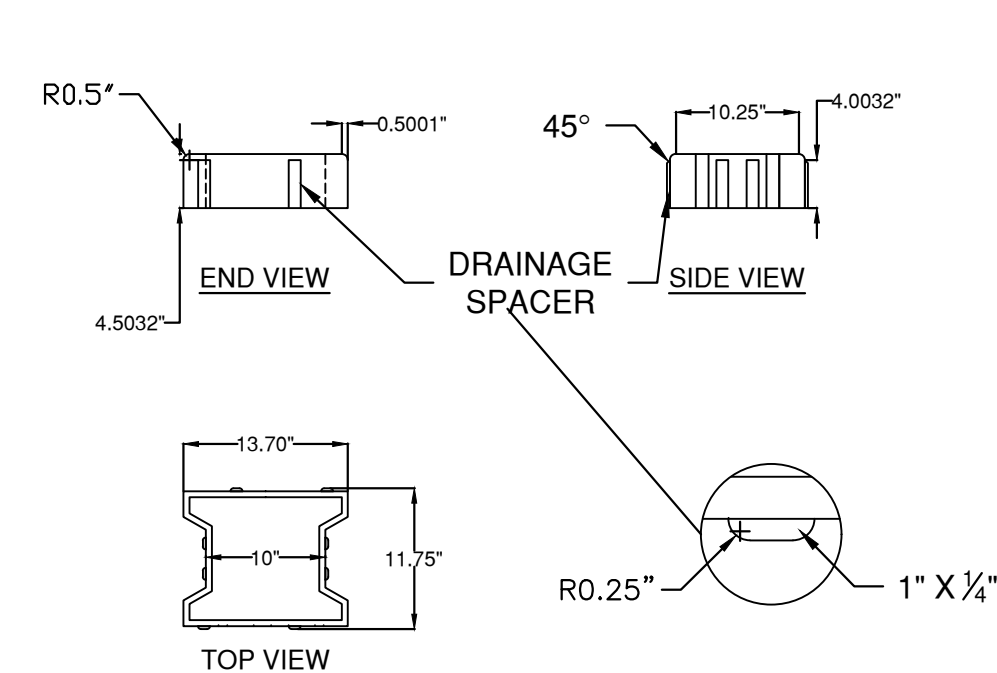
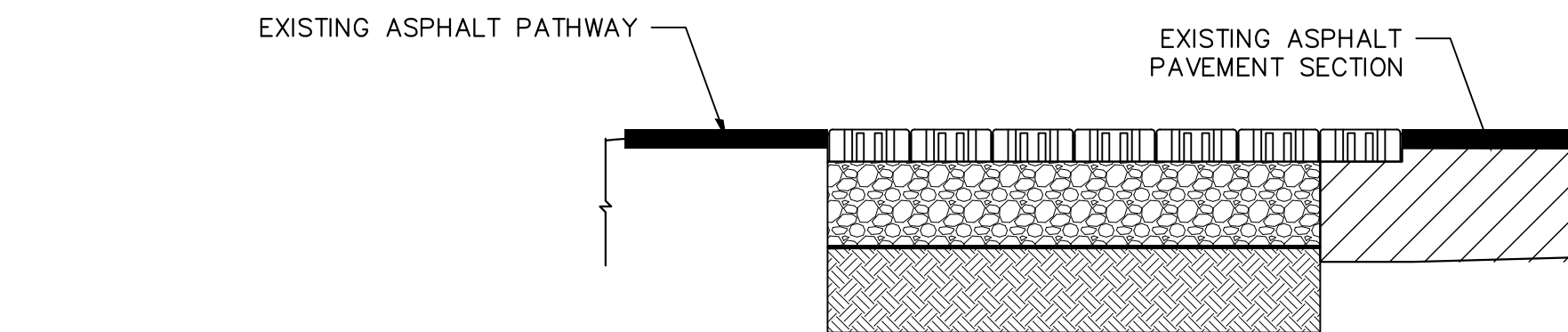
1/2" = 1'-0"



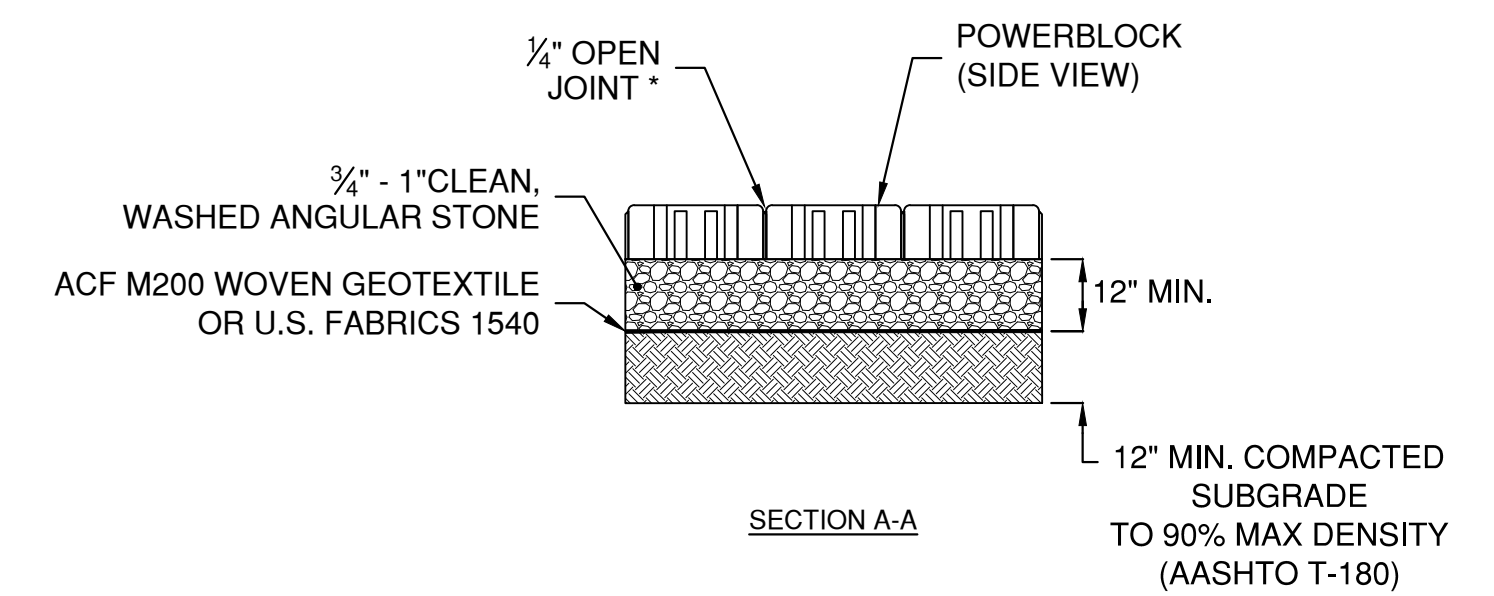
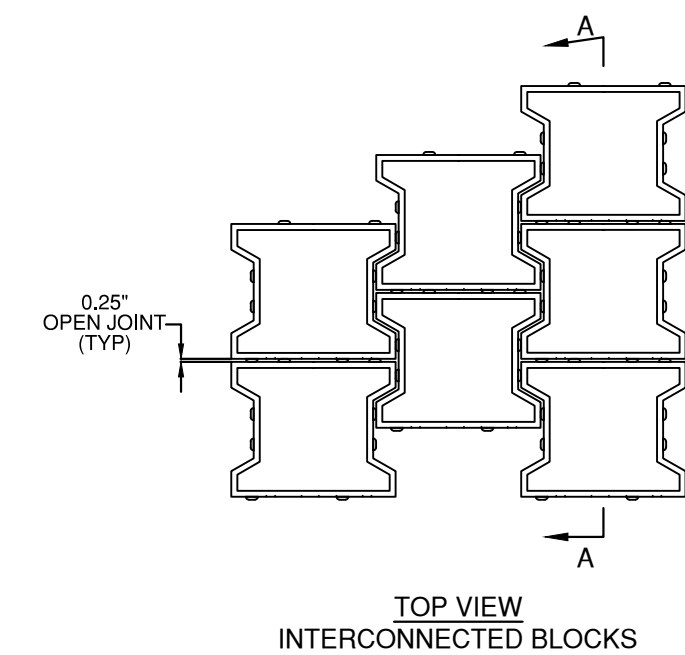
SECTION

EXISTING POND CONTROL STRUCTURE DETAIL

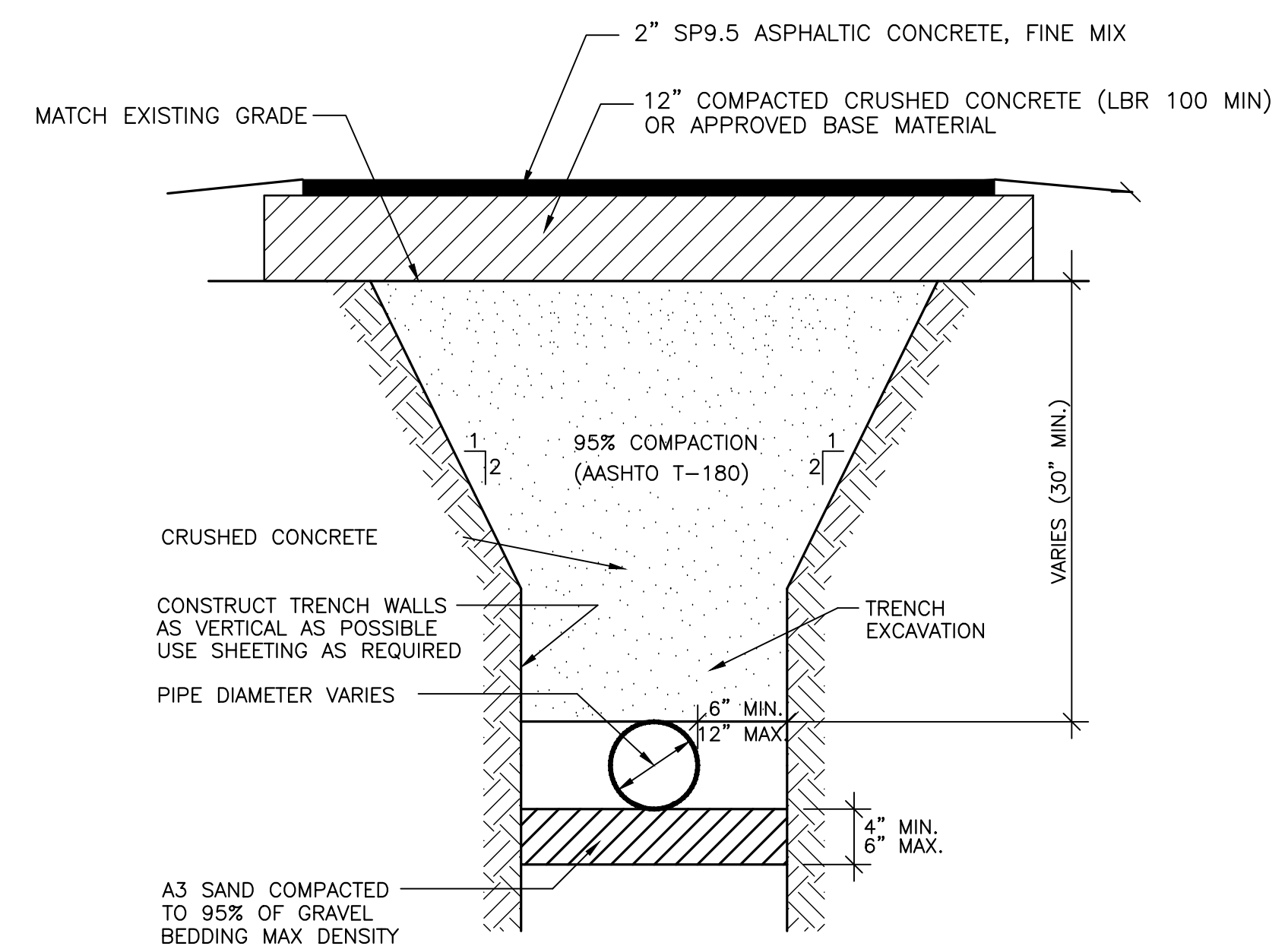
1/2" = 1'-0"



SPECIFICATIONS	
SURFACE INFILTRATION RATE	1,000 IN/HR AVG.
OPEN JOINT WIDTH	0.25 IN
JOINT FILLER BETWEEN BLOCKS *	NONE ALLOWED



PERVIOUS PAVERS
ADDITIVE ALTERNATE No. 2



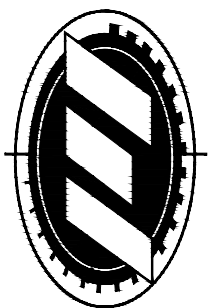
NOTE:
ALL JOINTS SHALL BE RESTRAINED

TYPICAL TRENCH & PAVEMENT REPLACEMENT DETAIL

NTS

DESIGN MPT SLL JRS
DRAWN BY
PROJ. MGR.
DATE 02/13/25
1 INCH

MITTAUER & ASSOCIATES, INC.
CONSULTING ENGINEERS
580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073
TEL. (904) 278-0030 FAX. (904) 278-0840
FLORIDA RY NO. 6569



CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
Typical Details
Monroe County, Florida

JOB NO.
0604-20-1
SHEET NO.

EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.

2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.

3. ADDITIONAL PROTECTION – ON-SITE PROTECTION IN ADDITION TO THAT SHOWN ON THESE PLANS MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.

4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.

5. WIRE MESH SHALL BE LAID OVER EACH DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.

6. FDOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN D-903. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.

7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.

8. BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.

9. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.

10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.

11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.

12. LOOSE STRAW SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.

13. STRAW BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

14. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.

15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.

16. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

17. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

18. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

19. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.

20. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

21. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.

22. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

23. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICE OUTLINED IN THE PLANNED INSTRUCTIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.

24. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO STATE OF FLORIDA EROSION & SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, JULY 2013.

25. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.

26. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.

27. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.

28. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.

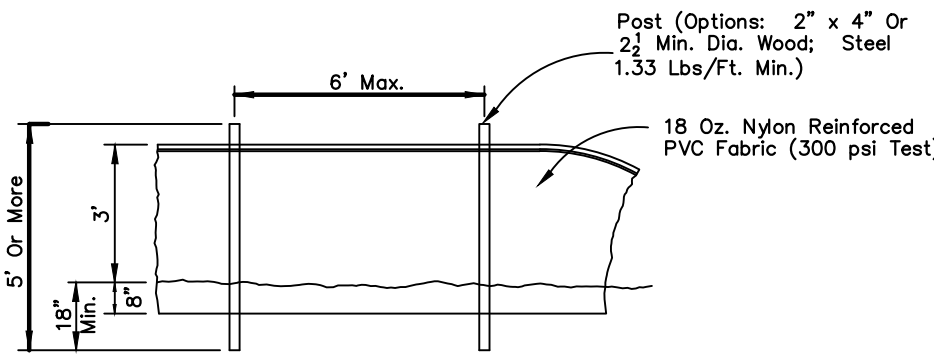
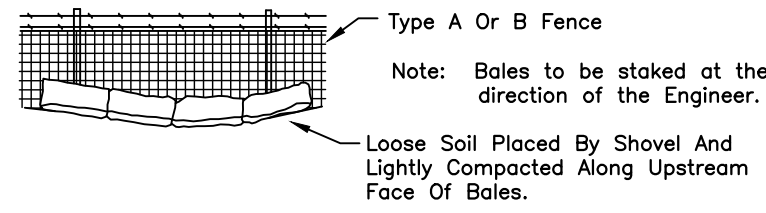
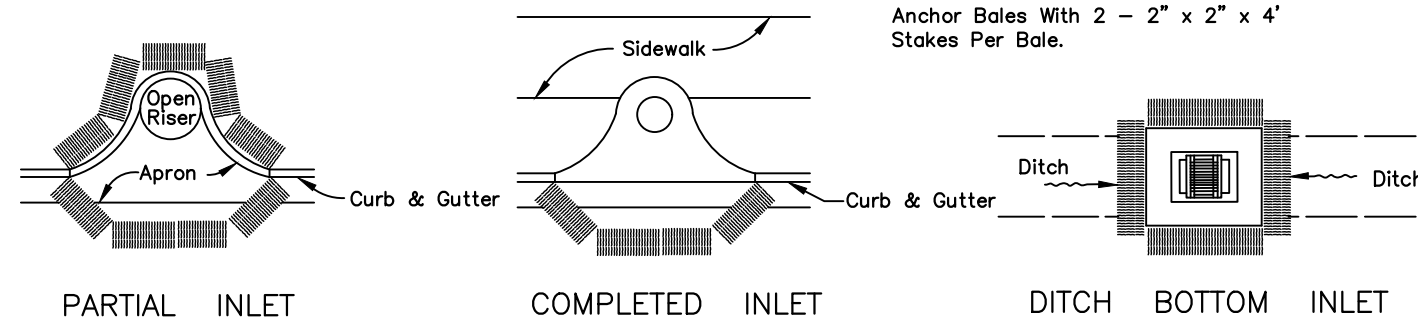
29. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.

30. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAY BALES, AND GRASSING. ALL FILL SLOPES 1:3 OR STEEPER TO RECEIVE STAKED SOLID SOD.

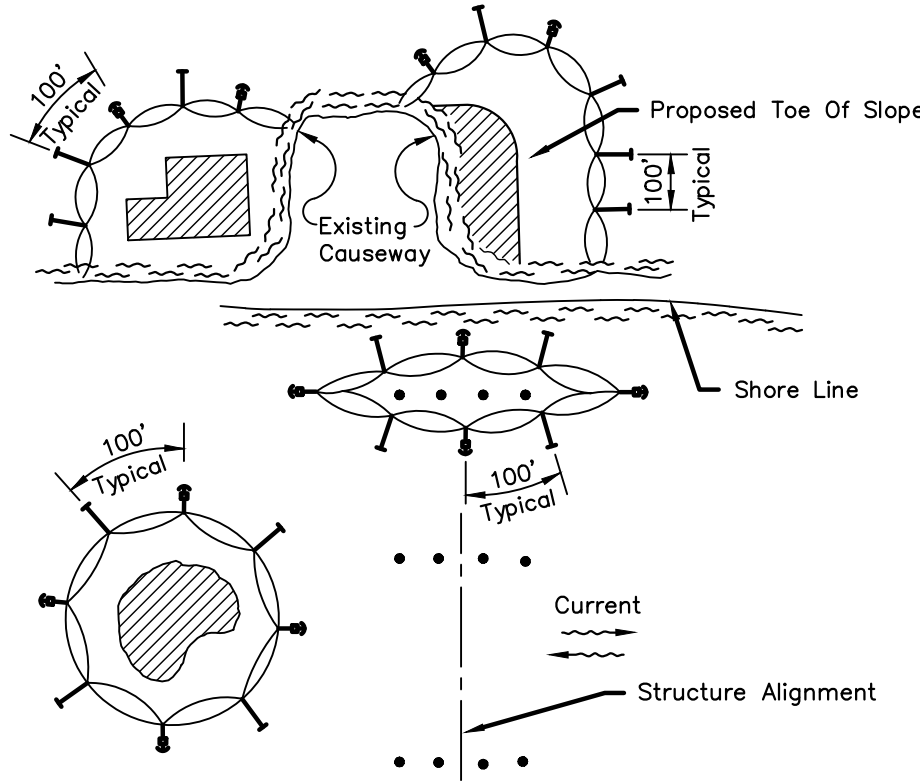
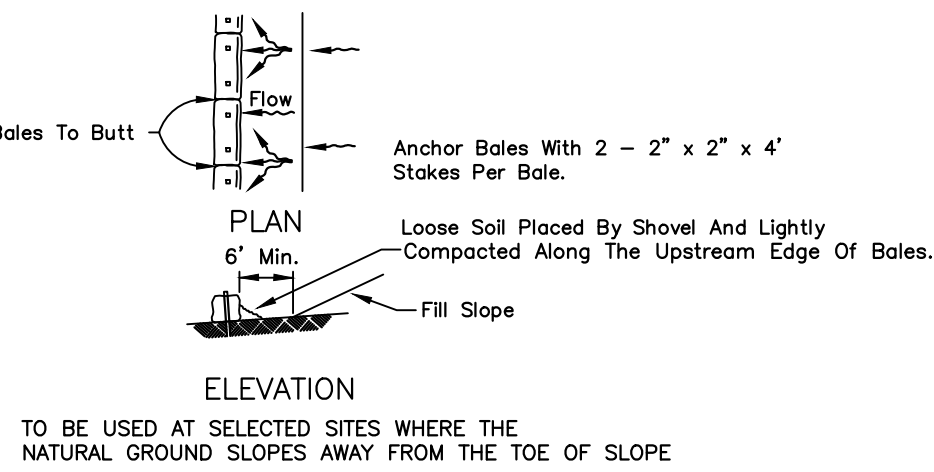
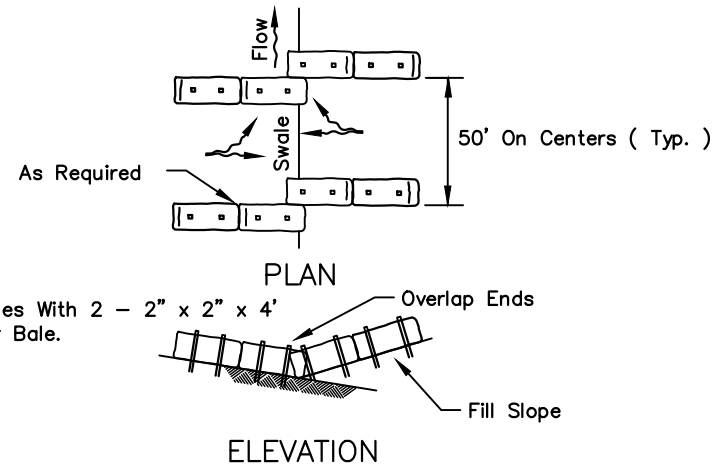
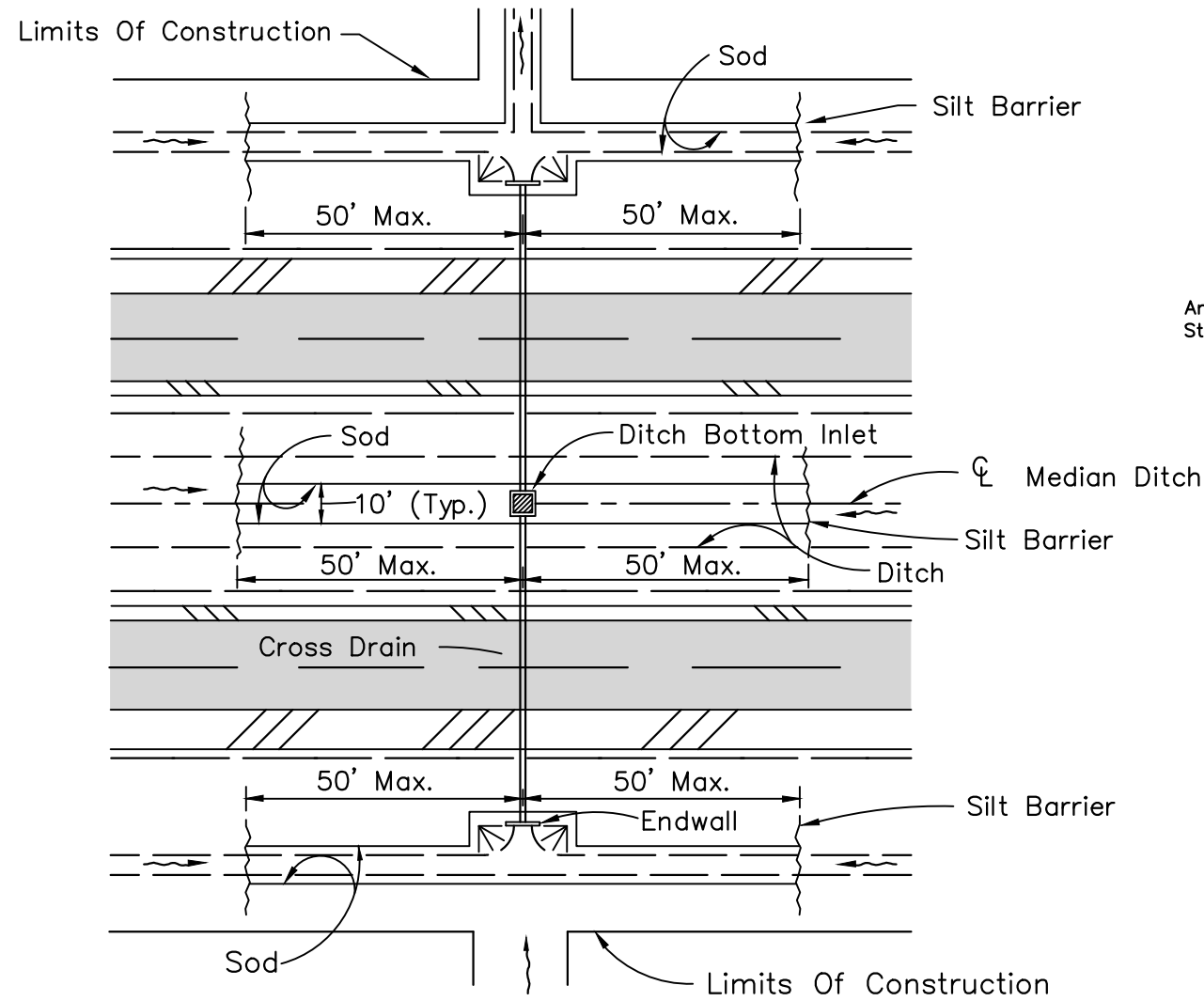
31. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.

32. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.

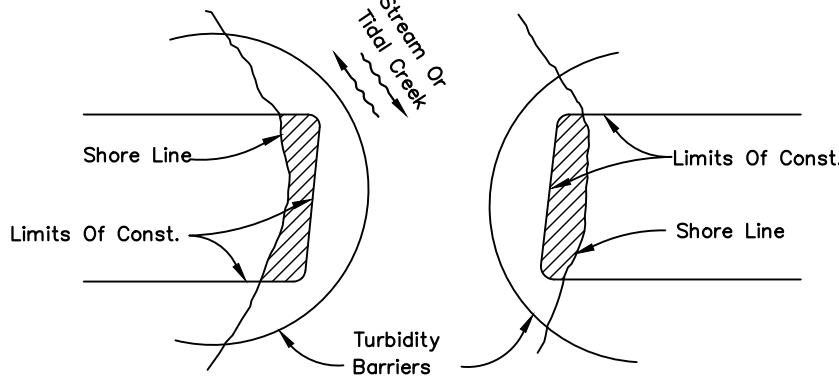
33. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL GOVERNING AGENCY INQUIRIES, RELATIVE TO COMPLIANCE OF THIS PROJECT FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.



NOTICE:
COMPONENTS OF TYPES I & TYPE II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.



- LEGEND
- Pile Locations
 - ▨ Dredge Or Fill Area
 - ⬮ Mooring Buoy w/Anchor
 - ⬮ Anchor
 - Barrier Movement Due To Current Action

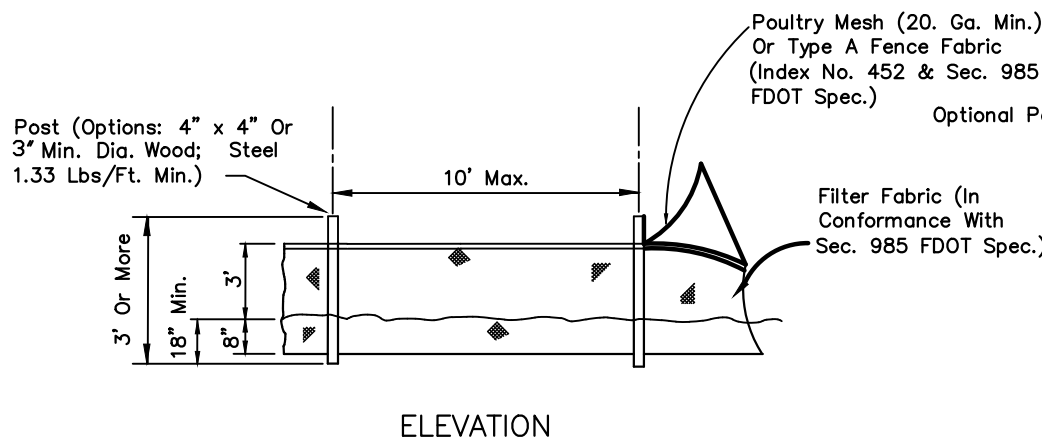
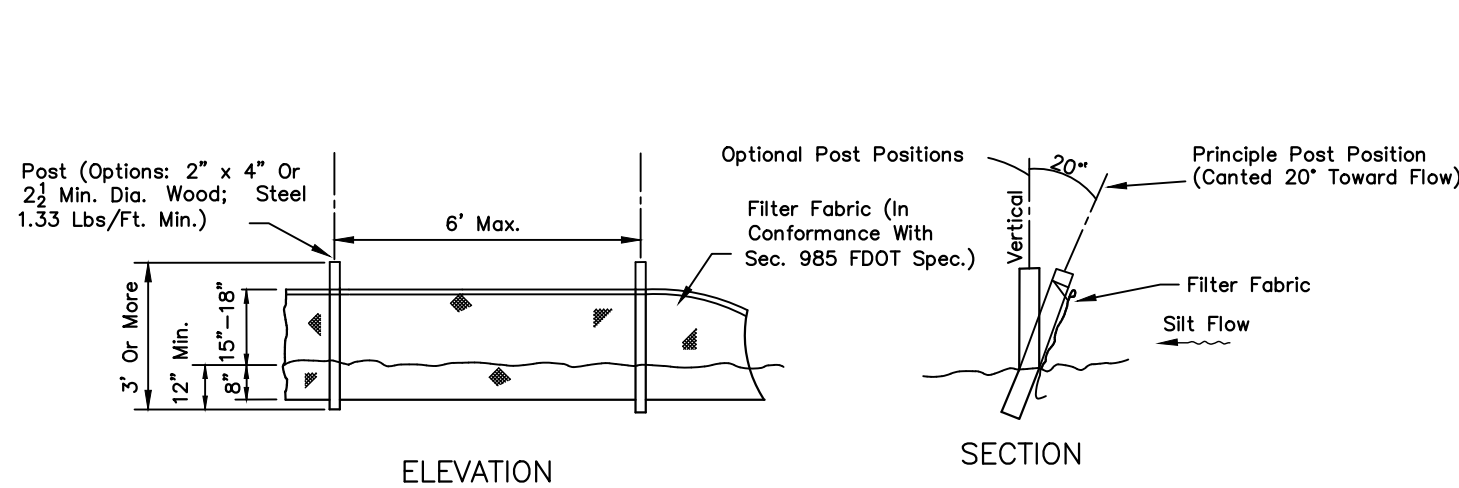


Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however, payment will be under the contract lump sum price established in the bid proposal for Erosion & Sediment Control. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

- NOTES:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
 2. Number and spacing of anchors dependent on current velocities.
 3. Deployment of barrier around pile locations may vary to accommodate construction operations.
 4. Navigation may require segmenting barrier during construction operations.
 5. For additional information see Section 104 of the FDOT Standard Specifications.

HAY BALE LOCATION

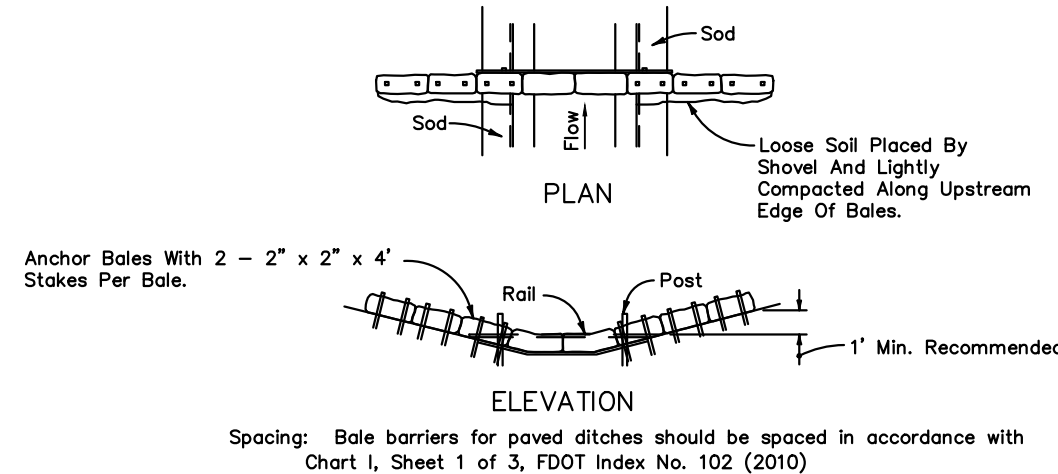
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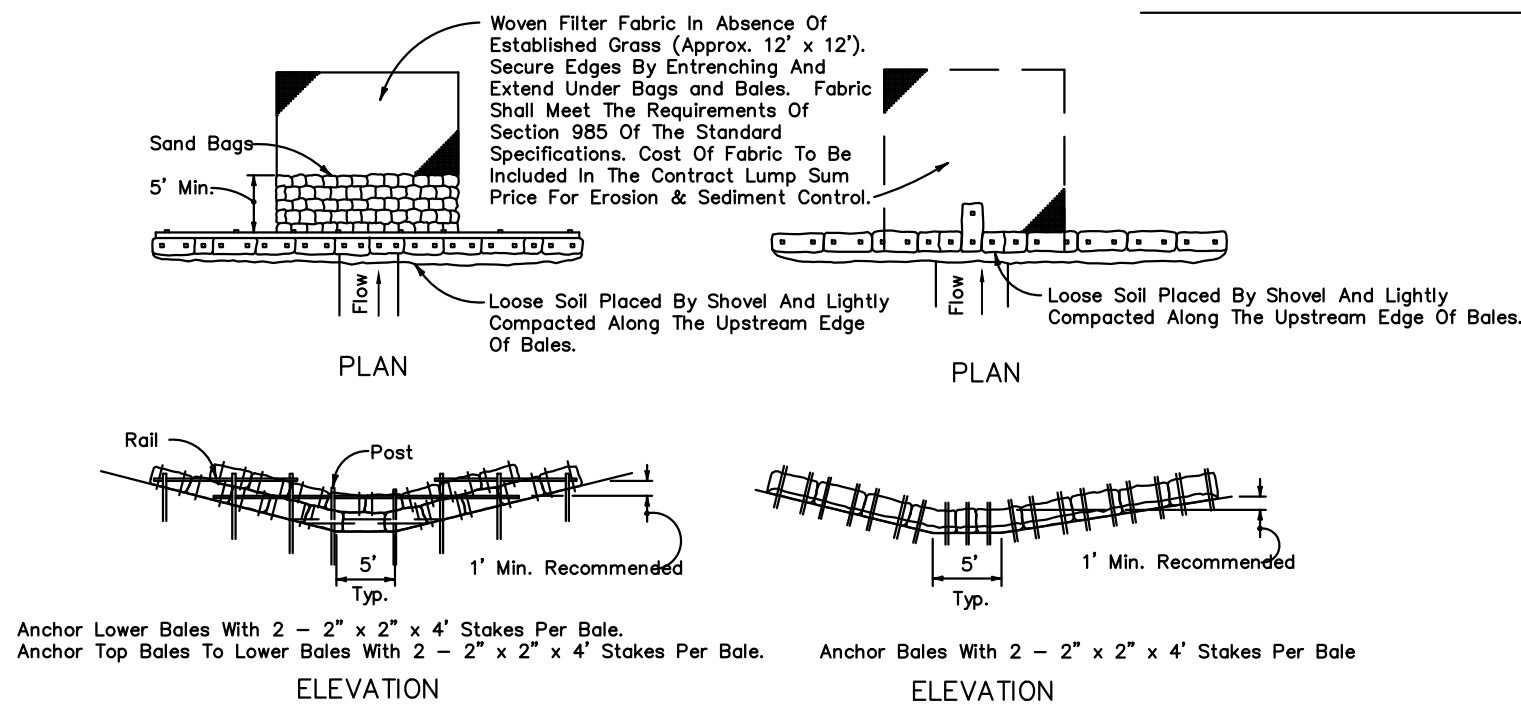
Note: Silt Fence to be paid for under the contract lump sum price for Erosion and Sediment Control.

TURBIDITY BARRIERS

(D-907)
N.T.S.



Spacing: Bale barriers for paved ditches should be spaced in accordance with Chart I, Sheet 1 of 3, FDOT Index No. 102 (2010)



Application and Spacing: The use of Types I & II bale barriers should be limited to the conditions outlined in Chart I, Sheet 1 of 3, FDOT Index No. 102 (2010)

TYPE II
BARRIER FOR UNPAVED DITCHES

TYPE I

HAY BALE BARRIERS TYPE I & II

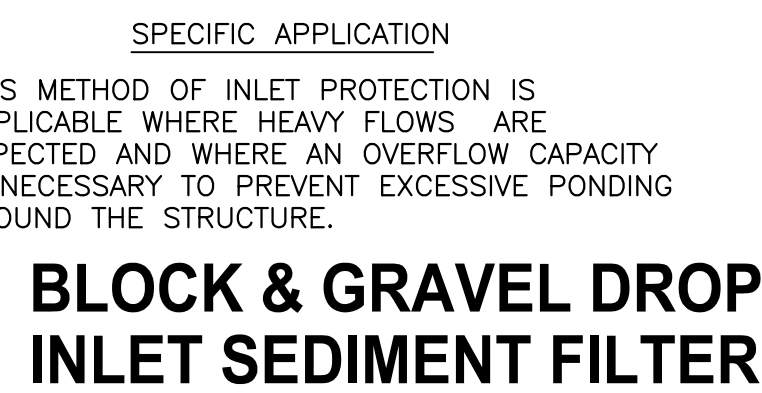
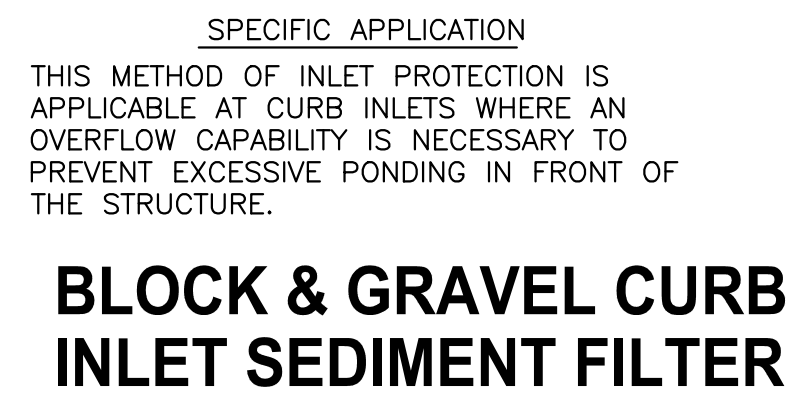
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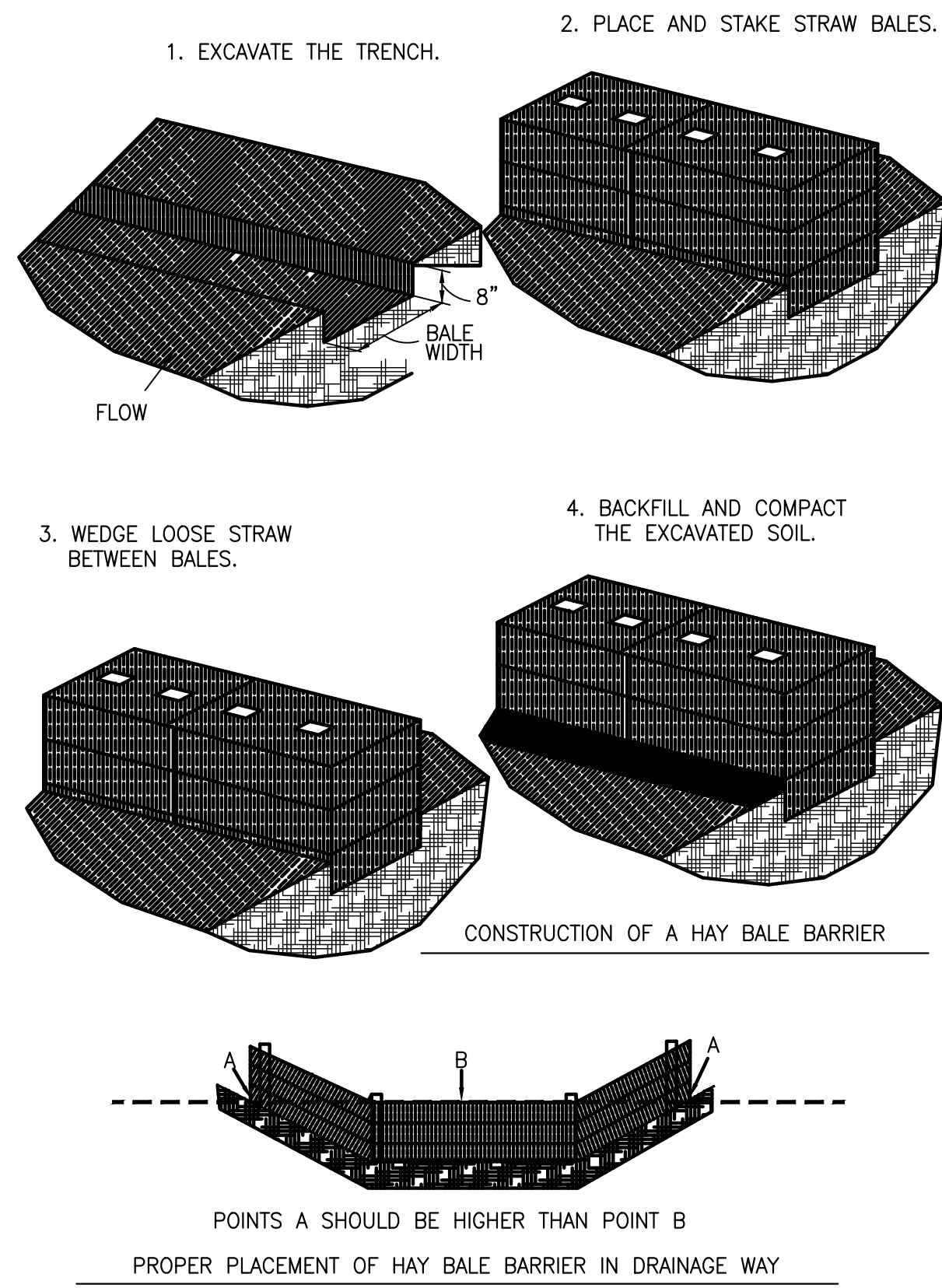
SEE NOTE 8-16

NOTE:
WHERE FDOT SPECS AND INDEX ARE REFERENCED, PLEASE REFER TO FDOT ROADWAY & TRAFFIC DESIGN STANDARDS, AND FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.

CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
SWPPP Details
Monroe County, Florida

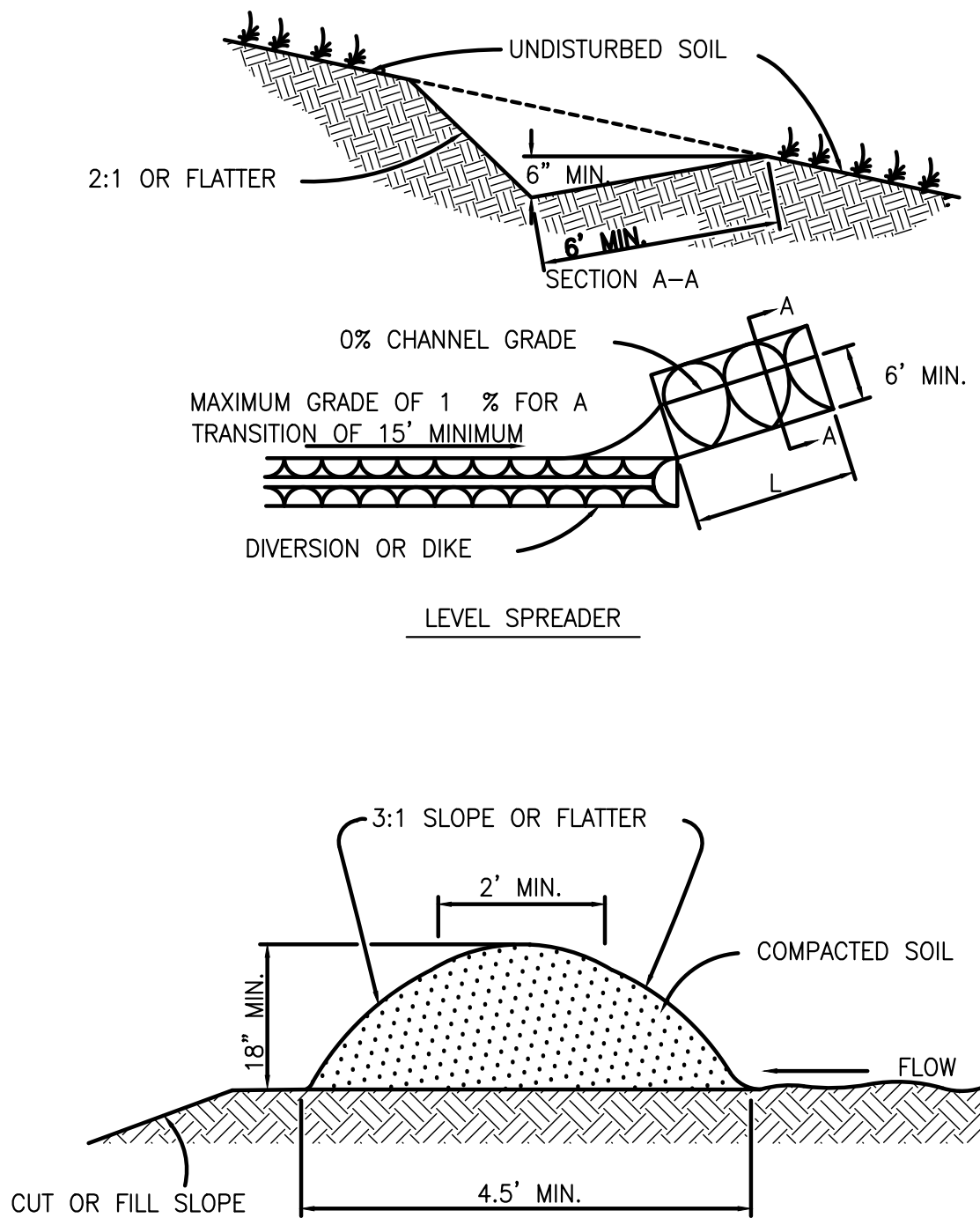
JOB NO.
0604-20-1
SHEET NO.





HAY BALE BARRIER CONSTRUCTION DETAILS

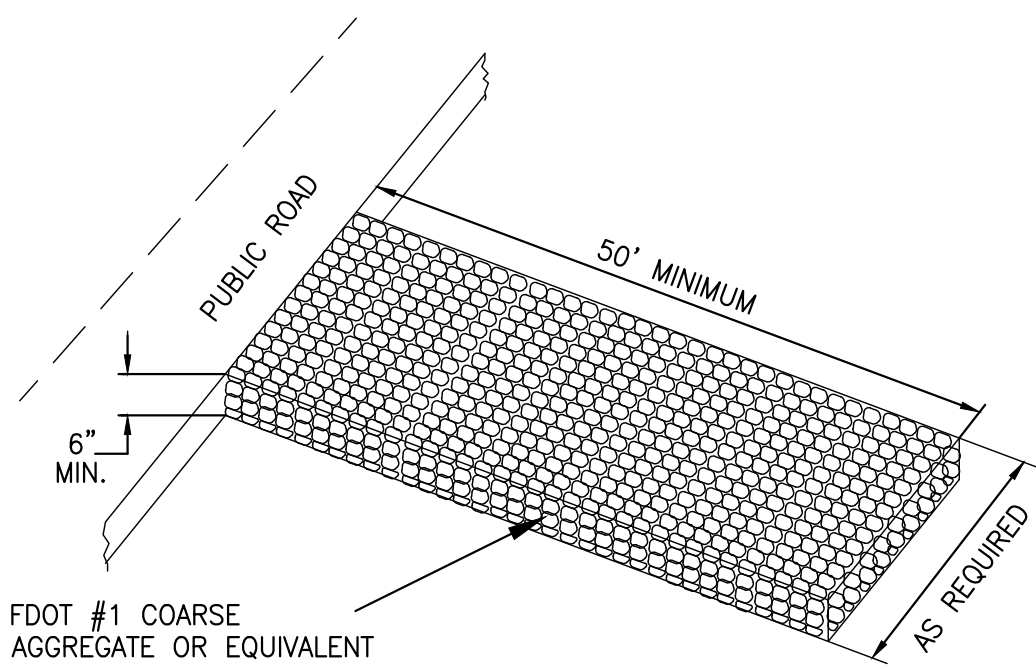
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TEMPORARY DIVERSION DIKE

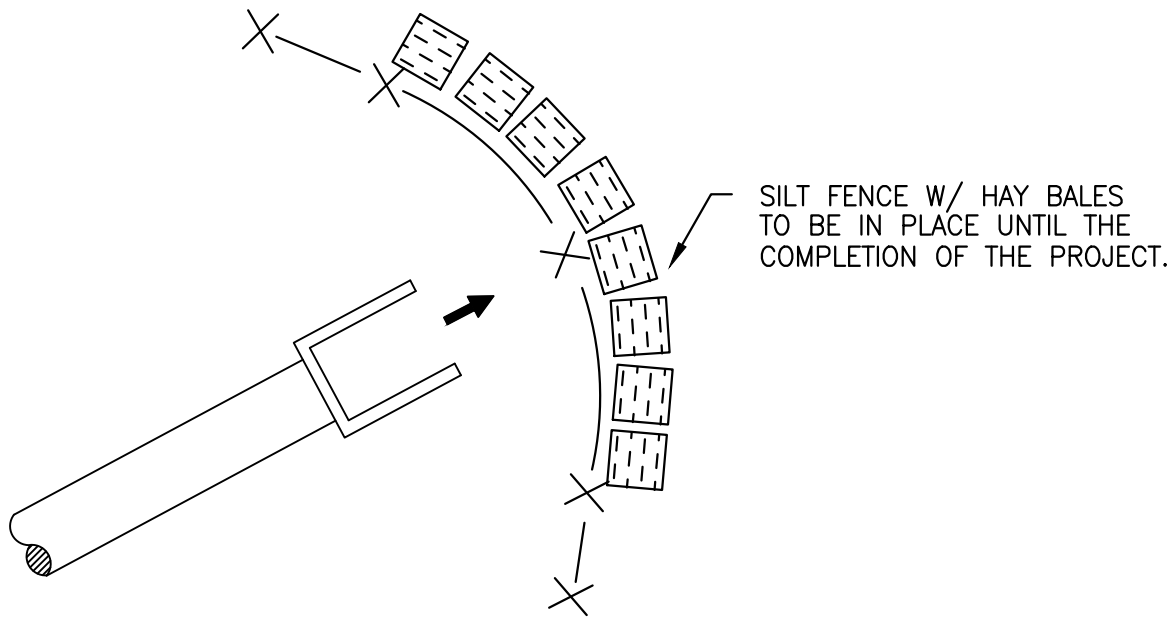
DIVERSION DIKE

(D-914)
N.T.S.



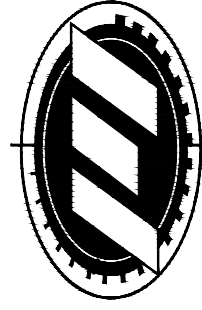
STABILIZED CONSTRUCTION ENTRANCE

N.T.S.



OUTLET PROTECTION

N.T.S.



MITTAUER & ASSOCIATES, INC.
CONSULTING ENGINEERS
580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073
TEL. (904) 278-0030 FAX. (904) 278-0840

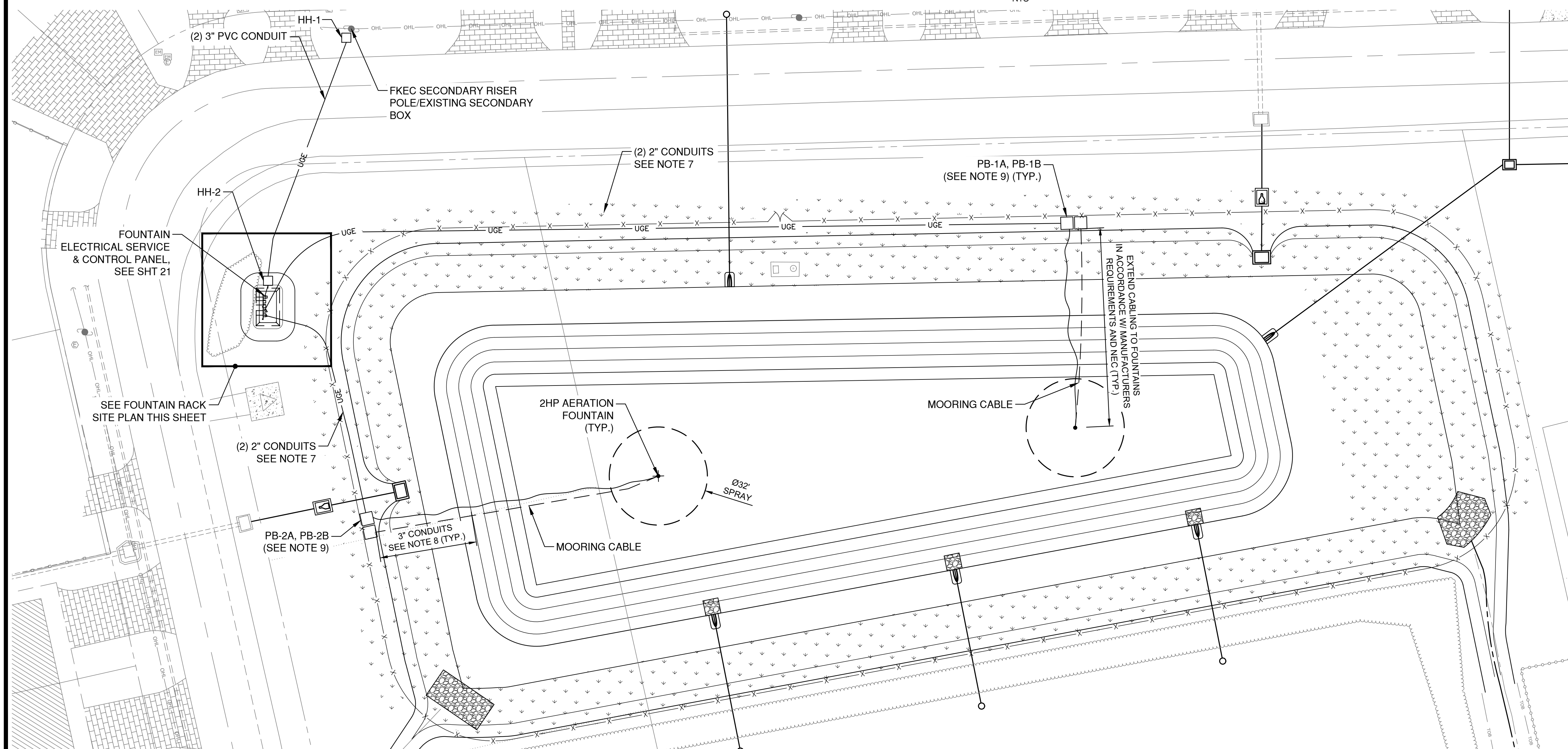
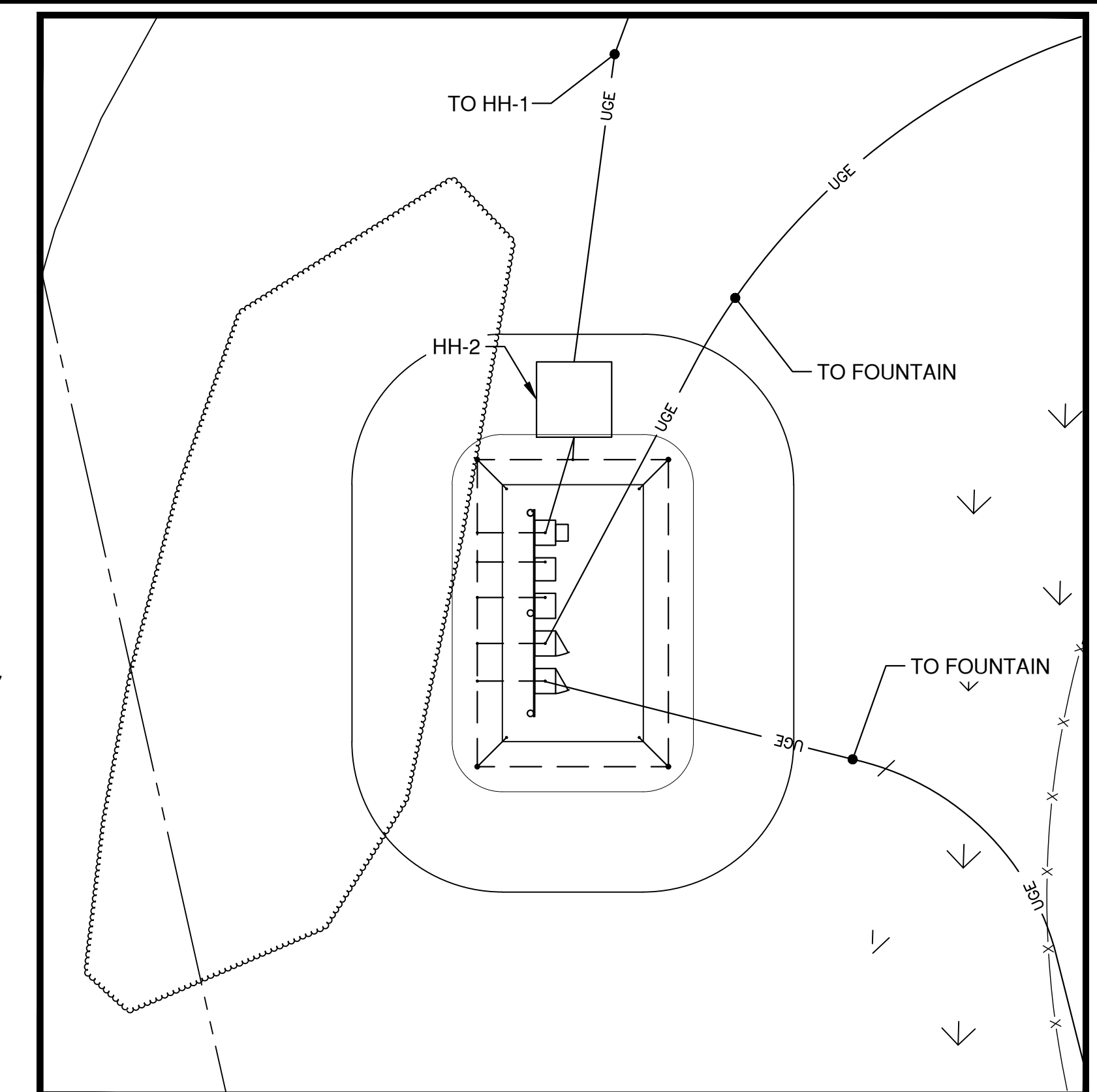
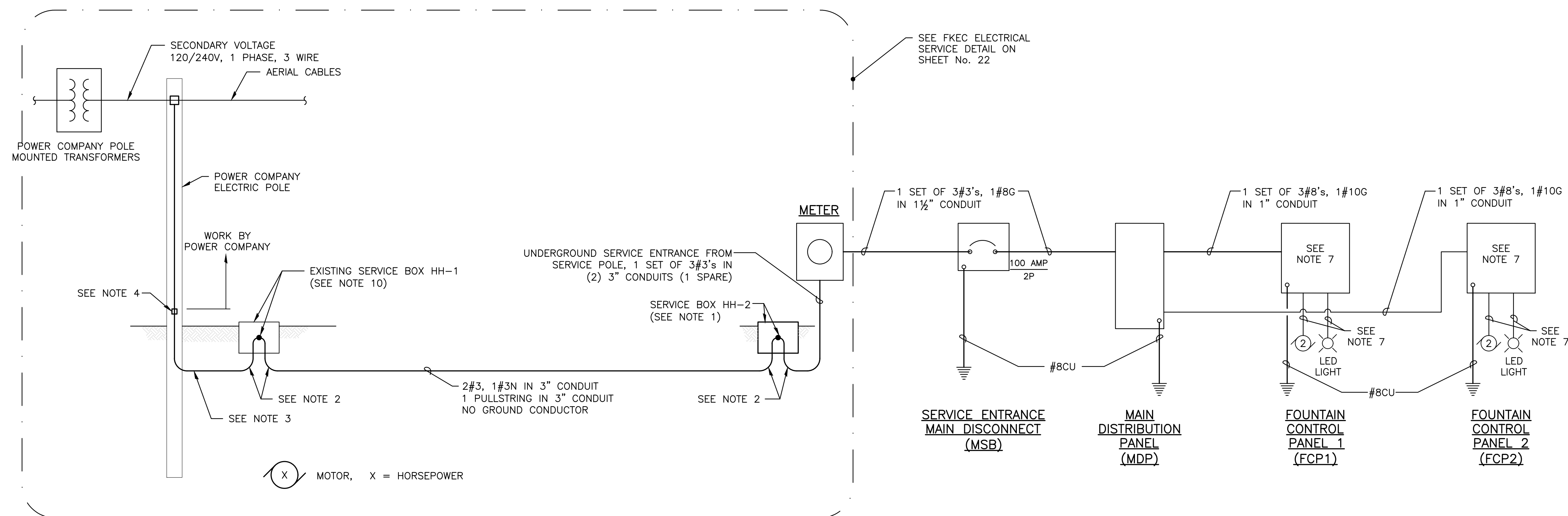
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DRAWN: PROJ. MGR.
DATE: 02/13/25

CITY OF KEY COLONY BEACH
7th and Shelter Bay Drive Drainage Improvements
SWPPP Details
Monroe County, Florida

JOB NO.
0604-20-1
SHEET NO.

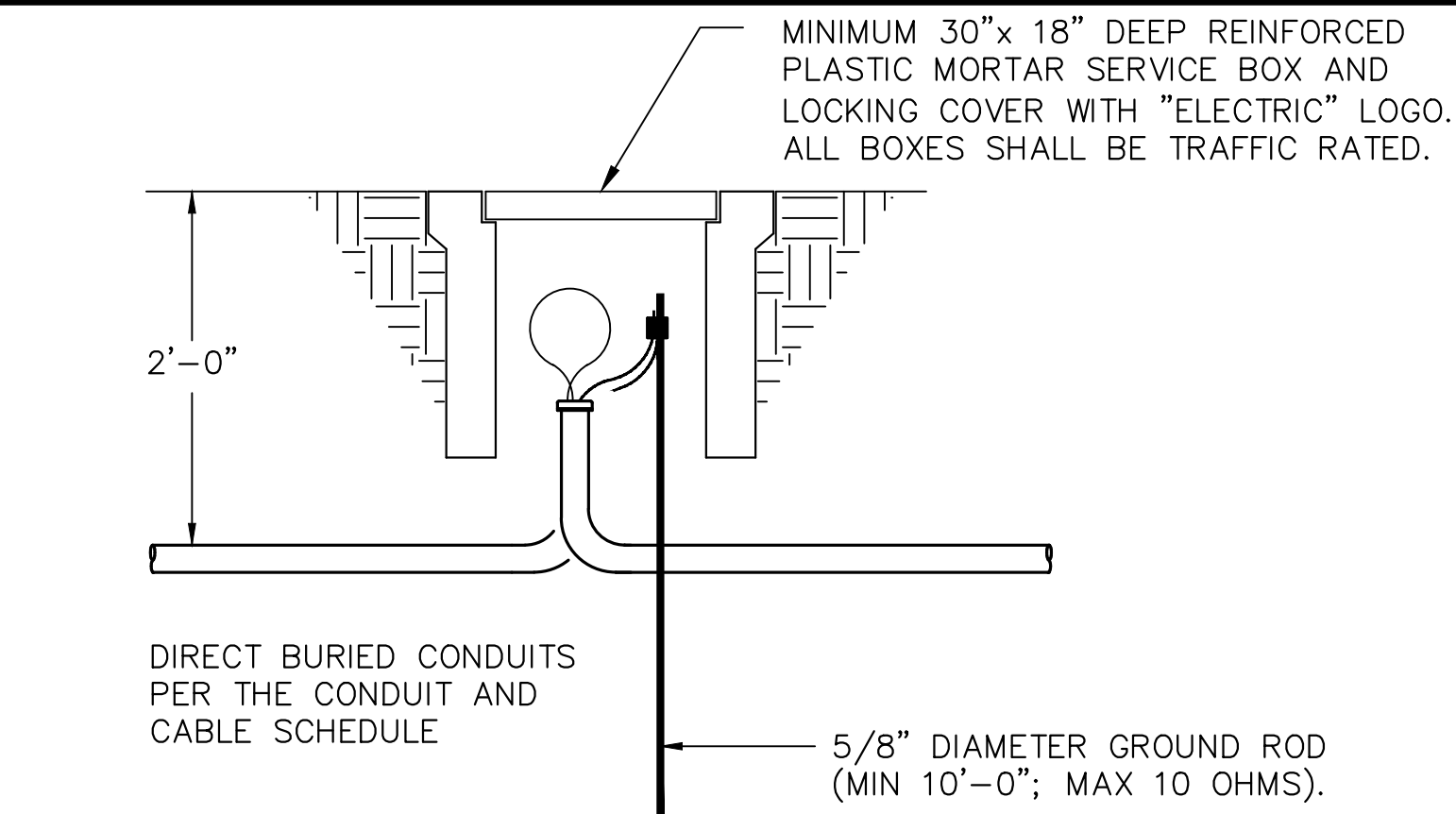
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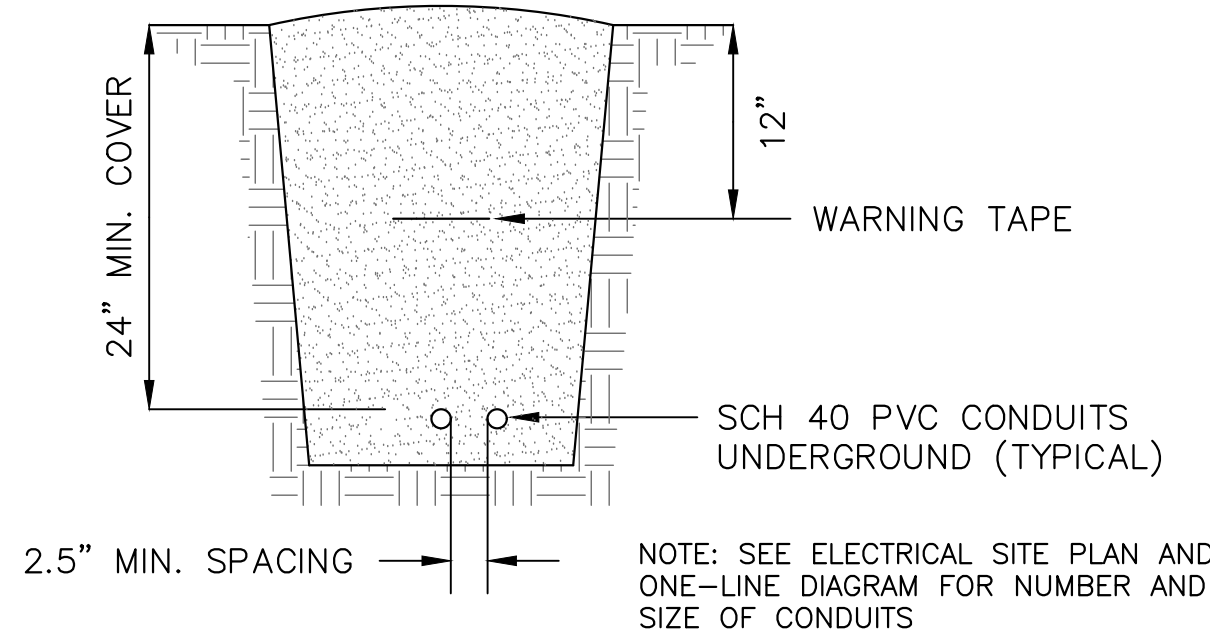
- ## ELECTRICAL NOTES

1. SERVICE BOX, FURNISHED BY POWER COMPANY AND INSTALLED BY CONTRACTOR. POWER COMPANY WILL CONNECT CONDUCTORS.
2. TWO LONG SWEEP ELBOWS, 24" RADIUS.
3. 3" CONDUIT, 24" BELOW GRADE, 90° ELBOW WITH 24" RADIUS AND WARNING TAPE. POWER COMPANY WILL FURNISH AND INSTALL CONDUCTORS.
4. CONDUIT TO EXTEND ABOVE GRADE PER FKEC REQUIREMENTS AND IN DIRECT CONTACT WITH AND STRAPPED TO POLE PER POWER COMPANY STANDARDS.
5. COORDINATE ALL INCOMING SERVICE WORK WITH POWER COMPANY, INCLUDING PROVIDING METER INSTALLATION, FEEDERS, CONDUITS AND GROUNDING METER SOCKET PER POWER COMPANY STANDARDS.
6. EACH MANUFACTURER CONTROL PANEL SHALL HAVE SURGE PROTECTION DEVICE (SPD). SEE SPECIFICATION SECTION 11100 FOR ADDITIONAL REQUIREMENTS.
7. EACH CABLE SHALL BE FURNISHED BY THE FOUNTAIN MANUFACTURER. THE CONTRACTOR SHALL CONFIRM THE REQUIRED LENGTH AND CONDUIT SIZING. 2" CONDUIT IS THE MINIMUM REQUIRED.
8. COORDINATE CONDUIT SIZE FROM PULL BOXES INTO LAKE TO ALLOW FLOATS TO BE PULLED.
9. PROVIDE SEPARATE PULL BOX FOR MOORING CABLE ACCESS.
10. AN EXISTING HANDHOLE (HH-1) IS LOCATED AT THE EXISTING POWER POLE. THE CONTRACTOR SHALL COORDINATE WITH FKEC ON SERVICE REQUIREMENTS.



TYPICAL UNDERGROUND PULL BOX DETAIL

NTS

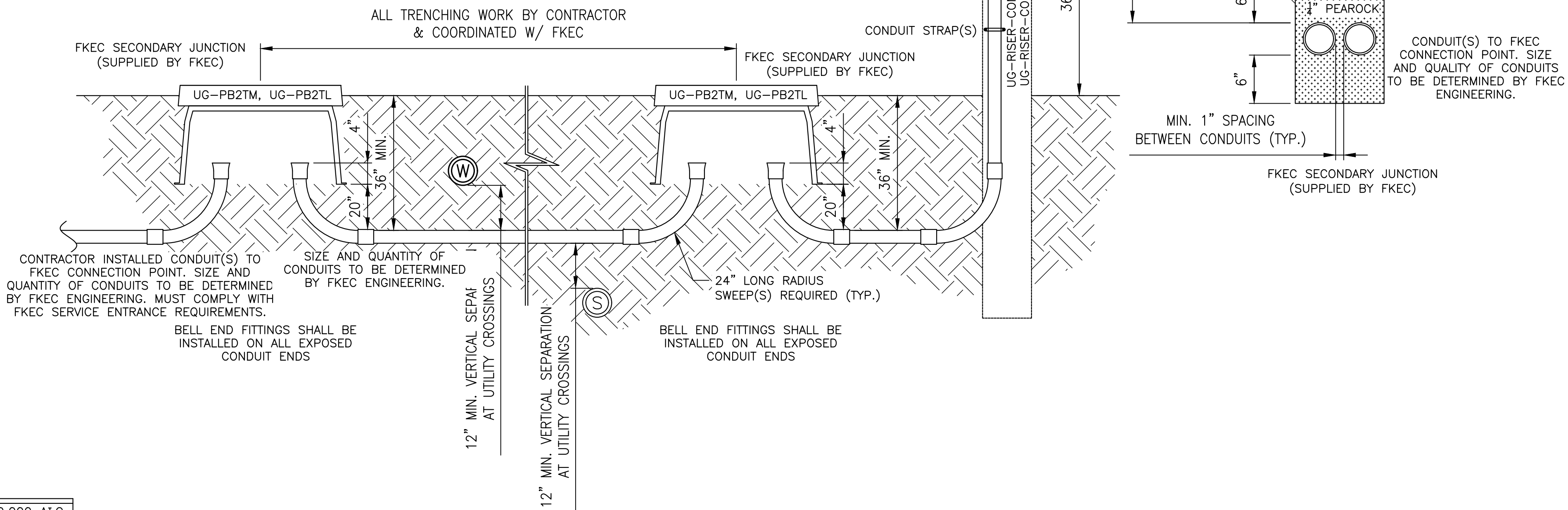


TYPICAL DIRECT BURIED CONDUIT DETAIL

NON-FKEC RUNS

NTS

- NOTES:
1. ALL CONDUITS BELOW GRADE SHALL BE SCHEDULE 40 OR SCHEDULE 80, ELECTRICAL GRADE PVC CONDUIT PLACED ON A SIX INCH BED OF 1/4 INCH PEA ROCK.
 2. ALL CONDUITS EXTENDING ABOVE GRADE (I.E. AT THE POLE) MUST BE SCHEDULE 80, ELECTRICAL GRADE PVC CONDUIT.
 3. ALL BENDS SHALL LONG RADIUS, 24" ELECTRICAL GRADE PVC.
 4. A MANDREL SHALL BE PULLED THROUGH EACH CONDUIT TO CHECK AND CLEAR ANY BLOCKAGE. 1800# POLYESTER PULLTAPE WITH SEQUENTIAL MARKINGS SHALL BE LEFT IN EACH CLEARED CONDUIT.
 5. ALL TRENCH AND CONDUIT INSTALLATIONS SHALL BE INSPECTED BY AN FKEC INSPECTOR PRIOR TO THE PLACING OF BACKFILL. TO ARRANGE FOR INSPECTION, CALL FKEC AT (305)852-2431 A MINIMUM OF 24 HOURS IN ADVANCE OF DESIRED INSPECTION DATE. ANY DEVIATIONS FROM FKEC TRENCH PLAN MUST BE APPROVED BY AN AUTHORIZED FKEC REPRESENTATIVE.
 6. ANY DEVIATIONS FROM FKEC TRENCH PLAN MUST BE APPROVED BY AN AUTHORIZED FKEC REPRESENTATIVE.
 7. ASPHALT MUST BE HOT PATCHED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.

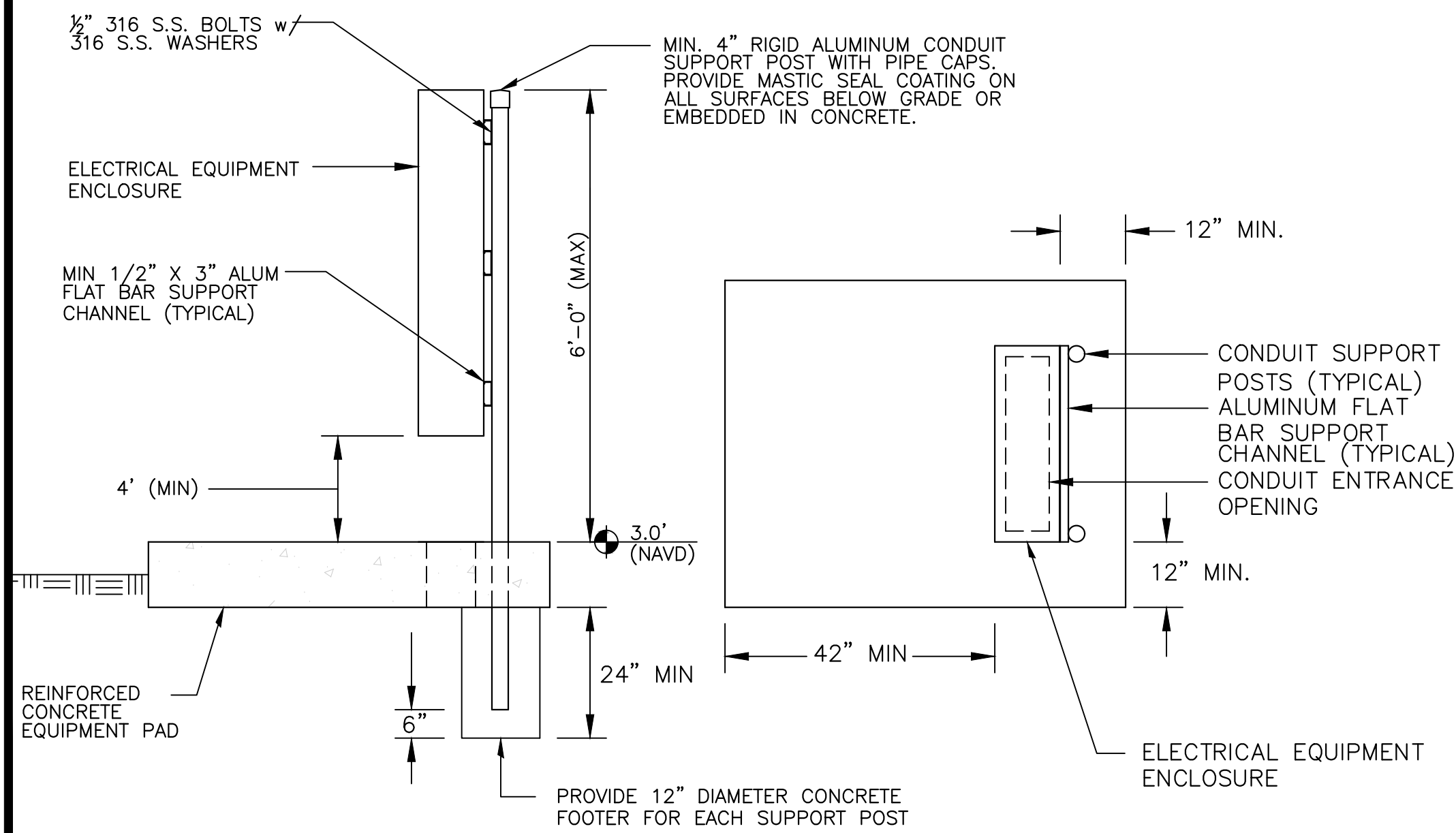


FKEC ELECTRICAL SERVICE DETAIL

NTS

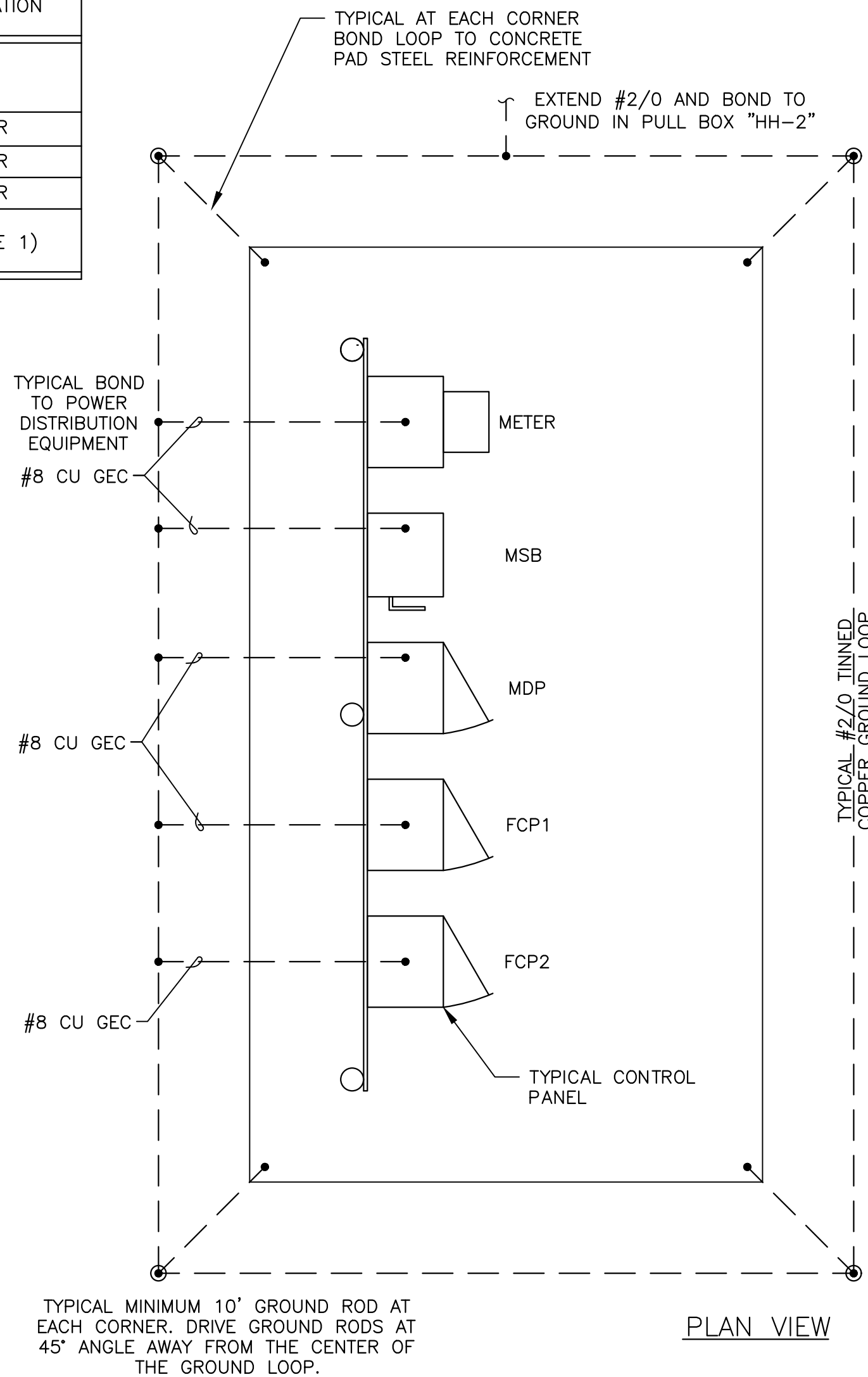
100 AMP MAIN BREAKER 120/240V, 1Ø, 3W						ELECTRICAL PANEL "MDP"		SURFACE MOUNTED (NEMA-3R)					10,000 AIC	
CKT. NO.	TRIP AMPS	NO. POLES	VOLT-AMPS	WIRE SIZE	GROUND SIZE	SERVICE LOCATION	CKT. NO.	TRIP AMPS	NO. POLES	VOLT-AMPS	WIRE SIZE	GROUND SIZE	SERVICE LOCATION	
1	40	2	3,840	8	10	FCP-1	2	40	2	3,840	8	10	FCP-2	
3							4							
5	20	1	—	—	—	LOCAL GFIC	6	20	1	—	—	—	SPARE BREAKER	
7	20	1	—	—	—	SPARE BREAKER	8	20	1	—	—	—	SPARE BREAKER	
9	20	1	—	—	—	SPARE BREAKER	10	20	1	—	—	—	SPARE BREAKER	
11	20	1	—	—	—	SPARE BREAKER	12	20	2	—	—	—	SPD (SEE NOTE 1)	
13	20	1	—	—	—	SPARE BREAKER	14							

- NOTE:
1. PROVIDE MANUFACTURER'S STANDARD UL1449 TYPE 2 5TH EDITION SURGE PROTECTION DEVICE. 100KA SURGE.



TYPICAL ELECTRICAL EQUIPMENT MOUNTING DETAIL

NTS



ELECTRICAL EQUIPMENT DETAIL

3/4" = 1'-0"

