

**FLORIDA DEPARTMENT OF TRANSPORTATION - DISTRICT 4  
MAINTENANCE MEMORANDUM OF AGREEMENT (AGREEMENT)**

**THIS AGREEMENT** was made and entered into on (date) \_\_\_\_\_ by and between the **STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION**, a component agency of the State of Florida, hereinafter called the **DEPARTMENT** and the **CITY OF HOLLYWOOD**, a municipal corporation existing under the Laws of Florida, hereinafter called the **AGENCY**.

**WITNESSETH**

**WHEREAS**, the **DEPARTMENT** has jurisdiction over State Road (S.R.) 9/I-95 as part of the State Highway System; and

**WHEREAS**, as part of the continual updating of the State of Florida Highway System, the **DEPARTMENT**, for the purpose of safety, protection of the investment and other reasons, has constructed and does maintain S.R. 9/I-95 (86070000) within the limits of the **AGENCY**; and

**WHEREAS**, the **AGENCY** seeks to install and maintain all storm drainage appurtenances within the **DEPARTMENT'S** right of way including but not limited to storm culverts, junction boxes, straight concrete endwalls, drainage ditches, outfalls and riprap, constructed under **FM No. 436903-7-58-01** hereinafter called **IMPROVEMENTS**, installed along S.R. 9/I-95 (86070000) from M.P. 2.86 to M.P. 3.11 ("**Project**") as described within **Exhibit A (Project Location, Description and Aerial)**; and

**WHEREAS**, it is the intent of the parties that the **AGENCY** shall maintain all **IMPROVEMENTS** constructed within the Project limits under **FM No. 436903-7-58-01** as described within **Exhibit B (Plans)**; and

**WHEREAS**, the Project involves the scope of work as described within **Exhibit A** and **Exhibit B**, which will benefit the **AGENCY**; and

**WHEREAS** the parties hereto mutually recognize the need for entering into an **AGREEMENT** designating and setting forth the responsibilities of each party; and

**WHEREAS**, the **AGENCY** by Resolution No. \_\_\_\_\_ entered this date \_\_\_\_\_, attached hereto and by this reference made a part hereof, desires to enter into this **AGREEMENT** and authorizes its officers to do so.

**NOW THEREFORE**, for and in consideration of mutual benefits that flow each to the other, the parties covenant and agree as follows:

**1. RECITALS**

The recitals set forth above are true and correct and are deemed incorporated herein.

**2. INSTALLATION OF FACILITIES**

The **AGENCY** shall construct, under **FM No. 436903-7-58-01**, the **IMPROVEMENTS** as detailed in **EXHIBIT A** and **EXHIBIT B** that will benefit the **AGENCY**. The **AGENCY** agrees to maintain the **IMPROVEMENTS** within the corporate limits of the **AGENCY**; and

- 1) All activities, including the **IMPROVEMENTS** installation and future maintenance operations performed on State highway right of way, shall be in conformity with the most current edition of the *Manual on Uniform Traffic Control* (MUTCD) and *FDOT Traffic Control through Work Zones*.
- 2) The most current edition of *FDOT Standard Plans* (Sight Distance at Intersections) shall be adhered to.
- 3) Lateral Offsets as specified in the Florida Design Manual (FDM) Section 215.
- 4) The **IMPROVEMENTS** shall not obstruct roadside signs or permitted outdoor advertising signs, (see Florida Administrative Code [F.A.C.] Rule Chapter 14-10.)
- 5) The **AGENCY** shall provide the local FDOT Operation Center located at Broward Operations, 5548 NW 9<sup>th</sup> Avenue, Ft. Lauderdale, FL. 33309 (954) 776-4300. a twenty-four (24) hour telephone number and the name of the person responsible that the **DEPARTMENT** may contact. The **AGENCY** shall notify the local maintenance office forty-eight (48) hours prior to the start of the **IMPROVEMENTS**.

- 6) If there is a need to restrict the normal flow of traffic, it shall be done on non-holiday, weekday off-peak hours, and the party performing such work shall give notice to the local law enforcement agency within whose jurisdiction such road is located prior to commencing work on the **IMPROVEMENTS**. Lane closures must be submitted for approval in accordance with **DEPARTMENT** procedures and policies and will meet the goals established in the **DEPARTMENT'S** Open Roads Policy. The **DEPARTMENT'S** Operation Center Public Information Officer (see telephone number in Paragraph (e)) shall also be notified.
- 7) The **AGENCY** shall be responsible to clear all utilities within the improvement limits before construction commences.
- 8) The **AGENCY** shall be solely responsible for any damage to surrounding property, real estate, vehicles, pedestrians, or other assets occurring as a result of installation operations and shall repair such damage to the satisfaction of the **DEPARTMENT** at no expense to the **DEPARTMENT**.

### **3. MAINTENANCE OF FACILITIES**

- A. The **AGENCY** agrees to maintain the **IMPROVEMENTS** to be installed under **FM No. 436903-7-58-01**. Maintenance by the **AGENCY** will include but not be limited to inspection, repair, restoration, replacement, and general maintenance of all **IMPROVEMENTS** as described in **EXHIBIT B** within the limits of construction as detailed in **EXHIBIT A**. Maintenance shall be as indicated below and in accordance with **EXHIBIT C** (Maintenance Plan Requirements).
  - 1) The **AGENCY** agrees to maintain, at its sole cost and expense, the **IMPROVEMENTS** set forth in **Exhibit A** and **Exhibit B** in compliance with any and all applicable laws which shall include, but not be limited to, laws and regulations relating to the Americans with Disabilities Act ("ADA") of 1990, as currently enacted or as may be amended from time to time.
  - 2) The **IMPROVEMENTS** shall be kept clean and free from trash and debris. The **IMPROVEMENTS** shall be kept free of graffiti. The **IMPROVEMENTS** shall be free of pests such as stinging insects, rodents, and vermin, including removal of nests as needed.

- 3) As part of the maintenance responsibility, the **AGENCY** shall keep in good repair and/or replace defective or worn-out parts of the **IMPROVEMENTS**. The **AGENCY's** responsibility to keep the **IMPROVEMENTS** in good repair shall include all necessary inspection, maintenance, repair and replacement of any type or nature, including, but not limited to, inspection, maintenance, repair, and replacement due to normal wear and tear, named storm events, acts of God, vandalism, and accidents. The **AGENCY** shall take all necessary steps to maintain the **IMPROVEMENTS** in a manner to protect against injury to any person or property.
  - 4) The above-named functions to be performed by the **AGENCY** may be subject to periodic inspections by the **DEPARTMENT** at the discretion of the **DEPARTMENT**. Such inspection findings will be shared with the **AGENCY** and shall be the basis of all decisions regarding reworking relating to the maintenance obligation / function or **AGREEMENT** termination.
  - 5) The **AGENCY** shall be solely responsible for any damage to surrounding property, real estate, vehicles, pedestrians, or other assets occurring as a result of maintenance and operation of the **IMPROVEMENTS** and shall repair such damage to the satisfaction of the **DEPARTMENT** at no expense to the **DEPARTMENT**, as per the requirements in **Exhibit C** (Maintenance Plan Requirements).
- B. The **AGENCY** shall be responsible to maintain the **IMPROVEMENTS**. The **AGENCY** shall replace the structure if destroyed in an accident by third parties. The **AGENCY** shall comply with all ADA Laws existing and as may be amended. Adjacent sidewalk areas shall be always accessible. If sidewalk closures are needed, alternate routes shall be clearly identified, and missing sidewalk shall be restored either with permanent or temporary materials at the end of each workday.
- C. All **IMPROVEMENTS** shall at all times have a notification sign posted with the name and phone number of the department within the **AGENCY** responsible for maintenance of the **IMPROVEMENTS** so that members of the public may contact the **AGENCY** regarding problems with the **IMPROVEMENTS**. The **AGENCY** shall promptly respond and correct all complaints regarding maintenance. The **IMPROVEMENTS** to be constructed with this project shall not contain advertising. Nor shall advertising be placed upon them by any party in the future.

- D. The **AGENCY** shall be responsible for maintenance of the Project in accordance with the following Federally and State accepted standards (current editions at the time of execution of this **AGREEMENT** and any amendments hereafter) and all costs related thereto: (a) FDOT Design Manual (FDM), (b) Florida Green Book, (c) Standard Specifications for Roadway and Bridge Construction, (d) FDOT Standard Plans, (e) Manual on Uniform Traffic Control Devices (MUTCD), and (f) all other applicable local, state, or federal laws, rules, resolutions, or ordinances, and FDOT procedures. In the event of a conflict between documents, standards, and procedures the more stringent shall apply.
- E. Any work impacting traffic flow along S.R. 9/I-95 (86070000) from M.P. 2.86 to M.P. 3.11 must be coordinated with the **DEPARTMENT**. Lane closures must be submitted for approval in accordance with **DEPARTMENT** procedures and policies and will meet the goals established in the **DEPARTMENT**'s Open Roads Policy.

#### **4. NOTICE OF MAINTENANCE FACILITIES**

If, at any time while the terms of this **AGREEMENT** are in effect, it shall come to the attention of the **DEPARTMENT** that the **AGENCY'S** responsibility as established herein or a part thereof is not being properly accomplished pursuant to the terms of this **AGREEMENT**, the **DEPARTMENT** may issue a written notice, that a deficiency or deficiencies exist(s), by sending a certified letter to the **AGENCY**, in care of the **CITY OF HOLLYWOOD**, to place the **AGENCY** on notice regarding its maintenance deficiencies. Thereafter, the **AGENCY** shall have a period of sixty (60) days within which to correct the cited deficiency or deficiencies. If said deficiencies are not corrected within the time period, the **DEPARTMENT** may, at its option, proceed under one or more or a combination of the following items:

- 1) The **DEPARTMENT** may repair any item or a number of items. Corrective actions will be performed with the **DEPARTMENT** and/or its independent contractor's materials, equipment, and personnel. The actual cost for such work will be charged to the **AGENCY**.
- 2) The **DEPARTMENT** may remove or replace any item or number of items with the standard **DEPARTMENT** item. Corrective actions will be performed with

the **DEPARTMENT** and/or its independent contractor's materials, equipment, and personnel. The actual cost for such work will be charged to the **AGENCY**.

- 3) If there is no standard equivalent item or if in the **DEPARTMENT'S** discretion the item is not necessary for the operations of the roadway, the **DEPARTMENT** may remove the item in its entirety and restore the area to a condition acceptable to the **DEPARTMENT**. Corrective actions will be performed with the **DEPARTMENT** and/or its independent contractor's materials, equipment, and personnel. The actual cost for such work will be charged to the **AGENCY**.
- 4) At the discretion of the **DEPARTMENT**, terminate the **AGREEMENT** in accordance with Section 7 of this **AGREEMENT** and remove, by the **DEPARTMENT** or its Contractor's personnel, all the **IMPROVEMENTS** installed under this **AGREEMENT** and charge the **AGENCY** the reasonable cost of such removal.

## **5. FUTURE DEPARTMENT IMPROVEMENTS**

It is understood between the parties hereto that the **IMPROVEMENTS** covered by this **AGREEMENT** may be removed, relocated, or adjusted at any time in the future as determined to be necessary by the **DEPARTMENT** in order that the adjacent state road be widened, altered, or otherwise changed to meet with future criteria or planning of the **DEPARTMENT**.

## **6. FUTURE AGENCY IMPROVEMENTS**

The **AGENCY** may construct additional **IMPROVEMENTS** within the limits of the rights of ways identified as a result of this document, subject to the following conditions:

- 1) Plans for any new **IMPROVEMENTS** shall be subject to approval by the **DEPARTMENT**. The **AGENCY** shall not change or deviate from said plans without written approval by the **DEPARTMENT**.
- 2) The **AGENCY** shall procure a permit and/or Construction Agreement from the **DEPARTMENT**, as appropriate.
- 3) All **IMPROVEMENTS** shall be developed and implemented in accordance with appropriate state safety and roadway design standards.

- 4) The **AGENCY** agrees to comply with the requirements of this **AGREEMENT** with regard to any additional **IMPROVEMENTS** installed at no cost to the **DEPARTMENT**.

## **7. AGREEMENT TERMINATION**

This **AGREEMENT** may be terminated under any of the following conditions:

- 1) By the **DEPARTMENT**, if the **AGENCY** fails to perform its duties under this **AGREEMENT**, following ten (10) days written notice. The **AGENCY** shall reimburse the **DEPARTMENT** for any expenditures for the installation of said **IMPROVEMENTS** and the cost to remove and or replace said improvement with the standard improvement or remove in its entirety.
- 2) By the **DEPARTMENT**, for refusal by the **AGENCY** to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the **AGENCY** in conjunction with this **AGREEMENT**.
- 3) By the **DEPARTMENT** with a six (6) month written notice.

## **8. AGREEMENT TERM**

The term of this **AGREEMENT** commences upon execution by all parties. The term of this **AGREEMENT** shall remain in effect for as long as the **IMPROVEMENTS** shall exist.

## **9. LIABILITY AND INSURANCE REQUIREMENTS**

- A. With respect to any of the **AGENCY'S** agents, consultants, sub-consultants, contractors, and/or sub-contractors, such party in any contract for the **IMPROVEMENTS** shall agree to indemnify, defend, save and hold harmless the **DEPARTMENT** from all claims, demands, liabilities, and suits of any nature arising out of, because of or due to any intentional and/or negligent act or occurrence, omission or commission of such agents, consultants, sub consultants, contractors and/or subcontractors. The **AGENCY** shall provide to the **DEPARTMENT** written evidence of

- the foregoing upon the request of the **DEPARTMENT**. It is specifically understood and agreed that this indemnification clause does not cover or indemnify the **DEPARTMENT** for its own negligence.
- B. In the event that the **AGENCY** contracts with a third party to provide the services set forth herein, any contract with such third party shall include the following provisions:
- 1) The **AGENCY'S** contractor shall at all times during the term of this **AGREEMENT** keep and maintain in full force and effect, at contractor's sole cost and expense, Comprehensive General Liability with minimum limits of \$1,000,000.00 per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability and Worker's Compensation insurance with minimum limits of \$500,000.00 per Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability and Worker's Compensation policy without restrictive endorsements, as filed by the Insurance Services Office and shall name the **DEPARTMENT** as an additional insured.
  - 2) The **AGENCY'S** contractor shall furnish the **AGENCY** with Certificates of Insurance of Endorsements evidencing the insurance coverages specified herein prior to the beginning performance of work under this **AGREEMENT**.
  - 3) Coverage is not to cease and is to remain in full force and effect (subject to cancellation notice) until all performance required of the **AGENCY'S** contractor is completed. All policies must be endorsed to provide the **DEPARTMENT** with at least thirty (30) days' notice of cancellation and or/or restriction. If any of the insurance coverages will expire prior to the completion of work, copies of renewal policies shall be furnished at least (30) days prior to the date of expiration.

#### **10. E-VERIFY REQUIREMENTS**

- A. The **AGENCY** shall:
- 1) Utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the **AGENCY** for the work performed under this **AGREEMENT**; and

- 2) Expressly require any contractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

#### 11. ENTIRE AGREEMENT

This writing embodies the entire **AGREEMENT** and understanding between the parties hereto and there are no other Agreements and understanding, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby except the Local Funded Agreement(s). as to all other **IMPROVEMENTS** not specifically mentioned in this **AGREEMENT**.

#### 12. DISPUTES

The **DEPARTMENT** shall decide all questions, difficulties, and disputes of any nature whatsoever that may arise under or by reason of this **AGREEMENT** the prosecution or fulfillment of the service hereunder and the character, quality, amount and value thereof. Should the **AGENCY** disagree with the **DEPARTMENT** decision, the **AGENCY** may pursue all legal and equitable remedies available under this **AGREEMENT**.

#### 13. ASSIGNMENT

This **AGREEMENT** may not be assigned or transferred by the **AGENCY** in whole or part without the consent of the **DEPARTMENT**.

#### 14. LAWS GOVERNING

This **AGREEMENT** shall be governed by and construed in accordance with the laws of the State of Florida. In the event of a conflict between any portion of the contract

and Florida law, the laws of Florida shall prevail. The venue for any dispute arising from this **AGREEMENT** shall be in Broward County, Florida.

## **15. NOTICES**

All notices given or required under this **AGREEMENT** shall be in writing and either personally delivered with receipt acknowledgement or sent by certified mail, return receipt requested. All notices shall be sent to the following addresses.

1) If to the **DEPARTMENT**:

State of Florida Department of Transportation  
Attention: District Maintenance Engineer  
3400 West Commercial Blvd  
Ft. Lauderdale, FL 33309-3421

2) If to the **AGENCY**:

The City of Hollywood  
P.O. Box 229045  
Hollywood, FL. 33022  
Attention: Feng (Jeff) Jiang, Assistant Director, Public  
Utilities/Engineering

## **16. LIST OF EXHIBITS**

- 1) **Exhibit A:** Project Location, Description and Project Aerial
- 2) **Exhibit B:** Plans
- 3) **Exhibit C:** Maintenance Plan Requirements

**IN WITNESS OF THE FOREGOING**, the parties have set their hands and seals the day and year first written above.

**AGENCY:**

City of Hollywood, a municipal  
Corporation of the State of Florida

**By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

City Mayor

**ATTEST:**

\_\_\_\_\_ **Date:** \_\_\_\_\_

City Clerk

**Approved as to form:**

\_\_\_\_\_ **Date** \_\_\_\_\_

City Attorney

**IN WITNESS OF THE FOREGOING**, the parties have set their hands the day and year first written above.

**DEPARTMENT:**

State Of Florida  
Department Of Transportation

**By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Paul A. Lampley, P.E. Director of Operations

**Approved as to form:**

\_\_\_\_\_ **Date** \_\_\_\_\_

Francine Steelman, Assistant General Counsel

## EXHIBIT A

### PROJECT LOCATION, DESCRIPTION AND AERIAL

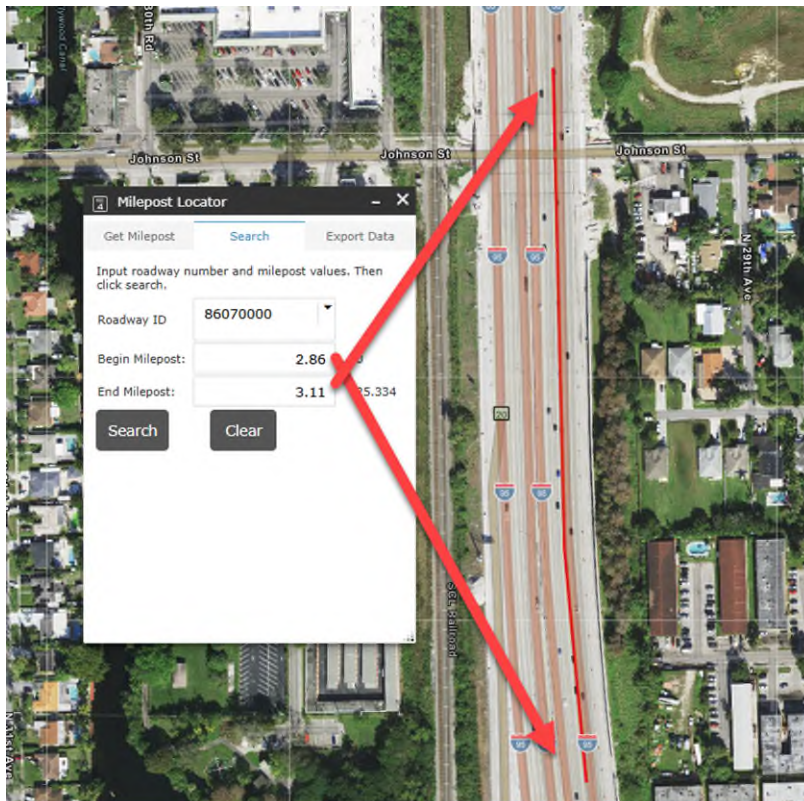
#### I. Project Location

The **IMPROVEMENTS** associated with this **AGREEMENT** are located within the City of Hollywood in Broward County, Florida along S.R. 9/I95 (86070000) from M.P. 2.86 to M.P. 3.11

#### II. Description

The proposed project consists of all storm drainage appurtenances within the **DEPARTMENT'S** right of way including but not limited to storm culverts, junction boxes, straight concrete endwalls, drainage ditches, outfalls and riprap, along S.R. 9/I-95 (86070000) M.P. 2.89 to M.P. 3.11.

#### III. Ariel



**EXHIBIT B**

**PLANS**

Plans by Gannett Fleming, Inc. dated April 2025, as approved by the Department.

PLANS (attached)

Sheets Included:

PDF Page Number (#)	Plan Sheet (#)	Sheet(s) Description
15		COVER SHEET
16	C-1	LEGAND AND ABBREVIATIONS
17	C-2	NOTES
18	C-3	KEY MAP
19	C-4	EXISTING CONDITIONS
20	C-5	EXISTING FEATURES PLAN
21	C-6	STORM CULVERT PLAN AND PROFILE
22-31	C-7 to C-16	UTILITY DETAILS
32	C-17	EROSION & SEDIMENT CONTROL
33	C-18	EROSION & SEDIMENT CONTROL DETAIL
34-35	C-19, 20	TEMPORARY TRAFFIC CONTROL

**FDOT FINANCIAL PROJECT ID: 436903-1-52-01**

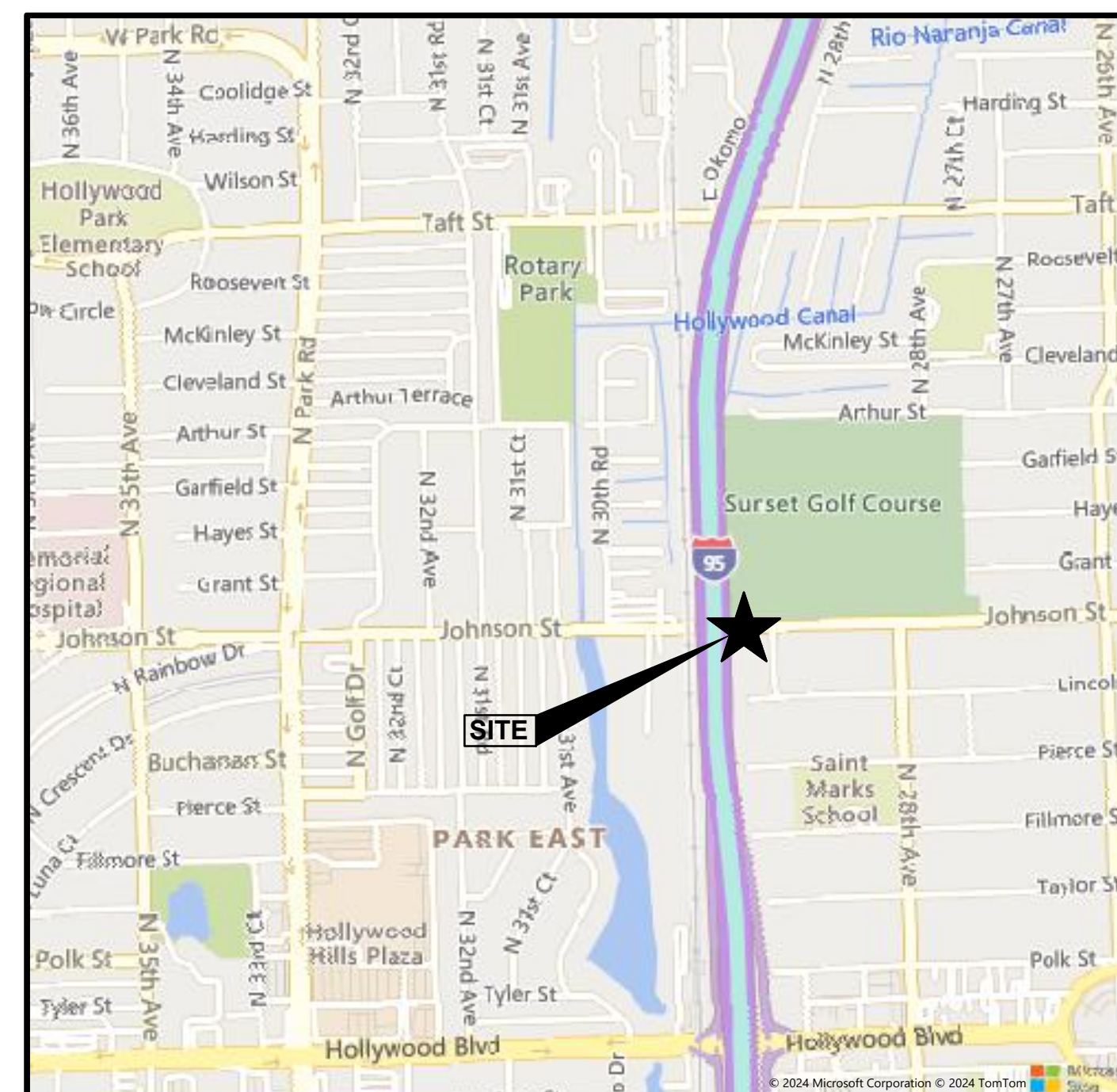


**079373**

**APRIL 2025**

## 90% DETAILED DESIGN DRAWINGS

INDEX OF DRAWINGS	
SHEET NO.	TITLE
	CIVIL
C-1	LEGENDS AND ABBREVIATIONS
C-2	NOTES
C-3	KEY MAP
C-4	EXISTING CONDITION PLAN
C-5	EXISTING FEATURES PLAN
C-6	STORM CULVERT PLAN AND PROFILE
C-7	UTILITY DETAILS
C-8	UTILITY DETAILS
C-9	UTILITY DETAILS
C-10	UTILITY DETAILS
C-11	UTILITY DETAILS
C-12	UTILITY DETAILS
C-13	UTILITY DETAILS
C-14	UTILITY DETAILS
C-15	UTILITY DETAILS
C-16	UTILITY DETAILS
C-17	EROSION AND SEDIMENT CONTROL PLAN
C-18	EROSION AND SEDIMENT CONTROL DETAIL PLAN
C-19	TEMPORARY TRAFFIC CONTROL PLANS DETOUR SHEET
C-20	TEMPORARY TRAFFIC CONTROL PLANS - TYPICAL SECTION



**CITY COMMISSION**

JOSH LEVY - MAYOR

CARYL S. SHUHAM - VICE MAYOR (DISTRICT 1)

LINDA HILL ANDERSON - COMMISSIONER (DISTRICT 2)

TRACI L. CALLARI - COMMISSIONER (DISTRICT 3)

ADAM GRUBER - COMMISSIONER (DISTRICT 4)

KEVIN D. BIEDERMAN - COMMISSIONER (DISTRICT 5)

IDELEMA QUINTANA - COMMISSIONER (DISTRICT 6)

### VICINITY MAP

"THE UTILITY DATA PROVIDED HEREIN IS BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN AND IS SUBJECT TO CHANGE. THE ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE EXISTING UTILITY DATA PROVIDED BY OTHERS, INCLUDING CITY OF HOLLYWOOD GIS AND FDOT SURVEY INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM FIELD VERIFICATION OF ALL EXISTING UTILITIES AND TO NOTIFY THE ENGINEER OF RECORD AND UTILITY OWNER OF ANY DISCREPANCIES."




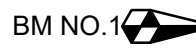




















800 NW 62ND AVE, SUITE 490  
Miami, FL 33126  
Phone:(305) 908-3924  
Fax: (786) 845-6802  
Florida Certificate of Authorization No. P26734










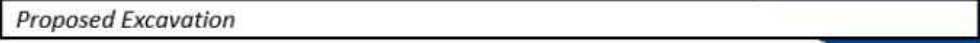
**Know what's below.  
Call before you dig.**

Drawing: C:\Users\hogan\OneDrive\GANNETT FLEMING\IN0079373-CityOfHollywood\_FL\Infrastructure\Project Files\Sheets\ES\WTRSR\_A1A\_Johnson\_S1079373G\_LEG\_J1.dwg Plotted: Apr. 03, 2025 - 9:23am


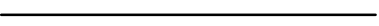





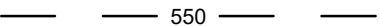





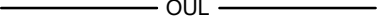
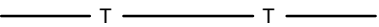











CIVIL/SITE SYMBOLS

	—	AIR RELEASE MANHOLE
	—	BENCH MARK
	—	BORING
	—	BUTTERFLY VALVE AND VALVE BOX
	—	CATCH BASIN/INLET
	—	CHECK VALVE
	—	CONTROL POINT
	—	EXISTING GAS VALVE
	—	EXISTING GAS CURB BOX
	—	GATE VALVE AND VALVE BOX
	—	HYDRANT
	—	LIGHT
	—	MANHOLE
	—	SIGN
	—	SIGNAL
	—	UTILITY POLE
	—	TEST PIT
	—	TREES, BUSHES AND SHRUBS
	—	VENT
	—	WATER CURB BOX
	—	EXISTING WATER VALVE
	—	BURIED GATE VALVE






FDOT COLOR CODE

	Sewer & Drainage
	Reclaimed Water, Irrigation, and Slurry Lines
	Potable Water
	Communication, Alarm, or Signal Lines, Cables or Conduits
	Gas, Oil, Petroleum, or Gaseous Materials
	Electric Power lines, Cables, Conduits, and Lighting Cables
	Temporary Survey Marks
	Proposed Excavation

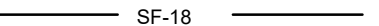
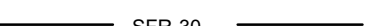






EXISTING LINE WORK

	A	A	AIR LINE
			BITUMINOUS ROAD SURFACE AND DRIVES
			CENTER LINE
			CONCRETE SIDEWALK OR RETAINING WALL
			DITCH, STREAM OR SWALE
	X	X	FENCE
	550		FIVE FOOT CONTOUR INTERVAL
	G	GV	GAS MAIN AND VALVE
			GRAVEL OR EARTH DRIVES
	C	C	MISCELLANEOUS UTILITY
			ONE FOOT CONTOUR INTERVAL
	OUL		OVERHEAD UTILITY LINE
	T	T	UNDERGROUND TELEPHONE/COMMUNICATIONS LINE
			PROPERTY LINE
			RIGHT-OF-WAY LINE
	FM	FM	SANITARY FORCE MAIN
	S	MH	SANITARY SEWER AND MANHOLE
	SS		STORM SEWER AND INLET
			SOIL BOUNDARY LINE
	UGE	UGE	UNDERGROUND ELECTRIC CABLE
	UGT	UGT	UNDERGROUND TELEPHONE CABLE
	WW	WW	WASTEWATER MAIN
	W	WV	WATER MAIN AND VALVE
			WETLANDS
			WOOD OR VEGETATION LINE
	+ 1.0		EXISTING SPOT ELEVATION

PROPOSED LINE WORK

	FM	FM	PROPOSED FORCE MAIN
			PROPOSED WATER MAIN
			STORM SEWER AND INLET
	1		PROPOSED CONTOUR
	+TW: 2.8		PROPOSED TOP OF WALL ELEVATION

E&S LINE WORK

	SF-18		STANDARD SILT FENCE - HEIGHT
	SFR-30		REINFORCED SILT FENCE - HEIGHT
	SSF-30		SUPER SILT FENCE - HEIGHT
	FS-12	FS-12	FILTER SOCK FENCE - HEIGHT
	PF	PF	PROTECTIVE FENCE
	PFR		REINFORCED PROTECTIVE FENCE
	LOD		LIMIT OF DISTURBANCE
		IP	INLET PROTECTION

GENERAL ABBREVIATIONS

CLR	—	CLEARANCE
¢	—	CENTERLINE
CMU	—	CONCRETE MASONRY UNIT
DIA	—	DIAMETER
EC	—	ELECTRICAL CONTRACT
EL or ELEV	—	ELEVATION
EX	—	EXISTING
FT	—	FOOT OR FEET
GC	—	GENERAL CONTRACT
ID	—	INSIDE DIAMETER
INV	—	INVERT
MAX	—	MAXIMUM
MC	—	MECHANICAL CONTRACT
MIN	—	MINIMUM
NA	—	NOT APPLICABLE
NTS	—	NOT TO SCALE
OD	—	OUTSIDE DIAMETER
PC	—	PLUMBING CONTRACT
℞	—	PLATE
SHT	—	SHEET
SQ	—	SQUARE
STA	—	STATION
TYP	—	TYPICAL
W	—	WATER
WW	—	WASTEWATER

MATERIAL

AL	—	ALUMINUM
ACP	—	ASBESTOS CEMENT PIPE
CI	—	CAST IRON
CIP	—	CAST IRON PIPE
CISP	—	CAST IRON SOIL PIPE
CMP	—	CORRUGATED METAL PIPE
CPVC	—	CHLORINATED POLYVINYL CHLORIDE PIPE
CU	—	COPPER
DI	—	DUCTILE IRON
DIP	—	DUCTILE IRON PIPE
FRP	—	FIBERGLASS REINFORCED PLASTIC
GI	—	GALVANIZED IRON
GLDIP	—	GLASS LINED DUCTILE IRON PIPE
HDPE	—	HIGH DENSITY POLYETHYLENE
PCCP	—	PRESTRESSED CONCRETE CYLINDER PIPE
PEX	—	CROSS-LINKED POLYETHYLENE
PVC	—	POLYVINYL CHLORIDE PIPE
RCCP	—	REINFORCED CEMENT CONCRETE PIPE
SS	—	STAINLESS STEEL

CIVIL/SITE ABBREVIATIONS

AVE	—	AVENUE
BIT	—	BITUMINOUS
BLVD	—	BOULEVARD
CB	—	CATCH BASIN
CC	—	CHEMICAL CONDUIT
CIR	—	CIRCLE
CL2	—	CHLORINE
CM	—	CONCRETE MONUMENT
CT	—	COURT
D	—	DRAIN
DR	—	DRIVE
FH	—	FIRE HYDRANT
G	—	GAS
GCB	—	GAS CURB BOX
GV	—	GAS VALVE
HWY	—	HIGHWAY
HYD	—	HYDRANT
IP	—	IRON PIN
LA	—	LANE
LWS	—	LONG WATER SERVICE
MAC	—	MACADAM
MH	—	MANHOLE
MJ	—	MECHANICAL JOINT
NC	—	NETWORK CABLE
OE	—	OVERHEAD ELECTRICAL
OT	—	OVERHEAD TELEPHONE
℞	—	PROPERTY LINE
PM	—	PIPELINE MARKER
PC	—	POINT OF CURVE
PI	—	POINT OF INTERSECTION
POB	—	POINT OF BEGINNING
POE	—	POINT OF ENDING
POL	—	POINT ON LINE
PT	—	POINT OF TANGENT
PVC	—	POINT OF VERTICAL CURVE
PVT	—	POINT OF VERTICAL TANGENT
RD	—	ROAD
RJ	—	RESTRAINED JOINT
RTE	—	ROUTE
RW	—	RAW WATER
S	—	SANITARY SEWER
SD	—	STORM DRAIN
SHC	—	SODIUM HYPOCHLORITE
SS	—	STORM SEWER
ST	—	STREET
SWS	—	SHORT WATER SERVICE
UGE	—	UNDERGROUND ELECTRIC
UGT	—	UNDERGROUND TELEPHONE
W	—	WATER
WARG	—	WEDGE ACTION RETAINING GLAND
WCB	—	WATER CURB BOX
WS	—	WATER SERVICE
WV	—	WATER VALVE

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KW	LM	



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TASK 4.0 UTILITY RELOCATION - JOHNSON STREET

LEGEND AND ABBREVIATIONS

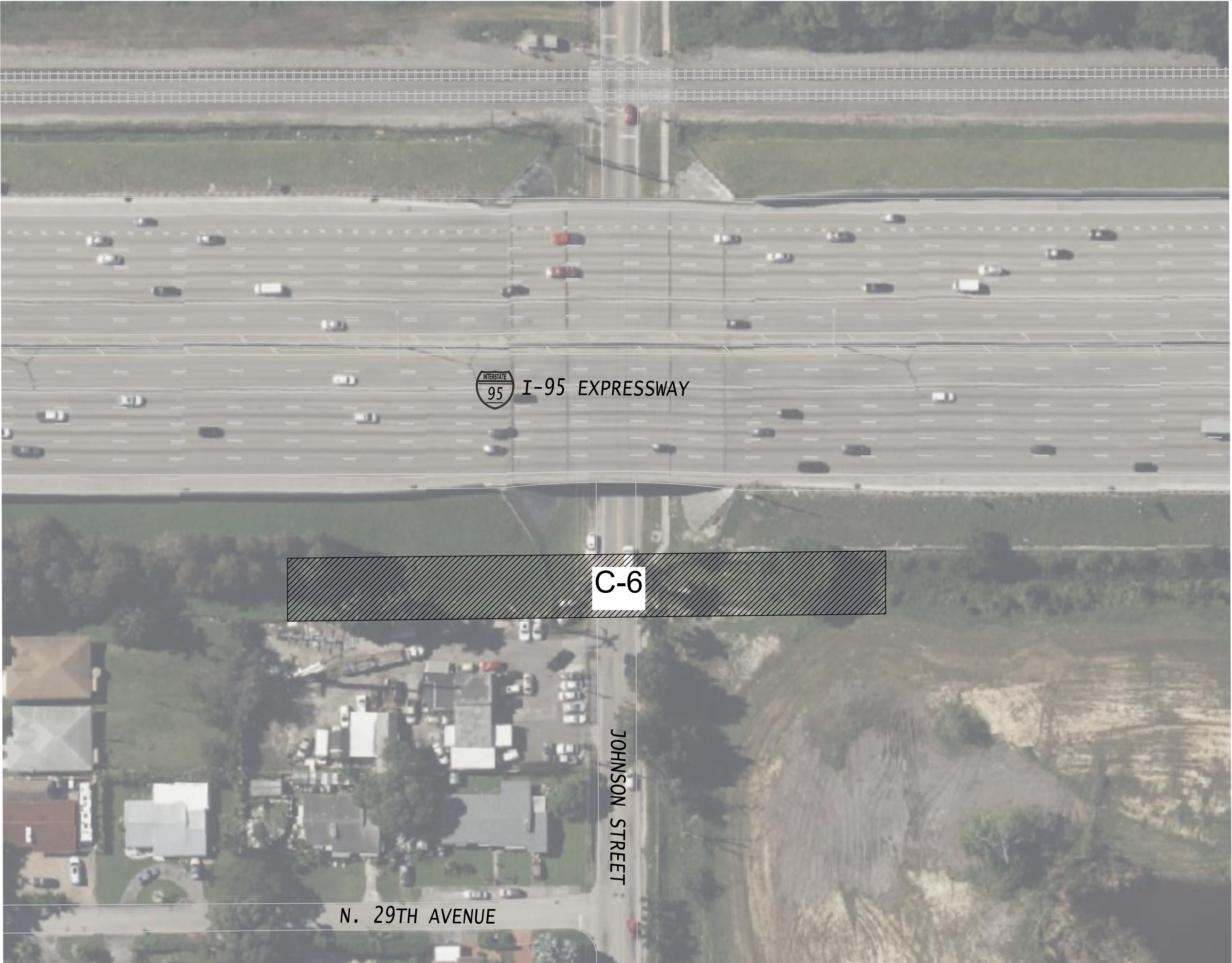
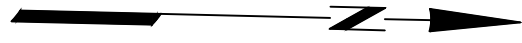


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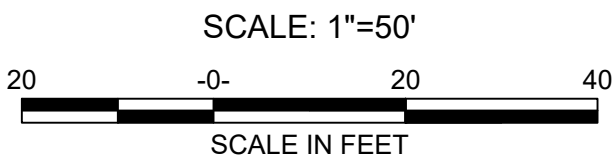
JOB No. 079373	SHEET No. C-1
DATE APRIL 2025	



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PLAN VIEW



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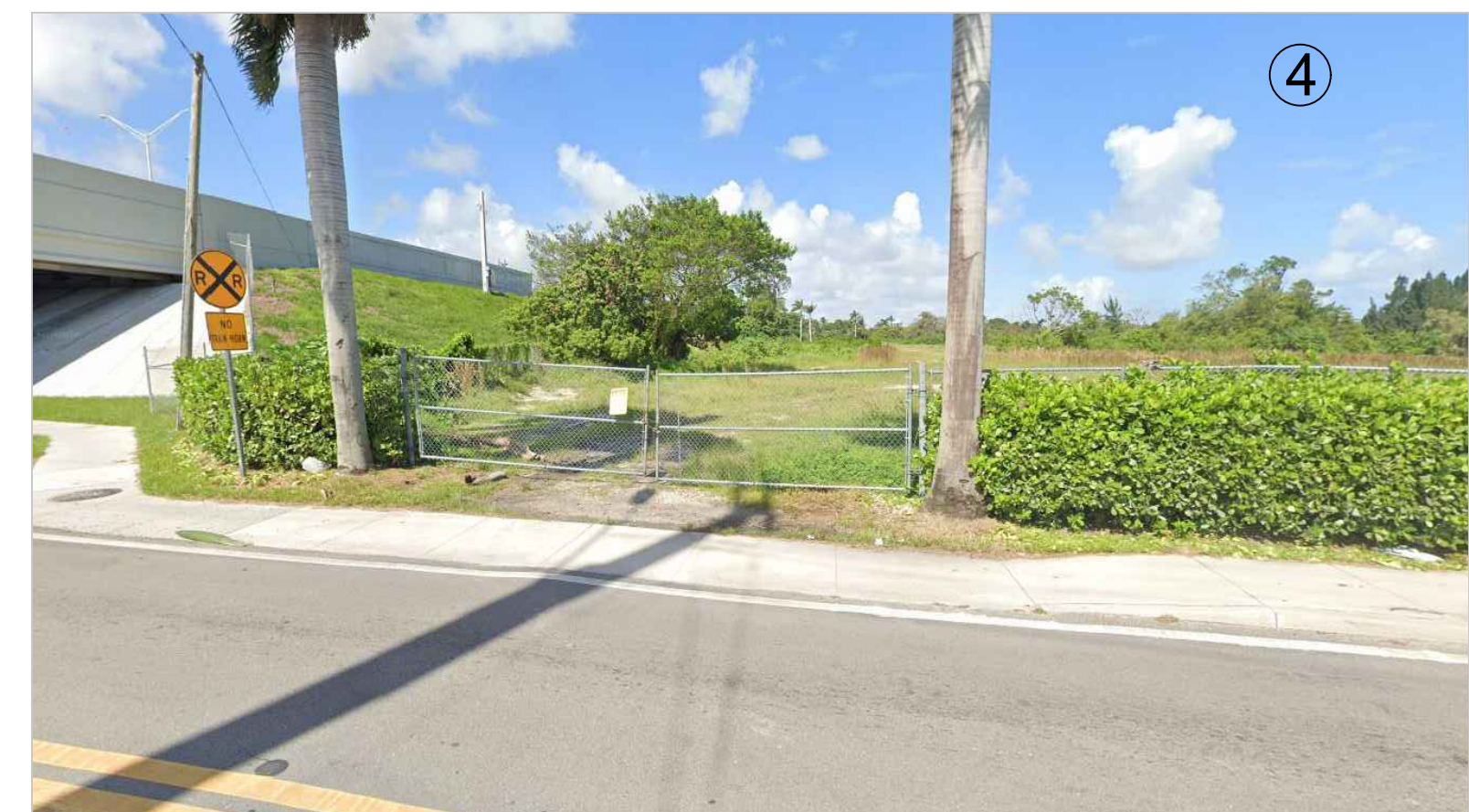
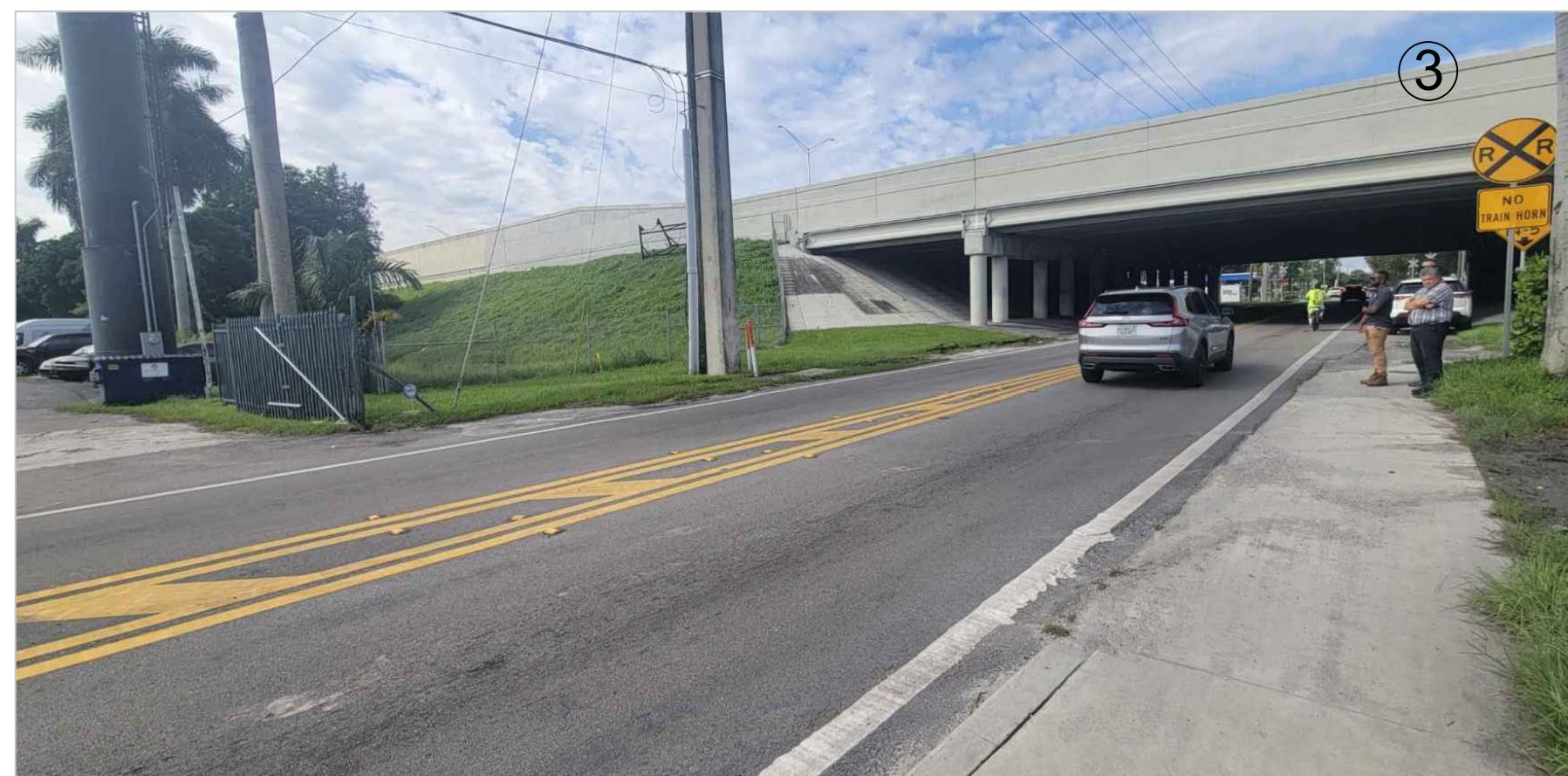
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KEY MAP
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JOB No. 079373	SHEET No. C-3
DATE APRIL 2025	





SCALE: 1"=20'

20 -0- 20 40

SCALE IN FEET

## DETAILED DESIGN

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CITY OF HOLLYWOOD, FLORIDA  
BROWARD COUNTY, FLORIDA

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**TASK 4.0 UTILITY RELOCATION -  
JOHNSON STREET**

JOB No.  
079373  
DATE  
APRIL 2025

SHEET No.

C-4



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LEGEND:



STANDARD PENETRATION TEST HOLE  
LOCATION AS PERFORMED BY TIERRA SOUTH  
FLORIDA, INC. (TSFGeo) DRILLED DEC 2024  
(SEE TEST BORING RESULTS AT RIGHT)

EXISTING SPOT ELEVATION

GENERAL NOTES:

- ALL LOCATIONS OF EXISTING SURFACE FEATURES AND TOPOGRAPHY ARE BASED ON A "TOPOGRAPHICAL SURVEY FOR THE CITY OF HOLLYWOOD - JOHNSON STREET AND N. 29TH AVENUE" DATED 12/13/2024 AND PREPARED BY FR ALEMAN & ASSOCIATES, INC..
- UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND ARE SUBJECT TO FIELD VERIFICATION BY CONTRACTOR.
- NO BOUNDARY SURVEY WAS PERFORMED AT THIS TIME.
- THE BORING LOGS REPRESENT THE SUBSURFACE CONDITIONS AT THE SPECIFIC LOCATION AT THE TIME OF THE INVESTIGATION. THE SUBSURFACE CONDITION AT OTHER LOCATIONS MAY DIFFER AND NO WARRANTY AS TO THE SUBSURFACE CONDITIONS ELSEWHERE IS NEITHER EXPRESSED NOR IMPLIED BY THE DATA PRESENTED HEREIN.
- THE SOIL DEPTHS ON THE BORING LOGS DESIGNATING THE INTERFACE BETWEEN THE VARIOUS SOILS MAY ONLY BE APPROXIMATE BOUNDARIES WHERE THE TRANSITION IS GRADUAL OR COULD NOT BE DETECTED BY THE BORING OPERATIONS.

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MIAMI, FLORIDA

CITY OF HOLLYWOOD, FLORIDA  
BROWARD COUNTY, FLORIDA

TASK 4.0 UTILITY RELOCATION -  
JOHNSON STREET

EXISTING FEATURES PLAN

JOB No.

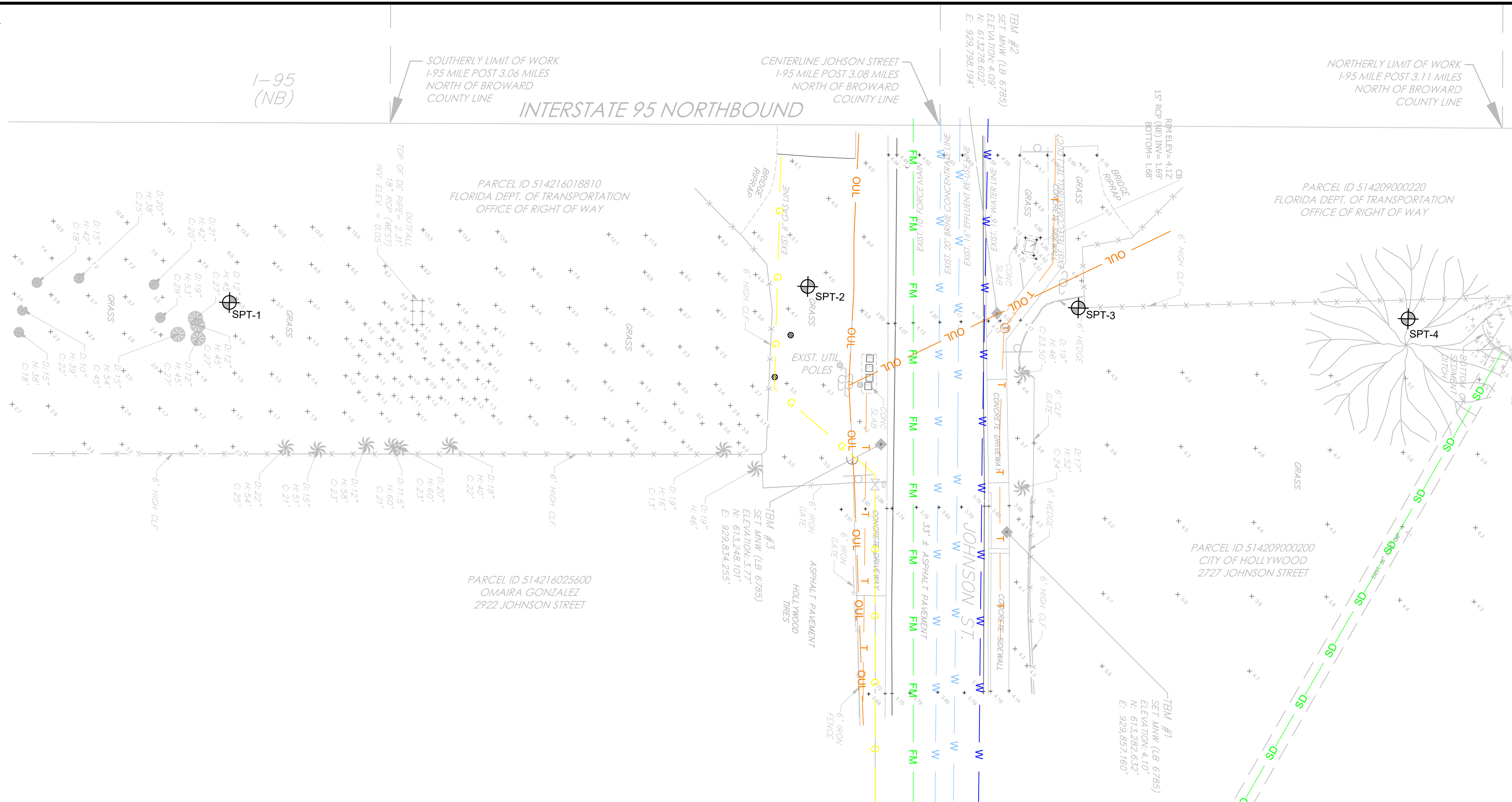
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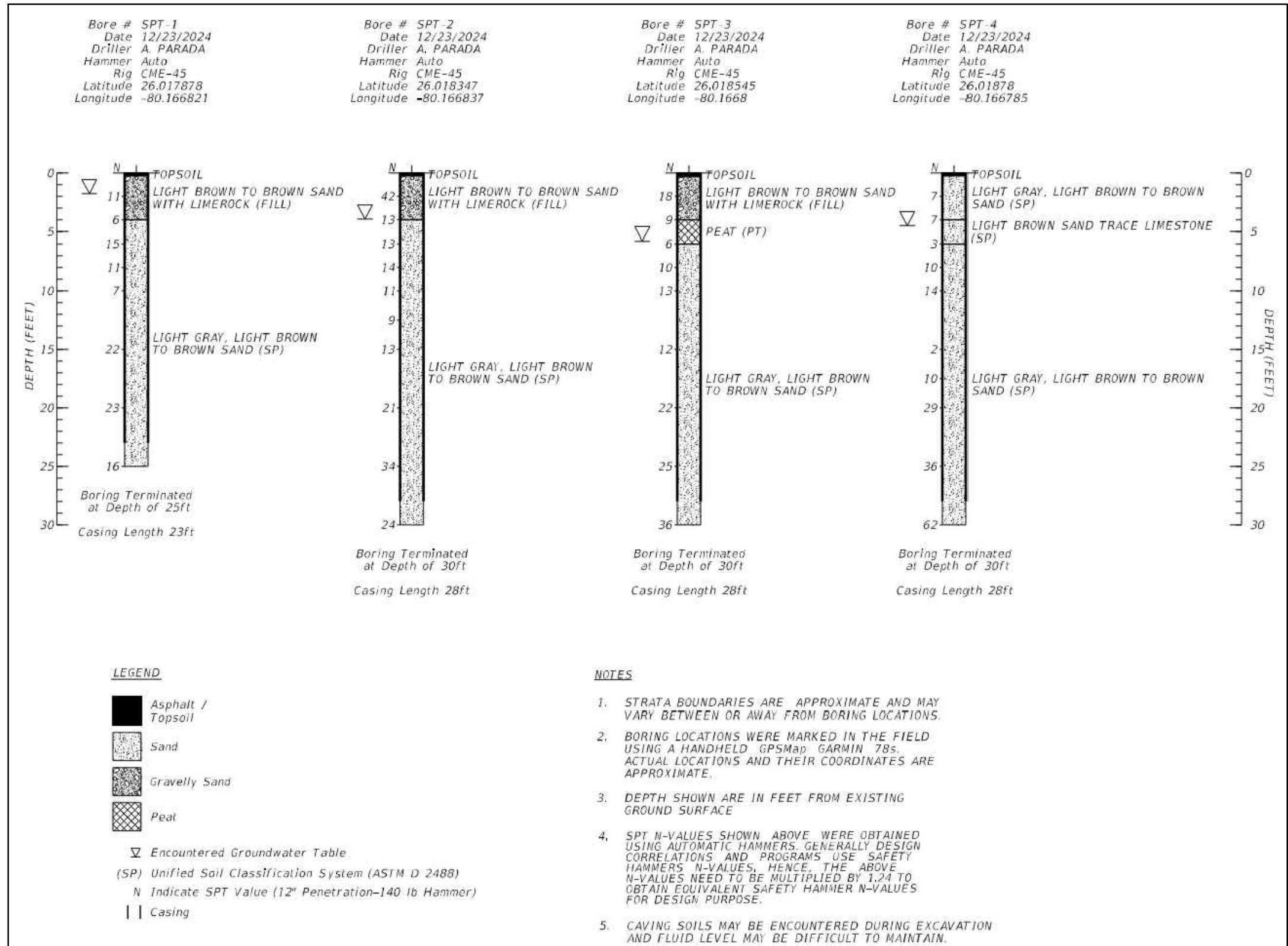
SHEET No.

C-5

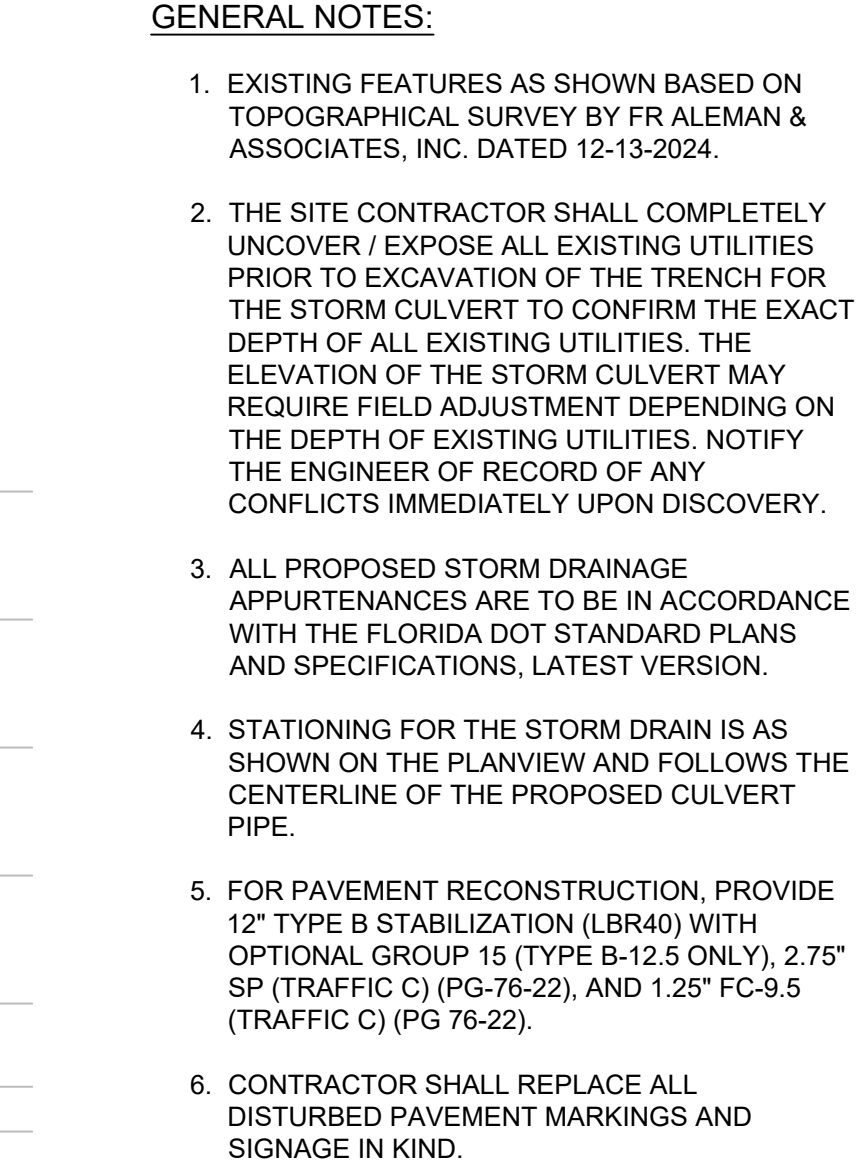
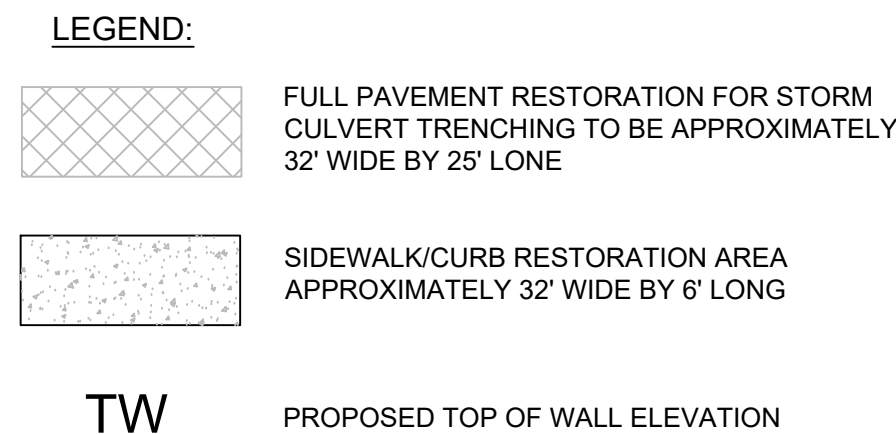


PLAN VIEW

SCALE: 1"=20'



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**GANNETT FLEMING**

JOB No. 079373	SHEET No. C-6
DATE APRIL 2025	

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GENERAL NOTES:

1. Work this Index with Specification 425 and Index 425-001.
2. Type P standard structure bottoms are 4'-0" diameter and smaller (Alt. A) and 3'-6" square (Alt. B) . Larger standard structure bottoms are designated Type J. Risers are permitted for all structures.
3. Walls of circular structures (Alt. A) constructed in place may be of brick or reinforced concrete. Construct precast and rectangular structures (Alt. B) with reinforced concrete only.
4. Wall thickness and reinforcement are for either reinforced cast-in-place or precast concrete units except that precast circular units may be furnished with walls in accordance with ASTM C478 (See Table 1).
5. Top and bottom slab thickness and reinforcement are for precast and cast-in-place construction. Use Class II concrete, except when Class IV concrete is shown in the Plans.
6. Alt. A or Alt. B structure bottoms may be used in conjunction with curb inlet tops Types 1, 2, 3, 4, 5, 6, 9, and 10, and any manhole or junction box. Alt. B structure bottoms may be used in conjunction with curb inlet Types 7 & 8, or any ditch bottom inlet.
7. Rectangular structures may be rotated as directed by the Engineer in order to facilitate connections between the structure walls and pipes.
8. Use straight embedment reinforcement in top and bottom slabs ,except when ACI hooks are specifically required.
9. Construct corner fillets as shown for rectangular structures used with circular risers and inlet throats, and when used on skew with rectangular risers, inlets, and inlet throats. Construct fillets in the top slab of the Alt. A structure bottoms when used with the Type B risers. Reinforce each fillet with two #5 bars.
10. Units larger than specified standards may be substituted at the contractor's option when these units will not cause or increase the severity of utility conflicts. Furnish such larger units at no additional cost to the Department. Larger Alt. A units cannot replace Alt. B units without approval of the Engineer. This Note applies to this Index only.

REINFORCEMENT NOTES:

1. Locate wall reinforcement in rectangular structures as shown in the WALL REINFORCEMENT SPLICE DETAILS in Index 425-001.
2. Provide a minimum 2" clear cover for all reinforcement unless otherwise noted and except for 3'6" diameter ASTM C478 units.
3. Additional bars used to restrain hole formers for precast structures with grouted pipe connections may be left flush with the hole surface.
4. Cut or bend reinforcement at pipe openings to maintain cover.
5. Remove exposed ends of reinforcing at precast pipe openings and grouted joints to 1" below the concrete surface and seal with a Type F Epoxy meeting the requirements of Specification 926.
6. Equivalent area smooth or deformed welded wire reinforcement may be substituted in accordance with Index 425-001.

TABLE OF CONTENTS:

Sheet	Description
1	General Notes and Contents
2	Dimensional and Reinforcing Details
3	Tables 1, 2, 3, and 4
4	Tables 5 and 6

LAST  
REVISION  
11/01/20

REVISION

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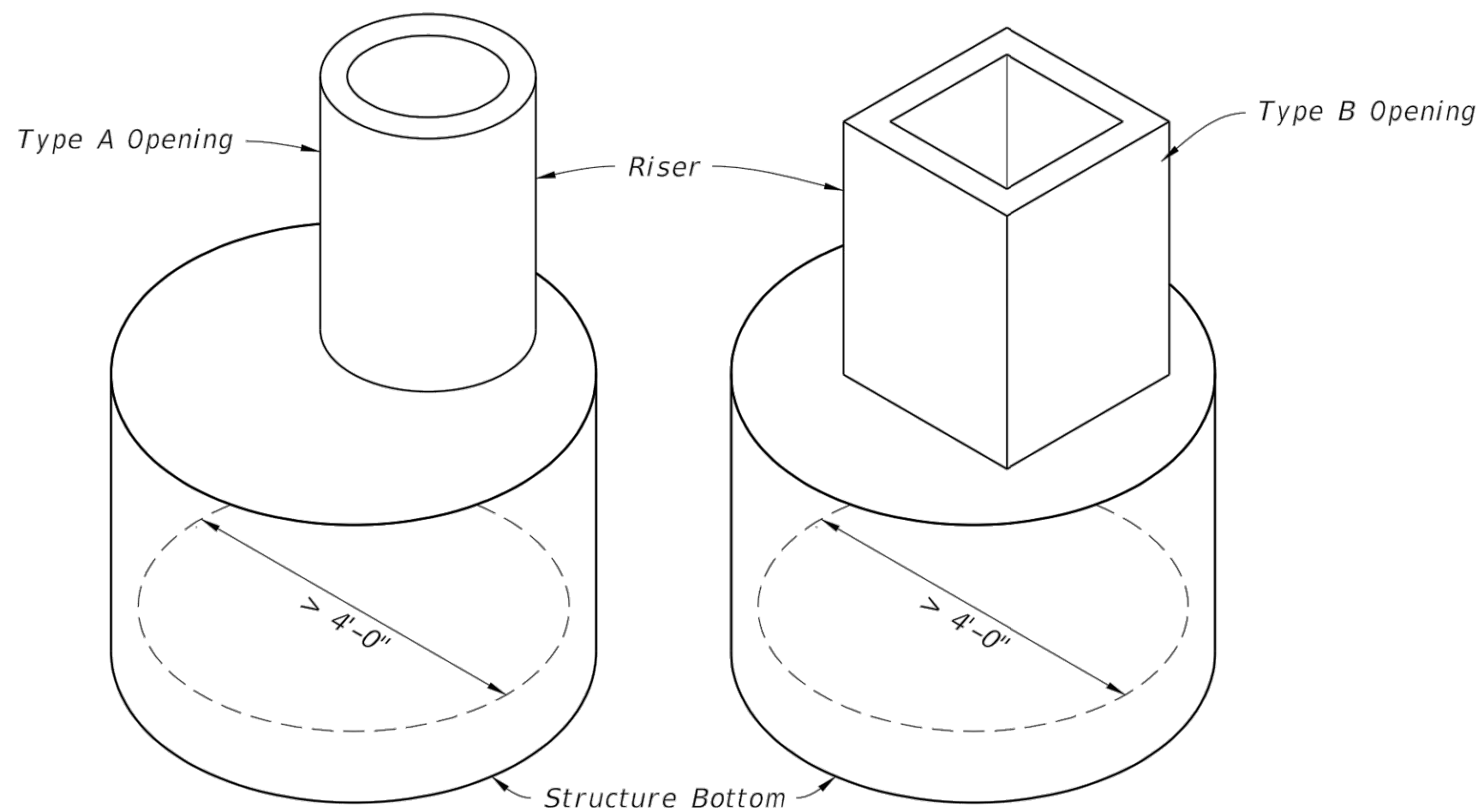


FY 2023-24  
STANDARD PLANS

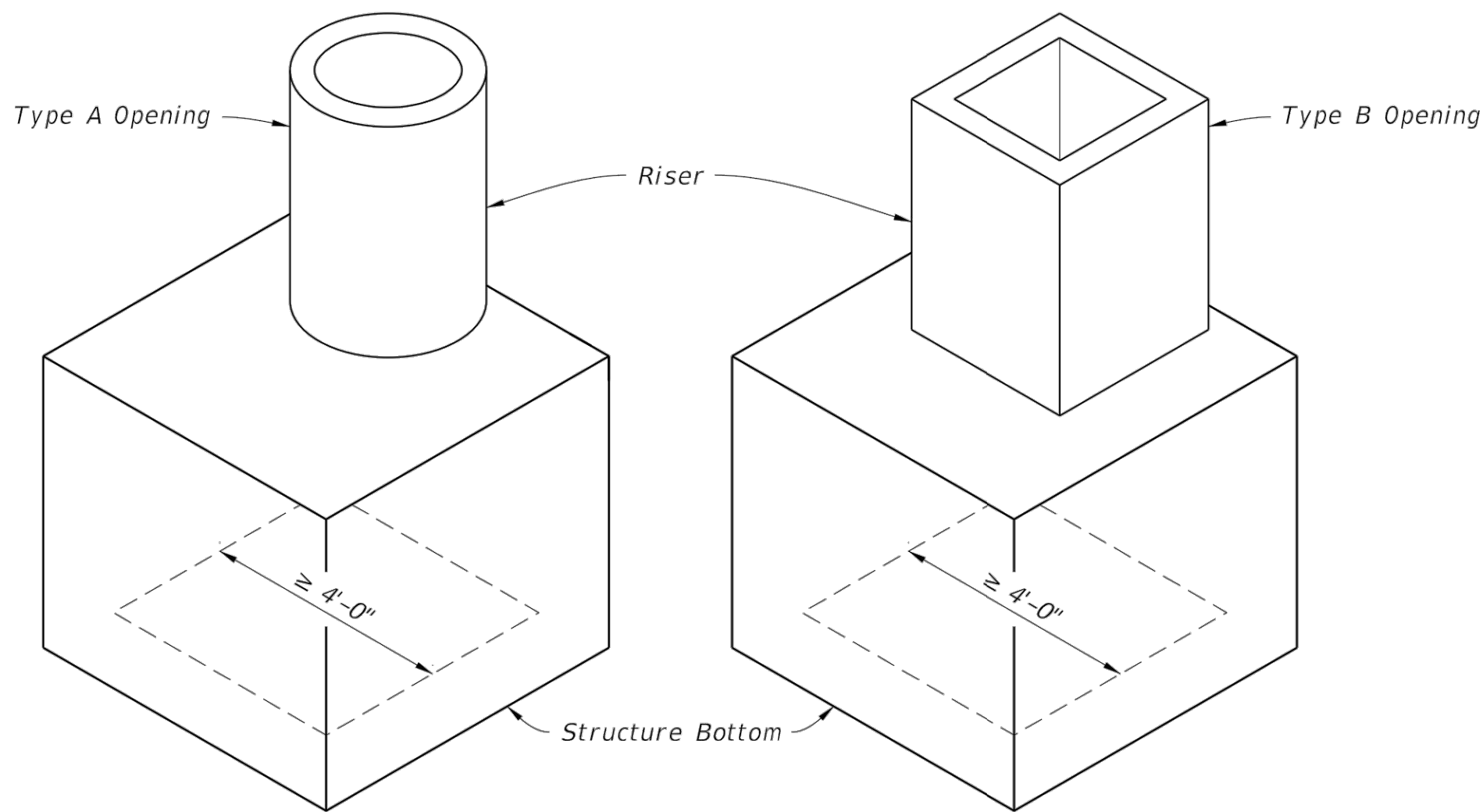
STRUCTURE BOTTOMS TYPE J AND P

INDEX  
425-010

SHEET  
1 of 4

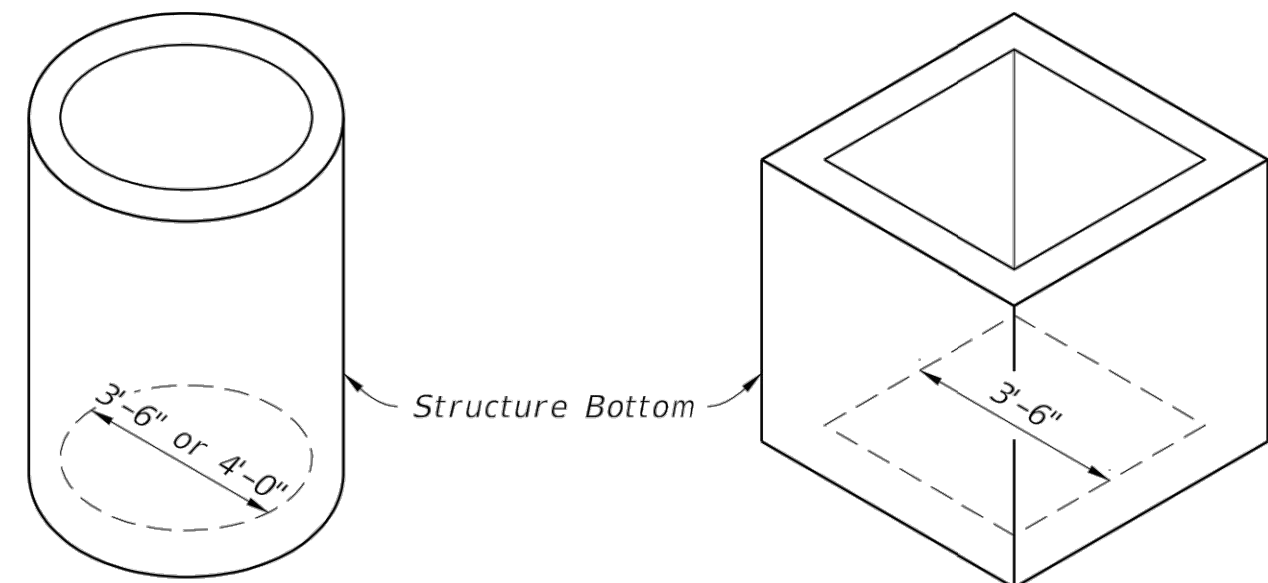


ALTERNATE A

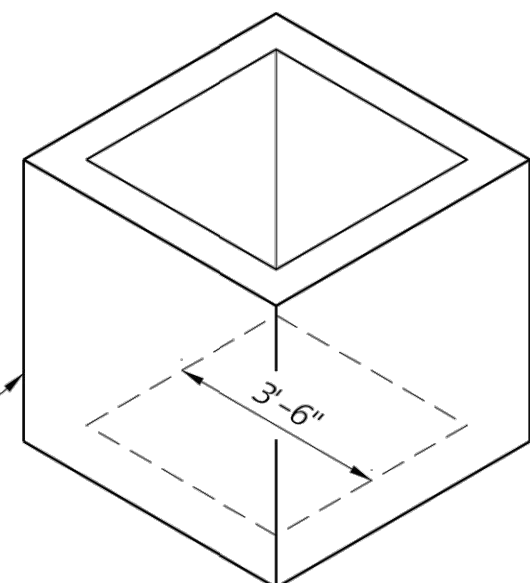


ALTERNATE B

TYPE J



ALTERNATE A



ALTERNATE B

TYPE P

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JOHNSON STREET

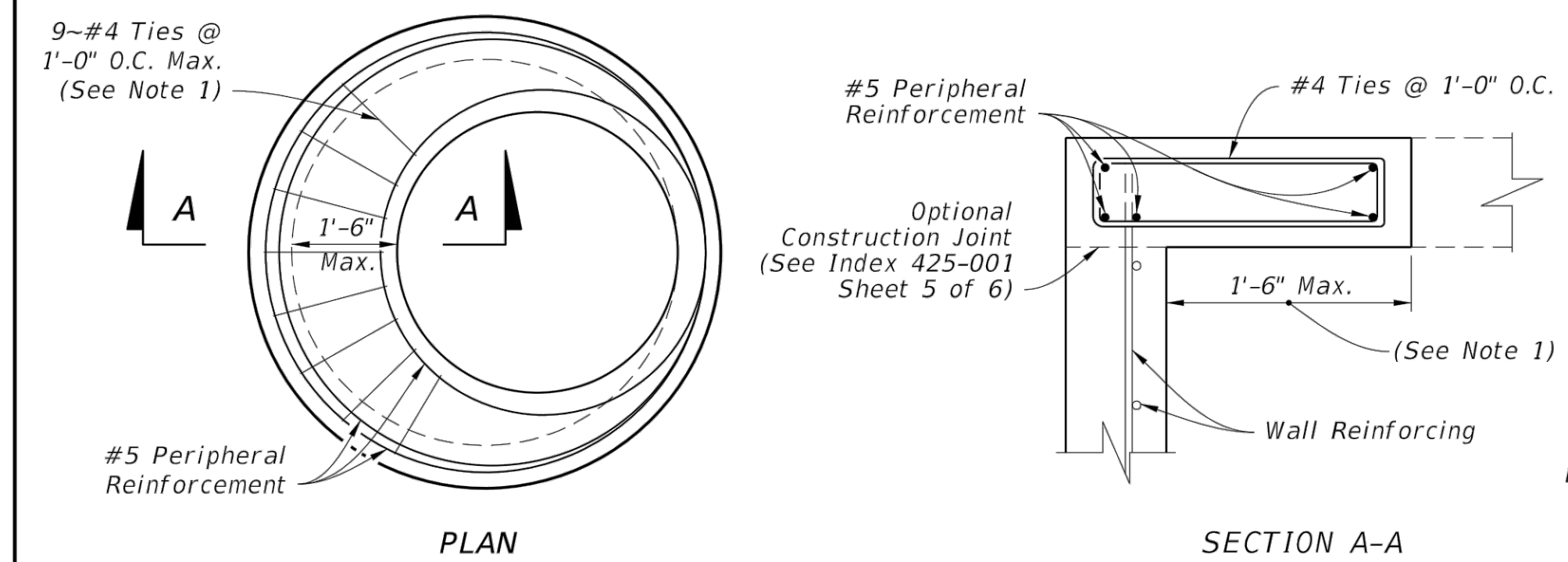
UTILITY DETAILS

JOB No.  
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DATE  
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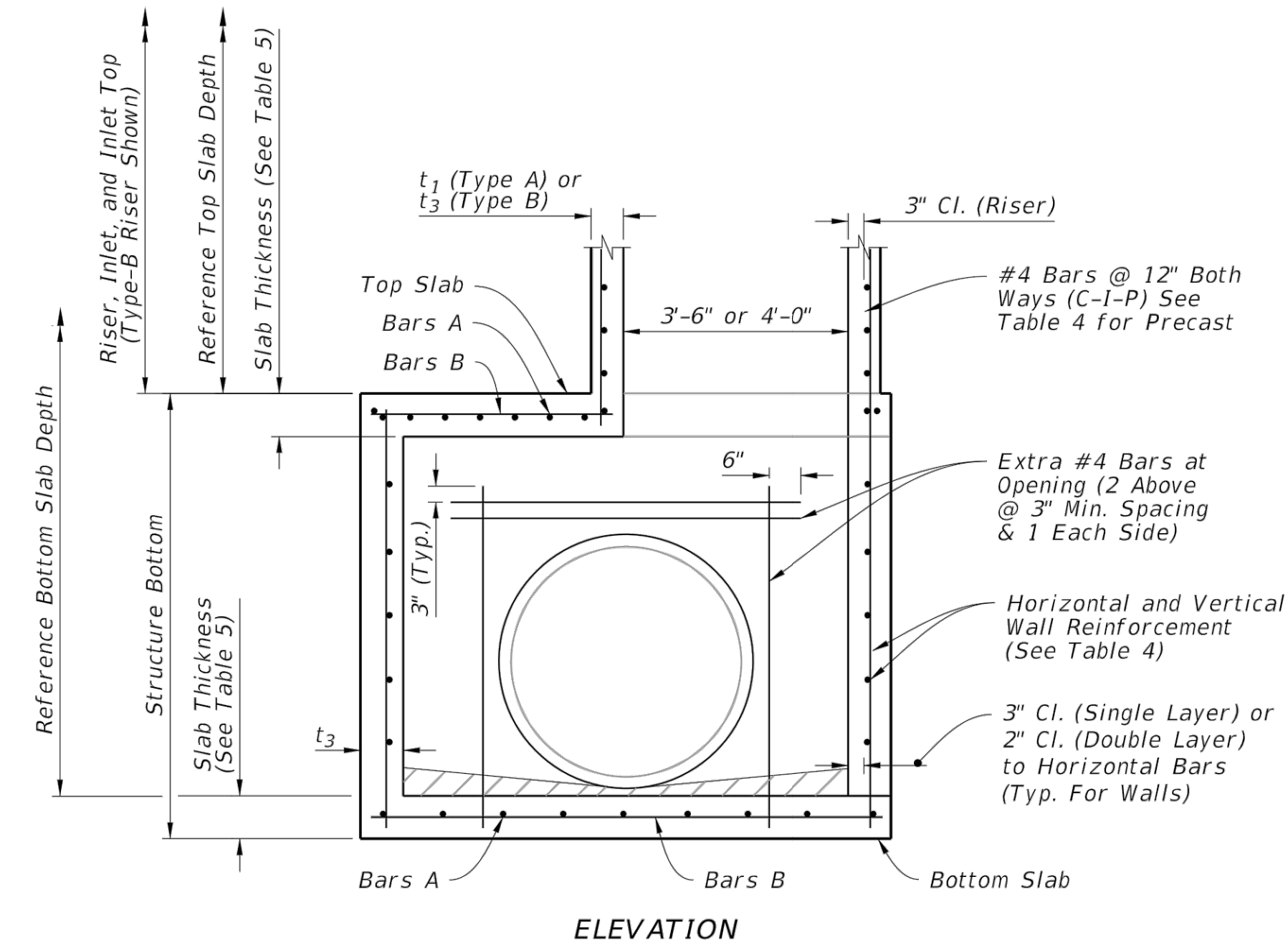
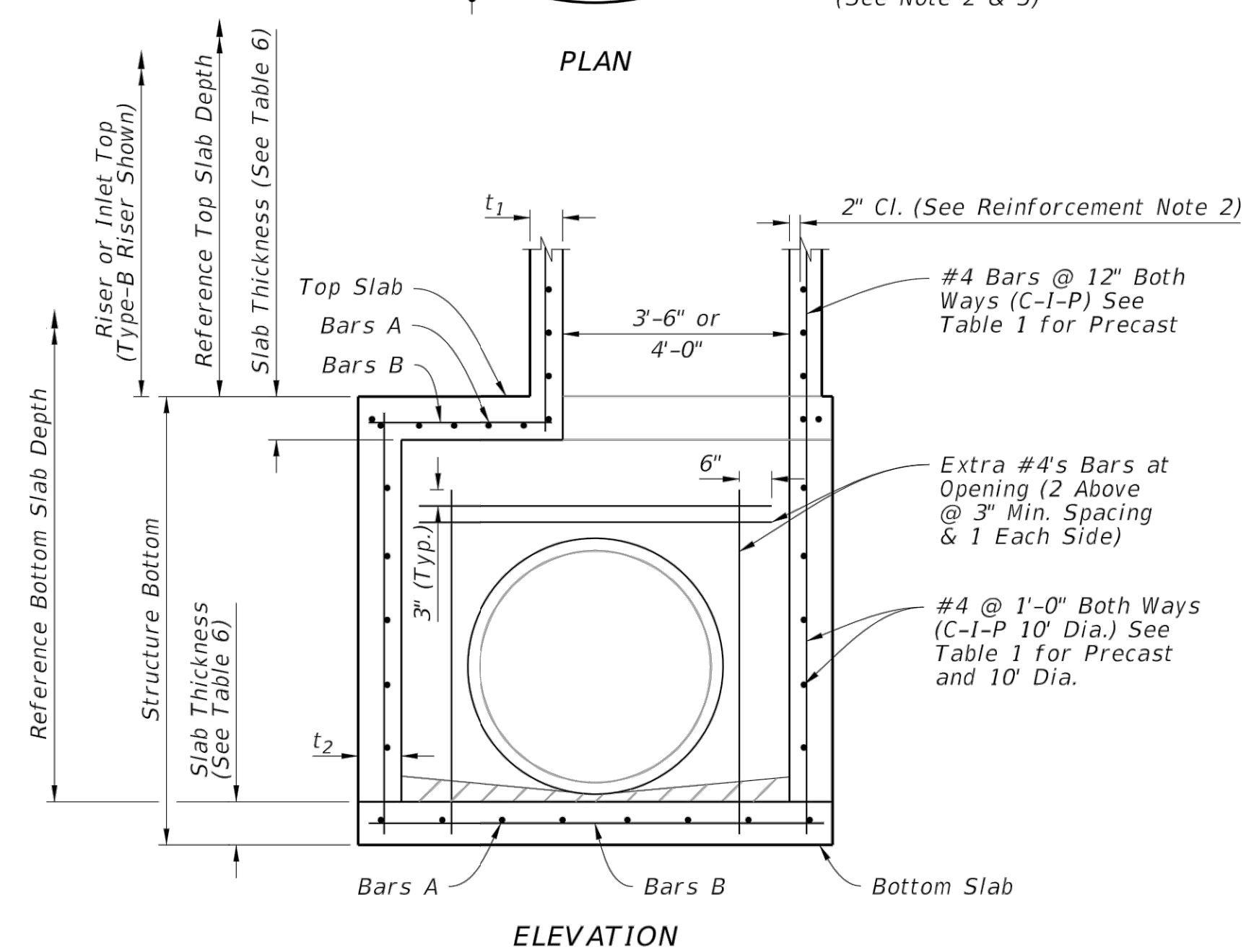
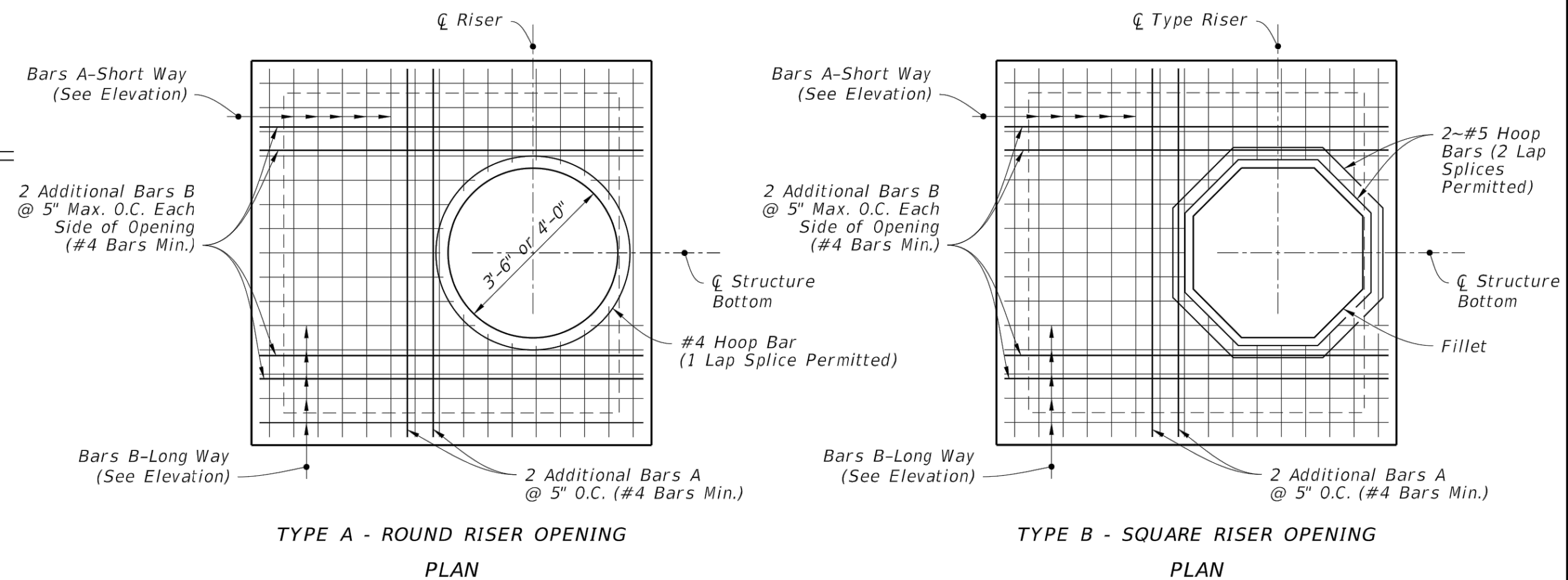
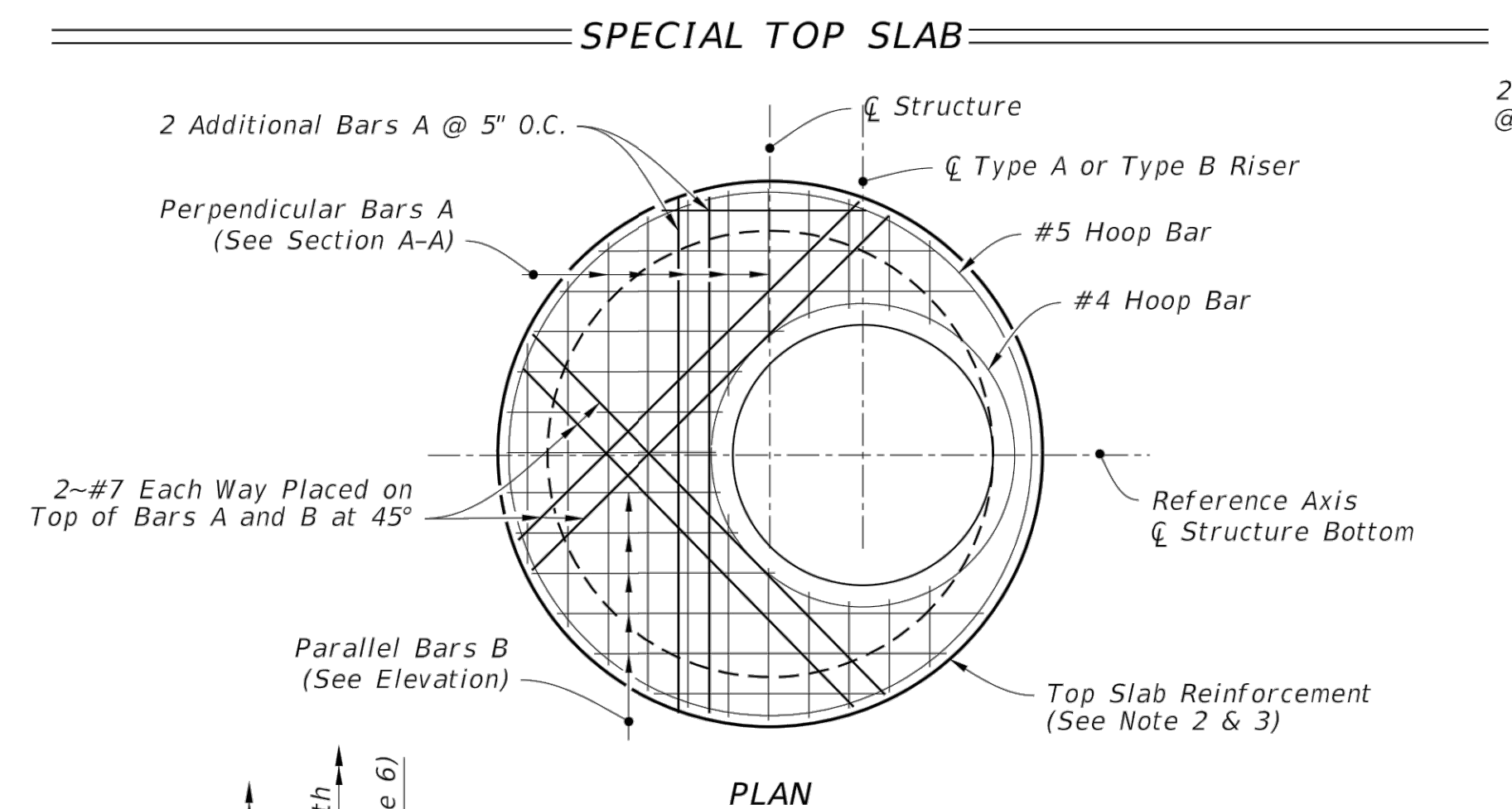


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ALTERNATE A NOTES:

1. Rotate #4 Bars as required to maintain cover.
2. Construct the top or riser of the structure according the top slab to the "Special Top Slab" details, when the inside diameter of a round structure is not more than 1'-6" larger than the opening in the riser or top slab.
3. Alternate A slab reinforcing not applicable for Type A, B, C, D & E Ditch Bottom Inlets or Type S & V Gutter Inlets. See Indexes 425-040, 425-041, 425-050, 425-051, and 425-052.



### DIMENSIONAL AND REINFORCING DETAILS

LAST REVISION 11/01/20	REVISION	DESCRIPTION:	 FY 2023-24 STANDARD PLANS	STRUCTURE BOTTOMS TYPE J AND P	INDEX 425-010	SHEET 2 of 4
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**TASK 4.0 UTILITY RELOCATION -  
JOHNSON STREET**

## UTILITY DETAILS

JOB No. <b>079373</b>	SHEET No. <b>C-8</b>
DATE <b>APRIL 2025</b>	



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10/19/2022 7:57:28 AM

TABLE 1 - ALTERNATE A - STRUCTURES									
TYPE	STRUCTURE/RISER DIAMETER (ft)	CAST-IN-PLACE ITEMS CLASS II CONCRETE			PRECAST ITEMS				
					CLASS II CONCRETE			ASTM C478	
		t <sub>1</sub> RISER (in.)	t <sub>2</sub> BOTTOM (in.)	A <sub>5</sub> (in <sup>2</sup> /ft.)	t <sub>1</sub> RISER (in.)	t <sub>2</sub> BOTTOM (in.)	A <sub>5</sub> (in <sup>2</sup> /ft.)	t <sub>1</sub> or t <sub>2</sub> (in.)	A <sub>2</sub> *** (in <sup>2</sup> /ft.)
P	3'-6"	6	8	0.20	6	8	0.20	4**	0.105
P	4'-0"	6	8	0.20	6	8	0.20	5**	0.120
J	5'-0"	-	8	0.20	-	8	0.20	6**	0.150
J	6'-0"	-	8	0.20	-	8	0.20	6	0.180
J	7'-0"	-	8	0.20	-	8	0.20	7	0.210
J	8'-0"	-	8	0.20	-	8	0.20	8	0.240
J	10'-0"	-	10	0.40##	-	10	0.40##	10	0.300
J	12'-0"	-	10	0.40##	-	12	0.40##	12	0.360

t<sub>1</sub> and t<sub>2</sub> - Wall Thickness.

A<sub>5</sub> - Vertical and horizontal areas of reinforcement.

##Provide 0.20 eq. in.<sup>2</sup>/ft. at each face, 12" max. bar spacing.

\*\*Modified minimum wall thickness.

\*\*\*Min. total circumferential reinforcement for continuous steel hoops:

A<sub>2</sub> = 0.40 sq. in. for riser section height equal or less than 2'-0" (2 hoop min.)

A<sub>2</sub> = 0.60 sq. in. for riser section height more than 2'-0" up to 4'-0" (3 hoop min.)

Areas of reinforcing for precast items are based on Grade 60 reinforcing.

No reduction in the area of reinforcement is allowed for welded wire fabric in Table 1.

Area of vertical reinforcing may be reduced in accordance with ASTM C478.

TABLE 3 - REINFORCING SCHEDULE					
SCHEDULE	GRADE 60 BARS OR 65 KSI & 70 KSI WELDED WIRE REINFORCING				
	MAXIMUM SPACING				
	GRADE 60 AREA (in. <sup>2</sup> /ft)	GR 60 BARS (in.)	65 KSI (in.)	70 KSI (in.)	
A12	0.20	12	8	8	
A6	0.20	6	5	4½	
B10	0.24	10	8	7½	
B5.5	0.24	5½	5	4	
C6.5	0.37	6½	6	5	
C3.5	0.37	3½	3	2½	
D7	0.53	7	6	5	
D4.5	0.53	4½	4	3½	
E5	0.73	5	4	4	
E3	0.73	3	3	3	
F5	1.06	5	4	4	
F3.5	1.06	3½	3	3	
G5	1.45	5	4	4	
G3.5	1.45	3½	3	3	
H4	1.75	4	3	3	

TABLE 2 - ALTERNATE B SQUARE AND RECTANGULAR STRUCTURES				
TYPE	WALL LENGTH (FT)	MAX. DEPTH (FT)	WALL THICKNESS (t <sub>3</sub> )	
			C-I-P (in.)	PRECAST (in.)
P	≤ 3'-6"	40	6 Riser 8 Bottom	6
J	4'-0"	40	8	6
J	5'-0"	22	-	6
J	6'-0"	15	-	6
J	5'-0" to 9'-0"	40	8	8
J	10'-0"	26	8	8
J	10'-0" to 12'-0"	40	10	9
J	16'-0"	35	-	9
J	16'-0"	40	10	10
J	20'-0"	25	-	9
J	20'-0"	30	10	10

See Table 4 for Reinforcing Schedule.

TABLE 4 - WALL DESIGNS - RECTANGULAR STRUCTURES									
VERTICAL REINFORCING		HORIZONTAL REINFORCING		WALL THICKNESS	VERTICAL REINFORCING		HORIZONTAL REINFORCING		WALL THICKNESS
WALL DEPTH	SCHEDULE	WALL DEPTH	SCHEDULE		WALL DEPTH	SCHEDULE	WALL DEPTH	SCHEDULE	
SIZE: 3'-6" & RISER					SIZE: 10'-0" (Precast Only)				
≥1.17' - 40'	A12	≥1.17' < 10'	B10	6"/8"		InsideOutside		InsideOutside	
		10' < 18'	B5.5	6"/8"	26' - 40'	D7	D7	26' - 40'	F5 F5 9"
		18' < 29'	C6.5	6"/8"	SIZE: 12'-0"				
		29' - 40'	C3.5	6"/8"		InsideOutside		InsideOutside	
SIZE: 4'-0"					≥1.17' < 14'	B10 B10	≥1.17' < 10'	C6.5 C6.5	10"
≥1.17' - 40'	A12	≥1.17' < 6'	B10	6"/8"	14' < 25'	C6.5 C6.5	10' < 17'	D7 D7	10"
		6' < 10'	B5.5	6"/8"	25' - 40'	D7	17' < 24'	E5 E5	10"
		10' < 20'	C6.5	6"/8"			24' - 40'	F5 F5	10"
		20' < 28'	C3.5	6"/8"	SIZE: 12'-0" (Precast Only)				
		28' - 40'	D4.5	6"/8"		InsideOutside		InsideOutside	
SIZE: 5'-0"					≥1.17' < 12'	B10 B10	≥1.17' < 10'	D7 D7	9"
≥1.17' - 40'	A12	≥1.17' < 5'	B5.5	6"/8"	12' < 24'	C6.5 C6.5	10' < 17'	D4.5 D4.5	9"
		5' < 9'	C6.5	6"/8"	24' - 40'	D7	17' < 23'	E5 E5	9"
		9' < 15'	C3.5	6"/8"			23' < 32'	F5 F5	9"
		15' < 22'	D4.5	6"/8"			32' - 40'	G5 G5	9"
		22' - 40'	E3	8"	SIZE: 16'-0"				
SIZE: 6'-0"						InsideOutside		InsideOutside	
≥1.17' < 26'	A12	≥1.17' < 9'	C3.5	6"/8"	≥1.17' < 11'	C6.5 C6.5	≥1.17' < 13'	D7 D7	10"
		9' < 15'	D4.5	6"/8"	11' < 20'	D7	13' < 20'	E5 E5	10"
		15' < 26'	E3	8"	20' < 28'	E5 E5	20' < 28'	F5 F5	10"
	InsideOutside	InsideOutside			28' - 40'	F5 F5	28' - 40'	G5 G5	10"
26' - 40'	A12 A12	26' - 40'	D7 D7	8"	SIZE: 16'-0" (Precast Only)				
SIZE: 7'-0"						InsideOutside		InsideOutside	
	InsideOutside	InsideOutside			≥1.17' < 10'	C6.5 C6.5	≥1.17' < 9'	D7 D7	9"
≥1.17' < 25'	A12 A12	≥1.17' < 7'	B10 B10	8"	10' < 18'	D7 D7	9' < 13'	D4.5 D4.5	9"
26' - 40'	B10 B10	7' < 10'	B5.5 B5.5	8"	18' < 25'	E5 E5	13' < 19'	E5 E5	9"
		10' < 20'	C6.5 C6.5	8"	25' - 35'	F5 F5	19' < 27'	F5 F5	9"
		20' < 30'	D7 D7	8"			27' - 35'	G5 G5	9"
		30' - 40'	E5 E5	8"	SIZE: 20'-0"				
SIZE: 8'-0"						InsideOutside		InsideOutside	
	InsideOutside	InsideOutside			≥1.17' < 10'	C6.5 C6.5	≥1.17' < 8'	D7 D7	10"
≥1.17' < 20'	A12 A12	≥1.17' < 6'	B5.5 B5.5	8"	10' < 17'	D7 D7	8' < 12'	E5 E5	10"
20' - 40'	C6.5 C6.5	6' < 13'	C6.5 C6.5	8"	17' - 30'	E5 E5	12' < 20'	F5 F5	10"
		13' < 22'	D7 D7	8"			20' - 30'	G5 G5	10"
		22' < 31'	E5 E5	8"	SIZE: 20'-0" (Precast Only)				
		31' - 40'	F5 F5	8"		InsideOutside		InsideOutside	
SIZE: 9'-0"					≥1.17' < 8'	C6.5 C6.5	≥1.17' < 8'	D4.5 D4.5	9"
	InsideOutside	InsideOutside			8' < 13'	D7 D7	8' < 12'	E5 E5	9"
≥1.17' < 12'	A12 A12	≥1.17' < 8'	C6.5 C6.5	8"	13' - 25'	E5 E5	12' < 19'	F5 F5	9"
12' < 28'	C6.5 C6.5	8' < 15'	D7 D7	8"			19' - 25'	G5 G5	9"
28' - 40'	D7 D7	15' < 23'	E5 E5	8"					
		23' - 40'	F5 F5	8"					
SIZE: 10'-0"									
	InsideOutside	InsideOutside							
≥1.17' < 10'	B10 B10	≥1.17' < 10'	D7 D7	8"					
10' < 21'	C6.5 C6.5	10' < 17'	E5 E5	8"					
21' < 26'	D7 D7	17' < 26'	F5 F5	8"					
26' - 40'	C6.5 C6.5	26' - 40'	F5 F5	10"					

TABLE 4 NOTES:

1. Wall depth is measured to the top of the bottom slab for and to the top of the intermediate slab for risers.

2. Wall height is the distance between top of lower slab to top of upper slab. Maximum wall height is 12' for wall lengths exceeding 5', or 10' for wall lengths exceeding 12'.

3. Wall lengths exceeding 6'-0" require two layers of reinforcement (See Table 4) with 2" of cover from the horizontal bars.

TABLE 4 NOTES:

- Wall depth is measured to the top of the bottom slab for boxes and to the top of the intermediate slab for risers.
- Wall height is the distance between top of lower slab to bottom of upper slab. Maximum wall height is 12' for wall lengths exceeding 5', or 10' for wall lengths exceeding 12'.
- Wall lengths exceeding 6'-0" require two layers of reinforcing (See Table 4) with 2" of cover from the horizontal bars to the inside and outside faces for each layer.
- Wall lengths exceeding the dimensions or depths shown in Table 4, or 12'-0" diameter require a special design.
- Wall thickness and reinforcing for rectangular structures is based on the longer wall length.

TABLES 1, 2, 3, AND 4

LAST REVISION 11/01/20	REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	STRUCTURE BOTTOMS TYPE J AND P	INDEX 425-010	SHEET 3 of 4
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CHECKED	APPROVED	APPROVED
KW	LM	



MIAMI, FLORIDA

CITY OF HOLLYWOOD, FLORIDA  
BROWARD COUNTY, FLORIDA

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TABLE 5 - SLAB DESIGNS - SQUARE AND RECTANGULAR STRUCTURES (ALL SLABS 8" THICK EXCEPT AS NOTED - REINFORCING PARALLEL TO SHORT WAY AND LONG WAY)															
SHORT-WAY				LONG-WAY				SHORT-WAY				LONG-WAY			
SLAB DEPTH	SCHEDULE (Bars A)	SLAB DEPTH	SCHEDULE (Bars B)	SLAB DEPTH	SCHEDULE (Bars A)	SLAB DEPTH	SCHEDULE (Bars B)	SLAB DEPTH	SCHEDULE (Bars A)	SLAB DEPTH	SCHEDULE (Bars B)	SLAB DEPTH	SCHEDULE (Bars A)	SLAB DEPTH	SCHEDULE (Bars B)
SIZE: 3'-6" x UNLIMITED				SIZE: 6' x 6'				SIZE: 8' x 8'				SIZE: 8' x 8'			
≥0.5' < 8'	B10	≥0.5' < 24'	B10	≥0.5' < 13'	C6.5	≥0.5' < 10'	C3.5	≥0.5' < 10'	D7	≥0.5' < 9'	D4.5	≥0.5' < 10'	D7	≥0.5' < 9'	D4.5
8' < 13'	B5.5	24'-40'	B5.5	13' < 23'	D7	10' < 18'	D4.5	10' < 19'	E5	9' < 13'	E5	10' < 19'	E5	9' < 13'	E5
13' < 31'	C6.5			23'-40'	E5	18' < 27'	E5	19'-30'	F5	13' < 18'	F5	19'-30'	F5	13' < 18'	F5
31'-40'	D7					27' < 33'	E3			18' < 23'	F3.5			18' < 23'	F3.5
						33'-40'	F5			23'-30'	G3.5			23'-30'	G3.5
SIZE: 4' x UNLIMITED				SIZE: 6' x 7'				SIZE: 8' x 9'				SIZE: 8' x 9'			
≥0.5' < 7'	B5.5	≥0.5' < 15'	B10	≥0.5' < 8'	C6.5	≥0.5' < 8'	C6.5	≥0.5' < 8'	D7	≥0.5' < 7'	D7	≥0.5' < 8'	D7	≥0.5' < 7'	D7
7' < 19'	C6.5	15' < 29'	B5.5	8' < 16'	D7	8' < 12'	C3.5	8' < 14'	E5	7' < 9'	D4.5	8' < 14'	E5	7' < 9'	D4.5
19' < 31'	D7	29'-40'	C6.5	16' < 28'	E5	12' < 21'	D4.5	14' < 23'	F5	9' < 15'	E3	14' < 23'	F5	9' < 15'	E3
31'-40'	E5			28'-40'	F5	21' < 28'	E5	23'-31'	G3.5	15' < 20'	F5	23'-31'	G3.5	15' < 20'	F5
						28' < 35'	E3			20' < 23'	F3.5			20' < 23'	F3.5
						35'-40'	F5			23'-31'	G3.5			23'-31'	G3.5
SIZE: 5' x 5'				SIZE: 6' x 8'				SIZE: 9' x 9'				SIZE: 9' x 9'			
≥0.5' < 3'	C6.5	≥0.5' < 3'	C6.5	≥0.5' < 6'	C6.5	≥0.5' < 6'	B5.5	≥0.5' < 8'	D7	≥0.5' < 7'	D4	≥0.5' < 8'	D7	≥0.5' < 7'	D4
3' < 7'	B5.5	3' < 13'	C6.5	6' < 13'	D7	6' < 11'	C6.5	8' < 14'	E5	7' < 10'	E5	8' < 14'	E5	7' < 10'	E5
7' < 22'	C6.5	13' < 22'	D7	13' < 22'	E5	11' < 17'	C3.5	14' < 22'	F5	10' < 17'	F3.5	14' < 22'	F5	10' < 17'	F3.5
22' < 29'	D7	22' < 29'	D4.5	22' < 35'	F5	17' < 22'	D4.5	17' < 22'		17' < 22'	G3.5	17' < 22'		17' < 22'	G3.5
29'-40'	E5	29'-40'	E5	35'-40'	G5	22' < 32'	E5	SIZE: 9'x9'x10" SLAB THICKNESS				SIZE: 9'x9'x10" SLAB THICKNESS			
						32'-40'	E3	22' < 36'	F5	22' < 31'	F3.5	22' < 36'	F5	22' < 31'	F3.5
								36'-40'	G5	31'-40'	G3.5	36'-40'	G5	31'-40'	G3.5
SIZE: 5' x 6'				SIZE: 6' x 9'				SIZE: 10'x10'x10" SLAB THICKNESS				SIZE: 10'x10'x10" SLAB THICKNESS			
≥0.5' < 12'	C6.5	≥0.5' < 3'	C6.5	≥0.5' < 8'	D7	≥0.5' < 8'	B5.5	≥0.5' < 7'	C6.5	0.5' < 6'	C6.5	≥0.5' < 7'	C6.5	0.5' < 6'	C6.5
12' < 26'	D7	3' < 9'	B5.5	8' < 14'	E5	8' < 14'	C6.5	7' < 10'	D7	6' < 9'	D4.5	7' < 10'	D7	6' < 9'	D4.5
26'-40'	E5	9' < 23'	C3.5	14' < 24'	F5	14' < 21'	C3.5	10' < 18'	E5	9' < 15'	E5	10' < 18'	E5	9' < 15'	E5
		23' < 35'	D4.5	24'-34'	G5	21' < 25'	D4.5	18' < 27'	F5	15' < 22'	F5	18' < 27'	F5	15' < 22'	F5
		35'-40'	E5			25'-34'	E5	27'-32'	G5	22'-32'	G3.5	27'-32'	G5	22'-32'	G3.5
SIZE: 5' x 7'				SIZE: 6' x UNLIMITED				SIZE: 12'x12'x12" SLAB THICKNESS				SIZE: 12'x12'x12" SLAB THICKNESS			
≥0.5' < 10'	C6.5	≥0.5' < 10'	B5.5	≥0.5' < 8'	D7	≥0.5' < 8'	B5.5	≥0.5' < 10'	D7	≥0.5' < 8'	D7	≥0.5' < 10'	D7	≥0.5' < 8'	D7
10' < 20'	D7	10' < 31'	C3.5	8' < 14'	E5	8' < 14'	C6.5	10' < 16'	E5	8' < 14'	E5	10' < 16'	E5	8' < 14'	E5
20' < 34'	E5	31'-40'	D4.5	14' < 24'	F5	14' < 21'	C3.5	16' < 25'	F5	14' < 22'	F5	16' < 25'	F5	14' < 22'	F5
34'-40'	F5			24'-34'	G5	21' < 25'	D4.5	25'-35'	G5	22' < 30'	G5	25'-35'	G5	22' < 30'	G5
						25'-34'	E5			30'-35'	H4			30'-35'	H4
SIZE: 5' x 8'				SIZE: 7' x 7'				SIZE: 6' x UNLIMITED				SIZE: 7' x 7'			
≥0.5' < 7'	C6.5	≥0.5' < 8'	B10	≥0.5' < 8'	D7	≥0.5' < 8'	B5.5	≥0.5' < 8'	D7	≥0.5' < 8'	B5.5	≥0.5' < 8'	D7	≥0.5' < 8'	B5.5
7' < 13'	D7	8' < 17'	B5.5	8' < 14'	E5	8' < 14'	C6.5	8' < 15'	D7	4' < 7'	C3.5	8' < 15'	D7	4' < 7'	C3.5
13' < 24'	E5	17' < 25'	C6.5	14' < 24'	F5	14' < 21'	C3.5	15' < 26'	E5	7' < 11'	D4.5	15' < 26'	E5	7' < 11'	D4.5
24'-40'	F5	25'-40'	C3.5	24'-34'	G5	21' < 25'	D4.5	26'-40'	F5	11' < 22'	E3	26'-40'	F5	11' < 22'	E3
						25'-34'	E5			22' < 32'	F3.5			22' < 32'	F3.5
SIZE: 5' x 9'				SIZE: 7' x 8'				SIZE: 6' x UNLIMITED				SIZE: 7' x 8'			
≥0.5' < 8'	C6.5	≥0.5' < 14'	B10	≥0.5' < 5'	C6.5	≥0.5' < 5'	C6.5	≥0.5' < 8'	D7	≥0.5' < 4'	C6.5	≥0.5' < 5'	C6.5	≥0.5' < 4'	C6.5
8' < 14'	D7	14' < 24'	B5.5	5' < 11'	D7	5' < 8'	C3.5	8' < 15'	E5	5' < 8'	C3.5	5' < 11'	D7	5' < 8'	C3.5
14' < 25'	E5	24' < 34'	C6.5	11' < 19'	E5	8' < 13'	D4.5	15' < 26'	E5	7' < 11'	D4.5	11' < 19'	E5	8' < 13'	D4.5
25'-40'	F5	34'-40'	C3.5	19' < 30'	F5	13' < 22'	E3	26'-40'	F5	11' < 22'	E3	19' < 30'	F5	13' < 22'	E3
				30'-40'	G5	22' < 30'	F3.5			22' < 30'	F3.5	30'-40'	G5	22' < 30'	F3.5
						30'-40'	G3.5			22' < 30'	F3.5			30'-40'	G3.5
SIZE: 5' x UNLIMITED				SIZE: 7' x 9'				SIZE: 6' x UNLIMITED				SIZE: 7' x 9'			
≥0.5' < 8'	C6.5	≥0.5' < 14'	B10	≥0.5' < 9'	D7	≥0.5' < 7'	C6.5	≥0.5' < 8'	D7	≥0.5' < 4'	C6.5	≥0.5' < 9'	D7	≥0.5' < 7'	C6.5
8' < 14'	D7	14' < 24'	B5.5	9' < 15'	E5	7' < 10'	C3.5	8' < 15'	D7	4' < 7'	C3.5	9' < 15'	E5	7' < 10'	C3.5
14' < 25'	E5	24' < 34'	C6.5	15' < 25'	F5	10' < 14'	D4.5	15' < 26'	E5	7' < 11'	D4.5	15' < 25'	F5	10' < 14'	D4.5
25'-40'	F5	34'-40'	C3.5	25' - 34'	G5	14' < 21'	E5	26'-40'	F5	11' < 22'	E3	25' - 34'	G5	14' < 21'	E5
						21' < 29'	F5			22' < 30'	F3.5			21' < 29'	F5
						29'-34'	F3.5			22' < 30'	F3.5			29'-34'	F3.5

TABLE 6 - SLAB DESIGNS ROUND STRUCTURES		
SLAB DEPTH	SLAB THICKNESS	REINF. (2-WAY) SCHEDULE
SIZE: 3'-6" DIAMETER		
2'-15'	6" Precast	C6.5
0.5' < 30'	8"	A6
30'-40'	8"	B5.5
SIZE: 4'-0" DIAMETER		
≥0.5' < 19'	8"	A6
19' < 30'	8"	B5.5
30'-40'	8"	C6.5
SIZE: 5'-0" DIAMETER		
≥0.5' < 15'	8"	B5.5
15' < 26'	8"	C6.5
26' < 35'	8"	D7
35'-40'	8"	D4.5
SIZE: 6'-0" DIAMETER		
≥0.5' < 9'	8"	B5.5
9' < 15'	8"	C6.5
15' < 22'	8"	C3.5
22' < 30'	8"	D4.5
30'-40'	8"	E5
SIZE: 7'-0" DIAMETER		
≥0.5' < 8'	8"	C3.5
8' < 16'	8"	D4.5
16' < 23'	8"	E5
23' < 27'	8"	E3
27'-40'	8"	F3.5
SIZE: 8'-0" DIAMETER		
≥0.5' < 10'	8"	D4.5
10' < 16'	8"	E5
16' < 19'	8"	E3
19' < 29'	8"	F3.5
29'-40'	10"	F5
SIZE: 10'-0" DIAMETER		
≥0.5' < 12'	10"	D4.5
12' < 20'	10"	E5
20' < 28'	10"	F5
28'-40'	10"	G3.5
SIZE: 12'-0" DIAMETER		
≥0.5' < 8'	10"	D4.5
8' < 13'	10"	E5
13' < 18'	10"	F5
18' < 26'	10"	G3.5
26'-40'	12"	G3.5

SLAB AND WALL DESIGN TABLE NOTES

- Size is the inside dimension(s) of a structure.
- Slab reinforcement is appropriate for top, intermediate, and bottom slabs.
- Bottom Slabs for precast 3'-6" x 3'-6" rectangular structures at 15' depth or less, may be 6" thick.
- Slab depth is measured from finished grade to top of slab.
- Reinforcing schedules with larger areas of steel may be substituted for schedules with smaller bar or wire spacing, except that Schedule B10 may not be substituted for Schedule A6. See Index 425-001 for allowable bar spacing adjustments when larger areas of reinforcing are substituted.

TABLES 5 AND 6

LAST REVISION 11/01/20	REVISION	DESCRIPTION:	 FY 2023-24 STANDARD PLANS	STRUCTURE BOTTOMS TYPE J AND P	INDEX 425-010	SHEET 4 of 4
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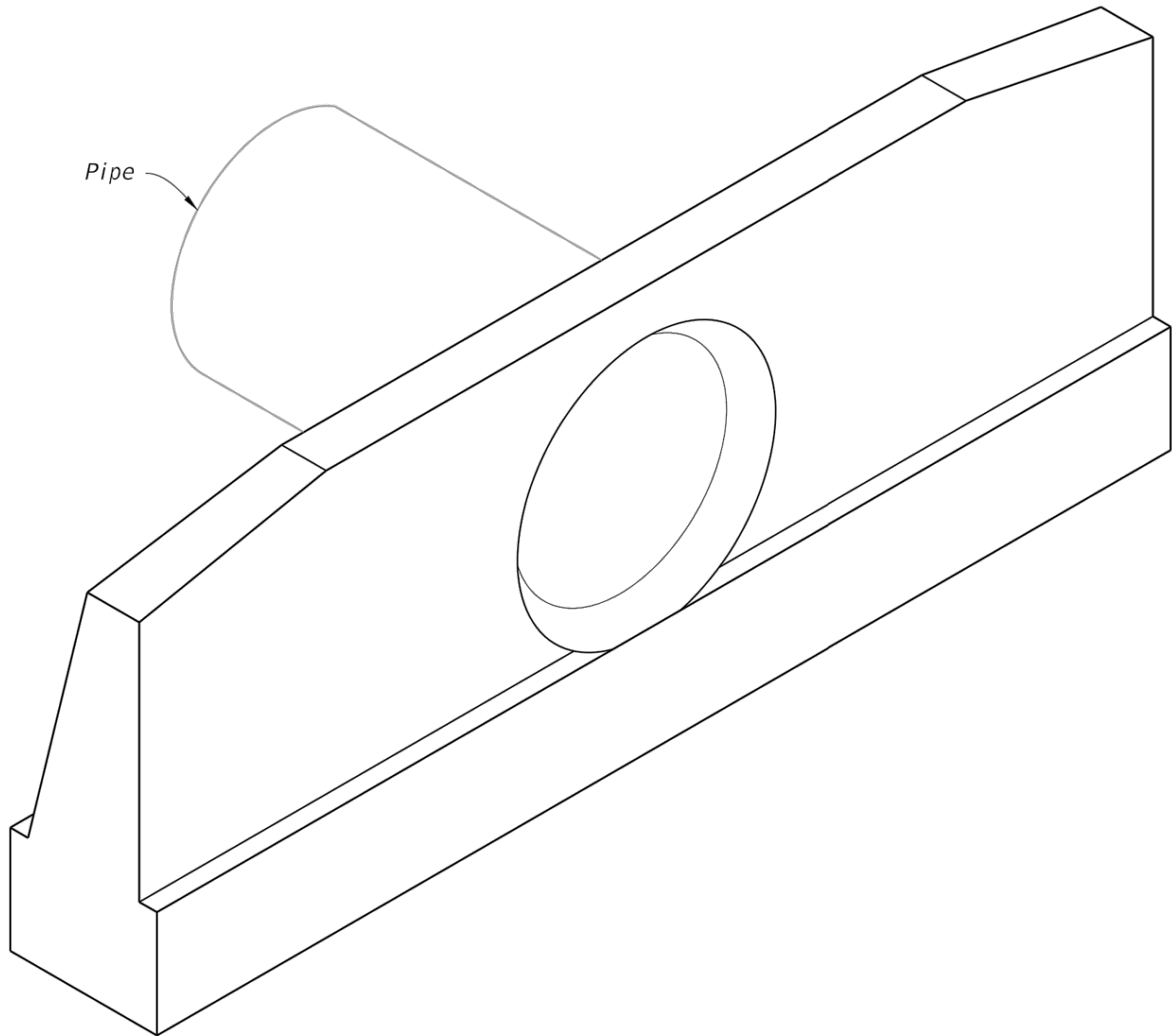
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GENERAL NOTES:

- 1. Use Class II concrete.
- 2. Reinforcing steel is either Grade 40 or 60.
- 3. Endwalls may be cast in place or precast concrete. (Additional reinforcement necessary for handling precast units will be determined by the Contractor or the supplier).
- 4. Chamfer all exposed edges and corners to  $\frac{3}{4}$ ".
- 5. Endwall dimensions, locations and positions are for round and elliptical concrete pipe and for round and pipe-arch corrugated metal pipe. Round concrete pipe shown.
- 6. On outfall ditches with side slopes flatter than 1:1.5 provide 20' transitions from the endwall to the flatter side slopes, right of way permitting.
- 7. Construct front slope and ditch transitions in accordance with Index 430-001.
- 8. Quantities shown are for estimating purposes only.

TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Concrete Endwall Details
3	Concrete and Metal Pipe Tables
4	Spacing For Multiple Pipes



STRAIGHT CONCRETE ENDWALL

LAST REVISION 11/01/21	REVISION	DESCRIPTION:	 <b>FY 2024-25</b> STANDARD PLANS	STRAIGHT CONCRETE ENDWALLS SINGLE AND MULTIPLE PIPE	INDEX 430-030	SHEET 1 of 4

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UTILITY DETAILS
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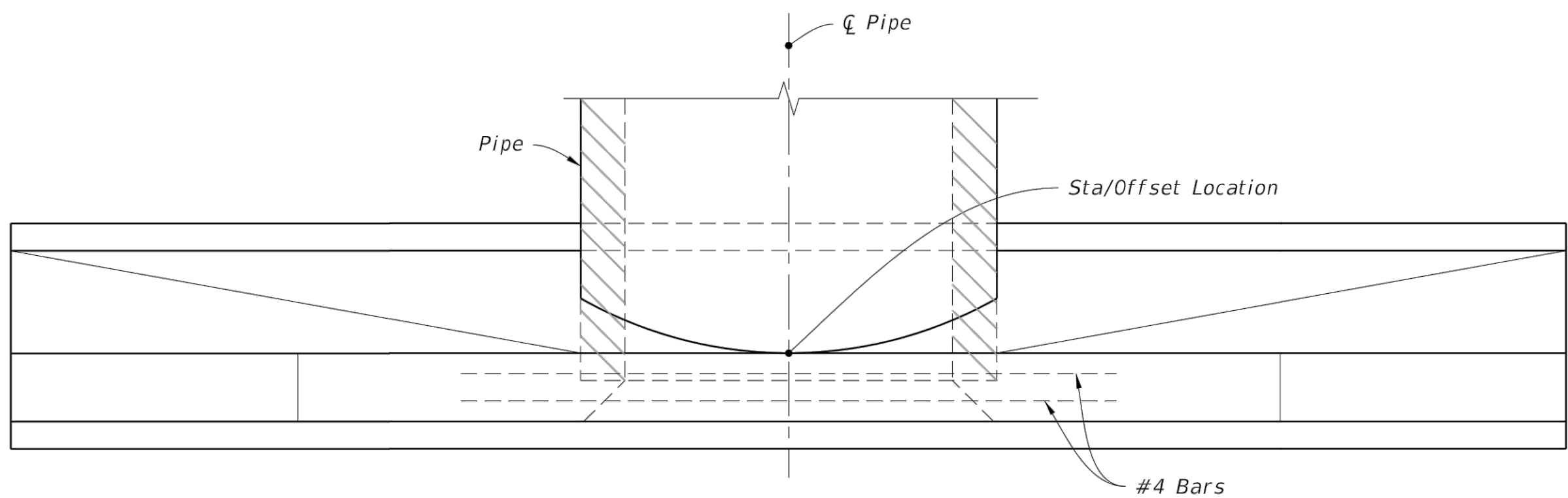
JOB No. 079373
DATE APRIL 2025

SHEET No. C-11
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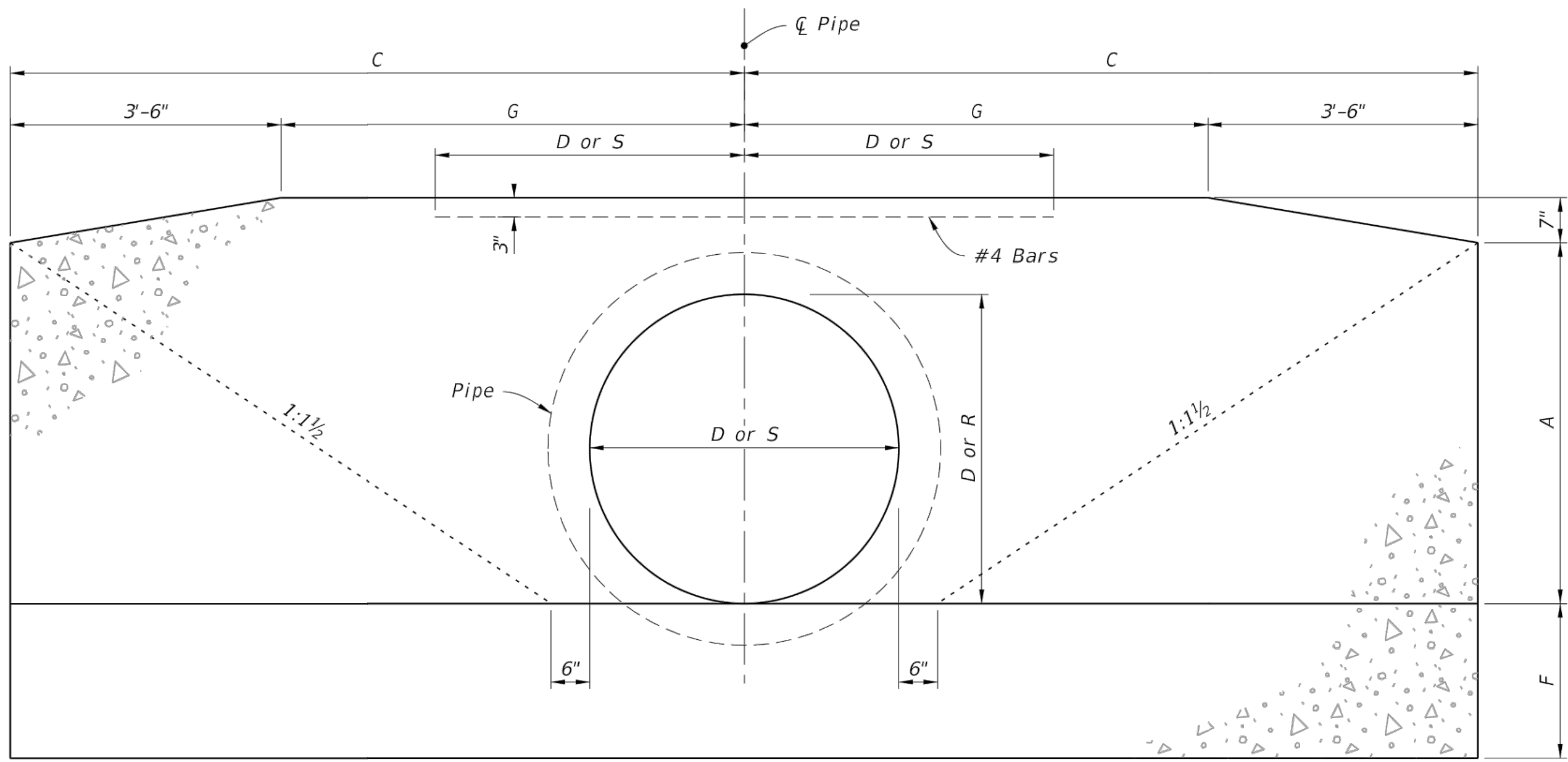


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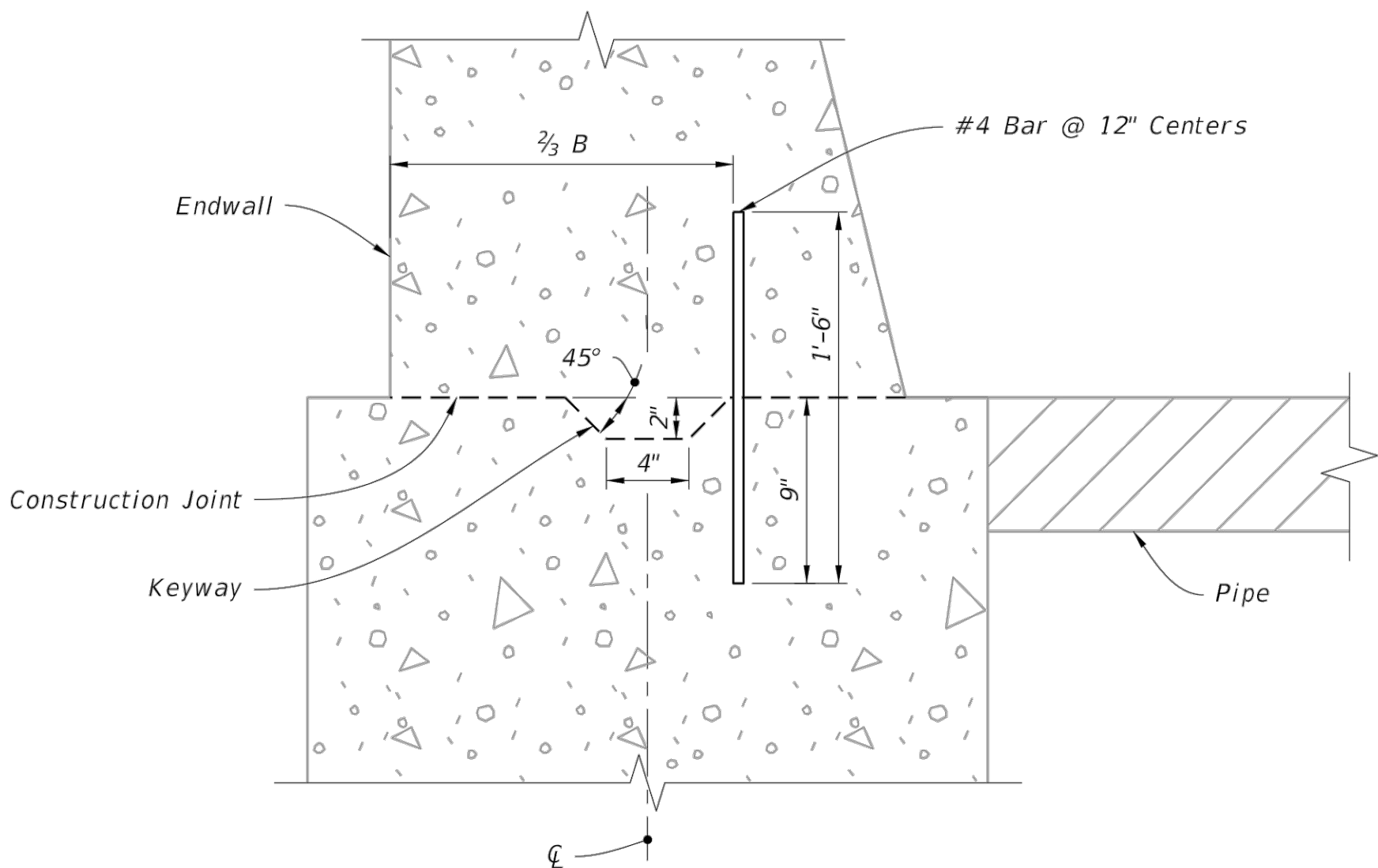
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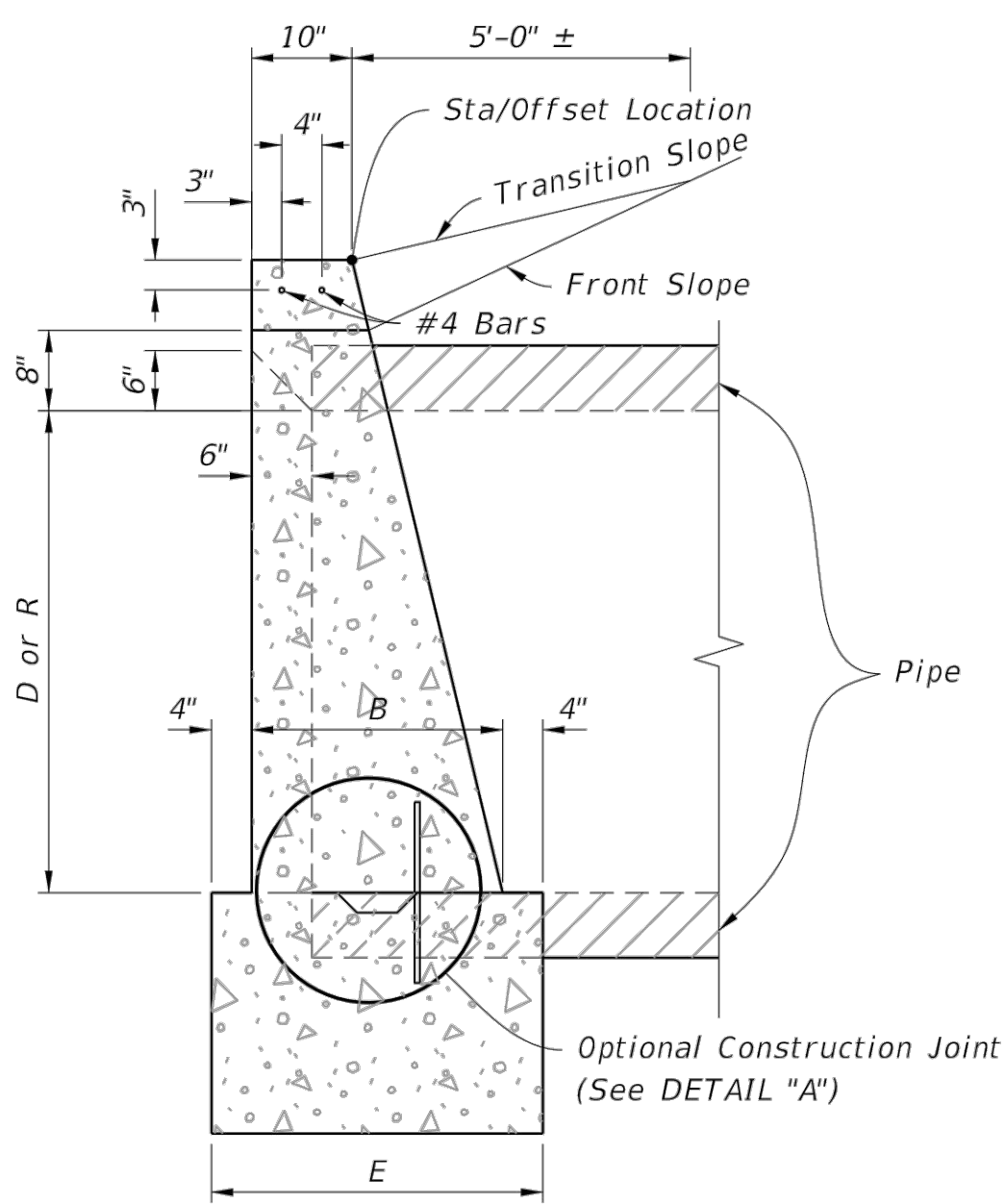


FRONT ELEVATION



DETAIL "A"

NOTE: Keyway and Dowels are required for optional construction joint.



SIDE ELEVATION

CONCRETE ENDWALL DETAILS

LAST REVISION 11/01/19	DESCRIPTION:	FDOT	FY 2024-25 STANDARD PLANS	STRAIGHT CONCRETE ENDWALLS SINGLE AND MULTIPLE PIPE	INDEX 430-030	SHEET 2 of 4
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DETAILED DESIGN

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DESIGNED	CADD	SCALE
JLH	CM	AS NOTED
CHECKED	APPROVED	APPROVED
KW	LM	
NO.	DESCRIPTION	DATE
	REVISIONS	BY

DESIGNED	CADD	SCALE
JLH	CM	AS NOTED
CHECKED	APPROVED	APPROVED
KW	LM	

GANNETT FLEMING
MIAMI, FLORIDA

CITY OF HOLLYWOOD, FLORIDA BROWARD COUNTY, FLORIDA
TASK 4.0 UTILITY RELOCATION - JOHNSON STREET

UTILITY DETAILS
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JOB No. 079373	SHEET No. C-12
DATE APRIL 2025	



Know what's below.  
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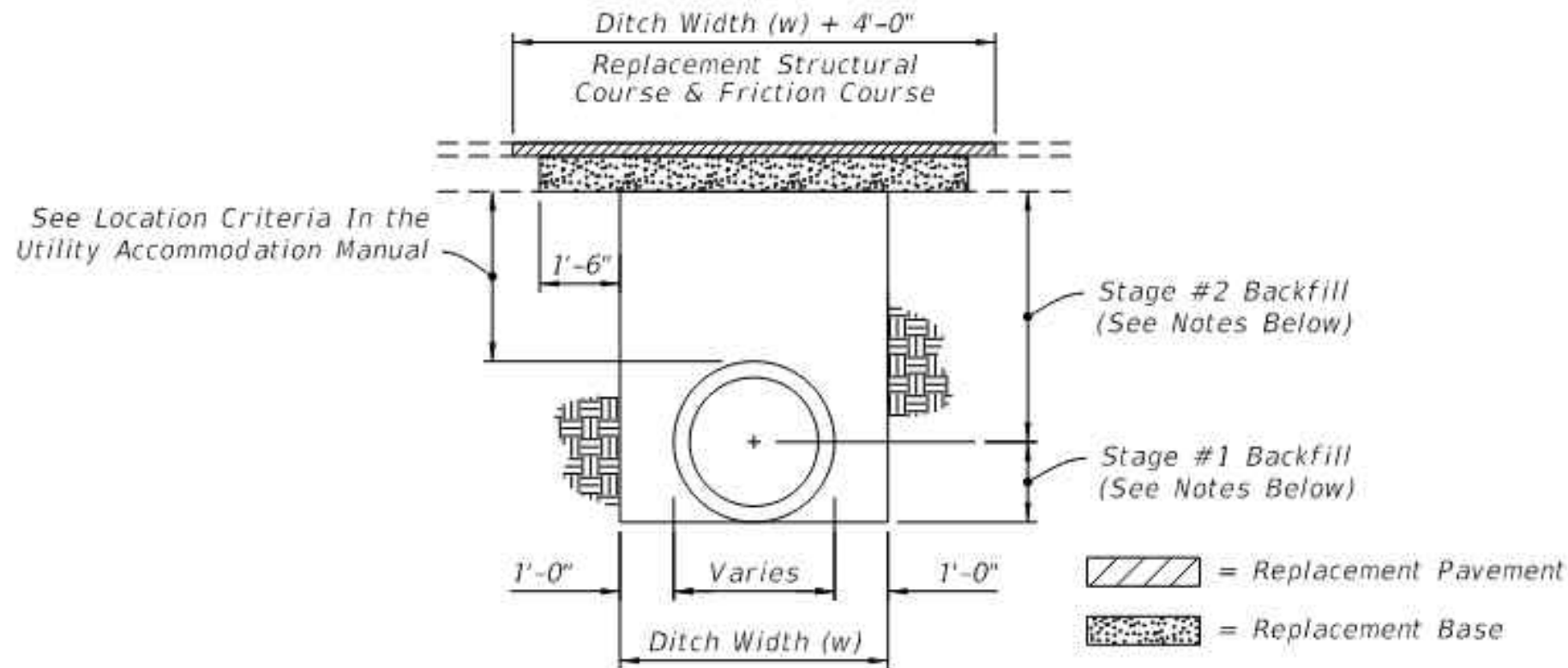
ROUND CONCRETE AND CORRUGATED METAL PIPE																																
Pipe	Dia. D	Opening Area (SF)				Dimensions										Class II Concrete (CY)																Dia. D
																Number Of Pipe And Skew Angle Of Pipe (α)																
		Number Of Pipes				A	B	C	E	F	G	Y	X				Single	Double				Triple				Quadruple						
1	2	3	4	0°	15°								30°	45°	0°	15°		30°	45°	0°	15°	30°	45°	0°	15°	30°	45°					
Concrete	15"	1.23	2.46	3.69	4.92	1'-11"	1'-2"	4'-0"	1'-10"	1'-2"	0'-6"	2'-7"	2'-7"	2'-8"	3'-0"	3'-8"	1.23	1.59	1.60	1.65	1.74	1.94	1.96	2.05	2.23	2.30	2.34	2.47	2.74	15"		
	18"	1.77	3.54	5.31	7.08	2'-2"	1'-3"	4'-6"	1'-11"	1'-3"	1'-0"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"	1.56	1.99	2.01	2.06	2.17	2.43	2.46	2.56	2.79	2.86	2.91	3.06	3.40	18"		
	21"	2.41	4.82	7.23	9.64	2'-5"	1'-4"	5'-0"	2'-0"	1'-4"	1'-6"	3'-2"	3'-2"	3'-3"	3'-8"	4'-6"	1.97													21"		
	24"	3.14	6.28	9.42	12.56	2'-8"	1'-4"	5'-6"	2'-0"	1'-4"	2'-0"	3'-5"	3'-5"	3'-6"	3'-11"	4'-10"	2.24	2.82	2.84	2.91	3.06	3.39	3.43	3.57	3.87	3.97	4.03	4.24	4.69	24"		
	27"	3.98	7.96	11.94	15.92	2'-11"	1'-5"	6'-0"	2'-1"	1'-5"	2'-6"	3'-10"	3'-10"	4'-0"	4'-5"	5'-5"	2.73														27"	
	30"	4.91	9.82	14.73	19.64	3'-2"	1'-6"	6'-6"	2'-2"	1'-6"	3'-0"	4'-3"	4'-3"	4'-5"	4'-11"	6'-0"	3.26	4.13	4.16	4.26	4.49	4.98	5.04	5.25	5.69	5.84	5.93	6.24	6.91	30"		
	36"	7.07	14.14	21.21	28.28	3'-8"	1'-8"	7'-6"	2'-4"	1'-8"	4'-0"	5'-1"	5'-1"	5'-3"	5'-10"	7'-2"	4.53	5.73	5.77	5.92	6.23	6.92	7.00	7.29	7.91	8.13	8.26	8.69	9.62	36"		
	42"	9.62	19.24	28.86	38.48	4'-2"	1'-10"	8'-6"	2'-6"	2'-0"	5'-0"	6'-0"	6'-0"	6'-3"	6'-11"	8'-6"	6.33	8.11	8.17	8.39	8.85	9.90	10.02	10.45	11.38	11.68	11.87	12.51	13.89	42"		
	48"	12.57	25.14	37.71	50.28	4'-8"	2'-1"	9'-6"	2'-9"	2'-0"	6'-0"	6'-9"	6'-9"	7'-0"	7'-10"	9'-7"	8.15	10.40	10.48	10.75	11.33	12.64	12.80	13.34	14.50	14.89	15.13	15.93	17.68	48"		
	54"	15.90	31.80	47.70	63.60	5'-2"	2'-6"	10'-6"	3'-2"	2'-3"	7'-0"	7'-8"	7'-8"	7'-11"	8'-10"	10'-10"	11.71	15.23	15.35	15.78	16.69	18.77	19.02	19.86	21.69	22.29	22.66	23.93	26.67	54"		
Corrugated Metal	15"	1.23	2.46	3.69	4.92	1'-11"	1'-2"	4'-0"	1'-10"	1'-2"	0'-6"	2'-7"	2'-7"	2'-8"	3'-0"	3'-8"	1.24	1.62	1.63	1.68	1.78	1.99	2.02	2.11	2.30	2.37	2.41	2.75	2.84	15"		
	18"	1.77	3.54	5.31	7.08	2'-2"	1'-3"	4'-6"	1'-11"	1'-3"	1'-0"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"	1.59	2.04	2.06	2.11	2.23	2.51	2.54	2.65	2.89	2.96	3.01	3.17	3.53	18"		
	21"	2.41	4.82	7.23	9.64	2'-5"	1'-4"	5'-0"	2'-0"	1'-4"	1'-6"	3'-2"	3'-2"	3'-3"	3'-8"	4'-6"														21"		
	24"	3.14	6.28	9.42	12.56	2'-8"	1'-4"	5'-6"	2'-0"	1'-4"	2'-0"	3'-5"	3'-5"	3'-6"	3'-11"	4'-10"	2.29	2.91	2.93	3.01	3.17	3.52	3.56	3.71	4.03	4.14	4.20	4.43	4.91	24"		
	27"	3.98	7.96	11.94	15.92	2'-11"	1'-5"	6'-0"	2'-1"	1'-5"	2'-6"	3'-10"	3'-10"	4'-0"	4'-5"	5'-5"														27"		
	30"	4.91	9.82	14.73	19.64	3'-2"	1'-6"	6'-6"	2'-2"	1'-6"	3'-0"	4'-3"	4'-3"	4'-5"	4'-11"	6'-0"	3.34	4.28	4.31	4.43	4.67	5.20	5.27	5.49	5.97	6.13	6.23	6.56	7.29	30"		
	36"	7.07	14.14	21.21	28.28	3'-8"	1'-8"	7'-6"	2'-4"	1'-8"	4'-0"	5'-1"	5'-1"	5'-3"	5'-10"	7'-2"	4.64	5.95	6.00	6.15	6.49	7.25	7.34	7.65	8.33	8.57	8.71	9.18	10.20	36"		
	42"	9.62	19.24	28.86	38.48	4'-2"	1'-10"	8'-6"	2'-6"	2'-0"	5'-0"	6'-0"	6'-0"	6'-3"	6'-11"	8'-6"	6.49	8.43	8.50	8.73	9.23	10.38	10.52	10.98	11.99	12.32	12.52	13.22	14.73	42"		
	48"	12.57	25.14	37.71	50.28	4'-8"	2'-1"	9'-6"	2'-9"	2'-0"	6'-0"	6'-9"	6'-9"	7'-0"	7'-10"	9'-7"	8.38	10.85	10.94	11.23	11.87	13.34	13.51	14.11	15.39	15.82	16.08	16.97	18.90	48"		
	54"	15.90	31.80	47.70	63.60	5'-2"	2'-6"	10'-6"	3'-2"	2'-3"	7'-0"	7'-8"	7'-8"	7'-11"	8'-10"	10'-10"	11.77	15.35	15.48	15.90	16.83	18.93	19.18	20.04	21.89	22.51	22.89	24.17	26.96	54"		

ELLIPTICAL CONCRETE AND CORRUGATED METAL PIPE ARCH																																	
Pipe	Rise R	Span S	Opening Area (SF)				Dimensions										Class II Concrete (CY)												Rise R	Span S	Approx. Equiv. Round		
			Number Of Pipes				A	B	C	E	F	G	Y	X				Number Of Pipe And Skew Angle Of Pipe (α)															
			1	2	3	4								Single	Double				Triple				Quadruple										
Concrete	12"	18"	1.3	2.6	3.9	5.2	1'-8"	1'-2"	3'-9"	1'-10"	1'-2"	0'-3"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"	1.09	1.45	1.46	1.51	1.60	1.80	1.82	1.91	2.09	2.16	2.20	2.33	2.60	12"	18"	15"
	14"	23"	1.8	3.6	5.4	7.2	1'-10"	1'-3"	4'-2½"	1'-11"	1'-3"	8½"	3'-5"	3'-5"	3'-6"	3'-11"	4'-10"	1.36	1.82	1.84	1.89	2.01	2.29	2.32	2.43	2.68	2.75	2.80	2.97	3.33	14"	23"	18"
	19"	30"	3.3	6.6	9.9	13.2	2'-3"	1'-4"	5'-1½"	2'-0"	1'-4"	1'-7½"	4'-2"	4'-2"	4'-4"	4'-10"	5'-11"	1.89	2.55	2.57	2.65	2.82	3.22	3.27	3.43	3.77	3.88	3.95	4.19	4.70	19"	30"	24"
	24"	38"	5.1	10.2	15.3	20.4	2'-8"	1'-5"	6'-3"	2'-1"	1'-5"	2'-9"	5'-2"	5'-2"	5'-4"	6'-0"	7'-4"	2.64	3.55	3.58	3.69	3.93	4.48	4.54	4.77	5.24	5.39	5.49	5.82	6.53	24"	38"	30"
	29"	45"	7.4	14.8	22.2	29.6	3'-1"	1'-6"	7'-0"	2'-2"	1'-6"	3'-6"	6'-0"	6'-0"	6'-3"	6'-11"	8'-6"	3.32	4.48	4.52	4.66	4.96	5.64	5.72	6.00	6.60	6.80	6.92	7.34	8.24	29"	45"	36"
	34"	53"	10.2	20.4	30.6	40.8	3'-6"	1'-7"	7'-11½"	2'-3"	1'-7"	4'-5½"	7'-1"	7'-1"	7'-4"	8'-2"	10'-0"	4.24	5.76	5.81	6.00	6.39	7.29	7.40	7.76	8.55	8.81	8.97	9.52	10.70	34"	53"	42"
	38"	60"	12.9	25.8	38.7	51.6	3'-10"	1'-8"	8'-9"	2'-4"	1'-8"	5'-3"	7'-11"	7'-11"	8'-2"	9'-2"	11'-2"	5.22	7.16	7.23	7.46	7.96	9.10	9.24	9.70	10.71	11.05	11.25	11.95	13.46	38"	60"	48"
	43"	68"	16.6	33.2	49.8	66.4	4'-3"	1'-10"	9'-8½"	2'-6"	1'-10"	6'-2½"	8'-10"	8'-10"	9'-2"	10'-2"	12'-6"	6.63	9.01	9.09	9.38	10.00	11.39	11.56	12.13	13.36	13.77	14.02	14.88	16.73	43"	68"	54"
	48"	76"	20.5	41.0	61.5	82.0	4'-8"	2'-1"	10'-8"	2'-9"	2'-0"	7'-2"	9'-9"	9'-9"	10'-1"	11'-3"	13'-9"	8.66	11.74	11.85	12.22	13.02	14.82	15.04	15.77	17.37	17.91	18.23	19.34	21.74	48"	76"	60"
	53"	83"	24.8	49.6	74.4	99.2	5'-1"	2'-6"	11'-7"	3'-2"	2'-6"	8'-1"	10'-7"	10'-7"	10'-11"	12'-3"	15'-0"	12.50	16.98	16.98	17.67	18.83	21.47	21.78	22.86	25.18	25.97	26.44	28.06	31.55	53"	83"	66"
58"	91"	29.5	59.0	88.5	118.0	5'-6"	2'-10"	12'-6½"	3'-6"	2'-10"	9'-0½"	11'-4"	11'-4"	11'-9"	13'-1"	16'-0"	16.46	22.26	22.46	23.16	24.66	28.05	28.46	29.85	32.85	33.85	34.46	36.55	41.05	58"	91"	72"	
Corrugated Metal	13"	17"	1.1	2.2	3.3	4.4	1'-9"	1'-2"	3'-10"	1'-10"	1'-2"	0'-4"	2'-6"	2'-6"	2'-7"	2'-11"	3'-6"	1.16	1.47	1.48	1.52	1.60	1.78	1.80	1.88	2.04	2.09	2.12	2.23	2.48	13"	17"	15"
	15"	21"	1.6	3.2	4.8	6.4	1'-11"	1'-2"	4'-3"	1'-10"	1'-2"	0'-9"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"	1.33	1.69	1.70	1.75	1.84	2.04	2.06	2.15	2.33	2.40	2.44	2.57	2.84	15"	21"	18"
	20"	28"	2.8	5.6	8.4	11.2	2'-4"	1'-3"	5'-2"	1'-11"	1'-3"	1'-8"	3'-5"	3'-5"	3'-6"	3'-11"	4'-10"	1.78	2.31	2.33	2.39	2.53	2.83	2.87	2.99	3.26	3.36	3.42	3.60	4.01	20"	28"	24"
	24"	35"	4.3	8.6	12.9	17.2	2'-8"	1'-4"	5'-11½"	2'-0"	1'-4"	2'-5½"	4'-0"	4'-0"	4'-2"	4'-7"	5'-8"	2.34	3.03	3.05	3.14	3.32	3.72	3.77	3.93	4.29	4.40	4.47	4.72	5.25	24"	35"	30"
	29"	42"	5.9	11.8	17.7	23.6	3'-1"	1'-5"	6'-10½"	2'-1"	1'-5"	3'-4½"	4'-9"	4'-9"	4'-11"	5'-6"	6'-9"	3.13	4.06	4.09	4.20	4.45	4.99	5.06	5.28	5.76	5.93	6.03	6.36	7.09	29"	42"	36"
	33"	49"	8.4	16.8	25.2	33.6	3'-5"	1'-6"	7'-8"	2'-2"	1'-6"	4'-2"	5'-6"	5'-6"	5'-8"	6'-4"	7'-9"	3.83	5.00	5.04	5.18	5.48	6.16	6.24	6.52	7.12	7.32	7.44	7.86	8.76	33"	49"	42"
	38"	57"	10.6	21.2	31.8	42.4	3'-10"	1'-7"	8'-7½"	2'-3"	1'-7"	5'-1½"	6'-4"	6'-4"	6'-7"	7'-4"	8'-11"	4.87	6.31	6.36	6.53	6.91	7.74	7.84	8.18	8.93	9.18	9.33	9.85	10.96	38"	57"	48"
43"	64"	13.2	26.4	39.6	52.8	4'-3"	1'-8"	9'-6½"	2'-4"	1'-8"	6'-0½"	7'-1"	7'-1"	7'-4"	8'-2"	10'-0"	5.88	7.64	7.70	7.91	8.37	9.40	9.52	9.94	10.86	11.15	11.33	11.97	13.33	43"	64"	54"	
47"	71"	16.9	33.8	50.7	67.6	4'-7"	1'-10"	10'-4"	2'-6"	2'-0"	6'-10"	7'-10"	7'-10"	8'-1"	9'-1"	11'-1"	7.80	10.15	10.23	10.51	11.12	12.49	12.65	13.22	14.43	14.85	15.10	15.94	17.77	47"	71"	60"	



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**NOTES:**  
**PAVEMENT REMOVAL AND REPLACEMENT**

1. Pavement shall be mechanically sawed.
2. The replacement asphalt shall match the existing structural and friction courses for type and thickness in accordance with current FDOT asphalt mix specifications.
3. The new base materials shall be either of the same type and composition as the materials removed or of equal or greater structural adequacy.

**BACKFILL OPTION**

**1. COMPACTED AND STABILIZED FILL**

- A. Place backfill material in accordance with Specification 125.
- B. In Stage #1, construct compacted fill beneath the haunches of the pipe, using mechanical tamps suitable for this purpose. This compaction applies to the material placed beneath the haunches of the pipe and above any bedding.
- C. In Stage #2, construct compacted fill along the sides of the pipe and up to the bottom of the base, with the upper 12" receiving Type B Stabilization. In lieu of Type B Stabilization, the Contractor may construct using Optional Base Group 3.

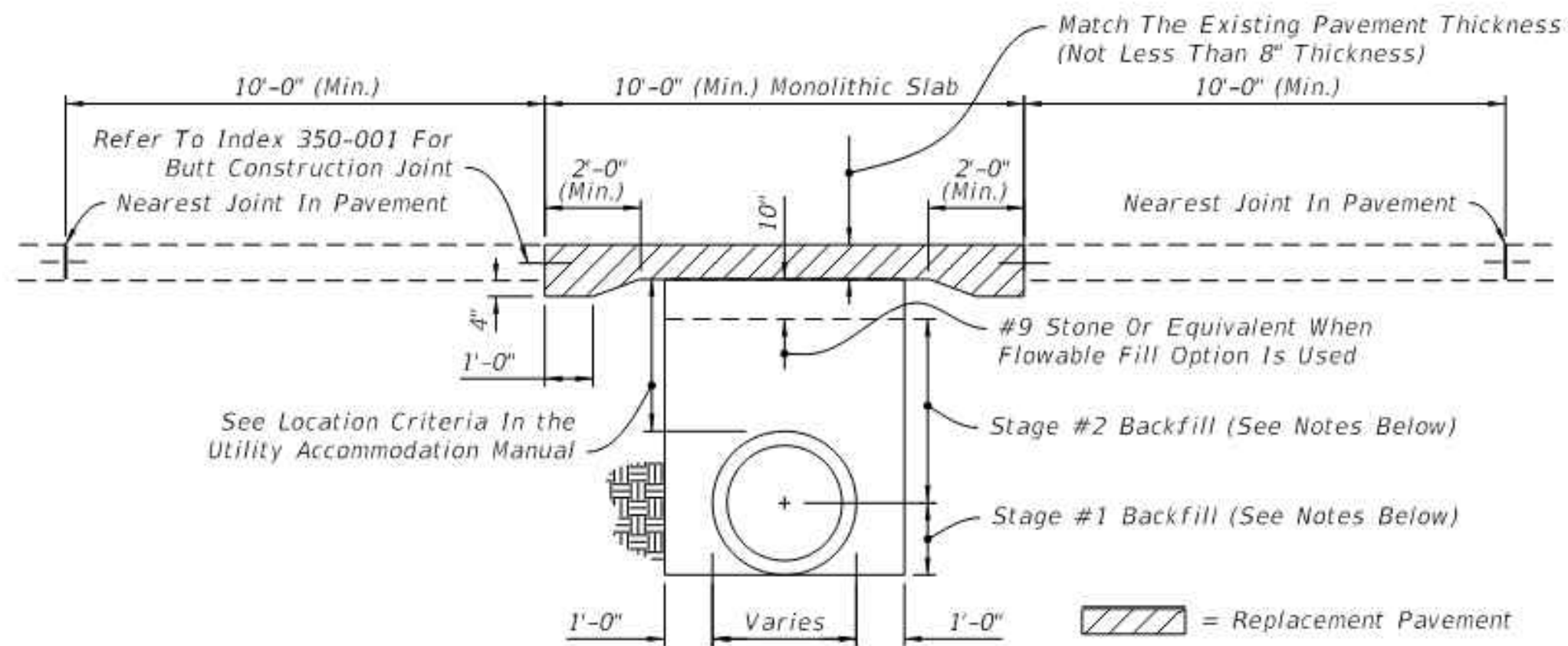
**2. FLOWABLE FILL**

- A. If compaction can not be achieved through normal mechanical methods then flowable fill may be used.
- B. Flowable fill is to be placed in accordance with Specification 121, as approved by the Engineer.
- C. Do not allow the utility being installed to float. If a method is provided to prevent flotation from occurring, Stages #1 and #2 can be combined, if approved by the Engineer.
- D. In Stage #1, place flowable fill midway up on both sides of the utility. Allow to harden before placing Stage #2.
- E. In Stage #2, place flowable fill to the bottom of the existing base course.

**FLEXIBLE PAVEMENT CUT**

**GENERAL NOTES**

1. The details provided in this Index apply to cases in which jack and bore or directional boring methods are not required by the Engineer.
2. Flowable fill shall not be placed directly over loose, or high plastic, or muck material (see Index 120-001) which will cause settlement due to fill weight. Where highly compressible material exists, the amount, shape and depth of flowable fill must be engineered to prevent pavement settlement.
3. These details do not apply to utility cuts longitudinal to the centerline of the roadway which may require the additional use of geotextiles, special bedding and backfill, or other special requirements.
4. Method of construction must be approved by the Engineer.
5. Some pipe may require special granular backfill up to 6" above top of pipe. Geotextiles may be required to encapsulate the special granular material.



**NOTES:**  
**PAVEMENT REMOVAL AND REPLACEMENT**

1. High early strength cement concrete (3000 psi) meeting the requirements of Specification 346 shall be used for rigid pavement replacement.
2. Pavement shall be mechanically sawed and restored to conform with existing pavement joints within 12 hours. (See Index 350-001)

**BACKFILL OPTION**

**1. GRANULAR BACKFILL**

- A. Any edgedrain system that is removed shall be replaced with the same type materials. Any edgedrain system that is damaged shall be repaired with methods approved by the Engineer.
- B. Fill material shall be placed in accordance with the Standard Specifications. Fill material shall be special select soil in accordance with Index 350-001.
- C. In Stage #1, construct compacted fill beneath the haunches of the pipe, using mechanical tamps suitable for this purpose. This compaction applies to the material placed beneath the haunches of the pipe and above any bedding.
- D. In Stage #2, construct fill along the sides of the pipe and up to the bottom of replacement pavement.

**2. FLOWABLE FILL**

- A. If mechanical compaction can not be achieved through normal mechanical methods then flowable fill may be used.
- B. Flowable fill is to be placed in accordance with Specification 121, as approved by the Engineer.
- C. Do not allow the utility being installed to float. If a method is provided to prevent flotation from occurring, Stages #1 and #2 can be combined, if approved by the Engineer.
- D. In Stage #1, place flowable fill midway up on both sides of the utility. Allow to harden before placing Stage #2.
- E. In Stage #2, place flowable fill to the bottom of the stone layer.

**RIGID PAVEMENT CUT**

6. Where asphalt concrete overlays exist over full slab concrete pavement, the replacement pavement shall have an overlay constructed over the replacement slab. The overlay shall match the existing asphalt pavement thickness. The replacement friction course shall match the existing friction course, except structural course may be used in lieu of dense graded friction course.
7. All shoulder pavement, curb, curb and gutter, and their substructure disturbed by utility trench cut construction shall be restored in kind.
8. The use of flowable fill to reduce the time traffic is taken off a facility is acceptable but must have prior approval by the Engineer. Flowable fill use is allowed only when properly engineered for pavement crossings, whether straight or diagonal, and shall not be installed for significant depths or lengths. The maximum length shall be fifty (50) feet and a maximum depth of six (6) feet unless supported by an engineering document prepared by a registered professional engineer that specializes in soils engineering. The engineering document shall address the evaluation of local groundwater flow interruption and settlement potential.
9. Excavatable flowable fill is to be used when the flowable fill option is selected.

**TRENCH CUTS AND RESTORATIONS ACROSS ROADWAYS**

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	UTILITY ADJUSTMENTS THRU EXISTING PAVEMENT	INDEX 125-001	SHEET 1 of 2
11/01/17							

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KW	LM	



**GANNETT FLEMING**

MIAMI, FLORIDA

CITY OF HOLLYWOOD, FLORIDA  
BROWARD COUNTY, FLORIDA

**TASK 4.0 UTILITY RELOCATION -  
JOHNSON STREET**

UTILITY DETAILS



**Know what's below.  
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JOB No.

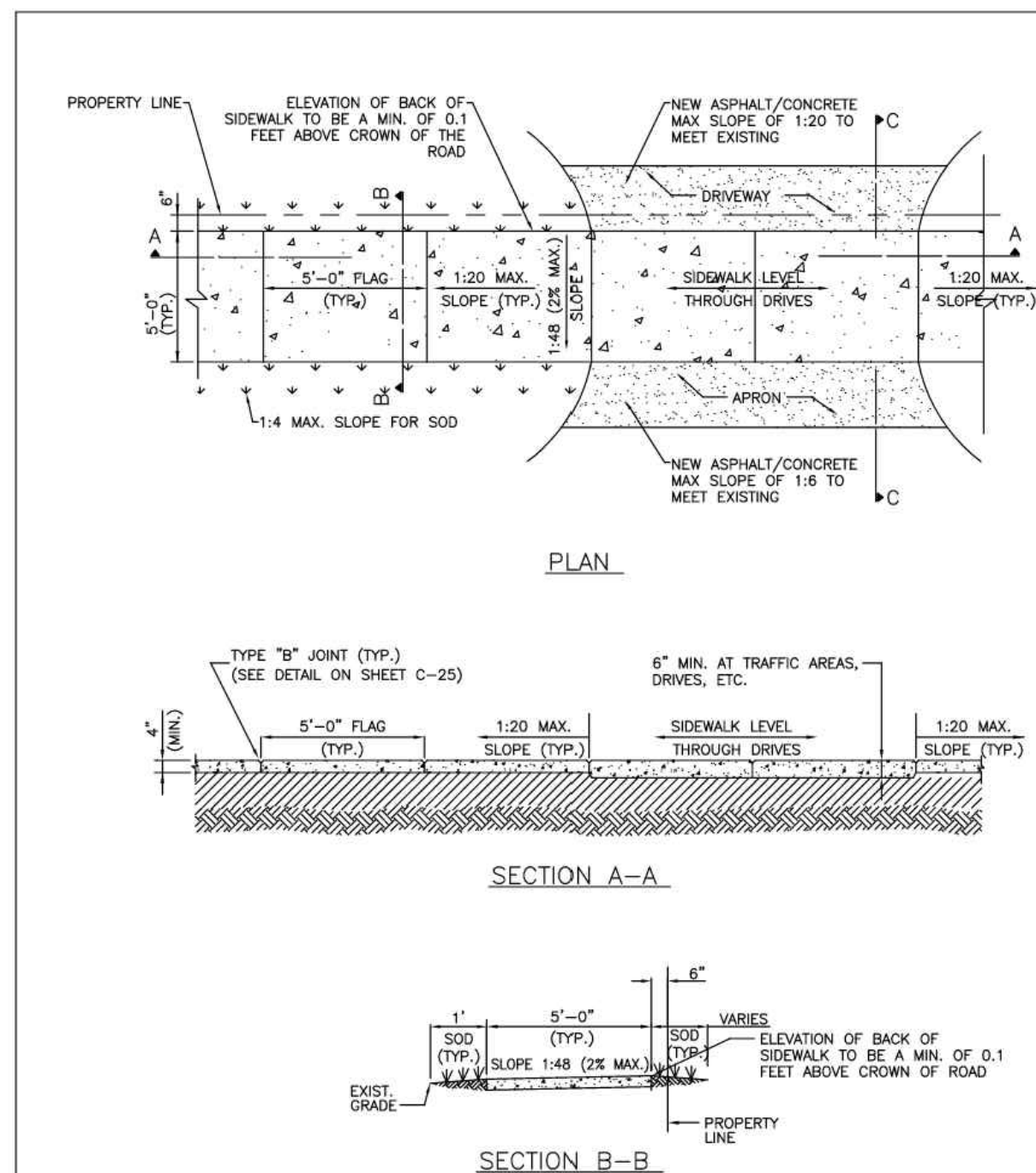
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DATE

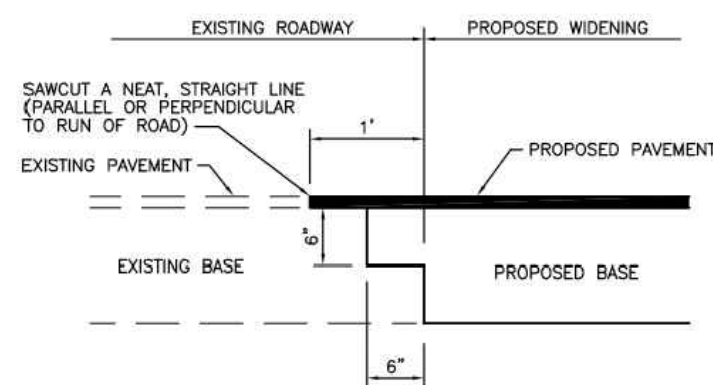
APRIL 2025


SHEET No.

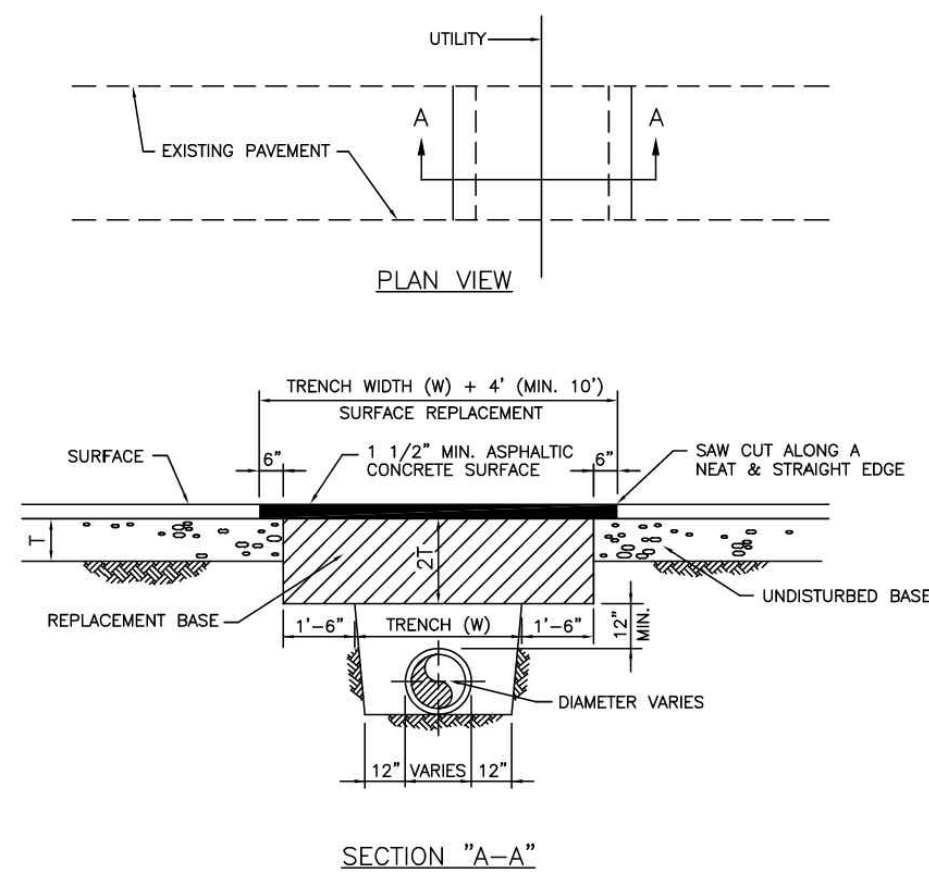
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	ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: -
	DRAWN: EG	SIDEWALK CONSTRUCTION DETAILS (1 OF 3)	DRAWING NO.:
	APPROVED: JG		C-23

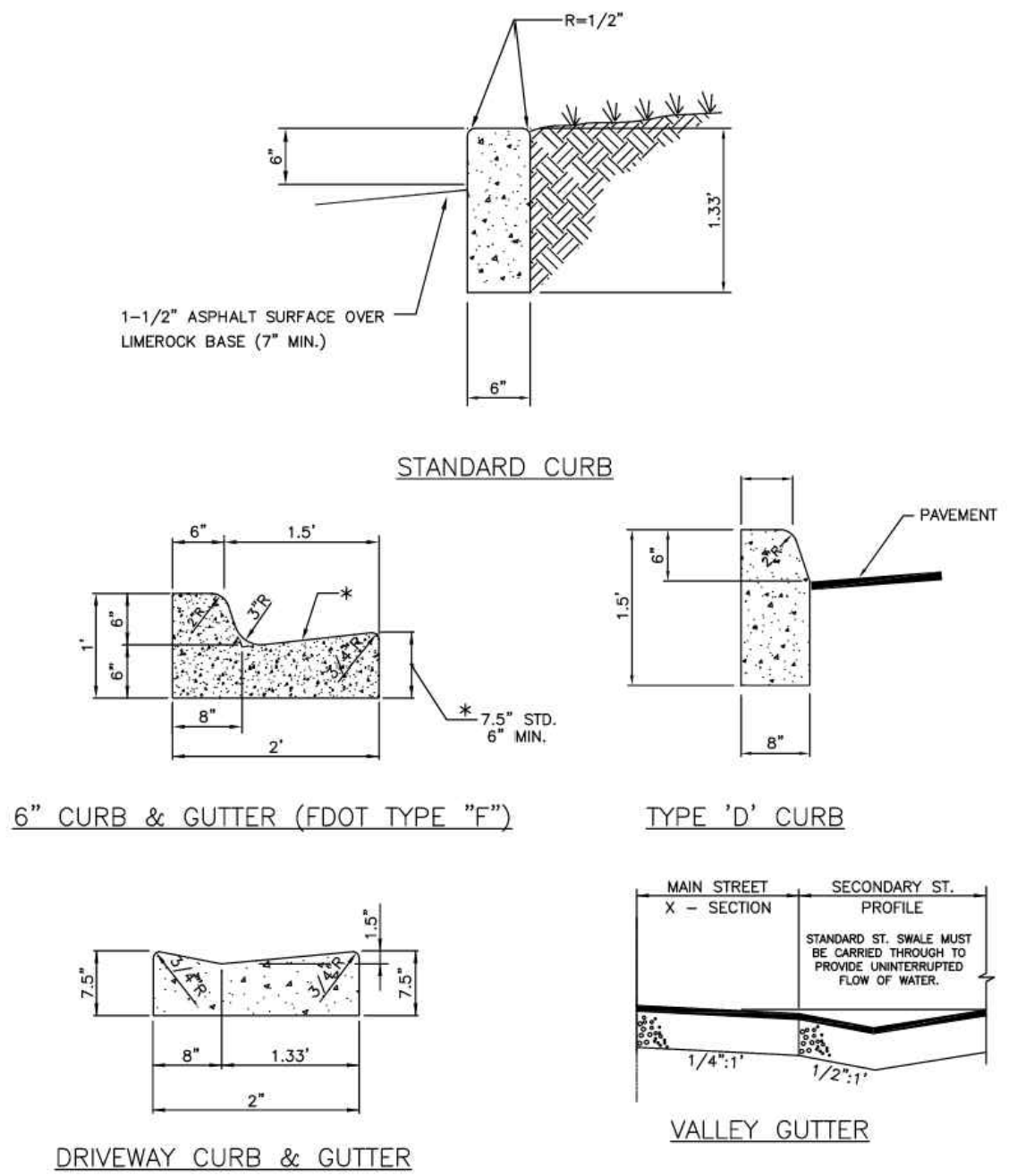



	ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: -
	DRAWN: EG	SAWCUT DETAIL	DRAWING NO.: C-28
	APPROVED: JG		

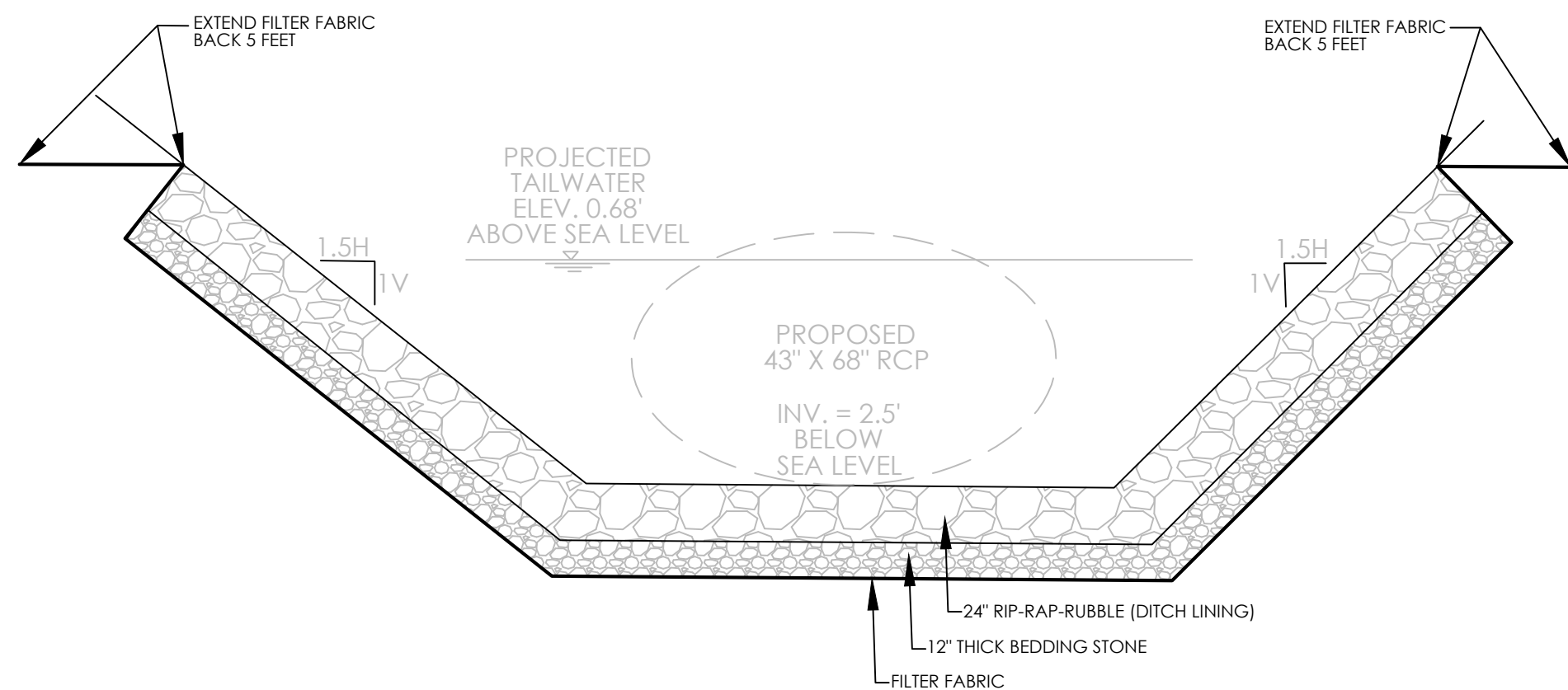


- NOTES:**
1. REPLACED BASE MATERIAL OVER TRENCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL, BASE, MINIMUM 12", MAXIMUM 18".
  2. BASE MATERIAL SHALL BE PLACED IN 4" MAXIMUM (LOOSE MEASUREMENT) LAYERS AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO 98% OF MAXIMUM DENSITY, PER AASHTO 1-180.
  3. BASE MATERIAL SHALL BE PLACED IN 4" MAXIMUM (LOOSE MEASUREMENT) LAYERS AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO 98% OF MAXIMUM DENSITY, PER AASHTO 1-180.
  4. SURFACE TREATED PAVEMENT JOINTS SHALL BE MECHANICALLY SEALED.
  5. SURFACE TREATED PAVEMENT JOINTS SHALL BE LAPPED AND FEATHERED.
  6. SURFACE MATERIAL SHALL BE CONSISTENT WITH THE EXISTING SURFACE.
  7. BASE MATERIAL SHALL HAVE A MINIMUM LER OF 100 AND A MINIMUM CARBONATE CONTENT OF 70%.
  8. IF THE TRENCH IS FILLED TROMPTER, IT SHALL BE COVERED WITH A 2" ASPHALTIC CONCRETE PATCH TO KEEP THE FILL MATERIAL FROM RAVELLING UNTIL REPAIRED WITH A PERMANENT PATCH.
  9. MINIMUM PAVEMENT RESTORATION WIDTH IS 10'.

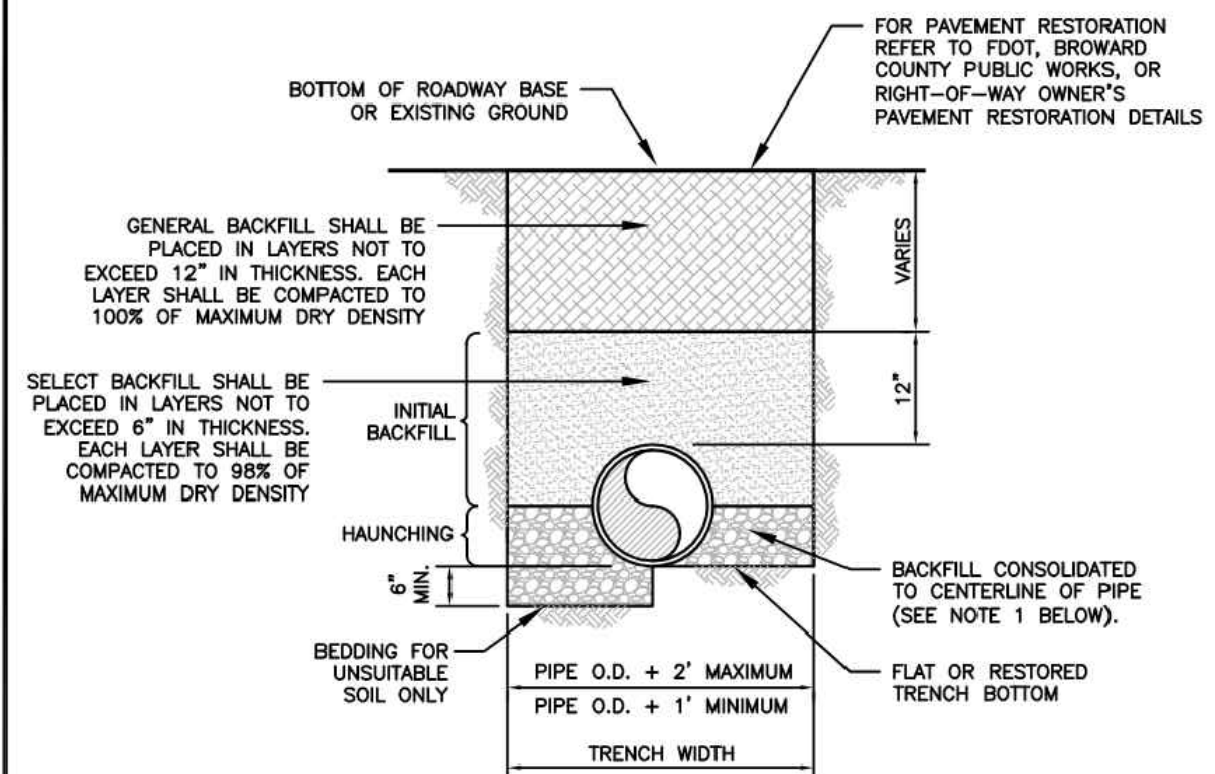
	ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: —
	DRAWN: EG	FLEXIBLE PAVEMENT RESTORATION PERPEND. UTILITY INSTALLATION	DRAWING NO.: C-31
	APPROVED: JG		




	ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: -
	DRAWN: EG	CURB AND GUTTER DETAILS	DRAWING NO.: C-26
	APPROVED: JG		



OUTFALL RIP-RAP (SEE PLAN VIEW ON SHEET C-6)



- NOTES:**
1. WHEN PIPE INSTALLATION IS ABOVE THE GROUND WATER TABLE ELEVATION, OR WHENEVER BEDDING COPPER PIPE UNDER ANY CONDITION, BEDDING MATERIAL SHALL BE CLEAN SAND/SILT IF AVAILABLE WITHIN THE LIMITS OF CONSTRUCTION. IMPORTED BEDDING MATERIAL SHALL BE WELL SORTED, CLEAN, FREE OF ALL OTHER MATERIALS (LIMEROCK), CRUSHED STONE SHALL CONSIST OF HARD, DURABLE, SUB-ANGULAR PARTICLES OF PROPER SIZE AND GRADATION, AND SHALL BE FREE FROM ORGANIC MATERIALS, WOOD, SAND, LOAM, CLAY, EXCESS FINES, AND OTHER DELETERIOUS MATERIALS.
  2. ALL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY BEFORE THE PIPE IS LAID. FOR ADDITIONAL MATERIAL SPECIFICATIONS REFER TO SPECIFICATION SECTION 02222, "EXCAVATION AND BACKFILL FOR UTILITIES".
  3. BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY TO 18" - 180 AND ASTM D-3017.
  4. BACKFILL COMPLY WITH FOOT DESIGN STANDARDS 125-8

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
	DRAWN: EAM	PIPE LAYING CONDITION TYPICAL SECTION (D.I.P.)	DRAWING NO. G-02
	APPROVED: XXX		



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**GANNETT FLEMING**

MIAMI, FLORIDA

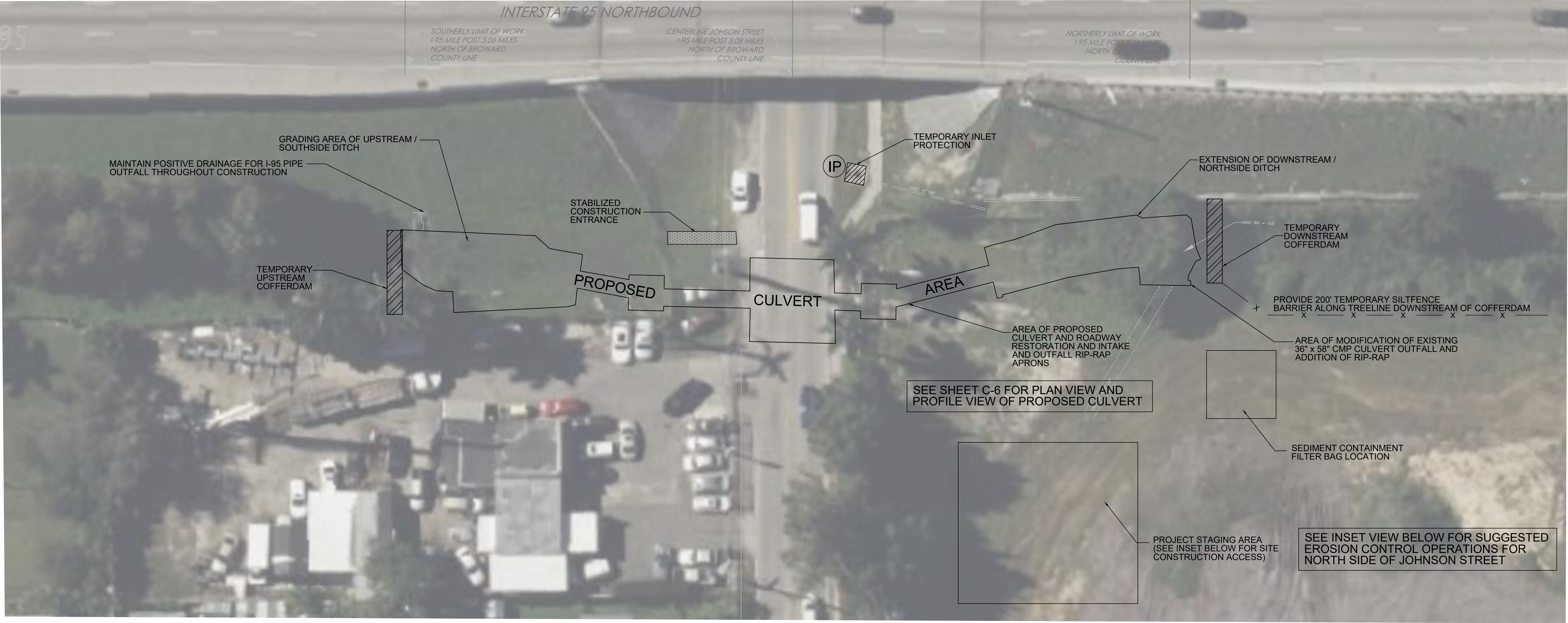
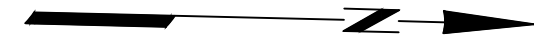
CITY OF HOLLYWOOD, FLORIDA  
BROWARD COUNTY, FLORIDA

## TASK 4.0 UTILITY RELOCATION - JOHNSON STREET

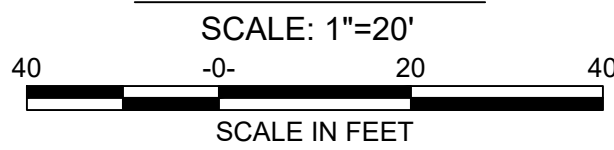
## UTILITY DETAILS

JOB No. 079373	SHEET No. C-16
DATE APRIL 2025	

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PLAN VIEW



TEMPORARY TOPSOIL STOCKPILE

PROVIDE SILT FENCE BARRIER INSTALLATION ALONG TREE LINE AND AROUND TOPSOIL STOCKPILE AREA

TEMPORARY PROJECT STAGING AREA



INSET

SCALE: 1" = 400'

PROVIDE SILT FENCE BARRIER INSTALLATION ALONG TREE LINE AND AROUND TOPSOIL STOCKPILE AREA

PROVIDE STABILIZED CONSTRUCTION ACCESS FOR NORTH SIDE OF JOHNSON STREET AT SOUTH EAST CORNER OF SITE



GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING WATER USE PERMITS FROM THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT.
2. SEE SHEET C-18 FOR ALL EROSION AND SEDIMENT CONTROL DETAILS.
3. SEE SHEET C-2 FOR A SUGGESTED SEQUENCE OF CONSTRUCTION.

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GANNETT FLEMING

MIAMI, FLORIDA

CITY OF HOLLYWOOD, FLORIDA  
BROWARD COUNTY, FLORIDA

TASK 4.0 UTILITY RELOCATION -  
JOHNSON STREET

EROSION & SEDIMENT  
CONTROL PLAN

JOB No.

079373

DATE

APRIL 2025

SHEET No.

C-17

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GANNETT FLEMING

MIAMI, FLORIDA

CITY OF HOLLYWOOD, FLORIDA  
BROWARD COUNTY, FLORIDA

TASK 4.0 UTILITY RELOCATION -  
JOHNSON STREET

EROSION & SEDIMENT  
CONTROL DETAIL PLAN



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DATE

APRIL 2025

SHEET No.

C-18

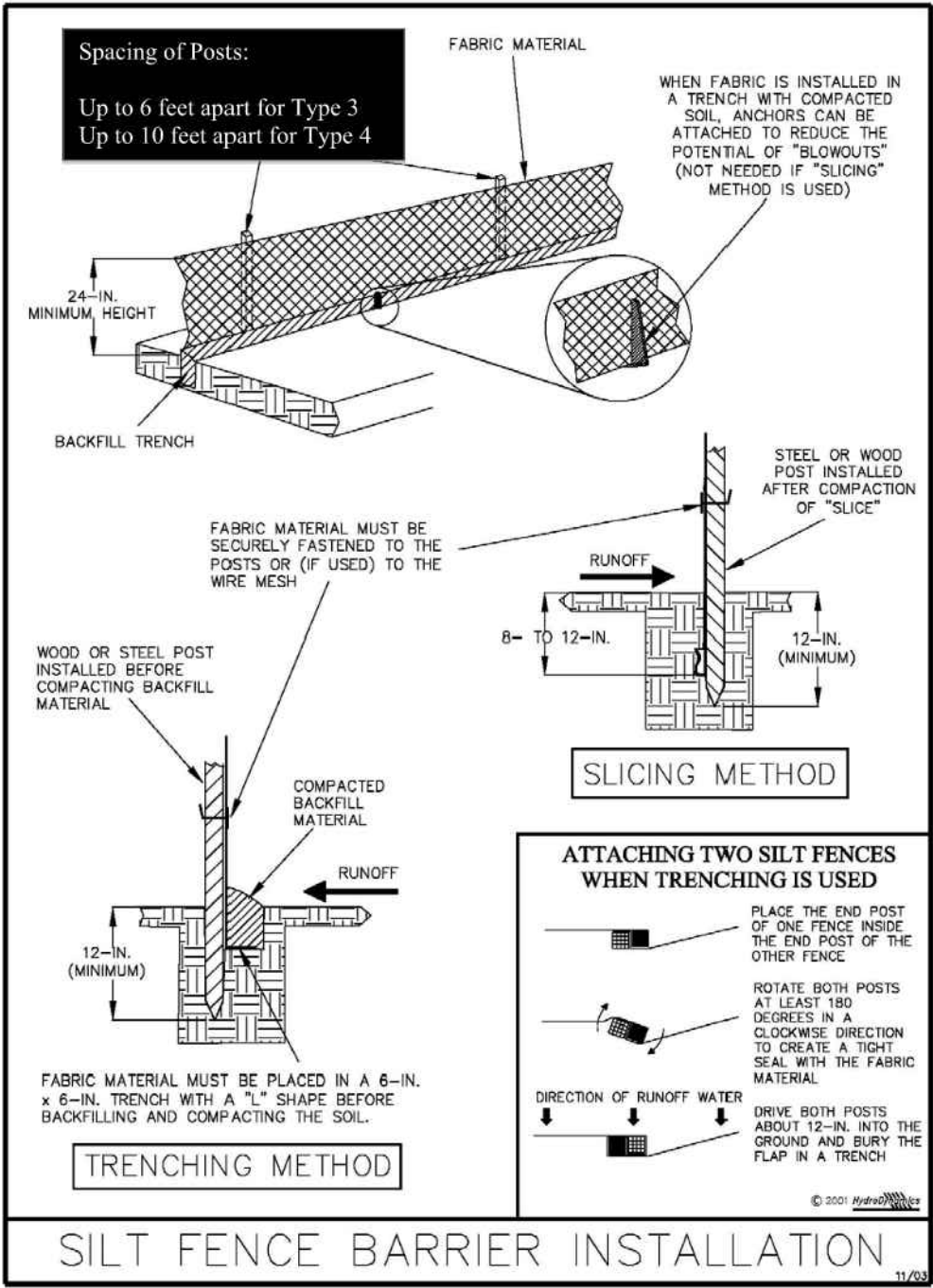
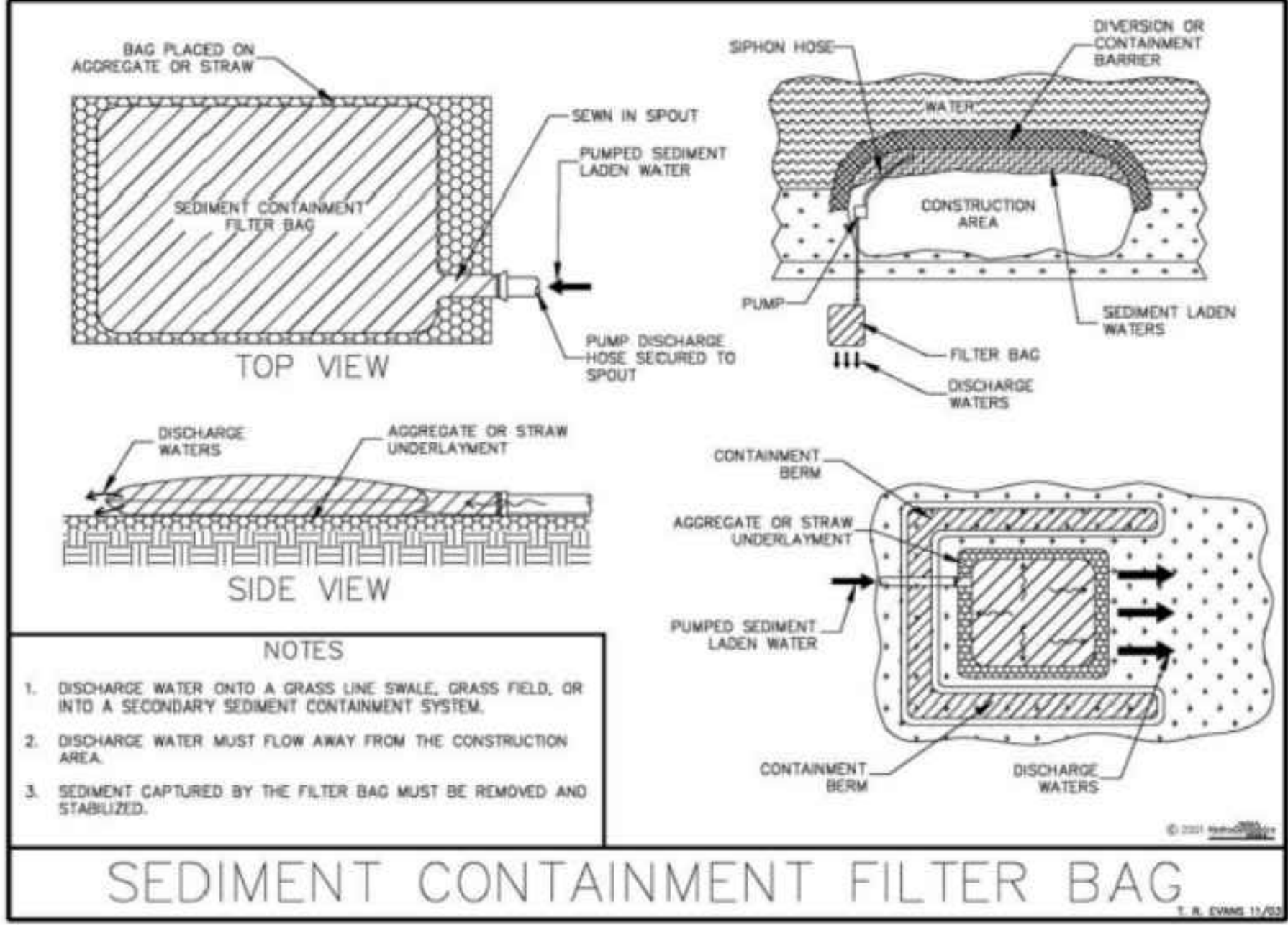
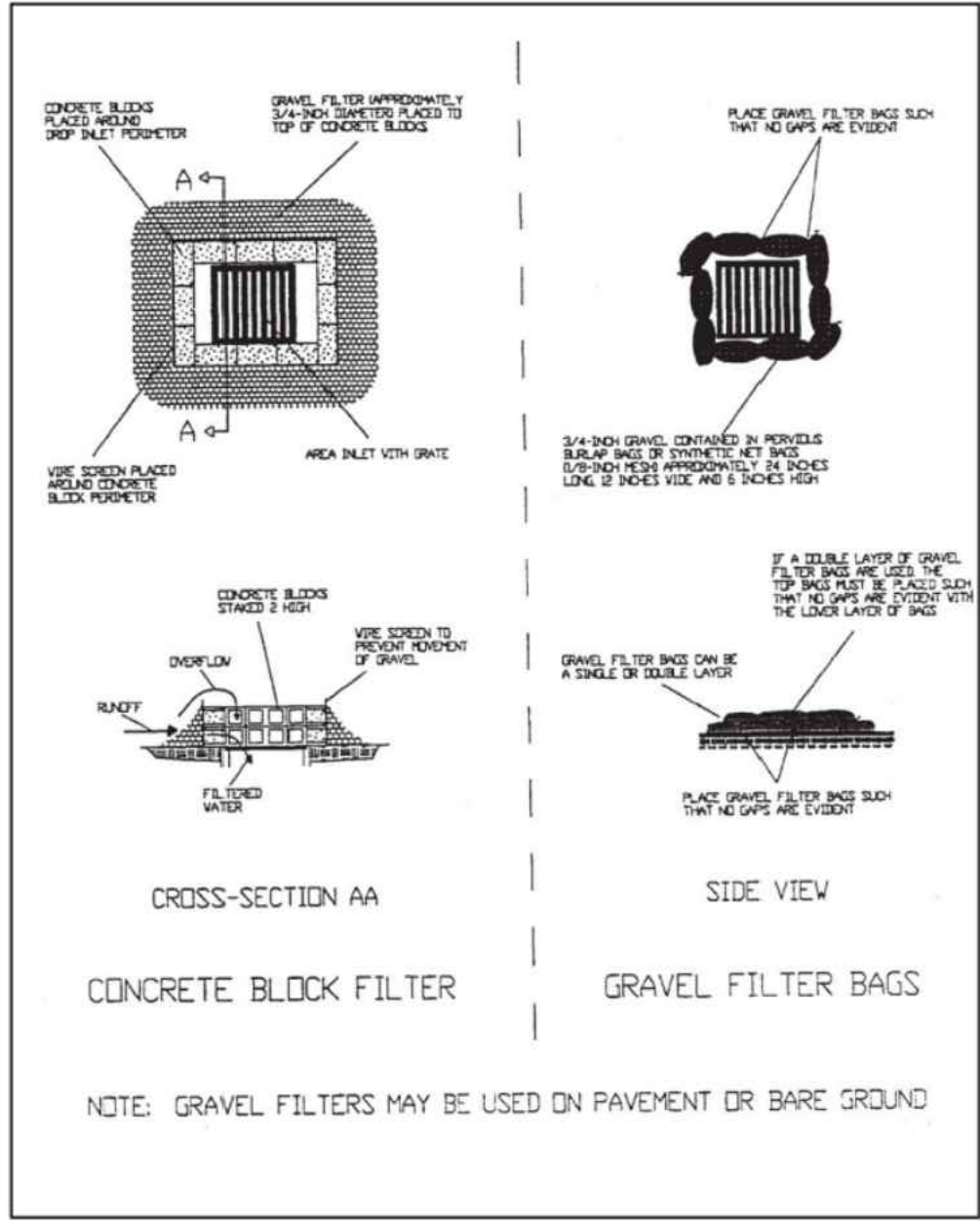


TABLE 8.1 GRASS ESTABLISHMENT ALTERNATIVES

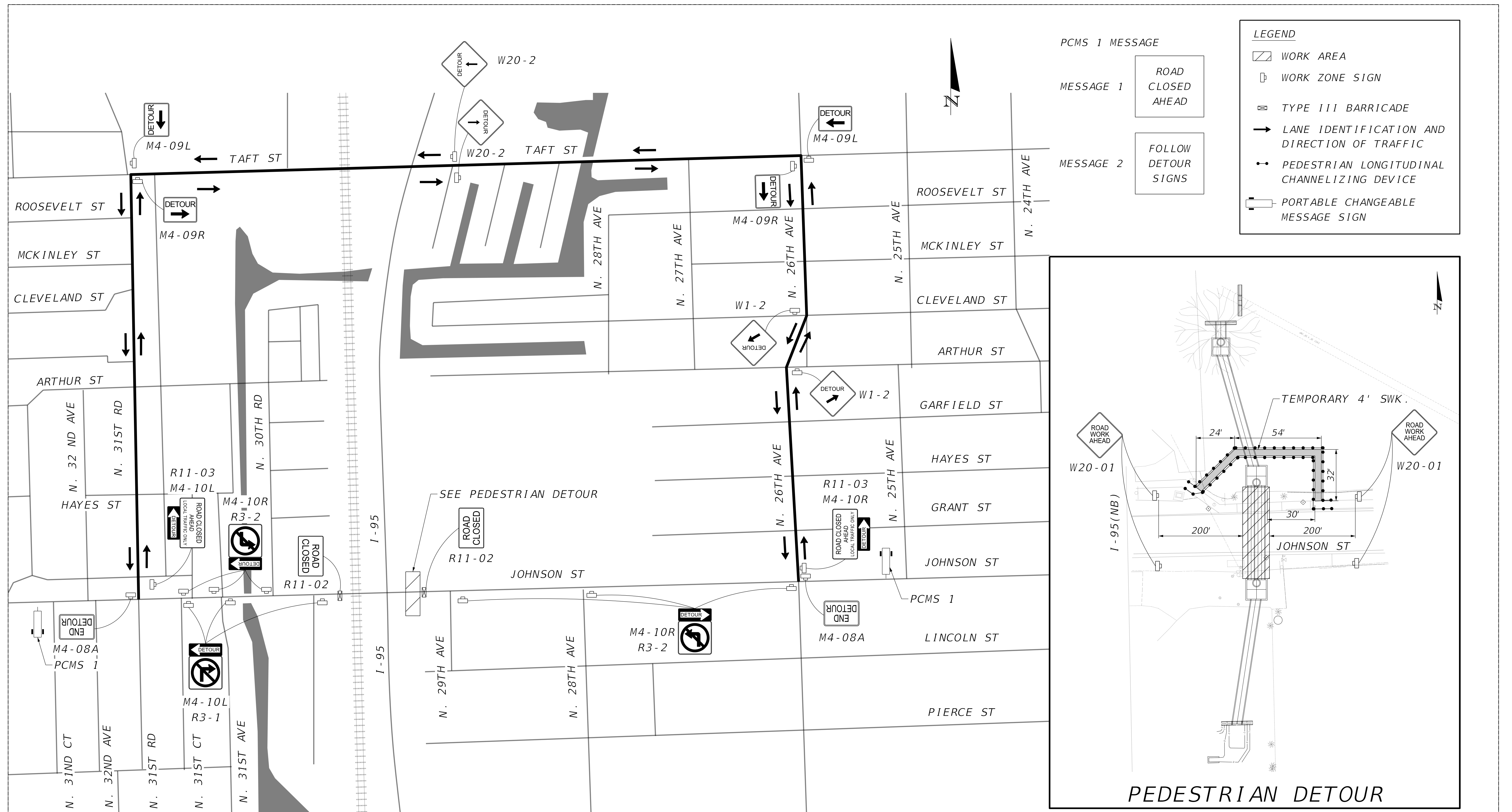
ESTABLISHMENT TECHNIQUE	CONDITIONS
1a. HYDROSEEDING	SLOPES LESS THAN 5% VELOCITY LESS THAN 3 FEET (1M) PER SECOND.
1b. ESTABLISHING BERMUDA GRASS BY SPRIGGING	MAJORITY OF DRAINAGE CAN BE DIVERTED AWAY FROM CHANNEL DURING GERMINATION AND ESTABLISHMENT. EROSION RESISTANT SOIL.
2. SEEDING WITH STRAW MULCH AND JUTE MESH OR EROSION NETTING	SLOPES LESS THAN 5% VELOCITY LESS THAN 5 FEET (1.5 M) PER SECOND. MAJORITY OF DRAINAGE CANNOT BE DIVERTED FROM CHANNEL DURING GERMINATION AND ESTABLISHMENT. MODERATELY ERODIBLE SOIL.
3. SODDING	SLOPES GREATER THAN 5% VELOCITY LESS THAN 5 FEET (1.5 M) PER SECOND. MAJORITY OF DRAINAGE CANNOT BE DIVERTED FROM CHANNEL DURING GERMINATION AND ESTABLISHMENT. HIGHLY ERODIBLE SOIL.

THE DETAILS FOR EACH ALTERNATIVE ARE AS FOLLOWS:

- 1A. HYDROSEEDING. ALL SEEDING SHALL BE DONE IN ACCORDANCE WITH PERMANENT SEEDING (IN CHAPTER 4). WHEN MULCHING, USE 2 TONS PER ACRE (4.4 T/HA) SMALL GRAIN STRAW WITH AN ACCEPTABLE TACKING AGENT (SEE MULCHING (IN CHAPTER 4)).
- 1B. ESTABLISHING BERMUDA GRASS BY SPRIGGING. IRRIGATION WATER MUST BE AVAILABLE DURING THE FIRST FOUR WEEKS. DIVERT DRAINAGE AWAY FROM THE CHANNEL DURING THE FIRST THREE WEEKS OF THE ESTABLISHMENT PERIOD BY USING TEMPORARY BERMS, SILT FENCING, OR STRAW BALE BARRIERS.
2. SEEDING WITH STRAW MULCH AND JUTE MESH OR EROSION NETTING. IN ADDITION TO ITEM 1.A ABOVE, SECURE STRAW MULCH WITH NETTING. IF USING JUTE MESH, USE ONLY 1 TON PER ACRE (2.2 T/HA) SMALL GRAIN STRAW, EVENLY DISTRIBUTED. IF USING A LIGHT PLASTIC OR PAPER EROSION NETTING, 1 1/2 TO 2 TONS PER ACRE (3.3 TO 4.4 T/HA) OF STRAW IS APPROPRIATE. CARE SHOULD BE TAKEN TO STAPLE THE MESH OR NETTING ACCORDING TO THE SPECIFICATIONS IN MULCHING (IN CHAPTER 4). MANY TYPES OF EROSION CONTROL MATS AND BLANKETS, USED ALONE, ARE ACCEPTABLE MULCHES FOR THE ESTABLISHMENT OF SWALES. SOME OF THESE PRODUCTS ARE ALSO PRE-SEEDDED.
3. SODDING. WHEN USING STRIP SOD, FOLLOW THE RECOMMENDATIONS IN SODDING, INSTALLATION, PART D (IN CHAPTER 4). ANOTHER SUITABLE PRODUCT IS ROLLED SOD, WHICH COMES ON ROLLS 2 TO 5 FEET (60 TO 150 CM) WIDE AND 50 TO 100 FEET (15 TO 30M) LONG. THE SOD IS GROWN THROUGH A PLASTIC MESH THAT OFFERS ADDITIONAL STRENGTH AND EROSION RESISTANCE.

TABLE 4.1 ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCHES	RATE PER ACRE	RATE PER 1000 SQUARE FEET	NOTES
STRAW	2 TONS	70 - 90 POUNDS	FREE FROM WEEDS AND COARSE MATTER. MUST BE ANCHORED. SPREAD WITH MULCH BLOWER OR BY HAND.
WOOD FIBERS	0.5 - 1.0 TONS	25 - 50 POUNDS	FIBERS 1.5 INCH MINIMUM LENGTH. DO NOT USE ALONE IN WINTER OR DURING HOT, DRY WEATHER. APPLY AS SLURRY.
WOOD CHIPS	4 - 6 TONS	185 - 275 POUNDS	FREE OF COARSE MATTER. AIR DRIED. TREAT WITH 12 POUNDS NITROGEN PER TON. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER OR CHIP HANDLER, OR BY HAND.
SHREDDED BARK CHIPS	50 - 70 CUBIC YARDS	1 - 2 CUBIC YARDS	FREE OF COARSE MATTER. AIR DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER OR CHIP HANDLER, OR BY HAND.



*PHASE II*

## DETAILED DESIGN

NO.	DESCRIPTION	DATE	BY
REVISIONS			

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## TASK 4.0 UTILITY RELOCATION - JOHNSON STREET

## TEMPORARY TRAFFIC CONTROL PLANS - DETOUR SHEET

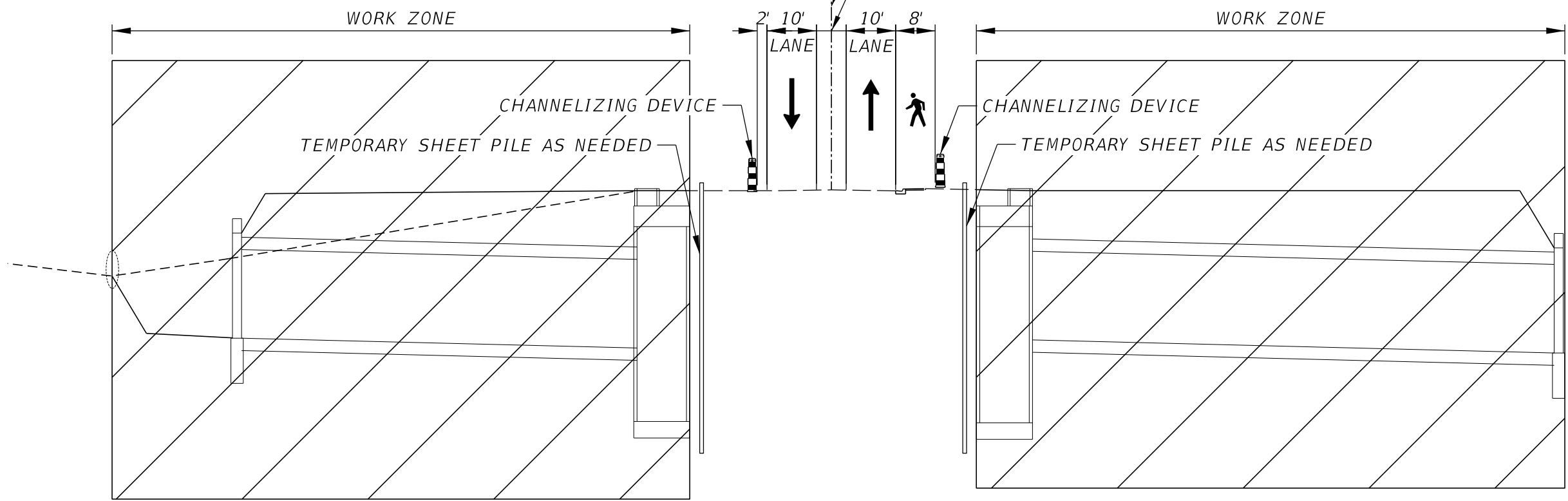
JOB No. 079373

DATE  
APRIL 2025

SHEET No. \_\_\_\_\_

-19

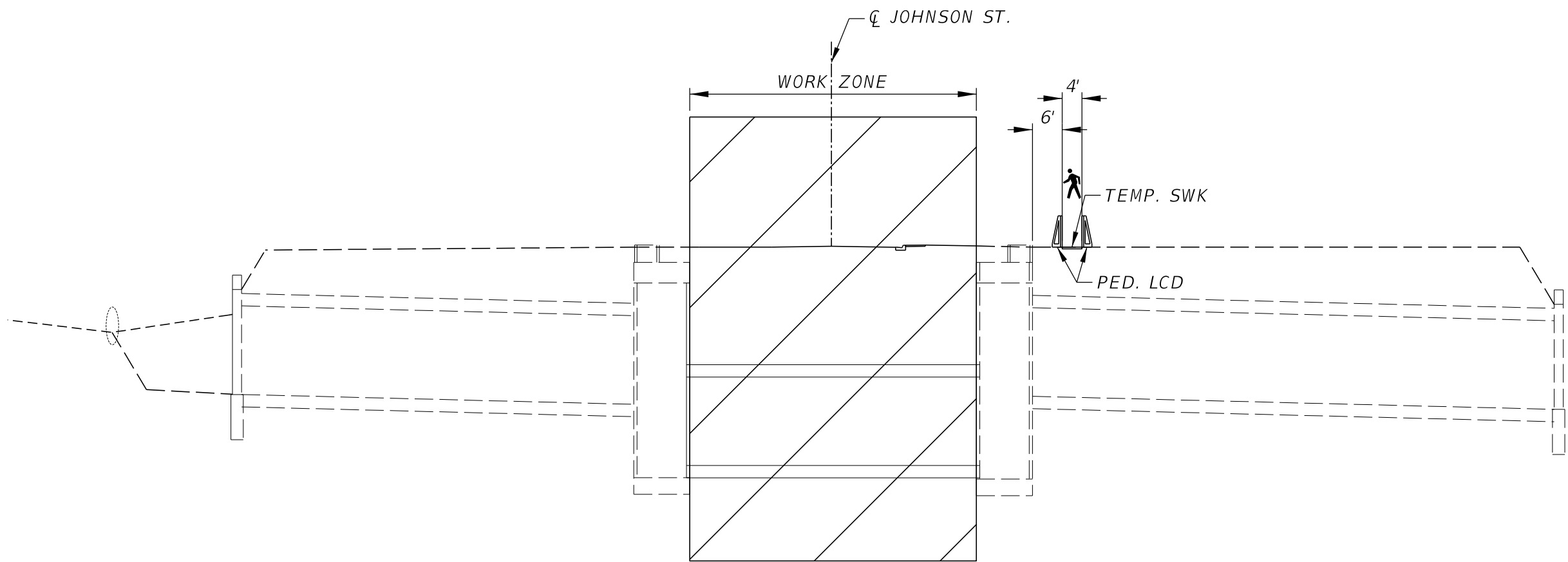
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PHASE I  
JOHNSON ST.

PHASE I

1. INSTALL TEMPORARY TRAFFIC CONTROL DEVICES PER FDOT STANDARD PLANS INDEX NO. 102-600, 102-601
2. INSTALL PROPOSED STRUCTURES AND PIPES, OUTSIDE OF EXISTING TRAFFIC.



PHASE II  
JOHNSON ST.

PHASE II

1. INSTALL TEMPORARY TRAFFIC CONTROL DEVICES PER FDOT STANDARD PLANS INDEX NO. 102-600, 102-625, 102-660.
2. PERFORM FULL ROAD CLOSURE TO INSTALL PROPOSED PIPES UNDER THE EXISTING ROADWAY.
3. MAINTAIN PEDESTRIAN TRAFFIC AS PER INDEX 102-660 USING A TEMPORAY WALKWAY.
4. INSTALL PROPOSED PIPES UNDER EXISTING ROADWAY.
5. PERFORM PAVEMENT, CURB, AND SIDEWALK RESTORATION.

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MIAMI, FLORIDA

CITY OF HOLLYWOOD, FLORIDA BROWARD COUNTY, FLORIDA
TASK 4.0 UTILITY RELOCATION - JOHNSON STREET

TEMPORARY TRAFFIC CONTROL PLANS -  
TYPICAL SECTION

JOB No.
079373
DATE
APRIL 2025

SHEET No.  
C-20

## EXHIBIT C

### MAINTENANCE PLAN REQUIREMENTS

The **AGENCY** shall submit to the **DEPARTMENT** a maintenance plan within the **AGENCY** limits, which is described in **Exhibit A**, detailing the means and methods for accomplishing the maintenance related activities in accordance with all **DEPARTMENT** Standards, Procedures and Specifications. This plan shall be submitted and approved by the **DEPARTMENT** prior to commencing any maintenance or repair activities. The **AGENCY** shall comply with the **DEPARTMENT'S** applicable Maintenance Rating Program (MRP) Standards. The plan should at minimum detail how the **AGENCY** will address the following:

1. Provide for continuous traffic control and necessary traffic control devices, as required for the safe movement of traffic of vehicular and pedestrian traffic, past the location of the structure being repaired for the duration of the repair in accordance with **DEPARTMENT** Standards, Procedures and Specifications, as well as compliance with all applicable laws including, but not limited to, the ADA.
2. How the **IMPROVEMENTS** will be kept clean, and free of trash, debris, and graffiti.
3. How the **IMPROVEMENTS** will be kept in good repair and repair/replacement of damaged, defective, or worn elements whether due to normal wear and tear, acts of God, vandalism, or accidents.
4. Protect adjacent surrounding property, real estate, vehicles, pedestrians, or other maintenance related activities.
5. Maintain the **IMPROVEMENTS** in a manner to protect against injury to any person or property.
6. Containment of debris or materials used in or resulting from the repair.
7. In the event of significant damage, the **AGENCY** shall immediately report the damage to the **DEPARTMENT** and Palm Beach County and the **AGENCY** shall immediately take an and all steps reasonably necessary to protect injury to any person or property.

After the maintenance plan is approved, the **AGENCY** shall submit a work plan to the **DEPARTMENT** for approval prior to each repair to be performed detailing:

1. The proposed date of the repair.
2. The location of the repair.
3. The nature of the repair.
4. The materials to be used for the repair.
5. The methods to be used for the repair.