

MATCH LINE STA. 5+00 (SEE SHEET 13)



TO VERIFY EXISTING UTILITIES, CONTACT THE UTILITY OWNERS. VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES BEFORE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE UTILITY OWNERS AND THE CITY OF HOUSTON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL EXISTING UTILITIES AND STRUCTURES TO ORIGINAL OR BETTER CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE UTILITY OWNERS AND THE CITY OF HOUSTON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL EXISTING UTILITIES AND STRUCTURES TO ORIGINAL OR BETTER CONDITION.

- SPECIAL CONSTRUCTION NOTES:** SEE GENERAL NOTES ON SHEET 3.
- KEYNOTES:**
- REMOVE A PORTION OF EXISTING WATERBORNE STRUCTURE 2X 6\"/>



9903 Horseshen Bayou  
**HARRIS COUNTY  
 FLOOD CONTROL DISTRICT**  
 DATE: 03-01-2023  
 HORIZ. SCALE: 1" = 60'  
 VERT. SCALE: N/A

**IDS Engineering Group**  
 13130 Katy Freeway, Suite 100  
 Houston, TX 77060  
 281.466.7272  
 www.idsgroup.com

PREPARED: JJP/DHW
CHECKED: JH/AC
APPROVED: TSS

B104-00-00
CHANNEL CONVEYANCE IMPROVEMENTS ALONG HORSEPEN BAYOU AND TRIBUTARIES AT HCFCD UNIT B104-00-00
PLAN SHEET B.L. STA. 0+00 TO B.L. STA. 5+00

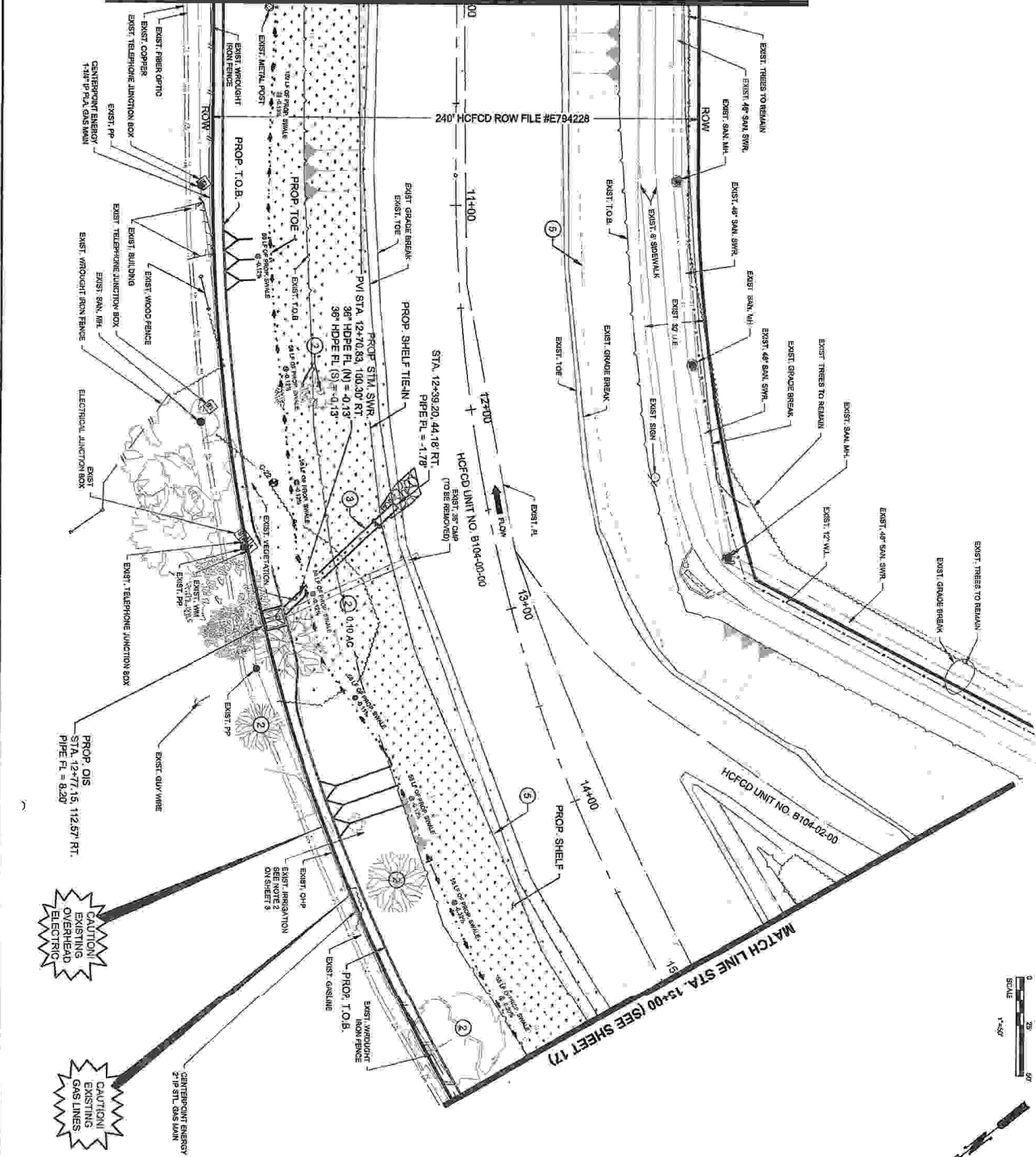
REV	DESCRIPTION	DATE	APPR

03-01-2023

SHEET NUMBER  
11 OF 216



MATCH LINE STA. 10+00 (SEE SHEET 13)



**SPECIAL CONSTRUCTION NOTES:**  
FOR SPECIAL CONSTRUCTION NOTES, SEE GENERAL NOTES ON SHEET 3.

- KEYNOTES:**
- REMOVE & REPOSE OF EXISTING INTERSECTION STRUCTURE, 8\"/>

**NOTES:**  
1. FOR LEGEND SEE SHEET 11.

**VERIFICATION OF PRIVATE UTILITY LINES**

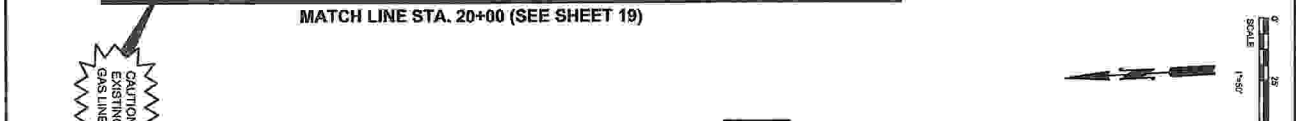
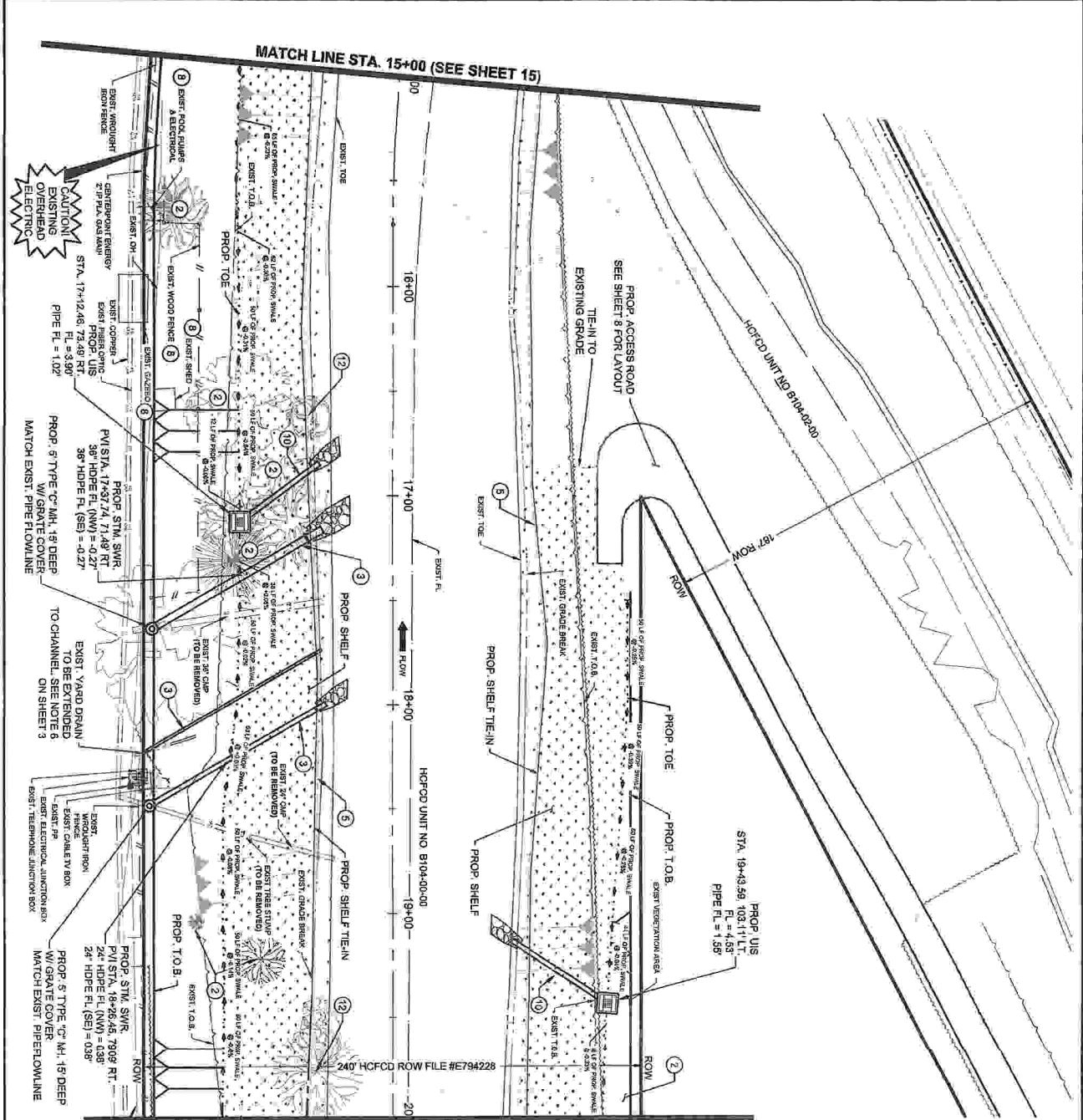
DATE: 10-21-22  
 NAME: [Signature]  
 TITLE: [Title]

DATE: 10-21-22  
 NAME: [Signature]  
 TITLE: [Title]

DATE: 10-21-22  
 NAME: [Signature]  
 TITLE: [Title]

**STATE OF TEXAS**  
**TRAVIS S. SELLERS**  
 LICENSED PROFESSIONAL ENGINEER  
 81134  
 03-07-2023

PREPARED: JJP/DHW CHECKED: JH/AC APPROVED: TSS	B104-00-00	REV	DESCRIPTION	DATE	APPR
	CHANNEL CONVEYANCE IMPROVEMENTS ALONG HORSEPEN BAYOU AND TRIBUTARIES AT HCFC UNIT B104-00-00				
	PLAN SHEET B.L. STA. 10+00 TO B.L. STA. 15+00				



**SPECIAL CONSTRUCTION NOTES:**  
 FOR SPECIAL CONSTRUCTION NOTES, SEE GENERAL NOTES ON SHEET 3.

**KEYNOTES:**

- REMOVE & DISPOSE OF EXISTING INTERSECTION STRUCTURE, ST. CH. & CONCRETE OUTFALL STRUCTURE IF PRESENT. REPLACE W/ INTERSECTOR INVERTED U-BEND. SEE SHEET 3 FOR DETAILS.
- ALL TIES WITHIN HCFCD ROW TO BE REPAIRED, MAINTAIN IS INCREMENTAL CHANNELS AND GRADIENTS OF VEGETATION BOUND.
- PROPOSED HOPE PIPE CONTRACTOR TO MATCH SIZE OF EXISTING PIPE. HOPE PIPE TO BE INSTALLED AT PIPE OUTFALL. END TREATMENT TO BE ON SHEET 10.1 & 10.2. END OF PIPE SHOWN ON PLAN & PROFILES IS APPROXIMATE. CONTRACTOR TO LOCATE END OF PIPE FOLLOWING CHANNEL CENTERLINE TO WITHIN 10'.
- CONNECT TO EXIST' PIPE WITH CONCRETE COLLAR.
- LIMIT OF REPAIRED FINISH WETLAND.
- EXISTING EROSION TO BE REPAIRED WITH PROPOSED ROCK WEIR. SEE SHEET 11.
- PROTECT IN PLACE.
- EMBANKMENT TO BE REMOVED BY CONTRACTOR.
- EXISTING OUTFALL EROSION TO BE REPAIRED WITH PROPOSED ROCK WEIR. SEE SHEET 11.
- PROPOSED BARRIERS OR URBAN INTERSECTOR STRUCTURES WITH AT HOPE PIPE. HCFCD DETAIL SHEET 15.1 & 15.2.
- TIE TO BE REBUILT TO EQUAL OR BETTER CONDITION INCLUDING REPLACEMENT OF SOIL IN HMD.
- REPAIRS TO EXISTING CONSTRUCTION PROJECT MANAGER APPROVE FOR ACCELERATION.
- EXISTING TREE IN SERVICE WITH AND TO BE PROTECTED BY 6' x 6' WITH CONSTRUCTION FENCING AROUND TREE. USE: PIV TIE-B (SEE SHEET 3).

**NOTES:**  
 1 FROM LAYOUT SEE SHEET 11.

**CAUTION! EXISTING GAS LINES**

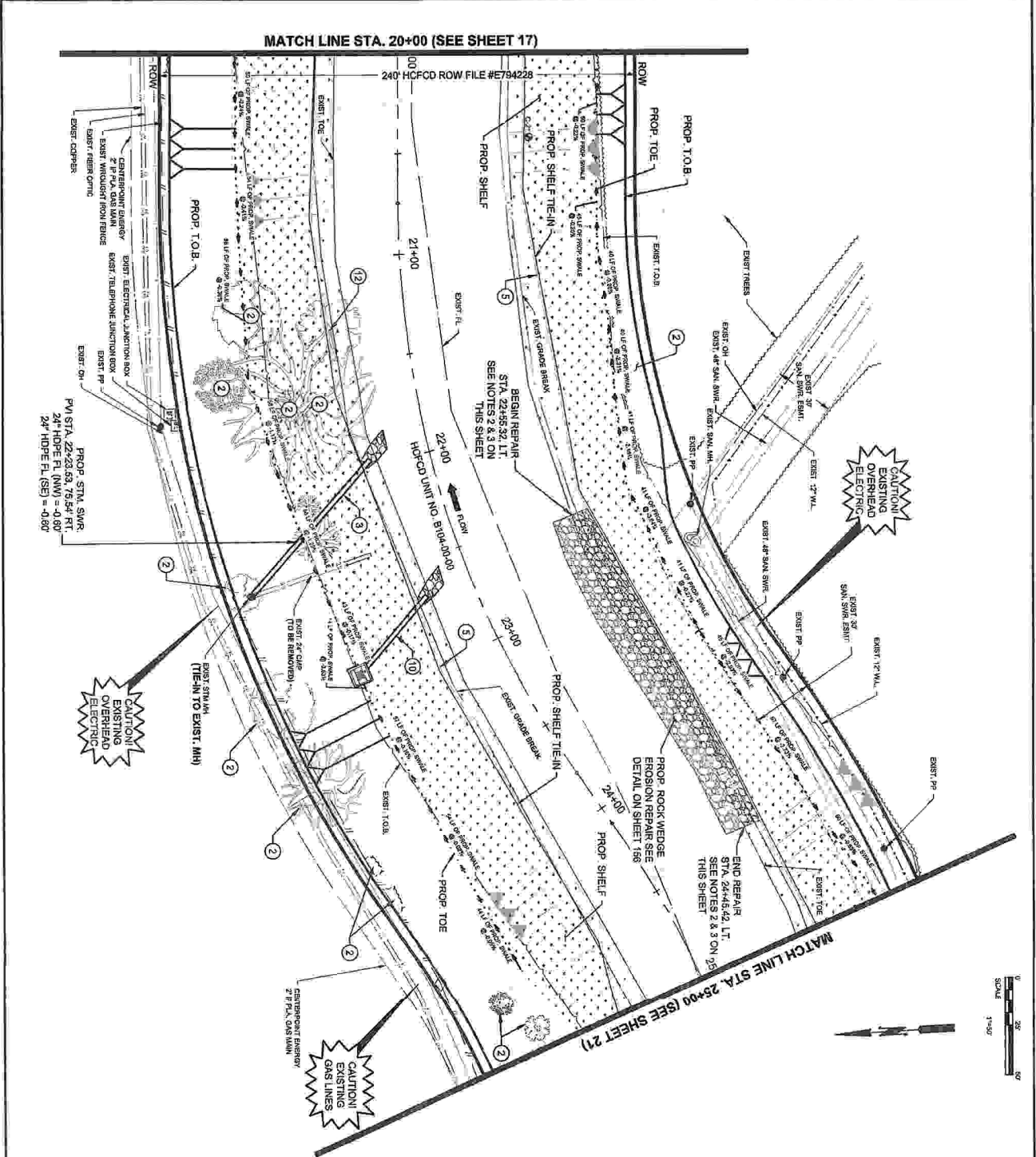
**CAUTION! EXISTING OVERHEAD ELECTRIC**

**CAUTION! EXISTING OVERHEAD ELECTRIC**

DATE	APPR	DESCRIPTION	REV
10-21-22			
10-21-22			
10-21-22			

B104-00-00	PREPARED: JJP/DHW
CHANNEL CONVEYANCE IMPROVEMENTS ALONG HORSEPORT BAYOU AND TRIBUTARIES AT HCFCD UNIT B104-00-00	CHECKED: JHAC
PLAN SHEET	APPROVED: TSS
B.L. STA. 15+00 TO B.L. STA. 20+00	

HARRIS COUNTY FLOOD CONTROL DISTRICT 3900 Northchase Parkway Houston, Texas 77059	13430 Hwy. 290, P.O. Box 200 Houston, Texas 77059 713-261-2174 Fax: 713-261-2178 10000 Fm 1900, Houston, TX
DATE: 03-01-2023 HORIZ SCALE: 1" = 50' VERT SCALE: N/A	SHEET NUMBER 17 OF 216



TO AVOID THE NEED TO BE ISSUED PER SE WORK, ALL WORK SHALL BE COMPLETED BY THE CONTRACTOR WITHIN THE TIME FRAME OF 180 DAYS FROM THE DATE OF AWARD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND UTILITIES.

**VERIFICATION OF PRIVATE UTILITY LINES**

*Mike Bowers* Date: 10-21-22

Contractor: *Mike Bowers* Date: 10-21-22

General Engineering and Construction Services, Inc. 10/20/22

Specialty work to be done per: *Mike Bowers* Date: 10/20/22

- NOTES:**
- FOR LEGEND SEE SHEET 11.
  - CONTRACTOR SHALL REBERBERE CROSS SECTIONS FOR EXTENT OF SLOPE GRAD.
  - CONTRACTOR SHALL REBERBERE SHEETS 189 - 199 FOR REPAIR DETAILS.

**SPECIAL CONSTRUCTION NOTES:**

FOR SPECIAL CONSTRUCTION NOTES, SEE GENERAL NOTES ON SHEET 3.

- KEYNOTES:**
- REMOVE & DISPOSE OF EXISTING INTERSECTION STRUCTURE AT CURB & CONCRETE OUTFALL STRUCTURE IF PRESENT. REPAIR AS NECESSARY. INTERSECTION STRUCTURE SHALL BE RECONSTRUCTED TO MEET ALL CITY REQUIREMENTS FOR INTERSECTION STRUCTURE. ALL TREES WITHIN HORIZ. ROW TO BE REMOVED. PLANTING IS INCIDENTAL TO ANY ITEM 2000. SITE PREPARATION AND RESTORATION, INCLUDING CLEARING AND GRASSING OF VEGETATION AREA.
  - PROPOSED ROCK WEIR SHALL BE INSTALLED AT PRE-OUTFALL END. REPAIR SHALL BE APPROXIMATELY 10' FROM END OF PIPE SHOWING ON PLAN & PROCEEDING DOWN CHANNEL TO RIGHT. PPE WITH CONCRETE COLLAR.
  - EXISTING EMBANKMENT TO BE REPAIRED WITH PROCESSED ROCK WEIR. SEE SHEET 189.
  - PROTECT IN PLACE.
  - EMBANKMENT TO BE REMOVED BY CONTRACTOR.
  - EXISTING OUTFALL EMBANKMENT TO BE REPAIRED WITH PROCESSED ROCK WEIR. SEE SHEET 189.
  - TOE TO BE REPAIRED TO EQUAL OR BETTER CONDITION INCLUDING REPAIR/REPLACE OF ROCK MOUND.
  - 24\"/>

02-01-2023

REV	DESCRIPTION	DATE	APP'R

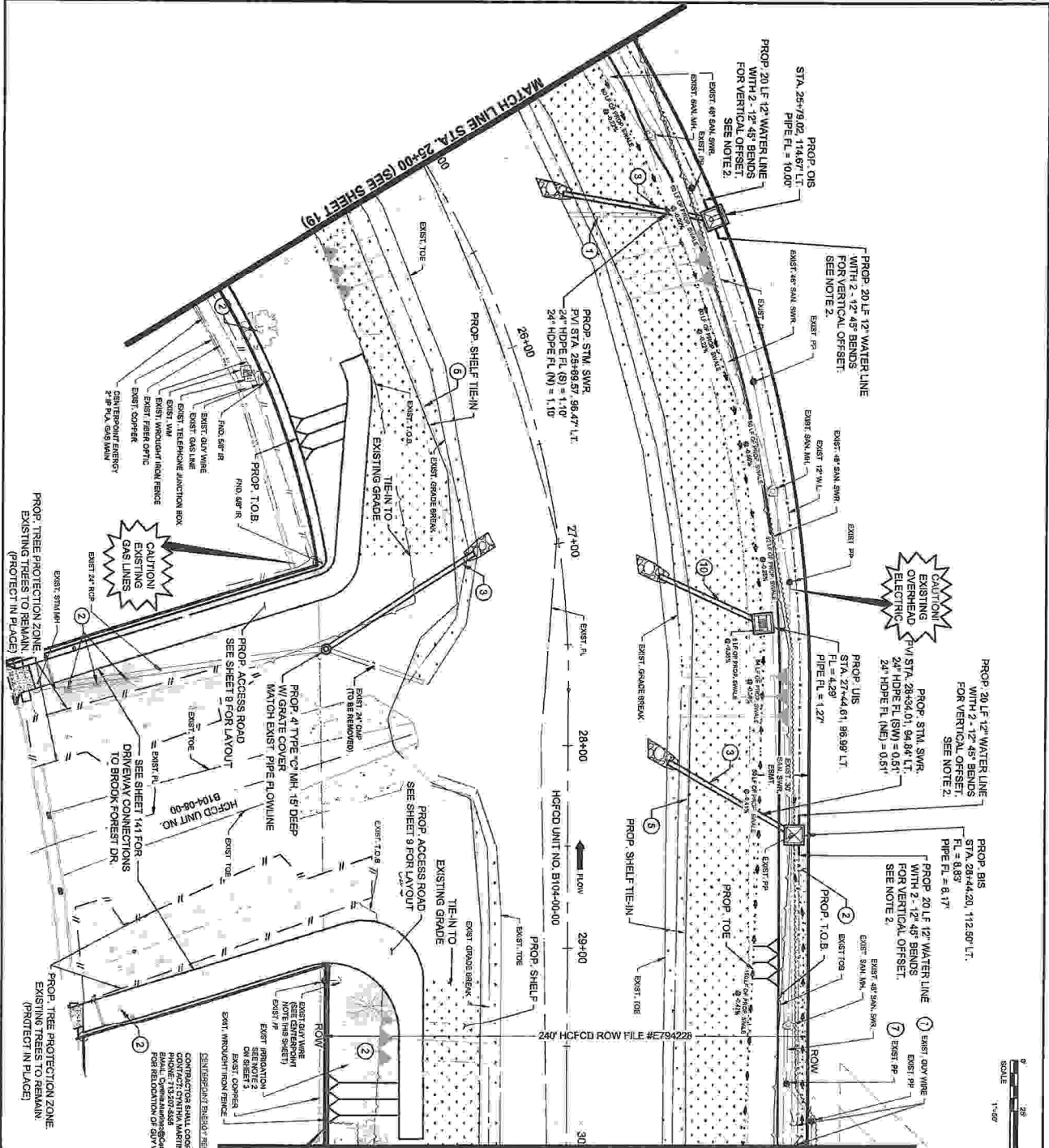
  

PREPARED: JJP/DHW	B104-00-00
CHECKED: JHAC	CHANNEL CONVEYANCE IMPROVEMENTS ALONG HORSPEN BAYOU AND TRIBUTARIES AT HCFCD UNIT B104-00-00
APPROVED: TSS	PLAN SHEET B.L. STA. 20+00 TO B.L. STA. 25+00

<p><b>IDS Engineering Group</b></p> <p>1300 West Loop West, Suite 2225 Houston, Texas 77028 713.867.8800</p>	<p><b>HARRIS COUNTY FLOOD CONTROL DISTRICT</b></p> <p>5901 Northwest Freeway Houston, Texas 77091</p> <p>DATE: 02-01-2023 HORIZ SCALE: 1" = 50' VERT SCALE: N/A</p> <p>SHEET NUMBER 19 OF 216</p>
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MATCH LINE STA. 30+00 (SEE SHEET 23)

**VERIFICATION OF PRIVATE UTILITY LINES**  
 Date: 10-21-22  
 Mr. [Name]  
 [Address]  
 [City, State, Zip]  
 [Phone Number]  
 [Email Address]

**SPECIAL CONSTRUCTION NOTES:**  
 FOR SPECIAL CONSTRUCTION NOTES, SEE GENERAL NOTES ON SHEET 3.

- KEYNOTES:**
- REMOVE & DISPOSE OF EXISTING INTERFERING STRUCTURES, 24\"/>
  - ALL TREES WITHIN HCFCO ROW TO BE REMOVED. PLANTING IS INCIDENTAL. DEMONSTRATE AND MAINTAIN PROPER EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION.
  - PROPOSED HOPE PIPE CONVICTION TO MATCH SIZE OF EXISTING PIPE INSTALLED ON ANY PROPOSED HOPE PIPE. SEE GENERAL NOTES ON SHEET 15 & 16. END OF PIPE SHOWN ON PLAIN PROFILES IS DETAILS ON SHEET 15 & 16.
  - CONNECT TO EXIST' PIPE WITH CONCRETE COLLAR.
  - LIMIT OF RELINATED SPOKE VERTICALLY.
  - EXISTING EROSION TO BE REPAIRED WITH PROPOSED ROCK WEIGEO SEE SHEET 16.
  - PROTECT IN PLACE.
  - RECONSTRUCT TO BE REMOVED BY CONTRACTOR.
  - EXISTING CATCH BASIN TO BE REPAIRED WITH PROPOSED ROCK WEIGEO.
  - PROPOSED BACKSLOPE OR URBAN INTERCEPTOR STRUCTURE WITH 24\"/>
  - TO BE REWORKED TO EQUAL OR BETTER CONDITION TO BE APPROVED BY CONSTRUCTION PRODUCT MANAGER BEFORE PLACEMENT.



REV	DESCRIPTION	DATE	APPR

PREPARED: JJP/DHW CHECKED: JHAC APPROVED: TSS	B104-00-00 CHANNEL CONVEYANCE IMPROVEMENTS ALONG HORSEPEN BAYOU AND TRIBUTARIES AT HCFCO UNIT B104-00-00 PLAN SHEET B.L. STA. 25+00 TO B.L. STA. 30+00
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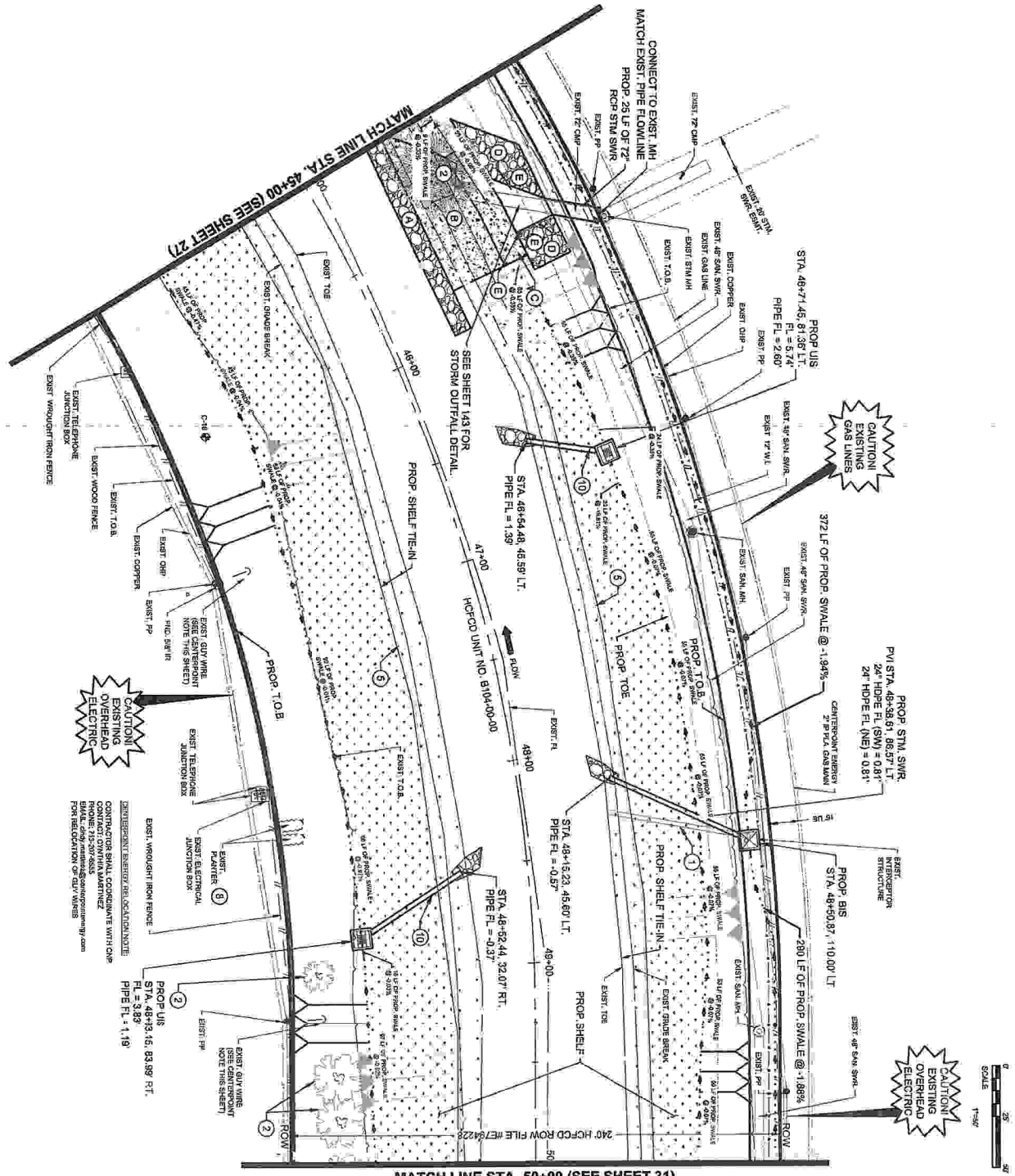
HARRIS COUNTY <b>FLOOD CONTROL DISTRICT</b> 9900 Northwest Freeway Houston, Texas 77037 DATE: 03-01-2023 HORIZ SCALE: 1" = 50' VERT SCALE: 1" = 5'	SHEET NUMBER 21 OF 216
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**CAUTION!**  
EXISTING  
ELECTRIC  
OVERHEAD  
ELECTRIC

**CAUTION!**  
EXISTING  
GAS LINES

**CAUTION!**  
EXISTING  
ELECTRIC  
OVERHEAD  
ELECTRIC

MATCH LINE STA. 50+00 (SEE SHEET 31)

**SPECIAL CONSTRUCTION NOTES:**  
FOR SPECIAL CONSTRUCTION NOTES, SEE GENERAL NOTES ON SHEET 3.

**NOTES:**  
1. FOR LEGEND SEE SHEET 11.

DATE	APPR	DESCRIPTION	REV
10-21-22		10-21-22	



**HARRIS COUNTY FLOOD CONTROL DISTRICT**  
9900 Northwest Freeway  
Houston, Texas 77037  
DATE: 03-01-2023  
HORIZ. SCALE: 1" = 50'  
VERT. SCALE: 1" = 10'

**IDS Engineering Group**  
13130 W. Freeway  
Suite 100  
Houston, Texas 77040  
713.462.3379  
www.idseng.com

PREPARED: JJP/DHW  
CHECKED: JHAC  
APPROVED: TSS

B104-00-00  
CHANNEL CONVEYANCE IMPROVEMENTS  
ALONG HORSEPEN BAYOU AND TRIBUTARIES  
AT HCFCO UNIT B104-00-00  
PLAN SHEET  
B.L. STA. 45+00 TO B.L. STA. 50+00

















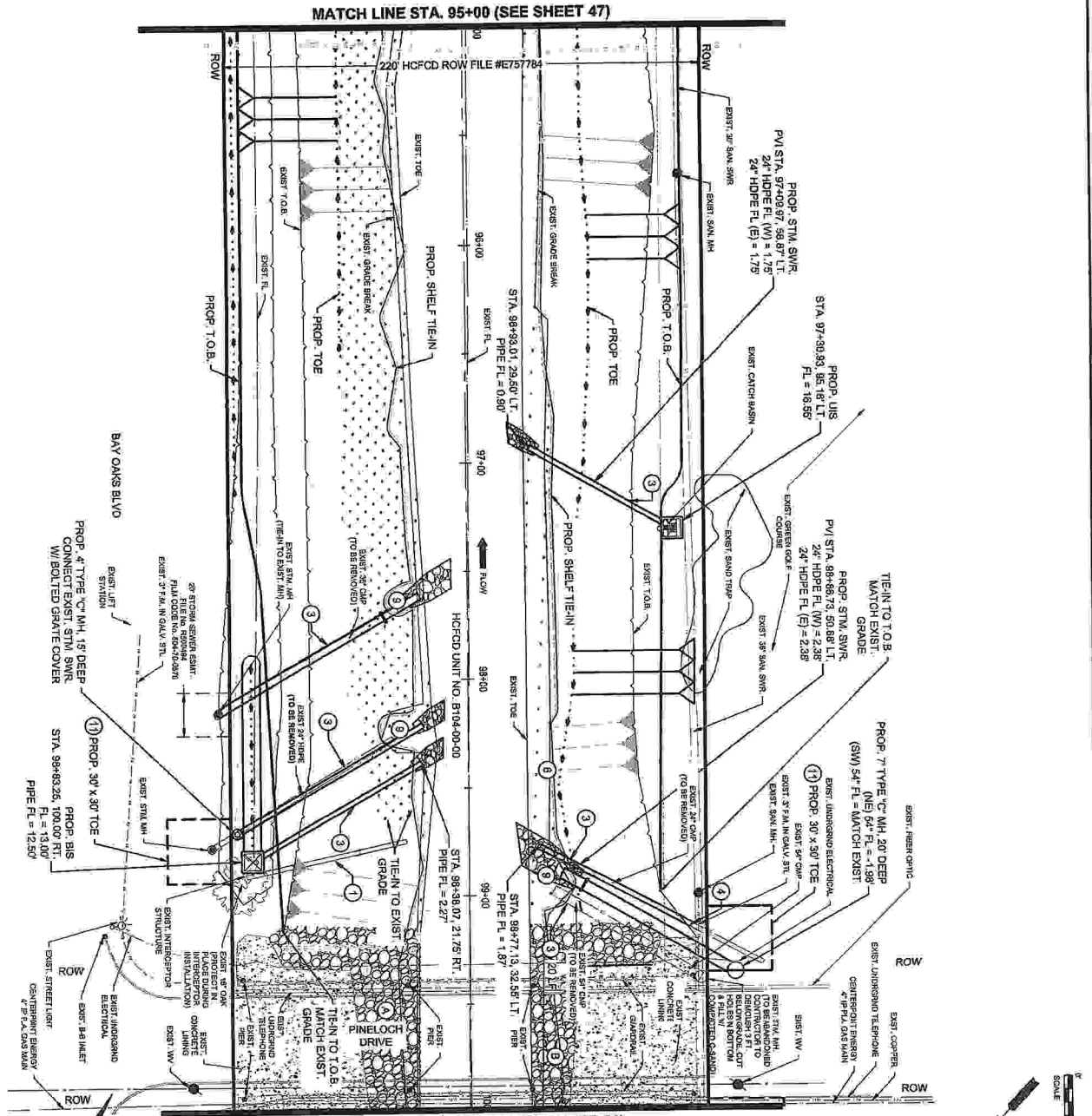












MATCH LINE STA. 95+00 (SEE SHEET 47)

MATCH LINE STA. 100+00 (SEE SHEET 51)

**CAUTION!**  
EXISTING GAS LINES

**NOTES:**

- FOR LEGEND SEE SHEET 11.
- GOLE COURSE ABANDONMENT POSSIBLE. CONTRACTOR RESPONSIBLE FOR REMOVAL.

**SPECIAL CONSTRUCTION NOTES:** SEE GENERAL NOTES ON SHEET 3.

**KEYNOTES:**

- REMOVE & DISPOSE OF EXISTING WATERPROOF STRUCTURE 24" DIA. A.
- CONCRETE STRUCTURE TO BE PREPARED WITH PROPOSED ROCK WEBORE INCIDENTAL TO FIELDING. SEE HIGH-CAPACITY POLYMER CONCRETE. ALL TIEBARS WITHIN HCFCD ROW TO BE REMOVED. PAYMENT IS INCIDENTAL. CONTRACTOR TO OBTAIN NECESSARY PERMITS AND REMEDIATION. INCLUDE CONTRACTOR'S DESIGN AND SPECIFICATIONS FOR REMOVAL WORK.
- IMPROVED HIDE PIPE CONNECTION TO MATCH SIZE OF EXISTING PIPE. HIDE PIPE TO BE INSTALLED WITH PROPOSED ROCK WEBORE. SEE DETAILS ON SHEET 102. END OF PIPE SHOWN ON PLAN. PROGRESS IS TO BE MAINTAINED THROUGHOUT CONSTRUCTION. SEE DETAILS ON SHEET 102. END OF PIPE SHOWN ON PLAN. PROGRESS IS TO BE MAINTAINED THROUGHOUT CONSTRUCTION. SEE DETAILS ON SHEET 102.
- CONNECT TO EXIST. PIPE WITH CONCRETE COLLAR.
- LIMIT OR DELAYED REMOVALS WITHIN.
- EXISTING EXPOSURE TO BE REPAIRED WITH PROPOSED ROCK WEBORE PROTECT IN PLACE.
- BACKFILL TO BE REMOVED BY CONTRACTOR.
- EXISTING OUTFALL BRICKS TO BE REPAIRED WITH PROPOSED ROCK WEBORE. CONTRACTOR TO OBTAIN NECESSARY PERMITS AND REMEDIATION. INCLUDE CONTRACTOR'S DESIGN AND SPECIFICATIONS FOR REMOVAL WORK.
- PROPOSED BACKFILL BRICKS TO BE REPAIRED WITH PROPOSED ROCK WEBORE. CONTRACTOR TO OBTAIN NECESSARY PERMITS AND REMEDIATION. INCLUDE CONTRACTOR'S DESIGN AND SPECIFICATIONS FOR REMOVAL WORK.
- TOE TO BE REPAIRED TO EQUAL OR BETTER CONDITION INCLUDING REAPPLICATION OF SAND MOUND. CONTRACTOR TO OBTAIN NECESSARY PERMITS AND REMEDIATION. INCLUDE CONTRACTOR'S DESIGN AND SPECIFICATIONS FOR REMOVAL WORK.
- REPAIR TO EXIST. TO BE REPAIRED WITH PROPOSED ROCK WEBORE BEFORE PLACEMENT.

TRAVIS S. SELLERS  
PROFESSIONAL ENGINEER  
81134  
03-01-2023

HARRIS COUNTY FLOOD CONTROL DISTRICT  
9900 Northwest Freeway  
Houston, Texas 77055

IDS Engineering Group  
13810 Katy Road, Suite 100  
Houston, TX 77058  
713.461.1111  
idseng.com

PREPARED: JJP/DHW  
CHECKED: JHIAC  
APPROVED: TSS

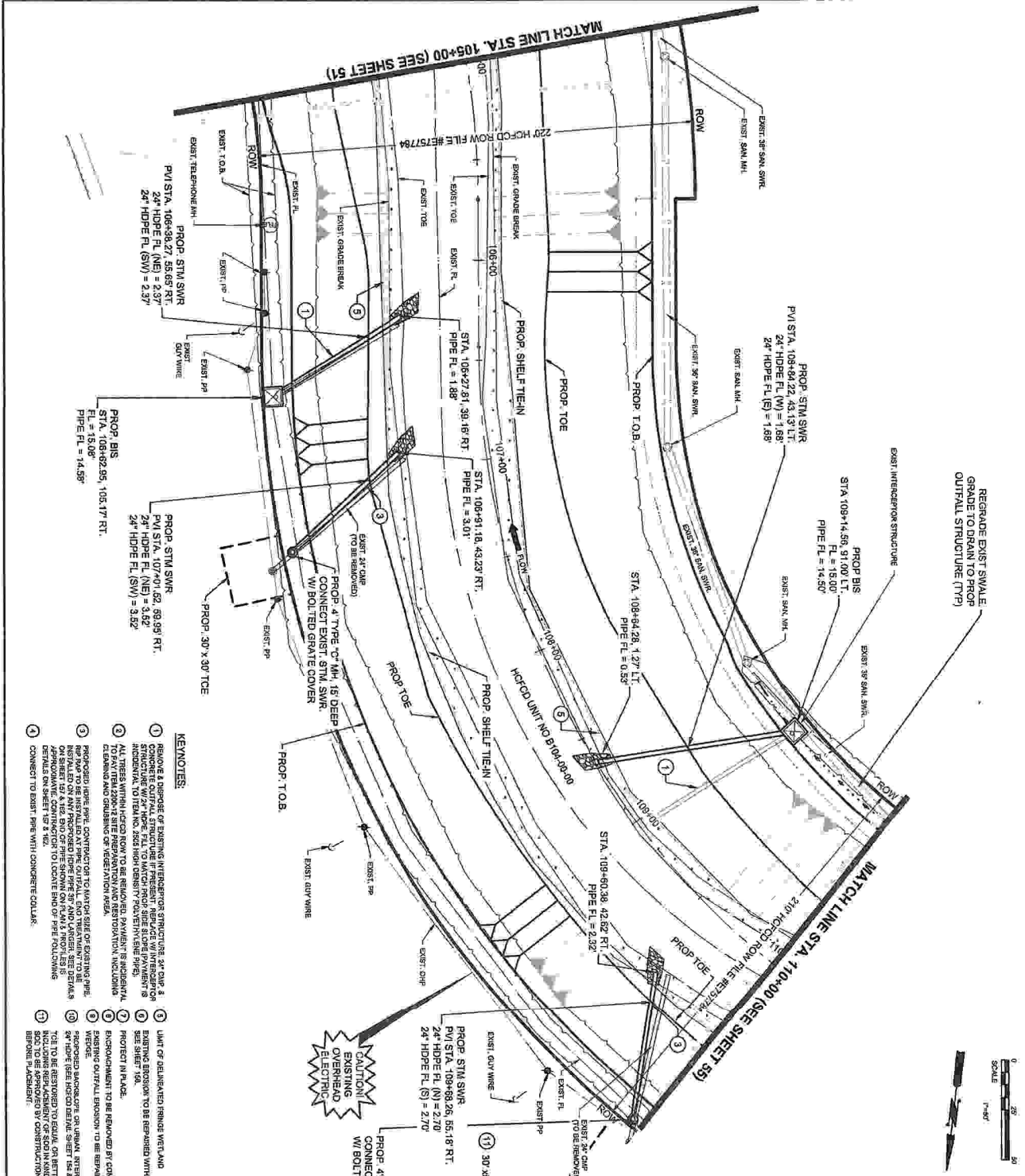
B104-00-00  
CHANNEL CONVEYANCE IMPROVEMENTS  
ALONG HORSEPEN BAYOU AND TRIBUTARIES  
AT HCFCD UNIT B104-00-00

PLAN SHEET  
B.L. STA. 95+00 TO B.L. STA. 100+00

REV	DESCRIPTION	DATE	APPR

SHEET NUMBER 49 OF 216





- KEYNOTES:**
- REMOVE A PORTION OF EXISTING INTERSECTION STRUCTURE TO EXPOSE & REPAIR STRUCTURE WITH 24" HDPE PIPE TO MATCH PROPOSED SLOPE. PAYMENT IS INCIDENTAL TO ITEM NO. 2025 HIGH DENSITY POLYETHYLENE PIPES.
  - ALL TREES WITHIN VICINITY NOW TO BE REMOVED TO FACILITATE PROPOSED CONSTRUCTION. EXISTING AND GRASSING OF VEGETATION AREA.
  - PROPOSED 15" HDPE PIPE CONNECTION TO ANCHOR SIDE OF EXISTING PIPE. PIPE TO BE INSTALLED AT PIPE OUTFALL END. TRENCHMENT TO BE APPROXIMATELY 10' LONG. APPROXIMATE CONTRIBUTION TO LOCATE END OF PIPE FOLLOWING DETAILS ON SHEETS 1 & 2.
  - CONNECT TO EXIST. PIPE WITH CONCRETE COLLARS.
  - LIMIT OF BELIEVED REMAINING WETLAND
  - EXISTING EROSION TO BE REPAIRED WITH PROPOSED ROCK WEDGE SEE SHEET 10.
  - PROTECT IN PLACE.
  - ENCROACHMENT TO BE REMOVED BY CONTRACTOR.
  - EXISTING OUTFALL EROSION TO BE REPAIRED WITH PROPOSED ROCK WEDGE SEE SHEET 10.
  - 24" HDPE (SEE HCCCD DETAIL SHEET 104 & 157)
  - TOE TO BE RESTRIPPED TO EQUAL OR BETTER CONDITION. INCLUDE REPAIR/REPLACEMENT OF CONCRETE/STEEL MANHOLES BEFORE REASSEMBLY.

**NOTES:**

1. PORTLAND CEMENT CONCRETE SHALL BE TYPE I.

**SPECIAL CONSTRUCTION NOTES:**  
FOR SPECIAL CONSTRUCTION NOTES, SEE GENERAL NOTES ON SHEET 3.

**VERIFICATION OF PRIVATE UTILITY LINES**

DATE: 10/21/22  
BY: [Signature]

General Engineering & Surveying, Inc.  
10215 West Loop West, Suite 100  
Houston, Texas 77042  
Tel: 281-410-1222  
Fax: 281-410-1223  
www.geandsurvey.com

Professional Engineer License No. 1021-22  
Date: 10/20/22

**STATE OF TEXAS**  
TRAVIS S. SELLERS  
Professional Engineer  
License No. 91134  
03-01-2023

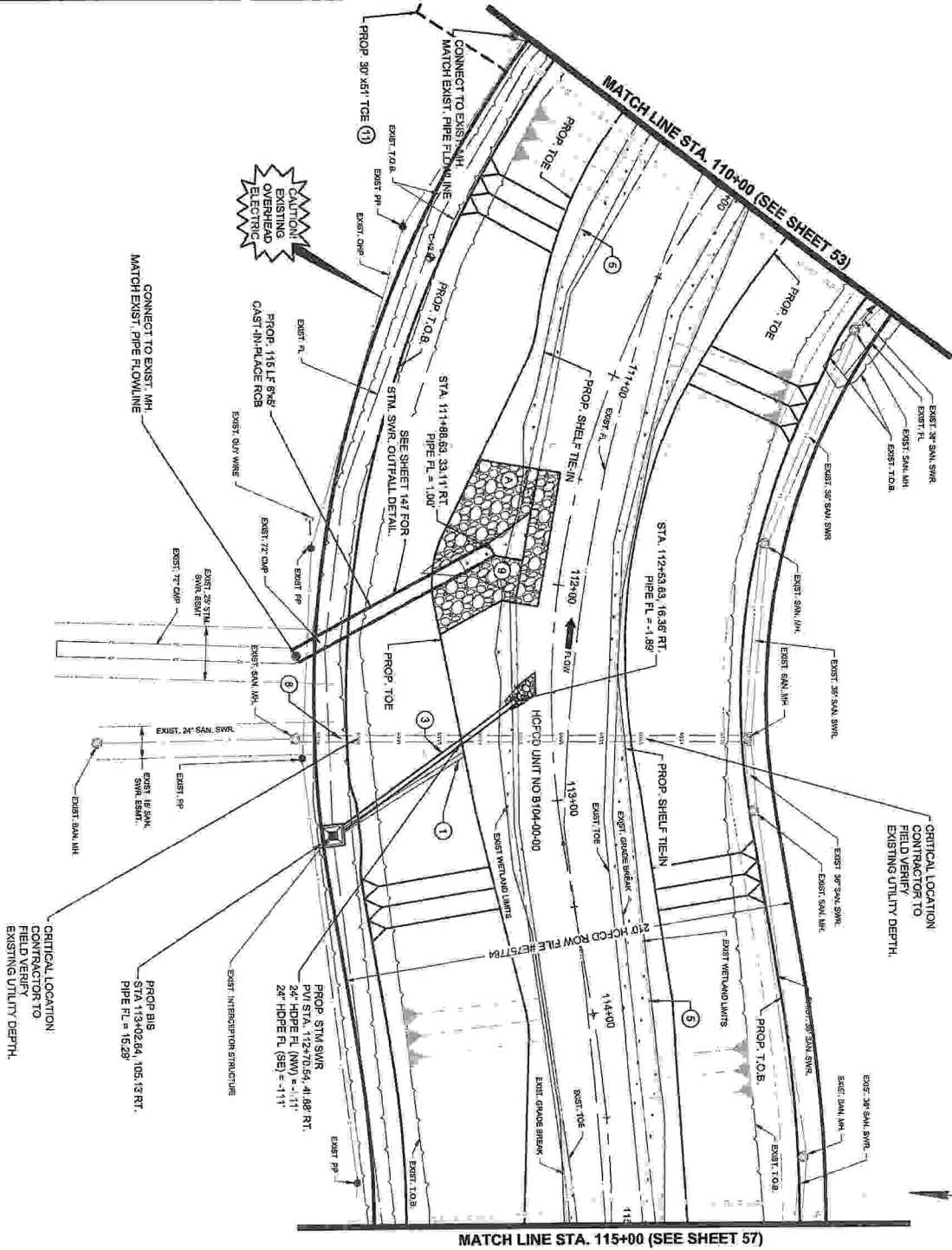
**HARRIS COUNTY FLOOD CONTROL DISTRICT**  
9900 Northwest Freeway  
Houston, Texas 77055

**IDS Engineering Group**  
13300 Katy Freeway, Suite 200  
Houston, Texas 77055  
Tel: 281-410-1222  
Fax: 281-410-1223  
www.idseng.com

PREPARED: JJP/DHW  
CHECKED: JH/AC  
APPROVED: TSS

B104-00-00  
CHANNEL CONVEYANCE IMPROVEMENTS  
ALONG HORSEPEN BAYOU AND TRIBUTARIES  
AT HCCCD UNIT B104-00-00  
PLAN SHEET  
B.L. STA. 105+00 TO B.L. STA. 110+00

REV	DESCRIPTION	DATE	APPR



MATCH LINE STA. 115+00 (SEE SHEET 57)

**VERIFICATION OF PRIVATE UTILITY LINES**

*Mark B. Sellers*  
 Date: 10-21-22  
 Title: Professional Engineer  
 License No.: 81134  
 State: Texas

**NOTES:**

1. FOR LEGEND SEE SHEET 11.

**SPECIAL CONSTRUCTION NOTES:** SEE GENERAL NOTES ON SHEET 3.

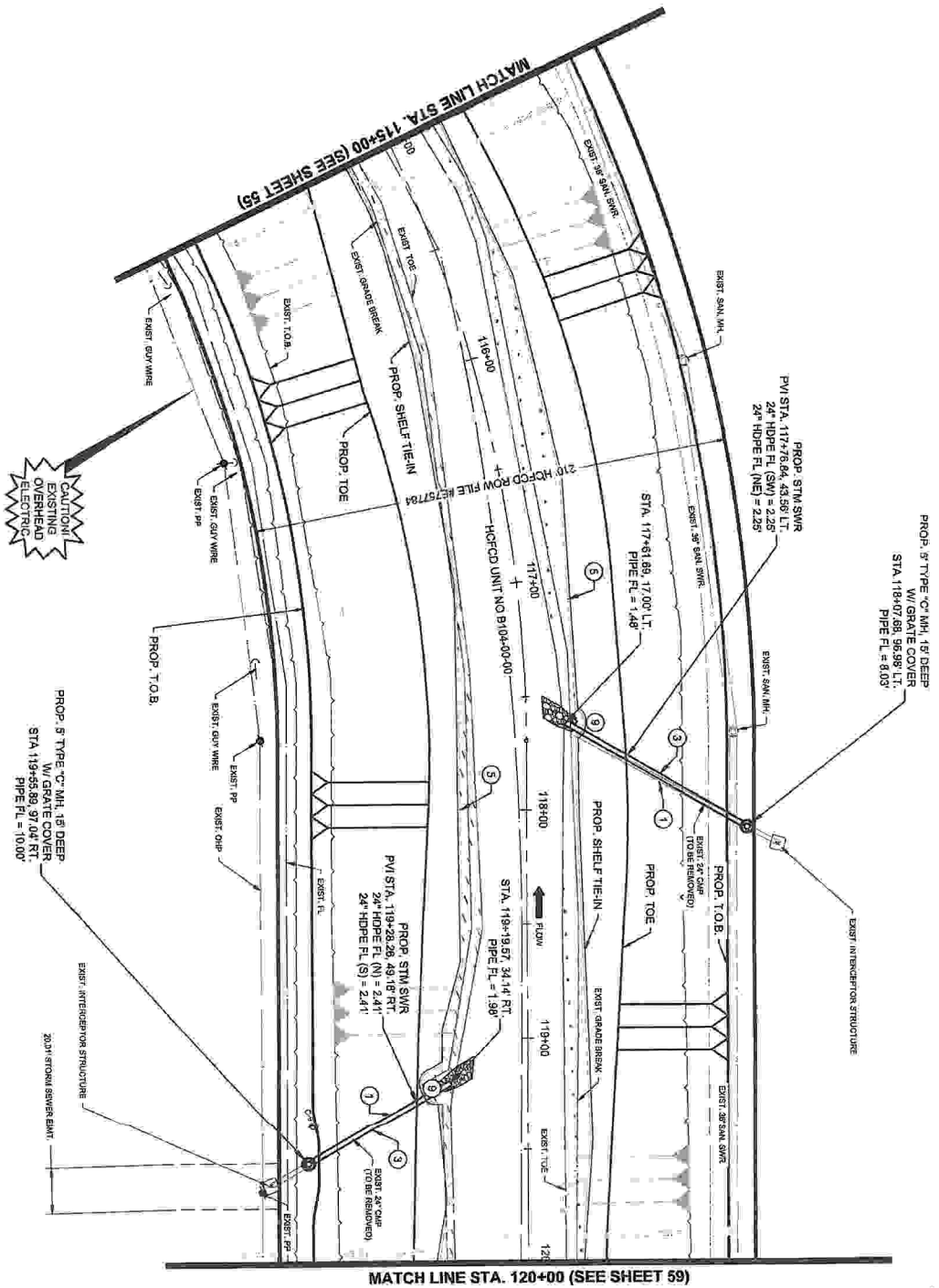
- KEY NOTES:**
1. IMPROVED ASP. BY GRADE 1.88' PER PIPE
  2. PROPOSED CONCRETE WING WALL AT 31.50' SLOPE, 3.00' FLOOR DETAIL ON SHEET 108.
  3. REMOVE & REPLACE OF EXISTING INTERCEPTOR STRUCTURES, 30\"/>



DATE	APPR	DESCRIPTION	REV

<p><b>HARRIS COUNTY FLOOD CONTROL DISTRICT</b></p> <p>2900 Northwest Freeway                  Houston, Texas 77092</p> <p>DATE: 03-01-2023                  HORIZ SCALE: 1" = 50'                  VERT SCALE: N/A</p>	<p><b>IDS Engineering Group</b></p> <p>23401 Katy Freeway                  Houston, TX 77050                  Tel: 281-410-8800                  Fax: 281-410-8801                  Email: info@idseng.com</p>	<p>PREPARED: JJP/DHW                  CHECKED: JH/WAC                  APPROVED: TSS</p>	<p>B104-00-00</p> <p>CHANNEL CONVEYANCE IMPROVEMENTS                  ALONG HORSEPEN BAYOU AND TRIBUTARIES                  AT HCPCD UNIT B104-00-00</p> <p>PLAN SHEET                  B.L. STA. 110+00 TO B.L. STA. 115+00</p>	<p>SHEET NUMBER                  55 OF 216</p>
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MATCH LINE STA. 120+00 (SEE SHEET 59)

TO ORDER THE LINES TO BE SHOWN ON AN ADJACENT SHEET, CONTACT THE ENGINEER AT THE ADDRESS LISTED BELOW.

**VERIFICATION OF PRIVATE UTILITY LINES**

*Mark Brown* Date: 10-21-22

*Mark Brown* Date: 10-21-22

Groundwater Contamination Remedial Feasibility Worksheet (GW-CFW) Signature: *Mark Brown* Date: 10-21-22

Approved for: *Mark Brown* Date: 10-21-22

**NOTES:**

1. FOR LEGEND SEE SHEET 11.

**SPECIAL CONSTRUCTION NOTES:** SEE GENERAL NOTES ON SHEET 3.

- (E)NOTES:**
- REMOVE & DISPOSE OF EXISTING INTERFERENCE STRUCTURE, 24" DIA. & CONCRETE OUTFALL STRUCTURE IF PRESENT. REPAIR OR INTERFERE WITH EXISTING UTILITY LINES, TO REMAIN NO. 2555 HIGH DENSITY POLYETHYLENE (HDPE).
  - ALL TIES WITHIN HCFCD ROW TO BE REMOVED. SHOWN IS INCIDENTAL TO ANY REM. 2024 SITE PREPARATION AND RESTORATION, INCLUDING CLEANING AND GRASSING OF VEGETATION AREA.
  - PROPOSED HOPE PIPE CONTRACTOR TO MATCH SIZE OF EXISTING PIPE. HOPE PIPE TO BE INSTALLED AT PIPE CORNERS. END TREATMENT TO BE ON SHEET 10. 18" END OF PIPE SHOWN ON PLAN & PROFILES IS APPROXIMATE CONTRACTOR TO LOCATE END OF PIPE FOLLOWING CONTRACTOR AND EXISTING OF VEGETATION AREA.
  - CONNECT TO EXIST. PIPE WITH CONCRETE COUPLER.
  - LIMIT OR DISBURSED PRIME WETLAND.
  - EXISTING BARRIERS TO BE REMOVED WITH PROPOSED ROCK WEBORE SEE SHEET 10.
  - PROTECT IN PLACE.
  - EMBANKMENT TO BE REMOVED BY CONTRACTOR.
  - EXISTING OUTFALL BARRIERS TO BE REMOVED WITH PROPOSED ROCK WEBORE MARKERS OR USUAL INTERFERENCE STRUCTURES WITH 24" HDPE (SEE HCFCD DETAIL SHEET 10-A & 10-B).
  - TIE TO BE RETROFITTED TO EQUAL OR BETTER CONDITION INCLUDING RE-PLACEMENT OF SOUL IN KNO.
  - 24" HDPE (SEE HCFCD DETAIL SHEET 10-A & 10-B) CONSTRUCTION THROUGH LAWYERS BEFORE IN AGREEMENT.



*Travis Sellers* 03-01-2023

DATE	APPR	DESCRIPTION	REV

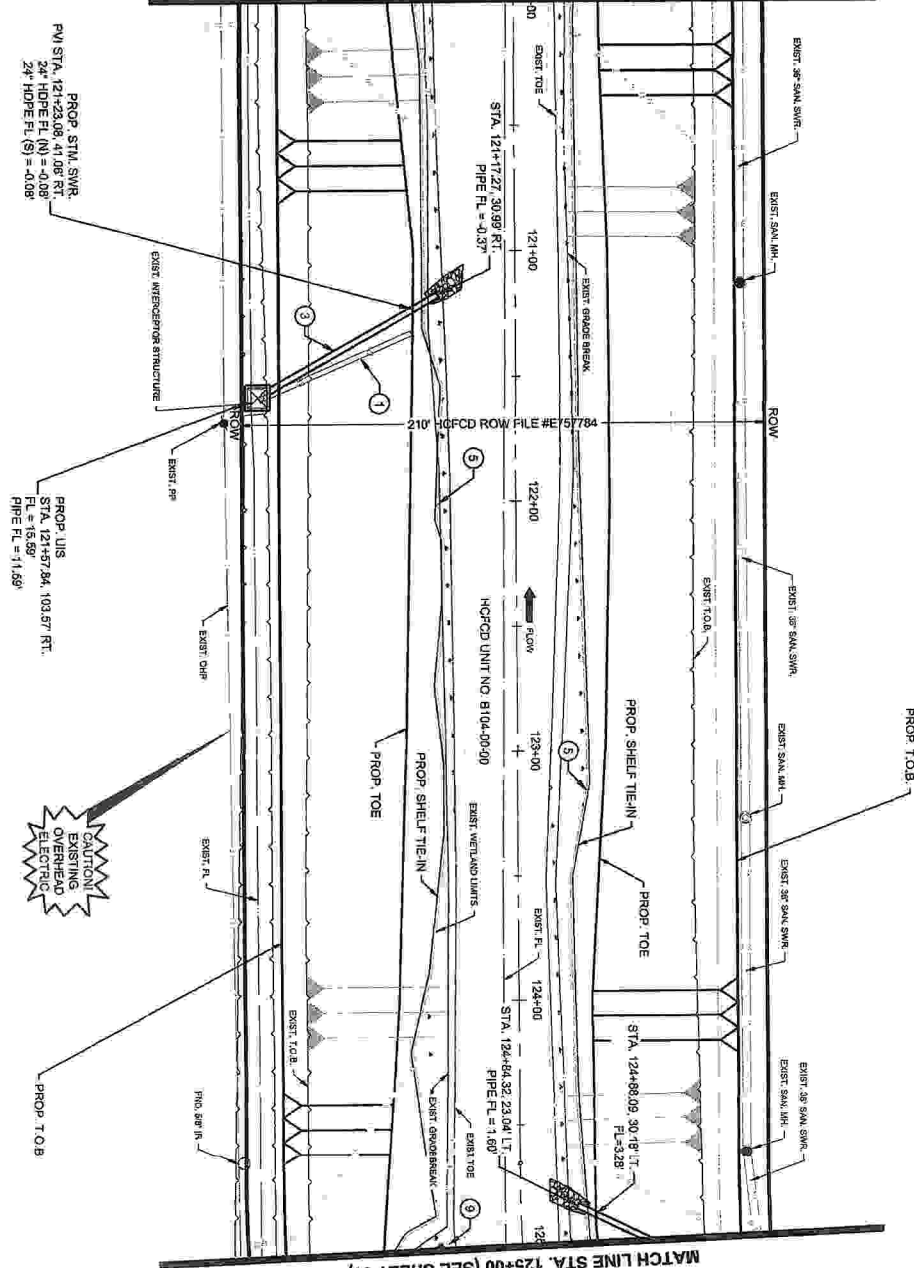
  

PREPARED: JJP/DHW	B104-00-00
CHECKED: JHAC	CHANNEL CONVEYANCE IMPROVEMENTS ALONG HORSEPEN BAYOU AND TRIBUTARIES AT HCFCD UNIT B104-00-00
APPROVED: TSS	PLAN SHEET B.L. STA. 115+00 TO B.L. STA. 120+00

HARRIS COUNTY FLOOD CONTROL DISTRICT	IDS Engineering Group
7300 Northway Freeway Houston, Texas 77029	2800 West Loop West Houston, Texas 77027
DATE: 03-01-2023	SCALE: 1" = 50'
VERT. SCALE: 1" = 50'	
SHEET NUMBER: 57 OF 216	

MATCH LINE STA. 120+00 (SEE SHEET 57)



TO REMOVE FOR LINES TO BE THAWED OR TO LOCATE OUTLINE OF CHANNEL DURING AT 714-203-2222. If you need to be contacted by email, please email me at [travis.sellers@harriscountytx.gov](mailto:travis.sellers@harriscountytx.gov). My phone number is 281-551-7000 (ext. 200) or 281-551-7000 (ext. 200).

**VERIFICATION OF PRIVATE UTILITY LINES**

*Mick B...* Date: 10-21-22

This document is a true and correct copy of the original as shown on the plan. It is not a contract. It is a record of the work done. It is not to be used for any other purpose. It is not to be used for any other purpose. It is not to be used for any other purpose.

DATE: 10-21-22

10/20/22

**NOTES:**  
1. FOR LEGEND SEE SHEET 11.

**SPECIAL CONSTRUCTION NOTES:** SEE GENERAL NOTES ON SHEET 3.

- KEYNOTES:**
1. REMOVE & REPAIR OR REINFORCE EXISTING INTERFERING STRUCTURE, SEE CHAS. A. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING, REMOVING, AND REPAIRING OR REINFORCING ALL EXISTING STRUCTURES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION. ALL EXISTING STRUCTURES TO BE REMOVED, PRESENT IN ORIGINAL LOCATION AND GRUBBED OR REBUILT AS SHOWN.
  2. PROPOSED PIPE SHALL BE CONFORMING TO MATCH SIZE OF EXISTING PIPE. PIPE SHALL BE INSTALLED AT PIPE CROWN, END TREATMENT SHALL BE APPROXIMATELY 12\"/>



03-07-2023

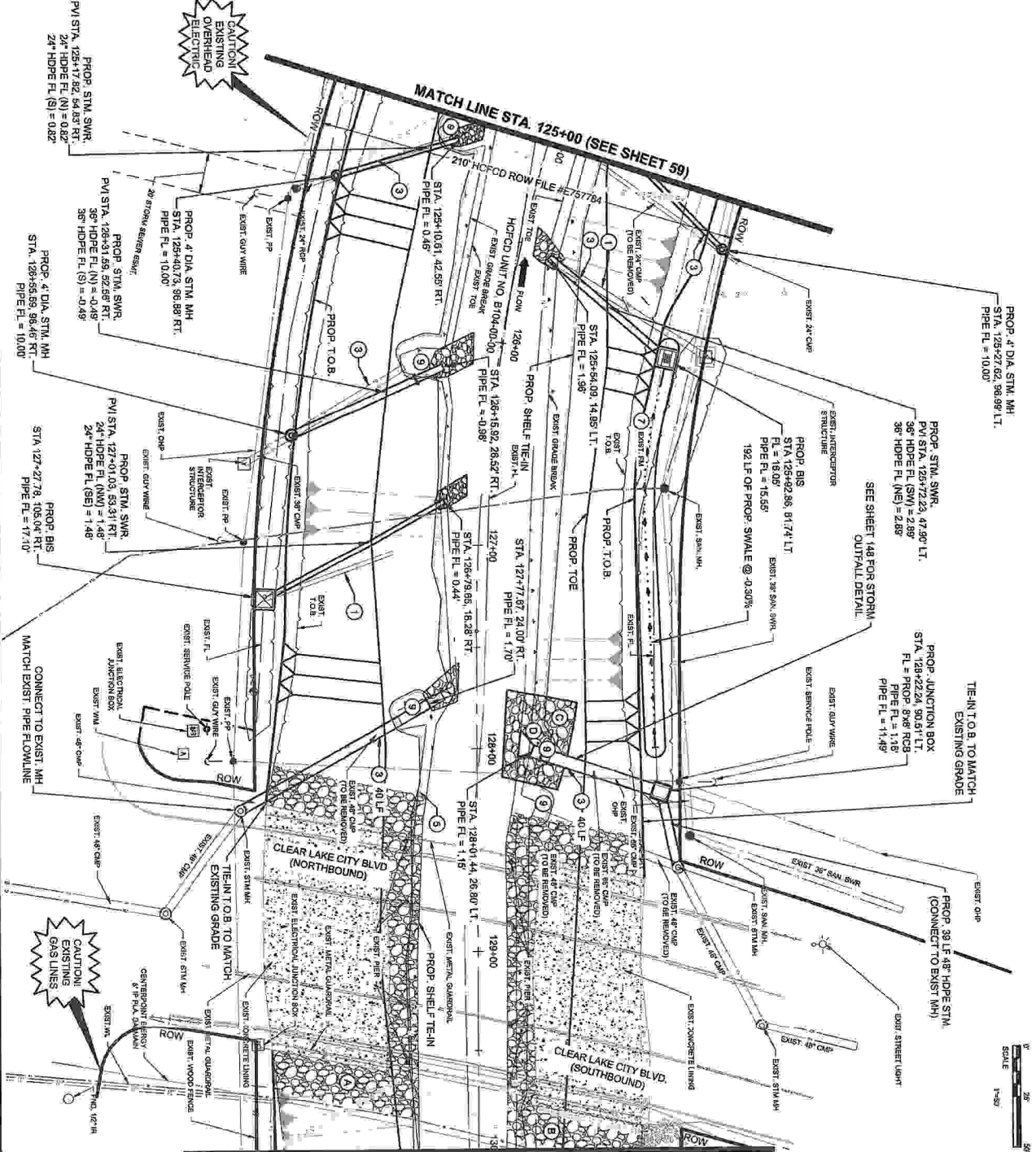
REV	DESCRIPTION	DATE	APPR

PREPARED: JJPI/DHW CHECKED: JH/AIC APPROVED: TSS	B104-00-00 CHANNEL CONVEYANCE IMPROVEMENTS ALONG HORSEPEN BAYOU AND TRIBUTARIES AT HCFCD UNIT B104-00-00 PLAN SHEET B.L. STA. 120+00 TO B.L. STA. 125+00
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HARRIS COUNTY FLOOD CONTROL DISTRICT 5910 Northwest Freeway Houston, Texas 77052 DATE: 03-01-2023 HORIZ. SCALE: 1"=60' VERT. SCALE: N/A	IDS Engineering Group 13630 Hwy. 290 Houston, TX 77040 281-460-5118 www.idseng.com
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SHEET NUMBER 59 OF 216
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MATCH LINE STA. 130+00 (SEE SHEET 63)

MATCH LINE STA. 125+00 (SEE SHEET 59)

**NOTES:**  
1. FOR LEGENDS SEE SHEET 11

**SPECIAL CONSTRUCTION NOTES:**  
FOR SPECIAL CONSTRUCTION NOTES, SEE GENERAL NOTES ON SHEET 3.

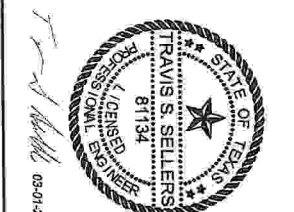
**KEYNOTES:**  
 (A) HOPD 60\"/>

TO ASSURE THE LINES TO BE REMOVED ARE ACCURATE, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND STRUCTURES BY FIELD SURVEY AND RECORD THE RESULTS ON THE CONSTRUCTION SHEET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES AND STRUCTURES TO BE REMOVED.

**VERIFICATION OF PRIVATE UTILITY LINES**  
 The undersigned hereby certifies that the location of all existing utilities and structures shown on this plan were verified by field survey and recorded on the construction sheet. The contractor shall be responsible for the location of all existing utilities and structures to be removed.

*Mark B. Brown*  
 Mark B. Brown  
 10-21-22  
 10-21-22

1. REMOVE EXISTING ROOF OR EXISTING INTERRECEPTOR STRUCTURE, 24\"/>
2. REMOVE EXISTING INTERRECEPTOR STRUCTURE, 24\"/>
3. ALL REBAR WITHIN HOPCD ROW TO BE REMOVED. PAVEMENT IS INDICATED BY HATCHING. ALL REBAR SHALL BE REMOVED AND RESTORATION INCLUDING CURBS AND SIDEWALKS SHALL BE AS SHOWN ON SHEET 154 & 157.
- 4. PROPOSED HOPE PIPE, CONTRACTOR TO MATCH SIZE OF EXISTING PIPE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING PIPE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING PIPE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING PIPE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING PIPE.
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DATE	DESCRIPTION	REV
01 OF 216	SHEET NUMBER	
03-01-2023	DATE	
1\"/>		
9900 Northway Freeway Houston, Texas 77052	HARRIS COUNTY FLOOD CONTROL DISTRICT	
 IDS Engineering Group 13400 Katy Freeway Houston, TX 77055 281.468.1100 281.468.1101	PREPARED: JJP/DHW CHECKED: JH/AC APPROVED: TSS	B104-00-00 CHANNEL CONVEYANCE IMPROVEMENTS ALONG HORSEPEN BAYOU AND TRIBUTARIES AT HCPCD UNIT B104-00-00 PLAN SHEET B.L. STA. 125+00 TO B.L. STA. 130+00



