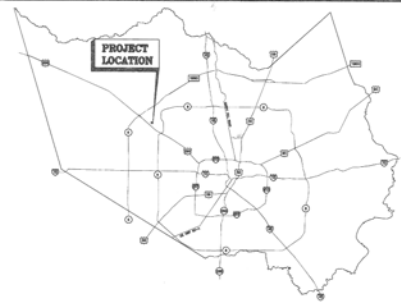
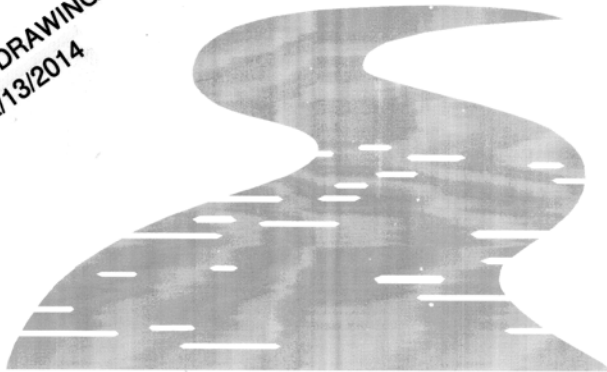


PROJECT ID# E535-01-00-E004  
 JERSEY MEADOWS STORMWATER DETENTION BASIN EXPANSION  
 JERSEY MEADOWS DRIVE AT E135-00-00



VICINITY MAP  
 KEY MAP PG. 409-F, G, K, L PCT. 4

RECORD DRAWINGS  
 2/13/2014



**Harris County  
 Flood Control District**

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COUNTY JUDGE ED EMMETT  
 PCT . 1 EL FRANCO LEE PCT . 3 STEVE RADACK  
 PCT . 2 JACK MORMAN PCT . 4 R. JACK CAGLE  
 EXEC. DIR. H.C.F.C.D. ARTHUR L. STOREY, JR.



**GENERAL CONSTRUCTION NOTES**

1. OBTAIN AND COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL PERMITS AND APPROVALS, IF NECESSARY.
2. PROTECT, MAINTAIN, AND RESTORE EXISTING BACKSLOPE DRAINAGE SYSTEMS.
3. BACKSLOPE SWALE AND INTERCEPTOR STRUCTURE ELEVATIONS AND LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. FINAL ELEVATIONS AND LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
4. BACKFILL IN ACCORDANCE WITH THE HARRIS COUNTY FLOOD CONTROL DISTRICT STANDARD SPECIFICATION, SECTION 02315 - EXCAVATING AND BACKFILLING.
5. EXCAVATE CHANNEL FLOWLINE TO DESIGN ELEVATION AS SHOWN ON PLANS AND DOWNSTREAM, AS NECESSARY, TO ENSURE NO WATER REMAINS IN THE FACILITY (STORM SEWER, LATERAL CHANNEL, OR DRY BOTTOM DETENTION BASIN) DURING NORMAL WATER SURFACE CONDITIONS IN THE CHANNEL, SO THE FACILITY WILL FUNCTION AS INTENDED. FOR WET BOTTOM DETENTION BASINS, ENSURE NO WATER IS ABOVE THE DESIGN LEVEL IN THE WET BOTTOM DURING NORMAL WATER SURFACE CONDITIONS IN THE CHANNEL.
6. MAINTAIN FLOW IN CHANNEL DURING CONSTRUCTION AND RESTORE CHANNEL TO ORIGINAL CONDITION.
7. REMOVE ALL EXCAVATED MATERIAL FROM THE HARRIS COUNTY FLOOD CONTROL DISTRICT OR DRAINAGE RIGHT-OF-WAY. NO FILL IS TO BE PLACED WITHIN A DESIGNATED FLOOD PLAIN AREA WITHOUT FIRST OBTAINING A FILL PERMIT FROM THE APPROPRIATE JURISDICTIONAL AUTHORITY AND NOTED.
8. ALL BACKFILL TO BE PLACED IN ACCORDANCE WITH SPECIFICATION SECTION 02315 EXCAVATING & BACKFILLING OR USE 02316 STRUCTURAL EXCAVATING AND BACKFILLING IF REQUIRED AROUND STRUCTURES. MATERIAL TO BE USED AS BACKFILL SHALL CONFORM TO SPECIFICATION SECTION 02314 FILL MATERIAL UNLESS OTHERWISE STATED ON THE PLANS.
9. THE ENGINEER WILL DETERMINE THE ACCEPTABILITY FOR THE REUSE OF STRIPPED VEGETATION AND TOPSOIL. UNACCEPTABLE MATERIAL WILL BE REMOVED AND PAID AS EXCAVATION AND OFF-SITE DISPOSAL. MATERIAL FOUND TO BE ACCEPTABLE FOR REUSE SHALL BE STOCKPILED ON SITE. NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE FOR STRIPPING, STOCKPILING AND PLACING MATERIAL FOUND TO BE ACCEPTABLE FOR REUSE. THE COST FOR THIS WORK WILL BE INCIDENTAL TO RELATED PAY ITEMS UNDER SPECIFICATION SECTION 02315 LISTED ON THE UNIT PRICE SCHEDULE.
10. THE TOP 1-FOOT OF MATERIAL EXCAVATED FROM BELOW THE NORMAL WATER SURFACE ELEVATION IS TO REMAIN ON SITE AND BE REUSED AS DIRECTED BY THE ENGINEER.
11. LENGTHS AND SIZES DESIGNATED ON PLANS ARE APPROXIMATE. CONTRACTOR WILL BE RESPONSIBLE FOR FIELD VERIFICATION PRIOR TO ORDERING MATERIALS.
12. FINAL TOP OF BANK SHALL BE 6-INCHES ABOVE NATURAL GROUND TO PROMOTE DRAINAGE TO BACKSLOPE SWALE.
13. THESE DRAWINGS ARE FOR GENERAL SITE INFORMATION ONLY. THE EXACT LAYOUT OF THE DETENTION BASIN WILL BE FIELD DETERMINED BY THE ENGINEER PRIOR TO BEGINNING EXCAVATION.
14. CONTRACTOR SHALL AVOID ANY WETLAND AREAS BEYOND THE LIMITS OF EXCAVATION.
15. THE EXCAVATION QUANTITIES ARE APPROXIMATE ONLY AND ARE INTENDED TO GIVE A GENERAL INDICATION OF THE AMOUNT OF MATERIAL TO BE EXCAVATED.
16. DO NOT DAMAGE TREES AND VEGETATION DESIGNATED BY THE ENGINEER TO REMAIN. INSTALL CONSTRUCTION FENCING TO PROTECT ANY TREES WITHIN THE WORK AREA THAT ARE TO BE PRESERVED.
17. DETENTION BASIN SIDE SLOPES VARY FROM 4:1 TO 10:1 TYPICAL. THE CONTRACTOR SHALL MODIFY THE SIDE SLOPES TO FIELD FIT AS DIRECTED BY THE ENGINEER.
18. SEQUENCE OF WORK WILL REQUIRE WORK TO BEGIN AT E135-00-00. BASIN EXCAVATION WILL THEN PROCEED FROM THE BAYOU TO THE NORTHEAST.

**LEGEND**

- EXIST TOP SLOPE
- EXIST BARRIERS FENCE
- X 5.0 EXIST ELEVATION
- EXIST CONTOURS
- EXIST WROUGHT IRON FENCE
- ⊕ GEOTECHNICAL BORING
- PZ-1 PIEZOMETER BORING
- ⊕ CAPPED WATER WELL
- ⊕ EXIST CONCRETE
- PROP CONTOURS
- PROP TOP SLOPE
- PROP SHELF
- PROP BIRAP
- PROP MITIGATION WETLANDS
- PROP WATER QUALITY WETLANDS
- PROP SLOPE PAVING
- PROP SOIL STRIPS ON SLOPE
- ⊕ PROP INTERCEPTOR SOODING
- PROP REINFORCED SLT FENCE
- STABILIZED CONSTRUCTION ACCESS
- FILTER DAM TYPE 2

**UTILITY NOTES**

**CENTERPOINT ENERGY**

**CAUTION: UNDERGROUND GAS FACILITIES**  
 LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY INTRASTATE PIPELINE, INC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN. [OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATIONS.] IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

- WHEN CENTERPOINT ENERGY PIPELINE MARKINGS ARE NOT VISIBLE, CALL (713) 967-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
- WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
- WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
- FOR EMERGENCIES REGARDING DAMAGED GAS LINES CALL (713) 658-3552.

(THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.)

**WARNING: OVERHEAD ELECTRICAL FACILITIES**

OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LINE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222.

**SOUTHWESTERN BELL TELEPHONE (L.P. D/B/A AT&T TEXAS (SBC))**

CAUTION: SBC FACILITIES  
 OVERHEAD FACILITIES ARE NOT SHOWN. THE LOCATIONS OF SBC UNDERGROUND FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.

WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF SBC FACILITIES, ALL EXCAVATIONS SHALL BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE SBC FACILITIES. WHEN SBC FACILITIES ARE EXPOSED, THE CONTRACTOR SHALL PROVIDE SUPPORT TO PREVENT DAMAGE TO SUCH FACILITIES. WHEN EXCAVATING NEAR TELEPHONE POLES, THE CONTRACTOR SHALL ADEQUATELY BRACE THE POLES FOR SUPPORT.

THE PRESENCE OR ABSENCE OF AT&T TEXAS/SBC UNDERGROUND CONDUIT FACILITIES DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES IN THE AREA. FOLLOW THE DIRECT BURIED CABLE PROCEDURES TO LOCATE THE AT&T/SBC DIRECT BURIED CABLES AS INDICATED IN THE AT&T TEXAS RESEARCH AND SIGNATURE PROCESS FOR AT&T TEXAS/SBC FACILITIES.

**UTILITY CONTACT INFORMATION**

ALL UTILITY OWNERS SHALL BE CONTACTED 48 HOURS PRIOR TO THE EXCAVATION NEAR THE FACILITY. THE MAIN CONTACT OF THE UTILITY OWNERS ARE:

CONSTRUCTION NOTE:  
 CONTACT ---  
 FOR MATING REQUIREMENTS AND UTILITY INFORMATION A MINIMUM OF 48 HOURS IN ADVANCE OF WORKING NEAR THE PIPELINES.

**NOTICE:**  
 AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LOWE STAR NOTIFICATION 713-223-4567

**PRIVATE UTILITY LINES SHOWN**

Signature	Date
<i>[Signature]</i>	8/24/11
<i>[Signature]</i>	8-24-11
<i>[Signature]</i>	8/24/11

DATE:	
SCALE:	
SHEET NUMBER:	2 OF 34
PROJECT ID#:	E535-01-00-E004
DESCRIPTION:	JERSEY MEADOWS STORMWATER DETENTION JERSEY MEADOWS DRIVE AT E135-00-00
CONSTRUCTION NOTES:	
PREPARED:	<i>[Signature]</i>
CHECKED:	<i>[Signature]</i>
APPROVED:	<i>[Signature]</i>

**Ernst & Young**  
 engineers

12121 Winchester Lane  
 Houston, Texas 77079  
 (713) 461-9600  
 FAX: (713) 461-9600



BENCHMARK:  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 STAMPED "1135-01 B.M.1" ON BRIDGE AT 80 GRADIE  
 AND E135-00-00, LOCATED ON DOWNSTREAM CONCRETE  
 SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAROU WATERSHED.  
 ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT)



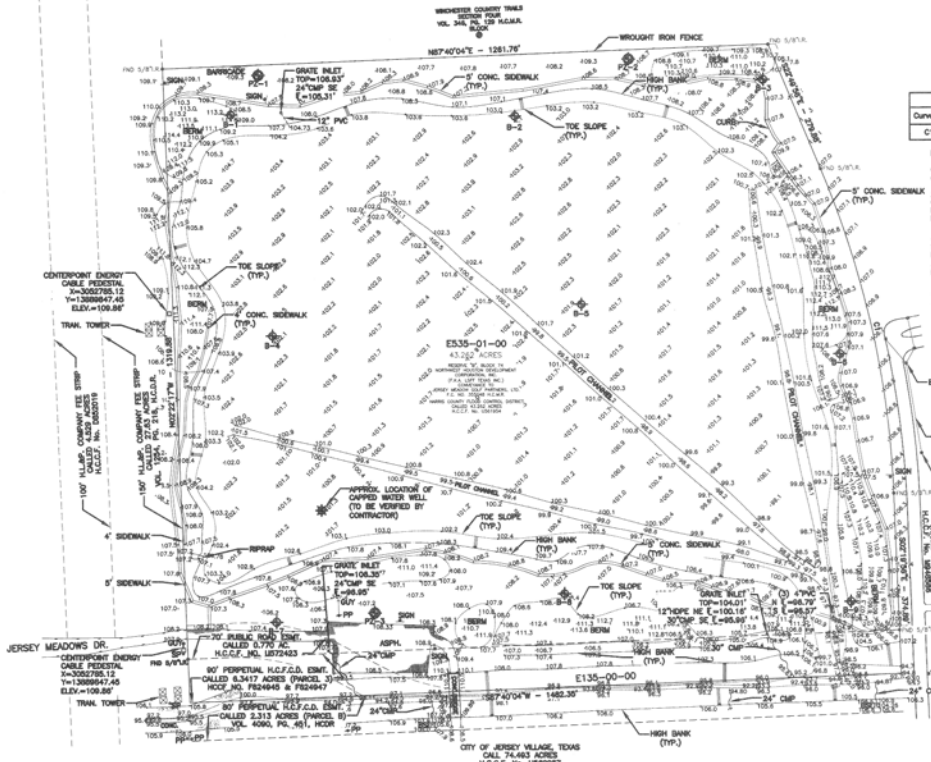
Curve #	Length	Radius	Delta	Chord	Chord Length
C1	897.833	1949.825	80.5000	N12 34' 55.98"W	883.918

- NOTES:
1. ALL BEARINGS ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE, (WAD83) PER GPS OBSERVATIONS.
  2. THE SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT. NO RESEARCH WITH REGARD TO RECORD EASEMENTS, RIGHTS-OF-WAY, EASEMENT LINES, RESTRICTIONS, OR OTHER MATTERS OF RECORD HAS BEEN PERFORMED BY MILLER SURVEY GROUP.
  3. PROJECT BENCHMARK RM 000440 BEING A H.C.F.C.D. BRASS DISK STAMPED "1135-01 B.M.1" ON BRIDGE AT 80 GRADIE AND E135-00-00, LOCATED ON DOWNSTREAM CONCRETE SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM CENTER (AS SHOWN ON COUNTY ELEVATION = 108.91' NAVD 1988 (2001 ADJUSTMENT))
  4. ALL ELEVATIONS SHOWN ON THIS SURVEY ARE BASED ON THE 2001 ADJUSTMENT. COMBINED SCALE FACTOR: 0.999910.

- ABBREVIATIONS:
- ASPH. = ASPHALT
  - H.C.F.C.D. = HARRIS COUNTY FLOOD CONTROL DISTRICT
  - H.L.A.P. = HOUSTON LIGHTING AND POWER
  - IL = IRON ROD
  - BS = BACKSLOPE INTERCEPTOR
  - CONC. = CONCRETE
  - FND = FOUNDATION
  - HDPE = HIGH-DENSITY POLYETHYLENE
  - CONC. = CORRUGATED METAL PIPE
  - REINFORCED CONCRETE PIPE
  - P.V.C. = POLYVINYL CHLORIDE PIPE
  - E.L.W. = ELEVATION
  - PP = FLOW LINE
  - PP = POWER POLE
  - SPR. = SERVICE POLE
  - OUT. = OUT WIRE
  - EMT. = EASEMENT

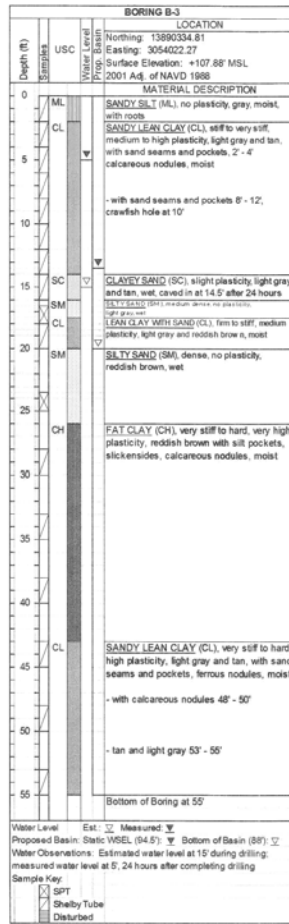
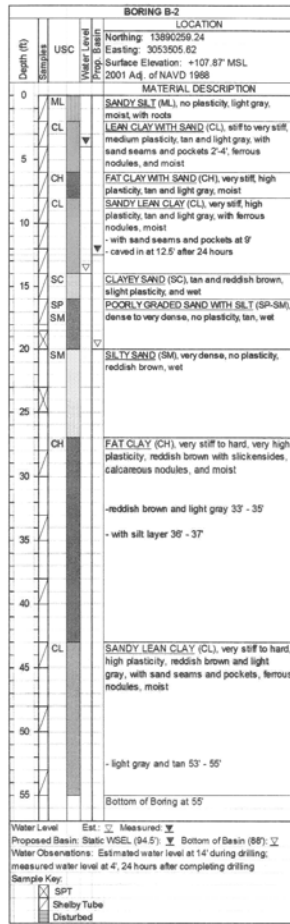
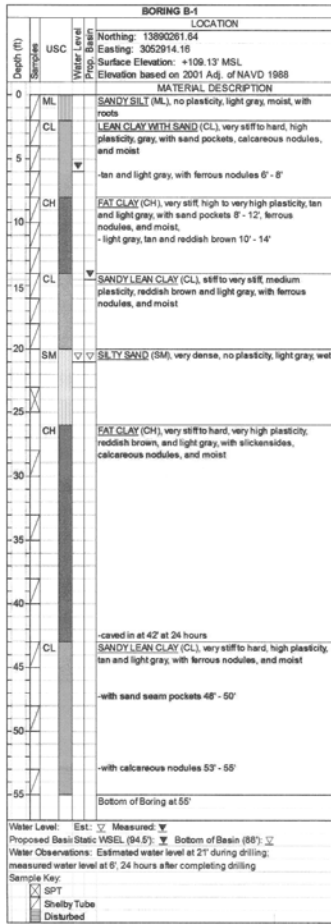
- LEGEND
- GEOTECHNICAL BORING
  - PIEZOMETER BORING

PROJECT BENCHMARK RM 000440  
 X:3005484.307(GRD)  
 Y:113886097.146(GRD)  
 ELEV.=108.91'



**WARNING-CENTERPOINT ENERGY BURIED CABLE**  
 CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF BURIED CABLES. EXISTING CENTERPOINT ENERGY BURIED CABLES ARE SHOWN BY APPROX. LOCATION & DEPTH BASED ON THE BEST INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING BURIED CABLES PRIOR TO COMMENCING CONSTRUCTION. SEE PRIVATE UTILITY NOTES, (SHT. 2)

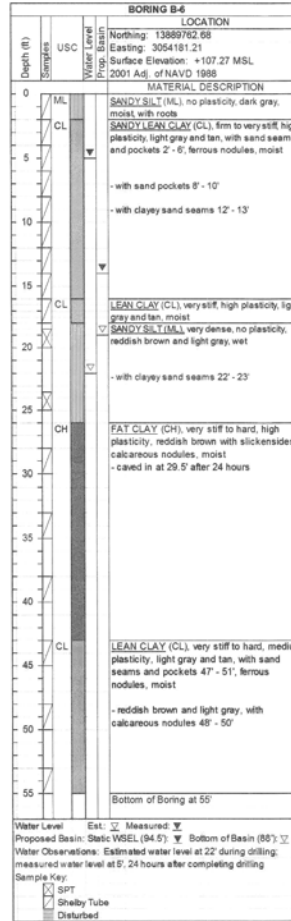
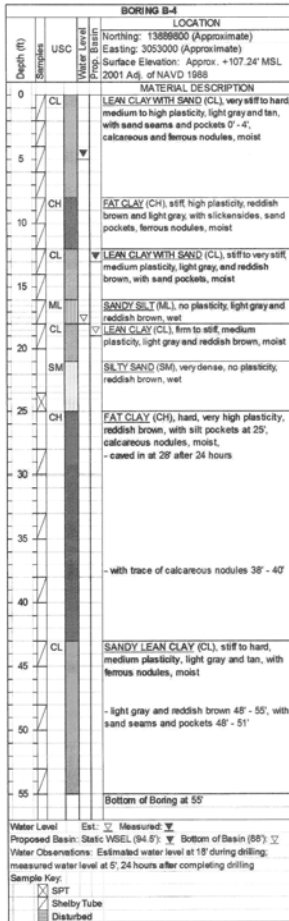
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DESCRIPTION	
BY	
PROJECT ID#	E535-01-00-E004
PREPARED BY	JERSEY MEADOWS SURVEYOR DETENTION
CHECKED BY	JERSEY MEADOWS DRIVE AT E135-00-00
APPROVED BY	EXISTING TOPOGRAPHIC SURVEY
DATE:	8/20/11
SCALE:	
SHEET NUMBER:	3 of 34



NOTE:  
 SOIL BORINGS ARE ADAPTED FROM  
 "GEO TECHNICAL INVESTIGATION—PROPOSED  
 HCFC DETENTION BASIN, HCFC PROJECT ID  
 E535-01-00-E001, REQUESTED SERVICE NO.  
 01; HOUSTON, TX," DATED OCT. 2008 AND  
 PREPARED BY AVILES ENGINEERING CORP.  
 ELEVATIONS SHOWN ON THE BORINGS HAVE  
 BEEN ADJUSTED TO THE 2001 ADJUSTMENT OF  
 NAVD 1988 BY SUBTRACTING 3.76' FROM  
 ELEVATIONS PROVIDED IN THE REFERENCED  
 REPORT. THIS ADJUSTMENT WAS COMPUTED  
 BASED ON SURVEY DATA PROVIDED BY ANDREW  
 LONNIE SYKES, INC. DATED DEC. 4, 2003.



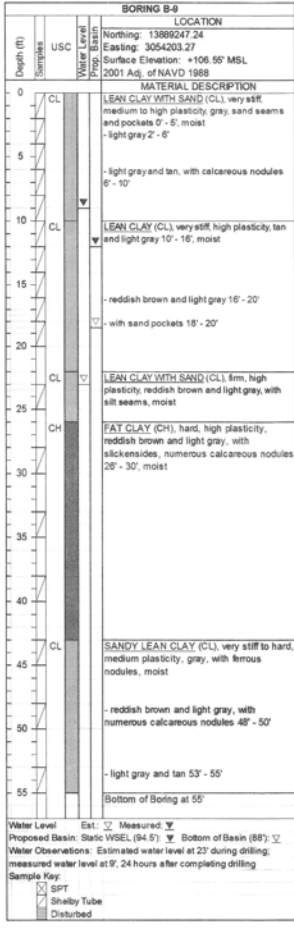
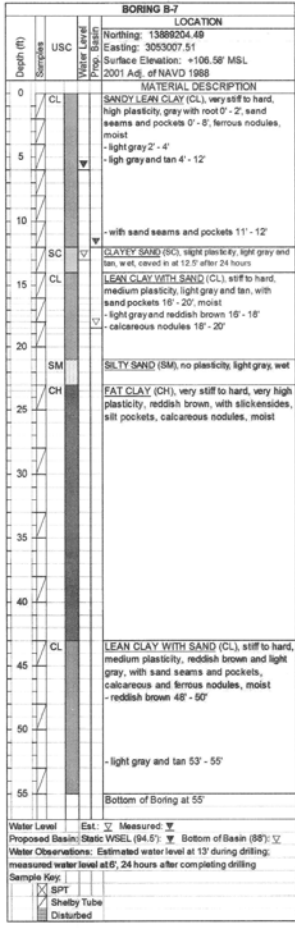
DATE	
DESCRIPTION	
REV	
PROJECT ID#	E535-01-00-E004
PREPARED BY	JERSEY MEADOWS STORMWATER DETENTION
CHECKED BY	JERSEY MEADOWS DRIVE AT E.135-00-00
APPROVED BY	GEO TECHNICAL DATA AND SOIL BORINGS
	(1 OF 4)
DATE:	
SCALE:	
SHEET NUMBER	4 of 34



NOTE: SOIL BORINGS ARE ADAPTED FROM "GEOTECHNICAL INVESTIGATION-PROPOSED HFCO'S DETENTION BASIN; HFCO'S PROJECT ID E535-01-00-E001; REQUESTED SERVICE NO. 01; HOUSTON, TX" DATED OCT. 2006 AND PREPARED BY AVILES ENGINEERING CORP. ELEVATIONS SHOWN ON THE BORINGS HAVE BEEN ADJUSTED TO THE 2001 ADJUSTMENT OF NAVD 1988 BY SUBTRACTING 3.76' FROM ELEVATIONS PROVIDED IN THE REFERENCED REPORT. THIS ADJUSTMENT WAS COMPUTED BASED ON SURVEY DATA PROVIDED BY ANDREW LONNIE SYKES, INC. DATED DEC. 4, 2003.



DATE	
REVISION	
NO.	
DATE	
DESCRIPTION	
BY	
PROJECT ID#	E535-01-00-E004
PREPARED BY	JERSEY MEADOWS STORMWATER DETENTION
CHECKED BY	JERSEY MEADOWS DRIVE AT E.135-00-00
APPROVED BY	GEOTECHNICAL DATA AND SOIL BORINGS
	(2 OF 4)
12121 Richheimer Lane Houston, Texas 77079 (713) 461-9600 <small>STATE OF TEXAS LICENSE NO. 1-489</small>	
DATE:	
SCALE:	
SHEET NUMBER	4A OF 34

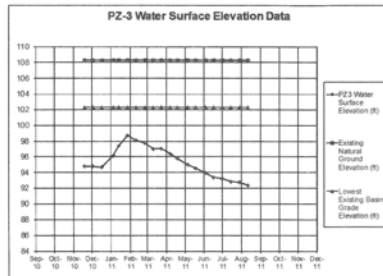
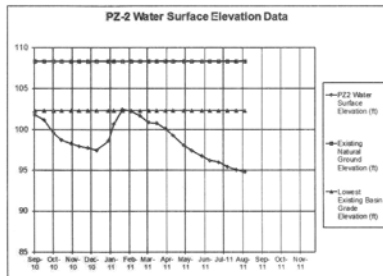
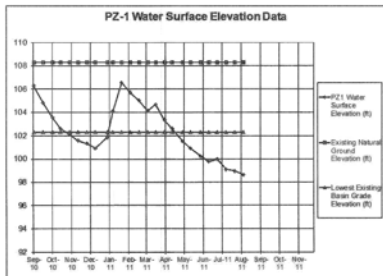
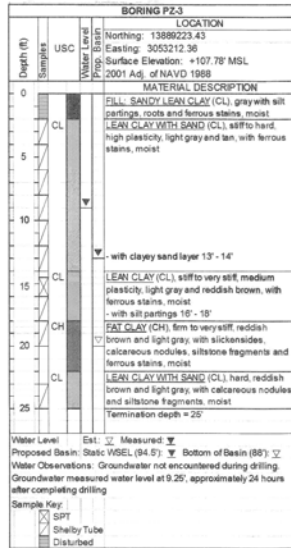
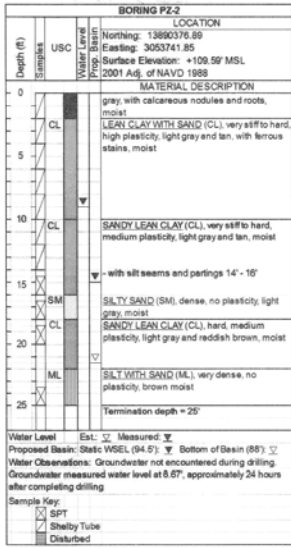


NOTE:  
 SOIL BORINGS ARE ADAPTED FROM  
 "GEOTECHNICAL INVESTIGATION—PROPOSED  
 HFCO'S DETENTION BASIN; HFCO'S PROJECT ID  
 E535-01-00-E004; REQUESTED SERVICE NO.  
 01; HOUSTON, TX" DATED OCT. 2006 AND  
 PREPARED BY AVILES ENGINEERING CORP.  
 ELEVATIONS SHOWN ON THE BORINGS HAVE  
 BEEN ADJUSTED TO THE 2001 ADJUSTMENT OF  
 NAVD 1988 BY SUBTRACTING 3.76' FROM  
 ELEVATIONS PROVIDED IN THE REFERENCED  
 REPORT. THIS ADJUSTMENT WAS COMPUTED  
 BASED ON SURVEY DATA PROVIDED BY ANDREW  
 LONHE SYKES, INC. DATED DEC. 4, 2003.



2/22/11

DATE	
REVISION	
NO.	
DESCRIPTION	
PROJECT ID#	E535-01-00-E004
PREPARED BY	JERSEY MEADOWS STORMWATER DETENTION
CHECKED BY	JERSEY MEADOWS DRIVE AT E135-00-00
APPROVED BY	GEOTECHNICAL DATA AND SOIL BORINGS (3 OF 4)
PREPARED BY	<b>EG</b> <b>engineers</b>
CHECKED BY	12121 Winchester Lane
APPROVED BY	Houston, Texas 77079
	(713) 461-9600
	STATE REG. NO. 0000000000
HARRIS COUNTY	<b>FLOOD CONTROL DISTRICT</b>
DATE:	
SCALE:	
SHEET NUMBER	48 OF 34

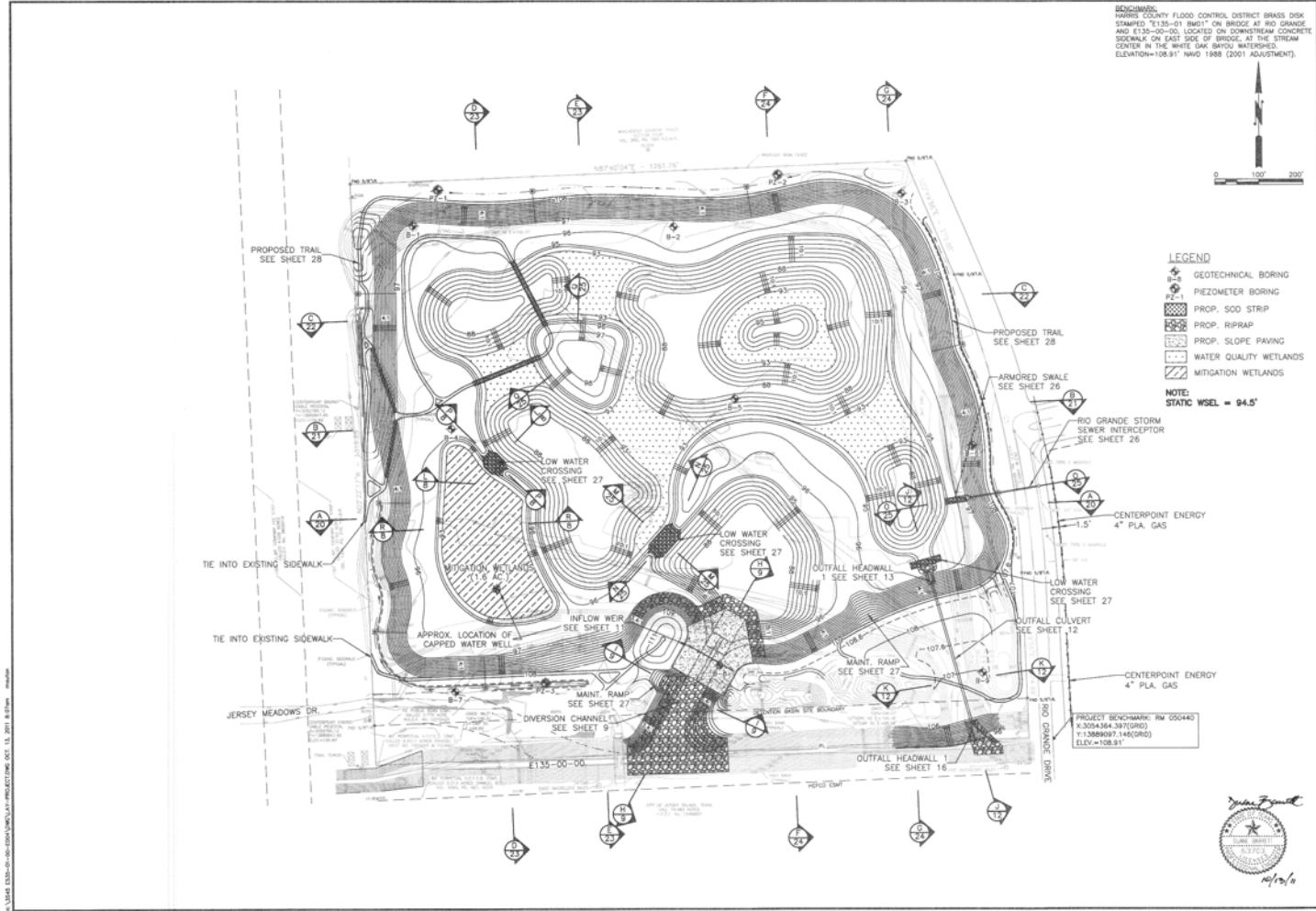


NOTE: PIEZOMETER BORINGS ARE ADAPTED FROM "AVILES GEOTECHNICAL REPORT G126-10; ON-CALL GEOTECHNICAL ENGINEERING SERVICES-REQUESTED SERVICE NO. 05; HCFCD PROJECT ID E535-01-00-E001; PIEZOMETERS IN JERSEY VILLAGE DETENTION BASIN, HARRIS COUNTY, TX" DATED SEPT. 17, 2010 AND PREPARED BY AVILES ENGINEERING CORP. ELEVATIONS SHOWN ON THE PIEZOMETER BORINGS ARE BASED ON THE 2001 ADJUSTMENT OF THE NAVD 1988, WHICH ARE SHOWN ON THE BORINGS INCLUDED IN THE REFERENCED REPORT.

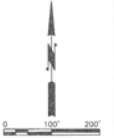


07/20/11

DATE	
DESCRIPTION	
NOY	
PROJECT ID#	E535-01-00-E004
PREPARED BY	JERSEY MEADOWS STORMWATER DETENTION
CHECKED BY	JERSEY MEADOWS DRIVE AT E135-00-00
APPROVED BY	GEOTECHNICAL DATA AND SOIL BORINGS
	(4 OF 4)
PREPARED BY	erg miller engineers
CHECKED BY	12121 Winchester Lane
APPROVED BY	Houston, Texas 77079
	(313) 411-5600
	www.ergmiller.com
HARRIS COUNTY	
FLOOD CONTROL DISTRICT	
DATE:	
SCALE:	
SHEET NUMBER	4C OF 34



**BENCHMARK:**  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 SHAPED "E" 1.5" x 1.5" x 0.5" ON BRIDGE AT RIO GRANDE  
 AND E135-00-00, LOCATED ON DOWNSTREAM CONCRETE  
 SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT).



**LEGEND**

- GEOTECHNICAL BORING
- PIEZOMETER BORING
- PROP. SOD STRIP
- PROP. RIPRAP
- PROP. SLOPE PAVING
- WATER QUALITY WETLANDS
- MITIGATION WETLANDS

**NOTE:**  
 STATIC WSEL = 94.5'

DATE	DESCRIPTION

**PROJECT ID# E535-01-00-E004**  
 JERSEY MEADOWS STORMWATER DETENTION  
 JERSEY MEADOWS DRIVE AT E135-00-00

**PREPARED:**   
**CHECKED:**  
**APPROVED:**

**HARRIS COUNTY FLOOD CONTROL DISTRICT**

DATE: SEPT., 2011  
 SCALE: AS NOTED

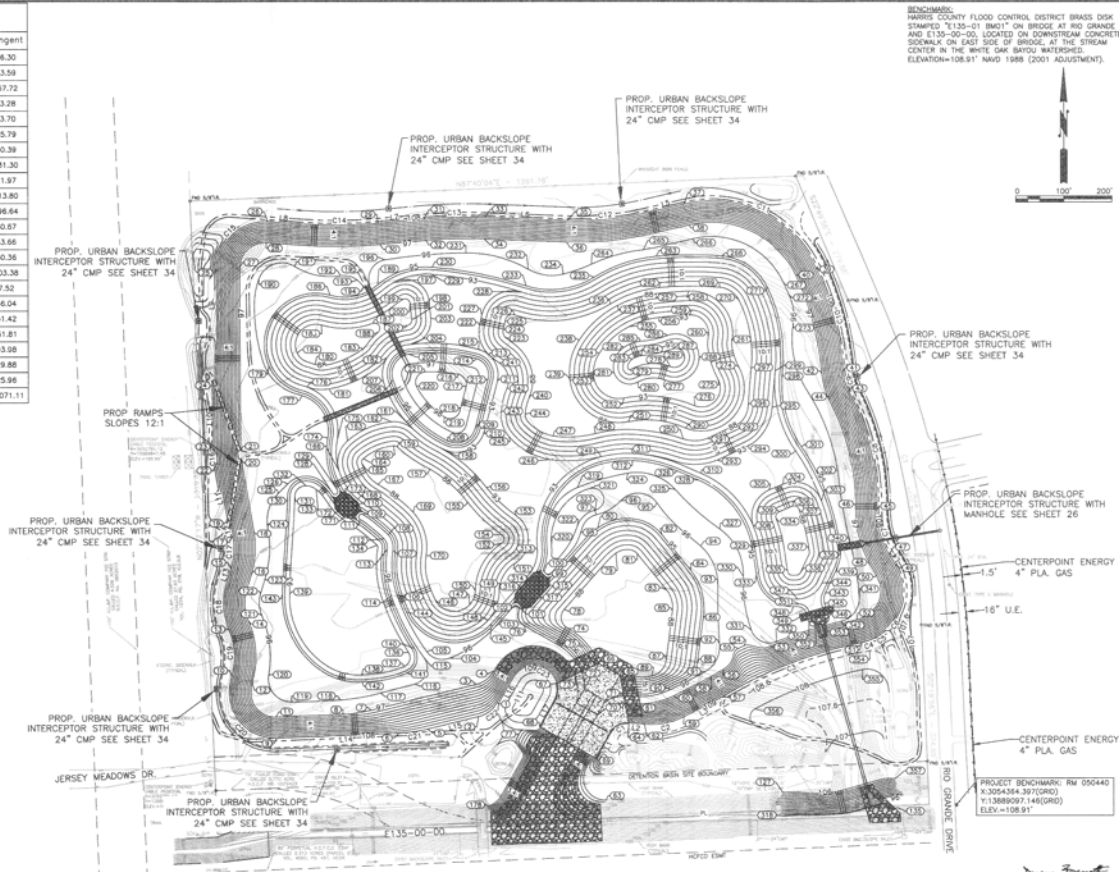
SHEET NUMBER  
 5 OF 34

DATE: 12/20/10 10:00 AM PROJECT: E535-01-00-E004 SHEET: 5 OF 34

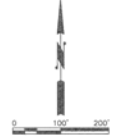


Curve	Length	Radius	Delta Angle	Chord	Chord Direction	Tangent
C1	46.54	40.0	66° 39' 15"	43.96	S42° 25' 33.43"W	26.30
C2	84.92	153.0	31° 48' 06"	83.84	N79° 05' 14.53"E	43.58
C3	312.13	881.0	22° 17' 54"	310.50	S68° 42' 48.98"W	157.72
C4	26.44	110.0	13° 46' 10"	26.37	N71° 58' 39.76"E	13.28
C5	27.25	110.0	14° 11' 49"	27.19	N08° 05' 28.22"E	13.70
C6	50.59	106.0	27° 20' 52"	50.12	N37° 50' 27.30"E	25.79
C7	98.22	178.5	31° 31' 20"	96.99	S14° 46' 03.81"E	50.39
C8	257.18	517.4	28° 28' 52"	254.54	N13° 14' 49.86"E	131.30
C9	43.36	108.0	22° 59' 34"	43.07	S19° 59' 28.92"E	21.97
C10	225.22	638.0	20° 17' 24"	224.05	N14° 38' 23.98"W	113.80
C11	328.58	237.7	79° 11' 42"	303.04	N64° 22' 57.36"W	196.64
C12	160.39	604.0	19° 12' 52"	159.92	N84° 36' 57.65"E	80.87
C13	127.15	996.0	7° 18' 53"	127.07	S88° 33' 57.45"W	63.66
C14	160.37	1004.0	9° 09' 08"	160.20	N89° 29' 05.06"E	80.36
C15	157.90	94.0	94° 14' 33"	140.70	S48° 56' 22.84"W	103.38
C16	15.00	89.0	9° 39' 24"	14.98	S5° 00' 35.87"E	7.52
C17	70.74	150.0	27° 01' 08"	70.08	N3° 40' 15.99"E	36.04
C18	98.50	139.0	47° 36' 21"	96.45	S3° 07' 20.99"E	51.42
C19	99.33	141.4	47° 14' 31"	97.30	N3° 18' 15.99"W	51.81
C20	147.84	94.0	89° 59' 18"	132.92	S47° 20' 31.82"E	93.98
C21	59.56	300.0	11° 22' 27"	59.46	N81° 56' 35.48"E	29.88
C22	49.00	60.0	48° 47' 35"	47.85	N52° 53' 34.42"E	25.98
C23	157.24	50.0	180° 15' 34"	99.96	N60° 23' 57.90"W	22071.11

Line	Length	Bearing
L1	61.29	S29° 29' 46.40"W
L2	32.68	S80° 00' 42.58"E
L3	88.31	N63° 11' 11.82"E
L4	24.43	S30° 31' 43.77"E
L5	88.26	N77° 00' 31.54"E
L6	171.48	S87° 48' 36.25"E
L7	95.87	N84° 54' 31.15"E
L8	89.44	S85° 56' 21.04"E
L9	161.89	N9° 10' 53.68"W
L10	143.74	N9° 10' 53.68"W
L11	124.60	N9° 50' 18.08"W
L12	29.89	N9° 50' 18.08"W
L13	31.53	N17° 10' 49.97"E
L14	478.87	N87° 39' 49.07"E
L15	109.57	S76° 17' 21.96"W
L16	61.69	S29° 29' 46.89"W
L17	61.32	S29° 27' 28.31"W



BENCHMARK:  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 STAMPED T135-01 186117 ON BRIDGE AT RD GRANGE  
 AND E135-00-00, LOCATED ON DOWNSTREAM CONCRETE  
 SLOPE ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT).



- NOTE:
1. DEPTH OF SUMMIT OF BACKSLOPE SWALE SHALL BE 0.5 FT. FROM FINAL GRADE ELEVATION AND NO FURTHER THAN 400 FT. FROM AN INTERCEPTOR STRUCTURE.
  2. TOP OF BANK ELEVATION AND LOCATION ARE APPROXIMATE AND SHALL BE CONTROLLED BY GRADING OF MAINTENANCE BERM.

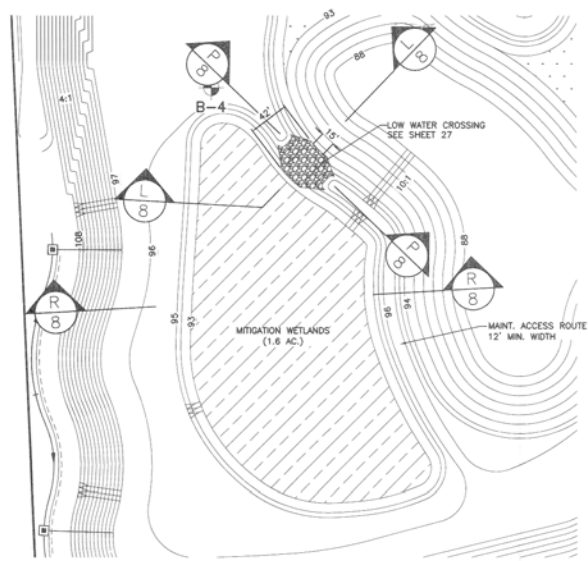
HORIZONTAL DATUM:  
 NAD 83, TEXAS STATE PLANE  
 SOUTH CENTRAL ZONE, FEET



DATE	
DESCRIPTION	
REV	
PROJECT ID#	E535-01-00-E004
JERSEY MEADOWS STORMWATER DETENTION	
JERSEY MEADOWS DRIVE AT E135-00-00	
GEOMETRIC LAYOUT 1 OF 2	
(GRADING PLAN WITH POINTS)	
PREPARED:	
CHECKED:	
APPROVED:	
<b>erg miller engineers</b>	
12121 Winchester Lane	
Houston, Texas 77079	
(713) 461-9600	
STATE REG. NO. 12,489	
<b>HARRIS COUNTY FLOOD CONTROL DISTRICT</b>	
DATE: SEPT., 2011	
SCALE: AS NOTED	
SHEET NUMBER	6 OF 34



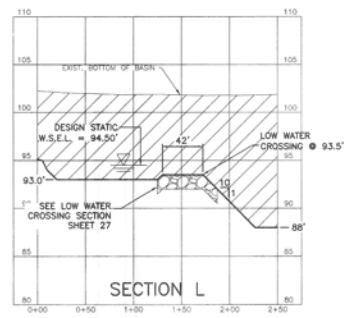
BENCHMARK:  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 STAMPED 73.135-01 180117 ON BRIDGE AT RD. GRANGE  
 AND E135-00-20. LOCATED ON DOWNSTREAM CONCRETE  
 SPOCKLE ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=106.91' NAVD 1988 (2001 ADJUSTMENT).



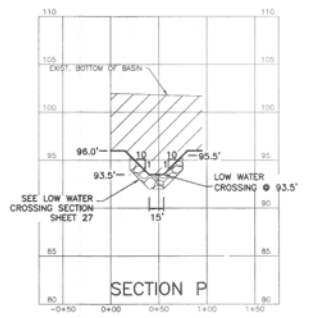
PLAN  
 SCALE: 1" = 50'

**LEGEND**

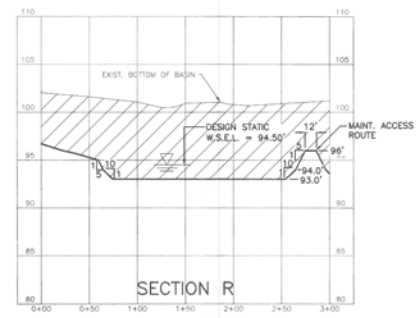
- GEOTECHNICAL BORING
- PROP. RIPRAP
- MITIGATION WETLANDS (1.6 AC.)
- WATER QUALITY WETLANDS
- EXCAVATION



L SECTION  
 SCALE: HOR. 1"=50'  
 VERT. 1"=5'



P SECTION  
 SCALE: HOR. 1"=50'  
 VERT. 1"=5'



R SECTION  
 SCALE: HOR. 1"=50'  
 VERT. 1"=5'

DATE	DESCRIPTION	BY

PROJECT ID# E535-01-00-E004	PREPARED: DM
JERSEY MEADOWS STORMWATER DETENTION	CHECKED: JB
JERSEY MEADOWS DRIVE AT E135-00-00	APPROVED: DB
MITIGATION WETLANDS GRADING	

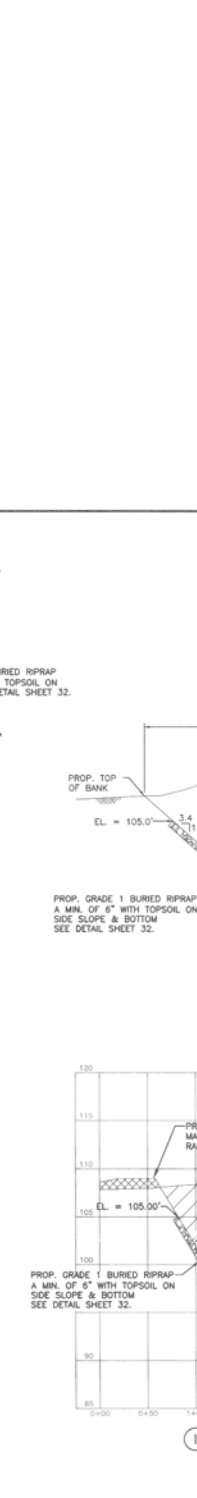
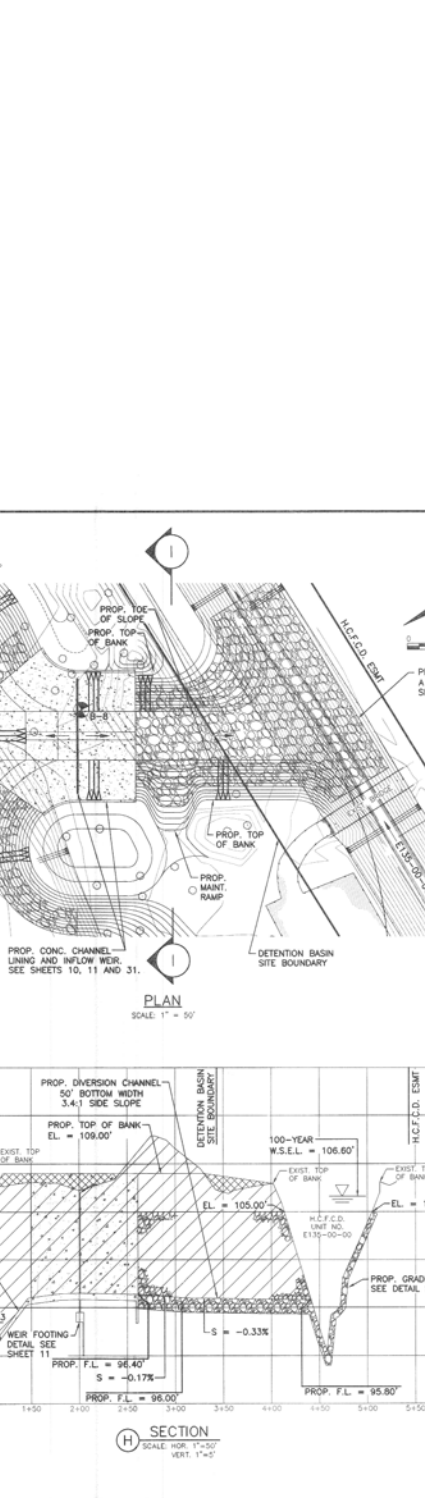
  

 ERGON ENGINEERS 12121 Winchester Lane Houston, Texas 77079 (713) 411-9600 FAX: (713) 411-9600	HARRIS COUNTY FLOOD CONTROL DISTRICT
	DATE: APRIL, 2011 SCALE: HOR. 1"=50' VERT. 1"=5' SHEET NUMBER 8 OF 34



0/23/11

EXIST. TOE OF SLOPE  
 EXIST. TOP OF BANK  
 PROP. MAINT. SHELF  
 EXIST. PILOT CHANNEL  
 REGIONAL BASIN  
 E535-01-00  
 SEE SHEET 5  
 PROP. BOTTOM OF BASIN  
 PROP. GRADE 1 BURIED RIPRAP  
 A MIN. OF 6" WITH TOPSOIL ON  
 SIDE SLOPE & BOTTOM  
 SEE DETAIL SHEET 32.  
 PROP. MAINT. SHELF  
 PROP. TOE OF SLOPE  
 PROP. TOP OF BANK  
 PROP. TOP OF BANK  
 N.C.C.D. EWT  
 E135-00-00  
 PROP. GRADE 1 BURIED RIPRAP  
 A MIN. OF 6" WITH TOPSOIL ON  
 SIDE SLOPE SEE DETAIL SHEET 32.  
 PROP. MAINT. RAMP  
 PROP. TOP OF BANK  
 PROP. MAINT. SHELF  
 PROP. CONC. CHANNEL  
 LINING AND INFLOW WEIR.  
 SEE SHEETS 10, 11 AND 31.  
 DETENTION BASIN  
 SITE BOUNDARY



**LEGEND:**

- FILL AREA
- CUT AREA
- RIPRAP

**NOTE:**  
 SECTIONS TAKEN  
 LOOKING DOWNSTREAM

*June Knight*

DATE: APRIL, 2011  
 SCALE: HOR. 1"=50'  
 VERT. 1"=5'

PROJECT ID# E535-01-00-E004  
 JERSEY MEADOWS STORMWATER DETENTION  
 JERSEY MEADOWS DRIVE AT E135-00-00  
 DIVERSION CHANNEL PLAN AND PROFILE

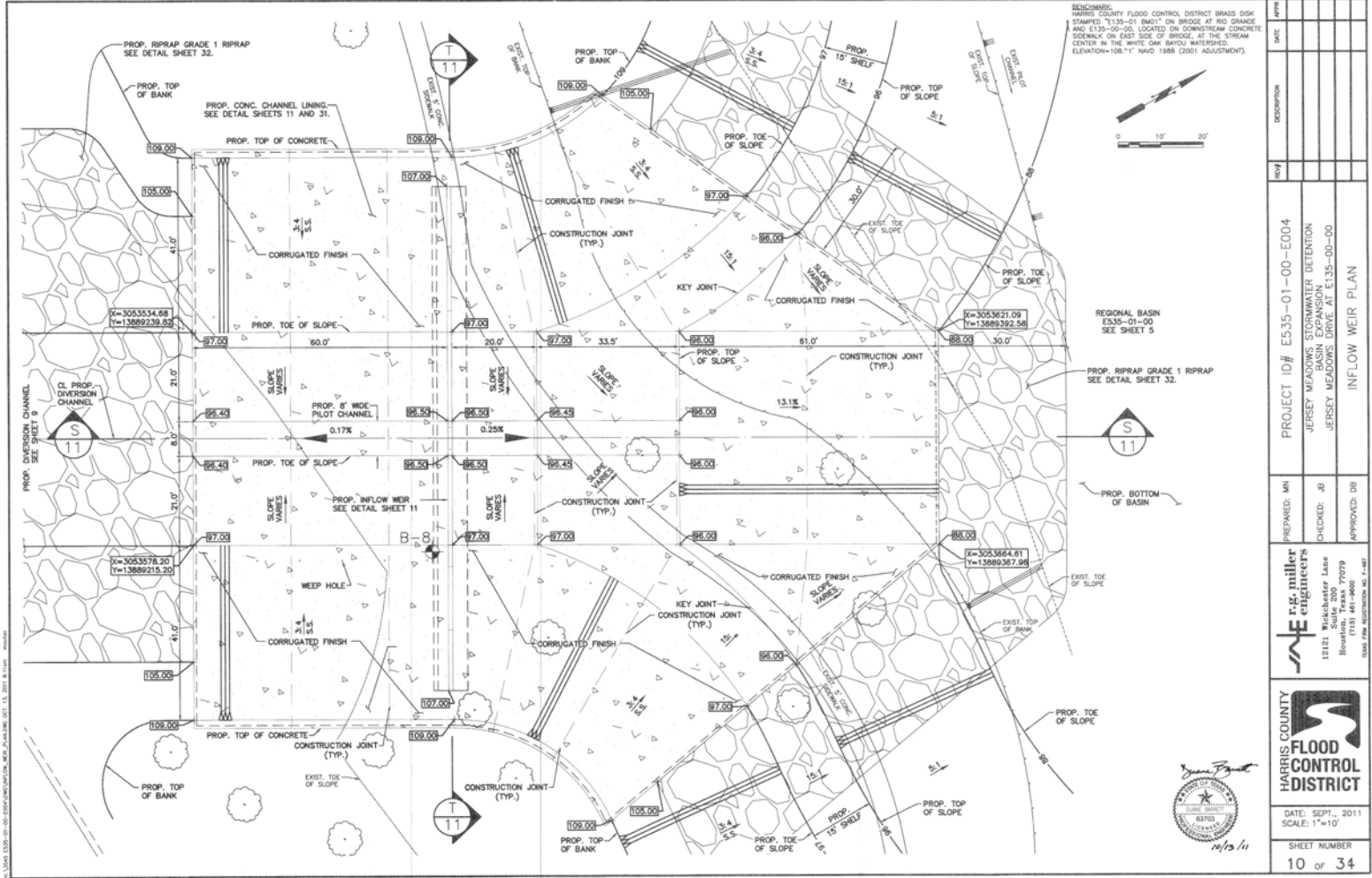
PREPARED: MN  
 CHECKED: JB  
 APPROVED: DB

**r.s. miller engineers**  
 12121 Rockchester Lane  
 Houston, Texas 77079  
 (713) 461-9800

**HARRIS COUNTY FLOOD CONTROL DISTRICT**

SHEET NUMBER  
 9 OF 34

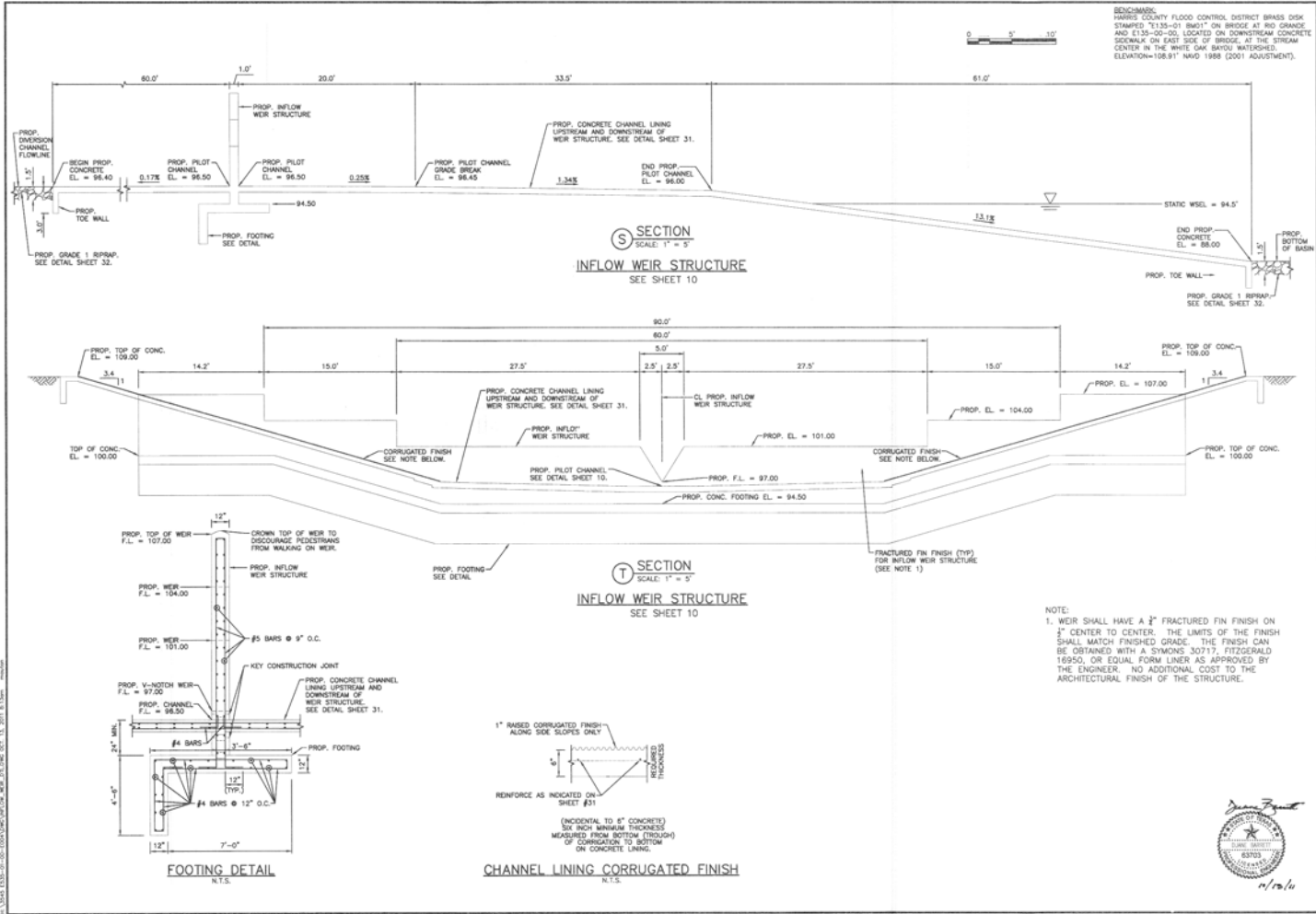
DATE PLOTTED: 04/28/2011 09:53:10 AM



BENCHMARK:  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 # STAMPED 7135-01 (8601) ON BRIDGE AT RD GRANGE  
 AND E135-05-00. LOCATED ON DOWNSTREAM CONCRETE  
 SLOPE ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.11' WAD 1988 (2001 ADJUSTMENT).

DATE	
DESCRIPTION	
REV	
PROJECT ID#	E535-01-00-E004
	JERSEY MEADOWS STORMWATER DETENTION
	JERSEY MEADOWS DRIVE AT E135-00-00
	INFLOW WEIR PLAN
PREPARED: MN	
CHECKED: JB	
APPROVED: DB	
DATE:	SEPT., 2011
SCALE:	1"=10'
SHEET NUMBER	10 OF 34

\s\proj\535-01-00\CONSTRUCTION\WATER\PLAN\DWG.DOC 11.2011 8:11 AM - HARRIS



REMARKS:  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 STAMPED 75135-01 080117 ON BRIDGE AT 80.0' GRADE  
 AND E135-00-00. LOCATED ON DOWNSTREAM CONCRETE  
 SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT).



**S SECTION**  
 SCALE: 1" = 5'  
**INFLOW WEIR STRUCTURE**  
 SEE SHEET 10

**T SECTION**  
 SCALE: 1" = 5'  
**INFLOW WEIR STRUCTURE**  
 SEE SHEET 10

**FOOTING DETAIL**  
 N.T.S.

**CHANNEL LINING CORRUGATED FINISH**  
 N.T.S.

NOTE:  
 1. WEIR SHALL HAVE A 2" FRACTURED FIN FINISH ON  
 2" CENTER TO CENTER. THE LIMITS OF THE FINISH  
 SHALL MATCH FINISHED GRADE. THE FINISH CAN  
 BE OBTAINED WITH A SYMONS 30717, FITZGERALD  
 16950, OR EQUAL FORM LINER AS APPROVED BY  
 THE ENGINEER. NO ADDITIONAL COST TO THE  
 ARCHITECTURAL FINISH OF THE STRUCTURE.

DATE	
DESCRIPTION	
REV#	
PROJECT ID#	E535-01-00-E004
JERSEY MEADOWS STORMWATER DETENTION	
JERSEY MEADOWS DRIVE AT E135-00-00	
INFLOW WEIR DETAILS	
PREPARED: MN	
CHECKED: JB	
APPROVED: DB	
<b>rs miller engineers</b>	
13121 Winchester Lane Houston, Texas 77079 (713) 461-9900	
<b>HARRIS COUNTY FLOOD CONTROL DISTRICT</b>	
DATE: SEPT. 2011 SCALE: AS NOTED	
SHEET NUMBER	11 OF 34



n/r/a

ENCHAMSEL  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DGM  
 STAMPED "E135-01 8803" ON BRIDGE AT RIO GRANDE  
 AND E135-00-00, LOCATED ON DOWNSTREAM CONCRETE  
 SPILLWAY ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BATOU WATERSHED.  
 ELEVATION: 108.14' (2011 ADJUSTMENT).

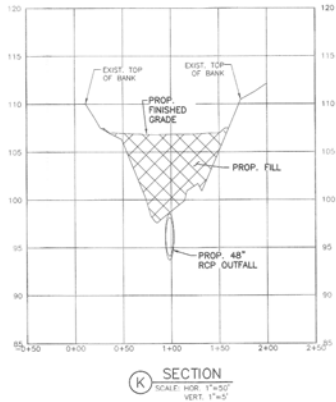
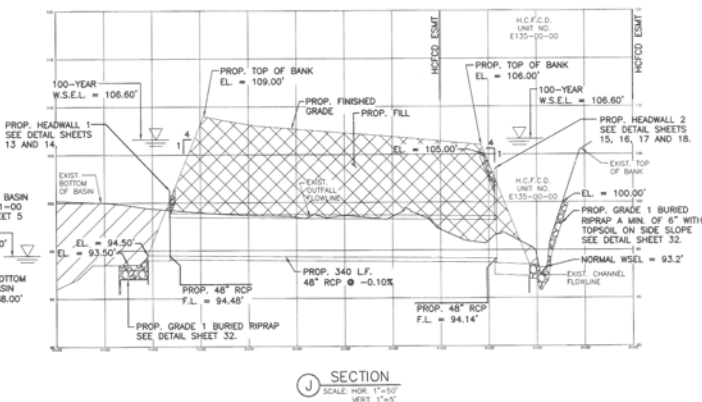
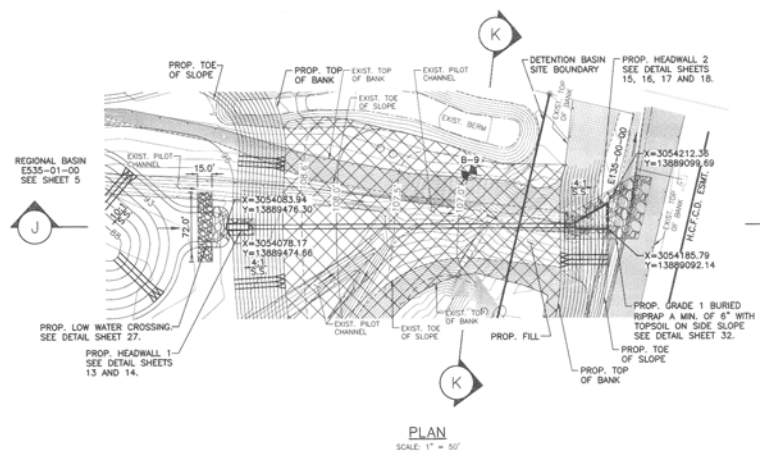
NO.	DESCRIPTION	DATE	BY
1	PROJECT ID# E535-01-00-E004		
2	JERSEY MEADOWS STORMWATER DETENTION		
3	JERSEY MEADOWS DRIVE AT E135-00-00		
4	CULVERT OUTFALL PLAN AND PROFILE		

PREPARED: MN	PROJECT ID# E535-01-00-E004
CHECKED: JB	JERSEY MEADOWS STORMWATER DETENTION
APPROVED: DB	JERSEY MEADOWS DRIVE AT E135-00-00

**r.g. miller**  
 ENGINEERS  
 12221 Wickchester Lane  
 Houston, Texas 77079  
 (713) 661-9600  
ISSUE FROM REGISTRATION NO. 7-1-07

**HARRIS COUNTY FLOOD CONTROL DISTRICT**

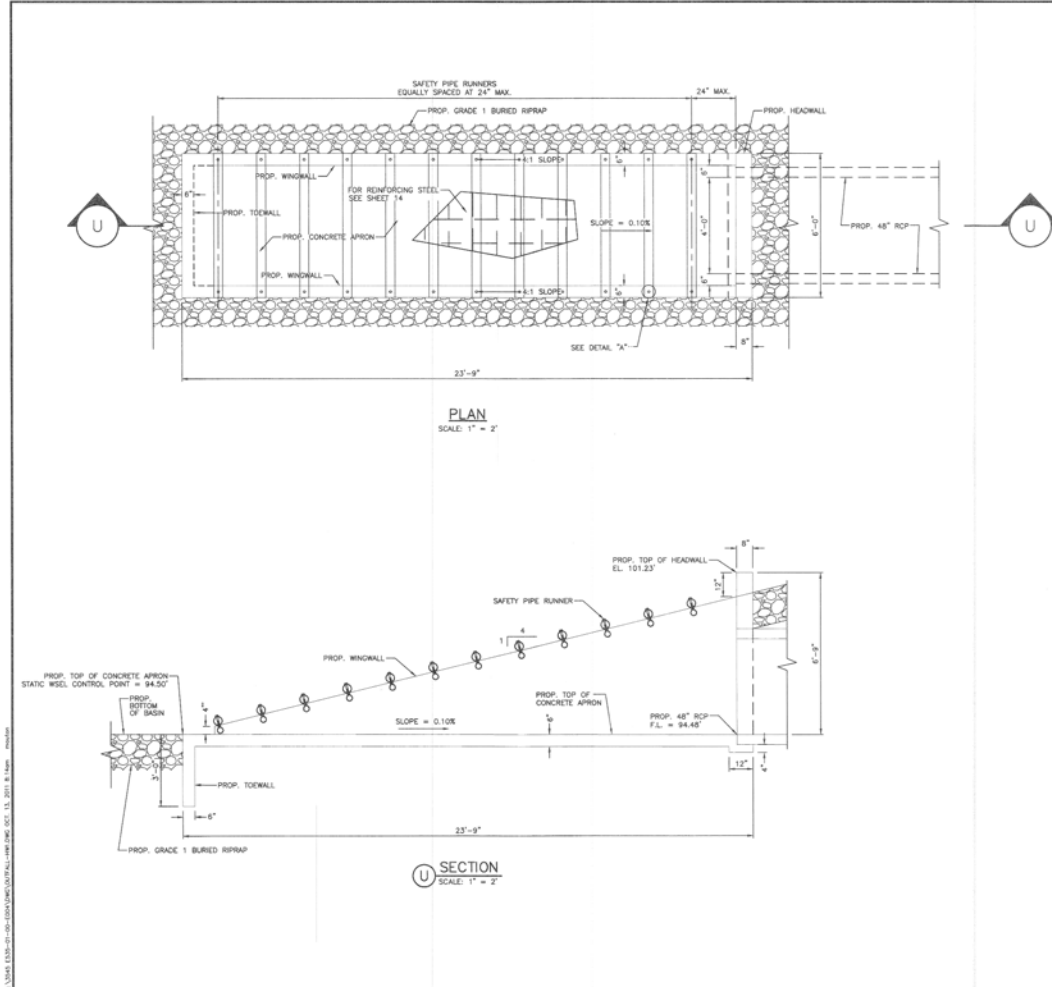
DATE: APRIL, 2011  
 SCALE: HOR. 1"=50'  
 VERT. 1"=5'  
 SHEET NUMBER  
 12 OF 34



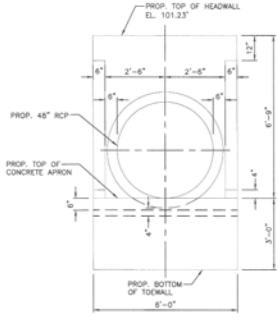
**LEGEND:**

- FILL AREA
- CUT AREA
- RIPRAP

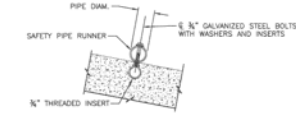




**BENCHMARK:**  
HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
STAMPED "E135-01 18011" ON BRIDGE #180 GRABBE  
AND E135-02-02. LOCATED ON DOWNSTREAM CONCRETE  
SIDEWALK ON EAST SIDE OF BRIDGE AT THE STREAM  
CENTER IN THE WHITE OAK BAYOU WATERSHED.  
ELEVATION=108.91 NAVD 1988 (2001 ADJUSTMENT).



**ELEVATION**  
SCALE: 1" = 2'



**DETAIL "A"**  
**INSTALLATION DETAIL**  
**FOR SAFETY PIPE RUNNERS**  
N.T.S.

**NOTES TO CONSULTANT:**

1. PIPE RUNNERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A33 (TYPE E OR S, GRADE B), ASTM A550 (GRADE II), OR APL SLISS.
2. ALL STEEL COMPONENTS EXCEPT REINFORCING, SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING DAMAGED DURING TRANSPORT OR CONSTRUCTION SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
3. COST OF SAFETY PIPE RUNNERS IS INCIDENTAL TO THE BID PRICE FOR THE WINDWALLS & HEADWALLS.

REQUIRED PIPE RUNNER SIZES		
NOMINAL DIA.	O.D.	I.D.
4" STD.	4.500"	4.026"

*[Signature]*  
19/2/11  
[Professional Engineer Seal]

DATE	DESCRIPTION

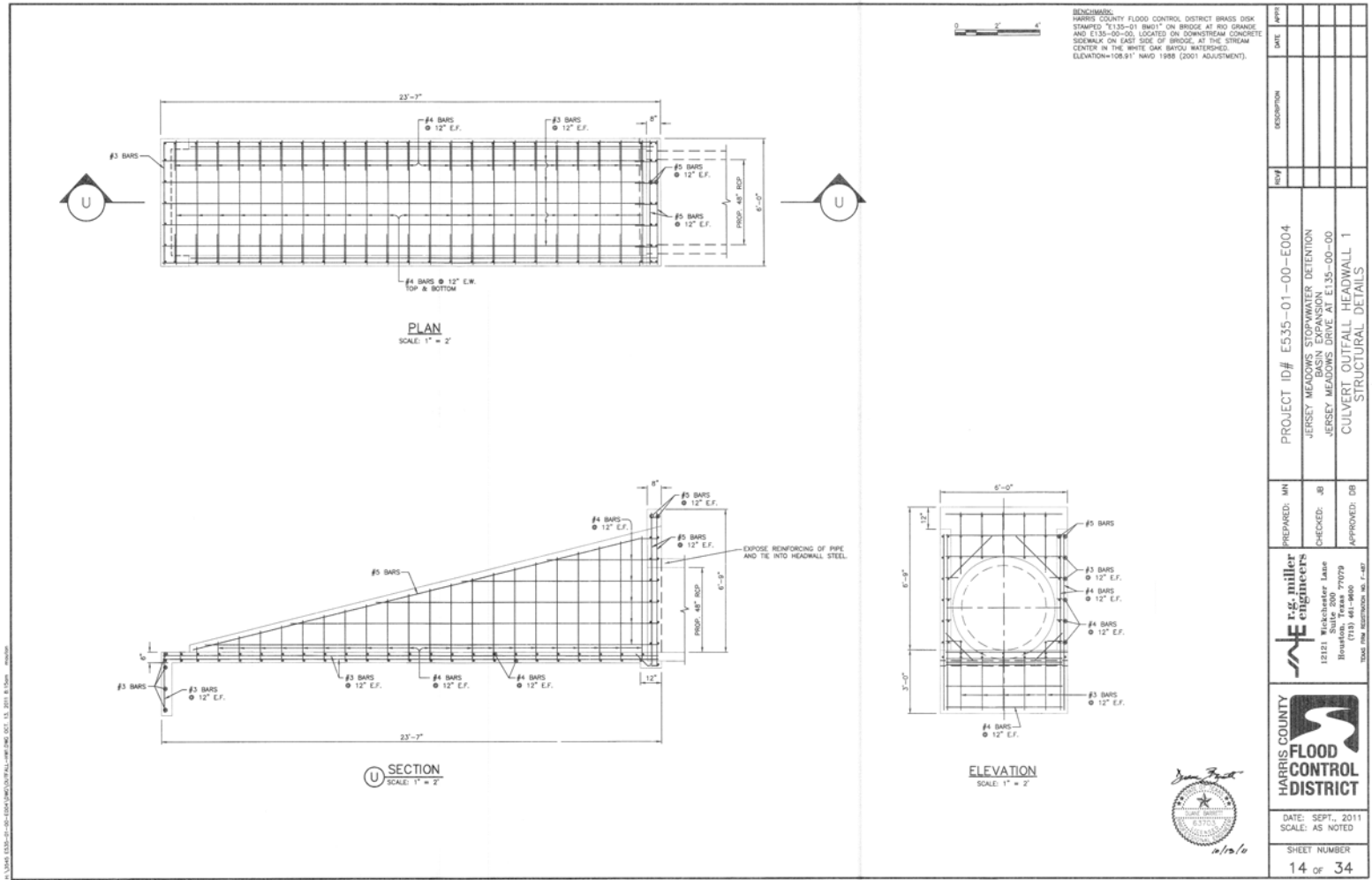
  

PROJECT ID# E535-01-00-E004	PREPARED: MN
JERSEY MEADOWS STORMWATER DETENTION	CHECKED: JB
JERSEY MEADOWS DRIVE AT E135-00-00	APPROVED: DB
CULVERT OUTFALL HEADWALL 1	
PLAN AND DETAILS	

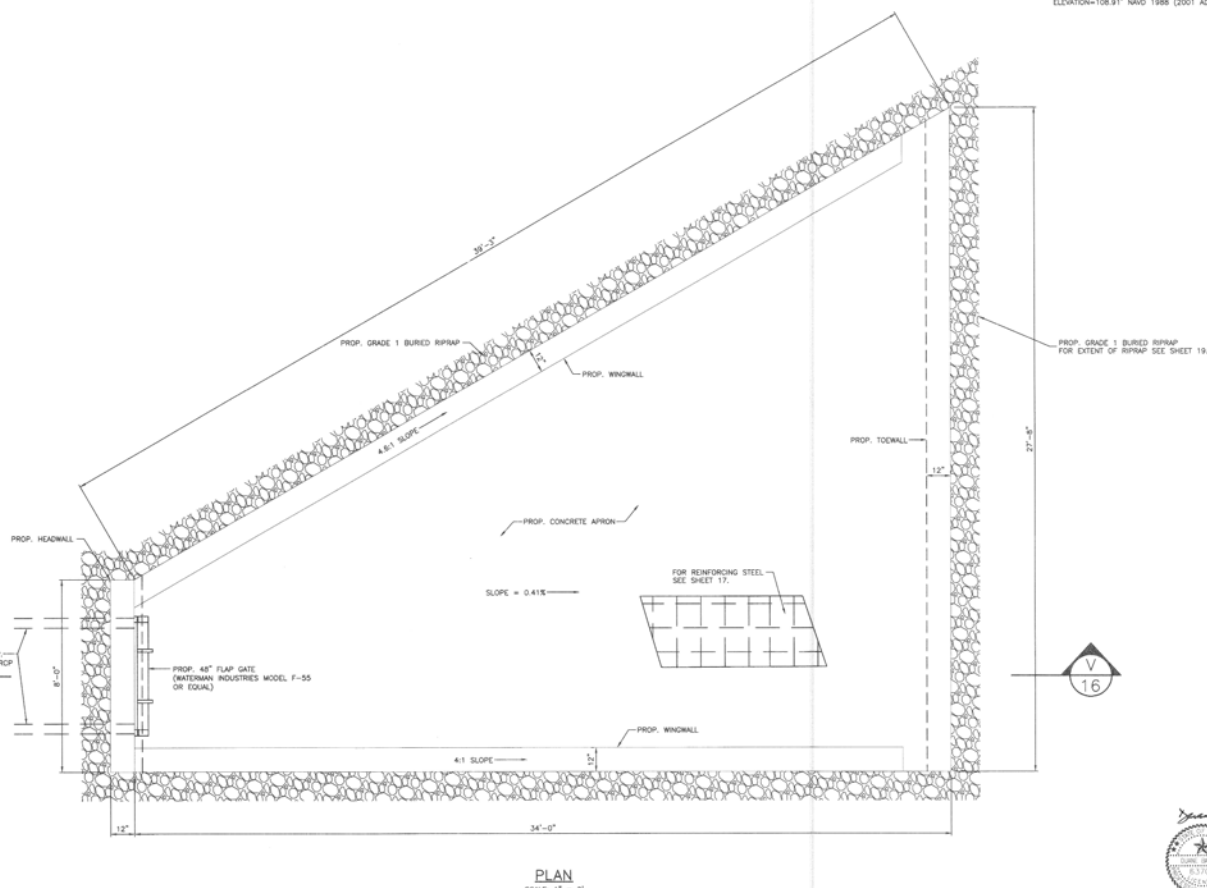
  

<b>E. G. Miller</b> <b>engineers</b> 12121 Winchester Lane Houston, Texas 77079 (713) 461-9600 FAX: (713) 461-9600	<b>HARRIS COUNTY FLOOD CONTROL DISTRICT</b> DATE: SEPT., 2011 SCALE: AS NOTED SHEET NUMBER 13 OF 34
---	---





BENCHMARK:  
HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DEK  
STAMPED "1335-01 88011" ON BRIDGE AT 80' GRADGE  
AND E135-00-00. LOCATED ON DOWNSTREAM CONCRETE  
DOCKWALL ON EAST SIDE OF BRIDGE AT THE STREAM  
CENTER IN THE WHITE OAK BAYOU WATERSHED.  
ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT).



PLAN  
SCALE: 1" = 2'

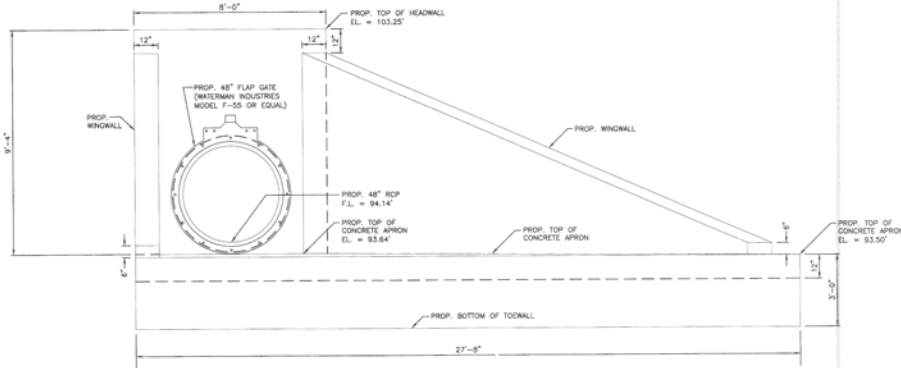


DATE	
DESCRIPTION	
REF	
PROJECT ID#	E5.35-01-00-E004
	JERSEY MEADOWS STORMWATER DETENTION
	JERSEY MEADOWS DRIVE AT E135-00-00
	CULVERT OUTFALL HEADWALL 2 PLAN
PREPARED: MN	
CHECKED: JB	
APPROVED: DB	
<b>E. G. Miller Engineers</b>	
12121 Winchester Lane Houston, Texas 77079 (713) 461-9600	
<b>HARRIS COUNTY FLOOD CONTROL DISTRICT</b>	
DATE: SEPT., 2011 SCALE: AS NOTED	
SHEET NUMBER 15 OF 34	

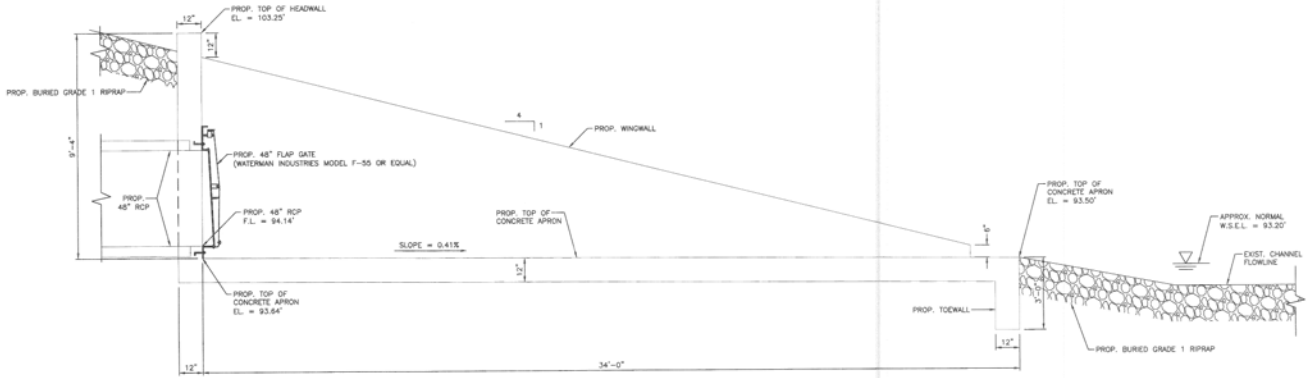
11/14/11 11:50 AM C:\PROJECTS\CULVERT\DWG\111111.dwg



BENCHMARK:  
HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
STAMPED "135-01 BMT" ON BRIDGE AT RIO GRANDE  
AND E135-00-00, LOCATED ON DOWNSTREAM CONCRETE  
SEWER/MAINT ON EAST SIDE OF BRIDGE, AT THE STREAM  
CENTER IN THE WHITE OAK BAYOU WATERSHED.  
ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT).



**ELEVATION**  
SCALE: 1" = 2'

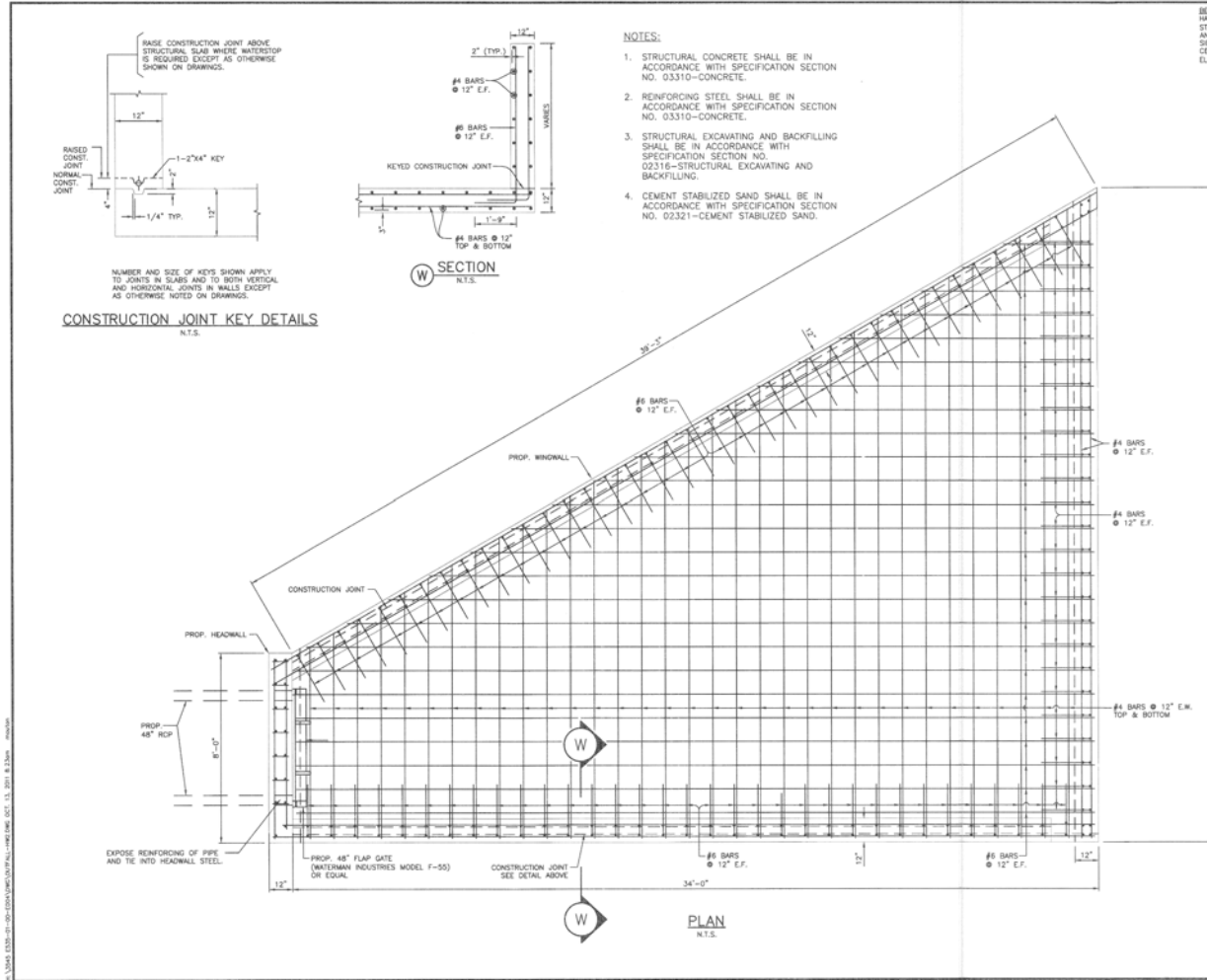


**SECTION**  
SCALE: 1" = 2'

**CULVERT OUTFALL HEADWALL 2 STRUCTURE**  
SEE SHEET 15



DATE	11/12/11
DESCRIPTION	CULVERT OUTFALL HEADWALL 2 DETAILS
PROJECT ID#	E535-01-00-E004
PREPARED BY	WJ
CHECKED BY	JB
APPROVED BY	DB
PROJECT NAME	JERSEY MEADOWS STORMWATER DETENTION JERSEY MEADOWS DRIVE AT E135-00-00
ENGINEER	r.g. miller 12121 Woodlander Lane Houston, Texas 77079 (713) 461-1600
OWNER	HARRIS COUNTY FLOOD CONTROL DISTRICT
DATE	SEPT., 2011
SCALE	AS NOTED
SHEET NUMBER	16 OF 34



- NOTES:**
1. STRUCTURAL CONCRETE SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION NO. 03310-CONCRETE.
  2. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION NO. 03310-CONCRETE.
  3. STRUCTURAL EXCAVATING AND BACKFILLING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION NO. 02316-STRUCTURAL EXCAVATING AND BACKFILLING.
  4. CEMENT STABILIZED SAND SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION NO. 02321-CEMENT STABILIZED SAND.

BENCHMARK:  
HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
STAMPED "1336-01 08011" ON BRIDGE AT RD GRABBE  
AND E135-02-00, LOCATED ON DOWNSTREAM CONCRETE  
SIDEWALK ON EAST SIDE OF BRIDGE AT THE STREAM  
CENTER IN THE WHITE OAK BAYOU WATERSHED.  
ELEVATION=108.91 NAVD 1988 (2001 ADJUSTMENT).

DATE	DESCRIPTION	BY

PROJECT ID#	DESCRIPTION
E535-01-00-E004	JERSEY MEADOWS STORMWATER DETENTION
	JERSEY MEADOWS DRIVE AT E135-00-00
	CULVERT OUTFALL HEADWALL 2
	STRUCTURAL DETAILS (1 OF 2)

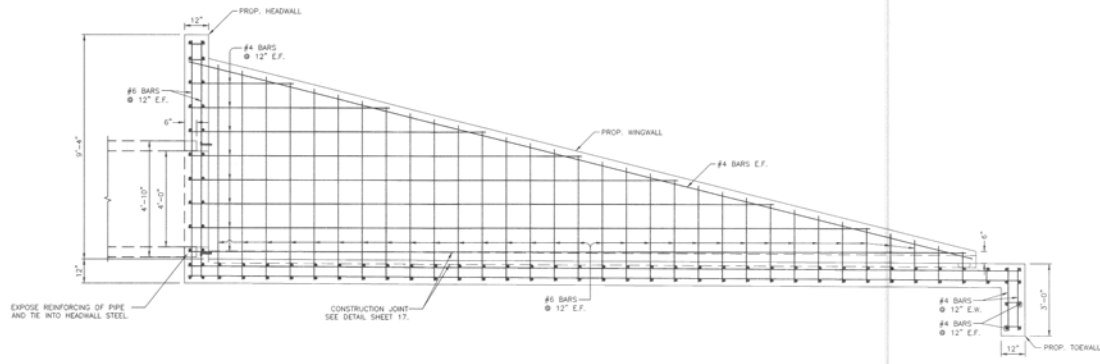
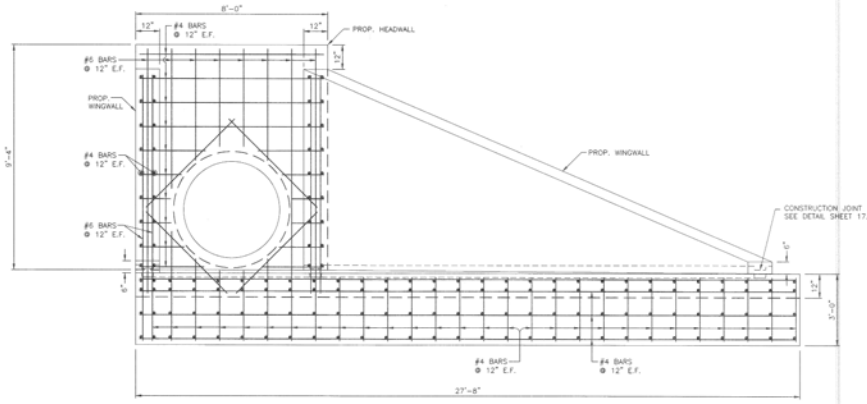
PREPARED: MN	CHECKED: JB	APPROVED: DB

**Ersg. miller engineers**  
13121 Macchetter Lane  
Houston, Texas 77079  
(713) 461-9600  
TXAS REG. LICENSE NO. 1-407



DATE: SEPT. 2011  
SCALE: AS NOTED  
SHEET NUMBER  
17 of 34





BENCHMARK:  
HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
STAMPED "E135-01 BM1" ON BRIDGE AT RIO GRANDE  
AND E135-02-03 LOCATED ON DOWNSTREAM CONCRETE  
SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM  
CENTER IN THE WHITE OAK BAROU INTERSECTED.  
ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT)

NO.	DATE	DESCRIPTION

PROJECT ID#	E535-01-00-E004
PREPARED BY	JERSEY MEADOWS STORMWATER DETENTION
CHECKED BY	JERSEY MEADOWS DRIVE AT E135-00-00
APPROVED BY	CULVERT OUTFALL HEADWALL 2
	STRUCTURAL DETAILS (2 OF 2)

PREPARED BY	JN
CHECKED BY	JB
APPROVED BY	DB

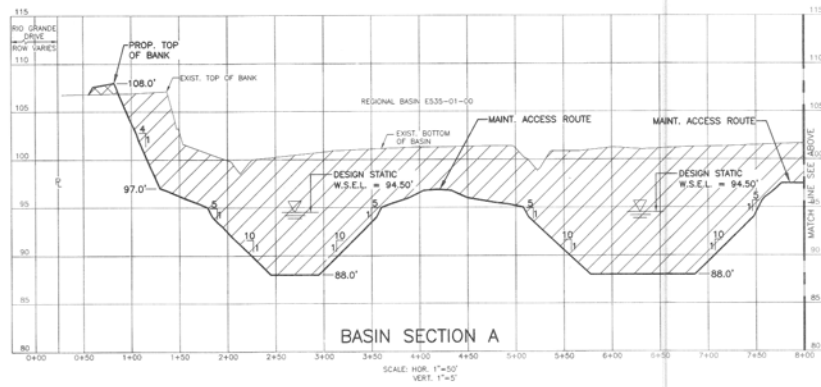
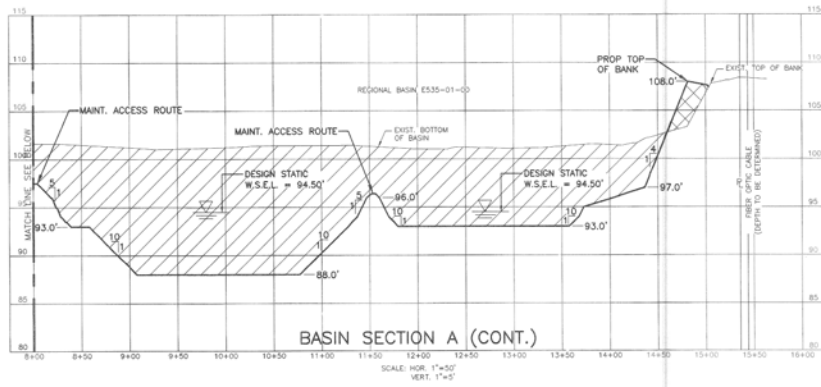
<b>ME</b> E. & M. Miller engineers	12121 Wilshire Lane Houston, Texas 77079 (713) 661-9600 E.O. 14176 APPROVED BY: J.M.F.
--	---

HARRIS COUNTY FLOOD CONTROL DISTRICT	DATE: APRIL, 2011 SCALE: AS NOTED
	SHEET NUMBER 18 OF 34

*John Z...*  
APR 22 2011





**BENCHMARK:**  
HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
STAMPED: T135-01 (NO.1) ON BRIDGE AT RIO GRANDE  
AND E135-00-00, LOCATED ON DOWNSTREAM CONCRETE  
SIDWALK ON EAST SIDE OF BRIDGE, AT THE STREAM  
CENTER IN THE WHITE OAK BATOU WATERSHED.  
ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT).



**LEGEND:**

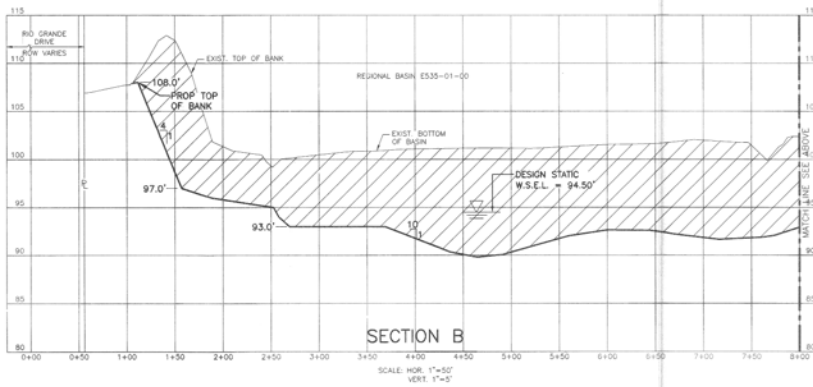
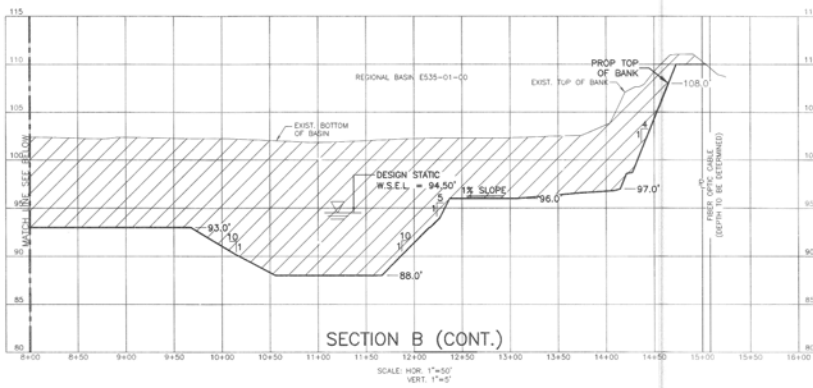
- FILL AREA
- CUT AREA



DATE	APRIL 2011
SCALE: HOR.	1"=50'
SCALE: VERT.	1"=5'
SHEET NUMBER	20 OF 34
PROJECT ID#	E535-01-00-E004
DESCRIPTION	JERSEY MEADOWS STORMWATER DETENTION JERSEY MEADOWS DRYVE AT E135-00-00
PREPARED BY	DM
CHECKED BY	JB
APPROVED BY	DB
DESIGNER	<b>E r g miller engineers</b> 12121 Wickchester Lane Houston, Texas 77079 (713) 461-9800
TITLE	BASIN CROSS SECTIONS (1 OF 6)



HARRIS COUNTY  
FLOOD CONTROL DISTRICT



BENCHMARK:  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 STAMPED: 1335-21 BR417 ON BRIDGE AT RIO GRANDE  
 AND E135-00-20. LOCATED ON DOWNSTREAM CONCRETE  
 SIDEWALK ON EAST SIDE OF BRIDGE AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT).



NO.	DESCRIPTION	DATE

PROJECT ID# E535-01-00-E004  
 JERSEY MEADOWS STORMWATER DETENTION  
 JERSEY MEADOWS DRIVE AT E135-00-00  
 BASIN CROSS SECTIONS (2 OF 6)

PREPARED: DM  
 CHECKED: JB  
 APPROVED: DB

**E r g miller engineers**  
 12121 Wicklander Lane  
 Houston, Texas 77079  
 (713) 461-9800  
100% FREE ESTIMATION NO. 7-431

**LEGEND:**  
 CUT AREA



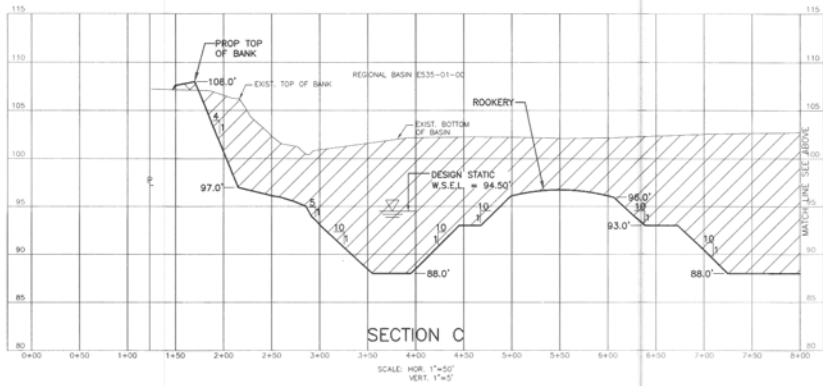
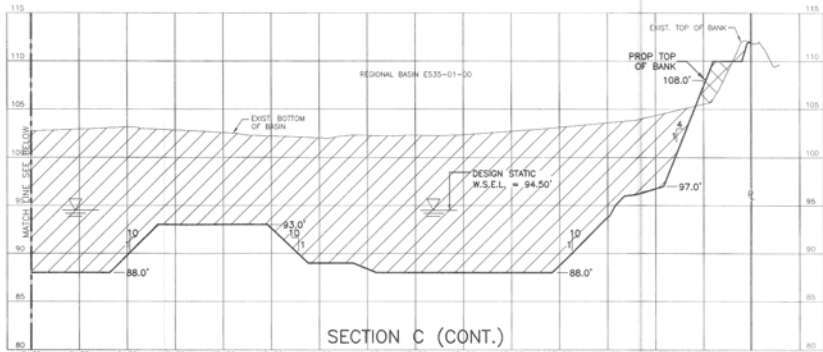
**HARRIS COUNTY FLOOD CONTROL DISTRICT**

DATE: APRIL, 2011  
 SCALE: HOR: 1"=50'  
 VERT: 1"=5'

SHEET NUMBER  
**21** OF 34

C:\Users\jsteele\Documents\Projects\2011\2011-4-25\2011-4-25.dwg





BENCHMARK:  
HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
STAMPED "R135-21" BUILT ON BRIDGE AT RFD GRANGE  
AND E135-00-20, LOCATED ON DOWNSTREAM CONCRETE  
SODIUM ON EAST SIDE OF BRIDGE AT THE STREAM  
CENTER IN THE WHITE OAK BAYOU WATERSHED.  
ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT)



LEGEND:  
[Hatched Box] FILL AREA  
[Hatched Box] CUT AREA



DATE	DESCRIPTION

PROJECT ID# E535-01-00-E004  
 JERSEY MEADOWS STORMWATER DETENTION  
 JERSEY MEADOWS BARGE AT E135-00-00  
 BASIN CROSS SECTIONS (3 OF 6)

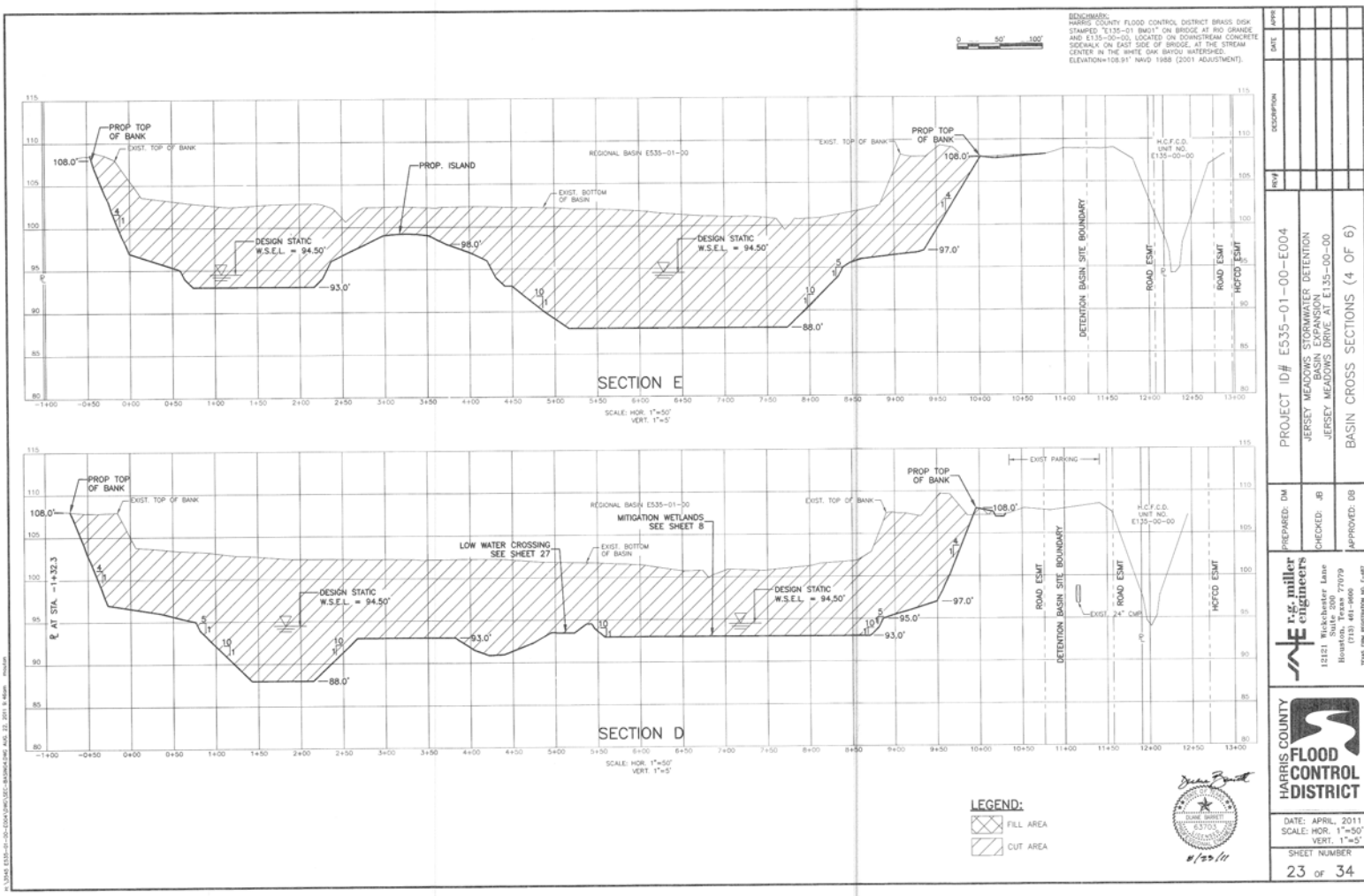
PREPARED: DM  
 CHECKED: JB  
 APPROVED: DB

**E. R. Miller Engineers**  
 12121 Winchester Lane  
 Houston, Texas 77079  
 (713) 611-9600  
 STATE REG. NO. 12-009

HARRIS COUNTY FLOOD CONTROL DISTRICT

DATE: APRIL, 2011  
 SCALE: HOR. 1"=50'  
 VERT. 1"=5'

SHEET NUMBER  
 22 OF 34

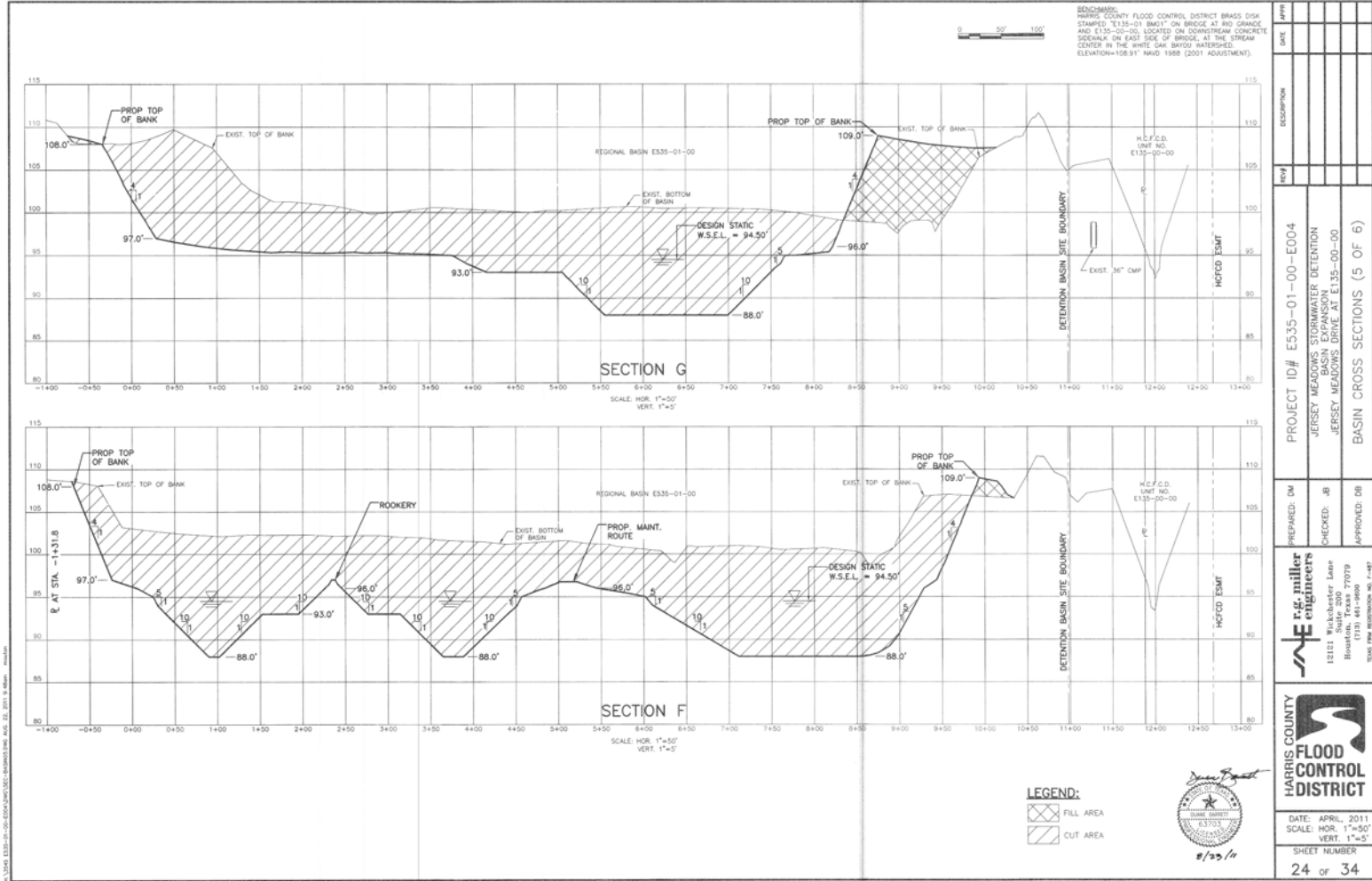


NO.	DESCRIPTION
1	PROJECT ID# E535-01-00-E004
2	JERSEY MEADOWS STORMWATER DETENTION
3	JERSEY MEADOWS DRIVE AT E135-00-00
4	BASIN CROSS SECTIONS (4 OF 6)

**r.e. miller engineers**  
 12121 Wickchester Lane  
 Houston, Texas 77079  
 (713) 481-8600  
 1000 ONE EIGHTH AVENUE, 7-107



*John B. Smith*  
 HARRIS COUNTY FLOOD CONTROL DISTRICT  
 APR 20 2011



BENCHMARK:  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 MARKED "E135-01 BM17" ON BRIDGE AT 80' GRADE  
 AND E135-02-00, LOCATED ON DOWNSTREAM CONCRETE  
 SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT)



DATE	DESCRIPTION

PROJECT ID#	E535-01-00-E004
PREPARED BY	JERSEY MEADOWS STORMWATER DETENTION
CHECKED BY	JERSEY MEADOWS DRIVE AT E135-00-00
APPROVED BY	BASIN CROSS SECTIONS (5 OF 6)

PREPARED BY	DM
CHECKED BY	JB
APPROVED BY	DB

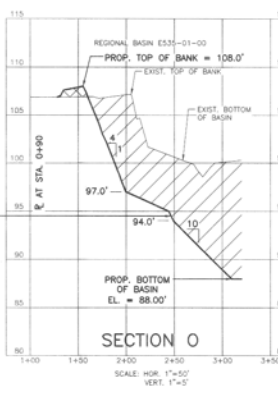
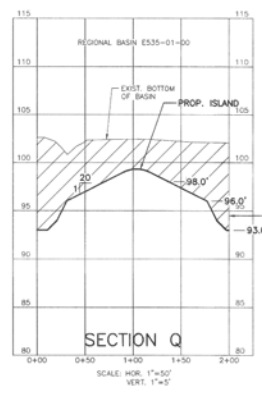
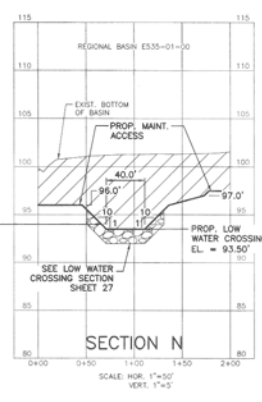
12121 Richchester Lane Houston, Texas 77079 (713) 461-9900	
<small>STATE FILE REGISTRATION NO. 1-487</small>	

DATE:	APRIL, 2011
SCALE:	HOR. 1"=50' VERT. 1"=5'
SHEET NUMBER	24 of 34



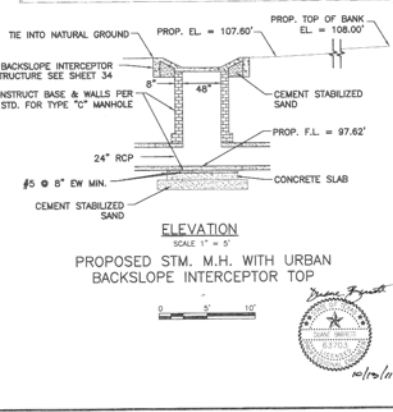
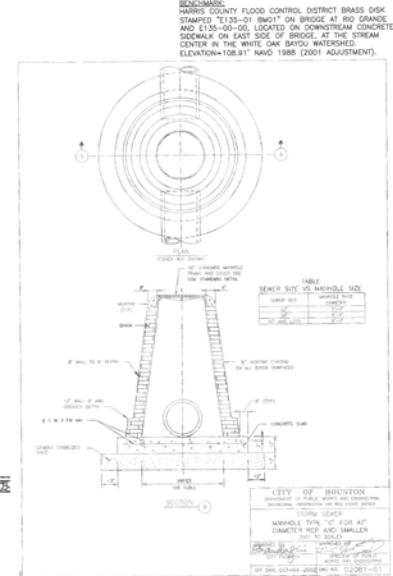
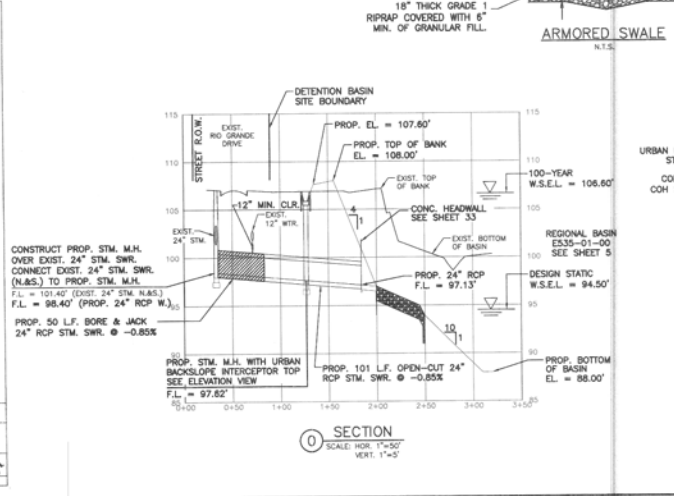
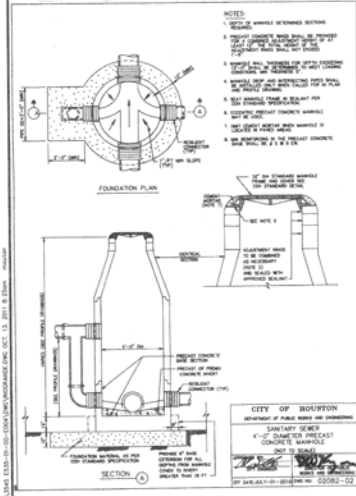
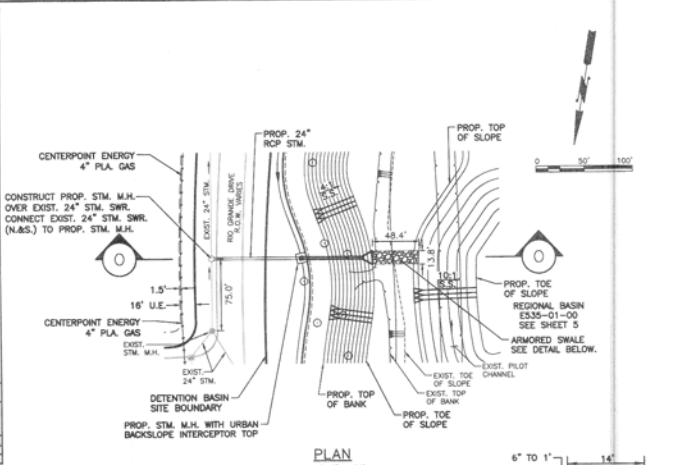
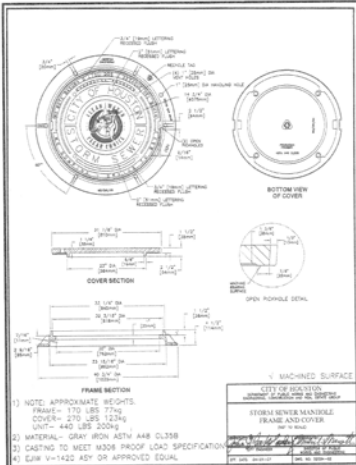
REVISIONS:  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS CREEK  
 STAFFED "E135-01 (RM)" ON BRIDGE AT RIO GRANDE  
 AND E135-02-05, LOCATED ON DOWNSTREAM CONCRETE  
 SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.91' NAVD 1989 (2001 ADJUSTMENT).



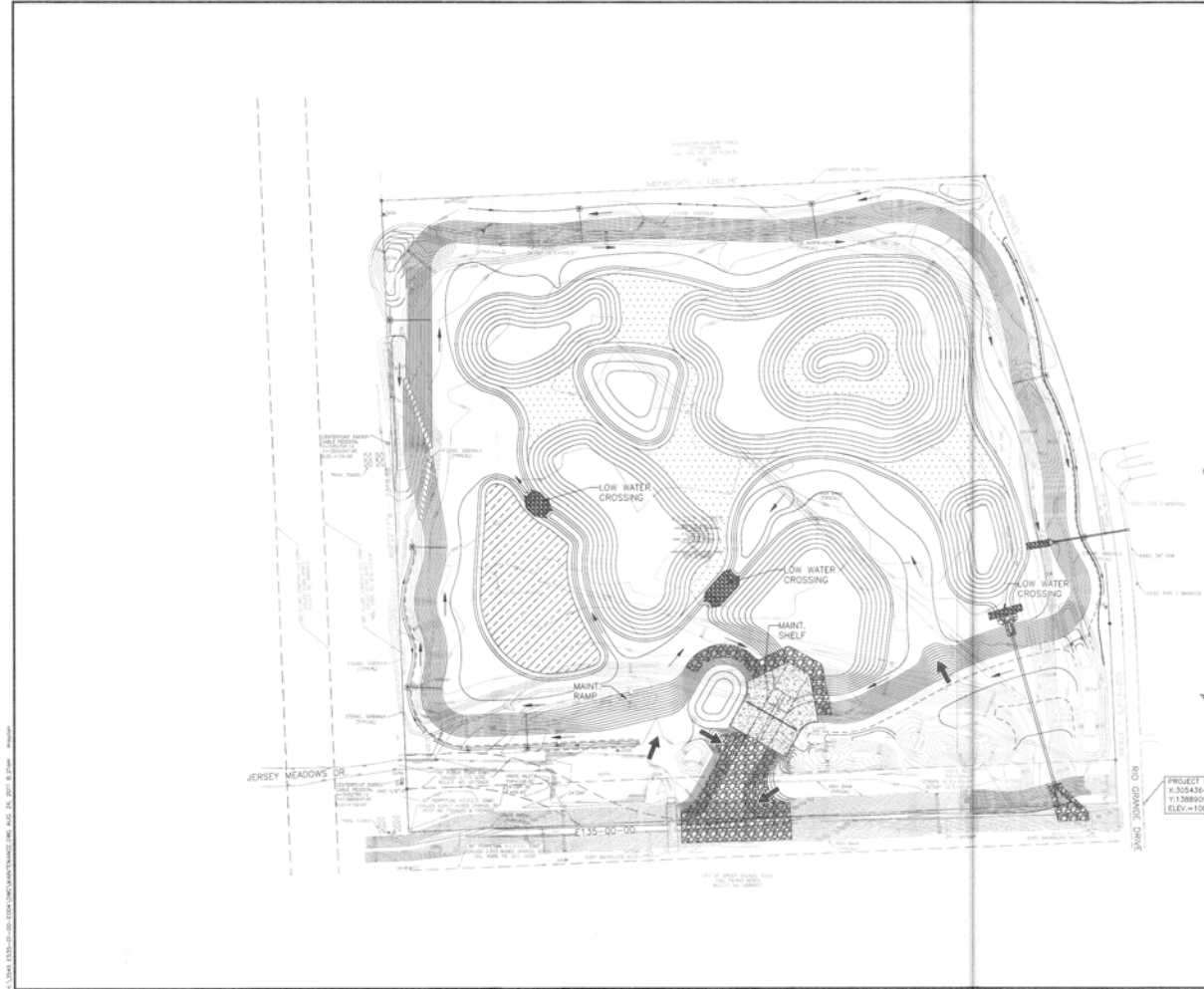
- LEGEND:**
- FILL AREA
  - CUT AREA
  - RIP RAP



DATE	REVISION	BY	CHECKED	APPROVED
PROJECT ID# E535-01-00-E004				
JERSEY MEADOWS STORMWATER DETENTION				
JERSEY MEADOWS DRIVE AT E135-00-00				
BASIN CROSS SECTIONS (6 OF 6)				
PREPARED: DM	CHECKED: JB	APPROVED: DB		
 <b>E.F. Miller Engineers</b> 12121 Ruckelshaus Lane Houston, Texas 77079 (713) 481-9600 <small>STATE ENGINEERING NO. 1-487</small>				
 <b>HARRIS COUNTY FLOOD CONTROL DISTRICT</b>				
DATE: APRIL, 2011 SCALE: HOR. 1"=50' VERT. 1"=5' SHEET NUMBER <b>25 OF 34</b>				



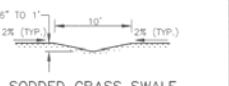
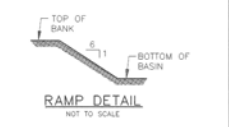
PROJECT ID#	E535-01-00-E004
DESCRIPTION	JERSEY MEADOWS STORMWATER DETENTION JERSEY MEADOWS DRIVE AT E135-00-00
DATE	
PREPARED BY	MM
CHECKED BY	JB
APPROVED BY	DB
DATE: SEPT., 2011	
SCALE: HOR. 1"=50'	
VERT. 1"=5'	
SHEET NUMBER	26 OF 34



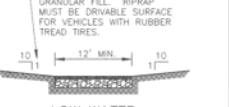
**BENCHMARKS:**  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 STAMPED "E135-01 8601" ON BRIDGE AT RIO GRANDE  
 AND E135-02-02, LOCATED ON DOWNSTREAM CONCRETE  
 SIDEWALK ON EACH SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT)



**LEGEND**  
 ← MAINTENANCE VEHICLE ACCESS POINT  
 — MAINTENANCE VEHICLE TRAVEL ROUTE



**SODDED GRASS SWALE FOR INTERCEPTOR STRUCTURE OUTFALL**  
 NOT TO SCALE



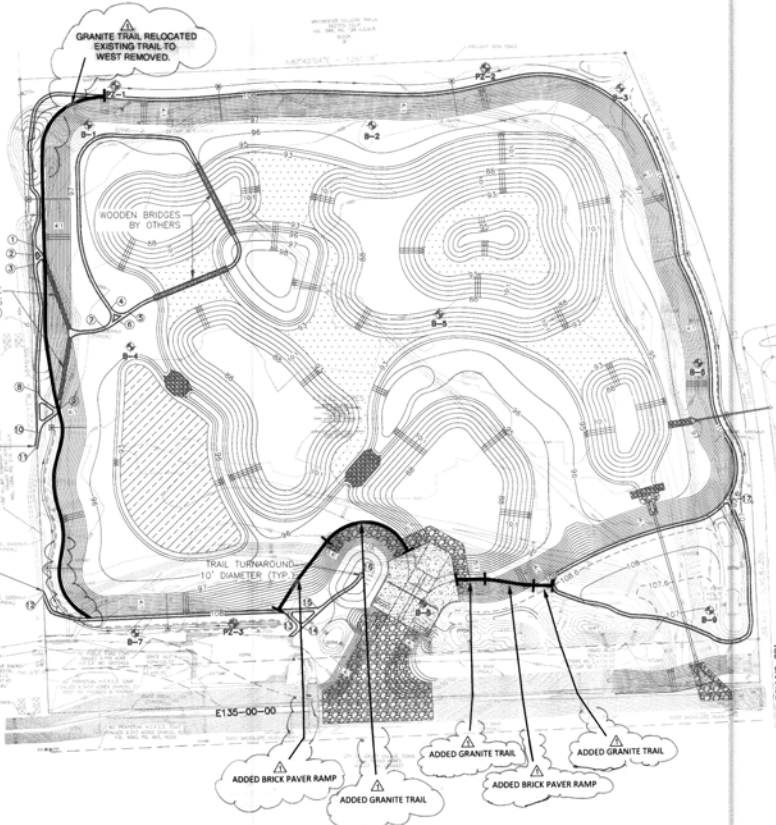
**LOW WATER CROSSING SECTION**  
 NOT TO SCALE

PROJECT BENCHMARK: RM 050442  
 X:302456.517(GRID)  
 Y:1388997.146(GRID)  
 ELEV.=108.91'

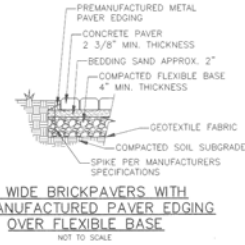
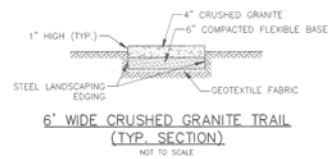
DATE	APR 11 2011
REVISION	
NO.	
DESCRIPTION	
PROJECT ID#	E535-01-00-E004
PREPARED BY	MIN
CHECKED BY	JB
APPROVED BY	DB
13121 Ruskheimer Lane Houston, Texas 77079 (713) 461-9600 <small>TX REG. REGISTRATION NO. 1-4475</small>	
DATE: APRIL, 2011 SCALE: AS NOTED SHEET NUMBER <b>27 OF 34</b>	

*Don Burt*  
  
 8/05/10

Trail Point Table		
Point #	Easting	Northing
①	3052800.88	13889001.84
②	3052817.06	13889990.57
③	3052802.48	13889973.80
④	3052958.59	13889879.68
⑤	3052997.43	13889872.80
⑥	3052973.73	13889856.37
⑦	3052846.74	13889836.50
⑧	3052806.35	13889705.79
⑨	3052846.50	13889665.62
⑩	3052808.25	13889621.46
⑪	3052802.11	13889590.56
⑫	3052818.63	13889284.30
⑬	3053358.10	13889248.42
⑭	3053351.28	13889217.83
⑮	3053389.05	13889251.45
⑯	3053478.65	13889323.29
⑰	3054241.19	13889478.85



BENCHMARK: HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK STAMPED "135-01 BENT" ON BRIDGE AT RIO GRANDE AND E135-00-00. LOCATED ON DOWNSTREAM CONCRETE SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM CENTER IN THE WHITE OAK BAYOU WATERSHED. ELEVATION=108.91' NAVD (2011 ADJUSTMENT).



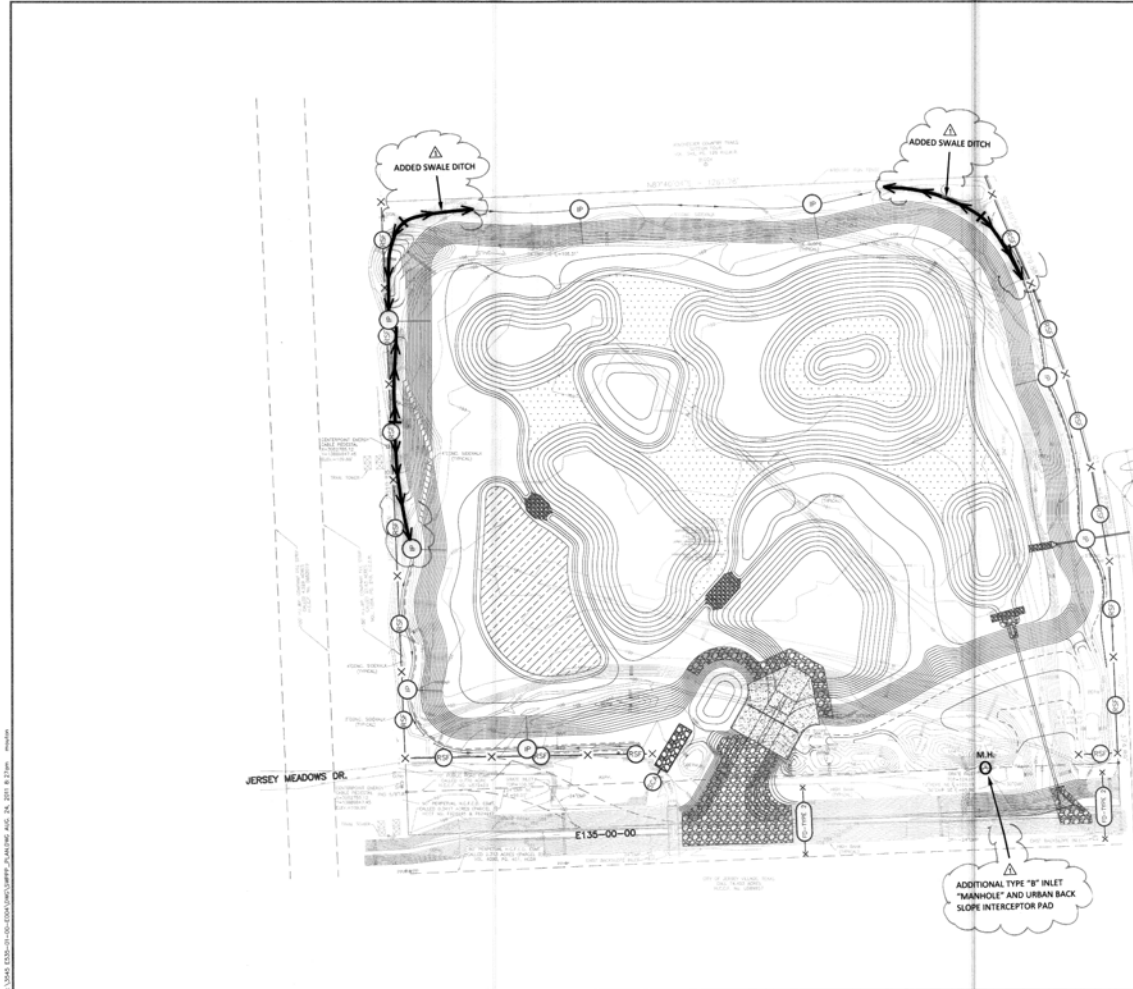
PROJECT BENCHMARK: RM 020442  
 X: 3054364.397(GRD)  
 Y: 13889097.146(GRD)  
 ELEV=108.91'

NOTE:  
 MIN. DISTANCE FROM TRAIL TO  
 TOP OF BANK SHALL BE 2.0'



*James P. Smith*  
 8/29/11

REV	DESCRIPTION	DATE
	RECORD DRAWING CORRECTIONS	
PROJECT ID# E535-01-00-E004	JERSEY MEADOWS STORMWATER DETENTION	
	JERSEY MEADOWS DRIVE AT E135-00-00	
TRAIL LAYOUT		
PREPARED: MN	CHECKED: JB	APPROVED: EB
DATE: APRIL, 2011		
SCALE: AS NOTED		
SHEET NUMBER		
28 OF 34		



**BENCHMARK:**  
 HARRIS COUNTY FLOOD CONTROL DISTRICT BRASS DISK  
 STAMPS: "E135-01 86011" ON BRIDGE AT RHO GRANITE  
 AND "E135-02-20" LOCATED ON DOWNSTREAM CONCRETE  
 SIDEWALK ON EAST SIDE OF BRIDGE, AT THE STREAM  
 CENTER IN THE WHITE OAK BAYOU WATERSHED.  
 ELEVATION=108.91' NAVD 1988 (2001 ADJUSTMENT).

- NOTES:**
- SOD ON SLOPES AND SWALES WHERE NO OTHER PROTECTION PROVIDED AS PER H.C.F.C.D. DETAIL, SEE SHEET 30.
  - SOD DISTURBED AREAS OF CHANNEL E135-00-00. PER SHEET 30.

- LEGEND**
- PROP INTERCEPTOR SODDING
  - ⊗ PROP REINFORCED SILT FENCE
  - STABILIZED CONSTRUCTION ACCESS
  - TYPE 2 FILTER DAM TYPE 2

PROJECT BENCHMARK: RM 050482  
 X: 325458.397(GRID)  
 Y: 1388997.146(GRID)  
 ELEV.=108.91'



*John F. Smith*  
 8/22/16

REV	DESCRIPTION	DATE
	RECORD DRAWING CORRECTIONS	

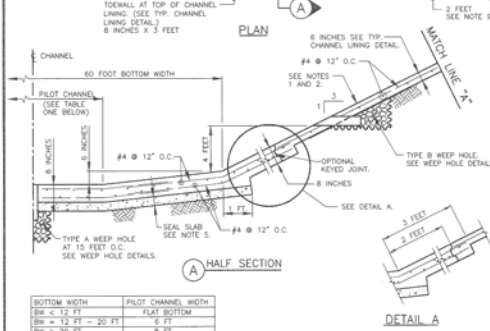
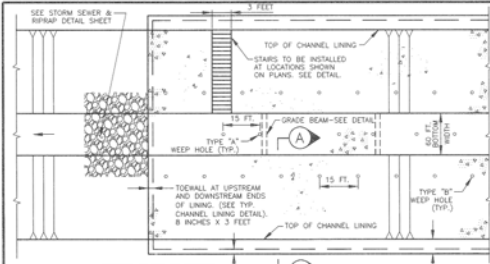
PROJECT ID#	E535-01-00-E004
PREPARED: MN	JERSEY MEADOWS STORMWATER DETENTION
CHECKED: JB	JERSEY MEADOWS DRIVE AT E135-00-00
APPROVED: DB	STORMWATER POLLUTION PREVENTION PLAN

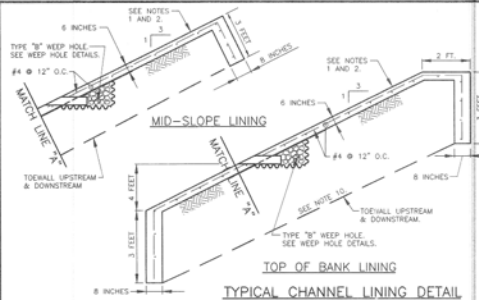
 12121 Winchester Lane Houston, Texas 77079 (713) 461-9600 TX REG. ENGINEER NO. 17467	 HARRIS COUNTY <b>FLOOD CONTROL DISTRICT</b>
DATE: APRIL, 2011	SCALE: AS NOTED
SHEET NUMBER	29 OF 34



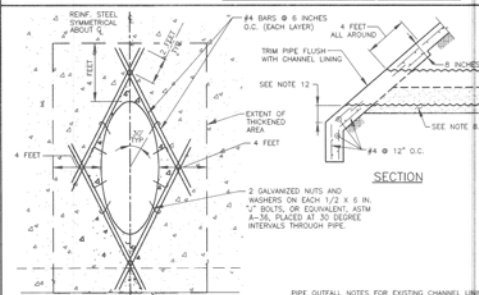




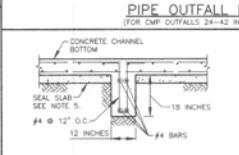
TYPICAL TRAPEZOIDAL CHANNEL LINING



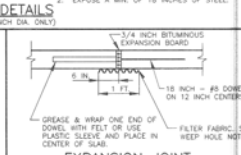
TYPICAL CHANNEL LINING DETAIL



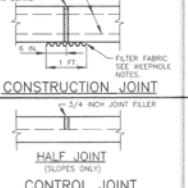
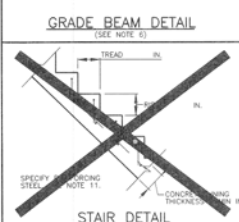
PIPE OUTFALL DETAILS



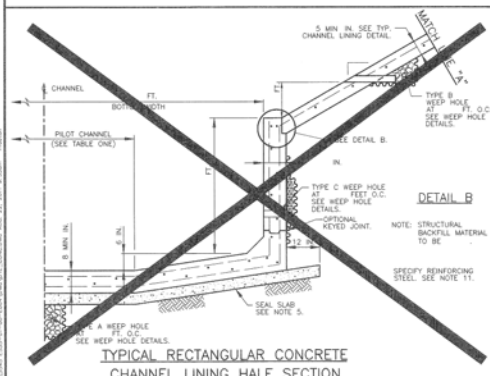
GRADE BEAM DETAIL



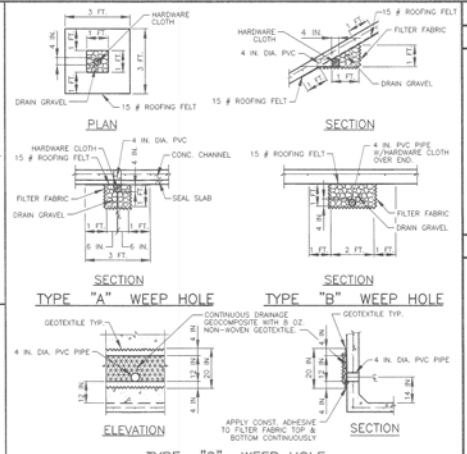
EXPANSION JOINT



HALF JOINT CONTROL JOINT



TYPICAL RECTANGULAR CONCRETE CHANNEL LINING HALF SECTION



- WEEP HOLE NOTES:**
- 1. MATERIALS:
 

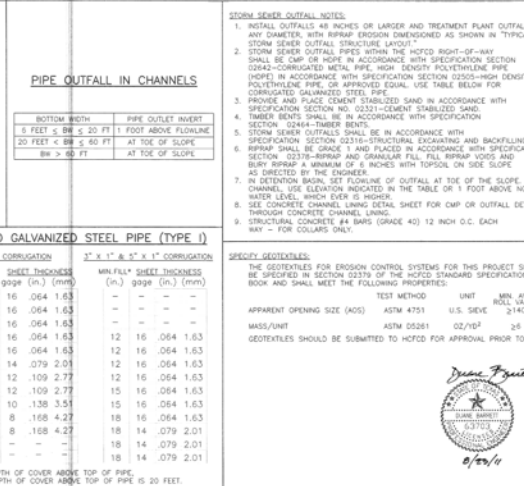
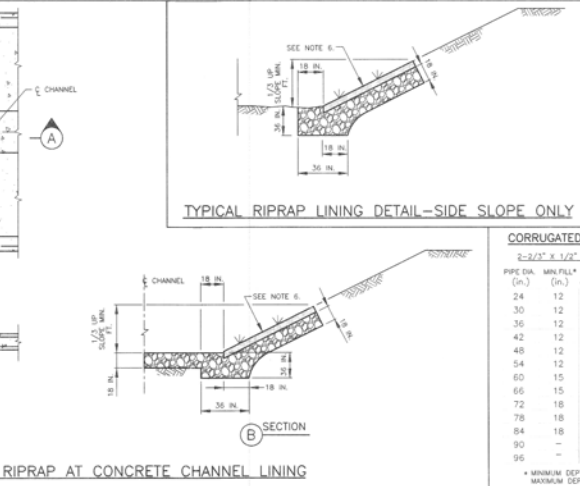
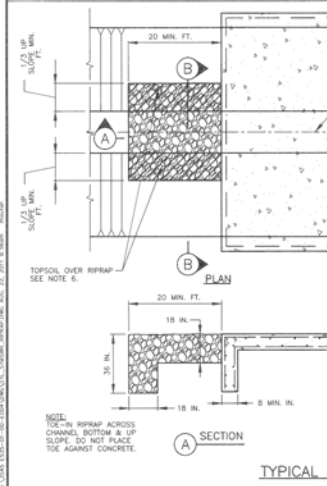
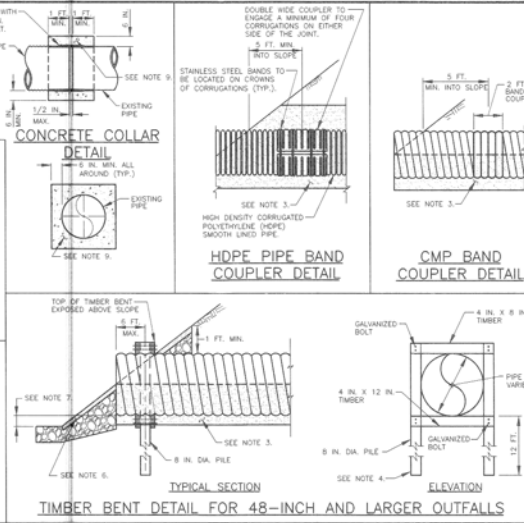
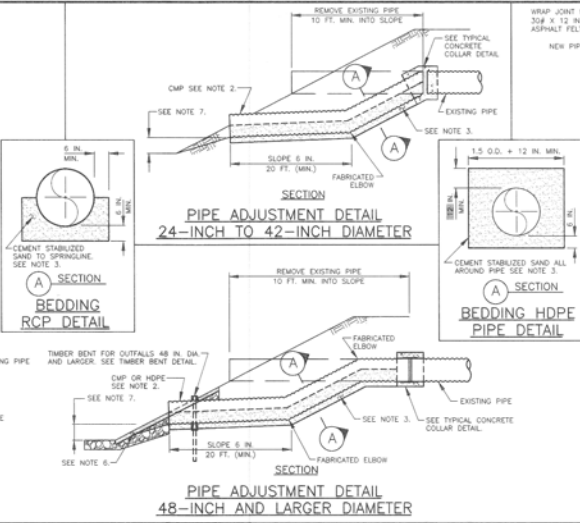
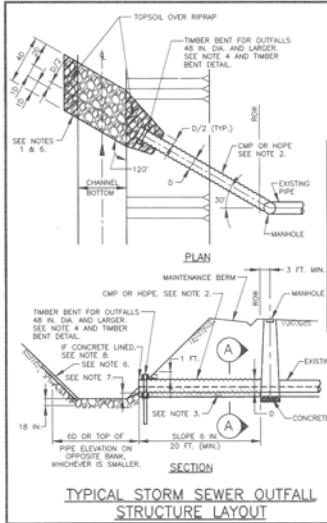
a. PIPE: 4 INCH DIA. SCH. 40 PVC	b. FILTER FABRIC: NON-WOVEN GEOTEXTILE
c. DRAIN GRAVEL: 1/4" MIN. AGG. SIEVE NO. 100	MIN. AGG. SIEVE NO. 100
d. TYPE "A" WEEP HOLE: 3/4" IN. DIA. MIN. AGG. SIEVE NO. 70	MAX. AGG. SIEVE NO. 70
TYPE "B" WEEP HOLE: 3/8" IN. DIA. MIN. AGG. SIEVE NO. 70	MAX. AGG. SIEVE NO. 70
TYPE "C" WEEP HOLE: 1/2" IN. DIA. MIN. AGG. SIEVE NO. 70	MAX. AGG. SIEVE NO. 70
  - 2. CUT WEEP HOLE PIPE FLUSH WITH CONCRETE SURFACE.
  - 3. TYPE "A" AND "C" WEEP HOLES FOR TYPICAL RECTANGULAR CONCRETE CHANNEL LINING TO BE STAGGERED.

- CONCRETE CHANNEL LINING DETAILS NOTES:**
- STRUCTURAL CONCRETE FOR CONCRETE CHANNEL LINING AND NONSTRUCTURAL CONCRETE FOR SEAL SLAB SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION NO. 0310-CONCRETE.
  - REINFORCING STEEL SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION NO. 0310-CONCRETE.
  - EXCAVATION AND BACKFILL FOR CONCRETE CHANNEL LINING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION NO. 0316-STRUCTURAL EXCAVATING AND BACKFILLING.
  - RRRIP SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION NO. 02378-RRRIP AND GRANULAR FILL.
  - NON-REINFORCED 4 INCH MINIMUM NONSTRUCTURAL CONCRETE SEAL SLAB WILL BE REQUIRED BENEATH THE BOTTOM OF CONCRETE CHANNELS.
  - STRUCTURAL CONCRETE GRADE BEAMS SHALL BE INSTALLED TRANSVERSELY AT 20 FOOT MAX. CENTERS ON THE BOTTOM OF CONCRETE CHANNELS.
  - CONCRETE LINED CHANNELS WITH BOTTOM WIDTHS EQUAL TO OR GREATER THAN 20 FEET:
    - A. PLACE CONSTRUCTION AND/OR EXPANSION JOINT IN CONCRETE LOW-FLOW AND TRAPEZOIDAL BOTTOM SECTIONS AT 20 FOOT MIN. TO 50 FOOT MAX. SPACING CONTINUOUSLY THROUGH CHANNEL LINING.
    - B. PLACE CONTROL JOINT ON SLOPES AT 20 FOOT SPACING.
    - C. CEMENT STABILIZED SAND SHALL BE PROVIDED AND PLACED IN ACCORDANCE WITH SPECIFICATION SECTION NO. 03251-CEMENT STABILIZED SAND.
  - DELETE 2 FT FLAT EDGE WHEN LINING IS BELOW TOP OF BANK. SEE MID-SLOPE LINING DETAIL.
  - UPSTREAM AND DOWNSTREAM TOE SHALL 3 FOOT DEPTH AT BOTTOM OF SLOPE AND 8 INCHES THICK.
  - #4 AT 12 INCH O.C. MINIMUM OR EQUIVALENT WELDED WIRE FABRIC.
  - BARS BASED ON SLOPE. MINIMUM 1 FOOT VERTICAL AT TOE OF SLOPE.

DATE: 08/11	DESCRIPTION:
PROJECT ID# E535-01-00-E004	JERSEY MEADOWS STORMWATER DETENTION
JERSEY MEADOWS DRIVE AT E135-00-00	CONCRETE CHANNEL LINING DETAILS
PREPARED: MA	CHECKED: JB
APPROVED: DB	

**E.R. & M. Engineers**  
12121 Wakecenter Lane  
Houston, Texas 77079  
(713) 461-8800  
FLOOD CONTROL DISTRICT

**HARRIS COUNTY FLOOD CONTROL DISTRICT**  
DATE: 08-2011  
SCALE: NTS  
SHEET NUMBER 31 of 34



**CORRUGATED GALVANIZED STEEL PIPE (TYPE I)**

2'-2 1/2" x 1/2" CORRUGATION		1' x 1' & 5' x 1' CORRUGATION	
PIPE DIA. (in.)	MIN. FILL* (in.)	PIPE DIA. (in.)	MIN. FILL* (in.)
24	12	16	064
30	12	16	064
36	12	16	064
42	12	16	064
48	12	16	064
54	12	14	079
60	15	12	109
66	15	12	109
72	18	10	138
78	18	8	168
84	18	8	168
90	-	-	-

\* MINIMUM DEPTH OF COVER ABOVE TOP OF PIPE.  
MAXIMUM DEPTH OF COVER ABOVE TOP OF PIPE IS 20 FEET.

**DATE** \_\_\_\_\_

**DESCRIPTION** \_\_\_\_\_

**REV** \_\_\_\_\_

**PROJECT ID#** E535-01-00-E004

**JERSEY MEADOWS STORMWATER DETENTION**

**JERSEY MEADOWS DRIVE AT E135-00-00**

**STORM SEWER AND RIPRAP DETAILS**

**PREPARED BY** MN

**CHECKED BY** JB

**APPROVED BY** DB

**DATE** 08-2011

**SCALE** NTS

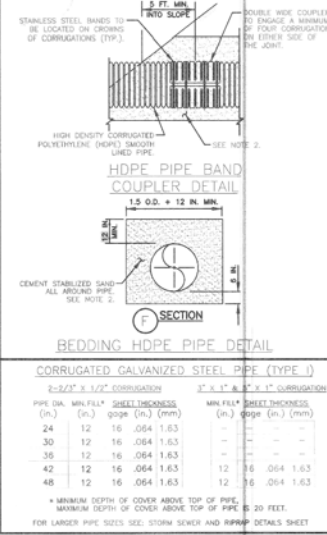
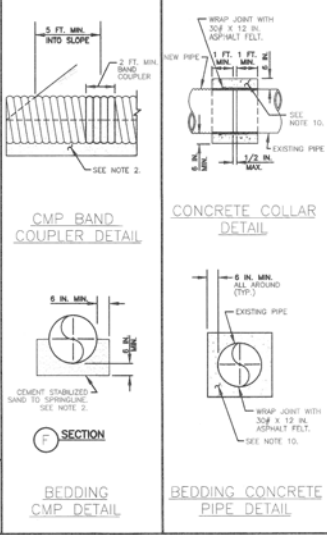
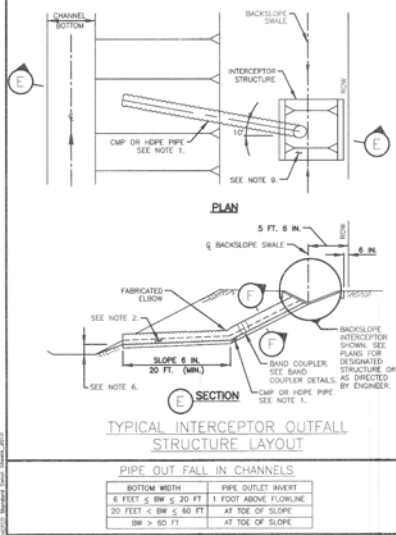
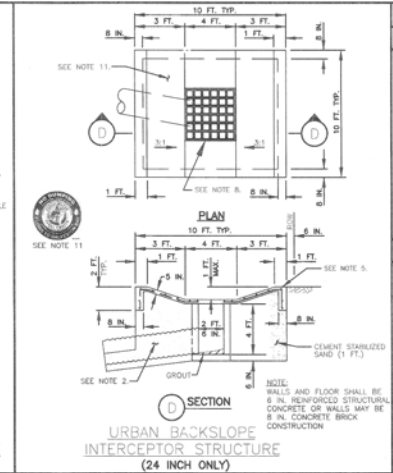
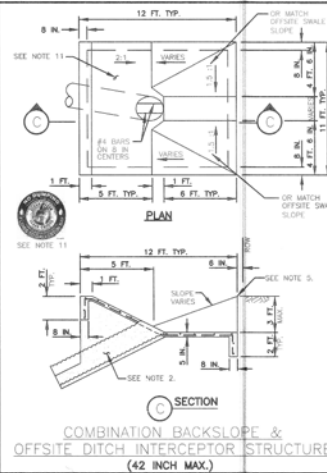
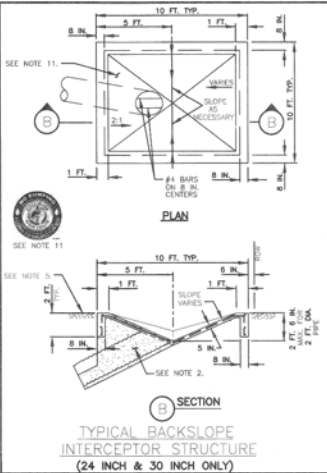
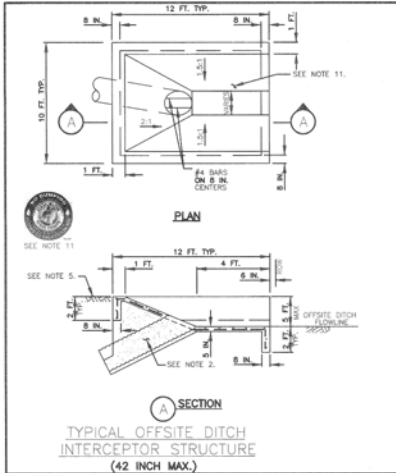
**SHEET NUMBER** 32 of 34

**12121 Wilkshire Lane**  
**Houston, Texas 77079**  
**(713) 461-8600**

**12121 Wilkshire Lane**  
**Houston, Texas 77079**  
**(713) 461-8600**

**DATE** 08/20/11





DATE PLOTTED	
DESCRIPTION	
PROJECT ID#	E535-01-00-E004
PREPARED BY	PROJECT ENGINEER
CHECKED BY	PROJECT ENGINEER
APPROVED BY	PROJECT ENGINEER
DATE	JULY, 2011
SCALE	N.T.S.
SHEET NUMBER	34 OF 34

**HARRIS COUNTY FLOOD CONTROL DISTRICT**

12121 Northchase Lane  
Houston, Texas 77079  
(713) 481-9600  
WWW.HCFCD.COM

**Erg. Miller engineers**

12121 Northchase Lane  
Houston, Texas 77079  
(713) 481-9600  
WWW.ERG.MILLER.COM

DATE: JULY, 2011  
SCALE: N.T.S.  
SHEET NUMBER: 34 OF 34

## District Library Construction Plans Submittal



**Instructions:** Submit this form with Construction Plans or Drawings to the District Librarian for processing.

**Project ID:** E535-01-00-E004

**Date:** 03/03/2014

**Unit Number:** E535-01-00

**Job Number:** 12/0052

**Subject:** Jersey Meadows Stormwater Detention Basin; Record Drawings; Record Drawing "Red Lines":

*Full-size*

**Key Map Location:** 409- F, G, K and L.

**Precinct:** 4

**Engineer:** R. G. Miller Engineers; Duane Barrett, P.E. # 63703

**Contractor:** Serco Construction Group, Ltd.

**Commissioners Court Award Date:** 04/30/2012

*Please scan.*