

REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

On this 27th day of October, 2015, Commissioners Court came on to be heard and reviewed the accompanying notice of Gonzalez Construction Enterprise, Inc. Job Location Williams Ranch Ditch Drainage Improvements, Richmond, TX 77469 Date 10/13/2015 Bond No. TX 822509, Permit No. 2015-3591 to make use of certain Fort Bend County property subject to, "A Revised Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas the 3rd day of August, 1987, recorded in Volume _____ of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Article 1436a, Vernon's Texas Civil Statutes. Upon Motion of Commissioner Meyers, seconded by Commissioner Patterson, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
 - a. 48 hours in advance of construction start up, and
 - b. when construction is completed and ready for final inspection

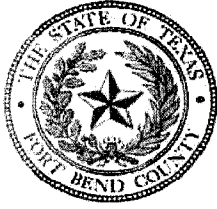
Mail notices to: Permit Administrator
Fort Bend County Engineering
301 Jackson Street
Richmond, Texas 77469
281-633-7500
3. This permit expires one (1) year from date of permit if construction has not commenced.

By: Ricky Stangle, PE, PTOE
for County Engineer

Presented to Commissioners Court and approved.
Recorded in Volume 10-27-15
Minutes of Commissioners Court

By: _____
Drainage District Engineer/Manager

Clerk of Commissioners Court
By: Amelia White
Deputy



REVIEW FORM

On June 11, 2015 the Fort Bend County Drainage District reviewed the:

1. Plans Williams Ranch Ditch – Fort Bend County LID No. 6 (sealed 6/3/15)

2. Plat _____

3. Permit _____

and agrees that this project meets with minimum requirements of this department or office. The following comments may need to be addressed or observed.

The proposed improvements are in accordance with the "Drainage Impact Analysis for the Development of the 72.9 acre Williams Ranch And Update to the Rabbs Bayou Master Drainage Plan within FBCLID No. 6", previously approved by the FBCDD on April 21, 2015. Approval letters from the FBCLID No. 6 and Williams Ranch MUD No. 1 engineers are attached. The FBCLID No. 6 letter specifically notes that, "FBCLID No. 6 will have ownership and be responsible for maintenance of the drainage channel and associated drainage structures." The proposed improvements include a tie into the FBCDD Rabbs Bayou right-of-way. The construction plans specifically note that the contractor must obtain a permit prior to any work within the FBCDD Rabbs Bayou right-of-way.

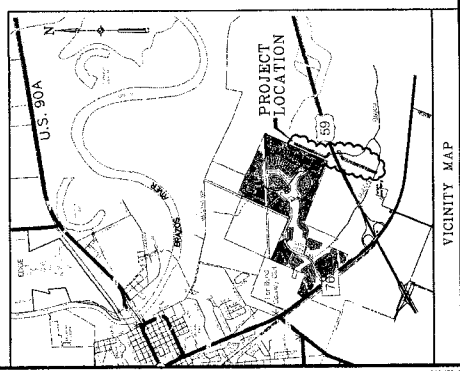

Reviewed by:


Signature of Department Head

Based on review of the submitted information and stated conclusions, the Drainage District staff interposes no objection of the proposed drainage plan for the above referenced project.

Please note this does not necessarily mean that the entire supporting data and calculations have been completely checked and verified. However, the report is signed, dated and sealed by a Professional Engineer licensed to practice in the State of Texas, which therefore conveys the engineer's responsibility and accountability.

CONSTRUCTION PLANS FOR DRAINAGE IMPROVEMENTS FOR WILLIAMS RANCH DITCH FORT BEND COUNTY LID No. 6 FORT BEND COUNTY, TEXAS



CITY OF RICHMOND

[Signature]
TERESA VELA
CITY MANAGER

[Signature]
KELLY ADLER
SEALY, RANALOVA, P.C.
CITY ENGINEER

DATE: 4/17/15

DATE: 4/17/15

VOID IF CONSTRUCTION HAS NOT COMPLETED WITHIN ONE YEAR OF APPROVAL.



Engineering and Surveying
9990 Richmond Avenue, Suite 450 N
Houston, Texas 77042
(713) 783-7788 (713) 783-3580, Fax
TDBPE FIRM REG. No. 280
TDBLS FIRM REG. No. 104466

DATE: APRIL 2015

JOB NO. 2014-046-002

FORT BEND COUNTY ENGINEER

[Signature]
ENGINEER: [Name]
DATE: 4/19/15

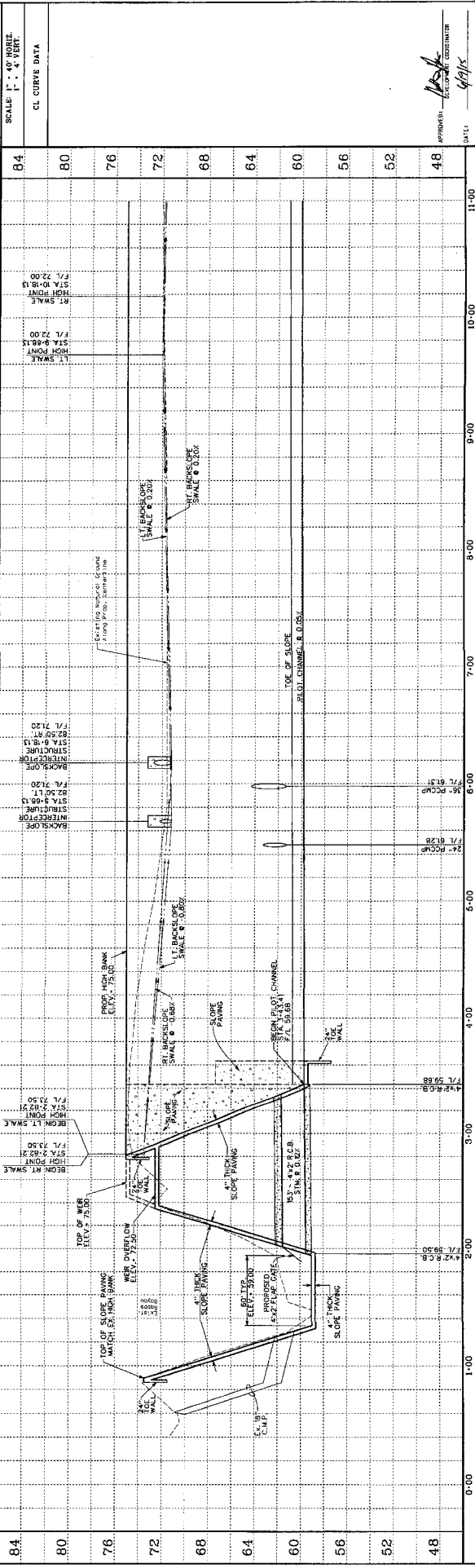
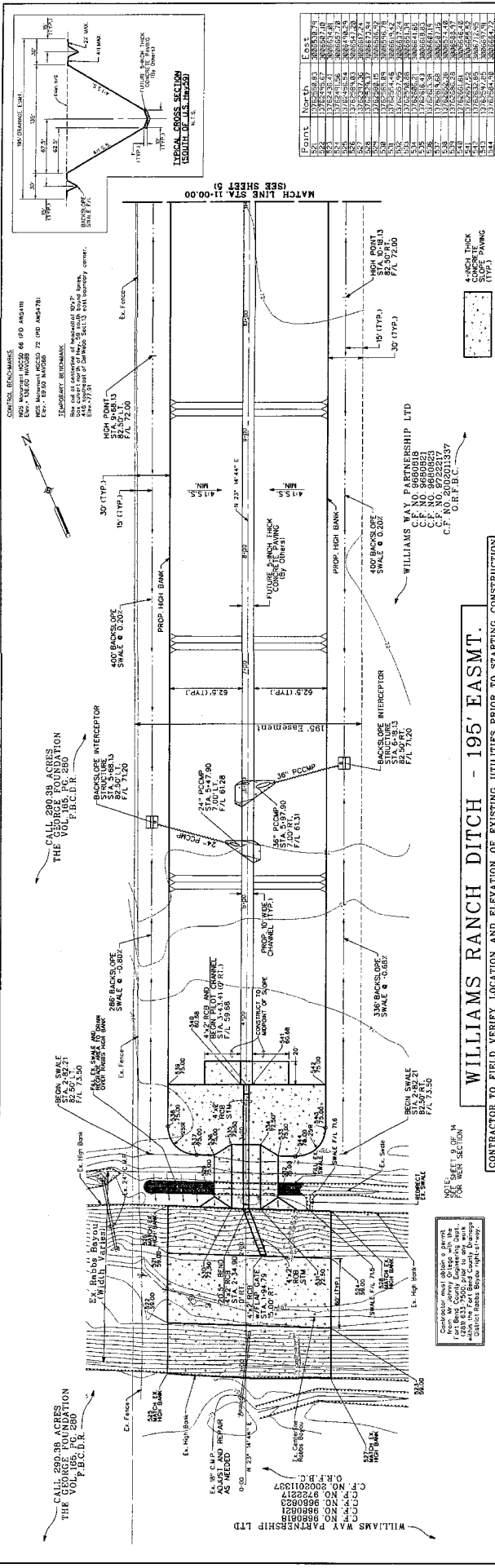
THESE DRAWINGS ARE VOID IF CONSTRUCTION
HAS NOT COMPLETED WITHIN ONE YEAR FROM
THE DATE OF APPROVAL.

APPROVED: *[Signature]*
APPROVEMENT COORDINATOR

DATE: 4/15

INDEX OF DRAWINGS SHEET NO. DESCRIPTION

SHEET NO.	DESCRIPTION
1	COPYRIGHT SHEET
2	CONSTRUCTION NOTE
3	PLAN & PROFILE - WILLIAMS RANCH DITCH STA. 1+00.00 TO STA. 1+50.00
4	PLAN & PROFILE - WILLIAMS RANCH DITCH STA. 1+50.00 TO STA. 2+00.00
5	PLAN & PROFILE - WILLIAMS RANCH DITCH STA. 2+00.00 TO STA. 2+50.00
6	PLAN & PROFILE - WILLIAMS RANCH DITCH STA. 2+50.00 TO STA. 3+00.00
7	PLAN & PROFILE - WILLIAMS RANCH DITCH STA. 3+00.00 TO STA. 3+50.00
8	PLAN & PROFILE - WILLIAMS RANCH DITCH STA. 3+50.00 TO STA. 4+00.00
9	PLAN & PROFILE - WILLIAMS RANCH DITCH STA. 4+00.00 TO STA. 4+50.00
10	MISCELLANEOUS CROSS-SECTIONS
11	FILL SITE
12	CONSTRUCTION PLAN
13	POLLUTION PREVENTION DETAILS
14	STORM SEWER CUPHAL CONSTRUCTION DETAILS
15	CITY OF RICHMOND - STANDARD CONSTRUCTION NOTS
16	CITY OF RICHMOND - STANDARD STORM SEWER DETAILS



84	80	76	72	68	64	60	56	52	48
11-00	10-00	9-00	8-00	7-00	6-00	5-00	4-00	3-00	2-00

DESIGNED BY:	DATE:	
DRAWN BY:	DATE:	
CHECKED BY:	DATE:	
QA/QC BY:	DATE:	
REVISION	DATE	BY



Costello
 Engineering and Surveying
 9900 Richmond Avenue, Suite 450 N
 Houston, Texas 77042
 (713) 785-7788 (713) 785-3850, Fax
 TBP&E FIRM REG. NO. 280
 TBP&E FIRM REG. NO. 100486

F.B.C. L.I.D.6 - WILLIAMS RANCH DITCH
 WILLIAMS RANCH DITCH
 STA 1+00.00 TO STA. 11+00.00

SCALE: 1" = 4' VERT.
 CL CURVE DATA

APPROVED: [Signature]
 DATE: 4/13/17

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION

WILLIAMS WAY PARTNERSHIP LTD
 C.F. NO. 86600818
 C.F. NO. 86600821
 C.F. NO. 8722517
 C.F. NO. 8722517
 C.F. NO. 8722517

CALL 290.38 ACRES THE GEORGE FOUNDATION
 CALL 290.38 ACRES THE VOLVO FOUNDATION

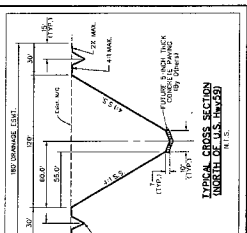
CONTRACTOR: BENTON & BOWLES
 605 W. MAIN ST. SUITE 1000
 HOUSTON, TEXAS 77002
 PHONE: 713.592.1000
 FAX: 713.592.1001
 WWW: WWW.BBDO.COM

DESIGNER: COSTELLO
 9890 RICHMOND AVENUE, SUITE 450 N
 HOUSTON, TEXAS 77042
 PHONE: 713.783.7888
 FAX: 713.783.3890
 WWW: WWW.COSTELLO.COM

DATE: 12/15/10
 SHEET NO. 7
 OF 14
 PROJECT NO. 2010-348-902

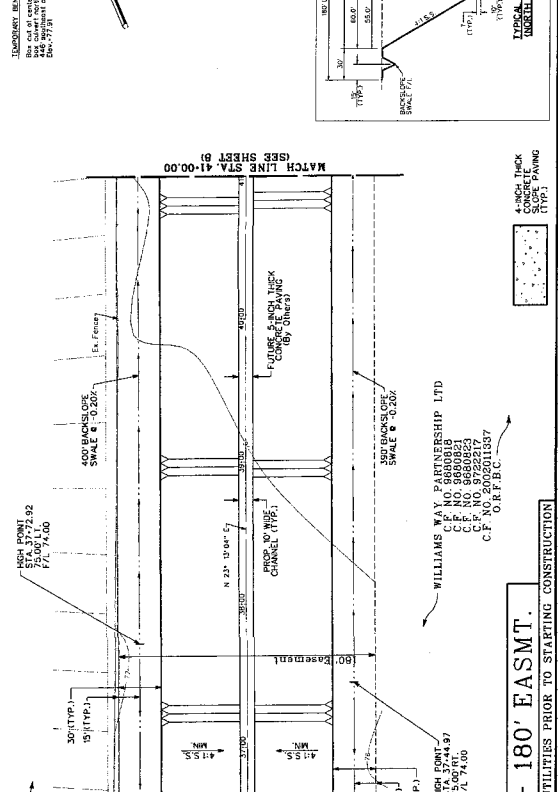
APPROVED: [Signature]
 DATE: 12/15/10

WILLIAMS RANCH DITCH - 180' EASMT.
 CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION



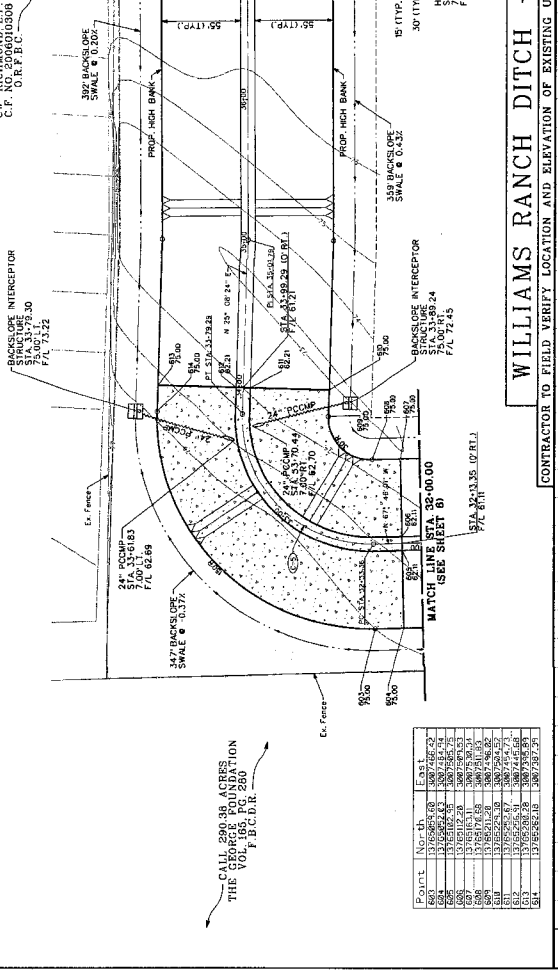
CALL 495.038 ADDRESS
 C.P. NO. 2004010308
 O.R.F.C.

CALL 288.88 ADDRESS
 THE GEORGE FOUNDATION
 VOL. 185, PG. 280
 F.B.C.D.R.



POINT NORTH EAST
 5003 107.9562 2.0
 5004 107.9562 2.0
 5005 107.9562 2.0
 5006 107.9562 2.0
 5007 107.9562 2.0
 5008 107.9562 2.0
 5009 107.9562 2.0
 5010 107.9562 2.0
 5011 107.9562 2.0
 5012 107.9562 2.0
 5013 107.9562 2.0

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION



DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: _____

REVISION

WILLIAMS RANCH DITCH
 STA. 32+00.00 TO STA. 41+00.00

F.B.C.L.I.D.6 - WILLIAMS RANCH DITCH

Engineering and Surveying
 9890 Richmond Avenue, Suite 450 N
 Houston, Texas 77042
 (713) 783-7888 (713) 783-3890, Fax
 TBPES FIRM REG. NO. 2380
 TBPES FIRM REG. NO. 100486

Costello

WILLIAMS RANCH DITCH
 STA. 32+00.00 TO STA. 41+00.00

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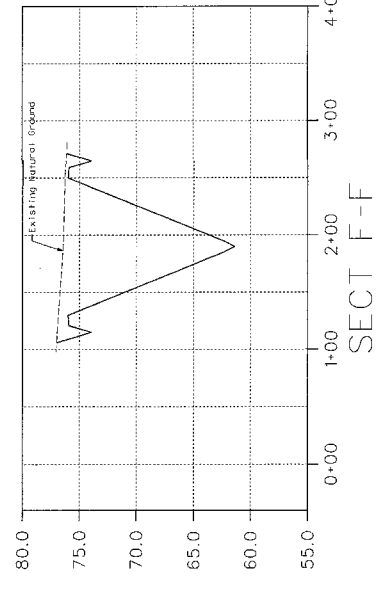
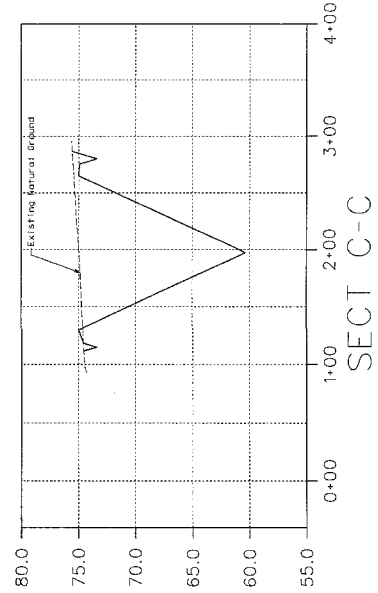
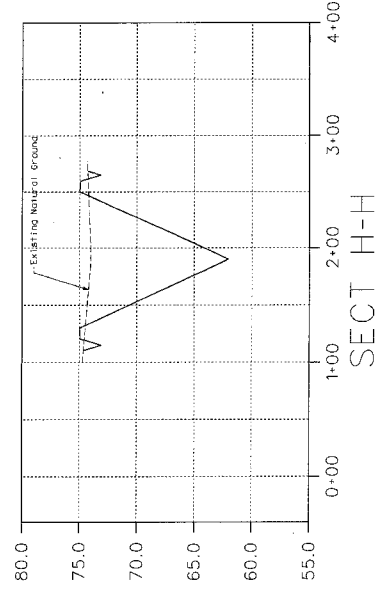
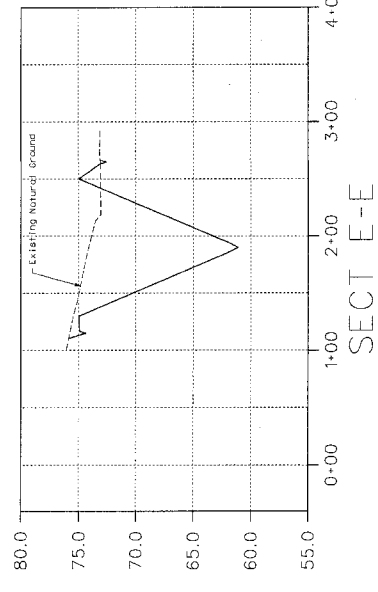
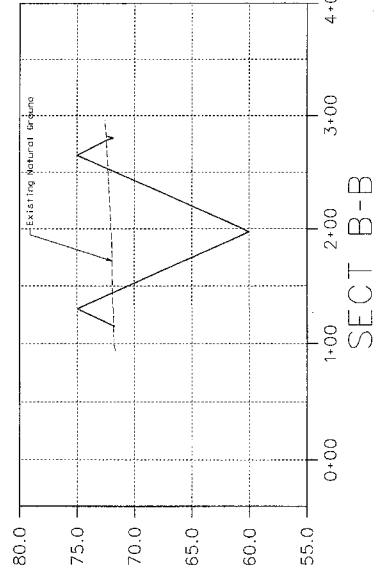
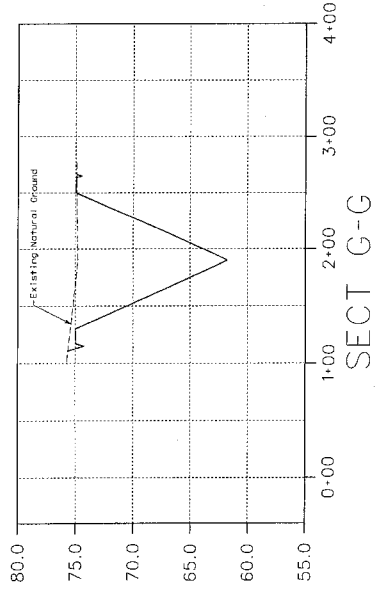
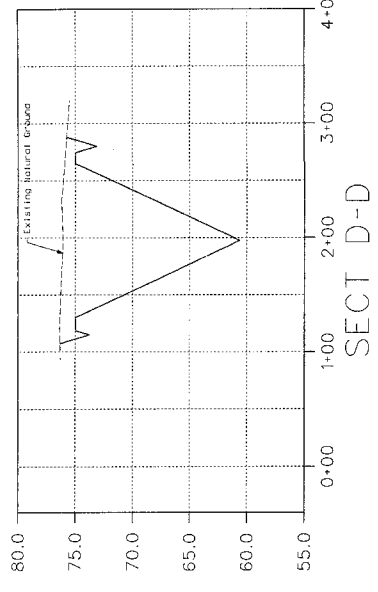
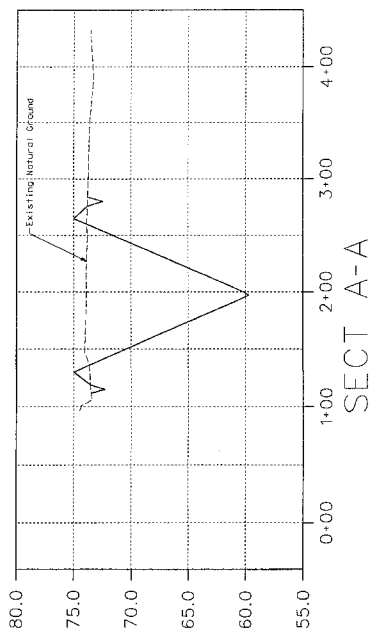
Engineering and Surveying
 9890 Richmond Avenue, Suite 450 N
 Houston, Texas 77042
 (713) 783-7888 (713) 783-3890, Fax
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 TBPES FIRM REG. NO. 100486

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 Houston, Texas 77042
 (713) 783-7888 (713) 783-3890, Fax
 TBPES FIRM REG. NO. 2380
 TBPES FIRM REG. NO. 100486

Costello



NO.	REVISION	DATE	BY

DESIGNED BY: _____
 DESIGN CHECKED BY: _____
 DRAWN BY: _____
 COGO CHECKED BY: _____
 SURVEY CHECKED BY: _____
 Q.A.C. BY: _____ DATE: _____
 Q.A.C. REVISIONS BY: _____



Engineering and Surveying
 9950 Richmond Avenue, Suite 450 N
 Houston, Texas 77040
 (713) 783-7788 (713) 783-3560 Fax
 TBEL FIRM REG. No. 280
 TBEL FIRM REG. No. 103485

F.B.C. L.I.D.6 - WILLIAMS RANCH DITCH
 MISCELLANEOUS
 CROSS-SECTIONS

APPROVED: *[Signature]*
 SURVEYING COORDINATOR
 DATE: *[Signature]*
 SHEET 10
 OF 14 SHEETS
 JOB NO. 2014-318-002

NO.	DATE	BY	APP.
1.	1/20/00	RSB	RSB
2.	1/20/00	RSB	RSB
3.	1/20/00	RSB	RSB
4.	1/20/00	RSB	RSB
5.	1/20/00	RSB	RSB
6.	1/20/00	RSB	RSB
7.	1/20/00	RSB	RSB
8.	1/20/00	RSB	RSB
9.	1/20/00	RSB	RSB
10.	1/20/00	RSB	RSB

CITY OF RICHMOND
STANDARD CONSTRUCTION DETAILS
STORM SEWER

DESIGNED BY: RSB
CHECKED BY: RSB
DATE: OCTOBER 24, 2000

SCALE: 1" = 1'-0"

NO. 1000
REV. 10/24/00

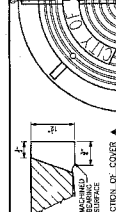
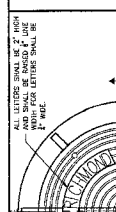
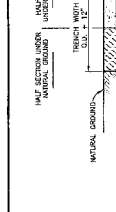
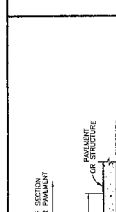
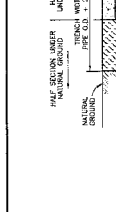
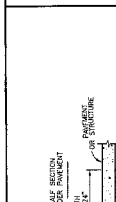


TABLE 1
SEWER SIZE VS. MANHOLE SIZE

SEWER SIZE	MANHOLE SIZE
12"	36"
15"	42"
18"	48"
21"	54"
24"	60"
27"	66"
30"	72"
36"	84"
42"	96"
48"	108"
54"	120"
60"	132"
66"	144"
72"	156"
78"	168"
84"	180"
90"	192"
96"	204"
102"	216"
108"	228"
114"	240"
120"	252"
126"	264"
132"	276"
138"	288"
144"	300"
150"	312"
156"	324"
162"	336"
168"	348"
174"	360"
180"	372"
186"	384"
192"	396"
198"	408"
204"	420"
210"	432"
216"	444"
222"	456"
228"	468"
234"	480"
240"	492"
246"	504"
252"	516"
258"	528"
264"	540"
270"	552"
276"	564"
282"	576"
288"	588"
294"	600"
300"	612"
306"	624"
312"	636"
318"	648"
324"	660"
330"	672"
336"	684"
342"	696"
348"	708"
354"	720"

1. MANHOLE AND INLET FRAME AND COVER

MANHOLE AND INLET FRAME SHALL BE PRECAST CONCRETE OR BRICK WITH A CAST-IN-PLACE CONCRETE CURB AND COVER. THE CURB SHALL BE CAST IN PLACE ON UNFINISHED GRADE. THE COVER SHALL BE CAST IN PLACE ON UNFINISHED GRADE.

2. STORM SEWER BEDDING FOR WET CONDITIONS

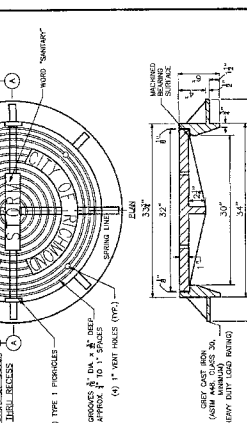
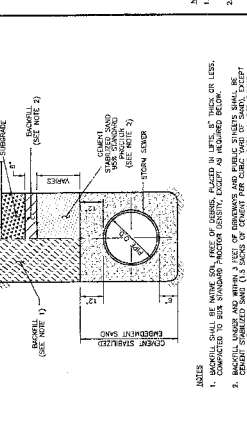
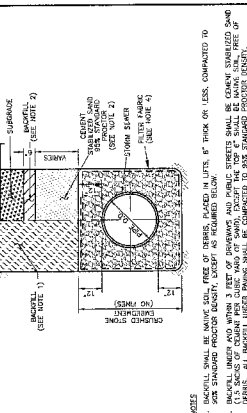
MANHOLE AND INLET FRAME SHALL BE SET ON A 6" THICK OR LESS, COMPACTED TO SUB STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED BELOW.

3. STORM SEWER BEDDING

MANHOLE AND INLET FRAME SHALL BE SET ON A 6" THICK OR LESS, COMPACTED TO SUB STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED BELOW.

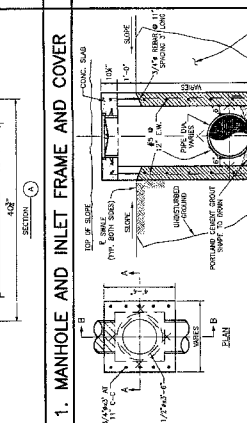
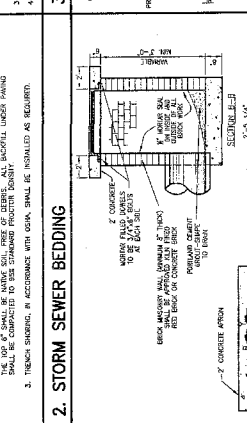
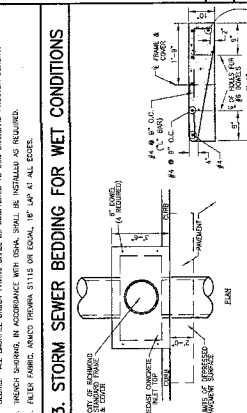
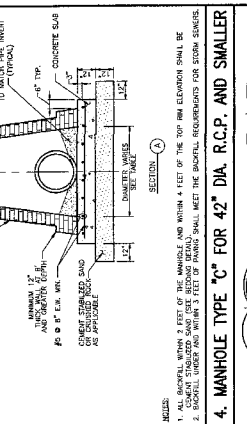
4. TYPE 'A' INLET

MANHOLE AND INLET FRAME SHALL BE SET ON A 6" THICK OR LESS, COMPACTED TO SUB STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED BELOW.



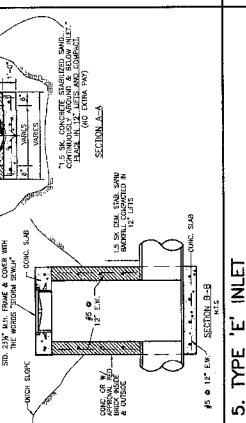
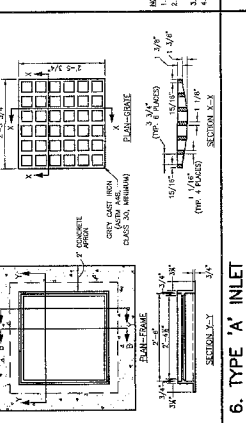
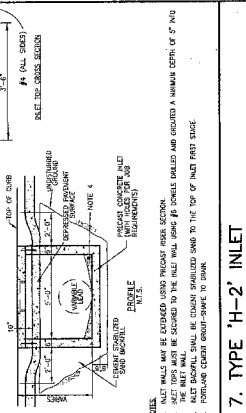
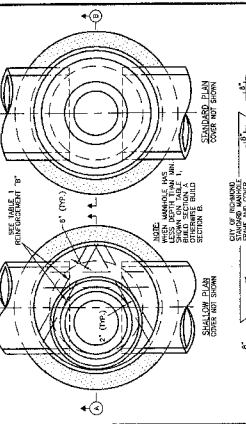
4. MANHOLE TYPE 'C' FOR 42" DIA. R.C.P. AND SMALLER

ALL MANHOLES WITHIN 3 FEET OF THE MANHOLE AND WITHIN 4 FEET OF THE TOP RIM ELEVATION SHALL BE CAST IN PLACE CONCRETE. THE CURB SHALL MEET THE SCHEDULED REQUIREMENTS FOR STORM SEWERS.



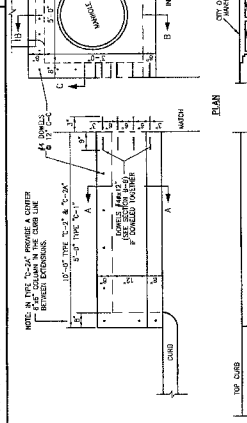
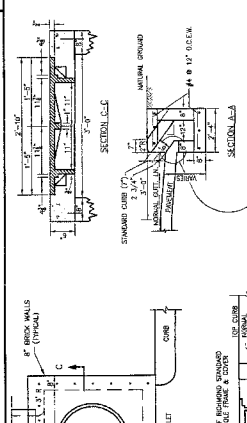
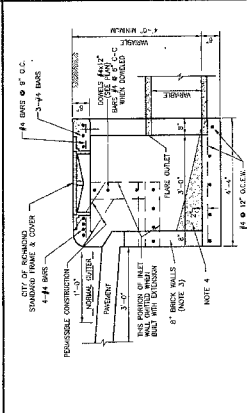
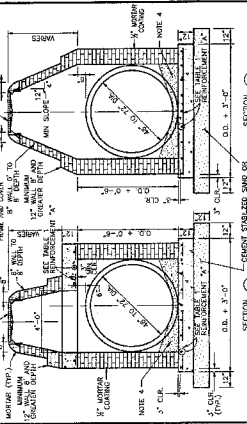
7. TYPE 'H-2' INLET

MANHOLE AND INLET FRAME SHALL BE SET ON A 6" THICK OR LESS, COMPACTED TO SUB STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED BELOW.



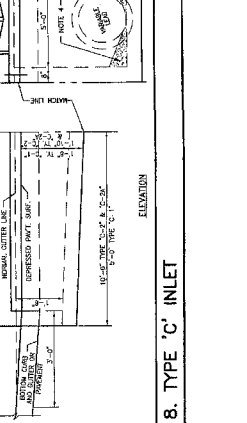
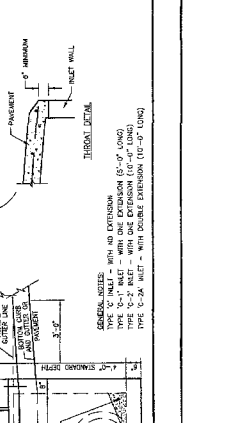
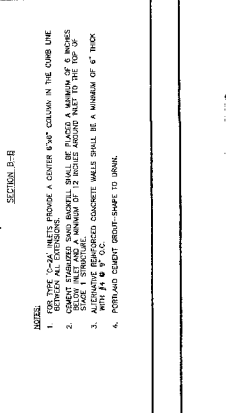
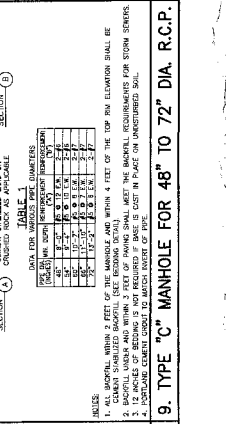
6. TYPE 'A' INLET

MANHOLE AND INLET FRAME SHALL BE SET ON A 6" THICK OR LESS, COMPACTED TO SUB STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED BELOW.



5. TYPE 'E' INLET

MANHOLE AND INLET FRAME SHALL BE SET ON A 6" THICK OR LESS, COMPACTED TO SUB STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED BELOW.



8. TYPE 'C' INLET

MANHOLE AND INLET FRAME SHALL BE SET ON A 6" THICK OR LESS, COMPACTED TO SUB STANDARD PROCTOR DENSITY, EXCEPT AS REQUIRED BELOW.

