#### 80

#### REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

On this	05	day of	OCTOBER	,, before the Fort Bend
Commis	ssioners Cou	ırt cam	e on to be heard	and reviewed the accompanying notic
of E.P.	BRADY, LTI	).		
Job Loca	ation <u>CLODI</u>	NE ROA	), AND SEVERAL OTI	HER ROADS
Dated	09/27/10	BOND	NO 929513992	Permit No. 83831
_				operty subject to, "A Revised Order
Regulat	ing the Layi	ng, Coi	struction, Maint	enance, and Repair of Buried Cables,
Conduit	ts, and Pole	Lines, l	n, Under, Across	or Along Roads, Streets, Highways, an
Drainag	ge Ditches in	Fort F	Send County, Tex	as, Under the Jurisdiction of the
				Texas," as passed by the Commissione
				<u>3<sup>rd</sup></u> day of <u>August</u> , <u>1987</u> , recorded in
				ommissioners Court of Fort Bend Coun
				nconsistent with Article 1436a, Verno
Texas C	ivil Statues.	Upon 1	Motion of Commi	ssioner Myers, second
				ally put and carried, it is ORDERED,
				said above purpose is hereby
				t of Fort Bend County, Texas, and that
notice i	e piaced on	recore	according to the	e regulation order thereof.
Notes:				
	vidence of r	eview	by the Commissi	oners Court must be kept on the job si
			<del>-</del>	ands for job shutdown.
	Vritten notic		_	
			-	uction start up, and
				ted and ready for final inspection
N	lail notices		Permit Administ	_
			<b>Fort Bend Count</b>	y Engineering
			P.O. Box 1449	
			Rosenberg, Texa	as 77471
			281-633-7500	
	_	expires	one (1) year fro	m date of permit if construction has no
С	ommenced.	)	, /	
D. /	(d	<i>'</i>	_	
By Con	MAN	se (	legnen	Presented to Commissioners Court
Co	unty Engine	er /	$\mathcal{J}$	and approved.
By	V M	lA		Recorded in Volume 10-5-10 Minutes of Commissioners Court.
·	oinago Distr	ict Enc	ineer/Manager	minutes of Commissioners Court.
DI	amage Disti	ice hill	incer/manager	Clerk of Commissioners Court
				By Sherm From
(RFVISFF	5/30/08)			Denuty

#### **COUNTY OF FORT BEND**

#### **Engineering Department**

P.O. BOX 1449 Rosenberg, Texas 77471-1449

(REVISED 5/30/08)

Johnny Ortega Permit Administrator

1124 Blume Road Phone: (281) 341-7500

09/27/2010

Date

### PERMIT APPLICATION REVIEW FORM FOR CABLE, CONDUIT, AND POLE LINE ACTIVITY IN FORT BEND COUNTY

County" a	wing "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend and accompanying attachments have been reviewed and the notice conforms to atteregulations set by Commissioner's Court of Fort Bend County, Texas.
X	(1) Complete Application Form.
	X a. Name of road, street, and/or drainage ditch affected.
	X b. Vicinity map showing course of direction.
	c. Plans and specifications.
	(2) Bond:
	District Attorney, approval when applicable.
	X Perpetual bond currently posted.
	No. 929513992
	Amount \$50,000.00
	Performance bond submitted.
	No
	Amount
	Cashier's Check.
	No
	Amount
	_ (3) Verbal permission given for emergencies, to start construction
	before approved in Commissioner's Court.
	Precinct Engineer Acknowledgment Date
	Precinct Commissioner Acknowledgment Date
	_ (4)
	Drainage District Approval when applicable

#### NOTICE OF PROPOSED CABLE, CONDUIT AND/OR POLE LINE ACTIVITY IN, UNDER, ACROSS OR ALONG ROADS, STREETS, HIGHWAYS AND DRAINAGE DITCHES IN FORT BEND COUNTY

Formal notice is hereby given that E.P. Brady, Ltd. proposes to lay, construct, maintain and/or repair cable, conduit and/or pole line, in, under across, or along roads, streets, highways and drainage ditches in Fort Bend County, as follows:  In, Under, or Across Roads and/or Drainage Ditches  Road or : Distance & Direction From : Length of : Type of Construction Ditch Name : Nearest intersection : Crossing : Bored: Jacked: Driven: Cased : SEE ATTACHED : : : : : : : : : : : : : : : : : : :	APPLICANT'S JO PERMIT No.			lo 3	_					
proposes to lay, construct, maintain and/or repair cable, conduit and/or pole line, in, under across, or along roads, streets, highways and drainage ditches in Fort Bend County, as follows:  In, Under, or Across Roads and/or Drainage Ditches  Road or : Distance & Direction From : Length of : Type of Construction Ditch Name : Nearest Intersection : Crossing : Bored: Jacked: Driven: Cased :SEE ATTACHED : : : : : : : : : : : : : : : : : : :										
In, Under, or Across Roads and/or Drainage Ditches  Road or : Distance & Direction From : Length of : Type of Construction Ditch Name : Nearest Intersection : Crossing : Bored: Jacked: Driven: Cased : SEE ATTACHED : : : : : : : : : : : : : : : : : : :	Formal notice is	hereb	y given that $\Xi$	.P. Brady	, Ltd.					
Road or : Distance & Direction From : Length of : Type of Construction Ditch Name : Nearest Intersection : Crossing : Bored: Jacked: Driven: Cased :SEE ATTACHED : : : : : : : : : : : : : : : : : : :	proposes to lay across, or along	roads	struct, mainta , streets, high	in and/or re ways and dra	pair cable ainage ditc	, condu hes in F	iit and/or ort Bend	pole li County,	ne, in, as follo	under, ws:
SEE ATTACHED   SEE			In, Under, or	Across Road	ls and/or D	rainage	Ditches			
Along Roads and/or Drainage Ditches  Road or : Distance & Direction From : To : Distance  West side, 1700' North of 2200' North of Clodine Road : Madden Road										Cased
Road or : Distance & Direction From : To : Distance : Nearest Intersection : : West side, 1700' North of 2200' North of Clodine Road : Madden Road Madden Road : 500' : : : : : : : : : : : : : : : : : :	:5	SEE A	TTACHED			:	:	:	:	
Road or : Distance & Direction From : To : Distance : Nearest Intersection : : West side, 1700' North of 2200' North of Clodine Road : Madden Road Madden Road : 500' : : : : : : : : : : : : : : : : : :						:			:	
Road or : Distance & Direction From : To : Distance Ditch Name : Nearest Intersection : : : : : : : : : : : : : : : : : : :	;					:				
Nearest Intersection			Along	Roads and/o	or Drainage	Ditche	S			
Clodine Road :Madden Road : 500'  : : : : : : : : : : : : : : : : : : :		:	Nearest Inte	ersection	:		:	Distan	ce	
Authority The Location and description of the proposed installation and appurtenances is more fully shown on the attached detail drawings. The laying, construction, maintenance and/or repair of the proposed installation shall be subject to "A Revised Order Regulating the Laying, Construction, Maintenance and/or Repair of Cables, Conduits, and/or 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, a passed by Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day	Clodine Road			700' Nort				5	500'	
Authority The Location and description of the proposed installation and appurtenances is more fully shown on the stacked detail drawings. The laying, construction, maintenance and/or repair of the proposed installation shall be subject to "A Revised Order Regulating the Laying, Construction, Maintenance and/or Repair of cables, Conduits, and/or Pole Lines, In, Under, Across, or Along Roads, Streets, Highways and Drainage Dicthes in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas, a passed by Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of august, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of august, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of august, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of august, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of august, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of august, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissioners Court of Fort Bend County, Texas, dated the 3rd, day of the Minutes of the Commissio	"				:		:	,		
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Addition of requirements shall constitute grounds for job shut down.  COMPANY NAME: E.P. Brady, Ltd.  Comply with Fort Bend County  Outdoor Lighting  Ordinance?  Yes (X)  No ( )  ADDRESS 3414 Persimmon Street  Highwap and Drainage  Along Roads (Arons) or Arons or Arons or Arons of Arons or Arons of Arons or Arons of Arons or Arons or Arons of Arons or Arons of Aro	Authority		***							
2) when construction is complete and ready for final inspection.  Mail to: Permit Administrator/Fort Bend County Engineering P.O. Box 1449, Rosenberg, TX 77471.  //iolation of requirements shall constitute grounds for job shut down.  COMPANY NAME: E.P. Brady, Ltd.  AGENT and/or OWNER  (Signature)  NAME & TITLE Christopher New - Project Man  (Please Print)  Ordinance?  Yes (X)  NO ( )  ADDRESS 3414 Persimmon Street  (Street/P.O. Box)  Houston Texas 77093	shall be subject to Cables, Conduits, Ditches in Fort Be County, Texas," as August, 1987, reco	o "A R and/or end Co s pass	evised Order R Pole Lines, In, ounty, Texas, U ed by Commiss	egulating the Under, Acro Inder the Jur sioners Court	Laying, Co ss, or Alon isdiction of of Fort Be	nstruction g Roads the Co nd Cour	on, Mainte , Streets, I mmissione ity, Texas,	nance a Highway ers Cour dated t	nd/or Reps and Dr. t of Forthe 3rd.	pair of ainage Bend day of
P.O. Box 1449, Rosenberg, TX 77471.  //iolation of requirements shall constitute grounds for job shut down.  COMPANY NAME: E.P. Brady, Ltd.  AGENT and/or OWNER	Vritten notices are	requir	ed: 1) 48 hours 2) when co	in advance o	of start of co	nstructio	on and for final in:	spection.	e e	
COMPANY NAME: E.P. Brady, Ltd.  AGENT and/or OWNER  (Signature)  NAME & TITLE Christopher New - Project Man  (Please Print)  Ordinance?  Yes (X)  No()  ADDRESS 3414 Persimmon Street  (Street/P.O. Box)  Houston Texas 77093					ngineering					
Does project comply with Fort Bend County Outdoor Lighting Ordinance?  Yes (X)  No ( )  AGENT and/or OWNER  (Signature)  NAME & TITLE Christopher New - Project Man (Please Print)  (Please Print)  (Street/P.O. Box)  Houston  Texas 77093	iolation of require	ements	shall constitute	grounds for	ob shut dov	vn.				
Comply with Fort Bend County Outdoor Lighting Ordinance?  Yes (X)  No ( )  NAME & TITLE Christopher New - Project Man (Please Print)  OATE 9/33/20/0  ADDRESS 3414 Persimmon Street (Street/P.O. Box) Houston Texas 77093				COMPAN	Y NAME: E				iR .	
Outdoor Lighting Ordinance?  DATE  Please Print)  OATE  ADDRESS  ADDRESS  (Street/P.O. Box)  Houston  Texas  77093	comply with F	ort	2	(N	ustsphee	Mu (Si	gnature)			-
Yes (X)  ADDRESS 3414 Persimmon Street  (Street/P.O. Box)  Houston Texas 77093	<b>Outdoor Light</b>	ing		NAME &					oject	<u>Man</u> a
No()  ADDRESS  414 Persimmon Street  (Street/P.O. Box)  Houston Texas 77093				DATE	9/23/20	10	£**			
No ( ) (Street/P.O. Box) Houston Texas 77093				ADDRES	<b>s</b> 3414 P	ersim	mon Str	reet		
	No ( )					71373	reet/P.O. Bo	ox)		
Lanu Arara 718							Texas State		77093 <b>Zip</b>	

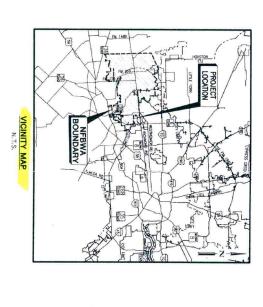
**TELEPHONE NO:** (832) 596-7920

(accessible 24 hrs/day, 7 days/week)

## NOTICE OF PROPOSED CABLE, CONDUIT AND/OR POLE LINE ACTIVITY IN, UNDER, ACROSS OR ALONG ROADS, STREETS, HIGHWAYS AND DRAINAGE DITCHES IN FORT BEND COUNTY

Dood on Ditab Name	Distance and Direction from Nearest	Length of	Ty	pe of Co	nstructi	on
Road or Ditch Name	Intersection	Crossing	Bored	Jacked	Driven	Cased
Madden Rd.	20' West of Clodine	33'	Auger			
Dora Ln.	20' East of Old Richmond	70'	Auger			
Thomas St.	20' East of Old Richmond	60'	Auger			
Sam St.	20' East of Old Richmond	54'	Auger			
Aldefina Rd.	20' East of Old Richmond	62'	Auger			
Paul St.	20' East of Old Richmond	154'	Auger			
Martinez St.	20' East of Old Richmond	102'	Auger			
West Bellfort Rd.	20' East of Old Richmond	155'	Auger			
Old Richmond Rd.	20' East of Gaines	70'	Auger			

# 20" WATER LINE ALONG CLODINE ROAD AND RICHMOND/GAINES ROAD CONSTRUCTION OF PROPOSED WATER LINE SEGMENT 4A NORTH FORT BEND WATER AUTHORITY





NO PROPOSED SANITARY SEWER WORK IS SHOWN ON THIS PLAN SET, NOR IS IT INCLUDED IN THE SCOPE OF WORK. NO PROPOSED STORM SEWER WORK IS SHOWN ON THIS PLAN SET, NOR IS IT INCLUDED IN THE SCOPE OF WORK.



MELONY F. GAY, P.E. BRUCE FAY ROBERT DARDEN DAVID SPELL

PETER HOUGHTON ROBERT L. PATTON

> FIRM MAP #: 48157C0115J & 48157C0120J PANEL: 115 & 120 OF 550 DATE: 01/03/97 BFE: 83.0-81.0 I AARON B. HARGROVE P.E., CERTIFY THAT THIS PROJECT PARTIALLY IN SHADED ZONE "AE" AND "X".

ILMS NO: 10018293 LOG NO: 10-0145

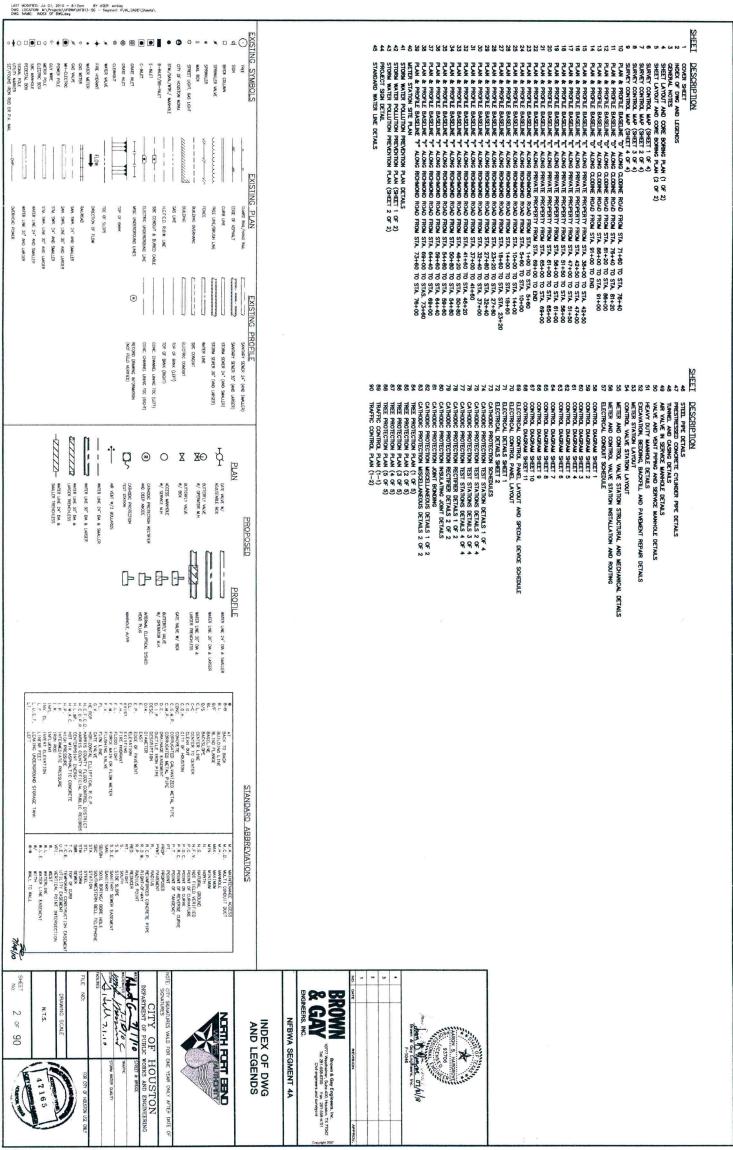
1 or 90

**JUNE 2010** 

LOCATION MAP



HOUSTON



## GENERAL CONSTRUCTION NOTES

- THERE MELL RE MO SEARLE PANEST FOR MORE SOOM OF THISE PANE, UNLESS SECRETALY ESTABLISHED IN THE RISE SECRETAL OF THE CHRITICAL SECRETAL SHALL MOLLIFE COST OF THIS WITH THE CHRITICAL DISE FOR THE WHICH THIS WHICH THIS A COMPANIED WHITH THIS WHICH THIS WHICH THE COMPANIED WHICH THIS WHICH THIS WHICH THE COMPANIED WHICH
- CONTRACTOR SALL YESTY LOCATION AND ELEVATION OF ENSING
  FACILIES, PORE TO CONTRICTION OF PROPOSED FAULTS, MY
  DAMAGE TO ENSINE FACILIES, MALLONG PIBLE OF PRIVITE UTUTES,
  MALLORED AS A RESULT OF CONSTRUCTION OPERATIONS SALL, BE REPARED
  BY THE CONTRACTOR AT HIS EXPENSE.
- A) TEXAS ONE CALL SYSTEM AT 1-800-245-4545
  B) LONE STAR NOTIFICATION CENTER AT 713-223-4587
  C.) TEXAS EXCAVATION SAFETY SYSTEM INC. AT 1-800-344-8377 CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND LITLITY LINES AND SHALL NOTIFY THE FOLLOWING ADDICES 48 HOURS PRIOR TO EXCAVATING NEAR EXISTING FACULTES:
- CONTRACTOR SHALL REMOVE ALL MUD, DRIT AND DEBRIS DEPOSITED OR DROPPED ON EXISTING PAVENETI DUE TO HIS CONSTRUCTION ACTIVITY DAILY, MATERIAL THAT IS HAZARDOUS TO TRAFFIC SHALL BE REMOVED OWNER SHALL PERFORM WITHL LABORATORY TESTS. SUBSECUENT TESTING DUE TO FALED DENSTIES SHALL BE AT CONTRACTOR'S EXPENSE. A CORY OF ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL STATE, AND LOCAL LAWS AND ALL REGULATIONS OF UTILITY COMPANIES CONCERNING SAFETY AND HEALTH PRACTICES.
- PACE, A PACE LE COLLINICIDE SONT DESTRUCTOR DELIVER. THE COLLINICIDE SONT DESTRUCTION OF THE COLLINICI
- COMMACTOR SALL DE MOTICE TO ALL MUNDEZED HESECTORS. SPERMERDORIS, OR PRESIDES H VICANDE OF PRIME AND POLICIO UNILITES OM MALAGOAIS AFFECTED BY HIS OPPIANIONS PROBE TO COMMODIZACION OF MONE. COMMACTOR SALL DRIVAM ALL CONSTRUCTION DESMITS PROBE TO SALARING CONSTRUCTION. CONTRACTOR SHALL PROTECT ALL TREES ADJACENT TO WORK AREA. NO TREES OUTSIDE THE WORK AREA SHALL BE REMOVED WITHOUT PERMISSION OF OWNER.
- CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY REGILATION OF FORT BEIJD COMPY. TEXAS FOR FLOOD PLAIN MANAGUENT FROR TO STARTING CONSTRUCTION.
- NOTE: AUTHORIZATION MOTICE ISSUED BY FORT BEND COUNTY ENGINEERING DEPARTMENT FERMET OFFICE REQUIRED PROPET TO CONSTRUCTION OF UTILITIES OR BETT TURNEL MARKS WITHIN FORT BEND COUNTY FROM FOR COUNTY PERMET OFFICE (713-633-7500). CONTRACTOR MILL DETAIN ALL PERMITS REQUIRED BY FORT EPHO COUNTY, TEXAS PRIOR TO STARRING CONSTRUCTION OF UTILITIES AND/OR CULVERTS WITHIN COUNTY ROAD RICHTS-OF-WAY, IF APPLICABLE.
- THEN TEAD COUNT DIMENSING DEVARIBIT SMILL BE MOTED BY WHITE MOTEON OF THE CONSTRUCTION TO ACCURACION A DIMEN A DIMEN BY MOTEON TRACING BY TELEPHONE MOTEON TO A HOURS IN JOVANOE OF STARMED CONSTRUCTION, A COPY OF THE MOTEON MOTEON AND SMALL BE SENT TO THE CAMED.
- CONTRACTOR SHALL NOTIFY THE HORTH FORT BEND WATER AUTHORITY C/O BROWN & GAY ENGNEERS, INC. (261-558-8700) AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.

## WATER LINE CONSTRUCTION NOTES

- CONTRACTOR SHALL CONTACT THE DISTRICT OPERATOR PRIOR TO MAKING ANY CONNECTION TO THE EXISTING WATER LINES OR ANYTIME A VALVE ON AN EXISTING WATER LINE IS TO BE OPENED OR CLOSED.
- P.B.C.H.U.D. 134

  OPERATOR COMPANY: SOUTHWEST WATER COMPANY
  OPERATOR CONTACT: JETF HALEY
  CONTACT PHONE # (281) 275-1704
- CONTRACTOR SHALL ALLOW A MINIMUM OF 2-FOOT VERTICAL AND 4-FOOT HORIZONTAL CLEARANCE BETWEEN PROPOSED WATER LINES AND OTHER UTLINES. F.B.C.F.W.S.D. 2
  OPERATOR COMPANY: ENVIRONMENTAL DEVELOPMENT PARTINENS LLC.
  OPERATOR CONTACT: MICHAEL 4, MAMEL
  CONTACT PHONE # (832) 467-1599
- THE STATE OF THE S

- SEPARATION DISTANCES FOR INSTITUTATION OF POPULABLE WATER DISTRIBUTION UNES MASTEWATER COLLECTION LANCE, WASTEWATER FORCE WARKS OF CONTINUACION CONTINUED AS POPULATION, SOURCES OF CONTINUACION WASTEWATER COMMISSION (TOED) RULES.
- THE ALL WE WE WELLOW ALL DE THE OFFI TOW SHEEL WE SHEEL W
- WERE, A REPORTED WITCHES COSSESS AN DESING, PRESSURE ONTO PRE-SOUTHERN DOME THE WATER AND THE WITCHES THE MET THE SOUTHERN DOME THE WATER AND THE WATER AND THE WATER AND THE WATER SOUTHERN DOME THE COSSESS AND THE WATER AND THE WATER AND THE WATER SOUTHERN DOME THE COSSESS AND THE WATER AND THE WATER AND THE WATER SOUTHERN DOME THE WATER AND THE WATER OF WATER AND THE WATER AND THE WATER AND THE WATER AND THE WATER SOUTH DOME THE WATER AND THE
- ALL WATER UNES SHALL HAVE A MINIMAM 6 FOOT DEPTH OF COVER IN MAPROVED AREAS. ALL WATER LINES SHALL HAVE A MINIMAM OF 8 FOOT DEPTH OF COVER IN UNIMAPROVED AREAS.
- CONSTRUCT WATER LINES WITH ONE JOINT OF PIPE BEYOND VALVES AND PLUG FOR FUTURE LINES, UNLESS SHOWN ON PLANS OTHERWISE.
- ALL WATER CHES 30—MODES AND SMALLER SHALL BE PRESTRESSED CONCRETE CYLHOUR PIPE, BHAM-PRAMPED CONCRETE CYLHOUR PIPE, STEEL PIPE, DUCTILE ROW PIPE, OR PAC PIPE. SACULL OF DISTING STORM SCHER. WHEN CROSSING AN EXISTING STORM SCHER USING THE OPEN CUT WETHOU, THE WATER UNE TREMO'T COME SHALL BE SACKPILLTD FOR 3 TO 5 FREE INTERS SDEE OF THE STORM SCHER WITH COMENT STABUZED SAMO TO THE SPRING LINE OF THE STORM SCHER.
- OSSIGNATE DEMANDE SHALL IR MANIMOR AT ALL THAT SHEMBL CONSTRUCTION AND REGIMENT DIVING STRUCTURE CHIMBED DIMEN CONSTRUCTION AND REGIMENT DIVING MANORET SHALL CONSUMED DIMEN AND SHALL RE IN COMPLANCE WITH THE TRANSPORT STALL CHIMBED LAND SHALL RE IN COMPLANCE WITH THE TRANSPORT STALL ALL WATER LINES MINIMES AND LARGE SHALL BE PRESTRESSED CONCRETE CYLINDER PIPE, STEEL PIPE, OR DUCTILE IRON PIPE.

## CONTRACTOR WORK ZONE NOTES

- DRIVEWAY ACCESS WILL BE MANTAINED OPEN AFTER WORKING HOURS. A MINIMUM OF CINE DRIVEWAY ACCESS WILL BE MANTAINED OPEN AT ALL THUS TO COMMERCIAL, APARTMENTS, AND/OR NON-RESIDENTIAL DEVELOPMENTS. CONTRACTOR WILL BE REQUIRED TO MAINTAIN TWO LANES OPEN WIEN WORMON IN BOLLEVARD SECTIONS, RESIDENTIAL SECTIONS WILL MAINTAIN ONE LANE OPEN WITH ADEQUATE SIGNACE AND/OR FLAGUED TO FACULTATE USE OF THE LANE.
- SCHARC CONSTRUCTION ZONE WITH APPROPRIATE TRANSTIONS ON EACH ED A. BENDARD TO STAND AT ANY ONE THEME. THE CONSTRUCTION TOWN THAT ANY ONE THEME. SHALL NOT SHE WAS THE ADMITTANCE SHALL SHE WAS THE MADE TO THE WORLD THE WAS
- SCHALZED INTERSECTIONS: LANES WILL NOT BE CLOSED AT A SCHALZED NITERSECTION, UNILESS APPROVED BY THE COLATY ENGINEER. AN APPROPRIANT THANASTION AS GETHERD IN THE TRAFFIC CONTROL PLAN WILL BE PROVIDED AT SCHALLZED INTERSECTIONS.
- TEMPORARY PAKENST MARKERS. TEMPORARY SPOXY-GLUED BOTTONS OR "CONSTRUCTION GRADE" MARKERS SHOULD BE USED ON SEDMANST PAKENST TO BEMAIN IN-PLACE TO ELMINATE GRIGHING AND SCARRING OF THE SURFACE.
- PEDESTRIAN TRAFFIC: CAPE SHALL BE TAKEN TO PROVIDE FOR TEMPORARY PEDESTRIAN TRAFFIC AND CROSSING AT AREAS SUCH AS SCHOOLS, PARKS, AND SHOPPING AREAS.

## HOUSTON PIPELINE LP FACILITIES

- HAUSTIA RES LIE COMMANY I PAN JOHLI IE WORD AT LEAT FERT-FOR I (A) HOUSE ROME IN AVY CONSTIDENCE VA HAUSTE LAUTIES LA
- NO EXCAVATION SHALL OCCUR IN THE VICINITY OF HPL'S FACILITIES UNTIL:
- A) PRODER INJEPAGE NOTIFICATION AND RESEA MADE TO ONE OF THE SAFET APPROCAD INTENDATION CONTING. SEE ALC CONSTRUY UNLIESS HE TAKE DEMONSTRAY SOFTEM (TEST) AS ITS NOTIFICATION CONTINGED AND ADMINISTRATION CONTINGED AND ADMINISTRATION CONTINGED AND ADMINISTRATION CONTINGED AND ADMINISTRATION OF ADMINISTRATION OF ADMINISTRATION OF ADMINISTRATION OF ADMINISTRATION OF ADMINISTRATION AND ADMINISTRATION OF ADMINISTRATION ADMINIST
- MR. KORY PARTON LINE PATROL PERSON MOBILE (281) 850-1417
- B) AN HPL INSPECTOR IS ON SITE TO MONITOR THE EXCAMATION ACTIVITIES

## NATURAL GAS PIPELINE NOTES

- CONTRACTOR SMALL CONTACT PIPELINE REPRESENTATIVES A MINIMUM OF 72 HOURS PROR TO CONSTRUCTION IN THE VICINITY OF THE PIPELINE EASSMENTS. A REPRESENTATIVE FROM EACH PIPELINE COMPANY SHALL BE PRESENT DURING CONSTRUCTION ACTIVITIES OROSSING EACH PIPELINE EASEMENT.
- PROTECT, MAINTAIN, AND RESTORE EXISTING BACKSLOPE DRAINAGE SYSTEMS. NOTIFY THE FORT BEND COUNTY DEPARTMENT, JOHNNY ORTEGA, (281) 633-7500 TO OBTAIN THE NECESSARY PERMITS PROR TO WORKING WITHIN THE DRAINAGE DISTRICT RIGHT-OF-WAY.
- EXCAVATE CHANNEL FLOMUNE TO DESIGN ELEVATION AS SHOWN ON PLANS AND DOWNSTREAM, AS NECESSARY, TO ENSURE NO WATER IN STORM SEMER DURING "DRY" CONDITIONS. AND NO ENGSON OR RALLS DEEPER THAN 4.
- MAINTAIN FLOW IN CHANNEL DURING CONSTRUCTION AND RESTORE CHANNEL TO ORIGINAL CONDITION. REMOVE ALL EXCAVATED MATERAL FROM THE PORT BEND COUNTY DAMANGE DISTRICT REGIT-OF-WAY, NO FILL IS TO BE PALCED WHITHIN A DESCRIPTION TO PLAN AND WHITHOUT PRIST COSTINAING, A FILL RESINT FROM THE APPROPRIATE JURISDICTIONAL AUTHORITY.
- 08TAN AND COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL, PERMITS AND APPROVALS, WITH ASSISTANCE FROM ENGNEER, IF NECESSARY.
- ALL WAT IPPES AND BOLLANDS ARE TO BE FLACED AT THE EXTREME TOR WITETURES WITH FORT EDAD COUNTY DRAWAGE DISTRICT ROTT-OF-WAY. TRACTION OF BLOCKSOE PERMANAGE STREED SALL AND TEXT STATIONS.
- CATHODIC PROTECTION CABRIETS WIST NOT BE PLACED IN THE WANTENANCE BETW AREA OF PORT BEND COUNTY DRAINAGE DISTRICT RIGHT-OF-INK.
- A. LL SERVICE MANAGES WITH FOR ISSO COUNTY BRANCE.

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- SPECIFIC FLOOD CONTROL UTILITY PERMIT REQUIRED.

## PAVING CONSTRUCTION NOTES

- 2. ALL ROAD WOTHS, CURB RADII AND CURVE ALIGNMENT SHOWN INDICATES BACK OF CURB. T.C. INDICATES TOP OF CURB ELEVATION AND T.P. INDICATES TOP OF PAYBUENT ELEVATION. REPLACEMENT PAREMENT TO BE CONSTRUCTED IN ACCORDANCE WITH RULES, REGULATIONS AND REQUIREMENTS OF THE APPROPRIATE JURISDICTION.
- WHEN PROPERTY PARTIES IN ALTHE INCIDENT CAMPAIN, DOSTING RELAKED AND THE PROPERTY OF THE CLAMP AND THE PROPERTY PARTIES OF THE CLAMP AND THE PROPERTY PARTIES OF THE CLAMP AND THE PROPERTY PARTIES OF THE PROPERTY PARTIES OF THE PROPERTY PARTIES OF THE PARTIES OF

JULIA NOTES

- CONTRACTOR SHALL PERFORM CONSTRUCTION WITHIN KINDER MORGAN INC., NETGO PIPELINE, TEPFOO PIPELINE, CENTERPOINT ENERGY, AND HOUSTON PIPELINE LP. ACCORDANG TO EACH PIPELINE COMPANY'S REGULATIONS IN SPECIFICATION SECTION 01110.
- CONTACT INFOMATION:
  -KINDER MORGAN INC.
  R. BURREL THOMAS
  713-369-9502 X 231 -CENTERPOINT ENERGY UR. BRIAN LTN 281-342-8881

TO STAKE CONTERPOINT EMERGY ELECTRIC UNDERGROUND FACILITIES, PLEASE CALL THE LONE STAR INFORMATION CENTER AT (713) 223—4567, OR TOLL FREE AT (800) 869—8244, AT LEAST 48 HOURS BEFORE STARTING EXCAVATION.

CONTRACTOR SPALL COORDINA ME AN CONTREPONT DOBOY ELECTRIC CONTRACT CONTREPONT DESCRIPTOR THE OPERATION AND AN ACCOUNT OF THE OPERATION AND AND ACCOUNT OF THE OPERATION AND AND ACCOUNT CONTRACTOR SHALL BE RESPONSED. TO STORE POLICE OF ANY DESCRIPTOR CONTRACTOR SHALL BE RESPONSED. TO STORE POLICE OF ANY DESCRIPTOR CONTRACTOR SHALL BE RESPONSED. TO STORE POLICE OF ANY DESCRIPTOR OF ANY DESCRIPTOR OF ANY DESCRIPTOR OF ANY DESCRIPTOR OF ANY CONTLITURE OF THE OPERATION AND ANY CONTLITURE OPERATION.

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nterpoln Energy/ Electric Facilites. (approved only r crossing underground ductlines, unless otherwise noted.) and A.Time Of Review Only
UTILITY LINES SHOWN

Date:

PRIVATE UTILITY LINES SHOWN

NOTICE:

ROM, OR EXELENTS CALL LINE STAR NOTIFICATION
CENTER, (713) 223-4597 OR 1-800-659-8344

O ARRANGE FOR LINES TO BE LINESED OFF OR MOVED.
ALL CENTERPOINT AT 713-207-7777.

NFBWA-126: RIMARY BENCHMARKS:

5/8—NOW ROW ROW ROW ROW WITH A MORTH FORT BELD WATER ATTROCTOR WAS BELLION STREET AND FALL 1464, R. TRESCRICK OF MESS BELLION STREET AND FALL 1464, R. TRESCRICK OF MESS BELLION STREET AND FALL 1464 R. FRICHT OF ADDRESS BELLION STREET MAND-88, 2002 ADJUSTANCY MAND FEET NAND-88, 2002 ADJUSTANCY MAND FEET AND F

- -HOUSTON PIPELINE LP UR. KORY PARTON 281-850-1417 MR. MIKE BLASCHKERNET\_LP.COM 281-808-7193
- DRAINAGE CHANNEL
- CENTERPOINT ENERGY (GAS FACILITIES) COMMACTOR SALL MOTEY CRITERION FRENCY CAS AT (201) 877—4818
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  APPROPRIATE ACTION APPROVED. PRIVATE UNDERGROUND ELECTRICAL FACILITIES MAY EXIST IN THE AREA AND THESS WILL NOT BE STAKED BY CENTERPOINT EMERGY ELECTRIC PERSONNEL.

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- HE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACULTES.

2776 00018. J. MARROW 10018.

Y Engineers, Inc. 101/10

CHITEPORT (PERT) AS ASSAMS NO REPORRENTY FOR THE OWNESSE OF THE ADMINISTRATION OF THE ANALONDED DAY LIVES SHOWN ON THESE TAME. THE CONTRACTOR SHALL NOTIFY CONTRESSORT DESIGN AS AT (261) 572-406. AFEE DEPOSES AFE AND AMOUNCE OF ALTER GAS LIVES. THE COST LIVES SHALL NOTIFIED STATE CONTRACTOR WITH, CONTRESSORT THE COST LIVES SHALL NOTIFIED STATE CONTRACTOR WITH, CONTRESSORT OF THE LIVE.

- ATT/SBC FACILITIES
- THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FELD LOCATED. THE (UCLINES OF SEP FACILITES ARE SHOWN IN AN APPROMAINT WAY ONLY.
  THE COMPRISORS TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMACES.
  WHICH MEANT ARE COLORIGIDED BY HIS FALLINE TO EARTLY LOCATE AND PRESENT
  THESE UNDERSHOUGHD BY HIS FALLINE TO EARTLY LOCATE AND PRESENT
  THESE UNDERSHOUGHD UTILITIES.
- MEN EXCAVATIVA WITH BONTEN MORES (18") OF THE MOKEATED LOCATION OF SEC FACILITIES, ALL EXCAVATIONS WAST BE ACCOMPLISHED USING MNH-MECHANIZED DICKAVAND PROCEDURES, MECH BORING, THE CONTRACTOR SHALL EXPOSE THE SEC FACILITIES. WEN SEC FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROMOT SUPPORT TO PREMENT DAMAGES TO THE CONDUIT DUCTS OR CABLES, WEN ECKNAMING HEAR TELEPHONE PALES, THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
- BURIED CABLE PROCEDURE THE LOCATOR WILL FIELD LOCATE THE EXISTING SBC FACILITIES WITH ORANGE AND/OR FLAGS. CALL 1-800-344-8377 AT LEAST 48 HOURS IN ADVANCE OF SENDING A FIELD OREW FOR BASELINE SURVEY. BE SPECIFIC ON THE PROJECT LOCATION.

FACUTIES ON THE PLAN AND PROPILE SHEETS. THE FIELD PARTY CAN SURVEY THE BURIED CABLE LOCATION USING THE GRANGE MARKS ON THE GROUND.



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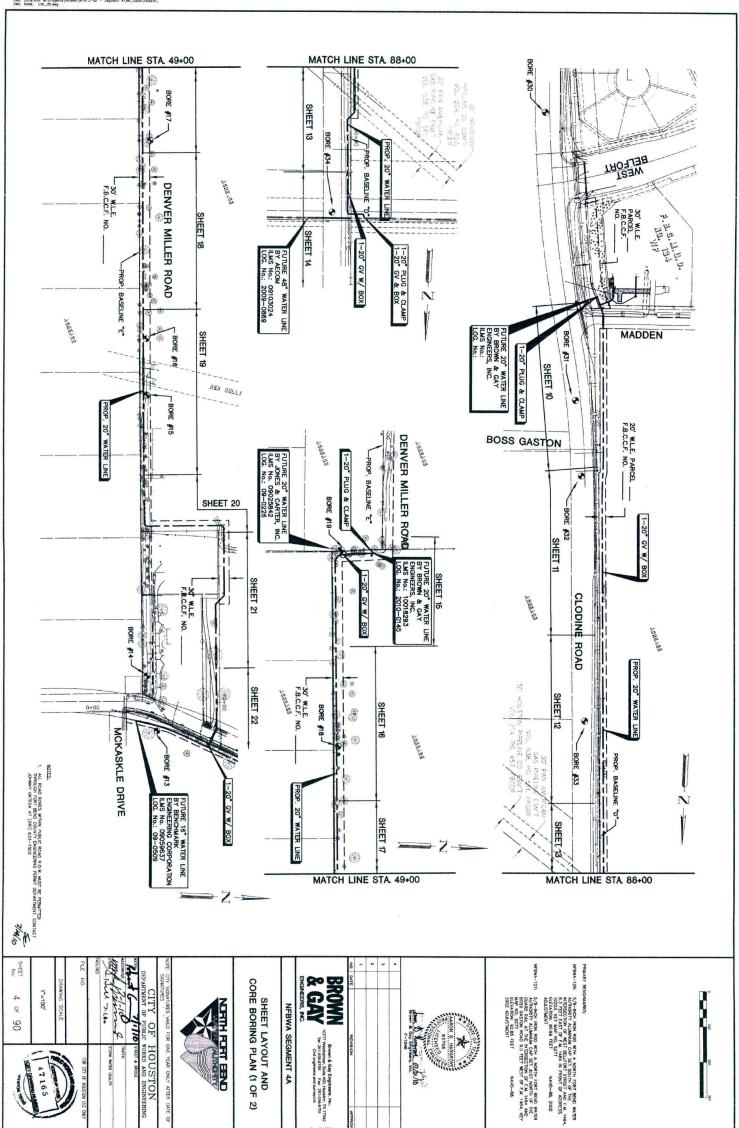
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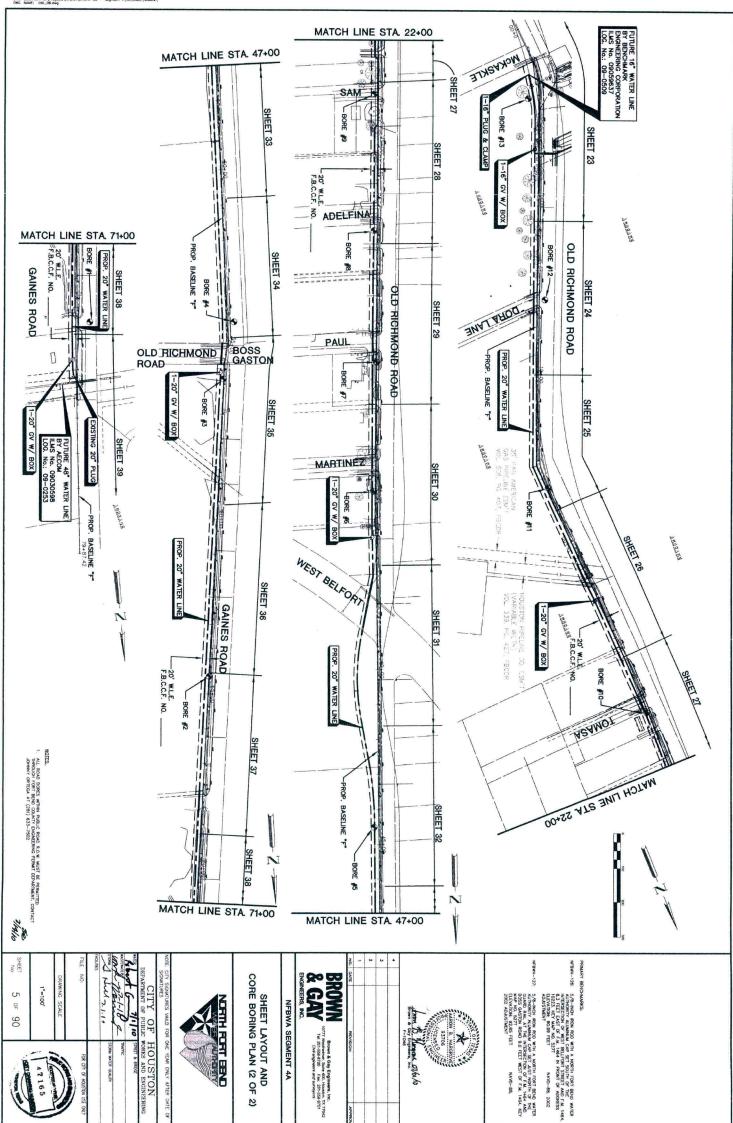
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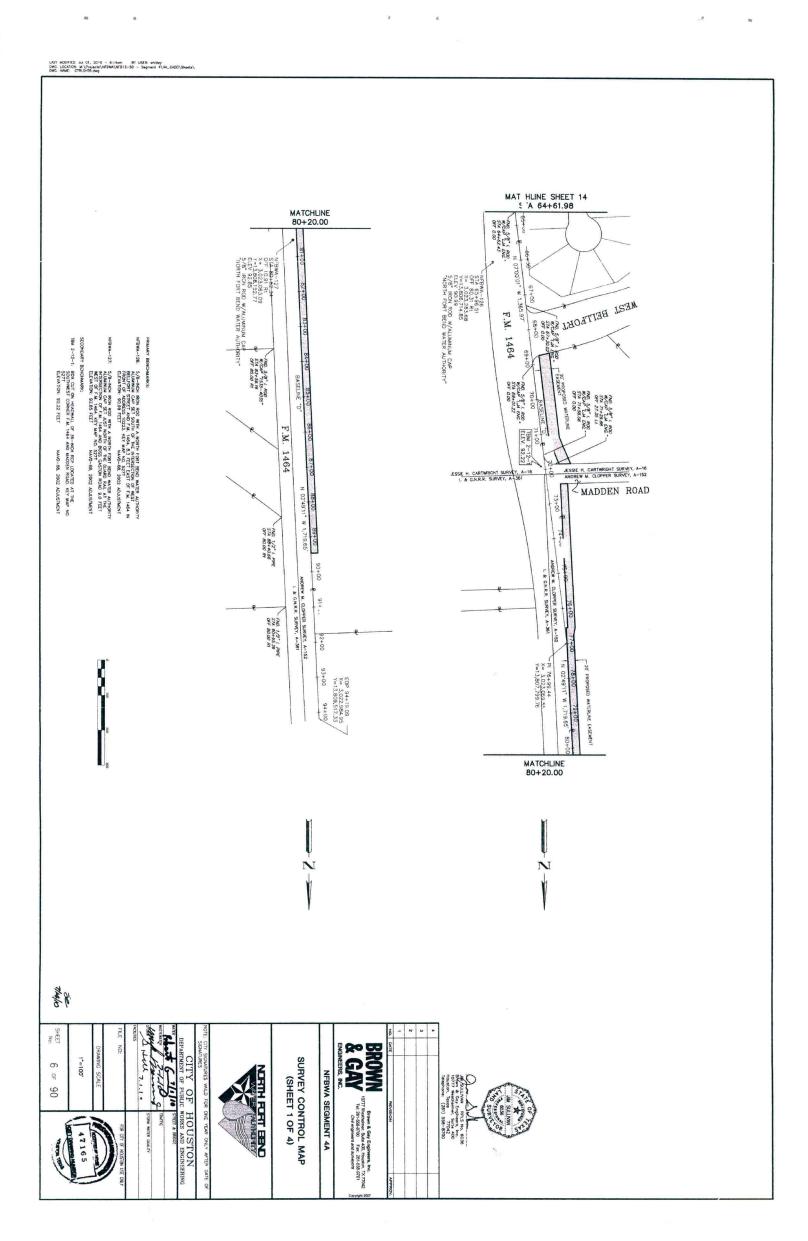
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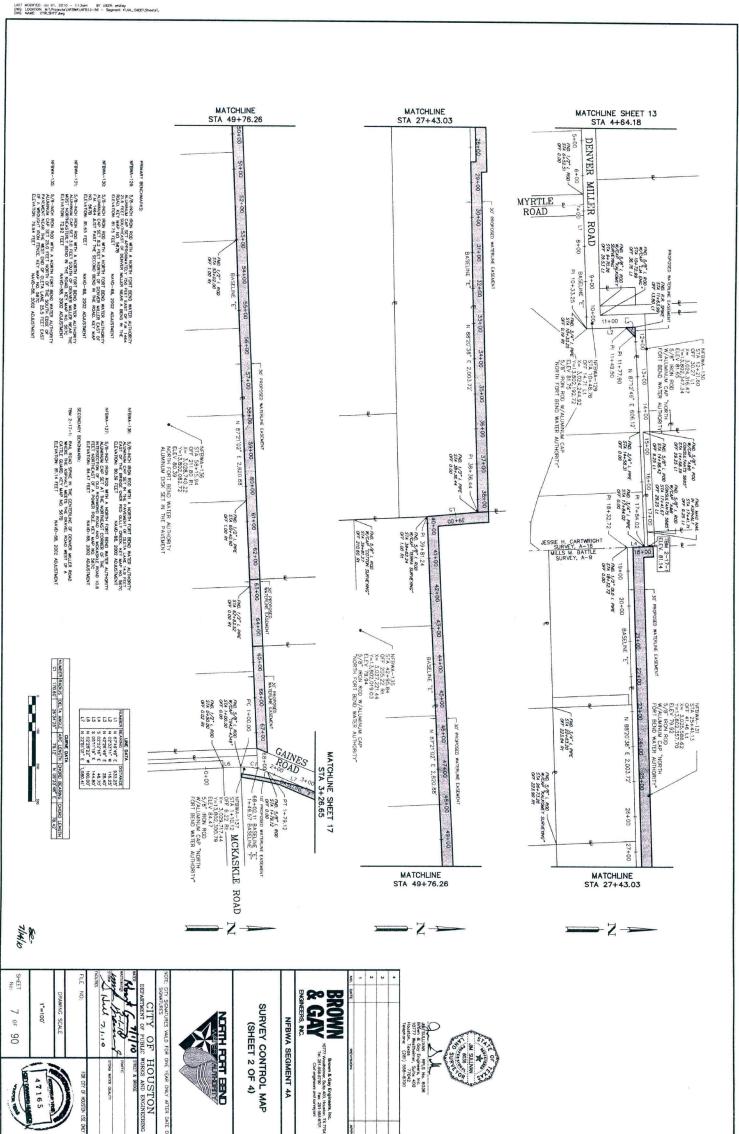
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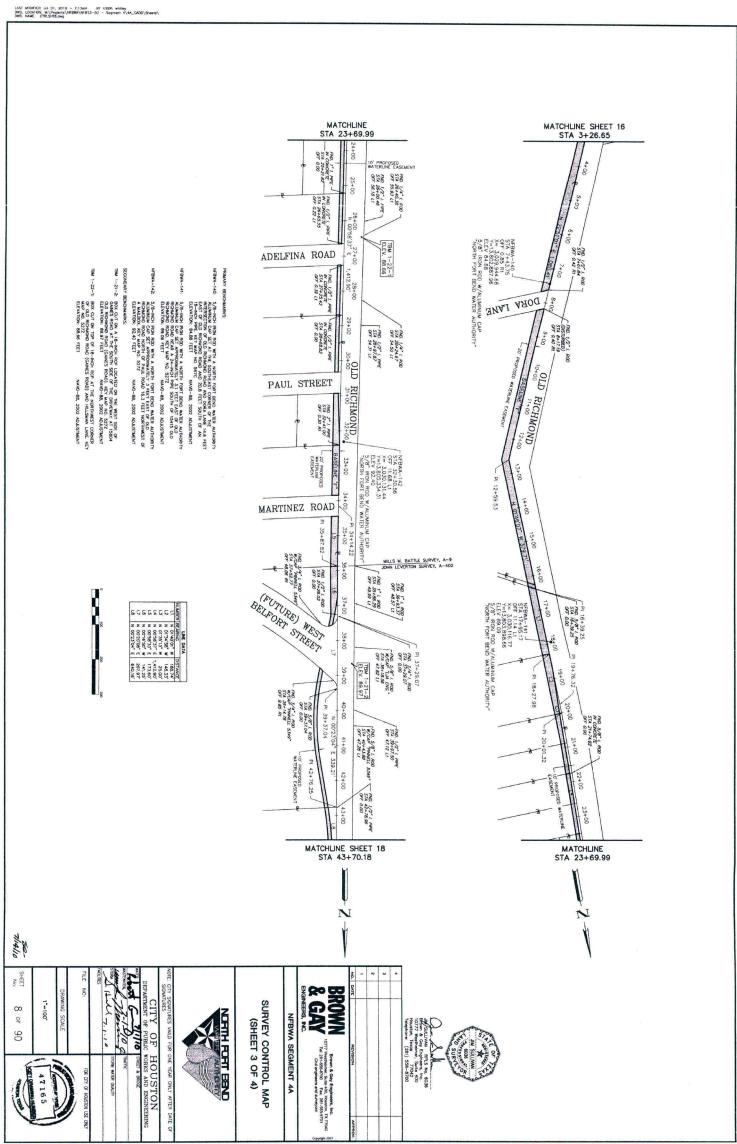
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BL. "D" STA. 72+06.43, 43' LT. 1-20"X22 1/2" BEND BL. "D" STA. 72+08.29, 50' LT. BEGIN 20" W.L. IN STEEL CASING 1-PIPELINE MARKER Date: SBC Approved for underground conduit facilities only. Signature valid for one year. GAS service lines are not shown.) AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET ROW, OR EXSEMENTS CALL LOWE STAR NOTIFICATION CENTER, (713) 223-4567 OR 1-800-669-8344

JARRANGE FOR LINES TO BE TURNED OFF OR MOVED.

LL CENTERPOINT AT 713-207-7777. BASELINE "D" ALONG CLODINE ROAD FROM STA 71+60 TO STA 76+40 BROWN & GAY Date: repoint Energy/ Electric Footiles. (approved only crossing underground dectilies, unless otherwise noted.)

A Time Of Review Only PRIVATE UTILITY LINES SHOWN CITY OF 5/8-MAY ROM ROD WITH A NORTH FORT BUYG WATER AUTHORITY ALLMRIAW CAP SET JUST NORTH OF THE GOOD ROW TO REAL MOTHER WITERSETHING OF FAU HEA MO BOSS GASTON ROAD SO FRET WEST OF FAU HEA MO LEAVING: 90.85 FEET MAYO-88.

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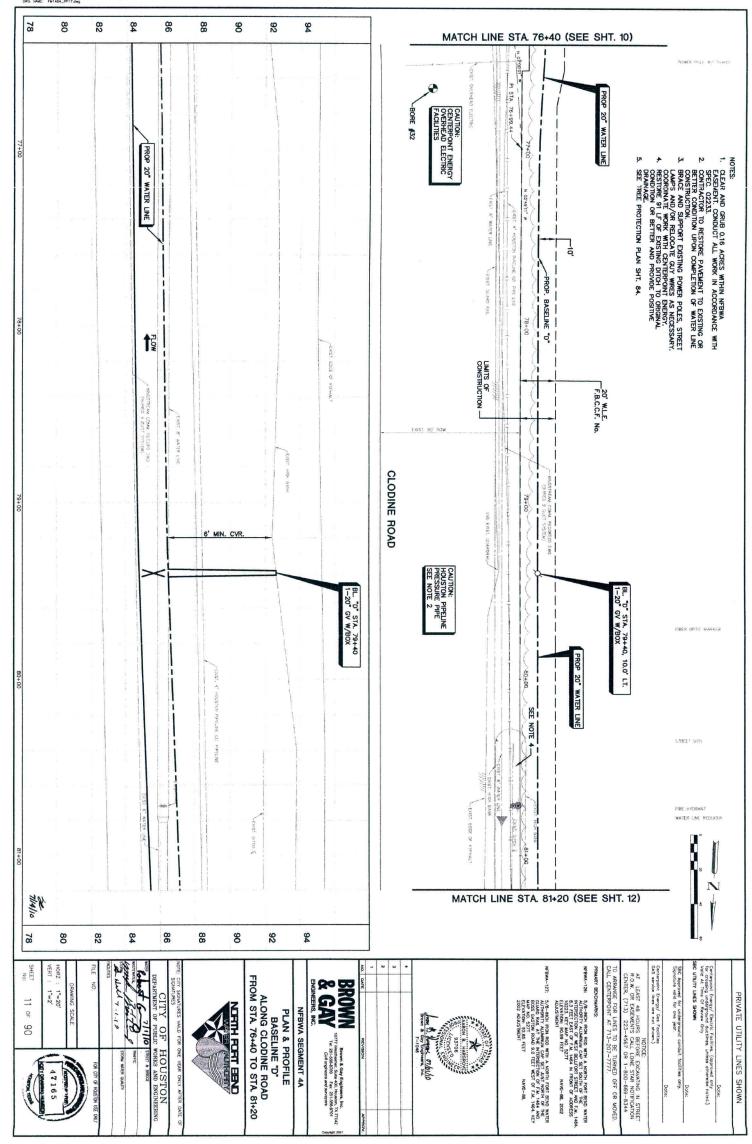
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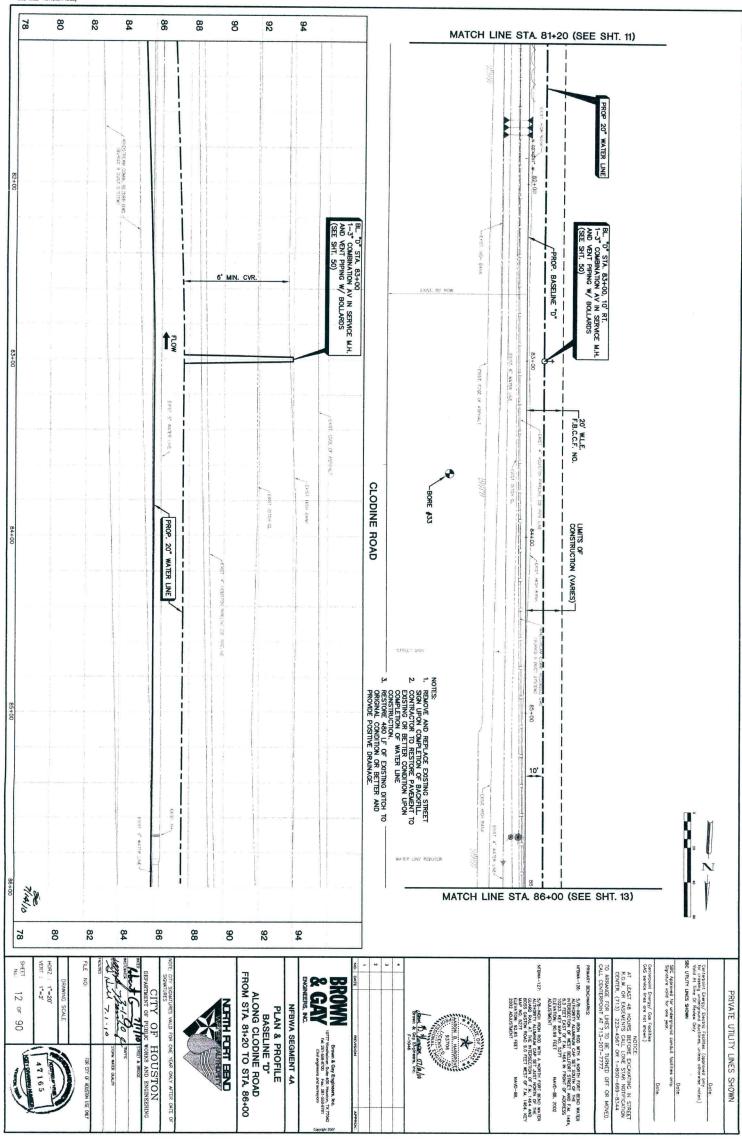
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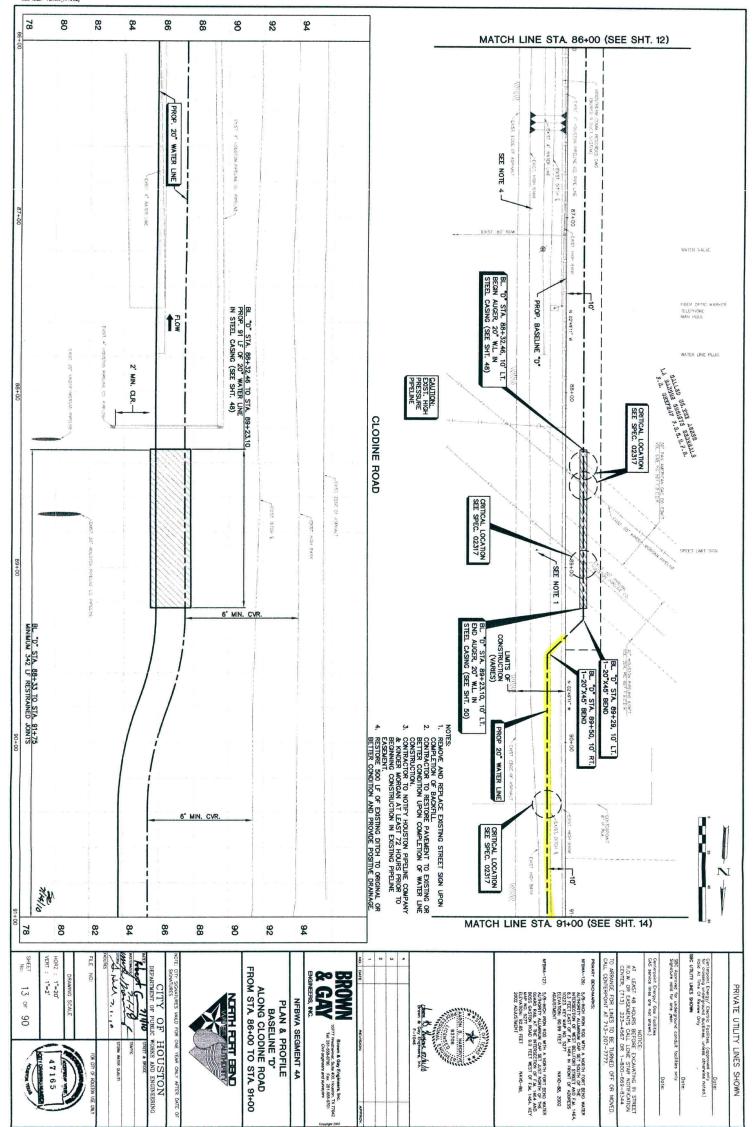
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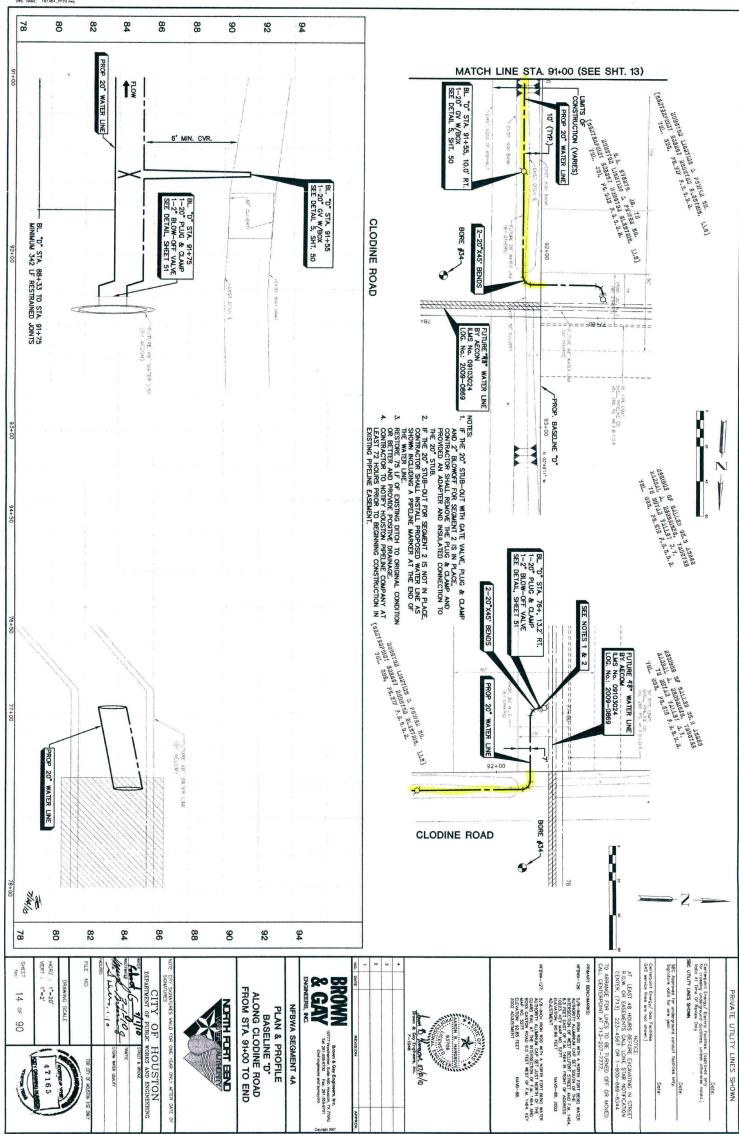
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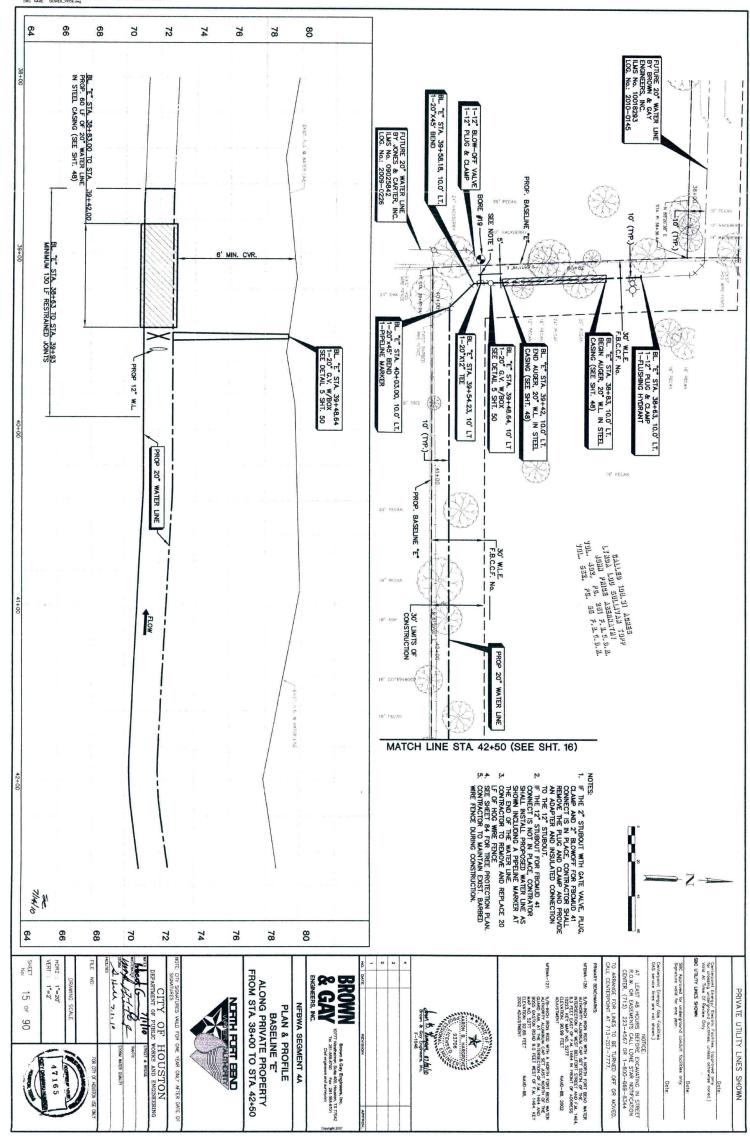
AUMSTRICH. PLAN & PROFILE **NFBWA SEGMENT 4A** OHIN FORT BEND 90 Brown & Gay Engineers, Inc. 10777 Westhelmer, Suite 400, Houston, TX 77042 Tel: 281-458-8700 Fest: 281-558-9701 CNR engineers and surveyors HOUSTON WORKS AND ENGINEERING STORM WATER QUALITY 47165 Date:

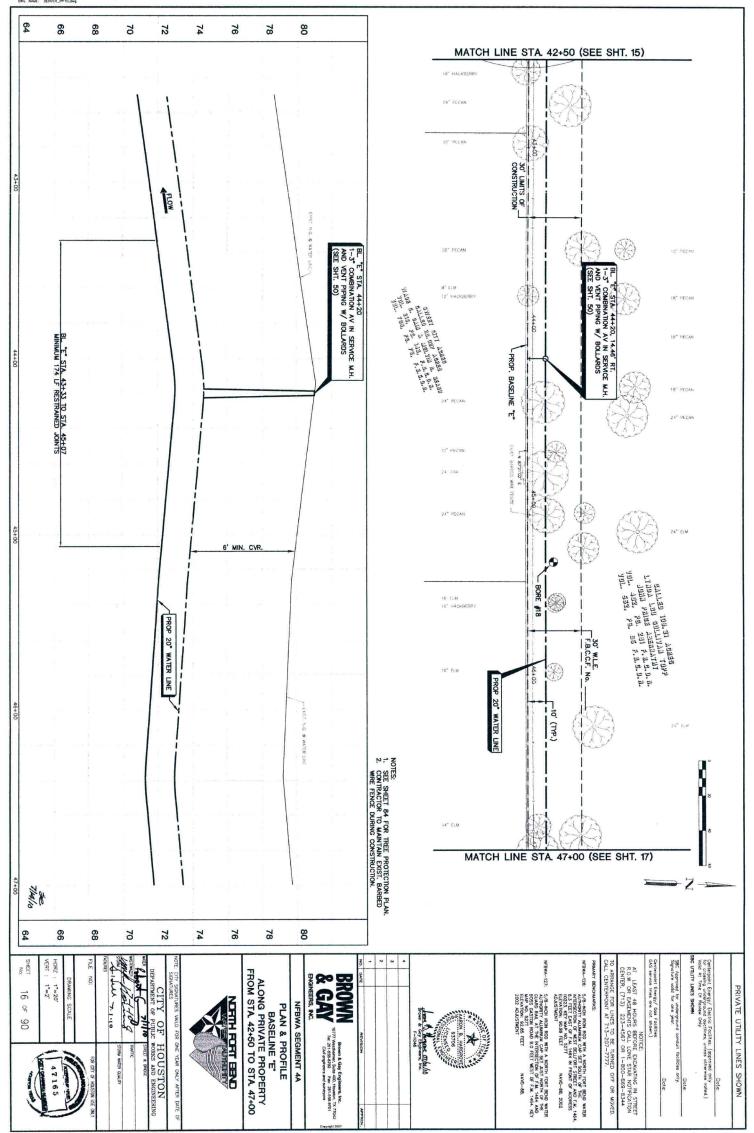


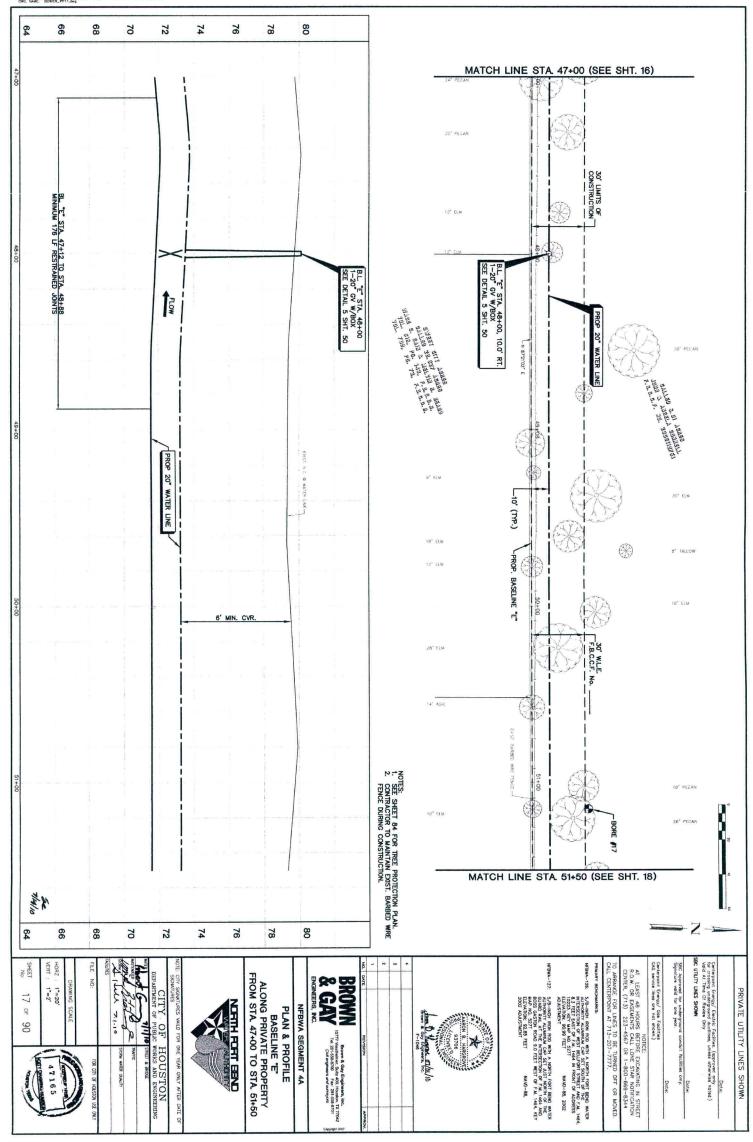




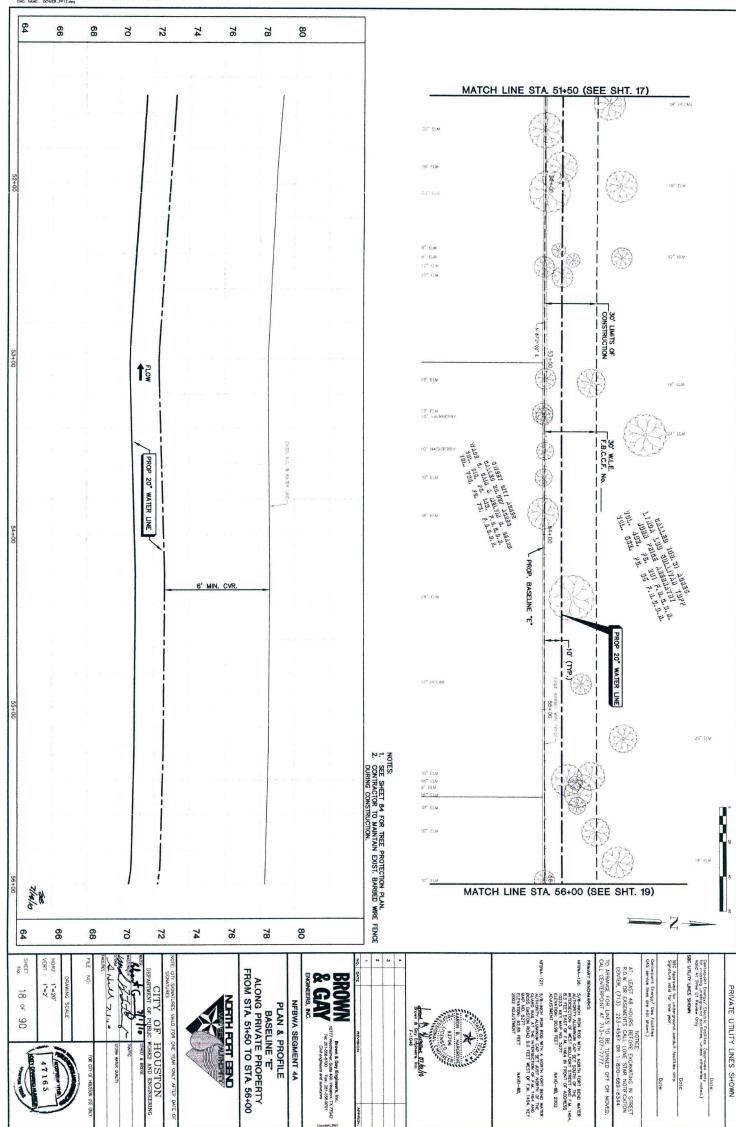


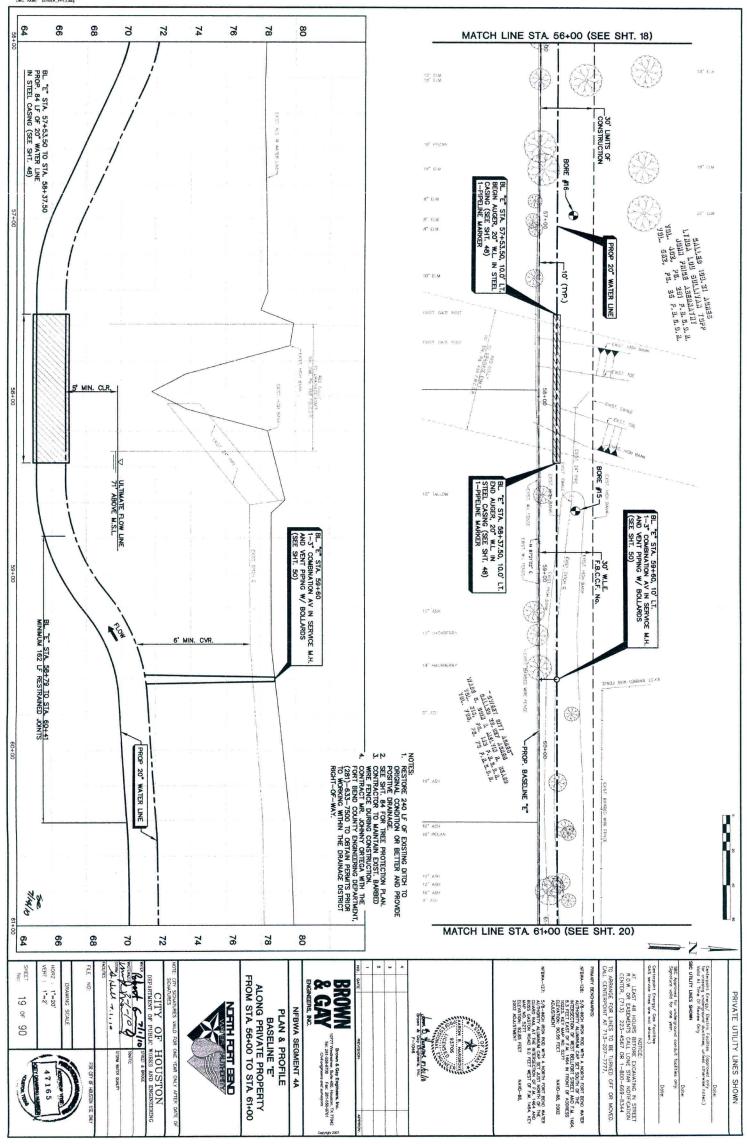


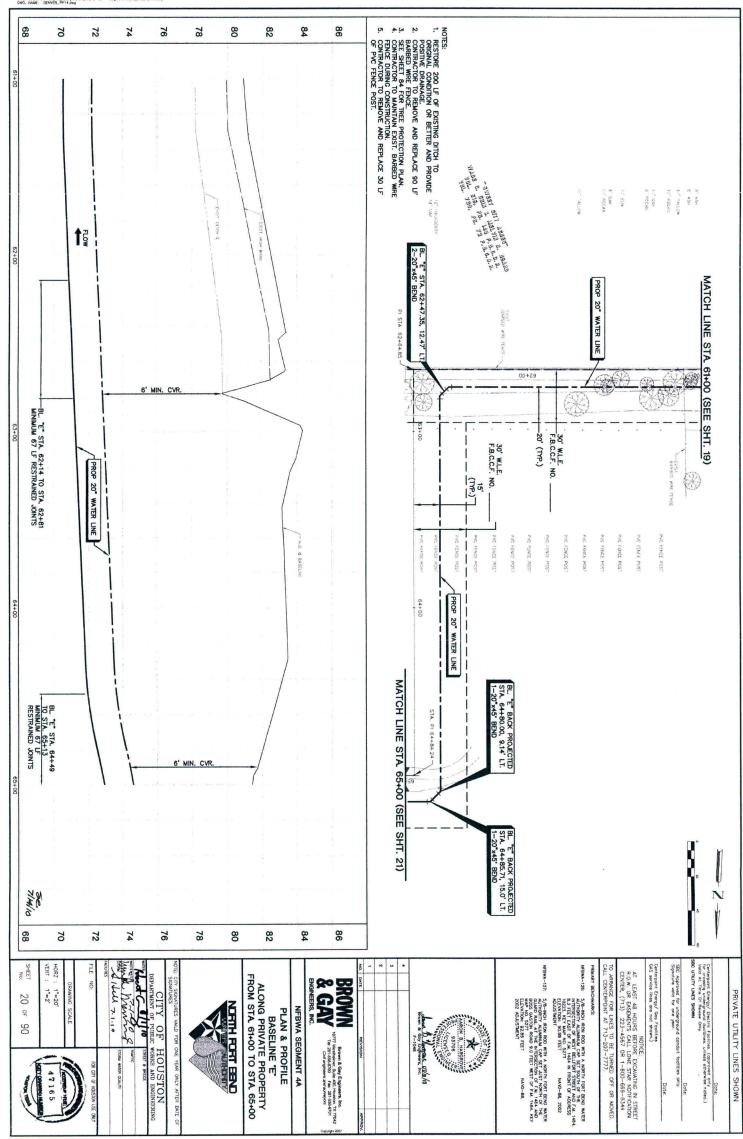


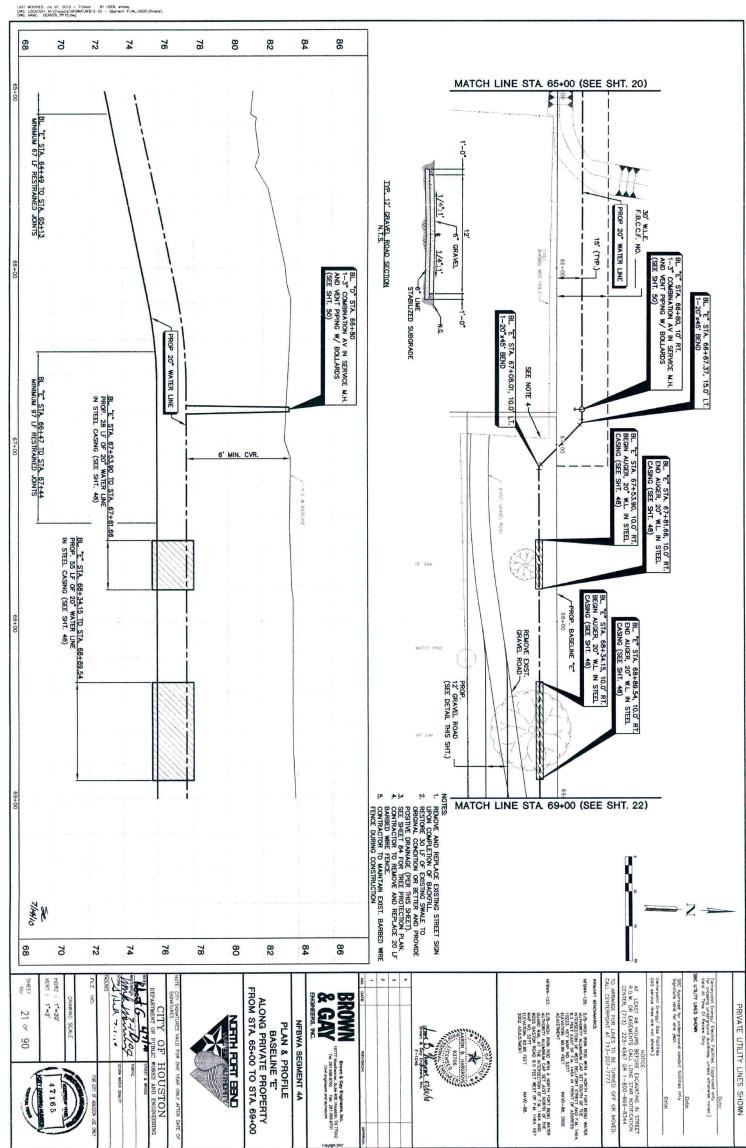


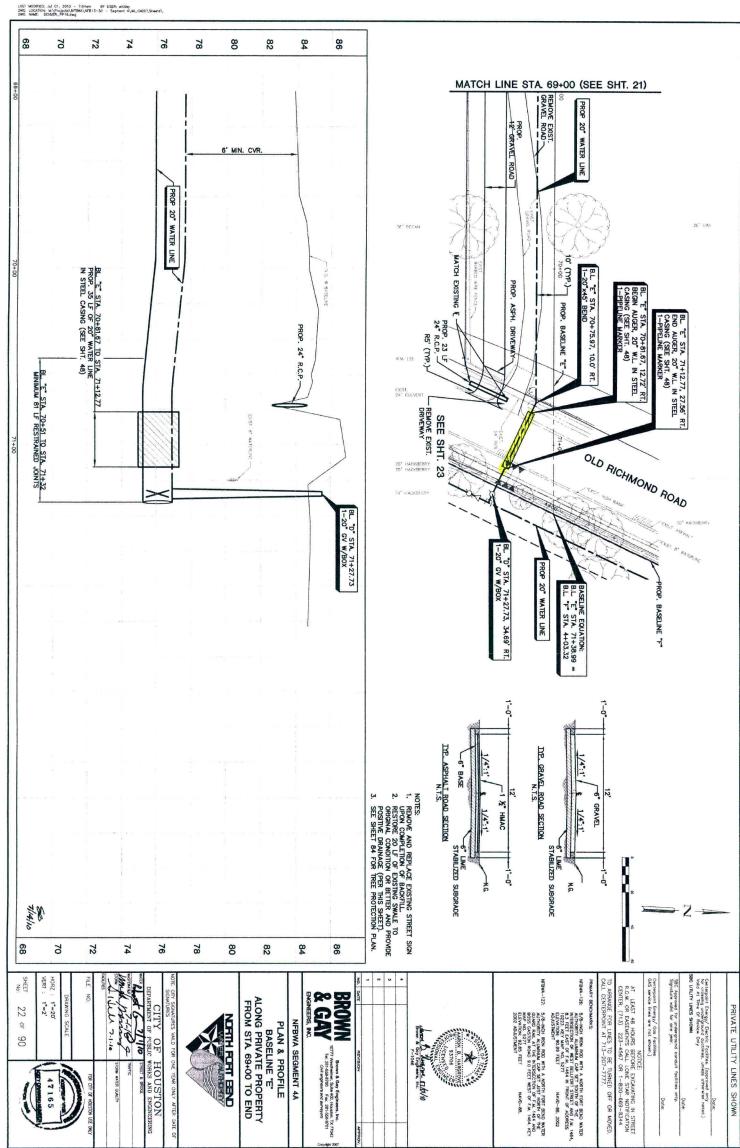
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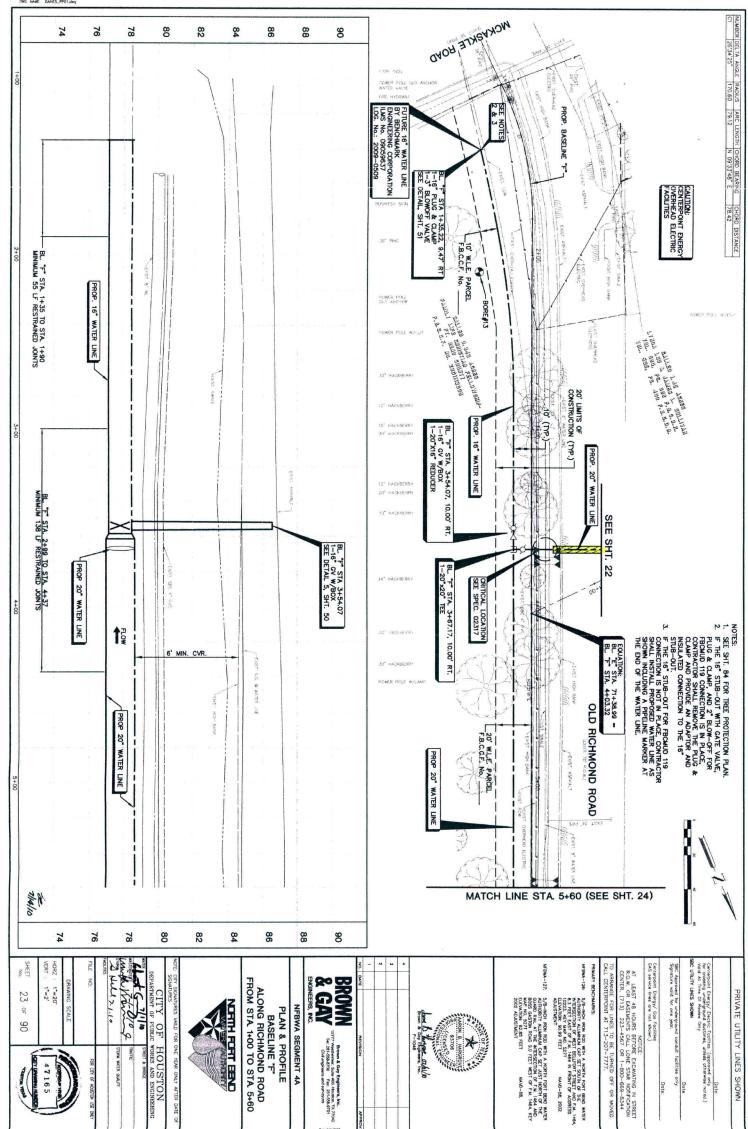


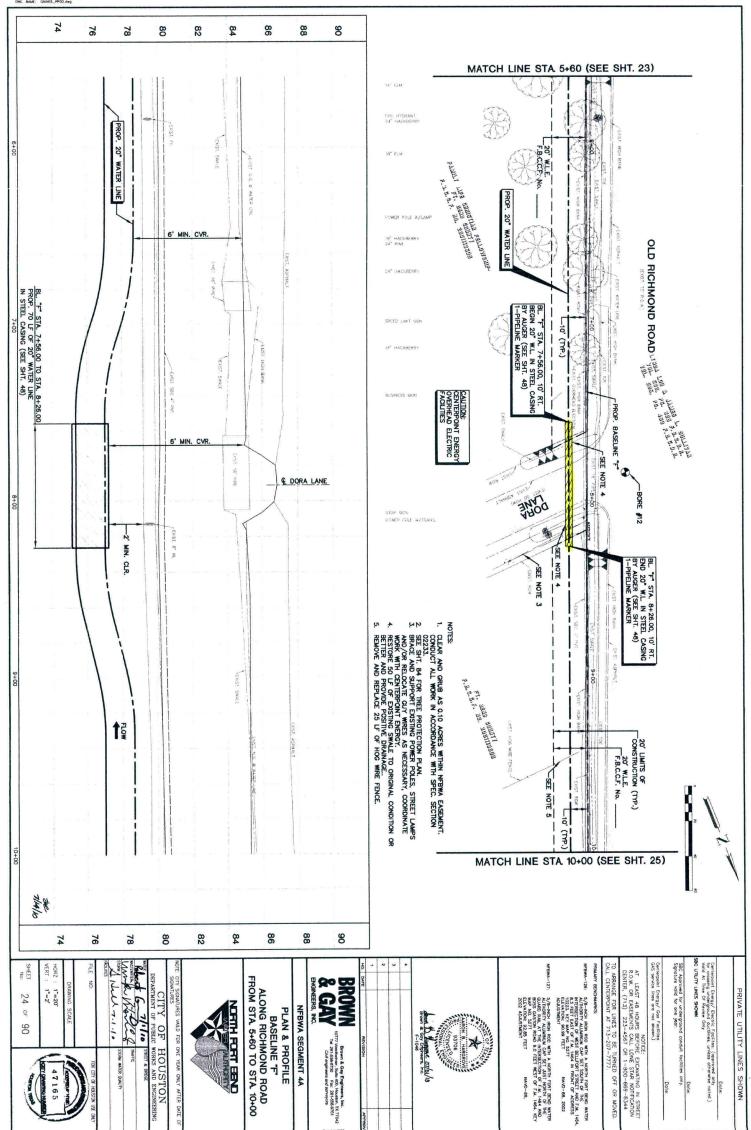


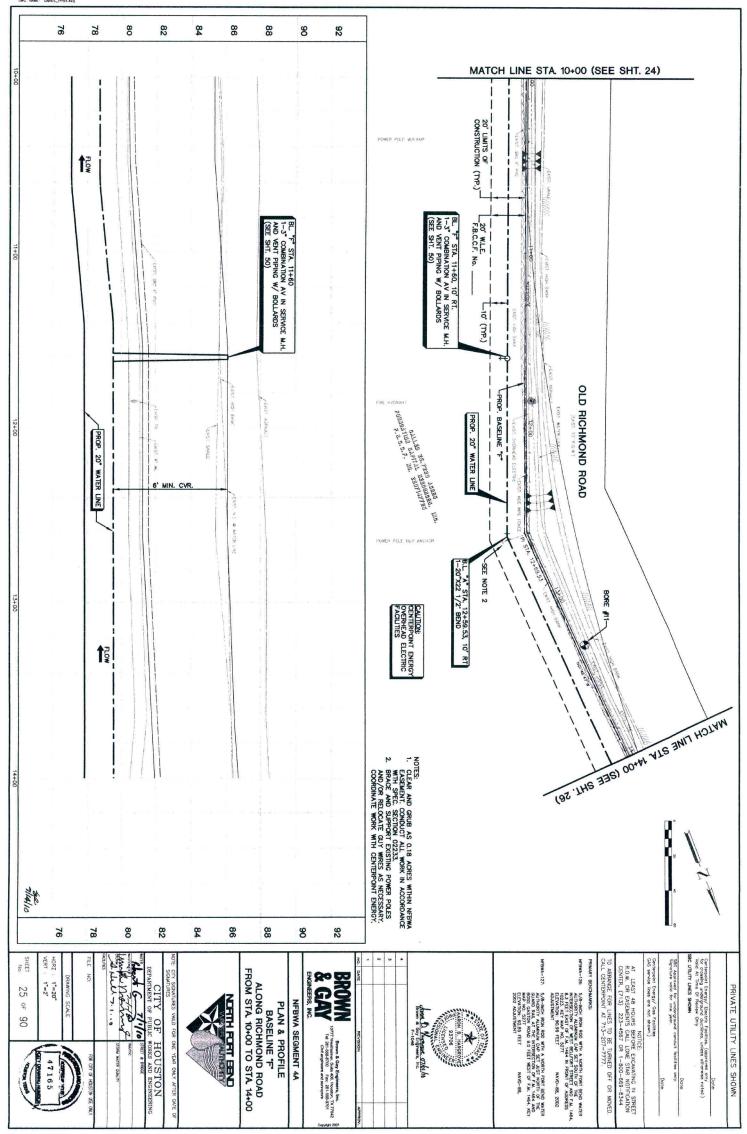


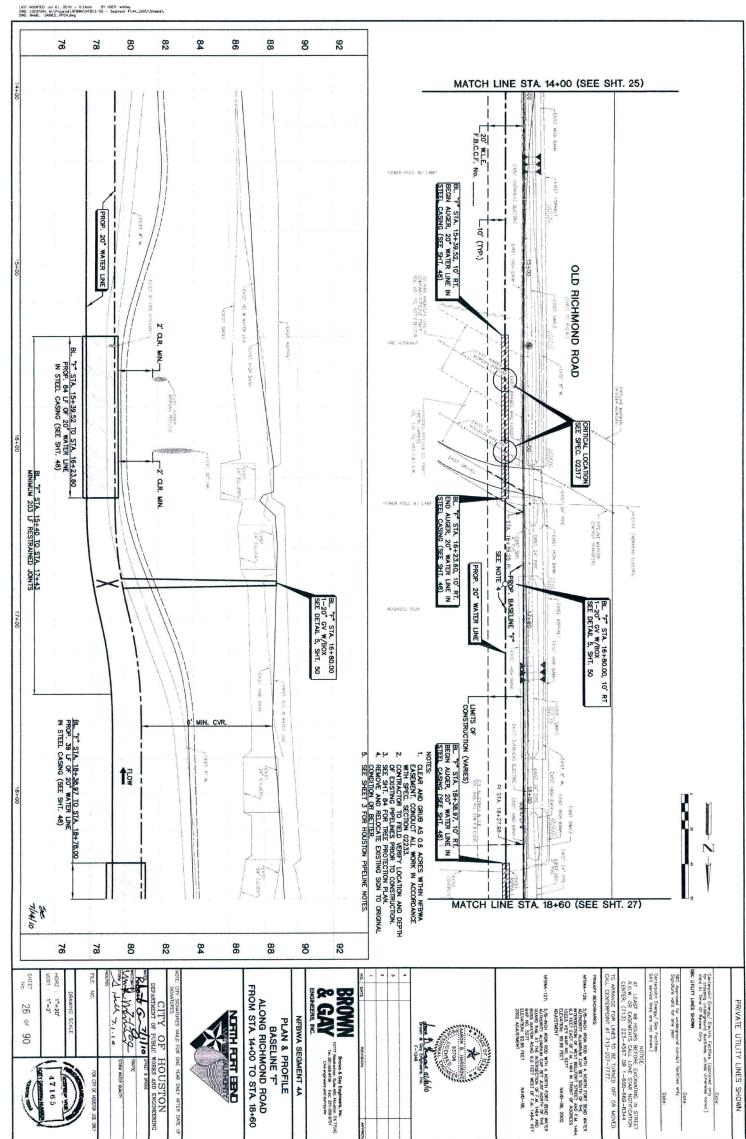


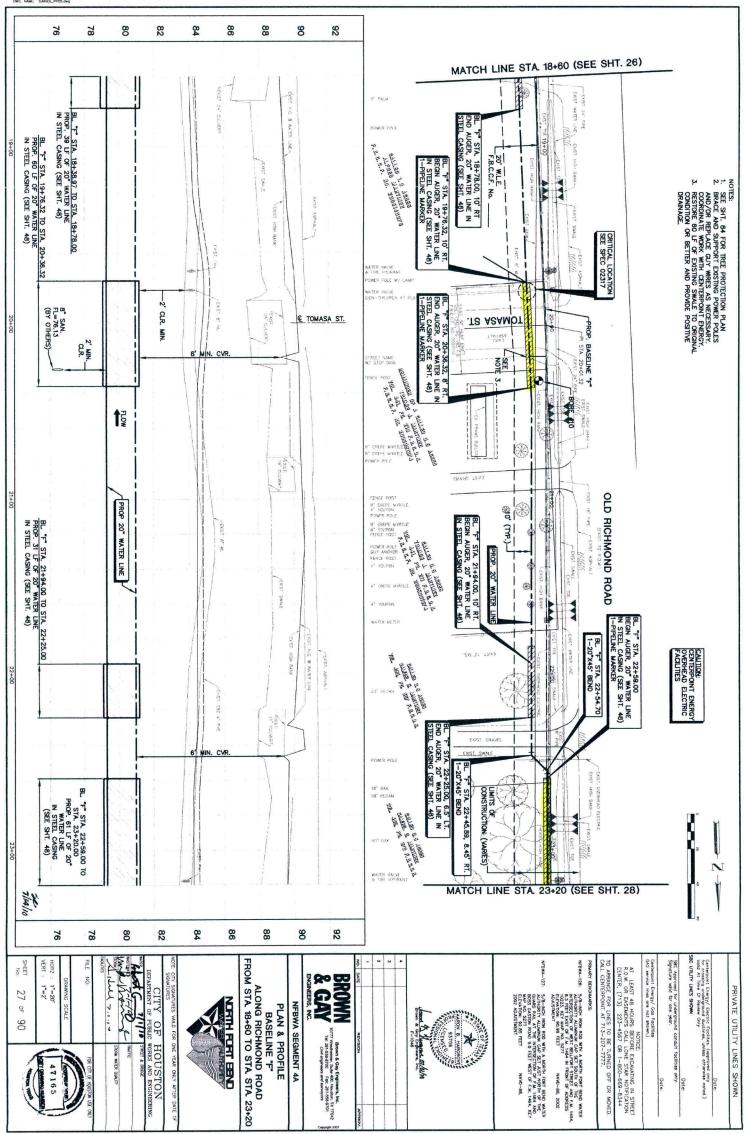


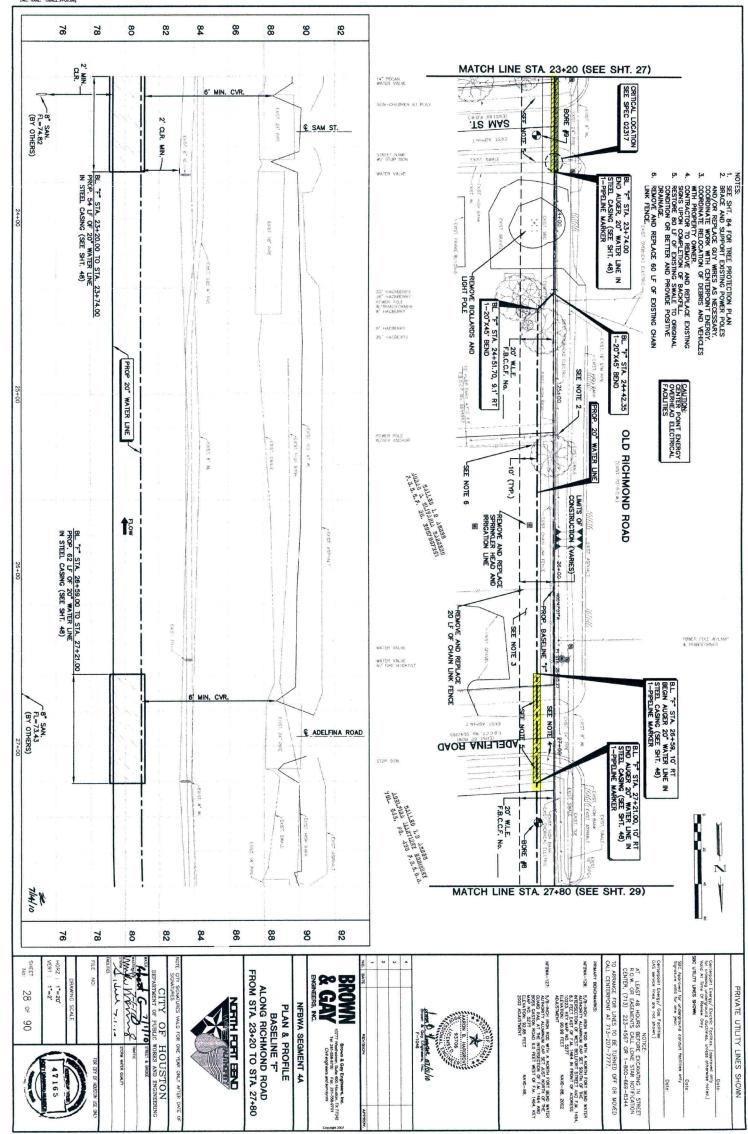




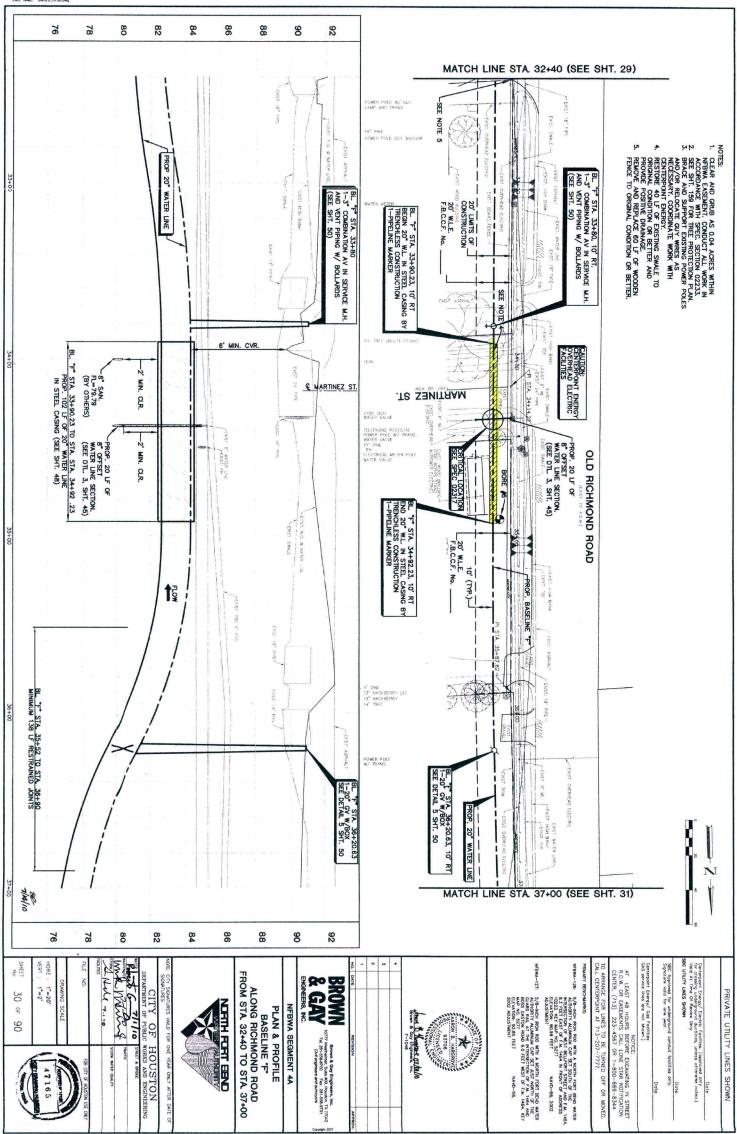


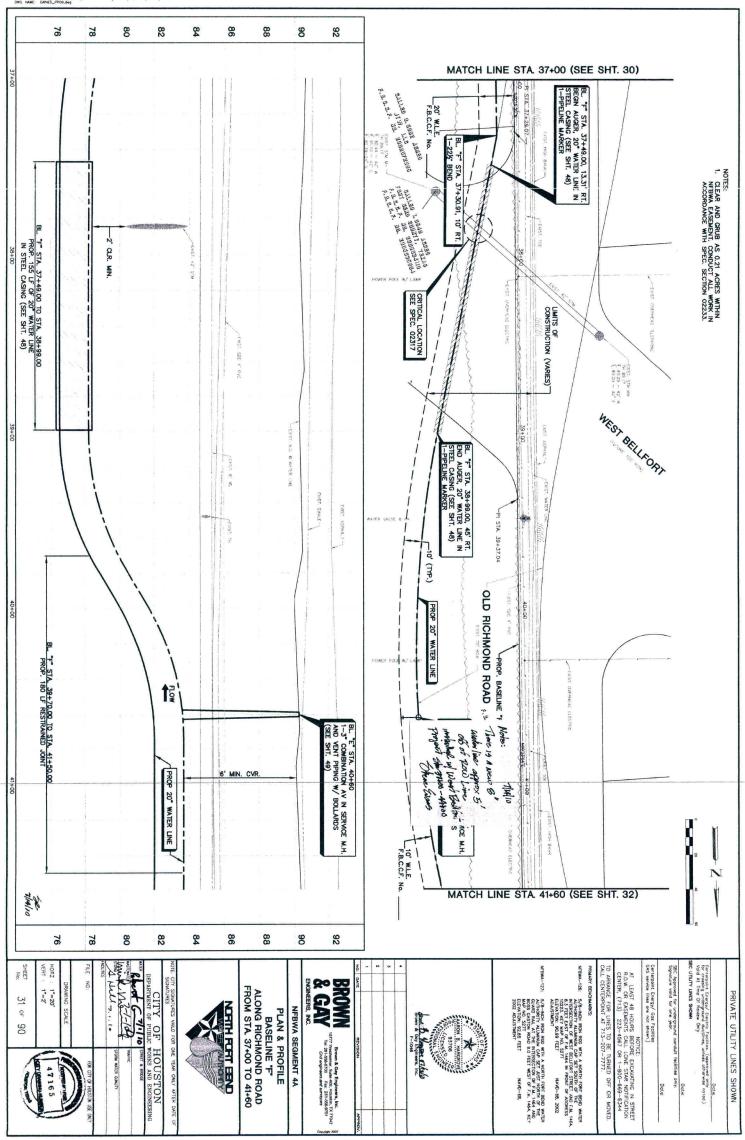


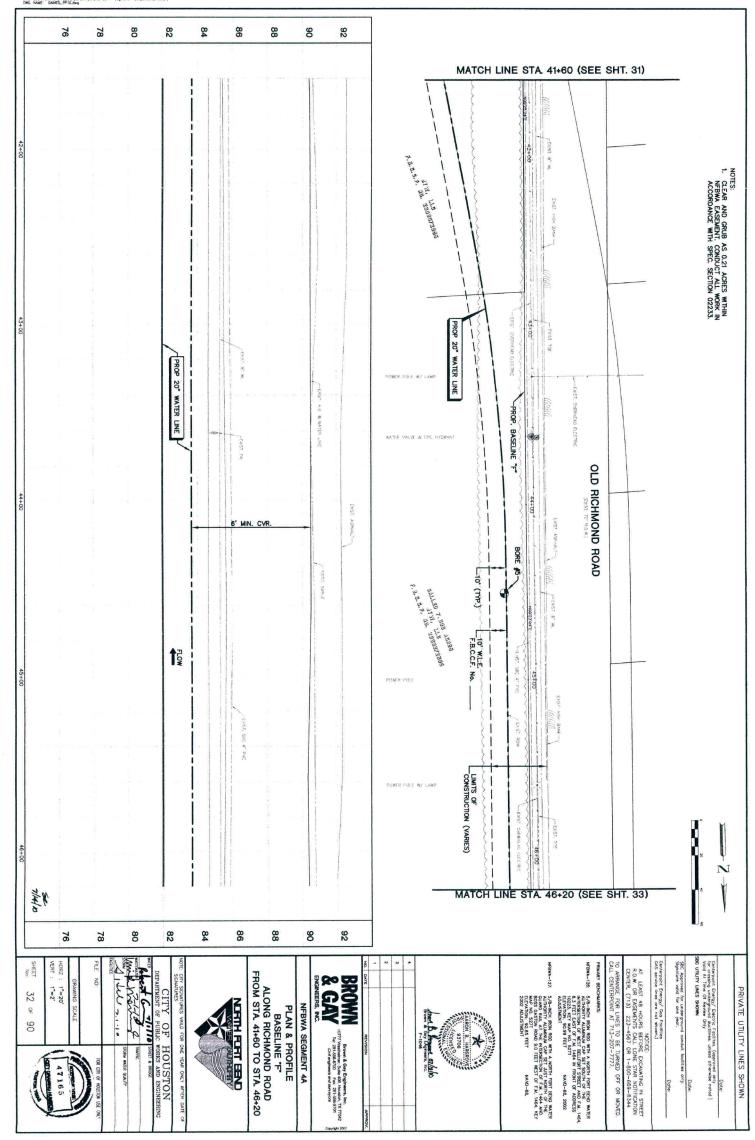


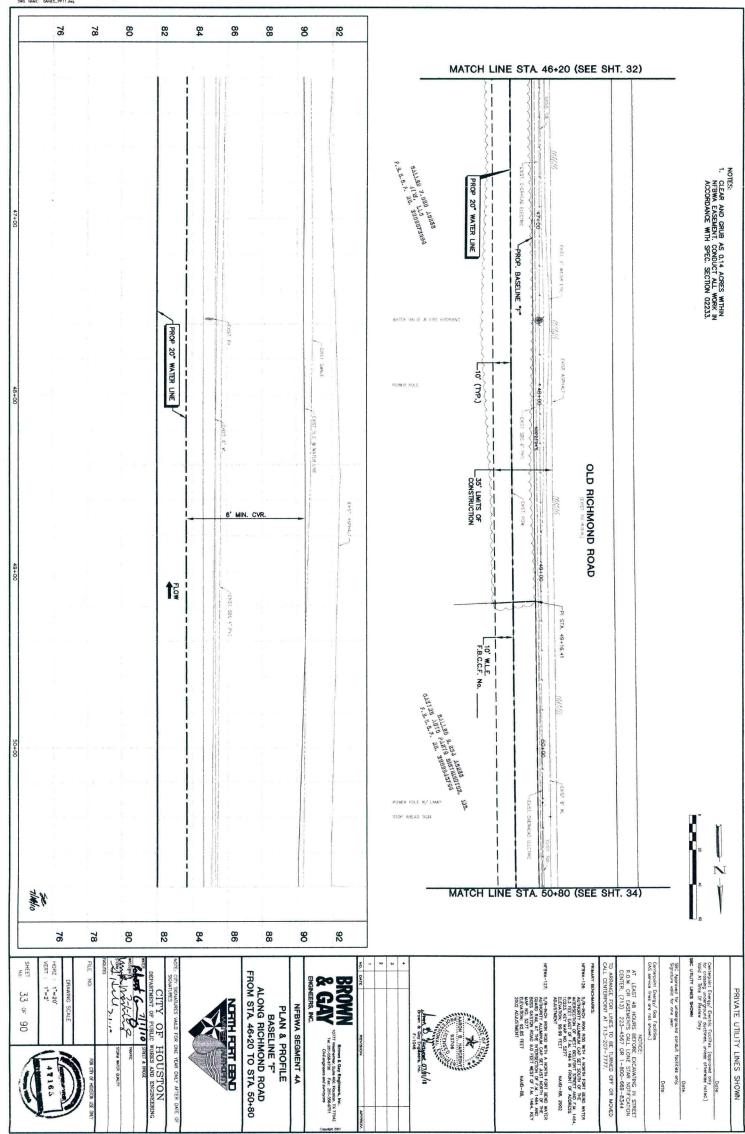


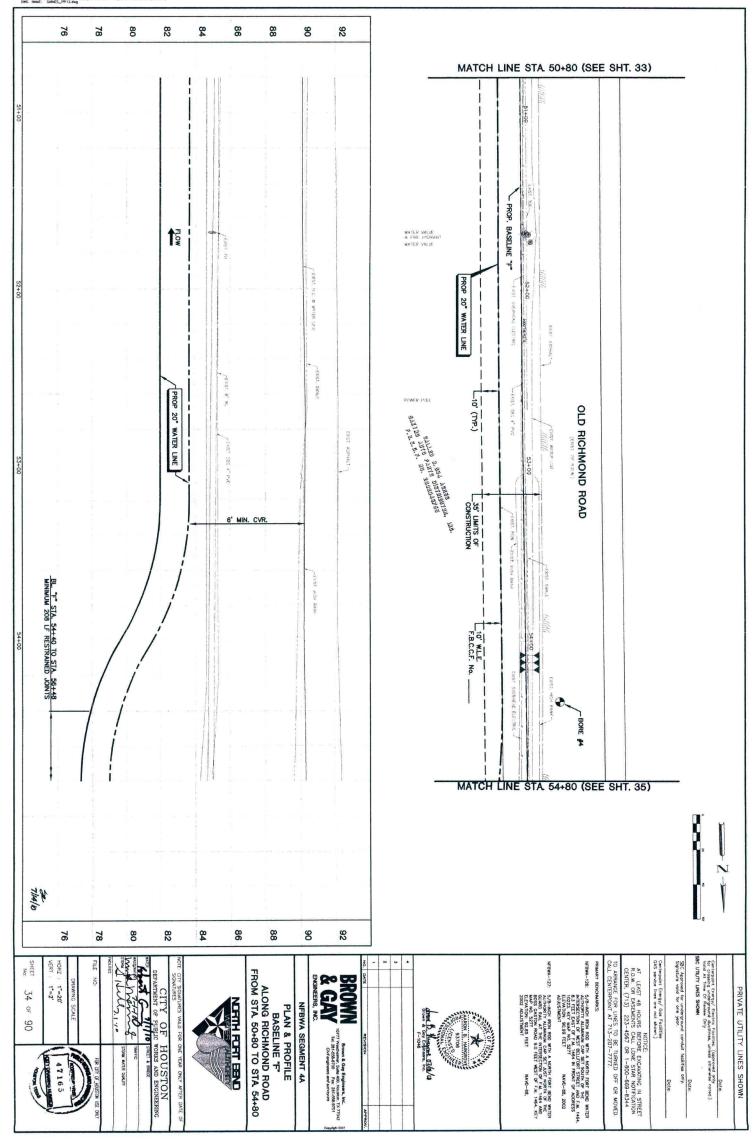
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BASELINE 'F'
ALONG RICHMOND ROAD
FROM STA. 27+80 TO STA 32+40 ILEAST 48 HOURS BEFORE EXCAVATING IN STREET 1.0.W. OR EASEMENTS CALL LONE STAR NOTIFICATION ENTER. (713) 223-4567 OR 1-800-668-8344 Jul 7.1.10 1"=20 PRIVATE UTILITY LINES SHOWN 29 of CITY OF 5/8-ach row rod with a morth fort beid white Authority Aldarium cap Set South of the Withselting the sets beltor street made at 1444, withselting the sets beltor street made at 102.25 (FURL PAGE 27) AUJUSTINEY 1029 FET MAID—B8, 2002 AUJUSTINEY S/8—INCH IRON INDO WITH A MORTH FORT GEND WATER AUTHGRITH AUDMINU CUP SET JUST MORTH OF THE GUARD PAUL AT THE METRESCRIPM OF FAL 1444 AND BOSS GASTON ROUD SO FEET WEST OF FAL 1444, KEY MAP NO. 5271 B. FEET MAD—88, EDEWNTON-92.85 FEET MAD—88, 2002 JAUSTINERY NFBWA SEGMENT 4A 90 STORM WATER CLAUTY TURNED OFF OR MOVED.

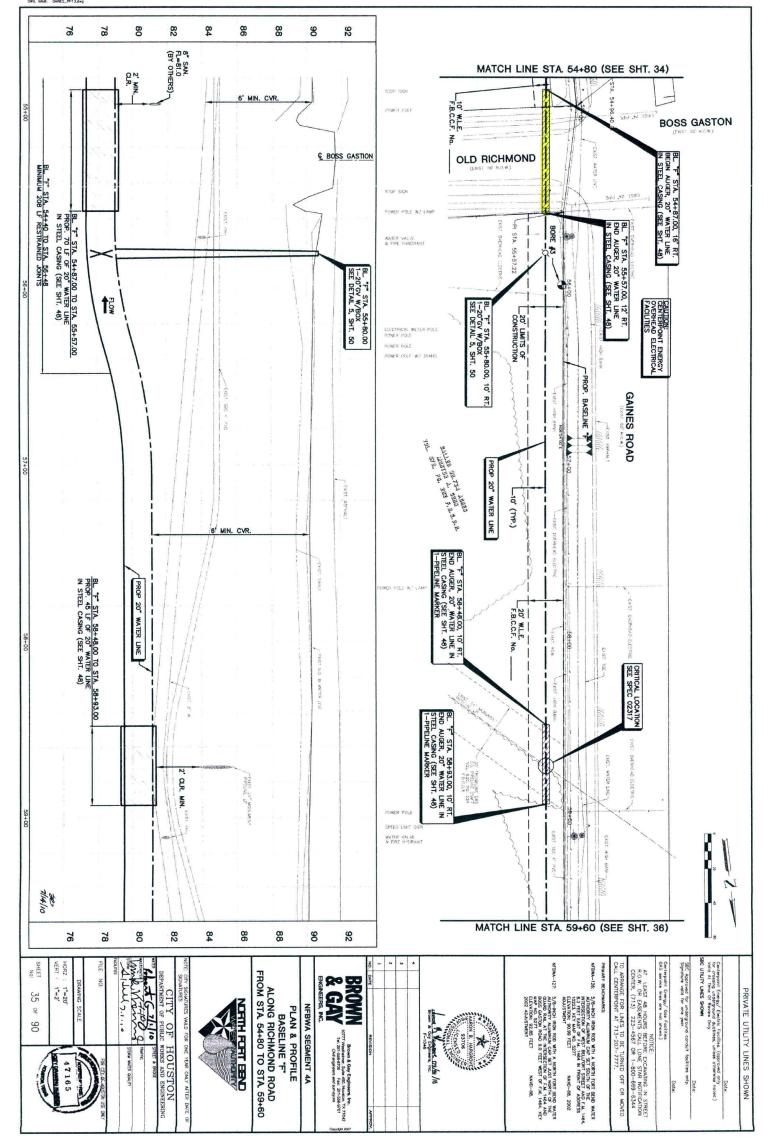


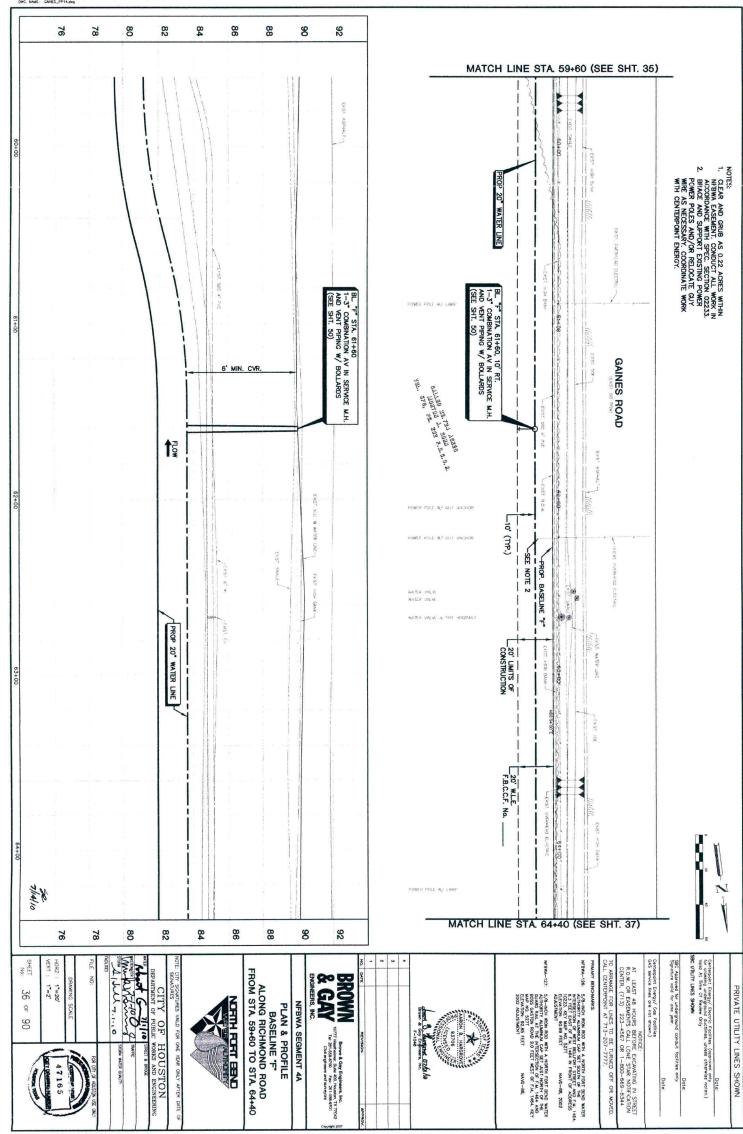


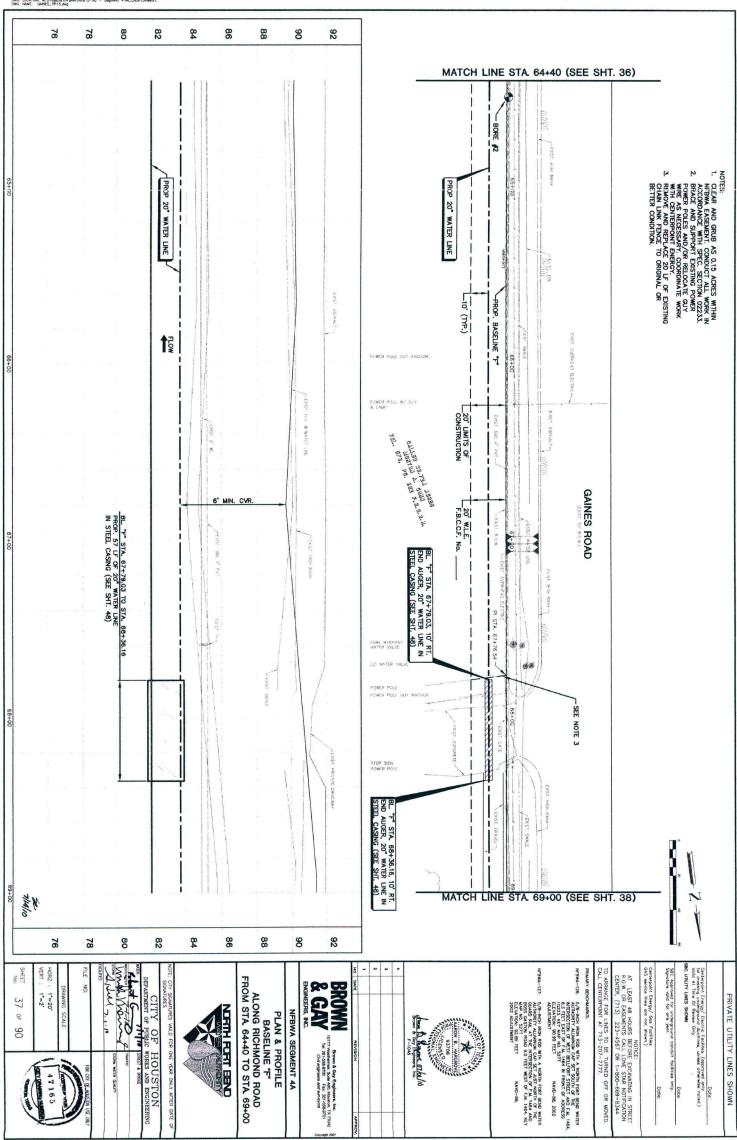


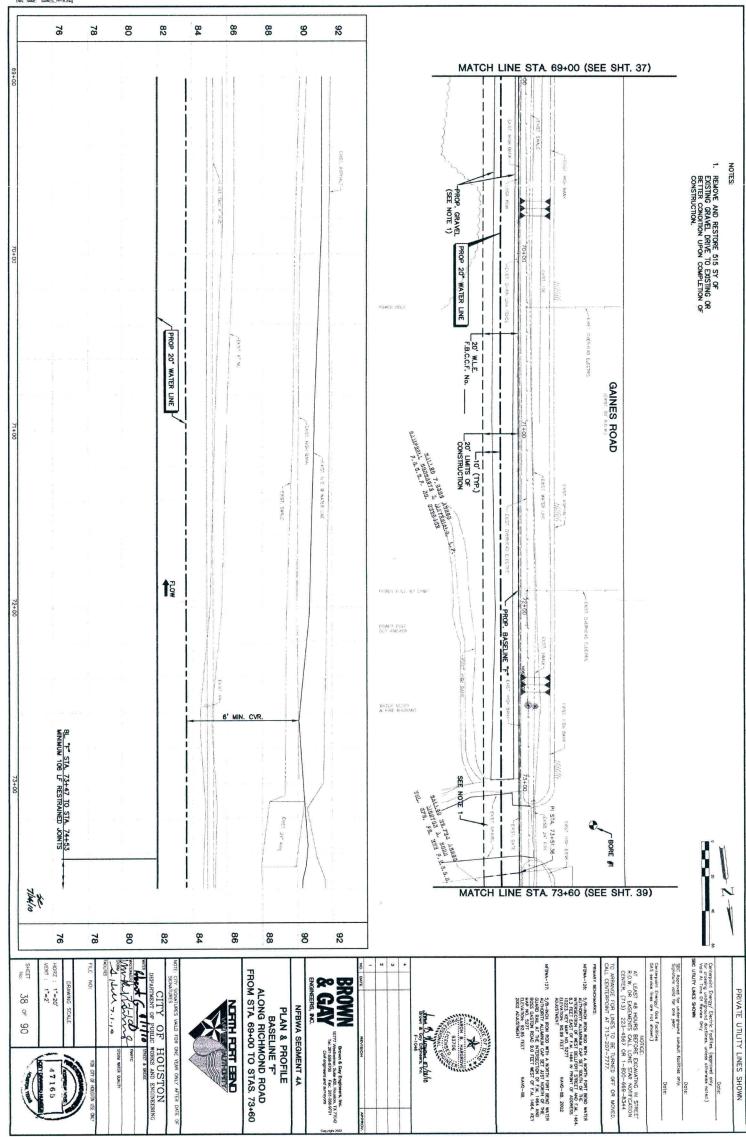


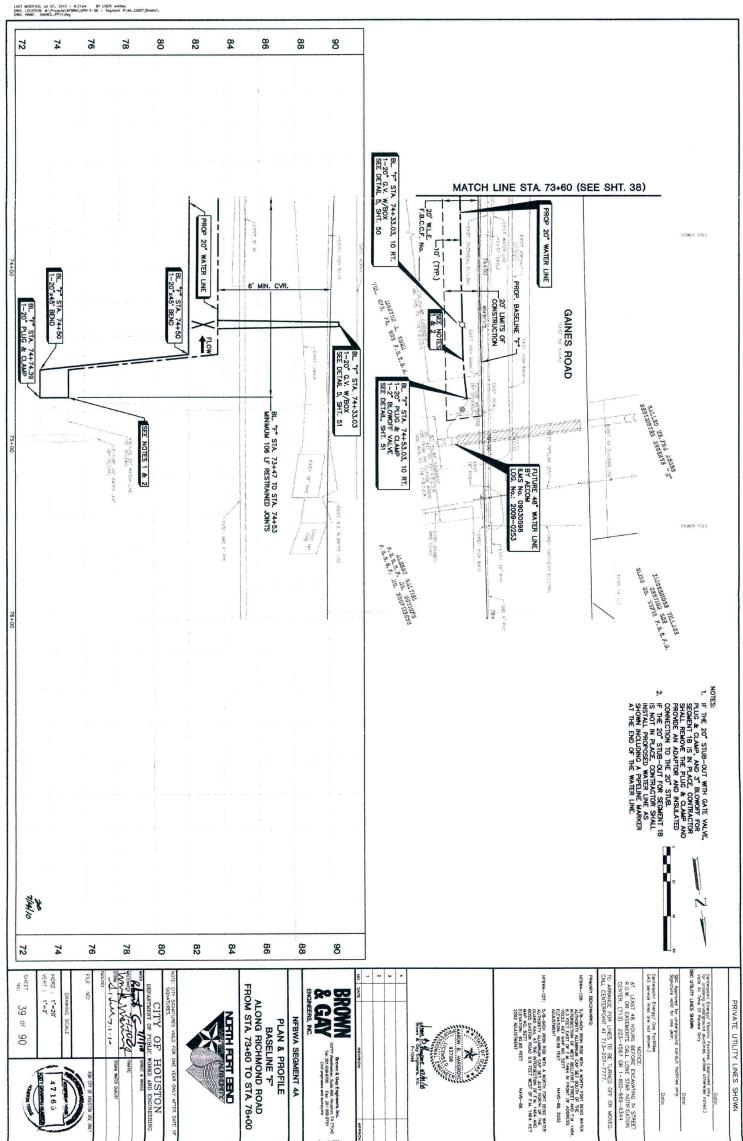




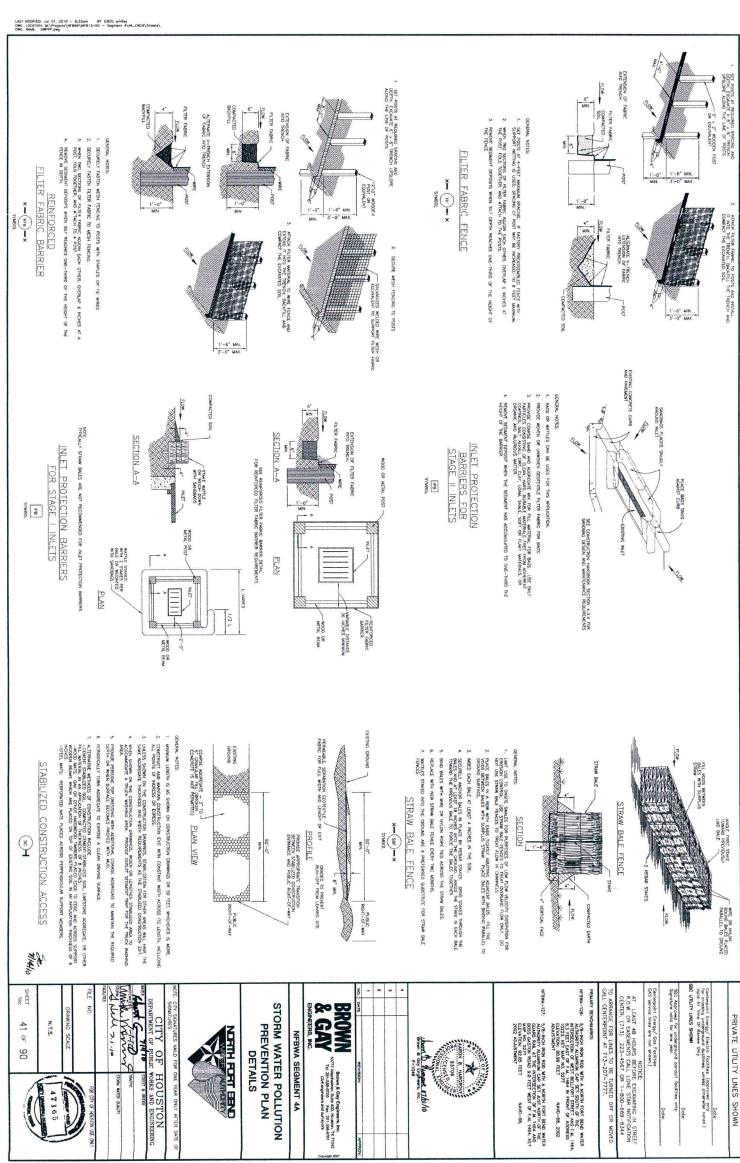


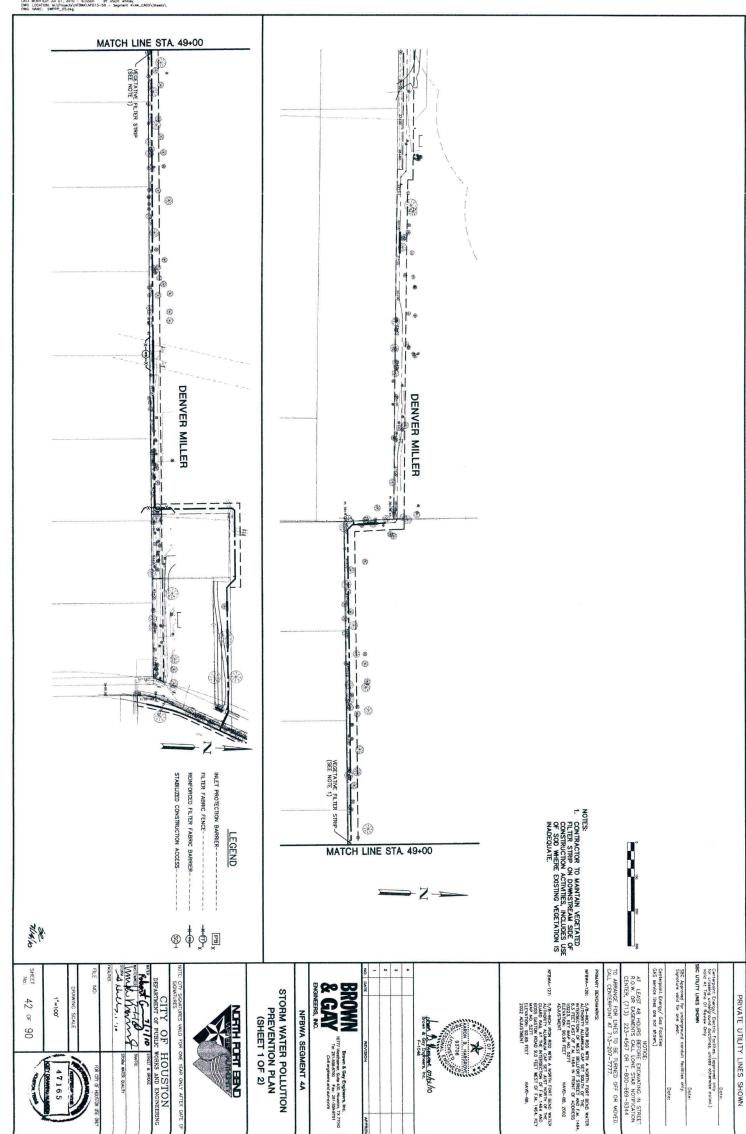


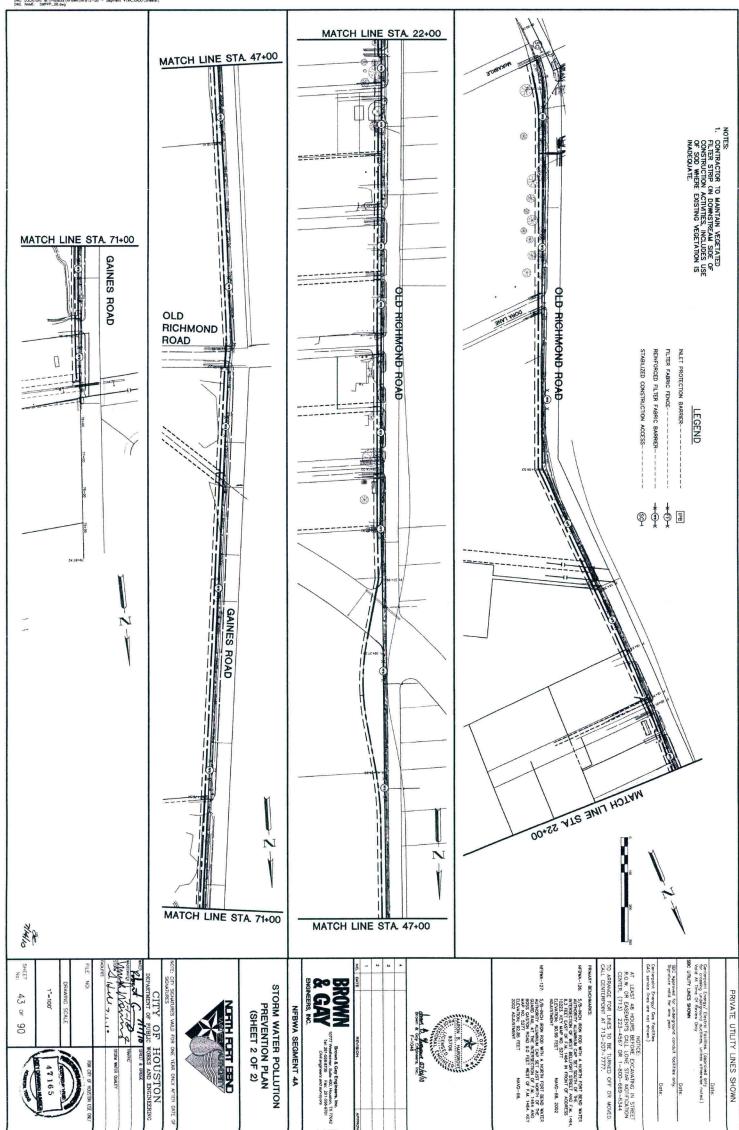




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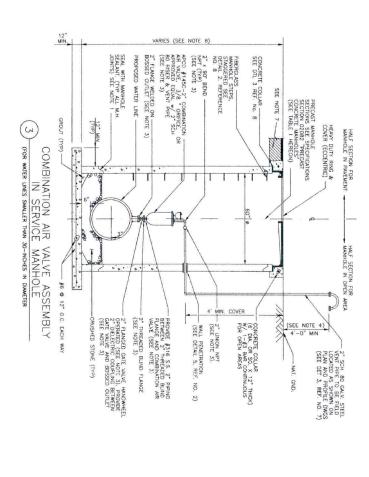
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STORM WATER COMMITY

HOUSTON
WORKS AND ENGINEERING

STORM WATER QUALITY

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DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

FOR ONE YEAR ONLY AFTER DATE

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STORM WATER CLALITY

DRAWING SCALE

47165

DATE: NOVEMBER 17, 2009

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AIR VALVE IN SERVICE MANHOLE DETAILS

NORTH FORT BEND

NFBWA SEGMENT 4A

& GAY Brown & Gay Engineers, Inc. 10777 Weatherner, Suite 400, Housion, TX 77042 Tel: 281-558-8700 Fax: 281-558-9701 Child engineers and surveyors

ARON B. HAROROV from & Goy Engineers, Inc.

6. IF 4" AIR WAVE IS CALLED FOR IN
THEN PROVIDE AND APPORTEMENTS
ALL OHER PIPMS AND APPORTEMANCES
ALL OHER PIPMS AND APPORTEMANCES
THOM TO BE 2" DAWLETES SHALL BE 4"
IN OMMETER, AND SHALL BE CONSTRUCTED
OF THE SAME MATERIAL AND CLASS.

5. REFER TO PLAN AND PROFILE SHEETS FOR TYPES AND LOCATIONS OF COMBINATION AIR VALVES. 4. VERIFY THAT LOCATION OF SCREEN IS 1 FOOT ABOVE 100-YEAR FLOOD PLAIN ELEVATION OR 4 FEET ABOVE NATURAL GROUND WHICHEVER IS HIGHER. PAINT FLUSHING HYDRANT BLACK. INSTALL DISK ON PUMPER NOZZLE AND LABEL "NFBWA — FOR FLUSHING ONLY".

10. PROVIDE RESTRAINED JOINTS FOR FLUSHING HYDRANT ASSEMBLY.

9. LOCATE FLUSHING HYDRANTS AS SHOWN ON PLANS. PROVIDE TEMPORARY MEANS TO DIFFUSE FLOW FROM HYDRANT AND PREVENT EROSION OF EXISTING GROUND DURING FLUSHING. 8. FOR MANHOLES DEEPER THAN 20 FEET,
INCREMSE SIZE OF ACCESS MANHOLES TO
72-HOLD OR 84-INCH DIAMETER & PROVIDE
SAFETY CLUMBING PAIL (SAF-T-CLUMB) OR
APPROVED EQUAL).

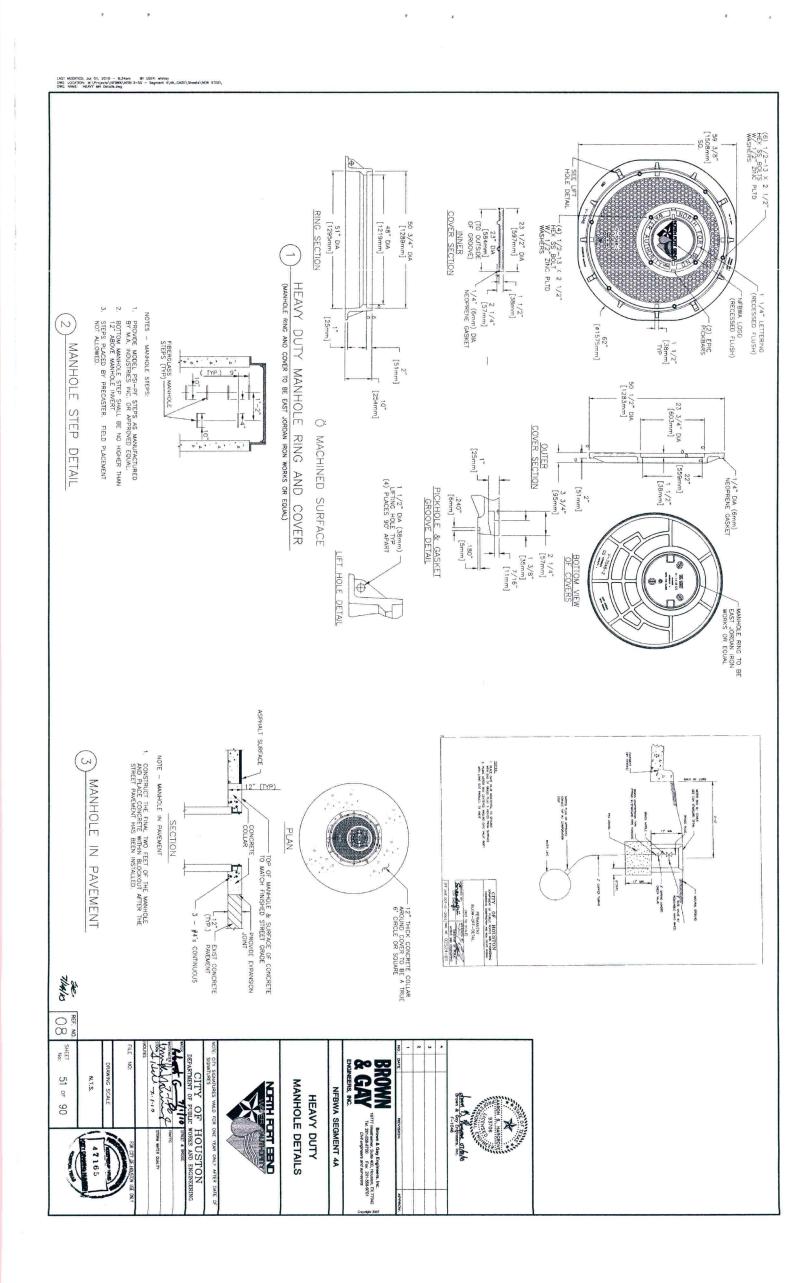
3. IF 3" AR WALE IS CALLED FOR ON THE ARMA AND PAPELE SHETCH THAT PARVING APON AT SOUTO OR 150.10 AM NUMBER OF A THAT SHAPE AND THAT SHAPE AND SHALL BE 3" IN DAMPETE AND SHALL BE CONSTRUCTED OF THE SAME MATERAL AND CLASS.

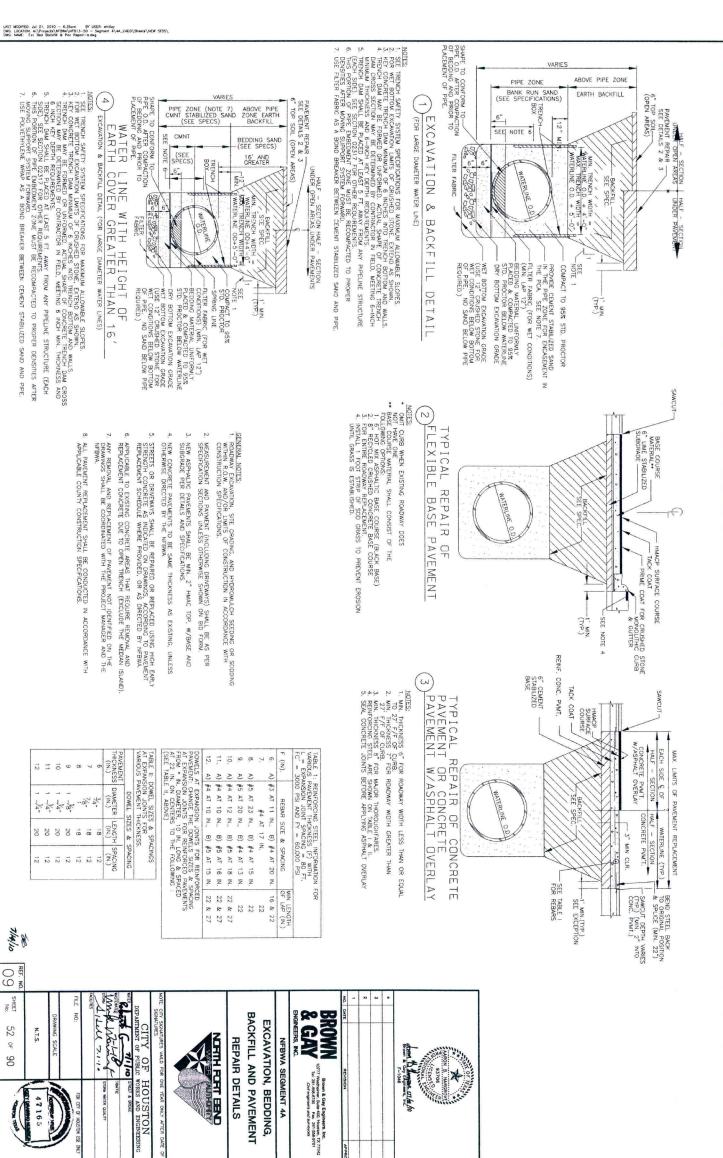
2. PROVIDE AN APPROVED PETROLEUM BASED TAPE ENCAPSULATING ALL BOLTS IN MANHOLES & VAULTS PROVIDE RAM-NEK OR APPROVED EQUAL BETWEEN PRECAST SEGMENTS OF THE MANHOLE.

7. FOR PAVEMENT REPAIR, SEE REF. No. 12 "EXCAVATION, BEDDING, BACKFILL AND PAVEMENT REPAIR DETAILS".

	>30"		100	5,	Water Main Diameter
4.	,	ų,	3,"	2"	Air Voive Size
1504C	1503TC	1503C	147C	1450	APCO*Model
60		6	60"	60"	SIZE

20088 & LTBLIS ALTHING BALVM MUDIS





PIPE RUN SIZE - METER NOMINAL INSIDE DIAMETER, DIA. (INCH) -SLAB ON GRADE METER STATION FITTING DESCRIPTION DIA - 8 INCH FITTING SIZE (INCH)

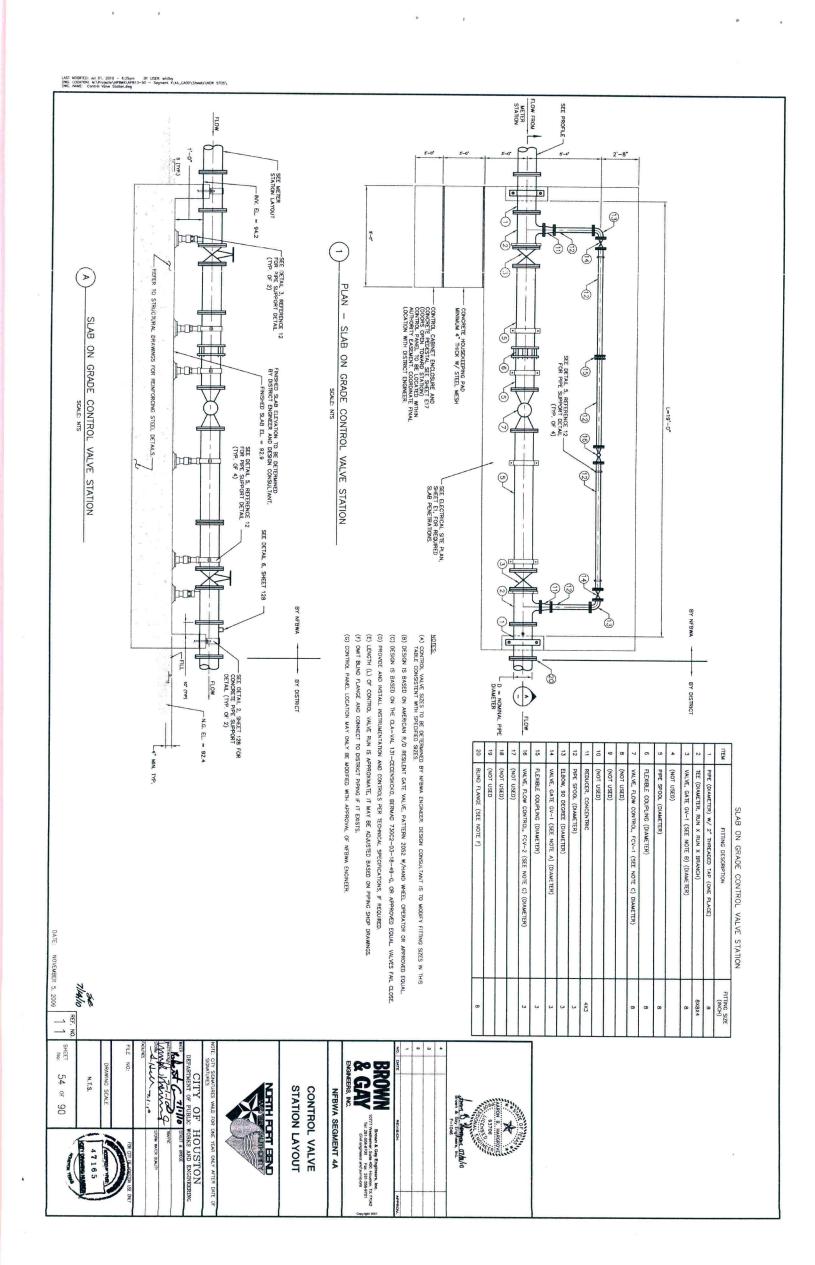
			<b>200</b>	NO. DATE	-	2	u	•
WE LESS HILLS	METER STATION LAYOUT	NFBWA SEGMENT 4A	BROWN Brown & Clay Engineers, Inc.  8 GAY 1077 Valuationin: Said 401, Norman 17,7704 16 Cold appropriate and autopoin PAGINEERS, INC.	REVISION APPROV.				

SHEET 53 or 90

HOUSTON

STORM WATER CHALITY

N.T.S.



ANALOG JUNCTION BOX -{ A ‡ CAPPED ELECTRICAL CONDUIT ELECTRICAL DUCT BANK MARKER (SEE DTL SHT E16) FLOODLIGHT (SEE DTL SHT E17) GROUND ROD ELECTRICAL DUCT BANK (SEE DTL SHT E17) GROUND CONDUCTOR WEATHERHEAD TO DISTRICT GST'S THIS PORTION BY DISTRICT ₹(E)0 CONTROL VALVE STATION BOTT OF PERSON AND ADDRESS OF PERSON ADDRESS OF PERSON AND ADDRESS OF PERSON AND ADDRESS OF PERSON ADDRESS OF PERSON AND ADDRESS OF PERSON ADDRESS OF PERSON AND ADDRESS OF PERSON ADDRESS OF PERSON AND ADDRESS OF PERSON AND ADDRESS OF PERSON A REST 120V JUNCTION BOX REST FET TYPICAL ELECTRICAL SITE PLAN 1111 PE TO TO -114 H 136 TO DISTRICT CONTROL ROOM
THIS FORTION
BY DISTRICT E16 E16 FANEL INSTALLATION  $\boxtimes$ CONTROL PANEL INSTALLATION

E17

E17

E17

E17

E17 METER STATION THIS PLAN VIEW REPRESENTS A TYPICAL INSTALLATION.
RELOCATE JUNCTION BOXES, CONTROL PANEL, FLOODLIGHT,
AND INSTRUMENT MOUNTINGS AS REQUIRED TO BEST FIT
THE DISTRICT'S EQUIPMENT LAYOUT AND TO MINIMIZE CONDUIT
ROUTING DIFFICULITES, IF THE METER STATION IS TO BE
SEPARATED FROM THE CONTROL VALVE STATION BY MORE
THAN 50', PROVIDE A SECOND FLOODLIGHT SO BOTH AREAS
ARE ILLUMINATED. FLOW  $\boxtimes$ FLOODLIGHT INSTALLATION TRANSMITTER INSTALLATION

4

E16

TYP: DATE: NOVEMBER 12, 2009 1/4/10 9. ALL HEAT TRACE TAPE IS TO BE 150 DEGREE MAX MATCHE ON PROVIDE YALVE & TRAVISITIES RESULTION, HOT DOX, OF HISLATION BUNKETS IN A FASSING TO ALLOW EASE OF OPERATION & CAUGHSTION, LOVE TERM OF THE PROVIDED THE PRO 4. PLAN VIEW CONDUIT ROUTING IS DIAGRAMMATIC ONLY, ROUTE BEST WAY MINIMIZING BENDS. 1. ALL ASPECTS OF THIS INSTALLATION SHALL CODES SST COMPONENTS SHOWN HERE ARE TWO EXISTING DISTRICT ISSTS AND TWO FULLIPLE GISTS. MICH SHOWN AND TWO STATED UNTILATE TO DISTRICTS ANTICIPATED UNTILATE TO THE TRANSPORT OF STATED AND THE THE TRANSPORT OF CONDUITS SHALL NOT BE ROUTED ACROSS WALKWAYS OR PARHS OF TRAVEL ROUTE AROUND OR BENEATH EQUIPMENT. DO NOT ROUTE IN CONCILCT WITH OTHER PIPING, CONDUITS, EQUIPMENT OR STRUCTURES. NOTES: ALL VALVES FAIL CLOSE ALL MOUNTING HARDWARE, SUPPORTS, CLAMPS, BRACKETS & ANCHORS ARE TO BE STAINLESS SITEL UNLESS SHOWN OTHERWISE. Contractor shall be responsible for obtaining any and all permits associated with the work, the costs of the permits, if any, shall be borne by the contractor. ALL EXTERIOR ABOVE GROUND CONDUIT IS TO BE STATION INSTALLATION AND ROUTING & GAY METER AND CONTROL VALVE 56 N.T.S. Brymcon, Inc.
Electrical Engineering
TBPE Registration No. f-375
Beaumont, TX 77706 (409) 1665-7066 NFBWA SEGMENT 4A 8 MARK F. KENNEDY OF HOUSTON
PUBLIC WORKS AND ENGINEERING Brown & Gay Engineers, Inc.
7 Westramer, Suite 400 Housion, TX 77042
Tel: 281-556-8700 Fax: 281-558-9701
Conf engineers and surveyors TORN WATER QUALITY 47165

	CONDUIT				102 NEBWA CONTROL PANEL POWER FEED	103 (NOT USED)				107 FLOWMETER HEAT TRACE POWER																																				
	•		OWER FEED	OWER FEED	OWER FEED		2		2	OWER	RECEPTACLE	)WER	OWER		RACE POWER	RACE POWER					D NEBWA CONTROL PANEL	O NEBWA CONTROL PANEL	FUTURE LIT-3 CST No. 3 SIGNAL TO NEBWA CONTROL PANEL	FUTURE LIT-4 GST No. 4 SIGNAL TO NEBWA CONTROL PANEL	PIT-1 DOWNSTREAM PRESS XMITTER SIGNAL TO CONT PILL	THE COUNT OF THE PART BALL	BILLY GOLD TO COME THE	TO NEBWA CONTROL PANEL	TO NETHWA CONTROL PANEL	TO NEBWA CONTROL PANEL	TO MERAL CONTROL PAREL	TO MERMA CONTROL PAMEL  TO MERMA CONTROL PAMEL  TO MARCHION BOX	TO AFBWA CONTROL PAWE.  TO ANOTHON BOX  TO JANCTION BOX	TO MERWA CONTROL PANEL  TO AMERICA BOX  TO JANCTION BOX  TO JANCTION BOX  TO JANCTION BOX	TO AFBMA CONTROL PANEL  SO LANCTION BOX  SO LANCTION BOX  SO LANCTION BOX  SO LANCTION BOX  LIMIT SOLED-HOW ALMES	TO MEROW CONTROL PANEL  TO MEROW CONTROL PANEL  SO JANCTION BOX  SO JANCTION BOX  SO JANCTION BOX  SO JANCTION BOX  JOHN SOLDHON VALES  LIMIT SOLDHON VALES	TO AFRINA CONTROL PANEL TO AFRINA CONTROL PANEL TO AFRIDA BOX SO JANCTION BOX SO JANCTION BOX SO JANCTION BOX JOS JANCTION BOX JANCTION BOX JOS JANCTION BOX JOS JANCTION BOX JOS JANCTION BOX JA	TO MEROW CONTROL PANEL  TO LINCTION BOX  TO LINCTION BOX	TO AFBWA CONTROL PAWEL  TO AFBBWA CONTROL PAWEL  SO JANCTION BOX  SO JANCT	TO AFRINA CONTROL PANEL  TO AFRINA CONTROL PANEL  SO JANCTION BOX  PANEL  PANEL	TO NEW CONTROL PAREL  TO LINCTION BOX  T	TO AFBMA CONTROL PANEL  SO LANCTION BOX  SO LANCTION BOX	TO AFRIMA CONTROL PANEL  TO AFRIMA CONTROL PANEL  SO JANCTION BOX  SO JANC	TO NEBWA CONTROL PAWEL  TO NEBWA CONTROL PAWEL  SO JANCTION BOX  BOX  BOX  BOX  FAMEL  PAWEL  TO NEBWA CONTROL PAWEL  TO NEBWA CONTROL PAWEL	TECH-1 TO CONTEND.  TECH-1 TO CONTEND.  TECH-1 TO CONTEND.  (MOT USED)  (MOT USED)  MALOG SORMLS TO MALOG LINCTION BOX  MALOG SORMLS TO MALOG LINCTION WAYS  TECH-1 BOX MALOG LINCTION BOX  MALOG SORMLS TO MALOG	TO MFBMA CONTROL PANEL  TO MFBMA CONTROL PANEL  SO JANCTION BOX  SO JANCTION PANEL  SO JANCTION PANEL  TO MFBMA CONTROL PANEL  D) TO MFBMA CONTROL PANEL  D) TO MFBMA CONTROL PANEL
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CONDUIT SCHEDULE	CONTROL CONDUCTORS	3ZE																-			18 GA. 2-COND. SH. PR.	18 GA. 2-COND. SH. PR.	PULL WIRE ONLY	PULL WIRE ONLY	18 GA. 2-COND. SH. PR.	18 GA. 2-COND. SH. PR.	18 GA. 2-COND. SH. PR.	18GA 2-CON SH PR+2-#14	18GA 2-CON SH PR+2-\$14		18 GA. 2-COND. SH. PR.	PULL WIRE ONLY	18 GA. 2-COND. SH. PR.	*	1,4		14			12	PULL WIRE ONLY	12	TEL PAIR	PULL WIRE ONLY	-	
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al a		FROM	DISTRICT CONTROL ROOM	DUCTBANK MARKER	120V JUNCTION BOX		NEBWA CONTROL PANEL	THE PERSON NAMED IN COLUMN	NEBWA CONTROL PANEL	NEBWA CONTROL PANEL	NERWA CONTROL BANET	120V JINCTION BOY	1204 SON DOWN SON	NOR WOLLDANDE AND	120V JUNCTION BOX	120V FINCTION BOX	1204 SOUCHON BOX	NEBWA CONTROL PANEL	NEDWA CONTROL PANEL	NEBWA CONTROL PANE	ANALOG JUNCTION BOX	ANALOG JUNCTION BOX	ANALOG JUNCTION BOX	ANALOG JUNCTION BOX	NEBWA CONTROL PANEL	NFBWA CONTROL PANEL	NFBWA CONTROL PANEL	NFBWA CONTROL PANEL	NFBWA CONTROL PANEL		NEBWA CONTROL PANEL	ANALOG JUNCTION BOX	DUCTBANK MARKER	NFBWA CONTROL PANEL	NFBWA CONTROL PANEL		NEBWA COMINCO AMBEIN	THE PERSON NAMED IN PROPERTY.		NEBWA CONTROL PANEL	CONTROLS JUNCTION BOX	DUCTBANK MARKER	DUCTBANK MARKER	NEBWA CONTROL PANE		
	ROUTING	METHOD	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK		UNDERGROUND DUCTBANK	CINCING COLIDIAN	LINDERGROUND DUCTRANK	MARTON ON IOROGANI	ANYBEACH ON TOO BOOK ON THE	UNDERGOOD DICTORIA	DINDERGOOM DUCIDANA	UNDERGROUND DUCIBANK	UNDERGROUND DUCTBANK	CHOCKSONO COCIONIS	UNDERGROUND DOCIBANK	UNDERGROUND DUCIBANK	UNDERGROUND DUCIBANK	MAYELLI I UNI DESCRIUTI	INDERGROUND DISCHARK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK		UNDERGROUND DUCTBANK	INDERGROUND DISCTRANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK		THAT THE CHINDS OF THE CHINDS	CHESTING CONTINUES		UNDERGROUND DUCTHANK	LINDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	UNDERGROUND DUCTBANK	INDERGROUND DUCTHANK		
		ď	DUCTBANK MARKER	120V JUNCTION BOX	NFBWA CONTROL PANEL		FCV-1	104-1	FCV-2	DIT-1 EI OMAGTER	STOWNS TO THE PROPERTY OF THE	PLOTENT HABYED	DOCIDAN MARKEN	DUCIBANK MARKER	DISTRANK HARKED	COOLUMN MANAGE	DUCIBANA MARKEK	HLOODUGH!	FCV-1	FILT FI OWNETED	DUCTRANK MARKED	DUCTBANK MARKER	DUCTBANK MARKER	DUCTBANK MARKER	PIT-1	PIT-2	FIT-1	FCV-1	FCY-2		ANALOG JUNCTION BOX	DICTRANK WARKER	DISTRICT CONTROL ROOM	FCV-1	FCV-2		DATE IN GALTH VACOU	THE CHANGE WATER COMME		CONTROLS JUNCTION BOX	DUCTBANK WARKER	DISTRICT CONTROL ROOM	DISTRICT CONTROL ROOM	DISTRANK MARKER		
	REMARKS		BY DISTRICT, COMPLETE W/CONDUIT #101	WIRE PROVIDED BY DISTRICT, CONTROL RM TO JB								CONTRACT A MADE CONTRACT TO COT U. 1 DV PICTURE	CONDUIT OF WIRE COMPLETED TO USI NO. 1 BT DISTRICT	CONDUIT & WHE COMPLETED TO GST No. 2 BY DISTRICT	SAL SALUE TRIUMS ALARE	Car i control rotore out	EMPTT COMPUTE FOURE USE	AND CONDUIT OF SECOND PEDGINGHT IF REQUI, SEE ET			COMPAIN & WIDE COMPLETED TO CST NO 1 BY INSTRUCT	CONDUIT & WIRE COMPLETED TO GST No. 2 BY DISTRICT	EMPTY CONDUIT, FUTURE USE	EMPTY CONDUIT FUTURE USE								THE THEORY OF MOTORNAMES AND THE BOY	BY DISTRICT, WIRE LENGTH CONTROL ROOM TO JB								FOR FUTURE CONNECTION TO CONDUIT #141	BY DISTRICT, WIRE LENGTH CONTROL ROOM TO JB	BY DISTRICT, COMPLETE W/COMDUIT #143			

DATE: NOVEMS 2, 2009 E2 SHEET S7

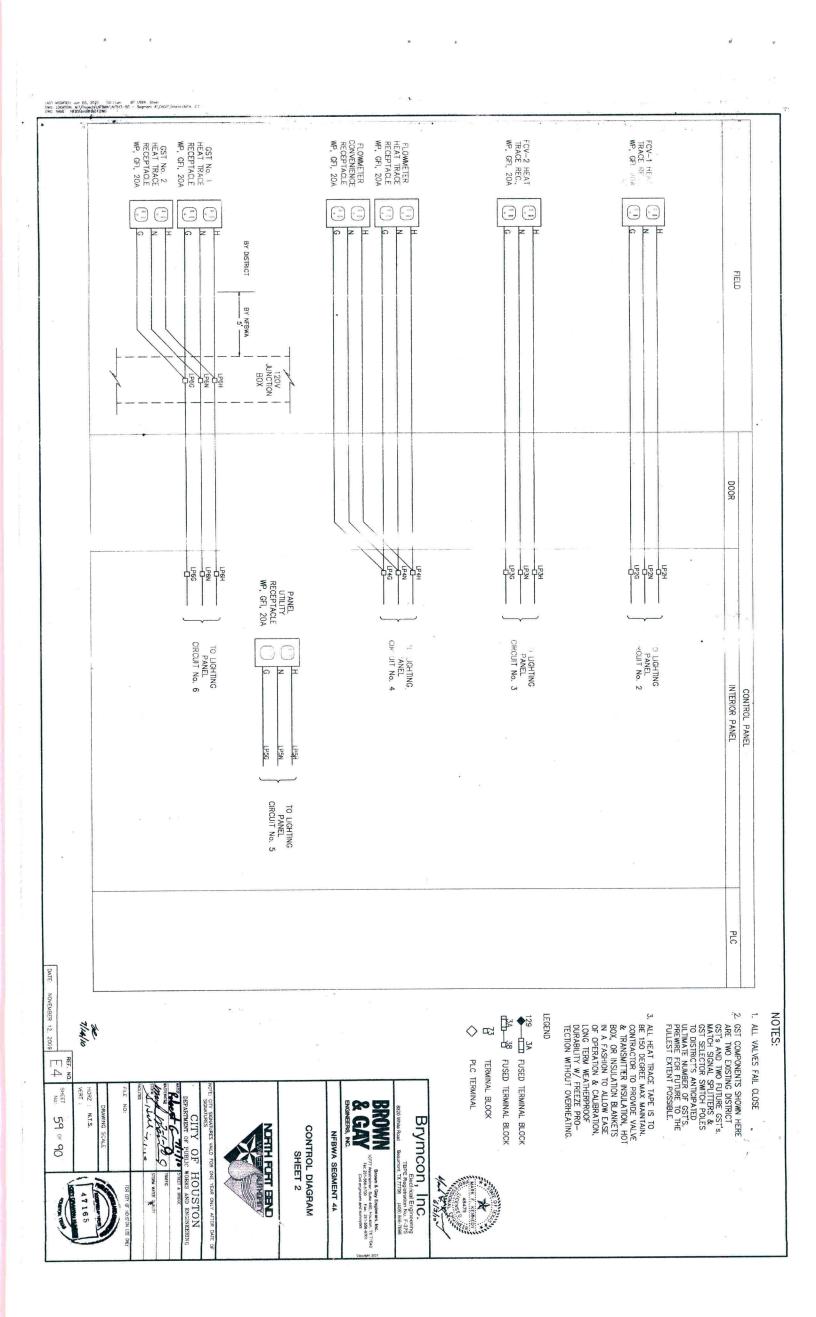


ELECTRICAL CONDUIT SCHEDULE

Brymcon, Inc.
Electrical Engineering
THE Requirement No. 15-275

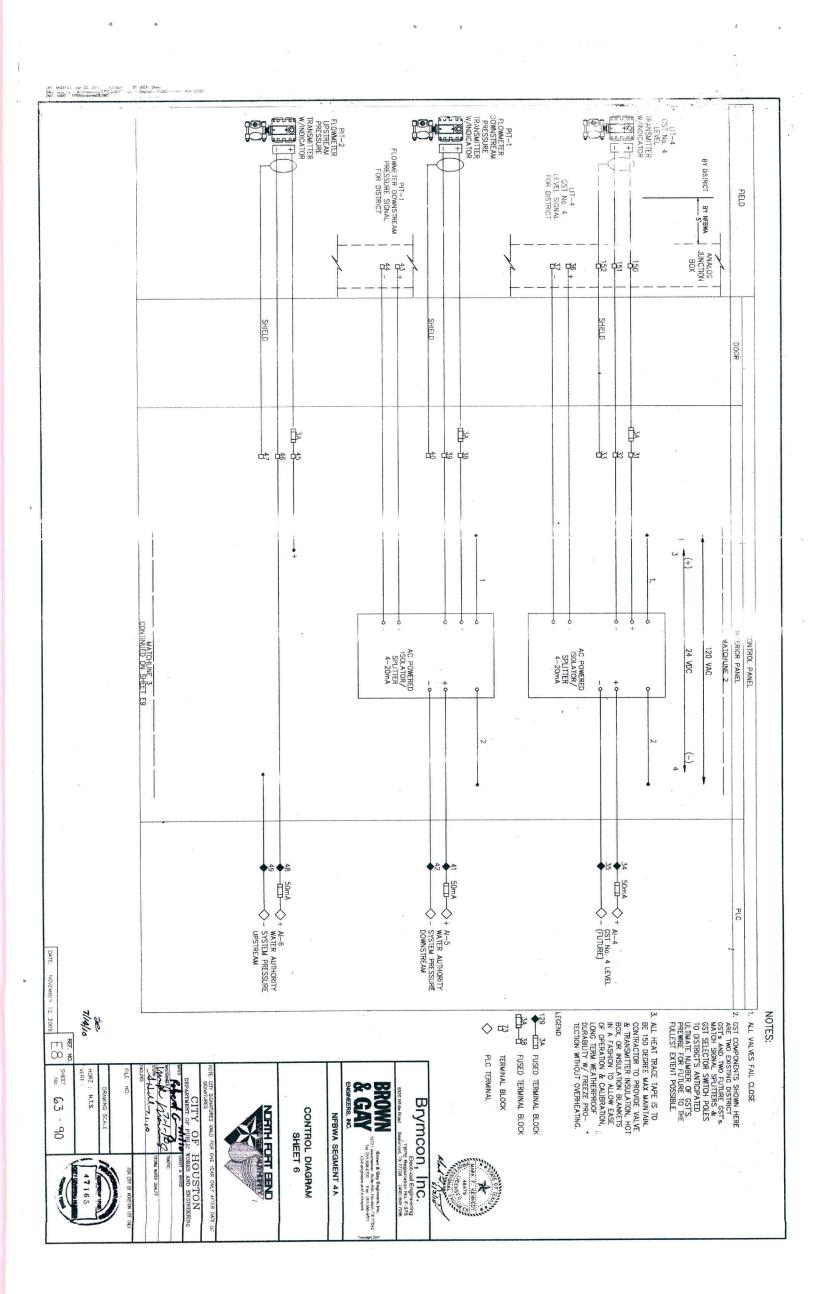
BROWN

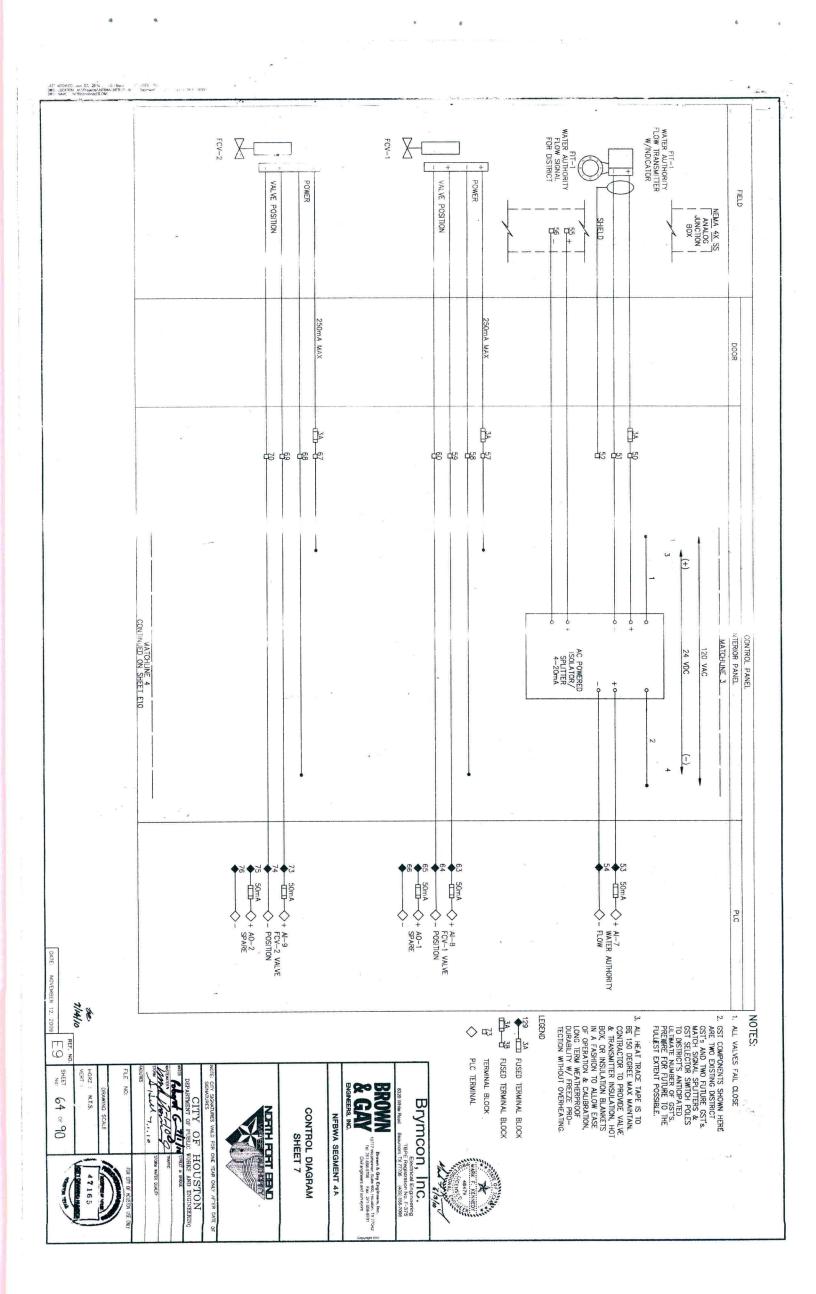
Brown & Gay Engineer. The
Recurrence of the State of the State

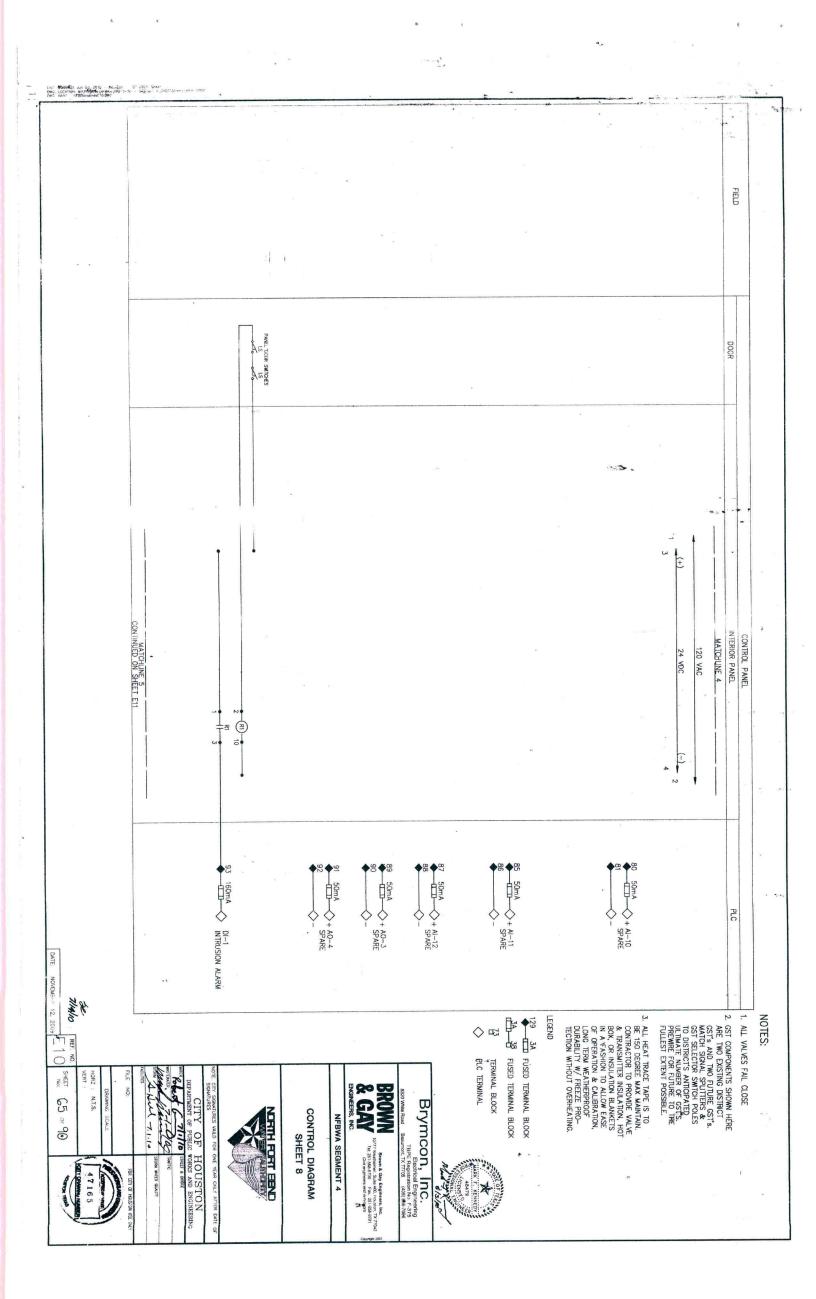


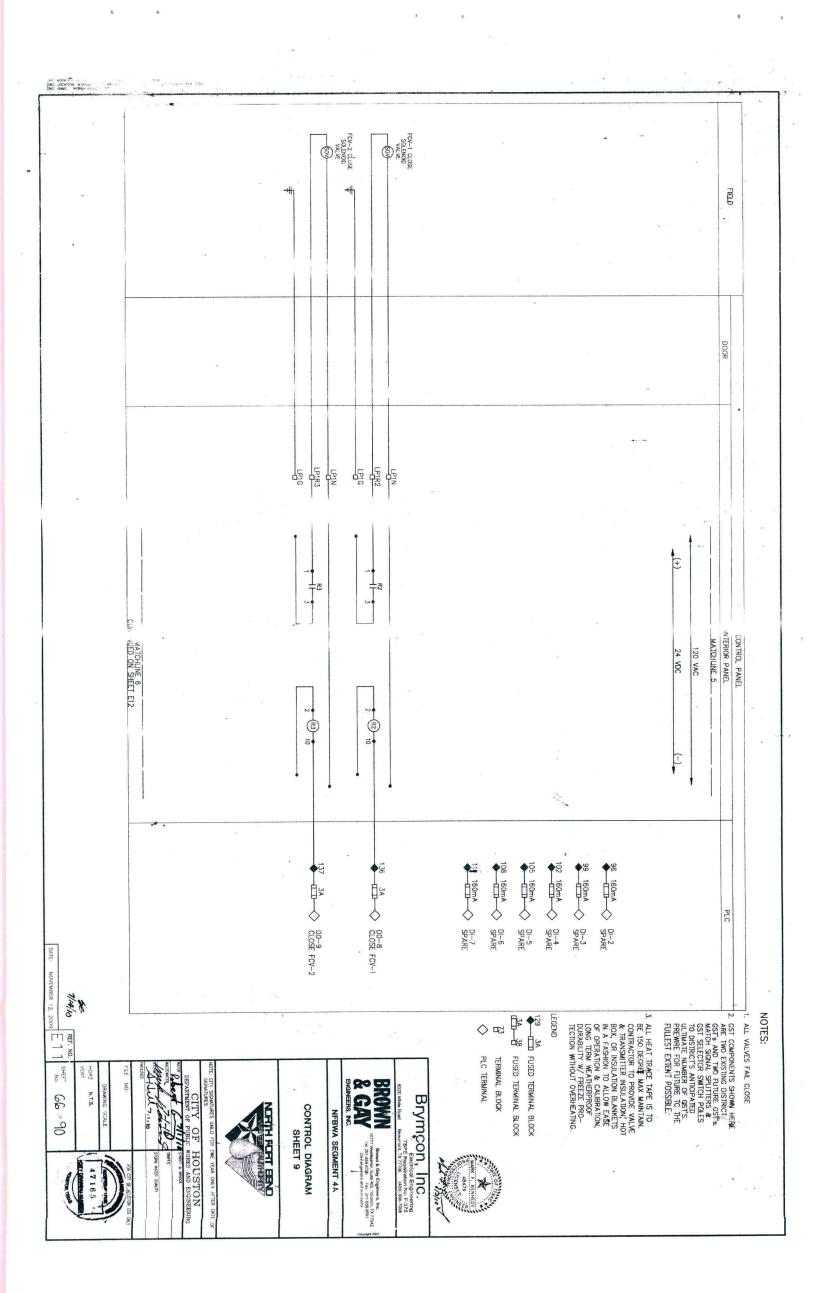
ONG JOANON MILPROPELLANTSWA N°913-50 ONG NAME: NF8StenoordsE6.DWG DISTRICT PROVIDED TELEPHONE LINE FIELD BY DISTRICT BY NEBWA DOOR UPS POWER INTERIOR THERMOSTAT CONTROLLED HEATER  $\widehat{\pm}$ 4 120 VAC 24 VDC CONTINUED ON SHEET E7 24VOC POWER SUPPLY CONTROL PANEL 1000VA UPS LP13H LP10 4 TO LIGHTING PANEL CIRCUIT No. 13 TO LIGHTING PANEL CIRCUIT No. 1 1 UPS POWER HOOSE HOOSE SIEMENS S7-300 PLC PLC DATE: NOVEMBER 12, 2009 2. GST COMPONENTS SHOWN HERE ARE TWO EXISTING DISTRICT GST'S AND FILLINE GST'S. MATCH SWALL SPLITTERS & GST SELECTOR SWITCH POLES TO DISTRICT'S ANTICIPANED ULTIMATE NUMBER OF GST'S. PREWIRE FOR FUTURE TO THE FULLEST EXTENT POSSIBLE. 3. ALL HEAT TRACE TAPE IS TO BE 150 DEGREE MAX MAINTAIN. ECONTRACTOR TO PROVIDE VALVE & TRANSMITTER INSULATION. HOT BOX, OR INSULATION BLAKETS IN A FASHION TO ALLOW EASE OF OPERATION. & CAUBRATION, LONG TERM MEATHERPROOF DURABILITY W/ FREEZE PROTECTION WITHOUT OVERHEATING. 3/14/10 NOTES: LEGEND 1. ALL VALVES FAIL CLOSE 129 3A FUSED TERMINAL BLOCK TA FUSED TERMINAL BLOCK F € 6 PLC TERMINAL TERMINAL BLOCK SHEET SHEET & GAY OTTY SIGNATURES VAILD FOR ONE YEAR ONLY AFTER DATE OF Brymcon, Inc.

Electrical Engineering
TBPE Regularation No.: 5-375
8320 White Road Beaumoni, TX 777705 (409), 369-7096 N.T.S. <u>o</u> CONTROL DIAGRAM SHEET 4 of 90 NEBWA SEGMENT 4A OF HOUSTON
PUBLIC WORKS AND ENGINEERING Brown & Gay Engineers, Inc. 10777 Westherner, Suite 400, Houston, TX 77042 Tel: 281-559-8700 Fax: 281-558-8701 Civit angineers and surveying STORN WATER QUALITY HARTY CENSON









LAST MODIFIED, Jun 03, 2010 - 10.18am. Bt USER: Share:
DWG\_LOCATION: M:\Projects\NEBWA\NFB(3-50 - Stemen: 4\CADC
DWG\_NAME\_NFBStandardsE12.DWG NEBWA
WATER
UTILIZATION
SELECTOR
SWITCH
FULL PARTIAL NEMA 4X SS NFBWA WATER USE SWITCH H - 0 - A NFBWA WATER ON FIELD PARTIAL UTILIZATION - NO WELL INHIBITS BELOW 66% GST LEVEL GSI SELECTOR
SWITCH
#I #2 #3 #4 FUTURE USE DOOR R13 ŧ MATCHLINE 7 INTERIOR PANEL CONTROL PANEL MATCHLINE 6 24 VDC 120 VAC 1 119 160mA DI-15
120 160mA PULL UTILIZATION
120 160mA PARTIAL UTILIZATION 121 160mA 123 160mA 125 160mA 126 160mA 116 160mA 117 160mA 118 160mA ↑ 112 180mA ↑ 160mA ↑ 160mA ↑ 160mA ↑ 160mA PLC DI-8
GST #1 SELECTED
DI-9
GST #2 SELECTED
DI-10
DI-11
DI-11
GST #4 SELECTED DI-12 MODE HAND DI-13 MODE OFF DI-14 MODE AUTO DI-18 SPARE DI-20 SPARE DI-20 SPARE DI-22 SPARE DI-22 SPARE DI-23 SPARE DI-23 SPARE DI-24 SPARE DATE: NOW WHER 12, 2009 [ 1 2 TIMIO REF NO. 2. OST COMPONENTS SHOWN HERE ARE TWO EXISTING DISTRICT INCSTS AND THOSE GSTS. MATCH SIGNAL SPUTTERS & SST SELECTOR SMITCH POLES TO DISTRICTS ANTICHARD ULTIMATE NUMBER OF SSTS. PREWIRE FOR FUTURE TO THE FULLEST EXTENT POSSIBLE. 3. ALL HEAT TRACE TAPE IS TO BE 150 DEGREE MAX MANITAN. CONTRACTIOR TO PROVIDE VALVE & TRANSMITTER INSULATION, HOT BOX, OR INSULATION BLANKETS IN A FASHION TO ALLOW EASE OF OPERATION & CALIBRATION, LONG TERM WEATHERPROOF DURABILITY W/ FREEZE PRODURABILITY W/ FREEZE PROTECTION WITHOUT OVERHEATING. 1. ALL VALVES FAIL CLOSE 129 3A - TID FUSED TERMINAL BLOCK

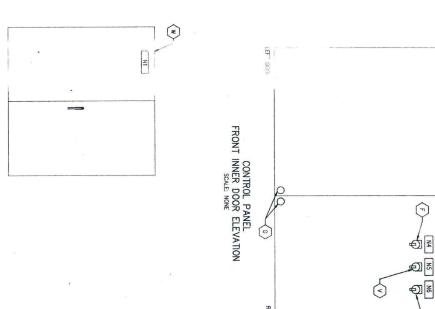
3A 3B FUSED TERMINAL BLOCK LEGEND PLC TERMINAL TERMINAL BLOCK SHEET WEEK 77-1-100 SERVER BROWN & GAY N.T.S. 67 Brymcon, Inc.
Electrical Engineering
TBPE Registration No. F-375
20 White Road Beaumont, IX 77776 (409) 686-7086 CITY OF HOUSTON
WILLIAM OF PUBLIC WORKS AND ENGINEERING CONTROL DIAGRAM
SHEET 10 NFBWA SEGMENT 4A 90. Brown & Gay Engineers, Inc. 7777 Westhelmer, Sule 470, Houston, TX 77042 Fel: 281-558-9701 Fax: 281-558-9701 Chill engineers and sunnyons STORM WATER QUALITY 47165

LAST MODITIED JULY CA. 2010 - 10:18em - BY USER: Sheen DWG, LDCARION, M;\Projects\NFBMA\NFB13-50 - Segment 4\CAND, DWG, NAVE, NFBStendorast 13.0WG PERMIT DISTRICT REMOTE WELL
CLOSE - PERMIT
OPEN - INHIBIT PERMIT DISTRICT WELL No. 2 CLOSE - PERMIT OPEN - INHIBIT PERMIT DISTRICT WELL No. 1 CLOSE - PERMIT OPEN - INHIBIT SOLENOID VALVE SOLENOID VALVE NFBWA WATER ON FIELD JUNCTION BOX 47 POWER ON WATER ON DOOR 囱 Rio - R RIS R12 LP189 B 퉏 器 區 (±) CONTROL PANEL MATCHLINE 7 24 VDC 120 VAC 2 10 2 3 10 2 (12) 2 3 5 2 (8) 2 (814) 2 (813) 10 131 3A DO-3
PERMIT DISTRICT
WELL No. 1 133 3A DO-5
PERMIT DISTRICT
REMOTE WELL 130 3A 129 3A 134 3A D0-6 NFBWA WATER ON 132 3A 135 3A D0-7
PREWRED SPARE 140 3A ♦ 3A 3x PLC PERMIT DISTRICT WELL No. 2 OPEN FCV-1 DO-2 OPEN FCV-2 DATE: NOVEMBER 12, 2009 E 1 3 N/m/r 3. ALL HEAT TRACE TAPE IS TO BE 150 DEGREE MAX MAINTAIN. CONTRACTOR TO PROVIDE VALVE & TRANSMITTER INSULATION, HOT BOX, OR INSULATION BLANKETS IN A FASHON TO ALLOW EASE OF OPERATION & CALIBRATION, LONG TERM MEATHERPROOF DURABILITY W/ FREEZE PROTECTION WITHOUT OVERHEATING. 2. GST COMPONENTS SHOWN HERE ARE TWO EXISTING DISTRICT GST's AND FUTURE GST'S MATCH SIGNAL SPUTTERS & GST SELECTOR SMITCH POLES TO DISTRICT'S ANTICIPA-ZED ULTIMATE NUMBER OF GST'S PREWRE FOR FUTURE TO THE FULLEST EXTENT POSSIBLE. 1. ALL VALVES FAIL CLOSE LEGEND REF. NO. PLC TERMINAL TERMINAL BLOCK HORZ VERT No: BROWN & GAY 1 July 7.1.10 Brymcon, Inc. 8 NFBWA SEGMENT 4A SHEET 11 Brown & Gay Engineers, Inc. 77 Westhelmer: Suite 400, Houston, TX 77042 Tel: 281-558-8700 Fax: 231-555-9701 Chill arigineurs and sunsyons HOUSTON

C WORKS AND ENGINEER

A STREET & BRIDGE STORM WATER QUALITY 47165 AM

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FITHER ISE SWITCH HEAVY DITTON THOST THOST OF THE SOUTH WAS SOUTH THOSE OF THE STATE OF THE STAT	WIRE DUCT 2" WILE X 2" DEEP MINIMUM	TERMINAL BLOCKS AS REQUIRED	WATER UTILIZATION SWITCH, HEAVY DUTY OIL TIGHT, TWO POSITION, W/120V, 20A RATING	NEMA 3R GASKETED ALLMINUM ENCLOSURE WITHOUT VENTS, 60" x 72" x 24"	GST SELECTOR SWITCH, HEAVY DUTY OIL TIGHT, FOUR POSITION, W/120V, 20A RATING	DOOR LIMIT SWITCH (SEE NOTE 2)	NAMEPLATES, 3/E" HIGH LETTERING IN WHITE LETTERS ON BLACK BAKEUTE (SEE NAMEPLATE SCHEDULE) (SEE NOTE 1)	INDICATING LIGHT, HEAVY DUTY OIL TIGHT, GREEN, 24 VDC, 2.5 WATT	CONTROL RELAY, TURCK 24 VDC RELAY WITH THREE FORM C CONTACTS AND 11 PIN SOCKET BASE	MODEN	FUSED TERMINAL ISLOCKS, AS REQUIRED	UNINTERRUPTABLE POWER SUPPLY 1000VA MINIMUM	SURGE PROTECTOR - INCOMING POWER	40 WATT FLUORESCENT STRIP LIGHT W/BALLAST SUITABLE FOR ZERO DECREE OPERATION	DUPLEX RECEPTACLE, 120V, 20A, 2 WRE, GROUNDED, GFCI TYPE	SMITCH FOR CABINET LIGHT, 120V, 20A, SPST	PROGRAMMABLE LOGIC CONTROLLER, SIEMENS S7-300	STRIP HEATER	INDICATING LIGHT, HEAVY DUTY OIL TIGHT, WHITE, 24 VDC, 2.5 WATT	HAND-OFF-AUTO SMITCH, HEAVY DUTY OIL TIGHT W/120V, 20A RATING	120VAC - 24VDC POWER SUPPLY	QUARTER TURN CAPTIVE DOOR CLOSURE	THERMOSTAT	SIGNAL SPUTTER/SOLATOR, DIN RAIL MOUNT, 120VAS, 4—20mA INPU! DUAL ISOLATED 4—20mA OUTPUTE, ACROMAG 633T—0100 OR EQUAL	PANEL BOARD, 120/240V, 1 PHASE, 3 WIRE, 100 A, 20 CKTS	DESCRIPTION	EQUIPMENT & DEVICE SCHEDULE



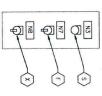
RIGHT DOOR

CON TROL PANEL
EXTERIOR ELEVATION
SCALE NONE



UTILIZATION PANEL ELEVATION SCALE: NONE NFBWA WATER

69. 90



7/14/10 RET. NO. SHEET NO. SHEET NO. SHEET NO. 1/4/10 "TS 47165

ELECTRICAL CONTROL
PANEL LAYOUT AND
SPECIAL DEVICE SCHEDULE

NFBWA SEGMENT 4A

Brown & Gay Englineers, Inc. 1077 Westmenier Suite 400 Houston, TX 77042 Tel: 281-558-6700 Fax: 281-558-6701 CNII englineers and surveyors

NAMEPLATE SCHEDULE

1. NAMEPIATES SHALL BE MOUNTED TO PANELS USING STANLESS STEEL HARDWARE.
2. PROVING ONE LIMIT SWITCH PER EXTERIOR DOOR, WRED IN PARALLEL.

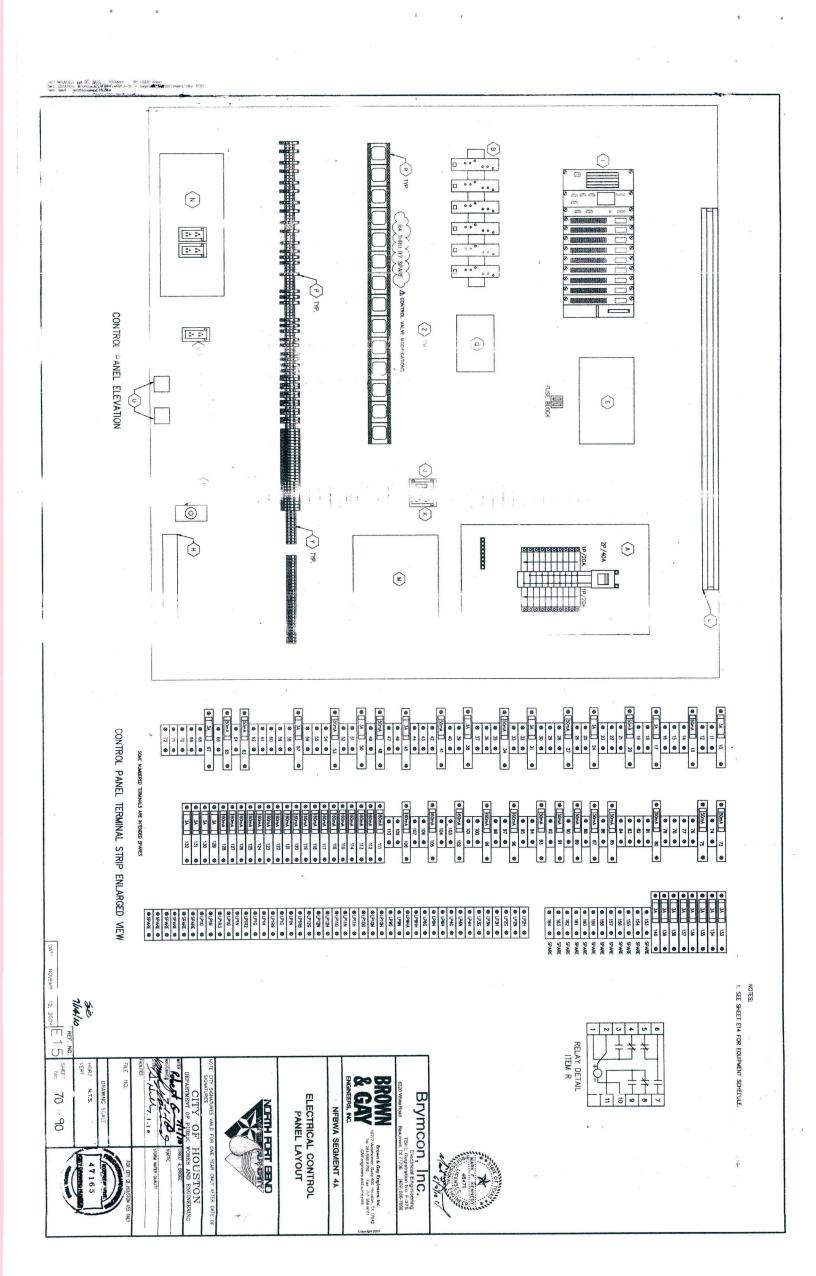
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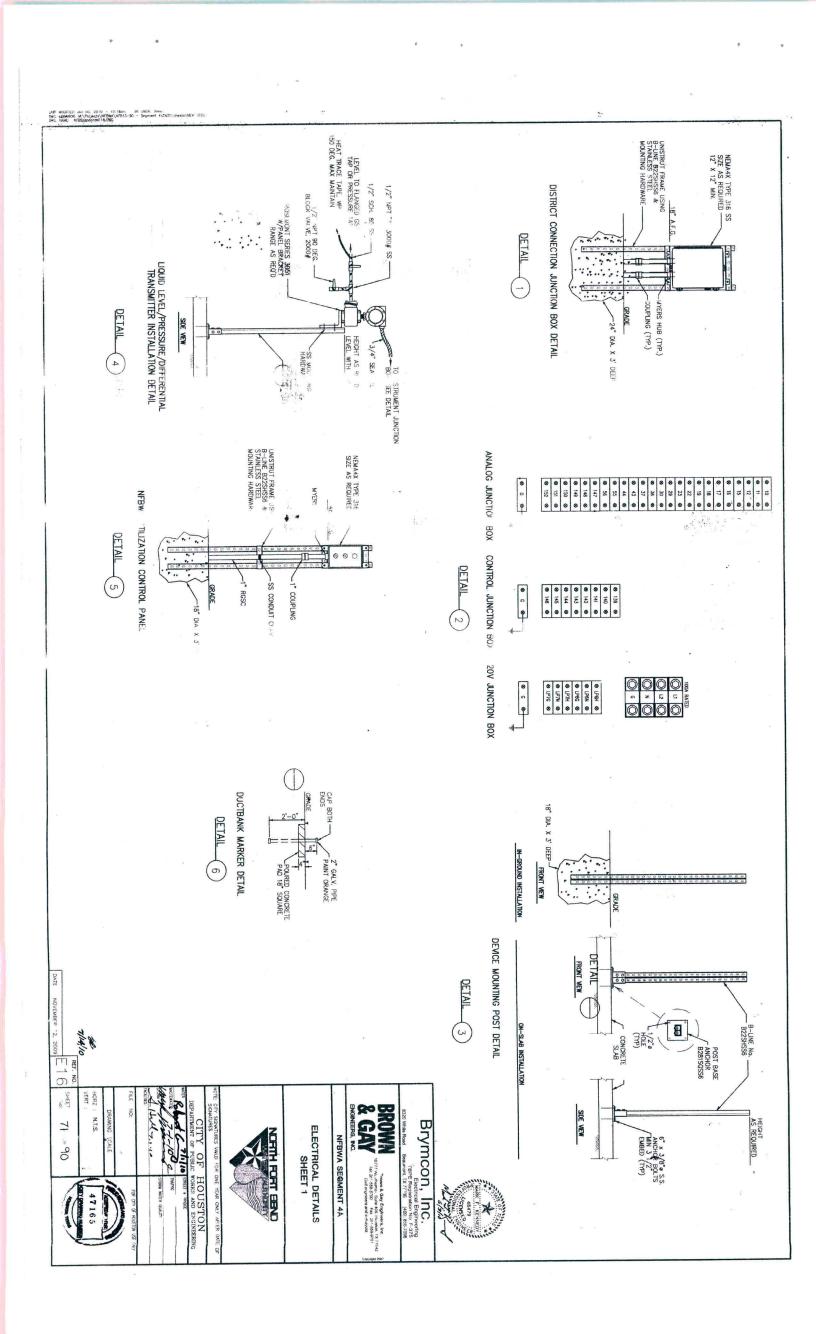
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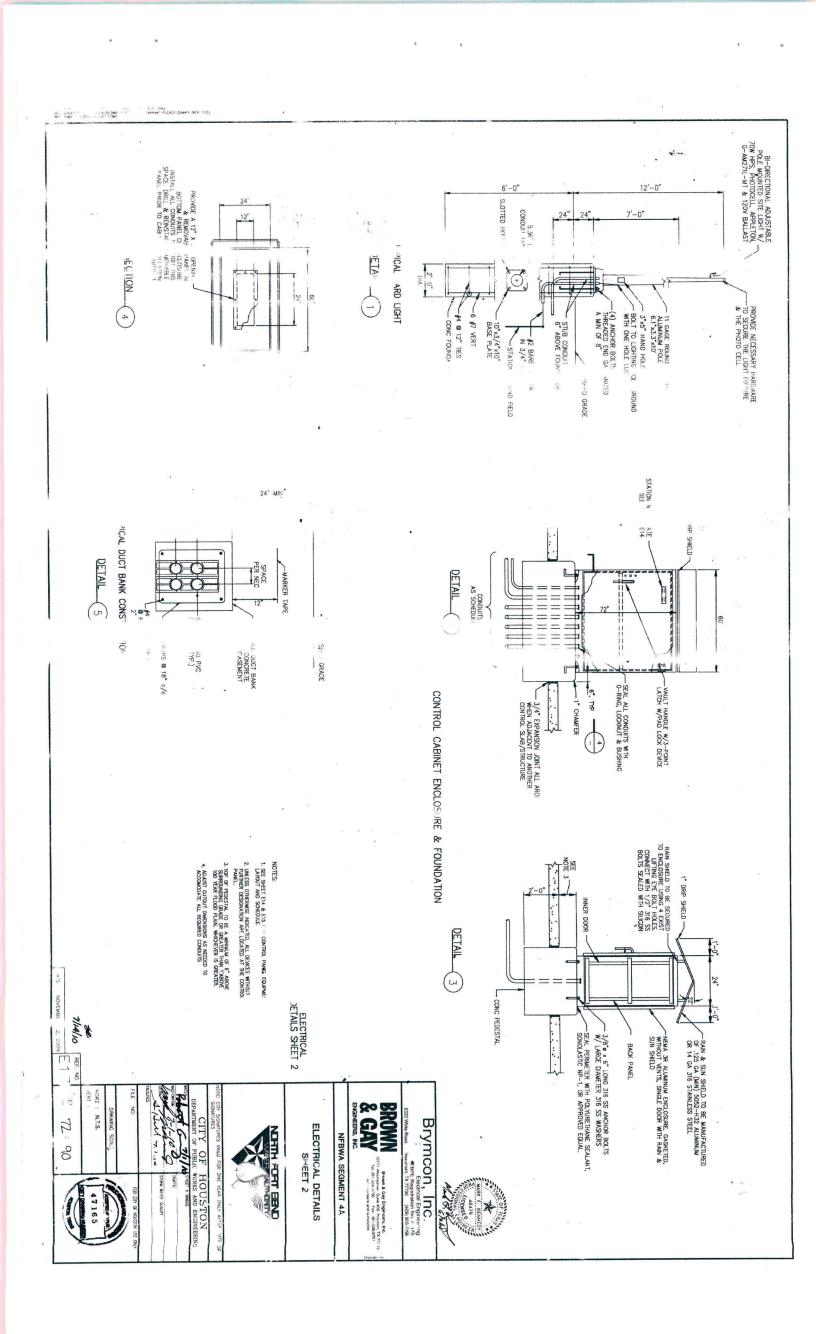
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Brymcon, Inc.
Electrical Engineering
TBPE Registration No. F-375
BBaumont, TX 77708 (403) 556-7086

ENGRAVED







4+80

W. Airport Blvd

Casing Casing

67+44.40 FM 1464 at W Belfort

Casing

Flush Mounted Casing Test Station

Flush Mounted Casing Test Station Flush Mounted Casing Test Station

40+83.59

Madden Rd, N. of W. Aliana Trace Dr W Aliana Trace Dr. S. of Medden Rd

Casing

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Casing 20° W 20° W

Post Mounted Casing Test Station

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Casing

Flush Mounted Casing Test Station

47+92 39+28 30+15 20+15

57+92

FM 1464 FM 1464

20" W Casing Casing

Post Mounted Monitoring Test Station

Post Mounted Casing Test Station Post Mounted Casing Test Station 34+00 24+00

W. Aliana Trace Dr W. Aliana Trace Dr.

Post Mounted Monitoring Test Station Post Mounted Monitoring Test Station Post Mounted Monitoring Test Station 4+50 20+00 10+00 1+70

W. Altana Trace Dr

20° W

Post Mounted
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1/147 Post Mounted Monitoring Test Station Post Mounted Monitoring Test Station

6+71.30

Casing Casing

> Flush Mounted Casing Test Station Flush Mounted Casing Test Station

8+25.29

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Post Mounted Monitoring Test Station

18+25

Casing 20" W Casing

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Post Mounted Monitoring Test Station Flush Mounted Casing Test Station Madden Rd, N. of W. Aliana Trace Dr

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86+13.90 88+29.76

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W. Airport Blvd., W. of FM 1484 W. Airport Blvd., W. of FM 1464 W. Airport Blvd., at FM 1464

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Post Mounted Foreign Pipeline Test Station

14+50

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CP-	7/14/10	, the state of the				<ol> <li>Bond identical pipe materials for electrical continuity. If the pipe materials are not identical, install a dietectric imposting port and an impositing port text scatter.</li> </ol>	insulating joint and an insulating joint test station at the connection to the future 24-eigh NEBWA Segment 5 giveline.	Bond identical pipe materials for electrical continuity. If the pipe materials are not identical, install a dielectric
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NORTH FOR HIRO	CATHODIC PROTECTION SCHEDULES

NFBWA	ERS, INC.
NFBWA SEGMENT 4	Brown & Gay Engineers, Inc., 777 Westhelmer, Sulte 400, Houston, TX T Tel: 281-458-8700 Fax: 281-458-970 CN# engineers and surveyors
4A	Brown & Gay Engineers, Inc.  10777 Westerberts, Suite 400, housen, TX 77042 Tel: 281-589-9700 Fax: 281-589-9701 CN# engineers and surveyors











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P E	1/156	1/156	1/156	1/156	1/156	1/156	1/153	1/147	1/156	1/156	1/156	1/156

68+36.16

Gaines Rd Gaines Rd

Post Mounted Casing Test Station Post Mounted Casing Test Station Flush Mounted Casing Test Station

58+93

Casing

74+74.39

20° W Casing

Post Mounted Monitoring Test Station

55+45.36

Gaines Rd., N. of Boss Gaston

Casing 20°W

48+94

Old Richmond Rd N. of W. Bellfort

Post Mounted Monitoring Test Station

38+94

Old Richmond Rd at W. Bellfort

Casing

Post Mounted Casing 1/156 Test Station

8	Station	
	ueneren	Table 9 - Tes
	Singen nelo)	Table 9 - Test Station List
Dani Harri	a), to edit	

c	С	0	n
84+24	74+24	64-24 33	62+60
W, Airport Blvd	W. Airport Blvd	W. Airport Blvd	W. Airport Blvd
20° W	20° W	Casing	Casing
Post Mounted Monitoring Test Station	Post Mounted Monitoring Test Station	Post Mounted Casing Test Station	Flush Mounted Casing Test Station
1/147	1/147	1/156	1/156

9+17.51 2+23.46

Deaver Miller Rd , W. of Myrtle Rd

1/156 1/156 1/147 1/156 1/156 1/156 1/156

34+92.23

Casing Casing Casing Casing Casing

Flush Mounted Casing Test Station Flush Mounted Casing Test Station

37+74

old Richmond Rd. at W. Bellfon

Casing

Post Mounted Casing Test Station

31+88

Old Richmond Rd: N. of Paul St.

30-28

Old Richmond Rd. S. of Paul St.

Flush Mounted Casing Test Station

Denver Miller

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04.04	74+24	64+24 33	62+60	61+60	57+78	47+78	47+50	38+00	28+90	24+80	14+80	Station
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	1/147	1/156	1/156	1/156	1/147	1/156	1/156	1/147	1/156	1/147	1/147	Detail

75+68.25

Post Mounted Casing Test Station

72+38.79

FM 1464 at Madden FM 1464 N. of Madden

> Flush Mounted Casing Test Station Post Mounted Insulating Joint Test Station

> > T

Old Richmond Rd. at Tomasa St. Old Richmond Rd

Flush Mounted Casing Test Station Post Mounted Casing Test Station Post Mounted Casing Test Station Flush Mounted Casing Test Station

S. of Sam St.

Casing Casing

Fiush Mounted Casing Test Station

68+78 56

Casing Casing Casing

Flush Mounted Casing Test Station

15+39.52

18+39

Casing Casing Casing Casing

71+80

FM 1464, N. of W Bellfort FM 1464 at W. Belffort FM 1464 at W. Belifort FM 1464 at W. Bellfort

20" -12" Tee (Isolate 12")

67+72.63

Flush Mounted Casing Test Station

1+35.22

Post Mounted Casing Test Station

7+66

Old Richmond Rd

Flush Mounted Casing Test Station

88+10.77

Casing Casing Casing Casing

Post Mounted Casing Test Station Post Mounted Casing Test Station

26+77.42

Old Richmond Rd. S. of Adelfina Rd

Flush Mounted Casing Test Station Flush Mounted Casing Test Station

23+74 21+94 20+28

N. of Sam St.

91+75

FM 1464 FM 1464 FM 1464

20°W

79+68.49

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Table 9 - Test Station List

PROTECT EXISTING TEST STATIONS AND EXISTING ANODE WIRES, DAMAGE TO EXISTING WIRES, ANODES, TEST STATIONS OR STRUCTURES SHALL BE REPLACED BY THE CONTRACTOR. UNAPPROVED CABLE SPLICES ARE NOT ALLOWED.

THE LOCATIONS FOR RECTIFIERS, ANODES AND TEST STATIONS INDICATED ON THE SITE PLANS ARE APPROXIMATE. FIELD LOCATE AND MARK THE FINAL LOCATIONS FOR NEBWA APPROVAL.

GENERAL NOTES

Brown & Gay Engineers, Inc. 1077 Westelmer, Suite 400, Houston, TX 77042 Tel: 281-558-8700 Fax: 281-558-8701 CN4 engineers and surveyors

STORM WATER OWNER

47165

TOP OF ANODE SHOULD BE AT THE PIPE'S INVERT DEPTH AS SHOWN ON DETAIL 1 AND 2

2. INSTALL AMODES ON ALL METALLIC VALVES, FIRE PRITINGS, TIESS, CROSSESS, FIRE PROPERTY, AND OTHER METALLIC APPLIETZWANTS, AND OTHER METALLIC DRAWNINGS AND INDICATED IN THE SPECIFICATIONS

3. SEE DETAIL 

2

FOR TYPICAL

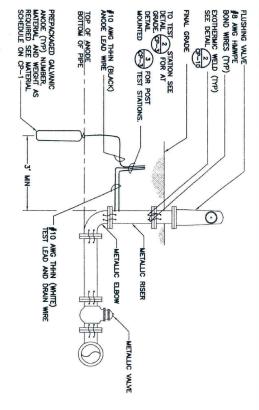
3. SEE DETAIL 

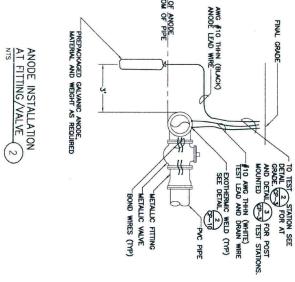
7

FOR TYPICAL

SECTION OF ANODE AND FITTING 1. THESE DETAILS ARE TYPICAL THE NUMBER, AND ARRANGEMENT OF FITTINGS AND VALVES MAY VARY. THE DETAIL THAT IS MOST SIMILAR TO THE ACTUAL ARRANGEMENT SHOULD BE USED. 4. METALLIC FITTINGS WITH TWO OR MORE
VALVES SHALL BE INSTALLED WITH
TWO GALVANIC ANDDES. METALLIC
FITTINGS WITH ONE OR NO VALVES
SHALL BE INSTALLED WITH ONE
GALVANIC ANODE. BOTTOM OF PIPE ANODE LEAD WIRE FINAL GRADE PREPACKAGED GALVANIC ANODE,
MATERIAL AND WEIGHT AS REQUIRED METALLIC FITTING

TYPICAL ANODE INSTALLATION
AT FLUSHING VALVE





2/14/10 REF. NO.

N.T.S.

CP-4 SHEET HORZ VERT 76 or 90

None Account 47165

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING SITY SIGNATURES VAILD FOR ONE YEAR ONLY AFTER DATE OF STORM WATER QUALITY

CATHODIC PROTECTION TEST STATION DETAILS 3 OF 4

NFBWA SEGMENT 4A

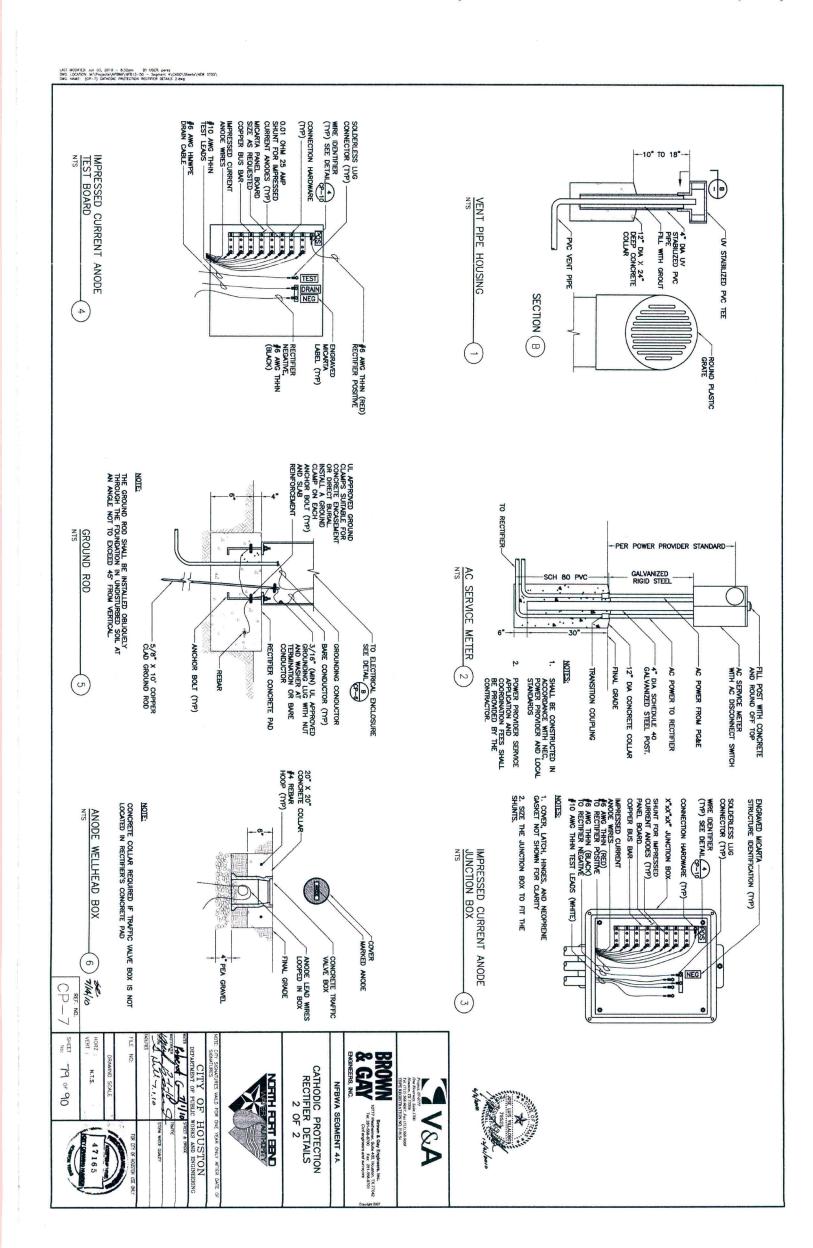
GENERAL NOTES:

Brown & Gay Engineers, Inc. 10777 Westheimer, Suite 400, Houston, TX 77042 Tel: 281-558-8700 Fax: 281-556-9701 CNI engineers and surveyors

& GAY

NSA A





BROWN & GAY

Brown & Gay Engineers, Inc. 10777 Westhelmer, Suite 400, Houston, TX 77042 Tel: 281-558-6700 Fax: 281-558-9701 CNI engineers and surveyors Project 07 0777 VSA

CATHODIC PROTECTION INSULATING JOINT DETAILS

NFBWA SEGMENT 4A

No:

80 of 90

N.T.S.

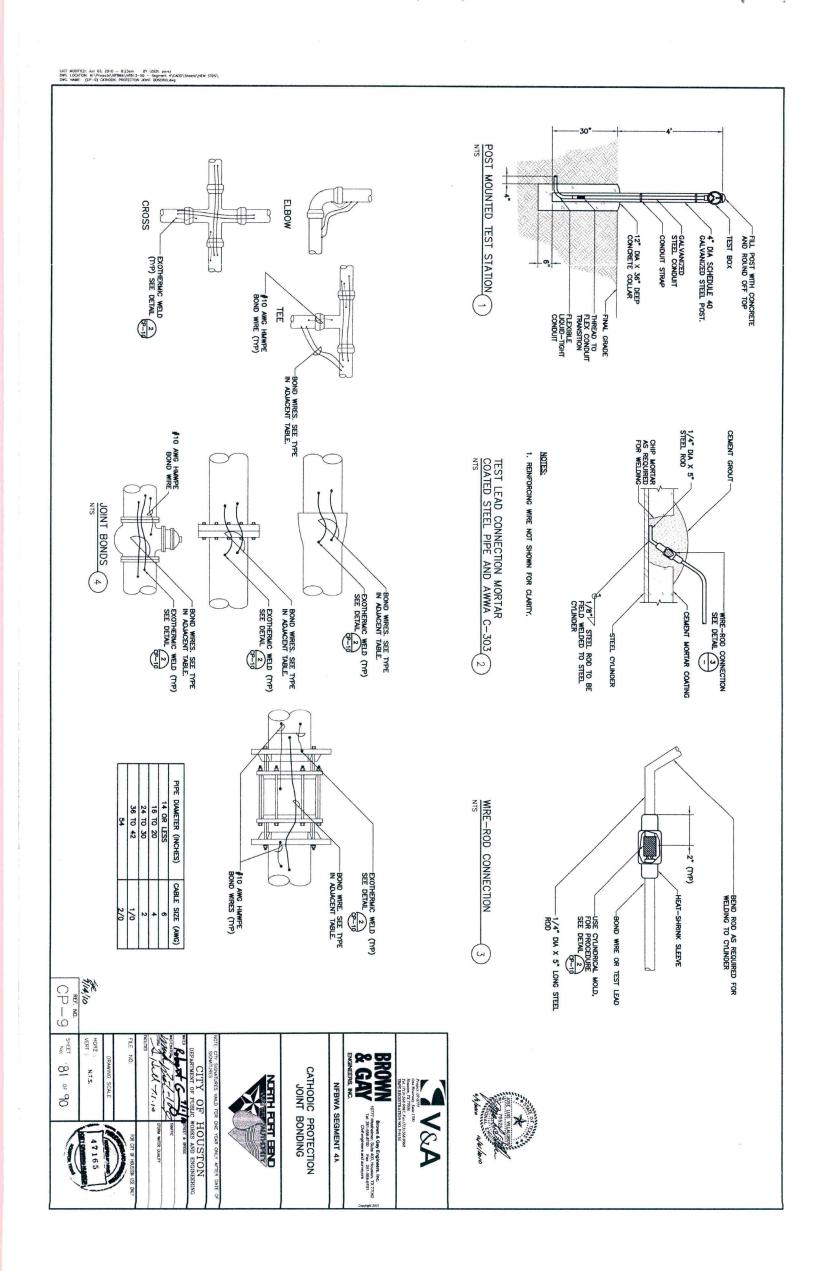
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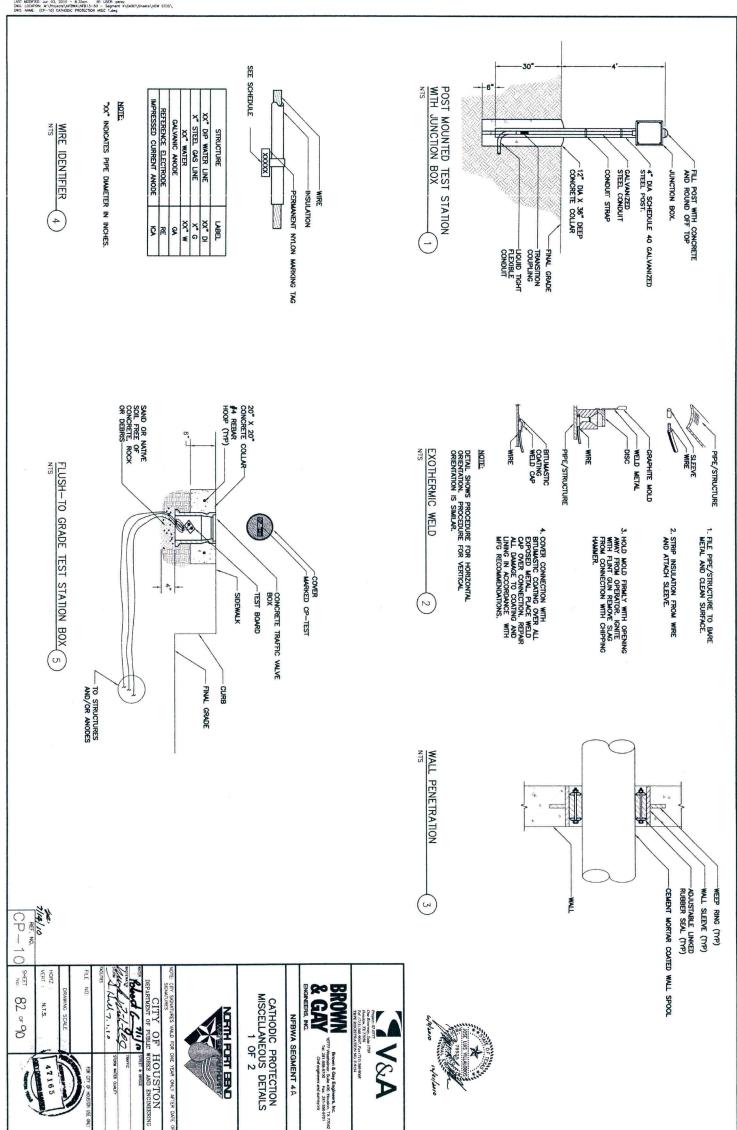
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STORM WATER QUALITY

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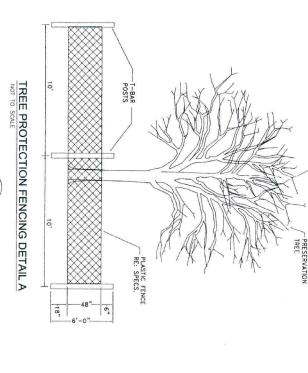
CITY OF HOUSTON

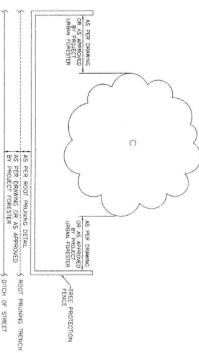


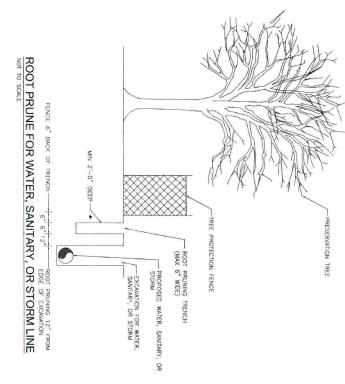


STORM WATER QUALITY

47165







- ALL TREES SHOWN ON THE TREE PROTECTION PLANS SHALL BE PROTECTED THROUGHOUT CONSTRUCTION WITH TREE PROTECTION
- TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
- FENCING SHALL BE LOCATED AS SHOWN ON DRAWNICS, OR COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES AND MILL BE LOCATED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE). THE DRIPLINE DEFINES THE ROOT ZONE. WITHIN THE LIMITS OF FENCING, THE CONTRACTOR SHALL PREVENT THE FOLLOWING FROM OCCURRING WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER'S REPRESENTATION.
- SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS
- B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 3" CUT OR FILL) OR TRENCHING NOT REVIEWED OR AUTHORIZED.

TREE PROTECTION FENCING DETAIL B

- C. WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT.
- D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CONCRETE TRUCK CLEANING, AND FIRES.
- 4. WHERE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 (OR TO THE LIMITS OF THE LOWER BRANCHING) AS INDICATED ON TREE PROTECTION PLANS.
- ALL GRADING WITHIN PROTECTED ROOT ZONE AREAS SHALL BE DONE BY HAND TO MINMIZE ROOT DAMAGE AND SOIL COMPACTION. PRIOR TO GRADING, RELOCATE PROTECTIVE FERVING 10 2 FEET BEHIND THE GRADE CHANGE AREA, GRADE SHALL REMAIN UNCHANGED WHERE POSSIBLE.
- ANY ROOT, SEVERED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT A BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES DRYING OF THE ROOT DUE TO ENAPORATION.

- TREES IMPACTED BY CONSTRUCTION ACTIVITIES SHALL BE WATERED THOROUGHLY ONCE A WEEK DURNG PERIODS OF HOT AND/OR DRY WEATHER. TREE ECROWNS SHALL BE SPANED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEWES.
- NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 3" MAXIMUM SHALL BE PERMITTED WITHIN THE DRIPLINE OF TREES. NO PERMANENT SOIL OR MULCH IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
- PRUNING SHALL BE PERFORMED BY THE CONTRACTOR TO PROVIDE CLEARANCE FOR STRUCTURES OR CONSTRUCTION BEGINS, ONLY WITH PRIOR APPROVAL FOR AUTHORITY SURGINEER, ALL PRIVING MUST BE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE MUSUSTRY (REFERENCE THE MAN PRUNING STANDARDS), AND BY ALL EXPERIENCED AND OUVLIFED ARBORIST WHOSE PRIMARY BUSINESS IS TREE CARE.
- PROVIDE CORRECTIVE PRUNING AT THE COMPLETION OF CONSTRUCTION TO REMOVE ANY BROKEN OR DAMAGED LIMBS, UNDER THE DIRECTION OF THE AUTHORITY'S ENGINEER.
- 12. AS SOON AS 4" WIDE X 24" DEEP TRENCH IS CUT, EXPOSED ROOTS SHALL BE HAND CUT TO CREATE CLEAN ROOT CUTS. AS SOON AS HAND CUTS ARE COMPLETE, BACKFILL TRENCH WITH A SANDY LOAM TOPSOIL PLACED IN 6" LIFTS, AND COMPACTED AS REQUIRED BY SPECIFICATIONS. 11. IF REQUIRED , ROOT PRUNE BY TRENCHIS A CLEM 4" WIDE X 24"

  11. DEEP CUIT RETWEEN HE DISTURBED AND UNDSTURBED ROOT ZONES
  WITH IRRIGATION TERIOCHER TO MINIMIZE DAMAGE TO REMAINING ROOTS.
  WARK AND REVIEW TRENCH LINE WITH AUTHORITY'S ENGINEER PRIOR TO
  TRENCHING.
- IN AREAS WHERE LIME STABILIZATION ABUTS OR ENCROACHES UPON ROOT TONES, AND WHERE ROOT FRUNKING IS CALLED FOR, INSTALL 10-MIL. PLASTIC SHEETING TO FULL DEPTH OF ROOT PRUNING TRENCH AND 6" OVER TOP. OUT AND REMOVE EXPOSED PLASTIC AT COMPLETION OF WORK.



Brown & Gay Engineers, Inc. 77 Wastheimer, Suite 400, Houston, TX 77042 Tel: 281-558-6700 Fax: 281-558-9701 Civil engineers and surveyors

Urban Forestry, Inc. 3237 Canvasback Street • Katy, Texas 7 281-381 0022 doors/1/2010/2011 C.N. Koehl NFBWA SEGMENT 4

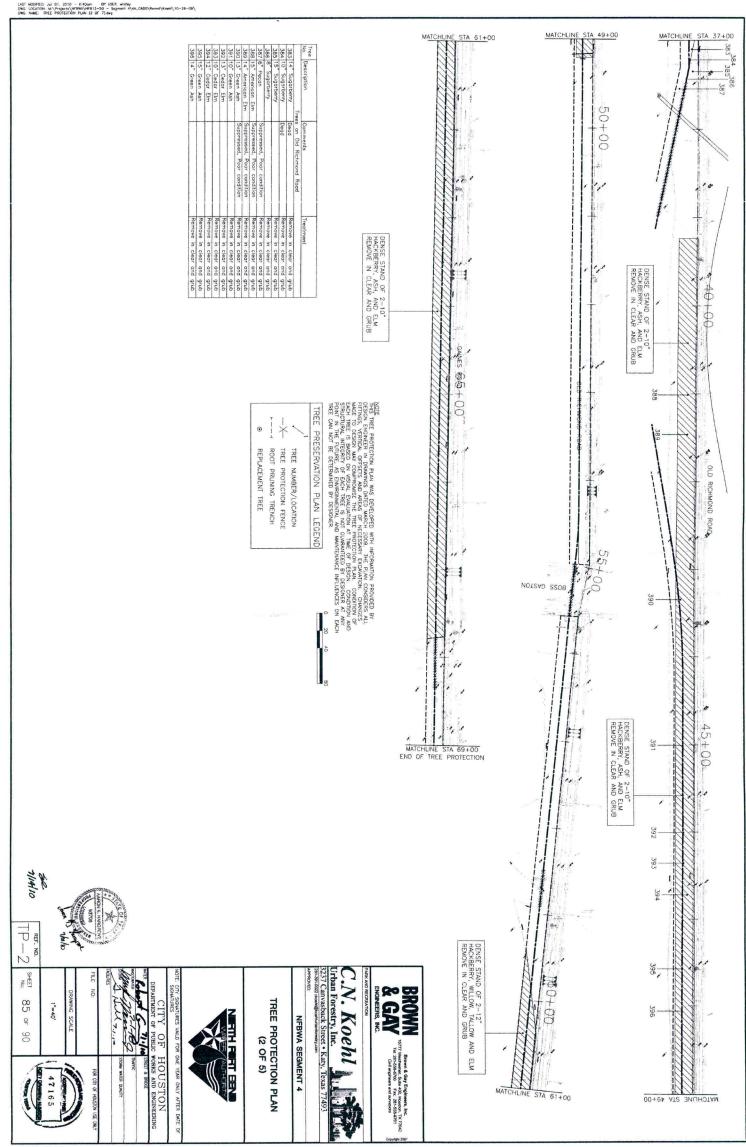
TREE PROTECTION PLAN (1 OF 5)



TP-1 REF. NO. SHEET

84 of

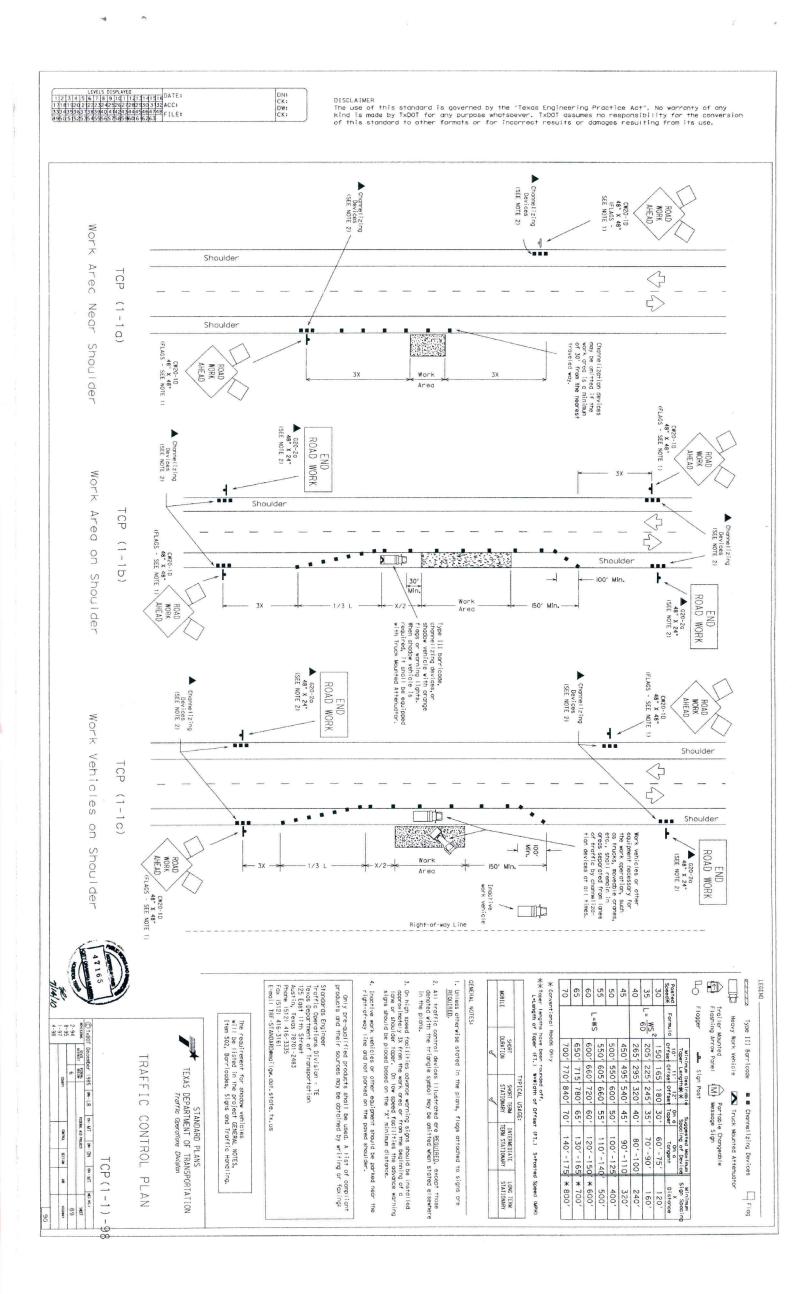
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INSTITUTED SET OF THE PROPERTY		
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Tree  No. Description  Comments  Trees on Old Richmond Road  368 S* Suppreerry  370 15 Tallow  371 207 Pine  372 237 Bradded Peor Private tree  372 127 Suppreerry  376 17 Suppreerry  377 12 Suppreerry  377 12 Suppreerry  378 11 Suppreerry  382 11 Suppreerry  381 11 Suppreerry  382 14 Suppreerry  382 14 Suppreerry  383 14 Suppreerry  384 11 Suppreerry  385 11 Suppreerry  386 11 Suppreerry  387 11 Suppreerry  388 11 Suppreerry	CHMOND ROAD  MOTE REE PROTECTION PLAN WAS DEVELOPED WITH INFORMATION PLANS INFECTION PLAN WAS DEVELOPED WITH INFORMATION PLANS INFORMATION PLANS AREA OF RECESSARY FOR PLANS INFORMATION PLANS AREA OF RECESSARY FOR PLANS AND	337 338 339 343 344 345 345 345 346 346 346 346 346 347 348 348 348 348 348 348 348 348 348 348
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ICS INSCRIPTION AND PLANS TO VISITE AND THE VISITE
135   Pecon   136   Pecon   136   Pecon   136   Pecon   137   Pecon   137   Pecon   138   Pecon   138   Pecon   139   Pecon   131   Pecon   Pecon   131   Pecon
Provide tree  Find canopy, Private tree  Find tree
ASA  148 151  Apper waterline  Re. Auger waterline
ALONG DERVER MILLER  159 159 156 168
160
NOT THERE PROTECTION PLAN WAS DEVELOPED WITH MISS TREET PROTECTION PLAN WAS DEVELOPED WITH MESTAWARDS APPROVED FOR EXCHANGES WAS TO DESCON. ANY COMPROM OF EACH TREE SECTION CONCRETE WAS THE OF DESCON. CONDITION OF EACH TREE SECTION OF EACH TREE SECTION. CONDITION OF EACH TREE SECTION. CONTRIBUTED THE TREE TURES. AN ANAMATEWARCE INFLUENCES ON EACH TREE DAY BOARD DETERMINED TO DESCONE SECTION.  TREE NUMBER/LOCATION PLAN LEGEND  1 TREE NUMBER/LOCATION FENCE  174 NOT THERE  175 176 177 178 189 182 181 181 181 181 181 181 181 181 181
TP-18
BROWN  BR



LEVELS DISPLAYED

1 2 3 4 5 6 7 8 9 1 4 1 1 2 3 4 1 4 4 6 6

1 1 1 9 2 0 2 122 24 22 22 22 7 28 29 30 3 32 ACC:

33 4 3 5 6 3 7 3 3 3 4 0 4 4 4 4 4 4 6 7 8 8 1 LE: DN: CK: DW: CK: SR1-2 42" X 42" X 42" SRI-2b 48" X 36" ONCOMING TRAFFIC Warning Sign Sequence in Opposite Direction Same as Below Channelizing devices separate work area from traveled way. TIELD (SEE NOTE 6 Adequate Field of View One Lane Closed TCP 30' Min. (1 - 2a)100° ONE LANE ROAD AHEAD Type III barricade. cramme l'aing devices, or shadow vehicle with orange flags or worning lights. When shadow vehicle is required, it shall be equipped with Iruck Mounted Attenuator. ROAD WORK WORK AHEAD 620-20 48" X 24" TRAFFIC END CW20-10 48" X 48" (FLAGS-SEE NOTE 1) YIELG CW20-4D 48" X 48" VIELD SR1-2b 48" X 36" (SEE NOTE 6) SR1-2 42" X 42" X 42 SW3-20 48" X 48" 48" X 48" (SEE NOTE 2) TO STOP ROAD WORK END FCW20-7a Inadequate Field of View One Lane Closed ONE LANE ROAD AHEAD TCP (1-2b) ROAD WORK AHEAD 150' Min. Type III barricade, charming devices, or stadow vehicle with armye flags or warning lights. When Stadow vehicle is required, it is not be equipped with Truck Mounted Aftenuator. (FLAGS-SEE NOTE ROAD WORK AHEAD CW20-1D 48" X 48" (FLAGS-SEE NOTE 1) ONE LANE ROAD AHEAD The requirement for shadow vehicles will be listed in the project GENERAL NOTES, Item 502, Barricades, Signs and Traffic Handling. CW20-4D 48" X 48" FCW20-7a ROAD WORK 620-2d 48" x 24" END ▲ FCW20-7b 48" X 48" (SEE NOTE 2) PREPARED TO STOP BE 48" × 36" SR1-2b ONCONING TRAFFIC TO 48 Letters - Black Background - White Reflective \*\* in the plans.

The BE PREPARED TO STOP sign may be installed after the ONE LANE ROAD MELAN sign, but proper sign spacing shall be maintained.

4. ROAD WORK AMEAD sign may be repeated if the visibility of the work zone is less than 1500'. Flaggers should use two-way radios or other methods of communication to control traffic.
 Length of nork area should be based on the ability of flaggers to communicate. Distance along curve of work area should be adequate length for motorists to identify and react to flagger signals. 5. YIELD sign traffic control may be used on projects with approaches that have accounts signt distance. For projects in urban cross, work zones should be no longer than one half city block. In rural areas an roadways with less than 4000 ADT, work areas should be no longer than 400.

En IELD TO (ANOLING FRAFFIC sign shall be placed on a support at a 7' minitum mountring height. Floas attached to signs are <u>REQUIRED</u>.
 All traffic control dwices illustrated are <u>REQUIRED</u>, except those denoted with the triangle symbol may be amitted when stated elsewhere 8 LEGEND 5 2111 TCP (1-2b) GENERAL NOTES: 来Taper lengths have been rounded off. L=Length of Taper (FT.) W=Width of Offset (FT.) S=Posted Speed (MPH) 40 55 55 60 70 MOBILE | Topic | Topi Flagger Trailer Mounted Flashing Arrow Panel Standards Engineer
Traffic Operations Division - TE
Texas Department of Transportation
125 East 11th Street
Austin, Texas 18/01-2483
Phone (512) 416-3335 Fax (512) 416-3161 E-mail TRE-STANDARDemailgw.dot.state.tx.us Only pre-qualified products shall be used. A list of compliant products and their sources may be obtained by writing or faxing: Heavy Work Vehicle Type III Barricade SHORT State State State Sign Post TRAFFIC CONTROL PLAN STANDARD PLANS
TEXAS DEPARTMENT OF TRANSPORTATION
Traffic Operations Division 1985 Im-LR SHORT TERM INTERMEDIATE
STATIONARY TERM STATIONARY Message Sign Channelizing Devices Truck Mounted Attenuator CO-MI DN-DN CO-MI KE-MU CONTROL 801 M011375 TCP (1-2) -98 LONG TERM STATIONARY Flog минять 06