

REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT

Fort Bend County
Engineering Department
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytx.gov

☒

Right of Way Permit

☐

Commercial Driveway Permit

Permit No: 2018-18732

Applicant: PS Light Wave, Inc

Job Location Site: Gaston Road, Katy, TX 77494

Bond No. **Date of Bond:** 12/13/2016 **Amount:** \$50,000.00

The above applicant came to make use of certain Fort Bend County property subject to, "The 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, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

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, submit notification to Permit Administrator thru MyGovernmentOnline.org portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this day of , , Upon Motion of Commissioner _____, seconded by Commissioner _____, 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.

Signature

Presented to Commissioners Court and approved.

By: *Rick J. Staigle, PE, PTOE*
County Engineer

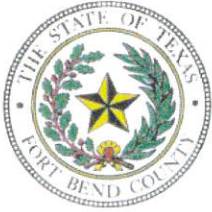
Date Recorded _____ Comm. Court No. _____

N/A

Clerk of Commissioners Court

By: _____
Drainage District Engineer/Manager

By: _____
Deputy



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

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytx.gov

- ☒ **Right of Way Permit**
☐ **Commercial Driveway Permit**

Permit No: 2018-18732

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) COMPLETE APPLICATION FORM:

- ☒ a. Name of road, street, and/or drainage ditch affected.
☒ b. Vicinity map showing course of directions
☒ c. Plans and specifications

(2) BOND:

- ☐ County Attorney, approval when applicable.
- ☒ Perpetual bond currently posted. Bond No: Amount: \$50,000.00
- ☐ Performance bond submitted. Bond No: Amount:
- ☐ Cashier's Check Check No: Amount:

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

We have reviewed this project and agree it meets minimum requirements.

Rick J. Staigle, PE, PTOE
Permit Administrator

3/23/2018
Date



NOTES:

1. SEE GEOMETRICS LAYOUT SHEETS FOR PAVING DIMENSIONS AND LIMITS.
2. SEE DEMOLITION PLAN SHEETS FOR REMOVAL LIMITS OF EXISTING ITEMS.
3. SEE STORM SEWER LATERALS FOR PROPOSED STORM SEWER LEADS AND CONNECTIONS.
4. SEE DRIVEWAY SUMMARY SHEET FOR DRIVEWAY AND TEMPORARY CONSTRUCTION EASEMENT INFORMATION.

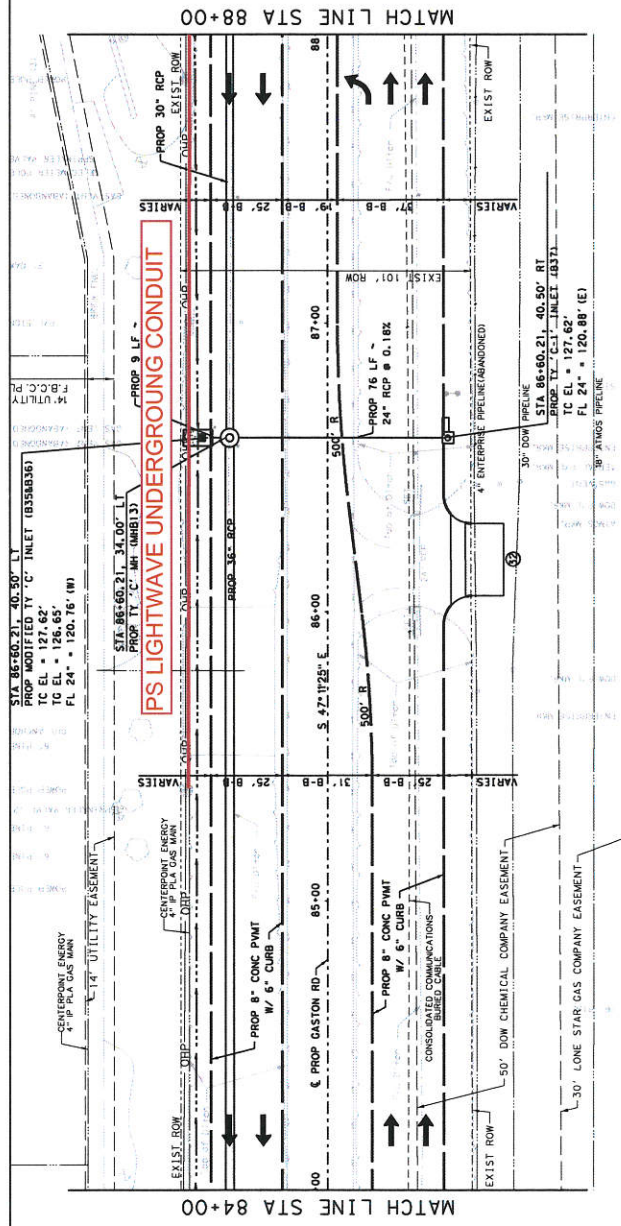


No.	Date	Revised	By

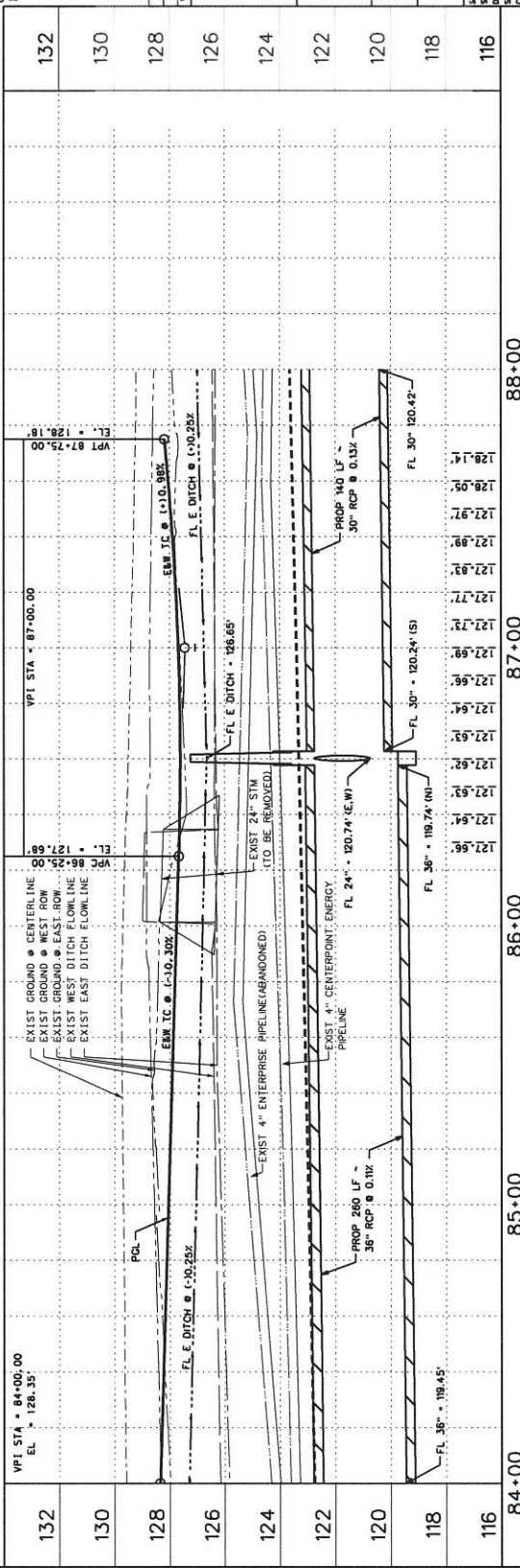


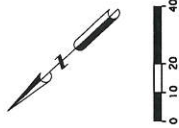
CobbFendley
13520 Northwest Freeway, Suite 1300
Dallas, Texas 75244-1100
713.462.2421 / Fax 713.462.2422

GASTON ROAD
KATY FLEWELLEN ROAD TO
GREENBUSCH ROAD
GASTON ROAD
PLAN AND PROFILE
STA 84+00 TO STA 88+00
SHEET NO. 48 OF 241 SHEETS
SUBMITTED: 11/30/2017
SCALE: 1" = 40' HORIZ. 1" = 8' VERT.
SURVEY BY: WEISSER
D. J. JOHNSON, P.E.



GASTON ROAD





NOTES:

1. SEE GEOMETRICS LAYOUT SHEETS FOR PAVING DIMENSIONS AND LIMITS.
2. SEE DEMOLITION PLAN SHEETS FOR REMOVAL LIMITS OF EXISTING ITEMS.
3. SEE STORM SEWER LATERALS FOR PROPOSED STORM SEWER LEADS AND CONNECTIONS.
4. SEE DRIVEWAY SUMMARY SHEET FOR DRIVEWAY AND TEMPORARY CONSTRUCTION EASEMENT INFORMATION.



CobbFendley

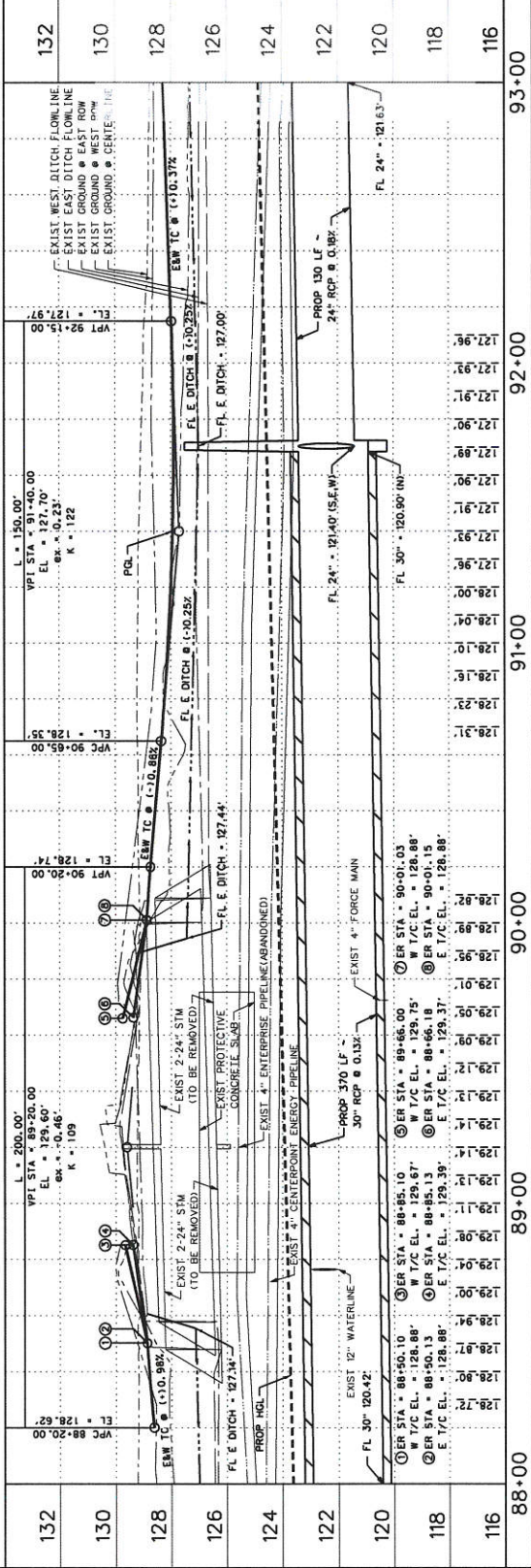
13430 Northpark Drive, Suite 1100
Dallas, Texas 75242
713.482.2422 Fax 713.482.2422

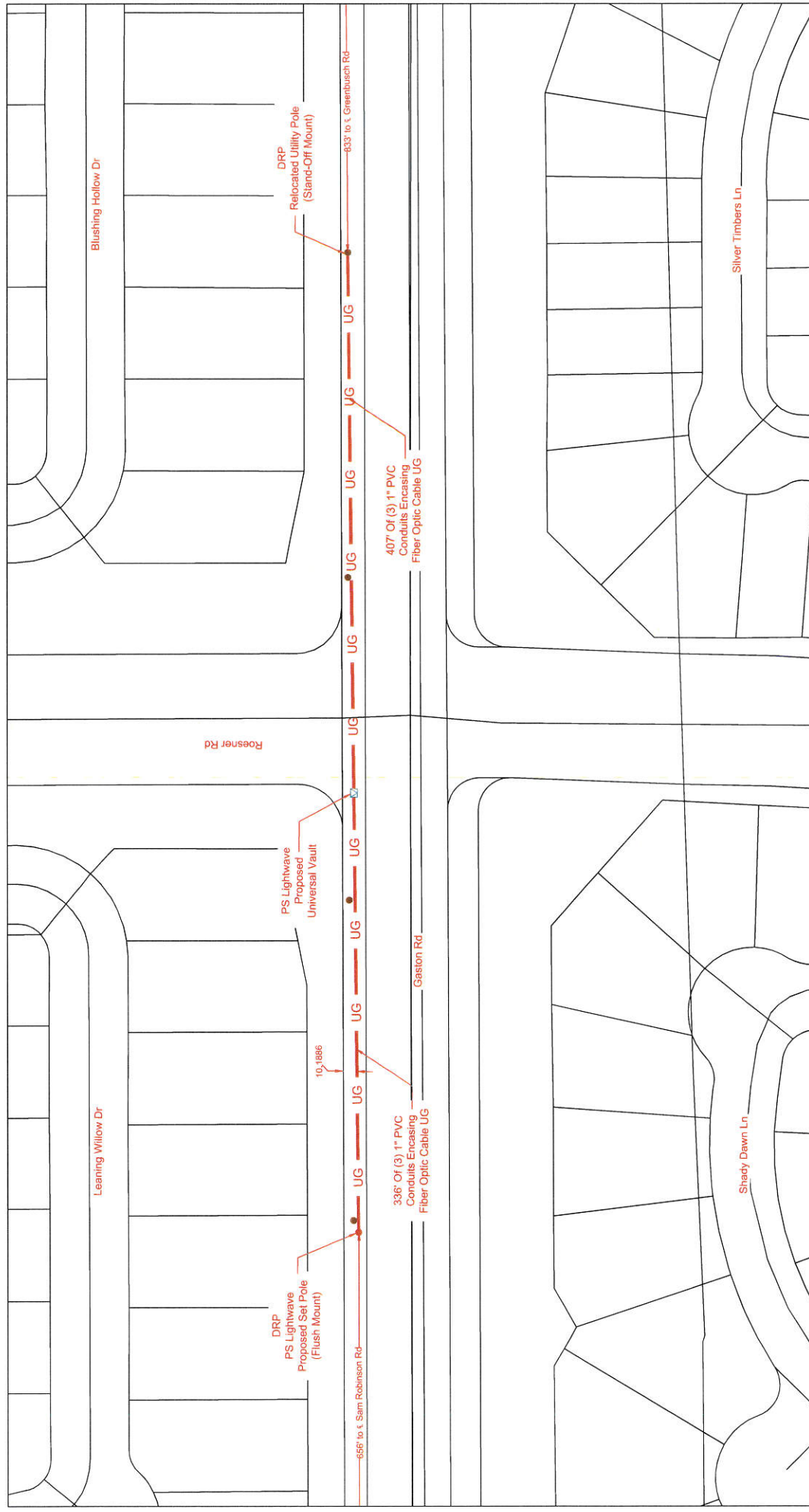
GASTON ROAD
KATY FLEWELLEN ROAD TO
GREENBUSH ROAD
GASTON ROAD
PLAN AND PROFILE
STA 88+00 TO STA 93+00
SUBMITTED: 11/30/2017
SCALE: 1" = 40' (PLAN) 1" = 10' (PROFILE)
SURVEY BY: WEISSER
P. 400 AND 1511-011

MATCH LINE STA 93+00

PS LIGHTWAVE UNDERGROUND CONDUIT

GASTON ROAD





LEGEND

UG	3(1") HDPE W/ F.O. CABLE	PSLW SET POLE
UG	3(1.25") HDPE W/ F.O. CABLE	EXISTING SET POLE
UG	1(2") HDPE W/ F.O. CABLE	EXISTING UTILITY POLE
UG	1(4") HDPE W/ 3(1.25")HDPE	PROPOSED PSLW VAULT (24"x36"x24")
UG	FLEX INNERDUCT	EXISTING VAULT
AIR	AERIAL FIBER OPTIC CABLE	PULLBOX
CAT5	CAT5 CABLE	MDF LOCATION

PROPOSED CONDUIT

EXISTING CONDUIT

1.25" EMT

R/W

EDGE-OF-PAVEMENT

FENCE

RACK LOCATION

PS Lightwave Proposed Universal Vault

DRP PS Lightwave Proposed Set Pole (Flush Mount)

336' Of (3) 1" PVC Conduits Encasing Fiber Optic Cable UG

10,1886

656' to S Sam Robinson Rd

Leaning Willow Dr

407' Of (3) 1" PVC Conduits Encasing Fiber Optic Cable UG

833' to S Greenbush Rd

Blushing Hollow Dr

Relocated Utility Pole (Stand-Off Mount)

DRP

Silver Timbers Ln

Shady Dawn Ln

Shady Dawn Ln

Customer ID: JOB# M0218-7834

CUSTOMER: Notice Of Proposed Utility Installation

ADDRESS: Gaston Rd

CITY/ZIP: Katy TX 77494

TENANTS: # OF FLOORS: COUNTY: Fort Bend

WG# 100911 JOB# M0218-7834 DRAWN BY: PJE DATE: 02/13/2018

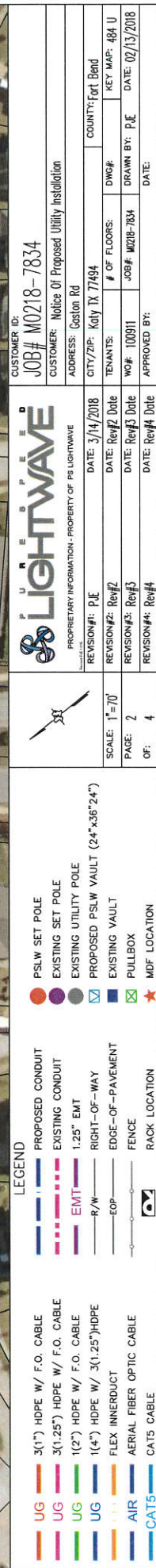
APPROVED BY: DATE:

DATE: 3/14/2018

DATE: Rev#2 Date

DATE: Rev#3 Date

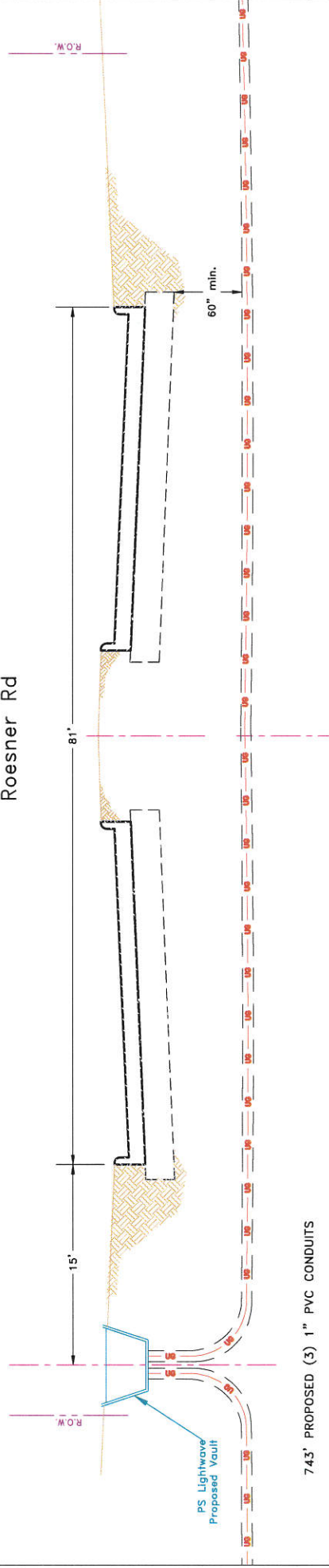
DATE: Rev#4 Date

[illegible]

General Notes:

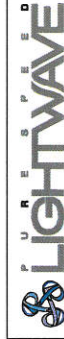
- 1) Surface to be restored to its original condition in compliance with City of Fort Bend County Standards.
- 2) Contractors shall provide and install traffic control devices in conformance with part VI of Texas manual on Uniform Traffic Control Devices (TMUTCD--Latest Edition with Revisions) during construction.
- 3) No Lanes shall be blocked 7am--9am and 4pm--6:30pm Monday thru Friday.

Roesner Rd



LEGEND

- | | | |
|------|----------------------------|-----------------------------------|
| UG | 3(1") PVC W/ F.O. CABLE | PSLW SET POLE |
| UG | 3(1.25") PVC W/ F.O. CABLE | EXISTING SET POLE |
| UG | 1(2") PVC W/ F.O. CABLE | EXISTING UTILITY POLE |
| UG | 1(4") HDPE W/ 3(1.25")PVC | PROPOSED PSLW VAULT (24"x36"x24") |
| UG | FLEX INNERDUCT | EXISTING VAULT |
| AIR | AERIAL FIBER OPTIC CABLE | PULLBOX |
| CAT5 | CAT5 CABLE | MDF LOCATION |
- | | | | |
|------------------|------------------|-------|---------------|
| PROPOSED CONDUIT | RIGHT-OF-WAY | FENCE | RACK LOCATION |
| EXISTING CONDUIT | EDGE-OF-PAVEMENT | | |
| 1.25" EMT | | | |



REVISION#1: Rev#1	DATE: Rev#1 Date	DATE: Rev#1 Date	DATE: Rev#1 Date
REVISION#2: Rev#2	DATE: Rev#2 Date	DATE: Rev#2 Date	DATE: Rev#2 Date
REVISION#3: Rev#3	DATE: Rev#3 Date	DATE: Rev#3 Date	DATE: Rev#3 Date
REVISION#4: Rev#4	DATE: Rev#4 Date	DATE: Rev#4 Date	DATE: Rev#4 Date

JOB# M0218-7834

Description: Notice Of Proposed Utility Installation

ADDRESS: Gaston Rd

CITY/ZIP: Katy TX 77494

TENANTS: # OF FLOORS:

WO# 100911

APPROVED BY: DATE:

JOB# M0218-7834

DATE: 02/13/2018

COUNTY: Fort Bend

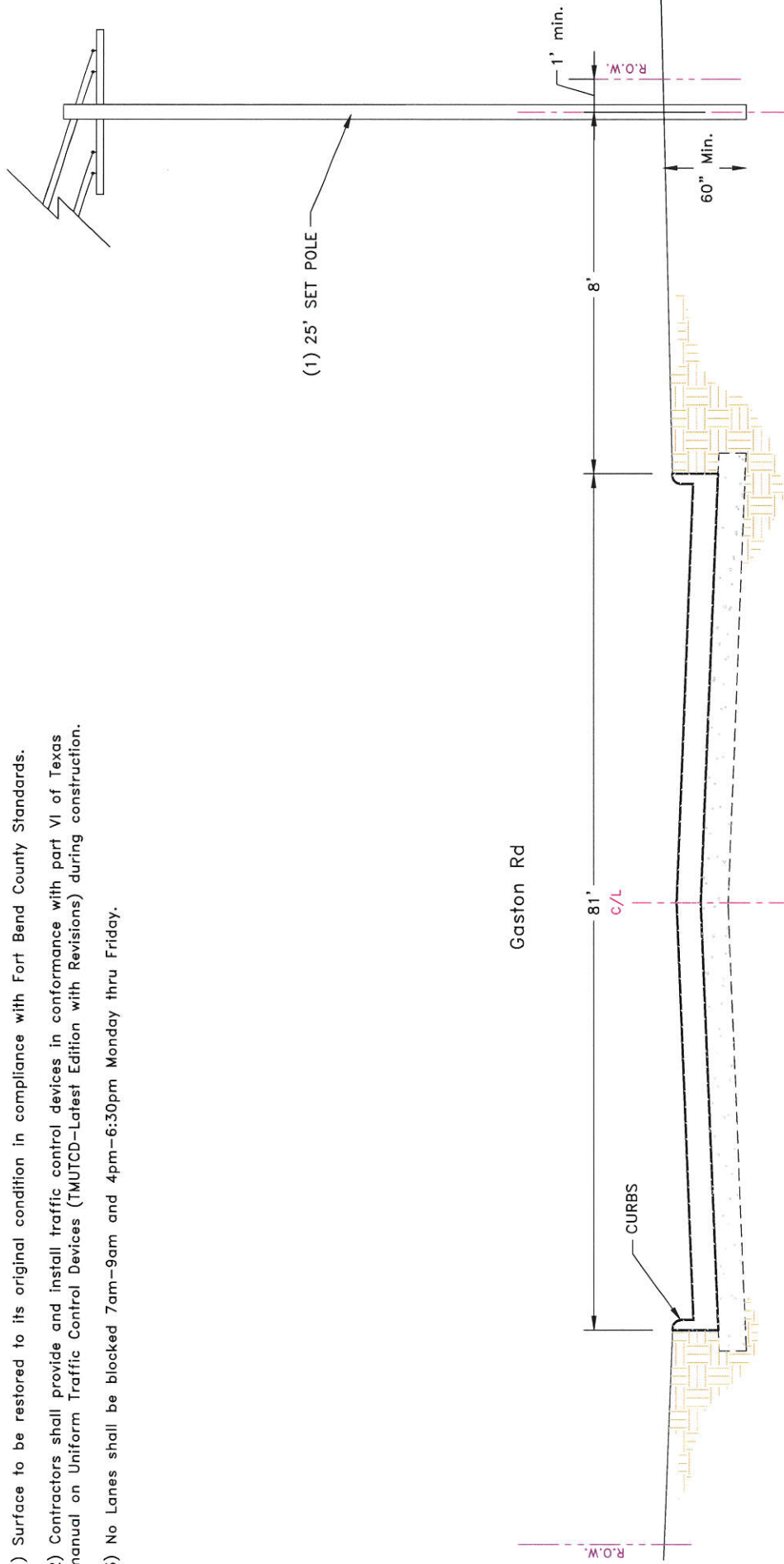
DWG#:

KEY MAP: 484 U

DATE: 02/13/2018

General Notes:

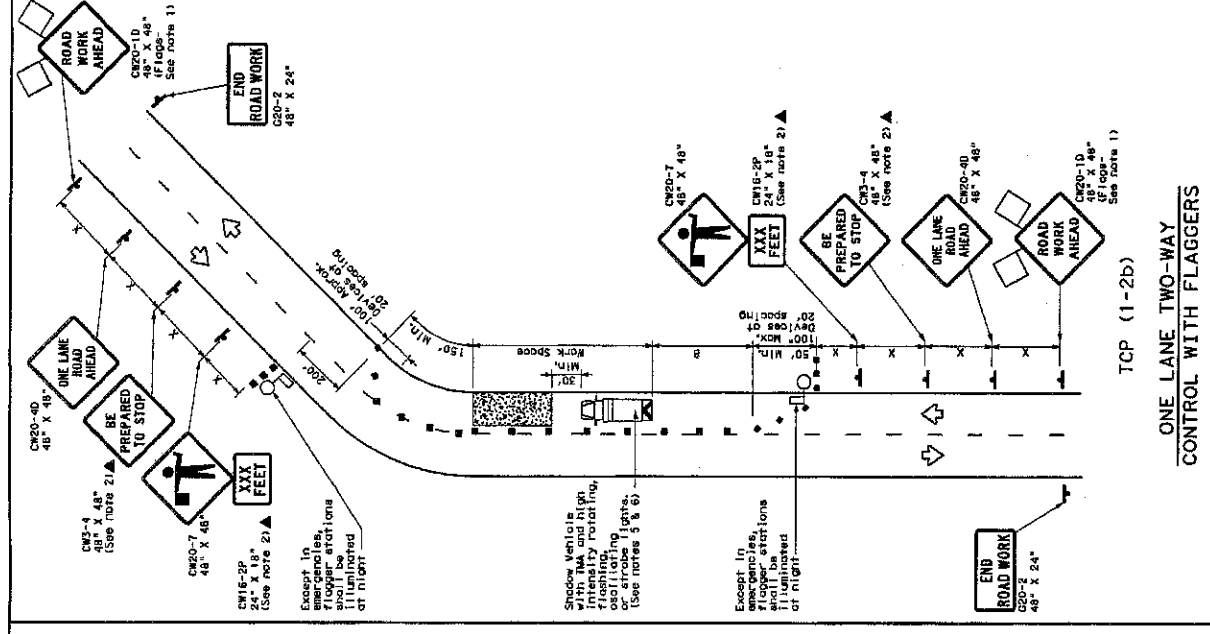
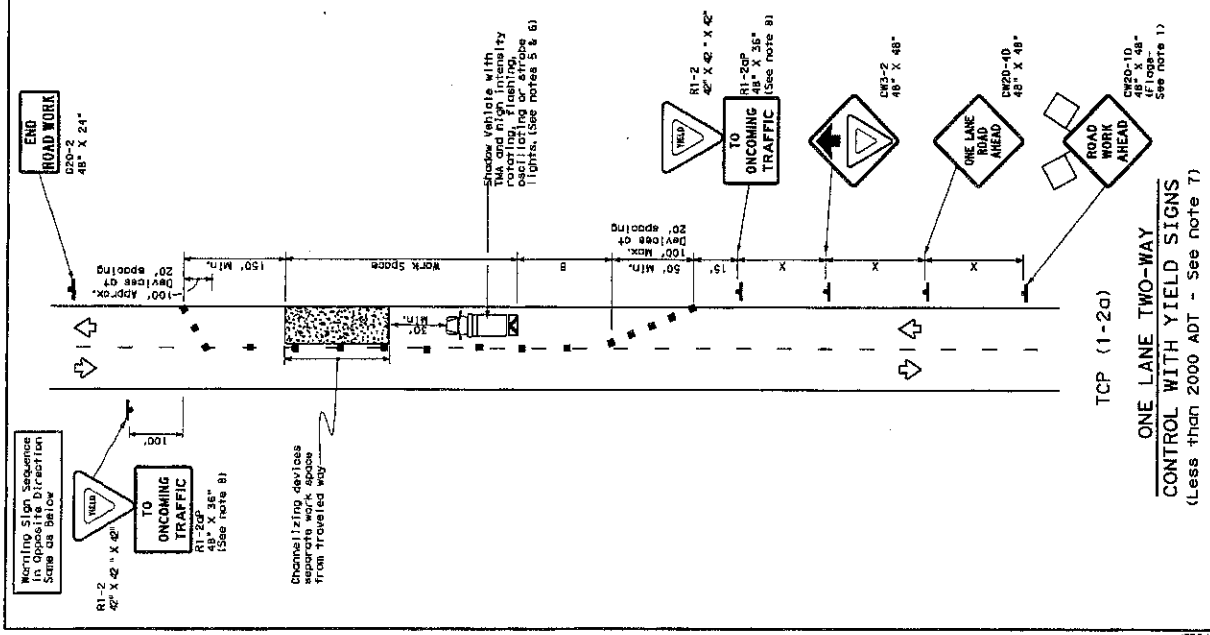
- 1) Surface to be restored to its original condition in compliance with Fort Bend County Standards.
- 2) Contractors shall provide and install traffic control devices in conformance with part VI of Texas manual on Uniform Traffic Control Devices (TMUTCD--Latest Edition with Revisions) during construction.
- 3) No Lanes shall be blocked 7am-9am and 4pm-6:30pm Monday thru Friday.



		Job# M0218-7834 Description: Notice Of Proposed Utility Installation	
REVISION#1: P.E. REVISION#2: Rev#2 REVISION#3: Rev#3 REVISION#4: Rev#4		ADDRESS: Gaston Rd CITY/ZIP: Katy, TX 77494 COUNTY: Fort Bend	
DATE: 3/14/2018 DATE: Rev#2 Date DATE: Rev#3 Date DATE: Rev#4 Date		TENANTS: # OF FLOORS: WO#: 100911 JOB#: M0218-7834 DRAWN BY: PE DATE: 02/13/2018	
SCALE: N.T.S. PAGE: 4 OF: 4		KEY MAP: 484 U DATE: 02/13/2018	

LEGEND

	3(1") PVC W/ F.O. CABLE		PSLW SET POLE
	3(1.25") PVC W/ F.O. CABLE		EXISTING SET POLE
	1(2") PVC W/ F.O. CABLE		EXISTING UTILITY POLE
	1(4") HDPE W/ 3(1.25")PVC		PROPOSED PSLW VAULT (24"x36"x24")
	FLEX INNERDUCT		EXISTING VAULT
	AERIAL FIBER OPTIC CABLE		PULLBOX
	CAT5 CABLE		MDF LOCATION
	PROPOSED CONDUIT		RACK LOCATION
	EXISTING CONDUIT		
	1.25" EMT		
	R/W		
	EDGE-OF-PAVEMENT		
	FENCE		



LEGEND				Channelizing Devices	
	Type 3 Barricade		Truck Mounted Attenuator (TMA)		Portable Changeable Message Sign (PCMS)
	Trailer Mounted Flashing Arrow Board		Traffic Flow		Flag
	Stop		Flag		Flag
	Flag		Flag		Flag

Posted Speed Limit #	Formula	Minimum Barrier Lengths		Minimum Channelizing Device Spacing		Minimum Sign Spacing	Suggested Maximum Sign Spacing	Suggested Minimum Sign Spacing	Suggested Minimum Sign Spacing	Suggested Minimum Sign Spacing
		Top of Barrier	Bottom of Barrier	Top of Barrier	Bottom of Barrier					
30	150'	150'	150'	30'	60'	120'	120'	90'	200'	200'
35	180'	180'	180'	35'	70'	140'	140'	100'	250'	250'
40	225'	225'	225'	40'	80'	160'	160'	110'	300'	300'
45	265'	265'	265'	45'	90'	180'	180'	120'	350'	350'
50	300'	300'	300'	50'	100'	200'	200'	130'	400'	400'
55	330'	330'	330'	55'	110'	220'	220'	140'	450'	450'
60	360'	360'	360'	60'	120'	240'	240'	150'	500'	500'
65	390'	390'	390'	65'	130'	260'	260'	160'	550'	550'
70	420'	420'	420'	70'	140'	280'	280'	170'	600'	600'
75	450'	450'	450'	75'	150'	300'	300'	180'	650'	650'

1. Conventional Roadways Only (rounded off).
2. Length of Taper (FT) = (Length of Offset (FT) x Posted Speed(MPH))

TYPICAL USAGE				LINE TERM STATIONARY		INTERMEDIATE TERM STATIONARY		LONG TERM STATIONARY	
TABLE	DURATION	SHORT TERM STATIONARY	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY	LONG TERM STATIONARY	LONG TERM STATIONARY	LONG TERM STATIONARY
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25

GENERAL NOTES

- Flags attached to signs where shown are REQUIRED.
- When used on control devices (illuminated) are REQUIRED, except those denoted with the "X" in the "Notes" column.
- The DMS-4 "BE" PREPARED TO STOP sign may be installed after the DMS-40 "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
- When used on control devices (illuminated) are REQUIRED, except those denoted with the "X" in the "Notes" column.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of work exposure without adversely affecting the performance or the traffic control. When it is no longer present but work or work conditions require the traffic control to remain in place, the Shadow Vehicle and other channelizing device may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMA may be positioned off the paved surface, next to those shown in order to protect wider work exposure.

- R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no longer than 100 feet. For projects in rural areas, work spaces should be no longer than 200 feet. R1-2 "YIELD" sign with R1-2S "TO OCCUPY TRAFFIC" plaque shall be placed on a support of a 7 foot minimum mounting height.

TCP (1-2a)

- Flagger should use two-way radios or other methods of communication to control traffic. Length of work space should be based on the ability of flaggers to communicate.
- If the work space is located near a horizontal or vertical curve, the buffer distance shall be increased to 100 feet. The 400 foot minimum mounting height shall be maintained in all situations to maintain adequate stopping sight distance to the flagger.
- Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.

- Flagger should use 24" x 36" x 5/16" SLOF paddles to control traffic. Flags should be limited to emergency situations.

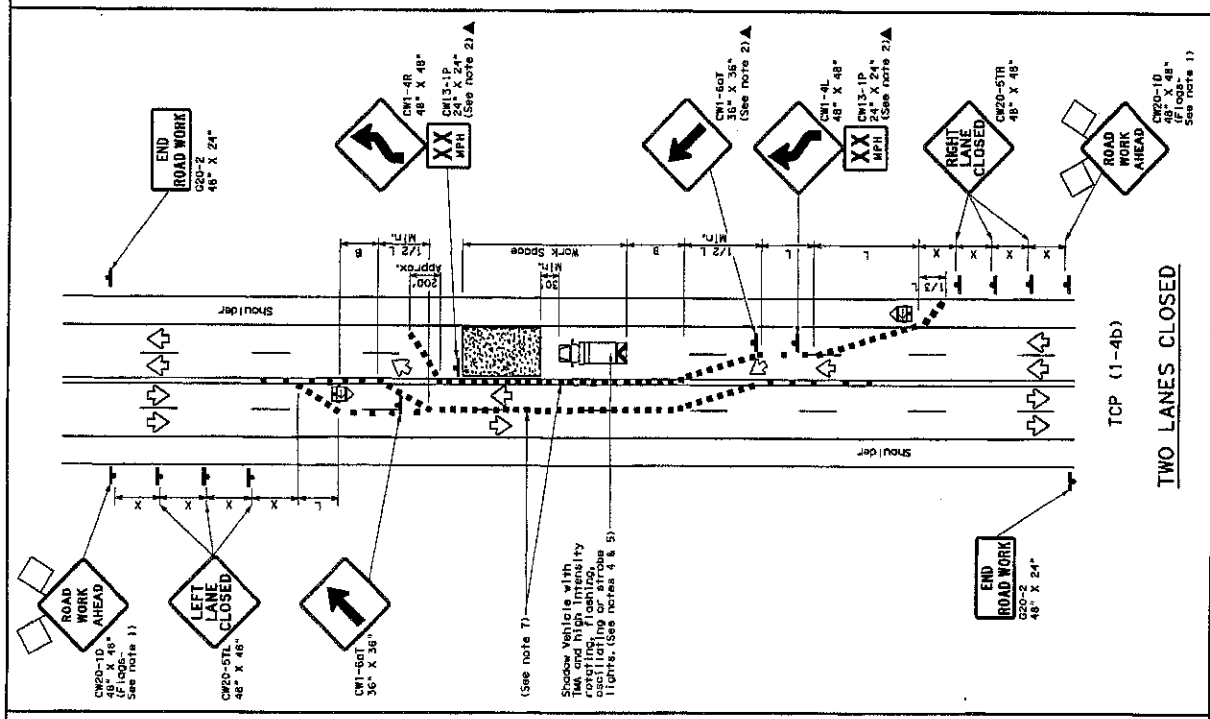
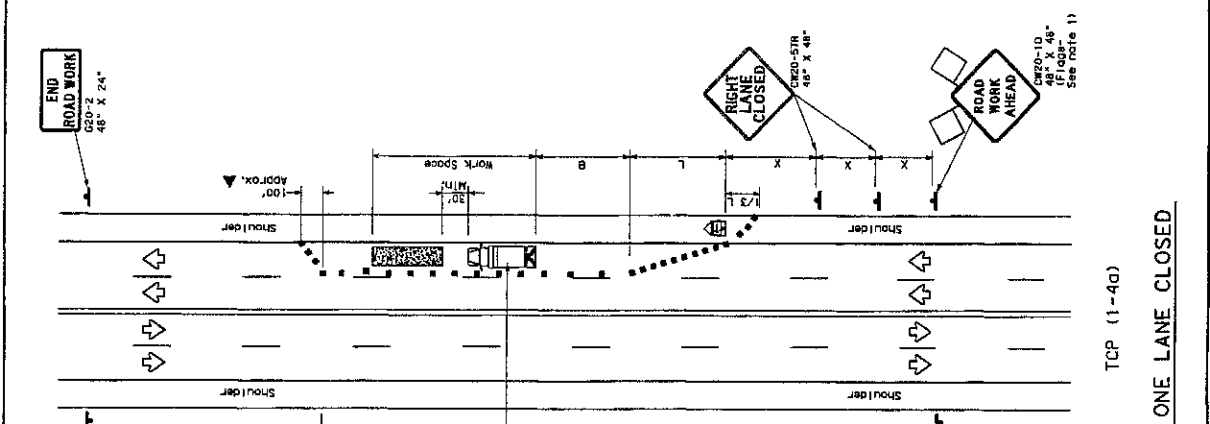
For construction or maintenance contract proposals, the project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Shadow Vehicles, Signs and Traffic Barring.

TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL

TCP (1-2) - 12

1-2a		1-2b		1-2c		1-2d		1-2e		1-2f		1-2g		1-2h		1-2i		1-2j		1-2k		1-2l		1-2m		1-2n		1-2o		1-2p		1-2q		1-2r		1-2s		1-2t		1-2u		1-2v		1-2w		1-2x		1-2y		1-2z		1-2aa		1-2ab		1-2ac		1-2ad		1-2ae		1-2af		1-2ag		1-2ah		1-2ai		1-2aj		1-2ak		1-2al		1-2am		1-2an		1-2ao		1-2ap		1-2aq		1-2ar		1-2as		1-2at		1-2au		1-2av		1-2aw		1-2ax		1-2ay		1-2az		1-2ba		1-2bb		1-2bc		1-2bd		1-2be		1-2bf		1-2bg		1-2bh		1-2bi		1-2bj		1-2bk		1-2bl		1-2bm		1-2bn		1-2bo		1-2bp		1-2bq		1-2br		1-2bs		1-2bt		1-2bu		1-2bv		1-2bw		1-2bx		1-2by		1-2bz		1-2ca		1-2cb		1-2cc		1-2cd		1-2ce		1-2cf		1-2cg		1-2ch		1-2ci		1-2cj		1-2ck		1-2cl		1-2cm		1-2cn		1-2co		1-2cp		1-2cq		1-2cr		1-2cs		1-2ct		1-2cu		1-2cv		1-2cw		1-2cx		1-2cy		1-2cz		1-2da		1-2db		1-2dc		1-2dd		1-2de		1-2df		1-2dg		1-2dh		1-2di		1-2dj		1-2dk		1-2dl		1-2dm		1-2dn		1-2do		1-2dp		1-2dq		1-2dr		1-2ds		1-2dt		1-2du		1-2dv		1-2dw		1-2dx		1-2dy		1-2dz		1-2ea		1-2eb		1-2ec		1-2ed		1-2ee		1-2ef		1-2eg		1-2eh		1-2ei		1-2ej		1-2ek		1-2el		1-2em		1-2en		1-2eo		1-2ep		1-2eq		1-2er		1-2es		1-2et		1-2eu		1-2ev		1-2ew		1-2ex		1-2ey		1-2ez		1-2fa		1-2fb		1-2fc		1-2fd		1-2fe		1-2ff		1-2fg		1-2fh		1-2fi		1-2fj		1-2fk		1-2fl		1-2fm		1-2fn		1-2fo		1-2fp		1-2fq		1-2fr		1-2fs		1-2ft		1-2fu		1-2fv		1-2fw		1-2fx		1-2fy		1-2fz		1-2ga		1-2gb		1-2gc		1-2gd		1-2ge		1-2gf		1-2gg		1-2gh		1-2gi		1-2gj		1-2gk		1-2gl		1-2gm		1-2gn		1-2go		1-2gp		1-2gq		1-2gr		1-2gs		1-2gt		1-2gu		1-2gv		1-2gw		1-2gx		1-2gy		1-2gz		1-2ha		1-2hb		1-2hc		1-2hd		1-2he		1-2hf		1-2hg		1-2hi		1-2hj		1-2hk		1-2hl		1-2hm		1-2hn		1-2ho		1-2hp		1-2hq		1-2hr		1-2hs		1-2ht		1-2hu		1-2hv		1-2hw		1-2hx		1-2hy		1-2hz		1-2ia		1-2ib		1-2ic		1-2id		1-2ie		1-2if		1-2ig		1-2ih		1-2ii		1-2ij		1-2ik		1-2il		1-2im		1-2in		1-2io		1-2ip		1-2iq		1-2ir		1-2is		1-2it		1-2iu		1-2iv		1-2iw		1-2ix		1-2iy		1-2iz		1-2ja		1-2jb		1-2jc		1-2jd		1-2je		1-2jf		1-2jg		1-2jh		1-2ji		1-2jj		1-2jk		1-2jl		1-2jm		1-2jn		1-2jo		1-2jp		1-2jq		1-2jr		1-2js		1-2jt		1-2ju		1-2jv		1-2jw		1-2jx		1-2jy		1-2jz		1-2ka		1-2kb		1-2kc		1-2kd		1-2ke		1-2kf		1-2kg		1-2kh		1-2ki		1-2kj		1-2kl		1-2km		1-2kn		1-2ko		1-2kp		1-2kq		1-2kr		1-2ks		1-2kt		1-2ku		1-2kv		1-2kw		1-2kx		1-2ky		1-2kz		1-2la		1-2lb		1-2lc		1-2ld		1-2le		1-2lf		1-2lg		1-2lh		1-2li		1-2lj		1-2lk		1-2lm		1-2ln		1-2lo		1-2lp		1-2lq		1-2lr		1-2ls		1-2lt		1-2lu		1-2lv		1-2lw		1-2lx		1-2ly		1-2lz		1-2ma		1-2mb		1-2mc		1-2md		1-2me		1-2mf		1-2mg		1-2mh		1-2mi		1-2mj		1-2mk		1-2ml		1-2mm		1-2mn		1-2mo		1-2mp		1-2mq		1-2mr		1-2ms		1-2mt		1-2mu		1-2mv		1-2mw		1-2mx		1-2my		1-2mz		1-2na		1-2nb		1-2nc		1-2nd		1-2ne		1-2nf		1-2ng		1-2nh		1-2ni		1-2nj		1-2nk		1-2nl		1-2nm		1-2nn		1-2no		1-2np		1-2nq		1-2nr		1-2ns		1-2nt		1-2nu		1-2nv		1-2nw		1-2nx		1-2ny		1-2nz		1-2oa		1-2ob		1-2oc		1-2od		1-2oe		1-2of		1-2og		1-2oh		1-2oi		1-2oj		1-2ok		1-2ol		1-2om		1-2on		1-2oo		1-2op		1-2oq		1-2or		1-2os		1-2ot		1-2ou		1-2ov		1-2ow		1-2ox		1-2oy		1-2oz		1-2pa		1-2pb		1-2pc		1-2pd		1-2pe		1-2pf		1-2pg		1-2ph		1-2pi		1-2pj		1-2pk		1-2pl		1-2pm		1-2pn		1-2po		1-2pp		1-2pq		1-2pr		1-2ps		1-2pt		1-2pu		1-2pv		1-2pw		1-2px		1-2py		1-2pz		1-2qa		1-2qb		1-2qc		1-2qd		1-2qe		1-2qf		1-2qg		1-2qh		1-2qi		1-2qj		1-2qk		1-2ql		1-2qm		1-2qn		1-2qo		1-2qp		1-2qq		1-2qr		1-2qs		1-2qt		1-2qu		1-2qv		1-2qw		1-2qx		1-2qy		1-2qz		1-2ra		1-2rb		1-2rc		1-2rd		1-2re		1-2rf		1-2rg		1-2rh		1-2ri		1-2rj		1-2rk		1-2rl		1-2rm		1-2rn		1-2ro		1-2rp		1-2rq		1-2rr		1-2rs		1-2rt		1-2ru		1-2rv		1-2rw		1-2rx		1-2ry		1-2rz		1-2sa		1-2sb		1-2sc		1-2sd		1-2se		1-2sf		1-2sg		1-2sh		1-2si		1-2sj		1-2sk		1-2sl		1-2sm		1-2sn		1-2so		1-2sp		1-2sq		1-2sr		1-2ss		1-2st		1-2su		1-2sv		1-2sw		1-2sx		1-2sy		1-2sz		1-2ta		1-2tb		1-2tc		1-2td		1-2te		1-2tf		1-2tg		1-2th		1-2ti		1-2tj		1-2tk		1-2tl		1-2tm		1-2tn		1-2to		1-2tp		1-2tq		1-2tr		1-2ts		1-2tt		1-2tu		1-2tv		1-2tw		1-2tx		1-2ty		1-2tz		1-2ua		1-2ub		1-2uc		1-2ud		1-2ue		1-2uf		1-2ug		1-2uh		1-2ui		1-2uj		1-2uk		1-2ul		1-2um		1-2un		1-2uo		1-2up		1-2uq		1-2ur		1-2us		1-2ut		1-2uu		1-2uv		1-2uw		1-2ux		1-2uy		1-2uz		1-2va		1-2vb		1-2vc		1-2vd		1-2ve		1-2vf		1-2vg		1-2vh		1-2vi		1-2vj		1-2vk		1-2vl		1-2vm		1-2vn		1-2vo		1-2vp		1-2vq		1-2vr		1-2vs		1-2vt		1-2vu		1-2vv		1-2vw		1-2vx		1-2vy		1-2vz		1-2wa		1-2wb		1-2wc		1-2wd	
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DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by the Texas Department of Transportation for the use of this standard for any purpose whatsoever. The user assumes all responsibility for the use of this standard.



LEGEND

Type 3 Barricade	Channelizing Devices
Heavy Work Vehicle	Track Mounted Attenuator (TMA)
Trailer Mounted Flashing Arrow Board	Portable Channeling Message Sign (PCMS)
S/OT	Traffic Flow
Flag	Flagger

TABLE 1

Posted Speed Limit	Minimum Taper Length	Maximum Taper Length	Minimum Spacing Between Devices	Minimum Spacing Between Tapers	Minimum Spacing Between Buffers
30	150'	180'	30'	60'	120'
35	150'	180'	30'	60'	120'
40	200'	225'	35'	70'	140'
45	250'	275'	40'	80'	160'
50	300'	325'	45'	90'	180'
55	350'	375'	50'	100'	200'
60	400'	425'	55'	110'	220'
65	450'	475'	60'	120'	240'
70	500'	525'	65'	130'	260'
75	550'	575'	70'	140'	280'
80	600'	625'	75'	150'	300'
85	650'	675'	80'	160'	320'
90	700'	725'	85'	170'	340'
95	750'	775'	90'	180'	360'
100	800'	825'	95'	190'	380'

GENERAL NOTES

- Flagger attention to signs where shown are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol which may be omitted when stated elsewhere in the plan.
- The Taper Length shall be as shown in Table 1. When approved by the Engineer, the taper length may be increased to a maximum of 1.5 times the taper length shown in Table 1.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned in the work zone. It should be positioned in the work zone at least 100 feet in advance of the work zone. It should be positioned in the work zone at least 100 feet in advance of the work zone. It should be positioned in the work zone at least 100 feet in advance of the work zone.
- For the Shadow Vehicle and TMA, the taper length shall be as shown in Table 1. The taper length shall be as shown in Table 1. The taper length shall be as shown in Table 1.

TYPICAL USAGE

MOBILE	SHORT DURATION	INTERMEDIATE DURATION	LONG DURATION
✓	✓	✓	✓

TCP (1-4a)

1. This TCP is used for a left lane closure, a right lane closure, or a two-lane closure. It is used for a left lane closure, a right lane closure, or a two-lane closure. It is used for a left lane closure, a right lane closure, or a two-lane closure.

2. Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers of 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/25 where S is the speed in mph. This taper device spacing is intended for the area of conflicting markings, not the entire work zone.

TCP (1-4b)

1. Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers of 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/25 where S is the speed in mph. This taper device spacing is intended for the area of conflicting markings, not the entire work zone.

TCP (1-4c)

1. Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers of 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/25 where S is the speed in mph. This taper device spacing is intended for the area of conflicting markings, not the entire work zone.

TCP (1-4d)

1. Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers of 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/25 where S is the speed in mph. This taper device spacing is intended for the area of conflicting markings, not the entire work zone.