



**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](mailto:Permits@fortbendcountytx.gov)

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

Permit No: 2018-21686

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: [REDACTED]      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.**

  
\_\_\_\_\_  
Permit Administrator

6/25/2018

\_\_\_\_\_  
Date



**From:** [Gary Gehbauer](#)  
**To:** [Velasquez, Courtney](#)  
**Cc:** [Garza, Sandy](#)  
**Subject:** RE: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69 (in Sugar Land)  
**Date:** Friday, June 22, 2018 2:39:57 PM

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Good afternoon Courtney,  
Yes, I did speak to them. They did incorporate what I was looking for. This should be good to go from the toll road authority.  
Have a good weekend.

Gary Gehbauer, PE  
BGE  
10777 Westheimer, Suite 400  
Houston, Texas 77042  
(281)558-8700 voice  
(281)558-9706 fax  
[ggehbauer@bgeinc.com](mailto:ggehbauer@bgeinc.com)

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**From:** Velasquez, Courtney [mailto:Courtney.Velasquez@fortbendcountytexas.gov]  
**Sent:** Friday, June 22, 2018 2:36 PM  
**To:** Gary Gehbauer <GGehbauer@bgeinc.com>  
**Cc:** Garza, Sandy <Sandy.Garza@fortbendcountytexas.gov>  
**Subject:** FW: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69 (in Sugar Land)

Hi Gary,

Please see the information highlighted below. I have attached their site plan. If you would please confirm that they have complied with everything you have requested so that I can process this permit.

Thank you,

**Courtney Velasquez**  
**Clerk III**  
**Fort Bend County Engineering**  
301 Jackson St., Suite 401 | Richmond, TX 77469  
Email: [Courtney.Velasquez@fortbendcountytexas.gov](mailto:Courtney.Velasquez@fortbendcountytexas.gov)  
Phone: 281-633-7516

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**From:** Garza, Sandy  
**Sent:** Friday, June 22, 2018 11:04 AM  
**To:** Randy Watkins  
**Subject:** RE: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69 (in Sugar Land)

Thank you!

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**From:** Randy Watkins [<mailto:FCS.Randy@outlook.com>]

**Sent:** Friday, June 22, 2018 10:54 AM

**To:** Garza, Sandy; Larry Anderson

**Cc:** Permits

**Subject:** RE: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69 (in Sugar Land)

Sandy Garza,

I submitted the revised permit for the proposed fiber crossing at W. Grand Parkway S. and Southwest Freeway on the Fort Bend County permit site.

The application number is APP-23947 and the address is 17500 W. Grand Pkwy. S.

Larry and I spoke to Gary Gehbauer yesterday and reviewed his comments. After looking at the permit again, he said the proposed was at 90 degrees. We have added his other requested notes.

If you have any questions, please give me a call.

Thank you,

Randy Watkins  
FiberComm Services, LLC  
713-376-6012

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**From:** Garza, Sandy <[Sandy.Garza@fortbendcountytx.gov](mailto:Sandy.Garza@fortbendcountytx.gov)>

**Sent:** Wednesday, June 20, 2018 2:57 PM

**To:** Randy Watkins <[FCS.Randy@outlook.com](mailto:FCS.Randy@outlook.com)>; Larry Anderson <[EC\\_S@live.com](mailto:EC_S@live.com)>

**Cc:** Permits <[Permits@fortbendcountytx.gov](mailto:Permits@fortbendcountytx.gov)>

**Subject:** FW: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69 (in Sugar Land)

Randy or Larry,

Please see below for comments from the FBTRA. After all comments have been addressed, you can upload the final drawings into our online permit application. This will be routed back to Gary or Phil with the FBTRA for final comments/no objection before proceeding with processing the permit and sending to Commissioners Court for approval.

Additional information regarding the permit process and the "customer portal" can be found here:

<https://www.fortbendcountytx.gov/government/departments/county-services/engineering/permits/working-in-right-of-ways-drainage-ditches>).

Please also continue to work with City of Sugar Land to acquire any necessary permits through their

office.

Thank you,  
Sandy Garza  
Development Assistant  
Fort Bend County Engineering  
301 Jackson Street, 4<sup>th</sup> Floor  
Richmond, TX 77469  
281-633-7518 (direct line)  
[Cassandra.Garza@fortbendcountytexas.gov](mailto:Cassandra.Garza@fortbendcountytexas.gov)  
Website: [www.fortbendcountytexas.gov](http://www.fortbendcountytexas.gov)

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**From:** Gary Gehbauer [<mailto:GGehbauer@bgeinc.com>]  
**Sent:** Wednesday, June 20, 2018 12:08 PM  
**To:** Garza, Sandy  
**Cc:** Phil Martin ([philmartin@mikestoneassociates.com](mailto:philmartin@mikestoneassociates.com)); John Fletcher ([JohnFletcher@mikestoneassociates.com](mailto:JohnFletcher@mikestoneassociates.com))  
**Subject:** RE: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69 (in Sugar Land)

Sandy,  
I don't believe I have seen this before. Comments below.

- The crossing of the Grand Parkway must be at a 90 degree angle; not skewed as shown in the drawing.
- Depth note on page 6 of 7: Due to future bridge and/or retaining wall construction, the line must be at least 10 feet below the frontage road elevation.
- The line may have to be relocated if future construction conflicts with this location
- Need locations of bore pits and/or equipment crew locations within Grand Parkway right of way.
- Include FBTRA permit requirements (attached).

Thanks,  
Gary

Gary Gehbauer, PE  
BGE  
10777 Westheimer, Suite 400  
Houston, Texas 77042  
(281)558-8700 voice  
(281)558-9706 fax  
[ggehbauer@bgeinc.com](mailto:ggehbauer@bgeinc.com)

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**From:** Garza, Sandy [<mailto:Sandy.Garza@fortbendcountytexas.gov>]  
**Sent:** Wednesday, June 20, 2018 11:12 AM  
**To:** Gary Gehbauer <[GGehbauer@bgeinc.com](mailto:GGehbauer@bgeinc.com)>  
**Subject:** FW: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-

69 (in Sugar Land)

Gary,

Any comments on this attached plan set? I don't know if they have submitted for permit yet; I had trouble finding it in our system if they did.

Thank you,  
Sandy Garza  
Development Assistant  
Fort Bend County Engineering  
301 Jackson Street, 4<sup>th</sup> Floor  
Richmond, TX 77469  
281-633-7518 (direct line)  
[Casandra.Garza@fortbendcountytexas.gov](mailto:Casandra.Garza@fortbendcountytexas.gov)  
Website: [www.fortbendcountytexas.gov](http://www.fortbendcountytexas.gov)

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**From:** Randy Watkins [<mailto:FCS.Randy@outlook.com>]  
**Sent:** Wednesday, June 20, 2018 9:29 AM  
**To:** Garza, Sandy  
**Cc:** Larry Anderson  
**Subject:** RE: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69 (in Sugar Land)

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sandy Garza,

Per your request, I have attached a PDF file for the SH 99 (W. Grand Pkwy. S.) permit.

If you have any questions, please give me a call.

Thank you,

Randy Watkins  
FiberComm Services, LLC  
713-376-6012

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**From:** Larry Anderson <[FC\\_S@live.com](mailto:FC_S@live.com)>  
**Sent:** Tuesday, June 19, 2018 5:06 PM  
**To:** Randy Watkins <[FCS.Randy@outlook.com](mailto:FCS.Randy@outlook.com)>  
**Subject:** FW: Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69 (in Sugar Land)

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**From:** Garza, Sandy <[Sandy.Garza@fortbendcountytexas.gov](mailto:Sandy.Garza@fortbendcountytexas.gov)>

**Sent:** Tuesday, June 19, 2018 4:27 PM

**To:** [FC\\_S@live.com](mailto:FC_S@live.com)

**Subject:** Fibernet Direct - HDPE Innerduct and Fiber under W. Grand Pkwy S along north ROW I-69  
(in Sugar Land)

Mr. Anderson,

Fort Bend County has received two projects for ROW permits from your office. The one referenced above is wholly within the City of Sugar Land, but since it is along the Toll Road, it will still need a FBC ROW permit. I typically send these over to the FBTRA for review, but I'm having trouble scanning the document due to the multiple folds. Can you please send over a digital copy so I can forward over for review?

The project number at the top was HO 01006A-Span 336 – SH 99.

Thank you,  
Sandy Garza  
Development Assistant  
Fort Bend County Engineering  
301 Jackson Street, 4<sup>th</sup> Floor  
Richmond, TX 77469  
281-633-7518 (direct line)  
[Cassandra.Garza@fortbendcountytexas.gov](mailto:Cassandra.Garza@fortbendcountytexas.gov)  
Website: [www.fortbendcountytexas.gov](http://www.fortbendcountytexas.gov)

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# Fort Bend County

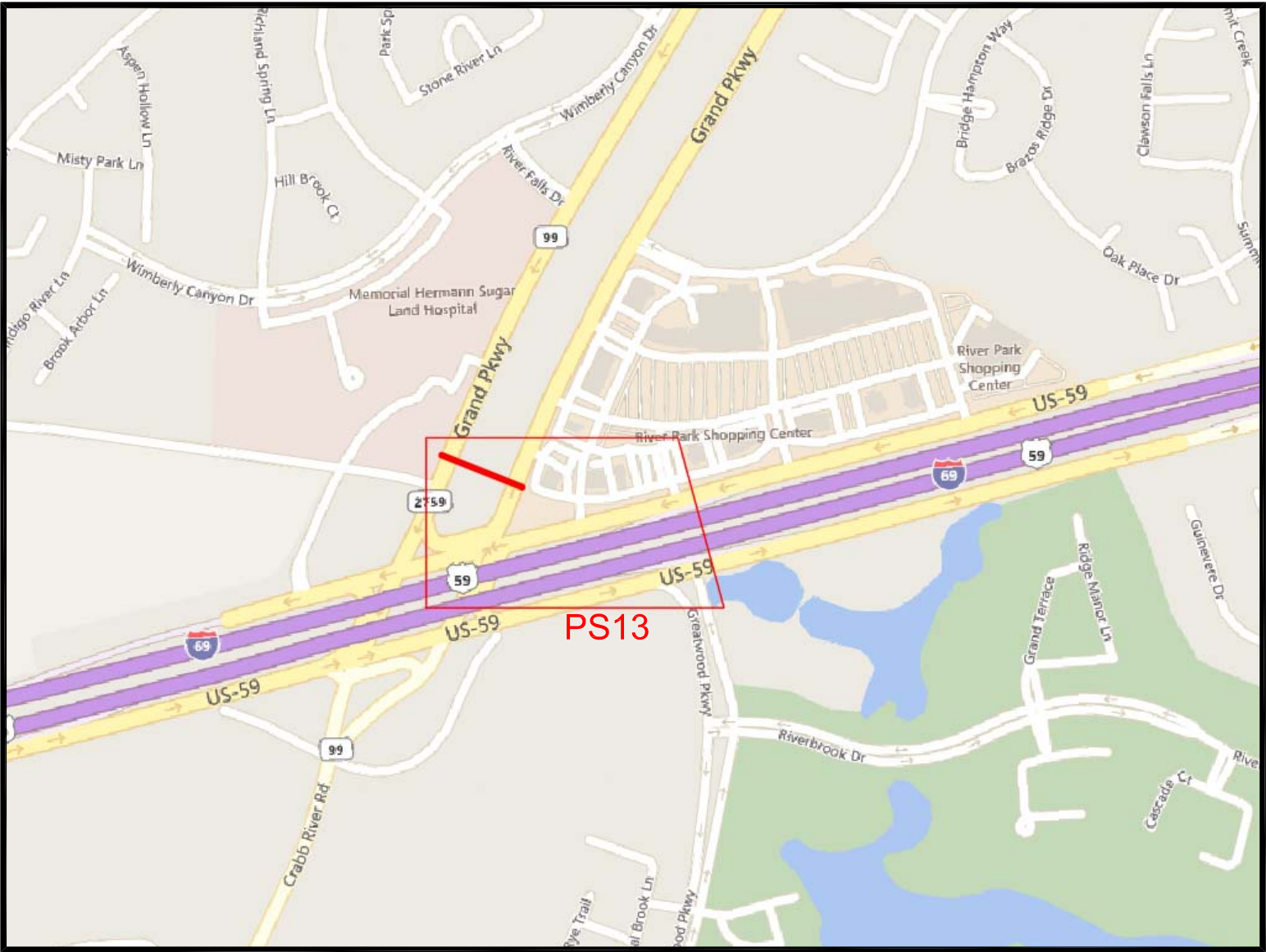
## Notice of Construction in Right-of-Way

HO 01006A-Span 336 - SH 99

**PROPOSED BORED HDPE INNERDUCT AND FIBER TO BE PLACED  
UNDER W. GRAND PARKWAY S. (SH 99) ALONG THE NORTH R.O.W.  
OF SOUTHWEST FREEWAY (I-69)**

MAP AREA LOCATION:

A - LOC: HO 01006A /  
167787-FLANAGAN  
A - ADDRESS: 14000 1/5 UNIVERSITY  
BLVD.  
Z LOC: HO 01006A /  
108867-GREATWOOD  
Z - ADDRESS: 1720 CRAB RIVER RD.



**SITE LOCATION**  
KEY MAP: 607 G

FBTRA NOTES:

READ SHEETS 1 THRU 4 OF  
THE FORT BEND TOLL ROAD  
AUTHORITY PERMIT  
REQUIREMENTS PRIOR TO THE  
START OF CONSTRUCTION.

THE FBTRA PERMIT  
REQUIREMENT SHEETS ARE TO  
BE ATTACHED TO THIS PERMIT  
AT ALL TIMES.

PERMITS REQUIRED /CONTACTS

FORT BEND COUNTY  
CARMEN ESCOBAR, CFM  
PERMIT ADMINISTER  
FORT BEND COUNTY ENGINEERING  
281-633-7503

DRAWING LIST

1. FT. BEND COUNTY PERMIT FORM
2. FBTRA PERMIT REQUIREMENT SHEET 1
3. FBTRA PERMIT REQUIREMENT SHEET 2
4. FBTRA PERMIT REQUIREMENT SHEET 3
5. FBTRA PERMIT REQUIREMENT SHEET 4
6. COVER SHEET
7. GENERAL NOTES
8. LEGEND
9. PROJECT SHEET 13
10. PROJECT SHEET 13A (AERIAL IMAGE)
11. PROFILE SHEET 1
12. TXDOT R.O.W. SHEET 1
13. TRAFFIC CONTROL SHEET 1
14. TRAFFIC CONTROL SHEET 2
15. TRAFFIC CONTROL SHEET 3
16. TRAFFIC CONTROL SHEET 4

DESIGN CONTRACTOR:

Design Co: FiberComm Services, LLC  
Designer: Larry Anderson  
Phone#: 713-726-1928

CONTRACTOR NOTE

PRIOR TO STARTING THE PROJECT THE CONTRACTOR WILL MEET WITH THE PROJECT MANAGER AT CROWN CASTLE FIBER OFFICE TO GO OVER THE PROJECT DETAILS FOR CONSTRUCTION. THE CONTRACTOR WILL MARK UP A SET OF DRAWINGS TO ENSURE BOTH THE PROJECT MANAGER AND THE CONTRACTOR HAS A CLEAR UNDERSTANDING AS TO WHAT IS EXPECTED OF THE CONTRACTOR TO COMPLETE. CONTRACTOR WILL IMMEDIATELY NOTIFY THE PROJECT MANAGER PRIOR TO ANY CHANGES, REQUESTS FROM OTHER AGENCIES AND ALL UNINTENTIONAL INCIDENTALS AND WILL ALSO FOLLOW-UP WITH AN EMAIL STATEMENT REGARDING THE REQUEST.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A FULL SET OF DRAWINGS, ALL REQUIRED PERMITS AND THE REQUIRED SAFETY ITEMS AT ALL PROJECT LOCATIONS.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT A COMPLETE SET OF AS-BUILT DRAWINGS (AS-BUILT - RED-LINE) OF ALL PERFORMED WORK PRIOR TO INVOICING. ALL AS-BUILT DRAWINGS MUST INCLUDE PICTURES OF ALL PHASES OF PERFORMED WORK. ALL LINE ITEMS THAT REQUIRE PRICING WILL HAVE PICTURES AS BACKUP. TO THE PERFORMED WORK AREA.

48 HOURS PRIOR TO CONSTRUCTION CONTACT CROWN CASTLE FIBER MANAGEMENT TEAM BY EMAIL NOTIFICATION.

TITLE: HO 01006A - SPAN 336 - FORT BEND COUNTY  
VzWSpan336\_1720 CRAB RVER RD\_B-5289-028\_ED\_18

LOC: FORT BEND COUNTY

CV#:

PM: Ronnie Shorthose 346-206-5092

DWG: Fort Bend County - HO 01006A-Span 336 - S

DRAWING	DATE	ENG DESIGN
ORIGINAL	06/22/18	FCS
Rev#1	N/A	N/A
AS-BUILT	N/A	N/A

PAGE: 6

OF: 16

PROPRIETARY INFORMATION OF CROWN CASTLE FIBER



# GENERAL NOTES

## GENERAL NOTES:

1. CONTRACTOR MUST OBTAIN LOCATES PRIOR TO DISTURBING THE GROUND.

2. THE CONTRACTOR SHALL CONTACT A MEMBER OF TEXAS ONE CALL SYSTEM A MIN. OF 48 HOURS BEFORE DIGGING. YOU ONLY NEED TO CONTACT ONE CENTER. THAT CENTER WILL RELAY THE INFORMATION TO THE OTHER TWO CENTERS.

•TEXAS ONE CALL 713-223-4567 OR 1-800-245-4545

•TESS (TEXAS EXCAVATION SAFETY SYSTEM) 811

•LONE STAR NOTIFICATION SYSTEM 800-669-8344 OR 713-223-4567

•REMINDER : ANY UNDERGROUND FACILITY OWNERS WHO ARE NOT MEMBERS OF TEXAS ONE CALL, TESS OR LONESTAR

3. NOTIFICATION CENTERS IN THE STATE OF TEXAS, MUST BE CONTACTED DIRECTLY BY THE ORIGINATOR OF THE LOCATION REQUEST.

4. CONTRACTOR MUST HAVE A COPY OF THE APPROVED PERMIT FROM THE APPROPRIATE AGENCY ON THE JOBSITE AT ALL TIMES.

5. THE CONTRACTOR SHALL VERIFY THE ROAD R.O.W. AND EASEMENTS PROIR TO COMMENCING WORK. NO FACILITIES SHOULD BE PLACED ON PRIVATE PROPERTY UNLESS OTHERWISE SPECIFIED.

6. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND FACILITIES.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER AND STORM DRAINAGE LINES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE MUNICIPALITY AGENCY (STATE, COUNTY, OR CITY), DEPARTMENT OF PUBLIC WORKS AND ENGINEERING’S STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION S   SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING REFERENCED ABOVE, AT NO ADDITIONAL COST.

8.MOST CITIES AND MUD’S ARE NOT PART OF A ONE CALL SYSTEM. IT IS THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO NOTIFY THESE AGENCIES PRIOR TO CONSTRUCTION.

9. ALL CABLE WILL BE PLACED AT STANDARD MINIMUM DEPTH. (CROWN CASTLE FIBER STANDARD IS 48" DEEP UNLESS OTHERWISE DIRECTED BY A CROWN CASTLE FIBER REPRESENTATIVE OR SPECIFIED ON THE DRAWING.)

10. NO MORE TRENCH OPENED AT ONE TIME THAN CAN BE BACKFILLED AND COMPACTED IN 10" LIFTS AT THE END OF EACH DAY. ( NO TRENCH LEFT OPENED OVERNIGHT )

11. ALL EXCESS EXCAVATION TO BE REMOVED FROM THE ROAD RIGHT-OF-WAY AT THE END OF EACH DAY.

12. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.

13. ROAD MUST BE KEPT OPEN TO TRAFFIC AND CONTRACTOR MUST PROVIDE ADEQUATE FLAGMEN, SIGNALS, ETC., TO PROVIDE COMPLETE SAFETY TO THE PUBLIC. IF IT BECOMES NECESSARY FOR EQUIPMENT TO OPERATE ON A PORTION OF THE PAVEMENT, PRECAUTIONS MUST BE TAKEN TO PREVENT ANY DAMAGE WHATSOEVER TO THE PAVEMENT.

14. CONDITION OF ROAD UPON COMPLETION OF JOB SHALL BE AS GOOD OR BETTER THAN PRIOR TO STARTING

15. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.

16. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS, AND TREES ALONG THE AREA OF EXCAVATION.

17. NO CONSTRUCTION ON PRIVATE PROPERTY WILL COMMENCE UNTIL RIGHT OF ENTRY OR EASEMENT IS GRANTED.

18. CONTRACTOR SHALL NOT EXCEED THE PURCHASE ORDER VALUE WITHOUT AUTHORIZATION IN WRITING FROM THE APPROPRIATE CROWN CASTLE FIBER REPRESENTATIVE ANY LANDSCAPING WILL BE REPLACED TO EQUAL OR BETTER THAN THAT WHICH EXISTED PRIOR TO WORK.

19. PROJECT SITE WILL BE PROPERLY SECURED PRIOR TO THE END OF EACH DAY.

20. ALL WORK IS TO BE IN ACCORDANCE WITH THE STANDARDS OF ALL AUTHORITIES HAVING JURISDICTION IN THE WORK ZONE.

21. CONTRACTORS ARE ADVISED TO CONTACT CROWN CASTLE FIBER FOR ANY ADDITIONAL INFORMATION OR CLARIFICATION CONCERNING SCOPE OF WORK OR THE REQUIREMENTS NECESSARY FOR PROJECT COMPLETION.

22. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, QUANTITIES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF A SIGNIFICANT CHANGE TO THE RUNNING LINE IS NEEDED, PLEASE CONTACT YOUR CROWN CASTLE FIBER REPRESENTATIVE BEFORE PROCEEDING.

23. BEFORE CONSTRUCTION BEGINS, CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO AVOID ANY POTENTIAL OBSTRUCTIONS PRIOR TO PROCEEDING WITH WORK.

24. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS, AND TREES ALONG THE AREA OF EXCAVATION.

25. CONTRACTOR WILL COMPLETE ALL WORK PER "CROWN CASTLE FIBER" CONSTRUCTION SPECIFICATIONS.

26. CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINE MARKED UP DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT WHO WILL MAKE THE CHANGES ON THE AS-BUILT RECORD DRAWINGS.

27. RIGHT-OF-WAY WILL BE RESTORED TO EQUAL OR BETTER CONDITION WHEN CONSTRUCTION IS COMPLETE.
- | ABBR.  | DESCRIPTION               |
|--------|---------------------------|
| B.O.   | BUILDING OWNED            |
| B.O.C. | BUILDING OWNED CONDUIT    |
| EOC    | EDGE OF CURB              |
| EMT    | ELECTIC METALLIC TUBING   |
| EOP    | EDGE OF PAVEMENT          |
| FDP    | FIBER DISTRIBUTION PANEL  |
| FF     | FINISHED FLOOR            |
| FMC    | FLEXIBLE METALLIC CONDUIT |
| GRC    | GALVANIZED RIGID CONDUIT  |
| HDPE   | HIGH DENSITY POLYETHYLENE |
| HH     | HANDHOLE                  |
| JB     | JUNCTION BOX              |
| MH     | MANHOLE                   |
| PB     | PULLBOX                   |
| PL     | PROPERTY LINE             |
| PVC    | POLYVINYL CHLORIDE        |
| ROW    | RIGHT OF WAY              |
| SP     | SPLICE PANEL              |
| STA.   | STATION                   |
| S/W    | SIDEWALK                  |
- ## FBTRA NOTES:
- READ SHEETS 1 THRU 4 OF THE FORT BEND TOLL ROAD AUTHORITY PERMIT REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION.
- THE FBTRA PERMIT REQUIREMENT SHEETS ARE TO BE ATTACHED TO THIS PERMIT AT ALL TIMES.
- ## APWA STANDARD
- COLOR CODE FOR TEMPORARY MARKING OF UNDERGROUND FACILITIES:
- RED = ELECTRIC POWERLINES, CABLES, CONDUIT, AND LIGHTING CABLES  
YELLOW = GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIAL  
ORANGE = COMMUNICATION, ALARM, OR SIGNAL LINES, CABLES, OR CONDUIT  
BLUE = POTABLE WATER  
GREEN = SEWER AND DRAIN LINES  
PURPLE = RECLAIMED WATER, IRRIGATION, AND SLURRY  
PINK = TEMPORARY SURVEY MARKINGS  
WHITE = PROPOSED EXCAVATION
- The image shows the 811 logo, which consists of the number '811' in a large, bold, yellow font with a black outline. Below the number is a stylized graphic of a shovel digging into the ground. Underneath the graphic, the text 'Know what's below. Call before you dig.' is written in a black, sans-serif font.
- |   |          |            |         |
|---|----------|------------|---------|
| TITLE: HO 01006A – SPAN 336 – FORT BEND COUNTY<br>VzWSpan336_1720 CRAB RVER RD_B-5289-028_ED_18   |          |            |         |
| LOC: FORT BEND COUNTY   |          |            |         |
| CV#:  |          |            |         |
| PM: Ronnie Shorthose 346-206-5092   |          |            |         |
| DWG: Fort Bend County – HO 01006A-Span 336 – S  |          |            |         |
| DRAWING   | DATE     | ENG DESIGN |         |
| ORIGINAL  | 06/22/18 | FCS        |         |
| Rev#1   | N/A      | N/A        |         |
| AS-BUILT  | N/A      | N/A        |         |
| The logo for Crown Castle Fiber, featuring a stylized 'CC' in grey and the words 'CROWN CASTLE' in purple, followed by 'FIBER' in blue. |          |            | PAGE: 7 |
|   |          |            | OF: 16  |
| PROPRIETARY INFORMATION OF CROWN CASTLE FIBER   |          |            |         |

# LEGEND



BOND



JOINT USE POLE



JOINT USE POLE  
W/ TRANSFORMER



POWER POLE



POWER POLE W/  
TRANSFORMER



STEEL POLE



CONCRETE POLE



TELCO POLE



PROPOSED  
TELCO POLE



FTG

EXISTING RISER



FTG

PROPOSED RISER



EXISTING DOWN  
GUY & ANCHOR



L/H  
1/2" SCREW

PROPOSED DOWN  
GUY & ANCHOR



EXISTING DOWN  
GUY



L/H  
1/2"

PROPOSED  
DOWN GUY



EXISTING S/W  
GUY & ANCHOR



L/H  
1/2" SCREW

PROPOSED S/W  
GUY & ANCHOR



EXISTING S/W  
GUY



L/H  
1/2"

PROPOSED S/W  
GUY



FTG  
>>>

EXISTING EXTENDED  
MESSENGER



FTG  
>>>

PROPOSED EXTENDED  
MESSENGER



FTG

OVERHEAD GUY  
EXISTING



FTG

OVERHEAD GUY  
PROPOSED

POLE NO.	1
ATTACHMENT	00'-00"

POLE ATTACHMENT  
EXISTING

POLE NO.	1
ATTACHMENT	00'-00"

POLE ATTACHMENT  
PROPOSED

P-P= FTG

STRAND FTG. EXISTING

P-P= FTG

STRAND FTG. PROPOSED

MH	0+00 OWNER MANHOLE SIZE
----	----------------------------------

MANHOLE  
EXISTING

MH	0+00 OWNER MANHOLE SIZE
----	----------------------------------

MANHOLE  
PROPOSED

HH	0+00 OWNER HANDHOLE SIZE
----	-----------------------------------

HANDHOLE  
EXISTING

HH	0+00 OWNER HANDHOLE SIZE
----	-----------------------------------

HANDHOLE  
PROPOSED

PB	0+00 OWNER SIZE
----	-----------------------

PULLBOX  
EXISTING

PB	0+00 OWNER SIZE
----	-----------------------

PULLBOX  
PROPOSED

H-H= FTG  
3-1.25"

CONDUIT / INNER-DUCT  
FTG. EXISTING

H-H= FTG  
3-1.25"

CONDUIT / INNER-DUCT  
FTG. PROPOSED



0+00  
OWNER  
OS-5'  
COTT

MARKER - EXISTING



0+00  
CC FIBER  
OS-5'  
COTT

MARKER - PROPOSED

FDP	LOCATION SIZE
-----	------------------

FDP - EXISTING

FDP	LOCATION SIZE
-----	------------------

FDP - PROPOSED

H-H= FTG  
3-1.25"

ISP DUCT FTG. EXISTING

H-H= FTG  
3-1.25"

ISP DUCT FTG. PROPOSED

CABLE ID
SIZE

CABLE SIZE  
EXISTING



SLACK LOOP AERIAL  
EXISTING



SLACK LOOP UG  
EXISTING



SLACK UG  
PROPOSED



SPLICE CASE #  
FOSC-600D

SPLICE CASE  
EXISTING

00	IN: OUT:
----	-------------

FIBER SIZE  
IN-OUT SEQUENTIAL

00	IN: TAIL:
----	--------------

FIBER SIZE  
IN-TAIL SEQUENTIAL

00	TAIL: OUT:
----	---------------

FIBER SIZE  
TAIL-OUT SEQUENTIAL

LAT:
LONG:

LATITUDE &  
LONGITUDE

①	CONDUIT OWNER: CC FIBER CONDUIT LENGTH: LENGTH CONDUIT QUANTITY:QUANTITY CONDUIT SIZE: SIZE CONDUIT TYPE: TYPE NOTE:
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①	CONDUIT OWNER: CC FIBER CONDUIT LENGTH: LENGTH CONDUIT QUANTITY:QUANTITY CONDUIT SIZE: SIZE CONDUIT TYPE: TYPE NOTE:
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①	CONDUIT OWNER: CC FIBER CONDUIT LENGTH: LENGTH CONDUIT QUANTITY:QUANTITY CONDUIT SIZE: SIZE CONDUIT TYPE: TYPE INNER-DUCT QUANTITY: QUANTITY INNER-DUCT SIZE: SIZE INNER-DUCT TYPE: TYPE NOTE:
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①	CONDUIT OWNER: CC FIBER CONDUIT LENGTH: LENGTH CONDUIT QUANTITY:QUANTITY CONDUIT SIZE: SIZE CONDUIT TYPE: TYPE INNER-DUCT QUANTITY: QUANTITY INNER-DUCT SIZE: SIZE INNER-DUCT TYPE: TYPE NOTE:
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①	INNER-DUCT OWNER: CC FIBER INNERDUCT LENGTH: LENGTH INNER-DUCT QUANTITY: QUANTITY INNER-DUCT SIZE: SIZE INNER-DUCT TYPE: TYPE NOTE:
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①	INNER-DUCT OWNER: CC FIBER INNERDUCT LENGTH: LENGTH INNER-DUCT QUANTITY: QUANTITY INNER-DUCT SIZE: SIZE INNER-DUCT TYPE: TYPE NOTE:
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①	STRAND SIZE: SIZE STRAND LENGTH: LENGTH NOTE:
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①	STRAND SIZE: SIZE STRAND LENGTH: LENGTH NOTE:
---	---

①	CABLE FIBERS: FIBERS CABLE OWNER: CC FIBER CABLE LENGTH: FTG NOTES:
---	--

①	CABLE FIBERS: FIBERS CABLE OWNER: CC FIBER CABLE LENGTH: FTG NOTES:
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FIBER HUB  
EXISTING



FIBER HUB  
PROPOSED



FIBER NODE  
EXISTING



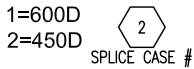
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PROPOSED



FIBER CONTINUATION  
EXISTING



FIBER CONTINUATION  
PROPOSED



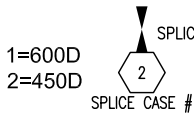
1=600D  
2=450D  
SPLICE CASE #

FIBER SPLICE  
EXISTING



1=600D  
2=450D  
SPLICE CASE #

FIBER SPLICE  
PROPOSED



1=600D  
2=450D  
SPLICE CASE #

FIBER  
TRANSITION  
SPLICE  
EXISTING



1=600D  
2=450D  
SPLICE CASE #

FIBER  
TRANSITION  
SPLICE  
PROPOSED



1=600D  
2=450D  
SPLICE CASE #

FIBER  
TRANSITION  
SPLICE EXISTING  
TO PROPOSED

OTDR SPLICE CASE ###
OTDR-MI 1
OTDR-KM 1.609

OTDR READING  
EXISTING

OTDR SPLICE CASE ###
OTDR-MI 1
OTDR-KM 1.609

OTDR READING  
PROPOSED

ADDC - 432 - LT - 12 - PR - 18 - OFNG

FIBER DESC.  
EXISTING

ADDC - 432 - LT - 12 - PR - 18 - OFNG

FIBER DESC.  
PROPOSED

SPLICE CASE #				00001			
ID	CT	D	TUBES	ID	CT	D	TUBES
XXXXX	XXX	XX	XXX-XXX	TO	XXXXX	XXX	XX XXX-XXX
XXXXX	XXX	XX	XXX-XXX	TO	XXXXX	XXX	XX XXX-XXX

FIBER SPLICE  
DESC.

## LINETYPES

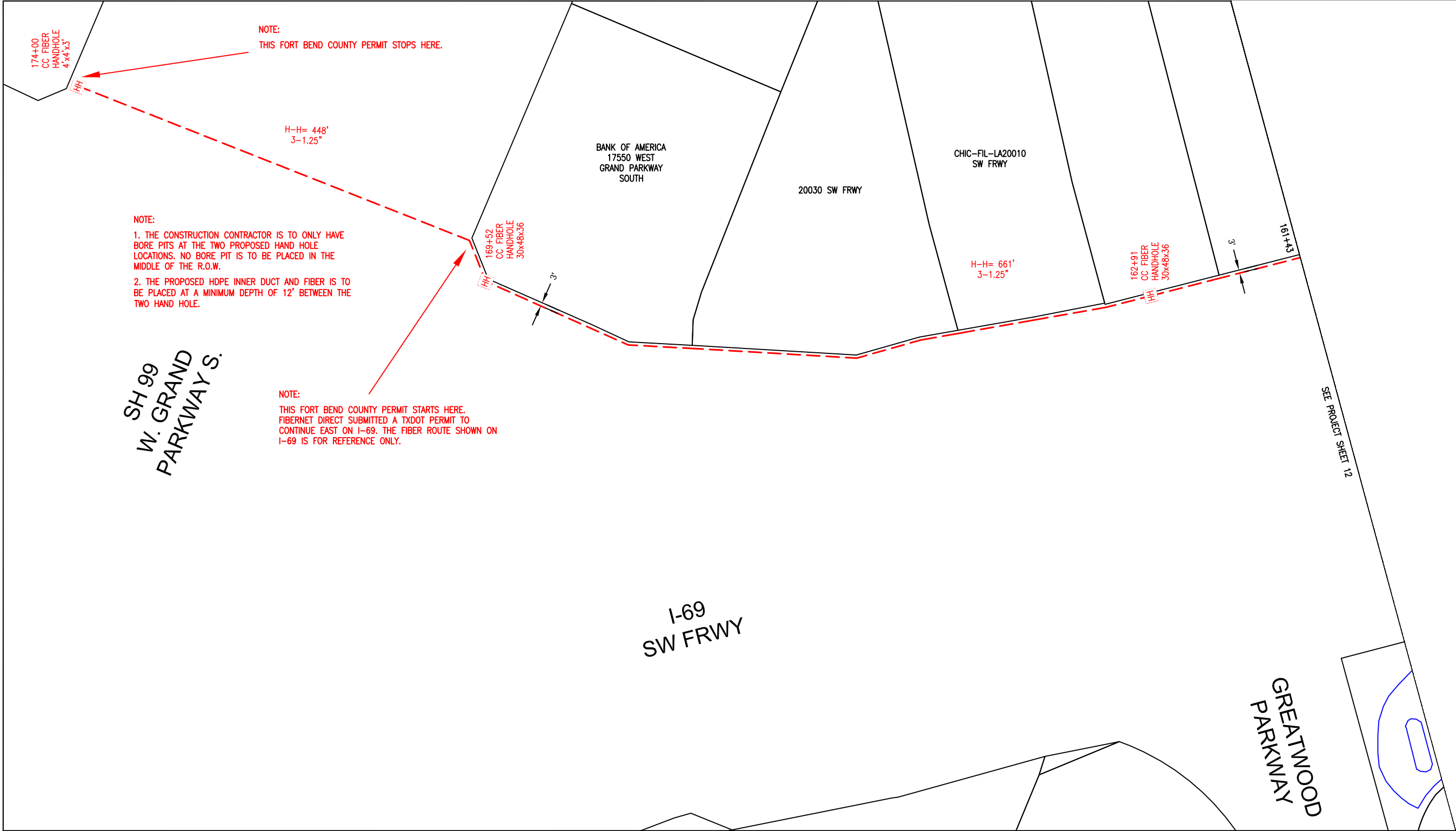
EOC	EOC	CIVIL - EDGE OF CURB
EOP	EOP	CIVIL - EDGE OF PAVEMENT
PL	PL	CIVIL - PROPERTY LINE
		CIVIL - RAILROAD TRACKS
R/W	R/W	CIVIL - RIGHT OF WAY
AM	AM	FIBER - AERIAL METRO - EXISTING
AM	AM	FIBER - AERIAL METRO - PROPOSED
AD	AD	FIBER - AERIAL DIST. - EXISTING
AD	AD	FIBER - AERIAL DIST. - PROPOSED
AW	AW	FIBER - AERIAL WHIP - EXISTING
AW	AW	FIBER - AERIAL WHIP - PROPOSED
BM	BM	FIBER - BURIED METRO - EXISTING
BM	BM	FIBER - BURIED METRO - PROPOSED
BD	BD	FIBER - BURIED DIST. - EXISTING
BD	BD	FIBER - BURIED DIST. - PROPOSED
BW	BW	FIBER - BURIED WHIP - EXISTING
BW	BW	FIBER - BURIED WHIP - PROPOSED
		FIBER - SCHEMATIC - EXISTING
		FIBER - SCHEMATIC - PROPOSED
		FIBER - ISP - EXISTING
		FIBER - ISP - PROPOSED
ABAN	ABAN	FIBER ABANDON
FX	FX	FIBER REMOVE
		STRAND EXISTING
		STRAND PROPOSED
*	*	STRAND-DEMO
		DUCT ISP EXISTING
		DUCT ISP PROPOSED
- - -	- - -	DUCT EXISTING
- - -	- - -	DUCT PROPOSED
G	G	UTILITIES - GAS
SS	SS	UTILITIES - SANITARY SEWER
SL	SL	UTILITIES - STORM
W	W	UTILITIES - WATER



Know what's below.  
Call before you dig.

TITLE: HO 01006A - SPAN 336 - FORT BEND COUNTY VzWSpan336_1720 CRAB RVER RD_B-5289-028_ED_18		
LOC: FORT BEND COUNTY		
CV#:		
PM: Ronnie Shorthose 346-206-5092		
DWG: Fort Bend County - HO 01006A-Span 336 - S		
DRAWING	DATE	ENG DESIGN
ORIGINAL	06/22/18	FCS
Rev#1	N/A	N/A
AS-BUILT	N/A	N/A
CROWN CASTLE FIBER		PAGE: 8
PROPRIETARY INFORMATION OF CROWN CASTLE FIBER		OF: 16





CONSTRUCTION NOTES

FBTRA NOTES:

READ SHEETS 1 THRU 4 OF THE FORT BEND TOLL ROAD AUTHORITY PERMIT REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION.

THE FBTRA PERMIT REQUIREMENT SHEETS ARE TO BE ATTACHED TO THIS PERMIT AT ALL TIMES.

PROJECT CONSTRUCTION NOTES:

1. ALL PROPOSED U/G CONSTRUCTION SHOWN IN RED ON THIS PLAT WILL INDICATE BORING THREE 1 ¼" HDPE INNERDUCTS AND ONE FIBER CABLE.

2. FIBER OPTIC SHOULD BE MINIMUM OF 12' BELOW THE PAVEMENT OF WEST GRAND PARKWAY SOUTH.

3. ALL PROPOSED HAND HOLES ARE 30"x48"x36" WITH 100' OF FIBER SLACK LOOP, UNLESS OTHERWISE INDICATED.

TXDOT IS NOT A MEMBER OF 811. AT LEAST 72 HOURS BEFORE STARTING WORK, MAKE ARRANGEMENTS FOR LOCATING EXISTING TXDOT-OWNED ABOVE GROUND AND UNDERGROUND FIBER OPTIC, COMMUNICATIONS, POWER, ILLUMINATION, AND TRAFFIC SIGNAL CABLING AND CONDUIT. DO THIS BY CALLING TXDOT'S HOUSTON DISTRICT TRAFFIC SIGNAL OPERATIONS OFFICE AT 713-802-5662 TO SCHEDULE MARKING OF UNDERGROUND LINES ON THE GROUND. USE CAUTION IF WORKING IN THESE AREAS TO AVOID DAMAGING OR INTERFERING WITH EXISTING FACILITIES.

PROJECT SHEET 13

TITLE: HO 01006A - SPAN 336 - FORT BEND COUNTY  
VzWSpan336\_1720 CRAB RVER RD\_B-5289-028\_ED\_18

LOC: FORT BEND COUNTY

CV#:

PM: Ronnie Shorthose 346-206-5092

DWG: Fort Bend County - HO 01006A-Span 336 - S

DRAWING	DATE	ENG DESIGN
ORIGINAL	06/22/18	FCS
Rev#1	N/A	N/A
AS-BUILT	N/A	N/A

CC CROWN CASTLE

FIBER

PAGE: 9  
OF: 16

PROPRIETARY INFORMATION OF CROWN CASTLE FIBER

SCALE: 1"=100'





CONSTRUCTION NOTES

FBTRA NOTES:

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- PROJECT CONSTRUCTION NOTES:
- 1. ALL PROPOSED U/G CONSTRUCTION SHOWN IN RED ON THIS PLAT WILL INDICATE BORING THREE 1 ¼" HDPE INNERDUCTS AND ONE FIBER CABLE.
  - 2. FIBER OPTIC SHOULD BE MINIMUM OF 12' BELOW THE PAVEMENT OF WEST GRAND PARKWAY SOUTH.
  - 3. ALL PROPOSED HAND HOLES ARE 30"x48"x36" WITH 100' OF FIBER SLACK LOOP, UNLESS OTHERWISE INDICATED.

TXDOT IS NOT A MEMBER OF 811. AT LEAST 72 HOURS BEFORE STARTING WORK, MAKE ARRANGEMENTS FOR LOCATING EXISTING TXDOT-OWNED ABOVE GROUND AND UNDERGROUND FIBER OPTIC, COMMUNICATIONS, POWER, ILLUMINATION, AND TRAFFIC SIGNAL CABLING AND CONDUIT. DO THIS BY CALLING TXDOT'S HOUSTON DISTRICT TRAFFIC SIGNAL OPERATIONS OFFICE AT 713-802-5662 TO SCHEDULE MARKING OF UNDERGROUND LINES ON THE GROUND. USE CAUTION IF WORKING IN THESE AREAS TO AVOID DAMAGING OR INTERFERING WITH EXISTING FACILITIES.


NOTE:  
EXISTING PARCELS & RIGHT OF WAY ARE BASED ON F.B.C.A.D. GIS MAP. AERIAL IMAGES ARE FROM BING MAPS. THE AERIAL IMAGE WITH THE DESIGN IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY THE ROAD RIGHT OF WAY AND EASEMENTS PRIOR TO COMMENCING WORK.

# PROJECT SHEET 13A - AERIAL IMAGE FOR REFERENCE ONLY





SCALE: 1"=100'

TITLE: HO 01006A - SPAN 336 - FORT BEND COUNTY			
VzWSpan336_1720 CRAB RVER RD_B-5289-028_ED_18			
LOC: FORT BEND COUNTY			
CV#:			
PM: Ronnie Shorthose 346-206-5092			
DWG: Fort Bend County - HO 01006A-Span 336 - S			
DRAWING	DATE	ENG DESIGN	
ORIGINAL	06/22/18	FCS	
Rev#1	N/A	N/A	
AS-BUILT	N/A	N/A	
			PAGE: 10
			OF: 16
PROPRIETARY INFORMATION OF CROWN CASTLE FIBER			





- LEGEND:
- SET 5/8" IRON ROD WITH TXDOT ALUMINUM CAP
  - COA SET 5/8" IRON ROD WITH TXDOT ALUMINUM CAP MARKED C.O.A.
  - FOUND CONC MONUMENT
  - BACK PROPERTY CORNER
  - - - EXISTING RIGHT-OF-WAY
  - - - PROPOSED RIGHT-OF-WAY
  - III ACCESS DENIAL LINE COINCIDENT WITH EXISTING RIGHT-OF-WAY
  - III ACCESS DENIAL LINE COINCIDENT WITH PROPOSED RIGHT-OF-WAY
  - - - CITY LIMITS LINE

LEGEND:

D.R.F.B.C. DEED RECORDS OF FORT BEND COUNTY  
P.R.F.B.C. PLAT RECORDS OF FORT BEND COUNTY  
O.R.F.B.C. OFFICIAL RECORDS OF FORT BEND COUNTY  
C.C.F.NO. COUNTY CLERK FILE NUMBER  
O.P.R.F.B.C. OFFICIAL PUBLIC RECORDS OF FORT BEND COUNTY  
(F) DATE FILED  
(E) DATE EXECUTED

NOTES:

EXISTING AND REMAINING AREAS SHOWN ARE APPROXIMATE.

ALL BEARINGS AND COORDINATES SHOWN ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983 (NAD 83), 1993 ADJUSTMENT. ALL DISTANCES AND COORDINATES SHOWN ARE SURFACE AND MAY BE CONVERTED TO GRID BY DIVIDING BY A COMBINED ADJUSTMENT FACTOR OF 1.00013.

BEARINGS AND DISTANCES SHOWN ENCLOSED IN PARENTHESES ARE CALLED BEARINGS AND DISTANCES IN THE DESCRIPTION OF THE PARENT TRACT.

\*\*THE MONUMENT DESCRIBED AND SET MAY BE REPLACED WITH A TXDOT TYPE II RIGHT-OF-WAY MARKER UPON COMPLETION OF THE HIGHWAY CONSTRUCTION PROJECT UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL LAND SURVEYOR, EITHER EMPLOYED OR RETAINED BY TXDOT.

PROJECT CONSTRUCTION NOTES:

1. ALL PROPOSED U/G CONSTRUCTION SHOWN IN RED ON THIS PLAT WILL INDICATE BORING THREE 1 1/4" HDPE INNERDUCTS AND ONE FIBER CABLE.
2. FIBER OPTIC SHOULD BE MINIMUM 12" UNDER W. GRAND PKWY. S. PAVEMENT.
3. ALL PROPOSED HAND HOLES ARE 24"x36"x30" WITH 100' OF FIBER SLACK LOOP, UNLESS OTHERWISE INDICATED.

NOTE:  
THIS FORT BEND COUNTY PERMIT STOPS HERE.

174+00  
CC FIBER  
HANDHOLE  
4'x4'x3'

NOTE:

1. THE CONSTRUCTION CONTRACTOR IS TO ONLY HAVE BORE PITS AT THE TWO PROPOSED HAND HOLE LOCATIONS. NO BORE PIT IS TO BE PLACED IN THE MIDDLE OF THE R.O.W.
2. THE PROPOSED HDPE INNER DUCT AND FIBER IS TO BE PLACED AT A MINIMUM DEPTH OF 12' BETWEEN THE TWO HAND HOLES.

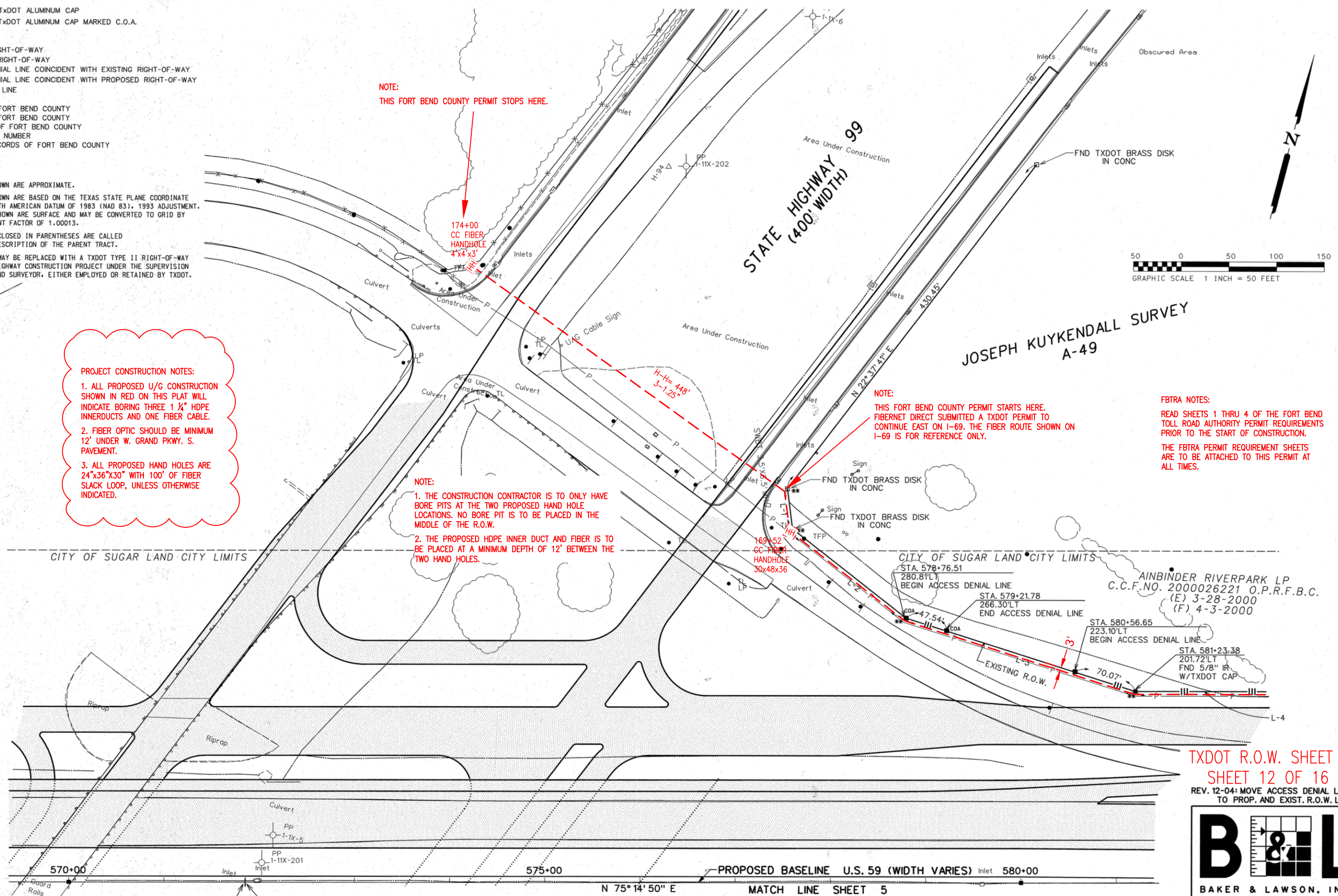
NOTE:

THIS FORT BEND COUNTY PERMIT STARTS HERE. FIBERNET DIRECT SUBMITTED A TXDOT PERMIT TO CONTINUE EAST ON I-69. THE FIBER ROUTE SHOWN ON I-69 IS FOR REFERENCE ONLY.

FBTRA NOTES:

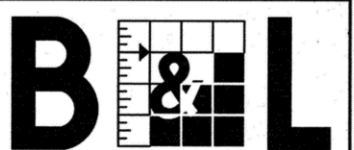
READ SHEETS 1 THRU 4 OF THE FORT BEND TOLL ROAD AUTHORITY PERMIT REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION.

THE FBTRA PERMIT REQUIREMENT SHEETS ARE TO BE ATTACHED TO THIS PERMIT AT ALL TIMES.



TXDOT R.O.W. SHEET 1  
SHEET 12 OF 16

REV. 12-04: MOVE ACCESS DENIAL LINE  
TO PROP. AND EXIST. R.O.W. LINE



BAKER & LAWSON, INC.  
ENGINEERS • PLANNERS • SURVEYORS  
300 E. CEDAR ANGLETON, TEXAS 77515  
PHONE: (409)849-6681 (713)222-7451

DRAWN	GLB	FED. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED	6	TEXAS			US 59
TRACED	STATE	COUNTY	CONTROL	SECTION	JOB
CHECKED	12	FORT BEND	0027	12	115
					4

DWG FILE: 9347rw1n.dgn

ACCOUNT NO. 8012-2-41



**PERMIT REQUIREMENTS  
(May 2018)**

**FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY  
AND  
FORT BEND COUNTY TOLL ROAD AUTHORITY  
(collectively known as FBTRA)**

- A preconstruction meeting with Authority's staff will be required before commencing work. Contact Phil Martin with FBTRA at (713) 574-5261 office; (832) 907-5726 cell), or [philmartin@fbctra.com](mailto:philmartin@fbctra.com) to schedule the meeting.
- All work within the right-of-way shall be performed in accordance with TxDOT standards and specifications as to the installation and materials used. All materials and mix designs to be placed in TxDOT right-of-way must be obtained from TxDOT approved sources and be of approved TxDOT or FBTRA mix designs.
- At least five (5) working days prior to any excavation, permittee shall request the location of all underground utilities within the work area by calling 811, and contacting local municipalities, utility districts, school districts, or any other utility owners. Do not perform underground work on the project until FBTRA owned facilities have been located and marked. Use caution when working in these areas to avoid damaging or interfering with existing facilities. Permittee shall be responsible for relocating and/or adjusting any utilities within the work area.
- Any work within the toll road right of way requires a traffic control plan (TCP); even if lanes are not affected. Utility borings that don't require equipment or personnel within the right of way do not require TCP.
- This permit is subject to a *separate* traffic control plan being approved by the Authority's Engineer. All work must follow the TxDOT Traffic Control Plan Standards, Latest Revision, or if approved, Typical Applications shown in the *Texas Manual on Uniform Traffic Control Devices*, Latest Revision, Chapter 6-H. The advanced warning signage shown on standards *BC (1)-14* thru *BC (12)-14* will be required. It is mutually agreed and understood that the implementation and maintenance of the traffic control plan shall be the responsibility of the Permittee. Contractor is required to supply all sub-contractors with a copy of this permit and approved traffic control plan. The person in charge for permittee/contractor on the job site shall have a copy of the permit and approved Traffic Control Plan (TCP) at all times.
- No lane closures permitted during peak hours without authorization from the Authority. Peak hours are weekdays from 5am to 9am, and 3pm to 7pm. No lane closures on holidays or holiday weekends.
- Designate in writing, a Contractor's Responsible Person (CRP) and an alternate to be the representative of the Contractor who is responsible for taking or directing corrective measures regarding the traffic control. The CRP or alternate must be accessible by phone 24 hr. per day and able to respond when notified. The CRP and alternate must comply with the requirements of TxDOT Specification, Section 7.2.6.5., "Training."
- Flaggers must be courteous and able to effectively communicate with the public. When directing traffic, flaggers must dress appropriately, wear high-visibility safety apparel, use flags, signs, stop-slow paddles, and other hand-signaling devices, and follow the flagging procedures in the TMUTCD. Comply with the requirements of TxDOT Specification Section 7.2.6.5., "Training."



- Workers involved with traffic control, including the maintenance of the traffic control, must comply with the requirements of TxDOT Specification, Section 7.2.6.5., "Training."
- Provide a copy of the certification of completion to the Engineer, except in the case of Contractor-developed Training. Ensure the certification of completion includes the following:
  - name of provider and course title,
  - name of participant,
  - date of completion, and
  - date of expiration.

For Contractor developed-Training, maintain a log of attendees. Make the log available upon request. Ensure the log is legible and includes the following:

  - print name and signature of participant,
  - name and title of trainer, and
  - date of training.
- The Permittee shall coordinate the sequence of construction and traffic control plan with any adjacent construction or maintenance projects. No overnight lane closures will be permitted, unless otherwise approved by the Authority's Engineer.
- Work performed within the waterways, such as rivers, creeks, bayous, and drainage ditches, is subject to the concurrence of appropriate regulatory agencies.
- The Permittee certifies that its drainage system meets all storm water quality criteria of the County and/or City where the permit is located.
- All excavations within the right-of-way shall be backfilled according to the *TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (SPECS)*, Item 400, as currently amended. All surplus material shall be removed from the right-of-way, and the excavation finished flush with surrounding natural ground.
- In no event will an edge drop-off be permitted during the hours of darkness. If the Contractor is unable to complete a section before the end of the work day, base material capable of vehicle support shall be pulled back to the existing edge on a 4:1 or flatter slope, to provide for driver and pedestrian safety.
- The Contractor shall not create a dirt nuisance or safety hazard in any roadway. The pavement shall be cleaned daily.
- All exposed dirt surfaces shall be fully block sodded, unless otherwise approved by the Authority's Engineer. A slope of 4:1, or flatter, shall be required on the ditch front slope. Sod/grass shall be watered until roots have established into soil.
- No valves, meter boxes, cleanouts, ground boxes, handholes, manhole covers, etc. will be allowed in the pavement. These appurtenances shall be relocated elsewhere within the right-of-way, unless otherwise approved by the Authority's Engineer.
- The Texas Universal Triangular Slip Base Sign Supports shall be required for all signage within the right-of-way. Proposed signs, or those which require relocation, shall be done in accordance with the following TxDOT standards: *SMD (GEN)-08*, *SMD (SLIP-1)-08*, *SMD (SLIP-2)-08*, and *SMD (SLIP-3)-08*.
- All work zone pavement markings shall meet the requirements of TxDOT Specification, Item 662. All permanent pavement markings shall meet the requirements of TxDOT Specification, Item 666, and be placed in accordance with the following standards: *PM (1)-12*, *PM (2)-12*, *PM (3)-12*, and

*PM (4)-12.* All raised pavement markers shall meet the requirements of TxDOT Specification, Item 672.

- Existing pavement markings shall be removed according to the requirements of TxDOT Specification, Item 677, or to the satisfaction of the Authority's Engineer. All pavement surfaces shall be cleaned and prepared in accordance with TxDOT Specification, Item 678.
- The Contractor shall employ at his/her expense, an approved commercial testing laboratory to perform testing on materials (such as concrete, base, lime, and asphalt). Sample and test concrete in accordance with TxDOT Specifications. Certified reports of all test results shall be submitted to the Authority's Engineer. Make at least one set of test specimens for each element cast each day. Cure these specimens under the same conditions as the portion of the structure involved for all stages of construction. Ensure safe handling, curing, and storage of all test specimens.
- Should the existing roadway pavement or other feature be damaged, the permittee shall make repairs as specified by the Authority's Engineer.
- Inlet depressions in concrete pavement must be removed to prevent ponding in the pavement.
- All storm sewer and culvert pipes used shall be Reinforced Concrete Pipe (RCP).
- Culvert crossings within the 30-foot clear zone (parallel culverts) shall be required to have minimum 6:1 sloping ends known as Safety End Treatments (SETs). The culvert shall have sufficient length to allow the 6:1 slope to be achieved from the top edge of pavement to the flowline at the bottom end of the SET. Culverts that exceed 50' in length shall have a junction box for clean out as specified by the Authority's Engineer.
- Culverts larger than single 33-inch diameter, double 30-inch diameter, or three or more 12-inch diameter shall require safety pipe runners.
- Riprap or stabilizing material shall be provided and installed by grantee at time of construction as directed by Area Engineer.
- Full-depth saw cut shall be made to facilitate removal of the concrete within the limits of the required full-depth cuts. Concrete adjacent to the patch shall not be spalled or fractured by the removal procedure.
- Work areas that have been disturbed must be returned to the original condition and may be required to place grass sod and continual watering until roots are established.
- Placement or removal of beautification on right of way shall be under the direction of the Authority, at the permittees expense. This includes but not limited to landscape, bushes, trees, etc.
- The Grantee certifies that its storm water runoff to the right of way (Authority's/County/State) shall not be contaminated by any industrial processes or significant pollutants, and the Authority/County/State shall not be held liable for any pollutants entering the right of way through storm water connections.
- Grantee shall meet all Americans with Disabilities Act (ADA) and Texas Department of Licensing Regulation (TDLR) requirements for items including but not limited to sidewalks and wheelchair ramps.

- Grantee shall obtain overall environmental clearance with all appropriate regulatory agencies prior to beginning construction. Approval of this request by the Authority/County does not relieve the Grantee or its agents of this obligation.
- Work performed on railroad right-of-way or easements controlled by others is subject to the concurrence of the owner of said properties. Approval of this request by the Authority/County does not relieve the Grantee of this obligation.
- The complete permit package including TCP shall be on the project site at all times and available for review by Authority/County representatives.
- Upon completion of work, submit CADD/Microstation files and pdf of Record Drawings to Phil Martin with FBTRA.
- The Permittee shall indemnify and save harmless the Authority, County and State from any and all damages or losses that may develop due to this project.
- All TxDOT standards are available online for free download:  
 Statewide <http://www.dot.state.tx.us/business/standardplanfiles.htm>  
 Houston District <http://www.dot.state.tx.us/hou/specinfo/specs.htm>

**Additional requirements for utilities:**

- Contact Phil Martin with FBTRA at (713) 574-5261 office; (832) 907-5726 cell), or [philmartin@fbctra.com](mailto:philmartin@fbctra.com), at least 48 hours prior to starting work within toll road right of way.
- Access to SH 99/Grand Parkway or Fort Bend Parkway must be coordinated with FBTRA prior to work
- All work must meet TxDOT/State of Texas utility accommodation requirements
- Markers must be placed at the right of way line for all underground utilities. Markers must indicate owners name and contact information.
- Utility owner must provide owner's responsible person's name and contact information (not contractor's contact information). Owner's responsible person must be available 24 hours/day – 7 days/week for emergency contact.
- Bore pits within the right of way must be protected during non-work hours.
- Borings must be cased from right of way line to right of way line, unless other approval is received from the Authority

**The Authority will assist as follows:**

1. Provide inspection of construction.
2. This permit issued subject to a traffic control plan, which will be prepared, signed/sealed by permittees agent, will approved by the Authority's Engineer. No work within the right of way shall begin until this approval has been granted.

### Notes for Figure 6H-1—Typical Application 1 Work Beyond the Shoulder

*Guidance:*

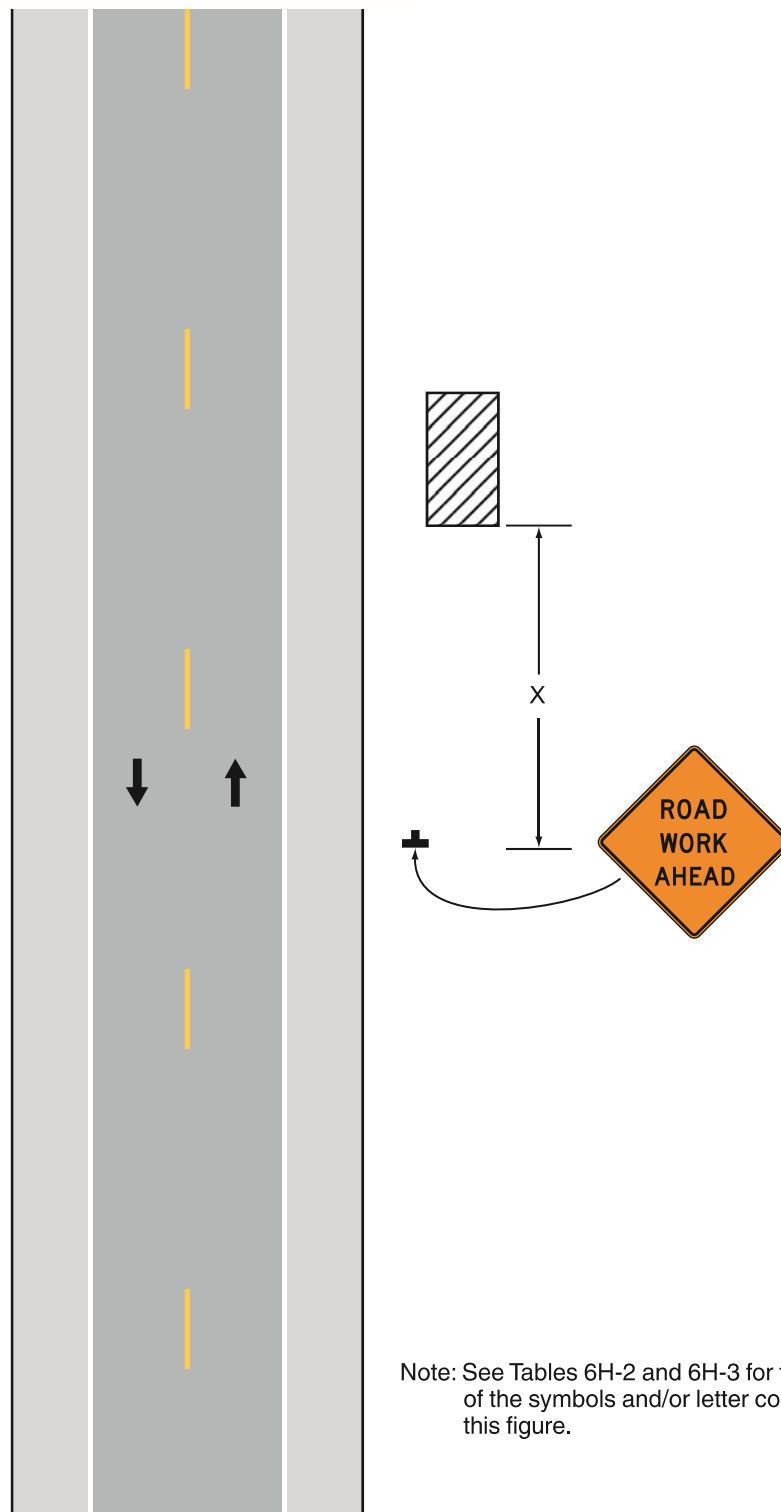
1. *If the work space is in the median of a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.*

*Option:*

2. The ROAD WORK AHEAD sign may be replaced with other appropriate signs such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.
3. The ROAD WORK AHEAD sign may be omitted where the work space is behind a barrier, more than 24 inches behind the curb, or 15 feet or more from the edge of any roadway.
4. For short-term, short duration or mobile operation, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
5. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

**Standard:**

6. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.**

**Figure 6H-1. Work Beyond the Shoulder (TA-1)****Typical Application 1**

### Notes for Figure 6H-3—Typical Application 3 Work on the Shoulders

*Guidance:*

1. *A SHOULDER WORK sign should be placed on the left side of the roadway for a divided or one-way street only if the left shoulder is affected.*

*Option:*

2. The Workers symbol signs may be used instead of SHOULDER WORK signs.
3. The SHOULDER WORK AHEAD sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
4. For short duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
5. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

**Standard:**

6. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.**
7. **When paved shoulders having a width of 8 feet or more are closed, at least one advance warning sign shall be used. In addition, channelizing devices shall be used to close the shoulder in advance to delineate the beginning of the work space and direct vehicular traffic to remain within the traveled way.**

**Figure 6H-3. Work on the Shoulders (TA-3)**