



**REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT**

12D
**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: 2016-10021

Applicant: Blackstone Construction, Inc./The Interfield Group

Job Location Site: 21690 FM 1093, Richmond, TX 77407

Bond No. **Date of Bond:** 1/5/2017 **Amount:** \$10,000.00

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 14th day of February, 2017, Upon Motion of Commissioner Meyers, seconded by Commissioner Morales, 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

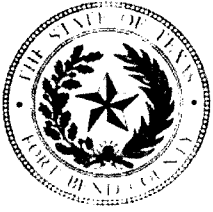
Presented to Commissioners Court and approved.

By: Charles O. Ay
for County Engineer

Date Recorded 2-17-17 Comm. Court No. 12D

By: N/A
Drainage District Engineer/Manager

Clerk of Commissioners Court
By: Shonda Wilkes
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@fortbendcountytexas.gov

- Right of Way Permit
 Commercial Driveway Permit

Permit No: 2016-10021

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: _____
- Performance bond submitted. Bond No: Amount: \$10,000.00
- 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.

Charly O. Ayl

Permit Administrator

2/7/17

Date



**PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE LINE
ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY ROAD
AUTHORIZED**

BOND NO. [REDACTED]

THE STATE OF TEXAS

§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

§

THAT WE, BLACKSTONE CONSTRUCTION INC. whose address is 9224 KATY FREEWAY SUITE 104 HOUSTON, TX 77024 Texas, hereinafter called the Principal, And Travelers Casualty and Surety Company of America, a Corporation existing under and by virtue of the laws of the state of CONNECTICUT and authorized to do an indemnifying business in the state of Texas, and whose principal office is located at One Tower Square Hartford, CT 06183, whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is Texas and Whose address is Christopher Noble, Travelers, 1301 E. Collins Blvd Ste 111C Richardson, TX, 75081, hereinafter called the Surety, and held and firmly bound unto, Robert e. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of Ten Thousand Dollars (\$10,000.00) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing, maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity, commercial driveway and median openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shall pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

EXECUTED this 5th day of January, 2017.

BLACKSTONE CONSTRUCTION INC.

PRINCIPAL

BY

Travelers Casualty and Surety Company of America

SURETY

BY Robert Goldstein, Attorney In Fact

CCM 2-14-17 # 120
Fort Bend County Clerk
Return Admin Serv Coord



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 227743

Certificate No. 006405121

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Robert Goldstein

of the City of Palm Beach Gardens, State of Florida, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 17th day of June, 2015.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
Robert L. Raney, Senior Vice President

On this the 17th day of June, 2015, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal. My Commission expires the 30th day of June, 2016.



[Signature]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her: and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 5th day of January, 2017


Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

RETURN AT COUNTER:
ADMINISTRATIVE SERVICES COORDINATOR

FILED AND RECORDED
OFFICIAL PUBLIC RECORDS

Laura Richard



Laura Richard, County Clerk
Fort Bend County, Texas

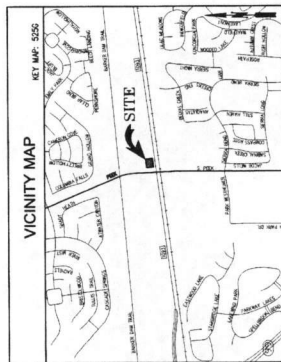
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FEE: \$0.00 TS1
BOND

2017017951

24SEVEN PROPOSED RETAIL CENTER / GAS STATION

21690 FM 1093
RICHMOND, TX 77407



- INDEX OF DRAWINGS**
- C0.0 COVER SHEET
 - C1.0 GENERAL NOTES
 - C1.1 SITE DRAINAGE PLAN
 - C1.2 SITE UTILITIES PLAN
 - C1.3 STORM WATER POLLUTION PREVENTION PLAN
 - C1.4 SITE PARKING PLAN
 - C1.5 SITE LIGHTING PLAN
 - C1.6 LEFT & RIGHT TURN LANES
 - 8-12 TRUCK PEDESTRIAN FACILITIES CURB RAMP
 - 13 TRUCK BUFFER CONTROL PLAN



ONE CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG III
(713) 223-4567 (IN HOUSTON)
(NEW STATEWIDE NUMBER OUTSIDE HOUSTON)
1-800-545-6005

STATE OF TEXAS
COUNTY ENGINEER
SIGNED: *[Signature]*
DATE: 10/23/16
THESE SIGNATURES ARE VOID IF
CONSTRUCTION HAS BEGUN OR COMBINED IN
(1) ANY PART OF THE PROJECT
APPROVED: *[Signature]*
DATE: 10/26/16

ARCHITECT
INTERFIELD
ENGINEERING / ARCHITECTURE
401 STUCKWOOD SUITE 300
HOUSTON, TX 77007
OFFICE PHONE (TEL) 713-760-0999
WWW.INTERFIELD.NET

SURVEYOR
ADVANCE SURVEYING, INC.
10218 MPB WAY SUITE B-1
HOUSTON, TX 77066
PHONE (817) 526-2698
OFFICE FAX 281-530-5464

INTERFIELD
engineering | architecture
401 STUCKWOOD SUITE 300 TX REG. NO. F-5811
HOUSTON, TEXAS 77007
WWW.INTERFIELD.NET



OWNER
24 SEVEN
10701 W BELLEVUE SUITE 115
RICHMOND, TX 77368
TEL (281) 946-5135
FAX (281) 456-7890

PROJECT
24 SEVEN PROPOSED RETAIL
CENTER / GAS STATION
PROJ.# 1026.00
21690 FM 1093

REVISIONS	DATE	ISSUES FOR
	04/26/16	PERMIT
	05/05/16	PERMIT
	05/20/16	PERMIT
	08/20/16	PERMIT
	09/23/16	PERMIT

INTERFIELD
 engineering | architecture
 401 WOODLAND SUITE 300 TEL (832) 780-0909
 HOUSTON, TEXAS 77007
 WWW.INTERFIELD.NET
 TX REG. NO. F-6811



24SEVEN
 PROPOSED RETAIL
 CENTER GAS STATION
 RICHMOND, TX 77407
 DATE: 09/19/16
 PROJECT # 15025.00
 SHEET C1.2 OF 13

REVISIONS	DATE	ISSUES FOR
	04/26/16	PERMIT
	05/05/16	PERMIT
	05/20/16	PERMIT
	08/20/16	PERMIT
	09/23/16	PERMIT

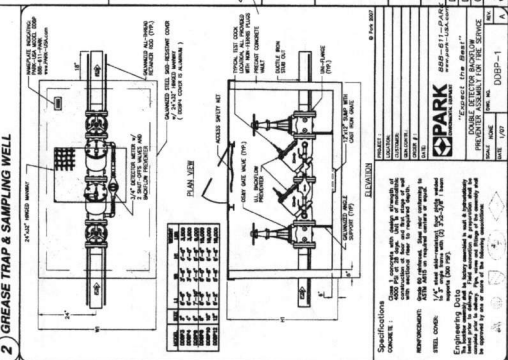
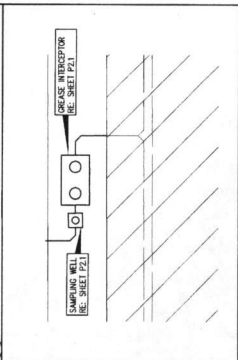
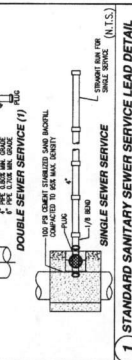
LEGEND

PROPERTY LINE
 PROPOSED SANITARY SERVICE
 TAPPING SADDLE (CORROSION STOP)
 FIRE HYDRANT (FH)
 WATER METER
 CLEAR-OUT (MATCH PIPE SIZE UP TO 1 1/2")
 MARK CLEAR-OUT AT 10' MAX SPACING
 WASTEWATER MANHOLE
 STORM SEWER MANHOLE
 POTENTIAL DRAINING CONTACT
 EXISTING SERVICE POLE

PROPOSED 24" WATER SERVICE LINE (TAPPING SADDLE)
 PROPOSED 1 1/2" WATER METER
 PROPOSED 2" WATER METER
 WITH BOX AT ALL CONNECTIONS

PROPOSED 24" WATER SERVICE LINE (TAPPING SADDLE)
 PROPOSED 1 1/2" WATER METER
 PROPOSED 2" WATER METER
 WITH BOX AT ALL CONNECTIONS

PROPOSED 24" WATER SERVICE LINE (TAPPING SADDLE)
 PROPOSED 1 1/2" WATER METER
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 WITH BOX AT ALL CONNECTIONS

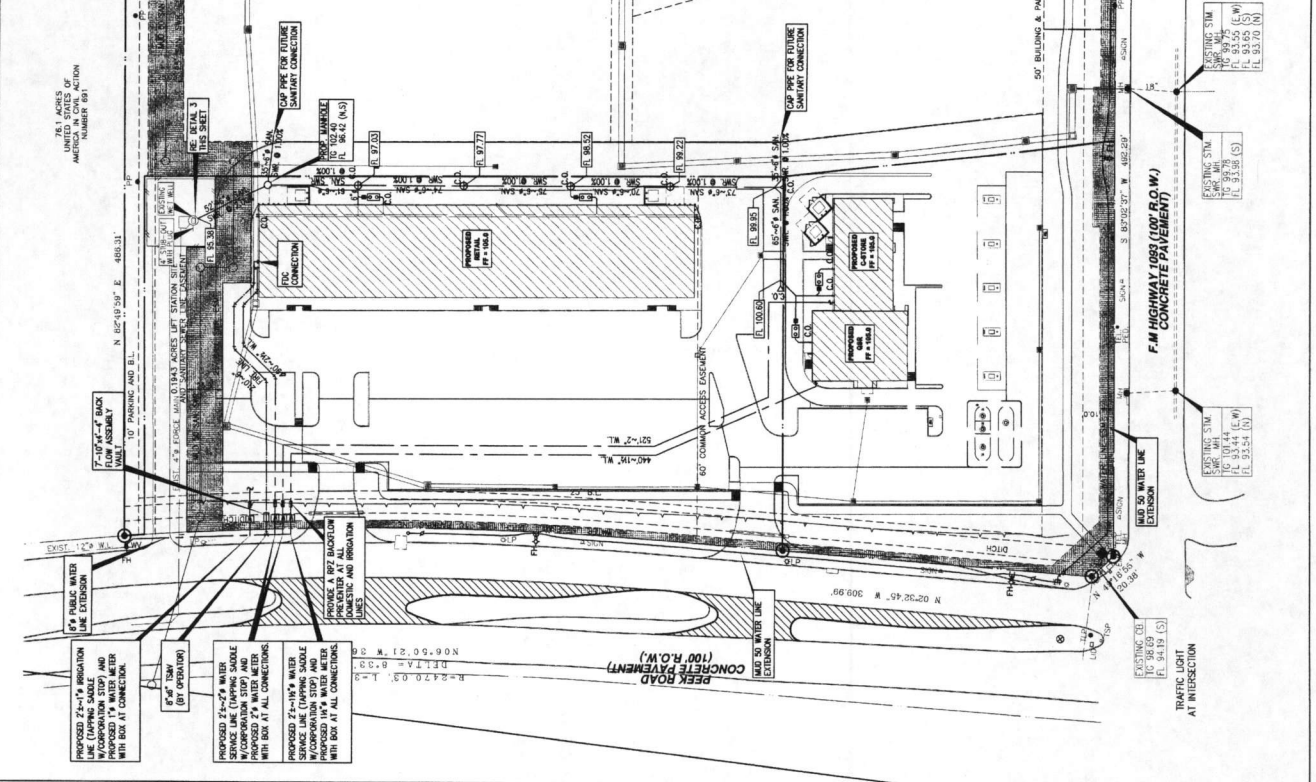
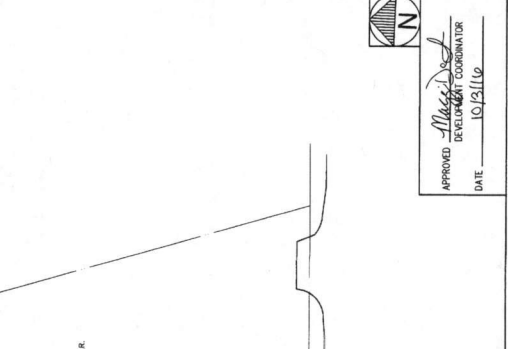
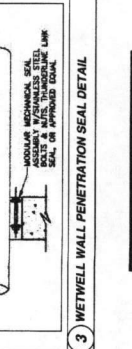


NOTES GRAND LAKES MUD NO. 1 & MDS

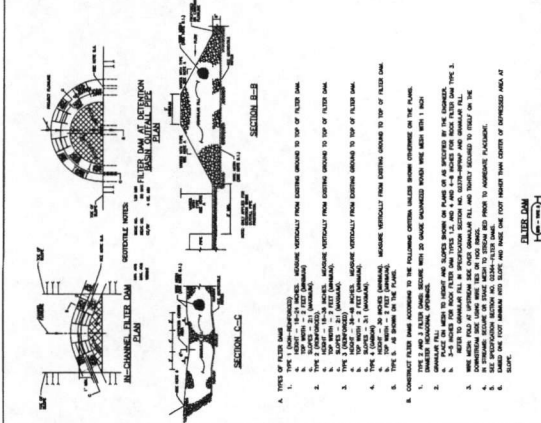
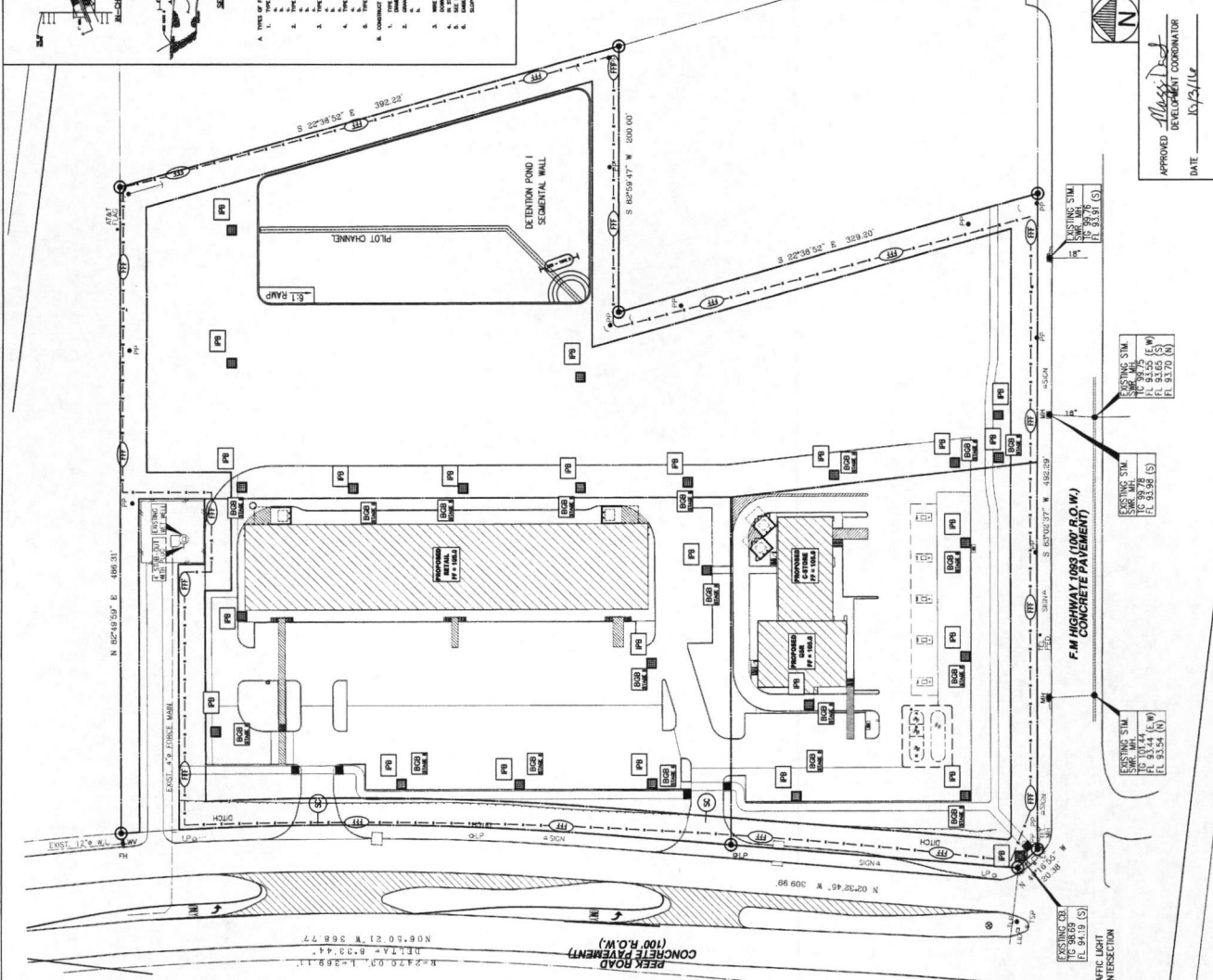
CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE DISTRICT ENGINEER AND THE DISTRICT ENGINEER'S OFFICE REGARDING THE DISTRICT'S SERVICES, AS WELL AS THE DISTRICT'S JET STATION, AT (281) 760-0066, OZZE FAX AT (281) 200-3330, OR BY E-MAIL AT (281) 200-3330.

BLUESHED MANAGEMENT SERVICES SHALL BE INSPECTED BY MDS FROM PLUMBING CODES OR AS REQUIRED BY THE DISTRICT'S PLUMBING CODES. THE DISTRICT'S PLUMBING CODES SHALL BE THE LATEST EDITION OF THE PLUMBING CODES, AND ANY AMENDMENTS TO THE PLUMBING CODES WHICH CONTAIN MORE THAN A MINOR AMENDMENT TO THE PLUMBING CODES, AND ANY AMENDMENTS TO THE PLUMBING CODES WHICH CONTAIN MORE THAN A MINOR AMENDMENT TO THE PLUMBING CODES, AND ANY AMENDMENTS TO THE PLUMBING CODES WHICH CONTAIN MORE THAN A MINOR AMENDMENT TO THE PLUMBING CODES.

CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE DISTRICT ENGINEER AND THE DISTRICT ENGINEER'S OFFICE. THE DISTRICT ENGINEER'S OFFICE SHALL BE CONTACTED AT (281) 760-0066, OZZE FAX AT (281) 200-3330, OR BY E-MAIL AT (281) 200-3330.



APPROVED: *M. S. ...*
 DEVELOPMENT COORDINATOR
 DATE: 10/23/16



LEGEND

PROPERTY LINE
 INLET PROTECTION BARRIER WITH STRAW BALES AROUND/ SET FENCE
 FILTER FABRIC FENCE
 STABILIZED CONSTRUCTION ACCESS
 PROPOSED STORM CATCH BASIN

1 STABILIZED CONSTRUCTION ACCESS (N.I.S.)

2 FILTER FABRIC FENCE (N.I.S.)

3 STRAW BALE DROP INLET PROTECTION BARRIER (N.I.S.)

4 BAGGED GRAVEL BARRIER (N.I.S.)

DATE	ISSUED FOR	DATE	REVISIONS
09/23/16	PERMIT		
09/23/16	PERMIT		
09/23/16	PERMIT		
09/23/16	PERMIT		
09/23/16	PERMIT		
09/23/16	PERMIT		
09/23/16	PERMIT		

INTERFIELD
 engineering | architecture
 401 STUDEWOOD, SUITE 300
 HOUSTON, TEXAS 77007
 TEL: (713) 780-0908
 WWW.INTERFIELD.NET
 TX REG. NO. F-6681

0 40 80 FT
 SCALE: 1" = 40'

09/23/16

PROPOSED RETAIL CENTER/GAS STATION
 21680 FM 0983
 RICHMOND, TX 77407

STORM WATER POLLUTION PREVENTION PLAN

PROJECT # 15026.00

DATE: 06/25/15
 DRAWN BY: SA
 CHECKED BY: SC

SHEET C1.3 OF 13

CONSTRUCTION NOTES:

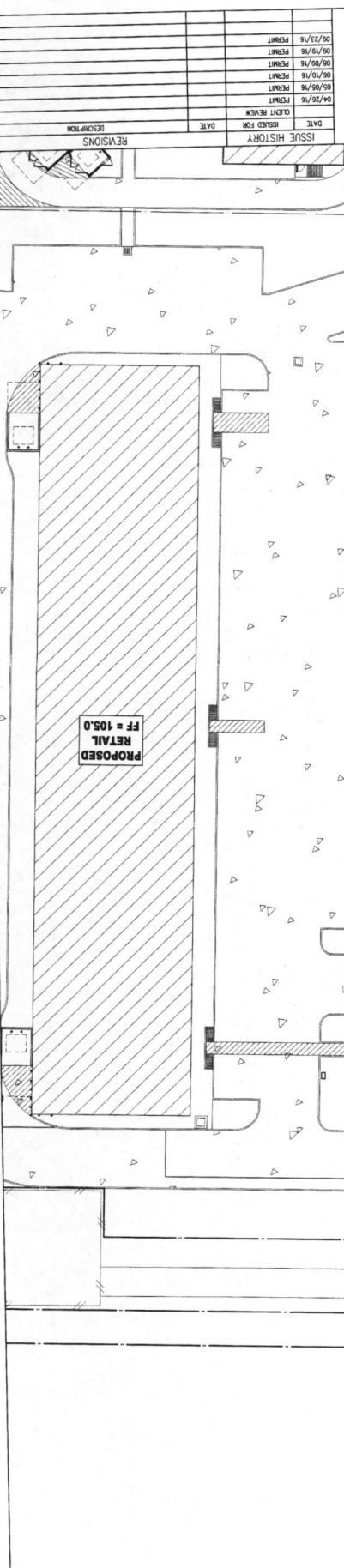
- INSTALLATION OF STRAW BALES SHALL BE BY THE METHOD OF LAYING THEM IN A TIGHTLY PACKED MANNER WITH SUPPORT AT EACH END.
- PACKING OF STRAW BALES SHALL BE TO BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.
- HEIGHT OF BARRIERS AND MAX HEIGHT OF INLET PROTECTION BARRIER SHALL BE 4' MIN.
- INSTALLATION OF STRAW BALES SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.
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CONSTRUCTION NOTES:

- INSTALLATION OF BAGGED GRAVEL BARRIERS SHALL BE BY THE METHOD OF LAYING THEM IN A TIGHTLY PACKED MANNER WITH SUPPORT AT EACH END.
- PACKING OF BAGGED GRAVEL BARRIERS SHALL BE TO BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.
- HEIGHT OF BARRIERS AND MAX HEIGHT OF INLET PROTECTION BARRIER SHALL BE 4' MIN.
- INSTALLATION OF BAGGED GRAVEL BARRIERS SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.
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APPROVED: *Alexis D...*
 DEVELOPMENT COORDINATOR
 DATE: 05/25/16

DATE	ISSUED FOR	DATE	REVISIONS
09/23/76	PERMIT		
09/19/76	PERMIT		
09/09/76	PERMIT		
05/05/76	PERMIT		
04/28/76	PERMIT		
04/20/76	PERMIT		
04/15/76	PERMIT		
04/15/76	PERMIT		

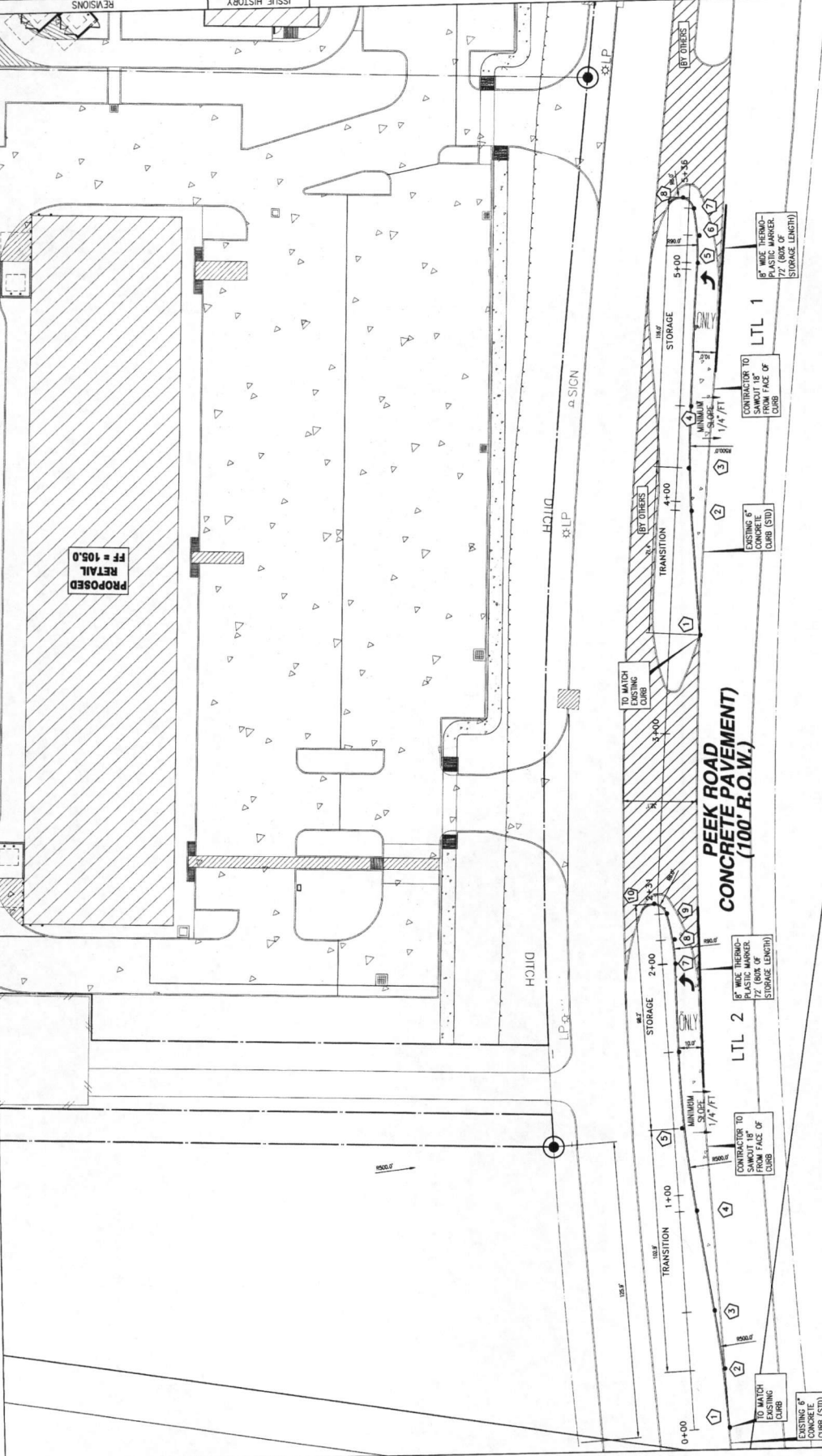


INTERFIELD
 engineering | architecture
 401 STUENKEL BLVD SUITE 300 TEL. (781) 780-0908
 WILMINGTON, MASS 01890
 WWW.INTERFIELD.NET



09/23/76
 SCALE: 1" = 30'
 24SEVEN
 PROPOSED RETAIL
 CENTERGAS STATION
 21680 FM 1069
 RICHMOND, TX 77407
 LEFT & RIGHT
 TURN LANES
 PROJECT # 15026.00
 DATE: 09/23/76
 DRAWN BY: BA
 CHECKED BY: SC
 SHEET C1.6 OF 13

APPROVED: *[Signature]*
 DEVELOPMENT COORDINATOR
 DATE: 10/23/11



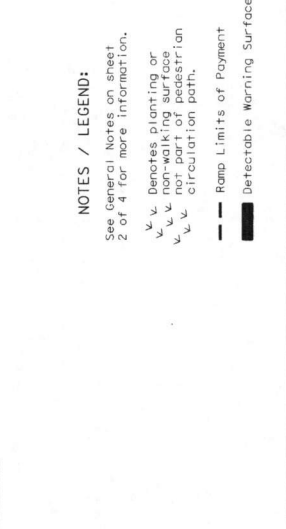
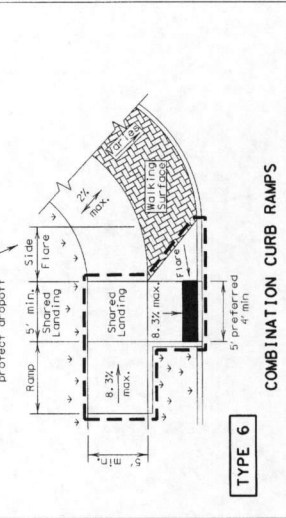
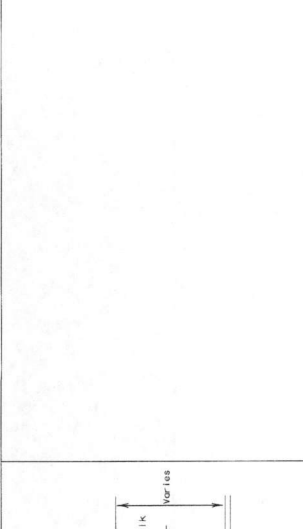
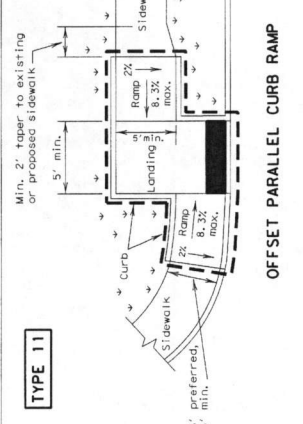
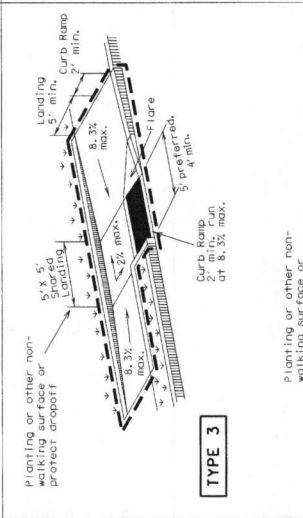
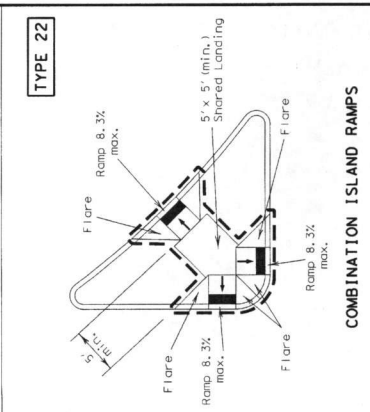
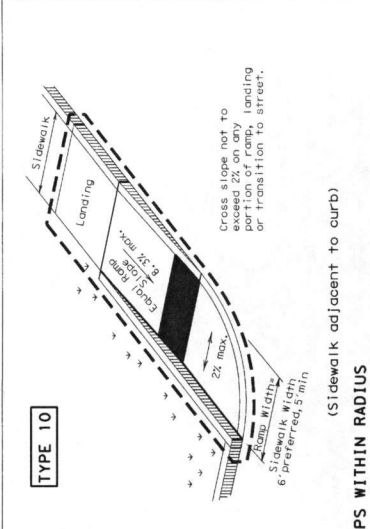
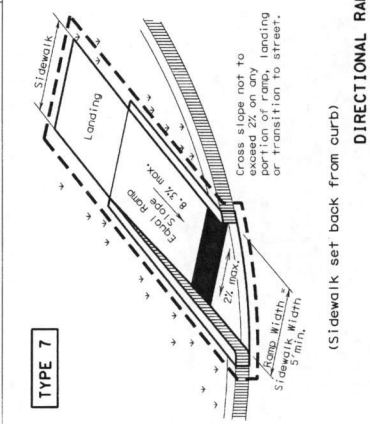
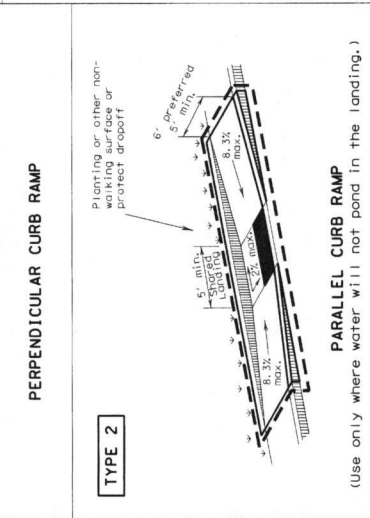
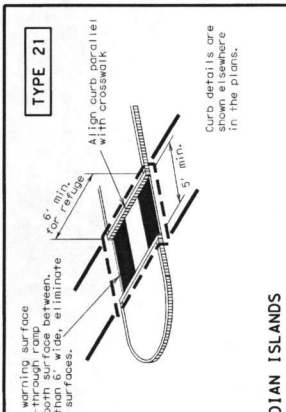
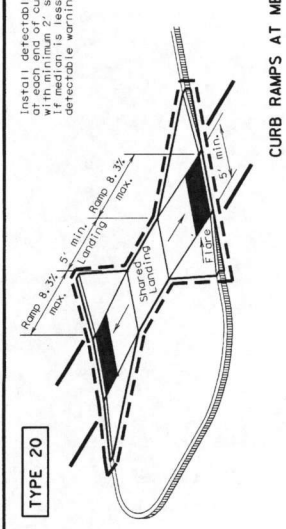
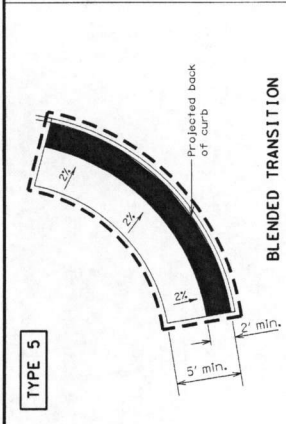
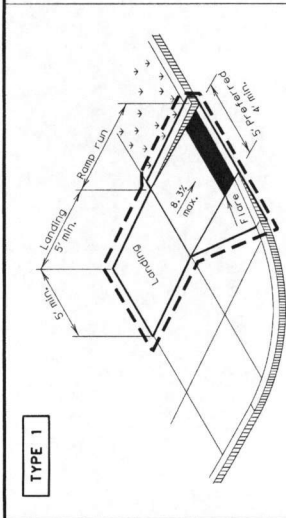
LTL 1

#	DISC.	MEDIAN LOCATION
1	PC	STA. 3+43.09, 13.24 RT
2	PT	STA. 3+56.33, 7.06 RT
3	PI	STA. 4+14.52, 4.93 RT
4	PT	STA. 4+41.23, 4.79 RT
5	PT	STA. 5+02.85, 4.85 RT
6	PI	STA. 5+14.65, 5.09 RT
7	PT	STA. 5+26.09, 2.16 RT
8	NOSE	STA. 5+30.56, 2.75 LT

LTL 2

#	DISC.	MEDIAN LOCATION
1	PC	STA. 0+00.00, 15.35 RT
2	PT	STA. 0+25.12, 15.35 RT
3	PI	STA. 0+49.28, 7.42 RT
4	PT	STA. 1+28.00, 3.51 RT
5	PT	STA. 1+61.20, 4.50 RT
6	PI	STA. 1+99.47, 5.64 RT
7	PT	STA. 2+10.54, 5.99 RT
8	PI	STA. 2+21.90, 3.88 RT
9	PT	STA. 2+26.52, 1.79 LT
10	NOSE	

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NOTES / LEGEND:
 See General Notes on sheet 2 of 4 for more information.
 v v v Denotes planting or non-walking surface
 v v v not part of pedestrian circulation path.
 --- Ramp Limits of Payment
 ■ Detectable Warning Surface

Texas Department of Transportation
DESIGN STANDARD
PEDESTRIAN FACILITIES
CURB RAMPS
PED-12A

SHEET 1 OF 4

FILE: ped12a.dgn	DATE: 03/13/2012	TIME: 10:00	USER: VP
PROJECT: March 2002	DATE: 03/13/2012	TIME: 10:00	USER: VP
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PROJECT: March 2002	DATE: 03/13/2012	TIME: 10:00	USER: VP

10/15/14
Maggie

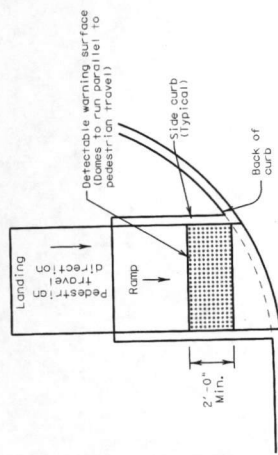
General Notes

Curb Ramps

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5' x 5' passing areas at intervals not to exceed 200' are required.
4. Landings shall be 5' x 5' minimum with a maximum 2% slope in any direction.
5. Maneuvering space at the bottom of curb ramps shall be a minimum of 4' x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown on curbs in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Handrails are not required on curb ramps. Provide curb ramps wherever an accessible route crosses (penetrates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 Sidewalks.
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

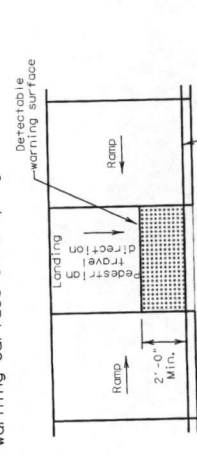
Detectable Warning Material

18. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with section 409 of the TAS. The surface must contrast visually with adjoining work areas, including side flares. Furnish and install an approved cast-in-place concrete, or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
19. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
22. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.



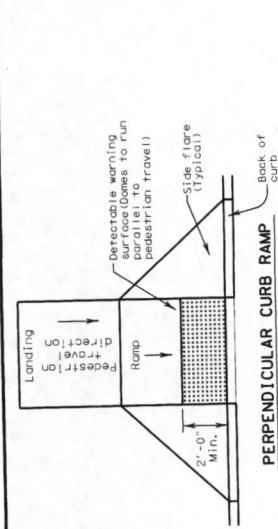
DIRECTIONAL CURB RAMP

Typical placement of detectable warning surface on sloping ramp run.



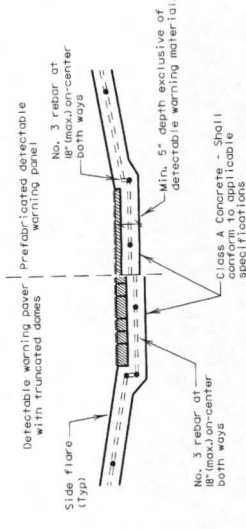
PARALLEL CURB RAMP

Typical placement of detectable warning surface on landing at street edge.



PERPENDICULAR CURB RAMP

Typical placement of detectable warning surface on sloping ramp run.



SECTION: CURB RAMP AT DETECTABLE WARNING

DETECTABLE WARNINGS

Detectable Warning Pavers

24. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

Sidewalks

26. Provide clear ground spaces at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
28. Street grades and cross slopes shall be as shown elsewhere in the plans.
29. Changes in level greater than 1/4 inch are not permitted.
30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks on roadways within the public right of way may follow the grade of the roadway, where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
32. Driveways and turnouts shall be constructed and paid for in accordance with Item 531 Intersections, Driveways and Turnouts. Sidewalks shall be constructed and paid for in accordance with Item 531 Sidewalks.
33. Sidewalk details are shown elsewhere in the plans.

Texas Department of Transportation

PEDESTRIAN FACILITIES

CURB RAMPS

PED-12A

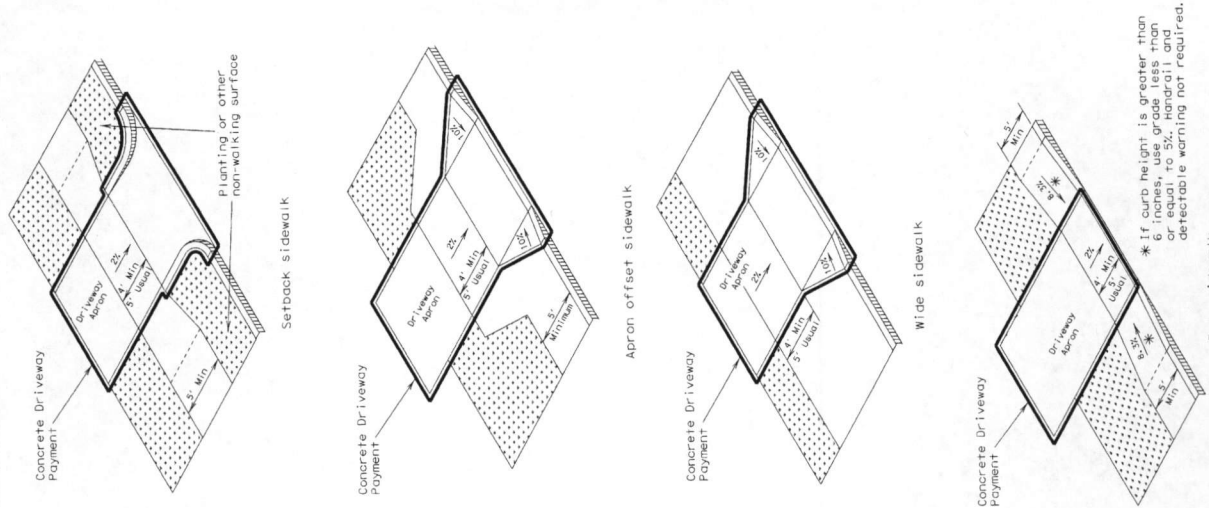
SHEET 2 OF 4

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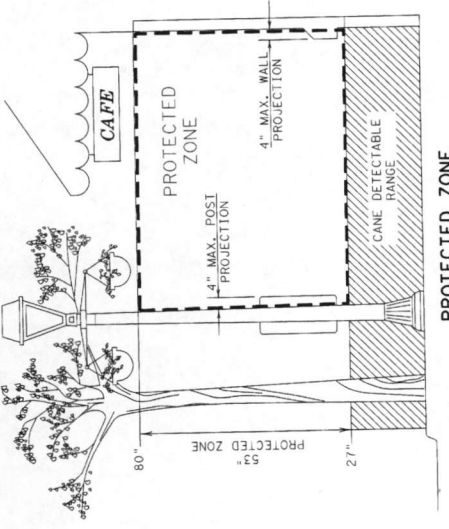
10/25/16

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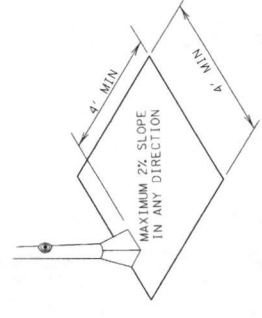


SIDEWALK TREATMENT AT DRIVEWAYS

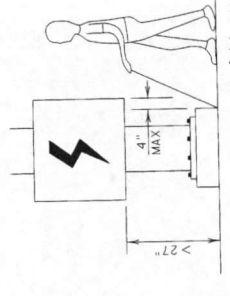


PROTECTED ZONE

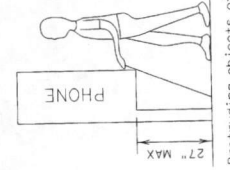
In pedestrian circulation area, maximum 4" projection of all mounted objects between 27" and 80" above the surface.



CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON

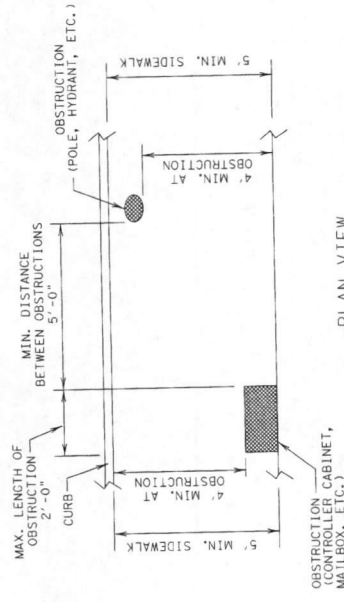


When an obstruction of a height greater than 27" from the surface would create an obstruction of more than 4" into the pedestrian circulation area, construct additional curb or foundation at the bottom to provide a maximum 4" overhang.



Protruding objects of a height $\leq 27"$ are detectable by cane and do not require additional treatment.

DETECTION BARRIER FOR VERTICAL CLEARANCE $< 80"$



**PLAN VIEW
PLACEMENT OF STREET FIXTURES**
(ITEMS NOT INTENDED FOR PUBLIC USE REQUIRED AT PUBLIC USE FIXTURES.)

Texas Department of Transportation
Design Standard

**PEDESTRIAN FACILITIES
CURB RAMPS**

PED-12A

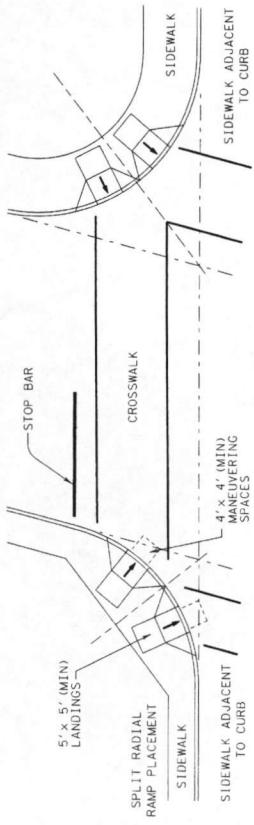
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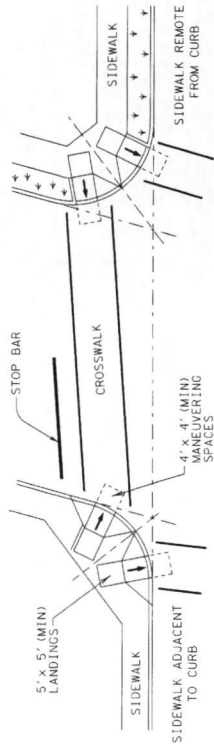
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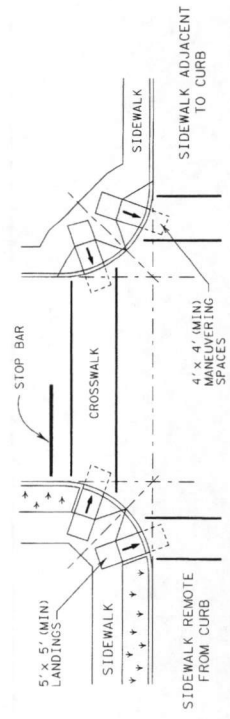
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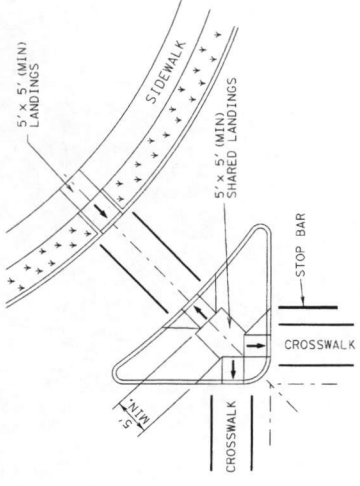
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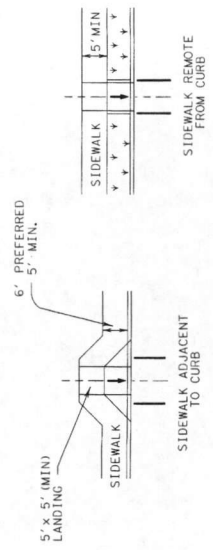
SKewed INTERSECTION WITH "SMALL" RADIUS



NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT PERPENDICULAR RAMPS

SHEET 4 OF 4

Design Division Standard

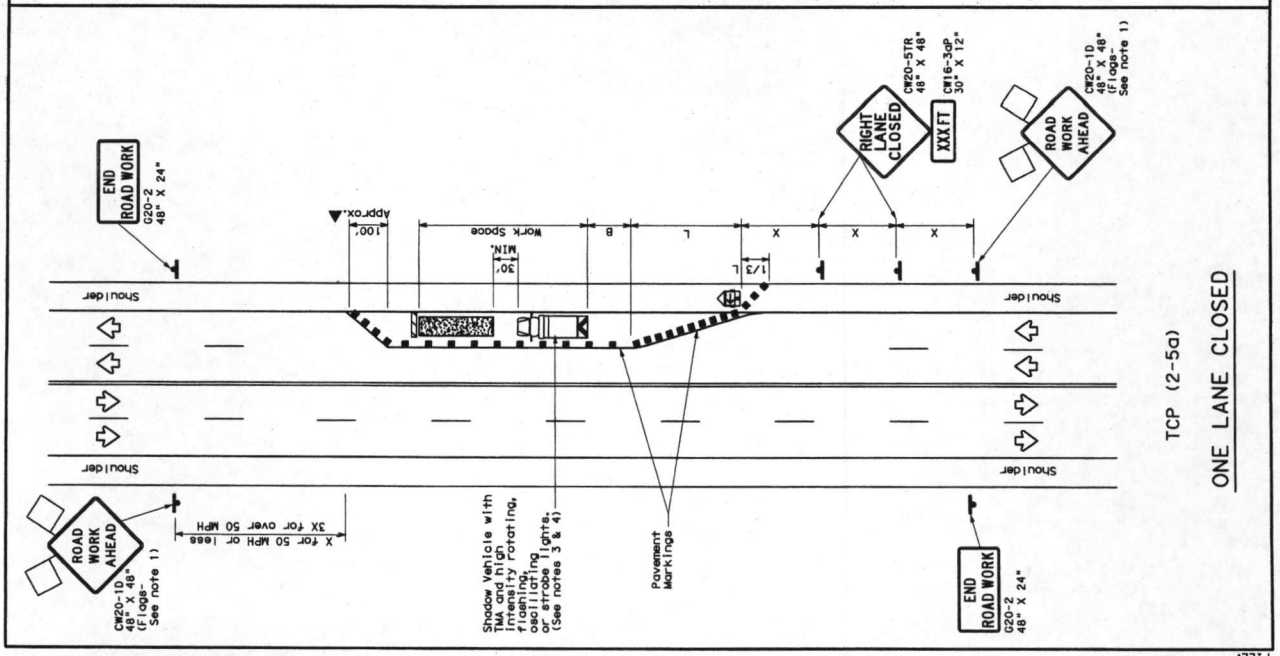
PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

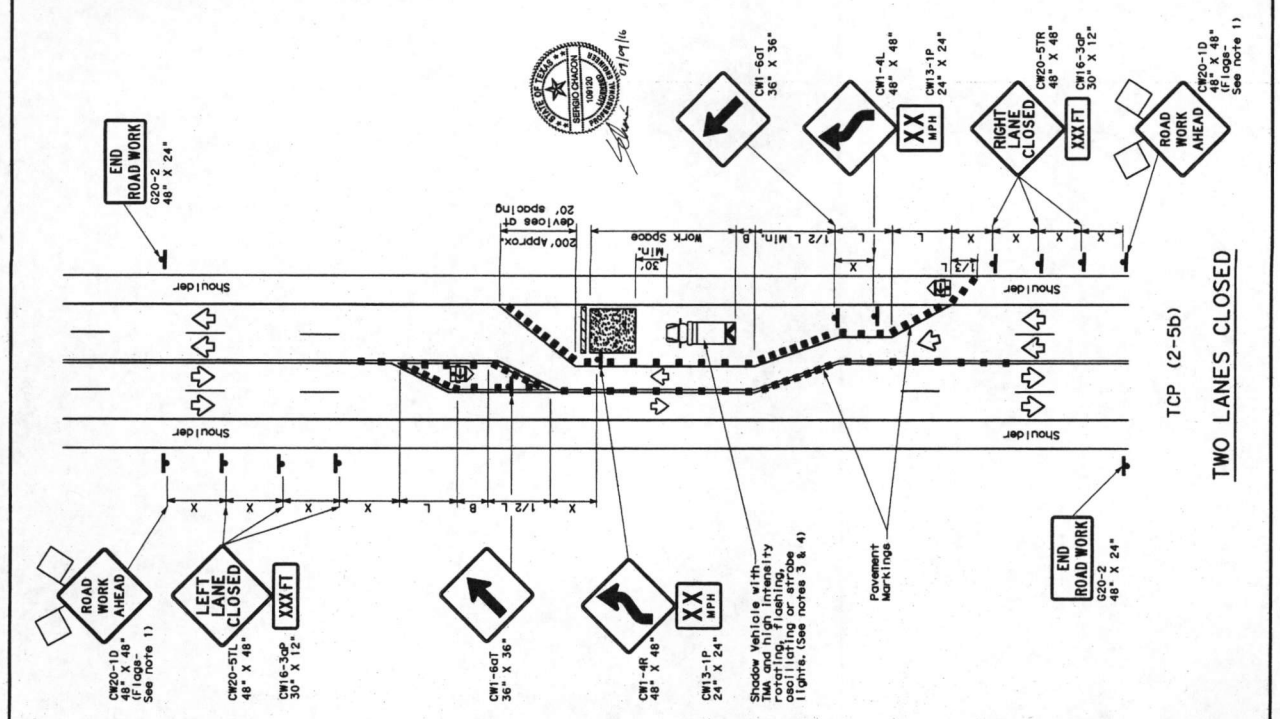
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© TxDOT March 2002	COMP: PEET	JOB:	HIGHWAY:
REV: 001	DATE:	COUNTY:	SHEET NO.:
VP: June 13, 2012			

Maggie 10/23/16

TYPICAL CROSSING LAYOUTS



TCP (2-5a)
ONE LANE CLOSED



TCP (2-5b)
TWO LANES CLOSED

LEGEND

Type 3 Barricade	Channelizing Devices
Truck Mounted Attenuator (TMA)	Truck Mounted Attenuator (TMA)
Portable Changeable Message Sign (PCMS)	Portable Changeable Message Sign (PCMS)
Traffic Flow	Traffic Flow
Flag	Flag

Posted Speed (MPH)	Formula	Minimum Taper Length (ft)	Suggested Maximum Channelizing Device Spacing (ft)	Minimum Sign Spacing (ft)	Suggested Longitudinal Buffer Spacing (ft)
30	WS^2	150'	165'	180'	90'
35	$L=60$	205'	225'	245'	120'
40		265'	295'	320'	155'
45		330'	375'	405'	195'
50		405'	465'	500'	240'
55	$L=WS$	550'	605'	660'	295'
60		600'	660'	720'	350'
65		650'	715'	780'	410'
70		700'	770'	840'	475'
75		750'	825'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
*** Length of Taper (FT) = (width of offset(FT) * S-Posted Speed(MPH))

TYPICAL USAGE

MOBILE	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
✓	✓	✓	✓

GENERAL NOTES

- Flags attached to signs where shown, are REQUIRED.
- Devices with the triangle symbol may be omitted when straddled across a lane, or for routine maintenance work, when approved by the Engineer.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure. If workers are no longer present, but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMA may be positioned in each closed lane, on the shoulder or off the paved surface, next to those shown. The downstream taper is optional. When used, it should be 100 feet approximately per lane, with channelizing devices spaced at 20 feet.

TCP (2-5a)
If this TCP is used for a left lane closure, CW20-STL "LEFT LANE CLOSED" signs shall be used and channelizing devices shall be placed on the centerline to protect the work space from opposing traffic, with the arrow board placed in the closed lane near the end of the taper.

TCP (2-5b)
Conflicting pavement markings shall be removed for long-term projects.

For construction or maintenance contract work, the following requirements for shadow vehicles can be found in the TxDOT General Notes for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
Traffic Operations Division

TRAFFIC CONTROL PLAN LONG TERM LANE CLOSURES MULTILANE CONVENTIONAL RDS.

TCP (2-5)-12