

**REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT**

On this 14th day of June, 2016, Commissioners Court came on to be heard and reviewed the accompanying notice of Richland Concrete & Construction, Inc.

Job Location Plantation Drive, Richmond, TX 77469

Date Bond No. 000397203, Permit No. 2016-7507 to make use of certain Fort Bend County property subject to, "A Revised Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas the 3rd day of August, 1987, recorded in Volume \_\_\_\_\_ of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Article 1436a, Vernon's Texas Civil Statutes. Upon Motion of Commissioner \_\_\_\_\_, 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.

Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
  - a. 48 hours in advance of construction start up, and
  - b. when construction is completed and ready for final inspection
 Mail notices to: Permit Administrator  
 Fort Bend County Engineering  
 301 Jackson Street  
 Richmond, Texas 77469  
 281-633-7500
3. This permit expires one (1) year from date of permit if construction has not commenced.

By: for  \_\_\_\_\_  
County Engineer

Presented to Commissioners Court and approved.  
Recorded in Volume \_\_\_\_\_  
Minutes of Commissioners Court

By: N/A \_\_\_\_\_  
Drainage District Engineer/Manager

Clerk of Commissioners Court

By: \_\_\_\_\_  
Deputy



**CONSTRUCTION  
OF  
PLANTATION DRIVE ROAD REPAIR  
FOR  
PECAN GROVE MUNICIPAL UTILITY DISTRICT  
FORT BEND COUNTY, TEXAS**

INDEX OF DRAWINGS

SHEET NO.	TITLE
1.	COVER SHEET & INDEX
2.	GENERAL CONSTRUCTION NOTES
3.	TRAFFIC CONTROL PLAN
4.	PAVEMENT REPAIR PLAN

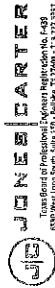
**NOTES:**  
 These plans were prepared to meet or exceed the specifications and requirements of Fort Bend County, Texas as currently amended. Approval by Fort Bend County will be deemed void if construction has not begun within one year of approval date. Construction will be monitored by a registered professional engineer of JONES & CARTER, INC. Contractor shall notify the Fort Bend County Engineering Department at least 48 hours prior to commencement at (281) 533-7500.

I, K. Grady Turner, II, a Professional Engineer licensed in the State of Texas, do hereby certify that these plans were prepared by me or under my direct supervision and that I am a duly licensed and registered Professional Engineer of Fort Bend County, Texas.

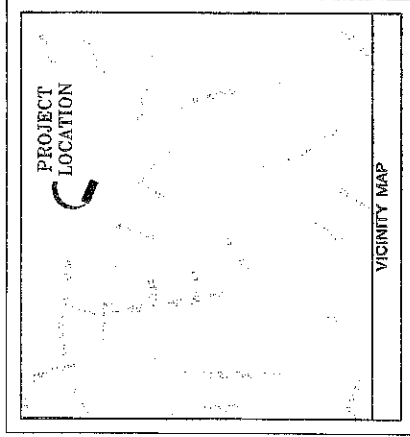
K. GRADY TURNER, II, P.E. 3-8-16 Date

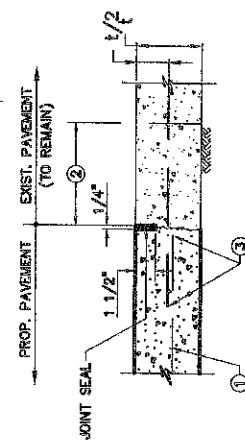
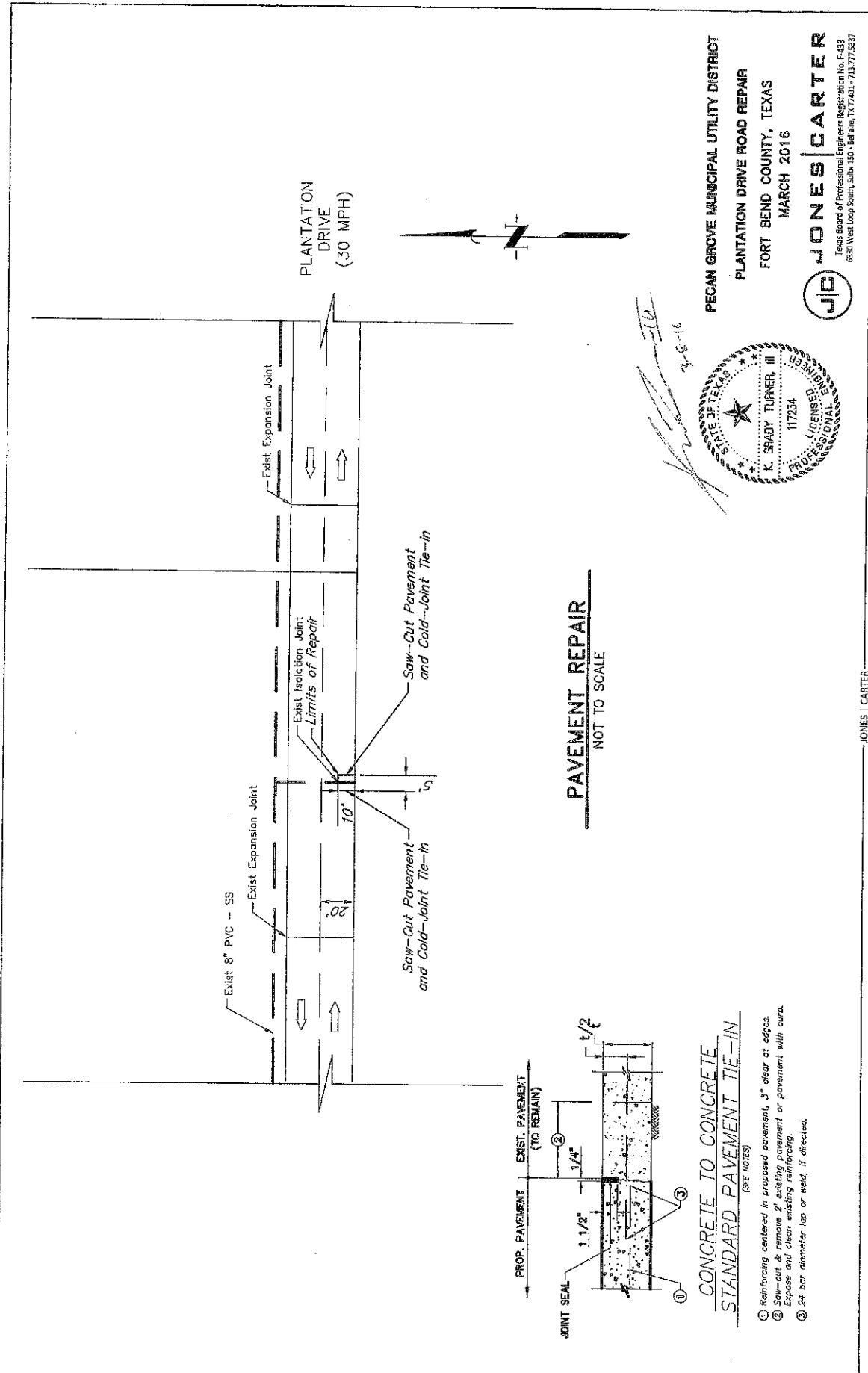


MARCH 2016  
 JC JOB No. 00034-0900-16



1523 PLANTATION DRIVE, RICHMOND, TEXAS 77405





**CONCRETE TO CONCRETE  
STANDARD PAVEMENT TIE-IN**  
(SEE NOTES)

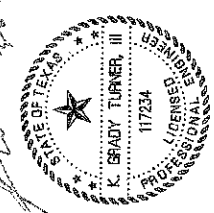
- ① Reinforcing centered in proposed pavement, 3" clear at edges.
- ② Saw-cut & remove 2' existing pavement or pavement with curb. Expose and clear existing reinforcing.
- ③ 24 bar diameter lap or weld, if directed.

**PAVEMENT REPAIR**  
NOT TO SCALE



PLANTATION  
DRIVE  
(30 MPH)

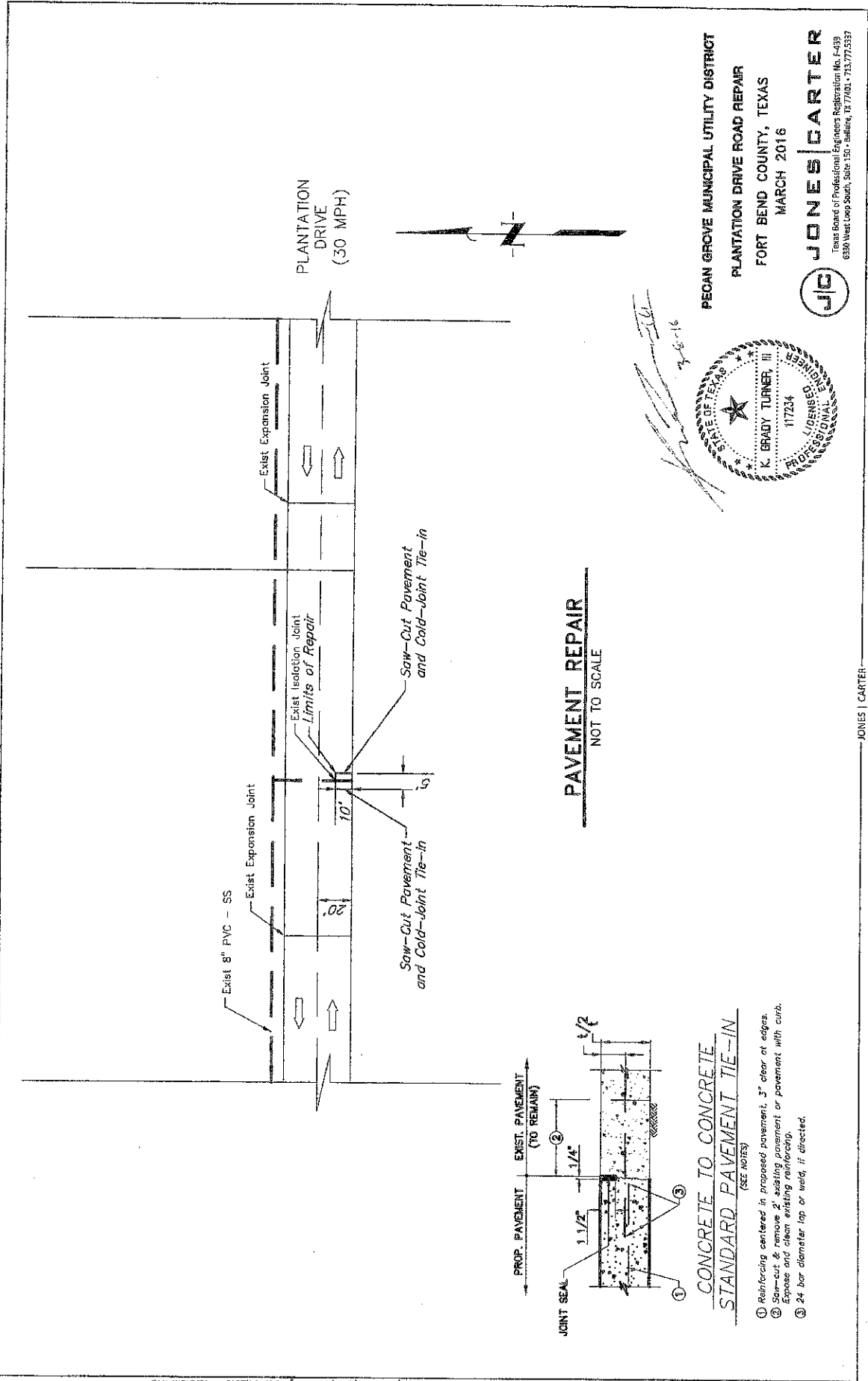
PECAN GROVE MUNICIPAL UTILITY DISTRICT  
PLANTATION DRIVE ROAD REPAIR  
FORT BEND COUNTY, TEXAS  
MARCH 2016



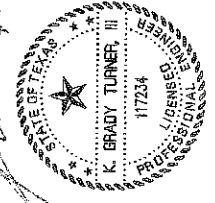
**J/C** JONES | CARTER  
Texas Board of Professional Engineers Registration No. F-439  
6511 West Loop South, Suite 150 - Bellaire, TX 77401 - 783.777.5337

JONES | CARTER





PECAN GROVE MUNICIPAL UTILITY DISTRICT  
 PLANTATION DRIVE ROAD REPAIR  
 FORT BEND COUNTY, TEXAS  
 MARCH 2016  
**JONES CARTER**  
 Texas Board of Professional Engineers Registration No. F-499  
 630 West Loop South, Suite 150 - Dallas, TX 77401 • 713.777.5337

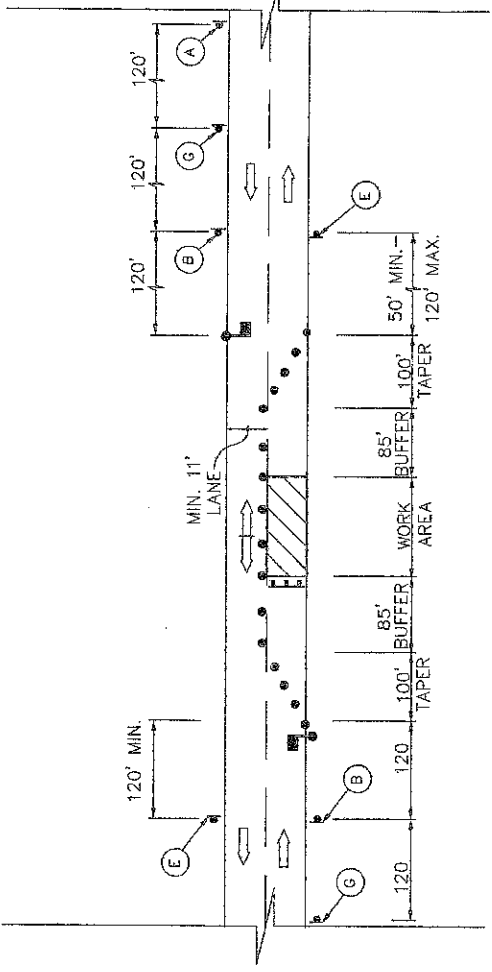


**PAVEMENT REPAIR**  
 NOT TO SCALE

**CONCRETE TO CONCRETE  
 STANDARD PAVEMENT TIE-IN**  
 (SEE NOTES)

- ① Reinforcing centered in proposed pavement, 3" clear at edges.
- ② Saw-cut & remove 2' existing pavement or pavement with curb. Expose and clean existing reinforcing.
- ③ 24 bar diameter lap or weld, if directed.

JONES | CARTER



**SPECIAL TRAFFIC REQUIREMENTS**

- Contractor shall provide and install traffic control devices in conformance with part V of the Texas Manual Uniform Traffic Control Devices (Texas MUTCD), most recent edition with revisions during construction.
- Contractor will be responsible for replacing and maintaining pavement markings which include lane lines, center lines, and edge lines. The minimum required by traffic conditions in the field.
- Contractor to maintain access to adjacent properties at all times.
- No lanes shall be closed from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. Monday thru Friday.
- Exception to these times: If necessary, should be sought during lane closure permit application. Contractor shall coordinate with adjacent properties with closures steel plates during non-working hours, and open lanes for normal traffic flow.
- Off-duty Uniformed Police Officers are required to direct traffic when lanes are blocked.
- Contractor shall provide and install traffic control devices in conformance with part V of the Texas Manual Uniformed Traffic Control Devices (Texas MUTCD), most recent edition with revisions during construction. The minimum required by traffic conditions in the field.
- If the contractor chooses to use a different method of traffic control, they shall be responsible to prepare and submit a traffic control plan to the Traffic Control Engineer for approval ten working days prior to implementation.
- These plans shall be kept on reproducible mylar and sealed by a Licensed Engineer in the field. Approved copies of Traffic Control Plans and lane closure permits shall be available for inspection at the site at all times. Contractor must secure Lane Closure Permits from County's Traffic Control Engineer and maintain them through the closing of lanes/roadwork. The request must be made at least 10 working days prior to the start of work. The contractor is to be aware that working hours may be restricted or the request may be denied. Note that lanes shall be kept closed during pavement surface restoration and opened only after pavement is restored completely.

**SPACING FOR CHANNELIZING DEVICES**

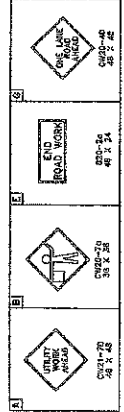
- Plastic drums on merging taper @ 30' c-c with chevron sign @ 60' c-c and type 'C' warning light (for overnight closure)
- Plastic drums on tapers @ 35' c-c
- Plastic drums on road @ 35' c-c
- Plastic drums on road @ 35' c-c
- Plastic drums in front of construction zone @ 20' c-c with vertical panel @ 40' c-c and Type 'X' warning light @ 40' c-c (for overnight closure)
- Concrete traffic barrier (CTB) or low profile concrete traffic barrier (LPCTB) with reflectors @ 10' c-c
- Water marker @ 20' c-c

Note: Spacing shown on traffic control plans shall supersede the above spacings.

**ONE LANE - TWO WAY/FLAGGING OPERATION**  
(DAY TIME WORKING HOURS ONLY)

Length for Longitudinal Buffer	Posted Speed (mph)	LEGEND (TYPICAL)		TYPICAL SIGN SPACING AND TAPER LENGTHS	
		PLASTIC DRUM	OFF-DUTY UNIFORMED POLICE OFFICER OR FLAGGER	Sign Spacing 'X'	Min. Desirable Topper Length
30	30	120'	150'	120'	12'
35	35	160'	200'	150'	15'
40	40	240'	300'	200'	20'

\* ENGINEER TO STRIKE THROUGH ALL SPEED LIMITS NOT APPLICABLE



PLANTATION DRIVE 30 MPH  
STREET NAME SPEED LIMIT

PECAN GROVE MUNICIPAL UTILITY DISTRICT  
TRAFFIC CONTROL PLAN  
FORT BEND COUNTY, TEXAS  
MARCH 2016

JJC JONES | CARTER  
Texas Board of Professional Engineers Registration No. 6-630  
650 West Loop South, Suite 150 - Dallas, TX 75242 • 714.777.3337

D. M. KRUKIEWITZ  
PROFESSIONAL ENGINEER  
3-3-2016

**GENERAL CONSTRUCTION NOTES:**

**TRAFFIC CONTROL NOTES**

1. The Contractor shall provide and install traffic control devices in accordance with Part VI of the Texas Manual on Uniform Traffic Control Devices (TMUCD) latest edition with reasons during the entire construction period.
2. Contractor shall have approved traffic control plan at the job site for inspection at all times.
3. The Contractor shall not open closed lanes until the pavement surface has cured enough to allow vehicular traffic.
4. The Contractor is responsible for scheduling and coordinating all construction activities with state agencies in the vicinity, including emergency response agencies, such as the Police Department, and the Fire Department.
5. Contractor shall be responsible for issuing all work directives to all sub-contractors, utility companies, and all other entities performing construction work associated with this project.
6. Nothing in these notes or plans shall release the Contractor of the responsibility for job site conditions during the course of construction of this project, including safety of all means of transportation, access, and property, and that the requirements shall only be limited to work hours.
7. All existing traffic control signs and pavement markings shall be maintained, visible, legible, and in place during construction. The Contractor shall restore or replace any pavement markings or signage damaged during construction operations, including those pavement markings.
8. When existing or new signage is required during construction, the Contractor shall restore or replace any pavement markings or signage damaged during construction operations, including those pavement markings.
9. Access to driveways adjacent to the construction work shall be maintained at all times as much as possible. Additional cone delineators may be required to delineate the driveway access route through the construction work zone. A minimum of one traffic cone shall be maintained across driveways.
10. Spillage from construction operations along or across any public traveled way shall be removed immediately by the Contractor.
11. Approved traffic control plan shall be in use before starting any excavation.
12. Concrete used for the pavement repair shall be High Early Strength Concrete, 40 lbs. strength or higher, unless otherwise specified by the same day, as the concrete pour.

**PAVING CONSTRUCTION NOTES**

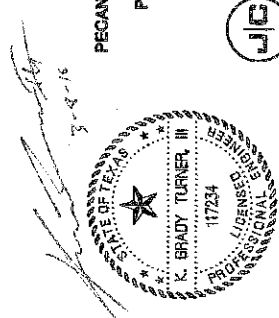
1. Ejectment of pavement repair shall be perpendicular and parallel to travel way.
2. Repairs to curbs when adjacent lane is replaced.
3. Minimum expansion joints at existing locations unless otherwise directed by engineer.
4. All repairs shall have a 25-foot radius at base of curb unless otherwise noted.
5. Guidelines set forth in the "Manual on Uniform Traffic Control Devices" shall be observed.
6. All fill, in addition to approved Fort Bend County District Highways, including base/finish behind the curb, shall be placed in minimum base lift of 4 inches (8" or 12" for concrete) to 3" (6" for compacted aggregate) as determined by ASTM Test Method T99.
7. All concrete pavements to be at least 6 inches reinforced concrete, unless otherwise noted. Concrete mix shall be as specified. High early strength concrete shall be used for roadway rehabilitation.
8. Pavement reinforcement for 26-foot (8.3 x 6) inch reinforced concrete shall be #6 Grade 60 steel rebar on 20.2-inch centers for longitudinal steel and 8-inch centers for transverse steel. Reinforcement shall be placed on either "spread" center to center, and bars shall be grout-cast.
9. Similarly, bar reinforcement in expansion joints shall be six inches (6") thick with surface colored black, when curbs are ten feet (10') and less in width from face to face of curbs. For concrete roadways, surface shall be colored black. For asphalt roadways, surface shall be uncolored.
10. All backfill shall be compacted L5 rock established band up to the subgrade.
11. All rebar shall be drilled and deformed in wet areas.
12. Concrete mix shall be a minimum of 5.5 sack cement mix.
13. Limits of the concrete removal shall be a minimum 1' beyond the limits of the excavation in each direction.

**FORT BEND COUNTY CONSTRUCTION - GENERAL NOTES**

1. Fort Bend County must be invited to the Pre-Construction Meeting.
2. Contractor shall notify Fort Bend County Engineering Department 48 hours prior to commencing construction and 48 hour notice to any construction activity within the limits of the paving at [ConstructionStandards.cocountytx.gov](http://ConstructionStandards.cocountytx.gov).
3. Contractor is responsible for obtaining all permits required from Fort Bend County prior to commencing construction of any improvements within County road right of way.
4. All Paving Improvements shall be constructed in accordance with Fort Bend County Rules, Regulations and Requirements relating to the Approval and Acceptance of Improvements in subdivisions as currently amended.
5. All road widths, curb radii and curb alignment shown indicated back of curb.
6. A continuous longitudinal reinforcing bar shall be used in the curb.
7. All concrete pavement shall be 5 1/2 sack cement with a minimum compressive strength of 3500 psi at 28 days. Transverse expansion joints shall be installed at each curb return and at a maximum spacing of 60 feet.
8. All weather access to all existing streets and driveways shall be maintained at all times.
9. 4" x 12" reinforced concrete curb shall be placed in front of single family lots only. All other areas shall be 6" reinforced concrete curb.
10. All all-terrain locations, Veneer ramps shall be placed in accordance with TxDOT Ped-3.78 standard detail sheet A.D.A. - Handicap Ramps shall be installed with street paving at all intersections and comply with current A.D.A. regulations.
11. Curb headers are required at curb connections to handicap ramps, with no construction joint within 5' of ramp.
12. All intersections requiring Traffic Control measures shall have A.D.A. wheel chair ramps installed.
13. Guidelines are set forth in the Texas "Manual on Uniform Traffic Control Devices", as currently amended, shall be observed. The Contractor shall be responsible for providing adequate flagmen, signing, striping and warning devices etc., during construction - both day and night.
14. All T-1-1 stop signs shall be 30" x 30" with diamond grade sheeting per Texas manual on uniform traffic control devices.
15. Street name signage shall be on a 5" High Alga film (black or reflective green background. Street names shall be upper and lowercase lettering with uppercase letters of 6" minimum and lowercase letters of 4 1/2" minimum. The letters shall be reflective white. Street name signs shall be mounted on stop sign post.
16. A Blue Double Reflective button shall be placed at all Fire Hydrant locations. The Button shall be placed 12 inches off of the centerline of the street on the same side as the hydrant.

NOTE: Fort Bend County notes supercede any conflicting notes.

The Project and all items thereof shall be subject to inspection from time to time by inspectors designated by Fort Bend County. No such inspections shall relieve the Contractor of its responsibility for proper construction in accordance with the plans and specifications. The Contractor shall be responsible for obtaining all permits required to begin construction of this project and for compliance with the rules, regulations, requirements and specifications of Fort Bend County or any provision of this project that be contacted to help in preparation of such work or to clarify the Contractor's obligations forward.



PEGAN GROVE MUNICIPAL UTILITY DISTRICT  
 PLANTATION DRIVE ROAD REPAIR  
 FORT BEND COUNTY, TEXAS  
 MARCH 2016  
**JONES CARTER**  
 Texas Board of Professional Engineers Registration No. F-489  
 630 West Loop South, Suite 150 - Dallas, TX 77401-7177/337

**GENERAL CONSTRUCTION NOTES:**

**TRAFFIC CONTROL NOTES**

- The Contractor shall provide and post traffic control devices in accordance with Part IV of the Texas Manual on Uniform Traffic Control Devices (TMUCD) latest edition with revisions, during the entire construction period.
- Contractor shall have approved traffic control plan at the job site for inspection at all times.
- The Contractor shall not open closed lanes until the pavement surface has cured enough to allow vehicular traffic.
- The Contractor is responsible for maintaining and coordinating all construction activities with state agencies in the vicinity, including emergency response agencies, such as the Police Department, and the Fire Department.
- Contractor shall be responsible for issuing all work directives to all sub-contractors, utility companies, and all other entities performing construction work associated with this project.
- Working in these notes or plans shall relieve the Contractor of the responsibility for job site conditions during the course of construction of the project, including safety of all means of transportation, person, and property, and that this requirement shall apply continuously and not be limited to work hours.
- All existing traffic control signs and pavement markings shall be maintained in visible locations during construction. The Contractor shall restore or replace any pavement markings or signs damaged during construction operations, including related pavement markings.
- When entering or leaving roadways carrying public traffic, the Contractor's equipment, whether empty or loaded shall in all cases yield to traffic with assistance by Contractor provided certified flagger or puller officer.
- Access to driveways adjacent to the construction work shall be maintained at all times as much as possible. Additional cone delineators may be required to delineate the driveway access route through the construction work zone. A minimum of one traffic cone shall be maintained across driveway.
- Spillage from construction operations along or across any public traveled way shall be removed immediately by the Contractor.
- Approved traffic control plans shall be in use before starting any excavation.
- Concrete used for the pavement repair shall be high early strength concrete, so the areas can be opened to normal by the same day as the concrete pour.

**PAVING CONSTRUCTION NOTES**

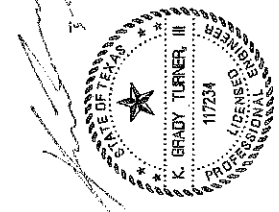
- Cracks of pavement repair shall be perpendicular and parallel to travel way.
- Replace the curb when adjacent area is replaced.
- Reinforcement expansion joints at existing locations unless otherwise directed by Engineer.
- All returns shall have a 24-inch radius at face of curb unless otherwise noted.
- Guidelines set forth in the "Manual on Uniform Traffic Control Devices" shall be observed.
- All fill in existing or proposed Fort Bend County District Right-of-Way, including backfilling behind the curb, shall be placed in maximum loose lifts of eight inches (8") or less and compacted to 95% of standard as determined by ASTM Test Method T 99.
- All concrete pavement to be at least (6) inch reinforced concrete, unless otherwise noted. Concrete mix will be as specified. High early strength concrete shall be used for roadway replacement.
- Pavement reinforcement for 24-inch (24) inch reinforced concrete shall be at least 60 steel reinforcement bars per 20.5-foot centers for longitudinal cross and 36-inch centers for transverse steel. Reinforcement shall be placed on chairs spaced 8" center to center. Spacing shall be greater if noted.
- Steepest business contoured in easements shall be six inches (6") thick with surface colored black, when notes are ten feet (10') and less in width from face to face of curb, for concrete roadway. Surface shall be colored black for asphalt roadways, surfaces shall be uncolored.
- All backfill shall be compacted 1.5 inch stabilizer sand up to the subgrade.
- All rebar shall be drilled and dowelled in with epoxy.
- Concrete mix shall be a minimum of 5.5 sack cement mix.
- Units of the concrete removed shall be a minimum 1' beyond the limits of the excavation in each direction.

**FORT BEND COUNTY CONSTRUCTION - GENERAL NOTES**

- Fort Bend County must be invited to the Pre-Construction Meeting.
- Contractor shall notify Fort Bend County Engineering Department 48 hours prior to commencing construction and 48 hour notice to any construction activity within the limits of the paving at [Construction@texascountysg.com](mailto:Construction@texascountysg.com).
- Contractor is responsible for obtaining all permits required from Fort Bend County prior to commencing construction of any improvements within County road right of way.
- All Paving Improvements shall be constructed in accordance with Fort Bend County Rules, Regulations and Requirements relating to the Approval and Acceptance of Improvements in Subdivisions as currently amended.
- All road widths, curb radii and curb alignment shown indicate task of curb.
- A continuous longitudinal reinforcing bar shall be used in the curbs.
- All concrete pavement shall be 5.5 sack cement with a minimum compressive strength of 3500 psi at 28 days. Transverse expansion joints shall be installed at each curb return and at a maximum spacing of 60 feet.
- All weather access to all existing streets and driveways shall be maintained at all times.
- 4"x12" reinforced concrete curb shall be placed in front of single family lots only. All other areas shall be 6" reinforced concrete curb.
- At all intersection locations, Type 7 ramps shall be placed in accordance with TxDOT Tex-022 standard detail sheet A.D.A. - Handicap Ramps shall be installed with street paving at all intersections and comply with current A.D.A. regulations.
- Curb headers are required at curb connections to Handicap Ramps, with no construction joint within 5' of ramps.
- All intersections utilizing Traffic Control measures shall have A.D.A. wheel chair ramps installed.
- Guidelines are set forth in the "Texas Manual on Uniform Traffic Control Devices", as currently amended, shall be observed. The Contractor shall be responsible for providing adequate flagmen, signing, striping and warning devices, etc., during construction - both day and night.
- All 8x11 stop signs shall be 30"x30" with diamond grade sheeting per Texas manual on uniform traffic control devices.
- Street name signage shall be on 9" high sign flat blade w/ reflective green background. Street names shall be upper and lowercase lettering with upper case letters of 6" minimum and lowercase letters of 4.5" minimum. The letters shall be reflective white. Street name signs shall be mounted on stop sign post.
- A Blue Double Reflectorized button shall be placed at all Fire Hydrant locations. The Button shall be placed 12 inches off of the centerline of the street on the same side as the hydrant.

NOTE: Fort Bend County notes supersede any conflicting notes.

In addition, the Project and all items thereof shall be subject to inspection from time to time by inspectors designated by Fort Bend County. No such inspections shall relieve the Contractor of any of its obligations hereunder. Neither this nor any other provision of the Contract shall be construed to imply an acceptance of such work or to relieve the Contractor of any of its obligations hereunder.



PECAN GROVE MUNICIPAL UTILITY DISTRICT  
 PLANTATION DRIVE ROAD REPAIR  
 FORT BEND COUNTY, TEXAS  
 MARCH 2016

**JIC JONES | CARTER**  
 Texas Board of Professional Engineers Registration No. F-439  
 630 West Loop South, Suite 130 • Dallas, TX 75202 • 713.777.1337