

STATE OF TEXAS DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED HIGHWAY ROUTINE MAINTENANCE CONTRACT

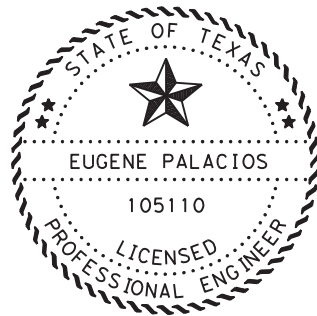
MAINTENANCE PROJECT NO.			SHEET NO.
			1
STATE	DISTRICT	COUNTY	
TEXAS	PHARR	HIDALGO, ETC	
CONTROL	SECTION	JOB	HIGHWAY
6379	63	001	IH-2, ETC.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-4	COUNTY MAPS
5	GENERAL NOTES
6	ESTIMATE AND QUANTITY SHEET

STATE STANDARDS

7	*TRB - 15 (1)
8	*TRB - 15 (2)
9	*TCP (1-1)-18
10	*TCP (2-1)-18
11	*RS-TCP-05



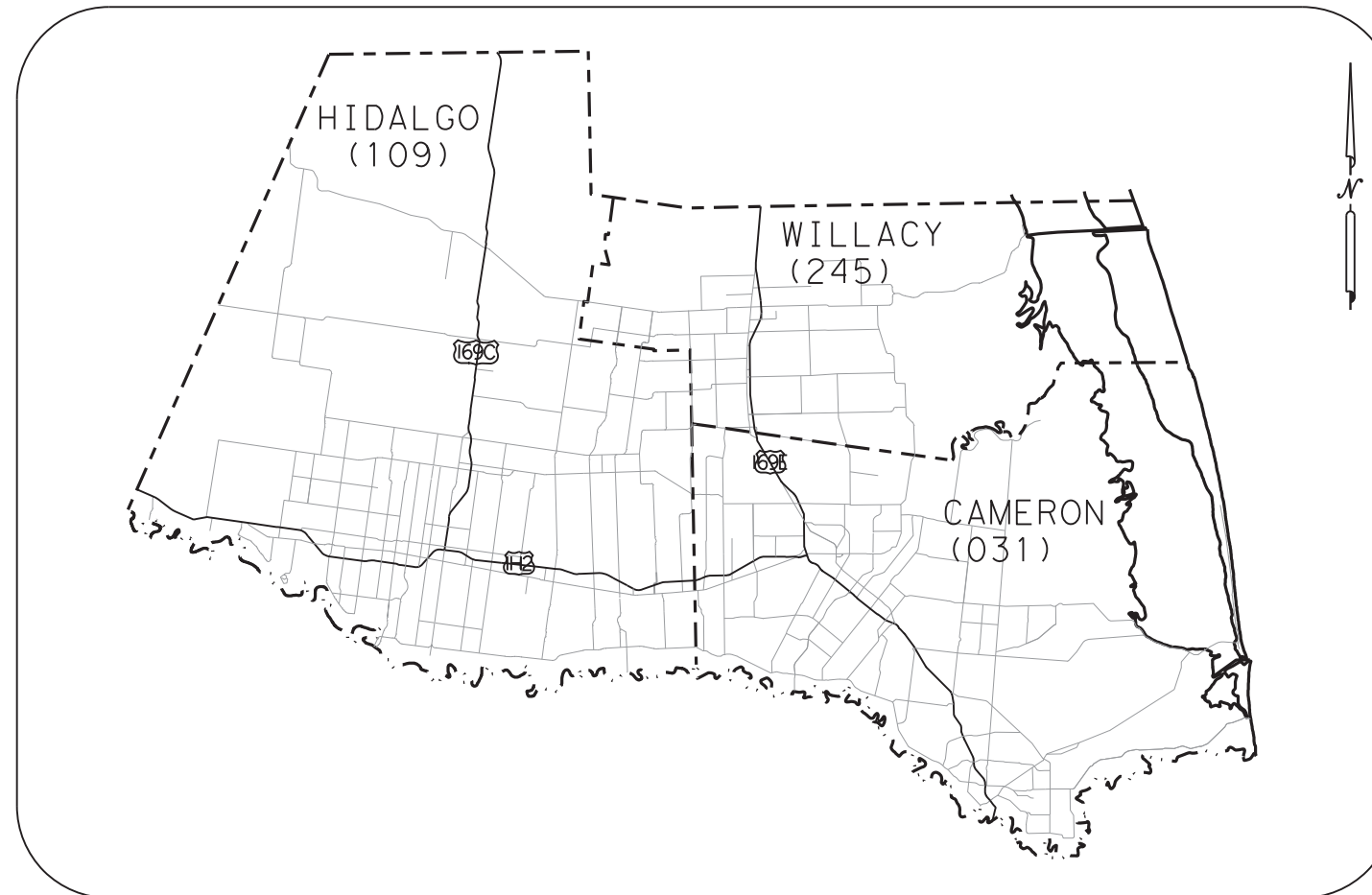
*THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

_____, P.E.
Signature of Registrant & Date

TYPE OF WORK:

PALM TREE TRIMMING AND REMOVAL

PROJECT NO.: RMC 6379-63-001
 HIGHWAY: IH-2, ETC.
 LIMITS OF WORK: Various Roads in Hidalgo, Cameron, and Willacy Counties
 CONTRACT MANAGER: PHARR MAINTENANCE



APPROVED FOR LETTING: DATE: 5/26/2021

DocuSigned by:
Pedro R. Alvarez
 EABA335C2DAA48C...
 DISTRICT ENGINEER

SUBMITTED FOR LETTING: DATE: 5/26/2021

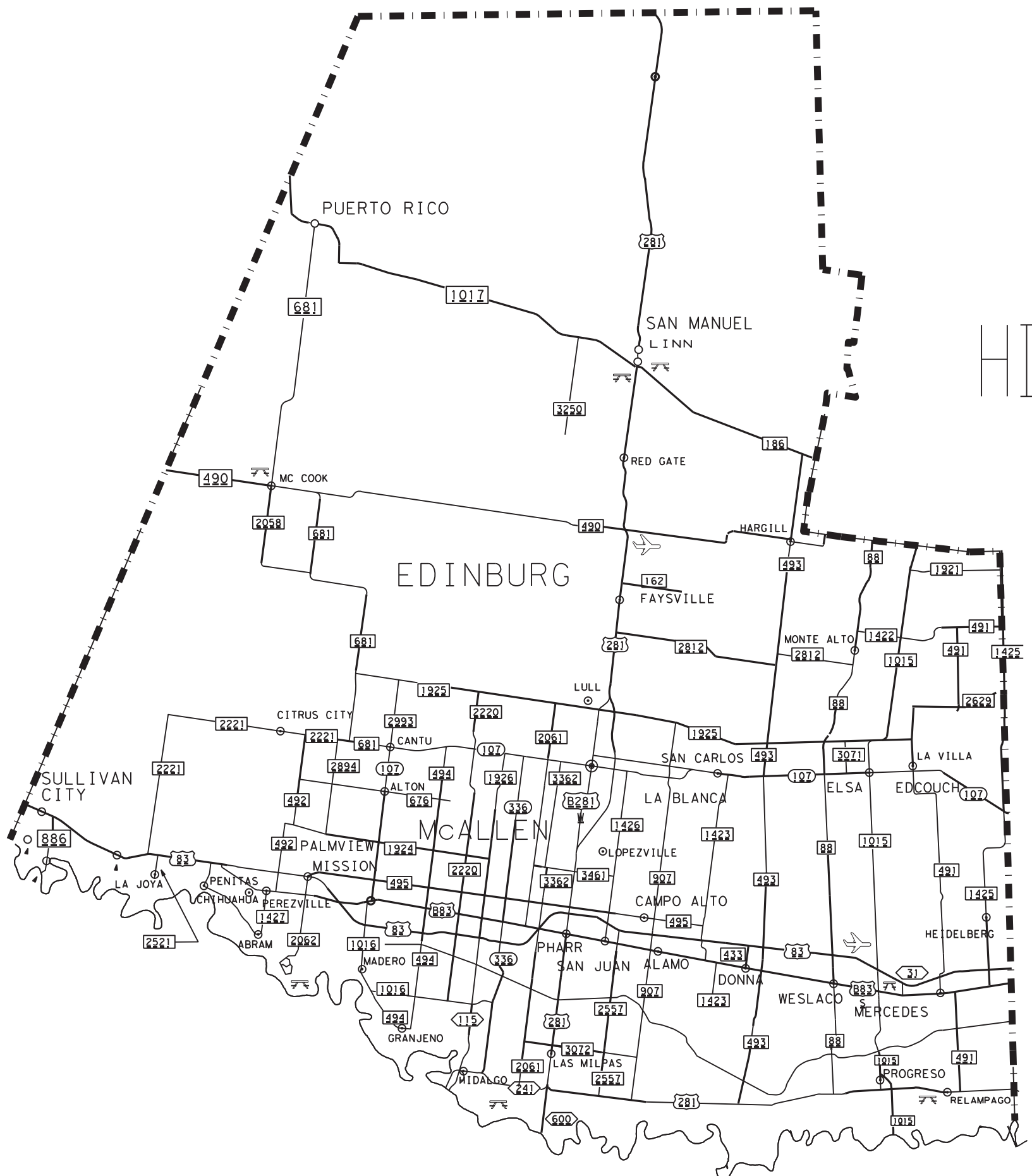
DocuSigned by:
Eugene Palacios
 6325CC1071A9427...
 PROJECT ENGINEER

RECOMMENDED FOR LETTING: DATE: 5/26/2021


DocuSigned by:
Juan A. Sustaita Jr
 E353D62C01B2433...
 DIRECTOR OF MAINTENANCE

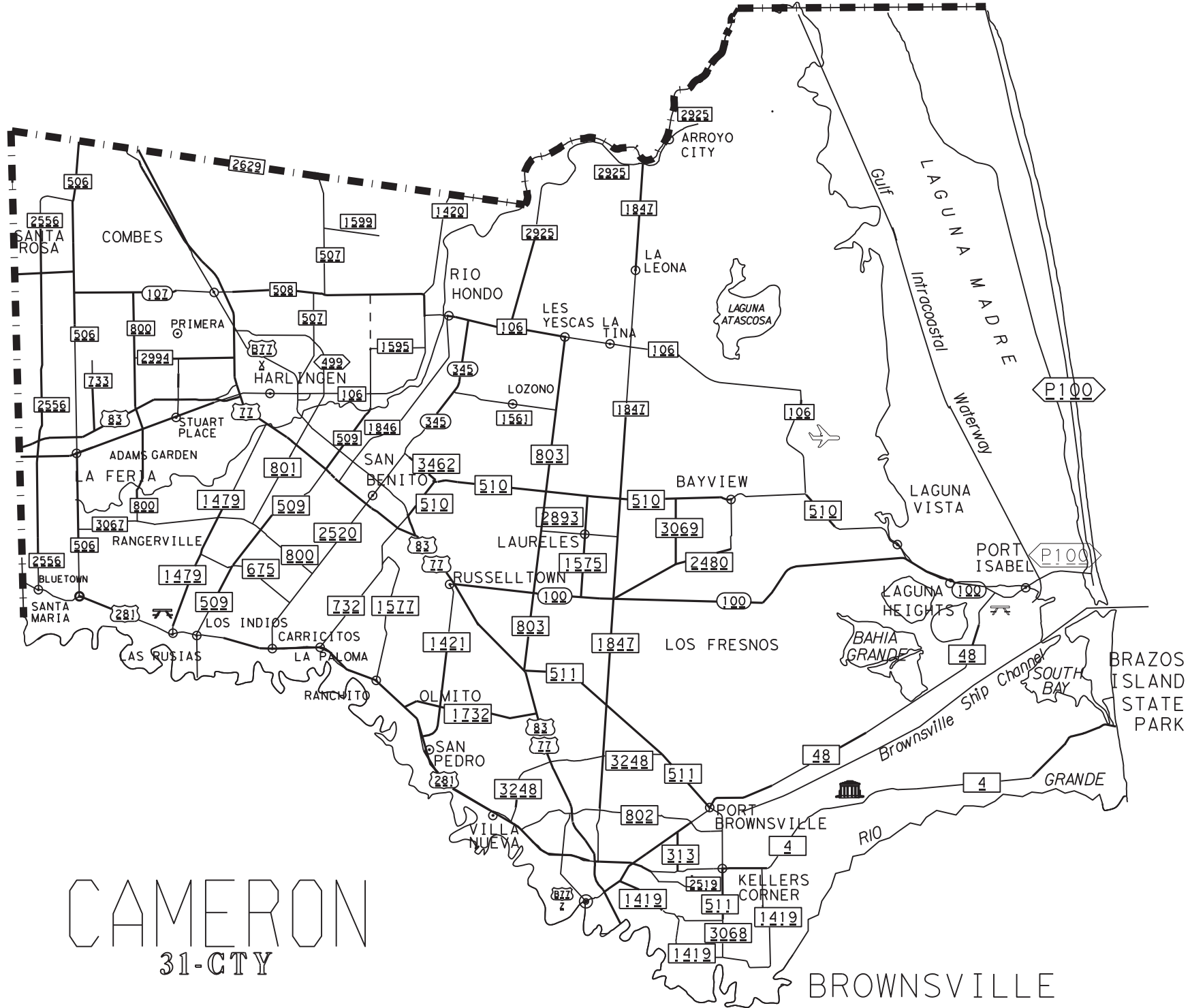
REQUIRED SIGNS SHALL BE IN ACCORDANCE WITH BC (1)-14 THROUGH BC (12)-14 AND THE 'TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES'.

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, NOVEMBER 1, 2014 AND THE CONTRACT PROVISIONS.




HIDALGO
109-CTY
006

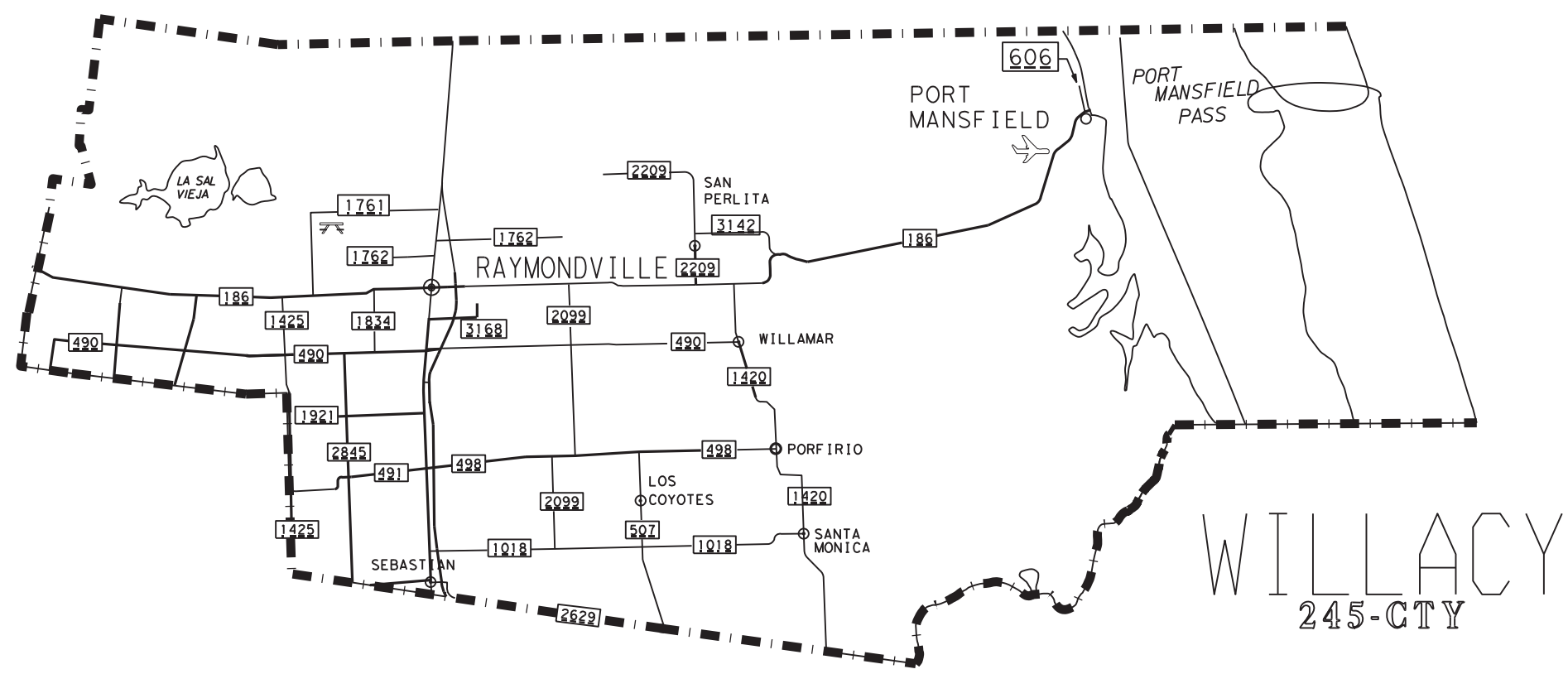
 Texas Department of Transportation © TxDOT 2021		
COUNTY MAPS		
FED. RD. DIV. NO. 6	MAINTENANCE PROJECT NO. RMC 6379-63-001	SHEET NO. 3
STATE TEXAS	DIST 21	COUNTY HIDALGO, ETC
		HIGHWAY IH-2, ETC




CAMERON
31-CTY

BROWNSVILLE

 ©TxDOT 2021			
COUNTY MAPS			
FED. RD. DIV. NO.	MAINTENANCE PROJECT NO.	SHEET NO.	
6	RMC 6379-63-001	4	
STATE	DIST	COUNTY	HIGHWAY
TEXAS	21	HIDALGO, ETC	IH-2, ETC



 Texas Department of Transportation © TxDOT 2021			
COUNTY MAPS			
FED. RD. DIV. NO.	MAINTENANCE PROJECT NO.	SHEET NO.	
6	RMC 6379-63-001	5	
STATE	DIST	COUNTY	HIGHWAY
TEXAS	21	HIDALGO, ETC	IH-2, ETC

GENERAL NOTES:**PLANS ARE REQUIRED**

View plans on-line or download from the web at:

http://www.dot.state.tx.us/business/contractors_consultants/plans_online.htm

Reproduction Firms for Construction and Routine Maintenance Contracts and Informational Proposals:

http://www.dot.state.tx.us/business/contractors_consultants/repro_companies.htm

GENERAL

This project consists of performing "Palm Tree Trimming and Removal" on various roadways for the following Maintenance Section:

MNT Section:	Phone Number:
Brownsville	(956) 542-2288
Edcouch	(956) 262-1254
Mission	(956) 585-5761
Raymondville	(956) 689-2184
San Benito	(956) 399-5102

Contract Manager: Pharr Maintenance

Contractors are hereby instructed to familiarize themselves with the conditions of the work area before bidding. The approximate quantities determined for this project are for the contractor's information only and are not to be considered as actual quantities.

ITEM 2: INSTRUCTIONS TO BIDDERS

Contractor questions on this project are to be addressed to the following individual: Eugene Palacios, P.E., Transportation Engineer; Eugene.Palacios@txdot.gov

All contractor questions will be reviewed by the Engineer. Once a response is developed, it will be posted to TxDOT's Public FTP at the following Address: https://ftp.dot.state.tx.us/pub/txdot-info/Pre-Letting_Responses/

All questions submitted that generate a response will be posted through this site. The site is organized by District, Project Type (Construction or Maintenance), Letting Date, CCSJ/Project Name.

ITEM 4: SCOPE OF WORK

Reference SP004-002 for Contract extension information.

ITEM 6: CONTROL OF MATERIALS

Article 6.6 Store material off TxDOT property or Right of Way

ITEM 8: PROSECUTION AND PROGRESS

A total of 480 working days will be allowed for this project. Working days will be computed and charged in accordance with Article 8.3.1.4. Standard Workweek.

Avoid unnecessary removal of dead fronds on native and ornamental palm trees in South Texas Counties (Hidalgo, Cameron, and Willacy)

No disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season. Large hallow trees should be surveyed for maternity colonies and, if found, should not be disturbed until after the pups fledge.

Under the Migratory Bird Treaty Act of 1918 (MBTA), codified at 16 U.S.C. 703-712 and as enforced by the USFWS, the proposed construction work will not remove active nests from bridges, trees, ground and other structures during migratory bird

nesting season, (February 15th through October 1st). If the Contractor needs to perform work within right of way during nesting season, a qualified Biologist shall conduct a survey to determine if nests are present. If present, Contractor shall maintain a minimum 25 foot buffer zone of vegetation around the nest until the young have fledged or the nest is not occupied. A MBTA Nest Survey Form may be obtained from the Pharr District Office Environmental Section.

Avoid unnecessary removal of dead frond on native and ornamental palm trees in South Texas Counties (Cameron, Hidalgo, Willacy, Kenedy, Brooks, Kleberg, Nueces, and San Patricio counties) from April 1 to October 31. If removal is necessary at other time of the year, limit frond removal to extend warm periods (nighttime temperatures > 55 F for at least two consecutive nights) so bats can move away from the disturbance and find new roosts.

Contract Prosecution Each contract awarded by the Department stands on its own and as such, is separate from another contract. A contractor awarded multiple contracts, must be capable and sufficiently staffed to concurrently process any or all contracts at the same time. The contractor will notify the Maintenance Supervisor in charge of his intended starting point, if not so stated on the Start Up Letter.

The contractor shall notify the Supervisor of any intention to deviate from the proposed scheduled route. The contractor will furnish a proposed schedule of the work for the Engineer's review and approval. Any deviations of the schedule will require approval by the Engineer.

ITEM 502: BARRICADES, SIGNS AND TRAFFIC HANDLING

Furnish and install all signs, barricades and other incidentals necessary for proper traffic control, in accordance with part VI of the "Texas Manual of Uniform Traffic Control Devices for Streets and Highways" and as directed. All warning signs will be factory made and in satisfactory condition.

Ensure equipment and materials are a minimum of 30 feet from the edge of the travel lane during non-working hours.

Erect signs in locations not obstructing the traveling public's view of the normal roadway signing or required sign distance at the intersections and curves.

ITEM 752: TREE AND BRUSH REMOVAL

All palm trees will be trimmed, regardless of size, unless omitted by TxDOT.

Debris and fronds trimmed will be disposed of on the same day they are cut, at various dump sites throughout the valley at the sole expense of the Contractor. The Contractor will submit a letter to TxDOT stating the location(s) of the dump site(s). The Contractor is allowed to chip and dispense the palm fronds by a method approved by the State.

All dead palm trees, as identified by the State, are to be removed approximately 12"(inches) below natural ground level. All trees will become the property of the Contractor and will be disposed of in an approved landfill.


Districtwide callout locations shall be determined by the Engineer. Engineer will provide advance notice of locations to the Contractor so as not to disrupt operations.

ITEM 6185: TRUCK MOUNTED ATTENUATOR/TRAIL ATTENUATOR


In addition to the shadow vehicles with truck mounted attenuator (TMA) that are specified as being required on the traffic control plan for the project, provide 0 additional shadow vehicle(s) with TMA as per

TCP (1-1) -18 as detailed on General Note 5 of this standard sheet; or TCP (2-1) -18 as detailed on General Note 5 of this standard sheet;

Therefore, 1 total shadow vehicles with TMA will be required on this project for the type of work as shown on the plans. The Contractor will be responsible for determining if one or more of his construction operations will be ongoing at the same time and thus determine the total number of TMAs needed for the project.

 Texas Department of Transportation © TxDOT 2021					
General Notes					
FED. RD. DIV. NO.		COUNTY			SHEET NO.
		HIDALGO, ETC			5
STATE	DIST.	CONT.	SECT.	JOB	HIGHWAY NO.
TEXAS	21	6379	63	001	IH-2, ETC

6379-63-001					
PALM TREE TRIMMING AND REMOVAL					
ESTIMATE AND QUANTITY SHEET					
SECTION	COUNTY	HIGHWAY	LIMITS	UNIT	QUANTITY
Brownsville	Cameron	Various	Various roadways within Maintenance Section Limits	EA	60
San Benito	Cameron	Various	Various roadways within Maintenance Section Limits	EA	60
Raymondville	Willacy	Various	Various roadways within Maintenance Section Limits	EA	60
Edcouch	Hidalgo	Various	Various roadways within Maintenance Section Limits	EA	60
Mission	Hidalgo	Various	Various roadways within Maintenance Section Limits	EA	60
Districtwide	Various	Various	Callout	EA	20
			ITEM 752-6007 TREE REMOVAL (18" - 24" DIA)	EA	320
			Note: Item 752-6007 to be used for the removal of Palm Trees		
Brownsville	Cameron	Various	Various roadways within Maintenance Section Limits	EA	10
San Benito	Cameron	Various	Various roadways within Maintenance Section Limits	EA	10
Raymondville	Willacy	Various	Various roadways within Maintenance Section Limits	EA	10
Edcouch	Hidalgo	Various	Various roadways within Maintenance Section Limits	EA	10
Mission	Hidalgo	Various	Various roadways within Maintenance Section Limits	EA	10
			ITEM 752-6023 TREE TRIMMING	EA	50
			Note: Item 752-6023 to be used for the trimming of Miscellaneous Trees		
Brownsville	Cameron	Various	Various roadways within Maintenance Section Limits	EA	500
San Benito	Cameron	Various	Various roadways within Maintenance Section Limits	EA	500
Raymondville	Willacy	Various	Various roadways within Maintenance Section Limits	EA	500
Edcouch	Hidalgo	Various	Various roadways within Maintenance Section Limits	EA	500
Mission	Hidalgo	Various	Various roadways within Maintenance Section Limits	EA	500
			ITEM 752-6025 TREE TRIMMING (12"-24")	EA	2,500
			Note: Item 752-6025 to be used for the trimming of Palm Trees		

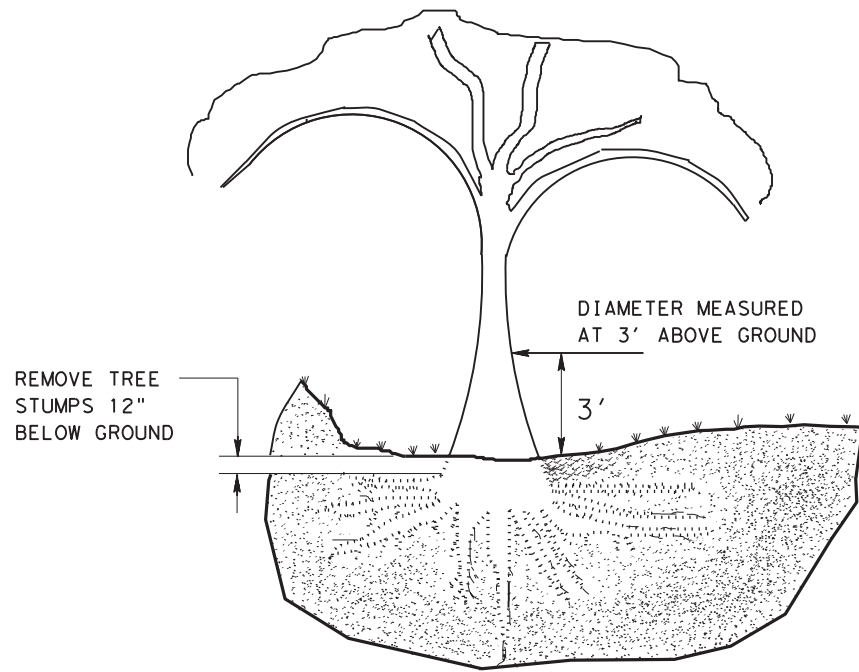


Texas Department of Transportation
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ESTIMATE AND QUANTITY

FED. RD. DIV. NO.		COUNTY			SHEET NO.
		HIDALGO, ETC			6
STATE	DIST.	CONT.	SECT.	JOB	HIGHWAY NO.
TEXAS	21	6379	63	001	IH-2, ETC

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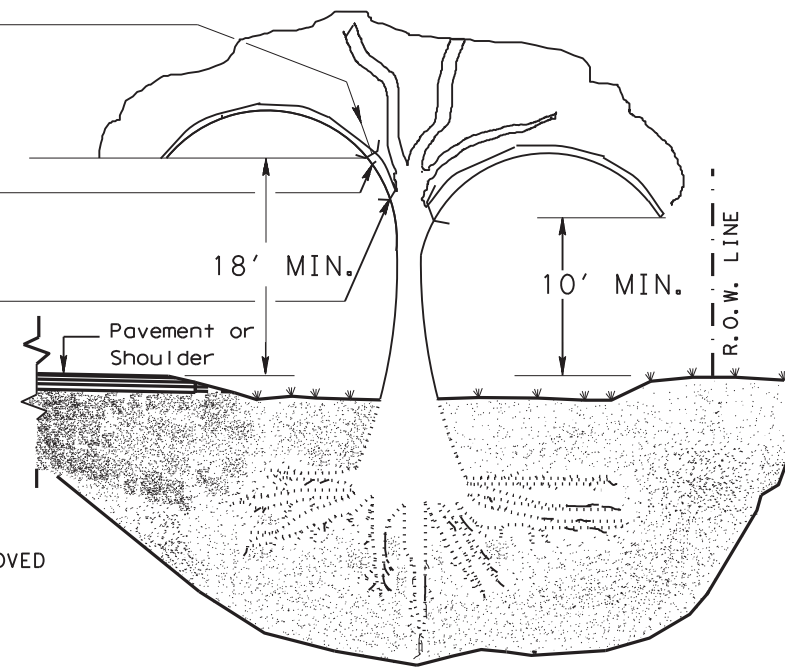
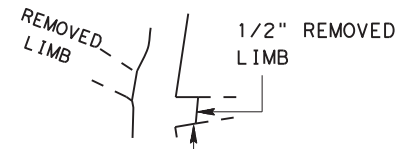


TREE REMOVAL

STEP 1:
CUT 1/3 WAY THROUGH BOTTOM OF LIMB 8" TO 12" ABOVE MAIN STEM (OR TRUNK).

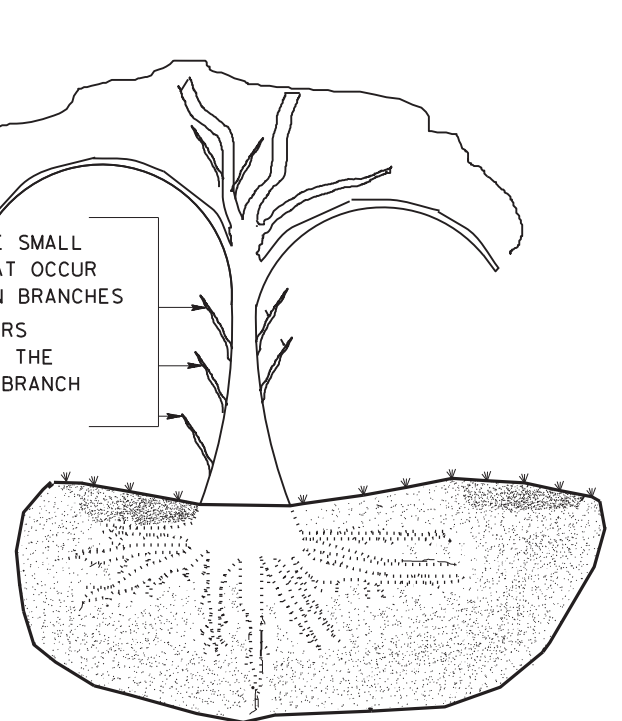
STEP 2:
REMOVE LIMB 4" TO 6" BEYOND THE FIRST CUT

STEP 3:
REMOVE STUB WITH A SMOOTH CUT SO THAT TRACE COLLAR OF THE REMOVED LIMB PROTRUDES APPROXIMATELY 1/2" FROM THE MAIN STEM

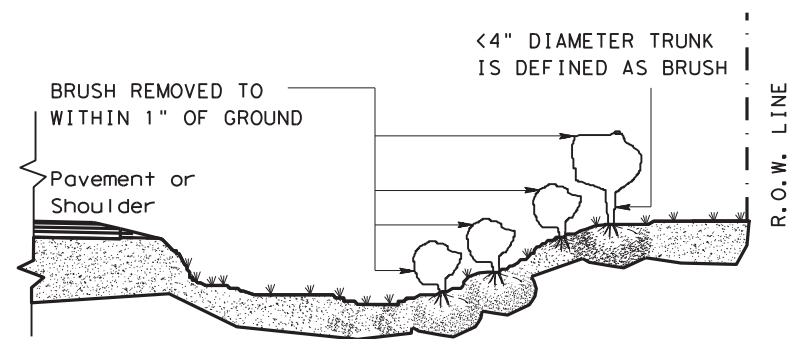


TREE TRIMMING

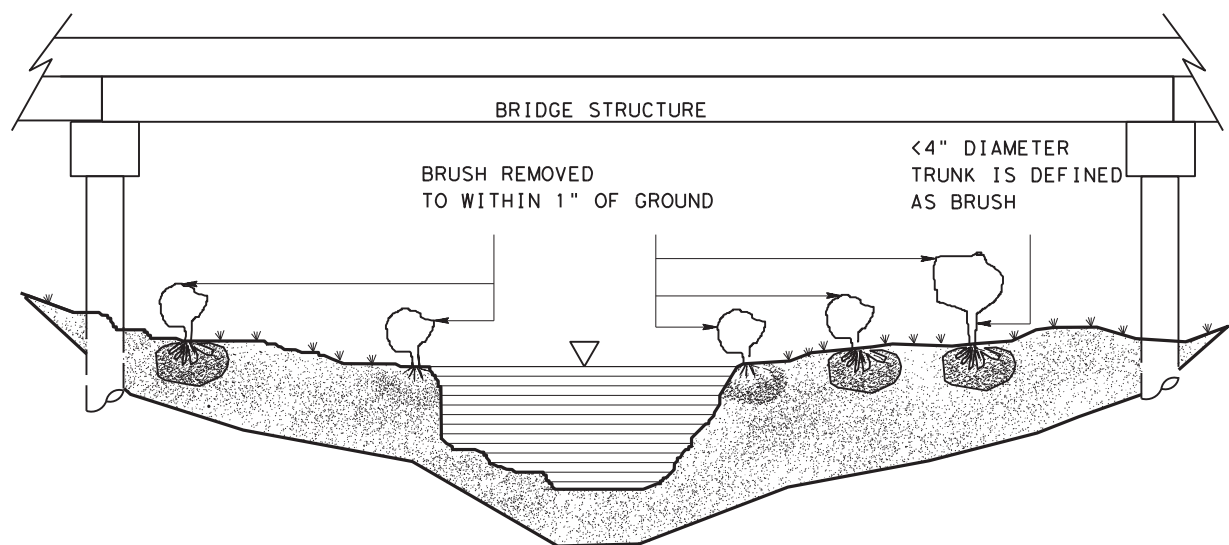
SUCKERS ARE SMALL BRANCHES THAT OCCUR BENEATH MAIN BRANCHES REMOVE SUCKERS TO HEIGHT OF THE LOWEST MAIN BRANCH



STEPS 1, 2 AND 3 APPLY WHEN REMOVING LIMBS 2" IN DIAMETER OR LARGER.



BRUSH REMOVAL



BRUSH REMOVAL UNDER BRIDGE AND IN CHANNEL

GENERAL NOTES:

TREE TRIMMING

1. TRIM AND REMOVE ALL TREE LIMBS ON THE PAVEMENT SIDE OF THE TRUNK 18' ABOVE THE PAVEMENT OR BRIDGE DECK ELEVATION, UNLESS OTHERWISE SHOWN ON THE PLANS.
2. TRIM AND REMOVE ALL TREE LIMBS BETWEEN THE TRUNK AND R.O.W. LINE 10' ABOVE NATURAL GROUND, TERRAIN OR OTHER STRUCTURE ELEVATION, UNLESS OTHERWISE SHOWN ON THE PLANS.

TREE REMOVAL

3. FOR TREES MARKED FOR REMOVAL, THE DIAMETER OF TREES ARE DETERMINED BY MEASUREMENT OF THE TRUNK CIRCUMFERENCE 3' ABOVE THE GROUND. TREES WITH TRUNKS OF LESS THAN 4" DIAMETER ARE CONSIDERED TO BE BRUSH. TREES WITH MULTIPLE TRUNKS AT THE POINT OF MEASUREMENT ARE MEASURED AND PAID FOR SEPARATELY.
4. MEASUREMENTS FOR PAYMENT OF TREE DIAMETERS ARE DIVIDED INTO THE RANGES SHOWN IN TABLE 1.

PAY ITEM	RANGE FOR PAY ITEMS			
	TRUNK DIAMETER *		TRUNK CIRCUMFERENCE	
	LOWER LIMIT IS GREATER THAN	UPPER LIMIT IS LESS THAN OR EQUAL TO	LOWER LIMIT IS GREATER THAN	UPPER LIMIT IS LESS THAN OR EQUAL TO
752 6005	4	12	12 1/2	37 1/2
752 6006	12	18	37 1/2	56 1/2
752 6007	18	24	56 1/2	75 1/2
752 6008	24	30	75 1/2	94
752 6009	30	36	94	113
752 6010	36	42	113	132
752 6011	42	48	132	151
752 6012	48	60	151	188 1/2
752 6013	60	72	188 1/2	226
752 6019	72	84	226	264
	84	GREATER THAN 84	264	NOT APPLICABLE

*SEE GENERAL NOTE #3.

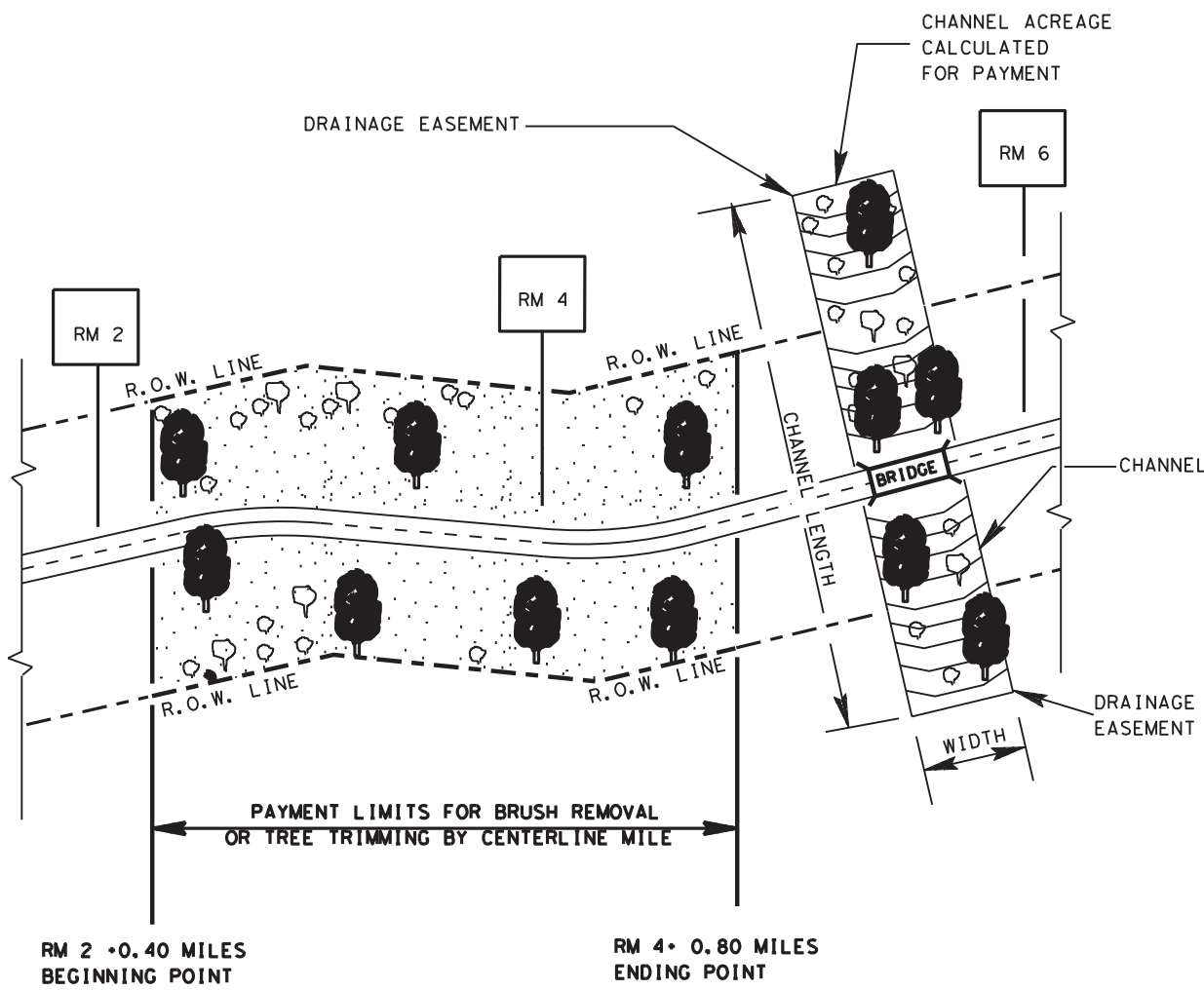


TREE AND BRUSH REMOVAL

TRB-15(1)

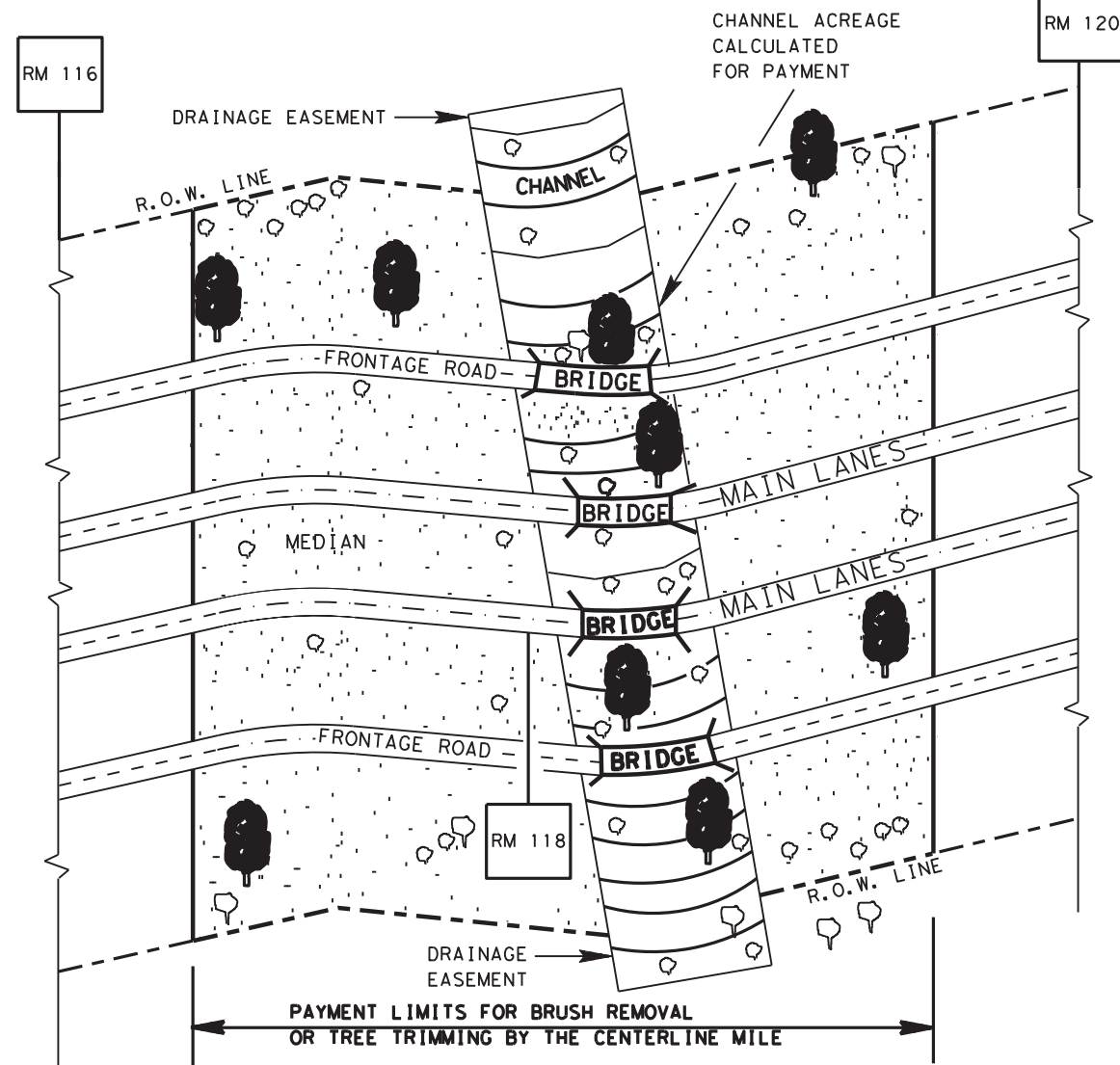
FILE:	DN: JEO	CK: LJB	DW: JEO	CK:
© TxDOT MARCH 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS	6379	63	001	IH-2, ETC
Revised table 1 to 2014 Specification	DIST	COUNTY	SHEET NO.	
	21	HIDALGO, ETC	7	

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BRUSH REMOVED TO WITHIN 1" OF GROUND <4" DIAMETER TRUNK IS DEFINED AS BRUSH UNLESS OTHERWISE DIRECTED

EXAMPLE: UNDIVIDED HIGHWAY



EXAMPLE: DIVIDED HIGHWAY WITH FRONTAGE ROADS

GENERAL NOTES:

TREE TRIMMING AND BRUSH REMOVAL

1. PAYMENT BY THE CENTERLINE MILE IS MADE TO THE NEAREST 1/100 (0.01) MILE.
2. LIMITS OF WORK ARE SHOWN AS DISTANCES FROM REFERENCE MARKERS (RM).
3. PAY ITEMS BY THE CENTERLINE MILE INCLUDE ALL TREE TRIMMING OR BRUSH REMOVAL IN THE RIGHT OF WAY ON BOTH SIDES OF THE HIGHWAY. FOR DIVIDED HIGHWAYS, THE MEDIAN IS INCLUDED. FOR HIGHWAYS WITH FRONTAGE ROADS, THE AREAS BETWEEN THE FRONTAGE ROADS AND MAIN LANES, AND THE AREAS OUTSIDE OF THE FRONTAGE ROADS ARE INCLUDED.
4. BRUSH REMOVAL AND TREE TRIMMING UNDER BRIDGES, IN AND ALONG CHANNELS AND EASEMENTS ARE PAID FOR BY THE ACRE FOR AREAS DESIGNATED ON THE PLANS.

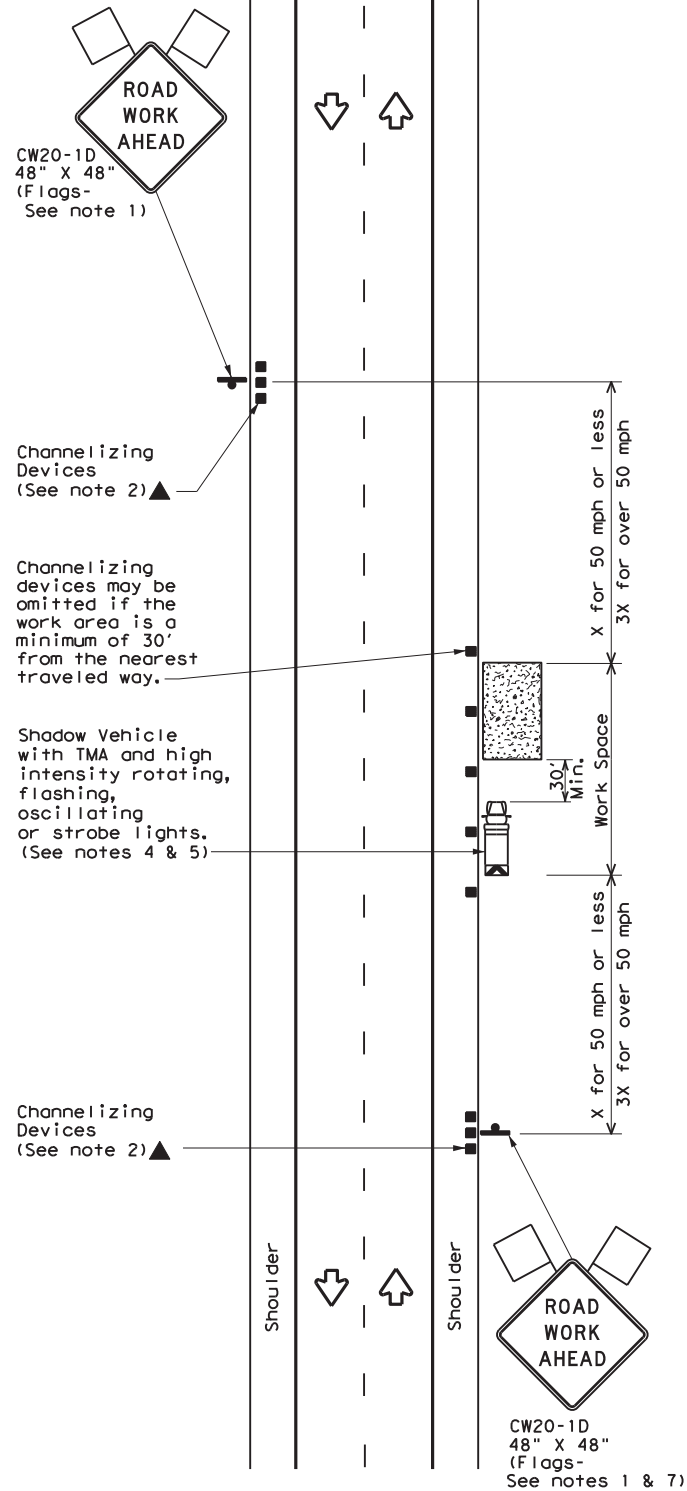
LEVELS DISPLAYED
1

Texas Department of Transportation
Maintenance Division
Standard Plans

TREE AND BRUSH REMOVAL
TRB-15(2)

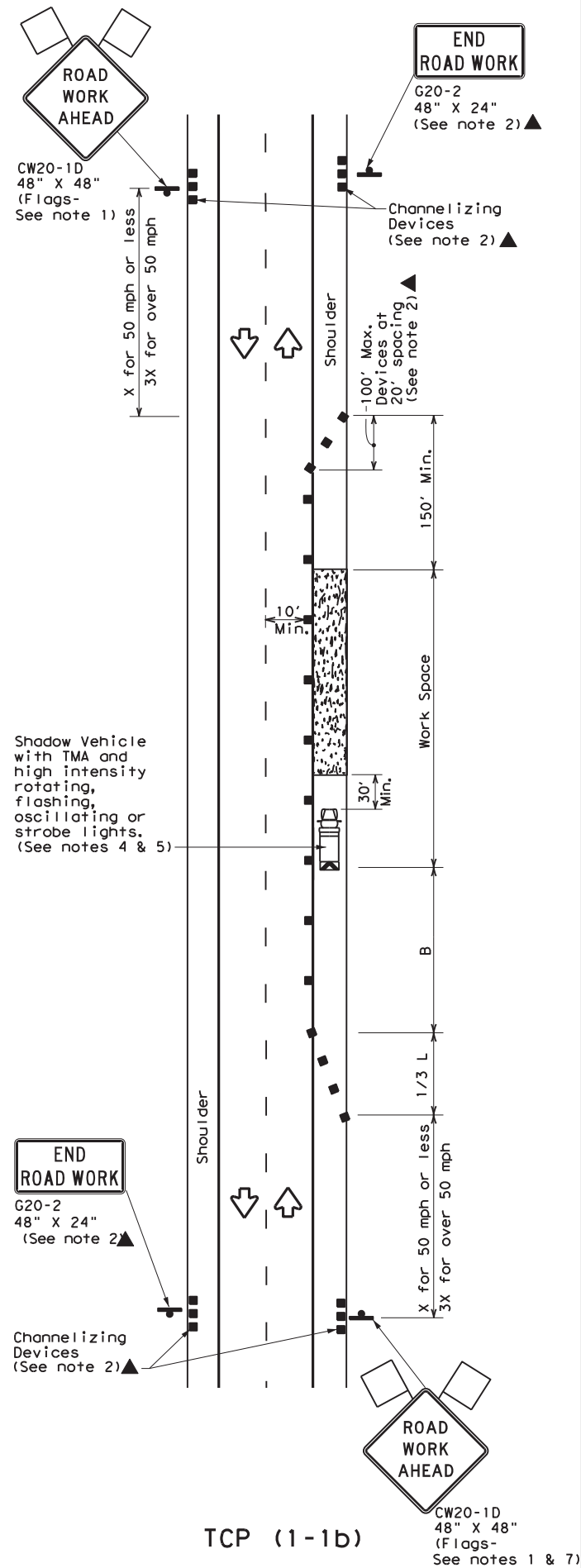
NOT TO SCALE		SHEET 2 OF 2						
FILE: TRB-15(2).DGN	DRAWN: JEO	CHECKED: DM/LJB	DW: -	CK: -	NEG NO.:			
© TxDOT APRIL 2015		STATE DISTRICT	FEDERAL REGION	HIGHWAY			SHEET	
REVISED: 5/13/2004	LJB	21	6	IH-2, ETC			8	
REVISED: 9/24/2004	LJB	COUNTY			CONTROL	SECTION	JOB	
REVISED: APRIL 2015	JEO	HIDALGO, ETC			6379	63	001	

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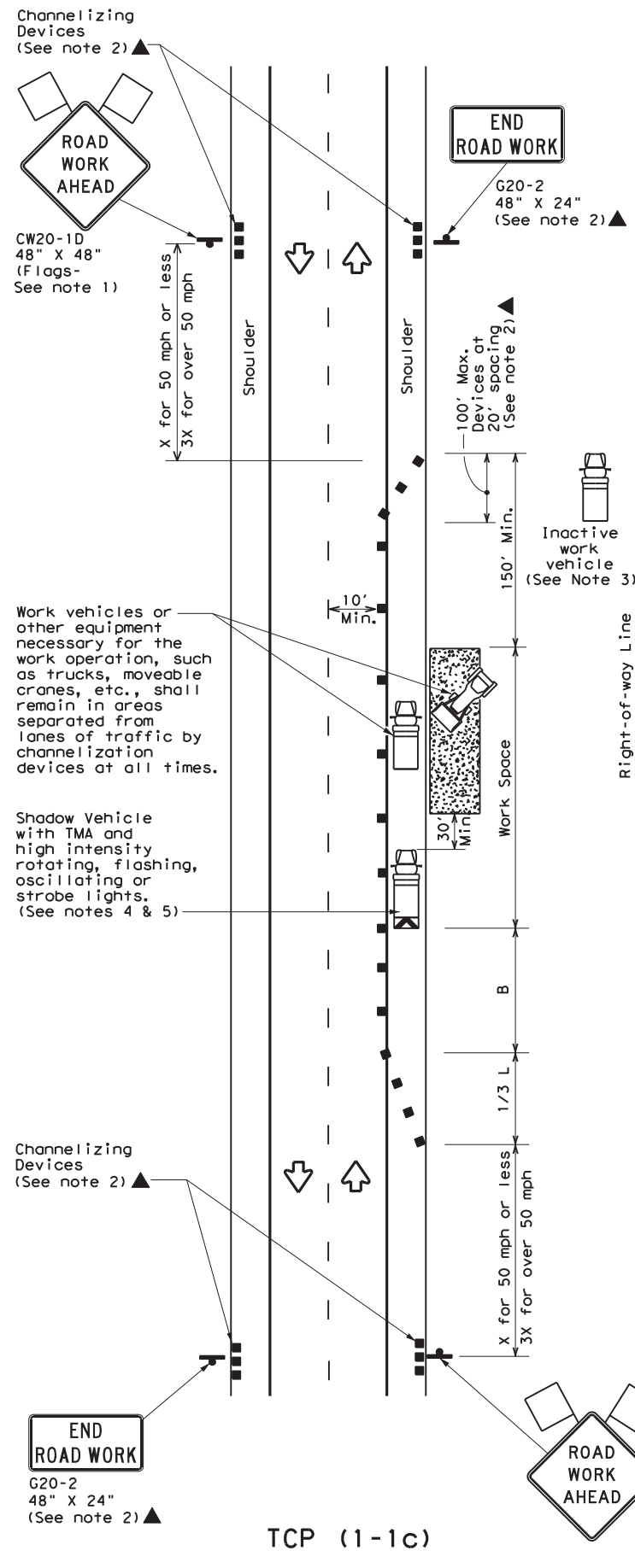
TCP (1-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (1-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (1-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

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

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.

L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

- Flags attached to signs where shown are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- 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 without adversely affecting the performance or quality of the work. 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 TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
- CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.



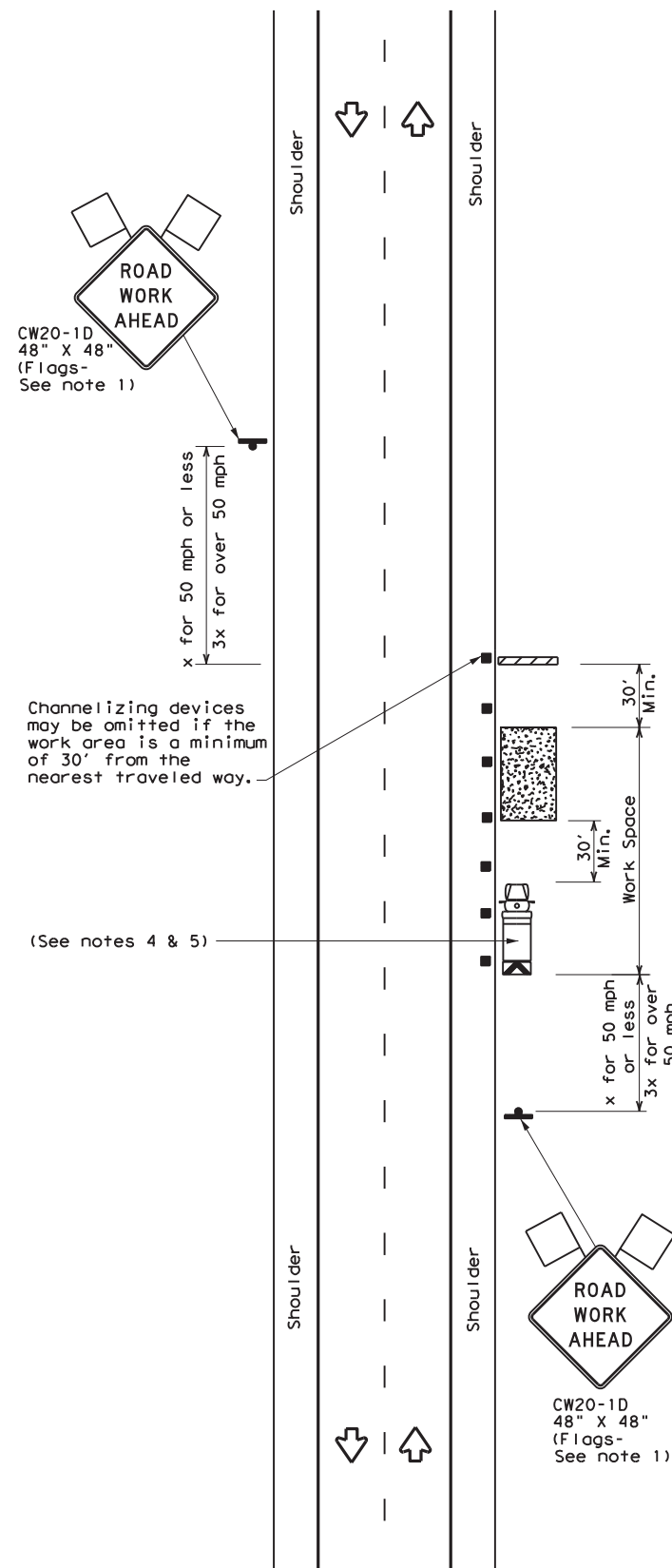
TRAFFIC CONTROL PLAN
CONVENTIONAL ROAD
SHOULDER WORK

TCP (1-1) - 18

FILE: tcp1-1-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	6379	63	001	IH-2, ETC
2-94 4-98	DIST	COUNTY	SHEET NO.	
8-95 2-12	21	HIDALGO, ETC	9	
1-97 2-18				

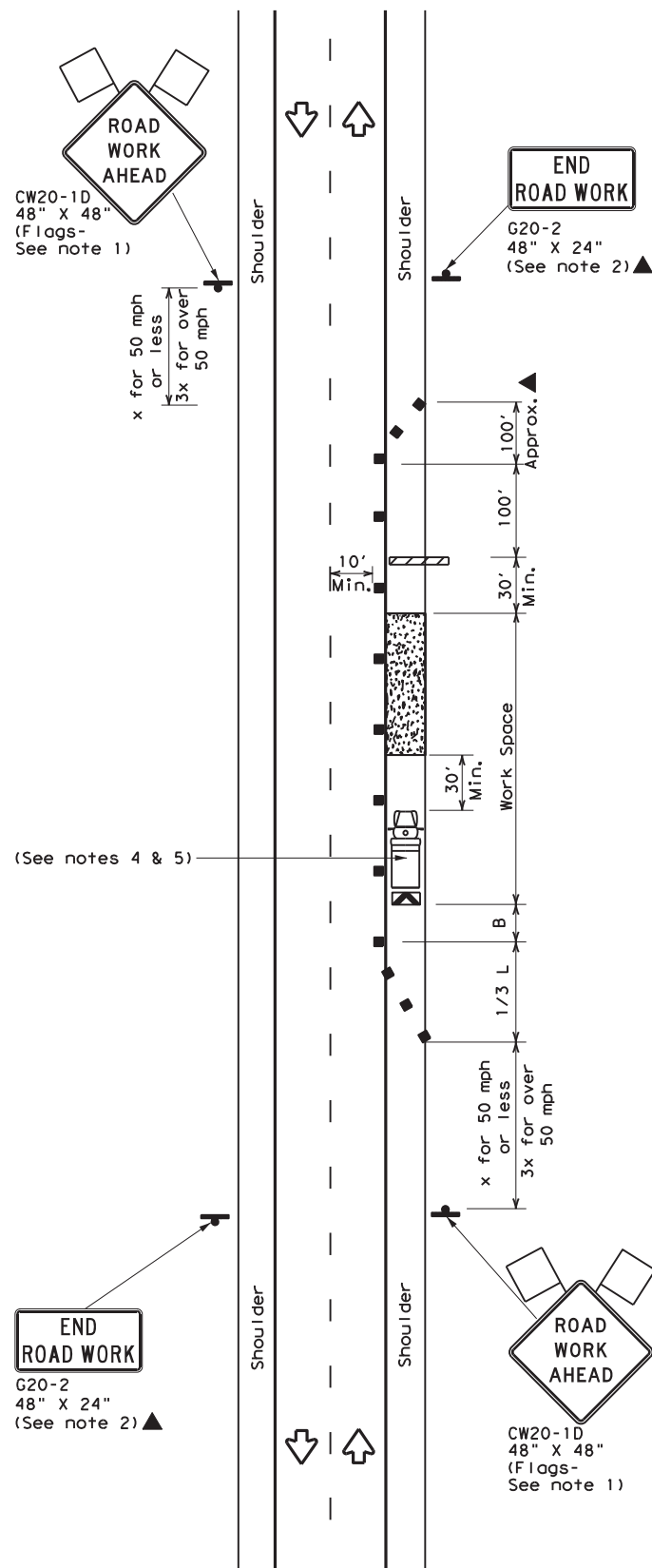
DATE:
FILE:

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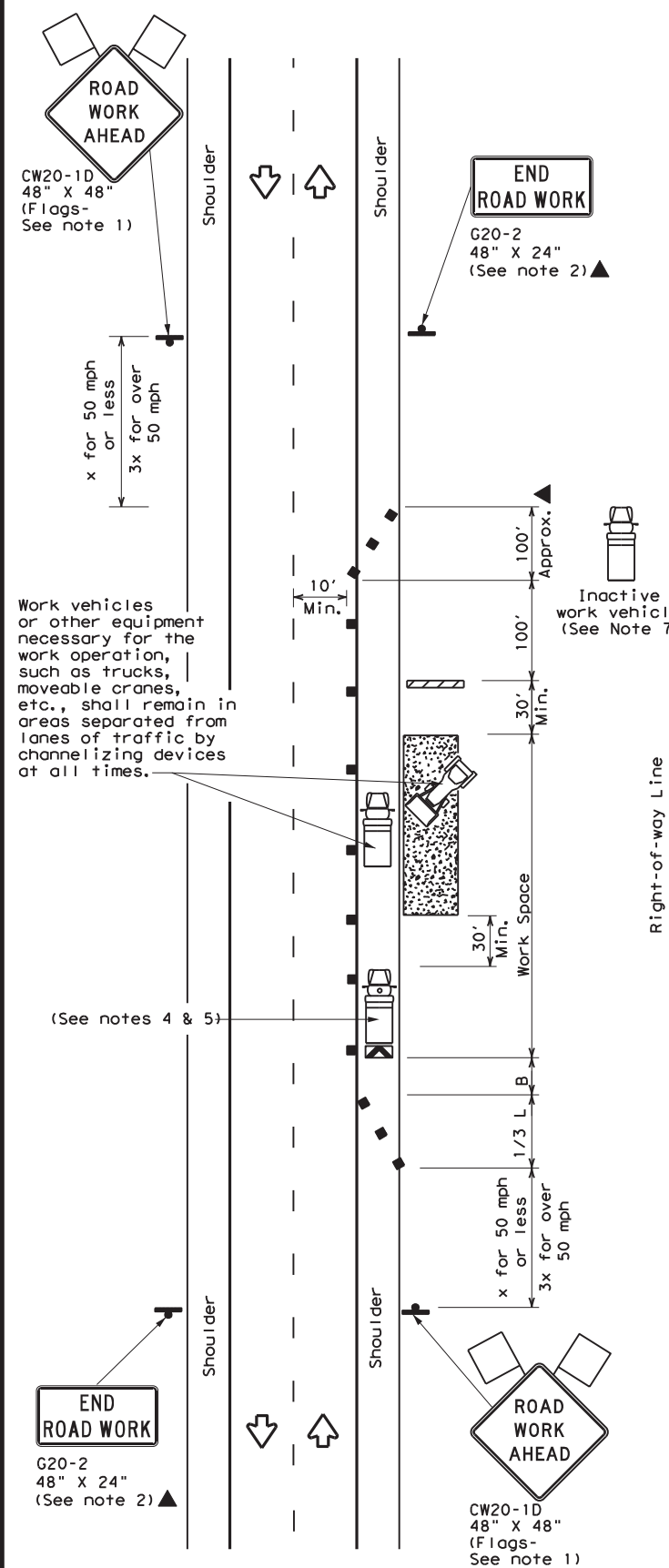
TCP (2-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (2-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (2-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

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

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
 ** Taper lengths have been rounded off.
 L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	✓

- GENERAL NOTES**
- Flags attached to signs where shown, are REQUIRED.
 - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated in the plans, or for routine maintenance work, when approved by the Engineer.
 - Stockpiled material should be placed a minimum of 30 feet from nearest traveled way.
 - Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. 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 without adversely affecting the performance or quality of the work. 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 TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
 - See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
 - Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
 - CW21-5 "SHOULDER WORK" signs may be used in place of CW21-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.



TRAFFIC CONTROL PLAN
CONVENTIONAL ROAD
SHOULDER WORK

TCP (2-1) - 18

FILE: tcp2-1-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS	6379	63	001	IH-2, ETC
2-94 4-98	DIST	COUNTY	SHEET NO.	
8-95 2-12	21	HIDALGO, ETC	10	
1-97 2-18				

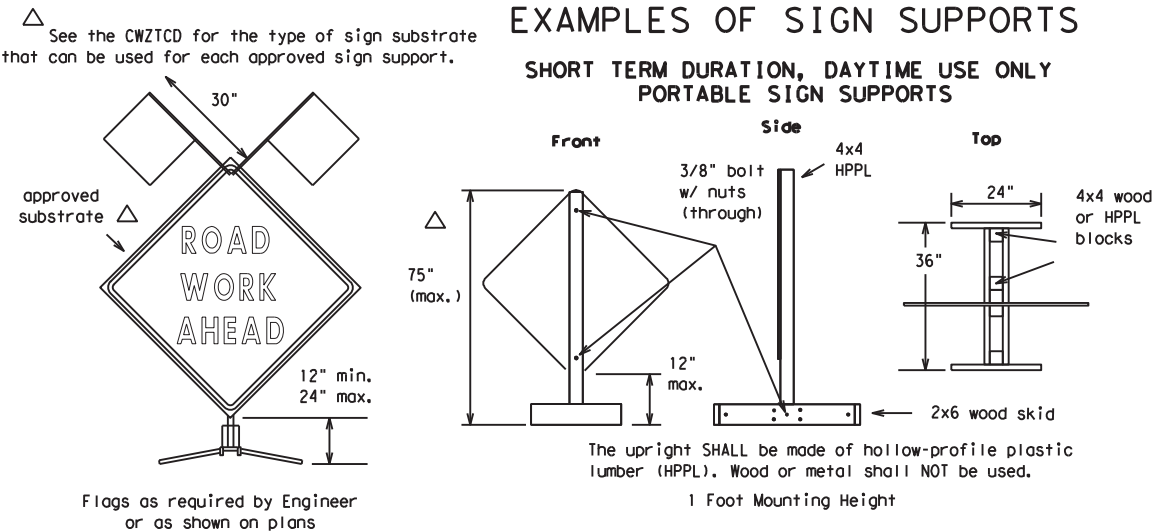
DATE:
FILE:

DISCLAIMER
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	

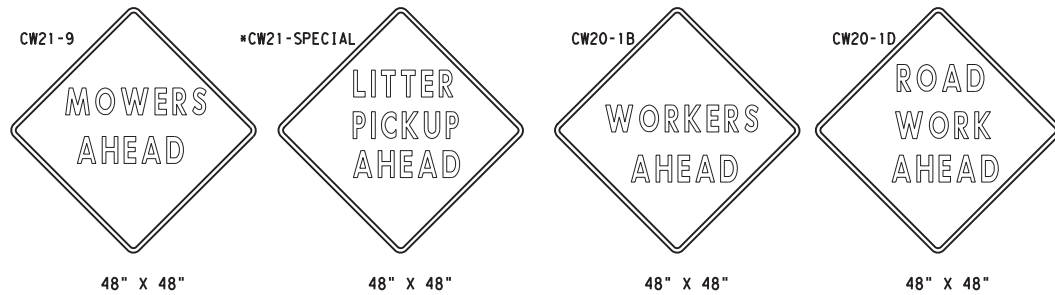
EXAMPLES OF SIGN SUPPORTS

SHORT TERM DURATION, DAYTIME USE ONLY PORTABLE SIGN SUPPORTS



Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports.

Nails will NOT be allowed.



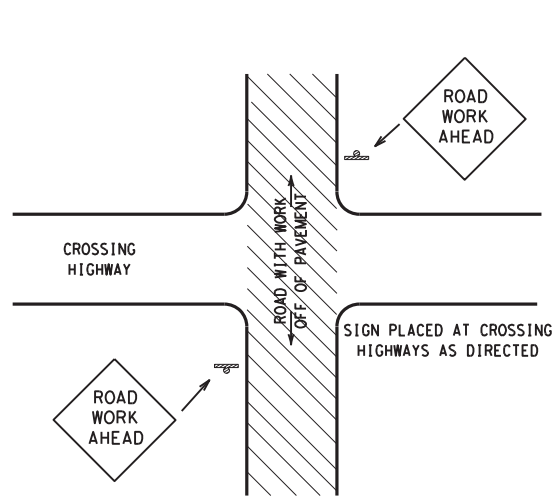
SIGN IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS

MOWERS AHEAD SIGNS ARE USED FOR MOWING OPERATIONS.

LITTER PICKUP AHEAD, ROAD WORK AHEAD AND WORKER AHEAD SIGNS ARE USED AS DIRECTED FOR OTHER MAINTENANCE OPERATIONS WHEN ALL WORK OCCURS OFF OF THE PAVED HIGHWAY SURFACE.

ROLL-UP SIGNS CONFORMING TO DMS-8310 AND THE CWZTCD ALLOWED

*Letter dimensions and spacing for "CW21-SPECIAL" is the same as C20-1D



TYPICAL LOCATION OF SIGNS AT HIGHWAY CROSSING

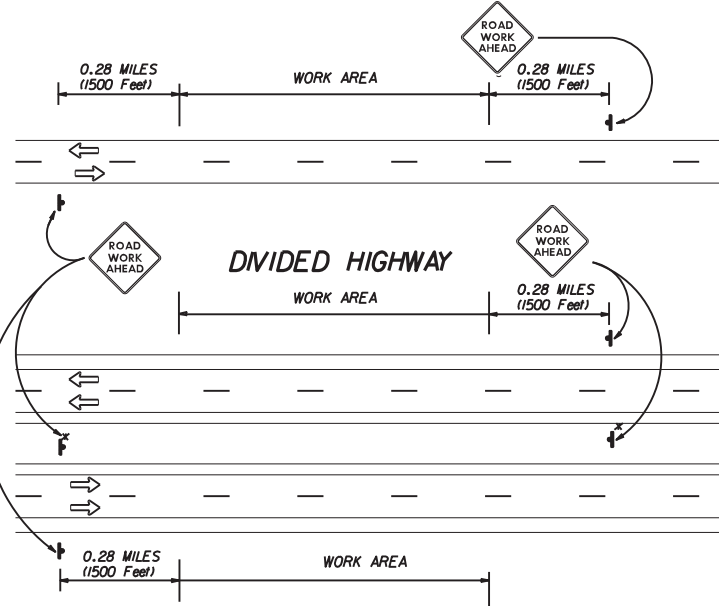
WORK AREA IS A MAXIMUM OF 2.0 MILES UNLESS OTHERWISE DIRECTED. SIGNS MAY REMAIN IN PLACE ONLY DURING DAYLIGHT HOURS.

SIGNS ARE TO BE PLACED 6' TO 12' OFF OF THE PAVED SURFACE UNLESS OTHERWISE DIRECTED.

ROAD WORK AHEAD SIGNS SHOWN AS EXAMPLES, ONE OF THE FOUR TYPE SIGNS WILL BE USED AS DIRECTED.

* SIGNS IN THE MEDIAN ARE REQUIRED WHEN WORK OCCURS IN MEDIAN

UNDIVIDED HIGHWAY OR FRONTAGE ROAD



TRAFFIC CONTROL PLAN FOR WORK OFF OF THE PAVED SURFACE.

GENERAL NOTES FOR WORK ZONE SIGNS

- Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
- Wooden sign posts shall be painted white.
- Barricades shall NOT be used as sign supports.
- Nails shall NOT be used to attach signs to any support.
- All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
- The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes. The additional signs requested by the Engineer/Inspector shall not be subsidiary.
- The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD). The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so that the Engineer can verify the correct procedures are being followed.
- The Contractor is responsible for sign installations and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
- Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1".
- The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

Duration of Work (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part VI)

- The Contractor is responsible for ensuring the sign support and substrate meets crashworthiness. For mowing operation all signs and supports are Short-term Duration for daytime work.
- The Contractor shall furnish the sign sizes shown on this sheet or as directed by the Engineer.

SIGN SUBSTRATES

- The Contractor shall ensure that the sign substrate is allowed for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
- "Mesh" type materials are NOT an approved sign substrate.
- All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign faces.

REFLECTIVE SHEETING

- Reflectorized signs shall be constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 or DMS-8310. The DMS specifications can be accessed from the following web address:
http://manuals.dot.state.tx.us:80/dynaweb/colmates/@Generic_CollectionView;cs=default;ts=default
- White sheeting, meeting the requirements of DMS-8300 Type C (High Specific Intensity), shall be used for signs with white background and channelizing devices.
- Orange sheeting, meeting the requirements of DMS-8300 Type E (Fluorescent Prismatic), shall be used for signs with orange backgrounds.

SIGN LETTERS

- All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

- Signs should be removed or completely covered when not mowing.
- Duct tape or other adhesive material shall NOT be affixed to a sign face.
- Signs and supports shall be removed by the end of the day.

SIGN SUPPORT WEIGHTS

- Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry cohesionless sand is recommended.
- The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
- Rock, concrete, iron, steel or other solid objects will not be permitted for use as sign support weights.
- Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
- Sandbags shall be made of a durable material that tears upon vehicular impact.
- Rubber (such as tire inner tubes) shall NOT be used for sandbags.
- Rubber ballasts (such as those used with cones or edgeline channelizers) shall NOT be used as sign support weights.
- Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign supports.
- Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

Any sign, sign support or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced or repaired as soon as possible by the Contractor at the Contractor's expense.

Only pre-qualified products shall be used. A copy of the "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be obtained by contacting:

Standards Engineer
Traffic Operations Division - TE
Texas Department of Transportation
125 East 11th Street
Austin, Texas 78701-2483
Phone (512) 416-3120
Fax (512) 416-3299

Instructions to locate the "CWZTCD" on TxDOT website are:

Start at website - www.dot.state.tx.us
Click on "About TxDOT",
Click on "Organizational Chart",
Click on "Traffic Operations Box",
Click on "Compliant Work Zone Traffic Control Devices",
Click on "View PDF".
This site is printable.

Texas Department of Transportation
Maintenance Division
Standard Plans

ROADSIDE TRAFFIC CONTROL PLAN

SHEET 1 OF 1 RS-TCP-05 NOT TO SCALE

FILE: RSTCP05.DGN	DN: LJB	CK: JG	DW: -	CR: -	NEG NO.:
© TxDOT FEBRUARY 2005		STATE DISTRICT	FEDERAL REGION	FEDERAL AID PROJECT	SHEET
REVISED: September 17, 2004	21	6			11
REVISED: FEBRUARY 2, 2005 Sign placement in TCP	COUNTY	CONTROL	SECTION	JOB	HIGHWAY
REVISED:	HIDALGO, ETC	6379	63	001	IH-2, ETC