Control	0333-02-013
Project	BR 2023(234)
Highway	SH 163
County	STERLING

ADDENDUM ACKNOWLEDGMENT

Each bidder is required to acknowledge receipt of an addendum issued for a specific project. This page is provided for the purpose of acknowledging an addendum.

FAILURE TO ACKNOWLEDGE RECEIPT OF AN ADDENDUM WILL RESULT IN THE BID NOT BEING READ.

In order to properly acknowledge an addendum place a mark in the box next to the respective addendum.

ADDENDUM NO. 1	
ADDENDUM NO. 2	
ADDENDUM NO. 3	
ADDENDUM NO. 4	
ADDENDUM NO. 5	

In addition, the bidder by affixing their signature to the signature page of the proposal is acknowledging that they have taken the addendum(s) into consideration when preparing their bid and that the information contained in the addendum will be included in the contract, if awarded by the Commission or other designees.



Control	0333-02-013
Project	BR 2023(234)
Highway	SH 163
County	STERLING

PROPOSAL TO THE TEXAS TRANSPORTATION COMMISSION

2014 SPECIFICATIONS WORK CONSISTING OF REPLACE BRIDGE AND APPROACHES STERLING COUNTY, TEXAS

The quantities in the proposal are approximate. The quantities of work and materials may be increased or decreased as considered necessary to complete the work as planned and contemplated.

This project is to be completed in 187 working days and will be accepted when fully completed and finished to the satisfaction of the Executive Director or designee.

Provide a proposal guaranty in the form of a Cashier's Check, Teller's Check (including an Official Check) or Bank Money Order on a State or National Bank or Savings and Loan Association, or State or Federally chartered Credit Union made payable to the Texas Transportation Commission in the following amount:

FORTY-TWO THOUSAND (Dollars) (\$42,000)

A bid bond may be used as the required proposal guaranty. The bond form may be detached from the proposal for completion. The proposal may not be disassembled to remove the bond form. The bond must be in accordance with Item 2 of the specifications.

Any addenda issued amending this proposal and/or the plans that have been acknowledged by the bidder, become part of this proposal.

By signing the proposal the bidder certifies:

- 1. the only persons or parties interested in this proposal are those named and the bidder has not directly or indirectly participated in collusion, entered into an agreement or otherwise taken any action in restraint of free competitive bidding in connection with the above captioned project.
- 2. in the event of the award of a contract, the organization represented will secure bonds for the full amount of the contract.
- 3. the signatory represents and warrants that they are an authorized signatory for the organization for which the bid is submitted and they have full and complete authority to submit this bid on behalf of their firm.
- 4. that the certifications and representations contained in the proposal are true and accurate and the bidder intends the proposal to be taken as a genuine government record.

• Signed: **			
(1)	(2)	(3)	
Print Name:			
(1)	(2)	(3)	
Title: (1)	(2)	(3)	
Company: (1)	(2)	(3)	

[•] Signatures to comply with Item 2 of the specifications.

^{**}Note: Complete (1) for single venture, through (2) for joint venture and through (3) for triple venture.

^{*} When the working days field contains an asterisk (*) refer to the Special Provisions and General Notes.

NOTICE TO CONTRACTORS

ANY CONTRACTORS INTENDING TO BID ON ANY WORK TO BE AWARDED BY THIS DEPARTMENT MUST SUBMIT A SATISFACTORY "AUDITED FINANCIAL STATEMENT" AND "EXPERIENCE QUESTIONNAIRE" AT LEAST TEN DAYS PRIOR TO THE LETTING DATE.

UNIT PRICES MUST BE SUBMITTED IN ACCORDANCE WITH ITEM 2 OF THE STANDARD SPECIFICATIONS OR SPECIAL PROVISION TO ITEM 2 FOR EACH ITEM LISTED IN THIS PROPOSAL.

TEXAS DEPARTMENT OF TRANSPORTATION

KNOW ALL PERSON	IS BY THESE F	PRESENTS,	
That we, (Contractor N	Name)		
Hereinafter called the I	Principal, and (S	urety Name)	
Surety, are held and firm the sum of not less that thousand dollars, not to displayed on the cover	mly bound unto n two percent (2 o exceed one hun of the proposal) arselves, our hei	o transact surety business in the State of the Texas Department of Transportatio %) of the department's engineer's estimated thousand dollars (\$100,000) as a , the payment of which sum will and trans, executors, administrators, successor	n, hereinafter called the Oblige nate, rounded to the nearest on proposal guaranty (amount ruly be made, the said Principal
WHEREAS, the princi	pal has submitte	ed a bid for the following project identi	fied as:
	Control	0333-02-013	
	Project	BR 2023(234)	
	Highway	SH 163	
	County	STERLING	
the Contract in writing void. If in the event of	with the Oblige failure of the Pr the property of	hall award the Contract to the Principal e in accordance with the terms of such incipal to execute such Contract in acc the Obligee, without recourse of the P	bid, then this bond shall be null cordance with the terms of such
Signed this		Day of	20
Ву:		(Contractor/Principal Name)	
	(Signature an	d Title of Authorized Signatory for Contractor/	Principal)
*By:	· -	• •	
		(Surety Name)	
*Attach Power of attor		(Signature of Attorney-in-Fact)	Impressed Surety Seal Only
	This for	m may be removed from the prop	oosal.

1-1



BIDDER'S CHECK RETURN

IMPORTANT

The space provided for the return address must be completed to facilitate the return of your bidder's check. Care must be taken to provide a legible, accurate, and <u>complete</u> return address, including zip code. A copy of this sheet should be used for each different return address.

NOTE

Successful bidders will receive their guaranty checks with the executed contract.

RETURN BIDDERS CHECK TO (PLEASE PRINT):

				_
	Control	0333-02-013		
	Project	BR 2023(234)		
	Highway	SH 163		
	County	STERLING		
		IMPORTANT	Γ	
	PLEASE RE	ETURN THIS SHEET	IN ITS ENTIRETY	
Please acknow ink, and return	vledge receipt of this c ning this acknowledge	check(s) at your earliest c ment in the enclosed self	onvenience by signing below addressed envelope.	in longhand, in
Check Receiv	ed By:		Date:	
Title:				
For (Contracto	or's Name):			
Project			County	



NOTICE TO THE BIDDER

In the space provided below, please enter your total bid amount for this project. Only this figure will be read publicly by the Department at the public bid opening.

It is understood and agreed by the bidder in signing this proposal that the total bid amount entered below is not binding on either the bidder or the Department. It is further agreed that **the official total bid amount** for this proposal will be determined by multiplying the unit bid prices for each pay item by the respective estimated quantities shown in this proposal and then totaling all of the extended amounts.

\$_____ Total Bid Amount

ALT	ITEM	DESC	SP	Bid Item Description	Unit	Quantity	Bid Price	Amount	Seq
	104	509	REM	IOV CONC (SDWLK)	SY	266.400	\$10.000	\$2,664.00	1
						Total Bid Amount	\$2,6	664.00	-
Signed									
Γitle									
Date									
Additio	onal Sig	nature f	or Joint Ven	ture:					
Signed									
Title									
Date									

Control

Project

0001-03-030

STP 2000(938)HES

EXAMPLE OF BID PRICES SUBMITTED BY COMPUTER PRINTOUT





	IT	EM-COI	ЭE					DEPT
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WOR	UNIT	APPROX QUANTITIES	USE ONLY	
	100	6002		PREPARING ROW		STA	13.000	1
				and	DOLLARS CENTS			
	110	6001		EXCAVATION (ROADWAY)		CY	1,068.000	2
					DOLLARS			
				and	CENTS			
	132	6003		EMBANKMENT (FINAL)(ORD (DOLLARS	CY	4,745.000	3
				and	CENTS			
	160	6003		FURNISHING AND PLACING To and	OPSOIL (4") DOLLARS CENTS	SY	16,234.000	4
	164	6003		BROADCAST SEED (PERM) (RU		SY	11,920.000	5
	164	6009		BROADCAST SEED (TEMP) (Wa	ARM) DOLLARS CENTS	SY	2,158.000	6
	164	6011		BROADCAST SEED (TEMP) (CO		SY	2 159 000	7
	104	0011		and	DOLLARS CENTS	31	2,158.000	,
	168	6001		VEGETATIVE WATERING and	DOLLARS CENTS	MG	282.000	8
	169	6001		SOIL RETENTION BLANKETS ((CL 1) (TY A) DOLLARS CENTS	SY	16,503.000	9
	169	6005		SOIL RETENTION BLANKETS ((CL 2) (TY E) DOLLARS CENTS	SY	501.000	10
	247	6073	003	FL BS (CMP IN PLC)(TY D GR 1 and	-2) (6") DOLLARS CENTS	SY	3,537.000	11
	247	6219	003	FL BS (CMP IN PLC)(TY A GR 1	-2)(9") DOLLARS CENTS	SY	4,437.000	12

	IT	EM-COI	ЭE					DEPT
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONLY. WRITTEN IN WORDS		UNIT	APPROX QUANTITIES	USE ONLY
	260	6012		LIME(HYD,COM OR QK)(SLRY)(- ' '	TON	167.000	13
					DOLLARS			
				and	CENTS			
	260	6073		LIME TRT (SUBGRADE)(8")	DOLLARG	SY	3,785.000	14
				and	DOLLARS CENTS			
	260	6084		LIME TRT (SUBGRADE)(12")	CENTS	SY	4,544.000	15
	200	0004		LIME TRI (SUBGRADE)(12)	DOLLARS	31	4,344.000	13
				and	CENTS			
	310	6009		PRIME COAT (MC-30)		GAL	1,596.000	16
					DOLLARS			
				and	CENTS			
	316	6004	002	ASPH (TIER I)		GAL	2,088.000	17
					DOLLARS			
				and	CENTS			
	316	6238	002	AGGR(TY-PD GR-3 SAC-B)		CY	42.000	18
					DOLLARS			
				and	CENTS			
	316	6246	002	AGGR(TY-PE GR-3 SAC-B)	DOLL ADG	CY	131.000	19
				and	DOLLARS CENTS			
	216	6400	002	and		CAI	2 280 000	20
	316	6400	002	ASPH (AC-15P OR AC-10-2TR OR	DOLLARS	GAL	2,280.000	20
				and	CENTS			
	316	6405	002	ASPH (AC-20-5TR OR AC-20XP)	021(15	GAL	1,421.000	21
	310	0.103	002		DOLLARS	GIL	1,121.000	21
				and	CENTS			
	400	6005		CEM STABIL BKFL		CY	64.000	22
					DOLLARS			
				and	CENTS			
	416	6004		DRILL SHAFT (36 IN)		LF	396.000	23
					DOLLARS			
				and	CENTS			
	420	6013	001	CL C CONC (ABUT)	DOI: :	CY	39.400	24
				and	DOLLARS			
				and	CENTS			

	IT	EM-COI)E					DEPT
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WORI		UNIT	APPROX QUANTITIES	USE ONLY
	420	6029	001	CL C CONC (CAP)		CY	15.800	25
				and	DOLLARS CENTS			
	420	6037	001	CL C CONC (COLUMN)	DOLLARS	CY	7.900	26
				and	CENTS			
	422	6001		REINF CONC SLAB	DOLLARS CENTS	SF	4,140.000	27
	422	6015		and Approved to the province of the province o	CENTS	CY	54.600	28
	422	0015		APPROACH SLAB and	DOLLARS CENTS	CY	54.600	28
	423	6003		RETAINING WALL (TEMP WALL and	DOLLARS CENTS	SF	1,657.000	29
	425	6035	001	PRESTR CONC GIRDER (TX28) and	DOLLARS CENTS	LF	570.000	30
	432	6008		RIPRAP (CONC)(CL B)(RR8&RR9		CY	292.000	31
	432	6045		RIPRAP (MOW STRIP)(4 IN) and	DOLLARS CENTS	CY	57.000	32
	450	6054	001	RAIL (TY SSTR) (W/DRAIN SLC and	TS) DOLLARS CENTS	LF	262.000	33
	454	6018		SEALED EXPANSION JOINT (4 II and	N) (SEJ - M) DOLLARS CENTS	LF	70.000	34
	462	6010	002	CONC BOX CULV (6 FT X 3 FT) and	DOLLARS CENTS	LF	66.000	35
	496	6008		REMOV STR (BOX CULVERT) and	DOLLARS CENTS	LF	66.000	36

	ITEM-CODE						DEPT
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	USE ONLY
	496	6010		REMOV STR (BRIDGE 100 - 499 FT LE	NGTH) EA	1.000	37
					LARS		
				and CEN			
	500	6001		MOBILIZATION	LS	1.000	38
					LARS		
	502	6001	000	and CEN		12,000	20
	502	6001	008	BARRICADES, SIGNS AND TRAFFIC IDLING	HAN- MO	12.000	39
					LARS		
				and CEN			
	506	6002	005	ROCK FILTER DAMS (INSTALL) (TY 2		200.000	40
	300	0002	003		LARS	200.000	40
				and CEN			
	506	6003	005	ROCK FILTER DAMS (INSTALL) (TY 3		78.000	41
					LARS		
				and CEN	TS		
	506	6011	005	ROCK FILTER DAMS (REMOVE)	LF	278.000	42
				DOL	LARS		
				and CEN	TS		
	506	6020	005	CONSTRUCTION EXITS (INSTALL) (T	Y 1) SY	224.000	43
					LARS		
				and CEN			
	506	6024	005	CONSTRUCTION EXITS (REMOVE)	SY	224.000	44
					LARS		
	506	6020	005	and CEN		2 140 000	4.5
	506	6038	005	TEMP SEDMT CONT FENCE (INSTALI	L) LF LLARS	2,148.000	45
				and CEN			
	506	6039	005	TEMP SEDMT CONT FENCE (REMOV		2,148.000	46
	300	0037	003	`	LARS	2,140.000	40
				and CEN			
	506	6041	005	BIODEG EROSN CONT LOGS (INSTL)		200.000	47
					LARS		
				and CEN	TS		
	506	6043	005	BIODEG EROSN CONT LOGS (REMOV	VE) LF	200.000	48
					LARS		
				and CEN	TS		

	IT	EM-COI	ЭE				DEPT
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	USE ONLY
	508	6002		CONSTRUCTING DETOURS (EBSS)	SY	3,351.000	49
				and DOLLARS CENTS			
	510	6003		and CENTS ONE-WAY TRAF CONT (PORT TRAF SIG)	MO	8.000	50
	310	0003		DOLLARS	MO	8.000	30
				and CENTS			
	512	6005		PORT CTB (FUR & INST)(F-SHAPE)(TY 1)	LF	3,270.000	51
				DOLLARS			
				and CENTS			
	512	6053		PORT CTB (REMOVE)(F-SHAPE)(TY 1)	LF	3,270.000	52
				DOLLARS			
	- 10	5000	004	and CENTS		7 04 000	
	540	6002	001	MTL W-BEAM GD FEN (STEEL POST)	LF	501.000	53
				and DOLLARS CENTS			
	540	6006	001	MTL BEAM GD FEN TRANS (THRIE-BEAM)	EA	4.000	54
	340	0000	001	DOLLARS	LIX	4.000	34
				and CENTS			
	544	6001		GUARDRAIL END TREATMENT (INSTALL)	EA	4.000	55
				DOLLARS			
				and CENTS			
	545	6005		CRASH CUSH ATTEN (REMOVE)	EA	4.000	56
				DOLLARS			
	T 4.5	6010		and CENTS	Т. А	4.000	
	545	6019		CRASH CUSH ATTEN (INSTL)(S)(N)(TL3) DOLLARS	EA	4.000	57
				and CENTS			
	644	6001		IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	3.000	58
				DOLLARS			
				and CENTS			
	658	6062		INSTL DEL ASSM (D-SW)SZ 1(BRF)GF2(BI)	EA	22.000	59
				DOLLARS			
				and CENTS			
	662	6004		WK ZN PAV MRK NON-REMOV (W)4"(SLD)	LF	3,314.000	60
				DOLLARS			
				and CENTS			

	ITI	EM-COI	ЭE				DEPT		
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	USE ONLY		
	662	6050		WK ZN PAV MRK REMOV (REFL) TY II-A-A DOLLARS	EA	96.000	61		
	662	6063		and CENTS WK ZN PAV MRK REMOV (W)4"(SLD) DOLLARS and CENTS	LF	1,189.000	62		
	662	6075		WK ZN PAV MRK REMOV (W)24"(SLD) DOLLARS and CENTS	LF	24.000	63		
	662	6095		WK ZN PAV MRK REMOV (Y)4"(SLD) DOLLARS and CENTS	LF	3,840.000	64		
	666	6170	007	REFL PAV MRK TY II (W) 4" (SLD) DOLLARS and CENTS	LF	5,462.000	65		
	666	6205	007	REFL PAV MRK TY II (Y) 4" (BRK) DOLLARS and CENTS	LF	650.000	66		
	666	6207	007	REFL PAV MRK TY II (Y) 4" (SLD) DOLLARS and CENTS	LF	857.000	67		
	666	6303	007	RE PM W/RET REQ TY I (W)4"(SLD)(100MIL) DOLLARS and CENTS	LF	5,462.000	68		
	666	6312	007	RE PM W/RET REQ TY I (Y)4"(BRK)(100MIL) DOLLARS and CENTS	LF	650.000	69		
	666	6315	007	RE PM W/RET REQ TY I (Y)4"(SLD)(100MIL) DOLLARS and CENTS	LF	857.000	70		
	672	6009		REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	46.000	71		
	677	6001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	2,796.000	72		

PROJECT BR 2023(234) COUNTY STERLING

	ITEM-CODE							DEPT
ALT	T ITEM DESC S.P. NO CODE NO. UNIT BID PRICE ONLY. WRITTEN IN WORDS		UNIT	APPROX QUANTITIES	USE ONLY			
	4171	6001		INSTALL BRIDGE IDENTIFICATION	TION NUM-	EA	2.000	73
				BERS				
					DOLLARS			
				and	CENTS			
	6001	6001		PORTABLE CHANGEABLE ME	SSAGE SIGN	DAY	632.000	74
					DOLLARS			
				and	CENTS			
	6185	6002	002	TMA (STATIONARY)		DAY	36.000	75
					DOLLARS			
				and	CENTS			

CERTIFICATION OF INTEREST IN OTHER BID PROPOSALS FOR THIS WORK

By signing this proposal, the bidding firm and the signer certify that the following information, as indicated by checking "Yes" or "No" below, is true, accurate, and complete.

A.	Quotation(s) have been issued in this firm's name to other firm(s) interested in this work for consideration for performing a portion of this work.
	YES
	NO

- B. If this proposal is the low bid, the bidder agrees to provide the following information prior to award of the contract.
 - 1. Identify firms which bid as a prime contractor and from which the bidder received quotations for work on this project.
 - 2. Identify all the firms which bid as a prime contractor to which the bidder gave quotations for work on this project.

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352 (See reverse for public burden disclosure.)

1. Type of Federal Action: a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal A a. bid/offer/appli b. initial award c. post-award		3. Report Type: a. initial filing b. grant For material change only: year quarter date of last report	
4. Name and Address of Reporting Entity:		5. If Reporting Enti Enter Name and Addr	ity in No. 4 is Subawardee, ess of Prime:	
? Prime ? Subawardee Tier Congressional District, if known:	_, if known:	Congressional Distric	ct , if known:	
6. Federal Department/Agency:		7. Federal Program	Name/Description:	
		CFDA Number, if app	blicable:	
8. Federal Action Number, if known:		9. Award Amount, it	f known:	
		\$		
10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):	y	b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):		
(att	tach Continuation Sheet	(s) SF-LLL-A, if necessa	ary)	
11. Amount of Payment (check all that apply):	13. Type of Payment (check all that apply): a. retainer b. one-time fee c. commission d. contingent fee		
\$ actu	al planned			
12. Form of Payment (check all that apply)				
a. cash b. in-kind; specify: value value		e. deferred f. other; specify:		
14. Brief Description of Services Performed of officer(s), employee(s), or Member(s) contact			ding	
(attach Continuation Sheet(s) SF-LLL-A, if n	ecessary)			
15. Continuation Sheet(s) SF-LLL-A attac	hed: ?	Yes ? No		
16. Information requested through this form 31 U.S.C. section 1352. This disclosure of lo material representation of fact upon which rel the tier above when this transaction was made disclosure is required pursuant to 31 U.S.C. 1 will be reported to the Congress semi-annually for public inspection. Any person who fails to closure shall be subject to a civil penalty of no and not more than \$100,000 for each such fail	bbying activities is a liance was placed by e or entered into. This 352. This information y and will be available of file the required disort less than \$10,000	Print Name:	Date:	
FEDERAL USE ONLY			Authorized for Local Reproduction Standard Form - LLL	

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

- Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
- 2. Identify the status of the covered Federal action.
- Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to
 the information previously reported, enter the year and quarter in which the change occurred. Enter the date of
 the last previously submitted report by this reporting entity or this covered Federal action.
- 4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
- 5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
- Enter the name of the Federal agency making the award or loan commitment. Include at least one
 organizational level below agency name, if known. For example, Department of Transportation, United States
 Coast Guard.
- Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
- 8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number, the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
- 9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
- 10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
 - (b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).
- Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
- 12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
- 13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
- 14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.
- 15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.
- 16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burdon for this collection of infromation is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments reguarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burdon, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB

0348-0046

CONTINUATION SHEET

Reporting Entity:	_ Page	_ of

CONTRACTOR'S ASSURANCE

(Subcontracts-Federal Aid Projects)

By signing this proposal, the contractor is giving assurances that all subcontract agreements will incorporate the Standard Specification and Special Provisions to Section 9.9., Payment Provisions for Subcontractors, all subcontract agreements exceeding \$2,000 will incorporate the applicable Wage Determination Decision, and all subcontract agreements will incorporate the following:

Special Provision	Certification of Nondiscrimination in Employment
Special Provision	Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)
Special Provision	Standard Federal Equal Employment Opportunity
Construction	Construction Specifications (Executive Order 11246)
Form FHWA 1273	Required Contract Provisions Federal-aid Construction Contracts (Form FHWA 1273 must also be physically attached to subcontracts and all lower-tier subcontracts)
Special Provision	Nondiscrimination (Include provisions of Sections 3.1 – 3.6 in all subcontracts and agreements for materials)
Special Provision	Cargo Preference Act Requirements in Federal-Aid Contracts
Special Provision	Disadvantaged Business Enterprise in Federal-Aid Contracts

ENGINEER SEAL

Control 0333-02-013

Project BR 2023(234)

Highway SH 163

County STERLING

The enclosed Texas Department of Transportation Specifications, Special Specifications, Special Provisions, General Notes and Specification Data in this document have been selected by me, or under my responsible supervision as being applicable to this project. Alteration of a sealed document without proper notification to the responsible engineer is an offense under the Texas Engineering Practice Act.



The seal appearing on this document was authorized by David Rocha-o, P.E.
OCTOBER 06, 2022

Highway: SH 163 **Control:** 0333-02-013

BASIS OF ESTIMATE

Item No.	Description	Usage	Area or Le	ength		Rate		nated Intity
247	Flexible Base	6" (Temp)	3,537	SY			3,537	SY
247	Flexible Base	9"	4,437	SY			4,437	SY
260	Lime Mix (5%)	Subgrade	4,544	SY	105	LBS/CF	107	TON
260	Lime Subgrade	12"	4,544	SY			4,544	SY
310	Prime Coat	Flexible Base (Temp)	3,537	SY	0.2	GAL/SY	708	GAL
310	Prime Coat	Flexible Base	4,437	SY	0.2	GAL/SY	888	GAL
316	Aggregate (TY-PE GR-3 SAC-B)	Surface Course	4,177	SY	85	SY/CY	50	CY
316	Aggregate (TY-PE GR-3 SAC-B)	Surface Course (Temp)	3,351	SY	85	SY/CY	81	CY
316	Asphalt (AC-15P or AC-10-2TR or CRS- 2P)	Surface Course	4,177	SY	0.2	GAL/SY	1,421	GAL
316	Asphalt (AC-15P or AC-10-2TR or CRS- 2P)	Surface Course (Temp)	3,351	SY	0.34	GAL/SY	2,280	GAL
316	Asphalt (TIER I)	Seal Coat	4,443	SY	0.47	GAL/SY	2,088	GAL
316	Aggregate (TY-PD GR-3 SAC-B)	Seal Coat	4,443	SY	105	SY/CY	42	CY

[#] Quantity is shown for Contractor's information only (not a pay item).

COMPACTION REQUIREMENTS

Item No.	Description	Course	Percent Minimum Density
400	Excavation and Backfill for Structures	ALL	98

Note: Density will be tested in accordance with Tex-113-E, Tex-114-E, and Tex-115-E.

Highway: SH 163 **Control:** 0333-02-013

SUMMARY OF SURFACING AREAS (SQUARE YARDS)

Item No.	247	310	316	316	316	316
Description	Flexible Base	Prime Coat	Aggregate (TY-PE GR-3 SAC- B)	Asphalt (AC-15P or AC-10-2TR or CRS- 2P)	Asphalt (TIER I)	Aggregate (TY-PD GR-3 SAC- B)
Main Lanes	4,437	4,437	4,177	4,177	4,443	4,443
Temporary Lanes	3,537	3,537	3,351	3,351		
Total Area	7,974	7,974	7,528	7,528	4,443	4,443

Highway: SH 163 **Control:** 0333-02-013

GENERAL NOTES

The following Standard Sheets have been modified: FD (MOD)

Locate the project bulletin board at an approved location within the project limits such as at a field office, staging area, or stockpile, and make accessible to the public at all times. Do not remove the bulletin board from the project until approved. If a construction site notice is required for the project, post a copy at each geographically separated work location.

In those instances where fixed features require, vary the governing slopes indicated in these plans from within the limits to the extent determined.

If Contractor elects to establish a pit within 200 ft. of a public road, construct a barrier or other device in accordance with Natural Resources Code, Chapter 133, and Section 133.041.

Do not use salt water with solids in excess of 10,000 parts per million, as determined by evaporation.

Item 2, "Instructions to Bidders"

Contractor questions on this project are to be addressed by the following individual:

Nicholas Greenly, P.E.; email SJT PreliminaryReview@txdot.gov

Contractor questions will be accepted through email, phone, and in person by the above individual.

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%20Responses/

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"

The Contract will be overseen by the San Angelo Area Office:

Jordan Sefcik, P.E. San Angelo Area Engineer 2802 Armstrong San Angelo, Texas 76903 (325) 486-3830 Jordan.Sefcik@txdot.gov

Highway: SH 163 **Control:** 0333-02-013

Item 5, "Control of the Work"

Place a row of five blue-tops at each station throughout the length of the proposed roadway for both subgrade and top lift of base course.

State Highway right of way markers destroyed by the Contractor shall be replaced by a Texas Registered Professional Land Surveyor (RPLS) at no cost to the State. Provide written documentation from the RPLS attesting to the replacement of the right of way markers.

Make suitable advance notification to affected non-participating municipalities regarding Class B underground facilities, call the Department's San Angelo District Traffic Office at telephone number (325) 947-9208 to have the Department's existing traffic signal and illumination utilities located, and call the Department's San Angelo District Maintenance Office at telephone number (325) 947-9322 to have the Department's existing irrigation utilities located.

A copy of the 3D model or cross-sections and earthwork data may be obtained by qualified bidders by sending a request to the following email address: SJT_PreliminaryReview@txdot.gov. Data as provided is for non-construction purposes only and it is the responsibility of the prospective bidder to validate this information with the appropriate plans and Specifications.

Responsibility for construction surveying shall conform to Section 5.9.3., "Method C."

Submit shop drawings electronically for the fabrication of structural items and other items specifically listed in the plans to SJT_ShopPlanReview@txdot.gov. For instructions on submitting shop drawings electronically see "Guide to Electronic Shop Drawing Submittal" at http://www.txdot.gov/business/resources/specifications/shop-drawings.html.

When a precast or cast-in-place concrete element is included in the plans, a precast concrete alternate may be submitted in accordance with "Standard Operating Procedure for Alternate Precast Proposal Submission" found online at https://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/publications/bridge.html#design.

Acceptance or denial of an alternate is at the sole discretion of the Engineer. Impacts to the project schedule and any additional costs resulting from the use of alternates are the sole responsibility of the Contractor.

Item 6, "Control of Materials"

When allowed, store materials and equipment in approved areas within the right of way.

Access the work area from the right of way.

To comply with the latest provisions of Build America, Buy America Act (BABA Act) of the Bipartisan Infrastructure Law, the contractor must submit a notarized original of the

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TxDOT Construction Material Buy America Certification Form for all items classified as construction materials. This form is not required for materials classified as a manufactured product.

Refer to the Buy America Material Classification Sheet for clarification on material categorization.

The Buy America Material Classification Sheet is located at the below link.

https://www.txdot.gov/business/resources/materials/buy-america-material-classification-sheet.html for clarification on material categorization.

Item 7, "Legal Relations and Responsibilities"

No significant traffic generator events have been identified.

Meet with and coordinate construction activities with affected property owners within the project area and provide suitable access during construction to each property as agreed between Contractor and owner and as approved by Engineer. Maintain ingress and egress for established businesses at all times during construction unless otherwise directed. Minimize all disruptions to business access. Construct driveways that serve as the only property access point in half-widths unless otherwise allowed by the affected property owners. Provide adequate advance notice to each affected property owner before any construction in the vicinity of the property. This will not be paid for directly but will be considered as subsidiary to the various bid items.

Item 8, "Prosecution and Progress"

Submit the sequence of work and estimated progress schedule on paper or as a Portable Document Format (PDF) electronic file compatible with Adobe Systems Incorporated "Acrobat Reader XI".

A delayed start provision is included in the contract to allow time to procure construction materials including precast bridge beams and precast drainage components.

Item 9, "Measurement and Payment"

The progress payment period shall end two working days before the last working day of the month. Deliver invoices to be paid as material on hand on or before the end of the progress payment period.

For projects that include a disadvantaged business enterprises (DBE) goal, provide a conversion rate for units of payment for work subcontracted to DBE if units of payments differ from those shown on the plans.

Item 204, "Sprinkling"

Apply water for dust control to un-surfaced bases during the work day, at the end of each work day, and on non-work days as directed.

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Item 247, "Flexible Base"

Stockpile flexible base produced for this project separately from any other stockpiled material and label stockpile with project number, material type, and grade.

Place flexible base in lifts of 4 in. minimum and 8 in. maximum, unless otherwise noted on the plans or directed by the Engineer.

Provide 24 hours written notice of intent to begin crushing operations. Materials produced prior to this notice will not be accepted.

Compact using ordinary compaction for temporary pavement. Use dense control for proposed pavement.

Item 310, "Prime Coat"

If planing operations expose base material:

- Refinish exposed base material in accordance with Item 251, Type D. This work will not be measured or paid for separately, but will be considered as included in payment for Item 310.
- 2. Place prime coat on refinished base material in accordance with Item 310.
- 3. Place one-course seal coat on primed base material in accordance with Item 316.

Refinish material that does not receive prime coat within one working day following acceptance of flexible base.

Item 316, "Seal Coat"

Cover or protect the following, as applicable: railings, bridge joints, utility covers, railroad crossings, and exposed concrete such as curbs, bridge approach slabs, bridge decks, sidewalks, mow strips, and concrete pavement.

Do not place wet aggregate.

Use medium pneumatic rollers that meet the requirements of Item 210, "Rolling." If traprock aggregate is used, the Engineer may require steel wheel rollers.

Item 354, "Planing and Texturing Pavement"

Remove and dispose of existing raised pavement markers, jiggle bars, and traffic buttons before planing.

Mark and saw cut straight lines at the boundaries of planed areas. Do not saw cut pavement until the lines are approved.

Take measures to prevent reclaimed asphalt pavement (RAP) from entering storm drain grates, inlets and waterways, or from falling onto roadbeds below.

Highway: SH 163 **Control:** 0333-02-013

All reclaimed asphalt pavement (RAP) not incorporated into the project shall become the property of the Contractor.

Item 400, "Excavation and Backfill for Structures"

If excavating beyond the dimensions shown on the plans, furnish and install cement stabilized backfill in such areas at no cost.

Use Class C bedding.

Item 421, "Hydraulic Cement Concrete"

Provide sulfate-resistant concrete (containing Type II cement) for all concrete identified as structural concrete in Table 8, except for the following: bridge railing, approach slabs, concrete traffic barrier, prestressed concrete panels, Class H concrete, and Class S concrete.

Entrained air is required in all slip formed concrete, but is not required for other structural concrete. Adjust the dosage of air entraining agent for low air content as directed by the Engineer. If entrained air is provided where not required, only the upper limits of the applicable Special Provision will be enforced.

Provide only the following items listed in 421.3.3, "Testing Equipment": test molds and wheelbarrow.

Item 422, "Concrete Superstructures"

Saw-cut grooving of bridge deck and approach slab (if present) is required.

Item 423, "Retaining Walls"

For temporary walls, submit shop drawings, and design calculations bearing the seal of a licensed professional engineer for review and approval following the Department's Guide to Electronic Shop Drawing Submittal process. Upon completion of construction, submit a set of reproducible as-built drawings.

Item 427, "Surface Finishes for Concrete"

Provide rub finish to Surface Area I.

Item 432, "Riprap"

Furnish and install 1/2-in. thick joint filler board conforming to DMS-6310, "Joint Sealants and Fillers" between concrete riprap and adjacent existing concrete, and where directed.

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Item 440, "Reinforcement for Concrete"

Reinforcing steel shall be epoxy-coated in bridge slabs, in bridge approach slabs, in concrete railings, bridge abutment cap, bridge abutment wingwalls, and in bridge bent caps.

Item 450, "Railing", Item 512, "Permanent Concrete Traffic Barrier"

Furnish and install barrier reflectors on the top of concrete railing.

Obtain approval of drilled holes in existing concrete before placing anchor bars with epoxy.

Construct side slot drains at spacing as shown in the plans or as directed.

Item 496, "Removing Structures"

This item shall include the complete removal and proper disposal of existing structures, including but not limited to the following: culvert barrels, railing, wingwalls, headwalls, retaining walls, safety end treatments, pipe runners, riprap, deck, overlay, approach slabs, joints, beams, bracing, drains, conduits, pipes, bents, abutments, columns, pilings, footings, web-walls, drilled shafts, reinforcing steel, bridge protective assemblies, clearance signs, etc. Portions of the structure at least 2 ft. below the permanent ground line may be left in place as directed.

Item 502, "Barricades, Signs and Traffic Handling"

The Contractor Force Account "Safety Contingency" that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the Traffic Control Plan, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor's Responsible Person based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

Furnish regulatory speed limit signs. The Engineer will determine placement locations and will provide supervision to the Contractor in placing, removing and replacing these signs. The construction speed zones are as follows:

highway	begin reference marker	end reference marker	existing speed limit (mph)	work zone speed limit (mph)
SH 163	428+1.41	428+1.61	75	60
SH 163	428+1.61	430+0.77	75	45
SH 163	430+0.77	430+0.97	75	60

Furnish and install regulatory speed limit signs at the ends of the construction speed zones, if such signs do not exist.

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Item 504, "Field Office and Laboratory"

Furnish one Type D structure. Provide equipment for performing tests referenced in the specifications for asphalt concrete pavement. Asphalt content will be determined by the ignition method. The Type D structure and test equipment will not be shared with the Contractor.

Item 506, "Temporary Erosion, Sedimentation, and Environmental Controls"

Biodegradable Erosion Control Logs shall be used as directed by the Engineer as needed. A quantity of 200 LF has been added to the Summary of Quantities – Drainage and Erosion Control sheet for this purpose.

Item 644, "Small Roadside Sign Assemblies"

Furnish and install omni-directional sign post wrap (12 in. by 12 in. Type C retroreflective sheeting with pressure sensitive backing) on sign posts that have sign faces that do not face the predominant direction of traffic, as directed. Sign post wrap shall be yellow for signs R6-1 "ONE WAY" and shall be red for signs R1-2 "YIELD", R5-1 "DO NOT ENTER", R5-1a "WRONG WAY", and R1-1 "STOP". Place the bottom of sign post wrap a height of 4 ft. above the edge of travel lane.

Where foundations protrude through riprap or other concrete areas, wrap the foundation with 1/4-in. thick bituminous fiber sheets before placing concrete or repairing the concrete area. Bituminous fiber sheet tubes may be used for forming sign foundations instead of removable forms and shall be left in place below the finished concrete or riprap surface. Neatly trim the bituminous fiber sheets flush with the finished surface after the concrete has cured.

Drill and pour small roadside sign foundations on the same day or suitably cover the drilled hole.

Signs indicated to be mounted on the back of another sign or on a traffic signal pole or mast arm may require punch spacing different from that shown on the Standard Sheets. Adjust punch spacing on affected signs.

Cover each unfinished sign base with a reflectorized traffic cone.

Before removal from the project site, spray-paint (with an oil-based paint), an "X" across the face of non-salvageable signs as directed.

Item 658, "Delineator and Object Marker Assemblies"

Remove existing object markers and delineators. Removal is not a pay item.

Item 662, "Work Zone Pavement Markings"

Do not use temporary flexible-reflective roadway marker tabs to delineate words, symbols, shapes, or diagonal or transverse lines.

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Item 666, "Retroreflectorized Pavement Markings"

Place glass beads for pavement markings in accordance with the following table:

		Glass Bead Rates	
Marking Types	Glass Bead (Double Drop) Types	Surface Treatment	Asphalt Concrete Pavement, Microsurfacing, Concrete Pavement
TY I markings	Type II	12 LB per 100 SF	6 LB per 100 SF
TTTIIIaikiiigs	Type III	12 LB per 100 SF	6 LB per 100 SF
TV II markings	Type II	12 LB per GAL	6 LB per GAL
TY II markings	Type III	12 LB per GAL	6 LB per GAL

Apply TY II marking material at a rate of 25 gallons per mile.

The striper speed shall not exceed 5 MPH during application. Convert to gravity-flow beaders (if not in use) to obtain optimum bead application, when directed.

Clean striper tanks before use if there is a build-up of dry paint, as directed. Flush lines and guns before use.

Reference existing markings before performing work that disturbs the markings, so that the markings can be re-established.

Provide a double-drop of Type II and Type III glass beads.

Item 677, "Eliminating Existing Pavement Markings and Markers"

Use the following method: Blasting.

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HIGHWAY: SH 163 COUNTY : STERLING

TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF ----- TRANSPORTATION NOVEMBER 1, 2014.

STANDARD SPECIFICATIONS ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

- ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
- ITEM 100 PREPARING RIGHT OF WAY (103)
- ITEM 110 EXCAVATION (132)
- ITEM 132 EMBANKMENT (100) (160) (204) (210) (216) (260) (400)
- ITEM 160 TOPSOIL (168)
- ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
- ITEM 168 VEGETATIVE WATERING
- ITEM 169 SOIL RETENTION BLANKETS
- ITEM 247 FLEXIBLE BASE (105)(204)(210)(216)(520)
- ITEM 260 LIME TREATMENT (ROAD-MIXED) (105)(132)(204)(210)(216) (247) (300) (310) (520) < 3096 >
- ITEM 310 PRIME COAT (300)(316)<3096>
- ITEM 316 SEAL COAT (210)(300)(302)(340)(520)<3096>
- ITEM 400 EXCAVATION AND BACKFILL FOR STRUCTURES (110)(132)(401) (402) (403) (416) (420) (421) (423)
- ITEM 416 DRILLED SHAFT FOUNDATIONS (405) (420) (421) (423) (440) (448)
- ITEM 420 CONCRETE SUBSTRUCTURES (400)(404)(421)(422)(426)(427) (440) (441) (448)
- ITEM 422 CONCRETE SUPERSTRUCTURES (420)(421)(424)(438)(440)(448) (454) < 780 >
- ITEM 423 RETAINING WALLS (110) (132) (216) (400) (416) (420) (421) (424) (440)(445)
- ITEM 425 PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS (409) (420) (421) (424) (426) (427) (434) (440) (442) (445)
- ITEM 432 RIPRAP (247) (420) (421) (431) (440)
- ITEM 450 RAILING (420) (421) (422) (424) (440) (441) (442) (445) (446) (448)
- ITEM 454 BRIDGE EXPANSION JOINTS (442)
- ITEM 462 CONCRETE BOX CULVERTS AND DRAINS (400)(402)(403)(420) (421) (422) (424) (440) (464) (476)

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ITEM 464 REINFORCED CONCRETE PIPE (400)(402)(403)(467)(476)
ITEM 467 SAFETY END TREATMENT (400)(420)(421)(432)(440)(442)(445)
          (460)(464)
ITEM 496 REMOVING STRUCTURES
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING ITEM 504 FIELD OFFICE AND LABORATORY
ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL
         CONTROLS (161) (432) (556)
ITEM 508 CONSTRUCTING DETOURS
ITEM 510 ONE-WAY TRAFFIC CONTROL (502)
ITEM 512 PORTABLE TRAFFIC BARRIER (420) (421) (424) (440) (442)
ITEM 540 METAL BEAM GUARD FENCE (421) (441) (445) (529)
ITEM 544 GUARDRAIL END TREATMENTS
ITEM 545 CRASH CUSHION ATTENUATORS (421)
ITEM 644 SMALL ROADSIDE SIGN ASSEMBLIES (421) (440) (441) (442) (445)
          (636) (643) (656)
ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)
ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)
ITEM 666 RETROREFLECTORIZED PAVEMENT MARKINGS (316) (502) (662) (677)
          (678)
ITEM 672 RAISED PAVEMENT MARKERS (677) (678)
ITEM 677 ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS (300)
          (302) (316) < 3096 >
SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE
                     PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED
                     HEREON WHEREVER IN CONFLICT THEREWITH.
REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS
                     (FORM FHWA 1273)
WAGE RATES
SPECIAL PROVISION "NONDISCRIMINATION" (000---002)
SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT"
                      (000 - - - 003)
SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
                     ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE
                     ORDER 11246" (000---004)
SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
                     CONSTRUCTION CONTRACT SPECIFICATIONS" (000---005)
SPECIAL PROVISION "ONTHEJOB TRAINING PROGRAM" (000---006)
SPECIAL PROVISION "CERTIFICATE OF INTERESTED PARTIES (FORM 1295)"
                     (000 - -1019)
SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--1243)
SPECIAL PROVISION "CARGO PREFERENCE ACT REQUIREMENTS IN FEDERAL AID
                     CONTRACTS" (000---241)
SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERALAID
                     CONTRACTS" (000---394)
SPECIAL PROVISION "NOTICE OF CONTRACTOR PERFORMANCE EVALUATIONS"
                     (000---659)
SPECIAL PROVISIONS TO ITEM 2 (002---019)(002---011)(002---013)
SPECIAL PROVISIONS TO ITEM 3 (003---011)(003---013)
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SPECIAL PROVISIONS TO ITEM 5 (005---002)(005---003)
SPECIAL PROVISIONS TO ITEM
                            6 (006---012)(006---030)
SPECIAL PROVISIONS TO ITEM
                             7
                                (007 - - -004)(007 - - -008)(007 - - -010)
                                (007 - - - 011)
SPECIAL PROVISIONS TO ITEM
                            8 (008---003) (008---030) (008---033)
                            9
SPECIAL PROVISIONS TO ITEM
                                (009---010)(009---011)
SPECIAL PROVISION TO ITEM 247
                                (247 - - -003)
SPECIAL PROVISION TO ITEM 300 (300---020)
SPECIAL PROVISION TO ITEM 302 (302---003)
SPECIAL PROVISION TO ITEM 316
                                (316---002)
SPECIAL PROVISION TO ITEM 340 (340---004)
SPECIAL PROVISION TO ITEM 420 (420---001)
SPECIAL PROVISION TO ITEM 421 (421---010)
SPECIAL PROVISION TO ITEM 425
                                (425 - - -001)
SPECIAL PROVISION TO ITEM 426 (426---005)
SPECIAL PROVISION TO ITEM 427 (427---003)
SPECIAL PROVISION TO ITEM 434 (434---004)
SPECIAL PROVISION TO ITEM 440
                                (440 - - - 004)
SPECIAL PROVISION TO ITEM 441 (441---004)
SPECIAL PROVISION TO ITEM 442 (442---001)
SPECIAL PROVISION TO ITEM 446
                                (446---005)
SPECIAL PROVISION TO ITEM 448 (448---001)
SPECIAL PROVISION TO ITEM 450 (450---001)
SPECIAL PROVISION TO ITEM 462 (462---002)
SPECIAL PROVISION TO ITEM 464
                                (464 - - -001)
SPECIAL PROVISION TO ITEM 502 (502---008)
SPECIAL PROVISION TO ITEM 506 (506---005)
SPECIAL PROVISION TO ITEM 520 (520---002)
SPECIAL PROVISION TO ITEM 540
                                (540 - - -001)
SPECIAL PROVISION TO ITEM 636 (636---001)
SPECIAL PROVISION TO ITEM 643 (643---001)
SPECIAL PROVISION TO ITEM 656
                                (656 - - -001)
SPECIAL PROVISION TO ITEM 666
                                (666---007)
SPECIAL PROVISION TO SPECIAL SPECIFICATION ITEM 6185 (6185--002)
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SPECIAL SPECIFICATIONS:

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ITEM 3096 ASPHALTS, OILS, AND EMULSIONS
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ITEM 4171 INSTALL BRIDGE IDENTIFICATION NUMBERS

ITEM 6001 PORTABLE CHANGEABLE MESSAGE SIGN

ITEM 6185 TRUCK MOUNTED ATTENUATOR (TMA) AND TRAILER ATTENUATOR (TA)

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH
----- PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER
PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVELISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL
PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFICATIONS FOR THIS PROJECT.

Control 0333-02-013

Project BR 2023(234)

Highway SH 163

County STERLING

DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

The following goal for disadvantaged business enterprises is established:

DBE 5.0%

Certification of DBE Goal Attainment

By signing the proposal, the Bidder certifies that the above DBE goal will be met by committing to DBE participation that meets or exceeds the goal or providing adequate documentation of good faith efforts (GFE) to achieve the goal.

The DBE participation or GFE must be submitted within five (5) calendar days after bid opening. If the fifth day falls on a weekend or a day when TxDOT offices are closed, the deadline moves to the next business day.

The Department may impose remedies as defined by state or local law if a bidder fails to submit required documentation, including forfeiting the bid proposal guaranty and exclusion from rebidding on the contract if it is re-advertised.

CHILD SUPPORT STATEMENT

Under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.

CONFLICT OF INTEREST CERTIFICATION

Pursuant to Texas Government Code Section 2261.252(b), the Department is prohibited from entering into contracts in which Department officers and employees have a financial interest.

By signing the Contract, the Contractor certifies that it is not prohibited from entering into a Contract with the Department as a result of a financial interest as defined under Texas Government Code Section 2261.252(b), and that it will exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict of interest with the Department.

The Contractor also certifies that none of the following individuals, nor any of their family members within the second degree of affinity or consanguinity, owns 1% or more interest or has a financial interest as defined under Texas Government Code Section 2261.252(b) in the Contractor:

- Any member of the Texas Transportation Commission; and
- The Department's Executive Director, General Counsel, Chief of Procurement and Field Support Operations, Director of Procurement, and Director of Contract Services.

E-VERIFY CERTIFICATION

Pursuant to Texas Transportation Code §223.051, all TxDOT contracts for construction, maintenance, or improvement of a highway must include a provision requiring Contractors and subcontractors to use the U.S. Department of Homeland Security's E-Verify system to determine employment eligibility. By signing the contract, the Contractor certifies that prior to the award of the Contract:

- the Contractor has registered with and will, to the extent permitted by law, utilize the United States Department of Homeland Security's E-Verify system during the term of the Contract to determine the eligibility of all persons hired to perform duties within Texas during the term of the agreement; and
- the Contractor will require that all subcontractors also register with and, to the extent permitted by law, utilize the United States Department of Homeland Security's E-Verify system during the term of the subcontract to determine the eligibility of all persons hired to perform duties within Texas during the term of the agreement.

Violation of this requirement constitutes a material breach of the Contract, subjects a subcontractor to removal from the Contract, and subjects the Contractor or subcontractors to possible sanctions in accordance with Title 43, Texas Administrative Code, Chapter 10, Subchapter F, "Sanctions and Suspension for Ethical Violations by Entities Doing Business with the Department."

Certification Regarding Disclosure of Public Information

Pursuant to Subchapter J, Chapter 552, Texas Government Code, contractors executing a contract with a governmental body that results in the expenditure of at least \$1 million in public funds must:

- 1) preserve all contracting information* as provided by the records retention requirements applicable to Texas Department of Transportation (TxDOT) for the duration of the contract,
- 2) on request of TxDOT, promptly provide any contracting information related to the contract that is in the custody or possession of the entity, and
- 3) on completion of the contract, either:
 - A. provide, at no cost to TxDOT, all contracting information related to the contract that is in the custody or possession of the entity, or
 - B. preserve the contracting information related to the contract as provided by the records retention requirements applicable to TxDOT

The requirements of Subchapter J, Chapter 552, Government Code, may apply to this contract, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

By entering into Contract, the Contractor agrees to:

- provide, or make available, to TxDOT and any authorized governmental investigating or auditing agency all
 records, including electronic and payment records related to the contract, for the same period provided by the
 records retention schedule applicable to TxDOT, and
- ensure that all subcontracts include a clause requiring the same.
- * As defined in Government Code §552.003, "Contracting information" means the following information maintained by a governmental body or sent between a governmental body and a vendor, contractor, potential vendor, or potential contractor:
 - 1) information in a voucher or contract relating to the receipt or expenditure of public funds by a governmental body;
 - 2) solicitation or bid documents relating to a contract with a governmental body;
 - 3) communications sent between a governmental body and a vendor, contractor, potential vendor, or potential contractor during the solicitation, evaluation, or negotiation of a contract;
 - 4) documents, including bid tabulations, showing the criteria by which a governmental body evaluates each vendor, contractor, potential vendor, or potential contractor responding to a solicitation and, if applicable, an explanation of why the vendor or contractor was selected; and
 - 5) communications and other information sent between a governmental body and a vendor or contractor related to the performance of a final contract with the governmental body or work performed on behalf of the governmental body.

CERTIFICATION TO NOT BOYCOTT ISRAEL

Pursuant to Texas Government Code §2271.002, the Department must include a provision requiring a written verification affirming that the Contractor does not boycott Israel, as defined in Government Code §808.001, and will not boycott Israel during the term of the contract. This provision applies to a contract that:

- 1) is with a Contractor that is not a sole proprietorship,
- 2) is with a Contractor with 10 or more full-time employees, and
- 3) has a value of \$100,000 or more.

By signing the contract, the Contractor certifies that it does not boycott Israel and will not boycott Israel during the term of this contract. "Boycott" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

CERTIFICATION TO NOT BOYCOTT ENERGY COMPANIES

Pursuant to Texas Government Code §2274.002, the Department must include a provision requiring a written verification affirming that the Contractor does not boycott energy companies, as defined in Government Code §809.001, and will not boycott energy companies during the term of the contract. This provision applies to a contract that:

- 1) is with a Contractor that is not a sole proprietorship,
- 2) is with a Contractor with 10 or more full-time employees, and
- 3) has a value of \$100,000 or more.

By signing the contract, the Contractor certifies that it does not boycott energy companies and will not boycott energy companies during the term of this contract. "Boycott" means taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company: (1) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; or (2) does business with a company described by (1).

CERTIFICATION TO NOT DISCRIMINATE AGAINST FIREARM ENTITIES OR FIREARM TRADE ASSOCIATIONS

Pursuant to Texas Government Code §2274.002, the Department must include a provision requiring a written verification affirming that the Contractor:

- does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association, as defined in Government Code §2274.001, and
- 2) will not discriminate against a firearm entity or firearm trade association during the term of the contract.

This provision applies to a contract that:

- 1) is with a Contractor that is not a sole proprietorship,
- 2) is with a Contractor with 10 or more full-time employees, and
- 3) has a value of \$100,000 or more.

By signing the contract, the Contractor certifies that it does not discriminate against a firearm entity or firearm trade association as described and will not do so during the term of this contract. "Discriminate against a firearm entity or firearm trade association" means, with respect to the entity or association, to: (1) refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; (2) refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or (3) terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association. "Discriminate against a firearm entity or firearm trade association" does not include: (1) the established policies of a merchant, retail seller, or platform that restrict or prohibit the listing or selling of ammunition, firearms, or firearm accessories; (2) a company's refusal to engage in the trade of any goods or services, decision to refrain from continuing an existing business relationship, or decision to terminate an existing business relationship to comply with federal, state, or local law, policy, or regulations or a directive by a regulatory agency, or for any traditional business reason that is specific to the customer or potential customer and not based solely on an entity 's or association's status as a firearm entity or firearm trade association.

PROHIBITION ON CERTAIN TELECOMMUNICATIONS EQUIPMENT OR SERVICES

The Federal Register Notice issued the Final Rule and states that the amendment to 2 CFR 200.216 is effective on August 13, 2020. The new 2 CFR 200.471 regulation provides clarity that the telecommunications and video surveillance costs associated with 2 CFR 200.216 are unallowable for services and equipment from these specific providers. OMB's Federal Register Notice includes the new 2 CFR 200.216 and 2 CFR 200.471 regulations.

https://www.federal register.gov/documents/2020/08/13/2020-17468/guidance-for-grants-and-agreements

Per the Federal Law referenced above, use of services, systems, or services or systems that contain components produced by any of the following manufacturers is strictly prohibited for use on this project. Therefore, for any telecommunications, CCTV, or video surveillance equipment, services or systems cannot be manufactured by, or have components manufactured by:

- Huawei Technologies Company,
- ZTE Corporation (any subsidiary and affiliate of such entities),
- Hyatera Communications Corporation,
- Hangzhou Hikvision Digital Technology Company,
- Dahua Technology Company (any subsidiary and affiliate of such entities).

Violation of this prohibition will require replacement of the equipment at the contractor's expense.

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REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid designbuild contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

- 3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.
- 4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).
- II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

- 1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
- a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).
- b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

- 2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.
- 3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
- a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.
- b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

- d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
- **4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.
- a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.
- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.
- c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.
- **5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:
- a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.
- 7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:
- a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
- b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.
- c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.
- d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

- 8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.
- 9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
- a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.
- b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

- a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.
- b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
 - (1) Withholding monthly progress payments;
 - (2) Assessing sanctions;
 - (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.
- c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.
- 11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
- a. The records kept by the contractor shall document the following:

- (1) The number and work hours of minority and nonminority group members and women employed in each work classification on the project;
 - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
 - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.
- b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (ii) The classification is utilized in the area by the construction industry; and

- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics,

including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

- a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.
- (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;
- (ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;
- (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.
- (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State

Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
 - d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

- **5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.
- **6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- **7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- 8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.
- **9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor

set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

- a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- c. The penalty for making false statements is prescribed in the U.S. Criminal Code, $18\,U.S.C.\,1001.$

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

- 1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.
- 2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.
- * \$27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

- 3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section.
- **4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

- 1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).
- a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)
- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees:
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
 - (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.
- b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or

- equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.
- 2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
- 3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.
- 4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).
- 5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

- 1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.
- 2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.
- 3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders

or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

- f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.
- g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.
- i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

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2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

- a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:
- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

- (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;
- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and
- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).
- (5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and
- (6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).
- b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

- a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 180.1020, and 1200. You may contact the person to which this proposal is

submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

- (a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355:
- (b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and
- (c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
- a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- 2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

- 1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.
- 2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

- 1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:
- a. To the extent that qualified persons regularly residing in the area are not available.
- b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.
- c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.
- 2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.
- 3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.
- 4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above
- 5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.
- 6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

The wage rates listed herein are those predetermined by the Secretary of Labor and State Statue and listed in the United States Department of Labor's (USDOL) General Decisions dated **02-24-2022** and are the minimum wages to be paid accordingly for each specified classification. To determine the applicable wage rate zone, a list entitled "TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES" is provided in the contract. Any wage rate that is not listed herein and not in the USDOL's general decision, must be submitted to the Engineer for approval. IMPORTANT NOTICE FOR STATE PROJECTS: only the controlling wage rate zone applies to the contract. Effective 02-24-2022.

CLASS.#	CLASSIFICATION DESCRIPTION	ZONE TX02 *(TX20220002)	ZONE TX03 *(TX20220003)	ZONE TX04 *(TX20220004)	ZONE TX05 *(TX20220005)	ZONE TX06 *(TX20220006)	ZONE TX07 *(TX20220007)	ZONE TX08 *(TX20220008)	ZONE TX24 *(TX20220024)	ZONE TX25 *(TX20220025)	ZONE TX27 *(TX20220027)	ZONE TX28 *(TX20220028)	ZONE TX29 *(TX20220029)	ZONE TX30 *(TX20220030)	ZONE TX37 *(TX20220037)	ZONE TX38 *(TX20220038)	ZONE TX42 *(TX20220042)
1428	Agricultural Tractor Operator						\$12.69					\$12.35			\$11.75		
1300	Asphalt Distributor Operator	\$14.87	\$13.48	\$13.88	\$15.72	\$15.58	\$15.55	\$15.72	\$13.28	\$15.32	\$15.62	\$14.36	\$14.25	\$14.03	\$13.75	\$14.06	\$14.40
1303	Asphalt Paving Machine Operator	\$13.40	\$12.25	\$12.35	\$13.87	\$14.05	\$14.36	\$14.20	\$13.26	\$13.99	\$14.68	\$12.92	\$13.44	\$12.53	\$14.00	\$14.32	\$12.99
1106	Asphalt Raker	\$12.28	\$10.61	\$12.02	\$14.21	\$11.65	\$12.12	\$11.64	\$11.44	\$12.69	\$12.05	\$11.34	\$11.67	\$11.40	\$12.59	\$12.36	\$11.78
1112	Batching Plant Operator, Asphalt																
1115	Batching Plant Operator, Concrete																
1214	Blaster																
1615	Boom Truck Operator						\$18.36										
1444	Boring Machine Operator																
1305	Broom or Sweeper Operator	\$11.21	\$10.33	\$10.08	\$11.99		\$11.04	\$11.62		\$11.74	\$11.41	\$10.30		\$10.23	\$10.60	\$12.68	\$11.05
1144	Communications Cable Installer																
1124	Concrete Finisher, Paving and Structures	\$13.55	\$12.46	\$13.16	\$12.85	\$12.64	\$12.56	\$12.77	\$12.44	\$14.12	\$13.04	\$13.38	\$12.64	\$12.80	\$12.79	\$12.98	\$13.32
1124	Concrete Pavement Finishing Machine	φ13.33	ψ12. 4 0	φ13.10	φ12.03	ψ12.0 4	ψ12.30	Ψ12.77	ψ12.44	φ14.12	φ13.04	φ13.30	ψ12.0 4	φ12.00	Ψ1Z.75	ψ12. 3 0	ψ13.32
1318	Operator				\$16.05		\$15.48			\$16.05		\$19.31				\$13.07	
	Concrete Paving, Curing, Float, Texturing											****					
1315	Machine Operator				01107					** ** * * * * * * * *	047.00	\$16.34				\$11.71	
1333	Concrete Saw Operator				\$14.67					\$14.48	\$17.33					\$13.99	
1399	Concrete/Gunite Pump Operator Crane Operator, Hydraulic 80 tons																
1344	or less				\$18.22		\$18.36			\$18.12	\$18.04	\$20.21			\$18.63	\$13.86	
	Crane Operator, Hydraulic Over																
1345	80 Tons Crane Operator, Lattice Boom 80 Tons																
1342	or Less	\$16.82	\$14.39	\$13.85	\$17.27		\$15.87			\$17.27		\$14.67			\$16.42	\$14.97	\$13.87
1042	Crane Operator, Lattice Boom Over	ψ10.02	ψ14.00	ψ10.00	Ψ17.21		ψ10.07			Ψ17.27		ψ14.07			ψ10.4Z	ψ14.07	ψ10.07
1343	80 Tons				\$20.52		\$19.38			\$20.52		\$17.49			\$25.13	\$15.80	
1306	Crawler Tractor Operator	\$13.96	\$16.63	\$13.62	\$14.26		\$15.67			\$14.07	\$13.15	\$13.38			\$14.60	\$13.68	\$13.50
1351	Crusher or Screen Plant Operator																
1446	Directional Drilling Locator						\$11.67										
1445	Directional Drilling Operator				\$20.32		\$17.24										
1139	Electrician	\$20.96		\$19.87	\$19.80		\$26.35		\$20.27	\$19.80		\$20.92				\$27.11	\$19.87
1247	Excavator Operator, 50,000 pounds or less	¢12.46	¢10 E6	¢12.67	¢17.10		\$12.88	\$14.38	¢12.40	¢17 10		¢12.00			¢14.00	¢10.71	¢14.42
1347	Excavator Operator, Over 50,000	\$13.46	\$12.56	\$13.67	\$17.19		φ12.00	ф 14.30	\$13.49	\$17.19		\$13.88			\$14.09	\$12.71	\$14.42
1348	pounds		\$15.23	\$13.52	\$17.04		\$17.71			\$16.99	\$18.80	\$16.22				\$14.53	\$13.52
1150	Flagger	\$9.30	\$9.10	\$8.50	\$10.28	\$8.81	\$9.45	\$8.70		\$10.06	\$9.71	\$9.03	\$8.81	\$9.08	\$9.90	\$10.33	\$8.10
1151	Form Builder/Setter, Structures	\$13.52	\$12.30	\$13.38	\$12.91	\$12.71	\$12.87	\$12.38	\$12.26	\$13.84	\$12.98	\$13.07	\$13.61	\$12.82	\$14.73	\$12.23	\$12.25
1160	Form Setter, Paving & Curb	\$12.36	\$12.16	\$13.93	\$11.83	\$10.71	\$12.94			\$13.16	\$12.54	\$11.33	\$10.69		\$13.33	\$12.34	\$13.93
4000	Foundation Drill Operator, Crawler				0.47.55					0.17.00						0.47.15	
1360	Mounted Foundation Drill Operator,				\$17.99					\$17.99						\$17.43	
1363	Truck Mounted		\$16.86	\$22.05	\$21.51		\$16.93			\$21.07	\$20.20	\$20.76		\$17.54	\$21.39	\$15.89	\$22.05
	Front End Loader Operator,																
1369	3 CY or Less	\$12.28	\$13.49	\$13.40	\$13.85		\$13.04	\$13.15	\$13.29	\$13.69	\$12.64	\$12.89			\$13.51	\$13.32	\$12.17
1372	Front End Loader Operator, Over 3 CY	\$12.77	\$13.69	\$12.33	\$14.96		\$13.21	\$12.86	\$13.57	\$14.72	\$13.75	\$12.32			\$13.19	\$13.17	\$13.02
1372	Joint Sealer	φ12.//	φ10.09	φ12.33	φ14.90		φ13.21	φ12.00	φ13.37	φ14.72	φ13.73	ψ12.32			φ10.19	φ13.17	ψ13.02
1172	Laborer, Common	\$10.30	\$9.86	\$10.08	\$10.51	\$10.71	\$10.50	\$10.24	\$10.58	\$10.72	\$10.45	\$10.30	\$10.25	\$10.03	\$10.54	\$11.02	\$10.15
1175	Laborer, Utility	\$11.80	\$11.53	\$10.00	\$10.31	\$10.71	\$10.30	\$10.24	\$10.38	\$10.72	\$11.80	\$11.53	\$10.23	\$10.03	\$10.54	\$11.73	\$10.13
1173	Laborer, Othicy	φ11.00	φ11.33	φ12.70	φ1∠.17	ا ١٠.٥١	φ12.21	۰ ا∠.۱۱	कृ।।.३३	Φ1∠.3∠	φ11.00	φ11.53	φ11.23	φ11.50	φ11.93	φ11./3	φ12.37

TX02	ZONE		ZONE	ZONE	ZONE	ZONE	ZONE	ZONE	ZONE	ZONE	ZONE	ZONE
1187 Mechanic \$20.14 \$15.47 \$17.47 \$17.74 \$17.01 \$13.00 Milling Machine Operator \$15.54 \$14.64 \$12.22 \$14.29 \$14.00 \$15.54 \$14.64 \$12.22 \$14.29 \$16.00 \$15.54 \$14.64 \$12.22 \$14.29 \$16.00 \$16.00 \$16.00 \$16.52 \$16.86 \$17.12 \$18.37 \$13.90 \$16.67 \$16.52 \$16.86 \$17.12 \$18.37 \$13.90 \$16.52 \$16.86 \$17.02 \$18.37 \$13.90 \$16.15 \$14.62 \$15.83 \$16.20 \$17.01 \$14.30 \$16.80 \$12.26 \$17.01 \$14.13 \$16.80 \$12.26 \$16.15 \$14.62 \$15.83 \$16.20 \$17.01 \$14.13 \$16.80 \$12.26 \$16.15 \$14.62 \$15.83 \$16.20 \$17.01 \$19.60 \$16.42 \$13.10 \$13.55 \$14.43 \$13.90 \$13.90 \$16.42 \$13.10 \$13.55 \$14.43 \$13.90 \$13.90 \$16.42 \$13.10 \$13.55 \$14.43 \$13.90 \$13.90 \$11.90 \$13.30 \$13.40 \$	TX07 5) *(TX20220007)	LASSIFICATION DES	TX08 *(TX20220008	TX24 *(TX20220024)	TX25 *(TX20220025)	TX27 *(TX20220027)	TX28 *(TX20220028)	TX29 *(TX20220029)	TX30 *(TX202220030)	TX37 *(TX20220037)	TX38 *(TX20220038)	TX42 *(TX20220042)
1380 Milling Machine Operator \$15.54 \$14.64 \$12.22 \$14.29 Motor Grader Operator, Fine Grade \$17.49 \$16.52 \$16.86 \$17.12 \$18.31 \$1393 Motor Grader Operator, Rough \$16.15 \$14.62 \$15.83 \$16.20 \$17.07 \$1413 Off Road Hauler \$10.08 \$12.26 \$11.30 \$12.26 \$11.30 \$13.55 \$16.90 \$12.26 \$13.10 \$13.55 \$16.90 \$12.26 \$13.10 \$13.55 \$14.43 Percussion or Rotary Drill Operator \$16.42 \$13.10 \$13.55 \$14.43 Percussion or Rotary Drill Operator \$12.20 Piledriver \$11.87 Piledriver \$11.87 Piledriver \$11.20 Piledriver \$12.20 Piledri	\$14.12	r/Backhoe Operator	2		\$15.18	\$13.58	\$12.87		\$13.21	\$14.13	\$14.29	\$12.90
Motor Grader Operator, Since Grade Sin	0 \$17.10	inic)		\$17.68	\$18.94	\$18.58	\$17.00	\$16.61	\$18.46	\$16.96	\$17.47
1390 Fine Grade \$17.49 \$16.52 \$16.88 \$17.12 \$18.37 1393 Motor Grader Operator, Rough \$16.15 \$14.62 \$15.83 \$16.20 \$17.07 1413 Off Road Hauler \$10.08 \$12.26 \$17.07 1196 Painter, Structures \$21.25 1396 Operator \$16.42 \$13.10 \$13.55 1443 Percussion or Rotary Drill Operator 1202 Piledriver \$11.87 \$14.64 \$13.17 \$11.17 1204 Piledriver \$11.87 \$14.64 \$13.17 \$11.17 1384 Reclaimer/Pulverizer Operator \$12.85 \$11.87 \$14.64 \$13.17 \$11.17 1402 Roller Operator, Asphalt \$10.95 \$11.96 \$13.29 1405 Roller Operator, Other \$10.36 \$11.07 \$10.85 \$12.86 1411 Scraper Operator \$10.61 \$11.07 \$10.85 \$12.88 1411 Scraper Operator \$10.61 \$11.07 \$10.85 \$12.88 1417 Self-Propelled Hammer Operator \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1514 Small Silipform Machine Operator \$12.60 \$13.12 \$14.71 1705 Structural Steel Worker \$13.98 \$12.34 \$14.11 \$14.74 1519 Structural Steel Worker \$13.99 \$12.60 \$13.12 \$14.71 1705 Structural Steel Worker \$12.60 \$13.12 \$14.71 1705 Structural Steel Worker \$13.99 \$12.60 \$13.12 \$14.71 1706 Structural Steel Worker \$13.99 \$12.60 \$13.12 \$14.71 1706 Structural Steel Worker \$13.63 \$13.41 \$15.00 \$15.93 1400 Truck Driver Inshit-Mix \$14.46 \$13.63 \$13.41 \$15.00 \$15.93 1600 Truck Driver, Single or I andem Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61 1600 Truck Driver, Single or I andem Axle \$12.49 \$12.12 \$12.50 \$13.42 1600 Truck Driver, Indem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 1600 Turneling Machine Operator, \$12.49 \$12.12 \$12.50 \$13.42 1600 Turneling Machine Operator, \$13.40 \$11.61 1600 Turneling Machine Operator, \$12.49 \$12.12 \$12.50 \$13.42 1600 Turneling Machine Operator, \$12.49 \$12.12 \$12.50 \$1	\$14.18	Machine Operator	3		\$14.32	\$14.35	\$12.86			\$14.75	\$13.53	\$12.80
1393 Motor Grader Operator, Rough \$16.15 \$14.62 \$15.83 \$16.20 \$17.07	7 \$18.51	•	\$16.69	\$16.13	\$17.19	\$18.35	\$17.07	\$17.74	\$17.47	\$17.08	\$15.69	\$20.01
1413 Off Road Hauler				\$10.13	\$17.19 \$16.02	\$16.44	\$17.07 \$15.12	\$16.85	\$17.47	\$17.08	\$13.09	\$15.53
1196	\$11.88				\$10.02	φ10.44	\$13.12	φ10.03	Ψ14.47	\$17.39	\$14.23	φ13.33
Pavement Marking Machine					ψ12.20		ψ.2.20	\$21.29		ψ10.00	\$18.62	
1443 Percussion or Rotary Drill Operator 1202 Piledriver	7.000							,			7.0.0	
1202 Piledriver	\$19.17	tor	\$12.0		\$13.63	\$14.60	\$13.17		\$16.65	\$10.54	\$11.18	\$13.10
1205 Pipelayer \$11.87 \$14.64 \$13.17 \$11.17 1384 Reclaimer/Pulverizer Operator \$12.85 \$11.90 \$11.90 \$15.00 Reinforcing Steel Worker \$13.50 \$14.07 \$17.53 \$16.17 \$14.02 Roller Operator, Asphalt \$10.95 \$11.96 \$13.29 \$14.05 Roller Operator, Other \$10.36 \$10.44 \$11.82 \$14.14 \$14.82 \$14.11 \$14.82 \$14.11 \$14.82 \$14.11 \$14.82 \$14.11 \$14.82 \$14.11 \$14.82 \$14.11 \$14.82 \$14.11 \$14.84 \$11.82 \$14.11 \$14.84 \$11.82 \$14.11 \$14.84 \$11.82 \$14.11 \$14.74 \$1513 \$16.67 \$10.85 \$12.88 \$12.34 \$14.11 \$14.74 \$1513 \$16.67 \$10.85 \$12.88 \$12.34 \$14.11 \$14.74 \$1513 \$16.67 \$10.67 \$10.85 \$12.88 \$12.34 \$14.11 \$14.74 \$1513 \$10.67 \$10.85 \$12.88 \$12.34 \$14.11 \$14.74 \$1513 \$10.67 \$10.85 \$12.88 \$12.34 \$14.11 \$14.74 \$1513 \$10.67 \$10.85 \$12.88 \$12.34 \$14.11 \$14.74 \$1513 \$10.67 \$10.85 \$12.86 \$13.41 \$14.74 \$1513 \$14.74 \$1513 \$14.74 \$1513 \$14.74 \$1515 \$15.00 \$15.95 \$		sion or Rotary Drill O										
1384 Reclaimer/Pulverizer Operator \$12.85 \$11.90 1500 Reinforcing Steel Worker \$13.50 \$14.07 \$17.53 \$16.17 1402 Roller Operator, Asphalt \$10.95 \$11.96 \$13.29 1405 Roller Operator, Other \$10.36 \$10.44 \$11.82 1411 Scraper Operator \$10.61 \$11.07 \$10.85 \$12.88 1417 Self-Propelled Hammer Operator \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1515 Spreader of Micro-Surfacing Machine Operator \$1341 Small Slipform Machine Operator \$12.60 \$13.12 \$14.71 1705 Structural Steel Worker \$13.98 \$12.34 \$14.71 1705 Structural Steel Worker \$13.98 \$12.60 \$13.12 \$14.71 1409 Structural Steel Worker \$13.99 \$12.60 \$13.41 \$15.00 \$15.93 1437 Telecommunication Technician \$14.46 \$13.63 \$13.41 \$15.00 \$15.93 1437 Light \$14.14 \$16.00 \$17.0ck Driver Lowboy-Float \$14.46 \$13.63 \$13.41 \$15.00 \$15.93 1601 Truck Driver, Single Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61 1607 Truck Driver, Single Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61 1607 Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 1607 Tunneling Machine Operator, \$11.33 \$14.53 \$11.95 \$12.95 1700 Truck Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 1607 Tunneling Machine Operator, \$12.49 \$12.12 \$12.50 \$13.42 1608 Tunneling Machine Operator, \$12.49 \$12.12 \$12.50 \$13.42 1609 Tunneling Machine Operator, \$12.49 \$12.12 \$12.50 \$13.42 1607 Tunneling Machine Operator, \$12.49 \$12.12 \$12.50 \$13.42 1607 Tunneling Machine Operator, \$12.49 \$12.12 \$12.50 \$13.42 1608 Tunneling Machine Operator, \$12.49 \$12.12 \$12.50 \$13.42 1609 Tunneling Machine Operator, \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80		ver									\$14.95	
1500 Reinforcing Steel Worker \$13.50 \$14.07 \$17.53 \$16.17 1402 Roller Operator, Asphalt \$10.95 \$11.96 \$13.29 1405 Roller Operator, Other \$10.36 \$10.44 \$11.82 1411 Scraper Operator \$10.61 \$11.07 \$10.85 \$12.88 1417 Self-Propelled Hammer Operator \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1515 Spreader Micro-Surfacing Machine Operator \$12.60 \$13.12 \$14.71 1705 Structural Steel Welder \$1509 Structural Steel Welder \$13.99 Subgrade Trimmer \$14.37 Telecommunication Technician \$14.45 Traffic Signal/Light Pole Worker Trenching Machine Operator, \$14.40 \$13.63 \$13.41 \$15.00 \$15.93 1609 Truck Driver Lowboy-Float \$14.46 \$13.63 \$13.41 \$15.00 \$15.93 1612 Truck Driver Transit-Mix \$14.14 \$16.00 Truck Driver, Single or Tandem Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61 1607 Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$10.80 \$1		yer		\$11.37	\$13.24	\$12.66	\$13.24	\$11.17	\$11.67		\$12.12	\$14.64
1402 Roller Operator, Asphalt \$10.95 \$11.96 \$13.29 1405 Roller Operator, Other \$10.36 \$10.44 \$11.82 1411 Scraper Operator \$10.61 \$11.07 \$10.85 \$12.88 1417 Self-Propelled Hammer Operator \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector Slurry Seal or Micro-Surfacing Machine Operator Operator Operator Structural Steel Welder Structural Steel Welder Structural Steel Welder Structural Steel Worker Structural S	\$12.88	mer/Pulverizer Opera			\$11.01		\$10.46					
1405 Roller Operator, Other \$10.36 \$10.44 \$11.82 1411 Scraper Operator \$10.61 \$11.07 \$10.85 \$12.88 1417 Self-Propelled Hammer Operator \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector Slurry Seal or Micro-Surfacing Machine Operator Operator Operator Surd Seal or Micro-Surfacing Machine Operator \$1341 Small Slipform Machine Operator \$12.60 \$13.12 \$14.71 1705 Structural Steel Welder \$1509 Structural Steel Worker \$1339 Subgrade Trimmer \$143 Telecommunication Technician \$145 Traffic Signal/Light Pole Worker Trenching Machine Operator, Heavy Trenching Machine Operator, \$1437 Light \$1437 Light \$1437 Light \$1437 Light \$1440 \$13.63 \$13.41 \$15.00 \$15.93 \$1612 Truck Driver Lowboy-Float \$14.46 \$13.63 \$13.41 \$15.00 \$15.93 \$1612 Truck Driver, Single Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61 Truck Driver, Single or Tandem Axle \$11.33 \$14.53 \$11.95 \$12.95 Truck Driver, Tandem Axle Tractor with Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 Tunneling Machine Operator,	\$14.00	rcing Steel Worker			\$16.18	\$12.74	\$15.83		\$17.10		\$15.15	\$17.72
1411 Scraper Operator \$10.61 \$11.07 \$10.85 \$12.88 1417 Self-Propelled Hammer Operator \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector \$13.98 \$12.34 \$14.11 \$14.74 1708 Operator \$13.98 \$12.34 \$14.11 \$14.74 1708 Operator \$13.98 \$12.34 \$14.11 \$14.74 1708 Operator \$13.98 \$12.34 \$14.17 \$14.74 1341 Small Slipform Machine Operator \$12.60 \$13.12 \$14.71	\$12.78				\$13.08	\$12.36	\$11.68			\$11.71	\$11.95	\$11.50
1417 Self-Propelled Hammer Operator 1194 Servicer \$13.98 \$12.34 \$14.11 \$14.74 1513 Sign Erector Siurry Seal or Micro-Surfacing Machine Operator 1708 Operator 1341 Small Slipform Machine Operator \$12.60 \$13.12 \$14.71 1705 Structural Steel Welder 1509 Structural Steel Worker 1339 Subgrade Trimmer 1143 Telecommunication Technician 1145 Traffic Signal/Light Pole Worker 1790 Trenching Machine Operator, 1440 Heavy Trenching Machine Operator, 1447 Light 1600 Truck Driver Lowboy-Float \$14.46 \$13.63 \$13.41 \$15.00 \$15.93 1612 Truck Driver Transit-Mix \$14.14 1600 Truck Driver, Single Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61 170ck Driver, Single or Tandem Axle 1606 Dump Truck \$11.33 \$14.53 \$11.95 \$12.95 170ck Driver, Tandem Axle Tractor with Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$14.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with \$12.49 \$12.12 \$12.50 \$13.42 170ch Driver, Tandem Axle Tractor with	\$10.50		\$11.64		\$11.51	\$10.59	\$10.30		\$12.04	\$12.85	\$11.57	\$10.66
1194 Servicer \$13.98 \$12.34 \$14.11 \$14.74	\$12.27	•	7	\$11.12	\$12.96	\$11.88	\$12.43		\$11.22	\$13.95	\$13.47	\$10.89
1513 Sign Erector Slurry Seal or Micro-Surfacing Machine Operator 1341 Small Slipform Machine Operator \$12.60 \$13.12 \$14.71 1705 Structural Steel Welder Structural Steel Worker 1339 Subgrade Trimmer 1143 Telecommunication Technician 1145 Traffic Signal/Light Pole Worker 1709 Trenching Machine Operator, 1440 Heavy Trenching Machine Operator, 1441 Light 1600 Truck Driver Lowboy-Float \$14.46 \$13.63 \$13.41 \$15.00 \$15.93 1612 Truck Driver Transit-Mix \$14.46 \$13.63 \$11.44 1600 Truck Driver, Single Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61 Truck Driver, Single Axle \$11.33 \$14.53 \$11.95 \$12.95 1700 Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 1700 \$13.42 \$10.75 \$10.75 \$10.75 \$10.75 \$10		· · · · · ·										
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1708 Operator 1341 Small Slipform Machine Operator 1515 Spreader Box Operator \$12.60 \$13.12 \$14.71 1705 Structural Steel Welder 1509 Structural Steel Worker 1339 Subgrade Trimmer 1143 Telecommunication Technician 1145 Traffic Signal/Light Pole Worker 17enching Machine Operator, 1440 Heavy Trenching Machine Operator, 1437 Light 1609 Truck Driver Lowboy-Float \$14.46 \$13.63 \$13.41 \$15.00 \$15.93 1612 Truck Driver Transit-Mix \$14.14 1600 Truck Driver, Single Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61 Truck Driver, Single or Tandem Axle 1606 Dump Truck \$11.33 \$14.53 \$11.95 \$12.95 1617 Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 17.41 1607 Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 17.41 16.4												
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1705 Structural Steel Welder		Slipform Machine Opr			\$15.96							
1509 Structural Steel Worker	\$14.04	der Box Operator	1		\$14.73	\$13.84	\$13.68		\$13.45	\$11.83	\$13.58	\$14.05
1339 Subgrade Trimmer		ural Steel Welder									\$12.85	
1143 Telecommunication Technician	\$19.29	ural Steel Worker	9								\$14.39	
1145 Traffic Signal/Light Pole Worker		ade Trimmer										
Trenching Machine Operator, Heavy Trenching Machine Operator, Heavy Trenching Machine Operator, Light		mmunication Technic										
1440 Heavy Trenching Machine Operator, 1437 Light	\$16.00)									
Trenching Machine Operator, Light	\$18.48	-										
1609 Truck Driver Lowboy-Float \$14.46 \$13.63 \$13.41 \$15.00 \$15.93	\$10.40		,									
1612 Truck Driver Transit-Mix \$14.14	ļ											
1600 Truck Driver, Single Axle \$12.74 \$10.82 \$10.75 \$13.04 \$11.61	3 \$15.66	Driver Lowboy-Float	6		\$16.24	\$16.39	\$14.30	\$16.62	\$15.63	\$14.28	\$16.03	\$13.41
Truck Driver, Single or Tandem Axle		Driver Transit-Mix			\$14.14							
1606 Dump Truck \$11.33 \$14.53 \$11.95 \$12.95 Truck Driver, Tandem Axle Tractor with 1607 Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 Tunneling Machine Operator, \$12.12 \$12.50 \$13.42	1 \$11.79		\$13.53	\$13.16	\$12.31	\$13.40	\$10.30	\$11.61		\$11.97	\$11.46	\$10.75
Truck Driver, Tandem Axle Tractor with Semi Trailer \$12.49 \$12.12 \$12.50 \$13.42 Tunneling Machine Operator,	\$11.68		3	\$14.06	\$12.62	\$11.45	\$12.28		\$13.08	\$11.68	\$11.48	\$11.10
Tunneling Machine Operator,	\$11.00	Driver, Tandem Axle		ψσσ	ψ.2.02	ψτο	ψ.2.20		ψ.σ.σσ	\$11.00	Ç10	ψιο
	\$12.81		\$13.16		\$12.86	\$16.22	\$12.50			\$13.80	\$12.27	\$12.50
<u> </u>												
1442 Tunneling Machine Operator, Light		ling Machine Operato										
1706 Welder \$14.02 \$14.86	\$15.97	• .	7	\$13.74	\$14.84					\$13.78		
1520 Work Zone Barricade Servicer \$10.30 \$12.88 \$11.46 \$11.70 \$11.57					\$11.68	\$12.20	\$11.22	\$11.51	\$12.96	\$10.54	\$11.67	\$11.76

Notes:

Any worker employed on this project shall be paid at the rate of one and one half (1-1/2) times the regular rate for every hour worked in excess of forty (40) hours per week.

For reference, the titles and descriptions for the classifications listed here are detailed further in the AGC of Texas' Standard Job Classifications and Descriptions for Highway, Heavy, Utilities, and Industrial Construction in Texas posted on the AGC's Web site for any contractor.

^{*}Represents the USDOL wage decision.

TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES: 2, 3, 4, 5, 6, 7, 8, 24, 25, 27, 28, 29, 30, 37, 38, 42

Anderson				County Name	Zone	County Name	Zone
		Donley		Karnes		Reagan	37
Andrews		Duval		Kaufman		Real	37
Angelina		Eastland		Kendall	7	Red River	28
Aransas	-	Ector	2	Kenedy		Reeves	8
Archer		Edwards	8	Kent		Refugio	27
Armstrong	2	El Paso		Kerr		Roberts	37
Atascosa	7	Ellis	_	Kimble		Robertson	7
Austin		Erath	28	King		Rockwall	25
Bailey	37	Falls		Kinney		Runnels	37
Bandera	7	Fannin	28	Kleberg		Rusk	4
Bastrop	7	Fayette	27	Knox		Sabine	28
Baylor		Fisher	37	Lamar		San Augustine	28
Bee	27	Floyd		Lamb	37	San Jacinto	38
Bell	7	Foard	37	Lampasas	7	San Patricio	29
Bexar	7	Fort Bend				San Saba	37
Blanco	27	Franklin		Lavaca		Schleicher	37
Borden	37	Freestone		Lee		Scurry	37
Bosque	28	Frio	27	Leon		Shackelford	37
Bowie	4	Gaines		Liberty		Shelby	28
Brazoria	38	Galveston	38	Limestone	28	Sherman	37
Brazos	7	Garza	37	Lipscomb	37	Smith	4
Brewster	8	Gillespie	27	Live Oak	27	Somervell	28
Briscoe	37	Glasscock	37	Llano	27	Starr	30
Brooks	30	Goliad	29	Loving	37	Stephens	37
Brown	37	Gonzales	27	Lubbock	2	Sterling	37
Burleson	7	Gray	37	Lynn	37	Stonewall	37
Burnet	27	Grayson	25	Madison	28	Sutton	8
Caldwell	7	Gregg	4	Marion	28	Swisher	37
Calhoun	29	Grimes	28	Martin	37	Tarrant	25
Callahan	25	Guadalupe	7	Mason	27	Taylor	2
Cameron	3	Hale	37	Matagorda	27	Terrell	8
Camp	28	Hall	37	Maverick	30	Terry	37
Carson	2	Hamilton	28	McCulloch	37	Throckmorton	37
Cass	28	Hansford	37	McLennan	7	Titus	28
Castro	37	Hardeman	37	McMullen	30	Tom Green	2
Chambers	38	Hardin	38	Medina	7	Travis	7
Cherokee	28	Harris	38	Menard	37	Trinity	28
Childress	37	Harrison	42	Midland	2	Tyler	28
Clay	25	Hartley	37	Milam	28	Upshur	4
Cochran		Haskell	37	Mills		Upton	37
Coke	37	Hays	7	Mitchell		Uvalde	30
Coleman		Hemphill		Montague		Val Verde	8
Collin		Henderson		Montgomery	38	Van Zandt	28
Collingsworth	37	Hidalgo	3	Moore	37	Victoria	6
Colorado		Hill		Morris		Walker	28
Comal	7	Hockley		Motley		Waller	38
Comanche	37	Hood		Nacogdoches		Ward	37
Concho		Hopkins		Navarro		Washington	28
Cooke		Houston		Newton		Webb	3
Coryell	7	Howard		Nolan		Wharton	27
Cottle	37	Hudspeth	8	Nueces		Wheeler	37
Crane		Hunt		Ochiltree		Wichita	5
Crockett	8	Hutchinson		Oldham		Wilbarger	37
Crosby		Irion	2	Orange		Willacy	30
Culberson	8	Jack		Palo Pinto		Williamson	7
Dallam	37	Jackson		Panola		Wilson	7
Dallas		Jasper		Parker		Winkler	37
Dawson	37	Jeff Davis	8	Parmer		Wise	25
Deaf Smith	-	Jefferson		Pecos		Wood	28
Delta				Polk		Yoakum	37
Denton	25 25	Jim Wells		Potter	20	Young	37
DeWitt	-	Johnson		Presidio	8	Zapata	30
TATE V V III			20		U	_uputu	50
Dickens	37	Jones	25	Rains	28	Zavala	30

Special Provision to Item 000 Nondiscrimination



1. DESCRIPTION

All recipients of federal financial assistance are required to comply with various nondiscrimination laws including Title VI of the Civil Rights Act of 1964, as amended, (Title VI). Title VI forbids discrimination against anyone in the United States on the grounds of race, color, or national origin by any agency receiving federal funds.

Texas Department of Transportation, as a recipient of Federal financial assistance, and under Title VI and related statutes, ensures that no person shall on the grounds of race, religion (where the primary objective of the financial assistance is to provide employment per 42 U.S.C. § 2000d-3), color, national origin, sex, age or disability be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any Department programs or activities.

2. DEFINITION OF TERMS

Where the term "contractor" appears in the following six nondiscrimination clauses, the term "contractor" is understood to include all parties to contracts or agreements with the Texas Department of Transportation.

3. NONDISCRIMINATION PROVISIONS

During the performance of this contract, the contractor agrees as follows:

- 3.1. **Compliance with Regulations**. The Contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- 3.2. **Nondiscrimination**. The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- 3.3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- 3.4. Information and Reports: The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Texas Department of Transportation to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the Recipient, or the Texas Department of Transportation as appropriate, and shall set forth what efforts it has made to obtain the information.

- 3.5. **Sanctions for Noncompliance**. In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Recipient shall impose such contract sanctions as it or the Texas Department of Transportation may determine to be appropriate, including, but not limited to:
 - withholding of payments to the contractor under the contract until the contractor complies, and/or
 - cancellation, termination or suspension of the contract, in whole or in part.
- 3.6. Incorporation of Provisions. The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Recipient or the Texas Department of Transportation may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Recipient to enter into such litigation to protect the interests of the Recipient, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

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09-14 Statewide

Special Provision to Item 000 Certification of Nondiscrimination in Employment



1. GENERAL

By signing this proposal, the Bidder certifies that he has participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, or if he has not participated in a previous contract of this type, or if he has had previous contract or subcontracts and has not filed, he will file with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note—The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by Bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

Special Provision to Item 000



Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. **GENERAL**

In addition to the affirmative action requirements of the Special Provision titled "Standard Federal Equal Employment Opportunity Construction Contract Specifications" as set forth elsewhere in this proposal, the Bidder's attention is directed to the specific requirements for utilization of minorities and females as set forth below.

2. **GOALS**

- 2.1. Goals for minority and female participation are hereby established in accordance with 41 CFR 60-4.
- 2.2. The goals for minority and female participation expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area are as follows:

Goals for minority participation in each trade, %	Goals for female participation in each trade, %
See Table 1	6.9

- 2.3. These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it will apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction. The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 will be based on its implementation of the Standard Federal Equal Employment Opportunity Construction Contract Specifications Special Provision and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor must make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority and female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals will be a violation of the Contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.
- 2.4. A Contractor or subcontractor will be considered in compliance with these provisions by participation in the Texas Highway-Heavy Branch, AGC, Statewide Training and Affirmative Action Plan. Provided that each Contractor or subcontractor participating in this plan must individually comply with the equal opportunity clause set forth in 41 CFR 60-1.4 and must make a good faith effort to achieve the goals set forth for each participating trade in the plan in which it has employees. The overall good performance of other Contractors and subcontractors toward a goal in an approved plan does not excuse any covered Contractor's or subcontractor's failure to make good faith efforts to achieve the goals contained in these provisions. Contractors or subcontractors participating in the plan must be able to demonstrate their participation and document their compliance with the provisions of this Plan.

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3. SUBCONTRACTING

The Contractor must provide written notification to the Department within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the Contract resulting from this solicitation pending concurrence of the Department in the award. The notification will list the names,

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address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the Contract is to be performed.

4. **COVERED AREA**

As used in this special provision, and in the Contract resulting from this solicitation, the geographical area covered by these goals for female participation is the State of Texas. The geographical area covered by these goals for other minorities are the counties in the State of Texas as indicated in Table 1.

5. **REPORTS**

The Contractor is hereby notified that he may be subject to the Office of Federal Contract Compliance Programs (OFCCP) reporting and record keeping requirements as provided for under Executive Order 11246 as amended. OFCCP will provide direct notice to the Contractor as to the specific reporting requirements that he will be expected to fulfill.

> Table 1 **Goals for Minority Participation**

County	Participation, %	County	Participation, %
Anderson	22.5	Chambers	27.4
Andrews	18.9	Cherokee	22.5
Angelina	22.5	Childress	11.0
Aransas	44.2	Clay	12.4
Archer	11.0	Cochran	19.5
Armstrong	11.0	Coke	20.0
Atascosa	49.4	Coleman	10.9
Austin	27.4	Collin	18.2
Bailey	19.5	Collingsworth	11.0
Bandera	49.4	Colorado	27.4
Bastrop	24.2	Comal	47.8
Baylor	11.0	Comanche	10.9
Bee	44.2	Concho	20.0
Bell	16.4	Cooke	17.2
Bexar	47.8	Coryell	16.4
Blanco	24.2	Cottle	11.0
Borden	19.5	Crane	18.9
Bosque	18.6	Crockett	20.0
Bowie	19.7	Crosby	19.5
Brazoria	27.3	Culberson	49.0
Brazos	23.7	Dallam	11.0
Brewster	49.0	Dallas	18.2
Briscoe	11.0	Dawson	19.5
Brooks	44.2	Deaf Smith	11.0
Brown	10.9	Delta	17.2
Burleson	27.4	Denton	18.2
Burnet	24.2	DeWitt	27.4
Caldwell	24.2	Dickens	19.5
Calhoun	27.4	Dimmit	49.4
Callahan	11.6	Donley	11.0
Cameron	71.0	Duval	44.2
Camp	20.2	Eastland	10.9
Carson	11.0	Ector	15.1
Cass	20.2	Edwards	49.4
Castro	11.0	Ellis	18.2

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County	Participation, %	County	Participation, %
El Paso	57.8	Kenedy	44.2
Erath	17.2	Kent	10.9
Falls	18.6	Kerr	49.4
Fannin	17.2	Kimble	20.0
Fayette	27.4	King	19.5
Fisher	10.9	Kinney	49.4
Floyd	19.5	Kleberg	44.2
Foard	11.0	Knox	10.9
Fort Bend	27.3	Lamar	20.2
Franklin	17.2	Lamb	19.5
Freestone	18.6	Lampasas	18.6
Frio	49.4	LaSalle	49.4
Gaines	19.5	Lavaca	27.4
Galveston	28.9	Lee	24.2
Garza	19.5	Leon	27.4
Gillespie	49.4	Liberty	27.3
Glasscock	18.9	Limestone	18.6
Goliad	27.4	Lipscomb	11.0
Gonzales	49.4	Live Oak	44.2
Gray	11.0	Llano	24.2
Grayson	9.4	Loving	18.9
	22.8	Lubbock	19.6
Gregg Grimes	27.4		19.5
		Lynn	
Guadalupe	47.8	Madison	27.4
Hale	19.5	Marion	22.5
Hall	11.0	Martin	18.9
Hamilton	18.6	Mason	20.0
Hansford	11.0	Matagorda	27.4
Hardeman	11.0	Maverick	49.4
Hardin	22.6	McCulloch	20.0
Harris	27.3	McLennan	20.7
Harrison	22.8	McMullen	49.4
Hartley	11.0	Medina	49.4
Haskell	10.9	Menard	20.0
Hays	24.1	Midland	19.1
Hemphill	11.0	Milam	18.6
Henderson	22.5	Mills	18.6
Hidalgo	72.8	Mitchell	10.9
Hill	18.6	Montague	17.2
Hockley	19.5	Montgomery	27.3
Hood	18.2	Moore	11.0
Hopkins	17.2	Morris	20.2
Houston	22.5	Motley	19.5
Howard	18.9	Nacogdoches	22.5
Hudspeth	49.0	Navarro	17.2
Hunt	17.2	Newton	22.6
Hutchinson	11.0	Nolan	10.9
Irion	20.0	Nueces	41.7
Jack	17.2	Ochiltree	11.0
Jackson	27.4	Oldham	11.0
Jasper	22.6	Orange	22.6
Jeff Davis	49.0	Palo Pinto	17.2
Jefferson	22.6	Panola	22.5
Jim Hogg	49.4	Parker	18.2
Jim Wells	44.2	Parmer	11.0
Johnson	18.2	Pecos	18.9
Jones	11.6	Polk	27.4
Karnes	49.4	Potter	9.3
Kaufman	18.2	Presidio	49.0
Kendall	49.4	Randall	9.3
Nonuali	43.4	rtanuali	3.0

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County	Participation, %	County	Participation, %
Rains	17.2	Reagan	20.0
Real	49.4	Throckmorton	10.9
Red River	20.2	Titus	20.2
Reeves	18.9	Tom Green	19.2
Refugio	44.2	Travis	24.1
Roberts	11.0	Trinity	27.4
Robertson	27.4	Tyler	22.6
Rockwall	18.2	Upshur	22.5
Runnels	20.0	Upton	18.9
Rusk	22.5	Uvalde	49.4
Sabine	22.6	Val Verde	49.4
San Augustine	22.5	Van Zandt	17.2
San Jacinto	27.4	Victoria	27.4
San Patricio	41.7	Walker	27.4
San Saba	20.0	Waller	27.3
Schleicher	20.0	Ward	18.9
Scurry	10.9	Washington	27.4
Shackelford	10.9	Webb	87.3
Shelby	22.5	Wharton	27.4
Sherman	11.0	Wheeler	11.0
Smith	23.5	Wichita	12.4
Somervell	17.2	Wilbarger	11.0
Starr	72.9	Willacy	72.9
Stephens	10.9	Williamson	24.1
Sterling	20.0	Wilson	49.4
Stonewall	10.9	Winkler	18.9
Sutton	20.0	Wise	18.2
Swisher	11.0	Wood	22.5
Tarrant	18.2	Yoakum	19.5
Taylor	11.6	Young	11.0
Terrell	20.0	Zapata	49.4
Terry	19.5	Zavala	49.4

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Special Provision to Item 000

Standard Federal Equal Employment Opportunity **Construction Contract Specifications** (Executive Order 11246)



1. **GENERAL**

- 1.1. As used in these specifications:
 - "Covered area" means the geographical area described in the solicitation from which this Contract resulted:
 - "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - "Minority" includes:
 - Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - American Indian or Alaskan Native (all persons having origins in any of the original peoples of North American and maintaining identifiable tribal affiliations through membership and participation or community identification).
- 1.2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it will physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Contract resulted.
- 1.3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) will be in accordance with that plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the equal employment opportunity (EEO) clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
- 1.4. The Contractor will implement the specific affirmative action standards provided in Section 1.7.1. through Section 1.7.16. of these specifications. The goals set forth in the solicitation from which this Contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing Contracts in geographical areas where they do not have a Federal or federally assisted construction Contract will apply the minority and female goals established for the geographical area where the Contract is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or any Federal procurement contracting officer. The

1 09-14 Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

- 1.5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women will excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 1.6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.
- 1.7. The Contractor will take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications will be based upon its effort to achieve maximum results from its actions. The Contractor will document these efforts fully, and will implement affirmative action steps at least as extensive as the following:
- 1.7.1. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor will specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- 1.7.2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- 1.7.3. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this will be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- 1.7.4. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral Process has impeded the Contractor's efforts to meet its obligations.
- 1.7.5. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor will provide notice of these programs to the sources compiled under 7b above.
- 1.7.6. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and Collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- 1.7.7. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other

2 09-14 Statewide employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., before the initiation of construction work at any job site. A written record must be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

- 1.7.8. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- 1.7.9. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month before the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor will send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- 1.7.10. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- 1.7.11. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- 1.7.12. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- 1.7.13. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- 1.7.14. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities will be provided to assure privacy between the sexes.
- 1.7.15. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- 1.7.16. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 1.8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (Section 7.1. through Section 7.16.). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under Section 7.1. through Section 7.16. of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation will not be a defense for the Contractor's noncompliance.
- 1.9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor

3 09-14 Statewide may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

- 1.10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 1.11. The Contractor will not enter into any Subcontract with any person or firm debarred from Government Contracts pursuant to Executive Order 11246.
- 1.12. The Contractor will carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties will be in violation of these specifications and Executive Order 11246, as amended.
- 1.13. The Contractor, in fulfilling its obligations under these specifications, will implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director will proceed in accordance with 41 CFR 60-4.8.
- 1.14. The Contractor will designate a responsible official to monitor all employment-related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records must at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records must be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.
- 1.15. Nothing herein provided will be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
- 1.16. In addition to the reporting requirements set forth elsewhere in this Contract, the Contractor and the subcontractors holding subcontracts, not including material suppliers, of \$10,000 or more, will submit for every month of July during which work is performed, employment data as contained under Form PR 1391 (Appendix C to 23 CFR, Part 230), and in accordance with the included instructions.

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09-14 Statewide

Special Provision to Item 000 On-the-Job Training Program



1. DESCRIPTION

The primary objective of this Special Provision is the training and advancement of minorities, women and economically disadvantaged persons toward journeyworker status. Accordingly, make every effort to enroll minority, women and economically disadvantaged persons to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and will not be used to discriminate against any applicant for training, whether or not he/she is a member of a minority group.

2. TRAINEE ASSIGNMENT

Training assignments are based on the past volume of state-let highway construction contracts awarded with the Department. Contractors meeting the selection criteria will be notified of their training assignment at the beginning of the reporting year by the Department's Office of Civil Rights.

3. PROGRAM REQUIREMENTS

Fulfill all of the requirements of the On-the-Job Training Program including the maintenance of records and submittal of periodic reports documenting program performance. Trainees will be paid at least 60% of the appropriate minimum journeyworker's rate specified in the Contract for the first half of the training period, 75% for the third quarter, and 90% for the last guarter, respectively.

4. REIMBURSEMENT

If requested, Contractors may be reimbursed \$0.80 per training hour at no additional cost to the Department. Training may occur on this project, all other Department contracts, or local-administered federal-aid projects with concurrence of the local government entity. However, reimbursement for training is not available on projects to the extent that such projects that do not contain federal funds.

5. COMPLIANCE

The Contractor will have fulfilled the contractual responsibilities by having provided acceptable training to the number of trainees specified in their goal assignment. Noncompliance may be cause for corrective and appropriate measures pursuant to Article 8.7., "Abandonment of Work or Default of Contract," which may be used to comply with the sanctions for noncompliance pursuant to 23 CFR Part 230.

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Special Provision 000 Certificate of Interested Parties (Form 1295)



Submit a notarized Form 1295, "Certificate of Interested Parties," in the following instances:

- at Contract execution for Contracts awarded by the Commission;
- at Contract execution for Contracts awarded by the District Engineer or Chief Engineer with an award amount of \$1,000,000 or more; at any time an existing Contract awarded by the District Engineer or Chief Engineer increases in value to \$1,000,000 or more due to changes in the Contract; at any time there is an increase of \$1,000,000 or more to an existing Contract (change orders, extensions, and renewals); or
- at any time there is a change to the information in Form 1295, when the form was filed for an existing Contract.

Form 1295 and instructions on completing and filing the form are available on the Texas Ethics Commission website.

Special Provision 000 Important Notice to Contractors



For Dollar Amount of Original Contract		Dollar Amount of Daily Contract Administration Liquidated	
From More Than	To and including	Damages per Working Day	
0	1,000,000	618	
1,000,000	3,000,000	832	
3,000,000	5,000,000	940	
5,000,000	15,000,000	1317	
15,000,000	25,000,000	1718	
25,000,000	50,000,000	2411	
50,000,000	Over 50,000,000	4265	

In addition to the amount shown in Table 1, the Liquidated Damages will be increased by the amount shown in Item 8 of the General Notes for Road User Cost (RUC), when applicable.

Special Provision 000



Cargo Preference Act Requirements in Federal Aid **Contracts**

1. DESCRIPTION

All recipients of federal financial assistance are required to comply with the U.S. Department of Transportation's (DOT) Cargo Preference Act Requirements, 46 CFR Part 381, Use of United States-Flag Vessels.

This requirement applies to material or equipment that is acquired specifically for a Federal-aid highway project. It is not applicable to goods or materials that come into inventories independent of a Federal Highway Administration (FHWA) funded contract.

When oceanic shipments are necessary for materials or equipment acquired for a specific Federal-aid construction project, the contractor agrees to:

- Utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
- Furnish a legible copy of a rated, on-board commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of 46 CFR Part 381 Section 7, "Federal Grant, Guaranty, Loan and Advance of Funds Agreements," within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, to both the Engineer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
- Insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

Special Provision to Item 000



Disadvantaged Business Enterprise in Federal-Aid Contracts

1. DESCRIPTION

The purpose of this Special Provision is to carry out the U.S. Department of Transportation's (DOT) policy of ensuring nondiscrimination in the award and administration of DOT-assisted Contracts and creating a level playing field on which firms owned and controlled by individuals who are determined to be socially and economically disadvantaged can compete fairly for DOT-assisted Contracts.

2. DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL-AID CONTRACTS

2.1. **Policy.** It is the policy of the DOT and the Texas Department of Transportation (Department) that DBEs, as defined in 49 CFR Part 26, Subpart A, and the Department's DBE Program, will have the opportunity to participate in the performance of Contracts financed in whole or in part with federal funds. The DBE requirements of 49 CFR Part 26, and the Department's DBE Program, apply to this Contract as follows.

The Contractor will solicit DBEs through reasonable and available means, as defined in 49 CFR Part 26, Appendix A, and the Department's DBE Program, or show a good faith effort to meet the DBE goal for this Contract.

The Contractor, subrecipient, or subcontractor will not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. Carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted Contracts. Failure to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the Department deems appropriate.

The requirements of this Special Provision must be physically included in any subcontract.

By signing the Contract proposal, the Bidder is certifying that the DBE goal as stated in the proposal will be met by obtaining commitments from eligible DBEs or that the Bidder will provide acceptable evidence of good faith effort to meet the commitment.

- 2.2. **Definitions.**
- 2.2.1. **Administrative Reconsideration.** A process by which the low bidder may request reconsideration when the Department determines the good faith effort (GFE) requirements have not been met.
- 2.2.2. Commercially Useful Function (CUF). A CUF occurs when a DBE has the responsibility for the execution of the work and carrying out such responsibilities by actually performing, managing, and supervising the work.
- 2.2.3. **Disadvantaged Business Enterprise (DBE).** A for-profit small business certified through the Texas Unified Certification Program in accordance with 49 CFR Part 26, that is at least 51% owned by one or more socially and economically disadvantaged individuals, or in the case of a publicly owned business, in which is at least 51% of the stock is owned by one or more socially and economically disadvantaged individuals, and whose management and daily business operations are controlled by one or more of the individuals who own it.
- 2.2.4. **DBE Joint Venture.** An association of a DBE firm and one or more other firms to carry out a single business enterprise for profit for which purpose they combine their property, capital, efforts, skills, and knowledge, and

in which the DBE is responsible for a distinct, clearly defined portion of the work of the Contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

- 2.2.5. **DOT.** The U.S. Department of Transportation, including the Office of the Secretary, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Federal Aviation Administration (FAA).
- 2.2.6. Federal-Aid Contract. Any Contract between the Department and a Contractor that is paid for in whole or in part with DOT financial assistance.
- Good Faith Effort. All necessary and reasonable steps to achieve the contract goal which, by their scope, 2.2.7. intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if not fully successful. Good faith efforts are evaluated prior to award and throughout performance of the Contract. For guidance on good faith efforts, see 49 CFR Part 26, Appendix A.
- 2.2.8. North American Industry Classification System (NAICS). A designation that best describes the primary business of a firm. The NAICS is described in the North American Industry Classification Manual—United States, which is available on the Internet at the U.S. Census Bureau website: http://www.census.gov/eos/www/naics/.
- 2.2.9. Race-Conscious. A measure or program that is focused specifically on assisting only DBEs, including women-owned businesses.
- 2.2.10. Race-Neutral DBE Participation. Any participation by a DBE through customary competitive procurement procedures.
- 2.2.11. Texas Unified Certification Program (TUCP) Directory. An online directory listing all DBEs currently certified by the TUCP. The Directory identifies DBE firms whose participation on a Contract may be counted toward achievement of the assigned DBE Contract goal.
- 2.3. Contractor's Responsibilities.
- 2.3.1. **DBE Liaison Officer.** Designate a DBE liaison officer who will administer the Contractor's DBE program and who will be responsible for maintenance of records of efforts and contacts made to subcontract with DBEs.
- 2.3.2. Compliance Tracking System (CTS). This Contract is subject to electronic Contract compliance tracking. Contractors and DBEs are required to provide any noted and requested Contract compliance-related data electronically in the Department's tracking system. This includes commitments, payments, substitutions, and good faith efforts. Contractors and DBEs are responsible for responding by any noted response date or due date to any instructions or request for information, and to check the system on a regular basis. A Contractor is responsible for ensuring all DBEs have completed all requested items and that their contact information is accurate and up-to-date. The Department may require additional information related to the Contract to be provided electronically through the system at any time before, during, or after contract award. The system is web-based and can be accessed at the following Internet address: https://txdot.txdotcms.com/.

In its sole discretion, the Department may require that contract compliance tracking data be submitted by Contractors and DBEs in an alternative format prescribed by the Department.

2.3.3. Apparent Low Bidder. The apparent low bidder must submit DBE commitments to satisfy the DBE goal or submit good faith effort Form 2603 and supporting documentation demonstrating why the goal could not be achieved, in whole or part, no later than 5 calendar days after bid opening. The means of transmittal and the risk of timely receipt of the information will be the bidder's responsibility and no extension of the 5-calendarday timeframe will be allowed for any reason.

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- 2.3.4. DBE Contractor. A DBE Contractor may receive credit toward the DBE goal for work performed by its own forces and work subcontracted to DBEs. In the event a DBE subcontracts to a non-DBE, that information must be reported monthly.
- 2.3.5. **DBE Committal.** Only those DBEs certified by the TUCP are eligible to be used for goal attainment. The Department maintains the TUCP DBE Directory. The Directory can be accessed at the following Internet address: https://txdot.txdotcms.com/FrontEnd/VendorSearchPublic.asp?TN=txdot&XID=2340.

A DBE must be certified on the day the commitment is considered and at time of subcontract execution. It is the Contractor's responsibility to ensure firms identified for participation are approved certified DBE firms.

The Bidder is responsible to ensure that all submittals are checked for accuracy. Any and all omissions, deletions, and/or errors that may affect the end result of the commitment package are the sole liabilities of the bidder.

Commitments in excess of the goal are considered race-neutral commitments.

- 2.3.6. Good Faith Effort Requirements. A Contractor who cannot meet the Contract goal, in whole or in part, must make adequate good faith efforts to obtain DBE participation as so stated and defined in 49 CFR Part 26, Appendix A.
- 2.3.6.1. **Administrative Reconsideration.** If the Department determines that the apparent low bidder has failed to satisfy the good faith efforts requirement, the Department will notify the Bidder of the failure and will give the Bidder an opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so..

The Bidder must request an administrative reconsideration of that determination within 3 days of the date of receipt of the notice. The request must be submitted directly to the Texas Department of Transportation, Civil Rights Division, 125 East 11th Street, Austin, Texas 78701-2483.

If a request for administrative reconsideration is not filed within the period specified the determination made is final and further administrative appeal is barred.

If a reconsideration request is timely received, the reconsideration decision will be made by the Department's DBE liaison officer or, if the DBE liaison officer took part in the original determination, the Department's executive director will appoint a department employee to perform the administrative reconsideration. The employee will hold a senior leadership position and will report directly to the executive director.

The meeting or written documentation must be provided or held within 7 days of the date the request was submitted.

The Department will provide to the Bidder a written decision if the Bidder did or did not make adequate good faith efforts to meet the Contract goal. The reconsideration decision is final and is not administratively appealed to DOT.

2.3.7. **Determination of DBE Participation.** The work performed by the DBE must be reasonably construed to be included in the work area and NAICS work code identified by the Contractor in the approved commitment.

Participation by a DBE on a Contract will not be counted toward DBE goals until the amount of the participation has been paid to the DBE.

Payments made to a DBE that was not on the original commitment may be counted toward the Contract goal if that DBE was certified as a DBE before the execution of the subcontract and has performed a Commercially Useful Function.

The total amount paid to the DBE for work performed with its own forces is counted toward the DBE goal. When a DBE subcontracts part of the work of its Contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the subcontractor is itself a DBE.

DBE Goal credit for the DBE subcontractors leasing of equipment or purchasing of supplies from the Contractor or its affiliates is not allowed. Project materials or supplies acquired from an affiliate of the Contractor cannot directly or indirectly (second or lower tier subcontractor) be used for DBE goal credit.

If a DBE firm is declared ineligible due to DBE decertification after the execution of the DBE's subcontract, the DBE firm may complete the work and the DBE firm's participation will be counted toward the Contract goal. If the DBE firm is decertified before the DBE firm has signed a subcontract, the Contractor is obligated to replace the ineligible DBE firm or demonstrate that it has made good faith efforts to do so.

The Contractor may count 100% of its expenditure to a DBE manufacturer. According to 49 CFR 26.55(e)(1)(i), a DBE manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the Contract and of the general character described by the specifications.

The Contractor may count only 60% of its expenditure to a DBE regular dealer. According to 49 CFR 26.55(e)(2)(i), a DBE regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business if the firm both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment must be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis. A long-term lease with a third-party transportation company is not eligible for 60% goal credit.

With respect to materials or supplies purchased from a DBE that is neither a manufacturer nor a regular dealer, the Contractor may count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site.

A Contractor may count toward its DBE goal a portion of the total value of the Contract amount paid to a DBE joint venture equal to the distinct, clearly defined portion of the work of the Contract performed by the DBE.

2.3.8. **Commercially Useful Function.** It is the Contractor's obligation to ensure that each DBE used on federal-assisted contracts performs a commercially useful function on the Contract.

The Department will monitor performance during the Contract to ensure each DBE is performing a CUF.

Under the terms established in 49 CFR 26.55, a DBE performs a CUF when it is responsible for execution of the work of the Contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

With respect to material and supplies used on the Contract, a DBE must be responsible for negotiating price, determining quality and quantity, ordering the material, installing the material, if applicable, and paying for the material itself.

With respect to trucking, the DBE trucking firm must own and operate at least one fully licensed, insured, and operational truck used on the Contract. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Contract. The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE that leases trucks equipped with drivers from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE leased trucks equipped with drivers not to exceed the value of transportation services on the Contract

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provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks equipped with drivers receives credit only for the fee or commission it receives as a result of the lease arrangement.

A DBE does not perform a CUF when its role is limited to that of an extra participant in a transaction, Contract, or project through which funds are passed in order to obtain the appearance of DBE participation. The Department will evaluate similar transactions involving non-DBEs in order to determine whether a DBE is an extra participant.

If a DBE does not perform or exercise responsibility for at least 30% of the total cost of its Contract with its own work force, or the DBE subcontracts a greater portion of the work than would be expected on the basis of normal industry practice for the type of work involved, the Department will presume that the DBE is not performing a CUF.

If the Department determines that a DBE is not performing a CUF, no work performed by such DBE will count as eligible participation. The denial period of time may occur before or after a determination has been made by the Department.

In case of the denial of credit for non-performance of a CUF, the Contractor will be required to provide a substitute DBE to meet the Contract goal or provide an adequate good faith effort when applicable.

2.3.8.1. **Rebuttal of a Finding of No Commercially Useful Function.** Consistent with the provisions of 49 CFR 26.55(c)(4)&(5), before the Department makes a final finding that no CUF has been performed by a DBE, the Department will notify the DBE and provide the DBE the opportunity to provide rebuttal information.

CUF determinations are not subject to administrative appeal to DOT.

2.3.9. Joint Check. The use of joint checks between a Contractor and a DBE is allowed with Department approval. To obtain approval, the Contractor must submit a completed Form 2178, "DBE Joint Check Approval," to the Department.

The Department will closely monitor the use of joint checks to ensure that such a practice does not erode the independence of the DBE nor inhibit the DBE's ability to perform a CUF. When joint checks are utilized, DBE credit toward the Contract goal will be allowed only when the subcontractor is performing a CUF in accordance with 49 CFR 26.55(c)(1).

Long-term or open-ended joint checking arrangements may be a basis for further scrutiny and may result in the lack of participation towards the Contract goal requirement if DBE independence cannot be established.

Joint checks will not be allowed simply for the convenience of the Contractor.

If the proper procedures are not followed or the Department determines that the arrangements result in a lack of independence for the DBE involved, no credit for the DBE's participation as it relates to the material cost will be used toward the Contract goal requirement, and the Contractor will need to make up the difference elsewhere on the project.

2.3.10. **DBE Termination and Substitution.** No DBE named in the commitment submitted under Section 2.3.5. will be terminated for convenience, in whole or part, without the Department's approval. This includes, but is not limited to, instances in which a Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

Unless consent is provided, the Contractor will not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The Contractor, prior to submitting its request to terminate, must first give written notice to the DBE of its intent to terminate and the reason for the termination. The Contractor will copy the Department on the Notice of Intent to terminate.

The DBE has 5 calendar days to respond to the Contractor's notice and will advise the Contractor and the Department of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Department should not approve the prime Contractor's request for termination.

The Department may provide a shorter response time if required in a particular case as a matter of public necessity.

The Department will consider both the Contractor's request and DBE's stated position prior to approving the request. The Department may provide a written approval only if it agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate the DBE. If the Department does not approve the request, the Contractor must continue to use the committed DBE firm in accordance with the Contract. For guidance on what good cause includes, see 49 CFR 26.53.

Good cause does not exist if the Contractor seeks to terminate, reduce, or substitute a DBE it relied upon to obtain the Contract so that the Contractor can self-perform the work for which the DBE firm was engaged.

When a DBE subcontractor is terminated, make good faith efforts to find, as a substitute for the original DBE, another DBE to perform, at least to the extent needed to meet the established Contract goal, the work that the original DBE was to have performed under the Contract.

Submit the completed Form 2228, "DBE Termination Substitution Request," within seven (7) days, which may be extended for an additional 7 days if necessary at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated. If the Department determines that good faith efforts were not demonstrated, the Contractor will have the opportunity to appeal the determination to the Civil Rights Division.

2.3.11. Reports and Records. By the 15th of each month and after work begins, report payments to meet the DBE goal and for DBE race-neutral participation on projects with or without goals. These payment reports will be required until all DBE subcontracting or material supply activity is completed. Negative payment reports are required when no activity has occurred in a monthly period.

Notify the Area Engineer if payment to any DBE subcontractor is withheld or reduced.

Before receiving final payment from the Department, the Contractor must indicate a final payment on the compliance tracking system. The final payment is a summary of all payments made to the DBEs on the project.

All records must be retained for a period of 3 years following completion of the Contract work, and must be available at reasonable times and places for inspection by authorized representatives of the Department or the DOT. Provide copies of subcontracts or agreements and other documentation upon request.

2.3.12. **Failure to Comply.** If the Department determines the Contractor has failed to demonstrate good faith efforts to meet the assigned goal, the Contractor will be given an opportunity for reconsideration by the Department.

A Contractor's failure to comply with the requirements of this Special Provision will constitute a material breach of this Contract. In such a case, the Department reserves the right to terminate the Contract; to deduct the amount of DBE goal not accomplished by DBEs from the money due or to become due the Contractor; or to secure a refund, not as a penalty but as liquidated damages, to the Department or such other remedy or remedies as the Department deems appropriate.

2.3.13. **Investigations.** The Department may conduct reviews or investigations of participants as necessary. All participants, including, but not limited to, DBEs and complainants using DBE Subcontractors to meet the

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- 2.3.14. Falsification and Misrepresentation. If the Department determines that a Contractor or subcontractor was a knowing and willing participant in any intended or actual subcontracting arrangement contrived to artificially inflate DBE participation or any other business arrangement determined by the Department to be unallowable, or if the Contractor engages in repeated violations, falsification, or misrepresentation, the Department may:
 - refuse to count any fraudulent or misrepresented DBE participation;
 - withhold progress payments to the Contractor commensurate with the violation;
 - reduce the Contractor's prequalification status;
 - refer the matter to the Office of Inspector General of the US Department of Transportation for investigation; and/or
 - seek any other available contractual remedy.

Special Provision 000 Notice of Contractor Performance Evaluations



1. GENERAL

In accordance with Texas Transportation Code §223.012, the Engineer will evaluate Contractor performance based on quality, safety, and timeliness of the project.

2. DEFINITIONS

2.1. **Project Recovery Plan (PRP)**—a formal, enforceable plan developed by the Contractor, in consultation with the District, that documents the cause of noted quality, safety, and timeliness issues and specifies how the Contractor proposes to correct project-specific performance deficiencies.

In accordance with Title 43, Texas Administrative Code (TAC), §9.23, the District will request a PRP if the Contractor's performance on a project is below the Department's acceptable standards and will monitor the Contractor's compliance with the established plan.

2.2. **Corrective Action Plan (CAP)**—a formal, enforceable plan developed by the Contractor, and proposed for adoption by the Construction or Maintenance Division, that documents the cause of noted quality, safety, and timeliness issues and specifies how the Contractor proposes to correct statewide performance deficiencies.

In accordance with 43 TAC §9.23, the Division will request a CAP if the average of the Contractor's statewide final evaluation scores falls below the Department's acceptable standards for the review period and will monitor the Contractor's compliance with the established plan.

3. CONTRACTOR EVALUATIONS

In accordance with Title 43, Texas Administrative Code (TAC) §9.23, the Engineer will schedule evaluations at the following intervals, at minimum:

- Interim evaluations—at or within 30 days after the anniversary of the notice to proceed, for Contracts extending beyond 1 yr., and
- Final evaluation—upon project closeout.

In case of a takeover agreement, neither the Surety nor its performing Contractor will be evaluated.

In addition to regularly scheduled evaluations, the Engineer may schedule an interim evaluation at any time to formally communicate issues with quality, safety, or timeliness. Upon request, work with the Engineer to develop a PRP to document expectations for correcting deficiencies.

Comply with the PRP as directed. Failure to comply with the PRP may result in additional remedial actions available to the Engineer under Item 5, "Control of the Work." Failure to meet a PRP to the Engineer's satisfaction may result in immediate referral to the Performance Review Committee for consideration of further action against the Contractor.

The Engineer will consider and document any events outside the Contractor's control that contributed to the failure to meet performance standards or comply with a PRP, including consideration of sufficient time.

Follow the escalation ladder if there is a disagreement regarding an evaluation or disposition of a PRP. The Contractor may submit additional documentation pertaining to the dispute. The District Engineer's decision

on a Contractor's evaluation score and recommendation of action required in a PRP or follow up for non-compliance is final.

4. DIVISION OVERSIGHT

Upon request of the Construction or Maintenance Division, develop and submit for Division approval a proposed CAP to document expectations for correcting deficiencies in the performance of projects statewide.

Comply with the CAP as directed. The CAP may be modified at any time up to completion or resolution after written approval of the premise of change from the Division. Failure to meet an adopted or revised adopted CAP to the Division's satisfaction within 120 days will result in immediate referral to the Performance Review Committee for consideration of further action against the Contractor.

The Division will consider and document any events outside the Contractor's control that contributed to the failure to meet performance standards or comply with a CAP, including consideration of sufficient time and associated costs as appropriate.

5. PERFORMANCE REVIEW COMMITTEE

The Performance Review Committee, in accordance with 43 TAC §9.24, will review at minimum all final evaluations, history of compliance with PRPs, any adopted CAPs including agreed modifications, any information about events outside a Contractor's control contributing to the Contractor's performance, and any documentation submitted by the Contractor and may recommend one or more of the following actions:

- take no action.
- reduce the Contractor's bidding capacity,
- prohibit the Contractor from bidding on one or more projects,
- immediately suspend the Contractor from bidding for a specified period of time, by reducing the Contractor's bidding capacity to zero, or
- prohibit the Contractor from being awarded a Contract on which they are the apparent low bidder.

The Deputy Executive Director will determine any further action against the Contractor.

6. APPEALS PROCESS

In accordance with 43 TAC §9.25, the Contractor may appeal remedial actions determined by the Deputy Executive Director.

Special Provision to Item 2 Instructions to Bidders



Item 2, "Instructions to Bidders," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 2.3., "Issuing Proposal Forms," second paragraph, is supplemented by the following.

The Department will not issue a proposal form if one or more of the following apply:

■ the Bidder or affiliate of the Bidder that was originally determined as the apparent low Bidder on a project, but was deemed nonresponsive for failure to submit a DBE commitment as specified in Article 2.14., "Disadvantaged Business Enterprise (DBE)," is prohibited from rebidding that specific project.

Article 2.7., "Nonresponsive Bid," is supplemented by the following:

The Department will not accept a nonresponsive bid. A bid that has one or more of the deficiencies listed below is considered nonresponsive:

the Bidder failed to submit a DBE commitment as specified in Article 2.14., "Disadvantaged Business Enterprise (DBE)."

Article 2.14., "Disadvantaged Business Enterprise (DBE)," is added.

The apparent low bidder must submit DBE commitment information on federally funded projects with DBE goals within 5 calendar days (as defined in 49 CFR Part 26, Subpart A) of bid opening. For a submission that meets the 5-day requirement, administrative corrections will be allowed.

If the apparent low Bidder fails to submit their DBE information within the specified timeframe, they will be deemed nonresponsive and the proposal guaranty will become the property of the State, not as a penalty, but as liquidated damages. The Bidder forfeiting the proposal guaranty will not be considered in future proposals for the same work unless there has been a substantial change in the design of the work. The Department may recommend that the Commission:

- reject all bids, or
- award the Contract to the new apparent low Bidder, if the new apparent low Bidder submits DBE information within one calendar day of notification by the Department.

If the new apparent low Bidder is unable to submit the required DBE information within one calendar day:

- the new apparent low Bidder will not be deemed nonresponsive,
- the new apparent low Bidder's guaranty will not be forfeited,
- the Department will reject all bids, and
- the new apparent low Bidder will remain eligible to receive future proposals for the same project.

Special Provision to Item 2 Instructions to Bidders



Item 2, "Instructions to Bidders," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 2.3., "Issuing Proposal Forms," is supplemented by the following:

■ the Bidder or affiliate of the Bidder that was originally determined as the apparent low Bidder on a project, but was deemed nonresponsive for failure to register or participate in the Department of Homeland Security's (DHS) E-Verify system as specified in Article 2.15., "Department of Homeland Security (DHS) E-Verify System," is prohibited from rebidding that specific project.

Article 2.7., "Nonresponsive Bid," is supplemented by the following:

■ the Bidder failed to participate in the Department of Homeland Security's (DHS) as specified in Article 2.15., "Department of Homeland Security (DHS) E-Verify System."

Article 2.15., "Department of Homeland Security (DHS) E-Verify System," is added.

The Department will not award a Contract to a Contractor that is not registered in the DHS E-Verify system. Remain active in E=Verify throughout the life of the contract. In addition, in accordance with paragraph six of Article 8.2, "Subcontracting," include this requirement in all subcontracts and require that subcontractors remain active in E-Verify until their work is completed.

If the apparent low Bidder does not appear on the DHS E-Verify system prior to award, the Department will notify the Contractor that they must submit documentation showing that they are compliant within 5-business days after the date the notification was sent. A Contractor who fails to comply or respond within the deadline will be declared non-responsive and the Department will execute the proposal guaranty. The proposal guaranty will become the property of the State, not as a penalty, but as liquidated damages. The Bidder forfeiting the proposal guaranty will not be considered in future proposals for the same work unless there has been a substantial change in the scope of the work.

The Department may recommend that the Commission:

- reject all bids, or
- award the Contract to the new apparent low Bidder, if the Department is able to verify the Bidder's participation in the DHS E-verify system. For the Bidder who is not registered in E-Verify, the Department will allow for one business day after notification to provide proof of registration.

If the Department is unable to verify the new apparent low Bidder's participation in the DHS E-Verify system within one calendar day:

- the new apparent low Bidder will not be deemed nonresponsive,
- the new apparent low Bidder's guaranty will not be forfeited,
- the Department will reject all bids, and
- the new apparent low Bidder will remain eligible to receive future proposals for the same project.

Special Provision to Item 2 Instructions to Bidders



Item 2, "Instructions to Bidders" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 3., "Issuing Proposal Forms," is supplemented by the following:

The Electronic State Business Daily (ESBD), the Integrated Contractor Exchange (iCX) system, and the project proposal are the official sources of advertisement and bidding information for the State and Local Lettings. Bidders should bid the project using the information found therein, including any addenda. These sources take precedence over information from other sources, including TxDOT webpages, which are unofficial and intended for informational purposes only.

Special Provision to Item 3 Award and Execution Contract



Item 3, Award and Execution of Contract," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 4.3, "**Insurance**." The first sentence is voided and replaced by the following:

For construction and building Contracts, submit a certificate of insurance showing coverages in accordance with Contract requirements. For routine maintenance Contracts, refer to Article 8, "Beginning of Work."

Article 8, "Beginning of Work." The first sentence is supplemented by the following:

For a routine maintenance Contract, do not begin work until a certificate of insurance showing coverages in accordance with the Contract requirements is provided and accepted.

Special Provision to Item 3 Award and Execution of Contract



Item 3, "Award and Execution of Contract" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 4.3 "Insurance" is being amended by the following:

Table 2
Insurance Requirements

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Type of Insurance	Amount of Coverage
Commercial General Liability Insurance	Not Less Than:
•	\$600,000 each occurrence
Business Automobile Policy	Not Less Than:
•	\$600,000 combined single limit
Workers' Compensation	Not Less Than:
7	Statutory
All Risk Builder's Risk Insurance	100% of Contract Price
(For building-facilities contracts only)	

Special Provision to Item 5 Control of the Work



Item 5, "Control of the Work," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 5.1, "Authority of Engineer," is voided and replaced by the following.

The Engineer has the authority to observe, test, inspect, approve, and accept the work. The Engineer decides all guestions about the quality and acceptability of materials, work performed, work progress, Contract interpretations, and acceptable Contract fulfillment. The Engineer has the authority to enforce and make effective these decisions.

The Engineer acts as a referee in all questions arising under the terms of the Contract. The Engineer's decisions will be final and binding.

The Engineer will pursue and document actions against the Contractor as warranted to address Contract performance issues. Contract remedies include, but are not limited to, the following:

- conducting interim performance evaluations requiring a Project Recovery Plan, in accordance with Title 43, Texas Administrative Code (TAC) §9.23,
- requiring the Contractor to remove and replace defective work, or reducing payment for defective work,
- removing an individual from the project,
- suspending the work without suspending working day charges,
- assessing standard liquidated damages to recover the Department's administrative costs, including additional projectspecific liquidated damages when specified in the Contract in accordance with 43 TAC §9.22,
- withholding estimates,
- declaring the Contractor to be in default of the Contract, and
- in case of a Contractor's failure to meet a Project Recovery Plan, referring the issue directly to the Performance Review Committee for consideration of further action against the Contractor in accordance with 43 TAC §9.24.

The Engineer will consider and document any events outside the Contractor's control that contributed to the failure to meet performance standards, including consideration of sufficient time.

Follow the issue escalation ladder if there is disagreement regarding the application of Contract remedies.

Special Provision to Item 5 Control of the Work



Item 5, "Control of the Work" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 5.4, "Coordination of Plans, Specifications, and Special Provisions," the last sentence of the last paragraph is replaced by the following:

Failure to promptly notify the Engineer will constitute a waiver of all contract claims against the Department for misunderstandings or ambiguities that result from the errors, omissions, or discrepancies.

Special Provision to Item 6 Control of Materials



Item 6, "Control of Materials" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 6.10., "Hazardous Materials," is voided and replaced by the following:

Comply with the requirements of Article 7.12., "Responsibility for Hazardous Materials."

Notify the Engineer immediately when a visual observation or odor indicates that materials on sites owned or controlled by the Department may contain hazardous materials. Except as noted herein, the Department is responsible for testing, removing, and disposing of hazardous materials not introduced by the Contractor. The Engineer may suspend work wholly or in part during the testing, removing, or disposing of hazardous materials, except in the case where hazardous materials are introduced by the Contractor.

Use materials that are free of hazardous materials. Notify the Engineer immediately if materials are suspected to contain hazardous materials. If materials delivered to the project by the Contractor are suspected to contain hazardous materials, have an approved commercial laboratory test the materials for the presence of hazardous materials as approved. Remove, remediate, and dispose of any of these materials found to contain hazardous materials. The work required to comply with this section will be at the Contractor's expense if materials are found to contain hazardous materials. Working day charges will not be suspended and extensions of working days will not be granted for activities related to handling hazardous material introduced by the Contractor. If suspected materials are not found to contain hazardous materials, the Department will reimburse the Contractor for hazardous materials testing and will adjust working day charges if the Contractor can show that this work impacted the critical path.

- 10.1. Painted Steel Requirements. Coatings on existing steel contain hazardous materials unless otherwise shown on the plans. Remove paint and dispose of steel coated with paint containing hazardous materials is in accordance with the following:
- 10.1.1. Removing Paint From Steel For contracts that are specifically for painting steel, Item 446, "Field Cleaning and Painting Steel" will be included as a pay item. Perform work in accordance with that item.

For projects where paint must be removed to allow for the dismantling of steel or to perform other work, the Department will provide for a separate contractor (third party) to remove paint containing hazardous materials prior to or during the Contract. Remove paint covering existing steel shown not to contain hazardous materials in accordance with Item 446, "Field Cleaning and Painting Steel."

10.1.2. Removal and Disposal of Painted Steel. For steel able to be dismantled by unbolting, paint removal will not be performed by the Department. The Department will remove paint, at locations shown on the plans or as agreed, for the Contractor's cutting and dismantling purposes. Utilize Department cleaned locations for dismantling when provided or provide own means of dismantling at other locations.

Painted steel to be retained by the Department will be shown on the plans. For painted steel that contains hazardous materials, dispose of the painted steel at a steel recycling or smelting facility unless otherwise shown on the plans. Maintain and make available to the Engineer invoices and other records obtained from the facility showing the received weight of the steel and the facility name. Dispose of steel that does not contain hazardous material coatings in accordance with federal, state and local regulations.

10.2. Asbestos Requirements. The plans will indicate locations or elements where asbestos containing materials (ACM) are known to be present. Where ACM is known to exist or where previously unknown ACM has been found, the Department will arrange for abatement by a separate contractor prior to or during the Contract. Notify the Engineer of proposed dates of demolition or removal of structural elements with ACM at least 60 days before beginning work to allow the Department sufficient time for abatement.

The Department of State Health Services (DSHS), Asbestos Programs Branch, is responsible for administering the requirements of the National Emissions Standards for Hazardous Air Pollutants, 40 CFR Part 61, Subpart M and the Texas Asbestos Health Protection Rules (TAHPR). Based on EPA guidance and regulatory background information, bridges are considered to be a regulated "facility" under NESHAP. Therefore, federal standards for demolition and renovation apply.

The Department is required to notify the DSHS at least 10 working days (by postmarked date) before initiating demolition or renovation of each structure or load bearing member shown on the plans. If the actual demolition or renovation date is changed or delayed, notify the Engineer in writing of the revised dates in sufficient time to allow for the Department's notification to DSHS to be postmarked at least 10 days in advance of the actual work.

Failure to provide the above information may require the temporary suspension of work under Article 8.4., "Temporary Suspension of Work or Working Day Charges," due to reasons under the control of the Contractor. The Department retains the right to determine the actual advance notice needed for the change in date to address post office business days and staff availability.

10.3. Lead Abatement. Provide traffic control as shown on the plans, and coordinate and cooperate with the third party and the Department for managing or removing hazardous materials. Work for the traffic control shown on the plans and coordination work will not be paid for directly but will be subsidiary to pertinent Items.

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Special Provision to Item 006 **Control of Materials**



Item 6, "Control of Materials" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 1.1, "Buy America," The section is removed and replaced by the following:

Comply with the latest provisions of Build America, Buy America Act (BABA Act) of the Bipartisan Infrastructure Law which restricts funds being made available from Federal financial assistance programs unless all the iron products, steel products, manufactured products, and construction materials used in the project are produced in the United States. Use steel or iron products, manufactured products, or construction materials produced in the United States except when:

- a waiver exists exempting the material from Buy America compliance
- the cost of materials, including delivery, does not exceed 0.1% of the total Contract cost or \$2,500, whichever is greater.
- the Contract contains an alternate item for a foreign source product and the Contract is awarded based on the alternate item, or
- the materials are temporarily installed.

For construction materials submit a notarized original of TxDOT Construction Material Buy America Certification Form (Department Form 2806) with the proper attachments for verification of compliance.

Construction Materials are classified as an article, material, or supply—other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives —that is or consists primarily of:

- Non-ferrous metals,
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables),
- Glass (including optic glass)
- Lumber, or
- Drywall.

Details shown on the plans provide additional clarification on Buy America requirements for this project.

For steel or Iron materials submit a notarized original of the FORM D-9-USA-1 (Department Form 1818) with the proper attachments for verification of compliance. For Steel or Iron materials the manufacturing process includes any process that modifies the chemical content, physical shape or size, or final finish of a product. The manufacturing process begins with initial melting and mixing and continues through fabrication (cutting, drilling, welding, bending, etc.) and coating (paint, galvanizing, epoxy, etc.).

Article 4., "Sampling, Testing, and Inspection," is supplemented by the following:

Meet with the Engineer and choose either the Department or a Department-selected Commercial Lab (CL) for conducting the subset of project-level sampling and testing shown in Table 1, "Select Guide Schedule Sampling and Testing." Selection may be made on a test by test basis. CLs will meet the testing turnaround times shown (includes test time and time for travel and sampling and reporting) and in all cases issue test reports as soon as possible.

If the Contractor chooses a Department-selected CL for any Table 1 sampling and testing:

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- notify the Engineer, District Lab, and the CL of project scheduling that may require CL testing;
- provide the Engineer, District Lab, and CL at least 24 hours' notice by phone or e-mail;
- reimburse the Department for CL Table 1 testing using the contract fee schedule for the CL (including mileage, travel, and stand ime) at the minimum guide schedule testing frequencies;
- reimburse the Department for CL Table 1 testing above the minimum guide schedule frequencies for retesting when minimum frequency testing results in failures to meet specification limits;
- agree with the Engineer and CL upon a policy regarding notification for testing services;
- give any cancellation notice to the Engineer, District Lab, and CL by phone or e-mail;
- reimburse the Department a \$150 cancellation fee to cover technician time and mileage charges for previously scheduled work cancelled without adequate notice, which resulted in mobilization of technician and/or equipment by the CL; and
- all CL charges will be reimbursed to the Department by a deduction from the Contractor's monthly pay estimate.

If the CL does not meet the Table 1 turnaround times, testing charge to the Contractor will be reduced by 50% for the first late day and an additional 5% for each succeeding late day.

Approved CL project testing above the minimum testing frequencies in the Guide Schedule of Sampling and Testing, and not as the result of failing tests, will be paid by the Department.

Other project-level Guide Schedule sampling and testing not shown on Table 1 will be the responsibility of the Department.

Table 1 Select Guide Schedule Sampling and Testing (Note 1)

TxDOT Test	Test Description	Turn- Around Time (Calendar days)		
	SOILS/BASE			
<u>Tex-101-E</u>	Preparation of Soil and Flexible Base Materials for Testing (included in other tests)			
<u>Tex-104-E</u>	Liquid Limit of Soils (included in 106-E)			
<u>Tex-105-E</u>	Plastic Limit of Soils (included in 106-E)			
<u>Tex-106-E</u>	Calculating the Plasticity Index of Soils	7		
<u>Tex-110-E</u>	Particle Size Analysis of Soils	6		
<u>Tex-113-E</u>	Moisture-Density Relationship of Base Materials	7		
<u>Tex-114-E</u>	Moisture-Density Relationship of Subgrade and Embankment Soil	7		
<u>Tex-115-E</u>	Field Method for In-Place Density of Soils and Base Materials	2		
<u>Tex-116-E</u>	Ball Mill Method for the Disintegration of Flexible Base Material	5		
Tex-117-E, Part II	Triaxial Compression Tests For Disturbed Soils and Base Materials (Part II)	6		
Tex-113-E w/ Tex-117-E	Moisture-Density Relationship of Base Materials with Triaxial Compression Tests For Disturbed Soils and Base Materials (Part II)	10		
<u>Tex-140-E</u>	Measuring Thickness of Pavement Layer	2		
<u>Tex-145-E</u>	Determining Sulfate Content in Soils - Colorimetric Method	4		
HOT MIX ASPHALT				
<u>Tex-200-F</u>	Sieve Analysis of Fine and Coarse Aggregate (dry, from ignition oven with known correction factors)	1 (Note 2)		
<u>Tex-203-F</u>	Sand Equivalent Test	3		
Tex-206-F, w/ Tex-207-F, Part I, w/ Tex-227-F	(Lab-Molded Density of Production Mixture – Texas Gyratory) Method of Compacting Test Specimens of Bituminous Mixtures with Density of Compacted Bituminous Mixtures, Part I - Bulk Specific Gravity of Compacted Bituminous Mixtures, with Theoretical Maximum Specific Gravity of Bituminous Mixtures	1 (Note 2)		
Tex-207-F, Part I &/or Part VI	(In-Place Air Voids of Roadway Cores) Density of Compacted Bituminous Mixtures, Part I- Bulk Specific Gravity of Compacted Bituminous Mixtures &/or Part VI - Bulk Specific Gravity of Compacted Bituminous Mixtures Using the Vacuum Method	1 (Note 2)		

Tex-207-F, Part V	Density of Compacted Bituminous Mixtures, Part V- Determining Mat Segregation using a Density-Testing Gauge	3
Tex-207-F, Part VII	Density of Compacted Bituminous Mixtures, Part VII - Determining Longitudinal Joint Density using a Density-Testing Gauge	4
Tex-212-F	Moisture Content of Bituminous Mixtures	3
Tex-217-F	Deleterious Material and Decantation Test for Coarse Aggregate	4
Tex-221-F	Sampling Aggregate for Bituminous Mixtures, Surface Treatments, and LRA (included in other tests)	
Tex-222-F	Sampling Bituminous Mixtures (included in other tests)	
<u>Tex-224-F</u>	Determination of Flakiness Index	3
<u>Tex-226-F</u>	Indirect Tensile Strength Test (production mix)	4
<u>Tex-235-F</u>	Determining Draindown Characteristics in Bituminous Materials	3
Tex-236-F (Correction Factors)	Asphalt Content from Asphalt Paving Mixtures by the Ignition Method (Determining Correction Factors)	4
<u>Tex-236-F</u>	Asphalt Content from Asphalt Paving Mixtures by the Ignition Method (Production Mixture)	1 (Note 2)
Tex-241-F w/ <u>Tex-207-F</u> , Part I, w/ <u>Tex-227-F</u>	(Lab-Molded Density of Production Mixture – Superpave Gyratory) Superpave Gyratory Compacting of Specimens of Bituminous Mixtures (production mixture) with Density of Compacted Bituminous Mixtures, Part I - Part I - Bulk Specific Gravity of Compacted Bituminous Mixtures, with Theoretical Maximum Specific Gravity of Bituminous Mixtures	1 (Note 2)
Tex-242-F	Hamburg Wheel-Tracking Test (production mix, molded samples)	3
<u>Tex-244-F</u>	Thermal Profile of Hot Mix Asphalt	1
<u>Tex-246-F</u>	Permeability of Water Flow of Hot Mix Asphalt	3
<u>Tex-280-F</u>	Flat and Elongated Particles	3
<u>Tex-530-C</u>	Effect of Water on Bituminous Paving Mixtures (production mix)	4
	AGGREGATES	
<u>Tex-400-A</u>	Sampling Flexible Base, Stone, Gravel, Sand, and Mineral Aggregates	3
<u>Tex-410-A</u>	Abrasion of Coarse Aggregate Using the Los Angeles Machine	5
<u>Tex-411-A</u>	Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate	12
<u>Tex-461-A</u>	Degradation of Coarse Aggregate by Micro-Deval Abrasion	5
	CHEMICAL	
<u>Tex-612-J</u>	Acid Insoluble Residue for Fine Aggregate	4
	GENERAL	
	alist [TxAPA – Level 1-A] (\$/hr)	
	list [TxAPA – Level 1-B] (\$/hr)	
Technician Travel/Star		
Per Diem (\$/day - mea	0 0,	
Mileage Rate (\$/mile fr	om closest CL location)	

Note 1- Turn-Around Time includes test time and time for travel/sampling and reporting.

Note 2 – These tests require turn-around times meeting the governing specifications. Provide test results within the stated turn-around time. CL is allowed one additional day to provide the signed and sealed report.

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Special Provision to Item 7 Legal Relations and Responsibilities



Item 7, "Legal Relations and Responsibilities," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 7.7.2., "Texas Pollutant Discharge Elimination System (TPDES) Permits and Storm Water Pollution Prevention **Plans (SWP3),"** is voided and replaced by the following:

- 7.2. Texas Pollution Discharge Elimination System (TPDES) Permits and Storm Water Pollution Prevention Plans (SWP3).
- 7.2.1. Projects with less than one acre of soil disturbance including required associated project specific locations (PSL's) per TPDES GP TXR 150000.

No posting or filing will be required for soil disturbances within the right of way. Adhere to the requirements of the

7.2.2. Projects with one acre but less than five acres of soil disturbance including required associated PSL's per TPDES GP TXR 150000.

The Department will be considered a primary operator for Operational Control Over Plans and Specifications as defined in TPDES GP TXR 150000 for construction activity in the right of way. The Department will post a small site notice along with other requirements as defined in TPDES GP TXR 150000 as the entity of having operational control over plans and specifications for work shown on the plans in the right of way.

The Contractor will be considered a Primary Operator for Day-to-Day Operational Control as defined in TPDES GP TXR 150000 for construction activity in the right of way. In addition to the Department's actions, the Contractor will post a small site notice along with other requirements as defined in TPDES GP TXR 150000 as the entity of having day-to-day operational control of the work shown on the plans in the right of way. This is in addition to the Contractor being responsible for TPDES GP TXR 150000 requirements for on-right of way and off-right of way PSL's. Adhere to all requirements of the SWP3 as shown on the plans. The Contractor will be responsible for Implement the SWP3 for the project site in accordance with the plans and specifications, TPDES General Permit TXR150000, and as directed.

7.2.3. Projects with 5 acres or more of soil disturbance including required associated PSL's per TPDES GP TXR 150000.

The Department will be considered a primary operator for Operational Control Over Plans and Specifications as defined in TPDES GP TXR 150000 for construction activities in the right of way. The Department will post a large site notice, file a notice of intent (NOI), notice of change (NOC), if applicable, and a notice of termination (NOT) along with other requirements per TPDES GP TXR 150000 as the entity having operational control over plans and specifications for work shown on the plans in the right of way.

The Contractor will be considered a primary operator for <u>Day-to-Day Operational Control</u> as defined in TPDES GP TXR 150000 for construction activities in the right of way. In addition to the Department's actions, the Contractor shall file a NOI, NOC, if applicable, and NOT and post a large site notice along with other requirements as the entity of having day-to-day operational control of the work shown on the plans in the right of way. This is in addition to the Contractor

being responsible for TPDES GP TXR 150000 requirements for on- right of way and off- right of way PSL's. Adhere to all requirements of the SWP3 as shown on the plans.

Special Provision to Item 7 Legal Relations and Responsibilities



Item 7, "Legal Relations and Responsibilities" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 19.1., Minimum Wage Requirements for Federally Funded Contracts. The second paragraph is voided and replaced by the following:

Submit electronic payroll records to the Engineer using the Department's payroll system.

Section 19.2., Minimum Wage Requirements for State Funded Contracts. The second paragraph is voided and replaced by the following:

Submit electronic payroll records to the Engineer using the Department's payroll system.

Special Provision to Item 7 Legal Relations and Responsibilities



Item 7, "Legal Relations and Responsibilities," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 7.2.4., "Public Safety and Convenience." The first paragraph is deleted and replaced by the following.

Ensure the safety and convenience of the public and property as provided in the Contract and as directed. Keep existing roadways open to traffic or construct and maintain detours and temporary structures for safe public travel. Manage construction to minimize disruption to traffic. Maintain the roadway in a good and passable condition, including proper drainage and provide for ingress and egress to adjacent property.

If the construction of the project requires the closing of a highway, as directed, coordinate the closure with the Engineer and work to ensure all lanes and ramps possible are available during peak traffic periods before, during, and after significant traffic generator events to avoid any adverse economic impact on the municipalities during:

- dates or events as shown on the plans, and
- other dates as directed.

Special Provision to Item 007 Legal Relations and Responsibilities



Item 7, "Legal Relations and Responsibilities," of the Standard Specifications is amended with respect to the clauses cited below.

Section 2.6., "Barricades, Signs, and Traffic Handling," the first paragraph is voided and replaced by the following:

2.6. Barricades, Signs, and Traffic Handling. Comply with the requirements of Item 502 "Barricades, Signs, and Traffic Handling," and as directed. Provide traffic control devices that conform to the details shown on the plans, the TMUTCD, and the Department's Compliant Work Zone Traffic Control Device List maintained by the Traffic Safety Division. When authorized or directed, provide additional signs or traffic control devices not required by the plans.

Section 2.6.1., "Contractor Responsible Person and Alternative," is voided and replaced by the following:

2.6.1. Contractor Responsible Person and Alternative. Designate in writing, a Contractor's Responsible Person (CRP) and an alternate to be the representative of the Contractor who is responsible for taking or directing corrective measures regarding the traffic control. The CRP or alternate must be accessible by phone 24 hr. per day and able to respond when notified. The CRP and alternate must comply with the requirements of Section 2.6.5., "Training."

Section 2.6.2, "Flaggers," the first paragraph is voided and replaced by the following:

2.6.2. Flaggers. Designate in writing, a flagger instructor who will serve as a flagging supervisor and is responsible for training and assuring that all flaggers are qualified to perform flagging duties. Certify to the Engineer that all flaggers will be trained and make available upon request a list of flaggers trained to perform flagging duties.

Section 2.6.5, "Training," is voided and replaced by the following:

2.6.5. Training. Train workers involved with the traffic control using Department-approved training as shown on the "Traffic Control Training" Material Producer List.

> Coordinate enrollment, pay associated fees, and successfully complete Department-approved training or Contractor-developed training. Training is valid for the period prescribed by the provider. Except for law enforcement personnel training, refresher training is required every 4 yr. from the date of completion unless otherwise specified by the course provider. The Engineer may require training at a frequency instead of the period prescribed based on the Department's needs. Training and associated fees will not be measured or paid for directly but are considered subsidiary to pertinent Items.

Certify to the Engineer that workers involved in traffic control and other work zone personnel have been trained and make available upon request a copy of the certification of completion to the Engineer. Ensure the following is included in the certification of completion:

- name of provider and course title,
- name of participant,
- date of completion, and
- date of expiration.

Where Contractor-developed training or a Department-approved training course does not produce a certification, maintain a log of attendees. Make the log available upon request. Ensure the log is legible and includes the following:

- printed name and signature of participant,
- name and title of trainer, and
- date of training.
- 2.6.5.1. Contractor-developed Training. Develop and deliver Contractor-developed training meeting the minimum requirements established by the Department. The outline for this training must be submitted to the Engineer for approval at the preconstruction meeting. The CRP or designated alternate may deliver the training instead of the Department-approved training. The work performed and materials furnished to develop and deliver the training will not be measured or paid for directly but will be considered subsidiary to pertinent Items.
- 2.6.5.1.1. **Flagger Training Minimum Requirements.** A Contractor's certified flagging instructor is permitted to train other flaggers.
- 2.6.5.1.2. **Optional Contractor-developed Training for Other Work Zone Personnel.** For other work zone personnel, the Contractor may provide training meeting the curriculum shown below instead of Department-approved training.

Minimum curriculum for Contractor-provided training is as follows:

Contractor-developed training must provide information on the use of personnel protection equipment, occupational hazards and health risks, and other pertinent topics related to traffic management. The type and amount of training will depend on the job duties and responsibilities. Develop training applicable to the work being performed. Develop training to include the following topics.

- The Life You Save May Be Your Own (or other similar company safety motto).
- Purpose of the training.
 - It's the Law.
 - To make work zones safer for workers and motorist.
 - To understand what is needed for traffic control.
 - To save lives including your own.
- Personal and Co-Worker Safety.
 - High Visibility Safety Apparel. Discuss compliant requirements; inspect regularly for fading and
 reduced reflective properties; if night operations are required, discuss the additional and
 appropriate required apparel in addition to special night work risks; if moving operations are
 underway, discuss appropriate safety measures specific to the situation and traffic control plan.
 - Blind Areas. A blind area is the area around a vehicle or piece of construction equipment not
 visible to the operators, either by line of sight or indirectly by mirrors. Discuss the "Circle of Safety"
 around equipment and vehicles; use of spotters; maintain eye contact with equipment operators;
 and use of hand signals.
 - Runovers and Backovers. Remain alert at all times; keep a safe distance from traffic; avoid turning your back to traffic and if you must then use a spotter; and stay behind protective barriers, whenever possible. Note: It is not safe to sit on or lean against a concrete barrier, these barriers can deflect four plus feet when struck by a vehicle.
 - Look out for each other, warn co-workers.
 - Be courteous to motorists.
 - Do not run across active roadways.
 - Workers must obey traffic laws and drive courteously while operating vehicles in the work zones.
 - Workers must be made aware of company distracted driving policies.
- Night Time Operations. Focus should be placed on projects with a nighttime element.

- Traffic Control Training. Basics of Traffic Control.
 - Identify work zone traffic control supervisor and other appropriate persons to report issues to when they arise.
 - Emphasize that work zone traffic control devices must be in clean and in undamaged condition. If devices have been hit but not damaged, put back in their correct place and report to traffic control supervisor. If devices have been damaged, replace with new one and report to traffic control supervisor. If devices are dirty, faded or have missing or damaged reflective tape clean or replace and report to traffic control supervisor. Show examples of non-acceptable device conditions. Discuss various types of traffic control devices to be used and where spacing requirements can be found.
 - Channelizing Devices and Barricades with Slanted Stripes. Stripes are to slant in the direction
 you want traffic to stay or move to; demonstrate this with a device.
 - Traffic Queuing. Workers must be made aware of traffic queuing and the dangers created by it.
 Workers must be instructed to immediately notify the traffic control supervisor and other supervisory personnel if traffic is queuing beyond advance warning sign and devices or construction limits.
 - Signs. Signs must be straight and not leaning. Report problems to the traffic control supervisor or other as designated for immediate repair. Covered signs must be fully covered. If covers are damaged or out of place, report to traffic control supervisor or other as designated.

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Special Provision to Item 8 Prosecution and Progress



Item 8, "Prosecution and Progress" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 8.1., "Prosecution of Work." The first sentence of the first paragraph is voided and replaced by the following:

Begin work 90 calendar days after the authorization date to begin work. Do not begin work before or after this period unless authorized in writing by the Engineer.

Special Provision to Item 8 Prosecution and Progress



Item 8, "Prosecution and Progress" of the Standard Specification is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 8.2., "Subcontracting," is supplemented by the following paragraph, which is added as paragraph six to this article:

The Contractor certifies by signing the Contract that the Contractor will not enter into any subcontract with a subcontractor that is not registered in the Department of Homeland Security's (DHS) E-Verify system. Require that all subcontractors working on the project register and require that all subcontractors remain active in the DHS E-Verify system until their work is complete on the project.

Special Provision to Item 8 Prosecution and Progress



Item 8, "Prosecution and Progress" of the Standard Specifications is amended with respect to the clause cited below. No other clauses or requirements of this Item are waived or changed.

Article 8.7.2., "Wrongful Default," is revised and replaced by the following:

If it is determined after the Contractor is declared in default, that the Contractor was not in default, the rights and obligations of all parties will be the same as if termination had been issued for the convenience of the public as provided in Article 8.8 "Termination of Contract."

Special Provision to Item 009 Measurement and Payment



Item 009 "Measurement and Payment" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 9.5., "PROGRESS PAYMENTS" is supplemented with the following:

It is the Department's desire to pay a Contractor for work through the last working day of the month; however, the use of early cut-off dates for monthly estimates and MOH is a project management practice to manage workload at the Area Office level. Approval for using early cut-off dates is at the District's discretion. The earliest cut-off date for estimates is the 25th of the month.

Article 9.6., "PAYMENT FOR MATERIAL ON HAND (MOH)" first paragraph is amended as follows:

If payment for MOH is desired, request compensation for the invoice cost of acceptable nonperishable materials that have not been used in the work before the request, and that have been delivered to the work location or are in acceptable storage places. Nonperishable materials are those that do not have a shelf life or whose characteristics do not materially change when exposed to the elements. Include only materials that have been sampled, tested, approved, or certified, and are ready for incorporation into the work. Only materials which are completely constructed or fabricated on the Contractor's order for a specific Contract and are so marked and on which an approved test report has been issued are eligible. Payment for MOH may include the following types of items: concrete traffic barrier, precast concrete box culverts, concrete piling, reinforced concrete pipe, and illumination poles. Any repairs required after fabricated materials have been approved for storage will require approval of the Engineer before being made and will be made at the Contractor's expense. Include only those materials and products, when cumulated under an individual item or similar bid items, that have an invoice cost of at least \$1,000 in the request for MOH payment (e.g. For MOH eligibility, various sizes of conductor are considered similar bid items and may be cumulated to meet the threshold; for small roadside signs, the sign supports, mounting bolts, and the sign face is considered one bid item or similar bid items for more than one pay item for sign supports.) Requests for MOH are to be submitted at least two days before but not later than the estimate cutoff date unless otherwise agreed. If there is a need to request MOH after the established cut-off date, the district can make accommodation as the need arises. This needed accommodation is to be the exception, though, and not the rule.

Special Provision to Item 9 Measurement and Payment



Item 9, "Measurement and Payment" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 9.7.1.4.3., "Standby Equipment Costs," is voided and replaced by the following:

7.1.4.3. Standby Equipment Costs. Payment for standby equipment will be made in accordance with Section 9.7.1.4., "Equipment," except that the 15% markup will not be allowed and that:

Section 7.1.4.3.1., "Contractor-Owned Equipment," is voided and replaced by the following:

- 7.1.4.3.1. **Contractor-Owned Equipment**. For Contractor-owned equipment:
 - Standby will be paid at 50% of the monthly Equipment Watch rate after the regional and age adjustment factors have been applied. Operating costs will not be allowed. Calculate the standby rate as follows.

Standby rate = (FHWA hourly rate - operating costs) × 50%

- If an hourly rate is needed, divide the monthly *Equipment Watch* rate by 176.
- No more than 8 hr. of standby will be paid during a 24-hr. day period, nor more than 40 hr. per week.
- Standby costs will not be allowed during periods when the equipment would have otherwise been idle.

Special Provision to Item 247 Flexible Base



Item 247, "Flexible Base" of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 2.4., "Certification." This section is added.

Personnel certified by the Department-approved soils and base certification program must conduct all sampling, field testing, and laboratory testing required by the following:

- Section 2.1, "Aggregate,"
- Section 2.1.3.2, "Recycled Material (Including Crushed Concrete) Requirements,"
- Section 4.3, "Compaction," for measuring flexible base depth, and
- Section 4.3.2, "Density Control," for determining the roadway density and moisture content.

Supply the Engineer with a list of certified personnel and copies of their current certificates before laboratory and field testing is performed and when personnel changes are made. At any time during the project, the Engineer may perform production tests as deemed necessary in accordance with Item 5, "Control of the Work."

Section 2.5., "Reporting and Responsibilities." This section is added.

Use Department-provided templates to record and calculate all test data. Obtain the current version of the templates at http://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/forms/site-manager.html or from the Engineer. The Engineer and the Contractor will provide any available test results to the other party when requested. Record and electronically submit all test results and pertinent information on Department-provided templates.

Section 2.6., "Sampling." This section is added.

The Engineer will sample flexible base from stockpiles located at the production site or at the project location in accordance with Tex-400-A, Section 5.3. The Engineer will label the sample containers as "Engineer," "Contractor" or "Supplier," and "CST/M&P." Witness the sampling and take immediate possession of the sample containers labeled "Contractor" or "Supplier." The Engineer will maintain custody of the samples labeled "CST/M&P" until testing and reporting is completed.

Section 2.7., "Referee Testing." This section is added.

CST/M&P is the referee laboratory. The Contractor may request referee testing when the Engineer's test results fail to meet any of the material requirements listed in Table 1. Make the request via email within 5 working days after receiving test results from the Engineer. Submit test reports signed and sealed by a licensed professional engineer from a commercial laboratory listed on the Department's Material Producer List (MPL) of laboratories approved to perform compaction and triaxial compression testing located at http://ftp.dot.state.tx.us/pub/txdot-info/cmd/mpl/complabs.pdf. Submit completed test reports electronically on Department-provided templates in their original format. The referee laboratory will report test results to the Engineer within the allowable number of working days listed in Table 2 from the time the referee laboratory receives the samples. It is at the discretion of the Engineer or the referee laboratory to deny a referee request upon review of the test reports provided by the Contractor.

1

Table 2
Number of Allowable Working Days to Report Referee Test Results

Material Property	Test Method	Working Days
Gradation	Tex-110-E, Part I	5
Liquid Limit (Multi-Point Method)	Tex-104-E, Part I	5
Plasticity Index	Tex-106-E	5
Wet Ball Mill Value	Tex-116-E,	E
Wet Ball Mill, % Increase passing #40 sieve	Parts I and II	5
Compressive Strength ¹	Tex-117-E, Part II	6
Compressive Strength ²	Tex-117-E	12

- 1. Moisture-Density curve provided by the District
- 2. Moisture-Density curve determined by the referee laboratory

Section 4.6., "Ride Quality." This section is voided and replaced by the following.

Measurement of ride quality only applies to the final travel lanes that receive a 1- or 2-course surface treatment for the final riding surface, unless otherwise shown on the plans. Measure the ride quality of the base course either before or after the application of the prime coat, as directed, and before placement of the surface treatment. Use a certified profiler operator from the Department's MPL. When requested, furnish the Engineer documentation for the person certified to operate the profiler.

Provide all profile data to the Engineer in electronic data files within 3 days of measuring the ride quality using the format specified in <u>Tex-1001-S</u>. The Engineer will use Department software to evaluate longitudinal profiles to determine areas requiring corrective action. Correct 0.1-mi.sections for each wheel path having an average international roughness index (IRI) value greater than 100 in. per mile to an IRI value of 100 in. per mile or less, unless otherwise shown on the plans.

Re-profile and correct sections that fail to maintain ride quality, as directed. Correct re-profiled sections until specification requirements are met, as approved. Perform this work at no additional expense to the Department.

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Special Provision to Item 300 Asphalt, Oils, and Emulsions



Item 300, "Asphalt, Oils, and Emulsions" of the Standard Specifications is replaced by Special Specification 3096, "Asphalts, Oils, and Emulsions." All Item 300 Special Provisions are no longer available, beginning with the April 2022 letting.

Special Provision to Item 302 Aggregates for Surface Treatments



Item 302, "Aggregates for Seal Coats," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 2.1., "Aggregate." Tables 2 and 3 are voided and replaced by the following.

Aggregate Gradation Requirements (Cumulative % Retained¹)

	Grade								
Sieve	1	2	3S ²		4S ²	4	5S ²	5	
Sieve				Non- Lightweight Lightweight					
1"	-	-	-	-	-	-	-	-	-
7/8"	0–2	0	-	-	-	-	-	1	-
3/4"	20–35	0–2	0	0	0	-	1	1	-
5/8"	85–100	20–40	0–5	0–5	0–2	0	0	1	-
1/2"	-	80–100	55–85	20–40	10–25	0–5	0–5	0	0
3/8"	95–100	95–100	95–100	80–100	60–80	60–85	20–40	0–5	0–5
1/4"	-	1	1	95–100	95–100	1	ı	65–85	-
#4	-	-	-	-	-	95–100	95–100	95–100	50-80
#8	99–100	99–100	99–100	98–100	98–100	98–100	98–100	98–100	98–100

- Round test results to the nearest whole number.
- Single-size gradation.

Table 3
Aggregate Quality Requirements

Duran anta	To at Mathead	Requirement ¹			
Property	Test Method	Minimum	Maximum		
SAC	<u>AQMP</u>	As shown	on the plans		
Deleterious Material ² , %	Tex-217-F, Part I	-	2.0		
Decantation, %	<u>Tex-406-A</u>	-	1.5		
Flakiness Index, %	<u>Tex-224-F</u>	-	17		
Gradation	Tex-200-F, Part I	Table 2 R	equirements		
Los Angeles Abrasion, %	<u>Tex-410-A</u>	-	35		
Magnesium Sulfate Soundness, 5 Cycle, %	<u>Tex-411-A</u>	-	25		
Micro-Deval Abrasion, %	<u>Tex-461-A</u>	Note 3			
Coarse Aggregate Angularity ⁴ , 2 Crushed Faces, %	<u>Tex-460-A</u> , Part I	85 -			
Additio	onal Requirements for	Lightweight Aggregate			
Dry Loose Unit Wt., lb./cu. ft.	<u>Tex-404-A</u>	35	60		
Pressure Slaking, %	<u>Tex-431-A</u>	-	6.0		
Freeze-Thaw Loss, %	<u>Tex-432-A</u>	-	10.0		
Water Absorption, 24hr., %	<u>Tex-433-A</u>	-	12.0		

- 1. Material requirements are listed below, unless otherwise shown on the plans.
- Not required for lightweight aggregate.
- 3. Used to estimate the magnesium sulfate soundness loss in accordance with Section 2.1.1.
- Only required for crushed gravel.

Section 2.1.1., "Micro-Deval Abrasion," is added.

The Engineer will perform a minimum of one Micro-Deval abrasion test in accordance with <u>Tex-461-A</u> for each coarse aggregate source per project that has a Rated Source Soundness Magnesium (RSSM) loss value greater than 15 as listed in the BRSQC. The Engineer may waive all Micro-Deval testing based on a satisfactory test history of the same aggregate source.

The Engineer will estimate the magnesium sulfate soundness loss for each coarse aggregate source, when tested, using the following formula.

 $Mg_{est.} = (RSSM)(MD_{act.}/RSMD)$

where:

Mgest. = magnesium sulfate soundness loss MDact. = actual Micro-Deval percent loss RSMD = Rated Source Micro-Deval

When the estimated magnesium sulfate soundness loss is greater than the maximum magnesium sulfate soundness loss specified, the coarse aggregate source will not be allowed for use unless otherwise approved by the Engineer. The Engineer may require additional testing before granting approval.

Section 2.2., "Precoating." The third paragraph is voided and replaced by the following.

The Engineer retains the right to remove precoat material from aggregate samples in accordance with <u>Tex-210-F</u>, or as recommended by the Construction Division, and test the aggregate to verify compliance with Table 2 and Table 3 requirements. Gradation testing may be performed with precoat intact.

Section 2.3., "Sampling," is added.

Personnel who conduct sampling and witnessing of sampling must be certified by the Department-approved certification program. Supply the Engineer with a list of certified personnel and copies of their current certificates before beginning construction and when personnel changes are made. At any time during the project, the Engineer may perform production tests as deemed necessary in accordance with Item 5, "Control of the Work."

The Engineer will sample aggregate from stockpiles located at the production site, intermediate distribution site, or project location in accordance with <u>Tex-221-F</u>, Section 3.2.3. The Engineer will split each sample into 2 equal portions in accordance with <u>Tex-200-F</u>, Section 3.3, and label these portions "Engineer" and "Contractor" or "Supplier." Witness the sampling and splitting, and take immediate possession of the samples labeled "Contractor" or "Supplier".

Section 2.4., "Reporting and Responsibilities," is added.

The Engineer will provide test results to the Contractor and Supplier within 10 working days from the date the stockpile was sampled for sources listed on the Department's Bituminous Rated Source Quality Catalog (BRSQC), unless otherwise directed. The Engineer will provide test results for the LA Abrasion (Tex-410-A) and Magnesium Sulfate Soundness (Tex-411-A) tests within 30 calendar days for sources not listed on the BRSQC, or for sources not meeting the requirements of Section 2.1.1., "Micro-Deval Abrasion." The Engineer will report to the other party within 24 hours when any test result does not meet the requirements listed in Table 2 or Table 3.

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Special Provision to Item 316 Seal Coat



Item 316, "Seal Coat" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 4.8, "Asphalt Placement" is supplemented by the following:

4.8.5. Collect all samples in accordance with Tex-500-C, "Sampling Bituminous Materials, Pre-Molded Joint Fillers, and Joint Sealers" from the distributor and with witness by the Engineer.

At least once per project, collect split samples of each binder grade and source used. The Engineer will submit one split sample to MTD for testing and retain the other split sample.

In addition, collect one sample of each binder grade and source used on the project for each production day. The Engineer will retain these samples.

The Engineer will keep all retained samples for one yr., for hot-applied binders and cutback asphalts; or for two mo., for emulsified asphalts. The Engineer may submit retained samples to MTD for testing as necessary or as requested by MTD.

Special Provision to Item 340 Dense-Graded Hot-Mix (Small Quantity)



Item 340, "Dense-Graded Hot-Mix (Small Quantity)" of the Standard Specifications is replaced by Special Specification 3076, "Dense-Graded Hot-Mix Asphalt," Section 4.9.4., "Exempt Production." All Item 340 Special Provisions and bid codes are no longer available, beginning with the February 2022 letting.

Special Provision to Item 420 Concrete Substructure



Item 420, "Concrete Substructures" of the Standard Specifications is amended with respect to the clause cited below. No other clauses or requirements of this Item are waived or changed.

Article 420.6., "Payment." The first paragraph is replaced by the following:

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for the class of concrete and element identified and by the special designation when appropriate. This price is full compensation for furnishing, hauling, and mixing concrete materials; furnishing, bending, fabricating, splicing, welding and placing the required reinforcement; clips, blocks, metal spacers, ties, wire, or other materials used for fastening reinforcement in place; placing, finishing, and curing concrete; mass placement controls; applying ordinary surface finish; furnishing and placing drains, metal flashing strips, and expansion-joint material; excavation, subgrade preparation; and forms and falsework, equipment, labor, tools, and incidentals.

Special Provision to Item 421 Hydraulic Cement Concrete



Item 421, "Hydraulic Cement Concrete" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 421.2., "Materials," the second sentence of the first paragraph is voided and replaced by the following.

Provide aggregates from sources listed in the Department's Concrete Rated Source Quality Catalog (CRSQC).

Article 421.2.2., Supplementary Cementing Materials (SCM), is voided and replaced with the following.

Supplementary Cementing Materials (SCM).

- Fly Ash. Furnish fly ash, Modified fly ash (MFA), and Ground Bottom Ash (GBA) conforming to DMS-4610, "Fly Ash."
- Slag Cement. Furnish Slag Cement conforming to DMS-4620, "Slag Cement."
- Silica Fume. Furnish silica fume conforming to DMS-4630, "Silica Fume."
- Metakaolin. Furnish metakaolin conforming to DMS-4635, "Metakaolin."

Article 421.3.1.3., "Agitators and Truck and Stationary Mixers," the first paragraph is voided and replaced by the following.

Provide stationary and truck mixers capable of combining the ingredients of the concrete into a thoroughly mixed and uniform mass and capable of discharging the concrete so that the requirements of <u>Tex-472-A</u> are met.

Article 421.3.1.3., "Agitators and Truck and Stationary Mixers," is supplemented with the following.

Truck mixers with automated water and chemical admixture measurement and slump and slump flow monitoring equipment meeting the requirement of ASTM C 94 will be allowed. Provide data every 6 mo. substantiating the accuracy of slump, slump flow, temperature, water, and chemical admixture measurements. The slump measured by the automated system must be within 1 in. of the slump measured in accordance with Tex-415-A. The concrete temperature measured by the automated system must be within 1°F of concrete temperature measured in accordance with Tex-422-A. The Engineer will not use the automated measurements for acceptance.

Article 421.4.2, "Mix Design Proportioning," Table 8 is voided and replaced by the following.

Table 8
Concrete Classes

Concrete Classes							1
Class of Concrete	Design Strength,¹ Min f'c (psi)	Max w/cm Ratio	Coarse Aggregate Grades ^{2,3,4}	Cement Types	Mix Design Options	Exceptions to Mix Design Options	General Usage ^s
А	3,000	0.60	1–4, 8	I, II, I/II, IL, IP, IS, IT, V	1, 2, 4, & 7	When the cementitious material content does not exceed 520 lb./cu. yd., any fly ash listed in the MPL may be used at a cement replacement of 20% to	Curb, gutter, curb & gutter, conc. retards, sidewalks, driveways, back-up walls, anchors, non-reinforced drilled shafts
В	2,000	0.60	2–7			50%.	Riprap, traffic signal controller foundations, small roadside signs, and anchors
C ₆	3,600	0.45	1–6	I, II, I/II, IP, IL, IS, IT, V	1–8		Drilled shafts, bridge substructure, traffic rail, culverts except top slab of direct traffic culverts, headwalls, wing walls, inlets, manholes, traffic barrier
E	3,000	0.50	2–5	I, II, I/II, IL, IP, IS, IT, V	1–8	When the cementitious material content does not exceed 520 lb./cu. yd., any fly ash listed in the MPL may be used at a cement replacement of 20% to 50%.	Seal concrete
F ⁶	Note ⁷	0.45	2–5	I, II, I/II, IP, IL, IS, IT, V			Railroad structures; occasionally for bridge piers, columns, bents, post-tension members
H6	Note ⁷	0.45	3–6	I, II, I/II, III, IP, IL, IS, IT, V	1–4, 8	Mix design options 1-8 allowed for cast-in-place concrete and the following precast elements unless otherwise stated in the plans: ■ Bridge Deck Panels, ■ Retaining Wall Systems, ■ Coping, ■ Sound Walls, ■ Wall Columns, ■ Traffic Rail, ■ Traffic Barrier, ■ Long/Arch Span Culverts, and ■ precast concrete products included in Items 462, 464, and 465. Do not use Type III cement in mass placement concrete. Up to 20% of blended cement may be replaced with listed SCMs when Option 4 is used for precast concrete. Options 6, & 7 allowed for cast-in-place Class H concrete.	Precast concrete, post-tension members
S ⁶	4,000	0.45	2–5	I, II, I/II, IP, IL, IS, IT, V	1–8	,	Bridge slabs, top slabs of direct traffic culverts, approach slabs
Р	See Item 360, "Concrete Pavement."	0.50	2–3	I, II, I/II, IL, IP, IS, IT, V	1–8	When the cementitious material content does not exceed 520 lb./cu. yd., any fly ash listed in the MPL may be used at a cement replacement of 20% to 50%.	Concrete pavement

Class of Concrete	Design Strength,¹ Min f'c (psi)	Max w/cm Ratio	Coarse Aggregate Grades ^{2,3,4}	Cement Types	Mix Design Options	Exceptions to Mix Design Options	General Usage⁵
CO ₆	4,600	0.40	6		4.0		Bridge deck concrete overlay
LMC ⁶	4,000	0.40	6–8		1–8		Latex-modified concrete overlay
SS ⁶	3,600	0.45	4–6	I, II, I/II, IP, IL, IS, IT, V	1-8	Use a minimum cementitious material content of 658 lb./cu. yd. of concrete. Limit the alkali loading to 4.0 lbs./cu. yd. or less when using option 7.	Slurry displacement shafts, underwater drilled shafts
K^6	Note ⁷	0.40	Note ⁷	I, II, I/II, III IP, IL, IS, IT, V	1-8		Note ⁷
HES	Note ⁷	0.45	Note ⁷	I, IL, II, I/II,		Mix design options do not apply. 700 lb. of cementitious material per cubic yard limit does not apply.	Concrete pavement, concrete pavement repair
"X" (HPC) _{6,8,9}	Note ¹⁰	0.45	Note ¹⁰	I, II, I/II, III IP, IL, IS, IT, V	1–4, & 8	Maximum fly ash replacement for Option 3 may be increased to 50%. Up to 20% of a blended cement may be replaced with listed SCMs for Option 4. Do not use Option 8 for precast concrete.	
"X" (SRC) 6.8. 9	Note ¹⁰	0.45	Note ¹⁰	VII, II, IP, IL, IS, IT, V	1–4, & 7	When using fly ash, only use fly ashes allowed for SRC as listed in the Fly Ash MPL. Type III-MS may be used where allowed. Type I and Type III cements may be use when fly ashes allowed for SRC as listed in the Fly Ash MPL are used, and with a maximum w/cm of 0.40. Up to 20% of blended cement may be replaced with listed SCMs when Option 4 is used for precast concrete. Use Option 7 for precast concrete where allowed.	

- 1. Design strength must be attained within 56 days.
- 2. Do not use Grade 1 coarse aggregate except in massive foundations with 4 in. minimum clear spacing between reinforcing steel bars, unless otherwise permitted. Do not use Grade 1 aggregate in drilled shafts.
- 3. Use Grade 8 aggregate in extruded curbs unless otherwise approved.
- 4. Other grades of coarse aggregate maybe used in non-structural concrete classes when allowed by the Engineer.
- 5. For information only.
- 6. Structural concrete classes.
- 7. As shown on the plans or specified.
- 8. "X" denotes class of concrete shown on the plans or specified.
- 9. (HPC): High Performance Concrete, (SRC): Sulfate Resistant Concrete.
- 10. Same as class of concrete shown on the plans.

Article 421.4.2.2., "Aggregates," is supplemented by the following.

Use the following equation to determine if the aggregate combination meets the sand equivalency requirement when blending fine aggregate or using an intermediate aggregate:

$$\frac{(SE_{1} \times P_{1}) + (SE_{2} \times P_{2}) + (SE_{ia} \times P_{ia})}{100} \ge 80\%$$

where:

 SE_1 = sand equivalency (%) of fine aggregate 1

 SE_2 = sand equivalency (%) of fine aggregate 2

 SE_{ia} = sand equivalency (%) of intermediate aggregate passing the 3/8 in. sieve

 P_1 = percent by weight of fine aggregate 1 of the fine aggregate blend

 P_2 = percent by weight of fine aggregate 2 of the fine aggregate blend

 P_{ia} = percent by weight of intermediate aggregate passing the 3/8 in. sieve

Article 421.4.2.3., Chemical Admixtures," the second paragraph is voided and replaced with the following.

Use a 30% calcium nitrite solution when a corrosion-inhibiting admixture is required. Dose the admixture at the rate of gallons of admixture per cubic yard of concrete shown on the plans. Use set retarding admixtures, as needed, to control setting time to ensure concrete containing corrosion inhibiting admixtures remain workable for the entire duration of the concrete placement. Perform setting time testing and slump loss testing during trial batch testing.

Article 421.4.2.5., "Slump," the second paragraph is voided and not replaced. Table 9 is voided and replaced with below:

Table 9 Placement Slump Requirements

General Usage	Placement Slump Range, ^{1,2} in.
Walls (over 9 in. thick), caps, columns, piers	3 to 7
Bridge slabs, top slabs of direct traffic culverts, approach slabs, concrete overlays, latex- modified concrete for bridge deck overlays	3 to 6
Inlets, manholes, walls (less than 9 in. thick), bridge railing, culverts, concrete traffic barrier, concrete pavement (formed)	4 to 6
Precast concrete	4 to 9
Underwater concrete placements	6 to 8-1/2
Drilled shafts, slurry displaced and underwater drilled shafts	See Item 416, "Drilled Shaft Foundations."
Curb, gutter, curb and gutter, concrete retards, sidewalk, driveways, seal concrete, anchors, riprap, small roadside sign foundations, concrete pavement repair, concrete repair	As approved

Maximum slump values may be increase above these values shown using chemical admixtures, provided the admixture treated concrete has the same or lower water-to-cementitious ratio and does not exhibit segregation or excessive bleeding. Request approval to increase slump limits in advance for proper evaluation by the Engineer.

For fiber reinforced concrete, perform slump before addition of fibers.

Article 421.4.2.6., "Mix Design Options", is voided and replaced with the following.

Option 1. Replace cement with at least the minimum dosage listed in the Fly Ash MPL for the fly ash used in the mixture. Do not replace more than 50% of the cement with fly ash.

Option 2. Replace 35% to 50% of the cement with slag cement.

Option 3. Replace 35% to 50% of the cement with a combination of fly ash, slag cement, MFA, metakaolin, or at least 3% silica fume; however, no more than 35% may be fly ash, and no more than 10% may be silica fume.

Option 4. Use Type IP, Type IS, or Type IT cement as allowed in Table 8 for each class of concrete. Up to 10% of a Type IP, Type IS, or Type IT cement may be replaced with fly ash, slag cement, or silica fume. Use no more than 10% silica fume in the final cementitious material mixture if the Type IT cement contains silica fume, and silica fume is used to replace the cement.

Option 5. Option 5 is left intentionally blank.

Option 6. Use a lithium nitrate admixture at a minimum dosage determined by testing conducted in accordance with Tex-471-A. Before use of the mix, provide an annual certified test report signed and sealed by a licensed professional engineer, from a laboratory on the Department's MPL, certified by the Construction Division as being capable of testing according to Tex-471-A.

Option 7. Ensure the total alkali contribution from the cement in the concrete does not exceed 3.5 lb. per cubic yard of concrete when using hydraulic cement not containing SCMs calculated as follows:

lb. alkali per cu. yd. =
$$\frac{\left(\text{lb.cement per cu. yd.}\right) \times \left(\% \text{ Na}_{2} \text{O equivalent in cement}\right)}{100}$$

In the above calculation, use the maximum cement alkali content reported on the cement mill certificate.

Option 8. Use Table 10 when deviating from Options 1–3 or when required by the Fly Ash MPL. Perform required testing annually and submit results to the Engineer. Laboratories performing ASTM C1260, ASTM C1567, and ASTM C1293 testing must be listed on the Department's MPL. Before use of the mix, provide a certified test report signed and sealed by a licensed professional engineer demonstrating the proposed mixture conforms to the requirements of Table 10.

Provide a certified test report signed and sealed by a licensed professional engineer, when HPC is required, and less than 20% of the cement is replaced with SCMs, demonstrating ASTM C1202 test results indicate the permeability of the concrete is less than 1,500 coulombs tested immediately after either of the following curing schedules:

- Moisture cure specimens 56 days at 73°F.
- Moisture cure specimens 7 days at 73°F followed by 21 days at 100°F.

Table 10
Option 8 Testing and Mix Design Requirements

	ı	-	Totally and mix Beelgh Requirements	
Scenario	ASTM C	1260 Result	Testing Requirements for Mix Design Materials	
Scer	Mix Design Fine Aggregate	Mix Design Coarse Aggregate	or Prescriptive Mix Design Options	
A	> 0.10%	> 0.10%	Determine the dosage of SCMs needed to limit the 14-day expansion of each aggregate 1 to 0.10% when tested individually in accordance with ASTM C1567.	
В	≤ 0.10% ≤ 0.10%		Use the minimum replacement listed in the Fly Ash MPL, or When Option 8 is listed on the MPL, use a minimum of 40% fly ash with a maximum CaO² content of 25%, or Use any ternary combination which replaces 35% to 50% of cement.	
	≤ 0.10%	ASTM C1293 1 yr. Expansion ≤ 0.04%	Use a minimum of 20% of any fly ash; or Use any ternary combination which replaces 20% to 50% of cement.	
С	≤ 0.10%	> 0.10%	Determine the dosage of SCMs needed to limit the 14-day expansion of coarse and intermediate ¹ aggregate to 0.10% when tested individually in accordance with ASTM C1567.	
D	> 0.10%	≤ 0.10%	Use the minimum replacement listed in the Fly Ash MPL, or When Option 8 is listed on the MPL, use a minimum of 40% fly ash with a maximum CaO² content of 25%, or Use any ternary combination which replaces 35% to 50% of cement.	
	> 0.10%	ASTM C1293 1 yr. Expansion ≤ 0.04%	Determine the dosage of SCMs needed to limit the 14-day expansion of each fine aggregate to 0.10% when individually tested in accordance with ASTM C1567.	

- 1. Intermediate size aggregates will fall under the requirements of mix design coarse aggregate.
- 2. Average the CaO content from the previous ten values as listed on the test certificate.

Article 421.4.2.7., "Optimized Aggregate Gradation (OAG) Concrete," the first sentence of the first paragraph is voided and replaced by the following.

5 - 6 03-22 Statewide The gradations requirements in Table 4 and Table 6 do not apply when OAG concrete is specified or used by the Contractor unless otherwise shown on the plans.

The fineness modulus for fine aggregate listed in Table 5, does not apply when OAG Concrete is used,

Article 421.4.6.2., Delivering Concrete," the third paragraph is supplemented by the following.

When truck mixers are equipped with automated water or chemical admixture measurement and slump or slump flow monitoring equipment, the addition of water or chemical admixtures during transit is allowed. Reports generated by this equipment must be submitted to the Engineer daily.

Article 421.4.6.2., "Delivering Concrete," the fifth paragraph is voided and replaced with the following. Begin the discharge of concrete delivered in truck mixers within the times listed in Table 14. Concrete delivered after these times, and concrete that has not begun to discharge within these times will be rejected

Article 421.4.8.3., "Testing of Fresh Concrete," is voided and replaced with the following.

Testing Concrete. The Engineer, unless specified in other Items or shown on the plans, will test the fresh and hardened concrete in accordance with the following methods:

- Slump. Tex-415-A;
- Air Content. Tex-414-A or Tex-416-A;
- Temperature. Tex-422-A;
- Making and Curing Strength Specimens. Tex-447-A;
- Compressive Strength. Tex-418-A;
- Flexural Strength. Tex-448-A; and
- Maturity. Tex-426-A.

Flexural strength and maturity specimens will not be made unless specified in other items or shown on the plans.

Concrete with slump less than minimum required after all addition of water withheld will be rejected, unless otherwise allowed by the Engineer. Concrete with slump exceeding maximum allowed may be used at the contractor's option. If used, Engineer will make, test, and evaluate strength specimens as specified in Article 421.5., "Acceptance of Concrete." Acceptance of concrete not meeting air content or temperature requirements will be determined by Engineer. Fresh concrete exhibiting segregation and excessive bleeding will be rejected.

Article 421.4.8.3.1. "Job-Control Testing," is voided and not replaced.

Special Provision to Item 425 Precast Prestressed Concrete Structural Members



Item 425, "Precast Prestressed Concrete Structural Members" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 2.3., "Prestressing Steel." The first bullet is voided and replaced with the following.

■ Seven-wire steel strand meeting <u>DMS-4500</u>, "Steel Strand, Uncoated Seven-Wire Low Relaxation for Prestressed Concrete."

Section 2.3., "Prestressing Steel." The second paragraph is voided and replaced with the following.

Use 7-wire steel strand produced by a prequalified manufacturer on the list in the Department MPL maintained by the Materials and Tests Division. The Department may take samples in accordance with <u>Tex-710-I</u> to verify compliance with specification requirements.

Special Provision to Item 426 Post-Tensioning



Item 426, "Post-Tensioning" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 2.1., "Prestressing Steel." The first bullet is voided and replaced with the following.

 Seven-wire steel strand meeting <u>DMS-4500</u>, "Steel Strand, Uncoated Seven-Wire Low Relaxation for Prestressed Concrete," or

Section 2.2., "Post-Tensioning System." The second bulleted item is voided and replaced with the following:

■ Provide pre-packaged grouts in accordance with <u>DMS-4670</u>, "Grouts for Post-Tensioning." Do not use grouts that exceed the manufacturers' recommended shelf life or 6 mo. after date of manufacture, whichever is less.

Section 4.2., "Required Submittals." The section is voided and replaced with the following.

- 4.2. Required Submittals. Submit information required in this Section for post-tensioned elements, in addition to forming and falsework plans required by Item 420, "Concrete Substructures," and Item 424, "Precast Concrete Structural Members (Fabrication)." Include all necessary construction information in these submittals for cast-in-place and precast construction including, but not limited to the information required in this Section.
- 4.2.1. **Design Calculations**. Provide design procedures, coefficients, allowable stresses, tendon spacing, and clearances in accordance with the AASHTO LRFD *Bridge Design Specifications* and PTI/ASBI M50 unless otherwise shown on the plans. Submit enough calculations to support the proposed system and method of post-tensioning including friction loss diagrams. When the required jacking force for a particular type of tendon, duct, and configuration is furnished on the plans, design calculations are not required except to adjust for conditions different from those shown on the plans.
- 4.2.2. **Post-Tensioning Details**. Provide drawings with details that meet the requirements of PTI/ASBI M50 and this Specification.
- 4.2.3. **Grouting Plan.** Submit for approval written grouting procedures at least four weeks before the start of the element's construction. Include items required by PTI M55.

Include the names of people responsible for PT installation and grouting operations, with the foreman of each grouting crew certified as a PTI Level 2 Bonded PT Field Specialist and ASBI Certified Grouting Technician.

4.2.4. **Stressing Safety Plan**. Provide a plan to protect the public, workers, and Department personnel on and around the vicinity where post-tensioning operations are occurring.

Submit for approval, a detailed safety plan which identifies potential risk associated with post-tensioning operations, including but not limited to:

- tendon alignment,
- temporary shoring,
- ram operations, and
- stand anchorage.

Section 4.3., "Design Calculations." The section is voided and replaced with the following.

4.3. Packaging, Storing, and Handling of Post-Tensioning Components. Package, store, and handle post-tensioning steel, grout, duct, and other accessories in accordance with PTI/ASBI M50 and PTI M55 unless otherwise indicated. Acceptance and rejection criteria for strand will follow PTI/ASBI M50 and PTI M55.

The following exceptions apply:

- grout storage onsite will be limited to 30 days unless approval by the Engineer is given in advance of material delivery,
- install grout caps and ensure vents are closed at all times so that water and other contaminants cannot enter the duct before strand installation, and
- do not flush ducts at any time.

Section 4.4., "Packaging, Storing, and Handling of Post-Tensioning Components." The section is voided and replaced with the following.

4.4. **Duct and Prestressing Steel Installation for Post-Tensioning**. Follow PTI/ASBI M50 for duct and prestressing steel installation procedures and requirements unless otherwise specified. Verify that concrete strength requirements on the plans are met for stressing and staged loading of post-tensioned structural elements.

Stress the tendons within seven days of installing the strand in the ducts unless otherwise approved in advance. Follow the tensioning procedure noted in the approved post-tensioning details.

Section 4.5., "Duct and Prestressing Steel Installation for Post-Tensioning." The section is voided and replaced with the following.

4.5. **Grouting**. Grout in accordance with PTI M55.

Grout within 14 days of tendon stressing unless otherwise specified or approved. Obtain approval to extend the grouting time before stressing tendons.

Do not allow the grout temperature to exceed 85°F during mixing and pumping. Do not grout when the ambient temperature is below 35°F. Field-test the grout in accordance with Table 1 during grout installation. Perform field-testing by trained personnel at the Contractor's expense while witnessed by the Engineer. Pump at the lowest pressure possible that will maintain a continuous flow of grout.

Table1
Requirements for Field-Testing of Grout

requirements for ricia-resting or Grout							
Test	Frequency	Requirement					
Schupak Pressure Bleed Test (ASTM C1741)	1 per day	Per <u>DMS-4670</u>					
Fluidity test (Tex-437-A, Method 2)	2 every 2 hr.	per <u>DMS-4670</u>					
	2 min. per day						
Compressive Strength test (3" × 6" cylinders)	1 per day	per <u>DMS-4670</u>					
Mud Balance test (Tex-130-E, Part II)1,2	2 per day	per PTI M55					

- Take one sample from the mixer and one sample from the farthest duct outlet.
- 2. Verify wet density is within the range established by the department.

Section 4.6., "Grouting." The section is voided and not replaced.

Article 5., "MEASUREMENT AND PAYMENT." The section is voided and replaced with the following.

5. **MEASUREMENT**

This Item will be measured by the each PT element or member. An element or member is defined by one of the following individual components.

■ PT Cap

- PT Column
- PT Bent
- Other elements shown in the plans.

The PT may extend into other elements which is subsidiary to the main element being post-tensioned.

6. **PAYMENT**

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "PT" for the member type shown on the plans. This price is full compensation for submittals, mock-ups, prestressing steel, post-tensioning, ducts, grout fittings, grout, end anchorages, bearing plates, equipment, labor, materials, tools, and incidentals. Materials furnished for testing will not be paid for directly.

Post-tensioning of precast members, tensioned at a fabrication plant, will not be paid for directly but will be subsidiary to pertinent Items.

Special Provision to Item 427 Surface Finishes for Concrete



Item 427, "Surface Finishes for Concrete" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 427.2.1 "Coatings," is supplemented with the following:

Epoxy Waterproofing. Provide Type X Epoxy per DMS-6100 "Epoxies and Adhesives." Match color of coating with Federal Standard 595C color 35630, concrete gray, unless otherwise shown on the plans.

Article 427.4.2.2 "Application," is supplemented with the following:

Epoxy Waterproofing. Mix epoxy per manufacturer's instructions. Apply the coating on a dry surface at a maximum application rate of 100 sq. ft per gallon. Apply a thin uniform film of mixed epoxy to the substrate by the use of a short nap roller or brush. The epoxy may be sprayed following the thinning requirements of the manufacturer. No more than 15% reduction is permitted.

Match the color of the applied coating with the color standard shown on the plans. Apply when ambient temperature is between 50°F and 100°F.

Article 427.6 "Payment," the second paragraph is voided and replaced in its entirety with:

When a surface finish for concrete is specified as a pay item, the work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Adhesive Grout Finish," "Concrete Paint Finish," "Opaque Sealer Finish," "Silicone Resin Paint Finish," "Epoxy Waterproof Finish," or "Blast Finish," This price is full compensation for materials; cleaning and preparing surfaces; application of materials; and equipment, labor, tools, and incidentals.

Special Provision to Item 434 **Bridge Bearings**



Item 434, "Bridge Bearings" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 434.2.1.. "Plain and Laminated Elastomeric Bearings." is voided and replaced with the following:

Manufacturers of plain and laminated elastomeric bearing pads must be approved in accordance with DMS-7365, "Qualification Procedure for Elastomeric Bridge Bearing Pad Manufacturers." The Materials and Tests Division (MTD) maintains a list of approved elastomeric bridge bearing pad manufacturers.

Manufacturers that produce laminated elastomeric bearings with a top steel plate or special components (steel guide bars and bottom plate) must comply with AASHTO's NTPEP Committee Work Plan for Evaluation of Plain and Laminated Elastomeric Bridge Bearing Manufacturers. DMS-7365 does not apply to manufacturers of bridge bearings where the laminated elastomeric bearing pad is a component of the completed bearing assembly.

Section 434.2.1.1., "Elastomer," is voided and replaced with the following:

Provide elastomer for bearings formulated from previously unvulcanized 100% virgin polychloroprene rubber polymers meeting the physical properties, heat resistance, and compression set requirements of AASHTO M 251, Table X1.1, unless otherwise shown on the plans. Do not provide bearings containing previously vulcanized synthetic rubber or other synthetic rubber-like polymers. Perform material tests on the finished product in accordance with the applicable test methods. Do not use standard laboratory test slabs for this purpose. Prepare test specimens from the finished product in accordance with ASTMD3183.

Obtain approval for each elastomer formulation before use on Department projects. Submit certified test results to MTD to pregualify and obtain approval of a particular formulation. Show actual test values obtained and the required values for the physical properties, heat resistance, and compression set of the elastomer when tested for compliance with the minimum requirements of AASHTO M 251, Table X1.1.

Forward samples (freight prepaid) to MTD, or their contracted testing laboratory when directed.

Submit only elastomer of the type or types to be supplied. Submit prequalification samples consisting of 2 finished bearing pads typical of the formulation and workmanship for Department projects. Submit 2 samples of each type when laminated and plain bearing pads are required. Laminated sample bearing pads may represent both plain bearing pads and laminated bearing pads for an elastomer formulation.

Plain sample bearing pads must measure 9 in. × 19 in. × 1 in. Laminated sample bearing pads must measure 9 in. × 14 in. × 1-1/2 in. with the following number of steel laminates:

- 50 durometer—3 steel laminates,
- 60 durometer-2 steel laminates, and
- 70 durometer—2 steel laminates.

Bond strength testing of laminated prequalification samples will be performed by the Department in accordance with Tex-601-J. Part I—"Bond Strength Test Method 1". The tested sample must achieve a minimum bond strength of 40 lbf/in. of width. Presence of chlorinated compounds (neoprene) in the elastomer will be verified by the Department in accordance with Tex-601-J, Part III—Chlorinated Compound Test Method 3.

Costs associated with testing elastomer formulations failing to conform to the requirements of this Item are borne by the bearing manufacturer. This cost will be assessed at the rate established by MTD at the time of testing.

Certify that the submitted samples are of the same basic elastomer formulation and of equivalent cure as the finished products to be furnished on Department projects.

Complete pregualification testing will be performed for each formulation at least once every 2 yr. and when necessary.

Section 434.2.1.2., "Steel Laminates," is voided and replaced with the following:

Provide steel laminates, for laminated bearing pads, of commercial grade steel strip or sheet with a thickness of 0.105 ± 0.015 in.

Section 434.2.2.1.2., "Laminated Elastomeric Bearing Pad and Steel Plate," the first paragraph is amended to include the following sentence:

Bearing manufacturers that produce the laminated elastomeric bearing pad component of a sliding elastomeric bearing must comply with AASHTO's NTPEP Committee Work Plan for Evaluation of Plain and Laminated Elastomeric Bridge Bearing Manufacturers.

Section 434.3.1., "Plain and Laminated Elastomeric Bearings," is voided and replaced with the following:

Electronically submit shop drawings for the complete assembly before fabrication of laminated elastomeric bearings with or without steel top plates or special components in accordance with the plans and Item 441, "Steel Structures." Provide a bearing layout with the shop drawings.

Mold together components of a laminated bearing pad to forman integral unit free of voids or separations in the elastomer or between the elastomer and the steel laminates or plates, unless otherwise shown on the plans. Provide well-vulcanized elastomer between the laminates or plates and on the outer surfaces of the bearing pad that is uniform and integral and resists separation by mechanical means into separate, definite, well-defined elastomeric layers. Evidence of this layered construction, either at the outer surfaces or within the bearing pad, will be cause for rejection. Repair of damaged elastomer on sides of laminated bearing pads is not allowed for product acceptance. Repair of damaged elastomer on top or bottom surfaces of laminated bearing pads is allowed when approved.

Cover edges of steel laminates with 1/8 in. to 1/4 in. of elastomer except exposure of the laminates will be permitted at approved laminate restraining devices and around holes entirely enclosed in the finished structure. Position laminates within 1/8 in. of plan location.

Plain bearing pads may be molded individually, cut from previously molded strips or slabs molded to the full thickness of the finished bearing pads, or extruded and cut to length. The finish of cut surfaces must be ANSI 250, or smoother. The finished bearing pads must have no voids or separations detectable either at the bearing surfaces or within the bearing pad. Plain elastomeric bearing pads must be well vulcanized, uniform, and integral units of such construction that the bearing pad is incapable of being separated by any mechanical means into separate, definite, well-defined elastomenc layers. Evidence of layered construction either at the outer surfaces or within the bearing pad will be cause for rejection.

The permissible variation from the dimensions and configuration shown on the plans for both plain and laminated bearing pads will be as listed in AASHTO M 251, Table 2. Flash tolerance, finish, and appearance must meet the requirements of the latest edition of the Rubber Handbook published by the US Tire Manufacturer's Association, RMA F3 and T.063 for molded bearings, and RMA F2 for extruded bearings.

Perform required welding in accordance with Item 441, "Steel Structures." Manufacture guide bars, when required, so adjacent top and bottom bar surfaces are parallel to within 1/16 in. in the assembled position. The tolerance for diameter of anchor bolt holes is +1/8 in., -0. The maximum deviation for flatness of steel plates is 1/16 in. in any 24 in. or as shown on the plans.

Section 434.3.1.1., "Marking," the first paragraph is voided and replaced with the following:

Mark the bearing type on the surface of each bearing as shown on the plans. The marking must remain legible until placement in the structure. Permanently mark, in addition, laminated bearings with:

- manufacturer's name or trademark.
- lot number, and
- date of manufacture (month-year).

Section 434.3.1.2, "Testing and Acceptance," is voided and replaced with the following:

Perform testing, inspection, and acceptance of plain and laminated elastomeric bearing pads in accordance with DMS-7365, "Qualification Procedure for Elastomeric Bridge Bearing Pad Manufacturers."

For laminated elastomeric bearings with a steel top plate or special components (steel guide bars and bottom plate), apply a compression load of 2,250 psi or a stress approved by the Engineer to each bearing. Provide calibrated equipment per ASTM E4 for this compression testing. Each bearing will be acceptable if there is no visible evidence of bond failure or other damage and if the finished bearing meets other pertinent portions of this Item. Samples may be taken if the quality of production becomes questionable.

Section 434.3.2.2.1., "Lower Component," is voided and replaced with the following:

Manufacture one additional bearing lower component per project for testing purposes. Notify MTD, which will sample a bearing lower component at random from the lot, after bearings have been manufactured for a project. Forward selected samples (freight prepaid) to MTD, or to their contracted testing laboratory when directed. Lower componentsamples will be tested to the following:

- Tex-601-J, Part II—"Adhesion Test Method 2." Adhesion between the PTFE material and steel plate must meet a minimum 20 lb. per inch of width:
- Tex-601-J, Part III—"Chlorinated Compound Test Method 3." Laminated bearing pad elastomer must contain chlorinated compounds (neoprene); and
- PTFE physical properties in accordance with Table 1, with the exception of Melting Point Testing (ASTM D4894).

Costs associated with testing sliding elastomeric bearing lower component project samples failing to conform to these requirements are borne by the bearings manufacturer. This cost will be assessed at the rate established by Construction Division at the time of testing.

Section 434.3.3.2., "Testing and Acceptance." The last paragraph is voided.

Special Provision to Item 440 Reinforcement for Concrete



Item 440, "Standard Specification Title" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 440.2., "Materials" is supplemented with the following:

- 2.14. Provide zinc-coated, hot-dip galvanized Class I or II steel reinforcement conforming to ASTM A767, Grades 60 or 75 when shown on the plans and as allowed.
- 2.15. Provide continuously hot-dip galvanized reinforcement (CGR) conforming to ASTM A1094 steel reinforcement, Grades 60 or 75 when shown on the plans and as allowed.

Article 440.2.5., "Weldable Reinforcing Steel" is supplemented with the following:

All welding operations must be performed prior to hot-dip galvanizing.

Article 440.2.8., "Mechanical Couplers" is supplemented with the following:

Provide hot-dipped or mechanically galvanized couplers when splicing galvanized reinforcing or continuously galvanized reinforcing.

Article 440.2.11., "Low-Carbon, Chromium Reinforcing Steel." The first sentence is voided and replaced by the following:

Provide deformed steel bars conforming to ASTM A1035, Grade 100, Type CS when low-carbon, chromium reinforcing steel is required on the plans. Type CM will only be permitted if specified on the plans.

Article 440.3.1., "Bending" is supplemented with the following:

Do not bend hot-dip galvanized reinforcement. Only minor positioning adjustments are permitted.

Bending of continuously galvanized reinforcement is permitted after galvanizing.

Article 440.3.5, "Placing" the following will be added to paragraph four.

Use Class 1 or 1A supports with continuously galvanized reinforcing. Provide epoxy or plastic-coated tie wires and clips for use with epoxy coated reinforcing steel.

Article 440.3.6.3., "Repairing Coating" is supplemented with the following:

Repair damaged galvanized surfaces in accordance with Article 445.3.5.2. "Repair Processes."

Special Provision to Item 441 Steel Structures



Item 441, "Steel Structures" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 441.2.2.. Approved Electrodes and Flux-Electrode Combinations," is voided and replaced with the following:

Use only electrodes and flux-electrode combinations conforming to AWS A5 specifications, and pertinent classifications for the applicable welding processes. When requested, submit a current Certificate of Conformance (COC) containing all test results as required by the applicable AWS A5 specification and welding code. Provide proof of Buy America compliance for welding consumables when requested. For bridge main member fabrication, submit the COC annually.

Section 441.2.3., "High-Strength Bolts," is revised and replaced by the following:

Use fasteners that meet Item 447, "Structural Bolting." Use galvanized fasteners on field connections of bridge members when ASTM F3125-Grade A325 bolts are specified, and steel is painted.

Section 441.3.1.51., "Plants," The second and third paragraphs are voided and replaced with the following:

Fabrication plants that produce the following non-bridge steel members must be approved in accordance with DMS-7380, "Steel Non-Bridge Member Fabrication Plant Qualification."

- Item 610, "Roadway Illumination Poles"
- Item 613, "High Mast Illumination Poles"
- Item 614, "High Mast Rings and Support Assemblies"
- Item 650, "Overhead Sign Support Structures"
- Item 654, "Sign Walkways"
- Item 686, "Traffic Signal Poles"
- Special Specification 6064, "Intelligent Transportation System (ITS) Poles."

The Materials and Tests Division (MTD) maintains a list of approved non-bridge fabrication plants on the Department MPL that produce these members.

Section 441.3.1.6.1., "Erection Drawings," the third paragraph is voided and replaced with the following:

Perform erection engineering evaluation of the structural adequacy and stability of constructing the bridge system for each step of the steel erection.

Section 441.3.1.5.3., "Nondestructive Testing (NDT)," is voided and replaced with the following:

Personnel performing NDT must be qualified in accordance with the applicable AWS code and the employer's Written Practice. Level III personnel who qualifies Level I and Level II technicians must be certified by ASNT for which the NDT Level III is qualified. In addition, NDT technicians must pass hands-on tests that MTD administers. This will remain current provided they continue to perform testing on Department materials as evidenced by test reports requiring their signature. A technician who fails any of the hands-on tests must wait 3 mo. or as approved otherwise before retesting. Qualification to perform NDT will be revoked when the technician's employment is terminated or when the technician goes 6 mo. without performing a test on a Department project. The technician must pass a new hands-on test to be re-certified. Testing of similar weld joints for non-Department projects may be considered by the Engineer instead of re-testing provided enough documentation is submitted with the signature of the project's Engineer. These requirements also apply to testing agencies, and individual third-party contractors.

1 - 2 01-22 Statewide Section 441.3.1.5.4., "Welding Procedure Specification Qualification Testing," is voided and replaced by the following:

For Fabricators qualified in accordance with DMS-7370, DMS-7380, or DMS-7395, laboratories performing procedure qualification testing for welding procedure specifications (WPSs) must be accredited by a nationally recognized agency that performs testing in accordance with ISO/International Electrotechnical Commission (IEC) 17025 in the mechanical field of testing.

Section 441.3.1.9., "Material Identification," is amended to include the following paragraph:

Low-stress stencil marks must have a radius instead of a sharp point. Acceptable stencils include dot, vibration, and rounded-V stencils. Label these stencils so that they are easily distinguishable from other stencils that are not lowstress.

Section 441.3.2.4.1., "Flange Tilt," the last sentence is voided and replaced with the following:

Minor jacking that does not deform the material will be permitted.

Section 441.3.2.5.3., "Magnetic Particle Testing," is voided and replaced with the following:

Use alternating current (AC) when using the yoke method unless otherwise approved. Welds may be further evaluated with halfwave rectified DC for subsurface indications. Centerline cracking may be detected with aluminum prod method when approved.

Section 441.3.5.8., "Hammering," is added to state the following:

Do not perform hammering on any portion of the member that causes the material to permanently deform. Avoid damage to the material by measures such as use of brass or aluminum hammers or by padding the area to be hammered.

Section 441.3.8.1., "Shop Painting," is amended to include with the following paragraph:

Measure the anchor profile after blast cleaning at random locations along the thermal cut surfaces. If specified anchor profile is not achieved over the entire flame cut surface, grind the edges and re-blast to achieve the required anchor pattern.

Section 441.3.9., "Handling and Storage of Materials," The second sentence of the second paragraph is replaced by the following:

Keep materials clean and avoid damaging of the applied coating.

Special Provision to Item 442 Metal for Structures



Item 442, "Metal for Structures" of the Standard Specifications is amended with respect to the clause cited below. No other clauses or requirements of this Item are waived or changed.

Section 442.2.1.3.3., "Fasteners." The first sentence of the first paragraph is replaced by the following:

Fasteners. Provide high-strength bolts that meet ASTM F3125-Grade A325 unless otherwise shown on the plans.

Section 442.2.1.3.3., "Fasteners." The third paragraph is deleted and not replaced.

Special Provision to Item 446 Field Cleaning and Painting Steel



For this project, Item 446, "Field Cleaning and Painting Steel," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 446.4.1., "Qualification," the first and second paragraphs are voided and replaced by the following:

Submit to the Engineer documentation verifying SSPC QP 1 or NACE NIICAP AS-1 certification for work requiring the removal or application of coatings. Additionally, submit to the Engineer documentation verifying SSPC QP 2 Cat A or NACE NIICAP AS-2 certification when work requires removal of coatings containing hazardous materials. Maintain certifications throughout the project. No work may be performed without current and active certifications unless otherwise shown on the plans. The Engineer may waive certification requirements for minor, touch-up repair work and coating steel members repaired in accordance with Item 784, "Steel Member Repair."

The Engineer may waive certification requirements, when stated on the plans, for the purpose of qualification in either contractor certification program if the project has been accepted as a qualification project as part of the process for obtaining SSPC QP1 Cat A or NACE NIICAP AS-1 certification. Submit certification applications and proof of acceptance before beginning work or provide SSPC QP 7 certification when required on the plans.

Section 446.4.7.3.2., "Classes of Cleaning," is amended with the following:

Prepare all surfaces of painted steel members subsequently exposed from structural operations, such as deck removal or steel repair, in accordance with this Item. Prevent loose or damaged paint from entering the environment.

Special Provision to Item 448 Structural Field Welding



Item 448, "Structural Field Welding" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 448.2., "Materials," the third paragraph is voided and replaced with the following:

Use only electrodes and flux-electrode combinations conforming to AWS A5 specifications and pertinent classifications for the applicable welding processes. When requested, submit a current Certificate of Conformance (COC) containing acceptable wording indicating Buy America compliance and all tests required by the applicable AWS specifications and welding codes. Tests must be conducted on electrodes of the same class, size, and brand; and manufactured by the same process and with the same materials as the electrodes to be furnished.

Special Provision to Item 450 Railing



Item 450, "Railing" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 450.3.1.2, "Fabrication," is supplemented with the following.

Fabrication plants that produce metal railing (steel and aluminum) must be approved in accordance with DMS-7395, "Metal Railing Fabrication Plant Qualification." This required approval does not include fabricators of chain link fence. The Materials and Tests Division maintains a MPL of approved fabrication plants of metal railing.

Permanently mark each metal railing post base plate, at a visible location when erected, with the fabrication plant's insignia or trademark. For fabricated rail panels, provide this permanent mark on one post base plate, per panel.

Special Provision to Item 462 Concrete Box Culverts and Drains



Item 462, "Concrete Box Culverts and Drains," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 2.1., "General." The last paragraph is voided and replaced with the following:

Furnish material for precast formed and machine-made box culverts in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Sections 2.2.2., "Formed Precast," and 2.2.3., "Machine-Made Precast," are voided and replaced by the following.

2.2.2 **Precast.** Precast formed and machine –made box culvert fabrication plants must be approved in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures." The Construction Division maintains a list of approved precast box culvert fabrication plants on the Department's MPL. Fabricate precast boxes in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Sections 2.3.2., "Formed Precast," and 2.3.3., "Machine-Made Precast," are voided and replaced by the following.

2.3.2 **Precast.** Make, cure, and test compressive test specimens for precast formed and machine –made box culverts in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures.

Section 2.5., "Marking," the first paragraph is voided and replaced with the following.

Marking. Clearly mark each precast unit with the following:

- Name or trademark of fabricator and plant location;
- ASTM designation and product designation (when applicable);
- Date of manufacture,
- Box size,
- Minimum and maximum fill heights,
- Designation "TX" for precast units fabricated per DMS-7305.
- Fabricator's designated approval stamp for each approved unit,
- Designation "SR" for boxes meeting sulfate-resistant concrete plan requirements (when applicable), and
- Precast drainage structures used for jacking and boring (when applicable).

Section 2.6., "Tolerances." The section is voided and replaced with the following.

Ensure precast sections meet the permissible variations listed in ASTM C1577.

Ensure that the sides of a section at each end do not vary from being perpendicular to the top and bottom by more than 1/2 in. when measured diagonally between opposite interior corners. Deviations from this tolerance will be acceptable if the sections can be fitted at the plant and the joint opening at any point does not exceed 1 in. Use match-marks for proper installation on sections that have been accepted in this manner.

Ensure wall and slab thicknesses are not less than shown on the plans except for occasional deficiencies not greater than 3/16 in. or 5%, whichever is greater. If proper jointing is not affected, thicknesses in excess of plan requirements are acceptable.

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Section 2.7., "Defects and Repair." The section is voided and replaced with the following:

Fine cracks on the surface of members that do not extend to the plane of the nearest reinforcement are acceptable unless the cracks are numerous and extensive. Repair cracks that extend into the plane of the reinforcing steel in accordance with the Department's Concrete Repair Manual. The Engineer may accept boxes with repairs that are sound, properly finished, and cured in conformance with pertinent specifications. Discontinue further production of precast sections until corrections are made and proper curing is provided when fine cracks on the surface indicate poor curing practices.

Repair precast boxes in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Section 2.8., "Storage and Shipment." This section is voided and replaced with the following:

2.8 **Storage and Shipment.** Store precast sections on a level surface. Do not place any load on the sections until design strength is reached and curing is complete. Store and ship precast boxes in accordance with DMS-7305, "Fabrication and Qualification Production for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures.

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Special Provision to Item 464 Reinforced Concrete Pipe



Item 464, "Reinforced Concrete Pipe," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 2.1., "Fabrication." The section is voided and replaced with the following.

Fabrication plants must be approved by the Materials and Tests Division in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures," before furnishing precast reinforced concrete pipe for Departmental projects. The Department's MPL has a list of approved reinforced concrete pipe plants.

Furnish material and fabricate reinforced concrete pipe in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Section 2.3., "Marking." The first paragraph is voided and replaced with the following.

Furnish each section of reinforced concrete pipe marked with the following information specified in DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

- Class or D-Load of pipe,
- ASTM designation,
- Date of manufacture,
- Pipe size.
- Name or trademark of fabricator and plant location,
- Designation "TX" for precast units fabricated per DMS-7305;
- Designated fabricator's approval stamp for each approved unit,
- Pipe to be used for jacking and boring (when applicable), and
- Designation "SR" for pipe meeting sulfate-resistant concrete plan requirements (when applicable).

Section 2.5., "Causes for Rejection." The section is voided and replaced with the following.

Individual sections of pipe may be rejected for any of the conditions stated in the Annex of DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Section 2.6., "Repairs." The section is voided and replaced with the following:

Make repairs, if necessary, as stated in the Annex of DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Special Provision to Item 502 Barricades, Signs and Traffic Handling



Item 502, "Barricades, Signs and Traffic Handling" of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Article 502.1., "Description," is supplemented by the following:

Temporary work-zone (TWZ) traffic control devices manufactured after December 31, 2019, must have been successfully tested to the crashworthiness requirements of the 2016 edition of the Manual for Assessing Safety Hardware (MASH). Such devices manufactured on or before this date and successfully tested to NCHRP Report 350 or the 2009 edition of MASH may continue to be used throughout their normal service lives. An exception to the manufacture date applies when, based on the project's date of letting, a category of MASH-2016 compliant TWZ traffic control devices are not approved, or are not self-certified after the December 31, 2019, date. In such case, devices that meet NCHRP-350 or MASH-2009 may be used regardless of the manufacture date.

Such TWZ traffic control devices include: portable sign supports, barricades, portable traffic barriers designated exclusively for use in temporary work zones, crash cushions designated exclusively for use in temporary work zones, longitudinal channelizers, truck and trailer mounted attenuators. Category I Devices (i.e., lightweight devices) such as cones, tubular markers and drums without lights or signs attached however, may be self-certified by the vendor or provider, with documentation provided to Department or as are shown on Department's Compliant Work Zone Traffic Control Device List.

Article 502.4., "Payment," is supplemented by the following:

Truck mounted attenuators and trailer attenuators will be paid for under Special Specification, "Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)." Portable Changeable Message Signs will be paid for under Special Specification, "Portable Changeable Message Sign." Portable Traffic Signals will be paid for under Special Specification, "Portable Traffic Signals."

Special Provision to Item 506



Temporary Erosion, Sedimentation, and Environmental Controls

Item 506, "Temporary Erosion, Sedimentation, and Environmental Controls," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 506.1., "Description." The second paragraph is voided and replaced by the following.

Contractor is considered primary operator to have day-to-day operational control as defined in TPDES GP TXR150000.

- 1.1. For projects with soil disturbance of less than 1 acre, no submittal to TCEQ will be required but Contractor will follow SWP3. For projects with soil disturbance of 1 acre to less than 5 acres a small site notice will be posted at the site. For projects with soil disturbance of 5 acres or more a Notice of Intent (NOI) is required and a large site notice posted at site. Postings will be in accordance with TPDES GP TXR150000. Postings not associated with project specific locations will be in same location as Department's postings.
- 1.2. Notice of Intent (NOI). Submit a NOI, if applicable, with the TCEQ under the TPDES GP TXR150000 at least 7 days prior to commencement of construction activities at the project site. Provide a signed copy to the Engineer and any other MS4 operators at the time of submittal. The Department will submit their NOI prior to contractor submission and will provide a copy for Contractor's use in completing the Contractor's NOI form.
- **1.3. Notice of Change (NOC).** Upon concurrence of the Engineer, submit a NOC, if applicable, to the TCEQ within 14 days of discovery of a change or revision to the NOI as required by the TPDES GP TXR150000. Provide a signed copy of the NOC to the Engineer and any other MS4 operators at the time of submittal.
- **1.4. Notice of Termination (NOT).** Upon concurrence of the Engineer, submit a NOT, if applicable, to the TCEQ within 30 days of the Engineer's approval that 70% native background vegetative cover is met or equivalent permanent stabilization have been employed in accordance with the TPDES GP TXR 150000. Provide a signed copy of the NOT to the Engineer and any other MS4 operators at the time of submittal.

Section 506.3.1, "Contractor Responsible Person Environmental (CRPE) Qualifications and Responsibilities," is supplemented by the following:

3.1. Contractor Responsible Person Environmental (CRPE) Qualifications and Responsibilities. Provide and designate in writing at the preconstruction conference a CRPE and alternate CRPE who have overall responsibility for the storm water management program. The CRPE will implement stormwater and erosion control practices; will oversee and observe stormwater control measure monitoring and management; will monitor the project site daily and produce daily monitoring reports as long as there are BMPs in place or soil disturbing activities are evident to ensure compliance with the SWP3 and TPDES General Permit TXR150000. Daily monitor reports shall be maintained and made available upon request. During time suspensions when work is not occurring or on contract non-work days, daily inspections are not required unless a rain event has occurred. The CRPE will provide recommendations on how to improve the effectiveness of control measures. Attend the Department's preconstruction conference for the project. Ensure training is completed as identified in Section 506.3.3., "Training," by all applicable personnel before employees work on the project. Document and maintain and make available upon request, a list, signed by the CRPE, of all applicable Contractor and subcontractor employees who have completed the training. Include the employee's name, the training course name, and date the employee completed the training.

Section 506.3.3., "Training," is supplemented by the following:

Training is provided by the Department at no cost to the Contractor and is valid for 3 yr. from the date of completion. The Engineer may require the following training at a frequency less than 3 yr. based on environmental needs:

- "Environmental Management System: Awareness Training for the Contractor" (English and Spanish) (Approximate running time 20 min.), and
- "Storm Water: Environmental Requirements During Construction" (English and Spanish) (Approximate running time 20 min.).

The Contractor responsible person environmental (CRPE), alternate CRPE designated for emergencies, Contractor's superintendent, Contractor, and subcontractor lead personnel involved in soil disturbing or SWP3 activities must enroll in and complete the training listed below and maintain and make available upon request the certificate of completion. Training is provided by a third party and is valid for 3 yr. from the date shown on the Certificate of Completion. Coordinate enrollment as prescribed by the Department and pay associated fees for the following training:

- "Revegetation During Construction,"
- "Construction General Permit Compliance," and
- "Construction Stage Gate Checklist (CSGC)."

Training and associated fee will not be measured or paid for directly but are subsidiary to this Item.

Special Provision to Item 520 Weighing and Measuring Equipment



Item 520, "Weighing and Measuring Equipment" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 520.2., "Equipment." The third paragraph is voided and replaced by the following.

Calibrate truck scales using weights certified by the Texas Department of Agriculture (TDA) or an equivalent agency as approved. Provide a written calibration report from a scale mechanic for truck scale calibrations. Cease plant operations during the checking operation. Do not use inaccurate or inadequate scales. Bring performance errors as close to zero as practicable when adjusting equipment.

Article 520.2., "Equipment." The fourth paragraph is amended to include the following:

At the Contractors option, an electronic ticket delivery system (e-ticketing) may be used instead of printed tickets. The use of eticketing will require written approval of the Engineer. At a minimum, the approved system will:

- Provide electronic, real-time e-tickets meeting the requirements of the applicable bid items;
- Automatically generate e-tickets using software and hardware fully integrated with the automated scale system used to weigh the material, and be designed in such a way that data input cannot be altered by the Contractor or the Engineer;
- Provide the Engineer access to the e-ticketing data in real-time with a web-based or app-based system compatible with iOS;
- Provide offline capabilities to prevent data loss if power or connectivity is lost;
- Require both the Contractor and the Engineer to accept or reject the e-ticket and provide the ability to record the information required by the applicable bid items, as well as any comments. Record the time of the approval/rejection and include it in the summary spreadsheet described below. Provide each party the capability to edit their respective actions and any entered information;

The Contractor may discontinue use of the e-ticket system and provide printed tickets as needed to meet the requirements of the applicable bid items.

Special Provision to Item 540 Metal Beam Guard Fence



Item 540, "Metal Beam Guard Fence" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 540.4.7, "Measurement," is voided and replaced with the following:

Long Span System. Measurement will be by each long span system, complete in place. Each long span system will be from the first CRT to the last CRT in the system.

Special Provision to Item 636 Signs



Item 636, "Signs" of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 636.3.1, "Fabrication." is deleted.

Section 636.3.1.2, "Sheeting Application." The last sentence of the fourth paragraph is voided and replaced by the following.

Do not splice sheeting or overlay films for signs fabricated with ink or with colored transparent films.

Special Provision to Item 643 Sign Identification Decals



Item 643, "Sign Identification Decals," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 2. "Materials." The sign identification decal design shown in Figure 1 and the description for each row in Table 1 are supplemented by the following.

	J F M A M J J A S O N D 201 202 203 204 205 3 204 205 3 3 3 4 5 6 7 8 9															
С				Fal	oricat	ion D	ate				T	1				
J	F	М	Α	М	J	J	Α	S	0	N	D	2				
	20	01	20)2	20	03	20)4	20)5		3				
	0	1	2	3	4	5	6	7	8	9		4				
			Sh	eetin	g MF	R - Sı	ubstra	ate								
Α	В															
					Film	MFR										
Α																
			S	heeti	ng MI	FR - L	egen	d								
Α	В	С	D	Е	F	G	Н	J	K	L	М	7				
			1	Ins	tallat	ion D	ate				•					
				0	1	2	3					8				
	0	1	2	3	4	5	6	7	8	9		9				
J	F	М	Α	М	J	J	Α	S	0	N	D	10				
	20	01	20)2	20	03	20	04	20	05		11				
	0 1 2 3 4 5 6 7 8 9															
				Phy	/sical	Addr	oricat ess Code					13				

Figure 1
Decal Design (Row numbers explained in Table 1)

Table 1 Decal Description

Row Explanation
1 – Sign fabricator
2 – Month fabricated
3 – First 3 digits of year fabricated
4 – Last digit of year fabricated
5 – Manufacturer of the sheeting applied to the substrate
6 – Film (colored transparent or non-reflective black) manufacturer
7 – Manufacturer of the sheeting for the legend
8 – Tens digit of date installed
9 - Ones digit of date installed
10 – Month installed
11 – First 3 digits of year installed
12 – Last digit of year installed
13 – Name of sign fabricator and physical location of sign shop

Special Provision to Item 656 Foundations for Traffic Control Devices



Item 656, "Foundations for Traffic Control Devices" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 3. "Construction.," the first paragraph is supplemented by the following:

Ensure the top of the foundation and anchor bolts meet specified requirements in relation to the final grade.

Special Provision to Item 666 **Retroreflectorized Pavement Markings**



Item 666, "Retroreflectorized Pavement Markings," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 2.3., "Glass Traffic Beads." The first paragraph is voided and replaced by the following:

Furnish drop-on glass beads in accordance with DMS-8290, "Glass Traffic Beads," or as approved. Furnish a double-drop of Type II and Type III drop-on glass beads for longitudinal pavement markings where each type bead is applied separately in equal portions (by weight), unless otherwise approved. Apply the Type III beads before applying the Type II beads. Furnish Type II beads for work zone pavement markings and transverse markings or symbols.

Section 4.3.1., "Type I Markings.," is supplemented by the following:

4.3.1.3. Spot Striping. Perform spot striping on a callout basis with a minimum callout quantity as shown on the plans.

Section 4.3.2., "Type II Markings.," is supplemented by the following:

4.3.2.1. Spot Striping. Perform spot striping on a callout basis with a minimum callout quantity as shown on the plans.

Section 4.4., "Retroreflectivity Requirements.," is voided and replaced by the following.

Type I markings for Contracts totaling more than 20,000 ft. of pavement markings must meet the following minimum retroreflectivity values for all longitudinal edgeline, centerline or no passing barrier-line, and lane line markings when measured any time after 3 days, but not later than 10 days after application.

- White markings: 250 millicandelas per square meter per lux (mcd/m²/lx)
- Yellow markings: 175 mcd/m²/lx

Retroreflectivity requirements for Type I markings are not required for Contracts with less than 20,000 ft. of pavement markings or Contracts with callout work, unless otherwise shown on the plans.

Section 4.5., "Retroreflectivity Measurements.," is voided and replaced by the following:

Use a mobile retroreflectometer to measure retroreflectivity for Contracts totaling more than 50,000 ft. of pavement markings, unless otherwise shown on the plans. For Contracts with less than 50,000 ft. of pavement markings, mobile or portable retroreflectometers may be used at the Contractor's discretion. Coordinate with and obtain authorization from the Engineer before starting any retroreflectivity data collection.

Section 4.5.1., "Mobile Retroreflectometer Measurements." The last paragraph is voided and replaced by the following.

Restripe again at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking material if the average of these measurements falls below the minimum retroreflectivity requirements. Take measurements every 0.1 miles a minimum of 10 days after this third application within that mile segment for that series of markings. If the markings do not meet minimum retroreflectivity after this third application, the Engineer may require removal of all existing markings, a new application as initially specified, and a repeat of the application process until minimum retroreflectivity requirements are met.

Section 4.5.2., "Portable Retroreflectometer Measurements." The first and second paragraphs are voided and replaced by the following.

Provide portable measurement averages for every 1.0 mile unless otherwise specified or approved. Take a minimum of 20 measurements for each 1-mi. section of roadway for each series of markings (e.g., edgeline, center skip line, each line of a double line) and direction of traffic flow when using a portable reflectometer. Measure each line in both directions for centerlines on two-way roadways (i.e., measure both double solid lines in both directions and measure all center skip lines in both directions). The spacing between each measurement must be at least 100 ft. The Engineer may decrease the mileage frequency for measurements if the previous measurements provide satisfactory results. The Engineer may require the original number of measurements if concerns arise.

Restripe at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking material if the averages of these measurements fail. Take a minimum of 10 more measurements after 10 days of this second application within that mile segment for that series of markings. Restripe again at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking material if the average of these measurements falls below the minimum retroreflectivity requirements. If the markings do not meet minimum retroreflectivity after this third application, the Engineer may require removal of all existing markings, a new application as initially specified, and a repeat of the application process until minimum retroreflectivity requirements are met.

Section 4.6. "Performance Period." The first sentence is voided and replaced by the following:

All longitudinal markings must meet the minimum retroreflectivity requirements within the time frame specified. All markings must meet all other performance requirements of this specification for at least 30 calendar days after installation.

Article 6. "Payment." The first two paragraphs are voided and replaced by the following.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Pavement Sealer" of the size specified; "Retroreflectorized Pavement Markings" of the type and color specified and the shape, width, size, and thickness (Type I markings only) specified, as applicable; "Retroreflectorized Pavement Markings with Retroreflective Requirements" of the types, colors, sizes, widths, and thicknesses specified; "Retroreflectorized Profile Pavement Markings" of the various types, colors, shapes, sizes, and widths specified; or "Reflectorized Pavement Marking (Call Out)" of the shape, width, size, and thickness (Type I markings only) specified, as applicable; or "Pavement Sealer (Call Out)" of the size specified.

This price is full compensation for materials, application of pavement markings, equipment, labor, tools, and incidentals.

Special Provision to Special Specification 6185 Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)



Item 6185, "Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)" of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Article 4. "Measurement", is voided and replaced by the following:

- 4.1. **Truck Mounted Attenuator/Trailer Attenuator (Stationary).** This Item will be measured by the day. TMA/TAs must be set up in a work area and operational before a calendar day can be considered measureable. A day will be measured for each TMA/TA set up and operational on the worksite.
- 4.2. **Truck Mounted Attenuator/Trailer Attenuator (Mobile Operation).** This Item will be measured by the hour or by the day. The time begins once the TMA/TA is ready for operation at the predetermined site and stops when notified by the Engineer. When measurement by the hour is specified, a minimum of 4 hr. will be paid each day for each operating TMA/TA used in a mobile operation. When measurement by the day is specified, a day will be measured for each TMA/TA set up and operational on the worksite.

Special Specification 3096 Asphalts, Oils, and Emulsions



1. DESCRIPTION

Provide asphalt cements, cutback and emulsified asphalts, performance-graded asphalt binders, and other miscellaneous asphalt materials as specified on the plans.

2. MATERIALS

Provide asphalt materials that meet the stated requirements when tested in conformance with the referenced Department, AASHTO, and ASTM test methods. Use asphalt containing recycled materials only if the recycled components meet the requirements of Article 6.9., "Recycled Materials." Provide asphalt materials that the Department has preapproved for use in accordance with Tex-545-C, "Asphalt Binder Quality Program."

Inform the Department of all additives or modifiers included in the asphalt binder as part of the facility quality plan, as required by Tex-545-C, "Asphalt Binder Quality Program," and provide that information to Department personnel. The Department reserves the right to prohibit the use of any asphalt additive or modifier.

Limit the use of polyphosphoric acid to no more than 0.5% by weight of the asphalt binder.

The use of re-refined engine oil bottoms is prohibited.

Acronyms used in this Item are defined in Table 1.

Table1 Acronyms

Acronym	Definition
Autonym	Test Procedure Designations
Tex	Department Designations
TorR	AASHTO
D	ASTM
5	Polymer Modifier Designations
P	polymer-modified
SBR or L	styrene-butadiene rubber (latex)
SBS	styrene-butadiene-styrene block co-polymer
TR	tire rubber (from ambient temperature grinding of truck and
	passenger tires)
AC	asphalt cement
AE	asphalt emulsion
AE-P	asphalt emulsion prime
A-R	asphalt-rubber
С	cationic
EAP&T	emulsified asphalt prime and tack
EBL	emulsified bonding layer
FDR	full depth reclamation
H-suffix	harder residue (lower penetration)
HF	high float
HY	high yield
MC	medium-curing
MS	medium-setting
PCE	prime, cure, and erosion control
PG	performance grade
RC	rapid-curing
RS	rapid-setting
S-suffix	stockpile usage
SCM	special cutback material
SS	slow-setting
SY	standard yield
TRAIL	tracking resistant asphalt interlayer

2.1. **Asphalt Cement**. Provide asphalt cement that is homogeneous, water-free, and nonfoaming when heated to 347°F, and meets the requirements in Table 2.

Table 2
Asphalt Cement

Asphalt Cement											
	Tool				V	iscosit	y Grad	le			
Property	Test	AC-	-0.6	AC-	-1.5	AC	2-3	AC	C-5	AC	-10
	Procedure	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Viscosity	T 202										
140°F, poise		40	80	100	200	250	350	400	600	800	1,200
275°F, poise		0.4	-	0.7	-	1.1	-	1.4	-	1.9	-
Penetration, 77°F, 100g,	T 49	350		250		210		135		85	
5 sec.	1 43	330	_	230	_	210	-	155	_	00	_
Flash point, C.O.C., °F	T 48	425	-	425	-	425	-	425	_	450	-
Solubility in	T 44	99.0	_	99.0	_	99.0	_	99.0	_	99.0	_
trichloroethylene, %	1 77	33.0		33.0		33.0		33.0		33.0	
Spot test	<u>Tex-509-C</u>	Ne	eg.	Ne	eg.	Ne	eg.	Ne	eg.	Ne	eg.
Tests on residue from											
RTFOT:	T 240										
Viscosity, 140°F, poise	T 202	-	180	-	450	_	900	_	1,500	-	3,000
Ductility, ¹ 77°F	T 51	100	_	100	_	100	_	100	_	100	_
5 cm/min., cm	1 31	100	_	100	_	100	_	100	_	100	_

1. If AC-0.6 or AC-1.5 ductility at 77°F is less than 100 cm, material is acceptable if ductility at 60°F is more than 100 cm.

2.2. Polymer-Modified Asphalt Cement. Provide polymer-modified asphalt cement that is smooth, homogeneous, and meets the requirements Table 3. Supply samples of the base asphalt cement and polymer additives if requested.

> Table 3 **Polymer-Modified Asphalt Cement**

Property	Test			Olymor-II	loaifiea A			Viscosity	Grade				
	Procedure	AC-12	2-5TR	NT-	HA ¹	AC-		AC-2		AC-10	-2TR	AC-20	-5TR
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Polymer		TF	₹				3S	SE	S	TF	₹	TF	₹
Polymer content, % (solids basis)	<u>Tex-533-C</u> or <u>Tex-553-C</u>	5.0	-	_	_	3.0	_	-	-	2.0	-	5.0	ı
Dynamic shear, G*/sinδ, 82°C, 10 rad/s, kPa	T 315			1.0	-								
Dynamic shear, G*/sinδ, 64°C, 10 rad/s, kPa	T 315	_	_	_	_	_	_	1.0	_	_	_	1.0	-
Dynamic shear, G*/sinδ, 58°C, 10 rad/s, kPa	T 315	1.0	_	_	_	_	_	_	_	1.0	_	_	_
Viscosity 140°F, poise 275°F, poise	T 202 T 202	1,200	-	-	4,000	1,500 –	_ 8.0	2,000	- -	1,000	_ 8.0	2,000	_ 10.0
Penetration, 77°F, 100 g, 5 sec.	T 49	110	150	_	25	100	150	75	115	95	130	75	115
Ductility, 5cm/min., 39.2°F, cm	T 51					_	_	-	-	_	-	_	-
Elastic recovery, 50°F, %	<u>Tex-539-C</u>	55	-			55	_	55	_	30	-	55	-
Softening point, °F	T 53	113	_	170	-	-	_	120	-	110	-	120	-
Polymer separation, 5 hr.	<u>Tex-540-C</u>	No	ne			No	one	No	ne	Noi	ne	Noi	ne
Flash point, C.O.C., °F	T 48	425	-	425	_	425	_	425	-	425	-	425	_
Tests on residue from RTFOT aging and pressure aging:	T 240 and R 28												
Creep stiffness S, -18°C, MPa m-value, -18°C	T 313	- 0.300	300 -	_ _	_ _	- 0.300	300 -	0.300	300 -	- 0.300	300 -	- 0.300	300

^{1.} Non-Tracking Hot Applied Tack Coat - TRAIL product

2.3. Cutback Asphalt. Provide cutback asphalt that meets the requirements of Tables 4, 5, and 6, for the specified type and grade. Supply samples of the base asphalt cement and polymer additives if requested.

Table 4
Rapid-Curing Cutback Asphalt

Property	Test Procedure			Type-0	Grade		
		RC	-250	RC-	·800	RC-	3000
		Min	Max	Min	Max	Min	Max
Kinematic viscosity, 140°F, cSt	T 201	250	400	800	1,600	3,000	6,000
Water, %	D95	_	0.2	_	0.2	_	0.2
Flash point, T.O.C., °F	T 79	80	1	80	_	80	_
Distillation test:	T 78						
Distillate, percentage by volume of total							
distillate to 680°F							
to 437°F		40	75	35	70	20	55
to 500°F		65	90	55	85	45	75
to 600°F		85	-	80	_	70	-
Residue from distillation, volume %		70	-	75	-	82	-
Tests on distillation residue:							
Viscosity, 140°F, poise	T 202	600	2,400	600	2,400	600	2,400
Ductility, 5 cm/min., 77°F, cm	T 51	100	_	100	_	100	_
Solubility in trichloroethylene, %	T 44	99.0	-	99.0	_	99.0	-
Spot test	<u>Tex-509-C</u>	N	eg.	Ne	eg.	Ne	eg.

Table 5 Medium-Curing Cutback Asphalt

Property	Test	t Type-Grade									
, ,	Procedure	MC	C-30	MC-	-250	MC-	800	MC-	3000		
		Min	Max	Min	Max	Min	Max	Min	Max		
Kinematic viscosity, 140°F, cSt	T 201	30	60	250	500	800	1,600	3,000	6,000		
Water, %	D95	_	0.2	_	0.2	_	0.2	-	0.2		
Flash point, T.O.C., °F	T 79	95	_	122	-	140	_	149	-		
Distillation test: Distillate, percentage by volume of total distillate to 680°F to 437°F to 500°F to 600°F Residue from distillation, volume %	Т 78	- 30 75 50	35 75 95 –	- 5 60 67	20 55 90 –	- - 45 75	- 40 85 -	- - 15 80	- 15 75 -		
Tests on distillation residue: Viscosity, 140°F, poise Ductility, 5 cm/min., 77°F, cm Solubility in	T 202 T 51 T 44	300 100 99.0	1,200 - -	300 100 99.0	1,200 - -	300 100 99.0	1,200 - -	300 100 99.0	1,200 - -		
trichloroethylene, % Spot test	<u>Tex-509-C</u>	N	ı eg.	Ne	ı eg.	Ne	ı g.	Ne	eg.		

Table 6 Special-Use Cutback Asphalt

Property	Test			Туре	-Grade		
	Procedure	MC-2	2400L	SC	CM I	SC	CM II
		Min	Max	Min	Max	Min	Max
Kinematic viscosity, 140°F, cSt	T 201	2,400	4,800	500	1,000	1,000	2,000
Water, %	D95	_	0.2	-	0.2	_	0.2
Flash point, T.O.C., °F	T 79	150	_	175	_	175	_
Distillation test:	T 78						
Distillate, percentage by volume of							
total distillate to 680°F							
to 437°F		_	_	_	_	_	_
to 500°F		_	35	_	0.5	_	0.5
to 600°F		35	80	20	60	15	50
Residue from distillation, volume %		78	_	76	_	82	_
Tests on distillation residue:							
Polymer		SE	3R		_		_
Polymer content, % (solids basis)	Tex-533-C	2.0	_	_	_	_	_
Penetration, 100 g, 5 sec., 77°F	T 49	150	300	180	_	180	_
Ductility, 5 cm/min., 39.2°F, cm	T 51	50	_	_	_	_	_
Solubility in trichloroethylene, %	T 44	99.0	_	99.0	_	99.0	_

2.4. **Emulsified Asphalt**. Provide emulsified asphalt that is homogeneous, does not separate after thorough mixing, and meets the requirements for the specified type and grade in Tables 7, 8, 9, 10, and 10A-C.

Table 7 Emulsified Asphalt

Property	Test			inea Asp		Type-G	rade				
, ,	Procedure	Rapid-S	Setting		Mediun	n-Setting			Slow-S	Setting	
		HFR	S-2	MS	S-2	AES-	-300	SS	S-1	SS	-1H
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Viscosity, Saybolt Furol	T 72										
77°F, sec.		-	_	_	-	75	400	20	100	20	100
122°F, sec.		150	400	100	300	-	_	-	-	-	_
Sieve test, %	T 59	-	0.1	_	0.1	-	0.1	-	0.1	_	0.1
Miscibility	T 59	_			-	_		Pa	ass	Pa	ass
Cement mixing, %	T 59	-	-	-	-	-	-	-	2.0	-	2.0
Coating ability and water	T 59										
resistance:											
Dry aggregate/after spray		_		-		Good/		-	-	-	-
Wet aggregate/after spray		_	-		_	Fair/	Fair	-	-	-	-
Demulsibility, 35 mL of 0.02	T 59	50	-	-	30	-	-	-	-	_	_
N CaCl ₂ , %											
Storage stability, 1 day, %	T 59	_	1	_	1	-	1	1	1	_	1
Freezing test, 3 cycles ¹	T 59	_		Pa	ISS	-		Pa	ass	Pa	ass
Distillation test:	T 59										
Residue by distillation, %		65	_	65	-	65	_	60	_	60	-
by wt.											
Oil distillate, % by volume		-	0.5	_	0.5	-	5	-	0.5	_	0.5
of emulsion											
Tests on residue from											
distillation:											
Penetration, 77°F, 100 g,	T 49	100	140	120	160	300	_	120	160	70	100
5 sec.											
Solubility in	T 44	97.5	-	97.5	-	97.5	-	97.5	-	97.5	_
trichloroethylene, %											
Ductility, 77°F, 5 cm/min.,	T 51	100	_	100	-	_	_	100	-	80	_
cm											
Float test, 140°F, sec.	T 50	1,200	_	-	-	1,200	_	-	-	-	-

Applies only when the Engineer designates material for winter use.

Table 8
Cationic Emulsified Asphalt

Property	Test				iioiiica r		Тур	e-Grade)				
	Procedure		Rapid-S	Setting			Medium	-Setting			Slow-S	Setting	
		CF	RS-2	CRS	5-2H	CN	IS-2	CMS	S-2S	CSS	S-1	CSS	-1H
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Viscosity, Saybolt Furol	T 72												
77°F, sec.		_	_	_	-	-	-	_	_	20	100	20	100
122°F, sec.		150	400	150	400	100	300	100	300	_	_	_	-
Sieve test, %	T 59	-	0.1	-	0.1	-	0.1	-	0.1	_	0.1	_	0.1
Cement mixing, %	T 59	-	_	-	ı	-	-	-	_	_	2.0	_	2.0
Coating ability and water resistance:	T 59												
Dry aggregate/after spray		-		_		Good/Fair		Good/Fair		-		_	-
Wet aggregate/after spray			_		-	Fair	/Fair	Fair	/Fair	_		_	-
Demulsibility, 35 mL of 0.8%	T 59	70	_	70	-	-	-	-	_	_	-	_	-
Sodium dioctyl sulfosuccinate, %													
Storage stability, 1 day, %	T 59	-	1	-	1	-	1	-	1	-	1	-	1
Particle charge	T 59	Pos	sitive	Pos	itive	Pos	sitive	Pos	itive	Posi	tive	Posi	tive
Distillation test:													
Residue by distillation, % by wt.	T 59	65	_	65	-	65	-	65	_	60	_	60	-
Oil distillate, % by volume of	1 33	_	0.5	_	0.5	-	7	-	5	_	0.5	_	0.5
emulsion													
Tests on residue from distillation:													
Penetration, 77°F, 100 g, 5 sec.	T 49	120	160	70	110	120	200	300	_	120	160	70	110
Solubility in trichloroethylene, %	T 44	97.5	-	97.5	-	97.5	_	97.5	_	97.5	-	97.5	_
Ductility, 77°F, 5 cm/min., cm	T 51	100	-	80	-	100	-		_	100	-	80	-

Table 9 Polymer-Modified Emulsified Asphalt

Property	Test	'	.y	ullied Elliu	1011104 710		e-Grade				
. ,	Procedure	Rapid-	Setting		Medium	n-Setting			Slow-	-Setting	
		HFR	S-2P	AES-	150P	AES-	300P	AES-3	300S	S	S-1P
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Viscosity, Saybolt Furol	T 72										
77°F, sec.		-	-	75	400	75	400	75	400	30	100
122°F, sec.		150	400					-	-	-	_
Sieve test, %	T 59	-	0.1	-	0.1	-	0.1	-	0.1	-	0.1
Miscibility	T 59		_	-	_		_	-		F	Pass
Coating ability and water resistance:											
Dry aggregate/after spray	T 59		_	Good	d/Fair	Good	d/Fair	Good/F	air		_
Wet aggregate/after spray			_	Fair	/Fair	Fair	/Fair	Fair/F	air		_
Demulsibility, 35 mL of 0.02 N CaCl ₂ ,	T 59	50	-	-	-	-	-	-	-	-	-
%											
Storage stability, 1 day, %	T 59	-	1	-	1	-	1	-	1	-	1
Breaking index, g	<u>Tex-542-C</u>	-	-								
Distillation test:1	T 59										
Residue by distillation, % by wt.		65	-	65	-	65	-	65	-	60	_
Oil distillate, % by volume of		-	0.5	-	3	-	5	-	7	-	0.5
emulsion											
Tests on residue from distillation:											
Polymer content, wt. % (solids	<u>Tex-533-C</u>	3.0	-	-	-	-	-	-	-	3.0	_
basis)											
Penetration, 77°F, 100 g, 5 sec.	T 49	90	140	150	300	300	-	300	-	100	140
Solubility in trichloroethylene, %	T 44	97.0	-	97.0	-	97.0	-	97.0	-	97.0	_
Viscosity, 140°F, poise	T 202	1,500	-	-	-	-	-	-	-	1,300	_
Float test, 140°F, sec	T 50	1,200	-	1,200	-	1,200	_	1,200	-	-	_
Ductility, ² 39.2°F, 5 cm/min., cm	T 51	50	-	_	-	_	_	-	-	50	_
Elastic recovery, 250°F, %	<u>Tex-539-C</u>	55	_	_	-	-	_	-	-		-
Tests on RTFO curing of distillation residue	T 240										
100.000	Tov 526 C			50		50		20			
Elastic recovery, 50°F, %	<u>Tex-536-C</u>	_	-	50	-	50	-	30	-	_	-

Exception to T 59: Bring the temperature on the lower thermometer slowly to 350°F ±10°F. Maintain at this temperature for 20 min. Complete total distillation in 60 min. (±5 min.) from the first application of heat.

 HFRS-2P must meet one of either the ductility or elastic recovery requirements.

Table 10 Polymer-Modified Cationic Emulsified Asphalt

Property	Test	Test Type-Grade											
	Procedure			Rapid-S	etting				Medium	-Setting	1	Slow-	Setting
		CRS-	-2P	CHFR	S-2P	CRS-2	2TR	CMS	S-1P3	CM	S-2P ³	CS	S 1P
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Viscosity, Saybolt Furol	T 72												
77°F, sec.		-	_	_	_	-	_	10	100	-	_	20	100
122°F, sec.		150	400	100	400	150	500	_	_	50	400	_	-
Sieve test, %	T 59	-	0.1	-	0.1	_	0.1	_	0.1	_	0.1	-	0.1
Demulsibility, 35 ml of 0.8% sodium	T 59	70	-	60	_	40	-	-	_	-	-	_	-
dioctyl sulfosuccinate, %													
Storage stability, 1 day, %	T 59	-	1	-	1	-	1	-	1	_	1	-	1
Breaking index, g	<u>Tex-542-C</u>	-	_	-	-	-	-	-	-	_	_	-	-
Particle charge	T 59	Posit	tive	Posi	tive	Posit	ive	Pos	sitive	Po	sitive	Po	sitive
Distillation test1:	T 59												
Residue by distillation, % by weight		65	_	65	_	65	-	30	_	60	-	62	-
Oil distillate, % by volume of emulsion		-	0.5	-	0.5	-	3	-	0.5	_	0.5	-	0.5
Tests on residue from distillation:													
Polymer content, wt. % (solids basis)	<u>Tex-533-C</u>	3.0	_	3.0	-	5.07	-	_	-	_	_	3.0	-
Penetration, 77°F, 100 g, 5 sec.	T 49	90	150	80	130	90	150	30	_	30	_	55	90
Viscosity, 140°F, poise	T 202	1,300	_	1,300	_	1,000	-	_	_	-	_		-
Solubility in trichloroethylene, %	T44	97.0	_	95.0	_	98	-	_	_	-	-	97.0	-
Softening point, °F	T 53	-	_	-	-	-	_	_	_	_	_	135	-
Ductility, 77°F, 5 cm/min., cm	T 51	-	_	-	-	40	-	_	_	_	_	70	-
Float test, 140°F, sec.	T 50	-	_	1,800	-	_	_	_	_	_	_	_	-
Ductility, ² 39.2°F, 5 cm/min., cm	T 51	50 55	_	- 55	_	_	_	_	_	_	_	_	-
Elastic recovery, 2 50°F, %	<u>Tex-539-C</u> R 78.	55	_	55	-	_		_	_	-		_	-
Tests on residue from evaporative	Procedure												
recovery:	B												
Nonrecoverable creep compliance of	T 350	_	_		_	_	_	_	2.0	_	4.0	_	_
residue, 3.2 kPa, 52°C, kPa-1	1 330	_	_	_	_	_	_	_	2.0	_	4.0	_	_
Tests on rejuvenating agent:													
Viscosity, 140°F, cSt	T 201	_	_	_	_	_	_	50	175	50	175	_	_
Flash point, C.O.C., °F	T 48	_	_	_	_	_	_	380	_	380	_	_	_
Saturates, % by weight	D 2007	_	_	_	_	_	_	_	30	_	30	_	_
Solubility in n-pentane, % by weight	D 2007	-	_	_	_	_	_	99	_	99	_	_	_
Tests on rejuvenating agent after RTFO	T 240												
Weight Change, %		-	_	_	_	_	-	_	6.5	-	6.5	_	-
Viscosity Ratio		-	_	_	_	_	-	_	3.0	-	3.0	_	
Tests on latex4:													
Tensile strength, die C dumbbell, psi	D 412 ⁵	-	_	_	_	_	-	800	_	800	-	_	-
Change in mass after immersion in	D 471	-	_	_	_	_	_	_	406	-	406	_	-
rejuvenating agent, %													

- Exception to T 59: Bring the temperature on the lower thermometer slowly to 350°F (±0°F). Maintain at this temperature for 20 min. Complete total distillation in 60 min. (±5 min.) from the first application of heat.
- CRS-2P must meet one of either the ductility or elastic recovery requirements.
- With all precertification samples of CMS-1P or CMS-2P, submit certified test reports showing that the rejuvenating agent and latex meet the stated 3. requirements. Submit samples of these raw materials if requested by the Engineer.
- Preparation of latex specimens: use any substrate and recovery method which produces specimens of uniform dimensions and which delivers enough material to achieve desired residual thickness.
- Cut samples for tensile strength determination using a crosshead speed of 20 in. per minute.
- Specimen must remain intact after exposure and removal of excess rejuvenating agent. 6.
- Modifier type is tire rubber.

Table 10A
Non-Tracking Tack Coat Emulsion¹

Property	Test Procedure	NT-	HRE	NT-RR	E	NT-	SRE
		Min	Max	Min	Max	Min	Max
Viscosity, Saybolt Furol	T 72	15	-	15	-	10	100
77° F, sec.							
Storage stability, 1 Day, %	T 59	-	1	-	1	-	1
Settlement, 5-day, %	T 59	-	5	-	5	-	5
Sieve test, %	T 59	-	0.30	-	0.30	-	0.1
Distillation test:2	T 59						
Residue by distillation, % by wt.		50	_	58	_	50	_
Oil distillate, by volume of emulsion		_	1.0	_	1.0	_	1.0
Test on residue from distillation:							
Penetration, 77°F, 100 g, 5 sec.	T 49	_	20	15	45	40	90
Solubility in trichloroethylene, %	T 44	97.5	_	97.5	_	97.5	_
Softening point, °F	T 53	150	_	_	-	_	_
Dynamic shear, G*/sin(δ), 82°C, 10	T 315	1.0	_	_	_	_	_
rad/s, kPa							

- 1. Due to the hardness of the residue, these emulsions should be heated to 120-140°F before thoroughly mixing as the emulsion is being prepared for testing.
- 2. Exception to T 59: Bring the temperature on the lower thermometer slowly to 350°F ± 10°F. Maintain at this temperature for 20 min. Complete total distillation in 60 ± 5 min. from first application of heat.

Table10B
Spray Applied Underseal Membrane Polymer-Modified Emulsions (EBL)

Property	Test Procedure	Min	Max
Viscosity @ 77°F, SSF	T 72	20	100
Storage Stability ¹ , %	T 59	_	1
Demulsibility ²	T 59	55	-
Anionic emulsions – 35 mL of 0.02 N CaCl2, %			
Cationic emulsions – 35 mL of 0.8% sodium			
dioctyl sulfosuccinate, %			
Sieve Test ³ , %	T 59	_	0.05
Distillation Test ⁴	T 59		
Residue by distillation, % by wt.		63	
Oil portion of distillate, % by vol.			0.5
Test on Residue from Distillation			
Elastic Recovery @ 50°F, 50 mm/min., %	<u>Tex-539-C</u>	60	_
Penetration @ 77°F, 100 g, 5 sec., 0.1 mm	T 49	80	130

- After standing undisturbed for 24 hr., the surface must be smooth, must not exhibit a white or milky colored substance, and must be a homogeneous color throughout.
- 2. Material must meet demulsibility test for emulsions.
- 3. May be required by the Engineer only when the emulsion cannot be easily applied in the field.
- 4. The temperature on the lower thermometer should be brought slowly to 350°F ± 10°F and maintained at this temperature for 20 min. The total distillation should be completed in 60 ± 5 min. from the first application of heat.

Table 10C Full-Depth Reclamation Emulsion (FDR EM)

Property	Test Procedure	Standard	Yield (SY)	High	Yield (HY)
, ,		Min	Max	Min	Max
Sieve test, %	T 59	_	0.1	_	0.1
Viscosity Saybolt Furol @ 77°F, sec.	T 59	20	100	20	100
Distillation test1:	T 59				
Residue by distillation, % by wt.		60	_	63	_
Oil portion of distillate, % by vol.		-	0.5	-	0.5
Test on residue from distillation:	T 49				
Penetration @ 77°F, dmm		55	95	120	_
Test on rejuvenating agent:					
BWOA, % ²	***	_	_	2	_
Viscosity @ 140°F, cSt	T 201	_	_	50	175
Flash Point, COC, °F	T 48	_	_	380	_
Solubility in n-pentane, % by wt.	D2007	_	_	99	_

- The temperature on the lower thermometer should be brought slowly to 350°F ±10°F and maintained at this temperature for 20 min. The total distillation should be completed in 60 ± 5 min. from the first application of heat.
- 2. BWOA = By weight of asphalt. Provide a manufacturer's certificate of analysis (COA) with the percent of rejuvenator added.

2.5. **Specialty Emulsions.** Provide specialty emulsion that is either asphalt-based or resin-based and meets the requirements of Table 11 or Table 11A.

Table 11
Specialty Emulsions

Property	Test Procedure			Type-0	Grade			
			Medium-	Setting		Slow-	Setting	
		AE-	P	EA	P&T	PCE ¹		
		Min	Max	Min	Max	Min	Max	
Viscosity, Saybolt Furol	T 72							
77°F, sec.		_	_	_	_	10	100	
122°F, sec.		15	150	_	-	_	-	
Sieve test, %	T 59	_	0.1	_	0.1	_	0.1	
Miscibility ²	T 59	-		Pass		Pass		
Demulsibility, 35 mL of 0.10 N CaCl ² , %	T 59	-	70	_	_	_	-	
Storage stability, 1 day, %	T 59	-	1	_	1	_	-	
Particle size, ⁵ % by volume < 2.5 μm	<u>Tex-238-F</u> ³	-	-	90	_	90	-	
Asphalt emulsion distillation to 500°F								
followed by Cutback asphalt distillation of	T 59 & T 78							
residue to 680°F:								
Residue after both distillations, % by wt.		40	_	_	_	_	-	
Total oil distillate from both distillations, %		25	40	_	_	_	-	
by volume of emulsion								
Residue by distillation, % by wt.	T 59	-	-	60	-	_	-	
Residue by evaporation, ⁴ % by wt.	T 59	-	_	_	-	60	-	
Tests on residue after all distillations:								
Viscosity, 140°F, poise	T 202	_	_	800	_	_	-	
Kinematic viscosity,5 140°F, cSt	T 201	-	_	_	_	100	350	
Flash point C.O.C., °F	T 48	_	_	_	_	400	-	
Solubility in trichloroethylene, %	T 44	97.5	_	_	_	_	-	
Float test, 122°F, sec.	T 50	50	200	_	_	_	-	

- 1. Supply with each shipment of PCE:
 - a copy of a lab report from an approved analytical lab, signed by a lab official, indicating the PCE formulation does not meet any characteristics of a Resource Conservation Recovery Act (RCRA) hazardous waste;
 - a certification from the producer that the formulation supplied does not differ from the one tested and that no listed RCRA hazardous wastes or Polychlorinated Biphenyls (PCBs) have been mixed with the product; and
 - a Safety Data Sheet.
 - 2. Exception to T 59: In dilution, use 350 mL of distilled or deionized water and a 1,000-mL beaker.
 - 3. Use <u>Tex-238-F</u>, beginning at "Particle Size Analysis by Laser Diffraction," with distilled or deionized water as a medium and no dispersant, or use another approved method.
 - 4. Exception to T 59: Leave sample in the oven until foaming ceases, then cool and weigh.
 - 5. PCE must meet either the kinematic viscosity requirement or the particle size requirement.

Table 11A Hard Residue Surface Sealant

Property	Test	Min	Max				
. ,	Procedure						
Viscosity, Krebs unit, 77°F, Krebs units	D 562	45	75				
Softening point, °F	Tex-505-C ¹	250	-				
Uniformity	D 2939	Pa	SS ²				
Resistance to heat	D 2939	Pa	SS ³				
Resistance to water	D 2939	Pa	ss ⁴				
Wet flow, mm	D 2939	_	0				
Resistance to Kerosene (optional) ⁵	D 2939	Pass ⁶					
Ultraviolet exposure, UVA-340, 0.77 W/m ² ,	G 154	Pa	Pass ⁸				
50°C chamber, 8 hr. UV lamp, 5 min. spray,							
3 hr. 55 min. condensation, 1,000 hr. total							
exposure ⁷							
Abrasion loss, 1.6 mm thickness, liquid only, %	ISSA TB-100	-	1.0				
Residue by evaporation, % by weight	D 2939	33	-				
Tests on residue from evaporation:							
Penetration, 77°F, 100 g, 5 sec.	T 49 15 3						
Flash point, Cleveland open cup, °F	T 48	500					
Tests on base asphalt before emulsification							
Solubility in trichloroethylene, %	T 44	98	_				

- 1. Cure the emulsion in the softening point ring in a 200°F \pm 5°F oven for 2 hr.
- 2. Product must be homogenous and show no separation or coagulation that cannot be overcome by moderate stirring.
- 3. No sagging or slippage of film beyond the initial reference line.
- 4. No blistering or re-emulsification.
- 5. Recommended for airport applications or where fuel resistance is desired.
- 6. No absorption of Kerosene into the clay tile past the sealer film. Note sealer surface condition and loss of adhesion.
- 7. Other exposure cycles with similar levels of irradiation and conditions may be used with Department approval.
- 8. No cracking, chipping, surface distortion, or loss of adhesion. No color fading or lightening.
- 2.6. **Recycling Agent**. Recycling agent and emulsified recycling agent must meet the requirements in Table 12. Additionally, recycling agent and residue from emulsified recycling agent, when added in the specified proportions to the recycled asphalt, must meet the properties specified on the plans.

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Table 12 Recycling Agent and Emulsified Recycling Agent

Property	Test Procedure	,		Recyclin	sified ng Agent A-1)	Polymer Modified Emulsified Recycling Agent (ARA-1P)		
		Min	Max	Min	Max	Min	Max	
Viscosity, Saybolt Furol, 77°F, sec.	T 72	-	-	15	100	15	110	
Sieve test, %	T 59	-	-	1	0.1	_	0.1	
Miscibility ¹	T 59		_	No coa	gulation			
Residue by evaporation, ² % by wt.	T 59	-	_	60	-	_	-	
Distillation test: Residue by distillation, % by wt. Oil distillate, % by volume of emulsion	T 59					60 -	65 2	
Penetration of Distillation Residue at 39.2°F, 100 g, 5 sec.	T 49					110	190	
Tests on recycling agent or residue from evaporation: Flash point, C.O.C., °F Kinematic viscosity,	T 48 T 201	400	_	400	_	400	-	
140°F, cSt 275°F, cSt	. 201	75 –	200 10.0	75 -	200 10.0			

- Exception to T 59: Use 0.02 N CaCl2 solution in place of water.
- Exception to T 59: Maintain sample at 300°F until foaming ceases, then cool and weigh.
- 2.7. Crumb Rubber Modifier. Crumb rubber modifier (CRM) consists of automobile and truck tires processed by ambient temperature grinding.

CRM must be:

- free from contaminants including fabric, metal, and mineral and other nonrubber substances;
- free-flowing; and
- nonfoaming when added to hot asphalt binder.

Ensure rubber gradation meets the requirements of the grades in Table 13 when tested in accordance with Tex-200-F, Part I, using a 50-g sample.

Table 13 **CRM Gradations**

Sieve Size	Grad	e A	Gra	Grade B		e C	Grade D	Grade E			
(% Passing)	Min	Max	Min	Max	Min	Max					
#8	100	_	_	_	_	_					
#10	95	100	100	_	-	_					
#16	-	_	70	100	100	_	As shown on	As approved			
#30	_	-	25	60	90	100	the plans				
#40	_	-	-	-	45	100		i			
#50	0	10	_	_	_	_					
#200	-	_	0	5	_	_					

2.8. Crack Sealer. Provide polymer-modified asphalt-emulsion crack sealer meeting the requirements of Table 14. Provide rubber-asphalt crack sealer meeting the requirements of Table 15.

Table 14 Polymer-Modified Asphalt-Emulsion Crack Sealer

r orymer mounted repriate Emalorem Grack Gealer											
Property	Test Procedure	Min	Max								
Rotational viscosity, 77°F, cP	D 2196, Method A	10,000	25,000								
Sieve test, %	T 59	_	0.1								
Storage stability, 1 day, %	T 59	-	1								
Evaporation	<u>Tex-543-C</u>										
Residue by evaporation, % by wt.		65	-								
Tests on residue from evaporation:											
Penetration, 77°F, 100 g, 5 sec.	T 49	35	75								
Softening point, °F	T 53	140	_								
Ductility, 39.2°F, 5 cm/min., cm	T 51	100	-								

Table 15 Rubber-Asphalt Crack Sealer

Property	Test	Clas	ss A	Clas	ss B
	Procedure	Min	Max	Min	Max
CRM content, Grade A or B, % by wt.	<u>Tex-544-C</u>	22	26	_	_
CRM content, Grade B, % by wt.	<u>Tex-544-C</u>	_	-	13	17
Virgin rubber content,1 % by wt.		_	-	2	_
Flash point, ² C.O.C., °F	T 48	400	-	400	_
Penetration, ³ 77°F, 150 g, 5 sec.	T 49	30	50	30	50
Penetration, ³ 32°F, 200 g, 60 sec.	T 49	12	-	12	_
Softening point, °F	T 53	ı	-	170	-
Bond Test, non-immersed, 0.5 in specimen,					
50% extension, 20°F4	D5329	-	-	Pa	iss

- Provide certification that the Min % virgin rubber was added.
- Agitate the sealing compound with a 3/8- to 1/2 in. (9.5- to 12.7 mm) wide, square-end metal spatula to bring the material on the bottom of the cup to the surface (i.e., turn the material over) before passing the test flame over the cup. Start at one side of the thermometer, move around to the other, and then return to the starting point using 8 to 10 rapid circular strokes. Accomplish agitation in 3 to 4 sec. Pass the test flame over the cup immediately after stirring is completed.
- Exception to T 49: Substitute the cone specified in D 217 for the penetration needle.
- Allow no crack in the crack sealing materials or break in the bond between the sealer and the mortar blocks over 1/4 in. deep for any specimen after completion of the test.
- 2.9. Asphalt-Rubber Binders. Provide asphalt-rubber (A-R) binders that are mixtures of asphalt binder and CRM, which have been reacted at elevated temperatures. Provide A-R binders meeting D6114 and containing a minimum of 15% CRM by weight. Provide Types I or II, containing CRM Grade C, for use in hotmixed aggregate mixtures. Provide Types II or III, containing CRM Grade B, for use in surface treatment binder. Ensure binder properties meet the requirements of Table 16.

Table 16 A-R Binders

Property	Test Binder Type							
	Procedure	Тур	e I	Тур	e II	Type III		
		Min	Max	Min	Max	Min	Max	
Apparent viscosity, 347°F, cP	D2196,	1,500	5,000	1,500	5,000	1,500	5,000	
	Method A							
Penetration, 77°F, 100 g, 5 sec.	T 49	25	75	25	75	50	100	
Penetration, 39.2°F, 200 g, 60 sec.	T 49	10	_	15	_	25	_	
Softening point, °F	T 53	135	_	130	_	125	_	
Resilience, 77°F, %	D5329	25	_	20	_	10	_	
Flash point, C.O.C., °F	T 48	450	_	450	_	450	_	
Tests on residue from Thin-Film	T 179							
Oven Test:								
Retained penetration ratio, 39.2°F, 200 g, 60 sec., % of original	T 49	75	_	75	_	75	_	

2.10. Performance-Graded Binders. Provide PG binders that are smooth and homogeneous, show no separation when tested in accordance with <u>Tex-540-C</u>, and meet the requirements of Table 17.

Separation testing is not required if:

- a modifier is introduced separately at the mix plant either by injection in the asphalt line or mixer,
- the binder is blended on site in continuously agitated tanks, or
- binder acceptance is based on field samples taken from an in-line sampling port at the hot-mix plant after the addition of modifiers.

Table 17 Performance-Graded Binders

Property and Test Method	Performance Grade																	
. ,		PG 58			P	G 64			PC	3 70			PG	76			PG 82	
	-22	-28	-34	-16	-22	-28	-34	-16	-22	-28	-34	-16	-22	-28	-34	-16	-22	-28
Average 7-day max pavement design temperature, °C1		58			64				70			76				82		
Min pavement design temperature, °C1	-22	-28	-34	-16	-22	-28	-34	-16	-22	-28	-34	-16	-22	-28	-34	-16	-22	-28
	Original Binder																	
Flash point, T 48, Min, °C		230																
Viscosity, T 316 ^{2, 3} :									13)E								
Max, 3.0 Pa s, test temperature, °C									13	55								
Dynamic shear, T 3154:																		
G*/sin(δ), Min, 1.00 kPa, Max, 2.00		F0				C 4			-	70			7	·C			00	
kPa ⁷ ,		58				64				70			/	'6			82	
Test temperature @ 10 rad/sec., °C																		
Elastic recovery, D6084, 50°F, % Min8	_	-	30	_	_	30	50	_	30	50	60	30	50	60	70	50	60	70
Rolling Thin-Film Oven (Tex-506-C)																		
Mass change, T 240, Max, %		1.0																
Dynamic shear, T 315:																		
G*/sin(δ), Min, 2.20 kPa, Max, 5.00 kPa ⁷ .		58		64			70			76			82					
Test temperature @ 10 rad/sec., °C																		
MSCR, T350, Recovery, 0.1 kPa, High			20			20	30		20	30	40	20	30	40	50	30	40	50
Temperature, % Min ⁸	_	_	20	_	_	20	30	_	20	30	40	20	30	40	50	30	40	50
				Pre	ssure /	Aging V	essel (PA	V) Resid	lue (R 2	8)		•	•					
PAV aging temperature, °C									10	00								
Dynamic shear, T 315:																		
G*sin(δ), Max, 5,000 kPa	25	22	19	28	25	22	19	28	25	22	19	28	25	22	19	28	25	22
Test temperature @ 10 rad/sec., °C																		
Creep stiffness, T 3135, 6:																		
S, max, 300 MPa,	-12	-18	-24	-6	-12	-18	-24	-6	-12	-18	-24	-6	-12	-18	-24	-6	-12	-18
<i>m</i> -value, Min, 0.300	-12	-10	-24	-0	-12	-10	-24	-0	-12	-10	-24	-0	-12	-10	-24	-0	-12	-10
Test temperature @ 60 sec., °C																		
Direct tension, T 3146:																		
Failure strain, min, 1.0%	-12	-18	-24	-6	-12	-18	-24	-6	-12	-18	-24	-6	-12	-18	-24	-6	-12	-18
Test temperature @ 1.0 mm/min., °C																		

- Pavement temperatures are estimated from air temperatures and using an algorithm contained in a Department-supplied computer program, may be provided by the Department, or by following the procedures outlined in AASHTO MP 2 and PP 28.
- This requirement may be waived at the Department's discretion if the supplier warrants that the asphalt binder can be adequately pumped, mixed, and compacted at temperatures that meet all applicable safety, environmental, and constructability requirements. At test temperatures where the binder is a Newtonian fluid, any suitable standard means of viscosity measurement may be used, including capillary (T 201 or T 202) or rotational viscometry (T 316).
- Viscosity at 135°C is an indicator of mixing and compaction temperatures that can be expected in the lab and field. High values may indicate high mixing and compaction temperatures. Additionally, significant variation can occur from batch to batch. Contractors should be aware that variation could significantly impact their mixing and compaction operations. Contractors are therefore responsible for addressing any constructability issues that may arise.
- For quality control of unmodified asphalt binder production, measurement of the viscosity of the original asphalt binder may be substituted for dynamic shear measurements of G*/sin(δ) at test temperatures where the asphalt is a Newtonian fluid. Any suitable standard means of viscosity measurement may be used. including capillary (T 201 or T 202) or rotational viscometry (T 316).
- Silicone beam molds, as described in AASHTO TP 1-93, are acceptable for use.
- If creep stiffness is below 300 MPa, direct tension test is not required. If creep stiffness is between 300 and 600 MPa, the direct tension failure strain requirement can be used instead of the creep stiffness requirement. The m value requirement must be satisfied in both cases.
- Maximum values for unaged and RTFO aged dynamic shear apply only to materials used as substitute binders, as described in Item 340, "Dense-Graded Hot-Mix Asphalt (Small Quantity)", Item 341, "Dense-Graded Hot-Mix Asphalt, and Item 344, "Superpave Mixtures."
- Elastic Recovery (ASTM D6084) is not required unless MSCR (AASHTO T 350) is less than the minimum % recovery. Elastic Recovery must be used for the acceptance criteria in this instance.

3. **EQUIPMENT**

Provide all equipment necessary to transport, store, sample, heat, apply, and incorporate asphalts, oils, and emulsions.

4. CONSTRUCTION

Typical Material Use. Use materials shown in Table 18, unless otherwise determined by the Engineer.

Table18
Typical Material Use

Material Application	Typical Material Use Typically Used Materials					
Hot-mixed, hot-laid asphalt mixtures	PG binders, A-R binders Types I and II					
	AC-5, AC-10, AC-15P, AC-20XP, AC-10-2TR, AC-20-5TR,					
Surface treatment	HFRS-2, MS-2, CRS-2, CRS-2H, CRS-2TR, CMS-2P HFRS-2P,					
	CRS-2P, CHFRS-2P, A-R binders Types II and III					
Surface treatment (cool weather)	AC12-5TR, RC-250, RC-800, RC-3000, MC-250, MC-800,					
Surface treatment (cool weather)	MC-3000, MC-2400L, CMS-2P					
Precoating	AC-5, AC-10, PG 64-22, SS-1, SS-1H, CSS-1, CSS-1H					
Tack coat	PG Binders, SS-1H, CSS-1H, EAP&T, TRAIL, EBL					
Fog seal	SS-1, SS-1H, CSS-1, CSS-1H, CMS-1P					
Hot-mixed, cold-laid asphalt	AC-0.6, AC-1.5, AC-3, AES-300, AES-300P, CMS-2, CMS-2S					
mixtures	AC-0.0, AC-1.3, AC-0, ALG-300, ALG-300F, CIVIG-2, CIVIG-23					
Patching mix	MC-800, SCM I, SCM II, AES-300S					
Recycling	AC-0.6, AC-1.5, AC-3, AES-150P, AES-300P, recycling agent,					
recycling	emulsified recycling agent					
Crack sealing	SS-1P, polymer mod AE crack sealant, rubber asphalt crack					
	sealers (Class A, Class B)					
Microsurfacing	CSS-1P					
Prime	MC-30, AE-P, EAP&T, PCE					
Curing membrane	SS-1, SS-1H, CSS-1, CSS-1H, PCE					
Erosion control	SS-1, SS-1H, CSS-1, CSS-1H, PCE					
FDR -Foaming	PG 64-22, FDR EM-SY, FDR EM-HY					

4.1. **Storage and Application Temperatures**. Use storage and application temperatures in accordance with Table 19. Store and apply materials at the lowest temperature yielding satisfactory results. Follow the manufacturer's instructions for any agitation requirements in storage. Manufacturer's instructions regarding recommended application and storage temperatures supersede those of Table 19.

Table19 **Storage and Application Temperatures**

	Application		Storage
Type-Grade	Recommended Range (°F)	Max Allowable (°F)	Max (°F)
AC-0.6, AC-1.5, AC-3	200–300	350	350
AC-5, AC-10	275–350	350	350
AC-15P, AC-20-5TR, AC12-5TR and AC10-2TR	300–375	375	360
RC-250	125–180	200	200
RC-800	170–230	260	260
RC-3000	215–275	285	285
MC-30, AE-P	70–150	175	175
MC-250	125–210	240	240
MC-800, SCM I, SCM II	175–260	275	275
MC-3000, MC-2400L	225–275	290	290
HFRS-2, MS-2, CRS-2, CRS-2H, HFRS-2P, CRS-2P, CMS-2, CMS-2S, AES-300, AES-300S, AES-150P, AES-300P, CRS-2TR	120–160	180	180
SS-1, SS-1H, CSS-1, CSS-1H, PCE, EAP&T, SS-1P, RS-1P, CRS-1P, CSS-1P, recycling agent, emulsified recycling agent, polymer mod AE crack sealant	50–130	140	140
PG binders	275–350	350	350
Rubber asphalt crack sealers (Class A, Class B)	350–375	400	_
A-R binders Types I, II, and III	325-425	425	425

5. **MEASUREMENT AND PAYMENT**

The work performed, materials furnished, equipment, labor, tools, and incidentals will not be measured or paid for directly but is subsidiary or is included in payment for other pertinent Items.

Special Specification 4171 Install Bridge Identification Numbers



1. **DESCRIPTION**

This item will govern for the installation of bridge identification numbers on bridge structures in accordance with this specification, project plans, or as directed.

2. **MATERIALS**

Furnish materials that conform to the pertinent requirement of the following items:

- stencil ink, black 11 oz., spray can (lead, CFC, and CFHC free). Black spray will be waterproof, weather resistance and dry instantly on all surfaces, without smearing, smudging or rippling and
- brass stencil, 3 in., numbers and letters, adjustable interlocking stencil, set content 92 piece numbers and letters, legend height 3 in., symbol height 3 in. Stencils must be industrial grade and interlocking.

3. **WORK METHODS**

Install bridge identification numbers according to the requirements shown on the plans, and the following:

Clean the surface thoroughly before applying the painted structure number including removal of existing structure number by chemical cleaning, or by water blasting according to Item 427, if required.

4. **MEASUREMENT**

This Item will be measured by each bridge identification number installed.

5. **PAYMENT**

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Installing Bridge Identification Numbers." This price must be full compensation for removing existing bridge identification numbers, cleaning and preparing surfaces, and furnishing all materials, equipment, labor and incidentals necessary to complete the work.

Special Specification 6001 Portable Changeable Message Sign



1. DESCRIPTION

Furnish, operate, and maintain portable trailer mounted changeable message sign (PCMS) units.

2. MATERIALS

Furnish new or used material in accordance with the requirements of this Item and the details shown on the plans. Provide a self-contained PCMS unit with the following:

- Sign controller
- Changeable Message Sign
- Trailer
- Power source

Paint the exterior surfaces of the power supply housing, supports, trailer, and sign with Federal Orange No. 22246 or Federal Yellow No. 13538 of Federal Standard 595C, except paint the sign face assembly flat black.

- 2.1. Sign Controller. Provide a controller with permanent storage of a minimum of 75 pre-programmed messages. Provide an external input device for random programming and storage of a minimum of 75 additional messages. Provide a controller capable of displaying up to 3 messages sequentially. Provide a controller with adjustable display rates. Enclose sign controller equipment in a lockable enclosure.
- 2.2. **Changeable Message Sign**. Provide a sign capable of being elevated to at least 7 ft. above the roadway surface from the bottom of the sign. Provide a sign capable of being rotated 360° and secured against movement in any position.

Provide a sign with 3 separate lines of text and 8 characters per line minimum. Provide a minimum 18 in. character height. Provide a 5×7 character pixel matrix. Provide a message legibility distance of 600 ft. for nighttime conditions and 800 ft. for normal daylight conditions. Provide for manual and automatic dimming light sources.

The following are descriptions for 3 screen types of PCMS:

- Character Modular Matrix. This screen type comprises of character blocks.
- Continuous Line Matrix. This screen type uses proportionally spaced fonts for each line of text.
- **Full Matrix**. This screen type uses proportionally spaced fonts, varies the height of characters, and displays simple graphics on the entire sign.
- 2.3. **Trailer**. Provide a 2 wheel trailer with square top fenders, 4 leveling jacks, and trailer lights. Do not exceed an overall trailer width of 96 in. Shock mount the electronics and sign assembly.
- 2.4. **Power Source**. Provide a diesel generator, solar powered power source, or both. Provide a backup power source as necessary.
- 2.5. **Cellular Telephone**. When shown on the plans, provide a cellular telephone connection to communicate with the PCMS unit remotely.

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3. CONSTRUCTION

Place or relocate PCMS units as shown on the plans or as directed. The plans will show the number of PCMS units needed, for how many days, and for which construction phases.

Maintain the PCMS units in good working condition. Repair damaged or malfunctioning PCMS units as soon as possible. PCMS units will remain the property of the Contractor.

4. MEASUREMENT

This Item will be measured by each PCMS or by the day used. All PCMS units must be set up on a work area and operational before a calendar day can be considered measurable. When measurement by the day is specified, a day will be measured for each PCMS set up and operational on the worksite.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Portable Changeable Message Sign." This price is full compensation for PCMS units; set up; relocating; removing; replacement parts; batteries (when required); fuel, oil, and oil filters (when required); cellular telephone charges (when required); software; and equipment, materials, tools, labor, and incidentals.

2

Special Specification 6185



Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)

1. DESCRIPTION

Furnish, operate, maintain and remove upon completion of work, Truck Mounted Attenuator (TMA) or Trailer Attenuator (TA).

2. MATERIALS

Furnish, operate and maintain new or used TMAs or TAs. Assure used attenuators are in good working condition and are approved for use. A list of approved TMA/TA units can be found in the Department's Compliant Work Zone Traffic Control Devices List. The host vehicle for the TMA and TA must weigh a minimum of 19,000 lbs. Host vehicles may be ballasted to achieve the required weight. Any weight added to the host vehicle must be properly attached or contained within it so that it does not present a hazard and that proper energy dissipation occurs if the attenuator is impacted from behind by a large truck. The weight of a TA will not be considered in the weight of the host vehicle but the weight of a TMA may be included in the weight of the host vehicle. Upon request, provide either a manufacturer's curb weight or a certified scales weight ticket to the Engineer.

3. CONSTRUCTION

Place or relocate TMA/TAs as shown on the plans or as directed. The plans will show the number of TMA/TAs needed, for how many days or hours, and for which construction phases.

Maintain the TMA/TAs in good working condition. Replace damaged TMA/TAs as soon as possible.

4. MEASUREMENT

- 4.1. **Truck Mounted Attenuator/Trailer Attenuator (Stationary).** This Item will be measured by the each or by the day. TMA/TAs must be set up in a work area and operational before a calendar day can be considered measurable. When measurement by the day is specified, a day will be measured for each TMA/TA set up and operational on the worksite.
- 4.2. **Truck Mounted Attenuator/Trailer Attenuator (Mobile Operation).** This Item will be measured by the hour. The time begins once the TMA/TA is ready for operation at the predetermined site and stops when notified by the Engineer. A minimum of 4 hr. will be paid each day for each operating TMA/TA used in a mobile operation.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Truck Mounted Attenuators/Trailer Attenuators (Stationary)," or "Truck Mounted Attenuators/Trailer Attenuators (Mobile Operation)." This price is full compensation for furnishing TMA/TA: set up; relocating; removing; operating; fuel; and equipment, materials, tools, labor, and incidentals.

