

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

**ADDISON AIRPORT
GEORGE HADDAWAY RECONSTRUCTION**

**TOWN OF ADDISON, TEXAS
PUBLIC WORKS AND ENGINEERING SERVICES
BID NUMBER 20-94**

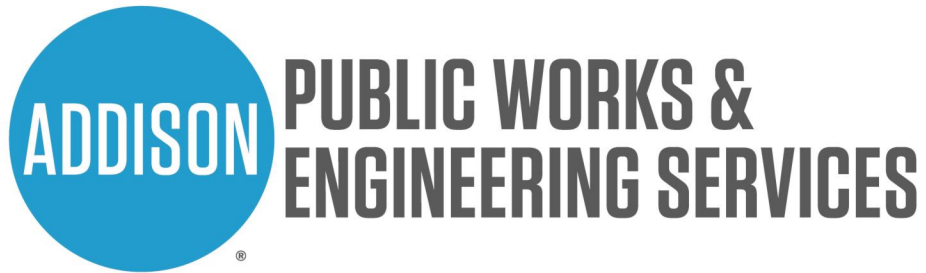
MARCH 2020

PREPARED BY



**3010 Gaylord Parkway, Suite 190
Frisco, Texas 75034
(972) 377-7480**

**GARVER PROJECT NO.
19A11000 (Work Order No. 2)**



TOWN OF ADDISON, TEXAS

MAYOR

Joe Chow

COUNCIL MEMBERS

Ivan Hughes

Tom Braun

Paul Walden

Lori Ward

Guillermo Quintanilla

Marlin Willeesen

CITY MANAGER

Wesley S. Pierson

DIRECTOR OF PUBLIC WORKS AND ENGINEERING SERVICES

Lisa Pyles

CAPITAL/DEVELOPMENT PROJECTS MANAGER

Wilson Kakembo, P.E.

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SECTION AB

ADVERTISEMENT FOR BIDS

ADVERTISEMENT FOR BIDS

1. The Town of Addison is requesting bids for the Bid of the Addison Airport George Haddaway Reconstruction project. **Bids will be accepted until 2:00 p.m., Thursday, April 2, 2020 Thursday, April 16th** at the Finance Building, 5350 Belt Line Rd., Dallas, Texas 75254 – Attention Purchasing Department, at which time responders names and bids will be publicly read aloud. Late bids will not be considered. The plans, specifications, quantities, pre-bid time and date, and other information are available on www.bidsync.com. The plans, specifications, and quantities for the work to be done are also on file with, Town of Addison, 16801 Westgrove Drive, Addison, Texas 75001, and such plans, specifications, and quantities may be examined without charge. The Town of Addison reserves the right to waive any formalities, to reject any and all bids, and to select the proposal deemed most advantageous to the Town of Addison.
2. The Contractor shall identify his bid on the outside of the envelope by writing the words **PUBLIC WORKS AND ENGINEERING SERVICES BID NUMBER 20-94, ADDISON AIRPORT GEORGE HADDAWAY RECONSTRUCTION**

PAPER BIDS SHALL BE REQUIRED.

3. Bids shall be accompanied by a ~~cashier's check or certified check upon a national or state bank bid bond~~ in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, or a bid bond in the same amount from a reliable surety company licensed by the State of Texas to act as a Surety and be listed on the current U.S. Treasury Listing of Approved Sureties, or a Binder of Insurance executed by a surety company licensed by the State of Texas to act as a surety or its authorized agent as a guarantee that the bidder will enter into a contract and execute a Performance Bond within ten (10) days after notice of award of contract to him.
4. Plans, specifications and bidding documents may be downloaded from www.bidsync.com. The Town of Addison is a "free buyer", meaning that prospective bidders need only a free registration to sign up for plan updates. Bidders assume all risk for acquiring specs and/or plans from third party sites and plan rooms, as only Bidsync.com will be directly updated by Addison.
5. The right is reserved by the Mayor and the City Council as the interests of the City may require to reject any or all bids and to waive any formality in bids received and to select the proposal deemed most advantageous to the City.
6. The Bidder (Proposer) must supply all the information required by the Proposal Form.
7. A Performance Bond, Labor and Material Payment Bond, and Maintenance Bond will be required by the Owner; each Bond shall be in the amount of 100% of the total contract amount. Bonds shall be issued by a surety company licensed by the State of Texas to act as a Surety and be listed on the current U.S. Treasury Listing of Approved Sureties.
8. The Bidder (Proposer) must supply all the information required by the Bidder Qualification Statement.
9. ~~An optional pre bid meeting will be held on Tuesday, March 24, 2020 at 10:00am at the Addison Airport, Large Conference Room located at 16051 Addison Rd. Suite #220 Addison, TX 75001. A site visit on the Airport will follow this meeting.~~ **Due to COVID-19 the Pre-Bid meeting will be rescheduled to be held by teleconference on Tuesday, March 31st at 10:30am. Contact Sara Andrews at SCAndrews@GarverUSA.com if you would like to receive a formal meeting invitation to the Pre-**

Bid Meeting. Please use the following information to access the pre-bid by teleconference and use the link to the Microsoft Teams Meeting to see the screen sharing during the meeting:

Call in number: +1 501-214-8852 United States, Little Rock (Toll)

Conference ID: 640 855 606#

Join Microsoft Teams Meeting by going to the following site:

https://teams.microsoft.com/dl/launcher/launcher.html?url=%2f%23%2f%2fmeetup-join%2f19%3ameeting_NDQ3YTk5YTgtZDIyNy00NWM0LThlOGUtMDNjYTYzNTYwYWMy%40thread.v2%2f0%3fcontext%3d%257b%2522Tid%2522%253a%2522010ef57c-44e0-4679-81fc-a39704ee3f36%2522%252c%2522Oid%2522%253a%25220deb3af9-14c8-4f00-9b16-4e86ed15d0b1%2522%257d%26CT%3d1585093075559%26OR%3dOutlook-Body%26CID%3d25A8E92B-1980-4D09-A956-19A2F10D0F8A%26anon%3dtrue&type=meetup-join&deeplinkId=38161e54-07e5-4beb-817b-e1aa1ec8adc4&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

10. For information on bidding or work to be performed, please submit all questions on Bidsync. **All questions must be received by 5:00pm on Friday, ~~March 27, 2020~~ April 10, 2020. All questions received by this deadline will be answered by 5:00pm on Tuesday, ~~March 31, 2020~~ April 14, 2020.**
11. The project consists three reconstruction areas. Base Bid consists of the concrete reconstruction of the George Haddaway Drive from Taxiway A to the George Haddaway access Gate off Addison Road. Bid Alternate No. 1 consists of the concrete reconstruction of the airfield Fuel Farm Turn Around near George Haddaway Drive. Bid Alternate No. 2 consists of the concrete reconstruction of the George Haddaway Drive from the access gate to Addison Road.

SECTION IB

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

- A. PROJECT: ADDISON AIRPORT GEORGE HADDAWAY RECONSTRUCTION**, in the Town of Addison. The bids will be evaluated as stated in Section "O" of these Instructions to Bidders.
- B. PROJECT DESCRIPTION:** The project consists three reconstruction areas. Base Bid consists of the concrete reconstruction of the George Haddaway Drive from Taxiway A to the George Haddaway access Gate off Addison Road. Bid Alternate No. 1 consists of the concrete reconstruction of the airfield Fuel Farm Turn Around near George Haddaway Drive. Bid Alternate consists of the concrete reconstruction of the George Haddaway Drive from the access gate to Addison Road.
- C. PROPOSALS:** Proposals must be in accordance with these instructions in order to receive consideration.
- D. DOCUMENTS:** Bidding Documents include the Project Manual (consisting of the Advertisement for Bids, these Instructions to Bidders, Proposal Forms, Reference Form, Contract Agreement, Performance Bond, Payment Bond, Maintenance Bond, Contractor's Affidavit of Bills Paid, General Provisions, Special Provisions, Project Sign, and Technical Specifications), a Waiver of Lien, Drawings, and Addenda which may be issued by the Town of Addison during the bidding period. Bidding Documents may be viewed and/or obtained under the terms and conditions set forth in the Advertisement for Bids, Section AB of this Project Manual.
- E. EXAMINATION OF DOCUMENTS AND SITE:** Bidders shall carefully examine the Bidding Documents and the construction site to obtain firsthand knowledge of the scope and the conditions of the Work. Each Contractor, Subcontractor and Sub-subcontractor, by submitting a proposal to perform any portion of the Work, represents and warrants that he has examined the Drawings, Specifications (Project Manual) and the site of the Work, and from his own investigation has satisfied himself as to the scope, accessibility, nature and location of the Work; the character of the equipment and other facilities needed for the performance of the Work; the character and extent of other work to be performed; the local conditions; labor availability, practices and jurisdictions; and other circumstances that may affect the performance of the Work. No additional compensation will be allowed by the Owner for the failure of such Contractor, Subcontractor or Sub-subcontractor to inform himself as to conditions affecting the Work.
- F. INTERPRETATION OF DOCUMENTS:** If any person contemplating submitting a bid for the proposed Contract is in doubt as to the meaning of any part of the Drawings, Specifications (Project Manual) or other proposed Contract Documents, he may submit questions to the Town of Addison, no later than **5:00pm on Friday, March 27, 2020**. All questions received by this deadline will be answered by **5:00pm on Tuesday, March 31, 2020**. Bidders should act promptly and allow sufficient time for a reply to reach them before preparing their bids. Any interpretation or clarification will be in the form of an Addendum duly issued. No alleged verbal interpretation or ruling will be held binding upon the Owner.

- G. SUBSTITUTIONS:** Conditions governing the submission of substitutions for specific materials, products, equipment and processes are in the Special Provisions. Requests for substitutions must be received by the Town of Addison seven (7) calendar days prior to the established bid date.
- H. ADDENDA:** Interpretations, clarifications, additions, deletions and modifications to the Documents during the bidding period will be issued in the form of Addenda and a copy of such Addenda will be released through www.bidsync.com. It will be the responsibility of each person who has been issued a set of bid documents to secure all Addenda from www.bidsync.com. Addenda will be a part of the Bidding Documents and the Contract Documents, and receipt of them shall be acknowledged in the Bid Form. All such interpretations and supplemental instructions will be in the form of written addenda to the contract documents which, if issued, will be released through www.bidsync.com not later than three (3) calendar days prior to the date fixed for the opening of bids. If any bidder fails to acknowledge the receipt of such addenda in the space provided in the bid form, his bid will nevertheless be construed as though the receipt of such addenda had been acknowledged.
- I. COMPLETION TIME:** The selected contractor shall use the time period between the awarding of the contract at City Council and the date of Notice to Proceed to submit materials and shop drawings for approval by Garver. Garver shall review and return these submittals in the most expedient manner possible to accommodate immediate material ordering.
- a. Upon receiving Notice to Proceed, the selected contractor shall have **80 calendar days to construct Base Bid and Bid Alternate No. 1, and 10 calendar days to construct Bid Alternate No. 2** of the project and achieve substantial completion. **See plans for work restrictions.** Substantial completion for this project includes the following items:
 - i. Preliminary Punchlist walk-through with the Town performed;
 - b. After substantial completion is reached, the contractor shall have an **additional 20 calendar days** to achieve 100% final completion. Final completion for this project shall include:
 - i. Punchlist items completed and approved by the Town;
 - ii. Site clean-up;
 - iii. Submittal of Record Drawings; and
 - iv. Execution of Maintenance Bond.
- J. PREPARATION OF BIDS:** Prices quoted shall include all items of cost, expense, taxes, fees and charges incurred by, or arising out of, the performance of the work to be performed under the Contract. Bids shall be submitted in duplicate and shall be signed in ink. Any bid on other than the required form will be considered informal and may be rejected. Erasures or other changes in a bid must be explained or noted over the initials of the bidder. Bids containing any conditions, omissions, unexplained erasures and alterations, or irregularities of any kind may be rejected as informal. The prices should be expressed in words and figures or they may be deemed informal and may be rejected. In case of discrepancy between the price written in the bid and that given in the figures, the price in writing will be considered as the bid. In the case of a discrepancy between a unit price and its extension, the unit price will govern. Failure to submit all requested information will make a bid irregular and subject to rejection. Bids shall be signed with name typed or printed below signature, and, if a partnership, give full name of

all partners. Where bidder is a corporation, bids must be signed with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract.

NOTE: AN ELECTRONIC SPREADSHEET IS POSTED ON BIDS SYNC FOR CONTRACTORS CONVENIENCE TITLED "BID SCHEDULE BID 20-94.XLS". THIS SPREADSHEET MAY BE USED IN LIEU OF THE MANUAL HANDWRITTEN PROPOSAL FORM IN THE SPECIFICATIONS AND SHALL BE ATTACHED TO THE PROPOSAL AND MADE PART OF THE CONTRACT DOCUMENTS. USING THE SPREADSHEET OPTION SHALL NOT AMEND OR MODIFY ANY WORDING IN THE PROPOSAL FORM OR THE PLANS AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THAT THE SPREADSHEET ADEQUATELY CONVEYS THEIR BID.

SUBMITTAL OF BIDS: Sealed proposals will be received at the time, date and place stated in the Advertisement for Bids. Proposals shall be made on unaltered Proposal Forms furnished by the Town of Addison. Bidders shall submit proposals in an opaque, sealed envelope addressed to the Owner and plainly mark on the outside of the envelope the name and address of the bidder. The envelopes shall also be marked with the following project description:

PROJECT WORKS AND ENGINEERING SERVICES BID NUMBER 20-94

ADDISON AIRPORT GEORGE HADDAWAY RECONSTRUCTION

The Bid Bond must be completed and signed by each bidder and submitted with the bid. Submit Bids by mail or in person prior to the time for receiving bids set forth in the Advertisement for Bids issued by the Town.

Electronic bidding on bidsync.com will not be considered for this project. The Town of Addison uses [bidsync](http://bidsync.com) to distribute bids and proposals. There will be NO COST to the contractor for standard bids or proposals. **Bid number 20-94** is considered a standard bid. For Cooperative Bids and Reverse Auctions ONLY, the successful contractor/supplier agrees to pay [bidsync](http://bidsync.com) a transaction fee of one percent (1%) of the total amount of all contracts for goods and/or services. Cooperative Bids and Reverse Auctions will be clearly marked on the bid documents. To assure that all contractors/suppliers are treated fairly, the fee will be payable whether the bid/proposal is submitted electronically, or by paper means. Refer to www.bidsync.com for further information.

- K. MODIFICATION AND WITHDRAWAL OF BIDS:** Prior to the time set for bid opening, bids may be withdrawn or modified. Bids may be modified only on the official bid form and must be signed by a person legally empowered to bind the bidder. No bidder shall modify, withdraw, or cancel his bid or any part thereof for sixty (60) calendar days after the time agreed upon for the receipt of bids.
- L. DISQUALIFICATION:** The Owner reserves the right to disqualify proposals, before or after the opening, upon evidence of collusion with intent to defraud or other illegal practices relating to this proposal upon the part of the bidder.
- M. SUBMISSION OF POST-BID INFORMATION:** Upon notification of acceptance, the selected bidder shall, within twenty-four (24) hours, submit the following:

1. A designation of the portions of the Work proposed to be performed by the bidder with his own force.
2. A list of names of the Subcontractors or other persons or organizations, including those who are to furnish materials and equipment fabricated to a special design proposed for such portions of the Work as may be designated in the Bidding Documents or as may be requested by the Town of Addison. The bidder will be required to establish to the satisfaction of the Owner the reliability and responsibility of the proposed Subcontractors and suppliers to furnish and perform the Work.
3. Other information as required.

N. AWARD: The Owner reserves the right to accept any or to reject any bids without compensation to bidders and to waive irregularities and informalities. The Town of Addison Infrastructure Operations & Services Department, in making its recommendation, will consider the following elements:

1. Whether the bidder is a contractor with experience in the type of work involved.
2. Whether the bidder has adequate plant, equipment and personnel to perform the work properly and expeditiously.
3. Whether the bidder has a suitable financial status and reputation for meeting obligations incident to work of the kind specified.
4. Whether the bidder has complied with the terms and conditions.

Alternate items may or may not be awarded. Addition or deletion of other items or schedules will be governed by the *Standard Specifications for Public Works Construction – North Central Texas, November 2017, 5th Edition*, (Latest Version) (hereinafter called SSPWC) Item 104.2 "Change or Modification of Contract".

O. EXECUTION OF THE CONTRACT: The successful bidder will be required to enter into a contract with the Owner within ten (10) days of notice by the Owner that his bid has been accepted. Failure to enter into a contract within the established time limit shall be considered grounds for forfeiture of the bid bond.

P. CONSTRUCTION SCHEDULE: It is the Owner's desire to have the project completed and operational in as short a time as possible. The number of calendar days for completion of the project will begin with the date specified in the Notice to Proceed. The Notice to Proceed will be issued in a manner to facilitate a smooth construction of the project. The Contractor shall begin construction within ten (10) calendar days of the issuance of the Notice to Proceed.

Q. COST PLUS TIME BIDDING: N/A

R. FORM OF CONTRACT: The contract for the construction of the project will be drawn up by the Owner. A sample form of agreement is included in the Contract Agreement Section.

S. BONDS: A Performance Bond, a Labor and Material Payment Bond and a Maintenance Bond will be required by the Owner. The Performance Bond and Payment Bond shall name the Town of Addison, and others as directed by the Town, as joint obligees. Sample forms have

been included in the Performance Bond, Payment Bond, and Maintenance Bond sections. (Contractor shall confirm the legal names of obligees prior to execution of Bonds.)

- T. BID SECURITY:** Bids shall be accompanied by a cashier's check or certified check upon a national or state bank in an amount not less than five percent (5%) of the total maximum bid price payable without recourse to the Town of Addison, or a bid bond in the same amount from a surety company licensed to do business in the State of Texas as a guarantee that the bidder will enter into a contract and execute a Performance Bond and Payment Bond within ten (10) calendar days after notice of award of contract to him. Such checks or bid bonds will be returned to all except the three lowest bidders within three (3) days after the opening of bids, and the remaining checks or bid bonds will be returned promptly after the Owner has made an award of contract, or, if no award has been made within thirty (30) calendar days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.
- U. RESOLUTIONS:** If the bidder is a corporation, a copy of the resolution empowering the person submitting the bid to bind the bidder must be included with the bid.
- V. CONSTRUCTION STAKING:** Construction staking, and re-staking will not be provided by the Owner. Benchmarks and Horizontal Control are shown on the plans. There is no separate bid item for staking, therefore, the contractor must include value for staking in the various bid items as subsidiary to the contract. Any staking or re-staking that is required shall be the responsibility of the Contractor and shall be at no cost to the Owner.
- W. FINAL PAYMENT:** The general provisions for Final Payment shall be as stated in Item 109.5.4 of the SSPWC including all Amendments and Additions. Prior to final payment the Contractor shall provide the Owner with the following items:
1. A Contractor's Affidavit of Bills Paid in accordance with Section BP.
 2. A Consent of Surety Company to Final Payment.
 3. A complete set of record plans which indicate all construction variations from the original construction documents in accordance with the Special Provisions.
 4. A two (2) year Maintenance Bond in accordance with Section MB.
 5. Acknowledgement that the project has been reviewed and accepted by TDLR.
- X. PREVAILING WAGE RATES:** Wage rates paid on this project shall not be less than specified in the schedule of general prevailing rates of per diem wages as attached in the Special Provisions.
- Y. PRIORITY OF CONTRACT DOCUMENTS:** In case of conflict between contract documents, priority of interpretation shall be in the following order: signed agreement; performance and payment bonds; proposal; special provisions (or conditions); technical specifications; general provisions; advertisement for bids; project drawings; *Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges* adopted by the Texas Department of Transportation 2014; Standard Specifications for Public Works Construction (NCTCOG, 2017); Town of Addison Standard Drawings. This priority list shall take precedence over Item 105.1.1 of the SSPWC.

Information and Instruction Form

RESPONSES THAT DO NOT CONTAIN THIS COMPLETED FORM MAY NOT BE COMPLIANT

Section I Company Profile

Name of Business: McMAHON CONTRACTING L.P.
Business Address: 3019 Roy Orr Blvd
Grand Prairie TX 75050
Contact Name: Will Mee
Phone#: 972 263 6907
Fax#:
Email: will@memahoncontracting.com

Name(s) Title of Authorized Company Officers:
Shawn McMahon

Federal ID #: W-9 Form: A W-9 form will be required from the successful bidder.

DUN #: 80265-4012

Remit Address: If different than your physical address:

Section II Instructions to Bidders

Electronic Bids: The Town of Addison uses BidSync to distribute and receive bids and proposals. There will be **NO COST** to the Contractor/Supplier for **Standard** bids or proposals. For **Cooperative Bids and Reverse Auctions ONLY**, the successful contractor/supplier agrees to pay BidSync a transaction fee of one percent (1%) of the total amount of all contracts for goods and/or services. **Cooperative Bids and Reverse Auctions** will be clearly marked on the bid documents. To assure that all contractors/suppliers are treated fairly, the fee will be payable whether the bid/proposal is submitted electronically, or by paper means. Refer to www.bidsync.com for further information.

Contractor/Supplier Responsibility: It is the contractor/suppliers responsibility to check for any addenda or questions and answers that might have been issued before bid closing date and time. Contractors/Suppliers will be

notified of any addenda and Q&A if they are on the invited list, they view the bid, or add themselves to the watch list.

Acknowledgement of Addenda: #1 #2 #3 #4 #5 *Yes*

Delivery of Bids: For delivery of paper bids our physical address is:

Town of Addison

5350 Beltline Road

Dallas, TX 75254

Attn: Purchasing Department

Contractor/Supplier Employees: No Contractor/Supplier employee shall have a direct or indirect financial interest in any contract with the town, or be directly or indirectly financially interested in the sale of land, materials, supplies or services to the town.

Deliveries: All deliveries will be F.O.B. Town of Addison. All Transportation Charges paid by the contractor/supplier to Destination.

Payment Terms: A Prompt Payment Discount of % is offered for Payment Made Within Days of Acceptance of Goods or Services. If Prompt Payments are not offered or accepted, payments shall be made 30 days after receipt and acceptance of goods or services or after the date of receipt of the invoice whichever is later.

Delivery Dates: Delivery Dates are to be specified in Calendar Days from the Date of Order.

Bid Prices: Pre-Award bid prices shall remain Firm and Irrevocable for a Period of _____ Days.
Per Bid Document

Exceptions: Contractor/Supplier does not take Exception to Bid Specifications or Other Requirements of this Solicitation. If neither exceptions box is checked, default shall be "No Exceptions"

Contractor/Supplier take the following Exception(s) to the Bid Specifications or Other Requirements of this Solicitation (Explain in Detail). If box checked but no exceptions are listed, default shall be "No Exceptions"

Historically Underutilized Business (HUB): It is the policy of the Town of Addison to involve HUBs in the procurement of goods, equipment, services and construction projects. Prime Contractors/Suppliers are encouraged to provide HUBs the opportunity to compete for sub-contracting and other procurement opportunities. A listing of HUBs in this area may be accessed at the following State of Texas Website.
<http://www.window.state.tx.us/procurement/cmb1/cmb1hub.html>.

HUB Owned Business Yes No Include a current copy of your HUB certification with your response or insert Certification number _____ and expire date _____.

Other Government Entities: Would bidder be willing to allow other local governmental entities to participate in this contract, if awarded under the same Terms and Conditions? Yes No

Bid Bond: Is Bid Bond attached if applicable? Yes No


Termination: The town at any time after issuance of this agreement, by 30 days written notice, has the absolute right to terminate this agreement for cause or convenience. Cause shall be the contractor/supplier's refusal or failure to satisfactorily perform or complete the work within the time specified, or failure to meet the specifications, quantities, quality and/or other requirements specified in the contract/purchase order. In such case the supplier shall be liable for any damages suffered by the town. If the agreement is terminated for convenience, the supplier has no further obligation under the agreement. Payment shall be made to cover the cost of material and work in process or "consigned" to the town as of the effective date of the termination.

Bidder Compliance: Bidder agrees to comply with all conditions contained in this Information and Instruction Form and the additional terms and conditions and specifications included in this request. The undersigned hereby agrees to furnish and deliver the articles or services as specified at the prices and terms herein stated and in strict accordance with the specifications and conditions, all of which are made a part of your offer. Your offer is not subject to withdrawal after the award is made.

The Town of Addison reserves the right to reject all or part of the offer and to accept the offer considered most advantageous to the town by item or total bid.

The Town of Addison will award to the lowest responsible bidder or to the bidder who provides goods or services at the best value for the Town.

I hereby certify that all of the information provided in sections I and II are true and accurate to the best of my knowledge.


Signature: Date: 4/14/20

Title: Chief Estimator

Signature certifies no changes have been made to the content of this solicitation as provided by the Town of Addison.

10/17/17

SECTION PF-1

PROPOSAL FORM

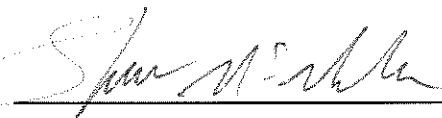
PROPOSAL FORM

4/16, 2019²⁰

TO: The Honorable Mayor and Town Council
Town of Addison, Texas

Gentlemen:

The undersigned bidder, having examined the plans, specifications and contract documents, and the location of the proposed work, and being fully advised as to the extent and character of the work, proposes to furnish all equipment and to perform labor and work necessary for completion of the work described by and in accordance with the Plans, Specifications and Contract for the following prices, to wit:

Signed by: 

ACKNOWLEDGMENT OF ADDENDA:

The Bidder acknowledges receipt of the following addenda:

Addendum No. 1 

Addendum No. 2 

Addendum No. 3 

Addendum No. 4 

Addendum No. 5 

The following pages contain all bid items for:

**BID SCHEDULE – GEORGE HADDAWAY RECONSTRUCTION
BID NUMBER 20-94**

**ADDISON AIRPORT
 GEORGE HADDAWAY RECONSTRUCTION (WORK ORDER NO. 2)
 ENGINEER'S ESTIMATE OF PROBABLE COST
 BASE BID (GEORGE HADDAWAY RECONSTRUCTION)**

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	SS-120-3.1	SITE PREPARATION	L.S.	1	\$17,548.80	\$17,548.80
Unit Price in Words: Seventeen Thousand Five Hundred Forty Eight Dollars and Eighty Cents						
2	SS-140-5.1	FIRE HYDRANT REMOVAL	EACH	1	\$938.88	\$938.88
Unit Price in Words: Nine Hundred Thirty Eight Dollars and Eighty Eight Cents						
3	SS-140-5.2	WATER VALVE REMOVAL	EACH	3	\$352.51	\$1,057.53
Unit Price in Words: Three Hundred Fifty Two Dollars and Fifty One Cents						
4	SS-140-5.3	WATER METER REMOVAL	EACH	1	\$1,057.54	\$1,057.54
Unit Price in Words: One Thousand Fifty Seven Dollars and Fifty Four Cents						
5	SS-140-5.4	WATER SERVICE LINE REMOVAL	L.F.	48	\$22.03	\$1,057.44
Unit Price in Words: Twenty Two Dollars and Three Cents						
6	SS-140-5.5	SANITARY SEWER SERVICE LINE REMOVAL	L.F.	72	\$29.38	\$2,115.36
Unit Price in Words: Twenty Nine Dollars and Thirty Eight Cents						
7	P-152-4.1	UNCLASSIFIED EXCAVATION	C.Y.	176	\$34.07	\$5,996.32
Unit Price in Words: Thirty Four Dollars and Seven Cents						
8	P-620-5.1a	PAVEMENT MARKINGS, YELLOW (TYPE I REFLECTIVE MEDIA)	S.F.	59	\$21.00	\$1,239.00
Unit Price in Words: Twenty One Dollars and No Cents						
9	P-620-5.1b	PAVEMENT MARKINGS, BLACK (NO REFLECTIVE MEDIA)	S.F.	177	\$16.80	\$2,973.60
Unit Price in Words: Sixteen Dollars and Eighty Cents						
10	P-620-5.1c	PAVEMENT MARKINGS, WHITE (TYPE I REFLECTIVE MEDIA)	S.F.	300	\$12.00	\$3,600.00
Unit Price in Words: Twelve Dollars and No Cents						
11	P-620-5.2	PAVEMENT MARKINGS REMOVAL	S.F.	200	\$21.00	\$4,200.00
Unit Price in Words: Twenty One Dollars and No Cents						
12	TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	179	\$22.02	\$3,941.58
Unit Price in Words: Twenty Two Dollars and Two Cents						
13	TX-105-5.1	ASPHALT PAVEMENT REMOVAL	S.Y.	2,642	\$19.65	\$51,915.30
Unit Price in Words: Nineteen Dollars and Sixty Five Cents						
14	TX-162-5.1	BLOCK SODDING	S.Y.	393	\$12.00	\$4,716.00
Unit Price in Words: Twelve Dollars and No Cents						
15	TX-260-6.1	LIME	TON	45	\$198.00	\$8,910.00
Unit Price in Words: One Hundred Ninety Eight Dollars and No Cents						
16	TX-260-6.2	LIME TREATED SUBGRADE (6" THICKNESS)	S.Y.	2,667	\$8.58	\$22,882.86

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
Unit Price in Words:	Eight Dollars and Fifty Eight Cents					

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
17	TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	2,418	\$86.20	\$208,431.60
Unit Price in Words: Eighty Six Dollars and Twenty Cents						
18	TX-496-5.2	BOLLARD REMOVAL	EACH	4	\$179.91	\$719.64
Unit Price in Words: One Hundred Seventy Nine Dollars and Ninety One Cents						
19	TX-506-5.1	TEMPORARY EROSION CONTROL	L.S.	1	\$3,882.00	\$3,882.00
Unit Price in Words: Three Thousand Eight Hundred Eighty Two Dollars and No Cents						
SUBTOTAL BASE BID =					\$347,183.45	
Subtotal in Words: Three Hundred Forty Seven Thousand One Hundred Eighty Three Dollars and Forty Five Cents						

ADDISON AIRPORT
 GEORGE HADDAWAY RECONSTRUCTION (WORK ORDER NO. 2)
 ENGINEER'S ESTIMATE OF PROBABLE COST
 BID ALTERNATE NO. 1 (FUEL FARM TURN AROUND RECONSTRUCTION)

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	SS-120-3.1	SITE PREPARATION	L.S.	1	\$2,193.60	\$2,193.60
Unit Price in Words: Two Thousand One Hundred Ninety Three Dollars and Sixty Cents						
2	SS-300-5.1	EMERGENCY STOP RELOCATION	L.S.	1	\$3,960.00	\$3,960.00
Unit Price in Words: Three Thousand Nine Hundred Sixty Dollars and No Cents						
3	P-152-4.1	UNCLASSIFIED EXCAVATION	C.Y.	208	\$29.18	\$6,069.44
Unit Price in Words: Twenty Nine Dollars and Eighteen Cents						
4	TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	117	\$23.52	\$2,751.84
Unit Price in Words: Twenty Three Dollars and Fifty Two Cents						
5	TX-105-5.1	ASPHALT PAVEMENT REMOVAL	S.Y.	1,975	\$12.20	\$24,095.00
Unit Price in Words: Twelve Dollars and Twenty Cents						
6	TX-162-5.1	BLOCK SODDING	S.Y.	614	\$12.00	\$7,368.00
Unit Price in Words: Twelve Dollars and No Cents						
7	TX-260-6.1	LIME	TON	37	\$198.00	\$7,326.00
Unit Price in Words: One Hundred Ninety Eight Dollars and No Cents						
8	TX-260-6.2	LIME TREATED SUBGRADE (6" THICKNESS)	S.Y.	2,252	\$7.62	\$17,160.24
Unit Price in Words: Seven Dollars and Sixty Two Cents						
9	TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	2,183	\$90.76	\$198,129.08
Unit Price in Words: Ninety Dollars and Seventy Six Cents						
10	TX-464-5.1	REINFORCED CONCRETE PIPE, 12", CLASS III	L.F.	157	\$77.17	\$12,115.69
Unit Price in Words: Seventy Seven Dollars and Seventeen Cents						
11	TX-464-5.2	REINFORCED CONCRETE PIPE, 21", CLASS III	L.F.	4	\$207.19	\$828.76
Unit Price in Words: Two Hundred Seven Dollars and Nineteen Cents						
12	TX-465-5.1	4'X4' SINGLE GRATE PRE-FABRICATED INLET (COMPLETE)	L.F.	2	\$4,441.88	\$8,883.76
Unit Price in Words: Four Thousand Four Hundred Forty One Dollars and Eighty Eight Cents						
13	TX-496-5.1	INLET REMOVAL	EACH	5	\$815.61	\$4,078.05
Unit Price in Words: Eight Hundred Fifteen Dollars and Sixty One Cents						
14	TX-496-5.3	PIPE REMOVAL	L.F.	181	\$13.27	\$2,401.87
Unit Price in Words: Thirteen Dollars and Twenty Seven Cents						
15	TX-506-5.1	TEMPORARY EROSION CONTROL	L.S.	1	\$3,744.00	\$3,744.00
Unit Price in Words: Three Thousand Seven Hundred Forty Four Dollars and No Cents						

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
16	TX-772-5.1	POST AND CABLE FENCE (REMOVAL)	L.F.	78	\$12.00	\$936.00
Unit Price in Words:		Twelve Dollars and No Cents				
17	TX-772-5.2	POST AND CABLE FENCE (NEW INSTALLATION)	L.F.	38	\$94.74	\$3,600.12
Unit Price in Words:		Ninety Four Dollars and Seventy Four Cents				
SUBTOTAL BID ALTERNATE NO. 1 =					\$305,641.45	
Subtotal in Words:		Three Hundred Five Thousand Six Hundred Forty One Dollars and Forty Five Cents				

ADDISON AIRPORT
 GEORGE HADDAWAY RECONSTRUCTION (WORK ORDER NO. 2)
 ENGINEER'S ESTIMATE OF PROBABLE COST
 BID ALTERNATE NO. 2 (GEORGE HADDAWAY ENTRANCE RECONSTRUCTION)

PAVEMENT REPAIRS AT AMERICAN FLYERS ROAD (NORTHBOUND)

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	SS-120-3.1	SITE PREPARATION	L.S.	1	\$1,096.80	\$1,096.80
Unit Price in Words: One Thousand Ninety Six Dollars and Eighty Cents						
2	P-152-4.1	UNCLASSIFIED EXCAVATION	C.Y.	55	\$31.15	\$1,713.25
Unit Price in Words: Thirty One Dollars and Fifteen Cents						
3	TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	90	\$18.45	\$1,660.50
Unit Price in Words: Eighteen Dollars and Forty Five Cents						
4	TX-105-5.1	ASPHALT PAVEMENT REMOVAL	S.Y.	168	\$15.95	\$2,679.60
Unit Price in Words: Fifteen Dollars and Ninety Five Cents						
5	TX-162-5.1	BLOCK SODDING	S.Y.	131	\$12.00	\$1,572.00
Unit Price in Words: Twelve Dollars and No Cents						
6	TX-260-6.1	LIME	TON	5	\$198.00	\$990.00
Unit Price in Words: One Hundred Ninety Eight Dollars and No Cents						
7	TX-260-6.2	LIME-TREATED SUBGRADE (6" THICKNESS)	S.Y.	277	\$10.33	\$2,861.41
Unit Price in Words: Ten Dollars and Thirty Three Cents						
8	TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	268	\$107.89	\$28,914.52
Unit Price in Words: One Hundred Seven Dollars and Eighty Nine Cents						
SUBTOTAL BID ALTERNATE NO. 2 =					\$41,488.08	
Subtotal in Words: Forty One Thousand Four Hundred Eighty Eight Dollars and Eight Cents						

ADDISON AIRPORT
 GEORGE HADDAWAY RECONSTRUCTION (WORK ORDER NO. 2)
 ENGINEER'S ESTIMATE OF PROBABLE COST
 BASE BID (GEORGE HADDAWAY RECONSTRUCTION)

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	SS-120-3.1	SITE PREPARATION	L.S.	1		
Unit Price in Words:						
2	SS-140-5.1	FIRE HYDRANT REMOVAL	EACH	1		
Unit Price in Words:						
3	SS-140-5.2	WATER VALVE REMOVAL	EACH	3		
Unit Price in Words:						
4	SS-140-5.3	WATER METER REMOVAL	EACH	1		
Unit Price in Words:						
5	SS-140-5.4	WATER SERVICE LINE REMOVAL	L.F.	48		
Unit Price in Words:						
6	SS-140-5.5	SANITARY SEWER SERVICE LINE REMOVAL	L.F.	72		
Unit Price in Words:						
7	P-152-4.1	UNCLASSIFIED EXCAVATION	C.Y.	176		
Unit Price in Words:						
8	P-620-5.1a	PAVEMENT MARKINGS, YELLOW (TYPE I REFLECTIVE MEDIA)	S.F.	59		
Unit Price in Words:						
9	P-620-5.1b	PAVEMENT MARKINGS, BLACK (NO REFLECTIVE MEDIA)	S.F.	177		
Unit Price in Words:						
10	P-620-5.1c	PAVEMENT MARKINGS, WHITE (TYPE I REFLECTIVE MEDIA)	S.F.	300		
Unit Price in Words:						
11	P-620-5.2	PAVEMENT MARKINGS REMOVAL	S.F.	200		
Unit Price in Words:						
12	TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	179		
Unit Price in Words:						
13	TX-105-5.1	ASPHALT PAVEMENT REMOVAL	S.Y.	2,642		
Unit Price in Words:						
14	TX-162-5.1	BLOCK SODDING	S.Y.	393		
Unit Price in Words:						
15	TX-260-6.1	LIME	TON	45		
Unit Price in Words:						

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
16	TX-260-6.2	LIME TREATED SUBGRADE (6" THICKNESS)	S.Y.	2,667		
Unit Price in Words:						
17	TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	2,418		
Unit Price in Words:						
18	TX-496-5.2	BOLLARD REMOVAL	EACH	4		
Unit Price in Words:						
19	TX-506-5.1	TEMPORARY EROSION CONTROL	L.S.	1		
Unit Price in Words:						
SUBTOTAL BASE BID =						
Subtotal in Words:						

ADDISON AIRPORT
 GEORGE HADDAWAY RECONSTRUCTION (WORK ORDER NO. 2)
 ENGINEER'S ESTIMATE OF PROBABLE COST
 BID ALTERNATE NO. 1 (FUEL FARM TURN AROUND RECONSTRUCTION)

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	SS-120-3.1	SITE PREPARATION	L.S.	1		
Unit Price in Words:						
2	SS-300-5.1	EMERGENCY STOP RELOCATION	L.S.	1		
Unit Price in Words:						
3	P-152-4.1	UNCLASSIFIED EXCAVATION	C.Y.	208		
Unit Price in Words:						
4	TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	117		
Unit Price in Words:						
5	TX-105-5.1	ASPHALT PAVEMENT REMOVAL	S.Y.	1,975		
Unit Price in Words:						
6	TX-162-5.1	BLOCK SODDING	S.Y.	614		
Unit Price in Words:						
7	TX-260-6.1	LIME	TON	37		
Unit Price in Words:						
8	TX-260-6.2	LIME TREATED SUBGRADE (6" THICKNESS)	S.Y.	2,252		
Unit Price in Words:						
9	TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	2,183		
Unit Price in Words:						
10	TX-464-5.1	REINFORCED CONCRETE PIPE, 12", CLASS III	L.F.	157		
Unit Price in Words:						
11	TX-464-5.2	REINFORCED CONCRETE PIPE, 21", CLASS III	L.F.	4		
Unit Price in Words:						
12	TX-465-5.1	4'X4' SINGLE GRATE PRE-FABRICATED INLET (COMPLETE)	L.F.	2		
Unit Price in Words:						
13	TX-496-5.1	INLET REMOVAL	EACH	5		
Unit Price in Words:						
14	TX-496-5.3	PIPE REMOVAL	L.F.	181		
Unit Price in Words:						
15	TX-506-5.1	TEMPORARY EROSION CONTROL	L.S.	1		
Unit Price in Words:						

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
16	TX-772-5.1	POST AND CABLE FENCE (REMOVAL)	L.F.	78		
Unit Price in Words:						
17	TX-772-5.2	POST AND CABLE FENCE (NEW INSTALLATION)	L.F.	38		
Unit Price in Words:						
SUBTOTAL BID ALTERNATE NO. 1 =						
Subtotal in Words:						

ADDISON AIRPORT
GEORGE HADDAWAY RECONSTRUCTION (WORK ORDER NO. 2)
ENGINEER'S ESTIMATE OF PROBABLE COST
BID ALTERNATE NO. 2 (GEORGE HADDAWAY ENTRANCE RECONSTRUCTION)

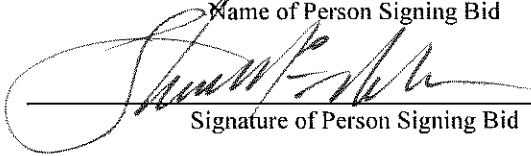
ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
1	SS-120-3.1	SITE PREPARATION	L.S.	1		
Unit Price in Words:						
2	P-152-4.1	UNCLASSIFIED EXCAVATION	C.Y.	55		
Unit Price in Words:						
3	TX-104-5.1	CONCRETE PAVEMENT REMOVAL	S.Y.	90		
Unit Price in Words:						
4	TX-105-5.1	ASPHALT PAVEMENT REMOVAL	S.Y.	168		
Unit Price in Words:						
5	TX-162-5.1	BLOCK SODDING	S.Y.	131		
Unit Price in Words:						
6	TX-260-6.1	LIME	TON	5		
Unit Price in Words:						
7	TX-260-6.2	LIME-TREATED SUBGRADE (6" THICKNESS)	S.Y.	277		
Unit Price in Words:						
8	TX-360-5.1	CONCRETE PAVEMENT (10" THICKNESS)	S.Y.	268		
Unit Price in Words:						
SUBTOTAL BID ALTERNATE NO. 2 =						
Subtotal in Words:						

- NOTES:
1. All items, labor, materials, equipment, facilities, incidentals and work required for construction of the project are to be provided and installed by the Contractor as part of the project and payment for the cost of such shall be included in the price bid for the construction of the project.
 2. Prices must be shown in words and figures for each item listed in the Proposal. In the event of discrepancy, the words shall control.
 3. Materials, which are "tax exempt", are those items which are physically incorporated into the facilities constructed for the Town of Addison, as set forth in the Special Provisions. Materials include, but are not limited to purchased items such as water pipe, sanitary sewer pipe, storm drain pipe, etc.

Services, which are "not tax exempt", are those items which are used by the Contractor but are not physically incorporated into the Town of Addison's facility and/or items which are consumed by construction, as set forth in the Special Provisions. Services include, but are not limited to, items such as supplies, tools, skill and labor, the purchase, rental or lease of equipment, etc.

Shawn McMahon

Name of Person Signing Bid



Signature of Person Signing Bid

3019 Roy Orr Blvd Grand Prairie, TX 75050

Address

972-263-6907

Telephone No.

Fax No.

75-284-6781

T.I.N. (Tax Identification or Employer's Number)

If BIDDER is:

AN INDIVIDUAL

By _____
(Individual's Name)

(Seal)

doing business as _____

Business address: _____

Phone No. _____

A PARTNERSHIP

By _____
McMAHON CONTRACTING, L.P.
(Firm Name)

(Seal)

Shawn McMahon
(General Partner) SHAWN McMAHON

doing business as _____

Business address: 3019 Roy Orr Blvd

Grand Prairie TX 75050

Phone No. 972-263-6907

A CORPORATION

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Name of Person Authorized to Sign)

(Title)

(Corporate Seal)

Attest _____
(Secretary)

Business address: _____

Phone No. _____



A JOINT VENTURE

By _____
(Name)

(Address)

By _____
(Name)

(Address)

(Each joint venture must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

SECTION BB
BID BOND

BID BOND

Bidder shall submit a bid bond equal to five percent (5%) of the bid price. Failure to submit a bid bond when required may deem the bid non-responsive. Bid Bonds may be submitted electronically with the executed original provided immediately upon request.

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Secretary of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 10th day of April, 2020.



Brian M. Hodges

By: Brian M. Hodges
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
www.reportsfclaims@zurichna.com
800-626-4577



Texas Important Notice

IMPORTANT NOTICE

To obtain information or make a complaint:

You may call Zurich North America's toll-free telephone number for information or to make a complaint at:

1-800-382-2150

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights, or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance:

P.O. Box 149104

Austin, TX 78714-9104

Fax: (512) 490-1007

Web: www.tdi.texas.gov

E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim, you should contact the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

AVISO IMPORTANTE

Para obtener información o para presentar una queja:

Usted puede llamar al número de teléfono gratuito de Zurich North America's para obtener información o para presentar una queja al:

1-800-382-2150

Usted puede comunicarse con el Departamento de Seguros de Texas para obtener información sobre compañías, coberturas, derechos, o quejas al:

1-800-252-3439

Usted puede escribir al Departamento de Seguros de Texas a:

P.O. Box 149104

Austin, TX 78714-9104

Fax: (512) 490-1007

Sitio web: www.tdi.texas.gov

E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS POR PRIMAS DE SEGUROS O RECLAMACIONES:

Si tiene una disputa relacionada con su prima de seguro o con una reclamación, usted debe comunicarse con la compañía primero. Si la disputa no es resuelta, usted puede comunicarse con el Departamento de Seguros de Texas.

ADJUNTE ESTE AVISO A SU PÓLIZA: Este aviso es solamente para propósitos informativos y no se convierte en parte o en condición del documento adjunto.

SECTION BQS

BIDDER QUALIFICATION STATEMENT

SECTION BQS

ALL BIDDERS ARE NOTIFIED THAT THE FOLLOWING QUALIFICATION STATEMENT MUST BE COMPLETED AND SUBMITTED WITH THE BID PROPOSAL

CONTRACTOR'S QUALIFICATIONS

The Contractor shall show that he has experience with similar projects that require working on water, sanitary sewer, and storm sewer construction and/or relocation projects working in confined areas in close proximity to many physical features (such as: fences, carports, utility poles, guy lines, gas lines and meters, water lines, sewer manholes and cleanouts, etc.) which will require the Contractor to plan his work efforts and equipment needs with these limitations in mind. The Contractor shall submit a complete list of ALL Municipal and Similar Non-Municipal current and completed projects for the past three (3) years for review. This list shall include the names of supervisors and type of equipment used to perform this work.

Superintendent and Backup Superintendent: (Work Resume - attach additional sheets.) (Safety Record – attached additional sheets; if needed show all verified safety violations.) The superintendent shall be able to communicate in English and not operate any equipment and have not had any verified job safety violations in the past five years. Any variations shall be reviewed by the OWNER for approval or denial. A job site shall be shut down if proper supervision is not provided.

Superintendent Name

Backup Superintendent Name

Scott Cumming

Juan Medrano

Safety Record – List ALL Verified Violations for Superintendent and Backup Superintendent with explanation, date and action taken to correct future safety violations:

Superintendent

None

Backup Superintendent

None

Total Number of Employees to be Associated with this Job: 32

Managerial 4 Administrative 4 Professional 2

Skilled 8 Semi-Skilled 8 Other 6

Percentage of work to be done by Bidder's Employees (Based on Dollars Bid): 97%

Scott Cummings

EXPERIENCE (cont'd)

- payments and retainage.
- Hiring, creating job descriptions and training for project managers, estimators and misc. staff.
- Negotiate pricing and manage all subcontractors and materials suppliers.
- Responsible for all forecasting, short-and long-term scheduling; internal crews, equipment, subcontractor and material suppliers.
- Estimate TxDot Projects

Aug 2005 - Sep 2011 Yantis Company, San Antonio, TX

Aug 2008 - Sep 2011 Director of Field Operations

Facilitated management of daily operations with focus on contract management, cost control, client satisfaction, safety, and quality production.

Aug 2005 - Sep 2008 General Superintendent

Facilitated management of daily field operations with primary focus on safety, quality production and profit.

PERFORMANCE LIST.

- Forecast future crew and equipment needs; manage and oversee Team Leaders, Subcontractors, Material Suppliers, Project Managers, Superintendents & foreman
- Generate maximum revenue and profit on projects
- Build Strong Relationships with Owners and Engineers
- Responsible for auditing Company Policies, ensuring they are in affect and consistently followed
- Ensure coordination and communications between Operations and other Divisions including: Equipment, Estimating, Procurement, Accounting, and Founders
- Develop operational growth through training, recruiting and developing in house talent
- Maintain overall Operation's schedule, communicate needs to CEO
- In-depth understanding of construction practices & specifications relating to excavating, concrete, asphalt, and wet utilities
- Completed over 65 simultaneous projects, averaging \$100M per year in residential, municipal, and commercial site work.

Jun 1991 - Aug 2005 Superintendent, Concho Construction Company, Garland, TX

Performed multiple roles with progressively increasing responsibilities, including laborer, carpenter, form sitter, rod buster, heavy equipment operator, surveyor, project manager, superintendent, etc.

PERFORMANCE LIST.

- Experience working in various environments; wetlands, deserts, urban, military bases, railroads, over water, etc.
- Directs all field personnel to achieve completion of the project on schedule, within budget, ensuring quality workmanship that conforms to original plans and specifications
- Maintains positive relationships with customers, contractors, suppliers, and other employees
- Coordinate site construction activities and supervised field personnel, as required, to successfully complete projects on schedule and within budget
- Supervise entire project life cycle or numerous projects, from conception, development, and implementation of design ideas to completion
- Communicate with the Client on job progress, concerns, and potential schedule delays
- Assist Subcontractor with scheduling and planning the phases of the project
- Work with the Quality Manager on Material Submittals and documentation required by the Quality Program, ensuring that all deliverables comply with the submittals
- Maintain construction schedule, identify and solve problems
- Resolve conflicts and issues by developing new policies which create simple, common sense solutions
- Promote sense of drive & pride throughout the company
- Investigate and develop new ways to generate profit

References available on request

JUAN MEDRANO

Phone: 469-251-3997 ■ Email: juan@mcmahoncontracting.com

EXPERIENCE

MCMAHON CONTRACTING, L.P. — GRAND PRAIRIE, TX

Structure Superintendent, March 2015 - Present

As a project superintendent I currently oversee various projects. My daily responsibilities involve:

- Supervising project Foremen and their crews;
- Assist Foremen with job plans, as needed; and
- Support Foremen as needed to ensure projects advance according to schedule.
- Coordinate crew needs across projects;
- Order project related materials (such as rebar, concrete, beams, panels, etc.);
- Attend pre-construction meetings and daily interaction with project engineers and city/TXDOT inspectors;
- Schedule surveyors, as needed;
- Project administration, including review and approval of time; and
- Prepare month-end estimates for billing to be done by Project Manager.

Projects: Park Vista bridge, Ft. Worth, TX; Hardin Blvd., McKinney, TX; Drainage improvements, Great Southwest Pkwy, Grand Prairie, TX; US 75 Bridge @ Park Blvd, Plano, TX; Montgomery Extension, Allen, TX; Elmwood Bridge, Dallas, TX; Elm Bridge/664 Culvert, Farmersville, TX; Silverado & McCutchin, McKinney, TX; Trinity Blvd., Ft. Worth, TX;

Foreman, June 2014 – March 2015

- Supervise the crew;
- Read/interpret plans to build project according to specifications;
- Order materials, as needed;
- Shoot job elevations, as needed;
- Daily interaction with project inspectors;
- Track and input daily time in to time tracking software; and
- Prepare daily project reports.

Projects: TxDOT SH114, Southlake, TX;

IOWA BRIDGE & CULVERT, LC — CROSS ROADS, TX

Structure Superintendent/Foreman, June 2010 – June 2014

- Supervise the crew;
- Order materials, as needed;
- Read/interpret plans to build project according to specifications;
- Shoot job elevations, as needed;
- Daily interaction with project inspectors;
- Track and prepare daily time reports; and
- Prepare daily project reports.

NORTH TEXAS BRIDGE CO., INC. — PLANO, TX

Foreman, November 2005 – June 2009

- Supervise the crew;
- Order materials as needed;
- Read/interpret plans to build project accordingly to specifications;
- Shoot job elevations, as needed;
- Daily interaction with project inspectors;
- Track and input daily time reports; and
- Prepare daily project reports.

Heavy equipment Operator/Lead Man/Carpenter/Laborer, February 2003 – November 2005

- Operate cranes, excavators, backhoe, bulldozers and loaders;
- Assist foreman in shooting of grades and elevations; and
- Supervise crew as needed when Foreman was not present.
- Carpenter: Work with wood and metal forms to build bridges; Tie rebar; Finish concrete
- Laborer: Assist carpenters and finishers as needed; Job clean up.

Sub contractors Contact information

Electrical Bean Electrical, Inc
821 E Enon, Everman, TX 76140
Tel (817) 561-7400

Pavement Markings Metroplex Pavement Markings
1303 Jelmak St, Grand Prairie, TX 75050
Office: 972-790-2983 ext. 102

Fence Blue Bird Construction LLC
P.O BOX 161667 Fort Worth, TX 76102
817-366-5144 - mobile



3019 Roy Orr Blvd.
Grand Prairie, TX 75050
Office: 972-263-6907
Fax: 972-264-0008

Equipment	Description
AB12	I.T.C.P. Arrowboard
AB77	Arrow Board
BU10	52" Gen. Purp. Bucket for 325L
CP70	Gomaco Paver GP 2600
DZ95	1982 CAT D3B Bulldozer
JT15	1999 Black 20' X 8' Trailer
JT26	1983 Fruehauf Job Trailer
JT50	Con-Ex 10' X 20' on Trailer
JT57	8x20 Container, On Trailer
JT61	8' X 20' Con Ex Container
JT91	Load King Trailer, with Contai
AB129	I.T.C.P. Arrowboard
AB218	Solar Tech Arrowboard
AB236	Solar Tech Arrowboard
AB239	Solar Tech Arrowboard
AB240	Solar Tech Arrowboard
AB241	Solar Tech Arrowboard
AB243	Solar Tech Arrowboard
AB244	Solar Tech Arrowboard
AB269	Solar Tech Arrowboard
AB350	Arrow Board, 15 Lamp LED
AB387	Arrow Board, 15 Lamp LED
AB414	Arrow Board, 15 Lamp LED
AB415	Arrow Board, 15 Lamp LED
AC316	2005 I-R Portable Air Compress
AC376	Ingersoll Rand Air Compressor
AC485	Atlas Copco 185 CFM Air Compre
AR226	1998 CAT CB224C Asphalt Roller
AR412	2009 Bomag Asphalt Roller
BH330	2007 CAT 416 E Backhoe
BH362	2006 CAT 416 E Loader Backhoe
BH381	2006 CAT 420 D Backhoe Loader
BH388	2006 CAT416 4X4 Loader Backhoe
BH429	2004 CAT 420D Backhoe Loader
BH433	2007 CAT 420E 4X4 Lder Backhoe
BH447	2006 CAT 420 EIT Loadr Backhoe
BH449	2008 CAT 416E Loader Backhoe
BH495	2012 CAT420F Loader Backhoe
BH509	2014 Caterpillar 416F Backhoe
BL342	JLG 40H 4 X 4 Boom Lift
BR256	2005 Broce Broom
BR327	2000 Broce Broom RJ350

BR340	2004 Lay-Mor Self Prop Broom
BR439	Broce RJ 350 Ride-on Sweeper
CO245	2004 CAT CP563E Compactor
CO305	2006 CAT CP323 Vib. Compactor
CO339	2006 Ing Rand Vib Drum Roller
CO344	2005 Padfoot Roller w/Blade
CO409	Ingersoll-Rand SD105 Compactor
CO507	2012 CAT Tandem Vibratory Roll
CP125	Gomaco Commander III Paver
CP190	Gomaco 9500 Concrete Placer
CP315	Gomaco G3600 C&G Paving Machin
CP442	Bidwell 4800 Bridge Screed
CP454	Troxell Viking Storage Pig
CP489	2003 Gomaco Concrete Paver
CS303	Soffcutt Concrete Saw XP4000
DB289	2008 Case 570MXT Dragbox
DB363	2005 Case 570MXT Loader/Scaper
DT290	SOLD '98 Ford F700 Dump Truck
DT427	2012 Mack CXU Tractor/Truck
DT490	2014 Mack CHU613 Truck Tractor
DT508	2015 Mack Truck Tractor
FL467	2005 Ingersoll-Rand Forklift
FO252	8 X 26 Field (lab) Office 114
FO326	8 X 20 Field Office Control Rm
FO437	20' Beam Shack Field Office
FT480	JD 640 Loader w/Bucket & Forks
GS319	2005 CAT XQ500 Gen Set
GT470	2005 CM 32' Gooseneck Trlr *
HA402	KF22 Hydraulic Hammer Assembly
HH333	Arrow HJ 250 Hydra Hammer
HP320	Vince Hagan Concrete Plant
HP321	Hagan Mobile Auxiliary Silo
HP322	Hagan Bin Charging Conveyor
HP323	Hagan Bin Charging Conveyor
HP324	Hagan Horizontal Ribbon Mixer
HP325	Command Alkon Control System
HT197	1998 Chevrolet C6500 Haul Truc
HT434	2006 Eager Beaver Tri/A Lowboy
HT468	2007 Peterbilt 379EXHD Haul Tr
HT486	2015 Trail King Lowboy Trailer
JT253	8' X 20' Job box / container
JT271	8' x 20' Job Container Only
JT286	BigTex Form Trailer (Shorty's)
JT318	2010 18' Big Tex Utility Trlr
JT347	2009 Tailwind Utility Trailer
JT348	2010 Carry-On Cargo Trailer
JT440	Storage Trailer
LP120	1997 Allmond Bros. Light Plant

LP450	2003 Alland Bros Maxi-Lite 895
LP459	2004 Allmand Bros. Maxi-Lite
LT380	2010 Ford F750 Lube Truck
MB186	2002 Solar Tech Message Board
MB195	2004 Solar Tech Message Board
MB451	Solar Tech Message Board
MB452	Solar Tec Message Board
MB455	Solar Tech Message Board
MB463	2012 Solar Tech Solar Sign Bd
MB464	2010 Wanco Solar Sign Board
MG162	1998 Fiat Allis FG65C Motorgra
MG401	2006 CAT 140H Motorgrader
MG466	2010 CAT 140M Motorgrader
MT299	2005 Ford F-750 XLT Super Duty
MT484	2012 Ford F350 XL Mechanics Tr
MW421	Toro 3000 Commercial Mower
MX335	2007 CAT RM-300 Road Reclaimer
MX465	2006 CAT RM300 Soil Stabilizer
PB343	John Deere Gator
PB359	Kawasaki Mule
PB398	Kubota RTV900 4x4 Utility Cart
PR140	1991 Bomag BW12R Pneum.Roller
PR277	1990 Bomag 9 Wheel Roller
PU310	2010 Toyota Tundra SR5 Pickup
PU373	2011 Chevrolet 3/4 Ton Flatbed
PU400	2012 Toyota Tundra Pickup
PU407	2011 Chevrolet Silv Flatbed
PU411	2012 Toyota Tundra Pickup
PU418	2012 Toyota Tundra Pickup
PU419	2011 Chevy 3/4 Ton Flatbed
PU425	2011 Chevrolet Silverado Truck
PU438	2013 Ford Explorer
PU441	2013 Chevrolet Silverado
PU443	2013 Silverado 2500 Extend Cab
PU448	2013 Toyota Tundra
PU453	2013 Toyota Tundra Pickup
PU461	2013 Chevrolet w/Flatbed
PU469	2013 Cheverolet 2500 Flatbed
PU477	2014 Dodge Ram 3500 Flatbed
PU478	2011 Dodge Ram 3500 4X4 FB
PU483	2012 Dodge 5500 Flatbed Truck
PU487	2013 Dodge 5500 Flatbed Truck
PU494	2016 Toyota Tundra
PU499	2016 Land Rover Discovery
PU501	2017 Toyota Tundra
PU505	2017 Toyota Tundra
RT481	2006 Terex RT555 Crane

SS336	2008 Bobcat T250 Skid Steer Ld
SS375	CAT 236B Skid Steer/Loader
SS475	2015 Bobcat T770 Multi Terrai
SS476	2012 Bobcat T770 Multi Terrain
SS488	2012 Bobcat Terrain Loader
SS502	'08 Bobcat T250 Multi Trrn Ldr
SS504	Bobcat T250 Multi Terrain Load
ST317	1994 Mack FB Attenuator Truck
TC251	Gomaco Texture Cure Machine
TH311	2009 CAT 303CR Mini Excavator
TH352	2006 CAT 314C Excavator
TH396	2011 CAT 324DL Excavator
TH432	2009 CAT 336DL Hydraulic Excav
TH475	2014 CAT 329EL
TH479	323 FL CAT Excavator
TH493	2012 Cat 324 EL Excavator
TH496	2011 CAT 320DL Hyd. Excavator
TH497	2012 CAT Track Excavator
TH498	2013 CAT Track Excavator
TR233	2003 Gomaco 9000 Trimmer
TR392	2006 Wacker Trench Comptor
TR482	2001 Bomag Trench Roller
TT379	2004 Felling 12' Tilt Deck Trl
UT207	2005 Big Tex 16' Trlr.
UT217	2006 Pacesetter Utility Trailr
UT372	2010 Carry On 6' X 12' Trailer
UT426	2012 Big Tex 16' Barricade Tlr
UT431	2012 Big Tex 18' Trailer
UT476	2015 20' Tilt Utility Trailer
UT500	2016 Big Tex Utility Dump Trai
UT510	2017 Big Tex Utility Trailer
VP132	Multiquip Vibra-Plate
WE492	Miller Bobcat 250 Welder
WH213	Allmand Walk Hammer /EZ Braker
WH413	EZ Breaker Model 1100
WL261	2005 CAT 928G Wheel Loader
WL334	2006 CAT 930G Wheel Loader
WL391	2009 CAT 938 G Wheel Loader
WL471	2012 CAT 924K Wheel Loader
WL473	2014 930K QC CAT Wheel Loader
WL491	2013 Caterpillar 950K Loader
WL503	Caterpillar 938K Wheel Loader
WP474	Pioneer 4" Trash Pump
WT267	1997 Ford F800 Water Truck
WT295	2004 Ford F750XL Water Truck
WT314	2001 Mega MPT Water Tower
WT371	2006 Ford F650 XL Water Truck
WT445	2006 Ford F650 XL Super Duty

DTR178	2005 Round Bottom Trlr/DTR177
DTR235	2007 32' Round Bottom Trailer
DTR358	2008 Round Bottom End Dump Trl
RTE374	2005 CAT M316C Excavator
SCREED	Speedscreed Cruiser
WTR291	2005 Wylie Watering Trailer
HT468 B	2014 Trail King Ext Booster
HT486 A	2015 Trail King Single Flip Ax
HT486 B	2014 Trail King Ext Booster
SCREEDS	Concrete Screed Machines
AUTOFLOAT	Gomaco Autofloat 40'
MISSILE 1	Terra 3" underground missile
90 LBS CP	JACK HAMMERS
CONC SAWS	ALL HAND HELD CONCRETE SAWS
CONC VIBR	Concrete vibrators
EZ DRILLS	EZ DRILLS
FUEL TANKS	1000, 500 and 110 gallon tanks
GENERATORS	Generators
HILTI DRIL	All Hilti Drills
JUMP JACKS	Jumping Jacks
WATER PUMP	All Water & Trash Pumps

Type(s) of work to be done by Bidder's Employees (examples: concrete paving, structural concrete, waterlines, sanitary sewer lines, storm pipe, storm inlets, excavation, lime, bridge fencing, etc.)

Concrete paving, excavation, lime subgrade, site preparation
landscaping,

Access to Tools and Equipment: Percent Owned 100 Percent Rented

Number of Years in Business as a Contractor on Above Types of Works: 26

Type(s) of Work to be done by Sub-Contractors

Include Name, Address, and Phone Number of Sub-Contractor.

Use additional sheets if needed.

Type of Work

Sub-Contractor

See Attached

List Equipment to be used on this project (Make/Model/Age of Major Equipment) Any Equipment not listed shall be reviewed by the OWNER for approval or rejection prior to use of Equipment on this project. (Use additional sheets if necessary)

Type of Equipment

Make

Model

Age (years)

See Attached

List of ALL Municipal and Similar Non-Municipal current and completed projects for the past three (3) years. (Use additional sheets if necessary.) *See Attached*

1. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Project Description: _____

Owner/Agency: _____

Year Built: _____ Contract Price: _____

Contact Person: _____ Phone: _____

2. Project: _____

Current Status: _____

Any Litigation Issues: Yes or No (Circle One) If Yes, explain: _____

Any Verified Safety Violations: Yes or No (Circle One) If Yes, explain: _____

Owner **City of Rockwall**
Address/Phone **385 S. Goliad Street**
Address
City/State/Zip **Rockwall, TX 75087**
Type of Work

Jeremy White
972-771-7746
jwhite@rockwall.com

Job #/ Amount	17-034	\$2,359,015.38
Description	Montgomery St.	

Owner **City of Fort Worth**
Address/Phone **1000 Throckmorton**
Address
City/State/Zip **Fort Worth, TX 76102**
Type of Work

Aaron Hazlett
972-739-6405
ahazlett@haydonbc.com

Address/Phone **1515 N. Galloway Ave.** (972) 216-6357
Address
City/State/Zip **Mesquite Texas 75149**
Type of Work

Job #/ Amount **18-007** **\$538,095.70**
Description **Prairie Creek**

Owner **Greenleaf Ventures, LLC** Victor Toledo
Address/Phone **5711 Redwood Lane** **214-755-9905**
Address
City/State/Zip **Dallas, TX 75029**
Type of Work

Job #/ Amount **18-006** **\$494,125.36**
Description **Shadow Creek**

Owner **North Texas Contracting** Sean Gilligan
Address/Phone **4999 Keller Haslet Road** **817-430-9500**
Address
City/State/Zip **Keller, Texas 76244**
Type of Work

Job #/ Amount **18-004** **\$1,350,250.54**
Description **Stewart Creek Phase 3**

Owner **City of Frisco** Sub-Contractor to Wildstone
Address/Phone Louie Patino Cell 817-908-6050
Address **6101 Frisco Square Blvd** **Lpatino@wildstoneconstruction.com**
City/State/Zip **Frisco, TX 75034**
Type of Work

Job #/ Amount **17-048** **\$4,616,215.41**
Description **Palace Parkway**

Owner **City of Grand Parairie** George Fanous (972)237-8143
Address/Phone **326 W. Main Street** **gfanous@gptx.org**
Address
City/State/Zip **Grand Prairie, TX 75050**
Type of Work

Job #/ Amount **17-039** **\$3,409,273.86**
Description **Boydston Ave.**

Type of Work Paving ,utilities,bridge

Job #/ Amount 18-022 \$2,546,776.41
Description Lake Country

Owner City of Rowlett Mohammed Howlader
Address/Phone 4004 Main Street 972-463-3979
Address
City/State/Zip Rowlett Texas 75088
Type of Work Paving

Job #/ Amount 18-021 \$1,320,252.59
Description Schrade Road

Owner City of Rowlett Jeff Fisher
Address/Phone 4004 Main Street 214-536-7024
Address
City/State/Zip Rowlett Texas 75088
Type of Work Paving

Job #/ Amount 18-019 \$1,271,303.34
Description Aberdeen Offsite Road

Owner Toll Brothers Peyton Elrod
Address/Phone 2121 Cross Timbers Road 972-874-6313
Address
City/State/Zip Flower Mound, Texas 75028
Type of Work Paving

Job #/ Amount 18-015 \$907,326.39
Description Lebanon Road

Owner City of Lancaster
Address/Phone 700 E Main Street Than Nguyen
Address 972-218-1200
City/State/Zip Lancaster Texas 75146
Type of Work

Job #/ Amount 18-009 \$8,825,620.26
Description Scyene Road

Owner City of Mesquite Mitchell Talley

Owner City of Rockwall Jeremy White
Address/Phone 4004 Main Street 972-771-7746
Address
City/State/Zip Rowlett Texas 75088
Type of Work Paving

Job #/ Amount 18-029 \$4,228,518.90
Description South Main Street

Owner City of Mansfield Raymond Coffman
Address/Phone 100 S Broad Street 817-276-4238
Address
City/State/Zip Mansfield Texas 76063
Type of Work Paving

Job #/ Amount 18-028 \$1,854,550.16
Description Live Oak

Owner City of Fort Worth Mary Hannah
Address/Phone 200 Texas Street 817-392-5565
Address
City/State/Zip Fort Worth, Texas 76102
Type of Work Paving

Job #/ Amount 18-027 \$5,874,495.00
Description Pleasant Run

Owner City of Lancaster Dipak Patel
Address/Phone 3211 N Henry Stree 972-218-1243
Address
City/State/Zip Lancaster, Texas 75146
Type of Work Paving

Job #/ Amount 18-025 \$3,893,078.55
Description Wildlife Commerce 2

Owner CHI/Wildlife Land, LP Roger Dahlin
Address/Phone 3819 Maple Ave. 214-849-0011
Address
City/State/Zip ,Dallas, TX 75219

Address
City/State/Zip **Grand Prairie, Texas 75050**
Type of Work **Paving**

Job #/ Amount **19-001** **\$216,202.00**
Description **Sachse Community Center**

Owner **City of Sachse** **Greg Peters**
Address/Phone **3815 B Sachse Road** **(972) 495-7600**
Address
City/State/Zip **Sachse, Texas 75048**
Type of Work **Paving**

Job #/ Amount **18-034** **\$1,149,472.25**
Description **Point Vista**

Owner **Town of Hickory Creek** **Tom Harris**
Address/Phone **970 Main Street** **972-463-3934**
Address
City/State/Zip **Hickory Creek, TX 75065**
Type of Work **Paving**

Job #/ Amount **18-033** **\$3,445,762.00**
Description **Dalrock Estates**

Owner **City of Rowlett** **Tom Harris**
Address/Phone **4004 Main Street** **972-463-3934**
Address
City/State/Zip **Rowlett Texas 75088**
Type of Work **Paving**

Job #/ Amount **18-031** **\$5,203,440.66**
Description **Gee Road**

Owner **VP Windsong Operations, LLC** **Ian Graham**
Address/Phone **2242 Good Hope Road** **972-215-7144**
Address
City/State/Zip **Prosper, TX 75078**
Type of Work **Paving & Bridge / Structure**

Job #/ Amount **18-030** **\$5,335,467.51**
Description **County Line Road**

Job #/ Amount	19-009	\$4,572,234.00
Description	Timberland Phase 3	

Owner	City of Fort Worth	Mitch Aiton
Address/Phone	200 Texas Street	682-201-9106
Address		Mitch.Aiton@fortworthtexas.gov
City/State/Zip	Fort Worth Texas	
Type of Work	Arterial Roadway Improvements	

Job #/ Amount	19-005	\$6,775,223.00
Description	Lucas Trilogy	

Owner	City of Lucas	Adam Gerster
Address/Phone	665 Country Culb Road	972-912-1208
Address		
City/State/Zip	Lucas, TX 75002	
Type of Work	Paving	

Job #/ Amount	19-004	\$1,111,449.05
Description	Dallas N Estates 2	

Owner	City of Plano	Husain Hamza
Address/Phone	1520 K Avenue	972-941-7152
Address		
City/State/Zip	Plano, Texas 75074	
Type of Work	Paving	

Job #/ Amount	19-003	\$74,095.00
Description	North Mesquite Drive	

Owner	Coppell Construction Company Inc	
Address/Phone	210 North Broad Street	940-995-3101
Address		
City/State/Zip	St Joe, Texas 76265	
Type of Work	Paving	

Job #/ Amount	19-002	\$341,599.36
Description	Lake Ridge Parkway	

Owner	N^3, LP	
Address/Phone	2505 N Interstate Hwy 360 #800	210-545-1122

Owner **TCRG Opportunity LLC** Alex Coulson
Address/Phone **100 West Risinger Road** 817-964-7093
Address alex@tcrg.com
City/State/Zip **Fort Worth Texas**
Type of Work **Paving**

Job #/ Amount **19-016** **\$647,047.00**
Description **Dalworth Street**

Owner **City of Grand Prairie** Chris Agnew
Address/Phone **206 W Church Street** 972-237-8137
Address cagnew@gptx.org
City/State/Zip **Grand Prairie Texas 75051**
Type of Work **Drainage Improvements & Paving**

Job #/ Amount **19-014** **\$767,302.00**
Description **Deleware Creek**

Owner **City of Irving** Vermel Wilds
Address/Phone **825 W. Irving Blvd.** 972-721-2334
Address
City/State/Zip **Irving, TX 75060**
Type of Work **Wastewater Replacement**

Job #/ Amount **19-012** **\$155,401.00**
Description **Lewis Trail Alley**

Owner **City of Sachse** Gary Alexander
Address/Phone **3815 B Sachse Road** 972-495-7600
Address
City/State/Zip **Sachse, Texas 75048**
Type of Work **Paving**

Job #/ Amount **19-011** **\$588,733.00**
Description **Mesquite Middle School #10**

Owner **Mesquite ISD** Kevin Gullatt
Address/Phone **3819 Towne Crossing Blvd** cell: 817-808-8358
Address kgullatt@millersierra.com
City/State/Zip **Mesquite Texas 75150**
Type of Work **Paving**

Job #/ Amount	19-021	\$1,438,565.00
Description	Palos Verdes Dam Modification	

Owner	City of Mesquite	Curtis Cassidy
Address/Phone	1515 N Galloway Ave	(972) 216-6363
Address		
City/State/Zip	Mesquite, TX 75149	
Type of Work	Paving Drainage	

Job #/ Amount	19-020	\$6,330,519.00
Description	FY 18 Eules Reconstruction	

Owner	City of Eules	Stephen Moore
Address/Phone	201 N Ector Dr.	817-685-1877
Address		sdmoore@eulesstx.gov
City/State/Zip	Eules, TX 76039	
Type of Work	Paving Replacement w Sidewalks	

Job #/ Amount	19-019	\$1,957,714.00
Description	Kimberly Drive	

Owner	City of Arlington	Kevin Ly
Address/Phone	101 W Abram Street	817-459-6351
Address		
City/State/Zip	Arlington Texas 76010	
Type of Work	Water & Wasterwater Replacement, Paving	

Job #/ Amount	19-018	\$37,525.72
Description	Salt Cedar Way	

Owner	Murray Ward	Jacob Murray
Address/Phone	2364 South Uecker Lane	
Address	# B	Jacob@mw-con.com
City/State/Zip	Lewisville Texas 75067	(972) 207-1857
Type of Work	Slip Form Paving	

Job #/ Amount	19-017	\$153,939.00
Description	10200 S Freeway	

Owner **City of Arlington**
Address/Phone **101 W Abram Street**
Address
City/State/Zip **Arlington, TX 76010**
Type of Work **Paving**

Job #/ Amount **19-025** **\$1,140,893.00**
Description **(Storage Bunker) Water Utility Facilities Phase 2**

Owner **City of Grand Prairie** **Joe Carter**
Address/Phone **206 W. Church St.** **214-361-7900**
Address
City/State/Zip **Grand Prairie, TX 75050**
Type of Work **Structural Concrete**

Job #/ Amount **19-024** **\$2,426,875.00**
Description **E. University Ave. Reconstruction**

Owner **City of Waxahachie** **James Gaertner**
Address/Phone **401 S Rogers St.** **469-309-4301**
Address
City/State/Zip **Waxahachie, TX 75168**
Type of Work **Paving, Drainge, Waterline and Sewer**

Job #/ Amount **19-023** **\$8,247,981.00**
Description **South Collins Street Recon (Pioneer to Park Row)**

Owner **City of Arlington** **Kevin Ly**
Address/Phone **101 W Abram Street** **817-459-6351**
Address
City/State/Zip **Arlington Texas 76010**
Type of Work **Water & Wasterwater Replacement, Paving**

Job #/ Amount **19-022** **\$61,511.00**
Description **Woodbridge Road & Alleys**

Owner **City of Sachse** **Gary Alexander**
Address/Phone **3815 B Sachse Road** **972-495-7600**
Address
City/State/Zip **Sachse, Texas 75048**
Type of Work **Paving**

McMahon Contracting, L. P.
Jobs In Progress 04/2018 to 11/2019

There are no Safety Violations on these projects

Value of Contract

Job #/ Amount	19-030	\$2,014,309.00
Description	Candler Drive	

Owner City of Burleson
Address/Phone 141 W Renfro Street
Address
City/State/Zip Burleson, TX 76028
Type of Work Bridge/Paving

Job #/ Amount	19-029	
Description	Craig Ranch Fire Lane	

Owner
Address/Phone
Address
City/State/Zip
Type of Work Paving

Job #/ Amount	19-028	
Description	Sachse Street Repair	

Owner
Address/Phone
Address
City/State/Zip
Type of Work Paving

Job #/ Amount	19-027	\$1,717,505.00
Description	Keller Haslet Road Culvert	

Owner City of Fort Worth
Address/Phone 200 Texas St.
Address
City/State/Zip Fort Worth, TX 76102
Type of Work Storm Drainage/Structure

Job #/ Amount	19-026	\$109,607.20
Description	Johnson Creek Paving	

McMahon Contracting, L. P.
Completed Jobs 01/01/2015 to 08/30/2019

*** There are no Safety Violations on these projects ***

Value of Contract

Job #/ Amount	19-018	\$37,525.72
Description	Salt Cedar Way	

Owner	City of Frisco
Address/Phone	6101 Frisco Square Blvd.
Address	
City/State/Zip	Frisco, TX 75034
Type of Work	Paving

Job #/ Amount	19-017	\$153,939.80
Description	10200 S Freeway	

Owner	TCRG Opportunity XV, LLC	Leon Wilson
Address/Phone	5201 Camp Bowie Blvd	817-392-8883
Address		
City/State/Zip	Fort Worth, TX 76107	
Type of Work	Paving	

Job #/ Amount	19-015	\$234,637.00
Description	Hounsel Lane Expansion	

Owner	Town Of Sunnyvale	Zach Fusilier
Address/Phone	127 N Collins Rd	817-430-9500
Address		
City/State/Zip	Sunnyvale, TX 75182	
Type of Work	Paving	

Job #/ Amount	19-010	\$51,255.00
Description	Murphy Road	

Owner	City of Sachse	Gary Alexander
Address/Phone	6240 Sachse Road	972.495.7600
Address		
City/State/Zip	Sachse Texas 75048	
Type of Work	Paving	

Job #/ Amount	19-008	\$4,585,652.00
Description	Collins Street (Mayfield to IH-20)	

Owner **City of Arlington** Kevin Ly
Address/Phone **101 W Abrams Street** 817-459-6351
Address
City/State/Zip **Arlington Texas 76010**
Type of Work

Job #/ Amount **19-007** **\$106,866.51**
Description **Trinity Blvd**

Owner **City of Grand Prairie** Leland Miller
Address/Phone **206 W Church Street** 972-237-8529
Address
City/State/Zip **Grand Prairie Texas 75051**
Type of Work **Paving**

Job #/ Amount **19-006** **\$453,441.00**
Description **Fountain Parkway**

Owner **City of Grand Prairie** Leland Miller
Address/Phone **206 W Church Street** 972-237-8529
Address
City/State/Zip **Grand Prairie Texas 75051**
Type of Work **Paving**

Job #/ Amount **19-004** **\$1,111,449.05**
Description **Dallas N Estates**

Owner **City of Plano** Husain Hamza
Address/Phone **1520 K Avenue** 972-941-5387
Address
City/State/Zip **Plano, TX 75074**
Type of Work **Paving/Drainage**

Job #/ Amount **19-001** **\$216,202.00**
Description **Sachse Community Center**

Owner **City of Sachse** Greg Peters
Address/Phone **6240 Sachse Road** 972.495.7600
Address
City/State/Zip **Sachse Texas 75048**
Type of Work **Paving**

Job #/ Amount **18-035** **\$94,159.00**
Description **Tina Street**

Owner **City of Sachse** Gary Alexander
Address/Phone **3815 Sachse Road** 972.495.7600
Address
City/State/Zip **Sachse, Texas 75048**
Type of Work **Paving**

Job #/ Amount **18-034** **\$1,149,472.25**
Description **Point Vista Road**

Owner **Town of Hickory Creek**
Address/Phone **1075 Ronald Reagan Ave.**
Address
City/State/Zip **Hickory Creek, TX 75065**
Type of Work **Paving/Drainage**

Job #/ Amount **18-028** **\$1,854,550.16**
Description **Live Oak Connector**

Owner **City of Fort Worth** James T. (Tommy) McKinnon
Address/Phone **200 Texas St.** 817-392-8306
Address
City/State/Zip **Fort Worth, TX 76102**
Type of Work **Paving/Drainage**

Job #/ Amount **18-026** **\$787,798.38**
Description **Seeton Estates**

Owner **City of Mansfield** Derek Wells
Address/Phone **1200 E Broad Street** 682-561-0078
Address
City/State/Zip **Mansfield, Texas**
Type of Work **Paving**

Job #/ Amount **18-023** **\$514,091.14**
Description **Heartland Bridge**

Owner **City of Kaufman** Richard Underwood
Address/Phone **1003 W. Grove St.** 972-962-8007
Address
City/State/Zip **Kaufman, TX 75142**
Type of Work **Paving**

Job #/ Amount **18-021** **\$1,320,252.59**

Description **Schrade Road**

Owner **City of Rowlett** Jeff Fisher
Address/Phone **4000 Main St** 214-536-7024
Address
City/State/Zip **Rowlett, TX 75088**
Type of Work **Paving/Utilities/Drainage**

Job #/ Amount **18-020** **\$126,044.52**
Description **Petterson Addition**

Owner **PMB Capital Invest (RECH Coppell, LLC)** Sonny Davis
Address/Phone **4145 Travis Street, Suite 202** 713-962-0525
Address
City/State/Zip **Dallas, TX 75204**
Type of Work **Paving**

Job #/ Amount **18-018** **\$388,333.35**
Description **Bois D'Arc**

Owner **The Seitz Group** Andrew Metscher
Address/Phone **5850 Town And Cntry Boulevard** 972-782-4443
Address
City/State/Zip **Frisco, TX 75034**
Type of Work **Paving**

Job #/ Amount **18-017** **\$241,889.41**
Description **N Hawkins**

Owner **City of Waxahachie** Joe Grajewski
Address/Phone **401 S Rogers Street** 214-361-7900
Address
City/State/Zip **Waxahachie Texas 75168**
Type of Work **Paving**

Job #/ Amount **18-011** **\$241,889.41**
Description **Canyon Falls Village E4 Paving**

Owner **Town of Northlake** Tom Dayton
Address/Phone **1400 FM407** 682-225-7198
Address
City/State/Zip **Northlake Texas 76247**
Type of Work **Paving**

Job #/ Amount	18-008	\$900,365.00
Description	Burleson Bridge	

Owner	Country Place Village I LP	Andrew bellefeuille
Address/Phone	3333 Welborne Street	469-804-8332
Address		
City/State/Zip	Dallas Texas 75219	
Type of Work	Bridge / Structure	

Job #/ Amount	18-007	\$538,095.70
Description	Villas at Prairie Creek	

Owner	Greenleaf Ventures, LLC	Victor Toledo
Address/Phone	5711 Redwood Lane	214-755-9905
Address		
City/State/Zip	Dallas, TX 75209	
Type of Work	Paving	

Job #/ Amount	18-005	\$165,000.00
Description	Bryan Street and West Creek	

Owner	City of Sachse	Greg Peters
Address/Phone	3815 B Sachse Road	469-429-4792
Address		
City/State/Zip	Sachse, TX 75048	
Type of Work	Paving	

Job #/ Amount	18-001	\$495,712.09
Description	Hunt County IH-30	

Owner	TXDOT	Paul Simanek (214)596-7300
Address/Phone	Greenville Area Office	GC: Austin Bridge& Road
Address	3001 I-30 East	6330 Commerce DR, Suite 150
City/State/Zip	Greenville, TX 75402	Irving, Texas 75063
Type of Work	Paving	

Job #/ Amount	18-003	\$408,526.95
Description	Varsity	

Owner	City of Grand Parairie	Leland Miller (972)237-8529
Address/Phone	326 W. Main Street	lrmler@gptx.org

Address
City/State/Zip **Grand Prairie, TX 75050**
Type of Work **Paving**

Job #/ Amount 18-002 \$251,518.20
Description Avenue B

Owner **City of Grand Parairie** Leland Miller (972)237-8529
Address/Phone **326 W. Main Street** lrmler@gptx.org
Address
City/State/Zip **Grand Prairie, TX 75050**
Type of Work **Paving**

Job #/ Amount 17-039 \$3,409,273.86
Description E Boydston & Throckmorton

Owner **City of Rockwall** Jeremy White
Address/Phone **815 E Washington St** 972-771-7746
Address
City/State/Zip **Rockwall, TX 75087**
Type of Work **Drainage/Water/Wastewater/Paving**

Job #/ Amount 17-031 \$211,753.87
Description City Hall Fish Pond

Owner **City of Carrollton** Mike McKay
Address/Phone **1945 Jackson Rd** (972)466-3000 972-466-3183
Address
City/State/Zip **Carrollton, TX 75006**
Type of Work **Paving & Drainage**

Job #/ Amount 17-030 \$1,170,952.78
Description Vandergriff

Owner **City of Carrollton** Mike McKay
Address/Phone **1945 Jackson Rd** 972-466-3183
Address
City/State/Zip **Carrollton, TX 75006**
Type of Work **Paving Drainage**

Job #/ Amount 17-029 \$3,056,307.03
Description Timberland PH 2

Owner City of Fort Worth Joseph Rodgers
Address/Phone 1000 Throckmorton 817-223-2247
Address
City/State/Zip Fort Worth, TX 76102
Type of Work Paving

Job #/ Amount 17-028 \$1,320,917.08
Description Drainage Improvement PT. 1

Owner City of Grand Prairie Chris Agnew
Address/Phone 326 W. Main Street 972-237-8137
Address cagnew@GPTX.org
City/State/Zip Grand Prairie, TX 75050
Type of Work Paving Drainage Utilities

Job #/ Amount 17-027 \$3,706,598.70
Description CR 151 Old Kemp Highway

Owner City of Kaufman Richard Underwood office: 972-962-
Address/Phone 2311 S. Washington kaufmanpublicworks@kaufmantx.org
Address
City/State/Zip Kaufman, TX 75142
Type of Work Paving & Utilities

Job #/ Amount 17-024 \$882,576.67
Description Stadium Drive

Owner City of Waxahachie Robert Murphy
Address/Phone 401 S. Rogers Street 469-309-4305
Address
City/State/Zip Waxahachie, TX 75165
Type of Work Paving

Job #/ Amount 17-020 \$2,041,768.50
Description Overhill & Olive

Owner City of Waxahachie Robert Murphy
Address/Phone 401 S. Rogers Street 469-309-4305
Address
City/State/Zip Waxahachie, TX 75165
Type of Work Paving, Drainage, Sewer and Water

Job #/ Amount	17-018	\$277,075.76
Description	Saintsbury Road	

Owner	Trammell Crow Company No.43 Ltd.	Jason Jones
Address/Phone	2711 N Haskell #800	972-387-1700
Address		
City/State/Zip	Dallas, TX 75234	
Type of Work	Paving	

Job #/ Amount	17-016	\$960,862.53
Description	FM3325 / FM 1187 Paving	

Owner	TxDOT	James (Buddy) Scoggins
Address/Phone	1427 W. Bankhead	817-694-1245
Address		
City/State/Zip	Weatherford, TX 76086	
Type of Work	Paving	

Job #/ Amount	17-015	\$1,335,090.87
Description	Maumelle Drive & Daybreak Trail	

Owner	City of Plano	Tim Bennet
Address/Phone	1520 Ave. K	972-941-5346
Address		
City/State/Zip	Plano, TX 75074	
Type of Work	Paving, Drainage, Sewer and Water	

Job #/ Amount	17-015	\$1,335,090.87
Description	Maumelle Drive & Daybreak Trail	

Owner	City of Plano	Tim Bennet
Address/Phone	1520 Ave. K	972-941-5346
Address		
City/State/Zip	Plano, TX 75074	
Type of Work	Paving, Drainage, Sewer and Water	

Job #/ Amount	17-010	\$681,210.00
Description	Miles Turn Lane	

Owner	City of Sachse	Greg Peters
Address/Phone	3815 B Sachse Road	469-429-4792
Address		

City/State/Zip Sachse, TX 75048
Type of Work

Job #/ Amount 17-009 \$3,368,249.16
Description Hardin Boulevard Lanes 5 & 6

Owner City of McKinney Jason Horne
Address/Phone 221 N Tennessee 972-547-7435
Address
City/State/Zip McKinney, Texas 75069
Type of Work Paving, Drainage, Sewer and Water

Job #/ Amount 17-008 \$2,640,334.00
Description Synergy Crossing

Owner TCRG Opportunityy, IX, LLC Ryan Lack
Address/Phone 5201 Camp Bowie Blvd. Ste. 200 972-354-8274
Address
City/State/Zip Fort Worth, TX 76107
Type of Work Paving

Job #/ Amount 17-004 \$389,652.00
Description South Village Addition

Owner CADG Mill Street LLC Henry Rahmani
Address/Phone 1800 Valley View Lane #321 972-892-7200
Address
City/State/Zip Farmers Branch Texas 75234
Type of Work Paving

Job #/ Amount 17-003 \$276,487.28
Description Pebblebrook Drive

Owner City of Allen Kevin Bates
Address/Phone 305 Century Parkway 214-509-4578
Address
City/State/Zip Allen Texas 75013
Type of Work Paving

Job #/ Amount 16-039 \$665,693.55
Description Montgomery Ridge Paving Phase I

Owner **Carbon Landmark Construction Ltd** Travis Jones
Address/Phone **17120 Dallas Parkway Suite 101** 972-250-2990 x 106
Address
City/State/Zip **Dallas Texas 75248**
Type of Work **Paving**

Job #/ Amount 16-035 \$106,647.00
Description Bunker Hill

Owner **City of Sachse** Greg Peters
Address/Phone **3815 - B Sachse Road** 469-429-4792
Address
City/State/Zip **Sachse, Texas 75048**
Type of Work **Paving**

Job #/ Amount 16-034 \$1,966,702.01
Description Park Vista Bridge

Owner **Wal Mart** Mike Farrington
Address/Phone **702 SW 8th Street** 620-429-1414
Address
City/State/Zip **Bentonville, AK 72716**
Type of Work **Bridge**

Job #/ Amount 16-033 \$2,474,990.19
Description Forest Hill Bridge

Owner **Texas Department of Transportation** James Doty
Address/Phone **2501 SW Loop 820** 817-791-5565
Address
City/State/Zip **Fort Worth Texas 76133**
Type of Work **Bridge & Approach**

Job #/ Amount 16-032 \$2,317,521.07
Description Palo Alto Phase I

Owner **City of Carrollton** Thomas Geier
Address/Phone **1945 E Jackson Road** 972-466-4230
Address
City/State/Zip **Carrollton Texas 75006**
Type of Work **Paving, Drainage, Sewer and Water**

Job #/ Amount **16-031** **\$2,317,521.07**
Description **Phase VI Streets Reconstruction**

Owner **City of The Colony** Robert Kotasek
Address/Phone **6800 Main Street** 972-624-3137
Address
City/State/Zip **The Colony Texas 75056**
Type of Work **Paving & Drainage**

Job #/ Amount **16-030** **\$2,866,257.33**
Description **Dallas North Estates**

Owner **City of Plano** Tim Bennett
Address/Phone **1520 K Avenue** 972-941-5346
Address
City/State/Zip **Plano Texas 75068**
Type of Work **Paving, Drainage, Sewer and Water**

Job #/ Amount **16-021** **\$2,233,741.42**
Description **SH 199 Emergency Repair**

Owner **TXDOT** Chuck Wier IV
Address/Phone **2501 W Eules Boulevard** 817-399-4313
Address
City/State/Zip **Eules, Texas 76040**
Type of Work **Infrastructure / Retaining Wall Repair**

Job #/ Amount **16-019** **\$382,844.88**
Description **380 Right Turn Lane**

Owner **Denton I.S.D.** Glen Martin
Address/Phone **230 N Mayhill Road** 940-369-0022
Address
City/State/Zip **Denton, Texas 76208**
Type of Work **Paving**

Job #/ Amount **16-018** **\$405,303.17**
Description **Doe Branch Water Reclamation Center**

Owner **Upper Trinity Regional Water District** James Russell

Address/Phone 900 North Kealy Street 214-346-2800
Address
City/State/Zip Lewisville, Texas
Type of Work Paving

Job #/ Amount 16-015 \$3,116,643.98
Description Valley View Lane Reconstruction

Owner City of Farmers Branch Randy Walhood
Address/Phone 13000 William Dodson Parkway 972-919-2525
Address
City/State/Zip Farmers Branch Texas 75234
Type of Work Paving, Drainage, Sewer and Water

Job #/ Amount 16-016 \$287,387.66
Description McDonald Road

Owner City of Heath Chuck Todd
Address/Phone 200 Laurence Drive 972-961-4899
Address
City/State/Zip Heath Texas 75032
Type of Work Paving & Drainage Improvements

Job #/ Amount 16-010 \$734,753.00
Description Wildlife 4 & 5

Owner CHI / Wildlife Land LP Jade Randall
Address/Phone 3819 Maple Avenue 214-492-8900
Address
City/State/Zip Dallas Texas 75219
Type of Work Paving

Job #/ Amount 16-009 \$346,296.93
Description FM 546 Utility

Owner City of McKinney Paul Tucker
Address/Phone 221 N Tennessee 972-547-7573
Address
City/State/Zip McKinney Texas
Type of Work Utility Improvements

Job #/ Amount	16-007	\$649,748.00
Description	Sagebrush Lane	

Owner	City of Waxahachie	Sam Robinson
Address/Phone	PO BOX 757	214-912-6409
Address		
City/State/Zip	Waxahachie Texas 75165	
Type of Work	Paving & Sewer Line Reconstruction	

Job #/ Amount	16-003	\$762,470.09
Description	Addison Airport Addison	

Owner	Addison Infrastructure	Mitchell McAnally
Address/Phone	16801 Westgrove Road	214-619-9023
Address		
City/State/Zip	Addison, Texas 75001	
Type of Work	Drainage Improvements	

Job #/ Amount	15-032	\$347,843.00
Description	Watters Creek Extension Allen	

Owner	Watters Creek Owner LP	Karen Cooper
Address/Phone	970 Garden Park	972-747-8000
Address		
City/State/Zip	Allen, Texas	
Type of Work	Bridge	

Job #/ Amount	15-023	\$1,788,710.62
Description	Lake Forest Lanes 5 & 6 McKinney	

Owner	City of McKinney	Blake Sills
Address/Phone	221 N Tennessee Street	972-547-7420
Address		
City/State/Zip	McKinney, Texas 75069	
Type of Work	Paving	

Trade References for McMahon Contracting, L. P.

NAME OF FIRM OR COMPANY	DETAILED ADDRESS	PHONE #
Barnsco Inc.	2609 Willowcreek, Dallas, TX 75354	214-352-9091
Hanson Aggregates	15620 Collections Center Dr, Chicago, IL 60693	972-657-4347
Lattimore Materials Co.	P.O. Box 556, McKinney, TX 75070	972-221-4646
Thompson Pipe Group	800 CR 209, Alvarado Tx 76009	817-783-3444
Fabco Materials	13835 Beaumont Highway, Houston, Texas 77049	972-824-8969

BANK REFERENCE:

FROST BANK
P. O. Box 2665
Fort Worth, Texas 76113

Contact: **Judy Panayi**

Relationship Administrative Specialist 817-420-5617
Corporate Banking

Frost – Banking, Investments, Insurance
1240 Keller Pkwy Ste 100, Keller, Texas 76248 817-420-5050

Office: (817) 420-5564 | Fax: (817) 420-5340

judy.panayi@frostbank.com

Fax #: 1-817-420-5340

DUN AND BRADSTREET NO. 80265-4012

Claims and Suits (if the answer to any of the following questions is yes, please attached details):

1. Has your organization ever failed to complete any work awarded to it? NO
2. Are there any judgments, claims, arbitration proceedings, or suits pending or outstanding against your organization or officers? NO
3. Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years? _____
4. Within the last five (5) years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? NO

I, Shawn McMahon, being duly sworn deposes and says that the information

provided herein is true and sufficiently complete so as not to be misleading.

Date this 16th day of April, 2020.

Name of

Organization: McMAHON CONTRACTING, L.P.

-

By: [Signature]

Title: Shawn McMahon Manager

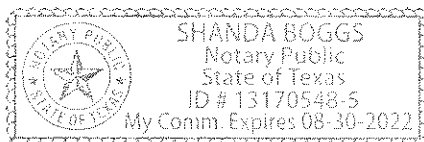
STATE OF TEXAS

COUNTY OF DALLAS

BEFORE ME the undersigned authority, on this day personally appeared _____

Shawn McMahon, known to me to be the person whose name subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 16 day of April 2020.



[Signature]

Notary Public in and for Dallas County, Texas

CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this 26th day of MAY, 2020, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its City Manager, thereunto duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and McMAHON Contracting, LP of the City of Dallas, County of Dallas, State of Texas, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by the OWNER, the said CONTRACTOR hereby agrees with the said OWNER to commence and complete construction of certain improvements as follows:

ADDISON AIRPORT GEORGE HADDAWAY RECONSTRUCTION

PUBLIC WORKS AND ENGINEERING SERVICES BID NUMBER 20-94

and all extra work in connection therewith, under the terms as stated in the General and Specific Conditions of the AGREEMENT; and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans, and other drawings and printed or written explanatory matter thereof, and the Technical Specifications and Addenda thereto, as prepared by the OWNER, each of which has been identified by the endorsement of the CONTRACTOR and the OWNER thereon, together with the CONTRACTOR's written Proposal and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The CONTRACTOR hereby agrees to commence work within ten (10) calendar days after the date of written notice to do so shall have been given to him, to complete the work within sixty (80) calendar days for Base Bid and Bid Alternate No. 1, after he commences work, subject to such extensions of time as are provided by the General Provisions.

The OWNER agrees to pay the CONTRACTOR Six-Hundred Fifty-Two Thousand Eight-Hundred Twenty-Four Dollars and Ninety Cents (**\$652,824.90**) in current funds for the performance of the Contract in accordance with the Proposal submitted thereof for the **Base Bid and Bid Alternate 1**, subject to additions and deductions, as provided in the General Provisions, and to make payments of account thereof as provided therein.

IN WITNESS WHEREOF, the parties of these presents have executed this AGREEMENT in the year and day first above written.

TOWN OF ADDISON, TEXAS (OWNER)

ATTEST:

By: *Dusty Steere*
City Manager



By: *Ima G. Parker*
R20-042

Memahon Contracting, L.P. (CONTRACTOR)

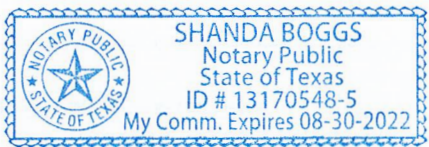
ATTEST:

By: *Shawn McMahon*
Shawn McMahon, manager.

By: *Shelley Peterson*
Shelley Peterson, Contract Admin.

The following to be executed if the CONTRACTOR is a corporation:

I, Shanda Boggs certify that I am the secretary of the corporation named as CONTRACTOR herein; that Shawn McMahon, who signed this Contract on behalf of the CONTRACTOR is the Manager (official title) of said corporation; that said Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.



Signed: *Shanda Boggs*

Corporate Seal

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

Certificate Number:
2020-611474

Date Filed:
04/24/2020

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

MCCMAHON CONTRACTING LP
GRAND PRAIRIE, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

TOWN OF ADDISON

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

20-94
ADDISON AIRPORT GEORGE HADDAWAY RECONSTRUCTION PUBLIC WORKS AND ENGINEERING SERVICES

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

5 Check only if there is NO Interested Party.

6 UNSWORN DECLARATION

My name is Shawn McMahon, and my date of birth is 10-15-1955.

My address is 3019 Roy Orr Boulevard, Grand Prairie, TX, 75050, U.S.A.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Dallas County, State of Texas, on the 27th day of April, 2020.
(month) (year)



[Signature]
Signature of authorized agent of contracting business entity (Declarant)

SECTION PrB
PERFORMANCE BOND

STATE OF TEXAS ;
COUNTY OF DALLAS ;

WHEREAS, McMahon Contracting, LP as principal ("Contractor") and Colonial American Casualty and Surety Company a corporation organized under the laws of Illinois and being duly authorized to do business in the State of Texas, as surety ("Surety")(whether one or more), do hereby expressly acknowledge themselves to be held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns, and to all persons, firms, subcontractors and corporations who may furnish materials or labor under the contract as more fully described below, the sum of Six Hundred Fifty Two Thousand, Eight Hundred Twenty Four and 90/100 Dollars in the lawful currency of the United States of America (\$ 652,824.90) for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct Addison Airport George Haddaway Reconstruction, Public Works and Engineering Services Bid Number 20-94

which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, this bond is given pursuant to Chapter 2253 of the Texas Government Code;

NOW, THEREFORE, if Contractor shall well, truly and faithfully perform all of the undertakings, duties, terms, conditions and agreements of the Contract; shall satisfy all claims and demands incurred under the Contract; shall fully indemnify and hold the Town harmless; shall reimburse and repay the Town for any outlay or expense which the Town may incur in making good any default, and shall promptly make payment to all persons, firms, subcontractors and corporations who may furnish materials or labor under the Contract, then this obligation shall be void; otherwise to remain in full force and effect. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the 27th day of April, 2020.

CONTRACTOR: McMahon Contracting, LP

SURETY: Colonial American Casualty and Surety Company

By: [Signature]

By: [Signature]

Title: Shawn McMahon, manager.

Title: Tina McEwan, Attorney-in-fact

ACKNOWLEDGMENTS
[Contractor]

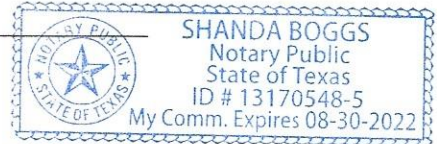
STATE OF TEXAS ;
COUNTY OF DALLAS ;

Before me Shawn McMahon (insert the name of the officer) on this day April 27, 2020 personally appeared Shawn McMahon known to me (or proved to me on the oath of Self) or through _____ (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this 27th day of April, 2020.

[Signature]
Notary Public in and for the State of Texas
My Commission Expires: 8-31-2022

Shanda Boggs
Typed or Printed Name of Notary



[Surety]

STATE OF TEXAS ;
COUNTY OF DALLAS ;

This instrument was acknowledged before me on the 27th day of April, 2020 by Tina McEwan who is the Attorney-in-fact of the Surety, on behalf of Surety.

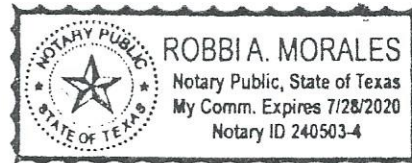
GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 27th day of April, 2020.

[Signature]
Notary Public in and for the State of Texas

Robbi A. Morales
Typed or Printed Name of Notary

My Commission Expires: 7/28/2020

1 Please see attached contact sheet for Surety and the Texas Department of Insurance.



Payment and Performance Bond Contact Sheet

(1) Claims:

All notices of claims shall be sent to the surety at the following address:

Colonial American Casualty and Surety Company

(Name of surety)

15303 Dallas Parkway, Suite 800, Addison, TX 75001

(Mailing address)

15303 Dallas Parkway, Suite 800, Addison, TX 75001

(Physical address)

972/774-2260

(Phone number)

(2) Texas Department of Insurance Contact Number:

The address and contact information of the surety may otherwise be obtained by contacting the Texas Department of Insurance at the following toll free telephone number:

1-800-252-3439.

SECTION PyB
PAYMENT BOND

STATE OF TEXAS }
COUNTY OF DALLAS }

WHEREAS, McMahan Contracting, LP as principal ("Contractor") and Colonial American Casualty and Surety Company, a corporation organized under the laws of Illinois and being duly authorized to do business in the State of Texas, as surety ("Surety") (whether one or more), do hereby expressly acknowledge themselves to be held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns, and to all persons, firms, subcontractors and corporations who may furnish materials or labor under the contract as more fully described below, the sum of \$18,000,000 Dollars in the lawful currency of the United States of America (\$ 652,824.90) for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct Addison Airport George Haddaway Reconstruction, Public Works and Engineering Services Bid Number 20-94

which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, this bond is given pursuant to Chapter 2253 of the Texas Government Code;

NOW, THEREFORE, if Contractor shall promptly make payment to all persons, firms, subcontractors and corporations who may furnish materials or labor under the Contract, then this obligation shall be void; otherwise to remain in full force and effect. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension of time or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the 27th day of April, 2020.

CONTRACTOR: McMahan Contracting, LP
By: Shawn McMahon, Manager

SURETY: Colonial American Casualty and Surety Company
By: Tina McEwan, Attorney-in-fact

ACKNOWLEDGMENTS
[Contractor]

STATE OF TEXAS }
COUNTY OF DALLAS }

Before me Shawn McMahon (insert the name of the officer) on this day April 27, 2020 personally appeared Shawn McMahon known to me or proved to me on the oath of Self or through (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this 27th day of April, 2020.

Shanda Boggs
Notary Public in and for the State of Texas
My Commission Expires: 8-30-2022

Shanda Boggs
Typed or Printed Name of Notary



[Surety]

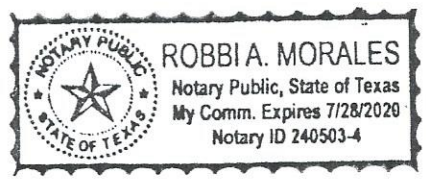
STATE OF TEXAS }
COUNTY OF DALLAS }

This instrument was acknowledged before me on the 27th day of April, 2020 by Tina McEwan who is the Attorney-in-fact of the Surety, on behalf of Surety.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 27th day of April, 2020.

Robbi A. Morales
Notary Public in and for the State of Texas
My Commission Expires: 7/28/2020

Robbi A. Morales
Typed or Printed Name of Notary



1 Please see attached contact sheet for Surety and the Texas Department of Insurance

Payment and Performance Bond Contact Sheet

(1) Claims:

All notices of claims shall be sent to the surety at the following address:

Colonial American Casualty and Surety Company
(Name of surety)

15303 Dallas Parkway, Suite 800, Addison, TX 75001
(Mailing address)

15303 Dallas Parkway, Suite 800, Addison, TX 75001
(Physical address)

972/774-2260
(Phone number)

(2) Texas Department of Insurance Contact Number:

The address and contact information of the surety may otherwise be obtained by contacting the Texas Department of Insurance at the following toll free telephone number:

1-800-252-3439.

SECTION MB
MAINTENANCE BOND

STATE OF TEXAS
COUNTY OF DALLAS

WHEREAS, McMahon Contracting, LP as principal ("Contractor") and Colonial American Casualty and Surety Company, a corporation organized under the laws of Illinois and being duly authorized to do business in the State of Texas, as surety ("Surety") (whether one or more), do hereby expressly acknowledge themselves to be held and bound to pay to the Town of Addison, Texas, a home-rule municipality organized and operating under the Constitution and laws of the State of Texas (the "Town"), its successors and assigns the sum of Six Hundred Fifty Two Thousand, Eight Hundred Twenty Four and 90/100 (\$652,924.90) Dollars in the lawful currency of the United States of America for the payment of which Contractor and Surety are liable to the Town, jointly and severally; and

WHEREAS, Contractor has this day entered into a written contract with the Town to build and construct which contract and the plans and specifications therein mentioned (collectively referred to hereinafter as the "Contract") are hereby expressly incorporated into and made a part hereof as though set forth at length; and

WHEREAS, under the Contract it is provided that the Contractor will maintain and keep in good repair all work to be performed and done under the Contract for a period of two (2) years from the date of acceptance of the completed work by the Town, and to do and perform all necessary work and repair any defective condition, it being understood that the purpose of this maintenance bond is to insure all warranties, express or implied, made or given by the Contractor to the Town and to cover all defective, inadequate or non-conforming conditions arising by reason of any materials or labor installed, provided, constructed or performed by the Contractor and in case the Contractor shall fail to correct any such conditions it is agreed that the Town may make such corrections and charge the cost of making those corrections against the Contractor and the Surety on this obligation, and the Contractor and Surety shall be subject to the liquidated damages provided in the contract, the plans and the specifications for each day's failure on its part to comply with the terms and provisions of the Contract;

NOW, THEREFORE, if the Contractor shall keep and perform its obligation to maintain the work and keep the work in repair for the full maintenance period of two (2) year as herein provided, then these presents shall be null and void and have no further effect, but if default shall be made by Contractor in the performance of its obligations, then these presents shall have full force and effect, and the Town shall have and recover from the Contractor and its Surety damages in the premises as provided and it is further understood and agreed that this obligation shall be a continuing one against the Contractor and the Surety and that successive recoveries may be had hereon for successive breaches until the full amount of this bond shall have been exhausted; and it is further understood that the obligation under this bond to maintain the work shall continue throughout the maintenance period and shall not be changed, diminished, or in any other manner affected during the term of this bond. The obligations of Contractor and Surety under this bond apply both to the original Contract and to any extension or modification of the Contract and Surety agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of Surety under this bond, and Surety waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of Contractor and Surety under this bond are performable and payable in Dallas County, Texas such that exclusive venue for any legal action pertaining to this bond shall lie in Dallas County, Texas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of Contractor and Surety.

EXECUTED this the 27th day of April, 2020.
CONTRACTOR: McMahon Contracting, LP SURETY: Colonial American Casualty and Surety Company

By: [Signature] By: [Signature]
Printed Name: Shawn McMahon Printed Name: Tina McEwan
Title: Manager Title: Attorney-in-fact

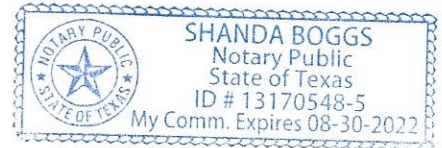
Address of Principal: 3019 Roy Orr Blvd. Address of Surety: 5005 LBJ Freeway, Suite 1500
Grand Prairie, TX 75050 Dallas, TX 75244

ACKNOWLEDGMENTS
[Contractor]

STATE OF TEXAS
COUNTY OF DALLAS

Before me Shawn McMahon (insert the name of the officer) on this day April 27, 2020 personally appeared Shawn McMahon known to me (or proved to me on the oath of self) or through _____ (description of identity card or other document) to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this 27th day of April, 2020. Shanda Boggs
[Signature] Typed or Printed Name of Notary
Notary Public in and for the State of Texas
My Commission Expires: 8-30-2022

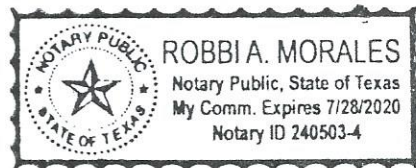


STATE OF TEXAS
COUNTY OF DALLAS

This instrument was acknowledged before me on the 27th day of April, 2020 by Tina McEwan who is the Attorney-in-fact of the Surety, on behalf of Surety.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 27th day of April, 2020.
[Signature] Robbi A. Morales
Notary Public in and for the State of Texas
2-4-13 2 yr
Typed or Printed Name of Notary

MB-2



**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by **Robert D. Murray, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Ricardo J. REYNA, Tina MCEWAN, Don E. CORNELL, Joshua SAUNDERS, Robbi MORALES, Sophinie HUNTER, Kelly A. WESTBROOK and Tonie PETRANEK, all of Dallas, Texas, EACH**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 8th day of November, A.D. 2019.



ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: *Robert D. Murray*
Vice President

By: *Dawn E. Brown*
Secretary

**State of Maryland
County of Baltimore**

On this 8th day of November A.D. 2019, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2023



Texas Important Notice

IMPORTANT NOTICE

To obtain information or make a complaint:

You may call Zurich North America's toll-free telephone number for information or to make a complaint at:

1-800-382-2150

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights, or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance:

P.O. Box 149104

Austin, TX 78714-9104

Fax: (512) 490-1007

Web: www.tdi.texas.gov

E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim, you should contact the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

AVISO IMPORTANTE

Para obtener información o para presentar una queja:

Usted puede llamar al número de teléfono gratuito de Zurich North America's para obtener información o para presentar una queja al:

1-800-382-2150

Usted puede comunicarse con el Departamento de Seguros de Texas para obtener información sobre compañías, coberturas, derechos, o quejas al:

1-800-252-3439

Usted puede escribir al Departamento de Seguros de Texas a:

P.O. Box 149104

Austin, TX 78714-9104

Fax: (512) 490-1007

Sitio web: www.tdi.texas.gov

E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS POR PRIMAS DE SEGUROS O RECLAMACIONES:

Si tiene una disputa relacionada con su prima de seguro o con una reclamación, usted debe comunicarse con la compañía primero. Si la disputa no es resuelta, usted puede comunicarse con el Departamento de Seguros de Texas.

ADJUNTE ESTE AVISO A SU PÓLIZA: Este aviso es solamente para propósitos informativos y no se convierte en parte o en condición del documento adjunto.

SECTION BP

CONTRACTOR'S AFFIDAVIT OF BILLS PAID

CONTRACTOR'S AFFIDAVIT OF BILLS PAID

STATE OF TEXAS

COUNTY OF DALLAS

Personally, before me the undersigned authority, on this day appeared _____ who, being
duly sworn, on oath, says that he is a legal representative of _____
(full name of Contractor as in contract)

and that the contract for the construction of the project, designated as

**ADDISON AIRPORT GEORGE HADDAWAY RECONSTRUCTION
PUBLIC WORKS AND ENGINEERING SERVICES BID NUMBER 20-94**

has been satisfactorily completed and that all bills for materials, apparatus, fixtures, machinery and labor used in connection with the construction of this project have, to the best of my knowledge and belief, been fully paid.

Signature

Title

Sworn to and subscribed before me this _____ day of _____, 20__.

Notary Public in and for

_____ County, Texas

Instructions:

If the contractor is an individual, he shall sign the affidavit. If the contractor is a partnership, any partner may sign the affidavit. If the contractor is a corporation, a person authorized by the by-laws or by the Board of Directors shall sign the affidavit. If the Contractor is a joint-venture of individuals, any of the individuals may sign the affidavit. If the Contractor is a joint-venture of partnerships, or of individuals and partnerships, the affidavit may be signed by the individual or any partner of any partnership. If the contractor is a joint-venture in which a corporation is a party, separate affidavits must be executed in the name of the joint-venture: one by each corporation and one by each individual or partnership. Signatures for corporations should be by a duly authorized officer. If signature is by another, a showing of authority to sign must accompany the affidavit.

SECTION GP

GENERAL PROVISIONS

GENERAL PROVISIONS

The General Provisions of the Contract shall be as stated in the *Standard Specifications for Public Works Construction – North Central Texas, 5th Edition (2017)*, under Division 100, "General Provisions," Items 101.1 through 109.6 inclusive, as amended or supplemented and except as modified by the Special Provisions or Instructions to Bidders.

GEORGE HADDAWAY RECONSTRUCTION

SECTION SP

SPECIAL PROVISIONS

GEORGE HADDAWAY RECONSTRUCTION

SPECIAL PROVISIONS

1. **SCOPE OF WORK:** The Work to be performed under the provisions of these Contract Documents shall consist of furnishing all materials, labor, equipment, supplies and appurtenances; providing all construction, plant, equipment and tools; performing all necessary labor and supervision; and the construction complete, including all Work appurtenant thereto, the proposed improvements for: **GEORGE HADDAWAY RECONSTRUCTION** (“Project”).
2. **GENERAL:** This Work shall conform to the requirements of the Specifications and the details as shown on the Plans. These Contract Documents are intended to be complementary. The Contractor shall do all work as provided in the plans, specifications, special provisions, bid and contract, and shall do such additional Extra work as may be considered necessary to complete the work in a satisfactory and acceptable manner. The Contractor shall furnish all labor, tools, materials, machinery, equipment, and incidentals necessary to the satisfactory prosecution and completion of the Work. Requirements of any of the Contract Documents are as binding as if called for by all. In the event of conflict between the Plans and the Specifications, the Contractor will be deemed to have assumed the more expensive way of doing the Work unless, before submitting a bid, the Contractor shall have asked for and obtained (by addendum) a written decision as to which method or material is intended.

In cases of discrepancies, calculated dimensions shall govern over scaled dimensions; Special Provisions and special Specifications shall govern over both General Provisions and standard Specifications; and quantities shown on the Plans shall govern over those shown in the proposal.

3. **EXAMINATION OF SITE:** The Contractor acknowledges that he has investigated and satisfied itself as to the conditions affecting the Work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, or similar physical conditions at the site, conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the Work. The Contractor acknowledges that he has inspected the site of the Work and is familiar with the soil conditions to be encountered. Any failure by the Contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the Work. The Town of Addison assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Town and the Engineer.
4. **SPECIFICATIONS:** Construction improvements shall be governed by the following published specifications and details (except as modified by these Special Provisions):

Standard Specifications for Public Works Construction, North Central Texas - North Central Texas Council of Governments (latest edition) (November 2017 edition);

GEORGE HADDAWAY RECONSTRUCTION

Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges – Texas Department of Transportation, 2014;

Town of Addison Standard Construction Details;

The specifications included in this document;

The Contractor shall keep copies of applicable Specifications on the Project site at all times.

Where reference is made to specifications compiled by other agencies, organizations or departments, such referenced specifications are hereby made a part of the Project Specifications.

5. **SUBSURFACE INVESTIGATION:** Subsurface exploration to ascertain the nature of soils, including the amount of rock, if any, is the responsibility of any and all prospective Bidders. It shall be the responsibility of the Bidders to make such subsurface investigations as he deems necessary to determine the nature of the material to be encountered. Some preliminary subsurface exploration has been performed by the Town of Addison and the Engineer, and is provided to the Contractor in the Contract Documents. This information is provided only as preliminary and all bids shall be based on information obtained by the Contractor. The Town of Addison and the Engineer disclaim any responsibility for the accuracy, true location and extent of the soils information that has been prepared by others. They further disclaim responsibility for interpretation of that data by Bidders, as in projecting soil bearing values, rock profiles, soils stability and the presence, level and extent of underground water.

6. **HISTORICAL, SCIENTIFIC AND ARCHAEOLOGICAL DISCOVERIES:** Contractor shall immediately give an oral and written report to the Town of Addison of the discovery of any articles of historical, scientific, or archaeological significance. Contractor shall take all necessary steps to preserve the article and shall cease operations, which would affect the find until otherwise directed by the Town of Addison but continue with all other unaffected operations. The future operations of Contractor with respect to the discovery, including disposition of the articles, shall be decided by the Town of Addison. The Town of Addison shall have sole and exclusive title to any discovered articles.

The Town of Addison shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in Contractor's cost of, or the time required for performing any part of the work under the Contract, whether or not changed as a result of conditions, an equitable adjustment will be made and the Contract modified in writing accordingly.

No request by Contractor for an equitable adjustment to the Contract under this Section shall be allowed unless Contractor has given the written notice required. No request by Contractor for an equitable adjustment of the Contract for differing site conditions will be allowed or shall be made after final payment under the Contract.

GEORGE HADDAWAY RECONSTRUCTION

ENVIRONMENTAL REQUIREMENTS: In addition to requirements set forth in other sections of the Contract, including the Plans and Specifications, Contractor shall ensure that the requirements of this Section are fulfilled and incorporated into its procedures and processes as well as those of any Subcontractors. All materials utilized by Contractor on the Project shall comply with all applicable local, state and federal laws and regulations.

A. Contractor is responsible for compliance with any requirements included in the Contract Documents regarding Hazardous Materials. If Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by Contractor, Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Town of Addison in writing.

1. The term "Hazardous Materials" means any substance or compound, whether solid, liquid or gaseous: (i) which is listed, defined or regulated as a "hazardous substance", "hazardous waste", "extremely hazardous waste", "solid waste", "toxic substance", "hazardous substance", "hazardous material" or "regulated substance" or otherwise classified as hazardous or toxic, in or pursuant to any Environmental Law; or (ii) which is or contains asbestos, radon, any polychlorinated biphenyl, urea formaldehyde foam insulation, explosive or radioactive material, lead, or motor fuel or other volatile organic compounds; or (iii) which causes or poses a threat to cause a contamination or nuisance on the Project Site or any adjacent property, or (iv) which causes or poses a threat to cause a hazard to the environment or to the health, safety or welfare of persons on or about the Project Site.

2. The term "Environmental Law" means any federal, state or local law, statute, guidance or policy statement, ordinance, code, rule, regulation, license, authorization, decision, order, injunction or decree, which pertains to health, safety or the environment (including, but not limited to, ground, air, water or noise pollution or contamination, and underground or aboveground tanks) and shall include without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, the Resource Conservation and Recovery Act of 1976, as amended, the Occupational Health and Safety Act, the Toxic Substances Control Act, the Texas Water Code and the Texas Solid Waste Disposal Act and any other state or federal environmental statutes.

B. If the material or substance was on the site prior to the issuance of the Notice to Proceed, the Town of Addison shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by Contractor and, in the event such material or substance is found to be present, to verify that it has been remediated to levels required by the Texas Commission on Environmental Quality. When the material or substance has been remediated, Work in the affected area shall resume upon written direction of the Town of Addison.

GEORGE HADDAWAY RECONSTRUCTION

C. Except as provided in Subparagraph B., Contractor (with the Town of Addison's prior written approval of the laboratory) shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by Contractor and, in the event such material or substance is found to be present, the Town of Addison shall determine whether Contractor or the Town of Addison shall have the substance remediated to levels required by the Texas Commission on Environmental Quality. When the material or substance has been remediated, Work in the affected area shall resume upon written direction of the Town of Addison. The Contract time shall be not be extended and the Contract Price shall not be increased, unless the material or substance to be remediated were not introduced to the Work Site by Contractor, and Contractor shall then pay for (or reimburse the Town of Addison for) the testing and remediation.

D. The Town of Addison shall not be responsible under this Section for materials or substances Contractor brings or introduces to the Project Site. Contractor shall be responsible for the fault or negligence in the use and handling of materials or substances of Contractor, Subcontractor, Sub-subcontractor, or anyone directly or indirectly employed by any of them.

E. Contractor shall indemnify the Town of Addison and its affiliates for any and all damages incurred by the Town of Addison as a result of Contractor's actions with respect to all applicable state and federal environmental laws related to materials or substances Contractor brings to the Project Site, including but not limited to fines, penalties, costs of remediation and reasonable attorney's fees. No time extension shall be granted for breach of this provision.

F. Contractor agrees that it shall not transport to, use, generate, dispose of, or install at the Project Site any Hazardous Materials, except in accordance with applicable environmental laws. Further, in performing the Work, Contractor shall not cause any release of Hazardous Materials into, or contamination of, the environment, including the soil, the atmosphere, any water course or ground water unless required by the Contract Documents. In the event Contractor engages in any of the activities prohibited in this Section or fails to stop Work as provided in this Section, to the fullest extent permitted by law, Contractor hereby indemnifies and holds the Town of Addison, its affiliates and their respective officers, agents, employees and tenants harmless from and against any and all claims, damages, losses, causes of action, suits and liabilities of every kind, including but not limited to, expenses of litigation, court costs, punitive damages and attorneys' fees, arising out of, incidental to or resulting from the activities prohibited in this Section or Contractor's failure to stop Work as required. Contractor shall obtain from manufacturers and furnish to the Town of Addison Materials Safety Data Sheets (OSHA Form 20) for all materials incorporated into the Project by Contractor. The Town of Addison hereby agrees that, as between the Town of Addison and Contractor, the Town of Addison will be responsible for Hazardous Materials on site which existed prior to Contractor performing Work on the Project Site or which are introduced to the Project Site by the Town of Addison, except as provided in this Section. Contractor will not be considered the generator of Hazardous Materials on site which existed prior to Contractor performing Work on the Work Site or which are introduced to the Project Site by the Town of Addison. If the Hazardous Materials were on the Project Site prior to

GEORGE HADDAWAY RECONSTRUCTION

Contractor's presence on the Project Site or were introduced to the Project Site by the Town of Addison, then, if appropriate, the Town of Addison will make an equitable adjustment to the Contract.

G. Include in all construction subcontracts exceeding \$100,000, the following requirement: "Contractor is responsible for compliance with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act, Section 505 of the Clean Water Act, Executive Order 11738, and Environmental Protection Agency regulations."

H. No request by Contractor for an equitable adjustment to the Contract under this Section shall be allowed unless Contractor has given the written notice required.

I. No request by Contractor for an equitable adjustment of the Contract for Hazardous Materials will be allowed or shall be made after final payment under the Contract.

7. **COMPLIANCE WITH LAWS:** The Contractor shall familiarize himself with the nature and extent of the Specifications, Plans, Project Site conditions, traffic and safety requirements, and shall fully comply with all local, state and federal laws, including all codes, ordinances, rules and regulations applicable to this Contract and the Work to be done hereunder, which exist or which may be enacted later by governmental bodies having jurisdiction or authority for such enactment. The Contractor shall comply with all federal, state and local laws, rules and regulations of every kind and nature applicable to the performance of its Work hereunder and shall hold the Town of Addison and the Engineer harmless therefrom. No plea of ignorance or misunderstanding thereof will be considered.
8. **PERMITS, LICENSES. AND REGULATIONS:** Permits and licenses for the prosecution of the Work shall be secured and paid for by the Contractor. Any required permit fees will still be paid by the Contractor. Wherever the Work under this contract requires the obtaining of permits from the Town of Addison or other public authorities, duplicate copies of such permits shall be furnished to the Engineer by the Contractor hereunder before the Work covered thereby is started. **NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS ARE OBTAINED.**
9. **RIGHTS-OF-WAY AND EASEMENTS:** Rights-of-way and permanent easements, dedicated to the Town of Addison, will be secured for this Project and made a part of thereto. The Contractor shall obtain a right-of-way permit from the Town of Addison prior to beginning Work. When working within the public rights-of-way and easements, the Contractor shall at all times observe and comply with all Federal and State Laws, and Town of Addison ordinances and regulations which in any way affect the conduct of the Work or its operations, and shall observe and comply with all orders, laws, ordinances and regulations which exist or which may be enacted later by bodies having jurisdiction or authority for such enactment. No plea of misunderstanding or ignorance thereof will be considered. The Contractor and his Sureties shall indemnify and save harmless the Town of Addison, the Engineer and all of their officers, agents, and employees against

GEORGE HADDAWAY RECONSTRUCTION

any and all claims or liability arising from or based on the violation of any such law, ordinance, regulation, or order, whether it be by itself or its employees.

It shall be the responsibility of the Contractor, prior to the initiation of construction on easements through private property, to inform the property owner of its intent to begin construction. Before beginning construction in areas of public dedication, the Contractor shall inform the agency having jurisdiction in the area forty-eight (48) hours prior to initiation of the Work. All easements shall be cleaned up after use and restored to their original conditions or better.

10. **RESTRICTED WORK HOURS:** Per the Town of Addison Building Regulations, “It shall be unlawful for a person, firm or corporation to excavate, erect, build, construct, alter, repair or demolish any building or structure which has been issued or which is required to be issued a building permit by the Town of Addison between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, and between the hours of 7:00 p.m. and 8:00 a.m. on Saturday and Sunday, if such activity is performed within a residential, apartment, or townhouse zoned area, or within three hundred (300) feet of an occupied residence, except in cases of urgent necessity or in the interest of public safety and convenience, and then only by permit of the City Manager.”

It is in the interest of the public safety and convenience for the Work under this Project to occur outside the standard Work hours. However, the contractor will must present a detailed Work schedule and obtain written approval from the Town.

11. **COMPLIANCE WITH IMMIGRATION LAWS:** Contractor shall take all steps necessary to ensure that all of the Contractor’s employees are authorized to work in the United States as required by the Immigration Reform and Control Act of 1986.
12. **NON-DISCRIMINATION POLICY:** It is the policy of the Town of Addison to afford all people an equal opportunity to bid on any contract being let by the Town. The Town of Addison has a policy that prohibits discrimination against any person because of race, color, sex, or national origin, in the award or performance of any contract. The Town of Addison will require its employees, agents, and Contractors to adhere to this policy.
13. **ANTITRUST LAWS:** The Contractor hereby assigns to the Town of Addison any and all claims for overcharges associated with this contract which arise under the antitrust laws of the United States 15 U.S.C.A. Sec. 1, et seq. (1973).
14. **ABANDONMENT:** The Town of Addison reserves the right to abandon, without obligation to the Contractor, any part of the Project, or the entire Project, at any time before the Contractor begins any construction Work authorized by the Town of Addison. In case of total abandonment of the Project, the Contract becomes void. The Town of Addison may abandon portions of the Project at any time during the Project duration. In case of such partial abandonment, the Contractor shall not be due any payment for lost or unrealized profits on the abandoned portions of the Project.
15. **DISCREPANCIES:** If the Contractor, in the course of the Work, finds any discrepancy between the Contract Documents and the physical conditions of the Project, or any errors

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or omissions in Plans or in the layout as given by survey points and instructions, or if it appears that any Plan, Specification or other Contract Document is or may not be in compliance with any building code or other requirement of any governmental body, he shall immediately inform the Town of Addison and the Engineer in writing, and the Town of Addison and the Engineer shall promptly verify the same. Any Work done after such discovery, until authorized, will be done at the Contractor's risk.

16. **PREPARATION OF STORM WATER POLLUTION PREVENTION PLAN:** A Storm Water Pollution Prevention Plan (SW3P) **will not** be required for this project.

This specification is not all inclusive of the requirements for an SW3P. The Contractor shall comply with all requirements of the TCEQ TPDES permit and the local authorities' storm water ordinance and/or regulations.

17. **ADDENDA:** Bidders desiring further information, or interpretation of the Plans and Specifications, must make written request for such information to the Engineer (not later than four (4) working days prior to the date set for the Bid opening. The ability to ask questions will close at **5:00 PM, Friday, March 27, 2020**. Answers to all such requests will be issued in the form of Addenda and a copy of such Addenda will be released through www.bidsync.com. It will be the responsibility of each person who has been issued as set of Bidding Documents to secure all Addenda from www.bidsync.com. Addenda will be bound with and made a part of the Contract Documents. No other explanation or interpretation will be considered official or binding. Should a Bidder find discrepancies in, or omissions from, the Plans, Specifications or Contract Documents, or should it be in doubt as to their meaning, it shall at once notify the Engineer in writing in order that a written addendum may be sent to all Bidders.
18. **PAY ITEMS:** Pay items provided are intended to be all-inclusive of the Work required on this Project. Work required by the Plans or Specifications but not provided with a specific pay item shall be considered incidental to other items of Work. Final payment to the construction Contractor shall not be made until all Work has been finally completed and verified in accordance with the construction contract, Plans and Specifications and have been finally accepted by the Town of Addison.

See bid item descriptions/reference specifications for details.

19. **INCREASE OR DECREASE IN QUANTITIES:** The quantities shown in the proposal are approximate. Final payment will be based on quantities determined by measurement methods described for each Work item.

The quantities in the Bid Items are approximate and may represent quantities in excess of those actually installed. Final Payment will be based on the actual quantities installed and paid in accordance with the applicable Specifications.

20. **SUBSIDIARY WORK:** Any and all Work specifically governed by documentary requirements for the Project, such as conditions imposed by the Plans or these Special Provisions, in which no specific item for bid has been provided for in the Proposal, shall be considered as a subsidiary item of Work, the cost of which shall be included in the

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various bid items in the Proposal. Costs of CCTV, permits, inspection fees, traffic control, construction staking, surface restoration and cleanup are general items of Work which fall in the category of subsidiary Work. Any repairs or replacement of items damaged during demolition or as a result of new construction will be considered subsidiary. Limits of all Work requiring repair will be determined by the Town of Addison staff or the inspector. Extreme care should be taken during all demolition and construction operations.

21. **QUALIFICATION OF BIDS:** The Town of Addison reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work, and the right to disregard all nonconforming, non-responsive, unbalanced, or conditional Bids. The Town reserves the right to reject the Bid of any Bidder if the Town believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the Town. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolve in favor of the correct sum.

To be considered responsive, the apparent three lowest Bidders are required to submit the Statement of Experience per Section BQS “Bidder Qualification Statement” within 5 days.

The apparent low two Bidders will be notified by the Engineer to request the information.

AWARD AND EXECUTION OF CONTRACT: For the purpose of award, each bid submitted shall consist of three parts whereby the correct summation of the products of the estimated quantities shown in the proposal, multiplied by their bid unit prices for the following parts:

Base Bid A, Bid Alternate No. 1, and Bid Alternate No. 2

Bidders must fill the bid proposal for Base Bid and all Bid Alternates. The method of Award will be based on the availability of funds for the combination of the **Base Bid; Base Bid and Bid Alternate No. 1; Base Bid and Bid Alternate No. 2; Base Bid, Bid Alternate No. 1 and Bid Alternate No. 2.**

The Town reserves the right to accept whichever bid is determined to be in the best interest of the public and to reject all bids.

All payments will be based on actual quantities and bid unit prices.

22. **EXPLANATION OF CONTRACT TIME:** The term “Contract Time” as used in this Provision will mean the **80 calendar days for Base Bid and Bid Alternate No. 1 and 10 calendar days for Bid Alternate No. 2** for completion of the Work of the Contract from the date the Contract was executed. The term “calendar day” as used in this Article will mean every day shown on the calendar. Calendar days will be consecutively counted

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from commencement of Contract Time regardless of weather, weekends, holidays, suspensions of Contractor's operations, delays or other events as described herein.

In the event of a catastrophic event (i.e., war, invasion, riot, declared state of emergency, national strike, or other situations as declared by the Town of Addison) directly and substantially affecting the Contractor's operations on the Contract, the Contractor and the Town shall agree as to the number of calendar days to extend the Contract Time. In the event the Contractor and Town are unable to agree to the number of calendar days to extend the Contract Time, the Town shall unilaterally determine the number of calendar days to extend the Contract Time reasonably necessary and due solely to such catastrophic event and the Contractor shall have no right whatsoever to contest such determination, save and except that the Contractor establishes that the number of calendar days determined by the Town were arbitrary or without any reasonable basis.

Should the Contractor fail to complete the Contract on or before expiration of the Allowable Contract Time, as adjusted in accordance with the Special Provisions No. 78 of liquidated damage, the Town shall deduct from the moneys due the Contractor the Daily Value for each calendar day completion exceeds the Allowable Contract Time. The term "Allowable Contract Time" as used in this Article shall mean the Original Contract Time plus adjustments pursuant to the statements above. This deduction shall be the disincentive for the Contractor's failing to timely complete the Contract. **This shall be strictly enforced.**

23. **COPIES OF PLANS FURNISHED:** One (1) copy of 24" ~~x 36"~~ **11" x 17"** and one (1) electronic copy of the Plans shall be furnished to the successful Contractor, at no charge, for construction purposes.
24. **PRE-CONSTRUCTION CONFERENCE:** The successful Contractor, Engineer, and Town of Addison shall meet for a pre-construction conference before any of the Work begins on this Project. At this time, details of sequencing of the Work, contact individuals for each party, testing requirements, submittals, and pay requests will be covered. Prior to the meeting, the Contractor shall prepare schedules showing the sequencing and progress of their Work and its effect on others. A final composite schedule will be prepared during this conference to allow an orderly sequence of Project construction.

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Prior to the start of construction, Contractor shall video the construction area and property adjacent to construction in the presence of the City Inspector. The format shall be DVD. The video shall be narrated. The Contractor shall furnish the Town of Addison a copy of the video in DVD format prior to commencement of Project. This shall be subsidiary to Project.

25. **MOBILIZATION:** *See specification SS-120 included in the technical specifications.*
26. **GENERAL SEQUENCE OF CONSTRUCTION:** Prior to the start of Work, the Contractor shall develop a detailed construction and sequence of construction schedule using the critical path method (CPM) and submit to the Town of Addison and Engineer for approval. The CPM shall reflect all definable features of Work and activities that shall cause minimum interference with traffic along, across and adjacent to the Project during construction. If the schedule or sequence becomes unworkable or unsatisfactory as Work proceeds, adjustments shall be made. During all phases of construction access to all existing businesses must be maintained at all times unless otherwise authorized in writing by the Town of Addison or Addison Airport. Erosion control devices must be properly installed and maintained during all stages of construction.

The Contractor must comply with all work area restrictions as indicated in the Plans unless specifically authorized in writing by the Town of Addison.

The general intent is for the contractor to begin within one area and steadily progress limiting the area of construction to minimize disruptions to aircraft operations and businesses along the route.

27. **PROJECT REPRESENTATIVE:** The Town of Addison, the Engineer, the Contractor(s), and any applicable public utilities shall designate a single individual within their organization to act as liaison for the Project. This individual shall be aware of the day to day activities on the Project, have authority to make decisions binding on the party, and serve as single point for coordination of activities with the other team members. The Contractor's representative must be available to meet and discuss construction related issues on site or at the Town's offices within 20 minutes of a request during working hours and throughout the entire construction period. Upon repeated failure of attendance at requested meetings, Contractor will be required to have a Project representative on-site at all times.
28. **COORDINATION WITH OTHERS:** In the event that other Contractors are doing Work in the same area simultaneously with this Project, the Contractor shall coordinate his proposed construction with that of the other Contractors. The Town of Addison and/or the Engineer shall mediate any disputes, and the Contractors shall comply with their decisions.
29. **INSURANCE:** Each insurance policy that the Contractor must furnish in accordance with these contract documents shall name the Town of Addison and the Engineer as additional insured. Contractor shall include in their bid package, a copy of their certificate of insurance showing compliance to the limits established by the Town of Addison.

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1.0 The Contractor shall agree to furnish and maintain continuously during the period of this agreement, any renewals or extension, insurance coverage meeting all of the following requirements:

1.1 Commercial General Liability Insurance at minimum combined single limits of \$1,000,000 per occurrence and \$2,000,000 general aggregate for Bodily Injury and Property Damage, which coverage shall include Products/Completed Operations, and XCU Hazards. Coverage for product/completed operations must be maintained for at least two (2) years after the construction Work has been completed. Coverage must be amended to provide for an each-project aggregate limit of insurance. Contractual Liability must be included.

1.2 Workers Compensation Insurance at statutory limits, including employer's liability coverage at minimum limits of \$1,000,000 each occurrence-each accident, \$1,000,000 by disease-each occurrence and \$1,000,000 by disease aggregate

1.3 Commercial Automobile Liability Insurance at minimum combined single limits of \$1,000,000 per occurrence for bodily injury and property damage, including owned, non-owned, and hired car coverage.

1.4 Umbrella Liability at minimum limits of \$1,000,000 each-occurrence \$4,000,000 aggregate with respect to primary commercial general liability, automobile liability and employer's liability policies.

1.5 Any Subcontractor(s) hired by the Contractor shall maintain insurance coverage equal to that required by the Contractor. It is the responsibility of the Contractor to assure compliance with this provision. The Town accepts no responsibility arising from the conduct, or lack of conduct, of the Subcontractor.

1.6 A comprehensive general liability insurance form may be used in lieu of a commercial general liability form. In this event, coverage must be written on an occurrence basis, at limits of \$1,000,000 each-occurrence, combined single limit and coverage must include a broad form comprehensive general liability endorsement, products/completed operations, XCU hazards and contractual liability.

2.0 With reference to the foregoing insurance requirements, Contractor shall specifically endorse applicable insurance policies as follows:

2.1 The Town shall be named as an additional insured with respect to general liability and automobile liability.

2.2 All liability policies shall contain no cross liability exclusions or insured versus insured restrictions.

2.3 A waiver of subrogation in favor of the Town of Addison shall be contained in the workers compensation and all liability policies.

2.4 All insurance policies shall be endorsed to require the insured to immediately notify the Town of Addison of any material changes in the insurance coverage.

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2.5 All insurance policies shall be endorsed to the effect that the Town will receive at least thirty (30) days notice prior to cancellation or non-renewal of the insurance.

2.6 All certificates shall be mailed to Town of Addison, Purchasing Dept., P.O. Box 9010, Addison, Texas 75001 or emailed to purchasing@addisontx.gov.

2.7 All insurance policies, which name the Town as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.

2.8 Required limits may be satisfied by any combination of primary and umbrella liability insurances.

2.9 Contractor may maintain reasonable and customary deductibles, subject to approval by the Town.

3.0 All insurance shall be purchased from an insurance company who meets the following requirements:

3.1 Must be issued by a carrier, which is rated "A-" VII or better by A.M. Best's Key Rating Guide.

3.2 Licensed and admitted to do business in the State of Texas and is a subscriber to the Texas Guaranty Fund.

4.0 All insurance must be written on forms filed with and approved by the Texas State Board of Insurance. Certificates of insurance shall be prepared and executed by the insurance company or its authorized agent and shall contain provisions representing and warranting the following:

4.1 Set forth all endorsements and insurance coverages according to requirements and instruction contained herein.

4.2 Shall specifically set forth the notice-of-cancellation or termination provisions to the Town.

5.0 Upon request, Contractor shall furnish the Town of Addison with certified copies of all insurance policies.

WORKERS' COMPENSATION INSURANCE COVERAGE:

A. Definitions.

Certificate of Coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self insure issued by the Texas Workers' Compensation Commission (the "TWCC"), or a coverage agreement (TWCC-81, TWCC-82, TWCC-83 or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a Project, for the duration of the Project.

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Duration of the Project - includes the time from the beginning of the Work on the Project until the Contractor's/person's Work on the Project has been completed and accepted by the governmental entity.

Persons Providing Services on the Project ("Subcontractor" in Section 406.096 of the Texas Labor Code) - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the Project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent Contractors, Subcontractors, leasing companies, motor carriers, Town-operators, employees of any such entity or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a Project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

B. The Contractor shall provide coverage, based on property reporting of classification codes and payroll amounts and filing of any coverage agreement, which meets the statutory requirements of Texas Labor Code, 401.011(44) for all employees of the Contractor providing services on the Project, for the duration of the Project.

C. The Contractor must provide a certificate of coverage to the Town of Addison prior to being awarded the contract.

D. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the Project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Town of Addison, showing that the coverage has been extended.

E. The Contractor shall obtain from each person providing services on the Project, and provide to the Town of Addison:

(1) a certificate of coverage, prior to that person beginning Work on the Project, so that the Town of Addison will have on file certificates of coverage showing coverage for all persons providing services on the Project; and,

(2) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;

F. The Contractor shall retain all required certificates of coverage on file for the duration of the Project and for one year thereafter.

G. The Contractor shall notify the Town of Addison in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.

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H. The Contractor shall post on each Project site a notice, in the text, form and manner prescribed by the TWCC, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify current coverage and report failure to provide coverage.

I. The Contractor shall contractually require each person with whom it contracts to provide Services on a Project to:

(1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Codes 401.011 (44) for all its employees providing services on the Project, for the duration of the Project;

(2) provide to the Contractor, prior to that person beginning Work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;

(3) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;

(4) obtain from each person with whom it contracts, and provide to the Contractor;

a. a certificate of coverage, prior to the other person beginning Work on the Project; and,

b. a new certificate of coverage showing extension of the coverage period, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.

(5) retain all required certificates of coverage on file for the duration of the Project and for one year thereafter;

(6) notify the Town of Addison in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and

(7) contractually require each other person with whom it contracts to perform as required by paragraphs (1) - (7) with the certificate of coverage to be provided to the person for whom they are providing services.

J. By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the Town of Addison that all employees of the Contractor who will provide services on the Project will be covered by worker's compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a

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self-insured, with the TWCC's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties or other civil actions.

K. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the Town of Addison to declare the contract void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the Town.

The following is the form of notice of workers' compensation coverage prescribed by the TWCC. Pursuant to Section 110.110 (d) (7), this notice must be printed with a title in at least 30-point bold type, and text in at least 19-point nominal type, and shall be in both English and Spanish and any other language common to the worker population.

REQUIRED WORKERS' COMPENSATION COVERAGE

"The law requires that each person working on this site or providing services related to this construction Project must be covered by workers' compensation insurance. This includes persons providing, hauling or delivering equipment or materials, or providing labor or transportation or other service related to the Project, regardless of the identity of their employer or status as an employee.

"Call the Texas Workers' Compensation Commission (TWCC) at (512) 440-3789 to receive further information on the legal requirements for coverage, to verify whether your employer has provided the required coverage, or to report an employer's failure to provide coverage."

30. **RESOLUTION OF DISPUTES:** The parties hereby covenant and agree that in the event of any controversy, dispute, or claim, of whatever nature arising out of, in connection with or in relation to the interpretation, performance or breach of this Contract, including but not limited to any claims based on contract, tort or statute, before filing a lawsuit, the parties agree to submit the matter to Alternative Dispute Resolution pursuant to the laws of the State of Texas. The parties shall select a third party arbitrator or mediator from the current list of neutrals on file with the Alternative Dispute Resolution Administrator of the Dallas County District Courts or other mutually agreeable mediator or arbitrator. All forms of Alternative Dispute Resolution may be used except binding arbitration. The proceedings shall be conducted in accordance with the laws of the State of Texas.
31. **SHOP DRAWINGS:** The Contractor shall provide, review, approve and submit all shop drawings, product data and samples required by the Town of Addison, the Engineer and the Contract Documents in accordance with Item 1.28 of the Standard Specifications for Public Works Construction, North Central Texas Council of Governments. The Contractor shall furnish a minimum of four and a maximum of six copies of shop drawings for review by the Engineer, who will review, approve and forward to the Town of Addison for acceptance. Approved submittals will be returned as follows:

Two (2) – Town of Addison

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One (1) – Contractor

One (1) – Garver

Maximum size of submittals shall be 11 x 17 inch. No fax copies are acceptable. Shop drawings shall include all items to be installed in the Project, including but not limited to:

- | | | |
|---|---|---|
| <input type="checkbox"/> Paving Mix Designs | <input type="checkbox"/> Traffic Control Plan | <input type="checkbox"/> Water Main Pipe |
| <input type="checkbox"/> Storm Sewer Pipe | <input type="checkbox"/> Sanitary Sewer Pipe/Fittings | <input type="checkbox"/> Valves & Boxes |
| <input type="checkbox"/> Fire Hydrants | <input type="checkbox"/> Manholes & Vaults | <input type="checkbox"/> Backfill Materials |
| <input type="checkbox"/> Finishes | | |

32. **PROJECT VIDEO:** Prior to the start of construction, Contractor shall video the construction area and property adjacent to construction in the presence of the City Inspector. The format shall be DVD. The video shall be narrated. The Contractor shall furnish the Town of Addison a copy of the video in DVD format prior to commencement of Project. This shall be subsidiary to Project. (See Section 24).
33. **SAMPLES AND TESTS OF MATERIALS:** The Town of Addison shall designate and pay an independent testing laboratory to furnish testing for this Project. Random testing will be provided by the independent lab as necessary for compliance with the Specifications. The Contractor shall coordinate construction with the testing lab and the Town of Addison and shall provide assistance to the testing labs by providing excavation, access, trench safety, materials for testing and any other Work required to insure all testing requirements are met. Work performed to accommodate testing will be a subsidiary item and no extra payment will be authorized. All costs for the field quality control testing shall be paid for by the Town of Addison, except for any and all re-testing, which shall be paid by the Contractor and such cost shall be deducted from monthly pay requests. As a guide, the Contractor shall be responsible for providing any test required by the Specifications.

All samples and tests shall be performed in accordance with the Standard Specifications for Public Works Construction, North Central Texas Council of Governments (Latest Edition) as amended or supplemented.

34. **INSPECTION:** The Town of Addison and the Engineer reserve the right to inspect, test, measure or verify the construction Work for this Project as they deem necessary to ascertain that the Work is being accomplished in accordance with the standards and requirements set forth in the Contract Documents. Notwithstanding such reviews, the Contractor will be held responsible for the finished Work and any acceptance of the Work by the Town or governmental agencies will not relieve the Contractor from responsibility for the Work. The Town reserves the right to place full-time construction inspectors at the site of the Work. Costs for inspection services will be paid by the Town of Addison. The Contractor shall provide assistance to the Town of Addison and the Engineer by providing excavation, trench safety, or other Work necessary to facilitate inspection activities, and shall give sufficient notice well in advance of pending construction activities for scheduling of inspection services.

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If the Specifications, the Town's instructions, laws, ordinances, or any public authority require any Work to be specially tested, the Contractor shall give the Town timely notice of its readiness for testing, and if the testing is by an authority other than the Town, of the date fixed for such testing. Tests by the Town shall be made promptly, and where practicable at the source of supply.

35. **ACCESS ROUTES, STAGING AREAS AND STORAGE AREAS:** All haul roads and access routes and the location of job site trailers, staging areas, and storage areas shall be subject to the approval of the Town and the Engineer. The Contractor shall be responsible for maintaining and repairing all roads and other facilities used during construction. Upon completion of the Project all existing roads and other disturbed areas shall be left in a condition equal to that at the time the Contractor commences Work on this Project.
36. **PROPERTY ACCESS:** Access to adjacent hangars shall be maintained at all times unless otherwise directed by the Engineer and/or Town of Addison. Contractor shall also maintain sufficient access throughout the Project limits to the existing apartment buildings and businesses during construction operations.
37. **PLANT, PROCEDURES, METHODS AND EQUIPMENT:** The Contractor shall determine the methods to be employed, the procedures to be followed, and equipment to be used on the Work under this contract, subject to the requirements of these Specifications and approval of the Engineer and Town of Addison. Only adequate and safe procedures, methods and equipment shall be used.

The Contractor shall so arrange his Work and provide such plant and equipment as is necessary in order to meet the progress requirements of the approved time schedule and to complete the Work within the period of time as specified in the Contract. Only such materials and equipment as are necessary for the construction of the Work under this contract shall be placed, stored or allowed to occupy any space at the site of the Work.

It is expressly agreed that the acceptance or approval of any order of procedure, methods or equipment submitted or employed by the Contractor shall not in any manner relieve the Contractor of responsibility for the safety, maintenance and repairs of any Work, or for the construction maintenance and safety of the Work hereunder, or from any liability whatsoever on account of any procedure or method employed by the Contractor.

Where the Work under this contract requires permits from the Town of Addison, the State of Texas, or other public authorities, duplicate copies of such permits shall be furnished to the Engineer by the Contractor before the Work covered thereby is started. **NO WORK WILL BE ALLOWED TO PROCEED BEFORE REQUIRED PERMITS ARE OBTAINED AND DISTRIBUTED.**

38. **PARKING OF CONSTRUCTION EQUIPMENT:** At night and during all other periods of time when equipment is not being actively used on the construction Work, the Contractor shall park the equipment at locations which are approved by the Town of Addison. The Contractor shall provide adequate barricades, markers and lights to protect

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the Town of Addison, the Engineer, the public and other Work. All barricades, lights, and markers must meet the requirements of the Town of Addison, State and Federal regulations.

39. **ZONING REQUIREMENTS:** During the construction of this Project, the Contractor shall comply with the present zoning requirements of the Town of Addison in the use of vacant property for storage purposes.
40. **IN PUBLIC ROADS AND PRIVATE DRIVES:** No public road shall be entirely closed overnight. It shall be the responsibility of the Contractor to build and maintain all weather bypasses and detours, if necessary, and to properly light, barricade and mark all bypasses and detours that might be required on and across the roads involved in the Work included in this Contract.

The Contractor shall make every effort to complete construction and allow immediate access to adjacent property at driveway entrances located along the roadways. Towns or tenants of improvements where access and/or entrance drives are located shall be notified at least twenty-four (24) hours prior to the time the construction will be started at their driveways or entrances and informed as to the length of time driveways will be closed. Contractor shall at all times maintain at least one point of access into all properties, unless obtaining written permission from property Town to do otherwise with such written permission being provided to the Town's inspector.

The Contractor shall be responsible for all road and entrance reconstruction and repairs and maintenance of same for a period of two years from the date of Town of Addison's acceptance of the Work. In the event the repairs and maintenance are not made immediately to the satisfaction of the Town, and it becomes necessary for the Town to make such repairs, the Contractor shall reimburse the Town for the cost of such repairs.

The Contractor shall, at all times, keep a sufficient width of the roadway clear of dirt and other material to allow the free flow of traffic. The Contractor shall assume any and all responsibility for damage, personal or otherwise, that may be caused by the construction along roads and private drives.

41. **HAULING ON TOWN OF ADDISON STREETS:** The Contractor shall receive approval of its haul routes and type of equipment to be used prior to beginning construction. The Contractor shall be responsible for maintaining the cleanliness of existing paved roadways and shall provide equipment and manpower for that purpose.
42. **EXISTING POWER POLES & GUY WIRES:** The Contractor shall have the responsibility of coordinating with the proper authorities for the bracing, replacing or relocating of all utility poles and guy wires which interfere with the Work on this Project prior to beginning its construction operations. The Contractor will also be responsible for all damage to poles, guy wires, etc. that are damaged or destroyed by Contractor's operations.
43. **SAFETY RESTRICTIONS - WORK NEAR HIGH VOLTAGE LINES:** The following procedures shall be followed for Work near high voltage lines on this contract:

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- a. A warning sign not less than five (5) inches by seven (7) inches, painted yellow with black letters that are legible at twelve (12) feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile driver, hoisting equipment or similar apparatus. The warning sign shall read as follows: "Warning - Unlawful to Operate This Equipment Within Six Feet of High Voltage Lines."
- b. Equipment that may be operated within ten (10) feet of high voltage lines shall have an insulating cage guard protecting the boom or arm, except backhoes or dippers, and insulator links on lift hook connections.
- c. When necessary to Work within six (6) feet of high voltage electric lines, notify the power company who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. All such Work done by the power company shall be at the expense of the Contractor. The Contractor shall maintain an accurate log of all such calls to the power company.
- d. The Contractor is required to make arrangements with the power company for the temporary relocation or raising of high voltage lines at the Contractor's sole expense.
- e. No person shall Work within six (6) feet of high voltage lines without protection measures having been taken as outlined in Paragraph c.

44. **PROTECTION OF EXISTING UTILITIES AND STRUCTURES:** The location and dimensions shown on the Plans relative to existing utilities and subsurface structures are based on the best records and/or field information available and are not guaranteed by the Town of Addison or the Engineer to be accurate as to location and depth. It shall be the Contractor's responsibility to verify locations of adjacent and conflicting utilities sufficiently in advance of its activities in order that he may negotiate such restrictive locations with the Town of Addison of the conflicting utility and/or make local adjustments to provide adequate clearances. The Contractor shall take all necessary precautions in order to protect all utilities and services encountered, whether or not they are indicated on the Plans. All damage to utilities resulting from Contractor's operations shall be restored at its expense. The Town of Addison and the Engineer assume no responsibility for failure to show any or all of these utilities or structures on the Plans, or to show them in their exact locations. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation for Extra Work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or requires the building of special Work, provisions for which are not made in the Plans, in which case, provisions in these Specifications for Extra Work shall apply.

45. **PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED:** In case it is necessary to change or move the property of a public utility, such property shall not be moved or interfered with until authorized by the Town of Addison or the Engineer. The right is reserved for the Owner of public utilities to enter upon the limits of the Project for the purpose of making such changes or repairs of their property that may be made necessary by performance of the Contract. The Contractor shall be responsible for

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coordination with the Town of Addison and the Engineer, and all utility companies whose utility lines or streets may be affected by the proposed improvements. The Contractor shall observe the following:

- a. Prior to any excavation, the Contractor shall determine the locations of all existing water, gas, sewer, electric, telephone, telegraph, television, pipelines and other underground utilities and structures.
 - b. After commencing Work, the Contractor shall use every precaution to avoid interference with existing underground and surface utilities and structures, and protect them from damage.
 - c. Where the locations of existing underground and surface utilities and structures are indicated, these locations are generally approximate, and all items which may be encountered during the Work are not necessarily indicated. The Contractor shall determine the exact locations of all items indicated, and the existence and locations of all items not indicated.
 - d. The Contractor shall repair or pay for all damage caused by its operations to all existing utility lines, public property, and private property, whether it is below ground or above ground, and he shall defend and settle in total the cost of all lawsuits which may arise as a result of its operations.
 - e. To avoid unnecessary interferences or delays, the Contractor shall coordinate all utility removals, replacements and construction with the appropriate utility company, and then request written authorization from the Town of Addison or the Engineer. The Town of Addison and the Engineer will not be liable for damages due to delay as a result of the above.
46. **MAINTENANCE AND REPAIRS:** The Contractor shall maintain and keep in good repair all Work contemplated under these Plans, Specifications, and Plans which shall include the maintenance and repair of all existing streets, storm sewer crossings, utility crossings, temporary crossings for access to adjacent property, barricades, lights, and danger signals, and all Work which is necessary for the well-being of the general public. In the event the Contractor fails in its obligations to properly maintain the Work, the Town of Addison shall make such repairs as are necessary and the cost of such repairs shall be deducted from payment due the Contractor.
47. **PROTECTION OF WORK:** During performance and up to date of final acceptance, the Contractor shall be under the absolute obligation to protect the finished Work against damage, loss or injury. In the event of damage, loss or injury, the Contractor shall promptly replace or repair such Work, whichever the Town of Addison shall determine to be preferable. The obligation to deliver finished Work in strict accordance with the contract prior to final acceptance shall be absolute and shall not be affected by the Town of Addison's approval of or failure to prohibit means and methods of construction used by the Contractor. All risk of loss or damage to the Work shall be borne solely by the

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Contractor until final acceptance of all Work by the Town of Addison, as evidenced by the Town of Addison's issuance of a certificate of acceptance.

48. **PUBLIC CONVENIENCE AND SAFETY:** In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the Project site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal Work hours.

Materials stored about the Work site shall be so placed, and the Work shall at all times be so conducted, as to cause no greater obstruction to the traveling public than is considered necessary by the Town of Addison. The materials excavated shall be placed so as not to endanger the Work or prevent free access to all fire hydrants, water valves, gas valves, manholes (telephone, telegraph or electrical conduits, and sanitary sewers) and fire alarm or police call boxes in the vicinity.

The Town of Addison reserves the right to remedy any neglect on the part of the Contractor as regards to the public convenience and safety which may come to the Town of Addison's attention, after 24 hours notice in writing to the Contractor, save in cases of emergency, when the Town of Addison shall have the right to remedy any neglect without notice; and, in either case, the cost of such Work done by the Town of Addison shall be deducted from the monies due or to become due the Contractor. The Contractor shall notify the Town of Addison and the Engineer when any street is to be closed or obstructed. The Contractor shall provide for emergency vehicle access at all times.

Where the Work passes over or through private property, the Town of Addison shall provide such right-of-way. The Contractor shall notify the proper representatives of any public utility, corporation, company or individual, not less than 48 hours in advance of Work which might damage or interfere with the operation of their property along or adjacent to the Work. The Contractor shall be responsible for all damage or injury to property of any character (except such as may be required by the provisions of the Contract Documents, or caused by agents or employees or the Town of Addison) by reason of any negligent act or omission on the part of the Contractor, its employees, agents or Subcontractors, or at any time due to defective Work or materials, or due to its failure to reasonably or properly prosecute the Work, and said responsibility shall not be released by the fact that the Work shall have been completed and accepted.

When and where any such damage or injury is done to public or private property on the part of the Contractor, he shall restore or have restored at its own cost and expense such property to a condition similar or equal to that existing before such damage was done, by repairing, rebuilding or otherwise restoring as he may be directed, or he shall make good such damage or injury in a manner acceptable to the property Town of Addison and the Engineer. In case of failure on the part of the Contractor to restore such property or make good such damage or injury, the Town of Addison may, upon 48 hour written notice under ordinary circumstances, and without notice when a nuisance or hazardous condition results, proceed to repair, rebuild or otherwise restore such property as may be

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determined necessary, and the cost thereof shall be deducted from any monies due or to become due to the Contractor under this contract; or where sufficient contract funds are unavailable for this purpose, the Contractor or its surety shall reimburse the Town of Addison for all such costs.

49. **PROTECTION OF PERSONS AND PROPERTY:** The Contractor shall have the responsibility to provide and maintain all warning devices and take all precautionary measures required by law or otherwise necessary to protect the Work and persons and property while said persons or property are approaching, leaving or within the Work site or any area adjacent to said Work site. No separate compensation shall be paid to the Contractor for the installation or maintenance of any protective measures, warning devices, barricades, lights, signs, or any other precautionary measures required by law or otherwise necessary for the protection of persons or property.

The Contractor shall assume all responsibilities to the general public in connection with the general public's immediate approach to and travel through the Work site and the area adjacent to said Work site.

Where the Work is in or adjacent to any street, alley, sidewalk, public right-of-way or public place, the Contractor shall at its own cost and expense provide such flagmen and watchmen and furnish, erect and maintain such warning devices, barricades, lights, signs, and other precautionary measures for the protection of persons or property as may be prudent or necessary, or as required by law. The Contractor's responsibility for providing and maintaining flagmen, watchmen, warning devices, barricades, signs and lights and other precautionary measures shall not cease until the Project shall have been completed and accepted by the Town of Addison, and shall cease when the Town of Addison notifies the Contractor in writing of final Project acceptance.

If the Town of Addison discovers that the Contractor has failed to comply with applicable federal or state laws (by failing to furnish the necessary flagmen, warning devices, barricades, lights, signs or other precautionary measures for the protection of persons or property), the Town of Addison may order the Contractor to take such additional precautionary measures as required by law to protect persons and property. In addition, the Contractor shall be held responsible for all damages to the Work and other public or private property due to the failure of warning devices, barricades, signs, lights or other precautionary measures in protecting said property; and whenever evidence is found of such damage, the Town of Addison may order the damaged portion immediately removed and replaced by and at the cost and expense of the Contractor.

50. **TRAFFIC CONTROL:** It shall be the responsibility of the Contractor to provide traffic control during the construction as required by the State of Texas, the Town of Addison, and in accordance with the following additional requirements:
- a. The Contractor shall be required to furnish barricades, flares, flagmen, etc., for the protection of the public, employees and the Work.

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- b. The Contractor shall prosecute its Work in such a manner as to create a minimum of interruption to traffic along adjacent roadways.
- c. The unit price bid under the appropriate bid item of the proposal shall cover all cost for providing signage, markings, lighting, barricades, flagmen and other devices and personnel required for traffic control during construction of the Project.
- d. The Contractor shall not remove any regulatory sign, instructional sign, warning sign, street name sign or any other sign or signal which currently exists.
- e. **The Contractor shall provide a comprehensive Traffic Control Plan to the Town of Addison and Engineer for review, comment, and approval.** In the event the planned sequence of work is different in any way from that sequence of work provided for in the plans or where additional details are required. The Traffic Control Plan shall be designed in accordance with established standards and regulations and signed and sealed by a professional engineer, registered in the State of Texas. The plan should reflect the Contractor's proposed construction phasing and methodology and include the design layout for all proposed detour and traffic situations.

51. **BARRICADES, WARNING SIGNS, DETOURS AND SEQUENCE OF CONSTRUCTION:** Throughout the construction operations, streets and intersections will remain open to traffic by constructing the Work in stages. All streets, driveways, adjacent business and alleys shall remain open to traffic as far as is practicable.

A. General Construction: The Contractor shall plan its Work sequence in a manner that will cause minimum interference with aircraft operations during construction operations. Before beginning Work on this Project, the Contractor shall submit, for approval by the Town of Addison, a plan of construction operations outlining in detail a sequence of Work to be followed; setting out the method of handling traffic on streets, roads and driveways along, across and adjacent to the Work. If at any time during the construction, the Contractor's proposed plan of operation for handling traffic does not provide for safe comfortable movement, the Contractor shall immediately change its operations to correct the unsatisfactory conditions.

Ditches across the traffic lanes will be kept covered with a portable traffic-bearing surface at all times unless Work in the ditch is in progress. Only one lane of traffic may be closed at a time when Work is in progress in a ditch.

B. Safety: The Contractor shall provide, construct and maintain barricades and signs at locations set out in the Plans and in the Special Provisions in accordance with the Texas Manual on "Uniform Traffic Control Devices for Streets and Highways". In addition, he shall provide and maintain such other barricades and signs as deemed necessary by the Town or the Engineer, and provide and maintain, between sunset and sunrise, a sufficient number of lights at barricades and points of danger for the protection of vehicular and pedestrian traffic.

Barricades shall be placed in such a manner as not to interfere with the sight distance of drivers entering the street from side streets.

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The Contractor shall keep traveled surfaces used in its hauling operation clear and free of dirt or other material.

The Contractor shall provide and maintain qualified flagmen at such points and for such periods of time as may be required to provide for the safety and convenience of public travel and Contractor's personnel.

52. EXCAVATION SAFETY SYSTEMS:

The Work performed under this section of the Specifications consists of providing trench safety systems consisting of shoring, sheeting, trench shield, and/or laid back slopes to meet the trench safety requirements of the Occupational Safety and Health Administration (O.S.H.A.), as required for this Project and specified herein.

A. General: Trench safety systems shall be provided by the Contractor as provided in Subpart P - Excavation, Trenching and Shoring, Part 1926 of the Code of Federal Regulations which describes safety and health regulations as administered by the U.S. Department of Labor Occupational Safety and Health Administration (O.S.H.A.). The standards specified by the O.S.H.A. Regulations shall be the minimum allowed on this Project. It shall be the responsibility of the Contractor to design and install adequate trench safety systems for all trenches excavated on this Project.

The Contractor shall furnish to the Town for review, prior to beginning construction activity, a Trench Safety Plan for the entire Project. The trench safety plan must be prepared and sealed by a Professional Engineer registered in the State of Texas. In addition, all trench safety systems utilized in this Project must be designed by a Professional Engineer registered in the State of Texas. The Contractor shall be totally responsible for the safety of all persons involved in the construction of this Project.

B. Core Borings: Any core borings and soil data furnished by the Town are for the convenience of the Contractor. The Contractor shall be responsible for any additional soil or geotechnical information required. The Contractor shall be responsible for properly designed trench safety systems to be utilized for any type of subsurface condition found on this Project. The furnishing of soil information by the Town of Addison in no way relieves the Contractor of this obligation. If no core borings or soil data are furnished by the Town, it shall be the Contractor's responsibility to obtain whatever geotechnical information required for preparation of trench safety systems.

C. Inspections: In addition to the inspections of the trench and trench safety systems required of the Contractor by the O.S.H.A. Regulations, the Town may further inspect the Work. The Town shall have the right to reject any trench safety systems which he finds to be inadequate, and the Contractor shall immediately improve the system to comply with this specification.

D. Measurement and Payment: Measurement and payment of Trench Safety Systems shall be based on the actual linear footage of the pipe installed on the Project. The payment shall be full compensation for all planning, engineering, materials, equipment, fabrications, installation, recovery and all incidental Work required. All excavation and

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backfill in addition to that specified elsewhere in these Specifications shall be considered subsidiary to this bid item.

53. **TRENCH EXCAVATION, BACKFILL AND COMPACTION:** Trench excavation, backfill and compaction of storm drain and utility trenches shall be in accordance with Town of Addison Standards and with details shown on the Construction Plans.

A. Trench Excavation: If the stated maximum trench widths are exceeded, either through accident or otherwise, and if the Engineer determines that the design loadings of the pipe will be exceeded, the Contractor will be required to support the pipe with an improved trench bottom. The expense of such remedial measures shall be entirely the Contractor's own. All trenching operations shall be confined to the width of permanent rights-of-way, permanent easements and any temporary construction easements. All excavation shall be in strict compliance with the Trench Safety Systems Special Condition of this document.

B. Trench Backfill: Trenches shall be backfilled above the top of the embedment material with approved backfill material per Town of Addison Standards for the appropriate pipe size, pipe material, depth, and soil condition.

C. Compaction: All trenches under proposed or existing pavement shall be compacted to within a range of 95% to 100% Standard Proctor Density. Trenches which lie outside limits of pavement shall be compacted to a minimum of 90% Standard Proctor Density (ASTM D-698).

54. **TRENCH WALLS:** The Contractor shall use shoring or a drag box in those areas where it is required to protect existing improvements. This shall be subsidiary to the linear foot cost of the pipe and not a separate pay item.

55. **SUSPENSION OF WORK RELATED TO DANGER:** In addition to the other remedies for suspension of the Work as provided for in the General Provisions and Special Provisions, the Town of Addison has the authority to suspend all work immediately if, in the Town of Addison's opinion, there is imminent danger to workers or the general public. If there is no imminent danger to workmen or the general public, but trench conditions are not in compliance with Federal Regulations 29 C.F.R. 1926.650-1926.652, the Town of Addison shall warn the Contractor who shall then immediately order all workmen in and adjacent to the trench away from the area. The Contractor must then bring the trench into compliance with the regulations. If the Contractor does not make the required corrections, all work on the Contract shall cease and the Town of Addison will issue a letter of Temporary Suspension of Work. The only work authorized after issuance of this letter is work approved by the regulations. Other work shall not be permitted until the Town of Addison issues a letter of Release of Temporary Suspension of Work. The Contractor shall not be entitled to additional compensation, an extension of time or payment of damages as a result of a temporary suspension of work under this provision.

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56. **PROPERTY LINES AND MONUMENTS:** The Contractor shall protect all property corner markers, and when any such markers or monuments are in danger of being disturbed, they shall be properly referenced and if disturbed shall be reset at expense of the Contractor.
57. **CONSTRUCTION STAKING:** Construction staking will not be provided by the Town of Addison or Engineer. This item will be performed by the Contractor and shall be subsidiary to other bid items. The Contractor will also be responsible for maintaining stakes. If re-staking is required for any reason, it will be the Contractor's responsibility, including associated costs.

All construction staking shall be done under the supervision of a Registered Professional Land Surveyor registered in the State of Texas. The Contractor shall submit copies of cut sheets and field books for the construction of all paving, water, wastewater, and stormwater improvements to the Town of Addison for review prior to construction of the improvements. The information on the cut sheets and field books shall include but not be limited to the following:

- a. Heading to include date, contract number, Project name, surveying firm, Contractor, and construction plan sheet number.
 - b. Location, description of street/line and street/line name, number, letter, etc. designation.
 - c. Benchmark Data: Location, description, and elevation.
 - d. Slope or percent of grade of each curb line or utility line.
 - e. Stations at 50-foot intervals and including all PC, PT, PI, PVC, PVI, PVT, PRC, grade changes, etc.
 - f. Offset description including distance to center line or back of curb and direction of offset; left, right, east, west, etc,
 - g. Cut to subgrade, pavement, top of curb, or flowline of the street or utility being staked.
 - h. Clarifying remarks such as top of curb, gutter, pavement, subgrade, manhole, cleanout, valve, tee, cross, fire hydrant, wastewater lateral, water service, etc.
 - i. Cut sheets shall be signed by a Texas Registered Professional Land Surveyor.
58. **DURING CONSTRUCTION:** During construction of the Work, the Contractor shall, at all times, keep the site of the Work and adjacent premises as free from material, debris and rubbish as is practicable and shall remove same from any portion of the site if, in the opinion of the Town of Addison or the Engineer, such material, debris or rubbish constitutes a nuisance or is objectionable. In case of failure on the part of the Contractor to maintain a clean site, the Town of Addison may, upon 24 hour written notice, clean the

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site, and the cost thereof shall be deducted from any monies due or to become due to the Contractor under its contract; or where sufficient contract funds are unavailable for this purpose, the Contractor or its surety shall reimburse the Town of Addison for all such costs.

~~The Contractor will be required to work only during the evening hours (8:00PM to 6:00AM) for the areas within Parcels 1, 2 and 3. If work, pipeline placement, in a trench is incomplete or trench is not backfilled before 6:00AM, then that area must be covered during the non-working (daylight) hours with steel plates, designed to withstand H-20 truck live loads. Temporary asphalt paving may be allowed for pavement over completed pipe installation and before permanent concrete paving is placed, in lieu of steel plates and as directed by the Town of Addison~~

59. **CONSTRUCTION TRAFFIC OVER PIPE LINES:** The design of the new pipes and the design of the existing pipe have been taken into account and provided for highway live loads. It is apparent, however, that certain construction vehicles could exceed this highway load condition under shallow bury conditions. It will be the responsibility of the Contractor to protect both the new line and the existing lines from these possibly excessive loads. The Contractor shall not at any time cross the existing or new pipe with a truck delivering new pipe to the site. Any damage to the existing or new pipe will be repaired or replaced by the Contractor to the satisfaction of the Town of Addison.

In locations where it is not permissible to cross the existing or proposed pipes without additional protection, the Contractor may elect to provide additional protection of the pipes so that more frequent crossings of the pipes are allowed. It still is, however, the responsibility of the Contractor to repair any damage to the existing or proposed lines if the damage results from any phase of its construction operation.

60. **CONTRACTOR'S CONTINUING OBLIGATION:** Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by the Town of Addison, nor the issuance of a certificate of Substantial Completion, nor any payment by Town of Addison to Contractor under the Contract Documents, nor any use or occupancy of the Work or any part thereof by Town of Addison, nor any act of acceptance by Town of Addison nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by the Town of Addison pursuant to final payment nor any correction of defective Work by Town of Addison will constitute an acceptance of Work not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents.

61. **IRRIGATION AND SPRINKLER REPAIR:** The Contractor shall maintain all existing irrigation systems within the limits of the Project during the duration of the contract. The Contractor shall employ a licensed irrigator who is responsible for the repair or replacement of any damage to irrigation lines, valves, controllers, sprinklers, wiring and appurtenances which are damaged during construction. **This repair is subsidiary to the various other items bid. The Contractor will be responsible for**

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any vegetation that dies as a result of damage to the irrigation system and replace it with equal vegetation at its own cost.

62. **REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK:** All Work which has been rejected or condemned shall be repaired; or if it cannot be repaired satisfactorily, it shall be removed and replaced at the Contractor's expense. Defective materials shall be immediately removed from the Work site. Work done without line and grade having been provided; Work done beyond the line or not in conformity with the grades shown on the Plans or as provided, Work done without proper inspection; or any Extra or unclassified Work done without written authority and prior agreement in writing as to prices, shall be at the Contractor's risk and will be considered unauthorized, and at the option of the Town of Addison may not be measured and paid for and may be ordered removed at the Contractor's expense. Upon failure of the Contractor to repair satisfactorily or to remove and replace, if so directed, rejected, unauthorized or condemned Work or materials immediately after receiving notice from the Town of Addison, the Town will, after giving written notice to the Contractor, have the authority to cause defective Work to be remedied or removed and replaced, or to cause unauthorized Work to be removed and to deduct the cost thereof from any monies due or to become due the Contractor.
63. **DISPOSITION AND DISPOSAL OF MATERIALS:** All materials to be removed from the site including refuse and other debris shall become the property of the Contractor and shall be disposed of outside the limits of the Project. Contractor shall also comply with all applicable laws governing the spillage of debris while transporting to a disposal site.
64. **CLEAN-UP FOR FINAL ACCEPTANCE:** The Contractor shall make a final cleanup of all parts of the Work before acceptance by the Town of Addison. This cleanup shall include removal of all objectionable rock and other construction materials, and in general preparing the site of the Work in an orderly manner and appearance.
65. **TV INSPECTION OF SANITARY SEWER AND STORM DRAIN SYSTEMS:** Part of the final inspection of the wastewater and storm drain systems on this Project shall include a closed circuit TV survey of the completed pipe installation, exclusive of services, and all imperfections in the installed facility revealed by the TV survey of the imperfections in the installed facilities revealed by the TV survey shall be remedied by the Contractor prior to acceptance of the Project as complete. All TV survey Work, including furnishing of necessary personnel, equipment and material shall be performed by the Contractor.
66. **TESTING REQUIREMENTS:** Testing shall be conducted in accordance with Town of Addison Specifications except as modified in the Special Provisions, Technical Specifications, or as on the plans. The Town of Addison will provide random testing. The Contractor shall coordinate construction with the Town of Addison and shall provide assistance to the testing labs by providing trench safety, excavation, or other work to insure all testing requirements are met. Work performed to accommodate testing will be a subsidiary item and no extra payment will be authorized. All retesting shall be at the

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expense of the Contractor. As a general guide, the Contractor shall be responsible for providing the following tests:

- (1) Density and associated tests on embedment and backfill.
 - (2) Compressive strength tests on concrete.
 - (3) Gradation soil tests on backfill as may be required.
 - (4) Pressure test, bacteriological tests for disinfection of water lines,
 - (5) Mandrel test for gravity sewer pipeline
 - (6) Vacuum test for SSMH for water tightness.
 - (7) Providing test results from manufacturer and as specified in Town of Addison Specifications (NTCOG).
67. **SILICONE JOINT SEALANT:** Silicone joint sealant must be used in all instances where joint sealant applies to Portland Cement Concrete pavement and curbs. Payment for the use of silicone joint throughout this Project will in all cases be subsidiary to this contract at no extra cost.
68. **CLAIMS FOR DAMAGES OR INJURY:** General Provision Item 1.24.3 - SMALL CLAIMS FOR DAMAGE OR INJURY is amended to read as follows: “If any person files a claim against the Town of Addison or Contractor for personal injury or property damage resulting from, arising out of, or caused by, the operations of the Contractor, or any Work within the limits of the Project, the Contractor must either submit to the Town of Addison, a duly executed full release within thirty (30) days from the date of written claim, or immediately report the claim to its liability insurance carrier for their action in adjusting the claim. If the Contractor fails to comply with this provision within the stipulated time limit, it will be automatically deemed that the Contractor has appointed the Town as it’s irrevocably Attorney-In-Fact authorizing the Town to report the claim directly with the liability insurance carrier. This provision is in and of itself a Power-of-Attorney from the Contractor to the Town which authorizes the Town to take said action on behalf of the Contractor without the necessity of the execution of any other document. If the Contractor fails to comply with the provisions of this item the Town, at its own discretion, may terminate this contract or take any other actions it deems appropriate. Any payment or portion thereof due the Contractor, whether it is a final payment, progress payment, payment out of retainage or refund payment may be withheld by the Town as is authorized by Item 109.4. Bankruptcy, insolvency or denial of liability by the insurance carrier shall not exonerate the Contractor from liability.

As a result of the additional Work created to Town of Addison due to un-responded claims for damages by Contractor to third parties, Contractor shall incur penalties for failure to abide by this Special Provision.

Contractor shall respond to the claimant in writing regarding the status of the claim, including whether Contractor disputes the claim, wishes to settle, or will notify its liability insurance carrier regarding the claim. Contractor will be assessed a penalty by the Town of \$75.00 per claim, for its failure to respond to the claimant as described above within thirty days of its written notice of claim by the Town.

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To ensure Contractor compliance, the Town of Addison shall be notified, by copied correspondence of responses or settlement by Contractor.”

69. **WAIVER OF CLAIMS:** The making and acceptance of final payment will constitute:
- A. A waiver of all claims by Town of Addison against Contractor, except claims arising from unsettled Liens, from defective Work appearing after final inspection or failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by Town of Addison of any rights in respect of Contractor’s continuing obligations under the Contract Documents.
- B. A waiver of all claims by Contractor against Town of Addison other than those previously made in writing and still unsettled.
70. **MECHANICS AND MATERIALMEN’S LIEN:** The Contractor shall be required to execute a release of mechanics and materialmen’s liens upon receipt of payment and shall ensure that the Project remains free and clear of all liens related to the Work. The Contractor shall have all liens removed by obtaining releases acceptable to the Town of Addison or shall bond around such liens by obtaining a discharge of all liens.
71. **CONTRACTOR’S AFFIDAVIT OF BILLS PAID:** The Contractor shall be required to execute the form provided in Section BP prior to the acceptance of the Project.
72. **PRODUCT RECORD DOCUMENTS:** The Contractor shall maintain record Plans and legibly annotate shop drawings to record changes made after review. A red felt-tip marking pen shall be used for all recording.

Maintenance of Documents: The Contractor shall maintain at the job site one record copy of the Contract Plans, Specifications, Shop Drawings, Change Orders, other modification to the Contract, field test records and other documents submitted by Contractor in compliance with specification requirements. These documents shall be maintained at the job site apart from documents used for construction. These documents are not to be used for construction purposes. The documents shall be maintained in clean, legible condition. The documents shall be made available at all times for inspection by the Town.

Recording: Each document shall be labeled Project Record Copy in 2-inch high printed letters. The record documents shall be kept current. No Work shall be covered until required information has been recorded.

Contract Plans: The appropriate drawing shall be legibly marked to record, where applicable:

- a. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
- b. Field changes of dimension and detail made during construction process.
- c. Changes made by Change Order or Supplemental Agreement.

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- d. Details not on original Contract Plans.
- e. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
- f. Changes made by Change Order or Supplemental Agreement.
- g. Other matters not originally specified.

Shop Drawing: The Contractor shall maintain the Shop Drawings as record drawings and legibly annotate shop drawings to record changes made after review.

Submittal: At the completion of the Project, the Contractor shall deliver record Plans to the Town. The transmittal letter shall be accompanied, in duplicate, with:

- a. Date, Project title and number.
- b. Contractor's name and address.
- c. Title and number of each record document.
- d. Certification that each document as submitted is complete and accurate.
- e. Signature of Contractor or its authorized representative.

73. **OWNERSHIP OF WORK AND MATERIALS:** All Work performed by Contractor pursuant to the Contract shall be the property of the Town of Addison. The Town of Addison shall own all construction, and any data, documents, plans, specifications, working papers, computer programs, photographs, or other material produced by Contractor pursuant to the Contract, and Contractor hereby assigns and transfers to the Town of Addison any and all copyrights for such material. To the extent that such programs used are internal, proprietary programs used by Contractor in the performance of the Work, Contractor will provide the Town of Addison such access to the programs as is necessary for the Town of Addison to be able to use the products and documents generated by the program, but Contractor is not required to transfer the copyrights or other intellectual property rights to the program to the Town of Addison. As security for partial, progress, or other payments, title to work for which such payments are made shall pass to the Town of Addison at the time of the payment. To the extent that title has not previously been vested in the Town of Addison by reason of payments, full title shall pass to the Town of Addison at delivery of the Work at the location specified in the Contract.

Unincorporated Work to which the Town of Addison has received title by reason of progress, partial or other payments shall be segregated from other Contractor or Subcontractor materials and clearly identified as the Town of Addison property. The Contractor shall be responsible for all materials until they have been incorporated into the Work and the Work has been finally accepted by the Town of Addison. The title transferred as above shall in each case be good, and free and clear of any and all security interests, liens, or other encumbrances. The Contractor promises and agrees that it will

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not pledge, hypothecate, or otherwise encumber the items in any way that would result in any lien, security interest, charge, or claim upon or against said items. The transfer of title as provided above shall not imply acceptance by the Town of Addison, nor relieve Contractor from the responsibility to strictly comply with the Contract and shall not relieve Contractor of responsibility for any loss of or damage to such items.

The Contractor shall insert provisions in its subcontracts sufficient to ensure compliance with the content of this Section.

74. **DRAWINGS AND OTHER DATA:** All documents developed by Contractor in the performance of the Contract shall become the sole property of the Town of Addison and may be used by the Town of Addison on any other project without additional compensation to Contractor. Use by the Town of Addison of these documents on other projects does not confer any liability on Contractor.

The Town of Addison shall be considered the “person for whom the work was prepared” for the purpose of authorship in any copyrightable work under 17 U.S.C. § 201(b). With respect thereto, Contractor agrees not to assert or authorize others to assert any rights or establish any claim under the design related patent and copyright laws. All design drawings, as-built drawings and specifications, in any form, shall contain a copyright mark of the Town of Addison.

75. **TOWN OF ADDISON APPROVAL:** This Project is subject to final approval and acceptance by the Town of Addison. Final approval acceptance will not be given until the punch list items are completed to the Town’s satisfaction and as-built Plans are given to the Town of Addison.

76. **USE OF EXPLOSIVES:** The use of explosives by the Contractor to complete the Work shall be prohibited.

77. **POWER FOR CONSTRUCTION:** The Contractor shall contract with the local power provider and make the necessary arrangements for securing power required for the construction, including power required for temporary offices. There will be no separated pay item for connection into the existing power system or for the power required for construction purposes.

78. **LIQUIDATED DAMAGES:** If the Contractor fails to complete the Work within the time specified in the contract, the Contractor shall pay liquidated damages to the Town of Addison in the amount of **\$750** for each calendar day of delay until the Work is completed or accepted.

79. **CONTRACT DELAY:** The parties anticipate that delays may be caused by or arise from any number of events during the course of the Contract, including, but not limited to, Work performed, disruptions, permitting issues, actions of subcontractors, suppliers, or other contractors, actions by third parties, weather, weekends, holidays, or other such events, forces or factors sometimes experienced in construction work. Such delays or events and their potential impacts on performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract and shall not

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extend the Contract time for completion. Further, any and all costs or impacts whatsoever incurred by the Contractor in accelerating the Work to overcome or absorb such delays or events in an effort to complete the Contract prior to expiration of the Contract time to complete, regardless of whether the Contractor does so or not, shall be the sole responsibility of the Contractor in every instance.

80. **SUBCONTRACTORS:** No subcontract shall relieve Contractor of any of Contractor's obligations or liabilities under the Contract. Contractor shall be fully responsible and liable for the acts or omissions of all Subcontractors, including persons directly or indirectly employed by them, their guests and invitees. Contractor shall have sole responsibility for managing and coordinating the operations of its Subcontractors, including the settlement of disputes with or between them. Nothing contained in the Contract shall be deemed to create a contractual relationship between any Subcontractor, and the Town of Addison.

Contractor shall provide to the Town of Addison one (1) copy of all executed subcontracts associated with the Contract, including any changes or modifications to the subcontracts, within three (3) days of their execution. No Subcontractor shall be permitted to perform work associated with the subcontract until the Subcontractor (or Contractor on the Subcontractor's behalf) is in compliance with the insurance requirements specified elsewhere in the Contract and has furnished satisfactory evidence of insurance to the Town of Addison.

81. **PAYMENTS TO SUBCONTRACTORS:** Contractor shall comply with the provisions of applicable laws and regulations relating to Contractor's relations with Subcontractors. Payments by Contractor to Subcontractors associated with the Town of Addison Contracts are subject to the time periods established in the Texas "Prompt Payment Act", contained in Chapter 2251 of the Texas Government Code.

All persons employed in the performance of the Work under the Contract, or any subcontracts hereunder, shall be paid not less than the general rates of per diem, holiday, and overtime wages prevailing in the locality of the Work of a similar character as detailed in the Special Provisions. Failure to comply with this provision shall subject Contractor to the penalties prescribed in Chapter 2258 of the Texas Government Code, as amended.

Contractor will include in each subcontract for property or services entered into by Contractor and a Subcontractor, including a supplier, for purposes of performing the Work under the Contract a payment clause that obligates Contractor to pay the Subcontractor for satisfactory performance under its subcontract within seven (7) days out of such amounts as are paid to Contractor by the Town of Addison under the Contract. A false certification to the Town of Addison under the provisions of the Payments clause may be a principal offense in violation of Section 37.10 of the Texas Penal Code.

82. **USE OF COMPLETED PORTIONS OF THE WORK:** Whenever, as determined by the Town of Addison, any portion of the Work performed by Contractor is in a condition

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suitable for use, and the best interests of the Town of Addison requires such use the Town of Addison may take possession of or use such portion of the Work. Such use by the Town of Addison shall in no case be construed as final acceptance and shall neither relieve Contractor of any of its responsibilities under the Contract, nor act as a waiver by the Town of Addison of any of the conditions thereof. Contractor shall not be liable for the cost of repairs, rework, or renewals, which may be required due to ordinary wear and tear resulting from such use. However, if such use increases the cost or delays the completion of remaining portions of the Work, Contractor shall notify the Town of Addison in writing as required by the Contract and shall be entitled to such additional compensation or extension of time, or both, as determined in accordance with the Contract.

If in the course of such use, the Work proves to not be in compliance with the Contract, the Town of Addison shall have the right to continue such use until such portion of the Work can, without injury to the Town of Addison, be taken out of service for correction of defects, errors, omissions, or replacement of unsatisfactory materials, as necessary for such portions of the Work to comply with the Contract. Contractor shall correct the Work as soon as practical, but not later than one (1) month after notification by the Town of Addison.

Contractor shall not use any permanently incorporated materials unless such use is approved in writing by the Town of Addison. Where Contractor's request is granted for the use of certain materials, Contractor shall properly use and maintain and, upon completion of its use and at its own expense, recondition such materials to the satisfaction of the Town of Addison.

83. **COMPLETE AGREEMENT:** The Contract (including Attachments, the Special Provisions, other documents and manuals incorporated herein) is the full and complete agreement between the Town of Addison and Contractor with respect to the subject matter herein and supersedes any and all prior agreements between the parties hereto.
84. **WAIVER:** The waiver by the Town of Addison of the breach of any provision of the Contract by Contractor shall in no way impair the right of the Town of Addison to enforce the provision for any subsequent breach thereof. All remedies provided hereunder are cumulative and are in addition to all other remedies available at law or in equity.
85. **EXECUTION OF THE CONTRACT:** The Contract may be executed in multiple counterparts, each of which shall, for all purposes, be deemed an original but which together shall constitute one and the same instrument, and the signature pages from any counterpart may be appended to any other counterpart to assemble fully executed documents, and counterparts of the Contract may also be exchanged via electronic facsimile machines and any electronic facsimile of any party's signature shall be deemed to be an original signature for all purposes.
86. **DEFINITIONS:** The following definitions are added to the General Provisions and Special Provisions:

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BIDDER: Any person, persons, partnership, company, firm, association, or corporation acting directly or through a duly authorized representative submitting a bid for the work contemplated.

PROJECT: The Town of Addison's overall objective and endeavor of which the Contract forms a part and ultimately creates, which encompasses all Contract Documents constructed to final completion and final acceptance.

ENGINEER: The design engineer of record is Sara Andrews, PE (Texas Registered PE #126832) with Garver, LLC located at 3010 Gaylord Parkway, Unit 190, Frisco, TX 75034

WORKING DAY: A working day is defined as a calendar day not including Saturdays, Sundays, or legal holidays authorized in the list prepared by the City of Dallas for contract purposes, in which weather or other conditions not under the control of the Contractor shall permit the performance of the principal units of work underway for a continuous period of not less than 7 hours between 7 A.M. and 6 PM. A principle unit of work shall be that unit which controls completion time of the contract. Nothing in this definition shall be construed as prohibiting the Contractor from working on Saturdays, if the Contractor so desires and permission of the Town of Addison has been granted. Work on Sundays shall not be permitted except in cases of extreme emergency and then only with the written permission of the Town of Addison. If Saturday or Sunday work is permitted, working time shall be charged on the same basis as weekdays. Where the working time is expressed as calendar days or a specific date, the concept of working days shall no longer be relevant to the contract.

~~The Contractor will be required to work only during the evening hours (8:00PM to 6:00AM) for the areas within Parcels 1, 2 and 3. Any day time construction in the Parcels 1, 2 and 3 area must be approved by the Town of Addison and negotiated with the property owners/ tenants.~~

87. MODIFICATIONS TO THE LANGUAGE OF THE GENERAL PROVISIONS:
The General Provisions are modified as follows:

- A. Add the following words to the General Provisions before the word "Certificates" found on the fourth line of Section 103.4.1:

"When permitted by law,"

- B. Delete the sentence "A model Certificate of Insurance is illustrated in Model Form A.6 in Appendix A." beginning on the ninth line of Section 103.4.1 of the General Provisions and replace with the following:

"Certificates of Insurance shall be provided on a state approved form."

- C. Delete the following sentence beginning on the second line of the fifth subparagraph of Section 104.2.1 of the General Provisions:

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“The foregoing notwithstanding, the total original Contract amount shall not be increased more than 25 percent; the CONTRACTOR, by submission of a bid and execution of the Contract, is deemed to consent to the OWNER’S right to reduce the total original Contract amount by more than 25 percent.”

- D. Add the following word before the word “decide” found on the second line of Section 105.7.1 of the General Provisions:

“initially”

- E. Add the following word after the word “work” found on the fifth line of Section 105.7.1 of the General Provisions:

“, subject to the agreement of the Owner”

- F. Delete the following sentence beginning on the sixth line of Section 105.7.1 of the General Provisions:

“Engineer shall determine the amount and quality of work performed and materials furnished, and Engineer’s decision and estimates shall be final.”

- G. Delete Section 105.9.3 of the General Provisions titled “Inspection Overtime” in its entirety.

- H. Delete Section 107.2 of the General Provisions titled “Indemnification” in its entirety and replace with the following:

“THE CONTRACTOR AGREES TO INDEMNIFY, SAVE, PROTECT, DEFEND, AND HOLD HARMLESS THE OWNER, ITS AFFILIATES AND THEIR OFFICERS, DIRECTORS, AGENTS, INVITEES, AND EMPLOYEES (“INDEMNIFIED PARTIES”) FROM AND AGAINST ANY AND ALL LIABILITY, COST, DAMAGE, EXPENSES, FINES AND ALL REASONABLE LEGAL FEES AND COURT COSTS, CLAIMS, LOSSES, CAUSES OF ACTION, SUITS, AND LIABILITY OF ANY KIND, INCLUDING ALL EXPENSES OF LITIGATION AGAINST THE INDEMNIFIED PARTIES, WHETHER OR NOT CAUSED IN PART BY ANY ACT OR OMISSION OF A PERSON OR ENTITY INDEMNIFIED HEREUNDER, OR WHETHER LIABILITY IS IMPOSED UPON SUCH PERSON OR ENTITY, FOR ANY LOSS, INJURY, DAMAGE OR DEATH ARISING FROM OR OUT OF THE CONTRACTOR’S ACTS OR OMISSIONS, INCLUDING, BUT NOT LIMITED TO CONTRACTOR’S NEGLIGENT OR GROSSLY NEGLIGENT PERFORMANCE OF THE WORK;

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NEGLIGENT OR GROSSLY NEGLIGENT USE OR MISUSE OF OWNER'S PROPERTY; NEGLIGENT OR INTENTIONAL ACTIONS, ERRORS OR OMISSIONS AND THOSE OF ITS EMPLOYEES, OFFICERS, DIRECTORS, AGENTS OR SUBCONTRACTORS; VIOLATION OF ANY FEDERAL, STATE OR MUNICIPAL LAWS, REGULATIONS AND/OR ORDINANCES; CONTRACTOR'S OR ITS SUBCONTRACTOR'S USE OF PROPERTY, EQUIPMENT, VEHICLES, OR MATERIALS; DEFECTIVE WORKMANSHIP; NEGLIGENT OR GROSSLY NEGLIGENT USE OR MISUSE OF UTILITIES; OR SUBCONTRACTORS', EMPLOYEES', AGENTS', OFFICERS', OR DIRECTORS' NEGLIGENCE OR INTENTIONAL TORTS. IT IS THE EXPRESS INTENT OF CONTRACTOR TO INDEMNIFY THE INDEMNIFIED PARTIES FROM THE CONSEQUENCES OF THEIR JOINT AND/OR CONCURRENT NEGLIGENCE AND/OR SOLE NEGLIGENCE. IN THE EVENT OF FAILURE BY THE CONTRACTOR TO FULLY PERFORM IN ACCORDANCE WITH THIS INDEMNIFICATION PARAGRAPH, EACH OF THE INDEMNIFIED PARTIES, AT ITS OPTION, AND WITHOUT RELIEVING CONTRACTOR OF ITS OBLIGATIONS HEREUNDER, MAY SO PERFORM, BUT ALL COSTS AND EXPENSES SO INCURRED BY ANY OF THE INDEMNIFIED PARTIES IN THAT EVENT SHALL BE REIMBURSED BY CONTRACTOR TO THE INDEMNIFIED PARTIES, OR ANY OF THEM, AND UNTIL REIMBURSED BY CONTRACTOR SHALL BEAR INTEREST, AT THE RATE OF INTEREST PROVIDED TO BE PAID ON JUDGMENT UNDER THE LAWS OF THE STATE OF TEXAS. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS' COMPENSATION ACTS, DISABILITY BENEFIT ACTS OR OTHER EMPLOYEE BENEFIT ACTS.

IN THE EVENT THIS CONTRACT RELATES TO A PROJECT OTHER THAN A SINGLE FAMILY HOUSE, TOWNHOUSE, DUPLEX, OR LAND DEVELOPMENT DIRECTLY RELATED THERETO OR A PUBLIC WORKS PROJECT OF A MUNICIPALITY THEN THE INDEMNITY PROVISIONS INCLUDED HEREIN SHALL BE LIMITED SUCH THAT SUBCONTRACTOR SHALL NOT BE REQUIRED TO INDEMNIFY, HOLD HARMLESS OR DEFEND CONTRACTOR OR ANY THIRD PARTIES AGAINST A CLAIM CAUSED BY THE NEGLIGENCE OR FAULT, THE BREACH OR VIOLATION OF A STATUTE,

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ORDINANCE, GOVERNMENTAL REGULATION, STANDARD, OR RULE, OR THE BREACH OF CONTRACT OF AN INDEMNIFIED PARTY, ITS AGENT OR EMPLOYEE, OR ANY THIRD PARTY UNDER THE CONTROL OR SUPERVISION OF THE INDEMNIFIED PARTY, OTHER THAN SUBCONTRACTOR OR ITS AGENT, EMPLOYEE, OR SUBCONTRACTOR OF ANY TIER EXCEPT THAT SUBCONTRACTOR SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE INDEMNIFIED PARTY AGAINST ANY CLAIMS FOR THE BODILY INJURY OR DEATH OF AN EMPLOYEE OF SUBCONTRACTOR, ITS AGENTS, OR ITS SUBCONTRACTORS OF ANY TIER.

NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THE INDEMNITY PROVISIONS INCLUDED HEREIN SHALL BE LIMITED SUCH THAT CONTRACTOR SHALL NOT BE REQUIRED TO INDEMNIFY, HOLD HARMLESS OR DEFEND OWNER OR ANY THIRD PARTIES AGAINST A CLAIM CAUSED BY THE NEGLIGENCE OR FAULT, THE BREACH OR VIOLATION OF A STATUTE, ORDINANCE, GOVERNMENTAL REGULATION, STANDARD, OR RULE, OR THE BREACH OF CONTRACT OF THE INDEMNIFIED PARTIES, ITS AGENT OR EMPLOYEE, OR ANY THIRD PARTY UNDER THE CONTROL OR SUPERVISION OF THE INDEMNIFIED PARTIES, OTHER THAN CONTRACTOR OR ITS AGENT, EMPLOYEE, OR SUBCONTRACTOR OF ANY TIER EXCEPT THAT CONTRACTOR SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE INDEMNIFIED PARTIES AGAINST ANY CLAIMS FOR THE BODILY INJURY OR DEATH OF AN EMPLOYEE OF CONTRACTOR, ITS AGENTS, OR ITS SUBCONTRACTORS OF ANY TIER.”

- I. Add the following language after Section 103.3.1.4 of the General Provisions:

“103.3.1.5. Maintenance Bond. A good and sufficient bond in an amount not less than **100-percent** of the approximate total of the Contract, as evidenced by the proposed tabulation, or conditioned on the full and proper maintenance and repair of the Work to be done and performed for a period of one year from the date of final acceptance of the Work and the Contractor will do all necessary backfilling that may arise on account of sunken conditions in ditches, or otherwise, and do and perform the necessary Work and repair any defective condition growing out of or arising from the improper laying or construction of same, or on account of any breaking of same caused by the Contractor in construction of same, or on account of any defect arising in any of the Work laid

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or constructed by the Contractor or on account of improper excavation or backfilling, it being understood that the purpose of this Section is to cover all defective conditions arising by reason of defective materials, Work, or labor performed by the Contractor.”

J. Add the following language after Section 104.2.5. of the General Provisions:

“**104.2.6. Change Orders.** A Change Order is a written instrument and signed by the Owner, Contractor and Engineer stating their agreement upon all of the following:

- (1) the change in the Work;
- (2) the amount of the adjustment, if any, in the Contract Sum;
and
- (3) the extent of the adjustment, if any, in the Contract Time.

In the event the Contractor proposes a Change Order, the Contractor shall provide sufficient detail for such Change Order to allow analysis and review by the Engineer.

Agreement on any Change Order shall constitute final agreement on the Work which is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change and any and all adjustments to the Contract Sum and the Contract Time. In the event a Change Order increases the Contract Sum, the Contractor shall include the Work covered by such Change Orders in Applications for Payment as if such Work were originally part of the Contract Documents.

The Contractor, upon receipt of written notification by the Owner or the Engineer of a proposed item or change in Work, shall prepare as soon as possible a Change Order on the form provided by the Owner. If the Change Order is returned to the Contractor for additional information or if the scope of the proposed change in the Work is modified by additions, deletions or other revisions, the Contractor shall revise the Change Order accordingly and resubmit the revised Change Order to the Owner and Engineer.”

K. Delete the language in Section 105.2.1 of the General Provisions and replace it with the following language:

“**105.2.1. WORKMANSHIP:** If the OWNER notifies the CONTRACTOR in writing of defective work, the CONTRACTOR shall correct the deficiencies within five (5) calendar days of the Notice at no additional cost to the OWNER. If the defective work is not corrected within five (5) calendar days, or the

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CONTRACTOR is not making satisfactory progress (in the opinion of the OWNER) to correct the deficiencies, the OWNER may withhold future payments for All Work until the defective work has been corrected to the satisfaction of the OWNER.”

- L. Add the following language after Section 105.10 of the General Provisions:

“105.10.2. GUARANTEE AFTER COMPLETION: Unless otherwise specified in the technical section of these specifications, the CONTRACTOR shall, after test and acceptance, and for a period of one year from date of final written acceptance by the OWNER or within such longer or shorter period of time as may be prescribed by law or by the terms of any other applicable special warranty on designated equipment or portions of work as required by the Contract Documents, rebuild, repair, or replace any and all items which have proven defective due to unsatisfactory material and/or workmanship. Upon written notice from the OWNER, the CONTRACTOR shall immediately make any repairs that may be ordered, or such repairs will be made by the Owner at the expense of the CONTRACTOR or the CONTRACTOR’S Surety. In case of an emergency where delay would cause serious loss or damage, the Owner may undertake to have the defects repaired without previous notice. The expense of all repairs, including all emergency repairs, shall be borne by the CONTRACTOR or the CONTRACTOR’S Surety, at no cost to the Owner. This obligation shall survive termination of the Contract.

105.10.3. OFFSET PROGRESS PAYMENTS: OWNER may, at its option, offset any progress payment or final payment under the Contract Documents against any debt (including taxes) lawfully due to OWNER from Contractor, regardless of whether the amount due arises pursuant to the terms of the Contract Documents or otherwise and regardless of whether or not the debt due to OWNER has been reduced to judgment by a court.

105.10.4. FINAL ACCEPTANCE AND PAYMENT: This Project is subject to final inspection and final acceptance by the Owner. Whenever the Work provided for by the Contract shall have been completely performed on the part of the CONTRACTOR, including, but not limited to compliance with North Central Texas Council of Governments Standard Specifications for Public Works Construction, 2017 Section 202.6.4.6., the CONTRACTOR shall notify the OWNER that the Work is ready for final inspection. The OWNER will then make such final inspection and if the work is satisfactory and in accordance with the specifications and contract documents, the OWNER shall issue a certificate of acceptance to the

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CONTRACTOR and submit a request to accept the Work performed by the CONTRACTOR and payment of a final estimate under the terms of which the OWNER will release 100% of the retainage, plus the unpaid portions of the final estimate as the OWNER deems advisable.

Whenever the improvements provided for by the Contract shall have been completely performed on the part of the Contractor, as evidenced in the certificate of acceptance, and all required submissions provided to the OWNER, a final estimate showing the value of the Work shall be prepared by the OWNER as soon as the necessary measurements and computations can be made. All prior estimates upon which payments have been made are subject to necessary corrections or revisions in the final payment. The amount of this final estimate, less any sums that have been previously paid, deducted or retained under the provisions of the contract, shall be paid the CONTRACTOR within 30 days after the final acceptance by the OWNER, provided the CONTRACTOR has furnished to the OWNER a consent of Surety and satisfactory evidence that all indebtedness connected with the Work and all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished for and used in the performance of the Work have been paid or otherwise satisfied, or that the person or persons to whom the same may respectively be due have consented to such final payment. This requirement is not intended and shall not be construed to recognize subcontractors for the purpose of privity of contract, and no third party benefit rights shall be obtained through these provisions for final payment. The acceptance by the CONTRACTOR of the final payment as aforesaid shall operate as and shall be a release to the OWNER from all claims or liabilities under the Contract, including all subcontractor claims, for anything done or furnished or relating to the Work under the Contract or for any act or neglect of said OWNER relating to or connected with the Contract.

All warranties and guarantees shall commence from the date of the certificate of acceptance. No interest shall be due the CONTRACTOR on any partial or final payment, or on the retainage.

105.10.5. RIGHT TO AUDIT CONTRACTOR'S RECORDS: By execution of the Contract, CONTRACTOR grants the OWNER the right to audit, at Owner's election, all of CONTRACTOR'S records and billings relating to the performance of the Work under the Contract. CONTRACTOR agrees to retain such records for a minimum of three (3) years following completion of the Work

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under this Contract. OWNER agrees that it will exercise the right to audit only at reasonable hours.”

- M. Add the following language after Section 107.5 of the General Provisions:

“107.5.1. COMPENSATION AND ACKNOWLEDGEMENT OF WORK: The CONTRACTOR shall receive and accept compensation, as herein provided, as full payment for furnishing all labor, tools, material, equipment and incidentals; for performing all Work contemplated and embraced under the Contract; for all loss or damage arising out of the nature of the Work, or from the action of the elements; for any unforeseen defects or obstruction which may arise or be encountered during the prosecution of the Work and before its final acceptance by the OWNER; for all risks of whatever description connected with the prosecution of the Work; for all expense incurred by or in consequence of suspension or discontinuance of such prosecution of the Work as herein specified; for any infringement of patents, trademarks or copyrights; and for completing the Work in an acceptable manner according to the Plans and Specifications.”

- N. Add the following language after Section 107.11 of the General Provisions:

“107.11.1. COOPERATION OF THE CONTRACTOR: The CONTRACTOR shall give to the work the consistent attention necessary to facilitate the progress thereof, and the CONTRACTOR shall cooperate with the OWNER, and with other CONTRACTORS in every way possible.

The OWNER and the OWNER’S representatives shall at all times have free access to the Work whenever it is in preparation or progress and the contractor shall provide safe, convenient and proper facilities for such access and inspection.”

- O. Delete Section 107.4 of the General Provisions and replace it with the following:

“107.4. VENUE AND CHOICE OF LAW

The Owner, the Contractor, and the Contractor’s sureties agree that this Contract shall be performed in Dallas, Dallas County, Texas, and if legal action is necessary in connection therewith, exclusive venue shall lie in Dallas County, Texas. The terms and provisions of the Contract Documents shall be construed in accordance with the laws and court decisions of the State of Texas.”

- P. Delete the following language (which is the first paragraph) from Section 109.5.1. of the General Provisions:

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“Between the 25th day and the last day of each month, the Owner shall make an approximate estimate of the value of the work done during the month under the specifications. Whenever the said estimate or estimates of work done since the last previous estimate exceeds \$100 in amount, a percentage of such estimate sum shall be paid the Contractor on or before the 15th day of the month next following. The monthly estimate may include acceptable nonperishable materials delivered to the work; such payment shall be allowed on the same percentage basis of the net invoice value as provided hereinafter. The percent retained by the owner shall normally be up to 10 percent at completion, unless otherwise stated. At the midpoint, or at any subsequent time, if the owner determines that the progress of the Contract is satisfactory in all respects, it may at its discretion cease to retain additional funds until the completion of the project, or until progress ceases to be satisfactory. The owner shall make the sole determination in this matter.”

Q. Add the following language after Section 109.5.1. of the General Provisions:

“109.5.1.1. Applications for Payment. Applications for progress payment (“Application for Payment”) will be submitted no more often than monthly and shall be submitted on the dates set forth in the Agreement. Each Application for Payment shall be (1) sworn to and notarized, (2) supported by such data substantiating the Contractor’s right to payment as the Owner or Engineer may require, such as copies of requisitions from Subcontractors and material suppliers, and reflecting retainage if provided for in the Contract Documents, and (3) submitted by the Contractor for review to the Engineer in form and substance as mandated by the Owner. The Contractor’s Application for Payment shall be segregated and detailed in a manner satisfactory to the Owner.

In each Application for Payment, the Contractor shall certify that such Application for Payment represents a just estimate of portion of the Work that is complete as of the last day covered by the Application for Payment and shall also certify by sworn affidavit as follows:

‘There are no known mechanics’ or materialmen’s liens outstanding at the date of this Application, all due and payable bills with respect to the Work have been paid to date or shall be paid from the proceeds of this Application for Payment, there is no known basis for filing of any mechanics’ or materialmen’s liens on the Work, and waivers from all subcontractors and materialmen have been or, at the time of payment, will be obtained in such form as

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to constitute an effective waiver of lien under the applicable laws of the State of Texas.’

109.5.1.2. Lien Waivers. Concurrent with each Application for Payment, the Contractor shall execute and furnish a waiver and release of its lien rights current through the effective date of such Application for Payment conditioned upon receipt of the payment that is the subject of the application. Beginning with the second Application for Payment, the Contractor shall also deliver with each such Application as a condition precedent to payment thereof, waivers of lien from each of the Subcontractors, Sub-subcontractors, and suppliers current through the effective date of the previous Application of Payment. The Contractor shall also execute and obtain any other reasonable forms as the Owner may require in order to assure an effective waiver and release of mechanics’ and materialmen’s liens in compliance with the laws of the State of Texas. The Contractor shall, if any Subcontractor, Sub-subcontractor or supplier refuses to furnish a release in full, furnish a bond satisfactory to the Owner to indemnify against any lien.”

R. Delete Section 109.5.2 of the General Provisions and replace with the following:

“Ten-percent (10%) retainage shall be withheld until 40 days after Final Completion.”

88. CONTRACTOR REPRESENTATIONS: By entering into the Contract, the Contractor makes the following representations to the Town of Addison:

- A. Contractor has examined and carefully studied the Bidding Documents and the related data identified in the Bidding Documents.
- B. The Contractor has visited the Project site where the goods are to be installed or services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, or the furnishing of goods and services, if required to do so by the Bidding Documents, or if, in the Contractor’s judgment, any local condition may affect cost, progress, or the furnishing of goods and services.
- C. The Contractor is familiar with and is satisfied as to all Laws and Regulations in effect as of the date of the bid that may affect cost, progress, and the furnishing of goods and services.
- D. The Contractor has carefully studied, considered, and correlated the information known to the Contractor; information commonly known to sellers of similar goods doing business in the locality of the Project site where the goods will be installed or where services will be provided; information and observations obtained from the Contractor’s visits, if any, to the Project site where the goods

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will be installed or services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Project site where the goods will be installed or where services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of the Contractor's obligations under the Bidding Documents.

- E. The Contractor has given the Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that the Contractor has discovered in the Bidding Documents, and the written resolution (if any) thereof by the Engineer is acceptable to the Contractor.
- F. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the goods and services for which the bid is submitted
- G. The Contractor acknowledges that estimated quantities are not guaranteed and are solely for the purpose of comparison of bids, and final payment for all unit price bid items will be based on actual quantities, determined as provided in the Contract Documents. The Contractor also acknowledges that each unit price includes an amount considered by the Contractor to be adequate to cover the Contractor's overhead and profit for each separately identified item.

89. PREVAILING WAGE RATES: Wage rates paid on this Project shall not be less than specified in the schedule of general prevailing rates of per diem wages as set forth below in the Davis Bacon Act General Decision No. TX190025:

"General Decision Number: TX20200025 01/03/2020

Superseded General Decision Number: TX20190025

State: Texas

Construction Type: Highway

Counties: Archer, Callahan, Clay, Collin, Dallas, Delta, Denton, Ellis, Grayson, Hunt, Johnson, Jones, Kaufman, Parker, Rockwall, Tarrant and Wise Counties in Texas.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is

GEORGE HADDAWAY RECONSTRUCTION

covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date
 0 01/03/2020

* SUTX2011-007 08/03/2011

	Rates	Fringes
CONCRETE FINISHER (Paving and Structures)	\$ 14.12	
ELECTRICIAN	\$ 19.80	
FORM BUILDER/FORM SETTER		
Paving & Curb	\$ 13.16	
Structures	\$ 13.84	
LABORER		
Asphalt Raker	\$ 12.69	
Flagger	\$ 10.06	
Laborer, Common	\$ 10.72	
Laborer, Utility	\$ 12.32	
Pipelayer	\$ 13.24	
Work Zone Barricade Servicer	\$ 11.68	
POWER EQUIPMENT OPERATOR:		
Asphalt Distributor	\$ 15.32	
Asphalt Paving Machine	\$ 13.99	
Broom or Sweeper	\$ 11.74	
Concrete Pavement Finishing Machine	\$ 16.05	
Concrete Saw	\$ 14.48	
Crane Operator, Lattice Boom 80 Tons or Less	\$ 17.27	
Crane Operator, Lattice Boom over 80 Tons	\$ 20.52	
Crane, Hydraulic 80 Tons or Less	\$ 18.12	
Crawler Tractor	\$ 14.07	
Excavator, 50,000 pounds or less	\$ 17.19	
Excavator, over 50,000 pounds	\$ 16.99	

GEORGE HADDAWAY RECONSTRUCTION

Foundation Drill , Truck Mounted	\$ 21.07
Foundation Drill, Crawler Mounted	\$ 17.99
Front End Loader 3 CY or Less	\$ 13.69
Front End Loader, over 3 CY	\$ 14.72
Loader/Backhoe	\$ 15.18
Mechanic	\$ 17.68
Milling Machine	\$ 14.32
Motor Grader, Fine Grade	\$ 17.19
Motor Grader, Rough	\$ 16.02
Pavement Marking Machine	\$ 13.63
Reclaimer/Pulverizer	\$ 11.01
Roller, Asphalt	\$ 13.08
Roller, Other	\$ 11.51
Scraper	\$ 12.96
Small Slipform Machine	\$ 15.96
Spreader Box	\$ 14.73
Servicer	\$ 14.58
Steel Worker (Reinforcing)	\$ 16.18
TRUCK DRIVER	
Lowboy-Float	\$ 16.24
Off Road Hauler	\$ 12.25
Single Axle	\$ 12.31
Single or Tandem Axle Dump Truck	\$ 12.62
Tandem Axle Tractor with Semi Trailer	\$ 12.86
Transit-Mix	\$ 14.14
WELDER	\$ 14.84

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence,

GEORGE HADDAWAY RECONSTRUCTION

sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

GEORGE HADDAWAY RECONSTRUCTION

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

GEORGE HADDAWAY RECONSTRUCTION

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION"

90. **BID ITEMS/REFERENCE SPECIFICATIONS:** The requirements of NCTCOG standard specifications for Public Works construction 5th Edition dated 2017, and TxDOT standard specifications for construction and maintenance of highways, streets and bridges, dated 2004, shall apply as described.
91. **NO BOYCOTT ISREAL:** Pursuant to Texas Government Code Chapter 2270, Contractor's execution of this Agreement shall serve as verification that the Contractor does not presently boycott Israel and will not boycott Israel during the term of this Agreement.

END OF GENERAL DECISION

GEORGE HADDAWAY RECONSTRUCTION

SPECIAL PROVISIONS

Note: The series of numbers shown after the description are for either the Texas Department of Transportation (TxDOT) Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (2014), the North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction, Fifth Edition (2017), or technical specifications number provided with this document.

SP.1 PROJECT

The project covered by these specifications consists of the furnishing and installation of all material, supplies, appurtenances, equipment and labor and any other necessary items required to construct, test and complete, ready for use and operation by the Owner. Final clean up before acceptance by the Owner is included as a part of the project.

SP.2 NCTCOG CONSTRUCTION SPECIFICATIONS

NCTCOG shall be utilized for these areas:

- **Site Protection & Preparation** Division 200
- **Roadway Construction** Division 300
- **Roadway Maintenance & Rehabilitation** Division 400
- **Underground Construction** Division 500
- **Structures** Division 700
- **Misc. Construction & Materials** Division 800

~~Contractor shall notify owner and engineer with any discrepancies between the NCTCOG Specifications and technical specifications prior to starting construction.~~

The specifications included with this document govern if there are any discrepancies between them and the listed specifications.

SP.3 DISPOSAL OF SURPLUS MATERIAL

Surplus material not required for other parts of the work and not otherwise specifically covered by the drawings or specifications shall become the property of the Contractor for proper disposal by him.

SP.4 REMOVING OBSTRUCTIONS

Existing driveways, mailboxes, fences, sidewalks, landscaping, signs, and RCP or CMP drainage pipes shall be removed and replaced where necessary. The Contractor shall replace existing obstructions with equal or better materials. The Contractor shall coordinate any removal with the Property Owner.

SECTION PS

PROJECT SIGN

PROJECT SIGN

1. Quantity

Two (2) Project Designation signs will be constructed and installed on the project site as directed by the Owner. It will be the responsibility of the Contractor to maintain the sign in a presentable condition at all times during construction. Maintenance will include painting and repairs as directed by the City Engineer or his appointee. The locations of the signs will be given to the Contractor by the Town of Addison at the Pre-Construction Conference.

2. Material

Sign shall be constructed of 3/4-inch thick smooth finish fir plywood (Grade A-C, exterior or better).

Sign will be securely mounted to 6" x 6" square posts. Nuts and bolts will not protrude from face of sign. Posts will be mounted to a support system that will provide adequate stabilization to ensure the sign will not fall over in heavy winds. Sand bags or other techniques may be necessary to protect sign.

3. Dimensions

Size of sign will be four feet tall and six feet wide. The height and arrangement of the lettering shall be in accordance with the attached detail.

4. Paint

Sign will be one-sided and will have a white background. Text will be black, except for the word "Addison!" which will be a blue color approved by the City Engineer. The paint will be an outdoor paint and will be maintained throughout the project in proper order. The quality of the paint, painting, and lettering on the signs shall be approved by the City Engineer or his appointee.

5. Payment

Project Signs will be considered subsidiary to Item SS-120-3.1 Site Preparation. This will include all labor, equipment, tools, and incidentals necessary to complete and install the work.

The Town of



**PLEASE PARDON THE TEMPORARY
INCONVENIENCE DURING THIS PROJECT**

**“GEORGE HADDAWAY
RECONSTRUCTION”**

CONTRACTOR: _____

ESTIMATED COMPLETION DATE: **XXX**

AN ADDISON PROJECT

FOR MORE INFORMATION, PLEASE CALL (972) 450-2871

SECTION TS

TECHNICAL SPECIFICATIONS

SS-110	Standard Specifications
SS-120	Site Preparation
SS-140	Demolition and Disposal
SS-300	Basic Electrical Requirements
P-152	Excavation, Subgrade, and Embankment
P-620	Runway and Taxiway Marking
TX-104	Removing Concrete
TX-105	Removing Treated and Untreated Base and Asphalt Pavement
TX-162	Sodding for Erosion Control
TX-260	Lime Treatment (Road-Mixed)
TX-360	Concrete Pavement
TX-421	Hydraulic Cement Concrete
TX-464	Reinforced Concrete Pipes
TX-465	Junction Boxes, Manholes, and Inlets
TX-496	Removing Structures
TX-506	Temporary Erosion Controls
TX-772	Post and Cable Fence

SECTION IS

ADDITIONAL INSURANCE REQUIREMENTS

TOWN OF ADDISON, TEXAS
ADDISON AIRPORT GEORGE HADDAWAY RECONSTRUCTION

REQUIREMENTS

Contractors performing work on TOWN OF ADDISON property or public right-of-way shall provide the TOWN OF ADDISON a certificate of insurance or a copy of their insurance policy(s) (and including a copy of the endorsements necessary to meet the requirements and instructions contained herein) evidencing the coverages and coverage provisions identified herein within ten (10) days of request from TOWN OF ADDISON. Contractors shall provide TOWN OF ADDISON evidence that all subcontractors performing work on the project have the same types and amounts of coverages as required herein or that the subcontractors are included under the contractor's policy. Work shall not commence until insurance has been approved by TOWN OF ADDISON.

All insurance companies and coverages must be authorized by the Texas Department of Insurance to transact business in the State of Texas and must have a A.M. Best's rating A-:VII or greater.

Listed below are the types and minimum amounts of insurances required and which must be maintained during the term of the contract. TOWN OF ADDISON reserves the right to amend or require additional types and amounts of coverages or provisions depending on the nature of the work.

TYPE OF INSURANCE	AMOUNT OF INSURANCE	PROVISIONS
1. Workers' Compensation Employers' Liability to include: (a) each accident (b) Disease Policy Limits (c) Disease each employee	Statutory Limits per occurrence Each accident \$1,000,000 Disease Policy Limits \$1,000,000 Disease each employee \$1,000,000	TOWN OF ADDISON, and Garver, LLC. to be provided a <u>WAIVER OF SUBROGATION AND 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII rated or above.
2. Commercial General (Public) Liability to include coverage for: a) Bodily Injury b) Property damage c) Independent Contractors d) Personal Injury e) Contractual Liability	Bodily Injury/Property Damage per occurrence \$1,000,000, General Aggregate \$2,000,000 Products/Completed Aggregate \$2,000,000, Personal Advertising Injury per occurrence \$1,000,000, Medical Expense 5,000	TOWN OF ADDISON, and Garver, LLC. to be listed as <u>ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII rated or above.
3. Business Auto Liability to include coverage for: a) Owned/Leased vehicles b) Non-owned vehicles c) Hired vehicles	Combined Single Limit \$1,000,000 per occurrence for bodily injury and property damage	TOWN OF ADDISON, and Garver, LLC. to be listed as <u>ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII-rated or above.
4. Umbrella or Excess Liability Policy over Commercial General Liability and Automobile Liability limits of \$1 million per occurrence	Minimum \$4 million per occurrence excess \$1 million underlying per occurrence	TOWN OF ADDISON, and Garver, LLC. to be listed as <u>ADDITIONAL INSURED and provided 30 DAY NOTICE OF CANCELLATION</u> or material change in coverage. Insurance company must be A-:VII-rated or above.

Certificate of Liability Insurance forms (together with the endorsements necessary to meet the requirements and instructions contained herein) may be **faxed** to the Purchasing Department: **972-450-7074** or **emailed to:**

purchasing@addisontx.gov. Questions regarding required insurance should be directed to the Purchasing Manager.

With respect to the foregoing insurance,

1. All liability policies shall contain no cross liability exclusions or insured versus insured restrictions applicable to the claims of the Town of Addison.
2. All insurance policies shall be endorsed to require the insurer to immediately notify the Town of Addison, Texas of any material change in the insurance coverage.
3. All insurance policies shall be endorsed to the effect that the Town of Addison, Texas will receive at least thirty (30) days' notice prior to cancellation or non-renewal of the insurance.
4. All insurance policies, which name the Town of Addison and Garver, LLC, Inc. as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.
5. Insurance must be purchased from insurers that are financially acceptable to the Town of Addison and licensed to do business in the State of Texas.

All insurance must be written on forms filed with and approved by the Texas Department of Insurance. Upon request, Contractor shall furnish the Town of Addison with complete copies of all insurance policies certified to be true and correct by the insurance carrier.

This form must be signed and returned with your quotation. You are stating that you do have the required insurance and if selected to perform work for TOWN OF ADDISON, will provide the certificates of insurance (and endorsements) with the above requirements to TOWN OF ADDISON within 10 working days.

A CONTRACT/PURCHASE ORDER WILL NOT BE ISSUED WITHOUT EVIDENCE AND APPROVAL OF INSURANCE.

AGREEMENT

I agree to provide the above described insurance coverages within 10 working days if selected to perform work for TOWN OF ADDISON. I also agree to require any subcontractor(s) to maintain insurance coverage equal to that required by the Contractor. It is the responsibility of the Contractor to assure compliance with this provision. The Town accepts no responsibility arising from the conduct, or lack of conduct, of the Subcontractor.

Project/Bid# ADS-2014. George Haddaway Reconstruction.

Company: MEMAHON CONTRACTING LP.

Printed Name: Shelley Peterson

Signature:  Date: 04-24-2020.

ACORDTM

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

4/24/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Marsh Wortham 1600 West Seventh Street Fort Worth, TX 76102-2505 817 336-3030	CONTACT NAME:		
	PHONE (A/C, No, Ext):	817-336-3030	FAX (A/C, No): 817-336-8257
INSURED McMahon Contracting, L.P. 3019 Roy Orr Blvd. Grand Prairie, TX 75050-3086		INSURER(S) AFFORDING COVERAGE	
		INSURER A : Cincinnati Indemnity Company	NAIC # 23280
		INSURER B : Travelers Property Casualty Co of Amer	25674
		INSURER C : Texas Mutual Insurance Company	22945
		INSURER D :	
		INSURER E :	
		INSURER F :	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.


INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> PD Ded: \$2,500 GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			EPP0103371	09/30/2019	09/30/2020	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			EBA0103371	09/30/2019	09/30/2020	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB DED <input checked="" type="checkbox"/> RETENTION \$ 10,000 <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE			ZUP11S5674019NF	09/30/2019	09/30/2020	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE/OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	0001228995	09/30/2019	09/30/2020	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

GA233 09/17 - Contractors' Commercial General Liability Broadened Endorsement
GA101TX 09/10 - Commercial General Liability Coverage Form
AA288 01/16 - Cinciplus Business Auto XC Expanded Coverage Plus Endorsement
WC420304B - Texas Waiver Of Our Right To Recover From Others Endorsement
Project Name: Bid # ADS 20-94 Addison Airport George Haddaway Reconstruction
(See Attached Descriptions)

CERTIFICATE HOLDER

CANCELLATION

Garver LLC 3010 Gaylord Parkway, , Suite 190 Frisco, TX 75034	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE Marsh Wortham, a division of Marsh USA Inc 

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DESCRIPTIONS (Continued from Page 1)

Cancellation or Nonrenewal by Us Notification to a Designated Entity IA4087 08/11
TX Notice of Material Change Endorsement WC420601

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

TEXAS - CONTRACTORS' COMMERCIAL GENERAL LIABILITY BROADENED ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. Endorsement - Table of Contents:

<u>Coverage:</u>	<u>Begins on Page:</u>
1. Employee Benefit Liability Coverage.....	3
2. Unintentional Failure to Disclose Hazards.....	9
3. Damage to Premises Rented to You.....	9
4. Supplementary Payments.....	10
5. Medical Payments.....	10
6. 180 Day Coverage for Newly Formed or Acquired organizations.....	10
7. Waiver of Subrogation.....	11
8. Automatic Additional Insured - Specified Relationships:.....	11
• Managers or Lessors of Premises;	
• Lessor of Leased Equipment;	
• Vendors;	
• State or Governmental Agency or Subdivision or Political Subdivision - Permits or Authorizations Relating to Premises; and	
• Mortgagee, Assignee or Receiver	
9. Property Damage to Borrowed Equipment.....	14
10. Employees as Insureds - Specified Health Care Services and Good Samaritan Services.....	15
11. Broadened Notice of Occurrence.....	15
12. Nonowned Aircraft.....	15
13. Bodily Injury Redefined.....	15
14. Expected or Intended Injury Redefined.....	15
15. Former Employees as Insureds.....	15
16. Voluntary Property Damage Coverage and Care, Custody or Control Liability Coverage.....	16
17. Broadened Contractual Liability - Work Within 50' of Railroad Property.....	17
18. Alienated Premises.....	17

B. Limits of Insurance:

The Commercial General Liability Limits of Insurance apply to the insurance provided by this endorsement, except as provided below:

1. Employee Benefit Liability Coverage

Each Employee Limit: \$1,000,000
Aggregate Limit: \$3,000,000
Deductible Amount: \$ 1,000

3. Damage to Premises Rented to You

The lesser of:

- The Each Occurrence Limit shown in the Declarations; or
- \$500,000 unless otherwise stated \$ _____

4. Supplementary Payments

- Bail Bonds: \$2,500

b. Loss of Earnings: \$ 500

5. Medical Payments

Medical Expense Limit: \$ 10,000

9. Property Damage to Borrowed Equipment

Each Occurrence Limit: \$10,000

Deductible Amount: \$ 250

16. Voluntary Property Damage Coverage (Coverage a.) And Care, Custody or Control Liability Coverage (Coverage b.)

Limits of Insurance

Coverage a.

\$1,000 Each Occurrence

\$5,000 Aggregate

Coverage b. \$5,000 Each Occurrence unless otherwise stated \$ _____

Deductible Amount (Each Occurrence)

Coverage a. \$250

Coverage b. \$250 unless otherwise stated \$ _____

COVERAGE	PREMIUM BASIS (a) Area (b) Payroll (c) Gross Sales (d) Units (e) Other	RATE (For Limits in Excess of \$5,000)	ADVANCE PREMIUM (For Limits in Excess of \$5,000)
b. Care, Custody or Control			\$
TOTAL ANNUAL PREMIUM			\$

C. Coverages

1. Employee Benefit Liability Coverage

- a. The following is added to **Section I - Coverages**:

Employee Benefit Liability Coverage

(1) Insuring Agreement

- (a) We will pay those sums that the insured becomes legally obligated to pay as damages caused by any act, error or omission of the insured, or of any other person for whose acts the insured is legally liable, to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend against any "suit" seeking damages to which this insurance does not apply. We may, at our discretion, investigate any report of an act, error or omission and settle any claim or "suit" that may result. But:

- 1) The amount we will pay for damages is limited as described in **Section III - Limits of Insurance**; and
- 2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under **Supplementary Payments**.

- (b) This insurance applies to damages only if the act, error or omission, is negligently committed in the "administration" of your "employee benefit program"; and
- 1) Occurs during the policy period; or
 - 2) Occurred prior to the "first effective date" of

this endorsement provided you did not have knowledge of a claim or "suit" on or before the "first effective date" of this endorsement.

You will be deemed to have knowledge of a claim or "suit" when any "authorized representative";

- a) Reports all, or any part, of the act, error or omission to us or any other insurer;
- b) Receives a written or verbal demand or claim for damages because of the act, error or omission.

(2) Exclusions

This insurance does not apply to:

(a) Bodily Injury, Property Damage or Personal and Advertising Injury

"Bodily injury", "property damage" or "personal and advertising injury".

(b) Dishonest, Fraudulent, Criminal or Malicious Act

Damages arising out of any intentional, dishonest, fraudulent, criminal or malicious act, error or omission, committed by any insured, including the willful or reckless violation of any statute.

(c) Failure to Perform a Contract

Damages arising out of failure of performance of contract by any insurer.

(d) Insufficiency of Funds

Damages arising out of an insufficiency of funds to meet any obligations under any plan included in the "employee benefit program".

(e) Inadequacy of Performance of Investment/Advice Given With Respect to Participation

Any claim based upon:

- 1) Failure of any investment to perform;
- 2) Errors in providing information on past performance of investment vehicles; or
- 3) Advice given to any person with respect to that person's decision to participate or not to participate in any plan included in the "employee benefit program".

(f) Workers' Compensation and Similar Laws

Any claim arising out of your failure to comply with the mandatory provisions of any workers' compensation, unemployment compensation insurance, social security or disability benefits law or any similar law.

(g) ERISA

Damages for which any insured is liable because of liability imposed on a fiduciary by the Employee Retirement Income Security Act of 1974, as now or hereafter amended, or by any similar federal, state or local laws.

(h) Available Benefits

Any claim for benefits to the extent that such benefits are available, with reasonable effort and cooperation of the insured, from the applicable funds accrued or other collectible insurance.

(i) Taxes, Fines or Penalties

Taxes, fines or penalties, including those imposed under the Internal Revenue Code or any similar state or local law.

(j) Employment-Related Practices

Any liability arising out of any:

- (1) Refusal to employ;
- (2) Termination of employment;
- (3) Coercion, demotion, evaluation, reassignment, discipline, defamation, harassment, humiliation, discrimination or other employment - related practices, acts or omissions; or
- (4) Consequential liability as a result of (1), (2) or (3) above.

This exclusion applies whether the insured may be held liable as an employer or in any other capacity and to any obligation to share damages with or repay someone else who must pay damages because of the injury.

(3) Supplementary Payments

Section I - Coverages, Supplementary Payments - Coverages A and B also apply to this Coverage.

b. Who Is An Insured

As respects **Employee Benefit Liability Coverage, Section II - Who is an Insured** is replaced by the following:

- (1) If you are designated in the Declarations as:
 - (a) An individual, you and your spouse are insureds, but only with respect to the conduct of a business of which you are the sole owner.
 - (b) A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds but only with respect to the conduct of your business.
 - (c) A limited liability company, you are an insured. Your

members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.

- (d) An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.
 - (e) A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.
- (2) Each of the following is also an insured:
- (a) Each of your "employees" who is or was authorized to administer your "employee benefit program";
 - (b) Any persons, organizations or "employees" having proper temporary authorization to administer your "employee benefit program" if you die, but only until your legal representative is appointed; or
 - (c) Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.
- (3) Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain ownership or majority interest, will qualify as a Named Insured if no other similar insurance applies to that organization. However, coverage under this provision:
- (a) Is afforded only until the 180th day after you acquire or form the organization or

the end of the policy period, whichever is earlier; and

- (b) Does not apply to any act, error or omission that was committed before you acquired or formed the organization.

c. Limits of Insurance

As respects **Employee Benefit Liability Coverage, Section III - Limits of Insurance** is replaced by the following:

- (1) The Limits of Insurance shown in Section **B. Limits of Insurance, 1. Employee Benefit Liability Coverage** and the rules below fix the most we will pay regardless of the number of:
- (a) Insureds;
 - (b) Claims made or "suits" brought;
 - (c) Persons or organizations making claims or bringing "suits";
 - (d) Acts, errors or omissions; or
 - (e) Benefits included in your "employee benefit program".
- (2) The Aggregate Limit shown in Section **B. Limits of Insurance, 1. Employee Benefit Liability Coverage** of this endorsement is the most we will pay for all damages because of acts, errors or omissions negligently committed in the "administration" of your "employee benefit program".
- (3) Subject to the limit described in (2) above, the Each Employee Limit shown in Section **B. Limits of Insurance, 1. Employee Benefit Liability Coverage** of this endorsement is the most we will pay for all damages sustained by any one "employee", including damages sustained by such "employee's" dependents and beneficiaries, as a result of:
- (a) An act, error or omission; or
 - (b) A series of related acts, errors or omissions, regardless of the amount of time that lapses between such acts, errors or omissions;

negligently committed in the "administration" of your "employee benefit program".

However, the amount paid under this endorsement shall not exceed, and will be subject to the limits and restrictions that apply to the payment of benefits in any plan included in the "employee benefit program."

(4) Deductible Amount

(a) Our obligation to pay damages on behalf of the insured applies only to the amount of damages in excess of the Deductible Amount stated in the Declarations as applicable to Each Employee. The limits of insurance shall not be reduced by the amount of this deductible.

(b) The Deductible Amount stated in the Declarations applies to all damages sustained by any one "employee", including such "employee's" dependents and beneficiaries, because of all acts, errors or omissions to which this insurance applies.

(c) The terms of this insurance, including those with respect to:

1) Our right and duty to defend the insured against any "suits" seeking those damages; and

2) Your duties, and the duties of any other involved insured, in the event of an act, error or omission, or claim;

apply irrespective of the application of the Deductible Amount.

(d) We may pay any part or all of the Deductible Amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the Deductible Amount as we have paid.

d. Additional Conditions

As respects **Employee Benefit Liability Coverage, Section IV - Commercial General Liability Conditions** is amended as follows:

(1) Item 2. **Duties in the Event of Occurrence, Offense, Claim or Suit** is replaced by the following:

2. Duties in the Event of An Act, Error or Omission, or Claim or Suit

a. You must see to it that we are notified as soon as practicable of an act, error or omission which may result in a claim. To the extent possible, notice should include:

(1) What the act, error or omission was and when it occurred; and

(2) The names and addresses of anyone who may suffer damages as a result of the act, error or omission.

b. If a claim is made or "suit" is brought against any insured, you must:

(1) Immediately record the specifics of the claim or "suit" and the date received; and

(2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

c. You and any other involved insured must:

(1) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";

- (2) Authorize us to obtain records and other information;
 - (3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and
 - (4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of an act, error or omission to which this insurance may also apply.
- d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense without our consent.
- (2) Item 5. **Other Insurance** is replaced by the following:

5. Other Insurance

If other valid and collectible insurance is available to the insured for a loss we cover under this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

This insurance is primary except when **c.** below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the method described in **b.** below.

b. Method of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer

contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

c. Excess Insurance

This insurance is excess over any of the other insurance, whether primary, excess, contingent or on any other basis that is insurance purchased by you to coverage damages for acts, errors or omissions that occurred prior to the "first effective date".

e. Additional Definitions

As respects **Employee Benefit Liability Coverage, Section V - Definitions** is amended as follows:

- (1) The following definitions are added:

- 1. "Administration" means:

- a. Providing information to "employees", including their dependents and beneficiaries, with respect to eligibility for or scope of "employee benefit programs";
- b. Interpreting the "employee benefit programs";
- c. Handling records in connection with the "employee benefit programs"; or
- d. Effecting, continuing or terminating any "employee's" participation in

any benefit included in the "employee benefit program".

However, "administration" does not include:

- a. Handling payroll deductions; or
 - b. The failure to effect or maintain any insurance or adequate limits of coverage of insurance, including but not limited to unemployment insurance, social security benefits, workers' compensation and disability benefits.
 2. "Cafeteria plans" means plans authorized by applicable law to allow "employees" to elect to pay for certain benefits with pre-tax dollars.
 3. "Employee benefit programs" means a program providing some of all of the following benefits to "employees", whether provided through a "cafeteria plan" or otherwise:
 - a. Group life insurance; group accident or health insurance; dental, vision and hearing plans; and flexible spending accounts; provided that no one other than an "employee" may subscribe to such benefits and such benefits are made generally available to those "employees" who satisfy the plan's eligibility requirements;
 - b. Profit sharing plans, employee savings plans, employee stock ownership plans, pension plans and stock subscription plans, provided that no one other than an "employee" may subscribe to such benefits and such benefits are made generally available to all "employees" who are eligible under the plan for such benefits;
 - c. Unemployment insurance, social security benefits, workers' compensation and disability benefits; and
 - d. Vacation plans, including buy and sell programs; leave of absence programs, including military, maternity, family, and civil leave; tuition assistance plans; transportation and health club subsidies.
4. "First effective date" means the date upon which coverage was first effected in a series of uninterrupted renewals of insurance coverage.
- (2) The following definitions are deleted in their entirety and replaced by the following:
8. "Employee" means a person actively employed, formerly employed, on leave of absence or disabled, or retired. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".
 21. "Suit" means a civil proceeding in which money damages because of an act, error or omission to which this insurance applies are alleged. "Suit" includes:
 - a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent;
 - b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent; or
 - c. An appeal of a civil proceeding.

2. Unintentional Failure to Disclose Hazards

Section IV - Commercial General Liability Conditions, 7. Representations is amended by the addition of the following:

Based on our dependence upon your representations as to existing hazards, if unintentionally you should fail to disclose all such hazards at the inception date of your policy, we will not reject coverage under this Coverage Part based solely on such failure.

3. Damage to Premises Rented to You

a. The last Paragraph of **2. Exclusions** under **Section I - Coverage A - Bodily Injury and Property Damage Liability** is replaced by the following:

Exclusions **c.** through **q.** do not apply to "property damage" by fire, explosion, lightning, smoke or soot to premises while rented to you or temporarily occupied by you with permission of the owner, for which the amount we will pay is limited to the **Damage to Premises Rented to You** Limit as described in **Section III - Limits of Insurance.**

b. The insurance provided under **Section I - Coverage A - Bodily Injury and Property Damage Liability** applies to "property damage" arising out of water damage to premises that are both rented to and occupied by you.

(1) As respects Water Damage Legal Liability, as provided in Paragraph **3.b.** above:

The exclusions under **Section I - Coverage A - Bodily Injury and Property Damage Liability, 2. Exclusions**, other than **i. War** and the **Nuclear Energy Liability Exclusion (Broad Form)**, are deleted and the following are added:

This insurance does not apply to:

(a) "Property damage":

- (i) Assumed in any contract or agreement; or
- (ii) Caused by or resulting from any of the following:
 - 1) Wear and tear;

2) Rust or other corrosion, decay, deterioration, hidden or latent defect or any quality in property that causes it to damage or destroy itself;

3) Smog;

4) Mechanical breakdown, including rupture or bursting caused by centrifugal force;

5) Settling, cracking, shrinking or expansion;

6) Nesting or infestation, or discharge or release of waste products or secretions, by insects, birds, rodents or other animals; or

7) Presence, growth, proliferation, spread or any activity of fungus, including mold or mildew, and any mycotoxins, spores, scents or byproducts produced or released by fungi.

(b) "Property damage" caused directly or indirectly by any of the following:

(i) Earthquake, volcanic eruption, landslide or any other earth movement;

(ii) Water that backs up or overflows or is otherwise discharged from a sewer, drain, sump, sump pump or related equipment;

(iii) Water under the ground surface pressing on, or flowing or seeping through:

1) Foundations, walls, floors or paved surfaces;

- 2) Basements, whether paved or not; or
 - 3) Doors, windows or other openings.
- (c) "Property damage" caused by or resulting from water that leaks or flows from plumbing, heating, air conditioning, fire protection systems, or other equipment, caused by or resulting from freezing, unless:
- (i) You did your best to maintain heat in the building or structure; or
 - (ii) You drained the equipment and shut off the water supply if the heat was not maintained.
- (d) "Property damage" to:
- (i) Plumbing, heating, air conditioning, fire protection systems, or other equipment or appliances; or
 - (ii) The interior of any building or structure, or to personal property in the building or structure, caused by or resulting from rain, snow, sleet or ice, whether driven by wind or not.

c. Limit of Insurance

With respect to the insurance afforded in Paragraphs 3.a. and 3.b. above, the **Damage to Premises Rented to You** Limit as shown in the Declarations is amended as follows:

- (1) Paragraph 6. of **Section III - Limits of Insurance** is replaced by the following:
 - 6. Subject to Paragraph 5. above, the **Damage to Premises Rented to You** Limit is the most we will pay under **Coverage A - Bodily Injury and Property Damage Liability** for damages because of "property damage" to any one premises:
 - a. While rented to you, or temporarily occupied by

you with permission of the owner;

- b. In the case of damage by fire, explosion, lightning, smoke or soot, while rented to you; or
- c. In the case of damage by water, while rented to and occupied by you.

- (2) The most we will pay is limited as described in **Section B. Limits of Insurance, 3. Damage to Premises Rented to You** of this endorsement.

4. Supplementary Payments

Under **Section I - Supplementary Payments - Coverages A and B:**

- a. Paragraph 2. is replaced by the following:

Up to the limit shown in **Section B. Limits of Insurance, 4.a.** Bail Bonds of this endorsement for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.

- b. Paragraph 4. is replaced by the following:

All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to the limit shown in **Section B. Limits of Insurance, 4.b.** Loss Of Earnings of this endorsement per day because of time off from work.

5. Medical Payments

The Medical Expense Limit of Any One Person as stated in the Declarations is amended to the limit shown in **Section B. Limits of Insurance, 5. Medical Payments** of this endorsement.

6. 180 Day Coverage for Newly Formed or Acquired Organizations

Section II - Who is an Insured is amended as follows:

Subparagraph a. of Paragraph 3. is replaced by the following:

- a. Insurance under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier;

7. Waiver of Subrogation

Section IV - Commercial General Liability Conditions, 9. Transfer of Rights of Recovery Against Others to us is amended by the addition of the following:

We waive any right of recovery we may have against any person or organization against whom you have agreed to waive such right of recovery in a written contract or agreement because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a written contract or agreement with that person or organization and included in the "products-completed operations hazard". However, our rights may only be waived prior to the "occurrence" giving rise to the injury or damage for which we make payment under this Coverage Part. The insured must do nothing after a loss to impair our rights. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce those rights.

8. Automatic Additional Insured - Specified Relationships

- a. The following is added to **Section II - Who is an Insured**:

- (1) Any person(s) or organization(s) described in Paragraph **8.a.(2)** of this endorsement (hereinafter referred to as additional insured) whom you are required to add as an additional insured under this Coverage Part by reason of a written contract, written agreement, written permit or written authorization.

- (2) Only the following persons or organizations are additional insureds under this endorsement, and insurance coverage provided to such additional insureds is limited as provided herein:

- (a) **Managers or Lessors of Premises**

The manager or lessor of a premises leased to you with whom you have agreed per Paragraph **8.a.(1)** of this endorsement to provide insur-

ance, but only with respect to liability arising out of the ownership, maintenance or use of that part of the premises leased to you, subject to the following additional exclusions:

This insurance does not apply to:

- (i) Any "occurrence" which takes place after you cease to be a tenant in that premises;
- (ii) Structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.

- (b) **Lessor of Leased Equipment**

Any person or organization from whom you lease equipment when you and such person(s) or organization(s) have agreed per Paragraph **8.a.(1)** of this endorsement to provide insurance. Such person(s) or organization(s) are insureds only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your maintenance, operation or use of equipment leased to you by such person(s) or organization(s). A person's or organization's status as an additional insured under this endorsement ends when their contract or agreement with you for such leased equipment ends. However, this insurance does not apply to any "occurrence" which takes place after the equipment lease expires.

- (c) **Vendors**

Any person or organization (referred to below as vendor) with whom you have agreed per Paragraph **8.a.(1)** of this endorsement to provide insurance, but only with respect to "bodily injury" or "property damage"

arising out of "your products" which are distributed or sold in the regular course of the vendor's business, subject to the following additional exclusions:

- (i) The insurance afforded the vendor does not apply to:
 - 1) "Bodily injury" or "property damage" for which the vendor is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that the vendor would have in the absence of the contract or agreement;
 - 2) Any express warranty unauthorized by you;
 - 3) Any physical or chemical change in the product made intentionally by the vendor;
 - 4) Repackaging, except when unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;
 - 5) Any failure to make such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution

or sale of the products;

- 6) Demonstration, installation, servicing or repair operations, except such operations performed at the vendor's premises in connection with the sale of the product;
- 7) Products which, after distribution or sale by you, have been labeled or re-labeled or used as a container, part or ingredient of any other thing or substance by or for the vendor; or
- 8) "Bodily injury" or "property damage" arising out of the sole negligence of the vendor for its own acts or omissions or those of its employees or anyone else acting on its behalf. However, this exclusion does not apply to:
 - a) The exceptions contained in Paragraphs (c) (i) 4) or 6) of this endorsement; or
 - b) Such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products.

(ii) This insurance does not apply to any insured person or organization:

- 1) From whom you have acquired such products, or any ingredient, part or container, entering into, accompanying or containing such products; or
- 2) When liability included within the "products-completed operations hazard" has been excluded under this Coverage Part with respect to such products.

(d) State or Governmental Agency or Subdivision or Political Subdivision - Permits or Authorizations Relating to Premises

Any state or governmental agency or subdivision or political subdivision with which you have agreed per Paragraph **8.a.(1)** of this endorsement to provide insurance, subject to the following additional provision:

This insurance applies only with respect to the following hazards for which the state or governmental agency or subdivision or political subdivision has issued a permit or authorization in connection with premises you own, rent or control and to which this insurance applies:

- (i) The existence, maintenance, repair, construction, erection or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, man-holes, marquees, hoist away openings, sidewalk vaults, street banners or decorations and similar exposures; or
- (ii) The construction, erection or removal of elevators; or

(iii) The ownership, maintenance or use of any elevators covered by this insurance.

(e) Mortgagee, Assignee or Receiver

Any person or organization with whom you have agreed per Paragraph **8.a.(1)** of this endorsement to provide insurance, but only with respect to their liability as mortgagee, assignee, or receiver and arising out of the ownership, maintenance, or use of the premises by you. However, this insurance does not apply to structural alterations, new construction and demolition operations performed by or for that person or organization.

(3) The insurance afforded to additional insureds described in Paragraph **8.a.(1)** of this endorsement:

- (a) Only applies to the extent permitted by law; and
- (b) Will not be broader than that which you are required by the written contract, written agreement, written permit or written authorization to provide for such additional insured; and
- (c) Does not apply to any person, organization, vendor, state, governmental agency or subdivision or political subdivision, specifically named as an additional insured under any other provision of, or endorsement added to, this Coverage Part, provided such other provision or endorsement covers the injury or damage for which this insurance applies.

b. With respect to the insurance afforded to the additional insureds described in Paragraph **8.a.(1)** of this endorsement, the following is added to **Section III - Limits of Insurance**:

The most we will pay on behalf of the additional insured is the amount of insurance:

- (1) Required by the written contract, written agreement, written permit or written authorization described in Paragraph **8.a.(1)** of this endorsement; or
- (2) Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

- c. **Section IV - Commercial General Liability Conditions** is amended to include the following:

Automatic Additional Insured Provision

This insurance applies only if the "bodily injury" or "property damage" occurs, or the "personal and advertising injury" offense is committed:

- (1) During the policy period; and
- (2) Subsequent to your execution of the written contract or written agreement, or the issuance of a written permit or written authorization, described in Paragraph **8.a.(1)**.

- d. **Section IV - Commercial General Liability Conditions** is amended as follows:

Condition **5. Other Insurance** is amended to include:

Primary and Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured per Paragraph **8.a.(1)** of this endorsement provided that:

- (1) The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed in writing in a contract, agreement, permit or authorization described in **8.a.(2)** of this endorsement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

9. Property Damage to Borrowed Equipment

- a. The following is added to **Exclusion 2.j. Damage to Property** under **Section I - Coverage A - Bodily Injury and Property Damage Liability**:

Paragraphs **(3)** and **(4)** of this exclusion do not apply to tools or equipment loaned to you, provided they are not being used to perform operations at the time of loss.

- b. With respect to the insurance provided by this section of the endorsement, the following additional provisions apply:

- (1) The Limits of Insurance shown in the Declarations are replaced by the limits designated in **Section B. Limits of Insurance, 9. Property Damage to Borrowed Equipment** of this endorsement with respect to coverage provided by this endorsement. These limits are inclusive of and not in addition to the limits being replaced. The Limits of Insurance shown in **Section B. Limits of Insurance, 9. Property Damage to Borrowed Equipment** of this endorsement fix the most we will pay in any one "occurrence" regardless of the number of:

- (a) Insureds;
- (b) Claims made or "suits" brought; or
- (c) Persons or organizations making claims or bringing "suits".

(2) Deductible Clause

- (a) Our obligation to pay damages on your behalf applies only to the amount of damages for each "occurrence" which are in excess of the Deductible Amount stated in **Section B. Limits of Insurance, 9. Property Damage to Borrowed Equipment** of this endorsement. The limits of insurance will not be reduced by the application of such deductible amount.
- (b) **Section IV - Commercial General Liability Conditions, 2. Duties in the Event of Occurrence, of-**

fense, Claim or Suit, applies to each claim or "suit" irrespective of the amount.

- (c) We may pay any part or all of the deductible amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the deductible amount as has been paid by us.

10. **Employees as Insureds - Specified Health Care Services and Good Samaritan Services**

Paragraph **2.a.(1)(d)** under **Section II - Who is an Insured** does not apply to:

- a. Your "employees" who provide professional health care services on your behalf as a duly licensed nurse, emergency medical technician or paramedic in the jurisdiction where an "occurrence" or offense to which this insurance applies takes place; or
- b. Your "employees" or "volunteer workers", other than an employed or volunteer doctor, providing first aid or good samaritan services during their work hours for you will be deemed to be acting within the scope of their employment by you or performing duties related to the conduct of your business.

11. **Broadened Notice of Occurrence**

Paragraph **a.** of Condition **2. Duties in the Event of Occurrence, Offense, Claim or Suit** under **Section IV - Commercial General Liability Conditions** is replaced by the following:

- a. You must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include:
 - (1) How, when and where the "occurrence" or offense took place;
 - (2) The names and addresses of any injured persons and witnesses; and
 - (3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

This requirement applies only when the "occurrence" or offense is known to an "authorized representative".

12. **Nonowned Aircraft**

The following is added to **Exclusion 2.g. Aircraft, Auto or Watercraft** under **Section I - Coverage A - Bodily Injury and Property Damage Liability**:

This exclusion does not apply to an aircraft you do not own, provided that:

- a. The pilot in command holds a current effective certificate, issued by a duly constituted authority of the United States of America or Canada, designating that person as a commercial or airline transport pilot;
- b. The aircraft is rented with a trained, paid crew; and
- c. The aircraft does not transport persons or cargo for a charge.

13. **Bodily Injury Redefined**

Section V - Definitions, 4. "Bodily injury" is replaced by the following:

- 4. "Bodily injury" means bodily harm or injury, sickness, disease, disability, humiliation, shock, fright, mental anguish or mental injury, including care, loss of services or death resulting from any of these at any time.

14. **Expected or Intended Injury Redefined**

The last sentence of **Exclusion 2.a. Expected or Intended Injury** under **Section I - Coverage A - Bodily Injury and Property Damage Liability** is replaced by the following:

This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

15. **Former Employees as Insureds**

The following is added to Paragraph **2.** under **Section II - Who is an Insured**:

- 2. Each of the following is also an insured:

Any of your former "employees", directors, managers, members, partners or "executive officers", including but not limited to retired, disabled or those on leave of absence, but only for acts within the scope of their employment by you or for duties related to the conduct of your business.

16. Voluntary Property Damage Coverage

a. Coverage D - Voluntary Property Damage Coverage

Section I - Coverages is amended to include the following:

(1) Insuring Agreement

- (a) We will pay the cost to repair or replace "property damage" to property of others arising out of operations incidental to your business when:

- 1) Damage is caused by you; or
- 2) Damage occurs while in your possession.

At your written request, we will make this payment regardless of whether you are at fault for the "property damage".

If you, at our request, replace, or make any repairs to, damaged property of others, the amount we will pay under **Voluntary Property Damage Coverage** will be determined by your actual cost to replace or repair the damaged property, excluding any profit or overhead.

Any payment we make under **Voluntary Property Damage Coverage** shall not be interpreted as an admission of liability by you or by us.

It shall be your duty, not our duty, to defend any claim or "suit" to which this insurance applies.

No other obligation or liability to pay sums or perform acts or services is covered.

- (b) This insurance applies to "property damage" only if:

- 1) The "property damage" takes place in the "coverage territory"; and
- 2) The "property damage" occurs during the policy period.

(2) Exclusions

This insurance does not apply to "property damage" that would be excluded by **Coverage A - Bodily Injury and Property Damage Liability, 2. Exclusions**, except for **j. Damage to Property**, paragraphs (3), (4), (5) and (6), **k. Damage to Your Product**, and **l. Damage to Your Work**.

(3) Definitions

For purposes of **Voluntary Property Damage Coverage** only, the following definitions under **Section V - Definitions** are replaced by the following:

16. "Occurrence" means an incident, including continuous or repeated exposure to substantially the same general harmful conditions that result in "property damage".

20. "Property damage" means physical injury to tangible property. "Electronic data" is not tangible property, and "property damage" does not include disappearance, abstraction or theft.

b. Care, Custody or Control Liability Coverage

For purposes of the coverage provided by **Care, Custody or Control Liability Coverage** in this endorsement only:

(1) **Section I - Coverage A - Bodily Injury and Property Damage Liability, 2. Exclusions, j. Damage to Property**, Subparagraphs (3), (4) and (5) do not apply to "property damage" to the property of others described therein.

(2) It shall be your duty, not our duty, to defend any claim or "suit" to which this insurance applies.

No other obligation or liability to pay sums or perform acts or services is covered.

This Paragraph (2) supersedes any provision in the Coverage Part to the contrary.

(3) "Property damage" for which **Care, Custody or Control Lia-**

bility Coverage provides coverage shall be deemed to be caused by an "occurrence" but shall not serve to limit or restrict the applicability of any exclusion for "property damage" under this Coverage Part.

c. Limits of Insurance and Deductibles

For purposes of the coverage provided by **Voluntary Property Damage Coverage and Care, Custody or Control Liability Coverage, Section III - Limits of Insurance** is amended to include the following:

(1) The Limits of Insurance shown in the Declarations are replaced by the limits designated in **Section B. Limits of Insurance, 16. Voluntary Property Damage Coverage and Care, Custody or Control Liability Coverage**, in this endorsement. These limits are inclusive of, and not in addition to, the limits being replaced. The Limits of Insurance shown in the Schedule fix the most we will pay regardless of the number of:

- (a) Insureds;
- (b) Claims made or "suits" brought; or
- (c) Persons or organizations making claims or bringing "suits".

(2) (a) Subject to (3) below, the **Voluntary Property Damage Coverage**, Each Occurrence Limit Of Insurance is the most we will pay for the sum of damages under **Voluntary Property Damage Coverage**;

(b) The **Care, Custody or Control Liability Coverage**, Each Occurrence Limit Of Insurance is the most we will pay for the sum of damages under **Care, Custody or Control Liability Coverage**;

because of all "property damage" arising out of any one "occurrence".

(3) The **Voluntary Property Damage Coverage**, Aggregate Limit of Insurance is the most we will pay for the sum of all damages under **Voluntary Property Damage Coverage**. This limit applies separately to each "coverage term".

(4) Deductible Clause

(a) Our obligation to pay damages on your behalf applies only to the amount of damages for each "occurrence" which are in excess of the Deductible Amount stated for the applicable coverage in the Schedule. The limits of insurance will not be reduced by the application of such Deductible Amount.

(b) **Section IV - Commercial General Liability Conditions, 2. Duties in the Event of Occurrence, offense, Claim or Suit**, applies to each claim or "suit" irrespective of the amount.

(c) We may pay any part or all of the Deductible Amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the Deductible Amount as has been paid by us.

17. Broadened Contractual Liability - Work Within 50' of Railroad Property

Section V - Definitions, 12. "Insured contract" is amended as follows:

- a. Paragraph c. is replaced by the following:
 - c. Any easement or license agreement;
- b. Paragraph f.(1) is deleted in its entirety.

18. Alienated Premises

Exclusion 2.j. Damage to Property, Paragraph (2) under **Section I - Coverage A - Bodily Injury and Property Damage Liability** does not apply if the premises are "your work".

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COMMERCIAL GENERAL LIABILITY COVERAGE FORM

Various provisions in this Coverage Part restrict this insurance. Read the entire Coverage Part carefully to determine rights, duties and what is and is not covered.

Throughout this Coverage Part the words "you" and "your" refer to the Named Insured shown in the Declarations, and any other person or organization qualifying as a Named Insured under this Coverage Part. The words "we", "us" and "our" refer to the Company providing this insurance.

The word "insured" means any person or organization qualifying as such under **SECTION II - WHO IS AN INSURED**.

Other words and phrases that appear in quotation marks have special meaning. Refer to **SECTION V - DEFINITIONS**.

SECTION I - COVERAGES

COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY

1. Insuring Agreement

- a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any "occurrence" and settle any claim or "suit" that may result. But:

- (1) The amount we will pay for damages is limited as described in **SECTION III - LIMITS OF INSURANCE**; and
- (2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements under **SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**; **SECTION I - COVERAGES, COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY**; or medical expenses under **SECTION I - COVERAGES, COVERAGE C. MEDICAL PAYMENTS**.

No other obligation or liability to pay sums or perform acts or services is covered unless expressly provided for under

SUPPLEMENTARY PAYMENTS - COVERAGES A AND B.

- b. This insurance applies to "bodily injury" and "property damage" only if:
- (1) The "bodily injury" or "property damage" is caused by an "occurrence" that takes place in the "coverage territory";
 - (2) The "bodily injury" or "property damage" occurs during the policy period; and
 - (3) Prior to the "coverage term" in which "bodily injury" or "property damage" occurs, you did not know, per Paragraph **1.d.** below, that the "bodily injury" or "property damage" had occurred or had begun to occur, in whole or in part.
- c. "Bodily injury" or "property damage" which:
- (1) Occurs during the "coverage term"; and
 - (2) Was not, prior to the "coverage term", known by you, per Paragraph **1.d.** below, to have occurred;
- includes any continuation, change or resumption of that "bodily injury" or "property damage" after the end of the "coverage term" in which it first became known by you.
- d. You will be deemed to know that "bodily injury" or "property damage" has occurred at the earliest time when any "authorized representative":
- (1) Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;
 - (2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage";
 - (3) First observes, or first observed, the "bodily injury" or "property damage";
 - (4) Becomes aware, or become aware, by any means other than as described in (3) above, that "bodily injury" or "property damage" had occurred or had begun to occur; or
 - (5) Becomes aware, or become aware, of a condition from which "bodily injury" or "property damage" is substantially certain to occur.

- e. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

2. Exclusions

This insurance does not apply to:

a. Expected or Intended Injury

"Bodily injury" or "property damage" which results from the intentional or criminal acts of the insured or which is in fact expected or intended by the insured, even if the injury or damage is of a different degree or type than actually expected or intended. This exclusion does not apply to "bodily injury" resulting from the use of reasonable force to protect persons or property.

b. Contractual Liability

"Bodily injury" or "property damage" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

- (1) That the insured would have in the absence of the contract or agreement; or
- (2) Assumed in a contract or agreement that is an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the contract or agreement. When a claim for such "bodily injury" or "property damage" is made, we will defend that claim provided the insured has assumed the obligation to defend such claim in the "insured contract". Such defense payments will not reduce the limits of insurance.

c. Liquor Liability

"Bodily injury" or "property damage" for which any insured may be held liable by reason of:

- (1) Causing or contributing to the intoxication of any person;
- (2) The furnishing of alcoholic beverages to a person under the legal drinking age or under the influence of alcohol; or
- (3) Any statute, ordinance or regulation relating to the sale, gift, distribution or use of alcoholic beverages.

This exclusion applies only if you are in the business of manufacturing, distributing, selling, serving or furnishing alcoholic beverages.

d. Workers' Compensation and Similar Laws

Any obligation of the insured under a workers' compensation, disability benefits or unemployment compensation law or any similar law.

e. Employer's Liability

"Bodily injury" to:

- (1) An "employee" of the insured sustained in the "workplace";
- (2) An "employee" of the insured arising out of the performance of duties related to the conduct of the insured's business; or
- (3) The spouse, child, parent, brother or sister of that "employee" as a consequence of Paragraphs (1) or (2) above.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

This exclusion does not apply to liability assumed by the insured under an "insured contract".

f. Pollutant

- (1) "Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release, escape or emission of "pollutants":

(a) At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. However, Paragraph (a) does not apply to:

- 1) "Bodily injury" to any person injured while on any premises, site or location owned or occupied by, or rented or loaned to, you provided:

a) The injury is caused by the inadequate ventilation of vapors;

- b) The person injured is first exposed to such vapors during the policy period; and
- c) Within 30 days of such first exposure, the person injured is clinically diagnosed or treated by a physician for the medical condition caused by the exposure to such vapors. However, Paragraph **c)** does not apply if the "bodily injury" is caused by vapors produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests.

This exception **1)** shall apply only to Named Insureds; we shall have no duty to defend or pay damages for any person or organization that is not a Named Insured. However, this paragraph does not apply if the "bodily injury" is caused by vapors produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests.

For the purpose of the exception granted in Paragraph **1)** only, vapors means any gaseous or airborne irritant or airborne contaminant, including smoke, fumes, vapor or soot, but excluding asbestos, which is discharged, dispersed, emitted, released or escapes from materials, machinery or equipment used in the service or maintenance of the premises. Vapors does not mean any gaseous or airborne irritants or contaminants used in a manufacturing process or which is the product or by-

product of any manufacturing process;

- 2) "Bodily injury" or "property damage" for which you may be held liable, if you are a contractor, and the owner or lessee of such premises, site or location has been added to this Coverage Part as an additional insured with respect to your ongoing operations or "your work" performed for that additional insured at that premises, site or location and such premises, site or location is not and never was owned or occupied by, or rented or loaned to, any insured, other than that additional insured; or
 - 3) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire";
- (b) At or from any premises, site or location which is or was at any time used by or for any insured or others for the handling, storage, disposal, processing or treatment of waste;
 - (c) Which are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for:
 - 1) Any insured; or
 - 2) Any person or organization for whom you may be legally responsible;
 - (d) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the premises, site or location in connection with such operations by such insured, contractor or subcontractor. However, Paragraph **(d)** does not apply to:
 - 1) "Bodily injury" or "property damage" arising out of the discharge, dispersal, seepage, migration, release, escape or emission of fuels, lubricants or other operating fluids, or exhaust gases, which are needed to per-

form, or are the result of, the normal electrical, hydraulic or mechanical functions necessary for the operation of "mobile equipment" or its parts, if such fuels, lubricants or other operating fluids, or exhaust gases, escape, seep or migrate, or are discharged, dispersed, released or emitted from a vehicle part designed to hold, store or receive them. This exception does not apply if the fuels, lubricants or other operating fluids, or exhaust gases, escape, seep or migrate, or are discharged, dispersed, released or emitted with the intent to cause "bodily injury" or "property damage" or with the knowledge that "bodily injury" or "property damage" is substantially certain to occur, or if such fuels, lubricants or other operating fluids, or exhaust gases, are brought on or to the premises, site or location with such intent to escape, seep or migrate, or be discharged, dispersed, released or emitted as part of the operations being performed by such insured, contractor or subcontractor;

- 2) "Bodily injury" or "property damage" sustained within a building and caused by the release of gases, fumes or vapors from materials brought into that building in connection with operations being performed by you or on your behalf by a contractor or subcontractor; or
 - 3) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire"; or
- (e) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the operations are to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants".

(2) Any loss, cost or expense arising out of any:

- (a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or
- (b) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

However, Paragraphs (2)(a) and (b) do not apply to liability for damages because of "property damage" that the insured would have in the absence of such request, demand, order or statutory or regulatory requirement, or such claim or "suit" by or on behalf of a governmental authority.

g. Aircraft, Auto or Watercraft

"Bodily injury" or "property damage" arising out of the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft owned or operated by or rented or loaned to any insured. Use includes operation and "loading or unloading".

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft that is owned or operated by or rented or loaned to any insured.

This exclusion does not apply to:

- (1) A watercraft while ashore on premises you own or rent;
- (2) A watercraft you do not own that is:
 - (a) Less than 51 feet long; and
 - (b) Not being used to carry persons or property for a charge;
- (3) Parking an "auto" on, or on the ways next to, premises you own or rent, provided the "auto" is not owned by

or rented or loaned to you or the insured;

- (4) Liability assumed under any "insured contract" for the ownership, maintenance or use of aircraft or watercraft; or
- (5) "Bodily injury" or "property damage" arising out of:
 - (a) The operation of machinery or equipment that is on, attached to, or part of, a land vehicle that would qualify under the definition of "mobile equipment" if it were not subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged; or
 - (b) The operation of any of the machinery or equipment listed in Paragraph **f.(2)** or **f.(3)** of the definition of "mobile equipment".

h. Mobile Equipment

"Bodily injury" or "property damage" arising out of:

- (1) The transportation of "mobile equipment" by an "auto" owned or operated by or rented or loaned to any insured; or
- (2) The use of "mobile equipment" in, or while in practice for, or while being prepared for, any prearranged racing, speed, demolition, or stunting activity.

i. War

"Bodily injury" or "property damage", however caused, arising, directly or indirectly, out of:

- (1) War, including undeclared or civil war;
- (2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- (3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

j. Damage to Property

"Property damage" to:

- (1) Property you own, rent or occupy, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;
- (2) Premises you sell, give away or abandon, if the "property damage" arises out of any part of those premises;
- (3) Property loaned to you;
- (4) Personal property in the care, custody or control of an insured;
- (5) That particular part of real property on which you or any contractors or subcontractors working directly or indirectly on your behalf are performing operations, if the "property damage" arises out of those operations; or
- (6) That particular part of any property that must be restored, repaired or replaced because "your work" was incorrectly performed on it.

Paragraphs **(1)**, **(3)** and **(4)** of this exclusion do not apply to "property damage" (other than damage by fire or explosion) to premises, including the contents of such premises, rented to you for a period of 7 or fewer consecutive days, for which the amount we will pay is limited to the Damage To Premises Rented To You Limit as described in **SECTION III - LIMITS OF INSURANCE**.

Paragraph **(2)** of this exclusion does not apply if the premises are "your work" and were never occupied, rented or held for rental by you.

Paragraphs **(3)**, **(4)**, **(5)** and **(6)** of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph **(6)** of this exclusion does not apply to "property damage" included in the "products-completed operations hazard".

k. Damage to Your Product

"Property damage" to "your product" arising out of it or any part of it.

l. Damage to Your Work

"Property damage" to "your work" arising out of it or any part of it and included in the "products-completed operations hazard".

This exclusion does not apply if the damaged work or the work out of which the damage arises was performed on your behalf by a subcontractor.

m. Damage to Impaired Property or Property Not Physically Injured

"Property damage" to "impaired property" or property that has not been physically injured, arising out of:

- (1) A defect, deficiency, inadequacy or dangerous condition in "your product" or "your work"; or
- (2) A delay or failure by you or anyone acting on your behalf to perform a contract or agreement in accordance with its terms.

This exclusion does not apply to the loss of use of other property arising out of sudden and accidental physical injury to "your product" or "your work" after it has been put to its intended use.

n. Recall of Products, Work or Impaired Property

Any liability or damages claimed for any loss, cost or expense incurred by you or others for the loss of use, withdrawal, recall, inspection, repair, replacement, adjustment, removal or disposal of:

- (1) "Your product";
- (2) "Your work"; or
- (3) "Impaired property";

if such product, work or property is withdrawn or recalled from the market or from use by any person or organization because of a known or suspected defect, deficiency, inadequacy or dangerous condition in it.

o. Personal and Advertising Injury

"Bodily injury" arising out of "personal and advertising injury".

p. Asbestos

"Bodily injury" or "property damage" arising out of, attributable to, or any way related to asbestos in any form or transmitted in any manner.

q. Employment-Related Practices

"Bodily injury" to:

- (1) A person arising out of any:
 - (a) Refusal to employ that person;
 - (b) Termination of that person's employment; or

- (c) Other employment-related practices, policies, acts or omissions including but not limited to coercion, criticism, demotion, evaluation, failure to promote, reassignment, discipline, defamation, harassment, humiliation or discrimination directed at that person; or

- (2) The spouse, child, parent, brother or sister of that person as a consequence of "bodily injury" to that person at whom any of the employment-related practices described in Paragraphs (a), (b) or (c) above is directed.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

r. Additional Insured Prior Knowledge

An additional insured added by attachment of an endorsement to this Coverage Part that is seeking coverage for a claim or "suit", if that additional insured knew, per the following paragraph, that "bodily injury" or "property damage" had occurred or had begun to occur, in whole or in part, prior to the "coverage term" in which such "bodily injury" or "property damage" occurs or begins to occur.

An additional insured added by attachment of an endorsement to this Coverage Part will be deemed to have known that "bodily injury" or "property damage" has occurred or has begun to occur at the earliest time when that additional insured, or any one of its owners, members, partners, managers, executive officers, "employees" assigned to manage that additional insured's insurance program, or "employees" assigned to give or receive notice of an "occurrence", "personal and advertising injury" offense, claim or "suit":

- (1) Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;
- (2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage";
- (3) First observes, or first observed, the "bodily injury" or "property damage";

- (4) Becomes aware, or become aware, by any means other than as described in (3) above, that "bodily injury" or "property damage" had occurred or had begun to occur; or
- (5) Becomes aware, or become aware, of a condition from which "bodily injury" or "property damage" is substantially certain to occur.

s. Electronic Data

Damages arising out of the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate "electronic data".

t. Distribution of Material in Violation of Statutes

"Bodily injury" or "property damage" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

- a. The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or
- b. The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or
- c. Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003, that prohibits or limits the sending, transmitting, communicating or distribution of material or information.

Exclusions **c.** through **q.** do not apply to "property damage" by fire or explosion to premises while rented to you or temporarily occupied by you with permission of the owner, for which the amount we will pay is limited to the Damage to Premises Rented To You Limit as described in **SECTION III - LIMITS OF INSURANCE**.

COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY

1. Insuring Agreement

- a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "personal and advertising injury" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "personal and advertising injury" to which this insurance does not apply. We may, at our discretion, investigate any offense and settle any claim or "suit" that may result. But:

- (1) The amount we will pay for damages is limited as described in **SECTION III - LIMITS OF INSURANCE**; and
- (2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements under **SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY; SECTION I - COVERAGES, COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY**; or medical expenses under **SECTION I - COVERAGES, COVERAGE C. MEDICAL PAYMENTS**.

No other obligation or liability to pay sums or perform acts or services is covered unless expressly provided for under **SUPPLEMENTARY PAYMENTS - COVERAGES A AND B**.

- b. This insurance applies to "personal and advertising injury" only if:
 - (1) The "personal and advertising injury" is caused by an offense arising out of your business; and
 - (2) The "personal and advertising injury" offense was committed in the "coverage territory" during the policy period; and
 - (3) Prior to the "coverage term" in which the "personal and advertising injury" offense is committed, you did not know, per Paragraph **1.d.** below, that the offense had been committed or had begun to be committed, in whole or in part.
- c. "Personal and advertising injury" caused by an offense which:
 - (1) Was committed during the "coverage term"; and
 - (2) Was not, prior to the "coverage term", known by you, per Paragraph **1.d.** below, to have been committed;

includes any continuation, change or resumption of that offense after the end of the "coverage term" in which it first became known by you.

- d. You will be deemed to know that a "personal and advertising injury" offense has been committed at the earliest time when any "authorized representative":
 - (1) Reports all, or any part, of the "personal and advertising injury" to us or any other insurer;

- (2) Receives a written or verbal demand or claim for damages because of the "personal and advertising injury";
- (3) First observes, or first observed, the offense that caused the "personal and advertising injury";
- (4) Becomes aware, or become aware, by any means, other than as described in (3) above, that the offense had been committed or had begun to be committed; or
- (5) Becomes aware, or become aware, of a condition from which "personal and advertising injury" is substantially certain to occur.

2. Exclusions

This insurance does not apply to:

a. **Knowing Violation of Rights of Another**

"Personal and advertising injury" caused by or at the direction of the insured with the knowledge that the act would violate the rights of another and would inflict "personal and advertising injury".

b. **Material Published With Knowledge of Falsity**

"Personal and advertising injury" arising out of oral or written publication of material, if done by or at the direction of the insured with knowledge of its falsity.

c. **Material Published Prior to Coverage Term**

"Personal and advertising injury" arising out of oral or written publication of material whose first publication took place before the later of the following:

- (1) The inception of this Coverage Part; or
- (2) The "coverage term" in which insurance coverage is sought.

d. **Criminal Acts**

"Personal and advertising injury" arising out of a criminal act committed by or at the direction of the insured.

e. **Contractual Liability**

"Personal and advertising injury" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

- (1) That the insured would have in the absence of the contract or agreement; or
- (2) Assumed in a contract or agreement that is an "insured contract", provided the "personal and advertising injury" is caused by or arises out of an offense committed subsequent to the execution of the contract or agreement. When a claim for such "personal and advertising injury" is made, we will defend that claim, provided the insured has assumed the obligation to defend such claim in the "insured contract". Such defense payments will not reduce the limits of insurance.

f. **Breach of Contract**

"Personal and advertising injury" arising out of a breach of contract, except an implied contract to use another's advertising idea in your "advertisement".

g. **Quality or Performance of Goods - Failure to Conform to Statements**

"Personal and advertising injury" arising out of the failure of goods, products or services to conform with any statement of quality or performance made in your "advertisement".

h. **Wrong Description of Prices**

"Personal and advertising injury" arising out of the wrong description of the price of goods, products or services stated in your "advertisement".

i. **Infringement of Copyright, Patent, Trademark or Trade Secret**

"Personal and advertising injury" arising out of the infringement of copyright, patent, trademark, trade secret or other intellectual property rights.

However, this exclusion does not apply to infringement, in your "advertisement", of copyright, trade dress or slogan.

j. **Insureds in Media and Internet Type Businesses**

"Personal and advertising injury" committed by an insured whose business is:

- (1) Advertising, broadcasting, publishing or telecasting;
- (2) Designing or determining content of web-sites for others; or
- (3) An Internet search, access, content or service provider.

However, this exclusion does not apply to Paragraphs **17. a., b. and c.** of "personal and advertising injury" under **SECTION V - DEFINITIONS.**

For the purposes of this exclusion, the placing of frames, borders or links, or advertising, for you or others anywhere on the Internet is not, by itself, considered the business of advertising, broadcasting, publishing or telecasting.

k. Electronic Chatrooms or Bulletin Boards

"Personal and advertising injury" arising out of an electronic chatroom or bulletin board any insured hosts, owns, or over which any insured exercises control.

l. Unauthorized Use of Another's Name or Product

"Personal and advertising injury" arising out of the unauthorized use of another's name or product in your e-mail address, domain name or metatag, or any other similar tactics to mislead another's potential customers.

m. Employment Related Practices

"Personal and advertising injury" to:

- (1) A person arising out of any:
 - (a) Refusal to employ that person;
 - (b) Termination of that person's employment; or
 - (c) Other employment-related practices, policies, acts or omissions including but not limited to coercion, criticism, demotion, evaluation, failure to promote, reassignment, discipline, defamation, harassment, humiliation or discrimination directed at that person; or
- (2) The spouse, child, parent, brother or sister of that person as a consequence of "personal and advertising injury" to that person at whom any of the employment-related practices described in Paragraphs **(a), (b)** or **(c)** above is directed.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

n. Pollutant

"Personal and advertising injury" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release, escape or emission of "pollutants" at any time.

o. Pollutant-Related

Any loss, cost or expense arising out of any:

- (1) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or
- (2) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

p. Asbestos

"Personal and advertising injury" arising out of, attributable to, or any way related to asbestos in any form or transmitted in any manner.

q. Additional Insured Prior Knowledge

An additional insured added by attachment of an endorsement to this Coverage Part that is seeking coverage for a claim or "suit", if that additional insured knew, per the following paragraph, that a "personal and advertising injury" offense had been committed or had begun to be committed, in whole or in part, prior to the "coverage term" in which such offense was committed or began to be committed.

An additional insured added by attachment of an endorsement to this Coverage Part will be deemed to have known that a "personal and advertising injury" offense has been committed or has begun to be committed at the earliest time when that additional insured, or any one of its owners, members, partners, managers, executive officers, "employees" assigned to manage that additional insured's insurance program, or "employees" assigned to give or receive notice of an "occurrence", "personal and advertising injury" offense, claim or "suit":

- (1) Reports all, or any part, of the "personal and advertising injury" to us or any other insurer;

- (2) Receives a written or verbal demand or claim for damages because of the "personal and advertising injury";
- (3) First observes, or first observed, the offense that caused the "personal and advertising injury";
- (4) Becomes aware, or become aware, by any means other than as described in (3) above, that the "personal and advertising injury" offense had been committed or had begun to be committed; or
- (5) Becomes aware, or become aware, of a condition from which "personal and advertising injury" is substantially certain to occur.

r. War

"Personal and advertising injury", however caused, arising, directly or indirectly, out of:

- (1) War, including undeclared or civil war;
- (2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- (3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

s. Distribution of Material in Violation of Statutes

"Personal and advertising injury" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

- a. The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or
- b. The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or
- c. Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003, that prohibits or limits the sending, transmitting, communicating or distribution of material or information.

COVERAGE C. MEDICAL PAYMENTS

1. Insuring Agreement

a. We will pay medical expenses as described below for "bodily injury" caused by an accident:

- (1) On premises you own or rent;
- (2) On ways next to premises you own or rent; or
- (3) Because of your operations;

provided that:

- (1) The accident takes place in the "coverage territory" and during the policy period;
- (2) The expenses are incurred and reported to us within three years of the date of the accident; and
- (3) The injured person submits to examination, at our expense, by physicians of our choice as often as we reasonably require.

b. We will make these payments regardless of fault. These payments will not exceed the applicable limit of insurance. We will pay reasonable expenses for:

- (1) First aid administered at the time of an accident;
- (2) Necessary medical, surgical, x-ray and dental services, including prosthetic devices; and
- (3) Necessary ambulance, hospital, professional nursing and funeral services.

2. Exclusions

We will not pay expenses for "bodily injury":

a. Any Insured

To any insured, except "volunteer workers".

b. Hired Person

To a person hired to do work for or on behalf of any insured or a tenant of any insured.

c. Injury on Normally Occupied Premises

To a person injured on that part of premises you own or rent that the person normally occupies.

d. Workers' Compensation and Similar Laws

To a person, whether or not an "employee" of any insured, if benefits for the "bodily injury" are payable or must be provided under a workers' compensation or disability benefits law or a similar law.

e. Athletic Activities

To any person injured while officiating, coaching, practicing for, instructing or participating in any physical exercises or games, sports, or athletic contests or exhibitions of an athletic or sports nature.

f. Products-Completed Operations Hazard

Included within the "products-completed operations hazard".

g. Coverage A Exclusions

Excluded under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**.

SUPPLEMENTARY PAYMENTS - COVERAGES A AND B

We will pay, with respect to any claim we investigate or settle, or any "suit" against an insured we defend:

1. All expenses we incur.
2. Up to \$250 for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.
3. The cost of bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.
4. All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to \$250 a day because of time off from work.
5. All costs taxed against the insured in the "suit".
6. Prejudgment interest awarded against the insured on that part of the judgment we become obligated to pay and which falls within the applicable limit of insurance. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.
7. All interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

These payments will not reduce the limits of insurance.

SECTION II - WHO IS AN INSURED

1. If you are designated in the Declarations as:

- a. An individual, you and your spouse are insureds, but only with respect to the conduct of a business of which you are the sole owner.
- b. A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds, but only with respect to the conduct of your business.
- c. A limited liability company, you are an insured. Your members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.
- d. An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.
- e. A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.

2. Each of the following is also an insured:

- a. Your "volunteer workers" only while performing duties related to the conduct of your business, or your "employees", other than either your "executive officers" (if you are an organization other than a partnership, joint venture or limited liability company) or your managers (if you are a limited liability company), but only for acts within the scope of their employment by you or while performing duties related to the conduct of your business. However, none of these "employees" or "volunteer workers" are insureds for:

(1) "Bodily injury" or "personal and advertising injury":

- (a) To you, to your partners or members (if you are a partnership or joint venture), to your members (if you are a limited liability company), to a co-"employee" while in the course of his or her employment or performing duties related to the conduct of your business, or to your other "volunteer workers" while performing duties related to the conduct of your business;

- (b) To the spouse, child, parent, brother or sister of that co-"employee" or "volunteer

worker" as a consequence of Paragraph (1)(a) above;

(c) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraphs (1)(a) or (b) above; or

(d) Arising out of his or her providing or failing to provide professional health care services.

(2) "Property damage" to property:

(a) Owned, occupied or used by; or

(b) Rented to, in the care, custody or control of, or over which physical control is being exercised for any purpose by,

you, any of your "employees", "volunteer workers", any partner or member (if you are a partnership or joint venture), or any member (if you are a limited liability company).

b. Any person (other than your "employee" or "volunteer worker"), or any organization while acting as your real estate manager.

c. Any person or organization having proper temporary custody of your property if you die, but only:

(1) With respect to liability arising out of the maintenance or use of that property; and

(2) Until your legal representative has been appointed.

d. Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.

3. Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain ownership or majority interest, will qualify as a Named Insured if there is no other similar insurance available to that organization. However:

a. Insurance under this provision is afforded only until the 90th day after you acquire or form the organization or the end of the policy period, whichever is earlier;

b. **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization; and

c. **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY** does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

No person or organization is an insured with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a Named Insured in the Declarations.

SECTION III - LIMITS OF INSURANCE

1. The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of:

a. Insureds;

b. Claims made or "suits" brought; or

c. Persons or organizations making claims or bringing "suits".

2. a. The General Aggregate Limit is the most we will pay for the sum of:

(1) Medical expenses under **COVERAGE C. MEDICAL PAYMENTS**;

(2) Damages under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and

(3) Damages under **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY**.

This General Aggregate Limit will not apply if either the Location General Aggregate Limit of Insurance, Paragraph 2.b., or the Construction Project General Aggregate Limit of Insurance, Paragraph 2.c. applies.

b. A separate Location General Aggregate Limit of Insurance, equal to the amount of the General Aggregate Limit shown in the Declarations, shall apply to each location owned by, or rented or leased to you and is the most we will pay for the sum of:

(1) Damages under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and

(2) Medical expenses under **COVERAGE C. MEDICAL PAYMENTS**,

which can be attributed to operations at only a single location owned by, or rented or leased to you.

- c. A separate Construction Project General Aggregate Limit of Insurance, equal to the amount of the General Aggregate Limit shown in the Declarations, shall apply to each construction project and is the most we will pay for the sum of:

(1) Damages under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and

(2) Medical expenses under **COVERAGE C. MEDICAL PAYMENTS**;

which can be attributed only to ongoing operations and only at a single construction project.

- d. Only for the purpose of determining which General Aggregate Limit of Insurance, **2.a.**, **2.b.**, or **2.c.**, applies:

(1) Location means premises involving the same or connecting lots, or premises, whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad.

(2) Construction project means a location you do not own, rent or lease where ongoing improvements, alterations, installation, demolition or maintenance work is performed by you or on your behalf. All connected ongoing improvements, alterations, installation, demolition or maintenance work performed by you or on your behalf at the same location for the same persons or organizations, no matter how often or under how many different contracts, will be deemed to be a single construction project.

3. The Products-Completed Operations Aggregate Limit is the most we will pay under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** for damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard".
4. Subject to **2.a.** above, the Personal and Advertising Injury Limit is the most we will pay under **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY** for the sum of all damages because of all "personal and advertising injury" sustained by any one person or organization.

5. Subject to **2.** or **3.** above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of:

a. Damages under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**; and

b. Medical expenses under **COVERAGE C. MEDICAL PAYMENTS**;

because of all "bodily injury" and "property damage" arising out of any one "occurrence".

6. Subject to **5.** above, the Damage to Premises Rented to You Limit is the most we will pay under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** for damages because of "property damage" to any one premises, while rented to you, or in the case of damage by fire or explosion, while rented to you or temporarily occupied by you with permission of the owner.

7. Subject to **5.** above, the Medical Expense Limit is the most we will pay under **COVERAGE C. MEDICAL PAYMENTS** for all medical expenses because of "bodily injury" sustained by any one person.

The Limits of Insurance of this Coverage Part apply separately to each "coverage term".

SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS

1. Bankruptcy

Bankruptcy or insolvency of the insured or of the insured's estate will not relieve us of our obligations under this Coverage Part.

2. Duties in the Event of Occurrence, Offense, Claim or Suit

a. You must see to it that we are notified as soon as practicable of an "occurrence" or a "personal and advertising injury" offense which may result in a claim. To the extent possible, notice should include:

- (1) How, when and where the "occurrence" or offense took place;
- (2) The names and addresses of any injured persons and witnesses; and
- (3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

b. If a claim is made or "suit" is brought against any insured, you must:

- (1) Immediately record the specifics of the claim or "suit" and the date received; and
- (2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

- c.** You and any other involved insured must:
- (1)** Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";
 - (2)** Authorize us to obtain records and other information;
 - (3)** Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and
 - (4)** Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.
- d.** No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

3. Legal Action Against Us

No person or organization has a right under this Coverage Part:

- a.** To join us as a party or otherwise bring us into a "suit" asking for damages from an insured; or
- b.** To sue us on this Coverage Part unless all of its terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an insured; but we will not be liable for damages that are not payable under the terms of this Coverage Part or that are in excess of the applicable limit of insurance. An agreed settlement means a settlement and release of liability signed by us, the insured and the claimant or the claimant's legal representative.

4. Liberalization

If, within 60 days prior to the beginning of this Coverage Part or during the policy period, we make any changes to any forms or endorsements of this Coverage Part for which there is currently no separate premium charge, and that change provides more coverage than this Coverage Part, the change will automatically apply to this Coverage Part as of the latter of:

- a.** The date we implemented the change in your state; or

- b.** The date this Coverage Part became effective; and

will be considered as included until the end of the current policy period. We will make no additional premium charge for this additional coverage during the interim.

5. Other Insurance

If other valid and collectible insurance is available to the insured for a loss we cover under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** or **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY** of this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

This insurance is primary except when **b.** below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the method described in **c.** below.

b. Excess Insurance

This insurance is excess over:

- (1)** Any of the other insurance, whether primary, excess, contingent or on any other basis:
 - (a)** That is Fire, Extended Coverage, Builder's Risk, Installation Risk or similar insurance for "your work";
 - (b)** That is Fire or Explosion insurance for premises rented to you or temporarily occupied by you with permission of the owner;
 - (c)** That is insurance purchased by you to cover your liability as a tenant for "property damage" to premises rented to you or temporarily occupied by you with permission of the owner; or
 - (d)** If the loss arises out of the maintenance or use of aircraft, "autos" or watercraft to the extent not subject to **SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY, 2. Exclusions, g. Aircraft, Auto or Watercraft.**
- (2)** Any other primary insurance available to the insured covering liability for damages arising out of the premises or operations, or the products and completed operations, for which

the insured has been added as an additional insured by attachment of an endorsement.

- (3) Any other insurance:
- (a) Whether primary, excess, contingent or on any other basis, except when such insurance is written specifically to be excess over this insurance; and
 - (b) That is a consolidated (wrap-up) insurance program which has been provided by the prime contractor/project manager or owner of the consolidated project in which you are involved.

When this insurance is excess, we will have no duty under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** or **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY** to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and self-insured amounts under all that other insurance.

We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

c. Method of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance

to the total applicable limits of insurance of all insurers.

6. Premium Audit

- a. We will compute all premiums for this Coverage Part in accordance with our rules and rates.
- b. Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the first Named Insured. The due date for audit and retrospective premiums is the date shown as the due date on the bill. If:
 - (1) The earned premium is less than the deposit premium, we will return the excess to the first Named Insured; or
 - (2) The earned premium is greater than the deposit premium, the difference will be due and payable to us by the first Named Insured upon notice from us.
- c. The first Named Insured must keep records of the information we need for premium computation, and send us copies at such times as we may request.

7. Representations

By accepting this Coverage Part, you agree:

- a. The statements in the Declarations are accurate and complete;
- b. Those statements are based upon representations you made to us; and
- c. We have issued this Coverage Part in reliance upon your representations.

8. Separation of Insureds

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

- a. As if each Named Insured were the only Named Insured; and
- b. Separately to each insured against whom claim is made or "suit" is brought.

9. Transfer of Rights of Recovery Against Others to Us

If the insured has rights to recover all or part of any payment we have made under this Coverage Part, those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

10. Two or More Coverage Forms or Policies Issued by Us

If this Coverage Part and any other Coverage Form or Coverage Part forming a part of this policy apply to the same "occurrence" or "personal and advertising injury" offense, the aggregate maximum Limit of Insurance under all the Coverage Forms or Coverage Parts shall not exceed the highest applicable Limit of Insurance under any one Coverage Form or Coverage Part. This condition does not apply to any Coverage Form or Coverage Part issued by us specifically to apply as excess insurance over this Coverage Part.

11. When We Do Not Renew

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing will be sufficient proof of notice.

SECTION V - DEFINITIONS

1. "Advertisement" means a notice that is broadcast, telecast or published to the general public or specific market segments about your goods, products or services for the purpose of attracting customers or supporters. "Advertisement" includes a publicity article. For purposes of this definition:

- a. Notices that are published include material placed on the Internet or on similar electronic means of communication; and
- b. Regarding web-sites, only that part of a web-site that is about your goods, products or services for the purposes of attracting customers or supporters is considered an "advertisement".

2. "Authorized representative" means:

- a. If you are designated in the Declarations as:
 - (1) An individual, you and your spouse are "authorized representatives".
 - (2) A partnership or joint venture, your members, your partners, and their spouses are "authorized representatives".
 - (3) A limited liability company, your members and your managers are "authorized representatives".
 - (4) An organization other than a partnership, joint venture or limited liability company, your "executive officers" and directors are "authorized representatives". Provided you are not a

publicly traded organization, your stockholders are also "authorized representatives".

(5) A trust, your trustees are "authorized representatives".

b. Your "employees":

(1) Assigned to manage your insurance program; or

(2) Responsible for giving or receiving notice of an "occurrence", "personal and advertising injury" offense, claim or "suit";

are also "authorized representatives".

3. "Auto" means:

a. A land motor vehicle, trailer or semitrailer designed for travel on public roads, including any attached machinery or equipment; or

b. Any other land vehicle that is subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged.

However, "auto" does not include "mobile equipment".

4. "Bodily injury" means bodily injury, sickness or disease sustained by a person, including death resulting from any of these at any time.

5. "Coverage term" means the following individual increment, or if a multi-year policy period, increments, of time, which comprise the policy period of this Coverage Part:

a. The year commencing on the Effective Date of this Coverage Part at 12:01 AM standard time at your mailing address shown in the Declarations, and if a multi-year policy period, each consecutive annual period thereafter, or portion thereof if any period is for a period of less than 12 months, constitute individual "coverage terms". The last "coverage term" ends at 12:00 AM standard time at your mailing address shown in the Declarations on the earlier of:

(1) The day the policy period shown in the Declarations ends; or

(2) The day the policy to which this Coverage Part is attached is terminated or cancelled.

b. However, if after the issuance of this Coverage Part, any "coverage term" is extended for an additional period of less than 12 months, that additional period of

- time will be deemed to be part of the last preceding "coverage term".
- 6.** "Coverage territory" means:
- a.** The United States of America (including its territories and possessions), Puerto Rico and Canada;
 - b.** International waters or airspace, but only if the injury or damage occurs in the course of travel or transportation between any places included in **a.** above; or
 - c.** All other parts of the world if the injury or damage arises out of:
 - (1)** Goods or products made or sold by you in the territory described in **a.** above;
 - (2)** The activities of a person whose home is in the territory described in **a.** above, but is away for a short time on your business; or
 - (3)** "Personal and advertising injury" offenses that take place through the Internet or similar electronic means of communication,

provided the insured's responsibility to pay damages is determined in a "suit" on the merits, in the territory described in **a.** above or in a settlement to which we agree.
- 7.** "Electronic data" means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMs, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.
- 8.** "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".
- 9.** "Executive officer" means a person holding any of the officer positions created by your charter, constitution, by-laws or any other similar governing document.
- 10.** "Hostile fire" means one which becomes uncontrollable or breaks out from where it was intended to be.
- 11.** "Impaired property" means tangible property, other than "your product" or "your work", that cannot be used or is less useful because:
- a.** It incorporates "your product" or "your work" that is known or thought to be defective, deficient, inadequate or dangerous; or
- b.** You have failed to fulfill the terms of a contract or agreement;
- if such property can be restored to use by:
- a.** The repair, replacement, adjustment or removal of "your product" or "your work"; or
 - b.** Your fulfilling the terms of the contract or agreement.
- 12.** "Insured contract" means:
- a.** A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for "property damage" by fire or explosion to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";
 - b.** A sidetrack agreement;
 - c.** Any easement or license agreement, except in connection with construction or demolition operations on or within 50 feet of a railroad;
 - d.** An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;
 - e.** An elevator maintenance agreement;
 - f.** That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury", "property damage" or "personal and advertising injury" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.
- Paragraph **f.** does not include that part of any contract or agreement:
- (1)** That indemnifies a railroad for "bodily injury", "property damage" or "personal and advertising injury" arising out of construction or demolition operations, within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, roadbeds, tunnel, underpass or crossing;
 - (2)** That indemnifies an architect, engineer or surveyor for injury or damage arising out of:
 - (a)** Preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders,

change orders or drawings and specifications; or

- (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;
- (3) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in Paragraph (2) above and supervisory, inspection, architectural or engineering activities;
- (4) That indemnifies an advertising, public relations or media consulting firm for "personal and advertising injury" arising out of the planning, execution or failure to execute marketing communications programs. Marketing communications programs include but are not limited to comprehensive marketing campaigns; consumer, trade and corporate advertising for all media; media planning, buying, monitoring and analysis; direct mail; promotion; sales materials; design; presentations; point-of-sale materials; market research; public relations and new product development;
- (5) Under which the insured, if an advertising, public relations or media consulting firm, assumes liability for "personal and advertising injury" arising out of the insured's rendering or failure to render professional services, including those services listed in Paragraph (4), above;
- (6) That indemnifies a web-site designer or content provider, or Internet search, access, content or service provider for injury or damage arising out of the planning, execution or failure to execute Internet services. Internet services include but are not limited to design, production, distribution, maintenance and administration of web-sites and web-banners; hosting web-sites; registering domain names; registering with search engines; marketing analysis; and providing access to the Internet or other similar networks; or
- (7) Under which the insured, if a web-site designer or content provider, or Internet search, access, content or service provider, assumes liability for injury or damage arising out of the insured's rendering or failure to ren-

der Internet services, including those listed in Paragraph (6), above.

- 13. "Leased worker" means a person leased to you by a labor leasing firm under an agreement between you and the labor leasing firm, to perform duties related to the conduct of your business. "Leased worker" includes supervisors furnished to you by the labor leasing firm. "Leased worker" does not include a "temporary worker".
- 14. "Loading or unloading" means the handling of property:
 - a. After it is moved from the place where it is accepted for movement into or onto an aircraft, watercraft or "auto";
 - b. While it is in or on an aircraft, watercraft or "auto"; or
 - c. While it is being moved from an aircraft, watercraft or "auto" to the place where it is finally delivered;but "loading or unloading" does not include the movement of property by means of a mechanical device, other than a hand truck, that is not attached to the aircraft, watercraft or "auto".
- 15. "Mobile equipment" means any of the following types of land vehicles, including any attached machinery or equipment:
 - a. Bulldozers, farm machinery, forklifts and other vehicles designed for use principally off public roads;
 - b. Vehicles maintained for use solely on or next to premises you own or rent;
 - c. Vehicles that travel on crawler treads;
 - d. Vehicles, whether self-propelled or not, maintained primarily to provide mobility to permanently mounted:
 - (1) Power cranes, shovels, loaders, diggers or drills; or
 - (2) Road construction or resurfacing equipment such as graders, scrapers or rollers;
 - e. Vehicles not described in a., b., c. or d. above that are not self-propelled and are maintained primarily to provide mobility to permanently attached equipment of the following types:
 - (1) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment; or

- (2) Cherry pickers and similar devices used to raise or lower workers;
- f. Vehicles not described in a., b., c. or d. above maintained primarily for purposes other than the transportation of persons or cargo.

However, self-propelled vehicles with the following types of permanently attached equipment are not "mobile equipment" but will be considered "autos":

- (1) Equipment designed primarily for:
 - (a) Snow removal;
 - (b) Road maintenance, but not construction or resurfacing; or
 - (c) Street cleaning;
- (2) Cherry pickers and similar devices mounted on automobile or truck chassis and used to raise or lower workers; and
- (3) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment.

However, "mobile equipment" does not include any land vehicles that are subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged. Land vehicles subject to a compulsory or financial responsibility law or other motor vehicle insurance law are considered "autos".

- 16. "Occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions.
- 17. "Personal and advertising injury" means injury, including consequential "bodily injury", arising out of one or more of the following offenses:
 - a. False arrest, detention or imprisonment;
 - b. Malicious prosecution;
 - c. The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person occupies, committed by or on behalf of its owner, landlord or lessor;
 - d. Oral or written publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;
 - e. Oral or written publication, in any manner, of material that violates a person's right of privacy;

- f. The use of another's advertising idea in your "advertisement"; or
- g. Infringing upon another's copyright, trade dress or slogan in your "advertisement".

18. "Pollutant" means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals, petroleum, petroleum products and petroleum by-products, and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

19. "Products-completed operations hazard":

- a. Includes all "bodily injury" and "property damage" occurring away from premises you own or rent and arising out of "your product" or "your work" except:
 - (1) Products that are still in your physical possession; or
 - (2) Work that has not yet been completed or abandoned. However, "your work" will be deemed completed at the earliest of the following times:
 - (a) When all of the work called for in your contract has been completed; or
 - (b) When all of the work to be done at the job site has been completed if your contract calls for work at more than one job site; or
 - (c) When that part of the work done at a job site has been put to its intended use by any person or organization other than another contractor or subcontractor working on the same project.

Work that may need service, maintenance, correction, repair or replacement, but which is otherwise complete, will be treated as completed.

- b. Does not include "bodily injury" or "property damage" arising out of:
 - (1) The transportation of property, unless the injury or damage arises out of a condition in or on a vehicle not owned or operated by you, and that condition was created by the "loading or unloading" of that vehicle by any insured;
 - (2) The existence of tools, uninstalled equipment or abandoned or unused materials; or
 - (3) Products or operations for which the classification, listed in the Declarations or in a schedule, states that

products-completed operations are included.

20. "Property damage" means:

- a.** Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or
- b.** Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the "occurrence" that caused it.

For the purposes of this insurance, "electronic data" is not tangible property.

21. "Suit" means a civil proceeding in which money damages because of "bodily injury", "property damage" or "personal and advertising injury" to which this insurance applies are alleged. "Suit" includes:

- a.** An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent;
- b.** Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent; or
- c.** An appeal of a civil proceeding.

22. "Temporary worker" means a person who is furnished to you to substitute for a permanent "employee" on leave or to meet seasonal or short-term workload conditions.

23. "Volunteer worker" means a person who is not your "employee", and who donates his or her work and acts at the direction of and within the scope of duties determined by you, and is not paid a fee, salary or other compensation by you or anyone else for their work performed for you.

24. "Workplace" means that place and during such hours to which the "employee" sustaining "bodily injury" was assigned by you, or any other person or entity acting on your behalf, to work on the date of "occurrence".

25. "Your product":

a. Means:

(1) Any goods or products, other than real property, manufactured, sold, handled, distributed or disposed of by:

- (a)** You;
- (b)** Others trading under your name; or
- (c)** A person or organization whose business or assets you have acquired; and

(2) Containers (other than vehicles), materials, parts or equipment furnished in connection with such goods or products.

b. Includes:

(1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your product"; and

(2) The providing of or failure to provide warnings or instructions.

c. Does not include vending machines or other property rented to or located for the use of others but not sold.

26. "Your work":

a. Means:

(1) Work or operations performed by you or on your behalf; and

(2) Materials, parts or equipment furnished in connection with such work or operations.

b. Includes:

(1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your work"; and

(2) The providing of or failure to provide warnings or instructions.

NUCLEAR ENERGY LIABILITY EXCLUSION (Broad Form)

1. The insurance does not apply:
 - A. Under any Liability Coverage, to "bodily injury" or "property damage":
 - (1) With respect to which an insured under this Coverage Part is also an insured under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, Nuclear Insurance Association of Canada, or any of their successors, or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or
 - (2) Resulting from the "hazardous properties" of "nuclear material" and with respect to which (a) any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or (b) the insured is, or had this Coverage Part not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization.
 - B. Under any Medical Payments coverage, to expenses incurred with respect to "bodily injury" resulting from the "hazardous properties" of "nuclear material" and arising out of the operation of a "nuclear facility" by any person or organization.
 - C. Under any Liability Coverage, to "bodily injury" or "property damage" resulting from the "hazardous properties" of "nuclear material", if:
 - (1) The "nuclear material" (a) is at any "nuclear facility" owned by, or operated by or on behalf of, an insured, or (b) has been discharged or dispersed therefrom;
 - (2) The "nuclear material" is contained in "spent fuel" or "waste" at any time possessed, handled, used, processed, stored, transported or disposed of, by or on behalf of an insured; or
 - (3) The "bodily injury" or "property damage" arises out of the furnishing by an insured of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any "nuclear facility", but if such facility is located within the United States of America, its territories or possessions or Canada, this Exclusion (3) applies only to "property damage" to such "nuclear facility" and any property thereat.
2. As used in this exclusion:

"Hazardous properties" includes radioactive, toxic or explosive properties.

"Nuclear material" means "source material", "special nuclear material" or "by-product material".

"Source material", "special nuclear material", and "by-product material" have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof.

"Spent fuel" means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a "nuclear reactor".

"Waste" means any waste material (a) containing "by-product material" other than the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its "source material" content, and (b) resulting from the operation by any person or organization of any "nuclear facility" included under the first two paragraphs of the definition of "nuclear facility".

"Nuclear facility" means:

 - A. Any "nuclear reactor";
 - B. Any equipment or device designed or used for (1) separating the isotopes of uranium or plutonium, (2) processing or utilizing "spent fuel", or (3) handling, processing or packaging "waste";
 - C. Any equipment or device used for the processing, fabricating or alloying of "special nuclear material" if at any time the total amount of such material in the custody of the insured at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;

D. Any structure, basin, excavation, premises or place prepared or used for the storage or disposal of "waste";

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations.

"Nuclear reactor" means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material.

"Property damage" includes all forms of radioactive contamination of property.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CinciPlus[®]
BUSINESS AUTO XC+[®]
(EXPANDED COVERAGE PLUS)
ENDORSEMENT

This endorsement modifies insurance provided by the following:

BUSINESS AUTO COVERAGE FORM

With respect to the coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

A. Blanket Waiver of Subrogation

SECTION IV - BUSINESS AUTO CONDITIONS, A. Loss Conditions, 5. Transfer of Rights of Recovery Against Others to Us is amended by the addition of the following:

We waive any right of recovery we may have against any person or organization because of payments we make for "bodily injury" or "property damage" arising out of the operation of a covered "auto" when you have assumed liability for such "bodily injury" or "property damage" under an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the "insured contract".

B. Noncontributory Insurance

SECTION IV - BUSINESS AUTO CONDITIONS, B. General Conditions, 5. Other Insurance c. is replaced by the following:

- c. Regardless of the provisions of Paragraph **a.** above, this Coverage Form's Liability Coverage is primary and we will not seek contribution from any other insurance for any liability assumed under an "insured contract" that requires liability to be assumed on a primary noncontributory basis.

C. Additional Insured by Contract

SECTION II - LIABILITY COVERAGE, A. Coverage, I. Who is an Insured is amended to include as an insured any person or organization with which you have agreed in a valid written contract to provide insurance as is afforded by this policy.

This provision is limited to the scope of the valid written contract.

This provision does not apply unless the valid written contract has been:

1. Executed prior to the accident causing "bodily injury" or "property damage"; and
2. Is still in force at the time of the "accident" causing "bodily injury" or "property damage".

D. Employee Hired Auto

1. Changes in Liability Coverage

The following is added to the **Section II - Liability Coverage, A. Coverage, 1. Who is an Insured:**

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

2. Changes in General Conditions

SECTION IV - BUSINESS AUTO CONDITIONS, B. General Conditions, 5. Other Insurance is amended by replacing Paragraph **5.b.** with the following:

b. For Hired Auto Physical Damage Coverage the following are deemed to be covered "autos" you own:

- (1) Any covered "auto" you lease, hire, rent or borrow; and
- (2) Any covered "auto" hired or rented by your "employee" under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

E. Audio, Visual and Data Electronic Equipment

SECTION III - PHYSICAL DAMAGE COVERAGE, C. Limit of Insurance is amended by adding the following:

4. The most we will pay for all "loss" to audio, visual or data electronic equipment and any accessories used with this equipment as a result of any one "accident" is the lesser of:
 - a. The actual cash value of the damaged or stolen property as of the time of the "accident";
 - b. The cost of repairing or replacing the damaged or stolen property with other property of like kind and quality; or
 - c. \$2,500.

Provided the equipment, at the time of the "loss" is:

- a. Permanently installed in or upon the covered "auto" in a housing, opening or other location that is not normally used by the "auto" manufacturer for the installation of such equipment;
- b. Removable from a permanently installed housing unit as described in Paragraph 2.a. above; or
- c. An integral part of such equipment.

F. Who is an Insured - Amended

SECTION II - LIABILITY COVERAGE, A. Coverage, 1. Who is an Insured is amended by adding the following:

The following are "insureds":

1. Any subsidiary which is a legally incorporated entity of which you own a financial interest of more than 50% of the voting stock on the effective date of this coverage form.

However, the insurance afforded by this provision does not apply to any subsidiary that is an "insured" under any other automobile liability policy, or would be an "insured" under such policy but for termination of such policy or the exhaustion of such policy's limits of insurance.

2. Any organization that is newly acquired or formed by you and over which you maintain majority ownership. The insurance provided by this provision:

- a. Is effective on the date of acquisition or formation, and is afforded for 180 days after such date;
 - b. Does not apply to "bodily injury" or "property damage" resulting from an "accident" that occurred before you acquired or formed the organization;
 - c. Does not apply to any newly acquired or formed organization that is a joint venture or partnership; and
 - d. Does not apply to an insured under any other automobile liability policy, or would be an insured under such a policy but for the termination of such policy or the exhaustion of such policy's limits of insurance.
3. Any of your "employees" while using a covered "auto" in your business or your personal affairs, provided you do not own, hire or borrow that "auto".

G. Liability Coverage Extensions - Supplementary Payments - Higher Limits

SECTION II - LIABILITY COVERAGE, A. Coverage, 2. Coverage Extensions, a. Supplementary Payments is amended by:

1. Replacing the \$2,000 Limit of Insurance for bail bonds with \$4,000 in (2); and
2. Replacing the \$250 Limit of Insurance for reasonable expenses with \$500 in (4).

H. Amended Fellow Employee Exclusion

SECTION II - LIABILITY COVERAGE, B. Exclusions, 5. Fellow Employee is modified as follows:

Exclusion 5. **Fellow Employee** is deleted.

I. Hired Auto - Physical Damage

If hired "autos" are covered "autos" for Liability Coverage, then Comprehensive and Collision Physical Damage Coverages as provided under **SECTION III - PHYSICAL DAMAGE COVERAGE** of this Coverage Part are extended to "autos" you hire, subject to the following:

1. The most we will pay for "loss" to any hired "auto" is \$50,000 or the actual cash value or cost to repair or replace, whichever is the least, minus a deductible.
2. The deductible will be equal to the largest deductible applicable to any owned "auto" for that coverage, or \$1,000, whichever is less.
3. Hired Auto - Physical Damage coverage is excess over any other collectible insurance.

4. Subject to the above limit, deductible, and excess provisions we will provide coverage equal to the broadest coverage applicable to any covered "auto" you own insured under this policy.

Coverage includes loss of use of that hired auto, provided it results from an "accident" for which you are legally liable and as a result of which a monetary loss is sustained by the leasing or rental concern. The most we will pay for any one "accident" is \$3,000.

If a limit for Hired Auto - Physical Damage is shown in the Schedule, then that limit replaces, and is not added to, the \$50,000 limit indicated above.

J. Rental Reimbursement

SECTION III - PHYSICAL DAMAGE is amended by adding the following:

1. We will pay for rental reimbursement expenses incurred by you for the rental of an "auto" because of a "loss" to a covered "auto". Payment applies in addition to the otherwise applicable amount of each coverage you have on a covered "auto". No deductible applies to this coverage.
2. We will pay only for those expenses incurred during the policy period beginning 24 hours after the "loss" and ending, regardless of the policy's expiration, with the lesser of the following number of days:
 - a. The number of days reasonably required to repair the covered "auto". If "loss" is caused by theft, this number of days is added to the number of days it takes to locate the covered "auto" and return it to you; or
 - b. 30 days.
3. Our payment is limited to the lesser of the following amounts:
 - a. Necessary and actual expenses incurred; or
 - b. \$50 per day.
4. This coverage does not apply while there are spare or reserve "autos" available to you for your operations.
5. We will pay under this coverage only that amount of your rental reimbursement expenses which is not already provided for under **SECTION III - PHYSICAL DAMAGE COVERAGE, A. Coverage, 4. Coverage Extensions**.

K. Transportation Expense - Higher Limits

SECTION III - PHYSICAL DAMAGE COVERAGE, A. Coverage, 4. Coverage Extensions is amended by replacing \$20 per day with \$50 per day, and \$600 maximum with \$1,500 maximum in **Extension a. Transportation Expenses**.

L. Airbag Coverage

SECTION III - PHYSICAL DAMAGE COVERAGE, B. Exclusions, 3.a. is amended by adding the following:

However, the mechanical and electrical breakdown portion of this exclusion does not apply to the accidental discharge of an airbag. This coverage for airbags is excess over any other collectible insurance or warranty.

M. Loan or Lease Gap Coverage

1. **SECTION III - PHYSICAL DAMAGE COVERAGE, C. Limit of Insurance** is deleted in its entirety and replaced by the following, but only for private passenger type "autos" with an original loan or lease, and only in the event of a "total loss" to such a private passenger type "auto":
 - a. The most we will pay for "loss" in any one "accident" is the greater of:
 - (1) The amount due under the terms of the lease or loan to which your covered private passenger type "auto" is subject, but will not include:
 - (a) Overdue lease or loan payments;
 - (b) Financial penalties imposed under the lease due to high mileage, excessive use or abnormal wear and tear;
 - (c) Security deposits not refunded by the lessor;
 - (d) Costs for extended warranties, Credit Life Insurance, Health, Accident or Disability Insurance purchased with the loan or lease; and
 - (e) Carry-over balances from previous loans or leases, or
 - (2) Actual cash value of the stolen or damaged property.
 - b. An adjustment for depreciation and physical condition will be made in determining actual cash value at the time of "loss".

2. **SECTION V - DEFINITIONS** is amended by adding the following, but only for the purposes of this **Loan or Lease Gap Coverage**:

"Total loss" means a "loss" in which the cost of repairs plus the salvage value exceeds the actual cash value.

N. Glass Repair - Waiver of Deductible

SECTION III - PHYSICAL DAMAGE COVERAGE, D. Deductible is amended by adding the following:

No deductible applies to glass damage if the glass is repaired in a manner acceptable to us rather than replaced.

O. Duties in the Event of an Accident, Claim, Suit or Loss - Amended

SECTION IV - BUSINESS AUTO CONDITIONS, A. Loss Conditions, 2. Duties in the Event of Accident, Claim, Suit or Loss, a. is amended by adding the following:

This condition applies only when the "accident" or "loss" is known to:

1. You, if you are an individual;
2. A partner, if you are a partnership;
3. An executive officer or insurance manager, if you are a corporation; or
4. A member or manager, if you are a limited liability company.

P. Unintentional Failure to Disclose Hazards

SECTION IV - BUSINESS AUTO CONDITIONS, B. General Conditions, 2. Concealment, Misrepresentation or Fraud is amended by adding the following:

However, if you unintentionally fail to disclose any hazards existing on the effective date of this Coverage Form, we will not deny coverage under this Coverage Form because of such failure.

Q. Mental Anguish Resulting from Bodily Injury

SECTION V - DEFINITIONS, C. "Bodily injury" is deleted in its entirety and replaced by the following:

"Bodily injury" means bodily injury, sickness or disease sustained by a person, including mental anguish and death sustained by the same person that results from such bodily injury, sickness or disease. "Bodily injury" does not include mental anguish or death that does not result from bodily injury, sickness or disease.

R. Coverage for Certain Operations in Connection with Railroads

With respect to the use of a covered "auto" in operations for or affecting a railroad:

1. **Section V - Definitions, H. "Insured contract", 1.c.** is amended to read:
 - c. An easement or license agreement;
2. **Section V - Definitions, H. "Insured contract", 2.a.** is deleted.

TEXAS WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because Texas is shown in item 3.A. of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule, but this waiver applies only with respect to bodily injury arising out of the operations described in the schedule where you are required by a written contract to obtain this waiver from us.

This endorsement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

The premium for this endorsement is shown in the Schedule.

Schedule

1. Specific Waiver

Name of person or organization

Blanket Waiver

Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

2. Operations: ALL TEXAS OPERATIONS

3. Premium:

The premium charge for this endorsement shall be _____ percent of the premium developed on payroll in connection with work performed for the above person(s) or organization(s) arising out of the operations described.

4. Advance Premium:

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.
(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement, effective on _____ at 12:01 a.m. standard time, forms a part of:

Policy no. 0001228995 of _____ effective on _____

Issued to: McMahon Contracting, L.P.



Authorized representative

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CANCELLATION OR NONRENEWAL BY US NOTIFICATION TO A DESIGNATED ENTITY

This endorsement modifies insurance provided under the following:

**BUSINESSOWNERS PACKAGE POLICY
CLAIMS-MADE EXCESS LIABILITY COVERAGE PART
COMMERCIAL AUTO COVERAGE PART
COMMERCIAL GENERAL LIABILITY COVERAGE PART
COMMERCIAL UMBRELLA LIABILITY COVERAGE PART
DENTIST'S PACKAGE POLICY
EXCESS LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS COVERAGE PART
PROFESSIONAL LIABILITY COVERAGE PART
PROFESSIONAL UMBRELLA LIABILITY COVERAGE PART
PROFESSIONAL UMBRELLA LIABILITY COVERAGE PART - CLAIMS-MADE**

SCHEDULE

Name and mailing address of person(s) or organization(s): Garver LLC
3010 Gaylord Parkway, , Suite
190
Frisco, TX 75034

Number of days notice (other than nonpayment of premium): 30

- A.** If we cancel or nonrenew this policy for any statutorily permitted reason other than nonpayment of premium we will mail notice to the person or organization shown in the Schedule. We will mail such notice at least the number of days shown in the Schedule before the effective date of cancellation or nonrenewal.
- B.** If we cancel this policy for nonpayment of premium, we will mail notice to the person or organization shown in the Schedule. We will mail such notice at least 10 days before the effective date of cancellation.
- C.** If notice is mailed, proof of mailing to the mailing address shown in the Schedule will be sufficient proof of notice.
- D.** In no event will coverage extend beyond the actual expiration, termination or cancellation of the policy.

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TEXAS NOTICE OF MATERIAL CHANGE ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because Texas is shown in Item 3.A. of the Information Page.

In the event of cancellation or other material change of the policy, we will mail advance notice to the person or organization named in the Schedule. The number of days advance notice is shown in the Schedule.

This endorsement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

1. Number of days advance notice: 30
2. Notice will be mailed to: Garver LLC
3010 Gaylord Parkway, , Suite
190
Frisco, TX 75034

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.
(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy.)
This endorsement, effective on **at 12:01 a.m.** standard time, forms a part of:

Policy no. 0001228995 of Texas Mutual Insurance Company effective on

Issued to: McMahon Contracting, L.P.



Authorized representative

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THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

Table with columns for PRODUCER, CONTACT NAME, PHONE, FAX, E-MAIL ADDRESS, INSURER(S) AFFORDING COVERAGE, and NAIC #. Includes details for Marsh Wortham and various insurers like Cincinnati Indemnity Company.

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Main table listing insurance coverages: COMMERCIAL GENERAL LIABILITY, AUTOMOBILE LIABILITY, UMBRELLA LIAB, and WORKERS COMPENSATION AND EMPLOYERS' LIABILITY. Includes policy numbers, effective dates, and limits.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

GA233 09/17 - Contractors' Commercial General Liability Broadened Endorsement
GA101TX 09/10 - Commercial General Liability Coverage Form
AA288 01/16 - Cinciplus Business Auto XC Expanded Coverage Plus Endorsement
WC420304B - Texas Waiver Of Our Right To Recover From Others Endorsement
Project Name: Bid # ADS 20-94 Addison Airport George Haddaway Reconstruction
(See Attached Descriptions)

Table with columns for CERTIFICATE HOLDER (Town of Addison) and CANCELLATION (Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions).

DESCRIPTIONS (Continued from Page 1)

Cancellation or Nonrenewal by Us Notification to a Designated Entity IA4087 08/11
TX Notice of Material Change Endorsement WC420601

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

TEXAS - CONTRACTORS' COMMERCIAL GENERAL LIABILITY BROADENED ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

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B. Limits of Insurance:

The Commercial General Liability Limits of Insurance apply to the insurance provided by this endorsement, except as provided below:

1. Employee Benefit Liability Coverage

Each Employee Limit: \$1,000,000
Aggregate Limit: \$3,000,000
Deductible Amount: \$ 1,000

3. Damage to Premises Rented to You

The lesser of:

- The Each Occurrence Limit shown in the Declarations; or
- \$500,000 unless otherwise stated \$ _____

4. Supplementary Payments

- Bail Bonds: \$2,500

b. Loss of Earnings: \$ 500

5. Medical Payments

Medical Expense Limit: \$ 10,000

9. Property Damage to Borrowed Equipment

Each Occurrence Limit: \$10,000

Deductible Amount: \$ 250

16. Voluntary Property Damage Coverage (Coverage a.) And Care, Custody or Control Liability Coverage (Coverage b.)

Limits of Insurance

Coverage a.

\$1,000 Each Occurrence

\$5,000 Aggregate

Coverage b. \$5,000 Each Occurrence unless otherwise stated \$ _____

Deductible Amount (Each Occurrence)

Coverage a. \$250

Coverage b. \$250 unless otherwise stated \$ _____

COVERAGE	PREMIUM BASIS (a) Area (b) Payroll (c) Gross Sales (d) Units (e) Other	RATE (For Limits in Excess of \$5,000)	ADVANCE PREMIUM (For Limits in Excess of \$5,000)
b. Care, Custody or Control			\$
TOTAL ANNUAL PREMIUM			\$

C. Coverages

1. Employee Benefit Liability Coverage

- a. The following is added to **Section I - Coverages**:

Employee Benefit Liability Coverage

(1) Insuring Agreement

- (a) We will pay those sums that the insured becomes legally obligated to pay as damages caused by any act, error or omission of the insured, or of any other person for whose acts the insured is legally liable, to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend against any "suit" seeking damages to which this insurance does not apply. We may, at our discretion, investigate any report of an act, error or omission and settle any claim or "suit" that may result. But:

- 1) The amount we will pay for damages is limited as described in **Section III - Limits of Insurance**; and
- 2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under **Supplementary Payments**.

- (b) This insurance applies to damages only if the act, error or omission, is negligently committed in the "administration" of your "employee benefit program"; and
- 1) Occurs during the policy period; or
 - 2) Occurred prior to the "first effective date" of

this endorsement provided you did not have knowledge of a claim or "suit" on or before the "first effective date" of this endorsement.

You will be deemed to have knowledge of a claim or "suit" when any "authorized representative";

- a) Reports all, or any part, of the act, error or omission to us or any other insurer;
- b) Receives a written or verbal demand or claim for damages because of the act, error or omission.

(2) Exclusions

This insurance does not apply to:

(a) Bodily Injury, Property Damage or Personal and Advertising Injury

"Bodily injury", "property damage" or "personal and advertising injury".

(b) Dishonest, Fraudulent, Criminal or Malicious Act

Damages arising out of any intentional, dishonest, fraudulent, criminal or malicious act, error or omission, committed by any insured, including the willful or reckless violation of any statute.

(c) Failure to Perform a Contract

Damages arising out of failure of performance of contract by any insurer.

(d) Insufficiency of Funds

Damages arising out of an insufficiency of funds to meet any obligations under any plan included in the "employee benefit program".

(e) Inadequacy of Performance of Investment/Advice Given With Respect to Participation

Any claim based upon:

- 1) Failure of any investment to perform;
- 2) Errors in providing information on past performance of investment vehicles; or
- 3) Advice given to any person with respect to that person's decision to participate or not to participate in any plan included in the "employee benefit program".

(f) Workers' Compensation and Similar Laws

Any claim arising out of your failure to comply with the mandatory provisions of any workers' compensation, unemployment compensation insurance, social security or disability benefits law or any similar law.

(g) ERISA

Damages for which any insured is liable because of liability imposed on a fiduciary by the Employee Retirement Income Security Act of 1974, as now or hereafter amended, or by any similar federal, state or local laws.

(h) Available Benefits

Any claim for benefits to the extent that such benefits are available, with reasonable effort and cooperation of the insured, from the applicable funds accrued or other collectible insurance.

(i) Taxes, Fines or Penalties

Taxes, fines or penalties, including those imposed under the Internal Revenue Code or any similar state or local law.

(j) Employment-Related Practices

Any liability arising out of any:

- (1) Refusal to employ;
- (2) Termination of employment;
- (3) Coercion, demotion, evaluation, reassignment, discipline, defamation, harassment, humiliation, discrimination or other employment - related practices, acts or omissions; or
- (4) Consequential liability as a result of (1), (2) or (3) above.

This exclusion applies whether the insured may be held liable as an employer or in any other capacity and to any obligation to share damages with or repay someone else who must pay damages because of the injury.

(3) Supplementary Payments

Section I - Coverages, Supplementary Payments - Coverages A and B also apply to this Coverage.

b. Who Is An Insured

As respects **Employee Benefit Liability Coverage, Section II - Who is an Insured** is replaced by the following:

- (1) If you are designated in the Declarations as:
 - (a) An individual, you and your spouse are insureds, but only with respect to the conduct of a business of which you are the sole owner.
 - (b) A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds but only with respect to the conduct of your business.
 - (c) A limited liability company, you are an insured. Your

members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.

- (d) An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.
 - (e) A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.
- (2) Each of the following is also an insured:
- (a) Each of your "employees" who is or was authorized to administer your "employee benefit program";
 - (b) Any persons, organizations or "employees" having proper temporary authorization to administer your "employee benefit program" if you die, but only until your legal representative is appointed; or
 - (c) Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.
- (3) Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain ownership or majority interest, will qualify as a Named Insured if no other similar insurance applies to that organization. However, coverage under this provision:
- (a) Is afforded only until the 180th day after you acquire or form the organization or

the end of the policy period, whichever is earlier; and

- (b) Does not apply to any act, error or omission that was committed before you acquired or formed the organization.

c. Limits of Insurance

As respects **Employee Benefit Liability Coverage, Section III - Limits of Insurance** is replaced by the following:

- (1) The Limits of Insurance shown in Section **B. Limits of Insurance, 1. Employee Benefit Liability Coverage** and the rules below fix the most we will pay regardless of the number of:
- (a) Insureds;
 - (b) Claims made or "suits" brought;
 - (c) Persons or organizations making claims or bringing "suits";
 - (d) Acts, errors or omissions; or
 - (e) Benefits included in your "employee benefit program".
- (2) The Aggregate Limit shown in Section **B. Limits of Insurance, 1. Employee Benefit Liability Coverage** of this endorsement is the most we will pay for all damages because of acts, errors or omissions negligently committed in the "administration" of your "employee benefit program".
- (3) Subject to the limit described in (2) above, the Each Employee Limit shown in Section **B. Limits of Insurance, 1. Employee Benefit Liability Coverage** of this endorsement is the most we will pay for all damages sustained by any one "employee", including damages sustained by such "employee's" dependents and beneficiaries, as a result of:
- (a) An act, error or omission; or
 - (b) A series of related acts, errors or omissions, regardless of the amount of time that lapses between such acts, errors or omissions;

negligently committed in the "administration" of your "employee benefit program".

However, the amount paid under this endorsement shall not exceed, and will be subject to the limits and restrictions that apply to the payment of benefits in any plan included in the "employee benefit program."

(4) Deductible Amount

- (a) Our obligation to pay damages on behalf of the insured applies only to the amount of damages in excess of the Deductible Amount stated in the Declarations as applicable to Each Employee. The limits of insurance shall not be reduced by the amount of this deductible.
- (b) The Deductible Amount stated in the Declarations applies to all damages sustained by any one "employee", including such "employee's" dependents and beneficiaries, because of all acts, errors or omissions to which this insurance applies.
- (c) The terms of this insurance, including those with respect to:
 - 1) Our right and duty to defend the insured against any "suits" seeking those damages; and
 - 2) Your duties, and the duties of any other involved insured, in the event of an act, error or omission, or claim;apply irrespective of the application of the Deductible Amount.
- (d) We may pay any part or all of the Deductible Amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the Deductible Amount as we have paid.

d. Additional Conditions

As respects **Employee Benefit Liability Coverage, Section IV - Commercial General Liability Conditions** is amended as follows:

- (1) Item 2. **Duties in the Event of Occurrence, Offense, Claim or Suit** is replaced by the following:

2. Duties in the Event of An Act, Error or Omission, or Claim or Suit

- a. You must see to it that we are notified as soon as practicable of an act, error or omission which may result in a claim. To the extent possible, notice should include:
 - (1) What the act, error or omission was and when it occurred; and
 - (2) The names and addresses of anyone who may suffer damages as a result of the act, error or omission.
- b. If a claim is made or "suit" is brought against any insured, you must:
 - (1) Immediately record the specifics of the claim or "suit" and the date received; and
 - (2) Notify us as soon as practicable.You must see to it that we receive written notice of the claim or "suit" as soon as practicable.
- c. You and any other involved insured must:

- (1) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";

(2) Authorize us to obtain records and other information;

(3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and

(4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of an act, error or omission to which this insurance may also apply.

d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense without our consent.

(2) Item 5. **Other Insurance** is replaced by the following:

5. Other Insurance

If other valid and collectible insurance is available to the insured for a loss we cover under this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

This insurance is primary except when **c.** below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the method described in **b.** below.

b. Method of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer

contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

c. Excess Insurance

This insurance is excess over any of the other insurance, whether primary, excess, contingent or on any other basis that is insurance purchased by you to coverage damages for acts, errors or omissions that occurred prior to the "first effective date".

e. Additional Definitions

As respects **Employee Benefit Liability Coverage, Section V - Definitions** is amended as follows:

(1) The following definitions are added:

1. "Administration" means:

a. Providing information to "employees", including their dependents and beneficiaries, with respect to eligibility for or scope of "employee benefit programs";

b. Interpreting the "employee benefit programs";

c. Handling records in connection with the "employee benefit programs"; or

d. Effecting, continuing or terminating any "employee's" participation in

any benefit included in the "employee benefit program".

However, "administration" does not include:

- a. Handling payroll deductions; or
 - b. The failure to effect or maintain any insurance or adequate limits of coverage of insurance, including but not limited to unemployment insurance, social security benefits, workers' compensation and disability benefits.
 2. "Cafeteria plans" means plans authorized by applicable law to allow "employees" to elect to pay for certain benefits with pre-tax dollars.
 3. "Employee benefit programs" means a program providing some of all of the following benefits to "employees", whether provided through a "cafeteria plan" or otherwise:
 - a. Group life insurance; group accident or health insurance; dental, vision and hearing plans; and flexible spending accounts; provided that no one other than an "employee" may subscribe to such benefits and such benefits are made generally available to those "employees" who satisfy the plan's eligibility requirements;
 - b. Profit sharing plans, employee savings plans, employee stock ownership plans, pension plans and stock subscription plans, provided that no one other than an "employee" may subscribe to such benefits and such benefits are made generally available to all "employees" who are eligible under the plan for such benefits;
 - c. Unemployment insurance, social security benefits, workers' compensation and disability benefits; and
 - d. Vacation plans, including buy and sell programs; leave of absence programs, including military, maternity, family, and civil leave; tuition assistance plans; transportation and health club subsidies.
4. "First effective date" means the date upon which coverage was first effected in a series of uninterrupted renewals of insurance coverage.
- (2) The following definitions are deleted in their entirety and replaced by the following:
8. "Employee" means a person actively employed, formerly employed, on leave of absence or disabled, or retired. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".
 21. "Suit" means a civil proceeding in which money damages because of an act, error or omission to which this insurance applies are alleged. "Suit" includes:
 - a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent;
 - b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent; or
 - c. An appeal of a civil proceeding.

2. Unintentional Failure to Disclose Hazards

Section IV - Commercial General Liability Conditions, 7. Representations is amended by the addition of the following:

Based on our dependence upon your representations as to existing hazards, if unintentionally you should fail to disclose all such hazards at the inception date of your policy, we will not reject coverage under this Coverage Part based solely on such failure.

3. Damage to Premises Rented to You

a. The last Paragraph of **2. Exclusions** under **Section I - Coverage A - Bodily Injury and Property Damage Liability** is replaced by the following:

Exclusions **c.** through **q.** do not apply to "property damage" by fire, explosion, lightning, smoke or soot to premises while rented to you or temporarily occupied by you with permission of the owner, for which the amount we will pay is limited to the **Damage to Premises Rented to You** Limit as described in **Section III - Limits of Insurance.**

b. The insurance provided under **Section I - Coverage A - Bodily Injury and Property Damage Liability** applies to "property damage" arising out of water damage to premises that are both rented to and occupied by you.

(1) As respects Water Damage Legal Liability, as provided in Paragraph **3.b.** above:

The exclusions under **Section I - Coverage A - Bodily Injury and Property Damage Liability, 2. Exclusions**, other than **i. War** and the **Nuclear Energy Liability Exclusion (Broad Form)**, are deleted and the following are added:

This insurance does not apply to:

- (a) "Property damage":
- (i) Assumed in any contract or agreement; or
 - (ii) Caused by or resulting from any of the following:
 - 1) Wear and tear;

2) Rust or other corrosion, decay, deterioration, hidden or latent defect or any quality in property that causes it to damage or destroy itself;

3) Smog;

4) Mechanical breakdown, including rupture or bursting caused by centrifugal force;

5) Settling, cracking, shrinking or expansion;

6) Nesting or infestation, or discharge or release of waste products or secretions, by insects, birds, rodents or other animals; or

7) Presence, growth, proliferation, spread or any activity of fungus, including mold or mildew, and any mycotoxins, spores, scents or byproducts produced or released by fungi.

(b) "Property damage" caused directly or indirectly by any of the following:

(i) Earthquake, volcanic eruption, landslide or any other earth movement;

(ii) Water that backs up or overflows or is otherwise discharged from a sewer, drain, sump, sump pump or related equipment;

(iii) Water under the ground surface pressing on, or flowing or seeping through:

1) Foundations, walls, floors or paved surfaces;

- 2) Basements, whether paved or not; or
 - 3) Doors, windows or other openings.
- (c) "Property damage" caused by or resulting from water that leaks or flows from plumbing, heating, air conditioning, fire protection systems, or other equipment, caused by or resulting from freezing, unless:
- (i) You did your best to maintain heat in the building or structure; or
 - (ii) You drained the equipment and shut off the water supply if the heat was not maintained.
- (d) "Property damage" to:
- (i) Plumbing, heating, air conditioning, fire protection systems, or other equipment or appliances; or
 - (ii) The interior of any building or structure, or to personal property in the building or structure, caused by or resulting from rain, snow, sleet or ice, whether driven by wind or not.

c. Limit of Insurance

With respect to the insurance afforded in Paragraphs 3.a. and 3.b. above, the **Damage to Premises Rented to You** Limit as shown in the Declarations is amended as follows:

- (1) Paragraph 6. of **Section III - Limits of Insurance** is replaced by the following:
 - 6. Subject to Paragraph 5. above, the **Damage to Premises Rented to You** Limit is the most we will pay under **Coverage A - Bodily Injury and Property Damage Liability** for damages because of "property damage" to any one premises:
 - a. While rented to you, or temporarily occupied by

you with permission of the owner;

- b. In the case of damage by fire, explosion, lightning, smoke or soot, while rented to you; or
- c. In the case of damage by water, while rented to and occupied by you.

- (2) The most we will pay is limited as described in **Section B. Limits of Insurance, 3. Damage to Premises Rented to You** of this endorsement.

4. Supplementary Payments

Under **Section I - Supplementary Payments - Coverages A and B:**

- a. Paragraph 2. is replaced by the following:

Up to the limit shown in **Section B. Limits of Insurance, 4.a.** Bail Bonds of this endorsement for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.

- b. Paragraph 4. is replaced by the following:

All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to the limit shown in **Section B. Limits of Insurance, 4.b.** Loss Of Earnings of this endorsement per day because of time off from work.

5. Medical Payments

The Medical Expense Limit of Any One Person as stated in the Declarations is amended to the limit shown in **Section B. Limits of Insurance, 5. Medical Payments** of this endorsement.

6. 180 Day Coverage for Newly Formed or Acquired Organizations

Section II - Who is an Insured is amended as follows:

Subparagraph a. of Paragraph 3. is replaced by the following:

- a. Insurance under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier;

7. Waiver of Subrogation

Section IV - Commercial General Liability Conditions, 9. Transfer of Rights of Recovery Against Others to us is amended by the addition of the following:

We waive any right of recovery we may have against any person or organization against whom you have agreed to waive such right of recovery in a written contract or agreement because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a written contract or agreement with that person or organization and included in the "products-completed operations hazard". However, our rights may only be waived prior to the "occurrence" giving rise to the injury or damage for which we make payment under this Coverage Part. The insured must do nothing after a loss to impair our rights. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce those rights.

8. Automatic Additional Insured - Specified Relationships

- a. The following is added to **Section II - Who is an Insured**:

- (1) Any person(s) or organization(s) described in Paragraph **8.a.(2)** of this endorsement (hereinafter referred to as additional insured) whom you are required to add as an additional insured under this Coverage Part by reason of a written contract, written agreement, written permit or written authorization.
- (2) Only the following persons or organizations are additional insureds under this endorsement, and insurance coverage provided to such additional insureds is limited as provided herein:

- (a) **Managers or Lessors of Premises**

The manager or lessor of a premises leased to you with whom you have agreed per Paragraph **8.a.(1)** of this endorsement to provide insur-

ance, but only with respect to liability arising out of the ownership, maintenance or use of that part of the premises leased to you, subject to the following additional exclusions:

This insurance does not apply to:

- (i) Any "occurrence" which takes place after you cease to be a tenant in that premises;
- (ii) Structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.

- (b) **Lessor of Leased Equipment**

Any person or organization from whom you lease equipment when you and such person(s) or organization(s) have agreed per Paragraph **8.a.(1)** of this endorsement to provide insurance. Such person(s) or organization(s) are insureds only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your maintenance, operation or use of equipment leased to you by such person(s) or organization(s). A person's or organization's status as an additional insured under this endorsement ends when their contract or agreement with you for such leased equipment ends. However, this insurance does not apply to any "occurrence" which takes place after the equipment lease expires.

- (c) **Vendors**

Any person or organization (referred to below as vendor) with whom you have agreed per Paragraph **8.a.(1)** of this endorsement to provide insurance, but only with respect to "bodily injury" or "property damage"

arising out of "your products" which are distributed or sold in the regular course of the vendor's business, subject to the following additional exclusions:

- (i) The insurance afforded the vendor does not apply to:
 - 1) "Bodily injury" or "property damage" for which the vendor is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that the vendor would have in the absence of the contract or agreement;
 - 2) Any express warranty unauthorized by you;
 - 3) Any physical or chemical change in the product made intentionally by the vendor;
 - 4) Repackaging, except when unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;
 - 5) Any failure to make such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution

or sale of the products;

- 6) Demonstration, installation, servicing or repair operations, except such operations performed at the vendor's premises in connection with the sale of the product;
- 7) Products which, after distribution or sale by you, have been labeled or re-labeled or used as a container, part or ingredient of any other thing or substance by or for the vendor; or
- 8) "Bodily injury" or "property damage" arising out of the sole negligence of the vendor for its own acts or omissions or those of its employees or anyone else acting on its behalf. However, this exclusion does not apply to:
 - a) The exceptions contained in Paragraphs (c) (i) 4) or 6) of this endorsement; or
 - b) Such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products.

(ii) This insurance does not apply to any insured person or organization:

- 1) From whom you have acquired such products, or any ingredient, part or container, entering into, accompanying or containing such products; or
- 2) When liability included within the "products-completed operations hazard" has been excluded under this Coverage Part with respect to such products.

(d) State or Governmental Agency or Subdivision or Political Subdivision - Permits or Authorizations Relating to Premises

Any state or governmental agency or subdivision or political subdivision with which you have agreed per Paragraph **8.a.(1)** of this endorsement to provide insurance, subject to the following additional provision:

This insurance applies only with respect to the following hazards for which the state or governmental agency or subdivision or political subdivision has issued a permit or authorization in connection with premises you own, rent or control and to which this insurance applies:

- (i) The existence, maintenance, repair, construction, erection or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, man-holes, marquees, hoist away openings, sidewalk vaults, street banners or decorations and similar exposures; or
- (ii) The construction, erection or removal of elevators; or

(iii) The ownership, maintenance or use of any elevators covered by this insurance.

(e) Mortgagee, Assignee or Receiver

Any person or organization with whom you have agreed per Paragraph **8.a.(1)** of this endorsement to provide insurance, but only with respect to their liability as mortgagee, assignee, or receiver and arising out of the ownership, maintenance, or use of the premises by you. However, this insurance does not apply to structural alterations, new construction and demolition operations performed by or for that person or organization.

(3) The insurance afforded to additional insureds described in Paragraph **8.a.(1)** of this endorsement:

- (a) Only applies to the extent permitted by law; and
- (b) Will not be broader than that which you are required by the written contract, written agreement, written permit or written authorization to provide for such additional insured; and
- (c) Does not apply to any person, organization, vendor, state, governmental agency or subdivision or political subdivision, specifically named as an additional insured under any other provision of, or endorsement added to, this Coverage Part, provided such other provision or endorsement covers the injury or damage for which this insurance applies.

b. With respect to the insurance afforded to the additional insureds described in Paragraph **8.a.(1)** of this endorsement, the following is added to **Section III - Limits of Insurance**:

The most we will pay on behalf of the additional insured is the amount of insurance:

- (1) Required by the written contract, written agreement, written permit or written authorization described in Paragraph **8.a.(1)** of this endorsement; or
- (2) Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

- c. **Section IV - Commercial General Liability Conditions** is amended to include the following:

Automatic Additional Insured Provision

This insurance applies only if the "bodily injury" or "property damage" occurs, or the "personal and advertising injury" offense is committed:

- (1) During the policy period; and
- (2) Subsequent to your execution of the written contract or written agreement, or the issuance of a written permit or written authorization, described in Paragraph **8.a.(1)**.

- d. **Section IV - Commercial General Liability Conditions** is amended as follows:

Condition **5. Other Insurance** is amended to include:

Primary and Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured per Paragraph **8.a.(1)** of this endorsement provided that:

- (1) The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed in writing in a contract, agreement, permit or authorization described in **8.a.(2)** of this endorsement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

9. Property Damage to Borrowed Equipment

- a. The following is added to **Exclusion 2.j. Damage to Property** under **Section I - Coverage A - Bodily Injury and Property Damage Liability**:

Paragraphs **(3)** and **(4)** of this exclusion do not apply to tools or equipment loaned to you, provided they are not being used to perform operations at the time of loss.

- b. With respect to the insurance provided by this section of the endorsement, the following additional provisions apply:

- (1) The Limits of Insurance shown in the Declarations are replaced by the limits designated in **Section B. Limits of Insurance, 9. Property Damage to Borrowed Equipment** of this endorsement with respect to coverage provided by this endorsement. These limits are inclusive of and not in addition to the limits being replaced. The Limits of Insurance shown in **Section B. Limits of Insurance, 9. Property Damage to Borrowed Equipment** of this endorsement fix the most we will pay in any one "occurrence" regardless of the number of:

- (a) Insureds;
- (b) Claims made or "suits" brought; or
- (c) Persons or organizations making claims or bringing "suits".

(2) Deductible Clause

- (a) Our obligation to pay damages on your behalf applies only to the amount of damages for each "occurrence" which are in excess of the Deductible Amount stated in **Section B. Limits of Insurance, 9. Property Damage to Borrowed Equipment** of this endorsement. The limits of insurance will not be reduced by the application of such deductible amount.
- (b) **Section IV - Commercial General Liability Conditions, 2. Duties in the Event of Occurrence, of-**

fense, Claim or Suit, applies to each claim or "suit" irrespective of the amount.

- (c) We may pay any part or all of the deductible amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the deductible amount as has been paid by us.

10. **Employees as Insureds - Specified Health Care Services and Good Samaritan Services**

Paragraph **2.a.(1)(d)** under **Section II - Who is an Insured** does not apply to:

- a. Your "employees" who provide professional health care services on your behalf as a duly licensed nurse, emergency medical technician or paramedic in the jurisdiction where an "occurrence" or offense to which this insurance applies takes place; or
- b. Your "employees" or "volunteer workers", other than an employed or volunteer doctor, providing first aid or good samaritan services during their work hours for you will be deemed to be acting within the scope of their employment by you or performing duties related to the conduct of your business.

11. **Broadened Notice of Occurrence**

Paragraph **a.** of Condition **2. Duties in the Event of Occurrence, Offense, Claim or Suit** under **Section IV - Commercial General Liability Conditions** is replaced by the following:

- a. You must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include:
 - (1) How, when and where the "occurrence" or offense took place;
 - (2) The names and addresses of any injured persons and witnesses; and
 - (3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

This requirement applies only when the "occurrence" or offense is known to an "authorized representative".

12. **Nonowned Aircraft**

The following is added to **Exclusion 2.g. Aircraft, Auto or Watercraft** under **Section I - Coverage A - Bodily Injury and Property Damage Liability**:

This exclusion does not apply to an aircraft you do not own, provided that:

- a. The pilot in command holds a current effective certificate, issued by a duly constituted authority of the United States of America or Canada, designating that person as a commercial or airline transport pilot;
- b. The aircraft is rented with a trained, paid crew; and
- c. The aircraft does not transport persons or cargo for a charge.

13. **Bodily Injury Redefined**

Section V - Definitions, 4. "Bodily injury" is replaced by the following:

- 4. "Bodily injury" means bodily harm or injury, sickness, disease, disability, humiliation, shock, fright, mental anguish or mental injury, including care, loss of services or death resulting from any of these at any time.

14. **Expected or Intended Injury Redefined**

The last sentence of **Exclusion 2.a. Expected or Intended Injury** under **Section I - Coverage A - Bodily Injury and Property Damage Liability** is replaced by the following:

This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

15. **Former Employees as Insureds**

The following is added to Paragraph **2.** under **Section II - Who is an Insured**:

- 2. Each of the following is also an insured:

Any of your former "employees", directors, managers, members, partners or "executive officers", including but not limited to retired, disabled or those on leave of absence, but only for acts within the scope of their employment by you or for duties related to the conduct of your business.

16. Voluntary Property Damage Coverage

a. Coverage D - Voluntary Property Damage Coverage

Section I - Coverages is amended to include the following:

(1) Insuring Agreement

- (a) We will pay the cost to repair or replace "property damage" to property of others arising out of operations incidental to your business when:

- 1) Damage is caused by you; or
- 2) Damage occurs while in your possession.

At your written request, we will make this payment regardless of whether you are at fault for the "property damage".

If you, at our request, replace, or make any repairs to, damaged property of others, the amount we will pay under **Voluntary Property Damage Coverage** will be determined by your actual cost to replace or repair the damaged property, excluding any profit or overhead.

Any payment we make under **Voluntary Property Damage Coverage** shall not be interpreted as an admission of liability by you or by us.

It shall be your duty, not our duty, to defend any claim or "suit" to which this insurance applies.

No other obligation or liability to pay sums or perform acts or services is covered.

- (b) This insurance applies to "property damage" only if:

- 1) The "property damage" takes place in the "coverage territory"; and
- 2) The "property damage" occurs during the policy period.

(2) Exclusions

This insurance does not apply to "property damage" that would be excluded by **Coverage A - Bodily Injury and Property Damage Liability, 2. Exclusions**, except for **j. Damage to Property**, paragraphs (3), (4), (5) and (6), **k. Damage to Your Product**, and **l. Damage to Your Work**.

(3) Definitions

For purposes of **Voluntary Property Damage Coverage** only, the following definitions under **Section V - Definitions** are replaced by the following:

16. "Occurrence" means an incident, including continuous or repeated exposure to substantially the same general harmful conditions that result in "property damage".

20. "Property damage" means physical injury to tangible property. "Electronic data" is not tangible property, and "property damage" does not include disappearance, abstraction or theft.

b. Care, Custody or Control Liability Coverage

For purposes of the coverage provided by **Care, Custody or Control Liability Coverage** in this endorsement only:

- (1) **Section I - Coverage A - Bodily Injury and Property Damage Liability, 2. Exclusions, j. Damage to Property**, Subparagraphs (3), (4) and (5) do not apply to "property damage" to the property of others described therein.

- (2) It shall be your duty, not our duty, to defend any claim or "suit" to which this insurance applies.

No other obligation or liability to pay sums or perform acts or services is covered.

This Paragraph (2) supersedes any provision in the Coverage Part to the contrary.

- (3) "Property damage" for which **Care, Custody or Control Lia-**

bility Coverage provides coverage shall be deemed to be caused by an "occurrence" but shall not serve to limit or restrict the applicability of any exclusion for "property damage" under this Coverage Part.

c. Limits of Insurance and Deductibles

For purposes of the coverage provided by **Voluntary Property Damage Coverage and Care, Custody or Control Liability Coverage, Section III - Limits of Insurance** is amended to include the following:

(1) The Limits of Insurance shown in the Declarations are replaced by the limits designated in **Section B. Limits of Insurance, 16. Voluntary Property Damage Coverage and Care, Custody or Control Liability Coverage**, in this endorsement. These limits are inclusive of, and not in addition to, the limits being replaced. The Limits of Insurance shown in the Schedule fix the most we will pay regardless of the number of:

- (a) Insureds;
- (b) Claims made or "suits" brought; or
- (c) Persons or organizations making claims or bringing "suits".

(2) (a) Subject to (3) below, the **Voluntary Property Damage Coverage**, Each Occurrence Limit Of Insurance is the most we will pay for the sum of damages under **Voluntary Property Damage Coverage**;

(b) The **Care, Custody or Control Liability Coverage**, Each Occurrence Limit Of Insurance is the most we will pay for the sum of damages under **Care, Custody or Control Liability Coverage**;

because of all "property damage" arising out of any one "occurrence".

(3) The **Voluntary Property Damage Coverage**, Aggregate Limit of Insurance is the most we will pay for the sum of all damages under **Voluntary Property Damage Coverage**. This limit applies separately to each "coverage term".

(4) Deductible Clause

(a) Our obligation to pay damages on your behalf applies only to the amount of damages for each "occurrence" which are in excess of the Deductible Amount stated for the applicable coverage in the Schedule. The limits of insurance will not be reduced by the application of such Deductible Amount.

(b) **Section IV - Commercial General Liability Conditions, 2. Duties in the Event of Occurrence, offense, Claim or Suit**, applies to each claim or "suit" irrespective of the amount.

(c) We may pay any part or all of the Deductible Amount to effect settlement of any claim or "suit" and, upon notification of the action taken, you shall promptly reimburse us for such part of the Deductible Amount as has been paid by us.

17. Broadened Contractual Liability - Work Within 50' of Railroad Property

Section V - Definitions, 12. "Insured contract" is amended as follows:

- a. Paragraph c. is replaced by the following:
 - c. Any easement or license agreement;
- b. Paragraph f.(1) is deleted in its entirety.

18. Alienated Premises

Exclusion 2.j. Damage to Property, Paragraph (2) under **Section I - Coverage A - Bodily Injury and Property Damage Liability** does not apply if the premises are "your work".

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COMMERCIAL GENERAL LIABILITY COVERAGE FORM

Various provisions in this Coverage Part restrict this insurance. Read the entire Coverage Part carefully to determine rights, duties and what is and is not covered.

Throughout this Coverage Part the words "you" and "your" refer to the Named Insured shown in the Declarations, and any other person or organization qualifying as a Named Insured under this Coverage Part. The words "we", "us" and "our" refer to the Company providing this insurance.

The word "insured" means any person or organization qualifying as such under **SECTION II - WHO IS AN INSURED**.

Other words and phrases that appear in quotation marks have special meaning. Refer to **SECTION V - DEFINITIONS**.

SECTION I - COVERAGES

COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY

1. Insuring Agreement

- a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any "occurrence" and settle any claim or "suit" that may result. But:

- (1) The amount we will pay for damages is limited as described in **SECTION III - LIMITS OF INSURANCE**; and
- (2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements under **SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**; **SECTION I - COVERAGES, COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY**; or medical expenses under **SECTION I - COVERAGES, COVERAGE C. MEDICAL PAYMENTS**.

No other obligation or liability to pay sums or perform acts or services is covered unless expressly provided for under

SUPPLEMENTARY PAYMENTS - COVERAGES A AND B.

- b. This insurance applies to "bodily injury" and "property damage" only if:
- (1) The "bodily injury" or "property damage" is caused by an "occurrence" that takes place in the "coverage territory";
 - (2) The "bodily injury" or "property damage" occurs during the policy period; and
 - (3) Prior to the "coverage term" in which "bodily injury" or "property damage" occurs, you did not know, per Paragraph **1.d.** below, that the "bodily injury" or "property damage" had occurred or had begun to occur, in whole or in part.
- c. "Bodily injury" or "property damage" which:
- (1) Occurs during the "coverage term"; and
 - (2) Was not, prior to the "coverage term", known by you, per Paragraph **1.d.** below, to have occurred;
- includes any continuation, change or resumption of that "bodily injury" or "property damage" after the end of the "coverage term" in which it first became known by you.
- d. You will be deemed to know that "bodily injury" or "property damage" has occurred at the earliest time when any "authorized representative":
- (1) Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;
 - (2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage";
 - (3) First observes, or first observed, the "bodily injury" or "property damage";
 - (4) Becomes aware, or become aware, by any means other than as described in (3) above, that "bodily injury" or "property damage" had occurred or had begun to occur; or
 - (5) Becomes aware, or become aware, of a condition from which "bodily injury" or "property damage" is substantially certain to occur.

- e. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

2. Exclusions

This insurance does not apply to:

a. Expected or Intended Injury

"Bodily injury" or "property damage" which results from the intentional or criminal acts of the insured or which is in fact expected or intended by the insured, even if the injury or damage is of a different degree or type than actually expected or intended. This exclusion does not apply to "bodily injury" resulting from the use of reasonable force to protect persons or property.

b. Contractual Liability

"Bodily injury" or "property damage" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

- (1) That the insured would have in the absence of the contract or agreement; or
- (2) Assumed in a contract or agreement that is an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the contract or agreement. When a claim for such "bodily injury" or "property damage" is made, we will defend that claim provided the insured has assumed the obligation to defend such claim in the "insured contract". Such defense payments will not reduce the limits of insurance.

c. Liquor Liability

"Bodily injury" or "property damage" for which any insured may be held liable by reason of:

- (1) Causing or contributing to the intoxication of any person;
- (2) The furnishing of alcoholic beverages to a person under the legal drinking age or under the influence of alcohol; or
- (3) Any statute, ordinance or regulation relating to the sale, gift, distribution or use of alcoholic beverages.

This exclusion applies only if you are in the business of manufacturing, distributing, selling, serving or furnishing alcoholic beverages.

d. Workers' Compensation and Similar Laws

Any obligation of the insured under a workers' compensation, disability benefits or unemployment compensation law or any similar law.

e. Employer's Liability

"Bodily injury" to:

- (1) An "employee" of the insured sustained in the "workplace";
- (2) An "employee" of the insured arising out of the performance of duties related to the conduct of the insured's business; or
- (3) The spouse, child, parent, brother or sister of that "employee" as a consequence of Paragraphs (1) or (2) above.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

This exclusion does not apply to liability assumed by the insured under an "insured contract".

f. Pollutant

- (1) "Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release, escape or emission of "pollutants":

- (a) At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. However, Paragraph (a) does not apply to:

- 1) "Bodily injury" to any person injured while on any premises, site or location owned or occupied by, or rented or loaned to, you provided:

- a) The injury is caused by the inadequate ventilation of vapors;

- b) The person injured is first exposed to such vapors during the policy period; and
- c) Within 30 days of such first exposure, the person injured is clinically diagnosed or treated by a physician for the medical condition caused by the exposure to such vapors. However, Paragraph **c)** does not apply if the "bodily injury" is caused by vapors produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests.

This exception **1)** shall apply only to Named Insureds; we shall have no duty to defend or pay damages for any person or organization that is not a Named Insured. However, this paragraph does not apply if the "bodily injury" is caused by vapors produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests.

For the purpose of the exception granted in Paragraph **1)** only, vapors means any gaseous or airborne irritant or airborne contaminant, including smoke, fumes, vapor or soot, but excluding asbestos, which is discharged, dispersed, emitted, released or escapes from materials, machinery or equipment used in the service or maintenance of the premises. Vapors does not mean any gaseous or airborne irritants or contaminants used in a manufacturing process or which is the product or by-

product of any manufacturing process;

- 2) "Bodily injury" or "property damage" for which you may be held liable, if you are a contractor, and the owner or lessee of such premises, site or location has been added to this Coverage Part as an additional insured with respect to your ongoing operations or "your work" performed for that additional insured at that premises, site or location and such premises, site or location is not and never was owned or occupied by, or rented or loaned to, any insured, other than that additional insured; or

- 3) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire";

- (b) At or from any premises, site or location which is or was at any time used by or for any insured or others for the handling, storage, disposal, processing or treatment of waste;

- (c) Which are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for:

- 1) Any insured; or
- 2) Any person or organization for whom you may be legally responsible;

- (d) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the premises, site or location in connection with such operations by such insured, contractor or subcontractor. However, Paragraph **(d)** does not apply to:

- 1) "Bodily injury" or "property damage" arising out of the discharge, dispersal, seepage, migration, release, escape or emission of fuels, lubricants or other operating fluids, or exhaust gases, which are needed to per-

form, or are the result of, the normal electrical, hydraulic or mechanical functions necessary for the operation of "mobile equipment" or its parts, if such fuels, lubricants or other operating fluids, or exhaust gases, escape, seep or migrate, or are discharged, dispersed, released or emitted from a vehicle part designed to hold, store or receive them. This exception does not apply if the fuels, lubricants or other operating fluids, or exhaust gases, escape, seep or migrate, or are discharged, dispersed, released or emitted with the intent to cause "bodily injury" or "property damage" or with the knowledge that "bodily injury" or "property damage" is substantially certain to occur, or if such fuels, lubricants or other operating fluids, or exhaust gases, are brought on or to the premises, site or location with such intent to escape, seep or migrate, or be discharged, dispersed, released or emitted as part of the operations being performed by such insured, contractor or subcontractor;

- 2) "Bodily injury" or "property damage" sustained within a building and caused by the release of gases, fumes or vapors from materials brought into that building in connection with operations being performed by you or on your behalf by a contractor or subcontractor; or
 - 3) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire"; or
- (e) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the operations are to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants".

(2) Any loss, cost or expense arising out of any:

- (a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or
- (b) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

However, Paragraphs (2)(a) and (b) do not apply to liability for damages because of "property damage" that the insured would have in the absence of such request, demand, order or statutory or regulatory requirement, or such claim or "suit" by or on behalf of a governmental authority.

g. Aircraft, Auto or Watercraft

"Bodily injury" or "property damage" arising out of the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft owned or operated by or rented or loaned to any insured. Use includes operation and "loading or unloading".

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft that is owned or operated by or rented or loaned to any insured.

This exclusion does not apply to:

- (1) A watercraft while ashore on premises you own or rent;
- (2) A watercraft you do not own that is:
 - (a) Less than 51 feet long; and
 - (b) Not being used to carry persons or property for a charge;
- (3) Parking an "auto" on, or on the ways next to, premises you own or rent, provided the "auto" is not owned by

or rented or loaned to you or the insured;

- (4) Liability assumed under any "insured contract" for the ownership, maintenance or use of aircraft or watercraft; or
- (5) "Bodily injury" or "property damage" arising out of:
 - (a) The operation of machinery or equipment that is on, attached to, or part of, a land vehicle that would qualify under the definition of "mobile equipment" if it were not subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged; or
 - (b) The operation of any of the machinery or equipment listed in Paragraph **f.(2)** or **f.(3)** of the definition of "mobile equipment".

h. Mobile Equipment

"Bodily injury" or "property damage" arising out of:

- (1) The transportation of "mobile equipment" by an "auto" owned or operated by or rented or loaned to any insured; or
- (2) The use of "mobile equipment" in, or while in practice for, or while being prepared for, any prearranged racing, speed, demolition, or stunting activity.

i. War

"Bodily injury" or "property damage", however caused, arising, directly or indirectly, out of:

- (1) War, including undeclared or civil war;
- (2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- (3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

j. Damage to Property

"Property damage" to:

- (1) Property you own, rent or occupy, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;
- (2) Premises you sell, give away or abandon, if the "property damage" arises out of any part of those premises;
- (3) Property loaned to you;
- (4) Personal property in the care, custody or control of an insured;
- (5) That particular part of real property on which you or any contractors or subcontractors working directly or indirectly on your behalf are performing operations, if the "property damage" arises out of those operations; or
- (6) That particular part of any property that must be restored, repaired or replaced because "your work" was incorrectly performed on it.

Paragraphs **(1)**, **(3)** and **(4)** of this exclusion do not apply to "property damage" (other than damage by fire or explosion) to premises, including the contents of such premises, rented to you for a period of 7 or fewer consecutive days, for which the amount we will pay is limited to the Damage To Premises Rented To You Limit as described in **SECTION III - LIMITS OF INSURANCE**.

Paragraph **(2)** of this exclusion does not apply if the premises are "your work" and were never occupied, rented or held for rental by you.

Paragraphs **(3)**, **(4)**, **(5)** and **(6)** of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph **(6)** of this exclusion does not apply to "property damage" included in the "products-completed operations hazard".

k. Damage to Your Product

"Property damage" to "your product" arising out of it or any part of it.

l. Damage to Your Work

"Property damage" to "your work" arising out of it or any part of it and included in the "products-completed operations hazard".

This exclusion does not apply if the damaged work or the work out of which the damage arises was performed on your behalf by a subcontractor.

m. Damage to Impaired Property or Property Not Physically Injured

"Property damage" to "impaired property" or property that has not been physically injured, arising out of:

- (1) A defect, deficiency, inadequacy or dangerous condition in "your product" or "your work"; or
- (2) A delay or failure by you or anyone acting on your behalf to perform a contract or agreement in accordance with its terms.

This exclusion does not apply to the loss of use of other property arising out of sudden and accidental physical injury to "your product" or "your work" after it has been put to its intended use.

n. Recall of Products, Work or Impaired Property

Any liability or damages claimed for any loss, cost or expense incurred by you or others for the loss of use, withdrawal, recall, inspection, repair, replacement, adjustment, removal or disposal of:

- (1) "Your product";
- (2) "Your work"; or
- (3) "Impaired property";

if such product, work or property is withdrawn or recalled from the market or from use by any person or organization because of a known or suspected defect, deficiency, inadequacy or dangerous condition in it.

o. Personal and Advertising Injury

"Bodily injury" arising out of "personal and advertising injury".

p. Asbestos

"Bodily injury" or "property damage" arising out of, attributable to, or any way related to asbestos in any form or transmitted in any manner.

q. Employment-Related Practices

"Bodily injury" to:

- (1) A person arising out of any:
 - (a) Refusal to employ that person;
 - (b) Termination of that person's employment; or

- (c) Other employment-related practices, policies, acts or omissions including but not limited to coercion, criticism, demotion, evaluation, failure to promote, reassignment, discipline, defamation, harassment, humiliation or discrimination directed at that person; or

- (2) The spouse, child, parent, brother or sister of that person as a consequence of "bodily injury" to that person at whom any of the employment-related practices described in Paragraphs (a), (b) or (c) above is directed.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

r. Additional Insured Prior Knowledge

An additional insured added by attachment of an endorsement to this Coverage Part that is seeking coverage for a claim or "suit", if that additional insured knew, per the following paragraph, that "bodily injury" or "property damage" had occurred or had begun to occur, in whole or in part, prior to the "coverage term" in which such "bodily injury" or "property damage" occurs or begins to occur.

An additional insured added by attachment of an endorsement to this Coverage Part will be deemed to have known that "bodily injury" or "property damage" has occurred or has begun to occur at the earliest time when that additional insured, or any one of its owners, members, partners, managers, executive officers, "employees" assigned to manage that additional insured's insurance program, or "employees" assigned to give or receive notice of an "occurrence", "personal and advertising injury" offense, claim or "suit":

- (1) Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;
- (2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage";
- (3) First observes, or first observed, the "bodily injury" or "property damage";

- (4) Becomes aware, or become aware, by any means other than as described in (3) above, that "bodily injury" or "property damage" had occurred or had begun to occur; or
- (5) Becomes aware, or become aware, of a condition from which "bodily injury" or "property damage" is substantially certain to occur.

s. Electronic Data

Damages arising out of the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate "electronic data".

t. Distribution of Material in Violation of Statutes

"Bodily injury" or "property damage" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

- a. The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or
- b. The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or
- c. Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003, that prohibits or limits the sending, transmitting, communicating or distribution of material or information.

Exclusions **c.** through **q.** do not apply to "property damage" by fire or explosion to premises while rented to you or temporarily occupied by you with permission of the owner, for which the amount we will pay is limited to the Damage to Premises Rented To You Limit as described in **SECTION III - LIMITS OF INSURANCE**.

COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY

1. Insuring Agreement

- a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "personal and advertising injury" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "personal and advertising injury" to which this insurance does not apply. We may, at our discretion, investigate any offense and settle any claim or "suit" that may result. But:

- (1) The amount we will pay for damages is limited as described in **SECTION III - LIMITS OF INSURANCE**; and
- (2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements under **SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**; **SECTION I - COVERAGES, COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY**; or medical expenses under **SECTION I - COVERAGES, COVERAGE C. MEDICAL PAYMENTS**.

No other obligation or liability to pay sums or perform acts or services is covered unless expressly provided for under **SUPPLEMENTARY PAYMENTS - COVERAGES A AND B**.

- b. This insurance applies to "personal and advertising injury" only if:
 - (1) The "personal and advertising injury" is caused by an offense arising out of your business; and
 - (2) The "personal and advertising injury" offense was committed in the "coverage territory" during the policy period; and
 - (3) Prior to the "coverage term" in which the "personal and advertising injury" offense is committed, you did not know, per Paragraph **1.d.** below, that the offense had been committed or had begun to be committed, in whole or in part.
- c. "Personal and advertising injury" caused by an offense which:
 - (1) Was committed during the "coverage term"; and
 - (2) Was not, prior to the "coverage term", known by you, per Paragraph **1.d.** below, to have been committed;

includes any continuation, change or resumption of that offense after the end of the "coverage term" in which it first became known by you.

- d. You will be deemed to know that a "personal and advertising injury" offense has been committed at the earliest time when any "authorized representative":
 - (1) Reports all, or any part, of the "personal and advertising injury" to us or any other insurer;

- (2) Receives a written or verbal demand or claim for damages because of the "personal and advertising injury";
- (3) First observes, or first observed, the offense that caused the "personal and advertising injury";
- (4) Becomes aware, or become aware, by any means, other than as described in (3) above, that the offense had been committed or had begun to be committed; or
- (5) Becomes aware, or become aware, of a condition from which "personal and advertising injury" is substantially certain to occur.

2. Exclusions

This insurance does not apply to:

a. **Knowing Violation of Rights of Another**

"Personal and advertising injury" caused by or at the direction of the insured with the knowledge that the act would violate the rights of another and would inflict "personal and advertising injury".

b. **Material Published With Knowledge of Falsity**

"Personal and advertising injury" arising out of oral or written publication of material, if done by or at the direction of the insured with knowledge of its falsity.

c. **Material Published Prior to Coverage Term**

"Personal and advertising injury" arising out of oral or written publication of material whose first publication took place before the later of the following:

- (1) The inception of this Coverage Part; or
- (2) The "coverage term" in which insurance coverage is sought.

d. **Criminal Acts**

"Personal and advertising injury" arising out of a criminal act committed by or at the direction of the insured.

e. **Contractual Liability**

"Personal and advertising injury" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

- (1) That the insured would have in the absence of the contract or agreement; or
- (2) Assumed in a contract or agreement that is an "insured contract", provided the "personal and advertising injury" is caused by or arises out of an offense committed subsequent to the execution of the contract or agreement. When a claim for such "personal and advertising injury" is made, we will defend that claim, provided the insured has assumed the obligation to defend such claim in the "insured contract". Such defense payments will not reduce the limits of insurance.

f. **Breach of Contract**

"Personal and advertising injury" arising out of a breach of contract, except an implied contract to use another's advertising idea in your "advertisement".

g. **Quality or Performance of Goods - Failure to Conform to Statements**

"Personal and advertising injury" arising out of the failure of goods, products or services to conform with any statement of quality or performance made in your "advertisement".

h. **Wrong Description of Prices**

"Personal and advertising injury" arising out of the wrong description of the price of goods, products or services stated in your "advertisement".

i. **Infringement of Copyright, Patent, Trademark or Trade Secret**

"Personal and advertising injury" arising out of the infringement of copyright, patent, trademark, trade secret or other intellectual property rights.

However, this exclusion does not apply to infringement, in your "advertisement", of copyright, trade dress or slogan.

j. **Insureds in Media and Internet Type Businesses**

"Personal and advertising injury" committed by an insured whose business is:

- (1) Advertising, broadcasting, publishing or telecasting;
- (2) Designing or determining content of web-sites for others; or
- (3) An Internet search, access, content or service provider.

However, this exclusion does not apply to Paragraphs **17. a., b. and c.** of "personal and advertising injury" under **SECTION V - DEFINITIONS.**

For the purposes of this exclusion, the placing of frames, borders or links, or advertising, for you or others anywhere on the Internet is not, by itself, considered the business of advertising, broadcasting, publishing or telecasting.

k. Electronic Chatrooms or Bulletin Boards

"Personal and advertising injury" arising out of an electronic chatroom or bulletin board any insured hosts, owns, or over which any insured exercises control.

l. Unauthorized Use of Another's Name or Product

"Personal and advertising injury" arising out of the unauthorized use of another's name or product in your e-mail address, domain name or metatag, or any other similar tactics to mislead another's potential customers.

m. Employment Related Practices

"Personal and advertising injury" to:

- (1) A person arising out of any:
 - (a) Refusal to employ that person;
 - (b) Termination of that person's employment; or
 - (c) Other employment-related practices, policies, acts or omissions including but not limited to coercion, criticism, demotion, evaluation, failure to promote, reassignment, discipline, defamation, harassment, humiliation or discrimination directed at that person; or
- (2) The spouse, child, parent, brother or sister of that person as a consequence of "personal and advertising injury" to that person at whom any of the employment-related practices described in Paragraphs **(a), (b)** or **(c)** above is directed.

This exclusion applies:

- (1) Whether the insured may be liable as an employer or in any other capacity; and
- (2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

n. Pollutant

"Personal and advertising injury" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release, escape or emission of "pollutants" at any time.

o. Pollutant-Related

Any loss, cost or expense arising out of any:

- (1) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or
- (2) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

p. Asbestos

"Personal and advertising injury" arising out of, attributable to, or any way related to asbestos in any form or transmitted in any manner.

q. Additional Insured Prior Knowledge

An additional insured added by attachment of an endorsement to this Coverage Part that is seeking coverage for a claim or "suit", if that additional insured knew, per the following paragraph, that a "personal and advertising injury" offense had been committed or had begun to be committed, in whole or in part, prior to the "coverage term" in which such offense was committed or began to be committed.

An additional insured added by attachment of an endorsement to this Coverage Part will be deemed to have known that a "personal and advertising injury" offense has been committed or has begun to be committed at the earliest time when that additional insured, or any one of its owners, members, partners, managers, executive officers, "employees" assigned to manage that additional insured's insurance program, or "employees" assigned to give or receive notice of an "occurrence", "personal and advertising injury" offense, claim or "suit":

- (1) Reports all, or any part, of the "personal and advertising injury" to us or any other insurer;

- (2) Receives a written or verbal demand or claim for damages because of the "personal and advertising injury";
- (3) First observes, or first observed, the offense that caused the "personal and advertising injury";
- (4) Becomes aware, or become aware, by any means other than as described in (3) above, that the "personal and advertising injury" offense had been committed or had begun to be committed; or
- (5) Becomes aware, or become aware, of a condition from which "personal and advertising injury" is substantially certain to occur.

r. War

"Personal and advertising injury", however caused, arising, directly or indirectly, out of:

- (1) War, including undeclared or civil war;
- (2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
- (3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

s. Distribution of Material in Violation of Statutes

"Personal and advertising injury" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

- a. The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or
- b. The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or
- c. Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003, that prohibits or limits the sending, transmitting, communicating or distribution of material or information.

COVERAGE C. MEDICAL PAYMENTS

1. Insuring Agreement

a. We will pay medical expenses as described below for "bodily injury" caused by an accident:

- (1) On premises you own or rent;
- (2) On ways next to premises you own or rent; or
- (3) Because of your operations;

provided that:

- (1) The accident takes place in the "coverage territory" and during the policy period;
- (2) The expenses are incurred and reported to us within three years of the date of the accident; and
- (3) The injured person submits to examination, at our expense, by physicians of our choice as often as we reasonably require.

b. We will make these payments regardless of fault. These payments will not exceed the applicable limit of insurance. We will pay reasonable expenses for:

- (1) First aid administered at the time of an accident;
- (2) Necessary medical, surgical, x-ray and dental services, including prosthetic devices; and
- (3) Necessary ambulance, hospital, professional nursing and funeral services.

2. Exclusions

We will not pay expenses for "bodily injury":

a. Any Insured

To any insured, except "volunteer workers".

b. Hired Person

To a person hired to do work for or on behalf of any insured or a tenant of any insured.

c. Injury on Normally Occupied Premises

To a person injured on that part of premises you own or rent that the person normally occupies.

d. Workers' Compensation and Similar Laws

To a person, whether or not an "employee" of any insured, if benefits for the "bodily injury" are payable or must be provided under a workers' compensation or disability benefits law or a similar law.

e. Athletic Activities

To any person injured while officiating, coaching, practicing for, instructing or participating in any physical exercises or games, sports, or athletic contests or exhibitions of an athletic or sports nature.

f. Products-Completed Operations Hazard

Included within the "products-completed operations hazard".

g. Coverage A Exclusions

Excluded under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**.

SUPPLEMENTARY PAYMENTS - COVERAGES A AND B

We will pay, with respect to any claim we investigate or settle, or any "suit" against an insured we defend:

1. All expenses we incur.
2. Up to \$250 for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.
3. The cost of bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.
4. All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to \$250 a day because of time off from work.
5. All costs taxed against the insured in the "suit".
6. Prejudgment interest awarded against the insured on that part of the judgment we become obligated to pay and which falls within the applicable limit of insurance. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.
7. All interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

These payments will not reduce the limits of insurance.

SECTION II - WHO IS AN INSURED

1. If you are designated in the Declarations as:

- a. An individual, you and your spouse are insureds, but only with respect to the conduct of a business of which you are the sole owner.
- b. A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds, but only with respect to the conduct of your business.
- c. A limited liability company, you are an insured. Your members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.
- d. An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.
- e. A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.

2. Each of the following is also an insured:

- a. Your "volunteer workers" only while performing duties related to the conduct of your business, or your "employees", other than either your "executive officers" (if you are an organization other than a partnership, joint venture or limited liability company) or your managers (if you are a limited liability company), but only for acts within the scope of their employment by you or while performing duties related to the conduct of your business. However, none of these "employees" or "volunteer workers" are insureds for:

(1) "Bodily injury" or "personal and advertising injury":

- (a) To you, to your partners or members (if you are a partnership or joint venture), to your members (if you are a limited liability company), to a co-"employee" while in the course of his or her employment or performing duties related to the conduct of your business, or to your other "volunteer workers" while performing duties related to the conduct of your business;

- (b) To the spouse, child, parent, brother or sister of that co-"employee" or "volunteer

worker" as a consequence of Paragraph **(1)(a)** above;

(c) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraphs **(1)(a)** or **(b)** above; or

(d) Arising out of his or her providing or failing to provide professional health care services.

(2) "Property damage" to property:

(a) Owned, occupied or used by; or

(b) Rented to, in the care, custody or control of, or over which physical control is being exercised for any purpose by,

you, any of your "employees", "volunteer workers", any partner or member (if you are a partnership or joint venture), or any member (if you are a limited liability company).

b. Any person (other than your "employee" or "volunteer worker"), or any organization while acting as your real estate manager.

c. Any person or organization having proper temporary custody of your property if you die, but only:

(1) With respect to liability arising out of the maintenance or use of that property; and

(2) Until your legal representative has been appointed.

d. Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.

3. Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain ownership or majority interest, will qualify as a Named Insured if there is no other similar insurance available to that organization. However:

a. Insurance under this provision is afforded only until the 90th day after you acquire or form the organization or the end of the policy period, whichever is earlier;

b. **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization; and

c. **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY** does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

No person or organization is an insured with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a Named Insured in the Declarations.

SECTION III - LIMITS OF INSURANCE

1. The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of:

a. Insureds;

b. Claims made or "suits" brought; or

c. Persons or organizations making claims or bringing "suits".

2. a. The General Aggregate Limit is the most we will pay for the sum of:

(1) Medical expenses under **COVERAGE C. MEDICAL PAYMENTS**;

(2) Damages under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and

(3) Damages under **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY**.

This General Aggregate Limit will not apply if either the Location General Aggregate Limit of Insurance, Paragraph **2.b.**, or the Construction Project General Aggregate Limit of Insurance, Paragraph **2.c.** applies.

b. A separate Location General Aggregate Limit of Insurance, equal to the amount of the General Aggregate Limit shown in the Declarations, shall apply to each location owned by, or rented or leased to you and is the most we will pay for the sum of:

(1) Damages under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and

(2) Medical expenses under **COVERAGE C. MEDICAL PAYMENTS**,

which can be attributed to operations at only a single location owned by, or rented or leased to you.

- c. A separate Construction Project General Aggregate Limit of Insurance, equal to the amount of the General Aggregate Limit shown in the Declarations, shall apply to each construction project and is the most we will pay for the sum of:

(1) Damages under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard"; and

(2) Medical expenses under **COVERAGE C. MEDICAL PAYMENTS**;

which can be attributed only to ongoing operations and only at a single construction project.

- d. Only for the purpose of determining which General Aggregate Limit of Insurance, **2.a.**, **2.b.**, or **2.c.**, applies:

(1) Location means premises involving the same or connecting lots, or premises, whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad.

(2) Construction project means a location you do not own, rent or lease where ongoing improvements, alterations, installation, demolition or maintenance work is performed by you or on your behalf. All connected ongoing improvements, alterations, installation, demolition or maintenance work performed by you or on your behalf at the same location for the same persons or organizations, no matter how often or under how many different contracts, will be deemed to be a single construction project.

3. The Products-Completed Operations Aggregate Limit is the most we will pay under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** for damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard".
4. Subject to **2.a.** above, the Personal and Advertising Injury Limit is the most we will pay under **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY** for the sum of all damages because of all "personal and advertising injury" sustained by any one person or organization.

5. Subject to **2.** or **3.** above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of:

a. Damages under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY**; and

b. Medical expenses under **COVERAGE C. MEDICAL PAYMENTS**;

because of all "bodily injury" and "property damage" arising out of any one "occurrence".

6. Subject to **5.** above, the Damage to Premises Rented to You Limit is the most we will pay under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** for damages because of "property damage" to any one premises, while rented to you, or in the case of damage by fire or explosion, while rented to you or temporarily occupied by you with permission of the owner.

7. Subject to **5.** above, the Medical Expense Limit is the most we will pay under **COVERAGE C. MEDICAL PAYMENTS** for all medical expenses because of "bodily injury" sustained by any one person.

The Limits of Insurance of this Coverage Part apply separately to each "coverage term".

SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS

1. Bankruptcy

Bankruptcy or insolvency of the insured or of the insured's estate will not relieve us of our obligations under this Coverage Part.

2. Duties in the Event of Occurrence, Offense, Claim or Suit

a. You must see to it that we are notified as soon as practicable of an "occurrence" or a "personal and advertising injury" offense which may result in a claim. To the extent possible, notice should include:

- (1) How, when and where the "occurrence" or offense took place;
- (2) The names and addresses of any injured persons and witnesses; and
- (3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

b. If a claim is made or "suit" is brought against any insured, you must:

- (1) Immediately record the specifics of the claim or "suit" and the date received; and
- (2) Notify us as soon as practicable.

You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

- c.** You and any other involved insured must:
- (1)** Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";
 - (2)** Authorize us to obtain records and other information;
 - (3)** Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and
 - (4)** Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.
- d.** No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

3. Legal Action Against Us

No person or organization has a right under this Coverage Part:

- a.** To join us as a party or otherwise bring us into a "suit" asking for damages from an insured; or
- b.** To sue us on this Coverage Part unless all of its terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an insured; but we will not be liable for damages that are not payable under the terms of this Coverage Part or that are in excess of the applicable limit of insurance. An agreed settlement means a settlement and release of liability signed by us, the insured and the claimant or the claimant's legal representative.

4. Liberalization

If, within 60 days prior to the beginning of this Coverage Part or during the policy period, we make any changes to any forms or endorsements of this Coverage Part for which there is currently no separate premium charge, and that change provides more coverage than this Coverage Part, the change will automatically apply to this Coverage Part as of the latter of:

- a.** The date we implemented the change in your state; or

- b.** The date this Coverage Part became effective; and

will be considered as included until the end of the current policy period. We will make no additional premium charge for this additional coverage during the interim.

5. Other Insurance

If other valid and collectible insurance is available to the insured for a loss we cover under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** or **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY** of this Coverage Part, our obligations are limited as follows:

a. Primary Insurance

This insurance is primary except when **b.** below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the method described in **c.** below.

b. Excess Insurance

This insurance is excess over:

- (1)** Any of the other insurance, whether primary, excess, contingent or on any other basis:

- (a)** That is Fire, Extended Coverage, Builder's Risk, Installation Risk or similar insurance for "your work";

- (b)** That is Fire or Explosion insurance for premises rented to you or temporarily occupied by you with permission of the owner;

- (c)** That is insurance purchased by you to cover your liability as a tenant for "property damage" to premises rented to you or temporarily occupied by you with permission of the owner; or

- (d)** If the loss arises out of the maintenance or use of aircraft, "autos" or watercraft to the extent not subject to **SECTION I - COVERAGES, COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY, 2. Exclusions, g. Aircraft, Auto or Watercraft.**

- (2)** Any other primary insurance available to the insured covering liability for damages arising out of the premises or operations, or the products and completed operations, for which

the insured has been added as an additional insured by attachment of an endorsement.

- (3) Any other insurance:
- (a) Whether primary, excess, contingent or on any other basis, except when such insurance is written specifically to be excess over this insurance; and
 - (b) That is a consolidated (wrap-up) insurance program which has been provided by the prime contractor/project manager or owner of the consolidated project in which you are involved.

When this insurance is excess, we will have no duty under **COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY** or **COVERAGE B. PERSONAL AND ADVERTISING INJURY LIABILITY** to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and self-insured amounts under all that other insurance.

We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

c. Method of Sharing

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance

to the total applicable limits of insurance of all insurers.

6. Premium Audit

- a. We will compute all premiums for this Coverage Part in accordance with our rules and rates.
- b. Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the first Named Insured. The due date for audit and retrospective premiums is the date shown as the due date on the bill. If:
 - (1) The earned premium is less than the deposit premium, we will return the excess to the first Named Insured; or
 - (2) The earned premium is greater than the deposit premium, the difference will be due and payable to us by the first Named Insured upon notice from us.
- c. The first Named Insured must keep records of the information we need for premium computation, and send us copies at such times as we may request.

7. Representations

By accepting this Coverage Part, you agree:

- a. The statements in the Declarations are accurate and complete;
- b. Those statements are based upon representations you made to us; and
- c. We have issued this Coverage Part in reliance upon your representations.

8. Separation of Insureds

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

- a. As if each Named Insured were the only Named Insured; and
- b. Separately to each insured against whom claim is made or "suit" is brought.

9. Transfer of Rights of Recovery Against Others to Us

If the insured has rights to recover all or part of any payment we have made under this Coverage Part, those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

10. Two or More Coverage Forms or Policies Issued by Us

If this Coverage Part and any other Coverage Form or Coverage Part forming a part of this policy apply to the same "occurrence" or "personal and advertising injury" offense, the aggregate maximum Limit of Insurance under all the Coverage Forms or Coverage Parts shall not exceed the highest applicable Limit of Insurance under any one Coverage Form or Coverage Part. This condition does not apply to any Coverage Form or Coverage Part issued by us specifically to apply as excess insurance over this Coverage Part.

11. When We Do Not Renew

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing will be sufficient proof of notice.

SECTION V - DEFINITIONS

1. "Advertisement" means a notice that is broadcast, telecast or published to the general public or specific market segments about your goods, products or services for the purpose of attracting customers or supporters. "Advertisement" includes a publicity article. For purposes of this definition:

- a. Notices that are published include material placed on the Internet or on similar electronic means of communication; and
- b. Regarding web-sites, only that part of a web-site that is about your goods, products or services for the purposes of attracting customers or supporters is considered an "advertisement".

2. "Authorized representative" means:

- a. If you are designated in the Declarations as:
 - (1) An individual, you and your spouse are "authorized representatives".
 - (2) A partnership or joint venture, your members, your partners, and their spouses are "authorized representatives".
 - (3) A limited liability company, your members and your managers are "authorized representatives".
 - (4) An organization other than a partnership, joint venture or limited liability company, your "executive officers" and directors are "authorized representatives". Provided you are not a

publicly traded organization, your stockholders are also "authorized representatives".

(5) A trust, your trustees are "authorized representatives".

b. Your "employees":

(1) Assigned to manage your insurance program; or

(2) Responsible for giving or receiving notice of an "occurrence", "personal and advertising injury" offense, claim or "suit";

are also "authorized representatives".

3. "Auto" means:

a. A land motor vehicle, trailer or semitrailer designed for travel on public roads, including any attached machinery or equipment; or

b. Any other land vehicle that is subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged.

However, "auto" does not include "mobile equipment".

4. "Bodily injury" means bodily injury, sickness or disease sustained by a person, including death resulting from any of these at any time.

5. "Coverage term" means the following individual increment, or if a multi-year policy period, increments, of time, which comprise the policy period of this Coverage Part:

a. The year commencing on the Effective Date of this Coverage Part at 12:01 AM standard time at your mailing address shown in the Declarations, and if a multi-year policy period, each consecutive annual period thereafter, or portion thereof if any period is for a period of less than 12 months, constitute individual "coverage terms". The last "coverage term" ends at 12:00 AM standard time at your mailing address shown in the Declarations on the earlier of:

(1) The day the policy period shown in the Declarations ends; or

(2) The day the policy to which this Coverage Part is attached is terminated or cancelled.

b. However, if after the issuance of this Coverage Part, any "coverage term" is extended for an additional period of less than 12 months, that additional period of

- time will be deemed to be part of the last preceding "coverage term".
6. "Coverage territory" means:
 - a. The United States of America (including its territories and possessions), Puerto Rico and Canada;
 - b. International waters or airspace, but only if the injury or damage occurs in the course of travel or transportation between any places included in **a.** above; or
 - c. All other parts of the world if the injury or damage arises out of:
 - (1) Goods or products made or sold by you in the territory described in **a.** above;
 - (2) The activities of a person whose home is in the territory described in **a.** above, but is away for a short time on your business; or
 - (3) "Personal and advertising injury" offenses that take place through the Internet or similar electronic means of communication,

provided the insured's responsibility to pay damages is determined in a "suit" on the merits, in the territory described in **a.** above or in a settlement to which we agree.
 7. "Electronic data" means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMs, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.
 8. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".
 9. "Executive officer" means a person holding any of the officer positions created by your charter, constitution, by-laws or any other similar governing document.
 10. "Hostile fire" means one which becomes uncontrollable or breaks out from where it was intended to be.
 11. "Impaired property" means tangible property, other than "your product" or "your work", that cannot be used or is less useful because:
 - a. It incorporates "your product" or "your work" that is known or thought to be defective, deficient, inadequate or dangerous; or
 - b. You have failed to fulfill the terms of a contract or agreement;

if such property can be restored to use by:

 - a. The repair, replacement, adjustment or removal of "your product" or "your work"; or
 - b. Your fulfilling the terms of the contract or agreement.
 12. "Insured contract" means:
 - a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for "property damage" by fire or explosion to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";
 - b. A sidetrack agreement;
 - c. Any easement or license agreement, except in connection with construction or demolition operations on or within 50 feet of a railroad;
 - d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;
 - e. An elevator maintenance agreement;
 - f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury", "property damage" or "personal and advertising injury" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph **f.** does not include that part of any contract or agreement:

 - (1) That indemnifies a railroad for "bodily injury", "property damage" or "personal and advertising injury" arising out of construction or demolition operations, within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, roadbeds, tunnel, underpass or crossing;
 - (2) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:
 - (a) Preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders,

change orders or drawings and specifications; or

- (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;
- (3) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in Paragraph (2) above and supervisory, inspection, architectural or engineering activities;
- (4) That indemnifies an advertising, public relations or media consulting firm for "personal and advertising injury" arising out of the planning, execution or failure to execute marketing communications programs. Marketing communications programs include but are not limited to comprehensive marketing campaigns; consumer, trade and corporate advertising for all media; media planning, buying, monitoring and analysis; direct mail; promotion; sales materials; design; presentations; point-of-sale materials; market research; public relations and new product development;
- (5) Under which the insured, if an advertising, public relations or media consulting firm, assumes liability for "personal and advertising injury" arising out of the insured's rendering or failure to render professional services, including those services listed in Paragraph (4), above;
- (6) That indemnifies a web-site designer or content provider, or Internet search, access, content or service provider for injury or damage arising out of the planning, execution or failure to execute Internet services. Internet services include but are not limited to design, production, distribution, maintenance and administration of web-sites and web-banners; hosting web-sites; registering domain names; registering with search engines; marketing analysis; and providing access to the Internet or other similar networks; or
- (7) Under which the insured, if a web-site designer or content provider, or Internet search, access, content or service provider, assumes liability for injury or damage arising out of the insured's rendering or failure to ren-

der Internet services, including those listed in Paragraph (6), above.

- 13. "Leased worker" means a person leased to you by a labor leasing firm under an agreement between you and the labor leasing firm, to perform duties related to the conduct of your business. "Leased worker" includes supervisors furnished to you by the labor leasing firm. "Leased worker" does not include a "temporary worker".
- 14. "Loading or unloading" means the handling of property:

 - a. After it is moved from the place where it is accepted for movement into or onto an aircraft, watercraft or "auto";
 - b. While it is in or on an aircraft, watercraft or "auto"; or
 - c. While it is being moved from an aircraft, watercraft or "auto" to the place where it is finally delivered;

but "loading or unloading" does not include the movement of property by means of a mechanical device, other than a hand truck, that is not attached to the aircraft, watercraft or "auto".
- 15. "Mobile equipment" means any of the following types of land vehicles, including any attached machinery or equipment:

 - a. Bulldozers, farm machinery, forklifts and other vehicles designed for use principally off public roads;
 - b. Vehicles maintained for use solely on or next to premises you own or rent;
 - c. Vehicles that travel on crawler treads;
 - d. Vehicles, whether self-propelled or not, maintained primarily to provide mobility to permanently mounted:

 - (1) Power cranes, shovels, loaders, diggers or drills; or
 - (2) Road construction or resurfacing equipment such as graders, scrapers or rollers;
 - e. Vehicles not described in a., b., c. or d. above that are not self-propelled and are maintained primarily to provide mobility to permanently attached equipment of the following types:

 - (1) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment; or

- (2) Cherry pickers and similar devices used to raise or lower workers;
- f. Vehicles not described in a., b., c. or d. above maintained primarily for purposes other than the transportation of persons or cargo.

However, self-propelled vehicles with the following types of permanently attached equipment are not "mobile equipment" but will be considered "autos":

- (1) Equipment designed primarily for:
 - (a) Snow removal;
 - (b) Road maintenance, but not construction or resurfacing; or
 - (c) Street cleaning;
- (2) Cherry pickers and similar devices mounted on automobile or truck chassis and used to raise or lower workers; and
- (3) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment.

However, "mobile equipment" does not include any land vehicles that are subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged. Land vehicles subject to a compulsory or financial responsibility law or other motor vehicle insurance law are considered "autos".

- 16. "Occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions.
- 17. "Personal and advertising injury" means injury, including consequential "bodily injury", arising out of one or more of the following offenses:
 - a. False arrest, detention or imprisonment;
 - b. Malicious prosecution;
 - c. The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person occupies, committed by or on behalf of its owner, landlord or lessor;
 - d. Oral or written publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;
 - e. Oral or written publication, in any manner, of material that violates a person's right of privacy;

- f. The use of another's advertising idea in your "advertisement"; or
- g. Infringing upon another's copyright, trade dress or slogan in your "advertisement".

18. "Pollutant" means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals, petroleum, petroleum products and petroleum by-products, and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

19. "Products-completed operations hazard":

- a. Includes all "bodily injury" and "property damage" occurring away from premises you own or rent and arising out of "your product" or "your work" except:
 - (1) Products that are still in your physical possession; or
 - (2) Work that has not yet been completed or abandoned. However, "your work" will be deemed completed at the earliest of the following times:
 - (a) When all of the work called for in your contract has been completed; or
 - (b) When all of the work to be done at the job site has been completed if your contract calls for work at more than one job site; or
 - (c) When that part of the work done at a job site has been put to its intended use by any person or organization other than another contractor or subcontractor working on the same project.

Work that may need service, maintenance, correction, repair or replacement, but which is otherwise complete, will be treated as completed.

- b. Does not include "bodily injury" or "property damage" arising out of:
 - (1) The transportation of property, unless the injury or damage arises out of a condition in or on a vehicle not owned or operated by you, and that condition was created by the "loading or unloading" of that vehicle by any insured;
 - (2) The existence of tools, uninstalled equipment or abandoned or unused materials; or
 - (3) Products or operations for which the classification, listed in the Declarations or in a schedule, states that

products-completed operations are included.

20. "Property damage" means:

- a.** Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or
- b.** Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the "occurrence" that caused it.

For the purposes of this insurance, "electronic data" is not tangible property.

21. "Suit" means a civil proceeding in which money damages because of "bodily injury", "property damage" or "personal and advertising injury" to which this insurance applies are alleged. "Suit" includes:

- a.** An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent;
- b.** Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent; or
- c.** An appeal of a civil proceeding.

22. "Temporary worker" means a person who is furnished to you to substitute for a permanent "employee" on leave or to meet seasonal or short-term workload conditions.

23. "Volunteer worker" means a person who is not your "employee", and who donates his or her work and acts at the direction of and within the scope of duties determined by you, and is not paid a fee, salary or other compensation by you or anyone else for their work performed for you.

24. "Workplace" means that place and during such hours to which the "employee" sustaining "bodily injury" was assigned by you, or any other person or entity acting on your behalf, to work on the date of "occurrence".

25. "Your product":

a. Means:

(1) Any goods or products, other than real property, manufactured, sold, handled, distributed or disposed of by:

- (a)** You;
- (b)** Others trading under your name; or
- (c)** A person or organization whose business or assets you have acquired; and

(2) Containers (other than vehicles), materials, parts or equipment furnished in connection with such goods or products.

b. Includes:

(1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your product"; and

(2) The providing of or failure to provide warnings or instructions.

c. Does not include vending machines or other property rented to or located for the use of others but not sold.

26. "Your work":

a. Means:

(1) Work or operations performed by you or on your behalf; and

(2) Materials, parts or equipment furnished in connection with such work or operations.

b. Includes:

(1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your work"; and

(2) The providing of or failure to provide warnings or instructions.

NUCLEAR ENERGY LIABILITY EXCLUSION (Broad Form)

1. The insurance does not apply:
 - A. Under any Liability Coverage, to "bodily injury" or "property damage":
 - (1) With respect to which an insured under this Coverage Part is also an insured under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, Nuclear Insurance Association of Canada, or any of their successors, or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or
 - (2) Resulting from the "hazardous properties" of "nuclear material" and with respect to which (a) any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or (b) the insured is, or had this Coverage Part not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization.
 - B. Under any Medical Payments coverage, to expenses incurred with respect to "bodily injury" resulting from the "hazardous properties" of "nuclear material" and arising out of the operation of a "nuclear facility" by any person or organization.
 - C. Under any Liability Coverage, to "bodily injury" or "property damage" resulting from the "hazardous properties" of "nuclear material", if:
 - (1) The "nuclear material" (a) is at any "nuclear facility" owned by, or operated by or on behalf of, an insured, or (b) has been discharged or dispersed therefrom;
 - (2) The "nuclear material" is contained in "spent fuel" or "waste" at any time possessed, handled, used, processed, stored, transported or disposed of, by or on behalf of an insured; or
 - (3) The "bodily injury" or "property damage" arises out of the furnishing by an insured of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any "nuclear facility", but if such facility is located within the United States of America, its territories or possessions or Canada, this Exclusion (3) applies only to "property damage" to such "nuclear facility" and any property thereat.
2. As used in this exclusion:

"Hazardous properties" includes radioactive, toxic or explosive properties.

"Nuclear material" means "source material", "special nuclear material" or "by-product material".

"Source material", "special nuclear material", and "by-product material" have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof.

"Spent fuel" means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a "nuclear reactor".

"Waste" means any waste material (a) containing "by-product material" other than the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its "source material" content, and (b) resulting from the operation by any person or organization of any "nuclear facility" included under the first two paragraphs of the definition of "nuclear facility".

"Nuclear facility" means:

 - A. Any "nuclear reactor";
 - B. Any equipment or device designed or used for (1) separating the isotopes of uranium or plutonium, (2) processing or utilizing "spent fuel", or (3) handling, processing or packaging "waste";
 - C. Any equipment or device used for the processing, fabricating or alloying of "special nuclear material" if at any time the total amount of such material in the custody of the insured at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;

D. Any structure, basin, excavation, premises or place prepared or used for the storage or disposal of "waste";

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations.

"Nuclear reactor" means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material.

"Property damage" includes all forms of radioactive contamination of property.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CinciPlus[®]
BUSINESS AUTO XC+[®]
(EXPANDED COVERAGE PLUS)
ENDORSEMENT

This endorsement modifies insurance provided by the following:

BUSINESS AUTO COVERAGE FORM

With respect to the coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

A. Blanket Waiver of Subrogation

SECTION IV - BUSINESS AUTO CONDITIONS, A. Loss Conditions, 5. Transfer of Rights of Recovery Against Others to Us is amended by the addition of the following:

We waive any right of recovery we may have against any person or organization because of payments we make for "bodily injury" or "property damage" arising out of the operation of a covered "auto" when you have assumed liability for such "bodily injury" or "property damage" under an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the "insured contract".

B. Noncontributory Insurance

SECTION IV - BUSINESS AUTO CONDITIONS, B. General Conditions, 5. Other Insurance c. is replaced by the following:

- c. Regardless of the provisions of Paragraph **a.** above, this Coverage Form's Liability Coverage is primary and we will not seek contribution from any other insurance for any liability assumed under an "insured contract" that requires liability to be assumed on a primary noncontributory basis.

C. Additional Insured by Contract

SECTION II - LIABILITY COVERAGE, A. Coverage, I. Who is an Insured is amended to include as an insured any person or organization with which you have agreed in a valid written contract to provide insurance as is afforded by this policy.

This provision is limited to the scope of the valid written contract.

This provision does not apply unless the valid written contract has been:

1. Executed prior to the accident causing "bodily injury" or "property damage"; and
2. Is still in force at the time of the "accident" causing "bodily injury" or "property damage".

D. Employee Hired Auto

1. Changes in Liability Coverage

The following is added to the **Section II - Liability Coverage, A. Coverage, 1. Who is an Insured:**

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

2. Changes in General Conditions

SECTION IV - BUSINESS AUTO CONDITIONS, B. General Conditions, 5. Other Insurance is amended by replacing Paragraph **5.b.** with the following:

- b. For Hired Auto Physical Damage Coverage the following are deemed to be covered "autos" you own:

- (1) Any covered "auto" you lease, hire, rent or borrow; and
- (2) Any covered "auto" hired or rented by your "employee" under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

E. Audio, Visual and Data Electronic Equipment

SECTION III - PHYSICAL DAMAGE COVERAGE, C. Limit of Insurance is amended by adding the following:

4. The most we will pay for all "loss" to audio, visual or data electronic equipment and any accessories used with this equipment as a result of any one "accident" is the lesser of:
 - a. The actual cash value of the damaged or stolen property as of the time of the "accident";
 - b. The cost of repairing or replacing the damaged or stolen property with other property of like kind and quality; or
 - c. \$2,500.

Provided the equipment, at the time of the "loss" is:

- a. Permanently installed in or upon the covered "auto" in a housing, opening or other location that is not normally used by the "auto" manufacturer for the installation of such equipment;
- b. Removable from a permanently installed housing unit as described in Paragraph 2.a. above; or
- c. An integral part of such equipment.

F. Who is an Insured - Amended

SECTION II - LIABILITY COVERAGE, A. Coverage, 1. Who is an Insured is amended by adding the following:

The following are "insureds":

1. Any subsidiary which is a legally incorporated entity of which you own a financial interest of more than 50% of the voting stock on the effective date of this coverage form.

However, the insurance afforded by this provision does not apply to any subsidiary that is an "insured" under any other automobile liability policy, or would be an "insured" under such policy but for termination of such policy or the exhaustion of such policy's limits of insurance.

2. Any organization that is newly acquired or formed by you and over which you maintain majority ownership. The insurance provided by this provision:

- a. Is effective on the date of acquisition or formation, and is afforded for 180 days after such date;
 - b. Does not apply to "bodily injury" or "property damage" resulting from an "accident" that occurred before you acquired or formed the organization;
 - c. Does not apply to any newly acquired or formed organization that is a joint venture or partnership; and
 - d. Does not apply to an insured under any other automobile liability policy, or would be an insured under such a policy but for the termination of such policy or the exhaustion of such policy's limits of insurance.
3. Any of your "employees" while using a covered "auto" in your business or your personal affairs, provided you do not own, hire or borrow that "auto".

G. Liability Coverage Extensions - Supplementary Payments - Higher Limits

SECTION II - LIABILITY COVERAGE, A. Coverage, 2. Coverage Extensions, a. Supplementary Payments is amended by:

1. Replacing the \$2,000 Limit of Insurance for bail bonds with \$4,000 in (2); and
2. Replacing the \$250 Limit of Insurance for reasonable expenses with \$500 in (4).

H. Amended Fellow Employee Exclusion

SECTION II - LIABILITY COVERAGE, B. Exclusions, 5. Fellow Employee is modified as follows:

Exclusion 5. **Fellow Employee** is deleted.

I. Hired Auto - Physical Damage

If hired "autos" are covered "autos" for Liability Coverage, then Comprehensive and Collision Physical Damage Coverages as provided under **SECTION III - PHYSICAL DAMAGE COVERAGE** of this Coverage Part are extended to "autos" you hire, subject to the following:

1. The most we will pay for "loss" to any hired "auto" is \$50,000 or the actual cash value or cost to repair or replace, whichever is the least, minus a deductible.
2. The deductible will be equal to the largest deductible applicable to any owned "auto" for that coverage, or \$1,000, whichever is less.
3. Hired Auto - Physical Damage coverage is excess over any other collectible insurance.

4. Subject to the above limit, deductible, and excess provisions we will provide coverage equal to the broadest coverage applicable to any covered "auto" you own insured under this policy.

Coverage includes loss of use of that hired auto, provided it results from an "accident" for which you are legally liable and as a result of which a monetary loss is sustained by the leasing or rental concern. The most we will pay for any one "accident" is \$3,000.

If a limit for Hired Auto - Physical Damage is shown in the Schedule, then that limit replaces, and is not added to, the \$50,000 limit indicated above.

J. Rental Reimbursement

SECTION III - PHYSICAL DAMAGE is amended by adding the following:

1. We will pay for rental reimbursement expenses incurred by you for the rental of an "auto" because of a "loss" to a covered "auto". Payment applies in addition to the otherwise applicable amount of each coverage you have on a covered "auto". No deductible applies to this coverage.
2. We will pay only for those expenses incurred during the policy period beginning 24 hours after the "loss" and ending, regardless of the policy's expiration, with the lesser of the following number of days:
 - a. The number of days reasonably required to repair the covered "auto". If "loss" is caused by theft, this number of days is added to the number of days it takes to locate the covered "auto" and return it to you; or
 - b. 30 days.
3. Our payment is limited to the lesser of the following amounts:
 - a. Necessary and actual expenses incurred; or
 - b. \$50 per day.
4. This coverage does not apply while there are spare or reserve "autos" available to you for your operations.
5. We will pay under this coverage only that amount of your rental reimbursement expenses which is not already provided for under **SECTION III - PHYSICAL DAMAGE COVERAGE, A. Coverage, 4. Coverage Extensions**.

K. Transportation Expense - Higher Limits

SECTION III - PHYSICAL DAMAGE COVERAGE, A. Coverage, 4. Coverage Extensions is amended by replacing \$20 per day with \$50 per day, and \$600 maximum with \$1,500 maximum in **Extension a. Transportation Expenses**.

L. Airbag Coverage

SECTION III - PHYSICAL DAMAGE COVERAGE, B. Exclusions, 3.a. is amended by adding the following:

However, the mechanical and electrical breakdown portion of this exclusion does not apply to the accidental discharge of an airbag. This coverage for airbags is excess over any other collectible insurance or warranty.

M. Loan or Lease Gap Coverage

1. **SECTION III - PHYSICAL DAMAGE COVERAGE, C. Limit of Insurance** is deleted in its entirety and replaced by the following, but only for private passenger type "autos" with an original loan or lease, and only in the event of a "total loss" to such a private passenger type "auto":
 - a. The most we will pay for "loss" in any one "accident" is the greater of:
 - (1) The amount due under the terms of the lease or loan to which your covered private passenger type "auto" is subject, but will not include:
 - (a) Overdue lease or loan payments;
 - (b) Financial penalties imposed under the lease due to high mileage, excessive use or abnormal wear and tear;
 - (c) Security deposits not refunded by the lessor;
 - (d) Costs for extended warranties, Credit Life Insurance, Health, Accident or Disability Insurance purchased with the loan or lease; and
 - (e) Carry-over balances from previous loans or leases, or
 - (2) Actual cash value of the stolen or damaged property.
 - b. An adjustment for depreciation and physical condition will be made in determining actual cash value at the time of "loss".

2. **SECTION V - DEFINITIONS** is amended by adding the following, but only for the purposes of this **Loan or Lease Gap Coverage**:

"Total loss" means a "loss" in which the cost of repairs plus the salvage value exceeds the actual cash value.

N. Glass Repair - Waiver of Deductible

SECTION III - PHYSICAL DAMAGE COVERAGE, D. Deductible is amended by adding the following:

No deductible applies to glass damage if the glass is repaired in a manner acceptable to us rather than replaced.

O. Duties in the Event of an Accident, Claim, Suit or Loss - Amended

SECTION IV - BUSINESS AUTO CONDITIONS, A. Loss Conditions, 2. Duties in the Event of Accident, Claim, Suit or Loss, a. is amended by adding the following:

This condition applies only when the "accident" or "loss" is known to:

1. You, if you are an individual;
2. A partner, if you are a partnership;
3. An executive officer or insurance manager, if you are a corporation; or
4. A member or manager, if you are a limited liability company.

P. Unintentional Failure to Disclose Hazards

SECTION IV - BUSINESS AUTO CONDITIONS, B. General Conditions, 2. Concealment, Misrepresentation or Fraud is amended by adding the following:

However, if you unintentionally fail to disclose any hazards existing on the effective date of this Coverage Form, we will not deny coverage under this Coverage Form because of such failure.

Q. Mental Anguish Resulting from Bodily Injury

SECTION V - DEFINITIONS, C. "Bodily injury" is deleted in its entirety and replaced by the following:

"Bodily injury" means bodily injury, sickness or disease sustained by a person, including mental anguish and death sustained by the same person that results from such bodily injury, sickness or disease. "Bodily injury" does not include mental anguish or death that does not result from bodily injury, sickness or disease.

R. Coverage for Certain Operations in Connection with Railroads

With respect to the use of a covered "auto" in operations for or affecting a railroad:

1. **Section V - Definitions, H. "Insured contract", 1.c.** is amended to read:
 - c. An easement or license agreement;
2. **Section V - Definitions, H. "Insured contract", 2.a.** is deleted.

TEXAS WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because Texas is shown in item 3.A. of the Information Page.

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule, but this waiver applies only with respect to bodily injury arising out of the operations described in the schedule where you are required by a written contract to obtain this waiver from us.

This endorsement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

The premium for this endorsement is shown in the Schedule.

Schedule

1. Specific Waiver

Name of person or organization

Blanket Waiver

Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

2. Operations: ALL TEXAS OPERATIONS

3. Premium:

The premium charge for this endorsement shall be _____ percent of the premium developed on payroll in connection with work performed for the above person(s) or organization(s) arising out of the operations described.

4. Advance Premium:

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.
(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement, effective on _____ at 12:01 a.m. standard time, forms a part of:

Policy no. 0001228995 of _____ effective on _____

Issued to: McMahon Contracting, L.P.



Authorized representative

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CANCELLATION OR NONRENEWAL BY US NOTIFICATION TO A DESIGNATED ENTITY

This endorsement modifies insurance provided under the following:

**BUSINESSOWNERS PACKAGE POLICY
CLAIMS-MADE EXCESS LIABILITY COVERAGE PART
COMMERCIAL AUTO COVERAGE PART
COMMERCIAL GENERAL LIABILITY COVERAGE PART
COMMERCIAL UMBRELLA LIABILITY COVERAGE PART
DENTIST'S PACKAGE POLICY
EXCESS LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS COVERAGE PART
PROFESSIONAL LIABILITY COVERAGE PART
PROFESSIONAL UMBRELLA LIABILITY COVERAGE PART
PROFESSIONAL UMBRELLA LIABILITY COVERAGE PART - CLAIMS-MADE**

SCHEDULE

Name and mailing address of person(s) or organization(s): Town of Addison
Public Works and Engineering
5350 Belt Line Road
Dallas, TX 75254

Number of days notice (other than nonpayment of premium): 30

- A.** If we cancel or nonrenew this policy for any statutorily permitted reason other than nonpayment of premium we will mail notice to the person or organization shown in the Schedule. We will mail such notice at least the number of days shown in the Schedule before the effective date of cancellation or nonrenewal.
- B.** If we cancel this policy for nonpayment of premium, we will mail notice to the person or organization shown in the Schedule. We will mail such notice at least 10 days before the effective date of cancellation.
- C.** If notice is mailed, proof of mailing to the mailing address shown in the Schedule will be sufficient proof of notice.
- D.** In no event will coverage extend beyond the actual expiration, termination or cancellation of the policy.

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TEXAS NOTICE OF MATERIAL CHANGE ENDORSEMENT

This endorsement applies only to the insurance provided by the policy because Texas is shown in Item 3.A. of the Information Page.

In the event of cancellation or other material change of the policy, we will mail advance notice to the person or organization named in the Schedule. The number of days advance notice is shown in the Schedule.

This endorsement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

1. Number of days advance notice: 30
2. Notice will be mailed to: Town of Addison
Public Works and Engineering
5350 Belt Line Road
Dallas, TX 75254

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.
(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy.)
This endorsement, effective on **at 12:01 a.m.** standard time, forms a part of:

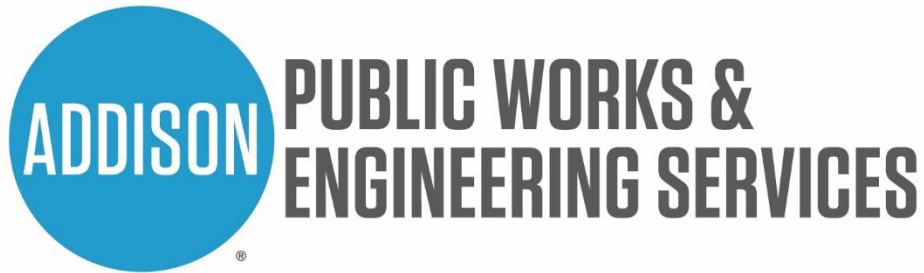
Policy no. 0001228995 of Texas Mutual Insurance Company effective on

Issued to: McMahon Contracting, L.P.



Authorized representative

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SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

**ADDISON AIRPORT
GEORGE HADDAWAY RECONSTRUCTION
TECHNICAL SPECIFICATIONS**

**TOWN OF ADDISON, TEXAS
PUBLIC WORKS AND ENGINEERING SERVICES
BID NUMBER 20-94**

MARCH 2020

PREPARED BY



**3010 Gaylord Parkway, Suite 190
Frisco, Texas 75034
(972) 377-7480**

**GARVER PROJECT NO.
19A11000 (Work Order No. 2)**

**ADDISON AIRPORT
GEORGE HADDAWAY RECONSTRUCTION**

INDEX OF TECHNICAL SPECIFICATIONS

SUPPLEMENTAL SPECIFICATIONS (CIVIL)

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FAA STANDARD SPECIFICATIONS (CIVIL)

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ITEM SS-110 STANDARD SPECIFICATIONS

GENERAL

110-1.1 The standard specifications of the Texas Department of Transportation are bound in a book titled Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges. These specifications are referred to herein as "Standard Specifications." The edition published November 1, 2014 shall apply. A copy of these "Standard Specifications" may be obtained from TxDOT online or at their customary charge.

INCORPORATION AND MODIFICATION

110-2.1 Certain parts of the Standard Specifications are appropriate for inclusion in these Technical Specifications. Such parts are incorporated herein by reference to the proper section or paragraph number. The individual specification numbers noted herein may be different from those in the latest edition of the "Standard Specifications." The most current specification number shall apply. Each such referenced part shall be considered to be a part of these Contract Documents as though copied herein in full.

110-2.2 Certain referenced parts of the Standard Specifications are modified in the Specifications that follow. In case of conflict between the Standard Specifications and the Specifications that follow, the Specifications that follow shall govern.

110-2.3 Individual material test numbers change from time to time. Use the latest applicable test.

110-2.4 Reference in the Standard Specifications to the "Department" is herein changed to the "Owner".

MEASUREMENT AND PAYMENT

110-3.1 All measurements and payments are defined within the specifications and modification pages. Any specifications that is referred to but not included in the specification/contract documents shall be considered subsidiary to the item in which it is contained.

END OF ITEM SS-110

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ITEM SS-120 SITE PREPARATION

DESCRIPTION

120-1.1 This item covers the preparation of the site for construction of the proposed improvements.

The attention of the bidder is directed to the necessity for careful examination of the entire project site to determine, at the time of bid preparation, the full extent of work to be done under the item "Site Preparation." The entire job site shall be cleared of all man-made obstructions and debris, of whatever nature, and made ready in all respects for the construction of the proposed improvements.

The item "Site Preparation" shall include:

1. Mobilization
2. Lighted Barricades
3. Contractor's Access/Haul Road
4. Contractor's Staging Areas
5. Airport Security Requirements
6. Airport Safety Requirements
7. Instrument Control
8. Removal and Disposal of Structures
9. Clean Up

CONSTRUCTION METHODS

120-2.1 MOBILIZATION. The Contractor shall consider and include his cost for providing personnel, equipment, materials, bonds, etc. required for the prosecution of the work under this item.

120-2.2 LIGHTED BARRICADES. The Contractor shall furnish, install, maintain, and remove lighted barricades in accordance with details on the plans and as directed by the Engineer. The lighted barricades shall be constructed and installed as shown on the plans. All lighted shall be constructed in accordance with AC 150/5370-2F (or most current) Operational Safety on Airports During Construction.

All work involved in the furnishing, installation, maintenance, and removal of lighted barricades and barrels will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.3 CONTRACTOR'S ACCESS/HAUL ROAD. The Contractor shall layout, construct, maintain, and repair all access/haul roads needed to construct the work. The existing access roads shown on the plans shall be repaired, as determined necessary by the Engineer, at the close of the project. All such work, including all materials and labor, involved in the layout, construction, maintenance, and repair of the Contractor's access/haul roads will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation." Any damage to existing pavements or structures, due to the Contractor's hauling or access, will be repaired by the Contractor without additional compensation to a condition equal to or exceeding the existing condition. Temporary pipe culverts shall be installed and maintained as required and shall be of the size as directed by the Engineer. The type of pipe used for temporary pipe shall be at the option of the Contractor. Temporary pipe culverts will not be measured for separate payment but will be considered subsidiary to the access/haul road. All temporary pipe culverts shall be removed by the Contractor and shall remain his property at the close of the project.

120-2.4 CONTRACTOR'S STAGING AREAS. The areas designated in the plans or by the Engineer as the Contractor's staging area shall be cleared and graded by the Contractor as needed for use by the Contractor in constructing the work on this project. All areas used or otherwise occupied by the Contractor for his operations shall be cleaned, regraded, and seeded, as directed by the Engineer, prior to the final acceptance of the project by the Airport. All work involved in the preparation and restoration of areas used or occupied by the Contractor, including clearing, grubbing, regrading, seeding, and installing and removing fence, will not

be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.5 AIRPORT SECURITY REQUIREMENTS. The Contractor shall abide by the Airport Security requirements that are outlined in the Construction Safety and Phasing Plan (CSPP) of the plans. Any costs associated with the Airport Security requirements will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.6 AIRPORT SAFETY REQUIREMENTS. The Contractor shall abide by the Airport Safety requirements that are outlined in the Construction Safety and Phasing Plan (CSPP) of the plans. All costs associated with the Airport Safety requirements will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation."

120-2.7 INSTRUMENT CONTROL. The Contractor will be furnished survey baselines and benchmarks to control the work as shown on the Plans. The Contractor shall be responsible for the additional instrument control necessary to layout and construct the work. It is the Contractor's responsibility to protect all existing airport survey control points being used. In the event an existing instrument control is damaged or moved, all costs with re-establishing the control points will be

The Contractor shall provide the instrument control as provided for in Section 50 of the General Provisions. The Contractor's instrument control of the work shall not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation".

120-2.8 REMOVAL AND DISPOSAL OF STRUCTURES. This work applies to structures that are in conflict with the proposed work and are not paid for under other pay items.

This work shall consist of the removal and satisfactory disposal of utility poles; signs, sign supports, sign foundations; driveways; guardrail; retaining walls; sidewalks; Portland cement concrete or asphalt concrete pavements; manholes; drainage structures (including reinforced concrete channels, headwalls, and wingwalls); concrete or masonry foundations (including foundations of poles or signs to be removed) or slabs, all of which are not designated or permitted to remain or paid for by other items. The Contractor shall make his own estimate of the work required for the removal of structures which conflict with the proposed construction. All structures required to be removed may not be designated as such in the plans.

The provisions of this section shall not apply to underground petroleum storage tanks.

The attention of the bidder is directed to the necessity for careful examination of the entire site to determine, at the time of bid preparation, the full extent of work to be accomplished. The entire site shall be cleared of all man-made obstructions and debris, of whatever nature, and prepared in all respects for the construction.

The Contractor shall not unnecessarily interfere with the use of any adjacent sidewalks, streets, or roads.

Materials removed will become the property of the Contractor and shall be removed from the job site, unless specifically designated otherwise.

All surface items such as curb, curb and gutter, driveways, parking areas, walks, steps, asphalt and PCC pavement, and walls shall be separated or broken away from the adjacent part of any structure designated to remain in place by a vertical saw cut along the line designated by the Engineer. The edge of the structure left in place shall be approximately vertical with no abrupt changes in alignment. Any damage to or removal of the structure designated to remain in place shall be repaired or replaced at no cost to the Owner.

Holes, ditches, or other abrupt changes in elevation caused by the removal operations that could obstruct drainage or be considered hazardous or unsightly shall be backfilled, compacted, and left in a workmanlike condition.

Where existing pipe culverts are to be extended or otherwise incorporated into the new work, only such part of the existing structure shall be removed as to provide a proper connection to the new work. The connecting edges or joints shall be cut, chipped, and trimmed to the required lines and grades without weakening or damaging the part of the structure to be retained.

For a pipe culvert extension, the headwall and the attached end joint of concrete pipe or the flared end section on all types of pipe shall be removed to accommodate the extension. This work will not be paid for directly but will be considered included in the items involved in the culvert extension. This item includes any additional construction required to connect existing pipes to the constructed drainage system.

Trenches or voids resulting from the removal or demolition of existing culverts or other structures shall be filled with approved material placed in layers in accordance with Item TX-132.

Masonry and reinforced concrete foundations shall be obliterated, or if in fill sections, may be left in place if covered by not less than 2 feet of embankment.

Concrete foundations for poles to be removed shall be obliterated to a depth of 2 feet below finished grade or as required to accommodate new construction.

The removal and disposal of the various items covered by this specification will not be measured for separate payment but will be subsidiary to the bid item "Site Preparation".

120-2.9 CLEAN UP. From time to time, the Contractor shall clean up the site in order that the site presents a neat appearance and that the progress of work will not be impeded. One such clean up shall immediately precede final inspection.

Immediately following acceptance of the work by the Owner, the Contractor shall remove all temporary equipment, surplus materials, and debris resulting from his operations, and leave the site in a condition fully acceptable to the Owner.

MEASUREMENT AND PAYMENT

120-3.1 Site preparation will be measured as a lump sum complete item. Work completed and accepted under this item will be paid for at the contract lump sum price bid for "Site Preparation," which price shall be full compensation for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

Periodic payments will be made under this item in proportion to the amount of work accomplished, as determined by the Engineer.

Payment will be made under:

Item SS-120-3.1 Site Preparation - per Lump Sum

END OF ITEM SS-120

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ITEM SS-140 DEMOLITION & DISPOSAL

DESCRIPTION

140-1.1 This item shall consist of the removal and satisfactory disposal of utility poles; water and sewer lines; signs, sign supports, sign foundations; curb and gutter; driveways; guardrail; manholes; drainage structures (including reinforced concrete channels, headwalls, and wingwalls); concrete or masonry foundations (including foundations of poles or signs to be removed) or slabs; and concrete ducts and pipe culverts, all of which are not designated or permitted to remain. While an attempt has been made to outline all structures included in the plans, all structures required to be removed may not be designated as such in the plans. The Contractor shall make his own estimate of the work required for the removal of structures which conflict with the proposed construction.

140-1.2 The removal of all structures, including safety end treatments, manholes, inlets and pipes shall become property of the contractor and be disposed of off-site.

CONSTRUCTION METHODS

140-3.1 GENERAL: No demolition shall be started until the work has been laid out and approved by the Engineer. All material shall be disposed of off-site. All hauling and disposal will be considered a necessary and incidental part of the work. Hauling cost shall be considered by the Contractor and included in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work. All trees, stumps, roots, buried logs, brush, grass, and other unsatisfactory materials shall be removed.

140-3.2 UTILITY & DRAINAGE REMOVAL: Existing concrete ducts and parts thereof that interfere with the new construction shall be removed.

Existing pipe culverts or parts thereof that interfere with the new construction shall be removed. When existing pipe culverts to be removed are connected to existing structures to remain, the existing structure shall be repaired. Payment for this repair shall be made under "Demolition and Disposal".

Where existing pipe culverts are to be extended or otherwise incorporated into the new work, only such part of the existing structure shall be removed as to provide a proper connection to the new work. The connecting edges or joints shall be cut, chipped, and trimmed to the required lines and grades without weakening or damaging the part of the structure to be retained.

For a pipe culvert extension, the headwall and the attached end joint of concrete pipe or the flared end section on all types of pipe shall be removed to accommodate the extension. This work will not be paid for directly but will be considered included in the items involved in the culvert extension.

Trenches or voids resulting from the removal or demolition of existing culverts or other structures shall be filled with approved material placed in layers in accordance with Item P-152.

Masonry and reinforced concrete foundations shall be obliterated, or if in fill sections, may be left in place if covered by not less than two feet of embankment.

Concrete foundations for poles to be removed shall be obliterated to a depth of two feet below finished grade or as required to accommodate new construction.

Existing utility pipes or parts thereof that interfere with the new construction shall be removed. When existing utilities to be removed are connected to existing structures to remain, the existing structure shall be repaired. Payment for this repair shall be made under "Demolition and Disposal".

140-3.3 CULVERT, HEADWALL, MANHOLES, AND INLET REMOVAL: Headwalls and inlets shall be removed as shown on the plans. Trenches or voids resulting from the removal or demolition of existing structures shall be filled with approved material placed in layers in accordance with Item P-152. At

locations where existing pipe is to be re-connected after structure removal, the affected pipe shall be removed, at a minimum, to the nearest joint or further if required. The connecting edges or joints shall be cut, chipped, and trimmed to the required lines and grades without weakening or damaging the part of the structure to be retained. All connections to existing pipes shall be made at joints. New pipe segments shall be installed to provide a proper connection to the existing pipe. No additional payment will be made for pipe segments required to connect existing pipe to new drainage structures. The new pipe shall match the size of the existing matching pipe. All connections shall be performed per D-701, Reinforced Concrete Pipe.

140-3.4 ROADWAY DEMOLITION: All surface items such as curb, curb and gutter, driveways, parking areas, walks, steps, asphalt and concrete pavements, and walls shall be separated or broken away from the adjacent part of any structure designated to remain in place by a vertical saw cut along the line designated by the Engineer. The edge of the structure left in place shall be approximately vertical with no abrupt changes in alignment. Any damage to or removal of the structure designated to remain in place shall be repaired or replaced at no cost to the Owner.

Existing asphalt pavement and base course (regardless of material encountered) shall be removed to the depth required for replacement with the new pavement repair section, at the locations shown on the plans or as directed by the Engineer. The method of removal shall be approved by the Engineer before any removal operations begin. The Contractor shall take care not to damage adjacent pavement which is to remain in place; any adjacent sound pavement damaged by the Contractor shall be removed and replaced at the Contractor's expense.

Sawcutting will be required at the edge of the removal areas. The removal shall proceed to the depth necessary to accommodate the new pavement section thickness. Removal of any additional material, beyond the pavement, necessary to accommodate the new pavement section thickness will not be measured for separate payment but will be subsidiary to "Demolition & Disposal".

Holes, ditches, or other abrupt changes in elevation caused by the removal operations that could obstruct drainage or be considered hazardous or unsightly shall be backfilled, compacted, and left in a workmanlike condition.

METHOD OF MEASUREMENT

140-4.1 FIRE HYDRANT REMOVAL: The unit measure for fire hydrant removal shall be measured by each fire hydrant removed.

140-4.2 WATER VALVE REMOVAL: The unit measurement for valve removal shall be the number of valves removed.

140-4.3 WATER METER REMOVAL: This item shall be measured on the basis of the number of meters removed.

140-4.4 WATER SERVICE LINE REMOVAL: The unit of measurement for utility line removal shall be the linear foot of line removed, regardless of utility material.

140-4.5 SANITARY SEWER SERVICE LINE REMOVAL: The unit of measurement for utility line removal shall be the linear foot of line removed, regardless of utility material.

140-4.6 Any additional pipe segments or material required to perform the work as specified shall not be measured for separate payment but shall be considered subsidiary to the structure in which it is contained.

BASIS OF PAYMENT

140-5.1 Payment shall be made at the unit bid price for the unit of measurement as specified above. This price shall be full compensation for furnishing all labor, tools, equipment, haul costs and incidentals

necessary to complete the work.

Payment will be made under:

Item SS-140-5.1	Fire Hydrant Removal – per Each
Item SS-140-5.2	Water Valve Removal – per Each
Item SS-140-5.3	Water Meter Removal – per Each
Item SS-140-5.4	Water Service Line Removal – per Linear Foot
Item SS-140-5.5	Sanitary Sewer Line Removal – per Linear Foot

END OF ITEM SS-140

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ITEM SS-300 BASIC ELECTRICAL REQUIREMENTS

DESCRIPTION

300-1.1 This item shall consist of furnishing and installing complete electrical systems as defined in the plans and in these specifications. The work includes the installation, connection and testing of new electrical systems, equipment and all required appurtenances to construct and demonstrate proper operation of the completed electrical systems.

300-1.2 The Contractor shall maintain current copies of all referenced and applicable standards on the job site. The Contractor is responsible to make known to the Engineer any conflict between plans and specifications that he observes or of which he is made aware.

300-1.3 This work shall consist of lockout/tagout procedures for electrical equipment in accordance with the design and details shown in the plans and in compliance with these specification documents.

EQUIPMENT AND MATERIALS

300-2.1 STANDARDS.

- a. Applicable National Fire Protection Association (NFPA) codes, including but not limited to:
- (1) NFPA 70 - National Electrical Code.
 - (2) NFPA 70E - Standard for Electrical Safety in the Workplace.
 - (3) NFPA 101 - Life Safety Code.
 - (4) Internet Website: <http://www.nfpa.org>
- b. Applicable Code of Federal Regulations (CFR) codes, including but not limited to:
- (1) 29 CFR 1910 - Occupational Safety and Health Standards (OSHA)
 - (2) 29 CFR 1926 - Safety and Health Regulations for Construction.
 - (3) Internet Website: <http://www.gpoaccess.gov/cfr/index.html>
- c. ANSI/IEEE C2 - National Electrical Safety Code.
- d. NECA 1 – Standard for Good Workmanship in Electrical Construction.
- e. Applicable Federal, State and Local Electrical Codes.
- f. Applicable Federal, State and Local Energy Codes.
- g. Applicable Federal, State and Local Building Codes.
- h. Applicable Federal, State and Local Fire Codes.
- i. Applicable City Electrical Code.
- j. Applicable City Ordinances pertaining to electrical work.
- k. Applicable Federal, State and Local - Environmental, Health and Safety Laws and Regulations.

Contractor shall utilize the most current editions of standards, which are current at time of bid and as recognized by the Authority Having Jurisdiction for the respective standard.

300-2.2 GENERAL.

a. All equipment and materials covered by referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer. All equipment and materials shall be new and meet applicable manufacturer's standards. All electrical components and products shall be tested and listed by an OSHA accepted, nationally recognized testing laboratory (NRTL) to conform to the standards indicated in these contract documents and to the industry standards required in the NEC, NEMA, IEEE, UL, and applicable FAA advisory circulars.

b. Manufacturer's certifications shall not relieve the Contractor of the Contractor's responsibility to provide materials in accordance with these specifications and acceptable to the Engineer. Materials supplied and/or installed that do not materially comply with these specifications shall be removed, when directed by the Engineer and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

c. All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components or electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the Contract Documents plans and specifications. The Engineer reserves the right to reject all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

f. Refer to Special Provisions Item 31 "Shop Drawings" for submittal requirements for Engineer's review.

g. All requirements herein Item SS-300 shall be applicable to all referenced sections in these contract documents and applicable to all sections, which reference Item SS-300.

300-2.3 WIRE.

For ratings up to 600 volts, moisture and heat resistant thermoplastic wire conforming to Commercial Item Description A-A-59544A Type THWN-2 shall be used. The wires shall be of the type, size, number of conductors, and voltage shown in the plans or in the proposal.

Service, underground feeder, and underground branch circuit wiring shall be minimum Type THHN/THWN-2 unless otherwise noted.

Indoor feeder and indoor branch circuit wiring shall be minimum Type THHN/THWN-2 unless otherwise noted.

Unless otherwise indicated, conductors No. 10 AWG and smaller shall be solid, and conductors No. 8 AWG and larger shall be stranded.

For electrical work of 600 volts or less, all conductors, terminations, terminal blocks, lugs, connectors, devices and equipment shall be listed, marked, and rated 75 degrees C minimum unless otherwise noted.

Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway. Pull ropes and pull wires shall have sufficient tensile strength for the cable(s) to be pulled and installed. Damaged cable or raceway shall be replaced at no additional cost to the Owner. Calculate and do not exceed the maximum allowable pulling tension or maximum allowable sidewall bearing pressure for all conductors and cables.

Install pull wires in empty raceways. Use a polypropylene plastic line with not less than 200-pound tensile strength. Secure and leave at least 12 inches of slack at each end of pull wire to prevent it from slipping back into the conduit. Cap spare raceways with removable tapered plugs, designed for this purpose.

300-2.4 CONDUIT. Rigid steel conduit and fittings shall conform to the requirements of Underwriters Laboratories Standard 6, 514, and 1242.

CONSTRUCTION METHODS

300-3.1 LOCKOUT/TAGOUT PROGRAM. The Contractor shall provide a complete copy of an electrical energy source Lockout/Tagout Program to the Owner, with copy to the Engineer. The document shall clearly identify the on-site master electricians and their contact information, including office and mobile telephone numbers.

The Lockout/Tagout Program shall comply with Part 1910 – Occupational Safety and Health Standards (OSHA) Subpart S – Electrical, and meet the requirements of 29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout), including requirements listed in 1910.331 through 1910.335.

Implementation of the Lockout/Tagout Program and all other related safety requirements are the sole responsibility of the Contractor.

300-3.2 SAFETY PROGRAM. The Contractor shall implement an electrical safety program that complies with NFPA 70E and 29 CFR 1926.

Implementation of the Electrical Safety Program, determining and providing proper Personal Protective Equipment (PPE), training and enforcing personnel to wear the prescribed PPE, conducting work area safety inspections (including correcting deficiencies), and all other related safety requirements are the sole responsibility of the Contractor.

All work involved in the preparation and implementation of the safety program will not be measured for separate payment but will be considered subsidiary to the lockout/tagout bid item.

300-3.3 PRECONSTRUCTION MEETING. A preconstruction meeting will be held with the Airport, Engineer and Contractor, prior to any work. Complete submittals and shop drawings will be submitted at this time for review. An equipment procurement schedule will be provided by the Contractor with an anticipated field construction start date. The progress construction schedule will be submitted for review each week and shall outline all installation, testing and demolition work.

300-3.4 GENERAL. The Contractor shall be responsible for coordinating all electrical work with the Utility. The Contractor shall provide temporary service conductors and raceway system. The Contractor shall then provide and connect permanent service conductors and raceway system after the completion.

All secondary conductors and controls, signaling and lighting shown in or on buildings are included in this project. Electrical service shall be extended from the service equipment as indicated.

In general, the various electrical equipment and material to be installed by the various trades under this specification shall be run as indicated, as specified herein, as required by particular conditions at the site, and as required to conform to the generally accepted standards to complete the work in a neat and satisfactory manner. The following is a general outline concerning the running of various systems and is to be expected where the drawings or conditions at the buildings necessitate deviating from these standards.

The drawings and specifications are complementary; any work required by one, but not by the other, shall be performed as though required by both.

The Contractor shall maintain copies of all equipment installation manuals on site during construction.

All conduits shall be run exposed in the equipment rooms or run concealed as indicated.

The construction details of the building are illustrated on the drawings. Each Contractor shall thoroughly acquaint himself with the details before submitting his bid as no allowances will be made because of the Contractor's unfamiliarity with these details.

The electrical plans do not give exact locations, etc., and do not show all the offsets, control lines, junction boxes, and other installation details. Each Contractor shall carefully lay out his work at the site to

conform to the job conditions, to conform to details of installation supplied by the manufacturers of the equipment to be installed, and thereby to provide complete operating systems.

The electrical plans show diagrammatically the locations of the various electrical outlets and apparatus and the method of circulating and controlling them. Exact locations of these outlets and apparatus shall be determined by reference to the general plans and to all detail drawings, etc., by measurements at the buildings, and in cooperation with other crafts, and in all cases shall be subject to the approval of the Engineer. The Engineer reserves the right to make any reasonable change in location of any outlet or apparatus before installation, without additional cost to the Owner.

These Specifications and the accompanying Drawings are intended to cover systems which will not interfere with the structure of the buildings, which will fit into the several available spaces, and which will insure complete and satisfactory systems. Each bidder shall be responsible for the proper fitting of his material and apparatus into the buildings.

Should the particular equipment which any bidder proposes to install require other space conditions than those indicated on the Drawings, he shall arrange for such space with the Engineer before submitting his bid. Should changes become necessary because of failure to comply with this clause, the Contractor shall make such changes at the Contractor's expense.

Should the particular equipment which any bidder proposes to install require other installation methods, such as larger light base junction structures, etc., he shall include all such equipment and appurtenances in his bid. Should changes become necessary because of failure to coordinate equipment requirements and comply with this clause, the Contractor shall make such changes at the Contractor's expense.

The Contractor shall be responsible to see that each party furnishes electrical equipment which meets the electrical requirements specified herein and that all systems work together to produce the specified operation.

Where two or more units of the same kind or class of equipment are required, these shall be products of a single manufacturer; however, the component parts need not be the products of one manufacturer.

Each Contractor shall submit working scale drawings of all his apparatus and equipment which in any way varies from these Specifications and Plans, which shall be checked by the Engineer and approved before the work is started, and interferences with the structural conditions shall be corrected by the Contractor before the work proceeds.

Electrical equipment, such as switchgear, switchboards, panelboards, load centers and other power supply equipment, shall not be used as a common enclosure, pull box or junction box for routing conductors of different systems, unless the equipment is specifically designed for this purpose and indicated as such on the Plans.

All electrical equipment shall be securely mounted as indicated in the plans, as required by the contract specifications, as required by guidelines and codes, and as required by the manufacturer using hardware compliant with the environmental conditions.

Interior components of electrical enclosures shall be securely mounted using appropriate hardware within the enclosure. Adhesives or adhesive tapes/strips are not allowed and are prohibited.

Electrical components, including but not limited to, relays, circuit boards, electronics, etc., shall be installed within approved enclosures.

The Contractor shall keep ends of conduits, including those extending through roofs, equipment and fixtures covered or closed with caps or plugs to prevent foreign material from entering during construction.

Where portions of raceways are known to be subjected to different temperatures, where condensation is a problem, and where passing from interior to exterior of a building, the portion of raceway or sleeve shall be filled with an approved material to prevent the circulation of air, prevent condensation, and prevent

moisture entry. Sealing of raceways shall not occur until after the conductors and cables have been installed, tested and accepted by the Engineer.

The Contractor shall install any temporary lines and connections required to maintain electric services and safely remove and dispose of them when complete.

All temporary wiring shall conform to OSHA standards. Remove temporary services when work is complete. Any damage to electrical equipment caused by the Contractor shall be repaired at no cost to the Owner.

All non-current carrying parts and neutrals shall be grounded as indicated on the Drawings or as required by the Codes.

White and/or gray outer finish conductors may only be used as grounded conductors or neutral conductors in accordance with NEC.

Install insulated green equipment grounding conductors with all feeder and branch circuits.

Provide separate insulated equipment grounding conductors from grounding system to each electrical equipment, telecommunication equipment, other special electrical system equipment, and appurtenance item location in accordance with NFPA 70 and other applicable standard requirements.

The bidder shall inspect the site, thoroughly acquaint himself with conditions to be met and work to be accomplished. Failure to comply with this shall not constitute grounds for any additional payments.

Where electrical equipment is installed that causes electrical noise interference with other systems either existing or installed under this contract, the offending equipment shall be equipped with isolating transformers, filters, reactors, shielding, or any other means as required for the satisfactory suppression of the interferences, as determined by the Engineer.

All junction boxes, expansion joints, flexible connections, instruments and similar items requiring servicing or repairs shall be installed in an accessible location.

All salvage and equipment removed by the work shall remain the property of the Owner. Material removed from the project shall be stored on the project site where and as directed. Debris shall be removed from the job site and disposed of by the Contractor.

The Contractor shall maintain his work area clean and orderly at all times. Debris shall be removed promptly. The electrical system shall be thoroughly cleaned inside and outside of all enclosures to remove all metal shavings or other work debris, dust, concrete splatter, plaster, paint and lint.

The Contractor shall do all excavating and backfilling made necessary by electrical work and shall remove all surplus or supply any earth required to establish the proper finished grade.

The Contractor shall do all cutting and patching made necessary by electrical work, but in no case shall he cut through or into any structural member without written permission of the Engineer.

All steel conduits, supports, channels, fittings, nuts, bolts, etc. shall be galvanized, corrosion-resistant type unless otherwise noted.

An approved anti-seize compound shall be used on all threads to prevent equipment and thread damage.

Equipment shall be installed in accordance with manufacturer's recommendation. Make all final electrical connections and coordinate all items with other trades.

Correct unnecessary damage caused due to installation of work, brought about through carelessness or lack of coordination. All openings, sleeves, and holes to be properly sealed, fire proofed and waterproofed. Any water leaks arising from project construction will be immediately corrected to the satisfaction of the Owner and the Engineer.

300-3.5 DUCT AND CONDUIT. Conduits shall be galvanized rigid steel unless otherwise indicated or specified. Refer to one-line diagram conduit notes for specific requirements.

Conduit runs shall be one trade size continuously with no reducers allowed. Changing of conduit size is only permitted at manholes, handholes, and boxes and conduit bodies used as outlet, device, junction, or pull boxes, including approved, listed fittings with removable covers.

Use an approved, listed adapter/coupling to convert to other types of conduit. Reducer couplings are not allowed.

For underground service entrance, feeder and branch circuit raceways, offsets and bends over 30 degrees and elbows in Schedule 40 PVC conduit runs shall be Schedule 80 PVC conduit. Underground service entrance PVC conduits shall be concrete encased unless otherwise noted. Underground PVC conduits shall be concrete encased under driveways, roadways, parking lots and other paved areas.

Non-encased conduits shall convert to concrete encased ducts under all paved areas and shall extend at least 3 feet beyond the edges of the pavement unless otherwise noted.

The Contractor shall provide a staked centerline or offset for the duct and manhole system - utilizing the drawings and a site inspection of the existing grounds, grades and utility crossings. The Owner and Engineer shall approve the staking plan that shall be indicated on a drawing submitted for approval before starting any excavation for the ducts. The staking plan shall indicate the proposed location, elevation and dimensions of manholes and handholes. The Engineer reserves the right to adjust duct, manhole and handhole locations and elevations before installation at no additional cost to the Owner.

The bottom surface of trenches shall be essentially smooth and free from coarse aggregate.

Install grounding-and-bonding type bushings and bonding jumpers on all service entrance conduits and on all feeder and branch circuit conduits.

Use conduit bushings at each conduit termination. Where No. 4 AWG or larger ungrounded wire is installed, use insulated bushings.

When EMT is allowed, utilize only steel compression fittings. Die-cast and set-screw fittings shall not be used.

Use double lock nuts at each conduit termination. Use weather tight hubs in damp and wet locations. Sealing lock nuts shall not be used.

Grounding continuity to rigid metal conduit shall be accomplished by grounding bushings/adapters with lugs for connection to grounding counterpoise and/or grounding electrode conductor as defined by NEC.

All exposed wiring shall be run in not less than 1/2 inch (12 mm) galvanized rigid steel conduit. All conduits shall be installed to provide for drainage. Conduit shall be attached to wooden structures with galvanized pipe straps and fastened with galvanized wood screws not less than No. 8 nor less than 1-1/4 inches (31 mm) long. There shall be at least two fastenings for each 10-foot (3 m) length.

Existing ducts may require clearing before use. It is the responsibility of the Contractor to locate the existing ducts, identify empty or partially empty conduits and clear the conduits as required. Where new cable is to be installed in existing duct, the full length of the duct shall be cleared of debris by mechanical means before the installation of the new cable. Acceptable methods of clearing existing ducts include "hydro-jetting" and "roto-rooting." All existing cables in each re-used duct shall be replaced for the length of the duct and properly spliced in a method approved by the Engineer. Clearing of existing duct banks or conduits is incidental to the cable pay item.

Dedicated ground rods shall be installed and exothermically welded to the counterpoise wire at each end of a duct bank crossing under pavement.

For concrete markers, the impression of letters shall be done in a manner, approved by the Engineer, to affect a neat, professional appearance. The letters shall be stenciled neatly. After placement, all markers shall be given one coat of high-visibility aviation orange paint, as approved by the Engineer.

300-3.6 CABLE AND UTILITY COORDINATION. The existing and the proposed locations of lighting cable are approximate. The Contractor shall be responsible for field locating and identifying the existing lighting circuits to determine their exact routing. The Contractor shall also be responsible for maintaining the lighting systems in a working condition until the new lighting circuits have been installed and tested. The Contractor shall proactively and expeditiously accomplish this cable identification work prior to performing any modifications to the lighting circuits. Coordinate identification work with the Owner and Engineer and make all corrections, additions, etc. on the as-built drawings.

Underground cable and utilities exist within and adjacent to the limits of construction. An attempt has been made to locate these cables and utilities on the Plans. All existing cable and utilities may not be shown on the Plans and the location of the cables and utilities shown may vary from the location shown on the Plans. Prior to beginning of any type of excavation, the Contractor shall contact the utilities, the airport maintenance staff, FAA field personnel and other organizations as required and make arrangements for the location of the utilities on the ground. The Contractor shall maintain the cable and utility location markings until they are no longer required.

The Contractor shall replace or repair any underground cable or utility that has been damaged by the Contractor during excavation to the satisfaction of the owner of the cable or utility at no additional cost to the Owner.

The Contractor shall be responsible for all coordination work associated with existing and new utilities, their marking, their identification, proposed outages/shutoffs, connections, cutovers, etc.

300-3.7 WIRING. The Contractor shall furnish all labor and materials and shall make complete electrical connections in accordance with the wiring diagram furnished with the project plans. The electrical installation shall conform to the requirements of the latest edition of National Fire Protection Association, NFPA-70, National Electrical Code.

Provide color-coding for phase identification.

Colors for 240/120V Circuits:

- a. Phase A: Black
- b. Phase B: Red
- c. Neutral: White

Colors for 208Y/120V Circuits:

- a. Phase A: Black
- b. Phase B: Red
- c. Phase C: Blue
- d. Neutral: White

Colors for 480Y/277V Circuits:

- a. Phase A: Brown
- b. Phase B: Orange
- c. Phase C: Yellow
- d. Neutral: Gray

All new electrical cable shall be marked using color-coded plastic electrical tape, which is specifically designed for application on polyethylene-jacketed cable. The tape shall be applied as detailed on the Plans. Marking tape shall be Scotch 35 Vinyl Plastic tape or approved equal.

300-3.8 REMOVAL AND RELOCATION OF EXISTING EQUIPMENT. The Contractor shall carefully remove all salvageable equipment as indicated on the Plans. Any equipment which is damaged during the removal operation shall be subject to a reduction in payment for removal of the equipment. All equipment which is removed during this project shall be transported to a site on the Airfield or removed from the Airfield and properly disposed of as directed by the Owner and the Engineer.

The Contractor shall carefully relocate existing equipment as indicated in the Plans. Any equipment that is damaged during the relocation operation shall be replaced at no additional cost to the Owner.

Any existing electrical equipment, conduit, cables, etc. that is damaged during construction shall be replaced at no additional cost to the Owner to the satisfaction of the Owner and the Engineer.

300-3.9 UNDER 600V CABLE CONNECTIONS.

For under 600V cable connections of voltage powered circuits, splices whether direct buried or within an underground enclosure shall only utilize approved cast splices, employing a plastic mold and using epoxy resin equivalent to that manufactured by 3M Company, or an approved equivalent.

300-3.10 CERTIFICATION AND PERFORMANCE. Equipment and materials covered by FAA Advisory Circulars are referred to by item numbers and approved equipment is listed within the AC 150/5345-53 Airport Lighting Equipment Certification Program's monthly Addendum, which contains a complete and updated listing of the certified equipment and manufacturers and is listed in the FAA Buy American Preference equipment list, which is also updated monthly. The Contractor shall provide and install new certified equipment that works reliably and efficiently with the existing equipment to remain in service. The Contractor shall provide any additional accessories and/or appurtenances required to provide fully functional electrical systems to the satisfaction of the Owner and Engineer, at no additional cost to the Owner.

The Contractor shall ascertain that all lighting system components furnished (including FAA certified and approved equipment) are compatible in all respects with each other and the remainder of the new and existing systems. Any non-compatible components furnished by the Contractor shall be replaced at no additional cost to the Owner with a similar unit that is approved by the Engineer and compatible with the remainder of the airport lighting system.

300-3.11 AS-BUILT DRAWINGS. The Contractor shall keep one (1) full-sized set of prints for As-Built Drawings at the site, in good order, and annotated to show all changes made during the construction process.

The Contractor shall locate all underground and concealed work, identifying all equipment, conduit, circuit numbers, motors, feeders, breakers, switches, and starters. The Contractor will certify accuracy by endorsement. As-Built drawings shall be correct in every detail, so Owner can properly operate, maintain, and repair exposed and concealed work.

The As-Built drawings shall indicate all control system labeling and marking.

The Contractor shall store the As-Built drawings on the site. Drawings shall not be rolled. Make corrections, additions, etc., with pencil, with date and authorization of change.

As-Built drawings must be submitted to Engineer before project will be accepted.

Minor deviations from the Plans and Specifications shall be as approved by the Engineer.

Upon completion of the installation, the Contractor shall adjust the systems to the satisfaction of the Engineer.

300-3.12 TESTING.

General Electrical Testing: Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification and certify compliance with test parameters. Tests shall be conducted in the presence of the Engineer and shall be to his/her satisfaction. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest. Perform infrared scan tests and inspections of service and power distribution equipment at

the respective buildings and provide reports. Electrical equipment will be considered defective if it does not pass tests and inspections. Reports shall include notations of deficiencies, remedial action taken and observations after remedial action.

System and Equipment Testing: All installations shall be fully tested by continuous operation for not less than 24 hours as completed systems prior to acceptance. These tests shall include the functioning of each control not less than 10 times.

Test equipment and instruments utilized by the Contractor shall have been calibrated following the manufacturer's recommended schedule to verify their accuracy prior to performing the testing work. The Contractor shall provide instrument calibration certificates on test equipment when requested by the Engineer. Retesting work due to inaccurate or defective instruments shall be performed by the Contractor to the satisfaction of the Engineer at no additional cost to the Owner.

300-3.13 INSPECTION FEES AND PERMITS. The Contractor shall obtain and pay for all necessary construction permits, licenses, government charges, and inspection fees necessary for prosecution of the Work. Unless otherwise noted, the Contractor shall pay all charges of utility owners for connections for providing permanent service to the Work, ready for subsequent utility account transfer to the Owner after final acceptance.

300-3.14 WORK SUPERVISION.

State of Texas: The electrical contractor (whether the general contractor or a subcontractor) shall be a licensed contractor in the state of Texas having an electrical classification suitable for performing the work required in these contract documents.

The Contractor shall designate in writing the qualified electrical supervisor who shall provide supervision to all electrical work on this project. The minimum qualifications for the electrical supervisor shall be a master electrician as defined by Texas Electrical Safety and Licensing Advisory Board. The supervisor or his appointed alternate possessing at least a journeyman electrician license shall be on site whenever electrical work is being performed. The qualifications of the electrical supervisor shall be subject to approval of the Owner and the Engineer.

All master and journeyman electricians shall be licensed in accordance with Texas Board requirements. The website located at <https://www.tdlr.texas.gov/electricians/eleclaw.htm> publishes the text of this statutory requirement. No unlicensed electrical workers shall perform electrical work on this project. Apprentice electricians in a ratio of not more than one apprentice per journeyman electrician will be allowed if the apprentices are licensed and actively participating in an apprenticeship program recognized and approved by the Texas Electrical Safety and Licensing Advisory Board.

METHOD OF MEASUREMENT

300-4.1 The quantity of emergency stop relocation to be paid for under this item shall consist of the number of systems constructed in place and accepted as complete and functional units. This work consists of all work in the vicinity of the emergency stop to be relocated in this project, including but not limited to all branch circuit work including all supporting structures and apparatuses, conduits, wires, connections, connectors, grounding, testing and methods required to complete the work to the satisfaction of the Owner and the Engineer. This item shall also consist of all lockout/tagout procedure work completed in place, accepted and ready for operation.

BASIS OF PAYMENT

300-5.1 Payment will be made at the contract unit price for each complete item, measured as provided above, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item to the satisfaction of the Engineer.

Payment will be made under:

Item SS-300-5.1	Emergency Stop Relocation – per Lump Sum
Addison Airport	SS-300-9 George Haddaway Reconstruction Work Order No. 2

MATERIAL REQUIREMENTS

Commercial Item Description A-A-59544	Cable and Wire, Electrical (Power, Fixed Installation)
Fed. Spec. W-C-1094	Conduit and Conduit Fittings; Plastic, Rigid
Fed. Spec. W-P-115	Panel, Power Distribution
Fed. Std. 595	Colors
Underwriters Laboratories Standard 6	Rigid Metal Conduit
Underwriters Laboratories Standard 514	Fittings for Conduit and Outlet Boxes
Underwriters Laboratories Laboratories Standard 651	Schedule 40 and 80 Rigid PVC Conduit (for Direct Burial)
Underwriters Laboratories Standard 1242	Intermediate Metal Conduit
CFR 1910	Occupational Safety and Health Regulations
CFR 1926	Safety and Health Regulations for Construction
ANSI/IEEE C2	National Electrical Safety Code
NFPA 70	National Electrical Code (NEC)
NFPA 70E	Standard for Electrical Safety in the Workplace
NFPA 101	Life Safety Code
NFPA 780	Standard for the Installation of Lightning Protection Systems
29 CFR 1910	Occupational Safety and Health Standards (OSHA)
29 CFR 1926	Safety and Health Regulations for Construction
Jaquith Industries, Inc.	The Design, Installation, and Maintenance of In- Pavement Airport Lighting

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ITEM P-152 EXCAVATION, SUBGRADE, AND EMBANKMENT**DESCRIPTION**

152-1.1 This item covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, and intermediate areas as well as other areas for drainage, building construction, parking, or other purposes in accordance with these specifications and in conformity to the dimensions and typical sections shown on the plans.

152-1.2 Classification. All material excavated shall be classified as defined below:

a. Unclassified excavation. Unclassified excavation shall consist of the excavation and disposal of all material, regardless of its nature.

152-1.3 Unsuitable excavation. Unsuitable material shall be disposed in designated waste areas as shown on the plans. Materials containing vegetable or organic matter, such as muck, peat, organic silt, or sod shall be considered unsuitable for use in embankment construction. Material suitable for topsoil may be used on the embankment slope when approved by the RPR. *Undercutting of material unsatisfactory for subgrade foundation, roads, shoulders, or areas intended for turfing shall be considered unsuitable excavation and shall be excavated to the depth specified by the Engineer below the subgrade.*

CONSTRUCTION METHODS

152-2.1 General. Before beginning excavation, grading, and embankment operations in any area, the area shall be cleared or cleared and grubbed in accordance with Item P-151.

The suitability of material to be placed in embankments shall be subject to approval by the RPR. All unsuitable material shall be disposed of in waste areas as shown on the plans. All waste areas shall be graded to allow positive drainage of the area and adjacent areas. The surface elevation of waste areas shall be specified on the plans or approved by the RPR.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the RPR notified per Section 70, paragraph 70-20. At the direction of the RPR, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

Areas outside the limits of the pavement areas where the top layer of soil has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches, to loosen and pulverize the soil. Stones or rock fragments larger than 4 inches in their greatest dimension will not be permitted in the top 6 inches of the subgrade.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the RPR, who shall arrange for their removal if necessary. The Contractor, at their own expense, shall satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the Contractor's operations during the period of the contract.

a. Blasting. Blasting shall not be allowed.

152-2.2 Excavation. No excavation shall be started until the work has been staked out by the Contractor and the RPR has obtained from the Contractor, the survey notes of the elevations and measurements of the ground surface. The Contractor and RPR shall agree that the original ground lines shown on the original topographic mapping are accurate, or agree to any adjustments made to the original ground lines.

Volumetric quantities were calculated using design cross sections which were created for this project using the DTM files of the applicable design surfaces and generating End Area Volume Reports. Paper copies of design cross sections and a paper copy of the original topographic map will be issued to the successful bidder.

All areas to be excavated shall be stripped of vegetation and topsoil. Topsoil shall be stockpiled for future use in areas designated on the plans or by the RPR. All suitable excavated material shall be used in the formation of embankment, subgrade, or other purposes as shown on the plans. All unsuitable material shall be disposed of *as described in paragraph 152-1.3 shown on the plans.*

The grade shall be maintained so that the surface is well drained at all times.

When the volume of the excavation exceeds that required to construct the embankments to the grades as indicated on the plans, the excess shall be used to grade the areas of ultimate development or disposed as directed by the RPR. When the volume of excavation is not sufficient for constructing the embankments to the grades indicated, the deficiency shall be obtained from borrow areas.

a. Selective grading. When *the quality of material varies significantly* ~~selective grading is indicated on the plans,~~ the more suitable material designated by the RPR shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas until it can be placed. The more suitable material shall then be placed and compacted as specified. Selective grading shall be considered incidental to the work involved. The cost of stockpiling and placing the material shall be included in the various pay items of work involved.

b. Undercutting. Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, subgrades, roads, shoulders, or any areas intended for turf shall be excavated to a minimum depth of 12 inches below the subgrade or to the depth specified by the RPR. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed off the airport. The cost is incidental to this item. This excavated material shall be paid for at the contract unit price per cubic yard for Unsuitable Excavation. The excavated area shall be backfilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary backfill will constitute a *necessary part of Unsuitable Excavation* ~~part of the embankment.~~ Where rock cuts are made, backfill with select material. Any pockets created in the rock surface shall be drained in accordance with the details shown on the plans. Undercutting will be paid as Unsuitable Excavation.

c. Over-break. Over-break, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the RPR. All over-break shall be graded or removed by the Contractor and disposed of as directed by the RPR. The RPR shall determine if the displacement of such material was unavoidable and their own decision shall be final. Payment will not be made for the removal and disposal of over-break that the RPR determines as avoidable. Unavoidable over-break will be classified as "Unclassified Excavation."

d. Removal of utilities. The removal of existing structures and utilities required to permit the orderly progress of work *may* ~~will~~ be accomplished by someone other than the Contractor. All existing foundations shall be excavated at least 2 feet below the top of subgrade or as indicated on the plans, and the material disposed of as directed by the RPR. All foundations thus excavated shall be backfilled with suitable material and compacted as specified for embankment or as shown on the plans. *All work associated with the excavation, removal, backfill, disposal, and/or stockpiling of existing structures and culverts will not be measured for separate payment but will be considered subsidiary to "Unclassified Excavation".*

152-2.3 Borrow excavation. Borrow areas are not required.

152-2.4 Drainage excavation. Drainage excavation shall consist of excavating drainage ditches including intercepting, inlet, or outlet ditches; or other types as shown on the plans. The work shall be performed in sequence with the other construction. Ditches shall be constructed prior to starting adjacent excavation operations. All satisfactory material shall be placed in embankment fills; unsuitable material shall be placed in designated waste areas or as directed by the RPR. All necessary work shall be performed true to final line, elevation, and cross-section. The Contractor shall maintain ditches constructed on the project to the required cross-section and shall keep them free of debris or obstructions until the project is accepted.

152-2.5 Preparation of cut areas or areas where existing pavement has been removed. In those areas on which a subbase or base course is to be placed, the top 12 inches of subgrade shall be compacted to

not less than 100 % of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by **ASTM D1557**. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

152-2.6 Preparation of embankment area. All sod and vegetative matter shall be removed from the surface upon which the embankment is to be placed. The cleared surface shall be broken up by plowing or scarifying to a minimum depth of 6 inches and shall then be compacted per paragraph 152-2.10.

Sloped surfaces steeper than one (1) vertical to four (4) horizontal shall be plowed, stepped, benched, or broken up so that the fill material will bond with the existing material. When the subgrade is part fill and part excavation or natural ground, the excavated or natural ground portion shall be scarified to a depth of 12 inches and compacted as specified for the adjacent fill.

No direct payment shall be made for the work performed under this section. The necessary clearing and grubbing and the quantity of excavation removed will be paid for under the respective items of work.

152-2.7 Control Strip. The first half-day of construction of subgrade and/or embankment shall be considered as a control strip for the Contractor to demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of this specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches upon the Contractor's demonstration that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not begin until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

152-2.8 Formation of embankments. The material shall be constructed in lifts as established in the control strip, but not less than 6 inches nor more than 12 inches of compacted thickness.

When more than one lift is required to establish the layer thickness shown on the plans, the construction procedure described here shall apply to each lift. No lift shall be covered by subsequent lifts until tests verify that compaction requirements have been met. The Contractor shall rework, re-compact and retest any material placed which does not meet the specifications.

The lifts shall be placed, to produce a soil structure as shown on the typical cross-section or as directed by the RPR. Materials such as brush, hedge, roots, stumps, grass and other organic matter, shall not be incorporated or buried in the embankment.

Earthwork operations shall be suspended at any time when satisfactory results cannot be obtained due to rain, freezing, or other unsatisfactory weather conditions in the field. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material. Material shall not be placed on surfaces that are muddy, frozen, or contain frost. The Contractor shall drag, blade, or slope the embankment to provide surface drainage at all times.

The material in each lift shall be within $\pm 2\%$ of optimum moisture content before rolling to obtain the prescribed compaction. The material shall be moistened or aerated as necessary to achieve a uniform moisture content throughout the lift. Natural drying may be accelerated by blending in dry material or manipulation alone to increase the rate of evaporation.

The Contractor shall make the necessary corrections and adjustments in methods, materials or moisture content to achieve the specified embankment density.

The Contractor will take samples of excavated materials which will be used in embankment for testing and develop a Moisture-Density Relations of Soils Report (Proctor) in accordance with **ASTM D 1557**. A new Proctor shall be developed for each soil type based on visual classification.

Density tests will be taken by the RPR for every 3,000 square yards of compacted embankment for each lift which is required to be compacted, or other appropriate frequencies as determined by the RPR.

If the material has greater than 30% retained on the 3/4-inch (19.0 mm) sieve, follow AASHTO T-180 Annex Correction of maximum dry density and optimum moisture for oversized particles.

Rolling operations shall be continued until the embankment is compacted to not less than 100% of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM **D1557**. Under all areas to be paved, the embankments shall be compacted to a depth of **6"** and to a density of not less than **95** percent of the maximum density as determined by ASTM **D1557**. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

~~On all areas outside of the pavement areas, no compaction will be required on the top [4 inches] which shall be prepared for a seedbed in accordance with [Item T-901] [T-906].~~

The in-place field density shall be determined in accordance with ASTM 6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938.. The Contractor's laboratory shall perform all density tests in the RPR's presence and provide the test results upon completion to the RPR for acceptance. If the specified density is not attained, the area represented by the test or as designated by the RPR shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

Compaction areas shall be kept separate, and no lift shall be covered by another lift until the proper density is obtained.

During construction of the embankment, the Contractor shall route all construction equipment evenly over the entire width of the embankment as each lift is placed. Lift placement shall begin in the deepest portion of the embankment fill. As placement progresses, the lifts shall be constructed approximately parallel to the finished pavement grade line.

When rock, concrete pavement, asphalt pavement, and other embankment material are excavated at approximately the same time as the subgrade, the material shall be incorporated into the outer portion of the embankment and the subgrade material shall be incorporated under the future paved areas. Stones, fragmentary rock, and recycled pavement larger than 4 inches in their greatest dimensions will not be allowed in the top 12 inches of the subgrade. Rockfill shall be brought up in lifts as specified or as directed by the RPR and the finer material shall be used to fill the voids forming a dense, compact mass. Rock, cement concrete pavement, asphalt pavement, and other embankment material shall not be disposed of except at places and in the manner designated on the plans or by the RPR.

When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in lifts of the prescribed thickness without crushing, pulverizing or further breaking down the pieces, such material may be placed in the embankment as directed in lifts not exceeding 2 feet in thickness. Each lift shall be leveled and smoothed with suitable equipment by distribution of spalls and finer fragments of rock. The lift shall not be constructed above an elevation 4 feet below the finished subgrade.

There will be no separate measurement of payment for compacted embankment. All costs incidental to placing in lifts, compacting, discing, watering, mixing, sloping, and other operations necessary for construction of embankments will be included in the contract price for excavation, borrow, or other items.

152-2.9 Proof rolling. The purpose of proof rolling the subgrade is to identify any weak areas in the subgrade and not for compaction of the subgrade. Before start of embankment, the subgrade area shall be proof rolled with a 15 ton Proof Roller with tires spaced not more than 32 inches on-center with tires inflated to 125 psi in the presence of the RPR. Apply a minimum of **50%** coverage, or as specified by the RPR, under pavement areas. A coverage is defined as the application of one tire print over the designated area. Soft areas of subgrade that deflect more than 1 inch or show permanent deformation greater than 1 inch shall be removed and replaced with suitable material or reworked to conform to the moisture content

and compaction requirements in accordance with these specifications. Removal and replacement of soft areas is incidental to this item.

152-2.10 Compaction requirements. The subgrade under areas to be paved shall be compacted to a depth of 12 inches and to a density of not less than 100 percent of the maximum dry density as determined by ASTM D1557. The subgrade in areas outside the limits of the pavement areas shall be compacted to a depth of 12 inches and to a density of not less than 95 percent of the maximum density as determined by ASTM D698.

The material to be compacted shall be within $\pm 2\%$ of optimum moisture content before being rolled to obtain the prescribed compaction (except for expansive soils). When the material has greater than 30 percent retained on the $\frac{3}{4}$ inch (19.0 mm) sieve, follow the methods in ASTM D1557. Tests for moisture content and compaction will be taken at a minimum of **3,000** S.Y. of subgrade. All quality assurance testing shall be done by the Contractor's laboratory in the presence of the RPR, and density test results shall be furnished upon completion to the RPR for acceptance determination.

The in-place field density shall be determined in accordance with ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938 within 12 months prior to its use on this contract. The gage shall be field standardized daily.

Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

If the specified density is not attained, the entire lot shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

All cut-and-fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the plans or as directed by the RPR and the finished subgrade shall be maintained.

152-2.11 Finishing and protection of subgrade. Finishing and protection of the subgrade is incidental to this item. Grading and compacting of the subgrade shall be performed so that it will drain readily. All low areas, holes or depressions in the subgrade shall be brought to grade. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the plans. All ruts or rough places that develop in the completed subgrade shall be graded, re-compacted, and retested. The Contractor shall protect the subgrade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes.

The Contractor shall maintain the completed course in satisfactory condition throughout placement of subsequent layers. No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been accepted by the RPR.

152-2.12 Haul. All hauling will be considered a necessary and incidental part of the work. The Contractor shall include the cost in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

The Contractor's equipment shall not cause damage to any excavated surface, compacted lift or to the subgrade as a result of hauling operations. Any damage caused as a result of the Contractor's hauling operations shall be repaired at the Contractor's expense.

The Contractor shall be responsible for providing, maintaining and removing any haul roads or routes within or outside of the work area, and shall return the affected areas to their former condition, unless otherwise authorized in writing by the Owner. No separate payment will be made for any work or materials associated with providing, maintaining and removing haul roads or routes.

152-2.13 Surface Tolerances. In those areas in which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches, reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence

of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

- a. **Smoothness.** The finished surface shall not vary more than +/- 1/2 inch when tested with a 12-foot straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot straightedge for the full length of each line on a 50-foot grid.
- b. **Grade.** The grade and crown shall be measured on a 50-foot grid and shall be within +/-0.05 feet of the specified grade.

On safety areas, turfed areas and other designated areas within the grading limits where no subbase or base is to be placed, grade shall not vary more than 0.10 feet from specified grade. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

152-2.14 Topsoil. When topsoil is specified or required as shown on the plans or under Item T-905, it shall be salvaged from stripping or other grading operations. The topsoil shall meet the requirements of Item T-905. If, at the time of excavation or stripping, the topsoil cannot be placed in its final section of finished construction, the material shall be stockpiled at approved locations. Stockpiles shall be located as shown on the plans and the approved CSPP, and shall not be placed on areas that subsequently will require any excavation or embankment fill. If, in the judgment of the RPR, it is practical to place the salvaged topsoil at the time of excavation or stripping, the material shall be placed in its final position without stockpiling or further re-handling.

Upon completion of grading operations, stockpiled topsoil shall be handled and placed as shown on the plans and as required in Item T-905. Topsoil shall be paid for as provided in Item T-905. No direct payment will be made for topsoil under Item P-152.

METHOD OF MEASUREMENT

152-3.1 The quantity of excavation/embankment to be paid for shall be the number of cubic yards measured in its original position. Measurement shall not include the quantity of materials excavated without authorization beyond normal slope lines, or the quantity of material used for purposes other than those directed.

Measurement of excavation/embankment shall be based on plan quantities. These quantities are believed to be correct and shall be utilized for final excavation quantity payment notwithstanding any adjustments to the project by written direction of the Engineer. Should the contractor find discrepancies and/or errors, he/she shall bring the discrepancy and/or error to the attention of the Engineer immediately and corrections shall be made to the quantity of excavation to be paid for by change order. It is expressly understood by the contractor that upon disturbance of the existing ground and no notification to the engineer of possible errors, that the contractor accepts as final payment the quantities of excavation as detailed on the plans and laid out in the proposal. No adjustment has been made to the plan quantities for the construction or demolition of existing drainage structures. The Contractor shall make his own determination as to the amount of unsuitable excavated material which may be encountered and the resulting additional borrow material required for the construction of the embankment. There will be no adjustment for additional embankment required to construct the project if the excavated material is deemed unsuitable.

152-3.2 Borrow material shall be paid for on the basis of the number of cubic yards measured in its original position at the borrow pit.

152-3.3 Stockpiled material shall be paid for on the basis of the number of cubic yards measured in the stockpiled position as soon as the material has been stockpiled.

152-3.2 For payment specified by the cubic yard, measurement for all excavation/embankment shall be computed by the average end area method. The end area is that bound by the original ground line established by field cross-sections and the final theoretical pay line established by excavation/embankment cross-sections shown on the plans, subject to verification by the Engineer. After completion of all

excavation/embankment operations and prior to the placing of base or subbase material, the final excavation/embankment shall be verified by the Engineer by means of field cross-sections taken randomly at intervals not exceeding 500 linear feet.

In cut sections, the additional cut required to construct the topsoil layer to the plan grade has not been measured and will not be measured for separate payment but will be subsidiary to "Unclassified Excavation". In fill sections, the additional fill required to replace the stripped material has not been measured and will not be measured for payment but will be subsidiary to "Embankment".

No allowance has been made in the measurement for shrink/swell. The Contractor shall make his own determination as to the amount of shrink/swell involved in the construction of the embankment.

The Contractor shall make his own determination as to the suitability of the excavated material to be placed in embankments and the resulting additional off-site material required for the construction of the embankment. Additional off-site material required for the formation of embankment shall not be measured for separate payment but shall be considered subsidiary to "Unclassified Excavation".

152-3.3 *Unsuitable excavation shall be measured from the surface of the ground, after stripping has been accomplished, or from the bottom of the planned excavation, to the depth of the excavation as directed by the Engineer. Measurements will be taken by the Engineer, and the volume of excavation will be calculated by the average end area method. The necessary refilling of unsuitable areas will not be measured for separate payment but will be subsidiary to "Unsuitable Excavation". Only that amount of excavation directed by the Engineer will be measured for payment.*

BASIS OF PAYMENT

152-4.1 Unclassified excavation payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

152-4.2 For embankment in place, payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

152-4.4 *Unsuitable excavation shall be paid for at the contract unit price bid per cubic yard for "Unsuitable Excavation", which price shall be full compensation for all excavation; for disposal or placement of unsuitable material (in accordance with section 152-1.3), including loading, hauling, spreading, and compaction; for compaction and preparation of subgrade; for the refilling, rolling, and compaction of all undercut areas; and for all equipment, tools, labor, and incidentals necessary to complete the work.*

Payment will be made under:

Item P-152-4.1	Unclassified Excavation - per cubic yard
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REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO T-180	Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop
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ASTM International (ASTM)

ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft ³ (600 kN-m/m ³))
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ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft ³ (2700 kN-m/m ³))
ASTM D6938	Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
Advisory Circulars (AC)	
AC 150/5370-2	Operational Safety on Airports During Construction Software
Software	
FAARFIELD – FAA Rigid and Flexible Iterative Elastic Layered Design	
U.S. Department of Transportation	
FAA RD-76-66	Design and Construction of Airport Pavements on Expansive Soils

END OF ITEM P-152

ITEM P-620 RUNWAY AND TAXIWAY MARKING

DESCRIPTION

620-1.1 This item shall consist of the preparation and painting of numbers, markings, and stripes on the surface of runways, taxiways, and aprons, in accordance with these specifications and at the locations shown on the plans, or as directed by the Resident Project Representative (RPR). The terms “paint” and “marking material” as well as “painting” and “application of markings” are interchangeable throughout this specification.

MATERIALS

620-2.1 Materials acceptance. The Contractor shall furnish manufacturer’s certified test reports, for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. This certification along with a copy of the paint manufacturer’s surface preparation; marking materials, including adhesion, flow promoting and/or floatation additive; and application requirements must be submitted and approved by the Resident Project Representative (RPR) prior to the initial application of markings. The reports can be used for material acceptance or the RPR may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the RPR upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers that are easily quantifiable for inspection by the RPR.

620-2.2 Marking materials.

Table 1. Marking Materials

Paint ¹				Glass Beads ²	
Type	Color	Fed Std. 595 Number	Application Rate Maximum	Type	Application Rate Minimum
Waterborne, Type II	White	37925	115 ft ² /gal	I	8 lb/gal
Waterborne, Type II	Yellow	33538 or 33655	115 ft ² /gal	I	8 lb/gal
Waterborne, Type II	Black	37038	115 ft ² /gal		

¹ See paragraph 620-2.2a

² See paragraph 620-2.2b

a. Paint. Paint shall be waterborne in accordance with the requirements of this paragraph. Paint colors shall comply with Federal Standard No. 595. **White – 37925, Yellow – 33538 or 33655, and Black - 37038.**

Waterborne. Paint shall meet the requirements of Federal Specification TT-P-1952F, Type II. The non-volatile portion of the vehicle for all paint types shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis. The acrylic resin used for Type III shall be 100% cross linking acrylic as evidenced by infrared peaks at wavelengths 1568, 1624, and 1672 cm-1 with intensities equal to those produced by an acrylic resin known to be 100% cross linking.

b. Reflective media. Glass beads for white and yellow paint shall meet the requirements for Federal Specification TT-B-1325D Type I.

~~Glass beads for red and pink paint shall meet the requirements for Type I, Gradation A.~~

Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

Glass beads shall not be used in black and green paint.

Type III glass beads shall not be used in red and pink paint.

CONSTRUCTION METHODS

620-3.1 Weather limitations. Painting shall only be performed when the surface is dry, and the ambient temperature and the pavement surface temperature meet the manufacturer's recommendations in accordance with paragraph 620-2.1. Painting operations shall be discontinued when the ambient or surface temperatures does not meet the manufacturer's recommendations. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns. Markings shall not be applied when weather conditions are forecasts to not be within the manufacturers' recommendations for application and dry time.

620-3.2 Equipment. Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless type marking machine with automatic glass bead dispensers suitable for application of traffic paint. It shall produce an even and uniform film thickness and appearance of both paint and glass beads at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray. The marking equipment for both paint and beads shall be calibrated daily.

620-3.3 Preparation of surfaces. Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other contaminants that would reduce the bond between the paint and the pavement. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the RPR. After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process.

a. Preparation of new pavement surfaces. The area to be painted shall be cleaned by broom, blower, water blasting, or by other methods approved by the RPR to remove all contaminants, including PCC curing compounds, minimizing damage to the pavement surface.

b. Preparation of pavement to remove existing markings. Existing pavement markings shall be removed by rotary grinding, water blasting, or by other methods approved by the RPR minimizing damage to the pavement surface. The removal area may need to be larger than the area of the markings to eliminate ghost markings. After removal of markings on asphalt pavements, apply a fog seal or seal coat to 'block out' the removal area to eliminate 'ghost' markings.

c. Preparation of pavement markings prior to remarking. Prior to remarking existing markings, loose existing markings must be removed minimizing damage to the pavement surface, with a method approved by the RPR. After removal, the surface shall be cleaned of all residue or debris.

Prior to the application of markings, the Contractor shall certify in writing that the surface is dry and free from dirt, grease, oil, laitance, or other foreign material that would prevent the bond of the paint to the pavement or existing markings. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the RPR prior to the initial application of markings.

620-3.4 Layout of markings. The proposed markings shall be laid out in advance of the paint application. ~~The locations of markings to receive glass beads shall be shown on the plans.~~

620-3.5 Application. A period of **30** days shall elapse between placement of surface course or seal coat and application of the permanent paint markings. Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the RPR.

The edges of the markings shall not vary from a straight line more than 1/2 inch in 50 feet, and marking dimensions and spacing shall be within the following tolerances:

Marking Dimensions and Spacing Tolerance

Dimension and Spacing	Tolerance
36 inch or less	±1/2 inch
greater than 36 inch to 6 feet	±1 inch
greater than 6 feet to 60 feet	±2 inch
greater than 60 feet	±3 inch

The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate shown in Table 1. The addition of thinner will not be permitted.

Glass beads shall be distributed upon the marked areas at the locations shown on the plans to receive glass beads immediately after application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate shown in Table 1. Glass beads shall not be applied to black paint or green paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Different bead types shall not be mixed. Regular monitoring of glass bead embedment and distribution should be performed.

620-3.6 Application--preformed thermoplastic airport pavement markings.

Preformed thermoplastic pavement markings not used.

620-3.7 Control strip. Prior to the full application of airfield markings, the Contractor shall prepare a control strip in the presence of the RPR. The Contractor shall demonstrate the surface preparation method and all striping equipment to be used on the project. The marking equipment must achieve the prescribed application rate of paint and population of glass beads (per Table 1) that are properly embedded and evenly distributed across the full width of the marking. Prior to acceptance of the control strip, markings must be evaluated during darkness to ensure a uniform appearance.

620-3.8 Retro-reflectance. Reflectance shall be measured with a portable retro-reflectometer meeting ASTM E1710 (or equivalent). A total of 6 reading shall be taken over a 6 square foot area with 3 readings taken from each direction. The average shall be equal to or above the minimum levels of all readings which are within 30% of each other.

Minimum Retro-Reflectance Values

Material	Retro-reflectance mcd/m ² /lux		
	White	Yellow	Red
Initial Type I	300	175	35
Initial Type III	600	300	35
Initial Thermoplastic	225	100	35
All materials, remark when less than ¹	100	75	10

¹ Prior to remarking determine if removal of contaminants on markings will restore retro-reflectance

620-3.9 Protection and cleanup. After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the RPR. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and federal environmental statutes and regulations.

METHOD OF MEASUREMENT

620-4.1a The quantity of surface preparation shall be *subsidiary to the item in which it is contained*. ~~measured by the number of square feet for each type of surface preparation specified in paragraph 620-3.3.~~

620-4.1b The quantity of markings shall be paid for shall be measured by the number of square feet of painting.

620-4.1c The quantity of reflective media shall *subsidiary to the item in which it is contained*. ~~be paid for by [the number of pounds] [lump sum] of reflective media.~~

BASIS OF PAYMENT

620-5.1a This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item complete in place and accepted by the RPR in accordance with these specifications.

620-5.1a ~~Payment for surface preparation shall be made at the contract price for [the number of square feet for each type of surface preparation specified in paragraph 620-3.3] [lump sum].~~

620-5.1b Payment for markings shall be made at the contract price for by the number of square feet of painting.

620-5.2 *Pavement marking removal shall be measured by number of square feet of markings removed in accordance with the specifications and accepted by the Engineer.*

620-5.3c ~~Payment for reflective media shall be made at the contract price for [the number of pounds of reflective media] [lump sum].~~

Payment will be made under:

Item P-620-5.1a	Pavement Markings, Yellow (Type I Reflective Media) - per square foot
Item P-620-5.1b	Pavement Markings, Black (No Reflective Media) - per square foot
Item P-620-5.1c	Pavement Markings, White (Type I Reflective Media) - per square foot
Item P-620-5.2	Pavement Markings Removal

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM D476	Standard Classification for Dry Pigmentary Titanium Dioxide Products
ASTM D968	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
ASTM D1652	Standard Test Method for Epoxy Content of Epoxy Resins
ASTM D2074	Standard Test Method for Total, Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method

ASTM D2240	Standard Test Method for Rubber Property - Durometer Hardness
ASTM D7585	Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments
ASTM E303	Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
ASTM E1710	Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer
ASTM E2302	Standard Test Method for Measurement of the Luminance Coefficient Under Diffuse Illumination of Pavement Marking Materials Using a Portable Reflectometer
ASTM G154	Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials

Code of Federal Regulations (CFR)

40	CFR	Part	60,	Appendix	A-7,	Method	24
Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings							

29 CFR Part 1910.1200 Hazard Communication

Federal Specifications (FED SPEC)

FED SPEC TT-B-1325DBeads (Glass Spheres) Retro-Reflective	
FED SPEC TT-P-1952F	Paint, Traffic and Airfield Marking, Waterborne
FED STD 595	Colors used in Government Procurement

Commercial Item Description

A-A-2886B	Paint, Traffic, Solvent Based
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Advisory Circulars (AC)

AC 150/5340-1	Standards for Airport Markings
AC 150/5320-12	Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces

END OF ITEM P-620

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Item 104

Removing Concrete



1. DESCRIPTION

Break, remove, and salvage or dispose of existing hydraulic cement concrete.

2. CONSTRUCTION

Remove existing hydraulic cement concrete from locations shown on the plans. Avoid damaging concrete that will remain in place. Saw-cut and remove the existing concrete to neat lines. Replace **or repair** any concrete damaged by the Contractor at no expense to the Department. Owner **by methods approved by the engineer**. Accept ownership and properly dispose of broken concrete in accordance with federal, state, and local regulations unless otherwise shown on the plans.

3. MEASUREMENT

Removing concrete pavement, floors, porches, patios, riprap, medians, foundations, sidewalks, driveways, and other appurtenances will be measured by the square yard (regardless of thickness) or by the cubic yard of calculated volume, in its original position.

Removing curb, curb and gutter, and concrete traffic barrier **shall not be measured for separate payment but shall be considered subsidiary to pavement and/or sidewalk removal**. will be measured by the foot in its original position. The removal of monolithic concrete curb or doweled concrete curb will be included in the concrete pavement measurement.

Removing retaining walls will be measured by the square yard along the front face from the top of the wall to the top of the footing.

This is a plans quantity measurement item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

The unit of measurement for 'Pavement Removal' shall be the number of square yards removed by the Contractor regardless of thickness. In areas to be replaced with a proposed pavement section; all pavement, existing base, and soil shall be removed to the bottom of the proposed section. All soil and base to be removed shall be removed according to the embankment specification. In areas to be replaced with unpaved areas, the ground shall be prepared according to the embankment specification and built back to proposed grade lines or existing grades lines if proposed grade lines are not given. Any pavement removed outside the limits of removal because the pavement was damaged by negligence on the part of the Contractor shall not be included in the measurement for payment.

"Concrete Pavement Removal" shall be paid for by the square yard of concrete pavement material removed (regardless of thickness).

"Sidewalk Removal" shall be paid for by the square yard of sidewalk pavement removal (regardless of thickness).

4. 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 "Removing Concrete" of the type specified. This price is full compensation for breaking the concrete; loading, hauling, and salvaging or disposing of the material; and equipment, labor, tools, and incidentals.

~~Removing retaining wall footings will not be paid for directly but will be considered subsidiary to this Item.~~

Payment will be made under:

Item TX-104-5.1

Concrete Pavement Removal — per square yard

Item 105

Removing Treated and Untreated Base and Asphalt Pavement



1. DESCRIPTION

Break, remove, and store or dispose of existing asphalt pavement, including surface treatments, and treated or untreated base materials.

2. CONSTRUCTION

Break material retained by the Department into pieces not larger than 24 in. unless otherwise shown on the plans. Remove existing asphalt pavement before disturbing stabilized base. Avoid contamination of the asphalt materials and damage to adjacent areas. Repair material damaged by operations outside the designated locations.

~~Stockpile materials designated salvageable at designated sites when shown on the plans or as directed. Prepare stockpile site by removing vegetation and trash and by providing for proper drainage. Material not designated to be salvaged will become the property of the Contractor. When this material is disposed of, do so in accordance with federal, state, and local regulations.~~ **All existing pavement removed shall be disposed of off-site. All hauling will be considered a necessary and incidental part of the work. Its costs shall be considered by the Contractor and included in the contract unit price for the pay items of work involved. No payment will be made separately or directly for hauling on any part of the work.**

Pavement designated to remain shall be protected. Contractor is responsible for repairing any damage to pavement designated to remain by methods approved by the engineer.

3. MEASUREMENT

~~This Item will be measured by the 100-ft. station along the baseline of each roadbed, by the square yard of existing treated or untreated base and asphalt pavement in its original position, or by the cubic yard of existing treated or untreated base and asphalt pavement in its original position, as calculated by the average end area method. Square yard and cubic yard measurement will be established by the widths and depths shown on the plans and the lengths measured in the field.~~

The unit of measurement for pavement removal shall be the number of square yards removed by the Contractor regardless of thickness. In areas to be replaced with a proposed pavement section; all pavement, existing base, and soil shall be removed to the bottom of the proposed section. All soil and base to be removed shall be removed according to the embankment specification. In areas to be replaced with unpaved areas, the ground shall be prepared according to the embankment specification and built back to proposed grade lines or existing grade lines if proposed grade lines are not given. Any pavement removed outside the limits of removal because the pavement was damaged by negligence on the part of the Contractor shall not be included in the measurement for payment.

4. PAYMENT

The work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "**Asphalt Pavement Removal** Removing Treated and Untreated Base and Asphalt Pavement" of the depth specified. This price is full compensation for breaking the material, loading, hauling, unloading, stockpiling or disposing; repair to areas outside designated locations for removal; and

equipment, labor, tools, and incidentals.

Payment will be made under:

Item TX-105-5.1

Asphalt Pavement Removal — per square yard

Item 162

Sodding for Erosion Control



1. DESCRIPTION

Provide and install grass sod as shown on the plans or as directed.

2. MATERIALS

Use live, growing grass sod of the type specified on the plans. Use grass sod with a healthy root system and dense matted roots throughout the soil of the sod for a minimum thickness of 1 in. Do not use sod from areas where the grass is thinned out. Keep sod material moist from the time it is dug until it is planted. Grass sod with dried roots is unacceptable.

- 2.1. **Block Sod.** Use block, rolled, or solid sod free from noxious weeds, Johnson grass, other grasses, or any matter deleterious to the growth and subsistence of the sod.
- 2.2. **Mulch Sod.** Use mulch sod from an approved source, free from noxious weeds, Johnson grass, other grasses, or any matter deleterious to the growth and subsistence of the sod.
- 2.3. **Fertilizer.** Furnish fertilizer in accordance with Article 166.2., "Materials."
- 2.4. **Water.** Furnish water in accordance with Article 168.2., "Materials."
- 2.5. **Mulch.** Use straw mulch consisting of oat, wheat, or rice straw or hay mulch of either Bermudagrass or prairie grasses. Use straw or hay mulch free of Johnson grass and other noxious and foreign materials. Keep the mulch dry and do not use molded or rotted material.
- 2.6. **Tacking Methods.** Use a tacking agent applied in accordance with the manufacturer's recommendations or a crimping method on all straw or hay mulch operations. Use tacking agents as approved or as specified on the plans.

3. CONSTRUCTION

Cultivate the area to a depth of 4 in. before placing the sod. Plant the sod specified and mulch, if required, after the area has been completed to lines and grades as shown on the plans. Apply fertilizer uniformly over the entire area in accordance with Article 166.3., "Construction," and water in accordance with Article 168.3., "Construction." Plant between the average date of the last freeze in the Spring and 6 weeks before the average date for the first freeze in the Fall according to the Texas Almanac for the project area.

- 3.1. **Sodding Types.**
- 3.1.1. **Spot Sodding.** Use only Bermudagrass sod. Create furrows parallel to the roadway, approximately 5 in. deep and on 18-in. centers. Sod a continuous row not less than 3 in. wide in the 2 furrows adjacent to the roadway. Place 3-in. squares of sod on 15-in. centers in the remaining furrows. Place sod so that the root system will be completely covered by the soil. Firm all sides of the sod with the soil without covering the sod with soil.
- 3.1.2. **Block Sodding.** Place sod over the prepared area. Roll or tamp the sodded area to form a thoroughly compacted, solid mat filling all voids in the sodded area with additional sod. Trim and remove all visible netting and backing materials. Keep sod along edges of curbs, driveways, walkways, etc., trimmed until acceptance.

- 3.1.3. **Mulch Sodding.** Mow sod source to no shorter than 4 in., rake and remove cuttings. Disk the sod in 2 directions, cutting the sod to a minimum of 4 in. Excavate the sod material to a depth of no more than 6 in. Keep excavated material moist or it will be rejected. Distribute the mulch sod uniformly over the area to a depth of 6 in. loose, unless otherwise shown on the plans, and roll with a light roller or other suitable equipment.
- Add or reshape the mulch sod to meet the requirements of Section 162.3.2., "Finishing."
- 3.2. **Finishing.** Smooth and shape the area after planting to conform to the desired cross-sections. Spread any excess soil uniformly over adjacent areas or dispose of the excess soil as directed.
- 3.3. **Straw or Hay Mulch.** Apply straw or hay mulch for "Spot Sodding" and "Mulch Sodding" uniformly over the area as shown on the plans. Apply straw mulch at 2 to 2-1/2 tons per acre. Apply hay mulch at 1-1/2 to 2 tons per acre. Use a tacking method over the mulched area.
- 3.4. **Establishing Turf.**
- 3.4.1. **General.** *The Contractor shall provide general care for the sodded areas as soon as the sod has been laid and shall continue until final inspection and acceptance of the work.*
- 3.4.2. **Protection.** *All sodded areas shall be protected against traffic or other use by warning signs or barricades approved by the Engineer.*
- 3.4.3. **Mowing.** *The Contractor shall mow the sodded areas with approved mowing equipment, depending upon climatic and growth conditions and the needs for mowing specific areas. In the event that weeds or other undesirable vegetation are permitted to grow to such an extent that, either cut or uncut, they threaten to smother the sodded species, they shall be mowed and the clippings raked and removed from the area.*
- 3.4.4. **Repairing.** *When the surface has become gullied or otherwise damaged during the period covered by this contract, the affected areas shall be repaired to re-establish the grade and the condition of the soil, as directed by the Engineer, and shall then be sodded as specified in paragraph 3.1.2.*
- 3.4.5. **Watering.** *Contractor shall water sod in accordance with Tx-168 Vegetative Watering and this specification. Adequate water and watering equipment must be on hand before sodding begins, and sod shall be kept moist until it has become established and its continued growth assured. In all cases, watering shall be done in a manner that will avoid erosion from the application of excessive quantities and will avoid damage to the finished surface.*

4. MEASUREMENT

"Spot Sodding," "Block Sodding," and "Straw or Hay Mulch" will be measured by the square yard in its final position. "Mulch Sodding" will be measured by the square yard in its final position or by the cubic yard in vehicles as delivered to the planting site.

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 "Spot Sodding," "Block Sodding," "Straw or Hay Mulch," or "Mulch Sodding." This price is full compensation for securing a source, excavation, loading, hauling, placing, rolling, finishing, furnishing materials, equipment, labor, tools, supplies, and incidentals. Fertilizer will not be paid for directly but will be subsidiary to this Item.

Unless otherwise specified on the plans, water, except for that used for maintaining and preparing the sod before planting, will be measured and paid for in accordance with Item 168, "Vegetative Watering." **All watering associated with maintaining, preparing, and establishing the sod shall be considered**

subsidiary to TX-162 Sodding for Erosion Control.

Payment will be made under:

Item TX 162- 5.1 Block Sodding — per Square Yard

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Item 260

Lime Treatment (Road-Mixed)



1. DESCRIPTION

Mix and compact lime, water, and subgrade or base (with or without asphaltic concrete pavement) in the roadway.

2. MATERIALS

Furnish uncontaminated materials of uniform quality that meet the requirements of the plans and specifications. Notify the Engineer of the proposed material sources and of changes to material sources. Obtain verification from the Engineer that the specification requirements are met before using the sources. The Engineer may sample and test project materials at any time before compaction. Use Tex-100-E for material definitions.

- 2.1. **Lime.** Furnish lime that meets the requirements of DMS-6350 "Lime and Lime Slurry," and DMS-6330, "Pre-Qualification of Lime Sources." Use hydrated lime, commercial lime slurry, quicklime, or carbide lime slurry as shown on the plans. Do not use quicklime when sulfates are present in quantities greater than 3,000 ppm. When furnishing quicklime, provide it in bulk.
- 2.2. **Subgrade.** The Engineer will determine the sulfate content of the existing subgrade in accordance with Tex-145-E and organic content in accordance with Tex-148-E before lime treatment begins. Suspend operations when material to be treated has a sulfate content greater than 7,000 ppm or an organic content greater than 1.0% and proceed as directed.
- 2.3. **Flexible Base.** Unless otherwise shown on the plans, furnish base material that meets the requirements of Item 247, "Flexible Base," for the type and grade shown on the plans, before the addition of lime.
- 2.4. **Water.** Furnish water free of industrial wastes and other objectionable material.
- 2.5. **Asphalt.** When asphalt or emulsion is permitted for curing purposes, furnish materials that meet the requirements of Item 300, "Asphalts, Oils, and Emulsions," as shown on the plans or as directed.
- 2.6. **Mix Design.** The Engineer will determine the target lime content and optimum moisture content in accordance with Tex-121-E or prior experience with the project materials. The Contractor may propose a mix design developed in accordance with Tex-121-E. The Engineer will use Tex-121-E to verify the Contractor's proposed mix design before acceptance. Reimburse the Department for subsequent mix designs or partial designs necessitated by changes in the material or requests by the Contractor. Limit the amount of recycled asphalt pavement to no more than 50% of the mix unless otherwise shown on the plans or directed.

3. EQUIPMENT

Provide machinery, tools, and equipment necessary for proper execution of the work. Provide rollers in accordance with Item 210, "Rolling." Provide proof rollers in accordance with Item 216, "Proof Rolling," when required.

- 3.1. **Storage Facility.** Store quicklime and dry hydrated lime in closed, weatherproof containers.
- 3.2. **Slurry Equipment.** Use slurry tanks equipped with agitation devices to slurry hydrated lime or quicklime on the project or other approved location. The Engineer may approve other slurring methods.

- 3.3. Provide a pump for agitating the slurry when the distributor truck is not equipped with an agitator. Equip the distributor truck with a sampling device in accordance with Tex-600-J, Part I, when using commercial lime slurry or carbide lime slurry.
- 3.4. **Hydrated Lime Distribution Equipment.** Provide equipment to spread lime evenly across the area to be treated. Provide equipment with a rotary vane feeder to spread lime, when shown on the plans.
- 3.5. **Pulverization Equipment.** Provide pulverization equipment that:
- cuts and pulverizes material uniformly to the proper depth with cutters that plane to a uniform surface over the entire width of the cut,
 - provides a visible indication of the depth of cut at all times, and
 - uniformly mixes the materials.

4. CONSTRUCTION

Construct each layer uniformly, free of loose or segregated areas, and with the required density and moisture content. Provide a smooth surface that conforms to the typical sections, lines, and grades shown on the plans or as directed.

- 4.1. **Preparation of Subgrade or Existing Base for Treatment.** Before treating, remove existing asphalt pavement in accordance with Item 105, "Removing Treated and Untreated Base and Asphalt Pavement," when shown on the plans or as directed. Shape existing material in accordance with applicable bid items to conform to typical sections shown on the plans and as directed.

Unless otherwise approved, proof roll the roadbed in accordance with Item 216, "Proof Rolling," before pulverizing or scarifying existing material. Correct soft spots as directed.

When material is imported from a borrow source, notify the Engineer of the location of the borrow source well in advance to allow time for testing and approval to avoid delay to the project. Stockpile as directed. The Engineer will test the borrow source and determine the sulfate and organic contents. When the borrow source has a sulfate content greater than 3,000 ppm or an organic content greater than 1.0%, proceed as directed.

When new base material is required to be mixed with existing base, deliver, place, and spread the new material in the required amount per station. Manipulate and thoroughly mix new base with existing material to provide a uniform mixture to the specified depth before shaping.

- 4.2. **Pulverization.** Pulverize or scarify existing material after shaping so that 100% passes a 2-1/2 in. sieve. If the material cannot be uniformly processed to the required depth in a single pass, excavate and windrow the material to expose a secondary grade to achieve processing to plan depth.

- 4.3. **Application of Lime.** Uniformly apply lime using ~~dry~~ or slurry placement as shown on the plans or as directed. Add lime at the percentage determined in Section 260.2.6., "Mix Design." Apply lime only on an area where mixing can be completed during the same working day.

Start lime application only when the air temperature is at least 35°F and rising or is at least 40°F. The temperature will be taken in the shade and away from artificial heat. Suspend application when the Engineer determines that weather conditions are unsuitable.

Minimize dust and scattering of lime by wind. Do not apply lime when wind conditions, in the opinion of the Engineer, cause blowing lime to become dangerous to traffic or objectionable to adjacent property owners. ~~When pebble grade quicklime is placed dry, mix the material and lime thoroughly at the time of lime application.~~ Use of quicklime can be dangerous. Inform users of the recommended precautions for handling and storage.

4.3.1. **Dry Placement.** Before applying lime, bring the prepared roadway to approximately 2 percentage points above optimum moisture content. When necessary, sprinkle in accordance with Item 204, "Sprinkling." Distribute the required quantity of hydrated lime or pebble grade quicklime with approved equipment. Only hydrated lime may be distributed by bag. Do not use a motor grader to spread hydrated lime.

4.3.2. **Slurry Placement.** Provide slurry free of objectionable materials, at or above the minimum dry solids content, and with a uniform consistency that will allow ease of handling and uniform application. Deliver commercial lime slurry or carbide lime slurry to the jobsite, or use hydrated lime or quicklime to prepare lime slurry at the jobsite or other approved location, as specified. When dry quicklime is applied as slurry, use 80% of the amount shown on the plans.

Distribute slurry uniformly by making successive passes over a measured section of roadway until the specified lime content is reached. Uniformly spread the residue from quicklime slurry over the length of the roadway being processed, unless otherwise directed.

4.4. **Mixing.** Begin mixing within 6 hr. of application of lime. Hydrated lime exposed to the open air for 6 hr. or more between application and mixing, or that experiences excessive loss due to washing or blowing, will not be accepted for payment.

Thoroughly mix the material and lime using approved equipment. When treating subgrade, bring the moisture content above the optimum moisture content to insure adequate chemical reaction of the lime and subgrade materials. Allow the mixture to mellow for 1 to 4 days, as directed. When pebble grade quicklime is used, allow the mixture to mellow for 2 to 4 days, as directed. Sprinkle the treated materials during the mixing and mellowing operation, as directed, to achieve adequate hydration and proper moisture content. When the material to be treated has a sulfate content greater than 3,000 ppm but less than or equal to 7,000 ppm, mellow for a minimum of 7 days. Maintain in a continuously moist condition by sprinkling in accordance with Item 204, "Sprinkling." After mellowing, resume mixing until a homogeneous, friable mixture is obtained. After mixing, the Engineer may sample the mixture at roadway moisture and test in accordance with Tex-101-E, Part III, to determine compliance with the gradation requirements in Table 1.

Table 1
Gradation Requirements (Minimum % Passing)

Sieve Size	Base	Subgrade
1-3/4"	100	100
3/4"	85	85
#4	-	60

4.5. **Compaction.** Compact the mixture using density control, unless otherwise shown on the plans. Multiple lifts are permitted when shown on the plans or approved. Bring each layer to the moisture content directed. Sprinkle the treated material in accordance with Item 204, "Sprinkling" or aerate the treated material to adjust the moisture content during compaction so that it is no more than 1.0 percentage points below optimum and 2.0 percentage points above optimum as determined by Tex-121-E. Measure the moisture content of the material in accordance with Tex-115-E or Tex-103-E during compaction daily and report the results the same day, unless otherwise shown on the plans or directed.

Begin rolling longitudinally at the sides and proceed toward the center, overlapping on successive trips by at least 1/2 the width of the roller unit. On superelevated curves, begin rolling at the low side and progress toward the high side. Offset alternate trips of the roller. Operate rollers at a speed between 2 and 6 mph as directed.

Before final acceptance, the Engineer will select the locations of tests in each unit and measure the treated depth in accordance with Tex-140-E. Correct areas deficient by more than 1/2 in. in thickness or more than 1/2% in target lime content by adding lime as required, reshaping, recompacting, and refinishing at the Contractor's expense.

Rework, recompact, and refinish material that fails to meet or that loses required moisture, density, stability, or finish before the next course is placed or the project is accepted. Continue work until specification

requirements are met. Rework in accordance with Section 260.4.6., "Reworking a Section." Perform the work at no additional expense to the Department.

- 4.5.1. **Ordinary Compaction.** Roll with approved compaction equipment, as directed. Correct irregularities, depressions, and weak spots immediately by scarifying the areas affected, adding or removing treated material as required, reshaping, and recompacting.
- 4.5.2. **Density Control.** The Engineer will determine roadway density and moisture content of completed sections in accordance with Tex-115-E. The Engineer may accept the section if no more than 1 of the 5 most recent density tests is below the specified density and the failing test is no more than 3 pcf below the specified density.
- 4.5.2.1. **Subgrade.** Compact to at least 95% of the maximum density determined in accordance with Tex-121-E, unless otherwise shown on the plans.
- 4.5.2.2. **Base.** Compact the bottom course to at least 95% of the maximum density determined in accordance with Tex-121-E, unless otherwise shown on the plans. Compact subsequent courses treated under this Item to at least 98% of the maximum density determined in accordance with Tex-121-E, unless otherwise shown on the plans.
- 4.6. **Reworking a Section.** When a section is reworked within 72 hr. after completion of compaction, rework the section to provide the required density. When a section is reworked more than 72 hr. after completion of compaction, add additional lime at 25% of the percentage determined in Section 260.2.6., "Mix Design." Reworking includes loosening, adding material or removing unacceptable material if necessary, mixing as directed, compacting, and finishing. When density control is specified, determine a new maximum density of the reworked material in accordance with Tex-121-E, and compact to at least 95% of this density.
- 4.7. **Finishing.** Immediately after completing compaction of the final course, clip, skin, or tight-blade the surface of the lime-treated material with a maintainer or subgrade trimmer to a depth of approximately 1/4 in. Remove loosened material and dispose of at an approved location. Roll the clipped surface immediately with a pneumatic tire roller until a smooth surface is attained. Add small amounts of water as needed during rolling. Shape and maintain the course and surface in conformity with the typical sections, lines, and grades shown on the plans or as directed.
- Finish grade of constructed subgrade to within 0.1 ft. in the cross-section and 0.1 ft. in 16 ft. measured longitudinally.
- Correct grade deviations of constructed base greater than 1/4 in. in 16 ft. measured longitudinally or greater than 1/4 in. over the entire width of the cross-section in areas where surfacing is to be placed. Remove excess material, reshape, and roll with a pneumatic-tire roller. Correct as directed if material is more than 1/4 in. low. Do not surface patch. The 72-hr. time limit required for completion of placement, compaction, and finishing does not apply to finishing required just before applying the surface course.
- 4.8. **Curing.** Cure for the minimum number of days shown in Table 2 by sprinkling in accordance with Item 204, "Sprinkling," or by applying an asphalt material at a rate of 0.05 to 0.20 gal. per square yard as directed. Maintain moisture during curing. Upon completion of curing, maintain the moisture content in accordance with Section 132.3.5., "Maintenance of Moisture and Reworking," for subgrade and Section 247.4.5., "Curing" for bases before placing subsequent courses. Do not allow equipment on the finished course during curing except as required for sprinkling, unless otherwise approved. Apply seals or additional courses within 14 calendar days of final compaction.

Table 2
Minimum Curing Requirements before Placing Subsequent Courses¹

Untreated Material	Curing (Days)
PI ≤ 35	2
PI > 35	5

1. Subject to the approval of the Engineer. Proof rolling may be required as an indicator of adequate curing.

5. MEASUREMENT

5.1. **Lime.** When lime is furnished in trucks, the weight of lime will be determined on certified scales, or the Contractor must provide a set of standard platform truck scales at a location approved by the Engineer. Scales must conform to the requirements of Item 520, "Weighing and Measuring Equipment."

When lime is furnished in bags, indicate the manufacturer's certified weight. Bags varying more than 5% from that weight may be rejected. The average weight of bags in any shipment, as determined by weighing 10 bags taken at random, must be at least the manufacturer's certified weight.

5.1.1. **Hydrated Lime.**

5.1.1.1. **Dry.** Lime will be measured by the ton (dry weight).

5.1.1.2. **Slurry.** Lime slurry will be measured by the ton (dry weight) of the hydrated lime used to prepare the slurry at the jobsite.

5.1.2. **Commercial Lime Slurry.** Lime slurry will be measured by the ton (dry weight) as calculated from the minimum percent dry solids content of the slurry, multiplied by the weight of the slurry in tons delivered.

5.1.3. **Quicklime.**

5.1.3.1. **Dry.** Lime will be measured by the ton (dry weight) of the quicklime.

5.1.3.2. **Slurry.** Lime slurry will be measured by the ton (dry weight) of the quicklime used to prepare the slurry multiplied by a conversion factor of 1.28 to give the quantity of equivalent hydrated lime, which will be the basis of payment.

5.1.4. **Carbide Lime Slurry.** Lime slurry will be measured by the ton (dry weight) as calculated from the minimum percent dry solids content of the slurry, multiplied by the weight of the slurry in tons delivered.

5.2. **Lime Treatment.** Lime treatment will be measured by the square yard of surface area. The dimensions for determining the surface area are established by the widths shown on the plans and the lengths measured at placement.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid in accordance with Section 260.6.1., "Lime," and Section 260.6.2., "Lime Treatment."

Furnishing and delivering new base will be paid for in accordance with Section 247.6.2., "Flexible Base (Roadway Delivery)." Mixing, spreading, blading, shaping, compacting, and finishing new or existing base material will be paid for in accordance with Section 260.6.2., "Lime Treatment." Removal and disposal of existing asphalt concrete pavement will be paid for in accordance with pertinent Items or Article 4.4., "Changes in the Work."

Sprinkling and rolling, except proof rolling, will not be paid for directly but will be subsidiary to this Item, unless otherwise shown on the plans. When proof rolling is shown on the plans or directed by the Engineer, it will be paid for in accordance with Item 216, "Proof Rolling."

Where subgrade is constructed under this Contract, correction of soft spots in the subgrade or existing base will be at the Contractor's expense. Where subgrade is not constructed under this Contract, correction of soft spots in the subgrade or existing base will be paid for in accordance with pertinent Items or Article 4.4., "Changes in the Work."

Where subgrade to be treated under this Contract has sulfates greater than 7,000 ppm, work will be paid for in accordance with Article 4.4., "Changes in the Work."

Asphalt used solely for curing will not be paid for directly but will be subsidiary to this Item. Asphalt placed for curing and priming will be paid for under Item 310, "Prime Coat."

6.1. **Lime.** Lime will be paid for at the unit price bid for "Lime" of one of the following types:

- Hydrated Lime (Dry),
- Hydrated Lime (Slurry),
- Commercial Lime Slurry,
- Quicklime (Dry),
- Quicklime (Slurry), or
- Carbide Lime Slurry.

This price is full compensation for materials, delivery, equipment, labor, tools, and incidentals.

Lime used for reworking a section in accordance with Section 260.4.6., "Reworking a Section," will not be paid for directly but will be subsidiary to this Item.

6.2. **Lime Treatment.** Lime treatment will be paid for at the unit price bid for "Lime Treatment (Existing Material)," "Lime Treatment (New Base)," or "Lime Treatment (Mixing Existing Material and New Base)," for the depth specified. No payment will be made for thickness or width exceeding that shown on the plans. This price is full compensation for shaping existing material, loosening, mixing, pulverizing, spreading, applying lime, compacting, finishing, curing, curing materials, blading, shaping and maintaining shape, replacing mixture, disposing of loosened materials, processing, hauling, preparing secondary subgrade, water, equipment, labor, tools, and incidentals.

Payment will be made under:

Item Tx-260-6.1	Lime — per ton
Item Tx-260-6.2	Lime Treated Subgrade (6" Thickness) — per square yard

Item 360

Concrete Pavement



1. DESCRIPTION

Construct hydraulic cement concrete pavement with or without curbs on the concrete pavement.

2. MATERIALS

- 2.1. **Hydraulic Cement Concrete.** Provide hydraulic cement concrete in accordance with Item 421, "Hydraulic Cement Concrete." Use compressive strength testing unless otherwise shown on the plans. Provide Class P concrete designed to meet a minimum average compressive strength of 3,200 psi or a minimum average flexural strength of 450 psi at 7 days or a minimum average compressive strength of 4,000 psi or a minimum average flexural strength of 570 psi at 28 days. Test in accordance with Tex-448-A or Tex-418-A.

Obtain written approval if the concrete mix design exceeds 520 lb. of cementitious material.

Use coarse aggregates for continuously reinforced concrete pavements to produce concrete with a coefficient of thermal expansion not more than 5.5×10^{-6} in./in./°F. Provide satisfactory Tex-428-A test data from an approved testing laboratory if the coarse aggregate coefficient of thermal expansion listed on the Department's *Concrete Rated Source Quality Catalog* is not equal to or less than 5.5×10^{-6} in./in./°F.

Provide Class HES concrete for very early opening of small pavement areas or leave-outs to traffic when shown on the plans or allowed. Design Class HES to meet the requirements of Class P and a minimum average compressive strength of 3,200 psi or a minimum average flexural strength of 450 psi in 24 hr., unless other early strength and time requirements are shown on the plans or allowed.

Use Class A or P concrete for curbs that are placed separately from the pavement. Provide concrete that is workable and cohesive, possesses satisfactory finishing qualities, and conforms to the mix design and mix design slump.

- 2.2. **Reinforcing Steel.** Provide Grade 60 or above, deformed steel for bar reinforcement in accordance with Item 440, "Reinforcement for Concrete." Provide positioning and supporting devices (baskets and chairs) capable of securing and holding the reinforcing steel in proper position before and during paving. Provide corrosion protection when shown on the plans.
- 2.2.1. **Dowels.** Provide smooth, straight dowels of the size shown on the plans, free of burrs, and conforming to the requirements of Item 440, "Reinforcement for Concrete." Coat dowels with a thin film of grease, wax, silicone or other approved de-bonding material. Provide dowel caps on the lubricated end of each dowel bar used in an expansion joint. Provide dowel caps filled with a soft compressible material with enough range of movement to allow complete closure of the expansion joint.
- 2.2.2. **Tie Bars.** Provide straight deformed steel tie bars. Provide either multiple-piece tie bars or single-piece tie bars as shown on the plans. Furnish multiple piece tie bar assemblies from the list of approved multiple-piece tie bars that have been prequalified in accordance with DMS-4515 "Multiple Piece Tie Bars for Concrete Pavements," when used. Multiple-piece tie bars used on individual projects must be sampled in accordance with Tex-711-I, and tested in accordance with DMS-4515 "Multiple Piece Tie Bars for Concrete Pavements."
- 2.3. **Alternative Reinforcing Materials.** Provide reinforcement materials of the dimensions and with the physical properties specified when allowed or required by the plans. Provide manufacturer's certification of required material properties.

- 2.4. **Curing Materials.** Provide Type 2 membrane curing compound conforming to DMS-4650, "Hydraulic Cement Concrete Curing Materials and Evaporation Retardants." Provide SS-1 emulsified asphalt conforming to Item 300, "Asphalts, Oils, and Emulsions," for concrete pavement to be overlaid with asphalt concrete under this Contract unless otherwise shown on the plans or approved. Provide materials for other methods of curing conforming to the requirements of Item 422, "Concrete Superstructures." Provide insulating blankets for curing fast track concrete pavement with a minimum thermal resistance (R) rating of 0.5 hour-square foot F/BTU. Use insulating blankets that are free from tears and are in good condition.
- 2.5. **Epoxy.** Provide Type III, Class C epoxy in accordance with DMS-6100, "Epoxies and Adhesives," for installing all drilled-in reinforcing steel. Submit a work plan and request approval for the use of epoxy types other than Type III, Class C.
- 2.6. **Evaporation Retardant.** Provide evaporation retardant conforming to DMS-4650., "Hydraulic Cement Concrete Curing Materials and Evaporation Retardants."
- 2.7. **Joint Sealants and Fillers.** Provide Class 5 or Class 8 joint-sealant materials and fillers unless otherwise shown on the plans or approved and other sealant materials of the size, shape, and type shown on the plans in accordance with DMS-6310, "Joint Sealants and Fillers."

3. EQUIPMENT

Furnish and maintain all equipment in good working condition. Use measuring, mixing, and delivery equipment conforming to the requirements of Item 421, "Hydraulic Cement Concrete." Obtain approval for other equipment used.

- 3.1. **Placing, Consolidating, and Finishing Equipment.** Provide approved self-propelled paving equipment that uniformly distributes the concrete with minimal segregation and provides a smooth machine-finished consolidated concrete pavement conforming to plan line and grade. Provide an approved automatic grade control system on slip-forming equipment. Provide approved mechanically-operated finishing floats capable of producing a uniformly smooth pavement surface. Provide equipment capable of providing a fine, light water fog mist.

Provide mechanically-operated vibratory equipment capable of adequately consolidating the concrete. Provide immersion vibrators on the paving equipment at sufficiently close intervals to provide uniform vibration and consolidation of the concrete over the entire width and depth of the pavement and in accordance with the manufacturer's recommendations. Provide immersion vibrator units that operate at a frequency in air of at least 8,000 cycles per minute. Provide enough hand-operated immersion vibrators for timely and proper consolidation of the concrete along forms, at all joints and in areas not covered by other vibratory equipment. Surface vibrators may be used to supplement equipment-mounted immersion vibrators. Provide tachometers to verify the proper operation of all vibrators.

For small or irregular areas or when approved, the paving equipment described in this Section is not required.

- 3.2. **Forming Equipment.**

- 3.2.1. **Pavement Forms.** Provide metal side forms of sufficient cross-section, strength, and rigidity to support the paving equipment and resist the impact and vibration of the operation without visible springing or settlement. Use forms that are free from detrimental kinks, bends, or warps that could affect ride quality or alignment. Provide flexible or curved metal or wood forms for curves of 100-ft. radius or less.
- 3.2.2. **Curb Forms.** Provide curb forms for separately placed curbs that are not slipformed that conform to the requirements of Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."

- 3.3. **Reinforcing Steel Inserting Equipment.** Provide inserting equipment that accurately inserts and positions reinforcing steel in the plastic concrete parallel to the profile grade and horizontal alignment in accordance to plan details when approved.
- 3.4. **Texturing Equipment.**
- 3.4.1. **Carpet Drag.** Provide a carpet drag mounted on a work bridge or a manual moveable support system. Provide a single piece of carpet of sufficient transverse length to span the full width of the pavement being placed and adjustable so that a sufficient longitudinal length of carpet is in contact with the concrete being placed to produce the desired texture. Obtain approval to vary the length and width of the carpet to accommodate specific applications.
- 3.4.2. **Tining Equipment.** Provide a self-propelled metal tine device equipped with steel tines with cross-section approximately 1/32 in. thick × 1/12 in. wide. Provide tines for transverse tining equipment spaced at approximately 1 in., center-to-center, or provide tines for longitudinal tining equipment spaced at approximately 3/4 in., center-to-center. Manual methods that produce an equivalent texture may be used when it is impractical to use self-propelled equipment, such as for small areas, narrow width sections, and in emergencies due to equipment breakdown.
- 3.5. **Curing Equipment.** Provide a self-propelled machine for applying membrane curing compound using mechanically-pressurized spraying equipment with atomizing nozzles. Provide equipment and controls that maintain the required uniform rate of application over the entire paving area. Provide curing equipment that is independent of all other equipment when required to meet the requirements of Section 360.4.9., "Curing." Hand-operated pressurized spraying equipment with atomizing nozzles may only be used on small or irregular areas, narrow width sections, or in emergencies due to equipment breakdown.
- 3.6. **Sawing Equipment.** Provide power-driven concrete saws to saw the joints shown on the plans. Provide standby power-driven concrete saws during concrete sawing operations. Provide adequate illumination for nighttime sawing.
- 3.7. **Grinding Equipment.** Provide self-propelled powered grinding equipment that is specifically designed to smooth and texture concrete pavement using circular diamond blades when required. Provide equipment with automatic grade control capable of grinding at least a 3-ft. width longitudinally in each pass without damaging the concrete.
- 3.8. **Testing Equipment.** Provide testing equipment regardless of job-control testing responsibilities in accordance with Item 421, "Hydraulic Cement Concrete," unless otherwise shown on the plans or specified.
- 3.9. **Coring Equipment.** Provide coring equipment capable of extracting cores in accordance with the requirements of Tex-424-A when required.
- 3.10. **Miscellaneous Equipment.** Furnish both 10-ft. and 15-ft. steel or magnesium long-handled, standard straightedges. Furnish enough work bridges, long enough to span the pavement, for finishing and inspection operations.

4. CONSTRUCTION

Obtain approval for adjustments to plan grade-line to maintain thickness over minor subgrade or base high spots while maintaining clearances and drainage. Maintain subgrade or base in a smooth, clean, compacted condition in conformity with the required section and established grade until the pavement concrete is placed. Keep subgrade or base damp with water before placing pavement concrete.

Adequately light the active work areas for all nighttime operations. Provide and maintain tools and materials to perform testing.

4.1. **Paving and Quality Control Plan.** Submit a paving and quality control plan for approval before beginning pavement construction operations. Include details of all operations in the concrete paving process, including methods to construct transverse joints, methods to consolidate concrete at joints, longitudinal construction joint layout, sequencing, curing, lighting, early opening, leave-outs, sawing, inspection, testing, construction methods, other details and description of all equipment. List certified personnel performing the testing. Submit revisions to the paving and quality control plan for approval.

4.2. **Job-Control Testing.** Perform all fresh and hardened concrete job-control testing at the specified frequency unless otherwise shown on the plans. Provide job-control testing personnel meeting the requirements of Item 421, "Hydraulic Cement Concrete." Provide and maintain testing equipment, including strength testing equipment at a location acceptable to the Engineer. Use of a commercial laboratory is acceptable. Maintain all testing equipment calibrated in accordance with pertinent test methods. Make strength-testing equipment available to the Engineer for verification testing.

Provide the Engineer the opportunity to witness all tests. The Engineer may require a retest if not given the opportunity to witness. Furnish a copy of all test results to the Engineer daily. Check the first few concrete loads for slump and temperature to verify concrete conformance and consistency on start-up production days. Sample and prepare strength-test specimens (2 specimens per test) on the first day of production and for each 3,000 sq. yd. or fraction thereof of concrete pavement thereafter. Prepare at least 1 set of strength-test specimens for each production day. Perform slump and temperature tests each time strength specimens are made. Monitor concrete temperature to ensure that concrete is consistently within the temperature requirements. The Engineer will direct random job-control sampling and testing. Immediately investigate and take corrective action as approved if any Contractor test result, including tests performed for verification purposes, does not meet specification requirements.

The Engineer will perform job-control testing when the testing by the Contractor is waived by the plans; however, this does not waive the Contractor's responsibility for providing materials and work in accordance with this Item.

4.2.1. **Job-Control Strength.** Use 7-day job-control concrete strength testing in accordance with Tex-448-A or Tex-418-A unless otherwise shown on the plans or permitted.

Use a compressive strength of 3,200 psi or a lower job-control strength value proven to meet a 28-day compressive strength of 4,000 psi as correlated in accordance with Tex-427-A for 7-day job-control by compressive strength. ~~Use a flexural strength of 450 psi or a lower job-control strength value proven to meet a 28-day flexural strength of 570 psi as correlated in accordance with Tex-427-A for 7-day job-control by flexural strength.~~ **Compressive strength tests shall be performed.**

Job control of concrete strength may be correlated to an age other than 7 days in accordance with Tex-427-A when approved. Job-control strength of Class HES concrete is based on the required strength and time.

Investigate the strength test procedures, the quality of materials, the concrete production operations, and other possible problem areas to determine the cause when a job-control concrete strength test value is more than 10% below the required job-control strength or when 3 consecutive job-control strength values fall below the required job-control strength. Take necessary action to correct the problem, including redesign of the concrete mix if needed. The Engineer ~~may~~ **will** suspend concrete paving if the Contractor is unable to identify, document, and correct the cause of low-strength test values in a timely manner. The Engineer will evaluate the structural adequacy of the pavements if any job-control strength is more than 15% below the required job-control strength. Remove and replace pavements found to be ~~structurally inadequate~~ **15% below the required job-control strength** at no additional cost ~~when directed~~.

4.2.2. **Split-Sample Verification Testing.** Perform split-sample verification testing with the Engineer on random samples taken and split by the Engineer at a rate of at least 1 for every 10 job-control samples. The Engineer will evaluate the results of split-sample verification testing. Immediately investigate and take corrective action as approved when results of split-sample verification testing differ more than the allowable differences shown in Table 1, or the average of 10 job-control strength results and the Engineer's split-sample strength result differ by more than 10%.

Table 1
Verification Testing Limits

Test Method	Allowable Differences
Temperature, Tex-422-A	2°F
Slump, Tex-415-A	1 in.
Flexural strength, Tex-448-A	19%
Compressive strength, Tex-418-A	10%

- 4.3. **Reinforcing Steel and Joint Assemblies.** Accurately place and secure in position all reinforcing steel as shown on the plans. Place dowels at mid-depth of the pavement slab, parallel to the surface. Place dowels for transverse contraction joints parallel to the pavement edge. Tolerances for location and alignment of dowels will be shown on the plans. Stagger the lap locations so that no more than 1/3 of the longitudinal steel is spliced in any given 12-ft. width and 2-ft. length of the pavement. Use multiple-piece tie bars, drill and epoxy grout tie bars, or, if approved, mechanically-inserted single-piece tie bars at longitudinal construction joints. Verify that tie bars that are drilled and epoxied or mechanically inserted into concrete at longitudinal construction joints develop a pullout resistance equal to a minimum of 3/4 of the yield strength of the steel after 7 days. Test 15 bars using ASTM E488, except that alternate approved equipment may be used. All 15 tested bars must meet the required pullout strength. Perform corrective measures to provide equivalent pullout resistance if any of the test results do not meet the required minimum pullout strength. Repair damage from testing. Acceptable corrective measures include but are not limited to installation of additional or longer tie bars.
- 4.3.1. **Manual Placement.** Secure reinforcing bars at alternate intersections with wire ties or locking support chairs. Tie all splices with wire.
- 4.3.2. **Mechanical Placement.** Complete the work using manual placement methods described above if mechanical placement of reinforcement results in steel misalignment or improper location, poor concrete consolidation, or other inadequacies.
- 4.4. **Joints.** Install joints as shown on the plans. Joint sealants are not required on concrete pavement that is to be overlaid with asphaltic materials. Clean and seal joints in accordance with Item 438, "Cleaning and Sealing Joints." Repair excessive spalling of the joint saw groove using an approved method before installing the sealant. Seal all joints before opening the pavement to all traffic. Install a rigid transverse bulkhead, for the reinforcing steel, and shaped accurately to the cross-section of the pavement when placing of concrete is stopped.
- 4.4.1. **Placing Reinforcement at Joints.** Complete and place the assembly of parts at pavement joints at the required location and elevation, with all parts rigidly secured in the required position, when shown on the plans.
- 4.4.2. **Transverse Construction Joints.**
- 4.4.2.1. **Continuously Reinforced Concrete Pavement (CRCP).** Install additional longitudinal reinforcement through the bulkhead when shown on the plans. Protect the reinforcing steel immediately beyond the construction joint from damage, vibration, and impact.
- 4.4.2.2. **Concrete Pavement Contraction Design (CPCD).** Install and rigidly secure a complete joint assembly and bulkhead in the planned transverse contraction joint location when the placing of concrete is intentionally stopped. Install a transverse construction joint either at a planned transverse contraction joint location or mid-slab between planned transverse contraction joints when the placing of concrete is unintentionally stopped. Install tie bars of the size and spacing used in the longitudinal joints for mid-slab construction joints.
- 4.4.2.3. **Curb Joints.** Provide joints in the curb of the same type and location as the adjacent pavement. Use expansion joint material of the same thickness, type, and quality required for the pavement and of the section shown for the curb. Extend expansion joints through the curb. Construct curb joints at all transverse pavement joints. Place reinforcing steel into the plastic concrete pavement for non-monolithic curbs as shown on the plans unless otherwise approved. Form or saw the weakened plane joint across the full width

of concrete pavement and through the monolithic curbs. Construct curb joints in accordance with Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."

- 4.5. **Placing and Removing Forms.** Use clean and oiled forms. Secure forms on a base or firm subgrade that is accurately graded and that provides stable support without deflection and movement by form riding equipment. Pin every form at least at the middle and near each end. Tightly join and key form sections together to prevent relative displacement.

Set side forms far enough in advance of concrete placement to permit inspection. Check conformity of the grade, alignment, and stability of forms immediately before placing concrete, and make all necessary corrections. Use a straightedge or other approved method to test the top of forms to ensure that the ride quality requirements for the completed pavement will be met. Stop paving operations if forms settle or deflect more than 1/8 in. under finishing operations. Reset forms to line and grade, and refinish the concrete surface to correct grade.

Avoid damage to the edge of the pavement when removing forms. Repair damage resulting from form removal and honeycombed areas with a mortar mix within 24 hr. after form removal unless otherwise approved. Clean joint face and repair honeycombed or damaged areas within 24 hr. after a bulkhead for a transverse construction joint has been removed unless otherwise approved. Promptly apply membrane curing compound to the edge of the concrete pavement when forms are removed before 72 hr. after concrete placement.

Forms that are not the same depth as the pavement, but are within 2 in. of that depth are permitted if the subbase is trenched or the full width and length of the form base is supported with a firm material to produce the required pavement thickness. Promptly repair the form trench after use. Use flexible or curved wood or metal forms for curves of 100-ft. radius or less.

- 4.6. **Concrete Delivery.** Clean delivery equipment as necessary to prevent accumulation of old concrete before loading fresh concrete. Use agitated delivery equipment for concrete designed to have a slump of more than 5 in. Segregated concrete is subject to rejection.

Begin the discharge of concrete delivered in agitated delivery equipment conforming to the requirements of Item 421, "Hydraulic Cement Concrete." Place non-agitated concrete within 45 min. after batching. Reduce times as directed when hot weather or other conditions cause quick setting of the concrete.

- 4.7. **Concrete Placement.** Do not allow the pavement edge to deviate from the established paving line by more than 1/2 in. at any point. Place the concrete as near as possible to its final location, and minimize segregation and rehandling. Distribute concrete using shovels where hand spreading is necessary. Do not use rakes or vibrators to distribute concrete.

- 4.7.1. **Consolidation.** Consolidate all concrete by approved mechanical vibrators operated on the front of the paving equipment. Use immersion-type vibrators that simultaneously consolidate the full width of the placement when machine finishing. Keep vibrators from dislodging reinforcement. Use hand-operated vibrators to consolidate concrete along forms, at all joints and in areas not accessible to the machine-mounted vibrators. Do not operate machine-mounted vibrators while the paving equipment is stationary. Vibrator operations are subject to review.

- 4.7.2. **Curbs.** Conform to the requirements of Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter" where curbs are placed separately.

- 4.7.3. **Temperature Restrictions.** Place concrete that is between 40°F and 95°F when measured in accordance with Tex-422-A at the time of discharge, except that concrete may be used if it was already in transit when the temperature was found to exceed the allowable maximum. Take immediate corrective action or cease concrete production when the concrete temperature exceeds 95°F.

Do not place concrete when the ambient temperature in the shade is below 40°F and falling unless approved. Concrete may be placed when the ambient temperature in the shade is above 35°F and rising or

above 40°F. Protect the pavement with an approved insulating material capable of protecting the concrete for the specified curing period when temperatures warrant protection against freezing. Submit for approval proposed measures to protect the concrete from anticipated freezing weather for the first 72 hr. after placement. Repair or replace all concrete damaged by freezing.

- 4.8. **Spreading and Finishing.** Finish all concrete pavement with approved self-propelled equipment. Use power-driven spreaders, power-driven vibrators, power-driven strike-off, screed, or approved alternate equipment. Use the transverse finishing equipment to compact and strike-off the concrete to the required section and grade without surface voids. Use float equipment for final finishing. Use concrete with a consistency that allows completion of all finishing operations without addition of water to the surface. Use the minimal amount of water fog mist necessary to maintain a moist surface. Reduce fogging if float or straightedge operations result in excess slurry.
- 4.8.1. **Finished Surface.** Perform sufficient checks with long-handled 10-ft. and 15-ft. straightedges on the plastic concrete to ensure the final surface is within the tolerances specified in Surface Test A in Item 585, "Ride Quality for Pavement Surfaces." Check with the straightedge parallel to the centerline.
- 4.8.2. **Maintenance of Surface Moisture.** Prevent surface drying of the pavement before application of the curing system by means that may include water fogging, the use of wind screens, and the use of evaporation retardants. Apply evaporation retardant at the manufacturer's recommended rate. Reapply the evaporation retardant as needed to maintain the concrete surface in a moist condition until curing system is applied. Do not use evaporation retardant as a finishing aid. Failure to take acceptable precautions to prevent surface drying of the pavement will be cause for shutdown of pavement operations.
- 4.8.3. **Surface Texturing.** Complete final texturing before the concrete has attained its initial set. Drag the carpet longitudinally along the pavement surface with the carpet contact surface area adjusted to provide a satisfactory coarsely textured surface. Prevent the carpet from getting plugged with grout. Do not perform carpet dragging operations while there is excessive bleed water.

A metal-tine texture finish is required unless otherwise shown on the plans. Provide transverse tining unless otherwise shown on the plans. Immediately following the carpet drag, apply a single coat of evaporation retardant, if needed, at the rate recommended by the manufacturer. Provide the metal-tine finish immediately after the concrete surface has set enough for consistent tining. Operate the metal-tine device to obtain grooves approximately 3/16 in. deep, with a minimum depth of 1/8 in., and approximately 1/12 in. wide. Do not overlap a previously tined area. Use manual methods to achieve similar results on ramps, small or irregular areas, and narrow width sections of pavements. Repair damage to the edge of the slab and joints immediately after texturing. Do not tine pavement that will be overlaid or that is scheduled for blanket diamond grinding or shot blasting.

Target a carpet drag texture of 0.04 in., as measured by Tex-436-A, when carpet drag is the only surface texture required on the plans. Ensure adequate and consistent macro-texture is achieved by applying enough weight to the carpet and by keeping the carpet from getting plugged with grout. Correct any location with a texture less than 0.03 in. by diamond grinding or shot blasting. The Engineer will determine the test locations at points located transversely to the direction of traffic in the outside wheel path.

- 4.8.4. **Small, Irregular Area, or Narrow Width Placements.** Use hand equipment and procedures that produce a consolidated and finished pavement section to the line and grade where machine placements and finishing of concrete pavement are not practical.
- 4.8.5. **Emergency Procedures.** Use hand-operated equipment for applying texture, evaporation retardant, and cure in the event of equipment breakdown.
- 4.9. **Curing.** Keep the concrete pavement surface from drying as described in Section 360.4.8.2., "Maintenance of Surface Moisture," until the curing material has been applied. Maintain and promptly repair damage to curing materials on exposed surfaces of concrete pavement continuously for at least 3 curing days. A curing day is defined as a 24-hr. period when either the temperature taken in the shade away from artificial heat is above 50°F for at least 19 hr. or the surface temperature of the concrete is maintained above 40°F for 24 hr.

Curing begins when the concrete curing system has been applied. Stop concrete paving if curing compound is not being applied promptly and maintained adequately. Other methods of curing in accordance with Item 422, "Concrete Superstructures," may be used when specified or approved.

- 4.9.1. **Membrane Curing.** Spray the concrete surface uniformly with 2 coats of membrane curing compound at an individual application rate of no more than 180 sq. ft. per gallon. Apply the curing compound before allowing the concrete surface to dry.

Manage finishing and texturing operations to ensure placement of curing compound on a moist concrete surface, relatively free of bleed water, to prevent any plastic shrinkage cracking. Time the application of curing compound to prevent plastic shrinkage cracking.

Maintain curing compounds in a uniformly agitated condition, free of settlement before and during application. Do not thin or dilute the curing compound.

Apply additional compound at the same rate of coverage to correct damage where the coating shows discontinuities or other defects or if rain falls on the newly coated surface before the film has dried enough to resist damage. Ensure that the curing compound coats the sides of the tining grooves.

- 4.9.2. ~~**Asphalt Curing.** Apply a uniform coating of asphalt curing at a rate of 90 to 180 sq. ft. per gallon when an asphaltic concrete overlay is required. Apply curing immediately after texturing and once the free moisture (sheen) has disappeared. Obtain approval to add water to the emulsion to improve spray distribution. Maintain the asphalt application rate when using diluted emulsions. Maintain the emulsion in a mixed condition during application.~~

- 4.9.3. **Curing Class HES Concrete.** Provide membrane curing in accordance with Section 360.4.9.1., "Membrane Curing," for all Class HES concrete pavement. Promptly follow by wet mat curing in accordance with Section 422.4.8., "Final Curing," until opening strength is achieved but not less than 24 hr.

- 4.9.4. **Curing Fast-Track Concrete.** Provide wet mat curing unless otherwise shown on the plans or as directed. Cure in accordance with Section 422.4.8., "Final Curing." Apply a Type 1-D or Type 2 membrane cure instead of wet mat curing if the air temperature is below 65°F and insulating blankets are used.

- 4.10. **Sawing Joints.** Saw joints to the depth shown on the plans as soon as sawing can be accomplished without damage to the pavement regardless of time of day or weather conditions. Some minor raveling of the saw-cut is acceptable. Use a chalk line, string line, sawing template, or other approved method to provide a true joint alignment. Provide enough saws to match the paving production rate to ensure sawing completion at the earliest possible time to avoid uncontrolled cracking. Reduce paving production if necessary to ensure timely sawing of joints. Promptly restore membrane cure damaged within the first 72 hr. of curing.

- 4.11. **Protection of Pavement and Opening to Traffic.** Testing for early opening is the responsibility of the Contractor regardless of job-control testing responsibilities unless otherwise shown on the plans or as directed. Testing result interpretation for opening to traffic is subject to approval.

- 4.11.1. **Protection of Pavement.** Erect and maintain barricades and other standard and approved devices that will exclude all vehicles and equipment from the newly placed pavement for the periods specified. Protect the pavement from damage due to crossings using approved methods before opening to traffic. Where a detour is not readily available or economically feasible, an occasional crossing of the roadway with overweight equipment may be permitted for relocating equipment only but not for hauling material. When an occasional crossing of overweight equipment is permitted, temporary matting or other approved methods may be required.

Maintain an adequate supply of sheeting or other material to cover and protect fresh concrete surface from weather damage. Apply as needed to protect the pavement surface from weather.

- 4.11.2. **Opening Pavement to All Traffic.** Pavement that is 7 days old may be opened to all traffic. Clean pavement, place stable material against the pavement edges, seal joints, and perform all other traffic safety related work before opening to traffic.

- 4.11.3. **Opening Pavement to Construction Equipment.** Unless otherwise shown on the plans, concrete pavement may be opened early to concrete paving equipment and related delivery equipment after the concrete is at least 48 hr. old and opening strength has been demonstrated in accordance with Section 360.4.11.4., "Early Opening to All Traffic," before curing is complete. Keep delivery equipment at least 2 ft. from the edge of the concrete pavement. Keep tracks of the paving equipment at least 1 ft. from the pavement edge. Protect textured surfaces from the paving equipment. Restore damaged membrane curing as soon as possible. Repair pavement damaged by paving or delivery equipment before opening to all traffic.
- 4.11.4. **Early Opening to All Traffic.** Concrete pavement may be opened after curing is complete and the concrete has attained a flexural strength of 450 psi or a compressive strength of 3,200 psi, except that pavement using Class HES concrete may be opened after 24 hr. if the specified strength is achieved.
- 4.11.4.1. **Strength Testing.** Test concrete specimens cured under the same conditions as the portion of the pavement involved.
- 4.11.4.2. **Maturity Method.** Use the maturity method, Tex-426-A, to estimate concrete strength for early opening pavement to traffic unless otherwise shown on the plans. Install at least 2 maturity sensors for each day's placement in areas where the maturity method will be used for early opening. Maturity sensors, when used, will be installed near the day's final placement for areas being evaluated for early opening. Use test specimens to verify the strength-maturity relationship in accordance with Tex-426-A, starting with the first day's placement corresponding to the early opening pavement section.
- Verify the strength-maturity relationship at least every 10 days of production after the first day. Establish a new strength-maturity relationship when the strength specimens deviate more than 10% from the maturity-estimated strengths. Suspend use of the maturity method for opening pavements to traffic when the strength-maturity relationship deviates by more than 10% until a new strength-maturity relationship is established.
- The Engineer will determine the frequency of verification when the maturity method is used intermittently or for only specific areas.
- 4.11.5. **Fast Track Concrete Pavement.** Open the pavement after the concrete has been cured for at least 8 hr. and attained a minimum compressive strength of 1,800 psi or a minimum flexural strength of 255 psi when tested in accordance with Section 360.4.11.4.1., "Strength Testing," or Section 360.4.11.4.2., "Maturity Method," unless otherwise directed. Cover the pavement with insulating blankets when the air temperature is below 65°F until the pavement is opened to traffic.
- 4.11.6. **Emergency Opening to Traffic.** Open the pavement to traffic under emergency conditions, when the pavement is at least 72 hr. old when directed in writing. Remove all obstructing materials, place stable material against the pavement edges, and perform other work involved in providing for the safety of traffic as required for emergency opening.
- 4.12. **Pavement Thickness.** The Engineer will check the thickness in accordance with Tex-423-A unless other methods are shown on the plans. The Engineer will perform 1 thickness test consisting of 1 reading at approximately the center of each lane every 500 ft. or fraction thereof. Core where directed, in accordance with Tex-424-A, to verify deficiencies of more than 0.2 in. from plan thickness and to determine the limits of deficiencies of more than 0.75 in. from plan thickness. Fill core holes using an approved concrete mixture and method.
- 4.12.1. **Thickness Deficiencies Greater than 0.2 in.** Take one 4-in. diameter core at that location to verify the measurement when any depth test measured in accordance with Tex-423-A is deficient by more than 0.2 in. from the plan thickness.

Take 2 additional cores from the unit (as defined in Section 360.4.12.3., "Pavement Units for Payment Adjustment") at intervals of at least 150 ft. and at selected locations if the core is deficient by more than 0.2 in., but not by more than 0.75 in. from the plan thickness, and determine the thickness of the unit for payment purposes by averaging the length of the 3 cores. In calculations of the average thickness of this unit

of pavement, measurements in excess of the specified thickness by more than 0.2 in. will be considered as the specified thickness plus 0.2 in.

- 4.12.2. **Thickness Deficiencies Greater than 0.75 in.** Take additional cores at 10-ft. intervals in each direction parallel to the centerline to determine the boundary of the deficient area if a core is deficient by more than 0.75 in. The Engineer will evaluate any area of pavement found deficient in thickness by more than 0.75 in., but not more than 1 in. Remove and replace the deficient areas without additional compensation or retain deficient areas without compensation, as directed. Remove and replace any area of pavement found deficient in thickness by more than 1 in. without additional compensation.
- 4.12.3. **Pavement Units for Payment Adjustment.** Limits for applying a payment adjustment for deficient pavement thickness from 0.20 in. to not more than 0.75 in. are 500 ft. of pavement in each lane. Lane width will be as shown on typical sections and pavement design standards.
- For greater than 0.75 in. deficient thickness, the limits for applying zero payment or requiring removal will be defined by coring or equivalent nondestructive means as determined by the Engineer. The remaining portion of the unit determined to be less than 0.75 in. deficient will be subject to the payment adjustment based on the average core thickness at each end of the 10-ft. interval investigation as determined by the Engineer.
- Shoulders will be measured for thickness unless otherwise shown on the plans. Shoulders 6 ft. wide or wider will be considered as lanes. Shoulders less than 6 ft. wide will be considered part of the adjacent lane.
- Limits for applying payment adjustment for deficient pavement thickness for ramps, widenings, acceleration and deceleration lanes, and other miscellaneous areas are 500 ft. in length. Areas less than 500 ft. in length will be individually evaluated for payment adjustment based on the plan area.
- 4.13. **Ride Quality.** Measure ride quality in accordance with Item 585, "Ride Quality for Pavement Surfaces," unless otherwise shown on the plans.

5. MEASUREMENT

This Item will be measured as follows:

- 5.1. **Concrete Pavement.** Concrete pavement will be measured by the square yard of surface area in place. The surface area includes the portion of the pavement slab extending beneath the curb.
- 5.2. **Curb.** Curb on concrete pavement will be measured by the foot in place.

6. PAYMENT

These prices are full compensation for materials, equipment, labor, tools, and incidentals.

- 6.1. **Concrete Pavement.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the adjusted unit price bid for "Concrete Pavement" of the type and depth specified as adjusted in accordance with Section 360.6.2., "Deficient Thickness Adjustment."
- 6.2. **Deficient Thickness Adjustment.** Where the average thickness of pavement is deficient in thickness by more than 0.2 in. but not more than 0.75 in., payment will be made using the adjustment factor as specified in Table 2 applied to the bid price for the deficient area for each unit as defined under Section 360.4.12.3., "Pavement Units for Payment Adjustment."

Table 2
Deficient Thickness Price Adjustment Factor

Deficiency in Thickness Determined by Cores (in.)	Proportional Part of Contract Price Allowed (Adjustment Factor)
Not deficient	1.00
Over 0.00 through 0.20	1.00
Over 0.20 through 0.30	0.80
Over 0.30 through 0.40	0.72
Over 0.40 through 0.50	0.68
Over 0.50 through 0.75	0.57

- 6.3. **Curb.** Work performed and furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Curb" of the type specified.

Payment will be made under:

Item TX-360-5.1

Concrete Pavement (10" Thickness) — per Square Yard

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Item 421

Hydraulic Cement Concrete



1. DESCRIPTION

Furnish hydraulic cement concrete for concrete pavements, concrete structures, and other concrete construction.

2. MATERIALS

Use materials from prequalified sources listed on the Department website. Provide coarse and fine aggregates from sources listed in the Department's *Concrete Rated Source Quality Catalog* (CRSQC). Use materials from non-listed sources only when tested and approved by the Engineer before use. Allow 30 calendar days for the Engineer to sample, test, and report results for non-listed sources. Do not combine approved material with unapproved material.

2.1. **Cement.** Furnish cement conforming to DMS-4600, "Hydraulic Cement."

2.2. **Supplementary Cementing Materials (SCM).**

- **Fly Ash.** Furnish fly ash, ultra-fine fly ash (UFFA), and modified Class F fly ash (MFFA) conforming to DMS-4610, "Fly Ash."
- **Slag Cement.** Furnish Slag Cement conforming to DMS-4620, "Ground Granulated BlastFurnace Slag."
- **Silica Fume.** Furnish silica fume conforming to DMS-4630, "Silica Fume."
- **Metakaolin.** Furnish metakaolin conforming to DMS-4635, "Metakaolin."

2.3. **Cementitious Material.** Cementitious materials are the cement and supplementary cementing materials used in concrete.

2.4. **Chemical Admixtures.** Furnish admixtures conforming to DMS-4640, "Chemical Admixtures for Concrete."

2.5. **Water.** Furnish mixing and curing water that is free from oils, acids, organic matter, or other deleterious substances. Water from municipal supplies approved by the Texas Department of Health will not require testing. Provide test reports showing compliance with Table 1 before use when using water from other sources.

Water that is a blend of concrete wash water and other acceptable water sources, certified by the concrete producer as complying with the requirements of both Table 1 and Table 2, may be used as mix water. Test the blended water weekly for 4 weeks for compliance with Table 1 and Table 2 or provide previous test results. Then test every month for compliance. Provide water test results upon request.

Table 1
Chemical Limits for Mix Water

Contaminant	Test Method	Maximum Concentration (ppm or mg/L)
Chloride (Cl)	ASTM C114	
Prestressed concrete		500
Bridge decks & superstructure		500
All other concrete		1,000
Sulfate (SO ₄)	ASTM C114	2,000
Alkalies (Na ₂ O + 0.658K ₂ O)	ASTM C114	600
Total solids	ASTM C1603	50,000

Table 2
Acceptance Criteria for Questionable Water Supplies

Property	Test Method	Limits
Compressive strength, min % control at 7 days	ASTM C31, ASTM C39 ^{1,2}	90
Time of set, deviation from control, h:min.	ASTM C403	From 1:00 early to 1:30 later

1. Base comparisons on fixed proportions and the same volume of test water compared to the control mix using 100% potable water or distilled water.
2. Base comparisons on sets consisting of at least 2 standard specimens made from a composite sample.

Do not use mix water that has an adverse effect on the air-entraining agent, on any other chemical admixture, or on strength or time of set of the concrete. Use mixing and curing water free of iron and other impurities that may cause staining or discoloration when using white hydraulic cement.

2.6. Aggregate.

- 2.6.1. **Coarse Aggregate.** Provide coarse aggregate consisting of durable particles of gravel, crushed blast furnace slag, recycled crushed hydraulic cement concrete, crushed stone, or combinations which are free from frozen material and from injurious amounts of salt, alkali, vegetable matter, or other objectionable material, either free or as an adherent coating. Provide coarse aggregate of uniform quality throughout.

Provide coarse aggregate with the requirements listed in Table 3 unless otherwise shown on the plan.

Table 3
Coarse Aggregate Requirements

Description	Test Method	Limit
Weight of Clay Lumps, % Max	Tex-413-A	0.25
Weight of Shale, % Max		1.0
Weight of Laminated and Friable Particle, % Max		5.0
L.A. Abrasion Wear, % Max	Tex-410-A	40
5-Cycle Magnesium Sulfate Soundness, ^{1,2} non-air-entrained concrete, % Max	Tex-411-A	25
5-Cycle Magnesium Sulfate Soundness, ^{1,3} air-entrained concrete, % Max		18
Loss by Decantation, % Max	Tex-406-A	1.5

1. Recycled crushed hydraulic cement concrete is not subject to 5-cycle magnesium sulfate soundness requirements.
2. Allowed when air-entrained concrete is used at the Contractor's option.
3. Only when air-entrained concrete is required by the plans.

Increase the loss by decantation limit to 3.0% for all classes of concrete and 5.0% for Class A, B, and P if the material finer than the No. 200 sieve is determined to be at least 85% calcium carbonate in accordance with Tex-406-A, Part III, in the case of coarse aggregates made primarily from crushing stone unless otherwise shown on the plans. Provide test results upon request.

Provide coarse aggregate conforming to the gradation requirements shown in Table 4 when tested in accordance with Tex-401-A unless otherwise specified.

Table 4
Coarse Aggregate Gradation Chart

Aggregate Grade No. ¹	Maximum Nominal Size	Percent Passing on Each Sieve								
		2-1/2"	2"	1-1/2"	1"	3/4"	1/2"	3/8"	#4	#8
1	2"	100	80-100	50-85		20-40			0-10	
2	1-1/2"		100	95-100		35-70		10-30	0-10	
3	1-1/2"		100	95-100		60-90	25-60		0-10	
4 (57)	1"			100	95-100		25-60		0-10	0-5
5 (67)	3/4"				100	90-100		20-55	0-10	0-5
6 (7)	1/2"					100	90-100	40-70	0-15	0-5
7	3/8"						100	70-95	0-25	
8	3/8"						100	95-100	20-65	0-10

1. Corresponding ASTM C33 gradation shown in parentheses.

- 2.6.2. **Fine Aggregate.** Provide fine aggregate consisting of clean, hard, durable particles of natural, manufactured sand, recycled crushed hydraulic cement concrete, slag, lightweight aggregate, or a combination thereof. Provide fine aggregate free from frozen material and from injurious amounts of salt, alkali, vegetable matter, or other objectionable material.

Provide fine aggregates with the requirements in Table 5 unless otherwise shown on the plans.

Table 5
Fine Aggregate Requirements

Description	Test Method	Limit
Weight of Clay Lumps, % Max	Tex-413-A	0.50
Organic Impurities ¹	Tex-408-A	Color not darker than standard
Sand Equivalent	Tex-203-F	80
Fineness Modulus	Tex-402-A	2.3 to 3.1

1. Only when air-entrained concrete is specified.

Provide fine aggregate or combinations of aggregates conforming to the gradation requirements shown in Table 6 when tested in accordance with Tex-401-A unless otherwise specified.

Table 6
Fine Aggregate Gradation Chart (Grade 1)

Sieve Size	Percent Passing
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-65
#50	10-35 ¹
#100	0-10
#200	0-3 ²

1. 6-35 when sand equivalent value is greater than 85.
2. 0-6 for manufactured sand.

- 2.6.3. **Intermediate Aggregate.** Provide intermediate aggregate consisting of clean, hard, durable particles of natural, manufactured sand, slag, recycled crushed hydraulic cement concrete, lightweight aggregate, or a combination thereof when optimized aggregate gradation (OAG) concrete is specified or when used at the Contractor's option. Provide intermediate aggregate free from frozen material and injurious amounts of salt, alkali, vegetable matter, or other objectionable material.

Provide intermediate aggregate with the requirements in Table 7.

Table 7
Intermediate Aggregate Requirements

Description	Test Method	Limit
Weight of Clay Lumps, % Max	Tex-413-A	0.50
L.A. Abrasion Wear, ¹ % Max	Tex-410-A	40
5-Cycle Magnesium Sulfate Soundness, ^{1,2,3} non-air-entrained concrete, % Max	Tex-411-A	25
5-Cycle Magnesium Sulfate Soundness, ^{1,2,4} air-entrained concrete, % Max		18
Organic Impurities ⁵	Tex-408-A	Color not darker than standard
Loss by Decantation, ¹ % Max	Tex-406-A	1.5

1. Only applies to the portion retained on the No. 4 sieve, if more than 30% of the intermediate aggregate is retained on the No. 4 sieve.
2. Recycled crushed hydraulic cement concrete is not subject to 5-cycle magnesium sulfate soundness requirements.
3. Allowed when air-entrained concrete is used at the Contractor's option.
4. Only when air-entrained concrete is required by the plans.
5. Only applies to the portion passing the 3/8 in. sieve, if more than 30% of the intermediate aggregate is passing the 3/8 in. sieve.

For the portion retained on the No. 4 sieve, if more than 30% of the intermediate aggregate is retained on the No. 4 sieve, and in the case of aggregates made primarily from crushing stone, unless otherwise shown on the plans, the loss by decantation may be increased to 3.0% for all classes of concrete and 5.0% for Class A, B, and P if the material finer than the No. 200 sieve is determined to be at least 85% calcium carbonate in accordance with Tex-406-A, Part III. Provide test results upon request.

- 2.7. **Mortar and Grout.** Furnish pre-packaged grouts conforming to DMS-4675, "Cementitious Grouts and Mortars for Miscellaneous Applications," when specified for applications other than post-tension grouting.

Section 421.4.2.6., "Mix Design Options," does not apply for mortar and grout.

- 2.8. **Storage of Materials.**

- 2.8.1. **Cement and Supplementary Cementing Materials.** Store all cement and supplementary cementing materials in weatherproof enclosures that will protect them from dampness or absorption of moisture.

When permitted, small quantities of packaged cementitious material may be stored in the open, on a raised platform, and under waterproof covering for up to 48 hr.

- 2.8.2. **Aggregates.** Handle and store concrete aggregates in a manner that prevents contamination with foreign materials. Clear and level the sites for the stockpiles of all vegetation if the aggregates are stored on the ground and do not use the bottom 6-in. layer of aggregate without cleaning the aggregate before use.

Maintain separate stockpiles and prevent intermixing when conditions require the use of 2 or more grades of coarse aggregates. Separate the stockpiles using physical barriers where space is limited. Store aggregates from different sources in different stockpiles unless the Engineer authorizes pre-blending of the aggregates. Minimize segregation in stockpiles. Remix and test stockpiles when segregation is apparent.

Sprinkle stockpiles to control moisture and temperature as necessary. Maintain reasonably uniform moisture content in aggregate stockpiles.

- 2.8.3. **Chemical Admixtures.** Store admixtures in accordance with manufacturer's recommendations and prevent admixtures from freezing.

3. EQUIPMENT

- 3.1. **Concrete Plants and Mixing Equipment.** Except for volumetric stationary plant or truck (auger) mixers, each plant and truck mixer must be currently certified by the National Ready Mixed Concrete Association (NRMCA) or have an inspection report signed and sealed by a licensed professional engineer showing concrete measuring, mixing, and delivery equipment meets all requirements of ASTM C94. A new certification or signed and sealed report is required every time a plant is moved. Plants with a licensed professional engineer's inspection require re-inspection every 2 yr. Provide a copy of the certification or the

signed and sealed inspection report to the Engineer. Remove equipment or facilities from service until corrected when they fail to meet specification requirements.

When allowed on the plans or by the Engineer, for concrete classes not identified as structural concrete in Table 8 or for Class C concrete not used for bridge-class structures, the Engineer may inspect and approve all plants and trucks instead of the NRMCA or non-Department engineer-sealed certifications. The criteria and frequency of Engineer approval of plants and trucks is the same used for NRMCA certification.

Inspect and furnish inspection reports on the condition of blades and fins and their percent wear from the original manufacturer's design for truck mixers and agitators annually. Repair mixing equipment exhibiting 10% or more wear before use. If an inspection within 12 mo. is not practical, a 2-mo. grace period (for a maximum of 14 mo. between inspections) is permitted.

3.1.1. **Scales.** Check all scales before beginning of operations, after each move, or whenever their accuracy or adequacy is questioned, and at least once every 6 mo. Immediately correct deficiencies, and recalibrate. Provide a record of calibration showing scales in compliance with ASTM C94 requirements. Check batching accuracy of volumetric water batching devices at least every 90 days. Check batching accuracy of chemical admixture dispensing devices at least every 6 mo. Perform daily checks as necessary to ensure measuring accuracy.

3.1.2. **Volumetric Mixers.** Provide volumetric mixers with rating plates defining the capacity and the performance of the mixer in accordance with the Volumetric Mixer Manufacturers Bureau or equivalent. Provide volumetric mixers that comply with ASTM C685. Provide test data showing mixers meet the uniformity test requirements of Tex-472-A.

Unless allowed on the plans or by the Engineer, volumetric truck (auger) mixers may not supply classes of concrete identified as structural concrete in Table 8.

3.1.3. **Agitators and Truck and Stationary Mixers.** 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 at least 5 of the 6 requirements of Tex-472-A are met.

Perform concrete uniformity tests on mixers or agitators in accordance with Tex-472-A as directed, to resolve issues of mix uniformity and mixer performance.

Perform the mixer or agitator uniformity test at the full rated capacity of the equipment. Remove all equipment that fails the uniformity test from service.

Inspect and maintain mixers and agitators. Keep them free of concrete buildup, and repair or replace worn or damaged blades or fins.

Ensure all mixers have a plate affixed showing manufacturer's recommended operating speed and rated capacity for mixing and agitating.

3.2. **Hauling Equipment.** Provide hauling equipment capable of maintaining the mixed concrete in a thoroughly mixed and uniform mass, and discharging the concrete with a satisfactory degree of uniformity.

Provide equipment with smooth, mortar-tight metal containers equipped with gates that prevent accidental discharge of the concrete when using non-agitating equipment for transporting concrete.

Maintain hauling equipment clean and free of built-up concrete.

3.3. **Testing Equipment.** Furnish and maintain the following in accordance with the pertinent test procedure unless otherwise shown on the plans or specified:

- sieves necessary to perform aggregate gradation analysis when optimized aggregate gradation is specified,

- equipment necessary to perform Tex-415-A and Tex-422-A,
- equipment necessary to perform Tex-409-A or Tex-425-A,
- test molds,
- curing facilities,
- maturity meters if used, and
- wheelbarrow or other container acceptable for the sampling of the concrete.

Provide strength-testing equipment when required in accordance with the Contract-controlling test unless shown otherwise.

4. CONSTRUCTION

- 4.1. **Classification of Concrete Mix Designs.** Provide classes of concrete meeting the requirements shown in Table 8.

A higher-strength class of concrete with equal or lower water-to-cementitious material (w/cm) ratio may be substituted for the specified class of concrete when approved.

- 4.2. **Mix Design Proportioning.** Furnish mix designs using ACI 211, Tex-470-A, or other approved procedures for the classes of concrete listed in Table 8 unless a design method is indicated on the plans. Perform mix design proportioning by absolute volume method unless otherwise approved. Perform cement replacement using equivalent weight method unless otherwise approved.

Do not exceed the maximum w/cm ratio listed in Table 8 when designing the mixture.

- 4.2.1. **Cementitious Materials.** Do not exceed 700 lb. of cementitious material per cubic yard of concrete unless otherwise specified or approved.

- Use cement of the same type and from the same source for monolithic placements.
- Do not use supplementary cementing materials when white hydraulic cement is specified.

**Table 8
Concrete Classes**

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 ⁵
A	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., Class C fly ash may be used instead of Class F fly ash.	Inlets, manholes, curb, gutter, curb & gutter, conc. retards, sidewalks, driveways, back-up walls, anchors, non-reinforced drilled shafts
B	2,000 2,500	0.60	2-7				Riprap, traffic signal controller foundations, small roadside signs, and anchors
C ⁶	3,600	0.45	1-6	I, II, I/II, IP, IS, IT, ⁷ V	1-8		Drilled shafts, bridge substructure, bridge railing, culverts except top slab of direct traffic culverts, headwalls, wing walls, approach slabs, inlets, manholes, concrete traffic barrier (cast-in-place)
E	3,000	0.50	2-5	I, II, I/II, IL, IP, IS, IT, ⁷ V	1-8	When the cementitious material content does not exceed 520 lb./cu. yd., Class C fly ash may be used instead of Class F fly ash.	Seal concrete
F ⁶	Note ⁸	0.45	2-5	I, II, I/II, IP, IS, IT, ⁷ V			Railroad structures; occasionally for bridge piers, columns, or bents

Table 8 (continued)
Concrete Classes

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 ⁵
H ⁶	Note ⁸	0.45	3-6	I, II, I/II, III, IP, IS, IT, ⁷ V	1-5	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.	Precast concrete, post-tension members
S ⁶	4,000	0.45	2-5	I, II, I/II, IP, IS, IT, ⁷ V	1-8		Bridge slabs, top slabs of direct traffic culverts
P	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., Class C fly ash may be used instead of Class F fly ash.	Concrete pavement
C0 ⁶	4,600	0.40	6				Bridge deck concrete overlay
LMC ⁶	4,000	0.40	6-8	I, II, I/II, IP, IS, IT, ⁷ V	1-8		Latex-modified concrete overlay
SS ⁶	3,600	0.45	4-6			Use a minimum cementitious material content of 658 lb./cu. yd. of concrete.	Slurry displacement shafts, underwater drilled shafts
K ⁶	Note ⁸	0.40	Note ⁸	I, II, I/II, III, IP, IS, IT, ⁷ V			Note ⁸
HES	Note ⁸	0.45	Note ⁸	I, IL, II, I/II, III		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) <small>6,9,10</small>	Note ¹¹	0.45	Note ¹¹	I, II, I/II, III, IP, IS, IT, ⁷ V	1-5, & 8	Maximum fly ash replacement for Options 1 and 3 may be increased to 45%. 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) <small>6,9,10</small>	Note ¹¹	0.45	Note ¹¹	I/II, II, IP, IS, IT, ⁷ V	1-4, & 7	Do not use Class C Fly Ash. Type III-MS may be used where allowed. Type I and Type III cements may be used with Options 1-3, 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. Do not use Option 7 for precast concrete.	

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. Do not use Type IT cements containing > 5% limestone.
8. As shown on the plans or specified.
9. "X" denotes class of concrete shown on the plans or specified.
10. (HPC): High Performance Concrete, (SRC): Sulfate Resistant Concrete.
11. Same as class of concrete shown on the plans.

4.2.2. **Aggregates.** Recycled crushed hydraulic cement concrete may be used as a coarse or fine aggregate in Class A, B, D, E, and P concrete. Limit recycled crushed concrete fine aggregate to a maximum of 20% of the fine aggregate.

Use light-colored aggregates when white hydraulic cement is specified.

Use fine aggregate with an acid insoluble residue of at least 60% by weight when tested in accordance with Tex-612-J in all concrete subject to direct traffic.

Use the following equation to determine if the aggregate combination meets the acid insoluble residue requirement when blending fine aggregate or using an intermediate aggregate:

$$\frac{(A_1 \times P_1) + (A_2 \times P_2) + (A_{ia} \times P_{ia})}{100} \geq 60\%$$

where:

A_1 = acid insoluble (%) of fine aggregate 1

A_2 = acid insoluble (%) of fine aggregate 2

A_{ia} = acid insoluble (%) 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

Alternatively to the above equation, blend fine aggregate with a micro-deval loss of less than 12%, when tested in accordance with Tex-461-A, with at least 40% of a fine aggregate with an acid insoluble residue of at least 60%.

- 4.2.3. **Chemical Admixtures.** Do not use Type C, Type E, Type F, or Type G admixtures in Class S bridge deck concrete. Do not use chemical admixtures containing calcium chloride in any concrete.

Use a 30% calcium nitrite solution when a corrosion-inhibiting admixture is required. The corrosion-inhibiting admixture must be set neutral unless otherwise approved. Dose the admixture at the rate of gallons of admixture per cubic yard of concrete shown on the plans.

- 4.2.4. **Air Entrainment.** Use an approved air-entraining admixture when air-entrained concrete is specified, or when an air-entraining admixture is used at the Contractor's option, and do not exceed the manufacturer's recommended dosage. Ensure the minimum entrained air content is at least 3.0% for all classes of concrete except Class P when air-entrained concrete is specified, during trial batch, or when providing previous field data.

- 4.2.5. **Slump.** Provide concrete with a slump in accordance with Table 9 unless otherwise specified. When approved, the slump of a given concrete mix may be increased above the values shown in Table 9 using chemical admixtures, provided the admixture-treated concrete has the same or lower water-to-cementitious material ratio and does not exhibit segregation or excessive bleeding. Request approval to exceed the slump limits in Table 9 sufficiently in advance for proper evaluation by the Engineer.

Perform job-control testing of slump in accordance with Section 421.4.8.3.1., "Job-Control Testing."

**Table 9
Placement Slump Requirements**

General Usage ¹	Placement Slump Range, ² in.
Walls (over 9 in. thick), caps, columns, piers, approach slabs, concrete overlays	3 to 5
Bridge slabs, top slabs of direct traffic culverts, latex-modified concrete for bridge deck overlays	3 to 5-1/2
Inlets, manholes, walls (less than 9 in. thick), bridge railing, culverts, concrete traffic barrier, concrete pavement (formed), seal concrete	4 to 5-1/2
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, anchors, riprap, small roadsidesign foundations, concrete pavement repair, concrete repair	As approved

1. For information only.
2. For fiber reinforced concrete, perform slump before addition of fibers.

4.2.6. Mix Design Options.

4.2.6.1. **Option 1.** Replace 20% to 35% of the cement with Class F fly ash.

4.2.6.2. **Option 2.** Replace 35% to 50% of the cement with slag cement or MFFA.

4.2.6.3. **Option 3.** Replace 35% to 50% of the cement with a combination of Class F fly ash, slag cement, MFFA, UFFA, metakaolin, or silica fume; however, no more than 35% may be fly ash, and no more than 10% may be silica fume.

4.2.6.4. **Option 4.** Use Type IP, Type IS, or Type IT cement as allowed in Table 5 for each class of concrete. Up to 10% of a Type IP, Type IS, or Type IT cement may be replaced with Class F 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.

4.2.6.5. **Option 5.** Replace 35% to 50% of the cement with a combination of Class C fly ash and at least 6% of silica fume, UFFA, or metakaolin. However, no more than 35% may be Class C fly ash, and no more than 10% may be silica fume.

4.2.6.6. **Option 6.** Use a lithium nitrate admixture at a minimum dosage determined by testing conducted in accordance with Tex-471-A, "Lithium Dosage Determination Using Accelerated Mortar Bar Testing." 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, "Lithium Dosage Determination Using Accelerated Mortar Bar Testing."

4.2.6.7. **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:

$$\text{lb. alkali per cu. yd.} = \frac{(\text{lb. cement per cu. yd.}) \times (\% \text{ Na}_2\text{O equivalent in cement})}{100}$$

4.2.6.8. **Option 8.** Perform annual testing as required for any deviations from Options 1–5 or use mix design options listed in Table 10. 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

Scenario	ASTM C1260 Result		Testing Requirements for Mix Design Materials or Prescriptive Mix Design Options ¹
	Mix Design Fine Aggregate	Mix Design Coarse Aggregate	
A	> 0.10%	> 0.10%	Determine the dosage of SCMs needed to limit the 14-day expansion of each aggregate ² to 0.08% when tested individually in accordance with ASTM C1567, or Use a minimum of 40% Class C fly ash with a maximum CaO ³ content of 25%.
B	§ 0.10%	§ 0.10%	Use a minimum of 40% Class C fly ash with a maximum CaO ³ 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 Class C fly ash, or Use any ternary combination which replaces 35% to 50% of cement.
C	§ 0.10%	> 0.10%	Determine the dosage of SCMs needed to limit the 14-day expansion of coarse and intermediate ² aggregate to 0.08% when tested individually in accordance with ASTM C1567, or Use a minimum of 40% Class C fly ash with a maximum CaO ³ content of 25%.
D	> 0.10%	§ 0.10%	Use a minimum of 40% Class C fly ash with a maximum CaO ³ 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 fine aggregate to 0.08% when tested in accordance with ASTM C1567.

- Do not use Class C fly ash if the ASTM C1260 value of the fine, intermediate, or coarse aggregate is 0.30% or greater, unless the fly ash is used as part of a ternary system.
- Intermediate size aggregates will fall under the requirements of mix design coarse aggregate.
- Average the CaO content from the previous ten values as listed on the mill certificate.

4.2.7. **Optimized Aggregate Gradation (OAG) Concrete.** The gradation requirements in Table 3 and Table 4 do not apply when OAG concrete is specified or used by the Contractor unless otherwise shown on the plans. Use Tex-470 to establish the optimized aggregate gradation. Use at least 420 lb. per cubic yard of cementitious material when OAG concrete is used unless otherwise approved. Use a coarse aggregate with a maximum nominal size of 1-1/2 in. for Class P concrete. Use a coarse aggregate for all other classes of concrete with a maximum nominal size not larger than:

- 1/5 the narrowest dimension between sides of forms, or
- 1/3 the depth of slabs, or
- 3/4 the minimum clear spacing between individual reinforcing bars or wires, bundles of bars, individual tendons, bundled tendons, or ducts.

Make necessary adjustments to individual aggregate stockpile proportions during OAG concrete production when the gradation deviates from the optimized gradation requirements.

4.2.8. **Self-Consolidating Concrete (SCC).** Provide SCC meeting the following requirements shown in Table 11 when approved for use in precast concrete. Use concrete with a slump flow that can be placed without vibration and will not segregate or excessively bleed.

Increase the slump flow of a given concrete mix above the values shown in Table 11 when approved, provided the concrete has the same or lower water-to-cementitious material ratio and meets all other requirements listed in Table 11. Request approval to exceed the slump flow limits sufficiently in advance for proper evaluation by the Engineer.

Table 11
Mix Design Requirements for SCC

Tests	Test Method	Acceptable Limits
Slump Flow for Precast Concrete	ASTM C1611	22 to 27 ¹
Slump Flow for Drilled Shafts	ASTM C1611	19 to 24 ¹
T ₅₀ , sec	ASTM C1611	2 to 7
VSI Rating	ASTM C1611	0 or 1
Passing Ability, in.	ASTM C1621	§ 2
Segregation Column, %	ASTM C1610	§ 10
Bleeding, %	ASTM C232	§ 2.5

1. These slump flow limits are generally acceptable for most applications. However, slump flow limits may be adjusted during mix design approval process and when approved by the Engineer.

- 4.3. **Concrete Trial Batches.** Perform preliminary and final trial batches when required by the plans, or when previous satisfactory field data is not available. Submit previous satisfactory field data to the Engineer showing the proposed mix design conforms to specification requirements when trial batches are not required and before concrete is placed.

Perform preliminary and final trial batches for all self-consolidating concrete mix designs.

- 4.3.1. **Preliminary Trial Batches.** Perform all necessary preliminary trial batch testing when required, and provide documentation including mix design, material proportions, and test results substantiating the mix design conforms to specification requirements.

- 4.3.2. **Final Trial batches.** Make all final trial batches using the proposed ingredients in a mixer that is representative of the mixers to be used on the job when required. Make the batch size at least 50% of the mixer's rated capacity. Perform fresh concrete tests for air content and slump, and make, cure, and test strength specimens for compliance with specification requirements. Test at least one set of design strength specimens, consisting of 2 specimens per set, at 7-day, 28-day, and at least one additional age unless otherwise directed. Before placing, provide the Engineer the option of witnessing final trial batches, including the testing of the concrete. If not provided this option, the Engineer may require additional trial batches, including testing, before the concrete is placed.

Conduct all testing listed in Table 11 when performing trial batches for self-consolidating concrete. Make an additional mixture with 3% more water than the preliminary trial batch. Make necessary adjustments to the mix design if this additional mixture does not meet requirements of Table 11. Cast and evaluate mock-ups for precast concrete that are representative of the actual product as directed. Provide the Engineer the option of witnessing final trial batches, including the testing of the concrete and the casting of the mock-ups before placement. If not provided this option, the Engineer may require additional trial batches, including testing and mock-ups, before the concrete is placed.

Establish 7-day compressive strength target values using the following formula for each Class A, B, and E concrete mix designs to be used:

$$\text{Target value} = \text{Minimum design strength} \times \frac{7\text{-day avg. trial batch strength}}{28\text{-day avg. trial batch strength}}$$

Submit previous satisfactory field data, data from a new trial batch, or other evidence showing the change will not adversely affect the relevant properties of the concrete when changes are made to the type, brand, or source of aggregates, cement, SCM, water, or chemical admixtures. Submit the data for approval before making changes to the mix design. A change in vendor does not necessarily constitute a change in materials or source. The Engineer may waive new trial batches when there is a prior record of satisfactory performance with the ingredients. During concrete production, dosage changes of chemical admixtures used in the trial batches will not require a re-evaluation of the mix design.

The Contractor has the option of performing trial batches in conjunction with concrete placements except for SCC mixtures, when new trial batches are required during the course of the project. If the concrete fails to meet any requirement, the Engineer will determine acceptability and payment adjustments.

Establish the strength–maturity relationship in accordance with Tex-426-A when the maturity method is specified or permitted. When using the maturity method, any changes in any of the ingredients, including changes in proportions, will require the development of a new strength–maturity relationship for the mix.

4.3.3. **Mix Design of Record.** Once a trial batch or previously satisfactory field data substantiates the mix design, the proportions and mixing methods used become the mix design of record. Do not exceed mix design water-to-cement ratio.

4.4. **Production Testing.**

4.4.1. **Aggregate Moisture Testing.** Determine moisture content per Tex-409-A or Tex-425-A for coarse, intermediate, and fine aggregates at least twice a week, when there is an apparent change, or for new shipments of aggregate. When aggregate hoppers or storage bins are equipped with properly maintained electronic moisture probes for continuous moisture determination, moisture tests per Tex-409-A or Tex-425-A are not required. Electronic moisture probes, however, must be verified at least every 90 days against Tex-409-A and be accurate to within 1.0% of the actual moisture content.

When producing SCC, and when aggregate hoppers or storage bins are not equipped with electric moisture probes, determine the moisture content of the aggregates before producing the first concrete batch each day. Thereafter, determine the moisture content every 4 hr. or when there is an apparent change while SCC is being produced.

4.4.2. **Aggregate Gradation Testing.** Perform a sieve analysis in accordance with Tex-401-A on each stockpile used in the blend at least one day before producing OAG concrete when producing optimized aggregate gradation concrete. Perform sieve analysis on each stockpile after every 10,000 cubic yards of OAG concrete produced. Provide sieve analysis data to the Engineer.

4.5. **Measurement of Materials.**

4.5.1. **Non-Volumetric Mixers.** Measure aggregates by weight. Correct batch weight measurements for aggregate moisture content. Measure mixing water, consisting of water added to the batch, ice added to the batch, water occurring as surface moisture on the aggregates, and water introduced in the form of admixtures, by volume or weight. Measure ice by weight. Measure cement and supplementary cementing materials in a hopper and on a separate scale from those used for other materials. Measure the cement first when measuring the cumulative weight. Measure concrete chemical admixtures by weight or volume. Measure batch materials within the tolerances of Table 12.

**Table 12
Mix Design Batching Tolerances—Non-Volumetric Mixers**

Material	Tolerance (%)
Cement, wt.	-1 to +3
SCM, wt.	-1 to +3
Cement + SCM (cumulative weighing), wt.	-1 to +3
Water, wt. or volume	±3 ¹
Fine aggregate, wt.	±2
Coarse aggregate, wt.	±2
Fine + coarse aggregate (cumulative weighing), wt.	±1
Chemical admixtures, wt. or volume	±3

1. Allowable deviation from target weight not including water withheld or moisture in the aggregate. The Engineer will verify the water-to-cementitious material ratio is within specified limits.

Ensure the quantity measured, when measuring cementitious materials at less than 30% of scale capacity, is accurate to not less than the required amount and not more than 4% in excess. Ensure the cumulative quantity, when measuring aggregates in a cumulative weigh batcher at less than 30% of the scale capacity,

is measured accurate to $\pm 0.3\%$ of scale capacity or $\pm 3\%$ of the required cumulative weight, whichever is less.

Measure cement in number of bags under special circumstances when approved. Use the weights listed on the packaging. Weighing bags of cement is not required. Ensure fractional bags are not used except for small hand-mixed batches of approximately 5 cu. ft. or less and when an approved method of volumetric or weight measurement is used.

- 4.5.2. **Volumetric Mixers.** Provide an accurate method of measuring all ingredients by volume, and calibrate equipment to assure correct measurement of materials within the specified tolerances. Base tolerances on volume–weight relationship established by calibration, and measure the various ingredients within the tolerances of Table 13. Correct batch measurements for aggregate moisture content.

Table 13
Mix Design Batching Tolerances—Volumetric Mixers

Material	Tolerance
Cement, wt. %	0 to +4
SCM, wt. %	0 to +4
Fine aggregate, wt. %	± 2
Coarse aggregate, wt. %	± 2
Admixtures, wt. or volume %	± 3
Water, wt. or volume %	± 1

- 4.6. **Mixing and Delivering Concrete.**

- 4.6.1. **Mixing Concrete.** Operate mixers and agitators within the limits of the rated capacity and speed of rotation for mixing and agitation as designated by the manufacturer of the equipment. Provide concrete in a thoroughly mixed and uniform mass with a satisfactory degree of uniformity when tested in accordance with Tex-472-A.

Do not top-load new concrete onto returned concrete.

Adjust mixing times and batching operations as necessary when the concrete contains silica fume to ensure the material is completely and uniformly dispersed in the mix. The dispersion of the silica fume within the mix will be verified by the Construction Division, Materials and Pavements Section, using cylinders made from trial batches. Make necessary changes to the batching operations, if uniform dispersion is not achieved, until uniform and complete dispersion of the silica fume is achieved.

Mix concrete by hand methods or in a small motor-driven mixer when permitted, for small placements of less than 2 cu. yd. For such placements, proportion the mix by volume or weight.

- 4.6.2. **Delivering Concrete.** Deliver concrete to the project in a thoroughly mixed and uniform mass, and discharge the concrete with a satisfactory degree of uniformity. Conduct testing in accordance with Tex-472-A when there is a reason to suspect the uniformity of concrete and as directed.

Maintain concrete delivery and placement rates sufficient to prevent cold joints.

Adding chemical admixtures or the portion of water withheld is only permitted at the jobsite, under the supervision of the Engineer, to adjust the slump or slump flow of the concrete. Do not add water or chemical admixtures to the batch after more than an amount needed to conduct slump testing has been discharged. Turn the drum or blades at least 30 additional revolutions at mixing speed to ensure thorough and uniform mixing of the concrete. When this water is added, do not exceed the approved mix design water-to-cementitious material ratio.

Before unloading, furnish the delivery ticket for the batch of concrete containing the information required on Department Form 596, "Concrete Batch Ticket." The Engineer will verify all required information is provided on the delivery tickets. The Engineer may suspend concrete operations until the corrective actions are

implemented if delivery tickets do not provide the required information. The Engineer will verify the design water-to-cementitious material ratio is not exceeded.

Begin the discharge of concrete delivered in truck mixers within the times listed in Table 14. Concrete may be discharged after these times provided the concrete temperature and slump meet the requirements listed in this Item and other pertinent Items. Perform these tests with certified testing personnel per

Section 421.4.8.1., "Certification of Testing Personnel." Provide the Engineer the option of witnessing testing of the concrete. If not provided this option, the Engineer may require additional testing before the concrete is placed.

**Table 14
Concrete Discharge
Times**

Fresh Concrete Temperature, °F	Max Time After Batching for Concrete Not Containing Type B or D Admixtures, min.	Max Time After Batching for Concrete Containing Type B or D Admixtures, ¹ min.
90 and above	45	75
75 ≤ T < 90	60	90
T < 75	90	120

1. Concrete must contain at least the minimum manufacturer's recommended dosage of Type B or D admixture.

4.7. **Placing, Finishing, and Curing Concrete.** Place, finish, and cure concrete in accordance with the pertinent Items.

4.8. **Sampling and Testing of Concrete.** Unless otherwise specified, all fresh and hardened concrete is subject to testing as follows:

4.8.1. **Certification of Testing Personnel.** Contractor personnel performing testing must be either ACI-certified or qualified by a Department-recognized equivalent written and performance testing program for the tests being performed. Personnel performing these tests are subject to Department approval. Use of a commercial laboratory is permitted at the Contractor's option. All personnel performing testing using the maturity method must be qualified by a training program recognized by the Department before using this method on the job.

4.8.2. **Fresh Concrete.** Provide safe access and assistance to the Engineer during sampling. Fresh concrete will be sampled for testing at the discharge end if using belt conveyors or pumps. When it is impractical to sample at the discharge end, a sample will be taken at the time of discharge from the delivery equipment and correlation testing will be performed and documented to ensure specification requirements are met at the discharge end.

4.8.3. **Testing of Fresh Concrete.** Test for the fresh properties listed in Table 15.

**Table 15
Fresh Concrete Tests**

Tests	Test Methods
Slump ¹	Tex-415-A
Temperature ¹	Tex-422-A
Air Content ²	Tex-414-A, Tex-416-A or ASTM C457

1. Job-control testing performed by the Contractor.
2. Only required during concrete trial batch when air-entrained concrete is specified on the plans.

Concrete with a slump lower than the minimum placement slump in Table 9 after the addition of all water withheld, or concrete exhibiting segregation and excessive bleeding may be rejected.

When SCC exceeds the maximum placement slump flow or VSI rating, the Engineer will immediately resample and retest the concrete slump flow and VSI rating. If the concrete exceeds the maximum placement slump flow or VSI rating after the retest, the concrete will be rejected.

- 4.8.3.1. **Job-Control Testing.** Perform job-control concrete temperature and slump testing as specified in Table 16 unless otherwise specified. Provide the Engineer the opportunity to witness the testing. The Engineer may require a retest if not given the opportunity to witness. Immediately notify the Engineer of any concrete temperature or slump nonconformity issues. Furnish a copy of all test results to the Engineer daily.

Table 16
Job-Control Testing
Frequencies

Concrete Placements	Frequency
Bridge Deck Placements	Test the first few loads, then every fifth load delivered.
All Other Structural Class Concrete Placements	One test every 60 cu. yd. or fraction thereof.
Non-Structural Class Concrete Placements	One test every 180 cu. yd. or fraction thereof.

Immediately resample and retest the concrete slump when the concrete exceeds the slump range at time of placement. If the concrete exceeds the slump range after the retest, and is used at the Contractor's option, the Engineer will make strength specimens as specified in Article 421.5., "Acceptance of Concrete."

- 4.8.3.2. **Strength Specimen Handling.** Remove specimens from their molds and deliver Department test specimens to curing facilities within 24 to 48 hr. after molding, in accordance with pertinent test procedures unless otherwise shown on the plans or directed. Clean and prepare molds for reuse if necessary.

5. ACCEPTANCE OF CONCRETE

The Engineer will sample and test the fresh and hardened concrete for acceptance. The test results will be reported to the Contractor and the concrete supplier. Investigate the quality of the materials, the concrete production operations, and other possible problem areas to determine the cause for any concrete that fails to meet the required strengths as outlined below. Take necessary actions to correct the problem including redesign of the concrete mix. The Engineer may suspend all concrete operations under the pertinent Items if the Contractor is unable to identify, document, and correct the cause of the low strengths in a timely manner. Resume concrete operations only after obtaining approval for any proposed corrective actions. Concrete failing to meet the required strength as outlined below will be evaluated using the procedures listed in Article 421.6., "Measurement and Payment."

- 5.1. **Structural Concrete.** For concrete classes identified as structural concrete in Table 8, the Engineer will make and test 7-day and 28-day specimens. Acceptance will be based on attaining the design strength given in Table 8.
- 5.2. **Class P and Class HES.** The Engineer will base acceptance in accordance with Item 360, "Concrete Pavement," and Item 361, "Repair of Concrete Pavement."
- 5.3. **All Other Concrete.** For concrete classes not identified as structural concrete in Table 8, the Engineer will make and test 7-day specimens. The Engineer will base acceptance on the 7-day target value established in accordance with Section 421.4.3., "Concrete Trial Batches."

6. MEASUREMENT AND PAYMENT

The work performed, materials furnished, equipment, labor, tools, and incidentals will not be measured or paid for directly but will be subsidiary to pertinent Items.

The following procedure will be used to evaluate concrete where one or more project acceptance test specimens fail to meet the required design strength specified in this Item or on the plans:

- The concrete for a given placement will be considered structurally adequate and accepted at full price if the average of all test results for specimens made at the time of placement meets the required design strength provided no single test result is less than 85% of the required design strength.
- The Engineer will perform a structural review of the concrete to determine its adequacy to remain in service if the average of all test results for specimens made at the time of placement is less than the required design strength or if any test results are less than 85% of the required design strength. If the in-situ concrete strength is needed for the structural review, take cores at locations designated by the Engineer in accordance with Tex-424-A. The Engineer will test the cores. The coring and testing will be at the Contractor's expense.
- If all of the tested cores meet the required design strength, the concrete will be paid for at full price.
- If any of the tested cores do not meet the required design strength, but the average strength attained is determined to be structurally adequate, the Engineer will determine the limits of the payadjustment using the following formula:

$$A = B_p \left[-5.37 \left(\frac{S_a}{S_s} \right)^2 + 11.69 \left(\frac{S_a}{S_s} \right) - 5.32 \right]$$

where:

A = Amount to be paid per unit of measure for the entire placement in question

S_a = Actual average strength from cylinders or cores. Use values from cores, if taken.

S_s = Minimum required strength (specified)

B_p = Unit Bid Price

- If the structural review determines the concrete is not adequate to remain in service, the Engineer will determine the limits of the concrete to be removed.
- The decision to reject structurally inadequate concrete or to apply the pay adjustment factor will be made no later than 56 days after placement.

Item 464

Reinforced Concrete Pipe



1. DESCRIPTION

Furnish and install reinforced concrete pipe, materials for precast concrete pipe culverts, or precast concrete storm drain mains, laterals, stubs, and inlet leads.

2. MATERIALS

2.1. **Fabrication.** Fabrication plants must be approved by the Construction Division in accordance with [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification," before furnishing precast reinforced concrete pipe for Department 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-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."

2.2. **Design.**

2.2.1. **General.** The class and D-load equivalents are shown in Table 1. Furnish arch pipe in accordance with ASTM C506 and the dimensions shown in Table 2. Furnish horizontal elliptical pipe in accordance with ASTM C507 and the dimensions shown in Table 3. For arch pipe and horizontal elliptical pipe the minimum height of cover required is 1 ft.

Table 1
Circular Pipe
ASTM C76 & ASTM C655

Class	D-Load
I	800
II	1,000
III	1,350
IV	2,000
V	3,000

Table 2
Arch Pipe

Design Size	Equivalent Diameter (in.)	Rise (in.)	Span (in.)
1	18	13-1/2	22
2	21	15-1/2	26
3	24	18	28-1/2
4	30	22-1/2	36-1/4
5	36	26-5/8	43-3/4
6	42	31-5/16	51-1/8
7	48	36	58-1/2
8	54	40	65
9	60	45	73
10	72	54	88

Table 3
Horizontal Elliptical Pipe

Design Size	Equivalent Diameter (in.)	Rise (in.)	Span (in.)
1	18	14	23
2	24	19	30
3	27	22	34
4	30	24	38
5	33	27	42
6	36	29	45
7	39	32	49
8	42	34	53
9	48	38	60
10	54	43	68

- 2.2.2. **Jacking, Boring, or Tunneling.** Design pipe for jacking, boring, or tunneling considering the specific installation conditions such as the soil conditions, installation methods, anticipated deflection angles, and jacking stresses. Provide design notes and drawings signed and sealed by a Texas licensed professional engineer when requested.
- 2.3. **Marking.** Furnish each section of reinforced concrete pipe marked with the following information specified in [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- class or D-load of pipe,
 - ASTM designation,
 - date of manufacture,
 - pipe size,
 - name or trademark of fabricator and plant location,
 - designated fabricator's approval stamp,
 - pipe to be used for jacking and boring (when applicable), and
 - designation "SR" for pipe meeting sulfate-resistant concrete plan requirements (when applicable).
- Clearly mark 1 end of each section during the process of manufacture or immediately thereafter for pipe with elliptical reinforcement. Mark the pipe on the inside and outside of opposite walls to show the location of the top or bottom of the pipe as it should be installed unless the external shape of the pipe is such that the correct position of the top and bottom is obvious. Mark the pipe section by indenting or painting with waterproof paint.
- 2.4. **Inspection.** Provide access for inspection of the finished pipe at the project site before and during installation.
- 2.5. **Causes for Rejection.** Individual section of pipe may be rejected for any of the conditions stated in the Annex of [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- 2.6. **Repairs.** Make repairs if necessary as stated in the Annex of [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- 2.7. **Jointing Materials.** Use any of the following materials for the making of joints unless otherwise shown on the plans. Furnish a manufacturer's certificate of compliance for all jointing materials except mortar.
- 2.7.1. **Mortar.** Provide mortar for joints that meets the requirements of Section 464.3.3., "Jointing."
- 2.7.2. **Cold-Applied, Plastic Asphalt Sewer Joint Compound.** Provide a material that consists of natural or processed asphalt base, suitable volatile solvents, and inert filler. Ensure the consistency is such that the

ends of the pipe can be coated with a layer of the compound up to 1/2 in. thick by means of a trowel. Provide a joint compound that cures to a firm, stiff plastic condition after application. Provide a material of a uniform mixture. Stir any small separation found in the container into a uniform mix before using.

Provide a material that meets the requirements of Table 4 when tested in accordance with [Tex-526-C](#).

Table 4
Cold-Applied, Plastic Asphalt Sewer Joint Compound Material Requirements

Composition	Analysis
Asphalt base, 100%-% volatiles-% ash, % by weight	28-45
Volatiles, 212°F evaporation, 24 hr., % by weight	10-26
Mineral matter, determined as ash, % by weight	30-55
Consistency, cone penetration, 150 q, 5 sec., 77°F	150-275

- 2.7.3. **Rubber Gaskets.** Provide gaskets that conform to ASTM C1619 Class A or C. Meet the requirements of ASTM C443 for design of the pipe joints and permissible variations in dimensions.
- 2.7.4. **Pre-Formed Flexible Joint Sealants.** Pre-formed flexible joint sealants may be used for sealing joints of tongue-and-groove concrete pipe. Provide flexible joint sealants that meet the requirements of ASTM C990. Use flexible joint sealants that do not depend on oxidizing, evaporating, or chemical action for its adhesive or cohesive strength. Supply in extruded rope form of suitable cross-section. Provide a size of the pre-formed flexible joint sealant in accordance with the manufacturer's recommendations and large enough to properly seal the joint. Protect flexible joint sealants with a suitable wrapper able to maintain the integrity of the jointing material when the wrapper is removed.

3. CONSTRUCTION

- 3.1. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures," except where jacking, boring, or tunneling methods are permitted. Jack, bore, or tunnel the pipe in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box." Immediate backfilling is permitted if joints consist of materials other than mortar. Take special precautions in placing and compacting the backfill to avoid any movement of the pipe or damage to the joints. Do not use heavy earth-moving equipment to haul over the structure until a minimum of 4 ft. of permanent or temporary compacted fill has been placed over the structure unless otherwise shown on the plans or permitted in writing. Remove and replace pipe damaged by the Contractor at no expense to the Department.
- 3.2. **Laying Pipe.** Start the laying of pipe on the bedding at the outlet end with the spigot or tongue end pointing downstream, and proceed toward the inlet end with the abutting sections properly matched, true to the established lines and grades unless otherwise authorized. Fit, match, and lay the pipe to form a smooth, uniform conduit. Cut cross trenches in the foundation to allow the barrel of the pipe to rest firmly upon the bedding where bell-and-spigot pipe is used. Cut cross trenches no more than 2 in. larger than the bell ends of the pipe. Lower sections of pipe into the trench without damaging the pipe or disturbing the bedding and the sides of the trench. Carefully clean the ends of the pipe before the pipe is placed. Prevent the earth or bedding material from entering the pipe as it is laid. Lay the pipe in the trench, when elliptical pipe with circular reinforcing or circular pipe with elliptical reinforcing is used, so the markings for the top or bottom are not more than 5° from the vertical plane through the longitudinal axis of the pipe. Remove and re-lay, without extra compensation, pipe that is not in alignment or shows excessive settlement after laying.

Lay multiple lines of reinforced concrete pipe with the centerlines of the individual barrels parallel. Use the clear distances between outer surfaces of adjacent pipes shown in Table 5 unless otherwise shown on the plans. Use the equivalent diameter from Table 2 or Table 3 for arch pipe or horizontal elliptical pipe to determine the clear distance requirement in Table 5.

Table 5
Minimum Clear Distance between Pipes

Equivalent Diameter	Min Clear Distance
18 in.	9 in.
24 in.	11 in.
30 in.	1 ft. 1 in.
36 in.	1 ft. 3 in.
42 in.	1 ft. 5 in.
48 in.	1 ft. 7 in.
54 in.	1 ft. 11 in.
60 to 84 in.	2 ft.

- 3.3. **Jointing.** Make available an appropriate rolling device similar to an automobile mechanic's "creeper" for conveyance through small-size pipe structures.
- 3.3.1. **Joints Sealed with Hydraulic Cement Mortar.** Use Type S mortar meeting the requirements of ASTM C270. Clean and wet the pipe ends before making the joint. Plaster the lower half of the bell or groove and the upper half of the tongue or spigot with mortar. Pack mortar into the joint from both inside and outside the pipe after the pipes are tightly jointed. Finish the inside smooth and flush with adjacent joints of pipe. Form a bead of semicircular cross-section over tongue-and-groove joints outside the pipe, extending at least 1 in. on each side of the joint. Form the mortar for bell-and-spigot joints to a 45° fillet between the outer edge of the bell and the spigot. Cure mortar joints by keeping the joints wet for at least 48 hr. or until the backfill has been completed, whichever comes first. Place fill or backfill once the mortar jointing material has cured for at least 6 hr. Conduct jointing only when the atmospheric temperature is above 40°F. Protect mortared joints against freezing by backfilling or other approved methods for at least 24 hr.
- Driveway culverts do not require mortar banding on the outside of the pipe.
- Furnish pipes, with approval, that are large enough for a person to enter with the groove between 1/2 in. and 3/4 in. longer than the tongue. Such pipe may be laid and backfilled without mortar joints. Clean the space on the interior of the pipe between the end of the tongue and the groove of all foreign material, thoroughly wet and fill with mortar around the entire circumference of the pipe, and finish flush after the backfilling has been completed.
- 3.3.2. **Joints Using Cold-Applied, Plastic Asphalt Sewer Joint Compound.** Ensure both ends of the pipes are clean and dry. Trowel or otherwise place a 1/2-in. thick layer of the compound in the groove end of the pipe covering at least 2/3 of the joint face around the entire circumference. Shove home the tongue end of the next pipe with enough pressure to make a tight joint. Remove any excess mastic projecting into the pipe after the joint is made. Backfill after the joint has been inspected and approved.
- 3.3.3. **Joints Using Rubber Gaskets.** Make the joint assembly according to the recommendations of the gasket manufacturer. Make joints watertight when using rubber gaskets. Backfill after the joint has been inspected and approved.
- 3.3.4. **Joints Using Pre-Formed Flexible Joint Sealants.** Install pre-formed flexible joint sealants in accordance with the manufacturer's recommendations. Place the joint sealer so no dirt or other deleterious materials come in contact with the joint sealing material. Pull or push home the pipe with enough force to properly seal the joint. Remove any joint material pushed out into the interior of the pipe that would tend to obstruct the flow. Store pre-formed flexible joint sealants in an area warmed naturally or artificially to above 70°F in an approved manner when the atmospheric temperature is below 60°F. Apply flexible joint sealants to pipe joints immediately before placing pipe in trench, and connect pipe to previously laid pipe. Backfill after the joint has been inspected and approved.
- 3.4. **Connections and Stub Ends.** Make connections of concrete pipe to existing pipes, pipe storm drains, or storm drain appurtenances as shown on the plans.

Mortar or concrete the bottom of existing structures if necessary to eliminate any drainage pockets created by the connections. Repair any damage to the existing structure resulting from making the connections.

Make connections between concrete pipe and corrugated metal pipe with a suitable concrete collar and a minimum thickness of 4 in. unless otherwise shown on the plans.

Finish stub ends for connections to future work not shown on the plans by installing watertight plugs into the free end of the pipe.

Fill lift holes with concrete, mortar, or precast concrete plugs after the pipe is in place.

4. MEASUREMENT

This Item will be measured by the *linear* foot. Measurement will be made between the ends of the pipe barrel along the flow line, not including safety end treatments. Safety end treatments will be measured in accordance with Item 467, "Safety End Treatment." Pipe that will be jacked, bored, or tunneled will be measured in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box." Measurement of spurs, branches, or new connecting pipe will be made from the intersection of the flow line with the outside surface of the pipe into which it connects. Where inlets, headwalls, catch basins, manholes, junction chambers, or other structures are included in lines of pipe, the length of pipe tying into the structure wall will be included for measurement, but no other portion of the structure length or width will be included.

For multiple pipes, the measured length will be the sum of the lengths of the barrels.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

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 "Reinforced Concrete Pipe," "Reinforced Concrete Pipe (Arch)," or "Reinforced Concrete Pipe (Elliptical)" of the size and D-load specified or of the size and class specified. This price is full compensation for constructing, furnishing, transporting, placing, and joining pipes; shaping the bed; cutting pipes on skew or slope; connecting to new or existing structures; breaking back, removing, and disposing of portions of the existing structure; replacing portions of the existing structure; cutting pipe ends on skew or slope; and equipment, labor, tools, and incidentals.

Protection methods for excavations greater than 5 ft. deep will be measured and paid for as required under Item 402, "Trench Excavation Protection," or Item 403, "Temporary Special Shoring." Excavation, shaping, bedding, and backfill will be paid for in accordance with Item 400, "Excavation and Backfill for Structures." When jacking, boring, or tunneling is used at the Contractor's option, payment will be made under this Item. When jacking, boring or tunneling is required, payment will be made under Item 476, "Jacking, Boring or Tunneling Pipe or Box."

Payment will be made under:

<i>Item TX-464-5.1</i>	<i>Reinforced Concrete Pipe, 12", Class III — per linear foot</i>
<i>Item TX-464-5.1</i>	<i>Reinforced Concrete Pipe, 21", Class III — per linear foot</i>

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Item 465

Junction Boxes, Manholes, and Inlets



1. Description

Construct junction boxes, manholes, and inlets, complete in place or to the stage detailed, including furnishing and installing frames, grates, rings, and covers.

2. Materials

Furnish materials in accordance with the following:

- Item 420, "Concrete Substructures,"
- Item 421, "Hydraulic Cement Concrete,"
- Item 440, "Reinforcement for Concrete," and
- Item 471, "Frames, Grates, Rings, and Covers."

Cast-in-place junction boxes, manholes, inlets, risers, and appurtenances are acceptable unless otherwise shown. Alternate designs for cast-in-place items must be acceptable to the Engineer and must conform to functional dimensions and design loading. Alternate designs must be designed and sealed by a licensed professional engineer.

- 2.1. **Concrete.** Furnish Class H concrete as referenced in Item 421 "Hydraulic Cement Concrete," except that Mix Design Options 1–8 will be allowed for formed precast junction boxes, manholes, and inlets. Furnish concrete per [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification," for machine-made precast junction boxes, manholes, and inlets. Furnish Class C concrete for cast-in-place manholes and inlets unless otherwise shown on the plans.
- 2.2. **Mortar.** Furnish mortar conforming to [DMS-4675](#), "Cementitious Grouts and Mortars for Miscellaneous Applications."
- 2.3. **Timber.** Provide sound timber that is a minimum of 3 in. nominal thickness and reasonably free of knots and warps for temporary covers when used with Stage I construction (see Article 465.3., "Construction").
- 2.4. **Other Materials.** Use commercial-type hardware as approved.

3. Construction

Construct all types of junction boxes, manholes, and inlets either complete or in 2 stages, described as Stage I and Stage II.

Construct the Stage I portion of junction boxes, manholes, and inlets as shown on the plans or as specified in this Item. Furnish and install a temporary cover as approved.

Furnish and install the storm drain pipe and a temporary plug for the exposed end of the storm drain pipe from the storm drain to a point below the top of curb indicated on the plans for Stage I construction of cast iron or steel inlet units.

Construct Stage II after the pavement structure is substantially complete unless otherwise approved.

Construct the remaining wall height and top of junction box, manhole, or inlet for Stage II, and furnish and install any frames, grates, rings and covers, curb beams, or collecting basins required.

Construct cast-in-place junction boxes, manholes, and inlets in accordance with Item 420, "Concrete Substructures." Forms will be required for all concrete walls. Outside wall forms for cast-in-place concrete may be omitted with approval if the surrounding material can be trimmed to a smooth vertical face.

- 3.1. **Precast Junction Boxes, Manholes, and Inlets.** Construct formed precast junction boxes, manholes, and inlets in accordance with Item 420, "Concrete Substructures," except as otherwise noted in this Item. Construct machine-made precast junction boxes, manholes, and inlets in accordance with ASTM C478 except as otherwise noted in this Item. Mix and place concrete for machine-made junction boxes, manholes, and inlets per the requirements of [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification." Conform to the product permissible variations and rejection criteria stated in ASTM C478 for machine-made precast junction boxes, manholes, and inlets. Cure all precast units in accordance with Item 424, "Precast Concrete Structural Members (Fabrication)."

Multi-project fabrication plants as defined in Item 424 "Precast Concrete Structural Members (Fabrication)," that produce manholes and inlets will be approved by the Construction Division in accordance with [DMS-7340](#), "Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Junction Boxes, Manholes and Inlets." The Department's MPL has a list of approved multi-project plants.

- 3.1.1. **Lifting Holes.** Provide no more than 4 lifting holes in each section for precast units. Lifting holes may be cast, cut into fresh concrete after form removal, or drilled. Provide lifting holes large enough for adequate lifting devices based on the size and weight of the section. The maximum hole diameter is 3 in. at the inside surface of the wall and 4 in. at the outside surface. Cut no more than 5 in. in any direction of reinforcement per layer for lifting holes. Repair spalled areas around lifting holes.
- 3.1.2. **Marking.** Clearly mark each precast junction box, manhole, and inlet unit with the following information:
- name or trademark of fabricator and plant location;
 - product designation;
 - ASTM designation (if applicable);
 - date of manufacture;
 - designated fabricator's approval stamp; and
 - designation "SR" for product meeting sulfate-resistant concrete plan requirements (when applicable).
- 3.1.3. **Storage and Shipment.** Store precast units on a level surface. Do not ship units until design strength requirements have been met.
- 3.2. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures." Immediate backfilling is permitted for all junction box, manhole, and inlet structures where joints consist of rubber boots, rubber gaskets, or bulk or preformed joint sealant. Take precautions in placing and compacting the backfill to avoid any movement of junction boxes, manholes, and inlets. Remove and replace junction boxes, manholes, and inlets damaged by the Contractor at no expense to the Department.
- 3.3. **Junction Boxes, Manholes, and Inlets for Precast Concrete Pipe Storm Drains.** Construct junction boxes, manholes, and inlets for precast concrete pipe storm drains before completion of storm drain lines into or through the junction box, manhole, or inlet. Neatly cut all storm drains at the inside face of the walls of the junction box, manhole, or inlet.
- 3.4. **Junction Boxes, Manholes, and Inlets for Box Storm Drains.** Place bases or risers of junction boxes, manholes, and inlets for box storm drains before or in conjunction with placement of the storm drain. Backfill the junction box, manhole, or inlet and storm drain as a whole.

- 3.5. **Inverts. Shape and route floor inverts passing out or through the junction box, manhole, or inlet as shown on the plans. Shape by adding and shaping mortar or concrete after the base is placed or by placing the required additional material with the base.**
- 3.6. **Finishing Complete Junction Boxes, Manholes, and Inlets. Complete junction boxes, manholes, and inlets in accordance with the plans. Backfill to original ground elevation in accordance with Item 400, "Excavation and Backfill for Structures."**
- 3.7. **Finishing Stage I Construction. Complete Stage I construction by constructing the walls to the elevations shown on the plans and backfilling to required elevations in accordance with Item 400, "Excavation and Backfill for Structures."**
- 3.8. **Stage II Construction. Construct subgrade and base course or concrete pavement construction over Stage I junction box, manhole, or inlet construction unless otherwise approved. Excavate to expose the top of Stage I construction and complete the junction box, manhole or inlet in accordance with the plans and these Specifications, including backfill and cleaning of all debris from the bottom of the junction box, manhole, or inlet.**
- 3.9. **Inlet Units. Install cast iron or steel inlet units in conjunction with the construction of concrete curb and gutter. Set the inlet units securely in position before placing concrete for curb and gutter. Form openings for the inlets and recesses in curb and gutter as shown on the plans. Place and thoroughly consolidate concrete for curb and gutter adjacent to inlets and around the inlet castings and formed openings and recesses without displacing the inlet units.**

4. Measurement and Payment

All junction boxes, manholes, and inlets satisfactorily completed in accordance with the plans and specifications will be measured by each junction box, manhole, or inlet, complete, or by each junction box, manhole, or inlet completed to the stage of construction required by the plans.

5. Payment

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for as follows:

- 5.1. ~~Complete Manholes. Payment for complete manholes will be made at the unit price bid for "Manhole (Complete)" of the type specified.~~
- 5.2. **Complete Inlets. Payment for inlets will be made at the unit price bid for "Inlet (Complete)," of the type specified.**
- 5.3. ~~Complete Junction Boxes. Payment for junction boxes will be made at the unit price bid for "Junction Box (Complete)" of the type specified.~~
- 5.4. ~~Manholes Stage I. Payment for Manholes, Stage I, will be made at the unit price bid for each "Manhole (Stage I)" of the type specified.~~
- 5.5. ~~Manholes Stage II. Payment for Manholes, Stage II, will be made at the unit price bid for each "Manhole (Stage II)" of the type specified.~~
- 5.6. ~~Inlets Stage I. Payment for Inlets, Stage I, will be made at the unit price bid for each "Inlet (Stage I)" of the type specified.~~
- 5.7. ~~Inlets Stage II. Payment for Inlets, Stage II, will be made at the unit price bid for each "Inlet (Stage II)" of the type specified.~~

- 5.8. ~~Junction Boxes Stage I. Payment for Junction Boxes, Stage I, will be made at the unit price bid for each "Junction Box (Stage I)" of the type specified.~~
- 5.9. ~~Junction Boxes Stage II. Payment for Junction Boxes, Stage II, will be made at the unit price bid for each "Junction Box (Stage II)" of the type specified.~~

This price is full compensation for concrete, reinforcing steel, mortar, frames, grates, rings and covers, excavation, and backfill and for all other materials, tools, equipment, labor, and incidentals.

Payment will be made under:

Item TX-465-5.1

4' X 4' Single Grate Pre-Fabricated Inlet (Complete) — per Each

Item 496

Removing Structures



1. DESCRIPTION

Remove and either dispose of or salvage structures.

2. CONSTRUCTION

- 2.1. **Demolition Plans.** Follow the demolition sequence shown on the plans. ~~for bridge structures to be removed, or submit a demolition plan if indicated on the plans. Include in the required demolition plan the type and location of equipment to be used, the method and sequence of removal of the structural elements, and a narrative indicating the stability of the partially demolished structure is maintained throughout the demolition process. Have these plans signed and sealed by a licensed professional engineer when demolished structure intersects active roadways and as otherwise shown on the plans. Submit required demolition plans at least 14 days before starting work unless otherwise directed. Department approval of these plans is not required, but the Department reserves the right to request modifications to the plans when work could affect the safety of the traveling public and when around other transportation facilities to remain in place. Notify the Department 30 days before starting any bridge demolition work to allow for required notifications to other agencies.~~
- 2.2. **Removal.**
- 2.2.1. **Pipes.** Avoid damaging appurtenances determined by the Engineer to be salvageable.
- 2.2.2. **Concrete, Brick, or Stone Structures.** Portions of structures that will not interfere with the proposed construction may remain in place 2 ft. or more below the permanent ground line. Square off remaining structures and cut reinforcement flush with the surface of the concrete.
- 2.2.3. **Steel Structures.** Dismantle steel to be retained by the Department or re-erected by cold-cutting fastener heads and punching or drilling the remaining portion of the fastener, air-arc gouging welded connections, and flame-cutting beams along a straight line. The Engineer may approve other methods of cutting. Cut beams at the locations shown on the plans. Match-mark steel to be re-erected with paint in accordance with the erection drawings. Remove steel piles or cut off 2 ft. or more below the permanent ground line.
- 2.2.4. **Timber Structures. (Wood posts)** Remove all fasteners from timber determined by the engineer to be salvageable. Remove timber piles or cut off 2 ft. or more below the permanent ground line.-
- 2.3. **Salvage.** Avoid damage to materials shown on the plans to be salvaged. Deliver materials to be retained by the Department to the location shown on the plans. Block up salvaged steel materials off the ground.
- 2.4. **Disposal.** Material removed that is not deemed to be salvageable is the property of the Contractor. Dispose of removed material off the right of way in accordance with federal, state, and local regulations.
- 2.5. **Backfill.** Backfill excavation and voids to the original ground line if resulting from the removal of structures. Place backfill that will support any portion of the roadbed or embankment to the same requirements for placing embankment. Backfill other areas in 10 in. layers, loose measurement, and compact to the density of adjacent undisturbed material.

3. MEASUREMENT

~~This Item will be measured by each structure or by the foot.~~

Inlet removal shall be per each inlet removed.

Bollard removal shall be per each bollard removed.

4. PAYMENT

The work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Removing Structures" **Inlet Removal or Bollard Removal** of the type of structure specified. This price is full compensation for demolition plan preparation, loading, hauling, disposal, stockpiling, removal of appurtenances, excavation and backfill, equipment, labor, tools, and incidentals.

Payment will be made under:

Item TX 496-5.1 Inlet Removal — per each

Item TX 496-5.2 Bollard Removal — per each

Item TX 496-5.3 Pipe Removal — per linear foot

Item 506

Temporary Erosion, Sedimentation, and Environmental Controls



1. DESCRIPTION

Install, maintain, and remove erosion, sedimentation, and environmental control measures to prevent or reduce the discharge of pollutants in accordance with the Storm Water Pollution Prevention Plan (SWP3) on the plans and the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR150000. Control measures are defined as Best Management Practices used to prevent or reduce the discharge of pollutants. Control measures include, but are not limited to, rock filter dams, temporary pipe slope drains, temporary paved flumes, construction exits, earthwork for erosion control, pipe, construction perimeter fence, sandbags, temporary sediment control fence, biodegradable erosion control logs, vertical tracking, temporary or permanent seeding, and other measures. Erosion and sediment control devices must be selected from the *Erosion Control Approved Products* or *Sediment Control Approved Products* lists. Perform work in a manner to prevent degradation of receiving waters, facilitate project construction, and comply with applicable federal, state, and local regulations. Ensure the installation and maintenance of control measures is performed in accordance with the manufacturer's or designer's specifications.

Provide the Contractor Certification of Compliance before performing SWP3 or soil disturbing activities. By signing the Contractor Certification of Compliance, the Contractor certifies they have read and understand the requirements applicable to this project pertaining to the SWP3, the plans, and the TPDES General Permit TXR150000. The Contractor is responsible for any penalties associated with non-performance of installation or maintenance activities required for compliance. Ensure the most current version of the certificate is executed for this project.

2. MATERIALS

Furnish materials in accordance with the following:

- Item 161, "Compost"
- Item 432, "Riprap"
- Item 556, "Pipe Underdrains"

2.1. Rock Filter Dams.

2.1.1. **Aggregate.** Furnish aggregate with approved hardness, durability, cleanliness, and resistance to crumbling, flaking, and eroding. Provide the following:

- Types 1, 2, and 4 Rock Filter Dams. Use 3 to 6 in. aggregate.
- Type 3 Rock Filter Dams. Use 4 to 8 in. aggregate.

2.1.2. **Wire.** Provide minimum 20 gauge galvanized wire for the steel wire mesh and tie wires for Types 2 and 3 rock filter dams. Type 4 dams require:

- a double-twisted, hexagonal weave with a nominal mesh opening of 2-1/2 × 3-1/4 in.;
- minimum 0.0866 in. steel wire for netting;
- minimum 0.1063 in. steel wire for selvages and corners; and
- minimum 0.0866 in. for binding or tie wire.

2.1.3. **Sandbag Material.** Furnish sandbags meeting Section 506.2.8., "Sandbags," except that any gradation of aggregate may be used to fill the sandbags.

2.2. **Temporary Pipe Slope Drains.** Provide corrugated metal pipe, polyvinyl chloride (PVC) pipe, flexible tubing,

watertight connection bands, grommet materials, prefabricated fittings, and flared entrance sections that conform to the plans. Recycled and other materials meeting these requirements are allowed if approved.

Furnish concrete in accordance with Item 432, "Riprap."

- 2.3. **Temporary Paved Flumes.** Furnish asphalt concrete, hydraulic cement concrete, or other comparable non-erodible material that conforms to the plans. Provide rock or rubble with a minimum diameter of 6 in. and a maximum volume of 1/2 cu. ft. for the construction of energy dissipaters.
- 2.4. **Construction Exits.** Provide materials that meet the details shown on the plans and this Section.
- 2.4.1. **Rock Construction Exit.** Provide crushed aggregate for long- and short-term construction exits. Furnish aggregates that are clean, hard, durable, and free from adherent coatings such as salt, alkali, dirt, clay, loam, shale, soft or flaky materials, and organic and injurious matter. Use 4- to 8-in. aggregate for Type 1. Use 2- to 4-in. aggregate for Type 3.
- 2.4.2. **Timber Construction Exit.** Furnish No. 2 quality or better railroad ties and timbers for long-term construction exits, free of large and loose knots and treated to control rot. Fasten timbers with nuts and bolts or lag bolts, of at least 1/2 in. diameter, unless otherwise shown on the plans or allowed. Provide plywood or pressed wafer board at least 1/2 in. thick for short-term exits.
- 2.4.3. **Foundation Course.** Provide a foundation course consisting of flexible base, bituminous concrete, hydraulic cement concrete, or other materials as shown on the plans or directed.
- 2.5. **Embankment for Erosion Control.** Provide rock, loam, clay, topsoil, or other earth materials that will form a stable embankment to meet the intended use.
- 2.6. **Pipe.** Provide pipe outlet material in accordance with Item 556, "Pipe Underdrains," and details shown on the plans.
- 2.7. **Construction Perimeter Fence.**
- 2.7.1. **Posts.** Provide essentially straight wood or steel posts that are at least 60 in. long. Furnish soft wood posts with a minimum diameter of 3 in., or use nominal 2 × 4 in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/5 in. Furnish T- or L-shaped steel posts with a minimum weight of 0.5 lb. per foot.
- 2.7.2. **Fence.** Provide orange construction fencing as approved.
- 2.7.3. **Fence Wire.** Provide 11 gauge or larger galvanized smooth or twisted wire. Provide 16 gauge or larger tie wire.
- 2.7.4. **Flagging.** Provide brightly-colored flagging that is fade-resistant and at least 3/4 in. wide to provide maximum visibility both day and night.
- 2.7.5. **Staples.** Provide staples with a crown at least 1/2 in. wide and legs at least 1/2 in. long.
- 2.7.6. **Used Materials.** Previously used materials meeting the applicable requirements may be used if approved.
- 2.8. **Sandbags.** Provide sandbag material of polypropylene, polyethylene, or polyamide woven fabric with a minimum unit weight of 4 oz. per square yard, a Mullen burst-strength exceeding 300 psi, and an ultraviolet stability exceeding 70%.

Use natural coarse sand or manufactured sand meeting the gradation given in Table 1 to fill sandbags. Filled sandbags must be 24 to 30 in. long, 16 to 18 in. wide, and 6 to 8 in. thick.

Table 1
Sand
Gradation

Sieve Size	Retained (% by Weight)
#4	Maximum 3%
#100	Minimum 80%
#200	Minimum 95%

Aggregate may be used instead of sand for situations where sandbags are not adjacent to traffic. The aggregate size must not exceed 3/8 in.

- 2.9. **Temporary Sediment Control Fence.** Provide a net-reinforced fence using woven geo-textile fabric. Logos visible to the traveling public will not be allowed.
- 2.9.1. **Fabric.** Provide fabric materials in accordance with DMS-6230, "Temporary Sediment Control Fence Fabric."
- 2.9.2. **Posts.** Provide essentially straight wood or steel posts with a minimum length of 48 in., unless otherwise shown on the plans. Furnish soft wood posts at least 3 in. in diameter, or use nominal 2 × 4 in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/2 in. Furnish T- or L-shaped steel posts with a minimum weight of 1.3 lb. per foot.
- 2.9.3. **Net Reinforcement.** Provide net reinforcement of at least 12-1/2 gauge galvanized welded wire mesh, with a maximum opening size of 2 × 4 in., at least 24 in. wide, unless otherwise shown on the plans.
- 2.9.4. **Staples.** Provide staples with a crown at least 3/4 in. wide and legs 1/2 in. long.
- 2.9.5. **Used Materials.** Use recycled material meeting the applicable requirements if approved.
- 2.10. **Biodegradable Erosion Control Logs.**
- 2.10.1. **Core Material.** Furnish core material that is biodegradable or recyclable. Use compost, mulch, aspen excelsior wood fibers, chipped site vegetation, agricultural rice or wheat straw, coconut fiber, 100% recyclable fibers, or any other acceptable material unless specifically called out on the plans. Permit no more than 5% of the material to escape from the containment mesh. Furnish compost meeting the requirements of Item 161, "Compost."
- 2.10.2. **Containment Mesh.** Furnish containment mesh that is 100% biodegradable, photodegradable, or recyclable such as burlap, twine, UV photodegradable plastic, polyester, or any other acceptable material.
- Furnish biodegradable or photodegradable containment mesh when log will remain in place as part of a vegetative system.
- Furnish recyclable containment mesh for temporary installations.
- 2.10.3. **Size.** Furnish biodegradable erosion control logs with diameters shown on the plans or as directed. Stuff containment mesh densely so logs do not deform.

3. QUALIFICATIONS, TRAINING, AND EMPLOYEE REQUIREMENTS

- 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 storm water and erosion control practices; will oversee and observe storm water 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. 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 submit 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. Provide the most current list at the preconstruction conference or before SWP3 or soil disturbing activities. Update the list as needed and provide the updated list when updated.

- 3.2. **Contractor Superintendent Qualifications and Responsibilities.** Provide a superintendent that is competent, has experience with and knowledge of storm water management, and is knowledgeable of the requirements and the conditions of the TPDES General Permit TXR150000. The superintendent will manage and oversee the day to day operations and activities at the project site; work with the CRPE to provide effective storm water management at the project site; represent and act on behalf of the Contractor; and attend the Department's preconstruction conference for the project.
- 3.3. **Training.** All Contractor and subcontractor employees involved in soil disturbing activities, small or large structures, storm water control measures, and seeding activities must complete training as prescribed by the Department.

4. CONSTRUCTION

- 4.1. **Contractor Responsibilities.** Implement the SWP3 for the project site in accordance with the plans and specifications, TPDES General Permit TXR150000, and as directed. Coordinate storm water management with all other work on the project. Develop and implement an SWP3 for project-specific material supply plants within and outside of the Department's right of way in accordance with the specific or general storm water permit requirements. Prevent water pollution from storm water associated with construction activity from entering any surface water or private property on or adjacent to the project site.
- 4.2. **Implementation.** The CRPE, or alternate CRPE, must be accessible by phone and able to respond to project-related storm water management or other environmental emergencies 24 hr. per day.
- 4.2.1. **Commencement.** Implement the SWP3 as shown and as directed. Contractor-proposed recommendations for changes will be allowed as approved. Conform to the established guidelines in the TPDES General Permit TXR150000 to make changes. Do not implement changes until approval has been received and changes have been incorporated into the plans. Minor adjustments to meet field conditions are allowed and will be recorded in the SWP3.
- 4.2.2. **Phasing.** Implement control measures before the commencement of activities that result in soil disturbance. Phase and minimize the soil disturbance to the areas shown on the plans. Coordinate temporary control measures with permanent control measures and all other work activities on the project to assure economical, effective, safe, and continuous water pollution prevention. Provide control measures that are appropriate to the construction means, methods, and sequencing allowed by the Contract. Exercise precaution throughout the life of the project to prevent pollution of ground waters and surface waters. Schedule and perform clearing and grubbing operations so that stabilization measures will follow immediately thereafter if project conditions permit. Bring all grading sections to final grade as soon as possible and implement temporary and permanent control measures at the earliest time possible. Implement temporary control measures when required by the TPDES General Permit TXR150000 or otherwise necessitated by project conditions.
- Do not prolong final grading and shaping. Preserve vegetation where possible throughout the project, and minimize clearing, grubbing, and excavation within stream banks, bed, and approach sections.
- 4.3. **General.**

- 4.3.1. **Temporary Alterations or Control Measure Removal.** Altering or removal of control measures is allowed when control measures are restored within the same working day.
- 4.3.2. **Stabilization.** Initiate stabilization for disturbed areas no more than 14 days after the construction activities in that portion of the site have temporarily or permanently ceased. Establish a uniform vegetative cover or use another stabilization practice in accordance with the TPDES General Permit TXR150000.
- 4.3.3. **Finished Work.** Remove and dispose of all temporary control measures upon acceptance of vegetative cover or other stabilization practice unless otherwise directed. Complete soil disturbing activities and establish a uniform perennial vegetative cover. A project will not be considered for acceptance until a vegetative cover of 70% density of existing adjacent undisturbed areas is obtained or equivalent permanent stabilization is obtained in accordance with the TPDES General Permit TXR150000. An exception will be allowed in arid areas as defined in the TPDES General Permit TXR150000.
- 4.3.4. **Restricted Activities and Required Precautions.** Do not discharge onto the ground or surface waters any pollutants such as chemicals, raw sewage, fuels, lubricants, coolants, hydraulic fluids, bitumens, or any other petroleum product. Operate and maintain equipment on-site to prevent actual or potential water pollution. Manage, control, and dispose of litter on-site such that no adverse impacts to water quality occur. Prevent dust from creating a potential or actual unsafe condition, public nuisance, or condition endangering the value, utility, or appearance of any property. Wash out concrete trucks only as described in the TPDES General Permit TXR150000. Use appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water (i.e., dewatering). Prevent discharges that would contribute to a violation of Edwards Aquifer Rules, water quality standards, the impairment of a listed water body, or other state or federal law.
- 4.4. **Installation, Maintenance, and Removal Work.** Perform work in accordance with the SWP3, according to manufacturers' guidelines, and in accordance with the TPDES General Permit TXR150000. Install and maintain the integrity of temporary erosion and sedimentation control devices to accumulate silt and debris until soil disturbing activities are completed and permanent erosion control features are in place or the disturbed area has been adequately stabilized as approved.

The Department will inspect and document the condition of the control measures at the frequency shown on the plans and will provide the Construction SWP3 Field Inspection and Maintenance Reports to the Contractor. Make corrections as soon as possible before the next anticipated rain event or within 7 calendar days after being able to enter the worksite for each control measure. The only acceptable reason for not accomplishing the corrections with the time frame specified is when site conditions are "Too Wet to Work." Take immediate action if a correction is deemed critical as directed. When corrections are not made within the established time frame, all work will cease on the project and time charges will continue while the control measures are brought into compliance. Commence work once the Engineer reviews and documents the project is in compliance. Commencing work does not release the Contractor of the liability for noncompliance of the SWP3, plans, or TPDES General Permit TXR150000.

The Engineer may limit the disturbed area if the Contractor cannot control soil erosion and sedimentation resulting from the Contractor's operations. Implement additional controls as directed.

Remove devices upon approval or as directed. Finish-grade and dress the area upon removal. Stabilize disturbed areas in accordance with the permit, and as shown on the plans or directed. Materials removed are considered consumed by the project. Retain ownership of stockpiled material and remove it from the project when new installations or replacements are no longer required.

- 4.4.1. **Rock Filter Dams for Erosion Control.** Remove trees, brush, stumps, and other objectionable material that may interfere with the construction of rock filter dams. Place sandbags as a foundation when required or at the Contractor's option.

Place the aggregate to the lines, height, and slopes specified, without undue voids for Types 1, 2, 3, and 5. Place the aggregate on the mesh and then fold the mesh at the upstream side over the aggregate and

secure it to itself on the downstream side with wire ties, or hog rings for Types 2 and 3, or as directed. Place rock filter dams perpendicular to the flow of the stream or channel unless otherwise directed. Construct filter dams according to the following criteria unless otherwise shown on the plans:

- 4.4.1.1. **Type 1 (Non-Reinforced).**
- **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.2. **Type 2 (Reinforced).**
- **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.3. **Type 3 (Reinforced).**
- **Height.** At least 36 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.4. **Type 4 (Sack Gabions).** Unfold sack gabions and smooth out kinks and bends. Connect the sides by lacing in a single loop–double loop pattern on 4- to 5-in. spacing for vertical filling. Pull the end lacing rod at one end until tight, wrap around the end, and twist 4 times. Fill with stone at the filling end, pull the rod tight, cut the wire with approximately 6 in. remaining, and twist wires 4 times.
- Place the sack flat in a filling trough, fill with stone, connect sides, and secure ends as described above for horizontal filling.
- Lift and place without damaging the gabion. Shape sack gabions to existing contours.
- 4.4.1.5. **Type 5.** Provide rock filter dams as shown on the plans.
- 4.4.2. **Temporary Pipe Slope Drains.** Install pipe with a slope as shown on the plans or as directed. Construct embankment for the drainage system in 8-in. lifts to the required elevations. Hand-tamp the soil around and under the entrance section to the top of the embankment as shown on the plans or as directed. Form the top of the embankment or earth dike over the pipe slope drain at least 1 ft. higher than the top of the inlet pipe at all points. Secure the pipe with hold-downs or hold-down grommets spaced a maximum of 10 ft. on center. Construct the energy dissipaters or sediment traps as shown on the plans or as directed. Construct the sediment trap using concrete or rubble riprap in accordance with Item 432, "Riprap," when designated on the plans.
- 4.4.3. **Temporary Paved Flumes.** Construct paved flumes as shown on the plans or as directed. Provide excavation and embankment (including compaction of the subgrade) of material to the dimensions shown on the plans unless otherwise indicated. Install a rock or rubble riprap energy dissipater, constructed from the materials specified above, to a minimum depth of 9 in. at the flume outlet to the limits shown on the plans or as directed.
- 4.4.4. **Construction Exits.** Prevent traffic from crossing or exiting the construction site or moving directly onto a public roadway, alley, sidewalk, parking area, or other right of way areas other than at the location of construction exits when tracking conditions exist. Construct exits for either long- or short-term use.
- 4.4.4.1. **Long-Term.** Place the exit over a foundation course as required. Grade the foundation course or compacted subgrade to direct runoff from the construction exits to a sediment trap as shown on the plans or as directed. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed.

- 4.4.4.1.1. **Type 1.** Construct to a depth of at least 8 in. using crushed aggregate as shown on the plans or as directed.
- 4.4.4.1.2. **Type 2.** Construct using railroad ties and timbers as shown on the plans or as directed.
- 4.4.4.2. **Short-Term.**
- 4.4.4.2.1. **Type 3.** Construct using crushed aggregate, plywood, or wafer board. This type of exit may be used for daily operations where long-term exits are not practical.
- 4.4.4.2.2. **Type 4.** Construct as shown on the plans or as directed.
- 4.4.5. **Earthwork for Erosion Control.** Perform excavation and embankment operations to minimize erosion and to remove collected sediments from other erosion control devices.
- 4.4.5.1. **Excavation and Embankment for Erosion Control Features.** Place earth dikes, swales, or combinations of both along the low crown of daily lift placement, or as directed, to prevent runoff spillover. Place swales and dikes at other locations as shown on the plans or as directed to prevent runoff spillover or to divert runoff. Construct cuts with the low end blocked with undisturbed earth to prevent erosion of hillsides. Construct sediment traps at drainage structures in conjunction with other erosion control measures as shown on the plans or as directed.
- Create a sediment basin, where required, providing 3,600 cu. ft. of storage per acre drained, or equivalent control measures for drainage locations that serve an area with 10 or more disturbed acres at one time, not including offsite areas.
- 4.4.5.2. **Excavation of Sediment and Debris.** Remove sediment and debris when accumulation affects the performance of the devices, after a rain, and when directed.
- 4.4.6. **Construction Perimeter Fence.** Construct, align, and locate fencing as shown on the plans or as directed.
- 4.4.6.1. **Installation of Posts.** Embed posts 18 in. deep or adequately anchor in rock, with a spacing of 8 to 10 ft.
- 4.4.6.2. **Wire Attachment.** Attach the top wire to the posts at least 3 ft. from the ground. Attach the lower wire midway between the ground and the top wire.
- 4.4.6.3. **Flag Attachment.** Attach flagging to both wire strands midway between each post. Use flagging at least 18 in. long. Tie flagging to the wire using a square knot.
- 4.4.7. **Sandbags for Erosion Control.** Construct a berm or dam of sandbags that will intercept sediment-laden storm water runoff from disturbed areas, create a retention pond, detain sediment, and release water in sheet flow. Fill each bag with sand so that at least the top 6 in. of the bag is unfilled to allow for proper tying of the open end. Place the sandbags with their tied ends in the same direction. Offset subsequent rows of sandbags 1/2 the length of the preceding row. Place a single layer of sandbags downstream as a secondary debris trap. Place additional sandbags as necessary or as directed for supplementary support to berms or dams of sandbags or earth.
- 4.4.8. **Temporary Sediment-Control Fence.** Provide temporary sediment-control fence near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the fence into erosion-control measures used to control sediment in areas of higher flow. Install the fence as shown on the plans, as specified in this Section, or as directed.
- 4.4.8.1. **Installation of Posts.** Embed posts at least 18 in. deep, or adequately anchor, if in rock, with a spacing of 6 to 8 ft. and install on a slight angle toward the runoff source.
- 4.4.8.2. **Fabric Anchoring.** Dig trenches along the uphill side of the fence to anchor 6 to 8 in. of fabric. Provide a minimum trench cross-section of 6 × 6 in. Place the fabric against the side of the trench and align

approximately 2 in. of fabric along the bottom in the upstream direction. Backfill the trench, then hand-tamp.

4.4.8.3. **Fabric and Net Reinforcement Attachment.** Attach the reinforcement to wooden posts with staples, or to steel posts with T-clips, in at least 4 places equally spaced unless otherwise shown on the plans. Sewn vertical pockets may be used to attach reinforcement to end posts. Fasten the fabric to the top strand of reinforcement by hog rings or cord every 15 in. or less.

4.4.8.4. **Fabric and Net Splices.** Locate splices at a fence post with a minimum lap of 6 in. attached in at least 6 places equally spaced unless otherwise shown on the plans. Do not locate splices in concentrated flow areas.

Requirements for installation of used temporary sediment-control fence include the following:

- fabric with minimal or no visible signs of biodegradation (weak fibers),
- fabric without excessive patching (more than 1 patch every 15 to 20 ft.),
- posts without bends, and
- backing without holes.

4.4.9. **Biodegradable Erosion Control Logs.** Install biodegradable erosion control logs near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the biodegradable erosion control logs into the erosion measures used to control sediment in areas of higher flow. Install, align, and locate the biodegradable erosion control logs as specified below, as shown on the plans, or as directed.

Secure biodegradable erosion control logs in a method adequate to prevent displacement as a result of normal rain events, prevent damage to the logs, and as approved, such that flow is not allowed under the logs. Temporarily removing and replacing biodegradable erosion logs as to facilitate daily work is allowed at the Contractor's expense.

4.4.10. **Vertical Tracking.** Perform vertical tracking on slopes to temporarily stabilize soil. Provide equipment with a track undercarriage capable of producing a linear soil impression measuring a minimum of 12 in. long × 2 to 4 in. wide × 1/2 to 2 in. deep. Do not exceed 12 in. between track impressions. Install continuous linear track impressions where the 12 in. length impressions are perpendicular to the slope. Vertical tracking is required on projects where soil disturbing activities have occurred unless otherwise approved.

4.5. **Monitoring and Documentation.** Monitor the control measures on a daily basis as long as there are BMPs in place and/or soil disturbing activities are evident to ensure compliance with the SWP3 and TPDES General Permit TXR150000. During time suspensions when work is not occurring or contract non-work days, daily inspections are not required unless a rain event has occurred. Monitoring will consist of, but is not limited to, observing, inspecting, and documenting site locations with control measures and discharge points to provide maintenance and inspection of controls as described in the SWP3. Keep written records of daily monitoring. Document in the daily monitoring report the control measure condition, the date of inspection, required corrective actions, responsible person for making the corrections, and the date corrective actions were completed. Maintain records of all monitoring reports at the project site or at an approved place. Provide copies within 7 days. Together, the CRPE and an Engineer's representative will complete the Construction Stage Gate Checklist on a periodic basis as directed.

5. MEASUREMENT

5.1. **Rock Filter Dams.** Installation or removal of rock filter dams will be measured by the foot or by the cubic yard. The measured volume will include sandbags, when used.

5.1.1. **Linear Measurement.** When rock filter dams are measured by the foot, measurement will be along the centerline of the top of the dam.

5.1.2. **Volume Measurement.** When rock filter dams are measured by the cubic yard, measurement will be

based on the volume of rock computed by the method of average end areas.

- 5.1.2.1. **Installation.** Measurement will be made in final position.
- 5.1.2.2. **Removal.** Measurement will be made at the point of removal.
- 5.2. **Temporary Pipe Slope Drains.** Temporary pipe slope drains will be measured by the foot.
- 5.3. **Temporary Paved Flumes.** Temporary paved flumes will be measured by the square yard of surface area. The measured area will include the energy dissipater at the flume outlet.
- 5.4. **Construction Exits.** Construction exits will be measured by the square yard of surface area.
- 5.5. **Earthwork for Erosion and Sediment Control.**
- 5.5.1. **Equipment and Labor Measurement.** Equipment and labor used will be measured by the actual number of hours the equipment is operated and the labor is engaged in the work.
- 5.5.2. **Volume Measurement.**
- 5.5.2.1. **In Place.**
- 5.5.2.1.1. **Excavation.** Excavation will be measured by the cubic yard in its original position and the volume computed by the method of average end areas.
- 5.5.2.1.2. **Embankment.** Embankment will be measured by the cubic yard in its final position by the method of average end areas. The volume of embankment will be determined between:
- the original ground surfaces or the surface upon that the embankment is to be constructed for the feature and
 - the lines, grades and slopes of the accepted embankment for the feature.
- 5.5.2.2. **In Vehicles.** Excavation and embankment quantities will be combined and paid for under "Earthwork (Erosion and Sediment Control, In Vehicle)." Excavation will be measured by the cubic yard in vehicles at the point of removal. Embankment will be measured by the cubic yard in vehicles measured at the point of delivery. Shrinkage or swelling factors will not be considered in determining the calculated quantities.
- 5.6. **Construction Perimeter Fence.** Construction perimeter fence will be measured by the foot.
- 5.7. **Sandbags for Erosion Control.** Sandbags will be measured as each sandbag or by the foot along the top of sandbag berms or dams.
- 5.8. **Temporary Sediment-Control Fence.** Installation or removal of temporary sediment-control fence will be measured by the foot.
- 5.9. **Biodegradable Erosion Control Logs.** Installation or removal of biodegradable erosion control logs will be measured by the foot along the centerline of the top of the control logs.
- 5.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly but is considered subsidiary to this Item.

6. PAYMENT

The following will not be paid for directly but are subsidiary to pertinent Items:

- erosion-control measures for Contractor project-specific locations (PSLs) inside and outside the right of way (such as construction and haul roads, field offices, equipment

- and supply areas, plants, and material sources);
- removal of litter, unless a separate pay item is shown on the plans;
- repair to devices and features damaged by Contractor operations;
- added measures and maintenance needed due to negligence, carelessness, lack of maintenance, and failure to install permanent controls;
- removal and reinstallation of devices and features needed for the convenience of the Contractor;
- finish grading and dressing upon removal of the device; and
- minor adjustments including but not limited to plumbing posts, reattaching fabric, minor grading to maintain slopes on an erosion embankment feature, or moving small numbers of sandbags.

Stabilization of disturbed areas will be paid for under pertinent Items except vertical tacking which is subsidiary.

Furnishing and installing pipe for outfalls associated with sediment traps and ponds will not be paid for directly but is subsidiary to the excavation and embankment under this Item.

6.1. **Rock Filter Dams.** 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 as follows:

6.1.1. **Installation.** Installation will be paid for as "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

6.1.2. **Removal.** Removal will be paid for as "Rock Filter Dams (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

When the Engineer directs that the rock filter dam installation or portions thereof be replaced, payment will be made at the unit price bid for "Rock Filter Dams (Remove)" and for "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

6.2. **Temporary Pipe Slope Drains.** 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 "Temporary Pipe Slope Drains" of the size specified. This price is full compensation for furnishing materials, removal and disposal, furnishing and operating equipment, labor, tools, and incidentals.

Removal of temporary pipe slope drains will not be paid for directly but is subsidiary to the installation Item. When the Engineer directs that the pipe slope drain installation or portions thereof be replaced, payment will be made at the unit price bid for "Temporary Pipe Slope Drains" of the size specified, which is full compensation for the removal and reinstallation of the pipe drain.

Earthwork required for the pipe slope drain installation, including construction of the sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

Riprap concrete or stone, when used as an energy dissipater or as a stabilized sediment trap, will be measured and paid for in accordance with Item 432, "Riprap."

6.3. **Temporary Paved Flumes.** 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 "Temporary Paved Flume (Install)" or "Temporary Paved Flume (Remove)." This price is full compensation for furnishing and placing materials, removal and disposal, equipment, labor, tools, and incidentals.

When the Engineer directs that the paved flume installation or portions thereof be replaced, payment will be

made at the unit prices bid for "Temporary Paved Flume (Remove)" and "Temporary Paved Flume (Install)." These prices are full compensation for the removal and replacement of the paved flume and for equipment, labor, tools, and incidentals.

Earthwork required for the paved flume installation, including construction of a sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 6.4. **Construction Exits.** Contractor required construction exits from off right of way locations or on right of way PSLs will not be paid for directly but are subsidiary to pertinent items.

The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" for construction exits needed on right of way access to work areas required by the Department will be paid for at the unit price bid for "Construction Exits (Install)" of the type specified or "Construction Exits (Remove)." This price is full compensation for furnishing and placing materials, excavating, removal and disposal, cleaning vehicles, labor, tools, and incidentals.

When the Engineer directs that a construction exit or portion thereof be removed and replaced, payment will be made at the unit prices bid for "Construction Exit (Remove)" and "Construction Exit (Install)" of the type specified. These prices are full compensation for the removal and replacement of the construction exit and for equipment, labor, tools, and incidentals.

Construction of sediment traps used in conjunction with the construction exit will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 6.5. **Earthwork for Erosion and Sediment Control.**

- 6.5.1. **Initial Earthwork for Erosion and Sediment Control.** 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 "Excavation (Erosion and Sediment Control, In Place)," "Embankment (Erosion and Sediment Control, In Place)," "Excavation (Erosion and Sediment Control, In Vehicle)," "Embankment (Erosion and Sediment Control, In Vehicle)," or "Earthwork (Erosion and Sediment Control, In Vehicle)."

This price is full compensation for excavation and embankment including hauling, disposal of material not used elsewhere on the project; embankments including furnishing material from approved sources and construction of erosion control features; and equipment, labor, tools, and incidentals.

Sprinkling and rolling required by this item will not be paid for directly but will be subsidiary to this item.

- 6.5.2. **Maintenance Earthwork for Erosion and Sediment Control for Cleaning and Restoring Control Measures.** The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid under a Contractor Force Account item from invoice provided to the Engineer.

This price is full compensation for excavation, embankment, and re-grading including removal of accumulated sediment in various erosion control installations as directed, hauling, and disposal of material not used elsewhere on the project; excavation for construction of erosion control features; embankments including furnishing material from approved sources and construction of erosion control features; and equipment, labor, tools, and incidentals.

Earthwork needed to remove and obliterate erosion control features will not be paid for directly but is subsidiary to pertinent items unless otherwise shown on the plans.

Sprinkling and rolling required by this item will not be paid for directly but will be subsidiary to this item.

- 6.6. **Construction Perimeter Fence.** 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 "Construction Perimeter Fence." This price is full compensation for furnishing and placing the fence; digging, fence posts,

wire, and flagging; removal and disposal; and materials, equipment, labor, tools, and incidentals.

Removal of construction perimeter fence will be not be paid for directly but is subsidiary to the installation Item. When the Engineer directs that the perimeter fence installation or portions thereof be removed and replaced, payment will be made at the unit price bid for "Construction Perimeter Fence," which is full compensation for the removal and reinstallation of the construction perimeter fence.

- 6.7. **Sandbags for Erosion Control.** Sandbags will be paid for at the unit price bid for "Sandbags for Erosion Control" (of the height specified when measurement is by the foot). This price is full compensation for materials, placing sandbags, removal and disposal, equipment, labor, tools, and incidentals.

Removal of sandbags will not be paid for directly but is subsidiary to the installation Item. When the Engineer directs that the sandbag installation or portions thereof be replaced, payment will be made at the unit price bid for "Sandbags for Erosion Control," which is full compensation for the reinstallation of the sandbags.

- 6.8. **Temporary Sediment-Control Fence.** 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 as follows:

- 6.8.1. **Installation.** Installation will be paid for as "Temporary Sediment-Control Fence (Install)." This price is full compensation for furnishing and operating equipment finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

- 6.8.2. **Removal.** Removal will be paid for as "Temporary Sediment-Control Fence (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

- 6.9. **Biodegradable Erosion Control Logs.** 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 as follows:

- 6.9.1. **Installation.** Installation will be paid for as "Biodegradable Erosion Control Logs (Install)" of the size specified. This price is full compensation for furnishing and operating equipment finish backfill and grading, staking, proper disposal, labor, materials, tools, and incidentals.

- 6.9.2. **Removal.** Removal will be paid for as "Biodegradable Erosion Control Logs (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

- 6.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly but is considered subsidiary to this Item.

Temporary erosion control acceptably completed will be paid for at the contract lump sum price bid for "TEMPORARY EROSION CONTROL," which shall be full compensation for furnishing all materials, tools, equipment, labor, and incidentals necessary to complete the work. Periodic payments will be made under this item in proportion to the amount of work accomplished, as determined by the Engineer. Payment for "TEMPORARY EROSION CONTROL" will also include obtaining and compliance with the SWPPP, which shall include compensation for drainage-way inspections, report preparation, housekeeping practices, cleaning and maintenance, and other actions outlined in the SWPPP prepared by the Contractor necessary to execute the Plan. This item consists of all erosion control items not listed as a separate pay item in the Unit Price Schedule. Any fines issued to the Owner as a result of the Contractor's insufficient execution of the SWPPP will be assessed to the Contractor. Such deductions shall not be limited to the lump sum price of this item.

Payment will be made under:

Item TX-506-5.1

Temporary Erosion Control—per Lump Sum

Item 772

Post and Cable Fence



1. Description

Install, repair, or remove post and cable fence.

2. Materials

Furnish materials as follows, unless otherwise shown on the plans.

- 2.1. **Posts.** Furnish timber posts meeting [DMS-7200](#), “Timber Posts and Blocks for Metal Beam Guard Fence.”
- 2.2. **Cable.** Furnish wire cable meeting ASTM A475 and the following requirements:
- 3/8 in. nominal strand diameter,
 - 7-wire strand, common grade,
 - minimum breaking strength of 4,000 lb., and
 - 0.30 oz. per square foot minimum weight of zinc coating.
- 2.3. **Fittings and Anchors.** Furnish fittings and anchors galvanized in accordance with ASTM A153.
- 2.4. **Concrete.** Furnish concrete meeting Item 421, “Hydraulic Cement Concrete,” of the class shown on the plans.
- 2.5. **Reflectors.** Furnish reflectors as shown on the plans.
- 2.6. **Backfill.** Furnish backfill material as approved.
- 2.7. **Gate.** Furnish gates as shown on the plans.

3. Work Methods

Install, repair, or remove post and cable fence, including reflectors and related items as shown on the plans.

- 3.1. **Removal.** Remove concrete anchors, posts, and cable. Backfill and thoroughly compact post and anchor holes. Accept ownership of removed materials, unless otherwise shown on the plans. Dispose of removed materials in accordance with federal, state, and local regulations.
- 3.2. **Installation.** Place new anchors, posts, and cable as shown on the plans. Set posts on firm foundation and plumb to the required lines and grades. Thoroughly compact backfill in 4-in. layers. Space pull posts as shown on the plans. Lengthen or shorten one pull post space per continuous section if necessary, to accommodate site conditions. Cover or fill open holes at the end of each workday.
- Maintain current pull post spacing of existing installations if approved. Straighten undamaged posts that are more than 1 in. out of plumb. Stretch cable to remove sag between posts. One cable splice will be allowed between posts, adjacent to the post, but no more than 2 splices in any 100 ft. of cable. Painting is not required, unless otherwise shown on the plans.
- 3.3. **Repair.** Plumb and realign post in a vertical and horizontal position. Stretch cable to remove sag between posts. One cable splice will be allowed between posts, adjacent to the post, but no more than

2 splices in any 100 ft. of cable. Removal and replacement of posts, anchors, or cable will be paid with the appropriate bid item.

4. Measurement

This Item will be measured as follows:

- 4.1. **Post and Cable Fence Removal. By the foot from center to center of pull posts.**
- 4.2. **~~Concrete Anchor Removal. By each anchor removed.~~**
- 4.3. **New Installation of Post and Cable Fence. By the foot of fence from center to center of pull posts for each continuous section installed.**
- 4.4. **~~New Concrete Anchor. By each anchor installed.~~**
- 4.5. **~~Removal and Replacement of Posts. By each post removed and replaced.~~**
- 4.6. **~~Removal and Replacement of Concrete Anchors. By each anchor removed and replaced.~~**
- 4.7. **~~Removal and Replacement of Cable. By the foot of cable removed and replaced.~~**
- 4.8. **~~New Installation of Post and Cable Fence (Gate). By each gate installed.~~**
- 4.9. **~~Repair. By the foot of fence from center to center of pull posts for each repair.~~**

5. Payment

The work performed and the materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Post and Cable Fence (Removal)," "Post and Cable Fence (Remove Concrete Anchor)," "Post and Cable Fence (New Installation)," "Post and Cable Fence (New Concrete Anchor)," "Post and Cable Fence (Remove and Replace Posts)," "Post and Cable Fence (Remove and Replace Concrete Anchors)," or "Post and Cable Fence (Remove and Replace Cable)," "Post and Cable Fence (Gate) (New Installation)," or "Post and Cable Fence (Repair)." This price is full compensation for cable splices, straightening posts, realignments of posts, tightening cable, backfilling posts and anchor holes, installation of reflectors, bollards, foundations, backfilling, gate and hardware, paint, materials, equipment, labor, tools, and incidentals.

Payment will be made under:

Item TX 772-5.1 Post and Cable Fence (Removal) — per linear foot

Item TX 772-5.2 Post and Cable Fence (New Installation) — per linear foot