Invitation to Bid / Request for Bids / Project Manual

for

2026 STREET RECONSTRUCTION PROJECTS

PROJECT # SP-2026-01

Published: December 3, 2025

Bids Due: January 5, 2026

CITY OF MISSION

SPECIFICATIONS
CONTRACT DOCUMENTS

2026 STREET RECONSTRUCTION PROJECTS

TABLE OF CONTENTS

SUBJECT	PAGE TO PAGE (INCLUSIVE)
Notice to Bidders	N-1 to N-2
Instructions to Bidders	I-1 to I-9
Bid	B-1 to B-8
Agreement	A-1 to A-3
Performance Bond	P-1 to P-2
Maintenance Bond	M-1 to M-2
Statutory Bond	SB-1 to SB-2
Labor and Material Payment Bond	L-1 to L-2
General Conditions – Table of Contents	G-i to G-ii
General Conditions	G-1 to G-36
Project Special Provisions	PSP-1 to PSP-71

CITY OF MISSION, KANSAS

NOTICE TO BIDDERS

Sealed bids for **2026 STREET RECONSTRUCTION PROJECTS** will be received by the City of Mission, Kansas, at the office of the City Clerk, City Hall, 6090 Woodson Street, Mission, Kansas 66202 until **10:00 a.m**. local time on Monday, **January 5, 2026.** At that time all sealed bids will be transferred to the **City Council Chamber**, City Hall, where they will be publicly opened and read aloud. Any bid received after the designated closing time will be returned unopened.

All bids shall be submitted in sealed envelopes addressed to the City Clerk of Mission, Kansas, and marked "**2026 STREET RECONSTRUCTION PROJECTS"**

Copies of plans and specifications can be seen or purchased for a Non-Refundable fee on-line at www.drexeltech.com in their eDistribution plan room, additional assistance is available at distribution@drexeltech.com. Information regarding this project can be found in the "Public Jobs" link on the website. Contractors desiring the Contract Documents for use in preparing bids may also obtain a set of such documents from Drexel Technologies; 10840 West 86th Street, Lenexa, KS 66214, telephone number is 913-371-4430. Bidding documents will be shipped only if the requesting party assumes responsibility for all related charges. Corporate, certified, or cashier's checks shall be made payable to Drexel Technologies, Inc.

Proposers should specifically note the City of Mission prefers questions be submitted by email to Stephanie Boyce at SBoyce@missionks.org.

Neither the City nor consultant shall be responsible for the accuracy, completeness, or sufficiency of any bid documents obtained from any source other than the source indicated above. Obtaining copies of plans, specifications, bid documents and other contract documents from any other source(s) may result in obtaining incomplete and inaccurate information. Obtaining these documents from any source other than directly from the source listed herein may also result in failure to receive any addenda, corrections, or other revisions to these documents that may be issued.

Contractors should read and be fully familiar with all contract documents before submitting a bid. In submitting a bid, the bidder warrants that it has read the contract documents and is fully familiar therewith and that it has visited the site of the work to fully inform itself as to all existing conditions and limitations and shall include in its bid a sum to cover the cost of all items of the work.

Should a bidder find "defects" as defined in paragraph GC-3 of the General Conditions, it shall follow the procedures outlined in paragraph GC-3 to bring same to the attention of City. Changes necessitated thereby shall be in the form of addenda issued by the consultant.

All bidders shall verify that they have considered all written addenda. Neither the City nor the consultant shall be responsible for oral instructions.

Any written addenda issued during the time of bidding shall be covered and included in the bid. There will be no clarifications or exceptions allowed on the bid. Bids are for a total bid package with bids provided for the project bid alternates, total contract price.

Bids shall be made upon the form provided in ink or typewritten. Numbers shall be stated both in writing and in figures; the signature shall be long hand; and the complete form shall be without alteration or erasure. On alternate items for which a bid is not submitted, a written indication of "no bid" on the bid form is required.

No oral, electronic, telegraphic, facsimile or telephonic bids or alterations will be considered.

The following items must be included in the sealed envelope with the bid:

a. Bid

b. 5% Bid Security--Bid Bond, Cashier's Check or Certified Check (See below.)

Each bidder shall file with its bid a bid bond, a cashier's check or a certified check drawn on any acceptable bank, made payable to the City of Mission, Kansas, in an amount of not less than five percent (5%) of the total bid, which shall be retained by the City of Mission until a contract for the project has been executed. Bid bonds will be returned to the unsuccessful bidders, with the exception of the second qualifying bidder, at such time as their bids are rejected. The bid deposit of the successful bidder and the second qualifying bidder will be returned when satisfactory bonds in an amount equal to 100% of the contract amount, required insurance certificates and other required documents shall have been furnished and the contract documents have been executed.

In the event the successful bidder is unable to execute the contract, for whatever reason, City may exercise its legal prerogatives, including, but not limited to, enforcement of its rights as to the bid security.

The City reserves the right to accept or reject any and all bids and to waive any technicalities or irregularities therein. Bids may be modified or withdrawn by written request of the bidder received in the office of the City Clerk, prior to the time and date for bid opening; provided, however, that no bidder may withdraw its bid for a period of thirty (30) days from the date set for the opening thereof. ALL BIDDERS AGREE THAT REJECTION SHALL CREATE NO LIABILITY ON THE PART OF THE CITY BECAUSE OF SUCH REJECTION. IT IS UNDERSTOOD BY ALL BIDDERS THAT AN UNSUCCESSFUL BIDDER HAS NO CAUSE OF ACTION AGAINST THE CITY FOR BID PREPARATION COSTS. THE FILING OF ANY BID IN RESPONSE TO THIS INVITATION SHALL CONSTITUTE AN AGREEMENT OF THE BIDDER TO THESE CONDITIONS.

A Pre-Bid Conference will be held at: **Mission Public Works – 4775 Lamar Ave.**

Date & Time: December 17, 2025, 11:00 am

Publish: Legal Record *DATE: December 11, 2025*

INSTRUCTIONS TO BIDDERS

IB-1. BIDS: All bids shall be made on the forms provided in this bound volume of contract documents and shall be in compliance with the Notice to Bidders. All appropriate blanks shall be filled in and shall be signed by the appropriate individual on behalf of him/herself or the entity submitting the bid. Each bid must be enclosed in a sealed envelope plainly marked **"2026 STREET RECONSTRUCTION PROJECTS".** As per the Notice to Bidders, bid shall be addressed to:

CITY OF MISSION, KANSAS
Attention: City Clerk
6090 Woodson Street,
Mission, KS 66202

IB-2. DEFINITIONS:

a. All definitions set forth in the General Conditions or in other contract documents are applicable to the Bidding Documents.

b. ”Alternative Bid” (or ”Alternate”) means an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the work, as described in the Bidding Documents, is accepted.

c. “Base Bid” means the sum stated in the Bid for which the Bidder offers to perform the work described in the Bidding Documents as the base, to which work may be added or from which work may be deleted for sums stated in Alternate Bids.

d. “Bid” shall mean the offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the work to be performed (and the City reserves the right to reject any and all bids).

e. “Bidder” shall mean any individual, partnership, corporation, association or other entity submitting a Bid for the work.

f. “Bidding Documents” shall mean all documents related to a Bidder's submitting a Bid, including, but not limited to, the advertisement for Bids, if applicable, Instructions to Bidders, the Bid form, other sample bidding and contract forms and the proposed contract documents, including any addenda issued prior to receipt of Bids. At the City's option, Bidders may be required to complete and submit a prequalification statement.

g. “City” means the City of Mission, Kansas.

h. “Consultant” shall mean Burns & McDonnell Engineering Company, Inc. This entity, that is designated in the Contract Documents, which has been employed by the City for the performance of professional engineering services in connection with the Project.

i. “Contractor” shall mean the entity entering into the contract for the performance of the work covered by the contract, together with its duly authorized agents or legal representatives.

j. "Successful Bidder" means the person or entity who is determined and declared by the City to have submitted the lowest and best responsible Total Bid in conformity with the terms of the Bidding Documents. Total Bid to be made up of the base bid plus any bid alternates included by the City.

k. "Unit Price" means an amount stated in the Bid as a price per unit of measurement for materials or services as described in the Bidding Documents or in the proposed contract documents.

IB-3. BIDDER'S REPRESENTATIONS: Each Bidder by making its Bid represents that:

a. It has read and understands the Bidding Documents, and its Bid is made in accordance therewith.

b. It has visited the site, has familiarized itself with the local conditions under which the work is to be performed, has reviewed all published reports, inspections and other documents relating to the project and has correlated its observations with the requirements of the proposed contract documents.

c. Its Bid is based upon the materials, systems and equipment required by the Bidding Documents without exception.

d. It has familiarized itself with state, federal law and local ordinances, regulations, and permitting requirements which may affect cost and/or progress or performance of the work.

IB-4. BIDDING DOCUMENTS: Copies of plans and specifications can be seen or purchased for a Non-refundable fee on-line at www.drexeltech.com in their eDistribution plan room, additional assistance is available at distribution@drexeltech.com. Information regarding this project can be found in the "Public Jobs" link on the website. Contractors desiring the Contract documents for use in preparing bids may also obtain a set of such documents from Drexel Technologies; 10840 West 86th Street, Lenexa, KS 66214, telephone number is 913-371-4430. Bidding documents will be shipped only if the requesting party assumes responsibility for all related charges. Corporate, certified, or cashier's checks shall be made payable to Drexel Technologies, Inc.

Neither the city nor the consultant shall be responsible for the accuracy, completeness, or sufficiency of any Bidding Documents obtained from any source other than the source indicated in the Notice to Bidders. Obtaining copies of Bidding Documents form any other source(s) may result in obtaining incomplete and inaccurate information or result in failure to receive any addenda, corrections, or other revisions to these documents that may be issued

Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the City nor the consultant assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of bidding Documents.

The City in making copies of the Bidding Documents available on the above terms does so only for the purpose of obtaining Bids on the work and does not confer a license or grant for any other use.

IB-5. DEFECTS IN BIDDING DOCUMENTS: Bidders shall promptly notify the City of any errors, omissions, discrepancies or inconsistencies (hereinafter "defects") which they may discover upon examination of the Bidding Documents or of the site and local conditions. Bidders will not be permitted to take advantage of any such defect.

Bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which shall reach the consultant at least seven days prior to the date for receipt of Bids.

Any interpretation, correction or change of the Bidding Documents will be made by Addendum. Interpretations, corrections or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretations, corrections and changes.

IB-6. SUBSTITUTIONS: The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the City at least seven (7) days prior to the date for receipt of Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or other work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the Bidder. The City's decision of approval or disapproval of a proposed substitution shall be final.

If the City approves any proposed substitution prior to receipt of Bids, such approval will be set forth in a written addendum. Bidders shall not rely upon approvals made in any other manner.

No substitutions will be considered after the contract award unless specifically provided in the contract documents (see GC-61).

IB-7. ADDENDA: Written addenda will be emailed or delivered to all who are known by the City to have received a complete set of Bidding Documents.

Copies of written addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

No written addenda will be issued later than four (4) days prior to the date for receipt of Bids except an addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

Each Bidder shall ascertain prior to submitting its Bid that it has received all written addenda issued, and it shall acknowledge its receipt in its Bid.

IB-8. INSURANCE:

a. General: The Contractor shall secure and maintain, throughout the duration of the agreement, insurance (on an occurrence basis unless otherwise agreed to) of such

types and in at least such amounts as required herein. Contractor shall provide certificates of insurance and renewals thereof on forms provided by the City or on forms acceptable to the City. The City shall be notified by receipt of written notice from the insurer or the Contractor at least thirty (30) days prior to material modification or cancellation of any policy listed on the Certificate. The City and the Board of County Commissioners of Johnson County, Kansas shall be named as an additional insured on all policies of insurance issued to the Contractor and required by the terms of his/her agreement with the City.

Bidders are referred to Article GC-38 of the General Conditions for additional insurance information.

b. Notice of Claim Reduction of Policy Limits: The Contractor, upon receipt of notice of any claim in connection with the agreement, shall promptly notify the City, providing full details thereof, including an estimate of the amount of loss or liability.

The Contractor shall monitor and promptly notify the City of any reduction in limits of protection afforded under any policy listed in the Certificate (or otherwise required by the contract documents) if the Contractor's limits of protection shall have been impaired or reduced to such extent that the limits fall below the minimum amounts required herein. The Contractor shall promptly reinstate the original limits of liability required hereunder and shall furnish evidence thereof to the City.

c. Commercial General Liability:

Limits –

General Aggregate:	$2,000,000
Products / Completed Operations Aggregate:	$2,000,000
Personal & Advertising Injury:	$1,000,000
Each Occurrence:	$1,000,000

Policy MUST include the following conditions:

1. Pollution Liability (Applicable only to contracts involving pollutants such as asbestos & lead abatement, sludge or other waste abatement, etc.)
2. **NAME "CITY OF MISSION" AS "ADDITIONAL INSURED"**
3. **NAME "BOARD OF COUNTY COMMISSIONERS OF JOHNSON COUNTY, KANSAS" AS "ADDITIONAL INSURED"**
4. **NAME "BURNS & MCDONNELL ENGINEERING COMPANY, INC." AS "ADDITIONAL INSURED"**

d. Automobile Liability: Policy shall protect the Contractor against claims for bodily injury and/or property damage arising from the ownership or use of any owned, hired and/or non-owned vehicle.

Limits (Same as Commercial General Liability) -
Combined Single Limits, Bodily Injury and Property Damage - Each Accident:

Policy MUST include the following condition:
NAME "CITY OF MISSION" AS "ADDITIONAL INSURED"

NAME "BOARD OF COUNTY COMMISSIONERS OF JOHNSON COUNTY, KANSAS" AS "ADDITIONAL INSURED"
NAME "BURNS & MCDONNELL ENGINEERING COMPANY, INC." AS "ADDITIONAL INSURED"

e. Umbrella Liability: The Umbrella / Excess Liability must be at least as broad as the underlying general liability and automobile liability policies.

Limits –

Each Occurrence	$1,000,000
General Aggregate	$1,000,000

f. Workers' Compensation: This insurance shall protect the Contractor against all claims under applicable state workers' compensation laws. The Contractor shall also be protected against claims for injury, disease or death of employees which, for any reason, may not fall within the provisions of workers' compensation law. The policy limits shall not be less than the following:

Workers' Compensation:	Statutory
Employer's Liability:	
Bodily Injury by Accident	$100,000 each accident
Bodily Injury by Disease	$500,000 policy limit
Bodily Injury by Disease	$100,000 each employee

g. Owner's Protective Liability: The Contractor shall take out, pay for and deliver to the City, an Owner's Protective Liability insurance policy written on an occurrence basis and naming the City as named insured. The policy shall be maintained during the life of the agreement. Limits of protection shall be at least **$1,000,000** Combined Single Limits, Bodily Injury and Property Damage, and shall contain no exclusion relative to any function performed by the City or its employees and agents in connection with the project.

h. Industry Ratings: The City will only accept coverage from an insurance carrier who offers proof that it:

1. Is authorized to do business in the State of Kansas;
2. Carries a Best's policy holder rating of A- or better; and
3. Carries at least a Class VIII financial rating, **or**
4. Is a company mutually agreed upon by the City and Contractor.

i. Subcontractors' Insurance: If a part of the Contract is to be sublet, the Contractor shall either:

1. Cover all subcontractors in its insurance policies, **or**
2. Require each subcontractor not so covered to secure insurance which will protect subcontractor against all applicable hazards or risks of loss as and in the minimum amounts designated.

Whichever option is chosen, contractor shall indemnify and hold harmless the City as to any and all damages, claims or losses, including attorney's fees, arising out of the acts or omissions of its subcontractors.

j. Aircraft Liability: Additional requirement applicable for aerial photograph or contract involving any use of aircraft.

Limits- Single Limit Bodily Injury; Including Passengers; and Property Damage: $1,000,000 Each Occurrence

Coverage must include all Owned, Hired and Non-Owned Aircraft.

Policy MUST include the following condition:

NAME "CITY OF MISSION AS "ADDITIONAL INSURED" ON THE HIRED AND NON-OWNED AIRCRAFT LIABILITY.
NAME "BOARD OF COUNTY COMMISSIONERS OF JOHNSON COUNTY, KANSAS" AS "ADDITIONAL INSURED" ON THE HIRED AND NON-OWNED AIRCRAFT LIABILITY.

IB-9. BID SECURITY: Each Bid shall be accompanied by a bid bond or a certified cashier's check on an acceptable bank, made payable, without condition, to the City of Mission, Kansas, (hereinafter "City") in an amount of not less than five percent (5%) of the total Bid (note that the total bid includes the base bid and any bid alternates that the City elects to include). In addition to other legal remedies, the amount of said bid security may be retained by and forfeited to the City as liquidated damages if such Bid is accepted and the Successful Bidder fails to enter into an agreement in the form prescribed, within the time specified in the notice of award by the City; provided, however, that the City shall not necessarily be limited in protecting its legal rights to enforcement of its rights under the bid security. Deposits will be returned to unsuccessful Bidders, with the exception of the second qualifying Bidder, at such time as their Bids are rejected. The Bid deposit of the Successful Bidder and the second qualifying Bidder will be returned when satisfactory insurance certificates, performance bond and statutory or labor and material payment bond in an amount equal to 100% of the agreement and other documents required by the General Conditions have been furnished and the contract documents have been executed.

IB-10. TAXES: It is the intent of the City to supply the Contractor with a Project Exemption Certificate for use in purchasing materials and supplies used on the project. The Contractor shall, in preparing its Bid, omit from its computed costs all sales and compensation taxes. Upon issuance of a Kansas tax exemption number, two (2) copies of the Project Exemption Certificate (Form PR-74a) will be forwarded to the Contractor. Upon completion of the project, the City will provide the State of Kansas with the project completion date and the State will issue a Project Completion Certification. This will be forwarded to the Contractor who must sign and return it to the City. All invoices must be retained by the Contractor for a period of five (5) years and are subject to audit by the Kansas Department of Revenue. Final payment will not be made to the Contractor until the City has received the Project Completion Certification from the Contractor along with a Consent of Surety Company to Final Payment.

IB-11. LIQUIDATED DAMAGES: In case of failure on the part of the Contractor to effect completion within the time specified, the City shall have the right to deduct from the total compensation otherwise due the Contractor as liquidated damages based on the full Bid price of the agreement, fixed and agreed to in advance, according to the following schedule:

Contract Amount			Liquidated Damages
$0	to	$50,000	$250.00
$50,000	to	$100,000	$400.00
$100,000	to	$500,000	$800.00
$500,000	to	$1,000,000	$1,000.00
$1,000,000	to	$2,000,000	$1,750.00
$2,000,000	to	$5,000,000	$2,500.00
$5,000,000	to	$10,000,000	$3,500.00
$10,000,000	to	$20,000,000	$5,500.00
$20,000,000	and up		$6,000.00

for each twenty-four (24) hour calendar day, including Sundays and holidays, the work remains incomplete over the specified completion time. **(THE CITY RESERVES THE RIGHT TO ADJUST THE SCHEDULE OF LIQUIDATED DAMAGES, PRIOR TO ADVERTISING FOR BIDS, BASED ON THE SCOPE AND URGENCY OF THE PROJECT.)**

In the event moneys being retained by the City shall not be sufficient to cover the amount of any liquidated damages, City may sue for and recover compensation for damages for nonperformance of the contract at the time stipulated herein and provided for.

IB-12. MODIFICATION OR WITHDRAWAL OF BIDS: Bids may be modified or withdrawn by written request of the Bidder received in the office of the City Clerk, prior to the time and date for Bid opening. No Bidder may withdraw its Bid for a period of thirty (30) days from the date set for the opening thereof.

IB-13. ACCEPTANCE AND REJECTION OF BIDS AND AWARD OF CONTRACT: The contract will be awarded to the lowest and best base bid, responsible Bidder as determined by the City.

The City reserves the right to reject any and all Bids; to waive any and all irregularities and informalities; to negotiate contract terms with the Successful Bidder; and the right to disregard all nonconforming, non-responsive or conditional Bids.

In evaluating Bids, the City may consider the qualification of Bidders, whether or not the Bids comply with the prescribed requirements, and alternates and Unit Prices if requested in the Bid forms. The City reserves the right to reject the Bid of any Bidder who does not pass the evaluation to the City's satisfaction.

IB-14. BONDS: The Contractor to whom the work is awarded will be required to furnish a Performance Bond, Maintenance Bond, and a Statutory or Labor and Material Payment Bond in the forms hereinafter provided in an amount equal to 100 percent (100%) of the amount of the contract to be awarded in each case in addition to any other bonds as may be required by the contract documents. With each bond there shall be filed with the City one copy of "Power of Attorney" certified to include the date of the bonds.

IB-15. INDEMNIFICATION: The Contractor shall be required to indemnify and hold the City harmless as set forth in Article GC-33 of the General Conditions.
The Contractor shall defend, indemnify and save the Board of County Commissioners of Johnson County, Kansas and the City harmless from and against all liability for damages, costs, and expenses arising out of any claim, suit, action or otherwise for injuries and/or damages sustained to person or property by reason of the negligence or other actionable fault of the Project Contractor, his or her sub-contractors, agents or employees in the performance of this contract.

IB-16. BID PREFERENCE: Existing State law (K.S.A. 75-3740a) requires that, to the extent permitted by federal law and regulations, the City, when letting contracts for bids, must require any Successful Bidder-Contractor domiciled outside the state of Kansas to submit a Bid the same percent less than the lowest bid submitted by a responsible Kansas contractor as would be required of such Kansas domiciled contractor to succeed over the bidding Contractor domiciled outside Kansas on a like contract let in the foreign Bidder's domiciliary state. All Bids are received on this condition, and if it is determined by the City that the apparent lowest and best Bidder is a foreign domiciled contractor, such contractor shall be awarded the Contract only if such Contractor's Bid complies with this state law requirement.

All Bidders domiciled outside of the State of Kansas may be requested to furnish the City with a copy of their state's preferential bidding statutes, if any.

IB-17. NON-DISCRIMINATION, AFFIRMATIVE ACTION AND SEXUAL HARASSMENT: The Contractor shall comply with Article GC-68 of the General Conditions.

IB-18. APPOINTMENT OF SERVICE AGENT: Kansas Statutes Annotated 16-113 requires that non-resident Contractors appoint an agent for the service of process in Kansas. The executed appointment must then be filed with the Secretary of State, Topeka, Kansas. Any Successful Bidder-Contractor domiciled outside the State of Kansas must comply with these statutory requirements.

IB-19. SUBCONTRACTING: As provided in Article GC-36, the Contractor may utilize the services of subcontractors on those parts of the work which, under normal contracting practices, are performed by subcontractors.

IB-20. CONFLICT OF INTEREST: 31 USCS Section 1352 requires all subgrantees, Contractors, subcontractors and consultants who receive federal funds via the City to certify that they will not use federal funds to pay any person for influencing or attempting to influence a federal agency or Congress in connection with the award of any federal contract, grant, loan or cooperative agreements.

In addition, contract applicants, recipients and subrecipients must file a form disclosing any expenditures they make for lobbying out of non-federal funds during the agreement period. Necessary forms are available from the City and should be returned to the City with other contract documents. It is the responsibility of the general Contractor to obtain executed forms from any subcontractors who fall within the provisions of the Code and to provide the City with the same.

BID

2026 STREET RECONSTRUCTION PROJECTS

TO: CITY OF MISSION,
JOHNSON COUNTY, KANSAS

Neither the City nor Consultant shall be responsible for the accuracy, completeness, or sufficiency of any bid documents obtained from any source other than the source indicated in the Notice to Bidders. Obtaining copies of plans, specifications, bid documents and other contract documents from any other source(s) may result in obtaining incomplete and inaccurate information. Obtaining these documents from any source other than directly from the source listed in the Notice to Bidders may also result in failure to receive any addenda, corrections, or other revisions to these documents that may be issued.

The undersigned bidder hereby proposes to mobilize and furnish all materials, supplies, transportation, tools, equipment and plant, perform all necessary labor and construct, install and complete all work stipulated in, required by, and in conformity with the proposed contract documents (including all documents referred to therein) and any and all addenda thereto, for and in consideration of prices as follows:

BASE BID SHEET (54TH STREET AND 61ST TERRACE)(items related to storm construction for 54th Terrace and 63rd Terrace are also included in base bid)

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST $	COST $
1	Force Account	Set	1	$60,000.00	$60,000.00
2	Maintenance Bond	Lump Sum	1		
3	Preconstruction Video	Each	2		
4	Clearing and Grubbing	Lump Sum	1		
5	Removal of Existing Structures	Lump Sum	1		
6	Inspection	Lump Sum	1		
7	Unclassified Excavation	Cu. Yd.	1769		
8	Excavation (Unsuitable)	Cu. Yd.	104		
9	Excavation (Unstable)	Cu. Yd.	104		
10	Compaction of Earthwork (all types)	Cu. Yd.	25		
11	Embankment	Cu. Yd	25		

12	HMA Commercial Grade (Class A)	Ton	2796		
13	Concrete Base Widening	Sq. Yd	79		
14	Cement Treated Subgrade (9")	Sq. Yd.	7703		
15	Curb & Gutter, Combined Type A (Overland Park)	Lin Ft.	76		
16	Curb & Gutter, Combined Type B (Overland Park)	Lin Ft.	369		
17	Curb & Gutter, Combined Type B (Overland Park) with V-Curb	Lin Ft.	29		
18	Curb & Gutter, Combined Type C (Olathe)	Lin. Ft.	4303		
19	Concrete Pavement (Uniform)(6")(AE)(Plain)	Sq. Yd.	718		
20	Sidewalk Construction (4")	Sq. Ft.	81		
21	Sidewalk Ramp (6")	Sq. Ft.	183		
22	Detectable Warning Surface	Sq. Ft.	57		
23	KCMMB4K Concrete (Miscellaneous)	Cu. Yd.	0.5		
24	15" Storm Sewer (RCP Class III)	Lin Ft.	113		
25	18" Storm Sewer (RCP Class III)	Lin Ft.	156		
26	Manhole (Precast)(4')	Each	2		
27	Manhole (Cast-in-Place)(4')	Each	1		
28	Curb Inlet (4' x 3')(Non-Setback)	Each	2		
29	Curb Inlet (6' x 3')(Non-Setback)	Each	3		
30	Curb Inlet (6' x 3.5')(Non-Setback)	Each	1		
31	Curb Inlet (8' x 3')(Non-Setback)	Each	4		
32	Flared End Section (RCP)(15")(Class III)	Each	1		
33	Flared End Section (RCP)(18")(Class III)	Each	1		

34	End Section Outlet Protection	Cu. Yd.	4		
35	Pipe Collar (Concrete)	Each	3		
36	Adjustment of Manholes (Sanitary)(JCW)	Each	4		
37	Sod (Fescue)	Sq. Yd.	2416		
38	AB-3 Modified (11”)	Sq. Yd.	500		
39	Topsoil	Cu. Yd.	404		
40	Landscape Restoration	Sq. Yd	56		
41	Water Quality Control Manager (est.)	Week	100		
42	SWPPP Inspection (est.)	Each	100		
43	Inlet Protection	Each	20		
44	Signing	Lump Sum	1		
45	Tensar NX850 Grid	Sq. Yd	500		
46	Traffic Control	Lump Sum	1		
47	Contractor Construction Staking	Lump Sum	1		

TOTAL BASE BID $_____

BID ALTERNATE 1 SHEET (54TH TERRACE)

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST $	COST $
1	Force Account	Set	1	$30,000.00	$30,000.00
2	Maintenance Bond	Lump Sum	1		
3	Preconstruction Video	Each	1		
4	Clearing and Grubbing	Lump Sum	1		

5	Removal of Existing Structures	Lump Sum	1		
6	Inspection	Lump Sum	1		
7	Unclassified Excavation	Cu. Yd.	570		
8	Excavation (Unsuitable)	Cu. Yd.	50		
9	Excavation (Unstable)	Cu. Yd.	50		
10	Compaction of Earthwork (all types)	Cu. Yd.	10		
11	Embankment	Cu. Yd	10		
12	HMA Commercial Grade (Class A)	Ton	891		
13	Concrete Base Widening	Sq. Yd.	9		
14	Cement Treated Subgrade (9")	Sq. Yd.	2528		
15	Curb & Gutter, Combined Type A (Overland Park)	Lin Ft.	12		
16	Curb & Gutter, Combined, Type B (Overland Park)	Lin Ft.	166		
17	Curb & Gutter, Combined Type C (Olathe)	Lin. Ft.	1316		
18	Concrete Pavement (Uniform)(6")(AE)(Plain)	Sq. Yd.	307		
19	Sidewalk Construction (4”)	Sq. Ft.	14		
20	KCMMB4K Concrete (Miscellaneous)	Cu. Yd.	0.6		
21	Adjustment of Manholes (Sanitary)(JCW)	Each	2		
22	Sod (Fescue)	Sq. Yd.	653		
23	Sod (Zoysia)		39		
24	AB-3 Modified (11”)	Sq. Yd.	250		
25	Topsoil	Cu. Yd.	115		
26	Water Quality Control Manager (est.)	Week	50		

27	SWPPP Inspection (est.)	Each	50		
28	Tree Protection	Each	9		
29	Tensar NX850 Grid	Sq. Yd	250		
30	Traffic Control	Lump Sum	1		
31	Contractor Construction Staking	Lump Sum	1		

TOTAL BID ALTERNATE 1 $_____

BID ALTERNATE 2 SHEET (63RD TERRACE)

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST $	COST $
1	Force Account	Set	1	$30,000.00	$30,000.00
2	Maintenance Bond	Lump Sum	1		
3	Preconstruction Video	Each	1		
4	Clearing and Grubbing	Lump Sum	1		
5	Removal of Existing Structures	Lump Sum	1		
6	Inspection	Lump Sum	1		
7	Unclassified Excavation	Cu. Yd.	1279		
8	Excavation (Unsuitable)	Cu. Yd.	46		
9	Excavation (Unstable)	Cu. Yd.	46		
10	Compaction of Earthwork (all types)	Cu. Yd.	11		
11	Embankment	Cu. Yd	11		
12	HMA Commercial Grade (Class A)	Ton	2052		
13	Concrete Base Widening	Sq. Yd.	6		

14	Cement Treated Subgrade (9")	Sq. Yd.	5451		
15	Curb & Gutter, Combined Type A (Overland Park)	Lin Ft.	195		
16	Curb, Type B Modified (Overland Park)	Lin Ft.	116		
17	Curb & Gutter, Combined Type C (Olathe)	Lin. Ft.	2657		
18	Concrete Pavement (Uniform)(6")(AE)(Plain)	Sq. Yd.	226		
19	Concrete Pavement (Uniform)(6")(AE)(Stamped Colored)	Sq. Yd.	22		
20	KCMMB4K Concrete (Miscellaneous)	Cu. Yd.	0.6		
21	Adjustment of Manholes (Sanitary)(JCW)	Each	3		
22	Sod (Fescue)	Sq. Yd.	1813		
23	AB-3 Modified (11”)	Sq. Yd.	250		
24	Topsoil	Cu. Yd.	302		
25	Water Quality Control Manager (est.)	Week	50		
26	SWPPP Inspection (est.)	Each	50		
27	Inlet Protection Logs	Each	4		
28	Landscape Restoration	Sq. Yd.	9		
29	Tree Protection	Each	60		
30	Signing	Lump Sum	1		
31	Tensar NX850 Grid	Sq. Yd	250		
32	Traffic Control	Lump Sum	1		
33	24” Thermoplastic White Stop Bar	Lin. Ft.	22		
34	Contractor Construction Staking	Lump Sum	1		

TOTAL BID ALTERNATE 2 $_____

1. The undersigned further agrees to begin upon the date stated in the Notice to Proceed and to complete the work, if this bid is accepted, as stated herein:

   A. The Notice to Proceed is anticipated to be March 27, 2026.

   B. The undersigned further agrees to complete the work as described in the plans during 180 total consecutive working days (with daily working hours from 7:00 AM to 6:00 PM Monday through Friday, 8:00 AM to 6:00 PM on Saturdays, and with no work on Sundays or on federal or state holidays), and open the roadway to traffic after working hours with lane drops approved by the Engineer.

   The undersigned also declares that it understands that if not preset by the City the time to begin construction and to complete the work will be one factor considered in determining the lowest and best responsible bidder.

   The undersigned also declares that he/she understands that liquidated damages based on the full bid price of the contract shall be assessed against Contractor, as stipulated liquidated damages and not as a penalty, in an amount as set forth in paragraph GC-46 of the General Conditions for each and every calendar day the work remains incomplete over the specified completion times in parts A through B stated above.

2. In submitting this bid, the undersigned declares that it is of lawful age and executed the accompanying bid on behalf of the bidder therein named, and that it had lawful authority so to do. The undersigned further declares that it has not directly or indirectly entered into any agreement, expressed or implied, with any bidder or bidders, having for its object the controlling of the price or amount of such bid or any bids, the limiting of the bid or bidders, the parceling or farming out to any bidder or bidders, or other persons, of any part of the contract or any part of the subject matter of the bid or bids or of the profits thereof, and that it has not and will not divulge the sealed bid to any person whomsoever, except those having a partnership or other financial interest with bidder in said bid or bids, until after sealed bid or bids are opened.

3. The undersigned further declares that it has carefully examined the Notice to Bidders, Instructions to Bidders and other contract documents, and that it has inspected the actual location of the work, together with the local sources of supply, and has satisfied itself as to all conditions and quantities, and understands that in signing this Bid it waives all right to plead any misunderstanding regarding the same.

4. The undersigned hereby agrees to furnish the required bonds and insurance certificates and execute an agreement within ten (10) calendar days from and after notice of the award of the contract, and failure of the bidder to do so shall constitute a default, and the City may thereafter take such steps to protect its legal rights as it deems in its best interest, including, but not limited to, enforcement of its rights as to bid security.

5. It is understood that the City will pay in a prompt and timely manner pay estimates when submitted and approved by the Architect/Engineer and further approved by the City staff coordinator for the project, all as provided in the contract documents.

6. Undersigned acknowledges receipt of the Plans and Specifications for the project including the following addenda (complete) _____.

7. The undersigned agrees to sign a contract for the bid price on this bid form up until the date of April 22, 2026.

Enclosed is a certified check, cashier's check or bid bond in the amount of_____ _____ DOLLARS ($_____ _____) which the undersigned agrees is subject to being forfeited to and becoming the property of the City as liquidated damages and not as a penalty, together with other legal remedies the City may choose to invoke, all as set forth in the Instructions to Bidders Section IB-9, should this Bid be accepted and the contract be awarded to this bidder and it should fail to enter into an agreement in the form prescribed and to furnish the required insurance, bonds and other required documents within ten (10) calendar days as above stipulated, otherwise the bid security shall be returned to the undersigned upon signing of the agreement and delivery of the approved bonds and other required documents to the City of Overland Park, Kansas.

DATED in _____ this _____ day of _____, 2025.

(SEAL)

_____
Contractor

_____
Signature

_____
Printed Name

_____
Title

_____
Street Address or P.O. Box

_____
City, State, Zip

_____
Telephone Number

_____Fax Number

CITY OF MISSION, KANSAS

AGREEMENT BETWEEN
CITY OF MISSION, KANSAS
AND CONTRACTOR

2026 STREET RECONSTRUCTION PROJECTS

THIS AGREEMENT is made and entered into this _____ day of _____, 2025 by and between the City of Mission, Kansas, hereinafter the "City", and _____ _____, hereinafter the "Contractor".

WITNESSETH:

WHEREAS, the City has caused to be prepared, in accordance with the law, Notice to Bidders, Instructions to Bidders, Bid, this Agreement, General Conditions, Project Special Provisions, Plans, Specifications and other Contract Documents, as defined in the General Conditions, for the work herein described, and has approved and adopted these said Contract Documents and has caused to be published, in the manner and for the time required by law, an advertisement inviting sealed Bids for furnishing construction materials, labor, tools, equipment and transportation necessary for, and in connection with, the construction of public improvements in accordance with the terms of this Agreement; and

WHEREAS, the Contractor, in response to the advertisement, has submitted to the City, in the manner and at the time specified, a sealed Bid in accordance with the terms of this Agreement; and

WHEREAS, the City, in the manner prescribed by law, has publicly opened, examined and canvassed the Bids submitted, and as a result of this canvass has, in accordance with the law, determined and declared the Contractor to be the lowest and best responsible bidder for the construction of the public improvements, and has duly awarded to the Contractor a contract therefor upon the terms and conditions set forth in this Agreement and for the sum or sums named in the Bid attached to and made a part of this Agreement.

NOW, THEREFORE, in consideration of the compensation to be paid the Contractor, and of the mutual agreements herein contained, the parties hereto have agreed, and hereby agree, the City for itself and its successors, and the Contractor for itself, himself/herself or themselves, its, his/her or their successors and assigns, or its, his/her or their executors and administrators, as follows:

ARTICLE I. The Contractor will furnish at its own cost and expense all labor, tools, equipment, materials and transportation required to construct and complete the work as designated, described and required by the Contract Documents, to wit: **2026 STREET RECONSTRUCTION PROJECTS,** all in accordance with the Notice to Bidders, Instructions to Bidders, Bid, this Agreement, General Conditions, Project Special Provisions, Plans, Specifications and other Contract Documents as defined in paragraph GC-1 of the General Conditions of the Contract for Construction, on file with the City Clerk of Mission, Kansas, all of which Contract Documents form the Contract, and are as fully a part hereof as if repeated verbatim herein; all work to be done in a good, substantial and workmanlike manner to the entire satisfaction of the City, and in accordance with the laws of the City, the State of Kansas and the United States of America. All terms used herein shall have the meanings ascribed to them in the General Conditions unless otherwise specified.

ARTICLE II. The City shall pay to the Contractor for the performance of the work embraced in this Contract, and the Contractor will accept in full compensation therefor, the sum of _____

_____

DOLLARS ($_____) (subject to adjustment as provided by the Contract Documents) for all work covered by and included in the Contract award and designated in the foregoing Article I, payment thereof to be made in cash or its equivalent and in the manner provided in the Contract Documents.

ARTICLE III. The Contractor shall commence work upon the date stated in the Notice to Proceed, and will complete all work covered by this Contract no later than 180 days subject to the conditions set forth in section 1.18, CONSTRUCTION LIMITATIONS, of the Project Special Provisions. Liquidated damages based on the full bid price of the Contract shall be assessed against Contractor, as stipulated liquidated damages and not as a penalty, in an amount as set forth in paragraph GC-46 of the General Conditions for each and every calendar day the work remains incomplete over the specified completion time(s) stated above.

ARTICLE IV. The Contractor shall not subcontract, sell, transfer, assign or otherwise dispose of the Contract or any portion thereof without previous written consent of the City. In case such consent is given, the Contractor shall be permitted to subcontract a portion thereof, but shall self-perform not less than forty percent (40%) of the total Contract Price based upon the unit prices within the Bid submitted to the City by the Contractor. No subcontracts, or other transfer of Contract, shall release the Contractor of its liability under the Contract and Bonds applicable thereto.

ARTICLE V. Contractor specifically acknowledges and confirms that: (1) it has visited the site, made all inspections it deems appropriate and has read and fully understands the Contract Documents, including all obligations and responsibilities undertaken by it as specified herein and in the other Contract Documents and knowingly accepts same; (2) it has furnished copies of all Contract Documents to its insurance carrier(s) and its surety(ies); and (3) its insurance carrier(s) and surety(ies) agree to be bound as specified herein, in the Contract Documents and in the insurance policy(ies) and bonds as to liability and surety coverage.

ARTICLE VI. It is specifically agreed between the parties executing this Agreement that the Contract Documents are not intended to create any third party beneficiary relationship nor to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Agreement. The duties, obligations and responsibilities of the parties to this Agreement with respect to third parties shall remain as imposed by law.

ARTICLE VII. This Agreement, together with the other Contract Documents, constitutes the entire agreement between the parties and supersedes all prior agreements, whether oral or written, covering the same subject matter. This Agreement may not be modified or amended except as provided herein or in the other Contract Documents.

ARTICLE VIII. This Agreement is entered into, under and pursuant to, and is to be construed and enforceable in accordance with, the laws of the State of Kansas.

ARTICLE IX. Should any provision of this Agreement or the other Contract Documents be determined to be void, invalid, unenforceable or illegal for whatever reason, such provision(s) shall be null and void; provided, however, that the remaining provisions of this Agreement and/or the other Contract Documents shall be unaffected thereby and shall continue to be valid and enforceable.

IN WITNESS WHEREOF, the City of Mission, Kansas, has caused this Agreement to be executed on its behalf, thereunto duly authorized, and the said Contractor has executed three (3) counterparts of this Contract in the prescribed form and manner, the day and year first above written.

CITY OF MISSION, KANSAS

By _____
Laura H. Smith
City Administrator

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
David Martin
City Attorney

_____
Contractor

By _____

(SEAL)

Title President

(If the Contract is not executed by the president of the corporation or general partner of the partnership, please <u>provide documentation</u> which authorizes the signatory to bind the corporation or partnership. If a corporation, Contractor shall furnish City a current certificate of good standing, dated within ten (10) days of the date of this Contract.)

CITY OF MISSION, KANSAS

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____
_____,
of _____ as principal, hereinafter referred to as the "Contractor," and _____
_____,
a corporation organized under the laws of the State of _____ and authorized to transact business in the State of Kansas, as surety, are held and firmly bound unto the City of Mission, Kansas, hereinafter referred to as "City," in the penal sum of _____
_____ Dollars ($_____
_____),
lawful money of the United States of America, for the payment of which sum well and truly to be made we bind ourselves, and our heirs, executors, administrators, successors and assigns, jointly and severally by these presents:

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT:

WHEREAS, the above bonded Contractor, has on the ____ day of _____,
20____,
executed a written Agreement with the aforesaid City for furnishing in a good, substantial and workmanlike manner all construction, labor, materials, equipment, tools, transportation, superintendence and other facilities and accessories for **2026 STREET RECONSTRUCTION PROJECTS** designated, defined and described in the Agreement and in accordance with the Contract Documents to include the General Conditions, Project Special Provisions, Specifications, Plans and other Contract Documents therefor; a copy of the Agreement being attached hereto and made a part hereof.

NOW, THEREFORE, if said Contractor shall in all particulars promptly and faithfully perform each and every covenant, condition, and part of the Agreement, and the General Conditions, Project Special Provisions, Specifications, Plans and other Contract Documents thereto attached or by reference made a part thereof, according to the true intent and meaning in each case, upon written acceptance by the City of the improvement herein described in substantial compliance with the Contract Documents and upon the effective date of the Maintenance Bond for the improvement then this obligation shall be and become null and void.

PROVIDED, that said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the Work to be performed thereunder or the General Conditions, Project Special Provisions, Specifications, Plans and other Contract Documents accompanying same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or to the Work or to the Specifications, Plans and other Contract Documents.

PROVIDED, FURTHER, that it is expressly agreed that the bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Agreement not increasing the contract price more than 50 percent, so as to bind the Contractor and the Surety to the full and faithful performance of the Agreement so amended. The term "amendment," wherever used in this bond, and whether referring to this bond or the Agreement, shall include any alteration, addition, extension, or modification of any character whatsoever.

Whenever Contractor is declared by City to be in default under the Contract Documents, the Surety may promptly remedy the default or shall within fourteen (14) days from the date of notice from the City:

1. Commence completing the Work of the Agreement in accordance with its terms and conditions. However, Surety may not use the defaulting Contractor, or any legal reformation of the defaulting Contractor, to complete the Work and the Surety may not use any of the subcontractors of the defaulting Contractor to complete the Work without the written consent of the City; or

2. Commence the process of obtaining a bid or bids for completing the Work of the Agreement in accordance with its terms and conditions, and upon determination by the City and the surety jointly of the lowest and best responsive, responsible bidder, arrange for an Agreement between such bidder and the City, and make available as work progresses sufficient funds to pay the cost of completion less the balance of the Contract Price, including other costs and damages for which the surety may be liable hereunder, which sum shall not exceed the amount set forth in the first paragraph hereof. The term "balance of the Contract Price," as used in this paragraph, shall mean the total amount payable by City to Contractor under the Agreement and any amendments thereto, less the amount properly paid by City to Contractor. No right of action shall accrue on this bond to or for the use of any person or corporation other than the City or successors of the City.

IN TESTIMONY WHEREOF, said Contractor has hereunto set his/her hand, and said surety has caused these presents to be executed in its name; and its corporate seal to be hereunto affixed by its attorney-in-fact duly authorized thereunto so to do at _____, _____ on this, the _____ day of _____, 20_____.

_____
Contractor/Principal

ATTEST: By _____(SEAL)

_____
Secretary

_____
Title

_____
Surety Company

By_____(SEAL)
Attorney-in-Fact

NOTE:

1. Date of bond must not be prior to date of contract.
2. If Contractor is partnership, all partners should execute bond.
3. Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of Kansas.
4. Accompany this bond with Attorney-in-Fact's Authority from the surety company certified to include the date of the bond.

CITY OF MISSION, KANSAS

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____ _____of _____ as principal, hereinafter referred to as the "Contractor," and _____ _____, hereinafter referred to as the “Surety”, a corporation organized under the laws of the State of _____ and authorized to transact business in the State of Kansas, as surety, are held and firmly bound unto the City of Mission, Kansas, hereinafter referred to as "City," in the penal sum of _____ _____ Dollars ($_____), lawful money of the United States of America, for the payment of which sum well and truly to be made we bind ourselves, and our heirs, executors, administrators, successors and assigns, jointly and severally by these presents:

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT:

WHEREAS, the above bonded Contractor, has on the _____ day of _____, 20____, executed a written Agreement with the aforesaid City for furnishing in a good, substantial and workmanlike manner all construction, labor, materials, equipment, tools, transportation, superintendence and other facilities and accessories for **2026 STREET RECONSTRUCTION PROJECTS** hereinafter referred to as the “Improvement”, designated, defined and described in the Agreement and the Contract Documents, and in accordance with the Specifications and Plans and other Contract Documents therefor; a copy of the Agreement being attached hereto and made a part hereof.

NOW, THEREFORE, upon acceptance of the Improvement by the City in substantial compliance with the Contract Documents, if said Improvement endures without defect or need of repair or maintenance for a period of two (2) years from the date of final acceptance, then this obligation shall be and become null and void.

If the Improvement requires repairs or maintenance within such two (2) year period then this obligation shall remain in full force and effect and Contractor and the Surety shall be responsible for the prompt payment of the penal sum to the City for such repairs and/or maintenance including any incidental costs associated therewith, including but not limited to the costs of consultants and/or engineering investigations, testing, analysis and any other costs incurred to determine the cause of the defect and/or the necessary repair or maintenance and attorney fees incurred in collection of this Maintenance Bond.

PROVIDED, that said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the Work to be performed thereunder or the Specifications, Plans and other Contract Documents accompanying same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement or to the Work or to the Specifications, Plans and other Contract Documents.

PROVIDED, FURTHER, that it is expressly agreed that the bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Agreement not increasing the contract price more than 50 percent, so as to bind the Contractor and the Surety to the full and faithful performance of the Agreement so amended. The term "amendment," wherever used in this bond, and whether referring to this bond or the Agreement, shall include any alteration, addition, extension, or modification of any character whatsoever.

IN TESTIMONY WHEREOF, said Contractor has hereunto set his/her hand, and said surety has caused these presents to be executed in its name; and its corporate seal to be hereunto affixed by its attorney-in-fact duly authorized thereunto so to do at _____ _____on this, the _____ day of _____, 20___.

_____
Contractor/Principal

ATTEST:
(SEAL)

By _____
Print Name:_____

_____
Title

_____
Secretary

_____
Surety Company

By_____
(SEAL) Attorney-in-Fact

NOTE:

1. Date of bond must not be prior to date of contract.
2. If Contractor is partnership, all partners should execute bond.
3. Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of Kansas.
4. Accompany this bond with Attorney-in-Fact's Authority from the surety company certified to include the date of the bond.

CITY OF MISSION, KANSAS

STATUTORY BOND

2026 STREET RECONSTRUCTION PROJECTS

KNOW ALL MEN BY THESE PRESENTS, that we _____ _____ as Contractor and principal, and _____ _____a corporation organized under the laws of the State of _____ _____ and authorized to transact business in the State of Kansas, as surety, are held and firmly bound unto the State of Kansas, in the penal sum of _____ _____ Dollars ($_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, and our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents:

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT:

WHEREAS, the said Contractor has on the ____ day of _____, 20___, entered into an Agreement with the City of Mission, Kansas, a copy of which is attached hereto and incorporated herein for furnishing all tools, equipment, materials, transportation and supplies, performing all labor, and constructing public improvements described in the Agreement and the Contract Documents, all in accordance with Provisions, Specifications, Plans and other Contract Documents on file in the office of the City Clerk of the City of Mission, Kansas.

NOW, THEREFORE, if the Contractor or the subcontractors of the Contractor shall pay all indebtedness incurred for supplies, materials, transportation or labor furnished, or equipment used or consumed in connection with or in or about the construction or making of the improvements described in the above-mentioned Contract Documents, then this obligation shall be void; otherwise, it shall remain in full force and effect.

The said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement and the Contract Documents to the work to be performed thereunder, or the Provisions, Plans and Specifications accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time alteration or addition to the terms of the Agreement, Contract Documents or to the Plans and Specifications.

PROVIDED, that it is expressly agreed that this bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Agreement not increasing the contract price more than 50 percent, so as to bind the Contractor and the Surety to the full and faithful performance of the Agreement as so amended. The term "amendment," wherever used in this bond and whether referring to this bond or the Agreement shall include any alteration, addition, extension or modification of any character whatsoever.

The said Surety further agrees that any person to whom there is due any sum for labor furnished, transportation, materials, equipment or supplies used or consumed in connection with or in or about the construction of said public improvement, as hereinbefore stated or said person's assigns, may bring action on this bond for the recovery of said indebtedness within six (6) months from the completion of said public improvement.

IN TESTIMONY WHEREOF, the said Contractor has hereunto set his/her hand, and the said surety has caused these presents to be executed in its name, and its corporate seal to be hereunto affixed, by its attorney-in-fact duly authorized thereunto so to do, at _____ on this, the _____ day of _____, 20_____.

_____
Contractor/Principal

ATTEST:

_____ By _____ (SEAL)
Secretary

_____
Title

_____
Surety Company

By _____ (SEAL)
Attorney-in-Fact

NOTE:
1. A Statutory Bond is required only in connection with a Contract exceeding one hundred thousand dollars ($100,000.00) in accordance with K.S.A. 60-1111 as amended.
2. Contractor shall be responsible for seeing to it that this Statutory Bond is filed with the Clerk of the District Court for Johnson County, Kansas.
3. Date on bond must not be prior to date of contract.
4. If Contractor is partnership, all partners should execute bond.
5. Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of Kansas.
6. Accompany this bond with Attorney-in-Fact's Authority from the surety company certified to include the date of the bond.

CITY OF MISSION, KANSAS

LABOR AND MATERIAL PAYMENT BOND

2026 STREET RECONSTRUCTION PROJECTS

KNOW ALL MEN BY THESE PRESENTS, that we _____ as Contractor and principal, and _____, a corporation organized under the laws of the State of _____ and authorized to transact business in the State of Kansas, as surety, are held and firmly bound unto the City of Mission, Kansas in the penal sum of _____ Dollars ($_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, and our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents:

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT:

WHEREAS, the said Contractor has on the _____ day of _____, 20___, entered into an Agreement with the City of Mission, Kansas, a copy of which is attached hereto and incorporated herein for furnishing all tools, equipment, materials, transportation and supplies, performing all labor, and constructing public improvements described in the Agreement and the Contract Documents, all in accordance with Provisions, Specifications, Plans and other Contract Documents on file in the office of the City Clerk of the City of Mission, Kansas.

NOW, THEREFORE, if the Contractor or the subcontractors of the Contractor shall pay all indebtedness incurred for supplies, materials, transportation or labor furnished, or equipment used or consumed in connection with or in or about the construction or making of the improvements described in the above-mentioned Contract Documents, then this obligation shall be void; otherwise, it shall remain in full force and effect.

The said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement and the Contract Documents to the work to be performed thereunder, or the Plans and Specifications accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Agreement, Contract Documents or to the Plans and Specifications.

PROVIDED, that it is expressly agreed that this bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Agreement not increasing the contract price more than 50 percent, so as to bind the Contractor and the Surety to the full and faithful performance of the Agreement as so amended. The term "amendment," wherever used in this bond and whether referring to this bond or the Agreement shall include any alteration, addition, extension or modification of any character whatsoever.

IN TESTIMONY WHEREOF, the said Contractor has hereunto set his/her hand, and the said surety has caused these presents to be executed in its name, and its corporate seal to be hereunto affixed, by its attorney-in-fact duly authorized thereunto so to do, at _____ on this, the _____ day of _____, 20___.

_____
Contractor/Principal

ATTEST:

_____ By_____
(SEAL)

Secretary

_____
Surety Company

By_____(SEAL)
Attorney-in-Fact

NOTE:

1. A Labor and Material Payment Bond is required only in connection with a Contract which does not exceed one hundred thousand dollars ($100,000.00).
2. Date on bond must not be prior to date of contract.
3. If Contractor is partnership, all partners should execute bond.
4. Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of Kansas.
5. Accompany this bond with Attorney-in-Fact's Authority from the surety company certified to include the date of the bond.

2026 STREET RECONSTRUCTION PROJECTS

TABLE OF CONTENTS
FOR
GENERAL CONDITIONS

ARTICLE	SUBJECT	PAGE
GC-1	CONTRACT DOCUMENTS/CONTRACT FOR CONSTRUCTION	1
GC-2	DEFINITIONS	1
GC-3	DEFECTS IN CONTRACT DOCUMENTS	5
GC-4	BID	5
GC-5	COPIES OF THE CONTRACT	5
GC-6	SCOPE, NATURE AND INTENT OF PLANS AND SPECIFICATIONS	5
GC-7	BEGINNING, PROGRESS AND TIME OF COMPLETION OF WORK	6
GC-8	SHOP DRAWINGS	7
GC-9	CONTRACTOR'S RESPONSIBILITIES AS TO AMBIGUITIES	7
GC-10	CONCEALED CONDITIONS	8
GC-11	CONTRACTOR TO FURNISH STAKES AND HELP	8
GC-12	PRESERVATION OF MONUMENTS AND STAKES	8
GC-13	PERMITS AND NOTICES	8
GC-14	GENERAL ADMINISTRATION OF THE CONTRACT	9
GC-15	CONTRACTOR'S EMPLOYEES	9
GC-16	SAMPLES	10
GC-17	PROTECTION AND MAINTENANCE OF PUBLIC AND PRIVATE PROPERTY; LIABILITY	10
GC-18	WORK IN OR ACROSS STREET OR HIGHWAY RIGHT-OF-WAY	12
GC-19	MAINTENANCE OF TRAFFIC	12
GC-20	NOISE CONTROL	12
GC-21	DUST CONTROL	12
GC-22	INSPECTION OF WORK	13
GC-23	SUPERINTENDENCE AND SUPERVISION	13
GC-24	CONTRACTOR'S OFFICE AT SITE OF WORK	14
GC-25	CHANGES IN THE WORK	14
GC-26	DEDUCTIONS FOR UNCORRECTED WORK	17
GC-27	DELAYS AND EXTENSION OF TIME	17
GC-28	WORK STOPPAGES	17
GC-29	PATENT LIABILITY CLAUSE	18
GC-30	INDEPENDENT CONTRACTOR	18
GC-31	SEPARATE CONTRACTS	18
GC-32	RELATIONS WITH OTHER CONTRACTORS	18
GC-33	INDEMNITY	19
GC-34	PROTECTION OF PROPERTY/LIABILITY	20
GC-35	PROVISION FOR EMERGENCIES	20
GC-36	ASSIGNMENT AND SUBLETTING OF CONTRACT	21
GC-37	DISPUTE RESOLUTION	22
GC-38	INSURANCE	22
GC-39	AUTHORITY AND DUTY OF THE CONSULTANT	23
GC-40	CORRECTION OF LABOR, ETC. - BEFORE FINAL PAYMENT	24
GC-41	CORRECTION OF LABOR, ETC. - AFTER FINAL PAYMENT	24
GC-42	RIGHT OF CITY TO TERMINATE CONTRACT	25
GC-43	CITY'S RIGHT TO DO WORK	26

GC-44 PAYMENTS....26
GC-45 PAYMENTS WITHHELD....27
GC-46 LIQUIDATED DAMAGES....28
GC-47 BONDS....29
GC-48 EASEMENTS AND RIGHTS-OF-WAY....29
GC-49 UNDERGROUND FACILITIES AND UTILITIES....29
GC-50 USE OF PREMISES....29
GC-51 ALLOWANCES....29
GC-52 CUTTING, PATCHING AND DIGGING....30
GC-53 CLEANING UP....30
GC-54 TEMPORARY FACILITIES....30
GC-55 SANITARY REGULATIONS AND WATER....31
GC-56 COMPLIANCE WITH LAWS....31
GC-57 UNFAVORABLE CONSTRUCTION CONDITIONS....31
GC-58 CONTRACTOR'S RISK....31
GC-59 SAFETY RULES....31
GC-60 WEEKENDS, HOLIDAY AND NIGHT WORK....32
GC-61 APPROVAL OF EQUALS....32
GC-62 TEST OF MATERIALS OFFERED BY CONTRACTOR....32
GC-63 TESTING OF COMPLETED WORK....33
GC-64 BORROW AND WASTE AREAS....33
GC-65 PARKING AREAS, DRIVES AND WALKS....33
GC-66 STREET SIGNS AND TRAFFIC AIDS....33
GC-67 PLACING WORK IN SERVICE/PARTIAL UTILIZATION....33
GC-68 NON-DISCRIMINATION/OTHER LAWS....33
GC-69 FEDERAL LOBBYING ACTIVITIES....34
GC-70 RECORDS....35
GC-71 TITLES, SUBHEADS AND CAPITALIZATION....35
GC-72 NO WAIVER OF RIGHTS....35
GC-73 SEVERABILITY....35
GC-74 GOVERNING LAW....35
GC-75 VENUE....35

GENERAL CONDITIONS
OF THE CONTRACT FOR CONSTRUCTION

GC-1 CONTRACT DOCUMENTS/CONTRACT FOR CONSTRUCTION

The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intention of the Contract Documents is to include all construction, labor, materials, tools, equipment and transportation necessary for the workmanlike construction of the Project in accordance with the Contract Documents.

The Contract Documents shall consist of (but not necessarily be limited to) the Agreement between the City and Contractor (sometimes referred to herein as the "Agreement"), these General Conditions, the Project Special Provisions, the Plans, the Specifications, all addenda issued prior to and all modifications issued after execution of the Contract (modifications consisting of written amendments to the Contract signed by both parties, Change Orders, written interpretations issued by the City, written orders for minor changes in the Work issued by the City and changes in the Work identified in Article GC-25), drawings and data which may be furnished by the Contractor and approved by the City, additional drawings which may be furnished by the City and deemed necessary to make clear the intent of the Contract Documents (and, in particular, the Specifications), and the Bidding Documents. It is understood that the Work shall be carried out and the Project shall be constructed fully in accordance with the Contract Documents.

It is expressly understood and agreed that the bound volume of Contract Documents, any plans, schedules and other drawings herein referred to, and data which may be furnished by the Engineer as are necessary to make clear the intent of the Specifications and Plans, are each and all included in this Contract and the Work shall be done fully in accordance therewith.

If there is any conflict or discrepancy between the Agreement between the City and Contractor and these General Conditions or between the Agreement between City and Contractor and any other of the Contract Documents, the Agreement between City and Contractor shall prevail. If there is any discrepancy between the General Conditions and any other Contract Documents other than the Agreement between City and Contractor, the General Conditions shall prevail, unless such discrepancy is between the General Conditions and the Project Special Provisions, if any, in which case the Project Special Provisions shall prevail. The Contract Documents supersede all previous agreements and understandings between the parties, which previous agreements and understandings are of no further force and effect.

The Contract Documents as enumerated herein form the Contract for construction. The Contract may not be amended or modified except by a modification as hereinabove defined. These Contract Documents do not, nor shall they be construed to, create any contractual relationship of any kind between the City and any Subcontractor or remote tier Subcontractor.

All time limits stated in the Contract Documents are of the essence of the Contract.

GC-2 DEFINITIONS

Whenever any word or expression defined herein, or pronoun used in its stead, occurs in these Contract Documents, it shall have and is mutually understood to have the meaning herein given. Work described in words which so applied have a well-known technical or trade meaning shall be held to refer to such recognized standards.

1. "Bid" shall mean the offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed (and the City reserves the right to reject any and all bids).

2. "Bidder" shall mean any individual, partnership, corporation, association or other entity submitting a Bid for the Work.

3. "Bidding Documents" shall mean all documents related to a Bidder's submitting a Bid, including, but not limited to, the advertisement for Bids, if applicable, Instructions to Bidders, the Bid form, other sample bidding and contract forms and the proposed Contract Documents, including any addenda issued prior to receipt of Bids. At the City's option, Bidders may be required to complete and submit a prequalification statement.

4. "Bonds" shall mean the Bid, Performance, Maintenance, and Statutory or Labor and Material Payment Bond, together with such other instruments of security as may be required by the Contract Documents.

5. "Change Order" is a written order issued after the Agreement is executed by which the City and the Contractor agree to construct additional items of work, to modify the Contract Time, or, in lump sum contracts, to change the character and scope of Work shown on the Contract Plans, or as otherwise provided in Article GC-25. Change Orders must be signed by the City and the Contractor to be binding.

6. "City" shall mean the City of Mission, Kansas or its designated agent as specified by the City.

7. “Consultant” shall mean Burns & McDonnell Engineering Company, Inc., that is designated in the Contract Documents which has been employed by the City for the performance of professional engineering services in connection with the Project.

8. "Contract" and "Contract Documents" shall have the meaning ascribed to them in Article GC-1, such terms sometimes being used interchangeably.

9. "Contract Price" shall be the amount identified in the Agreement between City and Contractor as the total amount due Contractor for total completion of the Work as per the Contract Documents. Where the Contract provides that all or a part of the Work is to be Unit Price Work the Contract Price shall initially be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work multiplied by the estimated quantity of each item required for the Work. It is understood and agreed that estimated quantities of items for Unit Price Work are not guaranteed and are solely for the purpose of comparison of bids and determining an initial Contract Price. Determinations of actual quantities and classifications of Unit Price Work shall be made by the City. Each unit price shall be deemed to include Contractor's overhead and profit for each separately identified item.

10. "Contract Time" shall be the number of working days stated in the Contract Documents for the completion of the Work or shall be a date certain if so designated in the Contract Documents.

11. "Contractor" shall mean the entity entering into the Contract for the performance of the Work covered by this Contract, together with its duly authorized agents or legal representatives. (For purposes of indemnification, see GC-33 for definition of "Contractor".)

12. "Defective Work" shall mean Work which is unsatisfactory, faulty or deficient, or not in conformity with the Contract Documents. It shall also include Work damaged prior to approval of final payment unless responsibility for such damage shall have been expressly assumed by the City at substantial completion.

13. "Effective Date of the Agreement" shall mean the date indicated in the Agreement on which it becomes effective, but, if no such date is indicated, it shall mean the date on which the Agreement is signed and delivered by the City to the Contractor. For this purpose, delivery shall be accomplished by either hand-delivery to the Contractor or placing a copy in the mail, first class, postage prepaid.

14. "Field Order" shall mean a written order issued by the City which orders minor changes in the Work in accordance with Article GC-25 but which does not involve a change in the Contract Price or Contract Time.

15. "Final Acceptance" shall mean the date when the City accepts in writing that the construction of the Project is complete in accordance with the Contract Documents such that the entire project can be utilized for the purposes for which it is intended and Contractor is entitled to final payment.

16. "General Requirements" shall mean those provisions of the Specifications which apply to the entire Work.

17. "Inspector" shall mean the engineering or technical inspector or inspectors authorized by the City.

18. "Notice of Award" shall mean the written notice by the City to the apparent successful Bidder stating that upon compliance with the conditions precedent enumerated therein, within the time specified, the City will sign and deliver the Agreement.

19. "Notice to Proceed" shall mean the written notice by the City to the Contractor fixing the date on which the Contract Time is to commence and on which the Contractor shall start to perform its obligations under the Contract Documents. Without the prior express written consent of the City, Contractor shall do no Work until the date set forth in the Notice to Proceed.

20. "Partial Utilization" shall mean placing a portion of the Work to be provided under the Contract Documents to the use intended by the City.

21. "Pay Estimate No._____" or "Final Pay Estimate" shall mean the form to be used by the Contractor in requesting progress and final payments, including supporting documentation required by the Contract Documents.

22. "Plans" or "the Plans" shall mean and include all drawings which may have been provided by the City as a basis for Bids, all drawings (other than Shop Drawings, as defined in Definition No. 23, below.) submitted by the successful Bidder with its Bid or by the Contractor to the City, if and when approved by the City, and all drawings submitted by the City to the Contractor during the progress of the Work, all of which show the character and scope of the Work to be performed.

23. "Shop Drawings" shall mean all drawings, diagrams, illustrations, schedules and other data which are specifically prepared by the Contractor, a Subcontractor, manufacturer, fabricator, supplier or distributor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information

prepared by a manufacturer, fabricator, supplier or distributor and submitted by the Contractor to illustrate material or equipment for some portion of the Work.

24. "Specifications" shall mean those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction methods, standards and workmanship as applied to the Work and certain administrative details applicable thereto. They may include, but not necessarily be limited to:

(1) design specifications, e.g. measurements, tolerances, materials, inspection requirements and other information relative to the Work;

(2) performance specifications, e.g., performance characteristics required, if any;

(3) purchase description specifications, e.g. products or equipment required by manufacturer, trade name and/or type; provided, however, equivalent alternatives (including aesthetics, warranty and manufacturer reputation) may be substituted upon written request and written approval therefore by the City in accordance with Article GC-61;

(4) such other information deemed appropriate by the City for inclusion in the Specifications for the proper construction of the Project.

25. "Subcontractor" shall mean an individual, firm or corporation having a direct contract with the Contractor or with another Subcontractor for the performance of a part of the Work.

26. "The Work" or "The Project" (used interchangeably) shall mean the work to be done necessary to complete the construction required of the Contractor by the Contract Documents, and includes all construction, labor, materials, tools, equipment and transportation necessary to produce such construction in accordance with the Contract Documents.

27. "Underground Facilities" shall mean all pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish services or materials including, but not limited to, electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

28. "Unit Price Work" shall mean Work to be paid for on the basis of unit prices (quantity variations).

29. Whenever in these Contract Documents the words "as ordered," "as directed," "as required," "as permitted," "as allowed," or words or phrases of like import are used, it is understood that the order, direction, requirement, permission or allowance of the City is intended.

30. Whenever any statement is made in the Contract Documents containing the expression "it is understood and agreed," or an expression of like import, such expression means the mutual understanding and agreement of the parties hereto.

31. The words "approved," "reasonable," "suitable," "acceptable," "properly," "satisfactory," or words of like effect in import, unless otherwise particularly specified herein, shall

mean approved, reasonable, suitable, acceptable, proper or satisfactory in the judgment of the City.

GC-3 DEFECTS IN CONTRACT DOCUMENTS

If Contractor has reasonable cause such that it should, in the exercise of ordinary care of someone in its position, know that any errors, omissions, discrepancies or inconsistencies (hereinafter "defects") appear in the Contract Documents, including, but not limited to, the Plans, Specifications and other documents or the Work, Contractor shall, notify the City in writing of such defects. Contractor shall remedy any such defects whether or not disclosed to the City without any increase in the cost of the Work. The Contract Documents shall be appended to all contracts between the Contractor and any Subcontractor or any more remote tier Subcontractor, and such Subcontractors and remote tier Subcontractors shall, likewise, notify the Contractor in writing of any defects therein, and it shall be the obligation of the Contractor to remedy same as if Contractor had discovered such defects itself. The Contractor will not be permitted to take advantage of any such defect.

GC-4 BID

The Contractor acknowledges and agrees that the unit prices and/or lump sum prices shown in the Bid contemplate the construction of all facilities, complete, and in conformance with the Plans and Specifications. Any item or items required in construction for which a specific unit price and/or lump sum price is not provided shall be included in the price for the closest applicable items.

GC-5 COPIES OF THE CONTRACT

Unless otherwise provided in the Contract Documents, City will furnish to Contractor a maximum of five (5) copies of the Contract Documents, free of charge, necessary for the execution of the Work.

Sufficient copies of the Bidding Documents, Bonds and Agreement between City and Contractor shall be prepared, each containing an exact copy of the Contractor's Bid as submitted, the Bonds properly executed and the Contract signed by both parties hereto. These executed counterparts shall be filed with the City, Contractor and the surety company executing the Bonds. The original Bid submitted by the Contractor will be retained by the City.

Contractor shall keep, and make available to City at the Project site, one copy of all Contract Documents for the Work at the Project site, in good order and legibly marked to reflect actual construction. Contractor shall also maintain at the site all approved samples and a print of all approved Shop Drawings. Such Documents, samples and Shop Drawings shall be turned over to the City at the completion of the Work if requested by the City.

Contract Documents are the property of the City, and none of the Contract Documents are to be used on other work by Contractor. At City's request, all Contract Documents shall be returned to the City with the exception of one record set for Contractor. All models and calculations are the property of City.

GC-6 SCOPE, NATURE AND INTENT OF PLANS AND SPECIFICATIONS

The Plans and Specifications are intended to complement, but not necessarily duplicate each other. Together they shall constitute one complete set of the Plans and Specifications, and any Work exhibited in one but not in the other shall be executed just as if it had been set forth in

both in order that the Work shall be completed according to the complete design or designs as decided and determined by the City.

Should anything be omitted from the Plans and Specifications which is necessary to a clear understanding of the Work, or should it appear that various instructions are in conflict, or in the event the Plans and Specifications are silent as to any detail, then it shall be the duty of the Contractor to secure written instructions from the City before proceeding with the construction affected by such omissions, discrepancies or silence. In accordance with Article GC-3, Contractor's failure to bring any such matter to the attention of the City shall be at the Contractor's peril, and there shall be no compensation for extra work necessitated thereby.

Dimensions and elevations shown on the Plans shall be accurately followed, even though they may differ from scaled measurements. No Work shown on the Plans, the dimensions of which are not indicated, shall be executed until the required dimensions have been obtained from the City. Contractor shall be responsible for verification of all locations, dimensions and elevations in the field (including, but not limited to verification of location of Underground Facilities and utilities) and shall verify all field dimensions shown on the Contract Documents.

All Work performed under this Contract shall be done to the lines, grades, and elevations shown on the Plans. The Contractor shall keep the City informed, a reasonable time in advance of the times and places at which it wishes to do Work, in order that lines and grades may be furnished and necessary measurements for record and payment may be made with the minimum of inconvenience and delay to the City and the Contractor.

Any Work done without being properly located and established by base lines, offset stakes, bench marks, or other basic reference points may be ordered removed and replaced at the Contractor's cost and expense.

Contractor, together with its Subcontractors, shall carefully examine the Plans and Specifications for any interferences with the Work and clearances that may be required. Contractor shall be responsible for the proper fitting of materials and equipment without substantial alterations. Contractor shall be responsible for eliminating interferences without additional cost to City. If departures from the Plans and Specifications, or other Contract Documents, are deemed necessary by Contractor, details of such departures and reasons therefore shall be submitted to City, with drawings (if City determines that drawings are necessary), for approval as soon as practical. No such departure shall be made except at the peril of the Contractor without the prior written approval of the City.

GC-7 BEGINNING, PROGRESS AND TIME OF COMPLETION OF WORK

After being awarded the Contract, the Contractor shall immediately prepare and submit for approval by the City a construction schedule giving the dates on which it expects to start and to complete separate portions of the Work, which schedule shall be strictly adhered to unless agreed to in writing by all parties or modified by any extension or extensions of time as hereinafter provided. The schedule shall be submitted before the Notice to Proceed is issued. No Work on this Contract shall begin until said schedule is approved. The City reserves the right to adjust the Contractor's schedule to coordinate with any other projects in the same area.

The Contractor shall, within ten (10) days after being instructed to do so in the written "Notice to Proceed" from the City, commence the Work to be done under this Contract; and the rate of progress shall be such that the Work shall have been completed in accordance with the terms of the Contract on or before the termination of the construction period contractually specified, subject to any extension or extensions of such time made as hereinafter provided.

The Contractor shall submit monthly progress reports and schedules. The progress report shall summarize Work completed, identify any weather and/or utility delays encountered, and indicate Work anticipated for the upcoming month. The schedule will be detailed indicating how the remaining Work will be completed within the stated deadlines (the remaining Work shall include identifying/incorporating utility relocation work with the project-related construction work). The progress report and schedule will be required before payment of monthly pay estimates.

If requested, a weekly construction schedule shall be submitted to the City and approved by the City. Modifications and/or revisions to the schedule shall have twenty-four (24) hour notice with approval by the City.

GC-8 SHOP DRAWINGS

Contractor shall review, approve, and submit, with such promptness as to cause no delay in its own Work or in that of any Subcontractor or other Contractor, three (3) copies of all shop, fabrication, assembly, foundation and other drawings and schedules required by the Specifications, including, but not limited to: (1) drawings of equipment and devices offered by the Contractor for approval of the City in sufficient detail to adequately show the construction and operation thereof; (2) drawings showing essential details of any change in design of construction proposed, for consideration by the City, by the Contractor in lieu of the design or arrangement required by the Contract Documents, or any item of extra work there under; (3) all required wiring and piping layouts; and (4) structural and reinforcing fabrication drawings. All submittals, regardless of origin, shall be stamped with the approval of the Contractor and identified with the name and number of this Contract, Contractor's name and references to applicable specification paragraphs and Contract drawings. Each submittal shall indicate the intended use of the item in the Work. Contractor's stamp of approval is representation to the City, that the Contractor accepts full responsibility for determining and verifying all quantities, dimensions, field construction criteria, materials, and similar data, and that he has reviewed or coordinated each submittal with the requirements of the Work and the Contract Documents. All deviations from the Contract Documents shall be identified on each submittal and shall be tabulated in the Contractor's letter of transmittal. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by Contractor (including modifications to other facilities that may be a result of each deviation).

The City shall review the Shop Drawings for conformance with the design concept of the Work and information as given in the Contract Documents. The Contractor is not relieved of responsibility for any deviation from the requirements of the Contract Documents by the City or the Consultant's approval of the Shop Drawings, product data, or samples. The Contractor is not relieved from responsibility for errors or omissions in Shop Drawings by the City or Consultant's approval thereof. The City shall respond to, accept or reject such submissions within a reasonable time after receipt thereof. Contractor shall make such revisions as deemed necessary. On Final Acceptance, the City shall be furnished with a total of five (5) copies of each drawing as finally approved, such number to include any copies of preliminary or revised drawings which are approved as submitted. No Work shall be performed in connection with the fabrication or manufacture of material or equipment shown by any drawing thereof, nor shall any accessory, appurtenance or device not fabricated or manufactured by the Contractor or its Subcontractors be purchased, until the drawing or drawings therefore have been approved as stipulated, except at the Contractor's own risk and responsibility.

GC-9 CONTRACTOR'S RESPONSIBILITIES AS TO AMBIGUITIES

If there is any ambiguity in the project drawings or instructions, Contractor shall ask the City for clarification. Upon written request of Contractor, the City shall furnish, with reasonable promptness, additional instructions by means of drawings, Specifications or other information necessary for the proper execution of the Work. The Work shall be executed in conformity therewith, and, in accordance with Article GC-3, Contractor shall do no Work without proper instructions except at its peril. Nothing herein to the contrary shall affect Contractor's responsibilities with regard to defects as set forth in Article GC-3.

GC-10 CONCEALED CONDITIONS

The Contractor understands that the City does not warrant that the various and sundry materials and information, including, for example, soil tests, bore reports, utility locations and other such data and as-builts in the case of renovation of or addition to existing facilities, reflect actual conditions. The Contractor warrants that it has examined the site and conducted such tests and examinations as it deems necessary. That being the case, should concealed conditions encountered in the performance of the Work below the ground or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the Contract Documents, or should unknown physical conditions below the surface of the ground or should concealed or unknown conditions in an existing structure of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, be encountered, there shall be no adjustment in the Contract Price for any extra work necessitated thereby, although, if necessary, the Contract Time may be adjusted.

GC-11 CONTRACTOR TO FURNISH STAKES AND HELP

The Contractor, unless otherwise instructed, shall stake the Work and shall furnish, without charge, competent people from its force and such tools, stakes, and other materials as required in properly staking out the Work, in making measurements and surveys and in establishing temporary or permanent reference marks in connection with said Work. The stakes furnished for the staking of the Work shall be of such type, size and quality as to be acceptable to the City.

GC-12 PRESERVATION OF MONUMENTS AND STAKES

The Contractor shall carefully preserve all monuments, property corners, bench marks, reference points and stakes, and in case of destruction of the same, will be responsible for proper replacement and for any mistakes or loss of time that may be caused by their unnecessary loss or disturbance. In the event that the loss of stakes, etc., causes a delay in the Work, the Contractor shall have no claim for damages or extensions of time. In the case of any permanent monuments, property corners or bench marks which must of necessity be removed or disturbed in the construction of the Work, the Contractor shall carefully protect and preserve the same until they can be properly referenced for relocation. The Contractor shall furnish at its own expense such materials, surveyors and assistance as are necessary for the proper replacement of monuments, property corners or bench marks that have been moved or destroyed.

GC-13 PERMITS AND NOTICES

(a) All permits and licenses shall be secured and paid for by Contractor, unless otherwise specified.

(b) Contractor shall give all notices required by and all Work shall be done in accordance with all applicable federal and state laws, City and County laws and ordinances, building codes and rules and regulations bearing on the conduct of the Work.

(c) Contractor shall notify all affected utilities of the Work and coordinate with the utilities to avoid interruption of utility service and damage to utility lines and property. This notice requirement shall also apply as to the owner/operator of any affected Underground Facility. Any project delay, damages or increase in construction costs due to utility relocation delays shall be at the Contractor's risk.

GC-14 GENERAL ADMINISTRATION OF THE CONTRACT

(a) Unless otherwise stipulated, Contractor shall provide and initially pay for all Work (including labor, transportation, tools, equipment, machinery, plant and appliances) necessary in producing the results called for by the Contract Documents.

(b) Unless otherwise specified, all supplies, materials, equipment and other facilities are guaranteed to be new and all Work shall be of good quality and workmanship and free from defects or fault. Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of the Work.

(c) The Contractor shall be solely responsible for and have complete control and charge of construction means, methods, techniques, sequences and procedures, and for safety precautions and programs in connection with the Work. The City shall not be responsible for nor have control or charge over the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.

(d) The Contractor shall, in addition to the schedule required by Article GC-7, give to the City full information in advance as to its plans for carrying on any part of the Work. If at any time before the beginning or during the progress of the Work, any part of the Contractor's plant or equipment or any of its methods of executing the Work, appear to the City to be unsafe, inefficient or inadequate to ensure the required quality or rate of progress of the Work, the City may order the Contractor to increase or improve its facilities or methods, and the Contractor shall promptly comply with such orders; but neither compliance with such orders nor failure of the City to issue such orders shall relieve the Contractor from its obligation to secure the degree of safety, the quality of Work and the rate of progress required by the Contract.

(e) The approval by the City of any plan, schedule or method of work proposed by the Contractor shall not relieve the Contractor of any responsibility therefore, and such approval shall not be considered as an assumption by the City, or any officer, agent or employee thereof, of any risk or liability, and the Contractor shall have no claim under this Contract on account of the failure or inefficiency of any plan or method so approved. Such approval shall be considered and shall mean that the City has no objection to the Contractor's use or adoption, at the Contractor's own risk and responsibility, of the plan or method so proposed by the Contractor.

(f) Any plan or method of Work suggested by the City, to the Contractor, but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor, and the Consultant and the City will assume no responsibility therefor.

GC-15 CONTRACTOR'S EMPLOYEES

(a) Contractor shall at all times enforce strict discipline and good order among its employees and shall not employ on the Work any unfit person or anyone not skilled in the Work assigned to him.

(b) Contractor shall be responsible for compliance with all state and federal laws, if applicable, pertaining to wages, hours and benefits for workers employed to carry out the Work.

GC-16 SAMPLES

Contractor shall furnish for approval samples if directed by the City or the Contract Documents. The Work shall be in accordance with approved samples.

GC-17 PROTECTION AND MAINTENANCE OF PUBLIC AND PRIVATE PROPERTY; LIABILITY

(a) Contractor shall be solely liable for all damages to the City or the property of the City, to other contractors or other employees of the City, to neighboring premises, or to any private or personal property, due to improper, illegal or negligent conduct of the Contractor, its Subcontractors, employees or agents in and about said Work, or in the execution of the Work. The Contractor shall be liable to the City for any damages, whether property damage or personal injury, occasioned by Contractor's use of any scaffolding, shoring, apparatus, ways, works, machinery, plant or any other process or thing that is required for the Work.

(b) Without in any manner limiting Contractor's responsibilities as provided elsewhere in the Contract Documents, the Contractor shall maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards, and assume full responsibility, for the protection of all public and private property, life, the Work, supplies, materials and equipment on the Project site not yet incorporated in the Work, structures, sewers and utilities both above the ground and Underground Facilities, along, beneath, above, across or near the site or sites of the Work being performed under this Contract, or which are in any manner affected by the prosecution of the Work or the transportation of people or materials in connection therewith.

(c) Protection may include, shoring, bracing, supporting and maintaining all underground pipes, conduits, drains and other underground construction uncovered or otherwise affected by the construction Work performed by Contractor. Barriers shall be kept placed at all times to protect bracing and shoring of the trenches shall be in full accordance with Occupational Safety and Health Standards – Excavations; Final Rule 29 CFR Part 1926. All open trenches and other excavations shall be provided with suitable barriers, signs and lights, at Contractor's expense, such that adequate protection is provided to the public against accident by reason of such open construction. Obstructions such as material piles and equipment shall be provided with similar warning lights and signs. All pavement, surfaces, driveways, curbs, walks, buildings, utility poles, guy wires, and other surface structures affected by construction operations in connection with the performance of the Contract, shall be maintained, and if removed or otherwise damaged, shall be restored to the original condition thereof, as determined and approved by the City. All replacement of such underground construction and surface structures or parts thereof shall be made with new materials conforming to the requirements of these Specifications, or if not specified, as approved by the City, at the Contractor's own expense, unless otherwise provided by the Contract.

(d) Barriers shall be kept placed at all times to protect other than those engaged on or about the Work from accident and the Contractor shall be held responsible for all accidents to persons or property resulting from the acts of Contractor or its employees. Contractor shall give reasonable notice to any affected owner or owners when any property is liable to injury or damage

through the performance of the Work and shall make all necessary arrangements with such owner or owners relative to the removal and replacement or protection of such property and/or utilities.

(e) Contractor shall comply with any and all instructions from the City regarding prevention of accidents, fires or for the elimination of any unsafe practice and shall observe all the applicable recommendations of the National Fire Protection Association Standard No. 241 (or other, later revision) "Standards For Safeguarding Building Construction and Demolition Operations".

(f) Contractor shall post danger signs warning against the hazards created by such features of construction as protruding nails, hood hoists, well holes, elevator hatchways, scaffolding, window openings, stairways, falling materials, open trenches, other excavations, obstructions and similar conditions. It shall designate a responsible member of its organization on the Project whose duty shall be the prevention of accidents. The name and position of the person so designated shall be reported to the City by Contractor.

(g) In an emergency affecting the safety of life, the Work, City's property or of adjoining property, Contractor, without special instruction or authorization from the City, is hereby permitted to act, at its discretion, to prevent such threatened injury or loss. Any compensation claimed by Contractor on account of emergency work shall be determined by mutual agreement of City and Contractor.

(h) Contractor shall develop and maintain an up-to-date emergency action plan, taking into account fires, hazardous materials, explosions, adverse weather, floods, etc., which shall be in compliance with all federal, state and local laws and ordinances. The procedures should outline specific action to be taken to protect life and to secure and protect the building materials, constructed work, buildings, equipment and the position of cranes. Contractor shall be fully responsible for the contents of and procedures outlined in said plan, including deficiencies therein, whether or not City shall have reviewed said plan.

(i) Contractor shall be responsible for any damage caused by settlement of backfill placed beneath pavement, street, road, and driveway surfacing, and drainage and other structures beneath yards, parking and parks, which may occur at any time prior to and during a period of two (2) years from and after the date of Final Acceptance of Work covered by the Contract; during such period, the Contractor shall at his own expense, refill all excavations where backfill settlement has occurred, and shall repair or cause to be repaired all damage to structures, pavements, surfacing and sod caused by such settlement, to the satisfaction of the City. Should the Contractor fail to repair settlements, which may occur as described above within thirty (30) days after being given notice thereof, the City shall have the right to repair such settlement and charge the cost of such repairs to the Contractor.

(j) Contractor shall be held responsible for all damage to roads, highways, shoulders, ditches, embankments, bridges, culverts, and other property, caused by the Contractor or any of the Contractor’s Subcontractors in hauling or otherwise transporting materials to or from the several sites of Work, regardless of the location of such damage. Contractor shall make arrangements relative to the payment for, or repair or replacement of, such damage or damaged surfaces of structures; said arrangements shall be satisfactory and acceptable to the owner or owners of such damaged surfaces or structures, or to their legally responsible officers, agents or other representatives, and said payment shall be at the Contractor’s own cost and expense, unless otherwise provided by the Contract.

(k) All streets, roads, highways and other public thoroughfares which are closed to traffic, under the authority of a proper permit, shall be protected, at Contractor's expense, by

means of effective barricades on which shall be placed proper warning signs; such barricades being located at the nearest intersecting public highway or street on each side of the blocked section of such public thoroughfare.

(l) All barricades and obstructions shall be illuminated by means of amber lights at night and all lights used for this purpose shall be at Contractor's expense and shall be kept burning from sunset to sunrise. Materials stored upon or alongside public streets and highways shall be so placed, and the Work at all times shall be so conducted, as to cause the minimum obstruction and inconvenience to the traveling public.

(m) All barricades, signs, lights and other protective devices in public rights-of-way shall be installed and maintained in conformity with applicable statutory requirements and as required by the Manual on Uniform Control Devices, as amended, or any other applicable statutes or ordinances.

GC-18 WORK IN OR ACROSS STREET OR HIGHWAY RIGHT-OF-WAY

All Work performed and all preparations of the Contractor or its employees, and Subcontractors, if any, within the limits of street or highway rights-of-way shall be in conformity with the requirements, and be under the control, through the City, of the street or highway authority owning or having jurisdiction and control over such rights-of-way in each case. Any costs incurred to comply with such requirements are the responsibility of Contractor.

GC-19 MAINTENANCE OF TRAFFIC

Local traffic on all streets shall be carried through construction whenever possible. Detours of traffic will be permitted when necessary and with the prior permission of the City. Streets may be closed for short periods of time under authority of proper permit issued by the City or authority having jurisdiction. However, the Contractor shall conduct its Work so as to interfere as little as possible with public travel, whether vehicular or pedestrian, on such streets. Proper notification to County and City police units and to Fire Districts shall be given by the Contractor before closing any public thoroughfare.

Where construction operations require the closing of private driveways, the Contractor shall give adequate notice to the owner or owners thereof and where necessary shall provide temporary access to private property.

GC-20 NOISE CONTROL

Contractor shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.

GC-21 DUST CONTROL

Adequate precaution shall be taken to insure that excessive dust does not become airborne during construction. The Contractor shall comply with any local, state, or federal regulations which apply to this matter in the geographical area of the Work. No separate payment will be made for performing dust control or for applying water for this purpose.

GC-22 INSPECTION OF WORK

(a) City shall at all times have access to the Work for the observation and inspection thereof wherever it is in preparation or progress, and Contractor shall provide proper facilities for such inspection. The Contractor shall furnish all reasonable aid and assistance required for any such inspection.

(b) All Work must be inspected, tested or approved and the Contractor shall give the City timely notice of its readiness for such inspection, testing or approval and the date fixed for such inspection, testing or approval, if the inspection, testing or approval is by an authority other than City. If any Work should be covered up which is required by the above to be inspected, tested or approved and which, by virtue of being so covered up, is not susceptible to being properly inspected, tested or approved, Contractor shall, if requested by City, uncover such Work and at Contractor's expense bear the cost of uncovering such Work and redoing same after inspection, testing or approval and redoing such other Work damaged as a result of having to uncover and redo same.

(c) City reserves the right to inspect any and all Work before it is covered up; and, accordingly, Contractor must notify City before covering any Work. City shall be given a reasonable time to make its inspection. Contractor shall not cover any Work prior to City having a reasonable time to inspect. If Work to be covered does not conform to the Contract Documents, City can withhold its consent to covering up Work until such Work is made to conform at Contractor's expense.

(d) If any labor, supplies, materials or equipment are found not to be in accordance with the Contract Documents, Contractor shall at its own expense bear the cost of uncovering such labor, supplies, materials or equipment, the cost of removing same, as well as the cost of undoing and redoing the Work and other Work damaged by such nonconforming labor, supplies, materials or equipment.

(e) The Contractor shall comply with the directions and instructions of the City.

(f) The City and all designated Inspectors shall be free at all times to perform their duties, including the observation and inspection of the Work, and intimidation or attempted intimidation of any one of them by the Contractor or by any of its employees shall be sufficient reason, if the City so desires, to terminate the Contract.

(g) Any inspection, by whosoever conducted, shall not relieve the Contractor from any obligation to perform the Work strictly in accordance with the Plans and Specifications, and any of the Work not so constructed shall be removed and made good by the Contractor at its own expense.

GC-23 SUPERINTENDENCE AND SUPERVISION

The Contractor shall be responsible for coordination between all phases of the Work and provide all necessary supervision to the Work using its best skill, care, judgment and attention and shall keep on the Work, during its progress, a competent superintendent and any necessary assistants, all satisfactory to City. The Contractor shall coordinate the activities and scheduling of all operations in accordance with the approved schedule. All unsupervised Work shall be unacceptable and subject to removal and replacement at the Contractors expense. The superintendent shall not be changed except with the consent of the City unless the superintendent proves to be unsatisfactory to the Contractor and/or ceases to be in its employ; provided however,

that the City retains the right to require that the Contractor replace the superintendent at any time, such right not to be arbitrarily exercised.

The superintendent shall be fully authorized to act for the Contractor and receive whatever orders as may be given for the proper prosecution of the Work or notices in connection therewith. Use of Subcontractors on portions of the Work shall not relieve the Contractor of its obligation to have a competent superintendent directly employed by the Contractor on the Work at all times.

GC-24 CONTRACTOR'S OFFICE AT SITE OF WORK

During the performance of this Contract, the Contractor shall maintain a suitable office at or near the site of the Work which shall be the headquarters of the superintendent authorized to receive drawings, instructions, or other communications or articles from the City, and any such communication given to the said superintendent or delivered at the Contractor's office at the site of the Work in his/her absence shall be deemed to have been given to the Contractor.

GC-25 CHANGES IN THE WORK

(a) Change Orders. City, without invalidating the Contract, may by Change Order direct changes in the Work which may result in an addition to or deduction from the Contract Price and/or changes in the Contract Time. All Change Orders shall be executed under the provisions of the original Contract Documents. If the Change Order consists of a modification to the Contract Price, the value of such change shall be determined as per paragraph (e) below.

Except for Work done as a result of an emergency endangering life or property, no Work resulting in an additional pay item shall be performed unless pursuant to the provisions of a Change Order.

(b) Quantity Variations. Where changes in the Work involve a change in the quantity of any Bid item, the Contract Price shall be revised by extension of the quantities and unit price of all Bid items so changed subject to written approval of the City.

(c) Field Orders. City may order minor changes in the Work through Field Orders, which in no specific, concrete or substantial way increase or decrease the Work; and such minor changes in the Work shall not involve an addition or deduction from the Contract Price.

(d) From time to time the City may also issue written orders to Contractor for needed clarifications, modifications or corrections. Should a difference of opinion arise as to whether the order constitutes extra work for which additional compensation is due, and the City insists on its performance, the Contractor shall proceed with the Work after making a written request for a Change Order, and it shall keep an accurate account of the actual field cost thereof as provided for in (e)(3) below. The Contractor will thereby preserve the right to submit a claim therefor.

(e) The value of any change in the Work which results in an addition/deletion to the Contract Price shall be determined in one or more of the following ways, at the option of City:

(1) By agreed lump sum.
(2) By unit prices named in the Contract or subsequently agreed upon.
(3) By actual field cost (time and material) plus fifteen percent (15%) and shall include a "Not to Exceed" figure.

In order to arrive at the value for any change, Contractor shall credit City with its projected cost(s), including overhead and fee for any Work which was previously included but which has been excluded by any such change.

(f) No change in the Work shall entail additional time unless the City determines that additional time is required and specifically so provides in the Change Order. No change in the Work shall entitle the Contractor to delay damages.

(g) Where extra work is performed under (e)(3) above, the term "actual field cost" of such extra work is hereby defined to be and shall include:

(1) The cost of all workers, such as foremen, timekeepers, mechanics, and laborers, for the time actually employed in the performance of the said extra work;

(2) All materials and supplies;

(3) Trucks and rentals on machinery and equipment for the time actually employed or used in the performance of said extra work;

(4) Any transportation charges necessarily incurred in connection with said equipment authorized by the City for use on said Work and similar operating expenses;

(5) All incidental expenses incurred as a direct result of such extra work, including payroll taxes and a ratable proportion of premiums on construction Bonds and, where the premiums therefore are based on payroll costs, public liability and property damage, worker's compensation, and other insurance required by the Contract; provided, however, Contractor must enumerate and justify to City's satisfaction any such claimed incidental expenses; and provided, further, that without in any way limiting City's right to challenge any individual costs claimed by Contractor, incidental costs shall not include:

(A) Payroll costs and other compensation of Contractor's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor whether at the site or in Contractor's principal or a branch office for general administration of the Work unless specifically agreed to by City - all of which are to be considered administrative costs covered by the Contractor's overhead and profit.

(B) Expenses of Contractor's principal and branch offices other than Contractor's office at the site.

(C) Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

(D) Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of Defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

(E) Other overhead of general expense costs of any kind and the costs of any item not specifically and expressly agreed to by City.

The City may direct the form in which accounts of the actual field cost shall be kept and may also specify in writing, before the Work commences, the method of doing the Work and the type and kind of machinery and equipment, if required, which shall be used in the performance of extra work under (e)(3) above. In the event that machinery and heavy construction equipment shall be required for such extra work, the authorization and basis of payment for the use thereof shall be stipulated in the written extra work order.

The fifteen percent (15%) of the actual field cost to be paid to the Contractor shall cover, and be full compensation for, the Contractor's profit, overhead, general superintendence, field office expense and all other elements of cost not embraced within the "actual field cost" as herein defined.

(h) In the event that unit prices are provided for in the Contract Documents as to all or a part of the Work, if the quantities originally contemplated are so changed in a proposed Change Order that application of the agreed unit prices to the quantities of Work proposed is substantially inequitable to either the City or the Contractor, the unit prices shall be reevaluated and adjusted in accordance with the following:

(1) If the total cost of a particular item of Unit Price Work amounts to twenty percent (20%) or more of the Contract price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than thirty-three percent (33%) from the estimated quantity of such item indicated in the Contract; and

(2) If there is no corresponding adjustment with respect to any other item of Work; and

(3) If Contractor has incurred additional expense as a result thereof; or

(4) If City believes that the quantity variation entitles it to an adjustment in the unit price and, the parties are unable to agree as to effect of any such variations in the quantity of Unit Price Work performed; then either City or Contractor may request the City to make an adjustment in the Contract price.

(i) No claim for extra work of any kind will be allowed except as provided herein. If extra work orders are given in accordance with the provisions of this Contract, such Work shall be considered a part hereof and subject to each and all of the terms and requirements of this Contract.

(j) Contractor shall be responsible for notifying its surety(ies) of any modifications to the Contract price or time, and said surety(ies) shall not seek discharge as a result of any failure on Contractor's part to notify surety(ies).

GC-26 DEDUCTIONS FOR UNCORRECTED WORK

If City deems it inexpedient to have corrected any Work which is not in accordance with the Contract Documents, an equitable deduction from the Contract Price shall be made therefor.

GC-27 DELAYS AND EXTENSION OF TIME

(a) If Contractor shall be delayed at any time in the progress of the Work by an act or omission of City or by any separate contractor employed by City and over which Contractor has no control and which is not a result of the Contractor's acts or the acts of any of its employees, Subcontractor or suppliers, negligent or otherwise, then the time of completion shall be extended for such reasonable time as the City shall decide, and no adjustment shall be made in the Contract Price.

(b) No such extension shall be made for delay unless Contractor provides written notice to City of such delay, the reasons therefore and the expected length of delay within seven (7) days of the commencement of such delay. In the case of a continuing cause of delay, only one claim is necessary.

(c) In executing the Contract, the Contractor expressly covenants and agrees that, in undertaking to complete the Work within the time therein fixed, it has taken into consideration and made allowances for all hindrances and delays incident to such Work, whether growing out of delays in securing materials, workers, weather conditions or otherwise. No charge shall be made by the Contractor for hindrances or delays from any cause during the progress of the Work, or any portion thereof, included in this Contract, except as provided in subparagraph (a), (b), or (d) of this Article.

(d) The Contractor shall delay or suspend the progress of the Work or any part thereof, whenever it shall be so required by written order of the City, and for such periods of time as the City shall require; provided, that in the event of such delay or delays or of such suspension or suspensions of the progress of the Work, or any part thereof, the time for completion of Work so suspended or of Work so delayed by such suspension or suspensions shall be extended for a period equivalent to the time lost by reason of such suspension or suspensions; but such order of the City shall not otherwise modify or invalidate in any way, any of the provisions of this Contract. In the event that the Work shall be stopped by order of the City, through no fault of the Contractor, its employees, Subcontractors or suppliers, any incidental expenses (see Article GC-25 (g)(5)) which, in the opinion and judgment of the City, are caused thereby shall be paid by the City to the Contractor; provided, however, that such suspension or suspensions shall not be the basis for any claim by Contractor for additional compensation or damages for delay.

(e) The City reserves the right and may delay Work on certain portions of Work until such time as weather and/or utility relocations will allow proper progress on major items of Work. The City may direct the Contractor to clear the right-of-way before utility relocations, if, in the opinion of the Engineer, such clearing would expedite utility relocation. Also, the City may direct the Contractor to work on certain items of Work after partial utility relocations have been made. There shall be no charge made by the City or the Contractor for delays arising from the issuance of such delayed Work direction other than provided for in paragraphs (a) through (d) in this Article.

GC-28 WORK STOPPAGES

Contractor warrants to the City that there shall be no work stoppages or interruptions arising out of labor disputes, including, but not limited to, those due to the presence of both union and non-union workforces at the job site. Contractor further agrees that in the event of any strike,

picket, sympathy strike, work stoppage or other form of labor dispute or picket in connection with the Work of the Contractor, other contractors, Subcontractors, the City, or any other person, the Contractor will, contingent upon the City providing a picket-free entrance, continue to perform the Work required herein without interruption or delay. Anything in this Contract to the contrary notwithstanding, in the event the Contractor fails to continue performance of the Work included herein without interruption or delay, because of such picket or other form of labor dispute, the City may terminate the services of said Contractor after giving forty-eight (48) hours written notice to Contractor and its sureties of its intent to do so, or the City may invoke any of the rights set forth elsewhere in the Contract Documents.

GC-29 PATENT LIABILITY CLAUSE

Contractor agrees to defend any claim, action or suit that may be brought against City, its Governing Body, officers, agents or employees for infringement of any patents arising out of the performance of this Contract or out of the use or disposal by or for the account of City of supplies furnished or construction Work performed hereunder, and also to indemnify and hold harmless City, its Governing Body, officers, agents, and employees against all judgments, decrees, damages, costs and expenses recovered against it or them or sustained by it or them on account of any such actual or alleged infringement.

It is understood that all royalties and fees for and in connection with patents, or patent infringement, claims for materials, articles, apparatus, devices or equipment used in or furnished for the Work shall be included in the Contract Price. Final payment to the Contractor by the City shall not be made while any suit or claim involving infringement or alleged infringement of any patent remains unsettled.

GC-30 INDEPENDENT CONTRACTOR

The right of general supervision of the City shall not make the Contractor an agent of the City, and the liability of the Contractor for all damages to persons, firms and corporations arising from the Contractor's execution of the Work shall not be lessened because of such general supervision, but as to all such persons, firms and corporations, and the damages, if any, to them or their property, the Contractor herein is an independent contractor in respect to the Work.

GC-31 SEPARATE CONTRACTS

(a) City reserves the right to perform by itself or let other contracts in connection with Work. Contractor shall afford reasonable opportunity for the introduction and storage of materials and the execution of Work by City or others and shall properly connect and coordinate its Work with the Work of City or others.

(b) If any part of Contractor's Work depends upon the Work of the City or others, Contractor shall inspect and promptly report to City any defects in any such Work that render it unsuitable for proper execution or results. Its failure to so inspect and report shall constitute an acceptance by it of such other Work as fit and proper for the reception of its Work.

GC-32 RELATIONS WITH OTHER CONTRACTORS

The Contractor shall cooperate with all other contractors or workers who may be performing Work on behalf of the City or any other entity on any Work in the vicinity of the Work to be done under this Contract, and it shall so conduct its operations as to interfere to the least possible extent with the Work of such Contractors or workers. Contractor shall be responsible for any injury or damages that may be sustained by other contractors, workers or their Work because

of any fault or negligence on Contractor's part, and shall at its own expense repair or pay for such injury or damage. Any difference or conflict which may arise between the Contractor and other contractors, or between the Contractor and the workers of the City or any other entity, in regard to their Work, shall be adjusted and determined by the City. If the Work of the Contractor is delayed or damaged because of any acts or omissions of any other contractor or contractors, the Contractor shall have no claim against the City on that account; provided, however, the City may, in its discretion, grant an extension of time.

When two or more contracts are being executed at one time in such manner that Work on one Contract may interfere with that on another, the City shall decide which contractor shall cease Work and which shall continue, whether the Work on both contracts shall progress at the same time, and in what manner the Work is to proceed.

When the territory of one contract is the necessary or convenient means of access for the transportation or movement of men/women, materials or appliances required for the execution of another contract, such privileges of access or any other responsible privilege may be granted by City to the Contractor so desiring to the extent which may be reasonably necessary.

In the event that Contractor is performing Work at a site or on a project involving City and one or more other private or governmental entities, which have their own contractors on site as well, Contractor shall advise City when it anticipates that there may be interference with the Contractor's Work or with the Work of any other contractor. City shall, to the best of its ability, with input from Contractor as to coordination of the Work, seek to schedule Work of the various contractors so as to avoid as much inconvenience and delay as possible; provided, however, that in the event Contractor experiences a delay or damage to the Contractor's Work as a result of the presence of other such contractors, Contractor shall not be entitled to additional compensation or damages for delay or damage to the Contractor's Work; rather, Contractor's only recourse shall be an extension of time to be determined by the City.

GC-33 INDEMNITY

(a) Definitions

For purposes of indemnification requirements as set forth throughout the Contract, the following terms shall have the meanings set forth below:

(1) "The Contractor" means and includes Contractor, all of its affiliates and subsidiaries, its Subcontractors and materialmen and their respective servants, agents and employees; and

(2) "Loss" means any and all loss, damage, liability or expense, of any nature whatsoever, whether incurred as a judgment, settlement, penalty, fine or otherwise (including attorney's fees and the cost of defense), in connection with any action, proceeding, demand or claim, whether real or spurious, for injury, including death, to any person or persons or damages to or loss of, or loss of the use of, property of any person, firm or corporation, including the parties hereto, which arise out of or are connected with, or are claimed to arise out of or be connected with, the performance of this Contract whether arising before or after the completion of the Work required hereunder.

(b) The Indemnity

For purposes of this Contract, and without in any way limiting indemnification obligations that may be set forth elsewhere in the Contract, Contractor hereby agrees to indemnify, defend and hold harmless the City, the County Board of Commissioners and the Consultant from any and all Loss where Loss is caused or incurred or alleged to be caused or incurred in whole or in part as a result of the negligence or other actionable fault of the Contractor, its employees, agents, Subcontractors and suppliers.

It is agreed as a specific element of consideration of this Contract that this indemnity shall apply notwithstanding the joint, concurring or contributory or comparative fault or negligence of the City or any third party and, further, notwithstanding any theory of law including, but not limited to, a characterization of the City's or any third party's joint, concurring or contributory or comparative fault or negligence as either passive or active in nature.

(c) General Limitation

Nothing in this Article shall be deemed to impose liability on the Contractor to indemnify the City for Loss when the City's negligence or other actionable fault is the sole cause of Loss.

(d) Waiver of Statutory Defenses

With respect to the City's rights as set forth herein, the Contractor expressly waives all statutory defenses, including, but not limited to, those under workers compensation, contribution, comparative fault or similar statutes to the extent said defenses are inconsistent with or would defeat the purposes of this Article.

GC-34 PROTECTION OF PROPERTY/LIABILITY

Without in any manner limiting Contractor's responsibilities as provided elsewhere in the Contract Documents, the Contractor shall assume full responsibility for the protection of all public and private property, structures, sewers and utilities, both above the ground and Underground Facilities, along, beneath, above, across or near the site or sites of the Work being performed under this Contract, or which are in any manner affected by the prosecution of the Work or the transportation of men/women or materials in connection therewith. Barriers shall be kept placed at all times to protect persons other than those engaged on or about the Work from accident, and the Contractor will be held responsible for all accidents to persons or property resulting from the acts of Contractor or its employees.

The Contractor shall give reasonable notice to the affected owner or owners when any such property is liable to injury or damage through the performance of the Work and shall make all necessary arrangements with such owner or owners relative to the removal and replacement or protection of such property and/or utilities.

The Contractor shall satisfactorily shore, support and protect any and all structures and all pipes, sewers, drains, conduits and other facilities and shall be responsible for any damage resulting thereto. The Contractor shall not be entitled to any additional time on account of any postponement, interference or delay caused by any such structures and facilities being on the line of the Work, whether they are shown on the Plans or not.

GC-35 PROVISION FOR EMERGENCIES

Whenever, in the opinion of the City, the Contractor has not taken sufficient precaution for the safety of the public or the protection of the Work to be constructed under this Contract, or of adjacent structures or property which may be injured by process of construction, and whenever,

in the opinion of the City, an emergency shall arise and immediate action shall be considered necessary in order to protect property interests and to avoid personal injury and/or death, then the City, with or without notice to the Contractor, shall, provide suitable protection to the said interests by causing such Work to be done and materials to be furnished at places as the City may consider necessary and adequate. The cost and expense of such Work and material so furnished shall be borne by the Contractor and, if the same shall not be paid on presentation of the bills therefore, such costs shall be deducted from any amounts due or to become due the Contractor. The performance of such emergency work shall in no way relieve the Contractor of responsibility for damages which may occur during or after such precaution has been duly taken.

GC-36 ASSIGNMENT AND SUBLETTING OF CONTRACT

In case the Contractor assigns all, or any part, of the monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due the Contractor shall be subject to all prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract and that no money shall be paid assignee on behalf of the Contractor by the City until such time as the Contractor has discharged its obligations to the City under the Contract. It is expressly understood and agreed that no assignment shall be effective as against the City unless it complies with the foregoing.

The Contractor shall not award subcontracts which total more than sixty percent (60%) of the total Contract Price based upon the unit prices within the Bid submitted to the City by the Contractor and shall self-perform not less than forty percent (40%) of the total Contract Price based upon the unit prices within the Bid submitted to the City by the Contractor. Should any Subcontractor fail to perform in a satisfactory manner, the Work undertaken by such Subcontractor shall be immediately terminated by the Contractor. The Contractor shall be as fully responsible to the City for the acts and omissions of its Subcontractors, and of persons either directly or indirectly employed by them, as Contractor is for the acts and omissions of persons directly employed by it. Approval by the City of any Subcontractor shall not constitute a waiver of any right of the City to reject Defective Work, material or equipment not in compliance with the requirements of the Contract Documents. The Contractor shall not make any substitution for any Subcontractor accepted by the City unless the City so agrees in writing.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind Subcontractors to the Contractor by the terms of the Contract Documents insofar as applicable to the Work of the Subcontractor and to give the Contractor the same power to terminate any subcontract as the City has to terminate the Contractor under any provisions of the Contract Documents.

Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the City, nor shall anything contained in the Contract Documents create any obligation on the part of the City to pay to or to see to the payment of any sums due any Subcontractor.

Prior to the City's approval of the Contract Bid, the successful Bidder shall submit to the City for City acceptance a list of the names of all Subcontractors proposed for portions of the Work and shall designate which Work each is to perform.

The City shall, prior to City's approval of the Contract Bid, notify the successful Bidder, in writing, if the City, after due investigation, has reasonable objection to any Subcontractor on such list, and the Contractor shall substitute a Subcontractor acceptable to the City at no additional

cost to the City or shall be allowed to withdraw its Bid, and the City shall either rebid the Project or accept the next best lowest and responsible Bidder. The failure of the City to make objection to a Subcontractor shall constitute an acceptance of such Subcontractor but shall not constitute a waiver of any right of the City to reject Defective Work, material or equipment not in conformance with the requirements of the Contract Documents.

The Contractor shall not make any substitution for any Subcontractor who has been accepted by the City unless the City determines that there is a good cause for doing so. The City's disapproval of any Subcontractor shall not, under any circumstance, be the basis for an increase in the Contract Price or a claim for delay damages.

GC-37 DISPUTE RESOLUTION

City and Contractor agree that disputes relative to the Work shall first be addressed by negotiations between the parties. If direct negotiations fail to resolve the dispute, the party initiating the claim that is the basis for the dispute shall be free to take such steps as it deems necessary to protect its interests; provided, however, that notwithstanding any such dispute Contractor shall proceed with the Work as per the Contract Documents as if no dispute existed; and provided further that no dispute will be submitted to arbitration without the City's express written consent.

In order to preserve its rights to dispute a matter hereunder, the complaining party must submit a written notice to the other party setting forth the basis for its complaint within twenty (20) calendar days following receipt of the decision of the City as to such matter as per Article GC-39. No dispute resolution shall be a condition precedent to any legal action.

GC-38 INSURANCE

The Contractor shall secure and maintain through the duration of this Contract insurance (on an occurrence basis unless otherwise agreed to) of such types and in such amounts (but not less than the amounts set forth in Section IB-8 of the Instructions to Bidders) as may be necessary to protect the Contractor and the City and agents of the City against all hazards or risks of Loss as hereinafter specified. The form and limits of such insurance, together with the underwriter thereof in each case, shall be approved by the City, but regardless of such approval it shall be the responsibility of the Contractor to maintain adequate insurance coverage at all times. Failure of the Contractor to maintain adequate coverage shall not relieve it of any contractual responsibility or obligation, including, but not limited to, the indemnification obligation.

Satisfactory certificates of insurance shall be filed with the City prior to Contractor's starting any construction work on this Contract. The certificates shall state that thirty (30) days written notice will be given to the City before any policy covered thereby is changed or cancelled. Failure by the Contractor to furnish the required insurance within the time specified in the Notice of Award of the Contract by the City may, at the City's option, be the basis for the City's exercising its right to terminate the Contract pursuant to Article GC-42.

(a) Commercial General Liability - This insurance shall protect the Contractor against all claims arising from the injuries to members of the public or damage to property of others arising out of any act or omission of the Contractor or its agents, employees or Subcontractors. In addition, this policy shall specifically insure the contractual liability assumed by the Contractor under Article GC-33.

The liability limits shall be as stated in the Instructions to Bidders or in the Project Special Provisions.

(b) Automobile Liability - This insurance shall protect the Contractor against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles, and shall cover operation on and off the site of all motor vehicles licensed for highway use, whether they are owned, non-owned or hired.

The liability limits shall be as stated in the Instructions to Bidders or in the Project Special Provisions.

(c) Worker's Compensation and Employer's Liability - This insurance shall protect the Contractor against all claims under applicable state worker's compensation laws. The Contractor shall also be protected against claims for injury, disease or death of employees which, for any reason, may not fall within the provisions of a worker's compensation law. This policy shall include an "all states" endorsement.

The liability limits shall be as stated in the Instructions to Bidders or in the Project Special Provisions.

(d) Additional Insurance -

(1) The Contractor shall be required to purchase an Owner's Protective Liability Insurance Policy, issued on an occurrence basis and covering bodily injury (and death) and property damage, naming the City as named insured. The liability limits shall be as stated in the Instructions to Bidders or in the Project Special Provisions. The original policy shall be placed on file with the City and maintained during the life of the Contract. Such policy shall contain no exclusion relative to any function performed by the City or its employees and agents in connection with the Work.

(2) Additional insurance covering special hazards may be required on certain projects. Such additional insurance requirements shall be as specified in Instructions to Bidders or Project Special Provisions.

(e) Subcontractors' Insurance - If a part of the Contract is to be sublet, the Contractor shall either:

(1) Cover all Subcontractors in its insurance policies; or

(2) Require each Subcontractor not so covered to secure insurance which will protect Subcontractor and the City against all applicable hazards or risks of loss as and in the minimum amounts designated for the Contractor.

GC-39 AUTHORITY AND DUTY OF THE CONSULTANT

Unless the City acts as its own Consultant, the Consultant is an independent contractor. Construction inspection and observation are not included in the scope of work for the consultant on this project. In order to prevent delays and disputes, it is further agreed by and between the parties to this Contract that the Consultant may be directed by the City to determine the amount and quantities of the several kinds of Work which are to be paid for under this Contract; that Consultant shall answer questions to the City relating to the Plans and Specifications for the Project; that Consultant shall issue promptly any written clarifications or interpretations of the requirements of the Contract Documents (in the form of drawings or otherwise) which the City may determine are necessary, which shall be consistent with or reasonably inferable from the

overall intent of the Contract Documents; that Consultant's decisions and findings shall be a condition precedent to the right of the parties to submit any proper matter and to any rights of the Contractor to receive any money under this Contract; provided, however, that should the Consultant acting under the direction of the City render any decision or give any direction which, in the opinion of either party hereto, is not in accordance with the meaning and intent of this Contract, either party may file with the other, within twenty (20) days a written objection to the decision or direction so rendered and, by such action, may reserve the right to submit the question so raised as herein provided, except as otherwise provided in Article GC-37. It is the intent of the Contract that there shall be no delay in the execution of the Work, and the decisions or directions of the Consult as deemed necessary by the City as rendered shall be promptly carried out.

GC-40 CORRECTION OF LABOR, ETC. - BEFORE FINAL PAYMENT

At City's request, Contractor shall, at Contractor's expense, promptly remove from the job site all labor, supplies, materials, equipment and/or other facilities condemned by City as not in accordance with the Contract Documents, whether incorporated or not; and the Contractor shall, at Contractor's expense, promptly replace and re-execute all labor, supplies, materials, equipment and/or other facilities in accordance therewith and, at Contractor's expense, restore all Work of other Contractors and Subcontractors destroyed or damaged as a result of such removal, replacement and re-execution.

GC-41 CORRECTION OF LABOR, ETC. - AFTER FINAL PAYMENT

(a) Contractor guarantees to City that all Work performed under this Contract shall be free from defects in material or workmanship for a period of not less than two (2) full years from the date of final payment by City; provided, however, that whenever any provision of the Contract Documents requires a guarantee for a period in excess of two (2) years to be furnished by Contractor, Contractor shall promptly execute same in writing and shall promptly deliver same to City.

(b) Contractor shall promptly procure from each Subcontractor a written guarantee that all Work performed by such Subcontractor shall be free from defects in material or workmanship for a period of not less than two full (2) years from the date of final payment by City to Contractor and shall promptly deliver same to City; provided, however, that wherever any provision of the Contract Documents requires a guarantee for a period in excess of two (2) years to be furnished by a Subcontractor, Contractor shall promptly procure same in writing from the appropriate Subcontractor and shall promptly deliver same to City.

(c) Whenever any provision of the Contract Documents requires a guarantee for a period in excess of two (2) years, but does not specify who is to give such a guarantee, it shall be given by the Contractor regardless of who is performing the Work for which the guarantee is required. All such guarantees shall be in writing and shall be promptly delivered to City.

(d) The furnishing of guarantees by Subcontractors and materialmen shall not relieve Contractor of its obligations under guarantees required of Contractor under the Contract Documents. In addition to the above guarantees, Contractor will (1) obtain and assign to City all available manufacturers and suppliers warranties; and (2) at City's sole option, assign to City any rights Contractor may have against any Subcontractor and/or supplier for Defective Work, materials or equipment.

(e) Any provision of the Contract Documents to the contrary notwithstanding, all guarantees provided for in the Contract Documents shall begin to run from the date of final payment by City to Contractor.

(f) Neither the issuance of the final certificate, payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for Work determined by City not to be in accordance with the Contract Documents. If, within two (2) years of the date of final payment to Contractor or within any longer period of time as may be prescribed by applicable law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found by City to be defective or not in conformance with the Contract Documents then, at City's request, Contractor shall, at Contractor's expense, promptly remove from the premises all Work determined by the City to be defective or not in accordance with the Contract Documents; and Contractor shall, at Contractor's expense, promptly replace and re-execute all Work in accordance therewith and, at Contractor's expense, restore all Subcontractors' Work and Work of other Contractors and Subcontractors damaged as a result of such removal, replacement and re-execution. City shall with reasonable promptness give notice of any Work condemned by City as not in accordance with the Contract Documents. If, within ten (10) days after the mailing of such notice, the Contractor shall fail or neglect to make, or undertake to make, with due diligence any required repairs or corrections, the City shall make such repairs at Contractor's expense; provided, however, that, in case of an emergency which, in the judgment of City, would cause serious loss, hazard or damage if not corrected immediately, such repairs may be made without prior notice being sent to the Contractor, and Contractor shall nevertheless be liable to the City for the cost thereof.

GC-42 RIGHT OF CITY TO TERMINATE CONTRACT

Without in any manner limiting the right of the City to terminate the Contract or declare the Contractor in default thereof for any reason set forth in the Contract Documents, if the Work to be done under this Contract shall be abandoned by the Contractor; or if this Contract shall be assigned by Contractor otherwise than as herein provided; or if the Contractor should be judged as bankrupt; or if a general assignment of its assets should be made for the benefit of its creditors; or if a receiver should be appointed for the Contractor or any of its property; or if at any time the Inspector shall certify in writing to the City that the performance of the Work under this Contract is being unnecessarily delayed, that the Contractor is violating any of the conditions or covenants of this Contract or the Specifications therefore, that it is executing the same in bad faith or otherwise not in accordance with the terms of said Contract; or if all Bid items of the Project are not completed within the time named for their completion or within the time to which such completion date may be extended; then, in addition to other rights the City may choose to exercise, the City may, at its option, serve written notice upon the Contractor and its surety of City's intention to terminate this Contract, and, unless within five (5) days after the serving of such notice upon the Contractor, a satisfactory arrangement be made for the continuance thereof, this Contract shall cease and terminate. In the event of such termination, the City shall immediately serve notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and complete the Work; provided, however, that if the surety does not commence performance thereof within thirty (30) days from the date of said notice of termination, the City may take over the Work and prosecute same to completion, by contract or otherwise, for the amount and at the expense of the Contractor, and the Contractor and its surety shall be liable to the City for any and all excess cost sustained by the City by reason of such prosecution and completion; and in such event the City may take possession of, and utilize in completing the Work, all such materials, equipment, tools and plant as may be on the site of the Work and necessary therefore. When Contractor's services have been so terminated, such termination shall not affect any rights or remedies of City against Contractor then existing or which may later accrue.

Similarly, any retention or payment of monies due Contractor shall not release Contractor from liability.

City reserves the right, in its sole discretion and for its convenience and without cause or default on the part of Contractor, to terminate the Contract by providing written notice of such termination to Contractor. Upon receipt of such notice from City, Contractor shall: (1) immediately cease all Work; or (2) meet with City and, subject to City's approval, determine what Work shall be required of Contractor in order to bring the Project to a reasonable termination in accordance with the request of City. If City shall terminate for its convenience as herein provided, City shall: (1) compensate Contractor for all purchased materials and actual cost of Work completed to date of termination; and (2) release and indemnify Contractor against any liability Contractor may have to any third parties as the result of any contracts, commitments, purchase orders or any other such liabilities Contractor may have incurred as a result of its obligations under the provisions of the Contract. Contractor agrees that it shall minimize such potential liabilities by, where practical, informing third parties of City's right to terminate and attempting to obtain from such third parties a waiver of any liability in the event of such termination.

Any termination of the Contract for alleged default by Contractor that is ultimately determined to be unjustified shall automatically be deemed a termination for convenience of the City.

GC-43 CITY'S RIGHT TO DO WORK

Without otherwise limiting City's rights under the Contract Documents, if Contractor should neglect to prosecute the Work properly or fail to perform any provision of the Contract Documents, City, after three (3) days' written notice to Contractor may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due Contractor.

GC-44 PAYMENTS

(a) Before the first application for payment, the Contractor shall submit to the City a schedule of values allocated to the various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the City may require. This schedule, unless objected to by the City, shall be used only as a basis for the Contractor's applications for payment and does not constitute approval by the City of the method or performance by the Contractor.

(b) Payment will be made to Contractor monthly from funds available within thirty (30) days of the City’s receipt of a proper undisputed pay request from the Contractor on the basis of a duly certified estimate of the value of all labor and materials delivered on the site and accepted by the City during the preceding month, calculated in proportion to the Contract Price, but to ensure the proper performance of the Contract, ten percent (10%) of the amount of each estimate will be retained until final completion and acceptance of all Work covered by the Contract.

(c) Each payment made to the Contractor shall be on account of the total amount payable to the Contractor by or for the City, and all materials and Work covered by the partial payments made shall therefore become the sole property of the City. This provision shall not be construed as relieving the Contractor from the responsibility imposed by the Contract Documents for the care and protection of materials and Work upon which payments have been made, for the restoration of any damaged Work, or as a waiver of the right of the City to require the fulfillment of all the terms of the Contract. Progress payments in respect to materials will be made only for

materials delivered on the site and accepted by the City, all calculated in proportion to the Contract Price.

(d) In general, no allowance will be made in estimates for materials delivered on the site and not incorporated in the Work except in case of those items considered by the City to be major items of considerable magnitude, which will be allowed in estimates on the basis of ninety percent (90%) of invoices, the value calculated in proportion to the Contract Price.

(e) The retained percentages herein provided for are to be retained and held for the sole protection and benefit of the City, and no other person, firm or corporation shall have or assert any lien, claim, right or priority therein, thereon or thereto, or be entitled to receive any part thereof, except as herein expressly provided.

(f) The City shall require at intervals as it shall determine and at any time before final payment is made for the Work specified herein that the Contractor furnish the City with written acknowledgments (to the extent of payment made) by all Subcontractors and vendors who have done work or labor on, or who have furnished materials for, this Project that they have been fully paid in whole or in part by the Contractor for such work or labor done or materials furnished by them. Contractor's failure to furnish said list or to include all such Subcontractors and vendors shall not relieve Contractor or its surety of any obligation assumed under this Contract, nor shall the City's request for such list create any obligation on City's part to verify accuracy. City may require, at its option, lien waivers on forms supplied by City.

(g) The Contractor has, per the Instructions to Bidders, Bid this job net of all sales and compensation taxes. No application for payment shall include any amount for reimbursement of such taxes paid by Contractor resulting from Contractor's failure to use the Project Exemption Certificate for any purchase in connection with the Work. Final payment will not be made to Contractor until the City has received the Project Completion Certification from the Contractor along with a Consent of Surety to Final Payment.

(h) The Contractor shall be responsible for the return and/or exchange of surplus materials, and all credits for returned or exchanged materials shall be first submitted to the City for approval. Applications for payment shall reflect any such credits, and the Contract Price shall be adjusted as necessary to reflect such credits. Non-returnable excess materials shall be turned over to the City, or, at its option, be removed from the Project site at Contractor's expense.

(i) The acceptance by the Contractor of final payment shall be and shall operate as a release to the City of all claims and all liability to the Contractor other than written claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this Contract and for every act and neglect of the City and others relating to or arising out of this Contract. Any payment, however, final or otherwise, shall not release the Contractor or its sureties from any obligations under the Contract Documents, the Bonds, or insurance coverage’s.

GC-45 PAYMENTS WITHHELD

City may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any application for payment to the extent necessary to protect City from loss on account of:

(a) Incomplete Work or Defective Work not remedied;

(b) A reasonable doubt that the Work can be completed for the balance of the Contract Price then unpaid;

(c) Damage to City; or

(d) A breach of this Contract.

GC-46 LIQUIDATED DAMAGES

It is mutually understood and agreed by and between the parties to this Contract that time is of the essence of this Contract, and that in the event that the Contractor shall fail in the performance of the Work specified and required to be performed within the period of time stipulated therefore in the Contract, after due allowance for any extension or extensions of time which may be granted under the Contract, the said Contractor shall pay to City, as stipulated liquidated damages and not as a penalty, the sum stipulated herein for each and every day that the Contractor shall be in default.

In the case of joint responsibility for any delay in the final completion of the Work covered by this Contract, where two or more separate contracts are in force at the same time and cover work on the same project and at the same site, the total amount of liquidated damages assessed against all contractors under such contracts, for any one day of delay in the final completion of the Work will not be greater than the approximate total of the damages sustained by the City by reason of such delay in completion of the Work as set forth in the table below, and the amount assessed against any one contractor for such one day of delay will be based upon the individual responsibility of such contractor for the aforesaid delay as determined by, and in the judgment of, the City.

In case of failure on the part of the Contractor to effect completion within the time specified, the City shall have the right to deduct from the total compensation otherwise due the Contractor as liquidated damages based on the full Bid price of the Contract, fixed and agreed to in advance, an amount according to the following schedule:

Contract Amount			Liquidated Damages
$0	to	$50,000	$250.00
$50,000	to	$100,000	$400.00
$100,000	to	$500,000	$800.00
$500,000	to	$1,000,000	$1,000.00
$1,000,000	to	$2,000,000	$1,750.00
$2,000,000	to	$5,000,000	$2,500.00
$5,000,000	to	$10,000,000	$3,500.00
$10,000,000	to	$20,000,000	$5,500.00
$20,000,000	and up		$6,000.00

for each twenty-four (24) hour calendar day, including weekends and holidays, the Work remains incomplete over the specified completion time. **(THE CITY RESERVES THE RIGHT TO ADJUST THE SCHEDULE OF LIQUIDATED DAMAGES, PRIOR TO ADVERTISING FOR BIDS, BASED ON THE SCOPE AND URGENCY OF THE PROJECT.)**

The City shall have the right to deduct said liquidated damages from any moneys in its hands, otherwise due or to come due, to the Contractor, or to sue for and recover compensation for damages for nonperformance of this Contract.

GC-47 BONDS

Contractor shall after Notice of Award furnish City the Performance, Maintenance, and Statutory or Labor and Material Payment Bond as required by the Instructions to Bidders. Failure to furnish such Bonds within the time specified in the Notice of Award may, at the City's option, be the basis for declaring Contractor in default and pursuing such legal rights as the City deems in its best interest, including, but not limited to, enforcement of the City's rights as to Bid security.

GC-48 EASEMENTS AND RIGHTS-OF-WAY

Permanent and temporary (construction) easements and rights-of-way as well as temporary access agreements will be provided by the City as shown on the Plans. The Contractor shall confine its operations to the easements provided and shall carefully note where buildings, structures or other obstructions will limit its working space. The Contractor shall not disturb any private property beyond the limits of construction within any easement. In the event that easements and rights-of-way are not available or if they have not been secured, or if entry to property is denied by court order, injunction, litigation or any other reason, the Contractor shall cease operations in such area and confine its Work to other areas approved by the City. In the event of any delay arising from delays in securing easements and rights-of-way, the Contractor shall have no claim against the City for damages arising from such delay but may request an extension of time under Article GC-27.

GC-49 UNDERGROUND FACILITIES AND UTILITIES

Underground Facilities and utilities, including sewer, water, gas, sprinkler systems, etc. damaged by the Contractor within or outside the right-of-way shall be restored at the Contractor's expense and at no cost to the City. The Contractor shall make every effort to locate these lines and protect them.

GC-50 USE OF PREMISES

(a) Contractor shall confine its operations to limits indicated by law, ordinances, rules, regulations, permits/directions of City and shall not unreasonably encumber the premises and/or site.

(b) Contractor shall not load or permit any part of any structure, streets or highways to be loaded with a weight that exceeds load limits which will endanger their safety.

(c) Contractor shall comply with federal, state and local laws and ordinances, as well as any specific instructions regarding signs, advertisements, fires and smoking from City.

(d) A laydown area or staging area will be provided at the site and shall be chosen by City. Contractor will furnish its own weather protection if required.

(e) No City equipment will be taken out of service or put into service without approval of City.

GC-51 ALLOWANCES

Contractor agrees that the Contract Price includes all allowances required by the Contract Documents. Contractor declares that the Contract Price includes all other sums for expenses

and overhead and fee on account of allowances as it deems proper. No demand for expenses or overhead and fee other than those included in the Contract Price shall be allowed.

GC-52 CUTTING, PATCHING AND DIGGING

(a) Contractor shall do all cutting, fitting or patching of its Work that may be required to make its several parts come together properly and fit it to receive or be received by Work of others shown upon or reasonably implied by the Contract Documents.

(b) Contractor shall not endanger any property of City or any other individual or entity, or the Work by cutting, digging or otherwise and shall not cut or alter the work of others except with the written consent of City.

(c) Contractor shall assume responsibility for the patching or repairs, by the proper trade, of damages caused by Work under this Contract.

(d) Contractor shall comply with all local ordinances dealing with cutting, patching and digging and shall obtain all necessary permits.

GC-53 CLEANING UP

Contractor shall at all times keep the premises/site free from accumulations of waste material or rubbish caused by its employees or Work; and at the completion of the daily Work it shall remove all its rubbish from and about the premises/site and all its tools, scaffolding and surplus materials, and shall leave its Work "broom clean" or its equivalent unless more exactly specified. In case of dispute, City may remove the rubbish and charge the cost to Contractor.

GC-54 TEMPORARY FACILITIES

(a) Except where special permission has been granted by City to use existing toilet facilities belonging to City, Contractor shall provide and maintain sanitary temporary toilet facilities located where directed by City for accommodation of all persons engaged on the Work. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each twenty workers. Contractor shall enforce the use of such sanitary facilities by all personnel at the site.

Temporary toilets shall be enclosed and weatherproof and kept in sanitary and approved condition at all times. After use for same has ceased, Contractor shall remove the temporary toilet facilities from City's premises and disinfect and fill any vaults.

(b) Contractor shall provide and maintain any necessary temporary offices, storerooms, roadways, etc., as may be required for its Work. Same shall be located and constructed in an approved manner acceptable to City. Upon completion of Work or when requested by City, Contractor shall remove same from City's premises and leave the area in a clean and orderly condition.

(c) Contractor shall provide and maintain temporary heat as required to protect all Work and material against injury from dampness and/or cold to the satisfaction of City.

(d) Unless otherwise specified in the Contract Documents, Contractor shall provide, at its cost and expense, temporary power, wiring and lights from City's provided source as may be required for its operations.

GC-55 SANITARY REGULATIONS AND WATER

The operations of the Contractor shall be in full conformity with all of the rules and regulations of boards and bodies having jurisdiction with respect to sanitation. The Contractor shall supply safe and sufficient drinking water to all of its employees. The Contractor shall obey and enforce all sanitary regulations and orders, and shall take precautions against infectious diseases and the spread of same.

All water used in the course of the Work shall be hauled in or purchased from the local water company's distribution system at the Contractor's own cost and expense.

GC-56 COMPLIANCE WITH LAWS

The Contractor shall be fully familiar with all City, county, state and federal laws, ordinances or regulations which would in any way control the actions or operations of those engaged in the Work under this Contract or which would affect the materials supplied to or by them. It shall at all times observe and comply with all ordinances, laws and regulations and shall protect and indemnify and defend the City and the City's officers and agents against any claims or liability arising from or based on any violation of same.

GC-57 UNFAVORABLE CONSTRUCTION CONDITIONS

During unfavorable weather, or other unfavorable conditions for construction operations, the Contractor shall pursue only such portions of the Work as will not be damaged thereby. No portions of the Work, the satisfactory quality or efficiency of which will be affected by any unfavorable conditions, shall be constructed while these conditions exist, unless, by special means or precautions approved by the City, the Contractor shall be able to perform the Work in a proper and satisfactory manner.

GC-58 CONTRACTOR'S RISK

The Contractor shall assume full responsibility for the Work and shall bear any loss and repair any damage at his/her own cost occasioned by neglect, accident, vandalism or natural cause, whether foreseen or unforeseen, during the progress of the Work and until the Work is completed and accepted by the City.

GC-59 SAFETY RULES

(a) Contractor shall be responsible for enforcing safety rules to ensure protection of the employees and property of City, to assure uninterrupted production and to assure safe working conditions for Contractor and Subcontractors and their employees and to assure the safety of the general public. In addition to any other rights the City might exercise, Contractor and/or any Subcontractor failing to follow safety rules shall be subject to eviction from the job site and may be refused reentry.

(b) Contractor is expected to establish and enforce a comprehensive safety program on this Project for the protection of its personnel, its Subcontractors' personnel, City's employees and all other persons exposed to hazards resulting from Contractor's operations. As a minimum requirement, Contractor shall review and discuss the details of its program with City at the first project meeting. The items to be covered shall include, but not necessarily be limited to,

(1) Personal protective equipment;

(2) First aid - personnel and facilities;
(3) Arrangements for medical attention;
(4) Sanitary facilities;
(5) Fire protection;
(6) Signs, signals and barricades;
(7) Security regulations;
(8) Safety inspections;
(9) Designation of persons responsible for the program;
(10) Reporting forms and procedures;
(11) Material handling and storage;
(12) Lines of communication;
(13) Determination of potential hazards;
(14) Personnel safety meetings and education;
(15) Access to work areas;
(16) Subcontractors involvement in the program;
(17) Inspections and corrective action.

Contractor is fully responsible for the safety program and any and all methods and procedures provided for therein whether or not City or Consultant shall have reviewed and/or accepted such program.

GC-60 WEEKENDS, HOLIDAY AND NIGHT WORK

No Work shall be done between the hours of 6:00 p.m. and 7:00 a.m. Monday through Friday, nor the hours of 6:00 p.m. and 8:00 a.m on Saturdays, nor Sundays and City holidays, without the written approval or permission of the City forty-eight (48) hours in advance in each case, except such Work as may be necessary for the proper care, maintenance and protection of Work already done or of equipment, or in the case of an emergency.

Night Work may be established by the Contractor, as a regular procedure, with the written permission of the City; such permission, however, may be revoked at any time by the City.

GC-61 APPROVAL OF EQUALS

"Approved Equals," where permitted by the Contract Documents or otherwise made feasible by market conditions, shall be considered for approval as follows:

(a) Contractor shall notify City in writing if it wishes to use an approved equal specifically named in the Contract Documents.

(b) If Contractor desires to use an "equal" not specifically named in the Contract Documents, it must first inform City and receive written approval for such substitutions. City has no obligation to approve such request and is not responsible for any delay or cost incurred caused by Contractor's making such request.

The Contractor shall be solely responsible for design risks, delays and other claims arising out of any approved alternates.

GC-62 TEST OF MATERIALS OFFERED BY CONTRACTOR

All specified and required tests for approval of material shall be made at the expense of the Contractor by a properly equipped laboratory of established reputation, whose work and testing facilities shall be approved by the City. Approval of materials based on acceptable tests

will apply only while such materials as furnished equal or exceed the tested samples or test specimens in quality and minimum requirements. Any change in origin, method of preparation or manufacture of such materials will require new tests and approval thereof. Reports of all tests shall be furnished to the City in as many certified counterparts as may be required by the City.

GC-63 TESTING OF COMPLETED WORK

Before Final Acceptance, all installed and constructed equipment, devices and other work which is to be tested under the Contract Documents shall be tested and each part shall be in good condition and working order or shall be placed in such condition and order at the expense of the Contractor. All tests of such completed Work required under this Contract shall be made under the direction of the City.

GC-64 BORROW AND WASTE AREAS

All borrow materials shall be obtained by the Contractor at its own cost and expense. The borrow area and materials shall be approved by the City and shall be friable material suitable for compaction.

All waste areas shall be located off the site and arrangements and payment for use of such areas shall be the sole responsibility of the Contractor. All waste disposal shall be in compliance with federal, state and local laws, ordinances and regulations.

GC-65 PARKING AREAS, DRIVES AND WALKS

All existing parking areas, drives and walks within the Project limits shall be adjusted to conform to the lines and grades shown on the Plans. Any of the above structures that are removed or damaged during construction shall be reconstructed at Contractor's expense of materials that will create a quality equal to or better than the condition of the existing facility prior to construction operation.

GC-66 STREET SIGNS AND TRAFFIC AIDS

The Contractor shall be responsible for all preexisting traffic control devices at the Project site, including installation, maintenance, removal and storage of such devices. All temporary and permanent traffic control devices supplied by the Contractor shall comply with and be installed in accordance with the Manual on Uniform Traffic Control Devices, current edition as revised, and the Traffic Control Devices Handbook.

GC-67 PLACING WORK IN SERVICE/PARTIAL UTILIZATION

If desired by the City, portions of the Work may be placed in service when completed for Partial Utilization by the City, and the Contractor shall give proper access to the Work for this purpose; but such use and operation shall not constitute an acceptance of the Work, and the Contractor shall be liable for defects due to faulty construction until the entire Work under this Contract is finally accepted and for such periods of time as designated in the Contract Documents or otherwise permitted by law.

GC-68 NON-DISCRIMINATION/OTHER LAWS

(a) The Contractor agrees that:

(1) The Contractor shall observe the provisions of the Kansas Act Against Discrimination and shall not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, disability, national origin, ancestry or age;

(2) In all solicitations or advertisements for employees, the Contractor shall include the phrase, "equal opportunity employer," or a similar phrase to be approved by the Kansas Human Rights Commission ("Commission");

(3) If the Contractor fails to comply with the manner in which the Contractor reports to the Commission in accordance with the provisions of K.S.A. 44-1031 and amendments thereto, the Contractor shall be deemed to have breached the present Contract and it may be cancelled, terminated or suspended, in whole or in part, by the City;

(4) If the Contractor is found guilty of a violation of the Kansas Act Against Discrimination under a decision or order of the Commission which has become final, the Contractor shall be deemed to have breached the present contract and it may be cancelled, terminated or suspended, in whole or in part, by the City; and

(5) The Contractor shall include the provisions of Subsections (1) through (4) in every subcontract or purchase order so that such provisions will be binding upon such Subcontractor or vendor.

The provisions of this Article shall not apply to a contract entered into by a Contractor:

(A) Who employs fewer than four employees during the term of such contract; or

(B) Whose contracts with the City cumulatively total $5,000 or less during the fiscal year of the City.

(b) The Contractor further agrees that the Contractor shall abide by the Kansas Age Discrimination In Employment Act (K.S.A. 44-1111 et seq.) and the applicable provision of the Americans With Disabilities Act (42 U.S.C. 12101 et seq.) as well as all other federal, state and local laws, ordinances and regulations applicable to this Project and to furnish any certification required by any federal, state or local governmental agency in connection therewith.

GC-69 FEDERAL LOBBYING ACTIVITIES

31 USCS Section 1352 requires all subgrantees, contractors, subcontractors and consultants who receive federal funds via the City to certify that they will not use federal funds to pay any person for influencing or attempting to influence a federal agency or Congress in connection with the award of any federal contract, grant, loan or cooperative agreements.

In addition, contract applicants, recipients and subrecipients must file a form disclosing any expenditures they make for lobbying out of non-federal funds during the Contract period.

Necessary forms are available from the City and must be returned to the City with other Contract Documents. It is the responsibility of the general Contractor to obtain executed forms

from any Subcontractors who fall within the provisions of the Code and to provide the City with the same.

GC-70 RECORDS

Contractor shall maintain copies of records pertaining to the construction of this Project for a period of five (5) years from the date of final payment. Such records shall be made available to the City for audit and review purposes upon written request therefor from City or its authorized agent(s) during the construction period and the five (5) year period following final payment.

GC-71 TITLES, SUBHEADS AND CAPITALIZATION

Titles and subheadings as used herein and other Contract Documents are provided only as a matter of convenience and shall have no legal bearing on the interpretation of any provision of the Contract Documents. Some terms are capitalized throughout the Contract Documents, but the use of or failure to use capitals shall have no legal bearing on the interpretation of such terms.

GC-72 NO WAIVER OF RIGHTS

No waiver of any breach of this Contract shall be construed to be a waiver of any other or subsequent breach.

GC-73 SEVERABILITY

The parties agree that should any provision of the Contract Documents be determined to be void, invalid, unenforceable or illegal for whatever reason such provision(s) shall be null and void but that the remaining provisions of the Contract Documents shall be unaffected thereby and shall continue to be valid and enforceable.

GC-74 GOVERNING LAW

This Agreement shall be governed by, and construed in accordance with, the laws of the State of Kansas.

GC-75 VENUE

Venue of any litigation arising in connection with this Agreement shall be the State courts of Johnson County, Kansas.

CITY OF MISSION

2022 STREET RECONSTRUCTION PROJECTS

PROJECT SPECIAL PROVISIONS

TABLE OF CONTENTS

GENERAL REQUIREMENTS 3
2 - MAINTENANCE BOND 9
3 - PRE CONSTRUCTION VIDEO 9
4 - FORCE ACCOUNT 10
5 - CLEARING AND GRUBBING 10
6 - REMOVAL OF EXISTING STRUCTURES 11
7 - EXCAVATION 12
8 - EXCAVATION AND BACKFILL FOR STRUCTURES 13
9 - EMBANKMENT 14
10 - COMPACTION OF EARTHWORK 14
11 - ROCK EXCAVATION AND BLASTING 15
12 - HMA (COMMERCIAL GRADE CLASS A) 16
13 - CEMENT TREATED SUBGRADE 16
14 - TENSAR NX850 16
15 - CONCRETE BASE WIDENING 18
16 - AGGREGATE BASE COURSE – AB-3 OVERLAND PARK MODIFIED (11”) 20
17 - CURB CONSTRUCTION 21
18 - PORTLAND CEMENT CONCRETE PAVEMENT 23
19 - SIDEWALK CONSTRUCTION (4”) 30
20 - SIDEWALK RAMPS (*) AND DETECTABLE WARNING SURFACE 33
21 - SANITARY SEWER ENCASEMENT 35
22 - REINFORCING STEEL 36
23 - CONCRETE CONSTRUCTION 36
24 - STORM SEWERS 38
25 - STORM SEWER INLETS AND MANHOLES 47
26 - CONCRETE PIPE COLLAR 49
27 - END SECTION PROTECTION 49
28 - FLOWABLE FILL 50
29 - SODDING 50
30 - TEMPORARY SURFACING MATERIAL 53
31 - TOPSOIL 53
32 - LANDSCAPE RESTORATION 54
33 - TEMPORARY EROSION AND POLLUTION CONTROL 54
34 - THERMOPLASTIC PAVEMENT MARKING (24”) (WHITE) 68

35 - SIGNING 70
36 - TRAFFIC CONTROL 70
37 - CONTRACTOR CONSTRUCTION STAKING 71

GENERAL REQUIREMENTS

1.1 SCOPE OF WORK

The work provided for in these Specifications shall consist of furnishing all labor, materials, appliances, and equipment, and performing all work and operations in connection with the construction of items and all other incidental and related work as set forth in these Specifications and as directed by the City to make a complete and finished job.

1.2 CONTRACT SPECIFICATIONS

The Specifications that shall govern the materials furnished and work performed in the construction of the work covered by the Contract or Contracts based thereon, are divided, classified, designated, and arranged as shown in the PROJECT SPECIAL PROVISIONS, TABLE OF CONTENTS attached hereto. No attempt has been made in the foregoing designated Specifications to segregate work to be performed by any trade, subcontract, or proposal item, under any one specification. Any segregation between trade or craft jurisdiction limits, and the establishment of subcontract limits, will be solely a matter of agreement between the Contractor and his employees and his subcontractors. The Specifications will govern the construction of the entire work, and the provisions thereof will govern each item and unit of work to which such provisions apply.

When reference is made to Engineer, it shall have the same meaning as Consultant as set seventh in Paragraph GC-2 of the General Conditions. See also section GC-2 for definitions of City, Contractor and Inspector.

1.3 STANDARD SPECIFICATIONS

The work shall conform to these Specifications and to the "Standard Specifications" where reference is made herein. Where reference is made in the Specifications and Contract Documents to "Standard Specifications," it shall mean that the reference is made to the current edition of the Standard Specifications for State Road and Bridge Construction, Kansas Department of Transportation, Chapters 13.02, 13.03, 13.08, and 15.08 of the Overland Park Municipal Code, current edition of City of Overland Park Traffic Signal Specifications, current edition of the Manual On Uniform Traffic Control Devices, and The City of Overland Park Traffic Control Handbook for Street Maintenance and Construction Operations with such revisions, amendments, and supplements as are contained herein.

Sanitary Sewer construction shall be in accordance with the “Construction and Materials Specification” as prepared by the Johnson County Unified Wastewater Districts, and on file with the State of Kansas, Department of Health and Environment, Permit No. 20969.

All sanitary sewer service line work shall conform to requirements of the Johnson County Unified Wastewater Districts Service Line Design and Construction Standards, and the most recent edition of the BOCA National Plumbing Code.

1.4 CONTRACT DRAWINGS

The Contract Drawings or "Plans" on which the proposals and contracts are to be based, and which are to be supplemented by additional shop and dimension drawings of material and equipment and other drawings, where specified, are shown in the "Index of Sheets" on the cover sheet of the Plans.

1.5 MEASUREMENT AND PAYMENT

a. Method of Measurement

The completed work shall be measured by the units described in the Proposal under each bid item that is satisfactorily completed by the Contractor. At monthly intervals, beginning one month after the Notice to Proceed, the Contractor shall submit to the City an accurate record of the work completed.

b. Basis of Payment

The amount of completed work, measured as set forth above, shall be paid for at the contract unit price bid per item described in the Proposal and shall be full compensation for furnishing all materials, labor, equipment, tools, supplies and incidental related items necessary to complete the work in accordance with the Specifications. Work not measured separately for payment is subsidiary to the item to which it pertains.

1.6 MOBILIZATION OF EQUIPMENT

a. Description

Move required personnel, equipment, materials, supplies and incidentals to the project site prior to beginning work. This work includes other work and costs incurred before the project starts.

All equipment used by the Contractor having metal tracks shall not be driven over City streets other than those streets being constructed. Such equipment must be transported from one work area to the next work area.

Observe legal load restrictions when operating equipment, hauling equipment, or hauling materials on public roads; newly constructed/reconstructed base, pavement, and structures; and any existing base, pavement or structures that will remain in place. Assume responsibility for changes in legal load restrictions that occur after the project was let. Obtain the City's written approval and a special permit to exceed legal load restrictions on the City street system and on newly constructed/reconstructed portions of the project.

Protect roadways and structures within project limits from damage. Observe curing periods before operating equipment or hauling loads on newly constructed pavement, reconstructed pavement, or structures. Do not haul loads of any size on pavement base, except when operations require equipment on pavement base to place material. The Contractor shall assume all responsibility for damages to roadways and structures caused by the Contractor from operating equipment or hauling loads.

No direct payment will be made for Mobilization as it shall be considered subsidiary to other bid items in the contract.

1.7 INSPECTION OF WORK

The Contractor shall not commence placing concrete or backfilling of pipe/structures until such time as the City or their authorized representative has made inspection. Form location, grades, slopes and subgrade shall have been approved prior to placing any concrete.

1.8 BRACING AND SHORING

It shall be the contractor's responsibility to brace and shore existing structures during construction. Any additional damage to or collapse of existing structures during the contract period shall be the sole responsibility of the Contractor.

The Contractor shall brace and shore all trenches in full accordance with Occupational Safety and Health Standards - Excavations; Final Rule 29 CFR Part 1926.

Bracing and shoring shall not be paid for directly but shall be considered subsidiary to other bid items. No additional payment shall be considered for increased quantities of earthwork, asphalt removal and replacement, or increases in other items as a result of compliance with this specification.

1.9 TRENCH BACKFILL

Flowable Fill is required for all trenches within all paved portions of the ROW including future paving, if they are known, per the Manual for Infrastructure Standards For Right of Way Restoration and City of Overland Park Standard Details.

1.10 SAMPLING AND TESTING

All sampling and testing deemed necessary by the City shall be performed by a Testing Laboratory selected by the City, except that all Asphaltic Concrete mix design and tests shall be performed by a Certified Testing Laboratory selected by the Contractor, as stated in specification section "Asphaltic Concrete Surface and Intermediate Course". The costs of all such tests, showing compliance with the Specifications, shall be paid by the City, except that all Asphaltic Concrete mix design and testing costs shall be paid by the Contractor. However, in the event that any test indicates non-compliance with the Specifications, additional testing will be paid for by the Contractor to determine acceptability of the material or methods. City reserves the right to weigh any selected truck as determined by the City or the Inspector. The City shall only pay weighing costs and any additional costs shall be at the Contractor's expense.

1.11 TRAFFIC SAFETY

When working in the traveled way, the Contractor shall provide adequate and suitable barriers, signs, warning lights, flaggers, and all other equipment necessary to direct and reroute traffic and protect the public from moving or stationary vehicles, equipment, and materials, and other obstructions. Also, adequate protective warning lights and signs shall be provided to warn of any obstruction or excavation in the street, and easement area. All barricades, signs, lights and other protective devices in public right-of-way and easements shall be installed and maintained in conformity with applicable statutory requirements, the latest edition of the "Manual on Uniform Traffic Control Devices", and the "Overland Park Traffic Control Handbook for Street Maintenance and Construction Operations".

The Police Department, Fire Department, and Med-Act shall be notified prior to closing a street with the approval of the City.

1.12 NOTIFICATION OF PROPERTY OWNERS

The Contractor shall provide advance notification to the adjacent property owners on all phases of the operations.

1.13 TREE AND PLANT PROTECTION

All trees and other vegetation which must be removed to perform the work shall be removed and disposed of by the Contractor; however, no trees or cultured plants shall be unnecessarily removed unless their removal is indicated on the drawings. All trees and plants not removed shall be protected against injury from construction operations.

The Contractor shall take extra measures to protect trees designated to be preserved, such as erecting barricades or fences around the drip line, and trimming low hanging branches to prevent damage from construction equipment. Barricade or fence shall not be removed without consent of the City. When installing a pipe, or any other work that may damage the tree, hand excavating or tunneling methods shall be used. Where encroachment by vehicles or equipment is expected within the drip line of the tree, the contractor will be required to place at least a 6 inches layer of organic mulch on top of the affected area to offset possible compaction. Such trees shall not be endangered by stockpiling excavated material or storing equipment within the drip line of the tree. No backfill material exceeding 4 inches in depth shall be placed within the drip line area of any tree designated to be preserved without prior consent from the City.

When excavation is required within the drip line of any protected tree, the contractor shall take extra measures to protect as many roots as possible. All roots to be cut or removed shall be "cut" with a chain saw, trencher, or other methods as approved by the City that will leave a smooth cut surface. All roots exposed during excavation shall be protected to prevent the roots from drying out by covering the exposed area with canvas or burlap, peat moss, or mulch, and kept damp until the area has been backfilled. Where shown on the plans, trees requiring root removal of one third or more of the circumference of the root system, may require the pruning of limbs on the opposite side of the root removal or thinning the entire tree equally as directed by the City. All pruning, repair, and replacement of trees and plants shall be performed by qualified nurserymen or arborists. Trees requiring trimming are as noted on the plans. This work shall not be paid for directly but shall be considered subsidiary to other bid items.

When the injury or removal of trees designated to be preserved cannot be avoided; each tree injured beyond repair or removed shall be replaced with a similar tree, or provide comparable compensation to the City as determined by the Inspector or Engineer.

1.14 WEEDS

The Contractor shall restrict the excessive growth of weeds, grasses, and other uncultivated vegetations within the project limits in accordance with the Overland Park Municipal Code. The Contractor shall cut down any excessive growth by mowing or trimming or as directed by the project plans.

No direct payment will be made for this work as it shall be considered subsidiary to other bid items in the contract.

1.15 RESTORATION

a. Pre-Restoration Meeting

The Contractor shall be responsible for scheduling a pre-restoration meeting within 1 (one) week prior to beginning final grading, select soil placement, and restoration of the sodded areas in the project. The time and location of the meeting shall be approved by the City, with required attendance by the Contractor's superintendent and any/all subcontractors involved in the restoration. The purpose of this meeting is to discuss in detail the requirements of sod restoration in the Specifications. At this meeting the Contractor shall provide:

(1) A complete schedule of operations and proposed methods for soil preparation, sod placement, and watering.

(2) A list of the equipment to be used for soil preparation and compaction, fertilizer distribution, sod delivery, placement and rolling, and watering.

(3) The proposed source or sources of the sod, select soil, and water.

(4) A list or set of "marked up" plans indicating the proposed location of each type of sod.

(5) A list of at least 3 locations that the sod crew to be used on this project has placed sod within the previous 2 weeks.

1.16 UTILITY MEETINGS AND UTILITY ADJUSTMENT

It shall be the duty of the Contractor to notify the serving utility companies of pending construction operations and the schedule of same, prior to any work being done on this project. The Engineer will furnish plans to the utility companies for their records. These companies will relocate and adjust their own facilities at no cost to the Contractor, except for sanitary and storm sewers. The Contractor shall be responsible for the adjustment and protection of all sanitary and storm sewer facilities. Some minor grading and backfill work may be required of the Contractor at locations of utility adjustments. This work shall be considered subsidiary to other items of work.

The Contractor shall be responsible for holding periodic utility meetings with the City, the Engineer as needed (determined by the City), and utility companies during the relocation of utility lines. The frequency of meetings will initially be bi-weekly (or more frequently if necessary) and then, as relocation work begins to diminish, will be held more infrequently. The Contractor shall keep minutes of the meetings and send copies to all those in attendance. See utility

1.17 RIGHT-OF-WAY

Right-of-way and access agreements will be available upon notice to procced for this project.

The Contractor shall confine his construction operations to the right-of-way limits and access agreements provided for the project. Equipment or materials shall not be stored beyond these limits without the express approval of the owner of such property. The Engineer shall be informed as to any arrangements that Contractor makes on his behalf in these matters.

1.18 CONSTRUCTION SCHEDULE

After being awarded the contract, the Contractor shall immediately prepare a Critical Path Method (CPM) schedule for approval by the City that will ensure completion of the project within the contract time. This schedule shall be submitted and approved by the City before a Notice to Proceed is issued. No work on this contract shall begin until said schedule is approved. The City reserves the right to adjust the Contractor's schedule to coordinate with any other projects in the same area.

A. General Requirements

A computerized network diagram shall be included in the CPM schedule and shall serve as the 'Master Construction Schedule' for the Project, giving mathematical analysis (printout) of that network, which verifies and validates logic and planning and defines critical path. The approved schedule shall be kept on site with the superintendent and reviewed with Subcontractors each week. The CPM schedule shall be utilized for planning, organizing, and directing the work, for reporting progress, and requesting payment for work completed. The schedule shall be reviewed each week as part of the progress meeting. Abbreviations used in CPM schedules shall be clearly explained in a legend of symbols, either separate or attached. Scheduling software shall be compatible with Microsoft Project 2007.

B. Schedule Requirements

The CPM schedule shall clearly show sequential interdependencies, with activity duration and float clearly represented. Sequence(s) of activities with no float shall be clearly identified as Critical Path(s). The scheduling system shall be capable of baseline comparison analysis. Upon development and approval of the schedule, the Contractor shall 'freeze' the initial schedule as the baseline schedule. As work progresses, Contractor shall provide graphics displaying actual progress bars versus baseline or target bars. Activity durations shall be in calendar days.

The CPM schedule shall include pre-construction tasks, construction tasks (bid items), shop drawing submittal and approval process, material and equipment ordering and delivery, submittal of as-built drawings, clean up and punchlist, inspection coordination activities, utility relocation, final inspection and certificate of completion, and final payment. Submittal activities shall be scheduled to allow sufficient time for materials and equipment to be procured and installed, even if the submittal is unacceptable and resubmittal is required. The CPM schedule shall reflect anticipated delays, such as weather delays.

Contractor shall submit the initial schedule, complete revisions, and periodic reports in three hard copies, one reproducible and two prints or plots, and one copy digitally on CD or DVD. This schedule shall include the completed network program consisting of GANTT chart and mathematical analysis within 10 days of the executed contract. Allow 5 days for the City to review. Contractor shall submit the schedule of submittal activities extracted from the master schedule within 10 days after receipt of Notice to Proceed. During the preparation period, Contractor shall review this information with the City.

Submittals to the City of initial and monthly CPM schedule charts shall include three sets of all reports as outlined below. Plots shall be color, blueline, printed or photocopied prints and, if segmentally generated, fully assembled. Highlight the critical path when the critical path is not clearly defined.

The Contractor will participate in the City's review and evaluation of submitted network diagrams and mathematical analysis of diagrams. Resubmit revisions necessary due to review within 5 days after the review. Contractor and major Subcontractors shall review the network CPM schedule before final submittal.

C. Report Formats –

Standard set of reports submitted each month including initial submittals shall consist of a GANTT chart of entire project. Progress bar chart shall include target or baseline comparison bars. Bar positions shall be early start/early finish with float clearly defined. GANTT charts shall include a tabulation of each activity. For each activity on the GANTT charts furnish the following:

- Initial/submittal schedule shall include a list of responsible contractors and suppliers, task description, duration, start date, end date, latest start date, latest end date, total slack or float time in calendar days and current schedule bar in Gantt view.

- Progress schedule updates shall include a list of responsible contractors and suppliers, task description, duration, actual start date, actual finish date, percentage completion, remaining duration in calendar days and current schedule bar in Gantt view.

Graphics outlined above shall comply with the following criteria unless noted otherwise:

1. Sheet size of diagram shall be 11 by 17 inches minimum and time scaled in month as the major timescale and weeks as the minor timescale unless approved otherwise.
2. On each page include a title block containing at a minimum the following information –
    a. Project Title
    b. Project Number
    c. Contractor’s Business Name
    d. Date of Submittal and Revision (The Date shown must clearly show the current preparation date and separately the revision date of the current schedule - this is a hard date entered and not an auto or status date)
    e. Submit a separate Legend Page of Symbols and Abbreviations as applicable.
3. Prepare and submit to the City upon request additional charts, reports, and current copy on disk of Project program.

D. CPM Schedule Implementation and Monitoring

Monthly CPM schedule charts and reports shall accompany the Contractor's pay request for work completed. Where the Contractor is shown to be behind schedule, provide accompanying written summary, cause, and explanation of planned remedial action. CPM schedules shall reflect those instances, modifications or other alterations to the schedule, which have an impact on the final completion or interim target dates within the schedule. Payments or portions of payments may be withheld by the City, upon failure to maintain scheduled progress of the work as shown on the approved CPM schedule. Failure to prepare, submit and maintain a CPM schedule as specified shall be cause for rejection of other schedules submitted and for possible delay of payment. Float time belongs to the project, not to the Contractor or to the City, and may be utilized by both parties.

E. Schedule Changes And Updates

At a minimum the Contractor shall update and submit the CPM Schedule for review weekly. A weekly update is required unless agreed upon by the City. Monthly submittal of the CPM schedule and approval by the City is required prior to payment for work completed. Activities added to the CPM schedule shall be submitted by the Contractor on schedule charts. It is the City's intent that the project be managed and operated according to the CPM schedule. Payment requests may be held up until the CPM schedule is brought back into compliance with the contract documents.

Once the CPM schedule is submitted and approved by the City, Contractor shall identify any modifications to activity durations, logic, values, or descriptions resubmit for approval. Such adjustments shall not impact the contracted completion date. Requests for time extensions are addressed in the General Conditions of these contract documents.

2 - MAINTENANCE BOND

2.1 BOND REQUIREMENTS

Before entering into a Contract and within 10 business days of the notice of the award of the Contract, execute a maintenance bond on the form included in these Contract Documents. Provide the maintenance bond in an amount equal to 100% of the construction cost. Execute the maintenance bond with a surety authorized to do business in Kansas by the Kansas Commissioner of Insurance.

Keep the Maintenance Bond in full force for the bond period. If the surety fails or becomes financially insolvent, file a new bond within 5 days of such failure or insolvency that complies with the requirements of these Contract Documents

2.2 MEASUREMENT AND PAYMENT

The City will pay the premium portion of the lump sum price after the Contractor submits the surety's invoice depicting the actual premium costs owed. The City will pay the remaining portion of the lump sum price after issuing final acceptance of the Project.

Payment for "Maintenance Bond" at the contract lump sum price bid is full compensation for providing the maintenance bond, paying the maintenance bond premium, and performing any work required under the maintenance bond.

3 - PRE CONSTRUCTION VIDEO

3.1 DESCRIPTION

The Contractor shall furnish Pre Construction Video of all project sites and external features on private property.

3.2 CONSTRUCTION REQUIREMENTS

At least 20 days prior to the commencement of construction, the contractor shall notify, in writing via regular 1st class mail or certified mail, all residents or owners of dwellings or other structures of the intent to initiate construction and also of the Pre Construction Video. The contractor shall record a video of the existing public and private features of each project site for documentation of existing conditions. The contractor shall record the current condition of private property features and shall document any existing damage or other physical factors that could be reasonably claimed as induced vibration damage or physical contact by construction equipment. The contractor shall promptly prepare a written completion report listing areas covered and any existing damage. If the owner of the dwelling or structure requests a copy of the video or report, the contractor shall supply the video or report to the property owner and the costs of reproducing and delivery of the survey shall be at Contractor's expense.

The video form and content shall be approved by the City prior to the commencement of construction activities.

3.3 MEASUREMENT AND PAYMENT

The City will measure the Pre Construction Video as lump sum performed on all project sites.

Payment for "Pre Construction Video" at the contract unit price bid is full compensation for the specified work. This price shall include two copies of the completed videos to be provided to the City and the Engineer.

4 - FORCE ACCOUNT

4.1 DESCRIPTION

This work shall cover miscellaneous extra work required during the course of construction.

4.2 MEASUREMENT AND PAYMENT

Before the extra work is performed, the Contractor shall submit a proposed price in accordance with Paragraph (e) of "Changes in the Work" in the General Conditions for approval by the City, and shall have received the written approval of the City prior to commencing the proposed extra work.

The City will measure each Force Account item as defined in the proposed price approved in accordance with Paragraph (e) of "Changes in the Work" in the General Conditions.

Payment for each Force Account item will be in accordance with the pre-approved proposed price.

Payment for Force Account (SET) shall be paid for on an extra work basis not to exceed the contract set price.

5 - CLEARING AND GRUBBING

5.1 DESCRIPTION

This work shall consist of clearing, grubbing, removing and disposing of all vegetation and debris as shown on the plans and in accordance with Special Provision 07-02008 of the Standard Specifications, except as otherwise modified herein.

5.2 CONSTRUCTION REQUIREMENTS

Erosion control measures shall be in place prior to the commencing of any work on the site in accordance with the "Temporary Erosion and Pollution Control" section. If the erosion control measures are not effective or are not approved by the City, all clearing, grubbing, and other site work shall be halted until such time as the erosion control measures are approved.

All cleared vegetation and debris including sod, stumps, shrubs, trees, and roots located within the grading limits in cut or fill sections shall be completely removed from the project site and disposed of in accordance with all applicable Federal, State and local ordinances.

Clearing shall consist of removal to the ground surface of all trees, shrubs, and stumps, down timber, snags, brush, rubbish, and other obstructions which are objectionable in the opinion of the City. In areas to receive more than four (4) feet of embankment, trees, stumps, and brush shall be cut off no more than eight (8) inches above the original ground surface or low water level. Clearing operations shall be conducted so as to prevent damage to trees left standing, to existing structures, to structures under construction, as well as to provide for the safety of employees and others.

Areas within the limits of rights-of-way, construction limits, easements, and side street approaches shall be cleared. Individual trees, groups of trees, and other vegetation within the above limits shall be left standing and undamaged as directed by the City.

Grubbing shall consist of the removal of all stumps, logs, roots larger than three (3) inches in diameter, matted roots, and other debris, to a depth not less than 18 inches below the excavated surface.

Except in areas to be excavated, stump holes and other holes from which obstructions are removed, shall be backfilled with suitable material and compacted in accordance with the "Compaction of Earthwork" section.

Material shall be disposed of off the site of the public improvements, except in the case in which permission from a private property owner is obtained. If the disposal is on private property, the Contractor shall obtain written permission of the property owner on whose property the material is placed. Copies of all agreements with property owners are to be submitted to the City.

5.3 MEASUREMENT AND PAYMENT

The City will measure the clearing and grubbing as a lump sum.

Payment for "Clearing and Grubbing" at the contract lump sum price bid is full compensation for the specified work.

6 - REMOVAL OF EXISTING STRUCTURES

6.1 DESCRIPTION

This work shall conform to Section 202 as amended by Special Provision 07-02007 of the Standard Specifications except as otherwise modified herein and shall include the removal of subsurface structures such as all existing drainage structures, head walls, pipe, inlets, manholes, retaining walls, conduits, foundations, cables, and other obstructions which are encountered during construction. This item shall include any items which may not be specifically listed in the Plans but are in conflict with the new construction and which would normally be encountered upon a careful examination of the site of the work. This includes repair, plugging, or removal of existing pipe after removal of structures.

The work shall also include removal and wasting of surface structures such as concrete curb, signs and markers, fencing, and abandoned utilities as directed by the project plans. Excluded are utilities currently in service and structures for which other provisions are made for removal.

6.2 CONSTRUCTION REQUIREMENTS

Erosion control measures shall be in place prior to the commencing of any work on the site in accordance with the "Temporary Erosion and Pollution Control" section. If the erosion control measures are not effective or are not approved by the City, all removal of existing structures shall be halted until such time as the erosion control measures are approved.

Fences that have portions of the fence removed and not replaced shall be left in a useable condition. The remaining fencing shall be terminated at an existing post, or a new corner post shall be set as shown on the plans or at the direction of the City.

Existing pavement shall be removed to provide match points as directed by the City.

Unless otherwise provided, all pipe designated for removal shall be removed and every precaution taken to avoid breaking or damaging those pipes which are to remain. The Contractor shall be held responsible for the repair of any damaged pipe and any such pipe will be replaced at the Contractor's expense. All damaged drainage pipe shall be replaced with the same type, grade and class as exists prior to the damage.

6.3 MEASUREMENT AND PAYMENT

The City will measure the removal of existing structures by the lump sum.

Payment for "Removal of Existing Structures" at the contract lump sum price is full compensation for the specified work.

7 - EXCAVATION

7.1 DESCRIPTION

Excavation of the specified materials shown on the plans shall be done in accordance with Section 205 of the Standard Specifications except as otherwise modified herein.

7.2 CONSTRUCTION REQUIREMENTS

Erosion control measures shall be in place prior to the commencing of any work on the site in accordance with the "Temporary Erosion and Pollution Control" section. If the erosion control measures are not effective or are not approved by the City, all excavation and other site work shall be halted until such time as the erosion control measures are approved.

a. Rough grading

Areas to be graded shall be cut to the approved subgrade elevations. The graded area shall have adequate drainage at all times. All ditches and channels shall be kept free of debris or obstructions. Erosion control measures shall be taken to protect downstream drainage systems from pollution, sedimentation or erosion caused by grading operations. Any pollution or damage occurring shall be the responsibility of the contractor.

b. Excavation

Excavation to the finish graded section for construction shall be considered Unclassified Excavation.

All stable and suitable materials from excavation shall be used as far as practicable for fills as shown on the drawings. All stable and suitable material that is hauled offsite by the contractor and is required for fill shall be hauled back onsite by the contractor at no cost to the Owner.

Suitable materials shall be defined as entirely imperishable material with that portion passing the No. 40 Sieve having a liquid limit not exceeding 40 and a plasticity index not exceeding 25 when tested in accordance with ASTM D 4318.

For publicly funded projects the City may waive or redefine the requirements for suitable material if soil mitigation measures are included in the contract documents.

Unsuitable material encountered in the subgrade during construction shall be removed, wasted, and suitable backfill placed in accordance with "Compaction of Earthwork". All waste sites shall be provided by the Contractor and approved by the City.

Unstable material is considered to be material that has moisture content above the plastic limit of the soil. Suitable material with excess moisture caused by the Contractor's negligent operations is not classified as unstable excavation. Excavate and use unstable material in accordance with Subsection 205.4.d.

Where rock, shale or similar material is found, the excavation shall be carried 15 inches below the subgrade for the full width of the paved area, plus an additional width for form work for curbs, catch basins, curb inlets, etc. The excavated area shall be backfilled to the subgrade and shoulder elevations with suitable materials, and compacted as described in "Compaction of Earthwork".

No separate payment will be made for undercutting and overbreakage in rock excavation and for backfilling and compacting this area with the materials as shown in the plans.

Included in excavation quantities are the removal of all pavement, driveways and sidewalks to be demolished as indicated on the plans. Driveways and sidewalk/ramp excavation was assumed at a depth of six inches for these items. Pavement removal was assumed to be four inches based on existing pavement data. No direct pay will be made for these items apart from their inclusion in the excavation.

7.3 MEASUREMENT AND PAYMENT

Payment for this work shall be based on plan quantity and will be paid for at the contract unit price bid per cubic yard for "Unclassified Excavation".

The City will measure excavation of unstable and unsuitable material by the cubic yard. The Contractor shall conduct his operation in such a way that the City or Inspector can take the necessary cross sectional measurements before the backfill is placed.

Payment for "Excavation (Unsuitable)" and "Excavation (Unstable)" at the contract unit prices bid is full compensation for the specified work. No additional payment will be made for furnishing, backfilling and compacting these areas with suitable material.

8 - EXCAVATION AND BACKFILL FOR STRUCTURES

8.1 DESCRIPTION

Work under this item shall consist of all necessary excavation for structures including the removal and disposal of all excess excavated materials, backfill around the completed structural element and related work. All work shall be done in accordance with Section 204 as amended by Special Provision 07-02001-R03 of the Standard Specifications and the following requirements.

8.2 CONSTRUCTION REQUIREMENTS

a. Excavation and Removals

All removal work which might endanger the new structure shall be completed before any work on the new structure is started. Partial removals of any structure or adjustments of any utility shall be made with care to preserve the value of the retained portions. Work around any live utility shall be done in such a manner that uninterrupted service can be maintained, or relocated. Excavated material which is unsuitable for backfill and excess material not required for backfill shall be disposed of off-site at an approved disposal site in compliance with local, federal and state regulations.

b. Backfill

Backfill material shall be free from large or frozen lumps greater than 3 inches, wood, or other extraneous material. All spaces excavated and not occupied by the new structure or by porous backfill shall be refilled with earth to the original ground surface or to the finished ground lines shown on the plans. No measurement will be made of backfill or compaction of backfill around structures except that portion above the original ground line which is situated within an embankment designated to be compacted. All backfill shall be thoroughly compacted and its top surface neatly graded. Areas to receive

fill shall be stripped of all vegetation and topsoil prior to placement of fill. Existing slopes greater than 4 horizontal to 1 vertical shall be benched to assure adequate bonding between existing slope and the fill.

8.3 MEASUREMENT AND PAYMENT

Excavation and backfill around any structure will not be paid for directly, but shall be considered subsidiary to other bid items in the contract.

9 - EMBANKMENT

9.1 DESCRIPTION

Construction of embankment shown on the plans shall be done in accordance with Section 205 of the Standard Specifications except as otherwise modified herein.

9.2 CONSTRUCTION REQUIREMENTS

Erosion control measures shall be in place prior to the commencing of any work on the site in accordance with the "Temporary Erosion and Pollution Control" section. If the erosion control measures are not effective or are not approved by the City, all embankment and other site work shall be halted until such time as the erosion control measures are approved.

a. Rough grading

Areas to be graded shall be cut to the approved subgrade elevations. The graded area shall have adequate drainage at all times. All ditches and channels shall be kept free of debris or obstructions. Erosion control measures shall be taken to protect downstream drainage systems from pollution, sedimentation or erosion caused by grading operations. Any pollution or damage occurring shall be the responsibility of the contractor.

9.3 MEASUREMENT AND PAYMENT

Payment for this work shall be based on plan quantity and will be paid for at the contract unit price bid per cubic yard for "Embankment".

10 - COMPACTION OF EARTHWORK

10.1 DESCRIPTION

All subgrade shall be uniformly compacted as indicated on the plans and in accordance with Section 205 as amended by Special Provision 07-02003-R01 of the Standard Specifications except as otherwise modified herein.

10.2 CONSTRUCTION REQUIREMENTS

The embankment fill area shall be cleared and grubbed prior to placing the fill layers. Suitable materials, as specified in "Excavation", shall be used within the top three feet of subgrade. Where the fill is less than four feet below the subgrade, all sod and vegetable matter shall be removed from the surface upon which the fill is to be placed. The cleared surface shall be completely broken up by plowing, scarifying or stepping to a minimum depth of six inches. The material shall be recompacted. The fill shall be spread in layers not to exceed eight inches loose, free from clods, bladed or disced to an even surface, and compacted. In no case shall rocks, larger than three inches in any dimension be deposited within one foot of subgrade elevation. In no instance shall any lift or layer exceed six inches of compacted thickness. The entire embankment fill shall be spread in layers and compacted as hereinafter specified.

After each fill layer has been spread as outlined above, the entire area shall be compacted as set forth in these specifications. The Contractor shall have available adequate hand or mechanical compaction equipment to accomplish the compaction .

Filling and compacting operations shall continue alternately until the fill conforms with the lines, grades, and typical cross-sections shown on the approved drawings.

All subgrade shall be uniformly compacted to a minimum of Type AA, MR-3.

All fill areas outside the limits of pavement shall be uniformly compacted to a minimum of Type B, MR-90, in accordance with Section 205 of the Standard Specifications.

a. Compaction in Fill Sections

Compacted density of soil in fill areas in the top 18 inches shall be equal to or greater than 95% of standard proctor density, Type AA compaction with a moisture range of MR-3-3 except as recommended by a qualified laboratory and approved by the City. The fill area below the top 18 inches shall be Type B compaction with a moisture range of MR-90 unless more stringent compaction is required by the City. The maximum density for the material used shall be as determined by ASTM D-698 and within the tolerances of the optimum moisture at maximum density as determined by the Moisture Density Curve obtained for the given material.

Sand and gravel which cannot be compacted satisfactorily with a sheeps-foot roller shall be rolled with a pneumatic-tired roller. Each lift shall be rolled until no further consolidation is evident.

b. Compaction in Cut Sections

The soil six inches below the finish subgrade line in cut sections shall be scarified, broken up, and then compacted as specified in the “Compaction in Fill Sections” paragraph. The depth of compaction in cut sections shall be a minimum of six inches.

Highly plastic and nonplastic fine-grained material and all unstable and unsuitable material as defined in “Excavation” shall be removed within the top three feet of the subgrade and suitable soil replaced and compacted as specified in the “Compaction in Fill Sections” paragraph.

Excavated rock and shale shall be used in fill sections at locations at least 3 feet below the subgrade elevations. All rock fill shall be tracked in with dirt or shale to minimize voids in accordance with the Standard Specifications. Non-durable shale shall manipulated (i.e. sized) with equipment and water until 100% of the material is smaller than 6 inches in all dimensions, and until a minimum 90% of the material is smaller than 3 inches in all dimensions. Shale shall be tilled or pulverized, if necessary, so that it may be compacted to a minimum of Type A (MR-90). The Inspector will verify manipulation requirements with a visual inspection (e.g. have the Contractor scarify a known area to a known depth, calculate theoretical volume scarified, calculate an average volume for the stones between 3 inches and 6 inches and if the volume for the stones exceed 10%, the test fails). Continue manipulation and retest until the above requirements are met. No additional payment will be made for any work or equipment required for compliance with this specification.

10.3 MEASUREMENT AND PAYMENT

No separate payment will be made for water required for compaction of subgrade.

The amount of completed and accepted work shall be paid for based on plan quantity at the contract unit price bid per cubic yard for "Compaction of Earthwork” of the specified type and moisture range.

11 - ROCK EXCAVATION AND BLASTING

11.1 DESCRIPTION

Where solid rock, shale, or similar material is found, the excavation shall be as shown in the plans or as directed by the City. The excavated areas shall be backfilled to the subgrade and shoulder elevation

with materials shown in the plans. **ABSOLUTELY NO BLASTING OF ANY KIND WILL BE ALLOWED ON THIS PROJECT**.

11.2 MEASUREMENT AND PAYMENT

No separate payment will be made for rock excavation as it will be considered subsidiary to "Unclassified Excavation".

12 - HMA (COMMERCIAL GRADE CLASS A)

12.1 DESCRIPTION

HMA (Commercial Grade Class A) shall be supplied in accordance with Section 611 of the Standard Specifications, except as otherwise modified herein.

12.2 SURFACE SMOOTHNESS

The surface course, upon completion of final rolling, shall be smooth and true to grade and cross-section. When a 12-foot straightedge is laid on the surface parallel with the centerline, the surface shall not vary more than 1/8 inch from the straightedge. When the 12-foot straightedge is laid on the surface transverse to the centerline between the crown and edge of pavement, the surface shall not vary more than 1/4 inch from the straightedge. Low or defective areas shall be immediately corrected by cutting out the faulty areas and replacing with fresh hot mixture and compacting the area to conform to the remainder of the pavement. Testing for plan grade conformance and surface smoothness shall be performed by the Contractor in the presence of a representative of the City. Tests shall be made at intervals as directed by the City. The City may direct the contractor to diamond grind areas that are out of tolerance in lieu of above replacement.

12.3 MEASUREMENT

The City will measure HMA (Commercial Grade Class A) by the ton. Payment for HMA (Commercial Grade Class A) at the contract unit prices is for full compensation for the specified amount of work detailed in the plans unless otherwise directed by the City (including emulsified asphalt for tack).

13 - CEMENT TREATED SUBGRADE

13.1 DESCRIPTION

Cement Treated Subgrade shall be supplied in accordance with Section 1105 of the Standard Specifications, except as otherwise modified herein.

13.2 CERTIFICATION OF THE MATERIAL

The Contractor shall submit with the delivery of the material to the project, a certificate indicating the gradation of the material complies with the above material specification.

14 - TENSAR NX850

14.1 DESCRIPTION

This work shall consist of furnishing and installing TENSAR NX850 geogrid (or approved equal) in accordance with the manufacturer's specifications. The geogrid shall be used to provide subgrade stabilization or base reinforcement under pavement, aggregate base, or embankment materials.

All work shall conform to these Specifications, the latest edition of the Kansas Department of Transportation (KDOT) Standard Specifications for State Road and Bridge Construction, and the manufacturer's installation guidelines, except as otherwise modified herein.

14.2 MATERIALS

a. Geogrid Type

Geogrid shall be TENSAR NX850 biaxial geogrid manufactured by Tensar International Corporation or approved equal. The material shall be a punched and drawn polypropylene sheet with integral junctions and ribs oriented in two orthogonal directions to provide equal strength in both directions.

b. Material Properties

Property	Test Method	Requirement
Rib Tensile Strength (MD/CD)	ASTM D6637 (Method A)	≥ 205 lb/ft
Junction Efficiency	GRI-GG2	≥ 93%
Aperture Size	—	1.0 in ± 0.1 in
Flexural Rigidity	ASTM D7748	≥ 250,000 mg-cm
UV Resistance (500 hrs)	ASTM D4355	≥ 100% retained strength

c. Certification

The Contractor shall provide the Engineer with the manufacturer's certification verifying compliance with the above specifications and identifying the roll numbers, production lot, and testing data.

d. Submittals

Prior to installation, the Contractor shall submit manufacturer's installation instructions, product data sheets, and certification of compliance to the Engineer for review and approval.

14.3 CONSTRUCTION REQUIREMENTS

a. Subgrade Preparation

The area to receive the geogrid shall be graded to the lines and elevations shown on the plans and proof rolled to ensure uniform support. All soft or unsuitable materials shall be removed and replaced with suitable fill or compacted in accordance with the "Compaction of Earthwork" specification. The surface shall be smooth and free of sharp objects that could damage the geogrid.

b. Placement of Geogrid

The geogrid shall be laid flat and in direct contact with the prepared subgrade surface without wrinkles or folds. Adjacent rolls shall be overlapped a minimum of 1 foot (300 mm) unless otherwise specified by the manufacturer or shown on the plans. Overlaps shall be in the direction of fill placement.

The geogrid shall be secured in place using pins, stakes, or fill material to maintain position and alignment during placement of aggregate. Care shall be taken to ensure that the geogrid is not displaced during fill placement or compaction operations.

c. Placement of Fill Material

The first lift of aggregate base or fill material shall be placed by end-dumping onto the geogrid and spreading in a direction parallel to the roll placement. Equipment shall not make direct contact with the geogrid. Fill shall be spread in uniform layers not exceeding 12 inches (300 mm) loose thickness and compacted in accordance with the "Compaction of Earthwork" section. Turning or sudden braking of construction equipment on the first lift is prohibited.

d. Damage Repair

Any geogrid that becomes torn or damaged shall be repaired by removing the damaged area and placing a replacement section overlapping the original by a minimum of 3 feet (1 m) in all directions.

e. Environmental Conditions

Geogrid installation shall not occur during periods of standing water, heavy rainfall, or frozen subgrade. Installation shall only proceed when approved by the Engineer.

14.4 MEASUREMENT AND PAYMENT

The Engineer will measure TENSAR NX850 by the square yard of material satisfactorily placed and accepted.

Payment for "TENSAR NX850" at the contract unit price bid per square yard is full compensation for furnishing all materials, labor, equipment, overlaps, and incidentals required for installation in accordance with these specifications.

No separate payment will be made for subgrade preparation, securing pins, overlaps, or repair of damaged areas, as they are considered subsidiary to this bid item.

15 - CONCRETE BASE WIDENING

15.1 DESCRIPTION

This work shall consist of widening the existing concrete pavement base to the lines, grades, and dimensions shown on the plans. The work shall include excavation, subgrade preparation, placement of reinforcement and dowel bars, construction of new Portland cement concrete (PCC) pavement base, joint construction, curing, and all incidental items necessary to provide a continuous, durable, and properly tied roadway base section.

All work shall conform to these Specifications and the current edition of the Kansas Department of Transportation (KDOT) Standard Specifications for State Road and Bridge Construction, Section 502 (Portland Cement Concrete Pavement), except as otherwise modified herein.

15.2 MATERIALS

a. Concrete

Concrete shall be KCMMB 4K or as otherwise specified in the Contract Documents. The mix shall conform to the requirements of Concrete Construction and Section 401 of the KDOT Standard Specifications. Concrete shall have a minimum 28-day compressive strength of 4,000 psi.

b. Reinforcing Steel and Dowels

All reinforcing steel shall conform to ASTM A615 Grade 60, and all dowel bars shall conform to ASTM A615 or ASTM A706, epoxy-coated in accordance with ASTM A934. Dowel bars shall be smooth, free of deformation, and cut to the lengths shown on the plans.

c. Joint Materials

Expansion joint filler shall conform to ASTM D1752, Type I, non-extruding, preformed resilient bituminous material. Joint sealant shall conform to ASTM D5893 or ASTM C920, Type S, Grade NS, Class 35 (±35% Joint Movement).

d. Curing Compound

Curing compound shall conform to ASTM C309, Type II, Class B, white pigmented liquid membrane.

e. Subgrade Materials

Subgrade and subbase materials shall conform to "Compaction of Earthwork" and "Cement Treated Subgrade" specifications, as applicable. Aggregates shall meet KDOT Section 1105 for cement-treated subgrade or KDOT Section 1107 for AB-3 aggregate.

15.3 CONSTRUCTION REQUIREMENTS

a. General

Concrete base widening shall be performed adjacent to existing pavement as shown on the plans or as directed by the Engineer. The Contractor shall ensure proper tie-in to the existing pavement and uniform load transfer across all joints.

b. Excavation and Subgrade Preparation

The Contractor shall remove all materials within the widening area to the required depth and width. The subgrade shall be compacted to Type AA density (MR-3-3) and proof rolled prior to concrete placement. Any soft or unstable areas shall be undercut and replaced with suitable compacted material or flowable fill as approved by the Engineer.

c. Saw Cutting and Edge Preparation

The existing pavement edge shall be saw cut to a neat, vertical face along the line of construction prior to removal or adjacent concrete placement. Saw cuts shall extend to the full depth of the existing pavement. All loose or deteriorated concrete along the joint shall be removed to sound material. The exposed edge shall be cleaned of dust, laitance, and debris prior to placement of new concrete.

d. Doweling and Tie Bars

Dowels shall be drilled and epoxied into the existing concrete pavement at the spacing and depth shown on the plans. The holes shall be cleaned and dried prior to epoxy placement. Dowels shall be aligned parallel to the pavement surface and longitudinal centerline within 1/8 inch per foot tolerance.

e. Placement of Concrete

Concrete shall be placed only when the subgrade has been approved by the Engineer. The concrete shall be deposited in a single lift, consolidated with internal vibration, and finished to the line and grade shown. Concrete shall not be placed when the air temperature is below 40°F or above 90°F unless approved by the Engineer and appropriate hot/cold weather protection is provided per ACI 306/305.

f. Finishing and Curing

The concrete surface shall be struck off and finished to match the adjacent pavement surface texture. Immediately after finishing, the surface shall be uniformly coated with curing compound at a rate not less than **300 square feet per gallon**.

g. Joint Construction

All joints shall match the type, spacing, and alignment of existing adjacent joints unless otherwise directed.

- Contraction joints shall be sawed to a depth of one-third the slab thickness.
- Expansion joints shall be placed where shown on the plans, filled with pre-molded expansion joint material, and sealed after curing.
- Longitudinal joints shall include tie bars at the spacing shown on the plans.

h. Backfilling and Shoulders

After curing is complete, the edges of the concrete widening shall be backfilled with suitable material, compacted in lifts not exceeding 6 inches. All disturbed areas shall be restored with topsoil and sod or seed per the “Sodding” or “Seeding” specifications.

i. Protection

Newly placed concrete shall be protected from vehicular traffic until it has attained a minimum compressive strength of 3,000 psi, verified by field-cured cylinders or maturity testing.

15.4 MEASUREMENT

The City will measure HMA (Commercial Grade Class A) by the ton. Payment for HMA (Commercial Grade Class A) at the contract unit prices is for full compensation for the specified amount of work detailed in the plans unless otherwise directed by the City (including emulsified asphalt for tack).

16 - AGGREGATE BASE COURSE – AB-3 OVERLAND PARK MODIFIED (11")

16.1 DESCRIPTION

This work shall consist of furnishing and placing an 11-inch thick layer of aggregate base course, designated as "AB-3 Overland Park Modified," in accordance with the lines, grades, and thickness shown on the plans, or as directed by the City. The work includes all necessary material, preparation of subgrade, mixing (if applicable), hauling, spreading, shaping, compacting, and finishing of the aggregate base course in the roadway or shoulder areas. All work will conform to these Specifications and to the latest edition of the Kansas Department of Transportation (KDOT) Standard Specifications for State Road and Bridge Construction, Division 300 where applicable, except as modified herein.

16.2 MATERIALS

a. Aggregate Base Material

The aggregate base material shall conform to the requirements of the "AB-3 Overland Park Modified" specification as adopted by the City of Overland Park, Kansas, in its Standard Specifications Section 1104.Concrete

b. Composition

The AB-3 OP Modified shall consist of 100% limestone or dolomite produced by mechanical crushing.

c. **Gradation and Plasticity**

The gradation shall correspond to the AB-3 gradation requirements as specified in Table 1104-1 (or as shown on the plans) with the modification that plasticity index (PI) shall be between 0 and 5, and liquid limit shall be a maximum of 25. Construction requirements

d. **Moisture Control**

The material, as delivered to the project site, shall be mixed with water in a stationary plant (if so required) to obtain the moisture content as directed by the City.

e. **Certification**

The Contractor shall submit to the City a certification that the delivered material meets the gradation, plasticity index, moisture-density relationships (ASTM D698) and composition specified above.

16.3 CONSTRUCTION REQUIREMENTS

a. Subgrade Preparation

The area to receive the base course shall be graded to the required lines and elevations, compacted to the specified density, proof-rolled, and any soft or unstable areas corrected to the satisfaction of the City.

b. Placement of Aggregate Base

The aggregate base material shall be placed in the roadway or shoulder area to a compacted thickness that results in an 11-inch finished thickness (or as shown on the plans). Placement shall be in lifts not to exceed 6 inches (or as directed) and each lift shall be compacted to the required density (typically 95% of maximum dry density per ASTM D698 or as shown on the plans). Moisture shall be controlled during placement to the optimum moisture content (± 2%) as directed.

c. Shaping and Finishing

After compaction, the surface of the base course shall be brought to the required cross-section, smoothness, and grade as shown on the plans. Irregularities shall be corrected prior to subsequent paving operations.

d. Protection and Maintenance

The contractor shall protect the placed base course from adverse weather conditions, contamination by traffic, and other damage. If the base becomes degraded or contaminated before the

next pavement layer is placed, the contractor shall remove and replace the affected material at no additional cost.

16.4 MEASUREMENT

The City will measure "Aggregate Base Course – AB-3 Overland Park Modified (11″)" by the square yard of compacted base course in place and accepted.

Payment at the contract unit price per square yard shall be full compensation for all labor, equipment, materials, mixing (if applicable), hauling, placement, compaction, finishing, shaping, moisture control, protection, and all incidental items required to complete the work in accordance with these specifications. No separate payment will be made for water, calcium chloride, proof-rolling, or removal of unsuitable material unless specifically shown as a separate bid item.

17 - CURB CONSTRUCTION

17.1 DESCRIPTION

Concrete curb shall be installed, or removed and replaced as shown on the plans and in accordance with the requirements of the "Concrete Construction" specification and KDOT Section 825 of the Standard Specifications except as otherwise modified herein.

17.2 MATERIALS

a. Reinforcing Steel

Reinforcement for curb and gutter shall be three No. 4 bars in accordance with "Reinforcing Steel".

b. Concrete

Concrete for curb and gutter shall be in accordance with "Concrete Construction".

17.3 CONSTRUCTION REQUIREMENTS

a. Concrete Placement

A slip form curb machine, with electronic control, shall be required on all continuous curb construction of lengths greater than 100 feet.

The concrete shall not be placed until the subgrade has been inspected for compaction and moisture. The concrete shall be consolidated with an approved internal type vibrator. The surface shall be shaped by use of a steel tool to produce the sections shown on the drawings. The edges shall be rounded with edgers to form the radii indicated on the drawings.

The surfaces shall be finished with a wooden or metallic float and brushed. All concrete shall be cured in accordance with the "Concrete Construction" specification.

b. Reinforcement

No reinforcement shall be required when curb and gutter is laid on four inches or more of asphaltic concrete base.

c. Joints

All joints shall be formed at right angles to the alignment of the curbing.

(1) Expansion Joints

Expansion joints shall be placed at points of curvature, curb returns, curb inlet transitions, and at intervals not to exceed 250 feet. The expansion joints shall consist of one-half inch premoulded bituminous, nonextruding and resilient expansion joint material cut to the configuration of the curb section. The material shall extend through the full curb section. The edges of the joints shall be rounded with an edging tool of one-quarter inch radius.

After curing, the joints shall be sealed with urethane sealant meeting ASTM C 920. The sealant shall be Class 35 (±35% Joint Movement), Type S and Grade NS.

(2) Contraction Joints

Curbing shall have contraction joints formed at 10 feet intervals. They shall extend across the entire curb section The cut shall be approximately 1/4 inch wide, and the depth shall be one-third the thickness of the curb (minimum) or as shown in the plans. The contraction joints may be formed by any approved method. If sawing joints, the contractor shall begin as soon as the concrete hardens sufficiently to prevent excessive raveling along the saw cut and shall finish before conditions induce uncontrolled cracks, regardless of the time or weather.

d. Line and Grade

The new concrete curb and gutter shall be accurately placed in accordance with the line and grade as established by the project plans. Curbs shall be formed to the cross section as shown on the drawings with a mule; or templates supported on the side forms and with a float not less than 4 feet in length, for hand placed curb.

The finished surface of the curb and gutter shall be checked for no more than 1/4 inch deviation, by the use of a 10 foot straightedge, and corrected if necessary. Where grades are flat and while the concrete is still plastic, the drainage of the gutter should be checked with a 4 foot carpenter's level.

e. Finish

The surfaces of curb and gutter shall be finished with a wooden or steel float and broomed. Brooming shall be perpendicular to the curb line. The brooming operation shall be so executed that the marks will be uniform in appearance and not more than one-sixteenth inch in depth. Brooming shall be completed before the concrete is in such condition that it will be torn or unduly roughened and before the concrete has attained its initial set.

f. Curing and Backfilling

(1) Curing

Concrete curbs and gutters shall be cured in accordance with "Concrete Construction".

(2) Backfilling

Backfilling operations shall not commence prior to the completion of the curing period, or until the concrete attains 75% design strength, as shown by compressive tests of field cured cylinders. All backfill material shall consist of soil suitable for vegetation. The area shall be prepared such that sod can be placed on bare soil.

17.4 MEASUREMENT AND PAYMENT

(1) Removal

Excavation, removal of concrete, concrete curbing, sidewalks, pavement material, or any other items required to be removed for the completion of this project shall be removed from the construction site and disposed of by the Contractor. The pavement shall be saw cut full depth in a true line a minimum of 2 inches in front of the section of curb marked to be removed. The concrete curb shall be sawed at each end of the section of curb marked to be removed. The curb shall be removed as not to disturb the adjacent pavement and adjacent curb. The Contractor will be responsible for repairing all damage to the pavement and curb and gutter resulting from his operations beyond the limits marked for repair.

(2) Replacement

The subgrade shall be compacted as required by the plans and specifications, but not less than Type AA (MR-5), clean of any foreign material, and moistened prior to placing concrete. If additional fill is required for subgrade, aggregate designated as AB-3 shall be used in accordance with Section 1104 of the Standard Specifications, or as approved by the City, and 95% compacted. The Contractor shall have available adequate hand or mechanical compaction equipment to accomplish the compaction as set forth in these Specifications. Concrete, as a base material, shall be placed in front of the new curb and shall have obtained 75% design strength, as shown by compressive tests of field cured cylinders, prior to

placement of asphalt surface. The concrete shall be left below the existing surface by the surface thickness, and an asphaltic concrete surface shall be placed over the concrete and compacted. Concrete and asphalt in front of the new curb shall not be paid for directly but shall be considered subsidiary to the contract price bid per linear foot of "Curb & Gutter Replacement" of the specified type.

The City will measure the curb and gutter of the specified type by linear foot along the back of curb.

Payment for the following bid items at the contract unit prices bid is full compensation for the specified work. Note that the (O.P) designation indicates City of Overland Park, KS bid item and (Olathe) indicates City of Olathe, KS bid item.

- Type A Curb & Gutter, Combined (O.P.)
- Type B Curb & Gutter, Combined (O.P.)
- Type B Curb & Gutter, Combined (O.P.) with V-curb
- Type B Curb Modified (O.P.)
- Type C Curb & Gutter, Combined (Olathe)
-

Curb in front of sidewalk ramps, curb transitions, Type C curbs, and other locations not a standard width or section, will be paid for as "Curb and Gutter, Combined" of the more prevalent type unless otherwise specified.

Curbs constructed in front of existing inlets shall be paid for at the contract unit price bid per linear foot of concrete curb. (See Standard Curb Inlet Detail).

No direct payment shall be made for sawing as it shall be considered subsidiary to curb construction.

18 - PORTLAND CEMENT CONCRETE PAVEMENT

18.1 SUMMARY

This section includes the construction of Portland cement concrete pavement. This work shall be performed in accordance with KDOT Section 502 of the Standard Specifications as modified by KDOT Special Provision 07-05003, latest revision, except as otherwise modified herein.

18.2 MATERIALS

a. Concrete

Concrete shall conform to the specifications for Kansas City Metro Materials Board (KCMMB) 4K Concrete.

b. Entrained Air Content

Air entrainment shall be accomplished by addition of an approved air entraining agent.

Air content shall be determined on each day of production as early and as frequently as necessary until the air content is consistently acceptable. The intended content of finished concrete is 6.0% and the "target" air content in front of the paver shall be determined to account for air loss during consolidation of concrete during slip form paving. The difference between the before and after paver air contents for a given location shall be considered the "air loss".

On the first day of paving, the "air loss" and "target" air content shall be established. Samples shall be taken at the point of acceptance (behind the paver) by the Contractor. The air loss shall be determined at a minimum of two locations. The air loss from both locations shall be averaged and added to 6.0% to establish the target air content, rounded to the next higher 0.5%. After the air loss has been established, the air content before the paver shall be the target air content plus 1.5% or minus 1.0%.

Once the target air content and air loss has been established, the air content shall be tested before the paver and shall be the target air content plus 1.5% or minus 1.0%. The air loss shall be checked at intervals determined by the City. A new target air content shall be established if the average air loss from two consecutive tests deviates by more than 0.5% from the air loss.

All testing required to establish and maintain the target air content is the responsibility and at the expense of the Contractor. No separate payment will be make for any Contractor testing required.

c. Chemical Admixtures

V-MAR3 Type 2 shall be used as a chemical admixture as seen in the KDOT list of prequalified chemical admixtures (revised 9/24/25).

d. Forms

All forms shall be in good condition, clean, and free from imperfections. Each form shall not vary more than 1/8 inch in horizontal and vertical alignment for each 10 feet of length.

(1) Material & Size

Forms shall be made of metal and shall have a height equal to or greater than the prescribed edge thickness of the pavement slab.

(2) Strength

Forms shall be of such cross-section and strength, and so secured as to resist the pressure of the concrete when struck off, vibrated, and finished, and the impact and vibration of any equipment that they may support.

e. Reinforcement

(1) Steel Bars

Steel bars for concrete reinforcement shall conform to Subsection 1601 of the Standard Specifications as modified by KDOT Special Provision 07-16001-R01. Epoxy coated deformed steel bars for concrete reinforcement shall conform to Subsection 1602 of the Standard Specifications as modified by KDOT Special Provision 07-16006.

(2) Welded Steel Wire

Welded steel wire fabric shall conform to Subsection 1603 of the Standard Specifications.

(3) Supporting Elements

Representative samples of supporting elements shall be submitted and approved by the City prior to their use in the project. Supporting elements shall be epoxy coated.

f. Expansion Joint Fillers

Expansion joint fillers shall conform to ASTM D 1752-04a, Section 4.1. Expansion joint material shall be compatible with hot-poured joint sealing compounds.

g. Joint Sealing Compounds

Hot-poured joint sealing compounds shall conform to Subsection 1501 of the Standard Specifications.

h. Curing Membrane

All material to be used or employed in curing Portland cement concrete must be approved by the City prior to its use. It shall be of the liquid membrane type and shall conform to ASTM C 309, Type II, Class B.

18.3 CONSTRUCTION REQUIREMENTS

Portland cement concrete pavement shall be constructed to the configuration, and to the lines and grades shown on the plans.

a. Grading and Subgrade Preparation

All excavation or embankment shall be as defined in the specifications. If areas of the subgrade are below the lines and grades shown on the plans, they shall be brought to the proper line and grade by additional fill material placed in accordance with “Compaction of Earthwork”. When forms are used, the

top surface of the subgrade shall be checked with a template riding on the forms to assure full thickness of pavement.

b. Forms

(1) Installation

Forms shall be set true to line and grade, supported through their length and, joined neatly in such a manner that the joints are free from movement in any direction.

(2) Preparation

Forms shall be cleaned and lubricated prior to each use and shall be so designed to permit their removal without damage to the new concrete.

c. Joints

Joints shall be formed at right angles to the true alignment of the pavement and to the depths and configuration specified by the appropriate standard or as modified by the plans and specifications. The required material shall be furnished and placed by the Contractor. Sufficient fastenings shall be used to insure joint assemblies and materials remaining in position during the entire period of concrete placing, striking off, vibrating and finishing.

(1) Expansion joints

Expansion joints shall be placed at all locations where shown on the plans and standards or as directed by the City.

Expansion joints shall extend the entire width of the pavement and extend from the subgrade. The material will have a suitable tear strip or removable expansion board cap provided to allow for the application of the joint sealer.

Under no circumstances shall any concrete be left across the expansion joint at any point.

(a) Material

Expansion joints shall be formed by a one piece, 1 inch thick preformed joint filler cut to the configuration of the correct pavement section.

(b) Stability

Expansion joints shall be secured in such a manner that they will not be disturbed during the placement, consolidation and finishing of the concrete.

(c) Dowels

Expansion joints that are specified to be equipped with dowels shall have dowels of the size and type specified, and shall be firmly supported in place, by means of a dowel basket that shall remain in place. One half of each dowel shall be lightly painted or lubricated with a product approved by the City. All dowels shall be epoxy coated meeting the requirements of ASTM A934. Epoxy coating shall have a minimum 10 mil thickness.

(2) Contraction joints

Contraction joints shall be placed where indicated and to the depth indicated by the plans, specifications and standards.

(a) Method

Longitudinal and transverse contraction joints shall be sawed. When sawing joints, the contractor shall begin as soon as the concrete hardens sufficiently to prevent excessive raveling along the saw cut and shall finish before conditions induce uncontrolled cracks, regardless of the time or weather. The cut shall be approximately 1/4 inch wide, and the depth shall be one-third the thickness of the slab (minimum) or as shown in the plans.

(b) Dowels

Dowels for contraction joints shall be of the size and type specified and shall be firmly supported in place and accurately aligned parallel to the pavement line and grade with an allowable tolerance of 1/8 inch. All dowels shall be epoxy coated meeting the requirements of ASTM A934 with a minimum of 10 mil thickness.

(3) Longitudinal and Construction joints

Longitudinal joints or construction joints shall be placed as shown on the plans or where the Contractor's construction procedure may require them to be placed. Longitudinal construction joints (joints between construction lanes) shall be tied joints of the dimensions shown on the plans or standards.

Keyways shall not be allowed.

All construction joint tie bars shall be drilled and epoxy coated.

(4) Center joints

Longitudinal center joints shall be constructed using the methods specified in "Contraction joints."

(5) Transverse Construction joints

Transverse construction joints of the type shown on the plans or standards shall be placed wherever concrete placement is suspended for more than 30 minutes. The joint shall be placed in a location consistent with a planned contraction or expansion joint.

(6) Tie bars

Tie bars shall be of epoxy coated deformed steel of the dimensions specified by the plans or standards. Tie bars shall be installed at the specified spacing and secured firmly so as not to be disturbed by the construction procedure.

Tie bars shall be evenly spaced along the length of the slab and no tie bar shall be within 2 feet of a contraction joint. Tie bars shall be supported in the proper position by chairs driven into the subgrade, or may be placed by approved mechanical methods into the plastic concrete within the limits of the finishing screed. Tie bars shall NOT be inserted by driving (or “poking”) them into the finished consolidated concrete.

d. Placing, Finishing, Curing, and Protection

Concrete shall be furnished in quantities required for immediate use and shall be placed in accordance with the requirements of the Standard Specifications. Prior to commencing construction, the contractor shall furnish a concrete delivery plan which includes at a minimum the number of trucks which will be dedicated to the project, the location of the concrete plant, the route and distance from the plant to the job site, and the anticipated rate of concrete usage. It is essential that concrete be delivered in sufficient quantities to prevent stoppage of the paving operation.

The concrete supplier shall have a representative on-site at all times for concrete placement operations over 200 cubic yards.

(1) Concrete Placement

The concrete shall be deposited on the subgrade to the required depth and width of the construction lane in successive batches and in a continuous operation without the use of intermediate forms or bulkheads. The subgrade shall be moistened prior to the placement of concrete. The concrete shall be placed as uniformly as possible in order to minimize the amount of additional spreading necessary. While being placed, the concrete shall be vibrated and compacted with suitable tools so that the formation of voids or honeycomb pockets is prevented.

When it is necessary to drop concrete a distance of more than three feet, troughs, pipes, or chutes shall be used as aids in placing concrete and shall be arranged and used in such a manner that ingredients of the concrete shall not be separated. Where steep slopes are required, the chutes shall be equipped with baffle boards or short lengths that reverse the direction of movement. All chutes, troughs and pipes and reinforcing steel shall be kept clean and free from coatings of hardened concrete. All troughs and chutes shall be either metal or metal lined and shall extend as nearly as possible to the point of deposit. Depositing in a large quantity at any point and running or working it along the forms in a manner which will cause segregation or separation will not be permitted. At no time shall concrete be dropped freely a distance of more than three feet.

The concrete shall be well vibrated and tamped against the forms and along all joints. Care shall be taken in the distribution of the concrete to deposit a sufficient volume along the outside form lines so that the curb section can be consolidated and finished simultaneously with the slab.

No concrete shall be placed around manholes or other structures until they have been brought to the required grade, alignment, and cross slope.

Concrete shall not be allowed to extrude below the forms.

(2) Concrete Finishing Methods

The pavement shall be struck off and consolidated with a mechanical finishing machine. Hand finishing methods may be used for small or irregular areas. Furnish paving and finishing equipment applicable to the type of construction as follows:

(a) Slip-form Machines

A self propelled slip form paving machine shall be used for all mainline Portland Cement Concrete Paving operations where the design speed is 40 mph or above. The slip form paver shall meet the requirements set forth in Section 154.5 of the Standard Specifications and be capable of paving at least a 24 feet wide section in a single pass.

(b) Self-Propelled Form-Riding Machines

Shall not be used without approval of the City.

(c) Manual Fixed-Form Paving Machines

Shall not be used without approval of the City.

(d) Hand Methods

If hand operated equipment is used, the concrete pavement shall be struck off with a vibratory screed, cut to the crown of the pavement and weighing not less than fifteen pounds per linear foot. The screed shall rest on the side forms and be drawn forward with a sawing motion. A depth of at least two inches of concrete shall be carried in front of the strike-off screed for the full width of the slab, whenever the screed is being drawn forward. In hand finishing, the vibrating shall be so executed that all voids in a body of the concrete are closed and porous places on the surface of the concrete eliminated. Additional concrete shall be added to the remaining low places and porous spots, and the concrete restock and re-vibrated. The striking and compacting shall continue until the entire pavement has a uniform, even surface that is free from porous or rough spots, waves or depressions, has the required crown, and is at the specified grade.

The system and methods of vibrating shall be subject to approval of the City. Vibrating equipment shall, under no circumstances, be used as a tool for moving concrete laterally on the grade.

The concrete pavement shall be uniform in appearance, composition, density and strength. All strike boards shall be straight, free from warp, shod on the striking surface with a strip of steel, and have the required crown. They shall be not less than two feet longer than the width of the pavement unit under construction and they shall be equipped with handles so constructed that the workmen can easily manipulate them in the manner required. All strike boards and templates shall be kept well-oiled and protected so that they will not warp or twist.

(3) Concrete Finishing

(a) Floating

All surfaces shall be consolidated and floated within 15 minutes of initial concrete placement and prior to final surface finish.

(b) Straight edging

Straight edging in conformance with the specifications shall be used when the optional smoothness section is not used.

(c) Surface Tolerance

After the longitudinal floating has been completed and the excess water has been removed, and while the concrete is still plastic, the slab shall be tested for trueness with a highway straightedge. The highway straightedge shall be held in successive positions parallel to the road centerline in contact with

the surface and the whole area worked from one side of the slab to the other as necessary. Advancement along the pavement shall be in successive stages of not more than one half the length of the highway straightedge. Any depressions found shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished. The surface shall be checked longitudinally while concrete is still plastic; correcting any surface deviations greater than 1/8 inch in 10 feet.

(d) Edging

Before final finishing is completed and before the concrete has taken its initial set, the edges of the slab and curb shall be finished to 1/8 inch radius, or that shown on the plans or standards by the paving equipment, or with hand edging tools.

(e) Final Surface Finish

(f) Dragged Surface Treatment

Burlap shall be dragged longitudinally over the finished surface to produce a tight, uniform, textured surface, and the edges shall be rounded in a workmanlike manner for roadways with a design speed of 45 MPH or to be posted 45 MPH or less. The texture achieved by the burlap drag shall be tested by the Contractor in accordance with ASTM E 965, "Test Method for Measuring Surface Macrotexture Depth Using a Sand Volumetric Technique", to ensure the texture is adequate for skid resistance when this surface treatment is used for roadways to be posted 50 MPH or more. The City will determine test locations. The results of ASTM E 965 shall show an average texture depth of any lot, as defined below, shall have a minimum value of 0.032 inch. Any lot showing an average of less than 0.032 inch but equal to or greater than 0.024 inch will be accepted as substantial compliance but the contractor shall amend their operation to achieve the required 0.032 inch minimum depth. (It is not the intention of this tolerance to allow the contractor to continuously pave with an average texture depth of less than 0.032 inch). Any lot showing an average texture depth of less than 0.024 inch shall require diamond grinding of the pavement represented by this lot to attain the necessary texture. Any individual test showing a texture depth of less than 0.020 inch shall require diamond grinding of the pavement represented by this lot to attain the necessary texture. Limits of any failing individual test shall be determined by running additional tests at 100 foot intervals before and after the failing test location. All testing of the surface texture shall be completed no later than the day following pavement placement.

(g) Curing

As soon as practical after the concrete is finished it shall be cured with liquid curing membrane applied in accordance with the manufacturer's directions.

(h) Method of Applying Curing Membrane

A nozzle producing a uniform fan pattern will be used on all spray equipment when applying the liquid curing membrane. The curing compound should be applied after final finishing operations have been completed, and immediately after the free water has left the surface of the concrete. Two smooth coats shall be used to ensure complete coverage and effective protection, with each coat applied at an application rate not less than 300 square feet per gallon.

(i) Curing Formed Surfaces

If the forms are removed from finished concrete pavement within a period of 72 hours or if a slip form paving machine has been used, these surfaces shall also be cured. The Contractor shall repair curing membrane damaged by joint sawing operations as directed by the City.

(4) Protection

The Contractor shall, at his own expense, protect the concrete work against damage or defacement of any kind until the City has accepted it.

All vehicular traffic shall be prohibited from using the new concrete pavement until it has attained strength in accordance with KDOT Section 502 of the Standard Specifications with the following revision:

Delete Section 502.3.i.(3).(a) and replace with:

(a) Construction Traffic Only

The compressive strength of the pavement shall meet or exceed 2800 psi. Compressive strength shall be determined by testing in accordance with ASTM C39, or by the use of calibrated maturity meters. If testing is not done, a four (4) day curing period shall be observed before motorized traffic is allowed on the pavement. All costs associated with calibration of the maturity meter testing required for opening pavement to traffic shall be subsidiary to other bid items.

The Contractor shall submit a maturity testing proposal to the City and receive approval at least 30 days prior to any concrete paving. Maturity meter readings shall be taken with the Owner's representative present.

The compressive strength of the pavement shall meet or exceed 4000 psi at 28 days of cure. The compressive strength shall be determined by testing in accordance with ASTM C39.

Provide protection to keep foreign material out of the unsealed joints by an approved method.

Concrete pavement that is not acceptable to the City because of damage or defacement, shall be removed and replaced, or repaired to the satisfaction of the City, at the expense of the Contractor.

(5) Diamond Grinding

Grind the riding surface to reduce or eliminate the irregularities.

Use a self-propelled grinding machine with diamond blades mounted on a multi-blade arbor. Avoid using equipment that causes excessive ravels, aggregate fractures, or spalls. Provide uniform texture the full width of the lane. Transverse grooving will not be required.

Use vacuum equipment or other continuous methods to remove grinding slurry and residue. Prevent the grinding slurry from flowing across lanes being used by traffic.

After corrections have been made to the riding surface, test the pavement for smoothness using the same technique used to determine smoothness originally. Furnish and operate the smoothness measurement equipment, and evaluate the results as specified.

Where smoothness is determined through the use of a profilograph, run two traces in each lane that has been corrected. Run one trace three feet from the longitudinal joint between the lanes, and another trace three feet from the shoulder or curb edge of the lane. Assure that a trained and certified operator performs the profilograph testing and evaluation. Within two days after the corrections to the riding surface are made, furnish the City with the profilogram and its evaluation.

Evaluate the profilogram of the corrected riding surface in 250 foot sections per lane. The required profile index per trace is 15 inches per mile.

Perform additional grinding as required to attain the required profile index. Correct all deviations (in excess of 1/2 inch in a length of 25 feet) within each section regardless of the profile index value.

(6) Temperature Limitation

Concrete work shall be in accordance with the requirements of Concrete Construction specification.

e. Backfill

A minimum of 24 hours shall elapse before forms are removed and 5 days shall elapse, or the concrete must have attained 75% of its 28-day compressive strength, before pavement is backfilled unless otherwise approved by the City. Backfill shall be accomplished in accordance with the specifications.

The Contractor shall be responsible for the repair of any existing street pavement damaged by the construction to the satisfaction of the City.

f. Joint Sealing and Cleanup

All joints shall be sealed with an approved joint sealer meeting the requirements of the Standard Specifications applied in accordance with the manufacturer's directions within 7 days of the placement of the concrete and prior to the opening of the pavement to traffic.

The Contractor shall be responsible for the removal of excess dirt, rock, broken concrete, concrete splatters, and over spray from the area of the construction.

g. Pavement Smoothness and Surface Defects

Concrete pavement smoothness shall be in conformance with KDOT Section 502 of the Standard Specifications except as modified herein.

Average profile index shall be 710 mm/km or less per 0.1 km section.

No price adjustments will be made based on profilograph results.

h. Repairing Defects

Contractor shall develop and submit a plan to the City for approval of repair methods prior to beginning any corrective work. The repair methods should at a minimum meet the requirements of 502.3.k.

18.4 MEASUREMENT AND PAYMENT

The City will measure "Concrete Pavement Uniform (*)(*)(*)" by square yard or tenth part thereof for the specified depth.

Payment for "Concrete Pavement Uniform (*)(*)(*)" of the specified thickness and type at the unit price bid is full compensation for the specified work. No additional payment will be made for concrete pavement smoothness, this shall be subsidiary to "Concrete Pavement Uniform (*)(*)(*)".

19 - SIDEWALK CONSTRUCTION (4")

19.1 DESCRIPTION

All sidewalk construction shall be constructed to the lines and grades shown on the Drawings or established by the City.

19.2 MATERIALS

All sidewalks shall be constructed using Portland Cement Concrete or concrete paver brick. Portland Cement Concrete and concrete paver brick shall conform to "Concrete Construction" and "Concrete Paver Stones", respectively.

All concrete used in construction of sidewalks shall be classified as KCMMB 4K.

19.3 CONSTRUCTION REQUIREMENTS

All sidewalks shall be constructed in compliance with the American with Disabilities Act of 1990, 42 U.S.C. 12101 et seq.

a. Location

All public sidewalks constructed within the City shall be located in the public right-of-way or within a public sidewalk easement. The standard location shall be one foot from the right-of-way or easement line, except when a ditch section is used in RE Districts where they shall be one foot from the shoulder. Sidewalks shall be constructed to allow access to all pedestrian signal actuation devices.

b. Dimensions

The width of any sidewalk repair shall be the same as that being replaced. The width of new sidewalk construction shall be as indicated on the plans. The minimum width of public sidewalks shall be four feet with a five foot square passing space every 200 feet. The minimum width of public sidewalks along thoroughfare corridors shall be five feet. The minimum allowable thickness shall be four inches, except within a driveway approach area, where the minimum allowable thickness shall be six inches. Sidewalks constructed with concrete paver brick shall meet the following specifications: Four inches of concrete shall be used as a base plus one inch of bedding sand for the pavers. Edge restraint must be provided in any case to confine the paved section to the design dimensions.

c. Grades and Slopes

The grade or slope along the length of the walk shall be as near parallel to the street gradient as practical. The maximum longitudinal slope shall be one inch per foot, except where a variance from street grade has been approved by the City. The cross slope shown on the Overland Park Standard Details is one foot per 100 feet or 1%; with the intention of enforcing a 2% maximum with absolutely no tolerance for exceeding 2%, due to Federal requirements. This maximum cross slope standard also applies when the walk crosses drives and shall slope toward the street, except in RE Districts where a ditch section is used. The finish grade of the sidewalk shall be such that the slope of the finish grade between the curb and the sidewalk will not exceed one-half inch per foot and will not be less than one-quarter inch per foot and shall slope toward the street, except in RE Districts where a ditch section is used.

d. Subgrade Preparation

The subgrade shall be uniformly compacted to a Type B density of 90% with a moisture range of MR-90. The subgrade shall be evenly graded to the required subgrade elevation. All loose or extraneous material shall be removed from the subgrade and soft spots shall be uniformly recompacted prior to placement of concrete. Sidewalk concrete material shall not be placed on frozen subgrade. The Contractor shall have available adequate hand or mechanical compaction equipment to accomplish the compaction as set forth in these specifications. The subgrade shall be properly moistened prior to placing concrete.

e. Forms

All forms shall be sufficiently strong and rigid and securely staked and braced to obtain a finished product correct to the dimensions, lines and grades required. Forms may be of steel or wood at the option of the contractor.

Each form shall not vary more than one-quarter inch in longitudinal and vertical alignment for each ten feet in length. All forms must be cleaned and oiled before each use. A slip-form machine, equipped with electronics, may be used in lieu of forms. The machine shall be equipped with mechanical internal vibrators and shall be capable of placing the finished sidewalk to the correct cross section, line and grade as required in this section. Adjustments of the string line and/or slip-form machine shall be made to give a smooth and accurate line and grade.

f. Reinforcing

Reinforcing of sidewalks will not be required except in unusual conditions where the City may require reinforcing or welded wire fabric. When welded wire fabric is used it shall be placed two inches (2”) from the finished surface of the sidewalk. The reinforcement shall be supported using set spacing such that between the supports, the reinforcement does not deflect or sag excessively. There will be no direct payment for this item, and it shall be subsidiary to the unit price bid for sidewalk replacement.

g. Placing and Finishing Concrete

The contractor shall provide adequate tools and equipment to produce quality workmanship in placing and finishing concrete. The sidewalk and ramps shall be finished to the top of the forms and the surface finished with a wood or steel float and surface texture shall be a course broom finish transverse to the slope of the sidewalk or ramp. No “plastering” of the surface shall be permitted.

(1) Contraction Joints

The sidewalk surface shall be marked off into nominal squares of dimensions equal to the width of the sidewalk with a maximum distance between joints of seven feet.

All joints in formed concrete sidewalks shall be tooled. Joints shall be tooled after brooming to provide a "picture frame" appearance. A standard joint tool having a width of one-eighth inch and one inch deep having a lip radius of one-eighth inch to one-quarter inch shall be used in forming the joints.

All joints in slip-formed concrete sidewalks shall be sawed. If sawing joints, the contractor shall begin as soon as the concrete hardens sufficiently to prevent excessive raveling along the saw cut and shall finish before conditions induce uncontrolled cracks, regardless of the time or weather.

(2) Expansion Joints

Expansion joints shall be constructed at locations where the sidewalk abuts existing concrete curbs, driveways, and similar structures, and every two hundred fifty feet and as shown on approved plans. Expansion joints shall be formed with one-half inch prefabricated non-extruding filler and shall extend the full depth of the slab.

h. Curing Concrete

Sidewalk slabs shall be cured either by wet covering, waterproof covering, or liquid membrane-forming compound in accordance with "Concrete Construction". The curing period shall be a minimum of five days. Curing shall be commenced as soon as possible after the finishing operation and when the concrete has set sufficiently so that it will not be damaged in the process.

i. Backfilling Concrete

Backfilling operations shall not commence prior to the completion of the five day curing period, or until the concrete attains 75% of design strength. All backfill material shall consist of soil suitable for vegetation. The area shall be prepared such that sod can be placed on bare soil.

j. Sidewalk Repair Details

(1) Limits

The areas of sidewalk to be removed and replaced shall be as directed by the project plans, and sawed to provide a neat and straight joint. The Contractor will be responsible for any damage to existing sidewalk resulting from his operations beyond the limits marked or designated by the City or their authorized representative, and shall satisfactorily repair any such damage at his own expense. All disturbed areas shall be restored to their original condition, which includes backfilling, sod, driveways, underground sprinkler systems, and any other items damaged by the contractor.

(2) Subgrade Preparation

Defective sidewalk, excess base materials, and tree roots shall be removed from the construction site and disposed of by the Contractor. Whenever practical, the areas to be removed will be marked at a construction or contraction joint, otherwise concrete sawing will be required to provide a neat and straight joint. Sawing at a contraction or construction joint will be required only when the joint is not of sufficient depth to provide a neat and straight break line.

After the defective sidewalk, excess materials, and tree roots have been removed, the subgrade shall be uniformly compacted to a density equivalent to the density of the immediately surrounding undisturbed soil and evenly graded to the required subgrade elevation.

Concrete shall not be placed on frozen subgrade.

Subgrade shall be properly moistened prior to placing concrete.

(3) Grades and Slopes

The grade or slope along the length of the sidewalk repair shall be a uniform transition between ends of undisturbed sidewalk unless otherwise directed by the City. The standard cross slope for sidewalk shall be 1/8 inch per foot and shall slope toward the street. Providing the existing sidewalk does not have standard cross-slope, a uniform transition shall be made to existing sidewalk.

k. Notification of Property Owner

The City will give advance notice to property owners whose sidewalk has been marked for repairs. The Contractor shall notify each property owner when the work will actually commence.

19.4 MEASUREMENT AND PAYMENT

The City will measure Sidewalk Construction 4" by the square foot of exposed surface of specified thickness.

Payment for "Sidewalk Construction 4" " at the contract unit price bid is full compensation for the specified work.

20 - SIDEWALK RAMPS (*) AND DETECTABLE WARNING SURFACE

20.1 DESCRIPTION

This work shall be constructed in accordance with the lines and grades shown on the Drawings.

20.2 MATERIALS

a. Concrete

All sidewalk ramps shall be constructed using Portland Cement Concrete. Portland Cement Concrete shall conform to "Concrete Construction".

b. Detectable warning surfaces

Detectable warning surfaces shall be Armor Tile Tactile System (Cast in Place) or approved equal. The color shall be "Brick Red".

20.3 CONSTRUCTION REQUIREMENTS

All public sidewalk ramps shall be constructed within the City shall be located in the public right-of-way or within a public sidewalk easement. Sidewalk ramps shall be constructed to allow access to all pedestrian signal actuation devices.

a. Dimensions

The width of any sidewalk ramp repair shall be the same as that being replaced. The width of new sidewalk ramp construction shall be as indicated on the plans. The minimum width of public sidewalk ramps shall be five feet. The minimum allowable thickness shall be six inches. Edge restraint must be provided to confine the paved section to the design dimensions.

b. Grades and Slopes

The grade or slope along the length of the walk shall be as near parallel to the street gradient as practical. The maximum longitudinal slope shall be one inch per foot, except where a variance from street grade has been approved by the City. The cross slope shown on the Overland Park Standard Details is one foot per 100 feet or 1%; with the intention of enforcing a 2% maximum with absolutely no tolerance for exceeding 2%, due to Federal requirements.

c. Subgrade Preparation

The subgrade shall be uniformly compacted to a Type B density of 90% with a moisture range of MR-90. The subgrade shall be evenly graded to the required subgrade elevation. All loose or extraneous material shall be removed from the subgrade and soft spots shall be uniformly recompacted prior to placement of concrete. Sidewalk ramp material shall not be placed on frozen subgrade. The Contractor shall have available adequate hand or mechanical compaction equipment to accomplish the compaction as set forth in these specifications. The subgrade shall be properly moistened prior to placing concrete.

d. Forms

All forms shall be sufficiently strong and rigid and securely staked and braced to obtain a finished product correct to the dimensions, lines and grades required. Forms may be of steel or wood at the option of the contractor.

Each form shall not vary more than one-quarter inch in longitudinal and vertical alignment for each ten feet in length. All forms must be cleaned and oiled before each use. A slip-form machine, equipped with electronics, may be used in lieu of forms. The machine shall be equipped with mechanical internal vibrators and shall be capable of placing the finished sidewalk to the correct cross section, line and grade as required in this section. Adjustments of the string line and/or slip-form machine shall be made to give a smooth and accurate line and grade.

e. Reinforcing

There will be no direct payment for reinforcement of sidewalk ramp, and it shall be subsidiary to the unit price bid for sidewalk ramp.

f. Placing and Finishing Concrete

The contractor shall provide adequate tools and equipment to produce quality workmanship in placing and finishing concrete. The sidewalk ramps shall be finished to the top of the forms and the surface finished with a wood or steel float and surface texture shall be a course broom finish transverse to the slope of the sidewalk or ramp. No “plastering” of the surface shall be permitted.

(1) Contraction Joints

The sidewalk ramp surface shall be marked off into nominal squares of dimensions equal to the width of the sidewalk with a maximum distance between joints of seven feet.

All joints in formed concrete sidewalk ramps shall be tooled. Joints shall be tooled after brooming to provide a "picture frame" appearance. A standard joint tool having a width of one-eighth inch and one inch deep having a lip radius of one-eighth inch to one-quarter inch shall be used in forming the joints.

All joints in slip-formed concrete sidewalk ramps shall be sawed. If sawing joints, the contractor shall begin as soon as the concrete hardens sufficiently to prevent excessive raveling along the saw cut and shall finish before conditions induce uncontrolled cracks, regardless of the time or weather.

(2) Expansion Joints

Expansion joints shall be constructed at locations where the sidewalk ramp abuts existing concrete curbs, driveways, and similar structures, and every two hundred fifty feet and as shown on approved plans. Expansion joints shall be formed with one-half inch prefabricated non-extruding filler and shall extend the full depth of the slab.

g. Curing Concrete

Sidewalk ramp slabs shall be cured either by wet covering, waterproof covering, or liquid membrane-forming compound in accordance with “Concrete Construction”. The curing period shall be a minimum of five days. Curing shall be commenced as soon as possible after the finishing operation and when the concrete has set sufficiently so that it will not be damaged in the process.

h. Backfilling Concrete

Backfilling operations shall not commence prior to the completion of the five day curing period, or until the concrete attains 75% of design strength. All backfill material shall consist of soil suitable for vegetation. The area shall be prepared such that sod can be placed on bare soil.

i. Sidewalk Repair Details

(1) Limits

The areas of sidewalk ramps to be removed and replaced shall be as directed by the project plans, and sawed to provide a neat and straight joint. The Contractor will be responsible for any damage to existing sidewalk resulting from his operations beyond the limits marked or designated by the City or their authorized representative, and shall satisfactorily repair any such damage at his own expense. All disturbed areas shall be restored to their original condition, which includes backfilling, sod, driveways, underground sprinkler systems, and any other items damaged by the contractor.

(2) Subgrade Preparation

Defective sidewalk ramps, excess base materials, and tree roots shall be removed from the construction site and disposed of by the Contractor. Whenever practical, the areas to be removed will be marked at a construction or contraction joint, otherwise concrete sawing will be required to provide a neat and straight joint. Sawing at a contraction or construction joint will be required only when the joint is not of sufficient depth to provide a neat and straight break line.

After the defective sidewalk, excess materials, and tree roots have been removed, the subgrade shall be uniformly compacted to a density equivalent to the density of the immediately surrounding undisturbed soil and evenly graded to the required subgrade elevation.

Concrete shall not be placed on frozen subgrade.

Subgrade shall be properly moistened prior to placing concrete.

(3) Grades and Slopes

The grade or slope along the length of the sidewalk ramp repair shall be a uniform transition between ends of undisturbed sidewalk unless otherwise directed by the City. The standard cross slope for sidewalk shall be 1/8 inch per foot and shall slope toward the street. Providing the existing sidewalk does not have standard cross-slope, a uniform transition shall be made to existing sidewalk.

j. Notification of Property Owner

The City will give advance notice to property owners whose sidewalk has been marked for repairs. The Contractor shall notify each property owner when the work will actually commence.

k. Curb Return Verification

After the construction of the adjacent curb and gutter section, and not less than one week prior to the construction of all wheelchair ramps, the contractor shall verify that the curb return elevations and the location of the depressed section is constructed in conformance with the design drawings. If the absolute elevation of any of the control points shown in sidewalk ramp drawings is not within .5 inches, or if the relative difference between any two control points is not within .125 inches, or if the depression location is not within 1" of the design drawings, the contractor shall either 1) remove and replace the non-compliant curb, or 2) submit a shop drawing showing how the ramp can be constructed to be ADA compliant. In the event that the original design drawings showed a ramp with elements that were not ADA compliant, the shop drawing shall show that the proposed element is as or more ADA complaint than the original design drawing. If this cannot be accomplished, the curb shall be removed and replaced.

l. Wheelchair Accessible Curb Ramps

Wheelchair accessible curb ramps shall be constructed at all street crossings. Maximum desirable slope of ramps shall be one inch per foot. Minimum width shall be four feet, except along thoroughfare corridors where the width shall be five feet. The minimum allowable thickness for wheelchair accessible curb ramps shall be six inches. Curbs at ramp locations must provide a gradual transition from gutter line to back of curb, not exceeding one inch in height or slopes of greater than one inch per foot. Side slopes of ramps shall not exceed one inch per foot where such side slopes are in the normal path of pedestrians on adjacent portions of sidewalk. If the street curb has not been constructed to receive the sidewalk ramp, the sidewalk constructor shall remove a section of the curb and reconstruct as required.

Ramps shall be constructed with or without a detectable warning surface as specified on the plans.

20.4 MEASUREMENT AND PAYMENT

The City will measure sidewalk ramps by the square foot of final exposed area of the entire ramp.

The City will measure the detectable warning surface by the square foot of final exposed area. Contractor to perform their own field investigation to verify quantity of detectable warning surface needed. Final exposed area shall be that area exposed after installation of detectable warning surfaces and backfill operations are complete.

Payment for "Sidewalk Ramp (6")", and "Detectable Warning Surface" at the contract unit prices bid is full compensation for the specified work.

21 - ADJUSTMENT OF MANHOLES (SANITARY) (JCW)

21.1 DESCRIPTION

All adjustments of the sanitary sewer or associated manholes shall be in accordance with the requirements of the Johnson County Unified Wastewater District.

21.2 MEASUREMENT AND PAYMENT

The City will measure adjustment of manholes by each.

Payment for "Adjustment of Manholes (Sanitary) (JCW)" at the contract unit price bid is full compensation for the specified work.

No direct payment will be made for any necessary excavation, backfill, or other items of associated work. Items are considered subsidiary to "Sanitary Sewer Encasement"

22 - REINFORCING STEEL

22.1 DESCRIPTION

All fabrication and placement of reinforcing steel shall be in conformance with KDOT Section 711 of the Standard Specifications. All reinforcing shall be as shown on the drawings and shall be held in place and positioned by pins or bar chairs or other approved devices or methods.

22.2 MATERIALS

Reinforcement shall be new billet ASTM A615 Grade 60 for KCMMB 5K concrete construction, or as shown on the plans. Reinforcing shall be new billet ASTM A615 Grade 40 for all other construction, or as shown on the plans.

22.3 CONSTRUCTION REQUIREMENTS

Reinforcing steel shall not be inserted into fresh concrete.

22.4 MEASUREMENT AND PAYMENT

No direct payment shall be made for reinforcing steel, as it shall be considered subsidiary to other bid items.

23 - CONCRETE CONSTRUCTION

23.1 DESCRIPTION

All concrete construction shall meet the requirements of KDOT Section 401 and Special Provision 07-04001-R01 of the Standard Specifications except as otherwise modified herein.

23.2 MATERIALS

a. Mix Designs

The mix designs shall be approved by the Kansas City Metro Materials Board as meeting the designation "KCMMB 4K"

b. Ready-mixed Concrete

Ready-mixed concrete shall be mixed and placed in accordance with the requirements of the Standard Specifications, except that ready-mixed concrete shall be transported with agitation. All concrete shall meet the slump requirements specified. Any addition of water shall be in accordance with the KCMMB specification and prior approval of the City. A diligent effort shall be made by the Contractor and the ready-mix concrete producer to deliver concrete at regular intervals, and to maintain a uniform mix throughout each concrete pour. Concrete shall be delivered at intervals frequent enough to prevent any cold joints.

Reinforcing Steel

(1) Reinforcing bars shall be in accordance with "Reinforcing Steel".
(2) Welded wire fabric shall conform to the requirements of ASTM A 185, Grade 60 and shall be supplied in sheets. Rolls shall not be used.

c. Water

Water shall be clean and free from deleterious substances.

23.3 CONSTRUCTION REQUIREMENTS

a. Placement and Curing

The Contractor shall provide 24 hours' notice of his intention to place concrete to allow for adequate supervision.

Table 710-1 of the Standard Specifications shall be modified to require a minimum curing period of 5 days for Other Formed Surfaces.

Wet covering and waterproof covering shall conform to KDOT Sections 1405- 1407 of the Standard Specifications. Liquid membrane-forming compound shall conform to the requirements for Type 2 White Pigmented Compound as specified in AASHTO M148. Clear liquid membrane-forming compound shall not be used.

b. Admixtures

KCMMB Concrete shall not be supplied with any admixtures designated as (Optional) in the Mix Design Testing Data without prior approval of the City.

V-MAR3 Type 2 shall be used as a chemical admixture as seen in the KDOT list of prequalified chemical admixtures (revised 9/24/25).

Concrete admixtures will not be added to concrete after leaving the batch plant without approval of the City.

c. Forms

Forms shall be of steel or wood, free from warp and shall be sufficiently strong and rigid and securely staked and braced to obtain a finished product correct to the dimensions, lines and grades required. All forms must be cleaned and oiled before each use. In no case shall forms obstruct the waterways of the storm sewer system.

d. Special Weather Conditions

(1) Cold Weather

The Contractor shall comply fully with the provisions of ACI 306.1-90 as modified below:

(a) Average daily temperatures as defined in ACI 306.1-90 will be determined and recorded by the City.

(b) Concrete temperatures will be determined through the use of high-low thermometers placed and operated by the City below insulated blankets, or where the concrete is uncovered, by checking air temperatures. Uncovered concrete, which has been subjected to freezing temperatures of any duration during the first 24 hours will be considered "frozen," and shall be rejected.

(c) Concrete shall reach 75% of its design strength prior to backfilling. This strength can be determined through the use of field-cured cylinders, made and tested at contractor's expense. Concrete must have 5 days where the average daily temperature is above 50 degrees F prior

to backfilling unless field cured cylinders are taken. These days do not need to be consecutive.

(2) Concrete operations in hot weather shall conform to Section 4012.087 (a) of the Standard Specifications.

e. Backfill

Backfill of concrete structures shall be in accordance with Section 204.3.f of the Standard Specifications.

f. Strength Acceptance Requirements

Cylinders used for determination of concrete strength shall be sampled and field cured in accordance with KT-22, and tested in accordance with ASTM C39. Testing frequency shall be in accordance with the City Sampling and Testing Frequency Chart. All KCMMB 4K concrete shall have a minimum compressive strength of 4000 psi at 28 days. All KCMMB 5K concrete shall have a minimum compressive strength of 5000 psi at 28 days. Concrete not meeting these strength requirements as determined by ACI 318-11 Section 5.6.3.3 shall be removed and replaced at the contractor's expense.

23.4 MEASUREMENT AND PAYMENT

a. KCMMB 4K Construction

All concrete used in construction of concrete pavement and driveways, curbs and gutters, storm sewer inlets and junction boxes, concrete inverts, aprons, collars, sidewalks, integral sidewalk retaining walls, concrete ditch liner, median noses, and miscellaneous concrete shall be classified as KCMMB 4K. The actual mixed proportions of cement, aggregates and water shall be determined by the Contractor.

Payment for KCMMB4K Concrete (Miscellaneous) at the specified cubic yard at the contract unit price vid is full compensation for the specified work. Contractor to field verify necessary volume of concrete needed. Data of investigation to be made available to the City upon request. This item includes estimated concrete to construct impacted stairs and retaining walls.

Payment for construction of concrete steps, "KCMMB 4K Concrete (Miscellaneous)" at the contract unit price bid is full compensation for the specified work.

24 - STORM SEWERS

24.1 DESCRIPTION

All storm sewers, structures and appurtenances shall be located as shown on the plans and as determined by the City.

24.2 MATERIALS

a. Concrete Pipe

(1) Pipe

Except as modified or otherwise provided in this chapter, the manufacture of concrete pipe shall be governed by ASTM C-76, ASTM C-506 and ASTM C-507. Except for fittings and closure pieces, each piece of the pipe shall not be less than eight feet long for pipe diameters 48 inches or less and shall not be less than six feet long for pipe diameters larger than 48 inches.

The wall thickness of concrete pipe shall be not less than Wall B.

The pipe class in each case shall be as designated on the plans, and shall not be less than Class III.

(2) Reinforcement

Circumferential reinforcement shall be full-circle type. Elliptical or part-circle reinforcement will not be approved. All reinforcing shall be located and spaced as recommended by the pipe manufacturers.

(3) Joints

Rubber gasket joints shall be required for all round pipe. Mastic joints shall be required for all other pipe shapes.

The City reserves the right to require joint testing on pipe sections, either at the plant or in place, as designated by the City to demonstrate compliance.

(4) Rubber Gasket Joints

Rubber gasket joints shall conform to ASTM C 1628-06 with the following additions and exceptions:

(a) Replace ASTM C 1628-06 5.1.1 with: Circular Cross-Section or "O-Ring" Gaskets for standard use shall meet Class A requirements. Non-Circular Cross-Section or "Profile" Gaskets for standard use shall meet Class E requirements.

(b) Replace ASTM C 1628-06 9.4 with: The manufacturer shall conduct concurrently the hydrostatic test described in 9.2 and the structural test described in 9.3. If proven watertight under these combined conditions, hairline cracks that do not leak shall not be cause for rejection. A vacuum test, run in accordance with the current written plant certification procedures of the American Concrete Pipe Association, may be used in lieu of the hydrostatic test referenced above.

(c) Joint design details shall be submitted for approval together with design data and test results verifying the adequacy of the joint design.

(5) Fine aggregate shall consist of clean natural sand conforming to ASTM C-33. Artificial or manufactured sand will not be approved.

(6) Lift Holes

Lift holes are prohibited for all concrete storm sewer pipes.

(7) No concrete pipe shall be delivered to the site of the work until concrete control cylinders representing such pipe shall have attained a compressive strength of at least 80% of the specified minimum 28 day strength.

b. Corrugated Metal Pipe

(1) All corrugated metal pipe shall be fabricated from galvanized iron corrugated metal sheets, aramid polymeric fiber bonded on both sides and bituminous coated. The U.S. Gauge number shall, in each case, be as designated on the plans, and as recommended by the manufacturer of the pipe for the depth of installation and classification of soil.

(2) The aramid polymeric fiber mat shall be embedded in the zinc on both sides of the metal sheets at the time of galvanizing and before the zinc has solidified. All work shall conform to AASHTO M-36 for base metal and galvanizing and to AASHTO M-190 for bituminous coating. All joints in corrugated metal pipe shall be made using watertight coupling bands, not less than twelve inches wide, fabricated from the same material as the pipe and coated in the same manner. Each coupling band shall be lubricated sufficiently to insure that the corrugation of the band seats into the corrugations of the two pipes being joined, when the bolts are tightened.

(3) Corrugated Metal Pipe manufacturer's certification shall be submitted to the City.

c. Concrete Lined Ditch

Concrete shall be as specified in "Concrete Construction". Wire fabric shall conform to ASTM A-185. Wire fabric shall be supplied in flat sheet form.

d. Embedment

Embedment materials both below and above the bottom of the pipe, the classes of embedment to be used, and the placement and compaction of embedment materials shall conform to the requirements shown in the current Standard Details and to the supplementary requirements in this section.

e. Tamped Backfill

All backfill materials shall be in conformance with the City's Manual of Infrastructure Standards for Right of Way Restoration as promulgated by the City.

f. Special Pipe

All special pipe sections necessary to complete the storm sewer system as shown on the plans shall be furnished by the Contractor. These sections shall include, but not be limited to, drop joint or radius pipe, bends, tees, and Type III end sections. The pipe manufacturer shall provide shop drawings indicating the exact methods to be used to achieve the lines and grades indicated on the plans, including a pipe laying schedule, and the configuration and number of any special pipe sections. All special pipe sections used shall be subsidiary to other bid items.

24.3 CONSTRUCTION REQUIREMENTS

a. Location and Grade of Sewers

The grade and alignment of the pipe shall be determined and maintained from tacked offset stakes located alongside the trench upon which cuts and elevations have been established by the Contractor. Pipe alignment during construction shall be maintained by the use of laser alignment equipment. A minimum of eighteen inches of cover shall be maintained over the storm sewer pipe.

b. Post Construction Video

Once installation and backfill of the proposed storm sewer has been completed and all grading over and around the storm sewer is completed, the Contractor shall be responsible for video taping each run of storm sewer pipe, less than 60 inches in diameter, to verify that the segment of pipe is in sound, stable condition and that no failures have occurred during construction. This video shall be delivered to the City for approval prior to any permanent pavement being placed over any said storm sewer. The development and delivery of this video shall be considered subsidiary to other bid items.

c. Blasting

The contractor shall comply with all laws, ordinances, applicable safety code requirements, and regulations relative to the handling, storage, and use of explosives and the protection of life and property. He shall be responsible for all damage caused by his blasting operations. All blasting within the City shall conform to City Ordinance Chapter 5.36 for Explosive and Blasting Agents.

Suitable weighted plank coverings or mattresses where required shall be provided to confine all materials lifted by blasting within the limits of the excavation or trench.

All rock which cannot be handled and compacted as earth shall be kept separate from other excavated materials and shall not be mixed with backfill or embankment materials except as specified or directed.

d. Unauthorized Excavation

Except where otherwise authorized, shown or specified, all material excavated below the bottom of concrete walls, footings, slabs on grade, and foundations shall be replaced by and at the expense of the contractor, with concrete placed at the same time and monolithic with the concrete above.

e. Removal of Water

The contractor shall provide and maintain adequate dewatering equipment to remove and dispose of all surface and ground water entering excavations, trenches, or other parts of the work. Each excavation shall be kept dry during subgrade preparation and continually thereafter until the structure to be built, or the pipe to be installed, therein is completed to the extent that no damage from hydrostatic pressure, flotation, or other causes will result.

All excavations for concrete structures or trenches which extend down to or below the static ground water elevations shall be dewatered by lowering and maintaining the ground water surface beneath such excavations a distance of not less than 12 inches below the bottom of the excavation.

Surface water shall be diverted or otherwise prevented from entering excavated areas or trenches to the greatest extent practicable without causing damage to adjacent property.

The contractor will be held responsible for the condition of any pipe or conduit which he may use for drainage purposes, and all such pipes or conduits shall be left clean and free from sediment.

f. Sheeting and Shoring

Except where banks are cut back on a stable slope, excavation for structures and trenches shall be properly and substantially sheeted, braced, and shored, as necessary, to prevent caving or sliding, to provide protection for the workmen and the work, and to provide protection for existing structures and facilities. Sheeting, bracing and shoring shall be designed and built to withstand all loads that might be caused by earth movement or pressure, and shall be rigid, maintaining shape and position under all circumstances. The contractor shall brace and shore all trenches in full accordance with Occupational Safety and Health Standards - Excavations; Final Rule 29 CFR Part 1926.

g. Stabilization

Trench bottoms and subgrades for concrete structures shall be firm, dense and thoroughly compacted and consolidated; shall be free from mud and muck; and shall be sufficiently stable to remain firm and intact under the feet of the workmen.

Trench bottoms or subgrades for concrete structures which are otherwise solid, but which become mucky on top due to construction operations, shall be reinforced with one or more layers of crushed stone or gravel. Not more than one-half inch depth of mud or muck shall be allowed to remain on stabilized trench bottoms when the pipe bedding material is placed thereon. The finished elevation of stabilized subgrades for concrete structures shall not be above the subgrade elevations shown on the plans.

h. Crushed Rock or Gravel Fills

Crushed rock or gravel fills shall be placed on a suitably prepared subgrade and tamped to the extent necessary for consolidation. Crushed rock or gravel shall be free from dust, clay, or trash and shall be graded one and one-half inches to No. 4 as defined in ASTM C 33-05.

Where crushed rock or gravel fills are to be covered with concrete after the fills have been installed, the top surface thereof shall be graded to the required subgrade surface and covered with polyethylene film.

i. Trench Excavation

The contractor shall not open more trench in advance of pipe laying than is necessary to expedite the work. One block or 400 feet (whichever is the shorter) shall be the maximum length of open trench permitted on any line under construction. Except where tunneling is shown on the plans or is permitted by the City, all trench excavation shall be open cut from the surface.

j. Alignment, Grade and Minimum Cover

The alignment and grade or elevation of each pipeline shall be fixed and determined by means of offset stakes. An approved laser beam may be used in addition to offset stakes. Vertical and horizontal alignment of pipes, and the maximum joint deflection used in connection therewith, shall be in conformity with the requirements of the specification covering the installation of the pipe being laid in each case.

Where pipe grades or elevations are not definitely fixed by the contract drawings, trenches shall be excavated to a depth sufficient to provide a minimum depth of backfill cover over the top of the pipe of eighteen inches.

k. Limiting Trench Widths and Pipe Clearances

Trenches shall be excavated to a width which will provide adequate working space and pipe clearances for proper pipe installation, jointing, and embedment. However, the limiting trench widths below an elevation six inches above the top of the installed pipe, and minimum permissible clearances between the installed pipe and either trench wall, shall be as shown in the current Standard Details.

The stipulated minimum clearances shown in the table are not minimum average clearances, but are minimum clear distances which will be permitted between any part of the pipe as laid and any part, projection or point of rock, shale, stone or boulder.

Where necessary to reduce the earth load on trench banks to prevent sliding and caving, the banks may be cut back on slopes which shall not extend lower than one foot above the top of the pipe.

l. Unauthorized Trench Widths

Where for any reason, the width of the lower portion of the trench as excavated at any point exceeds the maximum permitted either pipe of adequate strength, special pipe embedment, or arch concrete encasement, as required by loading conditions and as determined by the City, shall be furnished and installed.

m. Mechanical Excavation

The use of mechanical equipment will not be permitted in locations where its operations would cause damage to trees, buildings, or other existing property, utilities, or structures above or below ground; in all such locations, hand-excavating tools and methods shall be used.

Mechanical equipment used for trench excavation shall be of a type, design, and construction, and shall be so operated that the rough trench excavation bottom elevation can be controlled, that uniform trench widths and vertical side walls are obtained at least from an elevation one foot above the top of the installed pipe to the bottom of the trench, and that the trench alignment is such that the pipe when accurately laid to specified alignment, will be centered in the trench with adequate clearance between the pipe and side walls of the trench. Undercutting of the trench sidewall to obtain clearance will not be permitted.

All mechanical trenching equipment, its operating condition, and the manner of its operation, shall be subject at all times to the approval of the City.

n. Excavation Below Pipe Subgrade

Except where otherwise required, pipe trenches shall be excavated below pipe subgrade elevations, as shown in the current Standard Details on file in the office of the City, to provide for the installation of granular foundation material.

o. Artifical Foundations in Trenches

Whenever so ordered by the City, the contractor shall excavate to such depth below grade as the City may direct, and the trench bottom shall be brought to grade with such materials as the City may order installed. All timber, concrete foundations, wooden inverts, pipes, posts, stringers, and/or saddles, made necessary by quicksand or other treacherous soil, shall be installed as directed by the City.

p. Bell Holes

Bell holes shall provide adequate clearance for the tools and methods used in installing the pipe. No part of any bell or coupling shall be in contact with the trench bottom, trench walls, or the granular fill when the pipe is jointed.

q. Placement and Compaction

All granular fill material beneath the pipe shall be spread and the surface graded to provide a uniform and continuous support beneath the pipe at all points between bell holes or pipe joints. It will be permissible to slightly disturb the finished subgrade surface by the withdrawal of pipe slings or other lifting tackle.

After each pipe has been graded, aligned, placed in final position on the bedding material, and shoved home, sufficient pipe embedment material shall be deposited and compacted under and around each side of the pipe and back of the bell or end thereof to firmly hold and maintain the pipe in proper position and alignment during subsequent pipe jointing, embedment, and backfilling operations.

Embedment material shall be deposited and compacted uniformly and simultaneously on each side of the pipe to prevent lateral displacement of the pipe. Tamped backfill materials shall be placed in uniform layers and shall have a moisture content ensuring that the maximum density will be obtained with the compaction method used.

r. Trench Backfill

All trench backfill above pipe embedment shall conform to the following requirements.

(1) Tamped Backfill

Tamped Backfill is only allowable within unpaved areas of the ROW. It may also be used outside of the ROW and when backfilling Sanitary Sewer installations.

Materials for tamped backfill and the method of placement and compaction thereof shall be as specified for tamped backfill for pipe embedment, Subsection Tamped Backfill.

(2) Flowable Fill

Flowable Fill is required within all paved portions of the ROW including future paving, if they are known, per the Manual for Infrastructure Standards For Right of Way Restoration and City of Overland Park Standard Details.

(3) Structure Backfill

Backfill around structures shall be compacted, to the extent necessary to prevent future settlement, by tamping, placement of flowable fill, or other means approved by the City. Flowable fill is required around all structures within paved portions of the ROW including future paving, if they are known.

Material for backfill shall be as specified in this Chapter, Section Materials. and shall contain no wood, grass, roots, broken concrete, stones, trash, or debris of any kind. No tamped or otherwise mechanically compacted backfill shall be deposited or compacted in water.

s. Drainage Maintenance

Trenches across roadways, driveways, walks, or other trafficways adjacent to drainage ditches or water courses shall not be backfilled prior to the completion of backfilling of the trench on the upstream side of the trafficway to prevent the impounding of water after the pipe has been laid. Bridges and other temporary structures required to maintain traffic across such unfilled trenches shall be constructed and maintained by the contractor. Backfilling shall be done so that water will not accumulate in unfilled or partially filled trenches. All material deposited in roadway ditches or other water courses crossed by the line of trench shall be removed immediately after backfilling is completed and the section grades and contours of ditches or water courses shall be restored to their original condition. Surface drainage shall not be obstructed longer than necessary.

t. Protection of Trench – Backfill in Drainage Courses

Where trenches are constructed in or across roadway ditches or other watercourses, the backfill shall be protected from surface erosion by adequate means. Where the grade of the ditch exceeds one percent, suitable ditch checks as approved by the City shall be installed as directed. Ditch checks may be creosote lumber, stone, or concrete as authorized. In any case, the ditch check shall extend not less than two feet below the original ditch or watercourse bottom for the full bottom width and not less than 18 inches into the side slopes thereof.

u. Disposal of Excess Excavated Materials

Except as otherwise permitted, all excess excavated materials shall be disposed of away from the site of the work.

Excess earth from excavations located in unimproved property shall be distributed directly over the pipe trench and within the pipe line right-of-way to a maximum depth of six inches above the original ground surface elevation at and across the trench, and sloping uniformly each way therefrom. Material thus wasted shall be carefully finished with a drag, blade machine, or other suitable tool to a smooth uniform surface without obstructing drainage at any point. Wasting of excess excavated material in the above manner will not be permitted where the line of trench crosses or is within a railroad, public road, or highway right-of-way.

v. Maximum Trench Widths

Plans or specifications submitted to the City for approval shall show the maximum trench width for the sizes and classes of pipe at the various cover depths for the particular project.

w. Settlement

Whenever trenches or other excavations made by the Contractor in the performance of the work have not been properly filled, or where settlement has occurred at any time prior to final acceptance of the entire public improvement project, to the extent that the top of the backfill is below the original ground surface, such trenches shall be refilled and the surface compacted and smoothed to conform to the

elevations of the adjacent ground surface. All sod in lawns and parks removed or damaged by reason of such settlement, and the repair thereof shall be restored to their original conditions.

x. Concrete Pipe

(1) Rubber Gasket Joints

Non-Circular Cross-Section or "Profile" Gaskets shall be installed in strict accordance with the pipe and gasket manufacturer's recommendations.

For Circular Cross-Section or "O-Ring" Gaskets, immediately before jointing the pipe, the outside of the spigot and gasket and the inside of the receiving bell shall be thoroughly cleaned and coated with a suitable lubricant. The position and conditions of the rubber gasket shall be checked with a feeler gauge after the piping unit is installed.

(2) Mastic Joints

Mastic joints will be required for all non-round pipe shapes. Mastic joints shall be constructed to attain a watertight joint. Sufficient mastic will be applied so as to completely fill any space between the spigot end of one pipe and the bell end of the adjoining pipe.

(3) Marking

Each pipe, fitting, or special section shall have plainly and permanently marked thereon:

(a) Pipe class;

(b) Date of manufacture;

(c) Manufacturer's name or trademark;

(d) On mitered pipe, amount of miter and point of maximum miter.

Markings shall be indented in the pipe or painted thereon with waterproof paint. Each end of each mitered pipe, fitting or special section shall be marked with a stripe of paint approximately one and one-half inches wide and two feet long, applied along the top center line.

(4) Joint Openings

Round pipe shall have rubber gasketed joints in accordance with ASTM C 1628-06 with noted exceptions above in this Chapter, Subsection Rubber Gasket Joints. Other shapes shall use mastic joints as follows. In laying pipe, the maximum mastic joint opening shall not exceed the manufacturers' recommendations, or the following table, which ever is less.

Pipe Size (Round equivalent)	Maximum Joint Opening
12"-24"	1/4"
27"-84"	1/8"/ft. of equivalent internal diameter, max. 5/8"
90" and larger	3/4"

The above maximum openings are for the purpose of compensating for minor irregularities in the manufacture of the pipe joints. The pipe is to be laid to line and grade so that the sections are pushed completely home at least one point around the circumference of the joint, without spalling the concrete. Permissible openings may exist at other points around the circumference of the pipe.

In laying pipe, the maximum rubber gasket joint pull and deflection shall not exceed the manufacturer recommendations.

(5) Bends

When special engineering conditions exist, the City may allow bends. Bends for concrete pipe shall be fabricated from segments of a steel cylinder with concrete or mortar lining and reinforced concrete exterior covering or from segments of concrete pipe miter cut while the pipe is still green. The deflection angle between adjacent segments shall not exceed 30°.

Steel cylinders shall be at least U.S. 10 gauge and shall be lined with concrete or mortar at least three-quarters inch thick. Bends fabricated from steel cylinders shall be designed for the same three-edge bearing loads as the adjacent pipe.

In bends fabricated from miter cut segments of concrete pipe, the reinforcing steel shall be welded and the entire bend shall be encased in concrete after installation. Concrete encasement shall be at least eight inches thick all around and shall extend the full length of the bend.

(6) Handling

Pipe, fittings, and accessories shall be handled in a manner that will insure installation in sound, undamaged condition.

Concrete pipe and fittings shall be handled carefully and shall not be bumped or dropped. No hooks shall be permitted to come in contact with joint surfaces. Pipe units shall be kept from contact with adjacent units during handling and storage.

Lift holes are prohibited for all concrete storm sewer pipe.

(7) Cleaning

The interior of all pipe and fittings shall be thoroughly cleaned of foreign matter before being installed and shall be kept clean until the work has been approved. All joint contact surfaces shall be kept clean until the jointing is completed.

Every precaution shall be taken to prevent foreign material from entering the pipe during installation. No debris, tools, clothing, or other materials shall be placed in the pipe. Whenever pipe laying is stopped, the open end of the line shall be suitably closed. Culverts, sewers, and drains shall have the upper end closed with an end board closely fitting the end of the pipe and having a number of small holes drilled near the center to prevent the trench from filling with water. All water that may have entered the trench shall be pumped out before the closure is removed. It is essential that no mud, sand or other material shall be placed in the pipe.

(8) Alignment

Piping shall be laid to the lines and grades shown on the drawings. Storm sewers shall be designed with straight pipe runs between structures. Where warranted by special engineering conditions, the City may approve the design of curved sections. Pipe lines or runs intended to be straight shall be laid straight. Curves may be formed by using fittings or mitered joints or by opening the joints for pipe 36 inches in diameter and larger. Complete curve data shall be shown on the plans. The contractor shall erect hub stakes to determine and check pipe subgrades. Not less than three hub stakes shall be maintained in proper position at all times when trench grading is in progress. If a laser beam is not used, batter boards shall be used at intervals of not more than 25 feet.

(9) Laying Pipe

Pipe shall be protected from lateral displacement by pipe embedment material. Under no circumstances shall pipe be laid in water and no pipe shall be laid under unsuitable weather or trench conditions.

Pipe shall be laid with the bell ends facing upstream unless an exception is granted by the City. Prior to assembling each joint, the new pipe section being added to the already installed pipe(s), shall be on line and grade to help insure uniform gasket contact around the entire perimeter of the bell end.

y. Corrugated Metal Pipe

All pipe, pipe couplings, and accessories therefore shall be unloaded, stockpiled, hauled, distributed, and otherwise handled in a manner which will prevent damage thereto. Care shall be taken to insure that no damage will occur to coating of pipe and pipe couplings. All hooks or other tools inserted in the ends of the pipe, and slings if used in contact with the outside of the pipe, shall be well padded.

All pipe coating which has been damaged prior to laying the pipe or placing the backfill shall be repaired in strict conformity with the pipe manufacturer's instructions and recommendations, using materials of a type and quality equal to that used in originally coating the pipe.

Special care shall be taken to lay all pipe to exact grade and line. All pipe, when jointed, shall form a true line of sewer. Any pipe that has a grade or joint disturbed after laying shall be taken up and re-laid. All pipes shall be laid with the separate sections joined firmly together, with outside laps of circumferential joints pointing upstream, and the center line of the invert coinciding with the specified alignment of the pipe.

The interior surfaces of all pipe shall be thoroughly cleaned of all foreign matter before being lowered in the trenches and shall be kept clean during laying operations. In addition, the exterior surfaces of the ends of corrugated metal pipe over which the coupling bands are to be installed, and all interior and exterior surfaces of the bands shall be both clean and dry when the pipe is laid and the joints coupled as required.

Coupled joints shall be made in strict conformity with the corrugated metal pipe manufacturer's recommendations and instructions, using watertight coupling bands and accessories as specified above.

z. Concrete Lined Ditch

(1) Reinforcing

The reinforcing for the concrete shall be designed to withstand all earth and water pressures imposed upon the sides. The minimum amount of reinforcing placed in any section of the concrete paving shall be six inch by six-inch spacing welded wire fabric, W3 thickness. Wire fabric shall be supplied in flat sheet form. Wire fabric shall be supported on fabricated steel bar supports at three foot maximum spacing.

(2) Joints

Transverse expansion joints shall be placed at maximum intervals of 250 feet, and where new construction adjoins existing liners or other structures. Smooth dowel bars, two feet long by five-eighths inch diameter, sleeved, at 18-inch centers, shall be carried through the expansion joints. Expansion joints shall consist of one-half inch premolded, non-extruding expansion joint material. Cut-off walls shall be placed at the downstream side of all expansion joints.

Contraction joints shall be sawed or tooled to a minimum depth of one and one-half inches, at ten-foot maximum centers. No longitudinal joints shall be placed at the flow line. Joints shall be filled with an approved joint sealer material.

(3) Weep Holes

Two inch diameter plastic weep holes shall be placed at 15 foot centers and backfilled with three-quarter inch clean rock, 15 inches in all directions above the flow line. Weep holes shall be flush with the face of the concrete and the back screened.

aa. Concrete Box Culverts

(1) Lifting Inserts

Embedded lifting inserts shall provide a water tight lift point, which does not require patching or grouting. Insert type, size, and location shall be on the shop drawing.

(2) Rigging

Rigging and installation guidelines shall follow the manufacturer’s recommendations.

(3) Pre-cast Box Joint Openings

In laying pre-cast box culverts, the maximum mastic joint opening shall not exceed the manufacturers’ recommendations, or the following table, which ever is less.

Box Size (Internal span)	Maximum Joint Opening
≤ 7’	1/2”
> 7’	3/4”

(4) Handrails

Fabricated steel handrail and guard fence shall be hot dip zinc coated in accordance with the latest edition of ASTM A 123. Hardware for handrail and guard fence shall be hot dip zinc coated in accordance with the latest edition of ASTM A 123.

24.4 MEASUREMENT AND PAYMENT

The City will measure the various sizes of storm sewer pipe by the linear foot, along the centerline of the pipe, from inside wall to inside wall of structures, unless otherwise noted on the plans.

The City will measure each end section by the specified size and type.

Payment for the following items will be by the specified associated unit.

- 15" Storm Sewer (RCP Class III) measured by linear foot
- 18" Storm Sewer (RCP Class III) measured by linear foot
- Flared End Section (RCP)(15")(Class III) measured by each
- Flared End Section (RCP)(18")(Class III) measured by each

Payment for "Storm Sewer" and "End Section" at the contract unit prices bid is full compensation for the specified work. Concrete toe walls and/or bar grates shall be considered subsidiary to end sections.

25 - STORM SEWER INLETS AND MANHOLES

25.1 DESCRIPTION

Storm sewer inlets and manholes shall be constructed to the lines, grades, and dimensions shown on the Drawings.

25.2 MATERIALS

a. Mix Designs

All concrete used in construction of storm sewer structures shall be KCMMB 4K.

b. Concrete Structures

(1) Concrete structures shall be constructed of reinforced concrete as specified in "Concrete Construction".

(2) The entire surface of all steel frames shall be thoroughly cleaned and hot dip zinc galvanized in accordance with the latest edition of ASTM A 123.

c. Gray-Iron Castings

Gray-iron casting shall conform to ASTM A 48.

d. Steel Castings

Steel castings shall conform to ASTM A 27, Grade 65-35, fully annealed.

e. Structural Steel

All structural steel shall conform to ASTM A 36.

f. Reinforcing Steel

Reinforcing steel used in inlets and manholes shall be ASTM A 615 grade 40.

g. Steps

Steps used in inlets and manholes shall conform to ASTM C 478

h. Shop Drawings

The details for curb inlets, junction boxes, manholes, area inlets and all other cast structures, either site constructed or pre-cast, shall be submitted to the City for approval.

25.3 CONSTRUCTION REQUIREMENTS

a. Curb Inlets

Curb inlets shall be set back from the normal curb line one foot and the top of the slab for the curb inlet shall be at the same elevation as the top of the curb.

Curb inlets shall have a ten-inch opening per the current Standard Detail and a minimum size horizontal bar of three-quarters inch diameter approximately centered in the opening. Where warranted by special engineering conditions, the City may approve the use of a six-inch opening steel frame, in which case the inlet will not be set back from the curb line as indicated in this Chapter Subsection 3.6.A.3.

The top of the curb inlet shall be cast in place and anchored to the walls. All curb inlet tops shall include an access manhole frame and cover. Access cover design shall be submitted for approval by the City.

The bottom of the curb inlet shall have concrete so placed that the invert through the curb inlet will conform in shape and slope to that of the storm sewer, and the minimum thickness of the invert shall be four inches, or two inches below the bottom of the lowest pipe.

The curb inlet shall be constructed on a reinforced concrete slab at least eight inches thick.

The curb shall transition to the inlet in ten feet on the upstream side and five feet on the downstream side; inlets located in a sump condition shall have both transitions five feet in length.

b. Area Inlets

Area inlets shall be constructed the same as stipulated under curb and gutter inlets where applicable, with the following additional items:

Area inlets shall be of the side opening type with a frame as specified in this Chapter Subsection 3.4.A.4. Each side of the area inlet with a frame shall have a minimum two feet concrete apron with vertical wing walls to contain grade around the inlet.

The City may approve area inlets with a top inlet grate where warranted by special engineering conditions. The top inlet grate shall be heavy cast iron, or fabricated steel and as manufactured for this particular purpose. The fabricated steel grate shall be hot dip zinc coated in accordance with the latest edition of ASTM A 123-02.

Area inlets shall be located and designed to adequately convey and transport the storm water into the storm sewer system.

c. Manholes and Junction Boxes.

Manholes and junction boxes shall be constructed the same as stipulated under curb inlets where applicable. Manholes shall also conform to the latest edition of ASTM C478. Manholes and junction boxes shall be constructed in accordance with the following additional items:

Manhole and junction box frames and covers shall be heavy duty where located in streets and trafficways. Access cover design shall be submitted for approval by the City.

Manholes shall be equipped with eccentric cones, except that flat slab tops may be used in shallow structures as approved by the City.

Junction boxes may be used with pipe sizes of any diameter.

Minimum inside diameter of manholes shall be four feet for pipe size 24 inches or less. When pipe size exceeds 24 inches in size, junction boxes shall be used. Where warranted by special engineering conditions, the City may approve junction boxes or manholes with alternate design elements.

d. Inlet Grate

Inlet grate shall be a cast iron curb inlet/grate inlet combo. Inlet grate shall be Neenah #R-3501-TR/TL or R-3501-TB as specified on the plans or approved equal. In some locations more than one grate will be specified on top of a structure. See plans for details.

e. Structure Connections

Pipes connected to structures shall be cut parallel with the inside face of the structure. For poured in place structures, the pipe shall extend to and be flush with the inner face of the structure wall. For precast structures, the pipe projection beyond the inside face of the wall shall be not less than 2 inches and no more than 4 inches except where prior approval is given by the City.

f. Construction Type

All storm sewer structures used on this project shall be of precast concrete. The tops shall be poured in place, and a minimum of 6 inches of the wall steel shall be left exposed, and poured into the

tops. Precast shop drawings shall be submitted and reviewed by the Engineer. All pipes entering or exiting precast structures shall be encased in a minimum of 6 inches of concrete all around the pipe for a distance of 24 inches adjacent to each structure.

25.4 MEASUREMENT AND PAYMENT

The City will measure each inlet, manhole and junction box of the specified size and type.

Payment for the items shown below at the contract unit prices bid is full compensation for the specified work.

- Inlet (4'x3')(Non Setback)(Curb)
- Inlet (6'x3')(Non Setback)(Curb)
- Inlet (6'x3.5')(Non Setback)(Curb)
- Inlet (8'x3')(Non Setback)(Curb)
- Manhole (Cast-in-Place)(4')
- Manhole (Precast)(4')

26 - CONCRETE PIPE COLLAR

26.1 DESCRIPTION

Storm sewer joints shall be encased in a concrete collar at locations shown on the plans. This encasement shall be constructed in accordance with the details indicated on the plans.

26.2 CONSTRUCTION REQUIREMENTS

Minimum concrete encasement, if none is detailed, shall consist of 6 inches KCMMB 4K concrete, which shall extend a minimum of 1.5 feet past each side of the joint. Reinforcement shall consist of a cage of #4 bars at 6 inch centers longitudinally, and 3 #4 bars transverse to the pipe centerline.

26.3 MEASUREMENT AND PAYMENT

The City will measure each concrete collar.

Payment for "Concrete Pipe Collar" at the contract unit price bid is full compensation for the specified work.

27 - END SECTION PROTECTION

27.1 DESCRIPTION

This work shall consist of constructing rock end section protection at the locations shown on the plans.

27.2 MATERIALS

The material shall be durable stone or broken concrete containing a combined total of no more than 10 percent of soil, sand, shale or non-durable rock. The material shall contain a large percentage of pieces as large as the thickness of the blanket will permit, with enough smaller pieces of various sizes to fill the larger voids. At least 40 percent of the mass shall be of pieces having volume of one cubic foot or more.

27.3 CONSTRUCTION REQUIREMENTS

The rock lining material shall be placed by dumping and left in a rough condition to the approximate shape of the channel bottom.

27.4 MEASUREMENT AND PAYMENT

The City will measure End Section Protection by cubic yard of rock material placed.

Payment for "End Section Protection" at the contract unit price bid is full compensation for the specified work.

28 - FLOWABLE FILL

28.1 DESCRIPTION

The contractor shall use low strength flowable fill as shown in the Plans and in accordance with KDOT Section 843 of the Standard Specifications except as otherwise modified herein.

28.2 MATERIALS

A flowable fill mix design shall be submitted to the City for approval and shall be such that it can be pumped. The contractor shall submit a laboratory mix design that shows compliance with the Low-Strength Mixture compressive strength and unit weight requirements shown in Table 843-1.

Unit weight testing will be performed at a frequency in accordance with the City Sampling and Testing Frequency Chart as outlined in the section entitled "Portland Cement Concrete Structures and Miscellaneous Construction."

The Inspector will accept the flowable fill based on the visual inspection of the mixture placed on the project. Compressive strength tests will not be performed unless ordered by the City or Inspector to confirm compliance with the approved mix design. Mix designs may be approved for all projects and will remain in effect unless material sources or batch weights change. Flowable fill that fails tests will be removed and replaced at contractor's expense as directed by the City.

28.3 CONSTRUCTION

No removable flowable fill shall be placed on frozen subgrade. Insulating blankets shall be required to protect flowable fill from cold weather. All flowable fill provided to the project must include a delivery ticket with batch weights of all materials and admixture dosages.

28.4 MEASUREMENT AND PAYMENT

No direct payment shall be made for Flowable Fill (Low Strength), as it shall be considered subsidiary to other bid items.

29 - SODDING

29.1 DESCRIPTION

This work shall consist of furnishing and placing sod at those locations indicated on the plans or as designated by the Engineer in accordance with KDOT Section 906 of the Standard Specifications except as modified herein.

29.2 MATERIALS

a. Sod Types

The type of sod to be used will be Turf Type Fescue sod, except where Zoysia sod or Kentucky Bluegrass sod is identified under the property owners name and address on the plans, or designated by the Engineer. In the case of mixtures of Bluegrass and Zoysia sod, Zoysia shall be used unless otherwise directed by the Engineer.

b. Sod Material

All materials shall conform to the requirements of these Specifications and to KDOT Section 2104 of the Standard Specifications. The Contractor shall retain a person knowledgeable of the different types of sod to ascertain prior to bidding, the location and types of existing sods. Sod shall be of best quality Bluegrass, Zoysia, or Turf Type Fescue, not more than two years old, shall conform to the quality standards of Nursery Grown Sod as defined by the American Sod Producers Association, and shall meet the following standards:

(1) Thickness of Cut: Sod shall be machine cut at a uniform soil thickness of 5/8 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch.

(2) Pad Size: Individual pieces of sod shall be cut to the suppliers's standard width and length as approved by the City. Maximum allowable deviation from standard widths and lengths shall be plus or minus 1/2 inch on width and plus or minus 5 percent on length. Broken pads and torn or uneven ends will not be acceptable.

(3) Strength of Sod Sections: Standard size sections of sod shall be strong enough to support their own weight and should retain their size and shape when suspended vertically from a firm grasp on the upper 10 percent of the section.

(4) Moisture Content: Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) will adversely affect its survival.

(5) Mowing Height: Before stripping, sod shall be mowed uniformly at a height of 2 to 3 inches.

(6) Thatch: Sod shall be relatively free of thatch, up to 1/2 inch allowable (uncompressed).

(7) Diseases, Nematodes, and Insects: Sod shall be reasonably free of diseases, nematodes, and soil-borne insects. State nursery and/or plant materials' laws require that all sod entering inter-state commerce be inspected and approved for sale. The same applies to sod being shipped intra-state. The inspections and approval must be made by the state agricultural department, office of the state entomologist.

(8) Weeds: Sod shall be free of objectionable grassy and broad leaf weeds. Sod shall be considered free of such weeds if less than 5 such plants are found per 200 square feet of area. Sod will not be acceptable if it contains any of the following weeds: quackgrass, Johnson grass, poison ivy, nutsedge, nimblewill, Canada thistle, bindweed, wild garlic, ground ivy, perennial sorrel, bromegrass, bentgrass, and Bermuda grass.

c. Fertilizer

Fertilizer shall conform to the State fertilizer laws, and shall conform to KDOT Section 2108 of the Standard Specifications.

Furnishing and placing fertilizer shall be in accordance with KDOT Section 902 of the Standard Specifications. Fertilizer shall be uniform in composition, dry and free flowing, and shall be delivered to the site in the original unopened containers, each bearing the manufacturer's guaranteed analysis. Certification shall be submitted to the city on the fertilizer. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted. Fertilizer shall be placed prior to sodding at not less than 1 lb. of pure nitrogen per 1000 square feet of sodding area unless otherwise determined by a soil test. Fertilizer shall be subsidiary to sodding bid items.

29.3 CONSTRUCTION REQUIREMENTS

a. Sod Season

Bluegrass and Fescue sod may be planted during the periods of March 1 to May 15 and September 1 to November 15. Bluegrass and Fescue sod may be planted during the period, November 15 to March 1, when the soil and sod is workable and with the approval of the City. If sod is planted between November 15 and March 1, the Contractor will maintain the sod until 20 days after the beginning of the

spring sodding season. The City reserves the right to delay the sodding of all types of sod or to vary the permissible sodding seasons, due to weather, soil conditions, or for other causes.

Zoysia sod may be planted during the period April 1 to October 15.

b. Bed Preparation and Moisture Requirements

Where the width of the disturbed area to be sodded exceeds 18 inches, the area shall be widened to a uniform size by removing enough existing turf from behind the disturbed area, creating an area whose width is a multiple of 18 inches (width of sod roll). A clean edge should be established at the outer limits of the area to be sodded, so that good contact can be made between the new sod and the established turf.

Where the width of the disturbed area is less than 18 inches, enough existing turf shall be removed to create an area of uniform width, no less than six (6) inches.

All backfill shall consist of soil suitable for vegetation. The area shall be prepared such that sodding can be placed on bare soil. This will consist of cultivating, smoothing, removing of clods, surface stones 1 inch in diameter or larger, and weeds. All backfilling shall be subsidiary to other bid items.

Area to be sodded shall consist a minimum of 6 inches of top soil, free from clods, rocks, trash, and other debris. Any fertilizer applied shall be incorporated into the top soil. If the area has been severely compacted by heavy trucks or other equipment, it shall be cultivated to a depth of 6 to 8 inches by tilling or disking. Backfill areas shall be compacted to a sufficient density to prevent excessive settling after placement of sod. If footprints left by an adult walking across the area are more than 1/2 inch deep, the compaction is not sufficient.

Grade of the area shall be approximately 1 inch below desired final grade, to allow for the thickness of the sod.

c. Water

Water used in this work shall be furnished by the Contractor and will be suitable for irrigation and free from ingredients harmful to plant life. All watering equipment required for the work shall be furnished by the Contractor. Under no circumstances shall the Contractor use water except that metered from adjacent fire hydrants or public water lines.

d. Placing Sod

Sod strips shall be laid parallel with the ends staggered in a running bond pattern. Each successively laid strip shall be pressed firmly up against the one next to it or up against the edge of the existing turf, to ensure good contact with no overlapping. Sod shall be staked in places where the slope exceeds 3:1. Sod shall be staked with a minimum of two to four stakes per square yard or roll, as determined by the City. Stakes shall be of lath or similar materials and shall be driven six inches into the ground, leaving approximately 1/2 inch of the top above the sod line.

After placing sod, the area shall be tamped with a hand tamp or rolled with a lawn roller half filled with water. Rolling shall be done in a direction perpendicular to the direction in which the sod lengths were laid.

e. Sod Watering and Maintenance

After each days sod is placed, it shall be watered sufficiently to wet the sod pads and at least 2 inches of the sod bed. Thereafter in the absence of adequate rainfall, watering shall be performed daily and as often as necessary to keep the sod pads moist at all times. Watering by the Contractor shall continue until the roots of the sod are anchored in placed, and the sod is growing and accepted.

All sodded areas shall be mowed immediately prior to the inspection for acceptance. Mowing is required to facilitate visual assessment and acceptability of the work. Mowing shall not be attempted until the sod is firmly rooted and secure in place. Not more than 1/3 of the grass leaf shall be removed. Any debris that would interfere with mowing shall be collected and removed.

f. Sod Acceptance

All sodded areas shall be kept free of weeds until the sod has been accepted.

All sodded areas shall be kept thoroughly watered by the Contractor for a period of 20 days after laying and as often as required thereafter, until completion of all other items of work in the contract. If

sodding is the last item of work to be performed, the Contractor shall continue watering until all sod is growing and accepted.

The Contractor shall be fully responsible for the condition of the sod work until written notification that his obligation to maintain the sod is terminated, and the sod has been accepted. At that time the property owners shall be notified by the City that further maintenance of the sod is their responsibility.

29.4 MEASUREMENT AND PAYMENT

The City will measure sod of specified type by the square yard.

Payment for "Sod (Fescue)" and "Sod (Zoysia)" at the contract unit price bid prices are full compensation for the specified work, including bed preparation, transporting, placing, firming, watering, cultivating, and maintaining the sod.

30 - TEMPORARY SURFACING MATERIAL

30.1 DESCRIPTION

At the locations shown on the plans or as directed by the City, the Contractor shall furnish, install, maintain and remove temporary surfacing material in accordance with the project phasing schedule and KDOT Section 840 of the Standard Specifications, except as otherwise modified herein.

30.2 CONSTRUCTION REQUIREMENTS

During construction, the temporary surfacing material shall be maintained to provide a smooth driving surface free of bumps and potholes. It shall be the responsibility of the Contractor to make repairs to the temporary surface at the direction of the City. The temporary surfacing material shall be removed as shown in the plans or as directed by the City.

Access to private drive entrances shall be maintained at all times unless otherwise specified.

30.3 MEASUREMENT AND PAYMENT

The City will measure the temporary surfacing material of specified type by the ton.

Payment for "Temporary Surfacing Material" of specified type at the contract unit price bid is full compensation for the specified work. No payment will be made for temporary surfacing material placed that was not requested by the City.

31 - TOPSOIL

31.1 DESCRIPTION

Topsoil shall be furnished and placed at the locations shown on the plans, or as directed by the Engineer. Topsoil shall consist of suitable surface soil as stipulated in KDOT Section 2101 of the Standard Specifications and as approved by the Engineer. Furnishing topsoil shall be in accordance with KDOT Section 905 of the Standard Specifications and placing topsoil shall be in accordance with KDOT Section 206 and Special Provision 07-02002 of the Standard Specifications except as otherwise modified herein.

31.2 CONSTRUCTION REQUIREMENTS

The Contractor shall stockpile existing top soil, unless specifically authorized and approved by the City, prior to deep excavations and reuse it in the same general locations. No payment will be made

for topsoil furnishing and placement necessary due to excessive hauling off of existing top soil on the project site.

Contractor's source of furnished topsoil shall be approved by the City. All areas to be seeded or sodded shall consist of a minimum of 6 inches of topsoil, free from clods, rocks, trash, and other debris. If the area has been severely compacted by heavy trucks or other equipment, it shall be cultivated to a depth of 6 inches - 8 inches by tilling or disking. At locations where excavation to final grade results in material unsuitable for vegetation, as determined by the City, the Contractor shall undercut and remove the material and place topsoil.

31.3 MEASUREMENT AND PAYMENT

The City will measure topsoil by the cubic yard as shown in the plans.

No measurement of topsoil obtained onsite will be taken.

Payment for "Topsoil" at the contract unit price bid is full compensation for the specified work, including hauling, stockpiling if required, removing unsuitable soils, scarifying if required, and placement.

No payment will be made for offsite topsoil acquisition and placement that was not specifically authorized and directed by the City. This item does not include any topsoil that is obtained at the project site and reused, pertaining only to any additional soil furnished by the Contractor at the specific request of the City.

No direct payment shall be made for undercutting and removing unsuitable materials in cut sections to the required depth of topsoil, or stockpiling and placement of topsoil obtained from the project site, as this work shall be considered subsidiary to other bid items.

32 - LANDSCAPE RESTORATION

32.1 DESCRIPTION

Landscape Restoration shall encompass the work needed to restore landscaping features to at least their pre-construction condition. Contractor shall rely on the pre-construction video for documentation of these features to be able to set them back. Where possible, contractor may retain materials from existing landscaping (ex: existing bricks or pavers or other materials) to use in restoration.

32.2 MEASUREMENT AND PAYMENT

The City will measure landscape restoration by the square yard as shown in the plans.

No direct payment will be made for any excavation or additional material acquisition necessary for the landscape restoration.

Payment for "Landscape Restoration" at the contract unit price bid is full compensation for the specified work, including hauling, stockpiling if required, removing materials and restoration of features.

33 - TEMPORARY EROSION AND POLLUTION CONTROL

33.1 DESCRIPTION

At the locations shown on the plans or as directed by the City, temporary erosion and pollution control Best Management Practices (BMPs) shall be installed, maintained and removed in accordance with KDOT Section 901 of the Standard Specifications except as otherwise modified herein.

Erosion and Pollution Control Bid Item	Units

Water Pollution Control Manager	Each
SWPPP Inspection	Each
Compost Cover	Cubic Yard
Erosion Control Blankets (Class & Type)	Square Yard
Turf Reinforcement Mat (Class & Type)	Square Yard
Hydraulic Erosion Control (Type)	Ton
Temporary Slope Drain	Linear Foot
Biodegradable Log (Size)	Linear Foot
Construction Entrance	Square Yard
Temporary Ditch Check (Type)	Each
Temporary Diversion Berm	Linear Foot
Temporary Filter Berm	Linear Foot
Filter Sock (Size)	Linear Foot
Temporary Inlet Sediment Barrier (Type)	Each
Temporary Sediment Basin	Lump Sum
Temporary Sediment Trap	Each
Silt Fence	Linear Foot
Synthetic Sediment Barrier (Type)	Linear Foot
Temporary Stream Crossing	Each

33.2 GENERAL REQUIREMENTS

Take all measures necessary including, but not limited to, the installation, maintenance and removal of temporary erosion and pollution control BMPs as required during the construction of the project to prevent erosion and pollution on the project and project related borrow areas in accordance with the requirements of the Kansas Department of Health and Environment (KDHE) National Pollution Discharge Elimination System (NPDES) Stormwater Runoff from Construction Activities General Permit (herein after referred to as Construction General Permit), City Ordinances, and the Stormwater Pollution Prevention Plan (SWPPP) developed for the project.

a. Permits

Owners or operators of construction activities which may disturb one (1.0) or more acres of soil or are part of a larger common plan of development or sale which may disturb a cumulative total of one (1.0) or more acres of soil must obtain a Construction General Permit and other local permits as required. Where such permits are required, the Owner will provide the Contractor with a Stormwater Pollution Prevention Plan (SWPPP) which has been prepared by the City or other qualified professional. The Contractor shall comply with all requirements of such permits and the SWPPP, and shall enforce compliance with such requirements by all Subcontractors.

If a Construction General Permit is not required for a project, the City may waive certain documentation and record-keeping provisions of this specification. The Contractor is required to comply

with all other provisions in this specification and is required to install such measures for erosion and pollution control as may be called for in the plan or ordered by the City.

b. Installation, Maintenance, and Removal of BMPs

(1) Installation**:** Install erosion and pollution control BMPS as shown on the plans. Do not perform any land disturbance until erosion and pollution control BMPs are in place and approved by the City. As approved by the City, installation of BMPs may occur simultaneously with the clearing and grubbing operations. Install BMPs to establish perimeter control of the project in areas where it is anticipated that storm water runoff will leave the project.

(2) Maintenance**:** All installed erosion and pollution control BMPs shall be maintained in a manner that preserves their effectiveness until all Construction General Permit requirements are met. If any BMP in place does not provide adequate protection, at any time during the project, alternate BMPs to provide effective control shall be provided. The obligation to conduct formal inspections and complete an associated report every 14 days and within 24 hours of a rainfall event of ½ inch or more does not limit or otherwise modify the Contractor's obligation to monitor and maintain temporary erosion and pollution control BMPs daily.

(3) Any deficiencies noted shall be corrected by the Contractor prior to the next anticipated rain event or within 7 calendar days of the inspection, whichever occurs first, despite weather conditions that make it difficult (but not impossible) to perform corrections. The Contractor shall receive no additional time for making corrections unless approved by the City.

(4) Removal: Completely remove BMPs from the site when they are no longer needed, unless approved by the City to remain in place for permanent stabilization or biodegradation. After removing BMPs, remove and dispose of accumulated sediment and permanently stabilize disturbed areas.

c. Maximum Areas Of Disturbance At One Time

Limit the erodible earth material exposed by clearing and grubbing, excavation, borrow and embankment operations according to the capability and progress, and in keeping with the approved schedule. Existing vegetation shall be preserved or retained as long as practical and the time period for soil areas to be without permanent surface or vegetative cover shall be minimized.

Unless requested in writing from the Contractor, and approved in writing by the City, or specified otherwise on the plans, do not exceed 750,000 square feet (17.2 acres) of surface area of erodible earth material at one time.

Disturbed areas which have been graded, stabilized and restricted from access will not count toward the 750,000 square feet limit.

d. Stabilization Of Disturbed Areas

Immediately initiate placement of appropriate erosion control BMPs in any exposed steep slope areas where construction activities have permanently or temporarily ceased, and will not resume for a period exceeding 7 calendar days. For vegetative cover areas, in addition to seeding, watering, mulching, and any other required activities related to the planting and establishment of vegetation, utilize other appropriate erosion control BMPs such as erosion control blankets and turf reinforcement mats.

Immediately initiate stabilization on areas that have been disturbed after construction activities have permanently ceased on that portion of the project site. Immediately initiate temporary stabilization BMPs on areas that have been disturbed after construction activities have temporarily ceased on that portion of the project site if construction activities will not resume for a period exceeding 14 calendar days. Temporary stabilization may include establishment of vegetation, geotextiles, mulches or other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further

construction activities take place to re-disturb the area. This stabilization must be completed within 21 calendar days.

e. Construction Near Or In Water Bodies

Restrict construction operations near or in water bodies to those areas essential for the construction of temporary or permanent structures. When no longer required, promptly remove all falsework, piling, temporary crossings and other obstructions caused by the construction.

Minimize the duration of time over which area is disturbed. Once begun, construction shall proceed expeditiously to completion. Use temporary erosion and pollution control BMPs to prevent contamination of adjacent water bodies including the use of turbidity curtains, as approved by the City. Immediately initiate stabilization on areas that have been disturbed after construction activities have ceased on that portion of the project site.

Where practical, do not store equipment or materials (including soil stockpiles) within 50 feet of water bodies. Avoid storing equipment or materials (including soil stockpiles) in flowlines of ditches or other drainage courses. Where such storage is necessary, obtain the City's written approval and include in the SWPPP appropriate BMPs for the storage area.

Temporary channels used to divert flow shall be constructed as shown in detail and shall be stabilized immediately.

Contractor shall not ford live streams with equipment, but shall use temporary stream crossing as detailed in the plans.

f. Borrow Areas

When borrow or plant sites are outside the project limits, Contractor shall obtain all required permits and clearances required for compliance.

g. Dewatering

During pumping or dewatering activities, a manufactured device, or other BMP that provides equal or better performance, for filtering sediments from water shall be provided as approved by the City. Repair and/or replace as necessary to maintain function and integrity.

h. Sediment Removal

Accumulated sediment shall be removed when it exceeds the volumes specified for any particular BMP or when ordered by the City. Sediments removed shall be mixed with other onsite materials and incorporated into project fills, spread loosely across the site, or hauled offsite as necessary. Sediments shall be located and stabilized to prevent erosion of sediment. Sediments hauled offsite shall be dewatered first or hauled in a water tight truck. When hauled offsite, Contractor shall obtain all required permits and clearances required for compliance.

i. Chemical And Waste Controls

(1) Solid Waste: Trash and debris shall be contained and hauled offsite for proper disposal. Floating debris, found in any waterbody on or adjacent to the construction site, shall be removed immediately regardless of source.

(2) Sanitary Waste: Portable facilities shall be properly anchored and not be placed within 20 feet of any storm water inlet.

(3) Chemicals: Shall be stored onsite in their original container. Materials stored outside shall be in closed and sealed water-proof containers and located outside of drainageways or areas subject to flooding.

(4) Leak Prevention: All equipment used onsite shall be free of leaks. No fueling, servicing, maintenance, or repair of equipment shall be done within 50 feet of a water body. Onsite fuel

tanks shall be in good condition, free of leaks or drips, painted brightly for visibility, and monitored daily. All fuel tanks, including mobile trailers, shall be protected by a secondary containment system or earthen berm sized to contain 110% of the full tank volume.
(5) Concrete Washout: Concrete wash or rinse water from concrete mixing equipment, tools and/or ready-mix trucks, etc, shall be contained and not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out shall be designated on site, such that discharges during concrete washout shall be contained in a small area where waste concrete can solidify. If the washout facility is not within view from the pour location, signage will be required to direct the truck drivers.
(6) Spill Reporting and Management: In case of a spill notify the following in accordance with KDHE under part 10 of the Construction General Permit:

U.S. EPA National Response Center:
(24 hours a day) (800) 424-8802
Kansas Division of Emergency Management: (KDEM)
(24 hours a day) (785) 296-8013
or (800) 275-0297
Website: www.ksready.gov
KDHE: (24 hours a day) (785) 296-1679

Spills that pose an immediate threat to public safety or contamination of a water body shall be reported immediately to the Overland Park Fire Department at 911 in addition to the afore mentioned emergency spill contacts.
Notify the City in writing within 24 hours of any chemical, sewage or other material spill which is required to be reported to the KDHE under part 10 of the Construction General Permit. The notification shall include at a minimum the material spilled, location of the spill, and a description of containment or remediation actions taken. This notice to the City does not relieve the Contractor of responsibility to report to the KDHE or to any other agency.
If it is safe to do so, Contractor shall stop the source of any spills or leaks and shall contain spills immediately with an appropriate BMP, earthen berm, sawdust, sand, kitty litter, rags or other absorbents. Contractor shall have the tools, equipment, and supplies necessary for spill response onsite at all times and ready for immediate use. All spills shall be cleaned up and disposed of in accordance with applicable federal, state, and local regulations.

33.3 TEMPORARY EROSION CONTROL

a. Compost Cover

(1) Description: Organic material applied with or without seed to protect the soil surface from water and wind erosion.
(2) Materials: Shall meet the requirements of KDOT Section 909 of the Standard Specifications.
(3) Construction Requirements: Soil shall be prepared to eliminate compaction, gullies, depressions, and large clods. Compost shall be uniformly applied to a depth of 1.5 to 2 inches when alone or uniformly applied 1 to 1.5 inches when used in conjunction with seeding operations.
(4) Maintenance: Compost shall be replaced or repaired as needed. Bare spots shall be filled in, by hand if necessary. Vehicle and personnel traffic shall be minimized in areas covered.

b. Erosion Control Blankets (ECB) and Turf Reinforcement Mats (TRM)

(1) Description: Manufactured product placed on bare soil including slopes, channels, ditches, or areas of concentrated flow for short-term, long-term, or permanent protection.

(2) Materials: Shall meet the requirements of KDOT Section 2113 of the Standard Specifications.
(3) Construction Requirements: Install according to the manufacturer's recommendations for trenching, splice and longitudinal overlaps, staple size and staple pattern. In no instance shall the overlaps be less than the minimum shown on the standard details. Installation areas shall be free of erosion rills, rocks, clods or other debris that may cause "tenting" or otherwise inhibit uniform soil contact. To avoid jointing in the center of the channel, install single width of erosion control material in direction of flow. Do not cover erosion control materials with soil or mulch unless recommended by the manufacturer and approved by the City.
(4) Maintenance: Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer. Edges or seams which are loose or frayed shall be secured.

c. Hydraulic Erosion Control
(1) Description: A manufactured product composed of fibrous material mixed with water and hydraulically broadcast as a slurry designed to reduce soil erosion and/or assist in the establishment and growth of vegetation.
(2) Materials: Shall meet the performance standard of the type specified on the plans. The hydraulic erosion control type and performance standard are categorized as shown in Table A below. Manufacturer's product certification for performance and packaging requirements shall be submitted to the City for approval.

Table A - Hydraulic Erosion Control

Type	Estimated Longevity (months)	Typical Application Rate (lb/acre)	Typical Maximum Slope Gradient	Maximum Uninterrupted Slope Length
1	1	1500 - 2500	≤ 5:1	20
2	2	2000 - 3000	≤ 4:1	25
3	3	2000 - 3500	≤ 3:1	50
4	6	2500 - 4000	≤ 2:1	75
5	12	3000 - 4500	≤ 2:1	100

Deliver, store and handle in strict compliance with manufacturer's instructions and recommendations. Protect product from damage due to weather conditions and construction operations.
Water used in this work shall be furnished by the Contractor and will be suitable for irrigation and free from ingredients harmful to plant life. All watering equipment required for the work shall be furnished by the Contractor. Under no circumstances shall the Contractor use water except that metered from adjacent fire hydrants or public water lines.
(3) Construction Requirements: Shall conform to the manufacturer's application rates and installation requirements, or as approved by the City. The soil shall be prepared to eliminate compaction, gullies, depressions, and large clods. Apply from opposing directions to achieve best soil coverage. It is not intended to be applied in channels, swales or other areas where concentrated flows are anticipated.

The Contractor shall schedule the application of the hydraulic erosion control slurry in conjunction with suitable weather on unsaturated soils and allowed to dry 24 hours prior to a rain event in order to ensure the adequacy of the cure.
When specified in the plans or as directed by the City, the Contractor shall apply temporary or permanent seeding to all areas to where hydraulic erosion control will be applied before application occurs. Seeding shall be in accordance with the requirements set forth in the "Seeding" section of this special provision.
The Contractor shall notify the City prior to commencing hydraulic erosion control application operations. If stages of construction have been established by the City, the Contractor shall notify the City upon completing a stage of construction and obtain approval prior to commencing with subsequent stages of construction.
Upon completion of the application operations, the Contractor shall immediately remove all debris and excess materials from the site.
The performance of the hydraulic erosion control product must proceed unabated until the designated area is completed. Areas shall be protected from disturbance including but not limited to foot and vehicle traffic. Any erosion of the area prior to drying shall be repaired by the Contractor at no additional cost to the City. Severe damage to any area caused by the Contractor's activities shall be repaired by the Contractor at no additional cost to the City.
(4) Maintenance: Any damaged areas shall be repaired utilizing the exact blend and application procedure as specified above or as directed by the Engineer.

d. Temporary Slope Drain
(1) Description: Flexible tubing or conduit used to convey concentrated water from the top of a slope down to the toe and thereby preventing erosion over the slope face.
(2) Materials: Shall be metal, plastic, or flexible rubber pipe having a minimum 6 inch diameter. Pipe walls shall be impermeable and not slotted. Standard flared end sections shall be provided at both the inlet and outlet. Energy dissipation shall be provided at the outlet to provide stabilization and prevent scour. The City will accept the material based on the condition of the pipe and visual inspection of the installed drain.
(3) Construction Requirements: Install as shown on the plans. Water shall be directed towards the inlets by the use of temporary berms, silt fence, gravel bags, or other barrier systems shown on the plans or approved by the City.
(4) Maintenance: Accumulation of any visible sediment at the inlet and outlet shall be removed promptly. Outlet conditions shall be repaired if scour is observed. Leaking or damaged sections of pipe shall be repaired immediately. Barriers directing water to the inlet shall be monitored for continuity and effectiveness.

33.4 TEMPORARY POLLUTION CONTROL

a. Biodegradable Log
(1) Description: Commercially manufactured biodegradable sediment barrier of material bound with a containment netting.
(2) Materials: Filler consists of straw, excelsior wood fiber, coconut fiber, jute or other biodegradable material. Containment netting includes open mesh fabric made of jute or light weight plastic. Stakes are per manufacturer's requirements.
(3) Construction Requirements: Install as shown on the plans. Individual units shall be installed in accordance with manufacturer's recommendations. Do not use biodegradable logs manufactured from straw for ditch checks or inlet sediment barriers.

(4) Maintenance: Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of the biodegradable log. Avoid driving over logs and replace segments damaged by vehicles. Replace as necessary to maintain function and integrity of installation.

b. Construction Entrance
(1) Description: Stabilized access point intended to remove mud from vehicle tires to prevent offsite tracking.
(2) Materials: Aggregate shall be clean 2" to 3" coarse aggregate. Geotextile fabric shall be non-woven.
(3) Construction Requirements: Install as shown on the plans or as approved by the City. Remove all vegetation and other unsuitable material from the foundation area, grade and crown for positive drainage. Divert all surface runoff and drainage from the entrance to a sediment control BMP. If conditions warrant, install geotextile fabric under aggregate. Rumble strips, track pads, wash racks, or similar track out prevention BMPs may be needed in conjunction with construction entrance.
(4) Maintenance: Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

c. Temporary Ditch Check
(1) Description: Barriers used to impede concentrated flow to allow settlement of soil particles.
(2) Materials: Rock shall consist of clean aggregate free of deleterious material. Refer to "Ditch Check" Standard Detail for sizing. Synthetic Sediment Barriers and Biodegradable Logs shall meet the material requirements given by other items of this special provision
(3) Construction Requirements: Install as shown on the plans and refer to "Ditch Check" Standard Detail for spacing. Rock shall be keyed into the bottom and sides of slope a minimum of 6 inches. Synthetic Sediment Barriers and Biodegradable Logs shall meet the material requirements given by other items of this special provision
(4) Maintenance: Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of the ditch checks. Replace and reshape as necessary to maintain function and integrity of installation.

d. Temporary Diversion Berm
(1) Description: Earthen berm generally installed along the contour to divert storm runoff or to trap small areas of overland flow. A furrow is typically excavated adjacent to the berm on the upstream side, so as to further establish the drainageway.
(2) Materials: Shall consist of soil material that is capable of being compacted.
(3) Construction Requirements: Install as shown on the plans. Berm shall be compacted until no further consolidation is observed, using a dozer track, grader wheel or other equipment. Berm shall be temporarily stabilized immediately after installation.
(4) Maintenance: Berm shall be reshaped, compacted, and stabilized as necessary to maintain their function. Breaches in the berm shall be repaired immediately.

e. Temporary Filter Berm
(1) Description: Berm or dike of compost or wood mulch to contain and filter storm runoff from small areas of overland flow.
(2) Materials: Compost shall meet the requirements of KDOT Section 909 of the Standard Specifications. Wood mulch shall consist of tree and shrub debris ground by mechanical means. Mulch sizing may vary with a maximum width of 2 inches and a maximum length of 10 inches.

(3) Construction Requirements: Place in un-compacted windrows as shown on the plans. The berm shall be of uniform height and width. (Refer to "Filter Berm" Standard Detail). Do not use filter berms in concentrated flow paths.
(4) Maintenance: Berm shall be reshaped and material added as necessary to maintain function and dimensions. Breaches in the berm shall be repaired promptly.

f. Filter Sock
(1) Description: Commercially manufactured mesh bags containing permeable material to slow and filter stormwater runoff.
(2) Materials: Filler shall consist of clean coarse aggregate ½" to 1" diameter; compost meeting the requirements of KDOT Section 909 of the Standard Specifications; or other permeable filler material. Mesh Bag shall consist of pervious non-biodegradable material having a minimum unit weight of 4 ounces per square yard. The Mullen burst strength shall exceed 300 pounds per square inch per ASTM D3786 and shall have ultraviolet stability exceeding 70% per ASTM D4355.
(3) Construction Requirements: Shall be located as shown on the plans and installed in accordance with manufacturer's recommendations.
(4) Maintenance: Remove any visible accumulation of sediment. Replace as necessary to maintain function and integrity of installation.

g. Temporary Inlet Sediment Barrier
(1) Description: A variety of BMPs or procedures used to allow water to enter a stormwater inlet while filtering or temporarily impeding the flow sufficiently to reduce the quantity of sediment carried.
(2) Materials: Filter sock, synthetic sediment barriers, silt fence, and rock ditch checks shall meet the material requirements given by other items of this special provision. Prefabricated BMPs or alternative systems may be used with the City's approval.
(3) Construction Requirements: Install as shown on the plans. Filter sock, synthetic sediment barriers, silt fence, and rock ditch checks shall meet the construction requirements given by the respective items of this special provision. Placement shall not increase the risk of flooding or other hazards.
Inlets under construction may block or impede flow and shall provide an excavated area around inlet to allow settling of soil particles. Completed and existing inlets shall allow runoff to enter the inlet and be protected with stabilization and filter sock or similar.
(4) Maintenance: Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible. Repair or replace as necessary to maintain function and integrity of installation.

h. Temporary Sediment Basin
(1) Description: Reservoir and embankment with engineered spillways and surface dewatering that is constructed to intercept sediment-laden runoff from large areas and provide retention to settle out soil particles.
(2) Materials: Refer to "Temporary Sediment Basin" Standard Detail for material requirements.
(3) Construction Requirements: Embankment, reservoir, spillway and appurtenances shall be constructed as shown on the plans and "Temporary Sediment Basin" Standard Detail. Surface dewatering shall be achieved by use of skimmer or other approved equivalent. Baffles are required. Basin shall be stabilized immediately following installation.

Construction warning fence shall be installed around the perimeter of the pond and warning signs erected when directed by the City.
Construction of the sediment basin shall be carried out in a manner such that it does not result in sediment problems downstream.
(4) Maintenance: Check sediment basins after periods of significant runoff. Remove sediment and restore the basin to its original dimensions when sediment accumulates to 20% of the storage capacity. Immediately repair any erosion damage to the embankment and outlets. Repair and/or replace baffles as necessary to maintain function and integrity of installation. Keep outlet, skimmer, and pool area free of all trash and other debris.

i. Temporary Sediment Trap
(1) Description: Reservoir and embankment with a stone outlet that is constructed to intercept sediment-laden runoff and provide retention to settle out soil particles.
(2) Materials: As shown on the plans and "Temporary Sediment Trap" Standard Detail.
(3) Construction Requirements: Install as shown on the plans and "Temporary Sediment Trap" Standard Detail. Trap shall be stabilized immediately following installation.
(4) Maintenance: Check sediment traps after periods of significant runoff. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity. Immediately repair any erosion damage to the embankment and outlet. Keep outlet and pool area free of all trash and other debris.

j. Silt Fence
(1) Description: Barrier of geotextile fabric generally installed along the contour to divert and/or contain storm runoff to allow settlement of soil particles.
(2) Materials: Geotextile Fabric shall consist of material that complies with AASHTO M 288 for unsupported silt fence, with 4 ft. maximum post spacing.
Provide wood, steel, or synthetic posts of sufficient strength to resist damage during installation and to support the applied loads. Length is to be a minimum of 4 feet. Hardwood posts having dimensions of at least 1 3/16 x 1 3/16 inch, No. 2 Southern Pine at least 2 ⅝ x 2 ⅝ inch or steel posts of U, T, L, or C shape, weighing 1.33 lbs per foot minimum are satisfactory.
When conditions warrant, supplement the silt fence with woven-wire fencing with a minimum wire gage between 9 and 14 and a maximum mesh spacing of 6 inches in all directions. Wire-supported fence requires steel posts.
(3) Construction Requirements: Install as shown on the plans and "Silt Fence" Standard Detail. Installation shall be made by a specialized machine capable of inserting the fence securely into the ground with a slicing method and firmly compacting the slice closed. Trenching will only be allowed for small or difficult areas where slicing cannot be reasonably used. Silt fence shall be firmly embedded and anchored to the ground such that runoff cannot undermine the fence. Joints in silt fence shall overlap to prevent leakage. Securely attach the fabric to the upstream side of post with staples or plastic zip ties.
(4) Maintenance: Remove and dispose of sediment deposits when the deposit approaches ⅓ the height of the silt fence. Repair as necessary to maintain function and structure.

k. Synthetic Sediment Barrier
(1) Description: Commercially manufactured BMP such as Geo-Ridge Permeable Berm™, Triangular Silt Dike™ or equivalent used for slope barriers or ditch checks. The synthetic sediment barrier shall be accepted based on the City's Approved Materials List or as approved by the City.
(2) Materials: Shall conform to the manufacturer's specifications.

(3) Construction Requirements: Shall be located as shown on the plans. Individual units shall be installed in accordance with manufacturer's recommendations.
(4) Maintenance: Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of the barrier. Replace as necessary to maintain function and integrity of installation.

l. Temporary Stream Crossing
(1) Description: Culvert crossing, stream ford, or temporary bridge constructed in a water body to allow construction access and crossing.
(2) Materials: As shown on the plans and Temporary Stream Crossing Detail.
(3) Construction Requirements: Construct as shown on the plans. When the Contractor's operations require a temporary stream crossing, and one is not shown on the plans, the Contractor shall notify the City and comply with all applicable rules and regulations, obtain all required permits and provide copies of all permits to the City.
Before beginning work in the streambed, record existing stream channel elevations.
Place 1 pipe buried 6 inches into the stream bottom, in the lowest point of the channel to allow the passage of aquatic organisms, with additional pipes placed along the remainder of the stream channel bottom such that ordinary high water (OHW) flows designated on the plans shall flow through the pipes without overtopping the crossing. If the OHW is not designated on the plans, the City will determine the OHW.
Submit to the City for review and approval, the design flow calculations to determine the number and diameter of pipes required. A minimum 12 inch diameter pipe is required, place pipes parallel to flow, and cover pipes with a minimum of 12 inches of clean aggregate fill.
(4) Maintenance: Repair stream bank erosion by stabilizing with erosion control BMPs such as erosion control blankets. For in-stream degradation, armor the culvert outlet(s) with riprap to dissipate energy. If sediment or debris is accumulating upstream of the crossing, remove as needed to maintain the functionality of the crossing.
If a temporary crossing is requiring excessive maintenance, replacement with a larger culvert or alternate design may be necessary. Remove the temporary crossing as soon as no longer needed. Restore the disturbed bed and bank area of the stream channel to its pre-existing elevation and stabilize immediately. Take care to minimize the amount of sediment lost into the stream upon removal.

m. Storm Water Pollution Prevention Plan (SWPPP)
Projects disturbing 1 or more acres shall have a SWPPP in accordance with the Construction General Permit. Projects disturbing less than 1 acre, neither Construction General Permit coverage nor a SWPPP will be required. Even though a SWPPP is not required, the Contractor is required to comply with the City Ordinances and utilize appropriate BMPs to minimize stormwater pollution.
Prior to the Pre-construction conference, the Contractor shall provide the following SWPPP components for approval by the City:
(1) A detailed schedule of work to include phasing; overall job completion; and timing, duration, and sequencing of erosion and pollution control BMPs.
(2) Written recommendations to amend or modify the Erosion and Sediment Control Plans to meet the Contractor's method of operations. The Contractor shall also advise the City of any omissions or deficiencies they find in the SWPPP.
(3) The City's Contractor Certification Form for discharge of stormwater runoff from construction activities.
(4) Certification of KDOT's Environmental Inspector Training and Environmental Manager Training for designated Environmental Inspector and Water Pollution Control Manager.

(5) Contractor shall indicate the following additional BMPs, as applicable, to minimize or eliminate contamination of stormwater runoff:

(i) Equipment and vehicle washing area;
(ii) Chemical, fuel and material storage area(s);
(iii) Construction entrance(s)
(iv) Stockpile(s)
(v) Dewatering
(vi) Location and type of waste management including but not limited to: solid (scrap material, product/shipping material, food containers and cups, etc); sanitary (portable toilet); paints, solvents, and cleaning compounds; concrete washout

A copy of the SWPPP shall be retained and available onsite. Copies of SWPPP inspections, as detailed in subsection 1.2.l of this special provision, shall be retained within the SWPPP.

The SWPPP shall be maintained to reflect modifications or amendments to the plans until all Construction General Permit requirements are met. During the progress of the job, the effectiveness and performance of the BMPs used shall be monitored and additional modifications and amendments proposed as needed. Update the SWPPP Erosion and Sediment Control Plans as work progresses to show changes due to revisions in work schedules or sequence of construction, or as directed by the City. Update the Erosion and Sediment Control Plans to reflect BMPs that have been installed or removed.

n. Water Pollution Control Manager

A Water Pollution Control Manager (WPCM) will be required for all projects disturbing 1 or more acres. The WPCM will visit the Project during normal work hours on a frequent basis and in no instance less than once per week once construction activities commence and until all Construction General Permit requirements are met. The WPCM shall thoroughly review the project and SWPPP documentation during these site visits to ensure the Contractor's compliance with this specification and with the Construction General Permit. In addition, the WPCM shall:

(1) Have the authority to supervise all work performed by the Contractor and subcontractors that involves stormwater requirements or affects stormwater compliance;
(2) Have the responsibility to order Contractor employees and subcontractors to take appropriate corrective action to comply with stormwater requirements, including requiring any such person to cease or correct a violation of stormwater requirements and to order or recommend such other actions or sanctions as necessary to meet stormwater requirements;
(3) Be familiar with the SWPPP;
(4) Be responsible for updating the SWPPP to accurately reflect the BMPs in use on the Project;
(5) Be the point of contact for the City regarding stormwater compliance;
(6) Attend the pre-construction conference and scheduled weekly project progress meetings between the City and Contractor
(7) Have obtained KDOT's Environmental Inspector Training and Environmental Manager Training certifications within the thirty-six months prior to beginning construction activities. These certifications shall be maintained for the duration of the project;
(8) Be responsible for reviewing inspection reports within 3 days after receiving such reports, acknowledging awareness of any deficiencies and ensuring the correction of all deficiencies.
(9) Maintain and monitor an active email account capable of receiving electronic communications including inspection reports, photos and other documents relevant to stormwater compliance.

The WPCM may, when practical, perform SWPPP Inspections according to subsection titled "SWPPP Inspections" of this special provision. Immediately notify the City in writing if the designated

WPCM is replaced. The replacement WPCM shall comply with the above requirements. The notification shall include training certificates and contact information for the replacement WPCM.

o. SWPPP Inspections

SWPPP inspections shall be performed for all projects disturbing 1 or more acres. SWPPP inspections shall be performed by the Contractor's Environmental Inspector. The Environmental Inspector shall have completed KDOT's Environmental Inspector Training within the last thirty-six months. These certifications shall be maintained for the duration of the project. Where practical, the WPCM may also serve as Contractor's Environmental Inspector.

The Contractor's Environmental Inspector shall perform an inspection of the temporary erosion and pollution control BMPs every 14 days during normal work hours and within 24 hours of a rainfall event of ½ inch or more. Inspections shall continue at this frequency once construction activities commence and until all Construction General Permit requirements are met. Document the SWPPP inspections on the City's inspection form titled "Stormwater Construction Site Inspection Report" (City's Inspection Form). The Contractor's Environmental Inspector shall sign the report.

Submit, via email, completed and signed copies of City's Inspection Form to the City and Contractor's WPCM within 24 hours of the inspection. The WPCM shall review and sign the City's Inspection Form, and retain in the SWPPP within 3 calendar days of receipt. The WPCM's signature acknowledges awareness of all reported deficiencies and corrective actions required to be taken prior to the next anticipated rain event or within 7 calendar days of the inspection, whichever occurs first.

p. Stormwater Compliance Disincentive Assessment

In case of failure on the part of the Contractor to follow a requirement in this special provision; Part 7, Part 10, and Part 11 of the Construction General Permit, (or equivalent provisions in the event section numbers change in any future Permit), the Contractor shall pay the City a stipulated disincentive, not a penalty, to compensate the City for the probable and presumptive loss to the City for the Contractor's breach of its obligation under this special provision, according to the amount specified in the following schedule:

Deficiency	Amount
Failure to perform and/or document an inspection at least once every 14 days and within 24 hours after storm events with precipitation of 0.5 inches or greater. (CGP 7.2.10). Each failure is counted as one deficiency.	$250.00 each
Failure to correct a documented BMP deficiency prior to the next anticipated rain event, or within 7 calendar days, whichever occurs first (CGP 7.2.10). Each failure is counted as one deficiency.	$250.00 per calendar day for each
Failure to maintain the SWPPP to include, but not limited to, required documentation, updates, and modifications to site conditions and BMPs (CGP 7.3). Each omission is counted as one deficiency.	$50.00 each

The Stormwater Compliance Disincentive Assessment will be deducted from contract funds. The disincentive assessment(s) are in addition to federal and state statutory penalties and fines that are allowed against the Contractor under the Clean Water Act and other environmental laws for violation of those laws.

Nothing in this special provision prevents KDHE, EPA, or both from assessing penalties and fines against the Contractor because of the Contractor's failure to comply with applicable laws,

regulations, ordinances, Construction General Permit, other permits, the SWPPP, governmental administrative compliance orders or corrective orders for the Project, or a combination thereof.

33.5 MEASUREMENT AND PAYMENT

(1) "Water Quality Control Manager" shall be measured per each calendar week (Sunday through Saturday) at the contract unit price that the Contractor provides a WPCM in accordance with this special provision. Each week will be measured only once, regardless of the number of site visits or time spent performing WPCM duties.

(2) "SWPPP Inspection" shall be measured per each inspection performed in compliance with this special provision at the contract unit price. No direct payment shall be made for follow up visits to verify corrective actions have been completed for reported deficiencies as they are considered subsidiary.

(3) "Compost Cover" will be measured per cubic yard at the contract unit price. No direct payment shall be made for the maintenance and removal as they are considered subsidiary. When Compost Cover is used in conjunction with permanent or temporary seeding operations, seeding shall be paid separately.

(4) "Erosion Control Blanket (Class & Type)" will be measured per square yard of surface area covered and paid for at the contract unit price for the class and type specified. No direct payment shall be made for the maintenance and removal as they are considered subsidiary. When Erosion Control Blanket is used in conjunction with permanent or temporary seeding operations, seeding shall be paid separately.

(5) "Turf Reinforcement Mat (Class & Type)" will be measured per square yard of surface area covered and paid for at the contract unit price for the class and type specified. No direct payment shall be made for the maintenance and removal as they are considered subsidiary. When Turf Reinforcement Mat is used in conjunction with permanent or temporary seeding operations, seeding shall be paid separately.

(6) "Hydraulic Erosion Control (Type)" will be measured per ton and paid for at the contract unit price for the type specified. No direct payment shall be made for the maintenance as it is considered subsidiary. When Hydraulic Erosion Control is used in conjunction with permanent or temporary seeding operations, seeding shall be paid separately.

(7) "Temporary Slope Drain" will be measured per linear foot and paid for at the contract unit price. No direct payment shall be made for end sections, outlet protection, barriers, maintenance, and removal as they are considered subsidiary.

(8) "Biodegradable Log (Size)" of specified diameter will be measured per linear foot and paid for at the contract unit price for the size specified. No direct payment shall be made for maintenance and removal as they are considered subsidiary.

(9) "Construction Entrance" will be measured by the square yard of aggregate placed and paid for at the contract unit price. No direct payment shall be made for geotextile fabric, track out prevention BMPs, and maintenance and removal as they are considered subsidiary.

(10) "Temporary Ditch Check (Type)" will be measured per each and paid for at the contract unit price for the type specified. No direct payment shall be made for maintenance and removal as they are considered subsidiary.

(11) "Temporary Diversion Berm" will be measured per linear foot and paid for at the contract unit price. No direct payment shall be made for stabilization, maintenance, and removal as they are considered subsidiary.

(12) "Temporary Filter Berm" will be measured per linear foot and paid for at the contract unit price. No direct payment shall be made for maintenance and removal as they are considered subsidiary.

(13) "Filter Sock (Size)" will be measured per linear foot and paid for at the contract unit price of the size specified. No direct payment shall be made for maintenance and removal as they are considered subsidiary.
(14) "Temporary Inlet Sediment Barrier (Type)" will be measured per each and paid for at the contract unit price for the type specified. Each inlet will be measured only one time for the duration of the project and no direct payment shall be made for maintenance and removal as they are considered subsidiary.
(15) "Temporary Sediment Basin" will be measured by the lump sum and paid for at the contract unit price. No direct payment shall be made for rock, stabilization, baffles, skimmer, maintenance, and removal as they are considered subsidiary.
(16) "Temporary Sediment Trap" will be measured per each and paid for at the contract unit price. No direct payment shall be made for rock, stabilization, maintenance, and removal as they are considered subsidiary.
(17) "Silt Fence" or "Silt Fence (Wire-Supported)" as applicable will be measured per linear foot and paid for at the contract unit price. No direct payment shall be made for maintenance and removal as they are considered subsidiary.
(18) "Synthetic Sediment Barrier (Type)" will be measured per linear foot and paid for at the contract unit price for the type specified. No direct payment shall be made for maintenance and removal as they are considered subsidiary.
(19) "Temporary Stream Crossings" will be measured per each and paid for at the contract unit price. No direct payment shall be made for rock, pipe, stabilization, maintenance, and removal as they are considered subsidiary. No payment will be made for installation of temporary stream crossings not shown the on the plans.
(20) No payment will be made for replacing BMPs that become ineffective because of improper installation, lack of maintenance or the Contractor's failure to pursue timely installation of additional BMPs, including permanent erosion control BMPs, as shown on the plans. When BMPs are installed as shown on the plans or as approved by the Engineer and such BMPs are no longer effective because of deterioration or functional incapacity, payment will be made for replacement of these BMPs, as approved by the City.
(21) No measurement or payment will be made for dewatering as the use of such BMPs shall be subsidiary to other bid items.
(22) No measurement or payment will be made for sediment removal as it shall be subsidiary to other bid items.

34 - THERMOPLASTIC PAVEMENT MARKING (24") (WHITE)

34.1 DESCRIPTION

This work shall consist of furnishing and applying white 24-inch thermoplastic pavement markings in accordance with the plans, these Specifications, and the latest edition of the Kansas Department of Transportation (KDOT) Standard Specifications for State Road and Bridge Construction, Section 2211, except as otherwise modified herein.

The thermoplastic markings shall be used for crosswalks, stop bars, and other pavement markings where durable and highly visible delineation is required.

34.2 MATERIALS

a. Thermoplastic Material

Thermoplastic pavement marking material shall be alkyd-based and shall conform to the requirements of AASHTO M 249 and Section 2211 of the KDOT Standard Specifications. The material shall be suitable for application by extrusion, ribbon, or screed methods. Retroreflective glass beads shall be incorporated into the thermoplastic mixture and applied to the surface immediately after placement.

b. Color

The color of the thermoplastic marking shall be white and shall conform ASTM D 6628.

c. Glass Beads

Glass beads shall meet the requirements of AASHTO M 247, Type I or Type III, and shall be applied uniformly at a rate recommended by the manufacturer to achieve adequate retroreflectivity.

d. Certification

The Contractor shall furnish the Engineer with manufacturer's certification that all thermoplastic material and glass beads conform to the applicable specifications. Each shipment shall include a batch number and date of manufacture.

34.3 CONSTRUCTION REQUIREMENTS

a. Surface Preparation

The pavement surface shall be clean, dry, and free from dirt, oil, grease, curing compound, dust, or any other material that may impair adhesion. All surfaces shall be prepared in accordance with the manufacturer's recommendations and these Specifications.

b. Application

Thermoplastic pavement markings shall be applied only when the pavement surface temperature is above 50°F (10°C) and rising, and when ambient conditions are such that the application will result in proper adhesion and performance. The molten material shall be maintained within the manufacturer's specified temperature range, typically between 400°F and 440°F. The material shall be applied in a uniform layer with a minimum thickness of 90 mils (2.3 mm) when extruded.

Glass beads shall be uniformly applied to the surface of the molten thermoplastic immediately after application at a rate of approximately 6 to 10 pounds per 100 square feet to ensure adequate nighttime visibility.

c. Alignment and Tolerances

Markings shall be applied to the alignment and dimensions shown on the plans. The edges of the markings shall be clean-cut and true to line. Deviations shall not exceed 1 inch in 50 feet. Where markings are out of tolerance or damaged, they shall be removed and replaced at the Contractor's expense.

d. Protection and Curing

Newly applied markings shall be protected from traffic until they are fully set and do not track or pick up under traffic. Temporary barricades, cones, or other approved methods shall be used to protect the markings until they have cooled and hardened.

34.4 MEASUREMENT AND PAYMENT

The Engineer will measure Thermoplastic Pavement Marking (24") (White) by the linear foot of line satisfactorily applied and accepted.

Payment for "Thermoplastic Pavement Marking (24") (White)" at the contract unit price bid per linear foot is full compensation for furnishing all materials, labor, equipment, surface preparation, removal of loose materials, application of thermoplastic, application of glass beads, protection during curing, and all incidental items required to complete the work in accordance with these Specifications.

No separate payment will be made for removal of existing markings unless designated as a separate pay item.

35 - SIGNING

35.1 DESCRIPTION

Proposed added signing shall conform to the Manual on Uniform Traffic Control Devices (MUTCD), latest adopted revision, the Overland Park Traffic Control Handbook for Street Maintenance and Construction Operations, the latest edition of the Kansas Department of Transportation (KDOT) Standard Specifications for State Road and Bridge Construction and the plans.

35.2 CONSTRUCTION REQUIREMENTS

a. Footings

Perforated Square Steel Tube Post Footings. Install the perforated square steel tube post footings plumb as shown in the Contract Documents. Do not damage the galvanized coating during installation or alter the cross-sectional dimensions of the perforated square steel tubes. Remove and replace any footing damaged during the perforated square steel tube installation.

b. Post Installation

Perforated Square Steel Tube Posts. Install and attach the perforated square steel posts in the footings as detailed in the Contract Documents

c. Sign Installation

Mount the signs as shown in the Contract Documents. Position the signs so the sign face is vertical. If required for installation, drill the holes in the fabricated signs from the sign face sheeting side. After the sign is installed, the post shall be plumb and secure.

35.3 METHOD OF MEASUREMENT

The City will measure signing as a lump sum that includes all materials specified in the project plans. No direct payment will be made for any associated items included with executing this work.

No direct payment will be made to remove and reset any impacted sign.

Payment for “Signing” at the contract lump sum price bid is full compensation for the specified work.

36 - TRAFFIC CONTROL

36.1 DESCRIPTION

Traffic Control shall conform to Part VI of the Manual on Uniform Traffic Control Devices (MUTCD), latest adopted revision, the Overland Park Traffic Control Handbook for Street Maintenance and Construction Operations, the City of Overland Park standard details for traffic control and the plans. Construction operations shall be coordinated to result in the least practicable delay to traffic.

36.2 CONSTRUCTION REQUIREMENTS

The Contractor shall furnish and maintain adequate signs, barricades, warning lights, pavement markings as applicable and all other equipment necessary to direct and reroute traffic in a safe and effective movement through and around the work area. The Contractor shall furnish all flaggers and other personnel necessary to provide the required traffic control.

a. Placement

Traffic control devices, barricades, and signs shall be installed at the inception of construction. The traffic control devices, barricades, and signs shall be properly spaced and properly maintained and/or operated during the time construction and/or special conditions exist on the project. Appropriate traffic control shall be provided for all aspects of work, including work by any sub-contractor.

b. Access

Streets with no other outlet shall be open to traffic at all times. Access to private driveways shall be maintained insofar as possible. Businesses with two driveways shall have only one driveway closed at one time. Contractor shall provide access to businesses and residents with only one driveway at all times.

c. Changes

The City shall approve any variations from the traffic control plans.

36.3 METHOD OF MEASUREMENT

The City will measure traffic control by the lump sum, including all signs, barricades, warning lights, flaggers, temporary pavement markings and all other equipment necessary to safely direct and control traffic.

Payment for "Traffic Control" at the contract lump sum price bid is full compensation for the specified work.

37 - CONTRACTOR CONSTRUCTION STAKING

37.1 DESCRIPTION

This work shall be performed in accordance with KDOT Section 802 of the Standard Specifications as amended herein. The Contractor shall set construction stakes establishing all lines, slopes, continuous profile-grades, centerlines, and benchmarks necessary to control and perform the work.

37.2 CONSTRUCTION REQUIREMENTS

a. Vertical Control

Prior to construction Johnson County Bench Marks that will be damaged or removed by construction shall be replaced by a benchmark outside of construction area. New benchmarks shall be an aluminum cap (caps will be furnished by the County) set in a rigid concrete structure. A hole shall be drilled into concrete and the cap grouted into place. The preferred locations are traffic signal bases, culvert headwalls and bridge handrails. A standard monument record sheet shall be completed for each permanent benchmark. Elevations shall be determined with a double rod level run using digital level and bar code rods and shall tie into Johnson County vertical control network at each end of the level run. Level runs shall close within 0.1 ft. per 4 miles. Level run data shall be furnished in digital and paper format. Mapping grade state plane coordinates shall also be provided. This effort shall be coordinated with the Johnson County Public Works Department County Surveyor.

b. Horizontal Control

Prior to construction Section Corner and quarter section corners shall be referenced to points outside construction and a Land Corner Endangerment Report submitted to the Kansas State Historical Society and the County Engineer within 30 days of the survey as required by state law. During construction the surveyor will coordinate with contractor on the placement of the monument box. After construction the surveyor shall use his previous reference ties and preliminarily mark the aluminum cap. This location shall be checked with coordinates from the design survey to insure that the ties match the previous coordinates. If within tolerance the aluminum cap shall be punched at the proper location. New Land Corner Reference Reports with updated references shall be submitted to the Kansas State Historical Society and the County Engineer within 30 days of the survey as required by state law.

c. Property Corners

The Contractor shall locate all existing property corners within the project limits prior to commencing construction. All existing property corners shall be marked and protected. Property corners anticipated to be disturbed during construction shall be located by ties and shall be reset by the Contractor at the termination of construction activities. All property surveying shall be performed by a qualified land surveyor registered in the State of Kansas.

d. KCP&L Conduits

A stamped sealed survey shall be provided by the Contactor for all conduit installed as part of the contract.

e. Swale Staking

The Contractor shall set cut stakes for all rough swale grading and shall maintain or reset such stakes for checking of the grade as required by the City. Final grade for the swales and berms shall be established by "blue top" surveying or other approved method, and grade devices shall be maintained for inspection by the City prior to sodding.

37.3 MEASUREMENT AND PAYMENT

The City will measure contractor construction staking by the lump sum.

Payment for “Contractor Construction Staking” at the contract lump sum price bid is full compensation for the specified work, which shall include all staking, establishing vertical and horizontal control points and property corner resetting.

Resetting of any vertical and horizontal control monuments or property corners that are disturbed that are not shown in the plans are subsidiary to Contractor Construction Staking.