

CHICKASHA MUNICIPAL AUTHORITY

AGENDA

LOCATION OF MEETING
CITY HALL COUNCIL CHAMBERS
117 NORTH FOURTH STREET
CHICKASHA, OKLAHOMA 73018

TIME OF MEETING
6:30 PM

DATE OF MEETING
JUNE 3, 2024

All items on this agenda, including but not limited to any agenda item concerning the adoption of any ordinance, resolution, contract, agreement, or any other item of business, are subject to amendment, including additions and/or deletions. This rule will apply to every individual agenda item without exception, and without providing this same amendment language with respect to each individual agenda item. Such amendments should be rationally related to the topic of the agenda item, or the governing body will be advised to continue the item.

The governing body may adopt, approve, ratify, deny, defer, recommend, amend, strike, or continue any agenda item. When more information is needed to act on an item, the governing body may refer the matter to its City/Trust Manager, staff, attorney or to the recommending board, commission or committee.

- 1. Call to Order / Roll Call.**
- 2. Consent Docket:**
 - a. Acceptance of the Minutes of the May 20, 2024, regular meeting.
 - b. Acceptance of the Claims List.
 - c. Accept and ratify renewal of medical, dental and vision insurance plans and Insure Ok application for the 2024-2025 plan year.
- 3. Discussion/Approval of Items Removed from Consent Docket:**
- 4. Consideration and Discussion Items:**

- a. Discussion, consideration and possible action to accept and ratify Ordinance No. 2024-03 - AN ORDINANCE AMENDING THE EMPLOYEE RETIREMENT SYSTEM, DEFINED BENEFIT PLAN FOR THE CITY OF CHICKASHA, OKLAHOMA; PROVIDING RETIREMENT BENEFITS FOR ELIGIBLE EMPLOYEES OF THE CITY OF CHICKASHA, OKLAHOMA; PERTAINING TO VESTING OPTIONS; PROVIDING FOR REPEALER AND SEVERABILITY; AND DECLARING AN EMERGENCY .
- b. Discussion, consideration, and possible action to approve Change Order No. 2 for Marsau Enterprises, Inc. in the amount of \$17,685.65 for CMA-2302 - a/k/a 18608 CDBG 22 - Water Distribution Improvements and authorize the Mayor to execute the same.
- c. Discussion, consideration, and possible action to authorize Staff to solicit bids for CMA-2402 - Drainage Structure Improvements Project.

5. Motion for Adjournment.

CHICKASHA



Meeting Type: CMA Agenda 6-3-2024

Meeting Date: 6/3/2024

Department: City Clerk

Agenda Item No. 2.a.

AGENDA ITEM: Acceptance of the Minutes of the May 20, 2024, regular meeting.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Accept the Minutes of the May 20, 2024, regular meeting.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director:

Fund	Account	Amount
(To)		
FUND	ACCOUNT	AMOUNT
(From)		

Meeting Date:
June 3, 2024

V. ATTACHMENTS:

1. CMA 5-20-2024

May 20, 2024

The **REGULAR** meeting of the **CHICKASHA MUNICIPAL AUTHORITY** was held in the council chambers in city hall on the 20th day of May 2024 as specified by advance public notice with a properly prepared agenda stating the subject matter or matters to be discussed at said meeting. Chairman Grayson called the meeting to order at 9:47 p.m.

ITEM 1.

Call to Order / Roll Call:

CHAIRMAN AND TRUSTEES

PRESENT:

Zachary Grayson, Chairman
Georgianne Hebblethwaite, Vice Chairman
Kelly Boyd
Oscar Nelson
Kea Ginn
John P. Smith
Erica Alexander
Charlie Burruss
Brian Gerdes

ABSENT:

None.

STAFF

PRESENT:

Amanda Mullins, City Attorney
Rachel Bernish, Asst. City Manager
Susan M. McDaniel, City Clerk
J. Myrko, Police Dept.
Robert Brooks, Comptroller
Tony Samaniego, Fire Chief
Darren Martin, Chief Building Inspector
Spencer Winzenried, Parks and Recreation Director
Lillie Huckaby, Library Director
Elaine Jensen, Finance Director
Shae Mortimer, Marketing and Civic Engagement Manager

ITEM 2.

Consent Docket: ITEM 2a – ITEM 2c.

ITEM 2a.

Acceptance of the Minutes of May 6, 2024, regular meeting.

ITEM 2b.

Acceptance of the Claims List.

ITEM 2c. Accept and ratify Resolution 2024-12R amending the FY 23-24 Budget.

*Motion by Trustee Nelson, second by Trustee Hebblethwaite to approve Items 2a – 2c.

Roll call vote:

Ayes:” Boyd, Nelson, Ginn, Hebblethwaite, Smith, Alexander, Gerdes and Grayson.

“Nays:” None

“Abstain:” Burruss

Motion carried. 8-0-1

ITEM 3. Discussion / Approval of Items Removed from Consent Docket:

No action taken on Item 3.

ITEM 4. Motion to Adjourn.

*Motion by Trustee Gerdes, second by Trustee Hebblethwaite to adjourn.

Meeting adjourned.

TIME: 9:48 PM

Approved this 3rd day of June 2024.

Zachary Grayson, Chairman

(ATTEST)

Susan M. McDaniel, CMC
City Clerk

CHICKASHA



Meeting Type: CMA Agenda 6-3-2024

Meeting Date: 6/3/2024

Department: Finance

Agenda Item No. 2.b.

AGENDA ITEM: Acceptance of the Claims List.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Accept of the Claims List.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director:

Fund	Account	Amount
(To)		
FUND	ACCOUNT	AMOUNT
(From)		

Meeting Date:

June 3, 2024

V. ATTACHMENTS:

CHICKASHA

Meeting Type: CMA Agenda 6-3-2024

Meeting Date: 6/3/2024

Department: Human Resources

Agenda Item No. 2.c.

AGENDA ITEM: Accept and ratify renewal of medical, dental and vision insurance plans and Insure Ok application for the 2024-2025 plan year.

I. BACKGROUND/DESCRIPTION:

MEDICAL:

BCBS initial medical review was 34% from current, an aggressively negotiated no-shop renewal was agreed upon to get to 26% from current. Renewing with the current plan changes for a 19% increase from current.

\$1,000 deductible plan to \$1,250 COC funding 75% for each tier.

\$2,500 deductible plan to \$3,500 COC funding 80% for each tier.

Dental/Vision Recommendation: Move to Equitable for cost savings.

- Dental & Vision 24-month rate guarantee

GROUP LIFE/VOL LIFE:

Group Life/Vol Life Recommendation: Move to The Standard for cost savings.

- Group Life 100% paid by employer; 36-month rate guarantee.
- Vol Life 100% paid by employee; 36-month rate guarantee.

Proposed Funding:

- Block Pricing for Insure OK Option : EO \$70, EO + SP \$190, EO + CH \$150, Family \$250

II. RECOMMENDED ACTION:

Accept and ratify

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

V. ATTACHMENTS:



Meeting Type: CMA Agenda 6-3-2024

Meeting Date: 6/3/2024

Department: Human Resources

Agenda Item No. 4.a.

AGENDA ITEM: Discussion, consideration and possible action to accept and ratify Ordinance No. 2024-03 - AN ORDINANCE AMENDING THE EMPLOYEE RETIREMENT SYSTEM, DEFINED BENEFIT PLAN FOR THE CITY OF CHICKASHA, OKLAHOMA; PROVIDING RETIREMENT BENEFITS FOR ELIGIBLE EMPLOYEES OF THE CITY OF CHICKASHA, OKLAHOMA; PERTAINING TO VESTING OPTIONS; PROVIDING FOR REPEALER AND SEVERABILITY; AND DECLARING AN EMERGENCY .

- I. BACKGROUND/DESCRIPTION:**
- II. RECOMMENDED ACTION:**
Accept and ratify Ordinance 2024-03 as presented.
- III. FISCAL INFORMATION -**
- IV. FUND INFORMATION:**
- V. ATTACHMENTS:**

CHICKASHA

Meeting Type: CMA Agenda 6-3-2024

Meeting Date: 6/3/2024

Department: Public Works

Agenda Item No. 4.b.

AGENDA ITEM: Discussion, consideration, and possible action to approve Change Order No. 2 for Marsau Enterprises, Inc. in the amount of \$17,685.65 for CMA-2302 - a/k/a 18608 CDBG 22 - Water Distribution Improvements and authorize the Mayor to execute the same.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Approve Change Order No. 2 for Marsau Enterprises, Inc. in the amount of \$17,685.65 for CMA-2302 - a/k/a 18608 CDBG 22 - Water Distribution Improvements and authorize the Mayor to execute the same.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director:	Fund	Account	Amount
Jim Crosby, Public Works Director	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: June 3, 2024	(From)		

V. ATTACHMENTS:

- 20240531150353717



Chickasha Municipal Authority
CHANGE ORDER

Project: CMA-2302, a.k.a. 18608 CDBG 22, Water Distribution Improvements		Change Order No. 2
Project Description: Construct new water mains along Missouri Avenue from 4 th Street to 3 rd Street, along Virginia Avenue from Shepherd Street to Henderson Street and along Henderson Street from Virginia Avenue one-half block north; AND install new fire hydrants and valves on existing water mains on 1 st Street, 2 nd Street and Shepherd Street from Alabama Avenue to Missouri Avenue.		
Requested Changes & Reasons: To establish new unit prices for various items of work necessary to complete the project. New Pay Items are 6" PVC pipe "pups", wide range couplings, 18" fire hydrant extensions and 24" fire hydrant extensions.		
Location: Entire project	From or At Station: N/A	To Station: N/A

The above will necessitate the following changes in quantities and estimates, which will be shown as new pay items and quantities on future progressive estimates and vouchers.

NEW ITEMS

Item No.	Item Description	Qty	Units	Unit Price	Unit Total	Days Req'd
CO2.1	6" PVC PUPS	71	LF	\$ 150.15	\$ 10,660.65	0
CO2.2	WIDE RANGE COUPLINGS	17	EA	\$ 300.00	\$ 5,100.00	0
CO2.3	18" FIRE HYDRANT EXTENSION	1	EA	\$ 925.00	\$ 925.00	0
CO2.4	24" FIRE HYDRANT EXTENSION	1	EA	\$ 1,000.00	\$ 1,000.00	0
					\$ 17,685.65	0

OVERRUN: \$ 17,685.65

NET CHANGED DAYS: 0

5/20/2024
Date

R. Scott Vaughn
Project Engineer

Approved by the Chickasha Municipal Authority this _____ day of _____, 20____.

FOR THE
CHICKASHA MUNICIPAL AUTHORITY

Chairman

We, Marsau Enterprises, Inc. contractor on the above project, do hereby agree to a net change in the contract of \$ 17,685.65 and/or 0 days as full compensation for making the above changes in accordance with the governing specifications.

CONTRACTOR

BY: *Terry Alexander*

TITLE: _____

Subscribed and sworn before me this 21st day of May, 2024.

My Commission Expires:

06/16/2024

Kristina G. Taber
Notary Public



CMA-2302 CO2

CHICKASHA

Meeting Type: CMA Agenda 6-3-2024

Meeting Date: 6/3/2024

Department: Public Works

Agenda Item No. 4.c.

AGENDA ITEM: Discussion, consideration, and possible action to authorize Staff to solicit bids for CMA-2402 - Drainage Structure Improvements Project.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Authorize Staff to solicit bids for CMA-2402 - Drainage Structure Improvements Project.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Jim Crosby, Public Works Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: June 3, 2024	(From)		

V. ATTACHMENTS:

1. CHICKASHA CMA-2402 CTNWD DR STR SPECS 24.05.30 FINAL
2. CHICKASHA CMA-2402 CTNWD DR STR DWGS 24.05.30 FINAL



**RFP CMA-2402
DRAINAGE STRUCTURE IMPROVEMENTS PROJECT**

CHICKASHA MUNICIPAL AUTHORITY

CHICKASHA, OKLAHOMA

SPECIFICATIONS & CONTRACT DOCUMENTS

Prepared by:



CHISHOLM TRAIL CONSULTING, LLC

CA 7771
2124 Scott Lane
Duncan, Ok 73533
580-467-8130
rscottv11@gmail.com



Randall Scott Vaughn, P.E.
(digitally signed)

OK P.E. No. 15194

May 30, 2024
Date

**RFP CMA-2402
DRAINAGE STRUCTURE IMPROVEMENTS PROJECT**

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE #</u>	
Request for Proposals.....	3	
Bid Proposal and Required Affidavits.....	4-7	
Agreement.....	8-10	
Required Bonds.....	11-14	
Instructions to Bidders.....	15	
Project Requirements.....	16-17	
 <u>GENERAL PROVISIONS</u>		
101 DEFINITION OF TERMS.....	1	
102 PROPOSAL REQUIREMENTS AND CONDITIONS.....	5	
103 AWARD AND EXECUTION OF CONTRACT.....	8	
104 SCOPE OF WORK.....	11	
105 CONTROL OF THE WORK AND MATERIALS.....	12	
106 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC.....	17	
107 PROSECUTION AND PROGRESS.....	24	
108 MEASUREMENT AND PAYMENT.....	29	
 <u>SPECIAL PROVISIONS</u>		
1. GENERAL.....	SP-1	
2. MATERIALS SUBMITTAL.....	SP-2	
3. SUBSTANTIAL COMPLETION AND FINAL COMPLETION.....	SP-2	
4. DISPOSAL OF WASTE MATERIALS AND CLEAN-UP.....	SP-2	
5. OWNER RESERVED RIGHT.....	SP-3	
6. DRAWING SIZE.....	SP-3	
7. AS-BUILT DRAWINGS.....	SP-3	
 <u>DRAWINGS</u>		SEPARATE

**Request for Proposals – RFP CMA-2402
Drainage Structure Improvements Project**

Advertise Dates: **Thursday, June 13, 2024**
 Thursday, June 20, 2024

The Chickasha Municipal Authority, Chickasha, Oklahoma, is accepting sealed proposals for the **RFP CMA-2402 Drainage Structure Improvements Project**.

The project consists of installing new water mains by trenching, dry boring and casing, and associated elements to accommodate the US81 Highway Realignment project in Chickasha, Oklahoma.

Bids shall be made in accordance with this Invitation for Bids and the Bidding Documents.

There will be a **mandatory** Pre-Bid meeting on **Tuesday, July 2, 2024**, at 10:00 a.m. at the Public Works Building, 502 North Genevieve, Chickasha, Oklahoma, 73018.

Sealed proposals shall be addressed to Jim Crosby, Public Works Director, Chickasha Municipal Authority, 117 North 4th Street, Chickasha, Oklahoma 73018, and shall be labeled “RFP CMA-2402, DO NOT OPEN” and “CMA-2402 Drainage Structure Improvements Project.” Proposals shall be submitted no later than 1:30 p.m., local time on **July 11, 2024**. It is the sole responsibility of the proponent to ensure that this proposal is actually in the City Hall of the City of Chickasha prior to the expiration of the time and date stated above. Bids will be opened in the City Conference Room, Second Floor – City Hall, 117 N. 4th Street, Chickasha, Oklahoma 73018.

The Issuing Office for the Bidding Documents is: Chickasha Municipal Authority. Technical questions should be emailed to Jim Crosby, Public Works Director, at jim.crosby@chickasha.org or by calling 405.222.6086. Bidding Documents also may be examined at: City of Chickasha Website <http://www.chickasha.org/Bids.aspx>. Bid documents must be obtained by accessing the project on QUESTCDN.com, linked to the previously listed page.

Upon consideration of the proposal, the Chickasha Municipal Authority reserves the right to accept or reject any and all proposals, to waive technicalities and to make any investigation deemed necessary concerning the proponent’s ability to provide the services as covered by the specifications, and to accept what in their judgment is the most advantageous proposal.

Due to the type of project this is, the contractor will not be able to use tax exempt purchases on this project.

Keith Johnson
Keith Johnson, General Manager

C E R T I F I C A T I O N

I certify that the above “Request for Proposal” was posted on the bulletin board of City Hall, City of Chickasha, Oklahoma, on the _____ day of _____, 2024.
Susan McDaniel, City Clerk



117 North 4th Street
Chickasha, Ok 73018

BID PROPOSAL
RFP CMA-2402
DRAINAGE STRUCTURE IMPROVEMENTS
PROJECT

Submission Deadline July 11, 2024
1:30 p.m.

Proposal of _____
(hereinafter called "Bidder"), organized and existing under the laws of the
State of _____, doing business as _____
to the Chickasha Municipal Authority (hereinafter call "Owner").

In compliance with your Advertisement for Bids, Bidder hereby proposes to perform all
work for the construction of RFP CMA-2402 Drainage Structure Improvements Project,
in Chickasha, Ok in strict accordance with the contract documents within the time set
forth therein and at the prices stated on the Bid Schedule.

TOTAL BID (WORDS) _____

Bidder: _____ By: _____

Name of Company

Signature & Title

Mailing Address: _____

Phone No

Fax No

Email

SUBSCRIBED AND SWORN TO BEFORE ME THIS ____ DAY OF _____ 20____.

MY COMMISSION EXPIRES:

NOTARY PUBLIC

BID SCHEDULE PAGE

PAY ITEM	PAY ITEM DESCRIPTION	UNITS	EST QTY	UNIT PRICE	TOTAL PRICE
201(A)	CLEARING AND GRUBBING	LSUM	1	\$	\$
202(H)	EARTHWORK	LSUM	1	\$	\$
221(C)	TEMPORARY SILT FENCE	LF	200	\$	\$
221(G)	TEMPORARY ROCK FILTER DAM (TYPE 4)	CY	1	\$	\$
230(A)	SOLID SLAB SODDING	LSUM	800	\$	\$
303(A)	AGGREGATE BASE, TYPE A	CY	46	\$	\$
310(B)	SUBGRADE METHOD B	SY	43	\$	\$
400(SP)	PAVEMENT REPAIRS	SY	320	\$	\$
501(A)	STRUCTURAL EXC., UNCLASSIFIED	CY	1,287	\$	\$
501(G)	CLSM BACKFILL	CY	19	\$	\$
509(D)	CLASS C CONCRETE	CY	20	\$	\$
601(A)	TYPE I - PLAIN RIPRAP, 12"	TON	40	\$	\$
601(I)	FILTER FABRIC (RIPRAP)	SY	50	\$	\$
613(A)	RCP, 48", ROUND	LF	58	\$	\$
613(L)	PCES, 48", ROUND	EA	2	\$	\$
613(T)	STANDARD BEDDING MATERIAL, CLASS C	CY	57	\$	\$
619(A)	REMOVAL OF STRUCTURAL ELEMENTS	EA	1	\$	\$
619(B)	REMOVAL OF EX. PAVEMENT	SY	320	\$	\$
619(B)	REMOVAL OF EX. FENCE	LF	450	\$	\$
619(C)	SAWING PAVEMENT	LF	40	\$	\$
624(C)	FENCE, STYLE SWF	LF	650	\$	\$
880J	CONST TRAFFIC CONTROL	LS	1	\$	\$

TOTAL BID (NUMBERS) \$ _____

TOTAL BID (WORDS) _____

AFFIDAVIT OF NON-COLLUSION

STATE OF _____)
) ss
COUNTY OF _____)

The undersigned, of lawful age, being first sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any City official or employee as to quantity, quality or price in the prospective contract, or any other terms of said prospective contract; or in any discussions between bidders and any City official concerning exchange of money or other thing of value for special consideration in the letting of a contract; that the bidder has not paid, given or donated or agreed to pay, give or donate to any officer or employee of the Chickasha Municipal Authority, Oklahoma, any money or other thing of value, either directly or indirectly, in the procuring of the award of a contract pursuant to this bid.

Bidder: _____ By: _____
Name of Company Signature & Title

Mailing Address: _____

Phone No: _____ Fax No: _____ Email: _____

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY _____ OF 201_.

MY COMMISSION EXPIRES:

NOTARY PUBLIC:

BUSINESS RELATIONSHIPS AFFIDAVIT

STATE OF _____)
COUNTY OF _____) ss

_____, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationships hereinabove mentioned exist, affiant should so state.)

Firm Agent

Address _____

Phone Fax Email

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY _____ OF 20 ____.

MY COMMISSION EXPIRES:

NOTARY PUBLIC

AGREEMENT
(CONTRACT)

Chickasha Municipal Authority
RFP CMA-2402
DRAINAGE STRUCTURE IMPROVEMENTS PROJECT

THIS AGREEMENT is dated as of the ____ day of _____, in the year of 20__, by and between the CHICKASHA MUNICIPAL AUTHORITY, hereinafter referred to as OWNER, and _____ hereinafter referred to as the CONTRACTOR.

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1. WORK

CONTRACTOR shall complete all work as specified or indicated in the contract documents. The work is generally described as follows:

RFP CMA-2402 DRAINAGE STRUCTURE IMPROVEMENTS PROJECT

ARTICLE 2. CONTRACT TIME

2.1 The work will be completed in 60 Calendar Days after the effective date of the Notice to Proceed.

2.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this agreement and that OWNER will suffer financial loss if the work is not substantially complete within the time specified in 2.1 above, plus any extensions thereof allowed. They also recognize the delays, expense and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by OWNER if the work is not substantially completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER Five Hundred Dollars (\$500.00) for each day that expires after the time specified in paragraph 2.1 for substantial completion until the work is substantially complete.

ARTICLE 3. CONTRACT PRICE

3.1 OWNER shall pay CONTRACTOR for performance of the work in accordance with the contract documents in current funds as follows:

_____ Dollars.
(\$ _____)

ARTICLE 4. PAYMENT PROCEDURES

4.1 CONTRACTOR may submit an invoice or application for payment on a monthly basis at any time prior to completion of the work. All payments made by the Owner are subject to procedures established by the Owner to authorize payment at its regularly scheduled meetings. The Owner regularly scheduled meetings are held on the 1st and 3rd Monday of each month. Invoice or application for payment must be received in the Public Works Department office no

less than ten (10) business days prior to the regular meeting at which authorization for payment is to be requested.

4.2 Final Payment. Upon final completion and acceptance of the work, including all submittals, OWNER shall pay the remainder of the contract price, subject to the procedures noted in paragraph 4.1 above.

ARTICLE 5. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this agreement, CONTRACTOR makes the following representations:

5.1 CONTRACTOR has familiarized himself with the nature and extent of the contract documents, and the written resolution thereof by the Owner is acceptable to CONTRACTOR.

5.2 CONTRACTOR has given the Owner written notice of all conflicts, errors, discrepancies or omissions that he has discovered in the contract documents, and the written resolution thereof by the Owner is acceptable to CONTRACTOR.

ARTICLE 6. CONTRACT DOCUMENTS

The contract documents which comprise the entire agreement between OWNER and CONTRACTOR are attached to this agreement, made a part hereof, and consists of the following:

6.1 This agreement (pages 1 to 3 inclusive).

6.2 Exhibits to this agreement (pages ____to____inclusive).

6.3 Performance and other bonds, consisting of _____pages.

6.4 Notice of Award.

6.5 Specifications bearing the title: **RFP CMA-2402 DRAINAGE STRUCTURE IMPROVEMENTS PROJECT.**

6.6 Addenda numbers____to____, inclusive.

6.7 CONTRACTOR'S bid (pages _____to _____, inclusive).

6.8 Documentation submitted by CONTRACTOR prior to Notice of Award (pages 1 to _____ inclusive).

6.9 Any modification, including change orders, duly delivered after execution of agreement.

There are no contract documents other than those listed above in Article 6.

The contract documents may only be altered, amended, or repealed by written and approved change order.

ARTICLE 7. MISCELLANEOUS

7.1 No assignment by a party hereto of any rights under or interests in the contract documents will be binding on another party hereto without written consent of the party sought to

be bound; and specifically but without limitations, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment. No assignment will release or discharge the assignor from any duty or responsibility under the contract documents.

7.2 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns, and legal representatives to the other party hereto, his partners, successors, assigns, and legal representatives in respect to all covenants, agreements and obligations contained in the contract documents.

IN WITNESS WHEREOF, the parties hereto have signed this agreement in duplicate. One counterpart has been delivered to OWNER and CONTRACTOR. All portions of the contract documents have been signed or identified by OWNER and CONTRACTOR.

This agreement will be effective the _____ day of _____ 20__.

OWNER:
CHICKASHA MUNICIPAL AUTHORITY

CONTRACTOR:

By: _____
Mayor

By: _____
Signature & Title

CORPORATE SEAL
Attest:

CORPORATE SEAL
Attest:

By: _____

By: _____

ADDRESS FOR GIVING NOTICES:

ADDRESS FOR GIVING NOTICES:

Chickasha Municipal Authority

ATTN: City Manager

117 North 4th Street

Chickasha, OK 73018

Phone: 405-222-6086

Fax: 405-222-6084

keith.johnson@chickasha.org

Phone: _____

Fax: _____

Email: _____

STATUTORY BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as Principal, and
_____, as Surety, are
held firmly bound unto the Chickasha Municipal Authority in the sum of

DOLLARS (\$ _____), for the payment of which, well and truly to be made, we, and each
of us, bind ourselves, our heirs, executors and assigns, themselves, and its successors and assigns, jointly
and severally, firmly by these presents.

Dated this _____ day of _____, 20__.

The conditions of this obligation are such, that whereas, the above Bonded Principal
_____ is the lowest and best bidder for the making of the following work
and improvements, viz:

RFP CMA-2402 Drainage Structure Improvements Project in Chickasha, Oklahoma (Project)

and has entered into a certain written contract with the Chickasha Municipal Authority on the _____
day of _____ 20__, for the construction of said work and improvement, in exact accordance with
the bid of said Principal, and according to certain specifications heretofore made, adopted and placed on
file in the office of the City Clerk of the City of Chickasha.

NOW, THEREFORE, if said principal shall fail or neglect to pay all indebtedness incurred by said
Principal or subcontractor of said Principal who perform work in the performance of such, for labor and
materials furnished by any supplier and consumed in the performance of said contract, and such repairs to
and rental of machinery and equipment as may be furnished by a subcontractor to the person or persons
contracting with this Owner within thirty (30) days after the same becomes due and payable, the person,
firm or corporation entitled thereto may sue and recover on this bond, the amount so due and unpaid.

It is further expressly agreed and understood by the parties hereto that no changes or alterations in said
Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect of
releasing the sureties, or any of them, for the obligations of this Bond.

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its
corporate seal to be hereunto affixed by its duly authorized officers, 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 so to do, the day and year first above written.

ATTEST:

_____	Principal
Secretary	By: _____

	Surety
	By: _____

ATTEST:

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS THAT:

_____, as Principal,
and _____, a corporation
organized under the laws of the State of _____, as Surety, are held and firmly bound unto
the Chickasha Municipal Authority, in the penal sum of
Dollars (\$_____) in lawful money of the United States of America, for the payment
of which, well and truly to be made, we bind ourselves and each of us, our heirs, executors,
administrators, trustees, successors, and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that WHEREAS, said Principal entered into a written contract
with the Chickasha Municipal Authority, dated _____, 20__, for the RFP CMA-2402
Drainage Structure Improvements Project in Chickasha, Oklahoma (PROJECT) all in compliance with the
specifications therefore, made a part of said Contract and on file in the office of the City Clerk, City of
Chickasha, Oklahoma.

NOW THEREFORE, if said Principal shall, in all particulars, well, truly and faithfully perform and abide
by said Contract and each and every covenant, condition, and part thereof, and shall fulfill all obligations
resting upon said Principal by the terms of said Contract and said specifications, and if said Principal shall
protect and save harmless said Chickasha Municipal Authority from any pecuniary loss resulting from
the reach of any of the items, covenants and conditions of said Contract resting upon said Principal, then
this obligation shall be null and void, otherwise to be and retain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alternations in said
Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect of
releasing the Sureties, or any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its
corporate seal to be hereunto affixed by its duly authorized officers, 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 so to do, the day and year set forth below.

Dated this _____ day of _____, 20__.

Principal

ATTEST:

Secretary

By: _____

Surety

ATTEST:

By: _____

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ as Principal,
and _____, as Surety, are
held and firmly bound into the CHICKASHA MUNICIPAL AUTHORITY, a Municipal Trust in
the State of Oklahoma, in the full and just sum of

_____ DOLLARS
(\$_____) such sum being equal to the contract price for the payment of
which, well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, and
assigns, themselves, and its successors and assigns, jointly and severally, firmly by these
presents.

The conditions of this obligation are such, that whereas, said Principal, has by certain contract
between _____ and the CHICKASHA
MUNICIPAL AUTHORITY dated this _____ day of _____ 20__, agreed
to perform for the Chickasha Municipal Authority, RFP CMA-2402 Drainage Structure
Improvements Project in compliance with the specifications therefore, made part of said contract
and on file in the office of the City Clerk of the City of Chickasha; and to maintain the said
improvement in the amounts set forth above against any failure due to workmanship or material
for a period of ONE year from the date of acceptance of the work by the Chickasha Municipal
Authority.

NOW THEREFORE, if said Principal shall pay or cause to be paid to the Chickasha Municipal
Authority all damages, loss and expense, which may result by reason of defective materials
and/or workmanship in connection with said work, occurring within a period of ONE year from
and after acceptance of said project by the OWNER; and if Principal shall save and hold
harmless the OWNER from all damages, loss and expense occasioned by or resulting from any
failure whatsoever of said Principal, then this obligation shall be null and void, otherwise to be
and remain in full force and effect.

It is further agreed that if the said Principal or Surety herein shall fail to maintain said
improvements against any failure due to defective workmanship and/or material for a period of
ONE year and at any time repairs shall be necessary, that the cost of making said repairs shall be
determined by the Chickasha Municipal Authority or some person(s) designated by them to
ascertain the same; and if, upon thirty (30) days' notice, the said amount ascertained shall not be
paid by the Principal or Surety herein, or if the necessary repairs are not made, that said amount
shall become due upon the expiration of thirty (30) days and suit may be maintained to recover
the amount so determined in any court of competent jurisdiction; and that the amount so
determined shall be conclusive upon the parties as to the amount due on this bond for the
repair(s) included therein, and that the cost of all repairs shall be so determined from time-to-
time during the life of this bond as the conditions of the improvements may require.

It is further expressly agreed and understood by the parties hereto that no changes or alterations
in said contract and no deviations from the plan or mode of procedure herein fixed shall have the
effect of releasing the sureties, or any of them, from the obligations of this bond.

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name
and its corporate seal to be hereunto affixed by its duly authorized officers; and the said Surety

CTNWD DR STR

RFP CMA-2402

Page 13 of 17

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 so to do, the day and year first above written.

ATTEST:

Principal

Secretary

By: _____

Surety

ATTEST:

By: _____

Chickasha Municipal Authority
RFP CMA-2402
DRAINAGE STRUCTURE IMPROVEMENTS PROJECT

INSTRUCTIONS TO BIDDERS

1. Bid documents and copies of specifications shall be obtained from QUESTCDN.com. Bid documents, plans, and specifications may be examined at the City Clerk's Office at 117 N. 4th Street, Chickasha, Oklahoma or at the Public Works Department Complex, 502 N. Genevieve, Chickasha, Oklahoma 73018.
2. Bidders assume full responsibility for ensuring they have obtained all contract documents, including but not limited to: Bid Proposal forms, affidavits, Specifications, Drawings and Addenda. By submitting a bid for this project, Bidder thereby agrees that he/she has obtained all required documents prior to submitting said bid.
3. Hard copy bidding documents may be obtained from the Engineer for a non-refundable fee of \$100 per set.
4. A cashier's check or a certified check on a solvent bank in Oklahoma or a bid bond in the amount of five percent (5%) of the bid shall accompany the proposal of each bidder. The check or bond shall be made payable to the Owner. All checks or bonds will be returned to unsuccessful bidders. This check or bond shall be as a guarantee of contractor's ability to perform the contract bid upon, and that he will enter into a written contract with the Owner to perform said work and/or furnish said materials in accordance with said specifications and furnish the required bonds within ten (10) business days after the acceptance of his bid. No bidder may withdraw his bid for a period of sixty (60) days after the closing date for the receipt of bids.
5. In accordance with Oklahoma statutes, any bid must be accompanied by a Non-Collusion Affidavit and a Business Relations Affidavit. All bidders shall use the enclosed forms to satisfy this requirement.
6. Any bids received after the closing time will be returned unopened. Minority and small business owners are encouraged to submit proposals.
7. A Maintenance Bond guaranteeing the repair of all damage due to improper materials or workmanship for a period of one (1) year after the acceptance of the work by the Owner will be required.
8. A Performance Bond and a Statutory Payment Bond in the amount of 100% of the contract price each with a Corporate Surety licensed in Oklahoma and approved by the Owner will be required for the faithful performance of the contract, and the bidder shall state in the proposal the name and address of the Surety or Sureties who will sign this bond in case the contract is awarded to him. Copies of required bond forms are included in the bid packet.
9. **Attendance at the Pre-Bid Conference is MANDATORY. Bids will not be accepted from firms who do not have a representative attending the Pre-Bid Conference. No plans, specifications or bid documents will be issued after the Pre-Bid Conference. All bidders must visit and inspect the construction sites and shall be familiar with the physical characteristics and conditions at the construction sites prior to submitting a bid.**

RFP CMA-2402
DRAINAGE STRUCTURE IMPROVEMENTS PROJECT

PROJECT REQUIREMENTS

I. GENERAL CONDITIONS

- A. Proposal is to perform partial demolition of existing reinforced concrete box and construction of new drainage structure in Chickasha, Oklahoma as described below and elsewhere herein.
- B. Quoted prices shall remain valid for not less than 60-days.
- C. The prices bid shall be for completed work as specified herein. Details necessary for completed work not listed herein shall be considered incidental to the work and will not be paid for separately.
- D. The Chickasha Municipal Authority reserves the right to reject any and all bids.
- E. City of Chickasha standards and specifications and Oklahoma Department of Transportation (ODOT) standards and specifications shall govern the technical provisions.
- F. The Owner reserves the right to consider alternative proposals submitted in writing by Bidders or by the Contractor.
- G. Refer to the Drawings for additional information.
- H. Contractor shall be responsible for Quality Control of all products and the work.
- I. The work shall proceed continuously from Notice to Proceed until Final Completion.
- J. Contractor shall perform all work consistent with ODOT, MUTCD and OSHA regulations and requirements.
- K. Dimensions and distances provided are approximate. Contractor shall verify dimensions in the field before ordering materials.
- L. Contractor shall participate in a pre-construction conference with the Owner before beginning work.
- M. All materials shall be new and shall be of standard production as offered by the manufacturer, unless otherwise approved by the Owner.
- N. Contractor shall submit two hard copies of materials submittals for review and acceptance by the Owner prior to ordering materials.
- O. All work shall comply with the applicable Rules, Codes and Standards listed in these Specifications, and all Federal, State and Local codes and ordinances, as well as any other authorities that may have lawful jurisdiction pertaining to the work specified. None of the terms or provisions of this specification shall be construed as waiving any of the rules, regulations or requirements of these authorities. The contractor shall procure all necessary permits or licenses to carry out his work.
- P. In any instance where these specifications call for materials for construction of a better quality or larger capacity than required by the codes, the provisions of these specifications shall take precedence. The codes shall govern in other cases of direct conflict between the codes and the specifications.
- Q. Purchases of materials for this project shall not be exempt from Sales taxes and use taxes.

II. SEQUENCE OF CONSTRUCTION

- A. Contractor shall provide written notice to the Chickasha Municipal Authority two weeks in advance of starting work.
- B. All work shall be complete within 60 Calendar Days after issuance of the Notice to Proceed.
- C. OWNER and CONTRACTOR recognize that time is of the essence of this agreement and that OWNER will suffer financial loss if the work is not substantially complete within the time specified in 2.1 above, plus any extensions thereof allowed. They also recognize the delays, expense and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by OWNER if the work is not substantially completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER Five Hundred Dollars (\$500.00) for each day that expires after the time specified in paragraph II.B above for substantial completion until the work is substantially complete.
- D. Refer to the Drawings for additional information regarding Sequence of Construction.



Chickasha Municipal Authority
Chickasha, Oklahoma

RFP CMA-2402

GENERAL

PROVISIONS

SECTION 101 DEFINITION OF TERMS

Wherever the words, forms or phrases herein defined, or pronouns used in their stead occur in these specifications, in the contract or in the advertisement or any document or instrument herein contemplated or to which these specifications apply, the intent and meaning shall be interpreted as follows:

ADVERTISEMENT - All of the legal publications pertaining to the work contemplated or under contract.

ATTORNEY - The Attorney of the City of Chickasha/Chickasha Municipal Authority or the duly authorized assistants or agents of the Attorney.

AWARD - The decision of the Owner to accept the proposal of the lowest and best bidder for the work, subject to the execution and approval of a satisfactory contract and the required bonds therefor, and to such other conditions as may be specified or otherwise required by law.

AUTHORITY - Chickasha Municipal Authority, acting through its duly authorized representatives or agents.

AUDITOR - The Auditor of the City of Chickasha/Chickasha Municipal Authority of Chickasha, Oklahoma or the duly authorized assistants or agents of the Auditor.

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

CHANGE ORDER - A written order issued by the Owner to the Contractor providing for additions, deletions or revisions to the Work, or for an adjustment in the Contract Price or the Contract Time.

CITY - City of Chickasha, a Municipal Corporation in the State of Oklahoma.

CLERK/TREASURER - The Clerk/Treasurer of the City of Chickasha or the duly authorized assistants or agents of the Clerk/Treasurer.

CONTRACT - The written agreement covering the performance of the work. The contract includes the Advertisement and Notice to Contractors, Proposal, Bonds, Specifications, including special Provisions, Plans, or working drawings and any supplemental agreement pertaining to the work or materials therefore.

CONTRACTOR - The person or persons, partnership, company, firm or corporation entering into contract for the execution of the work, acting directly or through a duly authorized representative.

CONTRACT TIME - The number of calendar days stated in the Agreement to achieve completion of the Contract so that it is ready for final acceptance and final payment. When a calendar date of completion is shown in a proposal, the Contract Time shall be the number of days between the effective date of the Notice to Proceed and the specified Completion Date.

ENGINEER - City Engineer, City of Chickasha/Chickasha Municipal Authority, Oklahoma or the duly authorized agents, engineers, assistants, inspectors or superintendents, acting singularly or severally within the scope of the particular duties entrusted to them.

EXTRA WORK - Any work performed by the Contractor not provided for by the plans, specifications or special provisions.

FURNISH - To supply.

CITY MANAGER/GENERAL MANAGER - The Manager of the City of Chickasha/Chickasha Municipal Authority of Chickasha, Oklahoma.

DIRECTOR OF PUBLIC WORKS - Director of Public Works of the City of Chickasha/Chickasha Municipal Authority, Oklahoma or the duly authorized agents, engineers, assistants, inspectors or superintendents, acting singularly or severally within the scope of the particular duties entrusted to them.

MAINTENANCE BOND - The approved form of security furnished by the Contractor and his Surety as a guarantee that he will maintain the work constructed by him in good condition for the period of time required.

OWNER - The City of Chickasha or Chickasha Municipal Authority, as listed in the Solicitation for Bids or Advertisement for Bids.

OWNER'S REPRESENTATIVE – The individual or company designated by the Owner to represent the Owner during the execution of the work with a duty to protect the Owner's interests in the work.

PERFORMANCE BOND - The approved form of security furnished by the Contractor and his Surety as a guarantee of good faith on the part of the Contractor to execute the work in accordance with the plans, specifications and terms of the contract.

PLAN OR PLANS - All of the drawings pertaining to the contract and made a part thereof, including such supplemental drawings as the Owner may issue from time to time, in order to clarify or explain other drawings or for the purpose of showing changes in the work as authorized under the Section, "Changes and Alterations", or for showing details not shown thereon.

PROPOSAL – The written statement or statements duly filed with the Clerk/Treasure of the person or persons, partnership, company, firm or corporation proposing to do the work contemplated.

PROPOSAL FORM - The approved form on which the formal bids for the work are to be prepared and submitted.

PROPOSAL GUARANTY - The security, designated in the “proposal form” and in the Advertisement, to be furnished by the bidder as a guarantee of good faith to enter into a contract with the Owner and to execute the required bonds for the work contemplated after the work is awarded to him and as liquidated damages in event of failure to do so.

PROVIDE - To furnish and construct, erect or install.

SPECIAL PROVISIONS - The special clauses setting forth conditions or requirements peculiar to the specific project involved, supplementing the Standard Specifications and taking precedent over any conditions or requirements of the Standard Specifications with which they are in conflict.

SPECIFICATIONS - The directions, provisions, and requirements contained herein, together with the “Special Provisions” supplemental hereto, pertaining to the method and manner of performing the work or to the kinds, quantities or qualities of materials to be furnished under the contract, and methods of measurement and basis of payment.

The Standard Specifications, referred to hereinafter, are the editions in effect on the date of the invitation for bids.

STATUTORY BOND - The approved form of Surety furnished by the Contractor and his Surety as a guarantee that he will pay, in full, all bills and accounts for material and labor used in the construction of the work, as provided by law.

SURETY OR SURETIES - The Corporate body which is bound by such bonds as are required with and for the Contractor, and engages to be responsible for the entire and satisfactory fulfillment of the contract and for any and all requirements as set out in the specifications, contract or plans.

THE WORK - All design and construction activities included within the scope of the plans and specifications, including the furnishing of labor, materials, tools, equipment and incidentals, to be performed by the Contractor and Consultant under the terms of the contract.

TREASURER – The Treasurer of the City of Chickasha/Chickasha Municipal Authority of Chickasha, Oklahoma, or the duly authorized assistants or agents of the Treasurer.

TRUSTEES - The Trustees of the Chickasha Municipal Authority.

A.A.N.	American Association of Nurserymen
A.A.R.	Association of American Railroads
A.A.S.H.T.O.	American Association of State Highway and Transportation Officials
A.G.C	Associated General Contractors of America
A.I.A.	American Institute of Architects
A.I.S.C.	American Institute of Steel Construction
A.N.S.I.	American National Standards Institute (United States of American Standards Institute)
A.R.A.	American Railway Association
A.R.E.A.	American Railway Engineering Association
A.S.A.	American Standards Association
A.S.C.E.	American Society of Civil Engineers
A.S.L.A.	American Society of Landscape Architects
A.S.T.M.	American Society for Testing Materials
A.W.P.A.	American Wood Preservers Association
A.W.S.	American Welding Society
A.W.W.A.	American Water Works Association
F.A.A.	Federal Aviation Agency of the U.S. Department of Transportation
F.H.W.A.	Federal Highway Association
F.R.A.	Federal Rail Administration
F.S.S.	Federal Specifications and Standards (General Services Administration)
FM	Factory Mutual
I.E.S.	Illuminating Engineering Society
I.M.S.A.	International Municipal Signal Association
I.T.E.	Institute of Traffic Engineers
M.U.T.C.D.	Manual on Uniform Traffic Control Devices
N.E.C.	National Electrical Code
N.E.M.A.	National Electrical Manufacturers Association
N.S.F.	National Sanitary Foundation
O.A.C.	Oklahoma Aeronautics Commission
O.D.E.Q.	Oklahoma Department of Environmental Quality
O.D.O.T.	Oklahoma Department of Transportation
O.S.D.H.	Oklahoma State Department of Health
O.S.H.A	Occupational Safety and Health Association
O.W.R.B.	Oklahoma Water Resources Board
S.A.E.	Society of Automotive Engineers
S.S.P.C.	Steel Structures Paint Council
U.L.	Underwriter's Laboratory

SECTION 102 PROPOSAL REQUIREMENTS AND CONDITIONS

102.01 CONTENTS OF PROPOSAL FORM. The Owner will furnish bidders with proposal forms which will state the general location and description of the contemplated work and which will contain a list of the items of work to be completed or materials to be furnished and upon which bid prices are requested. The proposal form will state the time limits for commencing and for completing the work and will provide for entering the amount of the proposal guaranty. The proposal form will contain a non-collusion affidavit.

102.02 INTERPRETATION OF PLANS AND SPECIFICATIONS. If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications or other proposed contract documents, he shall submit to the Owner a written request for an interpretation thereof. The person submitting such request will be responsible for its prompt delivery. An interpretation of the proposed documents will be made only by Addendum duly issued and a copy of such Addendum will be mailed or delivered to each person receiving a set of such documents. The Owner will not be responsible for any other explanations or interpretations of the proposed documents.

102.03 EXAMINATION OF DOCUMENTS AND SITE OF THE WORK. Bidders are advised that the plans and specifications on file with the Clerk/Treasurer shall constitute all the information which the Owner will furnish. No other information given by the Owner or any official thereof prior to the execution of the contract shall ever become a part of or change the contract, plans or specifications or be binding on the Owner. Bidders are required, prior to submitting any proposal, to read carefully the specifications, the proposal, contract and bond forms; to examine carefully all plans on file with the Clerk/Treasurer; to visit the site of the work; to examine carefully local conditions; to inform themselves by their independent research of the difficulties to be encountered and judge for themselves of the accessibility of the work and all attending circumstances affecting the cost of doing the work or the time required for its completion and obtain all information required to make an intelligent proposal. Bidders shall rely exclusively upon their own estimates, investigations and other data, which are necessary for full information upon which the proposal may be based. It is mutually agreed that submission of a proposal will be evidence that the bidder has made the examination and investigations required herein.

102.04 PREPARATION OF PROPOSAL. The bidder shall submit his proposal in single copy on the forms furnished by the Owner. All blank spaces in the proposal forms shall be correctly filled in and the bidder shall state the prices, written in ink, both in words and numerals, for which he proposes to do the work contemplated or furnish the materials required.

Such prices shall be written distinctly legible, in case of conflict between words and

numerals, the words will govern. If an individual submits the proposal, he must sign his name or his duly authorized agent and list his mailing address. If the proposal is submitted by a firm or partnership, the name and mailing address of the firm or partnership must be listed and the proposal signed by a member of the firm or partnership as a person duly authorized. If the proposal is made by a company or corporation, the company or corporate name and the state under the laws of which said company, or corporation is chartered and the business address must be listed and the proposal signed by an official or agent duly authorized. Powers of Attorney, authorizing agents or others to sign proposals must be properly certified and must be in writing on file with the Clerk/Treasurer.

102.05 NON-COLLUSION AFFIDAVIT. Each proposal or copy thereof shall be accompanied by a sworn statement in writing that the person signing the proposal executed said proposal on behalf of the bidder therein named and that he had lawful authority to do so and that said bidder has not directly or indirectly entered into any agreement, expressed or implied, with any other bidder or bidders having for its object the controlling of the 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 bid or the subject matter of the bid or of the profits thereof, and that he had not and will not divulge said sealed bid to any person whatever except those having a partnership or other financial interest with him in said bid, until after the said sealed bids are opened.

102.06 PROPOSAL GUARANTY. Proposals will not be considered unless the original filed with the Clerk/Treasurer is accompanied by a certified or cashier's check, bank money order, or bidder's bond, in the required amount, made payable to the Owner. The proposal guaranty shall be in an amount of not less than five percent (5%) of the total amount of the bid unless otherwise provided in the Advertisement or Special Provisions. The proposal guaranty is required as evidence of good faith and as a guarantee that if awarded the contract, the bidder will execute the contract and furnish the required bonds within the required time and as liquidated damages in event of failure to do so.

102.07 FILING OF PROPOSALS. No proposals will be considered by the Owner unless they are filed in sealed envelopes with the Clerk/Treasurer in his office in the City Hall, Chickasha, Oklahoma, within the time limit for receiving proposals, as stated in the advertisement. Each proposal shall be plainly marked on the envelope with the word "Proposal", the name of the project, and the date and hour of opening.

102.08 WITHDRAWAL OF PROPOSALS. Permission will not be granted to withdraw or modify any proposal after it has been filed.

102.09 OPENING OF PROPOSALS. The proposals filed with the Clerk/Treasurer will be opened in public at the time and place stated in the advertisement.

Bidders are invited to attend the bid opening at the time and place set forth in the advertisement.

102.10 IRREGULAR PROPOSALS. Proposals may be considered irregular if they show any omissions, alterations of forms, additions or conditions not requested unauthorized alternate bids or irregularities of any kind. However, the Owner reserves the right to waive technicalities as to changes, alterations or reservations and make the award in the best interest of the Owner.

102.11 REJECTION OF PROPOSALS. The Owner reserves the right to reject any or all proposals, and all proposals submitted are subject to this reservation. Proposals may be rejected for any of the following specific reasons:

- (a) Proposal received after the time limit for receiving proposals as stated in the advertisement;
- (b) Proposal prices obviously unbalanced;
- (c) Summation of proposal prices on any one project above the Engineers estimate of cost for such project;
- (d) Proposal containing any irregularities.

102.12 DISQUALIFICATION OF BIDDERS. Bidders may be disqualified and their proposals not considered for any of the following specific reasons:

- (a) Where more than one proposal for an individual, firm, partnership or corporation is filed under the same or different names and where such proposals are not identical in every respect;
- (b) Reasonable grounds for believing that any bidder is interested in more than one proposal for the work contemplated or materials to be furnished;
- (c) Reason for believing that collusion exists among bidders;
- (d) The bidder being in arrears on any existing contracts, interested in any litigation against the Owner or having defaulted on a previous contract;
- (e) Incomplete work which, in the judgment of the Owner, will hinder or prevent the prompt completion of additional work, if awarded.

SECTION 103

AWARD AND EXECUTION OF CONTRACT

103.01 CONSIDERATION OF PROPOSALS. After the proposals are opened, those proposals containing unit prices will be tabulated for comparison on the basis of the quantities shown in the approximate estimate. Until the final award of the contract, the Owner reserves the right to reject any or all proposals, to waive technicalities and to advertise for new proposals or proceed to do the work otherwise when the best interests of the Owner will be promoted thereby.

Projects advertised as all parts tied: Bidder shall submit a bid for each part. Tied bid projects will be considered on the basis of the total dollar amount bid for all tied parts.

Projects advertised as parts not tied: Bidder may submit a bid for an individual part, or multiple parts, as either tied or separate. Bidder shall clearly indicate the intent of his bids. Bids submitted as tied bids will be considered on the basis of the total dollar amount bid for all tied parts. Bids submitted as separate parts may be considered on the basis of the dollar amount for each part, or the total dollar amount of any combination of parts, when it appears to be in the best interest of the Owner.

103.02 AWARD OF CONTRACT. The Owner reserves the right to withhold the award of the contract for a reasonable period of time from the date of opening the proposals and no award will be made until the necessary investigations are made as to the responsibility of the low bidder. The awarding of the contract shall give the bidder no right of action or claim against the Owner upon such contract until the execution of the contract shall have been completed and the contract delivered to the Contractor. The Owner reserves the right to award all or any portion or portions of the work.

103.03 RETURN OF PROPOSAL GUARANTY. As soon as the proposal prices have been compared, the Owner may, at its discretion, return the proposal guaranties accompanying proposals which in its judgment would not be considered in making the award.

103.04 SURETY BONDS. With the execution and delivery of the contract, the Contractor shall furnish and file with the Owner in the amounts herein required, the following surety bonds:

- (a) A good and sufficient Performance Bond in an amount equal to one hundred percent (100%) of the approximate total amount of the contract, guaranteeing the full and faithful execution of the work and performance of the contract and for the protection of the Owner and all property owners interested against any damage by reason of the negligence of the Contractor, or the improper execution of the work or the use of inferior materials;

- (b) A good and sufficient Statutory Payment Bond in an amount equal to one hundred percent (100%) of the approximate total amount of the contract, guaranteeing payment for all labor, materials and equipment used in the construction of the improvement.
- (c) A good and sufficient Maintenance Bond in an amount equal to one hundred percent (100%) of the contract price, conditioned for the maintenance in good condition of the improvement for a period of one (1) year from the time of acceptance by the Owner, or as otherwise specified in the Advertisement and Proposal.
- (d) No surety will be accepted who is now in default or delinquent on any bond or who is interested in any litigation against the Owner. AD bonds shall be made on forms acceptable to the Owner and shall be executed by surety companies licensed to do business in the State of Oklahoma and acceptable to the Owner. Each bond shall be executed by the Contractor and the Surety.

Should any surety on the contract be determined unsatisfactory at any time by the Owner, notice will be given to the Contractor to that effect and the Contractor shall forthwith substitute a new Surety or Sureties satisfactory to the Owner. No payment will be made under the contract until the new surety or sureties, as required, have qualified and been accepted by the Owner. The contract shall not be operative nor shall any payments be due until approval of the bonds has been made by the Owner.

103.05 EXECUTION OF CONTRACT. The person(s), partnership, company, firm or corporation to whom a contract is awarded shall within ten (10) business days after such award sign the necessary agreements entering into the required contract with the Owner and execute and deliver the required bonds.

No contract shall be binding on the Owner until it has been approved by the Attorney, executed by the Owner and delivered to the Contractor.

103.06 FAILURE TO EXECUTE CONTRACT. Upon failure of the bidder to execute the required bonds or to sign the required contract within ten (10) business days after the contract is awarded, he will be considered to have abandoned his proposal and the Owner may annul the award. By reason of the uncertainty of market prices of the materials and labor and it being impracticable and extremely difficult to fix the amount of damages to which the Owner would be put by reason of said bidder's failure to execute said bonds and contract within ten (10) business days, the proposal guaranty accompanying the proposal shall be the agreed amount of damages which the Owner will suffer by reason of such failure on the part of the bidder and shall thereupon be retained by the Owner as liquidated damages. The filing of a proposal will be considered as an acceptance of this provision.

103.07 PRE-WORK CONFERENCE. The Contractor and Consultant shall attend a Pre-Work Conference, scheduled by the Owner, to clarify the intent of the work and to present the Contractor's work plan, including progress schedule as provided by Section 107.04, prior to starting work on the project.

SECTION 104 SCOPE OF WORK

104.01 INTENT OF PLANS AND SPECIFICATIONS. The intent of the plans and specifications is to prescribe a complete work or improvement which the Contractor undertakes to provide, in full compliance with the plans, specifications, special provisions, proposal and contract. The Contractor shall provide all work as specified in the plans, special provisions, specifications, proposal and contract, except that specifically shown to be provided by the Owner or others, and shall provide such additional extra and incidental work as may be considered necessary to complete the work in a satisfactory and acceptable manner. He shall furnish all labor, materials, tools, equipment and incidentals necessary to the prosecution of the work.

104.02 SPECIAL PROVISIONS. Should any work or any conditions which are not thoroughly or satisfactorily stipulated or covered by the general or standard specifications be anticipated on any proposed work "Special Provisions" for such work may be prepared and shall be considered as a part of the specifications and contract.

104.03 INCREASED OR DECREASED QUANTITIES OF WORK. The Owner reserves the right to alter the quantities of the work to be performed or to extend or shorten the improvement any time when and as found necessary, by means of change orders, and the Contractor shall perform the work as altered, increased or decreased. No allowance will be made for any change in anticipated profits nor shall such changes be considered as waiving or invalidating any condition or provision of the contract.

104.04 ALTERATIONS OF PLANS AND SPECIFICATIONS. The Owner reserves the right to make such changes in the plans and in the character of the work as may be necessary or desirable to insure completion of the work in the most satisfactory manner, provided such changes do not materially alter the original plans and specifications or change the general nature of the work as a whole. Such changes shall not be considered as waiving or invalidating any condition or provision of the contract.

104.05 EXTRA WORK. When any work is necessary to the proper completion of the project for which no prices are provided in the proposal or contract, the Contractor shall do such work, but only when and as ordered in writing by the Owner and with the prior approval of the Owner.

Payment for extra work will be made as hereinafter provided.

104.06 FINAL CLEANUP. Upon completion of the work and before acceptance and final payment will be made, the Contractor shall clean and remove from the site of the work surplus and discarded materials, temporary structures, stumps or portions of trees and debris of any kind. He shall leave the site of the work in as good or better than condition as prior to work.

SECTION 105 CONTROL OF THE WORK AND MATERIALS

105.01 AUTHORITY OF OWNER'S REPRESENTATIVE. All work shall be provided to the satisfaction of the Owner's Representative. He shall decide all questions which arise as to the quality and acceptability of materials furnished, work performed, manner of performance, rate of progress of the work, interpretation of the plans and specifications, acceptable fulfillment of the contract, compensation, mutual rights between contractors under these specifications and suspension of work. He shall determine the amount and quality of work performed and materials furnished and his decisions and estimates shall be final. His estimate in such event shall be a condition precedent to the right of the Contractor to receive money due him under the contract.

The authority of the Owner's Representative shall not be construed to include the authority to waive, revise or modify specifications as herein set forth either as to kind, type or quality of materials or manner or quality of construction, unless an appropriate Change Order is executed.

Neither the Owner's Representative, nor his designated representatives, shall act as supervisor of the work, nor shall the Contractor rely on any such supervision.

105.02 DETAIL SHOP AND WORKING DRAWINGS FURNISHED BY CONTRACTOR. The Contractor shall submit to the Owner's Representative for approval, such additional shop and working drawings of structures or equipment as may be required, and, prior to the approval of such drawings by the Owner's Representative, any work done or materials ordered shall be at the Contractor's risk. The contract price shall include the cost of furnishing such drawings.

105.03 CONFORMITY WITH PLANS. ALLOWABLE DEVIATIONS. All work shall conform to the lines, grades, cross-sections and dimensions shown on the plans. All deviations from the plans will be accomplished by Change Orders prepared by the Engineer. All Change Orders shall be in writing, and shall, except in case of emergency, be approved by the governing body of the Owner before the work is commenced. Where an actual emergency exists, wherein the delay caused by submitting the Change Order to the governing body of the Owner for approval would jeopardize the interest of the Owner or the public, the Owner's Representative may approve the change in writing. However, Change Orders approved by the Owner's Representative under the circumstances outlined above shall be submitted to the governing body of the Owner for consideration at the next regular meeting. Two (2) copies shall be furnished to the Owner and two (2) copies shall be furnished to the Contractor of all Change Orders approved by the Owner's Representative. Change Orders submitted to the governing body of the Owner for approval shall bear the approval of the Owner's Representative and shall be prepared in four (4) copies, distribution as follows: 2 copies to the Contractor; and 2 copies to the Owner's Representative.

Change Orders shall include the following:

- (a) Complete detail of the work contemplated.
- (b) Estimated cost of the work as originally planned and as contemplated by the Change Order.
- (c) Complete justification.
- (d) Statement as to whether the prices shown are contract bid prices or agreed prices.
- (e) Statement by the Contractor that he agrees to perform the work at the prices shown.

105.04 EXISTING STRUCTURES NOT SHOWN ON PLANS. The plans show the location of certain existing surface and subsurface structures. The Owner assumes no responsibility for failure to show any or all structures on the plans or to show them in their exact location. It is mutually agreed such failure will not be considered sufficient basis for claims for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate substantial changes in the lines or grades or requires the building of a special structure, provision for which is not made in the plans, in which case the provisions in these specifications for "Extra Work" will apply.

105.05 COORDINATION OF PLANS, SPECIFICATIONS, PROPOSAL AND SPECIAL PROVISIONS. The plans, these specifications, the proposal, Special Provisions and all supplementary documents are intended to describe a complete work and are essential parts of the contract. A requirement occurring in any of them is binding. In case of discrepancies, figured dimensions shall govern over scaled dimensions; plans shall govern over specifications; Special Provisions shall govern over the plans and over both General and Standard Specifications, and the quantities shown on the plans shall govern over those shown in the proposal. The Contractor shall take no advantage of any apparent error or omission in the plans and specifications, and the Owner's Representative shall be permitted to make such corrections or interpretations as may be deemed necessary for the fulfillment of the plans and specifications. In the event the Contractor discovers any apparent error or discrepancy, he shall immediately call such error or discrepancy to the attention of the Owner's Representative.

105.06 COOPERATION OF CONTRACTOR. Three sets of plans and specifications will be furnished the Contractor as follows: One office copy, one for the Field Superintendent, and one copy for job use. The Contractor, however, shall have a set of plans and specifications available at all points where a separate construction crew is working.

The Contractor shall give the work the consistent attention necessary to facilitate the progress thereof, and he shall cooperate with the Owner's Representative and any inspectors and with other contractors in every way possible. The Contractor shall provide a competent Superintendent on the work at all times who is fully authorized as his agent on the work. Such Superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Owner's Representative or his representative.

The Contractor and his Superintendent shall provide all reasonable facilities to enable the Owner's Representative and any inspectors to inspect the workmanship and materials entering the work.

105.07 CONSTRUCTION STAKING. The Contractor shall furnish, place and maintain construction layout stakes necessary for the proper prosecution and inspection of the work under the contract in accordance with these Specifications.

The Owner will locate and reference the centerline of construction and will establish bench marks and set sufficient right-of-way stakes to define right-of-way limits. The Owner will set stakes to mark centerline and establish bench marks for bridges and special structures as may be considered necessary. The Owner's stakes and benchmarks shall constitute field control staking.

The Contractor shall exercise care in the preservation of stakes and bench marks and shall have them reset at his expense when any are damaged, lost, displaced or removed. The Contractor shall use competent personnel and suitable equipment for the layout of the work required. The Contractor shall not engage the services of any person or persons in the employment of the Owner or its equipment for the performance of any of this work.

The Contractor shall provide field forces and shall set all additional stakes needed, such as offset stakes, reference point stakes, slope stakes, pavement and curb line and grade stakes, stakes for bridges, sewers, roadway drainage, pipe underdrains, paved gutter, fence, culverts or other structures, and any other horizontal or vertical controls necessary to secure a correct layout of the work. Stakes for line and grade shall be adequate to maintain the specified tolerances for the operation being performed. The station number and the distance from the centerline of construction shall be marked on all grade stakes.

The Contractor shall furnish the original of his survey records to the Owner for the Owner's permanent file. These records shall be furnished as they are completed during the progress of the work. These records shall be in permanently bound field books and/or level books and formatted in a manner commonly accepted by the surveying profession. The Owner's Representative may at any time check the correctness of the Contractor's staking work by using spot check method. When significant errors occur, the Contractor shall resurvey to the satisfaction of the Owner's Representative. The Contractor shall furnish, at his expense, platforms and equipment necessary for proper and safe access for checking his staking. Any inspection or checking of the Contractor's layout by the Owner's Representative and the acceptance of all or any part of it shall not relieve the Contractor of his responsibility to secure the proper dimensions, grades, and elevation of the several parts of the work. Deviations resulting from plan errors will be resolved by the Owner.

Contractor construction staking will not be paid as a separate item, but all associated costs shall be included in the price bid for other items of work.

105.08 MEASUREMENTS. Before ordering any material or doing any work, the Contractor shall verify all measurements involved and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of difference between actual dimensions and the measurements indicated on the drawings, and any difference which may be found shall be submitted to the Owner's Representative for consideration before proceeding with the work.

105.09 SOURCE OF SUPPLY AND QUALITY OF MATERIALS. The Contractor shall not start delivery of materials until the Owner's Representative has approved the source of supply. Only materials conforming to the requirements of these specifications shall be used in the work and such materials shall be used only after written the Owner's Representative has given approval and only so long as the quality of said material remains equal to the requirements of the specifications. The Contractor shall furnish approved materials from other sources, if, for any reason, the product from any source at any time before commencing or during the prosecution of the work proves unacceptable. After approval, any material which has become mixed with or coated by dirt or any other foreign substances during its delivery and handling shall not be used in the work.

105.10 MATERIALS AND WORKMANSHIP. The Contractor shall submit samples of materials, finish, appliances, etc., when required by the Owner's Representative, and all such samples must be approved by the Owner's Representative in writing before the work is executed and all work shall conform in all respects to the approved samples. Any work which does not conform to the approved samples will be rejected, and shall be removed and replaced by work that does so conform.

105.11 SAMPLES AND TESTS OF MATERIALS. Where, in the opinion of the Owner's Representative or called for in the specifications, tests of materials are necessary, such tests shall be made by, and at the expense of the Contractor, unless otherwise provided. Tests, unless otherwise specified, are to be made in accordance with the latest standard methods of the American Society for Testing Materials. The Contractor shall provide such facilities as the Owner's Representative may require for collecting and forwarding samples and shall not use the materials represented by the samples until test results have been approved by the Owner's Representative.

The Contractor in all cases shall furnish the required samples without charge.

105.12 CONTRACTOR'S QUALITY CONTROL

- (a) Contractor shall be responsible for all Quality Control necessary to ensure compliance with these specifications and any manufacturer's requirements. Contractor's Quality Control shall include testing, documentation, and daily diaries, with copies to the Owner's Representative. All associated costs for Contractor's Quality Control shall be included in the price bid for other items.
- (b) The Contractor must show proof that all employees associated with this project shall have been employed by the Contractor for a period not less than six (6) months, unless waived by the Owner's Representative.

105.13 STORAGE OF MATERIALS. Materials shall be stored so as to insure the preservation of their quality and fitness for the work. They shall be placed on wooden platforms or other hard, clean surfaces and not on the ground, and shall be placed under cover when directed. Stored materials shall be located so as to facilitate prompt inspection.

105.14 INSPECTION. The Contractor shall furnish the Owner's Representative with every reasonable facility for ascertaining whether or not the work as performed is in accordance with the requirements and intent of the plans and specifications. If the Owner's Representative requires, the Contractor shall at any time before acceptance of the work, remove and uncover

such portions of the finished work as may be directed, for inspection. After inspection, the Contractor shall restore said portions of the work to the condition required by the specifications.

Should the work thus exposed on examination prove acceptable the cost of uncovering or removing and the replacing of the covering or making good the parts removed will be paid for as "Extra Work". Should the work so exposed or examined prove unacceptable, the cost of covering or removing and the replacing of the covering or making good of the parts removed shall be at the Contractor's expense. When ample notice of the intention to complete or cover up the work was not given by the Contractor to the Owner's Representative, then the cost of the uncovering or removing and the replacing of the covering or making good of the parts removed shall be borne by the Contractor regardless of whether or not the work examined proved acceptable or unacceptable. Any work provided or materials used without suitable supervision or inspection by the Owner's Representative may be ordered removed and replaced at the Contractor's expense.

105.15 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK All work which has been rejected or condemned shall be repaired, or, if it cannot be satisfactorily repaired, it shall be removed and replaced at the Contractor's expense. Defective materials shall be removed immediately from the site of the work.

Work provided without lines and grades having been given, work provided beyond the lines or not in conformity with the grades shown on the plans or as given, save as herein provided; work provided without written authority and prior agreement in writing as to prices, will be provided at the Contractor's risk and will be considered unauthorized, and, at the option of the Owner's Representative may not be measured and paid for and may be ordered removed at the Contractor's expense.

Upon the failure of the Contractor to satisfactorily repair or to remove and replace, if so directed, any rejected, unauthorized or condemned work or materials immediately after receiving notice from the Owner's Representative, the Owner's Representative shall, after giving written notice to the Contractor, have the authority to cause unauthorized work to be removed and to deduct the cost thereof from any compensation to become due to the Contractor. If the Owner's Representative and Owner deem it inexpedient to correct work injured or done not in accordance with the contract, an equitable deduction from the contract price may be made therefor.

105.16 CORRECTION OF WORK AFTER FINAL PAYMENT. Neither the final certificate nor payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for faulty materials or workmanship and, unless otherwise specified, he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of substantial completion. The Owner shall give notice of observed defects with reasonable promptness.

105.17 FINAL INSPECTION. The Owner's Representative shall make final inspection of all work included in the contract or any portion thereof as soon as practicable after the work is completed and ready for acceptance. If the work is not acceptable to the Owner's Representative at the time of such inspection, he shall inform the Contractor as to the particular defects to be remedied before the final acceptance can be made.

SECTION 106
LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

106.01 **LAWS TO BE OBSERVED.** The Contractor shall, at all times, observe and comply with all Federal and State laws and City ordinances and regulations which in any manner affect the conduct of the work and shall observe and comply with all orders and decrees which exist at the present or which may be enacted later, of bodies or tribunals having jurisdiction or authority over the work, and no plea of misunderstanding or ignorance thereof will be considered. The Contractor and his surety shall defend, indemnify and save harmless the City and all its officers, agents, employees and servants against any claims or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

106.02 **PERMITS AND LICENSES.** The Contractor shall procure all permits and licenses, pay all charges or fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

106.03 **PATENTED DEVICES, MATERIALS AND PROCESSES.** If the Contractor is required or desires to use any design, device, material or process covered by letters patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. It is mutually understood and agreed that without exception the contract prices shall include all royalties or costs arising from patents, trademarks and rights in any way involved in the work. The Contractor and Surety shall defend, indemnify and save harmless the Owner and all its officers, agents and employees from all suits, actions or claims of any character, name and description brought for or on account of infringement or alleged infringement by reason of the use of any such patented design, device, material or process or any trademark or copyright used in connection with the work agreed to be performed under this contract, and shall indemnify the Owner for any cost, expense or damage which it may be obliged to pay by reason of any action or actions, suit or suits which may be commenced against the Owner for any such infringement or alleged infringement at any time during the execution or after the completion of the work contracted for herein, It is mutually agreed that the Owner may give written notice of any such suit to the Contractor, and thereafter the Contractor shall attend to the defense of the same and save and keep harmless the Owner from all expense, counsel fees, cost liabilities, disbursements, recoveries, judgments and executions in any manner growing out of, pertaining to or connected therewith.

106.04 **SANITARY PROVISIONS.** The Contractor shall establish and enforce among his employees such regulations in regard to cleanliness and disposal of garbage and waste as will tend to prevent the inception and spread of contagious or infectious diseases and to effectively prevent the creation of a nuisance about the work or any property, either public or private and such regulations as are required by the Owner's Representative shall be put into effect immediately by the Contractor. Contractor shall strictly comply with all sanitary laws and regulations of the Owner and the State of Oklahoma.

106.05 **PUBLIC CONVENIENCE AND SAFETY.** Materials stored about the work shall be so placed and the work shall at all times be so conducted as to cause no greater obstruction of the traveling public than is considered necessary by the Owner's Representative. The Contractor shall make arrangements satisfactory to the Owner's Representative for handling traffic. Sidewalks must not be obstructed unless by special permission of the Owner's Representative. Neither the materials excavated nor the construction materials or plant used in the construction

of the work shall be placed so as to endanger the work or prevent free access to all fire hydrants, water valves, gas valves, manholes for electric, telephone, telegraph or traffic signal conduits, sewers or fire alarm or police call boxes in the vicinity. The Owner reserves the right to remedy any neglect on the part of the Contractor as regards the public convenience and safety which may come to its attention, after twenty-four (24) hours notice in writing to the Contractor, save in cases of emergency when it shall have the right to remedy any neglect without notice and, in either case, the cost of such work done by the Owner shall be deducted from monies due or to become due the Contractor. The Contractor shall notify the Public Works Director a minimum of 24 hours before any street is closed or obstructed and shall keep any street or streets in condition for unobstructed use by fire and other emergency apparatus, as much as is practical.

Where the Contractor is required to construct temporary culverts or bridges or make other arrangements for crossings over ditches or streams, his responsibility for accidents shall include the roadway approaches as well as the structures of such crossings.

Contractor shall give written notice to all residents/occupants/businesses that may be affected by the work (e.g. water disruption, street closure, sewer jet cleaning). Said written notice shall be delivered no less than 48 hours, nor more than 2 weeks prior to the start time of the disruption.

The written form may be "door hangars", but in any event shall be submitted to and approved by the Owner's Representative prior to use. At a minimum the form shall contain:

- Project Identification
- Contractor Name, address, Telephone Number
- Type of Construction
- Reason for affecting or disrupting service and duration of such

106.06 PRIVILEGES OF CONTRACTOR IN STREETS, ALLEYS, OR RIGHTS-OF-WAY.

For the performance of the contract, the Contractor will be permitted to occupy such portions of streets or alleys, other public places or other rights-of-way as provided for in the ordinances of the City, as shown on the plans or as permitted by the Owner's Representative. A reasonable amount of tools, materials and equipment for construction may be stored in such space but not more than is necessary to avoid delay in the construction. Excavated and waste materials shall be piled or stacked in such a way as not to interfere with spaces that may be designated to be left free and unobstructed, nor inconvenience occupants of adjoining property. Other contractors of the Owner may, for all purposes required by their contracts, enter upon the work and premises used by the Contractor, and the Contractor shall give to other contractors of the Owner, all reasonable facilities and assistance for the completion of the adjoining work. Any additional grounds desired by the Contractor for his use shall be provided by him at his own expense.

106.07 RAILWAY CROSSINGS. When the work encroaches upon the right-of-way of any railway, the Owner will secure for the Contractor, all the necessary contracts, easements or authority to enter upon such right-of-way for the prosecution and completion of the work. Where railway tracks are to be crossed, the railway company, if it elects to do so, may construct the necessary bridges, trestles, cribs or other structures for the safe operation of trains or cars across any excavation during the time of construction of the work, and the cost of construction of such bridges, trestles, cribs or other structures shall be paid to the railway company by the Contractor together with the necessary cost of any supervision or other incidental expenses which may be required by the railway company while the work is in progress on the right-of-way of the railway company, and all such costs shall be taken into consideration by the Contractor in submitting proposals. The Contractor shall take such special precautions for the safety of the

work and the traveling public as may be necessary by sheeting, bracing and thoroughly supporting the sides of any excavation and supporting and protecting any adjacent structures.

106.08 BARRICADES AND WARNING SIGNS. Where work is carried on, in or adjacent to any street, alley, or public place, the Contractor shall furnish and erect such barricades, fences, lights, signs and other appurtenances in accordance with the MUTCD and OSHA requirements. The Contractor shall take such precautionary measures for the protection of persons or property and of the work as are necessary. Failure to comply with this requirement may result in the Owner's Representative discontinuing or suspending the work until the Contractor shall have provided the necessary protection.

The Contractor's responsibility for the maintenance of barricades, signs and lights and protection of the work shall not cease until the project shall have been accepted by the Owner.

106.09 USE OF EXPLOSIVES. Should the Contractor elect to use explosives to loosen rock or for any other purpose in the prosecution of the work, he shall obtain the required permits and the written permission of the Owner's Representative before any blasting is done, but neither the issuance of said permits, the granting of said permission nor any other act, requirement or condition contained in the specifications, nor any order, direction or approval given by the Owner's Representative or any other official or employee of the Owner shall be construed as requiring or directing the use of any explosives or as accepting any liability for any injury or damage to persons or property resulting from such usage. No blasting shall be done unless an Inspector is present and the Contractor shall notify the City Code Enforcement Division when he is ready to begin any blasting work. All necessary precautions shall be taken by the Contractor as required by the ordinances of the City or the laws of the State of Oklahoma relative to blasting and the necessary provisions shall be made for the protection of the new work and all blasting shall be so conducted as not to endanger persons or property. Only sufficient quantity of explosives necessary for the immediate day's work shall be kept on hand by the Contractor. Storage of caps, exploders and explosives shall be done strictly in compliance with the orders of the Owner's Representative and the ordinances of the City. The Contractor shall be responsible for and shall make good any damage caused by blasting or accidental explosions.

The Contractor shall notify the proper representatives of any public service corporation, any company or individual, not less than forty-eight (48) hours in advance of any blasting which might cause damage to their or his property along or adjacent to the work. Wherever explosives are stored, they shall be kept in a safe, secure manner and all storage places shall be plainly marked "Dangerous Explosives", and shall be under the care of a competent watchman at all times.

106.10 PROTECTION AND RESTORATION OF PROPERTY. The Contractor shall not enter upon private property for any purpose without first obtaining permission and he shall be responsible for the preservation of and shall use every precaution necessary to prevent damage to all trees, fences, culverts, bridges, pavements, driveways, sidewalks, etc., to all water, sewer, gas or electric lines or appurtenances thereof and to all other public or private property along or adjacent to the work. The Contractor shall notify the proper representatives of any public service corporation, and company or any individual, not less than twenty-four (24) hours in advance of any work which might damage or interfere with the operation of their or his property, along or adjacent to the work. He shall be responsible for all damage or injury to property of any character resulting from any act, omission, neglect, or misconduct in the manner or method of executing the work or due to his non-execution of the work, or at any time due to defective work or materials, and said responsibility shall not be released until the work shall have been completed and accepted. When any direct or indirect damage or injury is done to public or private property

on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the Contractor, he shall restore at his expense such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring, or he shall make good such damage for injury in an acceptable manner.

In case of the failure on the part of the Contractor to restore such property or make good such damage or injury, the Owner may, upon forty-eight (48) hours written notice, under ordinary circumstances, and without notice when a nuisance or hazardous condition results, proceed to repair, rebuild or otherwise restore such property as may be determined necessary and the cost thereof will be deducted from any monies due or to become due the Contractor under his contract.

106.11 PROTECTION AND PRESERVATION OF LAND MONUMENTS AND PROPERTY-LINE MARKS. The Contractor shall protect carefully from disturbance or damage all land monuments and iron pins or other markers which establish property lines, provided that where such monuments or markers must, of necessity, be disturbed or removed in the performance of the contract, the Contractor shall first give ample notice to the Owner's Representative, so that he may witness or reference in such monuments or markers. Should the Contractor disturb, remove or damage any established land monument or property line mark without first giving the Owner's Representative ample notice, the Owner's Representative may, at his option deduct the cost of re-establishing such monuments or markers from any monies due to become due the Contractor.

106.12 RESPONSIBILITY FOR DAMAGE CLAIMS. The Contractor and his surety shall defend, indemnify and save harmless the Owner and all its officers, agents and employees from all suits, actions or claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person or persons or property by or from the said Contractor or his employees or by or in consequence of any negligence in safeguarding the work or through the use of unacceptable materials in constructing the work or by or on account of any act or omission, neglect or misconduct of said Contractor or by or on account of any claim or amounts arising or recovered under the Workmen's Compensation Law or any other law, ordinance, order or decree, and so much of the money due the said Contractor under and by virtue of his contract as shall be considered necessary by the Owner may be retained for the use of the Owner, or in case no money is due, his surety shall be held until such suit or suits, action or actions, claim or claims for injury or damages as aforesaid shall have been settled and satisfactory evidence to the effect furnished to the Owner.

106.13 CONTRACTOR'S CLAIM FOR DAMAGES. Should the Contractor claim compensation for any alleged damage by reason of the acts or omissions of the Owner, he shall within ten (10) days after the sustaining of such damage, make a written statement to the Owner's Representative, setting out in detail the nature of the alleged damage. On or before the 25th day of the month succeeding that in which any such damage is claimed to have been sustained, the Contractor shall file with the Owner's Representative an itemized statement of the details and amount of such damage, and upon request shall give the Owner's Representative access to all books of accounts, receipts, vouchers, bills of lading and other books or papers containing any evidence as to the amount of such damage. Unless such statement shall be filed as thus required, the Contractor's claim for compensation shall be waived and he shall not be entitled to payment on account of any such damage.

106.14 PUBLIC UTILITIES AND PUBLIC PROPERTY. In the event it is necessary to change or move the property of any owner of a public utility, such owner will, upon proper application by the Contractor, be notified by the Owner's Representative to change or move such property within a specified time, and the Contractor shall not interfere with such property until ordered to do so by the Owner's Representative. The right is reserved to the owner of public utilities to enter upon the limits of the contract for the purpose of making such repairs or changes of their property that may be necessary by performance of the contract. The Owner shall have the privilege of entering upon the limits of the contract for the purpose of repairing or relaying sewer and water lines and appurtenances, repairing culverts or storm drains, and for making other repairs, changes or extensions to any utilities.

The Contractor shall provide all notices to the ONE-OKIE system prior to excavating, in accordance with State law.

106.15 TEMPORARY SEWER AND DRAIN CONNECTIONS. When existing sewers have to be taken up or removed, the Contractor at his own expense shall provide and maintain temporary outlets and connections for all private or public drains, sewers or sewer, inlets. He shall also take care of all sewage and drainage which will be received from these drains, sewers and sewer inlets, and for this purpose he shall provide and maintain at his own expense adequate pumping facilities and temporary outlets or diversions. He shall construct such troughs, pipes or other structures necessary and be prepared at all times to dispose of drainage and sewage received from these temporary connections until such time as the permanent connections are built and in service. The existing sewers and connections shall be kept in service and maintained under the contract, save where specified or ordered to be abandoned by the Owner's Representative. All water or sewage shall be disposed of in a satisfactory manner so that no nuisance is created and that the work under construction will be adequately protected.

106.16 ARRANGEMENT AND CHARGE FOR POTABLE WATER FURNISHED BY THE OWNER. If the Contractor desires to use Owner water he shall pay the rate established by City ordinances for such service and he shall make complete and satisfactory arrangements with the Water Department for so doing. Meters will be used and the Contractor shall deposit the cost of the water meter with the Water Department and will pay for all repairs and maintenance of the meter for the period which he has the meter in use or in his possession.

106.17 USE OF FIRE HYDRANTS. The Contractor or his employees shall not open, turn off, interfere with, attach pipe or hose to or connect anything with any fire hydrant, stop valve or stop cock or tap any water main belonging to the Owner, unless duly authorized to do so by the Water Department.

106.18 USE OF A SECTION OR PORTION OF THE WORK. Whenever in the opinion of the Owner's Representative any portion of the work or any structure is in suitable condition it may be put into use by the written order of the Owner's Representative and such usage shall not be held to be in any way acceptance of said work or structure or any part thereof or as a waiver of any of the provisions of these specifications or contract. Pending final completion and acceptance of the work, all necessary repairs and renewals on any section of the work so put into use, due to defective material or workmanship, to natural causes other than ordinary wear and tear or to the operations of the Contractor shall be performed by and at the expense of the Contractor.

106.19 CONTRACTOR'S RESPONSIBILITY FOR THE WORK. Until issuance of written acceptance by the Owner's Representative as provided for in these specifications, the work shall

be under the charge and care of the Contractor, and he shall take every necessary precaution to prevent injury or damage to the work or any part thereof by the action of the elements or from any other cause whatsoever, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good, at his own expense, all injuries or damage to any portion of the work occasioned by any of the above causes before acceptance.

106.20 PERSONAL RESPONSIBILITY OF PUBLIC OFFICIALS. In carrying out any of the provisions contained herein or in exercising any power or authority granted to him by the contract, there shall be no liability upon the Owner's Representative or his authorized assistants, either personal or as officials of the Owner, it being understood that in such matters he acts as the agent and representative of the Owner.

106.21 WAIVER OF LEGAL RIGHTS. Inspection by the Owner's Representative or by any of the duly authorized representatives of the Owner's Representative, any order, measurement, or certificate by the Owner's Representative, any order by the Owner for the payment of money, any payment for or acceptance of any work or any extension of time or any possession taken by the Owner, shall not operate as a waiver of any provision of the contract or any power therein provided. Any waiver of any breach of contract shall not be held to be a waiver of any other or subsequent breach. The Owner reserves the right to correct any error that may be discovered in any estimate that may have been paid and to adjust the same to meet the requirements of the contract and specifications. The Owner reserves the right to claim and recover by process of law sums as may be sufficient to correct any error or errors or make good any deficiency in the work resulting from such error or deficiency, dishonesty or collusion discovered in the work after the final payment has been made.

106.22 CONTRACTOR'S INSURANCE. The Contractor shall not commence work under this contract until he has obtained all insurance required under this specification and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required for the subcontractor has been so obtained and approved.

- (a) WORKMEN'S COMPENSATION AND DEATH LIABILITY INSURANCE. The Contractor shall secure and maintain during the life of this contract Workmen's Compensation Insurance as prescribed by the laws of the State of Oklahoma for all his employees employed at the site of the project. The Contractor shall require any subcontractor similarly to provide Workmen's Compensation and Employer's Death Liability insurance for all the latter's employees, unless such employees are covered by the protection afforded by the Contractor.
- (b) PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE. The Contractor shall secure and maintain during the life of this contract such Public Liability and Property Damage Insurance as will protect the Owner, himself, and any subcontractor performing work covered by this contract, from claims for damages for personal injury, including accidental death, as well as from claims for property damages, which may arise from operations under this contract, whether such operations be by himself or by any subcontractor or by anyone directly or indirectly employed by either of them.
- (c) Contractor shall provide to the City a certificate of public liability insurance, a certificate of worker's compensation insurance, and automobile public liability insurance as follows:

Comprehensive Public Liability and Property Damage

Bodily Injury	\$ 125,000 per individual
	\$1,250,000 in the aggregate per occurrence;
Property Damage	\$ 25,000 per occurrence
	\$ 125,000 in the aggregate

Worker's Compensation Insurance. Statutory limits as required by the laws of the State of Oklahoma, including employer's liability insurance with \$500,000 limit.

Automobile Public Liability Insurance

Bodily Injury	\$ 125,000 per individual
	\$1,000,000 in the aggregate per occurrence

Public Liability Insurance in the amount of not less than fifty thousand dollars(\$50.000) for injuries, including accidental death, or one hundred thousand dollars(\$100.000) for one accident.

106.23 LIENS. Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Owner a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner, to indemnify him against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

SECTION 107 PROSECUTION AND PROGRESS

107.01 SUBLETTING OF WORK. If the Contractor sublets the whole or any part of the work to be done under this contract, he will not under any circumstances be relieved of his responsibility and obligations. All transactions of the Owner's Representative shall be with the Contractor. Subcontractors will be considered only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competency. The Contractor shall at all times when work is in operation, be represented either in person or by a qualified superintendent or qualified designated representative.

The Contractor shall submit the name and address of any proposed subcontractor to the Owner's Representative in writing prior to said subcontractor performing any of the work. The Contractor shall clearly list the types and amounts of work of the subcontractor.

107.02 ASSIGNMENT OF CONTRACT. The Contractor shall not assign, transfer, convey or otherwise dispose of the contract or his right, title, or interest in or to the same or any part thereof without the previous consent of the Owner's Representative in writing, approved by the governing body of the Owner and concurred in by the Surety. If the Contractor does, without such previous consent, assign, transfer, convey, or otherwise dispose of the contract or of his right, title or interest therein or any part thereof to any person or persons, partnership, company, firm or corporation or by bankruptcy, voluntary or involuntary, or by assignment under the insolvency laws of any state, attempt to dispose of the contract or make default in or abandon said contract, then the contract may, at the option of the Owner, be revoked and annulled unless the Surety shall successfully complete said contract and any monies due or to become due under said contract shall be retained by the Owner as liquidated damages for the reason that it would be impractical and extremely difficult to determine the actual damages.

107.03 PROSECUTION OF WORK. The Contractor shall begin the work to be performed under the contract within the time limit stated in the advertisement, proposal and contract, and shall conduct the work in such a manner and with sufficient equipment, materials and labor as is necessary to insure its completion within the time limit set forth in the proposal and contract. Should the prosecution of the work for any reason be discontinued by the Contractor for an extended period of time, he shall notify the Owner's Representative at least twenty-four (24) hours in advance of resuming operations.

107.04 PROJECT SCHEDULES. Within ten days after the effective date of the agreement, the Contractor shall submit to the Owner's Representative for review a progress schedule indicating the times (number of days or dates) for starting and completing the various stages of the Work, including any milestones specified in the contract documents.

No progress payment shall be made to the Contractor until the schedules are submitted to and acceptable to the Owner's Representative as provided below. The progress schedule will be acceptable to the Owner's Representative as providing an orderly progression of the work to completion within any specified milestones and the contract times, but such acceptance will neither impose on the Owner's Representative responsibility for the sequencing, scheduling or progress of the work nor interfere with or relive the Contractor from the Contractor's full responsibility therefor. The Contractor's schedule of Shop Drawing(s) and Sample submissions will be acceptable to the Owner's Representative as providing a workable arrangement for reviewing and processing the required submittals.

107.05 LIMITATION OF OPERATIONS. The Contractor shall conduct his work so as to create a minimum amount of inconvenience to the public. At any time when in the judgment of the Owner's Representative the Contractor has obstructed or closed or is carrying on operations on a greater portion of the site or public way than is necessary for the proper execution of the work, the Owner's Representative may require the Contractor to finish sections on which work is in progress before work is started on any additional section.

107.06 CHARACTER OF WORKMEN AND EQUIPMENT. The Contractor shall employ such superintendents, foremen and workmen as are careful and competent, and the Owner's Representative may require removal from the project of any person or persons employed by the Contractor, in, about or on the work who shall misconduct himself or be incompetent or negligent in the proper performance of his or their duties or neglect or refuse to comply with the directions of the Owner's Representative, and such person or persons shall not be employed again thereon without the written consent of the Owner's Representative. The Owner's Representative may withhold all payments which are or may become due or may suspend the work until such orders are fulfilled.

All workmen shall have sufficient skill and experience to properly perform the work assigned them. All workmen engaged on special work or skilled work or in any trade shall have sufficient experience in such work to properly and satisfactorily perform it and operate the equipment involved, and shall make due and proper effort to execute the work in the manner prescribed in these specifications.

In the employment of labor, preference shall be given, other conditions being equal, to bona fide residents of the Owner or the area, but no other preference or discrimination among citizens of the United States shall be made.

The Contractor shall furnish such equipment as is considered necessary for the prosecution of the work in an acceptable manner and at a satisfactory rate of progress. All equipment, tools and machinery used for handling materials and executing any part of the work shall be operated and maintained in a satisfactory working condition in accordance with the equipment manufacturers' recommendations. Equipment on any portion of the work shall be such that no injury to the work or adjacent property will result from its use.

107.07 DAYS WORK WORKING HOURS. Work shall be performed only during regular and commonly accepted and prescribed working hours. No work shall be performed nights, Sundays or during City holidays unless authorized in writing.

107.08 TIME OF COMMENCEMENT AND COMPLETION. The Contractor shall commence work within the time specified in the advertisement, proposal and contract and the rate of progress shall be such that the whole work will be performed and the premises cleaned up in accordance with the contract, plans and specifications within the time limit, as stated in the contract, unless an extension of time is granted in the manner hereinafter specified.

107.09 EXTENSION OF TIME OF COMPLETION. If the Contractor finds it impossible, for reasons beyond his control, to complete the work within the Contract time as specified or as extended in accordance with the provisions of this Subsection, he may, at any time prior to the expiration of the Contract time as extended, make a written request to the Owner's Representative for an extension of time setting forth therein the reasons which he believes will justify the granting of his request. The Contractor's plea that insufficient time was specified in

the Proposal and the Contract or that previously unprotested time charges were incorrect shall not be grounds for an extension of time. If the Owner's Representative finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, the Owner's Representative may extend the time for completion in such amounts as the conditions justify. The extended time for completion shall be in full force and effect the same as though it were the original time for completion. Daily time charges will cease when the project is completed.

In adjusting the contract time for the completion of the project, all strikes, lockouts, unusual delays in transportation or any condition over which the Contractor has no control and also any suspensions ordered by the Owner's Representative for causes not the fault of the Contractor shall be excluded from the computation of the contract time for completion of the work. If the satisfactory execution and completion of the contract should require work or materials in greater amounts or quantities than those set forth in the contract, then the contract time shall be increased in the same proportion as the cost of the original work. No allowance shall be made for delays or suspension of the prosecution of the work due to the fault of the Contractor.

107.10 FAILURE TO COMPLETE WORK ON TIME. It is mutually agreed by Owner and Contractor that time is of the essence of this Contract and that Owner will suffer financial loss if the Work is not substantially complete within the time specified in the Contract, plus any extensions thereof allowed in accordance with Section 107.09 of these General Conditions. They also recognize the delays, expense and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner the amount set forth in the Special Provisions, until the work is substantially complete.

107.11 TEMPORARY SUSPENSIONS. The Owner's Representative shall have the authority to suspend the work wholly or in part for such period or periods, as he may deem necessary, due to unsuitable weather or such other conditions as are considered favorable for the suitable prosecution of the work.

If it should be necessary to stop work for an indefinite period, the Contractor shall store all materials in such manner that they will not obstruct or impede the traveling public unnecessarily nor become damaged in any way, and he shall take every precaution to prevent damage or deterioration of the work performed, and shall provide suitable drainage of the work.

107.12 SUSPENSION OF WORK AND ANNULMENT OF CONTRACT. The work or any portion of the work under contract may be suspended on written order of the Owner's Representative or the Owner, with copy of such notice to be served upon the Contractor's Surety, or the contract may be annulled by the Owner, for any good cause or causes, said causes including but not limited to the following:

- (a) Failure of the Contractor to start the work within the time limit specified;
- (b) Substantial evidence that the progress being made by the Contractor is insufficient to complete the work within the specified time;
- (c) Failure of the Contractor to provide sufficient and proper equipment for properly executing the work;

- (d) Deliberate failure on the part of the Contractor to observe any requirements of these specifications or to comply with any orders given by the Owner's Representative, as provided for in these specifications;
- (e) Failure of the Contractor to promptly make good any defects in materials or workmanship or any defects of any other nature, the correction of which had been directed in writing by the Owner's Representative.
- (f) Substantial evidence of collusion for the purpose of illegally procuring a contract or perpetrating fraud on the Owner in the construction of work under contract.

When work is suspended for any one of the causes itemized above, or for any other cause or causes, the Contractor shall discontinue the work or such part thereof as the Owner shall designate, whereupon the Surety may, at its option, assume the contract or that portion thereof which the Owner has ordered the Contractor to discontinue and may perform the same or may, with the written consent of the Owner's Representative, approved by the Owner, sublet the work or portion of the work so assumed; provided, however, that the Surety shall exercise its option, if at all, within two (2) weeks after the written notice to discontinue work has been served upon the Contractor and upon the Surety or its authorized agent. The Surety, in such event shall assume the Contractor's place in all respects and shall be paid by the Owner for all work performed by it in accordance with the terms of the contract and, if the Surety, under the provisions hereof, shall assume said entitled contract, all monies remaining due the Contractor at the time of his default shall thereupon become due and payable to the Surety as the work progresses, subject to all the terms of the contract.

In the event that the Surety does not within the time hereinbefore specified, exercise its right and option to assume the contract, or that portion thereof which the Owner has ordered the Contractor to discontinue, then the Owner shall have the power to complete, by contract or otherwise as it may determine, the work herein described, or such part thereof as it may deem necessary, and the Contractor hereby agrees that the Owner shall have the right to take possession of and use any of the materials, tools, equipment, supplies and property of every kind provided by the Contractor for the purpose of his work and to procure other tools, equipment and materials for the completion of the same, and to charge to the account of the Contractor the expense of said contract for labor, materials, tools, equipment and expenses incident thereto. The expense so charged shall be deducted by the Owner out of such monies as may be due or may at any time thereafter become due to the Contractor under and by virtue of the contract or any part thereof. The Owner shall not be required to obtain the lowest bid for the work of completing the contract but the expense to be deducted shall be the actual cost of such work. In case such expense is less than the same which would have been payable under the contract, if the same had been completed by the Contractor, the balance shall operate as liquidated damages, as herein above set forth. In case such expense shall exceed the amount which would, have been payable under the contract, if the same had been completed by the Contractor, then the Contractor and his Surety shall pay the excess as due and payable. When, any particular part of the work is being carried out by the Owner by contract or otherwise under the provisions of this Section, the Contractor shall continue the remainder of the work in conformity with the terms of the contract and in such manner as not to hinder or interfere with the performance of workmen employed as above provided by the Owner.

107.13 TERMINATION OF CONTRACT. The Contract will be considered fulfilled save as provided in any bond or bonds or by law, when all the work has been completed, the final inspection made by the Owner's Representative, and final acceptance and final payment made by the Owner.

SECTION 108 MEASUREMENT AND PAYMENT

108.01 MEASUREMENT OF QUANTITIES. The determination of quantities of work accepted and completed under the terms of the contract or as directed by the Owner's Representative, in writing, will be made by the Owner's Representative, based on measurements taken by him or his assistants, or at the sole discretion of the Owner's Representative determination of quantities may be based on measurements taken by the Contractor. These measurements will be taken according to the United States Standard Measurements. When materials are measured in the vehicle, the measurement will be taken at the point of delivery. The capacity of all vehicles shall be plainly marked on each vehicle and the capacity or markings shall not be changed without permission of the Owner's Representative.

108.02 SCHEDULE OF VALUES. (For Lump Sum Items or Contracts Only) Prior to work commencing, Owner's Representative and Contractor shall determine and agree to payments based on a percentage of the Lump Sum amount, to correlate to completion of respective phases of the work.

108.03 SCOPE OF PAYMENT. The Contractor shall receive and accept the compensation as herein provided as full payment for furnishing all labor, materials, tools, equipment and incidentals; for performing all work contemplated and embraced under the contract; for all loss or damage arising out of the nature of the work or from the action of the elements; for any unforeseen defects or obstructions which may arise or be encountered during the prosecution of the work and before its final acceptance by the Owner's Representative; for all risks of every description connected with the prosecution of the work; for all expenses incurred by or in consequence of suspension or discontinuance of such prosecution of the work as herein specified; for any infringement of patents, trademarks or copyrights and for completing the work in an acceptable manner according to the plans and specifications.

The payment of any current or partial estimate prior to final acceptance of the work by the Owner shall in no way constitute an acknowledgment of the acceptance of the work nor in any way prejudice or affect the obligation of the Contractor to repair, correct, renew, or replace at his expense any defects or imperfections in the construction or in the strength or quality of the materials used in or about the construction of the work under the contract and its appurtenances nor any damage due to or attributable to such defects, which defects, imperfections or damage shall have been discovered on or before the final inspection and acceptance of the work. The Owner's Representative shall be the sole judge of such defects, imperfections or damage and the Contractor shall be liable to the Owner for failure to correct the same as provided herein.

108.04 PAYMENT FOR EXTRA WORK. Extra work provided by the Contractor, as authorized and approved by the Owner's Representative and the Owner, will be paid for in the manner hereinafter described and the compensation thus provided shall be accepted by the Contractor as payment in full for all labor, materials, tools, equipment and incidentals, and all superintendents' and timekeepers' services, all insurance and all other overhead expense incurred in the prosecution of the extra work. Payment for extra work will be made by one or more of the following methods:

- (a) Unit prices agreed upon by the Owner's Representative and the Contractor and approved by the governing body of the Owner in writing, before said work is commenced, subject to all other conditions of the contract;

- (b) A lump sum price agreed upon by the Owner's Representative and the Contractor and approved in writing by the governing body of the Owner before said work is commenced, subject to all other conditions of the contract;
- (c) The actual cost including labor, materials, tools, equipment and field supervision of such extra work plus fifteen percent (15%); said 15% understood and agreed to be full compensation for all overhead expenses and profits, when agreed upon by the Owner's Representative and the Contractor, and approved in writing by the governing body of the Owner before said work is commenced; subject to all other conditions of the contract.

The Contractor shall, on or before the 10th day of the month succeeding that in which any extra work shall have been performed, file with the Owner's Representative his claim and an account giving the itemized cost of such work and shall give the Owner's Representative access to all accounts, bills and vouchers relating thereto.

108.05 PAYMENT PROCEDURES. The Contractor shall submit an Invoice or Application for Payment for work completed as of the date of the Invoice or Application. All payments made by the Owner are subject to procedures established for the governing body of the Owner to authorize payment at its regularly scheduled meetings.

Invoice or Application for Payment must be received in the Public Works Director's Office no less than ten (10) business days prior to the regular meeting at which authorization for payment is to be requested.

Retainage shall be withheld from all progressive payments in accordance with Oklahoma Statutes.

Upon final completion and acceptance of the work, including all submittals, the Owner shall pay the remainder of the Contract price, subject to the procedures as noted in this section.

It is understood that payments will be subject to correction in the payment rendered following discovery of an error in any previous payment and such payment shall not in any respect, be taken as an admission by the Owner of the amount of work done or of its quality or sufficiency nor as an acceptance of the work or the release of the Contractor of any of his responsibility under the contract.

108.06 PAYMENTS WITHHELD. The Owner's Representative may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any payment to such extent as may be necessary to protect the Owner from loss on account of:

- (a) Defective work not remedied;
- (b) Claims filed or reasonable evidence indicating probable filing of claims;
- (c) Failure of the Contractor to make payments properly to subcontractors or for materials or labor;
- (d) A reasonable doubt that the contract can be completed for the balance then paid;
- (e) Damage to another Contractor.

When the above conditions are remedied, payment shall be made for amounts withheld as a result of such condition.

108.07 STATE SALES AND USE TAX. Under the terms of contracts established between the City of Chickasha and the Contractor, the Contractor will be appointed agent for the City of Chickasha, Oklahoma, for the purpose of the tangible personal property purchased or rented for the project. Legal title to all tangible personal property purchased, and the right to direct the use of all tangible personal property rented by Contractor shall pass directly from the vendor to the City of Chickasha. Upon passage of title, all of such property will be included in the project owned by the City of Chickasha. Title to all such property shall pass to the City of Chickasha from the vendor. All such property procured under the terms of contracts established between the City of Chickasha and the Contractor is exempt from Oklahoma sales and use taxes and/or City sales taxes. Contracts established between the Chickasha Municipal Authority and the Contractor shall not provide for sales and/or use tax exemption.

108.08 ACCEPTANCE AND FINAL PAYMENT. Whenever the improvement provided for by the contract shall have been completely performed on the part of the Contractor, and all parts of the work have been approved by the Owner's Representative and accepted by the Owner a final pay request showing the value of the work will be prepared by the Contractor as soon as the necessary measurements and computations can be made. All prior pay requests, upon which payments have been made, are subject to necessary corrections or revisions in the final payment. The amount of this pay request, less any sums that have been deducted or retained under the provisions of the contract, will be paid to the Contractor as soon as practicable after the final acceptance, provided the Contractor has furnished to the Owner satisfactory evidence that all sums of money due for any labor, materials, apparatus, fixtures or machinery furnished for the purpose of such improvement have been paid or that the person or persons to whom the same may respectively be due have consented to such final payment.

The acceptance by the Contractor of the last payment, as aforesaid, shall operate as and shall be a release to the Owner from all claims of liability under the contract for anything performed or furnished or relating to the work under the contract or for any act or neglect of Owner relating to the contract.

108.09 FINAL MEASUREMENT AND FINAL PAY REQUESTS. Final measurement will be taken and final pay requests compiled as soon as work has progressed to a point where the final measurements may be taken accurately.

108.10 This contract, and all documents incorporated herein by reference or executed in connection herewith, are intended solely to govern the relationship between the Contractor and the Owner and their mutual obligations in respect to the subject of the contract. To that end, no provision of this contract, or of any document mentioned above, shall be interpreted or given legal effect to create an obligation on the part of the Owner to third persons, including by way of illustration but not of exclusion, sureties upon performance bonds, payment bonds, or other bonds; assignees of the contractor; subcontractors; and persons performing labor, furnishing material, or in any other way contributing to or assisting in the performance of the obligations of the Contractor; nor shall any such provisions be interpreted or given legal effect to afford a defense against any obligation owed or assumed by such third person to the Owner or in any way to restrict the freedom of the Owner to exercise full discretion in its dealing with the Contractor.



Chickasha Municipal Authority
Chickasha, Oklahoma

RFP CMA-2402

SPECIAL

PROVISIONS

**SPECIAL PROVISIONS
RFP CMA-2402
DRAINAGE STRUCTURE IMPROVEMENTS PROJECT**

1. GENERAL

- 1.1.** These Special Provisions are supplemental to the General Provisions and shall be considered as a part of the specifications and contract. In case of conflict between the stipulations of the Special Provisions and the specifications, plans, or general provisions, the Special Provisions shall take precedence and govern. The Owner's Representative shall make interpretation of the plans and specifications.
- 1.2.** The Contractor's work consists of furnishing all tools, labor, plant, equipment, materials, and performing all work necessary for the complete construction of all improvements shown on the plans in strict accordance with the plans and specifications.
- 1.3.** It is the intent of these plans and specifications to prescribe a complete work and improvement. Where items of work are necessary for the satisfactory completion of the improvement, for which specific contract prices are not provided in the proposal and contract, then such work shall be considered incidental to the main construction and any costs involved shall be reflected in such other prices as are provided.
- 1.4.** The successful bidder shall furnish Performance Bond, Statutory Bond, and Maintenance Bond each in the amount of 100 percent of the contract, in accordance with Oklahoma Statutes.
- 1.5.** Waiver of Legal Rights. Inspection by the Owner's Representative or by any the duly authorized representative(s) of the Owner's Representative or any order, measurement or certificate by the Owner's Representative of any work or any extension of time or any possession taken by the Owner shall not operate as a waiver of any provisions of the contract or any power therein provided. Any waiver of any breach of contract shall not be held to be a waiver of any other or subsequent breach. The Owner reserves the right to correct any error that may be discovered in any estimate that may have been paid and to adjust the same to meet the requirements of the contract and specifications. The Owner reserves the right to claim and recover by process of law sums as may be sufficient to correct any error or errors or make good any deficiency in the work resulting from such error or deficiency, dishonesty, or collusion discovered in the work after the final payment has been made.
- 1.6.** Subletting of Contract. The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the Contract or Contracts or any portion thereof, or any of his rights, title, or any interests therein, without written consent of the Owner.
- 1.6.1. Requests for permission to sublet, or otherwise dispose of any portion of the Contract work shall be in writing and accompanied by a statement showing that the organization which will perform the work is particularly experienced and

equipped for such work. No Subcontracts, or transfer of Contract, shall in any case release the Contractor of his liability under the Contract and bonds.

- 1.6.2. Should the Contractor assign any of his right title or interest in the Contract said assignment shall be made only with the full knowledge and written consent of the Surety. It is specifically understood that a violation of this Subsection will constitute an act of default on the part of the Contractor.

- 1.7. Purchases made for this project will not be exempt from sales taxes and use taxes.

- 1.8. The General Provisions contained herein and these Special Provisions shall govern the work. City of Chickasha standards and specifications 2009 Oklahoma Department of Transportation standards and specifications shall govern the work.

2. MATERIALS SUBMITTAL

The Contractor shall submit two (2) copies of detailed descriptive (and completely legible) information, concrete mix designs, asphalt mix designs, aggregate gradations, reinforcing steel bar lists and mill test reports, catalog cuts, certifications, etc., of all material items he proposes to use on this project. Submittals are due when the Notice to Proceed is issued. Revised submittals are due two weeks prior to use of the material. Submittals shall be presented in the order in which they are specified, i.e., by section number, followed by items described on the drawings. Identifying marks shall be used on descriptive sheets, certifications and catalog cuts to indicate exactly which item is being presented for approval.

3. SUBSTANTIAL COMPLETION AND FINAL COMPLETION

- 3.1. SUBSTANTIAL COMPLETION. The intent of this term is to imply complete use of the facility by the Owner during the construction period.

- 3.2. FINAL COMPLETION. The project shall be completed in accordance with the number of Calendar Days as stated in the proposal and contract.

4. DISPOSAL OF WASTE MATERIALS AND CLEAN-UP

- 4.1. All waste materials shall become Contractor property to be disposed of in a manner approved by the Owner's Representative. The Owner reserves the right to claim selected items that are determined to have potential value to the City and will instruct the Contractor as to their disposition. The Contractor shall provide transportation for disposition of all waste materials regardless of their destination.

- 4.2. Before the project is accepted by the Owner, the area must be cleaned of all foreign materials such as rock, wood, etc. that could be picked up by mowers. The Owner's Representative and the Contractor shall make a thorough inspection of the area before final inspection of the project is made. Failure of the Contractor to clean up the jobsite could delay final inspection and thereby delay final payment on his contract. The cleaning up of the project work area is incidental to all other work involved, and no separate

payment for this work will be made.

5. The Owner reserves the right to consider alternative proposals submitted in writing by responsive bidders.
6. Only 11" x 17" size plans shall be issued for this project.

7. AS-BUILT DRAWINGS

As-built drawings are the marked-up drawings, maintained by the Contractor on-site, that depict actual conditions and deviations from the Contract Documents. Maintain the as-builts throughout construction as red-lined hard copies on site. Submit As-built drawings prior to issuance of final payment.

Show on the as-built drawings the following information:

- 7.1. The actual locations of structures by dimensioning along the CRL.
- 7.2. The actual flowline elevations of structures.
- 7.3. Unusual or uncharted obstructions that are encountered in the contract work area during construction.
- 7.4. Any other deviations from the contract drawings.

LEGEND			
Ø	POWER POLE	Ⓜ	GAS METER
○	UTILITY POLE	⊗	GAS VALVE
☆	LIGHT POLE	Ⓜ	GAS PIPELINE MARKER
←	GUY ANCHOR	—	SIGN
Ⓜ	ELECTRIC METER	Ⓜ	FIRE HYDRANT
Ⓜ	ELECTRIC MANHOLE	Ⓜ	WATER METER
⊗	ELEC. TRANSFORMER	Ⓜ	WATER VALVE
Ⓜ	SANITARY SEWER MANHOLE	Ⓜ	MAIL BOX
●	SANITARY SEWER CLEANOUT	EB	ELECTRIC BOX
Ⓜ	STORM SEWER MANHOLE	Ⓜ	TELEPHONE MANHOLE
≡	IRON GRATE INLET	Ⓜ	TELEPHONE PEDESTAL

UTILITY LINES			
—	UW	—	WATER
—	GAS	—	GAS
—	SS	—	SANITARY SEWER
—	SD	—	STORM DRAIN
—	UT	—	TELEPHONE
—	UP	—	UNDERGROUND ELECTRIC
—	OHE	—	OVERHEAD POWERLINE
—	RW	—	RECLAIMED WATERLINE
—	SSP	—	SANITARY SEWER FORCE MAIN (PROJECTED)
MISC. LINES			
—	x	—	FENCE

TOTAL DISTURBED AREA = 0.14 ACRES

PRIOR TO PERFORMING ANY GRADING OR EXCAVATING WORK, THE CONTRACTOR SHALL CALL OKIE811, THE OKLAHOMA ONE-CALL SYSTEM NOT LESS THAN 48 HOURS IN ADVANCE AND SHALL VERIFY OR ESTABLISH THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND LINES.

WORK LIES PARTIALLY WITHIN AND PARTIALLY OUTSIDE THE CORPORATE LIMITS OF THE CITY OF CHICKASHA.

CITY OF CHICKASHA SPECIFICATIONS AND CONSTRUCTION STANDARDS AND 2009 OKLAHOMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND STANDARD DRAWINGS SHALL GOVERN THE WORK.

ALL DIMENSIONS AND STATIONS ARE APPROXIMATE. FIELD VERIFY ALL DIMENSIONS AND STATIONS PRIOR TO ORDERING MATERIALS.

CHICKASHA MUNICIPAL AUTHORITY

PLAN OF PROPOSED DRAINAGE STRUCTURE IMPROVEMENTS

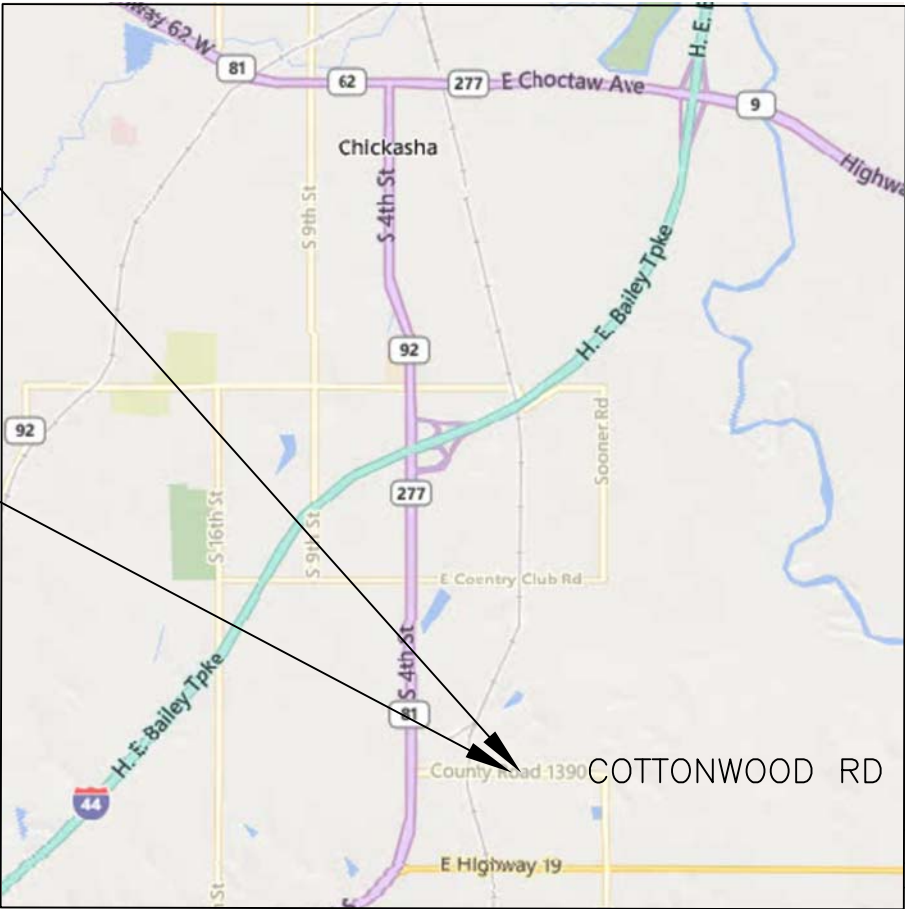
COTTONWOOD ROAD

CMA-2402
5/30/2024

KEITH JOHNSON
CITY MANAGER
JIM CROSBY
PUBLIC WORKS DIRECTOR

END
PROJECT
11+50

BEGIN
PROJECT
9+00



LOCATION MAP

INDEX OF SHEETS

SHEET NUMBER	SHEET TITLE
1	TITLE SHEET
2	GENERAL NOTES, PAY ITEMS AND PAY ITEM NOTES
3	TYPICAL SECTIONS
4	PLAN AND PROFILE ALONG CRL
5	PLAN AND PROFILE ALONG CL DR. STR.
N/A	SURVEY DRAWING

STANDARD DRAWINGS REQUIRED

TSC2-3-2	TEMPORARY SEDIMENT CONTROLS
PCES-4-1	PREFABRICATED CULVERT END SECTIONS
SPI-4-1	STANDARD PIPE INSTALLATION
SPB-1-4	STANDARD PIPE BEDDING
FHTCP-3-1	FILL HEIGHT PIPES (CONCRETE PIPES)
DC-3-2	PAVED DITCHES AND FLUMES
RWF2-2-1	RIGHT-OF-WAY FENCE STYLE SWF (STRAND WIRE FENCE)

DATE APPROVED BY CHICKASHA MUNICIPAL AUTHORITY

5/30/2024

DATE RANDALL SCOTT VAUGHN, OKLA. REG. NO. 15194



PREPARED BY:



CHISHOLM TRAIL CONSULTING, LLC
OK CA 7771
2124 SCOTT LANE
DUNCAN, OK 73533
580-467-8130

GENERAL CONSTRUCTION NOTES

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF CHICKASHA STANDARD SPECIFICATIONS, OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DRAWINGS AND THE CONTRACT DOCUMENTS.

ALL COSTS OF MAINTENANCE DURING CONSTRUCTION AND BEFORE THE PROJECT IS ACCEPTED SHALL BE INCLUDED IN THE UNIT PRICES BID ON THE VARIOUS PAY ITEMS. THE CONTRACTOR SHALL MAINTAIN THE WORK DURING CONSTRUCTION AND UNTIL THE PROJECT IS ACCEPTED. THIS MAINTENANCE SHALL CONSTITUTE CONTINUOUS AND EFFECTIVE WORK PROSECUTED DAY BY DAY, WITH ADEQUATE EQUIPMENT AND FORCES TO THE END THAT THE DRAINAGE CHANNEL, PRIVATE PROPERTY AND STRUCTURES ARE KEPT IN A SATISFACTORY CONDITION AT ALL TIMES. IF THE CONTRACTOR, AT ANY TIME, FAILS TO COMPLY WITH THESE PROVISIONS, THE OWNER'S REPRESENTATIVE MAY IMMEDIATELY NOTIFY THE CONTRACTOR OF SUCH NON-COMPLIANCE. IF THE CONTRACTOR FAILS TO REMEDY UNSATISFACTORY MAINTENANCE WITHIN 24 HOURS AFTER RECEIPT OF SUCH NOTICE, THE OWNER MAY IMMEDIATELY PROCEED TO MAINTAIN THE PROJECT, AND THE ENTIRE COST OF THIS MAINTENANCE WILL BE DEDUCTED FROM MONIES DUES OR BECOME DUE TO THE CONTRACTOR ON THIS CONTRACT.

THE CONTRACTOR SHALL NOTIFY THE CITY OF CHICKASHA IN WRITING A MINIMUM OF TWO WEEKS AND NO MORE THAN 30 DAYS PRIOR TO STARTING WORK.

THE CONTRACTOR SHALL NOTIFY THE CITY OF CHICKASHA IN WRITING A MINIMUM OF FIVE (5) DAYS AND A MAXIMUM OF TEN (10) DAYS PRIOR TO THE CLOSING OF ANY CITY STREET OR ROAD, INCLUDING LANE CLOSURES.

COTTONWOOD ROAD WITHIN THE PROJECT LIMITS SHALL BE CLOSED TO ALL TRAFFIC DURING CONSTRUCTION. CONTRACTOR SHALL ESTABLISH A DETOUR ROUTE BY INSTALLING APPROPRIATE CONSTRUCTION TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE MUTCD, "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER FOR REVIEW AND ACCEPTANCE PRIOR TO BEGINNING WORK. CONSTRUCTION TRAFFIC CONTROL DEVICES PLACED ON ANY STATE OR US HIGHWAY SHALL BE INSTALLED IN ACCORDANCE WITH ODOT REQUIREMENTS.

ALL WORK SHALL BE CONDUCTED WITHIN EXISTING AND PROPOSED EASEMENTS AND RIGHTS-OF-WAY.

CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ALL RESIDENTS, OCCUPANTS OR BUSINESSES THAT MAY BE AFFECTED BY THE WORK. SAID WRITTEN NOTICE SHALL BE DELIVERED NO LESS THAN 48 HOURS, NOR MORE THAN 2 WEEKS PRIOR TO THE START TIME OF ANY DISRUPTION. THE WRITTEN FORM MAY BE "DOOR HANGERS", BUT IN ANY EVENT SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO USE. AT A MINIMUM THE FORM SHALL CONTAIN: PROJECT IDENTIFICATION, CONTRACTOR NAME, CONTRACTOR ADDRESS, CONTRACTOR TELEPHONE NUMBER, TYPE OF CONSTRUCTION, REASON FOR AFFECTING OR DISRUPTING SERVICE AND DURATION OF SUCH.

REVISIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO BEGINNING ANY CONSTRUCTION SUBJECT TO THE REVISION.

THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE ADEQUATE DRAINAGE DURING CONSTRUCTION. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO ANY STRUCTURES, PARKING AREAS, ROADWAY SURFACES, STRIPING, RAISED PAVEMENT MARKERS, SIGNS, GUARDRAIL, SLOPES OR OTHER FEATURES SHALL BE REPAIRED AT CONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

THE PROJECT SHALL BE CONSTRUCTED TO MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.

BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT DAMAGE IN EXISTING RIGHT-OF-WAY. ANY DAMAGE DONE DUE TO CONTRACTOR'S NEGLIGENCE SHALL BE PREPARED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

THE PRICE BID ON ALL ITEMS SHALL INCLUDE ALL MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS.

EXISTING UTILITIES MAY OR MAY NOT BE SHOWN ON PLAN SHEETS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INFLICTED TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF THEIR DIGGING, TRENCHING, BORING, ETC..... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL THE "OKIE 811" NOTIFICATION CENTER FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION. THE "OKIE 811" NOTIFICATION CENTER MAY BE NOTIFIED ONLINE AT okie811.org, BY CALLING 811 OR 1-800-522-6543. DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

THE CITY OF CHICKASHA WILL COORDINATE ANY NECESSARY UTILITY RELOCATIONS.

ALL WORK SHALL BE CONDUCTED WITHIN PUBLIC EASEMENTS AND RIGHTS-OF-WAY.

GENERAL CONSTRUCTION NOTES (CONT.)

CONTRACTOR SHALL REMOVE AND RESET MAILBOXES DURING THE WORK TO ACCOMMODATE REGULAR MAIL DELIVERY. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK. ALL MAILBOXES SHALL BE RELOCATED TO THE ORIGINAL LOCATIONS PRIOR TO COMPLETING THE WORK.

CONTRACTOR SHALL REMOVE AND RESET ALL REGULATORY SIGNS DURING THE WORK TO ENSURE ADEQUATE TRAFFIC CONTROL IS IN PLACE AT ALL TIMES. ALL SIGNS SHALL BE RELOCATED TO THE ORIGINAL LOCATIONS PRIOR TO COMPLETING THE WORK.

CONCRETE CONTAINING FLY ASH, SLAG OR SILICA FUME WILL NOT BE ACCEPTED.

CONTRACTOR SHALL CONTACT THE ODOT COUNTY SUPERINTENDENT AT 405-224-1507 PRIOR TO STARTING WORK.

SUMMARY OF QUANTITIES

PAY ITEM NO.	PAY ITEM DESCRIPTION	NOTES	UNITS	EST QTY
201(A)	CLEARING AND GRUBBING		LSUM	1
202(H)	EARTHWORK	1	LSUM	1
221(C)	TEMPORARY SILT FENCE		LF	200
221(G)	TEMPORARY ROCK FILTER DAM (TYPE 4)		CY	1
230(A)	SOLID SLAB SODDING	2	LSUM	800
303(A)	AGGREGATE BASE, TYPE A	3	CY	46
310(B)	SUBGRADE METHOD B	4	SY	43
400(SP)	PAVEMENT REPAIRS	5	SY	320
501(A)	STRUCTURAL EXC., UNCLASSIFIED	6	CY	1,287
501(G)	CLSM BACKFILL		CY	19
509(D)	CLASS C CONCRETE		CY	20
601(A)	TYPE I - PLAIN RIPRAP, 12"		TON	40
601(I)	FILTER FABRIC (RIPRAP)		SY	50
613(A)	RCP, 48", ROUND		LF	58
613(L)	PCES, 48", ROUND		EA	2
613(T)	STANDARD BEDDING MATERIAL, CLASS C	7	CY	57
619(A)	REMOVAL OF STRUCTURAL ELEMENTS	8	EA	1
619(B)	REMOVAL OF EX. PAVEMENT		SY	320
619(B)	REMOVAL OF EX. FENCE		LF	450
619(C)	SAWING PAVEMENT		LF	40
624(C)	FENCE, STYLE SWF		LF	650
880J	CONST TRAFFIC CONTROL		LS	1

PAY ITEM NOTES:

(1) PRICE BID FOR THIS ITEM SHALL INCLUDE ALL COST OF LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR A COMPLETE PROJECT. WORK INCLUDES EXCAVATION, BORROW AND EMBANKMENT NECESSARY FOR BACKFILLING PIPE, PCES AND FLOWLINES, EXCAVATION FOR DITCHLINERS, EMBANKMENT FOR ROAD, AND ANY OTHER EARTHWORK NOT LISTED HEREIN. ESTIMATED QUANTITY OF EXCAVATION IS 42 CY AND ESTIMATED QUANTITY OF EMBANKMENT IS 250 CY. ESTIMATED QUANTITY OF BACKFILL IS 1,250 CY.

(2) PRICE BID FOR THIS ITEM SHALL INCLUDE THE COST OF FERTILIZING AND WATERING TO ENSURE A PERENNIAL STAND OF GRASS IS ACHIEVED.

(3) PAYMENT WILL BE BASED ON THE THEORETICAL VOLUME OF COMPLETED BASE. VOLUME WILL BE CALCULATED USING THE LENGTH AND WIDTH OF COMPLETED BASE TIMES 0.5 FEET THICKNESS.

(4) PAY ITEM IS FOR SCARIFYING, WATERING AND COMPACTING AREAS UNDER EXISTING PAVEMENT TO BE REMOVED AND REPLACED THAT ARE LOCATED OUTSIDE THE AREAS OF EMBANKMENT.

(5) AT CONTRACTOR'S OPTION, EITHER ASPHALT CONCRETE PAVEMENT OR P.C. CONCRETE PAVEMENT MAY BE USED. ASPHALT CONCRETE PAVEMENT SHALL MEET THE REQUIREMENTS OF SECTION 411 AND P.C. CONCRETE PAVEMENT SHALL MEET THE REQUIREMENTS OF SECTION 414. P.C. CONCRETE WILL BE PAID FOR BASED ON THE AREA OF COMPLETED WORK ONLY. SEPARATE PAYMENT WILL NOT BE MADE FOR THE VOLUME OF CONCRETE USED. ESTIMATED QUANTITY ASPHALT IS 124 TONS AND THE ESTIMATED VOLUME OF CONCRETE IS 62 CY.

(6) ESTIMATED PLAN QUANTITY IS BASED ON BENCHING EXCAVATION FOR EVERY FIVE FOOT OF DEPTH WITH INTERMEDIATE SLOPES OF 3:1. ACTUAL PAY QUANTITY WILL BE BASED ON CALCULATIONS USING FIELD MEASUREMENTS.

(7) PAYMENT WILL BE BASED ON PLAN QUANTITY IN ACCORDANCE WITH SECTION 109.01B OF THE SPECIFICATIONS.

(8) PRICE BID SHALL INCLUDE THE COST OF ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO REMOVE THE DECK OF THE EXISTING RCB AND THE EXISTING DROP INLET, AND DISPOSAL OFFSITE OF ALL REMOVED DEBRIS. REFER TO THE PLAN AND PROFILE SHEETS FOR MORE INFORMATION.



5/30/2024

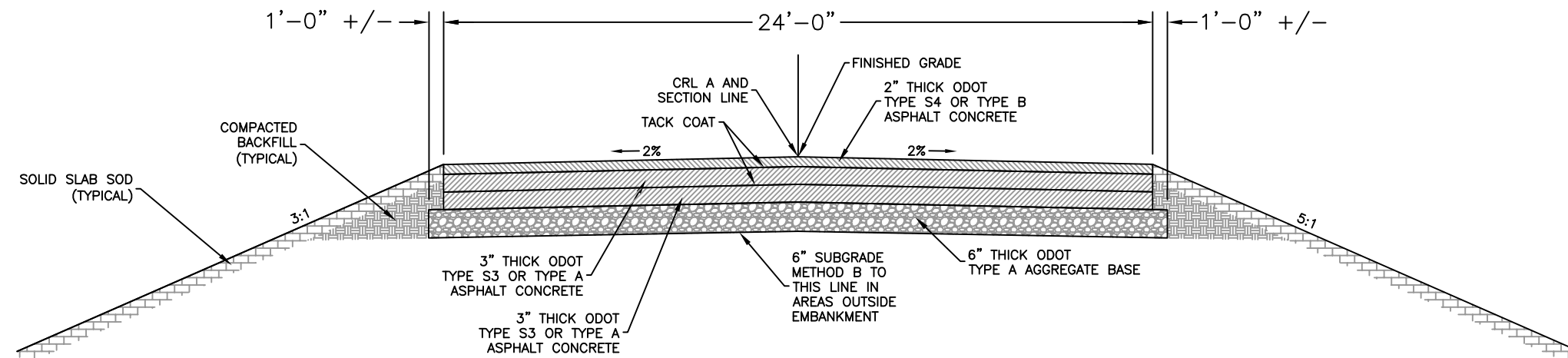
Project
CMA-2402
DRAINAGE STRUCTURE REPAIR
COTTONWOOD ROAD
Chickasha, OK

#	Description	Revisions	Date				

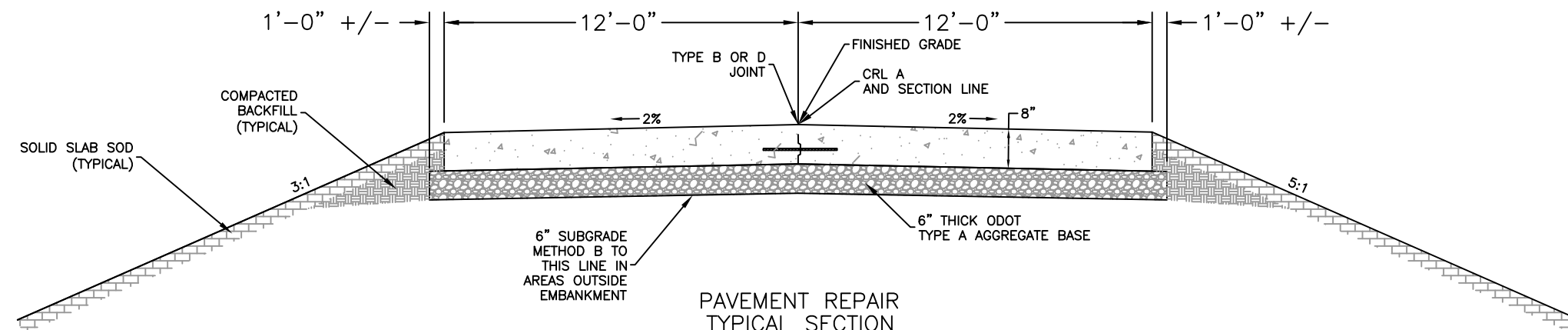
Sheet Title:
GENERAL NOTES
PAY ITEMS AND
PAY ITEM NOTES

Scale: AS NOTED
Drawn: RSV
Checked: RSV
Date: 5/30/2024

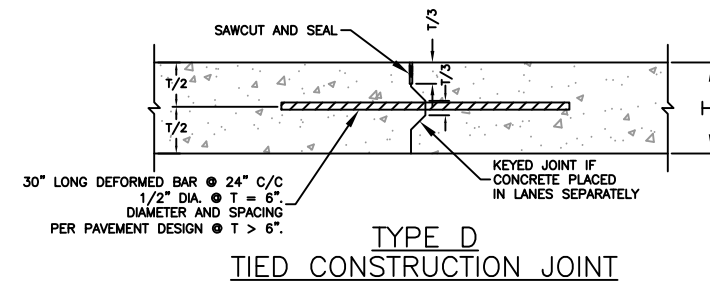
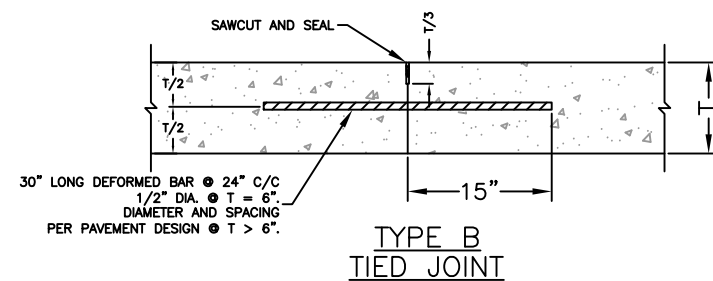
Sheet #:
2



PAVEMENT REPAIR
TYPICAL SECTION
9+40 TO 10+60
ASPHALT CONCRETE OPTION
(NOT TO SCALE)



PAVEMENT REPAIR
TYPICAL SECTION
9+40 TO 10+60
P.C. CONCRETE OPTION
(NOT TO SCALE)

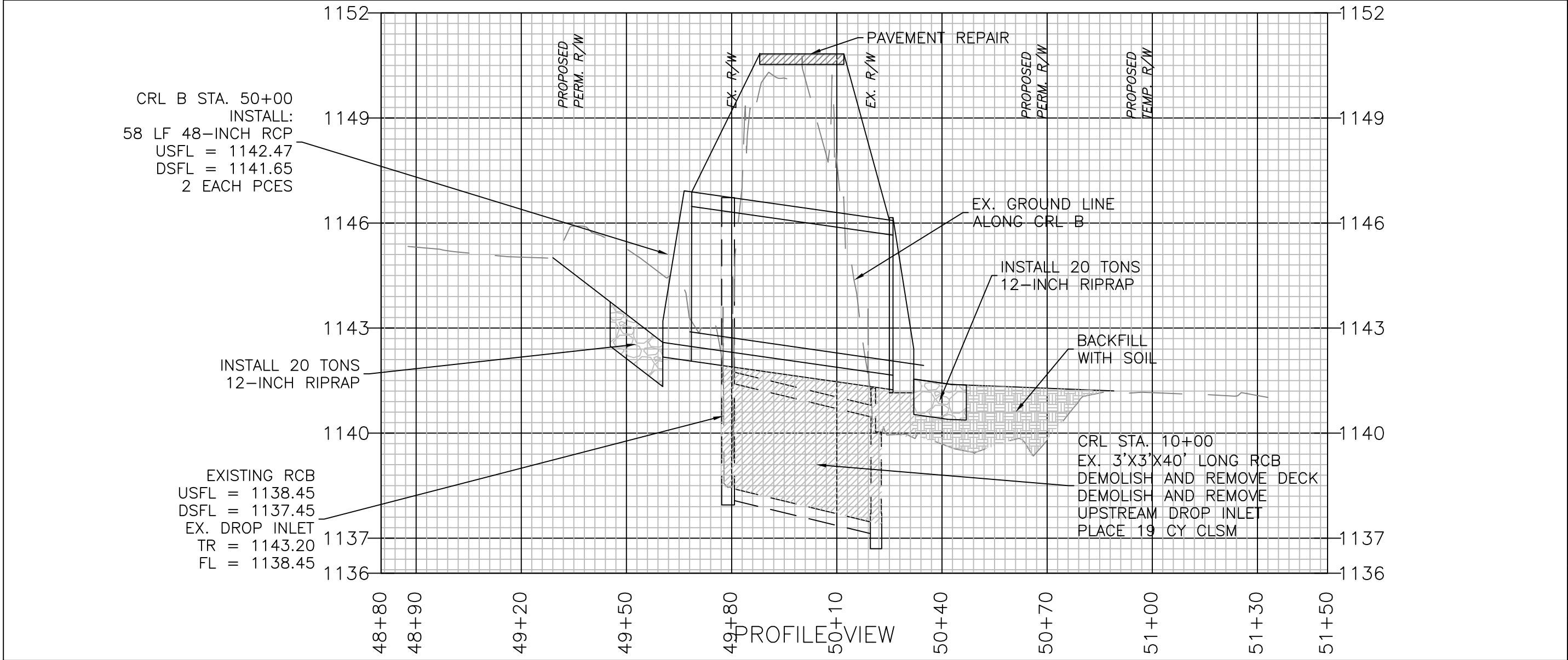
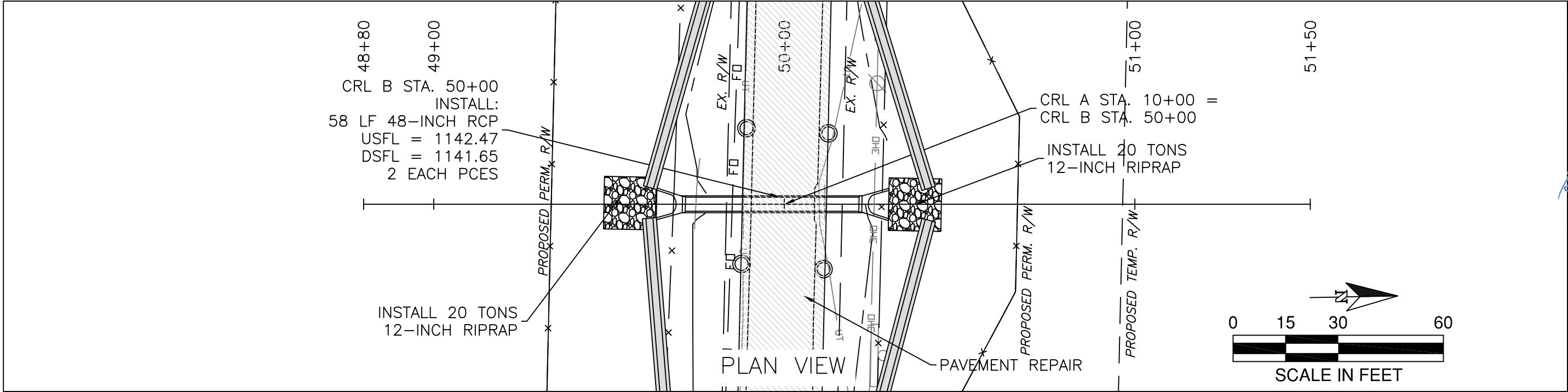


5/30/2024

Project
CMA-2402
DRAINAGE STRUCTURE REPAIR
COTTONWOOD ROAD
Chickasha, OK

#	Description	Revisions	Date

Sheet Title TYPICAL SECTIONS	
Scale: AS NOTED Drawn: RSV Checked: RSV Date: 5/30/2024	Sheet #: 3



CTC
CHISHOLM TRAIL CONSULTING, LLC
OK CA7771
2124 SCOTT LANE
DUNCAN, OK 73533
580-467-8130
rscottv11@gmail.com



5/30/2024

Project
CMA-2402
DRAINAGE STRUCTURE REPAIR
COTTONWOOD ROAD
Chickasha, OK

#	Description	Revisions	Date

Sheet Title
PLAN AND PROFILE
ALONG DR. STR.

Scale: AS NOTED
Drawn: RSV
Checked: RSV
Date: 5/30/2024
Sheet #: **5**

TOPOGRAPHIC SURVEY

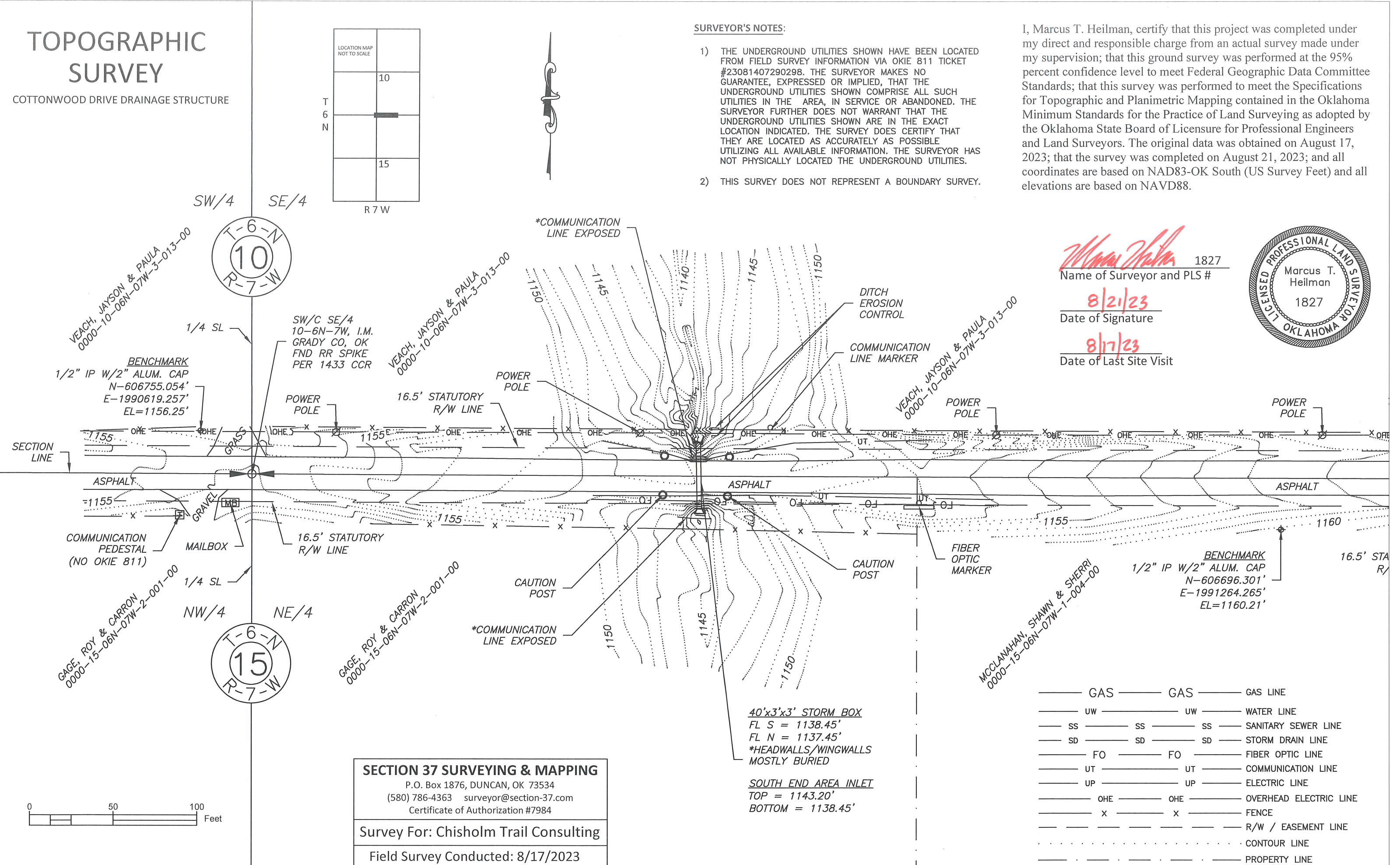
COTTONWOOD DRIVE DRAINAGE STRUCTURE

SURVEYOR'S NOTES:

- 1) THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION VIA OKIE 811 TICKET #23081407290298. THE SURVEYOR MAKES NO GUARANTEE, EXPRESSED OR IMPLIED, THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEY DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE UTILIZING ALL AVAILABLE INFORMATION. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
- 2) THIS SURVEY DOES NOT REPRESENT A BOUNDARY SURVEY.

I, Marcus T. Heilman, certify that this project was completed under my direct and responsible charge from an actual survey made under my supervision; that this ground survey was performed at the 95% percent confidence level to meet Federal Geographic Data Committee Standards; that this survey was performed to meet the Specifications for Topographic and Planimetric Mapping contained in the Oklahoma Minimum Standards for the Practice of Land Surveying as adopted by the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors. The original data was obtained on August 17, 2023; that the survey was completed on August 21, 2023; and all coordinates are based on NAD83-OK South (US Survey Feet) and all elevations are based on NAVD88.

Marcus T. Heilman 1827
Name of Surveyor and PLS #
8/21/23
Date of Signature
8/17/23
Date of Last Site Visit



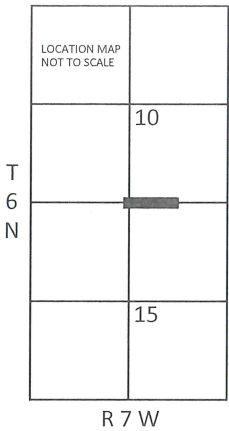
SECTION 37 SURVEYING & MAPPING
P.O. Box 1876, DUNCAN, OK 73534
(580) 786-4363 surveyor@section-37.com
Certificate of Authorization #7984

Survey For: Chisholm Trail Consulting

Field Survey Conducted: 8/17/2023

TOPOGRAPHIC
SURVEY

COTTONWOOD DRIVE DRAINAGE STRUCTURE



SURVEYOR'S NOTES:

- 1) THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION VIA OKIE 811 TICKET #23081407290298. THE SURVEYOR MAKES NO GUARANTEE, EXPRESSED OR IMPLIED, THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEY DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE UTILIZING ALL AVAILABLE INFORMATION. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
- 2) THIS SURVEY DOES NOT REPRESENT A BOUNDARY SURVEY.

I, Marcus T. Heilman, certify that this project was completed under my direct and responsible charge from an actual survey made under my supervision; that this ground survey was performed at the 95% percent confidence level to meet Federal Geographic Data Committee Standards; that this survey was performed to meet the Specifications for Topographic and Planimetric Mapping contained in the Oklahoma Minimum Standards for the Practice of Land Surveying as adopted by the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors. The original data was obtained on August 17, 2023; that the survey was completed on August 21, 2023; and all coordinates are based on NAD83-OK South (US Survey Feet) and all elevations are based on NAVD88.

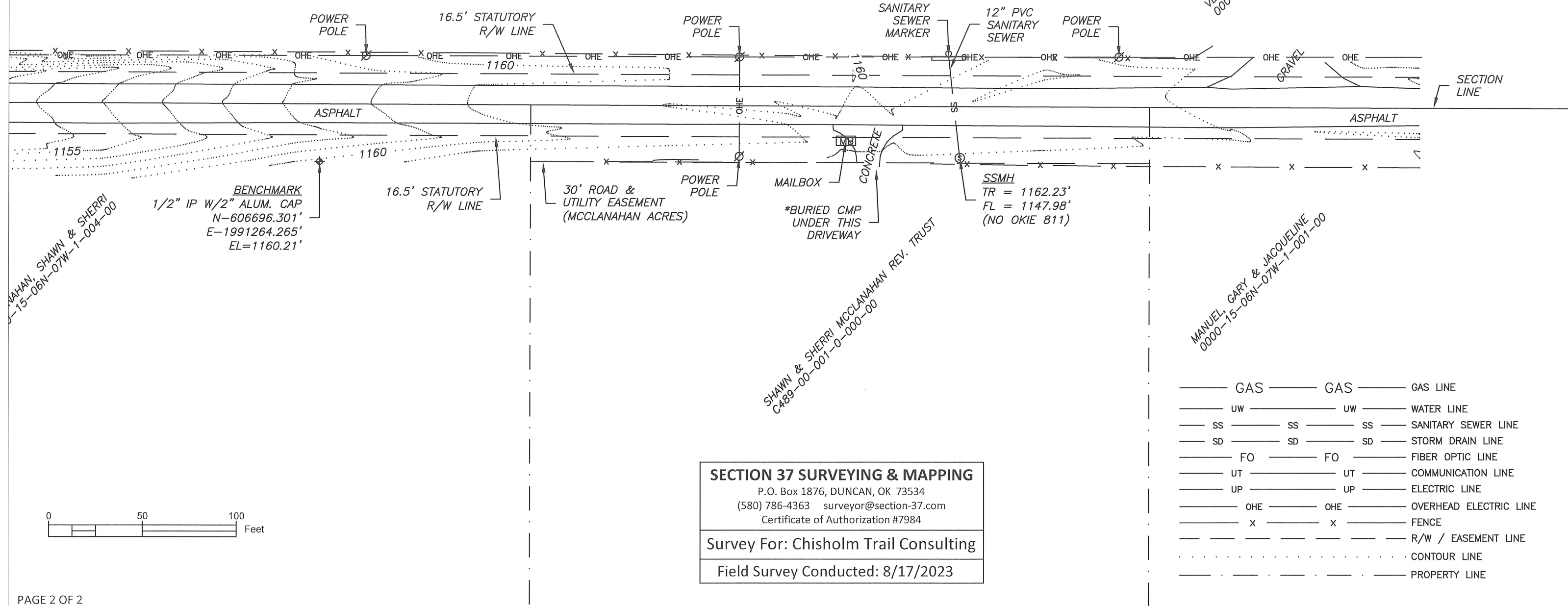
Marcus T. Heilman 1827
Name of Surveyor and PLS #

8/21/23
Date of Signature

8/17/23
Date of Last Site Visit



00

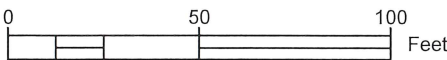


VEACH, JAYSON & PAULA
0000-10-06N-07W-3-013-00

SHAWN & SHERRI
0000-15-06N-07W-1-004-00

SHAWN & SHERRI MCCLANAHAN REV. TRUST
C489-00-001-0-000-00

MANUEL, GARY & JACQUELINE
0000-15-06N-07W-1-001-00



SECTION 37 SURVEYING & MAPPING

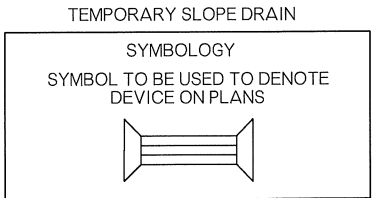
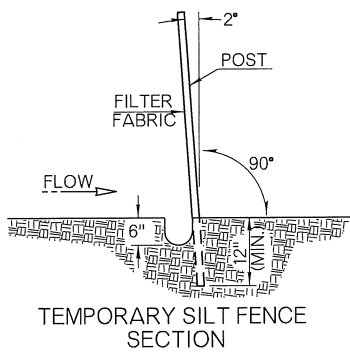
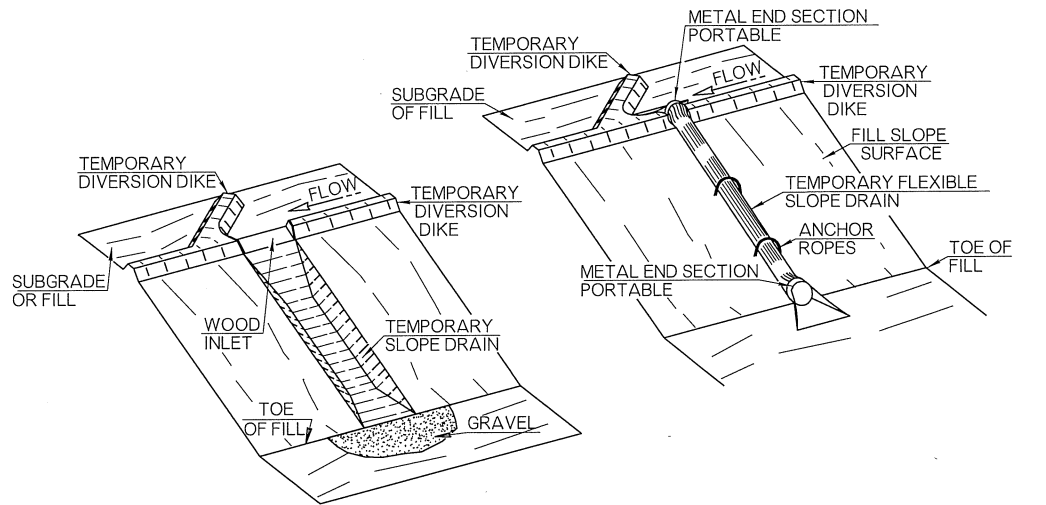
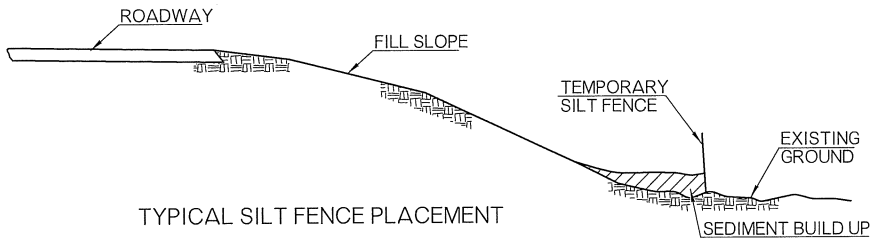
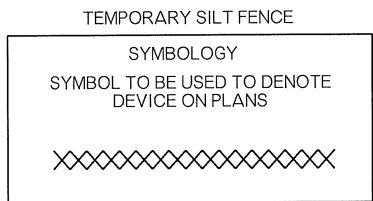
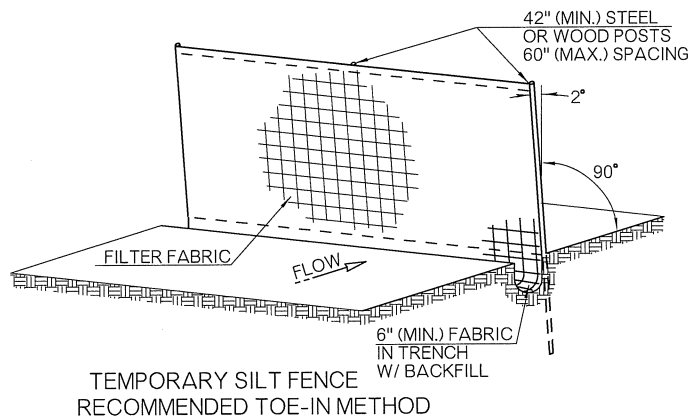
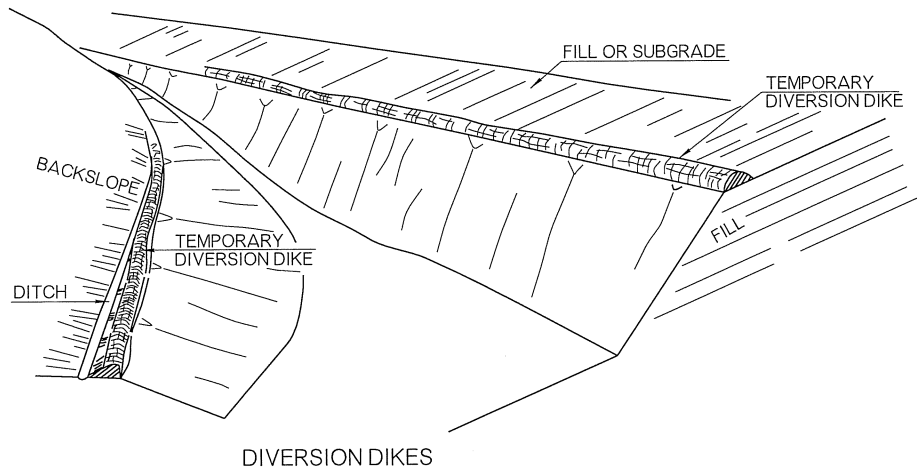
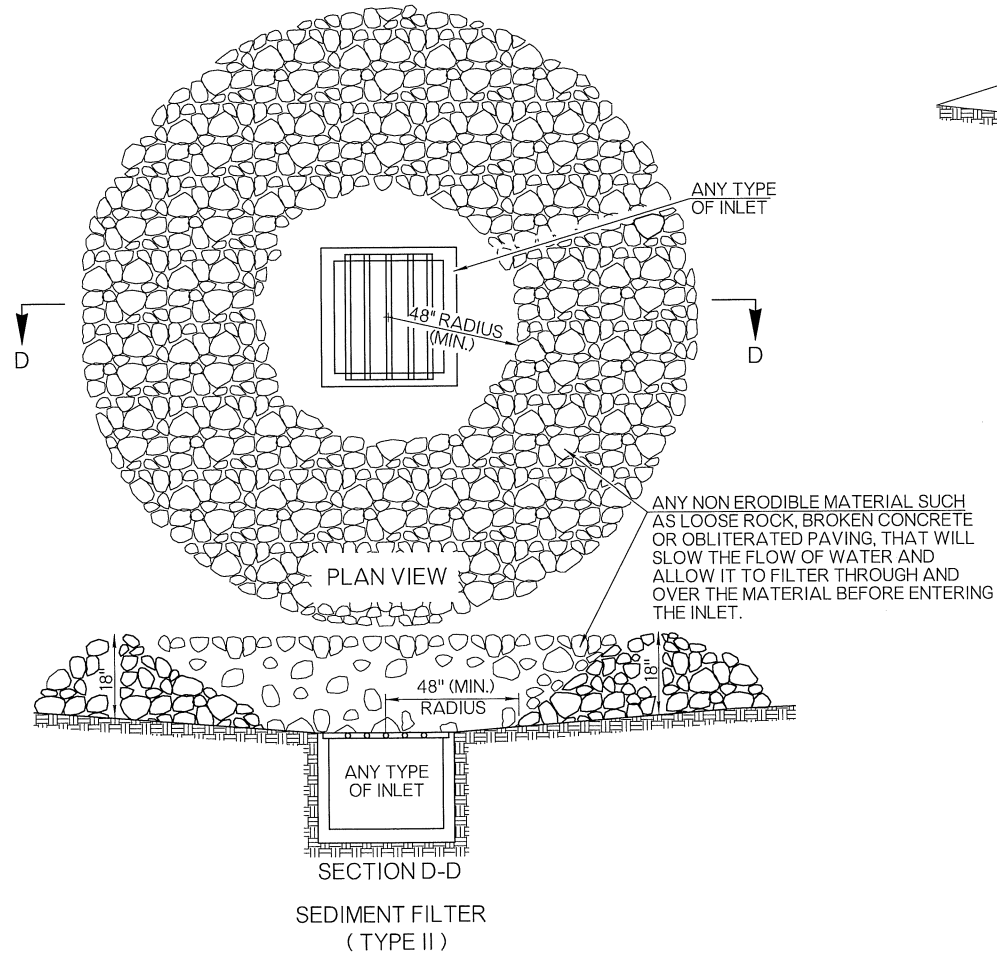
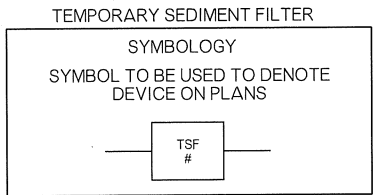
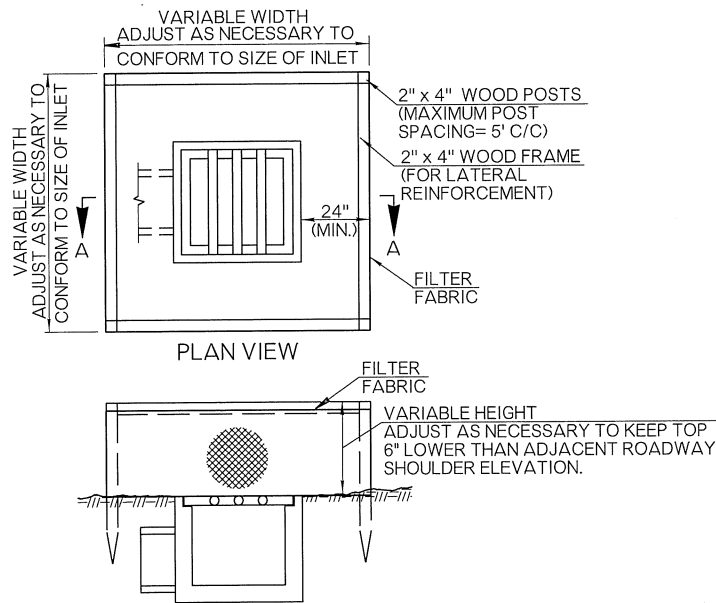
P.O. Box 1876, DUNCAN, OK 73534
(580) 786-4363 surveyor@section-37.com
Certificate of Authorization #7984

Survey For: Chisholm Trail Consulting

Field Survey Conducted: 8/17/2023

- GAS — GAS — GAS LINE
- UW — UW — WATER LINE
- SS — SS — SS — SANITARY SEWER LINE
- SD — SD — SD — STORM DRAIN LINE
- FO — FO — FIBER OPTIC LINE
- UT — UT — COMMUNICATION LINE
- UP — UP — ELECTRIC LINE
- OHE — OHE — OVERHEAD ELECTRIC LINE
- X — X — FENCE
- — — R/W / EASEMENT LINE
- CONTOUR LINE
- — — PROPERTY LINE

OKLAHOMA DEPARTMENT OF TRANSPORTATION		
STANDARD REVISIONS		
DESCRIPTION	DATE	



- GENERAL NOTES
- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
 - COST OF TEMPORARY DIVERSION DIKES TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
221 (A)	TEMPORARY SLOPE DRAINS	LF
221 (C)	TEMPORARY SILT FENCE	LF
221 (D)	TEMPORARY SEDIMENT FILTER	EA

APPROVED BY ROADWAY ENGINEER: *Calvin F. A.* DATE: *04/16/15*

ROADWAY DESIGN DIVISION STANDARD

DOT

TEMPORARY SEDIMENT CONTROLS

STANDARD REVISIONS	
DESCRIPTION	DATE

DIMENSIONS OF END SECTIONS FOR ROUND METAL PIPE								
PIPE DIA.	GA.	A	B	H	L	W	APPROX. SLOPE	BODY TYPE
12"	16	6"	6"	6"	21"	24"	1:2 1/2	1 PC.
15"	16	7"	8"	6"	26"	30"	1:2 1/2	1 PC.
18"	16	8"	10"	6"	31"	36"	1:2 1/2	1 PC.
21"	16	9"	12"	6"	36"	42"	1:2 1/2	1 PC.
24"	16	10"	13"	6"	41"	48"	1:2 1/2	1 PC.
30"	14	12"	16"	8"	51"	60"	1:2 1/2	1 PC.
36"	14	14"	19"	9"	60"	72"	1:2 1/2	2 PC.
42"	12	16"	22"	11"	69"	84"	1:2 1/2	2 PC.
48"	12	18"	27"	12"	78"	90"	1:2 1/4	2 PC.
54"	12	18"	30"	12"	84"	102"	1:2	2 PC.
60"	12	18"	33"	12"	87"	114"	1:1 3/4	3 PC.
66"	12	18"	36"	12"	87"	120"	1:1 1/2	3 PC.
72"	12	18"	39"	12"	87"	126"	1:1 1/3	3 PC.
78"	12	18"	42"	12"	87"	132"	1:1 1/4	3 PC.
84"	12	18"	45"	12"	87"	138"	1:1 1/6	3 PC.

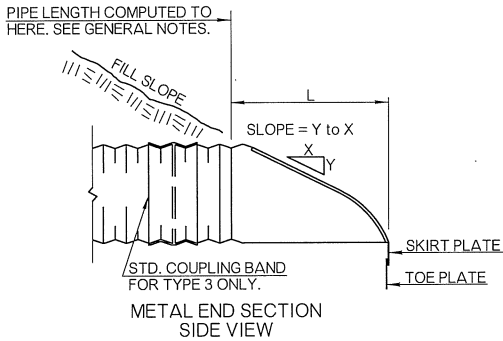
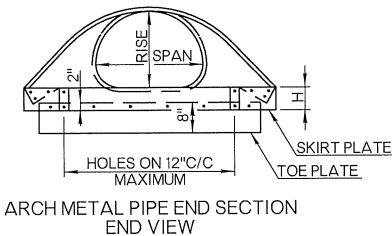
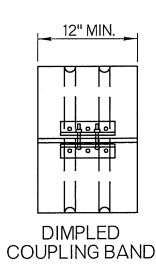
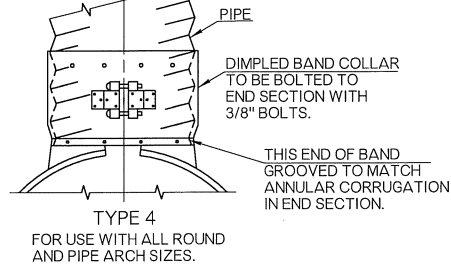
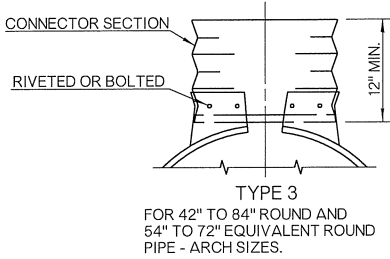
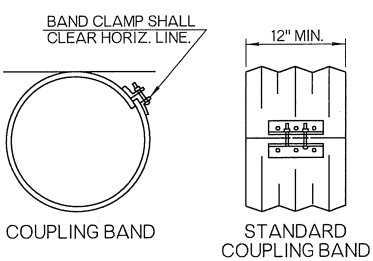
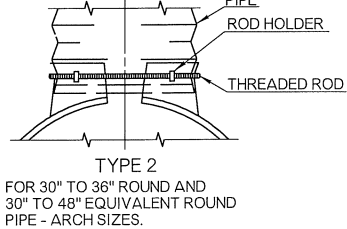
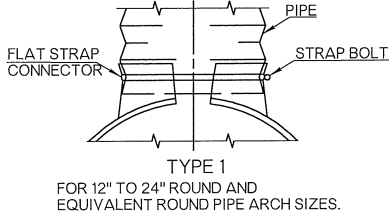
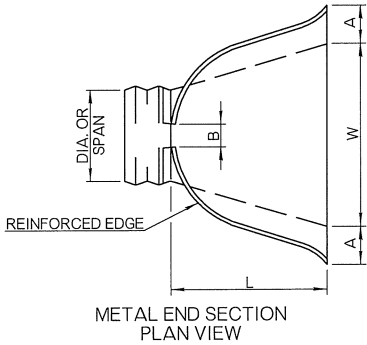
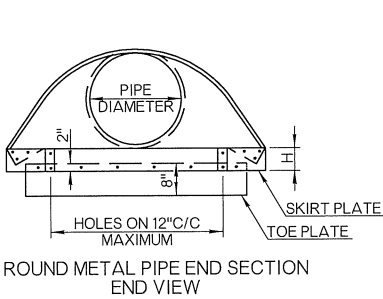
DIMENSIONS OF END SECTIONS FOR METAL PIPE - ARCH								
SPAN x RISE	EQUIV. ROUND	GA.	A	B	H	L	W	APPROX. SLOPE
17" x 13"	15"	16	7"	9"	6"	19"	30"	1:2 1/2
21" x 15"	18"	16	7"	10"	6"	23"	36"	1:2 1/2
24" x 18"	21"	16	8"	12"	6"	28"	42"	1:2 1/2
28" x 20"	24"	#16	9"	14"	6"	32"	48"	1:2 1/2
35" x 24"	30"	14	10"	16"	6"	39"	60"	1:2 1/2
42" x 29"	36"	#14	12"	18"	8"	46"	75"	1:2 1/2
49" x 33"	42"	12	13"	21"	9"	53"	85"	1:2 1/2
57" x 38"	48"	12	18"	26"	12"	63"	90"	1:2 1/2
64" x 43"	54"	12	18"	30"	12"	70"	102"	1:2 1/4
71" x 47"	60"	12	18"	33"	12"	77"	114"	1:2 1/4
77" x 52"	66"	12	18"	36"	12"	77"	126"	1:2
83" x 57"	72"	12	18"	39"	12"	77"	138"	1:2

FOR ALUMINUM END SECTIONS THE 28" x 20" SHALL BE 14 GAGE AND THE 42" x 29" SHALL BE 12 GAGE.

DIMENSIONS OF PRECAST END SECTIONS FOR ROUND PIPE											
DIAMETER	R3	R4	R5	T	K	J	C	D	E	SLOPE	
18"	3"	3"	6"	2 1/2"	9"	2.25'	3.83'	6.08'	3.00'	1:3	
24"	3"	3"	7"	3"	9 1/2"	3.63'	2.50'	6.12'	4.00'	1:3	
30"	3"	3"	8"	3 1/2"	12"	4.50'	1.85'	6.16'	5.00'	1:3	
36"	3"	3"	10 1/2"	4"	15"	5.25'	2.90'	8.15'	6.00'	1:3	
42"	3"	3"	10 1/2"	4 1/2"	21"	5.25'	2.92'	8.17'	6.50'	1:3	
48"	6"	6"	14"	5"	24"	6.00'	2.17'	8.17'	7.00'	1:3	
54"	6"	6"	-	5 1/2"	27"	5.42'	2.92'	8.33'	7.50'	1:2 1/2	
60"	6"	6"	-	6"	30"	5.00'	3.25'	8.25'	8.00'	1:2	
66"	6"	6"	-	6 1/2"	24"	6.50'	1.75'	8.25'	8.50'	1:2	
72"	6"	6"	-	7"	24"	6.50'	1.75'	8.25'	9.00'	1:2	

APPROX. EQUIV. DIAMETER	DIMENSIONS OF PRECAST END SECTIONS FOR ELLIPTICAL PIPE														
	RISE	SPAN	R1	R2	R3	R4	R5	T	K	J	C	D	E	SLOPE	
18"	14"	23"	6"	20"	3"	3"	6"	2 3/4"	8"	2.25'	3.75'	6.00'	3.00'	1:3	
24"	19"	30"	8 1/4"	26 1/4"	3"	3"	7"	3 1/4"	8 1/2"	3.25'	2.75'	6.00'	4.00'	1:3	
30"	24"	38"	10 1/4"	32 3/4"	3"	3"	9"	3 3/4"	9 1/2"	4.50'	1.50'	6.00'	5.00'	1:3	
36"	29"	45"	12 1/4"	39 1/4"	3"	3"	12"	4 1/2"	11 1/4"	5.00'	3.00'	8.00'	6.00'	1:3	
42"	34"	53"	14 1/2"	46"	6"	6"	13"	5"	15 3/4"	5.00'	3.00'	8.00'	6.50'	1:3	
48"	38"	60"	16 1/2"	51 1/2"	6"	6"	14"	5 1/2"	21"	5.00'	3.00'	8.00'	7.00'	1:3	
54"	43"	68"	18 3/4"	58 1/2"	6"	6"	16"	6"	25 1/2"	5.00'	3.00'	8.00'	7.50'	1:3	
60"	48"	76"	20 3/4"	65"	6"	6"	36 11/16"	6 1/2"	30"	5.00'	3.25'	8.25'	8.00'	1:2	
66"	53"	83"	22 3/4"	71 1/2"	6"	6"	36 1/8"	7 1/2"	24"	6.50'	1.75'	8.25'	8.50'	1:2	
72"	58"	91"	24 3/4"	78"	6"	6"	38"	7 1/2"	24"	6.50'	1.75'	8.25'	9.00'	1:2	

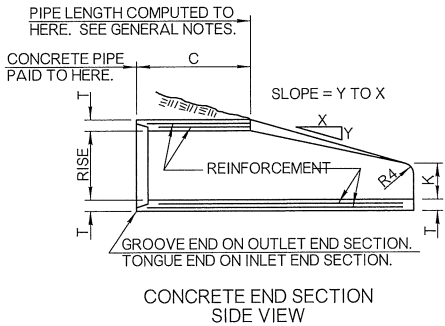
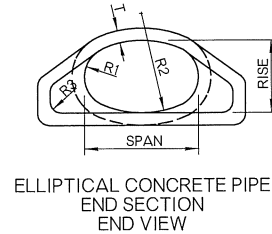
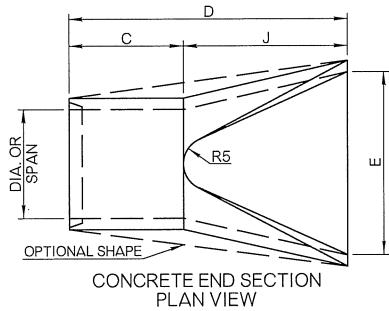
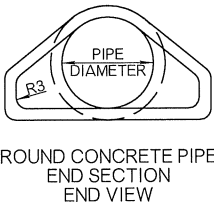
APPROX. EQUIV. DIAMETER	DIMENSIONS OF PRECAST END SECTIONS FOR ARCH PIPE																	SLOPE
	SPAN	RISE	A	B	R	R1	R2	R3	R4	R5	T	K	J	C	D	E		
18"	22"	13"	- 1/4"	5 3/4"	2"	27 1/2"	13 3/4"	5 1/4"	3"	13"	2 1/2"	7"	2.25'	3.75'	6.08'	3.00'	1:3	
24"	28"	18"	3 7/16"	9 21/32"	3"	40 11/16"	14 9/16"	4 19/32"	3"	16 13/16"	3"	9 1/2"	3.58'	2.50'	6.08'	4.00'	1:3	
30"	36"	22"	3 3/4"	12 3/32"	3"	51"	18 3/4"	6 1/32"	3"	18 1/2"	3 1/2"	12"	4.50'	1.58'	6.08'	5.00'	1:3	
36"	43"	26"	4 1/8"	15 1/2"	6"	62"	22 1/2"	6 3/8"	3"	24 5/16"	4"	15"	5.25'	2.90'	8.15'	6.00'	1:3	
42"	51"	31"	5 1/16"	18"	6"	73"	26 1/4"	7 9/16"	3"	27 1/2"	4 1/2"	21"	5.25'	2.92'	8.17'	6.50'	1:3	
48"	58"	36"	6"	20 1/2"	6"	84"	30"	8 3/4"	3"	28 1/2"	5"	24"	6.00'	2.17'	8.17'	7.00'	1:3	
54"	65"	40"	6 9/16"	22 11/16"	6"	92 1/2"	33 3/8"	9 13/16"	6"	33 1/8"	5 1/2"	27"	5.42'	2.92'	8.34'	7.50'	1:2.4	
60"	73"	45"	7 1/2"	25 9/32"	6"	105"	37 1/2"	11 7/32"	6"	33 11/16"	6"	30"	5.00'	3.25'	8.25'	8.00'	1:2	
72"	88"	54"	9"	31 7/16"	6"	126"	45"	12 9/16"	6"	38 15/16"	7"	24"	6.50'	1.75'	8.25'	9.00'	1:2	



TYPICAL METAL END SECTION CONNECTIONS

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
- CULVERT END SECTIONS SHALL BE OF THE SAME MATERIAL AND SHAPE (ROUND, ARCH, OR ELLIPTICAL) AS THE PIPE ON WHICH THEY ARE INSTALLED.
- DIMENSIONS SHOWN FOR END SECTIONS ARE SUBJECT TO MANUFACTURER TOLERANCES.
- TOE PLATE WILL BE REQUIRED ON ALL METAL END SECTIONS UNLESS SOLID ROCK IS ENCOUNTERED. HOLES IN TOE PLATE TO BE PUNCHED TO MATCH HOLES IN SKIRT PLATE. 3/8" BOLTS TO BE FURNISHED. LENGTH OF TOE PLATES FOR ROUND PIPE END SECTIONS SHALL BE W=10" FOR 12" TO 30" DIAMETER PIPE, W=20" FOR 36" TO 84" DIAMETER PIPE. LENGTH OF TOE PLATES FOR ARCH PIPE END SECTIONS SHALL BE W=10" FOR A RISE OF 13" TO 29" AND W=20" FOR A RISE OF 33" TO 57".
- CONNECTOR SECTION, SKIRT PLATE, AND TOE PLATE ON METAL END SECTIONS SHALL BE THE SAME GAGE AND MATERIAL AS THE SKIRT AND SHALL BE INCLUDED IN PRICE BID FOR END SECTION.
- IF TYPE 3 METAL END SECTION IS USED AS OPTIONAL PIPE, THE LENGTH OF PIPE TO BE REDUCED BY 12" FOR EACH END SECTION. IF CONCRETE PIPE OPTION IS USED, THE LENGTH OF PIPE TO BE REDUCED BY THE C DIMENSION FOR EACH END SECTION.



BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
613 (L)	▼ PREFAB. CULVERT END SECTION, ROUND	EA
613 (L)	▼ PREFAB. CULVERT END SECTION, ARCH	EA
613 (L)	▼ PREFAB. CULVERT END SECTION, ELLIPTICAL	EA

▼ END SECTION DIMENSION(S) SHALL BE SPECIFIED.



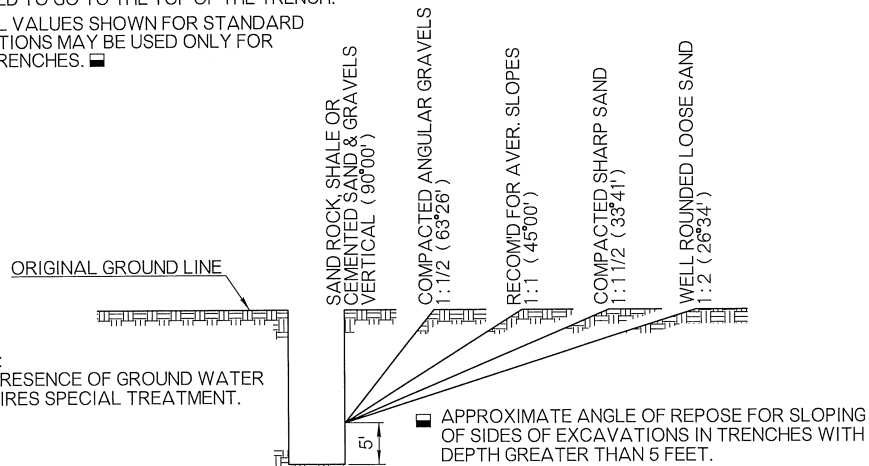
TRENCHING DIMENSIONS AND STANDARD BEDDING MATERIAL QUANTITIES

	PIPE DIAM. OR DESIGN EQUIV.	H ■	T	SINGLE PIPE STANDARD TRENCHING		DOUBLE PIPE STANDARD TRENCHING		TRIPLE PIPE STANDARD TRENCHING		SPECIAL TRENCHING SINGLE, DOUBLE & TRIPLE PIPE OPTIONS W+12"
				W	STANDARD BEDDING MATERIAL CY/LF ■	W	STANDARD BEDDING MATERIAL CY/LF ■	W	STANDARD BEDDING MATERIAL CY/LF ■	
ROUND PIPE	18	3.25	0.208	3.17	0.274	5.67	0.468	8.17	0.663	0.120
	24	3.83	0.25	4.00	0.386	7.00	0.629	10.00	0.873	0.142
	30	4.42	0.292	4.58	0.474	8.33	0.811	12.08	1.146	0.163
	36	5	0.333	6.17	0.751	10.67	1.193	15.17	1.636	0.185
	42	5.58	0.375	6.75	0.870	12.00	1.429	17.25	1.989	0.207
	48	6.17	0.417	7.33	0.996	13.33	1.688	19.33	2.379	0.228
	54	6.75	0.458	7.92	1.126	14.67	1.960	21.42	2.794	0.250
	60	7.33	0.5	9.50	1.532	17.00	2.521	24.50	3.510	0.271
	66	8.08	0.542	10.08	1.757	18.33	2.965	26.58	4.173	0.299
	72	8.67	0.583	10.67	1.931	19.67	3.327	28.67	4.724	0.321
	78	9.25	0.625	11.25	2.107	20.75	3.615	30.25	5.122	0.343
	84	9.83	0.667	11.83	2.288	21.83	3.908	31.83	5.529	0.364
ARCH PIPE	90	10.42	0.708	12.42	2.479	22.92	4.219	33.42	5.959	0.386
	96	11	0.75	13.00	2.671	24.00	4.527	35.00	6.383	0.407
	18	2.88	0.208	3.50	0.271	6.33	0.471	9.17	0.671	0.106
	21	3.08	0.229	4.12	0.338	7.29	0.567	10.46	0.796	0.114
	24	3.33	0.250	4.38	0.374	7.75	0.624	11.13	0.874	0.123
	30	3.79	0.291	6.10	0.603	10.13	0.915	14.16	1.227	0.140
	36	4.20	0.333	6.81	0.700	11.67	1.097	16.53	1.493	0.156
	42	4.69	0.375	7.50	0.813	13.17	1.308	18.83	1.802	0.173
	48	5.17	0.416	9.21	1.180	15.71	1.842	22.21	2.504	0.191
	54	5.68	0.458	9.83	1.243	17.05	1.946	24.28	2.649	0.207
	60	6.08	0.500	10.58	1.392	18.69	2.228	26.81	3.064	0.225
	66	6.75	0.542	11.00	1.488	19.56	2.365	28.11	3.242	0.250
HORIZONTAL ELLIPTICAL PIPE	72	7.00	0.583	12.00	1.690	21.78	2.803	31.55	3.917	0.259
	78	7.83	0.625	12.42	1.854	22.64	3.071	32.86	4.288	0.272
	84	7.83	0.667	13.33	1.983	24.67	3.385	36.00	4.788	0.290
	90	8.92	0.708	14.50	2.382	27.08	4.131	39.67	5.881	0.330
	96	9.46	0.750	15.17	2.625	28.33	4.549	41.50	6.473	0.350
	18	2.96	0.229	3.62	0.282	6.54	0.487	9.46	0.691	0.109
	24	3.46	0.27	4.54	0.387	8.04	0.640	11.54	0.893	0.128
	30	3.96	0.312	6.29	0.629	10.51	0.954	14.74	1.28	0.147
	36	4.50	0.375	7.00	0.743	12.00	1.153	17.00	1.564	0.167
	42	5.00	0.416	7.75	0.862	13.64	1.379	19.53	1.896	0.185
	48	5.42	0.458	9.42	1.170	16.08	1.788	22.75	2.406	0.200
	54	5.92	0.5	10.17	1.311	17.72	2.050	25.28	2.789	0.219
VERTICAL ELLIPTICAL PIPE	60	6.42	0.541	10.92	1.478	19.36	2.368	27.81	3.259	0.238
	66	6.91	0.583	11.58	1.626	20.81	2.648	30.03	3.67	0.256
	72	7.41	0.625	12.33	1.807	22.44	3.004	32.56	4.201	0.275
	78	7.91	0.667	13.00	1.962	23.89	3.305	34.78	4.649	0.293
	84	8.58	0.708	13.75	2.239	25.53	3.850	37.31	5.462	0.318
	90	9.00	0.75	14.42	2.364	26.83	4.062	39.25	5.759	0.333
	96	9.5	0.791	15.17	2.570	28.25	4.408	41.33	6.245	0.352

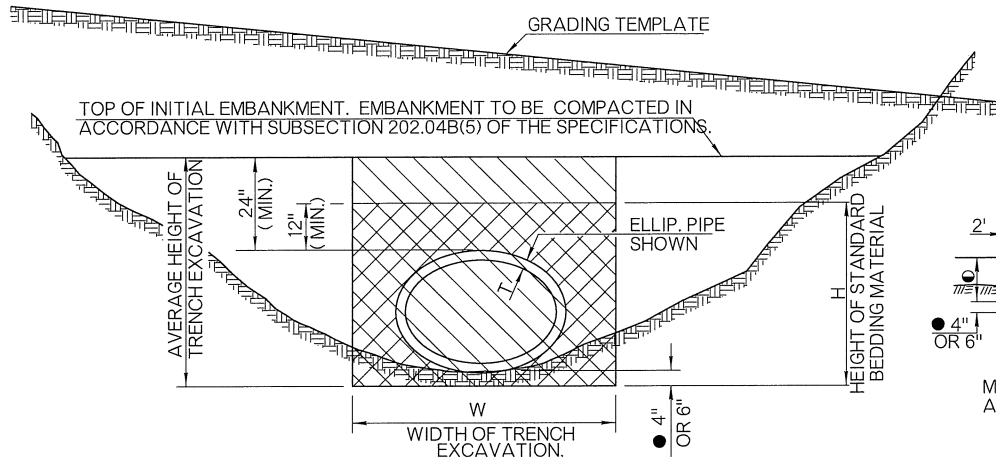
NOTE: QUANTITIES FOR 66" & 78" EQUIV. DIAM. ARCH PIPE BASED ON METAL PIPE & ESTIMATED WALL THICKNESS.

■ FOR PIPES UNDER PAVEMENT, THE H DIMENSION AND THE STANDARD BEDDING MATERIAL QUANTITY, SHALL BE INCREASED TO GO TO THE TOP OF THE TRENCH.

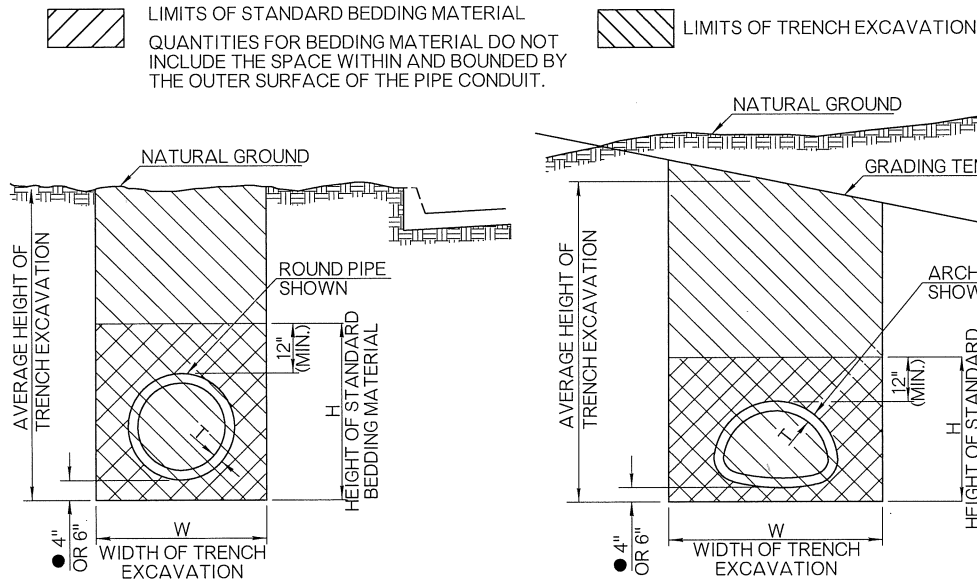
BEDDING MATERIAL VALUES SHOWN FOR STANDARD TRENCHING CONDITIONS MAY BE USED ONLY FOR VERTICAL WALL TRENCHES. ■



■ OPTIONAL TRENCHES WITH DEPTH GREATER THAN 5.0 FEET EXCAVATION AND BEDDING MATERIAL WILL BE MEASURED AND PAID FOR AS IF SHEETING & SHORING WAS USED. (SPECIAL TRENCHING=STD. WIDTH TRENCH+12")



METHOD NO. 1 TRENCH EXCAVATION IN EMBANKMENT SECTIONS

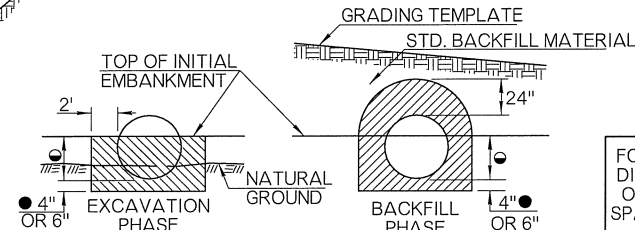


TRENCH EXCAVATION IN CUT SECTIONS

TABLE OF EQUIVALENT PIPES				
EQUIV. DIA.	REINF. CONC. ARCH PIPE	STEEL ARCH PIPE	ALUMINUM ARCH PIPE	REINF. CONC. ELLIPTICAL PIPE
18"	22" x 13"	21" x 15"	21" x 15"	14" x 23"
21"		24" x 18"	24" x 18"	
24"	28" x 18"	28" x 20"	28" x 20"	19" x 30"
27"				22" x 34"
30"	36" x 22"	35" x 24"	35" x 24"	24" x 38"
36"	43" x 26"	42" x 29"	42" x 29"	29" x 45"
42"	51" x 31"	49" x 33"	49" x 33"	34" x 53"
48"	58" x 36"	57" x 38"	57" x 38"	38" x 60"
54"	65" x 40"	64" x 43"	64" x 43"	43" x 68"
60"	73" x 45"	71" x 47"	71" x 47"	48" x 76"
66"		77" x 52"	77" x 52"	53" x 83"
72"	88" x 54"	83" x 57"	83" x 57"	58" x 91"
78"		87" x 63"	92" x 65" ▲	63" x 98"
84"	102" x 62"	95" x 67"	95" x 67" ▲	68" x 106"
90"	115" x 72"	103" x 71"	103" x 71" ▲	72" x 113"
96"	122" x 77"	112" x 75"	112" x 75" ▲	77" x 121"

▲ STRUCTURAL PLATE ARCH.

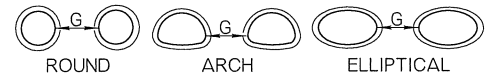
● EMBANKMENT HEIGHT PRIOR TO EXCAVATION
PIPE SIZES FROM 18" TO 42" =30"
PIPE SIZES FROM 48" TO 84" =2/3 DIAM.
PIPE SIZES LARGER THAN 84" =60"



METHOD NO. 1 PAY QUANTITIES WILL BE CALCULATED AND PAID FOR WHEN METHOD NO. 2 IS USED.

METHOD NO. 2 (OPTIONAL INSTALLATION FOR R. C. PIPE)

	CONDUIT SHAPE			DIST.
	ROUND	ARCH	ELLIPTICAL	
FOR DIA. OR SPAN	UP TO 24"	UP TO 36"	UP TO 36"	12"
	25" TO 72"	37" TO 108"	37" TO 108"	D/2"
	OVER 73"	OVER 108"	OVER 108"	D/3"



DOUBLE PIPE INSTALLATION
(USED WITH CET END TREATMENTS)

GENERAL NOTES

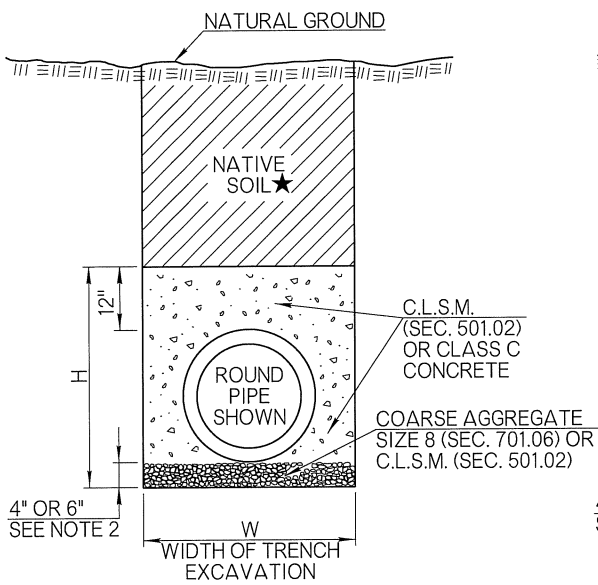
- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
- TRENCH EXCAVATION AND BEDDING MATERIAL WILL NOT BE REQUIRED FOR PIPE INSTALLATIONS OF SIDE DRAINS UNLESS OTHERWISE NOTED ON THE PLANS.
- FOR PIPE UNDERDRAIN INSTALLATIONS, SEE ROADWAY STANDARD PUD-3.
- SPECIAL TRENCHING CONDITIONS ARE THOSE AS DEFINED BY O.S.H.A. REGULATIONS, TITLE 29 CFR CHAPTER XVII, PART 1926.650, 1926.651 & 1926.652, SO DEFINED WILL APPLY UNTIL THEY ARE IN CONFLICT WITH CURRENT SPECIFICATIONS, FOR TRENCH DEPTHS OVER FIVE FEET. WHERE O.S.H.A. REGULATIONS FOR SPECIAL TRENCHING ARE APPLIED, QUANTITIES AND DIMENSIONS FOR SPECIAL TRENCHING WILL BE USED FOR COMPUTING QUANTITIES. SEE TABLE OF TRENCHING DIMENSIONS AND STANDARD BEDDING MATERIAL QUANTITIES.
- NORMAL BACKFILLING OPERATIONS SHALL FOLLOW BEDDING AND PIPE INSTALLATION AS CLOSELY AS PRACTICAL. IN NO CASE SHALL A PIPE INSTALLATION SUBJECT TO SUDDEN FLOW DEVELOPMENT BE LEFT WITHOUT SUFFICIENT BACKFILL TO RESTRAIN THE CONDUIT AND PREVENT JOINT SEPARATION AND/OR PIPING SCOUR. PHYSICALLY RESTRAINING THE CONDUIT MAY BE USED TO AUGMENT OR REPLACE THIS IMMEDIATE BACKFILL REQUIREMENT.
- ANY EXCESS EXCAVATION NOT USED FOR BACKFILL WILL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF, BY HIM, IN A MANNER APPROVED BY THE ENGINEER.
- STANDARD BEDDING QUANTITIES FOR ROUND PIPE ARE BASED ON AASHTO DESIGNATED CLASS III (WALL B) REINFORCED CONCRETE PIPE.
- WHEN REQUIRED, THE SIDES OF THE TRENCHES SHALL BE SHEETED AND SHORED OR OTHERWISE SUPPORTED WHEN THE TRENCH IS MORE THAN 5.0 FEET IN DEPTH. IN LIEU OF SHEETING, THE SIDES OF THE TRENCH ABOVE THE 5.0 FOOT LEVEL MAY BE SLOPED TO PRECLUDE COLLAPSE, SEE OPTIONAL TRENCHES DETAIL THIS SHEET.
- PROPER COMPACTION OF BACKFILL REQUIRES A VERTICAL WALLED TRENCH TO 24 INCHES ABOVE TOP OF PIPE, REGARDLESS OF EXCAVATION ABOVE THAT ELEVATION.
- EQUIVALENT PIPE SIZES 66 INCHES AND LARGER REQUIRE 6 INCHES OF BEDDING MATERIAL BELOW PIPE CONDUIT.
- ELLIPTICAL PIPE DIMENSIONS CONFORM TO AASHTO M 207, AS DESIGNATED RISE BY SPAN.
- FOR COMPUTING TRENCH EXCAVATION & STANDARD BEDDING QUANTITIES, THE LENGTH OF THE CULVERT SHALL INCLUDE END SECTION AND END TREATMENT LENGTHS.
- MULTIPLE PIPE INSTALLATIONS WILL REQUIRE A MINIMUM OF 12" BETWEEN PIPES FOR PROPER COMPACTION.

BASIS OF PAYMENT

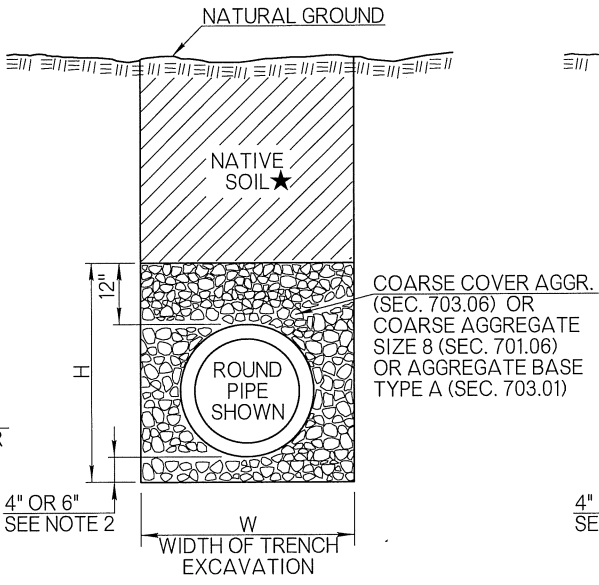
ITEM NO.	ITEM	UNIT
613 (R)	STANDARD BEDDING MATERIAL, CLASS A	CY
613 (S)	STANDARD BEDDING MATERIAL, CLASS B	CY
613 (T)	STANDARD BEDDING MATERIAL, CLASS C	CY
613 (V)	TRENCH EXCAVATION	CY

APPROVED BY
ROADWAY ENGINEER: *Calvin F. A.* DATE: 04/16/15
ROADWAY DESIGN DIVISION STANDARD
STANDARD PIPE INSTALLATION

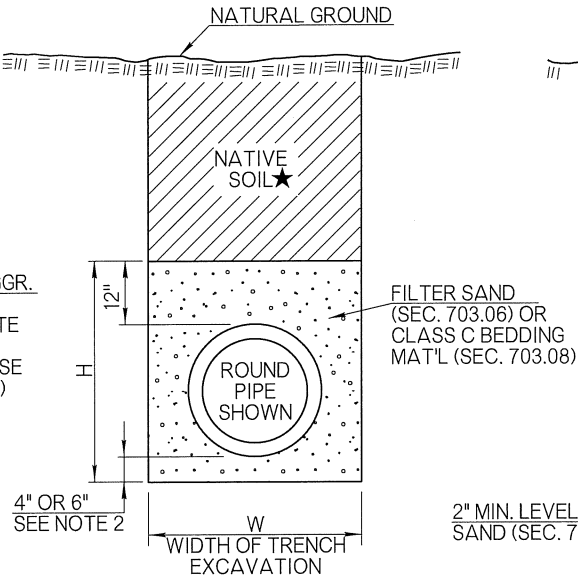
OKLAHOMA DEPARTMENT OF TRANSPORTATION		
STANDARD REVISIONS		
DESCRIPTION		DATE



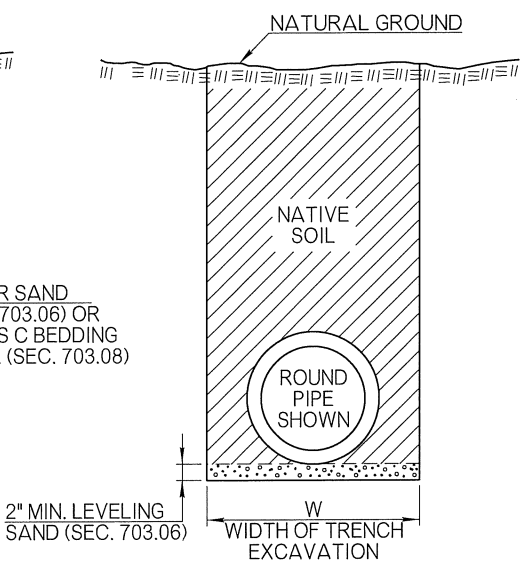
CLASS A BEDDING



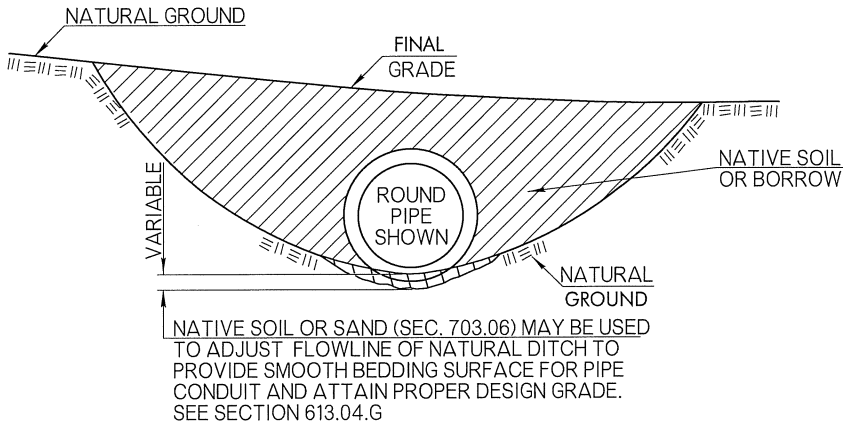
CLASS B BEDDING



CLASS C BEDDING



CLASS D BEDDING
ALTERNATE 1



CLASS D BEDDING
ALTERNATE 2

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
- EQUIVALENT PIPE SIZES 66 INCHES AND LARGER REQUIRE 6 INCHES OF BEDDING MATERIAL BELOW PIPE CONDUIT.
- NATIVE SOIL FOR BACKFILL, TO BE COMPACTED IN ACCORDANCE WITH SECTION 202.04 OF THE STANDARD SPECIFICATIONS.
- A BETTER CLASS OF BEDDING MAY BY SUBSTITUTED FOR THE NEXT LOWER CLASS. EXAMPLE: CLASS A STANDARD BEDDING CAN BE USED IN LIEU OF CLASS B STANDARD BEDDING.
- FOR TRENCH WIDTH (W), BEDDING HEIGHT (H), PIPE DATA, MULTIPLE PIPE SPACING & BEDDING DATA, SEE ROADWAY STANDARDS SPI-4 & FPI-3.
- DATA TABLE WILL DISPLAY 'NA' WHEN PIPE MATERIALS ARE NOT ALLOWED.
- STANDARD BEDDING CLASS D MATERIAL (S) (ALTERNATE 1) WILL BE CONSIDERED AS INCIDENTAL AND NOT BE PAID FOR SEPARATELY. COST FOR BORROW OR FILL MATERIAL, NEEDED FOR ALTERNATE 2, WILL BE INCLUDED IN THE PRICE OF THE PIPE.
- PIPE MATERIAL (S) /PRODUCT (S) NOT SHOWN IN THE PIPE BEDDING TABLE WILL BE EVALUATED AND APPROVED ON A CASE BY CASE BASIS.
- ALL TEMPORARY PIPES SHALL HAVE CLASS D BEDDING UNLESS OTHERWISE SHOWN IN THE PLANS.
- BEDDING MATERIAL TYPE B, C, AND D, SHALL BE PLACED IN 6" LAYERS AND COMPACTED TO THE SPECIFIED DENSITY USING HAND OPERATED EQUIPMENT ONLY.
- ★ WHEN PIPE INSTALLATION IS UNDER PAVING, IN LIEU OF BACKFILLING WITH NATIVE SOIL, PLACE BEDDING MATERIAL ALL THE WAY TO TOP OF TRENCH.
- THE USE OF AN ALTERNATE PIPE AND ITS CORRESPONDING BEDDING MATERIAL WILL BE ACCEPTABLE PROVIDED THE CRITERIA IN THE DESIGN TABLE IS MET
- POLYPROPYLENE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321.

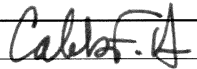
PIPE BEDDING CLASS/DESIGN TABLE							
TYPE OF PIPE	■ UNDER PAVING				OUTSIDE PAVING		
	CROSS DRAIN (NHS OR ADT > 6000 VPD)	CROSS DRAIN (OTHER)	STORM SEWER (NHS OR ADT > 6000 VPD)	STORM SEWER (OTHER)	CROSS DRAIN	SIDE DRAIN	STORM SEWER
REINFORCED CONCRETE PIPE	B	C	B	C	C	D	C
CORRUGATED GALV. STEEL PIPE (CGSP)	NA	B	NA	B	C	D	C
MILL PRECOATED CGSP	NA	B	NA	B	C	D	C
CORRUGATED GALV. STRUCT. PLATE	NA	B	NA	B	C	D	C
ALUMINIZED TYPE II CSP	NA	B	NA	B	C	D	C
CORRUGATED POLYETHYLENE / PVC	NA	A	NA	A	B	B	B
POLYVINYL CHLORIDE (SC 40/80 PVC)	NA	NA	NA	NA	NA	NA	NA
POLYPROPYLENE PIPE (PP) ▲	NA	B	NA	B	C	D	C

- WHEN THERE IS ANY POSSIBILITY OF THE PAVEMENT BEING WIDENED DURING THE LIFE OF THE DRAINAGE STRUCTURE, THE BEDDING SHALL MEET THE 'UNDER PAVING SECTION' CRITERIA FOR THE FULL EXTENT OF ANY ANTICIPATED EXPANSION TO THE FACILITY.
- ▲ BACKFILL WITH A MINIMUM OF TWO (2) FEET OF APPROVED BACKFILL MATERIAL.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
613 (R)	STANDARD BEDDING MATERIAL, CLASS A	CY
613 (S)	STANDARD BEDDING MATERIAL, CLASS B	CY
613 (T)	STANDARD BEDDING MATERIAL, CLASS C	CY

APPROVED BY

ROADWAY ENGINEER:



DATE:

04/14/15

ROADWAY DESIGN DIVISION STANDARD



STANDARD PIPE BEDDING

REQUIRED PIPE CLASS FOR REINFORCED CONCRETE ROUND PIPE IN CUT SECTIONS													
PIPE DIAMETER	● MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE												
	1' TO 2'	2' THRU 10'	12'	14'	16'	18'	20'	25'	30'	35'	40'	45'	50'
12" 15" 18"	IV III III	II II	II II	II II	II II	II II	III II	III III	III III	III III	III III	III III	III III
24" 27" 30" 36"	III II II	II II II	II II III	III III III	III III IV	III III IV	III III IV	IV IV IV	IV IV IV	IV IV IV/V	IV IV IV/V	IV IV IV/V	IV IV IV/V
42" 48" 54" 60"	II II II II	II II II	III III III	III III III	III III IV	IV IV IV	IV IV IV	IV IV IV	IV IV IV/V	IV/V IV/V IV/V	V V V	IV/V IV/V IV/V	IV/V IV/V IV/V
66" 72" 78" 84"	II II II II	II II II	III III III	III III III	IV III III	IV IV IV	IV IV IV	IV IV IV	IV/V IV/V IV/V	IV/V IV/V IV/V	V V V	V V V	V V V
90" 96" 102" 108"	II II II II	II II II	II II II	III III III	III III III	IV IV IV	IV IV IV	IV IV IV	IV/V IV/V IV/V	IV/V IV/V IV/V	V V V	V V V	V V V

REQUIRED PIPE CLASS FOR REINFORCED CONCRETE ROUND PIPE IN FILL SECTIONS													
PIPE DIAMETER	● MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE												
	1' TO 2'	2' THRU 10'	12'	14'	16'	18'	20'	25'	30'	35'	40'	45'	50'
12" 15" 18"	IV III III	II II	III III	III III	IV IV	IV IV	IV IV	IV/V IV/V	V IV/V	* * *	* * *	* * *	* * *
24" 27" 30" 36"	III II II	II II II	III III III	III III III	IV IV IV	IV IV IV	IV IV IV	IV/V IV/V IV/V	V IV/V V	* * *	* * *	* * *	* * *
42" 48" 54" 60"	II II II II	II II II	III III II	III III III	IV III III	IV IV IV	IV IV IV	IV/V IV/V IV/V	V IV/V V	* * *	* * *	* * *	* * *
66" 72" 78" 84"	II II II II	II II II	II II II	III III III	III III III	IV IV IV	IV IV IV	IV/V IV/V IV/V	V IV/V V	V V V	* * *	* * *	* * *
90" 96" 102" 108"	II II II II	II II II	II II II	III III III	III III III	IV IV IV	IV IV IV	IV/V IV/V IV/V	V IV/V V	V V V	* * *	* * *	* * *

* SPECIAL DESIGN PIPE. DESIGN METHOD TO CONFORM TO CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

● FILL HEIGHT MEASURED FROM TOP OF PIPE TO TOP OF SUBGRADE.

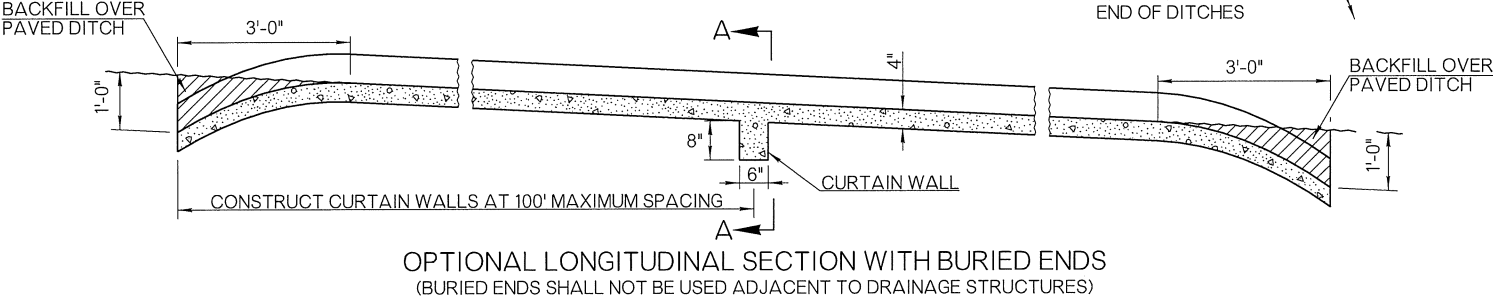
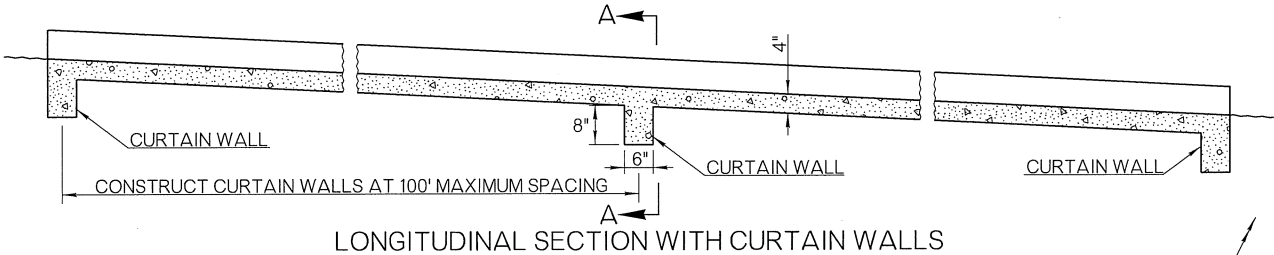
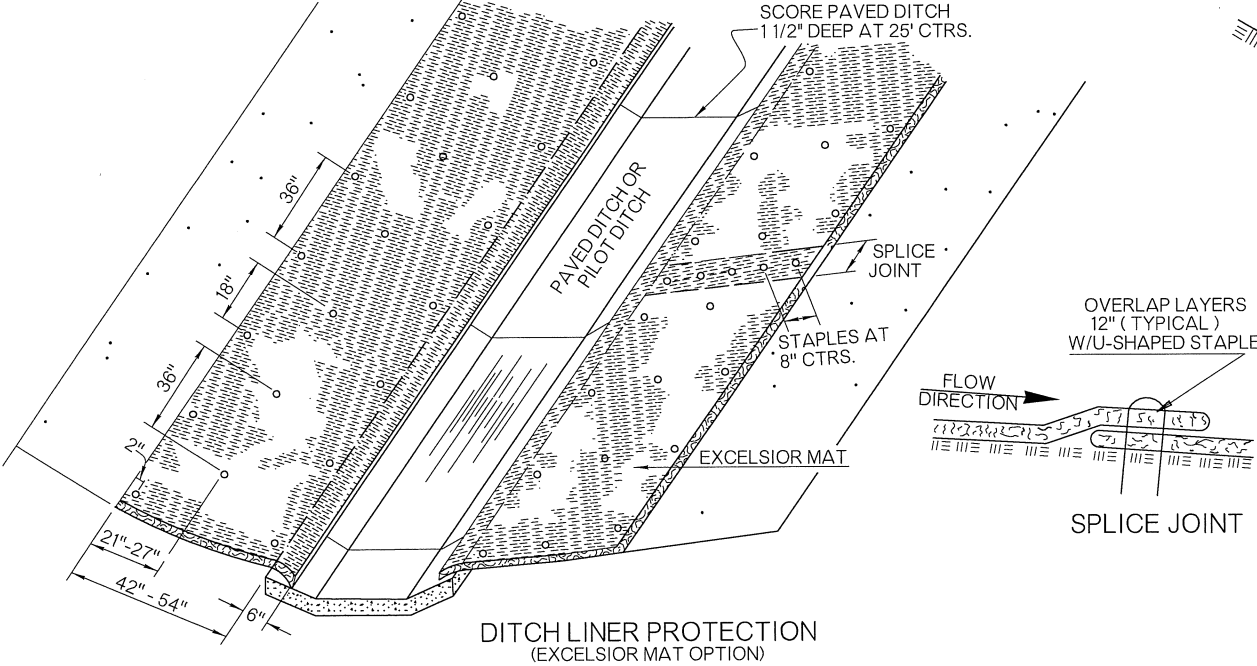
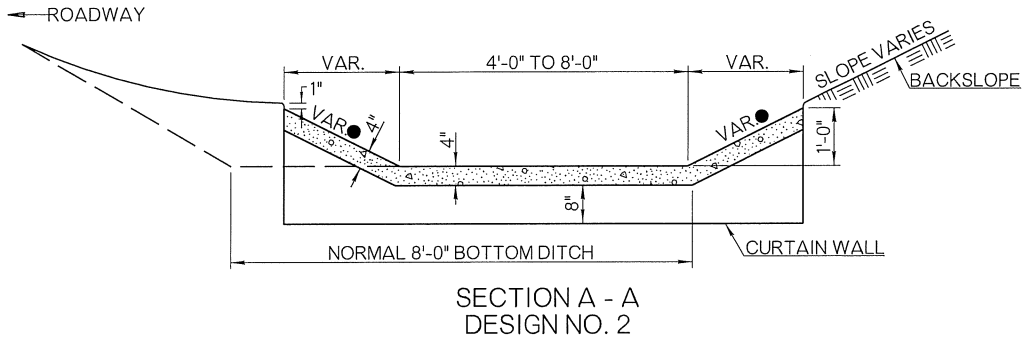
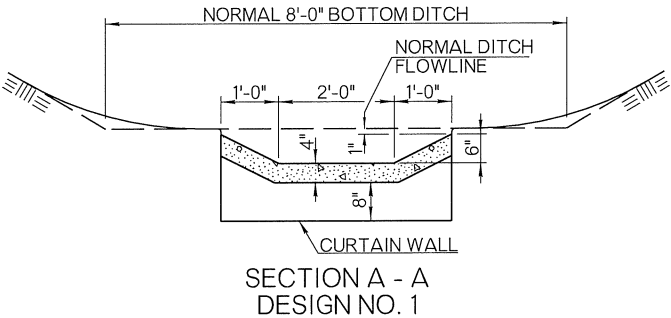
REINFORCED CONCRETE ARCH/ELLIPTICAL PIPE					
▲ CLASS A - III ARCH CLASS HE - III HORIZONTAL ELLIPTICAL CLASS VE - IV VERTICAL ELLIPTICAL					
APPROXIMATE EQUIVALENT ROUND PIPE	ARCH SIZE SPAN x RISE	HORIZONTAL ELLIPTICAL SIZE RISE x SPAN	VERTICAL ELLIPTICAL SIZE RISE x SPAN	MINIMUM COVER	MAXIMUM COVER
15"	18" x 11"			12"	10'
18"	22" x 13"	14" x 23"	23" x 14"	12"	10'
24"	28" x 18"	19" x 30"	30" x 19"	12"	10'
30"	36" x 22"	24" x 38"	38" x 24"	12"	10'
36"	43" x 26"	29" x 45"	45" x 29"	12"	10'
42"	51" x 31"	34" x 53"	53" x 34"	12"	10'
48"	58" x 36"	38" x 60"	60" x 38"	12"	10'
54"	65" x 40"	43" x 68"	68" x 43"	12"	10'
60"	73" x 45"	48" x 76"	76" x 48"	12"	10'
66"		53" x 83"	83" x 53"	12"	10'
72"	88" x 54"	58" x 91"	91" x 58"	12"	10'
78"		63" x 98"	98" x 63"	12"	10'
84"	102" x 62"	68" x 106"	106" x 68"	12"	10'
90"	115" x 72"	72" x 113"	113" x 72"	12"	10'
96"	122" x 77"	77" x 121"	121" x 77"	12"	10'
102"		82" x 128"	128" x 82"	12"	10'
108"	138" x 87"	87" x 136"	136" x 87"	12"	10'
114"		92" x 143"	143" x 92"	12"	10'
120"		97" x 151"	151" x 97"	12"	10'

▲ DIMENSIONS LISTED FOR ARCH PIPE IN PAY ITEMS SHOW TRUNCATED INCHES.

GENERAL NOTES

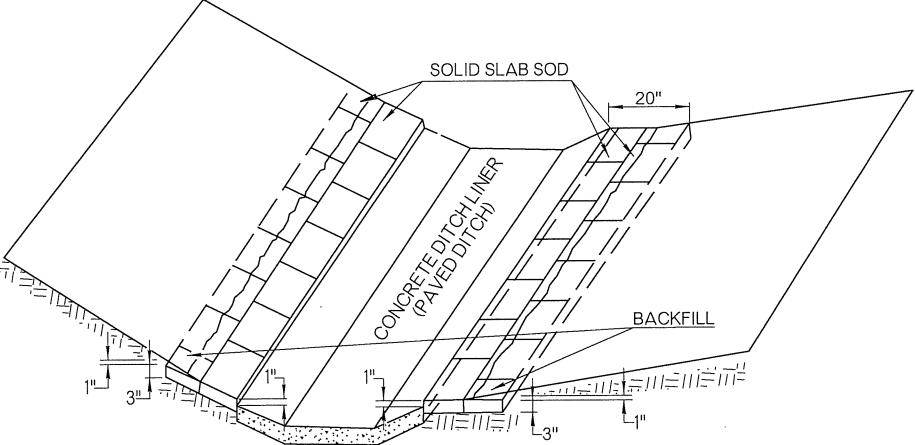
- FILL HEIGHT DESIGNS ARE BASED ON A CLASS B BEDDING, NEGATIVE PROJECTION, HS-20 LIVE LOADING, AND 120 LBS/C.F. SOIL WEIGHT.
- MINIMUM HEIGHT OF COVER FROM TOP OF PIPE TO TOP OF SUBGRADE FOR REINFORCED CONCRETE PIPE SHALL BE 12 INCHES.
- IN THE EVENT LOADS IN EXCESS OF HS-20 ARE TO BE OPERATED OVER OR ADJACENT TO THE PIPE INSTALLATION DURING THE CONSTRUCTION PHASE, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A MINIMUM OF FOUR FEET OF COVER OVER THE PIPE AT WHEEL OR TRACK PATHS.
- PROPER INSTALLATION PRACTICES MUST BE ADHERED TO AS SHOWN ON ROADWAY STANDARDS SPI-4, FPI-3 AND SPB-1.
- ANY PIPE CRACKED PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. SURFACE DISTRESS MUST BE REPAIRED TO THE SATISFACTION OF THE ENGINEER, OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- PIPE DIMENSIONS LISTED IN TABLES CONFORM TO 2005 AASHTO DESIGNATIONS.
- CLASS IV/V REINFORCED CONCRETE PIPE SHALL MEET STRENGTH TEST REQUIREMENTS OF A MAXIMUM 2000 POUNDS FOR CLASS IV AND 3000 POUNDS FOR CLASS V PIPE - FORCE PER LINEAR FOOT PER FOOT OF DIAMETER TO PRODUCE A 0.01 INCH CRACK, CONFORMING TO TEST PROCEDURE REFERENCES IN AASHTO M 170.

OKLAHOMA DEPARTMENT OF TRANSPORTATION		
STANDARD REVISIONS		
DESCRIPTION	DATE	



DESIGN NO. 1 - A PAVED PILOT DITCH TO BE PLACED 6" BELOW THE NORMAL FLOWLINE AND IN THE CENTER OF A STANDARD DITCH

DESIGN NO. 2 - A DITCH THAT IS PAVED AND HAVING THE SAME FLOWLINE AS A STANDARD UNPAVED DITCH



- GENERAL NOTES**
- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
 - ALL COST OF ADDITIONAL BORROW OR EXCAVATION, REQUIRED FOR INSTALLING PAVED DITCH, SHALL BE INCLUDED IN PRICE BID FOR CLASS C CONCRETE.
 - THE DITCH SHALL BE WATERED, AND COMPACTED, BEFORE PLACING CLASS C CONCRETE.
 - DITCH LINER PROTECTION MAY BE EITHER EXCELSIOR MAT, OR SOLID SLAB SOD, AND SHALL BE MEASURED BY THE LINEAR FOOT OF DITCH (PAVED DITCH), IN PLACE.

QUANTITIES OF CLASS C CONCRETE PER LF OF PAVED DITCH										
DESIGN NO. 1						DESIGN NO. 2				
BOTTOM WIDTH	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
K 1	.0522	.0645	.0769	.0892	.1016	.1274	.1397	.1521	.1644	.1768
K 2	.0586	.0709	.0832	.0955	.1078	.1790	.1913	.2036	.2159	.2282
• VARIABLE AS SHOWN ON PLANS DESIGN 2A = 1:3 SLOPES DESIGN 2B = 1:2 SLOPES DESIGN 2C = 1:1 SLOPES						K 1	.1045	.1168	.1292	.1415
						K 2	.1357	.1480	.1603	.1726
						K 1	.0923	.1048	.1172	.1295
						K 2	.1105	.1228	.1352	.1476
TOTAL CLASS C CONC. = (LENGTH OF PAVED DITCH) (K1) + (NO. OF CURT. WALLS) (K2) K1=CU. YDS. OF CONCRETE PER LINEAR FOOT K2=CU. YDS. OF CONCRETE PER CURTAIN WALL										

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
509 (D)	CLASS C CONCRETE	CY
229	DITCH LINER PROTECTION	LF

APPROVED BY

ROADWAY ENGINEER: *Caleb F. A.*

DATE: 04/14/15

ROADWAY DESIGN DIVISION STANDARD

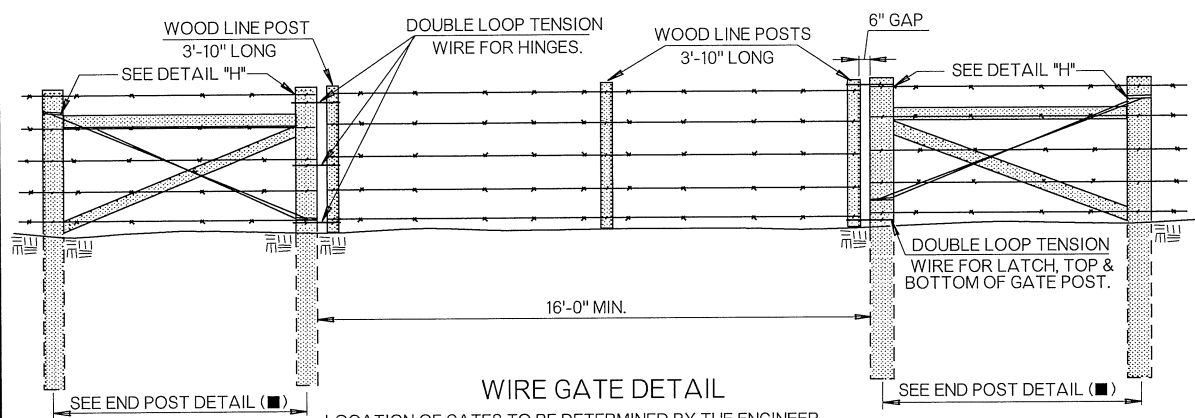
PAVED DITCHES AND FLUMES

OKLAHOMA DEPARTMENT OF TRANSPORTATION

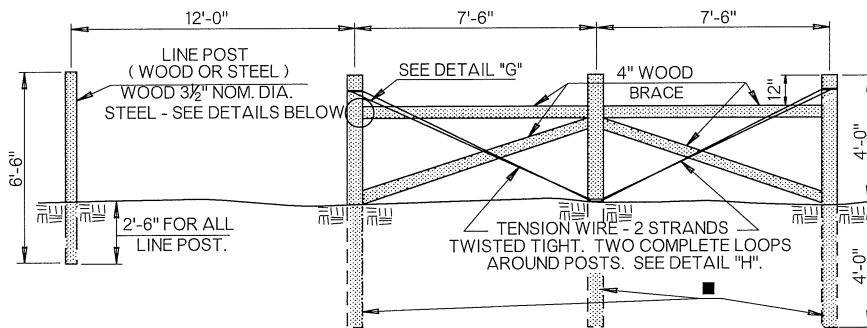
2009 SPECIFICATIONS

DC-3

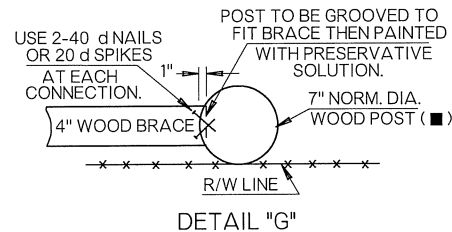
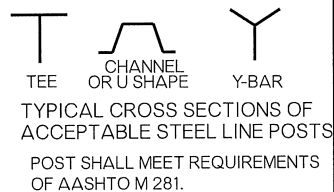
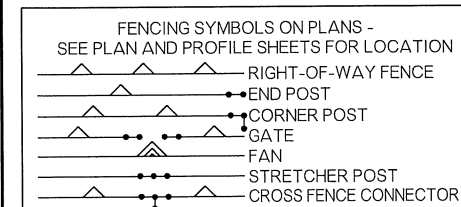
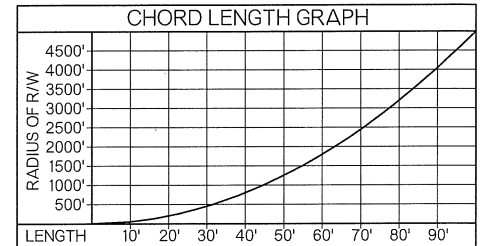
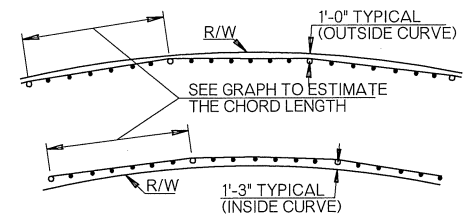
2



LOCATION OF GATES TO BE DETERMINED BY THE ENGINEER. OTHER TYPES OF GATES MAY BE SUBSTITUTED FOR THE WIRE GATE, SUCH AS PREFABRICATED PIPE TUBING TYPES OR RANCH STYLE METAL PANEL TYPE, IF APPROVED BY THE ENGINEER. COST OF WIRE GATE SHALL BE INCLUDED IN THE PRICE BID FOR FENCE.

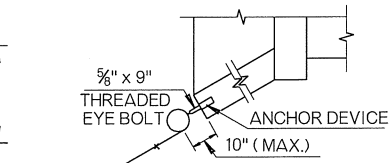
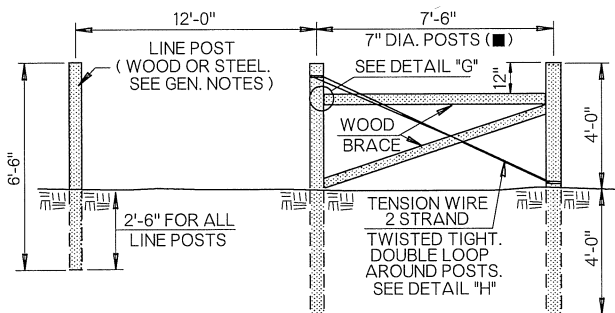


USE STRETCHER DETAILS AT ALL CORNERS, BENDS IN R/W, ON HILLTOPS, IN VALLEYS OR DEEP DEPRESSIONS, AND AT 500' MAXIMUM SPACING.

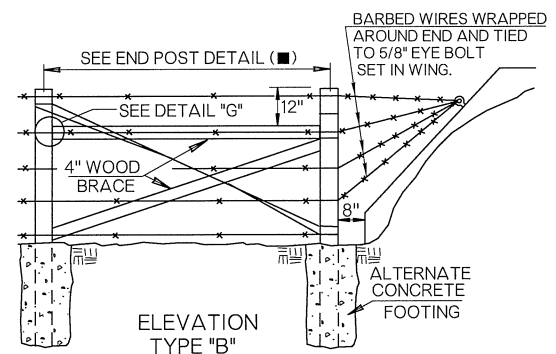


IF 3 1/2" DIA. x 8'-0" LONG GALV. STEEL (SCH. 40) PIPE IS USED AS ALTERNATIVE POST (■), THEN 2" DIA. GALV. STEEL PIPES (SCH. 40) WILL BE USED AS BRACING AND ATTACHED USING STANDARD CHAIN LINK FENCE HARDWARE MEETING THE REQUIREMENTS OF AASHTO M 181 & ASTM A53. SEE CHAINLINK DETAILS ON ROADWAY STANDARD RWF3-2.

CORNER & STRETCHER POSTS DETAIL ALTERNATIVE



CONNECTIONS AT CULVERTS



GENERAL NOTES

- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
- FENCE, IN GENERAL, SHALL BE ON OUTSIDE OF POSTS AWAY FROM CENTERLINE OF HIGHWAY AND CONSTRUCTED ON THE PERMANENT RIGHT-OF-WAY (EXCEPTIONS ARE CORNERS AND CURVES).
- HINGES AND LOOP LATCH ON WIRE GATES SHALL BE FABRICATED FROM TENSION WIRE. THE HINGES (3 PER POST) SHALL BE FORMED OF DOUBLE LOOPS ON THE GATE POST. THE LOOP HINGES AROUND THE WIRE GATE POST SHALL BE FORMED LOOSE FOR EASE OF MOVEMENT. THE TOP 2 (TOP AND BOTTOM) LOOP STRETCHER POSTS TO BE USED IN GENERAL AT HILL TOPS AND AT BOTTOM OF VALLEYS AND AT A MAXIMUM OF 500 FEET APART.
- ALL MISCELLANEOUS HARDWARE SHALL BE FURNISHED GALVANIZED OR ALUMINUM COATED. ALL ALTERNATIVE METAL PIPE POSTS SHALL BE CAPPED.

BASIS OF PAYMENT

ITEM NO.	ITEM	UNIT
624 (C)	FENCE-STYLE SWF (● BARBED WIRE)	LF
624 (C)	FENCE-STYLE SWF (● SMOOTH WIRE)	LF
624 (C)	FENCE-STYLE SWF (● BARBLESS WIRE)	LF

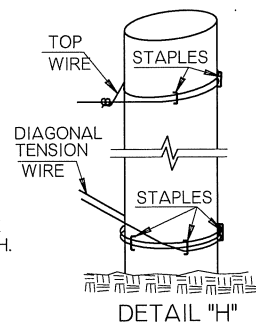
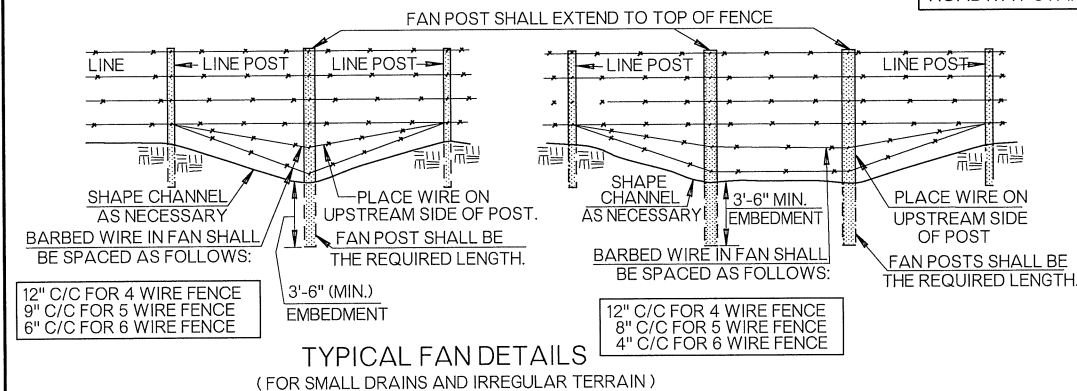
● NUMBER OF STRANDS

APPROVED BY ROADWAY ENGINEER: *Calvin F. A.* DATE: 04/14/15
ROADWAY DESIGN DIVISION STANDARD
DOT RIGHT-OF-WAY FENCE STYLE SWF (STRAND WIRE FENCE)

OKLAHOMA DEPARTMENT OF TRANSPORTATION
2009 SPECIFICATIONS

RWF2-2

1



END POST DETAIL

USE FOR CROSS FENCE CONNECTIONS.
NOTE: ALL WIRES SHALL MAKE TWO COMPLETE WRAPS AROUND END POST, THEN AROUND THEMSELVES TWO TURNS. USE EXTRA STAPLES ON END POSTS. SEE DETAIL "H".

