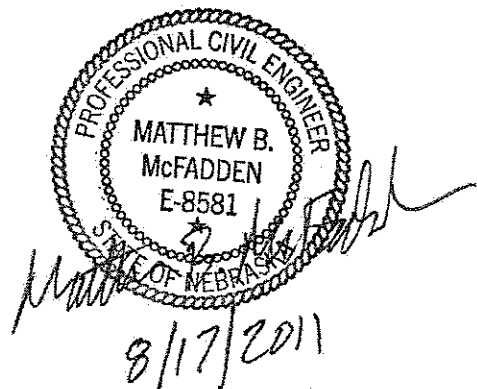


GRAND ISLAND QUIET ZONE PROJECT NO. 2012-QZ-01
UPRR CROSSINGS AT:
OAK STREET, PINE STREET, WALNUT STREET AND ELM STREET
FOR
CITY OF GRAND ISLAND, NEBRASKA

CONTRACT DOCUMENTS
AND
SPECIFICATIONS

AUGUST, 2011

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
GRAND ISLAND, NEBRASKA



BIDDER CHECKLIST FOR
**GRAND ISLAND QUIET ZONE
CITY OF GRAND ISLAND, NEBRASKA**

Bids must be received by the City Clerk before 2:00 p.m., (local time) on Tuesday, September 6, 2011.

The following items must be completed for your bid to be considered.

- 1 This completed bidder checklist form.
- 1 A signed **original and one copy** of the bidding documents. (Pages CB-1 through CB-4)
- 1 Acknowledgment of Addendum(s), if any.
- 1 Firm unit pricing; or lump sum pricing as applicable. (See bid Form)
- 1 A certified check, cashier's check or bid bond in a separate envelope attached to the **outside of the envelope containing the bid**. Each envelope must be clearly marked indicating its contents. Failure to submit the necessary qualifying information in clearly marked and separate envelopes will result in your bid not being opened.

Bidder Company Name

Date

Print – Name of Person Completing Bid

Signature

**GRAND ISLAND QUIET ZONE
CITY OF GRAND ISLAND, NEBRASKA**

TABLE OF CONTENTS

1. Advertisement to Bidders
2. Instructions to Bidders
3. Contractor's Bid
4. Bidder Checklist
5. Insurance Requirements
6. Exempt Sales Certificate
7. Purchasing Agent Appointment
8. Taxpayer Identification Number and Certification
9. Contract Agreement
10. Special Provisions
11. Division 1 - General Requirements
12. Division 2 – Portland Cement Concrete
13. Division 3 – Curb and Gutter, Sidewalk and Driveways
14. Wayside Horn Agreement

ADVERTISEMENT TO BIDDERS

ADVERTISEMENT TO BIDDERS
for
GRAND ISLAND QUIET ZONE
CITY OF GRAND ISLAND, NEBRASKA

Sealed bids will be received at the office of the City Clerk, 100 E. First Street., Grand Island, NE 68801 or P.O. Box 1968, Grand Island, Nebraska 68802 until 2:00 p.m., (Local Time), Tuesday, September 6, 2011, for the construction of **Grand Island Quiet Zone**, for the City of Grand Island. Bids will be publicly opened at this time in the Conference Room #1 located on 1st floor of City Hall. Bids received after specified time will be returned unopened to sender.

Bids shall be submitted on forms which will be furnished by the City. Each bidder shall submit with their bid a certified check, a cashier's check or bid bond payable to the City Treasurer in an amount no less than five percent (5%) of the bid price which shall guarantee good faith on the part of the bidder and the entering into a contract within 15 days, at the bid price, if accepted by the City. **"Your certified check, cashier's check or bid bond must be submitted in a separate envelope attached to the outside of the envelope containing the bid."** Each envelope must be clearly marked indicating its contents. **Failure to submit the necessary qualifying information in clearly marked and separate envelopes will result in your bid not being opened or considered.** Bid bonds must be issued by surety companies authorized to do business in the State of Nebraska. **Please return one original and one copy of each bid sheet.**

The successful bidder will be required to comply with fair labor standards as required by Nebraska R.R.S. 73-102 and comply with Nebraska R.R.S. 48-657 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska.

Successful bidder shall comply with the City's insurance requirements, and supply performance and payment bonds. Successful bidder shall maintain a Drug Free Workplace Policy.

Bids will be evaluated by the Purchaser based on price, quality, adherence to schedule, plan and specification, economy and efficiency of operation, experience and reputation of bidder, ability, capacity, and skill of the bidder to perform contract required and adaptability of the particular items to the specific use intended.

The Purchaser reserves the right to reject any or all bids and to waive irregularities therein and to accept whichever bid that may be in the best interest of the City, at its sole discretion. The Purchaser also reserves the right to reject any section(s) of a selected bid that may be in the best interest of the City, at its sole discretion.

No bidder may withdraw their bid for a period of forty-five (45) days after date of opening bids.

Plans and specifications for use in preparing bids may be obtained from the office of the City Engineer, Second Floor, City Hall, 100 East First Street, Grand Island, NE.

TITLE VI

The City of Grand Island, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office the Secretary, Part 21, Nondiscrimination in Federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notified all bidden that it will affirmatively insure that in any contact entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin, sex, age and disability/handicap in consideration for an award.

SECTION 504/ADA NOTICE TO THE PUBLIC

The City of Grand Island does not discriminate on the basis of disability in admission of its programs, services, or activities, in access to them, in treatment of individuals with disabilities, or in any aspect of their operations. The City of Grand Island also does not discriminate on the basis of disability in its hiring or employment practices.

This notice is provided as required by Title II of the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. Questions, complaints, or requests for additional information or accommodation regarding the ADA and Section 504 may be forwarded to the designated ADA and Section 504 compliance coordinator.

City Administrator
308-385-5444, extension 140
100 East First Street, Grand Island, NE 68801
Monday through Friday; 8:00 a.m. to 5:00 p.m.

RaNae Edwards
City Clerk

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS
For
GRAND ISLAND QUIET ZONE
CITY OF GRAND ISLAND, NEBRASKA

EXCEPTIONS TO SPECIFICATIONS: Each bidder shall carefully check all requirements herein set forth and shall offer items which fully comply with these requirements or shall plainly set forth all points, features, conditions, specifications. Bidder must comply with all applicable Federal, State and Local rules and regulations.

SUBMISSION OF BIDS: All bids shall be submitted using the City's bid form. Bids shall **be addressed to the City Clerk** and plainly marked, "**Grand Island Quiet Zone**".

INSURANCE COVERAGE: The Contractor shall purchase and maintain at their expense as a minimum insurance coverage of such types and in such amounts as are specified herein to protect Contractor and the interest of Owner and others from claims which may arise out of or result from Contractor's operations under the Contract Documents, whether such operations be by Contractor or by any subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. Failure of Contractor to maintain proper insurance coverage shall not relieve them of any contractual responsibility or obligation.

BASE BID: The bidder is expected to base their bids on materials and items complying fully with these specifications, and in the event their names in the bid materials or items which do not conform, they will be responsible for furnishing materials and items which fully conform at no change in the bid price.

CHECKS OR BID BONDS: Checks or bid bonds of the unsuccessful bidders will be returned when their bids have been rejected and not to exceed 45 days from the date bids are opened. All bids shall remain in force for this 45-day Period. The check or bid bond of the successful bidder will be returned when the Contracts are signed by both parties and necessary bonds supplied. Should the Purchaser make an award to a Contractor who refuses to enter into Contract and furnish the required bonds within 15 days after notification of acceptance, then the bid security which has been deposited with the Purchaser will be forfeited to the Purchaser as liquidated damages.

PERFORMANCE BOND: When required, on award of the Contract, the successful Contractor shall furnish a Performance Bond which shall be in an amount equal to the full Contract price, guaranteeing faithful compliance with all requirements of the Contract Documents and complete fulfillment of the Contract, and payment of all labor, material and other bills incurred in carrying out this Contract. According to Nebraska Law, the surety company executing the Performance Bond must be authorized to do business in the State of Nebraska.

PAYMENT BOND: When required, on award of the Contract, the successful Contractor shall furnish a Payment Bond which shall be in an amount equal to the full Contract price, guaranteeing protection of all persons supplying labor and materials to the Contractor or its subcontractors for the performance of the work provided for in the Contract. In accordance with Nebraska Law, the surety company executing the Payment Bond must be authorized to do business in the State of Nebraska.

TAXES: This project for the City of Grand Island is exempt from paying local City and State Sales Tax. Refer to Exempt Sale Certificate enclosed for your information. Contractor must pay any other tax which might be applicable.

REQUESTS FOR PAYMENT: The City of Grand Island will make payments only after approval at regularly scheduled City Council meetings. These meetings typically occur the second and fourth Monday each month. Requests for payment must be received no less than ten working days prior to the designated meeting to allow proper review and consideration.

REQUEST FOR INTERPRETATION: If any person, contemplating submitting a bid for this Contract is in doubt as to the true meaning of any part of the specifications or other proposed Contract documents, they may submit to the Purchasing Division of the City Attorney's Office a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addendum only issued and/or delivered to each person receiving a set of such documents. The addenda upon closing shall become a part of the Contract. The City will not be responsible for any other explanation or interpretation of the proposed documents.

TIME OF COMPLETION: This work in this contract shall be completed no later than **May 25, 2012**.

CLEANING UP: Contractor shall maintain a clean and safe work area while on site, particularly since pedestrian traffic will be prevalent during construction activities.

ADDENDA: Any addendum to the specifications issued during the time allowed for preparation of bids shall be covered in the bid and shall become a part of the specifications. One copy of each addendum issued before the date of the letting will be sent to all bidders. One signed copy is to be returned immediately to the Purchasing Department (or other department if so designated in the Addendum) as acknowledgment of receipt.

MODIFICATION OF BIDS: Bids may be modified or withdrawn by an appropriate document duly executed in the manner that a bid must be executed and delivered to the place where bids are to be submitted at any time prior to the final time set for receiving bids. Bidders may modify or withdraw bids by Fax communication at any time prior to the time set for receiving bids provided this instruction is positively identified. Any Fax modification should not reveal the amended bid price but should provide only the addition, subtraction or other modifications. A duly-executed document confirming the Fax modification shall be submitted within three days after bids are opened.

BID DATA: Bidders shall submit bid data, if required, on items offered in the Bid by **furnishing one original and one copy of the completed Contractor's Bid form**. The bid sheets shall be filled out legibly in ink to permit reproduction.

BIDDER SECURITY: Bidder security, when required, shall be enclosed in a special envelope marked, **"BIDDER SECURITY/BID "GRAND ISLAND QUIET ZONE"**. The envelope shall contain only a cashier's check, certified check or bidder's bond.

This special envelope shall be attached to a sealed envelope containing the bid and any other bid materials. This second envelope shall be "BID FOR "GRAND ISLAND QUIET ZONE" and be addressed to the City Clerk." Bids of an incomplete nature or subject to multiple interpretations may, at the option of the Purchaser, be rejected as being irregular.

FINANCIAL STATEMENT: If requested the bidder shall furnish a complete financial statement signed by the bidder, if an individual, by all partners if the bidder is a partnership and, by the President or Secretary, if the bidder is a corporation.

DRUG FREE WORKPLACE POLICY: Bidders shall furnish, upon request, a copy of their Drug Free workplace Policy.

EQUAL EMPLOYMENT OPPORTUNITY: The Contractor agrees that during the performance of this Contract not to discriminate in hiring or any other employment practice on the basis of race, color, religion, sex, disability, age or national origin, and to comply with Executive Order 11,246 of September 24, 1965, and the rules, regulations and relevant orders of the Secretary of Labor, and Chapter 20 of the Reissue Revised Statutes of the State of Nebraska.

LOCAL CONDITIONS: Each bidder shall have an authorized representative visit the site of the work and thoroughly inform them of all conditions and factors which would affect the work and the cost thereof, including the arrangement and conditions of existing or proposed structures affecting or affected by the proposed work; the procedure necessary for maintenance of uninterrupted operation; the availability and cost of labor and facilities for transportation, handling, and storage of materials and equipment.

It must be understood and agreed that all such factors have been investigated and considered in the preparation of every bid submitted. No claims for financial adjustment (to any Contract awarded for the work under these Specifications and documents) will be permitted by the City, which are based on lack of such prior information, or its effect on the cost of the work.

CORRESPONDENCE: Correspondence regarding drawings, instruction manuals, and other engineering data shall be clearly marked "FOR ENGINEERING DEPARTMENT" and sent through:

City of Grand Island
Public Works Department
P.O. Box 1968
Grand Island, NE 68802-1968
(308) 385-5444, Extension 265
publicworks@grand-island.com
Attn: Scott Griepenstroh

LOCAL BIDDER PREFERENCE: In case of tied low bids, all other things being equal, preference shall be given in the following order:

1. To those bidders who manufacture their products within the limits of the City of Grand Island.
2. To those bidders who manufacture their products within the limits of the County of Hall.
3. To those bidders who package, process, or through some other substantial operation have employees and facilities for these purposes in the City of Grand Island.
4. To those bidders who package, process, or through some other substantial operation have employees and facilities for these purposes in the County of Hall.
5. To those bidders who maintain a bona fide business office in the City of Grand Island, whose products may be made outside the confines of the City of Grand Island.
6. To those bidders who maintain a bona fide business office in the County of Hall, whose products may be made outside the confines of the County of Hall.
7. To those bidders whose commodities are manufactured, mined, produced, or grown within the State of Nebraska, and to all firms, corporations, or individuals doing business as Nebraska firms, corporations or individuals, when quality is equal or better, and delivered price is the same or less than the other bids received.
8. To those bidders whose commodities are manufactured, mined, produced, or grown within the United States of America, and to all firms, corporations, or individuals doing business as firms registered in states other than Nebraska, when quality is equal or better, and delivered price is the same or less than the other bids received.

CONTRACTOR'S BID

**GRAND ISLAND QUIET ZONE
CITY OF GRAND ISLAND, NEBRASKA**

CONTRACTOR'S BID

TO THE MEMBERS OF THE COUNCIL
CITY OF GRAND ISLAND
GRAND ISLAND, NEBRASKA

THE UNDERSIGNED BIDDER, having examined the plans, specifications, general and special conditions, and other proposed contract documents, and all addenda thereto and being acquainted with and fully understanding (a) the extent and character of the work covered by this Bid, (b) the location, arrangement, and specified requirements for the proposed work, (c) the location, character, and condition of existing streets, roads, highways, railroad, pavements, surfacing, walks, driveways, curbs, gutters, trees, sewers, utilities, drainage courses and structures, and other installations, both surface and underground which may affect or be affected by the proposed work, (d) the nature and extent of the excavations to be made and the handling and re-handling of excavated materials, (e) the location and extent of necessary or probable dewatering requirements, (f) the difficulties and hazards to the work which might be caused by storm and flood water, (g) local conditions relative to labor, transportation, hauling and rail delivery facilities, and (h) all other factors and conditions affecting or which may be affected by the work.

HEREBY PROPOSES to furnish all required materials, supplies, equipment, tools and plans, to perform all necessary labor and supervision, and to construct, install, erect, equip and complete all work stipulated in, required by and in accordance with the contract documents and the plans, specifications and other documents referred to therein (as altered, amended or modified by all addenda thereto) for and in consideration of the following prices:

<u>No.</u>	<u>Description</u>	<u>Estimated Quantity</u>	<u>Firm Unit Price</u>	<u>Total Price</u>
1.	Mobilization	1.00 each	\$ _____	\$ _____
2.	Remove Pavement	1,333.00 s.y.	\$ _____	\$ _____
3.	Remove Sidewalk	2,345.00 s.f.	\$ _____	\$ _____
4.	Remove Driveway	77.00 s.y.	\$ _____	\$ _____
5.	Remove Curb & Gutter	36.00 l.f.	\$ _____	\$ _____
6.	Build 30" Curb & Gutter	935.00 l.f.	\$ _____	\$ _____
7.	Build 6" Curb	25.00 l.f.	\$ _____	\$ _____
8.	Build 4" Sidewalk	4,802.00 s.f.	\$ _____	\$ _____
9.	Build 6" Sidewalk	612.00 s.f.	\$ _____	\$ _____
10.	Build 8" Barrier Curb	752.00 l.f.	\$ _____	\$ _____
11.	4" Concrete Median	115.00 s.y.	\$ _____	\$ _____
12.	8" Concrete Pavement	106.00 s.y.	\$ _____	\$ _____
13.	Dead End Barricade, Type III	14.00 each	\$ _____	\$ _____
14.	Earthwork Measured in Embankment	115.00 c.y.	\$ _____	\$ _____
15.	Detectable Warnings	21.00 each	\$ _____	\$ _____
16.	U Channel Sign Post	117.00 l.f.	\$ _____	\$ _____

17.	Ground Sleeve	5.00 each	\$ _____	\$ _____
18.	Traffic Sign, < 4 Sq Ft	10.00 each	\$ _____	\$ _____
19.	Traffic Sign, 4 Sq Ft < 9 Sq Ft	11.00 each	\$ _____	\$ _____
20.	Flagging (Roadway)	20.00 days	\$ _____	\$ _____
21.	Railroad Crossing Symbol Preformed Pavement Marking, Type 4 Grooved	6.00 each	\$ _____	\$ _____
22.	Permanent Painted Pavement Marking – 4" White	40.00 l.f.	\$ _____	\$ _____
23.	Wayside Horn and Conformation Signal Installation (Complete)	1.00 each	\$ _____	\$ _____
24.	Riser Meter and Disconnect	1.00 each	\$ _____	\$ _____
25.	Precast Concrete Parking Barrier	2.00 each	\$ _____	\$ _____
26.	5' Chain Link Fence	66.00 l.f.	\$ _____	\$ _____

TOTAL BID –

GRAND ISLAND QUIET ZONE \$ _____

EXPERIENCE DATA:

Each bidder shall supply the following data on their experience:

Name of Bidder: _____

<u>Project Owner/Contact/Phone No.</u>	<u>Project Location</u>	<u>Completion Date</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Additional Data: _____

INSURANCE: Bidder acknowledges that bid includes compliance with the attached insurance requirements.

ADDENDA:

Bidder acknowledges that the following Addendums were received and considered in Bid preparation.

<u>ADDENDUM NO.</u>	<u>DATE</u>	<u>SIGNATURE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Bidder acknowledges that Addenda Number(s) _____ were received and considered in Bid preparation.

Exceptions shall be listed in the following blanks. If additional space is required for exception explanation, please reference and attach a letter to bid. Reference shall not be made to other attachments for exceptions and supplementary terms. Failure to outline such exceptions as specifically stated herein will require the successful bidder to comply with these specifications. In case of conflict between the bid and these specifications, these specifications shall govern unless specific exceptions are listed by the bidder.

Exceptions to specifications, pages _____

The undersigned bidder agrees to furnish the required bond and to enter into a contract within 15 days after acceptance of this Bid, and further agrees to complete all work covered by the foregoing bid in accordance with specified requirements. **No work shall commence until the Certificate of Insurance and bonds (when required) are approved by the City and the contract is executed.** The proposed work can commence after the contract is signed and the required bond is approved. The work in this contract shall be completed no later than **May 25, 2012.**

Enclosed herewith is the required bid guarantee in the amount of

_____ Dollars (\$ _____)

which the undersigned bidder agrees is to be forfeited to and become the property of the City of Grand Island, Nebraska, as liquidated damages should this Bid be accepted and a contract be awarded to them and they fail to enter into a contract in the form prescribed and to furnish the required bond within 15 days, but otherwise the aforesaid bid guarantee will be returned upon signing the contract and delivering the approved bond.

In submitting the bid it is understood that the right is reserved by the City to reject any and all bids; to waive irregularities therein and to accept whichever bid that may be in the best interest of the City. It is understood that this bid may not be withdrawn until after 45 days from bid opening.

In submitting the bid, the bidder states that bidder fully complies with, and will continue to comply with, applicable State fair labor standards as required by section 73-102 RRS, 1943 and also complies with, and will continue to comply with, section 48-657 RRS, 1943 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska.

The undersigned bidder hereby certifies (a) that this bid is genuine and is not made in the interest of or in the behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation, (b) that they have not directly or indirectly induced or solicited any person, firm or corporation to refrain from bidding, (c) that they have not sought, by collusion or otherwise, to obtain for themselves an advantage over any other bidder or over the City of Grand Island, and (d) that they have not directly or indirectly induced or solicited any other bidder to put in a false or sham bid.

DATED _____

SIGNATURE OF BIDDER:

If an Individual: _____ doing business

as _____

If a Partnership: _____

by _____, member of firm.

If a Corporation: _____

by _____ (Seal)
Title

BUSINESS ADDRESS OF BIDDER

TELEPHONE NUMBER OF BIDDER

FAX NUMBER OF BIDDER

**BIDDER CHECKLIST FOR
GRAND ISLAND QUIET ZONE
CITY OF GRAND ISLAND, NEBRASKA**

Bids must be received by the City Clerk before 2:00 p.m., (local time) on Tuesday, September 6, 2011.

The following items must be completed for your bid to be considered.

- 1 This completed bidder checklist form.
- 1 A signed **original and one copy** of the bidding documents. (Pages CB-1 through CB-4)
- 1 Acknowledgment of Addendum(s), if any.
- 1 Firm unit pricing; or lump sum pricing as applicable. (See bid Form)
- 1 A certified check, cashier's check or bid bond in a separate envelope attached to the **outside of the envelope containing the bid**. Each envelope must be clearly marked indicating its contents. Failure to submit the necessary qualifying information in clearly marked and separate envelopes will result in your bid not being opened.

Bidder Company Name

Date

Print – Name of Person Completing Bid

Signature

INSURANCE REQUIREMENTS

MINIMUM INSURANCE REQUIREMENTS

GRAND ISLAND QUIET ZONE CITY OF GRAND ISLAND, NEBRASKA

You must include in your bid compliance with the Union Pacific Railroad's (UPRR) minimum insurance requirements listed below. Any contractor or subcontractor working within 25 feet of the UPRR tracks will be required to have such coverage. Any non-compliance must be detailed in the Exceptions Section of the bid. Compliance with the City's specified OCP coverage is also mandatory.

The Bidder shall take out, throughout the duration of the Contract, insurance of such types and in such amounts as may be necessary to protect themselves and the interests of the City against all hazards or risks of loss as hereinafter specified. This insurance shall cover all aspects of the Bidder's operations to the fullest extent possible and provide no exclusions relative to any aspect of the work being performed for the City. The form and limits of such insurance, together with the underwriter thereof in each case, shall be approved by the City but regardless of such approval, it shall be the responsibility of the Bidder to maintain adequate insurance coverage at all times. Failure of the Bidder to maintain adequate coverage shall not relieve them of any contractual responsibility or obligation.

The successful bidder shall obtain insurance from companies authorized to do business in Nebraska of such types and in such amounts as may be necessary to protect the bidder and the interests of the City against hazards or risks of loss as hereinafter specified. This insurance shall cover all aspects of the Bidder's operations and completed operations. Failure to maintain adequate coverage shall not relieve bidder of any contractual responsibility or obligation. Minimum insurance coverage shall be the amounts stated herein or the amounts required by applicable law, whichever are greater.

Contractors and subcontractors, as the case may be, shall maintain, during the life of this Contract which this is an Exhibit (except as otherwise provided in this Agreement) the following insurance coverage. Before commencing any Work, contractors and subcontractors shall procure the coverage and provide the Railroad with a Certificate issued by their respective insurance carriers providing the insurance coverage required below:

A. Commercial General Liability insurance. Commercial general liability (CGL) with a limit of not less than \$10,000,000 each occurrence and an aggregate limit of not less than \$10,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage). The policy must also contain the following endorsement, which must be stated on the certificate of insurance: "Contractual Liability Railroads" ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

B. Business Automobile Coverage insurance. Business auto coverage written on ISO form CA 00 01 (or a substitute form providing equivalent liability coverage) with a limit of not less than \$10,000,000 for each accident, and coverage must include liability arising out of any auto (including owned, hired, and non-owned).

The policy must contain the following endorsements, which must be stated on the certificate of insurance: "Coverage For Certain Operations In Connection With Railroads" ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Property" as the Designated Job Site.

C. **Workers Compensation and Employers Liability Insurance.** Coverage must include but not be limited to:

- Contractor's statutory liability under the workers' compensation laws of the state(s) affected by this Agreement.
- Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 disease policy limit \$500,000 each employee.

If Contractor(s) are self-insured, evidence of state approval and excess workers compensation coverage must be provided.

D. **Railroad Protective Liability Insurance.** City must maintain (or cause its Contractor to maintain) Railroad Protective Liability insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Railroad as named insured, with a limit of not less than \$2,000,000 per occurrence and an aggregate of \$6,000,000. A binder stating the policy is in place must be submitted to Railroad before the work may be commenced and until the original policy is forwarded to Railroad.

E. **Umbrella or Excess Insurance.** If City and/or Contractor utilize umbrella or excess policies, these policies must "follow form" and afford no less coverage than the primary policy.

Other Requirements

F. The Commercial General Liability policy required above must include Railroad as "Additional Insured" using ISO Additional Insured Endorsement CG 20 26 (or substitute form providing equivalent coverage). The coverage provided to Railroad as additional insured shall, to the extent provided under ISO Additional Insured Endorsement CG 20 26 provide coverage for Railroad's negligence whether sole or partial, active or passive, and shall not be limited by City's and/or Contractor's liability under the indemnity provisions of this Agreement.

G. Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless (a) insurance coverage may not lawfully be obtained for any punitive damages that may arise under this agreement, or (b) all punitive damages are prohibited by all states in which this agreement will be performed.

H. City and Contractor waive all rights against Railroad and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by Workers' Compensation and Employers Liability, commercial umbrella or excess liability insurance obtained by City required by this agreement.

I. Prior to commencement of the Work, City and/or Contractor shall furnish Railroad with certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this Agreement. Railroad's permitting the Work to commence prior to receiving a certificate shall not be deemed a waiver of those requirements.

J. All insurance policies must be written by a reputable insurance company acceptable to Railroad or with a current Best's Insurance Guide Rating of A-, Class VII or better, and authorized to do business in the state(s) in which this agreement applies.

K. The fact that insurance is obtained by City and/or Contractor (or by Railroad on behalf of City) will not be deemed to release or diminish the liability of City and/or Contractor, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railroad

from any third party, including City's contractors or subcontractors, will not be limited by the amount of the required insurance coverage.

Contractors and subcontractors warrant that the above has been thoroughly reviewed by their respective insurance agent(s)/broker(s) and that said agent(s)/broker(s) has been instructed to procure insurance coverage and endorsement(s) as required herein.

All insurance correspondence shall be directed to:

Union Pacific Corporation
Insurance Compliance PO Box
12010-UP
Hemet, CA 92546-8010
Folder No: (Folder Number):

L. ADDITIONAL REQUIREMENTS

The City may require insurance covering a Bidder or subcontractor more or less than the standard requirements set forth herein depending upon the character and extent of the work to be performed by such Bidder or subcontractor.

Insurance as herein required shall be maintained in force until the City releases the Bidder of all obligations under the Contract.

The Bidder shall provide and carry any additional insurance as may be required by special provisions of these specifications.

M. CERTIFICATE OF INSURANCE

Satisfactory certificates of insurance shall be filed with the City prior to starting any work on this Contract. The certificates shall show the City as an additional insured on all coverage except Workers Compensation. The certificate shall state that thirty (30) days written notice shall be given to the City before any policy is cancelled (strike the "endeavor to" wording often shown on certificate forms). If the bidder cannot have the "endeavor to" language stricken, the bidder may elect to provide a new certificate of insurance every 30 days during the contract. Bidder shall immediately notify the City if there is any reduction of coverage because of revised limits or claims paid which affect the aggregate of any policy.

CONTRACT AGREEMENT

CONTRACT AGREEMENT

THIS AGREEMENT made and entered into this _____ day of _____, 2011, by and between _____, hereinafter called the Contractor, and the City of Grand Island, Nebraska, hereinafter called the City.

WITNESSETH:

THAT, WHEREAS, in accordance with law, the City has caused contract documents to be prepared and an advertisement calling for bids to be published, for construction of **Grand Island Quiet Zone Project No. 2012-QZ-1**; and

WHEREAS, the City, in the manner prescribed by law, has publicly opened, examined, and canvassed the proposals submitted, and has determined the aforesaid Contractor to be the lowest responsive bidder, and has duly awarded to the said Contractor a contract therefore, for the sum or sums named in the Contractor's bid, a copy thereof being attached to and made a part of this contract;

NOW, THEREFORE, in consideration of the compensation to be paid to the Contractor and of the mutual agreements herein contained, the parties have agreed and hereby agree, the City for itself and its successors, and the Contractor for itself or themselves, and its or their successors, as follows:

ARTICLE I. That the Contractor shall (a) furnish all tools, equipment, superintendence, transportation, and other construction materials, services and facilities; (b) furnish, as agent for the City, all materials, supplies and equipment specified and required to be incorporated in and form a permanent part of the completed work; (c) provide and perform all necessary labor; and (d) in a good substantial and workmanlike manner and in accordance with the requirements, stipulations, provisions, and conditions of the contract documents as listed in the attached General Specifications, said documents forming the contract and being as fully a part thereof as if repeated verbatim herein, perform, execute, construct and complete all work included in and covered by the City's official award of this contract to the said Contractor, such award being based on the acceptance by the City of the Contractor's bid;

ARTICLE II. That the City shall pay to the contractor for the performance of the work embraced in this contract and the contractor will accept as full compensation therefore the sum (subject to adjustment as provided by the contract) of

- A. _____ (\$_____)
- B. _____ (\$_____)
- C. _____ (\$_____)

for all services, materials, and work covered by and included in the contract award and designated in the foregoing Article I; payments thereof to be made in cash or its equivalent in the manner provided in the General Specifications.

ARTICLE III. The contractor hereby agrees to act as agent for the City in purchasing materials and supplies for the City for this project. The City shall be obligated to the vendor of the materials and supplies for the purchase price, but the contractor shall handle all payments hereunder on behalf of the City. The vendor shall make demand or claim for payment of the purchase price from the City by submitting an invoice to the contractor. Title to all materials and supplies purchased hereunder shall vest in the City directly from the vendor. Regardless of the method of payment, title shall vest immediately in the City. The contractor shall not acquire title to any materials and supplies incorporated into the project. All invoices shall bear the contractor's name as agent for the City. This paragraph will apply only to these materials and supplies actually incorporated into and becoming a part of the finished product of **Grand Island Quiet Zone Project No. 2012-QZ-1**.

**SPECIAL PROVISIONS
GRAND ISLAND QUIET ZONE PROJECT NO. 2012-QZ-1
CITY OF GRAND ISLAND, NEBRASKA**

GENERAL CONTRACT REQUIREMENTS. The work as detailed on the plans shall be completed in accordance with the requirements of the City of Grand Island Standard Specifications as supplemented by these Special Provisions, including all amendments and additions thereto effective at the date of the contract, the Special Provisions, plans, and all supplementary documents are essential parts of the contract. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete project.

In case of a discrepancy:

1. The City of Grand Island Standard Specifications shall govern over the Nebraska Department of Road's 2007 Edition of the Standard Specifications for Highway Construction.
2. Special Provisions shall govern over the City of Grand Island Standard Specifications.
3. The plans shall govern over the Special Provisions.

The Contractor shall not take advantage of any apparent error or omission in the plans or specifications. Upon discovery of such an error or omission, the Contractor shall notify the Engineer immediately. The Engineer will then make such corrections or interpretations as necessary to fulfill the intent of the plans and specifications.

Any reference to the NDOR (Nebraska Department of Roads) in the Standard Specifications or Special Provisions shall be considered reference to the City of Grand Island, its employees, or representatives hired by the City of Grand Island as a consultant for construction project management.

GENERAL DESCRIPTION OF WORK. The work to be performed under the provisions of these contract documents consists of furnishing all materials, equipment, tools, labor and plant, and the performance of all necessary labor to complete the construction, as shown on the plans and described in the specifications for the Grand Island Quiet Zone Project No. 2012-QZ-1.

The location of the work is on Oak Street, Pine Street, Walnut Street and Elm Street near the at-grade crossings with the Union Pacific Railroad. Locations are shown on the Project Plans.

CONTRACT TIME. All Bid Sections shall be substantially complete by **May 25, 2012**. Substantial completion shall be defined as all major items of work associated with the project being complete. This shall include all grading, placement of concrete, curb and gutter, raised medians, signing and striping, and Wayside Horns and Confirmation Signal installed and operational.

SPECIAL PROSECUTION AND PROGRESS OF WORK. The Contractor shall develop a construction schedule for the work and submit for approval to the City's Project Manager prior to start of work on the project. The Contractor's schedule shall outline the anticipated start and completion dates for the various portions of the project including tasks required to substantially complete the work as well as the proposed final completion date for the project. The schedule shall breakdown the work at each railroad crossing, outlining all major construction activities including pavement removals, grading, pavement/curb construction, pavement markings, signing and final seeding.

The contractor shall begin working on the east end at Oak Street and proceed west constructing the improvements at Elm Street last. The City reserves the right to delay the improvements on the Elm Street should funding or agreements with the UPRR and NDOR be delayed.

The Contractor shall not close any portion of the public roads or begin any work which may impact drive access to adjacent businesses without the permission of the City Project Manager.

The Contractor shall be allowed ten consecutive calendar days to close Oak Street, and five days each to close Pine Street (non-concurrent with Oak Street), and Walnut Street to traffic and substantially complete all required work.

The Contractor shall notify all adjacent property owners along the project of the initial roadway or driveway closures that will affect access to the properties a minimum of seven (7) calendar days ahead of the proposed closures.

The Contractor shall at all times, to the extent practical, provide facilities of ingress and egress to and from the public street to maintain access to adjacent properties throughout the duration of the project as noted on the plans or as directed by the Engineer.

If the Contractor will require additional space outside the street right-of-way or easement areas for storage of equipment and material during the duration of the project, then the Contractor, at his expense, shall be responsible to secure temporary property rights from the adjacent property owners. The Contractor shall not allow equipment or materials to be stored within 25 feet of any track.

Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, the Contractor shall, at their own expense, provide and maintain suitable and safe bridges, detours, or other temporary expedient for the accommodation of public and private travel, and shall give reasonable advance notice to the affected businesses of private drives. The Contractor shall provide and maintain barricades, warning signs, flares and/or flashing lights as required by the latest edition of the MUTCD and as approved by the City Project Manager both during the day and night as deemed as necessary. No separate payment will be made for traffic provisions. The Contractor is required to work under traffic (both vehicular and pedestrian) and is expected to create as little delay and confusion as possible.

STATUS OF UTILITIES. The contractor should request a utility status update at the project preconstruction conference, *and/or* prior to starting work. The Contractor shall coordinate all construction activities with affected utilities who have identified relocations which are to be completed concurrent with the roadway construction.

To arrange for utilities to locate and flag their underground facilities, contact The Diggers Hotline of Nebraska at 1-800-331-5666.

REMOVAL ITEMS. It shall be the responsibility of the contractor to dispose of concrete, debris and other material at a location and in a manner approved by the City. No separate payment will be made for this work which is considered incidental to other items for which payment is made to the Contractor.

All saw cutting of existing pavement, driveways, sidewalks, etc. shall be subsidiary to items for which direct payment is made.

STATUS OF PERMITS

The following permits are required for this project:

Utility Crossing of UPRR Tracks

A Utility Crossing Application to UPRR for conduit and cables within the Walnut Street Right-of-way. The City of Grand Island has initiated this request and a request for waiver of the 30-foot clearance from the tracks for the end of the conduit run. The application and waiver are being processed by Railroad. It is anticipated that this permit will be received prior to the Contractor receiving the notice to proceed.

Contractor shall be responsible for obtaining all other permits required in the construction of this project.

DETECTABLE WARNING PANEL. Detectable warning panels shall be Neenah Foundry Detectable warning panels of approved equal. Detectable warning panels shall be measured and paid by the each.

“U” CHANNEL SIGN POSTS

A. GENERAL

The post shall be “U” in shape and be the appropriate length and weight. If the post is 8 foot long it shall weigh 1.5 pounds per foot; if 9 foot long, it shall weigh 2.5 pounds per foot. If the post is 11 foot long, it shall weigh 2 pounds per foot; if 12 feet or longer, it shall weigh 3 pounds per foot.

B. MATERIAL

Posts shall be fabricated from hot-rolled steel conforming to the requirements specified in ASTM A 499 for Grade 60 steel, and conform to the chemical requirements specified in ASTM A 1 from rails having nominal weights of 90 pounds per yard and heavier when manufactured.

The ground sleeve shall be Foresight 19-VR18 or approved equivalent.

C. FABRICATION

The posts shall have holes from end to end. All holes shall be d inch diameter which shall be punched, with a spacing of one inch from center to center, +/- 1/16 inch, beginning with the first hole at one inch from the top of the post.

The punching shall be done so that there will be no cracks radiating from the holes.

All posts shall be cleaned of all loose scale prior to finishing and painted with one or more coats of green alkyd resin, gloss enamel baked on or approved equivalent. This finish shall produce a glossy appearance with satisfactory elastic and adhering properties of not be less than 1.5 mils in thickness.

After drying, the finish shall not crack or chip from the metal when struck a light blow with a hammer. It shall show no appreciable change in adhesion or appearance when immersed in water at room temperature for a period of 72 hours.

D. INSTALLATION

The 9 foot posts that are installed in concrete medians shall be mounted on breakaway ground sleeves made of steel.

The Contractor shall be responsible for installing the ground sleeve described in the LSP 78 prior to installation of the concrete. No coring shall be allowed to install the ground sleeve. In the event the ground sleeve is not installed, the concrete shall be removed to the nearest joint and reinstalled with the ground sleeve in place.

The 11 foot posts shall be installed 2 feet 6 inches into the ground. The 12 foot posts shall be installed 3 feet into the ground.

The Contractor shall use U-channel posts except for street name signs. All signs shall be mounted such that there is no extra post above the sign.

E. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Payment for installation of the posts shall be made for the measured quantity at the contract bid price per linear foot. These bid amounts shall be full compensation for connecting and mounting hardware, and for all labor, equipment, tools, materials, and incidentals necessary to complete the work in accordance with the plans and these Specifications.

Payment for installation of the ground sleeve shall be made for the measured quantity at the contract bid price. The bid amounts shall be full compensation for the ground sleeve and for all labor, equipment, tools, materials, and incidentals necessary to complete the work in accordance with the plans and these Specifications.

TRAFFIC SIGNS.

A. GENERAL

These signs are regulatory, warning, guide, object markers, and information signs composed of a flat aluminum blank surfaced with reflective sheeting. The message shall be either directly applied or screened on the sign face, in the colors, size, and layout specified in the plans and Standard Highway Signs.

Reflective background sheeting for all signs shall meet the requirements of ASTM D4956. The following types shall be used when specified: Type I for Engineering Grade, Type III for High Intensity, Type IX for VIP Grade. Adhesive shall conform to Class 1.

B. FABRICATION

All blanks shall be new aluminum meeting ASTM Specifications B209, Alloy 5052-H38 of the sizes as shown in the Standard Highway Signs and the MUTCD. The gauges shall be as follows. Signs less than 4 square feet shall be 0.063 inches thick, 4 square feet to less than 9 square feet shall be 0.08 inches thick, and 9 square feet or greater shall be 0.10 inches thick.

Signs 18 inches tall or more (Metro Street Name signs) shall be 0.125 inches thick.

All signs shall be smooth and free of burrs. Both sides of the blank shall be treated with an Alodine 1200 process or approved equivalent.

The Contractor shall apply the reflective sheeting without visible seams or joints. Reflective sheeting shall be mechanically applied as per manufacturer's recommended procedures and equipment.

The message, legend, and border of signs shall be applied by either screening or electronic cuttable (EC) film.

C. INSTALLATION AND REMOVAL

The bottom height of all signs shall generally be 7 feet above the ground or surface, unless otherwise specified in the MUTCD. If using a utility pole, the Contractor shall get approval from the appropriate pole owner to install a traffic control sign.

All signs on the roadway shall be mounted so that any edge of the sign which is adjacent to a roadway shall be a minimum of 2 feet from the face of curb. This distance shall be as close as possible to 2 feet from the face of curb.

The back of each sign shall have the month and year (MM/YY) that the sign was installed, in 1 inch black letters.

All signs that are installed shall have a fabrication date of no more than 6 months prior to the installation date and will not have been used previous to this installation.

The removal of the existing signs shall be coordinated with the Engineer to assure required signs are in place during all construction phases. All material damaged during removal, relocation, storage or reinstallation shall be repaired or replaced by the Contractor at their expense. The Contractor is responsible to prove if any material was damaged prior to removal.

D. INSPECTION AND WARRANTY

Each sign installation will be reviewed by the engineer. If a sign does not meet the standards shown in this document or MUTCD, it shall be replaced or relocated at the Contractor's expense.

All Street Name sign layouts shall be reviewed and approved by City staff prior to fabrication.

Following initial completion of all traffic sign installations, there will be a 1 year observation period during which the Contractor, at no expense to the City, shall replace or reinstall any traffic sign that the Engineer determines is not installed properly or does not follow this specification.

E. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Signs shall be paid for at the contract unit price bid based on size. The three sign categories are small (signs less than 4 square feet), medium (4 square feet to less than 9 square feet), and large (9 square feet or larger). These bid amounts shall be full compensation for installing a new sign, connecting and mounting hardware, and for all labor, equipment, tools, materials, and incidentals necessary to complete the work in accordance with the plans and these Specifications. Signs that are constructed from the fluorescent yellow green (FYG) material shall be paid for at a separate contract unit bid price per sign.

DEAD END BARRICADE, TYPE III

A. GENERAL

The Contractor shall install dead end barricades, Type III at all points shown on the plans or at all locations directed by the Engineer.

The dead end barricades, Type III shall not be installed until such time as all grading and pavement construction has been completed.

The Contractor shall remove dead end barricades at all points shown on the plans or at all locations directed by the Engineer.

The Contractor shall remove and reset dead end barricades at all points shown on the plans or at all locations directed by the Engineer.

B. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Dead end barricades installed to the full width of the adjoint pavement in conformance with these Specifications and accepted by the Engineer shall be counted and paid for at the contract unit price bid per each DEAD END BARRICADE, TYPE III, regardless of width. Such payment shall be full compensation for all materials, equipment, tools, labor and incidentals necessary to complete the work.

Dead end barricades removed in conformance with these Specifications and accepted by the Engineer shall be counted and paid for at the contract unit price per each for REMOVE

STANDARD DEAD END BARRICADE, regardless of width. Such payment shall be full compensation of all materials, equipment, tools, labor and incidentals necessary to complete the work.

PAVEMENT MARKING.

A. GENERAL

The Contractor shall use a crew experienced in the work of installing the type of pavement marking material designated and shall supply all the equipment and materials necessary for pavement preparations and the placement of the pavement markings. At least one member of the crew installing the pavement marking or the on-site crew supervisor shall have a current ATSSA (American Traffic Safety Services Association) or IMSA (International Municipal Signal Association) certification as a Pavement Marking Technician or Pavement Marking Specialist. A copy of certification shall be submitted to the Engineer prior to the beginning of the project. The Contractor shall install pavement marking materials as specified on the plans and these specifications to provide quality reflectorized traffic pavement marking. When the date, temperature, or humidity conditions prevent the installation of the specified marking material, the Contractor shall install and maintain temporary paint marking or other traffic pavement marking approved by the City Project Manager, at the Contractor's cost.

B. CERTIFICATE OF COMPLIANCE

The Contractor shall furnish manufacturer's certifications for each marking material to be supplied and to be used on the project. Certificates shall indicate compliance with the provisions of the Specifications.

DURABLE MARKING MATERIAL

Durable traffic pavement marking materials as used in this specification are materials which have a normal life of at least two years initial application. White and yellow preformed retroreflective plastic pavement marking materials shall be suitable for use as reflective pavement markings on portland cement concrete or asphaltic concrete. The preformed marking material shall be 60 mils thick, retroreflective, pliant polymer tape. Preformed plastic marking material installed for stop-bars shall be State of Nebraska Department of Roads Type III (intersection grade) material.

Preformed plastic marking material installed for longitudinal lines, arrows, legends and gores shall be State of Nebraska Department of Roads Type IV (improved retroreflectivity retention) material. The retroreflective plastic pavement marking material shall consist of a mixture of high quality plastic materials, pigments, and glass beads uniformly distributed throughout its base cross-sectional area, with a reflective layer of beads bonded to the top surface. The material shall be capable of conforming to pavement contours, breaks, faults, etc., through the action of traffic at normal pavement temperatures.

The material, when applied according to the recommendations of the manufacturer, shall provide a neat, durable marking that will not flow or distort due to temperature, provided the pavement surface remains stable. The material shall provide a cushioned, resilient substrate that reduces bead crushing and loss. The material shall be weather resistant, and through normal traffic wear, shall show no appreciable fading, lifting, or shrinkage throughout the useful life of the marking, and shall show no significant tearing, roll back, or other signs of poor adhesion.

Preformed legends and symbols shall conform to the applicable shapes and sizes as outlined in the current edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD).

C. APPROVED MATERIAL

The City reserves the right to conduct whatever tests are deemed necessary to identify and determine the quality, characteristics, and uniformity of any material. Preformed plastic pavement

marking materials which have not been tested and given prior approval for the project by the Engineer will not be permitted on the project.

The preformed plastic material shall have a pressure sensitive, precoated, factory applied adhesive capable of adhering the materials to portland cement concrete or asphaltic concrete pavements. The material must be capable of being applied to pavement without the use of heat, solvent, activator, or additional adhesives. A primer may be used to precondition the pavement surface. Any primer necessary or recommended to precondition portland cement concrete or asphaltic concrete pavement shall be identified by the plastic material supplier. The adhesive shall permit repositioning of the preformed markings on the pavement surface before being placed in a final position by the application of pressure. The adhesive shall be a thin, non-asphaltic type which will not leave a noticeable residue on the pavement after the plastic material wears away. After application, the marking shall be immediately ready for traffic. The adhesive surface of preformed plastic material precut to standard shapes, legends, or symbols shall be covered by a protective liner for the prevention of premature adhesion or contamination before application. Preformed plastic material supplied in rolls may be supplied with or without a protective liner on the adhesive surface. The protective liner shall be readily removable by peeling at the time of application.

D. INSTALLATION METHODS

The pavement upon which the pavement markings are to be placed shall be cleaned and prepared in a manner and to the extent recommended by the manufacturer, prior to placement of the markings. Cleaning shall be by any effective method, approved by the Engineer that completely and effectively removes old pavement marking, contaminants, loose materials and conditions deleterious to proper adhesion.

Solid preformed plastic lines shall be applied to clean, dry pavement surface with a roll tape applicator capable of applying solid or continuous lines and broken or skip lines at regular intervals. Pavement primer or adhesive shall be used in accordance with material manufacturer's recommendations. During preformed plastic marking installation, air temperature shall be a minimum of 60o F and rising, and pavement surface temperature shall be a minimum of 70o F and rising. Preformed plastic marking material applied to asphaltic concrete surface shall be applied as soon as possible to the hot asphalt surface and inlaid by rolling with the steel finishing roller. Stop bars shall be marked with State of Nebraska Type III material. Longitudinal lines, arrows, legends, and gores shall be marked with State of Nebraska Type IV material. When preformed material is laid over construction joints, surface cracks 1/4 inch wide or greater, then the material shall be removed for a distance of 1/4 inch on each side of the joint or crack.

C. GROOVED MARKING

Grooved marking consists of the installation of preformed plastic marking material in grooves or recesses cut into the pavement surface to allow the material to be partially embedded below the general surface of the pavement. The specified marking material shall be applied to the pavement surface within the grooved area following the standard installation method specified for that type of marking material. All longitudinal or curved intersection grooved marking shall be premarked by the Contractor. All curved intersection markings in concrete shall be grooved. The pre-marking shall be reviewed and approved by the Engineer prior to the cutting of any grooves in the pavement surface.

The grooves shall be cut into the pavement with a unit designed and developed to saw cut recessed grooves into pavement. The unit shall have a fully articulated cutter head design that follows the contour of the pavement surface and ensures proper cutting depth of the groove. All cut material shall be removed from the groove and the pavement surface. The pavement marking tape shall be placed in the grooves the same day as they are cut. Grooves shall be clean and dry prior to tape application. All conflicting pavement markings remaining after tape installation shall be removed; this removal shall be subsidiary to the pavement marking.

Groove width: Line width + 1 inch +/- 1/8 inch
Groove depth: 100 mils +/- 10 mils for 125 mils thick material
45 mils +/- 10 mils for 60 mils thick material
40 mils +/- 10 mils for 25 mils thick material
Groove length: Marking material length + required grooving transition
Groove position: Minimum of 2 inches from any joint line, where applicable

PRECAST CONCRETE PARKING BARRIER.

A. GENERAL

The Contractor shall furnish and place Reinforced Precast Concrete Parking Blocks at the location indicated on the plans or where directed by the Engineer. The Parking Blocks shall be a minimum of 7' long and be 6" high. The Contractor shall submit the specifications for the product to the Engineer for approval prior to installation.

B. CONSTRUCTION DETAILS

The blocks shall be set true to line and grade on the existing pavement. Attachment, to the existing pavement, shall be made per the Manufacturers recommendation or as directed by the Engineer.

The Contractor shall protect and keep them in first class condition until acceptance of the Contract. Any Parking Blocks that are damaged prior to the final acceptance of the work shall be removed and satisfactorily replaced at the Contractor's expense.

C. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

The quantity to be paid for under this item will be the number of blocks placed in accordance with the plans, specifications and orders of the Engineer. The unit price bid for each block shall include the cost of furnishing all labor, materials and equipment necessary to satisfactorily complete the work, including securing the blocks to the pavement.

SPECIAL RESONSIBILITIES WORKING ADJACENT TO UNION PACIFIC RAILROAD

A. WORK ADJACENT TO ANY OF THE CROSSINGS

1. The Contractor must cooperate with UNION PACIFIC RAILROAD COMPANY, hereinafter referred to as "Railroad" where working over or under on or adjacent to Railroad property and/or right-of-way hereafter referred to as "Railroad Property", during the construction of Grand Island Quiet Zone.
2. The Contractor shall ensure that persons performing any work by, for, or on behalf of the City on Railroad property (whether within or outside the Public Authority's existing street rights-of way) shall undergo and complete the training required by the Railroad including without limitation that for roadway worker protection set out at "contractororientation.com", "e-railsafe.com" or other approved training. The Contractor Requirements include clearances and personal protective equipment.
3. Additionally, the Contractor must ensure that each and every contractor employee, subcontractor, agent or invitee possesses a card certifying completion of the UPRR

Contractor Safety Orientation prior to entering Railroad property. The Contractor must renew the UPRR Contractor Safety Orientation annually.

4. Except as otherwise agreed to between Railroad and City, the Contractor must notify the City Project Manager (308) 385-5444 , the Railroad Representative, Ryan Collins (402) 501-3817 , and the UPRR Manager of Public Projects (402) 544-2029 at least 72 hours before commencing any work on or near Railroad Property.
5. The Contractor must notify the Railroad Representative and the City Project Manager at least 72 hours in advance of Contractor commencing its work and at least 72 hours in advance of proposed performance of any work by the Contractor in which any person or equipment will be within 25 feet of any track, or will be near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within 25 feet of any track. Upon receipt of such notice, the Railroad Representative will determine and inform the Contractor who will also notify the City Project Manager whether a flagman need be present and whether the Contractor need implement any special protective or safety measures. If any flagmen or other special protective or safety measures are performed by the Railroad, such services will be provided at Contractor's expense and the Contractor shall not be relieved of any of its responsibilities or liabilities set forth herein.
6. No work of any kind shall be performed, and no person, equipment, machinery, tool(s), material(s), vehicle(s), or thing(s) shall be located, operated, placed, or stored within 25 feet of any Railroad's track(s) at anytime, for any reason, unless and until a Railroad flagman is provided to watch for trains. Arrangements for UPRR flagging services shall be requested at least seventy-two (72) hours in advance of commencing work with the Railroad Manager of Track Maintenance.
7. The Contractor shall protect underground systems in connection with its Work.

WAYSIDE HORN AND CONFIRMATION SIGNAL AT WALNUT STREET.

A. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

1. The complete Wayside Horn System shall be measured as a single unit at the crossing and shall be paid for at the contract unit price each. This price shall be full compensation for furnishing all materials, installing all materials, connecting, testing, permitting, insurance, and for all labor, equipment, tools, materials, excavation, and incidentals required to complete the work. The Wayside Horn System shall not be considered complete until all items required to operate the System are in place and functioning and connections made to the satisfaction of the UPRR.

B. CONTRACTOR REQUIREMENTS

1. In no circumstances will the contractor or their subcontractors enter onto the Railroad's property (including without limitation Railroad property located within the Public Authority's existing Walnut Street rights of way) without first executing the CONTRACTOR'S ENDORSEMENT, APPENDIX B to the RIGHT OF ENTRY AGREEMENT (REA) as part of the WAYSIDE HORN AGREEMENT. The Railroad's written approval of the REA must be obtained for it to be effective.

2. Contractors and subcontractors shall provide the Railroad with a certificate issued by the applicable insurance carriers providing the insurance coverage for their activities required pursuant to the REA, Appendix A, Exhibit C.
3. Contractors and subcontractors shall cooperate to assure that REA's are timely and expeditiously submitted and that all conditions thereof are satisfied.
4. Contractor shall protect underground systems in accordance with Exhibit C of the Wayside Horn Agreement.

A. SCOPE OF WORK

1. The Contractor shall install the new Wayside Horn System including the placement of all necessary conduit, cable, poles, horn, confirmation signals, signage, detectable warning panels, and pavement markings in accordance with the plans.
2. The Wayside Horn System shall not be considered complete until all items required to operate the System are in place, tested, connected, and functioning to the satisfaction of the City's Engineer and UPRR.
3. The Railroad will provide the interconnect from the crossing control systems in the Railroad's cabin to activate the Wayside Horn.
4. Contractor will install, connect, and test the Wayside Horn System including controls, confirmation signals, poles, the contact terminals in the interface box, all necessary cable and conduit. Contractor will place all necessary cable and conduit and horn confirmation signage ("Confirmation X") on UPRR property in accordance with the plans.

B. TECHNICAL SPECIFICATION

1. Definition- Wayside Horn System means a fully operational stationary horn installation, located at the Walnut Street Railroad grade crossing. The system is designed to provide, upon the approach of a locomotive or train, audible warning to oncoming motorists of a train. The System installation, operation, and testing shall fully comply with the requirements of 49 CFR Part 222.59 and Appendix E to CFR Part 222.
2. The Wayside Horn System shall comply with the provisions of the Manual on Uniform Traffic Control Devices for Streets and Highways 2009 Edition.
3. The Wayside Horn System shall utilize off-the-shelf traffic signal controller technology interchangeable with what the city already has or will be purchasing in the future to reduce down time due to equipment failure, training, and maintenance costs. The control unit should be easy to read, in both low light and bright light, with menu driven displays to simplify setup and testing.
4. The Wayside Horn System shall provide inputs for a six (6) track crossing, with approach and island circuits. Inputs shall also be provided for two (2) battery status circuits.

5. The Wayside Horn System shall provide outputs for six (6) wayside horns with six (6) audio feedback inputs, outputs for two (2) flashing X indicator circuits, and outputs for one (1) health indicator circuit.
 6. The Contractor shall arrange and conduct any tests, inspections, and approvals by the Railroad and the City officials of the installation and initial operation of the Wayside Horn System.
 7. The Acceptance of the Wayside Horn System shall be final at the silencing of the locomotive horns after the City issues the minimum 21 day notice to the Railroad.
- E. The Contractor shall provide operations and maintenance manuals for the Wayside Horn System and provide technical training to the City's signal technician on the preventative maintenance and diagnostics for detecting equipment failures. The Contractor shall also provide contact information for Wayside Horn.
- F. When shown on the plans the jacking or directional boring of conduit is to be done with equipment designed and designated for that purpose or other approved methods where a constant pressure can be applied and controlled, and in accordance with approved procedures.
- G. Pavement shall not be disturbed without the approval of the City's Project Manager. Upon approval of the City's Project Manager, small test holes may be cut in the pavement to locate obstructions and then filled as per City's Project Manager. Jacking or directional boring shall be kept 30 feet from the edge of mainline tracks or 24" from the edge of any type of pavement wherever possible. Excessive use of water which might undermine pavement or soften Railroad sub grade will not be permitted.

FLAGGING (ROADWAY).

"Flagging (Roadway)" shall be in accordance with the 2007 Edition of the Nebraska Department of Roads Standard Specifications for Highway Construction, Section 422.03; Paragraphs 3.a.(1) and 3.b. The method of measurement and basis of payment for "Flagging (Roadway)" shall be in accordance with the 2007 Edition of the Nebraska Department of Roads Standard Specifications for Highway Construction, Section 422.04; Paragraphs 3.

DIVISION I

GENERAL SPECIFICATIONS

**APPLICABLE TO ALL
CONSTRUCTION CONTRACTS**

**DIVISION I
GENERAL SPECIFICATIONS**

C O N T E N T S

Section	Description
1	DEFINITIONS OF WORDS AND TERMS
1.01	Abbreviations
1.02	Advertisement
1.03	Award
1.04	Backslope
1.05	Bidder
1.06	Calendar Day
1.07	Change Order
1.08	City
1.09	Contract
1.10	Contract or Performance Bond
1.11	Contract Item
1.12	Contract Period
1.13	Contractor
1.14	Cul-de-sac Street
1.15	Culvert
1.16	Easement (Right-of-way)
1.17	Employee
1.18	Engineer
1.19	Extra Work
1.20	Holidays
1.21	Inspector
1.22	Laboratory
1.23	Notice to Bidders
1.24	Plans
1.25	Project
1.26	Bid
1.27	Bid Form
1.28	Bid Guarantee
1.29	Right-of-way
1.30	Special Provisions
1.31	Specifications
1.32	Subcontractor
1.33	Superintendent
1.34	Supplemental Agreements
1.35	Supplemental Specifications
1.36	Surety
1.37	Work
1.38	Working Day
1.39	Working Drawings
1.40	Work Order
1.41	Completion of the Work and Formal Acceptance by the City
1.42	Final Acceptance of the Work

Revised 1-25-2011

Section	Description
2	BID REQUIREMENTS AND CONDITIONS
2.01	Contents of Bid Forms
2.02	Interpretation of Quantities in Bid Forms
2.03	Examination of Plans, Specifications, Special Provisions and Site of Work
2.04	Preparation of Bid
2.05	Statement of Bidder's Plant and Financial Conditions
2.06	Certified, Check, Cashier's Check, or Bid Bond
2.07	Filing of Bid
2.08	Withdrawal of Bid
2.09	Public Opening of Bids
2.10	Material Guarantee
3	AWARD AND EXECUTION OF THE CONTRACT
3.01	Consideration of Bids
3.02	Award of Contract
3.03	Cancellation of Award
3.04	Return of Bid Guarantee
3.05	Performance Bond
3.06	Contract Documents
	Revised 1-25-2011
3.07	Failure to Execute Contract
4	SCOPE OF WORK
4.01	Intent of Plans and Specifications
4.02	Special Work
4.03	Increased or Decreased Quantities of Work
	Revised 1-25-2011
4.04	Extra Work
4.05	Maintenance of Detours
4.06	Temporary Traffic Control
	Revised 1-25-2011
4.07	Maintenance of Traffic
4.08	Street Closing
4.09	Miscellaneous Removal Items
4.10	Removal and Replacement of Property Stakes
4.11	Removal and Disposal of Structures and Obstructions
4.12	Rights In and Use of Materials Found on the Right-of-Way
4.13	Construction and Demolition Debris
4.14	Final Cleaning Up
4.15	Right-of-way
4.16	Railroad Crossings
4.17	Safety and Health Regulations for Constructions
5	CONTROL OF WORK
5.01	Authority of Engineer
5.02	Plans and Working Drawings
5.03	Alteration of Plans or of Character of Work
5.04	Coordination of Plans, Specifications, Special Provisions, and Supplemental Specifications
5.05	Cooperation of Contractor

Section	Description
5.06	Surveys
5.07	Authority and Duties of Inspector
5.08	Inspection of Work
5.09	Removal of Defective Work
5.10	Final Inspection
6	CONTROL OF MATERIALS
6.01	Source of Supply and Quality Requirements
6.02	Methods of Sampling and Testing, and Cited Specifications
6.03	Storage of Materials
6.04	Unacceptable Materials
6.05	Guarantee
6.06	"Or Equal" Clause
7	LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC
7.01	Laws to be Observed
7.02	State and City Fair Labor Standards
7.03	Anti-discrimination
7.04	Permits
7.05	Patents
7.06	Restoration of Surface Opened by Permit
7.07	Safety, Health, and Sanitation
7.08	Barricades and Warning Signs
7.09	Use of Explosives
7.10	Claims for Labor and Materials
7.11	Contractor's Insurance
7.12	Proof of Carriage of Insurance
7.13	Contractor's Responsibility for Utility Property and Services
7.14	No Waiver of Legal Rights
7.15	Exposure of Pipe or Manholes
8	PROSECUTION AND PROGRESS
8.01	Subletting or Assigning of Contract
8.02	Prosecution of Work
8.03	Limitations of Operations
8.04	Methods and Equipment
8.05	Temporary Suspension of Work
8.06	Liquidated Damages
8.07	Extension of Contract Period
8.08	Abrogation
8.09	Termination of Contractor's Responsibility
9	MEASUREMENT AND PAYMENT
9.01	Payments
9.02	Payments Withheld
9.03	Acceptance and Final Payment
9.04	Payment for Extra Work

**DIVISION I
GENERAL SPECIFICATIONS**

SECTION 1 - DEFINITIONS OF WORDS AND TERMS

Wherever in these specifications or in other contract documents the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

1.01 Abbreviations.

AASHTO	American Association of State Highway And Transportation Officials
ASTM	American Society for Testing and Materials
ANSI	American National Standards Institute
AWWA	American Water Works Association
AREA	American Railway Engineering Association
AWS	American Welding Society
AAN	American Association of Nurserymen

1.02 Advertisement. The advertisement for work or materials on which bids are to be received.

1.03 Award. The decision of the City to accept the bid of the lowest responsible bidder for the work, subject to the execution and approval of a satisfactory contract therefor and bond to secure the performance thereof and to such other conditions as may be specified or otherwise required by law.

1.04 Backslope. The sloping surface of a cut, the downward inclination of which is toward the roadbed.

1.05 Bidder. Any individual, firm, or corporation formally submitting a bid for the work contemplated, acting directly or through a duly authorized representative.

1.06 Calendar Day. Every day shown on the calendar, Sundays and holidays included.

1.07 Change Order. A written order to the Contractor, signed by the Engineer, ordering a change in the work from that originally shown in the plans and specifications.

1.08 City. The word "City" as used in these specifications refers to the City of Grand Island, Nebraska, acting through its City Council.

1.09 Contract. The written agreement executed between the City and the Contractor, covering the performance of the work and the furnishing of labor and materials, by which the Contractor is bound to perform the work and furnish the labor and materials, and by which the City is obligated to compensate Contractor therefor at the mutually established and accepted rate or price.

The contract shall include the "Notice to Bidders", these specifications, the Contractor's bond, the general and detailed plans, the bid, special provisions, and supplemental agreements.

1.10 Contract or Performance Bond. The approved form of security, executed by the Contractor and their surety or sureties, guaranteeing complete execution of the contract and all supplemental agreements pertaining thereto and the payment of all legal debts pertaining to the construction of the project.

1.11 Contract Item. An item of work specifically described and for which a price, either unit or lump sum, is provided. It includes the performance of all work and the furnishing of all labor, equipment, and materials described in the text of a specification item included in the contract or described in any subdivision of the text of the supplemental specification or special provision of the contract.

1.12 Contract Period. The period from the date specified in the contract for the commencement of the work to the date specified for its completion, both dates inclusive.

1.13 Contractor. The party of the second part to the contract; the individual, firm, or corporation undertaking the execution of the work under the terms of the contract and acting directly or through Contractor's agents or authorized employees.

1.14 Cul-de-sac Street. A local street open at one end only and with special provision for turning around.

1.15 Culvert. Any structure not classified as a bridge which provides an opening under any street.

1.16 Easement (Right-of-way). A right acquired by public authority to use or control property for a designated purpose.

1.17 Employee. Any person working on the project mentioned in the contract of which these specifications are a part, and who is under the direction or control or receives compensation from the Contractor or Contractor's subcontractor.

1.18 Engineer. The City Engineer, acting either directly or through an assistant or other representative duly authorized by the City Engineer, such assistant or representative acting within the scope of the particular duties assigned or with the authority given.

1.19 Extra Work. Work performed by the Contractor in order to complete the contract in an acceptable manner but for which there is no basis of payment provided in the contract.

1.20 Holidays. In the State of Nebraska, holidays occur on: January 1, Martin Luther King, Jr. Day in January, Presidents' Day in February, Arbor Day in April, Memorial Day in May, July 4, Labor Day in September, Columbus Day in October, Veterans Day and Thanksgiving Day in November, and December 25. If any of said dates fall on Sunday, the following Monday shall be a holiday. If any of said dates fall on Saturday, the previous Friday shall be a holiday.

1.21 Inspector. An authorized representative of the Engineer assigned to make detailed inspection of any or all portions of the work performed and materials furnished by the Contractor.

1.22 Laboratory. The testing laboratory of the City or any other testing laboratory which may be designated by the Engineer.

1.23 Notice to Bidders. The provisions, requirements, and instructions pertaining to the work to be awarded, manner and time of submitting bids, quantities of the major items or work required, as prepared for the information of bidders.

1.24 Plans. The official plans, profiles, typical cross sections, general cross sections, working drawings, and supplemental drawings, or exact reproductions thereof, approved by the Engineer, which show the location, character, dimensions, and details of the work to be done, and which are to be considered as a part of the contract supplementary to these specifications.

1.25 Project. All work necessary to be performed under the contract.

1.26 Bid. The offer of the bidder, submitted on the prescribed bid form, to perform the work and to furnish the labor and materials at the prices quoted by the bidder.

1.27 Bid Form. The approved form on which the City requires formal bids be prepared and submitted.

1.28 Bid Guarantee. The security furnished by the Bidder with Bidder's bid for a project as a guarantee that Bidder will enter into a contract for the work if said bid is accepted.

1.29 Right-of-way. The land area which is reserved or secured by the City for constructing the work or for obtaining material therefor.

1.30 Special Provisions. Special directions, provisions, or requirements peculiar to the project under consideration and not otherwise thoroughly or satisfactorily detailed or set forth in the specifications.

1.31 Specifications. The general term comprising all the directions, provisions, and requirements contained herein, together with such as may be added or adopted as supplemental specifications or special provisions, all of which are necessary for the proper performance of the contract.

1.32 Subcontractor. Any individual, firm, or corporation to whom the Contractor, with the written consent of the City, sublets any part of the contract.

1.33 Superintendent. The representative of the Contractor, present on the work at all times during progress, authorized to receive and fulfill instructions from the Engineer and capable of superintending the work efficiently.

1.34 Supplemental Agreements. Written agreements executed by the Contractor and the City subsequent to having entered into the contract, covering alterations in the plans or unforeseen items of construction.

1.35 Supplemental Specifications. Specifications adopted subsequent to the publication of this book. They generally involve new construction items or substantial changes in the approved specifications. Supplemental specifications shall prevail over those published in this book whenever in conflict therewith.

1.36 Surety. The corporate body bound with and for the Contractor for the acceptable performance of the contract, the completion of the work, and for payment of all just claims arising therefrom.

1.37 Work. Work shall be understood to mean the furnishing of all labor, materials, equipment, and other incidentals necessary or convenient to the successful completion of the project by the Contractor and the carrying out of all the duties and obligations imposed by the contract.

1.38 Working Day. Any day, except Saturdays, Sundays, and Nebraska holidays, on which the Contractor is not prevented by weather, soil conditions, or other conditions beyond the Contractor's control, adverse to the current controlling operation or operations, as determined by the Engineer, from proceeding with at least 80 percent of the labor and equipment force normally engaged in such operation or operations for at least 50 percent of the full number of hours in Contractor's normal daily schedule. Also, a Saturday, Sunday, or Nebraska holiday on which any work is performed on the current controlling operation or operations unless the Contractor is prevented by weather, soil conditions, or other conditions beyond the Contractor's control as determined by the Engineer, from proceeding for at least 50 percent of the full number of hours in their normal schedule with 80 percent of the normal working force.

1.39 Working Drawings. Stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplementary plans for similar data which the Contractor is required to submit to the Engineer for approval.

1.40 Work Order. A written order signed by the Engineer, of a contractual status requiring performance by the Contractor without negotiation of any sort and may involve starting, resuming, or the suspension of work. (Not to be confused with extra work order).

1.41 Completion of the Work and Formal Acceptance by the City. Whenever the term "completion of the work and formal acceptance by the City" is used, it refers to and means the formal acceptance of the work by the Engineer and the City at the time the Contractor has all work under the contract completed and in place.

1.42 Final Acceptance of the Work. Whenever the term "final acceptance of the work" is used, it refers to and means the time when the Engineer and the City finally accept the work. The contractor guarantee shall remain in force from the City's final acceptance for a period of one year.

Revised 1-25-2011

SECTION 2 – BID REQUIREMENTS AND CONDITIONS

2.01 Contents of Bid Forms. Bidders will be furnished with bid forms which will state the location and description of the contemplated work and will show the estimate of the various quantities and kinds of work to be performed or materials to be furnished, with a schedule of items for which unit bid prices are asked, the time in which the work must be completed and the date, time, and place of opening bids. All special provisions and required provisions will be grouped together and bound with or included through reference in the bid form.

2.02 Interpretation of Quantities in Bid Forms. The quantities listed in the bid forms are to be considered as approximate, unless otherwise provided by special provision. It is understood that the quantities of work to be done and materials to be furnished may each be increased, diminished, or omitted as hereinafter provided without in any way invalidating the unit bid prices, except as provided in the section in these specifications entitled Increased or Decreased Quantities of Work.

2.03 Examination of Plans, Specifications, Special Provisions, and Site of Work. The bidder is required to examine carefully the site, the bid, plans, specifications, special provisions, and contract form for the work contemplated, and it will be assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of these specifications, the special provisions, and contract. It is mutually agreed that the submission of a bid shall be considered prima facie evidence that the bidder has made such examination.

2.04 Preparation of Bid. Bidders shall submit their bids on blank forms furnished by the Engineer with the full name and address and the place of business or residence of the bidder. If the bidder is co-partnership, the signature shall be by a member of the firm with the names and addresses of each member. If the bidder is a corporation, the signature shall be by an officer of the corporation in the corporate name and with the corporate name and the corporate seal attached thereto.

All blank spaces in the form shall be fully filled; numbers shall be stated in legible figures and writing when required; the signature shall be longhand; and the complete form shall be without interlineation, alteration, or erasure.

No oral, telegraphic, or telephonic bids or modifications will be considered.

When certain alternative prices, for both increasing and decreasing the cost, are required, as called for in the bid sheet, it must be understood that all materials and workmanship required shall be the best of their respective kinds and in all cases shall correspond with similar work herein specified and, if accepted, the work shall be done under the general terms of the specifications.

2.05 Statement of Bidder's Plant and Financial Conditions. Each bidder may submit with bid and, in any event, the City may, after bids are opened and prior to award of contract, require any bidder to submit the following data:

1. A statement that the bidder maintains a permanent place of business and address thereof;
2. A statement of equipment which the bidder proposes to use on the project, together with a statement noting that equipment previously mentioned which the bidder owns and that which bidder does not own but is certain bidder will be able to rent or otherwise procure for use on the project;
3. A financial statement, duly sworn to in a form approved by the City, listing assets and liabilities;
4. Statement listing projects of similar nature which the bidder has constructed or in the construction of which the bidder was actively engaged in a responsible capacity. Any bidder may be required by the City to submit additional data to satisfy the City that such bidder is prepared to fulfill the contract if it is awarded to them.

2.06 Certified Check, Cashier's Check, or Bid Bond. Each bidder must submit with the bid a certified check, cashier's check, or bid bond in the amount of not less than five percent (5%) of the amount bid, drawn to the order of the City Treasurer, Grand Island, Nebraska, guaranteeing the execution of the contract and bond required within ten (10) days of the notification of award. Any certified check must be issued by a bank in the State of Nebraska.

2.07 Filing of Bid. Bidders shall submit bid data on items offered in the Bid by filling in one set of data sheets supplied by the Engineering Department. The bid sheets shall be filled out legibly in black ink to permit reproduction.

Bidder security, when required, shall be enclosed in a special envelope marked, "BIDDER SECURITY/BID FOR _____." The envelope shall contain only a cashier's check or bidder's bond. This special envelope shall be attached to a sealed envelope containing the bid, filled out specifications, descriptive information drawings, qualification list and any other bid materials. This second envelope shall be marked "BID FOR _____." Bids of an incomplete nature or subject to multiple interpretations may, at the option of the Purchaser, be rejected as being irregular.

All bids shall be filed with the City at the place designated in the Notice to Bidders, prior to the time advertised for the opening of bids.

2.08 Withdrawal of Bid. A bidder will be permitted to withdraw said bid unopened after it has been submitted, if bidder's request for withdrawal is made in writing and delivered personally by the bidder or bidders' authorized representative prior to the time specified for opening of bids.

2.09 Public Opening of Bids. Bids will be publicly opened and read at the time and place stipulated in the Notice to Bidders.

2.10 Material Guarantee. Before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the work together with samples, which samples may be subjected to the test provided for in these specifications to determine their quality and fitness for the work.

SECTION 3 - AWARD AND EXECUTION OF THE CONTRACT

3.01 Consideration of Bids. After the bids are opened and read, they will be compared on the basis of the summation of the products and the quantities shown in the bid schedule by the unit bid prices. The results of such comparisons will be immediately available to the public.

The right is reserved to reject any and all bids and to waive technical errors as may be deemed best for the interest of the City.

3.02 Award of Contract. In the award of contract, consideration will be given not only to the prices bid but also the mechanical and other equipment available to the bidder, the financial responsibility of the bidder, and bidder's ability and experience in the performance of like or similar contracts.

Award of contracts will be made as promptly as practical after bids have been opened and read. The City reserves the right to delay the award for such time as is needed for the consideration of the bids and for the receipt of concurrence in recommended contract awards from other governmental agencies whose concurrence may be required.

3.03 Cancellation of Award. The City reserves the right to cancel the award of any contract at any time before execution of the said contract by all parties without any liability against the City.

3.04 Return of Bid Guarantee. Bid guaranties will be returned to the unsuccessful bidders by mail promptly after the signing of the contract has been made. Return to the successful bidder will be made after the signing of the contract and filing of the contract bond.

3.05 Performance Bond. The Contractor shall furnish a performance bond with a company having the approval of the City in an amount of 100 percent of the contract price guaranteeing complete and faithful performance of the contract, payment of all bills of whatever nature which could become a lien against the property, and guaranteeing replacement of defective materials and workmanship for a period of one year after completion of the contract.

3.06 Contract Documents. Three (3) copies of Contract Documents shall be made, executed, and distributed as follows:

One copy to City Clerk
One copy to Contractor One copy to Engineer

The following documents are a part of the contract:

*Notice to Bidders	*General Specifications
*Instructions to Bidders	*Special Provisions
*Bid	*Supplemental Specifications
*Detailed Specifications	*Performance Bond
*Contract	*Additional Drawings as required to make clear the intent of the contract

Revised 1-25-2011

3.07 Failure to Execute Contract. Failure to execute a contract and file an acceptable performance bond as provided herein within ten (10) days from date of award shall be just cause for the annulment of the award and the forfeiture of the certified check or cashier's check to the City, not as a penalty but in liquidation of damages sustained.

SECTION 4 - SCOPE OF WORK

4.01 Intent of Plans and Specifications. The intent of the plans and specifications is to provide for the construction and completion of every detail of the work described therein. It shall be understood by the Contractor that Contractor will furnish all labor, materials, tools, transportation, and supplies required for all or any part of the work to make each item complete in accordance with the spirit of the contract. It is understood that the apparent silence of the specifications as to any detail or the apparent omission of a detailed description concerning any point shall be regarded as meaning that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used.

For the purpose of design and the preparation of the Engineer's Estimate, the City may perform a reasonable amount of exploratory work to gain information relative to surface and subsurface conditions relating to type of soil, moisture content, and types and extent of rock strata.

This information when shown on the plan represents to the best of the City's knowledge conditions as of the date the survey was made. The appearance of this information on the plan will not constitute a guarantee that conditions other than those indicated will not be encountered at the time of construction.

The bidder may utilize this information as they see fit. Any bidder interested in the work is authorized to make whatever investigation they considers advisable.

In making such additional investigation, the bidder is directed to the Engineer for information relating to available right-of-way. If there are, at that time, any parcels of land over which the City does not have jurisdiction, right of entry must be secured by the prospective bidder from those authorized to grant such permission. Investigational work, performed by a prospective bidder on existing streets open to traffic, shall be performed in compliance with the

requirements of the current Manual on Uniform Control Devices for Street and Highways. All such additional investigational work shall be performed without costing or obligating the City in any way.

4.02 Special Work. Any conditions not covered by these standard specifications are stated in the special provisions.

4.03 Increased or Decreased Quantities of Work. The Engineer reserves the right to alter the quantities of contract items for which there are bid prices. Such increases or decreases in quantities shall be made as the City considers necessary or desirable without waiving or invalidating any of the provisions of the contract. All such alterations must be ordered in writing and a supplemental agreement must be executed with the Contractor for the item or items involved when such alterations involve an increase or decrease of more than 20 percent of the total cost of the work of any group of the contract calculated from the original bid quantities and the contract unit prices. The Contractor shall not start work on any alteration requiring a supplemental agreement until the agreement setting forth an equitable adjustment of compensation, satisfactory to both parties, shall have been executed by the Engineer and the Contractor and approved by City Council.

Revised 1-25-2011

4.04 Extra Work. The City reserves the right to order the performance of work of a class not contemplated in the bid but which may be considered necessary to complete satisfactorily the work included in the contract. Such extra work will be paid for as provided in these specifications under section entitled Payment for Extra Work.

4.05 Maintenance of Detours. Unless so required by the plans or the special provisions, the Contractor will not be required to assume any responsibility in connection with the maintenance or marking of suitable detours.

4.06 Temporary Traffic Control. Part VI of the Manual of Uniform Traffic Control Devices (MUTCD) is the national standard for work zone traffic control. The current version that has been adopted by the Nebraska Department of Roads is also applicable to the City of Grand Island and shall be followed.

Any City crews, contractors, utility company, or any other person, firm or corporation performing work within the right-of-way of any public street, public way, or alley in the City of Grand Island shall install and maintain Temporary Traffic Control (TTC) in accordance with the standards of the MUTCD.

The Public Works Director or their representative shall have the authority to direct corrective actions for any TTC not in compliance with the MUTCD and these provisions. These actions may include suspending operations and requiring removal of all equipment or materials from the right-of-way.

If the TTC is left in place longer than four (4) hours and no personnel are on the site, the individual responsible for installing the TTC shall provide telephone numbers of personnel who will be available on a 24 hours per day, seven days per week basis to the Public Works Director. These individuals shall be responsible for repair, correction, replacement and maintenance of the traffic control devices. These individuals shall perform inspections of the TTC at the site a minimum of twice during the day and once during the night every day until the work is completed and the right-of-way is cleared.

Subsidiary: Unless contract pay items are included with the bid specifications, direct payment for providing, installing, maintaining, and performing site inspections of TTC devices will not be made but are considered subsidiary to other items for which direct payment is

provided. When the contract contains a pay item for TTC, the NDOR standard items, specifications, etc. will be used.

Revised 1-25-2011

4.07 Maintenance of Traffic. The Contractor shall conduct the work so as to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, the Contractor shall, at Contractor's expense, provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to owners of private drives before interfering with them. Such maintenance of travel will not be required when the Contractor has obtained permission from the owner or tenant of private property or from the authority having jurisdiction over public property involved to obstruct traffic at the designated area.

4.08 Street Closing. In the event it is deemed necessary for the Contractor to close any streets during the execution of said work, the Contractor shall notify the owner of such street closing 72 hours in advance, prior to any street closing due to open cut street crossing.

4.09 Miscellaneous Removal Items. The Contractor shall inform the Engineer sufficiently ahead of construction so landowners can be notified to remove small trees, shrubs, and fences from the construction limits if the landowners desire to save them.

4.10 Removal and Replacement of Property Stakes. If it is necessary to remove any property corners or markers during construction operations, the Contractor shall notify the Engineer so the Engineer can establish reference ties. Any markers removed without notice to the Engineer shall be replaced at the Contractor's expense in accordance with the proper land surveying techniques.

4.11 Removal and Disposal of Structures and Obstructions. The Contractor for bridge and culvert work shall remove any existing structure or part of structure that in any way interferes with the new construction. If specific payment for such work has not been provided in the contract, it will be paid for as extra work.

The Contractor shall remove any materials or structures found on the right-of-way which are not to remain in place or which have not been designated for use in the new construction. The removal and disposal of pipe culverts will not be paid for directly but shall be considered as incidental work, and the cost of such removal and disposal shall be considered to be included in the contract price for other items. Pipe culverts shall be removed by methods that will cause a minimum of damage to the pipe culverts. The removal and disposal of bridges or other masonry or monolithic concrete construction will be paid for. If the contract does not contain an item for such work, it will be paid for as extra work.

4.12 Rights In and Use of Materials Found on the Right-of-way. Unless stated to the contrary in the contract documents, all materials, such as stone, gravel, sand, timber, and structures or parts of structures, found on the right-of-way of the street or on land acquired for the work, are the property of the City or the owner of the fee title to the land, and shall not be used or destroyed by the Contractor without special permission from the Engineer. When the Contractor is permitted to use materials found on the right-of-way, any excavations that they make below the grade elevation shall be backfilled with other suitable materials so the finished street will conform to the grade shown on the plans. No extra compensation will be allowed for such backfilling.

When rock excavation is encountered, any portion of rock excavation which would otherwise be deposited in waste areas and not be incorporated in the embankments may be processed and used, royalty free, by the Contractor in any other portion of the construction in which material of that quality would be acceptable. No deduction will be made from excavation quantities for rock so used.

4.13 Construction and Demolition Debris. Debris from any City awarded project, as well as Municipal Solid Waste (that is not recycled), shall be disposed of at the City's Solid Waste facilities.

4.14 Final Cleaning Up. Upon completion of the work and before acceptance and final payment, the Contractor shall clean the street, borrow pits, and all ground occupied by Contractor in connection with the work of all rubbish, excess materials, falsework, temporary structures, and equipment, and all parts of the work, shall be left in a neat and presentable condition.

When required in the plans, the Contractor shall, at Contractor's expense, replace waste material or stripping back into borrow and material pits as directed by the Engineer. Trees, tree stumps and material placed on property adjacent to the street during the execution of the work shall be disposed of by the Contractor.

4.15 Right-of-way. Right-of-way for the work will be provided without cost to the Contractor. Right-of-way will be made available to the Contractor on or before the date specified for the commencement of the work unless a later date for the right-of-way to be made available to the Contractor is designated in the contract documents.

4.16 Railroad Crossings. Whenever the work involves construction with which railroad companies are concerned, the performance of the work is contingent upon arrangements with the railroad companies for the proposed construction. No claims will be allowed for loss or damage caused by failure to complete such arrangements.

4.17 Safety and Health Regulations for Construction. Occupational Safety and Health Standards for the Construction Industry (29 CFR Part 1926) with amendments as of February 1, 1999 promulgated by the Occupational Safety and Health Administration, United States Department of Labor, Washington, D.C. are incorporated herein as a part of the contract documents.

SECTION 5 - CONTROL OF WORK

5.01 Authority of Engineer. The Engineer will have general supervision of the work and will decide any questions that arise with reference to the intent of the contract documents and compliance therewith. Said Engineer will relay all questions relating to materials, work, progress, disputes and mutual rights between contractors, fulfillment of contract, and compensation, in accordance with the provisions of these specifications.

5.02 Plans and Working Drawings. The approved plans will be supplemented by such working drawings as are necessary to adequately control the work. It is mutually agreed that all authorized alterations affecting the requirements and information given in the approved plans shall be in writing.

Working drawings for any structure shall consist of such detailed plans as may be required of the Contractor for the prosecution of the work. These are not included in the plans

furnished by the Engineer. They shall include shop details, erection plans, masonry, and form work. The Engineer's prior approval of the shop details must be obtained before any fabrication work involving these plans is performed. Erection plans, masonry layout diagrams, and plans for cribs, cofferdams, falsework, centering, and form work, as well as any other working drawings not previously mentioned, may be required of the Contractor and shall be subject to the Engineer's approval.

No changes shall be made in any plan or drawing after it has been approved except by consent or direction of the Engineer in writing. It is expressly understood that the approval by the Engineer of the Contractor's working drawings will not relieve the Contractor from any responsibility.

The contract price shall include the cost of furnishing all working drawings, and the Contractor will be allowed no extra compensation for such drawings.

Shop plans shall be made on 22"x36" sheet with 1/2" margin on all sides except the left which shall be 2". The margin lines shall measure 21"x33 1/2". The marking shall be in accordance with the special plans or as may be required by the Engineer. All blueprint plans which are furnished to the Engineer shall be clear and distinct and acceptable to the Engineer and shall be neatly trimmed. The Contractor shall furnish the Engineer as many extra copies of working drawings as the Engineer may direct.

The Engineer may require reproducible prints of all approved shop plans, which shall be furnished by the Contractor without cost to the Engineer. Such reproducible prints shall not be folded but shall be mailed in tubes sized to accommodate these plans without injuring them. No preliminary working drawings will be accepted by the Engineer unless they have been carefully checked by the Contractor. Drawings showing gross errors will be returned for recheck before examination by the Engineer. The name of the shop or company furnishing the drawings shall be on the tracing.

5.03 Alteration of Plans or of Character of Work. The Engineer shall have the right to make alterations in plans or character of work as may be considered necessary or desirable during the progress of the work to satisfactorily complete the proposed construction. Such alterations shall not be considered as a waiver of any conditions of the contract or invalidate any of the provisions thereof.

5.04 Coordination of Plans, Specifications, Special Provisions, and Supplemental Specifications. These specifications, the supplemental specifications, the plans, special provisions, and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, figured dimensions shall govern over scaled dimensions, plans shall govern over specifications, special plans shall govern over standard plans, supplemental specifications shall govern over standard specifications, and special provisions shall govern over specifications, supplemental specifications, and the plans.

5.05 Cooperation of Contractor. The Contractor will be supplied with a minimum of two sets of approved plans and contract assemblies, including special provisions, one set of which the Contractor shall keep available on the work at all times.

The Contractor shall give the work the constant attention necessary to facilitate the progress thereof and shall cooperate with the Engineer and other contractors in every way possible.

The Contractor shall at all times have at the work site, as Contractor's agent, a competent superintendent capable of reading and thoroughly understanding the plans and specifications, thoroughly experienced in the type of work being performed, who shall receive

instructions from the Engineer or Engineer's authorized representatives. The superintendent shall have full authority to execute the orders or directions of the Engineer without delay, and to promptly supply materials, equipment, tools, labor, and incidentals as may be required. Such superintendence shall be furnished irrespective of the amount of work sublet.

5.06 Surveys. Lines and elevations shall be established by the Engineer before the work commences and the Contractor shall obtain lines and elevations from the points so set by the Engineer. The Contractor shall furnish all stakes necessary for lines and elevations and cooperate with the Engineer in setting same.

5.07 Authority and Duties of Inspector. The City may appoint inspectors to represent the Engineer in the inspection of all materials used in and all work done under the contract. Such inspection may extend to any part of the work and to the preparation or manufacture of the materials to be used. The inspector will not be permitted to modify in any way the provisions of the contract documents, nor to delay the work by failing to inspect materials and work with reasonable promptness. An inspector is placed at the work site to keep the Engineer informed as to its progress and the manner in which it is being done and to call the Contractor's attention to any infringements of the contract documents. The inspector will not act as foreman or perform other duties for the Contractor nor improperly interfere with the management of the work. They will not be authorized to approve or accept any portion of the work. In case of dispute between the Contractor and the inspector as to quality of materials or the manner of performing the work, the inspector shall have the authority to reject materials or suspend the work until the question at issue can be decided by the Engineer. Written notice of the suspension of work will be given to the Engineer and the Contractor.

5.08 Inspection of Work. The Contractor shall furnish the Engineer with every reasonable facility for ascertaining whether the work is being performed in conformance with the contract documents. At any time before acceptance of the work, upon request of the Engineer, the Contractor shall remove or uncover such portions of the finished work as the Engineer may direct. After examination has been made, the Contractor shall restore such portions of the work to the standard required by the contract documents.

If the work thus exposed or examined proves acceptable, the uncovering or removing and replacing of the covering or the restoring of the parts removed shall be paid for as extra work, except that no payment will be made for the work involved in checking the smoothness of pavement surfaces. If the work thus exposed and examined proves unacceptable, the Contractor shall replace the defective work in accordance with the specifications and will be paid only the contract price for the work as finally accepted. Work done or materials used without the Engineer having been afforded ample opportunity to provide suitable inspection may be ordered removed and replaced at the Contractor's expense or may be excluded from the quantities measured for payment.

5.09 Removal of Defective Work. Any defective work shall be removed and replaced at the Contractor's expense. Should the Contractor fail or refuse to remove defective work when so ordered by the Engineer, the Engineer shall have authority to order the Contractor to suspend further operations and may withhold payment on estimates until such defective work has been removed and replaced in accordance with the plans and specifications. Continued failure or refusal on the part of the Contractor to correct defective work promptly shall be sufficient cause for the City to declare the contract in default and to proceed to have the work completed in accordance with these specifications under section entitled Abrogation.

5.10 Final Inspection. Upon notification by the Contractor or Contractor's authorized representative that the work is completed, the Engineer shall make prompt final inspection of each item of work included in the contract. If the work is found to not be in accordance with the contract documents, the Contractor will be advised as to the particular defects to be remedied.

SECTION 6 - CONTROL OF MATERIALS

6.01 Source of Supply and Quality Requirements. The materials used on the work shall meet all quality requirements of the contract. In order to expedite the inspection and testing of materials, the Contractor shall notify the Engineer of Contractor's proposed sources of materials prior to delivery. At the option of the Engineer, approval of the source or approval of materials at the source prior to delivery may be required. If it is found after trial that sources of supply for previously approved materials do not produce specified products or when conditions are such that the use of unfit materials cannot be prevented except by extraordinary inspection methods, the Contractor shall furnish materials from other sources. Before delivery is started and at any time during the process of preparation and use, the materials shall be subject to the approval of the Engineer.

6.02 Methods of Sampling and Testing, and Cited Specifications. Sampling and testing of all materials and the laboratory methods and testing equipment required under these specifications shall be in accordance with the latest published standard method of the AASHTO, except as otherwise provided.

The sampling and testing of all materials not covered by the AASHTO, but not otherwise provided for, shall conform to the latest published standard or tentative methods of the ASTM.

6.03 Storage of Materials. The Contractor shall be responsible for the care and storage of materials delivered at the work site or purchased for use thereon. Any material that has been delivered to the work site and has become damaged before actual incorporation in the work may be rejected by the Engineer even though it may previously have been accepted. Stored materials shall be so located as to facilitate thorough inspection.

6.04 Unacceptable Materials. All materials not conforming to the requirements of the specifications at the time they are to be used shall be considered as unacceptable, and all such materials will be rejected and shall be removed immediately from the site of the work unless otherwise instructed by the Engineer. No rejected materials, the defects of which have been corrected, shall be used until approval has been given.

6.05 Guarantee. The Contractor shall be responsible for any and all defects which may develop in any part of the entire installation furnished by said Contractor and, upon receipt of written notice from the Engineer, shall immediately replace and make good without expense to the City any such faulty part or parts and damage done by reason of same during a period of one (1) year from the date of formal acceptance of the installation (except when specific guarantee for another length of time is elsewhere specified).

The acceptance of the installation, or any part of it, shall not act to waive this liability on the part of the Contractor.

Upon completion and formal acceptance of the work, the Contractor may furnish a satisfactory bond in an amount of fifteen percent (15%) of contract price to insure the provisions of this guarantee. Otherwise, the original bond shall remain in full force and effect until final acceptance of the work, which acceptance shall be made one (1) year after the formal acceptance of the work as provided herein.

6.06 "Or Equal" Clause. Whenever, in any section of the contract documents, plans, or specifications, any article, material, or equipment is defined by describing a proprietary product or by using the name of a manufacturer or vendor, the term "or approved equal", if not inserted, shall be implied. The specific article, material, or equipment mentioned shall be understood as indicating the type, function, minimum standard or design, efficiency, and quality desired and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design, and efficiency. The Engineer shall determine the acceptability of articles, materials, or equipment proposed as equals.

SECTION 7 - LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

7.01 Laws to be Observed. The Contractor shall keep fully informed of and, at all times, shall observe and comply with all Federal and State laws, all local bylaws, ordinances, and regulations, and all orders and decrees of bodies or tribunals having any jurisdiction or authority which in any manner affect those engaged or employed on the project, or which in any way affect the project. The Contractor shall protect and indemnify the City and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by said Contractor or Contractor's employees. It shall be the responsibility of the Contractor to provide all safeguards, safety devices, and protective equipment and to take any other needed actions as are reasonably necessary to protect the life and health of employees on the project.

7.02 State and City Fair Labor Standards. The Contractor agrees to comply with all applicable State and City fair labor standards in the execution of the contract, including compliance with Section 73-102, R.R.S. 1943. The Contractor further agrees to comply with the provisions of Section 48-657, R.R.S. 1943, pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. In addition, the Contractor agrees to comply with the provisions of Section 52-118, R.R.S. 1948, pertaining to payment of all labor performed and for payment for materials and equipment rental which is actually used in performing this contract.

7.03 Anti-discrimination. During the performance of the work, the Contractor agrees not to discriminate against any employee or application for employment because of race, color, age, religion, sex, or national origin.

7.04 Permits. The Contractor shall procure and pay for all permits, licenses, and bonds necessary for the prosecution of Contractor's work and/or required for municipal, State, and Federal regulations and laws.

7.05 Patents. The Contractor and the surety in all cases shall indemnify and save harmless the City for any costs, expenses, and damages which it may be obligated to pay by reason of any such infringement at any time during the prosecution of or after the completion of the project.

7.06 Restoration of Surfaces Opened by Permit. Upon the presentation of a duly authorized and satisfactory permit from the City which provides that all necessary repair work will be paid for by the party to whom such permit is issued, the Engineer may authorize the Contractor to allow parties bearing such permits to make openings in the street. The Contractor shall, when ordered by the Engineer in writing, make in an acceptable manner all necessary repairs due to such openings, and such necessary work ordered by the Engineer shall be paid for on the basis of "Extra Work" as provided for in these specifications and shall be subject to the same conditions as original work performed.

7.07 Safety, Health, and Sanitation. In the performance of the contract, the Contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation. The Contractor shall furnish such additional safeguards, safety devices, and protective equipment and shall take actions as the Engineer may determine as being reasonably necessary to protect the life and health of Contractor's employees and the public.

7.08 Barricades and Warning Signs. Except as otherwise provided specifically in this section, the Contractor shall provide and maintain barricades, danger and warning signs, and suitable and efficient lights, and shall take every reasonable precaution to prevent accidents. The name of the Contractor shall be clearly visible on the barricades. The Contractor shall provide, at their own expense, such watchmen as are necessary to protect their equipment and to maintain proper lights.

Watchmen who may be necessary to direct traffic or prevent travel on any portion of the street shall be provided by the Contractor on written order from the Engineer. Unless the contract specifically provides that such watchmen are to be furnished by the Contractor, this expense shall be paid for as provided in "Extra Work."

7.09 Use of Explosives. When the use of explosives is necessary for the prosecution of the work, the Contractor shall use the utmost care not to endanger life or property. All explosives shall be stored in a secure manner, and storage places shall be clearly marked "DANGER--EXPLOSIVES."

7.10 Claims for Labor and Materials. The Contractor shall indemnify and save harmless the City from all claims for labor and materials furnished under this contract. When requested by the City, the Contractor shall submit satisfactory evidence that all persons, firms, or corporations who have done work or furnished materials under this contract, for which the City may become liable under the laws of the State, have been fully paid or satisfactorily secured. In case such evidence is not furnished or is not satisfactory, an amount will be retained from money due the Contractor which, in addition to any other sums that may be retained, will be sufficient, in the opinion of the City, to meet all claims of the persons, firms, and corporations as aforesaid. Such sum shall be retained until the liabilities as aforesaid are fully discharged or satisfactorily secured.

7.11 Contractor's Insurance. The Contractor shall secure and maintain throughout the duration of this contract insurance, from companies authorized to do business in Nebraska, of such types and in such amounts as may be necessary to protect themselves and the interests of the City against all hazards or risks of loss as hereinafter specified. This insurance shall cover all aspects of the Contractor's operations and completed operations. The form and limits of such insurance, together with the underwriter thereof in each case, shall be approved by the City, but regardless of such approval it shall be the responsibility of the Contractor to maintain adequate insurance coverage at all times. Failure of the Contractor to maintain adequate coverage shall not relieve them of any contractual responsibility or obligation. Minimum insurance coverage shall be the amounts stated herein or the amounts required by applicable law, whichever are greater.

1. "Worker's Compensation and Employer's Liability." This insurance shall protect the Contractor against all claims under applicable State worker's compensation laws. This insurance shall provide coverage in every state in which work for this project might be conducted. The Contractor shall also be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a worker's compensation

law. This policy shall include an "all states" endorsement. The liability limits shall be not less than the following:

Worker's Compensation	Statutory Limits
Employer's Liability	\$100,000 each accident
	\$100,000 each employee
	\$500,000 policy limit

2. "Business Automobile Liability." This insurance shall be written in comprehensive form and shall protect the Contractor, Contractor's employees, or subcontractors from claims due to the ownership, maintenance, or use of a motor vehicle. The liability limits shall be not less than the following:

Bodily Injury & Property Damage	\$500,000 Combined Single Limit
---------------------------------	---------------------------------

3. "Comprehensive General Liability." The comprehensive general liability coverage shall contain no exclusion relative to explosion, collapse, or underground property. The liability limits shall be not less than the following:

Bodily Injury & Property Damage	\$ 500,000 each occurrence
	\$1,000,000 aggregate

4. "Umbrella Liability Insurance." This insurance shall protect the Contractor against claims in excess of the limits provided under employer's liability, comprehensive automobile liability, and commercial general liability policies. The umbrella policy shall follow the form of the primary insurance, including the application of the primary limits. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	\$1,000,000 each occurrence
	\$1,000,000 general aggregate

5. Additional Requirements. The City may require insurance covering a Contractor or Subcontractor more or less than the standard requirements set forth herein depending upon the character and extent of the work to be performed by such Contractor or Subcontractor.

Insurance as herein required shall be maintained in force until the City releases the Contractor of all obligations under the contract.

The Contractor shall provide and carry any additional insurance as may be required by special provisions of these specifications.

6. Certificate of Insurance. Satisfactory certificates of insurance shall be filed with the City prior to starting any work on this contract. The certificates shall show the City as an additional insured on all coverage except Workers Compensation. The certificate shall state that thirty (30) days written notice shall be given to the City before any policy is cancelled (strike the "endeavor to" wording often shown on certificate forms). If the Contractor cannot have the "endeavor to" language stricken, the Contractor may elect to provide a new certificate of insurance every thirty (30) days during the contract. The Contractor shall immediately notify the City if there is any reduction of coverage because of revised limits or claims paid which affect the aggregate of any policy.

7.12 Proof of Carriage of Insurance. Satisfactory certificates of insurance shall be filed with the City prior to starting any construction work on this contract. The certificates shall show the City as "Additionally Insured." The certificates shall state that thirty (30) days written notice shall be given to the City before any policy covered thereby is changed or canceled (strike the "endeavor to" wording often shown on certificate forms).

7.13 Contractor's Responsibility for Utility Property and Services. At points where the Contractor's operations are adjacent to properties of railway, telegraph, telephone, and power companies or adjacent to other property to which damage might result, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner, that duplication of rearrangement work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

In the event of interruption to water or utility services as a result of accidental breakage or as result of being exposed or unsupported, the Contractor shall promptly notify the proper authority. Contractor shall cooperate with said authority in the restoration of service as promptly as possible. In no case shall interruption to water service be allowed to exist outside of working hours. Fire hydrants shall be kept accessible to the Fire Department at all times and no materials shall be kept or stockpiled within fifteen (15) feet of any fire hydrant.

The Contractor must cooperate with the utility companies and schedule work in such a manner as to protect the existing utility facilities until the facilities are abandoned or replacement facilities are completed. In instances where partial grading is necessary before a utility can install its facilities, the Contractor shall consult with the utility and plan the work so reasonable time can be allowed the utility for completing its work.

7.14 No Waiver of Legal Rights. The City shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefor from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing that such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the work or materials do not in fact conform to the contract. The City shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or Contractor's sureties, or both, such damage as it may sustain by reason of Contractor's failure to comply with the terms of the contract. Neither the acceptance by the City or any representative of the City, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the City shall operate as a waiver of any portion of the contract or of any power herein reserved or of any right to damages. A waiver of any breach of the contract shall not be held to be a waiver of any other or subsequent breach.

7.15 Exposure of Pipe or Manholes. The Contractor shall conduct the work at all times in such a manner as will insure no disruption to the normal function of the sanitary sewer collection system. Particular attention shall be paid to the threat of introduction of storm water or other waters to the piping and manholes of the collection system. The Contractor shall take whatever precautions are necessary, such as, but not limited to installation of plugs in exposed pipes and manholes when work is not in progress or when leaving the work site. The Contractor will be held responsible for damages which may occur to either the collection system or to private property through introduction of storm water or other waters to exposed piping or manholes relating to the construction work.

SECTION 8 - PROSECUTION AND PROGRESS

8.01 Subletting or Assigning of Contract. The Contractor will not be permitted to sublet, assign, sell, transfer, or otherwise dispose of the contract or any portion thereof or Contractor's right, title, or interest therein or to either legally or equitably assign any of the money payable under Contractor's contract or claim thereto without the written consent of Contractor's surety and the Engineer. The Contractor will not be relieved of any responsibility through any of the above actions.

8.02 Prosecution of Work. The bid for each project will show the contract period. The progress of the work shall be at a rate sufficient to complete the contract within the contract period. If it appears that the rate of progress is such that the contract will not be completed within the contract period or if the work is not being executed in a satisfactory and workmanlike manner, the City may order the Contractor to take such steps as it considers necessary to complete the contract within the period of time specified or to prosecute the work in a satisfactory manner. If the Contractor fails to comply with such order within two (2) weeks after receipt of the order, Contractor shall automatically be disqualified from receiving any additional contract awards, and the City shall have the right to declare the contract in default and to complete the work in accordance with these specifications under section entitled Abrogation.

The Contractor's sequence of operations shall be such as to cause as little inconvenience to the general public as possible.

The Contractor will be granted additional and suitable time for the prosecution of the work, as was lost by reason of a delay or delays attributable to other parties authorized to do work on the project over which the Contractor had no control or jurisdiction, as provided in these specifications under section entitled Extension of Contract Period.

8.03 Limitations of Operations. The Contractor shall conduct the work at all times in such a manner and in such sequence as will insure the least interference with traffic. Contractor shall have due regard to the location of detours and to the provisions of handling traffic. Contractor shall not open up work to the prejudice of work already started, and the Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional section. The Contractor shall so conduct operations and maintain the work in such condition that adequate drainage shall be in effect at all times.

8.04 Methods and Equipment. The methods, equipment, and appliances used shall produce a satisfactory quality of work and shall be adequate to maintain the schedule of progress specified. Equipment used on any portion of the project shall be such that no injury to the roadway, adjacent property, or other streets will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the construction are not prescribed in the contract, the Contractor is free to use any methods or equipment that is demonstrated to accomplish the contract work in conformity with the requirements of the contract to the satisfaction of the Engineer.

When the contract specifies that the construction be performed by the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than those specified in the contract, a request may be made to the Engineer for authority to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed to be used and an explanation of the reasons for desiring to make the change. If approval is given, it will be on the condition that the contractor will be fully responsible for producing construction work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not

meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining construction with the specified methods and equipment. The Contractor shall remove the deficient work and replace it with work of specified quality or take such other corrective action as the Engineer may direct. No change will be made in basis of payment for the construction items involved nor in contract time as result of authorizing a change in methods or equipment under these provisions.

8.05 Temporary Suspension of Work. Work shall be suspended wholly or in part when, in the opinion of the Engineer, weather or other conditions are unfavorable to its satisfactory prosecution. Work shall also be suspended at the direction of the Engineer pending settlement of disputes arising out of failure of the Contractor to comply with the provisions of the contract. Written notice of suspension of work shall be given by the Engineer. When the conditions causing suspension no longer exist, such written notice shall be given to the Contractor by the Engineer. Promptly after such written notice, the Contractor shall resume prosecution of the work as provided in these specifications under section entitled Prosecution of Work.

8.06 Liquidated Damages. Time is an essential element of the contract, and it is important that the work be pressed vigorously to completion.

For each calendar day that any work shall remain uncompleted after the end of the contract period, the amount per calendar day specified in the bid form will be assessed, not as a penalty but as predetermined and agreed liquidated damages. The City will prepare and forward to the Contractor an invoice for such liquidated damages. The final payment will be withheld until payment shall have been made of this invoice.

Due account shall be taken of any adjustment of the contract period granted under the section of these specifications entitled Extension of Contract Period.

The assessment of liquidated damages for failure to complete the work within the contract period shall not constitute a waiver of the City's right to collect any additional damages which the City may sustain by failure of the Contractor to carry out the terms of the contract.

8.07 Extension of Contract Period. An extension of the contract period may be granted by the City for any of the following reasons:

1. Additional work resulting from a modification of the plans for the project
2. Delays caused by the City
3. Other reasons beyond the control of the Contractor which, in the City's judgment, would justify such extension.

No extension of contract period will be allowed for variations between contract quantities and actual quantities which cannot be predetermined and which amount to less than twenty percent (20%) of the contract quantities.

8.08 Abrogation. If the Contractor abandons, sublets, or assigns the work under this contract without the consent of the City, or if Contractor fails to give - personal attention to it, or if it is the Engineer's opinion, and is so certified in writing to the Contractor and the City, that the Contractor is violating any of the provisions of this contract or that Contractor is not prosecuting the work in good faith or at the rate of progress specified, or that Contractor has unnecessarily or unreasonably delayed or neglected the work or any part of it, written notice to that effect is to be given to the Contractor by the Engineer. After such notice, no materials or equipment shall be removed from the work. If, within five (5) days thereafter, the Contractor does not take steps, which in the judgment of the Engineer will insure the satisfactory completion of the work, then the City may declare this contract null and void and the security forfeited and may notify the Contractor in writing to discontinue the work or any part of it; thereupon ceasing the Contractor's right of possession of the ground and of all materials and equipment thereon. The City then, at

their option, may enter upon and take possession of the work with all materials, supplies, and equipment remaining thereon and by contract or otherwise, as the City may determine, may complete the work or the part of it designated and charge the expense thereof to the Contractor using any materials or equipment found on the site. The expense so charged, together with all damages incurred, will be deducted from any funds due or to become due under this contract and, should the unexpended balance of these funds be insufficient, the excess shall be at the cost of the Contractor and sureties on the Contractor's bond. Neither completion of a part of the work nor the extension for any reason of the time of the completion of the work is to be considered a waiver of this right to abrogate the contract for abandonment, delay, or unsatisfactory work.

8.09 Termination of Contractor's Responsibility. The contract shall be considered completed when the work has been accepted in writing by the City. Such acceptance shall release the Contractor from all further obligation with respect thereto, except as to conditions and requirement set forth in Contractor's bond.

SECTION 9 - MEASUREMENT AND PAYMENT

9.01 Payments. Payments for estimated work completed will be made only on certificates of the Engineer at a regular City Council meeting.

The City, at its discretion, may include in such estimates payments for materials that will eventually be incorporated in the project, provided that such materials are suitably stored on the site of the project at the time of preparing estimates for payment. Such payment is to be based upon the estimated value thereof as ascertained by the Engineer. Such material when so paid for by the City shall not be removed from the project without consent of the City and, in case of default on the part of the Contractor; the City may use or cause to be used by others these materials in construction of the project.

The City will retain five percent (5%) of the estimated amount of work executed in an approved manner and of the approved materials and apparatus suitably stored on the site.

Payment of the retained five percent (5%) will be made within sixty (60) days after the formal approval and acceptance by the Engineer of all apparatus, materials, and work embraced in the contract.

9.02 Payments Withheld. The City may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect itself from loss on account of:

1. Defective work not remedied
2. Claims filed or reasonable evidence indicating probable filing of claims
3. Failure of the Contractor to make payments properly to subcontractors or for materials or labor
4. A reasonable doubt that the contract can be completed for the balance then unpaid
5. Damage to another contractor.

When the above grounds are removed, payment shall be made for amounts withheld because of them.

9.03 Acceptance and Final Payment. If final inspection reveals that all details of the work have been completed satisfactorily, the Engineer shall tentatively accept the work, in writing, relieving the Contractor of further responsibility for the care and maintenance of the completed work and, provided that all equipment and materials have been removed from the right-of-way, shall also relieve the Contractor of further public liability. As soon as possible after tentative

acceptance of the work, the Engineer shall measure the completed work and compute the quantities of work for which payment is to be made. Before final settlement is made, the City shall be satisfied with the completed work. When the Engineer is satisfied that all items of the work have been found to be consistent with the terms of the contract and specifications, a final estimate including the retained percentage due the Contractor shall be released for payment. Release of the final estimate shall constitute final acceptance of the work.

All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

Extra work - See these specifications under section entitled Extra Work.

9.04 Payment for Extra Work. The Contractor will receive and accept payment for work performed under the contract as follows:

1. Items of work performed which are covered by definite prices stipulated in the contract. For all items of work performed which are covered by definite unit prices or lump sum amounts specified in the contract, the Contractor shall receive and accept compensation at the rate specified in the contract.

2. Extra work ordered by the Engineer, of a quality or class not covered by the contract, will be paid for at an agreed price. For extra work ordered by the Engineer and performed on an agreed price basis, the Engineer and the Contractor shall enter into a written agreement, and have City Council approval, before such work is undertaken. This written agreement shall describe the extra work that is to be done and shall specify the agreed price or prices therefore.

Revised 1-25-2011

DIVISION II

PORTLAND CEMENT CONCRETE PAVEMENT

**DIVISION II
PORTLAND CEMENT CONCRETE PAVEMENT**

C O N T E N T S

Section	Description
10	SCOPE OF WORK
11	MATERIALS
11.04	Cement--47-B (Modified) and ABX (Modified) Concrete
11.02	Portland Cement
11.03	Mixing Water
11.04	Fine Aggregate for 47-B (Modified) Concrete
11.05	Coarse Aggregate for 47-B (Modified) Concrete
11.06	Aggregate for ABX (Modified) Concrete
11.07	Granular Foundation Course
11.08	Joint Filler
11.09	Joint Sealing Material
11.10	Curing Compound
12	CONSTRUCTION METHODS
12.01	Clearing and Grubbing
12.02	Site Preparation
	Revised 1-18-2010
12.03	Subgrade Preparation
12.04	Water Main and Sanitary Sewer Pipe Bedding and Backfill
12.05	Granular Foundation Course
12.06	Surplus Earth
12.07	Adjustment of Manholes
	Revised 1-18-2010
12.08	Adjustment of Storm Sewer Inlets
12.09	Integral Curb
13	CONCRETE CONSTRUCTION
13.01	Forms and Form Setting
13.02	Air Entraining
13.03	Consistency
13.04	Mixing
13.05	Placing and Finishing
13.06	Surface Test
13.07	Headers
13.08	Transverse Construction Joints
13.9	Transverse Expansion Joints
13.10	Transverse Contraction Joints
13.11	Longitudinal Joints
13.12	Curing
13.13	Sealing of Joints
13.14	Protection
13.15	Opening to Traffic
13.16	Acceptance

Section	Description
14	METHOD OF MEASUREMENT AND BASIS OF PAYMENT
14.01	Clearing and Grubbing
14.02	Site Preparation
14.03	Grading, Surplus Earth, Embankment
14.04	Granular Foundation Course
14.05	Manholes
14.06	Storm Sewer Inlets
14.07	Integral Cub
14.08	Concrete Pavement
14.09	Beams
14.10	Headers
14.11	Transverse Expansion and Miscellaneous Joints
14.12	Concrete Test Cylinders
14.13	Testing
14.14	Miscellaneous

**DIVISION II
PORTLAND CEMENT CONCRETE PAVEMENT**

SECTION 10 - SCOPE OF WORK

The work covered by this division of the specifications consists of furnishing all labor, plant, equipment, appliances, and materials and performing all operations necessary to construct and complete concrete pavement and appurtenances in strict accordance with these specifications, the applicable drawings, and subject to the terms and conditions of the contract.

SECTION 11 - MATERIALS

11.01 Cement - 47-B (Modified) and ABX (Modified) Concrete. The specifications for 47-B (Modified) and ABX (Modified) concrete shall be as specified in Section 1002 "Portland Cement Concrete" of the most current State of Nebraska Department of Roads Standard Specifications for Highway Construction with the following exceptions.

1. Paragraph 1 of Section 1002.04 is deleted and the following added:

For 47-B (Modified) concrete no more than 50 lbs. of total water will be added for each 100 lbs. of cement (water to cement ratio not to exceed 0.50). For ABX (Modified) concrete no more than 47 lbs. of total water will be added for each 100 lbs. of cement (water to cement ratio not to exceed 0.47).

Concrete with water to cement ratios greater than specified above will be rejected. If any water is added to the concrete at any time without the permission of the Engineer, the concrete will be rejected.

2. Portland Cement Concrete for pavement shall meet the following requirements:

<u>Class of Concrete</u>	<u>Compressive Strength Requirements in Pounds per Square Inch</u>	
	<u>7 days</u>	<u>28 days</u>
47-B (Modified)	2100	3600
ABX (Modified)	2300	3800

11.02 Portland Cement. Shall be as specified in Section 1004 "Portland Cement" of the most current Nebraska Department of Roads specifications.

11.03 Mixing Water. Shall be as specified in Section 1005 "Water for Concrete" of the most current Nebraska Department of Roads specifications.

11.04 Fine Aggregate for 47-B (Modified) Concrete. Shall be as specified in Section 1033 "Aggregates", Table 1033.02A "Gradation Limits" of the most current Nebraska Department of Roads specifications.

11.05 Coarse Aggregate for 47-B (Modified) Concrete. Shall be as specified in Section 1033 "Aggregates", Table 1033.03A, of the most current Nebraska Department of Roads specifications.

11.06 Aggregate for ABX (Modified) Concrete. Shall be as specified in Section 1033 "Aggregates" of the most current Nebraska Department of Roads specifications with below noted additions.

It shall be the responsibility of the Contractor to submit test results conforming to ASTM C295 that indicate the aggregate to be used in ABX Modified concrete is non-reactive with the alkalis in cement. If the results of this test are not conclusive, then results shall be submitted that conform to ASTM C227 (Mortar Bar) which remove all doubt as to the acceptability of the aggregate for Portland cement concrete.

These results must be submitted prior to any concrete being used from any source of aggregate. New test results must be submitted each time the aggregate comes from a new source or for each 700 cubic yards of concrete poured.

In the event that non-reactive aggregate is not available, the Contractor will not be allowed to use the sand-gravel mix but will be required to use 47-B Modified Portland cement concrete as specified in these specifications under section entitled Cement - 47-B (Modified) and ABX (Modified) Concrete.

11.07 Granular Foundation Course. The granular materials shall be sand from local pits that are shown on the plans, or it may be a coarse sand, fine sand, loamy soil, or any mixture of any of these materials that conforms to the following requirements:

	<u>Minimum</u>	<u>Maximum</u>
Total Percent Retained on #200 Sieve	80	92
Plasticity Index		6

11.08 Joint Filler. Joint filler shall consist of premoulded bituminous fiber uniformly impregnated with between 35% and 50% durable asphalt by weight and be furnished in strips of the dimensions specified in the plans. A one (1) inch thick sample when compressed to 50% of original thickness at rate of 1/10 inch per minute and released shall show at least 70% recovery within one hour after compression and shall not have required more than 500 pounds per square inch compression load and extrusion of not more than 1/8 inch.

11.09 Joint Sealing Material. The hot pour joint material shall be of the rubber-asphalt type and shall be melted in a double jacket kettle equipped with an agitator for stirring the material during melting and pouring. The rubber-asphalt shall meet Federal Specification SS-S-164 or subsequent revisions.

11.10 Curing Compound. The curing compound shall consist of a nonbituminous pigmented liquid conforming to AASHTO Designation M148-49 or subsequent revisions.

SECTION 12 - CONSTRUCTION METHODS

12.01 Clearing and Grubbing. Except for trees, shrubs, and grasses which are to be preserved as indicated on the plans or as designated by the Engineer, all trees, stumps, hedges, shrubs, weeds, grass, other herbaceous vegetation, and rubbish shall be removed from the right-of-way and from borrow pits furnished by the contracting authority. This work shall be classified as follows:

Clearing shall consist of the cutting, removal, and disposal of trees six (6) inches or more in diameter.

Grubbing shall consist of the removal and disposal of stumps, including roots. Hedge removal shall consist of the pulling or grubbing and disposal of hedges or other shrubs planted close together in rows. If any individual tree of those composing a hedge has a diameter greater than four (4) inches, it shall be measured separately as a tree.

Weed and rubbish removal shall consist of the removal and disposal of all weeds, grass, other herbaceous vegetation, and all rubbish encountered on the work.

12.02 Site Preparation. This work shall consist of removal and disposal of all crosswalks, private walks, driveway approaches, curbs, curb and gutter, and headers as indicated on the plans or as directed by the Engineer.

Topsoil shall be carefully removed and deposited in storage piles convenient to the area which will subsequently receive topsoil. Topsoil shall be kept separate from other excavated materials and shall be piled free from roots, stones, and other undesirable materials.

The backfill over all existing utility lines shall be consolidated when shown on the plans or directed by the Engineer. This shall be done by water jetting and vibration to the full depth of the utility lines unless other methods are approved by the Engineer. When compaction over existing utility lines is not shown on the plans or is not a bid item and is directed to be done by the Engineer, the work shall be negotiated for in writing before any work is commenced and will be paid for as a single unit.

All sanitary and storm sewers will be televised before a street is paved or repaved to insure that the street will not have to be torn up to repair the sewer in the near future.

Revised 1-18-2010

12.03 Subgrade Preparation. All paving subgrade shall be brought to the exact lines, grades, and cross sections shown on the plans or as directed by the Engineer.

The subgrade shall be constructed to have a uniform density throughout its entire width. All soft or yielding material and other portions of the subgrade which will not compact readily shall be removed as directed. All hollow places, settlements, or other imperfections shall be filled with approved material and compacted.

In all places where embankment may be required to bring the subgrade to the required height, it shall be constructed in horizontal layers not to exceed six (6) inches in depth before rolling. Each successive layer of material placed as described shall be wetted to within 3% of the optimum moisture content and compacted to at least 95% of the maximum dry density obtained at optimum moisture content as determined by AASHTO Method T99.

In all embankment areas where highly expansive soils are encountered, materials shall be wetted at one percent (1%) to three percent (3%) above optimum moisture.

In cuts when the undisturbed earth is suitable for the subgrade, manipulation other than rolling will not be required, provided the upper three (3) inches is at 95% maximum dry density as called for in embankments.

12.04 Water Main, Storm and Sanitary Sewer Pipe Bedding and Backfill. The pipe bedding and backfill shall be Type "C" as required by Division V, Pipe Bedding, Trench Backfill, and Nonshrinkable Backfill. The completion of the trench backfill under pavement shall be adequate to provide 95% of maximum dry density and shall be wetted to within 3% optimum moisture as specified in this division under Subgrade Preparation.

12.05 Granular Foundation Course. This work shall consist of the construction of a compacted foundation course of granular material to the lines, grade, and dimensions shown on the plans on a previously prepared and approved subgrade.

12.06 Surplus Earth. All surplus earth shall be stockpiled by the Contractor at the location or locations designated on the plans or as the Engineer shall direct.

12.07 Adjustment of Manholes. All manholes encountered whether shown on the plans or not shall be brought to the proper grade by removing the castings and adjusting the tops of the existing manholes by removal or addition of concrete or brick, as the case may be, and resetting the frames and covers.

Brick masonry shall consist of the type of brick satisfactory to the Engineer, laid in 1:2 cement mortar. All brick must be wetted before being laid. All joints shall be completely filled with mortar and shall not be less than 1/4 inch and not more than 1/2 inch in thickness.

Contractors are instructed to use plastic or concrete risers to bring manhole ring and covers to grade. Using pieces of wood, concrete or bricks and then filling with concrete mortar will no longer be accepted.

All manholes will be inspected before and after a concrete or asphalt street is laid down to insure that no foreign material is in the flow line or at the bottom of a manhole.

Revised 1-18-2010

12.08 Adjustment of Storm Sewer Inlets. All storm sewer inlets shall be adjusted to line and grade by removing the castings and adjusting the tops of the existing storm sewer inlets by removing or adding concrete or bricks, as the case may be, and resetting the castings.

Brick masonry shall consist of the type of brick satisfactory to the Engineer, laid in 1:2 cement mortar. All brick must be wetted before being laid. All joints shall be completely filled with mortar and shall not be less than 1/4 inch and not more than 1/2 inch in thickness.

12.09 Integral Curb. Integral curb shall be constructed on the edge of the concrete slab in accordance with the plans and typical cross section. This curb shall be placed immediately after the concrete on the pavement has been placed and finished and before it takes its initial set. That part of the pavement which is to be covered by the integral curb shall be cleaned of all laitance and shall be roughened. Integral Curb will be required on all new pavement construction. If construction is a very short section, the Director of Public Works may allow an exception upon written request.

SECTION 13 - CONCRETE CONSTRUCTION

13.01 Forms and Form Setting. On all new mainline pavement construction, slip form process will be required. If the Contractor wants to use standard forms rather than slip forms because the area is small, they must submit a written request to the Director of Public Works for an exception. If the request is granted, the contractor will be required to meet certain requirements as listed herein. Outside forms shall be metal, of depth equal to the design thickness of the pavement at its edge, and straight and free from warp. When integral curb is required, the additional height represented by the curb may be obtained by bolting extra forms upon the top of the main form. Wood forms or flexible or curbed metal forms of proper radii shall be used for curves having radii of less than 100 feet. The forms shall be neatly, tightly, and securely pinned and staked to the line and grade furnished by the Engineer. They shall not at any time show a variation of more than 1/8 inch in a ten (10) foot length from the true plane of top of forms. Shimming with loose earth, pebbles, etc. will not be permitted.

Forms shall be cleaned and oiled before concrete is placed against them.

When pavement is being laid contiguous to previously finished concrete pavement of the same finish grade elevation or contiguous to previously finished independent curb and gutter, such finished pavement or curb and gutter may be made to serve as side forms and as a guide for striking, tamping, and finishing equipment.

13.02 Air Entraining. When using specifications for State of Nebraska 47-B concrete, the total air content shall be 6% plus or minus 1-1/2% by volume of the wet concrete as determined by AASHTO Standard Method T-121 or ASTM Method C-231 and up to 9% for sand and gravel mix.

13.03 Consistency. The quantity of water shall be determined by the Engineer in accordance with these specifications under section entitled Cement - 47-B (Modified) and ABX (Modified) Concrete and not varied without the Engineer's consent. The Contractor shall furnish and use with the mixer an approved adjustable water measuring device which will prevent excess water flowing into the mixer so the consistency may be under positive control and all batches may be of the same consistency.

In general, the minimum amount of water shall be used which will produce the required workability. The mortar shall cling to the coarse aggregate and shall show no free water when removed from the mixer. The upper surface of the set concrete shall show a cement film upon the surface and shall be free from all laitance. In no case shall an amount of water be used sufficient to cause the collection of a surplus on the surface or to cause segregation during the transportation to place of deposit. The concrete must be of workable consistency when placed.

13.04 Mixing. The mixing shall be done in a batch-mixer of approved type which will insure the uniform distribution of the material throughout the mass so the mixture is uniform in color and smooth in appearance. No mixer which has a capacity of less than one-sack batch shall be used on any work. The concrete shall be mixed in quantities required for immediate use. Concrete which has developed initial set or is not in place within thirty (30) minutes after the water has been added shall not be used. Retempering concrete by adding water or by other means will not be permitted.

The concrete shall be mixed for a period of at least one (1) minute after all the ingredients are assembled in the drum with the drum revolving at a rate for which the mixer was designed but, in no case, shall it be less than twelve (12) nor more than twenty (20) revolutions per minute. The mixer shall be equipped with an attachment for satisfactorily locking the discharging device to prevent the emptying before the minimum time required. The entire contents of the drum shall be discharged before any materials for the succeeding batch are placed therein.

No concrete shall be mixed while the air temperature is at or below 40 degrees Fahrenheit, except when specifically permitted by the Engineer. In such case, all water used for mixing concrete shall be heated to a temperature of at least 70 degrees but not over 150 degrees Fahrenheit. When artificial heat is applied and the air temperature is above 32 degrees Fahrenheit, the mixed concrete shall not be less than 70 degrees Fahrenheit at the time of the placing in the forms, and no concrete shall be placed in the forms when the air temperature is below 32 degrees Fahrenheit. In no case shall material containing frost or lumps of hardened material be used. When ready-mixed concrete is to be produced, the Contractor shall notify the Engineer in writing at least fourteen (14) days in advance of mixing operations as to location, type of plant and equipment which they propose to use in proportioning, mixing, and hauling concrete.

The Contractor shall furnish at least eight (8) standard 50 pound weights for calibrating and testing scales used in weighing aggregates and cement.

Ready-mixed concrete shall be mixed and delivered to the site of work by means of one of the following combinations of operations:

1. Mixed completely at a central mixing plant and the mixed concrete transported to the point of delivery in a truck agitator or in a truck mixer operating at agitator speed or in approved non-agitating equipment (known as central-mixed concrete).
2. Mixed partially at a central mixing plant and mixing completed in a truck mixer (known as transit-mixed concrete).
3. Aggregates and cement proportioned in a central plant and mixed completely in a truck mixer (known as transit-mixed concrete).

All mixers and agitators shall be operated within the limits of the manufacturer's rated capacity. They shall be operated at the speed of rotation for which the equipment was designed. Attached to each truck mixer and truck agitator shall be a metal plate on which is stated the manufacturer's capacities in terms of volume of mixed concrete and the manufacturer's stated speed of rotation for both mixing and agitation.

The truck mixer or agitator shall consist of a closed water-tight revolving drum suitably mounted and fitted with adequate revolving blades. Truck mixers shall be capable of combining aggregates, cement, and water into a thoroughly mixed and uniform mass of concrete and of discharging the concrete without segregation. Truck agitators shall be capable of transporting and discharging concrete without segregation.

For revolving drum type mixers the mixing speed shall not be less than seven (7) revolutions per minute of the drum nor greater than that which will produce a peripheral velocity of more than 225 feet per minute. For revolving blade type mixers, the mixer speed shall not be less than six (6) nor more than sixteen (16) revolutions per minute of the mixing blades. Agitation speed shall not be less than two (2) nor more than six (6) revolutions per minute of the drum or mixing blades.

Concrete transported without agitation shall not be used if the period elapsed between the time the concrete is discharged from the mixer and the time it is placed is greater than thirty (30) minutes. Concrete transported with agitation shall not be used when the cement has been in contact with the aggregate more than 1-1/2 hours before it is placed.

13.05 Placing and Finishing. The concrete shall be deposited on the prepared subgrade or on the granular foundation course so there shall be no separation of the mortar and the aggregate, and then shall be spread to the required depth and for the entire width of the pavement by approved methods, struck off, and finished. The subgrade templet shall be drawn over the subgrade or foundation course ahead of the point where concrete is being placed and shall be kept in position while the concrete is being placed. The concrete shall be deposited on the subgrade or granular foundation course between the forms in position and in such quantity as to make a uniform layer of about one (1) inch greater than the required thickness. During the operation of striking off the concrete, a uniform ridge of concrete at least three (3) inches in depth shall be maintained ahead of the vibratory strike-off screed for its entire length. After being deposited, it shall be consolidated along the forms and along all joints. At the end of the day or in case of unavoidable interruption of more than thirty (30) minutes, a transverse construction joint shall be placed at the point of stopping work, provided the section on which the work has been suspended shall not be less than ten (10) feet in length. The working edge of the screed shall be shaped to the required cross section of the pavement. After the concrete has been properly consolidated and struck off, the entire surface shall be floated longitudinally, from bridges, with a float at least twelve (12) feet long and twelve (12) inches wide. If made of wood, this float shall be two (2) inches thick. If made of metal, it shall have a weight approximately equal to a similar float made of two (2) inch plank and shall be lined on its bottom face with wood, having rounded edges. The float shall be operated by two men, one at each end, each man standing on a bridge spanning the pavement. The longitudinal and transverse motion shall be passed slowly from one side of the pavement to the other a sufficient number of times; at least twice, until the float on its last passage shall show contact with the concrete throughout its entire length. The bottom surface of the float shall remain flat on the surface of the concrete during the entire operation of longitudinal floating. The next section to be floated shall overlap the one previously floated by half the length of the float.

After the concrete has been floated longitudinally, the surface shall be floated transversely using a float of 1"x12" material three (3) to four (4) feet in length and fitted with a handle of sufficient length to permit the float to reach just beyond the center line. Any high or low areas exposed as a result of this floating shall be corrected prior to belt finishing.

After the concrete has been floated transversely and the water sheen has disappeared from the surface of the pavement, the final finish shall be given with a canvas or rubber belt, burlap drag or brooming, or any combination of the above as directed by the Engineer.

If belting is selected, it shall be accomplished with a belt of two to four ply having a width of not less than six (6) inches and a length at least two (2) feet greater than the width of the pavement. The belt shall be operated with a combined crosswise and longitudinal motion, care being taken not to work the crown out of the pavement or to permit the edges of the belt to dip into the surface of the concrete.

If a broom finish is selected, it shall be accomplished by drawing a broom across the surface from the center line toward each side with the broom held perpendicular to the surface with only one stroke of the broom on each portion of the surface. (If the pavement is being constructed lane-at-a-time, the broom shall be drawn across the full width of each lane in one operation.) The broom shall be of the push broom type not less than 18" wide made from bass or bassine fiber not more than five (5) inches long and with a handle at least one (1) foot longer than the width of pavement being broomed in one operation. The brooming operations shall be executed so the corrugation will be uniform in appearance and not more than 1/16 inch in depth.

If a burlap drag finish is selected, it shall be accomplished by drawing a wet burlap, carpet, or canvas drag over the surface in a longitudinal direction. The drag shall be at least two (2) feet longer than the width of the slab being placed and shall be wide enough so about three (3) feet will be in contact with the pavement while it is in use. If burlap is used, the drag shall consist of not less than two (2) layers. Drags shall be rinsed or washed as often as necessary to remove hardened particles which would mar the uniform surface that would be obtained with a clean drag.

13.06 Surface Test. Before final finishing and previous to initial set, the surface of the pavement shall be tested under the supervision of the Engineer. All irregularities or undulations not within the tolerance of the following test shall be corrected with fresh concrete and the affected surface brought within the requirement of the test and refinished if necessary. The test shall be made with a transverse testing templet and straightedge at least ten (10) feet long. The templet shall be accurately shaped in conformity with the typical cross section and shall be subject to the approval of the Engineer. The templet shall be used to test the shape of the surface transversely, the straightedge for longitudinal trueness. The straightedge shall be placed parallel to the center line so as to bridge any depressions and touch any high spots. Ordinates exceeding one fourth inch measured from the face of the templet or straightedge when in position at any point shall be eliminated by means of a long-handled wood float.

As soon as the pavement has set sufficiently to permit walking on it and not later than 10:00 a.m. of the day following the placing of the concrete, it shall be thoroughly checked by the inspector with a straightedge. All variations in excess of one fourth inch measured from the surface of the straightedge when it is placed parallel to the center line shall be plainly marked. The Contractor shall at once eliminate such variations by the use of approved grinding tools or carborundum brick and water. The work of grinding or rubbing shall not be performed in such manner or carried to such extremes that the bond of the concrete shall be broken. The use of brush hammer or similar device to remove irregularities after the concrete has taken its final set will not be permitted. All templets, straightedges, and other testing devices shall be furnished by the Contractor.

13.07 Headers. Concrete headers extending to full depth and width of the pavement shall be constructed at locations shown on the plans. They shall be constructed to the dimensions and design called for in the plans.

13.08 Transverse Construction Joints. Whenever concreting is stopped for a period of over thirty (30) minutes, a transverse construction joint shall be formed by finishing the concrete to a bulkhead made of two (2) inch material cut to the exact cross section of the pavement slab, as shown in the plans. When the concreting is resumed, the bulkhead shall be moved taking care not to disturb any concrete placed. The joints shall be constructed perpendicular to both the center line and the surface of the pavement. In no case shall an emergency construction joint be allowed within ten (10) feet after placing a regular expansion or construction joint. If the joint falls within this limit, the concrete shall be removed back to the previously installed joint.

When a construction joint is placed at a location where integral curb is being constructed, a piece of pre-formed joint material one half inch in thickness and conforming to the cross section of the curb shall be placed through the curb at the construction joint. The edges of the concrete shall be rounded to a radius of not more than one fourth inch.

13.9 Transverse Expansion Joints. Expansion joints shall be of a premoulded bituminous fiber type conforming to these specifications under the section entitled Joint Filler.

The joint shall extend entirely through the pavement and the joint filler shall be placed so the top edge will be one half inch below the surface of the finished pavement. No section of the joint material shall be shorter than the width of pavement strip between longitudinal joints. Before the pavement is opened to traffic, this space shall be swept, cleaned, and filled with approved joint sealing material.

The pre-formed expansion joint material shall be held securely by means of a special metal joint holder and removable cap, perpendicular to both the center line and the surface of the pavement. The metal joint holder and cap shall remain in place until after the passage of the concrete spreader. After the concrete has been finished, the metal joint holder and cap shall be removed and the edge of the concrete rounded to a radius of not more than one fourth inch. When integral curb is being constructed, an additional piece of pre-formed material of the same cross section as the curb shall be extended through the curb and to the top surface of the pavement. The joints shall be so installed and finished to insure complete separation of the slabs.

13.10 Transverse Contraction Joints. Transverse contraction joints shall be constructed at intervals of not less than ten (10) feet or more than sixteen (16) feet. The joints shall be true and straight to the center line and surface of the pavement. Variation of more than one half inch in ten (10) feet from a straight line will not be permitted. The joint shall be placed so its junction with the longitudinal joint will be a neat fitting connection. All transverse contraction joints shall be done by the saw cut method. To prevent the development of random cracks, joints at approximately eighty (80) feet intervals shall be sawed the same day as the pour is made. All other transverse contraction joints shall be sawed the following afternoon.

13.11 Longitudinal Joints. Longitudinal contraction joints, when required, shall be in accordance with the requirements for transverse contraction joints.

All sawed longitudinal joints shall be sawed before the concrete has attained an age of seven (7) days and before the pavement is opened to any vehicular traffic.

13.12 Curing. As soon as the concrete has hardened sufficiently to prevent excessive marring of the surface or adherence thereto, the concrete shall be protected with a single covering of burlap, placed and kept saturated for at least twelve (12) hours. As soon as the burlap is removed, the top surface and the edges of the pavement shall be covered with a continuous uniform nonbituminous impervious coating. The curing compound may be applied in either one or two applications in accordance with the directions of the manufacturer. However, if applied in two coatings, the second shall be applied not later than thirty (30) minutes after the first. In no case shall the rate of application be less than one (1) gallon per fifteen (15) square yards of surface area.

The sides of the pavement slab or back side of integral curb shall be covered with the curing compound within thirty (30) minutes after removal of the form.

When wet cotton mats, wet jute felt mats, paper, or any other method than curing compound is to be used for curing, the Contractor shall notify the Engineer in writing at least fourteen (14) days in advance giving the type and specifications of material and method to be used.

When it is expected that during the progress of the work the temperature may fall below 40 degrees Fahrenheit, a sufficient supply of straw, hay, grass, or other material suitable, in the judgment of the Engineer, must be maintained on hand to cover the concrete and to sufficiently protect the surface and edges against freezing until it is at least ten (10) days old. In such case, at the discretion of the Engineer, wetting and spraying may be omitted. Manure shall not be used as a protection for green concrete. Whenever the temperature falls below 40 degrees Fahrenheit, freshly finished concrete shall be protected by frames enclosed by canvas or other type of housing and the temperature of the air surrounding the concrete shall be maintained at not less than 45 degrees Fahrenheit. Sufficient heating apparatus, such as lanterns, suitable stoves, or steam equipment, shall be furnished and maintained by the Contractor. Any concrete showing injury by freezing on uncovering shall be removed and replaced at the expense of the Contractor.

13.13 Sealing of Joints. Joint sealing operations shall not be started until after final curing is completed. All joints which require sealing shall be thoroughly cleaned by a jet of compressed air. Any excess mortar or concrete shall be cut out with chisels. Joints shall be filled only when completely dry. The filler used shall be material as specified in these specifications under the section entitled Joint Sealing Material. The cleaning and filling shall be carefully done with proper equipment and a neat workmanlike joint obtained, free from excess and unsightly filler.

The joint sealing material shall be melted uniformly and with constant stirring in an asphalt kettle of such design that direct flames are not applied to the immediate surfaces of the kettle which are in contact with the joint sealing material. The material shall be furnished or prepared in pieces of such size and shape that the material can be melted readily to the proper pouring consistency. The heating of the material shall be arranged to minimize the length of time during which the temperature of the material exceeds 350 degrees Fahrenheit. In no case shall the temperature exceed the maximum recommended by the manufacturer. The joints shall be filled with the use of a pouring device which is satisfactory to the Engineer. Precautions shall be taken to prevent spilling material on surfaces of the pavement adjacent to the joint.

13.14 Protection. The Contractor shall provide and maintain substantial barricades, warning signs, and flares to provide the public and the construction work adequate protection and keep all traffic off the pavement.

13.15 Opening to Traffic. Before any traffic is permitted on the concrete, all curing and protecting materials other than membrane shall be carefully removed from the finished work and the concrete shall be swept clean. No section of pavement shall be opened to traffic until the concrete has reached a minimum age of fourteen (14) days or compression strength of 3000 psi.

The Contractor's forces may be allowed on the pavement for the purpose of clean up work any time after the concrete has reached a minimum age of seven (7) days.

13.16 Acceptance. The Contractor shall furnish a minimum of two (2) cores at locations designated by the Engineer for each 1000 square yards of pavement placed, and the acceptance of the pavement may be governed by the quality and thickness as shown by the cores. Slabs of pavement which are found to be more than one half inch short of the specified thickness shall be removed and replaced at the Contractor's expense with concrete of specified quality and thickness. If, however, in the opinion of the Engineer, there is no probability of immediate failure of such deficient slabs, they may allow the Contractor the choice of leaving the defective slabs in place and receiving no compensation or payment for the same or of replacing the pavement slab as provided above.

If the average strength of test cores or test cylinders, cured at a temperature within the range of 60 to 80 degrees Fahrenheit, is more than ten percent (10%) below the required strength, the Engineer may elect either to permit such pavement to remain in place and limit the payment for such defective work to a maximum of 90% of the contract unit price or require the Contractor, at Contractor's expense, to remove the pavement area deficient in the specified strength and replace it with pavement of satisfactory quality.

SECTION 14 - METHOD OF MEASUREMENT AND BASIS OF PAYMENT

14.01 Clearing and Grubbing. Clearing and grubbing of trees larger than six (6) inches in diameter will be measured for payment by counting the actual number of trees removed. The diameters of trees will be computed by measuring the circumference and dividing by 3.14. Payment shall be made at the contract unit price per each tree at the diameter or group of diameters shown in the bid.

Stumps will be measured for payment by taking the average diameter at cutoff. Payment shall be made at the contract unit price per each stump at the diameter or group of diameters shown in the bid.

Hedge removal will be measured for payment in lineal feet of a row of hedges.

Weeds, rubbish, and other herbaceous vegetation will not be measured for payment but will be considered as subsidiary to the contract work.

14.02 Site Preparation. Crosswalks and private walks to be removed within the area between construction lines will be measured for payment in square feet in their original position. Driveway approaches will be measured for payment in square yards in their original position.

Existing straight curb and curb and gutter to be removed will be measured for payment by length in lineal feet. Measurements for the straight curb will be made along the front face of the curb. Measurements for curb and gutter will be made along the flow line of the gutter.

Removal of existing pavement headers will be measured for payment by length in lineal feet.

Compaction over all existing utility lines will be measured for payment as a single unit except when in clay soil. In clay soil, excavation, additional materials, and recompaction over utility lines will be paid for as additional excavation.

14.03 Grading, Surplus Earth, Embankment. All grading, removal of surplus earth, and embankment will not be measured for payment but shall be subsidiary to the paving.

14.04 Granular Foundation Course. Granular foundation course will be measured for payment by area in square yards or cubic yards.

14.05 Manholes. Adjusting manholes to grade will be measured for payment as a single unit for each manhole that is adjusted to grade as shown in the plans or as directed by the Engineer.

14.06 Storm Sewer Inlets. Adjusting storm sewer inlets to line and grade will be measured for payment as a single unit.

14.07 Integral Curb. Integral curb will be measured for payment by length in lineal feet. Measurement will be made along the back side of the curb.

14.08 Concrete Pavement. Concrete pavement will be measured for payment by area in square yards. Concrete pavement shall include all joints, curing, sealing, etc. not specifically designated as separate items.

14.09 Beams. Concrete pavement beams will be measured for payment by length in lineal feet.

14.10 Headers. Concrete headers constructed as part of the project will be measured for payment by length in lineal feet.

14.11 Transverse Expansion and Miscellaneous Joints. Transverse expansion joints and all miscellaneous joints using premoulded bituminous fiber will be considered incidental to the paving construction and not as a separate pay item.

14.12 Concrete Test Cylinders. Three (3) concrete test cylinders shall be required for each block of concrete pavement placed or as directed by the Engineer.

14.13 Testing. The Engineer may require testing of coarse and fine aggregates and cement before they are used in the work. If so ordered, the Contractor shall pay the cost thereof.

The testing of cylinders shall be paid for by the Contractor.

14.14 Miscellaneous. Any item listed in the Engineer's Estimate and not covered in the specifications will be measured in the most workmanlike manner for payment according to the designation listed such as cubic yards, square feet, square yards, lineal feet, gallons, each, etc.

DIVISION III

CURB AND GUTTER SIDEWALKS, AND DRIVEWAYS

**DIVISION III
CURB AND GUTTER,
SIDEWALKS AND DRIVEWAYS**

C O N T E N T S

Section	Description
15	SCOPE OF WORK
16	MATERIALS
16.01	Cement
16.02	Sand-Gravel
16.03	Fine Sand and Coarse Aggregate
16.04	Water
16.05	Joint Filter
16.06	Joint Sealing Material
17	CONSTRUCTION METHODS
17.01	Subgrade Preparation
17.02	Forms and Form Setting
17.03	Concrete
17.04	Expansion Joints
17.05	Clean Up
18	CURB AND GUTTER
19	SIDEWALKS
20	DRIVEWAYS
21	METHOD OF MEASUREMENT AND BASIS OF PAYMENT
21.01	Curb and Gutter
21.02	Sidewalks
21.03	Driveways
21.04	Expansion and Miscellaneous Joints
21.05	Acceptance

**DIVISION III
CURB AND GUTTER,
SIDEWALKS AND DRIVEWAYS**

This division is written so that ordinarily the type of construction described is complete, but, where applicable, other divisions are considered a part of these specifications.

SECTION 15 - SCOPE OF WORK

This work shall consist of constructing curb and gutter, sidewalks, and driveways of Portland cement concrete on an approved, prepared subgrade in strict accordance with these specifications and in conformity with the lines, grades, and applicable drawings. All curb and gutter districts constructed shall conform to Division II, Portland Cement Concrete, as well as these specifications.

SECTION 16 - MATERIALS

16.01 Cement - Portland cement shall conform to all requirements of ASTM C-150, Type I, "Specifications for Portland Cement", with subsequent additions and amendments thereto, and also the following general requirements.

Cement shall be stored to provide adequate protection against dampness, and no cement shall be used that has become caked or lumpy. No reclaimed cement shall be used. No cement which has been left in storage more than ninety (90) days after shipment from the mill shall be used unless retested and, if failing to meet the requirements specified, shall be rejected. Normally, cement purchased from local dealers shall be considered satisfactory.

16.02 Sand-Gravel - Sand-gravel for concrete shall be a mixture of sand and gravel composed of clean, hard, durable, uncoated pebbles free from injurious amounts of soft or flaky particles, shale, alkali, organic matter, or other deleterious materials. The following materials shall be considered objectionable and percentage by weight shall not be greater than:

Clay lumps	0.5
Coal and carbonaceous shale	0.5
Unsound chert particles retained on 3/8" sieve	3.0

Gradation requirements for sand-gravel aggregates for concrete are as follows:

	<u>Minimum</u>	<u>Maximum</u>
Total % retained on 1" sieve	--	0
Total % retained on #4 sieve	10	35
Total % retained on #10 sieve	45	65
Total % retained on #20 sieve	65	85
Total % retained on #30 sieve	75	85
Total % retained on #100 sieve	95	100
Total % retained on #200 sieve	97	100

Platte River sand-gravel meeting the above gradation is considered satisfactory.

16.03 Fine Sand and Coarse Aggregate. When 47-B concrete is required, see Division II, Portland Cement Concrete Pavement, for specifications.

16.04 Water. Water used for mixing concrete shall be free from oil, acid, alkali, organic matter, or other deleterious materials. Water from wells or City mains shall be considered satisfactory.

16.05 Joint Filter. Joint filter shall consist of premolded bituminous fiber uniformly impregnated with between 35% and 50% durable asphalt by weight and being furnished in strips of the dimensions specified in the plans. A one (1) inch thick sample when compressed to 50% of original thickness at a rate of 1/10 inch per minute and released shall show at least 70T recovery within one hour after compression and shall not have required more than 500 pounds per square inch compression load and extrusion of not more than 1/8 inch.

Expansion joint material shall be 3/4 inch or more in thickness and shall conform to AASHTO M33-48 (Pre-formed Expansion Joint Filler for Concrete).

16.06 Joint Sealing Material. The hot pour paving joint materials shall be of the rubber-asphalt type and shall be melted in a double jacket kettle equipped with an agitator for stirring the material during melting and pouring. The rubber-asphalt shall meet Federal Specifications SS-S-164 or subsequent revisions.

SECTION 17 - CONSTRUCTION METHODS

17.01 Subgrade Preparation. The subgrade shall be prepared by excavating or filling to the required elevation for bottom of concrete. The subgrade shall be thoroughly tamped or otherwise compacted to insure stability. In fills, the subgrade shall be made at least one foot wider on each side than required by the curb and gutter, sidewalk, or driveway.

Stakes will be set by the City Engineering Division of the Public Works Department for line and grade after a sidewalk permit has been issued by the Public Works Department. The subgrade shall slope toward the street curb on a grade of not less than one-fourth inch per foot.

Where fill is required, it will be laid in six (6) inch layers and thoroughly tamped to the satisfaction of the Engineer. Mushy or spongy material will not be used for fill material. Soft and spongy material will be removed and replaced with suitable backfill material.

Trees that are in the way of the sidewalk will be removed including the stump. Roots of trees that are located outside the sidewalk but extend under the sidewalk shall be cut off at least six (6) inches below the sidewalk.

17.02 Forms and Form Setting. The forms shall be of wood or metal, straight and free from warp, and of sufficient strength to resist springing during the process of depositing concrete against them. All forms shall be securely staked, braced, and held firmly to the required line and grade. All forms shall be thoroughly cleaned and oiled before concrete is placed against them.

Wood forms shall be not less than 1-5/8 inches in thickness except for curvilinear sections where properly braced forms of lesser thickness may be used.

Tolerances of 1/8 to 1/4 inch shall be maintained for form alignment and vertical elevation.

17.03 Concrete. Concrete shall conform to Division II, Portland Cement Concrete Pavement.

Concrete shall be mixed in an approved mixer with sufficient water added to produce a workable mix. In no case shall so much water be used as to cause the collection of a surplus on the surface or to cause segregation during transportation to place of deposit. All materials shall be accurately weighed or measured, and mixing shall continue for a full minute after all materials are in the drum of the mixer. Any concrete which is not in place within thirty (30) minutes after the water has been added shall not be used.

The operation of depositing and compacting concrete shall be conducted so as to form a compact, dense, artificial stone of uniform texture which shall show smooth faces on all exposed surfaces.

Transit-mixed or ready-mixed concrete may be used provided the concrete is placed in the forms before it has developed initial set and shall comply with ASTM C95-58 and the requirements of these specifications. Such concrete must be transported in such a way as to prevent segregation between the aggregates and the cement. Concrete shall develop an ultimate compressive strength of not less than figures shown in Section 11.01 when tested in standard 6" x 12" cylinders at an age of twenty-eight (28) days in accordance with ASTM C39-56T.

Hand mixing of concrete will not be permitted except with specific permission of the City Engineer on very small jobs or in case of emergency.

The concrete surface shall be treated with a liquid treatment for curing such as Tri-Kote or approved equal or burlap cure or plastic covering may be used in the concrete cure. The plastic film used for curing concrete or subgrade insulating material shall be tough, pliable, moisture-proof, and sufficiently durable to retain its moisture-proof properties. The plastic film can be a polyethylene film not less than 0.001 inch thick. Reinforcement materials where required or as shown on the plans and wire mesh shall comply with ASTM A-185 and reinforcing bars where required shall conform to ASTM A-15 or A305.

Air entrained concrete shall be obtained by using air-entrained Portland cement or air-entraining admixtures. Air content of fresh concrete shall measure six (6) to nine (9) percent. Air entrained concrete shall be used for all sidewalks, driveways, and curb and gutter.

The use of high-early strength Portland cement concrete will not be required unless stipulated in the plans and in the Special Provisions on certain contracts.

Concrete shall not be placed when inclement weather prevents good workmanship. Concrete shall not be placed when temperature is below 40 degrees F without specific permission of the Engineer.

The surface shall be wood floated to give a proper roughness to prevent foot slippage for normal foot traffic.

The cross slope shall be 1/4 inch per foot of width of sidewalk.

The sidewalk after pouring shall be protected from foot traffic for twenty-four (24) hours and vehicle traffic for seven (7) days.

17.04 Expansion Joints. Expansion joints shall be placed as indicated on the drawings or at each location where new construction connects with existing construction. Specifically, joints shall be placed where new curb and gutter joins existing curb and gutter, where sidewalks connect to curb and gutter, and at such other locations as the Engineer may direct. On long runs of new construction, joints shall be placed as directed. In no case shall the spacing between expansion joints exceed one hundred (100) feet.

SECTION 18 - CURB AND GUTTER

Concrete curb and gutter shall be constructed to the lines, grades, dimensions and design as called for in the drawings.

There shall be installed every six (6) feet a separator true to the dimensions and cross-section of the combined curb and gutter. This separator shall be removed after the concrete has taken its initial set and the joint properly edged to provide a neat joint. In finishing joints prior to and after removal of separators, extreme care shall be exercised to avoid raising the edge of the joint causing water pockets in the gutter flow line. Separators shall not exceed 1/8 inch in thickness. Immediately following finished operations and before the concrete has taken its final set, the gutter flow line shall be checked with a straightedge not less than ten (10) feet in length and approved by the Engineer.

The maximum deviation from true grade shall not exceed 1/4 inch and any irregularities shall be corrected immediately.

SECTION 19 - SIDEWALKS

Concrete sidewalks shall be constructed to the lines and grades determined by the Engineer. Sidewalks shall have a minimum width of four (4) feet and a depth of four (4) inches and shall be constructed with a side slope of 1/4 inch per foot unless otherwise approved by the Engineer or Engineer's representative. Surfaces shall be marked off in square blocks having an area of not less than sixteen (16) nor more than thirty-six (36) feet. On these lines, the concrete shall be cut through not less than 1/4 inch thickness with a pointed trowel or suitable spading tool and the concrete edged on both sides.

Sidewalks that are being constructed across driveway openings shall have a minimum depth of five (5) inches.

The surface shall be floated with a steel float just enough to produce a smooth surface, free from irregularities. All edges and joints shall be rounded to a radius of 1/4 inch with an approved finishing tool. The surface shall then be brushed with a fine bristle broom or wood float to slightly roughen the surface and remove the finishing tool marks.

SECTION 20 - DRIVEWAYS

Driveway approaches connecting private driveways to City streets shall be constructed with Portland cement concrete except where the private driveway connects to a full depth asphalt street. Where the driveway connects to a full depth asphalt street, asphaltic concrete may be used in construction of the driveway approach.

Driveway approaches shall be constructed to the lines and grade set by the Engineer. The minimum depth of both Portland cement concrete and asphaltic concrete for driveway approaches shall be five (5) inches and, in the event heavy loads are anticipated, the depth shall be increased to handle the expected loads.

SECTION 21 - METHOD OF MEASUREMENT AND BASIS OF PAYMENT

21.01 Curb and Gutter. Combination curb and gutter will be measured for payment by length in linear feet. Measurements will be made along the flow line of the gutter.

21.02 Sidewalks. Sidewalks will be measured for payment by area in square feet.

21.03 Driveways. Driveways as referred to in this paragraph are that portion of existing driveway approaches having to be removed behind the construction lines of pavement due to the driveway approach lying partly within the area between construction lines. Driveways will be measured for payment in area in square yards.

21.04 Expansion and Miscellaneous Joints. Expansion joints and all miscellaneous joints using pre-molded bituminous fiber will be considered incidental to the construction and not as a separate pay item.

21.05 Acceptance. Upon completion of a job, the Engineer shall be notified, and they shall make an inspection of the work. The Contractor will be notified in writing as to the acceptability of the work.

EXHIBIT 1

To Wayside Horn System Agreement

LOCATION OF GRADE CROSSINGS

UPRR Folder No.: _____

Audit No. _____

EXHIBIT 2

To Wayside Horn System Agreement

RIGHT OF ENTRY AGREEMENT PERTAINING TO WAYSIDE HORN SYSTEM AGREEMENT

THIS RIGHT OF ENTRY AGREEMENT (REA) is made and entered into as of the _____ day of _____, 200__ by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation (hereinafter the "Railroad"); and [_____] [(NAME OF LICENSEE)], a [_____] (corporate status)], at [_____] (applicant mailing address)]; Attn: [_____] (Name of Contact)]; Telephone: [_____] (Phone Number)] (hereinafter, the "Licensee"). This REA consists of this document and Appendices A and B hereto, and all Exhibits to those Appendices.

IT IS MUTUALLY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

ARTICLE 1- WAYSIDE HORN AGREEMENT

Nothing contained herein shall alter any obligation of Licensee under the Wayside Horn System Agreement ("WHS Agreement"). To the extent there is any inconsistency between this REA and the language of the WHS Agreement, the WHS Agreement controls.

ARTICLE 2 - DEFINITION OF LICENSEE

Railroad and Licensee have entered into the WHS Agreement, to which this REA (and the attached Appendices and Exhibits) is an exhibit, which pertains to one or more wayside horn systems installed or to be installed and operated on Railroad property. Licensee and its non-employee contractors and subcontractors wish to enter onto Railroad property to perform certain work as authorized in the WHS Agreement. The WHS Agreement requires Licensee to execute this REA, and for Licensee's non-employee contractors and subcontractors to do so by executing the Contractor's Endorsement, Appendix B to this REA, and requires them to obtain Railroad's written approval hereof before commencing such Work.

For purposes of this REA, all references to the "Licensee" shall include the Licensee's officers, agents and employees, and others acting under its authority. "Licensee" also shall include the Licensee's contractors and subcontractors, to the extent such persons are made a party to this REA by their execution of the Contractor's Endorsement, Appendix B hereto; provided that the municipal or governmental agency

Licensee who executed the WHS Agreement shall also remain a party to and be bound by the REA when the work is being performed by its non-employee contractors and subcontractors.

ARTICLE 3- RIGHT FOR WHICH REA IS GRANTED; PURPOSE

The Railroad hereby grants to the Licensee the right, during the term hereinafter stated and upon and subject to each and all of the terms, provisions and conditions herein contained, to enter upon and have ingress to and egress from the portion of Railroad's property in the vicinity of [_____ (Railroad Mile Post),] [_____ (Mile Post)], on the [_____ (Name of Subdivision or Branch Line)] at or near _____ (Location)], for the purpose _____ of

_____ in the area as shown on the location print marked Appendix A, Exhibit A attached hereto and hereby made a part hereof. The right herein granted to Licensee is limited to those portions of the Railroad's property specifically described herein, or designated by the Railroad representative.

ARTICLE 4 - ADMINISTRATIVE FEE

Upon the execution of this Agreement, the Licensee shall pay to Railroad a one-time administrative fee of _____ (\$ _____ .00).

ARTICLE 5 - OTHER TERMS AND CONDITIONS OF WORK

Other terms and conditions relating to the Work are contained in Appendix A, Exhibit B, attached hereto, and are hereby made a part of this REA.

ARTICLE 6 - ALL EXPENSES TO BE BORNE BY LICENSEE; RAILROAD REPRESENTATIVE

The Licensee shall bear any and all costs and expenses associated with any Work performed by the Licensee, and or any costs or expenses incurred by the Railroad relating to this REA. All work performed by Licensee on Railroad's property shall be performed, in accordance with the WHS Agreement, the REA, and in a manner satisfactory to the representative local Manager of Track Maintenance of the Railroad or his authorized representative (hereinafter the Railroad Representative): [_____ (Name & Address of MTM)].

ARTICLE 7- TERM; TERMINATION

A. The grant of right herein made to Licensee shall commence on the date of this REA, and continue until [_____], unless sooner terminated as herein provided, or at such time as Licensee has completed its Work on Railroad's property, whichever is earlier. Licensee agrees to notify the Railroad

Representative in writing when it has completed its Work on Railroad property.

- B. This REA may be terminated by either party on ten (10) days written notice to the other party.

ARTICLE 8 - INSURANCE

- A. Before commencing any Work, the Licensee and its contractors and subcontractors shall procure the coverage and provide the Railroad with a Certificate issued by their respective insurance carriers providing the insurance coverage required pursuant to Appendix A, Exhibit C to this REA; except that to the extent Licensee has already complied with the insurance provisions of the WHS Agreement, Licensee shall not have to provide a further Certificate, but this shall not affect contractors' and subcontractors' obligations to do so.
- B. Licensee and its contractors and subcontractors warrant that this REA and Appendix A, Exhibit C, have been thoroughly reviewed by their respective insurance agent(s)/broker(s) and that said agent(s)/broker(s) has been instructed to procure insurance coverage and endorsement(s) as required herein.
- C. All insurance correspondence shall be directed to:

Union Pacific Corporation
Insurance Compliance
PO Box 12010-UP
Hemet, CA 92546-8010
Folder No: (Folder Number)

ARTICLE 9 - ENFORCEABILITY AND CHOICE OF LAW

THIS AGREEMENT SHALL BE GOVERNED, CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE OF _____ . LITIGATION TO ENFORCE, OR ARISING OUT OF, OR RELATED TO, OR CONNECTED WITH THIS AGREEMENT MAY BE INSTITUTED AND MAINTAINED SOLELY BEFORE THE _____ STATE DISTRICT COURT FOR _____ COUNTY, _____.

ARTICLE 10 - RAILROAD FLAGMAN; WHEN REQUIRED; FLAGGING CHARGES

- A. No work of any kind shall be performed, and no person, equipment, machinery, tool(s), material(s), vehicle(s), or thing(s) shall be located, operated, placed, or stored within 25 feet of any of Railroad's track(s) at any time, for any reason, unless and until a Railroad flagman is provided to watch for trains. All expenses connected with the furnishing of said flagman shall be at the sole cost and

expense of the Licensee, who shall promptly pay to Railroad all charges connected therewith, within 30 days after presentation of a bill therefore. The rate of pay per hour for each man will be the prevailing hourly rate in effect for an eight hour day for the class of men used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. The current hourly rate of pay for Assistant Track Foreman is \$19.50 (July 2003). In addition to the cost of such labor, a composite charge of 152.33 % for vacation, holiday, health & welfare, supplemental sickness, Railroad Retirement & UC, supplemental pension, Empl. Liability & Property Damage and Administration will be included, computed on actual payroll.

- B. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays; two and one-half times current hourly rate for holidays.
- C. Wage rates are subject to change, at any time, by law or by agreement between the Railroad and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized Governmental Agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, the Licensee shall pay on the basis of the new rates and charges.
- D. Reimbursement to the Railroad will be required covering the full eight hour day during which any flagman is furnished, unless he can be assigned to other Railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagman is engaged in other work. Reimbursement will also be required for any day not actually worked by said flagman following his assignment to work on the project for which the Railroad is required to pay the flagman and which could not reasonably be avoided by the Railroad Company by assignment of such flagman to other work, even though the Licensee may not be working during such time.
- E. Arrangements for flagging are to be made at least seventy-two (72) hours in advance of commencing work, with the Railroad Manager of Track Maintenance.

IN WITNESS WHEREOF, the parties hereto have executed this REA in duplicate as of the date first herein written.

UNION PACIFIC RAILROAD COMPANY
(Federal Tax ID # 94-6001323)

By: _____
PAUL G. FARRELL
Senior Manager Contracts

WITNESS:

NAME OF LICENSEE

By:

Title:

(Executed pursuant to ordinance, resolution, or other evidence of proper authority to execute this instrument, a copy of which shall be attached to the Railroad's original counterpart of this document.)

ADDITIONAL LICENSEES WHO ARE CONTRACTORS OR SUBCONTRACTORS OF THE MUNICIPAL OR GOVERNMENTAL LICENSEE, EACH OF WHOM HAS EXECUTED THE APPENDIX B, CONTRACTOR'S ENDORSEMENT, AND IS BOUND BY THIS REA AND THE APPENDICES AND EXHIBITS THERETO.

Company Name

Signature of
Authorized Representative

Date

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

APPENDIX A
EXHIBIT A

TO RIGHT OF ENTRY AGREEMENT
PERTAINING TO WAYSIDE HORN SYSTEM AGREEMENT

DESCRIPTION OF WORK SITE

APPENDIX A
EXHIBIT B

TO RIGHT OF ENTRY AGREEMENT
PERTAINING TO WAYSIDE HORN SYSTEM AGREEMENT

TERMS AND CONDITIONS

Section 1 - **NOTICE OF COMMENCEMENT OF WORK; FLAGGING; FLAGGING CHARGES.**

A. The Licensee agrees to notify the Railroad Representative at least 72 hours in advance of Licensee commencing its work and at least 72 hours in advance of proposed performance of any work by the Licensee under the REA in which any person or equipment will be within 25 feet of any track, or will be near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within 25 feet of any track. Upon receipt of such notice, the Railroad Representative will determine and inform the Licensee whether a flagman need be present and whether the Licensee need implement any special protective or safety measures. If any flagmen or other special protective or safety measures are performed by the Railroad, such services will be provided at Licensee's expense with the understanding that if the Railroad provides any flagging or other services the Licensee shall not be relieved of any of its responsibilities or liabilities set forth herein.

Section 2 - **LIMITATION AND SUBORDINATION OF RIGHTS GRANTED.**

a). The foregoing grant of right is subject and subordinate to the prior and continuing right and obligation of the Railroad to use and maintain its entire property including the right and power of the Railroad to construct, maintain, repair, renew, use, operate, change, modify or relocate railroad tracks, roadways, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by the Railroad without liability to the Licensee or to any other party for compensation or damages.

b). The foregoing grant is also subject to all outstanding superior rights (including those in favor of licensees and lessees of the Railroad's property, and others) and the right of the Railroad to renew and extend the same, and is made without covenant of title or for quiet enjoyment.

Section 3 - **NO INTERFERENCE WITH RAILROAD'S OPERATION.**

No work performed by Licensee shall cause any interference with the constant, continuous and uninterrupted use of the tracks, property and facilities of the Railroad its lessees, licensees or others, unless specifically permitted under this agreement, or specifically authorized in advance by the Railroad Representative. Nothing shall be done or suffered to be done by the Licensee at any time that would in any manner impair the safety thereof. When not in use, Licensee's machinery and materials shall be kept at least 50 feet from the centerline of Railroad's nearest track, and there shall be no crossings of Railroad's tracks except at existing open public crossings.

Section 4 - **PERMITS.**

Prior to beginning any work, the Licensee, at its sole expense, shall obtain all necessary permits to perform any work contemplated by this agreement.

Section 5 - **LIENS.**

The Licensee shall pay in full all persons who perform labor or provide materials for the work to be performed by Licensee. The Licensee shall not create, permit or suffer any mechanic's or materialmen's liens of any kind or nature to be enforced against any property of the Railroad for any such work performed. The Licensee shall indemnify and hold harmless the Railroad from and against any and all liens, claims, demands, costs or expenses of whatsoever nature in any way connected with or growing out of such work done, labor performed, or materials furnished.

Section 6 - **PROTECTION OF SUBSURFACE FACILITIES ON RAILROAD PROPERTY.**

A. Cables, lines, wires, circuits, conduit, pipes and other facilities ("Facilities") may be buried on and under Railroad property, including, without limitation, its rights-of-way, as part of, or associated with, various systems and facilities, including, without limitation, fiber optic systems, railroad traffic control-related systems (e.g., wayside horn, switching, and signal control systems), and utility systems and facilities (e.g., electrical lines, natural gas and water main pipelines and distribution/supply lines, and sewer pipes and lines). Protection of the Facilities is of extreme importance since any break in or damage to the Facilities could, among other things, disrupt service to users, result in business interruption and loss of revenue and profits, result in injury or death to persons and damage to property, cause other economic losses, and/or create safety risks to the public. Accordingly, Licensee shall (1) comply with all one-call and other requirements of the law of the state where the Work is to be performed, (2) exercise due diligence in an effort to determine from the Railroad and all appropriate utilities, telecommunications companies, etc. to determine if Facilities are present in the area that is to be used or occupied by, or that will be accessible to, Licensee in connection with the Work, including, without limitation, by telephoning the Railroad at 1-800-336-9193 (between 6:30 a.m. and 8:00 p.m. Central Time) to determine if Facilities comprising fiber optic systems are buried anywhere at such location(s), (3) contact the Railroad and any party who is determined to be the owner of any such Facilities to make suitable arrangements for the relocation or other protection of the Facilities, (4) refrain from commencing Work on the Railroad's property in the vicinity of any Facilities unless and until such relocation or other protection has been completed, and (5) require its contractors and subcontractors to comply with the commitments set forth in (1) through (4), above. Licensee acknowledges and agrees that the Railroad will not be responsible for the cost to relocate or otherwise protect the Facilities.

B. In addition to other indemnity provisions in this Agreement, to the extent not prohibited by law, Licensee shall defend, indemnify and hold Railroad harmless from and against all costs, liability, loss and expense whatsoever (including, without limitation, consequential damages, attorneys' fees, court costs, and expenses) arising out of any act or omission of Licensee, its agents, contractors, subcontractors, and/or employees, relating in any way to the Facilities, to the extent all or any of their acts or omissions cause or contribute to (1) any disruption of service to users or damage for business interruption or loss of revenues or profits, (2) any damage to or destruction of any Facilities, (3) any injury or damage to property or injury to or the death of any persons, (4) any other economic loss, (5) any other damage or liability whatsoever, or (6) the assertion or filing of any claim, cause of action, or judgment whatsoever relating to such matters. If this Subsection B should be declared void or unenforceable by a court of competent jurisdiction, it shall be stricken, but the fact that it has been so struck shall not affect the enforceability of Subsection A.

Section 7 - **COMPLIANCE WITH LAWS.**

In the prosecution of the work covered by this agreement, the Licensee shall comply with all applicable federal, state and local laws, regulations and enactments affecting the work. The Licensee shall use only such methods as are consistent with safety, both as concerns the Licensee, the Licensee's agents and employees, the officers,

agents, employees and property of the Railroad and the public in general. The Licensee (without limiting the generality of the foregoing) shall comply with all applicable state and federal occupational safety and health acts and regulations. All Federal Railroad Administration regulations shall be followed when work is performed on the Railroad's property. If any failure by the Licensee to comply with any such laws, regulations, and enactments, shall result in any fine, penalty, cost or charge being assessed, imposed or charged against the Railroad, the Licensee shall reimburse and indemnify the Railroad for any such fine, penalty, cost, or charge, including without limitation attorney's fees, court costs and expenses. The Licensee further agrees in the event of any such action, upon notice thereof being provided by the Railroad, to defend such action free of cost, charge, or expense to the Railroad.

Section 8 - **SAFETY INSTRUCTIONS.**

Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of the work pursuant to this agreement. As reinforcement and in furtherance of overall safety measures to be observed by the Licensee (and not by way of limitation), the following special safety rules shall be followed:

a). The Licensee shall keep the job site free from safety and health hazards and ensure that its employees are competent and adequately trained in all safety and health aspects of the job. The Licensee shall have proper first aid supplies available on the job site so that prompt first aid services can be provided to any person that may be injured on the job site. The Licensee shall promptly notify the Railroad of any U.S. Occupational Safety and Health Administration reportable injuries occurring to any person that may arise during the work performed on the job site. The Licensee shall have a non-delegable duty to control its employees, while they are on the job site or any other property of the Railroad to be certain they do not use, be under the influence of, or have in their possession any alcoholic beverage or illegally obtained drug, narcotic or other substance that may inhibit the safe performance of work by an employee.

b). The employees of the Licensee shall be suitably dressed to perform their duties safely and in a manner that will not interfere with their vision, hearing or free use of their hands or feet. Only waist length shirts with sleeves and trousers that cover the entire leg are to be worn. If flare-legged trousers are worn, the trouser bottoms must be tied to prevent catching. The employees should wear sturdy and protective footwear. Employees shall not wear boots (other than work boots), sandals, canvas-type shoes or other shoes that have thin soles or heels that are higher than normal. In addition, the Licensee shall require its employees to wear personal protective equipment as specified by Railroad rules, regulations or Railroad officials overlooking the work at the job site. In particular, the protective equipment to be worn shall be:

- 1). Protective head-gear that meets American National Standard-Z89.1-latest revision. It is suggested that all hardhats be affixed with Licensee's or subcontractor's company logo or name.
- 2). Eye protection that meets American National Standard for occupational and educational eye and face protection, Z87.1-latest revision. Additional eye protection must be provided to meet specific job situations such as welding, grinding, burning, etc.; and
- 3). Hearing protection which affords enough attenuation to give protection from noise levels that will be occurring on the job site.

c). All heavy equipment provided or leased by the Licensee shall be equipped with audible back-up warning devices. If in the opinion of the Railroad Representative any of Licensee's or any of its subcontractor's equipment is unsafe for use on the Railroad's right-of-way, the Licensee, at the request of the Railroad Representative, shall remove such equipment from the Railroad's right-of-way.

Section 9 - **INDEMNITY**.

a). The indemnity obligations of the Licensee who is the municipality or governmental agency identified in the Right of Entry Agreement to which this document is part of an Appendix are contained in the Wayside Horn System Agreement, to which the Right of Entry Agreement is an exhibit.

b). The indemnity obligations of any Licensee who is a contractor or subcontractor with whom the municipal or governmental Licensee has contracted to perform work under the Right of Entry Agreement are contained in the Appendix B, Contractor's Endorsement.

Section 10 - **RESTORATION OF PROPERTY**.

In the event the Railroad authorizes the Licensee to take down any fence of the Railroad or in any manner move or disturb any of the other property of the Railroad in connection with the work to be performed by Licensee, then in that event the Licensee shall, as soon as possible and at Licensee's sole expense, restore such fence and other property to the same condition as the same were in before such fence was taken down or such other property was moved or disturbed, and the Licensee shall indemnify and hold harmless the Railroad, its officers, agents and employees, against and from any and all liability, loss, damages, claims, demands, costs and expenses of whatsoever nature, arising from the taking down of any fence or the moving or disturbance of any other property of the Railroad.

Section 11 - **WAIVER OF BREACH**.

The waiver by the Railroad of the breach of any condition, covenant or agreement herein contained to be kept, observed and performed by the Licensee shall in no way impair the right of the Railroad to avail itself of any remedy for any subsequent breach thereof.

Section 12 - **ASSIGNMENT - SUBCONTRACTING**.

The Licensee shall not assign, sublet or subcontract this agreement, or any interest therein, without the written consent of the Railroad and any attempt to so assign, sublet or subcontract without the written consent of the Railroad shall be void. If the Railroad gives the Licensee permission to subcontract all or any portion of the work herein described, the Licensee is and shall remain responsible for all work of subcontractors and all work of subcontractors shall be governed by the terms of this agreement.

APPENDIX A
EXHIBIT C

TO RIGHT OF ENTRY AGREEMENT
PERTAINING TO WAYSIDE HORN SYSTEM AGREEMENT

CONTRACT INSURANCE REQUIREMENTS

City, at its sole cost and expense, has procured and maintained the insurance insuring Railroad in accordance with the Wayside Horn System Agreement and Exhibit 6 thereto. The City shall cause its Contractors and subcontractors, as the case may be, to maintain, during the life of the REA to which this is an Exhibit (except as otherwise provided in this Agreement) the following insurance coverage:

A. Commercial General Liability insurance. Commercial general liability (CGL) with a limit of not less than \$10,000,000 each occurrence and an aggregate limit of not less than \$10,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage). The policy must also contain the following endorsement, which must be stated on the certificate of insurance: "Contractual Liability Railroads" ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

B. Business Automobile Coverage insurance. Business auto coverage written on ISO form CA 00 01 (or a substitute form providing equivalent liability coverage) with a limit of not less than \$10,000,000 for each accident, and coverage must include liability arising out of any auto (including owned, hired, and non-owned).

The policy must contain the following endorsements, which must be stated on the certificate of insurance: "Coverage For Certain Operations In Connection With Railroads" ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Property" as the Designated Job Site.

C. Workers Compensation and Employers Liability Insurance. Coverage must include but not be limited to:

- City's and/or Contractor's statutory liability under the workers' compensation laws of the state(s) affected by this Agreement.
- Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 disease policy limit \$500,000 each employee.

If City and/or Contractor are self-insured, evidence of state approval and excess workers compensation coverage must be provided. Coverage must include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

D. Railroad Protective Liability Insurance. City must maintain (or cause its Contractor to maintain) Railroad Protective Liability insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Railroad as named insured, with a limit of not less than \$2,000,000 per occurrence and an aggregate of \$6,000,000. A binder stating the policy is in place must be submitted to Railroad before the work may be commenced and until the original policy is forwarded to Railroad.

E. Umbrella or Excess Insurance. If City and/or Contractor utilize umbrella or excess policies, these policies must "follow form" and afford no less coverage than the primary policy.

Other Requirements

F. The Commercial General Liability policy required above must include Railroad as "Additional Insured" using ISO Additional Insured Endorsement CG 20 26 (or substitute form providing equivalent coverage). The coverage provided to Railroad as additional insured shall, to the extent provided under ISO Additional Insured Endorsement CG 20 26 provide coverage for Railroad's negligence whether sole or partial, active or passive, and shall not be limited by City's and/or Contractor's liability under the indemnity provisions of this Agreement.

G. Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless (a) insurance coverage may not lawfully be obtained for any punitive damages that may arise under this agreement, or (b) all punitive damages are prohibited by all states in which this agreement will be performed.

H. City and Contractor waive all rights against Railroad and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by Workers' Compensation and Employers Liability, commercial umbrella or excess liability insurance obtained by City required by this agreement.

I. Prior to commencement of the Work, City and/or Contractor shall furnish Railroad with certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this Agreement. Railroad's permitting the Work to commence prior to receiving a certificate shall not be deemed a waiver of those requirements.

J. All insurance policies must be written by a reputable insurance company acceptable to Railroad or with a current Best's Insurance Guide Rating of A-, Class VII or better, and authorized to do business in the state(s) in which this agreement applies.

K. The fact that insurance is obtained by City and/or Contractor (or by Railroad on behalf of City) will not be deemed to release or diminish the liability of City and/or Contractor, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railroad from any third party, including City's contractors or subcontractors, will not be limited by the amount of the required insurance coverage.

APPENDIX B

TO RIGHT OF ENTRY AGREEMENT PERTAINING TO WAYSIDE HORN SYSTEM AGREEMENT

CONTRACTOR'S ENDORSEMENT

This Contractor's Endorsement is an Appendix attached to the Right of Entry Agreement (REA) between Railroad and Licensee, dated _____. The municipality or governmental agency identified in the REA as "Licensee" has contracted under a Wayside Horn System Agreement (the WHS Agreement) with the Contractor identified herein, for the Contractor to perform certain work under the REA and the WHS Agreement (hereinafter, the Work).

Contractor, for good and sufficient consideration, the receipt of which is acknowledged, hereby agrees with the Railroad and with the municipality or governmental agency identified as Licensee in the REA, as follows:

1. Contractor's execution of this Contractor's Endorsement binds Contractor to, and constitutes Contractor's agreement to each and all of the terms of the REA set out therein and in the Appendices and Exhibits thereto, and to all terms of the WHS Agreement that pertain to the Work. This Endorsement is enforceable by the Railroad or the municipal or governmental Licensee.

2. Contractor (hereinafter "Contractor"), to the same effect as if it were named specifically in the REA as a "Licensee," shall comply with each and every term and provision of the REA and the Appendices and Exhibits thereto, and with all terms of the WHS Agreement that pertain to the Work.

3. Without in any way limiting Sections 1 and 2 hereof, Contractor specifically acknowledges that it has read, understands, and agrees, pursuant to the REA, to limit its Work in accordance with Articles 3 and 7 of the REA, to comply with and be bound in all respects by Articles 5 and 6 of the REA and Appendix A, Exhibits B and C thereto, to fulfill the insurance requirements of Article 8 of the REA, and Appendix A, Exhibit C thereto, and to be bound by Article 9 of the REA, relating to Enforceability and Choice of Law.

4. INDEMNITY

A) AS USED IN THIS SECTION, "LICENSEE" HAS THE SAME MEANING AS IN THE REA, AND SPECIFICALLY INCLUDES THE MUNICIPAL OR GOVERNMENTAL LICENSEE AND ITS CONTRACTORS AND SUBCONTRACTORS. "RAILROAD" INCLUDES OTHER RAILROAD COMPANIES USING THE RAILROAD'S PROPERTY AT OR NEAR THE LOCATION OF THE LICENSEE'S INSTALLATION AND THEIR OFFICERS, AGENTS, AND EMPLOYEES. "LOSS" INCLUDES LOSS, DAMAGE, CLAIMS, DEMANDS, ACTION,

CAUSES OF ACTION, PENALTIES, COSTS, AND EXPENSES OF WHATSOEVER NATURE, INCLUDING COURT COSTS AND ATTORNEYS' FEES, WHICH MAY RESULT FROM: (A) INJURY TO OR DEATH OF PERSONS WHOMSOEVER (INCLUDING THE RAILROAD'S OFFICERS, AGENTS, AND EMPLOYEES, THE LICENSEE'S OFFICERS, AGENTS AND EMPLOYEES, AS WELL AS ANY OTHER PERSON); AND (B) DAMAGE TO OR LOSS OR DESTRUCTION OF PROPERTY WHATSOEVER (INCLUDING LICENSEE'S PROPERTY, DAMAGE TO THE ROADBED, TRACKS, EQUIPMENT, OR OTHER PROPERTY OF THE RAILROAD, OR PROPERTY IN ITS CARE OR CUSTODY).

(B) AS A MAJOR INDUCEMENT AND IN CONSIDERATION OF THE LICENSE AND PERMISSION HEREIN GRANTED, THE CONTRACTOR AGREES TO INDEMNIFY AND HOLD HARMLESS THE RAILROAD FROM ANY LOSS WHICH IS DUE TO OR ARISES FROM ANY CAUSE AND IS ASSOCIATED IN WHOLE OR IN PART WITH THE WORK PERFORMED UNDER THE REA AND THIS ENDORSEMENT, A BREACH OF THE AGREEMENTS OR THE FAILURE TO OBSERVE THE HEALTH AND SAFETY PROVISIONS APPLICABLE TO THE WORK, OR ANY ACTIVITY OR OMISSION ARISING OUT OF PERFORMANCE OR NONPERFORMANCE OF THE AGREEMENTS; REGARDLESS OF WHETHER CAUSED SOLELY OR CONTRIBUTED TO IN PART BY THE NEGLIGENCE OR FAULT OF THE RAILROAD. [State law may require that this provision be modified].

(C) ANY LIABILITY OF RAILROAD, LICENSEE, OR CONTRACTOR HEREUNDER TO ONE OF ITS EMPLOYEES UNDER ANY WORKERS' COMPENSATION ACT OR THE FEDERAL EMPLOYERS' LIABILITY ACT SHALL NOT BE QUESTIONED OR IN ANY WAY CHALLENGED BY THE OTHER PARTY, NOR SHALL ANY JURY OR COURT FINDINGS RESULTING FROM ANY EMPLOYEE'S SUIT AGAINST EITHER PARTY PURSUANT TO ANY SUCH ACT(S), BE RELIED UPON OR USED BY A PARTY IN ANY ATTEMPT TO ASSERT COMMON LAW LIABILITY AGAINST THE OTHER.

WITNESS:

(Name of Contractor)

(Address) _____

By:

Title: _____

EXHIBIT 3

To Wayside Horn System Agreement

PROTECTION OF SUBSURFACE FACILITIES ON RAILROAD PROPERTY

A. Cables, lines, wires, circuits, conduit, pipes and other facilities ("Facilities") may be buried on and under Railroad property, including, without limitation, its rights of way, as part of, or associated with, various systems and facilities, including, without limitation, fiber optic systems, railroad traffic control-related systems (e.g., wayside horn, switching, and signal control systems), and utility systems and facilities (e.g., electrical lines, natural gas and water main pipelines and distribution/supply lines, and sewer pipes and lines). Protection of the Facilities is of extreme importance since any break in or damage to the Facilities could, among other things, disrupt service to users, result in business interruption and loss of revenue and profits, result in injury or death to persons and damage to property, cause other economic losses, and/or create safety risks to the public. Accordingly, Licensee shall (1) comply with all one-call and other requirements of the law of the state where the Work is to be performed, (2) exercise due diligence in an effort to determine from the Railroad and all appropriate utilities, telecommunications companies, etc. to determine if Facilities are present in the area that is to be used or occupied by, or that will be accessible to, Licensee in connection with the Work, including, without limitation, by telephoning the Railroad at 1-800-336-9193 (between 6:30 a.m. and 8:00 p.m. Central Time) to determine if Facilities comprising fiber optic systems are buried anywhere at such location(s), (3) contact the Railroad and any party who is determined to be the owner of any such Facilities to make suitable arrangements for the relocation or other protection of the Facilities, (4) refrain from commencing Work on the Railroad's property in the vicinity of any Facilities unless and until such relocation or other protection has been completed, and (5) require its contractors and subcontractors to comply with the commitments set forth in (1) through (4), above. Licensee acknowledges and agrees that the Railroad will not be responsible for the cost to relocate or otherwise protect the Facilities.

B. In addition to other indemnity provisions in this Agreement, to the extent not prohibited by law, Licensee shall defend, indemnify and hold Railroad harmless from and against all costs, liability, loss and expense whatsoever (including, without limitation, consequential damages, attorneys' fees, court costs, and expenses) arising out of any act or omission of Licensee, its agents, contractors, subcontractors, and/or employees, relating in any way to the Facilities, to the extent all or any of their acts or omissions cause or contribute to (1) any disruption of service to users or damage for business interruption or loss of revenues or profits, (2) any damage to or destruction of any Facilities, (3) any injury or damage to property or injury to or the death of any persons, (4) any other economic loss, (5) any other damage or liability whatsoever, or (6) the assertion or filing of any claim, cause of action, or judgment whatsoever relating to such matters. If this Subsection B should be declared void or unenforceable by a court of competent jurisdiction, it shall be stricken, but the fact that it has been so struck shall not affect the enforceability of Subsection A.

EXHIBIT 4

To Wayside Horn System Agreement

PRELIMINARY ENGINEERING AGREEMENT

EXHIBIT 5

To Wayside Horn System Agreement

ESTIMATE

EXHIBIT 6

To Wayside Horn System Agreement

CONTRACT INSURANCE REQUIREMENTS

The following describes the insurance requirements that are the subject of the Wayside Horn System Agreement Section 7c.

A. City must maintain Railroad Protective Liability insurance written on ISO occurrence form CG 00 35 07 98 (or a substitute form providing equivalent coverage) (hereinafter, the Policy). The Policy shall have the following particulars set forth in its Declarations or by endorsement.

- The "Named Insured" is Union Pacific Railroad.
- The "Contractor" is City of _____, _____.
- The "Job Location" is:
 - a. Site #1 Geographic description of the location.
 - b. Site #2 Geographic description of the location.
 - c. Site #3 Geographic description of the location.
 - d. etc.
- The "Work" is "Installation and operation and maintenance of Automated Directional Horn Systems."

B. Policy will provide limits of not less than \$10,000,000 per occurrence and \$10,000,000 in the annual aggregate with a per occurrence self insured retention not to exceed \$1,000,000.

C. City shall require its Contractors and subcontractors, as the case may be, to nonetheless maintain the insurance required pursuant to the Right of Entry Agreement, Appendix A, Exhibit C.



Matthew B. McFadden
8/17/2011