

## **A d d e n d u m**

Iowa Department of Transportation

Date of Letting: March 17, 2015

Office of Contracts

Date of Addendum: March 12, 2015

<b>B.O.</b>	<b>Proposal ID</b>	<b>Proposal Work Type</b>	<b>County</b>	<b>Project Number</b>	<b>Addendum</b>
154	11-7422-617	HMA PAVEMENT WIDENING / HMA RESURFACING	BUENA VISTA	STP-U-7422(617)--70-11	17MAR154.A01

Make the following changes to the PROPOSAL SCHEDULE OF PRICES:

Change Proposal Line No. 0220:

From: 2502-8213104 SUBDRAIN, PVC, STANDARD NON PERFORATED, 4 IN.

To: 2502-8212104 SUBDRAIN, PLASTIC PIPE, 4 IN.

Change Proposal Line No. 0230:

From: 2502-8213206 SUBDRAIN, PVC, STANDARD, PERFORATED, 6 IN.

To: 2502-8212206 SUBDRAIN, PERFORATED PLASTIC PIPE, 6 IN.

Add Proposal Line No. 0491 2595-0005120

RAILROAD PROTECTIVE LIABILITY INSURANCE FOR CHICAGO,  
CENTRALAND PACIFIC RAILROAD / CEDAR RIVER RAILROAD COMPANY; LUMP, LUMP

If the above changes are not made, they will be made as shown here.

Make the following change to the PROPOSAL SPECIAL PROVISIONS LIST:

Add the following Special Provision:

SP-123008 April 21, 2015

SPECIAL PROVISIONS FOR CONSTRUCTION OR MAINTENANCE WORK ON  
RAILROAD RIGHT-OF-WAY (CHICAGO, CENTRAL, & PACIFIC RAILROAD COMPANY  
AND CEDAR RIVER RAILROAD COMPANY)

Buena Vista County STP-U-7422(617)--70-11

Add the following Special Provision:

720.303 ATTACHMENT FOR RAILROAD DATA--PUBLIC LIABILITY & PROPERTY  
DAMAGE INSURANCE WHEN WORKING IN RAILROAD R-O-W.

Make the following change to the PROPOSAL SPECIAL PROVISIONS TEXT:

Add the following Special Provision:

SP-123008 April 21, 2015

SPECIAL PROVISIONS FOR CONSTRUCTION OR MAINTENANCE WORK ON  
RAILROAD RIGHT-OF-WAY (CHICAGO, CENTRAL, & PACIFIC RAILROAD COMPANY  
AND CEDAR RIVER RAILROAD COMPANY)

Buena Vista County STP-U-7422(617)--70-11

Add the following Special Provision:

720.303

\*\*\* RAILROAD DATA \*\*\*

This Estimating Proposal has an attachment for "RAILROAD DATA". The Insurance per Article 1107.02, B, "Insurance When Working In Railroad Right-of-Way", of the Standard Specifications or as amended by other contract documents is required. For the purpose of Conformity with and Coordination of the Contract Documents, Article 1105.04, the information on the data sheet is considered equivalent to the Standard Specifications.

Add the attached Railroad Data Sheet to the Proposal

Add the attached Special Provision SP-123008 to the Proposal

Make the following changes to the Plans:

Replace sheets N.01 to N.10 with the attached sheets.

## ***RAILROAD DATA SHEET***

COUNTY: BUENA VISTA  
PROJECT NUMBER: STP-U-7422(617)—70-11  
ROUTE: Northwestern Drive  
LOCATION: Approximately 100 feet south of IA 7  
WORK TYPE: HMA Pavement Widening with HMA Resurfacing

The following information is furnished to aid in the determination of a proper premium for the Railroad Highway Insurance Protection required of the Contractor.

### **RAILROAD: CHICAGO CENTRAL & PACIFIC RAILROAD COMPANY**

RAILROAD CONTACT: Harlan R Arians  
TITLE: Manager of Public Works  
ADDRESS: 1006 East 4th Street  
Waterloo IA 50703  
Harlan.arians@cn.ca  
TELEPHONE NUMBER: 319-236-9205

DIRECT ALL FLAGGING REQUESTS TO: Mary Ellen Carmody  
US -Audit Officer CN  
700 Pershing Street  
Pontiac, MI 48340  
(248) 452-4705  
[maryellen.carmody@cn.ca](mailto:maryellen.carmody@cn.ca)

SEND COPY OF SUBMITTAL LETTERS TO HARLAN ARIANS AT ABOVE IOWA ADDRESS.

Total number of trains/day: 2  
Freight or Coal: 2 Speed: 50  
Passenger: - Speed: --  
Number of Tracks: Mainline: 1 Branchline: 0  
Number of railroad crossings within or near project limits with potential railroad traffic interference: 1 FRA Number: 307517D

This information is the most current FRA crossing inventory data supplied to the Iowa DOT by the Railroad Company. Actual conditions may vary at the time of construction. It shall be the contractor's responsibility to contact the railroad for additional information needed to fully provide required Railroad Highway Insurance Protection.



## Iowa Department of Transportation

**SPECIAL PROVISIONS  
FOR  
CONSTRUCTION OR MAINTENANCE WORK ON RAILROAD RIGHT-OF-WAY  
(CHICAGO, CENTRAL, & PACIFIC RAILROAD COMPANY AND CEDAR RIVER RAILROAD COMPANY)**

**Buena Vista County  
STP-U-7422(617)--70-11**

**Effective Date  
April 21, 2015**

**THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

**123008.01 DESCRIPTION.**

This specification applies to projects on the Interstate, Primary, Secondary, and Local Road systems involving construction or maintenance of roadways and structures on Chicago, Central, and Pacific Railroad and Cedar River Railroad (collectively CCP) Right-of-way (ROW).

This specification describes the following:

- Requirements when work is within the ROW or properties of the CCP and adjacent to tracks, wire lines, and other facilities.
- Coordination with CCP when work by the Contractor will be performed upon, over, or under the CCP ROW, or may impact current or future CCP operations.

CCP representative will be the person or persons identified by the CCP Public Works Manager to handle specific tasks related to the project. The contract documents will specify the contact information for this individual(s).

Prior to advertising the project for letting, Contracting Authority will negotiate and obtain an agreement with the CCP for the work on CCP ROW. Contractor will also be required to enter into a Right of Entry agreement with the CCP for the purpose of coordinating Contractor work and CCP train activities. A copy of this agreement is attached as SP-123008, Attachment A.

Contractor shall provide physical barriers approved by CCP to protect track and ballast from damage and contamination when the Contractor's equipment is operating within 25 feet from nearest rail.

**123008.02 REQUESTS FOR INFORMATION.**

Requests for information involving work within any CCP ROW shall be in accordance with the procedures listed in the contract documents. Requests shall be submitted to the Engineer. Engineer will forward the request to the CCP as necessary.

**123008.03 CONSTRUCTION AND AS-BUILT SUBMITTALS.**

- A.** Submittals are required for construction materials and procedures as outlined below. The submittals shall include all review comments from the Engineer. Design submittals shall be stamped and signed by a Professional Engineer registered in the State of Iowa.
- B.** The tables below provide CCP's minimum submittal requirements for the construction items noted. Submittal requirements are in addition to those specified elsewhere in the contract documents. The minimum review times indicated below represent CCP's requirements only. Contractor shall allow additional time for the CCP's review time as stated elsewhere in the contract documents.

For this specification the following definitions shall apply:

- Overpass: when the roadway bridges over the railroad.
- Underpass: when the roadway crosses under the railroad.

- C.** Submittals will be made by the Engineer to the CCP. Items in Table SP-123008.04-1 shall be submitted for both railroad overpass and underpass projects, as applicable. Items in Table SP-123008.04-2 shall be submitted for underpass projects only.

Prior to or during construction of underpass structures, the CCP requires the review and approval of drawings, reports, test data, and material data sheets to determine compliance with the specifications. Product information for items noted in Table SP-123008.04-2 shall be submitted to CCP through the Engineer for their review and approval. The signed submittal and the Engineer's review comments will be reviewed and approved by CCP.

**Table SP-123008.04-1: Review Sets and Minimum Time for Review**

Description	Sets Required	CCP's Minimum Review Time
Shoring design and details	2	4 weeks
Falsework design and details	2	4 weeks
Drainage design provisions	2	4 weeks
Erection diagrams and sequence	2	4 weeks
Demolition diagram and sequence	2	4 weeks

**Table SP-123008.04-2: Sets Required**

Description	Sets Required	Notes
Shop drawings	4	Steel and Concrete members
Bearings	4	For entire structures
Concrete Mix Designs	4	For entire structures
Rebar & Strand certifications	4	For superstructure only
28 day concrete strength	4	For superstructure only
Waterproofing material certifications and installation procedure	4	Waterproofing & protective boards
Structural steel certifications	4	All fracture critical members & other members requiring improved notch toughness
Fabrication and Test reports	4	All fracture critical members & other members requiring improved notch toughness.
Welding Procedures and Welder Certification	4	AWS requirements

Foundation Construction Reports	4	Pile driving, drilled shaft construction, bearing pressure test reports for spread footings.
Compaction testing reports for backfill at abutments	4	Must meet 95% maximum dry density, Modified Proctor ASTM D 1557.

D. As-Built Records will be submitted to the CCP by the Contracting Authority within 1 year of completion of the structures. These records shall consist of the following items:

**1. Overpass Projects:**

- Electronic files of all structure design drawings with as-constructed modifications shown in Auto-Cad Civil 3D or Acrobat .PDF format.
- Hard copies of all structure design drawings with as-constructed modifications shown.

**2. Underpass Projects:**

- Electronic files of all structure design drawings with as-constructed modifications shown, in Auto-Cad Civil 3D or Acrobat .PDF format.
- Hard copies of all structure design drawings with as-constructed modifications shown.
- Final approved copies of shop drawings for concrete and steel members.
- Foundation Construction Reports
- Compaction testing reports for backfill at abutments

**123008.04 SITE INSPECTIONS BY THE CCP.**

Site inspections may be performed by the CCP at any point during construction, including but not limited to the following:

- Preconstruction meetings
- Pile driving, drilling of caissons or drilled shafts
- Reinforcement & concrete placement for railroad bridge substructure or superstructure
- Erection of precast concrete or steel bridge superstructure
- Placement of waterproofing (prior to placing ballast on bridge deck)
- Completion of the bridge structure

A detailed construction schedule, including the proposed temporary horizontal and vertical clearances and construction sequence for all work to be performed, shall be provided to the Engineer for submittal to the CCP for review and approval prior to commencement of work. This schedule shall also include the anticipated dates when the above listed events will occur. This schedule shall be updated for the above listed events as necessary, but at least monthly so that site visits may be scheduled.

**123008.05 CCP REPRESENTATIVES.**

CCP representatives will be provided at the expense of the Contracting Authority to protect CCP facilities, property, and movements of its trains or engines. CCP may, at the Contractor's sole cost, risk and expense, furnish whatever protective services it considers necessary, including, but not limited to, flagger(s), inspector(s), and stand-by personnel.

In general, CCP will furnish such personnel or other protective services as follows:

- Flagging protection will be required during any operation involving direct and potential interference with CCP's tracks or traffic. This may include but is not limited to fouling of railroad operating clearances, reasonable proximity of accidental hazard to railroad traffic, work within 25 feet horizontally of the nearest centerline, any work over any railroad track, or in any other condition that CCP deems protective services necessary, which may include work on or off CCP's property more than 25 feet from the nearest centerline of a railroad track, such as any equipment extension

(including but not limited to a crane boom) that will reach or has the potential to reach within 25 feet of any track.

- For any excavation below elevation of track subgrade if, in the opinion of CCP, track or other CCP facilities may be subject to settlement or movement.
- During any clearing, grubbing, excavation, or grading, or other construction activity in proximity to CCP facilities, which, in the opinion of CCP, may endanger CCP facilities or operations.
- During the Contractor's operations when, in the opinion of CCP, CCP facilities, including, but not limited to, tracks, buildings, signals, wire lines, or pipe lines, may be endangered.
- The Contractor shall arrange with the CCP to provide the adequate number of flag persons to accomplish the work.

Contractor shall be required to pay CCP in advance for the cost of personnel or other protective services. Prepayment will be based on Contractor's estimated time for needing protective services, and if that prepayment will be exhausted prior to the expiration of the contractor's need for protective services, additional prepayment funds will be needed to cover the new projected completion of the project.

In the event CCP is unable to furnish flagging protection, inspection services, or standby personnel at the desired time or on the desired date(s), Contractor shall not perform the said operation or work until such time and date(s) that appropriate CCP services can be made available. CCP shall not be liable for any delay or increased costs incurred by Contractor owing to CCP's inability or failure to have appropriate CCP services available at the time or on the date requested.

#### **123008.06 INSURANCE.**

Before the contract is awarded, Contractor shall submit to the Department a certificate of insurance evidencing the coverage. The certificate shall identify the insurance company firm name and address, Contractor firm name, policy period, type of policy, limits of coverage, and scope of work covered (including project number). Policies shall provide no less than 30 calendar days prior written notice to Contracting Authority and Railroad of cancellation or material change in policies. Following award of the Contract, the Contractor shall submit a certificate of insurance evidencing the foregoing coverage to the Railroad and Contracting Authority (if other than the Department), and a certified, true, and complete copy of policy or policies to the Contracting Authority and Railroad. Upon request from either the Contracting Authority or Railroad, a certified duplicate original of any required certificate or policy shall be furnished at no cost to the Contracting Authority or Railroad.

Contractor shall not enter upon or over CCP's ROW until the Engineer and CCP have been furnished the insurance policies, binders, certificates, and endorsements required by the contract documents and the CCP has notified the Engineer that such insurance provisions are in accordance with the contract documents. Insurance shall be kept in full force and effect during the performance of work and thereafter until the Contractor removes all tools, equipment, and material from CCP's property and cleans the premises in a manner reasonably satisfactory to CCP.

In addition to providing to CCP the insurance binders, endorsements, and certificates described below, Contractor shall also provide the subcontractor insurance endorsements described in Article SP-123008.08; ASSIGNMENT, SUBCONTRACTING, AND INSURANCE ENDORSEMENTS.

Contractor shall provide the following kinds of insurance in addition to the requirements of Article 1107.02 of the Standard Specifications.

##### **A. Commercial General Liability Insurance.**

Commercial general liability (CGL) (occurrence based) with a limit of not less than \$5,000,000.00 each occurrence and an aggregate limit of not less than \$10,000,000.00. CGL insurance shall be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

Policy shall also contain the following endorsement, which shall 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 "Chicago Central and Pacific Railroad Company and Cedar River Railroad Company Property" as the Designated Job Site.
- Designated Construction Project(s) General Aggregate Limit ISO Form CG 25 03 03 97 (or a substitute form providing equivalent coverage) showing the project on the form schedule.

**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 combined single limit of not less \$5,000,000.00 for each accident.

Policy shall contain the following endorsements, which shall 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 "Chicago Central and Pacific and Cedar River Railroad Company Property" as the Designated Job Site.
- Motor Carrier Act Endorsement - Hazardous materials clean up (MCS-90), if required by law.

**C. Workers Compensation and Employers Liability Insurance.**

Coverage shall include, but not limited to:

- Contractor's statutory liability under the workers' compensation laws of the State of Iowa.
- Employers' Liability (Part B) with limits of at least \$500,000.00 each accident, \$500,000.00 disease policy limit, \$500,000.00 each employee.

If Contractor is self-insured, evidence of the State of Iowa's approval and excess workers compensation coverage shall be provided. Coverage shall 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.

Policy shall contain the following endorsement, which shall be stated on the certificate of insurance:

Alternate Employer endorsement ISO form WC 00 03 01 A (or a substitute form providing equivalent coverage) showing CCP in the schedule as the alternate employer (or a substitute form providing equivalent coverage).

**D. Umbrella Insurance.**

If Contractor utilizes umbrella policies, these policies shall "follow form" and afford no less coverage than the primary policy. Excess coverage is not allowed.

**E. Pollution Liability Insurance.**

Pollution liability coverage shall be written on ISO form Pollution Liability Coverage Form Designated Sites CG 00 39 12 04 (or a substitute form providing equivalent liability coverage), with limits of at least \$1,000,000.00 per occurrence and an aggregate limit of \$2,000,000.00.

If scope of work as defined in this contract includes the disposal of any hazardous or non-hazardous materials from the job site, Contractor shall furnish to CCP evidence of pollution legal liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting the materials, with coverage in minimum amounts of \$1,000,000.00 per loss, and an annual aggregate of \$2,000,000.00.

- F. Policy(ies) required above (except worker's compensation and employers liability) shall include the CCP and its Parents as "Additional Insured" using ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage). The coverage provided to the CCP and its Parents as additional insured shall, to the extent provided under ISO Additional Insured Endorsement CG 20 26, and CA 20 48 provide coverage for the CCP's**



negligence whether sole or partial, active or passive, and shall not be limited by Contractor's liability under the indemnity provisions contained in the specifications.

- G. Punitive damages exclusion, if any, shall be deleted (and the deletion indicated on the certificate of insurance), unless the law governing prohibits all punitive damages that might arise in connection with this contract.
- H. Contractor waives all rights of recovery, and its insurers also waive all rights of subrogation of damages against Railroad and its agents, officers, directors, and employees. This waiver shall be stated on the certificate of insurance.
- I. Prior to commencing work, Contractor shall furnish Railroad with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this contract.
- J. Insurance policies shall be written by a reputable insurance company acceptable to the CCP or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the State of Iowa.
- K. The fact that insurance is obtained by the Contractor or by the CCP on behalf of the Contractor shall not be deemed to release or diminish the liability of the Contractor, including, without limitation, liability under the indemnity provisions of this contract. Damages recoverable by the CCP from the Contractor or any third party shall not be limited by the amount of the required insurance coverage.

**123008.07 ASSIGNMENT, SUBCONTRACTING, AND INSURANCE ENDORSEMENTS.**

Contractor shall not assign or subcontract the provisions of this specification, or any interest therein, without the written consent of the Engineer. Contractor shall be responsible for the acts and omissions of all subcontractors. Before Contractor commences any work, they shall, except to the extent prohibited by law; (1) require each subcontractor to include the Contractor and CCP as "Additional Insureds" in the subcontractor's Commercial General Liability policy and Business Automobile policies with respect to all liabilities arising out of the subcontractor's performance of work on behalf of the Contractor by endorsing these policies with ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage; (2) require each subcontractor to endorse their Commercial General Liability Policy with "Contractual Liability Railroads" ISO Form CG 24 17 10 01 (or a substitute form providing equivalent coverage) for the job site; and (3) require each subcontractor to endorse their Business Automobile Policy with "Coverage For Certain Operations In Connection With Railroads" ISO Form CA 20 70 10 01 (or a substitute form providing equivalent coverage) for the job site.

**123008.08 ADDITIONAL SAFETY REQUIREMENTS.**

Personnel employed by the Contractor or subcontractors shall complete the course "CN Contractor Security/Safety Course", and be registered prior to working on CCP property, except that such personnel are not required to execute the Right of Entry form for contractors, it being understood that all contractors or subcontractors shall instead execute the Right of Entry Agreement attached to this specification. The CCP orientation course is available at: [www.contractororientation.com](http://www.contractororientation.com). This course shall be completed annually.

CCP has exempted from this requirement those it classifies as "Delivery Persons" from this training, such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

Contractor shall require its employees to be suitably dressed to perform their duties safely. Contractor shall require workers to wear personal protective equipment as specified by CCP rules and regulations. Personal protective equipment will be of safe design and construction for the work to be performed and shall be maintained in a sanitary and reliable condition. Protective equipment shall include, but not be

limited to the following PPE listed below that meet the U.S. ANSI standards (American National Standards Institute):

- Eye and face protection ANSI Z 87.1
- Head protection ANSI Z 89.1
- Foot protection ANSI Z 41.1
- High Visibility apparel ANSI / ISEA Z 107

Additional eye protection shall be provided to meet specific job situations such as welding, grinding, burning, etc.; and hearing protection which affords enough attenuation to give protection from noise levels that will be occurring on the job site. Only waist length shirts with sleeves and trousers covering the entire leg shall be worn. Flare-legged trouser bottoms shall be tied to prevent catching.

CCP requires that the Contractor provide their personnel with the proper training, and that Contractor's personnel are provided with 1) a sticker to be affixed visibly on their hard hat and 2) a qualification card so that CCP employees know that Contractor's personnel are familiar with CCP safety practices and proof of having successfully completed the "CN Contractor Security/Safety Course" course. If a Contractor's employee does not have the sticker and qualification card, that Contractor employee will not be allowed on CCP property.

Heavy equipment operating within CCP ROW shall be equipped with audible back-up warning devices. If in the opinion of the CCP the Contractor's equipment is unsafe for use on CCP's ROW, Contractor shall remove such equipment from CCP ROW.

Contractor shall promptly notify CCP of any U.S. OSHA reportable injuries occurring to any employee that arises during the work performed on the work site within CCP ROW.

If at any time the Engineer or CCP is of the opinion that any work of the Contractor is being or is about to be done or prosecuted without due regard and precaution for safety and security, or in violation of any applicable safety rule, the Engineer may suspend work until proper protective measures are adopted and provided to the satisfaction of the CCP. In addition, if CCP has a reasonable, good faith belief that the Contractor is engaging, or is about to engage, in any activity that poses a substantial risk of causing great bodily injury or death to any person, or significant property damage, CCP may suspend the work of the Contractor and shall as soon as possible thereafter contact the Engineer to review the circumstances of the work stoppage. CCP shall thereafter abide by the decision of the Engineer as to the necessity of the work stoppage.

#### **123008.09 SAFETY MEASURES-PROTECTION OF OPERATIONS.**

Contractor shall perform work in a safe manner and in conformity with the following standards:

##### **A. Explosives.**

Contractor shall not discharge any explosives on or in the vicinity of the CCP's property without the prior consent of the CCP, which shall not be given if, in the sole discretion of the CCP, such discharge would be dangerous or would interfere with the CCP's property or facilities. For the purposes hereof, the "vicinity of the CCP's property" shall be deemed to be any place on the CCP's property or in such close proximity to the CCP's property that the discharge of explosives could cause injury to the CCP's employees or other persons, or cause damage to or interference with the facilities or operations on the CCP's property. CCP reserves the right to impose limitations on the transportation, handling, storage, security, and use of explosives as the CCP, in the CCP's sole discretion, may deem to be necessary, desirable, or appropriate. In addition to any limitations as may be specifically imposed:

1. Contractor shall provide no less than 48 hours written notice, excluding weekends and holidays, before discharging any explosives.
2. Any explosives loaded in holes, placed or otherwise readied for discharge, shall be discharged the same day during daylight hours, and at mutually acceptable times.

3. Contractor, at its own expense, shall take all precautionary measures and construct all temporary shelters necessary to guard against danger of damage, destruction, or interference arising out of or connected with any blasting or any transportation, handling, storage, security, or use of explosives.

**B. Obstructions to View.**

Except as otherwise provided herein, Contractor shall not cause or permit the view along the tracks of the CCP to be obstructed, nor place any combustible material on the crossing area, nor erect any structures thereon except as allowed by the contract documents.

**C. Excavation.**

Contractor shall not excavate from existing slopes nor construct new slopes which are excessive and may create hazards of slides or falling rock, impair, or endanger the clearance between existing or new slopes and the tracks of the CCP. Contractor shall not perform work that may disturb stability of any area or adversely affect CCP's tracks or facilities. Contractor, at its own expense, shall install and maintain adequate shoring and cribbing for all excavation or trenching performed by them in connection with construction, maintenance, or other work. Shoring and cribbing shall be constructed and maintained with materials and in a manner approved by CCP to withstand all stresses likely to be encountered, including any stresses resulting from vibrations caused by CCP's operations in the vicinity.

**D. Drainage.**

Contractor, at its expense, shall provide and maintain suitable facilities for draining the highway and its appurtenances, and shall not suffer or permit drainage water to flow or collect upon property of CCP that may adversely affect any of CCP's operations, equipment or any third parties with permitted facilities on CCP's ROW. Contractor, at its own expense, shall provide adequate passageway for the waters of any streams, bodies of water, and drainage facilities (either natural or artificial, and including water from CCP's culverts and drainage facilities), so that said waters may not, because of any facilities or work of Contractor, be impeded, obstructed, diverted or caused to back up, overflow or damage the property of the CCP or any part thereof, or property of others. Contractor shall not obstruct or interfere with existing ditches or drainage facilities.

**E. Clearances.**

Contractor shall provide a minimum vertical clearance of 22.0 feet above top of rails and a minimum lateral clearance of 12.5 feet from centerline of track nearest temporary construction falsework. No materials, supplies, or equipment will be stored within 25 feet from centerline of any railroad track, measured at right angles thereto.

Proposed changes to specified minimum clearances shall be submitted in writing to CCP, through the Engineer, at least 30 calendar days in advance of the work. No work shall commence until Engineer receives concurrence, in writing, from CCP that approval is given and that arrangements have been made for flagging service, as may be necessary. CCP will have 15 calendar days to respond to the request.

**F. Demolition of Existing Structures.**

Contractor shall submit demolition plans to the Engineer for review and approval. Engineer will forward such plans to CCP as identified in the project agreement for CCP to review and approve. Demolition performed over or near CCP track will require proper protective shielding or other measures (as identified on the plans) as maybe required by CCP, and Contractor shall be required provide signed plans, signed by a Professional Engineer licensed in the State of Iowa, and schedule for review and approval by CCP. Such protective shielding or measures shall be designed for immediate removal by Contractor whenever instructed to do so by CCP. Demolition shall not be undertaken until CCP has advised Engineer of its approval of the plans and schedule, and Contractor has received the Engineer's and CCP's written approval of such

demolition plans and schedule. All such reviews and approvals or rejections will be completed by the Engineer and CCP within 45 calendar days of receipt from Contractor.

#### **123008.10 WALKWAYS.**

Along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for CCP's use in walking along trains, extending to a line not less than 12 feet from centerline of track, shall be maintained. Temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while CCP's flagging service is provided shall be removed before the close of each work day. Walkways with railings shall be constructed by Contractor over open excavations when in close proximity of track, and railings shall not be closer than 8.5 feet horizontally from center line of tangent track or 9.5 feet horizontally from centerline of curved track.

#### **123008.11 EXCAVATIONS IN CLOSE PROXIMITY TO CCP FACILITIES.**

Contractor shall take special precaution in connection with excavating and shoring. Excavations for construction of footings, piers, columns, walls, or other facilities that require shoring shall comply with the following requirements: OSHA, AREMA, and CCP "Guidelines for Temporary Shoring".

Contractor shall contact CCP for facility locates at least 5 working days prior to commencing work at 1.248.740.6227 during normal business hours (7:00 a.m. to 3:00 p.m. C.S.T., Monday through Friday, except holidays). Contractor shall pay CCP in advance for the cost of CCP locates. Cost for a cable locate is \$250.00. If a telecommunications system is buried anywhere on or near CCP property, Contractor shall coordinate with CCP and the telecommunication company to arrange for relocation or other protection of the system prior to beginning any work on or near CCP property.

#### **123008.12 NO INTERFERENCE WITH CCP'S OPERATION.**

Contractor shall not interfere with the constant, continuous, and uninterrupted use of the tracks, property, and facilities of the CCP its lessees, licensees, or others, unless specifically permitted and authorized in advance by the CCP. When not in use, the Contractor's machinery and materials shall be kept at least 50 feet from the centerline of CCP's nearest active track, and there shall be no crossings of CCP's tracks except at existing open public crossings or as provided by private construction crossing agreement between CCP and the Contractor. CCP may require the Contractor to furnish detailed plans prior to entry upon the premises and to view and inspect any activity or work on or above the CCP's property.

#### **123008.13 TRAFFIC CONTROL.**

Contractor's operations that control traffic across or around CCP facilities shall be coordinated with and approved by CCP.

#### **123008.14 INDEMNITY.**

As used in this Article, "CCP" includes other railroad companies using the CCP's property at or near the location of Contractor's work and CCP's and their officers, agents, and employees; "Loss" includes loss, damage, claims, demands, actions, causes of action, penalties, costs, and expenses of whatsoever nature, including court costs and attorneys' fees, which may result from the following:

- Injury to or death of persons whomsoever (including the CCP's officers, agents, and employees, the Contractor's officers, agents, and employees, as well as any other person); and
- Damage to or loss or destruction of property whatsoever (including Contractor property, damage to the roadbed, tracks, equipment, or other property of the CCP, or property in its care or custody).

Contractor shall indemnify, hold harmless, and defend to the extent allowed by law the CCP from any loss which is due to or arises from any cause and is associated in whole or in part with the work covered herein, a breach of the contract or the failure to observe the health and safety provisions herein, or any activity or omission arising out of performance or nonperformance; except when caused by the sole negligence of CCP, or except to the extent caused by gross negligence or willful misconduct of CCP.

**123008.15 MAINTENANCE OF CCP FACILITIES.**

Contractor shall maintain all ditches and drainage structures free of silt or other obstructions which may result from its operations, promptly repair eroded areas within CCP's ROW, and repair any other damage to CCP property, or its tenants; at no cost to the CCP. Contractor will be required upon the completion of the work to remove from within the limits of CCP's property all machinery, equipment, surplus materials, false work, rubbish or temporary buildings, and to leave said property in a condition satisfactory to the Engineering Manager of CCP or their authorized representative.

**123008.16 COMMUNICATIONS AND SIGNAL LINES.**

No digging, trenching or boring activities shall be conducted in the proximity of any known buried Railroad Company signal cables without Railroad Company's Signal Department representative being present. If required, CCP will rearrange its communications and signal lines, grade crossing warning devices, train signals and tracks, and facilities that are in use and maintained by CCP's forces in connection with its operation at the expense of the Contracting Authority. This work will be performed by CCP and it is not a part of the contract.

**123008.17 FIBER OPTIC CABLE SYSTEMS.**

Fiber optic cable systems may be buried on the CCP's property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. Contractor shall contact Iowa One Call (1.800.292.8989 (a 24-hour number)) to determine if fiber optic cable is buried anywhere on CCP's ROW to be used by the Contractor. If it is, Contractor shall telephone the telecommunications company involved, arrange for a cable locator, and make arrangements for relocation or other protection of the fiber optic cable prior to beginning work on CCP's ROW.

In addition to the liability terms elsewhere in this specification, Contractor shall indemnify and hold harmless CCP against and from all cost, liability, and expense whatsoever (including, without limitation, attorney's fees, court costs, and expenses) arising out of or in any way contributed to by any act or omission of the Contractor, agents, or employees, that causes or contributes to (1) any damage to or destruction of any telecommunications system on CCP's property, and (2) any injury to or death of any person employed by or on behalf of any telecommunications company, its contractor, agents, or employees, on CCP's property. Contractor shall not have or seek recourse against CCP for any claim or cause of action for alleged loss of profits, revenue, loss of service, or other consequential damage to a telecommunication company using CCP's property or a customer or user of services of the fiber optic cable on CCP's property.

**123008.18 COOPERATION.**

CCP will cooperate with Contractor so work may be conducted in an efficient manner, and will cooperate with Contractor in enabling use of CCP's ROW in performing the work.

**123008.19 WAIVER OF BREACH.**

The waiver by CCP of the breach of any condition, covenant, or specification herein contained to be kept, observed and performed by Contractor shall in no way impair the right of CCP to avail itself of any subsequent breach thereof.

**123008.20 CCP OPERATIONS.**

Contractor shall be advised that trains or equipment are expected on any track, at any time, in either direction. Contractor shall become familiar with the train schedules in this location and structure its bid assuming intermittent track windows in this period, as defined below.

All railroad tracks within and adjacent to the work are active and rail traffic over these tracks shall be maintained throughout the contract. Activities may include both through moves and switching moves to local customers. Railroad traffic and operations may occur continuously throughout the day and night on these tracks and shall be maintained at all times. Contractor shall coordinate and schedule the work so that construction activities do not interfere with CCP operations.

Work windows for this contract shall be coordinated with the Engineer, who shall receive CCP's approval before advising the Contractor of the availability of any work window. Types of work windows include Conditional Work Windows and Absolute Work Windows, as defined below:

**A. Conditional Work Window.**

A period of time that CCP operations have priority over construction activities. At the direction of the CCP flag person, upon approach of a train, and when trains are present, the tracks shall be cleared (i.e., no construction equipment, materials, or personnel within 25 feet, or as directed by the CCP, from the tracks). Conditional Work Windows are available for the contract.

**B. Absolute Work Window.**

A period of time that construction activities are given priority over CCP operations. During this time frame the designated tracks will be inactive for train movements and may be fouled by the Contractor. At the end of an Absolute Work Window the tracks or signals shall be completely operational for train operations and all CCP, Public Utilities Commission, and Federal Railroad Administration requirements, codes, and regulations for operational tracks shall be met. In the situation where the operating tracks or signals have been affected, the CCP will perform inspections of the work prior to placing back into service. CCP flag persons will be required for construction activities requiring an Absolute Work Window.

Absolute Work Windows will not generally be granted, and any provided shall require the express written approval by CCP's Transportation Department. Any request will require a detailed explanation for CCP review and approval.

- C.** Work on CCP's ROW shall be done at such times and in such manner so as not to interfere with or endanger the operations of CCP. Whenever work may affect the operations or safety of trains, the method of doing such work shall first be submitted to the CCP for approval, but such approval shall not relieve the Contractor from liability. Work to be performed by the Contractor that requires flagging or inspection service shall be deferred until the flagging protection required by CCP is available at the job site.
- D.** Contractor shall make requests in writing for both Absolute and Conditional Work Windows, at least two weeks in advance of any work. The written request shall include:
- Exactly what the work entails.
  - Days and hours that work will be performed.
  - Exact location of work, and proximity to the tracks.
  - Type of window requested and the amount of time requested.
  - Designated contact person.

Contractor shall provide written notice to the CCP at least 48 hours before commencing work in connection with approved work windows when work will be performed within 25 feet of any track center line.

- E.** Should a condition arising from, or in connection with the work, require that immediate and unusual provisions be made to protect operations and property of CCP, Contractor shall make such provisions. If in the judgment of CCP such provisions are insufficient, CCP may require or provide such provisions as deemed necessary. In any event, such provisions shall be at the Contractor's expense. The CCP or Engineer will have the right to order Contractor to temporarily cease operations in the event of an emergency or, if in the opinion of CCP, the Contractor's operations could endanger CCP's operations. In the event such an order is given, Contractor shall immediately notify the Engineer of the order.

**123008.21 RAILROAD FLAGGING.**

**A. Notification.**

Contractor shall notify the CCP and Engineer at least fifteen 15 working days in advance of commencement of any work on CCP property and at least 10 working days 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 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. Notice shall made using CCP's "Request for Flagging Services" form attached as SP-123008, Attachment B.

The services of a flagman will be required during any operation involving direct interference with CCP's tracks or traffic, fouling of railroad operating clearances, or reasonable proximity of accidental hazard to railroad traffic, when work takes place within 25 feet horizontally of the nearest centerline, any work over any railroad track, or in any other condition that CCP deems the services of a flagman necessary, which may include work on or near CCP's property more than 25 feet from the nearest centerline of a railroad track. Additional flagmen will also be furnished whenever in the opinion of CCP such protection is needed.

Upon receipt of 10 working day notice, the CCP will determine and inform the Contractor whether a railroad flagger need be present and whether the Contractor need implement any special protective or safety measures. If flagging or other special protective or safety measures are performed by the CCP, such services will be provided at Contractor's expense with the understanding that if the CCP provides any flagging or other services, the Contractor shall not be relieved of any of its responsibilities or liabilities set forth herein. Contractor shall be required to pay CCP in advance for the cost of personnel or other protective services. CCP shall not be liable for any increased costs incurred by the Contractor or Contracting Authority owing to CCP's inability or failure to have appropriate CCP personnel available at the time or on the date requested.

To enable orderly flagger reassignment to other projects the Contractor shall notify the CCP 5 working days prior to the termination of flagging need or 5 working days prior to completion of the Contractor's work, whichever is sooner. Contractor shall inform CCP when work requiring flaggers is complete.

CCP will notify the Engineer and Contractor when non-compliance is reported by CCP train crews or other CCP employees. Contractor work performed without proper flagging services, when such flagging is required, will be subject to a \$5,000.00 per day price adjustment to Contractor, and may result in the removal of Contractor by CCP or Engineer from the project.

**B. Flagger Rate of Pay.**

The rate of pay for each flagger will be at the base rate of \$1000.00 per weekday (1-8 hour continuous period). Prepayment for weekend flagman protection will be at the rate of \$150.00 per hour, with an 8 hour minimum of \$1,200.00. Any hours in excess of 8 continuous hours per flagman on either weekday or weekend days are to be prepaid at the rate of \$150.00 per hour. Hours of flagman protection provided in excess of prepayment amounts will be billed at the proper rate and will be promptly paid by over-night delivery. Rates are subject to change, at any time, by law or by agreement between the CCP, its employees or contractors, 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 Contractor shall pay on the basis of the new rates and charges.

**C. Reimbursement to the CCP.**

In the event Contractor fails to reimburse or pay CCP for hours of flagman protection provided in excess of prepayment amounts, Contracting Authority will reimburse the CCP within 30 calendar days of Contractor defaulting on the payment (default is defined as non-payment within 30 calendar days of billing by the CCP to the Contractor). Failure of the Contractor to reimburse the CCP may result in a reduction or suspension of the Contractors bidding qualifications according to Article 1102.03 of the Standard Specifications.

**D. Documentation and Reimbursement to the Contractor.**

Contractor shall initially pay CCP for all flagging costs in conjunction with railroad flaggers when any of the conditions identified in Article SP-123008.04, warrant a flagger. Contracting Authority will reimburse the Contractor for any daily cost that exceeds \$1000.00 per day for the cost of flagger services provided by the CCP. Contracting Authority will reimburse Contractor 100% of the total cost of flagger services, as deemed necessary by CCP, that does not meet any of the conditions identified in Article SP-123008.04, unless flagger's presence on the project was a result of the Contractor's communication, or lack of communication, with the CCP. Contracting Authority will reimburse Contractor following completion of all work necessitating flagging operations by CCP and receipt of documentation verifying the CCP invoices have been paid.

For each day that railroad flaggers have been provided, the Contractor shall document daily the conditions on the project site that warrant the flagger. Contractor shall submit the daily records to the Engineer each week. Engineer will review the daily logs and promptly notify Contractor if any information in the daily log is believed to be incorrect.

Contractor shall forward copies of the invoices received from the CCP for flaggers and a summary of the flagging costs incurred that exceed the Contractors' requirements described in Article SP-123008.04, to the Engineer with a request for payment for the additional railroad flagger costs. Engineer will review the Contractor's daily logs against the CCP's invoice and make payment for the eligible costs in accordance with Article 1109.03, of the Standard Specifications.

Contractor shall be responsible to CCP for all flagging costs. Flagging costs for subcontracted work shall be the responsibility of the Contractor. Reimbursement from subcontractors to the Contractor shall be the sole responsibility of the Contractor.

Contractor shall forward, to the Engineer, copies of payments made to the CCP for flagging costs.

Contracting Authority may award multiple contracts for work in the same general area. Contractor shall try to stage work to minimize the need for railroad flaggers. In the event of multiple projects in a particular location, the Contractor initially requiring flagging on a daily basis shall be responsible for all flagging costs for that day.

**123008.22 TEMPORARY CROSSINGS.**

At other than established public road crossings, Contractor shall not move any equipment or materials across the CCP's tracks until written permission has been obtained from the CCP.

If Contractor requires a temporary railroad crossing the Contractor shall arrange for the crossing installation at a location acceptable to the Contractor and CCP at the Contractor's expense to include all CCP costs of installation, maintenance, removal, and track restoration. Temporary crossing shall be gated and locked at all times when not required for use by Contractor. Flagging will always be required during use of a temporary crossing. The billing, Contractor payment provisions, and final Contractor payment requirements for crossing costs except flagging are to be covered as agreed to in a separate private construction crossing agreement between the Contractor and CCP. Prior notice of need for a temporary crossing is required to allow for CCP site review, cost estimating, securing material, and work crew scheduling and will vary. Contractor should contact the CCP prior to making a bid when a temporary crossing is required.

**123008.23 LIMITATION OF RIGHTS GRANTED.**

The Contract, any Temporary Easement, and Permanent Easement are all subject to the prior and continuing right and obligation of the CCP to use and maintain its property, not inconsistent with highway purposes, including the right and power of the CCP to construct, maintain, repair, renew, use, operate, change, modify, or relocate CCP 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 CCP, not inconsistent with highway purposes and at CCP's sole cost and expense.



The Contract, Temporary Construction Easement, and Permanent Easement, whether recorded or unrecorded, are subject to all outstanding rights (including those in favor of licensees and lessees of the CCP's property, and others) and the right of the CCP to renew and extend the same, and is made without covenant of title or for quiet enjoyment.

**123008.24      MECHANIC'S LIENS.**

Contractor shall not permit or suffer any mechanic's or material supplier's liens of any kind or nature to be enforced against any property of the CCP for any work performed. Contractor shall indemnify and hold harmless the CCP from and against any 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. It is understood that this specification may be recorded in the county in which the work is to be performed and such recording shall serve as public notice that no Contractor, subcontractor, or material supplier shall file any notice of a mechanic's or material supplier's lien or permit or suffer any mechanic's lien or material supplier's lien on the property of the CCP to the extent permitted by law.

**123008.25      METHOD OF MEASUREMENT AND BASIS OF PAYMENT.**

Railroad Protective Liability Insurance for Chicago, Central, & Pacific Railroad / Cedar River Railroad Company will be paid for as a Lump Sum bid item. The Contractor will be paid the Lump Sum bid item price within 30 calendar days after receipt of a signed contract, provided that all necessary certificates of insurance have been submitted to the Department per Article SP-123008.06.

Attachments to this specification:

- SP-123008, Attachment A: Right of Entry Agreement
- SP-123008, Attachment B: Requirements Regarding Flagging and Cable Location for Construction on CN

**RIGHT OF ENTRY AGREEMENT**

This Right of Entry Agreement ("Agreement") is made between \_\_\_\_\_ (hereafter Contractor) and Chicago Central and Pacific Railroad Company/Cedar River Railroad Company (hereafter Railroad) in order to permit Contractor to enter onto Railroad's property, for the purposes of performing work in connection with the following project for the Contracting Authority:

Project: \_\_\_\_\_, as further identified in the attached project documents.

Federal Railroad Administration (FRA) Number: \_\_\_\_\_ (or closest to project).

Contractor shall pay to Railroad upon execution of this Agreement the sum of \$750.00 as consideration for the right of entry awarded under this Agreement and to cover preparation and administration of this Agreement.

Contractor and Railroad hereby agree as follows:

1. Contractor shall enter Railroad's property (identified in the attached project documents) only in connection with the above-referenced project;
2. Contractor shall give Railroad at least 15 working days' advance notice of the date Contractor plans to start any work on the project;
3. Upon request, Contractor shall provide Railroad with detailed plans of the project at no cost to Railroad;
4. Contractor shall comply with all terms and requirements set forth in Iowa Department of Transportation Special Provisions (SP-123008) for Construction or Maintenance Work on Railroad Right-of-Way, including but not limited to the insurance requirements set forth in such specification. Contractor shall provide Railroad with certificates and declarations sheets that prove or show compliance with such insurance requirements;
5. As used in this paragraph, "CCP" includes other railroad companies using the CCP's property at or near the location of the Contractor's work and CCP's and their officers, agents, and employees; "Loss" includes loss, damage, claims, demands, actions, causes of action, penalties, costs, and expenses of whatsoever nature, including court costs and attorneys' fees, which may result from the following:  
 Injury to or death of persons whomsoever (including the CCP's officers, agents, and employees, the Contractor's officers, agents, and employees, as well as any other person); and  
 Damage to or loss or destruction of property whatsoever (including Contractor property, damage to the roadbed, tracks, equipment, or other property of the CCP, or property in its care or custody).

Contractor shall indemnify, hold harmless, and defend to the extent allowed by law the CCP from any loss which is due to or arises from any cause and is associated in whole or in part with the work covered herein, a breach of the contract or the failure to observe the health and safety provisions herein, or any activity or omission arising out of performance or nonperformance; except when caused by the sole negligence of the CCP, or except to the extent caused by the gross negligence or willful misconduct of the CCP;

6. The insurance requirements set forth in this Agreement shall not relieve or limit Contractor's liability to Railroad under the indemnity provisions of this Agreement;

7. Contractor shall comply with any federal, state or local laws, statutes, codes, ordinances, rules and regulations applicable to its construction and maintenance of the project. Contractor shall defend, indemnify and hold railroad and its affiliates harmless with respect to any fines, penalties, liabilities or other consequences arising from contractor's failure to comply with any such federal, state or local laws, statutes, codes, ordinances, rules and regulations;
8. Contractor shall promptly notify Railroad of any loss, damage, injury or death arising out of or in connection with the project work;
9. The provisions of this Agreement shall survive the termination or expiration of the Agreement;
10. Railroad certifies that it has carefully reviewed the project plans and that it agrees to permit the Contractor and its employees, officers and subcontractors to enter onto and work upon its property for the purpose of completing said project under the terms of this Agreement;
11. Any notices or communications concerning this agreement shall be delivered to the following designated individuals:

Harlan R. Arians  
 Public Works Manager  
 1006 E. 4<sup>th</sup> Street  
 Waterloo, IA 50703  
 Telephone Number: 319.236.9205

For Contractor \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_

IN WITNESS WHEREOF, Contractor and Railroad have executed and delivered this agreement as of the date set forth below.

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Contractor

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Railroad

**REQUIREMENTS REGARDING FLAGGING AND CABLE LOCATION FOR CONSTRUCTION ON CN  
(Hereinafter called "Railroad")  
(Revised: Effective August 1, 2011)**

NOTE: Flagging and/or Cable Locate fees may apply

A utility or contractor shall not commence, or carry on, any work for installation, maintenance, repair, changing or renewal of any FACILITY, under, over or on RAILROAD property at any location without giving notice to the RAILROAD authorized representative at the RAILROAD's office located at Pontiac, Michigan, Phone (248) 452-4705; and if, in the opinion of the RAILROAD the presence of an authorized representative of the RAILROAD is required to supervise the same, the RAILROAD shall render bills to the utility or contractor for all expenses incurred by it for such supervision. This includes all labor costs for flagmen or cable locate supplied by the RAILROAD to protect RAILROAD operation, and for the full cost of furnishing, installation and later removal of any temporary supports for said tracks, as the RAILROAD's Chief Engineer's Office may deem necessary.

A flagman is required anytime a utility or contractor does any work on or near RAILROAD property within twenty-five (25) feet horizontally of the centerline or any work over any railroad track. The RAILROAD, however, also reserves the right to require a flagman for work on RAILROAD property, which is more than twenty-five (25) feet from the centerline of a railroad track when there are other conditions, or considerations that would dictate the need for a flagman to safeguard the RAILROAD's operations, property and safety of working personnel.

A cable locate of RAILROAD owned facilities may be required to identify and protect Signal & Communication cables that have been installed to provide power, signal control, and wayside communications. These cables are vital to a safe and reliable railway operation. The cable locate will be performed by a qualified RAILROAD employee.

**Cost for a cable locate is \$250.00, which is to be prepaid before installation is to begin.**

Outside contractors are prohibited from driving on, along, or across any track that does not have a CN installed crossing. They may utilize an existing public crossing. The practice of allowing rubber tired equipment to operate over track with no crossing has been banned.

Exceptions to this rule will require the express approval from CN Engineering.

**Prior to any project being started, the RAILROAD requires a "Request for Flagging Services" form to be completed and submitted; including check for prepayment based on the number of days flagman protection will be required.**

**Request for Flagging Services**  
Southern Region

TO: **Mary Ellen Carmody**  
**US -Audit Officer**  
**CN**  
**700 Pershing Street**  
**Pontiac, Michigan 48340**  
**(248) 452-4705**  
**maryellen.carmody@cn.ca**

Date submitted: \_\_\_\_\_

FROM: \_\_\_\_\_  
(Name)

**I am requesting a flagman for the following project. All blanks below must be completely filled in before any flagman request will be honored. Proof of Insurance must accompany this form. Flagman will be provided at your cost, depending on availability, within five (5) business days. Direct your calls concerning availability and problems to (248) 452-4705.**

Project Location: \_\_\_\_\_

Company: \_\_\_\_\_

Billing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Company Phone: \_\_\_\_\_ Company Fax: \_\_\_\_\_ E-Mail: \_\_\_\_\_

**(REQUIRED)**

\*\*Agreement or Authorization No.: \_\_\_\_\_ Dated: \_\_\_\_\_

With: \_\_\_\_\_

Contractor's Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_

Date(s) Flagging needed: \_\_\_\_\_

Description of work to be performed \_\_\_\_\_

**Prepayment check MUST be received prior to the beginning of this project. A check for the number of days flagman protection is required, MUST be sent over-night to the address shown at the top of this page. Flagging is based on the number of days a flagman is required, at the base rate of \$1,000.00 per day (1–8 hours). Any hours in excess of eight (8) hours are billed at the rate of \$150.00 per hour. Weekend and Holiday flagman protection will be billed at the minimum rate of eight hours (8) at \$150.00 per hour (\$1,200.00). If the project runs longer than originally anticipated, then MaryEllen Carmody must be contacted, and an additional check must be submitted. Rates are Effective August 1, 2011.**

Cost for cable locate is \$250.00, and is to be prepaid before installation is to begin.

**\*\* You must have an agreement with CN railroad subsidiary, such as a Right of Entry, Permit or Formal Agreement and proof of insurance. You must have flagman protection before you can enter the property.**

**Will you receive State or Federal Funds as reimbursement for this project? Yes \_\_\_ No \_\_\_**

**I agree to pay for flagging services as requested: \_\_\_\_\_**  
(SIGN AND PRINT NAME)

Attach a map or other location information and mail completed form with cover letter on your company's letterhead, prepayment and proof of insurance to Mary Ellen Carmody at the above address.

## TRAFFIC SIGNAL GENERAL NOTES:

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL DETECTOR EQUIPMENT NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL TRAFFIC SIGNAL INSTALLATION, IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
2. THE PLAN LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO EXCAVATION ON THE PROJECT TO ESTABLISH LOCATIONS.
3. THE LOCATIONS OF ALL FOOTINGS, HANDHOLES, DETECTOR LOOPS\*, AND CONDUIT ARE TO BE COORDINATED WITH THE ENGINEER AND ARE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE ENGINEER.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL ONE SIGNAL CABLE FROM EACH SIGNAL HEAD TO THE BASE OF THE POLE. A 7-CONDUCTOR CABLE SHALL BE USED IN THE POLE FOR A 5-SECTION VEHICLE SIGNAL HEAD. A 5-CONDUCTOR CABLE SHALL BE USED IN THE POLES FOR ALL OTHER 3 AND 4-SECTION VEHICLE HEADS.
5. THE BODY OF THE SIGNAL HEAD HOUSING SHALL BE OF THE BLACK POLYCARBONATE TYPE.
6. INSTALL A NO. 16 AWG BARE COPPER GROUND WIRE BETWEEN THE GROUND RODS IN THE SIGNAL FOOTINGS AND THE CONDUITS WITH THE EXCEPTION OF THE 1-INCH CONDUIT BETWEEN THE DETECTOR LOOPS\* AND THE HANDLE, AND ANY CONDUIT CONTAINING ONLY DETECTOR LEAD-IN CABLE.
7. ALL CONDUIT SHALL BE RIGID P.V.C. OR INNERDUT CONDUIT, UNLESS OTHERWISE NOTED.
8. CONTROLLERS AND CABINET HARDWARE SHALL BE EXPANSIBLE TO PROVIDE THE NUMBER OF PHASES AS INDICATED ON THE TRAFFIC SIGNAL PHASING AND TIMING SHEET.
9. ALL DETECTOR UNITS SHALL BE PROVIDED WITH DELAY AND EXTENSION TIMING. THE DELAY INHIBIT ON EACH UNIT SHALL BE IN EFFECT DURING THE ASSOCIATED GREEN PHASE.
10. ALL SECONDARY SERVICE POINTS WILL BE FIELD LOCATED. PROVIDE METER SOCKET ON CONTROLLER CABINET AND CONSTRUCT SERVICE RISERS FOR SIGNALS. ALL LABOR EQUIPMENT, AND MATERIALS NECESSARY TO ESTABLISH SECONDARY SERVICE SHALL BE INCLUDED IN THE TRAFFIC SIGNALIZATION ITEM.

1. CONTRACTOR SHALL FURNISH A SCHEDULE OF UNIT PRICES FOR EACH ITEM LISTED IN THE ESTIMATE OF TRAFFIC SIGNAL QUANTITIES.
2. THE NEW COM SIGNAL/LIGHTING POLE SHALL HAVE A 30' MOUNTING HEIGHT, 15" NASTARMS, AND AN LED FIXTURE.
3. MATERIALS AND CONSTRUCTION SHALL COMPLY WITH IOWA SDAS STANDARD SPECIFICATIONS FOR TRAFFIC SIGNALS.
4. THE TRAFFIC SIGNAL SHALL BE INTERCONNECTED TO THE RAILROAD. THE CONTRACTOR SHALL COORDINATE DIRECTLY WITH HARLAN ARIANS OF CANADIAN NATIONAL RAILROAD.
5. PUSHBUTTONS #01 AND #02 SHALL BE INSTALLED TO ENABLE CROSSING THE INTERSECTION NORTH/SOUTH. THE PUSHBUTTONS WILL TURN THE PHASE 8 VEHICLE INDICATIONS GREEN BUT WILL INTERNALLY USE THE WALK/DONT WALK TIMINGS.
6. SIGNAL EQUIPMENT SHALL MATCH THE CITY OF STORM LAKE EXISTING EQUIPMENT INVENTORY AS SUPPLIED BY GENERAL TRAFFIC CONTROLS. THIS INCLUDES PEAK TRAFFIC CONTROLLER MODEL ATC1000, PEAK CONFLICT MONITOR MODEL DO-MMU, A TYPE P ALUMINUM NATURAL FINISH TRAFFIC SIGNAL CABINET WITH GPS, AND PEK VIDEO TRAKTO DETECTION EQUIPMENT TO MAINTAIN UNIFORMITY AND ENSURE COMPATIBILITY FOR MAINTENANCE ACTIVITIES.
7. LED LUMINAIRES SHALL BE AMERICAN ELECTRIC LIGHTING ATB2-60BLDE10-WOL1T-R3-N-P7-SH.  
COOPER LIGHTING NW-AE-03-D-U-T2R-10K-700-4N7-AP-MOD, PHILIPS RWI30112LED4K-R-LÉ2-UNIV-API-(RC-020)-PH-GY-93,  
OR APPROVED EQUAL BY THE ENGINEER.
8. ALL ELECTRICAL EQUIPMENT AND CONNECTIONS SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE.
9. FURNISH AND INSTALL PRECAST CONCRETE COLLARS WITH ALL HANDHOLES.
10. NEW SIGNAL NASTARM POLES. SIGNAL HEAD HOUSINGS AND LUMINAIRE EXTENSIONS SHALL BE FACTORY PAINTED TO MATCH THE EXISTING COLOR FOR THE SIGNALS IN DOWNTOWN STORM LAKE ALONG LAKE AVENUE.

REVISÉ

- ① Shape top 11 inches with forms.
- ② Bolt spacing and conduit locations as specified by the manufacturer.

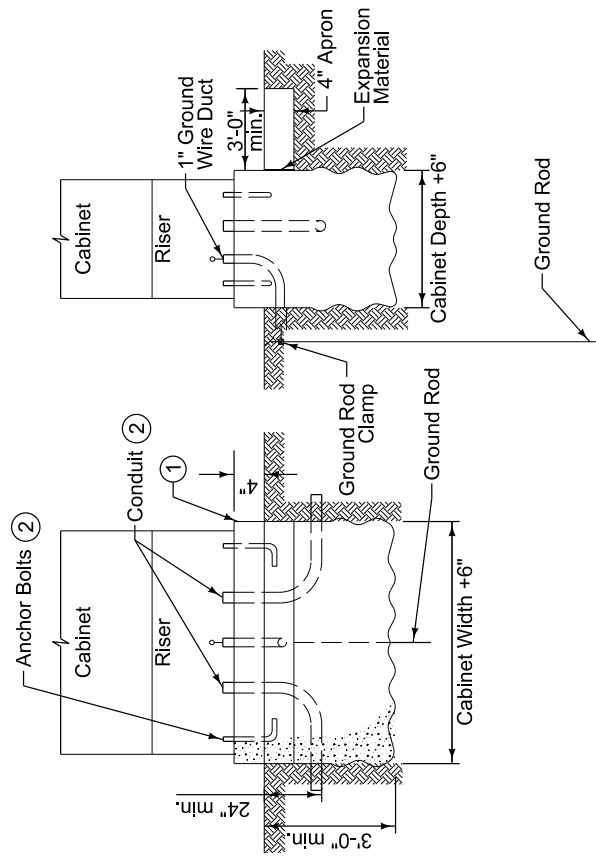


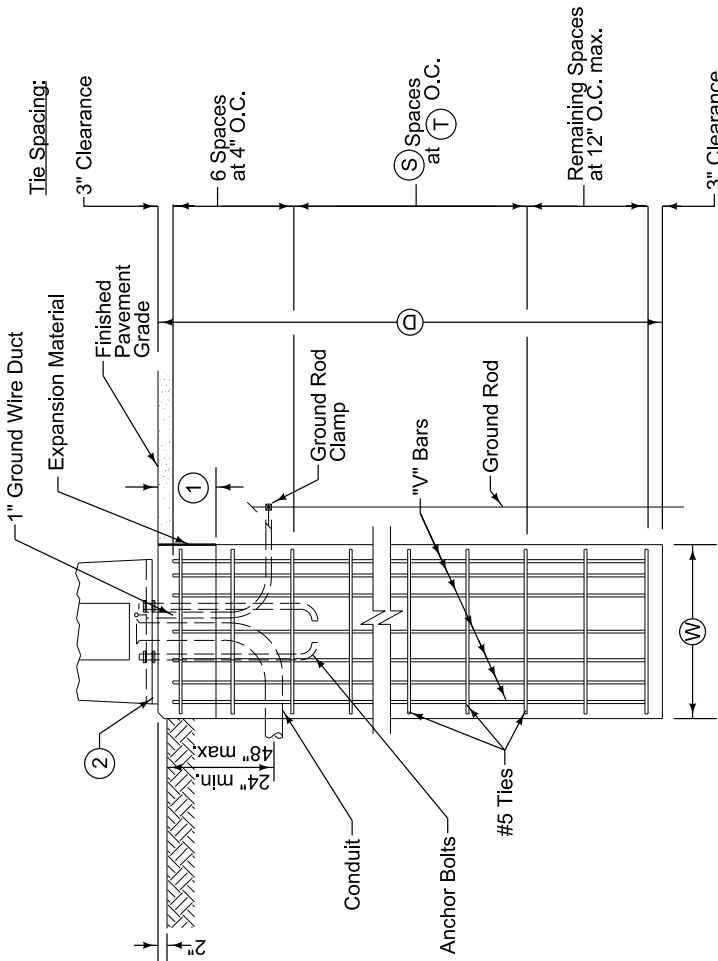
FIGURE 8010.101 SHEET 1 OF 1

	REVISION	
	New	10-16-12
	8010.101	
	SHEET 1 of 1	
CABINET FOOTING DETAILS		

NEMA CONTROLLER CABINET FOOTING

3/6/2015	ENGLISH	3:46:12 PM	H:\SML\KVP1108481\CAD\W5\plans\Signal\108481.scd002.dgn	DESIGN TEAM	BOLTON & MENK	CITY OF STORM LAKE	BUENA VISTA	COUNTY	PROJECT NUMBER	STP-U-7422(617)-70-11	SHEET NUMBER	N.02	REVISED
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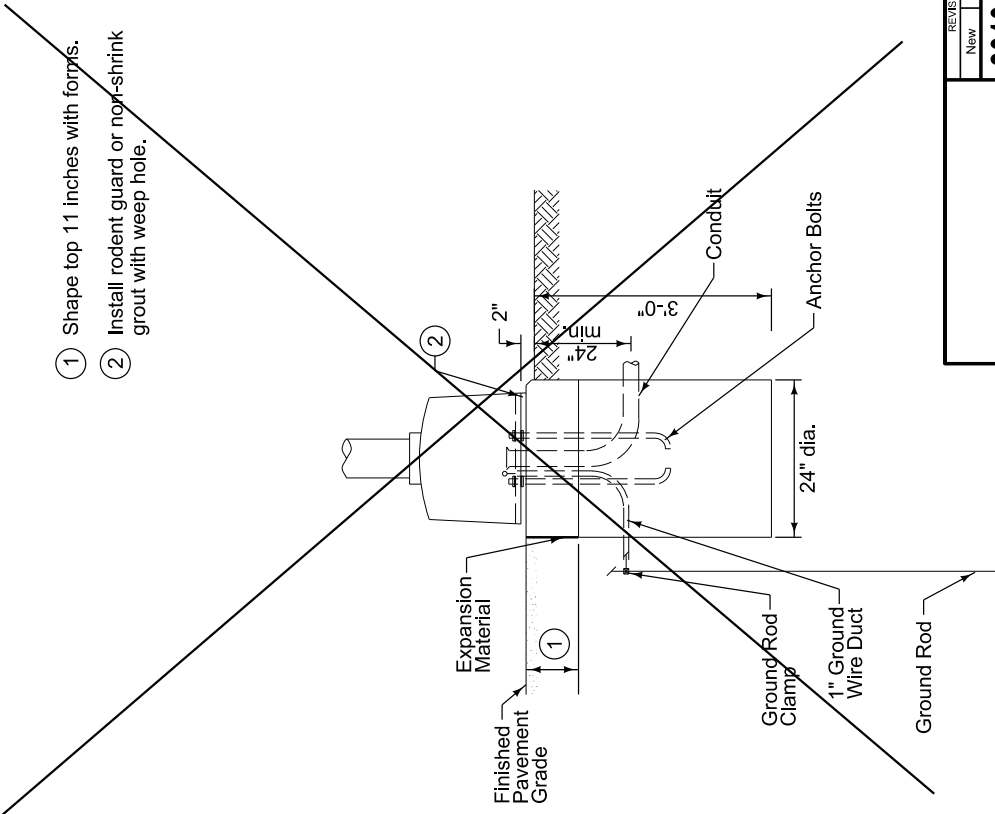




TYPE	D	W	"V" Bars		S	T
			Count	Size		
A	11'-0"	3'-0"	12	8	8	12"
B	13'-0"	3'-0"	12	8	10	12"
C	15'-0"	3'-0"	12	8	10	12"
D	16'-0"	3'-0"	12	8	10	8"
E	15'-0"	3'-6"	12	10	10	8"
F	16'-0"	3'-6"	12	10	10	8"

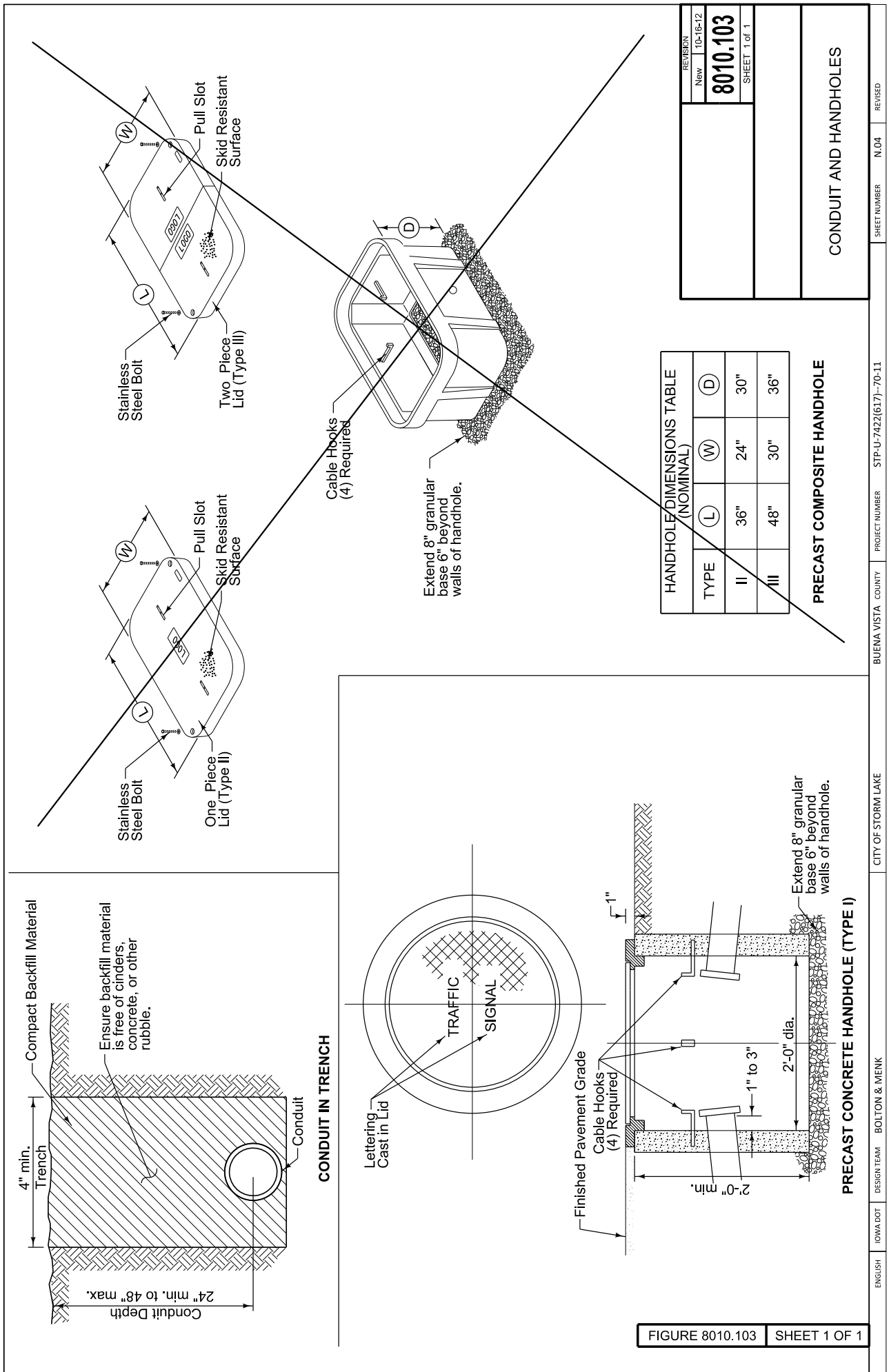
Provide footing type as specified in the contract documents.

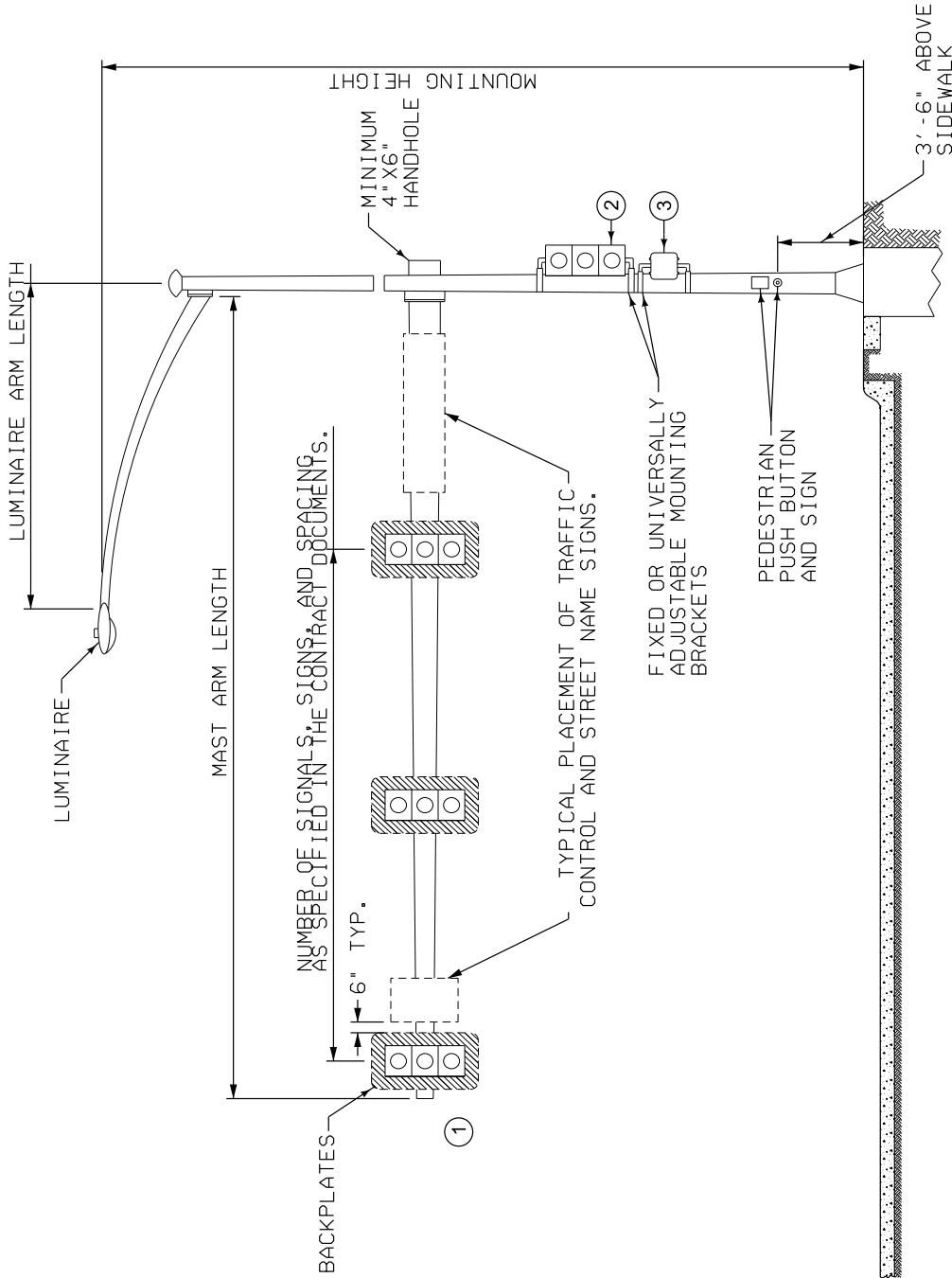
### MAST ARM POLE FOOTING



### PEDESTAL POLE FOOTING

	REVISION	10-16-12
	New	8010.102
	SHEET 1 of 1	
POLE FOOTING DETAILS		





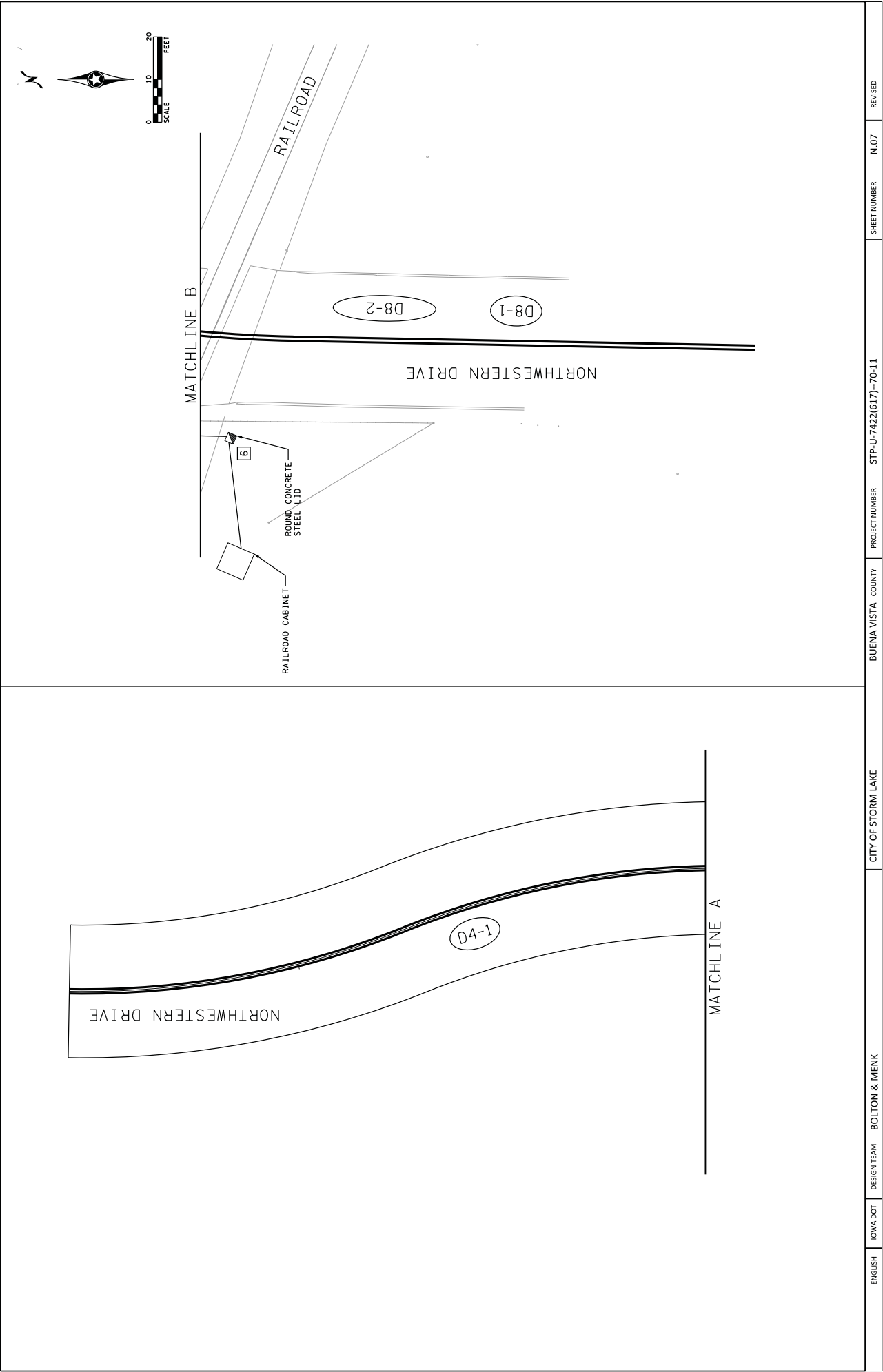
- ① Ensure the top of the signal housing is no more than 25.6 feet above the pavement. Ensure the bottom of the signal housing and related attachments are at least 15 feet above the pavement.
- ② Ensure the bottom of the signal housing (including brackets) that is not located over a roadway is a minimum of 8 feet and a maximum of 19 feet above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of the roadway.
- ③ Mount pedestrian signal heads with the bottom of the signal housing (including brackets) no less than 7 feet or more than 10 feet above the sidewalk level. Position and adjust heads to provide maximum visibility at the beginning of the controlled crosswalk.

FIGURE 8010.105 SHEET 1 OF 1

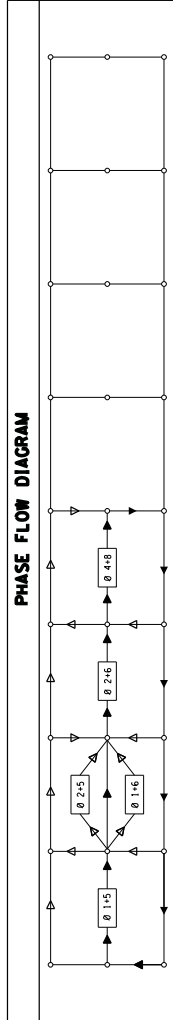
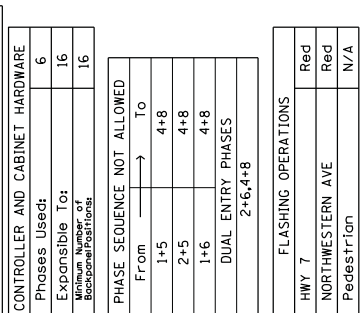
REVISION	
1	10-15-13
8010.105	
SHEET 1 of 1	
MAST ARM POLE DETAILS	

STEEL MAST ARM POLE







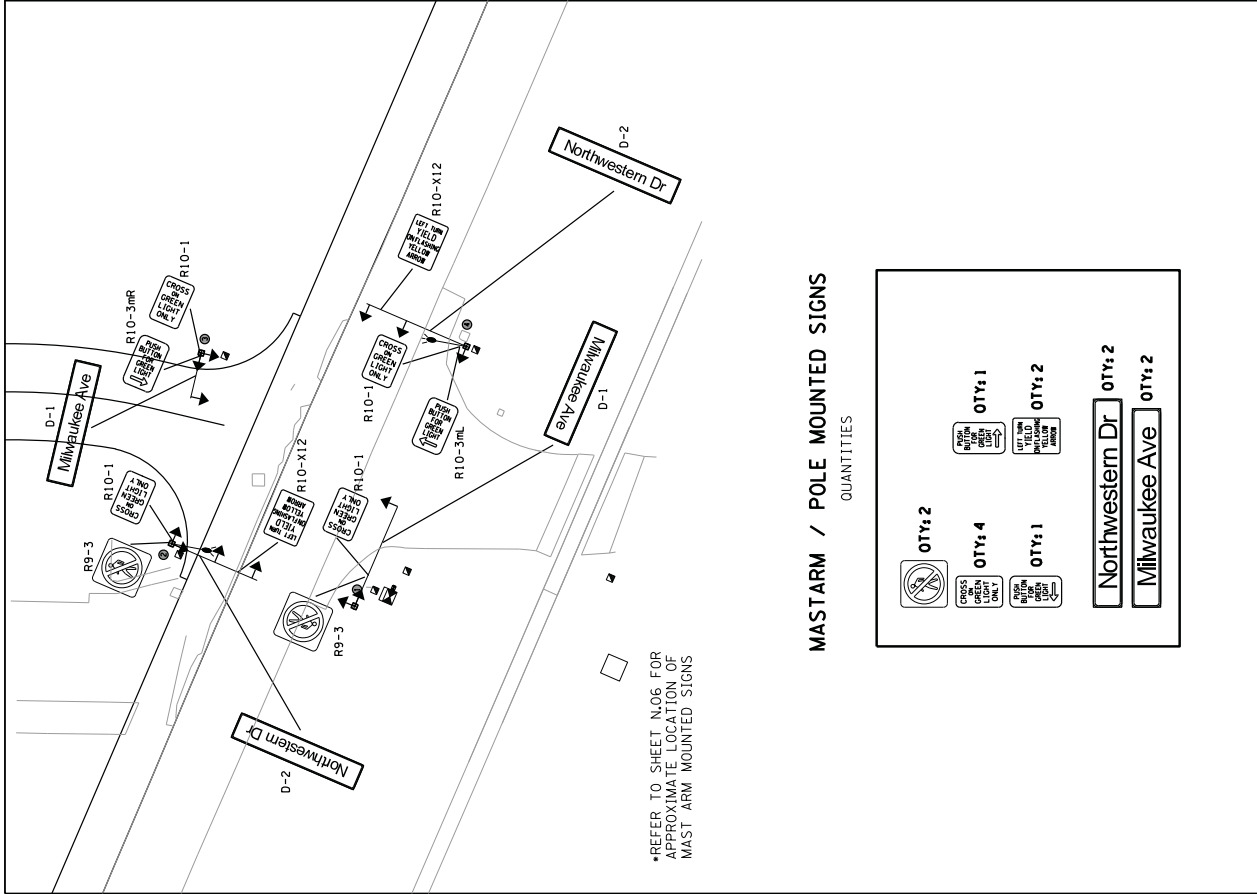


INITIAL RECOMMENDED TIMINGS (Seconds)									
Phase	1	2	3	4	5	6	7	8	
Minimum Green	5	18*	5	10	5	18*	10	10	
Passage	2	4.5	2	4.5	2	4.5	3.5	3.5	
Maximum I	15	45	25	15	45	25	45	25	
Maximum II	0	0	0	0	0	0	0	0	
Yellow Change	3	4.5	3	3	4.5	3	4.5	3	
Red Clearance	2	2	2	2	2	2	2	2	
Walk								7	
Redesign Clearance								18	
Added Initial									
Time to Reduce				15			15		
Time before Reduction				15			15		
Minimum Gap				2			2		

## LONG ENOUGH FOR PEDESTRIAN CROSSING

NOTES:

1. PHASES 2 AND 6 SHALL BE ON VEHICLE RECALL.
2. PREEMPT TRACK CLEARANCE IS PHASES 8 AND 12.



# MAST ARM / POLE MOUNTED SIGNS

Signs and mounting brackets to be furnished by the Contractor

R9-3



R10-1



R10-3mL



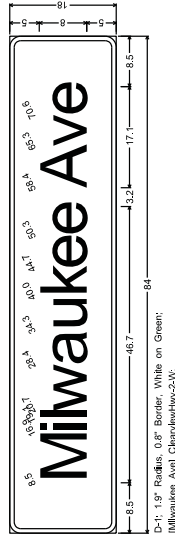
R10-3mR



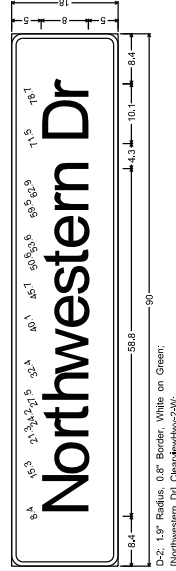
R10-X12



D-1



D-2



## MAST ARM / POLE MOUNTED SIGNS

QUANTITIES

	0TY1:2
	0TY2:4
	0TY1:1
	0TY2:2
	0TY1:2
	0TY2:2
	0TY1:2