

# Basic Inspection Workbook

Certified Inspector  
Training Program

# BASIC INSPECTION TABLE OF CONTENTS

Contract Administration

Grading and Bases

Traffic Control and Pavement Markings

TE Standard Plans



# Certified Inspector Training

- Contract Administration
  - Katie Lilly – KDOT Construction Engineer (D2A1)
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  - Adam Boyd – KDOT Construction Engineer (D2A3)
    - adam.boyd@ks.gov



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# Do you have these things?

- Kansas Department of Transportation “2015 Standard Specifications for State Road and Bridge Construction”
  - Commonly referred to as the ‘Spec Book’
- Kansas Department of Transportation ‘Construction Manual’
  - Parts I, II, III, and IV dated July 2014
  - Part V dated 2022
- CIT Manual (Print Out Available)
- Special Provisions Listed
- Miscellaneous – Calculator, Pen, Pencil, Highlighter, etc.



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## Plan for Class (Outline)

- (Katie)
  - Overview of KDOT
  - Orientation of the 2015 Spec. Book
  - Overview of Section 100 of the Spec. Book
- (Adam)
- Overview of a contract and change orders
  - The Construction Manual
  - Documentation



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## Course Objectives (Today)

What you should learn by the end of today?

- > Have a basic understanding of a CONTRACT
- > Have a basic understanding of a CHANGE ORDER
- > Know your resources
  - Specifications
  - Construction Manual
  - Documentation Manual



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## Course Objectives (Week)

The Classes in this Series will be a broad overview of the different types of inspections at **KDOT**.

We will not tell you everything you need to know to be a good inspector. That only comes with time and experience.



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## Keynote

**You shouldn't try to memorize the specifications.**

It is very important to learn  
**how and where**  
to find the material that you are looking for.



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## Specifics You Should Remember

- How to read a contract number
- Why Change Orders are important
- How to write a Diary
- What an Errata Sheet is
- That there is a hierarchy of importance  
(Plans/Specifications/Special Provisions)
- How to determine if time is charged
- How to keep good notes
- What a bulletin board is
- Inspector's authority and duties
- What LDs are
- Extra Work



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## EXAM FORMAT

- Ten multiple choice questions.
- Test is open book and open notes.
- You must get 7 out of the 10 questions correct to pass. (70%)

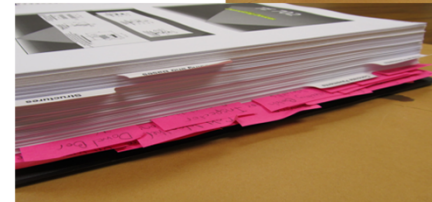


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# How do you pass?

- Relax
- Concentrate on learning HOW to find the information
- Today we are talking about **Contract Administration** – don't think about asphalt or what you are going to learn tomorrow
- Use the method of marking important items down that works for you
- Some use post its, some use a Highlighter, some just take notes. **Do what works for you.**

Place tabs  
in your  
book



**Open Book  
Open Note**



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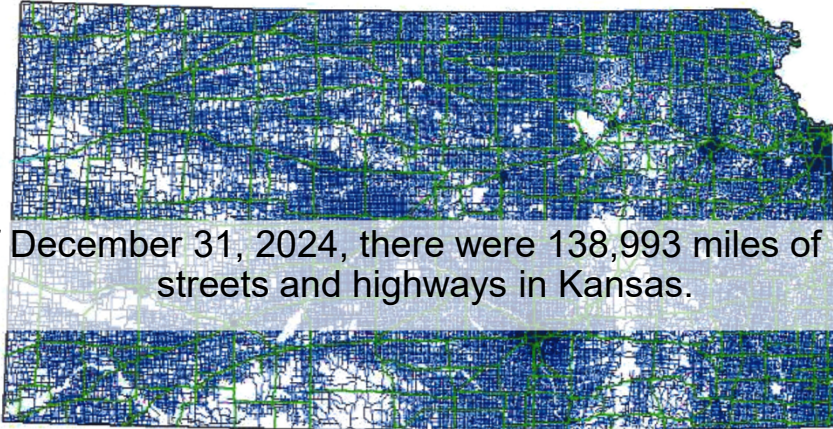
## Contract Administration (Part I)

- Overview of KDOT → What you need to know about KDOT
  - Kansas Roads in General
  - Key Players
  - Role of an Inspector
  - The Goal
  - Broad Overview of the "process"
- Orientation of the 2015 Spec. Book
- Overview of Section 100 of the Spec. Book



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## Public Roads in Kansas (Overall)



As of December 31, 2024, there were 138,993 miles of roads, streets and highways in Kansas.



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## Comparison of Public Road Miles and Population

| State      | Ranking | Miles    | Land Area | Population | People Per Mile |
|------------|---------|----------|-----------|------------|-----------------|
| Texas      | 1       | 316,567  | 261,226   | 29,145,505 | 92              |
| California | 2       | 175,555  | 155,766   | 39,538,223 | 225             |
| Illinois   | 3       | 147,071  | 55,518    | 12,812,508 | 87              |
| Kansas     | 4       | *139,181 | **81,823  | 2,937,880  | 21              |

(Source - 2021 Highway Statistics, 2020 Census)

\* This includes roads under the jurisdiction of KDOT, KTA and Kansas cities and counties. About 100,000 miles of Kansas roads are non-paved.

\*\* Kansas ranks #15 in land area.



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## Public Roads in Kansas (Breakdown)

| System                | Centerline Miles | % of Miles | Daily Vehicle Miles of Travel | % of Travel |
|-----------------------|------------------|------------|-------------------------------|-------------|
| State Highway System  | 9,397            | 6.8%       | 28,529,684                    | 32.9%       |
| Kansas Turnpike       | 239              | 0.2%       | 5,459,099                     | 6.3%        |
| City Connecting Links | 898              | 0.6%       | 16,767,385                    | 19.4%       |
| County/Township       | 112,406          | 80.9%      | 12,264,346                    | 14.2%       |
| Municipal             | 16,053           | 11.5%      | 23,579,952                    | 27.2%       |
| <b>Total</b>          | <b>138,993</b>   |            | <b>86,600,466</b>             |             |

- As of December 31, 2024, there were 138,993 miles of roads, streets and highways in Kansas.



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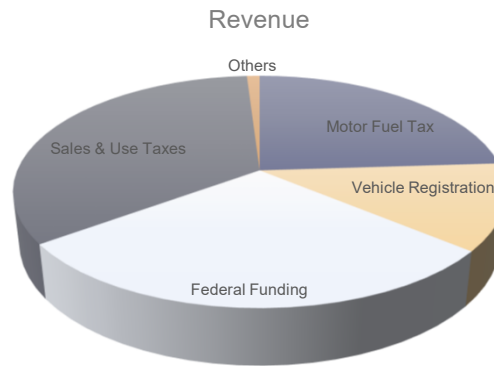
## WHAT IT TAKES

- How do we keep our roads drivable?
  - Maintenance Activities
  - Construction Projects
- At what cost?
  - Time
  - Money
  - Resources/Materials



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# How Does KDOT Pay for Projects?



Data from the FY 2022 Annual Report Index



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## Federal Funding

**The Bipartisan Infrastructure Law (BIL) authorized Federal surface transportation programs to invest \$400 Billion over 5 years**



**KDOT Receives \$\$\$ Through**  
Federal Reimbursement  
Local Construction – Federal  
Local Construction – Local  
Misc. Federal Aid

BIL has Announced \$1.5 Billion to be awarded to Kansas as of January 2023  
83.02% for Transportation → \$1.25 Billion



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# Our Role as Inspectors

- We make sure that projects are constructed to meet contract requirements. Following Kansas standards and specifications that meet Federal requirements.

## Why do we need to meet Federal requirements?

That is how Kansas receives Federal Funding

What happens if we don't meet Federal requirements?

They ask for their \$\$ back.



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## KDOT Districts



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## Key Players - Construction

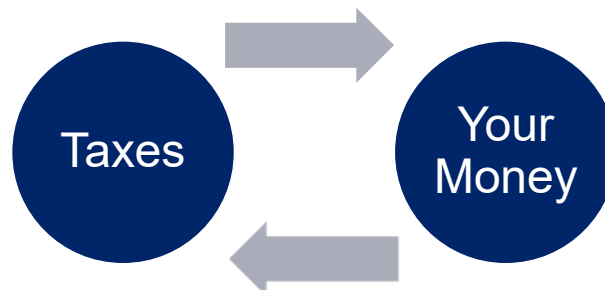
- District Personnel
  - District Engineer
  - District Construction and Materials Engineer
  - District Lab
  - Safety and PR
- Area Personnel
  - Area Engineer
    - Area Construction Engineer
      - Construction Manager/Specialist/ET Supervisors
        - Engineering Technicians/Certified Inspectors



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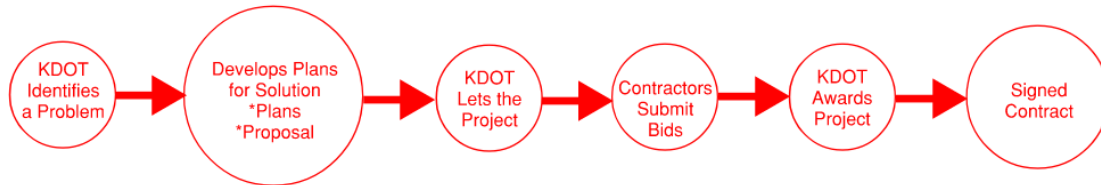
## Why are Inspectors Important?

- Inspectors make sure that we (the State) gets what we are paying for.
- Inspectors make sure that **your money** is used the way it is intended.



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# What is a Contract?



**CONTRACT** - The written agreement between the Secretary and the Contractor setting forth the parties' obligations to perform and pay for the work.

The contract includes the following Contract Documents, all of which constitute one instrument and are incorporated by reference into the contract: the Proposal, exploratory work documents, addenda, amendments, contract form, contract bond, standard specifications, special provisions, project special provisions, general plans, detailed plans, the notice to proceed, material test methods, material test reports, material certifications, Part V of the KDOT Construction Manual, change orders, payment vouchers, guarantees, warranties, and other agreements, if any, that are required to complete the construction of the work timely and in an acceptable manner.



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## Contract Administration Part II

- What you need to know about KDOT
  - Role of an Inspector
  - Key Players
- Orientation of the 2015 Spec. Book
- Overview of Section 100 of the Spec. Book



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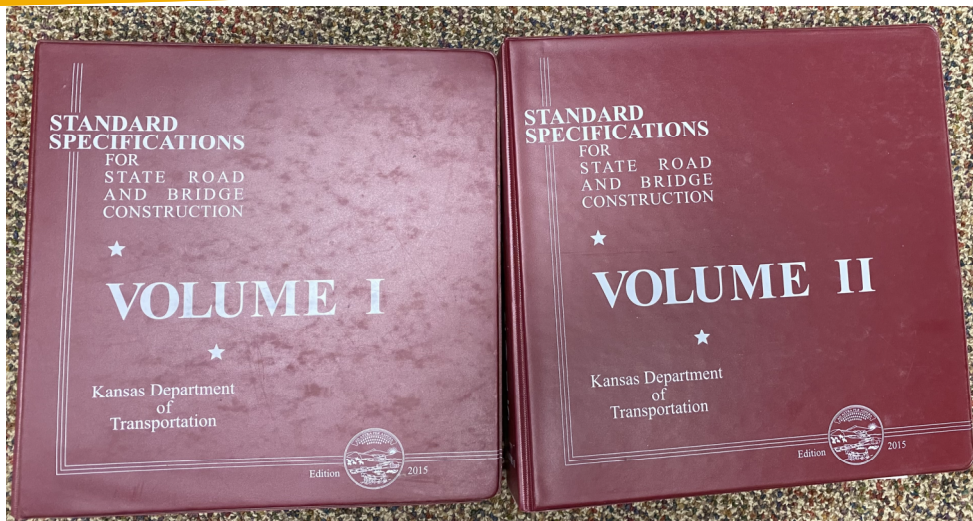
# Specifications

- **Standard Specifications** – The current edition of the Kansas Department of Transportation's Standard Specifications for State Road and Bridge Construction
- **Special Provisions** – Approved additions or revisions to the standard specifications.
- **Project Special Provisions** – Approved additions or revisions to the standard specifications that address conditions particular to an individual project.



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## The Spec



**Tip:  
Keep  
your  
Binders  
in your  
Truck.**



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[Construction Manual](#)
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Division 100 - [General Clauses and Covenants](#)

- [101 Definitions and Terms](#)
  - [15-Er-1-R22](#)- Errata Sheet for Standard Specification Book for State Road and Bridge Construction, Edition 2015
- [102 Bidding Requirements and Conditions](#)
  - [15-01021-R03](#) - Bidding Requirements and Conditions
  - [15-01023](#) - Bidding Requirements and Conditions
- [103 Award and Execution of Contract](#)
  - [15-01024](#) - Award and Execution of Contract
- [104 Scope of Work](#)
  - [15-01022-R04](#) - Scope of Work
- [105 Control of Work](#)
  - [15-01019-R02](#) - Control of Work
- [106 Control of Materials](#)

Public Access



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[KANSAS HIGHWAY DEDICATION SIGNING](#)

100 - General Clauses and Convents

| Specification Number          | Title                                                     | Section |
|-------------------------------|-----------------------------------------------------------|---------|
| <a href="#">15-REQUIRED*</a>  | For Federally Funded Local Authority Let Projects         | 100     |
| <a href="#">FHWA-1273*</a>    | RCP - Federal Aid Construction Projects                   | 100     |
| <a href="#">01-01-11-R01*</a> | RCP - Tax Clearance Certificate                           | 100     |
| <a href="#">01-01-18*</a>     | RCP - Smart Work Zone System Unit Cost                    | 100     |
| <a href="#">02-01-95-R02*</a> | RCP - Area Practice for DG, JO, LV, MI, SN & WY COs In KS | 100     |
| <a href="#">03-01-2018*</a>   | RCP - Policy Against Sexual Harassment                    | 100     |
| <a href="#">03-10-06-R01*</a> | RCP - Utilization of DBE Suppliers/Regular Dealers        | 100     |
| <a href="#">04-01-22*</a>     | RCP - Payment to Subcontractors                           | 100     |
| <a href="#">04-06-09-R01*</a> | RCP - Its Unit Cost                                       | 100     |
| <a href="#">04-26-90-R05*</a> | RCP - Limitations on Use of Federal Funds for Lobbying    | 100     |



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**KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION TO THE  
STANDARD SPECIFICATIONS, 2015 EDITION**

Delete SECTION 901 and replace with the following:

**SECTION 901**

**STORMWATER POLLUTION MANAGEMENT**

**901.1 DESCRIPTION**

Design, implement, inspect and maintain appropriate best management practices to minimize or eliminate erosion, sediment and other pollutants in stormwater runoff from the project.

**BID ITEMS**

SWPPP Design  
SWPPP Inspection  
Water Pollution Control Manager  
Stormwater Compliance Disincentive Assessment

**UNITS**

Lump Sum  
Each  
Each  
Each

revisions or updates to the SWPPP shall be subsidiary.

The Engineer will assess disincentives under the bid item "Stormwater Compliance Disincentive Assessment."

11-14-22 (C&M) (ML)  
Feb-23 Letting



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# Project Special Provisions

**KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION TO THE  
STANDARD SPECIFICATIONS, 2015 EDITION**

Delete SECTION 1107 and replace with the following:

**SECTION 1107**

**AGGREGATES FOR BACKFILL**

**1107.1 DESCRIPTION**

This specification covers aggregate for backfill. Use this when structures, pipe, mechanically stabilized earth (MSE) walls (panel or modular), underdrain, permeable or crushed stone backfill requirements are specified in the Contract Documents.

**1107.2 REQUIREMENTS**

**a. Structures or Pipe.**

(1) Composition. Provide singly or in combination sand, gravel, or crushed stone. Consider limestone, calcite-cemented sandstone, rhyolite, basalt, and granite as crushed stone.

(2) Quality<sup>1</sup>.

- Soundness<sup>2</sup>, minimum (KTMR-21) .....0.85
- Wear<sup>3</sup>, maximum (AASHTO T 96) .....45%



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# Errata Sheets

- Found in Every Contract
  - Identifies Errors:
    - Add/correct page numbers
  - Identifies Omissions:
    - Electronic Design Files
  - Identifies Updates in the Spec Book
    - Section 214 – Replace ASTM A82 with ASTM A1064



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# 15-ER-1-R22

15-ER-1-R22  
Sheet 1 of 13

## ERRATA SHEET FOR STANDARD SPECIFICATION BOOK FOR STATE ROAD AND BRIDGE CONSTRUCTION, EDITION 2015

### SECTION 101 DEFINITIONS AND TERMS

**Page 100-4, subsection 101.3. Add the following:**

**ELECTRONIC DESIGN FILES** - One or more of the following files that KDOT furnishes to the Contractor in electronic form:

- Base file (plan view of entire project length);
- Cross Section Stack files (vertical layout of cross sections);
- Existing Ground Survey (existing ground contours in three-dimensions);
- Cross Section Sheet Files (final cross section sheets)
- Vertical Alignment description files
- Existing & Proposed Horizontal Alignment description files



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## Orientation of the 2015 Spec. Book

- Table of Contents
- Construction Division
- Materials Division
- Index



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## Construction Division

- Div. 100 General Clauses and Covenants
- Div. 150 Equipment
- Div. 200 Earthwork
- Div. 300 Stabilized Subgrade, Base and Shoulders
- Div. 400 Concrete
- Div. 500 Rigid Pavement
- Div. 600 Flexible Pavement
- Div. 700 Structures
- Div. 800 Incidental Construction
- Div. 900 Roadside Improvement, Planting and Seeding

\*NOTE: There is not a Div. 1000



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## Materials Division

- Div. 1100 Aggregates
- Div. 1200 Asphalt Materials
- Div. 1300 Brick and Concrete Masonry Units
- Div. 1400 Concrete Admixtures and Curing Materials
- Div. 1500 Joint Sealing and Joint Filler Materials
- Div. 1600 Ferrous and Non-Ferrous Metals
- Div. 1700 Miscellaneous Materials
- Div. 1800 Paint Materials and Mixed Paints
- Div. 1900 Culvert, Sewer and Underdrain Pipe



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## Materials Division – continued

- Div. 2000 Portland Cement, Lime and Fly Ash
- Div. 2100 Materials for Roadside Improvements
- Div. 2200 Reflective Materials and Accessory Items
- Div. 2300 Timber, Lumber, Piling and Posts
- Div. 2400 Water
- Div. 2500 Miscellaneous Methods of Tests
- Div. 2600 Materials Certifications



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# Index

- Index tab in the Spec. Book
  - Index of Pay items (Front)
    - Starts on I-1
  - Subject Index (Back)
    - Starts on I-11



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# Subject Index (Example)

- Guardrail and Guideposts
  - Page 800-75

Found on Page I-18



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## Index of Pay Items

|                                                        |        |     |
|--------------------------------------------------------|--------|-----|
| • Guardrail End Terminal                               | 800-75 | I-4 |
| • Guardrail Posts                                      | 800-75 | I-5 |
| • Guardrail, Cable                                     | 800-75 | I-5 |
| • Guardrail, Reconstruction of Cable                   | 800-75 | I-5 |
| • Guardrail, Reconstruction of Steel Plate             | 800-75 | I-5 |
| • Guardrail, Removal and Reconstruction of Cable       | 800-75 | I-5 |
| • Guardrail, Removal and Reconstruction of Steel Plate | 800-75 | I-5 |
| • Guardrail, Removal of Cable                          | 800-75 | I-5 |
| • Guardrail, Removal of Steel Plate                    | 800-75 | I-5 |
| • Guardrail, Removal of Timber                         | 800-75 | I-5 |
| • Guardrail, Steel Plate                               | 800-75 | I-5 |
| • Guardrail, Steel Plate (Temporary)                   | 800-75 | I-5 |



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## Find the Spec - Practice Problems – Q1

You are inspecting the **clearing and grubbing** operation on a project. The contractor encounters a 4" high stump in an area where the proposed finish grade is 5' higher than the existing ground.

Does the contractor need to remove the stump?



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## Find the Spec - Practice Problems – Q2

You are inspecting a **chip seal** operation on a project. The width of each lane is 11', and the contractor plans to use 2 pneumatic rollers (each 6' wide) to embed the cover material.

By spec, is this allowed?



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## Find the Spec - Practice Problems – Q3

You are inspecting the installation of sanitary sewer **pipe under a new highway**. The contractor has requested to use Polyethylene (PE) pipe.

By spec, is this allowed?



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## Find the Spec - Practice Problems – Q4

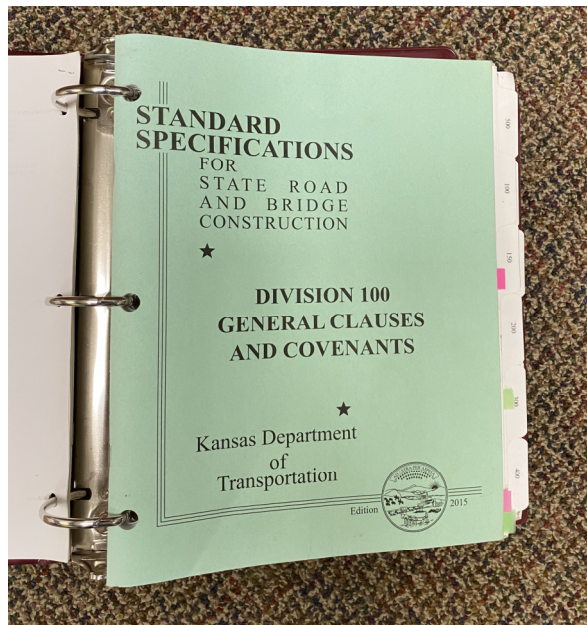
The contractor plans to store his equipment within 50' of a low water crossing that is currently dry.

Is this allowed?



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Now to  
Section 100



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# SECTION 101 Definitions and Terms

This section helps you as you read the specifications.

## (1) Defines Terms and Abbreviations

- > Did you think you needed to learn a new language when you started to work around construction?
- > Terms as KDOT uses them



1

## CHANGE ORDER

**CENTER LINE OF HIGHWAY** - A line equidistant from the edges of the median separating the main traveled ways on a divided highway or the center line of the main traveled way on a non-divided highway.

**CHANGE ORDER** - A written order the Engineer issues to the Contractor and both parties sign, which sets forth any contract change(s). Once both parties execute it, the change order becomes a part of the contract.

**CLEANUP TIME (CLEANUP WORKING DAYS)** - The number of working days, calendar days, or calendar completion date available to the Contractor after the Project Open Time expires for the Contractor to complete remaining, unfinished contract pay items, subsidiary items, incidental work, final cleanup, and final punch list.

Read Along PAGE 100 - 2



2

## CONTRACT ADJUSTMENT

**COMPENSATE (COMPENSATION)** - Depending on the context, compensate or compensation refers to time, money, or both money and time.

**CONSTRUCTION LIMITS** - The limits defined by the contract that actual construction work is to occur within.

**CONTRACT** - The written agreement between the Secretary and the Contractor setting forth the parties' obligations to perform and pay for the work.

The contract includes the following Contract Documents, all of which constitute one instrument and are incorporated by reference into the contract: the Proposal, exploratory work documents, addenda, amendments, contract form, contract bond, standard specifications, special provisions, project special provisions, general plans, detailed plans, the notice to proceed, material test methods, material test reports, material certifications, Part V of the KDOT Construction Manual, change orders, payment vouchers, guarantees, warranties, and other agreements, if any, that are required to complete the construction of the work timely and in an acceptable manner.

**CONTRACT ADJUSTMENT** - A contract change order for time, money or both time and money that compensates the Contractor for Contract Changes. A contract change order for time that compensates the Contractor for Acts of God.

Read Along PAGE 100 - 3



3

## CONTRACTOR

- The person doing the work?
- The guy covered in mud?
- LEGALLY BINDING DEFINITION PER KDOT

**CONTRACT ITEM (PAY ITEM or BID ITEM)** - Specific work item for which the contract provides a unit price or lump sum price.

**CONTRACT TIME** - The time set forth in the Contract Documents (including authorized extensions) for completing all work on the Project, expressed as working days, calendar days, specific calendar completion dates, or a combination thereof. See also Interim Contract Time.

**CONTRACTOR** - The individual partnership, corporation, other legal entity, or any acceptable combination thereof (joint venture) contracting with the Secretary to complete the contract. (The second party to the contract.)

**CONTROLLED ACCESS FACILITY** - A highway, road, or street designed to expedite and control through and local traffic and to give owners or occupants of abutting property restricted rights of access, light, air, or view over, from or to such highway, road, or street.

Read Along PAGE 100 - 3



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## PRIME vs SUB-CONTRACTOR

**PRIME CONTRACTOR** - See CONTRACTOR.

Read Along PAGE 100 - 6

**SUBCONTRACTOR** - An individual, partnership, corporation, other legal entity, or any combination thereof (joint venture) to which the Contractor sublets part of the contract. Subcontractors are not a party to the contract between the Secretary and Contractor. However, the Contractor assumes liability for the subcontractors as if the Contractor were performing the sublet work with its own forces. Thus, when the specifications refer to the word "Contractor" but subcontractors are performing the work, the word "Contractor" includes the subcontractors.

Read Along PAGE 100 - 7



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## UNRESTRICTED TRAFFIC OLD

**UNRESTRICTED TRAFFIC** - All roadways (lanes, turn lanes, ramps, side roads, medians, shoulders, etc.) within the Project limits are open to unobstructed, continuous traffic flow with temporary or permanent striping, temporary or permanent signing, and required safety features such as guardrail and traffic control device in place and operational. Unobstructed continuous traffic flow means traffic is following the final lane configurations required by the plans and there are no lane closures.

**UTILITY or UTILITY OWNER** - Electric, telephone, cable, water, gas, pipeline, or sewer service owned and operated by a corporation or an LPA.

**WORK** - The providing of all labor, materials, equipment, and other incidentals necessary to complete the contract, regardless of whether the Contractor, subcontractors at any tier, suppliers at any tier, or a combination thereof carry out the contract obligations. In context, the term "work" may also refer to providing labor, materials, equipment, and other incidentals necessary to complete physical construction of the Project or a specific portion of the Project or contract.

**WORKING DAY** - A working day shall be any day the Contractor is not restricted from prosecuting the CIOW because of KDOT, LPAs, or weather as further provided in **subsection 108.5**.

Read Along PAGE 100 - 8



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## UNRESTRICTED TRAFFIC NEW

Just Kidding!

The definition of Unrestricted traffic is the same even with  
SP 15-01016-R04

If it isn't UNRESTRICTED it's RESTRICTED.



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## SECTION 102 Bidding Requirements

- Typically not anything that CONSTRUCTION deals with. This is part of the LETTING.
- Construction Offices are sent SIGNED contracts prior to construction starting
  - This is typically where we (inspectors) start
- This section tells Contractors how to BID
- BidX questions (part of process, they are INCLUDED on SIGNED CONTRACTS)



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## SECTION 103 AWARD & EXECUTION

- Again, this isn't typically not anything that CONSTRUCTION deals with. This is part of the LETTING process.
- Typically the award goes to the LOWEST bidder



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## SECTION 104 SCOPE OF WORK

- Defines the CONTRACTORS responsibility
- What if something CHANGES???
  - Differing Site Conditions
  - Quantity wasn't correct
  - Needed a different material
- These become Contract Changes via CHANGE ORDER



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## 104.2 – CHANGES

- Major Item - any contract item, excluding mobilization, having an original contract value of **5%** or more of the original contract amount. (100-24)

**MAJOR AND MINOR CONTRACT ITEMS** - A major contract item is any contract item, excluding mobilization, having an original contract value of 5% or more of the original contract amount. Any other contract item shall be considered a minor contract item.

Read Along - Definitions PAGE 100 - 5

- Significant Change - is an increase or decrease to a **major** contract item of work by more than 25% of the original contract quantity. (100-24)



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## 104.6 – EXTRA WORK

- Extra Work has to be pre-approved

Read Along PAGE 100 - 26

### **104.6 EXTRA WORK**

#### **a. Extra Work is:**

- (1) work not foreseen or included in the original contract.
- (2) work that differs materially in kind or nature from that involved or included in the original proposed construction.
- (3) work caused by, delay to work caused by, or acceleration of work caused by:
  - (a) written changes that KDOT, a LPA, or both make to the Contract Documents or the Contractor's work.
  - (b) verbal changes that KDOT, a LPA, or both make to the Contract Documents or the Contractor's work.
  - (c) other acts or omissions that change the contract terms.

#### **b. The Engineer will make a contract adjustment for extra work if the Contractor proves:**

- (1) the Engineer and Contractor agreed that the written or verbal Contract Change is extra work and reached this agreement before the Contractor began the extra work;

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## 104.10 – TIME EXTENSIONS

- A change order is how we add time
- What sorts of things would merit adding more time to the project?
- This section of the Spec covers it.



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## 104.11 – MAINTAIN & PROTECT

- What happens if it snows?
- What about detours?
- What happens if someone drives into something on the project?
- What if a storm comes through?

**Who is liable and when?**

**When in doubt, refer back to the 100.**



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## 104.14 – OPENINGS / ACCESS

### 104.13 LOAD RESTRICTIONS

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

b. Protect roadways and structures within Project limits from damage. Observe curing periods before operating equipment or hauling loads on newly constructed pavement, reconstructed pavement, or structures. Do not haul loads of any size on pavement base, except when operations require equipment on pavement base to place material. Assume responsibility for damages to roadways and structures the Contractor causes when operating equipment or hauling loads.

Read Along –  
PAGE 100 - 31

### 104.14 OPENINGS IN HIGHWAY OR RIGHT-OF-WAY FOR THIRD PARTIES

Make no openings, entrances, or other access points in the highway or right-of-way for third parties unless shown in the Contract Documents or unless the third party has obtained a permit from KDOT. Construct all openings, entrances, and other access points according to KDOT's standards. Maintain and repair all openings, entrances, and other access points until final acceptance.

### 104.15 THIRD PARTY PERMITS AND RESTORING WORK AREAS DAMAGED BY THIRD-PARTY PERMITS

a. The Secretary may issue to individuals or organizations permits for making an opening in the highway or using highway right-of-way.



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## 104.17 – TRAFFIC CONTROL

Yes, there are other parts of the spec that talk about work zone traffic control. But did you know that it all comes down to what is here?

### 104.17 TRAFFIC CONTROL DEVICES

The Contractor's obligation to provide, erect, and maintain all traffic control devices is extremely important. The Engineer's failure to enforce the Contractor's duty to provide, erect, and maintain all traffic control devices does not lessen the Contractor's responsibility or liability to KDOT, any LPA, the public and workers for failing to provide, erect, or maintain these devices.

The Contractor's subletting of traffic control devices does not lessen the Contractor's responsibility or liability to the public and workers for failing to provide, erect, or maintain these devices. A subcontractor's delay in providing acceptable traffic control devices or a subcontractor's delay in repairing or replacing unacceptable traffic control devices does not excuse the Contractor's obligation to perform this work timely.

Obtain the Engineer's approval before erecting traffic control devices, changing traffic control devices, or removing traffic control devices except if an emergency situation requires immediate action. Comply with the Engineer's orders to change or remove traffic control devices.

Provide, erect, and maintain all traffic control devices necessary to protect the public and workers on the Project. Make sure that the quality, quantity, and placement of traffic control devices meet the most recent edition of the Manual on Uniform Traffic Control Devices (MUTCD) adopted by the Secretary, ATSSA standards, and SECTION 805. Traffic control devices that do not meet the MUTCD, ATSSA standards, or SECTION 805 are unacceptable.

Inspect traffic control devices at least daily during the day, and when needed, at night. Immediately upon discovering or receiving notification of unacceptable traffic control devices, either repair or remove and replace the

Read Along –  
PAGE 100 - 32



16

## 104.17 – TRAFFIC CONTROL (p2)

### Immediately? Who is recording? What if it isn't getting fixed?

Inspect traffic control devices at least daily during the day, and when needed, at night. Immediately upon discovering or receiving notification of unacceptable traffic control devices, either repair or remove and replace the

unacceptable traffic control devices. Record unacceptable traffic control devices and record when the condition has been corrected.

Provide, erect and maintain all traffic control devices until written, final acceptance of the Project including all temporary suspensions of work.

Read Along – PAGE 100 - 32 & 100 - 33



17

## 104.21 – PUNCH LISTS

### • Intermediate Punch Lists VS Final Punch Lists

#### 104.21 PUNCH LIST AND FINAL CLEANUP

**a. Punch List.** A punch list is a list of incomplete work items or items needing corrective action to fulfill the contract requirements.

**b. Final Cleanup.** Final cleanup includes completing all work necessary to construct or reconstruct the Project and cleaning up the Project site, adjacent property the Contractor occupied, borrow sites, plant sites, and local material sources of all trash, weeds, brush, materials, temporary structures, and equipment.

#### **c. Preparation of Punch List.**

(1) Monthly Punch List. At each monthly progress meeting, the Field Engineer will provide the Contractor a punch list. KDOT's failure to include an item on a monthly punch list (as distinguished from the final punch list) does not relieve the Contractor's responsibility to complete or correct the item before acceptance of contract.

(2) Final Punch List. Within the Cleanup Time established in **subsection 108.4c**, or by special provision or within a different Contract Time established by special provision when the contract does not have separate Cleanup Time, request in writing for the Engineer to provide a final punch list for the Project. Include a summary of all known incomplete items to be finished for acceptance of contract. If not yet completed, include in the final punch list as-built construction plans as defined in and required by **subsection 802.3g**.

Read Along – PAGE 100 - 35



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## SECTION 105 CONTROL OF WORK

- On Whose Authority?
- What if something isn't going the way that it should?
- What if all parties don't agree?
- How should communication happen?
- How is work accepted? What is acceptable work? What is unacceptable work? Was the work unauthorized?
- How should Inspectors/Contractors interact?
- Means & Methods?
- Subcontractor's responsibilities



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## SECTION 105 CONTROL OF WORK (p2)

- Submittal Processes
- Utilities and who's responsible? Who calls 811?
- What if there is a claim?
- What if there is a disagreement?
- Value Engineering?
- How is a project accepted?



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## 105.2 – FIELD ENGINEER's AUTHORITY

### 105.2 FIELD ENGINEER'S AUTHORITY AND DUTIES

a. The Field Engineer administers the contract and has immediate charge of the engineering details of the contract. The Field Engineer has authority over the Project inspection staff. The Field Engineer has access to all parts of the work and the authority to inspect all work. Submit any required notices to the Field Engineer.

b. The Field Engineer may:

(1) order the Contractor to postpone, shut down, suspend, accelerate, or re-sequence all or part of the work if the Contractor is:

- working in unsafe site conditions;
- using unsafe work practices;
- failing to comply with the Contract Documents;
- producing unacceptable work; or
- performing unauthorized work

(2) reject unacceptable work.

(3) order the Contractor, before final acceptance, to uncover or remove finished work.

(4) order the Contractor to repair or remove and replace unacceptable work.

(5) order the Contractor to repair, restore, remove, or remove and replace unauthorized work. See

subsection 105.5.

Read Along –  
PAGE 100 - 38



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## 105.3 – INSPECTOR's AUTHORITY

### 105.3 INSPECTOR'S AUTHORITY AND DUTIES

a. **Inspection for KDOT's Benefit.** KDOT hires its own employees and consultant employees (Inspectors) to perform inspection work for KDOT's benefit, not to ensure Contractor quality control. Inspection is not a substitute for the Contractor's obligation to deliver acceptable work.

b. **Inspector's Authority.** Inspectors may examine all work including the preparation, fabrication, and manufacture of all materials provided. Inspectors may test materials. In testing materials, the Inspector will follow the Contract Documents, manufacturer's specifications, or both. Inspectors may reject unacceptable work (including unacceptable materials). Inspectors may suspend all or part of the work if the suspension is necessary because of unsafe site conditions or unsafe work practices.

c. **Limitation on Inspector's Authority.** Inspectors are unable to alter or waive contract provisions, issue instructions contrary to the contract, or act as the Contractor's superintendent or foreman. Inspectors are unable to accept from the Contractor any notices required by the Contract Documents to be given by the Contractor to the Engineer. If the Contractor is not complying with the Contract Documents, the Inspector will notify the Field Engineer who has the authority and discretion to shut down the Project.

Read Along –  
PAGE 100 - 38

Read Along –  
PAGE 100 - 39



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## 105.6 – CONTRACT DOCUMENTS / ERRORS CONT.

### Does it matter who catches it?

(3) If there is a discrepancy between the exploratory work documents and other Contract Documents, notify the Bureau of Construction and Materials upon discovering the discrepancy. Do not assume the Contract Documents listed above control over the exploratory work documents.

(4) If a Bidder discovers a discrepancy, error, omission, or ambiguity in any Contract Document before the Letting, notify the Bureau of Construction and Materials upon discovering the discrepancy, error, omission, or ambiguity. The Bureau will issue an addendum to all Bidders that obtained a Bidding Proposal Form from KDOT.

(5) If the Contractor discovers a discrepancy, error, omission, or ambiguity in any Contract Document after the Letting, notify the Field Engineer. The Field Engineer will issue a clarification. The Field Engineer will make a contract adjustment for resulting extra work if the Engineer determines that:

- a reasonable contractor would have failed to discover the discrepancy, error, omission, or ambiguity before the Letting;
- the Contractor has met the requirements of **subsection 104.6**; and
- in case of a discrepancy, the Engineer's clarification is inconsistent with the order of precedence, **subsection 105.6b.(2)**.

Read Along – PAGE 100 - 41



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## 106 CONTROL OF MATERIALS

- Source of Supply & Quality Requirements
- QC/QA
- Testing/Recording/Data Presentation
- Inspection of Materials
- Storage of Materials
- Plant Inspection

More on Materials Acceptance in  
SECTION 2600

- [104 Scope of Work](#)
  - [15-01022-R04](#) - Scope of Work
- [105 Control of Work](#)
  - [15-01019-R02](#) - Control of Work
- [106 Control of Materials](#)
  - [15-01018-R01](#) - Control of Materials
- [107 Legal Relations and Responsibility to The Public](#)
  - [15-Er-1-R22](#) - Errata Sheet for Standard Specification B Construction, Edition 2015



24

# 107 PUBLIC RESPONSIBILITY

- Compliance with the Law
- Permits/Licenses/Taxes
- Who secures Right-of-Way
- Who is responsible for employee safety?
- Public Safety?
- Storing and Using Explosives
- Protecting Property/Landscape/Environment (Basis of SWPPP)
- Who is responsible for damage? → Insurance Requirements
- Railroad Responsibilities/Indemnification/HazMat
- LPAs (Local Public Authorities) City/County



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# 108 PROSECUTION & PROGRESS

- Notice to Proceed
- Preconstruction Meetings
- Project Schedules
- Progress Meetings
- CIOW
- Contract Time
- Winter Shut Down?
- Incentives/Delays
- Liquidated Damages

## SPECIFICATIONS

- [108 Prosecution and Progress](#)
  - [15-01016-R04](#) - Prosecution and Progress
  - [15-01021-R03](#) - Bidding Requirements and Conditions
- [109 Measurement and Payment](#)
  - [15-01021-R03](#) - Bidding Requirements and Conditions
  - [15-01022-R04](#) - Measurement and Payment

## SPECIAL PROVISIONS

|                               |                          |
|-------------------------------|--------------------------|
| <a href="#">15-01016</a>      | Prosecution and Progress |
| <a href="#">15-01016-R01</a>  | Prosecution and Progress |
| <a href="#">15-01016-R02</a>  | Prosecution and Progress |
| <a href="#">15-01016-R03</a>  | Prosecution and Progress |
| <a href="#">15-01016-R04*</a> | Prosecution and Progress |



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# 15-01016-R04

15-01016-R04  
Sheet 7 of 7

## • July 2025 Letting

f. Liquidated damages and disincentive assessments assessed under this **subsection 108.8** do not relieve the Contractor from liability for any damages or costs resulting from: claims between Contractors under **subsection 105.12**, third party claims, and deducts for construction work that failed to meet contract requirements such as asphalt smoothness and erosion control violations, among others.

g. Permitting the Contractor to continue working after the Contract Time or Interim Contract Times expire does not constitute a contract time extension or prevent the Secretary from declaring a breach of contract under **subsection 108.9** for the Contractor's failure to complete work timely.

h. Nothing in this **subsection 108.8** or any Project Special Provision providing for liquidated damages, disincentive assessments, or both prevents the Secretary from declaring a breach of contract under **subsection 108.9** for the Contractor's failure to complete work timely.

i. The Contractor, not the Secretary, shall pay for traffic control during liquidated damages periods, disincentive assessment periods, or both incurred for the Contractor's failure to meet the Contract Time. This provision shall not apply to damages incurred for failing to meet Interim Contract Times.

j. **Administering Damages.** For purposes of this **subsection 108.8**, the term "damages" means liquidated damages, disincentive assessments, or both.

The Engineer will deduct the damages from contract funds owed to the Contractor. If damages exceed contract funds, pay KDOT for remaining damages owed. Issue this payment within 10 business days after receiving notice to pay.

If the Contractor fails to pay, the Secretary may collect the amount owed from the Surety after declaring a breach of contract under **subsection 108.9**.

The Engineer will continue to assess damages even after the Secretary or Surety takes over the contract after the Contractor's breach. Both the Contractor and Surety are liable for the damages assessed.

Only the Secretary or State Transportation Engineer may waive all or part of the damages. As each situation and project is different, no damage waiver in one instance dictates a future waiver of damages on the same or another project.

11-27-2024 C&M (JVN)

JUL-2025 Letting



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# 15-01016-R03

15-01016-R03  
Sheet 2 of 2

## • April 2020 Letting

Page 100-70, subsection 108.8c.(2), change "10 business days" to "5 business days".

Page 100-72, subsection 108.8d., delete TABLE 108-1, and replace with the following:

| TABLE 108-1: TABLE OF LIQUIDATED DAMAGES |                 |                                                                                                                                                                 |                                                                                                     |
|------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Original Contract Amount Range           |                 | Amounts of Liquidated Damages to be Deducted for Each Day Over Contract Time, Project Open Time or Cleanup Time                                                 |                                                                                                     |
|                                          |                 | Condition at End of Working Days, Calendar Days, Calendar Completion Date, Cleanup Time                                                                         |                                                                                                     |
|                                          |                 | Project Not Complete after Contract Time Expires under 108.4a.(1) or Project Not Open to Unrestricted Traffic after Project Open Time Expires under 108.4a.(2)* | Project Open to Unrestricted Traffic, but not Completed after Cleanup Time Expires under 108.4a.(2) |
|                                          |                 | (A)                                                                                                                                                             | (B)                                                                                                 |
| \$0.00                                   | \$500,000.00    | \$900.00                                                                                                                                                        | \$450.00                                                                                            |
| \$500,000.01                             | \$1,000,000.00  | \$1,200.00                                                                                                                                                      | \$600.00                                                                                            |
| \$1,000,000.01                           | \$2,500,000.00  | \$1,400.00                                                                                                                                                      | \$700.00                                                                                            |
| \$2,500,000.01                           | \$5,000,000.00  | \$1,600.00                                                                                                                                                      | \$800.00                                                                                            |
| \$5,000,000.01                           | \$10,000,000.00 | \$2,000.00                                                                                                                                                      | \$1,000.00                                                                                          |
| \$10,000,000.01                          | \$25,000,000.00 | \$4,000.00                                                                                                                                                      | \$2,000.00                                                                                          |
| Over \$25,000,000.00                     |                 | \$4,000.00                                                                                                                                                      | \$2,000.00                                                                                          |

\*Or Not Available to the Next Contractor, when applicable.

11-04-19 C&M (SKE)

Apr-2020 Letting



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# CIOW

## Controlling Item of Work

**CONTROLLING ITEM(S) OF WORK. (CIOW)** - Those work item(s) that are directly interrelated such that each has a definite influence on progress of the overall work.

- This is defined by the contractors schedule and typically indicates the CRITICAL PATH
  - **The critical path is the longest sequence of dependent tasks in a project, determining the shortest possible project duration**
- What is going to prevent the project from finishing?



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# Contracts Let BEFORE July 2025

## Working Days (WD) and Clean Up Days (CUD)

- Working Days + Clean Up Days = Contract Time
- Working Days are Charged for every day after the NTP until the PNOA/NOA
- If the Contract runs out of Working Days, Clean Up Days are charged.
- (in order to charge CUDs you have to exhaust the WDs)

In AWP, if you are still impeding traffic, WDs are still input. This is how Liquidated Damages are charged.



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## Contracts Let July 2025 and AFTER

### Restricted Working Days (RWD) and Unrestricted Working Days (UWD)

- $RWD + UWD = \text{Contract Working Days}$
- From NTP to NOA you charge both a CWD and RWD for any day that the Contractor is impeding traffic.
- If the Contractor is not impeding traffic, you only charge a CWD.



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## CHARGING TIME – WORKING DAY CONTRACTS Section 108.5

**Notice to Proceed  
(NTP)**

**TIME CHARGES START**  
When work starts OR at the  
Projects LATE START DATE

***(CONTRACT) WORKING DAYS ARE CHARGED DAILY***

Partial Notice of Acceptance  
(PNOA) OR  
**Notice of Acceptance  
(NOA)**

**TIME CHARGES STOP**



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# WORKING DAYS CONTINUED

## Weekends? Holidays? Bad Weather? Exceptions?

### 108.5 WORKING DAY CONTRACTS (Also, see subsection 108.4.)

a. Complete all work necessary to open the Project to unrestricted traffic within the original contract Restricted Working Days and any additional Unrestricted Working Days allotted to the contract. Complete all remaining unfinished contract pay items, subsidiary items, incidental work, extra work, final cleanup, and final punch list within the remaining Contract Working Days permitted under subsection 108.4c.

b. The Engineer will begin charging Contract Working Days on the date of the Notice to Proceed.

c. The Engineer will assess a Contract Working Day for:

(1) Every weekday on which weather does not prevent the Contractor or a subcontractor from performing the Controlling Item of Work (CIOW) for at least 50% of the Contractor's normal workday (regardless of whether the Contractor or subcontractor performs work).

(2) Every Saturday on which the Contractor or a subcontractor chooses to work and is able to work on the CIOW (regardless of whether the Contractor or subcontractors perform work on the CIOW). **Exceptions:** Do not charge a Contract Working Day if the only work performed is for temporary erosion and sediment control maintenance or corrective actions from a SWPPP Inspection. Do not charge a Contract Working Day if the only work performed does not require inspection by the Engineer.

(3) Every Sunday or legal holiday on which the District Engineer allows the Contractor or a subcontractor to perform work requiring inspection (regardless of the type of work or the time spent working). **Exceptions:** Do not charge a Contract Working Day if the only work performed is for temporary erosion and sediment control maintenance or corrective actions from SWPPP Inspection. Do not charge a Contract Working Day if the only work performed does not require inspection by the Engineer.

(4) Every weekday the Contractor or a subcontractor is unable to perform the CIOW because of an act or omission for which the Contractor, subcontractor, or supplier is responsible under the contract.

(5) Every weekday the Contractor or a subcontractor is unable to perform the CIOW because of plant failures, equipment failures, delivery delays, inefficient operations, personnel problems, material shortages (other than national shortages meeting subsection 108.5d(5)), financial difficulties, and work on another project(s). The Contractor assumes the risk of delay associated with these matters, even though these matters may not be foreseeable. The Contractor assumes the risk of delay associated with these matters, even though these matters may be outside the Contractor's control or outside the control of the subcontractor's or suppliers at any tier.

(6) **Exception:** If weather prevents the Engineer from assessing a Contract Working Day under subsection 108.5c(1), the Engineer will not assess a Contract Working Day for a reason listed in subsections 108.5c(2) through (5).

Read Along

SP 15-01016-R04

Sheet 2 of 7



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## CHARGING TIME – CALENDAR DAY CONTRACTS Section 108.6

- Sometimes KDOT has a date that work has to be completed by.
- There will be a special provision stating all of the project specific dates.
- Typically, as the inspector you'll still track if they could have worked, so that if there is a claim/dispute later on, you have records.
- These types of projects can have Incentives/Disincentives for completing the project early/late



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## 108.8 – LIQUIDATED DAMAGES

e. The Secretary assesses liquidated damages to recover the Secretary's additional engineering costs, administration costs, supervision cost, and inspection costs for the Contractor's failure to complete the work within the Contract Time or Interim Contract Times. The Secretary assesses disincentive assessments to recover some of the public's user costs or other public expenditures that are unique to the Project and caused by the Contractor's failure to complete the work within the Contract Time or Interim Contract Times. The Secretary may combine the liquidated damages and disincentive costs into one amount and label the amount as liquidated damages. These damages are not considered a penalty but rather as an agreed upon alternative to calculating the actual damages incurred by the Secretary and users for Project delay.

Read Along 100-72 & 100-73



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## 108.8 – LIQUIDATED DAMAGES (P2)

- What if the contractor runs out of (Contract) Working Days?
- Restricted Traffic or Unrestricted Traffic

**d. Amount of damages.**

(1) On working day contracts, the Secretary will determine the amount of liquidated damages using TABLE

108-1.

| TABLE 108-1: TABLE OF LIQUIDATED DAMAGES |                 |                                                                                                                                                               |                                                                                                      |
|------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Original Contract Amount Range           |                 | Amounts of Liquidated Damages to be Deducted for Each Day Over Contract Time, Restricted Time, or Unrestricted Time                                           |                                                                                                      |
|                                          |                 | Project Not Complete after Contract Time Expires under 108.4a.(1) or Project Not Open to Unrestricted Traffic after Restricted Time Expires under 108.4a.(2)* | Project Open to Unrestricted Traffic, but not Completed after Contract Time Expires under 108.4a.(2) |
|                                          |                 | (A)                                                                                                                                                           | (B)                                                                                                  |
| \$0.00                                   | \$500,000.00    | \$600.00                                                                                                                                                      | \$300.00                                                                                             |
| \$500,000.01                             | \$1,000,000.00  | \$800.00                                                                                                                                                      | \$400.00                                                                                             |
| \$1,000,000.01                           | \$2,500,000.00  | \$950.00                                                                                                                                                      | \$450.00                                                                                             |
| \$2,500,000.01                           | \$5,000,000.00  | \$1,100.00                                                                                                                                                    | \$500.00                                                                                             |
| \$5,000,000.01                           | \$10,000,000.00 | \$1,350.00                                                                                                                                                    | \$650.00                                                                                             |
| \$10,000,000.01                          | \$25,000,000.00 | \$2,750.00                                                                                                                                                    | \$1,250.00                                                                                           |
| Over \$25,000,000.01                     |                 | \$2,750.00                                                                                                                                                    | \$1,250.00                                                                                           |

\*Or Not Available to the Next Contractor, when applicable.

Read Along

SP 15-01016-R04  
Sheet 6 of 7



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## 108.9 – BREACH OF CONTRACT

### 108.9 CONTRACTOR'S BREACH OF CONTRACT

**a. Causes for Breach.** The Secretary (or State Transportation Engineer) may declare the Contractor has breached the contract if the Contractor:

- fails to comply with the contract;
- fails to pay legal judgments within 30 days after the judgment becomes final;
- assigns contract proceeds to creditors without the Secretary or Surety's consent;
- becomes insolvent or is declared bankrupt; or
- commits a fraudulent act on this Project or another project.

- 108.10 – Owners Breach of Contract
- 108.11 – CANCELLING a Contract

Read Along 100-73



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## 109 MEASUREMENT & PAYMENT

- How are things measured?
- How are things paid?
  - Pay Items
  - Original Work
  - Subsidiary/Incidental Work
  - Bonus/Damages
  - Change Orders
- Forced Accounts
- Stored Materials & Contract Bond

Read Along 100-78

REFERENCE INDIVIDUAL SPEC SECTIONS "MEASUREMENT AND PAYMENT"



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## 109.3 – FORCE ACCOUNT PAYMENT

### 109.3 FORCE ACCOUNT PAYMENT

If the parties are unable to agree upon the amount of compensation for extra work, the Secretary may require the Contractor to perform specific work on a force account basis. Compute force account costs as follows:

a. Labor

- RECORDS are Critical.
- Make sure you know all the DETAILS for personnel/equipment

*Daily, the Contractor's representative and the Engineer shall compare and agree upon the records of labor, equipment, and materials used for the force account work.*

Read Along 100-79



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## 109.4 – STORED MATERIALS

### 109.4 STORED MATERIALS PAYMENTS

a. Request payment for properly stored nonperishable materials when the value of the stored material is a minimum of \$5,000.00 for each individual item of material, unless otherwise approved by the Engineer. Only include the actual material and shipment costs in the request. Do not include any testing fees, stockpiling costs, sales tax, etc.

b. When requesting payment for stored materials, specify the quantity of materials stored and the value of

- This is typically stated at the pre-con.
- Still have to certify their material.
- Stored materials payment requests will not be accepted if the material is scheduled for use within 30 days of the request.

Read Along 100-80



40

## 109.5 – PROGRESS PAYMENTS

### 109.5 PROGRESS PAYMENTS

**a. Work Accomplished.** The Engineer will make an approximate estimate of the work accomplished (considering price and pay adjustment factors) and pay for this work (progress payment) at intervals not to exceed one calendar month. Request progress payments at more frequent intervals, if desired. The Engineer may withhold from progress payments liquidated damages, reimbursement for remedial work under **subsection 105.5f.**, excess costs for breach of contract, final cleanup work expenses, and other deducts the Contract Documents specify.

- This is typically discussed at the pre-con.
- Every Construction Office will handle a little differently.
  - 1st and 15<sup>th</sup>
  - Every Other Week

Read Along 100-80



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## 109.6 – PAYMENTS TO SUBS & SUPPLIERS

- AWP Tracking
- “Form 1010” now “Subcontractor Payment Activity”
  - You should check these with each Pay Estimate
- 109.7 Certification & Prompt Pay

Make sure you are checking how CHANGE ORDERS affect the SUBCONTRACT amounts. (Utilize the Form 259)



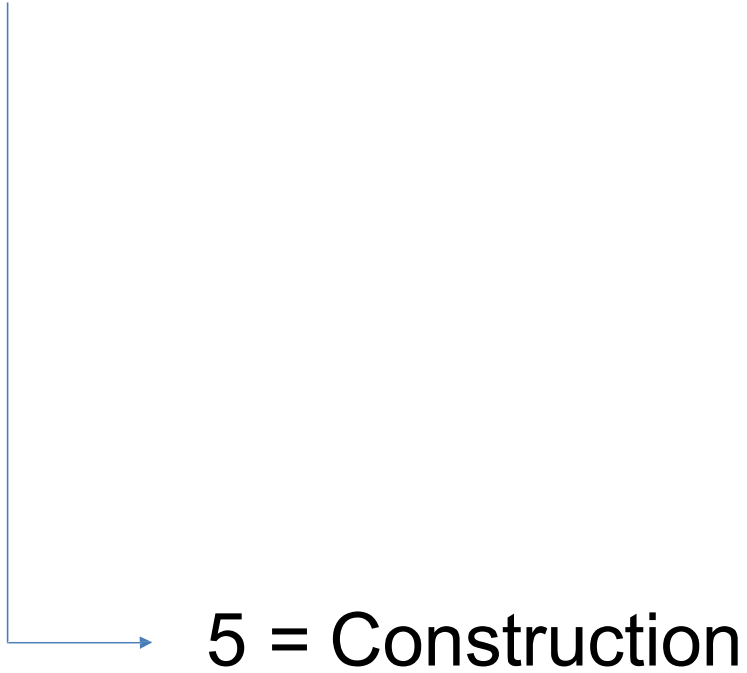
42

# Overview of A Contract



# CONTRACT NUMBERS (1)

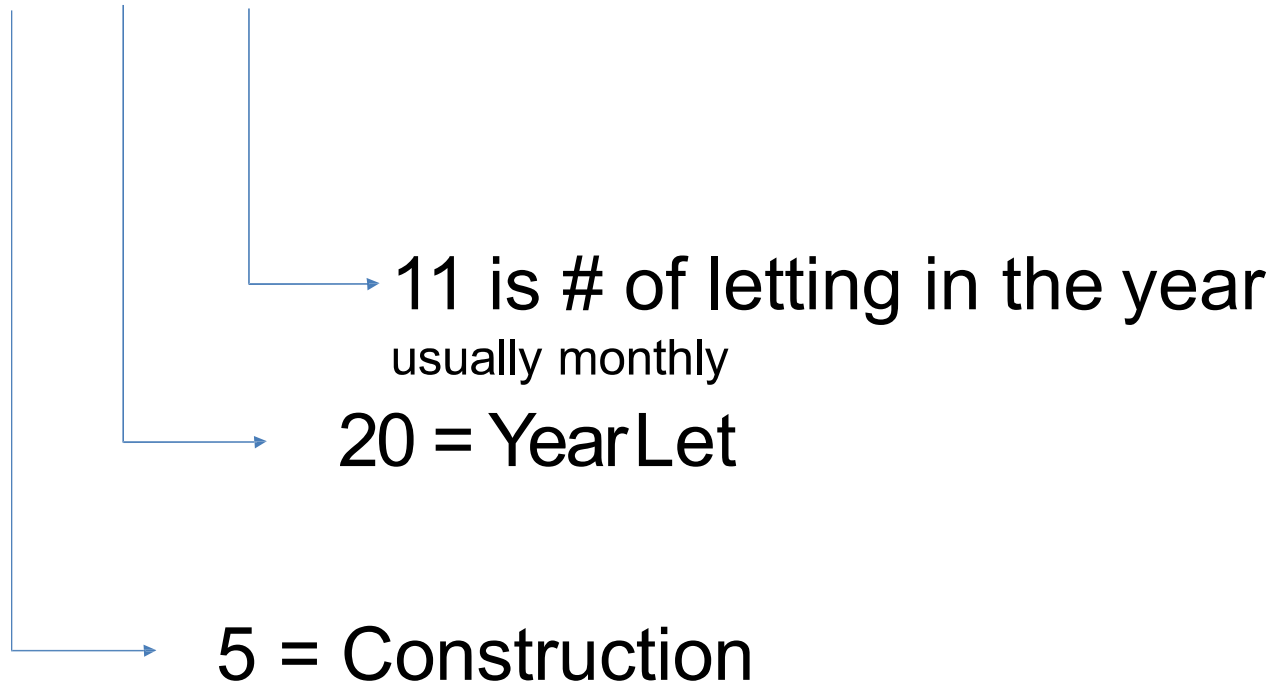
**5 20 11 226 2**



Overview of a Contract

# CONTRACT NUMBERS (3)

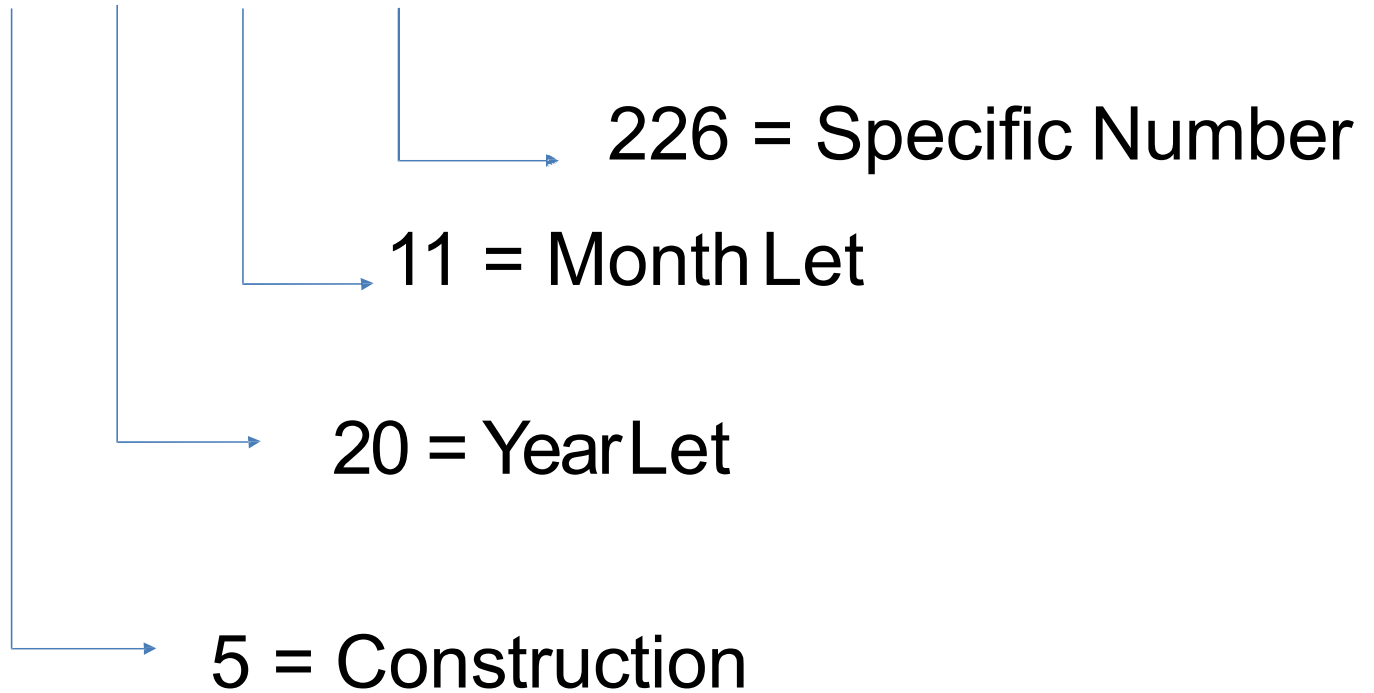
**5 20 11 226 2**



Overview of a Contract

# CONTRACT NUMBERS (4)

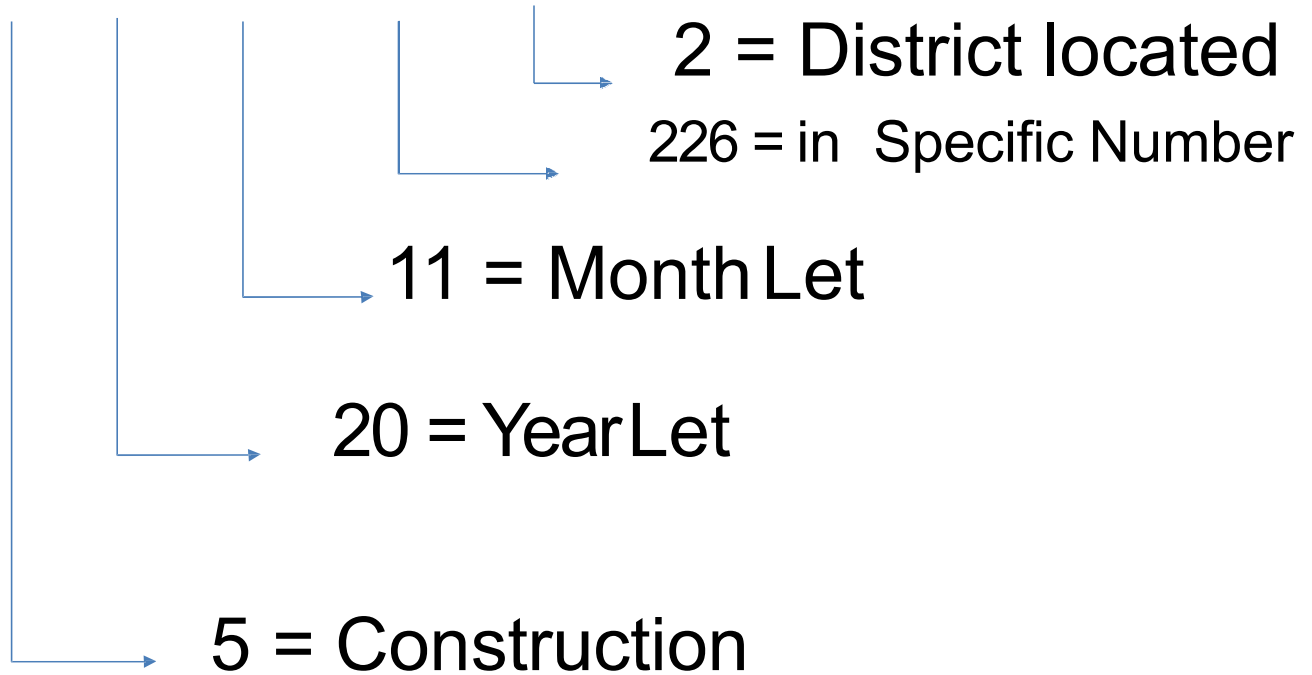
**5 20 11 226 2**



Overview of a Contract

# CONTRACT NUMBERS (5)

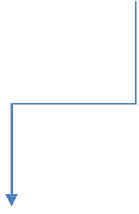
**5 20 11 226 2**



Overview of a Contract

# PROJECT NUMBERS (2)

**24 – 62 KA 3963 – 01**



Road Number

Overview of a Contract



# PROJECT NUMBERS (3)

**U24 – 62 KA 3963 – 01**

Road # should not  
be omitted.

Overview of a Contract



# PROJECT NUMBERS (4)

**24 - 62 KA 3963 - 01**

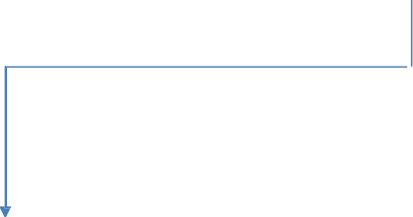
Road #

County

Overview of a Contract

# PROJECT NUMBERS (5)

**24 – 62 KA 3963 – 01**



This is  
a specific  
County  
number

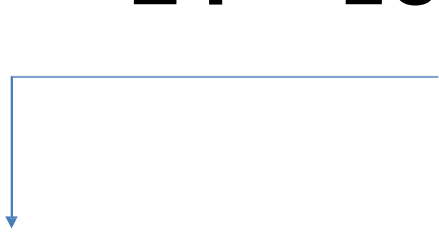
What if the project  
is located in  
multiple counties?

Overview of a Contract



# PROJECT NUMBERS (6)

**24 – 106 KA 3091 – 01**



County code

If there are multiple counties a code of 106 is assigned.

Overview of a Contract

# PROJECT NUMBERS (7)

**24 – 62 KA 3963 - 01**

Road #

County

Contract Type

Overview of a Contract



# Types of Contracts

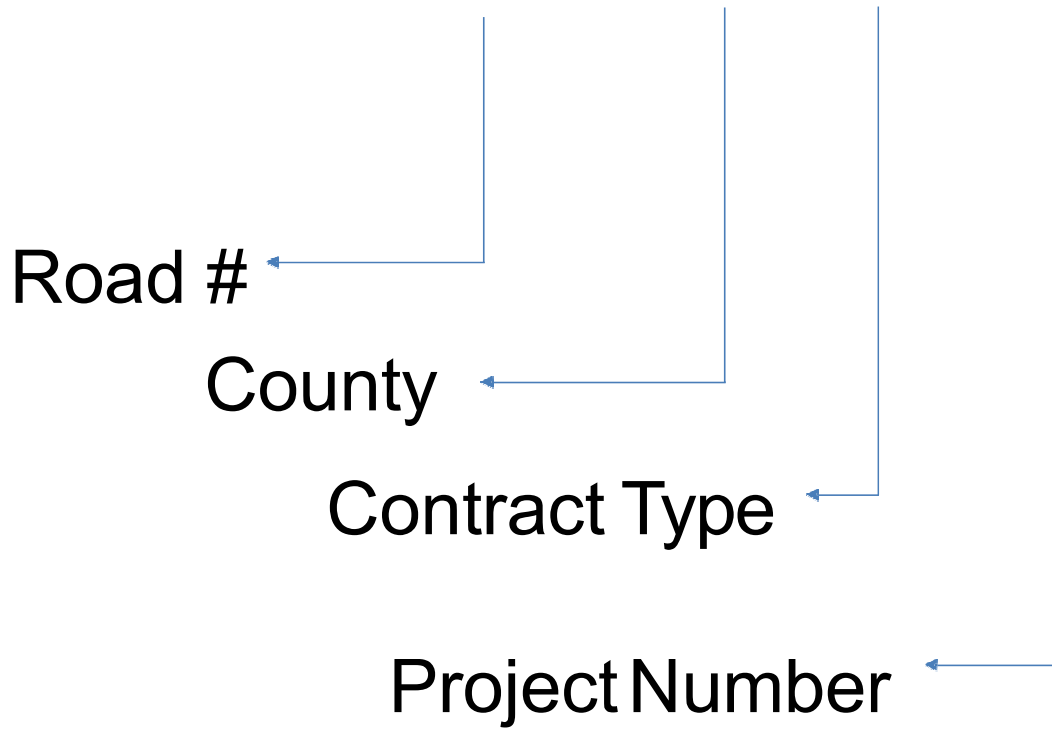
- **KA** – Typical Construction project can be state and/or federally funded.
- **C** – County projects
- **U** – Urban projects
- **TE** – Transportation Enhancement projects (traffic signals, walking and/or biking trails)
- **X** – Railroad projects (installation of lights and crossing arms, crossing replacement)



Overview of a Contract

# PROJECT NUMBERS (8)

**24 – 62 KA 3963 – 01**



Overview of a Contract

# PROJECT NUMBERS (9)

**24 – 72 KA 3963 – 01**

Road #

County

Contract Type

Project Number

Phase

Overview of a Contract



- **70-85 KA 4111-01**
- **53 X 5084-01**
- **27 C 4833-02**
- **81-75 U 5643-01**
- **59 TE 4119-01**

Overview of a Contract



# EXAMPLE CONTRACT

## KANSAS DEPARTMENT OF TRANSPORTATION

### CONTRACT

This Agreement, Entered into this day of 6/19/2023 by and between the Secretary of Transportation of the State of Kansas referred to as Secretary, and 01565 WILDCAT CONSTRUCTION CO INC & SUBSIDIARIES, WICHITA, KS, 67277-0163 and his -- her -- their -- heirs, executors, administrators, successors, or assigns, referred to as Contractor, for the construction of the project:

No. 1070-031 KA 6062-01 / ACNHP-A606(201) County GEARY

The parties agree, that for the consideration stated in the contract furnish all labor and material required to perform and complete in a workmanlike manner all the work in conformity with the plans and specifications as required by the terms of this contract. The parties understand and agree the essential contract documents for this contract are the attached proposal, contract form and contract bond, specifications which include, but are not limited to, the 2015 Standard Specifications for State Road and Bridge Construction, special provisions and general and detailed plans which are incorporated and made a part of the contract.

### SECRETARY OF TRANSPORTATION OF THE STATE OF KANSAS

By Greg Schieber Digitally signed by Greg Schieber  
DN: CN=Greg Schieber, O=Kansas Department of  
Transportation, L=Topeka, S=Kansas, C=US  
Date: 2023.06.16 08:44:14-05'00'

Title Deputy Secretary and State Transportation Engineer

01565 WILDCAT CONSTRUCTION  
Contractor CO INC & SUBSIDIARIES

By   
Debra J. Scarborough

Title Attorney-in-Fact

# EXAMPLE CONTRACT 2

## KANSAS DEPARTMENT OF TRANSPORTATION

Bond No. 107853729

### CONTRACT BOND

We, WILDCAT CONSTRUCTION CO INC & SUBSIDIARIES WICHITA, KS 67277-0163 as Principal and TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA duly authorized to transact the business of suretyship in the State of Kansas, as Surety, are held and firmly bound to the State of Kansas for \$29,066,243.15 dollars, to be paid to the Secretary of Transportation of the State of Kansas, and under which payment we bind ourselves, our heirs, legal representatives, successors, and assigns, jointly and severally by this contract.

#### CONDITIONS OF THIS OBLIGATION:

The Principal has entered into a contract with the Secretary of Transportation of the State of Kansas, dated this day of 6/19/2023, for the construction of certain improvements, known as project: 1070-031 KA 6062-01 / ACNHP-A606(201) GEARY County GRADING AND SURFACING.

GRADING AND SURFACING. I-70; FR 1 MI E OF JCT US-77/I-70 E TO ECL OF GRANDVIEW PLAZA IN GE CO. LGTH 4.413 MI. TIED TO KA 5996-01 AND KA 6773-01.

This obligation shall remain in effect until the principal fully and faithfully performs all of the following:

1. Complete all requirements and execute the work under the provisions of said contract, the plans, specifications, and any contract modifications made within specifications' time limits which may be made without notice to or consent of the surety;
2. Perform all project operations agreed to by the Principal within the contract time limit in said contract or within any additional time granted by the Secretary of Transportation of the State of Kansas;
3. Pay all indebtedness incurred for supplies, materials or labor furnished, used in the construction of the project, including but not limited to gasoline, lubricating oils, fuel oils, greases, coal and similar items used in directly carrying out the provisions of the contract;
4. Indemnify and compensate the Secretary of Transportation of the State of Kansas for any loss, cost, damage or expense, for which it may suffer or be held responsible, due to any negligence, defective condition, default, failure or miscarriage in the performance of the contract whether by the Principal, subcontractor or otherwise.

Signed and Sealed this day of 6/19/2023.

WILDCAT CONSTRUCTION CO INC & SUBSIDIARIES

PO Box 9163, Wichita, KS 67277

Principal.

Debra J. Scarborough, Attorney-in-Fact

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

One Tower Square, Hartford, CT 06183 (860) 277-0111

Surety.

Debra J. Scarborough, Attorney-in-Fact

[Seal]

(Note Certified copy of Resolution of Power of Attorney authorizing the execution of this instrument on behalf of the Surety must be attached.)

REV. 4/23

D.O.T. Form No. 282

## KANSAS DEPARTMENT OF TRANSPORTATION

### REQUIRED CONTRACT PROVISION POLICY AGAINST SEXUAL HARASSMENT

**WHEREAS**, sexual harassment and retaliation for sexual harassment claims are unacceptable forms of discrimination that must not be tolerated in the workplace; and

**WHEREAS**, state and federal employment discrimination laws prohibit sexual harassment and retaliation in the workplace; and

**WHEREAS**, officers and employees of the State of Kansas are entitled to working conditions that are free from sexual harassment, discrimination, and retaliation; and

**WHEREAS**, the Governor and all officers and employees of the State of Kansas should seek to foster a culture that does not tolerate sexual harassment, retaliation, and unlawful discrimination.

**NOW THEREFORE**, pursuant to the authority vested in me as Governor of the State of Kansas, I hereby order as follows;

1. All Executive Branch department and agency heads shall have available, and shall regularly review and update at least every three years or more frequently as necessary, their sexual harassment, discrimination, and retaliation policies. Such policies shall include components for confidentiality and anonymous reporting, applicability to intern positions, and training policies.
2. All Executive Branch department and agency heads shall ensure that their employees, interns, and contractors have been notified of the state's policy against sexual harassment, discrimination, or retaliation, and shall further ensure that such persons are aware of the procedures for submitting a complaint of sexual harassment, discrimination, or retaliation, including an anonymous complaint.
3. Executive Branch departments and agencies shall annually require training seminars regarding the policy against sexual harassment, discrimination, or retaliation. All employees shall complete their initial training session pursuant to this order by the end of the current fiscal year.
4. Within ninety (90) days of this order, all Executive Branch employees, interns, and contractors under the jurisdiction of the Office of the Governor shall be provided a written copy of the policy against sexual harassment, discrimination, and retaliation, and they shall execute a document agreeing and acknowledging that they are aware of and will comply with the policy against sexual harassment, discrimination, and retaliation.
5. Matters involving any elected official, department or agency head, or any appointee of the Governor may be investigated by independent legal counsel.
6. The Office of the Governor will require annual mandatory training seminars for all staff, employees, and interns in the office regarding policy against sexual harassment, discrimination, and retaliation, and shall maintain a record of attendance.

# EXAMPLE CONTRACT 4

03-01-18  
Sheet 2 of 2

7. Allegations of sexual harassment, discrimination, or retaliation within the Office of the Governor will be investigated promptly, and violations of law or policy shall constitute grounds for disciplinary action, including dismissal.
8. This Order is intended to supplement existing laws and regulations concerning sexual harassment and discrimination, and shall not be interpreted to in any way diminish such laws and regulations. The Order provides conduct requirements for covered persons, and is not intended to create any new right or benefit enforceable against the State of Kansas.
9. Persons seeking to report violations of this Order, or guidance regarding the application or interpretation of this Order, may contact the Office of the Governor regarding such matters.

## Agreement to Comply with the Policy Against Sexual Harassment, Discrimination and Retaliation

I hereby acknowledge that I have read the above State of Kansas Policy Against Sexual Harassment, Discrimination, and Retaliation established by Executive Order 18-04 and agree to comply with the provisions of this policy.

Contractor Name / Contractor ID: WILDCAT CONSTRUCTION CO INC & SUBSIDIARIES / 01565

By:

Signature

6/13/2023

Date

Roger McClellan

Printed Name

President

Title

1070-031 KA 6062-01 / ACNHP-A606(201)

Project No.

# Contract Proposal

**I070-031 KA 6062-01**

**ACNHP-A606(201)**

## CONTRACT PROPOSAL

**DOT Form No. 202 Rev. 02/19**

**Contract ID: 523052272**

1. The Secretary of Transportation of the State of Kansas [Secretary] will accept only electronic internet proposals from prequalified contractors for construction, improvement, reconstruction, or maintenance work in the State of Kansas, said work known as Project No.:

**I070-031 KA 6062-01**

**/ ACNHP-A606(201)**

The general scope, location and net length are:

**GRADING AND SURFACING. I-70; FR 1 MI E OF JCT US-77/I-70 E TO ECL OF GRANDVIEW PLAZA IN GE CO. LGTH 4.413 MI. TIED TO KA 5996-01 AND KA 6773-01.**

2. This is the Proposal of **01565 Wildcat Construction Co Inc & Subsidiaries** [Contractor] to complete the Project for the amount set out in the accompanying Unit Prices List.

3. The Contractor makes the following ties and riders as part of its Proposal in addition to state ties, if any:

4. Contractors and other interested entities may examine the Bidding Proposal Form/Contract Documents (see paragraph 11 below) at the County Clerk's Office in the County in which the Project is located and at the Kansas Department of Transportation [KODT] Bureau of Construction and Materials, Eisenhower State Office Building, 700 SW Harrison, Topeka, Kansas 66603. Contractors may examine and print the Bidding Proposal Form/Contract Documents by using KDOT's website at <http://www.ksdot.org> and choosing the following selections: "Doing Business", "Bidding & Letting" and "Proposal Information", and using the links provided in the Project information for this project. KDOT will not print and mail paper copies of Proposal Forms. Contractors shall notify KDOT of their intent to bid as a prime contractor by identifying themselves as a Bid Holder on the website above. Contractors shall furnish this notice no later than the close of business on the Monday preceding the scheduled Letting Date. For a fee, Contractors and other interested entities may order paper copies of the KDOT Standard Specifications for State Road and Bridge Construction, 2015 Edition, [Standard Specifications] by using KDOT's website of <http://www.ksdot.org> and choosing the following selections: "Doing Business", "Bidding & Letting" and "Specifications".

5. Contractors shall use the AASHTO's Project Bids software in combination with the electronic bidding system file created for the Project with Project Bids software [EBSX file] to generate an electronic internet proposal. The Project Bids software and Project EBSX file are available on Bid Express' website at <http://www.bidx.com>.

## Contract Proposal (2)

6. Contractors shall only use the Project Bids software to create a proposal and submit an electronic internet proposal to KDOT using the Bid Express website at <http://www.bidx.com>.

7. The KDOT Bureau of Construction and Materials will only accept electronic internet proposals on-line using Bid Express until 1:00 P.M. Local Time on the Letting Date. KDOT will open and read these proposals at the Eisenhower State Office Building, 700 SW Harrison, Topeka, Kansas 66603 at 3:00 P.M. Local Time on the Letting Date. An Audio Broadcast of the Bid Letting is available at <http://www.ksdot.org/burconsmain/audio.asp>.

8. The Contractor shall execute a contract for the proposed work within ten (10) business days after notice of the award of the contract.

9. The Contractor shall complete the work within the times specified in the Project Special Provision "Work Schedule".

10. The Contractor shall complete the Project according to the plans, Standard Specifications, provisions identified in the Special Provision List and all other Contract Documents identified in Standard Specifications subsection 101.3

11. The undersigned declares that the Contractor has carefully examined the Bidding Proposal Form for the Project. The Contractor understands the following:

A. The Bidding Proposal Form consists of the following documents: the Project EBSX files on the Bid Express website (which includes DOT Form 202, required contract provisions, and the Unit Prices List), special provision list, project special provisions, special provisions, Standard Specifications, plans, exploratory work documents, any additional contract information, any addenda, all questions and answers posted on the Bid Express website, and any amendments the Secretary provides for the Project. The Contractor can obtain these documents at KDOT's website (see paragraph 4).

B. The special provision list identifies all required contract provisions, project special provisions and special provisions that apply to the Project.

C. The Bidding Proposal form becomes the Contractor's Proposal after the Contractor completes the EBSX file, electronically signs the Proposal where required on DOT Form 202, and submits the completed EBSX file documents and bid bond to KDOT using Bid Express. The special provision list, project special provisions, special provisions, Standard Specifications, plans, exploratory work documents, any additional contract information, all questions and answers posted on the Bid Express website, and any addenda are incorporated by reference into the Proposal. These documents are part of the Contractor's Proposal.

D. In electronically signing this Proposal, the Contractor waives the right to claim that the Contractor misunderstood the contents of the Proposal or the procurement process.

12. The Contractor has inspected the actual location of the work. The Contractor has determined the availability of materials. The Contractor has evaluated all quantities and conditions. In electronically signing this Proposal, the Contractor waives the right to claim that the Contractor misunderstood the scope of the work.

## Contract Proposal (3)

13. **SPECIAL PROVISIONS REQUIRING INFORMATION.** The following Required Contract Provisions (I-XVI) require the Contractor to furnish information. The current versions of these provisions are contained in the Project EBSX file. Some or all of these apply to the Project as indicated in the Special Provision List. The Contractor shall complete these provisions within the EBSX file. When these documents are required, the Secretary will reject proposals that fail to contain completed Provisions I, II, III or IV in the EBSX file, and may reject proposals that fail to contain completed Provisions V, VI, VII, VIII, IX, X, XI, XII, XIII, XIV, XV, or XVI in the EBSX file.

- I. 08-10-66 Certification-Noncollusion & History of Debarment
- II. 04-30-82 Certification-Financial Prequalification Amount
- III. 04-26-90 Declaration-Limitations on Use of Federal Funds for Lobbying
- IV. 07-19-80 DBE Contract Goal
- V. 08-04-92 Certification-Contractual Services with a Current Legislator or a Current Legislator's Firm
- VI. 10-10-00 Price Adjustment for Fuel
- VII. 08-08-01 Furnishing and Planting Plant Materials
- VIII. 06-01-06 Price Adjustment for Asphalt Material
- IX. 05-18-07 Repair (Structures)
- X. 08-31-09 Price Adjustment for Emulsified Asphalt
- XI. 11-15-17 Electric Lighting System Unit Cost
- XII. 04-06-09 ITS Unit Cost
- XIII. 08-17-16 Water System Unit Cost
- XIV. 06-19-19 Sanitary Sewer System Unit Cost
- XV. 01-01-18 Smart Work Zone System Unit Cost
- XVI. 01-01-11 Kansas Department of Revenue Tax Clearance Certificate

14. The funding source for this Project is **FEDERAL/STATE**. On Projects involving City or County funds, the Secretary acts as the Agent of the City or County and as the administrator of federal or state funds. Each governmental entity's responsibilities are described in a contract between the entities which is available on request.

15. **FEDERAL AID DOCUMENTS INCLUDED IN PROPOSAL.** If the Project is supported in whole or in part by Federal funds, the latest revisions of the following provisions (I - VI) also apply to the Project. These documents are not included in the Project EBSX file but are accessible on KDOT's website and incorporated by reference into the proposal like other provisions and the exploratory work documents.

- I. 11-03-80 Affirmative Action For EEO
- II. 11-15-96 Affirmative Action & EEO Policies
- III. 09-06-94 U.S. DOT Fraud Hotline
- IV. FHWA-1273 Federal-Aid Required Contract Provisions
- V. 03-10-06 Use of DBE As Aggregate Supplier/Regular Dealer
- VI. 07-18-80 Use of DBE

16. The Secretary reserves the right to reject any and all proposals and to waive any or all technicalities.



# Contract Proposal (4)

## 17. SIGNATURE SECTION:

### A. Electronic Internet Proposal

The person submitting the electronic internet Proposal, on the Contractor's behalf, shall be the person whose digital identification is used to submit this Proposal. That person shall complete paragraphs B and C. The person whose digital identification is used to electronically sign this Proposal binds the Contractor to this Proposal and binds the named individual to the certification in paragraph B.

### B. Certification

I CERTIFY THAT I AM AUTHORIZED TO REPRESENT THE CONTRACTOR IN PREPARING AND PRESENTING THIS PROPOSAL. I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING (INCLUDING BUT NOT LIMITED TO THE INFORMATION CONTAINED IN THE SPECIAL PROVISIONS REFERENCED IN PARAGRAPH 13) IS TRUE AND CORRECT.

EXECUTED ON 05/24/2023

### C. Signature

Number of company or joint venture: 01565

Name of company or joint venture: Wildcat Construction Co Inc & Subsidiaries

Name of person signing: Alan G Farrington

Title of the person signing: Vice President

Signature: Electronic Internet Proposal

## RELEASED FOR CONSTRUCTION:

Date: 6/19/2023

\_\_\_\_\_  
Chief of Construction and Materials



# Special Provisions

## KANSAS DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION LIST

PAGE: 1  
DATE: 04/14/23

STATE PROJECT NO: I070-031 KA 6062-01

STATE CONTRACT NO: 523052272

FEDERAL PROJ NO. ACNHP-A606(201)

PRIMARY DISTRICT: 2

PRIMARY COUNTY: GEARY

DESCRIPTION: GRADING AND SURFACING. I-70; FR 1 MI E OF JCT US-77/I-70 E TO ECL OF GRANDVIEW PLAZA IN GE CO. LGTH 4.413 MI. TIED TO KA 5996-01 AND KA 6773-01.

NOTE: THE FOLLOWING LIST OF SPECIAL PROVISIONS ARE FOR THIS PROJECT. OMISSION OF ALL OR PART OF A SPECIAL PROVISION IN THE ATTACHED PROPOSAL (CONTRACT) DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR OBTAINING THE COMPLETE PROVISION AS LISTED.

### PROVISION NO. DESCRIPTION

|              |                                                                |
|--------------|----------------------------------------------------------------|
| 08-10-66-R05 | REQUIRED CONTRACT PROVISION-NONCOLLUSION / HISTORY-DEBARMENT   |
| 04-30-82-R07 | REQUIRED CONTRACT PROVISION-FINANCIAL PREQUALIFICATION         |
| 08-04-92-R03 | REQUIRED CONTRACT PROVISION-CONTRACTUAL SERVICES-LEGISLATOR    |
| 04-26-90-R05 | REQUIRED CONTRACT PROVISION-LIMITS OF FED FUNDS FOR LOBBYING   |
| 10-10-00-R09 | REQUIRED CONTRACT PROVISION-PRICE ADJUSTMENT FOR FUEL          |
| 06-01-06-R01 | REQUIRED CONTRACT PROVISION-PRICE ADJUSTMENT FOR ASPHALT       |
| 07-19-80-R13 | REQUIRED CONTRACT PROVISION-DBE CONTRACT GOAL                  |
| 11-03-80-R09 | REQUIRED CONTRACT PROVISION-NOTICE FOR AFFIRMATIVE ACTION      |
| 11-15-96-R06 | REQUIRED CONTRACT PROVISION-EEO REQUIREMENT                    |
| 07-01-17-R1  | REQUIRED CONTRACT PROVISION - BOYCOTT OF ISRAEL PROHIBITED     |
| KS20230136   | MINIMUM WAGE RATE (GEARY COUNTY)                               |
| 12-17-20     | REQUIRED CONTRACT PROVISION-NDAA 889 TELECOMM PROHIBITION      |
| 09-06-94-R01 | NOTICE TO CONTRACTORS (USDOT HOTLINE)                          |
| 01-01-11-R01 | REQUIRED CONTRACT PROVISION-TAX CLEARANCE CERTIFICATE          |
| FHWA-1273    | REQUIRED CONTRACT PROVISION-FEDERAL-AID CONSTRUCTION CONTRACTS |
| 03-10-06-R01 | REQUIRED CONTRACT PROVISION-DBE SUPPLIERS/REGULAR DEALERS      |
| 07-18-80-R29 | REQUIRED CONTRACT PROVISION-UTILIZATION OF DBE'S               |
| 15-ER-1-R22  | ERRATA SHEET FOR STD SPEC BOOK FOR RD & BR CONST, 2015 ED      |
| 03-01-18     | POLICY AGAINST SEXUAL HARASSMENT                               |
| 15-01002     | INFORMATION TO CONTRACTORS (STATUS OF UTILITIES)               |
| 15-01008-R02 | FUEL ADJUSTMENT                                                |
| 15-01009-R01 | ASPHALT PRICE ADJUSTMENT                                       |
| 15-01011-R06 | ENVIRONMENTAL CONCERNS - MIGRATORY BIRD TREATY ACT             |
| 15-01012-R01 | SEASONAL LIMITATIONS                                           |
| 15-01013     | REQUIRED ATTENDANCE-PRE-BID CONFERENCE                         |
| 15-01016-R03 | PROSECUTION AND PROGRESS                                       |
| 15-01018-R01 | CONTROL OF MATERIALS                                           |
| 15-01019-R02 | CONTROL OF WORK                                                |
| 15-01021-R03 | BIDDING REQUIREMENTS AND CONDITIONS                            |
| 15-01022-R04 | SCOPE OF WORK                                                  |
| 15-01023     | BIDDING REQUIREMENTS AND CONDITIONS                            |
| 15-01024     | AWARD AND EXECUTION OF CONTRACT                                |
| 15-01501     | ASPHALT SURFACING AND ASPHALT RECYCLING EQUIPMENT              |
| 15-02001     | REMOVAL OF EXISTING STRUCTURES                                 |

# Special Provisions (2)

## KANSAS DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION LIST

PAGE: 3  
DATE: 04/14/23

STATE PROJECT NO: I070-031 KA 6062-01

STATE CONTRACT NO: 523052272

FEDERAL PROJ NO. ACNHP-A606(201)

PRIMARY DISTRICT: 2

PRIMARY COUNTY: GEARY

DESCRIPTION: GRADING AND SURFACING. I-70; FR 1 MI E OF JCT US-77/I-70 E TO ECL OF GRANDVIEW PLAZA IN GE CO. LGTH 4.413 MI. TIED TO KA 5996-01 AND KA 6773-01.

NOTE: THE FOLLOWING LIST OF SPECIAL PROVISIONS ARE FOR THIS PROJECT. OMISSION OF ALL OR PART OF A SPECIAL PROVISION IN THE ATTACHED PROPOSAL (CONTRACT) DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR OBTAINING THE COMPLETE PROVISION AS LISTED.

### PROVISION NO. DESCRIPTION

|              |                                                              |
|--------------|--------------------------------------------------------------|
| 15-15002     | PREFORMED EXPANSION JOINT FILLER FOR CONCRETE                |
| 15-15004     | COLD APPLIED CHEMICALLY CURED JOINT SEALANT                  |
| 15-15005     | BACKER ROD                                                   |
| 15-16001-R01 | STRUCTURAL STEEL TUBING                                      |
| 15-16002-R03 | STEEL SIGN POSTS                                             |
| 15-16003-R01 | STEEL WIRE & WELDED WIRE FABRIC FOR CONCRETE REINFORCEMENT   |
| 15-16007-R01 | STEEL FASTENERS                                              |
| 15-16008-R01 | STEEL PLATE GUARDRAIL AND PROPRIETARY END TERMINALS          |
| 15-17001     | PORTABLE CHANGEABLE MESSAGE SIGNS                            |
| 15-17004-R05 | RELEASE COMPOUND FOR ASPHALT MIXES                           |
| 15-17007-R02 | GEOSYNTHETICS                                                |
| 15-19005-R04 | USES OF PIPE                                                 |
| 15-19006-R01 | CMP AND END SECTIONS                                         |
| 15-20001-R01 | PORTLAND CEMENT AND BLENDED HYDRAULIC CEMENT                 |
| 15-20002     | HYDRATED LIME                                                |
| 15-20004     | FLYASH FOR USE IN CONCRETE                                   |
| 15-20005     | SILICA FUME                                                  |
| 15-20006     | SLAG CEMENT FOR USE IN CONCRETE AND MORTAR                   |
| 15-21001     | SEEDS                                                        |
| 15-22001-R01 | THERMOPLASTIC                                                |
| 15-22003-R02 | MULTI - COMPONENT LIQUID PAVEMENT MARKING MATERIAL           |
| 15-22004-R02 | PAVEMENT MARKING PAINT                                       |
| 15-22005-R03 | IMAGE SYSTEMS                                                |
| 15-22006-R01 | RETROREFLECTIVE SHEETING                                     |
| 15-22008-R01 | PREFORMED THERMOPLASTIC PAVEMENT MARKING MATERIAL            |
| 15-22011     | ROLL-UP SIGNS                                                |
| 15-22014     | HIGH DURABILITY PAVEMENT MARKING MATERIAL                    |
| 15-23001-R02 | WOOD POSTS                                                   |
| 15-23003     | FIELD HANDLING AND PRESERVATIVE TREATMENT OF WOOD PRODUCTS   |
| 15-25001-R07 | PART V                                                       |
| 15-26001-R10 | MATERIALS CERTIFICATIONS                                     |
| 15-PS0010-R2 | HOT MIX ASPHALT (HMA) CONSTRUCTION                           |
| 15-PS0018    | COMBINATION, TIED BIDS ON 1R PROJECTS WITH FEDERAL-AID FUNDS |
| 15-PS0020-R1 | E-TICKETING SYSTEM(ETS) FOR HOT MIX ASPHALT(HMA)             |

# Special Provisions (3)

KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION LIST

PAGE: 4  
DATE: 04/14/23

STATE PROJECT NO: I070-031 KA 6062-01

STATE CONTRACT NO: 523052272

FEDERAL PROJ NO. ACNHP-A606(201)

PRIMARY DISTRICT: 2

PRIMARY COUNTY: GEARY

DESCRIPTION: GRADING AND SURFACING. I-70; FR 1 MI E OF JCT US-77/I-70 E TO ECL OF GRANDVIEW PLAZA IN GE CO. LGTH 4.413 MI. TIED TO KA 5996-01 AND KA 6773-01.

NOTE: THE FOLLOWING LIST OF SPECIAL PROVISIONS ARE FOR THIS PROJECT. OMISSION OF ALL OR PART OF A SPECIAL PROVISION IN THE ATTACHED PROPOSAL (CONTRACT) DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR OBTAINING THE COMPLETE PROVISION AS LISTED.

PROVISION NO. DESCRIPTION

|           |                                      |
|-----------|--------------------------------------|
| 15-PS0247 | HOT MIX ASPHALT(HMA)COMMERCIAL GRADE |
| 15-WS0272 | WORK SCHEDULE                        |

END OF SPECIAL PROVISION LIST

**REQUIRED CONTRACT PROVISION - 10-10-00-R09 (Rev. 01/20)****PRICE ADJUSTMENT FOR FUEL**

The Contractor may accept or reject the application of Special Provision 15-01008 (latest revision) "Price Adjustment for Fuel". **Any items listed on Special Provision 15-01008 (latest revision) that are included in this project are eligible for the fuel price adjustment unless otherwise stated in the contract documents.**

Answer 'Accept' if you accept this provision. Answer 'Reject' if you reject this provision and the provision will not be part of the contract.

☒ **Accept**      ☐ **Reject**

If the Contractor accepts 15-01008 (latest revision), the Contractor shall mark the checkboxes below for the eligible items/sections listed in Special Provision 15-01008 (latest revision). Then they should indicate their desire for the specific fuel price adjustment by selecting the 'Yes' or 'No' option.

☐**Road Items (Earthwork)**☐**Concrete Surfacing Items**☐**No****Asphalt Surfacing Items**

**KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION TO THE  
STANDARD SPECIFICATIONS, EDITION 2015**

**FUEL ADJUSTMENT**

**1.0 DESCRIPTION**

This is the method of price adjustment for fuel (regardless of the type of fuel) used on various items of work involved in the construction of the Project.

This specification applies when 10-10-00-Required Contract Provision Price Adjustment for Fuel, latest revision, is a part of the contract, and the Contractor accepts that provision.

**2.0 METHOD OF PRICE ADJUSTMENT FOR FUEL**

**a. Items of Work Included.** The items of work subject to price adjustment for fuel are those selected by the Contractor on 10-10-00, latest revision. The Fuel Use Factors for those items are shown in **TABLE 1**, next sheet.

**b. Price Adjustment.**

- The Engineer will make fuel adjustment payments (or deductions) for the applicable work completed, except no payments are made for work that is completed after the expiration of the working days or calendar completion date. Deductions for fuel adjustment are made regardless of whether or not the working days or calendar completion date has expired.
- The Contractor will begin work on the Project as soon as possible (check with the District Engineer before the letting to obtain the anticipated starting date) and pursue the work in an expeditious manner. Do not move off the Project without the written permission of the Engineer. If the Contractor moves off the Project without the written permission of the Engineer, the Engineer will discontinue the payments for fuel price adjustment for the remainder of the contract. Deductions for fuel adjustment are made regardless of whether or not the payments for fuel price adjustments are discontinued.
- The Engineer will establish a Monthly Fuel Index (MFI) on the first day (excluding Saturdays, Sundays, and holidays) of each month. The Engineer will base the MFI on the Rack Average given for NO2-ULS Fuel, St. Louis, reported by AXXIS Petroleum, Inc., Axxis Price Service. The MFI for the month the contract is let becomes the Starting Fuel Index (SFI) for the duration of the contract. Information regarding the computation of the MFI is available from the Bureau of Construction and Materials, Topeka, Kansas.
- The difference (plus or minus) between the SFI and MFI (to the nearest \$0.01 per gallon) is the Monthly Fuel Index Adjustment Factor (MFIAF). The MFIAF established on the first day (excluding Saturdays, Sundays, and holidays) of each month is applied to applicable work completed during that month.
- The Fuel Use Factor (FUF) for the various items of work is in **TABLE 1**, next sheet.
- The fuel adjustment payment (or deduction) is computed each pay period in this way:

$$\text{Fuel Adjustment (in dollars)} = \text{FUF} \times \text{MFIAF} \times \text{Units of Work on the Pay Estimate}$$

- The Engineer will make adjustment payments (or deductions) for the applicable work completed, using the bid item "Fuel Adjustment".

| TABLE 1: FUEL USE FACTOR ITEMS OF WORK   |                                                               |                            |
|------------------------------------------|---------------------------------------------------------------|----------------------------|
| ITEM OF WORK                             | FUEL USE FACTOR PER UNIT<br>(U.S. Customary units and metric) |                            |
| Road Items (Earthwork) Section           |                                                               |                            |
| Common Excavation                        | 0.25 gals. per cubic yard                                     | 0.33 gal. per cubic meter  |
| Common Excavation (Contractor-Furnished) | 0.25 gals. per cubic yard                                     | 0.33 gal. per cubic meter  |
| Rock Excavation                          | 0.33 gals. per cubic yard                                     | 0.43 gal. per cubic meter  |
| Rock Excavation (Non-Durable Shale)      | 0.33 gals. per cubic yard                                     | 0.43 gal. per cubic meter  |
| Unclassified Excavation                  | 0.29 gals. per cubic yard                                     | 0.38 gal. per cubic meter  |
| Embankment                               | 0.30 gals. per cubic yard                                     | 0.39 gal. per cubic meter  |
| Embankment (Contractor-Furnished)        | 0.30 gals. per cubic yard                                     | 0.39 gal. per cubic meter  |
| Concrete Surfacing Section               |                                                               |                            |
| Concrete Placement: 3 inches*            | 0.30 gals. Per square yard                                    | 0.36 gal. per square meter |
| Concrete Placement: 3 ½ inches*          | 0.33 gals. Per square yard                                    | 0.39 gal. per square meter |
| Concrete Placement: 4 inches*            | 0.36 gals. Per square yard                                    | 0.43 gal. per square meter |
| Concrete Placement: 4 ½ inches*          | 0.39 gals. Per square yard                                    | 0.46 gal. per square meter |
| Concrete Placement: 5 inches*            | 0.42 gals. Per square yard                                    | 0.50 gal. per square meter |
| Concrete Placement: 5 ½ inches*          | 0.45 gals. Per square yard                                    | 0.53 gal. per square meter |
| Concrete Placement: 6 inches*            | 0.48 gals. Per square yard                                    | 0.57 gal. per square meter |
| Bonded Concrete Pavement (3 inches)*     | 0.30 gals. Per square yard                                    | 0.36 gal. per square meter |
| Bonded Concrete Pavement (3 ½ inches)*   | 0.33 gals. Per square yard                                    | 0.39 gal. per square meter |
| Bonded Concrete Pavement (4 inches)*     | 0.36 gals. Per square yard                                    | 0.43 gal. per square meter |
| Bonded Concrete Pavement (4 ½ inches)*   | 0.39 gals. Per square yard                                    | 0.46 gal. per square meter |
| Bonded Concrete Pavement (5 inches)*     | 0.42 gals. Per square yard                                    | 0.50 gal. per square meter |
| Bonded Concrete Pavement (5 ½ inches)*   | 0.45 gals. Per square yard                                    | 0.53 gal. per square meter |
| Bonded Concrete Pavement (6 inches)*     | 0.48 gals. Per square yard                                    | 0.57 gal. per square meter |
| Concrete Pavement: 6 inches              | 0.48 gals. Per square yard                                    | 0.58 gal. per square meter |
| Concrete Pavement: 6 ½ inches            | 0.51 gals. Per square yard                                    | 0.61 gal. per square meter |
| Concrete Pavement: 7 inches              | 0.54 gals. Per square yard                                    | 0.65 gal. per square meter |
| Concrete Pavement: 7 ½ inches            | 0.57 gals. Per square yard                                    | 0.69 gal. per square meter |
| Concrete Pavement: 8 inches              | 0.60 gals. Per square yard                                    | 0.72 gal. per square meter |
| Concrete Pavement: 8 ½ inches            | 0.63 gals. Per square yard                                    | 0.76 gal. per square meter |
| Concrete Pavement: 9 inches              | 0.66 gals. Per square yard                                    | 0.79 gal. per square meter |
| Concrete Pavement: 9 ½ inches            | 0.69 gals. Per square yard                                    | 0.82 gal. per square meter |
| Concrete Pavement: 10 inches             | 0.72 gals. Per square yard                                    | 0.86 gal. per square meter |
| Concrete Pavement: 10 ½ inches           | 0.75 gals. Per square yard                                    | 0.89 gal. per square meter |
| Concrete Pavement: 11 inches             | 0.78 gals. Per square yard                                    | 0.93 gal. per square meter |
| Concrete Pavement: 11 ½ inches           | 0.81 gals. Per square yard                                    | 0.96 gal. per square meter |
| Concrete Pavement: 12 inches             | 0.83 gals. Per square yard                                    | 0.99 gal. per square meter |
| Concrete Pavement: 12 ½ inches           | 0.86 gals. Per square yard                                    | 1.02 gal per square meter  |
| Concrete Pavement: 13 inches             | 0.89 gals. Per square yard                                    | 1.06 gal. per square meter |
| Concrete Pavement: 13 ½ inches           | 0.92 gals. Per square yard                                    | 1.10 gal. per square meter |
| Concrete Pavement: 14 inches             | 0.95 gals. Per square yard                                    | 1.14 gal. per square meter |
| Concrete Pavement: 14 ½ inches           | 0.98 gals. Per square yard                                    | 1.17 gal. per square meter |
| Asphalt Surfacing Section                |                                                               |                            |
| Cold Recycled Asphalt Material           | 10.20 gals. per station                                       | 334.65 gals. per kilometer |
| Surface Recycled Asphalt Construction**  | 2.40 gals. per ton                                            | 2.65 gals. per megagram    |
| HMA – Construction***                    | 2.40 gals. per ton                                            | 2.65 gals. per megagram    |
| HMA - (Commercial Grade)                 | 2.40 gals. per ton                                            | 2.65 gals. per megagram    |

\*For Bonded Concrete Pavement. When both items are in contract, only pay on Concrete Placement bid item.

\*\* Calculate theoretical tons (mg) of asphalt.

\*\*\* **NOTE:** If Asphalt Treated Base or Asphalt Treated Base-Commercial Grade (Class A) are bid as alternates on the project, the price adjustment does not apply to those bid items.

**REQUIRED CONTRACT PROVISION - 06-01-06-R01 (Rev. 03/15)****PRICE ADJUSTMENT FOR ASPHALT MATERIAL**

The Contractor may accept or reject the application of Special Provision 15-01009 (latest revision) "Price Adjustment for Asphalt Material."

Answer 'Accept' if you accept this provision. Answer 'Reject' if you reject this provision and the provision will not be part of the contract.

☒ **Accept** ☐ **Reject**



## REQUIRED CONTRACT PROVISION - 01-01-11-R01 (Rev. 07/13)

## TAX CLEARANCE CERTIFICATE

Answer 'Yes' if the Contractor has a current Tax Clearance Certificate. Answer 'No' if the Contractor does not have a current Tax Clearance Certificate.

☒ Yes ☐ No

Insert the Tax Clearance Confirmation Number if available at the time of bidding:

CPER-SMGY-B62G

Contractors shall have a current Tax Clearance Certificate from the Kansas Department of Revenue [KDOR] at the time of contract award. The Tax Clearance process is a tax account review by KDOR to determine that the Contractor's account is compliant with Kansas tax laws administered by the Director of Taxation. **The Secretary will reject the Contractor's Proposal as non-responsive if the Contractor does not have a current Tax Clearance Certificate at the time of the contract award.**

To obtain a Tax Clearance Certificate, the Contractor shall complete and submit to KDOR an Application for Tax Clearance obtained from KDOR's website at <http://www.ksrevenue.org/taxclearance.htm>. The Application Form can be completed and submitted on-line, by mail, or by fax. After the Contractor submits the Application, KDOR will provide the Contractor a Transaction ID number. The Contractor shall use the Transaction ID number to retrieve the Tax Clearance Certificate. Decisions on on-line applications are generally available the following business day.

After the Contractor obtains the Tax Clearance Certificate, the Contractor shall insert on this Required Contract Provision the Confirmation Number contained in the Certificate or the Contractor shall submit a copy of the Tax Clearance Certificate to the KDOR Bureau of Construction and Materials by hand delivery, mail, e-mail or fax. Before awarding a contract, the Bureau of Construction and Materials will authenticate the Certificate through the Confirmation Number inserted on this Required Contract Provision or contained on the Certificate submitted.

If the Contractor is unable to retrieve the Tax Clearance Certificate or if KDOR denies the Contractor's Application for Tax Clearance, the Contractor shall call KDOR's Special Projects Team at **785-296-3199** to determine why KDOR failed to issue the certificate.

Tax Clearance Certificates are valid for 90 days after issue. To renew a clearance, submit a new Tax Clearance Application. Information pertaining to a Tax Clearance is subject to change for various reasons, including a state tax audit, federal tax audit, agent actions, hearings, and other legal actions. The Tax Clearance Certificate is not "clearance" for all types of taxes the State of Kansas may assess.

Subcontractors also shall have a current Tax Clearance Certificate from KDOR before the Secretary approves them for subcontract work. The Contractor shall submit to the KDOR Field Office the Subcontractor's Tax Clearance Certificate with KDOR Form 259, Request for Approval of Subcontractor.

# EXAMPLE CONTRACT: BID ITEMS LIST

Department of Transportation

Project No. I070-031 KA 6062-01

Contract No. 523052272

| Line Number             | Item Number                                                      | Quantity | Unit | Unit Price      | Extension Price       |
|-------------------------|------------------------------------------------------------------|----------|------|-----------------|-----------------------|
| <b>Section 01</b>       |                                                                  |          |      |                 |                       |
|                         | <b>COMMON ITEM</b>                                               |          |      |                 |                       |
| 1                       | 020100                                                           | 1.00     | LS   | \$150,000.000   | \$150,000.00          |
|                         | CONTRACTOR CONSTRUCTION STAKING /                                |          |      |                 |                       |
| 2                       | 025600                                                           | 1.00     | EACH | \$50,000.000    | \$50,000.00           |
|                         | FIELD OFFICE AND LABORATORY (TYPE A) /                           |          |      |                 |                       |
| 3                       | 025323                                                           | 1.00     | LS   | \$2,377,800.000 | \$2,377,800.00        |
|                         | MOBILIZATION /                                                   |          |      |                 |                       |
| 4                       | 070626                                                           | 1.00     | LS   | \$85,000.000    | \$85,000.00           |
|                         | MOBILIZATION (DBE) /                                             |          |      |                 |                       |
| 5                       | 020001                                                           | 1.00     | LS   | \$16,000.000    | \$16,000.00           |
|                         | MAINTENANCE AND RESTORATION OF HAUL ROADS (SET PRICE) / NON-PART |          |      |                 |                       |
| 6                       | 025200                                                           | 1.00     | LS   | \$66,400.000    | \$66,400.00           |
|                         | REMOVAL OF EXISTING STRUCTURES /                                 |          |      |                 |                       |
| 7                       | 012340                                                           | 1.00     | CUYD | \$40.000        | \$40.00               |
|                         | FOUNDATION STABILIZATION (SET PRICE) /                           |          |      |                 |                       |
| 8                       | 055660                                                           | 4000.00  | HOUR | \$2.000         | \$8,000.00            |
|                         | TRAINEES HIGHWAY CONSTRUCTION (SET PRICE) / NON-PART             |          |      |                 |                       |
| 9                       | 070580                                                           | 1.00     | HOUR | \$25.000        | \$25.00               |
|                         | FLAGGER (SET PRICE) /                                            |          |      |                 |                       |
| <b>Section 01 Total</b> |                                                                  |          |      |                 | <b>\$2,753,265.00</b> |
|                         |                                                                  |          |      |                 |                       |
| <b>Section 02</b>       |                                                                  |          |      |                 |                       |
|                         | <b>ROAD ITEMS</b>                                                |          |      |                 |                       |
| 10                      | 030700                                                           | 80.00    | PMPS | \$800.000       | \$64,000.00           |
|                         | MOWING /                                                         |          |      |                 |                       |
| 11                      | 025361                                                           | 1.00     | LS   | \$102,100.000   | \$102,100.00          |
|                         | CLEARING AND GRUBBING /                                          |          |      |                 |                       |
| 12                      | 012410                                                           | 8498.00  | CUYD | \$23.500        | \$199,703.00          |
|                         | COMMON EXCAVATION (RURAL SMALL) /                                |          |      |                 |                       |
| 13                      | 012415                                                           | 10815.00 | CUYD | \$26.000        | \$281,190.00          |
|                         | COMMON EXCAVATION (CONTRACTOR FURNISHED) /                       |          |      |                 |                       |
| 14                      | 012420                                                           | 57001.00 | CUYD | \$27.200        | \$1,550,427.20        |
|                         | ROCK EXCAVATION /                                                |          |      |                 |                       |
| 15                      | 010114                                                           | 1.00     | MGAL | \$35.000        | \$35.00               |
|                         | WATER (GRADING) (SET PRICE) /                                    |          |      |                 |                       |
| 16                      | 012332                                                           | 3397.00  | CUYD | \$1.850         | \$6,284.45            |
|                         | COMPACTION OF EARTHWORK (TYPE B) (MR-90) /                       |          |      |                 |                       |
| 17                      | 012317                                                           | 11093.00 | CUYD | \$1.850         | \$20,522.05           |
|                         | COMPACTION OF EARTHWORK (TYPE A) (MR-5-5) /                      |          |      |                 |                       |
| 18                      | 012319                                                           | 932.00   | CUYD | \$1.950         | \$1,817.40            |
|                         | COMPACTION OF EARTHWORK (TYPE AA) (MR-5-5) /                     |          |      |                 |                       |
| 19                      | 025007                                                           | 1.00     | EACH | \$200.000       | \$200.00              |
|                         | TOWING (COURTESY) (SET PRICE) /                                  |          |      |                 |                       |
| 20                      | 011590                                                           | 1.00     | CUYD | \$35.000        | \$35.00               |
|                         | TEMPORARY SURFACING MATERIAL (AGGREGATE) (SET PRICE) /           |          |      |                 |                       |
| 21                      | 045009                                                           | 3104.00  | LNFT | \$276.000       | \$856,704.00          |
|                         | SLOTTED DRAIN (18") /                                            |          |      |                 |                       |

# EXAMPLE CONTRACT: BID ITEMS LIST 2

Department of Transportation

Project No. I070-031 KA 6062-01

Contract No. 523052272

|                  |        |          |                                                            |               |                |
|------------------|--------|----------|------------------------------------------------------------|---------------|----------------|
| 100              | 025343 | 42840.00 | EADA                                                       | \$0.400       | \$17,136.00    |
|                  |        |          | WORK ZONE WARNING LIGHT (TYPE "A" LOW INTENSITY) /         |               |                |
| 101              | 025364 | 5040.00  | EADA                                                       | \$8.000       | \$40,320.00    |
|                  |        |          | ARROW DISPLAY /                                            |               |                |
| 102              | 025365 | 4410.00  | EADA                                                       | \$25.000      | \$110,250.00   |
|                  |        |          | PORTABLE CHANGEABLE MESSAGE SIGN /                         |               |                |
| 103              | 070916 | 4645.60  | STAL                                                       | \$130.000     | \$603,928.00   |
|                  |        |          | PAVEMENT MARKING (TEMP) 4" SOLID (TYPE I) /                |               |                |
| 104              | 070917 | 535.10   | STAL                                                       | \$50.000      | \$26,755.00    |
|                  |        |          | PAVEMENT MARKING (TEMP) 4" SOLID (TYPE II) /               |               |                |
| 105              | 070914 | 201.00   | STAL                                                       | \$40.000      | \$8,040.00     |
|                  |        |          | PAVEMENT MARKING (TEMP) 4" BROKEN (8') (TYPE I) /          |               |                |
| 106              | 070915 | 58.80    | STAL                                                       | \$30.000      | \$1,764.00     |
|                  |        |          | PAVEMENT MARKING (TEMP) 4" BROKEN (8') (TYPE II) /         |               |                |
| 107              | 070912 | 64.70    | STAL                                                       | \$40.000      | \$2,588.00     |
|                  |        |          | PAVEMENT MARKING (TEMP) 4" BROKEN (3') (TYPE I) /          |               |                |
| 108              | 070923 | 7.10     | STAL                                                       | \$30.000      | \$213.00       |
|                  |        |          | PAVEMENT MARKING (TEMP) 4" BROKEN (3') (TYPE II) /         |               |                |
| 109              | 071664 | 359.00   | STAL                                                       | \$200.000     | \$71,800.00    |
|                  |        |          | PAVEMENT MARKING (TEMP) (SOLID) (LINE MASKING TAPE) /      |               |                |
| 110              | 071663 | 184.00   | STAL                                                       | \$200.000     | \$36,800.00    |
|                  |        |          | PAVEMENT MARKING (TEMP) (BROKEN) (LINE MASKING TAPE) /     |               |                |
| 111              | 013019 | 29104.00 | LNFT                                                       | \$0.500       | \$14,552.00    |
|                  |        |          | PAVEMENT MARKING REMOVAL /                                 |               |                |
| 112              | 082001 | 3.00     | EACH                                                       | \$180.000     | \$540.00       |
|                  |        |          | WORK ZONE SIGN (SPECIAL) (16.25 SQ.FT. & LESS) /           |               |                |
| 113              | 082002 | 10.00    | EACH                                                       | \$500.000     | \$5,000.00     |
|                  |        |          | WORK ZONE SIGN (SPECIAL) (16.26 SQ.FT. & OVER) /           |               |                |
| 114              | 070619 | 1237.00  | EACH                                                       | \$25.000      | \$30,925.00    |
|                  |        |          | RIGID RAISED PAVEMENT MARKER (TYPE I) /                    |               |                |
| 115              | 070620 | 1069.00  | EACH                                                       | \$35.000      | \$37,415.00    |
|                  |        |          | RIGID RAISED PAVEMENT MARKER (TYPE II) /                   |               |                |
| 116              | 025308 | 1.00     | LS                                                         | \$90,000.000  | \$90,000.00    |
|                  |        |          | TRAFFIC SIGNAL INSTALLATION (TEMPORARY) /                  |               |                |
| 117              | 072116 | 1.00     | LS                                                         | \$495,000.000 | \$495,000.00   |
|                  |        |          | TRAFFIC CONTROL (INITIAL SETUP) /                          |               |                |
| 118              | 011927 | 9338.00  | LNFT                                                       | \$29.500      | \$275,471.00   |
|                  |        |          | CONCRETE SAFETY BARRIER (TYPE F3) (TEMPORARY) /            |               |                |
| 119              | 011929 | 7600.00  | LNFT                                                       | \$6.000       | \$45,600.00    |
|                  |        |          | CONCRETE SAFETY BARRIER (TYPE F3) (TEMPORARY - RELOCATE) / |               |                |
| 120              | 011074 | 5.00     | EACH                                                       | \$6,000.000   | \$30,000.00    |
|                  |        |          | IMPACT ATTENUATOR (TL-3) (TEMPORARY) /                     |               |                |
| 121              | 018158 | 10.00    | EACH                                                       | \$1.000       | \$10.00        |
|                  |        |          | REPLACEMENT MODULES (IMPACT ATTENUATOR) /                  |               |                |
| Section 10 Total |        |          |                                                            |               | \$2,096,630.00 |

|            |                 |
|------------|-----------------|
| Item Total | \$29,066,243.15 |
|------------|-----------------|

## 07-19-80-R13 DBE List Summary

Project: I070-031 KA 6062-01

Bid Total: 29,066,243.15

Bidder ID: 01565

Contractor: Wildcat Construction Co Inc &  
Subsidiaries

Goal: 4.50% (1,307,980.94)

Total Entered: 8.14% (2,365,873.25)

Race Neutral Amount: 1,057,892.31

| ID    | DBE Contractor         | Used As       | Item<br>Count | DBE Amount     | Complete |
|-------|------------------------|---------------|---------------|----------------|----------|
| 04713 | CILLESSEN AND SONS INC | Subcontractor | 42            | \$2,365,873.25 | True     |

**EXAMPLE CONTRACT: DBE BREAKOUT**

Department of Transportation

Project No. I070-031 KA 6062-01

Contract No. 523052272

**DBE Entry List**

Name: CILLESSEN AND SONS INC ID: 04713

Address: PO BOX 9 KECHI, KS 67067-0009

Used As: Subcontractor

NAICS Codes: 237310

Bid Quote: \$2,365,873.25

Note: The lump sum amount bid for "Mobilization(DBE)" cannot exceed 10% of the total amount identified by the contractor for each DBE.

Note: Only 60% of the amount paid to a DBE supplier, for materials, may be credited toward the DBE goal. The 60% is automatically calculated, please enter the full amount paid to a DBE supplier.

Note: A list of certified DBEs and their valid NAICS codes can be found in the DBE Directory at KDOT's website: "<http://kdotapp.ksdot.org/dbecontractorlist/>".

**Items for CILLESSEN AND SONS INC****01  
COMMON ITEM**

|   |                |         |               |              |
|---|----------------|---------|---------------|--------------|
| 3 | 025323         | 1.00 LS | \$250,000.000 | \$250,000.00 |
|   | MOBILIZATION / |         |               |              |

Note: Portion of Item Only - Amount quoted by Cillessen &amp; Sons

|   |                      |         |              |             |
|---|----------------------|---------|--------------|-------------|
| 4 | 070626               | 1.00 LS | \$85,000.000 | \$85,000.00 |
|   | MOBILIZATION (DBE) / |         |              |             |

|                  |              |
|------------------|--------------|
| Section 01 Total | \$335,000.00 |
|------------------|--------------|

**08  
SIGNING ITEMS**

|    |                                                                |           |          |          |
|----|----------------------------------------------------------------|-----------|----------|----------|
| 78 | 026054                                                         | 4.00 EACH | \$70.000 | \$280.00 |
|    | SIGNING DELINEATOR (TYPE A) (WHITE FLEXIBLE) (TYPE 3 ANCHOR) / |           |          |          |

|    |                                                           |             |          |             |
|----|-----------------------------------------------------------|-------------|----------|-------------|
| 79 | 026057                                                    | 519.00 EACH | \$70.000 | \$36,330.00 |
|    | SIGNING DELINEATOR (TYPE A) (YELLOW FLEX) (TY 3 ANCHOR) / |             |          |             |

|                  |             |
|------------------|-------------|
| Section 08 Total | \$36,610.00 |
|------------------|-------------|

**09  
PAVEMENT MARKING ITEMS**

|    |                                                                      |                |         |              |
|----|----------------------------------------------------------------------|----------------|---------|--------------|
| 81 | 023154                                                               | 105609.00 LNFT | \$1.250 | \$132,011.25 |
|    | PAVEMENT MARKING (MULTI-COMPONENT) (WHITE) ( 6") (WET RECOVERABLE) / |                |         |              |

|    |                                                                      |               |         |             |
|----|----------------------------------------------------------------------|---------------|---------|-------------|
| 82 | 023155                                                               | 13360.00 LNFT | \$2.000 | \$26,720.00 |
|    | PAVEMENT MARKING (MULTI-COMPONENT) (WHITE) ( 8") (WET RECOVERABLE) / |               |         |             |

|    |        |             |          |            |
|----|--------|-------------|----------|------------|
| 83 | 023158 | 695.00 LNFT | \$10.000 | \$6,950.00 |
|----|--------|-------------|----------|------------|

**EXAMPLE CONTRACT: DBE BREAKOUT 2**

ment of Transportation

Project No. I070-031 KA 6062-01

Contract No. 523052272

|                                                        |        |               |               |                |
|--------------------------------------------------------|--------|---------------|---------------|----------------|
| PAVEMENT MARKING (TEMP) 4" BROKEN (8') (TYPE I) /      |        |               |               |                |
| 106                                                    | 070915 | 58.80 STAL    | \$30.000      | \$1,764.00     |
| PAVEMENT MARKING (TEMP) 4" BROKEN (8') (TYPE II) /     |        |               |               |                |
| 107                                                    | 070912 | 64.70 STAL    | \$40.000      | \$2,588.00     |
| PAVEMENT MARKING (TEMP) 4" BROKEN (3') (TYPE I) /      |        |               |               |                |
| 108                                                    | 070923 | 7.10 STAL     | \$30.000      | \$213.00       |
| PAVEMENT MARKING (TEMP) 4" BROKEN (3') (TYPE II) /     |        |               |               |                |
| 109                                                    | 071664 | 359.00 STAL   | \$200.000     | \$71,800.00    |
| PAVEMENT MARKING (TEMP) (SOLID) (LINE MASKING TAPE) /  |        |               |               |                |
| 110                                                    | 071663 | 184.00 STAL   | \$200.000     | \$36,800.00    |
| PAVEMENT MARKING (TEMP) (BROKEN) (LINE MASKING TAPE) / |        |               |               |                |
| 111                                                    | 013019 | 29104.00 LNFT | \$0.500       | \$14,552.00    |
| PAVEMENT MARKING REMOVAL /                             |        |               |               |                |
| 112                                                    | 082001 | 3.00 EACH     | \$180.000     | \$540.00       |
| WORK ZONE SIGN (SPECIAL) (16.25 SQ.FT. & LESS) /       |        |               |               |                |
| 113                                                    | 082002 | 10.00 EACH    | \$500.000     | \$5,000.00     |
| WORK ZONE SIGN (SPECIAL) (16.26 SQ.FT. & OVER) /       |        |               |               |                |
| 114                                                    | 070619 | 1237.00 EACH  | \$25.000      | \$30,925.00    |
| RIGID RAISED PAVEMENT MARKER (TYPE I) /                |        |               |               |                |
| 115                                                    | 070620 | 1069.00 EACH  | \$35.000      | \$37,415.00    |
| RIGID RAISED PAVEMENT MARKER (TYPE II) /               |        |               |               |                |
| 117                                                    | 072116 | 1.00 LS       | \$495,000.000 | \$495,000.00   |
| TRAFFIC CONTROL (INITIAL SETUP) /                      |        |               |               |                |
| 120                                                    | 011074 | 5.00 EACH     | \$6,000.000   | \$30,000.00    |
| IMPACT ATTENUATOR (TL-3) (TEMPORARY) /                 |        |               |               |                |
| 121                                                    | 018158 | 10.00 EACH    | \$1.000       | \$10.00        |
| REPLACEMENT MODULES (IMPACT ATTENUATOR) /              |        |               |               |                |
| Section 10 Total                                       |        |               |               | \$1,685,559.00 |

|            |                |
|------------|----------------|
| Item Total | \$2,365,873.25 |
|------------|----------------|

Superseded General Decision Number: KS20220136

State: Kansas

Construction Type: Highway

EXAMPLE CONTRACT: DAVIS BACON

County: Geary County in Kansas.

#### HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

|                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: | <ul style="list-style-type: none"><li>. Executive Order 14026 generally applies to the contract.</li><li>. The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.</li></ul>  |
| If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:         | <ul style="list-style-type: none"><li>. Executive Order 13658 generally applies to the contract.</li><li>. The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.</li></ul> |

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

|                     |                  |
|---------------------|------------------|
| Modification Number | Publication Date |
| 0                   | 01/06/2023       |
| 1                   | 04/14/2023       |

\* IRON0010-009 04/01/2023

|                             | Rates    | Fringes |
|-----------------------------|----------|---------|
| IRONWORKER, STRUCTURAL..... | \$ 36.50 | 33.38   |

\* UAVG-KS-0006 05/09/2019

|                         | Rates    | Fringes |
|-------------------------|----------|---------|
| LABORER: Pipelayer..... | \$ 31.44 | 15.99   |

\* SUKS2019-075 05/09/2019

|                                                            | Rates       | Fringes |
|------------------------------------------------------------|-------------|---------|
| CARPENTER, Includes Form Work....                          | \$ 16.03 ** | 4.26    |
| CEMENT MASON/CONCRETE FINISHER...                          | \$ 15.31 ** | 0.00    |
| ELECTRICIAN.....                                           | \$ 29.93    | 14.14   |
| IRONWORKER, REINFORCING.....                               | \$ 15.48 ** | 0.00    |
| LABORER: Common or General.....                            | \$ 14.58 ** | 0.00    |
| LABORER: Concrete Saw (Hand<br>Held/Walk Behind).....      | \$ 29.21    | 14.63   |
| LABORER: Flagger.....                                      | \$ 11.63 ** | 0.00    |
| LABORER: Mason Tender -<br>Cement/Concrete.....            | \$ 29.75    | 12.83   |
| OPERATOR:<br>Backhoe/Excavator/Trackhoe.....               | \$ 19.44    | 3.50    |
| OPERATOR: Bobcat/Skid<br>Steer/Skid Loader.....            | \$ 16.78    | 2.62    |
| OPERATOR: Broom/Sweeper.....                               | \$ 14.81 ** | 0.00    |
| OPERATOR: Bulldozer.....                                   | \$ 19.00    | 4.00    |
| OPERATOR: Concrete Finishing<br>Machine.....               | \$ 24.26    | 0.00    |
| OPERATOR: Crane.....                                       | \$ 23.49    | 8.55    |
| OPERATOR: Distributor.....                                 | \$ 15.33 ** | 0.00    |
| OPERATOR: Grader/Blade.....                                | \$ 18.06    | 3.95    |
| OPERATOR: Loader.....                                      | \$ 17.36    | 0.00    |
| OPERATOR: Material Transfer<br>Vehicle.....                | \$ 14.65 ** | 0.00    |
| OPERATOR: Mechanic.....                                    | \$ 20.89    | 0.00    |
| OPERATOR: Paver (Asphalt,<br>Aggregate, and Concrete)..... | \$ 16.51    | 0.00    |
| OPERATOR: Roller.....                                      | \$ 14.43 ** | 0.00    |

|                                                           |
|-----------------------------------------------------------|
| EXAMPLE CONTRACT: DAVIS BACON<br>CLASSIFICATIONS (page 2) |
|-----------------------------------------------------------|



|                                   |             |       |
|-----------------------------------|-------------|-------|
| OPERATOR: Scraper.....            | \$ 17.67    | 0.00  |
| OPERATOR: Screed.....             | \$ 14.70 ** | 0.00  |
| OPERATOR: Tractor.....            | \$ 14.96 ** | 0.00  |
| OPERATOR: Roto Mill Groundman.... | \$ 18.43    | 0.00  |
| OPERATOR: Roto Mill.....          | \$ 19.28    | 0.00  |
| OPERATOR: Striping Machine.....   | \$ 27.27    | 12.25 |
| TRAFFIC CONTROL: Service          |             |       |
| Driver.....                       | \$ 14.07 ** | 0.00  |
| TRAFFIC SIGNALIZATION:            |             |       |
| Traffic Signal Installation       |             |       |
| (Groundman).....                  | \$ 16.54    | 0.00  |
| TRUCK DRIVER: Water Truck.....    | \$ 22.45    | 11.51 |
| TRUCK DRIVER: Dump and Tandem.... | \$ 16.05 ** | 0.00  |
| TRUCK DRIVER: Flatbed and         |             |       |
| Lowboy.....                       | \$ 23.82    | 9.89  |
| TRUCK DRIVER: Off Road Truck..... | \$ 19.06    | 0.00  |

EXAMPLE CONTRACT: DAVIS BACON  
CLASSIFICATIONS (page 3)

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

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\*\* Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

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

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

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# EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS

FHWA-1273 -- Revised July 5, 2022

## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

### ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

### I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

### II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P2

**1. Equal Employment Opportunity:** Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P3

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

### 6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

### 10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P4

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and



## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P5

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

### 2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics,

including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

### 3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P6

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and trainees (29 CFR 5.5)

##### a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State

Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

##### b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P7

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. **Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. **Apprentices and Trainees (programs of the U.S. DOT).**

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor

set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

### **10. Certification of eligibility (29 CFR 5.5)**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

### **V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.

\* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).



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### 3. Withholding for unpaid wages and liquidated damages.

The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or

equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P9

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

### VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

### IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders

or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

### X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

#### 1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P10

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

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### **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

### **3. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is

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submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

\*\*\*\*\*

### **XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P12

subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

### **XII. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.
2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

## EXAMPLE CONTRACT: FEDERAL CONTRACT PROVISIONS P13

### **ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

FHWA 1273 --> What the FEDs are looking for.

## REQUIRED CONTRACT PROVISION

### SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY CONTRACTUAL REQUIREMENT

#### 1. General:

Equal employment opportunity requirements to NOT discriminate and to take affirmative action to assure equal employment opportunity shall apply to all Contractors, subcontractors and suppliers who have a contract, subcontract or purchase order that equals or exceeds \$10,000.

##### A. Federal Aid Projects

The specific affirmative action requirements for these contracts are imposed pursuant to 41 CFR Part 60-1, 60-250, 60-741, 23 CFR Parts 633 and 230, FHWA Form 1273 and the Americans With Disabilities Act of 1990.

##### B. State Funded Projects

The specific affirmative action requirement for these contracts are imposed pursuant to the Kansas Act Against Discrimination, K.S.A. 44-1001 et seq. as amended and the rules and regulations promulgated thereunder.

The Contractor agrees: (a) to comply with the Kansas Act Against Discrimination (K.S.A. 44-1001 et seq.); the Kansas Age Discrimination in Employment Act (K.S.A. 44-1111 et seq.) and the applicable provisions of the Americans With Disabilities Act (42 U.S.C. 12101 et seq.)(ADA) and to not discriminate against any person because of race religion, color, sex, disability, national origin or ancestry, or age in the admission or access to, or treatment or employment in, its programs or activities; (b) to include in all solicitations or advertisements for employees, the phrase "equal opportunity employer"; (c) to comply with the reporting requirements set out at K.S.A. 44-1031 and K.S.A. 44-1116; (d) to include those provisions in every subcontract or purchase order so that they are bind upon such subcontractor or vendor; (e) that a failure to comply with the reporting requirements set forth herein or if the Contractor is found guilty of any violation of such acts by the Kansas Human Rights Commission, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the Kansas Department of Transportation (KDOT) or the Kansas Department of Administration; (f) if it is determined that the Contractor has violated applicable provisions of ADA, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the KDOT or the Kansas Department of Administration. The provisions of this paragraph, with the exception of those relating to the ADA, are not applicable to a Contractor who employs fewer than four employees during the term of such contract or whose contracts with KDOT cumulatively total \$5,000 or less during the fiscal year.

#### 2. Equal Employment Opportunity (EEO) Policy:

A. The Contractor will accept as a minimum operating policy the following statement:

*"It is the policy of this company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, age, sex, color, disability, national origin, or veteran status. Such action shall include: employment, upgrade, demotion, transfer, recruitment, recruitment advertising, layoff, termination, wages, benefits, and selection for training including preapprenticeship, apprenticeship and on the job training."*

All other EEO requirements will need to be incorporated by each Contractor into their policy.

B. Annually the Contractor will send to the KDOT Office of Civil Rights (OCR) one copy of the company's EEO policy signed and dated by the company's Policy Officer. The EEO Policy must be approved by the KDOT before the award of a contract, subcontract or purchase order over \$10,000. Contractors are encouraged to submit their policies for approval before bidding projects so as not to delay contract or subcontract award. Firms with more than 50 employees must also submit an Affirmative Action (AA) plan.

C. To comply with requirements of TEA 21, all Contractors and subcontractors must annually provide information on the firm's age, gross receipts, and work type. This information will be due on the same date as the EEO policy, and is required before a Contractor can perform work.

### **3. Contents of EEO Policy/AA Plan:**

A. The minimum operating statement listed in 2.A and additions designated by the company to comply with all relevant laws.

B. The designation of the EEO Officer responsible and capable of effectively administering and promoting an active EEO program and the designation of the full authority to do so.

C. The company's recruitment policy with specific actions to be taken for the coming year, relevant to the current work force.

D. Certification that the Contractor does not maintain or permit any segregation of its facilities and that no employee will be denied access to any facility based on sex or disability.

E. The company's training and promotion policy to upgrade the skills of minorities and women.

F. The Company's personnel actions in regard to job site inspection, wages, benefits, transfers, demotions, layoffs, terminations, promotions, new hires and upgrades, and the company's complaint procedure.

### **4. Dissemination of EEO Policy /AA Plan:**

A. All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's EEO policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To confirm that the above agreement will be met, the following actions will be taken and documented as a minimum:

(1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the Contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

(2) All new supervisory or personnel employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official, covering all major aspects of the Contractor's equal employment opportunity obligations within thirty days following reporting for duty with the Contractor.

(3) All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the Contractor's procedures for locating and hiring minority group employees.

B. In order to make the Contractor's EEO policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor will take the following actions:

(1) Notices and posters setting forth the Contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

(2) The Contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by meetings, employee handbooks, and other appropriate means. Meetings should be conducted periodically and documented to confirm new employees are included.



## 5. Unions:

If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will use best efforts to obtain the cooperation of such unions to increase opportunities for minorities and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the Contractor either directly or through a Contractor's association acting as agent will include the procedures set forth below:

A. The Contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

B. The Contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, age, sex, disability, national origin, or veteran status.

C. The Contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the Contractor, the Contractor shall so certify to the KDOT and shall set forth what efforts have been made to obtain such information.

D. In the event the union is unable to provide the Contractor with a reasonable flow of minority and female referrals within the time limit set forth in the collective bargaining agreement, the Contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, age, sex, disability, national origin, or veteran status; making full efforts to obtain qualified and/or qualifiable minority group members and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees). In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to Executive Order 11246, as amended, for federal or federal-aid construction projects, and these special provisions, such Contractor shall immediately notify the KDOT.

## 6. Subcontracting:

The Contractor, when seeking to subcontract a portion of the work on this project, is required to take affirmative action to consider DBEs as potential subcontractors. In the event assistance is needed to locate or obtain a list of potential DBEs, the KDOT's Plans and Proposals Section and the OCR may be contacted.

"Disadvantaged Business Enterprises" are businesses which have been certified as disadvantaged by the OCR and are listed in the current DBE directory which is also available at [www.ksdot.org](http://www.ksdot.org).

The Contractor will certify on DOT Form 260 that all EEO provisions applicable to this contract are included in all subcontracts.

The Contractor will exert concerted efforts to train and develop DBEs by providing direct assistance in such areas as preparing quotations, understanding highway construction plans and standard specifications applicable to the portion(s) of the work to be subcontracted, and familiarizing DBEs with business practices and other actions which will facilitate their development into viable highway construction Contractors.

By making systematic written and verbal contact with DBEs likely to have an interest in highway construction work, the Contractor will make every effort to solicit DBE subcontractor quotes. Additionally, the Contractor will not restrict DBEs in the furnishing of subcontractor quotes to any other bidder/Contractor who may be preparing bid proposals for submission on this Contract.

In order to afford DBEs an opportunity to participate as subcontractors on portions of the work to be subcontracted, it is required that itemized quantities and particular incidentals to such work be furnished to DBEs in order to solicit quotes for prospective subcontractors. Bid solicitation should be directed only to those Contractors whose specialties and skills encompass those bid quantities for which bids are being solicited.

The Contractor will affirmatively solicit the interest, capabilities, and prices of DBEs and document results of such solicitation in detail. The Contractor fully understands that requests for Approval of Subcontractor (DOT Form 259) submitted to the KDOT for approval may be denied if such affirmative action cannot be demonstrated when requested. When requested to establish evidence of affirmative action being taken, the prime Contractor shall provide:

A. Copies of letters and requests for bids sent to potential DBEs and of certified mail receipts.

B. Copies of letters and bid quotes received from DBEs. Copy of the letter and bid quote received from the subcontractor for whom the Request for Approval is submitted, if the subcontractor is not a DBE.

## **7. Required Notices and Posters:**

A. Required on State Funded and Federal-Aid Projects:

1. Unemployment Insurance Notice K-CNS 405
2. Workers Compensation Law K-WC 40
3. Kansas Equal Opportunity
4. Child Labor K-ESLR 100

B. Required on Federal-Aid Projects Only:

1. Contractor's EEO Policy and Contact Number for EEO Officer
2. Wage Rate Information FHWA 1495 and 1495A
3. Wage and Hour Posters WH 1321 and WH 1088
4. Fraud Notice FHWA 1022
5. Equal Opportunity Poster
6. Job Safety and Health Poster OSHA 3165 and 3167
7. Contract Wage Rates
8. Family Medical Leave Act WH 1420
9. Polygraph WH 1462
10. Government Contracts WH 1313

## **8. Noncompliance with EEO/AA Requirements:**

A. KDOT will not award a contract, approve a subcontract or sign a purchase order until the required EEO/AA policy has been submitted to and approved by the KDOT Civil Rights Administrator in the OCR.

B. If discrimination, harassment or a hostile work environment exists on any project, the KDOT will take every action needed to confirm the problem is corrected in a timely manner. KDOT will also monitor the project to determine if retaliation is taken against any employee who files a complaint.

C. Contract Compliance reviews are conducted by OCR on selected federal aid contracts. A Contractor can expect to be reviewed once every three years or more often if any deficiencies had been previously found. During a Compliance Review all areas listed previously in items 2-7 will be verified for compliance. *The compliance review is the Contractor's ONLY opportunity to provide documentation of ALL efforts undertaken to meet or exceed all EEO/AA requirements of the contract. It is IMPORTANT that all relevant documentation be provided at this time. During any subsequent appeal process new documentation not previously submitted to the OCR will NOT be considered in the appeal.* A deficiency occurs when the Contractor fails to comply with a requirement and/or fails to document every good faith effort to comply. A Voluntary Corrective Action Plan (VCAP) is required to correct certain deficiencies that do not directly affect a protected group or result in discrimination. A follow up review is conducted to confirm that the VCAP was enacted and determine if it is effective.

D. When a Contractor's action or inaction adversely affects a protected group member (discrimination) or when a Contractor has failed to provide written documentation of every good faith effort to provide equal opportunity and to take affirmative action, these procedures will follow:

- (1) For the first documented occurrence of such a deficiency the OCR will discuss the deficiency with the Contractor's representative during the compliance meeting or at an exit conference held shortly after the compliance meeting. Within 15 days a written notice of a show cause hearing is sent to the Contractor. The show cause hearing is an informal hearing providing the Contractor's opportunity to submit a Corrective Action Plan (CAP) for the immediate correction of the noted deficiency and to eliminate any future reoccurrence. The hearing is chaired by the Chief of the Bureau of Construction and Materials

and attended by a staff of OCR and an FHWA representative. KDOT (the Chief of the Bureau of Construction and Materials and the Civil Rights Administrator) must approve and the FHWA representative must concur that the CAP will achieve compliance before it is accepted.

(2) For the second documented occurrence of the same deficiency within 3 years the OCR will discuss the deficiency with the Contractor's representative during the compliance meeting or at an exit conference held shortly after the compliance meeting. Within 15 days the KDOT Compliance Review Committee consisting of the Chief of the Bureau of Construction and Materials, the Director of Project Delivery and the District Engineer will review the Contractor's documentations and the findings of the OCR and either concur or disagree with those findings. Upon concurrence by the Compliance Review Committee a notification of monetary assessment will be sent to the Contractor with a copy to KDOT's Prequalification Committee and the field office, and the assessment will begin on the date of the letter. As noted above, *the Contractor's opportunity to document every good faith effort is during the compliance review*. The applicable monetary assessments are listed in Table 1. The assessment will be collected for a minimum of five days or so long as the Contractor remains in non compliance.

(3) For the third documented occurrence of the same deficiency within 3 years of the second deficiency the OCR will discuss the deficiency with the Contractor's representative during the compliance meeting or at an exit conference held shortly after the compliance meeting. Within 15 days the KDOT Compliance Review Committee consisting of the Chief of the Bureau of Construction and Materials, the Director of Project Delivery and the District Engineer will review the Contractor's documentations and the findings of the staff of OCR and either concur or disagree with those findings. Upon concurrence the Compliance Review Committee sets a debarment period of up to six months and notification is sent to the Contractor, KDOT's Prequalification Committee and other interested agencies. During the debarment period the Contractor will not be eligible to request KDOT plans, submit a bid as prime or subcontractor or otherwise acquire new work on KDOT projects. Any work currently in progress can be completed.

(4) For the fourth documented occurrence of the same deficiency within 3 years of the third deficiency the OCR will discuss the deficiency with the Contractor's representative during the compliance meeting or at an exit conference held shortly after the compliance meeting. Within 15 days the KDOT Compliance Review Committee consisting of the Chief of the Bureau of Construction and Materials, the Director of Project Delivery and the District Engineer will review the Contractor's documentations and the findings of the OCR and either concur or disagree with those findings. Upon concurrence the Compliance Review Committee sets a debarment period of one year and notification is sent to the Contractor, KDOT's Prequalification Committee and other interested agencies. During the debarment period the Contractor will not be eligible to request KDOT plans, submit a bid as prime or subcontractor or otherwise acquire new work on KDOT projects. Any work currently in progress can be completed.

(5) The Contractor may request an appeal to the KDOT Compliance Appeal Board (CAB) within five days of the receipt of the notice of assessment or debarment (2, 3 or 4 above). The request is made to the Deputy Secretary for Engineering & State Transportation Engineer (Deputy Secretary) who chairs the CAB. The two other members include one member named by the Deputy Secretary and one member named by the Contractor within 5 days of the appeal request. A date and time will be set by the Deputy Secretary for hearing the appeal and will notify the Contractor, FHWA, KDOT's Civil Rights Administrator and the CAB members. The CAB reviews the documents previously submitted by the Contractor and the previous decision of the Compliance Review Committee. The Contractor presents verbal or written statements to the CAB as to why they disagree with the finding of noncompliance. *The CAB cannot consider any new documentation at this time because its purpose is to concur or disagree with the findings previously made*. The Deputy Secretary will advise the Secretary of Transportation of the decision of the CAB and the final administrative decision will be issued by the Secretary and made known to all concerned parties. During the appeal process the Contractor is not relieved from taking corrective action to eliminate noted deficiencies and the sanction imposed remains in place pending the decision.

| TABLE 1                                |                 |                                                                    |
|----------------------------------------|-----------------|--------------------------------------------------------------------|
| SCHEDULE OF DAILY MONETARY ASSESSMENTS |                 |                                                                    |
| Original Contract Amount Range         |                 | Amount of Assessment to be Deducted for Each Day of Non-Compliance |
| \$0.00                                 | \$100,000.00    | \$200.00                                                           |
| \$100,000.01                           | \$500,000.00    | \$400.00                                                           |
| \$500,000.01                           | \$1,000,000.00  | \$800.00                                                           |
| \$1,000,000.01                         | \$2,500,000.00  | \$1,000.00                                                         |
| \$2,500,000.01                         | \$5,000,000.00  | \$1,500.00                                                         |
| \$5,000,000.01                         | \$10,000,000.00 | \$2,000.00                                                         |
| \$10,000,000.01                        | \$25,000,000.00 | \$2,500.00                                                         |
| Over \$25,000,000.01                   |                 | \$3,000.00                                                         |

Sept-22 Letting

**KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION TO THE  
STANDARD SPECIFICATIONS, EDITION 2015**

**SECTION 602**

**HOT MIX ASPHALT (HMA) CONSTRUCTION  
(Quality Control/Quality Assurance (QC/QA))**

**Page 600-2, replace subsection 602.1 with the following:**

**602.1 DESCRIPTION**

Mix and place 1 or more courses of plant produced HMA mixture on a prepared surface as shown in the Contract Documents using a spray paver. Demonstrate quality control by providing the quality control testing.

**BID ITEMS**

HMA Base (\*)(\*\*)(\*\*\*)  
HMA Surface (\*)(\*\*)(\*\*\*)  
HMA Overlay (\*)(\*\*)(\*\*\*)  
HMA Pavement (#) (##)  
HMA Pavement (#) Shoulder  
Emulsified Asphalt (\*\*\*\*)  
Asphalt Core (Set Price)  
Material for HMA Patching (Set Price)  
Quality Control Testing (HMA)  
\*Mix Designation  
\*\*Grade of Asphalt Binder  
\*\*\*Shoulder  
\*\*\*\*Type and Grade of Emulsified Asphalt  
# Thickness  
##Type of surface course HMA mixture

**UNITS**

Ton  
Ton  
Ton  
Square Yard  
Square Yard  
Ton  
Each  
Ton  
Ton

**Page 600-8, delete TABLE 602-3 and replace with the following:**

| TABLE 602-3: MATERIAL SUBMITTALS |           |                                            |                                                                                                            |
|----------------------------------|-----------|--------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Submittal                        | Quantity  | Description                                | Additional Information                                                                                     |
| Aggregate for KT-15              | 3 Samples | Sized for 6 inch Plugs                     | Comply with Job Mix Gradation.                                                                             |
| Aggregate for KT-39              | 2 Samples | Sized for $G_{mm}$ Testing                 | Comply with Job Mix Gradation.                                                                             |
| Binder for KT-15                 | As Needed | Sized for 3 Plugs at $P_{br}$              |                                                                                                            |
| Binder for KT-39                 | As Needed | Sized for 2 $G_{mm}$ Tests                 |                                                                                                            |
| Each Aggregate for KT-6          | As Needed | Specific Gravity Test                      |                                                                                                            |
| Uncompacted HMA Sample           | 35 lbs    | Sample shall be cooled to room temperature | If transported hot and compacted within 2 hours, then requirement to cool sample may be waived by the DME. |
| Uncompacted HMA Sample           | 75 lbs    | Sample shall be cooled to room temperature | Packaged separately for additional testing by others                                                       |
| Gyratory Plugs at $N_{max}$      | 2 Plugs   | Compacted at $P_{br}$                      | Compacted to $N_{max}$ .                                                                                   |

**Page 600-10, delete subsection 602.4b. and replace with the following:**

**b. Road Surface Preparation.**

(1) Preparation of Earth Subgrade. Do not place any surfacing material on any section, until the ditches and drains along that section are constructed to effectively drain the highway, and the base or subgrade is trimmed to the line, grade and typical cross-section as shown in the Contract Documents.

Do not deposit any material until the subgrade or base has been checked and approved by the Engineer.

**KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION TO THE  
STANDARD SPECIFICATIONS, 2015 EDITION**

**SECTION 109**

**MEASUREMENT AND PAYMENT**

**Page 100-77, add subsection 109.1e(5):**

(5) Electronic Ticketing (e-Ticketing) of Hot Mix Asphalt (HMA). Immediately after each truck is loaded and weighed at the HMA plant, generate an e-Ticket and upload it to the KDOT portal ([www.tickets.ksdot.gov](http://www.tickets.ksdot.gov)). If necessary, create an application programming interface (API) to integrate the e-Tickets with the KDOT portal. Update the API as needed to support the integration. Before beginning production of HMA on a project, connect to the project in the KDOT portal and verify that the required informational fields will be populated on the e-Tickets.

Fully integrate the e-Ticketing hardware and software with electronic scale and load read-out weighing system at the HMA plant. Design the e-Ticketing platform so that weight data cannot be altered. Provide a reliable and stable broadband internet connection and offline capabilities to prevent data loss if power or connectivity is lost. Suspend plant production and paving if a stable internet connection cannot be sustained during material production.

As a minimum, include the following information on each e-Ticket uploaded to the KDOT portal:

- Contractor;
- Plant Number;
- KDOT Project Number;
- Contract Number;
- HMA Mix Design Number;
- HMA Mix Designation;
- Scale Operator Name;
- Date;
- Hauler;
- Truck Number;
- Daily Load Count;
- Gross Weight;
- Tare Weight;
- Net Weight;
- Legal Max Gross Vehicle Weight (GVW);
- Time at load out;
- Daily Total Tons of the HMA Mix Designation produced for the project.

Request the nomenclature requirements for the e-Ticket information from KDOT.

Display the identifying Truck Number on the driver side and passenger side of each haul truck. Ensure the Truck Number can be safely read by the Road Inspector from the work area.

The Road Inspector will review each e-Ticket in the KDOT portal after the corresponding truckload is delivered to the project. The status will be changed from “pending” to “delivered” or “rejected,” any road waste quantity will be recorded, and notes may be added. A time stamp will be generated whenever the status is changed. The Road Inspector or Engineer may update the status, quantity of road waste or notes after the initial review.

Reissue any e-Ticket that does not include the correct or required information. Do not reissue any e-Ticket that has been marked “delivered” or “rejected” without approval of the Engineer.

Complete, sign and retain KDOT Form No 251A or a Contractor-furnished materials receipt for each truckload in accordance with **subsection 109.1e(3)**. If an e-Ticket has been uploaded to the KDOT portal by the time the corresponding truckload is delivered to the project, provide the original form or receipt to the designated Inspector by the end of the day. Otherwise, the truck driver shall provide the original form or receipt to the designated Inspector at the time of delivery to the project.

## KANSAS DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION TO THE STANDARD SPECIFICATIONS, 2015 EDITION

### WORK SCHEDULE; SPECIFIED CALENDAR COMPLETION DATES; INCENTIVE AWARD; DISINCENTIVE ASSESSMENTS; LIQUIDATED DAMAGES

#### I. PROJECT DEFINED; NATURE OF PROJECT

Projects **70-31 KA 6062-01**, **70-31 KA 6773-01**, and **40B-31 KA 5996-01** are state tied to best coordinate traffic control.

The primary operations for each project are:

- **70-31 KA 6062-01:** Replacement of I-70 mainline and ramp pavement from approximately RP 296.106 to RP 300.519 for 4.413 miles in Geary County. The improvements include PCCP pavement, asphalt overlay, crossroad culverts, seeding and pavement marking.
- **70-31 KA 6773-01:** Milling, patching and asphalt overlay of the WB bridge [70-31-299.74 (017) Franks Cr] on I-70 at RP 299.74 in Geary County.
- **40B-31 KA 5996-01:** Replacement of the pavement for the Washington Street roundabout and Washington Street from the roundabout to the UPRR planking at I-70 Exit 296 for 0.172 miles in Junction City.

This Special Provision applies to the group of tied projects [ **70-31 KA 6062-01**, **70-31 KA 6773-01**, and **40B-31 KA 5996-01**] collectively as the Project. The liquidated damages, disincentives and incentives will be assessed concurrently on each tied project unless otherwise specified.

#### II. NOTICE TO PROCEED

The Engineer will issue the notice to proceed after the Contracts have been executed. The Contractor cannot start work until the following have occurred: the Contractor has participated in the pre-construction and stormwater erosion control pre-construction conferences held by KDOT for the Project, and the Area Engineer has approved the SWPPP.

#### III. PROJECT PHASING

- A. This section of Interstate highway has a significant portion of traffic using the local exits to access Ft. Riley, Junction City and Grandview Plaza. The intention of this Provision and the Project phasing plan is to minimize the duration of ramp closures during construction and maximize access to the local communities. The **70-31 KA 6062-01** plans show three phases that have additional sub-phases.
  - a. **Phase 1** is to construct crossovers and reverse guardrails for the **70-31 KA 6062-01** project, place an overlay on EB Interstate and local roads, place required pavement markings, installing median drains, and remove/replace the failing WB lanes from approximately J-Hill Road east to the east end of the project including Exit 300 WB off-ramp, and complete project **70-31 KA 6773-01**.
  - b. **Phase 2** is to replace the rest of WB lanes and exit ramps, replace median drains, place pavement markings of **70-31 KA 6062-01** and complete project **40B-31 KA 5996-01 (Phase 1)**.
  - c. **Phase 3** is to replace the EB lanes and ramps, replace median drains, replace PCCP on K-57 and East Street, and place pavement markings on **70-31 KA 6062-01**, and complete the remaining work on project **40B-31 KA 5996-01** at the UPRR.

#### IV. TIME AND DAY CONDITIONS FOR LANE AND RAMP CLOSURES

- A. The Contractor may perform work that restricts traffic on I-70 and other Project roadways only as allowed by the following conditions in **Table 1**.

| Phase      | Location                                                                                 | Allowable Time               | Conditions                                                                                                                                                   | Incentive                                                                               |
|------------|------------------------------------------------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1B         | WB ML Sta 628+32 to Sta 688+00;<br>Exit 300 WB off-ramp;<br>70-31 KA 6773-01             | Complete by Nov 22, 2023     | Exit 299 WB off-ramp is open;                                                                                                                                | \$4,000 per calendar day;<br>Maximum \$60,000                                           |
| 2A Part I  | 299 WB Off-Ramp;<br>ML WB Sta 612+00 to Sta 628+32                                       | 45 Consecutive Calendar Days | Exit 296 WB on-Ramp & ML WB Sta 455+00 to Sta 477+00 are open;<br>Not start 40B-31 KA 5996-01;<br>Crossover E is closed; Crossover F used for head-to-head ; | \$4,000 per calendar day; Max \$20,000; Crossover E must be open, Crossover F is closed |
| 2A Part II | 298 WB on-ramp;<br>ML WB Sta 541+00 to Sta 548+00                                        | 45 Consecutive Calendar Days | 296 WB on-Ramp & ML WB Sta 455+00 to Sta 477+00 are open;<br>Not start 40B-31 KA 5996-01                                                                     | \$4,000 per calendar day; Max \$20,000                                                  |
| 3A         | ML EB Sta 628+32 to Sta 688+00;<br>Exit 300 EB ramps;<br>K-57                            | 50 Consecutive Calendar Days | ML EB Sta 455+00 to Sta 555+00; Exit 296 EB ramps; Exit 298 EB off-ramp; Exit 299 EB on-ramp; are open                                                       | \$4,000 per calendar day; Max \$20,000                                                  |
| 3B Part I  | ML EB Sta 455+00 to Sta 480+00;<br>Exit 296 EB off-ramp;<br>40B-31 KA 5996-01<br>Phase 2 | 60 Consecutive Calendar Days | Not started until Phase 3A is open; EB head-to-head traffic ends at Crossover E                                                                              | \$4,000 per calendar day; Max \$20,000                                                  |



|            |                                                                   |                              |                                                           |                                        |
|------------|-------------------------------------------------------------------|------------------------------|-----------------------------------------------------------|----------------------------------------|
| 3B Part II | ML EB Sta 612+00 to Sta 628+32; Exit 299 EB on-ramp               | 45 Consecutive Calendar Days | only during Phase 3B Part I                               | \$4,000 per calendar day; Max \$20,000 |
| 3C         | ML EB Sta 532+00 to Sta 545+00; Exit 298 EB off-ramp; East Street | 50 Consecutive Calendar Days | Not started until Phase 3A & 3B Parts I & II are complete | \$4,000 per calendar day; Max \$20,000 |

- B. Disincentive Assessments. For each condition listed in **Table 1**, the disincentive assessment charged and owing shall be four thousand dollars (\$4,000.00) per each calendar day, or part thereof that the condition is violated.
- C. Incentives will be paid at the amounts listed in **Table 1**.
- D. Incentives and disincentives in this Section will apply only to **70-31 KA-6062-01**. These incentives and disincentives will not be applied to the tied projects.
- E. Incentives and disincentives in this Section are in addition to liquidated damages assessed under **Sections V.D and VI.D**.

#### V. 2023 WINTER SHUTDOWN PERIOD; LIQUIDATED DAMAGES

- A. The **2023 WINTER SHUTDOWN PERIOD** shall begin **NOVEMBER 22, 2023** and shall end on **MARCH 18, 2024**.
- B. Prior to the **2023 WINTER SHUTDOWN PERIOD**, the contractor shall complete all work necessary to open the Project to unrestricted traffic and remove all local road detours.
- C. Upon the Contractor's request and at the Engineer's discretion, the Engineer may allow daily lane closures or specified ramp closures during the **2023 Winter Shutdown Period** with no liquidated damage assessment under this Section.
- D. Liquidated Damages. If the Contractor fails to maintain I-70 (Mainline and ramps) and the local road systems open to unrestricted traffic with the local detour routes removed during the **2023 Winter Shutdown Period**, the Contractor shall be liable for liquidated damages. Excluding Sundays and legal holidays and Engineer approved closures, the amount of liquidated damages charged and owing shall be **four thousand dollars (\$4,000.00)** for each calendar day, or part thereof, that I-70 Mainline and the local road systems are not open to unrestricted traffic with the local detour routes removed except for Engineer approved closures.
- E. . Liquidated damages in this Section are in addition to incentives and disincentives assessed under Section IV.E.

## VI. 2024 WINTER SHUTDOWN PERIOD; LIQUIDATED DAMAGES

- A. The **2024 Winter Shutdown Period** for the Project shall begin **NOVEMBER 20, 2024** and shall end on **MARCH 17, 2025**.
- B. Prior to the **2024 WINTER SHUTDOWN PERIOD**, the contractor shall complete all work necessary to open the Project to unrestricted traffic and remove all local road detours.
- C. Upon the Contractor's request and at the Engineer's discretion, the Engineer may allow daily lane closures or specified ramp closures during the **2024 Winter Shutdown Period** with no liquidated damage assessment under this Section.
- D. **Liquidated Damages.** If the Contractor fails to maintain the Project open to unrestricted traffic with the local detour routes removed during the **2024 Winter Shutdown Period**, the Contractor shall be liable for liquidated damages. Excluding Sundays and legal holidays and Engineer approved closures, the amount of liquidated damages charged and owing shall be **four thousand dollars (\$4,000.00)** for each calendar day, or part thereof, that the Project is not open to unrestricted traffic with the local detour routes removed, except for Engineer approved closures.
- E. Liquidated damages in this Section are in addition to incentives and disincentives assessed under Section IV.E.

## VII. CALENDAR COMPLETION DATE OF NOVEMBER 14, 2025, FOR COMPLETION OF ALL WORK NECESSARY TO PROVIDE UNRESTRICTED TRAFFIC; LIQUIDATED DAMAGES

- A. On or before **NOVEMBER 14, 2025**, the Contractor shall complete all work necessary to open the Project to unrestricted traffic and remove all local road detours as the Contract Documents require.
- B. **Liquidated Damages.** If the Contractor fails to complete all work necessary to open the Project to unrestricted traffic and remove the local detour routes on or before **NOVEMBER 14, 2025**, the Contractor shall be liable for liquidated damages. Excluding Sundays and Legal Holidays, the liquidated damages charged and owing shall be **four thousand dollars (\$4,000.00)** for each calendar day, or part thereof that the Project is not open to unrestricted traffic and the local detours are not removed after **NOVEMBER 14, 2025**.
- C. The Engineer may charge damages under both **Sections VII.B and VIII.B** for failure to complete the work timely as required; however, if damages are assessed on the same day, the Engineer will not withhold more than **four thousand dollars (\$4,000.00)** on that day.

## VIII. CALENDAR COMPLETION DATE OF MAY 29, 2026, FOR COMPLETION OF ALL WORK INCLUDING CLEANUP AND PERMANENT SEEDING; LIQUIDATED DAMAGES

- A. **Subsection 108.4c** of the Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction (2015 Ed.) (Standard Specifications) does not apply to this Contract.

Instead, the Contractor shall complete all remaining, unfinished contract pay items, subsidiary items, incidental work, final cleanup, permanent seeding and final punch list(s) on or before **MAY 29, 2026**.

- B. Liquidated Damages.** If all remaining, unfinished contract pay items and all subsidiary items, incidental work, final cleanup, permanent seeding and final punch list for all three projects are not completed on or before **MAY 29, 2026**, the Contractor shall be liable for liquidated damages. Excluding Sundays and Legal Holidays, the liquidated damages charged and owing shall be **two thousand dollars (\$2,000.00)** for each calendar day, or part thereof that all work specified in **Section VIII.A** is not complete after **MAY 29, 2026**
- C.** The Engineer may charge damages under both **Sections VII.B and VIII.B** for failure to complete the work timely as required; however, if damages are assessed on the same day, the Engineer will not withhold more than **four thousand dollars (\$4,000.00)** on that day.
- D. Liquidated Damages when Project is not open to unrestricted traffic.** If at any time after **NOVEMBER 14, 2025**, the Contractor obstructs the unrestricted traffic flow in order to perform any work, the Contractor shall be liable for liquidated damages under **Section VII.B**. Excluding Sundays and Legal Holidays, the liquidated damages charged and owing shall be **four thousand dollars (\$4,000.00)** for each calendar day, or part thereof that the Project is not open to unrestricted traffic flow and the use of local detours are not removed after **NOVEMBER 14, 2025**.

04-21-2023 D2 (DEH)

EXAMPLE CONTRACT: ADDENDUM

Promptly sign and date on the line below, then **EMAIL IT BACK TO KDOT at Joshua.Matyi@ks.gov EVEN IF NOT BIDDING.** Any instructions not followed will result in your bid being declared irregular. If these changes affect any of your subcontractors or suppliers, **IT IS YOUR RESPONSIBILITY** to inform them. These changes are part of the contract for this project(s). Please call me at (785) 296-7141, if there are questions. Thank you for your cooperation.

Kansas Department of Transportation  
Bureau of Construction and Materials  
Estimating Section

To: Prime Contractor Bid Holders

From: Josh Matyi - Estimating Engineer Associate

Date: May 19, 2023

**Proposal/Contract No.: 523052272**

Subject: Project Notice for the **May 24, 2023 Letting**

**I070-031 KA 6062-01 – Geary County** – Grading and Surfacing

**Both pages of the Status of Utilities are included in this addendum.**

**Pre-bid minutes and attendance are included in this addendum.**

To view this project's documents, choose "Addendum #1" from KDOT's website:

<https://kdotapp.ksdot.org/Proposal/Proposal.aspx>.

The Contractor is responsible for ensuring the EBS file that the Contractor uses to prepare its Proposal and submits to KDOT contains any amendments.

We also recommend that you check the Bid Express "Questions and Answers" (<https://www.bidx.com/ks/lettings>) to review any questions that may have been posted for this project.

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

C: District 2 & Junction City Construction Office

EXAMPLE CONTRACT: UTILITY FORM

15-01002  
Misc.

Status of Utilities Report

Submitted: 4/17/2023 Letting: 5/24/2023

Project # I 70 31 KA 6062-01 Page 1 of 2

County:

Geary

| Company                     | Notified to move | Work started                                                                                                                                                                               | Percent Complete | Completion Date (est.) | Permit or Agreement # |
|-----------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------|-----------------------|
| ATT Distribution            |                  | The project's pavement replacement work will only minimally exceed the existing roadway width. Utility coordination was not required for this project. No utility adjustments anticipated. |                  |                        |                       |
| ATT Transmission            |                  |                                                                                                                                                                                            |                  |                        |                       |
| Brightspeed                 |                  |                                                                                                                                                                                            |                  |                        |                       |
| City Light & Power FTR, LLC |                  |                                                                                                                                                                                            |                  |                        |                       |
| Cox Communications          |                  |                                                                                                                                                                                            |                  |                        |                       |
| Evergy                      |                  |                                                                                                                                                                                            |                  |                        |                       |
| (65) Kansas Gas Service     |                  |                                                                                                                                                                                            |                  |                        |                       |
| (77) Kansas Gas Service     |                  |                                                                                                                                                                                            |                  |                        |                       |
| Fort Riley Public Works     |                  |                                                                                                                                                                                            |                  |                        |                       |
| Flint Hills Rec             |                  |                                                                                                                                                                                            |                  |                        |                       |
| C/Grandview Plaza           |                  |                                                                                                                                                                                            |                  |                        |                       |
| KDOT D2 Fiber               |                  |                                                                                                                                                                                            |                  |                        |                       |
| Level 3 CenturyLink         |                  |                                                                                                                                                                                            |                  |                        |                       |
| Morris Co RWD #1            |                  |                                                                                                                                                                                            |                  |                        |                       |

The information provided in this document does not constitute a guarantee that utility facilities will be clear of construction. The information is gathered from both KDOT field personnel and utility company personnel. Estimated completion dates are dependent upon many variables (weather, material or product availability, r/w acquisition, etc.). The estimated completion date is an estimate.

## PreBid Meeting Minutes

70-31 KA 6062-01; 40B-31 KA 5996-01; 70-31 KA 6773-01

TEAMS Meeting

May 4, 2023

10:00 am

### Attendance:

Kody Henrichs [KDOT]  
Dale E Hershberger [KDOT]  
Becky Newbury [KDOT]  
Katie Lilly [KDOT]  
Joe Ausilio [KDOT]  
Judy Wagner [KDOT]  
Jason Van Nice [KDOT]  
Shane Houser [KDOT]  
David Katt [KDOT]  
Joshua Matyi [KDOT]

Justin Owens [KVE]  
Eric Schwein [Shilling Const]  
Aaron Norval [Koss Const]  
Jim Ebert [Ebert Const]  
Dirk Riniker [Ebert Const]  
Duane Jackson [Ebert Const]  
Mike Larkin [Ebert Const]  
Zhi Li [Wildcat Const]  
Alan Farrington [Wildcat Const]

The purpose of this group of projects in Geary County is to replace the concrete pavement in the driving lanes from approximately RP 296 to RP 300 but not the shoulders. Ramps are also partially replaced as well as work on Exit 296 roundabout, some patching at Exit 298 and K-57 under I-70. We are replacing some of the median drains. Washington Street and roundabout pavement is being replaced and the deck of the WB Franks Creek bridge is being patched and asphalt overlaid. To accommodate local traffic as many ramps as possible will remain open.

KDOT's proposed phasing to accomplish the work was reviewed. During the 2023 season (Phase 1A and 1B) the building of crossovers, reverse guardrail installation and replacement of the deteriorated westbound pavement from about RP 299 to RP 300 is required. Local traffic counts are about 15,000 west of Exit 295 and east of Exit 303 but within the project limits are about 30,000 which shows there are a lot of commuters.

Highlighted actions of each subphase follow (the construction sequencing sheet drawings are not to scale) :

#### Phase 1A:

- I-70 EB overlay from Sta 612+00 (J-Hill Rd) to Sta 688+00 (East End)
- Crossovers E and F
- Reverse flow guardrail for EB lanes east of Smoky Hill River
- Overlay Canon View Dr and Goldenbelt Blvd

#### Phase 1B: (Completed by Nov 22, 2023 incentive/disincentive)

- I-70 WB Sta 628+32 to Sta 688+00
- I-70 Exit 300 WB off-ramp
- Exit 299 WB off-ramp open.
- 70-31 KA 6773-01 Franks Cr
- Head-to-head between Crossovers E and F

**2023 Winter shutdown:** Nov 22, 2023 to March 18, 2024:: Liquidated damages

**Phase 2:** Exit 296 WB off-ramp; 298 WB off-ramp; 299 WB on-ramp closed during this phase.

#### Phase 2A Part 1:: 45 days incentive/disincentive

- Exit 299 WB off-ramp; ML WB Sta 612+00 to 628+32
- Exit 296 WB on-ramp open; 40B-31 KA 5996-01 not started; Crossover F in use.
- Crossover E to be start of WB head-to-head prior to moving to Phase 2B

70-31 KA 6062-01; 40B-31 KA 5996-01; 70-31 KA 6773-01 PreBid Meeting Notes Page 1 of 3

EXAMPLE CONTRACT: PRE-BID MEETING MINUTES

**May 24, 2023**  
**This Letting's Questions and Answers**

**Proposal:** 523052272 **Project NM:** KA 6062-01

**Question:** 1 **Subject:** Work Schedule Project Special Provision

The Work Schedule Project Special Provision, 15WS-0272, is not included in any of the sample proposals for tied projects KA 5996-01, KA 6062-01 or KA 6773-01.

**Answer:**

The Work Schedule has been added to the sample proposal and will be included in the Final Contract.

---

**Proposal:** 523052272 **Project NM:** KA6062-01

**Question:** 2 **Subject:** Plan file - "523052272p"

Can you replace this file? When you open it and get to the phasing, it seems as though multiple sheets are included on one? The are other places within the file that do this also. It will not print. The other two "P" files seem to print just fine.

**Answer:**

It has been replaced. If there are still issues please let us know.

---

**Proposal:** 523052272 **Project NM:** KA6062-01

**Question:** 3 **Subject:** Spray paver provision

Would you consider removing the spray paver requirement from the I 70 Mainline and shoulder? The use of the spray paver and EBL will add at least \$ 10 per ton, and this is temporary pavement.

A conventional paver and tack oil should suffice for a temporary placement

**Answer:**

We will not remove the spray paver requirement.

---

**Proposal:** 523052272 **Project NM:** KA6062-01

**Question:** 4 **Subject:** quantity

CAN you verify the quantities on sheet 91? the SY on sheet 92 indicate more asphalt than shown on the summary page.

**Answer:**

The square yards of Sheet 92 include areas of tapered pavement and variable depth pavement. When those calculations are app to the total square yards, the quantities on Sheet 91 are correct.

---

**Proposal:** 523052272 **Project NM:** KA 6062-01

**Question:** 5 **Subject:** asphaltpaving

Is it your intent to have the EB shoulder milled and overlaid in phase 1 A/B; prior to switching traffic head to head?

Can we use Class A 64-22 on the 10' Shoulder?

**Answer:**

Milling EB shoulder: This milling is to be done in Phase IIIA after traffic is removed from the head to head operation during the phases of Phase II.

10' EB shoulder use Class A (64-22): During the head to head operation of Phase II, the traffic will run on part of both the 6' and t 10' shoulders. We will retain the Class A (70-22) mix for the 40' width including to the gore of the EB ramps.

---

**Proposal:** 523052272 **Project NM:** KA6062-01

**Question:** 6 **Subject:** Quantity

Is it KDOT's intent to retain all of the Class A (70-22) mix from the eastbound mainline. On sheet 91 it shows 9,956 tons of Class mix with only 2,704 tons of milling.

**Answer:**

All HMA material that is removed is to become property of the contractor. The milling tonnage was figured solely for milling on the shoulders. The removal of the HMA material on the lanes was included in the calculation for Rock Excavation.

**EXAMPLE CONTRACT: BID-X QUESTIONS**

# Errata Sheet for the 2015 Standard Specs

Overview of a Contract





# Errata Definition

- **Errata Sheet**

corrects errors or omissions or makes other minor changes to the Specification Book

Overview of a Contract



# **Typical Errata**

**Page 800-76, subsection 827.4,**

**delete the fifth paragraph and replace with the following:**

The Engineer will measure temporary guardrail by the linear foot.

**Page 800-129, subsection 855.2,**

**change reference to "DIVISION 300" to "SECTION 1304".**

**subsection 214.2e. replace "ASTM A82" with "ASTMA1064" throughout entire subsection.**

**Page 1600-31, subsection 1619.5a. (1). Delete the 2nd sentence.**

**Page 1100-34, subsection 1113.2b., delete the 3rd bullet, & Note**

**4.**  
Overview of a Contract

## **ERRATA SHEET FOR STANDARD SPECIFICATION BOOK FOR STATE ROAD AND BRIDGE CONSTRUCTION, EDITION 2015**

### **SECTION 101 DEFINITIONS AND TERMS**

**Page 100-4, subsection 101.3. Add the following:**

**ELECTRONIC DESIGN FILES** - One or more of the following files that KDOT furnishes to the Contractor in electronic form:

- Base file (plan view of entire project length);
- Cross Section Stack files (vertical layout of cross sections);
- Existing Ground Survey (existing ground contours in three-dimensions);
- Cross Section Sheet Files (final cross section sheets)
- Vertical Alignment description files
- Existing & Proposed Horizontal Alignment description files
- Cross Section Report files
- Superelevation description files
- Existing and Proposed Three-Dimensional Surfaces
- Three-Dimensional Line String File

These files are not considered Contract Documents or Exploratory Work Documents.

**Page 100-6, subsection 101.3, delete the definition for MEDIAN, and replace with the following:**

**Median** - The area between the inside edges of pavement of two parallel roadways (including the inside shoulders).

**Page 100-6, subsection 101.3. Delete the definition for PART V, and replace with the following:**

Part V (2018 version) of the KDOT Construction Manual which primarily refers to materials and tests for materials used in the project. Part V (2018 version) is a Contract Document.

### **SECTION 107 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

**Page 100-58, delete subsection 107.2a.(2) and replace with the following:**

(2) Sources of permits include the U.S. Army Corps of Engineers (Corps), Kansas Department of Health and Environment (KDHE), Kansas State Board of Agriculture Division of Water Resources (DWR), Kansas Department of Wildlife and Parks (KDWP), Kansas State Historical Society (KSHS) and other governing authorities **(Not KDOT)**.

**SECTION 152  
HAULING AND WEIGHING EQUIPMENT**

**Page 150-4, subsection 152.2, second paragraph:**

- The weighing devices shall be accurate to within 0.50% throughout the range of use.

**SECTION 154  
CONCRETE PAVEMENT AND CONCRETE STRUCTURE EQUIPMENT**

**Page 150-9, delete subsection 154.3 Subgrade Trimmers.**

**SECTION 157  
OTHER EQUIPMENT**

**Page 150-19, add the following:  
157.4 SUBGRADE TRIMMERS**

Use a standard manufacture rotary drum subgrade trimmer that is automatically controlled (from a reference system) in regard to both line and grade.

**SECTION 205  
EXCAVATION AND EMBANKMENT FOR HIGHWAYS**

**Page 200-18, subsection 205.4j., delete the tenth paragraph on the page (Where a grass median...) and replace with the following:**

Where grass is to be planted, do not place any rock excavation material or shale in the top 18 inches of the area. Construct the top 18 inches with earthen material suitable for growth of vegetation.

**SECTION 214  
MECHANICALLY STABILIZED EARTH FILL**

**Page 200-29, subsection 214.2e. replace "ASTM A82" with " ASTM A1064" throughout entire subsection.**

**SECTION 503  
PORTLAND CEMENT CONCRETE PAVEMENT SMOOTHNESS**

**Page 500-37, subsection 503.1, delete the Bid Item and replace with the following:**

**BID ITEM**  
Concrete Pavement Smoothness

**UNITS**  
Each

**SECTION 601  
ASPHALT APPLICATION TEMPERATURES**

**Page 600-1, subsection 601.1, delete TABLE 601-1 and replace with the following:**

| <b>TABLE 601-1: ASPHALT APPLICATION TEMPERATURES</b>                            |                                   |             |                     |             |
|---------------------------------------------------------------------------------|-----------------------------------|-------------|---------------------|-------------|
| <b>TYPE AND GRADE</b>                                                           | <b>TEMPERATURE RANGE<br/>(°F)</b> |             |                     |             |
|                                                                                 | <b>Spraying</b>                   |             | <b>Plant Mixing</b> |             |
|                                                                                 | <b>Min.</b>                       | <b>Max.</b> | <b>Min.</b>         | <b>Max.</b> |
| Asphalt Binder                                                                  | 275                               | 340         | *                   | *           |
| Cutback Asphalt, MC 30                                                          | 88                                | 125         | 88                  | 125         |
| Cutback Asphalt, MC & RC 70 & 250                                               | 125                               | 200         | 125                 | 200         |
| Cutback Asphalt, MC & RC 800 & 3000                                             | 150                               | 250         | 150                 | 250         |
| Asphalt Rejuvenating Agent, ARA                                                 | 70                                | 150         | 70                  | 150         |
| Emulsified Asphalt, CRS-1H, RS-1H, SS-1HP, CMS-1, MS-1, HFMS-1, RS-1HP, CRS-1HP | 100                               | 180         | 100                 | 180         |
| Emulsified Asphalt, SS-1H, CSS-1H                                               | None                              | 150         | None                | 150         |
| Emulsified Asphalt, CSS-1HM, CSS-Special                                        | None                              | 120         | None                | 120         |
| EBL                                                                             | 120                               | 180         | NA                  | NA          |

\* Use the Producer's recommended mixing temperature range.

**SECTION 603  
PORTLAND CEMENT CONCRETE PAVEMENT SMOOTHNESS**

**15-06006-R01, subsection 603.1, delete the Bid Item and replace with the following:**

| <b><u>BID ITEM</u></b>      | <b><u>UNITS</u></b> |
|-----------------------------|---------------------|
| Asphalt Pavement Smoothness | Each                |

**SECTION 605  
SURFACE RECYCLED ASPHALT CONSTRUCTION**

**Page 600-43, delete subsection 605.3e.(2) and replace with the following:**

(2) Operation Number 2. Use an asphalt paver equipped with automatic grade control to spread and finish the amount specified of the new asphalt surface material. **SECTIONS 601** and **602** apply. If a HMA overlay is included in the contract, place the HMA and surface recycle concurrently without remixing or blending the two.

**SECTION 615  
SAW AND SEAL JOINTS (HMA OVERLAY)**

**Page 600-92, subsection 615.3b., delete the third paragraph and replace with the following:**  
Configure the joints according to **FIGURE 615-1** or **615-2** within 1 inch horizontally above the existing joint.

**SECTION 714  
PAINTING STRUCTURAL STEEL**

**Page 700-68, subsection 714.3e., delete the second paragraph and replace with the following:**

Unless noted otherwise in the Contract Documents, use a waterborne acrylic, brown finish coat color equivalent to Federal Standard No. 595a, Color No. 20045.

**SECTION 717  
BRIDGE OVERLAYS**

Page 700-93, subsection 717.3g., third paragraph, second sentence, delete "7-day" and replace with "required".

**SECTION 735  
PRECAST REINFORCED CONCRETE BOX**

Page 700-125, subsection 735.1, in the DESIGN subsection delete "For fill height less than or equal to 3 feet..." and associated 4 bullets.

**SECTION 736  
PRECAST CULVERTS**

Page 700-130, subsection 736.2f., replace "SCA-5" with "UD-2".

**SECTION 801  
MOBILIZATION**

Page 800-1, subsection 801.4, delete the last paragraph and replace with the following:

\*Do not include monies earned for "Stored Materials".

**SECTION 808  
REMOVAL OF EXISTING PAVEMENT MARKINGS**

Page 800-32, delete subsection 808.3a. and replace with the following:

**a. Removal of Existing Stripes and Symbols.** Completely remove the existing pavement markings and symbols without damaging the asphalt or concrete pavement surface or longitudinal and transverse joints. Waterblasting will be allowed for removal of markings on asphalt and concrete surfaces on a performance basis.

As the work progresses, remove all material deposited on the pavement as a result of the removal operations. Continuously remove all residue and dust, especially in areas near the traveling public.

When replacement of the removed existing markings is a part of the Contract Documents, follow the manufacturer's requirements for the new pavement markings as to the method of removal of the existing markings, or surface preparation requirements.

**SECTION 810  
INERTIAL BARRIER SYSTEM**

Page 800-35, delete subsection 810.1 and replace with the following:

**810.1 DESCRIPTION**

Install and relocate inertial barrier systems (IBS) as shown in the Contract Documents. Stockpile the replacement modules at the project site.

**BID ITEMS**

Inertial Barrier System (\*)  
Replacement Modules (IBS)  
\*Type TL-2 or TL-3

**UNITS**

Each  
Each

Page 800-35, subsection 810.4, delete last paragraph and replace with the following:

Payment for "Inertial Barrier System" and "Replacement Modules (IBS)" at the contract unit prices is full compensation for the specified work.

## SECTION 811 IMPACT ATTENUATOR

**Page 800-36, subsection 811.1, delete the bid items and replace with the following:**

| <u>BID ITEMS</u>                        | <u>UNITS</u> |
|-----------------------------------------|--------------|
| Impact Attenuator (*)                   | Each         |
| *Type (TL-2, TL-3 or Severe Duty)       |              |
| Impact Attenuator (Temporary) (**)      | Each         |
| Replacement Modules (Impact Attenuator) | Each         |
| **Type (TL-2 or TL-3)                   |              |

**Page 800-37, subsection 811.4, delete the last paragraph and replace with the following:**

Payment for "Impact Attenuator (Temporary)" and "Replacement Modules (Impact Attenuator)" at the contract unit price is full compensation for the specified work.

## SECTION 816 ADJUSTMENT OF INLETS, MANHOLES AND OTHER EXISTING STRUCTURES

**Page 800-50, subsection 816.1, add the following Bid Items:**

| <u>BID ITEMS</u>                 | <u>UNITS</u> |
|----------------------------------|--------------|
| Adjustment of Existing Structure | Each         |
| Adjustment of Junction Box       | Each         |
| Adjustment of Fire Hydrant       | Each         |

**Page 800-50, subsection 816.4, delete the third paragraph and replace with the following:**

The Engineer will measure the adjustment of existing structures as shown in the Contract Documents. The Engineer will measure each adjustment of junction box and fire hydrant.

**Page 800-50, subsection 816.4, delete the last sentence and replace with the following:**

Payment for "Adjustment of Catch Basins", "Adjustment of Curb Inlets", "Adjustment of Manholes", "Structural Steel", "Cast Steel", "Cast Iron", "Adjustment of Meter Box (\*)", "Adjustment of Valve Box (\*)", "Adjustment of Existing Structures", "Adjustment of Junction Box" and "Adjustment of Fire Hydrant" at the contract unit prices and "Adjustment of Manholes" at the contract set price is full compensation for the specified work.

## SECTION 824 CONCRETE SIDEWALKS, STEPS AND RAMPS

**Page 800-67, subsection 824.2, delete third material listing and replace with the following:**

Masonry Bricks Compliant with PROWAG ..... SECTION 1301

**Page 800-68, subsection 824.3e.(1), change all references from "Paving Brick(s)" to "Masonry Brick(s)".**

## SECTION 827 GUARDRAIL AND GUIDEPOSTS

**Page 800-76, subsection 827.4, delete the fifth paragraph and replace with the following:**

The Engineer will measure temporary guardrail by the linear foot.

**SECTION 828  
FENCING**

**Page 800-80, delete subsection 828.3p. and replace with the following:**

**p. Erection of Single Wire Cable Fence.** Construct single wire cable fence as shown in the Contract Documents. Set all required posts as shown in the Contract Documents by driving or drilling and backfilling. Use metal posts.

**Page 800-80, delete the second paragraph and replace with the following:**

The Engineer will measure single wire cable fence by the linear foot. Line posts are subsidiary to single wire cable fence.

**SECTION 850  
SEPARATION GEOTEXTILE**

**Page 800-116, subsection 850.2, delete the first sentence and replace with the following:**

Provide a woven or non-woven geotextile that complies with SECTION 1710 and is contained on PQL-48 as a Class 1 geotextile.

**SECTION 855  
SOLID INTERLOCKING PAVING UNITS (PAVING BRICKS)**

**Page 800-129, subsection 855.2, change reference to "DIVISION 300" to "SECTION 1304".**

**SECTION 1101  
GENERAL REQUIREMENTS FOR AGGREGATES**

**Page 1100-2, subsection 1101.4, second paragraph, change reference from "Modified Lightweight Aggregate" to "Lightweight Aggregate".**

**SECTION 1106  
AGGREGATES FOR GRANULAR BASE**

**Page 1100-19, subsection 1106.2c.(1). In TABLE 1106-1 for the No. 8 sieve, change "70" to "80".**

**SECTION 1108  
AGGREGATES FOR COVER MATERIAL**

**Page 1100-25, subsection 1108.2c.(2). In TABLE 1108-1 for Minimum Gradation Factor, change "4.00" to "3.90".**



**SECTION 1113  
AGGREGATES FOR SHOULDER CONSTRUCTION**

Page 1100-34, subsection 1113.2b., delete the third bullet, and Note 4.

**SECTION 1203  
EMULSIFIED ASPHALT**

Page 1200-7, delete TABLE 1203-1 and replace with the following:

| <b>TABLE 1203-1: SPECIFICATIONS FOR ANIONIC EMULSIFIED ASPHALT</b> |                          |             |              |             |             |             |               |             |
|--------------------------------------------------------------------|--------------------------|-------------|--------------|-------------|-------------|-------------|---------------|-------------|
|                                                                    | <b>RS-1H/<br/>RS-1HP</b> |             | <b>SS-1H</b> |             | <b>MS-1</b> |             | <b>SS-1HP</b> |             |
|                                                                    | <b>Min.</b>              | <b>Max.</b> | <b>Min.</b>  | <b>Max.</b> | <b>Min.</b> | <b>Max.</b> | <b>Min.</b>   | <b>Max.</b> |
| Viscosity, Saybolt Furol                                           |                          |             |              |             |             |             |               |             |
| At 77°F, sec. . . . .                                              | -----                    | -----       | 10           | 100         | -----       | -----       | 10            | 75          |
| At 122°F, sec. . . . .                                             | 75                       | 300         | -----        | -----       | 100         | 400         | -----         | -----       |
| Residue by Distillation,<br>(% by Mass).....                       | 65                       | -----       | 57           | -----       | 65          | -----       | 57            | -----       |
| Oil Distillate, (% by Volume). .                                   | -----                    | -----       | -----        | -----       | -----       | 8           | -----         | -----       |
| Storage Stability, % <sup>1</sup> . . . . .                        | -----                    | 1           | -----        | 1           | -----       | 1           | -----         | -----       |
| Demulsibility:                                                     |                          |             |              |             |             |             |               |             |
| 35 ml of 0.02 N CaCl <sub>2</sub> , %. .                           | 60                       | -----       | -----        | -----       | -----       | -----       | -----         | -----       |
| 50 ml of 0.1 N CaCl <sub>2</sub> , %. .                            | -----                    | -----       | -----        | -----       | 75          | -----       | -----         | -----       |
| Sieve Test, % Retained. . . . .                                    | -----                    | 0.50        | -----        | 0.50        | -----       | 0.50        | -----         | 0.1         |
| Tests on Distillation Residue:                                     |                          |             |              |             |             |             |               |             |
| Penetration, 77°F, 100g, 5 sec.                                    | 75                       | 150         | 75           | 125         | 300         | -----       | 75            | 150         |
| Solubility, %. . . . .                                             | 97.5 <sup>3</sup>        | -----       | 97.5         | -----       | 97.5        | -----       | -----         | -----       |
| Ductility, 77°F, mm. . . . .                                       | 800                      | -----       | 800          | -----       | -----       | -----       | -----         | -----       |
| Ductility, 39.2°F, mm                                              | -----                    | -----       | -----        | -----       | -----       | -----       | 100           | 350         |
| Elastic Recovery @ 50°F, 20 cm elongation, %                       | 60 <sup>2</sup>          | -----       | -----        | -----       | -----       | -----       | 25            | -----       |

<sup>1</sup> If the Contractor's storage tanks are equipped with a mechanical propeller type agitation device, and the entire contents of the tank are thoroughly mixed before each day's use, the requirement for satisfactory compliance with the storage stability test will be waived.

<sup>2</sup> RS-1HP only

<sup>3</sup> RS-1H only

Page 1200-8, delete TABLE 1203-2 and replace with the following:

| TABLE 1203-2: SPECIFICATIONS FOR CATIONIC EMULSIFIED ASPHALT |                    |       |                    |       |       |       |                   |                   |
|--------------------------------------------------------------|--------------------|-------|--------------------|-------|-------|-------|-------------------|-------------------|
|                                                              | CRS-1H/<br>CRS-1HP |       | CSS-1H/<br>CSS-1HM |       | CMS-1 |       | CSS-Special       |                   |
|                                                              | Min.               | Max.  | Min.               | Max.  | Min.  | Max.  | Min.              | Max.              |
| Viscosity, Saybolt-Furol:                                    |                    |       |                    |       |       |       |                   |                   |
| At 77°F, sec. . . . .                                        | -----              | ----- | 10                 | 60    | ----- | ----- | ----              | ----              |
| At 122°F, sec. . . . .                                       | 75                 | 300   | -----              | ----- | 100   | 400   | ----              | ----              |
| Residue by Distillation,<br>(% by Mass).....                 | 65                 | ----- | 57                 | ----- | 65    | ----- | 64.0 <sup>1</sup> | 66.0 <sup>1</sup> |
| Oil Distillate, (% by Volume).                               | -----              | 3     | -----              | ----- | ----- | 8     | ----              | 0.5               |
| Storage Stability, %. . . . .                                | -----              | 1     | -----              | 1     | ----- | 1     | ----              | ----              |
| Sieve Test, % Retained. . . . .                              | -----              | 0.50  | -----              | 0.50  | ----- | 0.50  | ----              | 0.1               |
| Tests on Distillation Residue:                               |                    |       |                    |       |       |       |                   |                   |
| Penetration, 77°F, 100g, 5 sec                               | 75                 | 150   | 50                 | 100   | 300   | ----- | -25% <sup>2</sup> | +25% <sup>2</sup> |
| Solubility, %. . . . .                                       | 97.5 <sup>4</sup>  | ----- | 97.5               | ----- | 97.5  | ----- | ----              | ----              |
| Ductility, 77°F, mm. . . .                                   | 800                | ----- | 800                | ----- | ----- | ----- | ----              | ----              |
| Viscosity, Saybolt-Furol,<br>180°F, sec. . . . .             | -----              | ----- | -----              | ----- | 300   | 700   | ----              | ----              |
| Elastic Recovery @50°F,<br>20 cm elongation, %               | 60 <sup>3</sup>    | ----  | ----               | ----  | ----  | ----  | ----              | ----              |

<sup>1</sup> Use modified AASHTO T 59 procedure – distillation temperature of 350°F with a 20-minute hold.

<sup>2</sup> Penetration will be determined by the producer and submitted to the Chief Chemist at the time of prequalification.

<sup>3</sup> CRS-1HP only

<sup>4</sup> CRS-1H/CSS-1H only

## SECTION 1206 POLYMER MODIFIED ASPHALT CEMENT FOR CHIP SEALS

Page 1200-12, delete this entire section.

## SECTION 1405 BURLAP

Page 1400-6, delete subsection 1405.5 and replace with the following:

### 1405.5 BASIS OF ACCEPTANCE

- a. New burlap will be accepted on the basis of a visual inspection for compliance with AASHTO M 182.
- b. Used burlap will be accepted on the basis of a visual inspection for compliance with AASHTO M 182 and subsection 1405.2b above.

## SECTION 1504 PREFORMED ELASTOMERIC COMPRESSION JOINT SEALS FOR CONCRETE

Page 1500-5, subsection 1504.b.(1), delete "AASHTO M 220" and replace with "ASTM D2628".

**SECTION 1505  
MATERIALS FOR FILLING AND SEALING JOINTS IN PIPE**

**Page 1500-7, subsection 1505.2.b., delete second paragraph and replace with the following:**

Provide material that complies with ASTM C 990.

**SECTION 1509  
MEMBRANE SEALANT**

**Page 1500-15, subsection 1509.2a., delete the first paragraph and replace with the following:**

**a. Foam Sealant.** Provide a foam sealant consisting of an open-cell high density polyurethane foam impregnated with either a polymer modified bitumen or a neoprene rubber suspended in chlorinated hydrocarbons. Precompress the foam sealant prior to packaging. Use a precompressed dimension as recommended by the sealant manufacturer to provide a water tight seal throughout a joint movement range of  $\pm 25\%$  (minimum) from the specified joint opening dimension. Provide a foam sealant that is slowly self-expanding to permit workers ample time to install the foam before the foam exceeds the joint opening width. Supply the foam in pieces 5 feet in length or longer. Miter the ends of each piece for ease of joining to the adjacent pieces.

**SECTION 1601  
STEEL BARS FOR CONCRETE REINFORCEMENT**

**Page 1600-1, delete subsection 1601.4 and replace with the following:**

**1601.4 PREQUALIFICATION**

**a. General.** Follow the instructions on the AASHTO National Transportation Product Evaluation Program's (NTPEP) website to participate in the audit program for reinforcing steel mill.

Forward an official copy of the latest NTPEP audit report, including split sample test results, and the plant's quality control plan to the Bureau Chief of Construction and Materials for evaluation. Producing mills that have successfully met the requirements of the audit (including test results that comply with **subsections 1601.2b. and 1601.5c.**) and are listed on the NTPEP website as compliant will be prequalified.

In order to maintain prequalified status, send a copy of the annual NTPEP certificate of compliance, the "Record of Specimens Tested" sheet from the audit, and the "Variation Report" as soon as it is received. Producing mills that have prequalified using the NTPEP program and are subsequently removed from "compliant" status as shown on the NTPEP website will be removed from prequalified status.

Producing mills that fail to provide the annual documents described above or fail to adhere to the requirements of **subsection 1601.6b.** may be removed from prequalified status.

**b. Comparison Testing.** The NTPEP's 3<sup>rd</sup> party yield, tensile, and elongation test results will be compared to the parallel plant data from each heat for variations and differences. These variations and differences may not exceed the values shown in **TABLE 1601-1**, based on the 3<sup>rd</sup> party values as the reference where applicable.

**SECTION 1602  
EPOXY COATED STEEL FOR CONCRETE REINFORCEMENT**

**Page 1600-5, add the following subsection 1602.2a.(3):**

(3) See **SECTION 711** for construction requirements and additional storage and handling requirements.

**SECTION 1617  
WELDED STUD SHEAR CONNECTORS**

**Page 1600-28, delete subsection 1617.2b., and replace with the following:**

**b. Material Specifications.** The flux requirements for studs applied by the SW process are governed by AWS D1.5. Use steel for the studs that complies with ASTM A108, Grade Designation 1010 through 1020 (AISI/SAE), and AWS D1.5. The testing of the cold finished steel or the full diameter finished studs (stud manufacturer's option), must comply with the physical property requirements of AWS D1.5, Table 7.1, Type B.

**SECTION 1619  
STEEL PIPE**

**Page 1600-31, subsection 1619.5a. (1). Delete the 2<sup>nd</sup> sentence.**

**SECTION 1622  
STEEL POSTS FOR DELINEATOR MARKERS**

**Page 1600-37, subsection 1622.1. Delete the first sentence and replace with the following:**

This specification governs steel posts intended for the support of delineator markers and Type 2 object markers.

**SECTION 1623  
STEEL PERMANENT DECK FORMS**

**Page 1600-38, delete subsection 1623.2b. and replace with the following:**

**b. Material Specifications.** Use forms made from zinc-coated sheet steel that complies with ASTM A653, structural steel (SS) Grades 33, 37, 40, 50 Class 1 and 55, or high strength low alloy steel (HSLAS) Grades 40 through 80. Provide a zinc-coating (total both sides) that conforms to Coating Designation G210. Although this specification allows for a range of acceptable materials, the specific steel designation, grade, and class (when applicable) will be shown in the Contract Documents. Certain HSLAS require specific welding procedures. If welding of these steels is required, consult the steel producer.

**SECTION 1705  
EPOXY-RESIN-BASE BONDING SYSTEMS FOR CONCRETE**

**Page 1700-9, delete subsection 1705.1c.(6) and replace with the following:**

(6) Class F – For use above 75°F. The highest allowable temperature is defined by the manufacturer of the product.

**SECTION 1717  
PRECAST PANEL BEDDING MATERIALS**

**Page 1700-26, delete subsection 1717.1 and replace with the following:**

This specification covers material for bedding precast concrete panels used as a slab in bridge construction.

**Page 1700-26, subsection 1717.4, last paragraph, change subsection reference from "1716.2" to "1717.2".**

**SECTION 1801  
INORGANIC ZINC PRIMER FOR STRUCTURAL STEEL**

**Page 1800-1, delete subsection 1801.3b. and replace with the following:**

- b. Cyclic Corrosion/UV Exposure** ..... ASTM D5894
- (1) Scribe Corrosion ..... ASTM D1654
- (2) Unscribed Area ..... ASTM D1654

**Page 1800-2, delete subsection 1801.4b. and replace with the following:**

**b.** Testing by KDOT may be waived if testing has been performed on the identical product by another state within the past 12 months. Results must satisfy the requirements contained within this specification. Forward a copy of the test report to the Engineer of Tests for evaluation, along with evidence that the product referenced in the test report is identical to that submitted for prequalification.

**SECTION 1802  
ORGANIC ZINC PRIMER FOR STRUCTURAL STEEL**

**Page 1800-3, delete subsection 1802.3b. and replace with the following:**

- b. Cyclic Corrosion/UV Exposure.** ..... ASTM D5894
- (1) Scribe Corrosion ..... ASTM D1654
- (2) Unscribed Area ..... ASTM D1654

**Page 1800-4, delete subsection 1802.4b. and replace with the following:**

**b.** Testing by KDOT may be waived if testing has been performed on the identical product by another state within the past 12 months. Results must satisfy the requirements contained within this specification. Forward a copy of the test report to the Engineer of Tests for evaluation, along with evidence that the product referenced in the test report is identical to that submitted for prequalification.

**SECTION 1806  
WATER-BORNE ACRYLIC FINISH COAT**

**Page 1800-8, delete subsection 1806.3b. and replace with the following:**

- b. Cyclic Corrosion /UV Exposure** ..... ASTM D5894
- (1) Scribe Corrosion ..... ASTM D1654.
- (2) Unscribed Area ..... ASTM D1654.

**Page 1800-8, delete subsection 1806.4b. and replace with the following:**

**b.** Testing by KDOT may be waived if testing has been performed on the identical product by another state within the past 12 months. Results must satisfy the requirements contained within this specification. Forward a copy of the test report to the Engineer of Tests for evaluation, along with evidence that the product referenced in the test report is identical to that submitted for prequalification.

**SECTION 1903  
CAST IRON AND DUCTILE IRON PIPE**

**Page 1900-7, delete subsection 1903.2b. and replace with the following:**

**b. Material Specifications.** Provide components of open systems complying with ASTM A48 when produced from gray cast iron or ASTM A536 when produced from ductile cast iron. Accessory items may also be produced from ferritic malleable cast iron in compliance with ASTM A47. Provide pipe, fittings, and accessory items for sanitary, storm drain, waste, and vent piping applications complying with ASTM A74. The mechanical property requirements of ASTM A74 determine the class or grade of cast iron required.

**SECTION 2114  
TEMPORARY SEDIMENT BARRIERS**

**Page 2100-12, delete subsection 2114.2f. and replace with the following:**

**f. Filter Sock.** Provide burlap or synthetic mesh bags or tubes, coarse aggregate, wood chips, compost or other permeable filler material to slow and filter stormwater runoff. Mesh bags or tubes shall have openings between 1/8" and 3/8" in size. Use only coarse aggregate filler for curb inlet protection unless approved by the Area Engineer. Compost filler shall comply with **TABLE 2114-1**.

| <b>TABLE 2114-1: COMPOST FOR FILTER SOCK REQUIREMENTS</b> |                    |
|-----------------------------------------------------------|--------------------|
| <b>Parameter</b>                                          | <b>Range</b>       |
| pH                                                        | 5.0-8.5            |
| Moisture Content                                          | <60%               |
| Organic Matter Content                                    | >25% of dry weight |
| Particle Size                                             | 99% < 2"           |
|                                                           | 30%-50% < 3/8"     |

**SECTION 2210  
TEMPORARY PAVEMENT MARKING TAPE**

**Page 2200-14, subsection 2210.1. First paragraph, delete the second sentence and replace with the following:**

This includes both Type I and Type II materials for use on both portland cement concrete and asphalt surfaces.

**INDEXING / FORMATTING (Non-Content) CORRECTIONS**

**INDEX**

**Page I-1, Biodegradable Log, change page number from "900-27" to "900-7".**

**Page I-5, Landscape Retaining Wall, change page number from "800-104" to "800-125".**

**Page I-6, delete Liner Pipe from the Index. Handle by a project special provision.**

**Page I-6, delete Mobilization (Emergency Erosion Control) (Set Price) from the Index. No longer applicable to 2015 specifications.**

**Page I-7, Precast Arch Culvert and Precast Rigid Frame Culvert, change page number from "800-57" to "700-129".**

**Page I-8, Rubblized Concrete, change page number from "800-1001" to "800-101".**

**Page I-8, delete Shot-crete. No longer a bid item, replaced with Concrete Surface Repair.**

**Page I-12, BRIDGE CURB REPAIR, change page number from "700-103" to "700-108".**

**Page I-16, EROSION PIPE, change page number from "800-43" to "800-51".**

**Page I-22, POLYMER MODIFIED ASPHALT CEMENT FOR CHIP SEALS (Materials), change page number from "700-143" to "1200-12".**

**Page I-27, UNKNOWN HAZARDOUS MATERIALS, change page number from "100-59" to "100-63".**

**DIVISION 200  
EARTHWORK**

Page i, delete Table of Contents title "Stabilized Subgrade, Base and Shoulders" and replace with "Earthwork".

Page i, add "200-" before page numbers.

**DIVISION 300  
STABILIZED SUBGRADE, BASE AND SHOULDERS**

Page i, add "300-" before page numbers.

**SECTION 502  
PORTLAND CEMENT CONCRETE PAVEMENT (NON-QC/QA)**

Page 500-30, subsection 502.3g.(10), change all references with subsection 502.4 to subsection 502.3.

**DIVISION 600  
FLEXIBLE PAVEMENT**

Page i, add "600-" before page numbers.

**DIVISION 700  
STRUCTURES**

Page i, add "700-" before page numbers.

**SECTION 737  
FIELD ERECTION**

Pages 700-132 TO 700-135, delete header "737 – CONTROLLED DEMOLITION" and replace with "737-FIELD ERECTION".

**SECTION 850  
SEPARATION GEOTEXTILE**

Pages 800-116, delete header "850 – GEOMEMBRANE" and replace with "850 – SEPARATION GEOTEXTILE".

08-29-2022 (C&M) (JVN)  
Nov-2022 Letting

## Fuel Adjustment Recap

Project No. 24-62 KA 3963-01

Contract No. 520112262

| Worksheet<br>Number | Item of Work                             | Current Total Price<br>Adjustment ForItem |
|---------------------|------------------------------------------|-------------------------------------------|
| 1                   | Common Excavation                        | \$ 58 . 20                                |
| 2                   | Common Excavation (Contractor-Furnished) | \$3,241.50                                |
| 3                   | Rock Excavation                          |                                           |
| 4                   | Concrete Pavement 10 inches              |                                           |
| 5                   | Hot Mix Asphalt - (CommercialGrade)      |                                           |

Total Current Adjustment for Project: \$3,299.70

\*\*\* FOR 2015 SPECIFICATIONS CALCULATED TO THE \$0.01. \*\*



## FUEL PRICE ADJUSTMENT WORKSHEET

Project No:

24-62 KA 3963-01

Letting Month: Nov. 2020

ContractNo:

520112262

Starting Fuel Index (SFI): 1.20

English or Metric: ☒ English

FUF: 0.25

Item of Work: Common Excavation

[illegible]

## FUEL PRICE ADJUSTMENT WORKSHEET

Pro"ect No:

24-62 KA 3963-01

Letting Month: Nov. 2020

Contract No:

520112262

Starting Fuel Index (SFI):

1.20

English or Metric:

E

FUF: 0.25

Item of Work: Common Excavation (Contractor-Furnished)

[illegible]

# Bulletin Board Check List

CHECKED BY: \_\_\_\_\_  
 COMPANY: \_\_\_\_\_  
 PROJECT No.: \_\_\_\_\_ DATE: \_\_\_\_\_



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**FHWA  
 1022**



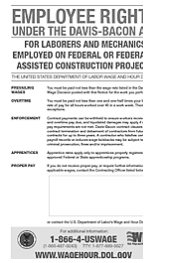
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**EEOC-P/E-1**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**EEOC-P/E-1  
 Supplement**



\_\_\_\_ Posted  
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 \_\_\_\_ Replace  
**WH 1088**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**WH 1321**

Wage Decision in Contract

Wage Decision Posted



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**OSHA 3165**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**WH 1462**



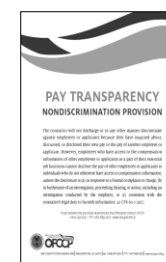
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**WH 1420**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**Contractor's  
 EEO Policy &  
 Officer Info**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**Rights  
 Under  
 USSERA**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**Pay  
 Transparency  
 Provision**



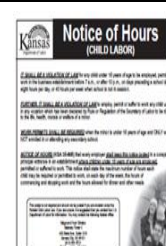
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 \_\_\_\_ Replace  
**K-WC 40**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**Equal  
 Opportunity  
 Poster**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**K-CNS 405**



\_\_\_\_ Posted  
 \_\_\_\_ Faded  
 \_\_\_\_ Replace  
**K-ESLR  
 100**



1

**Order of Hierarchy**

Resolves the Conflict between contract documents

Construction Manual

2015 Standard Specifications

Project Plans

Special Provisions(includes Errata sheets)

Project Specific Special Provisions

Pre Bid Meeting Notes (Trumps all the rest)

Change Orders

The logo for the Kansas Department of Transportation is located in the bottom right corner of the slide. It consists of the word 'Kansas' in a blue serif font, a yellow sunburst graphic, and the text 'Department of Transportation' in a smaller blue font.

2

## Order of Hierarchy

- ❖ Special PreBid Meeting Notes #1(trumps all others)
- ❖ Project Specific Special Provision 2<sup>nd</sup> rank
- ❖ Special Provisions 3(trumps plans)
- ❖ Project Plans 4(trumps Std Specs)
- ❖ 2015 Standard Specifications 5(beats Const Manual)
- ❖ Const Manual (created first) 6(lowest rank)

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## Change Orders

- ❖ Item - addresses a change in the quantity of material used. Or adds a new bid item to the contract

Change Orders



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## Change Orders

- ❖ Items
- ❖ Time - addresses a change in the number of days worked or change in Calendar Completion Dates



Change Orders

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## Change Orders

- ❖ Item
- ❖ Time
- ❖ Specification – addresses a change in the specifications for a certain part of the job



Change Orders

6

# Change Orders

- ❖ Item
- ❖ Time
- ❖ Specification
- ❖ Item & Time
- ❖ Item & Specification
- ❖ Specification & Time
- ❖ Or Item, Time & Specification



Change Orders

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I Want To...

About

Projects

Programs

Doing Business

Travel

ACCESS MANAGEMENT

COMMERCIAL VEHICLE INFORMATION

+ DESIGN CONSULTANTS

- HIGHWAY CONTRACTORS

+ Highway Letting Information

Contractor Prequalification

- Contractor Resources

AASHTOWare Project Information

Specifications for State Road and Bridge Construction

Special Provisions

+ Prequalified Materials and New Product Approval

Asphalt Adjustment Price Index

Fuel Adjustment Price Index

Hot Mix Aggregate Specific

Doing Business »

Highway Contractors

Share & Bookmark Print

KDOT partners with skilled highway contractors to build and maintain Kansas' transportation network. This page provides essential information and resources for working with KDOT. KDOT is committed to fostering a transparent and efficient bidding process, providing the information and support contractors need.

AASHTOWare Project

Information about KDOT's construction management system

Contractor Resources

Find manuals, special provisions, price indices, and other important information

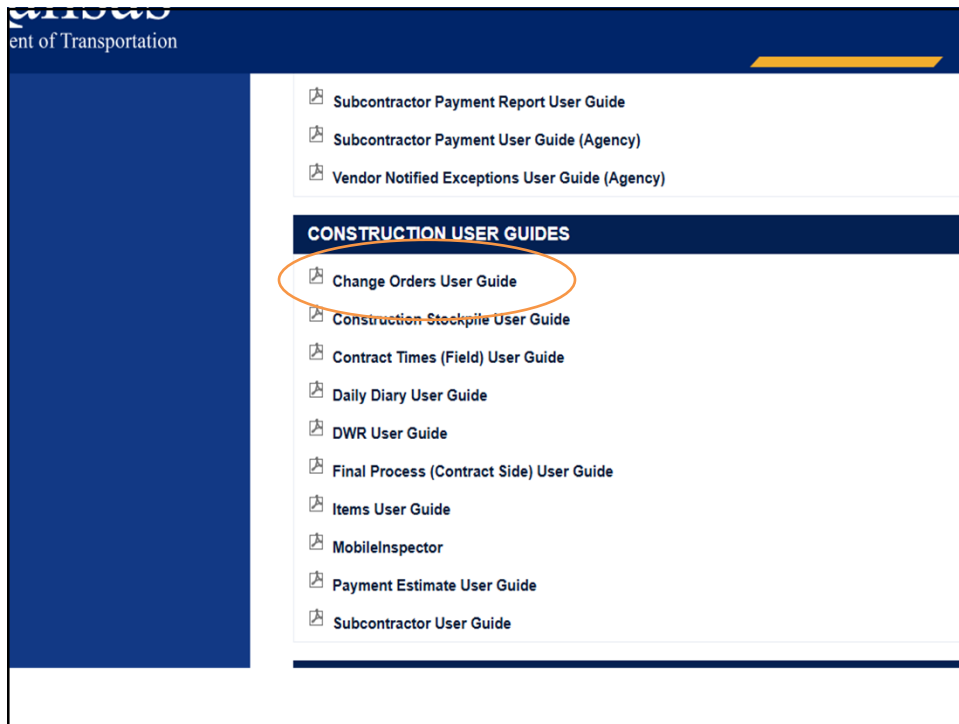
Letting Information

Information on bid lettings, how to propose on projects, and bid awards

Prequalification Requirements

Prequalification process for contractors, including forms and documentation

8



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## Change Orders

- ❖ Some change orders are simple and straight forward.
- ❖ Just adding to or subtracting from an existing bid item or new item to be added
- ❖ Others can be more complicated having multiple things to be addressed
- ❖ Need to include all subjects that apply in the same change order so the true “cost” of completing the work to known

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## Change Orders

For example - while working on a bridge widening project it is discovered that the deck needs to be patched also. Contractor agrees to do the work but wants additional working days. And since there was not patching on the original contract the bid item needs to be added to pay them for the work as well as the special provision that tells them how to do the work.

How is this accomplished?

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## Change Orders

- ❖ Item
- ❖ Time
- ❖ Specification
- ❖ Item & Time
- ❖ Item & Specification
- ❖ Specification & Time
- ❖ Or Item, Time & Specification \*

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## Change Orders

- ❖ Select Item, Time and Specification
- ❖ Item for new line item of Partial Depth Patching
- ❖ Time to add the working days
- ❖ Specification to add the special provision for Partial Depth Patching

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- Example Change Orders
- Answer:
  - What is changing?
  - Why it needs changed?

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## Change Order

Report v1

Contract: 521112242, PAVEMENT RECONSTRUCTION

Prime Contractor: 01565, WILDCAT CONSTRUCTION  
CO INC & SUBSIDIARIES

CO Number: 0008

Revision No.:

CO Type: General

CO Status: Draft

Change Order Date: 8/1/2023

CO Approval Date:

Entered By: Bruce Runft

Last Updated By: Bruce Runft

Last Updated Date: 8/4/2023

Fed. Proj. No.: ACNHP-A605(901)

Awarded Contract Amount: \$3,893,845.20

Net CO Amount: -\$20,726.60

District: 2 DISTRICT 2

Administrative Office: District 2 Area 2 Belleville  
Const

Area Engineer:

Route:

County: CD15 CLOUD

Location: PAVEMENT RECONSTRUCTION. US81; FR 2.776 MI N OF K9/US81 JCT

Project(s): KA 6059-01, PAVEMENT RECONSTRUCTION

Description: Delete 100% Underrun items on this Contract. Lines 2, 6, 12, 13, 26, 32

Explanation: This change order does not affect the contract time.

## Increases/Decreases

| Item Description                                                                                                                                                                                      | Item ID | Project Line | Contract Line | Project    | Category | Item Source | Quantity Inc/Dec | Unit | Unit Price | Dollar Amount |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|---------------|------------|----------|-------------|------------------|------|------------|---------------|
| FLAGGER (SET PRICE)                                                                                                                                                                                   | 070580  | 6            | 6             | KA 6059-01 | 01       | Original    | -1.000 HOUR      |      | \$25.00    | -\$25.00      |
| Explanation: This is a FINAL quantity. The item of Flagger is underrun 100%. No additional flaggers were required to safely guide traffic through the work zones during construction on this project. |         |              |               |            |          |             |                  |      |            |               |
| MOBILIZATION (DBE)                                                                                                                                                                                    | 070626  | 2            | 2             | KA 6059-01 | 01       | Original    | -1.000 LSUM      |      | \$0.00     | \$0.00        |
| Explanation: This is a FINAL quantity. The item of Mobilization DBE is underrun 100%. No DBE was designated for this project; Thus, no DBE Mobilization was required.                                 |         |              |               |            |          |             |                  |      |            |               |

Contract: 521112242

CO Number: 0008

Revision No.:

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## Change Order

Report v1

| Item Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Item ID | Project Line | Contract Line | Project    | Category | Item Source | Quantity Inc/Dec | Unit | Unit Price | Dollar Amount |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|---------------|------------|----------|-------------|------------------|------|------------|---------------|
| CONCRETE CORE (SET PRICE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 011748  | 12           | 12            | KA 6059-01 | 02       | Original    | -1.000 EACH      |      | \$120.00   | -\$120.00     |
| Explanation: This is a FINAL quantity. The item of Concrete Core (Set Price) is being underrun 100%. No cores were required to be out to settle disputed tests during construction on this project.                                                                                                                                                                                                                                                                                                     |         |              |               |            |          |             |                  |      |            |               |
| CONCRETE PAVEMENT COMPOSITE PAY ADJUSTMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 000031  | 13           | 13            | KA 6059-01 | 02       | Original    | -1.000 LS        |      | \$1.00     | -\$1.00       |
| Explanation: This is a FINAL quantity. The item of Composite Pay Adjustment LSUM is being underrun 100% as the item of Composite Pay Adjustment EACH Line 38 was added to the Contract on Change Order #7 to allow intermittent payments or deducts to the Contractor during construction on this project.                                                                                                                                                                                              |         |              |               |            |          |             |                  |      |            |               |
| PAVEMENT MARKING (TEMP) 4" BROKEN (8" TYPE I)                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 070914  | 26           | 26            | KA 6059-01 | 04       | Original    | -360.800 STAL    |      | \$57.00    | -\$20,565.60  |
| Explanation: This is a FINAL quantity. The item of Pavement Marking (Temporary) (8" (Broken) (Type I)) is being underrun 100%. This line item was added to the contract in the event the project was suspended over the winter and the highway was open to unrestricted traffic during that time. As the project was worked on continually over the winter and solid temporary pavement markings were used to designate the driving lanes, No Temporary Type I 8" Broken Pavement Marking was required. |         |              |               |            |          |             |                  |      |            |               |
| REPLACEMENT MODULES (IBS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 018154  | 32           | 32            | KA 6059-01 | 04       | Original    | -15.000 EACH     |      | \$1.00     | -\$15.00      |
| Explanation: This is a FINAL quantity. The item of Replacement Modules (IBS) is being underrun 100%. None of the IBS Modules were damaged by traffic and needing replacement occurred during construction on this project.                                                                                                                                                                                                                                                                              |         |              |               |            |          |             |                  |      |            |               |
| Total:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |              |               |            |          |             |                  |      |            | -\$20,726.60  |

Contract: 521112242

CO Number: 0008

Revision No.:

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## Change Order

Report v1

## Project/Category Summary

| Project                  | Project Description     | Category | Category Description     | Dollar Amount |
|--------------------------|-------------------------|----------|--------------------------|---------------|
| KA 6059-01               | PAVEMENT RECONSTRUCTION | 02       | CONCRETE SURFACING ITEMS | -\$121.00     |
| KA 6059-01               | PAVEMENT RECONSTRUCTION | 01       | COMMON ITEMS             | -\$25.00      |
| KA 6059-01               | PAVEMENT RECONSTRUCTION | 04       | TRAFFIC CONTROL ITEMS    | -\$20,580.60  |
| Net Change Order Amount: |                         |          |                          | -\$20,726.60  |

## Approvals

| Date/Time Approved | Approval Decision | Name | Title | Approval Decision Group |
|--------------------|-------------------|------|-------|-------------------------|
|--------------------|-------------------|------|-------|-------------------------|

Contract: 521112242

CO Number: 0008 Revision No.:

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## Change Order

- Calendar completion Date
- Involves Time and Spec
- Time adjustment
- Deletion of Original Calendar Completion Date special provision
- Addition of New Calendar Completion Date special provision

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## Change Order

Report v1

Contract: 520072262, GRADING, BRIDGE AND SURFACING

Prime Contractor: 00222, REECE CONSTRUCTION COMPANY, INC.

CO Number: 0031

Revision No.:

CO Type: General

CO Status: Approved

Change Order Date: 12/2/2022

CO Approval Date: 12/22/2022

Entered By: Blair Long

Last Updated By: Gregory Schieber

Last Updated Date: 12/22/2022

Fed. Proj. No.: NHPP-0704(094)

Awarded Contract Amount: \$5,735,790.83

Net CO Amount:

District: 2 DISTRICT 2

Administrative Office: District 2 Area 1 Junction City Const

Area Engineer:

Route:

County: C021 DICKINSON

Location: GRADING, BRIDGE AND SURFACING, BR #112 AND BR #113 (CHAPMAN)

Project(s): KA 3954-01, GRADING, BRIDGE AND SURFACING

Description: CCD Special Provision Change

**Explanation:** This change order affects the contract time. See the supplemental description. Per the contractor's request, KDOT has agreed to move the date requirement for the contract completion date. Deleting special provision 15-WS0145-R5 is being replaced by 15-WS0145-R6 with this change order. Adding special provision 15-WS0145-R6 is being added as a final change to the Calendar Completion Date of the Contract as approved by Jason Van Nice, P.E., on November 22, 2022.

## Time Adjustments

| Time ID             | Time Description | Time Type | Original        | Current       | Adjustment | New          |
|---------------------|------------------|-----------|-----------------|---------------|------------|--------------|
| Contract: 520072262 |                  |           | CO Number: 0031 | Revision No.: |            | Page: 1 of 3 |

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## Change Order

Report v1

| Item ID | Item Description                           | Completion Date | 11/18/2022 | 12/17/2022 | N/A | 12/17/2022 |
|---------|--------------------------------------------|-----------------|------------|------------|-----|------------|
| 01      | Main Contract Time Completion Date (Final) |                 |            |            |     |            |

**Explanation:** This is a FINAL quantity. Due to supply issues, delineators have been unavailable to the contractor resulting in a need for a later contract completion date. All other work on the project has been complete. The date for unfinished work (not impeding traffic) for delineator installation will be delayed from 11/18/2022 to 12/17/2022.

This AR has been approved by Jason Van Nice, PE, on 11/22/2022.

Net Change Order Amount: \$0.00

## Approvals

| Date/Time Approved | Approval Decision | Name             | Title | Approval Decision Group |
|--------------------|-------------------|------------------|-------|-------------------------|
| 11/28/2022         | Approve           | Marynell Popst   |       | Contractor              |
| 11/28/2022         | Approve           | Dale Hershberger |       | Area                    |
| 11/29/2022         | Reject            | Judy Wagner      |       | District                |
| 11/29/2022         | Close             | WTSYSTEMUSER     |       | Change Order            |
| 11/29/2022         | Close             | WTSYSTEMUSER     |       | Bureau                  |
| 11/29/2022         | Close             | WTSYSTEMUSER     |       | Division                |
| 11/29/2022         | Approve           | Marynell Popst   |       | Contractor              |
| 11/30/2022         | Approve           | Dale Hershberger |       | Area                    |

Contract: 520072262

CO Number: 0031

Revision No.:

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Kansas  
Department of Transportation

News Jobs FAQs Contact

Search

I Want To... About Projects Programs **Doing Business** Travel

ACCESS MANAGEMENT  
COMMERCIAL VEHICLE INFORMATION  
+ DESIGN CONSULTANTS  
**- HIGHWAY CONTRACTORS**  
+ Highway Letting Information  
Contractor Prequalification  
**- Contractor Resources**  
AASHTOWare Project Information  
Specifications for State Road and Bridge Construction  
Special Provisions  
+ Prequalified Materials and New Product Approval

Doing Business » Highway Contractors »  
**Contractor Resources**

Share & Bookmark Print

This page provides links to resources for highway construction contractors working with KDOT.

|                                                         |   |
|---------------------------------------------------------|---|
| AASHTOWare Project                                      | + |
| Certified Inspection and Testing (CIT) Training Program | + |
| KDOT Manuals and Guides                                 | - |

• [Bridge Construction Manual](#): Reference book of guidelines for the procedures and methods acceptable for the construction of bridges in Kansas.

Documentation Department of Transportation

2



Department of Transportation

- Contractor Prequalification
- Contractor Resources
- AASHTOWare Project Information
- Specifications for State Road and Bridge Construction
- Special Provisions
- + Prequalified Materials and New Product Approval
- Asphalt Adjustment Price Index
- Fuel Adjustment Price Index
- Hot Mix Aggregate Specific Gravity Values
- Materials and Research Center Test Procedures
- Bridge Construction Manual
- Construction Manual
- Construction Checklists
- Documentation Manual**
- Partnership

The KDOT documentation manual outlines for correcting errors and the importance of

- [Table of Contents](#)
- [Division 100](#) - General
- [Division 150](#)- Equipment 2/22/10
- [Division 200](#) - Earthwork
- [Division 300](#) - Stabilized Subgrade, B
- [Division 400](#) - Concrete
- [Division 500](#) - Rigid Pavement
- [Division 600](#) - Flexible Pavement
- [Division 700](#) - Structures 4/20/10
- [Division 800](#) - Incidental Construction
- [Division 900](#) - Roadside Improvement
- [Source Documents for Pay Quantities](#)
- [Computations of Quantities \(Measure](#)

**Sample Diaries**

- [Asphalt Pavement](#)
- [Asphalt Plant](#)
- [Base](#)

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| <u>Table of Contents</u>                |             |
|-----------------------------------------|-------------|
| <u>ITEM</u>                             | <u>PAGE</u> |
| I. Purpose .....                        | ii          |
| II. Scope .....                         | ii          |
| III. Definitions .....                  | ii-iv       |
| IV. Introduction to General Index ..... | iv          |
| V. Documentation of Field Records ..... | iv          |
| General Index .....                     | v           |

Documentation


4

## **DOCUMENTATION MANUAL:**

### **I. PURPOSE:**

A uniform method of documentation facilitates the review of project records and promotes greater efficiency in record keeping when inspectors are reassigned to projects in other areas.

Documentation



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## **DOCUMENTATION MANUAL:**

### **II. SCOPE:**

This manual demonstrates by example and by statement those recording methods which should supply minimum reporting requirements. These examples were selected from previously used and newly developed techniques. These examples are not exhaustive. Recording can be modified to suit the individual circumstance.

Documentation



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### **III DEFINITIONS:**

#### **A. FIELD BOOK:**

A permanently bound book used for the entry of information about a project.

The information maintained in a field book may be in the form of a diary, ledger entries, field survey data, measurements, drawings and/or computations.

The Field Book will ordinarily be in the possession of the person in charge of collecting or acquiring the information.

A Computer is not a field book



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### **III Definitions:**

#### **C. PLANS:**

D. The approved plans, profiles, typical cross-section, working drawings, and supplemental drawings, which show the location, character, dimensions, and details of the work to be accomplished.



Documentation

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### **III Definitions:**

**D. SOURCE DOCUMENT:** A permanent record with written or printed information , used for acceptance and/or payment.

Source Documents may take one of several forms such as:

- ✓ A Field Book;
- ✓ Plan Summary of Quantities;
- ✓ Load Tickets;
- ✓ Computation Sheet;
- ✓ Change Order;
- ✓ and Electronic Data retained on computers

Documentation



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### **GENERAL INDEX**

Division 100 – General

Index to Field Books

Inspector Verification

List of Contractors Equipment

List of Contractors Personnel

Division 150 – Equipment

Division 200 – Earthwork

Division 300 – Stabilized subgrade, Base and Shoulders

Division 400 – Concrete

Division 500 – Rigid Pavement

Division 600 – Flexible Pavement

Division 700 – Structures

Division 800 – Incidental Construction

Division 900 – Roadside Improvement

Source Documents for Pay Quantities

Computations of Quantities (Measure to – Pay to)



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# Construction Checklists

Documentation



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A screenshot of the Kansas Department of Transportation website. The header is dark blue with the "Kansas Department of Transportation" logo. A left sidebar contains a list of links: Fuel Adjustment Price Index, Hot Mix Aggregate Specific Gravity Values, Materials and Research Center Test Procedures, Bridge Construction Manual, Construction Manual, Construction Checklists (highlighted with a yellow arrow), Documentation Manual, Partnering, and Kansas Highway Wage Determinations. Below this is a section for "PERMITS" with links for "REQUEST FOR KDOT SUPPORT FOR DISCRETIONARY GRANTS", "SIGNS &amp; SALVAGE", and "KANSAS HIGHWAY DEDICATION SIGNING". The main content area has a list of links: Division 600 - Flexible Pavement, Division 700 - Structures 4/20/10, Division 800 - Incidental Construction, Division 900 - Roadside Improvement, Source Documents for Pay Quantities, and Computations of Quantities (Measure to - Pay to). Below this is a "Sample Diaries" section with links for Asphalt Pavement, Asphalt Plant, Base, Concrete Pavement, Erosion Control, Structures, Grading, Project Diary, and Traffic Control. The next section is "Checklists/Manuals" with links for Construction Checklists (highlighted with a yellow background) and Construction Manual. The final section is "Contact". The date "8/26/25" is visible in the bottom left corner of the page.

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## CONSTRUCTION CHECKLIST

### Table of Contents

- Asphalt Construction Checklist
- Asphalt Sealing Checklist
- Compaction of Earthwork
- Concrete Pavement Checklist
- Drainage Pipes Inspection Checklist
- Erosion Control Checklist
- Finals Checklist for Field
- Finals List
- Lighting Checklist
- Pre-letting
- Project Items Checklist
- Seeding Checklist
- Structures Checklist
- Traffic Control Checklist
- Traffic Signals Checklist



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## Traffic Control

- ☐ Record time contractor began setting up traffic control and record traffic control checked
- ☐ Record what time pilot car started
- ☐ Record what time pilot car operations ceased
- ☐ Record what time contractor completely off roadway
- ☐ Remove or cover all conflicting signs
- ☐ Record any nighttime review of signs
- ☐ Record that u-post are  $\leq 4$  inch above ground
- ☐ Record any adjustments made to sign locations

Documentation



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# DOCUMENTATION

Documentation



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## ❖ DOCUMENTATION

\* Talk to the Construction Engineer before starting. There is a documentation manual with suggested templates for documenting various pay items.

\* Source document is still the **field book**. Yes you document in the computer (AASTHOWare) but it still needs to be in a **field book (It is a legal document)**

Documentation



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## Documentation

- Daily Diary (Field Book) should include at least:
  - Weather Conditions – Hi/Lo temperature, precipitation
  - Work Accomplished – location of that work
  - Working days charged, or reason why a day was not charged
  - Problems encountered, solutions to problems
  - Instructions given to contractor
  - Conversations with contractor.

REMEMBER: If it is not documented --- it did not happen!



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## Documentation

- Daily Diary in AWP should only have 3 things:
  - Weather
  - Day Charged if Contractor worked.
  - Remarks should only have:
    - (if Contractor worked) "see DWR"
    - (If Didn't work) "Contractor did not work to do \_\_\_\_\_"
      - Contractor does not work Saturday, Sunday or legal holidays. No working day charged.
      - "State's Delay."
      - "Project was Suspended \_\_\_ to \_\_\_. See Form 206"

REMEMBER: If it is not documented --- it did not happen!



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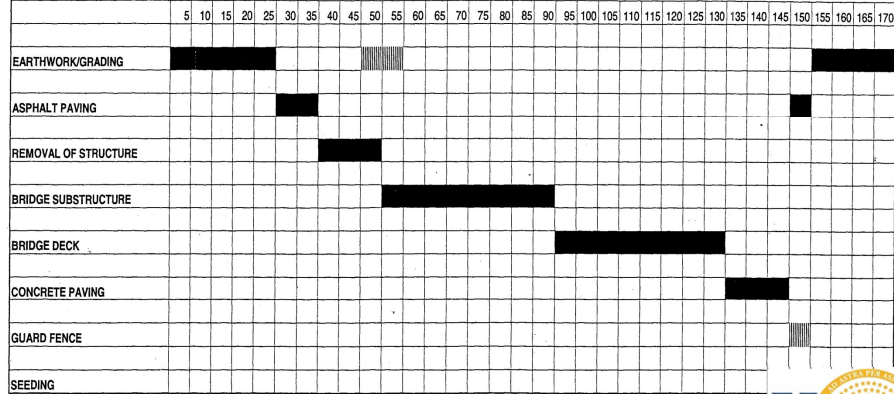
## WORK PROGRESS SCHEDULE

PROJECT NO: 14-53 K 7374-01

COUNTY: LINCOLN

CONTRACTOR: KING CONSTRUCTION COMPANY

170 WORKING DAYS



Documentation

Prepared by D. Duane Gish, E.I.T.



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Left the site at 5:30 PM.

A working day was charged.

Jeff Newell

DATE: 09/02/2015 DAY: Wednesday TEMP MAX: 94.0 MIN: 73.0

WEATHER: Sunny, hot and windy

CLOW: Construction of the RFB

WORK DAY CHARGED: 1

CLEANUP DAYS : 0

STATES DELAY: 0

LIQUID DAMAGES (A): 0

LIQUID DAMAGES (B): 0

INSPECTOR: Jeff Newell

TYPE: A - PROJECT DIARY

Reece Construction was on site at 7:00 am with two foreman-operators, one operator and six laborers. They used a John Deere 200 tracked excavator to lift and set plywood forms on the base of the new RFB.

Reece construction set toe wall forms, wall forms and wing wall footings. Reece used a Bobcat skid loader and a GMC dump truck to

load, haul and place AB-3 on the shoofly for minor repairs and

maintenance. Reece Construction set wall forms on the outside edge of

the RFB on the east and west sides. I checked traffic control at 10:00

am at eastbound and westbound K-28 (good condition). Reece

construction checked the distance between the outside edge of the hub

guard to the outside edge of the hub guard 70.0' (good). I performed

gradation test for the aggregates for the 4.0 Concrete, they passed.

Reece Construction left the site at 5:30 PM.

Documentation

Jeff Newell



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STATE OF KANSAS - DEPARTMENT OF TRANSPORTATION  
DATE: 09 19 18 TIME: 05:19 PM CONTRACT DIARY REPORT

DATE: 05/01/2018 DAY: Tuesday TEMP MAX: 82.0 MIN 62.0  
WORK DAY CHARGED: 1 CLEANUP DAYS: 0 STATES  
DELAY: 0  
INSPECTOR: Bill Koerner TYPE: A - PROJECT DIARY  
Martin outdoor Enterprises: Sam Tunis / Laborer  
The contractor installed Type 2 and Type 3 object markers on RS 1004 only today. Location #10 and #67.

John King, Construction engineer with KDOT Construction Office in Salina visited the project today.  
The Contractor was able to work more than 50% of the day on the CIOW. A working day was charged.  
Time worked: 8:00am to 5:30pm  
Equipment Used.: 1 pickup truck, 1 trailer.

Documentation



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## Example Diary

Kansas Department of Transportation 08/26/2025 04:15:00 PM

Daily Diary Report Report 042 v7

**Contract:** 524092212, PEDESTRIAN AND BICYCLE PATHS **Prime Contractor:** KILLOUGH CONSTRUCTION INC

**Diary Date:** 08/17/2025 **Day of Week:** Sunday **Author:** Spenser Hoyt **Project Engineer:**  
**Diary Lock Ind:** No **Estimate Number:** **Entered By:** Spenser Hoyt **Delivery Engineer:**  
**Revision Date:** 08/19/2025 **Revised By:** Spenser Hoyt **Time Type:** Available Time

**Weather:** Sunny (Clear) **Low Temp:** 72 **High Temp:** 94 **Original Contract Time:** 50 Days  
**Fed. Proj. Num.:** TA-T053(301) **Contractor Working:** No **Current Contract Time:** 50 Days  
**Location:** Midpoint **Daily Diary Time Charged:** 31 Days

**Comments:**

**Remarks**

| Type | Remarks                                                                                         |
|------|-------------------------------------------------------------------------------------------------|
| A    | Contractor does not work on Saturday, Sunday, or legal holidays. No working day charged.<br>SWH |

**Contract Times**

| Contract Time | Contract Time Description | Time Charged | Controlling Operation | Delay Reason | Contractor Working | Hours Worked | Hours Available | Work Start Time | Work Stop Time |
|---------------|---------------------------|--------------|-----------------------|--------------|--------------------|--------------|-----------------|-----------------|----------------|
| 00            | Working Days              |              |                       |              | No                 |              |                 |                 |                |

**Comments:**

Documentation



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Kansas Department of Transportation

08/26/2025 03:39:0

Daily Work Report

Report

Contract: 524104232, GRADING AND BRIDGE

DWR Date: 8/14/2025

Day of Week: Thursday

Inspector: Robert Lemons

Seq Num: 1

DWR Status: Approved

Entered By: Robert Lemons

Last Updated Date: 8/25/2025

Last Updated By: Adam Boyd

Managing Office:

Weather:

Low Temp:

High Temp:

Rainfall Amount:

SECIR Indicator:

Fed. Proj. Num: STP-C521(901)

State Proj. Num: 009 C 5219-01

Work Items: Yes

Contractors: Yes

Daily Staff: No

Attachment(s): Yes

Prime Contractor: A M COHRON AND SON INC

Agency Project Engineer:

Agency Delivery Engineer:

Remarks

| Type | Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A    | <p>Inspector: Robert E. Lemons</p> <p>AM Cohron &amp; Son on project at 6:30am.</p> <p>Super – Zach Nowell, 10 - crew</p> <p>AM Cohron &amp; Son continued placing deck rebar steel and tying bridge rail rebar steel. Continued placing forms for abutment 1 and continued tying rebar for the diaphragm.</p> <p>Trident on site for SWPPP inspection and WPCM.</p> <p>Pre-poor meeting 1pm to 2pm</p> <p>Attendees:</p> <p>AM Cohron &amp; Son - BJ H. and Zach N.</p> <p>KDOT – Bill Harris</p> <p>CFSE – Robert L., Geary B. and Kenny F.</p> <p>CFSE checked traffic barricades. Traffic is up and in good condition.</p> <p>Onsite 6:30am Offsite 5:30 pm</p> |

Contract: 524104232

DWR Date: 8/14/2025

Seq. No.: 1

Page:

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Kansas Department of Transportation

08/26/2025 03:39:0

Daily Work Report

Report

Contract Times

| Contract Time | Contract Time Description | Time Charged | Controlling Operation | Delay Reason | Contractor Working | Hours Worked | Hours Available | Work Start Time | Work Stop Time |
|---------------|---------------------------|--------------|-----------------------|--------------|--------------------|--------------|-----------------|-----------------|----------------|
| 00            | Working Days              |              |                       |              | No                 |              |                 |                 |                |
|               | Comments:                 |              |                       |              |                    |              |                 |                 |                |
| 03            | Cleanup Days              |              |                       |              | No                 |              |                 |                 |                |
|               | Comments:                 |              |                       |              |                    |              |                 |                 |                |

Contractor Staff

| Contractor Name | Staff Name | Title | Count | Total Hours |
|-----------------|------------|-------|-------|-------------|
|                 |            |       |       |             |

Contractor Personnel

| Contractor Name        | Personnel Name  | Title           | Count | Total Hours |
|------------------------|-----------------|-----------------|-------|-------------|
| A M COHRON AND SON INC | FOREMAN         | FOREMAN         | 2     |             |
|                        | LABORER         | LABORER         | 8     |             |
|                        | SUPERINTENDENTS | SUPERINTENDENTS | 1     |             |

Contractor Equipment

| Contractor Name        | Equipment Description | Equipment ID     | Number On Site | Number Used | Hours Used | Hours Available |
|------------------------|-----------------------|------------------|----------------|-------------|------------|-----------------|
| A M COHRON AND SON INC | BULLDOZER             | BULLDOZER        | 2              | 2           | 3          |                 |
|                        | CRANE                 | CRANE            | 2              | 2           | 6          |                 |
|                        | EXCAVATOR             | EXCAVATOR        | 1              | 1           | 2          |                 |
|                        | FORK LIFT             | FORK LIFT        | 1              | 1           | 2          |                 |
|                        | SKIDSTEER LOADER      | SKIDSTEER LOADER | 1              | 1           | 2          |                 |

Contract: 524104232

DWR Date: 8/14/2025

Seq. No.: 1

Page:

24





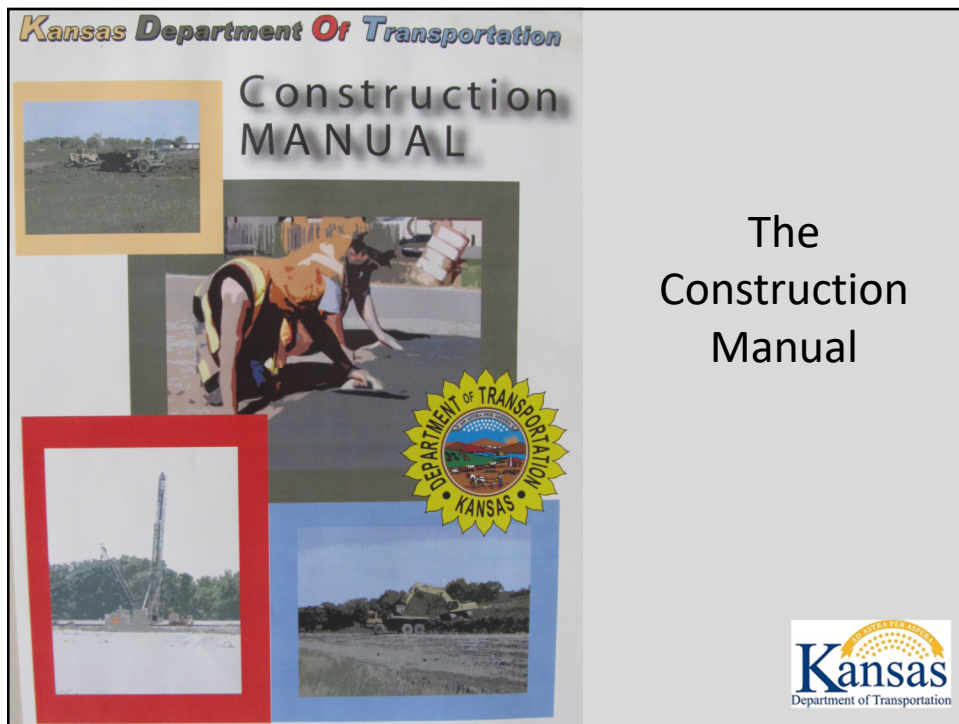
1

## **GOALS of This Section**

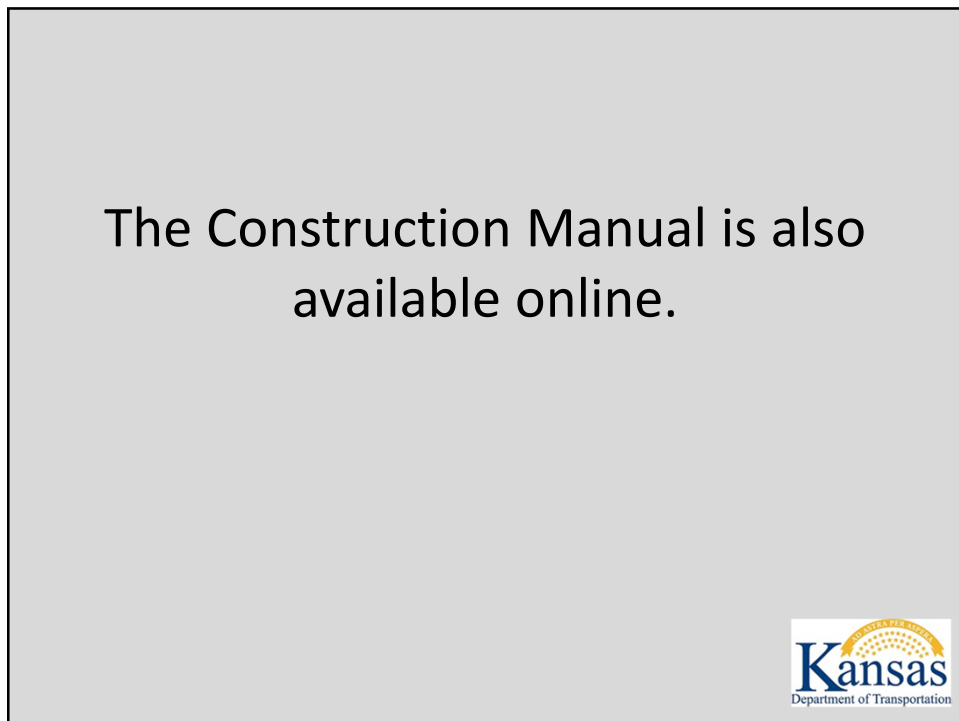
- To gain a General knowledge of KDOT procedures
- To learn where to find specific information
- To provide an overview of the Construction Manual



2



3



4

## Table of Contents

- Part I General Information
- Part II Contract Information
- Part III Surveying
- Part IV Construction Inspection
- Part V Materials

(Revised every few years)



5

## Part I

The Division of Operations is the largest unit in KDOT

- Oversees construction inspection of all projects.
- Responsible for administering Federally funded County and City projects.
- Oversees materials testing
- Oversees research on new construction materials.

Session 6

Part I-3



6

### 1.03.12 Metro and Area Engineer.

The Metro and Area Engineers handle Project Management and Public Involvement within their area.

### 1.03.13 Field Engineer

Depending on the size of the job, this could be a variety of different people. On very large jobs, it is probably a metro or an area engineer.

On smaller jobs, it could be a staff engineer working out of a local Construction Office.



Session 6

7

### 1.03.14 Project Engineer and Engineer Technicians.

Carry on all the normal day to day inspections of any construction job.



Session 6

8

## 1.04 RELATIONS

### 1.04.02 General Public

Page I-8

You are disrupting peoples lives

### Courtesy Counts

- ✓ answering questions
- ✓ receiving suggestions.
- ✓ receiving criticism

Session 6



9

## 1.04 RELATIONS

### 1.04.03 Adjacent Property Owners

Try to talk to property owners

Tell them:

what you are doing,

why you are doing it,

how long it will take.

Session 6



10

## 1.04 RELATIONS

### 1.04.06. Contractor Relations

- ✓ Treat the Contractor fairly and impartially
- ✓ Stick to the plans as closely as possible
- ✓ Make every effort to have a good relationship with the contractor and his employees.
- ✓ Do not obligate yourself to the Contractor
- ✓ Avoid excessive closeness
- ✓ Do not discuss the contractor with 'outsiders'.

Session 6



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## 1.04 RELATIONS

### 1.04.06. Contractor Relations

- ✓ Advise when asked
- ✓ Avoid intense arguments – agree to disagree and forward it up the chain
- ✓ Give instructions to foreman NOT to the workers
- ✓ Maintain a written record of specific instructions
- ✓ Anticipate needs and difficulties of the contractor.
- ✓ Make decisions for the project good

Session 6



12



## 1.05 INTEGRITY OF THE INSPECTOR

### 1.05.01 Integrity

- ✓ Absolute integrity is essential to maintain public confidence
- ✓ Inspectors should not perform work for or receive pay from the Contractor
- ✓ Do not accept gifts or favors from the contractor or his employees

Session 6



13

## 1.07 SAFETY

### 1.07.01 GENERAL

- ✓ SAFETY IS EVERYBODY'S BUSINESS
- ✓ SAFETY IS YOUR BUSINESS
- ✓ Accidents result in:
  - ✓ Pain
  - ✓ Suffering
  - ✓ Economic loss
  - ✓ Permanent disability
  - ✓ Death

Session 6



14

## 1.10 LABOR REGULATIONS

All KDOT contracts contain provisions governing the employment and paying of wages to employees, subcontractors and others.

Session 6



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## 1.10 LABOR REGULATIONS

Wage Rate Interviews are required to verify compliance with the Federal Regulations.

This includes the rate of pay, the payment of overtime, payment of benefits, etc.

These are double checked by examining the payroll every week.

Wage rate interviews to be taken as often as required – but at least once every 3 months for the life of the project.

Wage rate interviews are entered into the Computer and will be checked by Dept of Labor.

Session 6



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## Part II

Session 6



17

## Part II overview

- Scope of Work
- Project Organization
- Control of Work
- Control of Materials
- Progression and Progress

Session 6



18

## Part II overview

- Measurement and payment
- Records and reports
- Payments
- Completed projects
- Inspector is not intended to exercise police or enforcement power.

Session 6



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## Part II

- The contractor is obligated to provide for the convenience of the 'Public' . Public is anyone that is affected by the project.
- Traffic Control will be the main interaction with the job or the public.
- Before starting work, make sure the Contractor has provided and properly erected the necessary traffic control devices and has provided flaggers if required, to adequately warn the traveling public work and the hazards.

Session



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## Part II overview

- All personnel must have the proper certifications in the area that they are inspecting.
- That is why you are here this week. To begin your certification process.
- Specialization is not advised. Rotate around so that you have the broadest experience possible.

Session 6



21

## Part II overview

- 2.07.02 RESPONSIBILITY, AUTHORITY AND BEHAVIOR OF THE INSPECTOR.
- The inspector is responsible for determining that the work is being constructed in accordance with the requirements of the Contract Documents. This does not give the Inspector the right to unnecessarily disrupt the operations of the Contractor.

Session 6



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## Part II overview 2.07.02 Responsibility

- The Inspector must :
  - ✓ Become thoroughly familiar with the Contract Documents and review them frequently as they apply to the work.
  - ✓ Be capable of recognizing immediately if the inspected work conforms to the contract requirements.
  - ✓ Know how the work fits into the overall schedule.

Session 6



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## Part II 2.07.02 Responsibility

### Field Notebooks:

A record of the work that occurs on the job. Filled out daily. This Notebook is to be a bound book (KDOT uses an orange book)

Session 6



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## Part II overview -2.07.02 Responsibility

The inspectors daily diary should include:

- a recording of the days happenings,
- the Contractors activity on the work being inspected,
- equipment and personnel being used,
- controlling item of work (CLOW),
- instructions given the Contractor and
- any agreements made.

Session 6



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## Part II overview 2.07.02 Responsibility

- The daily diary is not a place for personal opinions.
- Remember that the Daily Diary is a **legal document.**
- Report inspections and testing in a timely manner and give test results to the Contractor as soon as practical.

Session 6



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## Part II 2.07.02 Authority

- Inspector shouldn't hesitate to use the authority delegated from their supervisor
- Should recognize that there are situations when they should seek assistance before making a decision
- Has the authority to approve materials and workmanship that meets requirements
- Doesn't have authority to approve deviations from the contract requirements.

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## Part II overview 2.07.01 Authority

**The inspector should not  
under any circumstances  
attempt to direct the  
Contractors work ! ! !**

Session 6



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## Part II Overview 2.07.03 Behavior

- Inspector should maintain a relationship of mutual respect, confidence and trust with other inspectors and supervisors
- Should use tact when pointing out deficiencies to the Contractor
- Must merit respect of those they inspect, be honest and fair
- Work cooperatively with the Contractor while still maintaining the responsibility to KDOT

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## Part III overview

- Surveying
  - Field Notes
  - Instruments
  - Earthwork
  - Benchmarks
  - Cross Sections
  - Slope stakes and Grade Stakes and Finishing Stakes
  - Cross-Sections and Computations
  - Horizontal and Vertical Control for Construction Projects
  - Survey for Asphalt Jobs
  - Survey for Pavements
  - Final Surveys

Session 6



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## Part IV overview

- Construction Inspection
  - **General – Prior to Construction**
  - Grading – Excavation & Embankments
  - Temp Erosion and Pollution Control
  - Base Courses and Sub-bases
  - Structures
  - Portland Cement Concrete Pavement
  - Flexible Pavement (Asphalt)
  - Roadside Improvement



Session 6

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## Part IV 4.00/4.01

- The addition of QC/QA does not relieve inspectors of the responsibility of inspecting work on projects
- Contract Documents
- Preconst. Conf.
- Const. Limits
- Archaeological Clearance
- Utilities

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## Part IV 4.01 continued

- Environmental Packets
- Notification of adjacent land owners
- Contractor Equal Employment Opportunity Signs
- Surveying
- Safety
- Traffic Control
- Materials Test Reports

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## Part IV 4.01 continues

- Extra Work
- Schedules
- Charging time (Working Day Contracts)
- Charging time (Calendar Day Contracts)
- Erodible Surface
- Checklists

34

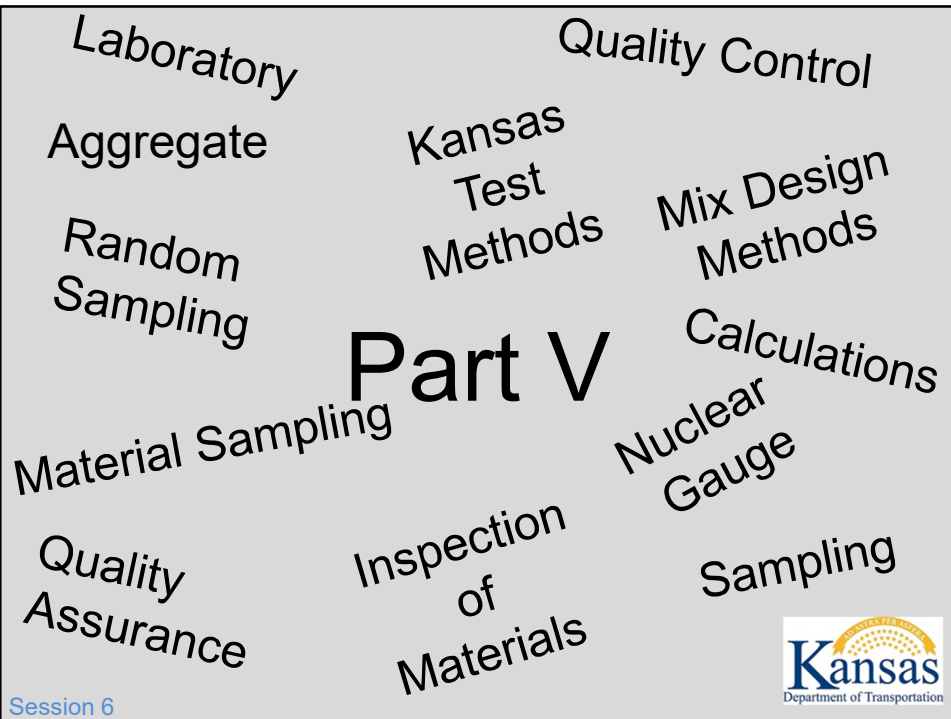
# Part 5

# Part V

Session 6



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Session 6



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## Part V Construction Manual

- General
- Quality Control/Quality Assurance (QC/QA)
- Mix Design Methods
- Laboratory and Sampling Identifications
- Required Sample Size
- Aggregates
- Inspection and Sampling of Materials
- Nuclear Gauge

37

## Part V Continued

- Sampling and Testing methods (KT methods)
- Calculations
- Appendices
  - Appendix A (NonQC/QA)
  - Appendix B (QC/QA)
  - Appendix C (test procedure for Independent Assurance testing)
  - Appendix D (Policy and procedure for inspection of KDOT District Labs)

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# Mobilization Application

A contract reached it's LATE START date on 6/25/2025.

The contractor wasn't onsite until 7/29/2025.

It's 8/4/2025; the contractor called and wants you to pay them for their mobilization. Should you?

It depends...



1

## Mobilization Application (2)

- Where to start?
  - Section 801

### 801.4 MEASUREMENT AND PAYMENT

a. **Mobilization.** The Engineer will make partial payments according to TABLE 801-1.

| TABLE 801-1: MOBILIZATION PARTIAL PAYMENTS    |                       |                               |
|-----------------------------------------------|-----------------------|-------------------------------|
| Percent of Original Contract Amount Completed | Pay Lesser of the Two |                               |
|                                               | % of Mobilization     | % of Original Contract Amount |
| 5                                             | 25                    | 2.5                           |
| 10                                            | 50                    | 5                             |
| 25                                            | 60                    | 7.5                           |
| 50                                            | 100                   | 10                            |
| Accepted                                      | 100                   | NA                            |

The Percent of Original Contract Amount Completed = the amount earned by the Contractor\* divided by the total dollar value of the original contract (all bid items).

\*Do not include monies earned for "Mobilization", "Traffic Control (Lump Sum)", "Contractor Construction Staking" and "Stored Materials".



2

## Mobilization Application (3)

- The contractor has worked 3 days. Did they complete 5% of the work?

### Yes

Contract Amount: \$184,355.00  
2.5% of the Contract Amount: \$4,608.87

Mobilization (Line 1): \$7000.00  
25% of Mobilization: \$1,750.00

PAY LESSER OF THE TWO

**Pay \$1,750.00**

### No

No Mobilization payment should be made.



3

## Traffic Control LSUM Application

The traffic control subcontractor was onsite on 7/21/2025. They installed all of the Temporary Traffic control devices per plan. No other work has been completed on the project.

Should you pay 100% of the Line #6 Traffic Control (LUMP SUM)?



4

## Traffic Control LSUM Application (2)

- Where to start?
  - Section 805

b. **Traffic Control (Lump Sum)**. When traffic control is shown in the Contract Documents as a lump sum it will be measured as such. The Engineer will not measure Uneven Lane signs (W8-11), Shoulder Drop Off signs (W8-17 and W8-17P), or wedge material for separate payment.

| TABLE 805-5: TRAFFIC CONTROL (LUMP SUM) PARTIAL PAYMENTS |                       |                               |
|----------------------------------------------------------|-----------------------|-------------------------------|
| Percent of Original Contract Amount Completed*           | Pay Lesser of the Two |                               |
|                                                          | % of Traffic Control  | % of Original Contract Amount |
| 10                                                       | 50                    | 5                             |
| 80                                                       | 100                   | 10                            |
| 100                                                      | 100                   | NA                            |

\*The Percent of Original Contract Amount Completed = the amount earned by the Contractor\*\* divided by the total dollar value of the original contract (all bid items).

\*\*Do not include monies earned for "Mobilization", "Traffic Control (Lump Sum)", "Contractor Construction Staking" and "Stored Materials".



5

## Traffic Control LSUM Application (3)

The traffic control subcontractor was onsite on 7/21/2025. They installed all of the Temporary Traffic control devices per plan.

After a month, 80% of the project is complete. How much should you pay for the LSUM Traffic Control?

Original Contract: \$184,355.00

Traffic Control Section: \$20,000.00



6



## Traffic Control LSUM Application (4)

TABLE 805-5: TRAFFIC CONTROL (LUMP SUM) PARTIAL PAYMENTS

| Percent of Original Contract Amount Completed* | Pay Lesser of the Two |                               |
|------------------------------------------------|-----------------------|-------------------------------|
|                                                | % of Traffic Control  | % of Original Contract Amount |
| 10                                             | 50                    | 5                             |
| 80                                             | 100                   | 10                            |
| 100                                            | 100                   | NA                            |

100% of TC → \$20,000

10% of Contract → \$18,435.50



7

## Liquidated Damages Application (1)

The contractor ran out of working days (restricted working days) on Monday 7/28/2025, they completed work on the roadway on Friday 8/1/2025. They removed the Traffic Control from the roadway on Monday 8/4/2025.

Should they be charged any LDs? If so, how many?

Contract Number: 524096212

Original Contract Amount: \$793,520.47



8

## Liquidated Damages Application (2)

Which Spec Section?

108 – Prosecution & Progress

Is there a Special Provision?

15-01016-R04 (Anything Let After July 2025)

OR

15-01016-R03 (Anything Let After April 2020)

**524096212**



9

## Liquidated Damages Application (3)

The contractor ran out of working days (restricted working days) on Monday 7/28/2025, they completed work on the roadway on Friday 8/1/2025. They removed the Traffic Control on Monday 8/4/2025.

| Monday        | Tuesday        | Wednesday      | Thursday       | Friday            |               |
|---------------|----------------|----------------|----------------|-------------------|---------------|
| 28            | 29<br><b>1</b> | 30<br><b>2</b> | 31<br><b>3</b> | Aug 1<br><b>4</b> | 2<br><b>5</b> |
| 4<br><b>6</b> | 5              | 6              | 7              | 8                 | 9             |
| 11            | 12             | 13             | 14             | 15                | 16            |



10

## Liquidated Damages Application (3)

How much of a deduction would the contractor see?

Remember:

Original Contract Amount: \$793,520.47

Read the Table.



11

## Liquidated Damages Application (4)

15-01016-R03

| TABLE 108-1: TABLE OF LIQUIDATED DAMAGES |                 |                                                                                                                                                                 |                                                                                                     |
|------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Original Contract Amount Range           |                 | Amounts of Liquidated Damages to be Deducted for Each Day Over Contract Time, Project Open Time or Cleanup Time                                                 |                                                                                                     |
|                                          |                 | Condition at End of Working Days, Calendar Days, Calendar Completion Date, Cleanup Time                                                                         |                                                                                                     |
|                                          |                 | Project Not Complete after Contract Time Expires under 108.4a.(1) or Project Not Open to Unrestricted Traffic after Project Open Time Expires under 108.4a.(2)* | Project Open to Unrestricted Traffic, but not Completed after Cleanup Time Expires under 108.4a.(2) |
|                                          |                 | (A)                                                                                                                                                             | (B)                                                                                                 |
| \$0.00                                   | \$500,000.00    | \$900.00                                                                                                                                                        | \$450.00                                                                                            |
| \$500,000.01                             | \$1,000,000.00  | \$1,200.00                                                                                                                                                      | \$600.00                                                                                            |
| \$1,000,000.01                           | \$2,500,000.00  | \$1,400.00                                                                                                                                                      | \$700.00                                                                                            |
| \$2,500,000.01                           | \$5,000,000.00  | \$1,600.00                                                                                                                                                      | \$800.00                                                                                            |
| \$5,000,000.01                           | \$10,000,000.00 | \$2,000.00                                                                                                                                                      | \$1,000.00                                                                                          |
| \$10,000,000.01                          | \$25,000,000.00 | \$4,000.00                                                                                                                                                      | \$2,000.00                                                                                          |
| Over \$25,000,000.00                     |                 | \$4,000.00                                                                                                                                                      | \$2,000.00                                                                                          |

\*Or Not Available to the Next Contractor, when applicable.



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## Liquidated Damages Application (5)

| Original Contract Amount Range |                 | Project Not Complete after Contract Time Expires under 108.4a.(1)<br>or<br>Project Not Open to Unrestricted Traffic after Project Open Time Expires under 108.4a.(2)* |
|--------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                 | (A)                                                                                                                                                                   |
| \$0.00                         | \$500,000.00    | \$900.00                                                                                                                                                              |
| \$500,000.01                   | \$1,000,000.00  | \$1,200.00                                                                                                                                                            |
| \$1,000,000.01                 | \$2,500,000.00  | \$1,400.00                                                                                                                                                            |
| \$2,500,000.01                 | \$5,000,000.00  | \$1,600.00                                                                                                                                                            |
| \$5,000,000.01                 | \$10,000,000.00 | \$2,000.00                                                                                                                                                            |
| \$10,000,000.01                | \$25,000,000.00 | \$4,000.00                                                                                                                                                            |
| Over \$25,000,000.00           |                 | \$4,000.00                                                                                                                                                            |



13

## Liquidated Damages Application (6)

$$6 \text{ Days} \times \$1,200.00 / \text{Day} = \$7,200.00$$

How would things have changed if the contractor had removed the traffic control on Friday 8/1/2025, but left it where they could pick it up without impeding traffic?



14

# Certified Inspector Training: Grading & Bases – Part 1



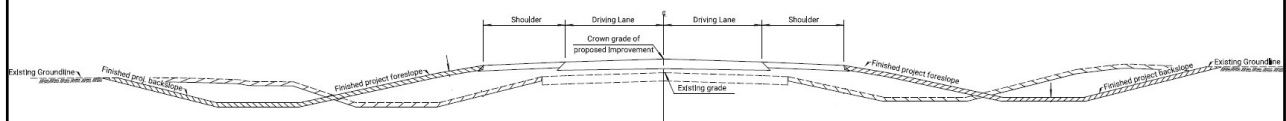
1



1

## What is Grading?

- The process of adjusting the slope, contours, and elevations of the site



Fill – The area used to raise the elevation to final grade

Cut – The area used to lower the elevation to final grade



2

# References

- 2015 Standard Specifications
  - Section 150 – Equipment
  - Section 200 – Earthwork
- Special Provisions -15-02001 Removal of Existing Structures
- 2022 Construction Manual (Part V) Appendix A

3



3

## Difference in Special Provision

**e. Asbestos Removal.** Inspect all building structures that are scheduled for removal, and determine if asbestos is present. Sample, test, remove and dispose of asbestos, while complying with all Federal and State regulations, laws, rules and ordinances pertaining to asbestos removal and waste disposal. File all appropriate notification forms and any required permits with Federal and State authorities, and pay all related fees. Provide the Engineer copies of all notification forms, correspondence, test results, recommendations and other information to document compliance with these requirements.

200-4

15-02001  
Sheet 3 of 3

### 202 - REMOVAL OF EXISTING STRUCTURES

#### 202.4 MEASUREMENT AND PAYMENT

The Engineer will measure the removal of existing structures and removal and reconstruction of existing structures by the lump sum. The initial inspection of building structures to determine if asbestos is present is subsidiary to these bid items.

If the Contract Documents identify asbestos in the removal of building structures, asbestos removal is subsidiary to "Removal of Existing Structures". If asbestos removal is not shown in the Contract Documents, but is required after the initial inspection indicates the presence of materials containing asbestos, the asbestos removal will be paid for as Extra Work, **SECTION 104**.

Payment for "Removal of Existing Structures" and "Removal and Reconstruction of Existing Structures" at the contract unit price is full compensation for the specified work.

When existing bridge deck damage is severe, KDOT inspection and engineering fees will be assessed under the bid item "Contract Deduct".

If after repairs are made, there is a reduced capacity for the structure, KDOT will assess an additional "Contract Deduct". The Contract Deduct will be calculated by multiplying the percent loss of capacity (calculated after repair) times the total contract price of all bridge bid items (reinforcing steel, structural steel, concrete, expansion joints, etc.) for the structure.

#### e. Asbestos Removal.

(1) Building Structures. Inspect all building structures that are scheduled for removal, and determine if asbestos is present by sampling and testing. The Contract Documents may identify that asbestos is present in building structures.

(2) Bridge Structures. The Contract Documents will identify when asbestos is present in the bridge structure.

(3) When asbestos is determined to be present in building structures or identified in the Contract Document to be present in building structures or bridge structures, remove and dispose of asbestos, while complying with all Federal and State regulations, laws, rules and ordinances pertaining to asbestos removal and waste disposal. File all appropriate notification forms and any required permits with Federal and State authorities, and pay all related fees. Provide the Engineer copies of all notification forms, correspondence, test results, recommendations and other information to document compliance with these requirements.

#### 202.4 MEASUREMENT AND PAYMENT

**a. Measurement.** The Engineer will measure the removal of existing structures and removal and reconstruction of existing structures by the lump sum. The initial inspection of building structures to determine if asbestos is present is subsidiary to these bid items.

(1) Building Structures. If the Contract Documents identify asbestos in the removal of building structures, asbestos removal is subsidiary to "Removal of Existing Structures". If asbestos removal is not shown in the Contract Documents, but is required after the initial inspection indicates the presence of materials containing asbestos, the asbestos removal will be paid for as Extra Work, **SECTION 104**.

(2) Bridge Structures. When the Contract Documents identify asbestos in the removal of bridge structures, asbestos removal is subsidiary to "Removal of Existing Structures". If asbestos removal is not shown in the Contract Documents, but asbestos is identified during the removal of existing structure, the asbestos removal will be paid for as Extra Work, **SECTION 104**.

**b. Payment.** Payment for "Removal of Existing Structures" and "Removal and Reconstruction of Existing Structures" at the contract unit price is full compensation for the specified work.

When existing bridge deck damage is severe, KDOT inspection and engineering fees will be assessed under the bid item "Contract Deduct".

If after repairs are made, there is a reduced capacity for the structure, KDOT will assess an additional "Contract Deduct". The Contract Deduct will be calculated by multiplying the percent loss of capacity (calculated after repair) times the total contract price of all bridge bid items (reinforcing steel, structural steel, concrete, expansion joints, etc.) for the structure.

10-23-15 BS/GS (JPJ)  
Jan-16 Letting



4

## Earthwork Equipment (Sect. 150)

- General Equipment Requirements
- Typical Equipment you will see
- Compaction Equipment Requirements
- Hauling Equipment Requirements

5



5

## General Requirements

- Use amount, type, and quality of equipment needed to complete project during contract time.
- Relatively free of leaks
- Operate safely, avoid damage to roadway and adjacent property
- Contract may specify equipment requirements and method



6



## Loader Backhoe

digging or loading



7

## Scraper

removes and relocates dirt



8



## Pull-Type Scraper



9

## Dozer pushes dirt, etc.



10

# Motor Grader

fine grading



11

# Excavator

used for digging and demolition



12



## Loader

used to move materials



13

## Compaction Equipment (Section 151.2)

- Tamping / Sheepfoot rollers
- Can be towed or self propelled
- Metal drum with tamping feet spaced between 6 inches and 12 inches measured diagonally, min. 6.5 inches long



14

Department of Transportation

14

# Compaction Equipment

(cont'd)

- The area of each tamper foot tip must 4 in<sup>2</sup> to 12 in<sup>2</sup>
- The weight of the roller must create load on each tamping foot that is a minimum pressure of 200 psi



15

**Kansas**  
Department of Transportation

15

## Pneumatic-Tired Rollers

(Section 151.3 a, b, c)

- Consists of wide smooth tires staggered such that complete coverage is obtained
- May be light or heavy, towed or self propelled
- Uniform Air pressure
- Light rollers be heavy enough to provide 225 lbs/inch of tire width



16

16



## Steel Rollers

(Section 151.4)

- Towed or self propelled
- Consists of a smooth steel drum
- Normally used for:
  - Asphalt
  - subgrade sealing
  - compacting base courses
- Required to have scrapers and water tanks and sprinkling devices.



17

## Vibratory Rollers

(151.5)

- Amplitude set on high for earthwork
- For Aggregate Base and Earthwork, Roller speed and vibrations per minute should be coordinated such that it delivers a minimum of 6 impacts per linear foot
- (Table 151-1, pg. 150-2)



18

## Roller Speed vs Vibrations Per Minute

| TABLE 151-1: AGGREGATE BASE AND EARTHWORK<br>Impacts per Linear Foot |                       |      |      |      |      |      |      |      |
|----------------------------------------------------------------------|-----------------------|------|------|------|------|------|------|------|
| Roller<br>Speed<br>MPH<br>(ft./Min)                                  | Vibrations Per Minute |      |      |      |      |      |      |      |
|                                                                      | 1000                  | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
| 1.0(88)                                                              | 11.4                  | 13.6 | 15.9 | 18.2 | 20.5 | 22.7 | 25.0 | 27.3 |
| 1.5(132)                                                             | 7.6                   | 9.1  | 10.6 | 12.1 | 13.6 | 15.2 | 16.7 | 18.2 |
| 2.0(176)                                                             | --                    | 6.8  | 8.0  | 9.1  | 10.2 | 11.4 | 12.5 | 13.6 |
| 2.5(220)                                                             | --                    | --   | 6.4  | 7.3  | 8.2  | 9.1  | 10.0 | 10.9 |
| 3.0(264)                                                             | --                    | --   | --   | 6.1  | 6.8  | 7.6  | 8.3  | 9.1  |
| 3.5(308)                                                             | --                    | --   | --   | --   | --   | 6.5  | 7.1  | 7.8  |
| 4.0(352)                                                             | --                    | --   | --   | --   | --   | --   | 6.3  | 6.8  |
| 4.5(396)                                                             | --                    | --   | --   | --   | --   | --   | --   | 6.1  |

According to Table 151-1, if the roller is producing 1600 vibrations per minute what is the fastest roller speed to the closest 0.5 MPH?

- a) 2.5 MPH      b) 3.0 MPH      c) 3.5 MPH

19



19

## Miscellaneous Compactors (151.6)

- Mechanical or hand operated tampers used in small, irregular areas where conventional equipment is impracticable.
- Must obtain required compaction



20

20

## Types of Miscellaneous Compactors



Vibratory Plate Compactor  
(Wacky Packer)



Pogo Stick



Jumping Jack

21



21

## Aggregate Hauling Equipment

(Section 152.1a)

- Dump controls are operated from driver's seat
- Vehicles body constructed and maintained to prevent loss of material during hauling



22



## Water Hauling Equipment

(Section 152.1c)

- Control Valves are operated from the driver's seat
- Minimum tank capacity is 1,000 gallons
- Note: water paid for in MGAL = 1,000 gallons



23

## QUESTIONS?

24

24



## Earthwork

### Section 200



25

## Grading and Excavation

- Clearing and Grubbing – Section 201
  - Removal of Existing Structures – Section 202
  - Excavation for Structures – Section 204
  - Excavation for Highways
  - Embankments
  - Compaction
- Section 205

26

26

## — Clearing & Grubbing (Section 201)

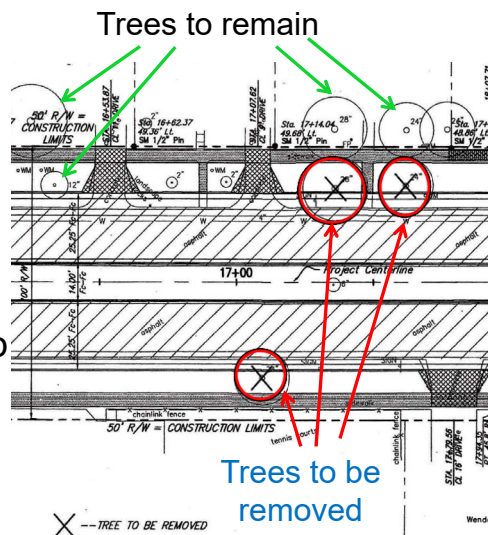
- Consists of clearing, grubbing, removing, and disposing of all vegetation and debris not designated to remain within the construction limits.
- Is paid by Lump Sum



27

## Clearing and Grubbing Requirements

- Plans should be checked for any trees indicated to not be disturbed
- Stump holes backfilled accepted by Engineer (visual inspection)
- Contractor is required to strip and stockpile existing topsoil within the construction limits.



28

28

## Clearing and Grubbing cont'd

- Do not open areas unless work is to be performed there within 14 calendar days or 7 calendar days on steep slopes greater than 40% (2.5:1)
- Do not open more than 750,000 sq ft of surface area at one time
- Disposal of cleared and grubbed material must be in accordance with applicable Federal, State and local laws (i.e. burn permit)
- If the Engineer authorizes it may be disposed of on right-of-way.

29



29

## Removal of Existing Structures

Section 202 Special  
Provision 15-02001



30





## Construction Requirements (202.3)

### Removal of Existing Structure (202.3a)

- Substructure of existing structures shall be removed to the natural stream bottom
- Or 12" below natural ground surface or new finished lines, whichever is lower

### Bridge Deck Removal (202.3c)

- Contractor to designate a removal supervisor (must be onsite during removal)
- Contractor responsible to avoid damage to girders



33

## Excavation for Structures

Section 204

### **Bid Items**

- Class I Excavation
- Class II Excavation



34

# Class I vs Class II Excavation

EBP = Excavation Boundary Plane

## Class I

- Entire volume of whatever nature, **except** water, found **above** the EBP, within the limits specified.

## Class II

- Entire volume of whatever nature, **including** water, found **below** the EBP, within the limits specified.

## Class III

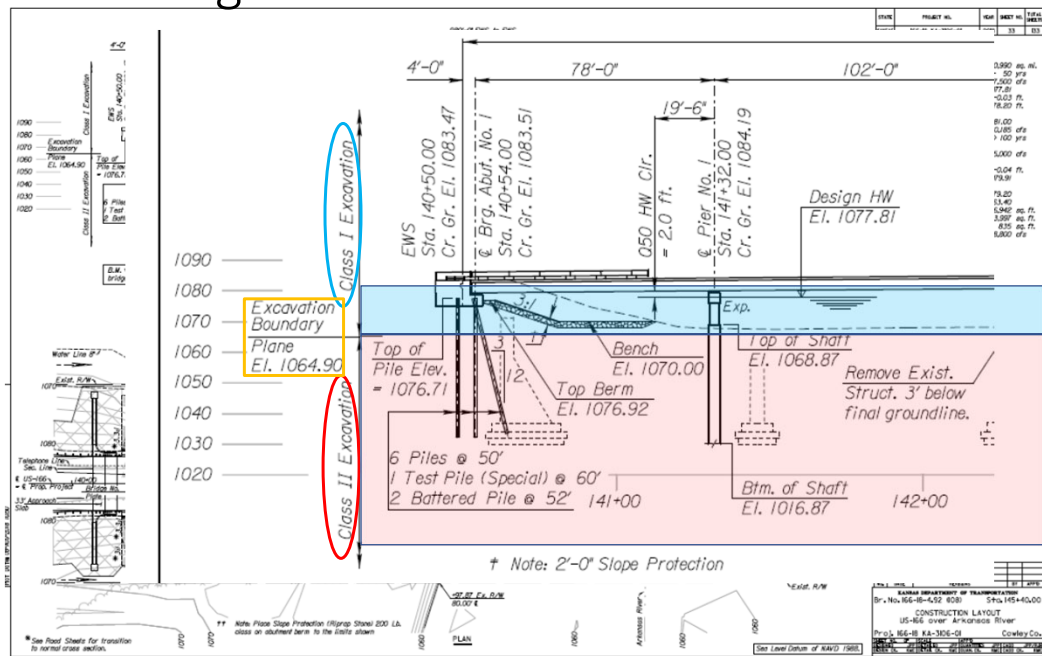
- Entire volume of whatever nature, including water, that is not classified as Class I or Class II but is within the limits specified.

All classes of excavation are measured and paid for by the **cubic yard**



35

# Finding Excavation Class on Plan Sheet



36

## Excavation for Structures Problem

- You are building a 6'x6' footing that needs to be set at an elevation of 1020. The current ground elevation is 1080. The EBP is at 1065. How much Class I and Class II material needs to be excavated?

### Class I

- Depth:  $1080 - 1065 = 15'$
- Volume:  $6' \times 6' \times 15' / 27 = \mathbf{20 \text{ cubic yards}}$   
(1 cubic yard = 27 cubic feet)

### Class II

- Depth:  $1065 - 1020 = 45'$
- Volume:  $6' \times 6' \times 45' / 27 = \mathbf{60 \text{ cubic yards}}$   
(1 cubic yard = 27 cubic feet)

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## Excavation Requirements for Structures (204.3)

- Excavate all foundations to the elevations and dimensions shown in the Contract Documents
- Save excavated material for structure backfill
- Complete foundation excavation before driving piling
- Remove all shoring and bracing before backfilling a structure
- Wait at least 3 days after designated cure period to backfill



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# Excavation for Highway

## Section 205

### Bid Items

- Common Excavation
- Common Ex. (Contractor Furnished)
- Rock Excavation
- Rock Excavation (Non-Durable Shale)
- Common Ex. (Unstable)
- Common Ex. (Unsuitable)
- Compaction of Earthwork
- Embankment
- Unclassified Excavation
- Eradication of Traveled Way
- Water (Set Price)



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## Classification of Excavation (Section 205.3)

- **Common Excavation:** Everything that is not included as rock ex. or other type of excavation.
- **Rock Excavation:** Firm, rigid rock that is naturally in place, concrete pavement, & asphalt greater than 6 inches thick.
- If common ex is interlaced with rock and common makes up 25% or less of the volume, pay as rock (205.3c).
- Boulders >2 CU YD are rock ex.



40



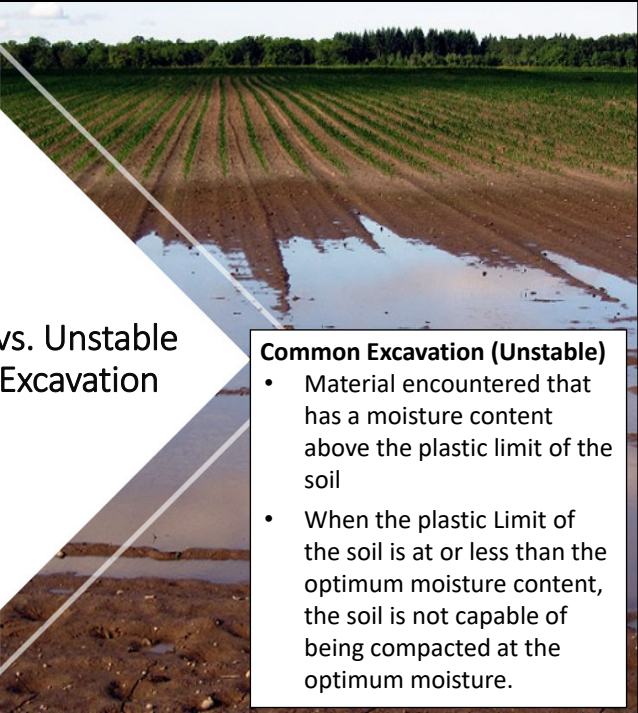
## Classification of Excavation (205.3 Cont.)

### Common Ex (Contractor Furnished):

- Furnished from off site by the contractor.
- Proper clearances must be obtained prior to excavation. (KDHE, EPA, etc)
- Complies with material requirements.



41

**Unsuitable vs. Unstable  
Common Excavation**

**Common Excavation (Unsuitable)**

- Materials encountered that contain a high organic content.
- Is not usable and must be disposed of
- Paid at 3x the price for common ex

**Common Excavation (Unstable)**

- Material encountered that has a moisture content above the plastic limit of the soil
- When the plastic Limit of the soil is at or less than the optimum moisture content, the soil is not capable of being compacted at the optimum moisture.

42

## Classification of Excavation (Cont.)

- **Unclassified Excavation:**  
Includes all other types of excavation. If unclassified, the Contractor is responsible for estimating the kind and extent of work to remove.



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## Construction Requirements (Section 205.4)

- All suitable material should be used and not wasted without permission.
- Maintain drainage at all times.



44



## Construction Requirements

(Section 205.4f)

- Eradication of Traveled Way shall include all excavation, removal of surfacing, filling of ditches and rough grading to restore to the original contour of the ground.
- Seeding is a separate line item



45

## Method of Measurement (Section 205.5)

- Generally plan quantity is accepted unless there have been changes to plan or there is a disagreement between the Contractor and KDOT. Either party can request that quantities be measured.
- Intermediate pay quantities are found by measuring the excavation as work progresses, or by load counts from the borrow site.



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## Basis of Payment (Section 205.5c)

- Paid at contract unit prices per cubic yard (CUYD) for Common, Rock, Unclassified, and Contractor Furnished excavation.
- Unstable Excavation: 1.5 X Common Excavation contract unit price up to \$6.00 per cubic yard (Rural), up to \$10.00 in urban areas. If contract unit price is higher than these maximums, the contract price will be the maximum paid.
- Eradication of Traveled Way is paid per STA (1 STA =100ft).



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## QUESTIONS??

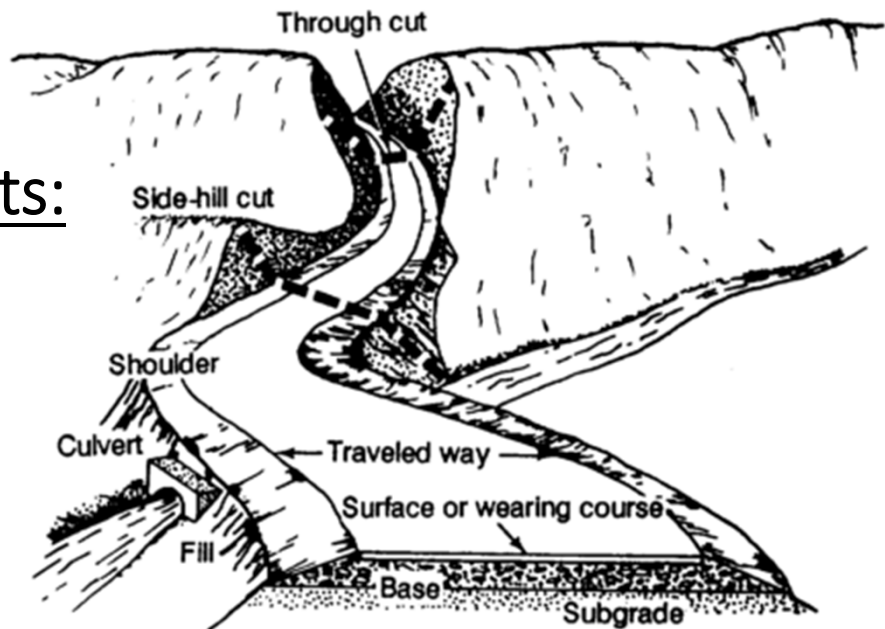


48

48

## Embankments:

(Section 205.4)



49

## Embankments (Section 205.4j)

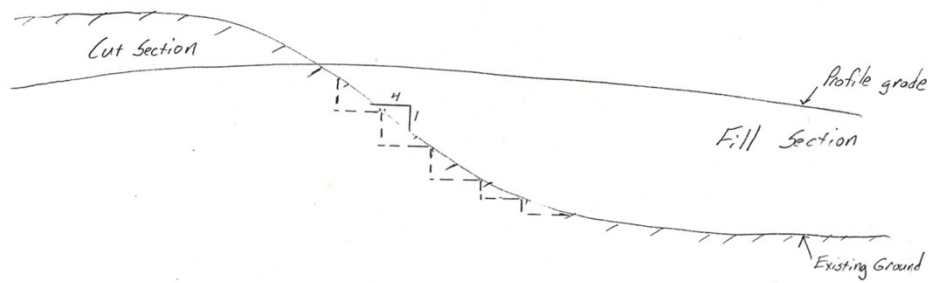
Also see Construction Manual Part IV, 4.02.04

- Embankment - That portion of the work that is constructed from natural material, such as soil, shale, rock, or a combination thereof either, as a fill section.
- Contractor is required to strip to a depth of 6" and stockpile the existing topsoil within the construction limits for use in capping the finished embankment and cut slopes. (Section 210) This is Paid for as Salvaged Topsoil (SQYD).
- **Frozen soil – The material must be removed or completely thawed before an embankment may be constructed.**
- Benching- Construction against slopes steeper than 4:1 shall be benched and the new embankment constructed in uniform lifts. Benches should be cut wide enough to accommodate equipment.

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## What is Benching?



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## What Benching Looks Like



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## Embankment Construction Requirements

(Section 205.4.j)

- **j. Embankment Requirements.** Construct the embankment from material classified as Soil, Rock/Soil or Rock, as defined in **TABLE 205-3**.

| TABLE 205-3: EMBANKMENT GRADATION CLASSIFICATION |                                               |
|--------------------------------------------------|-----------------------------------------------|
| Classification                                   | Gradation Criteria                            |
| Soil                                             | < 20% retained on the ¾ inch sieve            |
| Rock/Soil                                        | > 20%, but < 80% retained on the ¾ inch sieve |
| Rock*                                            | >80% retained on the ¾ inch sieve             |

\*Could include concrete pavement.

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## Embankment Requirements cont'd

(Section 205.4j)

- Place soil embankment material in 8" lifts (loose)
- Place rock/soil embankment material in 10" lifts (loose)
- Place rock embankment material in lifts approx. the average size of the larger rocks (max 2' thick)
- Do not place rocks, broken concrete, or other solid material in embankment areas where piling will be driven or culverts will be installed
- During Clean-up, dispose of all loose rocks within the Right-of-way that will interfere with mechanical mowing. (No rocks >3" in the top 12 inches)

54



54



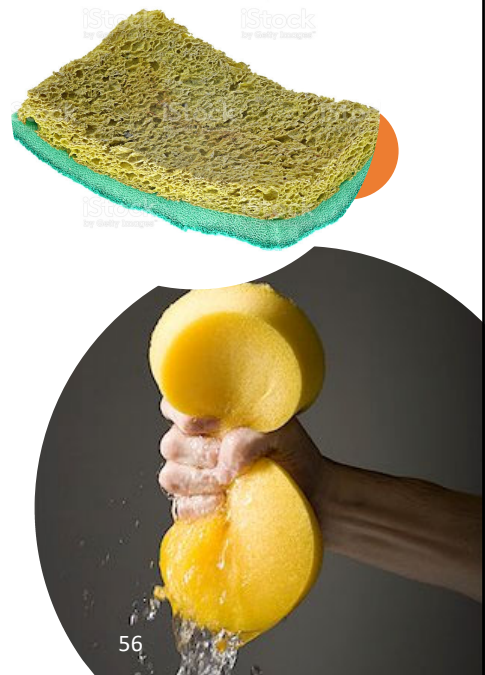
## Compaction



55

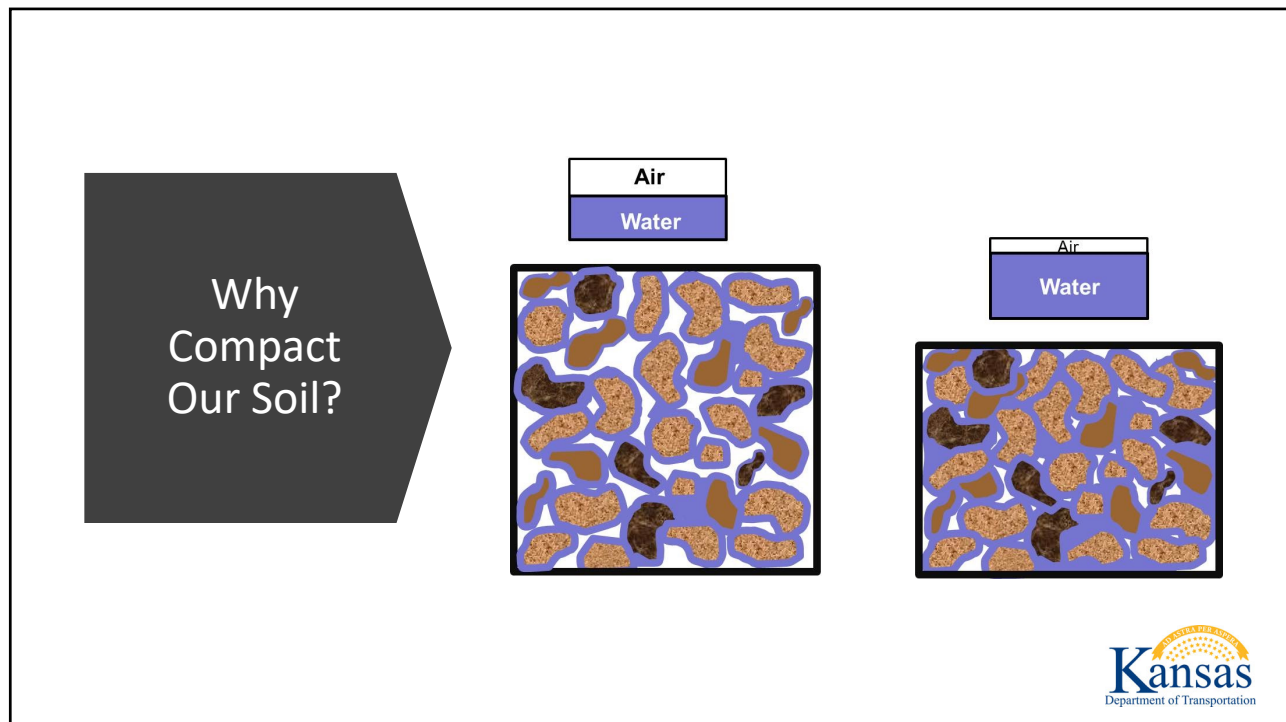
## Embankment Construction Requirements

- Soil is like a sponge
- VMF = Volume Multiplication Factor
  - This is determined by the Geologists for the different soils that are found along the project
  - It is the quantity of embankment which can be constructed from 1 cubic yard of excavation
- Embankment is the total volume of earthwork to be constructed and compacted



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## Compaction of Earthwork (Section 205.4g)

**Bid Items**

- Compaction of Earthwork (Type\_\_\_\_\*)(MR\_\_\_\_\*\*)
- Water

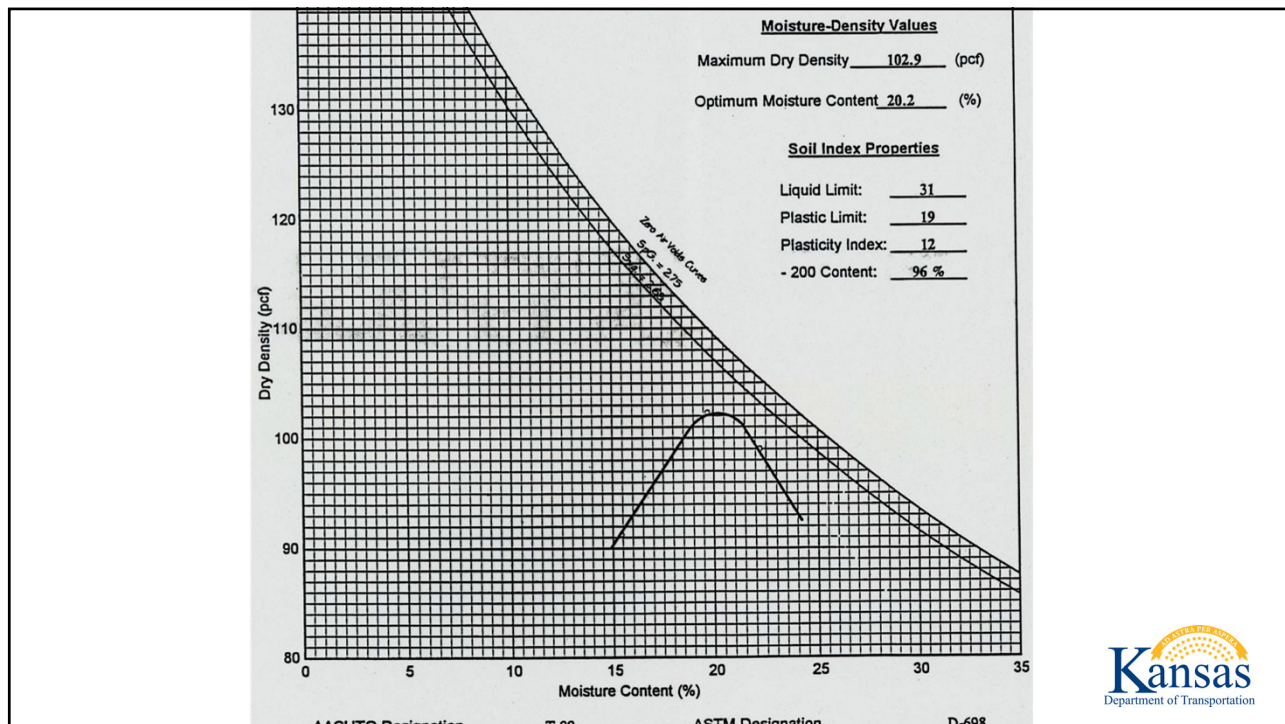
**Construction Requirements**

- Soil Compaction requirements found in table 205-1 (page 200-16)
- Soil Moisture requirements found in Table 205-2 (page 200-17)

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Kansas  
Department of Transportation

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## Compaction Construction Requirements (Density)

Compaction of Earthwork (Type \_\_\_\_\*) (MR \_\_\_\_\*\*)

### Compaction Requirements (Table 205-1)

- Type AAA,  $\geq 100\%$  of Std. Density
- Type AA,  $\geq 95\%$  of Std. Density
- Type A,  $\geq 90\%$  of Std. Density
- Type B, sheepfoot walkout \*\*

\*\*If the Engineer is unable to visually determine that Type B compaction is obtained, the Engineer may conduct density tests on the compacted soil. If tested, compacted soil density shall be at least 90% of the standard density.



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## Density Example

What is the minimum soil density if the Std Density = 102.9 pcf and the plans call for Type A compaction?

Type A compaction is  $\geq 90\%$  of Std. Density

$$102.9 \times 0.9 = 92.6 \text{ pcf}$$

Density must be more than 92.6 pcf for a passing test



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## Compaction Construction Requirements (Moisture)

Compaction of Earthwork (Type \_\_\_\_ \*) (MR \_\_\_\_ \*\*)

Moisture Requirements - Table 205-2

**Example: Optimum Moisture = 20.2%**

- |                                                                                                                            |               |                      |
|----------------------------------------------------------------------------------------------------------------------------|---------------|----------------------|
| • MR 0-5 from optimum to +5%                                                                                               | <b>MR 0-5</b> | <b>20.2% → 25.2%</b> |
| • MR 3-3 optimum $\pm 3\%$                                                                                                 | <b>MR 3-3</b> | <b>17.2% → 23.2%</b> |
| • MR 5-5 optimum $\pm 5\%$                                                                                                 | <b>MR 5-5</b> | <b>15.2% → 25.2%</b> |
| • MR-90 the moisture content of the soil is sufficient to allow the type of compaction specified in the Contract Documents |               |                      |
| • (MR-90 is not tested, visual inspection only)                                                                            |               |                      |

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## Moisture Control Requirements (Sec 205.4h)

- Within range designated on the plans.
- Dry conditions:
  - Embankments, water with trucks.
  - Borrow Areas, sprinklers, trucks, flooding. (pre-watering)
- Wet conditions:
  - Aerate and allow to dry (disc or rip). Lifts not to exceed 8 inches loose

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## RD605 Standard Sheet for Compaction of Earthwork

- Included in plan sheets if project has compaction requirements
- Displays where the compaction requirements are based on type of construction
  - Rehabilitation
  - Reconstruction
  - New Construction

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## Method of Measurement and Basis of Pay (Section 205.5 – page 200-19 & 200-20)

- Pay plan quantity unless changes in plan are made or disagreement between Contractor and KDOT regarding quantities arise. If one of these happens, measure and pay based on cross-sectional area.
- Pay Water by Mgal (1000gal). No pay for water used for dust control.
- Pay Compaction by cubic yard.
- Pay Excavation (Common, Contr. Furn., etc) by cubic yard.

65



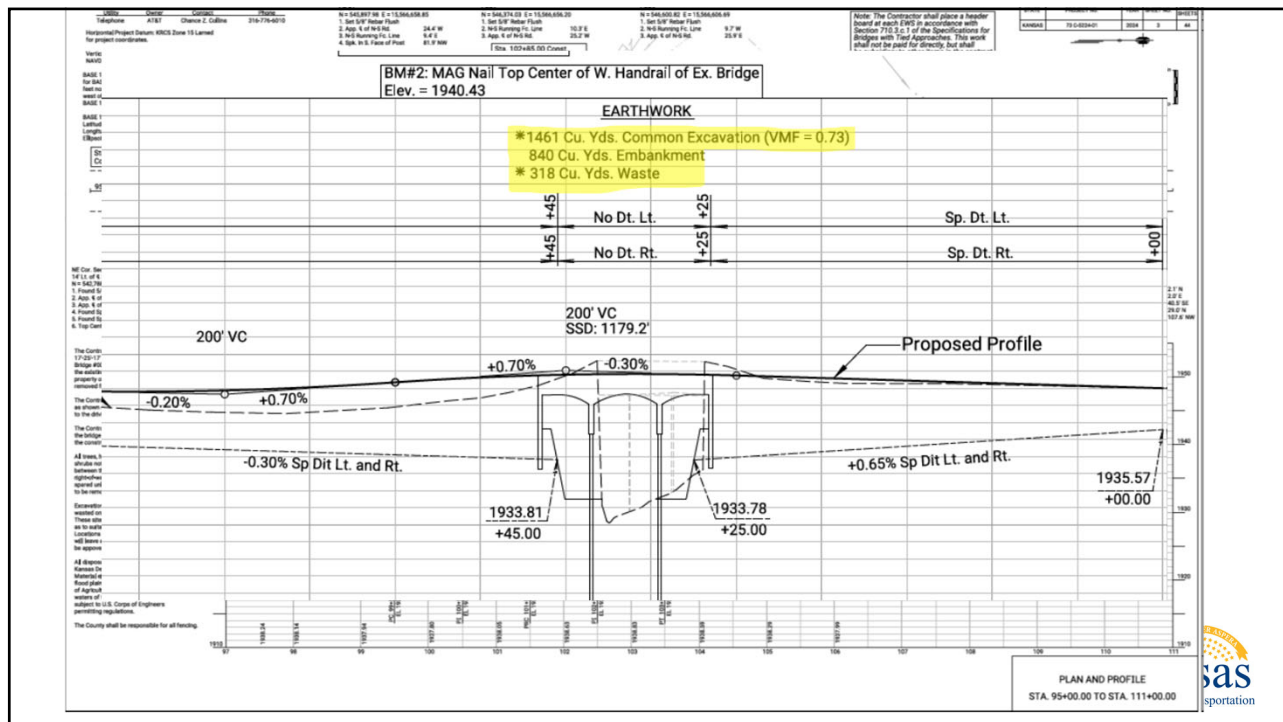
65

## Earthwork Balance (How much, what, & where)

| EARTHWORK          |         |                   |      |                         |      |                                |                       |                  |                                       |                  |                   |        |                                 |           |      |
|--------------------|---------|-------------------|------|-------------------------|------|--------------------------------|-----------------------|------------------|---------------------------------------|------------------|-------------------|--------|---------------------------------|-----------|------|
| Station to Station |         | Excavation        |      |                         |      |                                | Compaction<br>Cu. Yd. |                  | Thru Cuts<br>Not Subgraded<br>Cu. Yd. |                  | Waste<br>Cu. Yd.  |        | Salvaged<br>Topsoil<br>Sq. Yds. | Remarks   |      |
|                    |         | Common            |      |                         | Rock |                                |                       |                  |                                       |                  |                   |        |                                 |           |      |
|                    |         | Common<br>Cu. Yd. | VMF  | Contr. Furn.<br>Cu. Yd. | VMF  | Pavement<br>Removal<br>Cu. Yd. | VMF                   | Type A<br>MR-5-5 | Type AA<br>MR-5-5                     | Common<br>Excav. | Type AA<br>MR-5-5 | Common |                                 |           | Rock |
| K-14               |         |                   |      |                         |      |                                |                       |                  |                                       |                  |                   |        |                                 |           |      |
| 579+32             | 629+00  | 2,686             | 0.82 | 65,259                  | 0.82 |                                | 43,572                | 12,143           |                                       |                  | -                 |        | 85,926                          |           |      |
| 629+00             | 677+00  | 7,328             | 0.82 | 246,045                 | 0.82 |                                | 197,011               | 10,755           | 320                                   | 320              | -                 |        | 106,144                         |           |      |
| 677+00             | 724+00  | 1,849             | 0.82 | 66,722                  | 0.82 |                                | 44,739                | 11,489           |                                       |                  | -                 |        | 65,059                          |           |      |
| 724+00             | 777+00  | 7,728             | 0.82 | 59,587                  | 0.82 |                                | 42,296                | 12,902           | 36                                    | 36               | -                 |        | 87,570                          |           |      |
| 777+00             | 823+00  | 1,786             | 0.82 | 190,766                 | 0.82 | 1,296                          | 143,378               | 14,515           | 174                                   | 174              | -                 | 1,296  | 97,315                          |           |      |
| 823+00             | 870+00  | 443               | 0.82 | 85,905                  | 0.82 |                                | 59,316                | 11,489           |                                       |                  | -                 |        | 60,063                          |           |      |
| 870+00             | 917+80  | 3,031             | 0.82 | 406,295                 | 0.82 |                                | 324,275               | 11,372           |                                       |                  | -                 |        | 110,428                         |           |      |
| 917+80             | 970+00  | 14,664            | 0.82 | 947,103                 | 0.82 | 2,059                          | 751,546               | 37,103           | 344                                   | 344              | -                 | 2,059  | 337,950                         |           |      |
| 970+00             | 1015+00 | 17,210            | 0.82 | 66,573                  | 0.82 | 6,323                          | 57,625                | 6,205            | 595                                   | 595              | 5,942             | 6,323  | 90,640                          |           |      |
|                    |         |                   |      |                         |      |                                |                       |                  |                                       |                  |                   |        |                                 |           |      |
|                    | Total   | 56,725            | -    | 2,134,255               | -    | 9,678                          | -                     | 1,663,758        | 127,973                               | 1,469            | 1,469             | 5,942  | 9,678                           | 1,041,095 |      |



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## Testing Frequencies

### Construction Manual, Part V, Appendix A (non-QC/QA))

- Tells what tests need to be run, how precisely they need to be recorded to, and how often they need to be ran based on material tested
- Compaction Tests
- Moisture Tests

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| SAMPLING AND TESTING FREQUENCY CHART                                  |                                                                            |                   |     |      |                                             |        |                                                               |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------|-----|------|---------------------------------------------|--------|---------------------------------------------------------------|
| NON QUALITY CONTROL/QUALITY ASSURANCE SPECIFICATIONS                  |                                                                            |                   |     |      |                                             |        |                                                               |
| CONSTRUCTION OR MATERIAL TYPE<br>2015 Std. Spec. (SS 2015)            | TESTS REQUIRED<br>(RECORDED TO)                                            | TEST METHOD       | AWP | CODE | VERIFICATION<br>SAMPLES & TESTS<br>(Note f) | CODE   | ACCEPTANCE SAMPLES<br>& TESTS                                 |
| DIVISION 200                                                          |                                                                            |                   |     |      |                                             |        |                                                               |
| COMPACTION OF EARTHWORK<br>Sec. 204, 205 & 208                        |                                                                            |                   |     |      |                                             |        |                                                               |
| → <b>Compaction Type B</b>                                            | Field Density Tests<br>(0.1 lb/ft <sup>3</sup> or 0.1% of optimum density) | KT-13<br>or KT-51 | INF |      |                                             | a      | 4 per day per lift when visual determination is not possible. |
| → <b>Moisture Content (MR-90)</b>                                     | Moisture Tests<br>(0.1 g or 0.01% of mass)                                 | KT-13<br>or KT-51 | INF |      |                                             | a      | 4 per day per lift when visual determination is not possible. |
| → <b>Backfill Type B</b>                                              | Field Density Tests<br>(0.1 lb/ft <sup>3</sup> or 0.1% of optimum density) | KT-13<br>or KT-51 | INF |      |                                             |        | 1 per structure minimum (each side).                          |
| → <b>Backfill Moisture Content (MR-90)</b>                            | Moisture Tests<br>(0.1 g or 0.01% of mass)                                 | KT-13<br>or KT-51 | INF |      |                                             |        | 1 per structure minimum (each side).                          |
| → <b>Compaction Types AAA, AA, or A</b>                               | Field Density Tests<br>(0.1 lb/ft <sup>3</sup> or 0.1% of optimum density) | KT-13<br>or KT-51 | ACC |      |                                             | a<br>b | 1 per every 1000 CY of compacted earthwork                    |
| → <b>Moisture Content Requirements for MR-0, MR-3, MR-3-3 or MR-5</b> | Moisture Tests<br>(0.1 g or 0.01% of mass)                                 | KT-11             | ACC |      |                                             | c      | 1 per every 1000 CY of compacted earthwork                    |
| <b>SPECIAL FILL</b><br>Sec. 209                                       | Field Density Tests<br>(0.1 lb/ft <sup>3</sup> or 0.1% of optimum density) | KT-13<br>or KT-51 | INF |      |                                             |        | 1 per lift per 300 feet of wall or once daily                 |
| <b>MECHANICALLY STABILIZED EARTH FILL</b><br>Sec. 214                 | Field Density Tests<br>(0.1 lb/ft <sup>3</sup> or 0.1% of optimum density) | KT-13<br>or KT-51 | INF |      |                                             |        | 1 per lift per 300 feet of wall or once daily                 |



# Grading and Bases



1

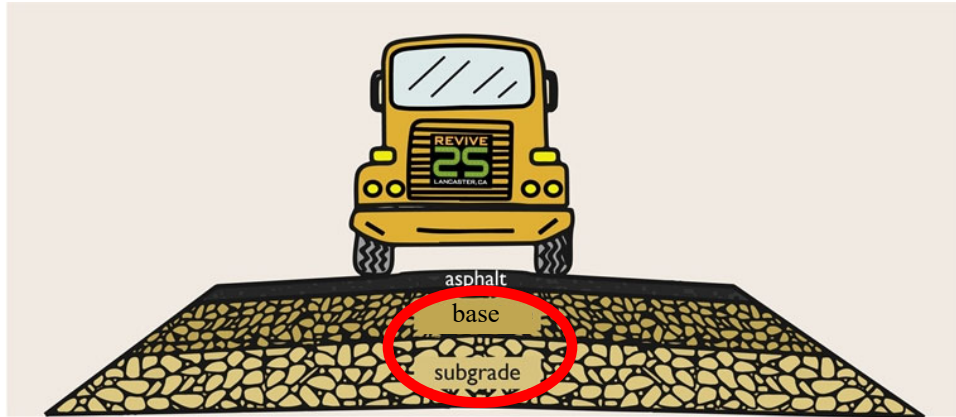
## Grading and Bases 2

1. Contractor Construction Staking
2. Subgrade Modification
3. Base Courses

2



# Grading and Bases



3



4



5

## Pro-Tip!!!

- At beginning of project – Look at the list of line items
  - Look up each line item in the spec – Read each spec
  - Check out the list of Special Provisions
- Do this at the start of every project

6

# 1. Contractor Construction Staking

- Section 802
- Licensed Professional Land Surveyor
- Section Corners
- Right-of-way Markers
- Benchmarks
- Project Staking

15-08015  
Sheet 1 of 8

**KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION TO THE  
STANDARD SPECIFICATIONS, EDITION 2015**

Delete SECTION 802 and replace with the following:

**SECTION 802  
CONTRACTOR CONSTRUCTION STAKING**

**802.1 DESCRIPTION**  
Provide land surveying and construction surveying services and set right-of-way survey monuments according to the Contract Documents, KDOT's Construction Manual-Part III and consistent with standard surveying practices.  
For the purposes of this specification, work being performed by the Professional Surveyor shall conform to the Kansas Statutes and Kansas State Board of Technical Profession's Regulations.  
Work may be performed by the Professional Surveyor's authorized agents and employees as allowed by the Kansas Statutes and Kansas State Board of Technical Profession's Regulations.

| BID ITEMS                              | UNITS    |
|----------------------------------------|----------|
| Contractor Construction Staking        | Lump Sum |
| Right-of-Way Survey Monument           | Each     |
| Benchmark Monument (Concrete Cylinder) | Each     |
| Monument Box                           | Each     |
| Sign (Environmental Mitigation)        | Each     |

**802.2 MATERIALS**  
**a. General.** Provide the necessary materials to complete the specified surveying services. Provide materials and equipment that comply with the current requirements of the Kansas Statutes, Kansas State Board of Technical Profession's Regulations and the Contract Documents.  
**b. Benchmark Discs.** Provide standard manufacture 2-inch diameter, domed, brass or bronze survey monuments to be set in concrete.  
Refer to subsection 802.3c(7) for individual stamping requirements.  
**c. Concrete.** Use commercial grade concrete that complies with SECTIONS 401 and 402.  
Volumetric proportioning and hand mixing of concrete is permitted for concrete footings where small quantities are required.  
**d. Miscellaneous Materials.** Provide the following miscellaneous materials:  
• Commercially available steel posts that comply with the physical requirements for steel delineator posts, DIVISION 1600.  
• 3-inch x 6-inch x 18-page metal sign blanks.  
• Commercially available galvanized 2-inch x 5/16-inch bolts, with 2 flat washers, 1 lock washer and 1 nut per hole.  
• Commercially available 1/2-inch x 10-inch reinforcing steel bars (non-coated), and  
• Other miscellaneous materials for RW Survey Monuments detailed in the Contract Documents.  
**e. Monument Box.** Provide a monument box of the brand and type shown in the Contract Documents.  
**f. Acceptance of Materials.** The Engineer will accept materials for the specified surveying services, right-of-way survey monuments, miscellaneous materials and monument boxes based on compliance with dimensional and other specified requirements and visual inspection for condition.

7

## 802.1 DESCRIPTION

Provide land surveying and construction surveying services and set right-of-way survey monuments according to the Contract Documents, KDOT's Construction Manual-Part III and consistent with standard surveying practices.

For the purposes of this specification, work being performed by the Professional Surveyor shall conform to the Kansas Statutes and Kansas State Board of Technical Profession's Regulations.

Work may be performed by the Professional Surveyor's authorized agents and employees as allowed by the Kansas Statutes and Kansas State Board of Technical Profession's Regulations.

8



# 1. Contractor Construction Staking



## Uses

Construction

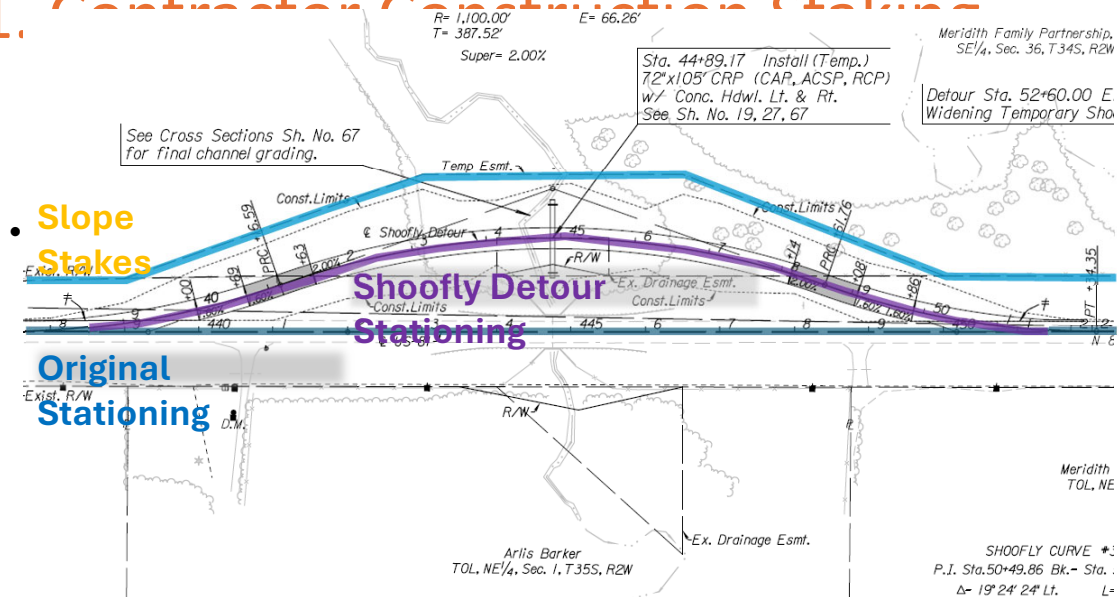
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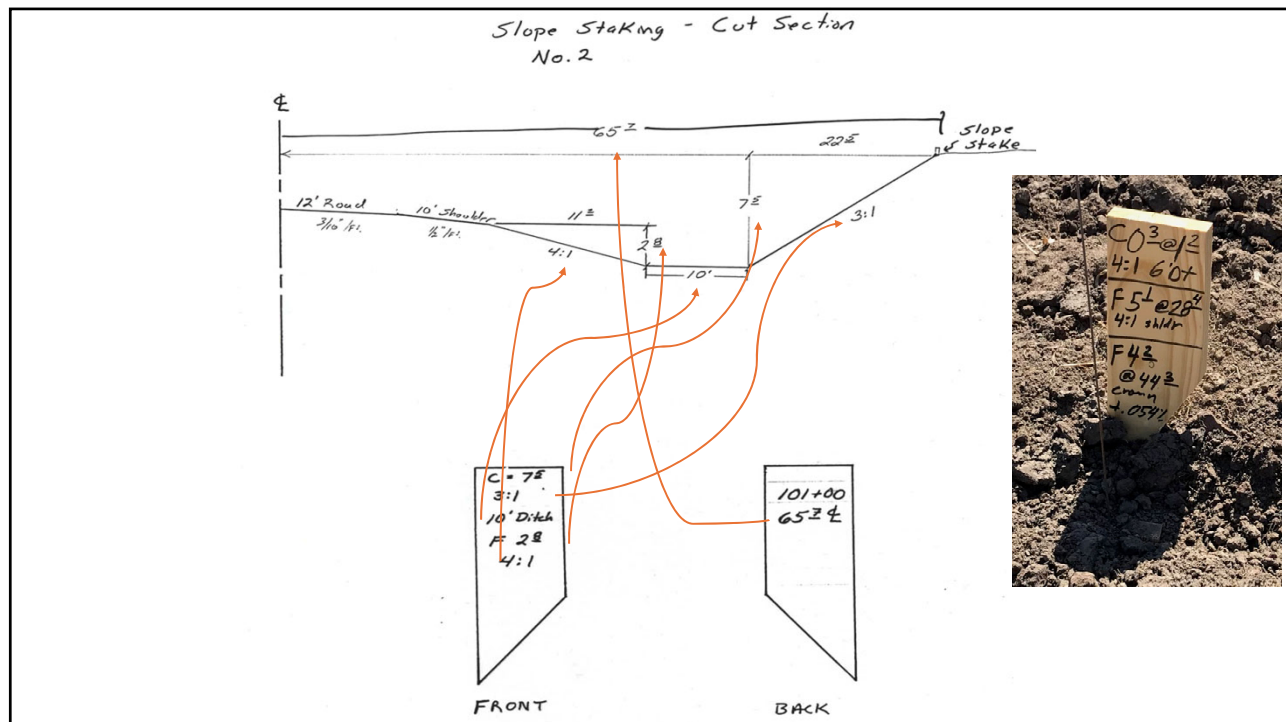
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9

# 1. Contractor Construction Staking



10



11

End of Module 1:  
Contractor Construction Staking

12

# Grading and Bases 4



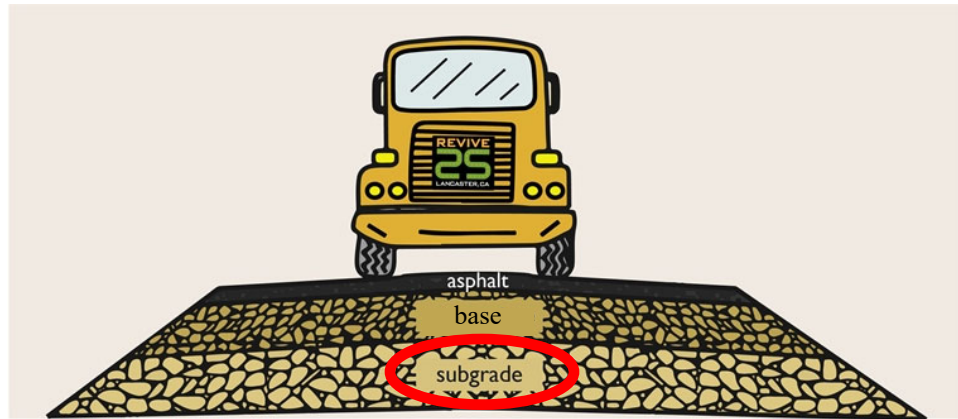
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## Grading and Bases 5

1. Contractor Construction Staking
2. Subgrade Modification
3. Base Courses

2

## Grading and Bases



3

## Subgrade Modifications

What do we build roads on?

- Rock
- Soil
  - Sand
  - Clay
  - Silt
  - Any combination of the above



4



## Subgrade Modifications 2

- [Video](#)

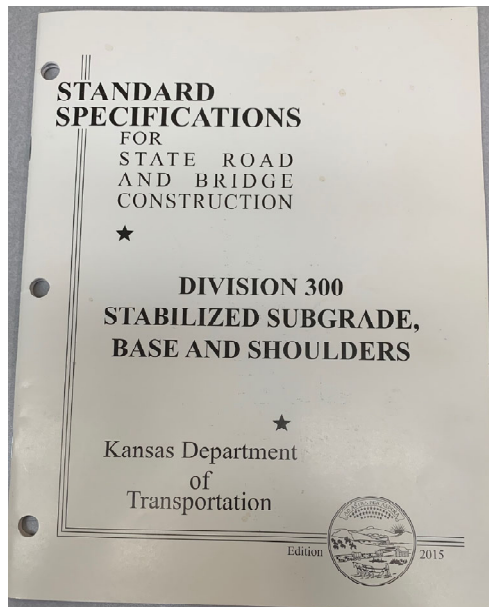
“University of Kansas  
Soil Stabilization  
Video”



University of Kansas Soil Stabilization Video.wmv

5

## Subgrade Modifications 3



6



## Subgrade Modifications 4

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| 302 - LIME TREATED SUBGRADE .....                  |         | 4    |
| 303 - CEMENT OR FLY ASH TREATED SUBGRADE .....     |         | 9    |
| 304 - CRUSHED STONE SUBGRADE .....                 |         | 12   |
| 305 - AGGREGATE BASE AND AGGREGATE SHOULDERS ..... |         | 13   |
| 306 - CEMENT TREATED BASE .....                    |         | 15   |
| 307 - GRANULAR BASE .....                          |         | 22   |
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Bas  
e

7

## Subgrade Modifications 5

Section 301, Page 300-1

- Work consists of scarifying the roadbed, incorporating water, aggregates and/or additives, and compacting to stabilize the roadway
  - Example is an old roadway is Pulverized and mixed into the existing subgrade.
- Additional Aggregate and/or Binder Material can be mixed into the subgrade as well.
- Binder Examples are Cement, Fly Ash, or Calcium Chloride (SS 301.3-a-4)

8

## Subgrade Modifications 6

- Lime Treated Subgrade (SS 302)
- Cement/Fly Ash Treated Subgrade (SS 303)
- Crushed Stone Subgrade (SS 304)



9

## Subgrade Modifications 7

- Preparation – Breaking up existing material (scarify)
- Incorporation – Mixing in the specified additive (possible curing)
- Compaction – Compacting the material
- Trimming – Cutting the surface to the correct grade (may need to re-compact)
- Curing & Protection – Allow additive to work and protect from erosion.

10



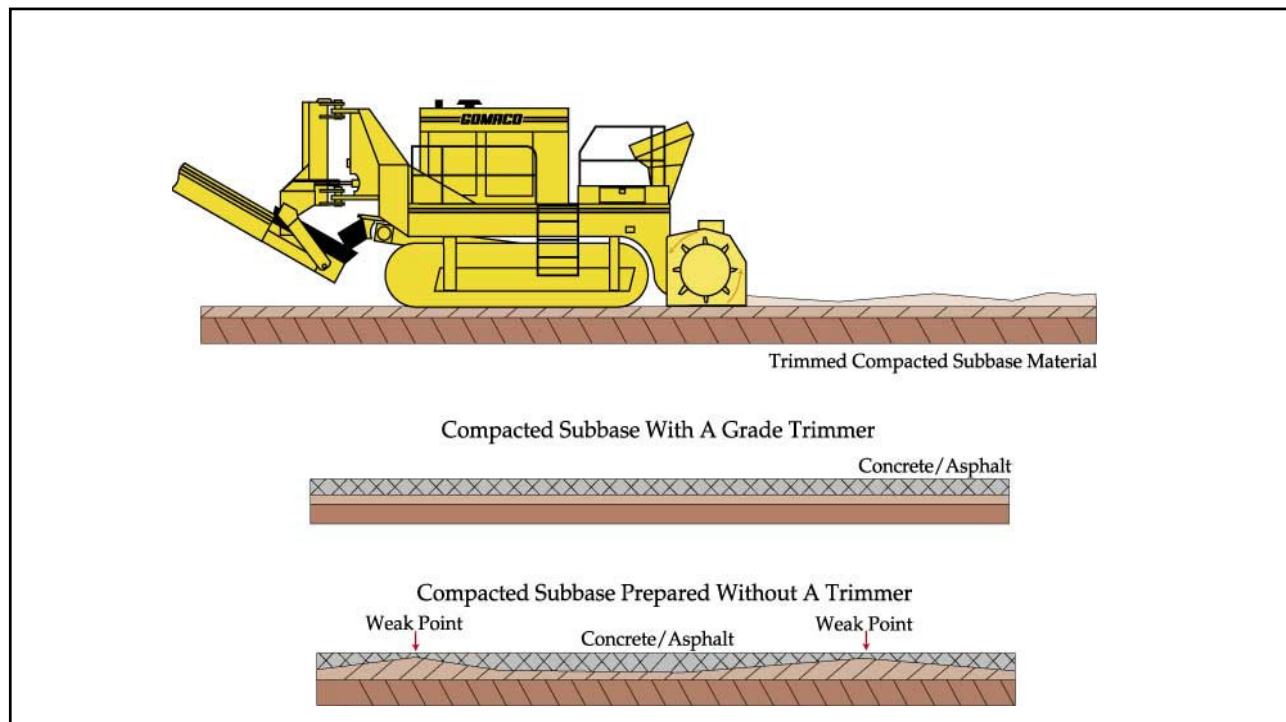
11

## Subgrade Modifications 8

### **Important Notes**

- Overall - Do not perform on frozen ground.
- Incorporation - Do not apply the additive (lime, fly ash, CaCl, cement, etc) if conditions are such that the material is lost due to wind or rain.
- Trimming - If more than 20,000 SY, automatic grade controlled equipment is required.
- Post-Trimming Compaction - the trimmed surface must be compacted with a smooth-wheel or pneumatic-tire roller (not sheep-foot).

12



13

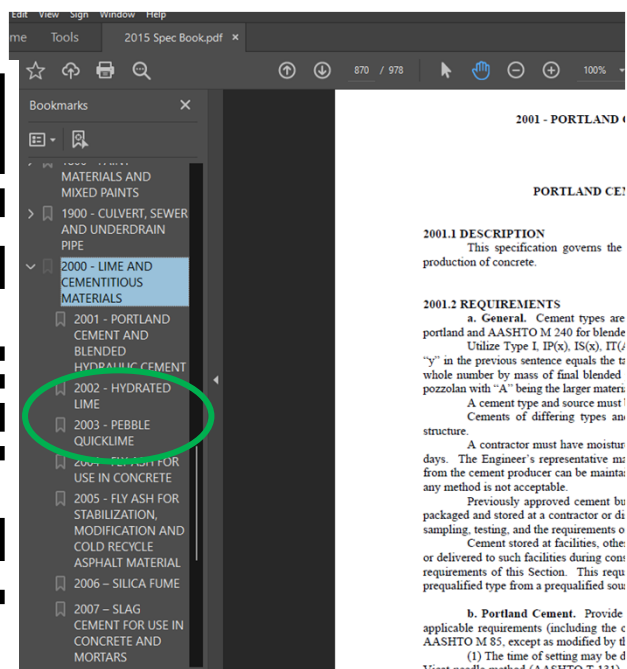
## Subgrade Modifications

Line

| 302 - LIME TREATED SUBGRADE                                                                                                                                                     |               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| SECTION 302                                                                                                                                                                     |               |
| LIME TREATED SUBGRADE                                                                                                                                                           |               |
| <b>302.1 DESCRIPTION</b>                                                                                                                                                        |               |
| Mix soil, lime and water either in-place or off-site in a borrow area. Use the mixed materials to construct a uniform lime treated subgrade as shown in the Contract Documents. |               |
| <b>BID ITEMS</b>                                                                                                                                                                | <b>UNITS</b>  |
| Lime                                                                                                                                                                            | Ton           |
| Manipulation (Lime Treated Subgrade)                                                                                                                                            | Square Yard   |
| Water (Lime Treated Subgrade) (Set Price)                                                                                                                                       | M Gallon      |
| <b>302.2 MATERIALS</b>                                                                                                                                                          |               |
| Provide materials that comply with the applicable requirements.                                                                                                                 |               |
| Emulsified Asphalt (SS-1 or CSS-1) .....                                                                                                                                        | DIVISION 1200 |
| Medium Cure Cutback Asphalt (MC-250) .....                                                                                                                                      | DIVISION 1200 |
| Liquid Membrane Forming Compounds .....                                                                                                                                         | DIVISION 1400 |
| Lime .....                                                                                                                                                                      | DIVISION 2000 |
| Water for Lime Treated Subgrade .....                                                                                                                                           | DIVISION 2400 |

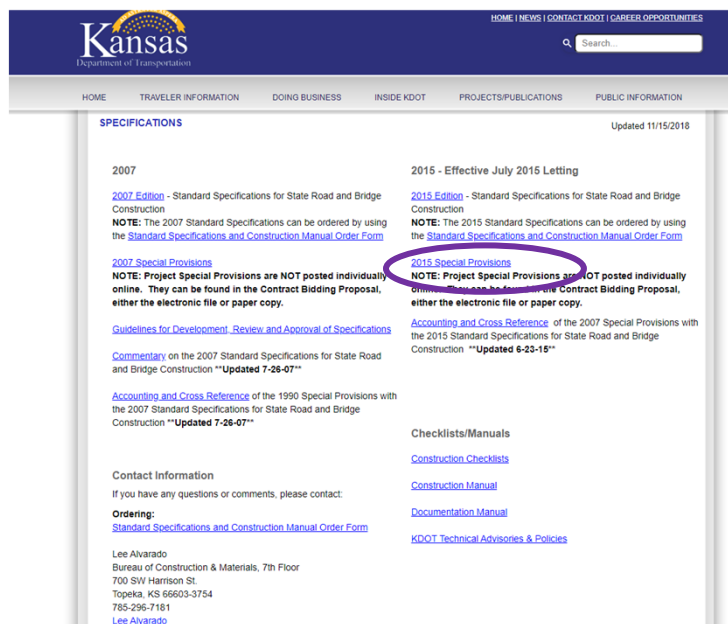
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## 2015 KDOT SPEC – Single PDF



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<https://www.ksdot.gov/burconsmain/specprov/specifications.asp>



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[HOME](#) | [NEWS](#) | [CONTACT KDOT](#) | [CAREER OPPORTUNITIES](#)

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[TRAVELER INFORMATION](#)
[DOING BUSINESS](#)
[INSIDE KDOT](#)
[PROJECTS/PUBLICATIONS](#)
[PUBLIC INFORMATION](#)

2015 SPECIAL PROVISION

[List All Special Provisions](#)
[Latest Version of Special Provisions](#)
[Help](#)

Special Provision Divisions:

[100](#) - General Clauses and Convents
 [150](#) - Equipment
 [200](#) - Earthwork
 [300](#) - Stabilized Subgrade, Base and Shoulders
 [400](#) - Concrete
 [500](#) - Rigid Pavement

[600](#) - Flexible Pavement
 [700](#) - Structures
 [800](#) - Incidental Construction
 [900](#) - Roadside Improvement, Planting, and Seeding
 [1000](#) - Materials

Questions or Comments about Special Provisions may be sent to:

Construction - [Lee Ann Legge](#)

Materials - [Susan Barker](#)

[ALL](#)
[LATEST](#)
[100](#)
[150](#)
[200](#)
[300](#)
[400](#)
[500](#)
[600](#)
[700](#)
[800](#)
[900](#)
[MATERIALS](#)
[HELP](#)

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| Subgrade Modifications       |                                                  |      |
|------------------------------|--------------------------------------------------|------|
| Lime (Section 302 & 2002)    |                                                  |      |
| <a href="#">15-19008</a>     | STEEL REINFORCED POLYETHYLENE PIPE               | 1911 |
| <a href="#">15-19008-R01</a> | STEEL REINFORCED POLYETHYLENE PIPE               | 1911 |
| <a href="#">15-19008-R02</a> | STEEL REINFORCED POLYETHYLENE PIPE               | 1911 |
| <a href="#">15-20001</a>     | PORTLAND CEMENT AND BLENDED HYDRAULIC CEMENT     | 2001 |
| <a href="#">15-20001-R01</a> | PORTLAND CEMENT AND BLENDED HYDRAULIC CEMENT     | 2001 |
| <a href="#">15-20002</a>     | HYDRATED LIME                                    | 2002 |
| <a href="#">15-20003</a>     | RAPID HARDENING HYDRAULIC CEMENT                 | 2009 |
| <a href="#">15-20004</a>     | FLY ASH FOR USE IN CONCRETE                      | 2004 |
| <a href="#">15-20005</a>     | SILICA FUME                                      | 2006 |
| <a href="#">15-20006</a>     | SLAG CEMENT FOR USE IN CONCRETE AND MORTARS      | 2007 |
| <a href="#">15-21001</a>     | SEEDS                                            | 2103 |
| <a href="#">15-21002</a>     | MULCH TACKING SLURRY                             | 2111 |
| <a href="#">15-22001</a>     | THERMOPLASTIC PAVEMENT MARKING MATERIAL          | 2211 |
| <a href="#">15-22001-R01</a> | THERMOPLASTIC PAVEMENT MARKING MATERIAL          | 2211 |
| <a href="#">15-22002</a>     | EPOXY PAVEMENT MARKING MATERIAL                  | 2214 |
| <a href="#">15-22002-R01</a> | EPOXY PAVEMENT MARKING MATERIAL                  | 2214 |
| <a href="#">15-22002-R02</a> | EPOXY PAVEMENT MARKING MATERIAL                  | 2214 |
| <a href="#">15-22003</a>     | MULTI-COMPONENT LIQUID PAVEMENT MARKING MATERIAL | 2216 |
| <a href="#">15-22003-R01</a> | MULTI-COMPONENT LIQUID PAVEMENT MARKING MATERIAL | 2216 |
| <a href="#">15-22003-R02</a> | MULTI-COMPONENT LIQUID PAVEMENT MARKING MATERIAL | 2216 |
| <a href="#">15-22004</a>     | PAVEMENT MARKING PAINT                           | 2215 |
| <a href="#">15-22004-R01</a> | PAVEMENT MARKING PAINT                           | 2215 |
| <a href="#">15-22004-R02</a> | PAVEMENT MARKING PAINT                           | 2215 |
| <a href="#">15-22005</a>     | IMAGE SYSTEMS FOR RETROREFLECTIVE SHEETING       | 2202 |
| <a href="#">15-22005-R01</a> | IMAGE SYSTEMS FOR RETROREFLECTIVE SHEETING       | 2202 |
| <a href="#">15-22005-R02</a> | IMAGE SYSTEMS FOR RETROREFLECTIVE SHEETING       | 2202 |
| <a href="#">15-22005-R03</a> | IMAGE SYSTEMS FOR RETROREFLECTIVE SHEETING       | 2202 |
| <a href="#">15-22006</a>     | RETROREFLECTIVE SHEETING                         | 2201 |
| <a href="#">15-22006-R01</a> | RETROREFLECTIVE SHEETING                         | 2201 |

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KANSAS DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION TO THE  
STANDARD SPECIFICATIONS, 2015 EDITION

Delete SECTION 2002 and replace with the following:

SECTION 2002  
HYDRATED LIME

**2002.1 DESCRIPTION**  
This specification covers hydrated lime suitable for use in mortar, portland cement concrete and the treatment of soil, soil-aggregate and asphalt mixtures.

**2002.2 REQUIREMENTS**  
a. General. Ship and store lime in moisture proof containers. Lime that has become partially set or caked will be rejected.  
b. Hydrated Lime for Mortar and Concrete. Provide Type N, normal finishing hydrated lime that complies with ASTM C 206.  
c. Hydrated Lime for Treating Soil, Soil-Aggregate and Asphalt Mixtures.  
(1) Hydrated lime for this purpose is any hydrated lime product consisting of hydrated lime and insoluble inert material and complying to the following:  
• Available Lime Index as Calcium Hydroxide, %, min ..... 90  
(2) Hydrated lime for treating soil, soil-aggregate and cold in-place recycle asphalt pavement may be manufactured at the jobsite by slaking pebble quicklime. Use equipment specifically manufactured for this purpose and approved by the Field Engineer. Provide a certification stating the purity of the load with each load of quicklime. Verification sampling of the pebble quicklime is required on the basis of 1 sample per 10 loads. Identify the sample as raw material for lime slaking and submit a one-quart sample with the certification for the load sampled to the MRC for comparison to the laboratory test.  
(3) Gypsum may be added, no more than 1% by weight, to assist in the pumpability of the lime slurry. If gypsum is used, it shall be incorporated into the process prior to slaking. Any addition of gypsum will be considered subsidiary to the Contract Documents.

**2002.3 TEST METHODS**  
Sample and test according to the following methods:  
• Chemical Analysis ..... ASTM C 25  
• Sampling, other than field ..... ASTM C 50  
• Sampling, Field ..... KT-29  
• Physical Tests ..... ASTM C 110

**2002.4 PREQUALIFICATION**  
None required.

**2002.5 BASIS OF ACCEPTANCE**  
a. Hydrated Lime.  
(1) Receipt and approval of a Type D certification as specified in DIVISION 2600.

b. Pebble Quicklime (for slaking).  
(1) Receipt and approval of the certified lime purity for each load of quicklime.  
(2) Visual inspection of the final product in the field.

08-30-18 C&M (CFN)  
Jan-19 Letting

- **Description – which describes the material being discussed**
- **Requirements – how the material should perform**
- **Test Methods – How the material should be tested**
- **Prequalifications – what the material must be shown to be capable of in order to be acceptable**
- **Basis of Acceptance – What is needed before the material can be accepted**

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## Subgrade Modifications

### Lime (Section 302 & SP 15-20002)

- Material comes in three types
  - Hydrated Lime – Any hydrated lime product consisting of hydrated lime and insoluble inert materials, (Ca(OH)<sub>2</sub>)
  - Pebble Quicklime – Lime that has not been hydrated (CaO)
  - Carbide Lime – By-product of acetylene gas manufacturing, is a semi-flowable paste (SS 2003)

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# Subgrade Modifications

## Lime (Section 302 & SP 15-20002)

- Special Provision 15-20002
- Basis of Acceptance
  - Hydrated Lime –
    - Receipt and approval of a Type  Certification.
  - Pebble Quicklime
    - Receipt and approval of .
    - OR –
    -

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# Subgrade Modifications

## Lime (Section 302 & 2002)

### **2002.5 BASIS OF ACCEPTANCE**

#### **a. Hydrated Lime.**

- (1) Receipt and approval of a Type D certification as specified in DIVISION 2600.

---

#### **b. Pebble Quicklime (for slaking).**

- (1) Receipt and approval of the certified lime purity for each load of quicklime.
- (2) Visual inspection of the final product in the field.

15-20002  
Sheet 2 of 2

22





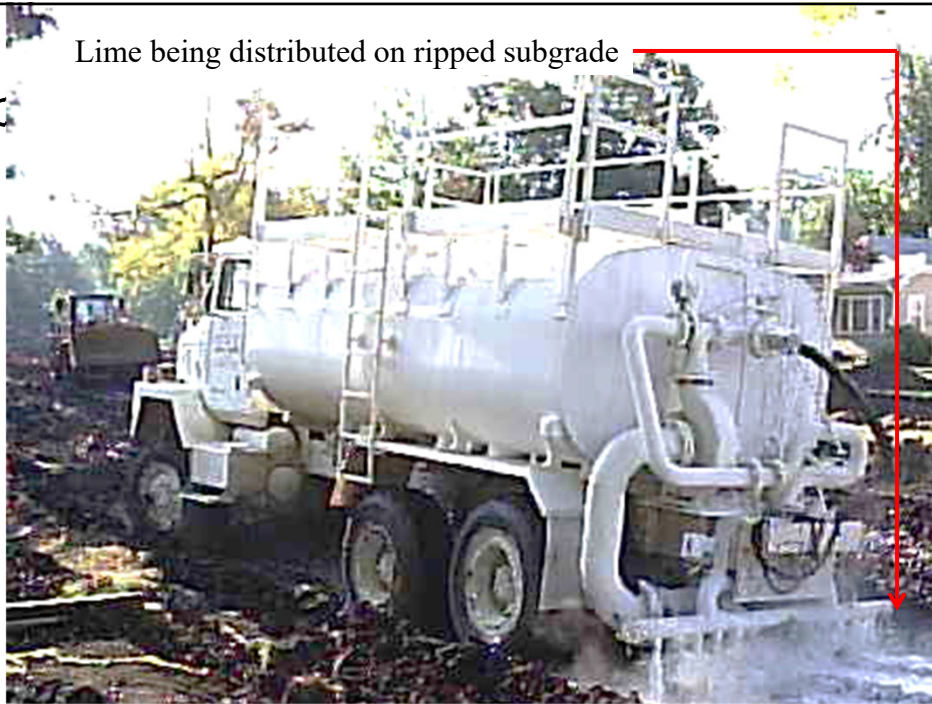
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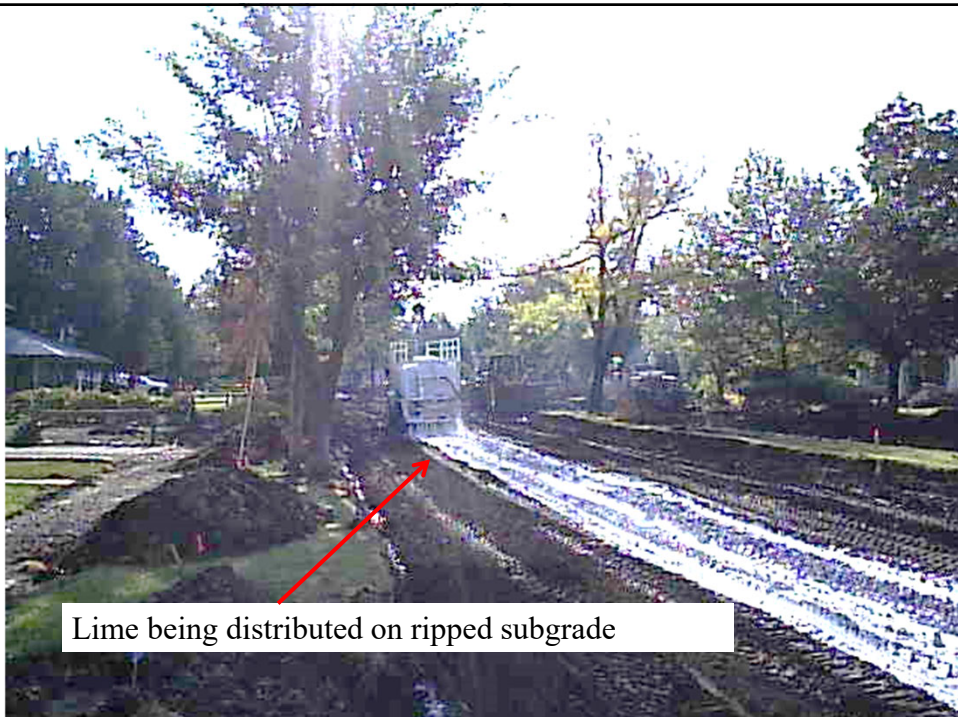
24

sub

Lime being distributed on ripped subgrade



25



Lime being distributed on ripped subgrade

26





27



<sup>28</sup> subgrade modifications 8



29



30

subgrade modifications 10



Cure by sprinkling with water, no other vehicular traffic other than watering equipment allowed on finished subgrade. Contractor has option of curing with bituminous prime coat.



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## Subgrade Modifications

Cement or Fly Ash Treated Subgrade (Section 303 & 2000)



32

## Subgrade Modifications

### Fly Ash Treated Subgrade (Section 303 & 2005)

- Byproduct of s
  - Many sources and varying types and qualities
  - Type C required for stabilization work. Page 2000-9. Accept on receipt of Type C certification and must be from prequalified source (PQL 7.1)
- Material is susceptible to moisture contamination

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## Subgrade Modifications

### Cement (Section 303 & 2001)

- Basis of Acceptance
  - Must be from prequalified source (PQL 5.1)
  - Proper certification must accompany each shipment of cement

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## Subgrade Modifications

### Crushed Stone Subgrade (Section 304 & 1100)

- Rather rare
- Essentially very fine crushed rock
- Mixed with water and compacted

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## End of Module 2: Subgrade Modification



# Grading and Bases 4



Module 3

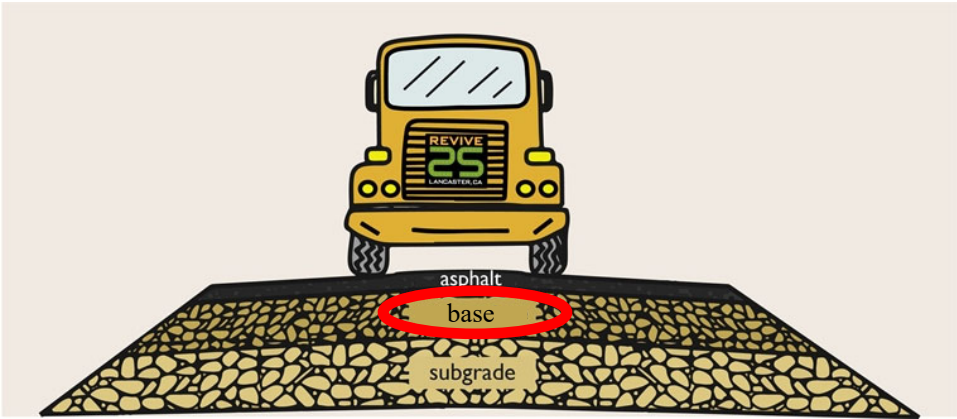
1

## Grading and Bases

1. Contractor Construction Staking
2. Subgrade Modification
3. Base Courses

2

# Base Courses



3

# Base Courses

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| 305 - AGGREGATE BASE AND AGGREGATE SHOULDERS |         | 13   |
| 306 - CEMENT TREATED BASE                    |         | 15   |
| 307 - GRANULAR BASE                          |         | 22   |
| 308 - GEOSYNTHETIC REINFORCED BASE           |         | 23   |
|                                              | Bas     |      |
|                                              | e       |      |

4

## Aggregate Base & Aggregate Shoulders (Section 305)

- Work consists of mixing aggregate with a binding agent, placing to grade, compacting, and curing.



5

## Aggregate Base & Aggregate Shoulders (Section 305 & 1104/1113)

- AB-\* & AS-\* material designations
- Usually seen as AB-3 and AS-1.  
(same gradation requirements for both)
- Crushed rock of a specified size is mixed with water, and possibly calcium chloride, to predetermined percentages (Section 1104).
- Can be mixed on or off site.
- Material can be placed up to 6" in one lift, multiple equal thickness lifts if more than 6" depth. Lift size may be increased to 8" with **vibratory rollers**.



6

## Cement Treated Base

(Section 306)

- **Compressive Strength 650 – 1600 psi**
- **Requires a job-mix design.**
- **Mixed in batch plant and hauled to project site**

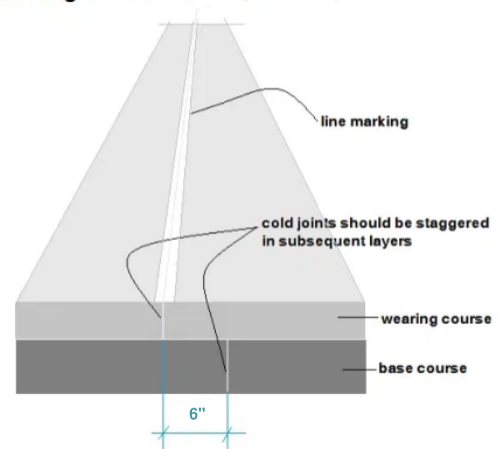
7

## Cement Treated Base

(Section 306)

- Maximum lift thickness is 6 inches.
  - If plan thickness is greater than 6", split into multiple lifts of equal thickness with max thickness of 6".
  - Offset longitudinal joints by at least 6" between lifts
- Compact to 95% of the standard density within 2 hours or before it reaches initial set.
- Trim and re-compact the CTB within 2.5 hours of the time the water is added to the mix.
- Apply a wax-based liquid compound for the curing material at a rate of

Planning location of longitudinal joints



8





CTB being dumped into paver

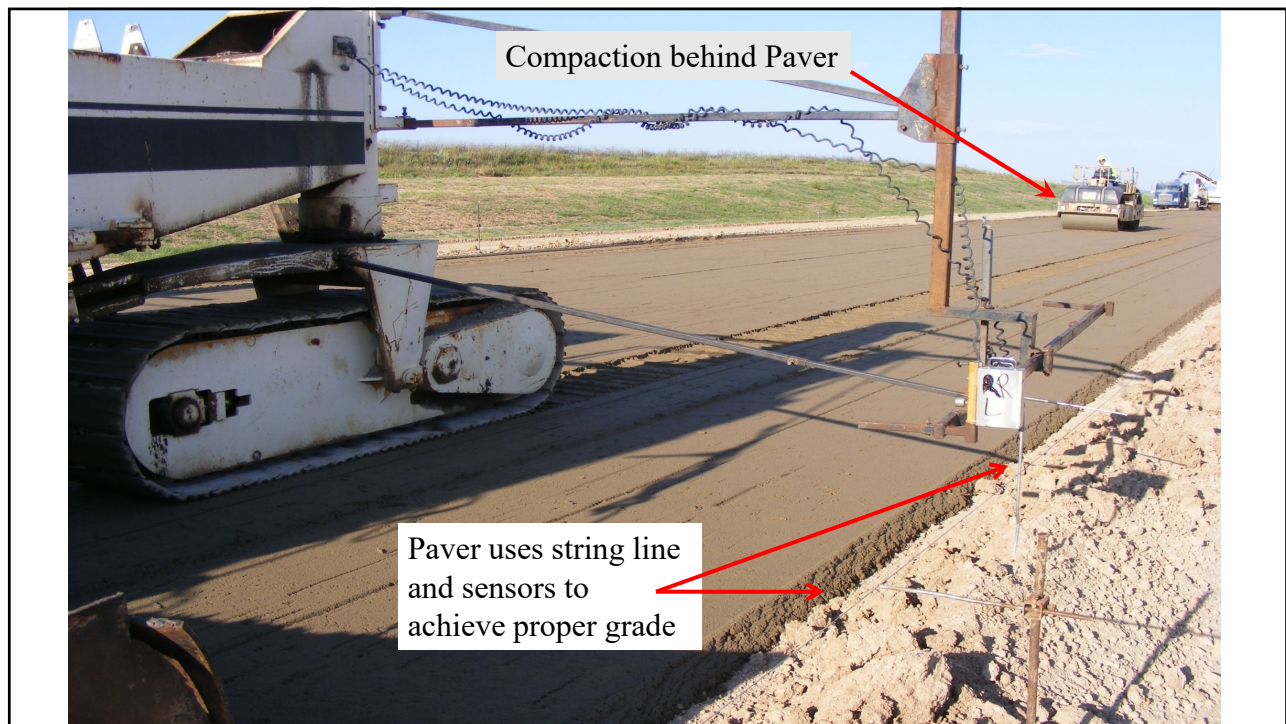
9



Placing CTB with paver

10





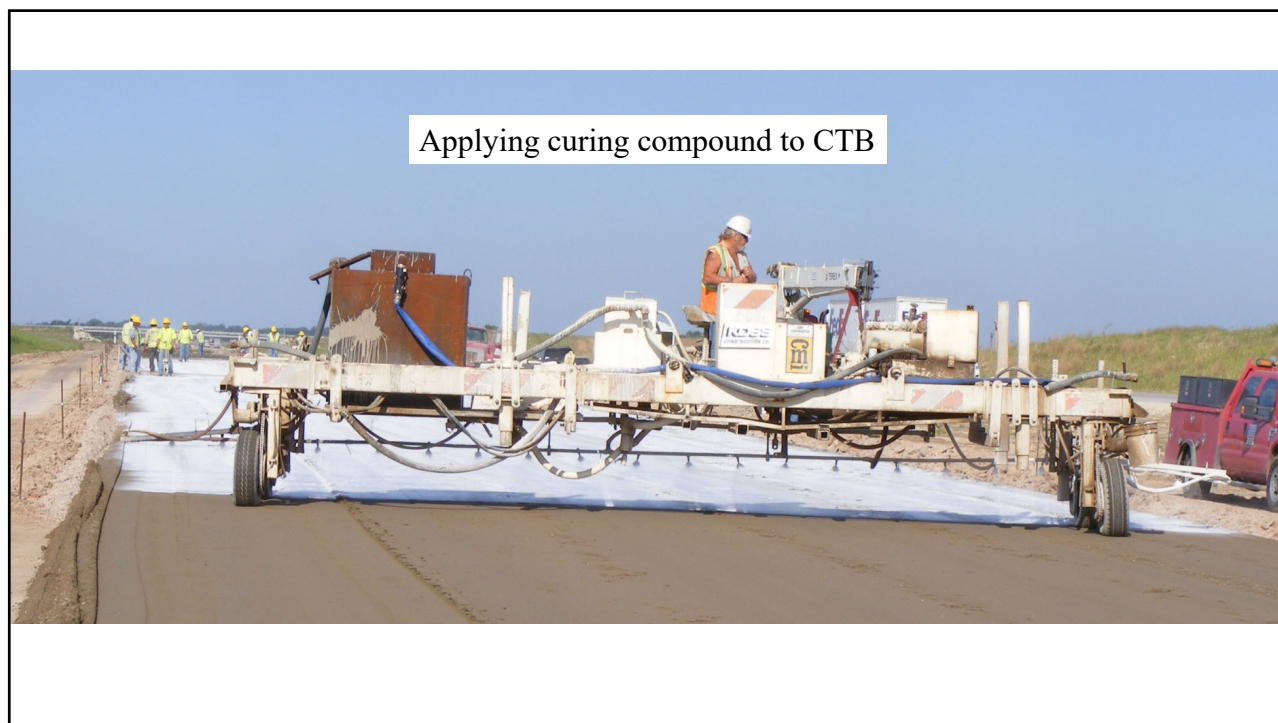
11



12



13



14



## Cement Treated Base

### (Section 306)

- Cure for a period of [ ] Protect from [ ] during cure.
- Pavement can be placed on the CTB a minimum of 24 hours if all traffic and equipment is kept off the CTB
- CTB to be scored or cut to coincide with pavement joints if 7-day compressive strength exceeds [ ] or if pavement is placed before 7 days.
- Paid by the Square Yard .
- Quality control testing frequencies found in part V appendix B.

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## Granular Base

### (Section 307 & 1106)

- Similar to others chapters, just a different gradation in section 1106.

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## Geosynthetic Reinforced Base

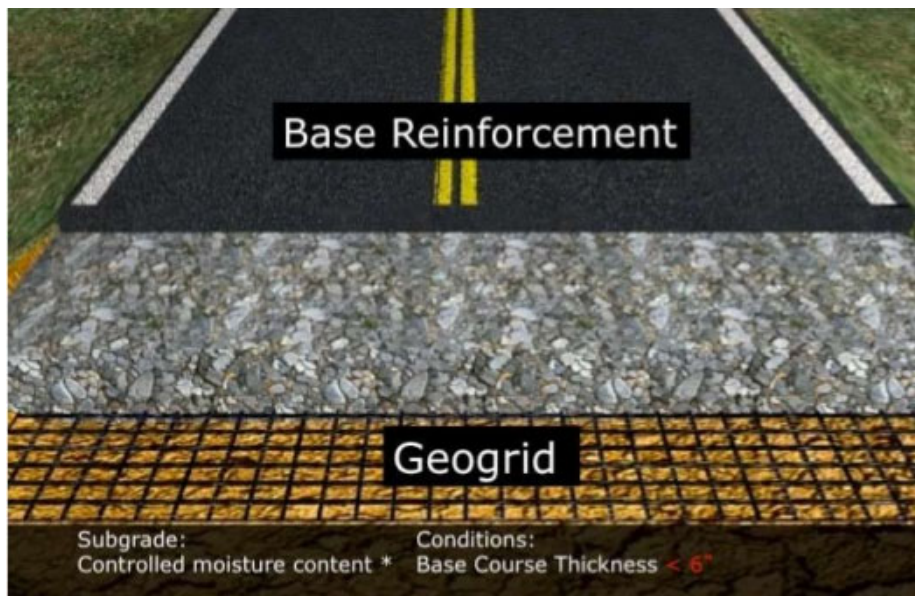
(Section 308 & 1710)



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## Geosynthetic Reinforced Base 2

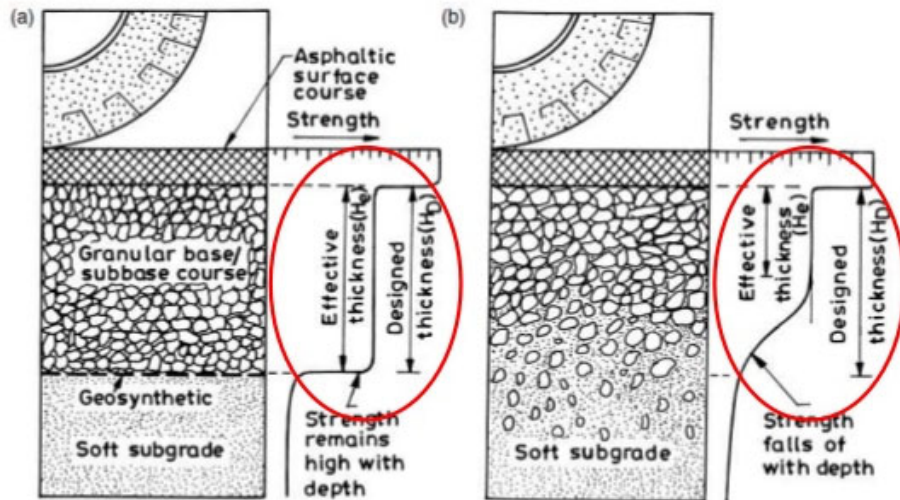
(Section 308 & 1710)



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## Geosynthetic Reinforced Base

(Section 308 & 1710)



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## Geosynthetic Reinforced Base

(Section 308 & 1710)

- Generally used where subgrade modification isn't feasible
- Do not store material in direct sunlight



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## End of Module 3: Bases

# Grading and Bases



## Questions and Answers

1

### Standard Dry Density

- Equation located in Spec. Book subsection 306.4

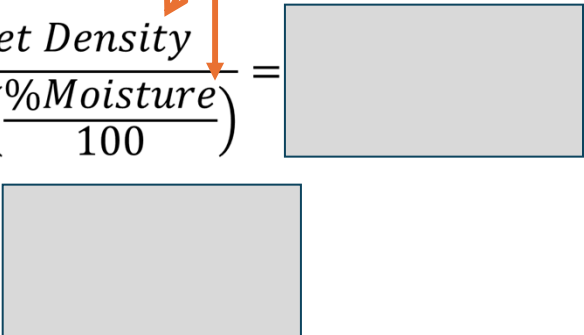
- $$\text{Standard Dry Density} = \frac{\text{Wet Density}}{1 + \left[ \frac{\% \text{Moisture}}{100} \right]}$$

2



### Example 1

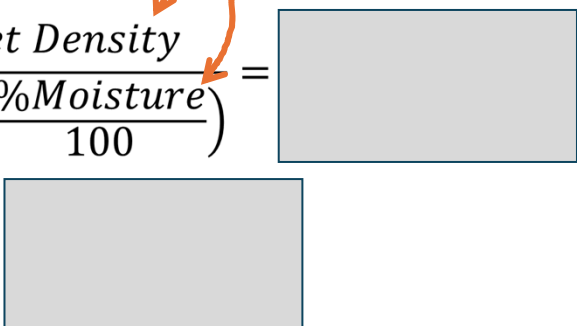
What is the Standard Dry Density of a CTB with a Wet Density of 120 pcf and Moisture of 18%?

$$SSD = \frac{\text{Wet Density}}{1 + \left(\frac{\% \text{Moisture}}{100}\right)} =$$


3

### Example 2

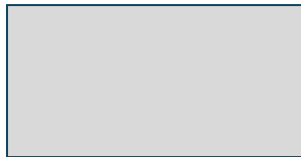
What is the Standard Dry Density of a CTB with a Wet Density of 125 pcf and Moisture of 16%?

$$SSD = \frac{\text{Wet Density}}{1 + \left(\frac{\% \text{Moisture}}{100}\right)} =$$


4

### Example 3

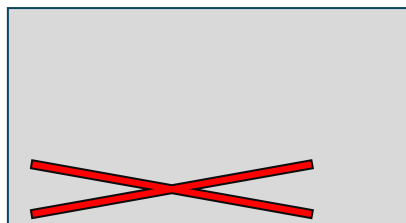
Your contract has the line item “common excavation” on it. While excavating, the contractor encounters a boulder or detached stone. It is estimated to be larger than 2 CU YD. What is this material classified as?



5

### Example 4

You’re called in to settle a dispute regarding what to do with a certain line item. The Prime contractor references a line in the spec book, his subcontractor references a line in an older special provision, a fellow inspector points out a line in the general notes in the contract documents, and the retired area engineer that lives by the project says another thing “because that’s the way we always used to do it”. Which entity is most likely the correct one?



6

## **Example 5**

**When can a contractor apply lime to a frozen area of subgrade?**

- A. If a non-frozen layer of soil is placed on top of the frozen soil.
  - B. If the temperature is expected to rise to 39 degrees Fahrenheit.
  - C. If the frozen soil is scarified.
  - D. If the frozen soil has completely thawed or been removed
- 

7

## **Example 6**

1. KDOT's required quality control testing frequency for Density on Cement Treated Base construction is:

- A. one per project per design
- B. one per week per design
- C. four per day per design
- D. every 50 cubic yards

8



## Test Information

- Test is 10 multiple choice questions
- 70% is passing
- You may use your Construction Manual, Spec. Book and the handouts.
- You may not use your cell phones, laptops or neighbors.
- You have 30 minutes to take the test. When you finish, turn in the test and leave the room. Scores will be posted by sign in number when everyone has finished.



1

# Traffic Control & Pavement Markings

Certified Inspector Training 2025-26

Tim Nichols

Kansas Department of Transportation



2

## Instructor Information

Tim Nichols

District Six Construction Mentor  
Kansas Department of Transportation  
Syracuse, Ks.  
Tim.Nichols@ks.gov  
620-499-9001

Kansas Department of Transportation



3

## Course Objectives

- To provide student an introduction to T.C. and Pavement Marking specifications and Traffic Engineering Standards.
- To prepare students to be able to...
  - Inspect Traffic Control according to KDOT specifications.
  - Inspect Pavement Marking according to KDOT specifications.
  - Evaluate projects for Safety concerns.

Kansas Department of Transportation



4

## Review of Inspectors Responsibilities Specifications

Section 805 - Work Zone Traffic Control  
Section 806 & 807 - Permanent Pavement Markings  
and Painted Pavement Marking  
Section 808 - Removal of Existing Pavement Markings  
Section 810 - Inertial Barrier Systems  
Section 812 - Permanent Signing  
Traffic Engineering (TE) Standards

Kansas Department of Transportation



5

## Why do we inspect Traffic Control?

To SAFELY Guide Traffic

Safeguard against Litigation



Protect Highway Workers

Protect the Public including  
our Family and Friends!

Kansas Department of Transportation



6

## How do we accomplish this? Inspector Preparation

- Know your Role
- Know the requirements and the Specifications
- Know the project
- Know where to get information
- Don't be afraid to ask Questions

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7

## Sources of Information

1. Standard Specifications
2. Project Plans (Including T.E. Standards)
3. Special Provisions in Contract (T.E. Standards)
4. Manual on Uniform Traffic Control Devices (M.U.T.C.D)
5. Construction Manual
6. Flagger Handbook
7. Quality Standards for Work Zone Traffic Control Devices Handbook

Kansas Department of Transportation



8

## Traffic Control Inspection

Review the project.

Document all changes and conversations that were made to the traffic control plan and explain why changes were made and who made the decision.

Be thorough...

**SAFETY IS THE PRIORITY**

Kansas Department of Transportation



9

## Traffic Control Inspection - 2

Documentation: Traffic Control Diary

- Clear
- Complete
- WHO, WHAT, WHERE, WHEN, WHY

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## Traffic Control Inspection - 3

### Documentation:

Daily Traffic Control Worksheet: Quantities,  
Each Per Day Sign counts, etc.

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## Traffic Control Spreadsheet Recap

| 1   | Daily Log (Signs) |                           |         |                 |       |                 |      |               |       |                     |       |             |       |                     |      |                                    |        | 2             |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
|-----|-------------------|---------------------------|---------|-----------------|-------|-----------------|------|---------------|-------|---------------------|-------|-------------|-------|---------------------|------|------------------------------------|--------|---------------|--|-----------------|--|-------------------|--|----------------------------|--|-------------|--|-------------|--|------|--|------------------|--|
| 3   |                   | FINES DOUBLE IN WORK ZONE |         | GIVE-EM A BREAK |       | ROAD WORK AHEAD |      | ONE LANE ROAD |       | Speed Reduction (f) |       | SPEED LIMIT |       | BE PREPARED TO STOP |      | XX MPH speed limit sign (articles) |        | END ROAD WORK |  | NO PASSING ZONE |  | Road Closed Ahead |  | Road closed 1/2 mile ahead |  | ROAD CLOSED |  | DO NOT PASS |  | Stop |  | flagger (symbol) |  |
| 4   | Type              | KL-104a                   | KL-105a | w20-1           | w20-4 | w3-5            | r2-1 | w3-4          | w13-1 | KG20-2              | w14-3 | w20-3       | w20-3 | r11-2               | r4-1 | r1-1                               | w20-7a |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 5   | sq ft             | 12                        | 16      | 16              | 16    | 9               | 5    | 16            | 4     | 5                   | 25    | 16          | 16    | 10                  | 5    | 6.25                               | 16     |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 6   | Size              | M                         | M       | M               | M     | S               | S    | M             | S     | S                   | S     | M           | M     | M                   | S    | S                                  | M      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 7   | Total             | 1040                      | 1040    | 1040            | 1566  | 436             | 436  | 176           | 506   | 5992                | 664   | 592         | 440   | 5601                | 996  | 208                                | 146    |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 502 | 07/22/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 503 | 07/23/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 504 | 07/24/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 505 | 07/25/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 506 | 07/26/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 507 | 07/27/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 508 | 07/28/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 509 | 07/29/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 510 | 07/30/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 511 | 07/31/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 512 | 08/01/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 513 | 08/02/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 514 | 08/03/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 515 | 08/04/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 516 | 08/05/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 517 | 08/06/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 518 | 08/07/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 519 | 08/08/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 520 | 08/09/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 521 | 08/10/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 522 | 08/11/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 523 | 08/12/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 524 | 08/13/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 525 | 08/14/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |
| 526 | 08/15/17          | 2                         | 2       | 22              | 2     | 4               | 4    | 2             | 5     | 12                  | 8     | 2           | 5     | 7                   | 6    | 0                                  | 2      |               |  |                 |  |                   |  |                            |  |             |  |             |  |      |  |                  |  |

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## Traffic Control Spreadsheet Devices Recap

| Daily Log (TC Devices) |            |                    |               |                        |               |   |   |   |  |
|------------------------|------------|--------------------|---------------|------------------------|---------------|---|---|---|--|
|                        |            | Type III Barricade | Type A Lights | Chanilizers (Portable) | Type B Lights |   |   |   |  |
| Type                   | Type III B | Type A             | Chan          | Type B                 |               |   |   |   |  |
| Total                  | 22670      | 24081              | 144835        | 334                    | 0             | 0 | 0 | 0 |  |
| 06/26/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 06/27/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 06/28/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 06/29/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 06/30/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 07/01/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 07/02/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 07/03/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 07/04/16               | 8          | 8                  | 46            |                        |               |   |   |   |  |
| 07/05/16               | 112        | 8                  | 792           |                        |               |   |   |   |  |
| 07/06/16               | 13         | 224                | 77            |                        |               |   |   |   |  |
| 07/07/16               | 13         | 18                 | 77            |                        |               |   |   |   |  |
| 07/08/16               | 13         | 18                 | 77            |                        |               |   |   |   |  |
| 07/09/16               | 13         | 18                 | 77            |                        |               |   |   |   |  |
| 07/10/16               | 13         | 18                 | 77            |                        |               |   |   |   |  |
| 07/11/16               | 13         | 18                 | 77            |                        |               |   |   |   |  |
| 07/12/16               | 21         | 28                 | 137           |                        |               |   |   |   |  |
| 07/13/16               | 21         | 28                 | 91            |                        |               |   |   |   |  |
| 07/14/16               | 21         | 28                 | 91            |                        |               |   |   |   |  |
| 07/15/16               | 17         | 24                 | 91            |                        |               |   |   |   |  |
| 07/16/16               | 17         | 24                 | 91            |                        |               |   |   |   |  |
| 07/17/16               | 17         | 24                 | 91            |                        |               |   |   |   |  |
| 07/18/16               | 17         | 24                 | 91            |                        |               |   |   |   |  |
| 07/19/16               | 17         | 24                 | 91            |                        |               |   |   |   |  |
| 07/20/16               | 17         | 24                 | 91            |                        |               |   |   |   |  |
| 07/21/16               | 17         | 24                 | 91            |                        |               |   |   |   |  |
| 07/22/16               | 17         | 24                 | 91            |                        |               |   |   |   |  |

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## Traffic Control Totals Recap

| Sign Count (Total)              |        |       |           |  |  |
|---------------------------------|--------|-------|-----------|--|--|
| Small                           | 9238   |       |           |  |  |
| Medium                          | 19674  |       |           |  |  |
| Large                           | 0      |       |           |  |  |
| Traffic Control Devices (Total) |        |       |           |  |  |
| Type III Barricade              | 22670  |       |           |  |  |
| Type A Lights                   | 24081  |       |           |  |  |
| Chanilizers (Portable)          | 144835 |       |           |  |  |
| Type B Lights                   | 334    |       |           |  |  |
|                                 | 0      |       |           |  |  |
|                                 | 0      |       |           |  |  |
|                                 | 0      |       |           |  |  |
|                                 | 0      |       |           |  |  |
| Total Chanilizers               | 0      |       |           |  |  |
| Pay Estimate Quantities         |        | Dates |           |  |  |
| Small                           | 9238   | From: | 3/14/2016 |  |  |
| Medium                          | 19674  | To:   | 8/29/2017 |  |  |
| Large                           | 0      |       |           |  |  |
| Type III Barricade              | 22670  |       |           |  |  |
| Type A Lights                   | 24081  |       |           |  |  |
| Chanilizers (Portable)          | 144835 |       |           |  |  |
| Type B Lights                   | 334    |       |           |  |  |
|                                 | 0      |       |           |  |  |
|                                 | 0      |       |           |  |  |
|                                 | 0      |       |           |  |  |
|                                 | 0      |       |           |  |  |
| Total Chanilizers               | 0      |       |           |  |  |

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## Daily Traffic Control Inspection

### Documentation:

#### Daily Traffic Control Setups

- Sign Inventories
- Work-zone Lengths
- Pilot Car Turnaround Times
- Sign & Flagger Appearances

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## Nighttime Traffic Control Inspection

### Nighttime:

- Check signs and pavement markings
- Check that warning lights and arrow boards are working and not blinding.
- Do checks as often as necessary; once or more per week on more complex projects
- Remember to document your inspections

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# Do What?



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## Inspector Responsibility: Construction Manual

- Part II - 2.07.02 RESPONSIBILITY, AUTHORITY AND BEHAVIOR OF THE INSPECTOR
- **a. Responsibility.** The Inspector is responsible for determining that the work is being,
  - constructed in accordance with the requirements of the Contract Documents. This does not give the Inspector the right to unnecessarily or willfully disrupt the operations of the Contractor.

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## Construction Manual

### **The Inspector must:**

***become thoroughly familiar*** with the Contract Documents and ***review them frequently***, as they apply to the work inspected;

be capable of recognizing immediately if the inspected work conforms to the contract requirements;

know how the work fits into the overall schedule.

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## Construction Manual - 2

- If any specified tolerance governing the Contractor's work is found to be unrealistic, the Inspector shall report it to the Inspector's supervisor.
- If any material or any portion of the work does not conform to the requirements, the Inspector should so notify the Contractor, tell them why it does not conform, and record it in the daily report.
- Should the Contractor ignore the notice and continue the operation, then the Inspector's supervisor should be promptly advised.

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# Specifications

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## 805 Specifications

### 805 - WORK ZONE TRAFFIC CONTROL & SAFETY

#### SECTION 805

#### WORK ZONE TRAFFIC CONTROL AND SAFETY

##### 805.1 DESCRIPTION

Provide, erect, maintain and remove traffic control devices as shown in the Contract Documents.

##### BID ITEMS

Work Zone Signs (0 to 9.25 Sq. Ft.)  
Work Zone Signs (9.26 to 16.25 Sq. Ft.)  
Work Zone Signs (16.26 Sq. Ft. and over)  
Work Zone Sign (Special) (\*\*)  
Work Zone Barricades (Type 3 – 4 to 12 Lin. Ft.)  
Work Zone Barricades (Pedestrian)  
Arrow Display  
Portable Changeable Message Sign  
Channelizer (Fixed)  
Channelizer (Portable)  
Channelizer (Pedestrian)  
Work Zone Warning Light (Type "A" Low Intensity)  
Work Zone Warning Light (Red Type "B" High Intensity)  
Pavement Marking (Temporary)  
4" Solid (\*)  
4" Broken (8 ft.) (\*)  
4" Broken (3 ft.) (\*)  
4" Dotted Extension (\*)  
Broken (Line Masking Tape)  
Solid (Line Masking Tape)  
Symbol (\*)  
Flexible Raised Pavement Marker (4" Broken (8 ft.))  
Flexible Raised Pavement Marker (4" Broken (3 ft.))  
Rigid Raised Pavement Marker (\*)  
Flagger (Set Price)  
Traffic Signal Installation (Temporary)  
Traffic Control  
Traffic Control (Initial Setup)

##### UNITS

Each Per Day  
Each Per Day  
Each Per Day  
Each  
Each per Day  
Each per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Sta./Line  
Sta./Line  
Sta./Line  
Sta./Line  
Sta./Line  
Sta./Line  
Each  
Sta./Line  
Sta./Line  
Each  
Hour  
Lump Sum  
Lump Sum  
Lump Sum

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# Specifications- Special Provisions

STATE PROJECT NO: K023-028 KA 6635-01 STATE CONTRACT NO: 522106696

FEDERAL PROJ NO.

PRIMARY DISTRICT: 6 PRIMARY COUNTY: FINNEY

DESCRIPTION: MILLING AND HMA OVERLAY, K-23; FR FV/GY CO LIN N TO E JCT OF K-156 IN FI CO. LGTH 4.0 MI. TIED TO KA 6634-01.

NOTE: THE FOLLOWING LIST OF SPECIAL PROVISIONS ARE FOR THIS PROJECT. OMISSION OF ALL OR PART OF A SPECIAL PROVISION IN THE ATTACHED PROPOSAL (CONTRACT) DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR OBTAINING THE COMPLETE PROVISION AS LISTED.

| PROVISION NO. | DESCRIPTION                                                  |
|---------------|--------------------------------------------------------------|
| 08-10-66-R05  | REQUIRED CONTRACT PROVISION-NONCOLLUSION / HISTORY-DEBARMENT |
| 08-31-09-R01  | REQUIRED CONTRACT PROVISION-EMULSIFIED ASPHALT ADJUSTMENT    |
| 04-30-92-R07  | REQUIRED CONTRACT PROVISION-FINANCIAL PREQUALIFICATION       |
| 08-04-92-R03  | REQUIRED CONTRACT PROVISION-CONTRACTUAL SERVICES-LEGISLATOR  |
| 10-10-00-R09  | REQUIRED CONTRACT PROVISION-PRICE ADJUSTMENT FOR FUEL        |
| 05-01-06-R01  | REQUIRED CONTRACT PROVISION-PRICE ADJUSTMENT FOR ASPHALT     |
| 11-15-96-R06  | REQUIRED CONTRACT PROVISION-EEO REQUIREMENT                  |
| K520220131M2  | MINIMUM WAGE RATE (FINNEY AND KEARNEY COUNTIES)(9-2-2022)    |
| 01-01-11-R01  | REQUIRED CONTRACT PROVISION-TAX CLEARANCE CERTIFICATE        |
| 15-ER-1-R21   | ERRATA SHEET FOR STD SPEC BOOK FOR RD & BR CONST. 2015 ED    |
| 03-01-18      | POLICY AGAINST SEXUAL HARASSMENT                             |
| 15-01003      | REQUIRED CONTRACT PROVISIONS KS FUNDED CONST CONTRACTS       |
| 15-01008-R02  | FUEL ADJUSTMENT                                              |
| 15-01009-R01  | ASPHALT PRICE ADJUSTMENT                                     |
| 15-01010      | EMULSIFIED ASPHALT ADJUSTMENT                                |
| 15-01011-R06  | ENVIRONMENTAL CONCERNS - MIGRATORY BIRD TREATY ACT           |
| 15-01012-R01  | SEASONAL LIMITATIONS                                         |
| 15-01016-R03  | PROSECUTION AND PROGRESS                                     |
| 15-01019-R02  | CONTROL OF WORK                                              |
| 15-01021-R03  | BIDDING REQUIREMENTS AND CONDITIONS                          |
| 15-01022-R04  | SCOPE OF WORK                                                |
| 15-01023      | BIDDING REQUIREMENTS AND CONDITIONS                          |
| 15-01024      | AWARD AND EXECUTION OF CONTRACT                              |
| 15-01501      | ASPHALT SURFACING AND ASPHALT RECYCLING EQUIPMENT            |
| 15-06006-R01  | ASPHALT PAVEMENT SMOOTHNESS                                  |
| 15-08007-R02  | HOT MIX ASPHALT CONSTRUCTION QC/QA                           |
| 15-08010      | HOT MIX ASPHALT (HMA)-COMMERCIAL GRADE                       |
| 15-08001-R03  | WORK ZONE TRAFFIC CONTROL AND SAFETY (FOR 1R'S)              |
| 15-08011-R02  | PAVEMENT WIDENING AND SHOULDERING AND PAVEMENT EDGE WEDGE    |
| 15-08018      | MAINTENANCE AND RESTORATION OF HAUL ROADS                    |
| 15-08019-R02  | WORK ZONE TRAFFIC CONTROL & SAFETY                           |
| 15-08020-R01  | DURABLE PAVEMENT MARKING                                     |

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## Specifications

# Special Provisions

### 805 - WORK ZONE TRAFFIC CONTROL & SAFETY

| TABLE 805-1: TEMPORARY PAVEMENT MARKING *** |                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                                        | Use                                                                                                                                                                                                                                                                                                                                                                                                       |
| Type I                                      | Final surface (new pavement or any surface that will remain when the project is complete). When Type I is specified and in areas where permanent pavement marking will be placed in the same layout/location as the temporary markings, the Contractor has the option to use either Type I tape or paint. Do not use paint on final surfaces where the markings will not follow the same layout/location. |
| Type II                                     | Any surface that is to be removed or covered by future construction. When Type II is specified, the Contractor has the option to use Type I tape, Type II tape, or paint.                                                                                                                                                                                                                                 |

\*\*\*Do not use paint on Ultrathin Bonded Asphalt Surfaces to remain in place.

(1) Configuration. The following are general guidelines for temporary pavement marking and temporary RPM configurations. Use TABLE 805-2 and TABLE 805-3 to determine broken pavement marking dimensions.

805.51.(1) Solid and Broken (8 ft) markings are intended for use on expressways, freeways, and for traffic configurations in place longer than 45 days, where the markings are different from the original or final pavement markings.

### 805 - WORK ZONE TRAFFIC CONTROL & SAFETY

805.51.(2) Place either temporary or permanent pavement markings or temporary RPMs the same day the existing markings are removed, and before opening to traffic, at the following locations: yellow skip line on undivided roads, white skip lines on multi-lane sections, white gore lines, white intersection dotted extension lines, and solid yellow ramp edge lines. Fixed tubular markers or conical delineators may be placed, and if used shall be maintained, in lieu of temporary gore lines with the Engineer's approval. If used, space the devices at 5-foot intervals on the gore edge line. They are subsidiary to other temporary pavement marking bid items.

(3) Maintenance. Maintain all temporary pavement markings and temporary RPMs for the duration of the project and for 14 days after the work is complete. Temporary pavement marking and temporary RPMs must be in an acceptable condition and location, as described in the Contract Documents.

When temporary pavement markings or temporary RPMs are deemed deficient by the Engineer (no longer retroreflective, damaged, displaced, etc.), the Engineer will notify the Contractor in writing of areas requiring replacement.

Replacement of temporary pavement marking or temporary RPMs could be required as soon as 24 hours from notification and will be noted in the notification. Failure to replace the temporary pavement marking or temporary RPMs within the allotted time could result in a deduct of \$500 per day. Deduct assessments are cumulative until deficiencies are corrected, and could be assessed even if the project is in liquidated damages for failure to complete work within the specified time.

Conditions considered for deduct include, but are not limited to:

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# 805 Specifications - 2

## Special Provisions

15-08019-R02  
Sheet 1 of 2

### KANSAS DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION TO THE STANDARD SPECIFICATIONS, EDITION 2015

#### SECTION 805

#### WORK ZONE TRAFFIC CONTROL & SAFETY

Page 800-18, subsection 805.3i.(1), delete the first bullet and replace with the following:

- Solid and Broken (8 ft.) markings are intended for use on final and intermediate lifts on expressways, freeways, and for traffic configurations in place longer than 45 days, where the markings are different from the original or final pavement markings.

Page 800-19, subsection 805.3i.(2), delete the second paragraph and replace with the following:

Place either temporary or permanent pavement markings or temporary RPMs the same day the existing markings are removed, and before opening to traffic, at the following locations: yellow skip line on undivided roads, white skip lines on multi-lane sections, solid white and yellow gore lines, white intersection dotted extension lines, and solid yellow ramp edge lines. Fixed tubular markers, or conical delineators may be used in lieu of gore lines with the Engineer's approval and spaces at 5-foot intervals on the gore edge line. If fixed tubular markers or conical delineators are used in lieu of temporary pavement markings, these items shall be subsidiary to other temporary pavement marking bid items on the contract.

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# Specifications - 3

## Special Provisions

Page 800-18, subsection 805.3i.(1), delete the first bullet and replace with the following:

- Solid and Broken (8 ft.) markings are intended for use on final and intermediate lifts on expressways, freeways, and for traffic configurations in place longer than 45 days, where the markings are different from the original or final pavement markings.

Page 800-19, subsection 805.3i.(2), delete the second paragraph and replace with the following:

Place either temporary or permanent pavement markings or temporary RPMs the same day the existing markings are removed, and before opening to traffic, at the following locations: yellow skip line on undivided roads, white skip lines on multi-lane sections, solid white and yellow gore lines, white intersection dotted extension lines, and solid yellow ramp edge lines. Fixed tubular markers, or conical delineators may be used in lieu of gore lines with the Engineer's approval and spaces at 5-foot intervals on the gore edge line. If fixed tubular markers or conical delineators are used in lieu of temporary pavement markings, these items shall be subsidiary to other temporary pavement marking bid items on the contract.

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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY



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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY - 2



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## 805.1 - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.1 DESCRIPTION

Provide, erect, maintain and remove traffic control devices as shown in the Contract Documents.

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## 805.1 - WORK ZONE TRAFFIC CONTROL & SAFETY - 2

### **805.1 DESCRIPTION**

#### **•BID ITEMS**

Work Zone Signs (0 to 9.25 Sq. Ft.)  
Work Zone Signs (9.26 to 16.25 Sq. Ft.)  
Work Zone Signs (16.26 Sq. Ft. and over)  
Work Zone Sign (Special) (\*\*)  
Work Zone Barricades (Type 3 – 4 to 12 Lin. Ft.)  
Work Zone Barricades (Pedestrian)  
Arrow Display  
Portable Changeable Message Sign  
Channelizer (Fixed)  
Channelizer (Portable)  
Channelizer (Pedestrian)  
Work Zone Warning Light (Type "A" Low Intensity)  
Work Zone Warning Light (Red Type "B" High Intensity)  
Control (Initial Setup)

#### **UNITS**

Each Per Day  
Each Per Day  
Each Per Day  
Each  
Each Per Day  
Each per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Each Per Day  
Each per Day  
Each Per Day  
Each Per Day  
Lump Sum

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## Work Zone signs



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## Work Zone signs - 2



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## 805.2 - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.2 MATERIALS

Provide materials as shown in the Contract Documents that comply with the following requirements.

Retroreflective Sheeting ..... **DIVISION 2200**

Portable Changeable Message Signs ..... **DIVISION 1700**

Work Zone Warning Lights..... **DIVISION 1700**

Temporary Pavement Marking/Line Masking Tape.... **DIVISION 2200**

Traffic Line Paint..... **DIVISION 2200**

Raised Pavement Markers..... **DIVISION 2200**

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## 805.2 - WORK ZONE TRAFFIC CONTROL & SAFETY - 2

### 805.2 MATERIALS

#### 2201 - RETROREFLECTIVE SHEETING

#### 2201.2 REQUIREMENTS

##### a. General.

Provide retroreflective sheeting that complies with ASTM D 4956. The type to be provided will be shown in the Contract Documents. Types and classes are as defined in ASTM D 4956.

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## 805.2.a - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.2 MATERIALS

#### 2201 - RETROREFLECTIVE SHEETING

##### 2201.6 BASIS OF ACCEPTANCE

###### a. Permanent Sheeting.

- (1) Prequalification as required by **subsection 2201.4.**
- (2) Satisfactory results of tests conducted at MRC. Each lot of sheeting will be sampled at destination by a representative of KDOT and will be subjected to a visual examination and tested for physical properties as necessary to verify that the sheeting complies with this specification.
- (3) Receipt of the warranty certification as specified in subsection 2201.3 by the Project Engineer.

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## Website Link Steps

**Kansas**  
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Home Employee Info Organizational Pages Districts Phone Book/Org Chart Documents/Manuals

| FEATURE                                                                                                                                                                                                 | ANNOUNCEMENTS                                                                                                                            | JOB OPENINGS                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Employee Assistance Program (EAP)</b><br>For State of Kansas benefits eligible employees/dependents at no charge.<br>Call counselors 24/7 at 1-888-270-8897.<br>WEBSITE - click <a href="#">HERE</a> | <b>DRIVE TO ZERO</b><br>KANSAS TRAFFIC DEATHS<br>Crashes are not accidents, therefore preventable.<br>Buckle up, every trip, every time! | <a href="#">215520</a> NETWORK SERVICE TECHNICIAN III<br><a href="#">213830</a> EQUIPMENT MECHANIC<br><a href="#">215460</a> DISTRICT ENGINEER<br><a href="#">215561</a> INDUSTRIAL HYGIENIST<br><a href="#">215563</a> PUBLIC SERVICE EXECUTIVE II |

National Suicide Prevention Lifeline - free 24/7 Talk or Text 1-800-273-8255  
EAP Informational Video

**WWW.ksdot.gov**

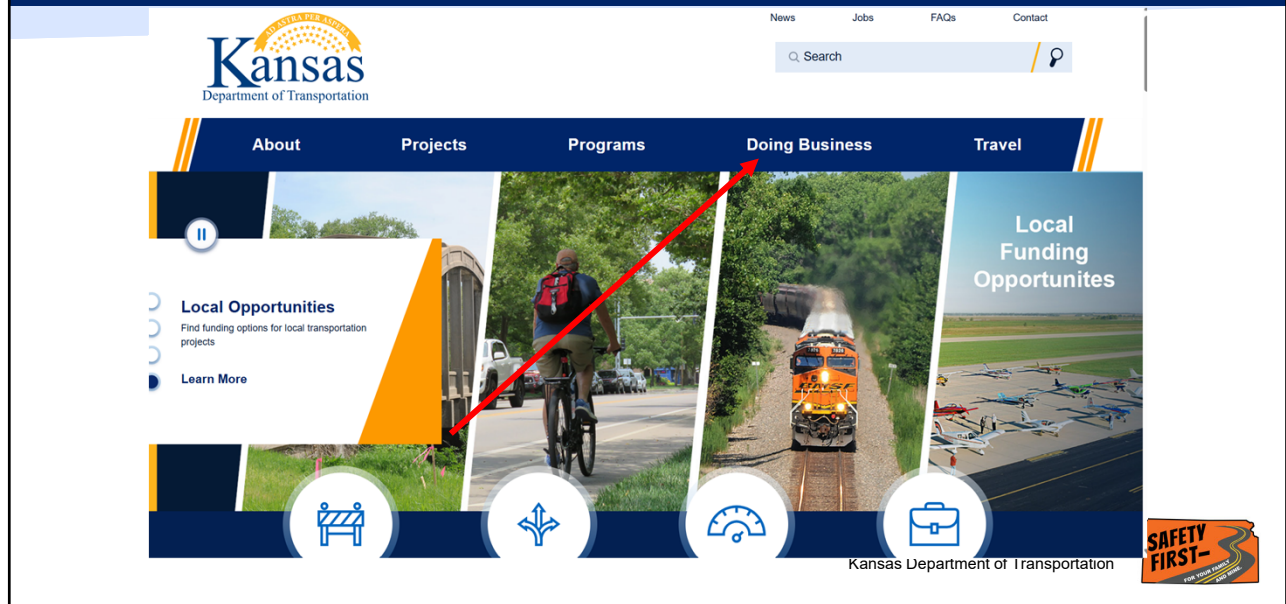
Kansas Department of Transportation



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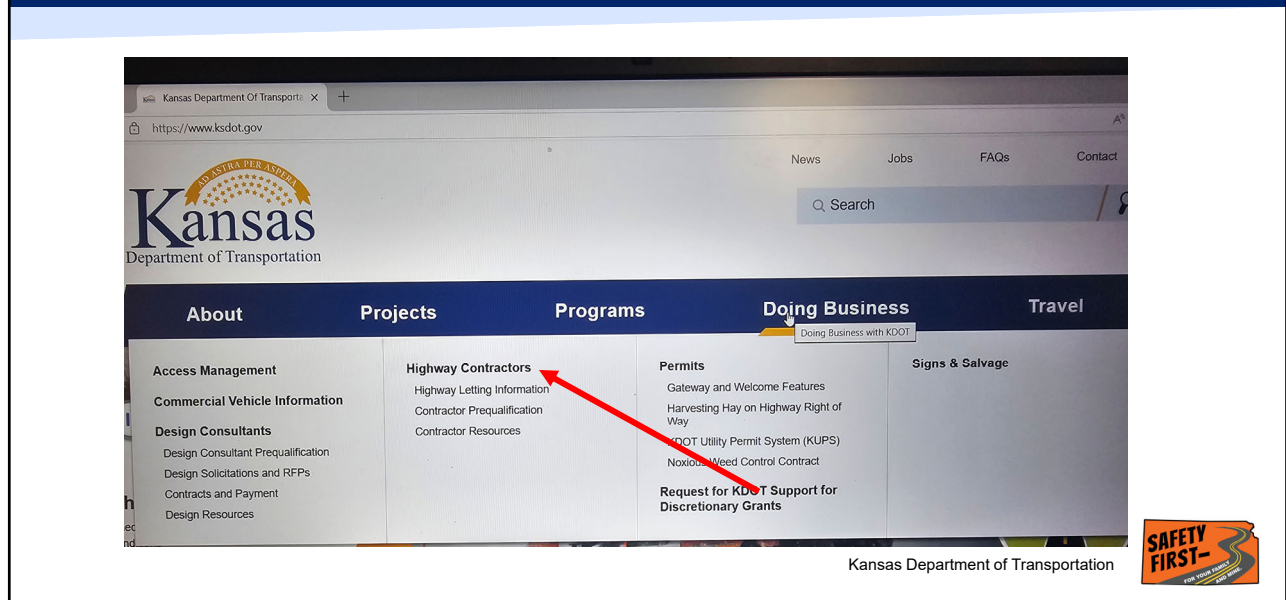


## Website Link Steps - 2



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## Website Link Steps - 3



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## Website Link Steps - 4

The screenshot shows the 'Doing Business' section of the Kansas Department of Transportation website. The left sidebar contains a menu with the following items: ACCESS MANAGEMENT, COMMERCIAL VEHICLE INFORMATION, + DESIGN CONSULTANTS, - HIGHWAY CONTRACTORS (expanded), + Highway Letting Information, Contractor Prequalification, + Contractor Resources (highlighted with a red arrow), + PERMITS, REQUEST FOR KDOT SUPPORT FOR DISCRETIONARY GRANTS, and SIGNS & SALVAGE. The main content area is titled 'Highway Contractors' and includes a 'Doing Business »' breadcrumb. Below the title is a paragraph: 'KDOT partners with skilled highway contractors to build and maintain Kansas' transportation network. This page provides essential information and resources for working with KDOT. KDOT is committed to fostering a transparent and efficient bidding process, providing the information and support contractors need.' To the right of the paragraph are links for 'Share & Bookmark' and 'Print'. Below the paragraph are four tiles: 'AASHTOWare Project' (Information about KDOT's construction management system), 'Contractor Resources' (Find manuals, special provisions, price indices, and other), 'Letting Information' (Information on bid lettings, how to propose on projects, and bid awards), and 'Prequalification Requirements' (Prequalification process for contractors, including forms and).

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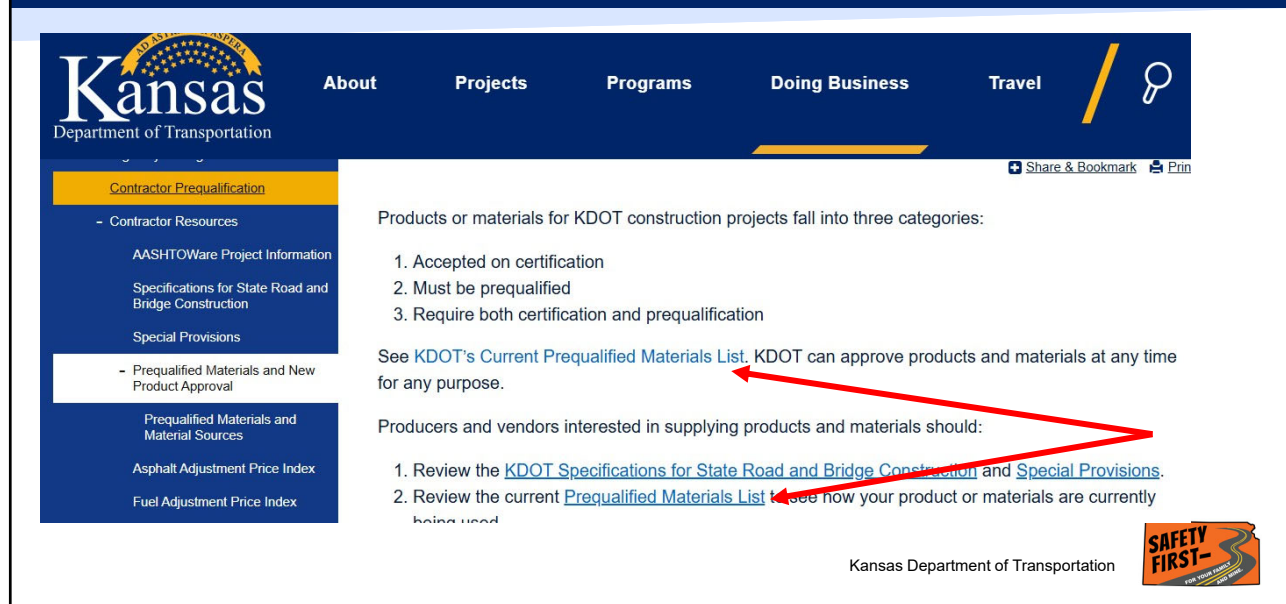
## Website Link Steps - 5

The screenshot shows the 'Doing Business' section of the Kansas Department of Transportation website. The left sidebar contains a menu with the following items: Northeast Kansas Projects, North Central Kansas Projects, Northwest Kansas Projects, Southeast Kansas Projects, South Central Kansas Projects, Southwest Kansas Projects, Statewide Projects, Project Archive, - Contractor Resources (expanded), AASHTOWare Project Information, Specifications for State Road and Bridge Construction, Special Provisions, + Prequalified Materials and New Product Approval (highlighted with a red arrow), Asphalt Adjustment Price Index, Fuel Adjustment Price Index, Hot Mix Aggregate Specific Gravity Values, Materials and Research Center Test Procedures, Bridge Construction Manual, and Construction Manual. The main content area is titled 'Doing Business' and includes a 'Contact' section. Below the title are four tiles: 'AASHTOWare Project', 'Certified Inspection and Testing (CIT) Training Program', 'KDOT Manuals and Guides', 'Materials and Equipment', 'Specifications and Special Provisions' (highlighted with a red arrow), 'Work Zones', and 'Other Resources'. The bottom right corner features the 'SAFETY FIRST' logo and the text 'Kansas Department of Transportation'.

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## Website Link Steps - 6



**Kansas**  
Department of Transportation

About Projects Programs Doing Business Travel

Share & Bookmark Print

**Contractor Prequalification**

- Contractor Resources
  - AASHTOWare Project Information
  - Specifications for State Road and Bridge Construction
  - Special Provisions
- Prequalified Materials and New Product Approval
  - Prequalified Materials and Material Sources
  - Asphalt Adjustment Price Index
  - Fuel Adjustment Price Index

Products or materials for KDOT construction projects fall into three categories:

1. Accepted on certification
2. Must be prequalified
3. Require both certification and prequalification

See [KDOT's Current Prequalified Materials List](#). KDOT can approve products and materials at any time for any purpose.

Producers and vendors interested in supplying products and materials should:

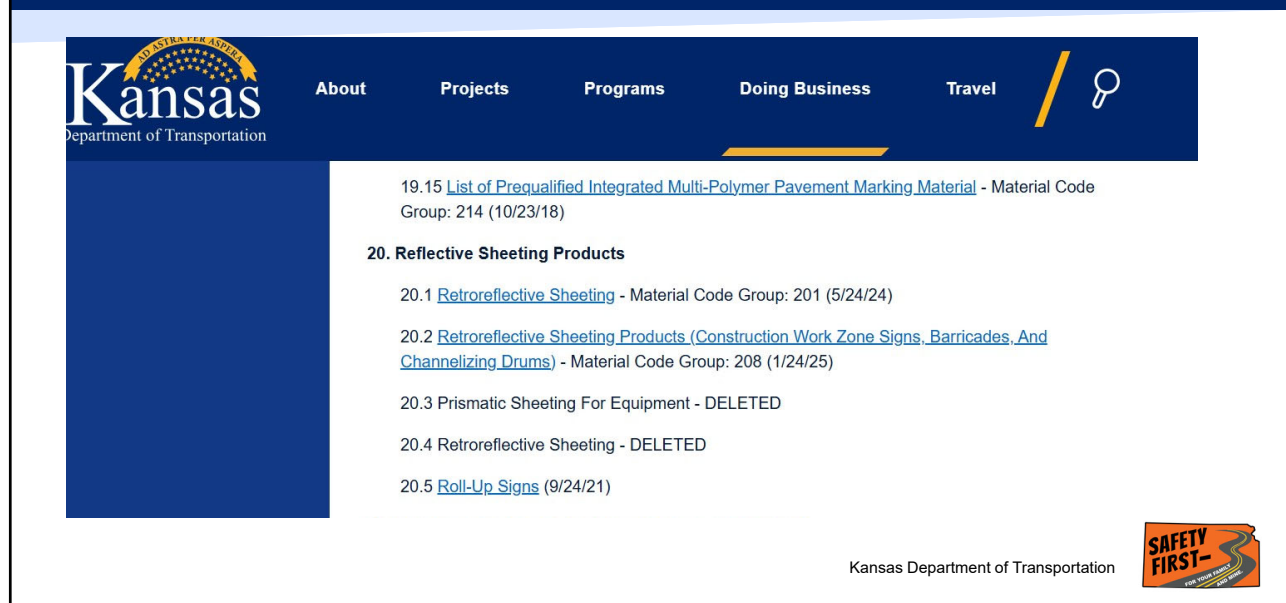
1. Review the [KDOT Specifications for State Road and Bridge Construction](#) and [Special Provisions](#).
2. Review the current [Prequalified Materials List](#) to see how your product or materials are currently being used.

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## Website Link Steps - 7



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About Projects Programs Doing Business Travel

19.15 [List of Prequalified Integrated Multi-Polymer Pavement Marking Material](#) - Material Code Group: 214 (10/23/18)

**20. Reflective Sheeting Products**

20.1 [Retroreflective Sheeting](#) - Material Code Group: 201 (5/24/24)

20.2 [Retroreflective Sheeting Products \(Construction Work Zone Signs, Barricades, And Channelizing Drums\)](#) - Material Code Group: 208 (1/24/25)

20.3 Prismatic Sheeting For Equipment - DELETED

20.4 Retroreflective Sheeting - DELETED

20.5 [Roll-Up Signs](#) (9/24/21)

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## Website Link Steps - 8

The screenshot displays the Kansas Department of Transportation website. The header includes the state logo and navigation links: About, Projects, Programs, Doing Business, Travel, and a search icon. Below the header, a grid of project links is shown, categorized by region: Northeast, Northwest, South Central, and Statewide. A 'Contractor Resources' section is expanded, listing various documents and manuals available for download. A 'Contact' link is visible at the bottom of the resources list. A 'SAFETY FIRST' logo is located in the bottom right corner of the website interface.

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Department of Transportation

About Projects Programs Doing Business Travel

Northeast Kansas Projects  
North Central Kansas Projects

Northwest Kansas Projects  
Southeast Kansas Projects

South Central Kansas Projects  
Southwest Kansas Projects

Statewide Projects  
Project Archive

- Contractor Resources

- AASHTOWare Project Information
- Specifications for State Road and Bridge Construction
- Special Provisions
- + Prequalified Materials and New Product Approval
- Asphalt Adjustment Price Index
- Fuel Adjustment Price Index
- Hot Mix Aggregate Specific Gravity Values
- Materials and Research Center Test Procedures
- Bridge Construction Manual
- Construction Manual

AASHTOWare Project +

Certified Inspection and Testing (CIT) Training Program +

KDOT Manuals and Guides +

Materials and Equipment +

Specifications and Special Provisions +

Work Zones +

Other Resources +

Contact

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## 805.2 - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.2 MATERIALS

#### 2201 - RETROREFLECTIVE SHEETING

##### 2201.6 BASIS OF ACCEPTANCE

**b. Temporary Sheeting.** Retroreflective sheeting used to manufacture temporary traffic control signs will be accepted on the basis of a certification prepared by the contractor stating that the retroreflective sheeting used to manufacture the signs was prequalified under this specification, and visual inspection by the Engineer for condition and other requirements.

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## 805.2.a - WORK ZONE TRAFFIC CONTROL & SAFETY

### Traffic control Device Crashworthiness

**Crashworthiness focuses on occupant protection to reduce the number of fatal and serious injuries that occur in the United States each year.**

There are two Crash Worthiness Standards that all of our Traffic Control devices must be certified by before they shall be allowed to use on KDOT projects!

- NCHRP 350 (National Cooperative Highway Research Program) 1993 through 2010
- M.A.S.H. (Manual for Assessing Safety Hardware) 2011 to present

\*Any devices tested and approved under NCHRP350 may still be used.

\*Any devices designed After January 1<sup>st</sup>, 2011, must be in tested under the M.A.S.H. requirements

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## 805.2b - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.2.b MATERIALS

- **b. Work Zone Signs.** The size and layout of the sign message shall comply with the Contract Documents and the "Standard Highway Signs and Markings", latest edition.
- Use fluorescent orange Type IV or better sheeting for all work zone orange signs. Use standard colors in Type III sheeting or better for all other work zone signs.
- Opaque, fluorescent orange Type IV or better, roll up signs may be used in approved situations. Do not use mesh signs.

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## 805.2c - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.2.c MATERIALS

**c. Work Zone Barricades.** Size and design of all work zone barricades, including those used for pedestrian closures, shall comply with the Contract Documents. Provide Type 3 barricades with ASTM Type III orange and white retroreflective sheeting, as shown in the Contract Documents. Provide pedestrian barricades with orange and white high contrast sheeting as shown in the Contract Documents.

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## 805.2.c - WORK ZONE TRAFFIC CONTROL & SAFETY - 2



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## 805.2.d - WORK ZONE TRAFFIC CONTROL & SAFETY

### d. Arrow/Warning Display

- When specified, provide, install and maintain a flashing or sequencing arrow/warning display sign that complies with the Contract Documents and the MUTCD.
- Provide a display that is capable of being legible for a minimum of ½ mile.
- Displays shall have an automatic control for lamp intensity, backed up by a manual switch and be capable of dimming 50% from the rated lamp voltage for nighttime operation.
- The display shall be capable of flashing lamps at a rate between 25 and 40 flashes per minute.
- The minimum lamp “on time” shall be 50% for the flashing arrow and 25% for the sequential chevron.
- Display lamps or lenses shall be recessed or alternately equipped with a minimum 180° upper hood.
- The color of light emitted shall be yellow or orange.

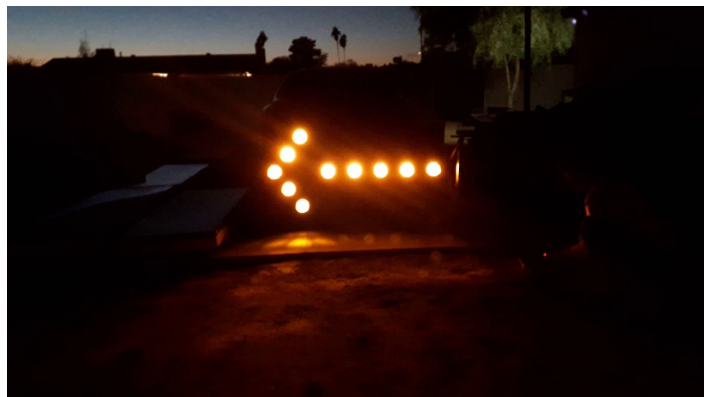
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## 805.2.d - WORK ZONE TRAFFIC CONTROL & SAFETY - 2

### d. Arrow/Warning Display



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## 805.2.e - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.2.e MATERIALS

**e. Channelizers.** Channelizers, fixed or portable or pedestrian, shall comply with the Contract Documents. Provide non-metallic drums, conical delineators, tubular markers, cones, Type 2 barricades, vertical panels and direction indicator barricades as shown in the Contract Documents.

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## 805.2.e - WORK ZONE TRAFFIC CONTROL & SAFETY - 2



Shown in 4-6"  
Diamond Grade  
with 30LB  
Rubber Base

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## 805.2 - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.2 MATERIALS

Provide drums, tubular markers, cones, Type 2 barricades, and direction indicator barricades with Type III orange and white retroreflective sheeting, as shown in the Contract Documents. Provide Type IV fluorescent orange sheeting on conical delineators and on the directional indicator barricade arrow panel. The orange and white stripes on the direction indicator barricade and the white sheeting on the conical delineators will be Type III sheeting.

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## 805.2 - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.2 MATERIALS-2

- Provide drums and conical delineators that have at least 2 orange and 2 white Type III (or better) retroreflective sheeting stripes. Additional stripes may be non-retroreflective with a maximum width of 3 inches.
- Provide tubular markers 28 - 42 inches tall that have at least 2 white Type III retroreflective sheeting stripes.

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# Quality Standards Booklet

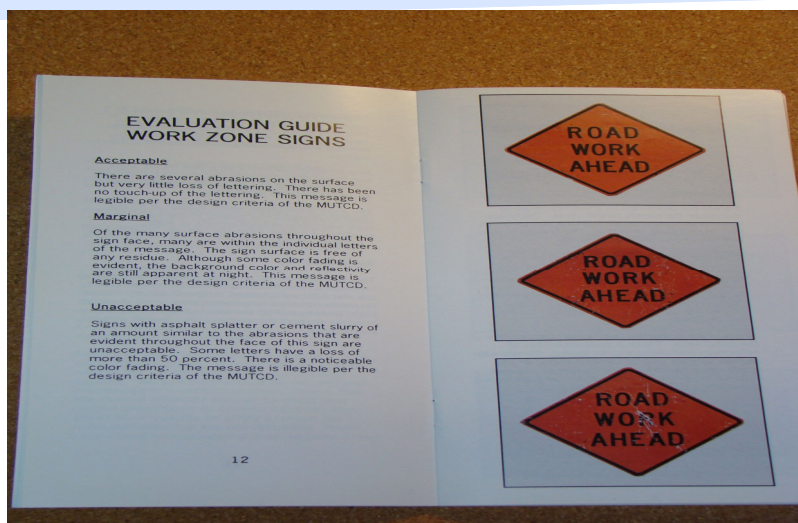


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# Quality Standards Booklet - 2

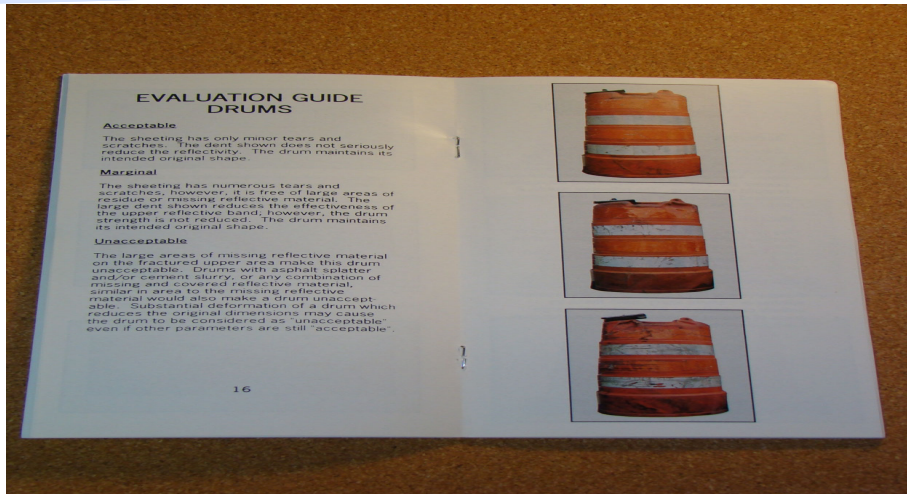


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# Quality Standards Booklet - 3



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## Evaluation Guide also includes:

Barricade Panels

Cones

Tubular Markers

Warning Lights

Arrow panels

Message Signs

Pavement Tape

Paint

Raised Markers

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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY Sign Examples



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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY Sign Examples - 2



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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY Sign Examples - 3



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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY Sign Examples - 4



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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY Sign Examples – 5



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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY Sign Examples - 6



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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY

### •805.3 CONSTRUCTION REQUIREMENTS

**a. General.** The safe and satisfactory movement of traffic through the project is a high priority and is the responsibility of the Contractor. Use reasonable and appropriate devices and methods to safeguard the persons and property of the traveling public on roads on which construction work is in progress. Failure of the Engineer to notify the Contractor to maintain such devices or use such methods does not relieve the Contractor of responsibility.

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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 2

### •805.3a CONSTRUCTION REQUIREMENTS

While working within the right-of-way limits on KDOT projects, all KDOT workers shall wear high visibility garments which comply with ANSI Class II (as of July 1<sup>st</sup> 2020 only Class III will be allowed) during Daylight Hours and ANSI Class E retro-reflectorized pants with an ANSI Class II vest during all other times.

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# High Visibility Policy

## KDOT High Visibility (Hi Vis) Apparel Policy Effective 7/1/2020 all High Vis Apparel must be Class 3

KDOT approved high visibility colors shall be orange, strong yellow green, or a combination thereof. Apparel shall be solid colors, no camouflage patterns.

### Daytime work

KDOT employees engaged in all activities, to include flagging, on the roadway (travel-way and shoulder); or right-of-way of state, county, or city roads; shall wear a KDOT approved (ANSI Class III, 107-2015) garment including vest, shirt, jacket, sweatshirt, or coat and KDOT approved orange headgear.

### Night time or low visibility work

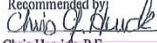
KDOT employees engaged in flagging operations shall wear ANSI Class III Hi Vis top garment and ANSI Class E pants or approved gaiters and KDOT approved orange headgear.

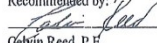
KDOT employees working behind a concrete safety barrier, new alignment or a closed road shall wear a KDOT approved ANSI CLASS III top garment in lieu of ANSI Class E pant or gaiter

KDOT employees working in a closed lane must wear KDOT approved ANSI Class III top and Class E pant or Gaiter.

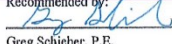
Compliance with the above paragraphs is required when any employee exits the equipment or vehicle 30 minutes before dusk through 30 minutes after dawn.

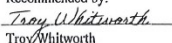
The Senior Manager shall have the authority to determine if any tasks are made more hazardous by wearing a safety vest. A list of those tasks shall be maintained within the District/Bureau and will exempt employees from being required to wear a vest during those activities. The KDOT Safety Coordinator shall be made aware of any task made exempt by the Senior Manager.

Recommended by:  
  
Chris Herrick, P.E.  
Director of Planning and Development

Recommended by:  
  
Calvin Reed, P.E.  
Director of Engineer and Design

Recommended by:  
  
Clay Adams, P.E.  
Director of Field Operations  
(Policy updated 9/1/2021)

Recommended by:  
  
Greg Schieber, P.E.  
Director of Project Delivery

Recommended by:  
  
Troy Whitworth  
Director of Safety

Approved by:  
  
Burt Morey, P.E.  
Deputy Secretary for Engineering and  
State Transportation Engineer

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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 3

### •805.3a CONSTRUCTION REQUIREMENTS

At all times during the progress or temporary suspension of work, provide, erect, remove, relocate, clean, replace and maintain acceptable signs, barricades, channelizers or other necessary traffic control devices and pavement marking shown in the Contract Documents.

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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 4

The Contractor shall maintain all signs and devices in an upright position.

The Contractor shall clean or replace any damaged sign or device as directed by the Engineer.



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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 5



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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 6

### •805.3a CONSTRUCTION REQUIREMENTS

- Contractor should designate a 24-hour contact person to make repairs within an agreed upon amount of time.
- When a contractor is un-able to make emergency repairs in a timely manner, KDOT Maintenance forces can be used and the Contractor billed.
- Record un-acceptable traffic control devices and when the condition has been corrected.

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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 7

### •805.3a CONSTRUCTION REQUIREMENTS

Be alert during traffic control setup and during Construction to make sure that there are no access issues that are created during construction that need addressed to make sure property owners have safe access. Make sure contractors make arrangements with landowners if special accommodations are made.

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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 8

### •805.3a CONSTRUCTION REQUIREMENTS

Park and store all vehicles, equipment, tools, debris and materials off the right-of-way or 30 feet from the edge of the travelled way, whichever is less. When this cannot be achieved, place appropriate signs, use positive protection or delineate with channelizers, as designated by the Engineer. Temporary traffic control devices required for this condition will be considered subsidiary to other bid items.

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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 9



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## 805.3.a - WORK ZONE TRAFFIC CONTROL & SAFETY - 10



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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.3b. Work Zone Signs.

- **Work Zone Signs Special** are project specific signs and are paid for once. They will be designated in the project documents if they are used.



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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 2

### 805.3b. Work Zone Signs.

- Mount portable signs on an approved support at least 12 inches above the edge of the traveled way.
- When directed by the Engineer, mount portable signs on an approved support at least 5 feet above the traveled way for increased visibility.
- Do not use the legend "Travel at Your Own Risk" on any sign.

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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 3

### 805.3b. Work Zone Signs.

- When an existing Stop condition changes to a new location, or when a new Stop condition is created, attach
  - 2 fluorescent-red flags and
  - a Type "B" red high intensity warning light to the Stop sign posts.
- Leave flags and lights in place for at least 30 days after installation.

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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 4

### New Stop Condition



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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 5

### New Stop Condition????



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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 6

### 805.3b. Work Zone Signs.

- Remove, turn away from all traffic, or cover traffic signs or signals that conflict with traffic operations.
- When existing signs need to be covered, use an opaque, breathable material. Do not use plastic bags, burlap or similar materials. Hanging or bolting rigid material to the sign is acceptable when approved by the Engineer and spacers are used to minimize contact between the rigid material and the sign face.
- Do not place tape directly to the face of any existing sign.

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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 7

### 805.3b. Work Zone Signs.

- Posts should extend to the top edge of the sign, but no more than 6 inches above the sign.
- In the case of hitting rock, or otherwise not being able to drive posts to comply with Contract Documents, shift sign location without violating minimum sign spacing or use a crashworthy sign stand, with the Engineer's approval.

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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 8

### 805.3b. Work Zone Signs.

- The Engineer will establish all work zone speed limits, except for the pilot car operations.
- When doing long term traffic control setups,(not temporary flagger/pilot car setups) install Work Zone plaques (KM4-20) above all existing and temporary Speed Limit signs.
- Do not allow the plaque to overlap any of Speed limit sign.

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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 9

### 805.3b. Work Zone Signs.



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## 805.3.b - WORK ZONE TRAFFIC CONTROL & SAFETY - 10

- Work Zone Barricades.
- Flashing or Sequencing Arrow/Warning Display Signs.
- Portable Changeable Message Sign (PCMS).
- Channelizers.
- Automated Flagger Assistance Devices (AFADs).
- Warning Lights.
- *Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs).*

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## 805.3.i - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.3i.

#### **Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs).**

- When traffic is carried through construction, provide and maintain temporary pavement marking and temporary RPMs as shown in the Contract Documents.
- When work will occupy a location more than 3 days, remove or mask all conflicting pavement marking and any markings specified in the Contract Documents, according to **SECTION 808**, and mark all transition tapers, crossovers, relocated lane lines and relocated edge lines with temporary pavement marking. Use temporary pavement markings according to TABLE 805-1.

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## 805.3.i - WORK ZONE TRAFFIC CONTROL & SAFETY - 1



Remove conflicting  
Pavement Markings

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## 805.3.i - WORK ZONE TRAFFIC CONTROL & SAFETY - 2

Don't tack over the  
Pavement Marking



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## 805.3.i - WORK ZONE TRAFFIC CONTROL & SAFETY - 3

### Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs).

Type I – removable

Type II – non – removable (foil back)

| TABLE 805-1: TEMPORARY PAVEMENT MARKING *** |                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                                        | Use                                                                                                                                                                                                                                                                                                                                                                                                       |
| Type I                                      | Final surface (new pavement or any surface that will remain when the project is complete). When Type I is specified and in areas where permanent pavement marking will be placed in the same layout/location as the temporary markings, the Contractor has the option to use either Type I tape or paint. Do not use paint on final surfaces where the markings will not follow the same layout/location. |
| Type II                                     | Any surface that is to be removed or covered by future construction. When Type II is specified, the Contractor has the option to use Type I tape, Type II tape, or paint.                                                                                                                                                                                                                                 |

\*\*\* Do not use paint on Ultrathin Bonded Asphalt Surfaces to remain in place.

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### 805.3.i.1 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs).

(1) Configuration. The following are general guidelines for temporary pavement marking and temporary RPM configurations. Use **TABLE 805-2** and **TABLE 805-3** to determine broken pavement marking dimensions.

- Broken centerline stripe spacing is determined from the contract bid item description.
- Severe curve spacing is used for curves with less than 1000-foot radius

| TABLE 805-2: BROKEN MARKING DIMENSIONS |                          |           |                       |
|----------------------------------------|--------------------------|-----------|-----------------------|
| Type                                   | Approximate Length (ft.) | Gap (ft.) | Repeating Cycle (ft.) |
| Broken (8 ft.)                         | 8                        | 24        | 32                    |
| Broken (3 ft.)                         | 3                        | 29        | 32                    |
| Dotted Extension                       | 2                        | 4         | 6                     |
| Severe Curve                           | 2                        | 14        | 16                    |

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### 805.3.i.1 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs). - 2

- (1) Configuration. The following are general guidelines for temporary pavement marking and temporary RPM configurations. Use **TABLE 805-2** and **TABLE 805-3** to determine broken pavement marking dimensions.

| TABLE 805-3: TEMPORARY RPM DIMENSIONS |                          |                   |                                  |           |                       |
|---------------------------------------|--------------------------|-------------------|----------------------------------|-----------|-----------------------|
| Condition                             | Approximate Length (ft.) | Number of Devices | Approximate Device Spacing (ft.) | Gap (ft.) | Repeating Cycle (ft.) |
| Broken (8 ft.)                        | 8                        | 6                 | 1.5                              | 24        | 32                    |
| Option                                | 10                       | 6                 | 2                                | 22        | 32                    |
| Broken (3 ft.)                        | 3                        | 3                 | 1.5                              | 29        | 32                    |
| Option                                | 4                        | 3                 | 2                                | 28        | 32                    |
| Severe Curve                          | 2                        | 3                 | 1                                | 14        | 16                    |

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### 805.3.i.2 Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs)

- (2) Placement. Place temporary pavement marking and temporary RPMs as close as practical to the intended alignment and parallel to the intended line.

- On HMA surfacing projects when traffic is being carried through the project, place temporary marking after each lift of HMA has been placed and before traffic is allowed on the new lift.
- Place temporary marking on intermediate HMA lifts within approximately 12 inches of the intended alignment.
- Place temporary markings on the final surface within approximately 6 inches of the intended alignment.

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### 805.3.i.2 Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs). - 2

(2) Placement. Place temporary pavement marking and temporary RPMs as close as practical to the intended alignment and parallel to the intended line.

Pilot car and flaggers shall be used when removing striping on an open road.

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### 805.3.i.2 Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs). - 3

- Place either temporary or permanent pavement markings or temporary RPMs **the same day the existing markings are removed**, and **before** opening to traffic, at the following locations:
- yellow skip line on undivided roads,
  - white skip lines on multi-lane sections,
  - Solid white and yellow gore lines,
  - white intersection dotted extension lines, and
  - solid yellow ramp edge lines.

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### 805.3.i.3 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs).

#### (3) Maintenance.

- Maintain all temporary pavement markings and temporary RPMs for the duration of the project and for 14 days after the work is complete.
- If deemed deficient by the Engineer (no longer retroreflective, damaged, displaced, etc.), the Engineer will notify the Contractor in writing
- Replacement could be required within 24 hours.
- Failure to replace the temporary pavement marking or temporary RPMs within the allotted time could result in a deduct of \$500 per day.

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### 805.3.3 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs). - 2

#### (3) Maintenance.

##### Deficiencies

- Continuous markings cannot have deficiencies of more than 10% of the total feet of pavement marking. Also, no more than 50 consecutive feet can be deficient, nor can any deficiency be within 10 feet of another deficiency.
- Intermittent markings, including but not limited to RPMs and broken markings, cannot have deficiencies of more than 10% of the total number of devices (or 10% of the broken markings required) and no more than 2 consecutive devices or markings can be deficient.
- No more than 10% of any temporary marking or temporary RPMs in a curve can be deficient.

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## 805.3.4 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs).

### (4) Temporary Pavement Marking Tape.

- Apply pavement marking tape according to the manufacturer's recommendations.
- If solid lane markings are required, cut through the entire width and thickness of the tape at approximately **100-foot** intervals after it is applied to the pavement.

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## 805.3.4 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs). - 2



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### 805.3.4 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs). - 3



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### 805.3.5 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs).

#### (5) Traffic Line Paint.

Traffic Line Paint. When paint is approved, comply with **SECTION 807.** and Table 805-1

Do not use paint on final surfaces where the markings will not follow the same layout/location

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### 805.3.6 - Temporary Pavement Marking and Temporary Raised Pavement Markers (RPMs).

#### (6) Flexible Raised Pavement Markers.

- With the Engineer's approval, the Contractor may place flexible RPMs in lieu of temporary skip lines and solid lines as shown in the Contract Documents. Adhere according to manufacturer's recommendations.
- When used on asphalt seals, place the flexible RPMs on the roadway prior to the sealing operation and remove the cover protecting the retroreflective material after the sealing operation.
- The adhesive used shall allow the markers to be removed without damage to the roadway surface.

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### 805.3.j. One Way Traffic

Provide 2-way traffic and avoid 1-way traffic, where reasonable. When 1-way traffic is required, do so according to the following:

**(1) Flaggers.** Provide courteous, competent flaggers, able to communicate with the traveling public.

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## 805.3.j.1 - One Way Traffic

### One Way Traffic (page 800-19 & 20)

#### (1) Flaggers.

- Required Training and Certification
  - Flaggers must be trained once every 3 years on the flagger procedures outlined in Part VI of the MUTCD and on the flagger procedures outlined in the KDOT Flagger Handbook
  - Once trained, flaggers shall carry certification cards showing the flagger's name and date of training.
  - Copies of the KDOT Flagger Handbook are available on the KDOT website, from the Engineer

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## 805.3.j.1 - One Way Traffic - 2

### One Way Traffic (page 800-19 & 20)

#### (1) Flaggers – required equipment

- Stop/Slow Paddles:
  - Minimum 18-inch wide Stop/Slow sign
  - minimum of 60 inches long from the end to the bottom of the sign.
- Flags: In emergency situations, equip flaggers with flags that are bright red, a minimum of 24 inches square, and attached to a minimum 36-inch long staff. Flags used at night shall be retroreflective.
- Apparel: Daytime - Flaggers shall wear high visibility headgear and an ANSI Class II vest. Nighttime - ANSI Class E retro-reflectorized pants.
- Illumination: When nighttime work is required, illuminate flagger stations.

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## 805.3.j.1 One Way Traffic - 3

### Flaggers – RED FLAGS

- Planned Operations are NOT an Emergency!
- This means that if the contractor is using the red flags because its going to get windy during the day isn't really an EMERGENCY!
- Flags could be used if the wind comes up to allow them time while they get their equipment off the road and get the roadway safe for the travelling public.
- If you or the Engineer give them permission to use Red Flags during non-emergency situations, you are the ones who become liable if anything happens!
- If they are in a situation where Red Flags are needed to be used, ensure that they are using the appropriate flags!

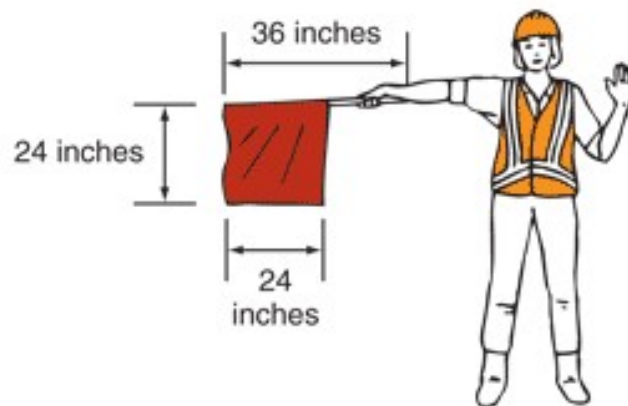
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## 805.3.j.1 One Way Traffic - 4

### Flaggers – RED FLAGS – MUTCD Requirements

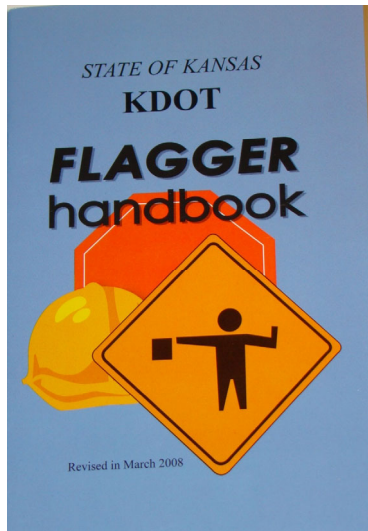


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# Flagger Handbook



Copies of the KDOT Flagger Handbook are available on the KDOT website

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## Flagger Handbook - 2

- All certified, card carrying flaggers should follow this handbook.
- Clothing shall be fluorescent, retro-reflective striping and meet ANSI 107 Class III standards. Plus, a high visibility orange hat.
- No shorts, flip flops, swimsuits, sandals, etc.

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## Flagger Handbook - 3

- STOP/SLOW paddles dimensions (18" X 18")
- 5 foot or 60" to the bottom of the paddle.
- In emergencies a red flag may be used.

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## 805.3.j.1 One Way Traffic - 4



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## 805.3.j.1 One Way Traffic - 5



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## 805 - WORK ZONE TRAFFIC CONTROL & SAFETY

### **TRUTH IN SIGNING**

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## TRUTH IN SIGNING



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## 805.3.j.1 One Way Traffic - 6



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## 805.3.j.1 One Way Traffic - 7



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## 805.3.j.1 One Way Traffic - 8



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### 805.3.j.1 One Way Traffic - 9



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### 805.3.j.1 One Way Traffic - 9



portation



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## 805.3.j.4 - One Way Traffic

### Automated Flagger Assisted Device (AFAD'S)

- AFAD's can only be used if there is an Operator at each device, the work zone is short enough that the operator has unobstructed view of both devices. Unobstructed view of all approaching traffic, and can accurately read the AFAD's indicators
- The Pilot Car Driver **CAN NOT** operate the AFAD!



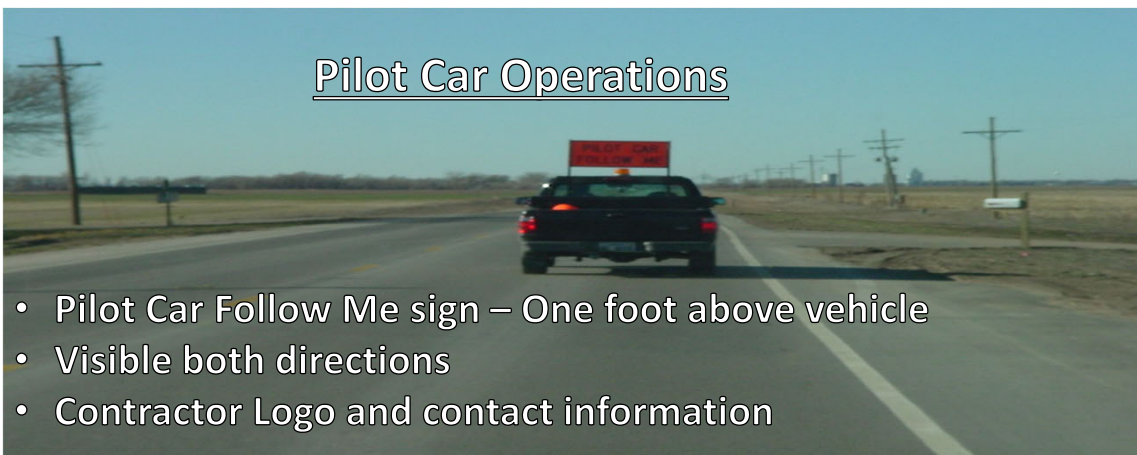
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## 805.3.j.5 - One Way Traffic

### Pilot Car Operations



- Pilot Car Follow Me sign – One foot above vehicle
- Visible both directions
- Contractor Logo and contact information

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## 805.3.j.5 - One Way Traffic - 2



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## 805.3.j.5 - One Way Traffic - 3

### Pilot Car Operations

- Max Speed - 40 MPH  
- 20 MPH by workers
- 15-minute round trip



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## 805.3.k - WORK ZONE TRAFFIC CONTROL & SAFETY

### **k. Height Differential Treatment.**

On projects that carry traffic through construction, the following criteria shall be considered a minimum for treatment of height differentials adjacent to traffic lanes. A height differential is defined as the vertical distance between the top of the surface being constructed (or the riding surface) to the top of the adjacent surface.

Use **TABLE 805-4** to determine what treatment is required for the given situations.

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## 805.3.k - WORK ZONE TRAFFIC CONTROL & SAFETY - 1

### **k. Height Differential Treatment. Cont...**

- When **TABLE 805-4** indicates the use of signs as part of the Traffic Control Plan, place the signs at the beginning of the condition and at each intersecting crossroad or approximately half mile intervals and remove or cover the signs when not applicable.
- When the table indicates the use of a wedge, use hot mix asphalt or other material that will remain intact under anticipated traffic as approved by the Engineer.

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## 805.3.k - WORK ZONE TRAFFIC CONTROL & SAFETY - 2

TABLE 805-4: HEIGHT DIFFERENTIAL TREATMENT

| Condition                                                                                                    | Height Differential ("D")                    | Treatment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal height differential between driving lanes open to traffic                                            | $1 \text{ inch} < D \leq 2 \text{ inches}$   | Use the Uneven Lanes signs (W8-11) as part of the Traffic Control Plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                              | $2 \text{ inches} < D \leq 4 \text{ inches}$ | Use the Uneven Lanes signs (W8-11) as part of the Traffic Control Plan. Construct a 3:1 or flatter slope wedge against the pavement edge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                              | $D > 4 \text{ inches}$                       | This condition is not permitted unless otherwise indicated by the contract documents.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Nominal height differential between driving lane and shoulder or adjacent pavement that is closed to traffic | $D \leq 2 \text{ inches}$                    | Use the Shoulder Drop-Off sign (W8-17 and W8-17P) as part of the Traffic Control Plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                              | $2 \text{ inches} < D \leq 4 \text{ inches}$ | Use Shoulder Drop-Off signs (W8-17 and W8-17P) signs as part of the Traffic Control Plan. Construct a 1:1 or flatter slope wedge against the pavement edge. Channelizing devices may be used instead of a wedge if approved by the Engineer and when placed so the maximum device spacing, measured in feet, is equal to the posted speed limit prior to construction. height differential is expected to last longer than 2 weeks, the use of a 3:1 or flatter slope wedge against the pavement edge is required and the use of channelizing devices instead of a wedge is not permitted unless otherwise indicated in the Contract Documents.                 |
|                                                                                                              | $D > 4 \text{ inches}$                       | To the extent feasible, provide an obstruction free recovery area between the channelizing devices and height differential. Use Shoulder Drop-Off signs (W8-17 and W8-17P) as part of the Traffic Control Plan. <b>Construct a 3:1 or flatter slope wedge against the pavement edge.</b> Channelizing devices may be used instead of a wedge as approved by the Engineer when the channelizers are placed so the maximum device spacing, measured in feet, is equal to the posted speed limit prior to construction and no height differentials greater than 4 inches are left overnight without a wedge, unless otherwise indicated in the Contract Documents. |

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## 805.3.k - WORK ZONE TRAFFIC CONTROL & SAFETY - 3



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## 805.3.i - WORK ZONE TRAFFIC CONTROL & SAFETY

### 805.3i Weather and Increased Traffic Volume Conditions

- During periods of inclement weather, or during periods of unusually heavy traffic, from any cause, the Engineer may require construction operations to cease in order to adequately handle traffic.

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## 805.4 - WORK ZONE TRAFFIC CONTROL & SAFETY

### a. General

No Adjustments in the contract unit price will be made regardless of the amount of underruns or overruns.

**b. Traffic Control (Lump Sum).** When traffic control is shown in the Contract Documents as a lump sum it will be measured as such. The Engineer will not measure Uneven Lane signs (W8-11), Shoulder Drop Off signs (W8-17 and W8-17P), or wedge material for separate payment.

| TABLE 805-5: TRAFFIC CONTROL (LUMP SUM) PARTIAL PAYMENTS |                       |                               |
|----------------------------------------------------------|-----------------------|-------------------------------|
| Percent of Original Contract Amount Completed*           | Pay Lesser of the Two |                               |
|                                                          | % of Traffic Control  | % of Original Contract Amount |
| 10                                                       | 50                    | 5                             |
| 80                                                       | 100                   | 10                            |
| 100                                                      | 100                   | NA                            |

\*The Percent of Original Contract Amount Completed = the amount earned by the Contractor\*\* divided by the total dollar value of the original contract (all bid items).

\*\*Do not include monies earned for "Stored Materials".

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## 805.4.c - WORK ZONE TRAFFIC CONTROL & SAFETY

### **c. Individual Devices and Pavement Marking.**

(1) General. When bid items are shown in the Contract Documents for individual traffic control devices, the Engineer will measure each item by the designated unit when the device is required and in acceptable condition and position. Once the Contractor has been notified, payment will not be made for any traffic control devices that remain in an unacceptable condition beyond the time specified in the notification.

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## 805.4.c - WORK ZONE TRAFFIC CONTROL & SAFETY - 2

c. (11) Traffic Control (Initial Set Up). If the amount bid for this item is less than 25% of the sum of amounts bid for all traffic control items, 100% of the amount bid for this item will be paid on the first estimate following the beginning of any traffic control set up done on the project. If the bid amount for this item is 25%, or greater, than the sum of the amounts bid for all traffic control items, the amount equal to 25% of the sum of the amounts bid for all traffic control items will be paid on the first estimate following any traffic control set up done on the project. Upon completion of all work on the project, 100% of the amount bid for this item will be paid.

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## 805.4.c - WORK ZONE TRAFFIC CONTROL & SAFETY - 3

| SECTION 15<br>TRAFFIC CONTROL ITEMS |        |                                                                         |               |              |
|-------------------------------------|--------|-------------------------------------------------------------------------|---------------|--------------|
| 150                                 | 025331 | 42240.00 EADA<br>WORK ZONE SIGNS ( 0 TO 9.25 SQ.FT.) /                  | \$0.200       | \$8,448.00   |
| 151                                 | 025332 | 41360.00 EADA<br>WORK ZONE SIGNS ( 9.26 TO 16.25 SQ.FT.) /              | \$0.200       | \$8,272.00   |
| 152                                 | 025333 | 4400.00 EADA<br>WORK ZONE SIGNS (16.26 SQ.FT. & OVER) /                 | \$0.400       | \$1,760.00   |
| 153                                 | 025376 | 72160.00 EADA<br>WORK ZONE BARRICADES (TYPE 3 - 4 TO 12 LIN. FT.) /     | \$0.300       | \$21,648.00  |
| 154                                 | 011491 | 78320.00 EADA<br>CHANNELIZER (FIXED) /                                  | \$0.110       | \$8,615.20   |
| 155                                 | 011492 | 128480.00 EADA<br>CHANNELIZER (PORTABLE) /                              | \$0.110       | \$14,132.80  |
| 156                                 | 025343 | 35200.00 EADA<br>WORK ZONE WARNING LIGHT (TYPE "A" LOW INTENSITY) /     | \$0.200       | \$7,040.00   |
| 157                                 | 025337 | 1760.00 EADA<br>WORK ZONE WARNING LIGHT (RED TYPE "B" HIGH INTENSITY) / | \$0.450       | \$792.00     |
| 158                                 | 025364 | 880.00 EADA<br>ARROW DISPLAY /                                          | \$4.000       | \$3,520.00   |
| 159                                 | 070916 | 692.00 STAL<br>PAVEMENT MARKING (TEMP) 4" SOLID (TYPE I) /              | \$87.000      | \$60,204.00  |
| 160                                 | 070917 | 136.00 STAL<br>PAVEMENT MARKING (TEMP) 4" SOLID (TYPE II) /             | \$33.000      | \$4,290.00   |
| 161                                 | 070918 | 2.00 STAL<br>PAVEMENT MARKING (TEMP) 4" DOTTED EXTENSION (TYPE I) /     | \$98.000      | \$196.00     |
| 162                                 | 013019 | 5677.00 INFT<br>PAVEMENT MARKING REMOVAL /                              | \$0.400       | \$2,270.80   |
| 163                                 | 070620 | 355.00 EACH<br>RIGID RAISED PAVEMENT MARKER (TYPE II) /                 | \$27.000      | \$9,585.00   |
| 164                                 | 072116 | 1.00 LS<br>TRAFFIC CONTROL (INITIAL SETUP) /                            | \$121,500.000 | \$121,500.00 |
| Section 15 Total                    |        |                                                                         |               | \$272,628.80 |

Initial Setup = \$121,500.00  
TC Section Total = \$272,628.80

Initial Setup % of Total = 44.6%

Initial estimate pay 25% of the TC Section Total  
**\$68,157.20**

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## 805.4.c - WORK ZONE TRAFFIC CONTROL & SAFETY - 4

c. (12) Uneven Lane and Shoulder Drop Off Signs. When individual traffic control bid items are shown in the Contract Documents, the Engineer will measure the Uneven Lane signs (W8-11) and the Shoulder Drop Off signs (W8-17 and W8-17P) each per day. See subsection 805.4b. when traffic control is bid lump sum.

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## 805.4.c - WORK ZONE TRAFFIC CONTROL & SAFETY – 5

c. (13) Liquidated Damages. Once the Contractor is being assessed liquidated damages according to SECTION 108, no traffic control devices will be measured for payment. This does not relieve the Contractor from the responsibility for providing and maintaining all necessary traffic control on the project until it has been completed and accepted. Such traffic control will be at the Contractor's expense.

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## End of Workzone Specs



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## Traffic Engineering Standards

# Traffic Engineering Standards (T.E. Sheets)

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## Traffic Engineering Standards - 2

**T.E. Sheets that are referenced in this class are located in your Inspection Workbook . For online class it is best to print them on 11x17 paper.**

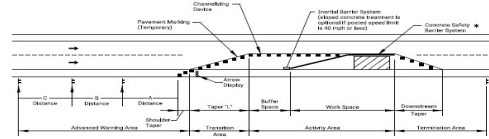
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# Traffic Engineering Standards - 3

- 1) Design Speed: These items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.
- 2) Minimum Lane Width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.
- 3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrian should be discouraged with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicle traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt crossing the work site or making a midblock crossing.
- 4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
- 5) When the driving surface open to traffic is milled or is a temporary surface made of loose material or when directed by the engineer a Work (Enclosed Pavement) or WP-7 (Zone Gravel) sign shall be used on mainline approaches. This sign should be placed 1/2 mile (prior to the W200, Road Work Ahead) sign. A WP-7 (Zone Gravel) sign should be used to supplement the W200 or W207 signs. All signs shall be displayed as long as the condition is present.
- 6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-996-1179 or 785-996-1183.



TYPICAL WORK ZONE COMPONENTS

When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

| Minimum advance warning sign spacing (in feet) |      |      |      |
|------------------------------------------------|------|------|------|
| SPEED (MPH)                                    | A    | B    | C    |
| URBAN (40 MPH OR LOWER)                        | 100  | 100  | 100  |
| URBAN (40 MPH OR FASTER)                       | 200  | 200  | 200  |
| RURAL (35 MPH OR LOWER)                        | 500  | 500  | 500  |
| RURAL (35 MPH OR FASTER)                       | 700  | 700  | 700  |
| EXPRESSWAY/FREEWAY                             | 1000 | 1500 | 2640 |

Posted speed prior to work starting  
The maximum spacing between signs shall be no less than 100', unless directed by the engineer. The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

Buffer Space

| SPEED (MPH) | 20  | 25  | 30  | 35  | 40  | 45  | 50  | 55  | 60  | 65  | 70  | 75  |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LENGTH (FT) | 115 | 135 | 160 | 190 | 220 | 260 | 300 | 360 | 420 | 490 | 570 | 645 |

Posted speed prior to work starting  
Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.  
If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.

Taper Formula:

$L = WS$  for speeds of 45 MPH or more

$L = WS^2/60$  for speeds of 40 MPH or less

Where: L = Minimum length of taper in feet

S = Numerical value of posted speed prior to work starting in MPH

W = Width in offset feet

Shifting Taper=1/2 L

Shoulder Taper=1/3 L

Channelizer Placement:

(1) The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.

(2) The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.

(3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.

(4) Place directional indicator barrels in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.

(5) Alternating diagonal orange and white stripes must slope downward in the direction traffic is expected to pass.

| Kansas Department of Transportation |      |            |          |
|-------------------------------------|------|------------|----------|
| PROJECT NO.                         | DATE | DESIGN NO. | REVISION |
| XXXX-XXXX-XXXX                      | XXXX | XXXX       | XXXX     |

TRAFFIC CONTROL GENERAL NOTES

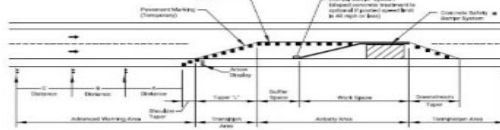
TC730

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# Traffic Engineering Standards - 4



TYPICAL WORK ZONE COMPONENTS

When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

| Minimum advance warning sign spacing (in feet) |      |      |      |
|------------------------------------------------|------|------|------|
| SPEED (MPH)                                    | A    | B    | C    |
| URBAN (40 MPH OR LOWER)                        | 100  | 100  | 100  |
| URBAN (40 MPH OR FASTER)                       | 200  | 200  | 200  |
| RURAL (35 MPH OR LOWER)                        | 500  | 500  | 500  |
| RURAL (35 MPH OR FASTER)                       | 700  | 700  | 700  |
| EXPRESSWAY/FREEWAY                             | 1000 | 1500 | 2640 |

Posted speed prior to work starting  
The minimum spacing between signs shall be no less than 100', unless directed by the engineer. The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

Buffer Space

| SPEED (MPH) | 20  | 25  | 30  | 35  | 40  | 45  | 50  | 55  | 60  | 65  | 70  | 75  |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LENGTH (FT) | 115 | 135 | 160 | 190 | 220 | 260 | 300 | 360 | 420 | 490 | 570 | 645 |

Posted speed prior to work starting  
Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.  
If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.

Taper Formula:

$L = WS$  for speeds of 45 MPH or more

$L = WS^2/60$  for speeds of 40 MPH or less

Where: L = Minimum length of taper in feet

S = Numerical value of posted speed prior to work starting in MPH

W = Width in offset feet

Shifting Taper=1/2 L

Shoulder Taper=1/3 L

Channelizer Placement:

(1) The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.

(2) The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.

(3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.

(4) Place directional indicator barrels in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.

(5) Alternating diagonal orange and white stripes must slope downward in the direction traffic is expected to pass.

| Kansas Department of Transportation |      |            |          |
|-------------------------------------|------|------------|----------|
| PROJECT NO.                         | DATE | DESIGN NO. | REVISION |
| XXXX-XXXX-XXXX                      | XXXX | XXXX       | XXXX     |

TRAFFIC CONTROL GENERAL NOTES

TC730

Kansas Department of Transportation



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## Traffic Engineering Standards – 5

|                                     |        |            |       |                   |           |
|-------------------------------------|--------|------------|-------|-------------------|-----------|
| KANSAS DEPARTMENT OF TRANSPORTATION |        |            |       |                   |           |
| TRAFFIC CONTROL<br>GENERAL NOTES    |        |            |       |                   |           |
| TE700                               |        |            |       |                   |           |
| FHWA APPROVAL                       |        | 03/13/18   |       | APP'D Eric Kocher |           |
| DESIGNED                            | B.A.H. | DETAILED   | R.W.B | QUANTITIES        | TRACED    |
| DESIGN CK.                          |        | DETAIL CK. |       | QUAN. CK.         | TRACE CK. |

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## Traffic Engineering Standards - 6

- Included in every contract or set of plans
- Should be strictly followed unless approved by District or Traffic Engineering Section of the Bureau of Transportation Safety and Technology.

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## Project Plans

- Traffic Engineering (TE ) Standards included with plans
- Some may be Project specific
- May also address traffic control items such as “ Traffic Handling and Construction Sequence” or phases

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## TE 700

### General Traffic Control

Kansas Department of Transportation



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## TE 700 - General Notes

- Design speed – posted/legal Speed before work starting
- Minimum lane width considerations – 11ft, less may require restricted roadway signing
- Pedestrian Considerations:
- When the driving surface open to traffic is milled, is a temporary surface made of loose material, or when directed by the engineer use the W8-15 (Grooved pavement)...

1) Design Speed: Those items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.

2) Minimum lane width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.

3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.

4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.

5) When the driving surface open to traffic is milled, is a temporary surface made of loose material, or when directed by the engineer use the W8-15 (Grooved Pavement) or W8-7 (Loose Gravel) a "C" distance after the W20-1 (Road Work Ahead) on mainline approaches. Signs may be used with the W8-15p motorcycle plaque as directed by the engineer. Display signs in advance of the condition as long as the condition is present.

6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-0355 or 785-296-1183.

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## TE 700 - General Notes Cont'd

### Minimum lane width

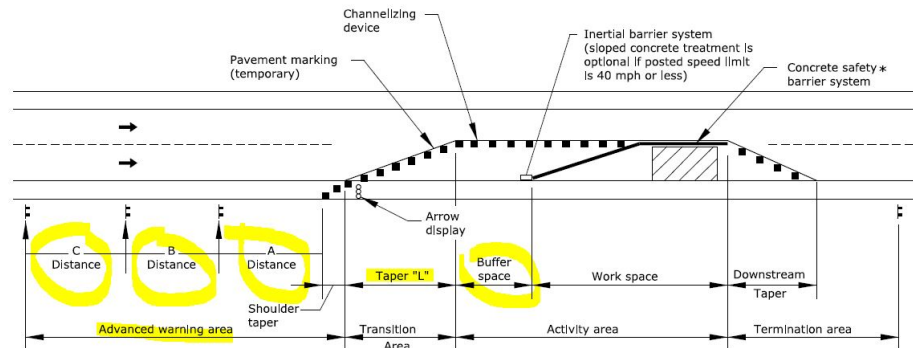


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## TE 700 Typical work Zone components



**TYPICAL WORK ZONE COMPONENTS**

\* When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

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## TE 700 Minimum Advance Warning

*Minimum advance warning sign spacing (in feet):*

| SPEED (MPH) *            | A    | B    | C    |
|--------------------------|------|------|------|
| URBAN (40 MPH OR LOWER)  | 100  | 100  | 100  |
| URBAN (45 MPH OR HIGHER) | 350  | 350  | 350  |
| RURAL (55 MPH OR LOWER)  | 500  | 500  | 500  |
| RURAL (60 MPH OR HIGHER) | 750  | 750  | 750  |
| EXPRESSWAY/FREEWAY       | 1000 | 1500 | 2640 |

\* Posted speed prior to work starting

The minimum spacing between signs shall be no less than 100', unless directed by the engineer.

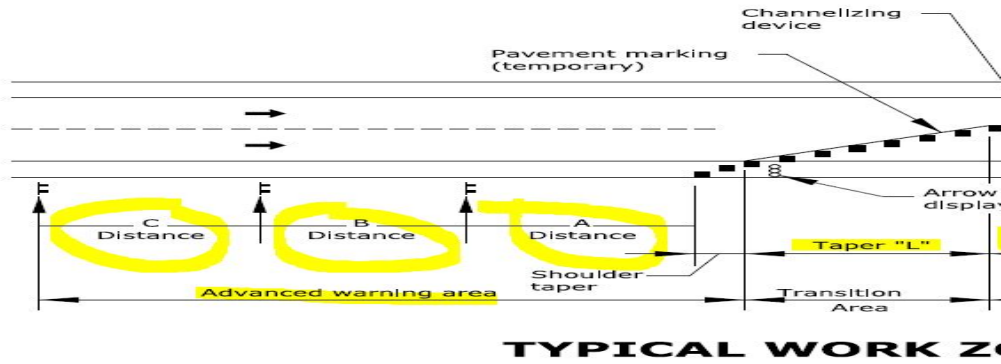
The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

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## TE 700 Min. Advance Warning Sign Spacing



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## Min. Advance Warning Sign Spacing Cont'd



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Buffer Space

| SPEED (MPH) * | 20  | 25  | 30  | 35  | 40  | 45  | 50  | 55  | 60  | 65  | 70  | 75  |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LENGTH (ft)   | 115 | 155 | 200 | 250 | 305 | 360 | 425 | 495 | 570 | 645 | 730 | 820 |

\* Posted speed prior to work starting

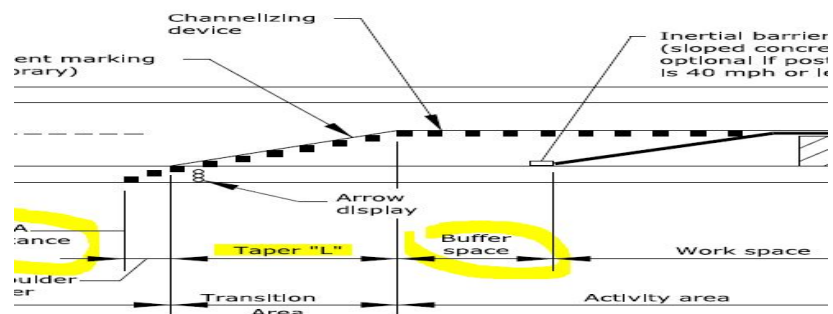
Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.

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### TYPICAL WORK ZONE COMPONENTS

\* When concrete safety barrier devices are not used

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*Taper Formulas:* *$L = WS$  for speeds of 45 MPH or more* *$L = WS^2/60$  for speeds of 40 MPH or less**Where:  $L$  = Minimum length of taper in feet* *$S$  = Numerical value of posted speed  
prior to work starting in MPH* *$W$  = Width in offset feet**Shifting Taper =  $1/2 L$* *Shoulder Taper =  $1/3 L$* 

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Taper Formula 45 MPH+

What would be the minimum length of taper necessary to move traffic over 10 feet on a roadway with a posted speed limit of 50 MPH?

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Taper Formula 45 MPH+

What would be the minimum length of taper necessary to move traffic over 10 feet on a roadway with a posted speed limit of 50 MPH?

$L = \text{Width} \times \text{Speed Limit}$

$L = WS$  for speeds of 45 MPH or greater

$L = 10 \text{ feet} \times 50 \text{ mph} = 500 \text{ feet}$

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TE700 Taper Formula 40 MPH or less

What would be the minimum length of taper necessary to move traffic over 12 feet on a roadway with a posted speed limit of 35 MPH?

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## TE700 Taper Formula 40 MPH or less Cont'd

What would be the minimum length of taper necessary to move traffic over **12** feet on a roadway with a posted speed limit of **35** MPH?

$$L = WS^2 / 60$$

$$L = \mathbf{12} \times (\mathbf{35})^2 / 60$$

$$L = 12 \times 1225 / 60$$

$$L = 14700 / 60$$

$$L = 245 \text{ feet}$$

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## TE 700 Tapers

What would be the minimum length of taper necessary to move traffic over **6** feet on a roadway with a posted speed limit of **40** MPH?

Traffic Control

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## TE 700 Tapers cont'd

### Taper Formula 40 MPH or less

What would be the minimum length of taper necessary to move traffic over 6 feet on a roadway with a posted speed limit of 40 MPH?

$$L = WS^2 / 60$$

$$L = 6 \times (40)^2 / 60$$

$$L = 6 \times 1600 / 60$$

$$L = 9600 / 60$$

$$L = 160 \text{ Feet}$$

Traffic Control

Kansas Department of Transportation

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## TE 700

## Channelizing Devices

### Channelizer Placement:

- (1) The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.
- (2) The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.
- (3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.
- (4) Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.
- (5) Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

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# TE 702 Channelizing Devices

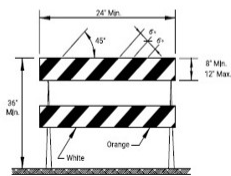
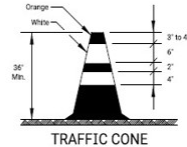
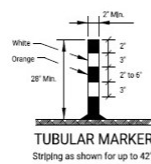
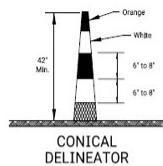
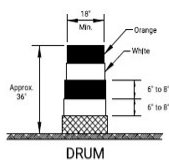
## Channelizing Devices

Kansas Department of Transportation

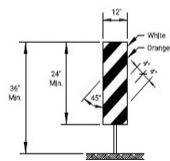


159

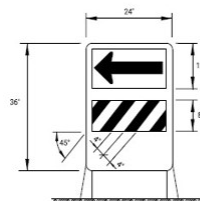
## TE 702 Channelizing Devices Cont'd



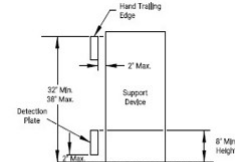
**TYPE 2 BARRICADE**  
For rails less than 36\"/>



**VERTICAL PANEL**  
The stripes shall slope downward to the traffic side for channelization.



**DIRECTION INDICATOR BARRICADE**  
The stripes shall slope downward in the direction traffic is to pass. The direction indicator barricade shall be used in series to direct the motorist into the intended lane of travel.



1. Support device shall not project beyond the detection plate into the pathway.
2. Hand trailing edges and detection plates are optional for continuous walls.
3. Interconnect pedestrian channelizers to prevent displacement and to provide continuous guidance through or around work.
4. Alternate pathways shall be firm, stable, and slip resistant.
5. Treat height differential > 1/2\"/>

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## Channelizing Devices Options

| Item \ Location |                               | Cross-overs | Shoofly Diversions | Tangents | Tapers | Ramps | Head to Head | Object Identifier | Lead-in Devices | Gores |
|-----------------|-------------------------------|-------------|--------------------|----------|--------|-------|--------------|-------------------|-----------------|-------|
| Portable        | Drums                         | Yes         | Yes                | Yes      | Yes    | Yes   | (1)          | Yes               | Yes             | Yes   |
|                 | Conical Delineators           | Yes         | Yes                | Yes      | Yes    | Yes   | (1)          | Yes               | Yes             | Yes   |
|                 | Vertical Panels               | (2)         | (2)                | (2)      | (2)    | (2)   | (1,2)        | Yes               | (2)             | (2)   |
|                 | Direction Indicator Barricade | No          | No                 | No       | Yes    | No    | No           | No                | No              | No    |
|                 | Type 2 Barricade              | (2)         | (2)                | (2)      | (2)    | No    | No           | Yes               | No              | No    |
|                 | Traffic Cones                 | No          | No                 | (4)      | (4)    | (4)   | No           | (4)               | (4)             | (4)   |
| Fixed           | Tubular Markers               | (3)         | (3)                | (3)      | No     | (3)   | Yes          | No                | Yes             | Yes   |
|                 | Vertical Panels               | (3)         | (3)                | (3)      | (3)    | (3)   | (3)          | Yes               | (2,3)           | (2)   |

- (1) Not allowed on centerline delineation along freeways or expressways.  
 (2) The stripes shall slope downward to the traffic side for channelization.  
 (3) May be used upon the approval of the engineer.  
 (4) Daytime operations only.

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## TE 702 Channelizing Devices cont'd - 2

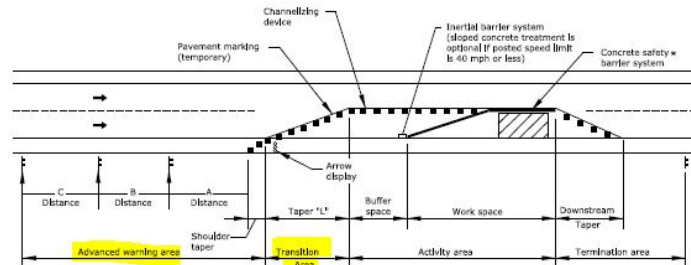


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## Channelizer Placement



Where can you find how to calculate what the maximum spacing between channelizing devices in a **Transition Area (Taper)** with a posted speed limit prior to the work zone of 70 MPH and a work zone speed limit of 30 MPH ?

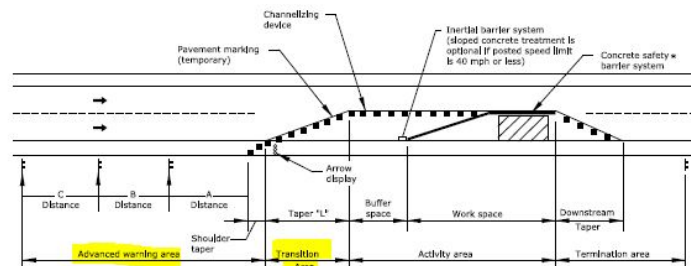
TE700 & Std Spec Section 805.3f

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## Channelizer Placement - 2



What is the maximum spacing between channelizing devices in a **Transition Area (Taper)** with a posted speed limit prior to the work zone of 70 MPH and a work zone speed limit of 30 MPH

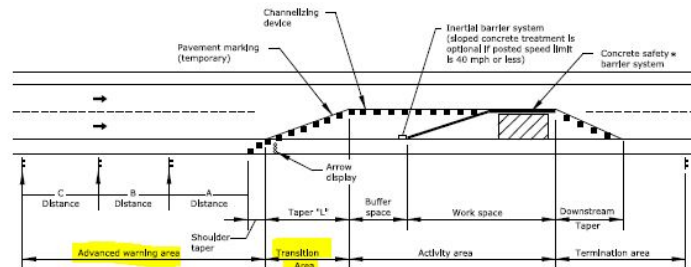
$\frac{1}{2}$  the posted speed limit prior to work starting:  $\frac{1}{2}(70 \text{ MPH}) = 35\text{ft}$

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## Channelizer Placement - 3



- What is the maximum spacing between channelizing devices in the Advanced Warning Area (Taper) with a speed limit of 35 MPH ?

2 times the posted speed limit prior to work starting:  $2(35 \text{ MPH}) = 70\text{ft}$

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## Channelizer Placement - 4



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## TE 704 Traffic Control Closures

# Road Closures

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## TE 704 Traffic Control Closures -2

### Type III Barricades

- To fully close a road, place Type 3 barricades end-to-end across entire work area, including pavement and widened shoulders if present. Place barricades with striping sloped downward toward the center of the road.
- When contractor access is required, stagger barricades longitudinally far enough apart that the intended vehicles can safely weave through while still maintaining the appearance of a full closure from the approach.

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## TE 704 Traffic Control Closures - 3

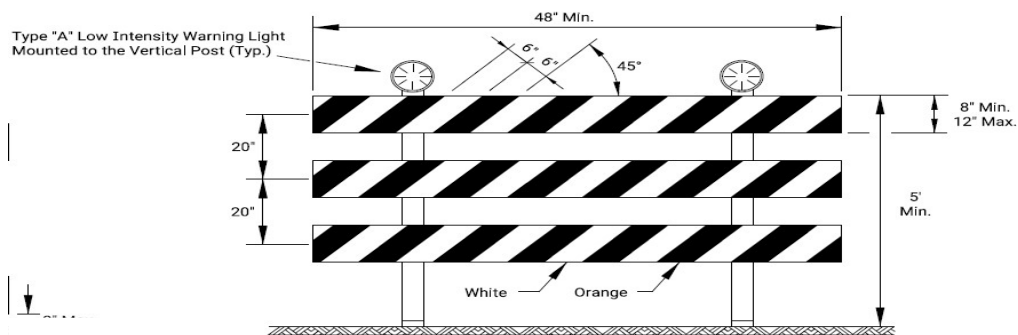


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## TE 704 Type III Barricades



TYPE 3 BARRICADE WITH LIGHTS

Approved signs mounted on Type 3 barricades should not cover more than 50% of the top two rails or 33% of the total area of the three rails.

When barricades are placed end-to-end or staggered, a Type "A" low intensity warning light shall be mounted to the vertical post near each outside corner of the end barricades.

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## Type III Barricade Examples

Look good?



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## Type III Barricade Examples - 2

How about this?



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## Type III Barricade Examples - 3

“Pass To Left”



“Road Closed”

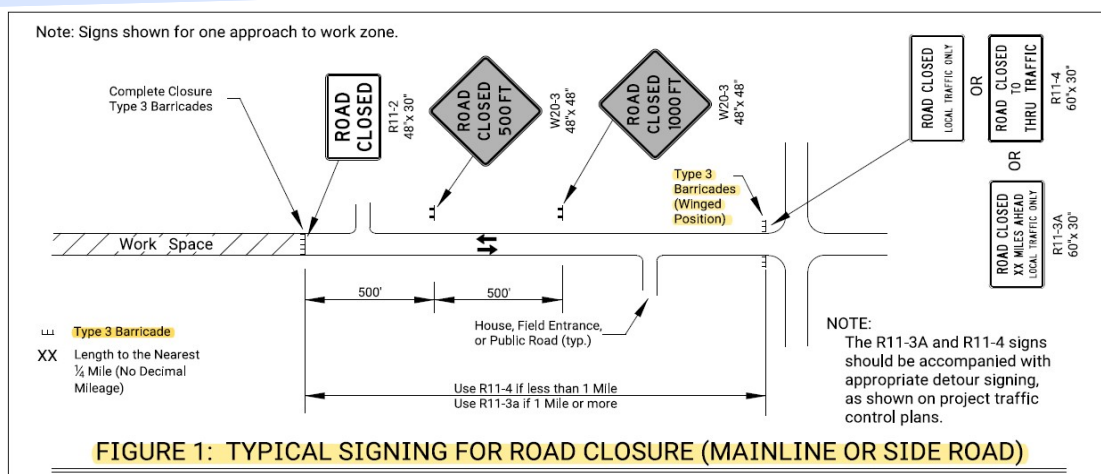


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## TE 704 Road Closures signing



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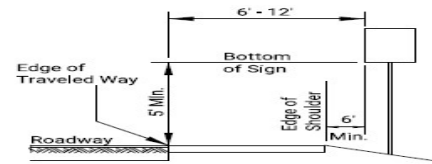






## TE 710 Traffic Control Sign Information - 3

Standard size signs in Rural areas shall be mounted at a minimum height of 5 feet to bottom of sign (secondary: 4 ft to bottom).



### RURAL

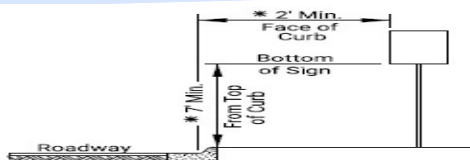
- 1) Ground-mounted signs shall be mounted at a minimum height of 5' measured from the bottom of sign to the near edge of the pavement.
- 2) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.
- 3) The height of the secondary sign mounted below another sign may be 4' measured from the bottom of the sign to the near edge of the pavement. Signs shall not overlap each other.

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## TE 710 Traffic Control Sign Information - 4



### URBAN

- 1) Signs shall be mounted at a minimum height of 7' measured from the bottom of sign to the near edge of the pavement.
- 2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.
- 3) Signs mounted lower than 7' should not project more than 4" into pedestrian facilities.
- 4) The height from of the secondary sign mounted below another sign may be 6' measured from the bottom of sign to the near edge of the pavement. Signs shall not overlap each other.
- 5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.
- \* 6) Pedestrian detour signing shall be a minimum of 2' measured from the top of the pedestrian pathway to the bottom of the sign and shall not protrude into the walkway nor shall it project beyond the back of curb.

Standard size signs in Urban areas shall be mounted at a minimum height of 7 feet to bottom of sign (secondary 6 ft to bottom).

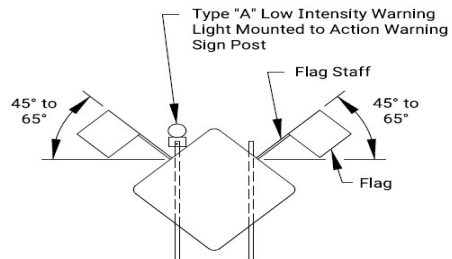
Kansas Department of Transportation



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## TE 710 Traffic Control Sign Information - 5



When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood posts.

In the case of hitting rock when driving posts

1. Shift the sign location. Do not violate minimum sign spacing.
2. With the engineer's approval, use acceptable alternative sign stands.

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## Traffic control set up with portable signs



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# TE 712 Approved Temporary Post Setups

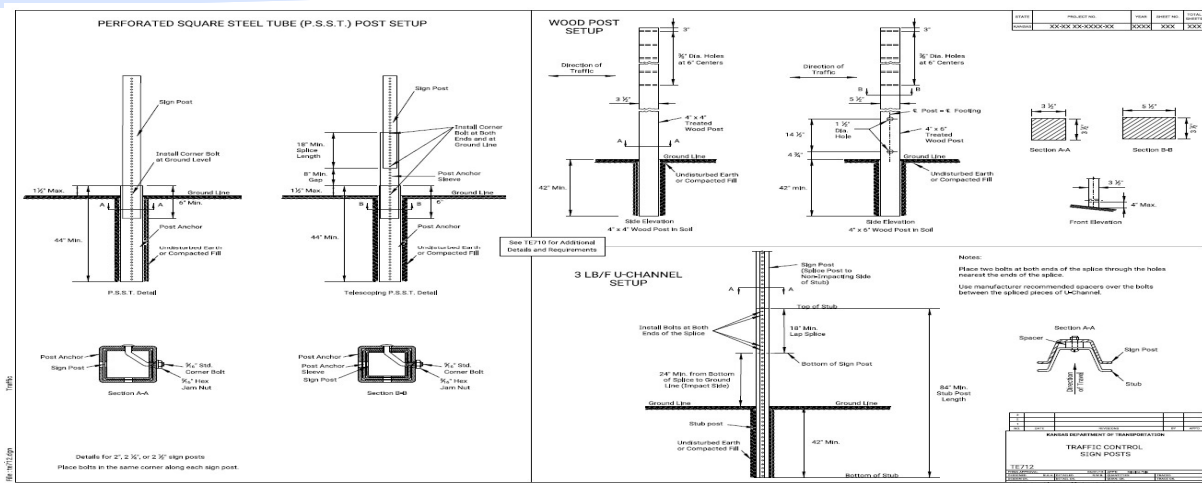
## Approved Temporary Post Setups

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## TE 712 Approved Temporary Post Setups Cont'd

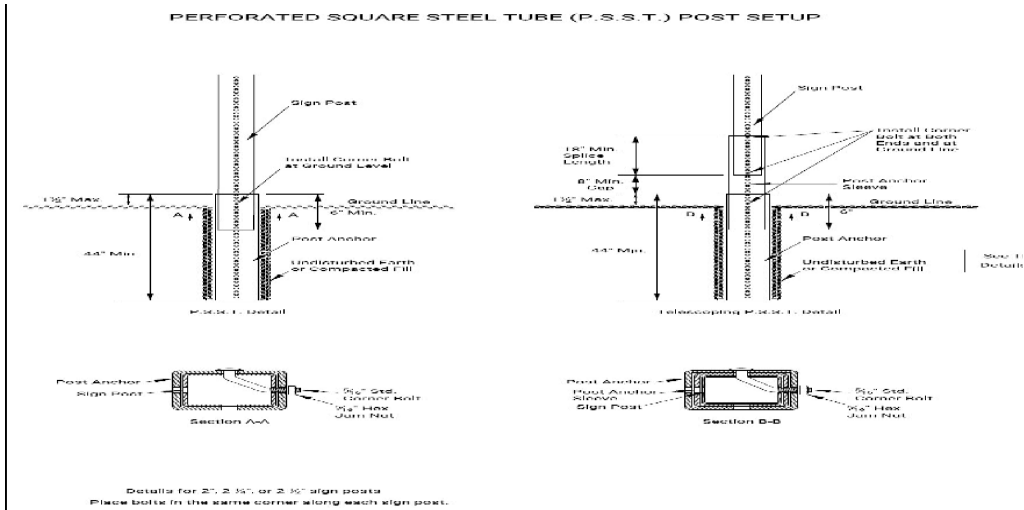


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## TE 712 PSST Setups



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## Post Mounted Sign

### Perforated Square Steel Tube (P.S.S.T.)



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## TE 712 PSST Setups

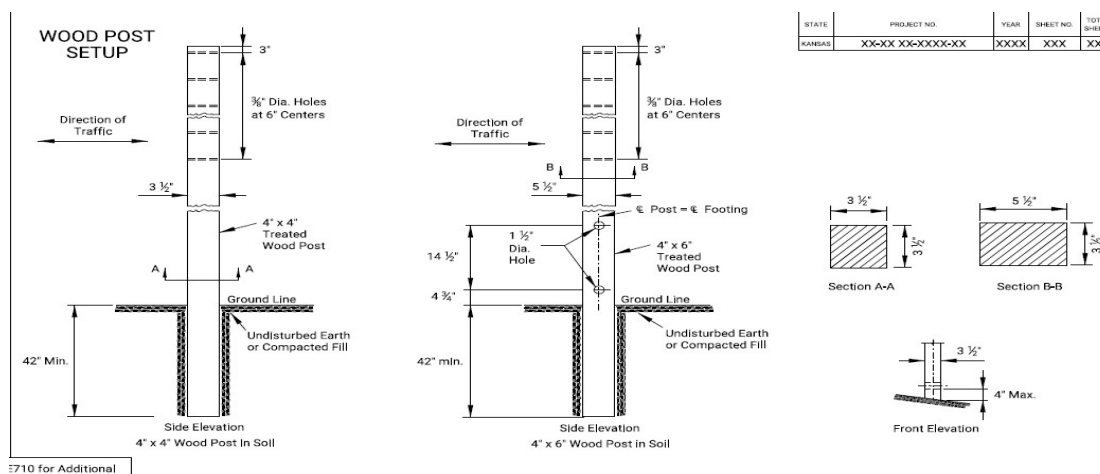


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## TE 712 Wood Post Setups



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## TE 720 Shoulder Work Undivided Roadway Cont'd

### Notes:

No traffic control is required if the Work Space is located outside of the clear zone.

For operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with high-intensity rotating, flashing, oscillating, or strobe lights is used.

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## T.E. 724 Lane Shift

### Lane Shift

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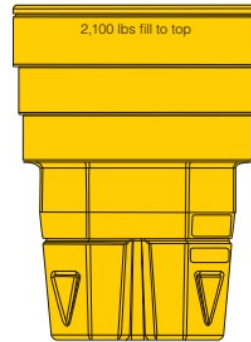
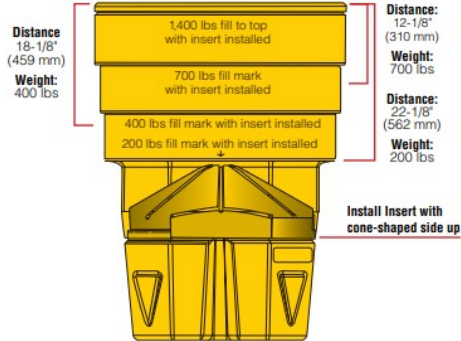
## Inertial Barrier Systems - 3

### MASH REQUIREMENTS:

Barrels shipped after April 1, 2019 show a "1,400 lbs fill to top with insert installed" mark at the top of the barrel.

The 2,100 lbs barrel does not require an Insert to meet MASH requirements. Fill with sand to the "2,100 lbs fill to top" mark.

To Meet MASH requirements:



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## Inertial Barrier Systems - 4



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## Inertial Barrier Systems - 5



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## TE 730 Typical Traffic Control

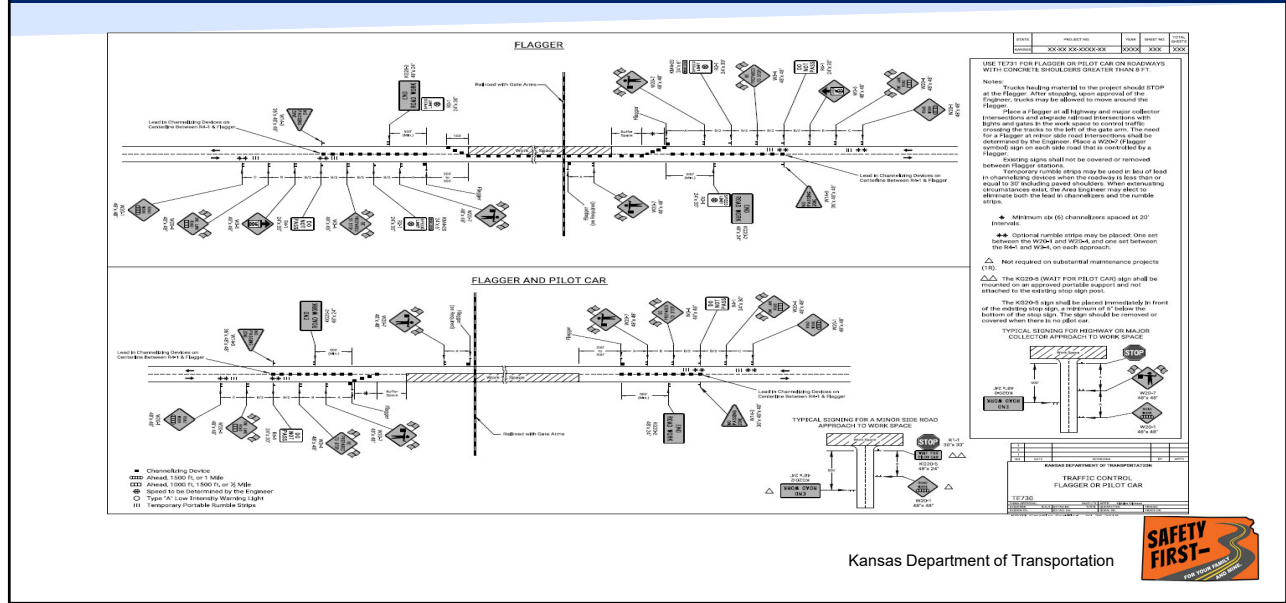
**Typical Traffic Control Flagger or  
Pilot Car Two Lane One Lane Closed**

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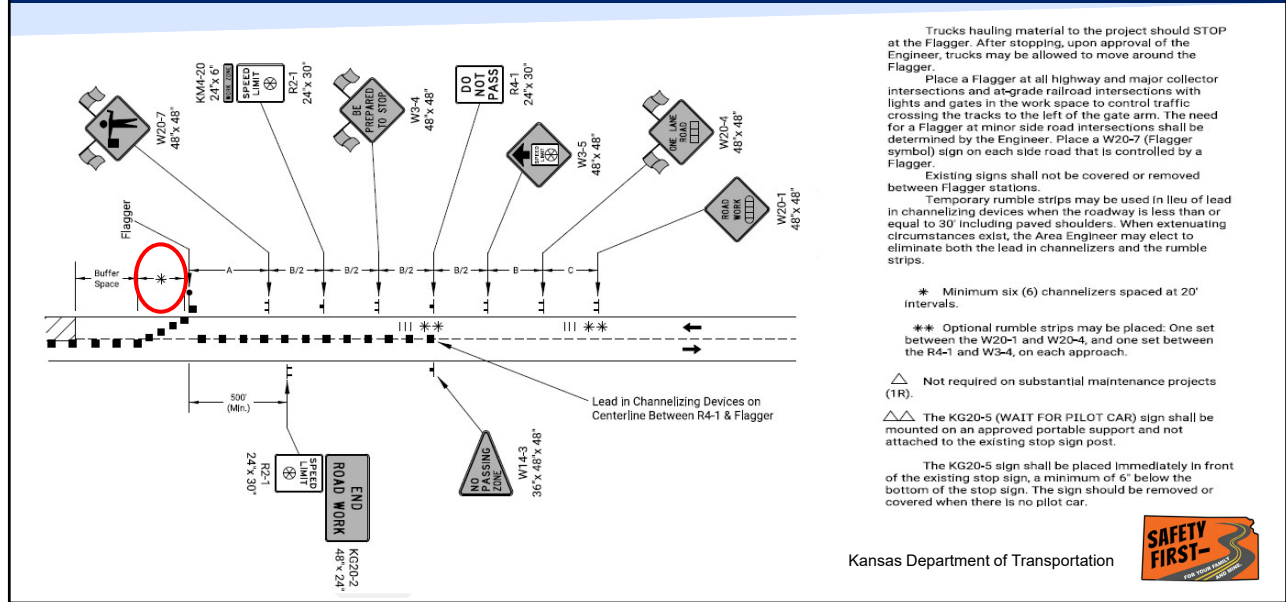
200

## TE 730 Typical Traffic Control - 2



**SAFETY FIRST—**  
FOR YOUR FAMILY  
AND MINE.

## TE 730 Typical Traffic Control Flagger



**SAFETY FIRST—**  
FOR YOUR FAMILY  
AND NO MORE.

## TE 730 General Notes - Flagger

USE TE731 FOR FLAGGER OR PILOT CAR ON ROADWAYS WITH CONCRETE SHOULDERS GREATER THAN 8 FT.

**Notes:**

Trucks hauling material to the project should STOP at the Flagger. After stopping, upon approval of the Engineer, trucks may be allowed to move around the Flagger.

Place a Flagger at all highway and major collector intersections and at-grade railroad intersections with lights and gates in the work space to control traffic crossing the tracks to the left of the gate arm. The need for a Flagger at minor side road intersections shall be determined by the Engineer. Place a W20-7 (Flagger symbol) sign on each side road that is controlled by a Flagger.

Existing signs shall not be covered or removed between Flagger stations.

Temporary rumble strips may be used in lieu of lead in channelizing devices when the roadway is less than or equal to 30' including paved shoulders. When extenuating circumstances exist, the Area Engineer may elect to eliminate both the lead in channelizers and the rumble strips.

\* Minimum six (6) channelizers spaced at 20' intervals.

\*\* Optional rumble strips may be placed: One set between the W20-1 and W20-4, and one set between the R4-1 and W3-4, on each approach.

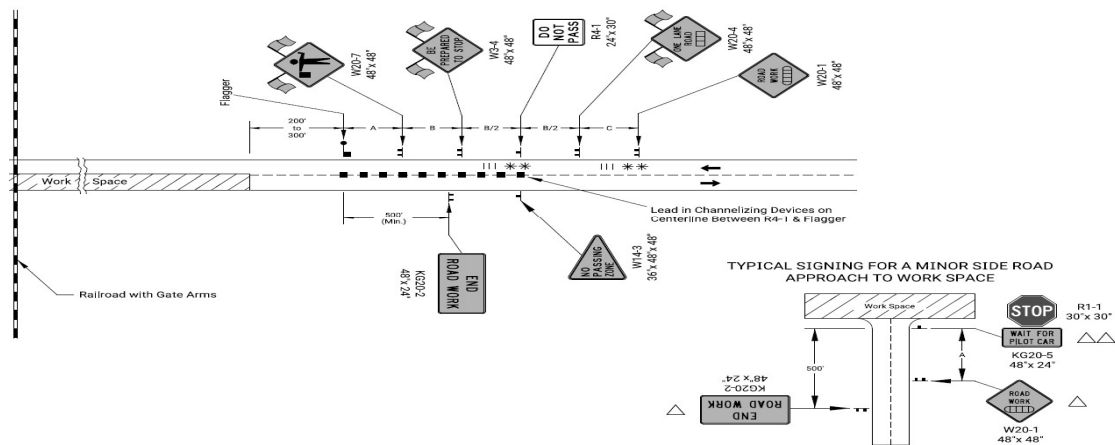
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## TE 730 Typical Traffic Control Flagger and Pilot Car

### FLAGGER AND PILOT CAR



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### Sign examples:

# TE 730 Typical Traffic Control Flagger Documentation



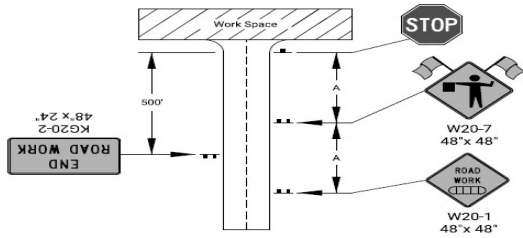
## TE 730 General Notes - Flagger/ Pilot Car

△ Not required on substantial maintenance projects (1R).

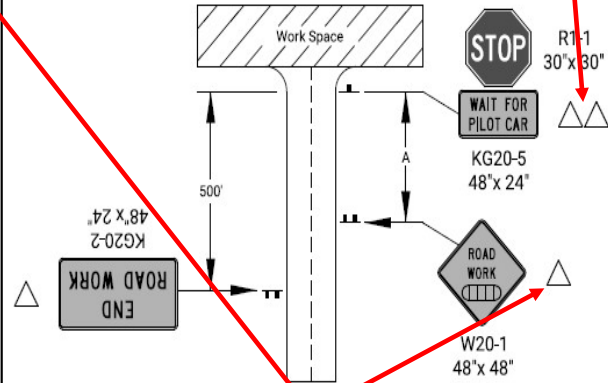
△△ The KG20-5 (WAIT FOR PILOT CAR) sign shall be mounted on an approved portable support and not attached to the existing stop sign post.

The KG20-5 sign shall be placed immediately in front of the existing stop sign, a minimum of 6" below the bottom of the stop sign. The sign should be removed or covered when there is no pilot car.

TYPICAL SIGNING FOR HIGHWAY OR MAJOR COLLECTOR APPROACH TO WORK SPACE



TYPICAL SIGNING FOR A MINOR SIDE ROAD APPROACH TO WORK SPACE



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207

## TE 730 General Notes - Flagger/ Pilot Car Cont'd



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## TE 731 Typical Traffic Control Flagger Concrete Shoulders > 8 ft

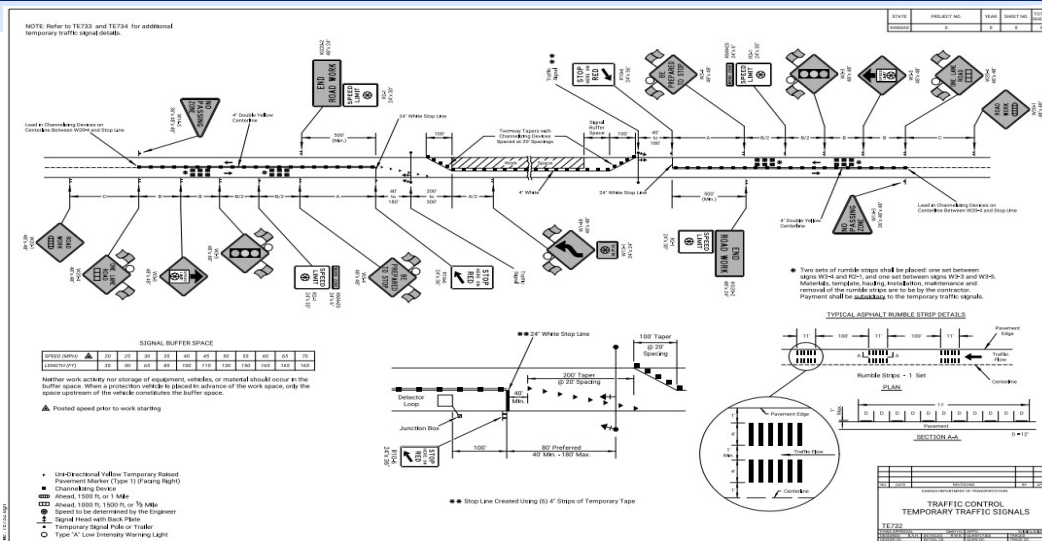
- Includes additional signing ( lane shift and advisory M.P.H.) and a 4 ft. offset for lead in channelizing devices on 2-lane highways with concrete shoulders equal to or greater than 8 ft.

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## TE 732 Temporary Traffic Signals



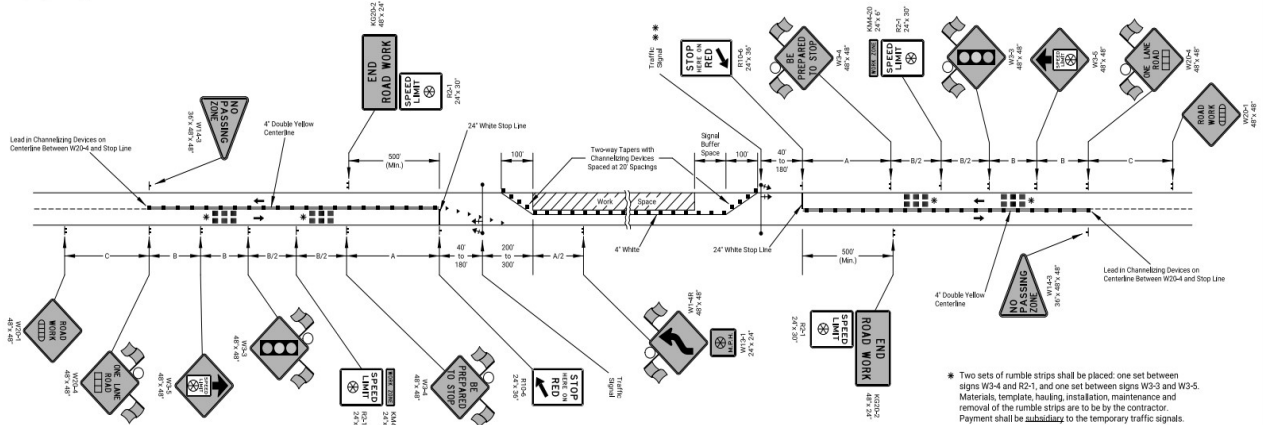
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210

# TE 732 Temporary Traffic Signals - 2

NOTE Refer to TE733 and TE734 for additional temporary traffic signal details.



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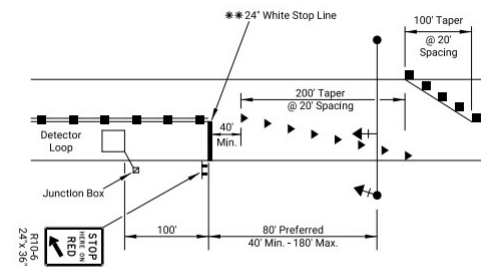
# TE 732 Temporary Traffic Signals - 3

SIGNAL BUFFER SPACE

| SPEED (MPH) | 20 | 25 | 30 | 35 | 40  | 45  | 50  | 55  | 60  | 65  | 70  |
|-------------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| LENGTH (FT) | 35 | 50 | 65 | 85 | 100 | 115 | 130 | 150 | 165 | 165 | 165 |

Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

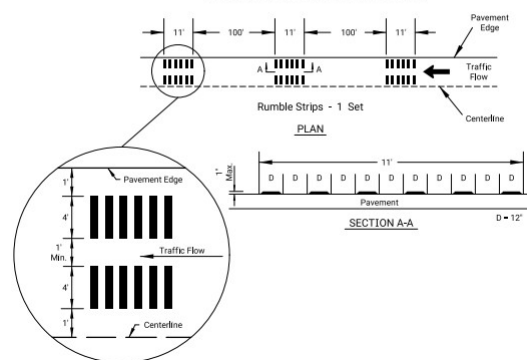
▲ Posted speed prior to work starting



\*\* Stop Line Created Using (6) 4" Strips of Temporary Tape

\* Two sets of rumble strips shall be placed: one set between signs W3-4 and R2-1, and one set between signs W3-3 and W3-5. Materials, template, hauling, installation, maintenance and removal of the rumble strips are to be by the contractor. Payment shall be subsidiary to the temporary traffic signals.

TYPICAL ASPHALT RUMBLE STRIP DETAILS

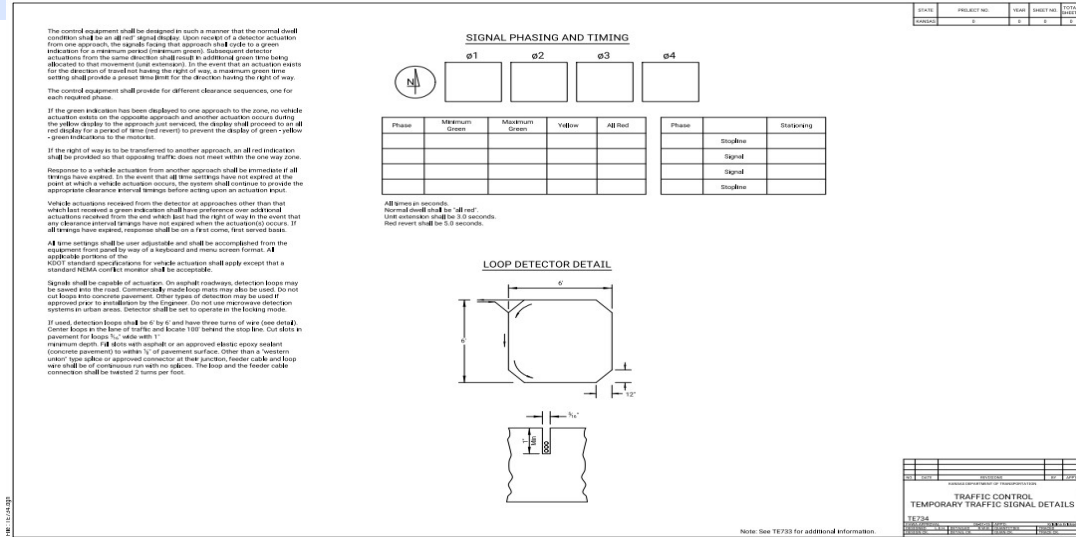


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# TE 734 Temporary Traffic Signal Details



213

# TE 734 Temporary Traffic Signal Details - 2

The control equipment shall be designed in such a manner that the normal dwell condition shall be an all red signal display. Upon receipt of a detector actuation from one approach, the signals facing that approach shall cycle to a green indication for a minimum period (minimum green). Subsequent detector actuations from the same direction shall result in additional green time being allocated to that movement (unit extension). In the event that an actuation exists for the direction of travel not having the right of way, a maximum green time setting shall provide a preset time limit for the direction having the right of way.

The control equipment shall provide for different clearance sequences, one for each required phase.

If the green indication has been displayed to one approach to the zone, no vehicle actuation exists on the opposite approach and another actuation occurs during the yellow display to the approach just serviced, the display shall proceed to an all red display for a period of time (red revert) to prevent the display of green - yellow - green indications to the motorist.

If the right of way is to be transferred to another approach, an all red indication shall be provided so that opposing traffic does not meet within the one way zone.

Response to a vehicle actuation from another approach shall be immediate if all timings have expired. In the event that all time settings have not expired at the point at which a vehicle actuation occurs, the system shall continue to provide the appropriate clearance interval timings before acting upon an actuation input.

Vehicle actuations received from the detector at approaches other than that which last received a green indication shall have preference over additional actuations received from the end which last had the right of way in the event that any clearance interval timings have not expired when the actuation(s) occurs. If all timings have expired, response shall be on a first come, first served basis.

All time settings shall be user adjustable and shall be accomplished from the equipment front panel by way of a keyboard and menu screen format. All applicable portions of the KDOT standard specifications for vehicle actuation shall apply except that a standard NEMA conflict monitor shall be acceptable.

Signals shall be capable of actuation. On asphalt roadways, detection loops may be sawed into the road. Commercially made loop mats may also be used. Do not cut loops into concrete pavement. Other types of detection may be used if approved prior to installation by the Engineer. Do not use microwave detection systems in urban areas. Detector shall be set to operate in the locking mode.

If used, detection loops shall be 6' by 6' and have three turns of wire (see detail). Center loops in the lane of traffic and locate 100' behind the stop line. Cut slots in pavement for loops 5/16" wide with 1" minimum depth. Fill slots with asphalt or an approved elastic epoxy sealant (concrete pavement) to within 1/8" of pavement surface. Other than a "western union" type splice or approved connector at their junction, feeder cable and loop wire shall be of continuous run with no splices. The loop and the feeder cable connection shall be twisted 2 turns per foot.

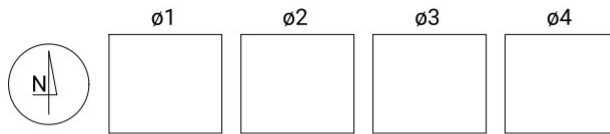
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## TE 734 Temporary Traffic Signal Details - 3

### SIGNAL PHASING AND TIMING



| Phase | Minimum Green | Maximum Green | Yellow | All Red |
|-------|---------------|---------------|--------|---------|
|       |               |               |        |         |
|       |               |               |        |         |
|       |               |               |        |         |
|       |               |               |        |         |

| Phase |          | Stationing |
|-------|----------|------------|
|       | Stopline |            |
|       | Signal   |            |
|       | Signal   |            |
|       | Stopline |            |

All times in seconds.  
Normal dwell shall be "all red".  
Unit extension shall be 3.0 seconds.  
Red revert shall be 5.0 seconds.

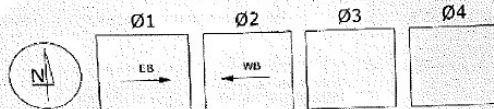
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## TE 734 Temporary Traffic Signal Details - 4

### SIGNAL PHASING AND TIMING



| PHASE | MINIMUM GREEN | MAXIMUM GREEN | YELLOW | ALL RED |
|-------|---------------|---------------|--------|---------|
| 1     | 12 SEC        | 40 SEC        | 3 SEC  | 65 SEC  |
| 2     | 12 SEC        | 40 SEC        | 3 SEC  | 65 SEC  |
|       |               |               |        |         |
|       |               |               |        |         |

| PHASE |          | STATIONING |
|-------|----------|------------|
| 1:2   | STOPLINE | 233+55     |
| 1:2   | SIGNAL   | 234+35     |
| 1:2   | SIGNAL   | 255+15     |
| 1:2   | STOPLINE | 255+95     |

ALL TIMES IN SECONDS.  
NORMAL DWELL SHALL BE "ALL RED".  
UNIT EXTENSION SHALL BE 3.0 SECONDS.  
RED REVERT SHALL BE 5.0 SECONDS.

DETECTOR SHALL BE SET TO OPERATE IN THE LOCKING MODE.  
MICROWAVE DETECTION SYSTEMS FOR TEMPORARY TRAFFIC  
SIGNALS SHALL NOT BE USED IN URBAN AREAS.

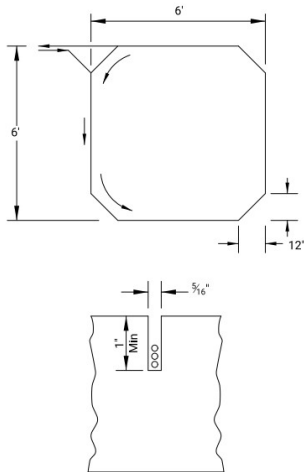
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# TE 734 Temporary Traffic Signal Details Loop

LOOP DETECTOR DETAIL

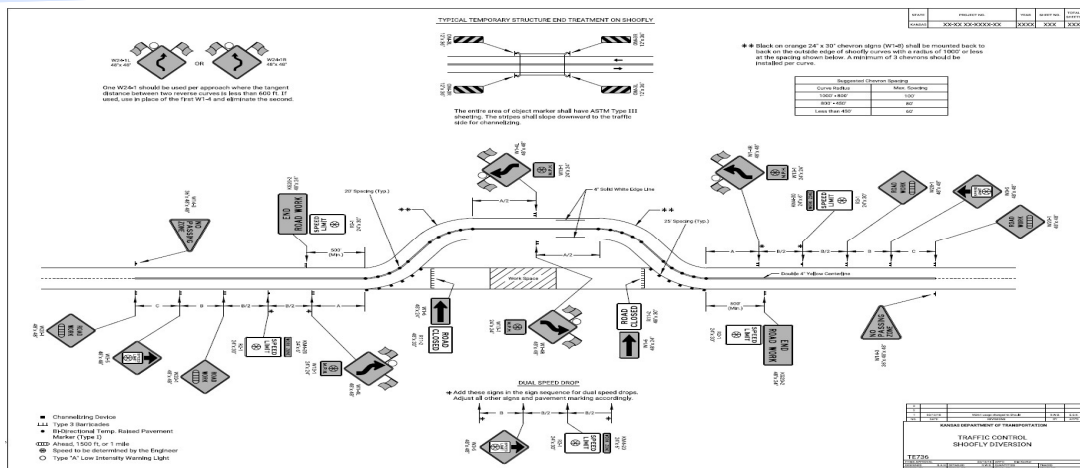


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# TE 736 Shoofly Diversion Typical



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# Questions over TE Standards?

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# Durable Pavement Marking

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## Durable Pavement Marking Types

- Cold Plastic, Patterned Cold Plastic
- Intersection Grade Pavement Marking(\*)
- Epoxy
- Multi-Component\*
- High Durability Tape\*
- Thermoplastic (Preformed\* or Sprayed)

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## Durable Pavement Marking

### • General Rules for Inspection

- Review Section 806 (Durable Pavement Marking) - Replaced with Special provision 15-08020-R01
- Obtain materials certifications and check against material to be used **DO NOT LET THEM STRIPE UNTIL YOU HAVE CERTIFICATIONS**
- Contractor's personnel: All pavement marking striping operators and at least one other individual on the project shall hold ATSSA pavement marking certification.  
(American Traffic Safety Services Assoc.)

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## Rules for Inspection

- Check that appropriate equipment is used
- Assure that pavement is clean and dry
- Review the contractor's layout
- Review the Manufacturer's application instructions
- Check pavement and air temperature

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## Rules for Inspection ...Cont'd.

**DO NOT LEAVE A ROAD UNSTRIPED  
OVER NIGHT!!!!!!**

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## Review Contractor's Layout



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227

## Striping crew in action



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## Permanent Pvmt. Marking

### General Rules for Inspection

- Prior to beginning operations Contractor must complete 300 ft test strip per 806.3 (4)
- Assure that proper traffic control is in place
- Apply in accordance with manufacturer's recommendation
- Check recommended thickness of material
- Verify Intended Alignment
- Check width of lines

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## Permanent Pvmt. Marking Cont'd

### General Rules for Inspection...Cont.

- Check embedment of glass beads
- Check straightness of lines
- Check spacing of "skip" lines
- Check Retro-reflectivity withing 14 days of completing striping on the project

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## Permanent Pvmt. Marking Retro-reflectivity

### Retro-reflectivity Minimum Requirements

| TABLE 806-1: MINIMUM RETROREFLECTIVITY REQUIREMENTS |        |                                                            |
|-----------------------------------------------------|--------|------------------------------------------------------------|
| Type of Material                                    | Color  | millicandelas/sq m/lux <sup>a</sup><br>(minimum) (Initial) |
| Cold Plastic                                        | White  | 250                                                        |
|                                                     | Yellow | 175                                                        |
| Patterned Cold Plastic                              | White  | 500                                                        |
|                                                     | Yellow | 300                                                        |
| Epoxy or Multi-Component                            | White  | 325                                                        |
|                                                     | Yellow | 250                                                        |
| High Durability Tape                                | White  | 225                                                        |
|                                                     | Yellow | 175                                                        |
| Thermoplastic, Preformed                            | White  | 300                                                        |
| Thermoplastic or Spray Thermoplastic                | Yellow | 225                                                        |

**NOTE:** Provide an acceptable 100-foot retroreflectometer to use on the project which will remain the property of the Contractor. In the presence of the Engineer, measure the retroreflectivity between 12 hours and 14 days after the application of all pavement markings. Take a minimum of 5 randomly spaced readings per color line every 1 mile. The Engineer will average all of the readings for each color line within the 1 mile section to determine the retroreflectivity.

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## Permanent Pvmt. Marking Retro-reflectivity - 2

### Retro-reflectivity



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## Permanent Pvmt. Marking Retro-reflectivity - 3

### Retro-reflectivity **Removal** Requirements

If the pavement markings have a retroreflectivity reading as measured for **TABLE 806-1** (in any 1-mile section) less than that shown in **TABLE 806-2**, remove and replace the entire 1-mile section.

| TABLE 806-2: RETROREFLECTIVITY READINGS REQUIRING REMOVAL OF PAVEMENT MARKING |        |                                                                   |
|-------------------------------------------------------------------------------|--------|-------------------------------------------------------------------|
| Type of Material                                                              | Color  | Retroreflectivity reading (R) in a 1-mile section (millicandelas) |
| Cold Plastic                                                                  | White  | 200                                                               |
|                                                                               | Yellow | 125                                                               |
| Patterned Cold Plastic                                                        | White  | 450                                                               |
|                                                                               | Yellow | 250                                                               |
| Epoxy or Multi-Component                                                      | White  | 350                                                               |
|                                                                               | Yellow | 250                                                               |
| High Durability Tape                                                          | White  | 200                                                               |
|                                                                               | Yellow | 125                                                               |
| Thermoplastic, Preformed Thermoplastic or Spray Thermoplastic                 | White  | 300                                                               |
|                                                                               | Yellow | 200                                                               |

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## Section 806.3a(11)a

### Unsatisfactory Pavement Marking

#### General: Remove and replace pavement markings that;

- have drag marks, gashes, gouges, foreign covering, discolored areas or areas that have failed to solidify.
- have improper adhesion, length or thickness.
- have areas that present a ragged appearance, areas that do not present sharply defined edges,
- or areas with abrupt unintended changes in alignment.

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## Section 806.3a(11)b

### Unsatisfactory Pavement Marking

General: Remove and replace pavement markings that;

- Alignment. Lines that deviate laterally from the intended alignment more than 2 inches in 200 feet may be rejected.

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## More than 2 inches in 200 feet?



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## Section 806.3a(11)c

### Unsatisfactory Pavement Marking

General: Remove and replace pavement markings that;

- **Width.** The Engineer will take a minimum of 10 width measurements per color line randomly spaced every 1 mile. Remove and replace the deficient widths of pavement markings (See **TABLES 806-3 and 806-7**) so the total length of deficiency in any 1-mile section is less than 300 feet.

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## Section 806.3a(12) (see Spec for complete list for Acceptance)

- **Acceptance of Pavement Marking.** The Engineer will not examine pavement marking for final acceptance until the pavement markings complete a 180-calendar day observation period. The Contractor is responsible for the pavement marking during this period.
- The 180-calendar day observation period begins the day following the completion of the pavement marking. Providing all other work on the contract is complete, the Engineer will not assess working day charges during the 180-calendar day observation period.
- Immediately following the 180-day observation period, arrange with the Engineer to have a joint meeting to examine the pavement marking.
- The Engineer will provide written results of the final examination to the Contractor within 5 business days of the joint meeting.

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## Pavement Marking Tape

### **Types:**

- Patterned Cold Plastic
- High Durability Pavement Marking Tape
- Preformed Thermoplastic Tape

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## Patterned Cold Plastic Tape

- A long-lasting pavement marking with a patterned surface, typically diamonds
- Used on concrete pavement
- Inset 0.08 - inch - deep (+0.01 - inch tolerance)
- Grind Inset 2 inches wider than pavement marking

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## Patterned Cold Plastic Tape - 2

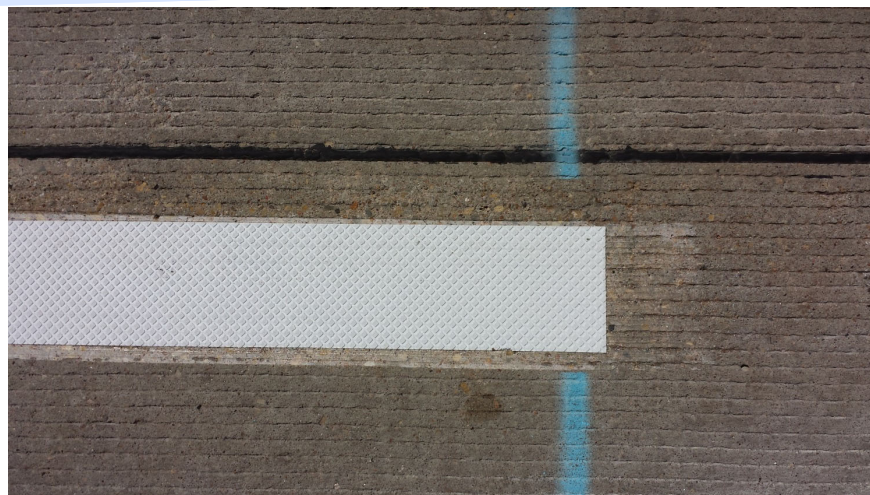


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241

## Patterned Cold Plastic Tape - 3



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## High Durability Tape

### Section 806.3e

- A tape that will hold up to shear force caused by turning movements and starting and stopping vehicles
- Used in intersections

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## Preformed Thermoplastic Tape

- A durable pavement marking that is thermally bonded to the pavement
- Primarily used for pavement marking symbols, crosswalk lines and stop bars

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244

## Epoxy and Multi-Component Pavement Markings

### Section 806.3(c & d)

- A pavement marking material that combines an epoxy resin with a curing agent to form a durable pavement marking line.

#### Two types:

- Slow Cure Material for PCCP (approx. 40 minutes until traffic will not track)
- Fast Cure Material for other surfaces (approx. 10 minutes until traffic will not track)

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## Epoxy and Multi-Component Pavement Markings - 2

#### Inspection:

- Check thickness of material on road using wet-film thickness gauge; 20 to 25 mil
- Make sure that material is setting up. It should be a hard-brittle material. (Also, If materials are not mixing properly, stripe will appear to be black.)
- Do not exceed the maximum recommended temperature at any time.
- When pavement markings are applied to PCCP (including concrete bridge decks) less than 1 year old, remove all curing compounds and laitance by shot, sand or water-blasting. (Multi-component only allowed on Concrete on a pre-qualified basis.)

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## Wet-Film Thickness Gauge



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247

## Epoxy and Bead Application



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Temporary tape should be removed “before” durable pavement markings are applied.



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249

## Epoxy Pavement Markings



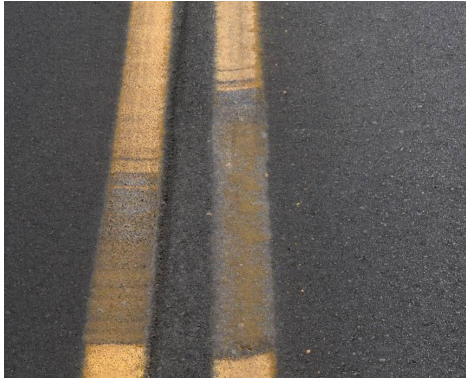
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250



## Equipment Problem...Pump Stroking



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251

## Delaminating



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252

## Check Bead Uniformity

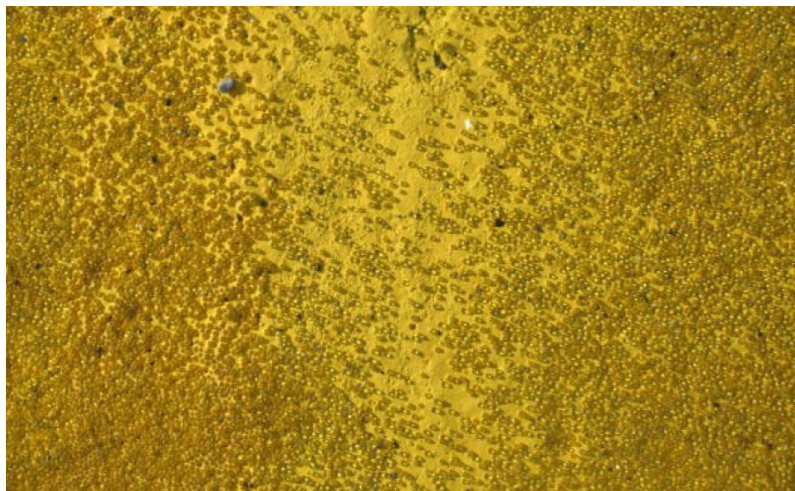


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253

## Check Bead Uniformity Cont'd



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254

## Check Bead Embedment - Poor

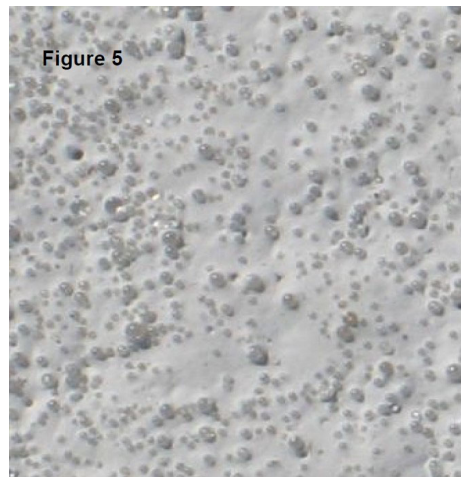
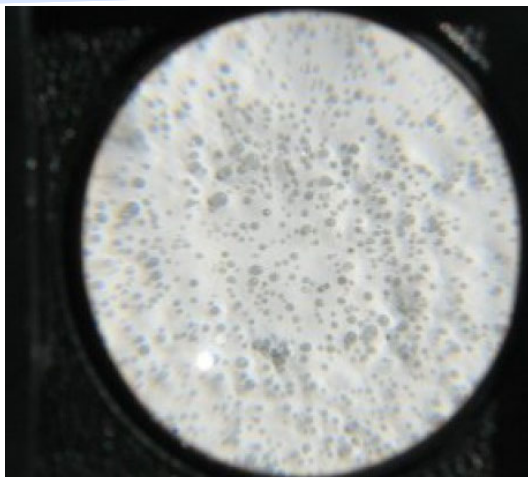


Figure 5

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255

## Check Bead Embedment – Poor Cont'd



Figure 8

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256



## Check Bead Embedment - Good

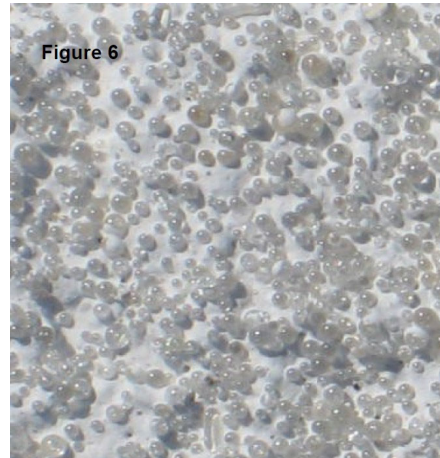
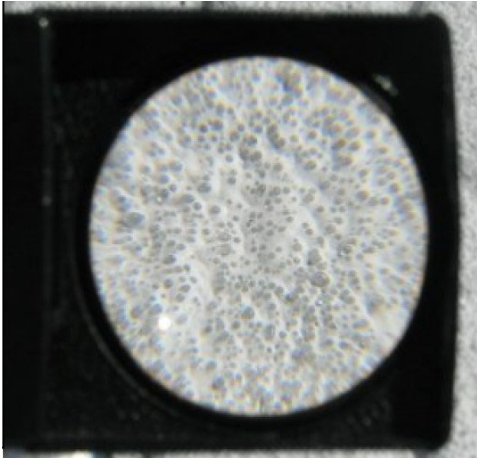


Figure 6

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## More problems



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258

## Poor Match Lines...



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## Remember.....

- DOCUMENT, DOCUMENT, DOCUMENT!
- READ THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND ERRATA SHEETS BEFORE YOU GO TO THE JOB. **(And During test!)**
- WHEN IN QUESTION, CALL AND ASK.
- SAFETY IS ALWAYS A TOP PRIORITY.

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260

## Ten Question Exam

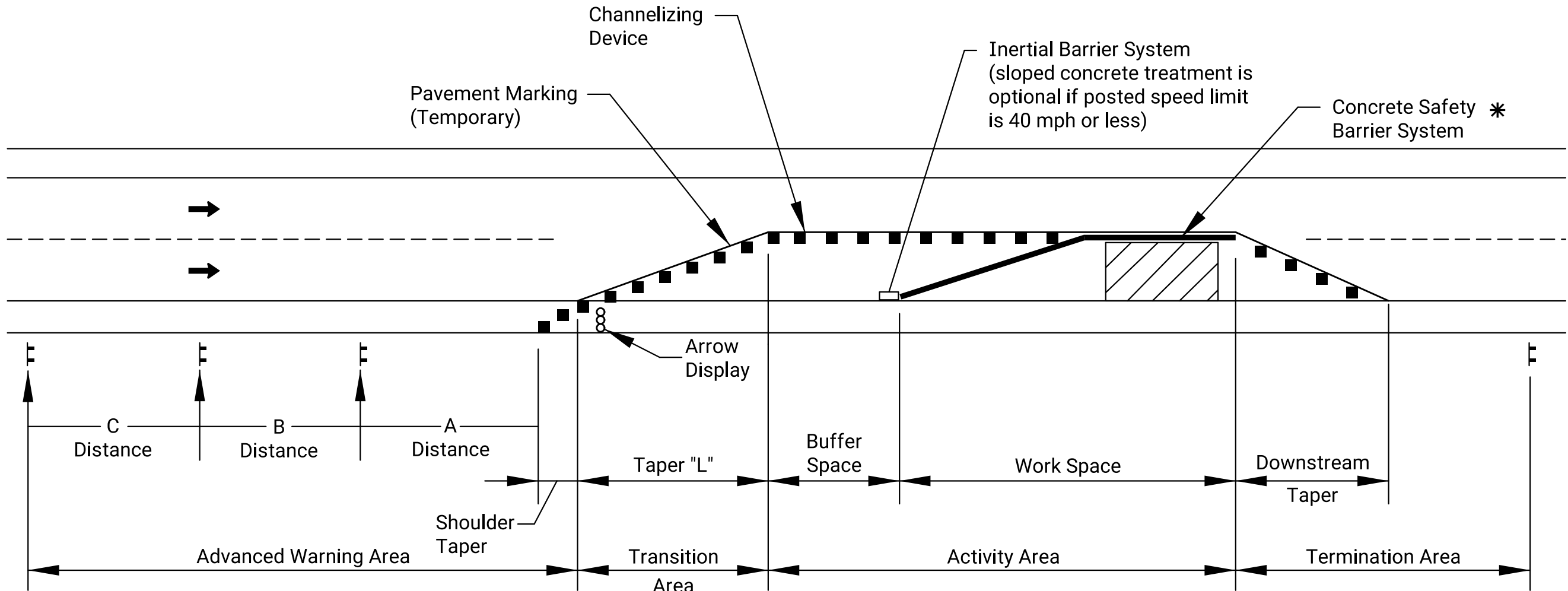
Open book and notes.  
No neighborly consultations.  
Must answer 70% correctly to pass.

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Drawn By : mushock  
File : te700.dgn  
Plotted :29-MAR-2018 12:40  
Traffic

- 1) Design Speed: Those items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.
- 2) Minimum Lane Width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.
- 3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.
- 4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
- 5) When the driving surface open to traffic is milled or is a temporary surface made of loose material, or when directed by the engineer a W8-15 (Grooved Pavement) or W8-7 (Loose Gravel) sign shall be used on mainline approaches. This sign should be placed a "C" distance after the W20-1 (Road Work Ahead) sign. A W8-15p motorcycle plaque shall be used to supplement the W8-15 or W8-7 signs. All signs shall be displayed as long as the condition is present.
- 6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-1179 or 785-296-1183.



## TYPICAL WORK ZONE COMPONENTS

✱ When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

Minimum advance warning sign spacing (in feet):

| SPEED (MPH) ✱            | A    | B    | C    |
|--------------------------|------|------|------|
| URBAN (40 MPH OR LOWER)  | 100  | 100  | 100  |
| URBAN (45 MPH OR HIGHER) | 350  | 350  | 350  |
| RURAL (55 MPH OR LOWER)  | 500  | 500  | 500  |
| RURAL (60 MPH OR HIGHER) | 750  | 750  | 750  |
| EXPRESSWAY/FREEWAY       | 1000 | 1500 | 2640 |

- ✱ Posted speed prior to work starting
- The minimum spacing between signs shall be no less than 100', unless directed by the engineer.
- The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

Taper Formulas:

$L = WS$  for speeds of 45 MPH or more

$L = WS^2/60$  for speeds of 40 MPH or less

Where:  $L$  = Minimum length of taper in feet  
 $S$  = Numerical value of posted speed prior to work starting in MPH  
 $W$  = Width in offset feet

Shifting Taper= $1/2 L$   
Shoulder Taper= $1/3 L$

Channelizer Placement:

- The spacing between devices in transition area (taper) should not exceed a distance in feet equal to  $1/2$  the posted speed limit in mph prior to work starting.
- The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.
- Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.
- Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.
- Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

Buffer Space

| SPEED (MPH) ✱ | 20  | 25  | 30  | 35  | 40  | 45  | 50  | 55  | 60  | 65  | 70  | 75  |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LENGTH (ft)   | 115 | 155 | 200 | 250 | 305 | 360 | 425 | 495 | 570 | 645 | 730 | 820 |

- ✱ Posted speed prior to work starting

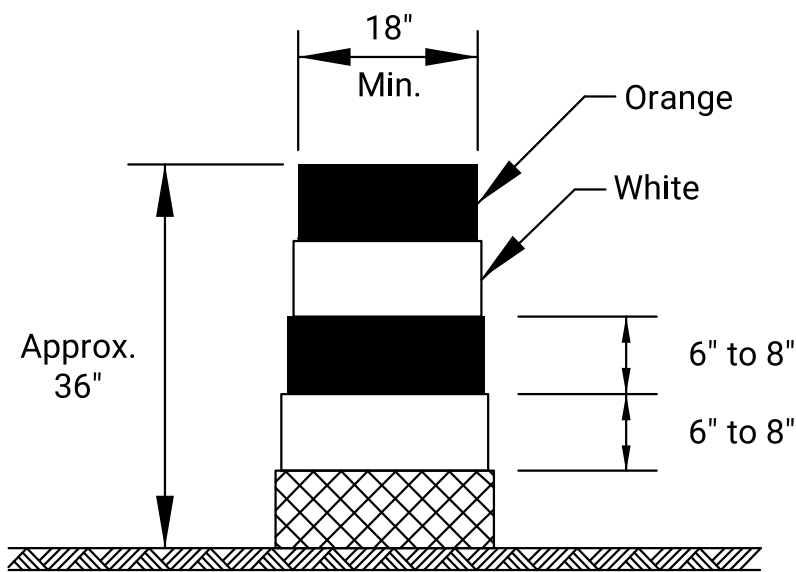
Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.

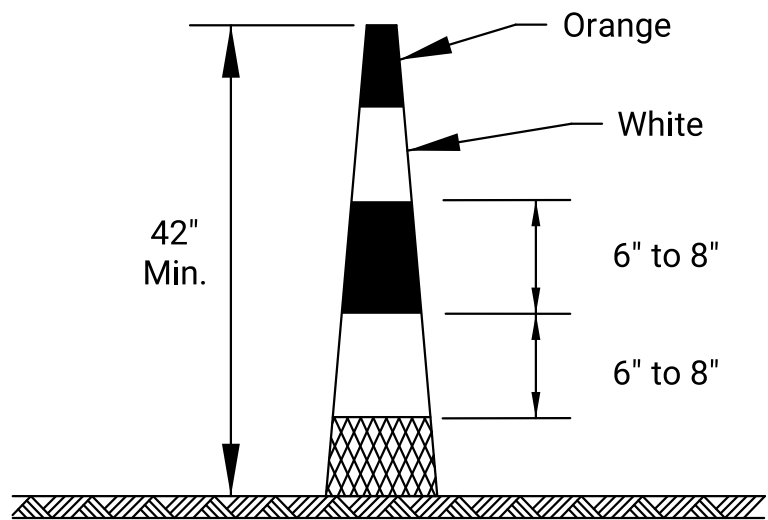
| STATE  | PROJECT NO.      | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|------------------|------|-----------|--------------|
| KANSAS | XX-XX XX-XXXX-XX | XXXX | XXX       | XXX          |

|                                     |          |                               |        |             |           |
|-------------------------------------|----------|-------------------------------|--------|-------------|-----------|
| 3                                   |          |                               |        |             |           |
| 2                                   | 03/13/18 | W8-15p usage changed to Shall | R.W.B. | E.G.K.      |           |
| 1                                   | 08/18/15 | Channelizer spacing info      | R.W.B. | K.E.        |           |
| NO.                                 | DATE     | REVISIONS                     | BY     | APPD        |           |
| KANSAS DEPARTMENT OF TRANSPORTATION |          |                               |        |             |           |
| TRAFFIC CONTROL<br>GENERAL NOTES    |          |                               |        |             |           |
| TE700                               |          |                               |        |             |           |
| FHWA APPROVAL                       |          | 03/13/18                      | APPD   | Eric Kocher |           |
| DESIGNED                            | B.A.H.   | DETAILED                      | R.W.B. | QUANTITIES  | TRACED    |
| DESIGN CK.                          |          | DETAIL CK.                    |        | QUAN. CK.   | TRACE CK. |

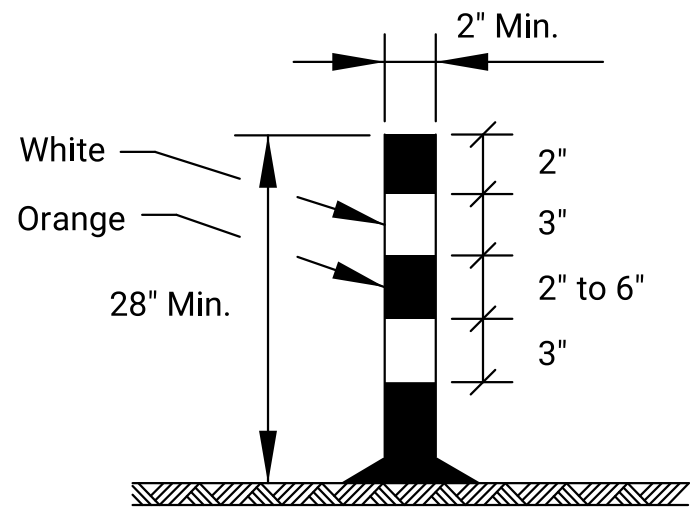




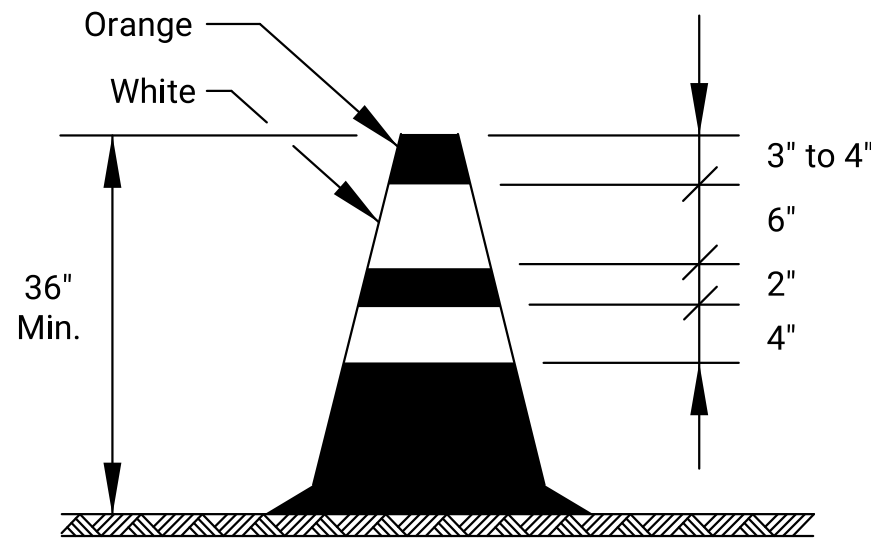
DRUM



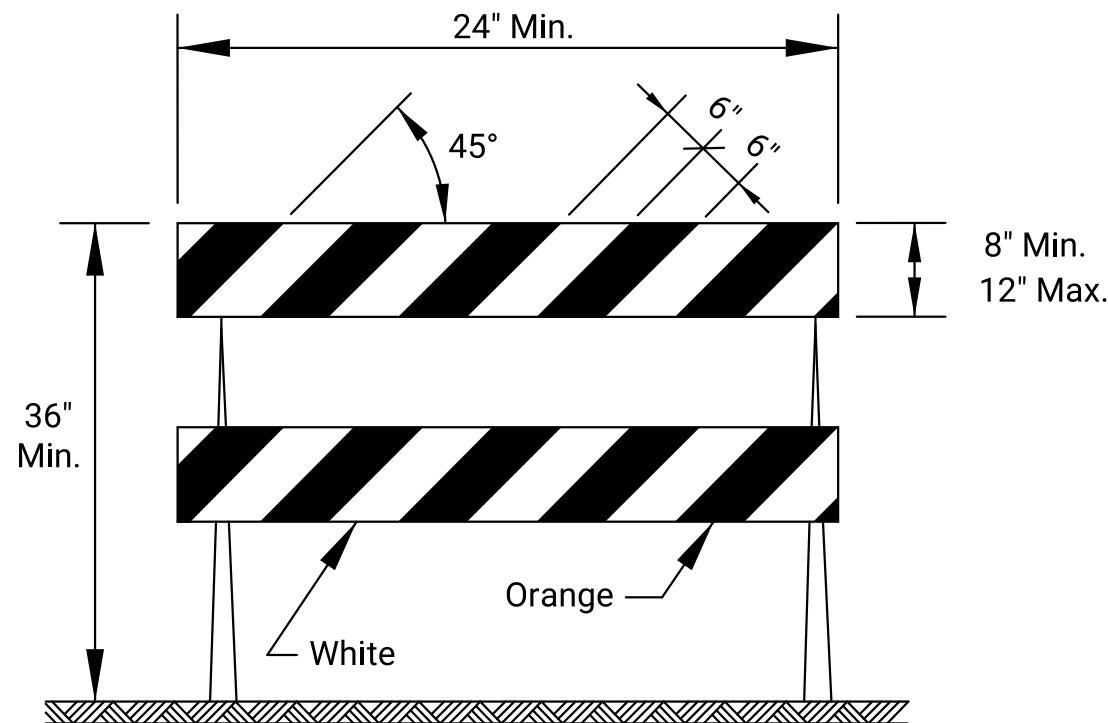
CONICAL  
DELINEATOR



TUBULAR MARKER  
Striping as shown for up to 42".

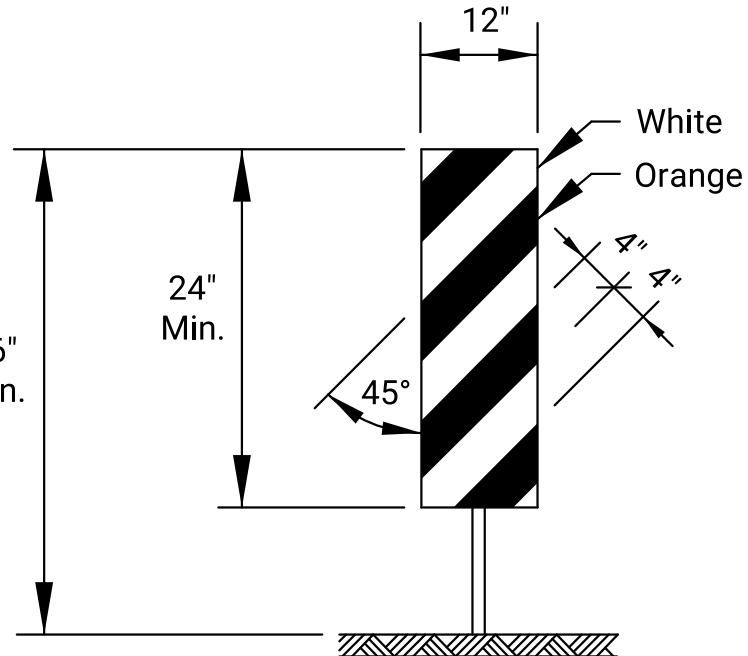


TRAFFIC CONE



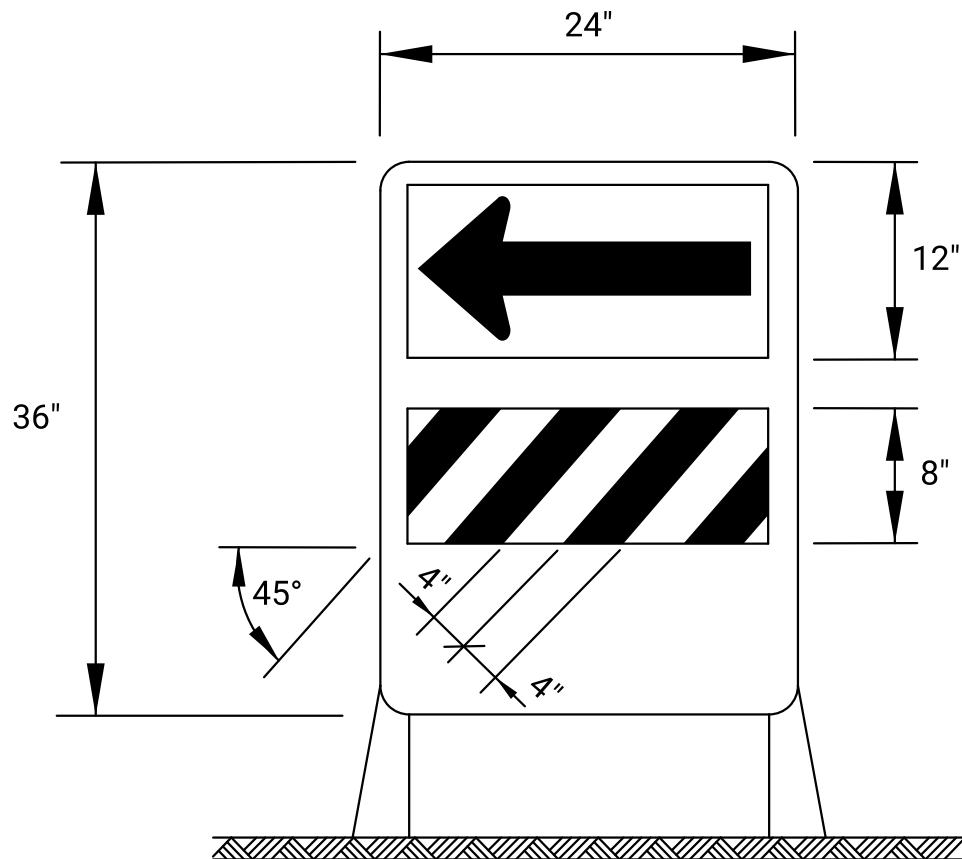
TYPE 2 BARRICADE

For rails less than 36" long, 4" wide stripes may be used.  
All stripes shall slope downward to the traffic side for channelization.



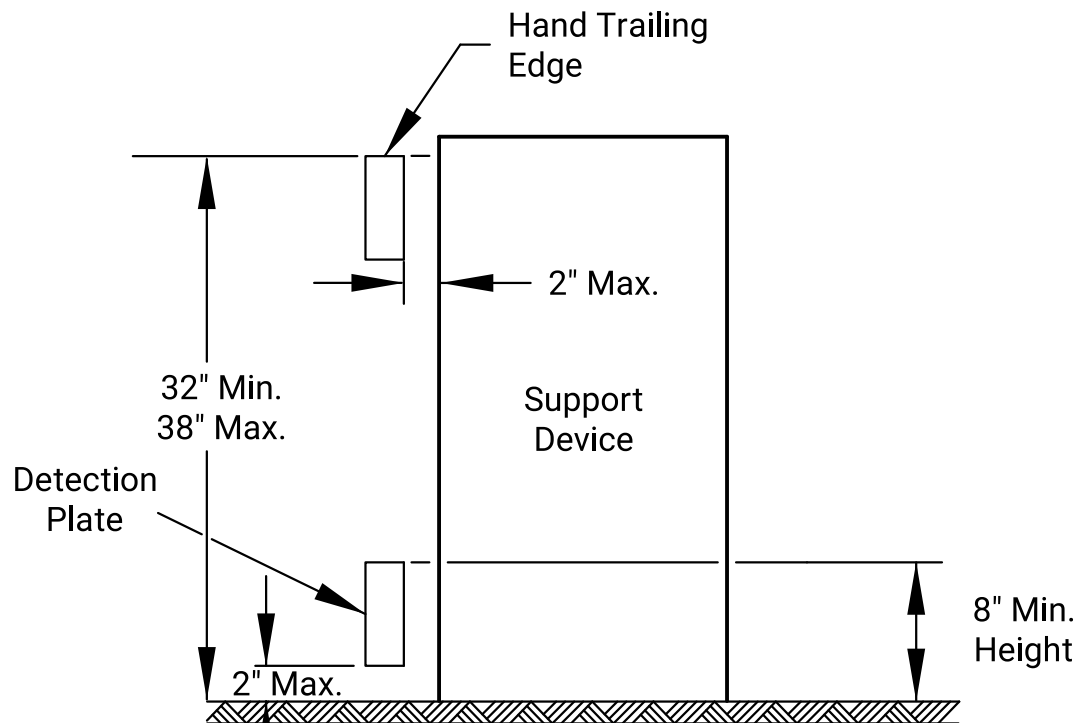
VERTICAL PANEL

The stripes shall slope downward to the traffic side for channelization.



DIRECTION INDICATOR BARRICADE

The stripes shall slope downward in the direction traffic is to pass.  
The direction indicator barricade shall be used in series to direct the motorist into the intended lane of travel.



PEDESTRIAN CHANNELIZER

- Support device shall not project beyond the detection plate into the pathway.
- Hand trailing edges and detection plates are optional for continuous walls.
- Interconnect pedestrian channelizers to prevent displacement and to provide continuous guidance through or around work.
- Alternate pathways shall be firm, stable, and slip resistant.
- Treat height differentials > 1/2" in the surfaces of alternate paths with a firm, stable, and slip resistant temporary ramp having a slope of 12:1 or flatter and having a width equal to the alternate path.
- Use alternating orange/white on interconnected devices.

| Item     |                               | Location    |                   |          |        |       |              |                   |                 |       |  |
|----------|-------------------------------|-------------|-------------------|----------|--------|-------|--------------|-------------------|-----------------|-------|--|
|          |                               | Cross-overs | Shoofly Divisions | Tangents | Tapers | Ramps | Head to Head | Object Identifier | Lead-in Devices | Gores |  |
| Portable | Drums                         | Yes         | Yes               | Yes      | Yes    | Yes   | (1)          | Yes               | Yes             | Yes   |  |
|          | Conical Delineators           | Yes         | Yes               | Yes      | Yes    | Yes   | (1)          | Yes               | Yes             | Yes   |  |
|          | Vertical Panels               | (2)         | (2)               | (2)      | (2)    | (2)   | (1,2)        | Yes               | (2)             | (2)   |  |
|          | Direction Indicator Barricade | No          | No                | No       | Yes    | No    | No           | No                | No              | No    |  |
|          | Type 2 Barricade              | (2)         | (2)               | (2)      | (2)    | No    | No           | Yes               | No              | No    |  |
|          | Traffic Cones                 | No          | No                | (4)      | (4)    | (4)   | No           | (4)               | (4)             | (4)   |  |
| Fixed    |                               |             |                   |          |        |       |              |                   |                 |       |  |
|          | Tubular Markers               | (3)         | (3)               | (3)      | No     | (3)   | Yes          | No                | Yes             | Yes   |  |
|          | Vertical Panels               | (3)         | (3)               | (3)      | (3)    | (3)   | (3)          | Yes               | (2,3)           | (2)   |  |

- (1) Not allowed on centerline delineation along freeways or expressways.
- (2) The stripes shall slope downward to the traffic side for channelization.
- (3) May be used upon the approval of the engineer.
- (4) Daytime operations only.

|                                         |        |           |        |                   |           |
|-----------------------------------------|--------|-----------|--------|-------------------|-----------|
| 3                                       |        |           |        |                   |           |
| 2                                       |        |           |        |                   |           |
| 1                                       |        |           |        |                   |           |
| NO.                                     | DATE   | REVISIONS |        |                   | BY APPD   |
| KANSAS DEPARTMENT OF TRANSPORTATION     |        |           |        |                   |           |
| TRAFFIC CONTROL<br>CHANNELIZING DEVICES |        |           |        |                   |           |
| TE702                                   |        |           |        |                   |           |
| FHWA APPROVAL                           |        | 06/01/15  | APPD   | Kristina Erickson |           |
| DESIGNED                                | L.E.R. | DETAILED  | R.W.B. | QUANTITIES        | TRACED    |
| DESIGN CK.                              |        | DETAIL CK |        | QUAN. CK.         | TRACE CK. |



| STATE  | PROJECT NO.      | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|------------------|------|-----------|--------------|
| KANSAS | XX-XX XX-XXXX-XX | XXXX | XXX       | XXX          |

Note: Signs shown for one approach to work zone.

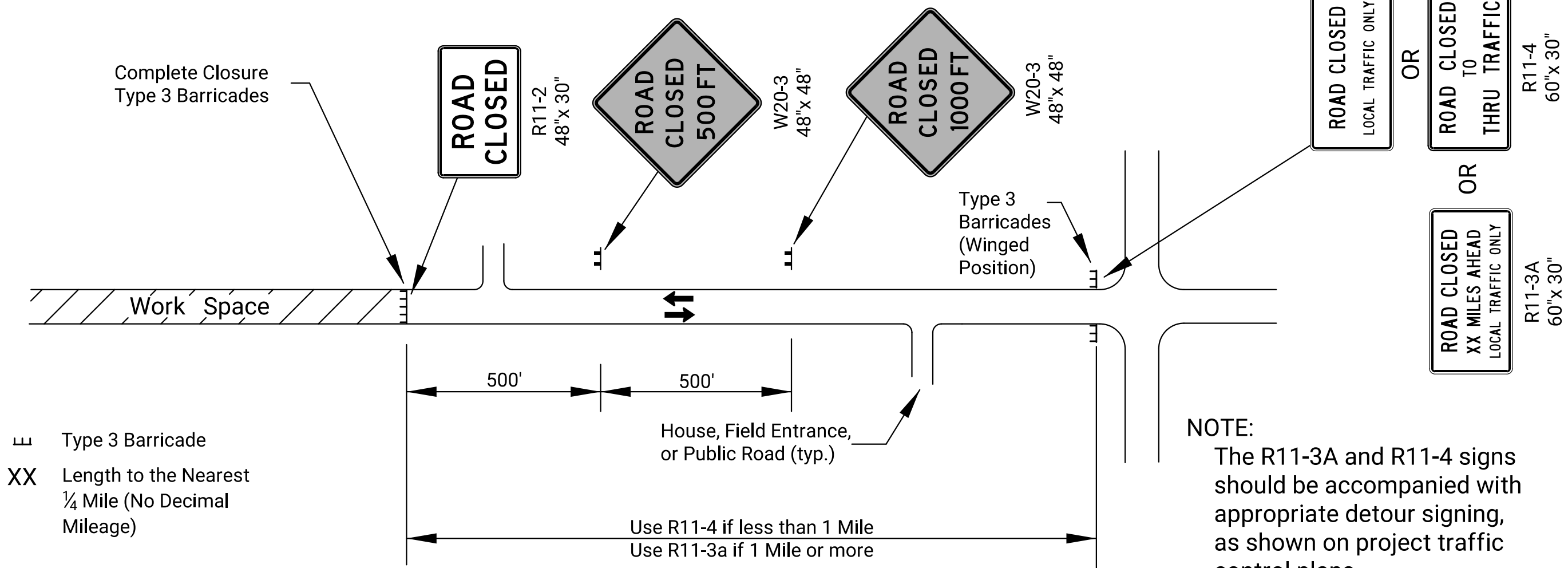


FIGURE 1: TYPICAL SIGNING FOR ROAD CLOSURE (MAINLINE OR SIDE ROAD)

Note: Sign shown for one approach to intersection (work zone).

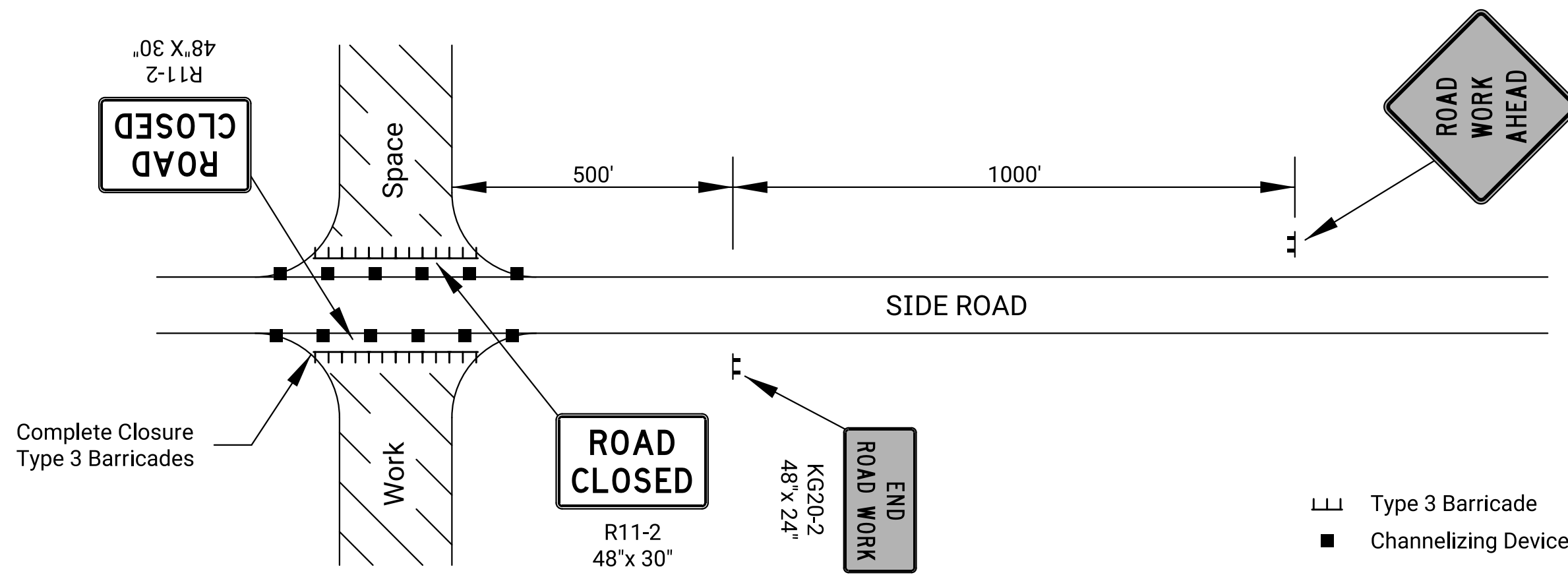


FIGURE 2: TYPICAL SIGNING FOR SIDE ROAD OPEN

Note: Signs shown for one approach to work zone.

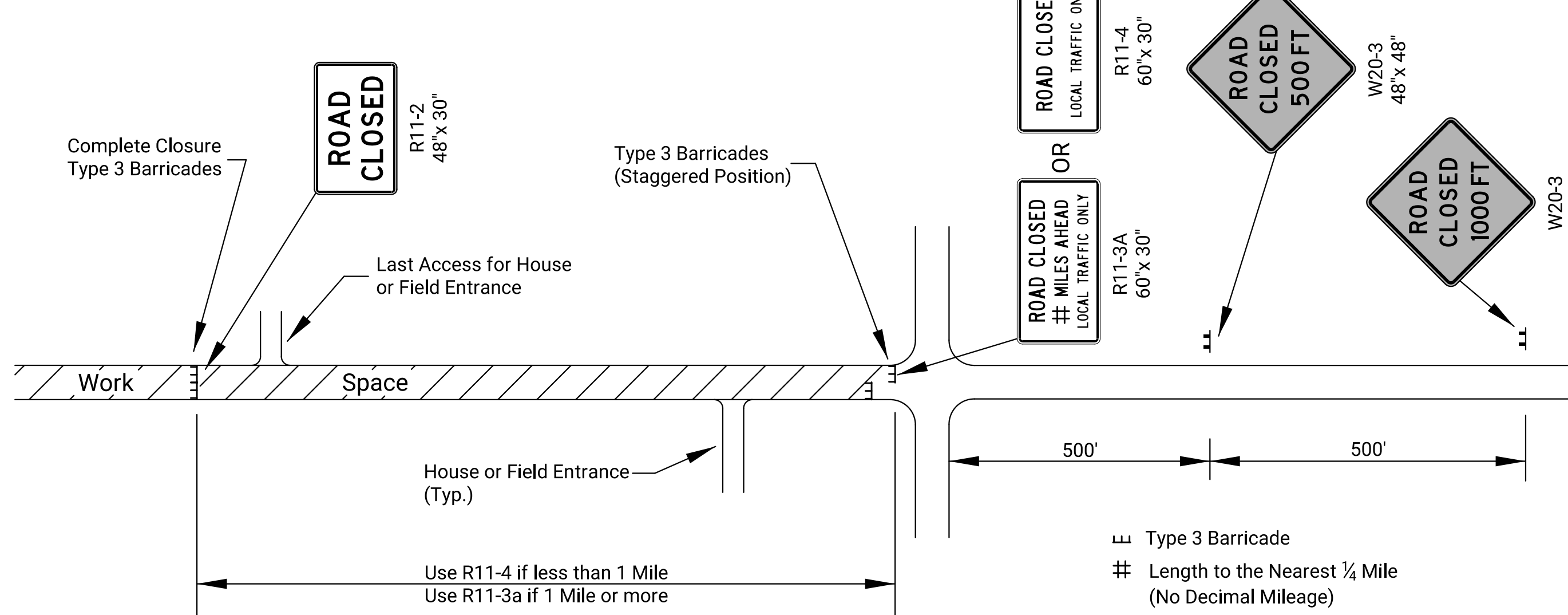


FIGURE 3: TYPICAL SIGNING FOR ROAD CLOSURE - LOCAL TRAFFIC ACCESS

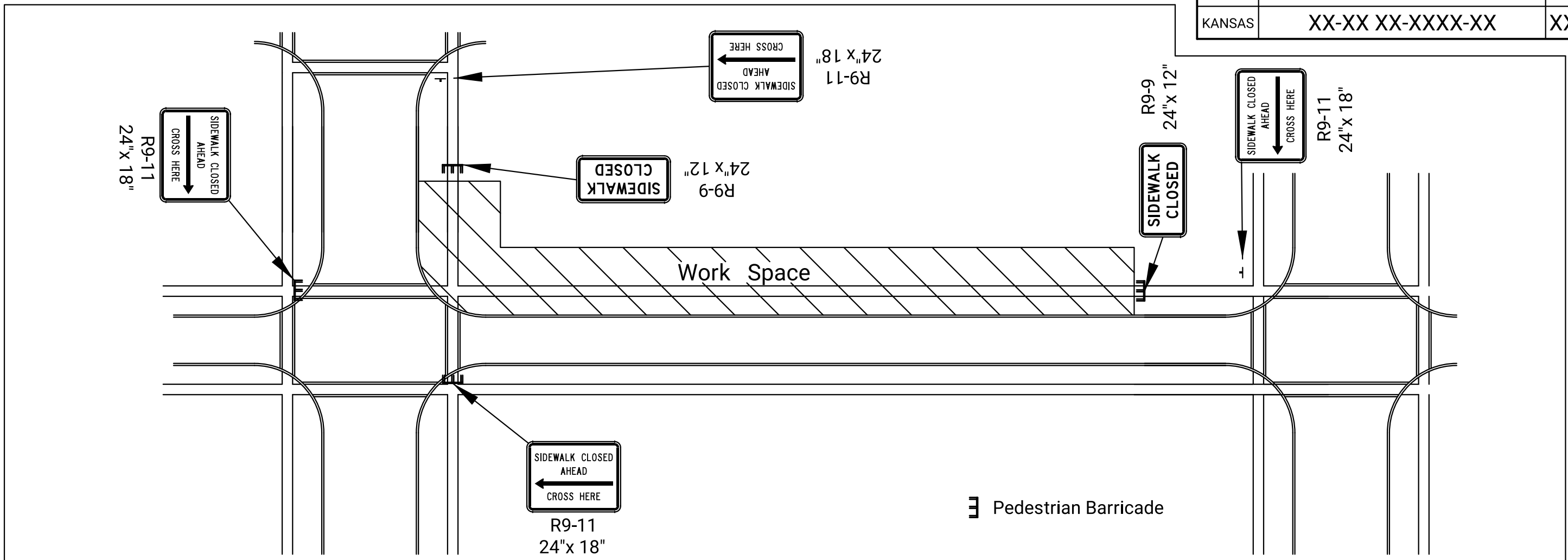
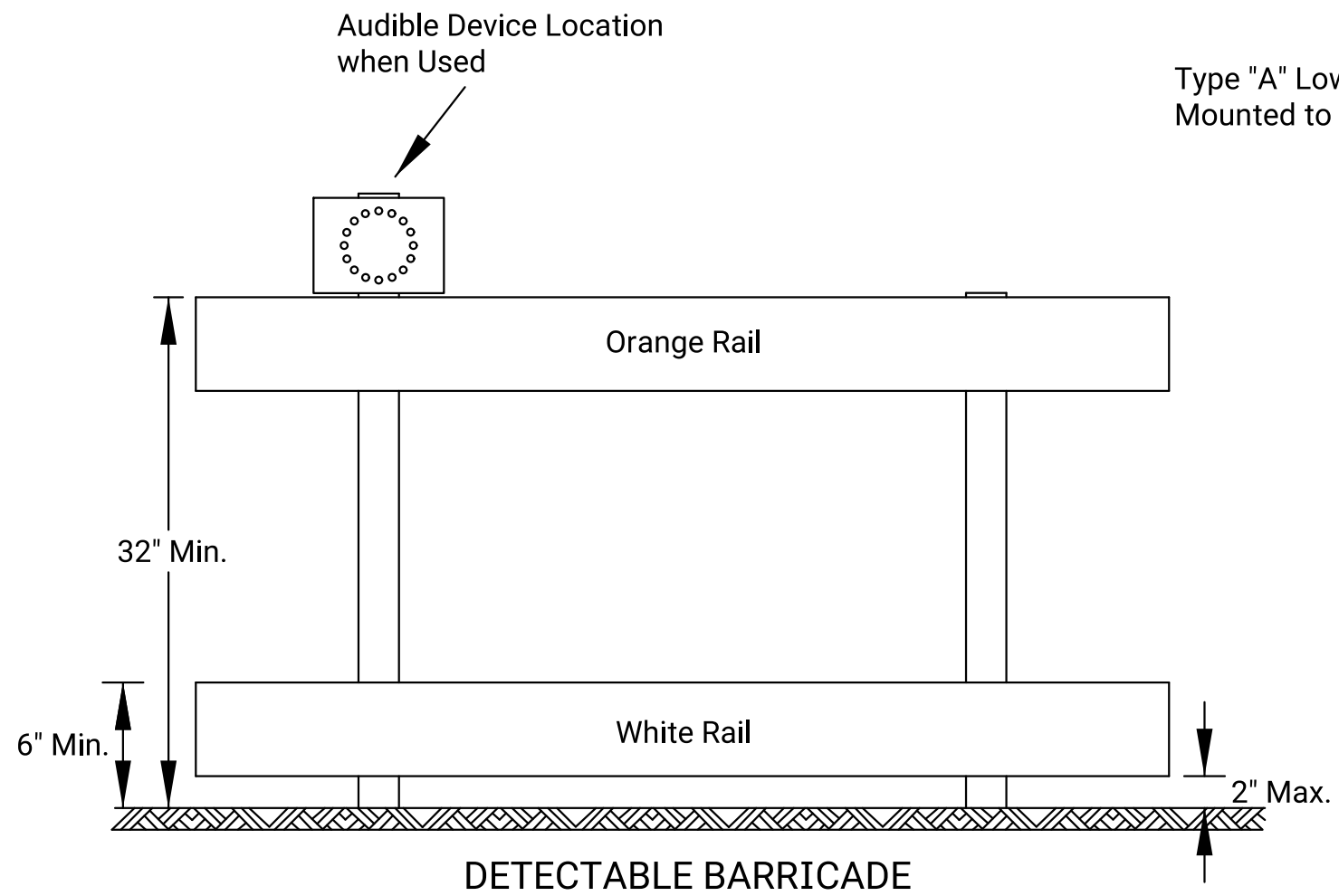
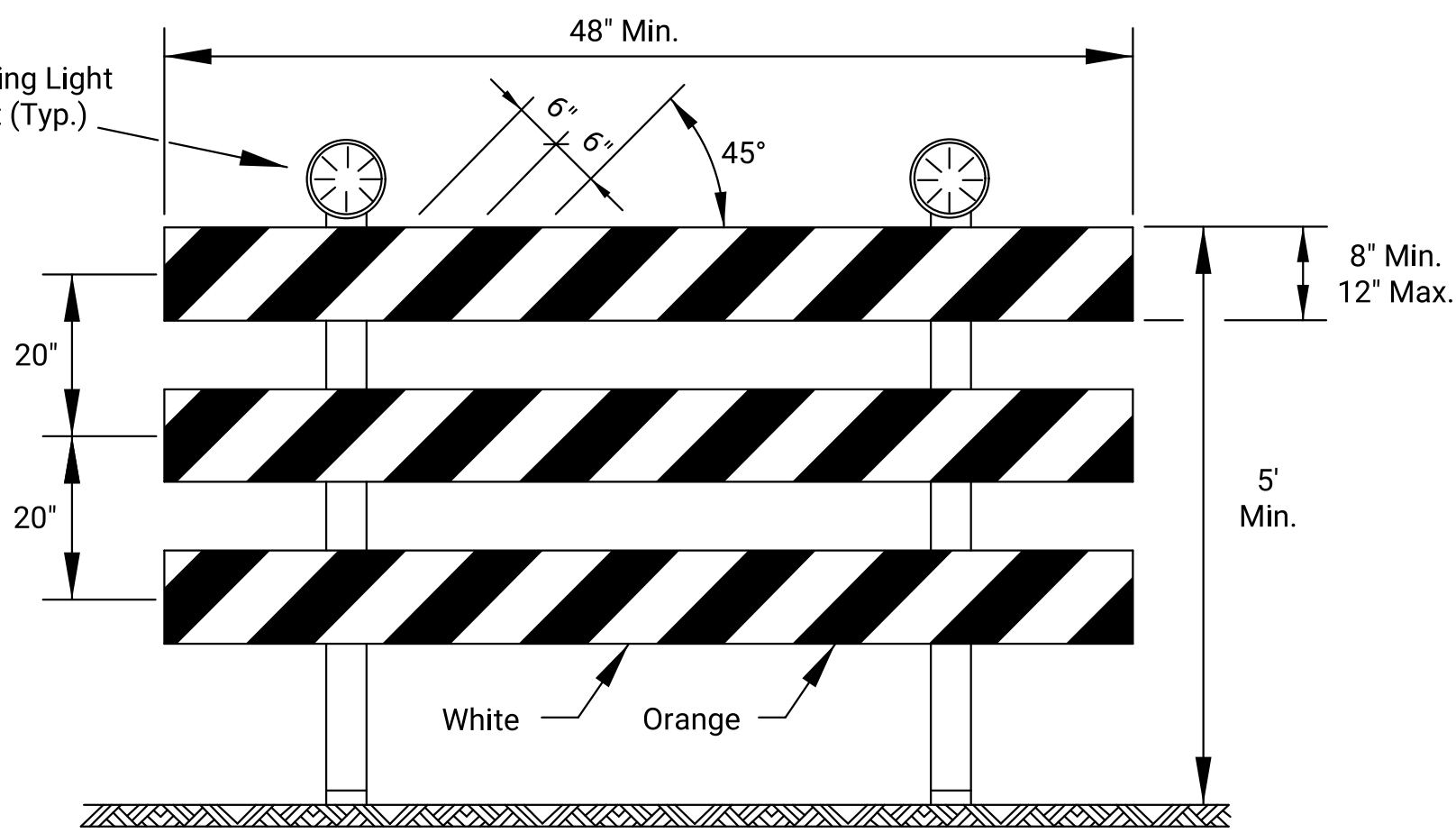


FIGURE 4: TYPICAL SIGNING FOR SIDEWALK CLOSED WITH OPPOSITE SIDEWALK AVAILABLE



1. Support device shall not project beyond the detection plate into the pathway.  
2. Barricades shall be used to close the entire width of the pathway.  
3. Do not use warning lights on pedestrian barricades.  
4. Do not use warning lights on audible devices.



Approved signs mounted on Type 3 barricades should not cover more than 50% of the top two rails or 33% of the total area of the three rails.

When barricades are placed end-to-end or staggered, a Type "A" low intensity warning light shall be mounted to the vertical post near each outside corner of the end barricades.

#### ROAD CLOSED GENERAL NOTES

As shown in Figure 1, at the point where thru traffic must detour and local traffic can proceed to the location where the roadway is completely closed, the R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) or R11-4 (ROAD CLOSED LOCAL TRAFFIC ONLY or ROAD CLOSED TO THRU TRAFFIC) sign shall be used with Type 3 barricades (winged position), placed on the shoulders of roadway.

As shown in Figure 3, when local traffic must be allowed access into the work zone, Type 3 barricades shall be longitudinally staggered to maintain the appearance of a closed roadway. A second line of end-to-end Type 3 barricades shall be placed just beyond the last access point in the work zone, to completely close the roadway.

The R11-4 (ROAD CLOSED TO THRU TRAFFIC or ROAD CLOSED LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is less than 1 mile.

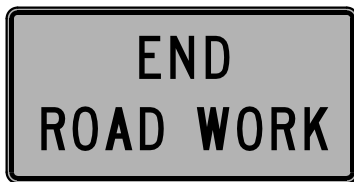
The R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is 1 mile or greater.

The words "BRIDGE OUT" (or BRIDGE CLOSED) may be substituted for the words "ROAD CLOSED" on the R11-3a or R11-4 sign where applicable.

|                                     |          |            |                   |            |           |
|-------------------------------------|----------|------------|-------------------|------------|-----------|
| 3                                   |          |            |                   |            |           |
| 2                                   |          |            |                   |            |           |
| 1                                   |          |            |                   |            |           |
| NO.                                 | DATE     | REVISIONS  | BY                | APPD       |           |
| KANSAS DEPARTMENT OF TRANSPORTATION |          |            |                   |            |           |
| TRAFFIC CONTROL CLOSURES            |          |            |                   |            |           |
| TE704                               |          |            |                   |            |           |
| FHWA APPROVAL                       | 06/01/15 | APPD       | Kristina Erickson |            |           |
| DESIGNED                            | B.A.H.   | DETAILED   | R.W.B.            | QUANTITIES | TRACED    |
| DESIGN CK.                          |          | DETAIL CK. |                   | QUAN. CK.  | TRACE CK. |



SIGN LAYOUT INFORMATION



KG20-2

Std. Size  
Expwy/Freeway

6" C  
48"x 24"



KG20-5

Std. Size  
Expwy/Freeway

6" C  
48"x 24"

WORK ZONE

KM4-20

Std. Size

3" C  
24"x 6"

Expwy/Freeway

6" C  
48"x 12"



W7-3a

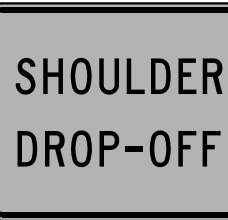
Mileage to be Determined  
by the Engineer.



W8-17

Std. Size  
Expwy/Freeway

48"x 48"



W8-17P  
(Optional)

Std. Size  
Expwy/Freeway

30"x 24"



W8-15

Std. Size  
Expwy/Freeway

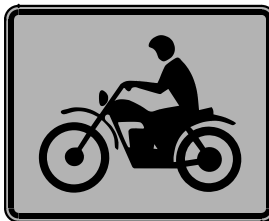
8" D  
48"x 48"



W8-7

Std. Size  
Expwy/Freeway

8" D  
48"x 48"



W8-15p

Std. Size  
Expwy/Freeway

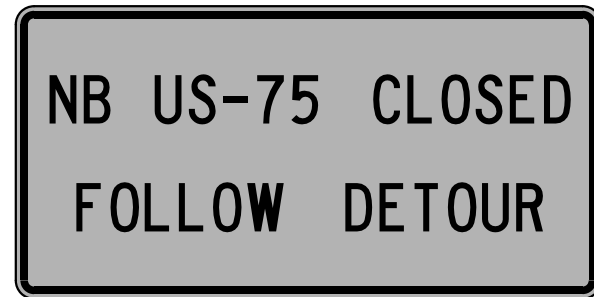
30"x 24"



W8-11

Std. Size  
Expwy/Freeway

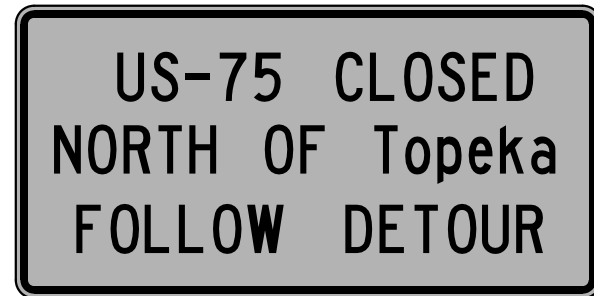
8" D  
48"x 48"



SP-01  
(Special Sign)

Std. Size  
6" C

Expwy/Freeway  
10" D

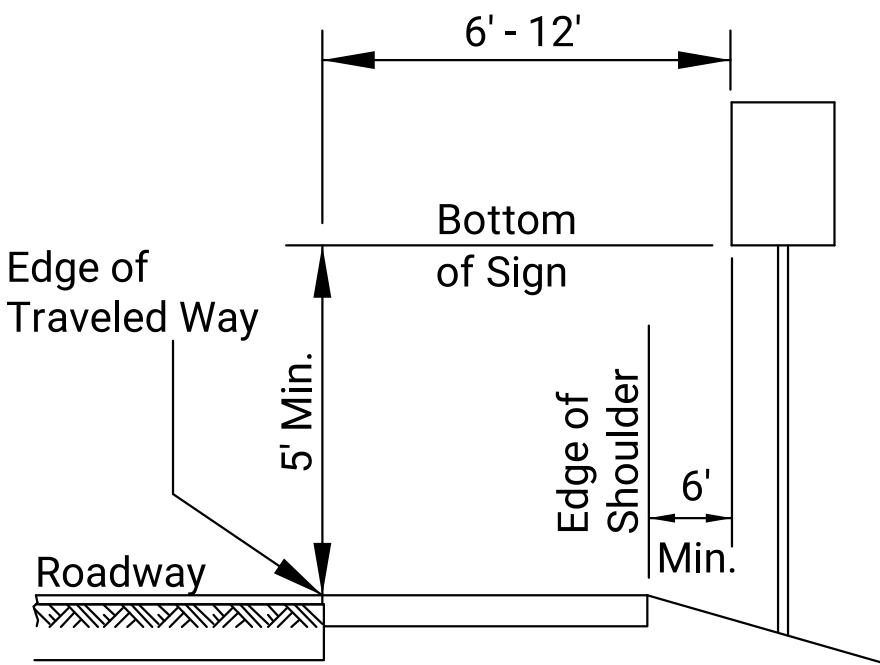


SP-02  
(Special Sign)

Std. Size  
Uppercase: 6" C  
Lowercase: 4.5" C

Expwy/Freeway  
Uppercase: 10" D  
Lowercase: 8" D

All city names and street names on special signs and destination signs  
must have upper and lower case letters.

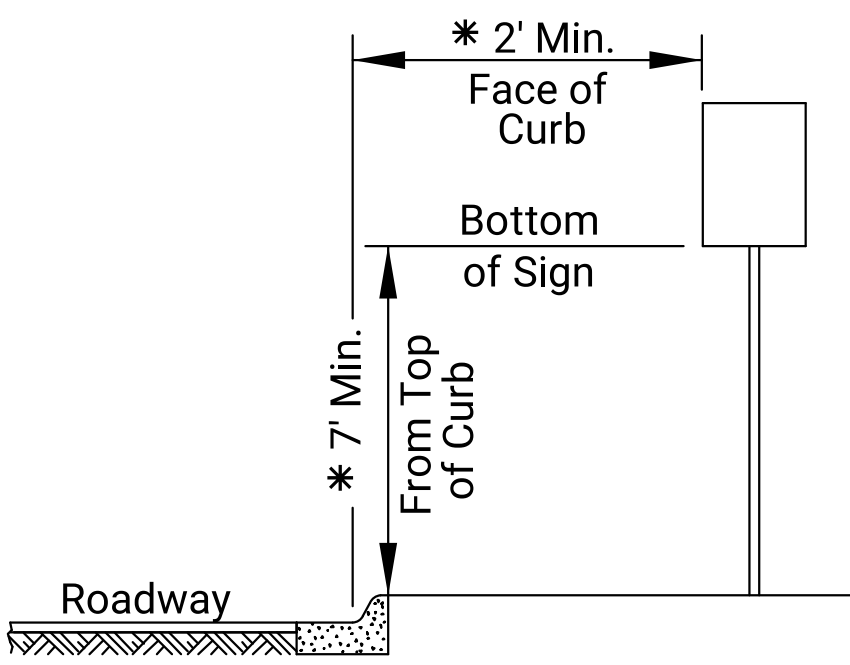


RURAL

1) Ground-mounted signs shall be mounted at a minimum height of 5' measured from the bottom of sign to the near edge of the pavement.

2) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

3) The height of the secondary sign mounted below another sign may be 4' measured from the bottom of the sign to the near edge of the pavement. Signs shall not overlap each other.



URBAN

1) Signs shall be mounted at a minimum height of 7' measured from the bottom of sign to the near edge of the pavement.

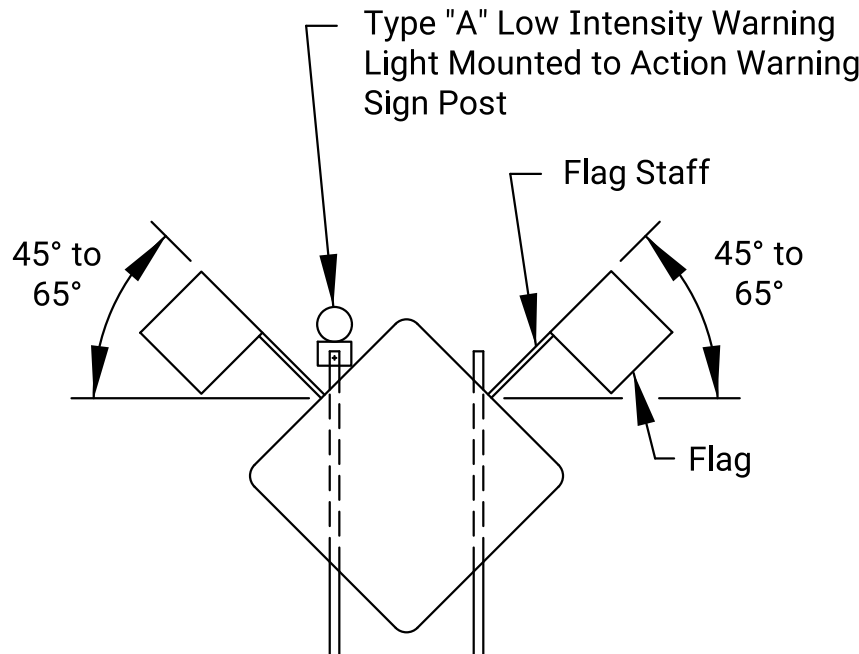
2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.

3) Signs mounted lower than 7' should not project more than 4" into pedestrian facilities.

4) The height from of the secondary sign mounted below another sign may be 6' measured from the bottom of sign to the near edge of the pavement. Signs shall not overlap each other.

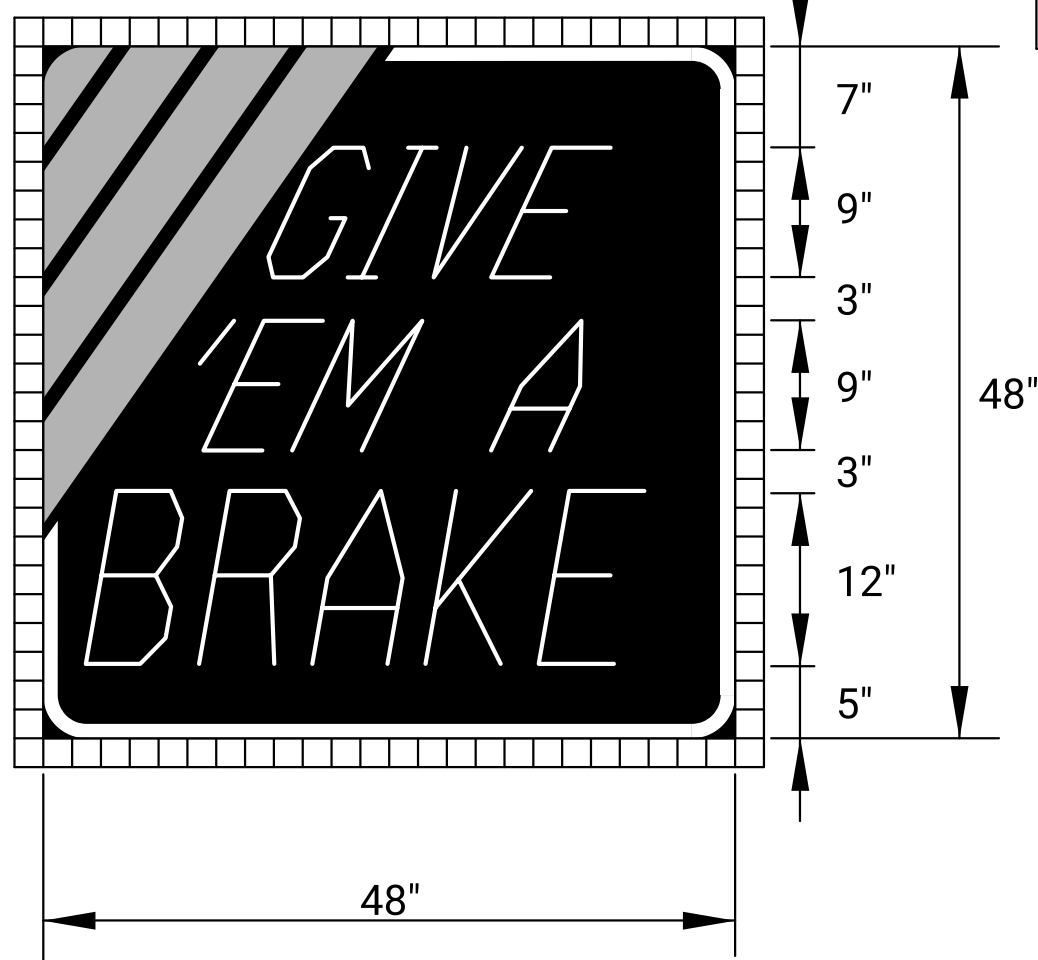
5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

\* 6) Pedestrian detour signing shall be a minimum of 2' measured from the top of the pedestrian pathway to the bottom of the sign and shall not protrude into the walkway nor shall it project beyond the back of curb.

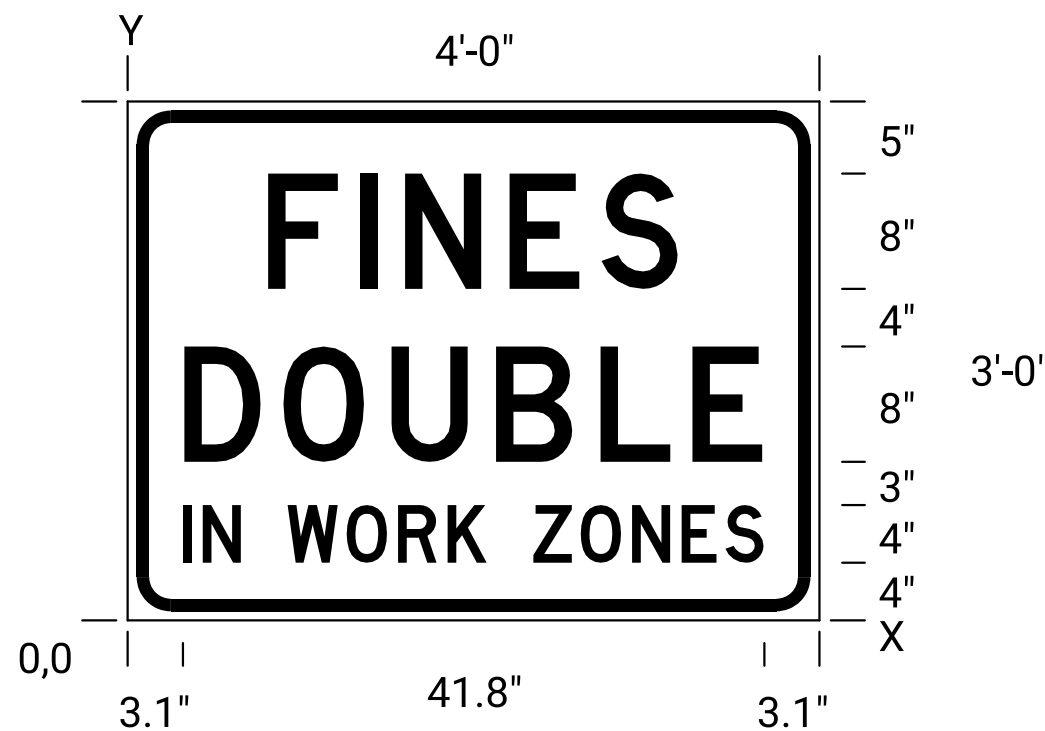


When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood posts.

In the case of hitting rock when driving posts  
1. Shift the sign location. Do not violate minimum sign spacing.  
2. With the engineer's approval, use acceptable alternative sign stands.



KI-104a



KI-105a

| STATE  | PROJECT NO.      | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|------------------|------|-----------|--------------|
| KANSAS | XX-XX XX-XXXX-XX | XXXX | XXX       | XXX          |

|                |                                        |
|----------------|----------------------------------------|
| Sign Number    | GIVE EM A BRAKE                        |
| Width x Height | 4'-0" x 4'-0"                          |
| Border Width   | 1.0"                                   |
| Corner Radius  | 4.0"                                   |
| Stripe Width   | 3.0"                                   |
| Mounting       | Ground                                 |
| Background     | Type: Non-Reflective<br>Color: Black   |
| Legend/Border  | Type: Reflective<br>Color: White       |
| Legend Font    | Dutch 801 Roman SWC<br>25 Degree Slant |
| Stripes        | Type: Reflective<br>Color: Orange      |

|                |                                      |
|----------------|--------------------------------------|
| Sign Number    | FINES DOUBLE                         |
| Width x Height | 4'-0" x 3'-0"                        |
| Border Width   | 0.9"                                 |
| Corner Radius  | 3.0"                                 |
| Mounting       | Ground                               |
| Background     | Type: Reflective<br>Color: White     |
| Legend/Border  | Type: Non-Reflective<br>Color: Black |

Dimensions in inches

Spacings are to start of next letter

| Y FONT | LETTER SPACINGS |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  | HT LEN |
|--------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--------|
| 23.0 D | X               | F   | I   | N   | E   | S   | X   |     |     |     |     |     |     |     |     |  | 8.0    |
|        | 9.7             | 6.4 | 3.2 | 7.3 | 6.4 | 5.4 | 9.7 |     |     |     |     |     |     |     |     |  | 28.6   |
| 11.0 D | X               | D   | O   | U   | B   | L   | E   | X   |     |     |     |     |     |     |     |  | 8.0    |
|        | 3.9             | 6.9 | 7.5 | 7.3 | 6.4 | 4.9 | 3.9 |     |     |     |     |     |     |     |     |  | 40.3   |
| 4.0 D  | X               | I   | N   | W   | O   | R   | K   | X   | Z   | O   | N   | E   | S   | X   |     |  | 4.0    |
|        | 3.1             | 1.6 | 2.7 | 3.2 | 4.3 | 3.8 | 3.6 | 2.8 | 3.2 | 3.4 | 3.8 | 3.6 | 3.2 | 2.7 | 3.1 |  | 41.8   |

Notes:

Typically, there are two sets of informational signs installed per project: one for each direction of traffic.

Install signs a minimum of 500' in advance of the road work ahead sign. The engineer may designate a more appropriate location if conditions dictate.

The informational signs are not to interfere with the traffic control signs for the project.

|     |      |           |  |  |         |
|-----|------|-----------|--|--|---------|
| 3   |      |           |  |  |         |
| 2   |      |           |  |  |         |
| 1   |      |           |  |  |         |
| NO. | DATE | REVISIONS |  |  | BY APPD |

KANSAS DEPARTMENT OF TRANSPORTATION

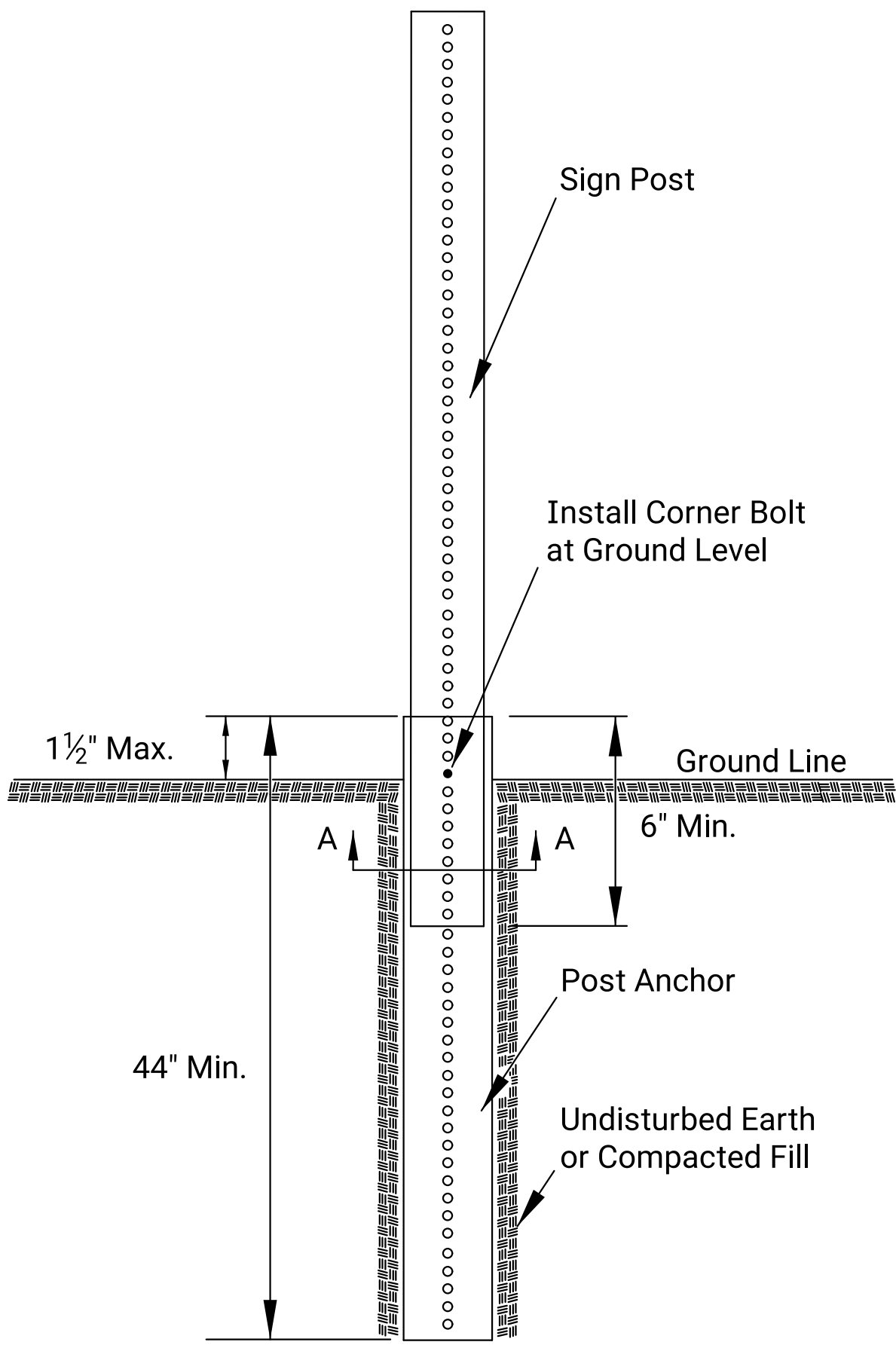
TRAFFIC CONTROL  
SIGN INFORMATION

TE710

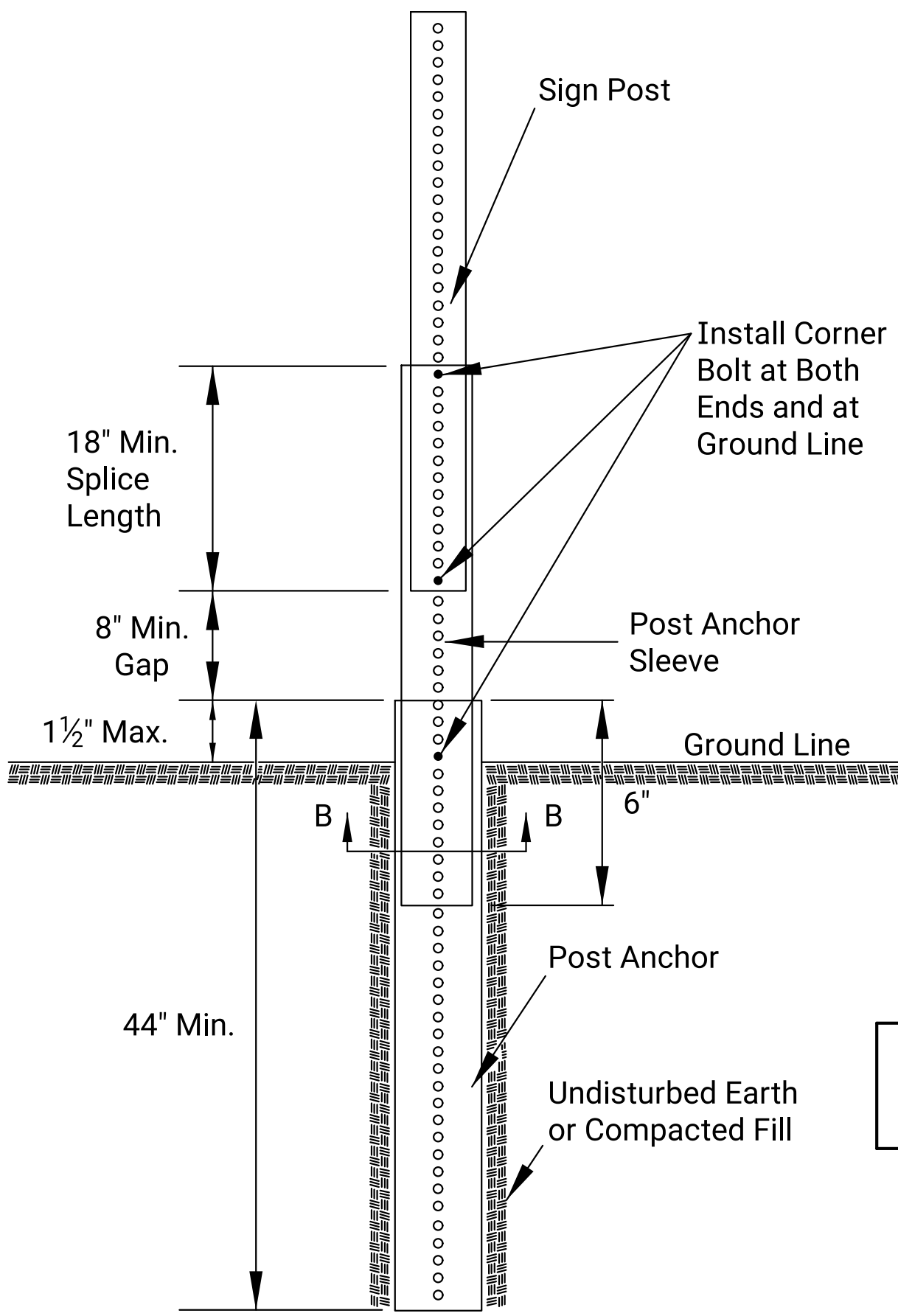
|               |        |            |        |               |           |
|---------------|--------|------------|--------|---------------|-----------|
| FHWA APPROVAL |        | 06/01/15   | APPD   | Kristina Pyle |           |
| DESIGNED      | R.W.B. | DETAILED   | R.W.B. | QUANTITIES    | TRACED    |
| DESIGN CK.    |        | DETAIL CK. |        | QUAN. CK.     | TRACE CK. |



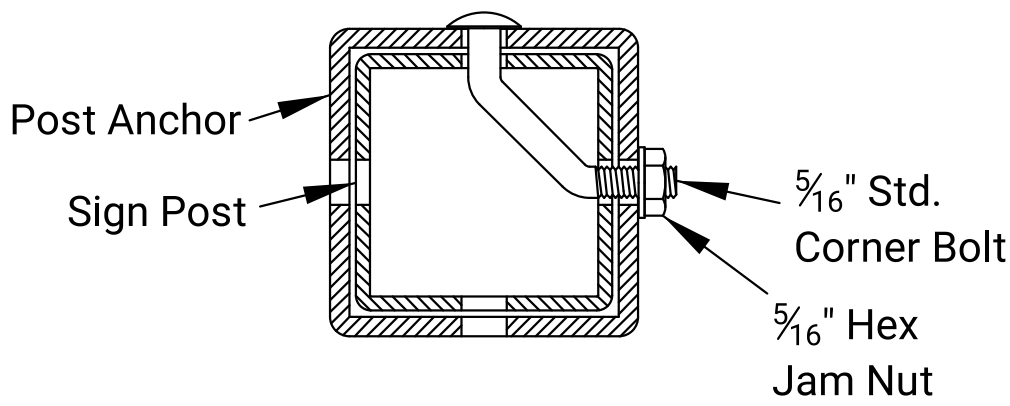
PERFORATED SQUARE STEEL TUBE (P.S.S.T.) POST SETUP



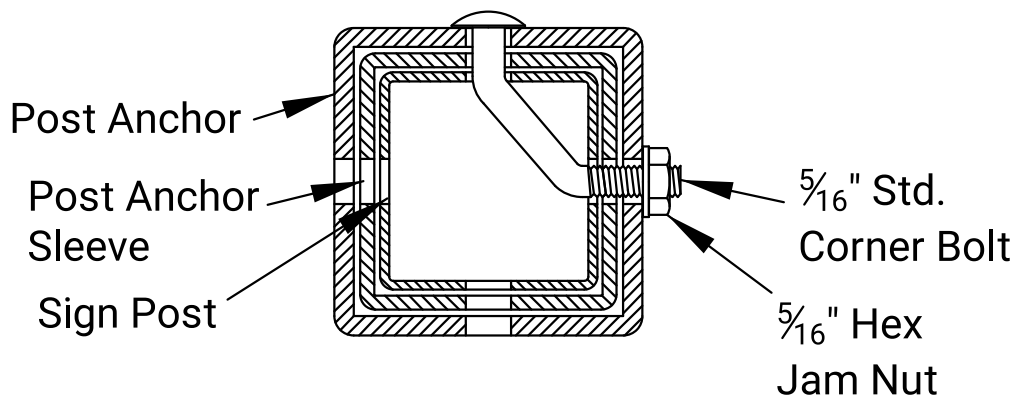
P.S.S.T. Detail



Telescoping P.S.S.T. Detail



Section A-A

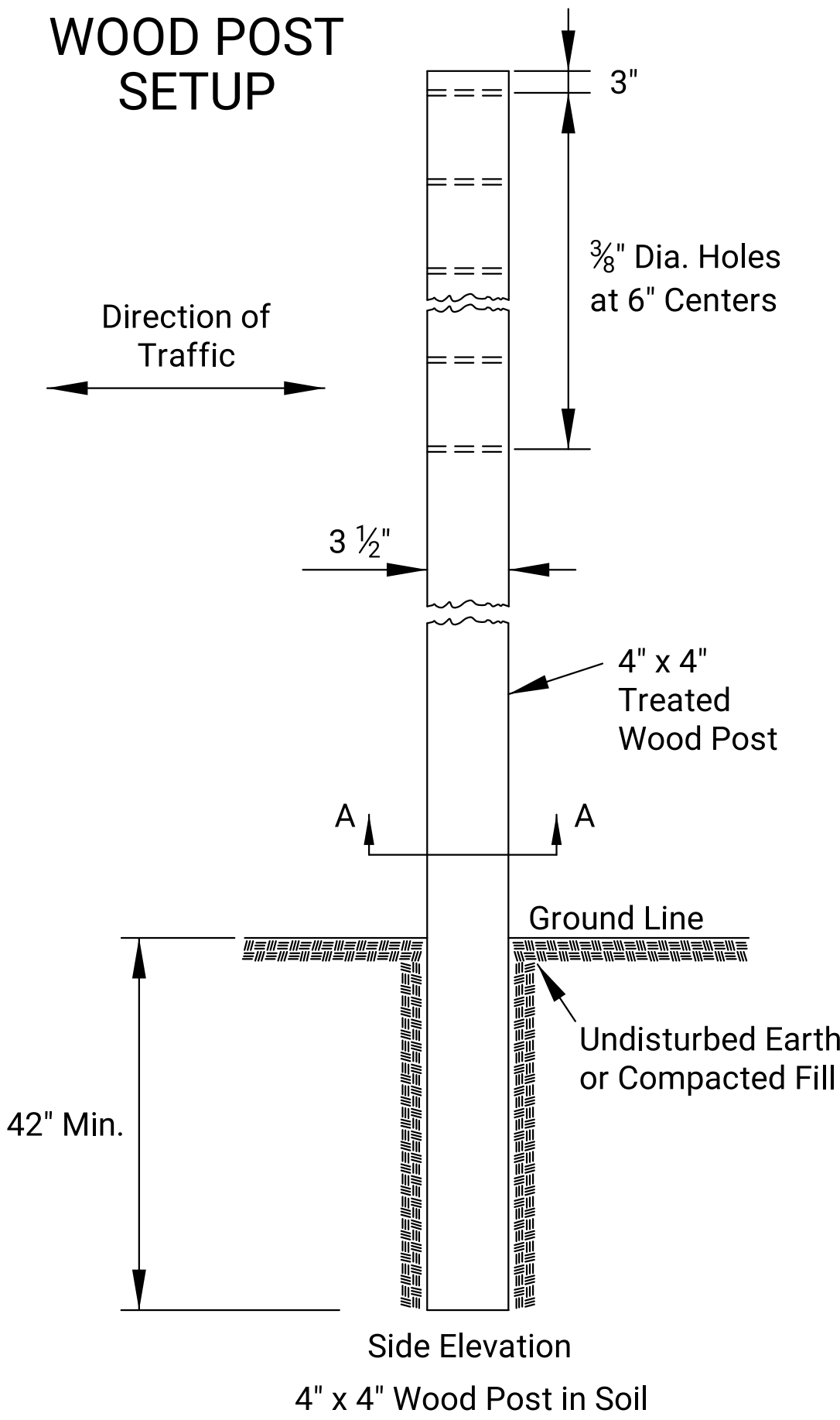


Section B-B

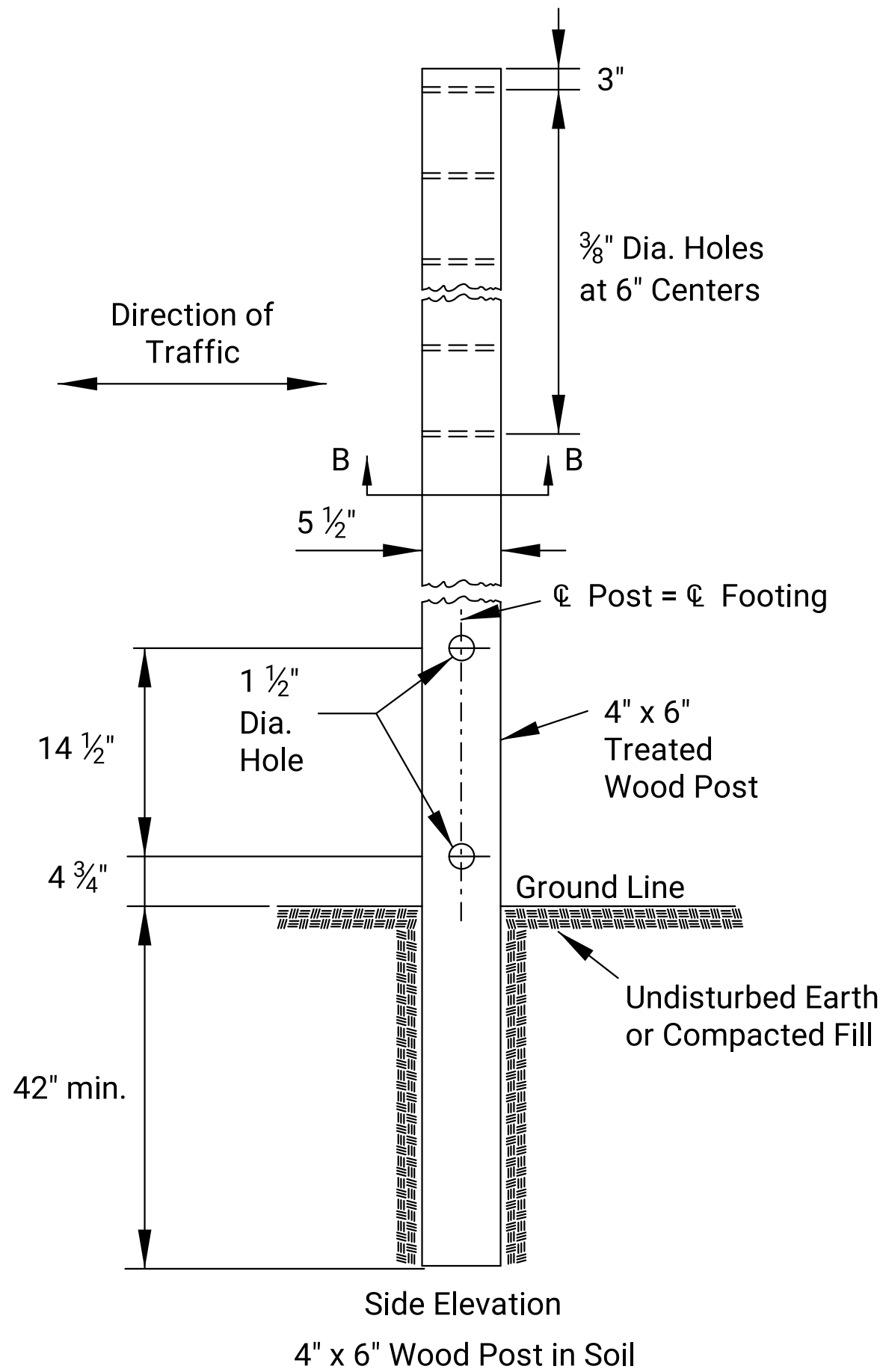
Details for 2", 2 1/4", or 2 1/2" sign posts

Place bolts in the same corner along each sign post.

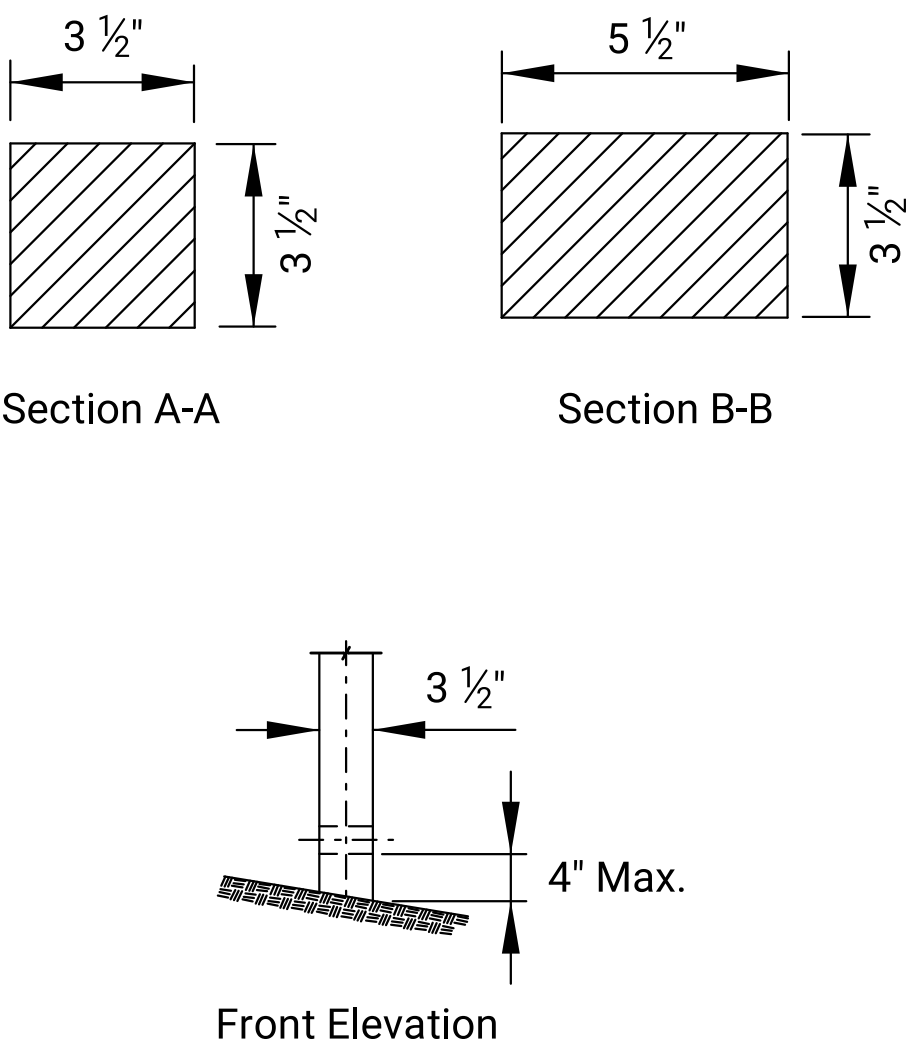
WOOD POST SETUP



Side Elevation  
4" x 4" Wood Post in Soil

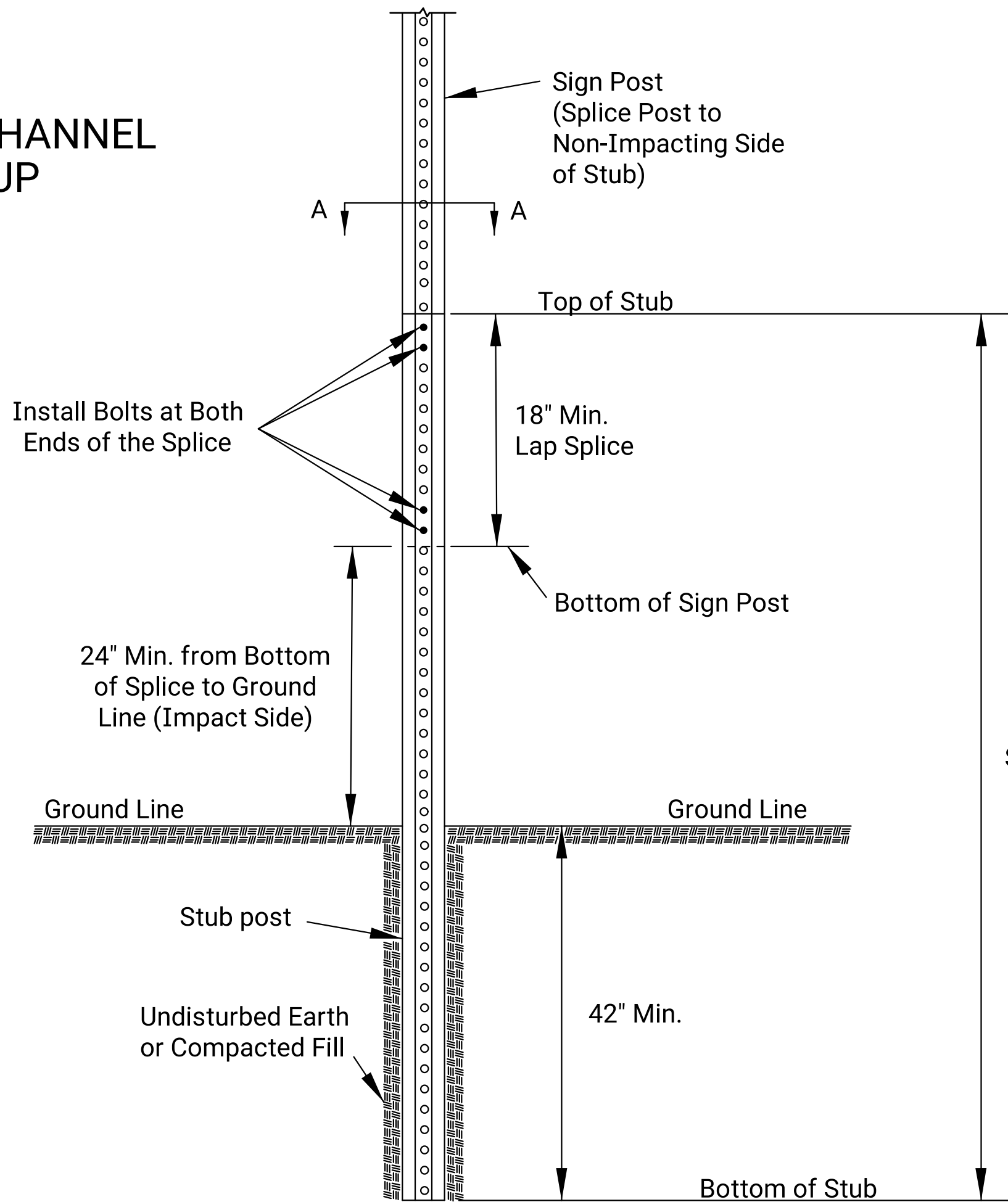


Side Elevation  
4" x 6" Wood Post in Soil

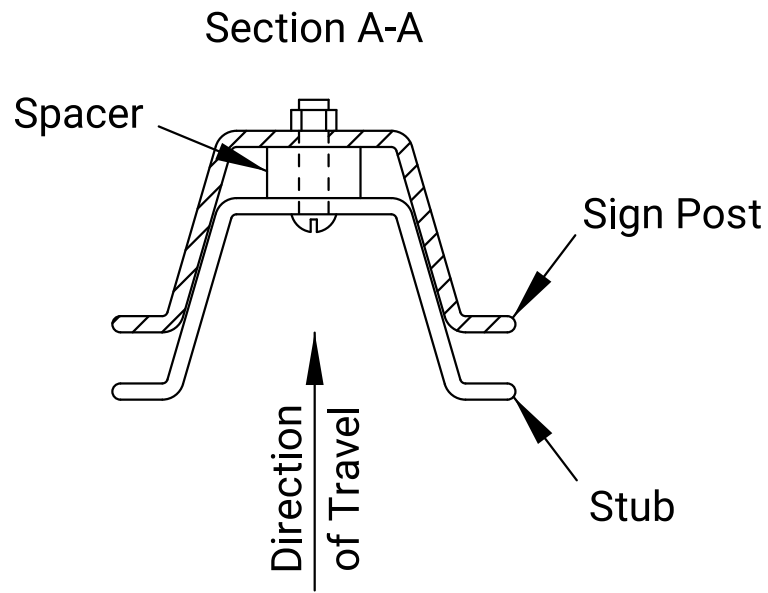


See TE710 for Additional  
Details and Requirements

3 LB/F U-CHANNEL SETUP



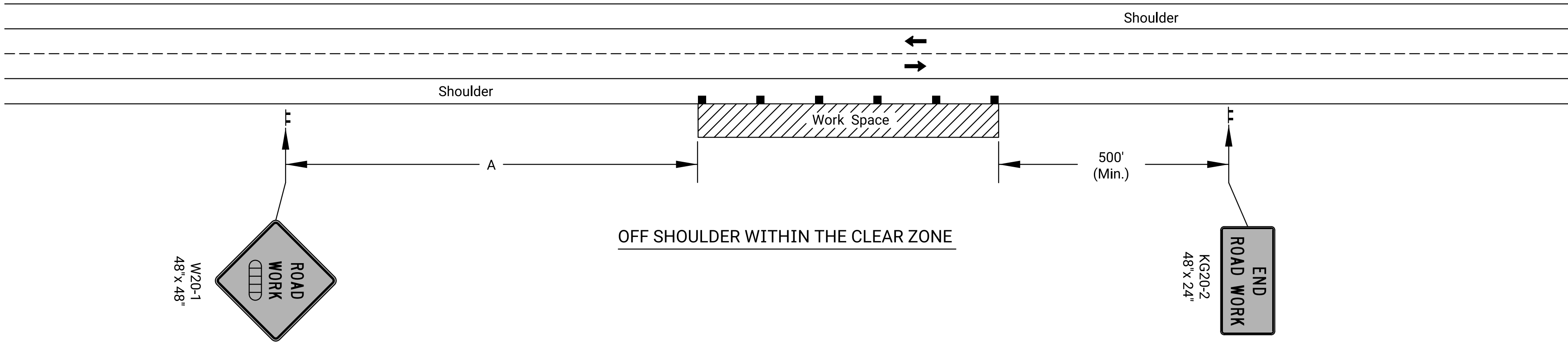
Notes:  
Place two bolts at both ends of the splice through the holes nearest the ends of the splice.  
Use manufacturer recommended spacers over the bolts between the spliced pieces of U-Channel.



|                                     |        |            |        |               |           |
|-------------------------------------|--------|------------|--------|---------------|-----------|
| 3                                   |        |            |        |               |           |
| 2                                   |        |            |        |               |           |
| 1                                   |        |            |        |               |           |
| NO.                                 | DATE   | REVISIONS  | BY     | APP'D         |           |
| KANSAS DEPARTMENT OF TRANSPORTATION |        |            |        |               |           |
| TRAFFIC CONTROL SIGN POSTS          |        |            |        |               |           |
| TE712                               |        |            |        |               |           |
| FHWA APPROVAL                       |        | 06/01/15   | APP'D  | Kristina Pyle |           |
| DESIGNED                            | B.A.H. | DETAILED   | R.W.B. | QUANTITIES    | TRACED    |
| DESIGN CK.                          |        | DETAIL CK. |        | QUAN. CK.     | TRACE CK. |



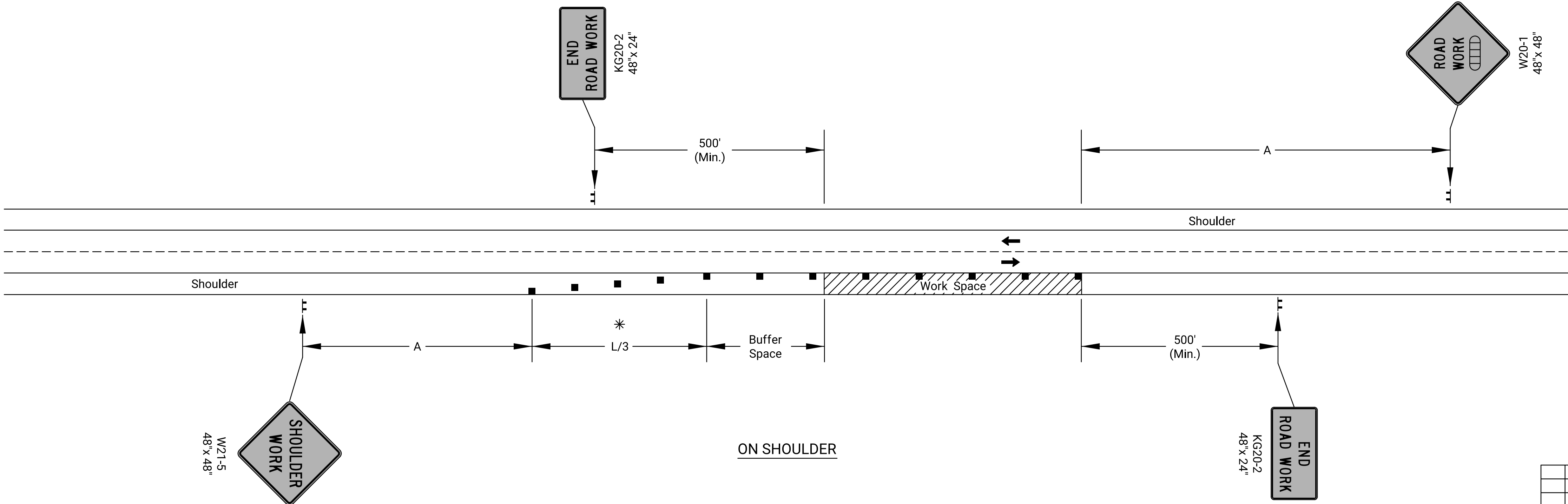
| STATE  | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | 0           | 0    | 0         | 0            |



Notes:

No traffic control is required if the Work Space is located outside of the clear zone.

For operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with high-intensity rotating, flashing, oscillating, or strobe lights is used.



\* Omit taper if paved shoulder is less than 8' wide.

- Channelizing Device
- ◻◻◻◻ Ahead, 1500 ft, or 1 Mile

|                                                       |        |            |        |            |           |
|-------------------------------------------------------|--------|------------|--------|------------|-----------|
|                                                       |        |            |        |            |           |
|                                                       |        |            |        |            |           |
| NO.                                                   | DATE   | REVISIONS  |        | BY         | APP'D     |
| KANSAS DEPARTMENT OF TRANSPORTATION                   |        |            |        |            |           |
| TRAFFIC CONTROL<br>SHOULDER WORK<br>UNDIVIDED ROADWAY |        |            |        |            |           |
| TE720                                                 |        |            |        |            |           |
| FHWA APPROVAL                                         |        | 06-01-15   |        | APP'D.     |           |
| DESIGNED                                              | L.E.R. | DETAILED   | R.W.B. | QUANTITIES | TRACED    |
| DESIGN CK.                                            |        | DETAIL CK. |        | QUAN.CK.   | TRACE CK. |



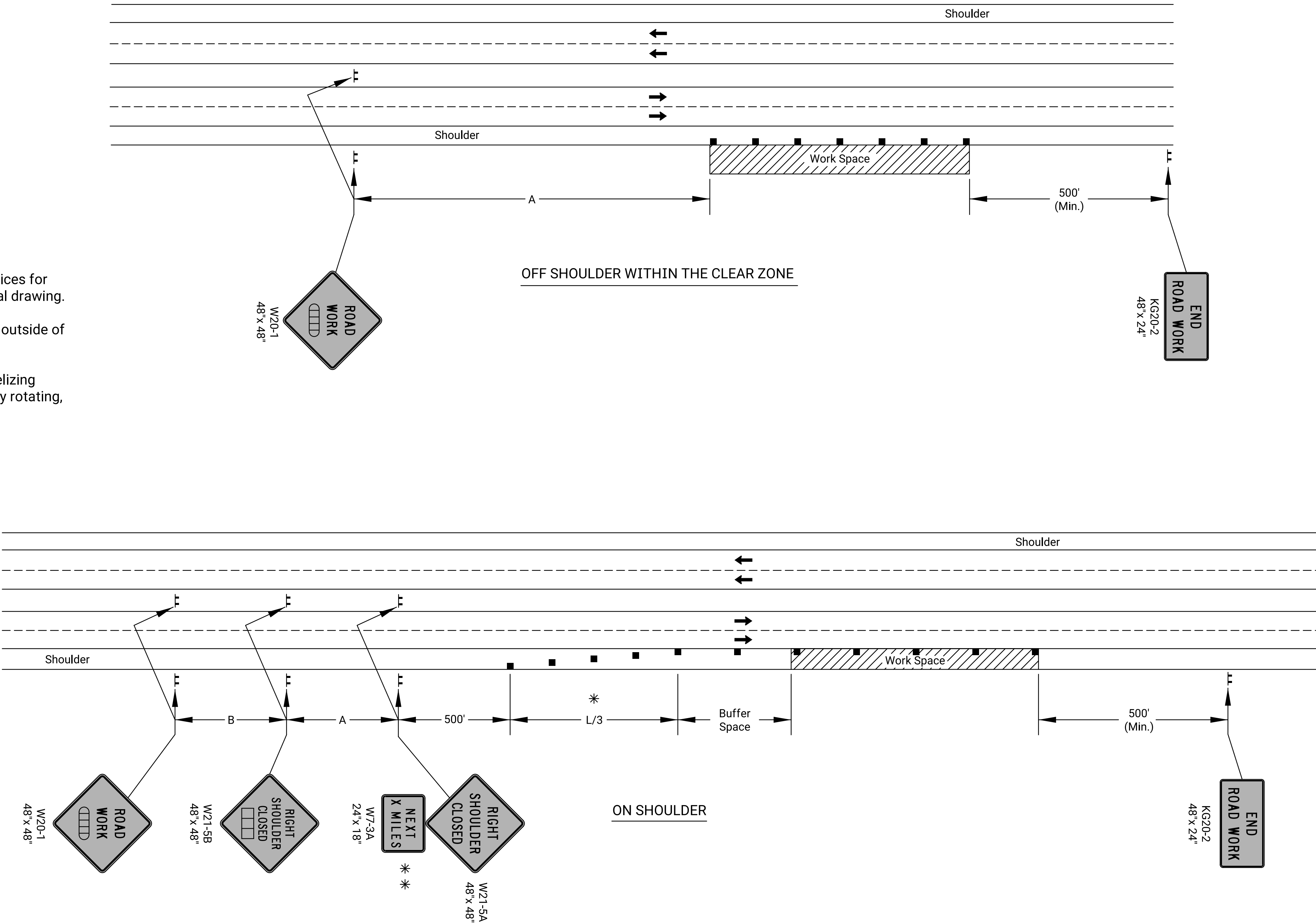
| STATE  | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | 0           | 0    | 0         | 0            |

Notes:

For work in the median, install signs and channelizing devices for each direction of traffic according to the applicable typical drawing.

No traffic control is required if the Work Space is located outside of the clear zone.

For operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with a high-intensity rotating, flashing, oscillating, or strobe light is used.



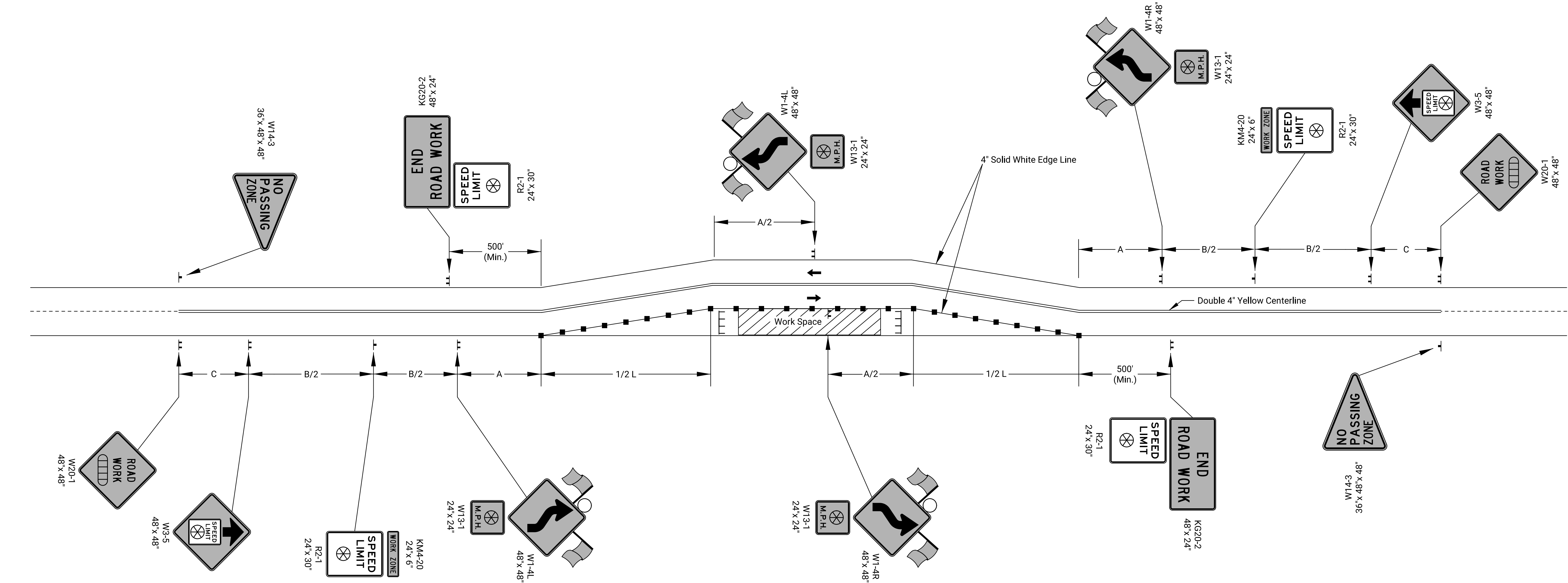
- \* Omit taper if paved shoulder is less than 8' wide.
- \* \* Eliminate W7-3a if shoulder is closed for less than 2 miles.

- X Length to the Nearest Whole Mile
- Channelizing Device
- ▢ Ahead, 1500 ft, or 1 Mile
- ▢ Ahead, 1000 ft, 1500 ft or 1/2 Mile

|                                                     |        |            |        |                   |           |
|-----------------------------------------------------|--------|------------|--------|-------------------|-----------|
|                                                     |        |            |        |                   |           |
|                                                     |        |            |        |                   |           |
| NO.                                                 | DATE   | REVISIONS  |        |                   | BY APP'D  |
| KANSAS DEPARTMENT OF TRANSPORTATION                 |        |            |        |                   |           |
| TRAFFIC CONTROL<br>SHOULDER WORK<br>DIVIDED ROADWAY |        |            |        |                   |           |
| TE722                                               |        |            |        |                   |           |
| FHWA APPROVAL                                       |        | 06-01-15   | APP'D. | Kristina Ericksen |           |
| DESIGNED                                            | L.E.R. | DETAILED   | R.W.B. | QUANTITIES        | TRACED    |
| DESIGN CK.                                          |        | DETAIL CK. |        | QUAN.CK.          | TRACE CK. |



- Channelizing Device
- ⌚ Type 3 Barricades
- ▤ Ahead, 1500 ft, or 1 Mile
- ⊗ Speed to be Determined by the Engineer
- Type "A" Low Intensity Warning Light



W24-1L  
48"x 48"

OR

W24-1R  
48"x 48"

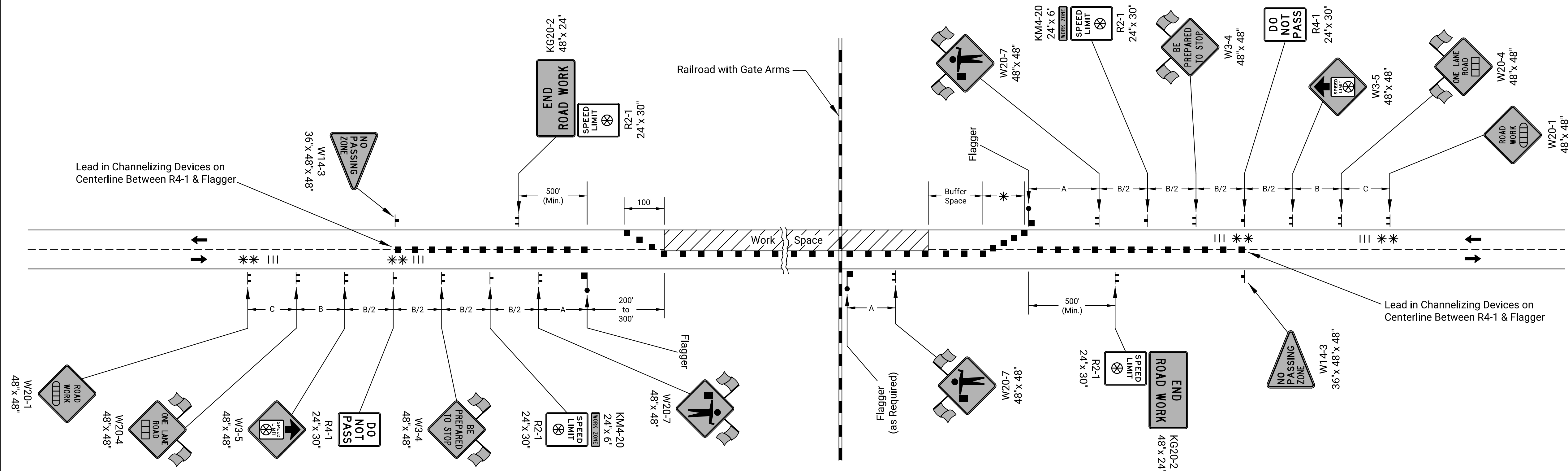
One W24-1 should be used per approach where the tangent distance between two reverse curves is less than 600 ft. If used, use in place of the first W1-4 and eliminate the second.

| STATE  | PROJECT NO.      | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|------------------|------|-----------|--------------|
| KANSAS | XX-XX XX-XXXX-XX | XXXX | XXX       | XXX          |

| 3                                   |          |                               |        |             |           |
|-------------------------------------|----------|-------------------------------|--------|-------------|-----------|
| 2                                   |          |                               |        |             |           |
| 1                                   | 03/13/18 | W24-1 usage changed to Should | R.W.B. | E.G.K.      |           |
| NO.                                 | DATE     | REVISIONS                     | BY     | APPD        |           |
| KANSAS DEPARTMENT OF TRANSPORTATION |          |                               |        |             |           |
| TRAFFIC CONTROL<br>LANE SHIFT       |          |                               |        |             |           |
| TE724                               |          |                               |        |             |           |
| FHWA APPROVAL                       |          | 03/13/18                      | APPD   | Eric Kocher |           |
| DESIGNED                            | R.W.B.   | DETAILED                      | R.W.B. | QUANTITIES  | TRACED    |
| DESIGN CK.                          |          | DETAIL CK.                    |        | QUAN. CK.   | TRACE CK. |



| STATE  | PROJECT NO.      | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|------------------|------|-----------|--------------|
| KANSAS | XX-XX XX-XXXX-XX | XXXX | XXX       | XXX          |

FLAGGER

USE TE731 FOR FLAGGER OR PILOT CAR ON ROADWAYS  
WITH CONCRETE SHOULDERS GREATER THAN 8 FT.

Notes:

Trucks hauling material to the project should STOP at the Flagger. After stopping, upon approval of the Engineer, trucks may be allowed to move around the Flagger.

Place a Flagger at all highway and major collector intersections and at-grade railroad intersections with lights and gates in the work space to control traffic crossing the tracks to the left of the gate arm. The need for a Flagger at minor side road intersections shall be determined by the Engineer. Place a W20-7 (Flagger symbol) sign on each side road that is controlled by a Flagger.

Existing signs shall not be covered or removed between Flagger stations.

Temporary rumble strips may be used in lieu of lead in channelizing devices when the roadway is less than or equal to 30' including paved shoulders. When extenuating circumstances exist, the Area Engineer may elect to eliminate both the lead in channelizers and the rumble strips.

- \* Minimum six (6) channelizers spaced at 20' intervals.

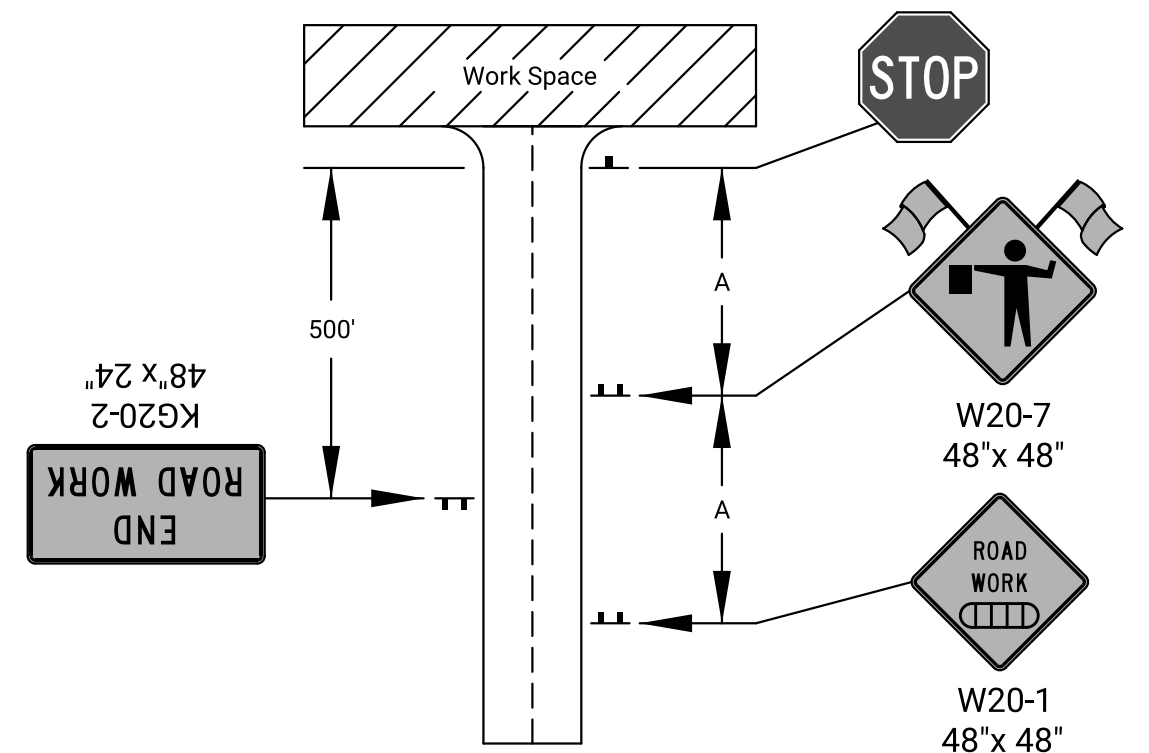
Optional rumble strips may be placed: One set between the W20-1 and W20-4, and one set between the R4-1 and W3-4, on each approach.

△ Not required on substantial maintenance projects  
(1R).

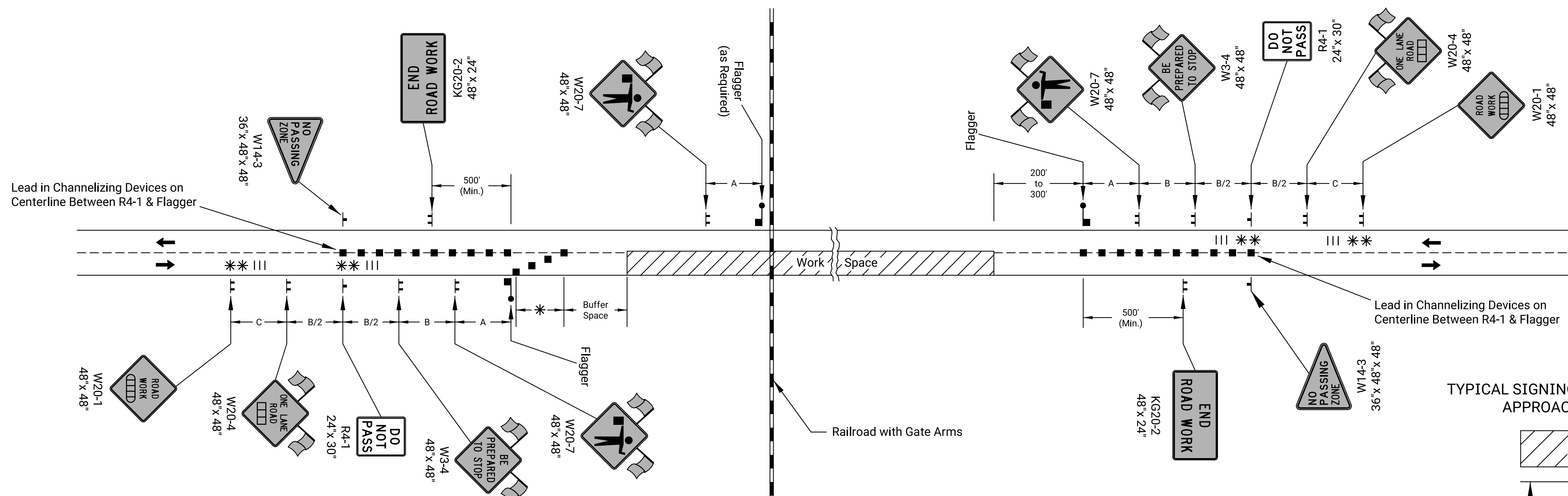
△△ The KG20-5 (WAIT FOR PILOT CAR) sign shall be mounted on an approved portable support and not attached to the existing stop sign post.

The KG20-5 sign shall be placed immediately in front of the existing stop sign, a minimum of 6" below the bottom of the stop sign. The sign should be removed or covered when there is no pilot car.

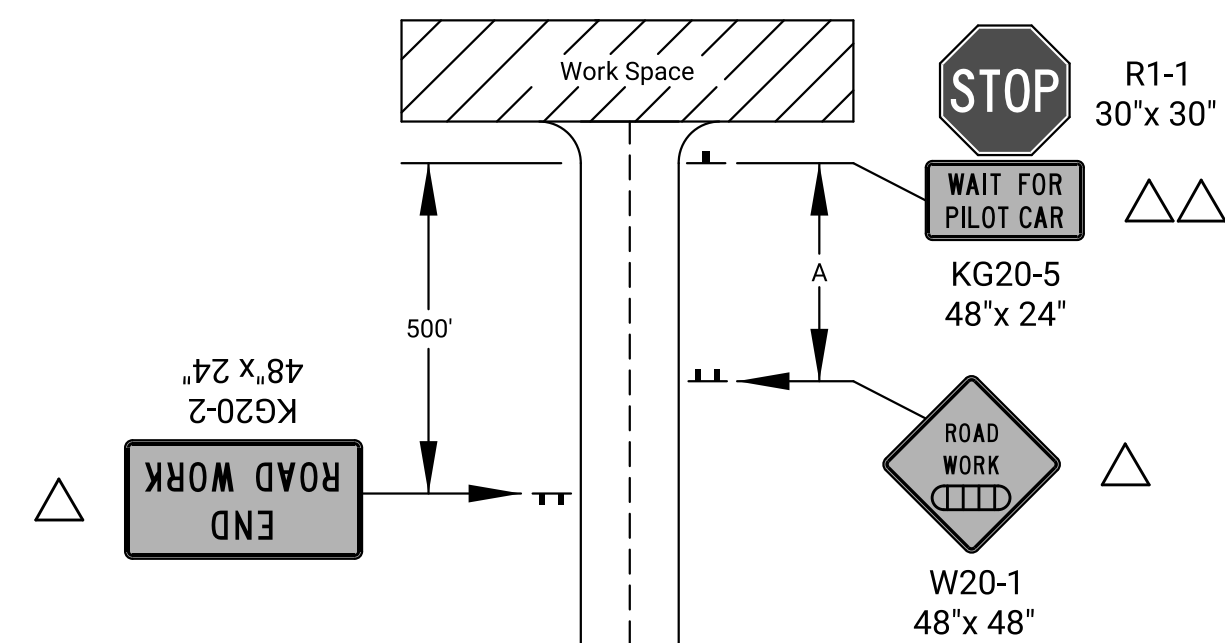
### TYPICAL SIGNING FOR HIGHWAY OR MAJOR COLLECTOR APPROACH TO WORK SPACE



### FLAGGER AND PILOT CAR



### TYPICAL SIGNING FOR A MINOR SIDE ROAD APPROACH TO WORK SPACE

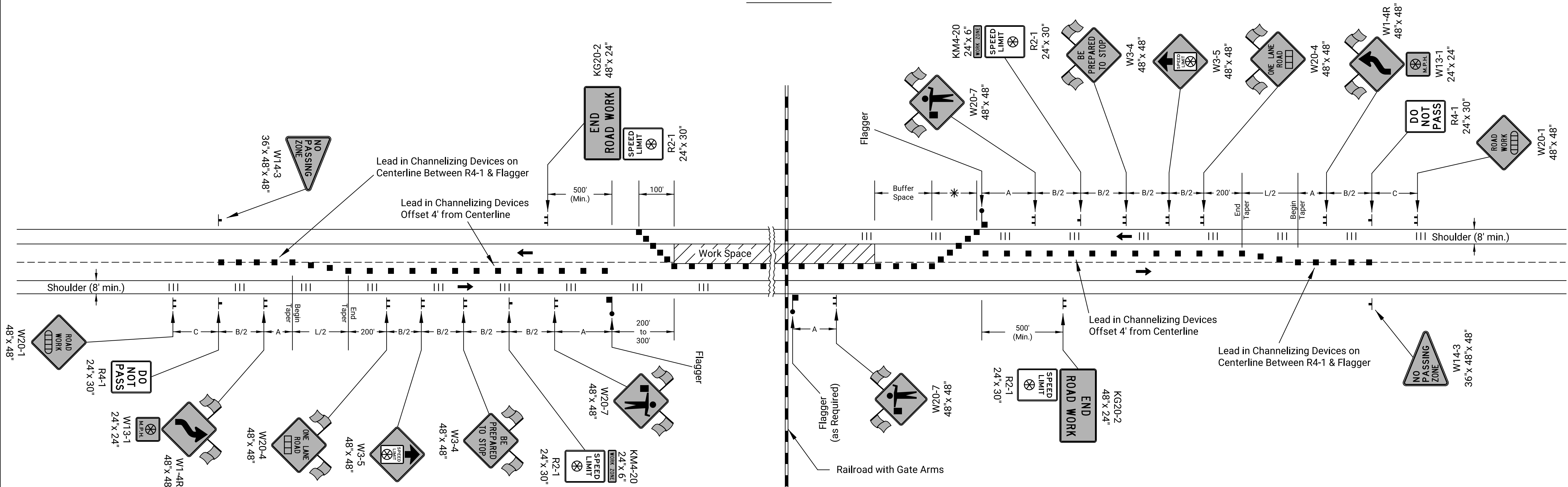


- Channelizing Device
- ▤ Ahead, 1500 ft, or 1 Mile
- ▥ Ahead, 1000 ft, 1500 ft, or ½ Mile
- ⊗ Speed to be Determined by the Engineer
- Type "A" Low Intensity Warning Light
- ||| Temporary Portable Rumble Strips

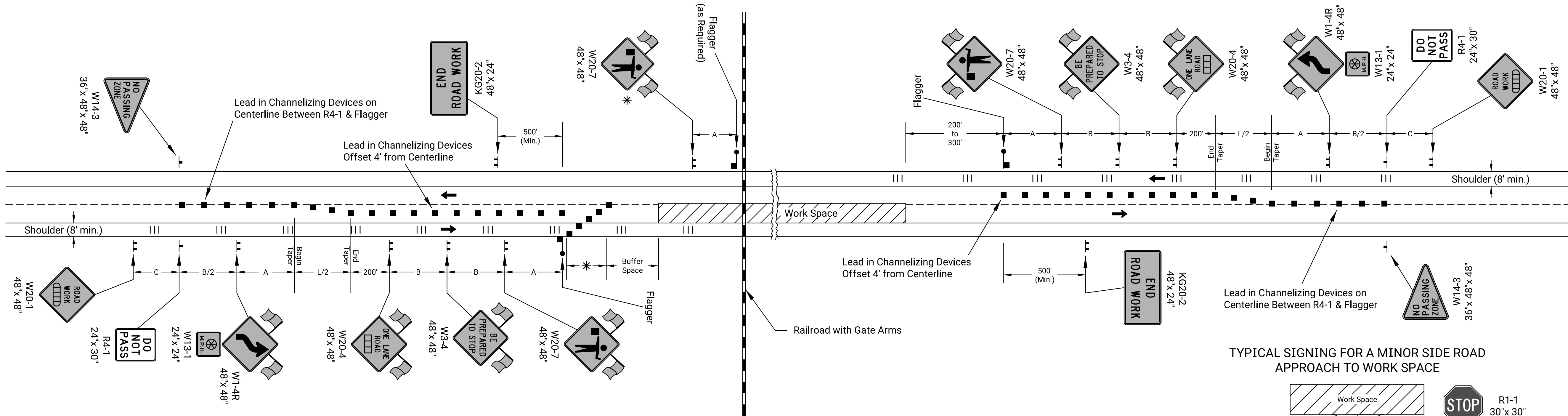
|                                                                                                             |        |            |                         |            |
|-------------------------------------------------------------------------------------------------------------|--------|------------|-------------------------|------------|
| 3                                                                                                           |        |            |                         |            |
| 2                                                                                                           |        |            |                         |            |
| 1                                                                                                           |        |            |                         |            |
| NO.                                                                                                         | DATE   | REVISIONS  | BY                      | APP'D      |
| <b>KANSAS DEPARTMENT OF TRANSPORTATION</b><br><br><b>TRAFFIC CONTROL</b><br><br><b>FLAGGER OR PILOT CAR</b> |        |            |                         |            |
| TE730                                                                                                       |        |            |                         |            |
| FHWA APPROVAL                                                                                               |        | 06/01/15   | APP'D Kristina Erickson |            |
| DESIGNED                                                                                                    | B.A.H. | DETAILED   | R.W.B.                  | QUANTITIES |
| DESIGN CK.                                                                                                  |        | DETAIL CK. |                         | QUAN. CK.  |
|                                                                                                             |        |            |                         | TRACE CK.  |



FLAGGER



FLAGGER AND PILOT CAR



Notes:

Trucks hauling material to the project should STOP at the Flagger. After stopping, upon approval of the Engineer, trucks may be allowed to move around the Flagger.

Place a Flagger at all highway, major collector intersections and at-grade railroad intersections with lights and gates in the work space to control traffic crossing the tracks to the left of the gate arm. The need for a Flagger at minor side road intersections shall be determined by the Engineer. Place a W20-7 (Flagger symbol) sign on each side road that is controlled by a Flagger.

Existing signs shall not be covered or removed between Flagger stations.

Temporary rumble strips may be used in lieu of lead in channelizing devices when the roadway is less than or equal to 30' including paved shoulders. When extenuating circumstances exist, the Area Engineer may elect to eliminate both the lead in channelizers and the rumble strips.

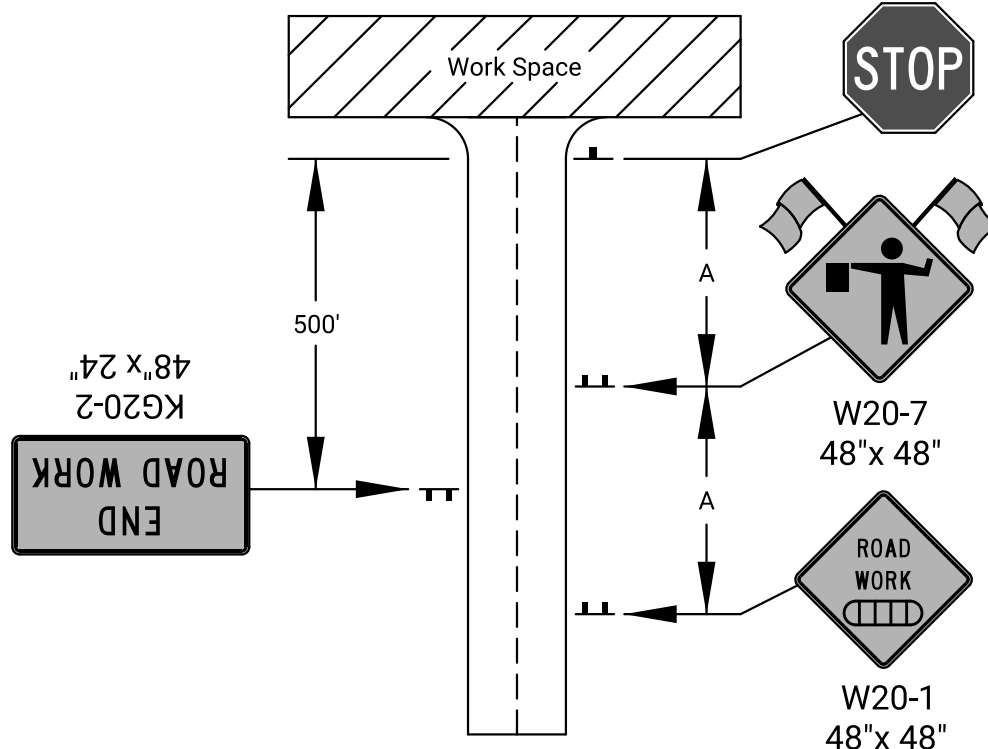
\* Minimum six (6) channelizers spaced at 20' intervals.

△ Not required on substantial maintenance projects (1R).

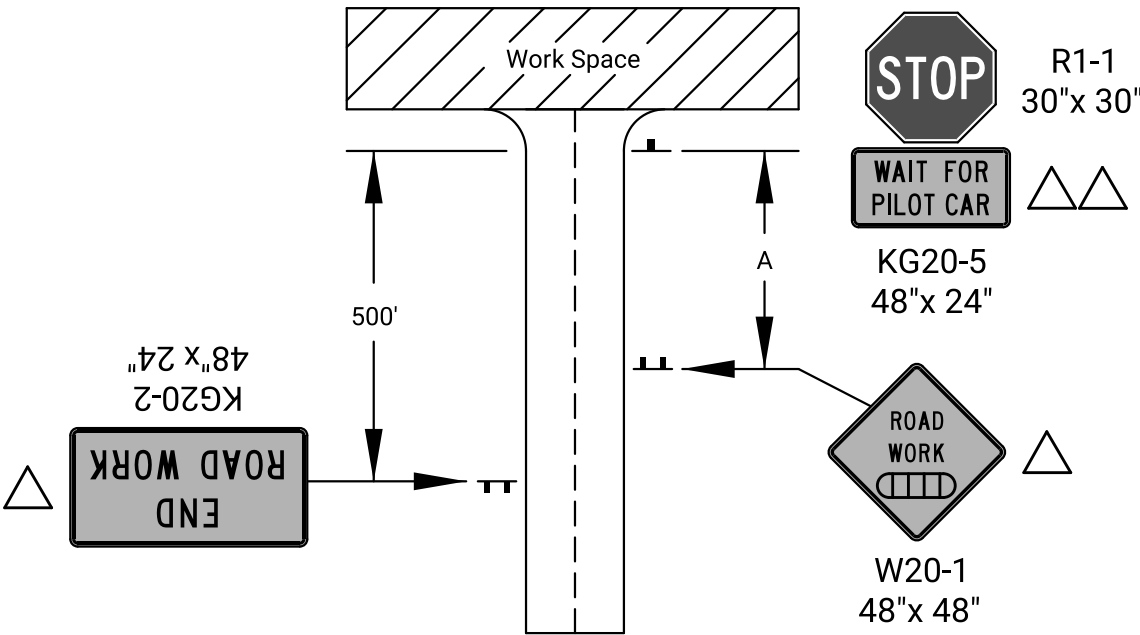
△△ The KG20-5 (WAIT FOR PILOT CAR) sign shall be mounted on an approved portable support and not attached to the existing stop sign post.

The KG20-5 sign shall be placed immediately in front of the existing stop sign, a minimum of 6" below the bottom of the stop sign. The sign should be removed or covered when there is no pilot car.

TYPICAL SIGNING FOR HIGHWAY OR MAJOR COLLECTOR APPROACH TO WORK SPACE



TYPICAL SIGNING FOR A MINOR SIDE ROAD APPROACH TO WORK SPACE



- Channelizing Device
- ▨ Ahead, 1500 ft, or 1 Mile
- ▨ Ahead, 1000 ft, 1500 ft, or ½ Mile
- ⊗ Speed to be Determined by the Engineer
- ||| Existing Shoulder Rumble Strips

|                                                                      |            |           |           |            |        |
|----------------------------------------------------------------------|------------|-----------|-----------|------------|--------|
| 3                                                                    |            |           |           |            |        |
| 2                                                                    |            |           |           |            |        |
| 1                                                                    |            |           |           |            |        |
| NO.                                                                  | DATE       | REVISIONS | BY        | APPD       |        |
| KANSAS DEPARTMENT OF TRANSPORTATION                                  |            |           |           |            |        |
| TRAFFIC CONTROL<br>FLAGGER OR PILOT CAR<br>CONCRETE SHOULDERS > 8 FT |            |           |           |            |        |
| TE731                                                                |            |           |           |            |        |
| FHWA APPROVAL                                                        |            |           |           |            |        |
| DESIGNED                                                             | B.A.H.     | DETAILED  | R.W.B.    | QUANTITIES | TRACED |
| DESIGN CK.                                                           | DETAIL CK. | QUAN. CK. | TRACE CK. |            |        |



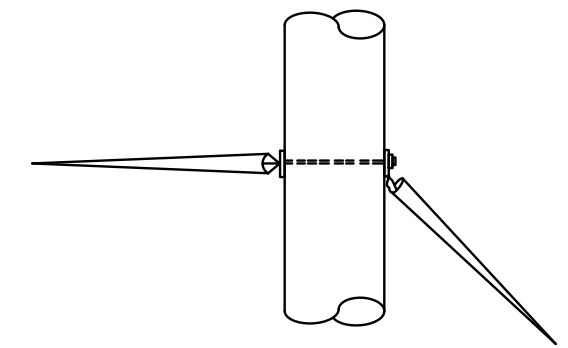
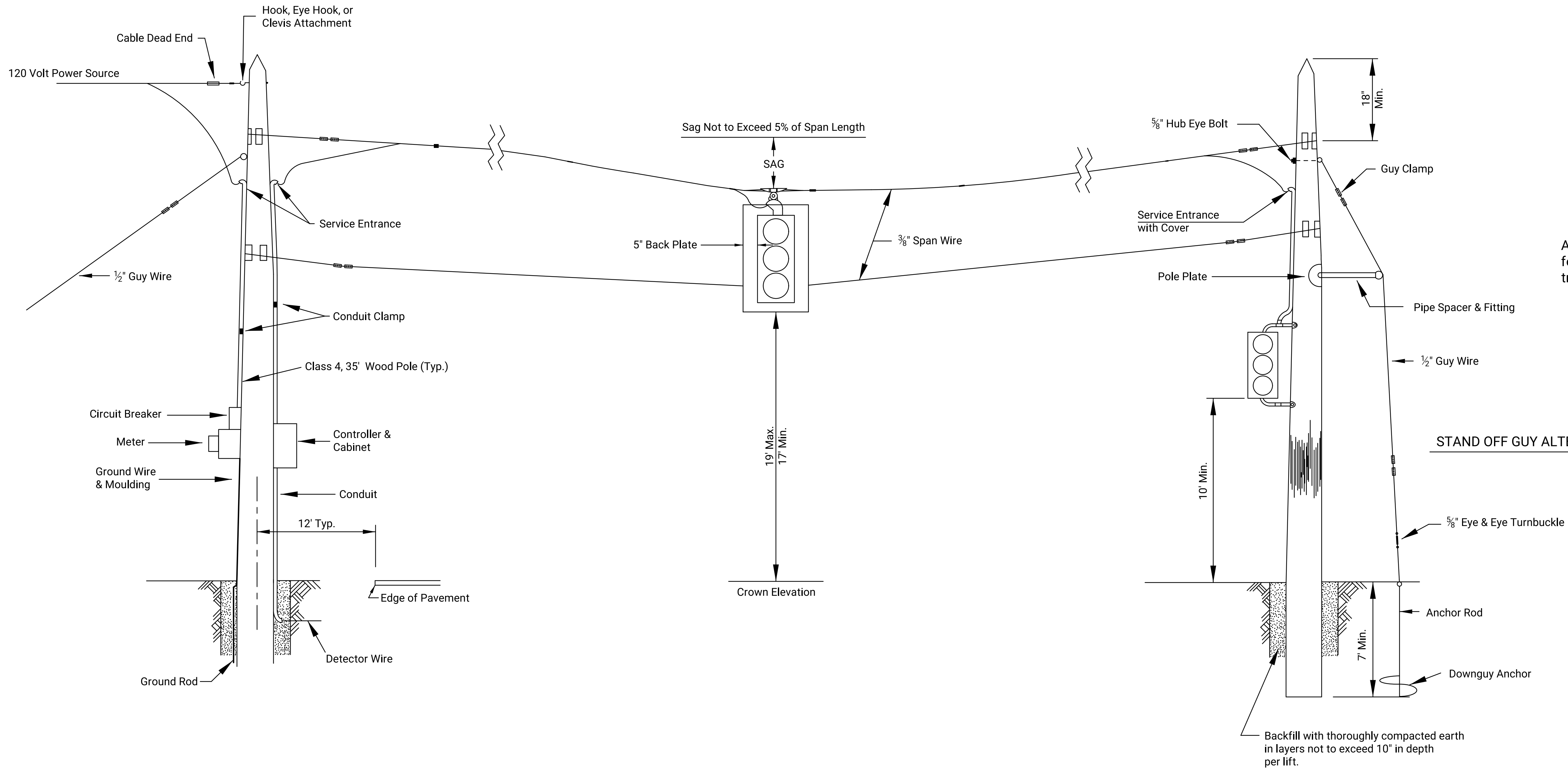




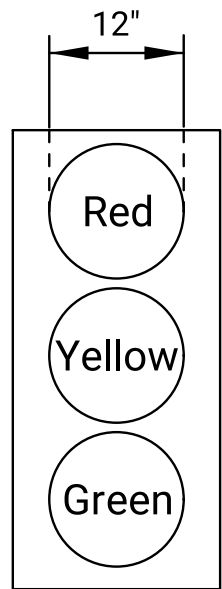
Plotted by : Robert.Barttron@ks.gov  
File : TE733.dgn

9-AUG-2022 16:45

| STATE  | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | 0           | 0    | 0         | 0            |



Alternate method of mounting  
for spanwire & downguy  
traffic signal support pole.



SIGNAL INDICATIONS

#### GENERAL NOTES

The engineer in charge of construction will need to approve all locations for traffic signals to be installed. Final positions & aiming of signal faces to be determined in the field.

Trailer mounted portable traffic signals may be substituted for span wire signals.

The traffic signal system shall conform to and be operated according to the requirements of the M.U.T.C.D.

Contact local utility companies to advise them of installation and coordinate power hook-up if needed.

All wiring installed shall conform to the national electrical code and local ordinances & requirements.

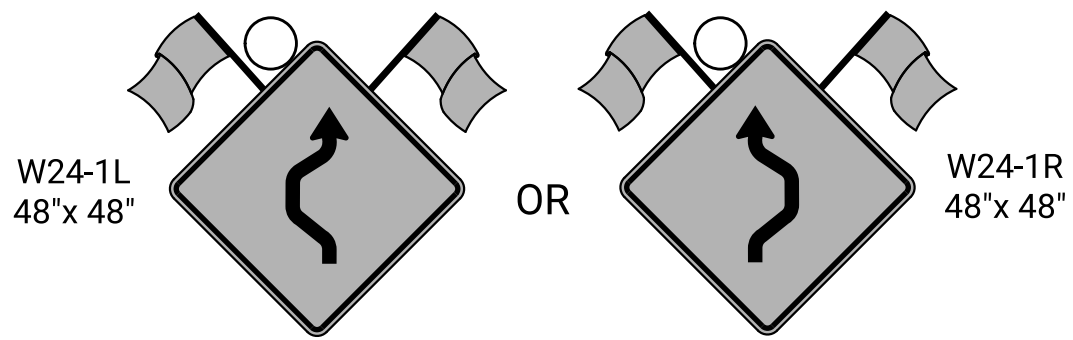
The power supply and the operation & maintenance of the signal system shall be the responsibility of the contractor.

Note:  
See TE734 for additional information.

|                                     |        |            |        |                   |           |
|-------------------------------------|--------|------------|--------|-------------------|-----------|
|                                     |        |            |        |                   |           |
|                                     |        |            |        |                   |           |
|                                     |        |            |        |                   |           |
| NO.                                 | DATE   | REVISIONS  |        | BY                | APP'D     |
| KANSAS DEPARTMENT OF TRANSPORTATION |        |            |        |                   |           |
| TRAFFIC CONTROL                     |        |            |        |                   |           |
| TEMPORARY TRAFFIC SIGNAL DETAILS    |        |            |        |                   |           |
| TE733                               |        |            |        |                   |           |
| FHWA APPROVAL                       |        | 06-01-15   | APP'D. | Kristina Ericksen |           |
| DESIGNED                            | L.E.R. | DETAILED   | R.W.B. | QUANTITIES        | TRACED    |
| DESIGN CK.                          |        | DETAIL CK. |        | QUAN.CK.          | TRACE CK. |

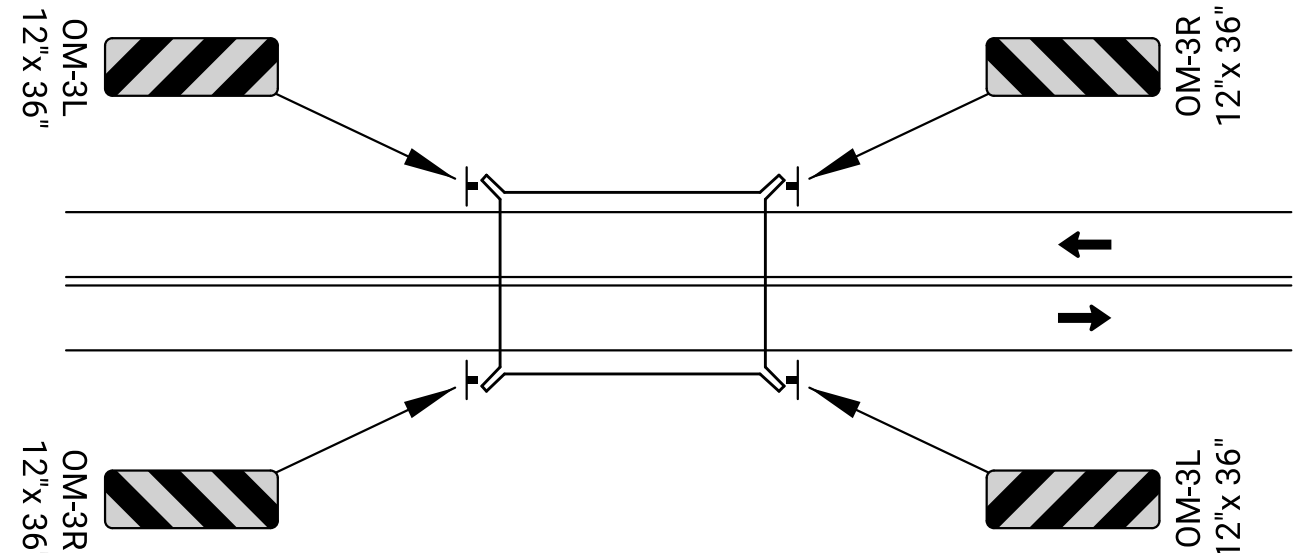


| STATE  | PROJECT NO.      | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|------------------|------|-----------|--------------|
| KANSAS | XX-XX XX-XXXX-XX | XXXX | XXX       | XXX          |



One W24-1 should be used per approach where the tangent distance between two reverse curves is less than 600 ft. If used, use in place of the first W1-4 and eliminate the second.

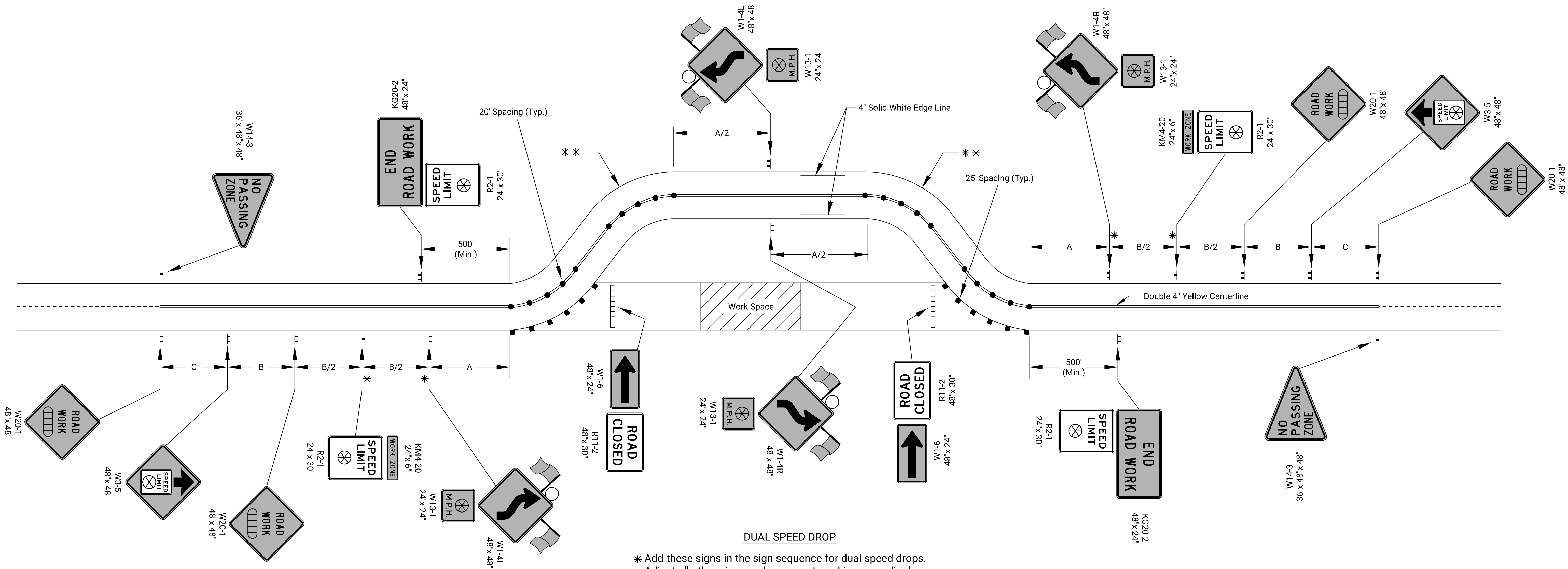
TYPICAL TEMPORARY STRUCTURE END TREATMENT ON SHOOFLY



The entire area of object marker shall have ASTM Type III sheeting. The stripes shall slope downward to the traffic side for channelizing.

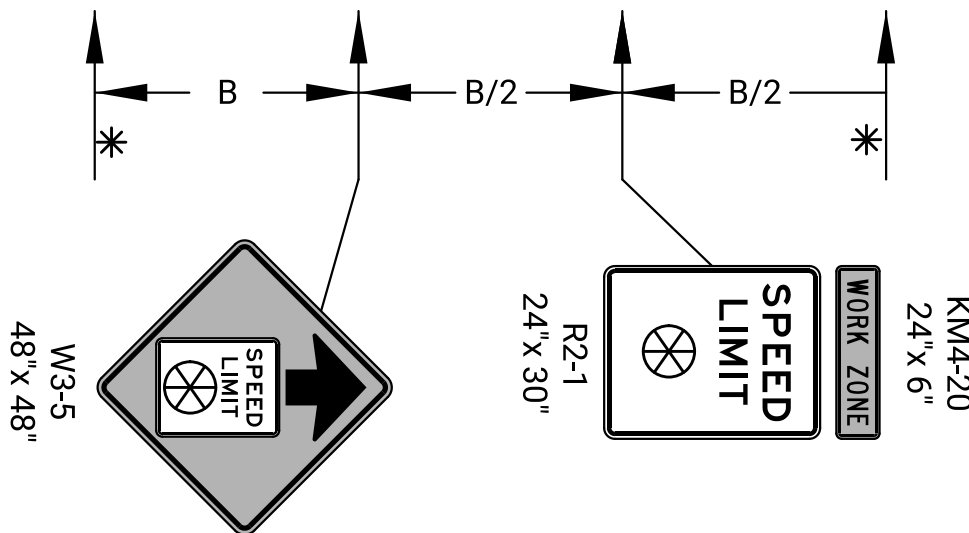
\*\* Black on orange 24" x 30" chevron signs (W1-8) shall be mounted back to back on the outside edge of shoofly curves with a radius of 1000' or less at the spacing shown below. A minimum of 3 chevrons should be installed per curve.

| Suggested Chevron Spacing |              |
|---------------------------|--------------|
| Curve Radius              | Max. Spacing |
| 1000' - 800'              | 100'         |
| 800' - 450'               | 80'          |
| Less than 450'            | 60'          |



DUAL SPEED DROP

\* Add these signs in the sign sequence for dual speed drops. Adjust all other signs and pavement marking accordingly.



- Channelizing Device
- Type 3 Barricades
- Bi-Directional Temp. Raised Pavement Marker (Type I)
- Ahead, 1500 ft, or 1 mile
- Speed to be determined by the Engineer
- Type "A" Low Intensity Warning Light

|                                         |          |                               |        |            |           |
|-----------------------------------------|----------|-------------------------------|--------|------------|-----------|
| 3                                       |          |                               |        |            |           |
| 2                                       |          |                               |        |            |           |
| 1                                       | 03/13/18 | W24-1 usage changed to Should | R.W.B. | E.G.K.     |           |
| NO.                                     | DATE     | REVISIONS                     | BY     | APPD       |           |
| KANSAS DEPARTMENT OF TRANSPORTATION     |          |                               |        |            |           |
| TRAFFIC CONTROL SHOOFLY DIVERSION       |          |                               |        |            |           |
| TE736                                   |          |                               |        |            |           |
| FHWA APPROVAL 03/13/18 APPD Eric Kocher |          |                               |        |            |           |
| DESIGNED                                | B.A.H.   | DETAILED                      | R.W.B. | QUANTITIES | TRACED    |
| DESIGN CK.                              |          | DETAIL CK.                    |        | QUAN. CK.  | TRACE CK. |



| STATE  | PROJECT NO.      | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|------------------|------|-----------|--------------|
| KANSAS | XX-XX XX-XXXX-XX | XXXX | XXX       | XXX          |

## SUMMARY OF TRAFFIC CONTROL DEVICES (EACH)

[illegible]

## SUMMARY OF TRAFFIC CONTROL DEVICES (EACH PER DAY)

- \* Quantity most used on the project at any one time

[illegible]

| Barricades *          |            | Channelizing Devices * |          |            |
|-----------------------|------------|------------------------|----------|------------|
| Type 3<br>(4' to 12') | Pedestrian | Fixed                  | Portable | Pedestrian |
|                       |            |                        |          |            |

| Lighted Devices *                                        |  |
|----------------------------------------------------------|--|
| Work Zone Warning Light<br>(Type "A" Low Intensity)      |  |
| Work Zone Warning Light<br>(Red Type "B" High Intensity) |  |
| Arrow Display                                            |  |
| Portable Changeable Message Sign                         |  |

[illegible]

|     |      |           |    |      |
|-----|------|-----------|----|------|
| 3   |      |           |    |      |
| 2   |      |           |    |      |
| 1   |      |           |    |      |
| 1   |      |           |    |      |
| NO. | DATE | REVISIONS | BY | APPD |

**KANSAS DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL**

**SUMMARY OF DEVICES**

**RECAPITULATION OF QUANTITIES**

**TE795**

|               |           |          |                        |
|---------------|-----------|----------|------------------------|
| FHWA APPROVAL |           | 06/01/15 | APPD Kristina Erickson |
| DESIGNED      | B.A.H.    | DETAILED | R.W.B.                 |
| QUANTITIES    |           | TRACED   |                        |
| DESIGN CK.    | DETAIL CK | QUAN. CK | TRACE CK               |