


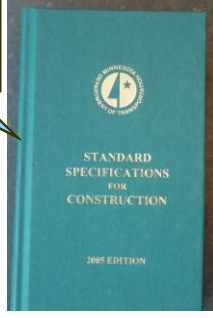
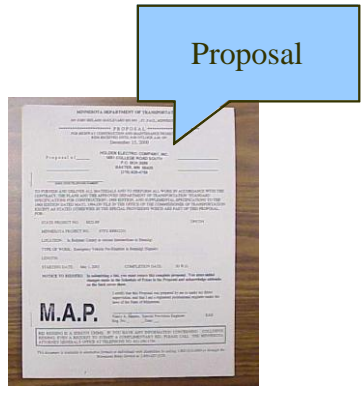




**TOPIC 12: SPECIAL PROVISIONS**

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Office of Traffic, Safety &amp; Technology</p> 	 <p style="text-align: center;"><b>Traffic Signals 101</b></p> <p style="text-align: center;">Topic 12 Special Provisions</p>	<p>This topic will cover the Standard Specifications for Construction Book (Spec Book), the Contract Proposal and Supplemental Agreements.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Office of Traffic, Safety &amp; Technology</p> 	<p style="text-align: center;"><b>Special Provisions</b></p> <ul style="list-style-type: none"> <li>➤ Mn/DOT 2005 Standard Specifications for Construction Book (Spec Book) and Mn/DOT Proposal</li> </ul> <div style="display: flex; justify-content: center; align-items: center; gap: 20px;"> <div style="text-align: center;">  <p>SPEC Book</p> </div> <div style="text-align: center;">  <p>Proposal</p> </div> </div>	<p>The “Spec Book” contains standard specifications to be used and referred to in the design of traffic signal plans and in the preparing of traffic signal Special Provisions. Plan designers need to be aware of the specifications contained in the Spec Book that may apply to their individual project.</p> <p>Each individual project will have a Contract Proposal. The Contract Proposal contains many important documents, including the Special Provisions for the Project.</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Office of Traffic, Safety &amp; Technology</p> 	<h2 style="text-align: center;">Special Provisions</h2> <hr/> <p style="text-align: center;"><b>THE 2005 SPEC BOOK:</b></p> <p style="text-align: center;"><b>CONTAINS BOTH “METRIC AND “NON-METRIC CONVERSION</b></p> <p style="text-align: center;"><b>CONTAINS MODIFICATIONS TO THE 2000 SPEC BOOK</b></p> <p style="text-align: right;">3</p>	<p>The 2005 Spec Book includes both “metric” and “non-metric” conversions. The 2005 Spec Book also includes numerous modifications to the former 2000 Spec Book.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Office of Traffic, Safety &amp; Technology</p> 	<h2 style="text-align: center;">Special Provisions</h2> <hr/> <p>➤ “Spec. Book” Format</p> <p>– Three Divisions</p> <ul style="list-style-type: none"> <li>• Division I: General Requirements and Covenants</li> <li>• Division II: Construction Details</li> <li>• Division III: Material</li> </ul> <p style="text-align: right;">4</p>	<p>Division I Specifications are labeled as 1000 series (1101 thru 1911).</p> <p>Division II specifications are labeled as 2000 series (2021 thru 2581).</p> <p>Division III specifications are labeled as 3000 series (3101 thru 3985).</p>



## Special Provisions

### ➤ Division I - General Requirements & Convenants

#### MN/DOT 1504 - COORDINATION OF PLANS & SPECIFICATIONS

IN CASE OF DISCREPANCIES:

#### ***SUPPLEMENTAL SPECIFICATIONS:***

*Govern Over ...*

Standard Specifications

#### ***PLANS:***

*Govern Over ...*

Supplemental Specifications, and Standard Specifications

#### ***SPECIAL PROVISIONS:***

*Govern Over ...*

**Plans, Supplemental Specifications, and Standard Specifications**

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“These Standard Specifications, the Plans, Special Provisions, supplemental Specifications, and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work.

**In case of discrepancy, calculated dimensions will govern over scaled dimensions; Special Provisions will govern over Standard and supplemental Specifications and Plans; Plans will govern over Standard and supplemental Specifications; supplemental Specifications will govern over Standard Specifications.**

The Engineer will decide all issues concerning errors and omissions that are not otherwise resolved by logical conclusion or Contract modification. Both parties to the Contract shall inform each other as to any discrepancies they uncover, and neither the Contractor nor the Engineer shall take advantage of any error or omission.

In the interest of avoiding repetitious wording in the Specifications, certain words and phrases have been omitted where reference is clearly related by expressions of authority or intention. Where certain words and terms appear, they are to be construed with reference to the definitions, abbreviations, heading, titles, item names, and other pertinent provisions of the Contract documents, as may be implied.”

## Special Provisions

### ➤ Division II - Construction Details

#### MISCELLANEOUS CONSTRUCTION SECTION

2565 - Traffic Control Signals

#### **Format:**

- Description
- Materials
- Construction Requirements
- Method of Measurement
- Basis of Payment



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Division II contains Mn/DOT 2565 (Traffic Control Signals).

The format of Mn/DOT 2565 is as follows:

#### ***Description:***

- has a General information section.
- has a Definitions section.

#### ***Materials:***

- has a General information section.
- specifies various materials, including references to Division III of the Spec Book.

#### ***Construction Requirements:***

- has a General information section
- specifies the requirements for actually constructing a traffic control signal system.

#### ***Method of Measurement:***

- traffic control signal systems are measured as an integral unit complete in place and operating with the complete installation at *one intersection* being considered one unit.

#### ***Basis of Payment:***

- There is a payment schedule listed in this section that shows the Item No., Item, and Unit. There is only one item used for traffic control signal systems in the Spec Book, however, signal system projects do use other "individual" pay items. These pay items are written as part of the Special Provisions.



## Special Provisions

### ➤ Division III - Materials

#### –Electrical Materials Section

- Conduit (3801 thru 3803)
- Lighting Luminaires (3810)
- Photoelectric Controls (3812)
- EVP Equipment (3814)
- Electric Cables and Conductors (3815)
- Mast Arm Pole Standards (3831)
- Traffic Signal Pedestals (3832)
- Pedestrian Push Buttons and Signs (3833)
- Pedestrian Signal Faces (3835)
- Electrical Service Equipment (3837)
- Electrical Junction Boxes (3838)

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Division III includes a section entitled “Electrical Materials” which contains various material specifications for traffic control signal systems. Many of these material specifications are referred to by Mn/DOT 2565. The format of these material specifications are divided into: Scope, Requirements, and Inspection and Testing.



## Special Provisions



### ➤ OTHER NATIONAL AND LOCAL STANDARDS SPECIFIED IN THE BOOK



- AASHTO
- ITE
- NEC
- RUS
- ASTM
- ICEA
- NEMA
- UL



All electrical equipment to be furnished by a Contractor shall conform to other regulations, standards, and Codes as specified in the “Spec Book”

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AASHTO, American Association of State Highway and Transportation Officials  
 ASTM, American Society of Testing and Materials  
 ITE, Institute of Transportation Engineers  
 ICEA, Insulated Cable Engineers Association  
 NEC, National Electrical Code  
 NEMA, National Electrical Manufacturers Association  
 RUS, Rural Utilities Service  
 UL, Underwriter Laboratories, Inc.

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Office of Traffic, Safety &amp; Technology</p> 	<h2 style="text-align: center;">Special Provisions</h2> <hr/> <h3 style="text-align: center;"><u>SUPPLEMENTAL SPECIFICATIONS</u></h3> <ul style="list-style-type: none"> <li>• Additions and revisions to the standard specifications that are approved after the Spec Book has been printed and distributed</li> <li>• The plan and the proposal need to state if supplemental specifications apply to your specific project</li> </ul> <p style="text-align: right;">9</p>	<p>Supplemental specifications are additions and revisions to the standard specifications that are approved after the standard specification book has been printed and distributed. They are published separately (usually in paperback booklet form) until the next updated Spec Book is published and released. The Plan and Proposal for each specific project will state if there are supplemental specifications that apply.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Office of Traffic, Safety &amp; Technology</p> 	<h2 style="text-align: center;">Special Provisions</h2> <hr/> <h3 style="text-align: center;"><u>THE PROPOSAL</u></h3> <ul style="list-style-type: none"> <li>• Addendums</li> <li>• Notice to Bidder</li> <li>• Special Provisions by Division (2565)</li> <li>• Attachments</li> <li>• Contract Schedule (Bid Prices)</li> </ul> <p style="text-align: right;">10</p>	<p>Each Mn/DOT project has a proposal.</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Office of Traffic, Safety &amp; Technology</p> 	<h2 style="text-align: center;">Special Provisions</h2> <hr/> <p style="text-align: center;"><u>Contract Proposal</u></p> <ul style="list-style-type: none"> <li>• Contain special “provisions” by Division</li> <li>• Division “SS” covers signal systems</li> <li>• Division “SS” may be formatted into more than two “SS” sections</li> </ul> <p style="text-align: right;">11</p>	<p>Each Proposal contains Special Provisions by Division, for example:</p> <p>Division S – General Requirements</p> <p>Division SL – Electric Street Lighting</p> <p>Division SS – Traffic Control Signals</p> <p>Division ST – Traffic Signs and Devices</p> <p>Division SZ – Freeway Traffic Management Systems</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Office of Traffic, Safety &amp; Technology</p> 	<h2 style="text-align: center;">Special Provisions</h2> <hr/> <p style="text-align: center;"><u>SPECIAL PROVISIONS</u></p> <ul style="list-style-type: none"> <li>• Special Provisions are “additions and revisions” to the Standard and Supplemental</li> <li>• Specifications covering conditions peculiar to an individual project</li> </ul> <p style="text-align: right;">12</p>	<p>Special Provisions are just that: “<b>SPECIAL</b>” provisions. If an item(s) is adequately addressed or specified in the Spec Book, Standard Plates, Plan, or other Contract documents, then that item(s) should not be duplicated within the Special Provisions.</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Office of Traffic, Safety &amp; Technology</b></p> 	<h2 style="text-align: center;">Special Provisions</h2> <hr/> <p style="text-align: center;"><u>Division SS (Traffic Control Signals)</u></p> <ul style="list-style-type: none"> <li>• SS-1 Qualification of Workers</li> <li>• SS-2 Traffic Control Signals</li> <li>• SS-3 Emergency Vehicle Preemption (EVP) System</li> <li>• SS-4 Traffic Control Interconnection</li> </ul> <p style="text-align: right;">13</p>	<p>All signal system Special Provisions that are part of Mn/DOT projects or have State Aid money involved will have a SS-1 “Qualification of Workers” specification.</p> <p>SS-3 EVP could be incidental to the traffic signal system and therefore be part of SS-2 “Traffic Control Signals”.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Office of Traffic, Safety &amp; Technology</b></p> 	<h2 style="text-align: center;">Special Provisions</h2> <hr/> <p style="text-align: center;"><u>SPECIAL PROVISIONS FORMAT</u></p> <p style="text-align: center;"><b>Traffic Control Signals:</b></p> <ul style="list-style-type: none"> <li>• Description</li> <li>• General</li> <li>• Materials</li> <li>• Construction Requirements</li> <li>• Measurement and Payment</li> </ul> <p style="text-align: right;">14</p>	<p>A typical set of Special Provisions for a signal system is formatted similar to the Spec Book; however, the actual format of the Special Provisions may vary somewhat when compared to the Spec Book format.</p>

Special Provisions may also include detail drawings that are pertinent to the specific project.

The following is a closer look at a typical set of Special Provisions for a signal system:

#### Qualification of Workers

This section requires Signal and Lighting Certification for all Contractors' Supervisors and Foreman involved in the field installation of traffic signal and lighting system projects. This language is required in the Special Provisions for any project that involves Mn/DOT and State Aid projects.

## **Traffic Control Signals**

Signal system Special Provisions will have a description paragraph of the work: what work is involved, location of project; and what documents the project shall be in accordance with.

### **Traffic Control Signals:**

#### *General Section:*

This section will usually include a list of Department furnished materials being supplied to the Contractor and language specifying where the Contractor is to pick-up the Department furnished materials. This section may also include any Plan changes, notes to bidders, specifying whether or not an agreement will apply to the project, etc.

#### *Materials Section:*

This section will cover any material items that are not covered in other Contract documents, or language in other documents that needs to be modified for this specific project.

#### *Construction Requirements:*

This section contains language dealing with the actual construction of the signal system. Like the materials section, it will include language that modifies items in the Spec Book, Plan, or other Contract documents.

#### *Measurement and Payment:*

This section will specify exactly how the signal system will be measured and paid for. The pay items in this section need to match the pay item(s) listed on the estimated quantity sheet in the Plan.

The following is a "sample" pay item for a signal system set of Special Provisions:

Removing and salvaging the existing traffic control signal system; furnishing and installing materials and electrical equipment; and installing Department furnished materials as specified herein, all to provide a complete operating new full-traffic-actuated traffic control signal system at the intersection of \_\_\_\_\_ and \_\_\_\_\_ in \_\_\_\_\_, \_\_\_\_\_ County as contained in these Special Provisions and in the Plans will be measured as an integral unit and paid for as specified in Mn/DOT 2565.4 and Mn/DOT 2565.5 respectively for Item No. 2565.511 (TRAFFIC CONTROL SIGNAL SYSTEM).

The majority of signal system Special Provisions are written by the Mn/DOT Office of Traffic Engineering for State let projects. Consultants, however, usually prepare the Special Provisions for consultant designed Mn/DOT projects.



## Special Provisions

### ADDENDUMS

- Additional information, corrections, or deletions to Special Provisions, Plans, or the Spec Book after project has been put on sale, but before the actual letting
- Addendums are sent out to those who have purchased Contract documents for the specific project
- The addendums are included in the front portion of the “final” proposal for the project

At times it may become necessary to provide additional information, corrections, additions, or deletions to the Special Provisions, Plans, and/or Spec Book after the Project is put on sale, but before the actual letting of the Project. This information is provided to bidders by creating an “Addendum”. These addendums are then sent out to Contractors, suppliers, etc. that have purchased the Contract documents for the specific project. These addendums are sent out with enough lead time to allow bidders the opportunity to consider the addendum in preparing their bid. *All addendums will be located in the front portion of the Mn/DOT final project proposal.*

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## Special Provisions

### SUPPLEMENTAL AGREEMENTS

- Written after Contract underway
- Negotiated between Contractor and project Engineer
- Keep to minimum

It is important that Plans and Special Provisions are clear, accurate, and adequately indicate the work that the Contractor is required to perform. However, when that does not happen, or if some item(s) is inadvertently omitted from the project documents, Mn/DOT will negotiate a supplemental agreement with the Contractor to rectify the situation. There are occasions when supplemental agreements are necessary due to field conditions that were not apparent at the time of the project design. It is, however, in the best interest of everyone to try and keep supplemental agreements to a minimum.

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# **Handout**

## **Sample Special Provisions**

**For the most current sample, please visit:**

**[www.dot.state.mn.us/trafficeng/signals/signalspec.html](http://www.dot.state.mn.us/trafficeng/signals/signalspec.html)**