

# MAINE DEPARTMENT OF TRANSPORTATION



## GUIDE FOR PREPARING SUPPLEMENTAL SPECIFICATIONS

&

SPECIAL PROVISIONS

FOR

CONSTRUCTION CONTRACTS

FOR USE WITH THE STANDARD SPECIFICATIONS

MARCH 21, 2016  
CONSTRUCTION CONTRACTS  
BUREAU OF PROJECT DEVELOPMENT

These are processes for both Special Provisions and Supplemental Specifications. Also included are guidelines for writing and formatting specifications with example specifications attached.

Some confusion exists as to the definitions of Special Provisions and Supplemental Specifications. Compounding the confusion is the existence of two types of Special Provisions, *commonly used* and *project specific*.

The Standard Specifications define the following terms;

**PLANS;**

Applicable construction drawings including plan, profile, typical cross sections, Working Drawings, Standard Details, Supplemental Standard Details, and Supplemental Drawings or exact reproductions thereof or electronically displayed equivalents, that show the location, character, dimensions, and details of the Work.

**STANDARD SPECIFICATIONS:**

Maine Department of Transportation Standard Specifications and Standard Details for Construction Revision of 2014. Published and approved by the Department pursuant to 23 MRSA § 4243 for general application and repetitive use on Projects.

**SUPPLEMENTAL SPECIFICATIONS;**

Approved additions or modifications to the Standard Specifications.

An example of a Supplemental Specification is the Repair Spec.

**SPECIAL PROVISIONS;**

Revisions to the Standard and/or Supplemental Specifications applicable to an individual Project or Contract.

A *commonly used* Special Provision is a specification that will always be used such as SECTION 107, RELATIONS WITH AND RESPONSIBILITY TO PUBLIC (Soil Erosion and Water Pollution Control) or a specification used whenever a particular item is called for such as SECTION 606, GUARDRAIL (Bridge Transition). Special Provisions like these are very close to Supplemental Specifications. A few reasons why they are not Supplemental Specifications are that some or all of the Special Provision is prone to changes or the possibility exists that it may be discontinued in the future.

A *project specific* Special Provision is used given a certain requirement or condition on a particular project that warrants such individual specifications. A typical example is a utility Special Provision.

The importance of good specifications cannot be overstated.

## SUPPLEMENTAL SPECIFICATIONS PROCESS

1. Determine need for Supplemental Specifications.
2. Engage team members, designers and other resources as necessary.
3. Review existing Supplemental and Special Provisions. A workable specification may have been previously developed or one may be available that would serve as a good “go by”. The Contracts Engineer maintains a database for commonly used Special Provisions and Supplemental Specifications.
4. Develop draft copy of Supplemental in its proper format and attach a brief synopsis.
5. Distribute for review and comment to appropriate resources.
6. Adjust Supplemental if necessary.
7. Send the final draft of the Supplemental to the Contracts Engineer. He/She will make the proper distribution for review and comment.
8. The Supplemental Specification will be adjusted by the Contracts Engineer and the author(s).
9. The Contracts Engineer will distribute to FHWA to seek concurrence, after which the Supplemental will be input into the database.

## SPECIAL PROVISIONS PROCESS

1. Determine that there is a need for a Special Provision.
2. Determine if Special Provision is *project specific* or will be *commonly used*.
3. Engage appropriate team members, designers and other resources as necessary.
4. Review existing Special Provisions. A workable Special Provision may have been previously developed or one may be available that would serve as a good “go by”. The Contracts Engineer maintains a library of project specific Special Provisions and a computer database for commonly used Special Provisions and Supplemental Specifications.
5. Develop draft copy of the Special Provision in its proper format and attach a brief synopsis.
6. Distribute for review and comment to appropriate resources in your Program/Area.
7. Adjust Special Provision if necessary.
8. Send the final draft of the Special Provision for review and comment to the Contracts Engineer, he/she will make the proper distribution for review and comment.
9. The Special Provision will be adjusted by the Contracts Engineer and the author(s).
10. The Contracts Engineer will distribute to FHWA to seek concurrence, after which the Supplemental will be input into the database.
11. If the Special Provision is *project specific* it should be submitted with the PS&E package. *Commonly used* Special Provisions should be flagged so that the Contracts Engineer can include them in the computer database and make distributions for their future use.

PROCEDURE FOR PREPARING  
SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS

Since many individuals are contributing to the Specifications, the following will help obtain uniformity.

1. When typing the final copy, use the same arrangement and form as that of the Standard Specification; i.e. Description, Materials and Construction Requirements.
2. Use the correct designation, i.e., “Supplemental Specification” or “Special Provision”. The order of precedence is important and is clearly defined in the Standard Specifications.
3. Leave at least 1-inch margin on each side of the page. This is important since the pages are bound and must be able to be read easily.
4. The heading at the top of the page of Supplemental Specifications should be arranged as follows:

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October 1, 2010

SUPPLEMENTAL SPECIFICATION  
SECTION 304  
AGGREGATE BASE AND SUBBASE COURSE

5. The heading at the top of the page of a commonly used Special Provision should be arranged as follows:

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October 1, 2010

SPECIAL PROVISION  
SECTION 304  
AGGREGATE BASE AND SUBBASE COURSE

6. The heading at the top of the page of a project specific Special Provisions should identify the project and should be arranged as follows:

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Town  
Project  
October 1, 2010

SPECIAL PROVISION  
SECTION 603  
PIPE CULVERTS AND STORM DRAINS  
(Bedding)

7. If the Supplemental Specification or Special Provision supersedes one previously written, the following information should be included in the upper right hand corner directly under the current date.

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October 1, 2012  
Supersedes 7/27/10

8. If diagrams and charts are used, they should be identified in the same manner as a written Supplemental Specification or Special Provision.
9. Multiple page Specifications or Special Provisions should be numbered at the bottom center of each page. Such as "1 of 3".
10. A copy of all Supplemental Specifications and Special Provisions should be sent to the Contracts Engineer.

## IMPORTANT QUALITIES TO CONSIDER WHEN WRITING SPECIFICATIONS

Important qualities in a specification are:

1. Fairness
2. Clearness
3. Completeness
4. Correctness
5. Economy

1. Fairness: A specification should not be designed to “get something for nothing” by concealing its content. It is not fair to attempt to put all risks on the Contractor. Requirements must be realistic and represent what is practical to obtain for adequate quality.

Unfairness can also arise from the use of indefinite phrases, such as, “as the Engineer may direct”, “acceptable” and “as required”. Such language places the Contractor at the mercy of the Engineer. There may be occasions when they may be used, but this should be restricted to situations such as color or location determinations or other factors not involving costs to the Contractor.

2. Clearness: It is important that specifications be expressed in clear language. The language should be brief and to the point.
  - (a) Use simple words and terms of a single meaning.
  - (b) Use technical words in their exact meaning.
  - (c) Use terms in their common or local meaning.
  - (d) Use nouns; not pronouns. Repeat the word at the sacrifice of elegance.
  - (e) Use the same word throughout; never synonyms. Do not say “building” in one place and “house” in another when you refer to the same thing. Also do not use the same word with different meanings.
  - (f) Use short sentences. The language must be clear and unmistakable.
  - (g) Give directions, not suggestions. Do not say more than is necessary. Say exactly what you mean and only what you mean.
  - (h) Use commas sparingly. If changing the location of a comma changes the meaning, rewrite the sentence.
  - (i) Dimensions and sizes should not be included in the Specification if they can be shown on the plans. Do not repeat information which is given on the plans.

3. **Completeness:** Except for information set forth on the plans or standard drawings, the specifications must be complete and should describe its subject matter thoroughly. If the specification is silent as to a requirement, the Contractor cannot be expected to meet that requirement without additional payment. However, it must be also realized that it is not practical to cover all unimportant details or to provide for every possible contingency.

Completeness need not be carried to the point of exhaustiveness since a specification is not meant to be a complete book on the subject and is not the proper place for the writer to disclose all he knows about the subject.

Avoid whims and personal requirements. The reason for a requirement need not be included in specifications. This leads to disputes between the Engineer and the Contractor.

4. **Correctness:** It is the specification writer's responsibility to include the really essential characteristics of the subject matter along with realistic numerical limits, if such limits are required. The fact that a specification has been in force for a number of years does not necessarily assure technical adequacy.

All references and cross references should be checked for correctness, conflicts and omissions. Check AASHTO and ASTM Specification references for the correct numbers.

5. **Economy:** A practical specification is one that assures the highest dollar value of the resulting construction. Every requirement has some direct or indirect cost associated with it. Whenever specifications are written or revised, each requirement should be scrutinized with respect to its effect on cost.

Every specification item should be studied with a review to eliminating non-essential requirements and permitting the use of new materials, methods and equipment.

## LIST OF PREFERRED USAGE

The following is a list of preferred word usage.

1. “Linear” not “lineal”.
2. “Amount” refers to money, “quantity” refers to material.
3. “Said” - do not use as an adjective such as “said aggregate”, instead, use “this” or “these aggregates”.
4. “Same” - do not use as a pronoun such as “connected to same”, instead, if necessary, use “it”, “them”, or a similar pronoun.
5. “And/or” - do not use this term, instead, say “.... or .... Or both” or some other phrase.
6. “Etc.” - do not use in the specification.
7. “Must” and “shall” - do not use interchangeably. Generally, “shall” is used in the Maine specification.
8. “Shall” and “will” - “shall” refers to what the Contractor is required to do. “Will” refers to what the “State” will do.
9. Do not omit articles. Do not say “Contractor shall scarify sub-grade”; say “The Contractor shall scarify the sub-grade”.
10. “Any”, “all” - do not say, “The Contractor shall correct any defects”; instead, say “The Contract” shall correct “all defects”.
11. “Either”, “both” - “either” implies a choice; “both” means one and the other.
12. Use the word “amended” when making an addition. Example: “This subsection is amended by the addition of the following:”.
13. Use the word “revised” when changing existing procedures or requirements. Example: “This subsection is revised to read as follows”:
14. Do not use such words as, “properly” or “adequate”. These words are too indefinite.
15. “Insure”, “ensure” and “assure” all mean “to make certain”; for uniformity, use “assure” in the Maine specification.
16. Do not use foreign words or phrases, such as “in lieu of”.
17. Do not use parentheses or underline phrases in the text. No requirement should be considered more important than others.

18. Numbers should be written numerically, except at the beginning of a sentence
19. Don't use trite phrases such as: "it shall be incumbent upon", use "shall"; "by means of", use "by".
20. Cross references to Sections should include both the Section number and the Title. Refer to Subsections by number only. Such as "Section 310 Bituminous Stabilized Base" or "Subsection 310.04".
21. Symbols: In general do not use symbols except in tables - instead write out the whole word.

#	number
%	percent
"	inch
'	foot
°	degree when referring to angle
°	use °C, when referring to degrees temperature
+	plus
-	minus
"	minute
'	second
2 x 4"	2 by 4 inches

22. Use the Active Voice as it is a powerful tool for enhancing clarity. Avoid using "shall be" like in "The concrete shall be finished with ...". Instead say "The Contractor shall finish the concrete with...". The second example defines who will do the work.

## SPECIFICATION STANDARDS

1. A header will be used on all pages to assist with identification during handling and filing.
  - The header on page 1 will remain the same.

Supplemental &  
Common Special Provisions:

January 28, 2012  
Supersedes  
December 10, 2011

Project Specific:

Sandy Bay  
033-2(1)  
February 22, 2013

- A header will be used on additional pages using the following format and is to be located in the upper right corner of the page.

Supplemental &  
Common Special Provisions:

Section 503  
January 28, 2012

Project Specific:

Sandy Bay  
Section 652  
February 22, 2013

2. If the specification is greater than one page, pages will be numbered “1 of 3”, “2 of 3”, “3 of 3”, for example.
3. When changes are made to supplemental and common special provisions, the changes are to be made in bold type and vertical lines are to be drawn in both the left and right margins. This will help to quickly identify changes to designers, residents and contractors. Both margins should contain the vertical lines as most specifications are printed back to back which alternately binds each margin.

November 1, 1995

**COMMONLY USED**

**SPECIAL PROVISION**  
**SECTION 606**  
**GUARDRAIL**  
**(Bridge Transition)**

Description. This work shall consist of furnishing and installing guardrail components and their attachment to a concrete or steel bridge rail system.

Material. All materials shall conform to the requirements of the Standard Specifications and shall be of the same type as the remainder of the guardrail system.

Construction Requirements. All components shall be installed in accordance with the Standard Specifications and Standard Details at locations shown on the plans or as directed. Additional bolt holes required in the guardrail beams shall be formed by a method approved by the Engineer. Holes shall not be burned.

Method of Measurement. Each installation will be measured for payment as one unit, complete in place and accepted.

Basis of Payment. Bridge Transitions will be paid for at the contract unit price for each installation. Such payment will include furnishing and installing the thrie beam or W-beam terminal connector, doubled beam section and transition section where called for, posts hardware and any other necessary materials and labor, including the attachment to the bridge rail system required to satisfactorily complete the work.

Payment will be made under:

Pay Item		Pay Unit
606.1721	Bridge Transition - Type "1"	Each
606.1722	Bridge Transition - Type "2"	Each

All Contracts

**COMMONLY USED**

January 21, 1993  
Supersedes  
August 5, 1991

**SPECIAL PROVISION**  
**SECTION 107**  
**RELATIONS WITH AND RESPONSIBILITY TO PUBLIC**  
**(Soil Erosion and Water Pollution Control)**

A resource or resources, which are governed by the requirements of the recently amended Maine Natural Resources Act (38 MSA 480-A et seq.) and the Federal Clean Water Act (Section 404), are affected by construction activities of this project. Additional requirements for erosion and pollution control to protect these resources are contained herein.

Within these affected areas, requirements of this Special Provision shall govern over requirements of the Standard Specifications.

In the event of conflict between this Special Provision and other erosion and pollution control laws, rules or regulations of other Federal, State and local agencies, the more restrictive laws, rules or regulations shall apply.

The entire project is governed by the requirements of this Provision except when specific resource areas are identified on the plans or elsewhere in these Special Provisions. The requirements of this Provision shall apply to only specific resource areas, when identified, and not the entire project.

**ENVIRONMENTAL STANDARDS**

The standards described below shall be met within the resource areas on the project.

The standards are designed to insure that the construction will not unreasonably:

- a. interfere with any existing recreational or navigational uses;
- b. cause erosion of the soil or siltation of the water;
- c. interfere with the natural flow of water;
- d. harm any wildlife or fish habitat; and
- e. degrade water quality

**PROJECT SPECIFIC**

SPECIAL PROVISION  
SECTION 502  
STRUCTURAL CONCRETE  
(Existing Structure Modifications)

Description. This work shall consist of the reconstruction of the concrete and granite retaining walls of the existing dam over Great Pond Outlet.

Construction Requirements. All work shall be in conformity with applicable requirements of Section 502 of the Standard Specifications, Supplemental Specifications, and Special Provisions. New construction shall match into the existing walls as shown on the contract Plans, with existing wall removal and reconstruction kept to a minimum as directed by the Engineer. The respective concrete or granite walls shall be rebuilt in kind using existing reinforcing steel or granite blocks, as appropriate.

Method of Measurement. Existing Structure Modifications will be measured for payment by the lump sum, consisting of all work required to reconstruct the existing retaining walls.

Basis of Pavement. Existing Structure Modifications will be paid for at the contract lump sum price, which price shall be full compensation for furnishing all labor, materials, equipment, and incidentals required to complete the work. Removal of the existing concrete or granite will be paid for under Item 202.19, Removing Existing Bridge.

Pavement will be made under:

Pay Item		Pay Unit
502.36	Structural Concrete Existing Structure Modifications	Lump Sum

May 5, 1995

SUPPLEMENTAL SPECIFICATION  
SECTION 627  
PAVEMENT MARKING

Section 627 - Pavement Markings is amended as follows:

627.09 Method of Measurement. Replace the first paragraph with the following:

Longitudinal lines parallel to the centerline of the roadway will be measured by the meter (linear foot) along the centerline stationing of the roadway. Other lines will be field-measured or computed. Double-yellow centerline, broken or solid, shall be considered to be one line for measurement purposes. The measurement of broken lines will include the gaps when painted and will not include the gaps when plastic. All other pavement markings will be measured by the square meter (square foot).

627.10 Basis of Payment. Replace the final paragraph, which consists of Pay Items, with the following:

Pay Item	Metric United	Pay Unit
627-61	100 mm White Pavement Marking Line	meter
627.62	150 mm White Pavement Marking Line	meter
627.63	100 mm Yellow Pavement Marking Line	meter
627.64	150 mm Yellow Pavement Marking Line	meter
627.65	White or Yellow Pavement and Curb Marking	square meter
627.67	Removing Pavement Markings	square meter
627.68	Temporary 100 mm Painted Pavement Marking Line, White or Yellow	meter
627.681	Temporary 150 mm Painted Pavement Marking Line, Yellow or White	meter
627.69	Temporary 100 mm Plastic Pavement Marking Line, Yellow or White	meter
627-691	Temporary 150 mm Plastic Pavement Marking Line, Yellow or White	meter

Pay Item	Metric Units	Pay Unit
627-61	4-inch White Pavement Marking Line	Linear Foot
627.62	6-inch White Pavement Marking Line	Linear Foot
627.63	4-inch Yellow Pavement Marking Line	Linear Foot
627.64	6-inch Yellow Pavement Marking Line	Linear Foot
627.65	White or Yellow Pavement and Curb Marking	Square Foot
627.67	Removing Pavement Markings	Square Foot
627.68	Temporary 4 inch Painted Pavement Marking Line, White or Yellow	Linear Foot
627.681	Temporary 6 inch Painted Pavement Marking Line, Yellow or White	Linear Foot
627.69	Temporary 4 inch Plastic Pavement Marking Line, Yellow or White	Linear Foot
627-691	Temporary 6 inch Plastic Pavement Marking Line, Yellow or White	Linear Foot