



**PDHonline Course G250 (1 PDH)**

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## **Writing Special Provisions**

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**2020**

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# Writing Special Provisions

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## Course Content

### **Introduction**

Most clients, whether they are public agencies, public-owned utilities, private corporations or private-owned toll roads, will have a published, adopted, legal document containing the specifications by which their facilities are to be designed, constructed and maintained. These are typically called Standard Specifications, and may cover ninety percent of the work anticipated to be performed or encountered by the client during the service life of their facility. As new technology emerges, as advanced methods of construction are developed, or as materials become available to replace traditional substances, the Standard Specifications are updated, amended, appended or re-issued as a new edition. The initial phase of a revision or adaptation often takes place as a Special Provision, written for an initial use of a material or a construction technique that is being introduced. The Special Provision might be adopted as a Supplemental or Interim Standard Specification until the next edition of the Standard is published. However, many projects present the designer with a situation that does not comply with or can be defined by the current Standard Specifications, and therefore must be defined in precise terminology in order to convey the intent of the designer to the bidder and the construction team.

The following process will guide the designer in writing a Special Provision to accomplish the intended outcome.

### **Format**

The text of a Special Provision becomes a controlling element in a legal document, binding two or more parties to the stipulations of a contractual agreement. The content of a Special Provision might be a single sentence, three or four paragraphs, or it might be several pages of inter-related and cross-referenced material. The grammar and writing structure is intended to be precise, leaving no room for misinterpretation, and may appear to be redundant in order to avoid any misdirection. Reference may be made to specific portions of the plans or to specific General Notes or additional information shown on the plans in order to avoid redundancy or in order to guide the construction team to the intended plan view so that the Special Provision is clearly understood.

The Special Provisions for a construction item describe the concepts of “What”, “Where”, “How to Achieve Acceptance”, “With What Materials”, “How to Measure the Work” and “How to Pay for the Work”. The Special Provision will describe in detail or by reference: What is to be done; The Location at which the intended Work is to be performed; The procedures to be followed; The materials to be used or the allowable range of substitutions; The equipment required to produce an acceptable outcome; The method by which the extent of the completed work is to be measured; and, The basis upon which compensation for the work is to be made. A Special Provision is not intended to tell the construction team How to do the work. The bidder is expected to know the way to perform the work in order to follow the Special Provision.

The order of presentation of Construction Special Provisions may be alphabetical, or may follow the listing of pay items shown in the Summary of Quantities. In some instances, the Construction

Special Provisions are grouped by type of work, by construction stage or by season, if the work is temperature or time sensitive.

The text may be presented in numbered paragraphs that match the numbering system of the underlying Standard Specifications. The text may be presented in bullet-point fashion or it may be numbered using a separate system that has no direct relation to the numbering system of the underlying, controlling documents. These decisions are client-specific and will vary from one project to the next.

**Given the potential for using a Special Provision that has been written for similar work, it would be cost-effective for the design team to read the complete text of the Special Provision to be used, so that references to other documents are applicable and format matches the client's preferences. The fact that the title of a Special Provision in one project matches the title of a pay item in another project does not ensure that the Special Provision will define the work intended to be performed.**

### *Types of Special Provisions*

#### **General**

A general Special Provision might be written to identify the published edition of the underlying documents which are intended to control the work. It can be written to define the location of the work by county, parish, township, street and crossroad. It might be written to indicate the funding and jurisdiction for the work. It can be written to describe or list all of the types of proposed work to be performed and the coordination that might be needed with other work in the vicinity. A general Special Provision might bear an effective date indicating when it was developed or approved.

A general Special Provision can be written to identify personnel or agency departments that would need to be contacted for utility coordination, traffic signal modifications, insurance requirements, review of record plans or preliminary engineering reports, and permission to enter property such as forest preserves and parkland. It might be written to define incentives for timely completion of the work, penalties for certain conditions and financial obligations that might not be contained within the underlying control documents. It can be written to define the minimum number of lanes required to maintain traffic flow. It might be written to define procedures to be followed for accident response, snow removal and the types of repairs to existing pavement that is to remain in place and used to carry traffic.

General Special Provisions can be written to define the approval process necessary for the acceptance of an item of work, or to describe the locations to be used for stockpiling materials or obtaining electrical power. A general Special Provision might be necessary to define the need for the contractor to engage the services of a professional engineer in order to complete the design of a specific item of work, or to prepare drawings that delineate the parameters of an item to be constructed, as in the case of shop or working drawings for structural items to be fabricated.

A general Special Provision may indicate the number of calendar days, working days or provide a completion date for the project. The timeframe will need to match the suggested construction staging as well as the temperature-sensitive items in order to be enforceable.

#### **Construction**

A construction Special Provision might be written to revise a single word in the text of a Standard Specification. A construction Special Provision can be written to insert or revise a paragraph of text or to substitute a table of data. A construction Special Provision can be written to define the construction or implementation of a new item or procedure that is being introduced by an agency for the first time. A construction Special Provision might be needed to incorporate updated techniques or to modify procedures that have revised by recent developments or products that have been shown to improve the outcome.

Construction Special Provisions can be written for earthwork operations, paving items, drainage components, structural and electrical elements, traffic maintenance and landscaping work, as well as for the installation of appurtenances, the modification of existing facilities or the removal and relocation of an ornamental feature. In short, one may prepare a construction Special Provision to address any work to be performed that is not covered by existing text in a referenced Standard Specification publication.

**For most agencies and clients, a Construction Special Provision does not define the methods by which the contractor is to perform the work. Writing such controlling terms into a Special Provision could inadvertently involve unions, legal entities, laws and ordinances which are to be complied with during the project.**

### **Regulatory**

A regulatory Special Provision might define the various requirements for compliance in order to achieve acceptance of public works or utility construction. These requirements could be laws, permits, ordinances or recently adopted procedures that have a controlling impact on the performance of the work. A regulatory Special Provision can identify established guidelines to be followed for public safety, for worker protection and for prevention of situations that could lead to the imposition of a fine or the loss of a permit. A regulatory Special Provision might designate ordinances that govern hours of operation, engine noise, debris removal, street cleaning, sedimentation, night work and public safety.

A regulatory Special Provision can assign responsibilities for the performance of various activities such as snow removal, mailbox restoration, material approval, permits for haul routes or oversize loads, lane closure procedures and the construction of accident investigation sites. A regulatory Special Provision can indicate penalties for non-compliance with certain stipulated activities. A regulatory Special Provision might designate the amounts and types of specific insurance coverage that would be needed to work within railroad or other agency property. A regulatory Special Provision can define the requirements for flag-persons to warn traffic or workers of on-coming traffic, delivery trucks or trains. The need for a regulatory Special Provisions is prompted by the existence of a regulation, law, permit or statute that would affect the way in which work proceeds.

**A regulatory Special Provision might contain the term “as directed by the Engineer”. The term “Engineer” could have multiple interpretations, such as the Resident Engineer, the design engineer who signed and sealed the plans, the client representative or the Engineer in responsible charge of all work in a particular area. In all situations, the term “Engineer” will need to be discussed with the client, in order to avoid the potential for assigning responsibility to an unknown third party.**

### ***The Grammar of a Special Provision***

A Special Provision would be written with precise syntax, avoiding vernacular, and clearly directing the reader from start to finish, so that no room is left for interpretation and all misguidance is avoided. It would present the terms and conditions under which activities were to proceed. A Special Provision cannot attempt to assume that the reader knows what is in the mind of the writer by reference to similar work or recent projects. The text of the Special Provision becomes a binding article of a legal document. In most agencies, this text would be considered to take precedence over the lines, numbers and notes on a drawing. The intent of a Special Provision cannot be altered or enhanced by a public reading in which inflection or emphasis is given to a particular word or phrase.

**The Special Provision can be read aloud by members of the design team to test whether the intent is clear. In the event that the reader finds the need to provide further explanation, emphasis or clarification, then it might be necessary for the text to contain such additional wording that augments the intent of the author. The construction team**

**will not hear the emphasis that a reader places on a word or phrase in an attempt to convey additional meaning or understanding. All intent must be clearly written into the Special Provision. It is acceptable in some instances to use wording such as "...it is the intent of this Special Provision to..."**

### Description

The Description paragraph of a Special Provision is intended to define the extent of the intended operation. It might begin with wording such as: "This item shall consist of ...". The text would proceed to describe the work to be performed, using terms such as "...in accordance with...", or "...as shown on...". The text might indicate the intended purpose of the work, as in the case of preparatory grading, clearing of a surface prior to grading, or furnishing materials to be incorporated into the work under the guidance of another Special Provision. It is not necessary to list every item or type of work to be performed. Often, a phrase such as "...all collateral and associated work necessary to complete the pay item as shown on the plans and as described herein..." will be used to indicate the need for further reading.

A sample paragraph might read "This item shall consist of the assembly of broken pieces of pottery at the locations shown on the plans, in accordance with instructions listed in the second edition of *Digging at Sites*, or as directed by the Engineer, in order to prepare a mosaic for preservation as specified herein, and shall include all incidental or collateral work necessary to complete this item to the satisfaction of the Engineer".

### Location

The Location paragraph can define where work begins, ends, is omitted, matches other work or is subject to the unique field conditions that would be determined at a later date. The text might include terms such as "...at a point on the centerline...", "approximately X feet from the edge of pavement...", or "...a distance of X meters from the intersection of...". The location data may refer to the plan sheets for further clarification, such as "...as shown on Sheet 5 of 45..." or "...as shown on the Typical Section...".

A sample paragraph might read "The work begins at Station 123+45.67, 89.01 feet left of the centerline of Route A, and continues south approximately 543.21 feet to the end of the culvert beneath Any Street".

### Means

The standards to which the completion of work items are to conform can be described in a Special Provision without stating or defining the manner in which the work is to be done. In other words, the Special Provision can tell the contractor what to do, but normally cannot define the methods by which the work is to be accomplished. Text in the Means paragraph might contain phrases such as "...shall conform to the requirements of...", "...shall meet the various requirements of the applicable articles of ...", "...shall meet Section 06 or the...", or might indicate that "...the work is to be done to the satisfaction of the owner's representative...". None of this text would tell how to do the work.

The Means paragraph could also describe a mechanical component of a process, such as "The tines shall be flat and spaced three-eighths of a centimeter apart, wrapped in plastic and dragged through frozen artificial turf after use". It could describe time or temperature-sensitive procedures, as in "The agitated wash mixture shall be placed between May 23 and July 17, when the ambient temperature is above 50 degrees F and rainfall has not been measurable for two hours".

A sample Means paragraph might read: "The installation shall be capable of stacking four rocks at a time and shall be checked daily, prior to the restoration of normal flow. The work shall conform to applicable Sub-Articles of the Standard Codes for Aggregate Stacks, Second Edition, and shall further meet the satisfaction of the Engineer's representative".

### Materials

The materials necessary to construct a pay item are subject to inspection and approval processes, some of which are intended to be conducted by a third party, which would require that the source or the material itself would possess unique identifiable properties. In order for the

completed pay item to be acceptable and to withstand any design forces for which it is designed, unique or specially-treated materials are required. Substitutions might not be permissible. Often a Materials paragraph of a Special Provision will include a direct reference to a recent publication of errata or to a supplement or interim specification, or to the existence of information which is not common knowledge. Such a situation could be generated by the actions of a single individual who might have attended a training session where a new approved material or procedure was unveiled. Disseminating the information throughout the design and construction industry could take time. It would be incumbent upon the writer of the Special Provision to share the knowledge within the organization, or with the client, in order to avoid having the text rejected by an uninformed reader.

The text of a Materials paragraph may contain phrases such as: "...shall meet the requirements of Sub-Article ABC, Table 1...", or "...meeting the approval of the Engineer...", or "Article 5 of the Recurring Standards shall be modified to read...". The way in which the material is received or stored on site may be specified with phrases such as: "...shall deliver to the site on the dates indicated...", "...shall be stored in an enclosed...", "...handled in accordance with the precautions stipulated in...", or "...shall be responsible for the protection of the material from the elements...". Design criteria could be cited as in: "...and shall be capable of bearing 4 kips per unit area...".

A sample Materials paragraph might read: "The bracing shall be fabricated as detailed on Sheet 7 and shall be delivered during off-peak hours. Lifting of the units shall conform to the codes of Local Union 3. Storage shall meet the applicable Articles of the Compliance Codes. The length of each brace member shall not exceed a dimension that is twice the height of the shortest exposed surface of the Improvement".

### **Measurement**

The area surrounding a particular item of work, such as the trench for the installation of a sewer, or a spillway to be covered in dumped rip-rap, might not conform to the exact lines and detailed dimensions shown on the plans. In order to avoid any misconception or misunderstanding during construction, the plans may identify the limits of payment for which compensation will be made. Some agencies will have tabular quantities or guidelines for similar work that is common to an area, or is of a repetitious nature and cannot be misinterpreted. Having dimensions specified might limit the use of certain methods of operations, such as using a large trenching implement instead of a smaller one. As in all typical Special Provisions, the methods to be used to achieve approval are not indicated. For example, the plans would suggest that a nine-foot wide trench be excavated, but would not tell that a three-foot or a twelve-foot wide device would be used. The plans would, however, indicate that payment for the work would be limited to the nine-foot width. Information of this type becomes critical for a bidder scheduling the use of equipment, and affects the cost of doing the work.

A Measurement paragraph might indicate that work "...shall be measured in cubits in accordance with...", or "...shall be measured for payment along a line parallel to and 3 inches beyond...", or "...shall be measured at 30-foot increments along the ...". Storage periods, lane closures or delivery timeframes can also be measured for payment.

A sample Measurement paragraph could read: "This item of work shall be measured for payment in square meters, not to exceed a boundary of four meters parallel to the paved edge. Broken corners shall be measured and the area deducted from the area for which payment will be made".

### **Basis of Payment**

There is a multitude of units by which a work item can be paid, including the measure of actual hours and documented costs involved. For most projects that are to be constructed under a bid situation, the means of payment will directly affect the work methods incorporated by the contractor. Items that are time-sensitive might require higher level of skill and more experienced input than items which are measured on a completion basis and are constructed with basic skills. Placing dumped rip-rap and placing trench backfill represent different skill sets and expertise. The basis of payment could be the volume of material placed, but the measured parameters would be defined in different ways.

A Basis of Payment paragraph might indicate that other work not mentioned, but understood to be required, will be included within the unit of measurement, as in the case of a concrete sidewalk placed on a prepared gravel bed and scored with transverse joint lines at five-foot intervals.

A sample Basis of Payment paragraph might read: "This work will be paid for at the contract unit price per acre for GREEN GRASS, which price shall be considered as payment in full for all labor, equipment and materials necessary to complete the work as specified herein. No additional compensation shall be made for removing grass seed from the tops of drainage frames and lids, or for the replacement of grass seed that leaves the area on the tires of watering equipment". The title of the pay item is often shown in capital letters, bold font or italics, and will match the name of the pay item in the Summary of Quantities so that there is no misunderstanding regarding the work or payment.

**Some clients might request that a Special Provision be provided for each pay item. The Special Provision may be one sentence that indicates the applicable Standard Specification that controls the work. The design teams will have read the Standard Specifications as they develop their particular pay items. Unless the client has asked for this type of presentation, it is an expenditure of labor dollars that can be avoided by asking for clarification.**

**The intended outcome can be clear in the mind of the designer, or it can be seen by the designer at a nearby site. The challenge facing the designer is to verbally describe the intended outcome, since the designer can not converse with the bidder, or take the bidder to see what the designer has in mind. The grammar cannot use terms that are subject to knowledge that the bidder may not possess.**

**Use of terms such as "incidental", "as directed by the Engineer", "as specified herein" and "to the satisfaction of the Engineer" are limited to situations where such wording is acceptable to the client. Certain agencies have discontinued the use of the term "incidental". Others have discontinued any reference to "direction by the Engineer". Some have excluded any reference to an Engineer on the site. Others have recognized that the "satisfaction" of one individual may not be the same as that measured by another individual, since this terminology is subject to interpretation and might affect the manner in which a bid was prepared or submitted. It would not be practical to assume that a previously prepared Special Provision would be acceptable for use in all situations.**