

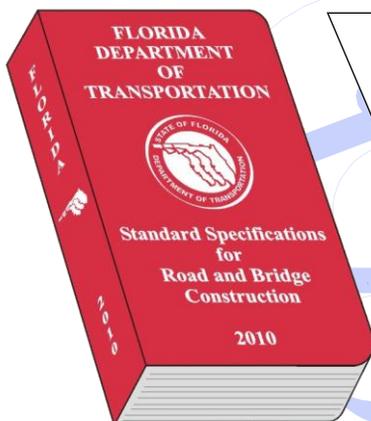
Writing Technical Special Provisions for FDOT Projects



Duane F. Brautigam, P.E.



What Exactly Is A Technical Special Provision (TSP)?



Section 1-3

Specifications of a technical nature, prepared, signed and sealed by an Engineer registered in the State of Florida other than the State Specifications Engineer or his designee, that are made part of the Contract as an attachment to the Contract Documents.



What Exactly Is A Technical Special Provision (TSP)?

- A restated version is:
Specifications **of a true technical nature**, for work not included in FDOT specifications, that are signed and sealed by an engineer (either DOT or non-DOT) registered in Florida, and included as appendices in a contract specifications package.
- The key word is **TECHNICAL!**
 - No general approach language
 - Nothing even similar to general administrative language



When Do I Need A Technical Special Provision (TSP)?

Florida Department of Transportation



Specifications Handbook

March 9, 2012

1

2-2.3 Technical Special Provision (TSP).

Use a TSP if an implemented Division II or III specification does not address or cannot be modified to address the needs of the project. Coordinate with the District Specifications Office to determine if a TSP is needed. If a TSP is needed, prepare in accordance with Section 3 of this handbook and submit to the District Specifications Office for review. Avoid plan notes and do not use a TSP to override an implemented specification.



What Is the Purpose of A Technical Special Provision (TSP)?

Florida Department of Transportation



Specifications Handbook

March 9, 2012

1

3-1 Development and Format

A TSP must complement the plans, specifications, and other contract documents and not create any conflicts. A TSP must describe the work to be performed, identify the material requirements, describe the construction or installation requirements, and state how the item will be measured and paid. All TSPs are project specific so any previous TSPs used as references should be reviewed in detail before incorporation.



What Are the Most Important Rules for Technical Special Provisions (TSPs)?

Florida Department of Transportation



Specifications Handbook

March 9, 2012

1

1. Do not use a TSP to override an implemented specification
2. Do not use a TSP to modify Sections 1 thru 9 of FDOT specifications
3. Do not use statements such as, "if a conflict exists, the more stringent requirement prevails."
4. Avoid special requirements for the material or construction of concrete
5. Use performance criteria. Do not require a patented or proprietary product or process with the term "or equal."



What Are the Most Important Rules for Technical Special Provisions (TSPs)?

Florida Department of Transportation



Specifications Handbook

March 9, 2012

1

6. Do not use sketches, pictures or drawings in a TSP
7. Do not reference the Qualified Products List or the Approved Products List.
8. Do not specify a contractor's warranty or increase the time period of a standard manufacturer's warranty
9. Do not require bidders to submit documents or data or forms with the bid
10. Do not include cost estimates, summary of quantities, MOT phasing, work schedules, or names of suppliers



Technical Special Provisions Common Content Problems

- Do not duplicate, or conflict with, existing DOT specifications. This causes confusion and claims.



- A common temptation is to use a specification from an old job or another client, without any attempt to review and reconcile the language with adopted and implemented DOT specifications.
- ***DO YOUR HOMEWORK***



Technical Special Provisions Common Content Problems

- Do not use a TSP to try to change an adopted DOT specification of any kind. This applies not only to Standard Specifications, but also to all Workbook components.
- A common misconception is that TSPs may be used to modify what DOT has implemented on a statewide basis, as long it is signed/sealed and the governing order of documents is observed. NEVER rely on the governing order of documents to resolve a conflict.
- *A TSP is NOT a TRUMP CARD*



Technical Special Provisions Common Content Problems

EXAMPLES:

- These units shall include the complete installation of the indicated precast concrete structure in accordance with the Underground Distribution Construction Standards. Unit shall include excavation, dewatering, and/or sheeting if required, stockpiling and/or disposal of excavated material, base course, backfilling and compaction to original degree of consolidation, conduit connections, ground provisions prior to backfilling, brick masonry and installation of rings, necks and covers to grade.
- Article 560-13 is deleted and the following substituted: (Seven pages of TSP text followed)
- Manufacturer's recommendations, not in conflict with the cleaning and painting requirements, specified herein and Sections 560 and 561 shall also apply.
- The project line of authority will be presented at the Preconstruction Conference.
- The cost of temporary fences and permanent fence restoration shall be included under the various classified unit price pay items for pipelines and no separate payment will be made therefor. These units shall include the complete installation of the indicated precast concrete structure in accordance with the Underground Distribution Construction Standards. Unit shall include excavation, dewatering, and/or sheeting if required, stockpiling and/or disposal of excavated material, base course, backfilling and compaction to original degree of consolidation, conduit connections, ground provisions prior to backfilling, brick masonry and installation of rings, necks and covers to grade.
- Article 560-13 is deleted and the following substituted: (Seven pages of TSP text followed)
- Manufacturer's recommendations, not in conflict with the cleaning and painting requirements, specified herein and Sections 560 and 561 shall also apply.
- The project line of authority will be presented at the Preconstruction Conference.
- The cost of temporary fences and permanent fence restoration shall be included under the various classified unit price pay items for pipelines and no separate payment will be made therefor.



Technical Special Provisions Common Content Problems

- Use of “OWNER” boilerplate language
 - “The inclusion of general terms and conditions, or standard contract language the utility company normally uses to contract for utility work, causes confusion and can introduce major conflict with FDOT specifications.”
(Per Section 3-2.3, Handbook for Prep. Of Spec. Packages)
- Reference to JPA (Joint Participation Agreement) within content of TSP
- Acceptance or Payment approval conflicts
 - “... as approved by the OWNER.” or
 - “... as approved by (utility owner name).”



Technical Special Provisions Common Content Problems

EXAMPLES:

- Standards: Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect, and are made a part of the Contract Documents by reference, as if copied directly into the Contract Documents, or if as published copies were bound herein. Where there is a conflict in these regulations and standards, the more stringent requirement shall govern.
- Stop Work: If the Owner or Owner’s Representative, presents a written stop work order, immediately and automatically stop all work. Do not recommence work until authorized in writing by the Owner or the Owner’s Representative.
- Anti-Drug and Alcohol Program: The Contractor agrees that it has in place, or will implement a drug and alcohol training and testing program that complies with the requirements of
- Where shown on the plans or directed by the Engineer, the water lines constructed under this contract shall be connected to the existing lines now in place..... All connections to existing facilities will be completed by or under the supervision of the City of ABCDEFG



Technical Special Provisions Common Content Problems

- Do not include contractor warranties
 - Not readily enforceable
 - Limited exceptions, for JPAs
 - DOT is developing warranties on a statewide basis
- Manufacturer warranties
 - Acceptable only when they are for standard industry warranty periods and transferable to the Department.
 - Asking for non-standard warranties is usually wishful thinking and not readily available or enforceable.
 - FHWA restrictions may apply.



Technical Special Provisions Common Content Problems

EXAMPLES:

- Provide 10 year minimum warranty for adhesive and painting system. Increase paint coating thickness if required for warranty.
- Special product warranty – Provide written warranty, signed by the manufacturer of primary membrane lining materials, agreeing to, within warranty period, replace/repair defective materials and workmanship including significant leakage, abnormal aging or deterioration of materials, and other failures of membrane lining to perform as required.
- Hundreds of Other Examples Available



Technical Special Provisions Common Content Problems

- Do not specify a product name or manufacturer name.
 - Specify what you want in technical terms, not by model or producer.
 - Do not use a product name with “or equal” language.
 - Do not take the lazy way out - you are an engineer, not a purchasing agent.
 - Do not specify lists of approved manufacturers.
 - Exceptions based upon performance requirements may be granted, but are very rare.
 - Exceptions based on system compatibility may be granted.
 - NO exceptions based on personal preference.



Technical Special Provisions Common Content Problems

EXAMPLES:

- Use the **best quality** oil based paint with no lead content manufactured by Sherwin-Williams, Benjamin Moore, or Pittsburgh Paints or approved equal that will provide an **effective** UV resistance to polyurethane foam substrate. Prime and each of the two top coats shall have 2.0 mil minimum dry film thickness.
- Dye shall be a water-activated, **green color or equivalent**, as supplied by American XXXXXXXX Company, YYYYYY, Texas (800-CALL-THEM).
- Subject to compliance with specification requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to the following: B.F. Goodrich, Staff Industries, Inc., Watersaver International, Ltd., Environmental Protection, Inc.
- Sources for “widget” casing include the following or approved equal: XXX Indicator Co., (Address); YYY Technology (Address); ZZZ Enterprises (Address).
- Cutting oils shall be dark, non-toxic, and equal to cutting oil manufactured by the ACME Tool Co.
- Use products from the Qualified Products List.



Technical Special Provisions Common Content Problems

- Appendices often contain materials already in contract
- Pictures and graphics belong in the plans, not TSPs
- Use of “backwards” language - TSPs supplement DOT contract, not vice versa
- Reluctance to rely on DOT adopted specifications
- General lack of coordination with standard DOT technical language
- Inconsistent formatting - leaving in non-technical information or data



Technical Special Provisions Common Content Problems

EXAMPLES:

- FDOT Standard Specifications for Road and Bridge Construction, (2000), as amended, **may** apply to this Technical Special Provision.
- It is the **intent** of this Section to require an installation, **complete in every detail, whether or not indicated** on the Drawings or specified herein. The Contractor shall be responsible for all details, devices, accessories and special construction necessary to **properly** furnish, install, adjust and place in **continuous satisfactory service** and complete the work in an **acceptable manner**.
- The material for the “widget” shall be a **good grade of aluminum, ABS plastic or acceptable equivalent**
- Submittals Post-Award: The Contractor shall furnish the following information to the Engineer prior to installation: Contractor’s Field Installation Quality Assurance Plan for approval.....Field Quality Assurance: Contractor shall implement the approved Quality Assurance Plan.
- Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State in which the Project is located...*(Is there some doubt which State that is?)*



What About Formatting Technical Special Provisions (TSPs)?

- The format and style of a TSP should resemble as much as possible the format and style of implemented FDOT spec. Prepare TSPs in accordance with the *Style Guide for Specifications* and *Specifications Format Template* available on the State Specs and Estimates Office website

Style Guide for Formatting Specifications	This link provides many helpful hints on formatting specifications prepared for incorporation into FDOT projects. Topics covered include AASHTO Format; Organization of Specs; Formatting Issues; Abbreviations and Symbols; Numerals; Punctuation and Grammar; Capitalization; Tables; Wording in Active Voice; Word Processing Hints; etc. These guidelines are also applicable to the preparation of Technical Special Provisions.
Specifications Development Formatting Guidelines	This link provides important information on how to apply the FDOT document template when creating and formatting Specifications.
Specifications Format Template	Right-click on this link and click on "Save Target As" to save the Specifications format template to your computer. The template contains the styles necessary for the formatting of the Specifications Package.



What About Formatting Technical Special Provisions (TSPs)?

- Provide a "T" preceding the section, article or subarticle number when the TSP supplements an existing implemented specification.
- Provide a table of contents for TSPs over 15 pages. A table of contents is recommended for TSPs over 10 pages.
- Number all pages consecutively with the signed and sealed cover sheet as page 1 of x. Do not use page numbering such as "10 A".
- Provide definitions at the beginning of the TSP, if needed, and indicate these definitions apply only to the TSP and not to any other contract documents. Review definitions in Article 1-3 of the FDOT implemented specs before including any definitions in the TSP.
- Provide a signed and sealed cover sheet for each TSP. Do not provide company logos or headings on the cover sheet.
- Refer to the Standard Specifications, Supplemental Specifications, or Special Provisions as "FDOT Specifications." Refer to another portion of the TSP as "this Technical Special Provision."
- Use the term "Engineer" when referring to the Department or Department's representative. Do not use references such as Geotechnical Engineer or similar.



What About Schedule for Technical Special Provisions (TSPs)?

- All TSPs should be submitted for review and approval at the time of Phase III plans submission, or sooner.
- A proper TSP submittal of the TSPs to the District Specifications Office for a complete review should
 - The associated plans
 - A listing of pay items (should have been identified at Phase II plans stage)



What About Technical Special Provisions for Utility Work and JPAs?

- Define the utility work in the plans and specifications when it is to be performed by under the FDOT contract
- Specs from the utility owner may be incorporated as TSPs to define the utility work
- Only include technical aspects of the utility work. Do not include any language resembling FDOT Division I specs or construction work covered by the FDOT specifications, such as excavation, embankment or base
- Ensure the specifications of the utility owner mesh with other parts of the contract plans and spec. This may be tedious and time consuming because the utility specifications were never intended to be part of a Department contract and typically they are stand alone specifications used by the utility owner in their contracts.



What About Technical Special Provisions for Utility Work and JPAs?

- Comply with all regular rules for TSPs
- Ensure the TSP and utility plans are consistent with the JPA agreement between the Department and utility owner.
- Do not refer to the JPA agreement between the Department and utility owner in the TSP.
- Do not use the word "abandoned" for utilities not in service. Use "out of service" instead.
- The "Engineer" has full authority for FDOT contracts, but utility representatives may provide technical assistance to the Engineer. Alternate language may be "the Engineer, in conjunction with a utility representative," if needed.
- Do not provide a list of required or suggested utility contractors, but provide reasonable objective qualifications that are required for utility contractors and their employees.



Any Flexibility on Technical Special Provisions for Utility Work and JPAs?

- YES!!!!
- Do not use a preferred list of vendors or products if the costs for utility work are reimbursable by the Department. The utility owner must provide justification to the Department if there is a legitimate concern for compatibility requiring specific products to be stated in the TSP. Early discussions with the utility owner are required to ensure the needs of both parties to the agreement are satisfied. A preferred list of vendors or products may be used if the costs for utility work are non-reimbursable. Contact the State Specifications Office prior to use.



Where Can I Get More Information on Technical Special Provisions (TSPs)?

- Contact the District Specifications Office for the District where you are working
- Almost everything is available on the Internet
<http://www.dot.state.fl.us/specificationsoffice/>
- A reference library of technical special provisions used on previous projects that have potential value for other projects is available from District offices.
- Remember the key role you play with respect to your District's production success and how critical TSPs are to project schedules



Writing Technical Special Provisions for FDOT Projects

Time For
Questions (and Answers)!!

