Style Guide for Specifications

1. Introduction

This document provides style guidelines for writing or revising Florida Department of Transportation (FDOT's) Standard Specifications for Road and Bridge Construction. Use when developing or modifying any specification.

Procedure References:

- 630-010-001 - Specification Development
- 630-010-005 - Specification Package Preparation

2. Organization of Specs

2.1 Basic Articles

2.1.1 The basic Articles required for a Division II specification are based on AASHTO outline as follows*:

XXX-X Description

XXX-X Materials

XXX-X Construction Requirements (May be expanded to multiple Articles to adequately describe the Work)

XXX-X Method of Measurement

XXX-X Basis of Payment

*Here "**XXX**" represents the Section number and "**-X**" represents the Article.

2.1.2 The basic Articles and Subarticles for a Division III (900 series) specification are:

9xx-1 Description

9xx-1.1 General (add any general information applicable to all products)

9xx-1.2 Approved Product List (add table with all documentation requirements; see Style Guide Section 9.9.)

9xx-x Product Type (add additional articles to address individual product details)

2.1.3 If the product documentation requirements vary (not practical to use one table for documentation), consider adding General and APL information to each product type:

9xx-x Product Type A

9xx-x.1 General

9xx-x.2 Approved Product List (add table with documentation requirements; see Style Guide Section 9.9.)

9xx-x.3 Product Requirements

2.2 Hierarchy of Organizational Elements

The hierarchy, indentation, and punctuation of organizational elements below show the Section levels (see Attachment "Anatomy of a Specification" for further detail):

Section XXX (All Section titles should have the Section number on one line, followed by the title of the Section on the next. The example below shows the third line needed for a longer title.)

Example:

SECTION 330
HOT MIX ASPHALT -
GENERAL CONSTRUCTION REQUIREMENTS

XXX-X. Article. (All Article titles should be followed by a period. If there is language following an Article, it will start as a new paragraph with indentation.)

Example:

330-3 Limitations of Operations.

XXX-X.1 Subarticle: (All Subarticle titles should be followed by a colon with the following sentence on the same line.)

Example:

330-3.1 Weather Limitations: Do not transport asphalt mix from the plant to the roadway unless all weather conditions are suitable for the paving operations.

XXX-X.1.1 Second Tier Subarticle: Every tier after should follow the same formatting. Each of these elements usually have titles. Titles are bolded. (If Styles are properly used, they will automatically be bolded for the Section and Article. See Section 2.2 and Anatomy of a Specification for further detail.)

Examples:

330-6.1.5 Thickness and Spread Rate of Layers: Construct each layer as defined in the following Table 330-2:

Table 330-2	
Thickness and Target Spread Rate Requirements	
Mix Type	Specification Section and Article
Type SP	334-1
Type FC	337-8
Type B	234-8
ATPB	287-8

330-6.1.5.1 Thickness Control: Ensure the spread rate is within plus or minus 10% of the target spread rate. When determining the spread rate, use, at a minimum, an average of five truckloads of mix and at a maximum, an average of 10 truckloads of mix, except for windrow paving, use an average of three truckloads of mix. When the average spread rate is beyond plus or minus 10% of the target spread rate, monitor the thickness of the pavement layer closely and adjust the construction operations.

When the average spread rate for two consecutive days is beyond plus or minus 10% of the target spread rate, stop the construction operation until the issue is resolved.

If an Article includes any Subarticles, all language should be arranged in the Subarticles. The Article title should not have any separate language, other than the Subarticles.

Avoid creating single Subarticles. If there is a need to subdivide an Article or Subarticle, there should be two or more Subarticles (no “XXX-X.1” without “XXX-X.2”).

3. Formatting

3.1 Bullets

Bullets are not used in FDOT Specifications.

3.2 Styles

Use the appropriate paragraph styles as provided by the Specification Template. Do not use the ribbon in Word to change formatting, only the Styles in the template.

3.3 Use of Nonbreaking Space

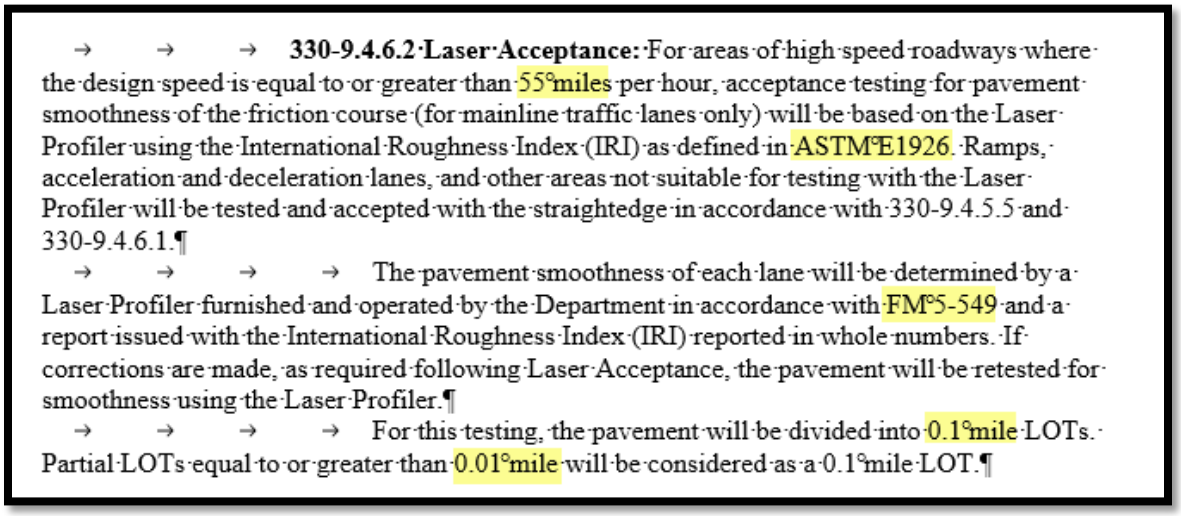
Use the nonbreaking space to prevent a line break from separating two words when they fall at the end of a line. To insert a nonbreaking space, hold down both the Ctrl+Shift keys and press the Space Bar.

When the Show/Hide is turned on, the character is very similar to the degree symbol.

Use the nonbreaking space:

- between numerals and units.
- between the parts of a two-word unit abbreviation (e.g., cu. yd.).
- between the words “Section,” “Item,” and “Article” and accompanying number.
- between the letter and the number of FM & AASHTO specs; between the letter “M” and the letter preceding the number in ASTM specs; and wherever else needed to keep a numeral with an accompanying word without wrapping to the next line. See Appendix for details.

Example:



→ → → **330-9.4.6.2·Laser·Acceptance:**·For·areas·of·high·speed·roadways·where·the·design·speed·is·equal·to·or·greater·than·55°miles·per·hour,·acceptance·testing·for·pavement·smoothness·of·the·friction·course·(for·mainline·traffic·lanes·only)·will·be·based·on·the·Laser·Profiler·using·the·International·Roughness·Index·(IRI)·as·defined·in·ASTM°E1926.·Ramps,·acceleration·and·deceleration·lanes,·and·other·areas·not·suitable·for·testing·with·the·Laser·Profiler·will·be·tested·and·accepted·with·the·straightedge·in·accordance·with·330-9.4.5.5·and·330-9.4.6.1.¶

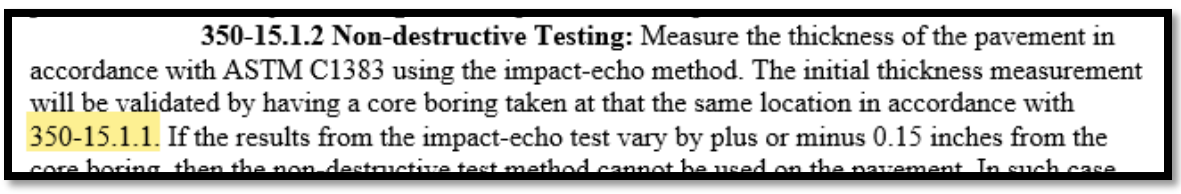
→ → → → The·pavement·smoothness·of·each·lane·will·be·determined·by·a·Laser·Profiler·furnished·and·operated·by·the·Department·in·accordance·with·FM°5-549·and·a·report·issued·with·the·International·Roughness·Index·(IRI)·reported·in·whole·numbers.·If·corrections·are·made,·as·required·following·Laser·Acceptance,·the·pavement·will·be·retested·for·smoothness·using·the·Laser·Profiler.¶

→ → → → For·this·testing,·the·pavement·will·be·divided·into·0.1°mile·LOTs.·Partial·LOTs·equal·to·or·greater·than·0.01°mile·will·be·considered·as·a·0.1°mile·LOT.¶

3.4 Use of Nonbreaking Hyphen

Use the nonbreaking hyphen is to keep hyphenated words and tests from wrapping to the next line. Insert the nonbreaking hyphen by holding down the Alt+Shift keys and select the Underscore key next to the zero. The hyphen is slightly longer than the dash key, but should always be used instead of the dash to keep words and numerals together.

Example:



350-15.1.2 Non-destructive Testing: Measure the thickness of the pavement in accordance with ASTM C1383 using the impact-echo method. The initial thickness measurement will be validated by having a core boring taken at that the same location in accordance with 350-15.1.1. If the results from the impact-echo test vary by plus or minus 0.15 inches from the core boring, then the non-destructive test method cannot be used on the pavement. In such case

4. Abbreviations and Symbols

4.1 Acceptable Abbreviations

4.1.1 Always check Section 1, of the FDOT Specifications, “Definition and Terms,” for acceptable abbreviations. If an abbreviation is not defined in Section 1, then in your document, spell it out first, followed by the abbreviation in parentheses; abbreviations are acceptable thereafter.

4.2 Unit Abbreviations and Symbols

4.2.1 Use abbreviations for names of units only after numerical values, for example 25 ft., 12 in., or 300 yd^3. Always leave a space between the number and abbreviated unit. See the Abbreviations table for acceptable uses.

4.2.2 Names of units are written out when shown without numeric values. Linear measurements do not require the use of the word “linear”; refer simply to inches, feet, or yards.

4.2.3 The following table lists acceptable abbreviations for units of measurement and other common terms. Note that some abbreviations include periods and others do not.

Abbreviations

Unit or Word	When used in…	
	Text	Figures & Tables
number	No.	No. or #
Mathematical Symbols		
plus	plus	+
minus	minus	-
plus or minus	plus or minus	±
greater than	greater than	>
less than	less than	<
greater than or equal to	greater than or equal to	≥
less than or equal to	less than or equal to	≤
percent	%	%
per	per	/
Time		
second	sec.	sec.
minute	min.	min.
hour	hr	hr
Temperature		
degree	degree	deg. or °
Fahrenheit (see “Temperature” below)	°F	°F
Celsius (see “Temperature” below)	°C	°C

Unit or Word	When used in…	
	Text	Figures & Tables
Length, Area, and Volume		
inch	inch	in. or "
foot	foot	ft. or '
yard	Yard	yd
square inch	square inch	in²
square foot	square foot	ft²
square yard	square yard	yd²
cubic inch	cubic inch	in^3
cubic foot	cubic foot	ft^3
cubic yard	cubic yard	yd^3
mile(s)	mi.	mi.
miles per hour	MPH	MPH
Metric Length		
millimeter (no centimeters)	mm	mm
meter	M	m
kilometer	km	km
Liquid		
gallon per minute	gpm	gpm
gallon(s)	gal.	gal.
liter	L	L
milliliter	ml	ml
Weight		
weight	wt.	wt.
gram(s)	g	g
kilogram(s)	kg	kg
pound(s)	lb.	lb.
Pressure		
pounds per square inch	psi	psi
Electrical		
hertz	Hz	Hz
kilowatt	kW	kw

NOTE: Only use unit abbreviations in text when preceded by a numeral.

4.3 Temperature

When describing temperature, do not include a space between the number and degree symbol or between the degree symbol and the abbreviation. Do not use a superscript “o” in place of the degree symbol.

Examples: ***(Turn on Show/Hide to see spaces easier):***

Correct:¤	Incorrect:¤
heat·to·30°F¤	heat·to·30·°F¶ heat·to·30°·F¤

4.4 Percent Symbol with Number

Do not include a space between the number and the percent symbol.

Example:

Correct:¤	Incorrect:¤
30%·by·weight¤	30·%·by·weight¤

4.5 Abbreviation at End of Sentence

When an abbreviation ends a sentence, use only one period.

Example:

Correct:¤	Incorrect:¤
Provide·an·injection·of·filler·into·duct·in·a·velocity·range·of·40-70·ft/min.¤	Provide·an·injection·of·filler·into·duct·in·a·velocity·range·of·40-70·ft/min..¤

5. Numerals

5.1 General

Use numerals for all numbers, except for the following:

- Spell out numbers at the beginning of sentences.
- When numbers are used to define both quantity and size, use the written word for the quantity (e.g., one 2-inch pipe and three 4-inch conduits).

- Use the word “one” if “single” or “each” could just as easily be used (“in one operation” vs. “in a single operation”).
- Use the number with appropriate significant figures, followed by the unit of measurement, for measured quantities (e.g. “within 1 hour”, “2 inches”, or “4-1/2 inch maximum thickness”).
- Spell out the words for numbers one through ten for items without a unit of measure (e.g., “two trees”, or “provide one bolt for each hole”). Use integers for numbers 11 and greater.

5.2 Decimals

Express decimals in numerals (e.g., 6.235). For quantities less than 1, use a 0 before the decimal point (e.g., 0.235).

5.3 Time and Date

5.3.1 Express time and dates in numerals (e.g., 2:10 P.M.). Exceptions to this are the use of the word “noon” or “midnight.” For example, use “noon” rather than “12 noon,” “12:00,” or “12:00 P.M.”

5.3.2 Omit ordinal designators (e.g., “th”) from dates.

Example:

Correct:	Incorrect:
June 15, 2027	June 15th, 2027

5.4 Unneeded Zeros

Omit unneeded zeros in time and money references.

Examples:

Correct:	Incorrect:
$200	$200.00
9 P.M.	9:00 P.M.

5.5 Fractions

5.5.1 Determine whether it is technically correct for the item expressed to use fractions or decimals.

5.5.2 Create fractions using a slash mark, not with the suggested fraction symbol.

Example:

Correct:	Incorrect:
1/2	½

5.5.3 When expressing a number composed of a whole number and a fraction, include a dash between the whole number and the fraction (e.g., 1-1/2).

5.6 Commas with Numbers

5.6.1 In most numbers of 1,000 or greater, commas should be used between groups of three digits, counting from the right.

Example:

Correct:	Incorrect:
1,300 psi	1300 psi

5.6.2 Exceptions to this rule are digital expressions (byte size), page numbers, addresses, years, and decimal fractions less than 1.

6. Punctuation and Grammar

6.1 Series Commas

When a conjunction (“and” or “or”) joins the last 2 elements in a series of 3 or more, always use a comma before the conjunction.

***Example** (underlining added to relevant conjunctions):*

> Protect trees, shrubs, and other landscape features specifically designated by the Engineer for preservation from abuse, marring, or damage during construction operations.
>
> Plug all abandoned storm sewers, culverts, sanitary sewers, conduits, and water or gas pipes over 3 inches in diameter.

6.2 Semicolons

Semicolons are used if items in a series contain commas within them. If more than one grouping is included, rewrite as separate concise sentences. Consider writing in a list format if necessary.

Example:

330-6.1.6 Correcting Defects: Before starting any rolling, check the surface; correct any irregularities; remove all drippings, sand accumulations from the screed, and fat spots from any source; and replace them with satisfactory material. Do not skin patch. When correcting a depression while the mixture is hot, scarify the surface and add fresh mixture.

6.3 Punctuation with Closing Quotation Marks

Always place periods and commas inside closing quotation marks, regardless of whether the period or comma is part of the quoted matter.

***Example** (highlighting added to show punctuation placement inside quotation marks):*

(From Subarticle 7-2.2)

→ → Whenever the work under or incidental to the Contract requires structures or dredge/fill/construction activities in "Navigable Waters of the U.S.," "Waters of the U.S.," and "Waters of the State," the Federal, State, county, and local regulatory agencies may require the Department to obtain a permit. For such dredge/fill /construction specified in the Plans to be accomplished within the limits of the project, or for any dredge/fill/construction within the limits of Department-furnished borrow areas, the Department will procure the necessary permits prior to advertising for bids.¶

6.4 Quotation Mark Style

Use the quotation marks on the keyboard and ensure the quote is closed accurately. If the template is properly used, it will show correctly Do not use ditto marks as quotation marks.

Example:

Correct:	Incorrect:
"Measurement"	"Measurement"

6.5 Spacing After Punctuation

Use only one space after all punctuation marks, including semicolons and periods at the end of sentences.

6.6 And/Or and Other Word Pairs Connected by a Slash

6.6.1 Do not connect words with a slash mark. Use a conjunction or, where appropriate, a hyphen. Do not use "and/or." Instead use the applicable conjunction ("and" or "or").

6.6.2 Use “and” when all requirements apply.

6.6.3 Use “or” when there is an option. However, the use of “or” without “and” does not always exclude the combining of the items to which the conjunction applies. In example below, the use of “and/or” is unnecessary to convey the requirement that both activities (whether done together or separately) are prohibited. The word “or” is sufficient in place of “and/or” in this instance.

***Example** (“or” is sufficient):*

> Do not park and/or service equipment under the branches of trees marked for preservation.

6.6.4 In example below, no one would argue that the Contractor would be relieved of the responsibility for providing proper fit if he only conformed to the plans and not to “other approved drawings.” The word “and” is sufficient in place of “and/or” in this instance.

***Example** (“and” is sufficient):*

> Conformance to the plans and/or other approved drawings does not relieve the Contractor of the responsibility for providing proper fit of components.

6.6.5 When it is necessary to state explicitly that two or more options together or separate meet the criterion, then wording such as “this, that, or both” may be appropriate.

Example:

> Mark each length with the manufacturer’s name, trademark, or both.

6.7 Indicating Both Singular and Plural

6.7.1 Do not use an “s” or other letters in parentheses — “(s)” — at the end of a word to indicate both singular and plural forms. In most cases, the plural form alone will suffice.

Examples:

Correct:	Incorrect:
Pick up materials at the locations and times set out in the General Notes and Specification Data Sheets.	Pick up materials at the location(s) and time(s) set out in the General Notes and Specification Data Sheet(s).
Coat threads of anchor bolts with pipe joint compound before installation of the nuts.	Coat threads of anchor bolts with pipe joint compound before installation of the nut(s).

NOTE: In the second example, since “bolts” is plural, the singular, “nut,” would not be applicable.

6.7.2 If necessary, for clarity, indicate both the singular and plural as shown in the following examples.

Examples:

Correct	Incorrect
The sign assembly consists of the sign or signs, sign supports, foundations, and associated mounting hardware.	The sign assembly consists of the sign(s), sign support(s), foundation(s), and associated mounting hardware.
One or more test panels will be required before approval of the mix design.	Test panel(s) will be required before approval of the mix design.

6.8 Hyphenation of Number or Letter Modifiers

Always use a nonbreaking hyphen as part of a letter or number modifier (e.g., “9-inch. nail” or “A-frame structure”).

6.9 Parallel Structure

Always use parallel structure. Parallel structure is the use of the same pattern of words to show that two or more ideas have the same level of importance. This applies at the word, phrase, clause, and list levels. Parallel structures are usually joined with the coordinating conjunctions “and” or “or.”

Examples:

Correct (parallel)	Incorrect (not parallel)
Provide a finished asphalt cement-latex additive blend that is smooth, homogeneous, and in compliance with the requirements in Table XXX-2.	Provide a finished asphalt cement-latex additive blend that is smooth, homogeneous, and complies with the requirements in Table XXX-2.

6.10 Mixed Units

6.10.1 Mixed-unit measurements are represented as shown in the following table.

Example:

Type	Example
abbreviated units	2 ft. 5 in.
tick marks or other symbols	2' 5"

6.10.2 Separate inches and feet with non-breaking spaces.

7. Capitalization

7.1 General

7.1.1 Be consistent with capitalization within specifications. Use capitals when referring to Section titles. Use capitals for proper nouns.

7.1.2 Any title defined in Section 1 should be capitalized. See Section 1 of the Standard Specifications for more information.

7.2 Hyphenated Words in Titles

When a hyphenated word appears in a title, capitalize nouns and proper names, but not other words that follow the first word of the hyphenated term. Do not rely on the Editor tool recommendations, FDOT has some outliers with this rule.

Examples:

- Four-Wheel
- Non-English-Speaking
- Air-driven
- Medium-sized

8. Tables

8.1 General

8-1.1 Tables are created using the autofit to window option, provided in Microsoft Word. They are used when information needs to be displayed across the page and Tabs are not appropriate. See the example in 8.1.3.

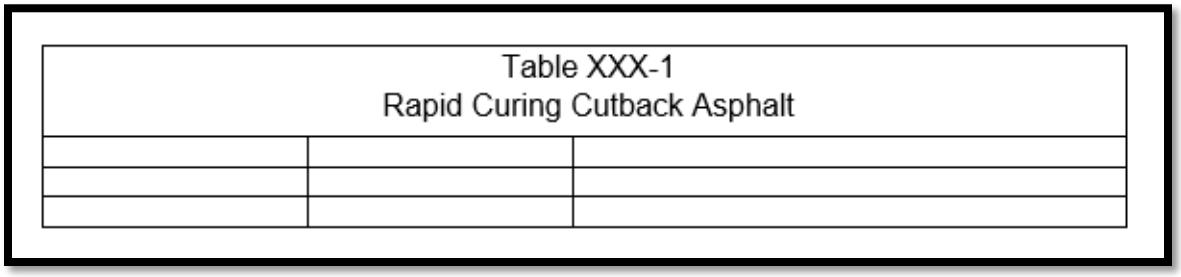
8.1.2 Tables should be numbered. Table numbering sequence begins anew with each new Section. If a table is inserted in a revision, renumber any table in the same Section accordingly. Do not use Subarticles in table numbering.

Example:

"XXX-1, XXX-2," etc.

8.1.3 Center table numbers and titles as shown in the example below.

Example:



8.1.4 Tables must be created with lines. Use tables for all tabular material; never use tabs to set up columns of text or figures.

8.2 Table Adjustments

8.2.1 Tables are created using the autofit to window option, provided in Microsoft Word.

8.2.2 Adjust column widths as necessary. Merge and split cells as necessary. Borders must be set as the straight-line style, color black, and width of ½ pt.

8.2.3 Use the Body Text Style in the table, center when appropriate. Use nine points for footnotes in the bottom of the table.

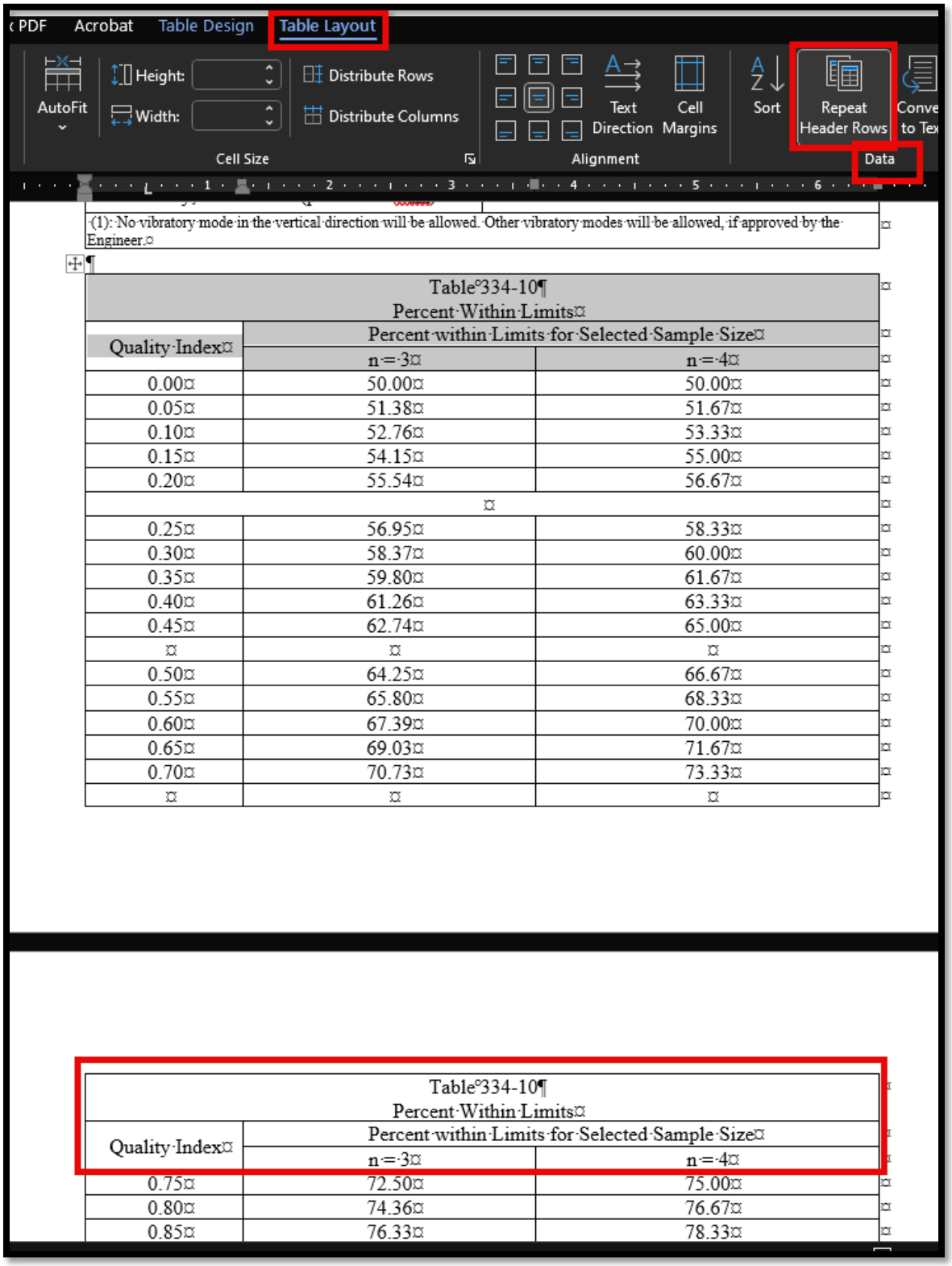
Table 330-1
Ambient Air Temperature Requirements for Paving

Layer Thickness or Asphalt Binder Type	Minimum Temperature (°F)
≤ 1 inch	50
Any mixture > 1 inch containing a PG asphalt binder with a high temperature designation ≥ 76°C	45
Any mixture > 1 inch containing a PG asphalt binder with a high temperature designation < 76°C	40
FC-5[1]	65

[1]As an exception, place the mixture at temperatures no lower than 60°F, only when approved by the Engineer based on the Contractor's demonstrated ability to achieve a satisfactory surface texture and appearance of the finished surface. For mixtures containing PG 76-22 binder, the minimum ambient temperature may be further reduced to 55°F when using warm mix technology, if agreed to by both the Engineer and the Contractor.

8.2.4 As a norm, do not allow tables to break across pages. Exceptions to this would be when the table is more than one page in length. Select the "Table Layout" tab, highlight the rows to be included on the successive page(s), select "Repeat Header Rows" under the Data group. This will automatically allow the table to break across pages. (See example on next page.)

Example:



Notice the selected rows repeated on the following page while data changed in the columns.

8.3 Referencing Tables

8.3.1 When referring to a table within the Section, use the table number. Reference to the table title is optional.

***Example** (use when referencing within the Section):*

> "…shown in Table 330-3,"

8.3.2 When referring to a table in other Sections, use the table number and title but when referring to the title, place quotation marks around it in the reference. This will help if the tables get renumbered in the Section referenced.

NOTE: Do not create links to the referenced table.

9. Wording of Articles

9.1 Introduction

The examples provided in this section are generic in nature. Each specification may require some modification for customization.

9.2 Active Voice and Imperative Mood

9.2.1 Use the active voice instead of the passive voice for Division I and II specifications whenever possible, except as noted below.

9.2.2 Use the imperative mood for instructions directed to the Contractor.

Examples:

> **330-5.4 Coring Equipment:** Furnish a suitable saw or drill for obtaining the required density cores.
>
> **330-5.5 Hand Tools:** Provide the necessary hand tools such as rakes, shovels, and other similar tools, and a suitable means for keeping them clean. Do not use diesel fuel or other petroleum-based solvents contained in an open container for cleaning purposes on the paver.
>
> **330-6 Placing Mixture.**
>
> **330-6.1 Requirements Applicable to All Pavement Types:**
>
> **330-6.1.1 Alignment of Edges:** Place all asphalt mixtures by the stringline method to obtain an accurate, uniform alignment of the pavement edge. As an exception,

Notice each of the highlighted words are the first word of the sentence that is directing the Contractor what they bust do.

9.2.3 Use the indicative mood for conveying information. Definitions are always indicative.

Examples:

> The following terms are defined:
> 1. Profilograph: A longitudinal profile testing apparatus used to measure a pavement's surface profile deviations.

> Partial LOTs equal to or greater than 0.01 mile will be considered as a 0.1 mile LOT.

> Reinforcing steel, placed and accepted, will be measured and paid for as provided in Section 415.

9.3 Description Articles

9.3.1 Use active voice and imperative mood in Description Articles.

Example:

XXX-X Description.

> **352-1 Description.**
> Grind existing concrete pavement in the areas designated on the Plans.
> Grind new concrete pavement the full width of the travel lanes. Do not grind shoulders or roundabout aprons unless indicated in the Plans or required to promote drainage.

9.3.2 Keep the description brief. Do not include material or construction requirements within the description.

9.4 Material Articles

9.4.1 Use the following table format for Material Articles within Division II specifications.

Example:

XXX-X Materials.

> Meet the requirements of this Section, as well as the following:
> Class 5 Applied Coating*..... Section 975
> Elastomeric Coating System* ..... Section 975
> Epoxy Compound*..... Section 926
> Magnesium Ammonium Phosphate Concrete*..... Section 930
> Methacrylate*..... Section 413
> Water..... Section 923
> *Use products listed on the Department's Approved Product List (APL).

- All materials and product types referenced within the Section should be included in the materials list.
- Use the Product Type, as shown on the APL and referenced in the material requirements. Contact Product Evaluation to correct any APL references.

- If additional material requirements are needed, use active voice and imperative mood.

Note: For references, use the Section number when the entire specification section or multiple articles apply; use the Article or Subarticle number when one article of the Section is applicable to the product.

9.4.2 Do not include additional material requirements in Division II, unless they are within the control of the Contractor. All product requirements in the control of the manufacturer must be located in the referenced Division III specifications.

9.5 Equipment Articles

9.5.1 Avoid prescriptive equipment and tool requirements, whenever possible.

9.5.2 When requirements are needed to describe equipment results or capabilities, use active voice and imperative mood.

***Examples** (showing format for Article and Subarticle usage):*

XXX-X Equipment. *(Article format)*

> Provide equipment meeting the requirements of 200-3.

> Provide a milling machine capable of maintaining a depth of cut and cross slope to achieve the results specified in the Contract Documents.

> **175-2.2 For Reseating** Provide vibratory compacting equipment or traffic rollers. Use traffic rollers that weigh at least 15 tons.

The example below shows alternatives when multiple pieces of equipment are necessary in the same Section.

> **341-3 Equipment.**
>
> **341-3.1 Power Broom:** Provide a power broom for cleaning the existing pavement capable of removing all loose material from the surface.
>
> **341-3.2 Spreading Equipment:** Provide a self-propelled aggregate spreader that can be adjusted to accurately apply the cover material at the specified rate and that spreads the material uniformly.
>
> **341-3.3 Rollers:** Provide self-propelled, pneumatic-tired traffic type rollers equipped with at least 7 smooth-tread, low-pressure tires, and capable of carrying a gross load of at least

9.6 Construction Articles

9.6.1 Use active voice and imperative mood in Construction requirements Articles.

Example:

XXX-X Construction.

Grind to produce areas of uniform and neat surface appearance, beginning and ending at lines perpendicular to the pavement centerline.

9.6.2 For manufactured products, avoid prescriptive instructions to the Contractor. Refer to Standard Plans or Manufacturer's drawings, as needed for location information. Refer to the Manufacturer's Instructions for any necessary surface preparation, calibration, or other field testing, when possible.

Example:

Install in accordance with Manufacturer's Instructions.

9.7 Measurement Articles

9.7.1 Use the passive voice to describe how measurement will be made in Measurement Articles.

Example:

XXX-X Method of Measurement.

The quantity to be paid for will be the area, in square yards, completed and accepted.

NOTE: Do not use the term "complete in place" in the Measurement Article.

9.7.2 For plans quantity measurement, use the wording shown in the following example at the end of the Measurement Article.

Example:

The quantity to be paid for will be the plan quantity, in square yards shown in the proposal, unless modified by Article 9-8, "Acceptance and Final Payment." Additional measurements or calculations will be made if adjustments of quantities are required.

NOTE: The above example is not standard language for use in every case. Additional details may be needed to clarify specific materials or work.

9.8 Basis of Payment Articles

Use the passive voice to describe how payment will be made in Basis of Payment Articles.

Examples:

XXX-X Basis of Payment.

Price and payment will be full compensation for all work specified in this Section, including furnishing and operating equipment, labor, fuel, materials, tools, and incidentals.

XXX-X Basis of Payment.

The work specified in this Section will not be paid for directly, but will be considered as incidental work.

NOTE: The above examples are not standard language for use in every case. Additional details may be needed to clarify specific materials or work.

9.9 Materials Specifications - Division III

Division III language is directed to the Manufacturer or Producer. The following table explains Section 6 of the Standard Specifications requirements. It may be modified as needed for a specific product type or group of products.

9XX-X.X Approved Product List (APL): All materials shall be one of the products listed on the Department's Approved Product List (APL). Manufacturers seeking evaluation of their product shall submit an application in accordance with Section 6 and include the documentation identified in Table 9xx-x.

Table 9xx-x
Title of Table

Documentation	Requirements (edit as needed for specific products)
Product Photo	Provide product photos that display the significant features of the product. Provide photos for all manufacturer supplied installation materials.
Technical Data Sheet	Provide product literature that uniquely identifies the product and includes product specifications, storage instructions, and recommended installation materials and equipment as applicable.
Product Label and Packaging	Provide label and packaging photos for each component of the product system. Provide label and packaging photos for all manufacturer supplied installation materials.
Safety Data Sheet (SDS)	Provide SDS meeting OSHA requirements for product and manufacturer recommended installation materials as applicable. Non-Hazardous, per RCRA Subtitle C Table 1 of 40 CFR 261.24 "Toxicity Characteristic" and not exude fumes which are hazardous, toxic, or detrimental to persons or property.
Build America, Buy America Certification	Complete and provide the Build America, Buy America Certification form available on the Department's website at the following URL: https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm
Independent Laboratory Test Report	Provide independent testing conducted in accordance with the specification requirements. Laboratories used must be independent from the manufacturer unless otherwise stated in the specification. Provide AASHTO Product Evaluation & Audit Solutions Test Report in accordance with the specifications. Testing reports cannot be reused for the same product requalification. Samples for testing reports must be supplied from current production.
Drawings and Calculations	Provide drawings and calculations in accordance with the specifications. Drawings and calculations must be signed and sealed by a Professional Engineer licensed in the State of Florida.
Installation Instructions,	Provide installation instructions in accordance with the specifications.

Table 9xx-x Title of Table	
Documentation	Requirements (edit as needed for specific products)
Manufacturer's Instructions	Manufacturer's instructions must include surface preparation details, calibration details, inspection details. Manufacturer's instructions must include maintenance or repair instructions.
Product Sample (for APL listing)	A sample may be requested to verify the product, in accordance with the specifications. If the product is a system, a sample of each component must be submitted.

9.10 Materials Requirements - Division III

Use a table to describe physical and chemical material properties, along with the test method and acceptance criteria.

If a test method is needed, reference the appropriate national standard (ASTM, AASHTO, or similar), or a Florida Method (FM). See Appendix for proper nomenclature.

Clearly distinguish between product types, as listed on the APL.

10. Other Wording

10.1 Introduction

Examples provided are generic in nature. Each specification may require some modification for customization.

10.2 Use of "Department"

Always use "Department" when referring to FDOT.

10.3 Use of "will"

Use "will" when the statement is directed to the Engineer — "the Department will" — or when it is understood that the responsibility is FDOT's.

Examples:

"The Engineer will approve or reject the shop drawings and design submission within 30 working days after receipt of the submission."

"The Department will perform verification testing…"

10.4 Quantity vs. Amount

Use "quantity" when referring to materials. Use "amount" when referring to dollars.

10.5 Use of "incidentals"

Use "incidentals" in the Basis of Payment Article only as shown in the following example:

Example:

350-21 Basis of Payment.

Prices and payments will be full compensation for all work specified in this Section, including any preparation of the subgrade not included in the work to be paid for under another Contract item; all transverse and longitudinal joint construction, including tie-bars and dowel bars; the furnishing of test specimens; repair of core holes; and all incidentals necessary to complete the work.

10.6 Use of "conformance" and "conform"

Use "conformance" and "conform" for adapting to prevailing standards or customs. Use "Conformance" for more generic reference statements as shown in the examples below. Use "in accordance with" when referring to specific Sections, Articles, test procedures, and reference materials, as explained under "Cross-References" later in this document.

Examples:

560-2.7 Storage: Store materials in conformance with the manufacturer's recommendations.

"The Engineer will inspect the installation for proper connection types, tightness, workmanship, and conformance to the Plans."

10.7 Use of "pertinent"

Use "pertinent" for stating or attaching relevant information.

Examples:

334-7 Method of Measurement.

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons.

105-4.7.3 Documentation Storage: Identify location of document storage to enable Department review. Include QC charts, qualification and accreditation records, inspection reports, and other pertinent supporting documents.

10.8 Use of "as shown in the Plans"

The phrase "as shown in the Plans" and variations of it are needed when an item may be directed or detailed in the field during construction, or when essential information is needed to clarify for bidding purposes. When the phrase is used because direction may be given in the field, add "…or as directed." (The phrase "by the Engineer" is not needed.)

Example:

> **436-4 Method of Measurement.**
> The quantity to be paid for will be plan quantity, in place and accepted. The plan quantity will be measured from the inside wall of the structure as shown in the Plans, along the centerline of the pipe/channel. Curb placed with trench drain will be paid in accordance with Section 520.

Example:

> **330-8.4 Placing Asphalt Next to Concrete Pavement:** When placing asphalt next to concrete pavement, construct the joint as shown in the Plans.

Example:

> " Maintain the cross slope of the pavement as shown in the Plans."

NOTE: This example wording does not include discussion of the phrase "unless otherwise shown in the Plans." (See following subheading.)

10.9 Use of "unless otherwise shown in the Plans"

Use the phrase "unless otherwise shown in the Plans" when necessary for flexibility.

Example:

> **591-3.3 Coated Conductive Tape:** Install coated conductive tape directly above the sleeves with the repeated warning of "CAUTION WATER LINE BURIED BELOW," unless otherwise shown in the Plans.

10.10 Use of "as approved by the Engineer"

10.10.1 It is understood that the Engineer has authority to approve work and equipment in accordance with Section 5, "Control of Work." There is a concern that Contractors and Engineers may interpret the phrase "as approved by the Engineer" to mean that FDOT only has latitude when the phrase is included. This is not the case. The Engineer has the authority regardless of the inclusion of the statement. Therefore, the phrase "as approved by the Engineer" is unnecessary.

10.10.2 In cases where the Engineer's approval is specifically required, it is still unnecessary to include the phrase "by the Engineer."

10.10.3 If the Engineer's approval is needed, include guidance for approval or acceptance (measurable quantities, material property values, etc.)

10.11 Needless Words and Jargon

10.11.1 Omit needless words that do not add substantive meaning. Whenever possible, choose a single word instead of a phrase. Avoid jargon.

10.11.2 The following table provides alternatives to common verbose phrases.

Instead of…	Use…
absolutely essential	essential
any and all	all
as may be necessary	as necessary
at a later date	later
enclosed herewith	enclosed
having	with
in lieu of	instead of
in order to	to
linear feet	feet
no greater than	at most
no less than	at least
no more than	at most
on a daily basis	daily
prior to	before
sufficient	enough
through the use of	by
until such time as	until
utilize	use

10.12 Hyphenation, Word Separation, and Standard Terminology

The following table shows some specific word hyphenations, word separations, and standard terminology to be used uniformly in the specs.

Instead of…	Use…
as directed by the Engineer	as directed
cross section	cross-section
cross slope	cross-slope
on the plans	in the Plans
right-of-way	right of way
straight edge	straightedge (the tool)
web site	website
work site	worksite

10.13 Cross-References

10.13.1 When referring to Sections or Articles use the wording shown in the following examples. Do not reference Subarticles in other Sections. Instead, use language that can easily be referenced within the Article and Subarticles

Examples:

…in accordance with Section 262

…in accordance with Article 262-2

NOTE: Subarticle numbers may be referenced only within the Section of origin.

10.13.2 The above cross references do not apply to Modified Special Provisions (MSPs).

10.13.3 References to more than one Section may be grouped into a list. Do what is best for the specification and be specific when you can.

Example:

…to the pertinent requirements of the following Items:

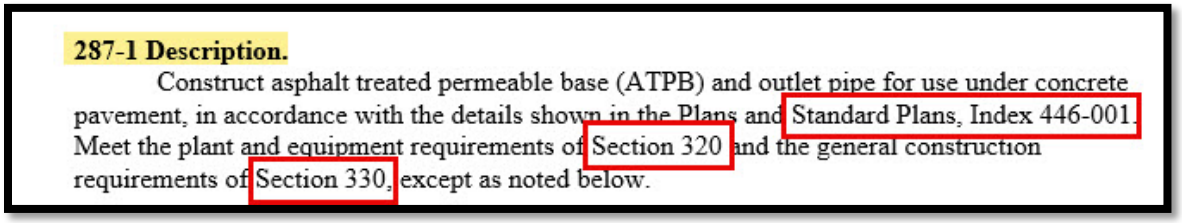
XXX-X Materials.

Meet the following requirements:

Portland Cement Concrete .....Section 346
Reinforcing Steel .....Section 415
Joint Sealer Hot Pour .....Section 932

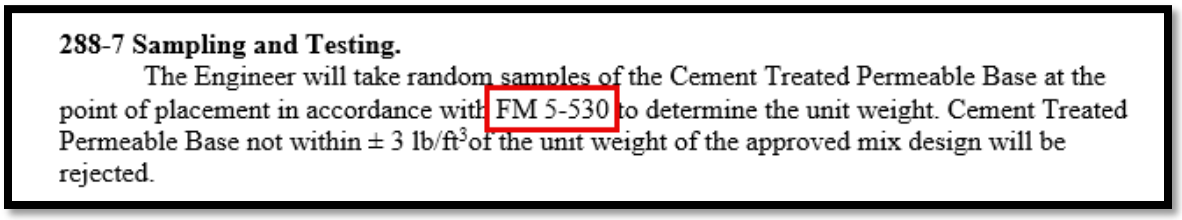
10.13.4 When referring to another Section or other standard, use the appropriate references shown in the following examples.

Examples:



287-1 Description.

Construct asphalt treated permeable base (ATPB) and outlet pipe for use under concrete pavement, in accordance with the details shown in the Plans and Standard Plans, Index 446-001. Meet the plant and equipment requirements of Section 320 and the general construction requirements of Section 330, except as noted below.



288-7 Sampling and Testing.

The Engineer will take random samples of the Cement Treated Permeable Base at the point of placement in accordance with FM 5-530 to determine the unit weight. Cement Treated Permeable Base not within ± 3 lb/ft^3 of the unit weight of the approved mix design will be rejected.

11. Track Changes

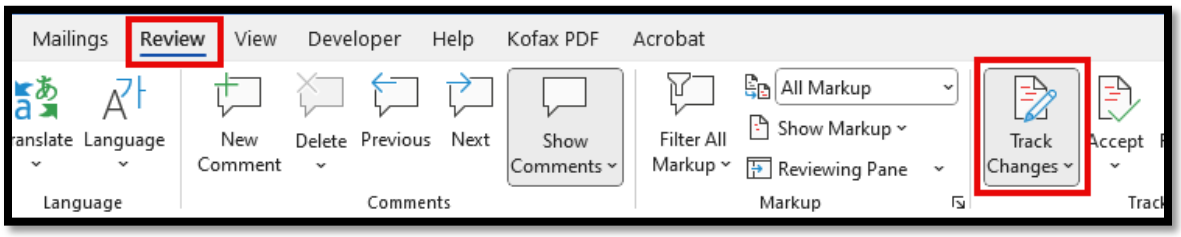
11.1 Introduction

Track changes should be used when modifying (adding, deleting, or moving text) a specification. (Specifications downloaded from the Specifications SharePoint library should have Track Changes enabled when opening the document.)

11.2 Turn Track Changes On or Off

11.2.1 Select the Review tab on the menu bar.

11.2.2 Go to Tracking and Select Track Changes to turn track changes on or off.

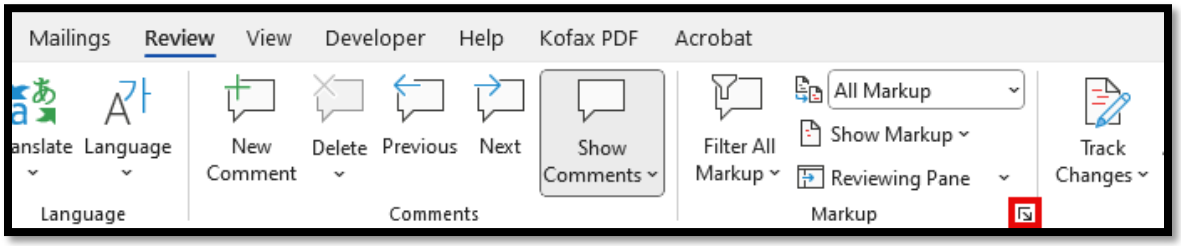


NOTE: When Track Changes are turned on, the button will appear darker than other options. Microsoft Word will mark additions with an underline and deletions with a strikethrough. When revising an existing specification, Track Changes should already be turned on

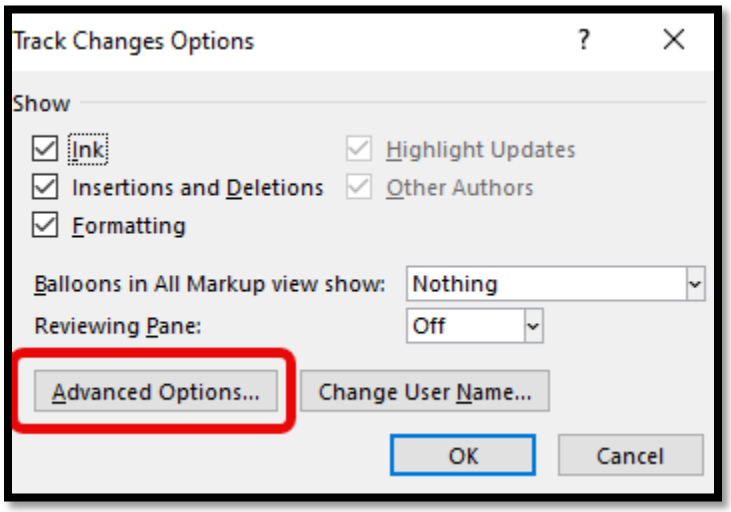
11.3 Change the Color of Track Changes

11.3.1 Complete the steps in the Turn Track Changes On and Off section.

11.3.2 Select the dialog box launcher in the Markup group.



11.3.3 Select Advance Options button in the Track Changes Options dialog box.



11.3.4 In the Markup Group:

Select Underline and Red for Insertions from the drop down menu.

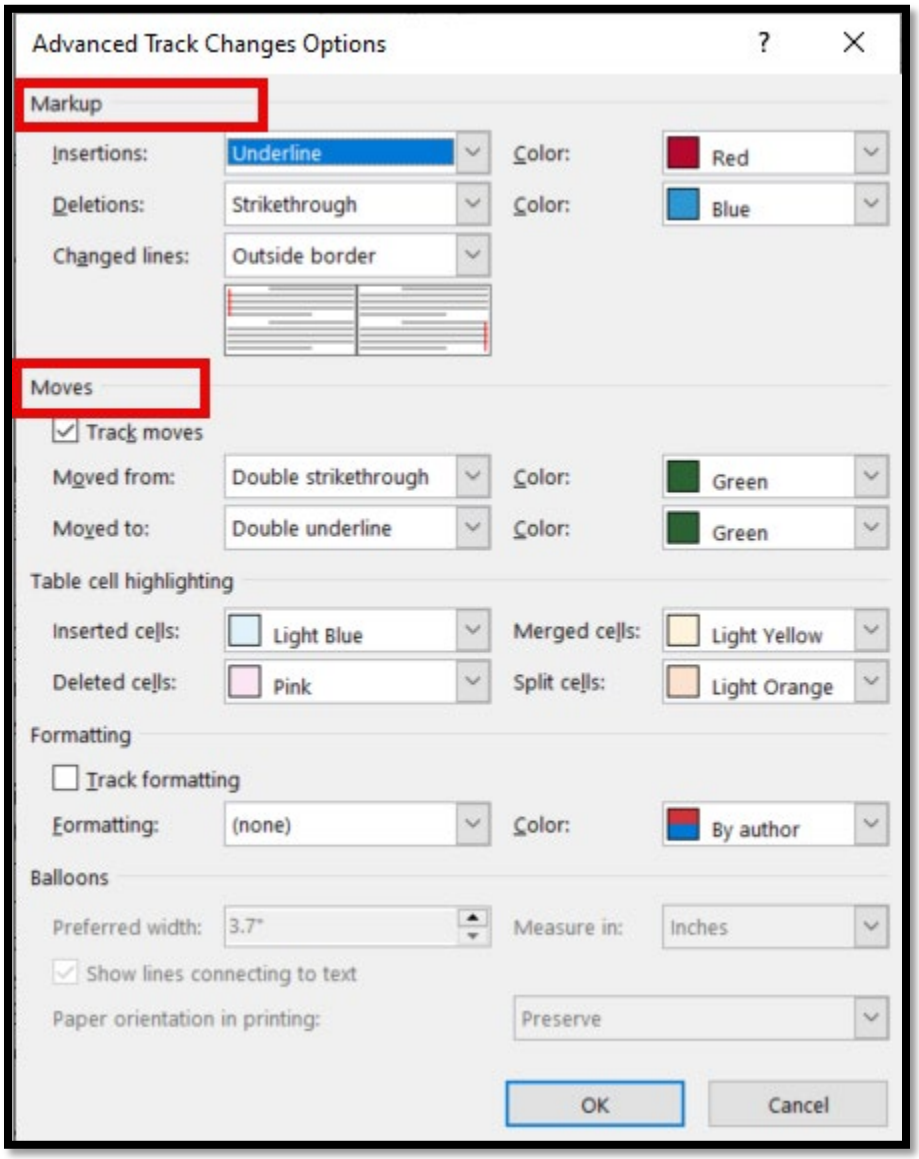
Select Strikethrough and Blue for Deletions from the drop down menu.

Do not change the Changed lines option.

11.3.5 In the Moves Group:

Select Double strikethrough and Green from the drop down menu for Moved from.

Select Double underline and Green from the drop down menu for Moved to.



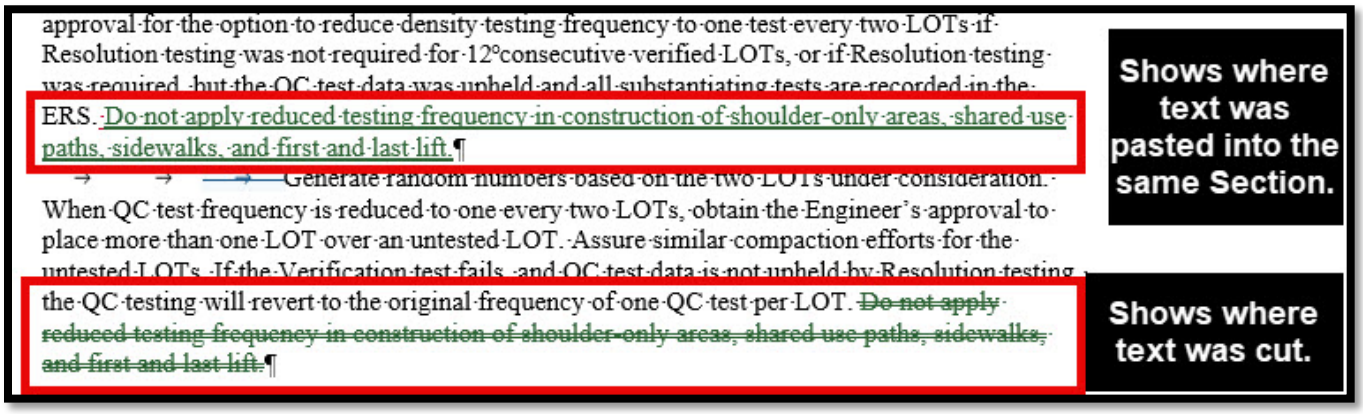
11.3.6 Do not change anything in the Table cell highlighting group or the Formatting group, the default is what you see in the image above.

NOTE: IF LANGUAGE IS MOVED WITHIN THE SECTION:

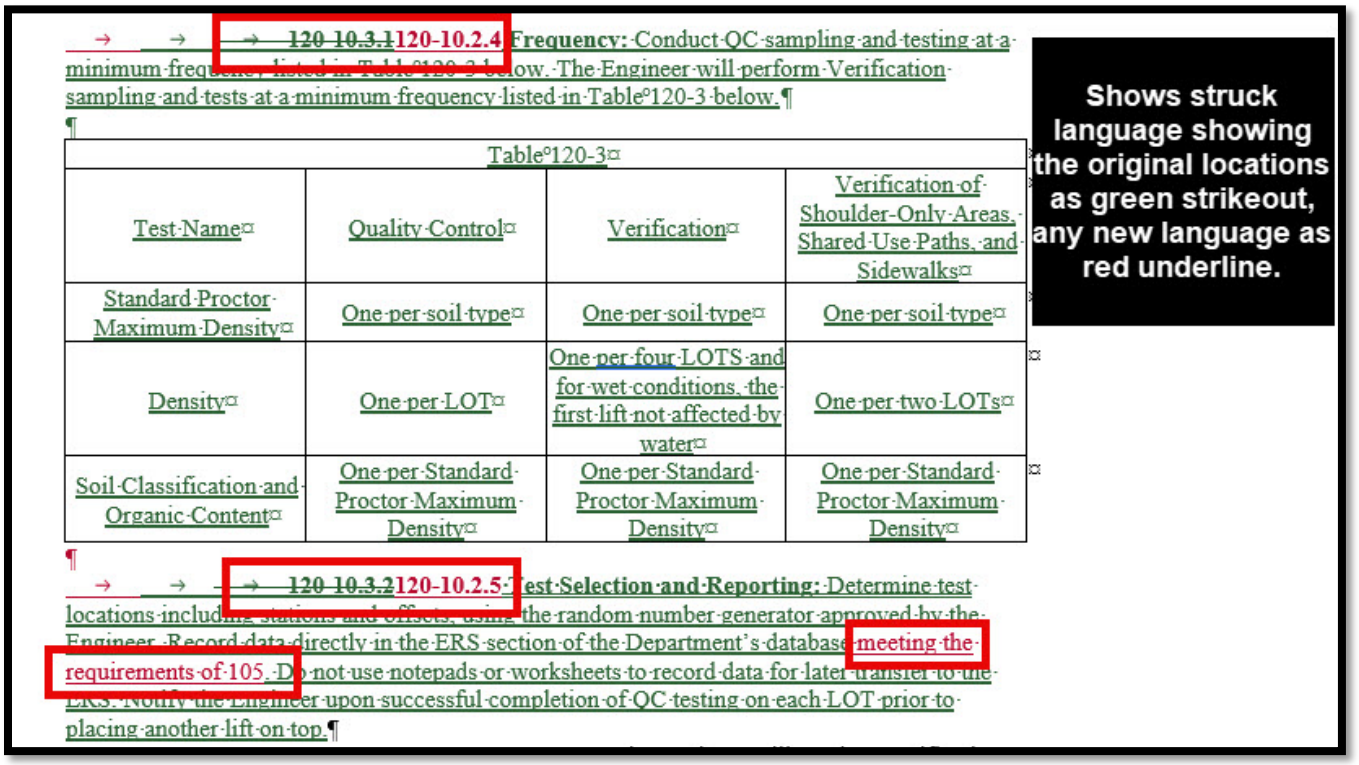
The Green indication works only for moved language *within the document*. Language must be cut and pasted first before results show. This is an important step to demonstrate to reviewers what has taken place with Original language. Add the comment bubble to the removed language "Moved to XXX-X." If new language is added to the moved language, the text will automatically be Red. Do not change any settings in the ribbon for font color.

Examples (from within Section):

Example 1 – No edits to the Original language:



Example 2 – Make edits once the Original language has been pasted:

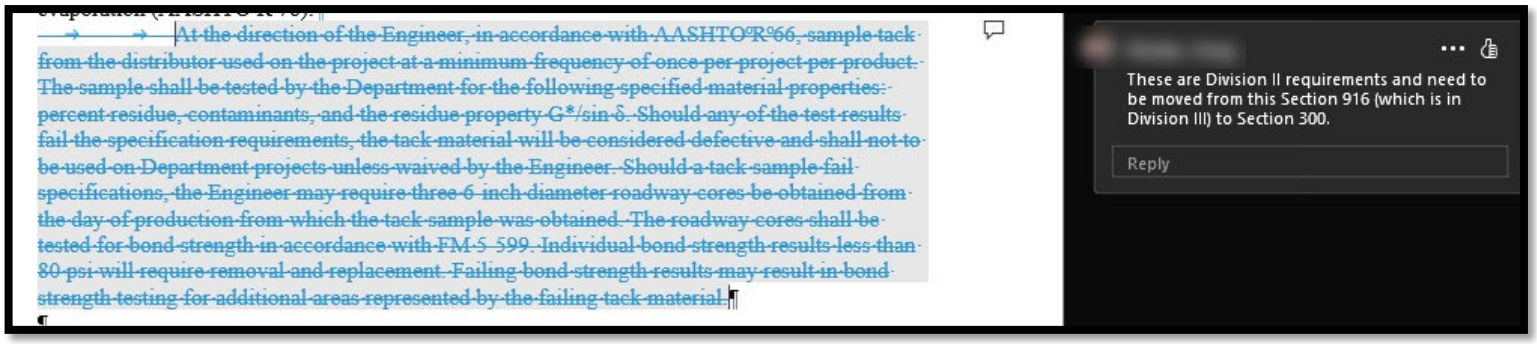


NOTE: IF LANGUAGE IS MOVED FROM ANOTHER SECTION:

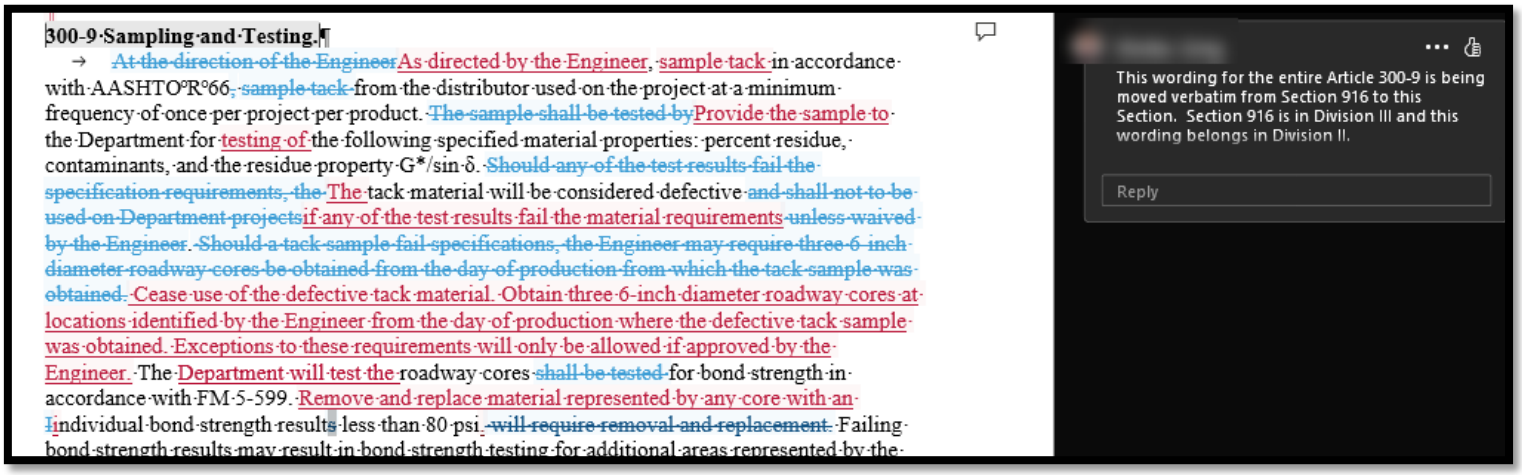
If the moves are from another Section, copy and paste the entire portion of the language affected. This will show as the Blue Strikethrough as deleted from its current place. Add the comment bubble to the removed language "Moved to XXX-X." Red Underline text will show added to the new Section. Highlight the Red underline and accept the change to maintain the true Original language (text color will change to black). Add a comment bubble to the inserted original language "Moved from XXX-X." Add or delete any language to be revised afterward, it will show as Blue Strikethrough and Red Underline.

Examples (from another Section to new Section:

Moved from another Section:



(Above language) Moved to new Section with edits to the original language:

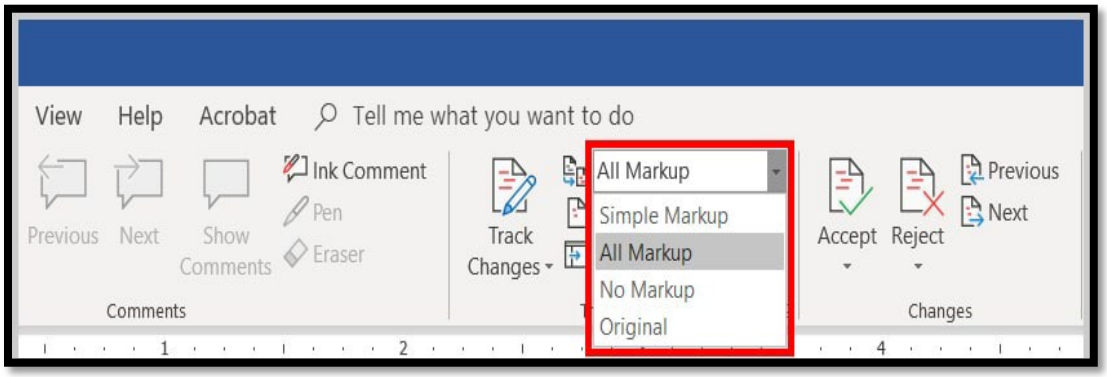


11.4 Show or Hide Comments or Tracked Changes

11.4.1 Complete the steps in the Turn Track Changes On and Off section.

11.4.2 Select the drop-down menu inside the Markup group to choose how edits and comments are displayed within the document.

- Simple Markup – Final version with red markers in the left margin to indicate where changes were made
- All Markup – Detailed version of red markers in the left margin to indicate where changes were made
- No Markup – Final version with markups hidden
- Original -Original version of document.



12. Development Guidelines

12.1 Introduction

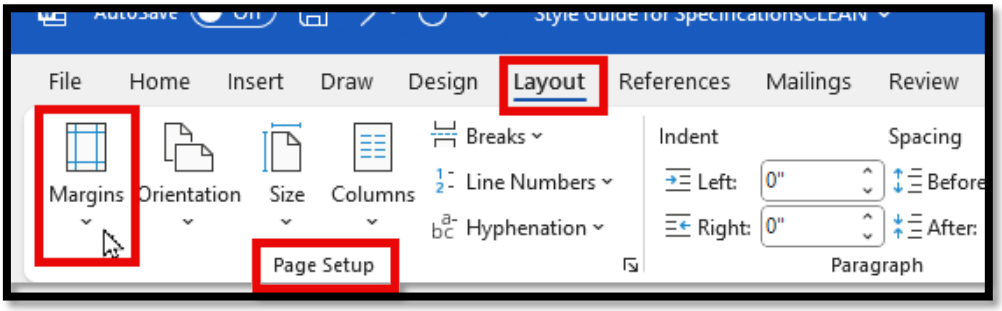
If a new Specification needs to be written, download the Specification Format Template from the Specification Guidance page. The template is preset with everything necessary to compose the Specification.

Styles, page format, and tabs are preset in existing Specifications and in the blank Specification Format Template.

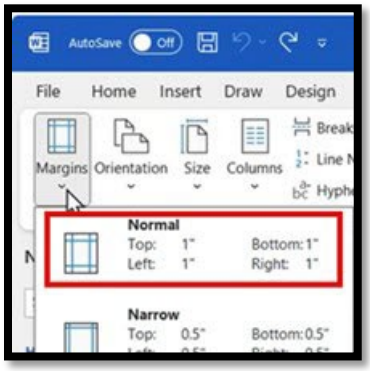
12.2 Page Formatting

Page layout is set to 1” margins.

To confirm, select the Layout tab, then select Margins drop down inside Page Setup.



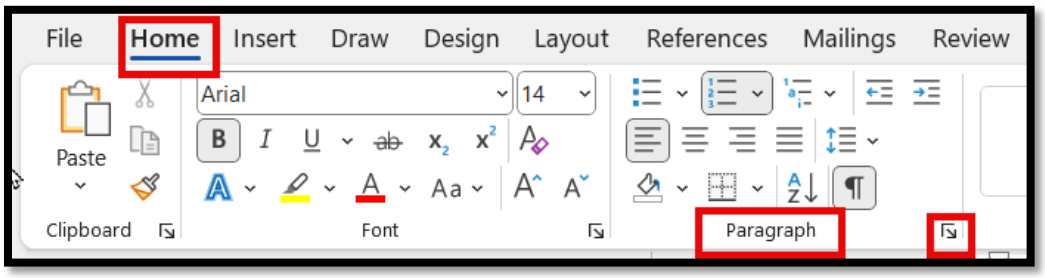
Select “Normal” margin setting, which has1” margins all around.



12.3 Tabs

Confirm default tab stops are set at 0.5 inch:

From the Home tab select the Dialog Launcher (small box with the arrow) in the lower right corner of the Paragraph Group.

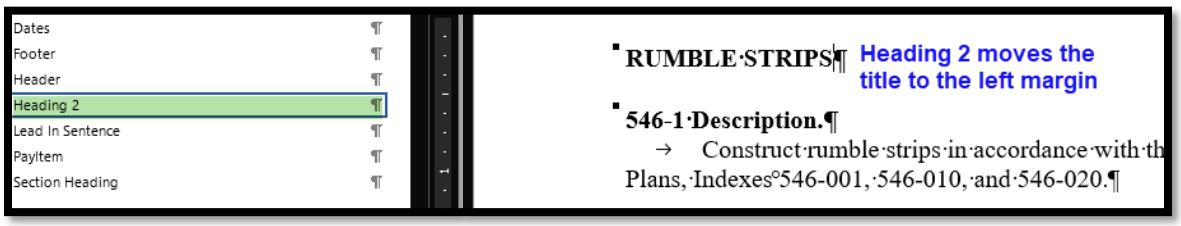


Select Tabs in the lower left corner of the Paragraph dialog box to verify the default tabs are set at 0.5 inch.

12.4 Document Title (For Revision)

“Heading 2” is the style used when typing the document title. It is the style recognized in Word and the Specs on the Web application to create the Table of Contents. The title of the document should be the Section name for a Standard Specification or Special Provisions title and should be typed in All Caps with the Caps Lock on. Alternately, the existing title style can be changed from Section Heading (see 12.7) to Heading 2. Remove the Section number with the soft return and change the style to Heading 2.

Example:



12.5 Revision Date

The preset style in the document will automatically change to Dates once the document title is set to Heading 2. In parenthesis, type REV in all Upper case followed by the date of the revision.

Example:

12.6 Lead in Sentence

Changing, expanding or deleting an Article or Subarticle of an approved Special Provision or Standard Specification must use a lead in sentence to direct the reader to the specification section being changed. Presets in the Word document will change Styles to the appropriate style of text.

Example:

Examples of appropriate lead in sentences are as follows:

Adding a Section:

The following new Section is added:

Delete and add a Section:

SECTION 356 is deleted and the following substituted:

Deleting a Section:

SECTION 430 is deleted.

Adding an Article to a Section:

SECTION 400 is expanded by the following new Article:

Expanding an Article:

ARTICLE 400-5 is expanded by the following:

Expanding a Subarticle:

SUBARTICLE 400-20.5 is expanded by the following:

Adding a Subarticle to an Article:

ARTICLE 430-7 is expanded by the following new Subarticle:

Deleting and replacing a Subarticle (including heading):

SUBARTICLE 430-4.5 is deleted and the following substituted:

12.7 Section Title

When creating a new section type the section number and title in upper case using the style Section Heading. Insert a soft return (hold the shift key while pressing return) after the Section number and as needed in longer titles.

Example:

12.8 Article

Type the Article number and name, the first letter of each word in upper case using the Article style or highlight the text after it is typed and click on the style Article. Articles end in a period with no text continuing on the line. (See “Anatomy of a Specification”) for details.

Example:

12.9 Subarticle

Subarticles are typed using the Body Text + bold style. Tab over one tab and type the Subarticle title or description followed by a colon. Continue typing text on the same line when entering Subarticle language. If a second tier Subarticle is added, it is treated the same way with two tabs before adding language. (See “Anatomy of a Specification”) for details.

Examples:

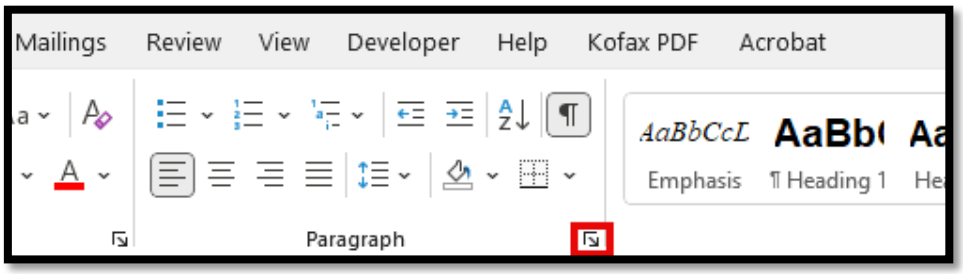
→ → **546-2.1.1 Preformed Thermoplastic:** Second tier Subarticle

12.10 Other Page in Line Formatting

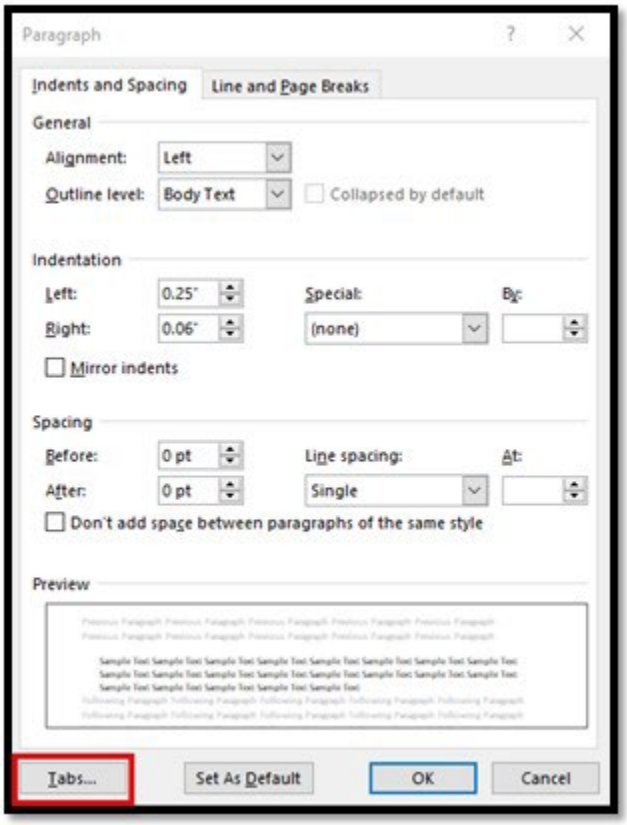
Indented spacing is used primarily when listing items using a Hard Flush right as shown in Section 9.4.

To invoke a Hard (Hd) Flush right, place the cursor where you wish to begin the Hd Flush right.

Select the Dialog Launcher (small box with the arrow) in the right lower corner of the Paragraph box.



Select Tabs button.

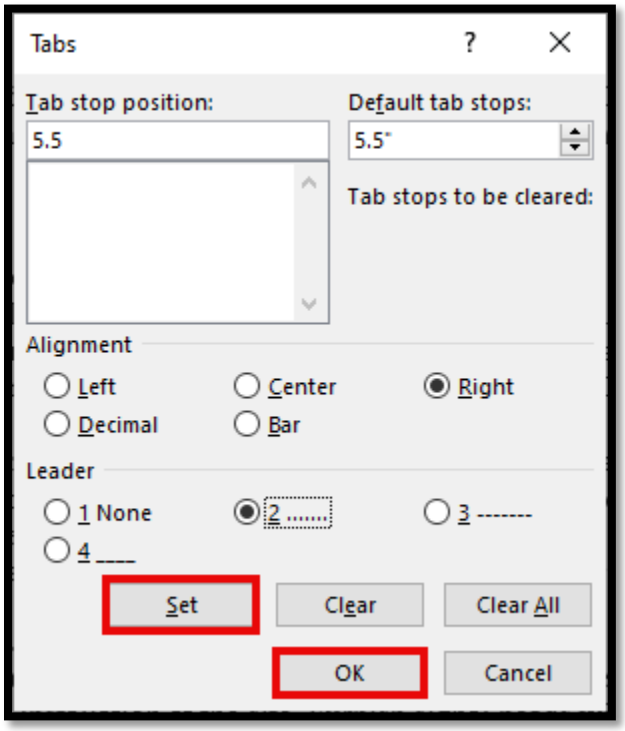


The following table will be displayed.

1. Select Clear All
2. Type 5.5” in the Tab stop position box

3. Type 5.5” in the Default tab stops box
4. Under Alignment Select - Right, Under Leader - Select – 2……
5. Select Set
6. Select OK.

Place the cursor where the Hd Flush Right should begin, press the Tab key. Use for each line of text, where a Hd Flush Right is needed.



12.11 Footnotes

Footnotes are used within a table only. Insert text in the last cell of the table, as Body Text. Use the ribbon in this case to reduce font size to 9 points if it does not appear in the Styles menu as Body Text + 9 pt.

If asterisks are used, position immediately after the text requiring the additional reference, with no space or superscript. Place the reference asterisks in the Footnote as the first character of the line, no tab, indent, or space before or after the symbol.

INSERT EXAMPLE

12.12 Outline of Section

As mentioned in 2.1, most Division II Sections follow the AASHTO Specification guidelines and include an Article each for:

XXX-X Description

XXX-X Materials

XXX-X Construction Requirements (May be expanded to multiple Articles to adequately describe the Work)

XXX-X Method of Measurement

XXX-X Basis of Payment

When necessary, the above topics may be divided among two or more Articles or Subarticles.

REMINDER: If the Specifications Format Template is used, presets are already in the document. Use the Styles in the template to create additional Articles as needed. DO NOT use the ribbon to change the appearance of text.

All text lines should be single spaced except between Articles, which is double spaced on 8.5 by 11 inch pages. Apply Body Text style to all other text which have not received other styles. this will, invoke Times New Roman FONT and 12 Point. Type all text to the defaulted margins. Do not force line breaks within a sentence by using hard returns; all text should automatically wrap from one line to the next within a paragraph.

When creating a list, table, or other information separate from the text, an additional line may be inserted before or after.

12.13 Outline

Divisions of a Section are Articles; divisions of an Article are Subarticles; divisions of a Subarticle are Subarticles. Do not divide an Article or Subarticle into less than two Subarticles. (Do not create Subarticle 1 without Subarticle 2.) If two or more Subarticles are not present, do not divide the text.

12.14 Lists

Number lists starting with 1. and the item description. Generally, lists contain brief statements, explanations, or phrases, rather than detailed text.

The number is followed by a period, single space, and then applicable text (as a word, a phrase or complete sentence – see 6.2 Semicolons). Do not use autofill lists suggested by Word. When a list needs to be broken down further use the following:

1. Text.....
    a. Text.....
    b. Text.....
    c. Text.....
2. Text.....
    a. Text.....
    b. Text.....
    c. Text.....

Do not use parentheses for any list values.

Indent the list one tab further than the leading sentence. If sublists are used indent one tab further than the “parent” list in the hierarchy. Note that the lower case letter is followed by a period, single space, and then applicable text. Do not

use dashes or bullets in a list. If the list needs further narrowing, consider rewriting the content into separate Subarticle tiers.

12.15 Specifications Modifications

Specifications are modified by Inserting or Deleting Text as required. Only perform changes with Track Changes on. Changes to existing text, Standard Specifications, Supplemental Specifications, or Special Provisions, should be identified in draft form using "Inserted Text" and "Deleted Text."

12.15.1 Standard Specification or Special Provision Revision (FDOT Users)

To revise a specification go to the Specification Revision Submittal SharePoint site : https://forms.office.com/pages/responsepage.aspx?id=Xd4h25y8DEKPP48I-Fta2nfgjNMtaN5DgdPmLf2ELtxUNUhLV1JOMkIxRlIER1IlRlg4RUtPNE9QUy4u and submit a Specification revision request. Contact the State Specifications Office for procedures on revising a Standard Specification.

12.15.2 Project Specific Specification Revision

Contact the District Specs office for procedures on revising a specification for project specific needs (MSP or TSP). Modify as described above.

Examples:

ARTICLE 633-6 is deleted and the following substituted:

633-6 Method of Measurement.

The quantities to be paid will be: the length, in feet, of fiber optic cable; the number, per each, of fiber optic connections; the number, per each, of fiber optic connection hardware; the number of calendar days from contract time start to final acceptance for fiber optic cable locator, ~~and~~ the length, per foot, of twisted pair cable, and the length, per foot, of multi-conductor communication cable, accepted by the Engineer.

PERFORMANCE TURF
(REV 6-17-22)

SUBARTICLE 570-3.3 is deleted and the following substituted:

570-3.3 Sod: Place the sod on the prepared surface, with edges in close contact. Do not use sod which has been cut for more than 48 hours.

Place the sod to the edge of all landscape areas as shown in the Plans and the Standard Plans.

~~Place rolled sod parallel with the roadway and cut any exposed netting even with the sod edge.~~

Monitor placed sod for growth of exotic or invasive pest plants and noxious weeds. If exotic or invasive pest plants and/or noxious weeds manifest themselves within