

GRAMMAR POLICE



**TO CORRECT
AND SERVE**

**ANYTHING YOU SAY INCORRECTLY
CAN AND WILL BE USED AGAINST YOU**

TO HELP



Let's Get It Write!

Principles of Writing Construction Specifications and Special Provisions

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and

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Questions to ask concerning Unique Special Provisions

1. **Why?** Do you *really* need it? Is it necessary?
Is it covered in the Standard Specifications? If so, do you still need a USP?
2. Does it conflict with the current Standard Specifications?
The USP should *complement*, not conflict with, the Standard Specs.
3. Do we have an existing special provision, recurring or unique, that addresses the same matter? Can you use that instead?
4. Does it define a unique pay item? (*more on this in a few minutes*)
If so, make sure the **five** basics (*the Big 5*) are covered.
 - **Description**
 - **Materials**
 - **Construction Requirements**
 - **Method of Measurement**
 - **Basis of Payment**

The *Big 5* follows the standard AASHTO Specification Format.



Questions to ask concerning Unique Special Provisions

5. Does it specify a proprietary item, material or process?
If so, is that necessary? Do you have permission?

6. Do we have access to cited standards? (ASTM, AASHTO, LPA standards)
If not, can the cited standard be revised to one we do have access to?
If not, the standard needs to be included in the unique.

7. Does it involve Department testing?
If so, have you checked with our folks at Materials and Testing?
(they may have something to say about it)
If not the Department, who does the testing?

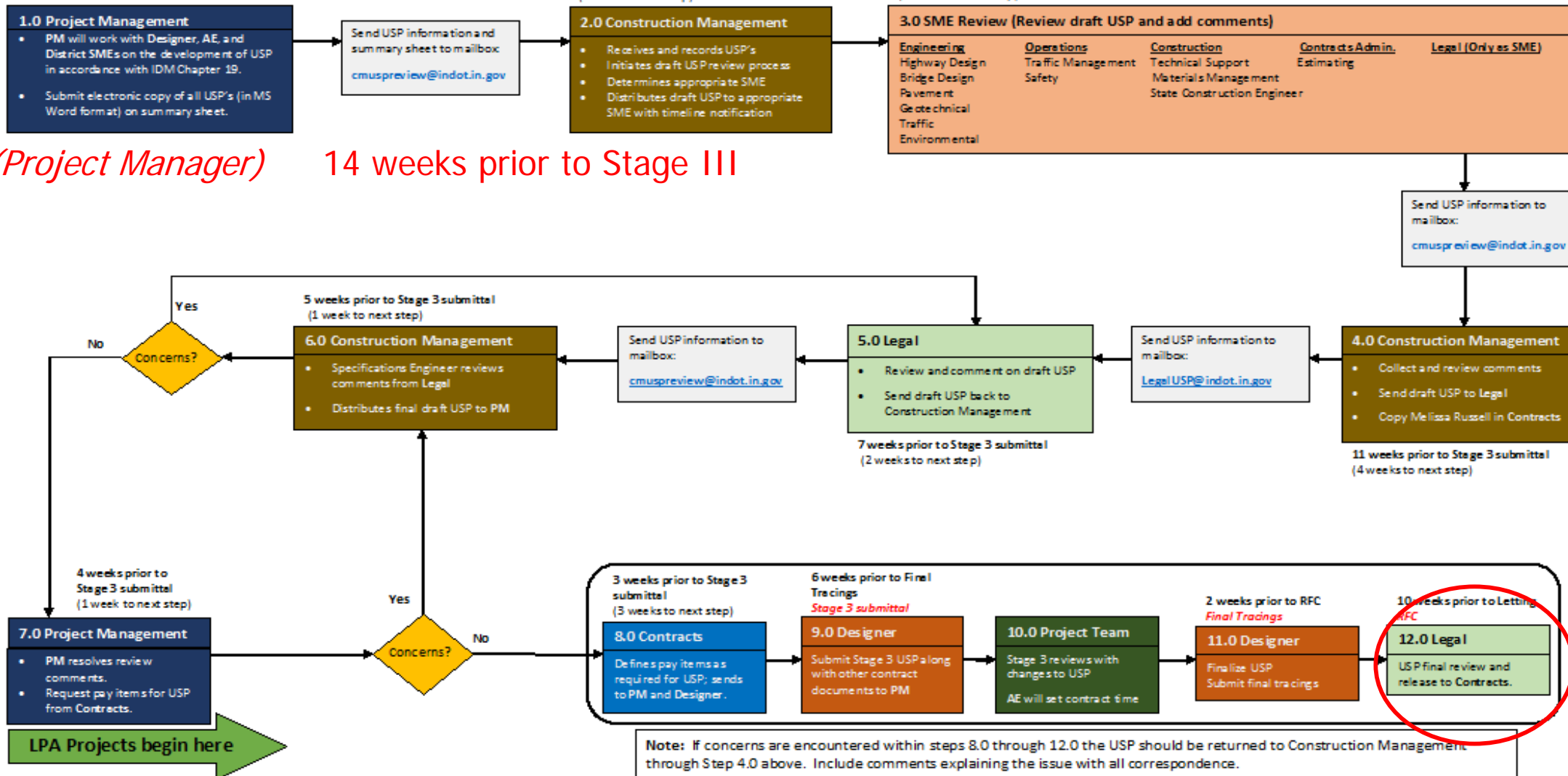
8. Is it ready for the *USP Review Process* ?



UNIQUE SPECIAL PROVISION PROCESS (INDOT State contracts only. See Notes below for LPA contracts)

Rev 12/17/2018

FIGURE 19-3D



(Project Manager) 14 weeks prior to Stage III

https://www.in.gov/dot/div/contracts/standards/usp/USP_Process.pdf

Legend:
 AE - Area Engineer
 LPA - Local Public Agency
 PM - Project Manager
 RFC - Ready for Contract
 SME - Subject Matter Expert
 USP - Unique Special Provision

Notes:
 LPA Projects will be submitted to Contracts beginning at Step 7.0

Unique Special Provisions Review Process

- Flow Chart establishes a framework for ***consistency***.
- USPs are for **unique** situations on the contract that are not already covered or specified elsewhere. ***UNIQUE***.
- USP ***sample library*** that can be accessed to help with contract situations.

**You don't have to
"re-invent the wheel",
but please take the time to
make it yours.**

Proofreading can be a good thing....

NEXT LEVEL ROAD SIGNS

Next Level Road Signs will be furnished by the Department. The Contractor shall pick up the signs at the Greenfield district office at:

32 South Broadway St.

Greenfield, IN 46140

The Contractor shall return the signs to the Vincennes district office upon project completion. The travel cost for this effort shall be included in the cost of other items.

Make sure your intentions are clear.

(take the time to make it yours)



Let's Get It Write!

Resources:

1. Website:

<https://www.in.gov/dot/div/contracts/standards/rsp/index.html>

2. Scroll down to **“Unique Special Provisions”**

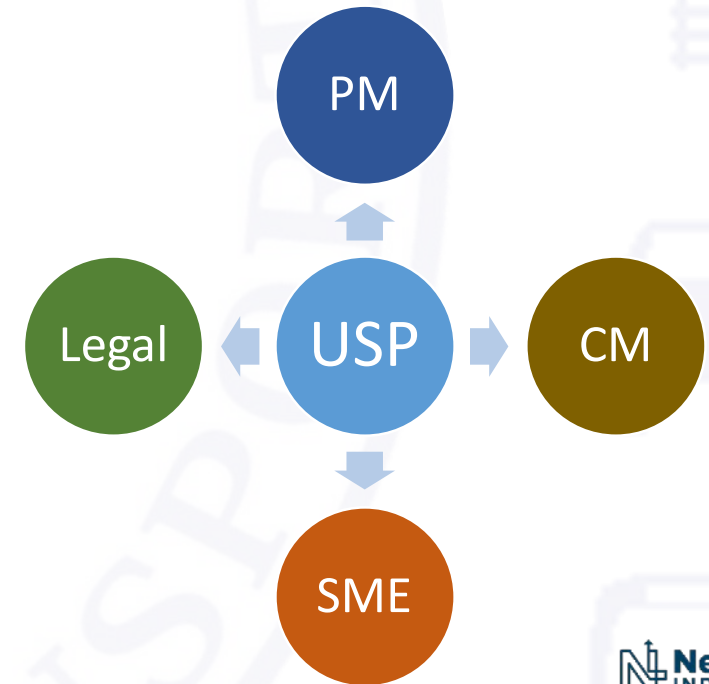
- **Unique Special Provision Process** (flowchart)
- **List of Unique Provisions** (sample list)
- **Instructions for Use Unique Special Provisions** (ch. 19 of IDM)
- **Summary Sheet** (initial presentation form)

3. Contact information for **Scott Trammell** and **Lana Podorvanova**

Unique Special Provisions Review Process

There is a *new* process coming...

- Automated concept utilizing SharePoint
- Increased transparency
- Automated time stamps
- Multiple “real-time” edits



Please be patient. We're still testing this system.

Standard Specifications

- 1. Use good stuff.**
- 2. Do good work.**

Different Types of USPs

Restrictive Type USP

Simple, concise language for clarification.

Constructive Types of USPs

Directly Revises Standard Specifications

- Reference Spec sections and line numbers
- Line out ~~existing~~, *italicize* new

Defines a Unique Pay Item

- Needs the "Big 5"
- Could be one that directly revises the standard specifications (not as common)

Restrictive Type USP

STOCKPILED BORROW MATERIAL FOR PROJECT

The Department has stockpiled sufficient borrow material for use in the project in the southwest quadrant of the I-465 interchange with I-70 on the eastside of Indianapolis.

All borrow required for the project shall be taken from this stockpile.

Provision title is centered and is Courier New font, 10-pt. pitch, all capitals.

There are no referenced *Standard Specifications* sections and line numbers.

Specification text is Courier New font, 10-pt. pitch.

There are no deletions or insertions.

EXAMPLE OF A RESTRICTIVE TYPE UNIQUE SPECIAL PROVISION

Figure 19-3A



Constructive Type USPs

Directly Revises Standard Specifications

PERMANENT BUZZ STRIPS

The Standard Specifications are revised as follows:

SECTION 801, BEGIN LINE 636, DELETE AND INSERT AS FOLLOWS:

4. ~~Temporary~~ *Permanent* Buzz Strips

~~Temporary~~*Permanent* buzz strips shall be a set of transverse markings constructed of ~~removable~~ or durable marking material. Durable marking material shall be used in accordance with 808.07(b).

SECTION 801, BEGIN LINE 1034, DELETE AND INSERT AS FOLLOWS:

~~Temporary~~*Permanent* Buzz Strips..... LFT

Title is centered – Courier New, 10 pt.
Referenced Spec section and line numbers – Courier New, 10 pt.
Spec text is Times New Roman, 12 pt
See Chapter 19 – Figure 19-3B



Defines a unique pay item – needs the “Big 5”

HAND DIG GUARDRAIL POST HOLE

Description

This work shall consist of hand digging guardrail post holes in accordance with 105.03. An undistributed quantity has been included in the contract for this work.

Materials

Materials shall be in accordance with 601.02.

Construction Requirements

When the posts are located within the Tolerance Zone of a utility in accordance with IC-8-1-26-2, 12 in. diameter holes shall be bored in accordance with 601.03 to the required embedment depth by use of hand tools or vacuum excavation. If there are 10 or more hand dug holes adjacent to each other, the hole shall be backfilled with removable flowable fill and the guardrail posts shall be placed immediately into the backfilled hole and braced until the flowable fill cures.

Method of Measurement

The guardrail post holes will be measured per each hand dug post hole.

Basis of Payment

The guardrail post holes will be paid for at the contract unit price per each hand dug post hole, complete in place.

Payment will be made under:

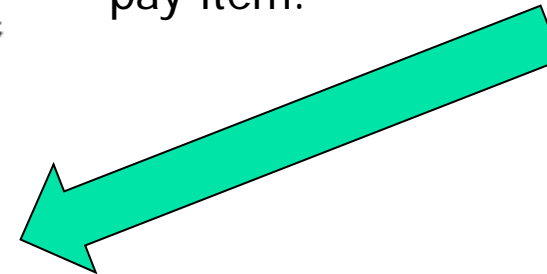
Pay Item	Pay Unit Symbol
Hand Dig Guardrail Post Hole	EACH

The cost of the B-borrow or removable flowable fill shall be included in the cost of Hand Dig Guardrail Post Hole.

1. Title is centered, Courier New, 10 pt.
2. No referenced spec section or line numbers.
3. Text is Courier New, 10 pt.
4. Headings are **Bold**.
5. See Figure 19-3C.

This USP does not directly revise the Standard Specs,

But it **does** define a unique pay item.



About those Pay Items.....

Only items listed in the Standard Specifications are **Standard Items**.

Each existing pay item shown in the list of pay items is identified by:

S = Standard

M = Maintenance

R = Recurring (tied to one or more **Recurring Special Provisions**)

U = Unique

This means you need a USP with the **Big 5**.

- Check the **examples** of USP's on our website to see if we already have something that you can **revise to fit** your "unique" project.
- Please also note that adding the word "*modified*" to a standard pay item does not *necessarily* make it Unique that requires the "Big 5".
- Can you use the standard spec section the way it is written and **show your "modification" on the plans**? Could you use a **Restrictive Type USP** to clarify your intentions?

Do NOT address measurement and payment on the plans!



About those Pay Items.....

UNDISTRIBUTED QUANTITIES

The schedule of pay items contains the following undistributed quantities in addition to known plan quantities:

303-08210 Comp Ag No. 53, Temp for Driveways100 TON

The Contractor shall inform, and obtain approval from, the Engineer prior to placement of an undistributed quantity.

Undistributed Quantities is unacceptable as a supplemental description for your unique pay item.

Another question:

Do you really need it?

Could you simply use 104.03, or 109.05?



About those Pay Items.....

- Changing the UNITS of a standard pay item may not be necessary. Can you use the standard pay item?
- Changing the name of a standard pay item does not make it unique. Can you use the standard pay item?

- And remember: *In accordance with 105.04,*

Instruction to Bidders and
description of pay items listed
in the **Schedule of Pay Items**

hold over:

Unique Special Provisions, (101.71)

hold over:

Plans, (101.36)

hold over:

Recurring Special Provisions, (101.44)

hold over:

Standard Specifications. (101.55)



Did we mention Pay Items.....?

The Contractor shall dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Disposal of water shall not inconvenience others. Sumps, sedimentation tanks, flow-control devices, and temporary sediment and erosion control shall be provided in accordance with 205 and as required by authorities having jurisdiction. Sediment in filter bags shall be removed once it has accumulated to the design volume and be disposed of in accordance with 202.

Method of Measurement

Dewatering will not be measured, regardless of how many times the system is moved, replaced or relocated. Sediment filter bags will not be measured regardless of the number of times a day a filter bag may become filled and replaced.

Basis of Payment

The cost of dewatering shall be included in the cost of the dewatering.

The cost of the pump, materials, installation, inspection, maintenance, sediment filter bags, secondary containment filter sock, material to stabilize discharge area, removal and proper disposal, and all necessary incidentals shall be included in the cost of dewatering. |



Did we mention Pay Items.....?

The Contractor shall dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Disposal of water shall not inconvenience others. Sumps, sedimentation tanks, flow-control devices, and temporary sediment and erosion control shall be provided in accordance with 205 and as required by authorities having jurisdiction. Sediment in filter bags shall be removed once it has accumulated to the design volume and be disposed of in accordance with 202.

Method of Measurement

Dewatering will not be measured, regardless of how many times the system is moved, replaced or relocated. Sediment filter bags will not be measured regardless of the number of times a day a filter bag may become filled and replaced.

Basis of Payment

The cost of dewatering shall be included in the cost of other items.

The cost of the pump, materials, installation, inspection, maintenance, sediment filter bags, secondary containment filter sock, material to

- By the way.....

Dewatering is INCIDENTAL to,

206, 702, 715, 716, 720, and 734 Standard Pay Items .



Just because it *LOOKS* okay...

But.....WHY?

STRUCTURAL EXPANSION JOINT SEAL, REPLACE, 1A

Description

This work shall consist of the removal and replacement of the existing type 1A joint seals in accordance with 105.03.

Material

Joint sealing materials shall be in accordance with 906.02(a)1.

Construction Requirements

Construction requirements shall be in accordance with 503.05 and 724.03 (b).

Method of Measurement

Replacement of existing joint seal will be measured in accordance with 724.04.

Basis of Payment

Replacement of existing joint seal will be paid for in accordance with 724.05.

Payment will be made under:

Pay Item	Pay Unit Symbol
Structural Expansion Joint Seal, Replace, 1ALFT

(This is a *standard* 724 pay item)



Just because it *LOOKS* okay...



Notice Anything?

CORED HOLE IN CONCRETE

Description

This work shall consist of coring through concrete retaining wall footing structures in accordance with 105.03.

Materials

Materials shall be in accordance with 701 and 702.

Construction Requirements

As part of the operation to predrill pilot holes to bedrock depth, the contractor shall core through the existing retaining wall footing as shown on the plans. The diameter of this hole shall match the diameter of the predrilled pilot holes and cored hole in rock. Once the footing has been cored, predrilling shall continue to bedrock depth in accordance with 701.

Once the piles have been driven and the fill beneath the footing is in place, the cored holes shall be filled as shown on the plans.

Method of Measurement

None.

Basis of Payment

Cored Hole In Concrete will be paid for at the contract unit price per each.

Payment will be made under:

Pay Item	Pay Unit	Symbol
----------	----------	--------

Cored Hole <u>In</u> Concrete.....		EACH
------------------------------------	--	------

The cost of the cored hole fill materials and all other incidentals shall be included in the cost of the pay item.



Notice Anything?

CORED HOLE IN CONCRETE

As part of the operation to predrill pilot holes to bedrock depth, the Contractor shall core through the existing retaining wall footing in accordance with 701.09, as shown on the plans. The diameter of this hole shall match the diameter of the predrilled pilot holes and cored hole in rock. Once the footing has been cored, predrilling shall continue to bedrock depth in accordance with 701.09(a)2.

Once the piles have been driven and the fill beneath the footing is in place, the prebored holes shall be filled as shown on the plans.

The cost of fill materials and all other incidentals shall be included in the cost of the prebored hole.

Defining a Unique Pay Item is not necessary.

A Restrictive Type USP will suffice, utilizing the Standard 701 Pay Item for Prebored holes.



Who are we writing these for?

- The Contractor
 - to bid the work
 - to perform the work
- Department personnel involved with the contract
 - to enforce those standards.

And since we are writing these special provisions for the contract.....

here are some guidelines to follow:

www.in.gov/indot/design_manual/files/Ch19_2013.pdf



Write the Unique Special Provision.....

- Voice -** Use passive voice. (*the work... shall be...performed*)
- Sentences -** Use simple language and words. Keep sentences short, 20 words or less (please).
- Paragraphs –** Limit to three or four sentences if possible.
- Terminology –** Be consistent. Avoid words with more than one meaning.
- Pronouns -** Avoid them. (*Seriously, just don't*)
- Capitalization -** Only the title can be all caps. Capitalized words may only be Department, Engineer, Contractor, headings or proper nouns.
- Punctuation -** Minimum. The meaning of a sentence should be clear.



Please use proper Punctuation....



Commas save lives!



Please use proper Punctuation....

**Punctuation,
please!**



**Red Squirrels
Drive slowly**

Remember the Five "C's" of Spec Writing.....

Make sure that your special provision is.....

- **Clear** - Avoid ambiguities. Make no assumptions.
Use words that convey the *exact* meaning.
- **Concise** - Use simple words, and short sentences.
Keep it simple. Get to the point! Be positive.
- **Complete** - Use *The Big 5*, when necessary. Do not be vague or leave it open to interpretation.
- **Correct** - Technically, grammatically and specologically correct.
Check references. (*and spelling*)
- **Consistent** - Phraseology and terminology used in a Special Provision should **be consistent** with that used in the *Standard Specifications*.



Remember the Five "C's" of Spec Writing.....



leave it

ion

Don't leave it open to interpretation, or.....



Don't leave it open to interpretation, or.....



Please be Clear and Concise:

Commonly used terms to AVOID:

- per, shall conform to, shall comply with.
Instead, use **shall be in accordance with** Section 605.
- as per. Instead, use **as specified, as shown, in accordance with**.
- as shown in the plans, as detailed on the plans, as indicated in the plans, as shown on the standard drawings. Instead, use
as shown on the plans.
- shop drawings. Use, **working** drawings.
- and/or. Use either **and** alone, or **or** alone. Choose the one most appropriate for your unique situation. (if in doubt, use **or**)



Make sure the language is Correct:

➤ at the Contractor's expense. Instead, use

_____ shall be included in the cost of _____,

.....at no additional cost....., or

with no additional payment.

And, (parenthetically speaking), do not use parentheses, use a comma, or two.



Make sure the language is Clear and Correct :

DRY CONSTRUCTION RESTRICTION

All construction work on the Site shall occur in the dry, with no water present in the stream. No work shall be performed on the channel during a rain event or until such a time as the channel is dry.

If work is desired to be performed following rain events when the channel is still wet the Contractor shall implement dewatering and pump around operations sufficient to ensure continuous, uninterrupted flow as well as dry working conditions in the channel. Pump around and dewatering operations shall be performed at the Contractor's expense.



Make sure the language is Clear and Correct :

DRY CONSTRUCTION RESTRICTION

All construction work on the Site shall occur **in dry conditions**, with no water present in the stream. No work shall be performed on the channel during a rain event or until such a time as the channel is dry.

If work is desired to be performed following rain events when the channel is still wet the Contractor shall implement dewatering and pump around operations sufficient to ensure continuous, uninterrupted flow as well as dry working conditions in the channel. Pump around and dewatering operations shall be performed at **no additional cost to the Department**.

Please make sure that your intentions are easily understood!



Please be (specologically) Correct:

AVOID saying:

➤ INDOT. Instead, use

the Department.

➤ or approved equal. Do not use this phrase, but **define the equal**, or say **as approved**.

➤ must, should, or is to. Use

shall, or **will**.

Remember: the Engineer **will**...

the Contractor **shall**...

(see General Note 11, and 104.01)



Be Consistent.....

(and Correct)

The Contractor shall not be shall be assessed liquidated damages in the amount of \$50,000 per section per instrument type for any instrumentation that fails to meet applicable the Minimum Survival Requirements. For example, if the Contractor installs six horizontal strain gauges in a section and only two of those gauges function, failing to meet the Minimum Survival Requirement, the Contractor will be assessed liquidated damages in the amount of \$50,000.

The Contractor shall be paid a bonus in the amount of \$5,000 per section per instrument type for instrumentation that meets the Minimum Survival Requirements. For example, if the Contractor installs six horizontal strain gauges in a section and four of those gauges function, meeting the Minimum Survival Requirement, the Contractor will be paid a bonus of \$5,000.



Be Consistent.....

(and Correct)

The Contractor will be assessed liquidated damages in the amount of \$50,000 per section per instrument type for any instrumentation that fails to meet applicable the Minimum Survival Requirements. For example, if the Contractor installs six horizontal strain gauges in a section and only two of those gauges function, failing to meet the Minimum Survival Requirement, the Contractor will be assessed liquidated damages in the amount of \$50,000.

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Please make sure to use the Correct words:

NOTIFICATION OF TRAFFIC CONTROL CHANGES

The Contractor shall provide notification of all changes in traffic control, including road closures, to the following agencies at least five calendar days prior to implanting the revised traffic pattern:

Monroe County Community School Corporation	812-330-7700
Bloomington Transit	812-336-7433
Monroe County Sherriff	812-349-2534
Bloomington Police Department	812-339-4477
Bloomington Fire Department	812-332-9763
US Post Office	812-334-7013

The Contractor shall provide notification to the following property owners of all changes in detour routes impacting access to their properties at least seven calendar days prior to implanting the revised traffic pattern:

Unity of Bloomington, 4001 S. Rogers Street	812-333-2484
John & Martha <u>Newlin</u> , 420 W. Gordon Pike	812-336-1149

The cost of providing notifications shall be included in the cost of maintaining traffic.

I think they meant to say "*implementing*".



Be Consistent with proper spec language:

- permit or permitted,
unless you are actually going to require them to obtain a permit.

Use **allow**, or **allowed**.

- Do not use " for inches.
Use **in.**

- Do not use ' for feet or foot.
Use **ft** (*no period after ft*)

- For measurements, instead of using 9" x 9", write

9 in. by 9 in.

do the same for **ft**



Please be Clear and Consistent:

- For numbers, use **9** for dimensions, and **nine** for quantities, and by all means – do **NOT** say nine (9). That is not necessary.
- Also, numbers **nine** or less are spelled out, numbers **10** or above are written numerically.

*Don't place a number at the beginning of a sentence.
If you have to, spell it out!*

- And please, don't ever, I mean **never**, use "i.e." or "etc."
(Seriously. Don't try it. I know people!)
- If at all possible ---> avoid using any "**-ly**" words.
Seriously.

Absolutely.

Usually.



Do you *really* need to say it at all?

12. Workers shall avoid stepping on the plastic concrete immediately after its placement. Foot pressure can compress and force cement paste into the voids at the bottom of the slab, forming resistance to the percolation through the slab. Apparent defects in the surface shall be carefully remedied by placing fresh concrete into any depressions and compacting with a hand tamper.
13. Following strike-off, remove spacers and compact the concrete to the form level, utilizing either a steel roller or a plate compactor or other method approved by the Owner. This compaction secures the surface materials assuring pavement durability. Care shall be taken during compaction that sufficient compactive force is achieved without working the concrete surface enough to seal off the surface porosity.
14. Hand tampers shall be used to compact the concrete along the slab edges immediately adjacent to the forms. After compacting and defect inspection and repair, no further finishing shall be performed on the concrete. Surface shall be immediately cured.
15. The pervious concrete pavement shall be compacted to the required cross-



Do you *really* need to say it at all?

12.

13.

14.

15.



Be Correct (and legal)

Materials shall be in accordance with 619.02 and as follows:

All steel components shall receive a powdercoat paint finish in black, Federal Standard 595B Color 17038. Any equivalent coating system shall be approved by the Engineer. All hardware shall be painted black, Federal Standard 595B Color 17038.

Construction Requirements

Construction of the powdercoat finish shall be in accordance with 619 and the manufacturer's recommendations.



Be Correct (and legal)

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All steel components shall receive a powdercoat paint finish in black, Federal Standard 595B Color 17038. Any equivalent coating system shall be as approved by the Engineer. All hardware shall be painted black, Federal Standard 595B Color 17038.

Construction Requirements

Construction of the powdercoat finish shall be in accordance with 619 and the manufacturer's recommendations.

**Without this,
the Engineer didn't have a choice!**



Check your spelling.....



Check your spelling.....



In Boston?

Does Elmer Fudd work here?

Remember - Safety First!

BAT INSPECTION

The Contractor shall inspect the underside of the bridge for the presence of bats prior to construction. If any bats are discovered and do not leave after discovery, the Contractor shall contact an animal control, a wildlife conservation agency, or a public health agency for assistance. If help is not available, these steps shall be followed to capture and release a bat, as provided by the Centers for Disease Control and Prevention:

1. Find a small container like a box or a large can, and a piece of cardboard large enough to cover the opening of the container. Punch small air holes in the cardboard prior to capturing bat and place cardboard over opening of the container.
2. Put on leather work gloves. When the bat lands, approach it slowly and place the container over it. Slide the cardboard under the container to trap the bat inside.
3. If you are certain there has been no contact between the bat and any people or pets, carefully hold the cardboard over the container and take the bat outdoors and release it away from people and pets.
4. If there is any question about contact between the bat and people or pets, save the bat for testing. Tape the cardboard to the container, securing the bat inside and then contact your health department to have the bat tested for rabies.

This work shall be included in the cost of mobilization and demobilization.



Remember - Safety First!

BAT INSPECTION

The Contractor shall inspect the underside of the bridge for the presence of bats prior to construction. If any bats are discovered and do not leave after discovery, the Contractor shall contact an animal control, a wildlife conservation agency, or a public health agency for assistance. If help is not

STOP RIGHT HERE!!

1. Find a small container like a box or a large can, and a piece of cardboard large enough to cover the opening of the container. Punch small air holes in the cardboard prior to capturing bat and place cardboard over opening of the container.
2. Put on leather work gloves. When the bat lands, approach it slowly and place the container over it. Slide the cardboard under the container to trap the bat inside.
3. If you are certain there has been no contact between the bat and any people or pets, carefully hold the cardboard over the container and take the bat outdoors and release it away from people and pets.
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This work shall be included in the cost of mobilization and demobilization.



The importance of Proofreading.....

compaction following installation. Trees shall not be planted in rows, rather installed **haphazardly** to imitate a more natural pattern. Trees shall be planted so the root collar is even with the ground surface. The roots shall be extended downward into a hole or topsoil. Roots shall not be forced into improper planting holes which would restrict their ability to grow and support the seedling to **permit** survival. Failure to comply with these procedures shall require replanting of trees with no additional payment. Outside temperature and storage requirements shall be in accordance with ~~INDOT design manual standards found in~~ 622.03. All other provisions of planting, backfilling, and watering shall be in accordance with 622.08.

All trees shall be marked with wire flags ~~immediately~~ adjacent to their stems.

Haphazardly.

An *LY* word.

Was it a good idea?



Did we mention Proofreading....?

Labeling and Tagging:

The Electrical Contractor shall label all electrical equipment by one of these methods described below:

1. Printed card labels may be used on items of equipment furnished with plastic windows. Labeling of the cards shall be **nearly** printed using a lettering device such as Leroy Instrument.
2. Directories on the inside of panelboards shall be typewritten and shall show a list of circuits and points, equipment, or areas supplied.

Did they mean NEATLY?

Or is it okay if the Contractor just thought about it?

"Well, we *nearly* printed those....."

Adverbs are not your friend.



Are you sure you need to say that?

Pig Cleaning Procedures

1. The Contractor shall remove all air valves along the line. The Contractor shall insure that each isolating valves to the air release valve are closed. The Contractor shall operate system to prevent undesired buildup of air while air release valves are out of service.
2. If the pig is inserted into the main, the Contractor shall set it in motion by opening the upstream gate valve and a downstream fire hydrant or blow-off valve, usually the valve on the capped end at the exit point. If the pig is launched from a wye, fire hydrant, or other appurtenance, the Contractor shall use an external pressurized water source to inject the pig into the main as described in these specifications.
3. Once the pig is launched, the Contractor shall control its speed by throttling the discharge at a downstream fire hydrant or blow-off. The Contractor shall operate pigs at the typical speed of 1 fps. This slow speed will help prevent pressure surges when the pig passes through undersized valves, enters smaller pipes, or turns through tees or crosses. The Contractor shall be allowed to use speeds of up to 2 fps. on straight runs with no restrictions or sharp turns.
4. The Contractor shall make sufficient passes of the pig to obtain thorough cleaning. Two pigs may be used in tandem to save time and water. Sufficient cleaning is established when the water discharging after the pig becomes clear within one minute.



Are you sure you need to say that?

Pig Cleaning Procedures

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The Contractor shall insure that ea
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3. Once the pig is launched, the Contractor shall control its
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when the water discharging after the pig becomes clear
within one minute.



Are you sure you need to say that?

Pig Cleaning Procedures

3. Once the pig is launched, the Contractor shall control its speed by throttling the discharge at a downstream fire hydrant or blow-off. The Contractor shall operate pigs at the typical speed of 1 fps. This slow speed will help prevent pressure surges when the pig passes through undersized valves, enters smaller pipes, or turns through tees or crosses. The Contractor shall be allowed to use speeds of up to 2 fps. on straight runs with no restrictions or sharp turns.

the typical speed of 1 fps. This slow speed will help prevent pressure surges when the pig passes through undersized valves, enters smaller pipes, or turns through tees or crosses. The Contractor shall be allowed to use speeds of up to 2 fps. on straight runs with no restrictions or sharp turns.

4. The Contractor shall make sufficient passes of the pig to obtain thorough cleaning. Two pigs may be used in tandem to save time and water. Sufficient cleaning is established when the water discharging after the pig becomes clear within one minute.



Are you sure you need to say that?

Pig Cleaning Procedures

3. Once the pig is launched, the Contractor shall adjust the speed by throttling the discharge hydrant or blow-off. The Contractor shall maintain the typical speed of 1 fps. The Contractor shall prevent pressure surges when the pig enters undersized valves, enters small tees or crosses. The Contractor shall maintain speeds of up to 2 fps. on straight runs with no restrictions or sharp turns.



4. The Contractor shall make sufficient passes of the pig to obtain thorough cleaning. Two pigs may be used in tandem to save time and water. Sufficient cleaning is established when the water discharging after the pig becomes clear within one minute.

to save time and water. Sufficient cleaning is established when the water discharging after the pig becomes clear within one minute.

Are you sure you need to say that?

Pig Cleaning Procedures

715.05 Laying Pipe



At the time of acceptance, all pipe shall have been cleaned and be free from silt and other foreign matter.

Prior to constructing a pipe extension, the existing structure shall be cleaned of all foreign materials. Existing anchors, end sections, or headwalls shall be removed as shown on the plans or as directed. All existing pipes which are damaged by the removal operation shall be replaced. Removed materials shall be disposed of in accordance with 202.

On second thought.....



Haphazardly ?

Or Nearly?



Make sure your intentions are clear.

Please.

There could be consequences.....



Have you ever had a traffic control device walk off the job?

There's some CES stuff, too.....

- Please send an email to:

CESSUPPORT@INDOT.IN.GOV

- If you
 - need a *new* pay item number.
Be sure to include the APPROVED USP.
 - require any Group Number changes
 - have any CES questions or have any problems with CES



Revised Detailed Cost Estimate

INDIANA DEPARTMENT OF TRANSPORTATION
DETAIL COST ESTIMATE

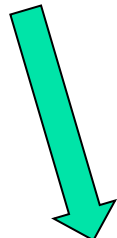
02/24/16
PAGE NO. 3

ESTIMATE NUMBER : B -29070-A PCN : 0400473 PROJECT NO. : 04DD473 CONTRACT ID : B -29070-A

PCN : 0400473 BRIDGE DECK REPLACEMENT STR NO I64-36-02411, TWIN CONTINUOUS
COMPOSITE STEEL BEAM, 3 SPANS, TOTAL LENGTH 209.75 LFT

CATEGORY : 0001 BRIDGE DECK REPLACEMENT

LINE NO.	ITEM NUMBER	ITEM DESCRIPTION	ESTIMATED QUANTITY	ITEM UNIT	UNIT PRICE	AMOUNT
0072	711-96800	STUD SHEAR CONNECTORS	3,150.000	EACH		
0073	715-05149	PIPE, TYPE 2, CIRCULAR, 12 IN.	443.000	LFT		
0074	715-05407	PIPE, END BENT DRAIN, 6 IN.	166.000	LFT		
0075	720-45069	INLET, P12	1.000	EACH		
0076	720-45410	MANHOLE, C4	1.000	EACH		
0077	726-92406	BEARING ASSEMBLY ELASTOMERIC	14.000	EACH		
0078	801-03290	CONSTRUCTION SIGN, C	4.000	EACH		
0079	801-04308	ROAD CLOSURE SIGN ASSEMBLY	2.000	EACH		
0080	801-06207	TEMPORARY PAVEMENT MARKING, REMOVABLE, 4 IN.	16,696.000	LFT		
0081	801-06469	TEMPORARY PAVEMENT MARKING, REMOVABLE, 8 IN.	5,417.000	LFT		
0082	801-06640	CONSTRUCTION SIGN, A	28.000	EACH		
0083	801-06645	CONSTRUCTION SIGN, B	3.000	EACH		
0084	801-06710	FLASHING ARROW SIGN	360.000	DAY		
0085	801-06775	MAINTAINING TRAFFIC	1.000	LUMP		
0086	801-07024	ENERGY ABSORBING TERMINAL, C2, TL-3	2.000	EACH		
0087	801-07118	BARRICADE, III-A	96.000	LFT		
0088	801-07119	BARRICADE, III-B	96.000	LFT		
0089	801-08400	TEMPORARY TRAFFIC BARRIER, TYPE 1	3,420.000	LFT		
0090	801-52817	TEMPORARY CROSSOVER, B	1.000	EACH		
0091	808-06701	LINE, THERMOPLASTIC, BROKEN, WHITE, 4 IN.	1,149.000	LFT		
0092	808-06703	LINE, THERMOPLASTIC, SOLID, WHITE, 4 IN.	360.000	LFT		
0093	808-06716	LINE, REMOVE	11,838.000	LFT		
0094	808-10031	LINE, MULTI-COMPONENT, BROKEN, WHITE, 4 IN.	97.000	LFT		
0095	808-10033	LINE, MULTI-COMPONENT, SOLID, WHITE, 4 IN.	289.000	LFT		
0096	808-10034	LINE, MULTI-COMPONENT, SOLID, YELLOW, 4 IN.	289.000	LFT		
0097	808-75245	LINE, THERMOPLASTIC, SOLID, YELLOW, 4 IN.	3,443.000	LFT		
0098	808-75996	SNOWPLOWABLE RAISED PAVEMENT MARKER, REMOVE	47.000	EACH		
0099	808-75998	SNOWPLOWABLE RAISED PAVEMENT MARKER	47.000	EACH		



Confidential

CATEGORY TOTAL
PROJECT TOTAL

Confidential

ADD	808-06702 LINE, THERMOPLASTIC, BROKEN, WHITE, 5 IN	1149	LFT	\$		
				Unit Price	Amount	
	808-10054 LINE, MULTI-COMPONENT, BROKEN, WHITE, 5 IN	97	LFT	\$		



As for any CIB Revisions.....

09-01-15

107-R-169 STATEMENTS ABOUT EXISTING CONDITIONS OF UTILITIES, ADDITIONAL RIGHT-OF-WAY, AND ENCROACHMENTS

(Revised 06-08-15)

The Standard Specifications are revised as follows:

SECTION 107, AFTER LINE 764, INSERT AS FOLLOWS:

107.26 Existing Conditions of Utilities, Additional Right-of-Way, and Encroachments

Such existing conditions are as described below.

(a) Utilities

The status of all utility companies and organizations potentially involved with the work to be performed are described below as known at the time this contract was prepared. The active engagement of the Utility Coordinator does not minimize nor negate the responsibility of the Contractor to perform duties per the Standard Specifications. The contractor shall copy the PE/PS and the Utility Coordinator on all correspondence with utilities.

The facilities of Eastern Heights Utilities exist within the project limits. An existing 4" PVC water distribution line and a ¾" service line exists in the project area. The waterline will be relocated from Station 676+00 to Station 683+75. The existing water line will be abandoned in place. A new ¾" service line will be installed from Station 681+40, 97' LT to Station 681+40, 40' RT. ~~It is anticipated that the utility will adjust its facilities for construction within 120 days after a notice to proceed is issued to relocate. A Notice to Proceed will be issued after a contractor is chosen by the utility to relocate their facilities.~~ It is anticipated that the utility will adjust its facilities for construction before May 31, 2016. If questions arise, Kenny McIntosh of the utility may be contacted at 812-384-8261. The utility is reimbursable for the relocation. A workplan was executed on 8/24/2015. An agreement was signed on 10/22/2015.

The facilities of Smithville Communications exist within the project limits. Their facilities have been adjusted to accommodate construction. A retired-in-place 75 pair copper cable exists left of SR 445 Line "A" and an active 12 & 300 pair copper cable with a 3 pair service drop exists right of SR 445 Line "A". A new 300 pair copper cable was installed to the right of SR 445 Line "A". New pedestals were placed outside of the construction limits. Smithville coordinated with Zayo and Comcast to relocate their facilities alongside theirs with this project. If questions arise, Joe Bryniarski of the utility may be contacted at 812-935-2262. A workplan was executed on 6/9/2015. The notice to proceed to relocate was issued on 6/5/2015.

The facilities of Comcast exist within the project limits. Their facilities have been adjusted to accommodate construction. A new cable was bored along the right of SR 445 Line "A". If questions arise, Scott Templeton of the utility may be contacted at 812-822-3262. A workplan was executed on 6/9/2015. The notice to proceed to relocate was issued on 6/5/2015.

The facilities of Zayo exist within the project limits. Their facilities have been adjusted to accommodate construction. The utility bored a 144 fiber optic cable along the

107-R-169
1 of 3

Deletions highlighted in red.

Additions highlighted in yellow.

Please,

Only send the pages being revised,




NOT the entire CIB.

(please?)







Tech Writer Concerns for USPs.....

Page Breaks

-  **Page**
Mark the point at which one page ends and the next page begins.
-  **Column**
Indicate that the text following the column break will begin in the next column.
-  **Text Wrapping**
Separate text around objects on web pages, such as caption text from body text.

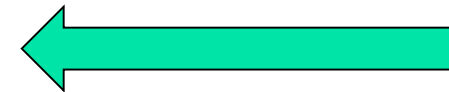
Section Breaks

-  **Next Page**
Insert a section break and start the new section on the next page.
-  **Continuous**
Insert a section break and start the new section on the same page.
-  **Even Page**
Insert a section break and start the new section on the next even-numbered page.
-  **Odd Page**
Insert a section break and start the new section on the next odd-numbered page.

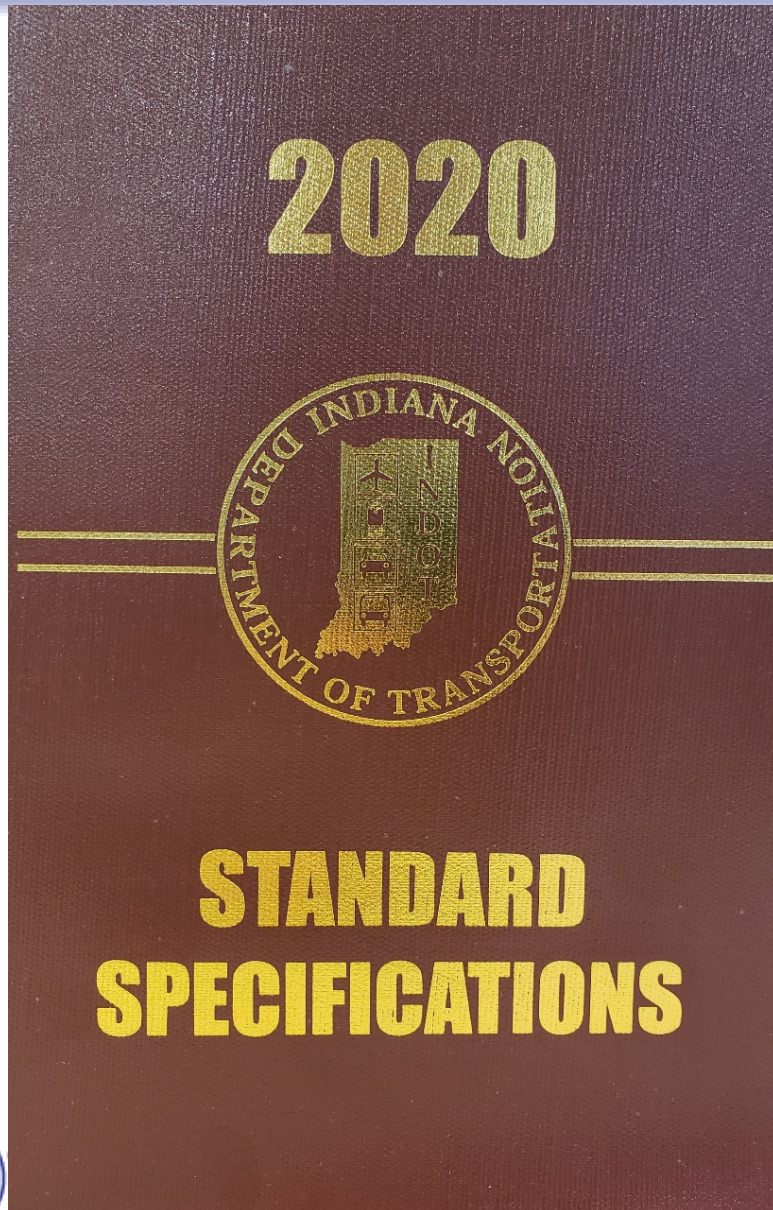
Page Breaks are okay.



Section Breaks are NOT okay, since it may cause issues for the CIB.



In Summary.....



**Please make sure you are referencing
the Current version
of the Standard Specifications.**



And *please*

(did you notice I said please? *I'm begging here People!*)

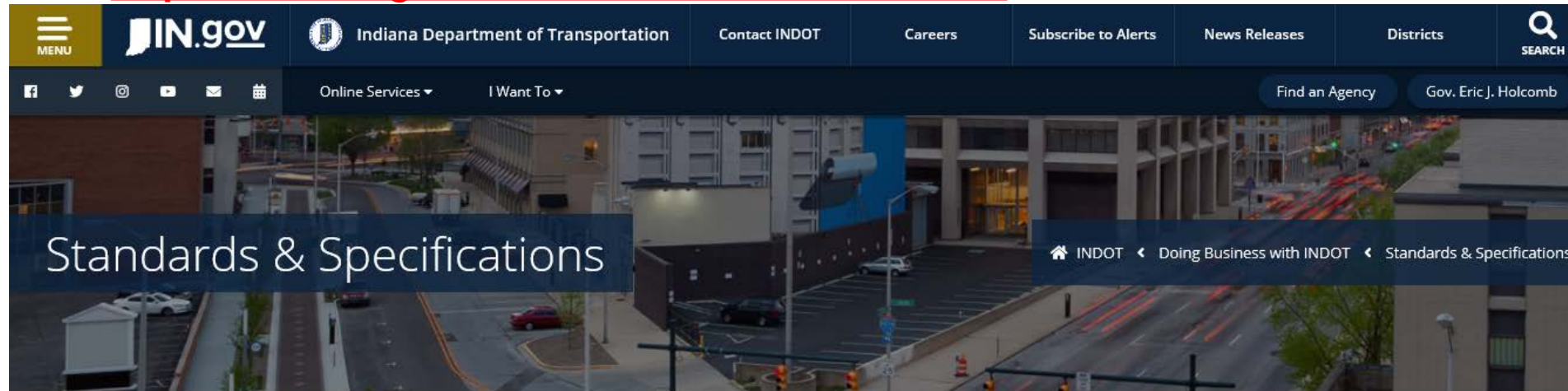
If at all possible, write your Unique Special Provisions in such a way that it points the reader back into the Standard Specifications book at every opportunity.

Also, please (*there it is again!*) look inside the SS Book to see if what you are trying to do is already in there.



Document Links....

- <http://www.in.gov/dot/div/contracts/standards/>



Standards, Specifications, and Provisions

- [Standards Committee](#)
- [Standard Specifications](#)
- [Standard Drawings](#)
- [Recurring and Unique Special Provisions & Recurring Plan Details](#)
- Special Provisions Technical Advisories have been discontinued as of 08/06/18. The publication schedule for the RSP Menu has been standardized and occurs in February, May, August, and November, approximately 14 days after the preceding Standards Committee meeting. The schedule of Standards Committee meetings, submittals, and distributions is available from the Standards Committee webpage found in the link above titled "Standards Committee."
- [Indiana Design Manual](#)

**Just go to the INDOT website and click on
Doing Business with INDOT**



Thank you.....

Questions?

Comments?

Snide Remarks?



Thank you.....



Ambiguity

What happens in Vagueness
stays in Vagueness