

# WSDOT Design Manual - Contributing Improvements and New Content

## Introduction

The quality of *any* product/service like the Design Manual should be more defined by the users than by those producing or maintaining the manual. The users of the Design Manual have indicated that they prefer that the Design Office limits Design Manual changes to only what is needed for their success or some other necessity.

Changes are submitted to the Design Manual Steward, who is responsible for maintaining the content of the manual, including consistency, readability, coherence of content, and quality. The Design Manual Steward works as a facilitator to make sure suggested content meets the high standards of the document, does not conflict with other guidance in the Design Manual (or elsewhere), and that it's well-integrated into the manual in particular and fits the Design Office's vision in general.

Design Manual change priorities:

- Remove or replace incorrect information. Incorrect information is misleading and wastes designer's time.
- Remove contradictory information in the Design Manual. Contradictory information causes confusion for designers and wastes their time when they try to determine which is correct.
- Replace information that is no longer accurate because of changes in law or policy.
- Improve the Manual based on policy or technology improvements that provide a significant benefit, where the benefit is greater than the cost of the change to the Designer and/or the cost to projects.

Design Manual users are Subject Matter Experts in the usefulness of the Design Manual. You tell us how it is useful or not, report mistakes when you find them, and send us ideas for improvement. Design Manual users are also Subject Matter Experts in the work they do like Traffic, Structures, Maintenance, etc.; they also send suggested changes based on their specialized expertise.

If you find something in the Manual that is obviously wrong and fixing it does not change the meaning of the text or diagram like an incorrect reference, miss-spelled word, a missing line in an exhibit, or a missing number, please just email us so we can get it fixed as soon as possible. But, if a Designer or other SME finds a problem or wants to suggest a change that will change the meaning, please use the submittal process below.

All of your comments and suggestions are important to us and we will get back to you with what we will do with them. Thank you for helping improve the Design Manual content.

## Improvement Submittals

Before you spend a lot of time suggesting a change, especially a large one, you might first contact us and talk to us about what you think the problem(s) is or fill out and send us the submittal form at the bottom of this document. This way we can fully understand the problem and help you develop a solution that will work for everyone before you spend a lot of time writing changes.

Suggested changes are normally submitted to the Design Manual Steward, who adds them to the Clearinghouse, which is a master to-do list. When presenting a suggested improvement, please use the submittal form below or provide a written submittal that addresses the following questions

What is the driver for a change? (What is the story of the problem or suggested improvement)

- What is the problem? In other words what do you think the problem is?
- When does the problem occur? Does the problem happen regularly or only in special situations?
- Who is affected by the problem? Does the problem affect every Designer or a specific specialty group?
- How severe is the problem? Does it affect project delivery or is it an inconvenience?
- Why should we address this problem now? Versus in next year's Design Manual update cycle?

This might be enough to go on, but if you want to continue, here are three more questions.

- Which DM sections do you think will be affected?
- What does the Design Manual say now?
- Conceptually, what might the change look like?

After a problem(s) has been determined, the Design Manual Steward is happy to send a copy of the chapter(s) needed to suggest the change. Please use Word's "**track changes**" feature to show the suggested change and add a **comment** per change so we and other reviewers can easily understand why you're suggesting the change.

Of course, the scale of the submittal should match the scale of the change.

Again, if the change is small and obvious like a misspelled word or a missing number, you can just explain it in an email and you would not use this process.

## Evaluation and Prioritization

Each entry in the Clearinghouse is evaluated for possible inclusion in the next, Design Manual revision cycle. The revision cycle typically ends with publication in September; however, major policy changes, like the Manual for Assessing Safety Hardware (MASH) or law changes, can initiate a special update cycle and publish date because of implementation deadlines.

Next, the list is prioritized with help from the Assistant State Design Engineers or (ASDEs) based on the benefit and the required investment in personnel and time to perform the changes. While this is being done, the person that suggested the change might be asked to call-in to present their idea to the group. If we need this, we will let you know in plenty of time so you can be prepared.

Please be prepared to answer the questions from the audience, especially in cases where it has been determined that a wider discussion with region staff is advisable.

A formal process is conducted by the Design Manual Steward to engage the ASDEs in a joint prioritization exercise using two criteria:

The **benefit of the change** compared to the **cost in effort and time** to implement it.

The estimate of **benefit** considers:

- How much does it benefit the highway users?
- Does it benefit Designers?
  - + How much does it benefit Designers
  - - How much of a detriment would it be to Designers
- How much does it improve design decisions?
- How much does it reduce risk?

The estimate of **cost of implementation** considers:

- Will it adversely affect the users?
- How much effort and time will it take to make the change?
- How hard will it be to implement?
- What is the cost to the department?

The results of this criteria-based exercise creates a matrix that helps determine prioritization of changes for the next Design Manual publication. The prioritization results are elevated for endorsement by the State Design Engineer, Deputy State Design Engineer, and ASDEs, and are used to inform the workplan for the next edition of the manual.

## Reviews and Approvals

After the Changes written, they go through:

- Headquarters Design and Subject Matter Expert Review.
- Statewide Review. Where the Regions, other HQ Offices, consultants, and FHWA will see it and can comment on the suggested changes:
  - Region reviews are sent to the Region Points of Contact.
    - Every Region has one or more Points of Contact
    - Every Point of Contact is expected to:
      - Receive the DM updates
      - Send the updates to key Subject Matter Experts in the Region
      - Receive the comments back from the Subject Matter Experts
      - Put all the comments in a single file
      - And, send the file back to us. So that we can compile one file for all the comments.
      - The Points of Contact usually get 3 to 4 weeks to do all these steps. It's a lot of work and they do a great job on a short notice.
      - You may someday be asked to review Design Manual updates for your Region Point of Contact person.
- We receive the comments back from the Points of Contact, address them, and make changes based on the comments.
- We then present the changes to the Assistant state Design Engineers (ASDEs) and other HQ Offices for their review and finalize the changes.
- The changes are then presented to the State Design Engineer for his Review and approval.
- The last step is review and approval by the Federal Highway Administration (FHWA).

# WSDOT Design Manual Update Submittal Form

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Organization: \_\_\_\_\_

Subject area: \_\_\_\_\_

Driver(s) for the change(s):

- What is the problem being addressed?
- When does the problem occur?
- Who is affected by the problem?
- How severe is the problem?
- Why should we address this problem now?

Which Design Manual Sections and/or Exhibits would be affected?

What does the Design Manual say now about this issue? (It helps to cut and paste the excerpt of the actual text)

Describe, conceptually, what the change(s) might look like. (Describe here or better yet, show us in an attached MS Word file using the track changes feature and please add a comment for each change to help us understand what you have in mind.)

Submit to John Tevis, Design Manual Steward ([tevisj@wsdot.wa.gov](mailto:tevisj@wsdot.wa.gov))