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Issue Number 80, June 2017



State Aid E-Scene

ADA Transition Plans for Local Agencies – guidebook and training

By: *Renae Kuehl, SRF Consulting*

All public agencies, as required by the federal American with Disabilities Act (ADA) in 1990, must develop a transition plan identifying physical obstacles that limit accessibility and schedule necessary improvements. Despite federal regulations, many agencies still do not have transition plans, resulting in the potential for civil and civic lawsuits and possibly not being eligible for or losing federal funding. In 2012, the Local Road Research Board (LRRB) funded the development of the “**ADA Resource Guide for Local Agencies**” which contains model transition plans, process guidelines for providing accessibility within the public rights of way, and current ADA laws to help organizations fulfill this requirement. Please visit [LRRB ADA Transition Plan of Public Right of Way webpage](#) to learn more and view the guidebook.

A series of three full day training courses on ADA are currently being developed to assist Local Agencies with learning about

the importance of ADA, developing transition plans, design and construction. The three trainings will cover:

- **ADA Overview** – Importance of ADA, compliance, enforcement, transition plans, inventories, design terminology, construction basics and communication with the public (audience: city/county engineers/planners)
- **Design** – MnDOT Standard Plans, Accessible Pedestrian Signals, ADA Design Case Study review, Project Scoping (audience: city/county designers/drafters)
- **Construction** - Curb ramps, sidewalks, landings, driveways, curb and gutter (audience: inspectors and contractors)

It is anticipated that the first of three trainings (ADA Overview) will be administered in late fall in multiple locations

across the state, followed by the design and construction trainings in late 2017/early 2018. Check the [Minnesota LTAP training calendar](#) for more information about this training in the near future. Contact Ted Schoenecker at ted.schoenecker@state.mn.us if you have questions about the training.

Visit the [MnDOT State Aid webpage on ADA](#) for additional examples and resources.



New Programmatic Categorical Exclusion signed

By: Lynnette Roshell, Federal Aid Agreement & Special Program Engineer

Effective July 10, 2017, MnDOT has entered into a new agreement with the FHWA related to environmental documents for projects with little impact on the environment (what we normally call a project memo). The last agreement has been in force since 1998. Revisions and updates to environmental laws and the FAST Act made it necessary to update the agreement between MnDOT and the FHWA.



At this time we do not anticipate a huge difference for our local partners in the process of reviewing or preparing environmental documents. Although the agreement adds a number of environmental thresholds, it clarifies others. The agreement outlines what impacts will cause the project memo to need to go to the FHWA for review and which ones can be approved by SALT. Overall both MnDOT and FHWA feel that the number of documents that have to be sent over to the FHWA for approval will decrease, meaning that SALT will be able to approve more documents than before.

The biggest change you will see will be the SA-1 project memo approval form.

We had it at one page, but with the new categories it will be longer and we believe that shrinking the font is not the best option to keep it as a one pager. We hope to work with the FHWA to expand the types of work on the “minimal” impacts list so that the really short form project memo can be used on even more projects. We plan this to be our focus this summer, in time for the winter rush of memos.

More information can be found on the [MnDOT Highway Project Development Process webpage](#).

Project work types and federal authorizations

By: Merry Daher, State Aid Project Delivery Engineer

Traditionally, the main reason for separating federal plan quantities into separate groups was the source of funds to be used on each segment. Occasionally a federal project will have varying work types under the same project number, roadway and funding source. The FHWA requires that each type of work be grouped separately. We have had a couple project authorizations requests returned to us this year to have the groups broken out. Please be mindful of this when setting up your Engineers' Estimates and Sequence Estimated of Quantity Sheets in your federal plans.

Work types that always need to be broken out separately:

1. New construction

- a) When other work is being performed on an existing roadway
 - i. Need column for new construction and column for resurfacing/reconstruction, etc.

2. Bridges that are >20' in length down the centerline

- a) Rehab or replacement
- b) Approaches (per bridge) included in the total for the specified bridge
- c) Each bridge needs to have its own separate group/column on the Engineer's Estimate

3. Trails (off the roadway)

- a) If ped/bike trail is on the roadway (i.e. resurfacing a road and project includes shoulder widening for bike trail), then the trail does not have to be broken out (it's considered part of the roadway resurfacing/rehab)

Work types that sometimes need to be broken out separately:

- 1. Safety work on Surface Transportation Program (STP), Transpiration Alternatives Program (TAP) or other non-Highway Safety Improvement Program (HSIP) projects

a) Safety work only needs to be broken out separately on non HSIP projects if your trying to claim 90 percent federal share for that work

b) If you want to claim the safety related work at 80 percent, then the safety work can be combined with the STP or TAP work in the main roadway group

If you have any questions contact the [SALT Federal Aid Unit](#).



Federal project end dates

By: Lynnette Roshell, Federal Aid Agreement & Special Program Engineer

FHWA in Washington is really pushing our local division office to keep projects going and proceeding in a timely manner. Many of you have probably heard of “inactive projects,” these are projects which get authorized and then the FHWA does not “see any action” for nine months or more. FHWA sees action if a reimbursement request is processed or another federal action takes place. Minnesota has done fairly well as reducing our inactive projects down below the requirement given to us by Washington.

Now we have an additional directive from Washington, project end dates. This is a date designated at time of authorization that the project will be completed. Completed means closed out in the financial system and completely done. We have negotiated timelines for LPA federal projects. We have agreed with the FHWA that for a normal DCP that the project end date is seven years).

after authorization (which is included in your federal plan transmittal letters). All projects authorized since June 1, 2016 have had an end date listed in the authorization. Projects that were authorized before that will have an end date assigned if there is need for a financial modification before the project is closed out. The end date becomes critical because FHWA will not reimburse for any expenses incurred after that end date. As end dates begin to approach LPAs and DSAEs will begin to get notification of what the end date is. FHWA has said that end dates can be extended, “with good reason,” but they have not told us what those reasons might be.

If you have question please contact Lynnette Roshell at lynette.roshell@state.mn.us or 651-366-3822 or Merry Daher at merry.daher@state.mn.us or 651-366-3821.

Master Contract renewals

By: Sharon LeMay, Special Programs Manager

The 2012-2017 Master Contracts expire June 30, 2017. The new 2018-2022 Master Contracts have been sent out to all city and counties. If you haven't received one, contact Sharon LeMay at sharon.lemay@state.mn.us for metro district or Patti Loken at patti.loken@state.mn.us for all other districts.

We encourage you to execute a Master Contract now so it is in place should you need it. You may never need the Master Contract, but if you do, it will expedite matters to have it

in place. Once the Master Contract is fully executed, there are numerous services MnDOT can offer with nothing more than a written request from the local agency, and other available services are available by work order which can be written and fully executed in a few days.

Master contracts can be submitted to MnDOT as a PDF via email. We no longer need original copies. Be sure to attach your city council/county board resolution allowing your local agency to enter into the Master Contract.

NACE award recipients

Congratulations to both Richard West and Darin Mielke on being awarded National Association County Engineers (NACE) 2016 Rural County Engineer of the Year and 2016 Program/Project Manager of the Year.

Richard West, Public Works Director of Otter Tail County was awarded the NACE 2016 Rural County Engineer of the Year.

[Read more.](#)



Darin Mielke, Assistant Public Works Director of Carver County was awarded the NACE 2016 Program/Project Manager of the Year for his work on the Southwest Reconnection Project in Shakopee and Chanhassen. [Read more.](#)



Overview of upcoming MnDOT solicitations and funding sources

For the Local Road Improvement Program (LRIP), State Aid is preparing an announcement for a timeline to solicit for applications for the new funding. We will have an announcement on the SALT website and upcoming E-Scene with further details on the solicitation timeline. We will focus our process to follow a schedule that would select LRIP projects for the 2018 and 2019 construction session.

For the Highway Safety Improvement Program (HSIP) grant solicitation will come out around September. It will be posted to the [Traffic Engineering HSIP webpage](#). No

other safety infrastructure grant opportunities at this time.

For rail safety, the Office of Transportation System Management has not been doing solicitations for section 130. A request for input from local road authorities on grade crossing issues was sent out earlier and the responses are due at the end of June. They will be working with the Office of Traffic Safety to potentially incorporate a 130 solicitation with the HSIP, since they're going back to 90-10.

Corridors of Commerce received \$350 million for use over the next 4-8 years. A

process for nominating candidate projects will begin in the fall of 2017. The [Corridors of Commerce website](#) will be updating shortly with 2017 program information.

The National Highway Freight Program will be soliciting for candidate projects in the next month or two.

Lastly, the Transportation Economic Development (TED) is out for solicitation now. To apply visit the [TED website](#).

MnDOT Office of Construction and Innovative Contracting: What can we do for you?

By: *Elisa Bottos, Contract Change Supervisor*

The Office of Construction and Innovative Contracting (OCIC) is available as support for city and county partners for their state aid and federal aid construction projects. Areas of expertise include:

- Contract change estimating approval
- contract administration and claims advice
- innovative contracting advice
- standard specification interpretation
- contract time issues and project controls
- labor compliance issues
- work zone safety
- technical certification

One of the most common reasons to contact OCIC is for cost recommendations for contract changes from the Contract Change Unit (formerly Office of Estimating)

Federal Code of Regulations 23CFR 635.120 requires all contract changes

from the Contract Change Unit (formerly Office of Estimating).

Federal Code of Regulations 23CFR 635.120 requires all contract changes must have an adequately documented cost analysis for negotiated prices. Chapter 6. IV.D.3.c IV in the State Aid Manual says, "On federal aid projects, an independent cost estimate is required on all negotiated costs. The Engineer may utilize MnDOT Estimating for recommendations on unit prices." A recommendation from OCIC's Contract Change Unit is an approved method of cost analysis for local agency federal aid projects. The Contract Change Unit can approve the required cost estimating, force account/time and materials and equipment rate recommendations for contract changes on federal aid construction projects. The Contract Change Unit is available to provide recommendations for costs on contract changes for federal or state aid projects.

OCIC's Contract Change Unit consists of:

- Elisa Bottos, Contract Change Engineer, 651-366-4241
- Eric (Rick) Fyten, Contract Change Specialist, 651-366-4685
- Robert Juen, Contract Change Specialist, 651-366-4693
- John Bier, Contract Change Specialist, 651-366-4225

To reach the Contract Change Unit use the shared email inbox: ContractChanges-Enc@state.mn.us.

The Contract Change Unit uses many resources for cost estimating: Equipment Watch, historic prices/bid express, force account methods, average bid prices, supplier invoices, and standard production rates.

You can find more information on the [Office of Construction and Innovative Contracting Services website](#).

Roadside safety on local roads and streets

By: Will Stein, Safety Engineer (Minnesota FHWA), Sulmaan Khan, Program Support Engineer and Mark Vizecky, Program Support Engineer/Disaster Coordinator

Like all good design, roadside safety design and clear zone decisions do not lend themselves to simplistic, one-size-fits-all solutions. This is particularly true on local roads and streets and in urban environments, with widely different contexts and limited right-of-way. A more nuanced approach is necessary than pulling standard values from design manuals. In recognition of this, AASHTO's Roadside Design Guide now provides more descriptive guidance for some of these challenging locations: Chapter 10 on "Roadside Safety in Urban or Restricted Environments" and Chapter 12 on "Roadside Safety on Low-Volume Roads and Streets."

Despite the lack of simplicity, reducing roadway departure crashes is one of the highest highway safety priorities in Minnesota and the nation. The majority of fatal crashes in the U.S. involve roadway departure and impacts with trees, ditches/embankments, and utility poles are particularly problematic. Between 2011 – 2015, there were a total of 543 fatal or incapacitating injury crashes on the county system involving collisions

with a fixed object. **TABLE 1** shows the distribution of severe crashes based on fixed object type.

The purpose of this article is to put forward some ideas and best practices on how all agencies can aggressively improve roadside safety in Minnesota, with a focus on local roads and streets. While pursuing these goals, agencies need to remain sensitive to context and the needs of all roadway users.

Strive to help drivers stay on the road

While this has always been a basic principle of roadside safety design, today there are more technologies and funding opportunities to accomplish it.

On segments

- Maintain strong, visible edgelines. Common techniques for providing enhanced edgelines include using a wider 6-inch line, using durable pavement marking material, or recessing the pavement marking. These are common project types funded through Minnesota's HSIP program for local agencies.

- Along rural, paved roads use rumble strips where appropriate. Sinusoidal rumble strips (**FIGURE 1**) are now an option in Minnesota that can be used in noise-sensitive locations and along rural local roads with residences. The AASHTO *Highway Safety Manual* suggests minor safety difference between 11 and 12-foot lanes on two-lane rural highways. Cross-sectional tradeoffs like this should be explored if it can provide some additional width to accommodate rumble strips and better serve both motorized and non-motorized users.
- HSIP funding is available for local agencies to add some narrow, additional width to pavement preservation projects to provide some additional width for rumble strips in conjunction with the safety edge and a strong edgeline. Due to cost, this is focused on segments and curves identified through systemic data analysis as higher risk.

(continue on page 7)

TABLE 1

| Statewide - Fixed Object Type Distribution | | | | | | | | | | | | |
|--|-------------|-----|----------------------------|-----|-------------------|-----|---------------|-----|-------------|-----|---------------|-----|
| Fixed Object Type ³ | Statewide | | | | Greater Minnesota | | | | Metro | | | |
| | All Systems | | County System ² | | All Systems | | County System | | All Systems | | County System | |
| Severe Crashes ⁴ | 1,213 | | 543 | | 770 | | 387 | | 443 | | 156 | |
| Tree/Shrubbery | 435 | 36% | 189 | 35% | 282 | 37% | 125 | 32% | 153 | 35% | 64 | 41% |
| Embankment/Ditch/Curb | 321 | 26% | 190 | 35% | 258 | 34% | 160 | 41% | 63 | 14% | 30 | 19% |
| Utility/Light Pole | 112 | 9% | 62 | 11% | 68 | 9% | 39 | 10% | 44 | 10% | 23 | 15% |
| Guardrail | 64 | 5% | 18 | 3% | 34 | 4% | 13 | 3% | 30 | 7% | 5 | 3% |
| Median Safety Barrier | 51 | 4% | 3 | 1% | 11 | 1% | 0 | 0% | 40 | 9% | 3 | 2% |
| Sign Structure/Post | 46 | 4% | 17 | 3% | 20 | 3% | 11 | 3% | 26 | 6% | 6 | 4% |
| Building/Wall | 44 | 4% | 11 | 2% | 24 | 3% | 5 | 1% | 20 | 5% | 6 | 4% |
| Culvert/Headwall | 23 | 2% | 9 | 2% | 16 | 2% | 7 | 2% | 7 | 2% | 2 | 1% |
| Traffic Signal | 21 | 2% | 8 | 1% | 6 | 1% | 1 | 0% | 15 | 3% | 7 | 4% |
| Other/Unknown | 96 | 8% | 36 | 7% | 51 | 7% | 26 | 7% | 45 | 10% | 10 | 6% |

¹ Source: MnDOT Crash Database, Retrieved 11/22/2016; Fatal + Incapacitating Injury, Fixed Object²; 2011-2015

² Identified via crash report attribute 'Route System' values 4 and 7

³ Identified via crash report attribute 'Accident Type' values 22 through 42

...continued, Roadside safety on local roads and streets

FIGURE 1



MnDOT's sinusoidal rumble strip design is a new tool that local agencies can use to keep vehicles on the road and in their lane.

- Use the safety edge on all paving projects with a non-curbed cross section. Adjacent granular material should be graded flush with the top of the pavement alongside the safety edge.

Along curves

Curves are a known risk factor for roadway departure crashes. Some risk factors in curves are curve radius, traffic volumes, intersections in curves, and visual traps in curves. Strategies to reduce risk in curves include delineating the curve with chevrons, narrow shoulder paving, rumble strips, and pavement markings.

On local paved roads in rural areas, low-cost strategies to keep drivers on the road and in their lane are proven to reduce severe roadway departure crashes.

Aggressive funding and implementation in all 87 counties and tribal jurisdictions would have a major safety impact in Minnesota.

Reduce the severity of crashes if driver leaves the road

Purchasing right-of-way and regrading to provide wide clear zones and flat slopes is often not practical or cost effective on long segments of local roads. But there is still much that can be done to provide a more forgiving roadside for motorists that have left the road.

- Maintain clear zones through removing unwanted trees and brush (**FIGURE 2**). With reduced mowing

FIGURE 2



Remove volunteer and unwanted trees in the right-of-way

and the greater understanding of the importance of maintaining native roadside vegetation, this can be a task that requires monitoring and periodic clean-up within the right-of-way. This type of work is eligible for HSIP funding and should be a priority, particularly for segments and curves identified as higher risk.

- Strategic use of guardrail at particularly high risk locations or to shield rigid obstacles near the travelled way, such as bridge ends. Risk factors at bridges include elements such as crash history, bridge width in relation to approach pavement width, geometrics, traffic volume, traffic speed, and distractions. Additional information on safety at bridge sites can be found in NCHRP Report 203. MnDOT recently adopted the 31-inch Midwest Guardrail System which is not expected to be significantly different in cost than previous designs. Ensure that guardrail, terminals, and breakaway hardware are properly installed both after construction and after repairs. Removal of unwarranted or unneeded guardrail should also be considered.

(continue on page 8)

...continued, Roadside safety on local roads and streets

FIGURE 3



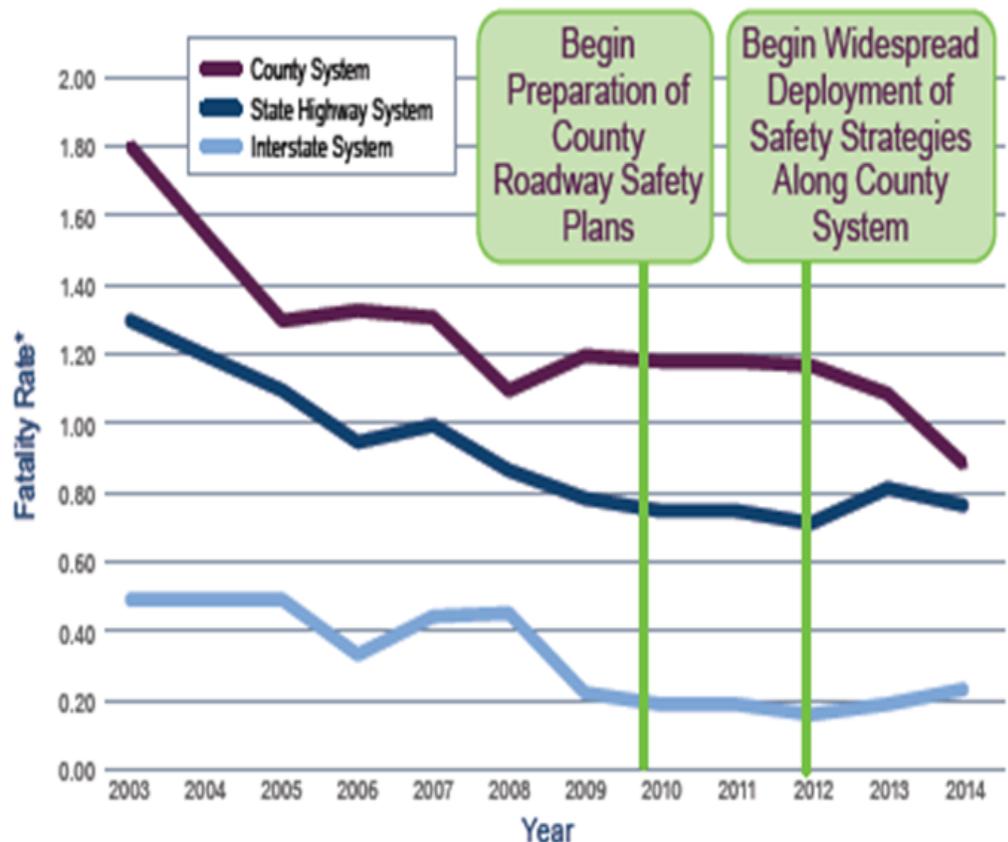
Consolidated field entrance with flat transverse slopes in Rice County

- Rural, local roads are particularly good candidates for removing and consolidating access points to field locations. Some field entrances can be moved from paved county roads to lower-volume gravel roads. Some field entrances were originally built to serve smaller farms and parcels and can now be removed and combined into a fewer number of wider and safer entrances as shown in **FIGURE 3**, with flat transverse slopes and grated culvert aprons.

Take advantage of the funding available through the Highway Safety Improvement Program

Reducing severe roadway departure crashes will take a strong, sustained effort by federal, state, and a large number of local agencies. Aggressive implementation of the simple, low-cost strategies presented above will have a major impact, particularly at higher risk locations identified through County Road Safety Plans or other systemic data analysis. All of these and other strategies that are proven to reduce roadway departure crashes are eligible for funding through the Federal Highway Safety Improvement Program. **FIGURE 4** illustrates a 25 percent decrease in the fatality crash rate on the county system following widespread deployment of safety strategies out of the County Road Safety Plans. Minnesota is a national leader in highway safety and even more lives can be saved and serious injuries prevented by aggressively funding and constructing additional projects to reduce roadway departure crashes on Minnesota's state, local, and tribal roads.

FIGURE 4



Employee News

Angela Murphy is the new Federal Aid Plans Engineers. Angela is replacing Cathy Huebsch who left in late March to take the Federal Aid Engineer position in State Aid Metro. Angela comes to State Aid from Metro District's transit group. Most recently, her role was on the Blue Line Light Rail Extension line as the Structure's Lead for Metro Transit, which involved reviewing the consultant's structures plans and acting as the design liaison between Metro Transit and the Bridge Office and Metro District. She previously worked on the Green Line Light Rail Extension, as a MnDOT employee and a consultant. Before her time at MnDOT, she had over 10 years of experience as a bridge designer in consulting. She is a registered Professional Engineer and holds a Master degree in Civil Engineering from the University of Minnesota, emphasizing in Structural Engineering.

Girma Feyissa has taken a one year mobility (4/17-4/18) in our central office. Girma is working with the federal aid unit in reviewing local federal plans, coordinating revisions and bid opening schedules with LPA's, and assembling DCP packets. In addition to his one year mobility with State

Aid CO, he took a two year mobility with State Aid Bridge where he performed bridge plan reviews and assisted in developing the LRFD Retaining Wall Standards. Before coming to State Aid CO, he also completed an 18 month mobility as Bridge Scoping Engineer in Preliminary Bridge Design Unit. Girma joined MnDOT in 2005 as a Grad Engineer and rotated through Mendota Heights Construction (Wakota Bridge Construction project), Foundations, Bridge Design and Research Services before going back to his home base in Final Design in 2007. Before coming to MnDOT, he worked at Wells Fargo as a Scheduling Specialist, Project Lead, and Operations Manager. He also worked for PSJ Holding Inc. in the Czech Republic as Cost Estimator, Assistant Site Manager and Project Engineer for construction of residential and administrative facilities in Europe and Asia. Girma earned a Master's degree in Structural Engineering from the Technical University of Brno, Czech Republic.

Bringing home the iron! Our very own word-nerd, Ron Dahlquist, Federal Aid Plans Specialist, took home some iron from the sixth annual Minnesota

Crossword Tournament. Ron's accuracy, speed and unwavering concentration through three rounds of original Minnesota rooted puzzles earned him "Rookie Competitor" for his 4th place finish in the amateur category for the highest score among first-timers participating in the event.



(Girma Feyissa)



(Ron Dahlquist)



395 John Ireland Blvd MS500
St. Paul, MN 55155
<http://www.dot.state.mn.us/stateaid/>