



U.S. Department of Transportation
Federal Transit Administration

**Transit Asset Management
Decision Processes for Asset Condition Assessments
Webinar Transcript**

September 19, 2017

Presented by

Lou Cripps, Sharon Edgars
Office of Budget and Policy
Federal Transit Administration
U.S. Department of Transportation

Table of Contents

Introduction	3
Lou Cripps.....	4
Sharon Edgars	8
Questions and Answers	13

Introduction

Mshadoni Smith: All right, folks, we will get started shortly. Before we do, I want to give you an audio test and also open up the poll and get a little bit of information about who is joining us today. Please take this last minute or two to fill out these polls and we will get started shortly.

All right, it looks like everybody has had a chance to fill out the information here. We've got a lot of Tier 2 and Tier 1 folks with us this afternoon. Most of you guys are planning to do your own plans and it looks like most people feel like they have started on their assessments but are not far. So with that, I am going to get started on our feature presentation.

As part of our training in asset management at webinar series I want to welcome you today to the -- estimate condition assessment. This is the third in our webinar series that we have put on this fiscal year. We started off with asset inventory.

Then there was a webinar on the final guidebooks and then we are having this webinar today on condition assessments and we have two grantees with us today, Sharon Edgars from MDOT and Lou Cripps from Denver RTD.

Lou is a senior manager for asset management at regional transfer days stick RTD in Denver and Sharon is the administrator for the office of passenger transportation at Michigan DOT.

I also want to give you a few pieces of information about the web room. Feel free to ask questions during the presentation in the chat pod. If we have time at the end, we will -- we will -- I'm sorry, I heard typing. Excuse me. If we have time at the end we will get the questions that have come up and we will answer them.

Lou Cripps is going to start off this information on RTD's condition assessments but I would also like to point out that FTA has a webpage -- excuse me, an e-mail address tam@dot.gov.

I'm sorry, I am seeing folks are having difficulty with the audio. And I want to make sure that folks are able to hear me. It looks like -- it looks good. Okay. We are back on track. I'm sorry, for that.

And I also want to point out that please send your topic ideas for our webinar series to tam@dot.gov e-mail. It is an address that is checked frequently and we would like your feedback as far as topics that will be interesting to you. Also signed up for government delivery notices at this e-mail here or on our TAM webpage to get the latest information from FTA.

And without further ado, I am going to turn it over to Lou and talk a little bit about what they are doing out in Denver. Lou.

Lou Cripps

Lou Cripps: All right, can you hear me now?

Mshadoni Smith: We hear you.

Lou Cripps: I am Lou Cripps, the senior manager asset manager in Denver. Today we are going to try and cover a few high level topics, mostly focusing around facilities conditions assessment, RTD is a Tier I agency.

We serve about 2400 square miles. We have just over 1,000 transit coaches in service during our peak also 172 light rail vehicles and 56 commuter rail vehicles on eight lines. We are a little unique we have a team of skilled and dedicated staff supporting our asset management system and, again, today I will cover high level approaches to our facility's condition assessments.

The presentation goals are again to talk about RTD's approach, a little bit of our history, kind of the methods we use including a decision tree, some condition standards and procedures, the data we collect and how we turned that into information and finally, how we act on that information.

Before we get into assessment methods, we need to start with good solid inventory. RTD has spent a considerable amount of effort cleaning up our inventories including the asset related attributes.

There are the four major classifications of assets addressed in the final rulemaking. We all know those rolling stock equipment. As you see on the slide, each of these have different methods that we would use -- that we would use to determine the condition of those assets and, again, they are all listed on the slide.

Today I am just going to focus on facilities because of the limited time. And I'm having a little bit of trouble on the screen here.

There we go. So a little bit of our history. We actually started our program in 2011 before the MAP-21 final rule came out. And we did this as our General Manager Dave Genova had concerns because we were in a construction phase over the past few years and he recognized the knees to have strategies and plans to fund and maintain all of our assets not only the ones we currently had, but the ones that we were building.

At first glance it seems pretty obvious what a facility is but when we started looking at the FTA facilities guide book on page four and five and in the final rulemaking, the comments, we quickly recognized that RTD and all transit agencies own, operate, and maintain a wide variety of facilities each delivering unique value to our mission of moving people.

So how did we get this wide variety of assets into correct assessment buckets? What is a right away or a station versus a public facility? What is equipment versus a system of a building?

At RTD the team created this decision tree to support consistency in our classification reporting. You can see the 4 categories of facilities, rolling stock, equipment, and infrastructure.

If we look closer the section highlighted in blue is facilities. Jumping in, we can see FTA's -- using FTA's guidance, we created this decision tree which we use to determine if a facility should be on our TAM inventory and reported via NTD.

I would like to walk through a few quick examples. How this decision tree works is we start out and we just ask some simple yes or no questions. We start off with does it have a physical address. This is our plant operating facility it was built in 1970. It is kind of our O and M facility for about 300 plus buses.

Our next question is do we have capital responsibility for rehabilitation or replacement. The answer is yes so we see we need to put that on our TAM inventory.

And I'm sorry, to everybody I seem to -- it's a little slow when I click so I don't know if my slides are lining up here or not.

So Civic Center. These are actually kind of headquarters buildings where we have engineering and information technology employees. Again it does have a physical address, but since this is leased space, we have no capital responsibility so we do not track it or provide conditions on this facility. Commuter rail maintenance facility, this one is a little bit unique because we have a public-private partnership with a 30 year contract to own, operate, and maintain this system. But with the way the contract is written we do have capital responsibility in the future so it is appropriate for us to keep track of the condition of this facility.

Next we are looking at a park and ride here. This is our I-25 and Broadway station it has a physical address. We have capital responsibility so we need to keep track of the condition of the asset. A note here we actually handle our conveyance systems independent from our facilities and a lot of reasons we do this, but mostly it allows us to track their maintenance contracts and overall performance a little better.

And now that we have all these different facilities into their bucket, we can start with kind of our condition assessments. The last thing we do is we actually add an additional step which is not part of the FTA guidance. The FTA uses the administrative repair categories. We actually focus primarily on the impact to service in addition to the function. Again these are our systems are not something mandated by the rule. We use the decision tree once and we use the type assessment once and then going forward unless there was some major change to the facility, we stick with those same designations.

Now, here we start to see we break each one of these facilities down into components or elements. And this is defined and are rating criteria is all outlined in the documents shown here. We have different components or different elements for different asset types. And within these documents I think there are a couple of things that are worth sharing.

One thing that is again of special note, RTD uses specialist to complete our inspections who are not in the direct reporting structure of the stewards of our facilities. So our facilities maintenance group is not actually who does the condition assessments of our facilities. This allows us to specialize and we believe have less bias in our results. These are asset management

personnel with training and building systems and asset management best practices. They are expert users of our maintenance tracking software, work closely with our data collection teams.

Prior to each assessment, the assessor does a work order history analysis and other asset related research to give us the most accurate assessment possible. It's important to remember that the assessments are not inspections for defects, but instead evaluations of the overall condition of the facility.

Now, this next slide is really outside of the actual facilities condition assessment, but included in all of our inspection procedures are safety considerations. We want all our people to be safe while they are working, having known hazards listed help set the stage for good safety management systems.

Next, we are looking at our assessment language. Having consistency in ratings is accomplished through training, collaboration, and calibration and having standards for each component or element.

I know these slides are kind of small I may be a little difficult to read, but the message here is each element has defined language and an inspection process. From there we see very similar to the FTA's facilities guidebook, we have assessment standards. We focus on consistency, accuracy and repeatability in our processes. And we use these standards libraries including photos to have good representation of the stated condition.

A quick note here, these images do not all come from RTD. We grabbed some of them from other places just to give us a good representation of the stated condition.

Establishing condition assessment language. Having consistency in that language and our process is key for repeatable results. We have libraries and glossaries with definitions around each term we use to drive quality and consistency. Some other tools such as photo evidence are also useful in this step. Pictures are part of the research done prior to assessments and give us good reference for changes over time.

A few years ago we actually do a very similar condition assessment on our rolling stock. And with our rolling stock, we discovered we accidentally really scheduled to inspections relatively close to one another and we noticed there was a difference in the output of the scores. And doing some research we discovered that somewhere during that two-week period, the element of motors -- the motor had been replaced in the vehicle.

And this accounted for the difference we found in the reported results and since then, we've actually used this kind of method of having different people doing assessments relatively close together as a good way to calibrate our people. And then a little bit more around the kind of other tools we use.

The photo in the upper left is actually an image taken using one of our UAVs or drones. We do have 2 FAA licensed pilots who do billing inspections and braille inspections. And with the use of this too we were able to see in that upper left photo evidence of water underneath the roof

membrane. And this allowed us to appropriately score the condition of that roof whereas with the image below that, we are unable to see that water underneath the membrane next to that area.

The assessments. Here are a few pages from our documents. We actually do use both paper and Google forms versions. This allows the assessor the choice of options when they are doing their field data capture. If the paper documents are used in the field, they will enter that information when they come back to the shop. The message here is you don't necessarily need particularly fancy software if you have a good process.

What do we do with all this information? We do several things. We roll it up, create overall scores that are reported to the MPO, the FTA and we also use the data at the system level to monitor that our investments improve asset condition. Our hope is going forward that we can use this data as evidence that our maintenance and investment strategies for our facilities deliver the highest performance at the lowest cost and risk.

So now utilizing the information collected we can make better decisions on project prioritization investments in our assets. My guess is that everyone even before you knew what the slide was referencing you had an idea of where we might want to invest money to improve condition.

And, again, these are actual dashboards coming out of our system that we use to monitor the condition of our facilities down to the system level. Kind of my hope is that giving you an overview of RTD's approach to facilities condition of assessments we do the same things for the rail infrastructure and our rolling stock.

I hope that seeing our methods and the decision trees help other people understand how we get things into those FTA buckets. We do use condition standards and procedures to ensure quality and repeatability in our results and finally, we collect the data and work to provide context and from there the information can be used to inform our decisions.

We have again a really great team of people so if there's anything that you are interested in my contact information is here. Feel free to reach out with any questions and we will get you in touch with someone who can help answer your questions. That's all I have.

Mshadoni Smith: Thanks that was a very comprehensive overview of what you guys are doing out there. And I also want to make sure folks know that you have some resources in our library that speaks to some of these standards that you referenced in your presentation.

But I'm going to turn it over to Sharon Edgars now from Michigan DOT. Sharon.

Sharon Edgars

Sharon Edgars: Thank you. Can you hear me?

Mshadoni Smith: Yes, we can.

Sharon Edgars: Good I always want to make sure I know I pressed the right buttons on the phone here. Anyway thank you. I've got my first two slides are a little out of order so I will go forward.

What I'm going to covers give you a really brief overview of transit Michigan so you understand the context really quickly what we've been doing to implement the timbre with a focus on condition assessment and a little bit about the other infrastructure investment efforts we are making. So that is the overview.

So the main things I want to talk about in terms of giving you a sense of transit in Michigan. We have 79 agencies. They are a mixture of multi-county and county wide, multi-community, single community.

We have eight agencies that serve the large urbanized areas, 14 serve the smaller urbanized area. 18 small community agencies. We do not have any tribal systems. We like to say we have coverage throughout the entire state, but we do have areas where coverage is fairly limited.

If you look at the map on the slide if you see the white counties that have just a little yellow box in them, that means we only service in that county as a specialized provider such as a 5310 agency and they are likely to provide very limited services. Might just serve the local senior center, for example, and be client base so we do have areas where there is not a lot of coverage but we have a lot of rural demand response service throughout the state.

The other thing I think is important to understand in Michigan because it does impact our role that we play at the state DOT is that we do have a comprehensive transportation fund that is supported by gas tax, vehicle registrations and vehicle related sales tax. Through that program it's about over \$300 million a year coming into revenue for that program. Close to \$270 million of that goes back out the door in support of our local transit systems. We are actually fourteenth in the nation in per capita state transit funding which is not a bad place to be.

We provide state operating assistance but more importantly, as it relates to this issue is by law we are required to match all federal aid that comes in through the FTA program. By law we are required to provide at least 2/3 of that match. We have historically been able to provide all of the match.

The reason that is very important is because all of our sub recipients they are getting their federal funds in the state match from lunch so we play a strong role in programming how that money is used since we control most of the funding. For states where you rely on local match, you have more local priorities that are sort of being involved in asset to citizens and asset management and investment decisions. So the fact we can provide the state match is a good thing but it also puts a fair amount of control in the state's hands because of that.

We have had a very long term standing goal for maintenance of the rural and the specialized transit fleet. We have an MDOT scorecard. I'm sure all of your state DOT is out there even transit agencies have a dashboard or scorecard within the MDOT scorecard both level of service as well as fleet condition have been monitored for years.

We've had a long-term goal of having no more than 20 percent of our sub recipient fleets past their useful life. We are currently at 33 percent. We are in the same condition a lot of states are given the fact that you have a lot that of buses that are becoming eligible for replacement right now.

But we look at the fleet condition over arrow and we also set goals for each individual agency who is our sub recipient. We don't want anyone agency to have more than 20 percent of their fleet past FTA useful life. That's not the useful life benchmark so we have a long-standing practice of setting a goal and making investment decisions for the federal funds we manage based on that goal for fleets. So that is sort of the background and you will see how that is impacting the way we are approaching the TAM rule.

In terms of what we've done today for the timber we started in December and sent a letter out to urban agencies in particular small urban agencies that they would need to do their own plan that we were not going to do a group plan for them.

And we sent a letter out to those who would be in our group plan which is folks who receive 5311 or 5310 funds from us and do not receive funds directly from FTA. That will not be in our group plan. We gave a summary of the rule a very early summary.

We did set the initial State of Good Repair targets for our group in January and we consulted with the transit associations in our state the leadership before we did that and I'll cover that and just a minute. Starting in April we sent a letter out to urban agencies and MPOs about target setting and they have obligations separate from us to make sure they were aware of their obligations under the law and then around April we started presentations planning, venue, transit venues to talk about how we were going to implement our portion of the rules, the group rules and recently in August we sent a more detailed letter out to all of our sub recipients explaining how we are approaching this and to begin to talk about facility assessment condition since that's the thing we are talking about now and still kind of a whole and how we are going to approach this.

So back up just quick in terms of here are the State of Good Repair targets that we established in January. And we took into account all the federal funds that we program on behalf of our sub recipient, so targets are physically constrained and we looked at what we thought would be reasonable targets and it's based on useful life benchmark.

The FTA useful life benchmark but what you see is if you spend some time with these targets and I won't go through them in detail as they definitely reflect these initial targets what has been our historic focus on vehicles. That's how we invest federal funds that we program, that's how we will continue to invest the federal funds we program until we make a change. We

anticipate we will make changes over time but right now everything is based on that history and what is in place for the current year at least the next year or two.

You will see fairly aggressive goals for revenue vehicles and not very goals for facilities and vehicles because we are not investing in those. Who will be in our group TAM plan? It will be section 5311 and 5310 sub recipients that are not also 5307 recipients that have 100 or fewer vehicles. We have a single Tier I 5310 sub recipient. Most of our 5310 sub recipients are open-door.

We have found we are different than a lot of other states and we talk to peers and other states so they will remain open door and they will be covered by the TAM requirements. Our plan will be a single plan that will cover both groups but when we get to prioritizing the money, we will probably separate them out based on the fact that they have separate federal funding streams. It's very MDOT driven process with consultation along the way.

We have fairly good asset management asset inventory process. With the web-based inventory and application process and we will continue to make use of that process for the TAM rule.

These are the assets that are covered in our group plan. The number of buses, support vehicles and facilities. Facilities we think we have a good handle on the number of facilities out there might be a few we don't have in our current asset system because they've never been subject to federal funds, but they might still be facilities for which these sub recipient has capital responsibilities that we might have to flush out and see if there are more facilities out there that have to be in our asset inventory that we have right now, but we think we have a really good handle on vehicles.

So the main issue before us right now, we know a lot about our vehicles, we know the age of our vehicles, we know the miles of our vehicles. We've been setting goals for vehicles for years so the issue really is facilities. We've not spent a lot of money and facilities we do when there's a discretionary program. And we sometimes throw facilities in there but we focus heavily on revenue vehicles.

That's what has the most impact on service and the most impact on safety and that is what has the most impact on passenger comfort and perception and we think has the most impact on operational cost since we fund a portion of operational cost we want to keep those vehicles in good condition because it will keep the operating cost down so that's why we focus in the money we program on vehicles. We have not really figured out how we will do the facility assessment whether we will do it, our staff or they will contract to do it. Whether we will ask every sub recipient to do an assessment on their own using the FTA guidebook.

What we did in August is put a call out to all of our sub recipients to say are you willing to do an assessment of our facility using the FTA condition assessment guidebook. It's a usable easy to use book. Are you willing to give it a shot and is this something you could continue to do on your own every four years or after being through it you feel strongly you need a centralized process and need help in doing that.

We will use that feedback to figure out how to proceed. Our general conversation with our two transit associations are that it's probably something every agency might feel comfortable doing what are they going to have faith that everybody is doing at their same way and that becomes critical when you are investing resources across a group. That's what makes the group plans a little bit more tricky is the fact that one agency could get their facility funded, another agency could not so whether or not those condition assessments were comparable becomes critical.

We've just kind of put this call out in August and we are hoping in the next month or two we get agencies giving us feedback on what they thought that was something they could do on their own and then by early next year we will have a process in place that we will follow over the life of these rules.

As I mentioned we think when it comes to the TAM planet will be the facility assessments that will sort of cause us to have to rethink our investment strategy as I've mentioned. We focus on revenue vehicles and our top priority for the investment of 5311 and 5310 funds along with the state match for years has been prioritized based on age and miles.

Again a goal of not having any agency have more than 20 percent of the fleet past its useful life. We've not use the monies we program for service vehicles and not use the money we program for facilities except for again when you have a discretionary program. Once we know more about facility condition you will have a desire to see MDOT invest more of the federal funds it has available to us in facilities.

That's the natural evolution in knowing more about the conditions of the facilities across the entire group. That means if we invest more in facilities, and we may need to do that, we have to stop investing in something else, it revenue vehicles are operating assistance. So it will probably take maybe two years before we know enough about all the facilities that we set more aggressive facility goals.

So if we say we don't want more than 20 percent of our facilities to be at a term three rating or something along those lines I'm completely making that up then we have to base that on some sort of investment strategy and that requires us to realign how we are investing. So we've got a short-term issue before us which is how are we going to approach the facility assessment and then what we know will be a long-term issue which is how will that impact how we invest the federal funds that we program. So we kind of have our eye on that future as well.

Just real briefly there are some other things. Again we are a state that was very, very successful when there was discretionary programs and keeping our fleet in good condition. Since we all have a lot of new vehicles and since the discretionary programs went away in MAP-21 is when our fleet began to decline. We are still actually we look at our percentages past useful life and we are still in better shape than a lot of states and rural systems.

That's the benefit of us having that state match, but we are beginning to see some problems and we will hear more and more from sub recipients that fleet condition is important to them and they want to see us investing more money in that.

So, again, the TAM rule will focus on that but they don't give us any new money so we are all going to have to make investment decisions. Will we have to seek more state funds to do more state investment if we spend more money on fleet then it's probably less money in operating and it's not like the state revenue is growing either.

Will we have to change how we invest our match? Will we have to focus match on certain types of assets, vehicles versus facilities versus support vehicles? We don't know about that as well.

There is an interest in our sub recipient and transit agencies that receive funds from us and bus rehab so we are looking seriously at that whether or not we might have a state-funded program of bus rehab for buses that meet a very specific set of criteria and we did some research on how we would approach a bus rehab program. We've had transit agencies 5311 sub recipients ask for more flexibility in how they use 5311 funds they get from us operating versus capital to make more local decision-making rather than statewide decision-making and we are looking at giving them that flexibility.

Again it doesn't give us more money but it puts more decisions in their hands rather than in our hands. Those are some of the things we are looking at because we know we all have a long-term issue as it relates to asset conditions and doing this condition assessment and the TAM plan is going to put a fine point on that. So that's what we are doing in the state of Michigan.

Mshadoni Smith: That's really great, Sharon, thank you so much for presenting on what MDOT is doing.

Questions and Answers

Mshadoni Smith: So it seems like we have a good amount of questions here, but we may be able to get through them. I do want to make sure that folks take the time to add questions in the chat pod. I have changed the way it looks, but you can still add your questions in there as we are discussing some of the questions that your colleagues have already submitted.

A couple of other things, this presentation is recorded and will be posted on to the TAM webpage after it is edited so if a colleague of yours you feel would benefit from this webinar and was unable to attend, you can direct them to our TAM webpage, which is www.transit.gov/TAM.

And the presentation from both of the presenters today are downloadable from the presentation pod, which is currently located in the lower left-hand corner. So please take an opportunity to download those presentations and also bookmark the webinar recording page.

Okay, so let's take a look at the questions we have in the chat pod. Someone asked if there was a printout of the presentation and as I mentioned you can download it directly from this presentation pod.

Joseph asked, if Lou has pictures of the same assets with different conditions so that you know how to write that asset. Lou, would you like to answer that question?

Lou Cripps: We actually do have pictures by asset types. One of the things we discovered early on is we actually don't have all conditions represented and it becomes challenging for us. RTD overall has assets that are in pretty good condition so it was easier for us to find things that were in a condition of five, four, three and when we started getting into 2 and 1, that's where we had to get creative with some of those pictures.

Sharon Edgars: Mshadoni, this is Sharon. I want to thank the transit agency that answered the question. I see a series of questions related to public transportation management system. It is not an off-the-shelf web-based system. It's something we had built for us years and years ago. We were ahead of the curve and a lot of other states, but probably behind the curve right now since it's considered sort of an older system but we did not use an off-the-shelf system for web-based application and inventory. It was built for us. Somebody asked what an open door system is, it's an FTA defined term in terms of asset management. And so if you provide services to the general public rather than just client the 5310 agencies are required to provide service to the general public to the degree they have capacity and not just client base. Somebody also asked whether or not if a sub recipient of a larger urgent agency can they be in a group plan? If they are a sub recipient of a large urban area agency they would be part of their plan.

Mshadoni Smith: But Sharon, -- excuse me that answer is a decision, a policy decision that MDOT made, correct. I know it's a decision MDOT made because it's allowable under TAM regulations.

Sharon Edgars: Correct, correct. Very clearly we were only going to do a group plan for those agencies for which we program their funds. If we are not programming their funds, we did not want them in our group plan unless they were going to lead us program their funds. We felt the plan needed to align with who is making the investment decisions.

Mshadoni Smith: Okay. I'm going to go back to some of the prior questions. Magdalena Romano asked about standards that can be used for useful life benchmarks and other condition assessments. I'm not quite sure when she was referencing, but that was during the presentation. I think it's in regard to the standard approach that you are taking to your facility condition assessment. I'm going to jump in just quickly and let Magdalena know that -- I'm sorry, know that the useful life benchmarks do not have a standard but we have a default value available and provided by FTA on our ULB cheat sheet, which is on our webpage and Lou, did you want to mention about your standardize condition assessment for facilities?

Lou Cripps: We -- I am looking for that specific question here. I'm sorry. We do have standards documents and actual processes and procedures for doing condition assessments on all of our categories, not just facilities, but I think it is important to remind everybody that age is the condition proxy for rolling stock. We use physical condition, age and performance to help us better manage that. We're more than happy to share those with anyone who is interested.

Mshadoni Smith: What software do you use for your facilities dashboard?

Lou Cripps: For that we use O BIEE which is Oracle business intelligence enterprise and also Tableau of these are at our enterprise data warehouse and we pull data from trapeze, EAM, and we just kind of pull bits of information from all the different software platforms that the organization uses and asset management and software agnostic and we use these because we already owned them. I'm certainly not going to recommend any particular software. This is just what we use and the software is in the dashboard.

Mshadoni Smith: Okay, someone asked if they could see an example of a condition assessment for rolling stock. I'm not sure if they were asking for your decision tree assessment of rolling stock or if they were asking that of me. FTA does not have a condition assessment standard for rolling stock. It is age-based although there is an example in the peer library of a DOT vehicle condition assessment approach. Lou, did you want to jump in or Sharon in terms of how you are standardizing or conducting condition assessments on your vehicles?

Sharon Edgars: We use age and miles as well so age is the primary the useful bench life mark so we are not doing additional condition assessment on top of that. We have always allowed an agency that felt they had a very unique situation that a vehicle could potentially be replaced but it would be a very, very unique situation so we use age and miles.

Lou Cripps: I was just going to add that we do have -- I've been very hesitant to provide those since they are not required. We would happily share that with anyone interested but, again, those are kind of beyond the requirements to help us better manage those assets.

Mshadoni Smith: All right, thank you. I am sure you will be contacted by those folks that submitted that question. Joseph asked about reporting to the NTD, are they reporting ULB percentage or SGR percentage? Joseph, you will be reporting your ULB and then your target as a percentage of your Hall. I suggest you take a look at the performance measurement fact sheet to get a sense of what the target and reporting requirements and this is a perfect opportunity to plug Maggie's webinar tomorrow and Thursday where she's going to actually go over the NTD data forms that will be opening up and I think this week or next week for report year 17. So if you have not signed up for that, the recording of that webinar will be posted on the NTD webpage and the TAM webpage. All right, I lost my place here. Where is the question, the last question? Okay. Sharon, you already answered that question about sub-recipients of larger agencies. PTMS you said was a customized system that was developed for MDOT. How long ago was that?

Sharon Edgars: Oh, geez, it's been probably maybe 20 years. It was web-based -- geez, I've been here 15 and it existed prior to me being here and it was going web-based around the time that I joined. We have continued to make improvements to it along the way. But it was way before off-the-shelf software was even available.

Mshadoni Smith: So, I mean, it's basically a part of MDOT business model now. Okay.

Sharon Edgars: I mean from you know, we all know that the transit office from being a part of a state DOT, it's a very, very small application. It has very minimal use. We are always competing for tech resources to maintain the system because from a risk-based perspective when you look at part of a greater state DOT it's part of a -- it's a blip. But it's critical to our operations and to our interaction with transit agencies who receive funds from us.

Mshadoni Smith: Yeah. You know what, Lou I've never asked you this question, do you have any sub-recipient you are going to do a group plan for?

Lou Cripps: No.

Sharon Edgars: Good luck, Lou. Yay!

Mshadoni Smith: Sharon, how many agencies are going to be in your group plan?

Sharon Edgars: Let's see, sorry, I am pinch-hitting for somebody on my staff who is dealing with family medical issues today so she had put that together and where is that slide ... maybe -- yeah.

Mshadoni Smith: I think it's over 100.

Sharon Edgars: No, no, not in terms of just our sub recipients. It's probably in the 50-60 range for 5311 and then 5310 may be another 20-30. I am certain I have some of my staff on the line and if they know the answer to that they are more than welcome to unmute themselves but it's somewhere in the 80-100 total in terms of who will receive money directly from us but don't also receive it from FTA. I did mention and you were correct, it's a very strong Michigan policy. We have a very strong history of our small urbanized agencies having

independent authority over their government doors apportionment. Once it's apportioned to them, they programmed those funds which is why we felt very strongly they needed to do an individual plan for themselves because they are just making decision for their money based on their agency. There's not any group decision-making going on historically and we didn't think anybody wanted to start group Inc. that funding making group decisions.

Mshadoni Smith: Okay. It looks like Joseph -- I'm going to keep going in order here until we run out of time. Jeanette asks -- he made a statement that she is a Tier 2 and how do they reach out to their peer to share ideas on managing this plan. Jeanette, I suggest you send an e-mail to that TAM@DOT.gov and I can connect you with some peers or you can take a look at some of the materials from our roundtable. We are planning peer exchanges this year and webinar serious we will continue with that and perhaps that might be a topic where we have a Tier 2 peer or a Tier 2 webinar for topics for Tier 2. I am assuming you are doing an independent plan otherwise you would connect with your peers through your group plan sponsor. So please send an e-mail to that webpage and we will get back with you. Rich wanted to make a general question here. He wanted to know what people thought about standardizing how assets are assessed and if this is encroaching into how you do business or would it be helpful to put everyone on the same playing field. Rich I can say FTA has no intention of or at this point, has no expectation of standardizing how assets are assessed. That is a local decision. However, if there is an industry organization or a grantee group that wants to develop their own standard that is perfectly acceptable.

Sharon Edgars: When you say how, it's kind of an interesting question, but in terms of I think the useful life benchmark gives age and miles is a standard approach and then for facilities the FTA facility guide I think does a really good job of providing a standardized approach to it. There are still individual decision-making, but I think FTA has done what it needs to do to provide guidance for as much consistency as you get but still allowing the priorities at the local and state level to prevail. And so I think you hit the right balance. Somebody had asked us how we think we are going to do the condition of assessment across that many sub recipients and, again, for vehicles it's easy it's age and miles. We know what the age and miles are. It's very easy data. Facility condition assessment again coming up with we certainly -- our staff could not go out into that assessment for every facility but you only have to do it every four skiers and what we think it's likely to be is a combination of each agency doing their own assessment with some peer review or some centralized review just to ensure enough consistency agency by agency so when you are making group investment decisions you feel there is enough consistency in that process that everybody is comfortable with the fact that in any given year agencies X and Y are getting facility assessments and funds and agencies a and C are not. One of the things we've been talking about internally is the fact that you know when we start investing in facilities on a more regular basis we might look at investment decisions by components and the facility guide helps with that so it might be that's the most important thing so you need to look at what portion of the facility is really having the biggest impact on the operation and safety. But, again, then is 2-3 years off, but we know those decisions we will be facing once we know more -- once we have consistent information across the entire group on facility conditions, but

it will take 2-3 years for everyone to get enough information to have those conversations between us and the industry.

Mshadoni Smith: Okay, thanks Sharon. There was another question for Lou and I want to let you guys know that the recording will include the Q and A. You will have to watch or forwarded through to this portion of the recording to see the Q&A and there is also the captioning at the bottom of the screen which provides us somewhat of a transcript so you can follow along to some of the questions. So there's a question for Lou. Yvonne wanted you to speak more about the pros and cons of incorporating condition assessments into regular PM inspection cycles versus conducting them as separate activities.

Lou Cripps: This is something that Denver is perhaps a little different on. Early on the decision was made for consistency and accuracy that we would have people who specifically did condition assessments we were very fortunate to be in the place where we were able to pull some people out of the different groups who had a lot of experience and some of the advantages we see are you get more consistency in your rating and you have less bias in your overall assessment. People within the group may have a tendency to rate things high or low. We have seen there are challenges especially in things like facilities where changes in condition over time are hard to proceed when you work in and around the same thing every day. Having people sort of outside that group with a slightly different perspective and when we are trying to align all of our goals with agency goals it allows us to really look at things in how does this fit into our overall strategy for these assets to deliver our agency goals and, again, we use photo evidence, we use a lot of work order research, we look into investments that have been made and then we have people who have a lot of experience in being able to assess the condition of a system versus just identifying defects so clearly our opinion is that there's a lot of value in having an outside evaluation. It goes back to the trust and credibility. If you ask me what I think versus ask someone else how you think we are doing you might get two different views of the same thing. I think there is advantages to workflow efficiency and having assessments done in the group while they are doing other work, but I don't think the benefits outweigh the risks.

Mshadoni Smith: Thanks, Lou. So we have a couple of questions that are closely related. Are there examples of condition assessment approach for infrastructure assets such as systems, power and right of way? I am not sure if they are asking you or they are just asking in general if there are examples. FTA does not have any examples currently, but we do have a guidebook that talks about the calculation methodology for the performance measure. It's not the same as assessing the condition of your fixed so moving on to the next question what is the most effective way to perform track weight alignment assessment without using a drone? That is more--that is not covered in the guidebook. The guidebook only talks about calculating and reporting on the performance measure and the performance measure is about slow zones not about actual inspection of the fixed guideway. So this is potentially a research project or a question for some other of the rail fixed guideway operators on the line. I will see what I can find out Eleanor, about different ways of performing track alignment. Obviously walking the track will not be the most effective, but something other than using a drone I am aware of a test that is going on for some sort of mounted camera assessment but I do not know the

results of that. So I could get some more information and potentially get back with you. I'm going to jump to the next question unless we wanted to mention anything about the condition assessment of rail or guideway.

Lou Cripps: I was going to say I would start with the guideway performance guidebook and then if you reach out directly you will see some of the things we're doing, but the use of specialized tools is not certainly the first place to start.

Mshadoni Smith: That's a good point. So it looks like we are probably not going to get to all of the questions that are remaining. I will try to contact you directly if we do not get to your question during the webinar but I do want to jump to this question. She asked are there any suggestions on off the shelf cloud software that your agencies are considering purchasing/adopting for future data collection for TAM? I'm going to open that to both Sharon and Lou.

Lou Cripps: I don't believe RTD.

Sharon Edgars: We are not looking at softer issues.

Lou Cripps: We are using what we have.

Sharon Edgars: Not that we wouldn't, PT MS is probably getting to be dinosaur age, but I don't even see within the next several years that we will be doing anything to transition away from that. We've invested so much in it.

Mshadoni Smith: Okay. Potentially that could be a topic for a future webinar. And I'm sure that is a question that a lot of folks are curious about what type of supporting -- what type of support is available. So this is going to be the last question from Jonah. Just to clarify when completing NTD reporting for the TAM performance measures and targets, sponsors are not required to include facility condition reporting on county owned facilities or other facilities for which the agency or sponsor has no direct capital responsibility? So Jonah, it sounds like there is a lot of specifics in there. It depends on who you are. If you are the county, then yes, you would need to submit your condition assessment for the facility that you own. If it seems like though there is something in here I am missing, just to clarify when completing NTD reporting ... reporting on county owned facilities or other facilities for which the agency or sponsor has no direct capital responsibility. Okay, for the sponsor reporting. Okay, so if you are the group plan sponsor and one of your sub recipients is the county, you would still have to report on behalf of the county owned facility. If you are a group plan sponsor and the county is not a part of your group plan then you would not report on the facility that another entity owned. But please feel free to contact me directly, Jonah, with your specific information because it's hard to give a specific answer to a general question and I don't want to lead you down the wrong direction.

So with that, it's 3:00 o'clock everyone. I want to again -- for those of you that I was not able to get your questions answered, I will try to contact you directly. If your e-mail was on the registration, and try and respond to your question.

For everyone, thank you very much for your time today. A special thank you to Sharon and Lou for sharing with us your approach to decision-making and asset condition assessment. And with that I am going to close the webinar. Thank you so much. Goodbye.