



Metropolitan Transit Commission



November 20, 2024

METROPOLITAN TRANSIT COMMISSION
Wednesday, November 20, 2024
3:00 p.m. – 5:00 p.m.
Charlotte-Mecklenburg Government Center
Conference Room 267 - WebEx
AGENDA - Revised

- I. Call to Order.....Commissioner Leigh Altman
 - Attendance (Introductions)

- II. Approval of the September 25th SummaryCommissioner Leigh Altman

- III. Public Comments

- IV. Interim Chief Executive Officer’s Report.....Brent Cagle
 - (a) October Reports
 - i. October Summary of Monthly Statistics
 - ii. October Safety Reports
 - iii. October Ridership Reports
 - iv. October Sales Tax Report
 - v. October Communications Report
 - (b) November Reports
 - i. November Summary of Monthly Statistics
 - ii. November Safety Reports
 - iii. November Ridership Reports
 - iv. November Sales Tax Report
 - v. November Communications Report

- V. Informational Items **(Added to agenda)**
 - (a) FTA Special Maintenance Review Draft Report and Agency Response Brent Cagle

- VI. Action Items
 - (a) CATS Agency Safety Plan (ASP) David Moskowitz
 - (b) All-Access Pass Programs..... Elizabeth Presutti
 - (c) Public Transit Advisory Committee (PTAC)..... Brent Cagle

- VII. Report from the Chair of the Transit Service Advisory Committee (TSAC) Jarrett Hurms

- VIII. Report from the Chair of the Citizens Transit Advisory Group (CTAG)Jeffrey Parker

- IX. Appendix
 - (a) NCDOT SSO Letter
 - (b) CATS ASP Revision No. 4
 - (c) FTA Special Maintenance Review Draft Report and Agency Response**

- X. Adjourn

**METROPOLITAN TRANSIT COMMISSION
MEETING SUMMARY
September 25, 2024**

Presiding: Commissioner Leigh Altman, Mecklenburg County Board of Commissioners-P

Present:

Mayor Vi Lyles (City of Charlotte)-P
Dena Diorio (Mecklenburg County Manager)-P
Mayor Woody Washam (Town of Cornelius)-V
Andrew Grant (Town Manager, Cornelius)-P
Mayor Rusty Knox (Town of Davidson)-P
Jamie Justice (Town Manager, Davidson)-V
Mayor Christy Clark (Town of Huntersville)-P
Anthony Roberts (Town Manager, Huntersville)-V
Mayor John Higdon (Town of Matthews)-P
Becky Hawke (Town Manager, Matthews)-V

Mayor Brad Simmons (Town of Mint Hill)-P
Brian Welch (Town Manager, Mint Hill)-P
Commissioner Twanna Henderson (Mint Hill)-V
Mayor David Phillips (Town of Pineville)-P
Ryan Spitzer (Town Manager, Pineville)-P
Tony Lathrop, Esq. (NCDOT)-P
Bill Thunberg (Town of Mooresville)-V
Randi Gates, Transportation Director (Gastonia)-V
L.J. Weslowski (Transit Director, City of Concord)-P
Brad Thomas, Esq. (City of Charlotte)-P

P-In Person Attendance

V-Virtual Attendance

Interim CATS Chief Executive Officer: Brent Cagle

I. Call to Order

The hybrid regular meeting of Metropolitan Transit Commission was called to order at 5:31pm by MTC Chairwoman Commissioner Leigh Altman, Mecklenburg County Board of Commissioners.

II. Review of Meeting Summary

The meeting summary of August 28, 2024 was approved.

III. Agenda Change

INTERIM CATS CEO CAGLE - I would like to announce a change in the agenda. After discussing items 5a and 5b, with CRTPO staff and others, I'm removing both items from tonight's agenda due to these items not being sufficiently ready for consideration by the MTC at this time.

IV. Public Comments

1) Hope Wright - Advocacy Manager with Sustain Charlotte.

You all have received several e mails from me by this point, about an initiative called Day Without Driving. I am here to give you one more plug. In partnership with Mecklenburg Air Quality, Charlotte Area Transit System, CDOT, Charlotte's Office of Sustainability, and the Charlotte Regional Transportation Coalition; Sustain Charlotte is organizing our community's participation in National Week Without Driving; which is September 30th to October 6th.

Starting on Monday, National Week Without Driving invites community leaders across the U.S. to take the challenge to better understand what it is like to not be able to drive yourself

wherever and whenever you need or want. Last year, 300 elected and public officials from 30 states and Washington, DC participated.

However, we know that's really hard to get around Charlotte. We're making it instead of an entire week, just one day. We hope you will accept the challenge of getting around on Thursday, October 3rd without driving. This is the preferred date but of course if that doesn't work for you, we hope you will pick another date within that week. This applies to all travel activities, not just work commutes. We believe that having this experience is essential for elected officials and decision makers.

Some ways you can get around without driving are taking the bus or the train, walking or, riding a bike or a scooter, asking a friend or coworker to give you a ride or hailing a taxi, UBER and LYFT. If you accept this challenge, we will publicly recognize you for doing so via media advisory on Monday and also highlight your participation through social media and mentions in the newsletter which reaches over 9k people. Mecklenburg County and City of Charlotte agencies who are partnering with will also share your participation via their communication channels. If you're willing to accept this challenge, please reply to one of my emails.

Again, my name is Hope Wright. You can find me in your inbox. Please send this by the end of the week that we can include you in our media advisory on Monday and answer any questions that you have.

Again, this is an opportunity for you to show the community that you will be willing to better understand the experiences and the changes of living without the option of driving, which is a daily reality for more than 25,000 households in Mecklenburg County. Also, that you are invested in improving public transportation, walking and biking infrastructure.

Thank you and special thanks to those of you who have already taken up this challenge, Mayor Clark, Mayor Knox several other members and non-voting members as well. Thank you very much.

2) Andre Phillips - I'm currently a junior at Davidson College. I'm an English Major I am very passionate about transportation. This past summer, I got to do an internship at Sustain Charlotte and through that internship, I got to interview people who rely on the buses, their main way of getting around and tell their story. The hope is to share these stories with you all because often times people who ride the bus or use public transit are sort of invisible and we forget about them. The hope for these stories is to make them visible again and emphasize that people do ride the bus and people do rely on the bus. Some of the main takeaways from those stories had were very interesting. One was that people who ride the bus are actually very flexible, contrary to what you would believe. Their able to bend their lives around the schedule of the bus, and they're able to get around through that. Also the stories revealed that the bus is sort of this place for compassion, this place where people get together to get around.

It's a really beautiful vehicle for community and improving that space for people to get around, all together, and then get together, because they can get around would be an amazing addition to the Charlotte area that already exists.

Finally, the final take away is that the bus, even though it already is good in many ways, for getting people around, does need many improvements. It will take a lot of perseverance to make those improvements. Two of the biggest suggested improvements are:

- 1) Higher frequency, especially on weekends
- 2) Updating the CATS pass to have more details to help people who are new to the area or new riders to learn the system better.

Even though not everybody rides the bus, there's still a lot of people who rely on it. A major investment will be needed for those who currently use it and improving the system for those who currently use it will improve it for future users, which will then improve life for everyone in the Charlotte area in ways we just have to discover.

An investment in the bus is an investment in everyone who needs to or will need to get around the Charlotte Area.

COMMISSIONER ALTMAN (Mecklenburg County): I appreciate both speakers so much, and especially the theme about our buses. You really did come at the perfect moment because tonight we're doing a deep dive on our buses, and on what we can do and what we should be doing to improve it. You really did come at the right moment. If I could have hand-picked speakers for tonight's theme, I would have chosen you. Thank you.

MAYOR KNOX (Town of Davidson): If I could add. Hope and Andre - Thank you guys so much. We did this once already. For any of my constituents that are out there, anybody in the North Meck area, on October 3rd, we're going to be taking the express bus into Charlotte. Again, like we did a couple of months ago with our sustainability team from the Town of Davidson as well as the group of students from Davidson College that are sustainability champions, as well as Hope. Hopefully this time, when we convene at water bean coffee, my bank account is not a half million dollar overdrawn like it was the last time.

V. Interim Chief Executive Officer's Report – Based on pages 15-29 in the MTC Agenda Packet for September 25th, 2024.

Discussion:

INTERIM CATS CEO CAGLE:

Historic Ridership Levels

A memo was provided at your seat. This is a response to a question from last month related to historic ridership levels; separated between bus and rail. I will note that this reflects National Transit Database (NTD) data, and it is consistent with how we report to the FTA. In the memo discusses there are multiple valid methodologies for gathering ridership data. We use all three of them: fare box, automated passenger (APC) and then sampling. NTD data for bus is based on sampling.

As you look at the different passenger reports that we provide to you, we try to always specify which method we are utilizing. All of the methods are valid, but they have different strengths and weaknesses. I did want to make sure that it's clear that this data is NTD.

Red Line Commuter Rail Public Meeting Series

You should have all received a flyer that we've been distributing. Beginning September 30th, October 3rd, 8th and 10th, a series of in person and virtual meetings, CATS will hold as public meetings. We would encourage everyone, the members of the MTC, and your constituents to attend, if you would like, these public meetings.

Grant Award

I wanted to announce the City of Charlotte received an Innovative Finance and Asset Concession Grant Award. We were notified from Build America Bureau on September 17th, 2024, that the City of Charlotte had received a \$1M Expert Services Grant from the Innovative Finance and Asset Concession Grant Program. This new program authorized by the bipartisan

infrastructure law, assists public entities in exploring innovative financing and delivery opportunities. The Expert Services Grant will explore opportunities to leverage public and private funding for the Charlotte Gateway Station.

Customer Appreciation

The week of Sunday, October 6th running through October 12th, will start a week of Customer Appreciation and Trying Transit Week. This week will be kicked off by the opening of STS Plus, in Mint Hill. It will also represent a week of fare free transit for our riders.

I'd like to make it clear that just as in the past, this year, we will also offer free rides on Election Day, Tuesday, November 5th. That has been our norm and we will continue that.

Monthly Statistics

Better Bus will have additional meetings throughout the fall, but there will be some public engagement on September 26th.

Gold line, we will be starting public engagement with exact dates coming this fall.

Community Involvement

City of Charlotte Community Area Planning workshops will be held this fall; September through November. CATS will have a table or will participate in those.

Additionally, we will be participating and sharing information in the community at a variety of events, ranging from Biketober Fest, to as Mayor Knox pointed out, a second rise and ride event. We will also kick off our ride with music series at the JW Clay Station. We'll participate at UNC-Charlotte Transportation Fair. These are just a few of these things, events and activities, that we're conducting out in the community.

Safety Summary

Bus Operations Division in August. There were four vehicle accidents. Two of these accidents involved buses making accidental contact with either a bollard or a utility pole. There were no injuries reported from either of those accidents. Two additional accidents involved buses making accidental contact with cars. Resulting in minor challenge, but no injuries.

STS and ParaTransit and Rail Division, including Blue Line and Gold Line - There were no incidents to report in August.

Ridership Summary

In August, 81.3% of bus services were on time. That's slightly below where we would like to be at 85% or greater. We will continue to work to make improvements in those numbers.

Ridership highlights - Total system ridership increased by 7% compared to August 2023, with an 8.7% increase in local bus and 9.2% decrease in local express. However, that's attributable to one less service day. Regional Express also saw a decrease, same reason. The Community Circulators showed an increase of 7.8%. STS showed an increase of 7.1%. Vanpool showed a 3.9% decrease. Blue Line was a 3.2% increase and the Gold Line was a 33% increase in ridership for the month – Why was that? August 17th and 18th; the City celebrated PRIDE. That led to very large weekends both on the Gold and Blue lines. We saw ridership on August 17th for the Gold Line was 46% higher than the months average Saturday. Blue Line experienced a ridership increase of 45% above the months average Saturday as well. We do see ridership increasing across all segments, but we also know that special events can significantly increase or drive ridership increases for the month.

Truck Overhauls Update

Where we are now, 44 sets just over half remain for complete overhaul. 8 are out for repair with 8 available for service. There is a table in the summary that breaks that down. CAT series 1 and 2, there are 21 total truck sets. 5 have not started or received any repairs. 8 are out for repair and 8 have been received back with some level of repairs. CAT series 3, we have not started sending the series 3 trucks yet. We are prioritizing the series 1 and 2 trucks, which are the oldest vehicles or truck sets in the fleet. That's why you see that those have not even started, we're prioritizing 1 and 2's and once we are moved through those, we will then progress on to the series 3.

COMMISSIONER ALTMAN (Mecklenburg County): I appreciate the update on the repair of the trains. I remember when it was determined that all the trucks needed to be repaired or have this overhaul, that the number that would be pulled out of service left you with exactly what you need to make service.

INTERIM CATS CEO CAGLE: Yes.

COMMISSIONER ALTMAN (Mecklenburg County): How is that going? You haven't had any extra to spare, it's been, I don't know how many months, but functionally how is that going.

INTERIM CATS CEO CAGLE: At the request of NCDOT SSO, CATS, in effect grounded the 100 or the 102 the 1 and 2 series vehicles or their trucks. 8 of those have returned and have been put back in service. At the time that left us just enough vehicles to provide service. We were able to manage through that. I'm happy to announce that now we do have a little more breathing room in that those 8 sets that have been returned are able to go back into service.

COMMISSIONER ALTMAN (Mecklenburg County): Are they going to Florida to be repaired, is that what ended up happening?

INTERIM CATS CEO CAGLE: Both. Some go to Florida. All go to Florida and California. The repairs are slightly different at each location. Some have been to Florida and California already. Some have been to Florida and will still go to California.

COMMISSIONER ALTMAN (Mecklenburg County): Alright. If you had to estimate when you think it will be completed, what's that estimate now?

INTERIM CATS CEO CAGLE: Let me provide you a more detailed answer from our rail car maintenance group on that.

COMMISSIONER ALTMAN (Mecklenburg County): How is it going with the speeds being lowered and capped. Is that still status quo?

INTERIM CATS CEO CAGLE: It is. There're several operating restrictions in place. I mentioned the one and two series vehicles being taken out of revenue service. Once those vehicles have been maintained, they automatically can go back into service, we don't have to request anything further. The other operating restrictions, like the 35 miles per hour speed limit, we do anticipate being ready to discuss with NCDOT SSO, early next calendar year, the

possibility of removing or revising the speed restriction. Under current operating parameters, the head ways that we have, the frequencies that we have, the 35 mile an hour speed limit is not impacting it. We're able to make service per the schedule.

As we see ridership increase, and we would like to reduce headways or increase frequencies, that's where the 35 mile an hour speed restriction could become more difficult. We hope to be able to have conversations with NCDOT SSO about removing that restriction early next calendar year.

COMMISSIONER ALTMAN (Mecklenburg County): Finally, have you had any issues with the heat strips, or do they continue to read in a safe level?

INTERIM CATS CEO CAGLE: Yes. They continue to read. We have protocols. If a heat strip does read over the designated temperature, it's taken out. The trucks are examined more thoroughly. If it's deemed acceptable, they can be put back into service with new heat strips, or they will be taken out of service and put into the queue for sending to Florida and California. That process is working. As we receive trucks back that have been serviced, we become better and better because the heat strips are really the method for identifying where to the main bearing in the axle.

We continue to work with Siemens. You may recall another strategy that we implemented with Siemens is installing a vibration detection system in the axle. It literally listens to the axle for vibration or sounds from wear on the bearing. That project is underway. We have installed one of the new devices on a vehicle. We are working with Siemens to beta test and calibrate that system. Once that system is in place fully across the fleet, it will be in effect a better method for detecting wear on these vehicle axles.

VI. Action Item

A. **Second Amended & Restated Transit Governance ILA**

Brad Thomas

Brad Thomas – City of Charlotte Attorney's Office – presented for action the Second Amended & Restated Transit Governance Interlocal Agreement; based on pages 53-76 in the MTC Agenda Packet for September 25th, 2024.

Discussion:

INTERIM CATS CEO CAGLE: As we move into our first action item of the evening, which are the rules of procedures, I did want to point out one last thing. Mr. Thomas will be talking about the changes necessary to the rules of procedure. These changes are required due to the amended ILA, which was approved next month. I will also point out that the new ILA creates a new Public Transit Advisory Committee (PTAC). That committee will need to be stood up effective January 1st, 2025.

The appointments' structure is similar to the Citizens Transit Advisory Group (CTAG), which has 13 members. All towns have one appointment. Mecklenburg County Board of County Commissioners and the City of Charlotte also will appoint the Co-Chairpersons of the new committee. CMS has an appointment, City Council and Mecklenburg County Board each have two appointments.

To the extent possible, committee members should exhibit diversity of riders and the services that we provide. They should be riders who utilize a diversity of our services. As we go through this, we are prepared to set up an application process, should the MTC wish us to do that. We can take and gather applications for review and ultimately consideration by the MTC ahead of January 2025.

COMMISSIONER ALTMAN (Mecklenburg County): I think probably everybody knows this, but pursuant to the ILA, we are essentially merging CTAG and TSAC, right?

INTERIM CATS CEO CAGLE: To make sure we're saying the same thing. The ILA discontinues the CTAG and TSAC and creates the PTAC. It's not just a simple merger of the two groups into one, with the new name. It is truly a new group being created.

COMMISSIONER ALTMAN (Mecklenburg County): Great. I think that probably is going to be beneficial for efficiencies.

JEFFERY PARKER (CTAG Co-Chairman-Mecklenburg County): I think this new organization or this new committee kind of violates the spirit in which we asked for the merger. I don't know if you remember this, but Ms. Oechslin, when she initially made the motion to study this, she made it with the idea in mind that we as groups were both overlapping at least to some degree in functions. I think it was really more an issue of function where we were not taking but we were sort of adding on some of TSAC's duties to our group, and TSAC themselves were adding some of their duties to their group. She had made that motion with the understanding that we had at least somewhat overlapping functions. We didn't need as big of a board or we didn't need two separate boards for it.

Looking at the way this new board will be structured, it looks like that it essentially takes two boards and combines them into one without any additional membership. I think that's going to add some additional strength to the board.

The second thing she asked for was consideration for vote on MTC for the group and that looks like it was completely ignored. She also asked, I remember this, it was for an actual study. I don't remember ever seeing any sort of results being published for a study or anything like that. Maybe I missed it but just seems like this was more of an Ad Hoc answer to her question rather than a serious thoughtful consideration of all of the proposals she had made.

I don't think this new committee fits in the spirit. I just want to let everyone know I'm speaking from my own perspective here and not from the board's, not from CTAG's perspective or TSAC's perspective but as the co chairman of CTAG, this is what I see.

COMMISSIONER ALTMAN (Mecklenburg County): I appreciate you bringing that forward. Mr. Cagle, or to anyone who has been involved in the process, can you shed light on this? This is the first feedback I'm hearing to this effect. I do need assistance in responding to it or can someone shed light on the process?

INTERIM CATS CEO CAGLE: There was a process for all of the members of the MTC to come together and negotiate the new ILA which was completed. Each member with the exception of Matthews, approved the ILA and it was approved last month by this group. Not unanimously, but approved. I guess that would be the input that I can provide to you related to this. I was not part of that renegotiation of the ILA.

COMMISSIONER ALTMAN (Mecklenburg County): one thing that I'm trying to think back on is when is the last time I've heard this input and I mean, when did Ms. Oechslin leave?

JEFFERY PARKER (CTAG Co-Chairman-Mecklenburg County): I think she left about a year and a half ago, this was one of her parting shots with this board. Forgive me, I may be a little

hazy on the details, but these are the things that I remember from her request. My thought process was going into this, was that it would be studied, the results would be distributed, and I don't know what methodology we would use to study such a thing. At least there would be some sort of effort made to actually study the issue and then those results would be brought back, and we'd have some time for discussion. The first thing I hear about this is in the CTAG meeting last week that this has already been decided and it's in the new Interlocal Agreement. I thought about this after the CTAG meeting and mulled it over.

COMMISSIONER ALTMAN (Mecklenburg County): That's okay. Candor is always important and welcome.

MECKLENBURG COUNTY MANAGER DIORIO: The managers were the ones that revised the interlocal, this is not a topic that we ever talked about. I think the City, when they were trying to align the ILA with the rules of procedure, they came forward with a lot of revisions to make sure that everything was aligned and as part of that, proposal to consolidate or to disband the two and bring forward a new one. I think it was just trying to reflect what I think everybody thought was what was wanted. There was never any negotiation between any of us about whether or not it should or shouldn't happen? It just kind of appeared in the draft and we went forward with it.

JARRETT HURMS (TSAC Chairman): I'm not speaking on behalf of TSAC but me as a person, who happens to sit a Chair and also as Ms Oechslin's successor as chair. This also was me and her having these conversations kind of one on one kind of during last year, during my time as vice chair under her as chair.

First of all, I will say that Mr. Parker's assessment on Ms. Oechslin's comments is very accurate. It is to the tune of what she said. One of the things that both of us kind of mentioned as chair and vice chair in a prior TSAC meeting last year was one is having a vote of approval of exploring the merger of the two. Then also kind of allowing members of TSAC and CTAG to be able to provide input as to what the new entity could be. Or, at a minimum, at least allow the chair's/vice chair/co chair of the two entities. At the end of the day, yes, we have two separate bodies that are very overlapping. It makes sense to have the one.

To Mr. Parker's comments, it definitely differs a bit from the spirit of what Ms. Oechslin kind of called for. As far as the interlocal agreement, the majority of it makes perfect sense as far as the new PTAC entity, essentially, who was in the thought process of creating it, or it was kind of more so just, okay, we'll do this, we'll just merge into one, we'll use CTAG's appointing authority rules. It will be a 13-member body. That is something that I'm curious about. I'm sure Mr. Parker has also expressed that as well.

MAYOR LYLES (City of Charlotte): Thank you for the opportunity to hear what you've said. I agree that we thought that we perhaps had an opportunity to make a board that had overlapping issues. I think instead of us trying to guess what we're doing, I think we should pull up the paper, the notes of what we've had. The request that we've had that we would be able to take a look at it. That we can accurately address the questions that you're having. I know that there have been these committees for a long time. A lot of people have served on them. They have a lot of guidance for us. I think that that's something worth, if it would be okay? I think if we could have the team or CATS pull up some of the information about it and have the ability to understand that we can have a better discussion with information shared by everyone.

JEFFERY PARKER (CTAG Co-Chairman-Mecklenburg County): To provide some clarification, I was under no illusions that this would be a board composed of one for one membership from each of the two boards combined. I think that would be a little unwieldy. I think basically, consolidating two boards into one board and essentially cutting the membership in half, I think that adds a little bit more responsibilities than what I was envisioning would occur. I think that the biggest thing for me is just I do not remember seeing any sort of results of any study or even anything being talked about it. I was just reading through the new Interlocal Agreement, and there it was, and I was like, oh, well, that's nice. It felt like we put it into a black box and then waited for a year, a year and a half, and then just reached our hand into the black box and pulled out and here's what we have. Rather than a thoughtful process about how to combine these two boards and figure out ways to maximize efficiencies between the two.

MAYOR LYLES (City of Charlotte): It probably is like that box as you say. I think that we have to figure out what that document is in the box and be able to have some context for all of us, so that we're all working from the same information. I think that that's viable idea to do that. I would suggest that although we have an ILA, we have the new agreement now, we are perhaps in a position that we may have to figure out how to fix something a little bit differently, but at the same time, be able to move forward with where we are now. I would just say that if we could have the information and have the staff do some research on it, and give us some ideas, give us some of the ideas about how other organizations, or other systems do this work, then we would have a better conversation. I think a conversation that would address the issues that you've raised.

COMMISSIONER ALTMAN (Mecklenburg County): Those comments are very well received. Mr. Attorney, we have to take action with respect to the ILA, which of course has been approved by all of the boards and we'll have to understand how we got to the process of having every single town and board the city and the county vote on the ILA, this is the first sort of objection I'm hearing throughout this process. That's a procedural and process miss but here we are.

If we need to go forward with the action item, can we vote to amend any piece of the new board after we meet and we can try to be as responsive as possible? How do we amend this to the extent we're able after the fact?

BRAD THOMAS (CITY OF CHARLOTTE ATTORNEY'S OFFICE): You're right, Commissioner Altman about the ILA is effective now. The ILA created the PTAC, the Public Transit Advisory Committee, that's in effect. We have the rules of procedure, before you tonight. We're asking the approval that the rules of procedure can marry up with our new Interlocal Agreement that is now effective. In terms of the rules of procedure, if we wanted to make changes to those, we could. That would be the opportunity for us to tinker with the 13-member committee if we wanted to do so.

If we're trying to meet that January 1st, 2025 deadline, to establish and set up this PTAC this new committee, the sooner we do that the better. If we drag that out, it will make it hard to appoint the members to the new PTAC committee. We could tinker with it

MAYOR KNOX (Town of Davidson): Madam Chair, could I offer another option? The prior Interlocal Agreement that we had that was drafted decades ago, was amended in 2005 or something like that? There's nothing that prohibits us from amending this document at a later date. Even if it's in December, prior to the January deadline for the PTAC that we've created, we still have that opportunity to amend it, am I correct?

BRAD THOMAS (CITY OF CHARLOTTE ATTORNEY'S OFFICE): That's right. If you wanted to amend the Interlocal Agreement, you could, it's just a matter of taking it to the respective boards and getting your boards to approve.

MAYOR KNOX (Town of Davidson): I don't want to side track the rules and procedures that we're going the talk about tonight, these are two different issues for me.

MAYOR LYLES (City of Charlotte): We had nine members on one, and 13 members on the other. Is that correct? originally? Because I want to know a little bit more about what's the baseline that we're talking about here.

BRAD THOMAS (CITY OF CHARLOTTE ATTORNEY'S OFFICE): Let me add this, too. It's my understanding and this is just from looking through some documents and some history, that the TSAC was actually a committee of the Charlotte City Council. It carried over. When they established the Interlocal Agreement, in 1999, they created CTAG. CTAG has been ever since that time. There were actually two committees. They weren't but the Interlocal didn't create two entities, the CTAG was created, when they established the Interlocal. They established that CTAG committee.

MAYOR LYLES (City of Charlotte): I guess 9 and the 13, and in some respects, I think that is a lot. I don't know many of our boards that have that kind of number in terms of members and participation. I think what's important is that we are in a position where we really need to address the issue of how we do this. I think that we've got a recommendation on our table on our agenda now, to approve our documents to move forward. I'm not sure how much of a codification needs to be done in a document like that for an advisory committee. We have planning committees and all kinds of committees. They really are basically advisory committees that we could make some determination on our own.

We're looking at some of these questions, like, we want to have this committee, but we're not sure exactly how we're shaping it or framing it and the responsibilities. Could that be a separate item that we could generate from the board or from the MTC members of what we would like to do? How important is it to codify the document even further?

BRAD THOMAS (CITY OF CHARLOTTE ATTORNEY'S OFFICE) I think it's important that we describe the process for what we have to make up the committee, right? How many members and who appoints those members and what is their function, what do they do? It's important to have that process in the rules of procedure, so we know how to follow it. We know how to establish it. Plus, define their terms and that sort of thing. That's what we have in the rules of procedure.

If you recall our old rules of procedure had the two committees in there, had the TSAC and CTAG. The reason that we're before you tonight with the rules of procedure, that's one of the issues we need to consolidate that it marries up with the new Interlocal Agreement. Then there's a few other changes as well that are necessitated by the new ILA. We could make further changes if we needed to.

COMMISSIONER ALTMAN (Mecklenburg County): Does it make more sense to vote to approve the procedures tonight? With the understanding that within 30 days, I would love to meet with you. I would like to be there, anyone from the MTC and staff that we can see what we can do to

be responsive? Bring that back and amend a piece of the procedures if needed, or is it better to defer action on the procedures tonight, which is cleaner, or easier, or whatever?

BRAD THOMAS (CITY OF CHARLOTTE ATTORNEY'S OFFICE): I guess from a critical path standpoint, it was just trying to get the rules of procedure to line up with the Interlocal Agreement. That would be a good thing if we could do that. Because for our next meeting, if we didn't do that, we'd be still under the old rules of procedure. It's probably good to go ahead and do that. Then bring back another change to it, if we can.

COMMISSIONER ALTMAN (Mecklenburg County): Then we can perhaps pass it and then understand if you're amenable, you and Mr. Hurms to meet with me and anyone else who would like to over the next 30 days and see what we can bring forward.

JEFFERY PARKER (CTAG Co-Chairman-Mecklenburg County): Yes, absolutely. I don't want to speak on behalf of Mr. Hurms, although I would like to have him there, present with me, so we can our concerns together. Apologies for throwing this little rock into the water. I wasn't here for the May MTC meeting which I think is when this was presented, if I'm not mistaken? I had a work commitment. Apologies for bringing this up four months.

COMMISSIONER ALTMAN (Mecklenburg County): Do not apologize, there's clearly a process issue that something that was raised a year and a half ago didn't sort of hit anyone's radar while we were approving this. There's definitely a process issue here that we need to figure out. That being said, why don't we sort of formally undertake this action item c.

BRAD THOMAS (CITY OF CHARLOTTE ATTORNEY'S OFFICE) Aside from the consolidation of the TSAC and CTAG. Our old rules of procedure had some sections in there regarding the MTC regional members and the qualifications to be a regional member, it also had some language in there about appointing regional participants and that language was really better, more appropriate for the Interlocal Agreement, because the Interlocal Agreement tells us who is a member, and how to become a member and those sort of things that really wasn't appropriate for the rules of procedure.

We took those two things out. Those things also were modified slightly in the new ILA. We removed those two sections. Then there's also some changes throughout the rules of procedure for nomenclature, for instance, the rules of procedure referred to the CATS CEO as the Chief Transit Official. We just made it CATS CEO. There was some also changes from chairman to chair and things like that.

The other two changes that are noted in here in the staff's summary have to do with remote participation. We had some questions over the years, remote participation. Basically, what we did in the rules of procedure said that you had to be present to count for a quorum and to vote. If you're just participating, you can do so remotely. We just codified that piece of it and the last section was with respect to the public address. We put a phone number in there that's accurate and an email address so folks that want to sign up for public address, they can. That is in there now, too. That's kind of a summary of those changes.

COMMISSIONER ALTMAN (Mecklenburg County): I will ask staff if you can, please, coordinate reaching out to our CTAG and TSAC folks and coordinate. I know Mayor Knox and I and if anyone else would like to now raise your hand or follow up, let us know if you'd like to be included.

Resolution: A motion to approve the MTC Rules of Procedure was made by **Mayor Vi Lyles (City of Charlotte)**; seconded by **Mayor Brad Simmons (Town of Mint Hill)**. Motion carried unanimously.

B. MTC 07: Transit Advertising & Sponsorship Policy

Brad Thomas

Brad Thomas – City of Charlotte Attorney’s Office – presented for action the MTC 07: Transit Advertising and Sponsorship Policy; based on pages 77-78 in the MTC Agenda Packet for September 25th, 2024.

Discussion:

BRAD THOMAS: We are asking the MTC to modify a section of our Advertising and Sponsorship Policy. The policy has a provision in there that prohibits sponsorships with alcohol companies.

We are asking tonight to modify that slightly that we would permit a sponsorship with an alcohol company in the narrow instance of the language of this action item. That would permit sponsorships with alcohol companies that are allowed for the limited purpose of promoting public transit as a safe alternative to impaired driving or riding with a driver who is impaired. A sponsoring entity may make payments to CATS that the safe ride program could be provided fare free to our riders, during a defined period. This would be a situation where, for instance, if an alcohol company wanted to sponsor a fare free evening, that you could take transit home that evening or for a defined period of time, this would let us do that in that narrow instance that promotes safe rides and is aimed at preventing impaired driving.

MAYOR KNOX (Town of Davidson): We're not going to shrink wrap the trains in Buffalo Trace logos or anything like that?

INTERIM CATS CEO CAGLE: The reason to clean this up is we do allow advertising with alcohol companies. There are many ads for alcohol that are on transit vehicles. What this really is, is sort of in layman's term is if an alcohol company wants to sponsor free transit on New Year's Eve, for example, safe ride home programs, this allows us to do it, because a safe ride home program is not an advertising, it is a sponsorship that we had to clarify. We're asking for consideration to clarify the policy to allow for sponsorships in that limited scope.

COMMISSIONER ALTMAN (Mecklenburg County): Thank you for the clarification.

MAYOR LYLES (City of Charlotte): One of the best things about our system is that it allows people not to drive a car while they're drinking. This to me is just one more way of ensuring that we're keeping people safer as they have entertainment and all of the things in our community.

Resolution: A motion to approve the Modification of MTC 07: Transit Advertising and Sponsorship Policy was made by **Mayor Vi Lyles (City of Charlotte)**; seconded by **Mayor John Higdon (Town of Matthews)**. Motion carried unanimously.

VII. Informational Item

A. October Service Changes

Jason Lawrence

Jason Lawrence – CATS Chief Planning Officer – provide an update on October 2024 Service Changes; based on pages 79-88 in the MTC Agenda Packet for September 25th, 2024.

Discussion:

INTERIM CATS CEO CAGLE: Just to clarify, the Independence Busway, these are dedicated lanes, each direction, center running down Independence, correct?

CATS CPO LAWRENCE: Yes, that's correct, absolutely, that's correct, yeah. There's a barrier of like roughly from Albemarle Road in and then outside of that to Wallace Lane. It's a painted stripe along Independence Boulevard and are dedicated at this point only for bus usage.

MAYOR KNOX (Town of Davidson): Excuse my ignorance because this may be something that we've had provided to us before. Do we have numbers as far as the number of CMS kids that actually are using bus or rail to go to and from school?

JASON LAWRENCE: Yeah. We have it in a number of ways. We do sell pass; some campuses do buy passes in bulk. We can share that detail. We do have a number of campuses that have better service than others, given their location; East Mecklenburg is a good example there off of Monroe Road. The Phillip O Berry campus. That is something that we don't have like an exact number if they're there, but we do have anecdotal information about bus stops at those campuses. We have been working with CMS to get to the bottom of like how many of their students actually use the service, but we can look into that information for you.

JEFFERY PARKER (CTAG Co-Chairman-Mecklenburg County): Just my own curiosity. Do you have any idea if ridership on the bus services that use the Independence busway has increased? If so, has that been substantial? Modest? Just looking for some information?

CATS CPO LAWRENCE: Sure. As Mr. Cagle stated in the ridership report, we did see declines in the Express Routes throughout the month of August into September. We'll continue to evaluate that. We'll be able to report that. At this point it's too early to tell if the ridership is going to go up, but I think as we continue to market and approve the service, add those extra trips, we'll see improvements.

COMMISSIONER ALTMAN (Mecklenburg County): I just think that's really important and interesting. I think it was a 20% improvement. That's really significant. That bodes well for some of what we're going to be talking about.

Also, I'm really happy to hear the discussion around scheduling. Around the bell time for CMS schools, where you have a stop nearby.

I again just want to let the community know that CATS and CMS, have been working diligently, every single month. I think like eight months now we've been doing this and making progress.

We often hear people decry people working in silos. I really just want to give you a shout out for being so intentional to not do that. I know y'all are making great progress. I look forward to when we can hear about it..

B. Bus Rapid Transit (BRT) Overview

Kelly Goforth

Kelly Goforth – CATS Development Officer – provide an overview on the Bus Rapid Transit (BRT); based on pages 89-110 in the MTC Agenda Packet for September 25th, 2024.

Discussion:

MAYOR HIGDON (Town of Matthews): Do you have any idea how transit-oriented development around light rail compares to that around BRT?

MARK HUFFER (HNTB BRT Transit Practice Leader): Yes. There's a lot of studies in that regard. I would say that the general feeling is light rail would generate more economic development than BRT. The more robust the BRT, the more economic development that will generate. As a general rule, yes, light rail will generate more economic development.

MAYOR HIGDON (Town of Matthews): Thank you. If I could just make a comment. The Institute for Transportation and Development Policy has a rating system for BRT lines throughout the country. There's literally only a handful that are even rated as bronze or silver. There is no gold BRT standard in North America. You highlighted four of the highest rated ones in the country.

With your photographs, Cleveland, Hartford, LA and Van Ness, most are not as nice as the ones shown today. I wanted to make that point.

One other point, according to CATS, the engineer that I spoke with, the BRT that is envisioned or contemplated for our area, could not be readily retro fitted as light rail at a later date. This is a different plan according to Andy Mock, a lot of 90 degree turns, etc., that could not accommodate, could not be later turned into light rail. I wanted to make those points.

INTERIM CATS CEO CAGLE: I think that while there are some cities out there that may contemplate in the future a conversion, it would certainly, and I won't disagree with Andy; would certainly not be our intent to design. I think there are two things about that:

1) Design changes, the 2 aren't designed the same. The way that the alignments and other things have to be built. They're not the same.

2) The other thing is, I would be hesitant to sort of think about an investment in BRT, which is a very large investment, certainly could easily be into the billions of dollars. In and of itself. As something that would be a quote unquote temporary solution. Certainly, with that kind of investment, you have a very large investment that you need to amortize and allow the asset to amortize over its useful life. I'm not sure what the other cities think about that are; I suspect they have very long-range plans when they start to talk about that because BRT in and of itself is a very, very large investment in and of itself.

MARK HUFFER (HNTB BRT Transit Practice Leader): You're right. To date, there has not been any BRT that has been converted to light rail. The majority of them do not contemplate that at design. But there are certainly some that do.

COMMISSIONER ALTMAN (Mecklenburg County): Can you talk to us about the rating system; gold, silver and bronze. Is it the case that newer ones in the US tend to be more highly rated or is it policy decisions of the financial resources of the planners for each community? How do you relate that to what's happening outside of the US where there are gold standard BRT programs? Is gold standard BRT possible in the US? If so, why hasn't it happened yet, what are the barriers?

MARK HUFFER (HNTB BRT Transit Practice Leader): ITDP does rank BRT systems around the world. I think most people believe that they are skewed to international BRT. There are, as the mayor indicated, there are no gold standard BRT systems in the US. Albuquerque was ranked as a gold for its design but has not been ranked since it has been open. They do need to do that.

I think part of where it gets skewed is in terms of ridership. In the international corridors, where BRT is located, they carry tens and hundreds of thousands of people, literally hundreds of thousands of people in BRT over the course of a day. They're just in immensely dense areas; in Asia and South America, in particular.

COMMISSIONER ALTMAN (Mecklenburg County): Why do you think there haven't been any jurisdictions in America that are gold? What are the barriers to becoming a gold standard? Like the best ones in America, do they have dedicated right of way? Do they have the elements that strong BRT programs need to have, the different aspects and characteristics.

MARK HUFFER (HNTB BRT Transit Practice Leader): In the US, BRT still is relatively new. I mean, compared to where BRT has evolved in international cities. Obviously, compared to rail systems. I think that's part of it. BRT has gotten at the trend is BRT is becoming a lot more sophisticated and starting to move more towards more and more dedicated lanes, early projects shared lanes.

Quite honestly, early BRT projects were often in places that did not have rail programs. They did not have necessarily strong transit programs that were looking for ways to enhance their service. As BRT gets more sophisticated and you look at things like CT Fast Tracks, which I gave you an example of. Los Angeles Metro, right now, is working on one of their BRT lines to grade separated or have railroad crossings or gate crossings at intersections that the bus can have complete right of way, like similar to a train. As those kinds of systems come online, I think you're going to start to see opportunities for gold rating. Yes, to date, there is not one.

COMMISSIONER ALTMAN (Mecklenburg County): I'm trying to drive towards where it says the bus rapid features. In your opinion, what programs in the United States have enhanced stations, off board fare collection, transit signal priority, dedicated lanes? Like in your mind, what do you think most checks the box? I would like to learn more about the ones that are the farthest along in achieving the gold standard. Whether or not they get the actual certification.

MARK HUFFER (HNTB BRT Transit Practice Leader): I think it is some of the ones we talked about, CT Fast Track in Connecticut. It's Cleveland. The Minneapolis example is a really good one, the Orange Line. I don't think it's been open long enough to even have a rating yet. That one may get closer. I think some of the examples we've showed today are as the mayor indicated, those are the premier systems in the country.

COMMISSIONER ALTMAN (Mecklenburg County): The slide that says capital investment grants pipeline. One thing I'm wondering is, it seems like BRT is not something we do in America very much. Yet, when I look at the difference between 2008 and 2003. I wonder if we are not in fact the top of the crest for BRT. We can't really see it because we're in the middle of it because you're telling me there's a 65% increase in the number of BRT projects being approved by the FTA and getting Federal match. Can you comment on that?

MARK HUFFER (HNTB BRT Transit Practice Leader): BRT is experiencing a huge growth. These numbers, they show it. 20 years ago, 15 years ago, BRT was really the domain of mid-

sized transit agencies or mid-size cities that didn't have rail, couldn't afford rail and were never intending to have rail and used BRT as a way to make a significant transit investment and get quick returns on it. What's happened is BRT now is spreading to cities all over the country. Even some of the largest cities that have sophisticated well established transit systems, including rail, are moving to BRT as a supplement or an addition to their transit network.

Again, we showed some examples, Minneapolis. But San Francisco, one of the great rail systems in the country, is moving to BRT. Los Angeles is moving to BRT. Houston, Dallas.

It's not just mid-sized cities anymore, it's cities all over the country that are doing it.

TONY LATHROP (NCDOT Representative): The question about dedicated lanes. Obviously, I don't know about BRT very much. I know about by analogy, dedicated bike lanes or protected bike lanes or bike lanes that are not protected. The ones that aren't protected, there's with some frequency, there are trucks or cars that park in those or drive in those because they can because they're unprotected.

In a BRT where you have a lane that is not protected, just striped, I want to know if there's data on how that works out. Is it slowed or obstructed by vehicles that go in there, because they can.

MARK HUFFER (HNTB BRT Transit Practice Leader): I don't know if there's data on that. I could certainly check TRB or something like that.

Anecdotally, that is an issue. That's why you see places such as Houston that when I showed you that had the six-inch curbs on each side to keep cars from doing that.

That is certainly an issue that Indianapolis example, is painted lines. It does not prevent a car from coming into it. Part of that is how you get over that is how well your local police agency patrols that or works with the agency on it.

It's very similar to Streetcar. If the truck stops on the streetcar track. The one advantage that the BRT has obviously is it can move around an obstruction. Somebody is stopped there or a fire truck there, they can divert and go around it and get back into the dedicated lane. As we talk about the evolution of BRT, that is what we're seeing more of, is the higher degree of dedicated lane and not just simply striping and red lanes painted.

JEFFREY PARKER (CTAG Co-Chairman-Mecklenburg County): I don't want to oversell myself here, but I do have experience. I've ridden the Health line in Cleveland. I have at least some or had some affiliation with a transit advocacy group up in Richmond, when they were building the Pulse there. What my fear is, is that people will sell the public on beautiful pictures of the Health line, or the Pulse, and what they end up getting is essentially the Sprinter. In the parts of the Health line where it's dedicated, it does very much run just like light rail on rubber tires. The stations are nice. Dedicated lanes, there's a lot of people who ride it. I believe about a third of it is in mixed traffic. If I'm not mistaken, on the east end. It's been about eight years since I rode it. I believe that is still the case.

The Pulse, when I lived in Richmond, the Pulse runs in dedicated lanes along Broad Street. Very nice stations. Once you get west of Interstate 95, it goes into mixed traffic use. The same with the east end of that line. Only about half of it is in dedicated lanes. It's really a mixed bag with what you get.

It does offer some flexibility and potential cost savings. Sometime people get the impression that it's just like the Health line everywhere. Just like the parts of the Health line that are in downtown everywhere. In actuality, it's mixed running here and dedicated lanes over here and it's cheaper, I think because a lot of it is running in mixed traffic and is sold as

BRT. That's what he said at the beginning. Sir, if I may use your quote, "it can be anything you want it to be". I think that's the most problematic feature of BRT, is because of something called BRT creep. Where people call something BRT that's not really BRT.

If you can guarantee that everything is going to be like the two thirds of the Health line that is in dedicated lanes, then, yes, it's solid. But if not, then you're selling the public bill of goods.

COMMISSIONER ALTMAN (Mecklenburg County): Thank you, Mr. Parker; Really important.

BILL THUNBERG (Town of Mooresville Representative): I think both of the presenter and Mr. Parker are touching on one of the key elements. I think that you need to consider and it's the goal. What is your goal in providing that BRT service?

Let's just talk about Cleveland just for an example. Part of the goal is to revitalize an area that was in decline. In the downtown area of Cleveland, there were a lot of empty buildings and things of that nature. They wanted to use it as a branding opportunity to utilize the fact that it's a health center. You can have a lot of different goals for a transit system like that.

You need to have clearly defined goals. If Mr. Parker is indeed right in his assessment, that having a part of the system that's in mixed traffic diminishes it, or it takes you away from your goal, then you need to figure out exactly what it is that you want and how you're going to get there.

The second thing is that in Europe, and the people around that table and your consultants, know that you've got folks that are naturally inclined to use transit in Europe. It's never going to be a fair comparison when you're moving, when you're competing with a population that's naturally inclined to get in their automobile.

The question for the consultant is the goal is for the Cleveland project were to get people out of that are cars. To reduce traffic in the downtown and create more vitality.

The question is did you actually get more people out of their cars? Did you increase transit ridership in the city as a result of that? Did you achieve your branding goal for the economic development associated with being a health center?

Third, the vehicle makes the difference when you're talking about the types of vehicles that operate. Like that new flyer vehicle that operates in the BRT. You're going to be looking at markedly different vehicles. You're going to be looking at different maintenance and replacement cycles. You're going to be looking, operationally, for something that has a much different profile than light rail and has not really quite as expensive to manage there.

MARK HUFFER (HNTB BRT Transit Practice Leader): One of the things that I get asks a lot is, what do you say about BRT, and I always say you can't oversell it. You have to make sure that what you're saying. You've got to manage people's expectations of what BRT is. It is not the perfect transit solution in all corridors. It's not even the right transit solution in all corridors. I'm not here to say that. It can offer a very significant transit improvement in specific corridors, at a fraction of the cost of rail, in a much shorter time period that you can build it than rail. In many instances, I'm not speaking to any specific corridor, there's a lot of corridors that will not qualify for Federal funds for rail because of the cost or ridership but you can get Federal funds for BRT.

It clearly works better when it's dedicated. You're going to get quicker ridership, and there are places that you can get 70, 80, 90% of dedicated lanes for BRT. Federal FTA requires 50%. You only have to have 50%, if you're going after new starts funding. You just have to be realistic what you want BRT to accomplish. It is a transit improvement; it will generate new ridership as Mr. Thunberg discussed.

I didn't bring ridership statistics with me, but virtually every BRT system in the country has experienced ridership increases vs. the transit that was in that corridor prior to BRT. It can bring some level of economic development, depending on what your system is and what the support for the community around it is. You have to be realistic what you're wanting to accomplish with BRT.

MILA BUZHINSKAYA (HNTB SC Transit Leader): I'd like to share a real-life example.

When I was assisting with Wake BRT delivery in Raleigh. Before we started the design, we defined that vision. Obviously, we all knew the requirements of the FTA and what they looked for. Also, there were local standard, defining what is the percentage of dedicated lanes, do you want to see? What do the stations look like? All of that took place before the system was designed.

That was tied to the local funding. Initially it was defined as 50% to match what the FTA is requiring. Later that goal was bumped to 70% because the community felt that it wanted to be more ambitious in delivering the true BRT system, but that decision lies with the project owner, with local community, what you want to see and what you want the outcome to be. FTA is not going to drive that conversation, you will.

JARRETT HURMS (TSAC Chairman): First, I have more of a comment than a question. One of the things that I think is going to be important is that too much of Mr. Parker and Mr. Thunberg's comments, is the big thing is you need to make sure that it has dedicated lanes that is able to accommodate at least like need 85% not in mixed traffic. I understand there might be a situation where there might be a small portion of it, that might be in mixed traffic. But definitely needs to be most of it like 85% of it is within its own dedicated lane. I think there definitely needs to be a study looking at the affected corridors and see where that could be possible, if it involves some imminent domain, adjusting, whatever the affected roadways.

I think this is not BRT but what works from an express perspective. When you think about like the 53x or the North Meck Express buses presently, what is working? What does get people out of their cars in that situation to Mr. Thunberg's point.

We are in a society where a lot of people now rather get in their cars and drive when they are getting somewhere. But again, this is not BRT, I will not call it BRT, but I'm saying as far as from a lesser perspective, it does utilize some things such as the express lanes which is not its own lane for the bus but something that is more reliable than I-77 general purpose lanes to which it would give you a better arrival time and not have to sit through traffic or pay for the gas and tolls and things like that. I think some degree that will be needed. I wanted to just put it on the record that I'm the Chairman of TSAC making the comment.

That's the big thing that definitely needs to be answered by someone who can be able to make that study. One question I do have kind of thinking about from a funding perspective. You had mentioned naming rights. Presently, for family, I'm actually currently in Philly, which why I'm remote, where there are some degree of neighborhoods that have been helped with (inaudible) accessibility to the transit system. Recently there's station at 30th street, and it is beautiful, and it has a lot of amenities, it's definitely a very works itself station. One question I did have is, what is typically the process for, because I know this would be new for CATS. What would be the process for a system like CATS being able to secure some degree of naming rights? That it won't just be a stop stick in the ground north, just a glorified shelter, something that would mirror or rival of light rail stations.

COMMISSIONER ALTMAN (Mecklenburg County): You're breaking up a little bit, but if Mila or Mark can give us insights into what the arrangement was with naming rights in other communities to get a sense of the scope?

INTERIM CATS CEO CAGLE: CATS does have a naming rights agreement. We do have a company on contract. We have been exploring naming rights. At this point, we have not moved forward with it yet. As we started to wait and see what the transit system plan would look like.

One of the things that has been completed is our consultants have gone through the entire system as it sits today, to identify assets that they think could be interesting or generate interest from a naming rights standpoint. Clearly, packaging is important. They have done the assessment on ours, and they would wait to look to what the future would hold for additional projects. Beyond what other communities have done with naming rights, we are exploring that today. We just haven't moved forward yet. On the eve of some of the major projects having better definition.

COMMISSIONER ALTMAN (Mecklenburg County): We do have other informational items. If the group is comfortable, why don't we pause here? We have other important informational updates. I really do appreciate you kind of giving us a baseline. I think one of the most important takeaways is, it's probably wiser to say the elements of the characteristics that we hope to deliver and not use the name, because the name is so ambiguous as to be misleading.?

C. Transit System Plan Update Process

Kelly Goforth

Kelly Goforth – CATS Chief Development Officer – shared an update of the Transit System Plan Process; based on pages 111-112) in the MTC Agenda Packet for September 25th, 2024.

Discussion:

MAYOR LYLES (City of Charlotte): I don't have a question, but I think that we covered a lot of the things that we've discussed with everybody's input. I know that this is going to be something that we'll start with. We'll adjust as we go along and doing things. Will we be hiring? Who will be the follow up as we're talking about this?

The question is, is there going to be an outside consultant to do this or to lead the process or tell me what how the implementation will work and who would do it?

CATS CDO GOFORTH: Yes. Absolutely. We obviously have our CATS staff involved from all sides on the bus planning as well as our project teams. We will be supported by consultants as well. We already have consultants on board for the better bus program, that's Kittleson and Associates and Four Square. On the corridor system plan, we're planning to utilize WSP.

We have an on-call services contract with them and they're also the consultant for the Silver Line project. We think they'll be an important resource for us. We also will utilize Info Strategies for the financial modeling work.

MAYOR LYLES (City of Charlotte): I would like to think about someone that could lead some of the public work. That we'll be going in and asking people how they do this. I know that there's some opportunities because the communities, our populations are different. We're going to need to have different people in terms of this. I hope that we'll be very conscious as we are deciding on the community input with people that really connect because we are going to have different communities and different, like bus drivers, rail riders and all of these other

things. As the City and County continues to grow, there's a lot more territory to cover. I hope that we'll be thinking about those kinds of consultants as well.

CATS CDO GOFORTH: Absolutely. I didn't mention that these have subconsultants on them as well. One of them is a for public involvement - Civility Localized, they are a small firm that has a lot of experience working across our community but is certainly as we need to add additional resources, to help us with this engagement effort, we're going to do that. Absolutely.

MAYOR LYLES (City of Charlotte): We will have minority participation throughout the process, that's a question.

CATS CDO GOFORTH: Yes. Absolutely.

MAYOR LYLES (City of Charlotte): Thank you very much.

INTERIM CATS CEO CAGLE: One other thing also to answer your question, Mayor Lyles. As we think about the transit plan, better bus, and the transit system plan. We will also be working with the towns as well as Charlotte, to think about how the transit system plan and better bus, those improvements, also may come together in a synergistic way, if you will, with the transportation side of investment.

Using Charlotte as an example. We know that there are planned road improvements associated with the potential for new funding. Those road improvements and transit improvements in many cases, can work together and we want to make sure that the community is aware of those and that we're working with all of the towns and all of the stake holders to understand where those connections are.

D. Transit System Plan Financial Model

Brent Cagle

Brent Cagle – Interim CATS Chief Executive Officer – started a conversation of the Transit System Plan Financial Model; based on pages 113-114) in the MTC Agenda Packet for September 25th, 2024.

Discussion:

MAYOR HIGDON (Town of Matthews): Through the Chair can I ask a question? I had an ask that I wanted a vote of the MTC. I don't believe this is an informational item, this is something I wanted to ask the MTC to vote on something.

INTERIM CATS CEO CAGLE: This was the item that I placed on the agenda that I believed was responsive to your request.

MAYOR HIGDON (Town of Matthews): Here's the email that I sent the chair. I said I would like to add an agenda item to the next MTC meeting for September 25th. I would like to have a discussion concerning using Info Strategies to conduct alternate financial modeling for the Transit tax. If I could go on, before we get started.

The Town of Matthews contacted Info Strategies. Let me say that the Town of Matthews is bending over backwards trying to find a way to support public transit in this whole effort. We don't want to be the people that are outliers. We contacted Info Strategies, which is one of the consulting firms hired by CATS to provide financial modeling and strategies for the Transit Plan, and asked if they could run some additional models for us. Info Strategies informed us since

they were under contract by CATS, it would be best to get the MTC to okay and authorize this work for us.

The modeling is necessary to provide informed conversation at the Transit Summit, the Town of Matthews has scheduled for Saturday, October 19th at the Valerie C. Woodard Center from 10:00 a.m. to 1:00 p.m. The Transit Summit is not duplicative of the MTC workshop scheduled for October 23rd in a few notable ways.

First, invitations to the Transit Summit went out to all Mecklenburg County Elected Leaders, not just those that sit on the MTC. This is to get a broad cross section of the elected leaders in one place to discuss the transit plan.

Secondly, other potential funding models will be considered. While to my knowledge, the MTC is only considering a 40-40-20 model for roads, trains and buses and that may or not be correct. To be clear, nothing that will be discussed at the Transit Summit on October 19th would in any way violate three key tenets, 1) roads; 2) The Red Line will be the top priority, the first built rail project; 3) the sales tax is capped at 1 cent.

I wanted to ask the MTC to permit the Town of Matthews to use Info Strategies, because not doing so would be a disservice to your colleagues, who have agreed to participate in the Transit Summit. Without proper modeling, we will be unable to definitively tell if other approaches are even feasible and knowing that information would be good for all of us. That was my request.

COMMISSIONER ALTMAN (Mecklenburg County): Thank you, Mayor Higdon. Mr. Cagle, do you want to give some context and then we can have a group discussion and see what we need to do.

INTERIM CATS CEO CAGLE: I apologize if I did not understand the request. I believe the request was for the discussion. I placed it on the agenda as such. I would leave it to the MTC to determine if the item is sufficient to have that discussion. I believed it was or that was certainly my intent by placing it on the agenda. I know that there have been several questions. Stepping back a little bit, and talking about the model, but before that, talking about alternate scenarios, I know that Mayor Higdon, you had asked for an alternate scenario of 45-45-10.

Quite frankly, that scenario, I think, could be run; can be run. I think that it will be insufficient for bus. Bus is very important; it is the foundation of the transit system. I think that even beyond 10% or 20%, I do have concerns that at some point, I think, we need to clarify what I believe the legislation says. I believe that it says 40% is dedicated to roads-transportation. No more than 40% can be allocated to rail. Then using that as the allocation cap, it backs into 20%, but it does not say that bus must be no more than 20%. At this point, talking about the revenue allocation, I'm not sure we need to be able to bring to the MTC in October more definitive numbers and rough estimates on bus.

I am not entirely certain that 20% is the limitation of better bus. It may be more than 20%. We need to know that because there will need to make through the MTC and public process, will need to make decisions about bus and how that plays into rail allocations.

As I understand the legislation, it isn't saying that 40% is for rail, it is saying that rail can be no more than 40%. Certainly, it could be less and that would be the case if bus was more than 20%. We don't have the cost estimates on bus at this point today. That would concern me about an alternate model with 45-45-10, because it still doesn't get to what the true cost of bus is.

I think the second question was how much rail along the Silver Line could be achieved and be fiscally constrained. I think that is an excellent question. My answer to that is, that is a more complicated question to answer.

What we need to do is first, look at the model. Take that model and make sure that all of the financial assumptions are conservative, reasonable, correct, to the best of our ability. Then we have to start looking at the Silver Line. Determining how much could be built for a minimum operating segment that's federal speak, because if you don't obtain a minimum operating segment, you're not eligible for federal funds, right? It's more than just how many miles can be built with x amount of dollars? It's can you achieve a minimum operating segment and achieve fiscal constraint or fiscal capacity and that is a more detailed analysis that is more than just a financial analysis, it's also an analysis of the existing Silver Line in its totality. That is the work as Ms. Goforth talked about, that the team, will be able to do.

Now, the good news is, the Silver Line is we do have a lot of information engineering and design information on the Silver Line. We believe we'll be able to answer that question. I do not believe we'll be able to answer that question even by the October MTC meeting. We will need to work through that a little bit more in detail.

MAYOR HIGDON (Town of Matthews): Respectfully, we don't have any legislation yet. We have draft legislation and Raleigh has not mandated 40-40-20. If there were other options that could better serve the entire community, I think we should at least consider them. We are going to be totally transparent; I mean. We don't have legislation yet. We haven't even supposedly presented it. I've heard from several people that Raleigh has not mandated 40-40-20. That's what the managers came up with as a suggestion, but it has not been mandated. What was mandated by Raleigh was roads first. To be totally transparent, Matthews has no interest whatsoever in BRT. We don't want BRT; we want the promise of light rail at some point in the next 50 years or whatever. We don't want BRT, we don't think -- because I don't think it can be built to a gold standard. We will have buses that don't have dedicated lanes. They'll be sitting in traffic, and it's really not a whole lot better than what we have now. We want light rail or the promise of light rail at some point. I believe a lot of people in Charlotte want that as well.

I don't want to speak for Mayor Lyles, but I've heard from a lot of people in East Charlotte that's their desire as well. My ask is can we not run more models and see what happens, it may not be feasible, but why not?

INTERIM CATS CEO CAGLE: We would ask that we hold the MTC extended meeting in October that will give us the ability to continue refining the model. To bring to you key assumptions and then to start to do the work to look at what is possible with the Transit System Plan, not with no base assumptions here.

The decision on BRT, for any of the lines, the Silver Line or any of the lines, is not made that is part of the process. We're working through that. We would ask for the ability to continue working through the model. Evaluating the Silver Line and all of the projects to bring to you proposals and recommendations or proposals at this point. To engage the public and then ultimately bring to the MTC what we believe is what will be a fiscally constrained transit system plan that meets the needs of the community.

COMMISSIONER ALTMAN (Mecklenburg County): Let me ask a clarifying question. If I understand correctly. I mean, my hope would be that every member of the MTC, every town, and elected official, can bring forth hypothetical scenarios that you would like to have run

through the expert and the model of the complex model. That we'll have a public discussion about that. It just is a question of, like, is the model ready yet? It sounds like to me like it isn't.

MAYOR HIGDON (Town of Matthews): The models were run in a couple of days. Previously, we did a lot of models, the managers did models and they got results in 48 hours. I think the models could be done quickly; everything is already built.

COMMISSIONER ALTMAN (Mecklenburg County): Certainly, staff can speak to this. What I understand is that it's complex. That it requires context, because for example, last mile is not the same thing as a middle mile.

For us to have a transparent process, where we can, review the models that the scenarios that are submitted. We can hear the results together in public, with transparency, the whole public can hear. We can have staff give an opportunity to give context, for each of those scenarios, like that's a process that can happen. It's my understanding and speaking to staff.

I think that Mayor Higdon's request is reasonable. I just think that it has to happen in a process, it shouldn't happen behind closed doors. Let's do that as soon as we can. That's my input on this.

I'd like to know if I've stated this correctly or not, in terms of what can be done.

INTERIM CATS CEO CAGLE: Let try to clarify what I was trying to say. If the question is, what is the result of changing a draft or proposed funding split from 40-40-20 to 45-45-10; we don't need Info Strategies to do that. You take the projected revenues, and you take 5% from bus and put it in transportation, and you another 5% from bus, and put it towards rail as a cap. I agree that is not a modeling scenario that would take any time. If the question beyond that is, how much Silver Line is rail, can be built at 40-40-20 or 45-45-10 or any other variation of split on that, that is a more complicated question. The model that is not a modeling question purely, it is also an engineering question, and we need more time.

I don't believe we'll be able to answer that question even at the October MTC meeting, but we will be working to do that. Because beyond how much does each mile of the Silver Line cost, we also have to factor in what those miles are, and do they constitute a minimum operating segment. That's not a financial question, that's a system question associated with the proposed Silver Line.

Now, because the Silver Line southeast is at approximately, not quite, but I think approximately 30% designed, and the western segment is at approximately 15%? We do have pretty good engineering numbers and we have started to think about that. I think that we can answer that question. I don't believe we can answer that question by October 23rd the next MTC meeting. We will certainly be trying to do that. That is more than a financial modeling question.

MAYOR KNOX (Town of Davidson): Point of clarity, then I want to circle back to something that John asked for. I think it's important to know and acknowledge that 7 of the elected boards in the county have voted to take the legislative dialogue that has been worked on by our managers and drafted to send to the legislature, 7 of the 8 elected boards have voted in favor of moving this on to the legislature.

That being said, I think one of the questions you asked, John, was, since there's a Info Strategies is employed by the City of Charlotte, is there a conflict with them being able to run some scenarios to you and at what cost would that potentially be? Is that something that your question ends up? Are you saying since they're employed by this board, should you be able to

utilize that or is that something that financially is something that Matthews would say we would like to pay additional or I'm just asking?

MAYOR HIGDON (Town of Matthew): It's my understanding that this is a very high dollar contract that are under contract with the Town of Charlotte or CATS and Mr. Cagle can reply to that. I don't think there would be any additional cost, but if there is, the Town of Matthews would pay for it.

MAYOR KNOX (Town of Davidson): Okay. That hadn't been answered. I wanted that answered for you.

MAYOR LYLES (City of Charlotte): I think there are a couple of things that we have really struggled with for a long time. I think that one of those for me is that when we started talking about what we're doing and doing the ILA and all of the whatever the other acronyms are, is that we would do this with the ability for majority of us representing the people that we have. That we wouldn't surprise each other.

I am maybe I'm a little bit surprised by this. I'm not very aware of what we're trying to accomplish. I am concerned as we're going through this process that we have real clarify for our communities, the people.

I think that it's tough when we have differences of time and when we're trying to do things when I would like our public processes for transparency reasons as well as a lot of others to be pretty consistent. I think that that means that we can't surprise each other on these things.

MAYOR HIGDON (Town of Matthews): I was certainly surprised when I found out that Matthews wasn't going to get a Silver Line rail in May. That was a real big surprise to me.

MAYOR LYLES (City of Charlotte): I wouldn't disagree with that, John.

MAYOR HIGDON (Town of Matthews): We talk about transparency. This is a public meeting that's being live streamed. I don't think we're doing anything under the cover of night here.

MAYOR LYLES (City of Charlotte): No, I didn't say that, I meant we want an informed community. I want every part, at least for the residents that we have, to be, I think, very informed.

It's not just this meeting, I don't know? Sometimes we have 30 people, sometimes we don't. How do we do this in a way that's consistent. Have a good plan for communication.

ANTHONY ROBERTS (Town Manager, Huntersville): Yes, just I wanted to say there were tons of models run. I don't know how many, but we ran models that stopped the Silver Line in Matthews, didn't take it all the way to CPCC. There were a lot of different models run. I imagine some of the models that Mayor Higdon is talking about have already been run. You may be able to pull from those. I would have to ask, maybe Manager Jones or something, that may have those models.

I think Brent said, if we go back and try to say stop it at some street in Charlotte, running models like that, because it's more complicated as he said. It takes engineering. I guess is what I'm saying, but there's a lot of models runs, all sorts of ways that everybody asked for. I would probably go back and look at those first before I run anymore models.

INTERIM CATS CEO CAGLE: I will assume that that is 100% accurate. I was not part of those modeling exercises. What I would say is, the Info Strategies model today has really proven out something that I think we all know to be true. Is the current Transit System plan is not feasible with the current proposed funding. The assumption that the Silver Line must be BRT or couldn't be light rail but have a different terminus as Ms. Goforth said, VE is sort of an engineer speak for cost savings. That those kinds of options aren't available. That we couldn't provide a Silver Line with a minimum operating segment that would meet FTA requirements.

Those are very good questions that are yet to be answered. That is what we are working on trying to do.

Now, as we start to answer those, I think there are a couple out comes that could become apparent: 1) there may not be a possibility of shortening the line or changing the terminus or those kinds of this and finding financial feasibility and still have a minimum operating segment, there may not be. Or 2) there may be, but the community might input may be that that is not the project that we talked about. I don't know how all of that goes. Other than to say, that is the point of trying to set up the model, have these conversations with the MTC, then have these conversations with the public to gather input and come back to the MTC with a fiscally constrained transit system plan that meets expectations and again, is fiscally constrained, because that is the flaw of the 2030 plan, it is not and never has been fiscally constrained. Now, we must do the hard work of creating a plan that meets the transit needs, bus and rail, and is fiscally constrained.

COMMISSIONER ALTMAN (Mecklenburg County): What I would like to see is as soon as is practicable, for the members of the MTC, to be able to submit scenarios that they would like to see run. To have those results provided in public in this meeting, where the public can hear, where we can ask questions, and staff can have the opportunity to provide context for each of these complex questions. I understand that it's not ready. I am asking and charging you that as soon as is practicable, because there's obviously intense interest in this, that we have that engagement. It sounds to me as if we cannot do it presently.

MAYOR HIGDON (Town of Matthews): Another thing, talking about surprises. I was surprised to hear Mr. Cagle say that maybe 20% isn't adequate for buses. I didn't realize this was going to be a tax for additional buses that would extend beyond 20%. The reason I thought we could do 45-45-10, if we're not building BRT, there should be cost savings. I would hope. Wasn't BRT coming out of the 20%?

INTERIM CATS CEO CAGLE: If BRT were to be built, I suppose by virtue of it not being rail. It would be a bus, or it would fall into that bus bucket. It is a rapid transit solution, like rail, but it is not rail. I suppose it would be.

Again, I'm glad we're having this conversation. I think the assumption has been 40% is for rail and 20% is for bus, but the way the draft legislation is written, is it says no more than 40% is for rail. It does not say that only 20% is for bus. At this point, we need to present to you what better bus costs. It may be 18%, it might be 28%. We need to present that to you, because at this point, these are numbers based on revenue streams, not numbers based on cost of service. Bus, at 10% I suspect is too low. I don't know if 20% is too low, just right, but we need to know that.

I think the MTC needs to know that as well as the community as we're making decisions on the full plan. I do want to repeat, bus is the foundation. Every transit system is built on bus.

Rapid transit is part of a system, but you cannot have a system with just rapid transit and no bus. It just doesn't work that way.

Right now, our bus, we've heard over and over from the community, from folks who come to these meetings, from folks who call us, our customer service line, there is a desire to have bus enhancements and with Article 43 revenues, the current revenue streams, there is not the ability to enhance bus service at this point.

Now, I say bus, I guess I should clarify. I also mean non-rail. I believe Microtransit falls into that category. I think that if there were conversations about expanding ParaTransit or STS, it falls into that category. There are many things that fall into that "bus category". I think we need to be clear about what those true costs are before we make assumptions about 20% of the revenue is adequate. I just can't answer that today.

COMMISSIONER ALTMAN (Mecklenburg County): I appreciate some of these comments. Let's just remember that bus is 60% of our entire ridership. It is the backbone of our system. It is the backbone of, I think, most urban transit systems. We, the County Commission, and I'm sure all of you, are very much focused on equity. There are hundreds of thousands of residents that are never going to be within proximity to the Silver Line because we're a very big county. This is me speaking, for myself, but as a policy, I'm uncomfortable with conversations that seem like they are varying towards disinvestment in bus. Whether it is bus or BRT, or whatever, we have hundreds of thousands of residents across the county that rely upon the most important method of transit of all, which is bus.

I am going to pause this conversation now. We have hashed it out.

MAYOR HIGDON (Town of Matthews): I do have a clarifying question. What you're saying is, if the Town of Matthews wishes to run these different scenarios, I have to do it through the MTC, and it could take a month or more to get the response back.

COMMISSIONER ALTMAN (Mecklenburg County): When the model is ready, I believe all of the members should feel free to send scenarios they want to run to Mr. Cagle. We will have those results presented in public for the public to listen and hear, with rigorous questions and staff to be able to provide context. Yes, that's what I'm saying.

MAYOR HIGDON (Town of Matthews): Info Strategies does not currently have the model. They don't have the model for this.

INTERIM CATS CEO CAGLE: Info Strategies currently has a model. They'll continue to develop the model with us. There is a second financial consulting firm, Davenport. As we work with Info Strategies and Davenport; Info Strategies model is not what I would call a financial model, it's not pro forma. Davenport's model is. Those two models have to be integrated because as we go through this, we need to do things like update project costs. Right? Red Line will definitely be one that we need to update and have better project costs. We also have to do things like assumptions for credit rating and cash requirements needed. As in this scenario, since it assumes we're doing these projects. As a new transit authority, what will be the credit rating of a new transit authority?

What will that mean for our cost of capital, because when we're talking about a multibillion dollars project over 30-year span. Those assumptions become very, very important. They start to generate hundreds of millions of dollars in variance if they're not very well thought out.

I'm not say that there isn't a model. There are two models. As we integrate those and lock in on all of those assumptions, those models will become much better tools for us to bring forward information to the MTC and the public by which we can go through this process of creating a fiscally constrained transit system plan.

VIII. Transit Services Advisory Committee (TSAC)'s Comments

Jarret Hurms (Chairman) reported the following:

- **Interim CEO Report**
 - CATS missed trips down to less than 1% which is a marked improvement from the post pandemic issues
 - On time percentage (OTP) should ideally be >85% and currently at ~82/83%
- **Microtransit**
 - Currently a servicing company has been selected for the January 2025 rollout.
 - Will be rolled out in the North Mecklenburg communities concurrent with the village riders and the Davidson shuttle (both will sunset during Summer 2025)
- **Independence Busway**
 - Has been opened for the 74X
 - Marketing efforts underway to let the Matthews and E CLT community aware that the busway is open for the 74X as an alternative to driving on Independence Blvd
- **New committee for 2025**
 - The new interlocal agreement has created a new entity – the Public Transit Advisory Committee (PTAC) which will be a 13-member committee that will replace both TSAC and CTAG which will sunset at the end of the 2024 calendar year
 - Many members have expressed questions and concerns. JH (Chair) has agreed to relay concerns at the September 2024 MTC meeting, and we'll reconvene to talk about the new PTAC as more details arise.

IX. Citizens Transit Advisory Group (CTAG) Chairman's Comments

Jeffery Parker (Co Chairman- Mecklenburg County): At our meeting this month we had two agenda items; one was the CEO's report, and another one was budget update from Mr. Howell. Budget update was relatively brief but informative.

The CEO's report generated some discussion around the Red Line. Around the interlocal agreement, that's when the PTAC issue was brought up. Of course I didn't say anything there, because I wanted some time to digest it and just think about it. But those were things we discussed.

We also discussed the missed trips that or the improvement in missed trips that Mr. Hurms was discussing.

I did have more comments about the BRT. I will try to run through these as fast as I can. I know we tabled part of this discussion. But I did want to bring this up.

BRT is a prime example of how tradeoffs work in the transit world, because, you can make it anything you want to be and because you can make it anything you want it to be, it can turn into a lot of different things, whereas light rail, typically has set design standards and light rail systems look fairly similar across the board, no matter where you go.

Some of the benefits. They do increase ridership. I believe the ridership of the Pulse in Richmond, the corridors that it took the place of, once it was up and running, I believe the ridership in that corridor roughly doubled over what was previously there, if I'm not mistaken, I may have the statistics wrong.

It does have greater TOD than normal bus. It is typically cheaper than light rail. It does provide the opportunity for additional corridors, I think, in this area perhaps a branch line, if we were to go with BRT, down to the east, perhaps a branch line off on to Albemarle Road and up to the Mint Hill hospital and could bring say Mint Hill into the mixture. But there are down sides to it. It does typically result in less TOD than light rail.

I believe Mila quoted a study that was done a couple of years ago, about the Health Line and they came out with this flashing number that said, \$5.5 billion in investment in that corridor. I think that study was rather inclusive of what counted as investment. A lot of it was at the health facilities, where very capital intensive investments tend to take place. I don't know all of the particulars of that study, but if I'm not mistaken, that, we can't count MRI machines as part of our investments that are associated with TOD.

I would hesitate on some of these studies with BRT to take them at face value. As far as what they say can be done.

Then finally, I'd like to point out with BRT creep, that I talked about earlier. I can think of no more fortuitous example. It has Metro Rapid BRT in our North corridor. For people who know that is not BRT, that is express bus, and hot lanes. That's what I'm talking about, when I say people call things BRT that aren't BRT.

Those are the things that I'd like to point out. If I could offer this as a way forward, Mr. Hurms made mention of this. We need to be very specific about how much we intend to dedicate to dedicated lanes. I'd say that needs to be at minimum 85% as a community. I know the FTA requires 50%. I think we should, if we choose to do this, go for 85%. Commit ourselves to some of the other improvements that come with true gold standard BRT. If we are to do BRT, we should be the first in the nation to achieve that gold standard. The problem with that is that delta between the cost in LRT and BRT starts shrinking rapidly when you go that route.

A lot of tradeoffs. BRT can be useful. The Health line in the dedicated lanes is a really nice system. Once you get away from that kind of standard, you end up getting into what amounts to glorified bus service. I think that's something that needs to be discussed very much in the coming months and years.

X. Other Business - None

XI. Adjourn

The meeting was adjourned at 8:16 p.m. by Commissioner Leigh Altman, Mecklenburg County Board of Commissioners – MTC Chairwoman.

NEXT MTC MEETINGS: WEDNESDAY, OCTOBER 23RD, 2024 STARTING AT 5:30 P.M.

OCTOBER 2024 REPORTS

October 2024 - Summary of Monthly Statistics & Information

Safety Summary

- Bus Operations Division:
 - In September, there were seven vehicle accidents with 2 injuries that were non-life threatening.
- STS/Paratransit Division:
 - In September, there were two minor incidents resulting in minor damage to two vehicles. No injuries were reported.
- Rail Division:
 - In September, there was one preventable incident at the South Yard. A train derailed in the South Yard with no injuries and no passengers onboard.
 - There were no injury incidents in September.

Ridership Summary

- On-Time Performance Highlights:
 - In September, 79.4% of bus services were on time. 18% were late and 2.6% were early.
- Ridership Highlights:
 - Total system ridership increased by 8.8% compared to September 2023.
 - Local bus routes: 6.8% increase
 - Local express: 4.8% decrease
 - Regional express: 5.5% decrease
 - Community circulator: 10.2% increase
 - Special Transportation service: 20.9% increase
 - Vanpool: 0.6% increase
 - Blue Line: 9.2% increase
 - Gold Line: 37.9% increase
- Additional Highlights:
 - In September, the Gold Line once again carried the most passengers since the service began in August of 2021. The Gold Line carried 66,172 riders – an increase of 37.9%, with a weekday average of 2,498.
 - The Blue Line served a total of 549,083 riders; an increase of 9.2%
 - September was the home opener for the Carolina Panthers.
- Transit On-Time Performance for September:
 - Fixed Route Bus: 79.4%
 - STS/Paratransit: 85.4%
 - Blue Line: 99.75%
 - Gold Line: 98.33%

Communications Summary

- Bridge Inspection
- Bridge Inspection Update



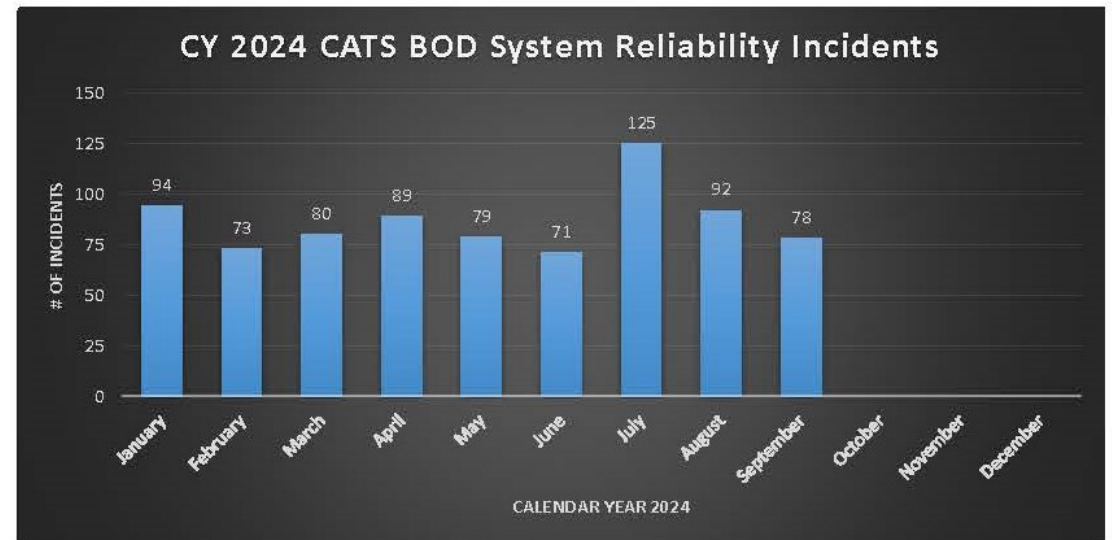
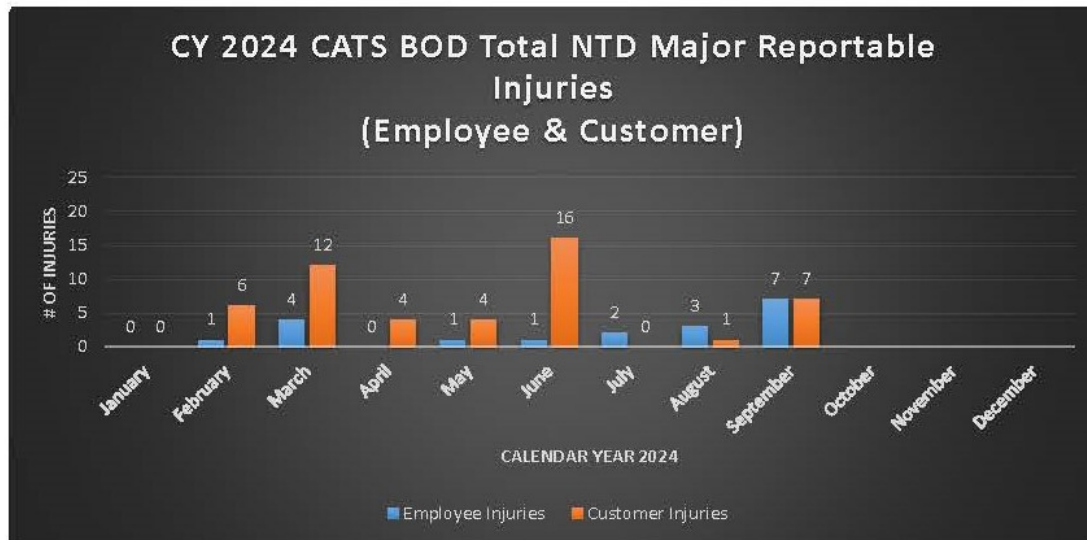
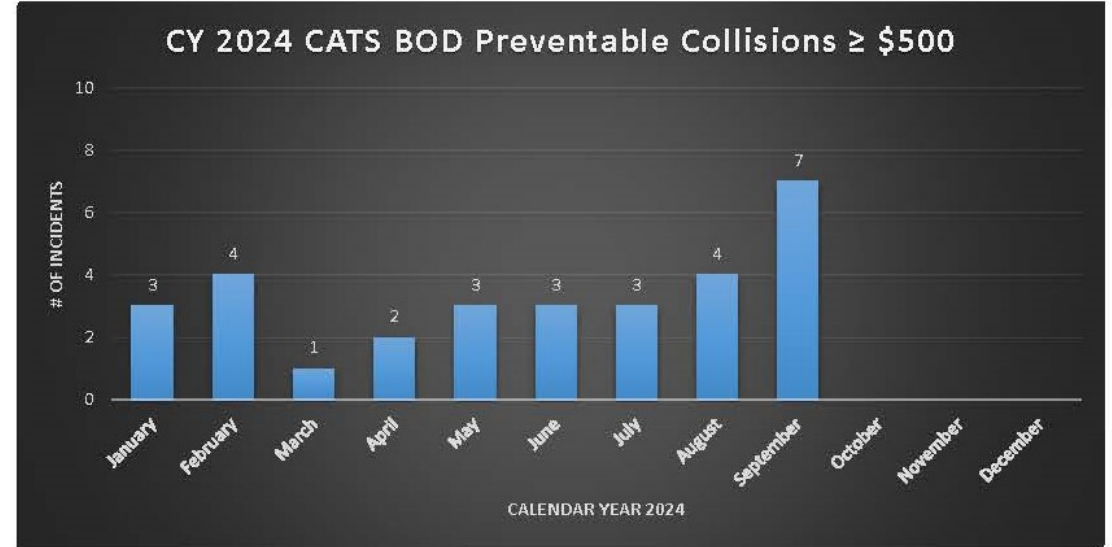
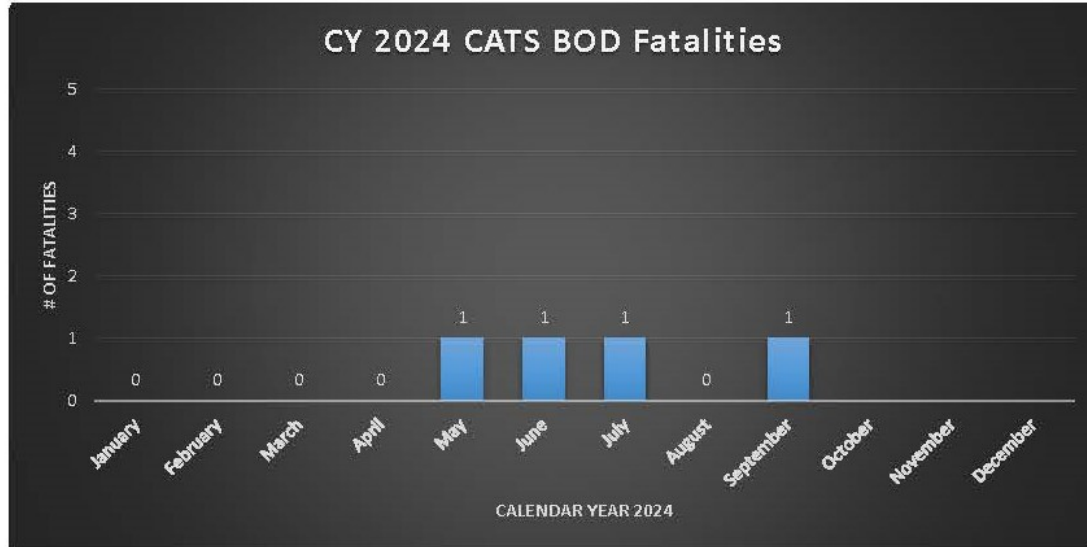
Fatality Incidents / Goal: 0 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	0	880,682	0.00
February	0	832,161	0.00
March	0	879,394	0.00
April	0	63,39	0.00
May	1	788,141	0.13
June	1	756,151	0.13
July	1	790,461	0.13
August	0	790,176	0.00
September	1	752,013	0.13
October			
November			
December			

Preventable Collisions w/ Damage ≥ \$500/Goal: 0.5 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	3	880,682	0.34
February	4	832,161	0.48
March	1	879,394	0.11
April	2	763,369	0.26
May	3	788,141	0.38
June	3	756,151	0.40
July	3	790,461	0.38
August	4	790,176	0.51
September	7	752,013	0.93
October			
November			
December			

NTD Major Reportable Injuries / Goal: < 1 per 100K revenue mi				
CY 2024	Employee Injuries	Customer Injuries	Revenue Miles	Rate
January	0	0	880,682	0.00
February	1	6	832,161	0.84
March	4	12	879,394	1.82
April	0	4	763,369	0.52
May	1	4	788,141	0.63
June	1	16	756,151	2.25
July	2	0	790,461	0.25
August	3	1	790,176	0.51
September	7	7	752,013	1.86
October				
November				
December				

System Reliability / Goal: < 10 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	94	880,682	10.67
February	73	832,161	8.77
March	80	879,394	9.10
April	89	763,369	11.66
May	79	788,141	10.02
June	71	756,151	9.39
July	125	790,461	15.81
August	92	790,176	11.64
September	78	752,013	10.37
October			
November			
December			

Rate Formula	# of incidents/# of revenue miles	X	100,000	=	Rate per 100,000 miles
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Special Transportation Service Division

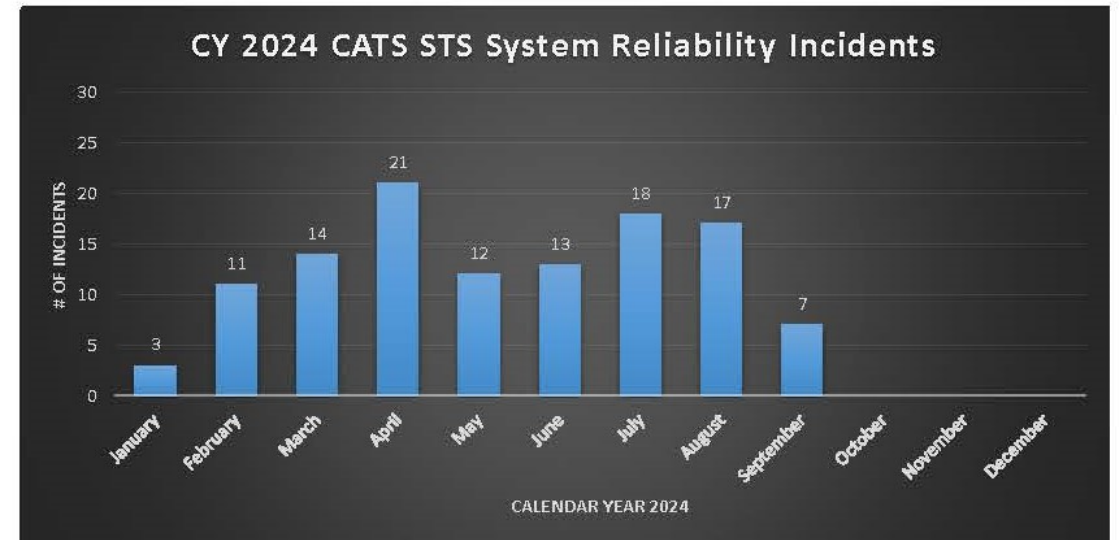
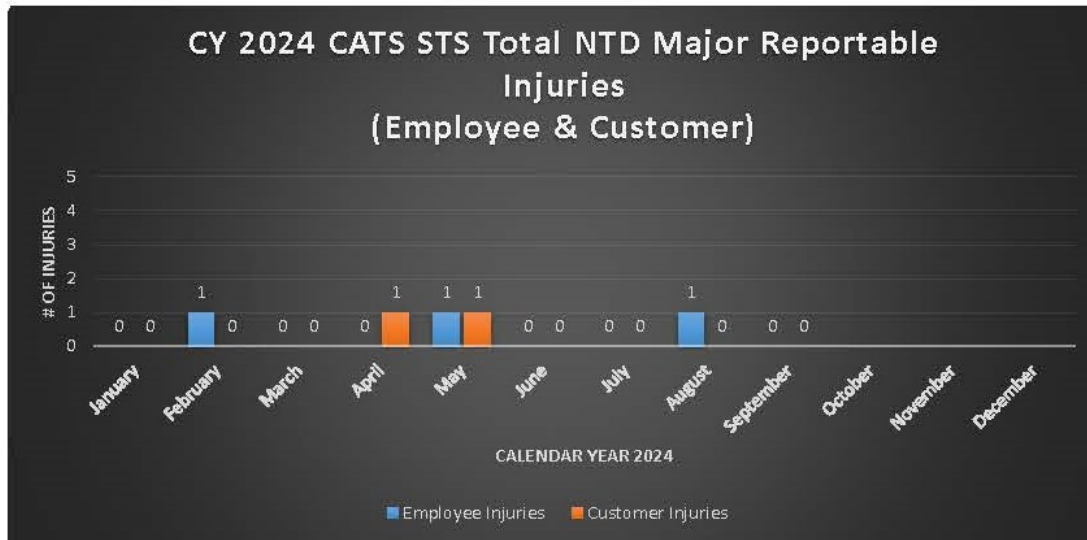
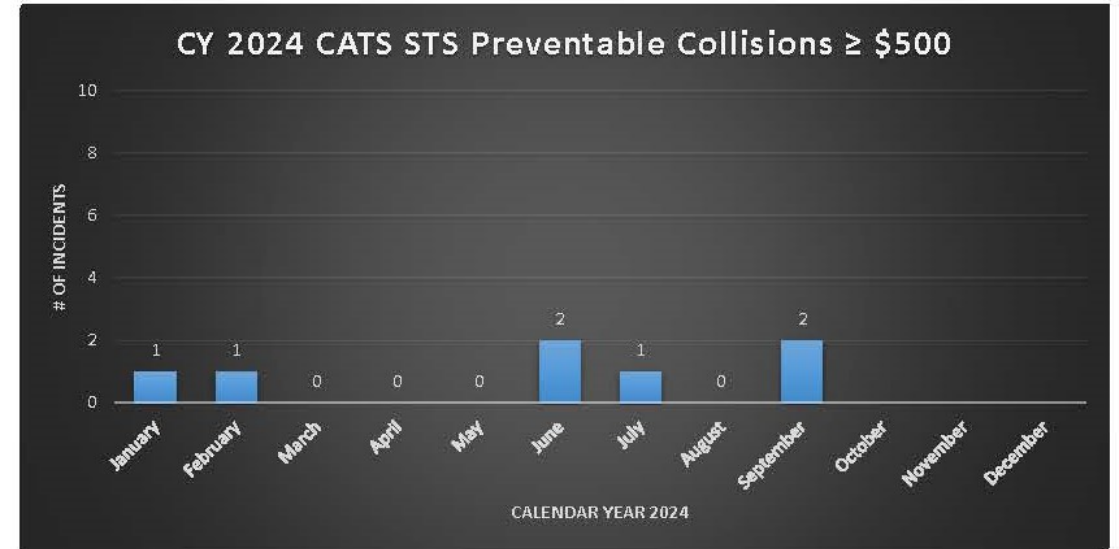
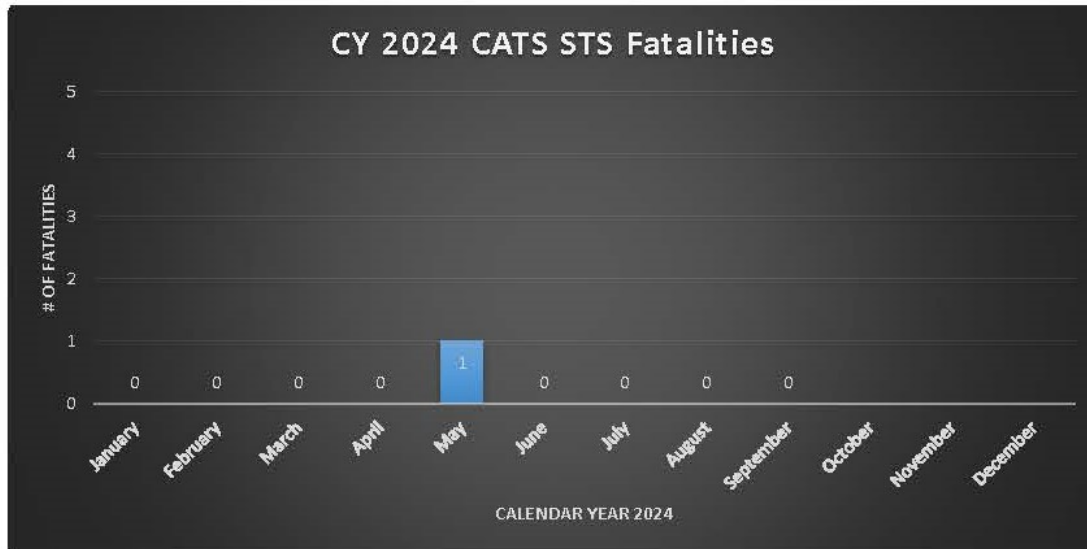
Fatality Incidents / Goal: 0 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	0	150,271	0.00
February	0	149,435	0.00
March	0	155,369	0.00
April	0	164,290	0.00
May	1	167,983	0.60
June	0	152,651	0.00
July	0	162,575	0.00
August	0	168,349	0.00
September	0	165,248	0.00
October			
November			
December			

Preventable Collisions w/ Damage ≥ \$500/Goal: 0.5 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	1	150,271	0.67
February	1	149,435	0.67
March	0	155,369	0.00
April	0	164,290	0.00
May	0	167,983	0.00
June	2	152,651	1.31
July	1	162,575	0.62
August	0	168,349	0.00
September	2	165,248	1.21
October			
November			
December			

NTD Major Reportable Injuries / Goal: < 1 per 100K revenue mi				
CY 2024	Employee Injuries	Customer Injuries	Revenue Miles	Rate
January	0	0	150,271	0.00
February	1	0	149,435	0.67
March	0	0	155,369	0.00
April	0	1	164,290	0.61
May	1	1	167,983	1.19
June	0	0	152,651	0.00
July	0	0	162,575	0.00
August	1	0	168,349	0.59
September	0	0	165,248	0.00
October				
November				
December				

System Reliability / Goal: < 10 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	3	150,271	2.00
February	11	149,435	7.36
March	14	155,369	9.01
April	21	164,290	12.78
May	12	167,983	7.14
June	13	152,651	8.52
July	18	162,575	11.07
August	17	168,349	10.10
September	7	165,248	4.24
October			
November			
December			

Rate Formula	# of incidents/# of revenue miles	X	100,000	=	Rate per 100,000 miles
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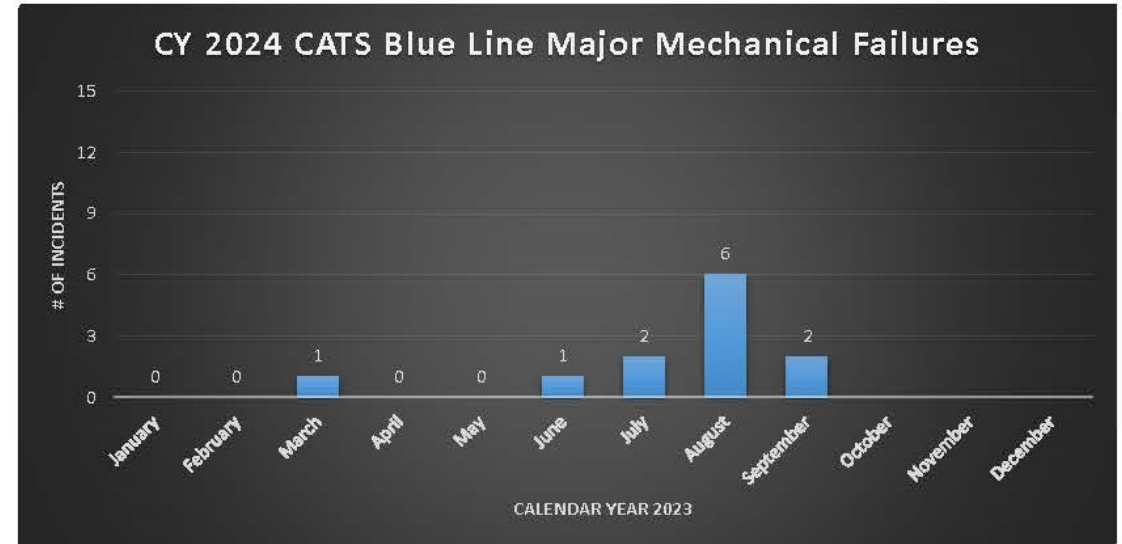
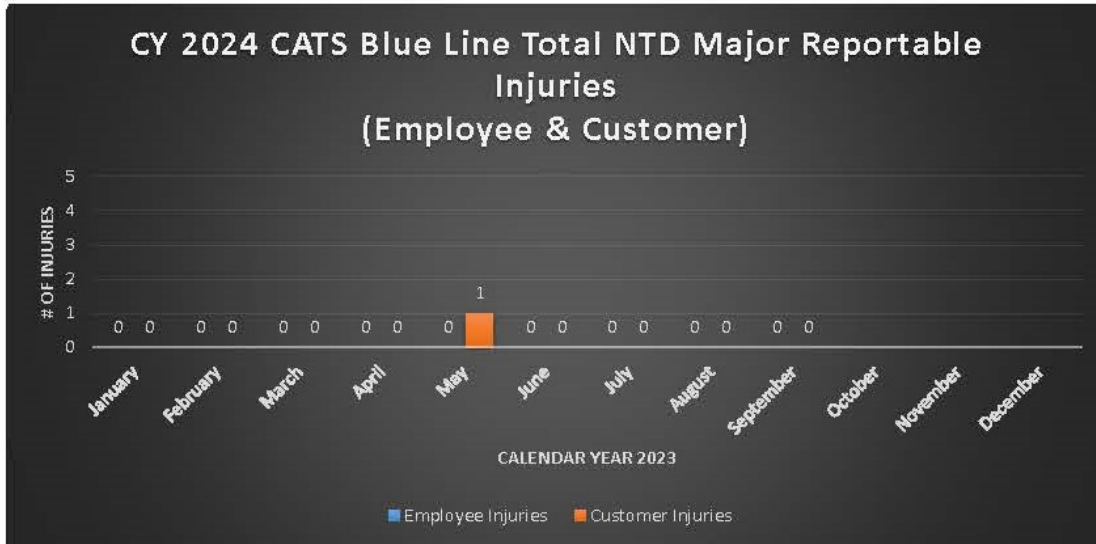
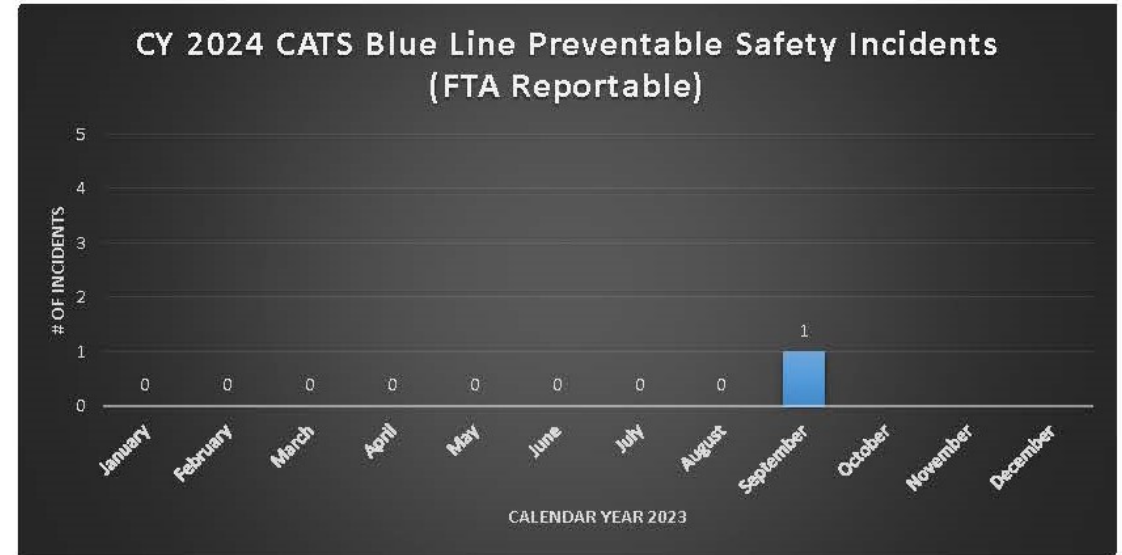
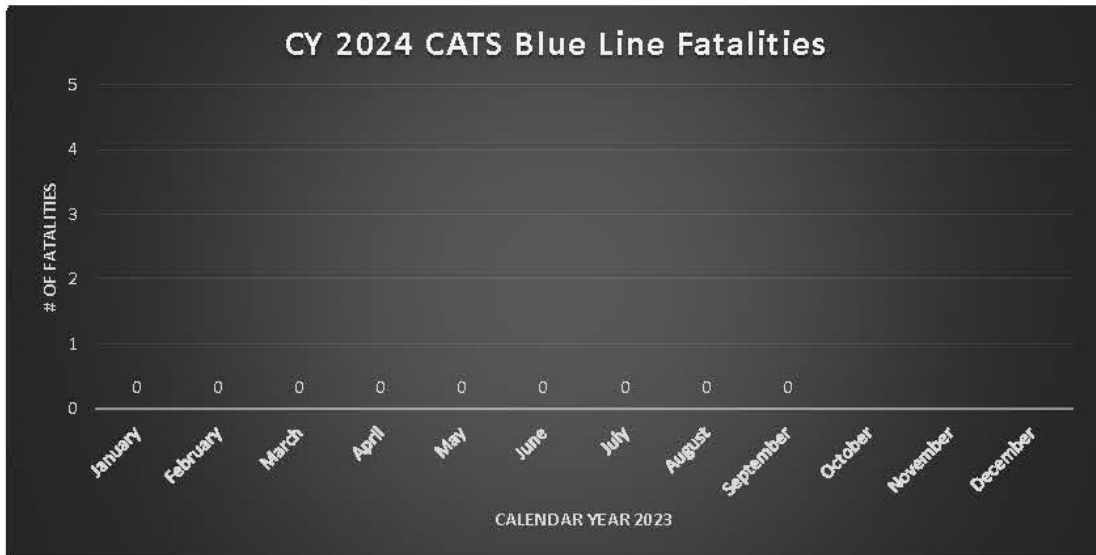
Fatality Incidents / Goal: 0 per 100K Revenue Car mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	0	137,328	0.00
February	0	128,963	0.00
March	0	137,440	0.00
April	0	133,608	0.00
May	0	137,616	0.00
June	0	124,629	0.00
July	0	137,752	0.00
August	0	138,049	0.00
September	0	132,906	0.00
October			
November			
December			

Preventable Safety Events (FTA Reportable) / Goal: 0.1 per Revenue Car 100K mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	0	137,328	0.00
February	0	128,963	0.00
March	0	137,440	0.00
April	0	133,608	0.00
May	0	137,616	0.00
June	0	124,629	0.00
July	0	137,752	0.00
August	0	138,049	0.00
September	1	132,906	0.75
October			
November			
December			

NTD Major Reportable Injuries / Goal: < 1 per 100K Revenue Car mi				
CY 2024	Employee Injuries	Customer Injuries	Total Car Revenue Miles	Rate
January	0	0	137,328	0.00
February	0	0	128,963	0.00
March	0	0	137,440	0.00
April	0	0	133,608	0.00
May	0	1	137,616	0.73
June	0	0	124,629	0.00
July	0	0	137,752	0.00
August	0	0	138,049	0.00
September	0	0	132,906	0.00
October				
November				
December				

System Reliability (NCDOT Major Mechanical Failures) Goal: < 3 per 100K Revenue Car mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	0	137,328	0.00
February	0	128,963	0.00
March	1	137,440	0.73
April	0	133,608	0.00
May	0	137,616	0.00
June	1	124,629	0.80
July	2	137,752	1.45
August	6	138,049	4.35
September	2	132,906	1.50
October			
November			
December			

Rate Formula	# of incidents/# of revenue miles	X	100,000	=	Rate per 100,000 miles
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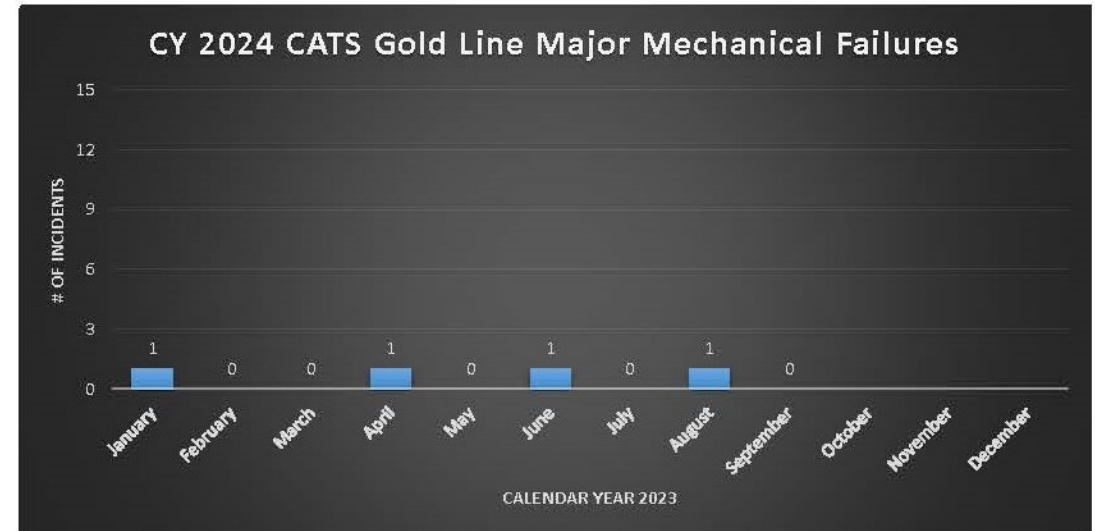
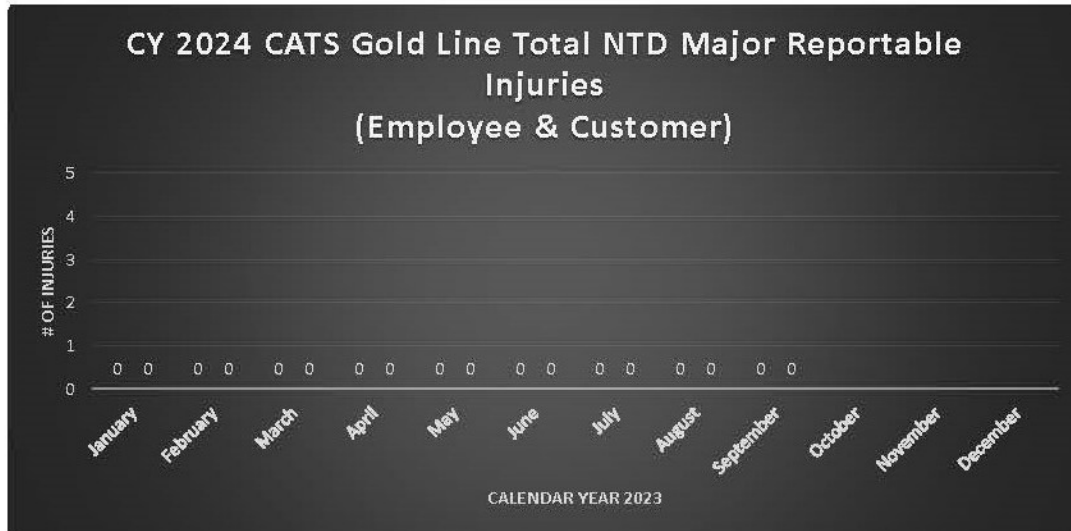
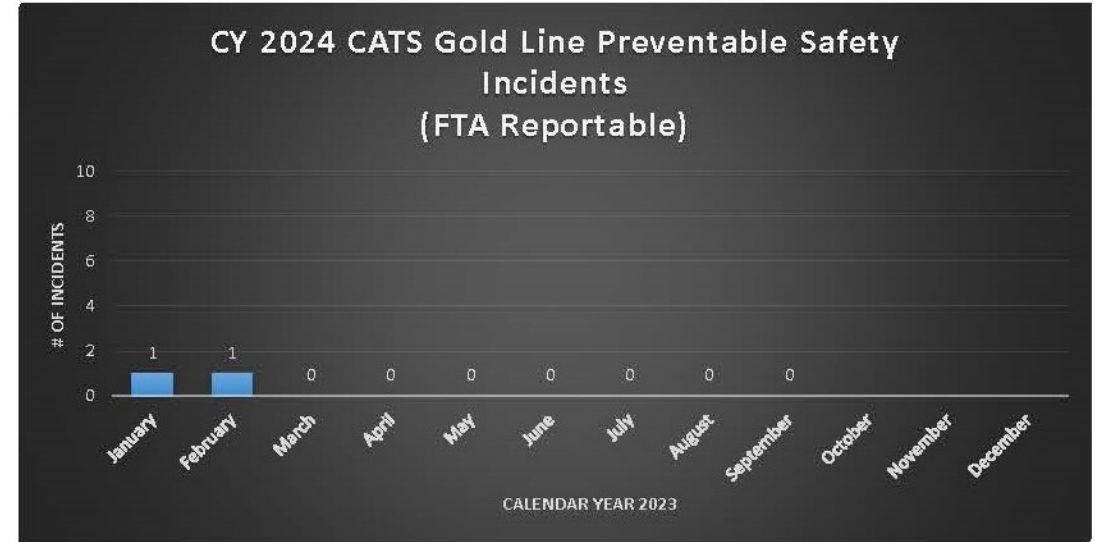
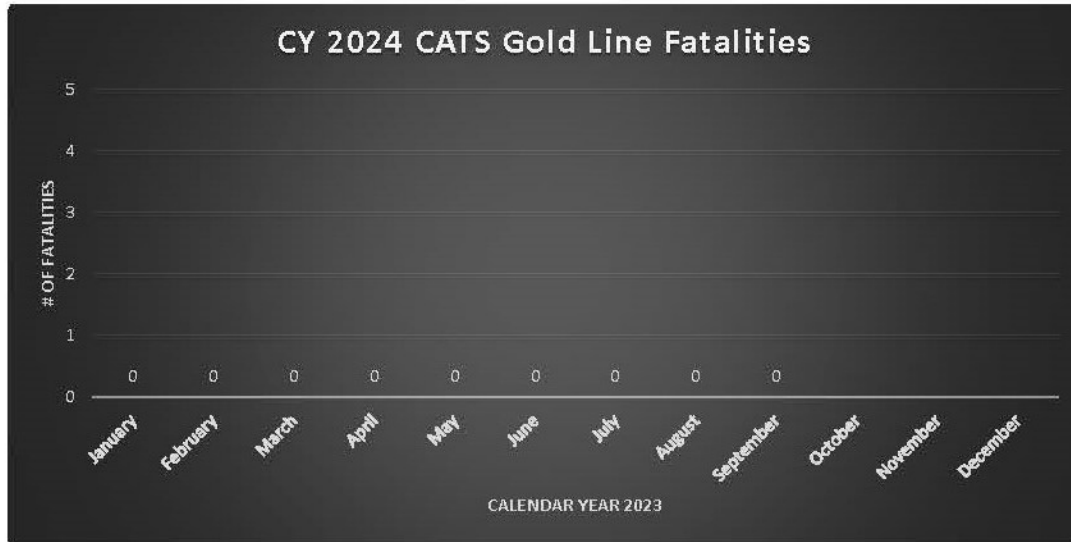
Fatality Incidents / Goal: 0 per 100K Revenue Car mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	0	7,367	0.00
February	0	7,214	0.00
March	0	7,792	0.00
April	0	10,337	0.00
May	0	10,915	0.00
June	0	9,656	0.00
July	0	10,893	0.00
August	0	11,156	0.00
September	0	10,414	0.00
October			
November			
December			

Preventable Safety Events (FTA Reportable) / Goal: 0.1 per Revenue Car 100K mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	1	7,367	13.57
February	1	7,214	13.86
March	0	7,792	0.00
April	0	10,337	0.00
May	0	10,915	0.00
June	0	9,656	0.00
July	0	10,893	0.00
August	0	11,156	0.00
September	0	10,414	0.00
October			
November			
December			

NTD Major Reportable Injuries / Goal: < 1 per 100K Revenue Car mi				
CY 2024	Employee Injuries	Customer Injuries	Total Car Revenue Miles	Rate
January	0	0	7,367	0.00
February	0	0	7,214	0.00
March	0	0	7,792	0.00
April	0	0	10,337	0.00
May	0	0	10,915	0.00
June	0	0	9,656	0.00
July	0	0	10,893	0.00
August	0	0	11,156	0.00
September	0	0	10,414	0.00
October				
November				
December				

System Reliability (NCDOT Major Mechanical Failures) Goal: < 3 per 100K Revenue Car mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	1	7,367	0.41
February	0	7,214	0.00
March	0	7,792	0.00
April	1	10,337	0.29
May	0	10,915	0.00
June	1	9,656	0.31
July	0	10,893	0.00
August	1	11,156	0.27
September	0	10,414	0.00
October			
November			
December			

Rate Formula	# of incidents/# of revenue miles	X	100,000	=	Rate per 100,000 miles
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September 2024 On-Time Performance & Ridership Reports

On-Time Performance Highlights

- ▶ In September, 79.4% of bus services were on time. 18% were late and 2.6% were early.

Ridership Highlights

- CATS System ridership increased by 8.8% during the month of September.
- Local Routes increased in ridership by 6.8%.
- During the month of July, both Express & Regional Express Routes experienced a decrease in ridership of 4.8% & 5.5%.
- Community Circulator Routes increased in ridership by 10.2%.

Additional Highlights – Rail Ridership

- During the month of September, the Gold and Blue Line both saw an increase in ridership.
 - The Blue Line served a total of 549,083 riders; an increase of 9.2%
 - In September, the Gold Line once again carried the most passengers since the service began in August of 2021.
 - The Gold Line carried 66,172 riders – an increase of 37.9%, with a weekday average of 2,498.

Metropolitan Transit Commission
Charlotte Area Transit System Ridership Report
Sep-24

Source:

Fixed Route Bus - Automatic Passenger Counts

Rail - Automatic Passenger Counts

Mode / Service				Average Daily Ridership		
	Sep-24	Sep-23	Percent Increase / Decrease	Weekday	Saturday	Sunday
Local						
BOD Local	748,466	700,759	6.8%	28,436	25,824	12,751
Subtotal	748,466	700,759	6.8%	28,436	25,824	12,751
Local Express						
Arboretum Express	1,452	1,321	10%	73	-	-
Harrisburg Road Express	1,240	1,493	-16.9%	62	-	-
Northcross Express	3,353	3,876	-13.5%	168	-	-
Idlewild Express	901	1,056	-14.7%	45	-	-
Independence Blvd Express	2,511	2,731	-8.1%	126	-	-
Lawyers Road Express	1,407	1,625	-13.5%	70	-	-
Steele Creek Express	688	654	5%	34	-	-
Northlake Express	2,863	2,774	3.2%	143	-	-
North Mecklenburg Express	6,057	5,664	6.9%	303	-	-
Huntersville Express	3,651	4,264	-14.4%	183	-	-
Rea Road Express	1,288	1,422	-9.4%	64	-	-
Mountain Island Express	417	319	31%	21	-	-
Huntersville Greenhouse	172	122	40.8%	9	-	-
Subtotal	25,999	27,322	-4.8%	1,300	-	-
Regional Express						
Gastonia Express	945	1,125	-16.0%	47	-	-
Rock Hill Express	1,257	1,375	-8.6%	63	-	-
Union County Express	1,187	1,085	9.4%	59	-	-

Subtotal	3,388	3,585	-5.5%	169	-	-
Community Circulator						
Neighborhood Shuttles	24,774	21,538	15.0%	917	961	257
Eastland Neighborhood Shuttle	12,891	11,763	9.6%	449	507	321
Pineville-Matthews Road	2,418	2,582	-6.4%	103	87	-
Village Rider	7,349	7,170	2.5%	271	295	124
Subtotal	47,432	43,053	10.2%	1,741	1,282	702
Human Services Transportation						
Special Transportation Services	18,018	14,901	20.9%	738	328	242
Subtotal	18,018	14,901	20.9%	738	328	242
Rideshare Services						
Vanpool	3,591	3,571	0.6%	154	30	37
Subtotal	3,591	3,571	0.6%	154	30	37
Rail						
LYNX Blue Line*	549,083	502,786	9.2%	19,803	18,770	12,991
CityLynx Gold Line*	66,172	47,984	37.9%	2,498	1,956	1,399
Subtotal	615,255	550,770	11.7%	22,301	20,726	14,390
Total	1,462,150	1,343,961	8.8%	54,840	48,190	28,122

**FY24 Rail ridership reflects audited and adjusted value based on annual report*

Metropolitan Transit Commission
Charlotte Area Transit System Ridership Report
Sep-24
Source:
Fixed Route Bus - GFI Data
Rail - Automatic Passenger Counts

Mode / Service			Percent	YTD	YTD	Percent	Avg Daily Ridership per Month		
	Sep-24	Sep-23	Increase/Decrease	FY 2025	FY 2024	Increase/Decrease	WeekDay	Saturday	Sunday
Local									
BOD Local	570,049	578,467	-1.46%	1,770,882	1,725,183	2.65%	21,628	15,865	11,633
Subtotal	570,049	578,467	-1.46%	1,770,882	1,725,183	2.65%	21,628	15,865	11,633
Local Express									
Arboretum Express	1,627	1,041	56.29%	4,835	3,299	46.56%	81	-	-
Harrisburg Road Express	949	1,241	-23.53%	2,828	3,425	-17.43%	47	-	-
Northcross Express	2,703	2,793	-3.22%	8,275	7,979	3.71%	135	-	-
Idlewild Road Express	858	760	12.89%	2,566	2,404	6.74%	43	-	-
Independence Blvd Express	1,700	1,754	-3.08%	5,175	5,398	-4.13%	85	-	-
Lawyers Road Express	1,127	1,326	-15.01%	3,143	3,862	-18.62%	56	-	-
Mountain Island Express	359	199	80.4%	788	659	19.58%	13	21	-
Northlake Express	1,151	1,922	-40.11%	3,812	6,362	-40.08%	58	-	-
North Mecklenburg Express	4,870	3,442	41.49%	15,234	10,572	44.1%	244	-	-
Huntersville Express	2,980	3,264	-8.7%	9,063	9,827	-7.77%	149	-	-
Rea Road Express	956	1,192	-19.8%	2,925	4,066	-28.06%	48	-	-
Steele Creek Express	388	396	-2.02%	1,344	1,047	28.37%	19	-	-
Huntersville Greenhouse Express	115	252	-54.37%	338	434	-22.12%	6	-	-
Subtotal	19,783	19,582	1.03%	60,326	59,334	1.67%	984	21	
Regional Express									
Gastonia Express	649	882	-26.42%	2,063	2,871	-28.14%	32	-	-
Rock Hill Express	946	880	7.5%	3,090	2,541	21.61%	47	-	-
Union County Express	791	760	4.08%	2,329	2,318	0.47%	39	-	4
Subtotal	2,386	2,522	-5.39%	7,482	7,730	-3.21%	118	-	4

Metropolitan Transit Commission
Charlotte Area Transit System Ridership Report
Sep-24

Community Circulator

Neighborhood Shuttles	17,513	16,093	8.82%	51,974	51,973	0.0%	664	514	336
Eastland Neighborhood Shuttle	9,392	9,508	-1.22%	29,554	29,097	1.57%	323	286	301
Pineville-Matthews Road	1,896	1,680	12.86%	5,394	5,188	3.97%	86	36	-
Village Rider	4,007	4,723	-15.16%	12,826	14,051	-8.72%	143	164	65
Subtotal	32,808	32,004	2.51%	99,748	100,309	-0.56%	1,216	1,000	702

Human Services Transportation

Special Transportation Services	18,018	14,901	20.92%	52,114	46,470	12.15%	738	328	242
DSS	-	112	n/a	-	5,316	n/a	-	-	-
Subtotal	18,018	15,013	20.02%	52,114	51,786	0.63%	738	328	242

Rideshare Services

Vanpool	3,591	3,571	0.56%	10,743	10,996	-2.3%	157	30	37
Subtotal	3,591	3,571	0.56%	10,743	10,996	-2.3%	157	30	37

Rail

LYNX Blue Line	549,083	502,786	9.21%	1,625,603	1,517,482	7.13%	19,803	18,770	12,991
CityLynx Gold Line	66,172	47,984	37.9%	185,028	146,383	26.4%	2,498	1,956	1,399
Subtotal	615,255	550,770	11.71%	1,810,631	1,663,865	8.82%	22,301	20,726	14,390

Total	1,261,890	1,201,929	4.99%	3,811,926	3,619,203	5.33%	47,142	37,970	27,008
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**FY24 Rail ridership reflects audited and adjusted value based on annual report*

October | CATS Sales Tax Report FY2025

July Receipts

Sales Tax Collections and Distribution – July 2024

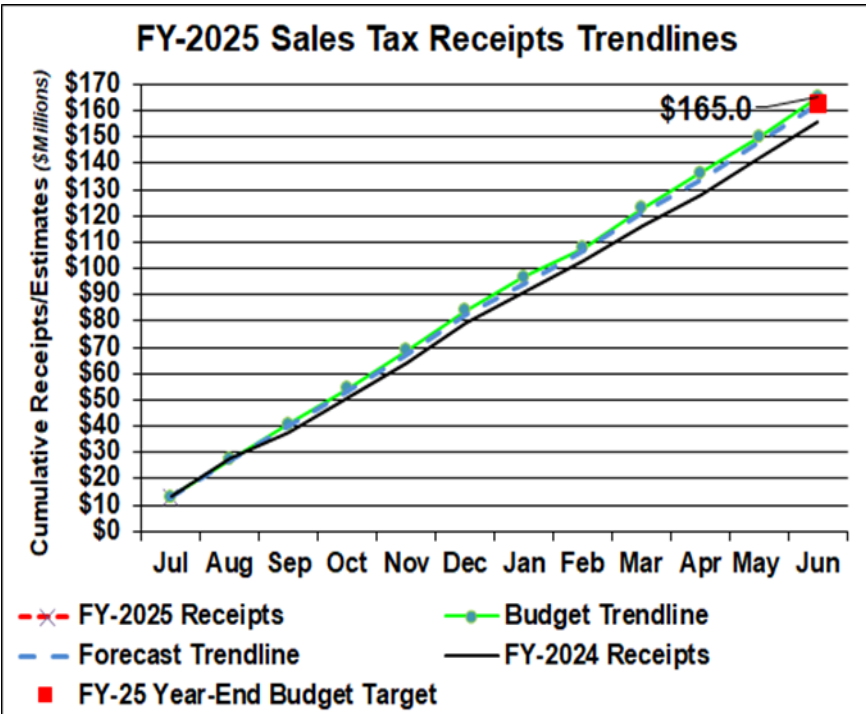
- The July 2024 receipts of \$13,133,587 were -\$134,254 (-1.01%) below budget target for the month
- The July 2024 receipts were \$105,322 (.81%) above forecast for the month
- The July 2024 receipts were \$88,172 (.68%) above July of 2023

Sales Tax Budget Data

- The FY25 sales tax budget is \$165,022,901
- The FY25 model forecasts year-end receipts of \$162,755,322 is -\$2,267,579 (-1.37%) below the FY-2025 budget target of \$165,022,901.
- FY2024 actual sales tax was \$155,805,412

Local Government Sales and Use Tax Distribution

- Source: North Carolina Department of Revenue Sales & Use Distribution Report for the month July 31, 2024
- Published by NC Secretary of Revenue on October 10, 2024, with actual receipts through July 31, 2024
- CATS sales tax report only includes Mecklenburg County Article 43 sales tax



FY2025 Budget Sales Tax Receipts (Actuals and Forecasts)

Jurisdiction	Population	% of Total	Jul 24 Actuals	Aug 24 Forecasts	Sep 24 Forecasts	Oct 24 Forecasts	Nov 24 Forecasts	Dec 24 Forecasts	Jan 25 Forecasts	Feb 25 Forecasts	Mar 25 Forecasts	April 25 Forecasts	May 25 Forecasts	Jun 25 Forecasts	Total
Charlotte	894,866	40.4%	\$ 5,301,206	\$ 5,580,387	\$ 5,416,258	\$ 5,179,912	\$ 5,691,995	\$ 6,059,644	\$ 4,838,524	\$ 4,891,045	\$ 5,941,471	\$ 5,153,652	\$ 5,678,865	\$ 5,961,166	\$ 65,694,125
Cornelius	31,872	1.4%	\$ 188,810	198,754	192,908	184,490	202,729	215,823	172,331	174,202	211,614	183,555	202,261	212,316	2,339,795
Davidson	15,066	0.7%	\$ 89,251	93,952	91,188	87,209	95,831	102,020	81,462	82,346	100,031	86,767	95,610	100,362	1,106,029
Huntersville	63,355	2.9%	\$ 375,316	395,082	383,462	366,729	402,984	429,013	342,559	346,278	420,646	364,870	402,054	422,041	4,651,033
Matthews	30,156	1.4%	\$ 178,645	188,053	182,522	174,557	191,814	204,203	163,053	164,823	200,221	173,672	191,371	200,885	2,213,820
Mint Hill	26,971	1.2%	\$ 159,777	168,191	163,244	156,121	171,555	182,636	145,832	147,415	179,074	155,330	171,159	179,668	1,980,002
Pineville	10,931	0.5%	\$ 64,755	68,166	66,161	63,274	69,529	74,020	59,104	59,745	72,576	62,953	69,369	72,817	802,469
Stallings	393	0.0%	\$ 2,328	2,451	2,379	2,275	2,500	2,661	2,125	2,148	2,609	2,263	2,494	2,618	28,851
Weddington	5	0.0%	\$ 30	31	30	29	32	34	27	27	33	29	32	33	367
Meck. County	1,143,390	51.6%	\$ 6,773,468	7,130,184	6,920,472	6,618,488	7,272,787	7,742,540	6,182,289	6,249,396	7,591,548	6,584,934	7,256,010	7,616,714	83,938,831
Total	2,217,005	100.0%	\$ 13,133,587	\$ 13,825,250	\$ 13,418,625	\$ 12,833,085	\$ 14,101,755	\$ 15,012,595	\$ 11,987,305	\$ 12,117,425	\$ 14,719,825	\$ 12,768,025	\$ 14,069,225	\$ 14,768,620	\$ 162,755,322

*Table is consistent with North Carolina General Statute § 105-507.3. Distribution and Use of Taxes

FY25 Budget \$ 165,022,901
Variance \$ (2,267,579)

FY-2025 Budget Sales Taxes Receipts Year-over-Year Comparison

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	YTD Total
Year-over-Year Comparison (FY2025 over FY2024)	0.7%	-6.5%	37.4%	-2.5%	4.6%	-0.9%	3.1%	0.5%	10.7%	7.1%	4.9%	4.8%	4.5%
FY2025 Budget Target	\$ 13,267,841	\$ 13,911,431	\$ 13,597,887	\$ 13,696,901	\$ 14,423,002	\$ 15,248,116	\$ 12,591,247	\$ 11,155,548	\$ 15,132,600	\$ 13,300,846	\$ 13,548,380	\$ 15,149,102	\$ 165,022,901
% of FY2025 Budget Achieved	8.0%	16.3%	24.5%	32.2%	40.8%	49.9%	57.2%	64.5%	73.4%	81.2%	89.7%	98.6%	98.6%

FY2020 - FY2024 Sales Tax Receipts

Fiscal Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
FY2024	\$ 13,045,415	\$ 14,784,351	\$ 9,765,503	\$ 13,164,891	\$ 13,484,481	\$ 15,145,809	\$ 11,630,823	\$ 12,055,016	\$ 13,302,965	\$ 11,919,582	\$ 13,412,910	\$ 14,093,667	\$ 155,805,412
FY2023	\$ 12,687,115	\$ 12,882,613	\$ 13,528,146	\$ 13,283,060	\$ 13,151,617	\$ 14,644,501	\$ 11,902,754	\$ 9,995,757	\$ 14,159,184	\$ 11,180,564	\$ 13,440,164	\$ 13,783,037	\$ 154,638,512
FY2022	\$ 11,298,388	\$ 10,659,682	\$ 11,073,183	\$ 11,342,634	\$ 12,115,265	\$ 13,501,568	\$ 10,221,788	\$ 8,315,108	\$ 13,351,825	\$ 11,369,039	\$ 12,932,254	\$ 16,044,834	\$ 139,225,568
FY2021	\$ 8,921,474	\$ 9,466,946	\$ 9,245,058	\$ 9,317,741	\$ 9,964,913	\$ 11,402,907	\$ 9,134,772	\$ 6,785,996	\$ 11,253,531	\$ 10,287,447	\$ 8,942,957	\$ 11,945,450	\$ 116,669,192
FY2020	\$ 9,683,570	\$ 9,787,973	\$ 8,671,558	\$ 9,890,136	\$ 9,858,570	\$ 9,800,116	\$ 8,278,036	\$ 8,276,547	\$ 8,735,473	\$ 7,635,380	\$ 6,997,727	\$ 9,833,896	\$ 107,778,982

From: [Kummer, Catherine](#)
To: [Altman, Leigh](#); [cmud_a grant](#); [cmud_a roberts](#); [Becky Hawke](#); [Bill Thunberg](#); [cmud_b welch](#); [C Joneill](#); [cmud_j huffman](#); [Edmund Driggs](#); [Crump, Jeannine](#); [David Vehaun](#); [Davidson, Mary Jean](#); [Diorio, Dena R.](#); [Driggs, Edmund](#); [Elkins, Susan](#); [Ford, Paulus](#); [Heather Maloney](#); [Justice, Jamie](#); [Jones, Marcus](#); [Kunze, Emily](#); [Leigh Braslow Altman](#); ["LJ Weslowski"](#); [Lloyd Payne](#); [Lyles, Viola](#); [Mark Watson](#); [Mayor Brad Simmons](#); [Mayor Chris Carney](#); [Mayor Christy Clark](#); [Mayor David Cohn](#); [Mayor David Phillips](#); [Mayor John Gettys](#); [Mayor John Higdon](#); [Mayor Pro Tem David Scholl](#); [Mayor Pro Tem Renee Garner](#); [Mayor Pro Tem Todd Barber](#); [Mayor Richard Franks](#); [Mayor Robert Burns](#); [Mayor Rusty Knox](#); [Mayor William Dusch](#); [Mayor Woody Washam](#); [Mayor Wyatt Dunn](#); [Michael Peoples](#); [Randi Gates](#); [Ryan Spitzer](#); [TERM Hunter, Brandon](#); [Tony Lathrop](#); [Tony Lathrop 2](#); [Tracey Jerome](#)
Subject: Bridge Inspection Update
Date: Wednesday, October 9, 2024 5:32:31 PM
Attachments: [Aerial View.jpg](#)
[Direct View.jpg](#)

Members of the MTC,

As you are aware, CATS has been conducting bridge inspections over the last 18 months. Of the 38 inspections, three remain. This week, inspection began on those remaining bridges. During the inspection of the **Blue Line Light Rail Bridge over Tyvola** a small crack was identified on the interior of one of the bridge structures. CATS staff was informed late yesterday by STV, the engineering consultants conducting these inspections, of this small crack.

The crack has been identified as being approximately 5/8th of an inch long. Based on initial inspection, the crack does not go through the exterior of the box structure (the crack is not visible from the outside), appears to be contained and shows no sign of significant growth based on its appearance. It may simply be a small surface crack in one of the surface welds, but additional testing will be required.

We wanted to ensure you have the following details and were provided photos.

Attached you will find, 1.) an aerial view photo of the location of this finding and then 2.) a photo of the location and size of the crack.

Based on these preliminary findings, **STV has recommended the following and has advised operations can continue safely** with these actions. CATS staff has either already put these recommendations in place prior to operations this morning and/or is working to implement over the next seven days.

1. Reduce train operating speed to 15MPH temporarily over the structure while necessary mitigation is performed. *[Note that this operating speed reduction is only while trains are operating at Tyvola stations. Because trains are already operating at low speeds the operational impact is minimal (trains will begin to slow down to stop at the station sooner) and will not impact transit times.]* - **IMPLEMENTED**
2. Clear a path between Norfolk Southern (NS) mainline track and siding track for access from the Park and Ride parking lot. Or CATS can create a door on the west side of the steel box for access from Old Pineville Rd. *[CATS is currently working to create a path to access the existing door.]* - **ONGOING**
3. Weekly monitoring of the weld by entering the Bent 3 steel box cap until a mitigation is completed. The tips of the crack have been marked. See the attached photo. Measurement

shall be made to check if there is any growth of the weld. - **ONGOING**

4. Perform dye grinding the weld* by CATS, Maintenance of Way (MOW) to determine if it [*the small crack*] is just a surface crack. If it is, no further action is required. If not, then do the following – **ONGOING**:
 1. STV to prepare repair design, if necessary.
 2. Qualified welder to repair the weld, if necessary.

*Note that CATS is also evaluating non-destructive testing methods – which would be done in lieu of dye grinding.

CATS is also working with Charlotte Water, Solid Waste and the Charlotte Department of Transportation, a collective effort of Team Charlotte, to ensure resolution as quickly as possible. We have informed the Federal Transit Administration and the North Carolina Department of Transportation, which is standard in situations like this.

As always, we are happy to discuss further.

Thank you,
Catherine

Catherine Kummer (she/her) | Interim Director, Marketing and Communications
Charlotte Area Transit System (CATS) | 600 East Fourth Street | Charlotte, NC | 28202
Email: Catherine.Kummer@charlottenc.gov
Mobile: (704) 516-4259



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2024.10.7

From: [Kummer, Catherine](#)
To: [Altman, Leigh](#); [cmud_a grant](#); [cmud_a roberts](#); [Becky Hawke](#); [Bill Thunberg](#); [cmud_b welch](#); [C Joneill](#); [cmud_j huffman](#); [Edmund Driggs](#); [Crump, Jeannine](#); [David Vebaun](#); [Davidson, Mary Jean](#); [Diorio, Dena R.](#); [Driggs, Edmund](#); [Elkins, Susan](#); [Ford, Paulus](#); [Heather Maloney](#); [Justice, Jamie](#); [Jones, Marcus](#); [Kunze, Emily](#); [Leigh Braslow Altman](#); ["LJ Weslowski"](#); [Lloyd Payne](#); [Lyles, Viola](#); [Mark Watson](#); [Mayor Brad Simmons](#); [Mayor Chris Carney](#); [Mayor Christy Clark](#); [Mayor David Cohn](#); [dphillips](#); [Mayor John Gettys](#); [Mayor John Higdon](#); [Mayor Pro Tem David Scholl](#); [Mayor Pro Tem Renee Garner](#); [Mayor Pro Tem Todd Barber](#); [Mayor Richard Franks](#); [Mayor Robert Burns](#); [Mayor Rusty Knox](#); [Mayor William Dusch](#); [Mayor Woody Washam](#); [Mayor Wyatt Dunn](#); [Michael Peoples](#); [Randi Gates](#); [Ryan Spitzer](#); [Tony Lathrop](#); [Tony Lathrop 2](#); [Tracey Jerome](#)
Subject: RE: Bridge Inspection Update
Date: Friday, October 18, 2024 10:56:17 AM

Members of the MTC,

Good morning!

Before heading into the weekend, we wanted to provide an update regarding the small crack identified earlier last week during the inspection of the **Blue Line Light Rail Bridge over Tyvola**.

We have received confirmation from our inspectors that further analysis determined the issue to be an overlap in material, not a crack. Based on the finding, no further action is necessary, and this matter is now closed.

We appreciate the dedication and collaboration that enabled CATS to respond to and resolve this matter so swiftly. Special thanks to the CATS Operations team as well as Charlotte Water and Charlotte Department of Transportation.

Lastly, we wanted to remind everyone that our teams will be conducting preventative maintenance on our rail lines this weekend as part of our standard, regularly scheduled rail shutdown exercise. As normal, we will have a bus bridge in place to support customers. For more information, please visit the [CATS website](#), where you can find details about bus bridges and how to access them. You can also reach out to our Customer Service line at 704-336-RIDE for assistance.

All best,

Catherine

Catherine Kummer (she/her) | Interim Director, Marketing and Communications
Charlotte Area Transit System (CATS) | 600 East Fourth Street | Charlotte, NC | 28202
Email: Catherine.Kummer@charlottenc.gov
Mobile: (704) 516-4259

From: Kummer, Catherine

Sent: Wednesday, October 9, 2024 5:32 PM

To: Altman, Leigh <Leigh.Altman@mecklenburgcountync.gov>; Andrew Grant <agrant@cornelius.org>; Anthony Roberts, Town Manager <aroberts@huntersville.org>; Becky Hawke <bhawke@matthewsnc.gov>; Bill Thunberg <billthunberg@gmail.com>; Brian Welch <bwelch@admin.minthill.com>; C.J. O'Neill <cjoneill@matthewsnc.gov>; cmud_j huffman (Jhuffman@huntersville.org) <Jhuffman@huntersville.org>; Councilman Ed Driggs <ed@eddriggs.com>; Crump, Jeannine <Jeannine.Crump@charlottenc.gov>; David Vebaun <david.vehaun@cityofrockhill.com>; Davidson, Mary Jean <MaryJean.Davidson@mecklenburgcountync.gov>; Diorio, Dena R. <Dena.Diorio@mecklenburgcountync.gov>; Driggs, Edmund <Ed.Driggs@charlottenc.gov>; Elkins, Susan <Susan.Elkins@charlottenc.gov>; Ford, Paulus <Paulus.Ford@charlottenc.gov>; Heather Maloney <hmaloney@huntersville.org>; Jamie Justice <jjustice@townofdavidson.org>; Jones,

Marcus <Marcus.Jones@charlottenc.gov>; Kunze, Emily <Emily.Kunze@charlottenc.gov>; Leigh Braslow Altman <leighaltman@gmail.com>; 'LJ Weslowski' <weslowlj@concordnc.gov>; Lloyd Payne <paynel@concordnc.gov>; Lyles, Viola <Viola.Lyles@charlottenc.gov>; Mark Watson <mwatson@monroenc.org>; Mayor Brad Simmons <bsimmons@boc.minthill.com>; Mayor Chris Carney <ccarney@mooreville.gov>; Mayor Christy Clark <cclark@huntersville.org>; Mayor David Cohn <dcohn@indiantrail.org>; Mayor David Phillips <dphillips@pinevillenc.gov>; Mayor John Gettys <John.Gettys@cityofrockhill.com>; Mayor John Higdon <mayorhigdon@matthewsnc.gov>; Mayor Pro Tem David Scholl <dscholl@stallingsnc.org>; Mayor Pro Tem Renee Garner <rgarner@matthewsnc.gov>; Mayor Pro Tem Todd Barber <tbarber@indiantrail.org>; Mayor Richard Franks <mayor.franks@gastonianc.gov>; Mayor Robert Burns <rburns@monroenc.gov>; Mayor Rusty Knox <rknox@townofdavidson.org>; Mayor William Dusch <duschb@concordnc.gov>; Mayor Woody Washam <wtwasham@cornelius.org>; Mayor Wyatt Dunn <wdunn@stallingsnc.org>; Michael Peoples <michaelp@cityofgastonia.com>; Randi Gates <randig@cityofgastonia.com>; Ryan Spitzer <rspitzer@pinevillenc.gov>; TERM_Hunter, Brandon <Brandon.Hunter3923@CityofCharlotte.onmicrosoft.com>; Tony Lathrop <tonylathrop@mvalaw.com>; Tony Lathrop 2 <bot-tlathrop1@ncdot.gov>; Tracey Jerome <tjerome@moorevillenc.gov>

Subject: Bridge Inspection Update

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operating at Tyvola stations. Because trains are already operating at low speeds the operational impact is minimal (trains will begin to slow down to stop at the station sooner) and will not impact transit times.] - IMPLEMENTED

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As always, we are happy to discuss further.

Thank you,
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Mobile: (704) 516-4259

NOVEMBER 2024 REPORTS

November 2024 - Summary of Monthly Statistics & Information

Safety Summary

- Bus Operations Division:
 - In October, there were two preventable vehicle collisions. No passengers reported injuries.
- STS/Paratransit Division:
 - There were no incidents reported in October.
- Rail Division:
 - There were no incidents reported in October.

Ridership Summary

- On-Time Performance Highlights:
 - In October, 78.8% of bus services were on time, 17.4% were late, and 3.8% early.
- Ridership Highlights:
 - Total system ridership increased by 16.9% compared to October 2023.
 - Local bus routes: 12.7% increase
 - Local express: 12.7% increase
 - Regional express: 2.9% decrease
 - Community circulator: 14.2% increase
 - Special Transportation service: 32.1% increase
 - Vanpool: 3.4% increase
 - Blue Line: 21.2% increase
 - Gold Line: 49.6% increase
- Additional Highlights:
 - The Blue Line served a total of 585,204 riders, an increase of 21.2%.
 - The Gold Line continues to experience an increase in ridership. In October, the Gold Line served 70,479 riders. An increase of 49.6% from October of 2023. This is the third month in which the Gold Line has carried the most passengers since the service began in August of 2021.
 - On October 26th, thousands gathered at Bank of America Stadium to support those who have been affected by Hurricane Helene. The Blue Line carried 25,067 riders the day of the concert. 20% more passengers than the month's Saturday average.
- Transit On-Time Performance for October:
 - Fixed Route Bus: 77.2%
 - STS/Paratransit: 85.1%
 - Blue Line: 99.46%
 - Gold Line: 97.79%

Communications Summary

- CATS Specialized Maintenance Review
- CATS Agency Safety Plan Revision Four



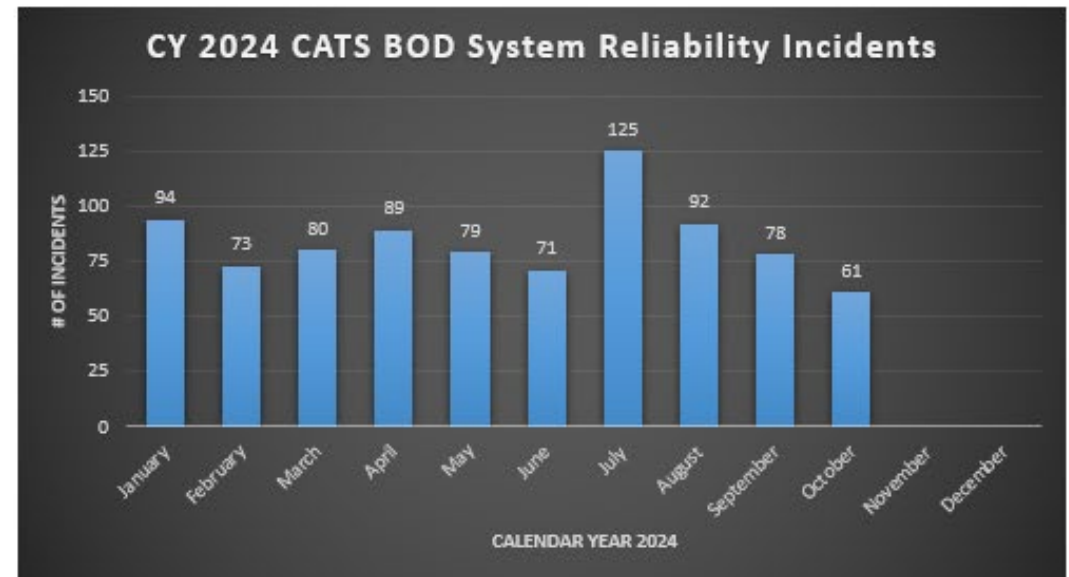
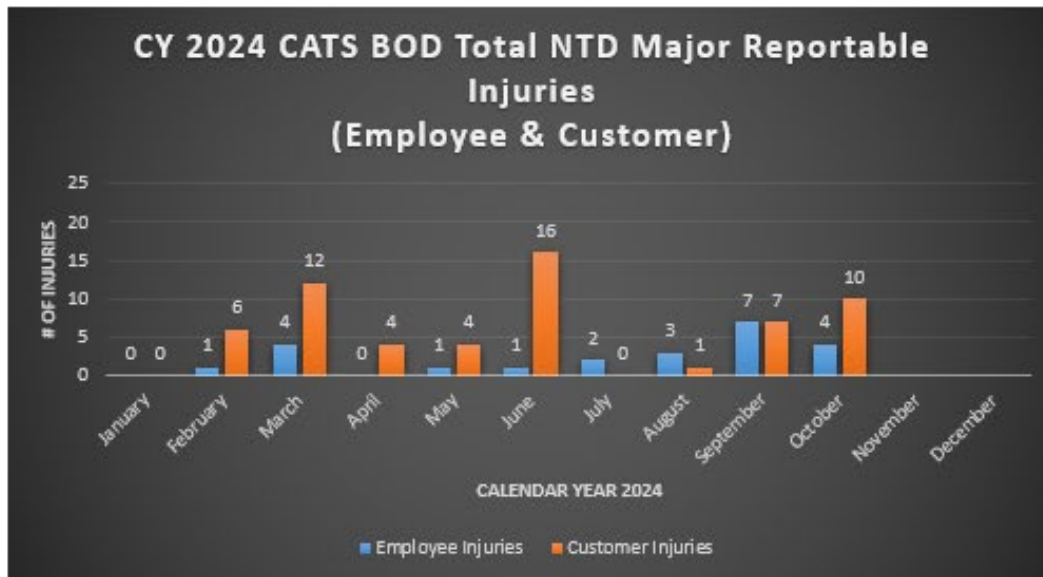
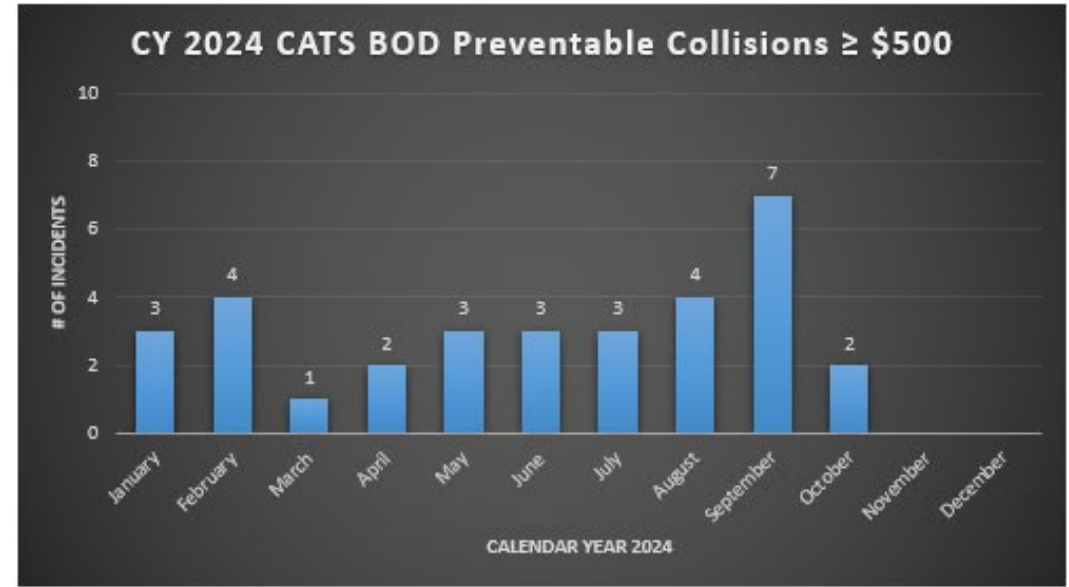
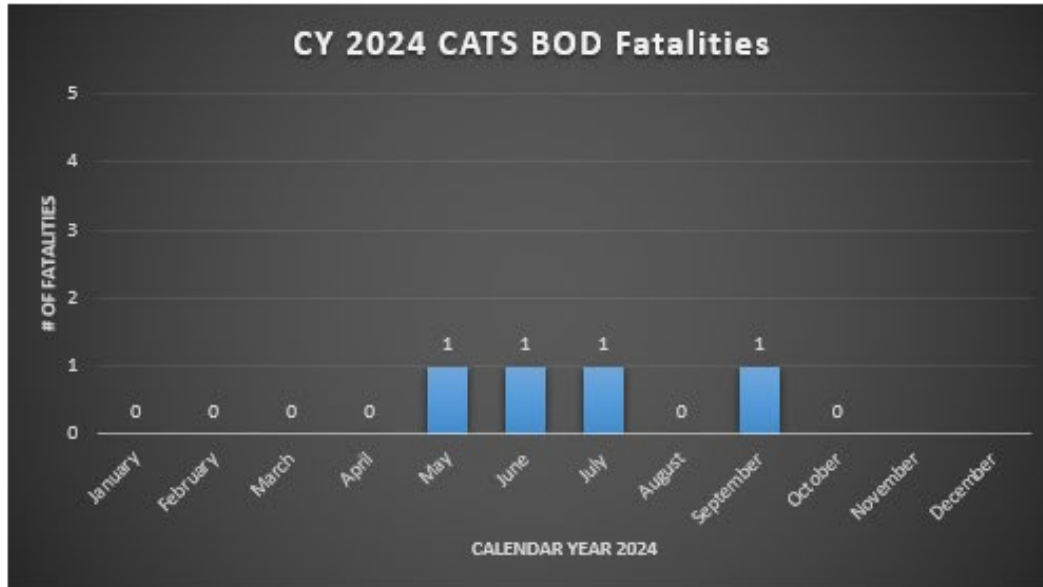
Fatality Incidents / Goal: 0 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	0	880,682	0.00
February	0	832,161	0.00
March	0	879,394	0.00
April	0	763,369	0.00
May	1	788,141	0.13
June	1	756,151	0.13
July	1	790,461	0.13
August	0	790,176	0.00
September	1	752,013	0.13
October	0	801,285	0.00
November			
December			

Preventable Collisions w/ Damage ≥ \$500/Goal: 0.5 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	3	880,682	0.34
February	4	832,161	0.48
March	1	879,394	0.11
April	2	763,369	0.26
May	3	788,141	0.38
June	3	756,151	0.40
July	3	790,461	0.38
August	4	790,176	0.51
September	7	752,013	0.93
October	2	801,285	0.25
November			
December			

NTD Major Reportable Injuries / Goal: < 1 per 100K revenue mi				
CY 2024	Employee Injuries	Customer Injuries	Revenue Miles	Rate
January	0	0	880,682	0.00
February	1	6	832,161	0.84
March	4	12	879,394	1.82
April	0	4	763,369	0.52
May	1	4	788,141	0.63
June	1	16	756,151	2.25
July	2	0	790,461	0.25
August	3	1	790,176	0.51
September	7	7	752,013	1.86
October	4	10	801,285	1.75
November				
December				

System Reliability / Goal: < 10 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	94	880,682	10.67
February	73	832,161	8.77
March	80	879,394	9.10
April	89	763,369	11.66
May	79	788,141	10.02
June	71	756,151	9.39
July	125	790,461	15.81
August	92	790,176	11.64
September	78	752,013	10.37
October	61	801,285	7.61
November			
December			

Rate Formula	# of incidents/# of revenue miles	X	100,000	=	Rate per 100,000 miles
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Special Transportation Service Division

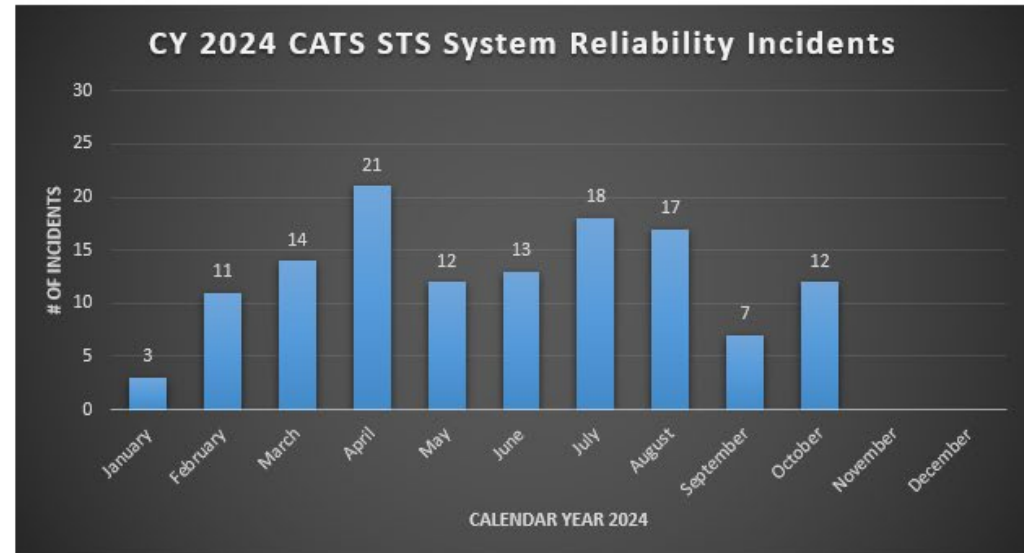
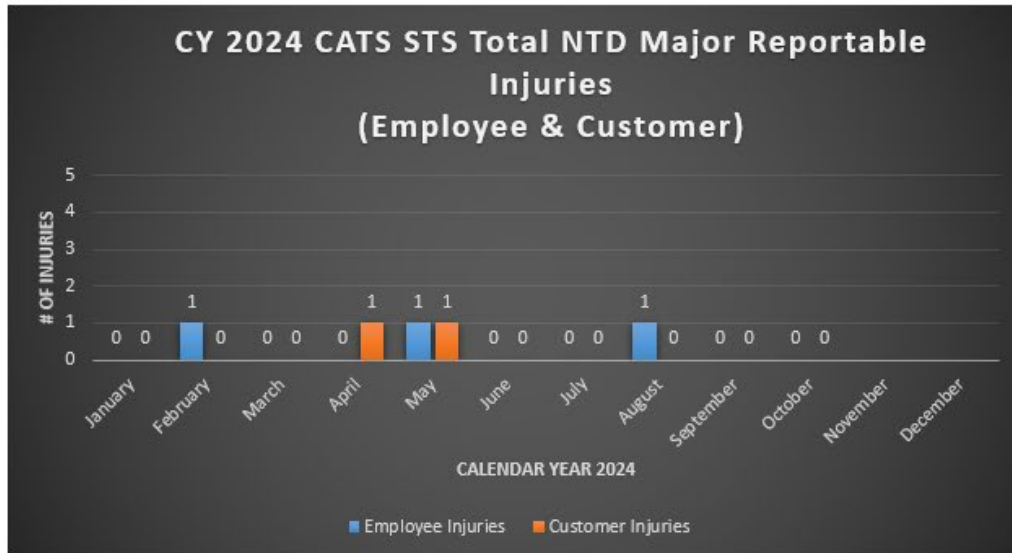
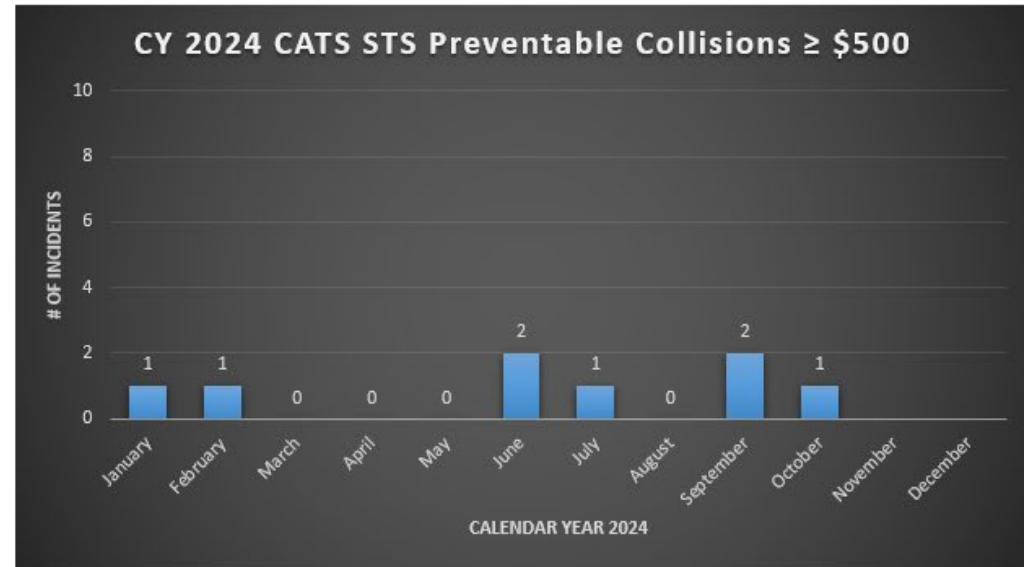
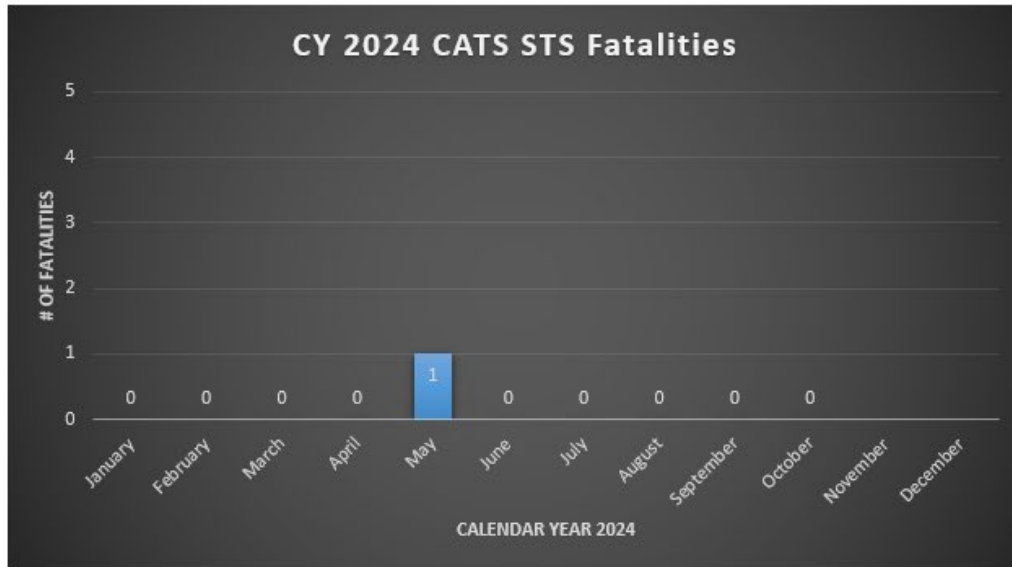
Fatality Incidents / Goal: 0 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	0	150,271	0.00
February	0	149,435	0.00
March	0	155,369	0.00
April	0	164,290	0.00
May	1	167,983	0.60
June	0	152,651	0.00
July	0	162,575	0.00
August	0	168,349	0.00
September	0	165,248	0.00
October	0	190,240	0.00
November			
December			

Preventable Collisions w/ Damage ≥ \$500/Goal: 0.5 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	1	150,271	0.67
February	1	149,435	0.67
March	0	155,369	0.00
April	0	164,290	0.00
May	0	167,983	0.00
June	2	152,651	1.31
July	1	162,575	0.62
August	0	168,349	0.00
September	2	165,248	1.21
October	1	190,240	0.53
November			
December			

NTD Major Reportable Injuries / Goal: < 1 per 100K revenue mi				
CY 2024	Employee Injuries	Customer Injuries	Revenue Miles	Rate
January	0	0	150,271	0.00
February	1	0	149,435	0.67
March	0	0	155,369	0.00
April	0	1	164,290	0.61
May	1	1	167,983	1.19
June	0	0	152,651	0.00
July	0	0	162,575	0.00
August	1	0	168,349	0.59
September	0	0	165,248	0.00
October	0	0	190,240	0.00
November				
December				

System Reliability / Goal: < 10 per 100K revenue mi			
CY 2024	Incidents	Revenue Miles	Rate
January	3	150,271	2.00
February	11	149,435	7.36
March	14	155,369	9.01
April	21	164,290	12.78
May	12	167,983	7.14
June	13	152,651	8.52
July	18	162,575	11.07
August	17	168,349	10.10
September	7	165,248	4.24
October	12	190,240	6.31
November			
December			

Rate Formula	# of incidents/# of revenue miles	X	100,000	=	Rate per 100,000 miles
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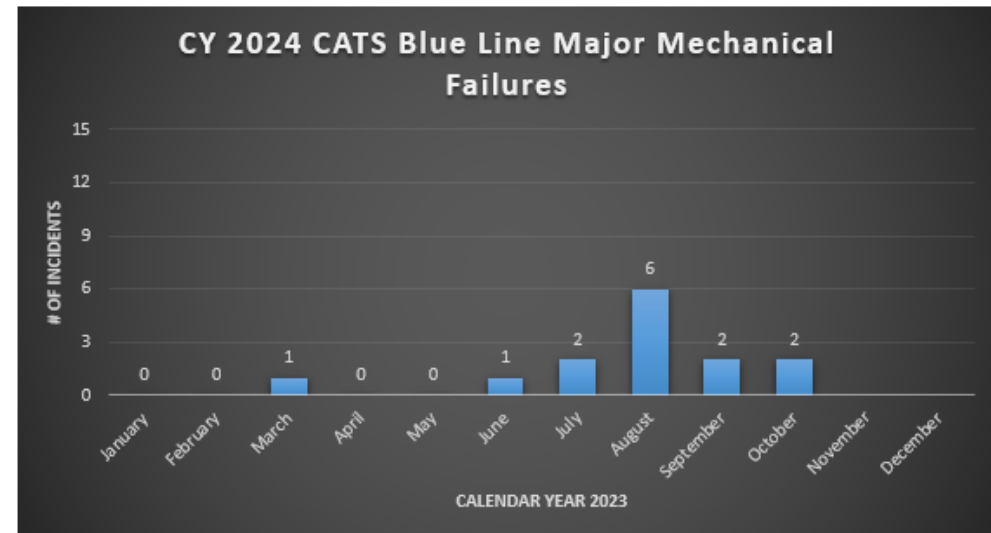
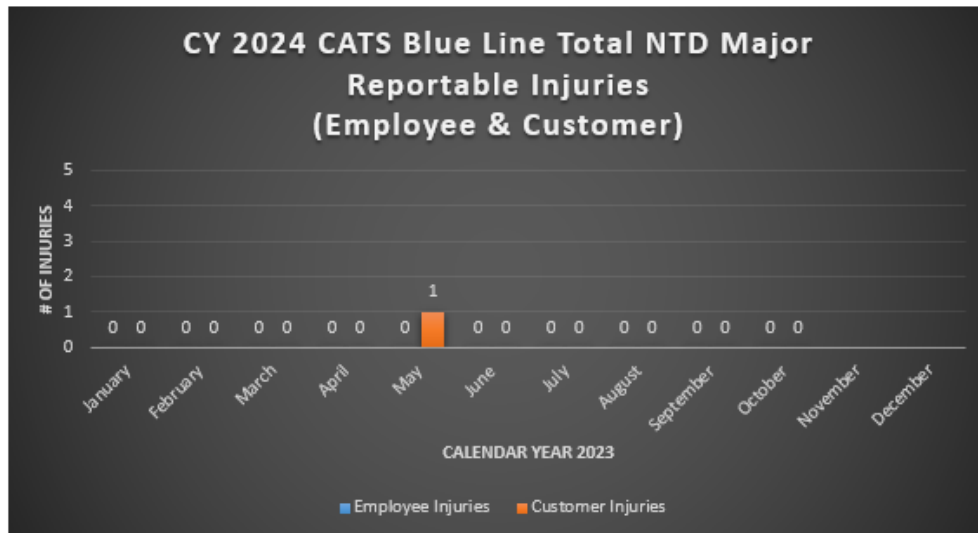
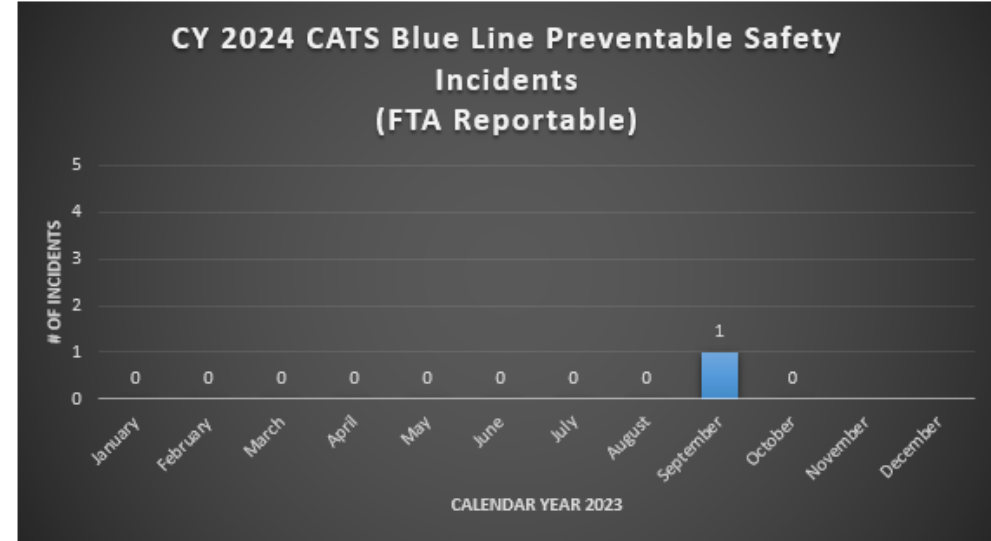
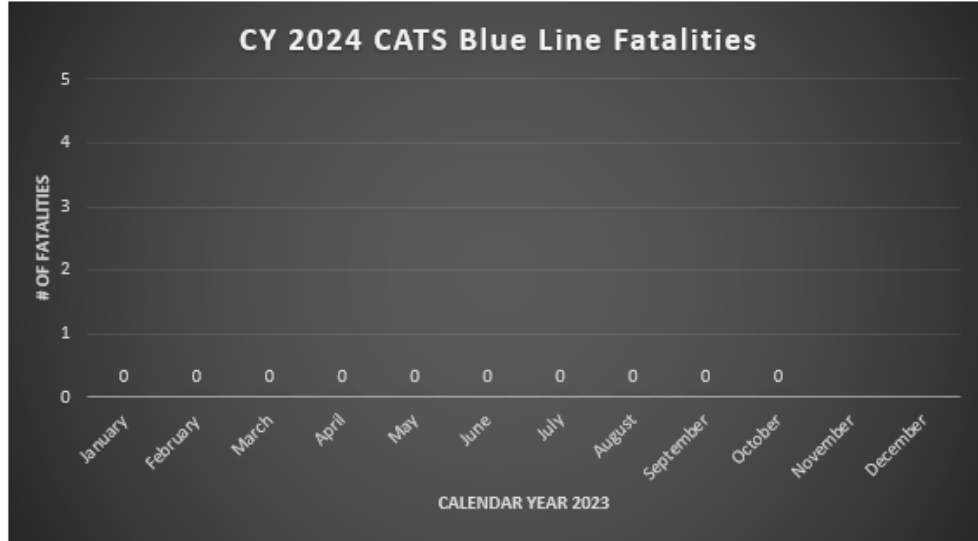
Fatality Incidents / Goal: 0 per 100K Revenue Car mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	0	137,328	0.00
February	0	128,963	0.00
March	0	137,440	0.00
April	0	133,608	0.00
May	0	137,616	0.00
June	0	124,629	0.00
July	0	137,752	0.00
August	0	138,049	0.00
September	0	132,906	0.00
October	0	129,986	0.00
November			
December			

Preventable Safety Events (FTA Reportable) / Goal: 0.1 per Revenue Car 100K mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	0	137,328	0.00
February	0	128,963	0.00
March	0	137,440	0.00
April	0	133,608	0.00
May	0	137,616	0.00
June	0	124,629	0.00
July	0	137,752	0.00
August	0	138,049	0.00
September	1	132,906	0.75
October	0	129,986	0.00
November			
December			

NTD Major Reportable Injuries / Goal: < 1 per 100K Revenue Car mi				
CY 2024	Employee Injuries	Customer Injuries	Total Car Revenue Miles	Rate
January	0	0	137,328	0.00
February	0	0	128,963	0.00
March	0	0	137,440	0.00
April	0	0	133,608	0.00
May	0	1	137,616	0.73
June	0	0	124,629	0.00
July	0	0	137,752	0.00
August	0	0	138,049	0.00
September	0	0	132,906	0.00
October	0	0	129,986	0.00
November				
December				

System Reliability (NCDOT Major Mechanical Failures) Goal: < 3 per 100K Revenue Car mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	0	137,328	0.00
February	0	128,963	0.00
March	1	137,440	0.73
April	0	133,608	0.00
May	0	137,616	0.00
June	1	124,629	0.80
July	2	137,752	1.45
August	6	138,049	4.35
September	2	132,906	1.50
October	2	129,986	1.54
November			
December			

Rate Formula	# of incidents/# of revenue miles	X	100,000	=	Rate per 100,000 miles
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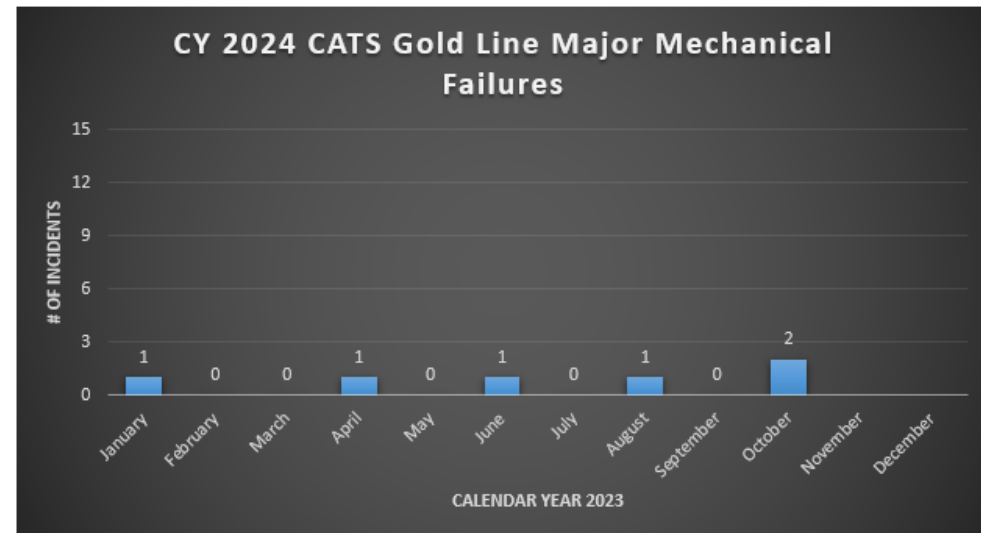
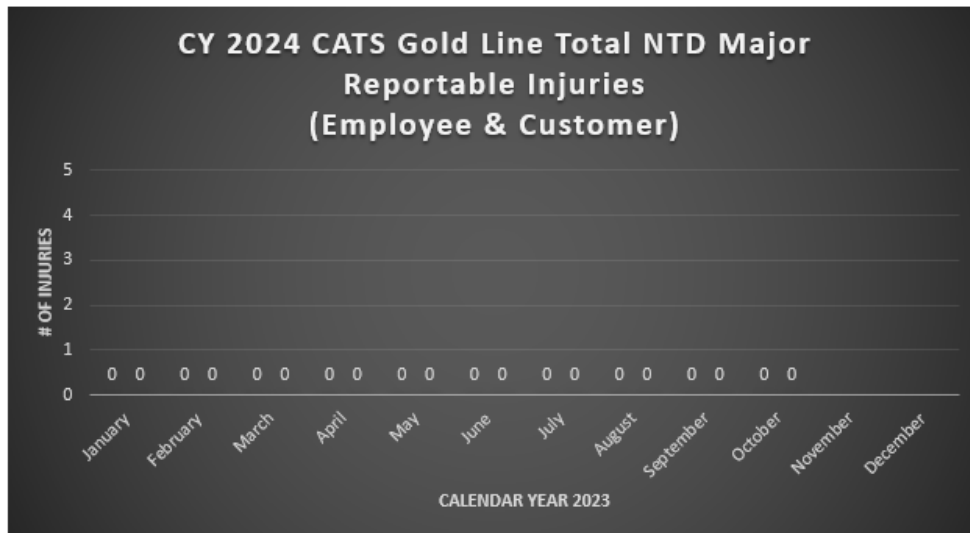
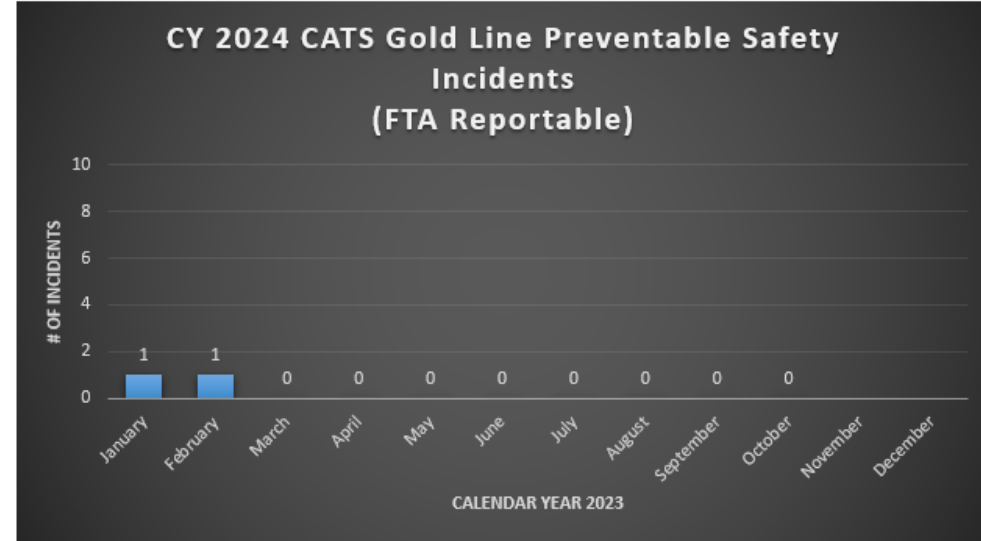
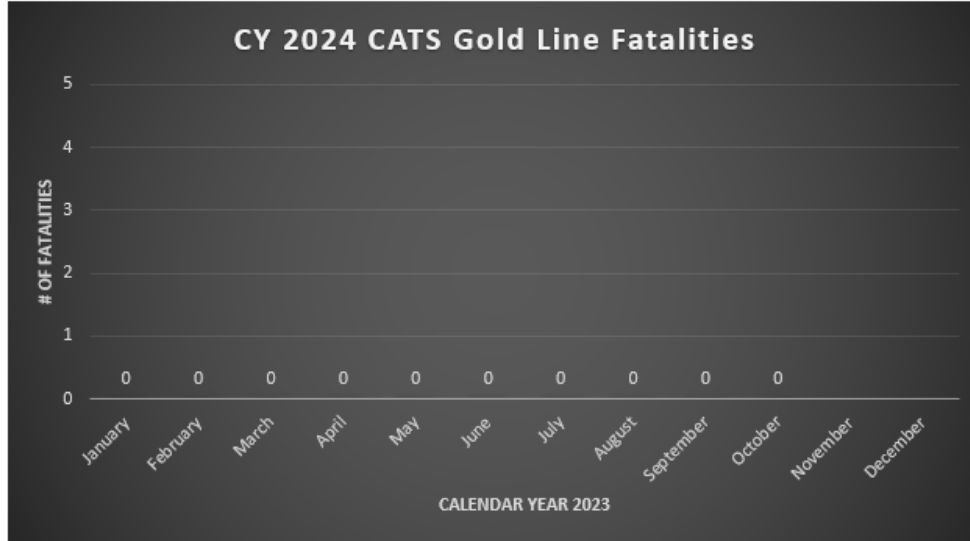
Fatality Incidents / Goal: 0 per 100K Revenue Car mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	0	7,367	0.00
February	0	7,214	0.00
March	0	7,792	0.00
April	0	10,337	0.00
May	0	10,915	0.00
June	0	9,656	0.00
July	0	10,893	0.00
August	0	11,156	0.00
September	0	10,414	0.00
October	0	10,281	0.00
November			
December			

Preventable Safety Events (FTA Reportable) / Goal: 0.1 per Revenue Car 100K mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	1	7,367	13.57
February	1	7,214	13.86
March	0	7,792	0.00
April	0	10,337	0.00
May	0	10,915	0.00
June	0	9,656	0.00
July	0	10,893	0.00
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November			
December			

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July	0	0	10,893	0.00
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November				
December				

System Reliability (NCDOT Major Mechanical Failures) Goal: < 3 per 100K Revenue Car mi			
CY 2024	Incidents	Total Car Revenue Miles	Rate
January	1	7,367	0.41
February	0	7,214	0.00
March	0	7,792	0.00
April	1	10,337	0.29
May	0	10,915	0.00
June	1	9,656	0.31
July	0	10,893	0.00
August	1	11,156	0.27
September	0	10,414	0.00
October	2	10,281	0.58
November			
December			

Rate Formula	# of incidents/# of revenue miles	X	100,000	=	Rate per 100,000 miles
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October 2024 On-Time Performance & Ridership Reports

On-Time Performance Highlights

- ▶ In October, 77.2% of bus services were on time. 20.3% were late and 2.5% were early.

Ridership Highlights

- CATS System ridership increased by 17.2% during the month of October.
- BOD Local Routes increased in ridership by 12.7%.
- Local Express Routes saw an increase in ridership of 12.7% while Regional Express Routes experienced 2.9% decrease in ridership.
- Both Local and Regional Express Routes maintained a trend of higher ridership during the month of October compared to September.
- Community Circulator Routes were up by 14.2%.

Additional Highlights – Rail Ridership and Hurricane Relief Concert

- The Gold and Blue Line both experienced an increase in ridership during the month of August.
 - The Blue Line served a total of 585,204 riders; an increase of 21.2%.
 - The Gold Line continues to experience an increase in ridership. In October, the Gold Line served 70,479 riders. An increase of 49.6% from October of 2023. This is the third month in which the Gold Line has carried the most passengers since the service began in August of 2021.
 - On October 26th, many gathered at Bank of America Stadium to support those who have been affected by Hurricane Helene. The Blue Line carried 25,067 riders the day of the concert. 20% more passengers than the month's Saturday average.

Metropolitan Transit Commission
Charlotte Area Transit System Ridership Report
Oct-24

Source:

Fixed Route Bus - Automatic Passenger Counts

Rail - Automatic Passenger Counts

Mode / Service	Average Daily Ridership					
	Oct-24	Oct-23	Percent Increase / Decrease	Weekday	Saturday	Sunday
Local						
BOD Local	848,405	752,471	12.7%	34,760	22,311	10,748
Subtotal	848,405	752,471	12.7%	34,760	22,311	10,748
Local Express						
Arboretum Express	1,664	1,194	39%	83	-	-
Harrisburg Road Express	1,615	1,474	9.6%	81	-	-
Northcross Express	4,053	3,944	2.8%	203	-	-
Idlewild Express	1,126	1,021	10.4%	56	-	-
Independence Blvd Express	3,241	3,131	3.5%	162	-	-
Lawyers Road Express	1,890	1,536	23.1%	95	-	-
Steele Creek Express	848	701	21%	42	-	-
Northlake Express	3,152	2,963	6.4%	158	-	-
North Mecklenburg Express	7,336	5,936	23.6%	367	-	-
Huntersville Express	4,370	4,184	4.4%	218	-	-
Rea Road Express	1,616	1,384	16.8%	81	-	-
Mountain Island Express	438	363	21%	22	-	-
Huntersville Greenhouse	187	143	31.0%	9	-	-
Subtotal	31,537	27,972	12.7%	1,577	-	-
Regional Express						
Gastonia Express	1,096	1,624	-32.5%	55	-	-
Rock Hill Express	1,375	1,135	21.2%	69	-	-
Union County Express	1,251	1,073	16.5%	63	-	-

Subtotal	3,722	3,832	-2.9%	186	-	-
Community Circulator						
Neighborhood Shuttles	27,417	22,916	19.6%	1,114	797	203
Eastland Neighborhood Shuttle	13,311	12,832	3.7%	522	393	218
Pineville-Matthews Road	3,275	2,788	17.5%	147	85	-
Village Rider	8,186	7,166	14.2%	320	237	136
Subtotal	52,189	45,701	14.2%	2,103	1,220	557
Human Services Transportation						
Special Transportation Services	21,202	16,058	32.0%	810	366	279
Subtotal	21,202	16,058	32.0%	810	366	279
Rideshare Services						
Vanpool	4,037	3,903	3.4%	165	26	37
Subtotal	4,037	3,903	3.4%	165	26	37
Rail						
LYNX Blue Line*	585,204	482,967	21.2%	20,926	20,949	13,684
CityLynx Gold Line*	70,479	47,107	49.6%	2,581	2,091	1,613
Subtotal	655,683	530,074	23.7%	23,507	23,040	15,297
Total	1,616,775	1,380,012	17.2%	63,108	46,964	26,918

**FY24 Rail ridership reflects audited and adjusted value based on annual report*

**Metropolitan Transit Commission
Charlotte Area Transit System Ridership Report**

Oct-24

Source:

Fixed Route Bus - GFI Data

Rail - Automatic Passenger Counts

Mode / Service	Percent			YTD	YTD	Percent		Avg Daily Ridership per Month		
	Oct-24	Oct-23	Increase/Decrease	FY 2025	FY 2024	Increase/Decrease	WeekDay	Saturday	Sunday	
Local										
BOD Local	620,488	630,243	-1.55%	2,391,370	2,355,426	1.53%	21,959	16,353	12,266	
Subtotal	620,488	630,243	-1.55%	2,391,370	2,355,426	1.53%	21,959	16,353	12,266	
Local Express										
Arboretum Express	1,576	1,100	43.27%	6,411	4,399	45.74%	69	-	-	
Harrisburg Road Express	1,125	1,253	-10.22%	3,953	4,678	-15.5%	49	-	-	
Northcross Express	2,450	2,841	-13.76%	10,725	10,820	-0.88%	107	-	-	
Idlewild Road Express	905	931	-2.79%	3,471	3,335	4.08%	39	-	-	
Independence Blvd Express	2,205	2,388	-7.66%	7,380	7,786	-5.21%	96	-	-	
Lawyers Road Express	1,626	1,266	28.44%	4,769	5,128	-7.0%	71	-	-	
Mountain Island Express	254	245	3.67%	1,042	904	15.27%	11	-	-	
Northlake Express	2,001	2,031	-1.48%	5,813	8,393	-30.74%	87	-	-	
North Mecklenburg Express	5,365	4,370	22.77%	20,599	14,942	37.86%	233	-	-	
Huntersville Express	2,829	3,144	-10.02%	11,892	12,971	-8.32%	123	-	-	
Rea Road Express	1,201	1,191	0.84%	4,126	5,257	-21.51%	52	-	-	
Steele Creek Express	504	451	11.75%	1,848	1,498	23.36%	22	-	-	
Huntersville Greenhouse Express	99	378	-73.81%	437	812	-46.18%	4	-	-	
Subtotal	22,140	21,589	2.55%	82,466	80,923	1.91%	963	-	-	
Regional Express										
Gastonia Express	781	870	-10.23%	2,844	3,741	-23.98%	34	-	-	
Rock Hill Express	906	1,180	-23.22%	3,996	3,721	7.39%	39	-	-	
Union County Express	1,047	763	37.22%	3,376	3,081	9.57%	46	-	-	
Subtotal	2,734	2,813	-2.81%	10,216	10,543	-3.1%	119	-	-	

Metropolitan Transit Commission
Charlotte Area Transit System Ridership Report
Oct-24

Community Circulator

Neighborhood Shuttles	17,408	18,677	-6.79%	69,382	70,650	-1.79%	625	432	324
Eastland Neighborhood Shuttle	8,197	10,869	-24.58%	37,751	39,966	-5.54%	256	299	282
Pineville-Matthews Road	1,776	4,744	-62.56%	7,170	9,932	-27.81%	68	53	3
Village Rider	4,456	5,967	-25.32%	17,282	20,018	-13.67%	162	120	62
Subtotal	31,837	40,257	-20.92%	131,585	140,566	-6.39%	1,111	904	671

Human Services Transportation

Special Transportation Services	21,202	16,058	32.03%	73,316	62,528	17.25%	810	366	279
DSS	-	273	n/a	-	5,589	n/a	-	-	-
Subtotal	21,202	16,331	29.83%	73,316	68,117	7.63%	810	366	279

Rideshare Services

Vanpool	4,037	3,903	3.40%	10,743	14,899	-0.8%	165	26	37
Subtotal	4,037	3,903	3.40%	10,743	14,899	-27.89%	-	-	-

Rail

LYNX Blue Line	585,204	482,967	21.17%	2,210,807	2,000,449	10.52%	20,926	20,949	13,684
CityLynx Gold Line	70,479	47,107	49.61%	255,507	193,490	32.05%	2,581	2,091	1,613
Subtotal	655,683	530,074	23.7%	2,466,314	2,193,939	12.41%	23,507	23,040	15,297

Total	1,358,121	1,245,210	9.1%	5,166,010	4,864,413	6.2%	48,469	40,663	28,513
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**FY24 Rail ridership reflects audited and adjusted value based on annual report*

November | CATS Sales Tax Report FY2025

August Receipts

Sales Tax Collections and Distribution – August 2024

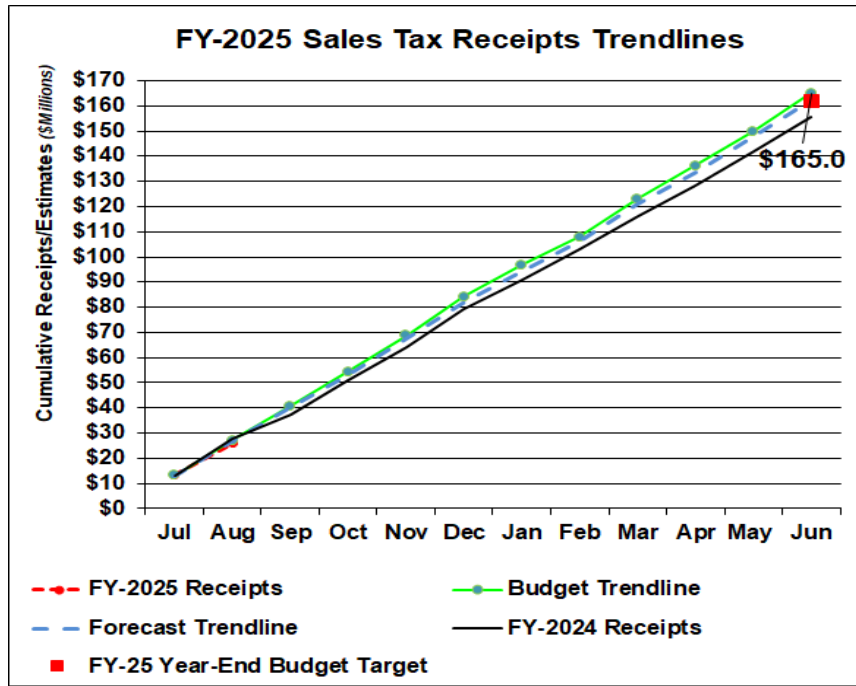
- The August 2024 receipts of \$13,076,220 were -\$835,211 (-6.00%) below budget target for the month
- The August 2024 receipts were -\$749,030 (-5.42%) below forecast for the month
- The August 2024 receipts were -\$1,708,131 (-11.55%) below August of 2023

Sales Tax Budget Data

- The FY25 sales tax budget is \$165,022,901
- The FY25 model forecasts year-end receipts of \$162,006,291 is -\$3,016,609 (-1.86%) below the FY-2025 budget target of \$165,022,901.
- FY2024 actual sales tax was \$155,805,412

Local Government Sales and Use Tax Distribution

- Source: North Carolina Department of Revenue Sales & Use Distribution Report for the month August 31, 2024
- Published by NC Secretary of Revenue on November 12, 2024, with actual receipts through August 31, 2024
- CATS sales tax report only includes Mecklenburg County Article 43 sales tax



FY2025 Budget Sales Tax Receipts (Actuals and Forecasts)

Jurisdiction	Population	% of Total	Jul 24 Actuals	Aug 24 Actuals	Sep 24 Forecasts	Oct 24 Forecasts	Nov 24 Forecasts	Dec 24 Forecasts	Jan 25 Forecasts	Feb 25 Forecasts	Mar 25 Forecasts	April 25 Forecasts	May 25 Forecasts	Jun 25 Forecasts	Total
Charlotte	911,609	40.4%	\$ 5,312,194	\$ 5,288,990	\$ 5,427,484	\$ 5,190,648	\$ 5,703,792	\$ 6,072,203	\$ 4,848,552	\$ 4,901,182	\$ 5,953,785	\$ 5,164,333	\$ 5,690,635	\$ 5,973,522	\$ 65,527,321
Cornelius	31,792	1.4%	\$ 185,261	\$ 184,451	\$ 189,281	\$ 181,022	\$ 198,917	\$ 211,766	\$ 169,091	\$ 170,927	\$ 207,636	\$ 180,104	\$ 198,459	\$ 208,324	\$ 2,285,239
Davidson	15,410	0.7%	\$ 89,798	\$ 89,406	\$ 91,747	\$ 87,744	\$ 96,418	\$ 102,646	\$ 81,961	\$ 82,850	\$ 100,644	\$ 87,299	\$ 96,195	\$ 100,977	\$ 1,107,685
Huntersville	64,147	2.8%	\$ 373,802	\$ 372,169	\$ 381,915	\$ 365,249	\$ 401,358	\$ 427,281	\$ 341,177	\$ 344,880	\$ 418,949	\$ 363,398	\$ 400,432	\$ 420,338	\$ 4,610,947
Matthews	30,101	1.3%	\$ 175,407	\$ 174,641	\$ 179,214	\$ 171,393	\$ 188,337	\$ 200,502	\$ 160,097	\$ 161,835	\$ 196,592	\$ 170,524	\$ 187,903	\$ 197,244	\$ 2,163,688
Mint Hill	27,152	1.2%	\$ 158,222	\$ 157,531	\$ 161,656	\$ 154,602	\$ 169,886	\$ 180,859	\$ 144,413	\$ 145,980	\$ 177,332	\$ 153,818	\$ 169,494	\$ 177,920	\$ 1,951,712
Pineville	10,995	0.5%	\$ 64,071	\$ 63,791	\$ 65,461	\$ 62,605	\$ 68,794	\$ 73,237	\$ 58,479	\$ 59,114	\$ 71,809	\$ 62,287	\$ 68,635	\$ 72,047	\$ 790,331
Stallings	432	0.0%	\$ 2,517	\$ 2,506	\$ 2,572	\$ 2,460	\$ 2,703	\$ 2,878	\$ 2,298	\$ 2,323	\$ 2,821	\$ 2,447	\$ 2,697	\$ 2,831	\$ 31,053
Weddington	8	0.0%	\$ 47	\$ 46	\$ 48	\$ 46	\$ 50	\$ 53	\$ 43	\$ 43	\$ 52	\$ 45	\$ 50	\$ 52	\$ 575
Meck. County	1,162,168	51.6%	\$ 6,772,269	\$ 6,742,688	\$ 6,919,247	\$ 6,617,317	\$ 7,271,500	\$ 7,741,170	\$ 6,181,194	\$ 6,248,290	\$ 7,590,205	\$ 6,583,769	\$ 7,254,726	\$ 7,615,366	\$ 83,537,740
Total	2,253,814	100.0%	\$13,133,587	\$13,076,220	\$13,418,625	\$ 12,833,085	\$14,101,755	\$15,012,595	\$11,987,305	\$12,117,425	\$14,719,825	\$12,768,025	\$14,069,225	\$ 14,768,620	\$ 162,006,292
															FY25 Budget Variance \$ 165,022,901 \$ (3,016,609)

*Table is consistent with North Carolina General Statute § 105-507.3. Distribution and Use of Taxes

FY-2025 Budget Sales Taxes Receipts Year-over-Year Comparison

Year-over-Year Comparison (FY2025 over FY2024)	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	YTD Total
FY2025 Budget Target	0.7%	-11.6%	37.4%	-2.5%	4.6%	-0.9%	3.1%	0.5%	10.7%	7.1%	4.9%	4.8%	4.0%
% of FY2025 Budget Achieved	\$13,267,841	\$13,911,431	\$13,597,887	\$ 13,696,901	\$14,423,002	\$15,248,116	\$12,591,247	\$11,155,548	\$15,132,600	\$13,300,846	\$13,548,380	\$ 15,149,102	\$ 165,022,901
	8.0%	15.9%	24.0%	31.8%	40.3%	49.4%	56.7%	64.0%	73.0%	80.7%	89.2%	98.2%	98.2%

FY2020 - FY2024 Sales Tax Receipts

Fiscal Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
FY2024	\$13,045,415	\$14,784,351	\$ 9,765,503	\$ 13,164,891	\$13,484,481	\$15,145,809	\$11,630,823	\$12,055,016	\$13,302,965	\$11,919,582	\$13,412,910	\$ 14,093,667	\$ 155,805,412
FY2023	\$12,687,115	\$12,882,613	\$13,528,146	\$ 13,283,060	\$13,151,617	\$14,644,501	\$11,902,754	\$ 9,995,757	\$14,159,184	\$11,180,564	\$13,440,164	\$ 13,723,037	\$ 154,638,512
FY2022	\$11,298,388	\$10,659,682	\$11,073,183	\$ 11,342,634	\$12,115,265	\$13,501,568	\$10,221,788	\$ 8,315,108	\$13,351,825	\$11,369,039	\$12,932,254	\$ 13,044,834	\$ 139,225,568
FY2021	\$ 8,921,474	\$ 9,466,946	\$ 9,245,058	\$ 9,317,741	\$ 9,964,913	\$11,402,907	\$ 9,134,772	\$ 6,785,996	\$11,253,531	\$10,287,447	\$ 8,942,957	\$ 11,945,450	\$ 116,669,192
FY2020	\$ 9,683,570	\$ 9,787,973	\$ 8,671,558	\$ 9,890,136	\$ 9,858,570	\$ 9,800,116	\$ 8,278,036	\$ 8,276,547	\$ 8,735,473	\$ 7,635,380	\$ 6,997,727	\$ 9,833,896	\$ 107,778,982

From: [Kummer, Catherine](#)
To: [Altman, Leigh](#); [cmud_a grant](#); [cmud_a roberts](#); [Becky Hawke](#); [Bill Thunberg](#); [cmud_b welch](#); [C Joneill](#); [cmud_j huffman](#); [Edmund Driggs](#); [Crump, Jeannine](#); [David Vahaun](#); [Davidson, Mary Jean](#); [Diorio, Dena R.](#); [Driggs, Edmund](#); [Elkins, Susan](#); [Ford, Paulus](#); [Heather Maloney](#); [Justice, Jamie](#); [Jones, Marcus](#); [Kunze, Emily](#); [Leigh Braslow Altman](#); ["LJ Weslowski"](#); [Lloyd Payne](#); [Lyles, Viola](#); [Mark Watson](#); [Mayor Brad Simmons](#); [Mayor Chris Carney](#); [Mayor Christy Clark](#); [Mayor David Cohn](#); [dphillips](#); [Mayor John Gettys](#); [Mayor John Higdon](#); [Mayor Pro Tem David Scholl](#); [Mayor Pro Tem Renee Garner](#); [Mayor Pro Tem Todd Barber](#); [Mayor Richard Franks](#); [Mayor Robert Burns](#); [Mayor Rusty Knox](#); [Mayor William Dusch](#); [Mayor Woody Washam](#); [Mayor Wyatt Dunn](#); [Michael Peoples](#); [Randi Gates](#); [Ryan Spitzer](#); [Tony Lathrop](#); [Tony Lathrop 2](#); [Tracey Jerome](#)
Subject: CATS Specialized Maintenance Review
Date: Monday, November 4, 2024 11:10:32 AM

Members of the MTC,

You may recall that in response to issues related to light rail vehicle maintenance at CATS, in June of 2023 the Charlotte City Manager requested two special independent reviews – one focusing on financial oversight and controls in CATS and a second focusing on operations and maintenance of CATS assets.

The Federal Transit Administration (FTA) agreed to conduct these two reviews, the financial review having been shared with you earlier this April. We are reaching out today to share that we have received the draft report focused on operations and maintenance. CATS is reviewing the draft report for accuracy and will share formal response before submitting to the FTA on November 14, 2024. We can share there were no significant findings.

Please let us know if you have questions, we wanted to ensure we were keeping you informed.

Thanks!
Catherine

Catherine Kummer (she/her) | Interim Director, Marketing and Communications
Charlotte Area Transit System (CATS) | 600 East Fourth Street | Charlotte, NC | 28202
Email: Catherine.Kummer@charlottenc.gov
Mobile: (704) 516-4259

From: [Kummer, Catherine](#)
To: [Altman, Leigh](#); [cmud_a grant](#); [cmud_a roberts](#); [Becky Hawke](#); [Bill Thunberg](#); [cmud_b welch](#); [C Joneill](#); [cmud_j huffman](#); [Edmund Driggs](#); [Crump, Jeannine](#); [David Vehaun](#); [Davidson, Mary Jean](#); [Diorio, Dena R.](#); [Driggs, Edmund](#); [Elkins, Susan](#); [Ford, Paulus](#); [Heather Maloney](#); [Justice, Jamie](#); [Jones, Marcus](#); [Kunze, Emily](#); [Leigh Braslow Altman](#); ["LJ Weslowski"](#); [Lloyd Payne](#); [Lyles, Viola](#); [Mark Watson](#); [Mayor Brad Simmons](#); [Mayor Chris Carney](#); [Mayor Christy Clark](#); [Mayor David Cohn](#); [dphillips](#); [Mayor John Gettys](#); [Mayor John Higdon](#); [Mayor Pro Tem David Scholl](#); [Mayor Pro Tem Renee Garner](#); [Mayor Pro Tem Todd Barber](#); [Mayor Richard Franks](#); [Mayor Robert Burns](#); [Mayor Rusty Knox](#); [Mayor William Dusch](#); [Mayor Woody Washam](#); [Mayor Wyatt Dunn](#); [Michael Peoples](#); [Randi Gates](#); [Ryan Spitzer](#); [Tony Lathrop](#); [Tony Lathrop 2](#); [Tracey Jerome](#)
Subject: CATS Agency Safety Plan Revision Four
Date: Friday, November 8, 2024 5:53:42 PM
Attachments: [Agency Safety Plan Draft Rev 4.0 Final Draft 10-30-24.pdf](#)
[NCDOT SSO Ltr - CATS ASP Rev.4-Final Draft Conditional Approval.pdf](#)

Members of the MTC,

We hope you've had a great week!

Attached for your review is the final draft of the CATS Agency Safety Plan (ASP) Revision Four.

The ASP is defined as the comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329(d) and 49 CFR Part 673.

As a required document, the ASP must be approved by CATS staff/officials and requires the approval of the "Equivalent Authority." Equivalent Authority is defined as an entity that carries out duties like that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient's Agency Safety Plan. The MTC is CATS's Equivalent Authority.

CATS works directly with the North Carolina Department of Transportation State Safety Oversight (NCDOT SSO) to keep the document up to date. CATS received conditional approval of revision four from NCDOT SSO on October 23, 2024, as per the second attachment.

We plan to review the changes and request that the MTC consider approval of the ASP Revision Four at the next scheduled MTC meeting on November 20, 2024.

Please feel free to let us know if you have any questions.

Thanks,
Catherine

Catherine Kummer (she/her) | Interim Director, Marketing and Communications
Charlotte Area Transit System (CATS) | 600 East Fourth Street | Charlotte, NC | 28202
Email: Catherine.Kummer@charlottenc.gov
Mobile: (704) 516-4259

**METROPOLITAN TRANSIT COMMISSION
ACTION ITEM
STAFF SUMMARY**

SUBJECT: MTC Approval of ASP Revision 4

DATE: November 20, 2024

1.0 PURPOSE/SCOPE: Provide the MTC a revised CATS Agency Safety Plan (ASP) and request approval of Revision 4.

2.0 BACKGROUND:

- On October 23, 2024, NCDOT provided conditional approval of the CATS Agency Safety Plan (ASP)
- Section 4.2 of the ASP requires MTC review and approval of all significant revisions.
 - Revisions are in red text for ease of review.

3.0 PROCUREMENT BACKGROUND: N/A

4.0 POLICY IMPACT: CATS policies to be updated to meet agency Safety Management System (SMS)/ASP requirements, FTA Regulations, and NCDOT State Safety Oversight Program Standards (SSOPS)

5.0 ECONOMIC IMPACT: N/A

6.0 ALTERNATIVES: N/A

7.0 RECOMMENDATION: Adopt a Resolution Approving the CATS ASP Version 4.

8.0 ATTACHMENT(S):

1. ASP Resolution
2. Presentation
3. NCDOT SSO Conditional Approval Letter (in Appendix)
4. Agency Safety Plan (ASP) Revision 4 (in Appendix)

SUBMITTED AND RECOMMENDED BY:



**Brent Cagle
Interim Chief Executive Officer, Charlotte Area Transit System
Assistant City Manager, City of Charlotte**

**RESOLUTION
No. 2024-03**

**REVIEW AND APPROVAL OF UPDATED
CATS AGENCY SAFETY PLAN (REVISION 4)**

A motion was made by **Mayor John Higdon (Town of Matthews)** and seconded by **Mayor Rusty Knox (Town of Davidson)** for the adoption of the following resolution, and upon being put to a vote was duly adopted by the Metropolitan Transit Commission (MTC).

WHEREAS, federal and state law and regulations require that transit agencies adopt an agency safety plan and that the board of directors, or an equivalent authority, of the transit agency annually review and approve updates to the agency safety plan;

WHEREAS, in accordance with these rules, the Charlotte Area Transit System (CATS) adopted its Agency Safety Plan, effective as of April 1, 2020, which designates the MTC as the equivalent authority for CATS and requires the MTC to approve updates to the Plan;

WHEREAS, the MTC has approved subsequent annual updates to the CATS Agency Safety Plan, effective as of October 20, 2021 (Revision 1), November 14, 2022 (Revision 2), and August 23, 2023 (Revision 3);

WHEREAS, CATS has completed a further annual update to its Agency Safety Plan (Revision 4), which the N.C. Department of Transportation (NCDOT) conditionally approved on October 24, 2024; and

WHEREAS, section 4.2 of the CATS Agency Safety Plan requires that the MTC review and approve the updated Agency Safety Plan (Revision 4).

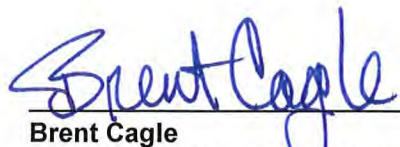
NOW, THEREFORE, be it resolved by the Metropolitan Transit Commission that:


1. The MTC has reviewed and hereby approves of the updated CATS Agency Safety Plan (Revision 4) as presented to NCDOT; and
2. This resolution shall take effect immediately upon its adoption.


I, **Commissioner Leigh Altman, Chair the Metropolitan Transit Commission**, do hereby certify that the above Resolution is a true and correct documentation of the MTC's action from its meeting duly held on November 20, 2024.


**Leigh Altman, Mecklenburg County Commissioner
Chair, Metropolitan Transit Commission**

Submitted and Recommended by:


**Brent Cagle
Interim CEO, Charlotte Area Transit System
Assistant City Manager, City of Charlotte**





**SAFETY
MANAGEMENT
SYSTEM**


**MTC Presentation:
Charlotte Area Transit System
Agency Safety Plan (ASP), Version 4**

Summary of Revisions

November 20, 2024


www.RIDETRANSIT.org


1



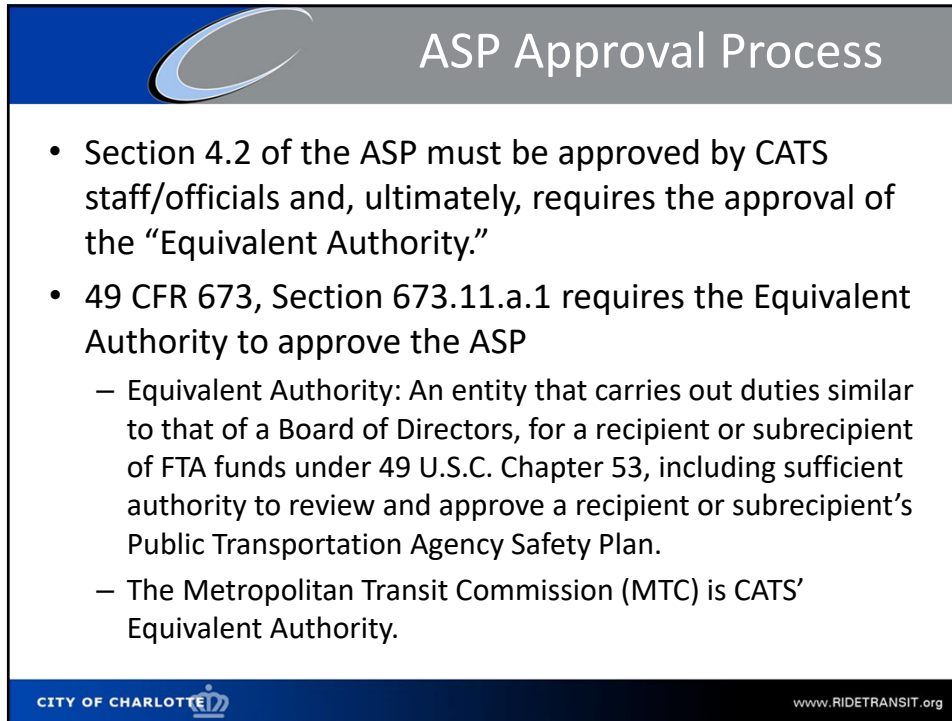
Public Transportation Agency Safety Plan

- Public Transportation Agency Safety Plan (PTASP or ASP) is required by 49 U.S.C. 5329(d) and 49 CFR Part 673
 - April 2024 significant revisions made to 673
- Documented comprehensive agency safety plan for a transit agency
- ASP is comprised of four key components
 - Safety Management Policy
 - Safety Risk Management
 - Safety Assurance
 - Safety Promotion




CITY OF CHARLOTTE  www.RIDETRANSIT.org

2

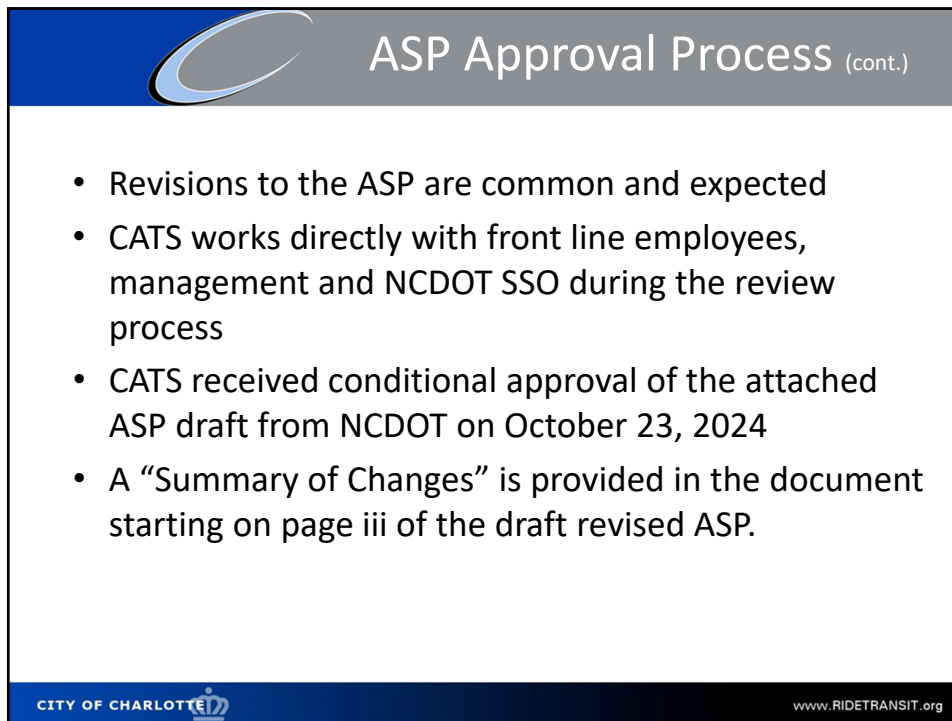


ASP Approval Process

- Section 4.2 of the ASP must be approved by CATS staff/officials and, ultimately, requires the approval of the “Equivalent Authority.”
- 49 CFR 673, Section 673.11.a.1 requires the Equivalent Authority to approve the ASP
 - Equivalent Authority: An entity that carries out duties similar to that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient’s Public Transportation Agency Safety Plan.
 - The Metropolitan Transit Commission (MTC) is CATS’ Equivalent Authority.


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ASP Approval Process (cont.)

- Revisions to the ASP are common and expected
- CATS works directly with front line employees, management and NCDOT SSO during the review process
- CATS received conditional approval of the attached ASP draft from NCDOT on October 23, 2024
- A “Summary of Changes” is provided in the document starting on page iii of the draft revised ASP.

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General Edits

- General edits for clarification were made throughout the document
- Edits regarding activities that were implemented during the past year
 - Changed language from future tense, e.g., “will do” or “part of the implementation plan”, to active tense

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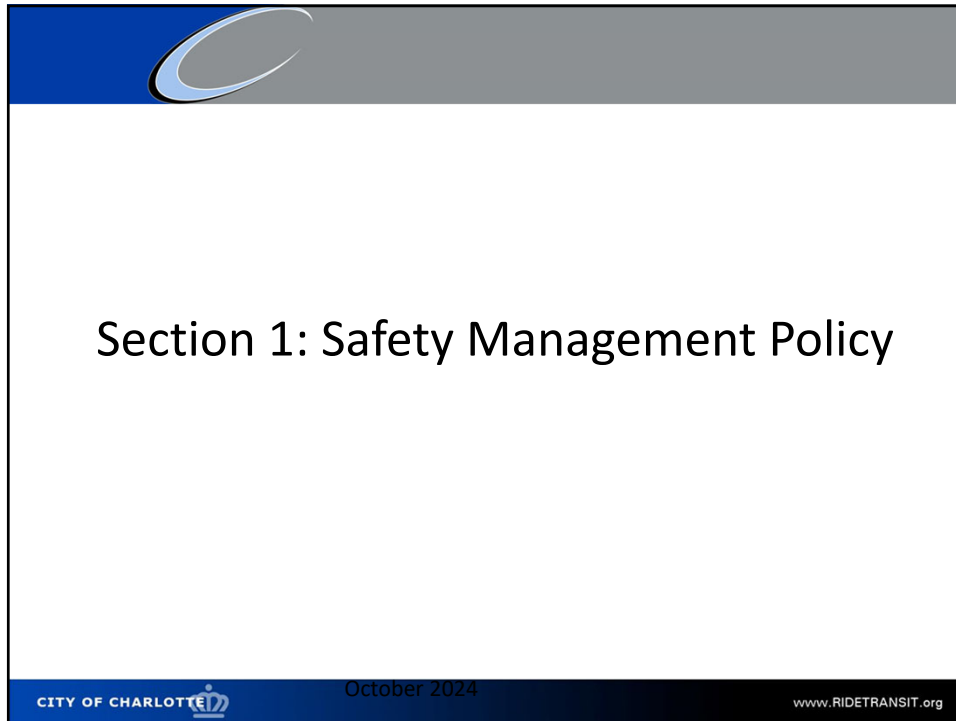
Introduction Updates

- 40 Definitions added or revised
- 13 Acronyms added
- Purpose and Scope specifies Federal and State agencies can conduct announced and unannounced inspections


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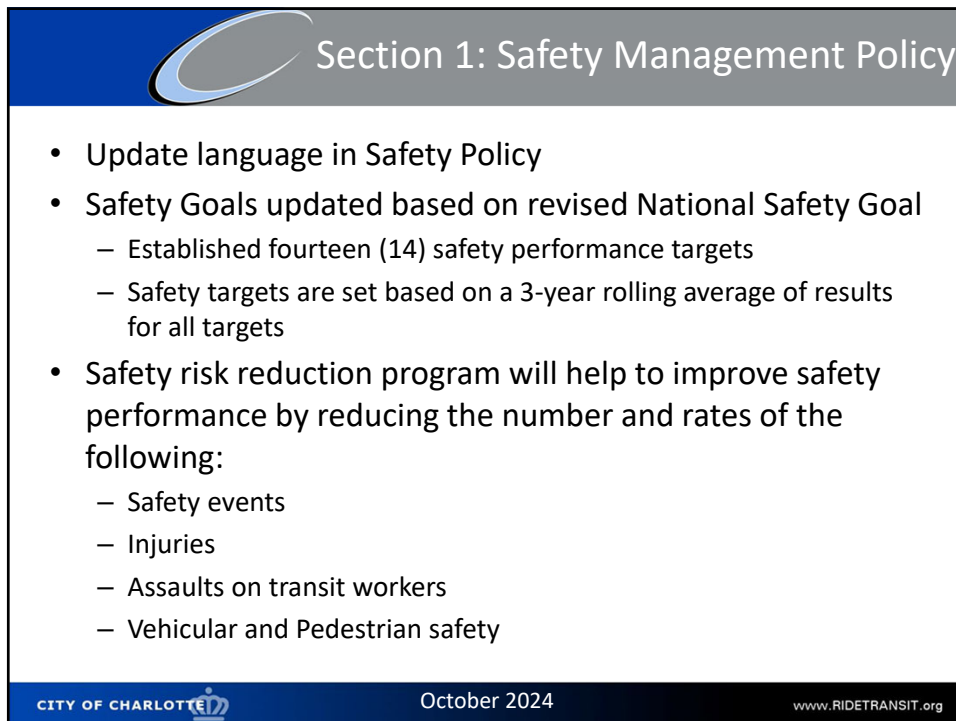
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Section 1: Safety Management Policy


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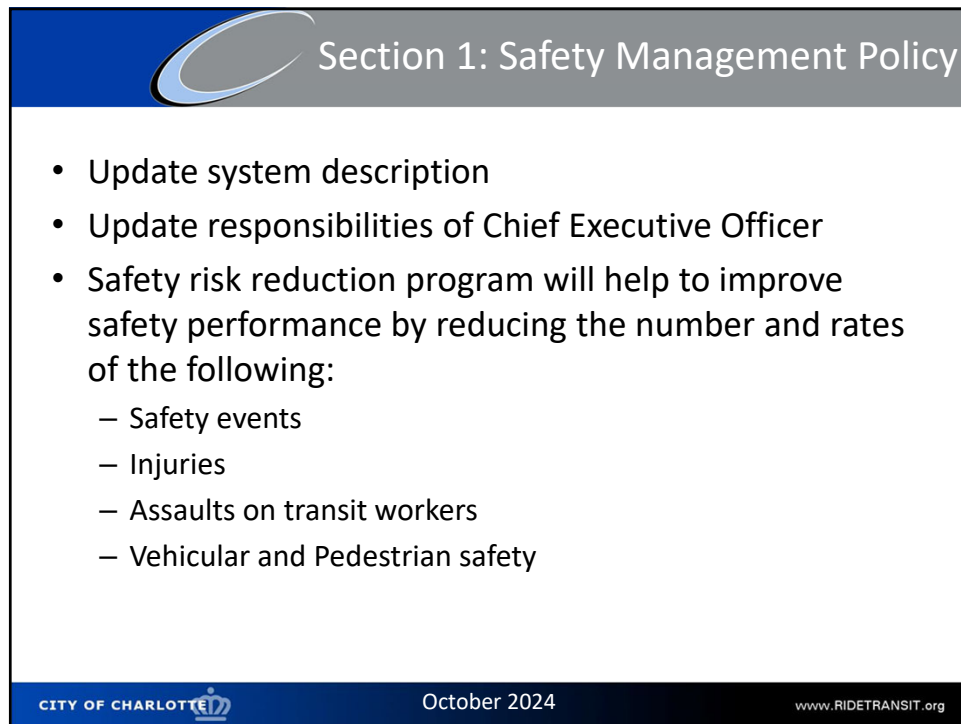


Section 1: Safety Management Policy

- Update language in Safety Policy
- Safety Goals updated based on revised National Safety Goal
 - Established fourteen (14) safety performance targets
 - Safety targets are set based on a 3-year rolling average of results for all targets
- Safety risk reduction program will help to improve safety performance by reducing the number and rates of the following:
 - Safety events
 - Injuries
 - Assaults on transit workers
 - Vehicular and Pedestrian safety


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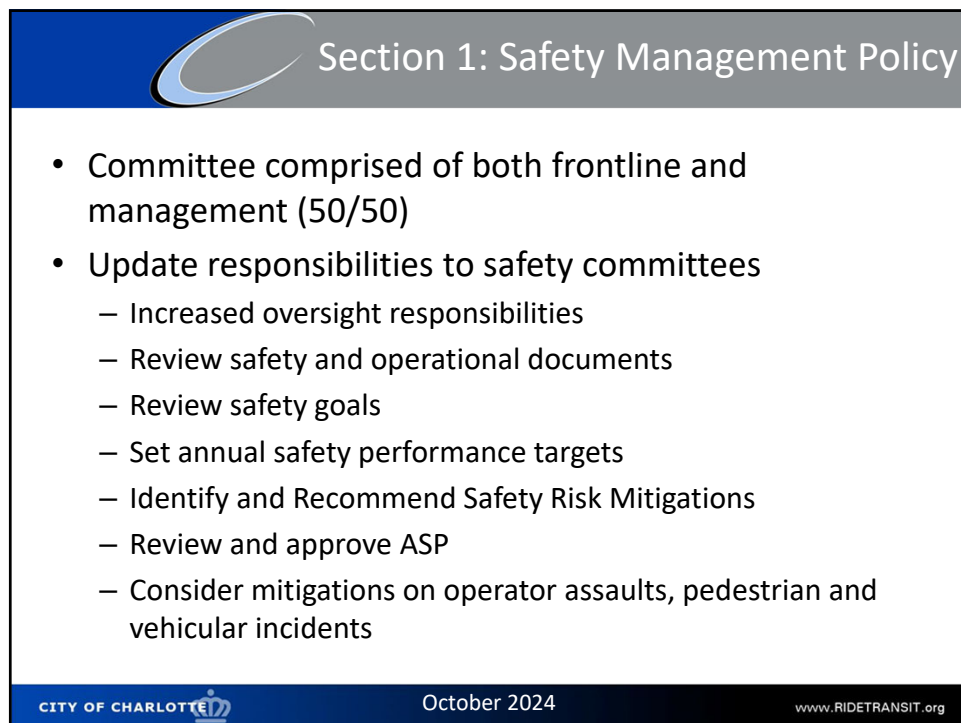


Section 1: Safety Management Policy

- Update system description
- Update responsibilities of Chief Executive Officer
- Safety risk reduction program will help to improve safety performance by reducing the number and rates of the following:
 - Safety events
 - Injuries
 - Assaults on transit workers
 - Vehicular and Pedestrian safety


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Section 1: Safety Management Policy

- Committee comprised of both frontline and management (50/50)
- Update responsibilities to safety committees
 - Increased oversight responsibilities
 - Review safety and operational documents
 - Review safety goals
 - Set annual safety performance targets
 - Identify and Recommend Safety Risk Mitigations
 - Review and approve ASP
 - Consider mitigations on operator assaults, pedestrian and vehicular incidents


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Section 1: Safety Management Policy


- Added information regarding exposure to infectious diseases provided by the CDC or a State health authority will be analyzed and used to monitor safety performance and safeguard CATS employees.
- Allocate safety set-aside in the following fiscal year to safety-related projects that will assist in meeting safety performance targets.

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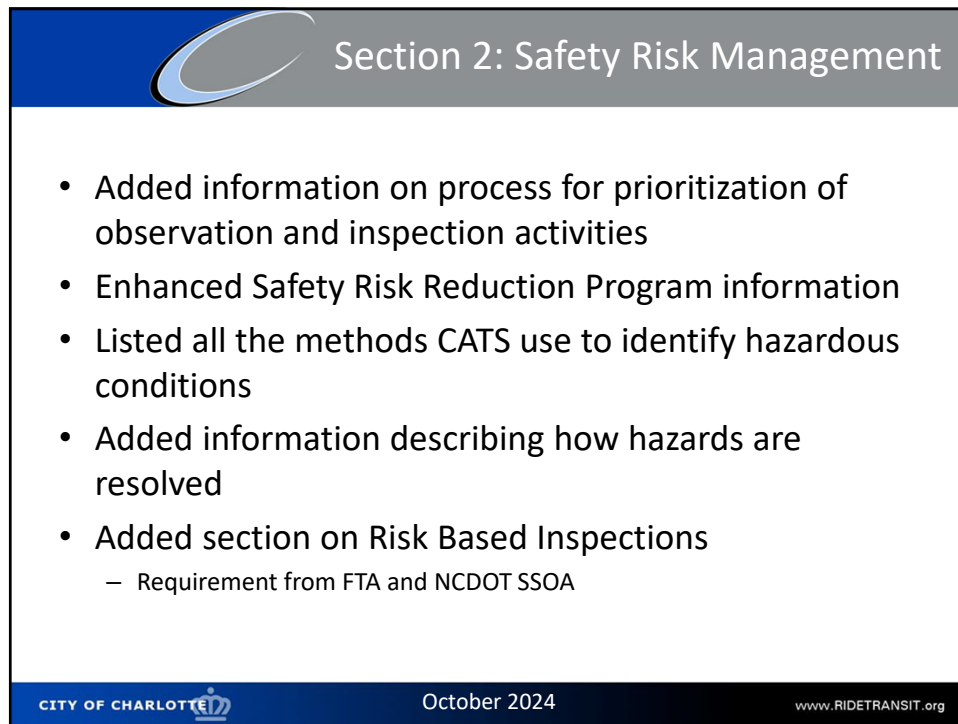
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Section 2: Safety Risk Management


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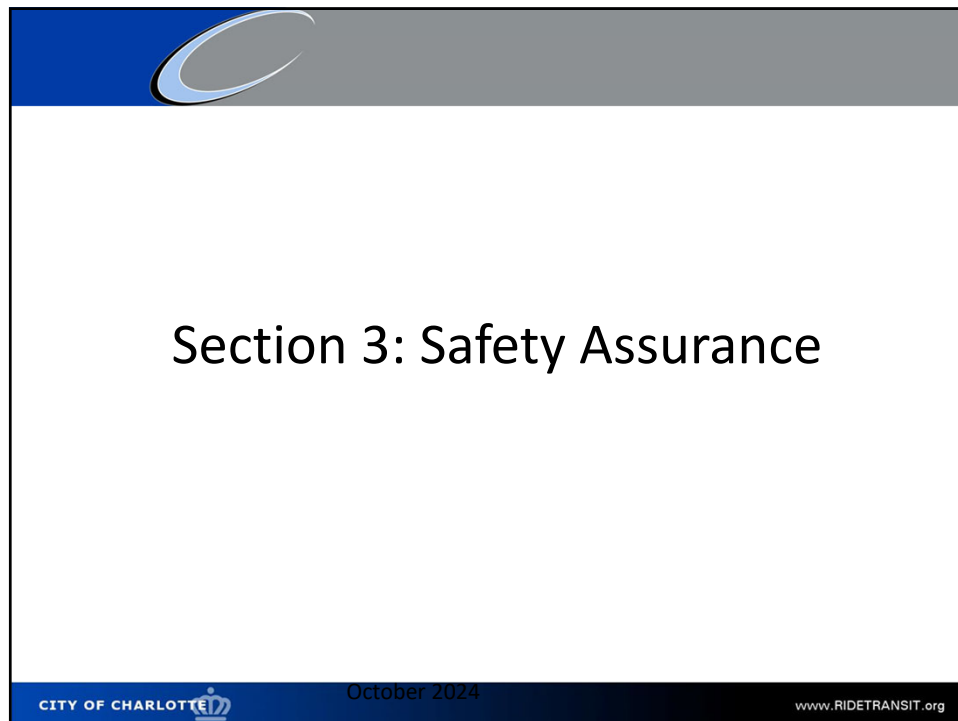


Section 2: Safety Risk Management


- Added information on process for prioritization of observation and inspection activities
- Enhanced Safety Risk Reduction Program information
- Listed all the methods CATS use to identify hazardous conditions
- Added information describing how hazards are resolved
- Added section on Risk Based Inspections
 - Requirement from FTA and NCDOT SSOA

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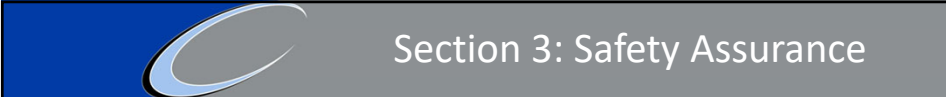
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Section 3: Safety Assurance


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Section 3: Safety Assurance


- Added information on safety performance monitoring and measurement
- Changed Internal Safety Audits to Internal Safety Reviews
- Added information on Transit Asset Management and specific reporting requirements
- Added requirement to notify NCDOT SSOA on all rail-related projects
- Added information on maintaining ASP related documents

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Section 4: Safety Promotion

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Section 4: Safety Promotion


- Added information on employees receiving de-escalation and emergency preparedness training
- Updated information on the ROCC training requirements
- 49 CFR 672 is FTA Regulation specifying safety specific training required to complete
 - Regulation was revised in August 2024
 - Added additional requirements from the revised 672 standard
- Added information on record keeping
- Added information on communicating safety information throughout CATS to all employees

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QUESTIONS



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**METROPOLITAN TRANSIT COMMISSION
ACTION ITEM
STAFF SUMMARY**

SUBJECT: All-Access Pass Agreements

DATE: November 20, 2024

1.0 PURPOSE/SCOPE: Approve pilots with two (2) non-traditional All-Access Pass programs with The Relatives and Link Apartments Cykel (Grubb Properties).

2.0 BACKGROUND: In February 2017, the MTC approved a change in the Fare Policy to allow for All-Access Pass Agreements. This policy allows for CATS to negotiate with a third-party organization wherein CATS extends a discounted bulk rate and the third-party and or employees combined purchases passes at that rate for substantially all members, clients, or employees of that third party.

CATS has recently been approached by two entities about pass programs for their organizations. To reduce barriers to accessing transit and administrative burden, the All-Access pass program was recommended to both entities. In both cases the All-Access Pass program would extend beyond employees and encompass people using their services. CATS would like to pilot these two non-traditional programs at the same price as our university program at \$50 per participant. To secure this pricing everyone would need to participate in the program in the organization, rather than just paying if they want to opt-in the program.

This program and pricing model is being reviewed as part of the CATS Fare Policy project, and until a new fare structure is adopted, CATS would like to utilize the \$50 annual price for organizations looking to enroll in the program for their entire organization. All-access pass program pricing is not readily available for all transit systems, however, for those were able to find \$50 annually is not out of line.

The two organizations CATS would like to pilot the All-Access Pass program with are:

The Relatives - A non-profit focused on serving youth (ages 7-24) in crisis through a system of resources that aids them in finding shelter and support.

- The All-Access Pass would provide passes to their youth client base and employees. The pass pricing would be based on 500 participants (the 450 clients they serve and 50 employees). This would equate to \$25,000 annually.

Grubb Properties, Link Apartments Cykel (539 State St, Charlotte) – This new apartment complex is focused on fostering a sustainable and active lifestyle in Seversville, Charlotte while embracing the freedom of car-free living with the Stewart Creek Greenway and CityLynx Gold Line.

- The All-Access Pass would provide passes to all residents and employees. The pass pricing would be based on 125 participants (the maximum residents of 118 people and 7 employees). This would equate to \$6,250 annually.

3.0 **PROCUREMENT BACKGROUND:** N/A

4.0 **POLICY IMPACT:** N/A

5.0 **ECONOMIC IMPACT:** Staff estimates \$31,250 annually in combined all-access pass revenue for both The Relatives and Link Apartments Cykel.

6.0 **ALTERNATIVES:**

- 1) Approve the All-Access Pass pricing.
- 2) Not approve the All-Access Pass pricing.

7.0 **RECOMMENDATIONS:** It is recommended that the MTC approve Alternative 1.

8.0 **ATTACHMENT:** N/A

SUBMITTED AND RECOMMENDED BY:



Brent Cagle
Interim Chief Executive Officer, Charlotte Area Transit System
Director of Public Transit, City of Charlotte

**METROPOLITAN TRANSIT COMMISSION
ACTION ITEM
STAFF SUMMARY**

**SUBJECT: Public Transit Advisory Committee
Recommendations**

DATE: November 20, 2024

- 1.0 PURPOSE/SCOPE:** The Chairpersons to the Citizens Transit Advisory Group (CTAG) and Transit Services Advisory Committee (TSAC) may present recommendations for the new Public Transit Advisory Committee (PTAC). This item is on the agenda in the event that the MTC desires to take action to adopt or amend the recommendations.
- 2.0 BACKGROUND:**
- On August 28, 2024, the MTC approved the Second Amended and Restated MTC Interlocal Agreement. The amended interlocal makes several changes to the MTC's advisory board structure:
 - As of January 1, 2025 the current advisory boards to the MTC, CTAG and TSAC, shall be dissolved, and
 - On January 1, 2025, a new Public Transit Advisory Committee (PTAC) shall be formed.
 - On September 25, 2024, the MTC amended their Rules of Procedure; including provisions pertaining to PTAC's composition, meetings, membership, officers, requirements, responsibilities, and terms.
 - At the same September meeting, CTAG and TSAC Chairpersons expressed an interest in providing input related to the new advisory board, PTAC.
 - The Chairpersons for CTAG and TSAC may have recommendations regarding PTAC that will be announced at the MTC's November 20th meeting that may require MTC action.
- 3.0 PROCUREMENT BACKGROUND:** N/A
- 4.0 POLICY IMPACT:** N/A
- 5.0 ECONOMIC IMPACT:** N/A
- 6.0 ALTERNATIVES:** N/A
- 7.0 RECOMMENDATION:** Receive and discuss CTAG and TSAC Chairpersons' recommendations for PTAC, and, if necessary, take action to adopt or amend the proposals.
- 8.0 ATTACHMENT(S):** N/A

SUBMITTED AND RECOMMENDED BY:



**Brent Cagle
Interim Chief Executive Officer, Charlotte Area Transit System
Assistant City Manager, City of Charlotte**

APPENDIX



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

October 23, 2024

Mr. Brent Cagle
Interim Chief Executive Officer, Charlotte Area Transit System
Assistant City Manager, City of Charlotte
600 E. 4th Street, CMGC - 7th Floor
Charlotte, NC 28202

Subject: North Carolina Department of Transportation (NCDOT) State Safety Oversight (SSO) Program – Conditional Approval of the Charlotte Area Transit System (CATS) Agency Safety Plan (ASP), Rev. 4-Final Draft

Dear Mr. Cagle:

As part of NCDOT's collaborative approach to overseeing and enforcing safety standards for CATS' rail public transit systems, NCDOT and CATS conduct regular informal meetings throughout the year to discuss and identify opportunities to strengthen current safety policies, procedures, and processes as documented in CATS' ASP. As such, NCDOT has reviewed the revised ASP and provided additional technical guidance for multiple iterations of CATS' 2024 ASP revisions and updates.

On July 12, 2024, CATS submitted its ASP, Rev. 4 final draft to NCDOT for review and conditional approval. NCDOT returned the ASP, Rev. 4 to CATS with comments and required updates. Subsequently, CATS enlisted the support of its consulting contractor team and facilitated meetings between the CATS' ASP revision team and NCDOT on 9/13/24 and 10/4/24 to discuss additional required revisions and updates. During these meetings and ASP content reviews, NCDOT provided technical guidance to the CATS ASP revision team for additional revisions needed to meet the regulatory requirements. This ongoing collaboration included revisions to the CATS Safety Performance Metrics to meet the requirements of the revised 49 CFR Part 673 rule and the revised National Safety Plan.

On October 22, 2024, CATS re-submitted its ASP, Rev. 4 final draft to NCDOT for review and conditional approval. Following its review of this version of CATS' ASP document, NCDOT has determined that ASP, Rev. 4 meets the requirements of 49 CFR Part 673, 49 U.S.C. 5329(d), and NCDOT's State Safety Oversight Program Standard (SSOPS). Final NCDOT approval of the revised ASP is dependent upon the required review and approval by CATS' Rail Safety & Security Committee, followed by approval of CATS' oversight authority, the Metropolitan Transit

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Customer Service: 1-877-368-4968
Website: www.ncdot.gov
www.ncbytrain.org

Location:
862 CAPITAL BLVD
RALEIGH, NC 27603

Commission (MTC), and must include the approval and signature of CATS’ interim Chief Executive Officer.

Per 49 CFR Part 674.29, NCDOT hereby assigns Conditional Approval to the CATS ASP, Rev. 4-Final Draft document and will assign final approval upon receipt of your subsequent ASP submittal to include the required review and approval documentation listed above.

Additionally, NCDOT wishes to recognize that this revised ASP is by far the most comprehensive documented plan, for establishing CATS’ minimum safety standards, since CATS first published its ASP in 2020. This level of effort clearly indicates that CATS is committed to advancing the Safety Culture and SMS at CATS.

NCDOT appreciates the CATS ASP revision team’s commitment to safety and the level of resources which CATS’ leadership team has dedicated to this effort. NCDOT is also appreciative of the multiple collaboration meetings and ASP review opportunities provided by CATS S&S staff.

If you have any questions, please contact me at 919-707-4102.

Regards,



Jahmal Pullen, PE
Engineering Coordination and Safety Manager
Interim SSO Program Manager
Rail Division
North Carolina Department of Transportation

Cc: Elizabeth Presutti, CATS
David Moskowitz, CATS
Chad Hagans, CATS
Laura Johnson, CATS
Jason Sergent, NCDOT Contractor
Don Pike, NCDOT Contractor
Jerrad Jones, NCDOT Contractor
Colin Leahy, NCDOT Contractor



Agency Safety Plan

November 2024
Revision 4

CHARLOTTE AREA TRANSIT SYSTEM (CATS)
Charlotte-Mecklenburg Government Center (CMGC)
600 East Fourth Street
Charlotte, NC 28202

Document Revision Policy

This plan is complemented by, and dependent on, other supporting documents by CATS and other third parties. The CATS General Manager of Safety and Security determines the distribution for this document. Previous revisions of this document must be discarded or identified as superseded when a new revision is issued. Anyone referring to a copy of this document must verify they are using the latest revision.

This document is available electronically on CNet under Departments>Charlotte Area Transit System>CATS Policies and Procedures.

Document Revision Record

Revision	Effective Date
Revision 0	April 1, 2020
Revision 1	October 20, 2021
Revision 2	November 14, 2022
Revision 3	August 23, 2023
Revision 4	TBD

David Moskowitz
CATS General Manager of Safety and Security
and Chief Safety Officer

Date

Victoria Johnson
Chief Operating Officer (COO)

Date

Brent Cagle
Interim Chief Executive Officer,
Charlotte Area Transit System
Director of Public Transit, City of Charlotte

Date

Summary of Changes
Revision 4
August 2024

Location	Change
Entire document	<ul style="list-style-type: none"> Minor wording and formatting changes to improve clarity.
ii	<ul style="list-style-type: none"> Revised signatories job titles
Definitions	<ul style="list-style-type: none"> Added: Assault on a Transit Worker, Center for Disease Control, Emergency, Injury, Internal Safety Review (ISR), Joint Labor- Management Process, Large Urbanized Area Provider, Near Miss, Potential Consequence, Public Transportation, Recipient, Roadway, Safety Committee, Safety Management Policy, Safety Management System (SMS) Executive, Safety Performance Target, Safety Promotion, Safety Set-Aside, Transit Agency, Transit Worker, Urbanized Area Revised: Accountable Executive, Chief Safety Officer, FTA, Hazard, Investigation, Internal Safety Review, National Transportation Safety Board (NTSB), Operator of a Public Transportation System, Performance Measure, Rail Fixed Guideway Public Transportation System (RFGPTS), Rail Transit Agency (RTA), Safety Event, Safety Management System (SMS), Safety Risk Management, Transit Asset Management (TAM) Plan Removed: Accident, Cause of Derailment, Event, Incident, Occurrence, Performance Target, Serious Injury Changed: Equivalent Authority to Equivalent Entity, Risk to Safety Risk, Risk Mitigation to Safety Risk Mitigation Adjusted alphabetization of definitions
Acronyms	<ul style="list-style-type: none"> Added BSSC, CDC, FRA, ISR, NBLRF, OHA, RBI, RSSC, SRMI Removed ISA, RWP
Purpose and Scope	<ul style="list-style-type: none"> Added “CATS’ Safety Management System is appropriately scaled to the size, scope, and complexity of our transit agency.”
1.1	<ul style="list-style-type: none"> Updated paragraph 5 to include “CATS Management is committed to working with and cooperating with frontline transit worker representatives through the safety committees’ roles and responsibilities described below in Section 1.6.1 of this document that ensure frontline transit workers are part of the process in developing safety objectives and implementing the SMS program.” Added location to CATS Safety Objectives: “The CATS Safety Objectives are listed in the CATS Agency Safety Plan (ASP), Section 1.2.2.”
1.2.2	<ul style="list-style-type: none"> Added paragraphs 3 and 4 to address CATS safety performance target guidelines and the CATS safety risk reduction program. Revised Performance Measures list.

1.3	<ul style="list-style-type: none"> Added introduction paragraph to section.
1.3.2	<ul style="list-style-type: none"> Revised bus operating starting hours to 4:45 am from 5:00 am. Revised number of buses to 246. Revised number of electric buses to 20.
1.3.4	<ul style="list-style-type: none"> Revised vanpool numbers to 76.
1.4	<ul style="list-style-type: none"> Changed from SMS Structure to CATS ASP Organizational Structure.
1.4.2	<ul style="list-style-type: none"> Revised language around the responsibilities of the CEO of CATS as Accountable Executive. Added to end of paragraph one "The CEO may delegate responsibilities, but the ultimate accountability for CATS' safety performance cannot be delegated and must also rest with the CEO." Added second paragraph.
1.4.3	<ul style="list-style-type: none"> Added "The CSO shall receive a monthly report on the SGR status for capital rail assets for review and be provided an update monthly on the status of the TAM Plan implementation."
1.4.6	<ul style="list-style-type: none"> Revised and expanded citations to requirements and references at the end of paragraph two.
1.5	<ul style="list-style-type: none"> Revised Quality Assurance Manager's responsibilities in Table 2 – Safety Responsibilities. Added new third paragraph "CATS will annually provide NCDOT SSOA a staffing report on all key rail system functions that details current staffing levels (filled positions), vacancies, and any identified additional employee positions."
1.6	<ul style="list-style-type: none"> Revised Table 3 to expand Committees' Safety Responsibilities for RSCC & BSSC.
1.6.1	<ul style="list-style-type: none"> Added new section for Rail Safety and Security Committee Roles and Responsibilities.
1.7	<ul style="list-style-type: none"> Added to the beginning of paragraph 5, "Employees can report safety concerns, including assaults on transit workers, near-misses, unsafe acts, and hazards."
1.8	<ul style="list-style-type: none"> Added second sentence, "The CATS Safety Policy references the transit agency's safety objectives in Section 2.1.1 and Section 1.6.1 that describes the transit agency's Safety Committee and assurance frontline employees will be included in developing safety goals and implementing SMS."
1.9	<ul style="list-style-type: none"> Added second paragraph about how to deal with infectious diseases.

1.12	<ul style="list-style-type: none"> Added new section on Safety Set-Aside Allocation.
2.2.1	<ul style="list-style-type: none"> Added new introduction sentence. Revised item 1 to “Safety concerns identified through Safety Assurance activities carried out under § 673.27.” Added to end of item 3, “The Office of Safety and Security is reviewing its current processes for prioritization of observation and inspection activities. The hazard management program, audit and corrective action procedures will be reviewed and updated accordingly.” Added new items 11 & 12.
2.2.4	<ul style="list-style-type: none"> Added to beginning of paragraph one, “CATS utilizes trending logs and a risk register.” Added to end of paragraph one, “CATS is working toward a software application to assist with the hazard log and risk register.” Revised beginning of paragraph 5 to “The Hazard Tracking Logs are managed to eliminate, reduce, or control each hazard to an acceptable level. Identified hazards are assigned a hazard rating.”
2.2.5	<ul style="list-style-type: none"> Complete revision and expansion of the safety risk reduction program.
2.3.1	<ul style="list-style-type: none"> Added to paragraph 1, “This section describes CATS’ specific means of categorizing and assessing risk throughout the agency. CATS has adopted the Department of Defense Standard Practice for System Safety (MIL-STD-882E).” Added new paragraph 3.
2.4.1	<ul style="list-style-type: none"> Revised section on “Resolving Hazardous Conditions” as part of Safety Risk Mitigations.
2.5.2	<ul style="list-style-type: none"> Added new last paragraph about the Quarterly Safety Data reports submitted to NCDOT.
2.5.3	<ul style="list-style-type: none"> Added two new bullet items: FTA guidance and SSOA guidance.
2.6	<ul style="list-style-type: none"> Added new section and subsections on Risk-Based Inspections.
3.2.1	<ul style="list-style-type: none"> Added new last sentence, “CATS safety committee reviews ISR reports and findings and any associated corrective action plans.”
3.2.2	<ul style="list-style-type: none"> Added new list item to Organizational Functions subject to IRS process. Revised item 3 Safety Assurance Section §673.27(c), by expanding sub-list item 2 Safety Performance Monitoring and Measurement.
3.2.11	<ul style="list-style-type: none"> Added “...CAPs log, per section 3.4.8.3 – Corrective Action Plans. If applicable, any finding deemed to be identified as a hazard will be added to

	<p>the Hazard Management Log along with a hazard rating being assigned per the Hazard Management Process.”</p> <ul style="list-style-type: none"> • Added, “A monthly summary report will be provided to NCDOT.”
3.3.1	<ul style="list-style-type: none"> • Added to end of paragraph eight, “CATS shall submit a copy of its written annual report for the RTA’s capital assets inventory and SGR ratings within fifteen (15) calendar days of the RTA’s annual submittal to FTA’s NTD website. The TAM Plan will be reviewed annually. Additional information on the TAM Plan is included in section 3.3.7 Transit Asset Management Plan.”
3.3.2	<ul style="list-style-type: none"> • Added a new paragraph two about planned shutdown periods for infrastructure maintenance activities.
3.3.7	<ul style="list-style-type: none"> • Added new section for Transit Asset Management Plan.
3.5.1.2	<ul style="list-style-type: none"> • Added to the end of paragraph 1, “...if the change introduces a new hazard or impacts CATS safety performance. If so, CATS Safety evaluates the proposed change through its Safety Risk Management process as described in section 2.2 Hazard Management Process.” • Added to the first bullet, “The Rail Safety and Security Committee will review those items identified as introducing a new hazardous condition by the safety department. They will also review guidance documents.” • Added second to last paragraph, “Once a safety related change has been finalized, some form of training of affected employees on the change, when practicable, shall be completed prior to implementing the new policy or procedure.
3.5.2.1	<ul style="list-style-type: none"> • Added new paragraph two, “CATS shall notify NCDOT of all rail-related planned modifications to existing systems, vehicles, and equipment and any rail New Starts Projects at the beginning of the Preliminary Engineering Phase of the modification or Project Life Cycle: including the requirements set forth in FTA’s Circular 5800.1 and 49 CFR Part 633.”
3.5.2.2	<ul style="list-style-type: none"> • Added a new starting paragraph to item 2, “Control of Records“, about CATS maintenance of documents related to SMS processes and activities.
3.5.3	<ul style="list-style-type: none"> • Added to end of paragraph three, “CATS will comply with FTA’s Circular 5800.1, FTA’s Project and Construction Management Guidelines, and 49 CFR Part 633.”
4.2	<ul style="list-style-type: none"> • Added to Paragraph 4 that the ASP must be approved by the RSSC and MTC. • Added a new paragraph 5, “The CEO submits an annual certification of compliance, to NCDOT SSO, for Part 673 and the NCDOT SSOPS by February 15 of each year.”
4.5.2	<ul style="list-style-type: none"> • Added to paragraph 1, “CATS tracks OSHA training for the various City positions using Learning Management System software.”

4.5.3	<ul style="list-style-type: none"> Added website link to FTA Drug and Alcohol Regulation updates.
4.6.2	<ul style="list-style-type: none"> Added to paragraph 1, "TMOc provides this information for Bus Operations."
4.6.3	<ul style="list-style-type: none"> Added new paragraph 3 stating that "All employees receive safety related training on SMS, emergency preparedness, and de-escalation. The Training Department reviews and approves all training materials and maintains appropriate training records." Added to refresher training for bus "... four-hour refresher training as operators are available." Added section on ROCC Recertification Training. Revised section on ROCC Controller Training, ROCC Refresher Training sections. Revised Section on 49 CFR 672 Safety Training. Added information on CATS Safety recertification training.
4.6.5	<ul style="list-style-type: none"> Revised where training records are kept and who controls them.
4.7	<ul style="list-style-type: none"> Added new section for "Safety Communication".
4.8	<ul style="list-style-type: none"> Added to paragraph six, "elimination, substitution, engineering controls, administrative control,".
List of Tables	<ul style="list-style-type: none"> Revised table numbers and titles
Appendices	<ul style="list-style-type: none"> Reorganized Appendices Removed EX03 Safety Policy
Appendix A	<ul style="list-style-type: none"> Revised titles Removed inactive documents
Appendix G	<ul style="list-style-type: none"> Added Annual Safety Targets and Results
Appendix H	<ul style="list-style-type: none"> Updated and closed remaining open items in the ASP implementation plan.

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Definitions

Accident Bus: An event that involves any of the following: a fatality; bodily injury in which that person receives immediate medical attention away from the scene of the accident; or at least one of the vehicles involved in the accident had to be towed from the scene.

Accountable Executive: A single, identifiable person who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a transit agency; responsibility for carrying out the transit agency's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the transit agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the transit agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.

Administrator: The Federal Transit Administrator or the Administrator's designee.

Agency Safety Plan (ASP): See Public Transportation Agency Safety Plan (PTASP).

All-Hazards Approach: An ideology and approach used by planners to conduct integrated planning and build capability for safety, security, and emergency management, and to optimize and continuously improve the use of resources and the management of risks from hazards, threats, vulnerabilities, and adverse events or incidents.

APTA Guidelines: The American Public Transit Association's (APTA) *Manual for the Development of Rail Transit System Safety Program Plans*, published on August 20, 1991 (revised June 2001).

Assault on a Transit Worker: As defined under 49 U.S.C. 5302, a circumstance in which an individual knowingly, without lawful authority or permission, and with intent to endanger the safety of any individual, or with a reckless disregard for the safety of human life, interferes with, disables, or incapacitates a transit worker while the transit worker is performing the duties of the transit worker.

Bus Collision: the motor vehicle striking or being struck by another vehicle, person, or object.

Capital Asset: Any unit of the rail transit agency's rolling stock, facilities, equipment, or an element of infrastructure used for providing public transportation.

Center for Disease Control (CDC): The Centers for Disease Control and Prevention of the United States Department of Health and Human Services.

Charlotte Regional Transportation Planning Organization (CRTPO): The federally designated Metropolitan Planning Organization (MPO) for the Charlotte Urbanized Area.

Chief Safety Officer (CSO): an adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Chief Safety Officer may not serve in other operational or maintenance capacities, unless the Chief Safety Officer is employed by a transit agency that is a small public transportation provider as defined in this part, or a public transportation provider that does not operate a rail fixed guideway public transportation system.

Contractor: An entity that performs tasks on behalf of the Federal Transit Administration (FTA), a State Safety Oversight Agency (SSOA), or a Rail Transit Agency (RTA), through contract or other agreement. The contractor may not perform tasks for the oversight agency and the RTA at the same time.

Corrective Action Plan (CAP): A plan developed by a Rail Transit Agency (RTA) that describes the actions the RTA will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for taking those actions. Either a State Safety Oversight Agency (SSOA) or the Federal Transit Administration (FTA) may require an RTA to develop and carry out a Corrective Action Plan.

Designated Personnel: Can be defined in the following two ways:

1. Employees and contractors identified by the CATS Agency Safety Plan whose job function is directly responsible for safety oversight of CATS Transportation Services; or
2. Employees and contractors of a State Safety Oversight Agency whose job functions require them to conduct safety audits and examinations of the rail fixed guideway public transportation systems subject to the jurisdiction of the agency.

Derailment: A non-collision event that occurs when a train or other rail vehicle unintentionally comes off its rail, causing it to no longer be properly guided on the railway. A derailment occurs when the LRV or on-track equipment leaves the rail for a reason other than a collision, explosion, highway-rail grade crossing impact, etc.

Directly responsible for safety oversight: Public transportation agency personnel whose primary job function includes the development, implementation, review, and enforcement of the agency's safety plan, and/or the State Safety Oversight Agency (SSOA) requirements for the rail fixed guideway public transportation system, pursuant to 49 CFR parts 659 or 674.

Emergency: As defined under 49 U.S.C. 5324, a natural disaster affecting a wide area (such as a flood, hurricane, tidal wave, earthquake, severe storm, or landslide) or a catastrophic failure from any external cause, as a result of which the Governor of a State has declared an emergency and the Secretary has concurred; or the President has declared a major disaster under section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5170).

Equivalent Entity: An entity that carries out duties similar to that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient's Public Transportation Agency Safety Plan. The Metropolitan Transit Commission (MTC) is CATS Equivalent Authority.

Emergency Conditions: Unexpected events or incidents that occur naturally or manmade that impact the ability of CATS to operate normal service that causes a hazardous condition requiring an immediate response.

Emergency Operations Plan (EOP): Describes the coordination and preparedness activities related to an organization's emergency response policies and procedures, including: the assignment of employee responsibilities during an emergency; specific emergency response annexes, as deemed necessary; and addressing various threats and vulnerabilities specific to internal organizational systems, functions, or work groups.

Emergency Management Program (EMP): A comprehensive framework, including plans, policies, and procedures, established to manage an All-Hazards Approach to emergency preparedness and response activities. This framework addresses the five phases of emergency management: prevention, preparedness, response, recovery, and mitigation. It incorporates, by reference, integration of the Emergency Operations Program (EOP) and its annexes.

Examination: A process for gathering or analyzing facts and information related to the safety of a rail fixed guideway public transportation system.

Finding of Noncompliance: A determination of noncompliance made when the facts disclosed during an investigation, compliance review, hazard trend analysis, or other information, indicate a failure to comply with the provisions of the State Safety Oversight Program Standard.

FRA: The Federal Railroad Administration. An agency within the U.S. Department of Transportation.

FTA: The Federal Transit Administration, an operating administration within the United States Department of Transportation.

FTA Reportable Event (Rail Only): A rail event that meets the notification threshold for the Federal Transit Administration (FTA). A Non-FTA Reportable Event does not rise to the threshold for reporting to the FTA but is required to be reported to NCDOT per 49CFR Part 674 and the SSOPS.

Hazard: Any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

Hazard Management Log: An information management tool for tracking identified hazards, rating the hazards, any mitigations, and how the hazard is resolved. Unacceptable and Undesirable Hazardous Conditions must be captured in the Risk Register.

Homeland Security Exercise and Evaluation Program (HSEEP): A set of guiding principles for exercise programs related to national security, as well as a common approach to the management, design and development, execution, evaluation, and improvement planning for such programs.

Injury: Any harm to persons as a result of an event that requires immediate medical attention away from the scene.

Infrastructure: The underlying framework or structures that support a public transportation system.

Inspection: A physical observation of equipment, facilities, rolling stock, operations, or records for the purpose of gathering or analyzing facts or information.

Inspection Data: Data that includes, but is not limited to, inspection records and report forms, records of failures and defects with severity, records of speed restrictions, including the reason for applying, incident and safety risk mitigation verification, adherence to inspection schedules,

including reports/documentation of inspections not performed, and capital project schedules and progress.

Internal Safety Review (ISR): As an extension of the NCDOT SSO Program, the RTA's Safety Department Staff are responsible for establishing an internal safety auditing/review program designed to assess the level of safety and safety performance for its ASP and SMS.

Investigation: The process of determining the causal and contributing factors of a safety event or hazard, for the purpose of preventing recurrence and mitigating safety risk.

Individual: Any person on the property of a Transit Agency.

Joint labor-management process: A formal approach to discuss topics affecting transit workers and the public transportation system.

Large urbanized area provider: A recipient or subrecipient of financial assistance under 49 U.S.C. 5307 that serves an urban area with a population of 200,000 or more as determined by the most recent decennial Census.

Maintenance Data: Data that includes, but is not limited to, major maintenance activity schedule and progress, adherence to maintenance schedules, including reports/documentation of deferred maintenance, records of failures and defects with severity if applicable, and records of revenue vehicles out of service, including causal information.

Major Project: Any rail transit agency system expansion, modification, or refurbishment of a capital asset that impacts safety, regardless of project type, funding source, or budget.

National Public Transportation Safety Plan: The plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53.

NCDOT: The North Carolina Department of Transportation. The designated State Safety Oversight Agency (SSOA) for the State of North Carolina.

NCDOT/RTA Major Projects Liaison: RTA employee responsible for assuring effective and timely project communication with NCDOT and/or designee, along with the RTA's senior safety staff.

National Transportation Safety Board (NTSB): An independent Federal agency charged with determining the probable cause of transportation accidents, promoting transportation safety, and assisting victims of transportation accidents and their families.

New Starts Project: One type of transit capital investment project for a Rail Transit Agency funded under FTA's 49 U.S.C.5309 discretionary construction program.

Near Miss: a narrowly avoided safety event.

Operator of a Public Transportation System: A provider of public transportation.

Passenger: A person who is on board, boarding, or alighting from a rail or bus transit vehicle for travel.

Passenger Operations: The period when any aspect of a Transit Agency's operations is initiated within revenue service with the intent to carry passengers.

Performance Measure: An expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets.

Person: A passenger, employee, contractor, pedestrian, trespasser, or any individual on the property of a transit agency.

Point of Derailment: The point on the rail where the normal wheel-rail relationship was disturbed.

Potential Consequence: The effect of a hazard.

Preliminary Engineering Phase: The second developmental phase required for New Starts Projects to receive Federal funds. During this phase, project sponsors investigate the merits of all potential configurations and designs in greater detail. The results of this phase provide the basis for subsequent funding and implementation decisions. This phase concludes with the request to enter the final design phase.

Public Transportation: As defined under 49 U.S.C. 5302, regular, continuing shared-ride surface transportation services that are open to the general public or open to a segment of the general public defined by age, disability, or low income; and does not include:

- (1) Intercity passenger rail transportation provided by the entity described in 49 U.S.C. chapter 243 (or a successor to such entity);
- (2) Intercity bus service;
- (3) Charter bus service;
- (4) School bus service;
- (5) Sightseeing service;
- (6) Courtesy shuttle service for patrons of one or more specific establishments; or
- (7) Intra-terminal or intra-facility shuttle services.

Public Transportation Agency Safety Plan (PTASP): The documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and 49 CFR Part 673.

Public Transportation Safety Certification Training Program (PTSCTP): The certification training program for Federal and State employees, or other designated personnel, who conduct safety audits and examinations of public transportation systems, and employees of public transportation agencies directly responsible for safety oversight, established in 49 CFR Part 672.

Qualification Level (QL): The practical examination for a qualifying Rail/Streetcar Operator is scored based on three levels. A Qualification Level 1 (QL-1) requires no performance or safety deviations, and the operator performed all functions with complete accuracy and confidence level was high. A Qualification Level 2 (QL-2) requires the operator to have only minor performance deviations, no safety related deviations, the operator performed the majority of the functions with accuracy and their confidence level was high to moderate. A Qualification Level 3 (QL-3) is a

failing score with the occurrence of major performance and/or safety deviations and the operator's confidence level was low and uncertain.

Rail Collision: An impact in which one piece of on-track equipment strikes another piece of on-track equipment, railroad property, object, person, or non-rail vehicle.

Rail Incident: An event that involves any of the following: a loss of life; a serious injury to a person; a collision involving a rail transit vehicle; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause. An accident must be reported in accordance with the thresholds for notification and reporting set forth in the State Safety Oversight Program Standard (SSOPS).

Rail Fixed Guideway Public Transportation System (RFGPTS): Any fixed guideway system, or any such system in engineering or construction, that uses rail, is operated for public transportation, is within the jurisdiction of a State, and is not subject to the jurisdiction of the Federal Railroad Administration. These include but are not limited to rapid rail, heavy rail, light rail, monorail, trolley, inclined plane, funicular, and automated guideway.

Rail Transit Agency (RTA): Any entity that provides services on a rail fixed guideway public transportation system.

Rail Transit-Controlled Property: Property that is used by the Rail Transit Agency (RTA) and may be owned, leased, or maintained by the RTA.

Rail Transit Vehicle: The RTA's rolling stock, including, but not limited to, passenger and maintenance vehicles.

Recipient: A State or local governmental authority, or any other operator of a public transportation system, which receives financial assistance under 49 U.S.C. chapter 53.

Risk Register: An information management tool used to document Safety Risk Management and Safety Assurance activities. It records the hazards identified by the transit agency, the potential consequences associated with those hazards, initial safety risk ratings, new mitigations implemented to eliminate or minimize the risk associated with the hazard, revised safety risk rating, and mitigation monitoring measures and activities to ensure the implementation and effectiveness of mitigations.

Roadway: Land on which rail transit tracks and support infrastructure have been constructed to support the movement of rail transit vehicles, excluding station platforms.

Safety: Freedom from harm resulting from unintentional acts or circumstances.

Safety Assurance: Processes within a transit agency's Safety Management System that function to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Safety Audit: A review or analysis of system components for compliance with the safety requirements. Audit methods may include interviews, document and record reviews, firsthand observations of operations and maintenance activities, spot checks, inspections, and visual examinations and measurements.

Safety Committee: The formal joint labor-management committee on issues related to safety that is required by 49 U.S.C. 5329 and this part.

Safety Event: An unexpected outcome resulting in injury or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

Safety Management Policy: A transit agency's documented commitment to safety which defines the transit agency's safety objectives and the accountabilities and responsibilities for the management of safety.

Safety Management System (SMS): The formal, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing hazards and safety risks.

Safety Management System (SMS) Executive: A Chief Safety Officer or an equivalent.

Safety Performance Target: A quantifiable level of performance or condition, expressed as a value for the measure, related to safety management activities, to be achieved within a specified period.

Safety Promotion: A combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.

Safety Program Data: Data that includes, but is not limited to, event data, hazard, safety risk ratings, mitigation data, corrective action plan data, near miss data, and ongoing monitoring data.

Safety Risk: The composite of predicted severity and likelihood of a potential consequence of a hazard.

Safety Risk Assessment: The formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or value of its safety risk.

Safety Risk Management: A process within a transit agency's Public Transportation Agency Safety Plan for identifying hazards and analyzing, assessing, and mitigating the safety risk of their potential consequences.

Safety Risk Mitigation: A method or methods to eliminate or reduce the severity and/or likelihood of a potential consequence of a hazard.

Safety set-aside: The allocation of not less than 0.75 percent of assistance received by a large, urbanized area provider under 49 U.S.C. 5307 to safety- related projects eligible under 49 U.S.C. 5307.

Security: Freedom from harm resulting from intentional acts or circumstances.

Sensitive Security Information (SSI): Information as described in 49 CFR § 1520, which is obtained or developed while conducting security activities, the disclosure of which would be detrimental to transportation safety. SSI includes: security program plans; security and

vulnerability assessments; threat information; incident response plans; security directives and measures; security inspection or investigative information; security screening information or procedures; specifications for devices for detection of weapons or destructive devices or substances; specifications for communications equipment used for transportation security; and critical infrastructure information, including drawings, design plans, cut sheets, or architectural drawings.

SPEAR: Database management software for tracking incidents and maintenance records pertaining to equipment for rail and bus operations.

State: A state of the United States, the District of Columbia, Commonwealth of Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.

State of Good Repair (SGR): The condition in which a capital asset can operate at a full level of performance.

State Safety Oversight Agency (SSOA): An agency established by a State that meets the requirements and performs the functions specified by 49 U.S.C. 5329(e) and (k) and the regulations set forth.

State Safety Oversight Program Standard (SSOPS): A written document developed and adopted by a State Safety Oversight Agency to describe the policies, objectives, responsibilities, and procedures used to provide Rail Transit Agency safety oversight.

Substantial Damage: Damage which adversely affects the structural strength, performance, or operating characteristics of the vehicle, facility, equipment, rolling stock, or infrastructure that requires towing, rescue, onsite maintenance, or immediate removal prior to safe operation.

System Reliability: The mean distance between major mechanical failures by mode. The System Reliability measure expresses the relationship between safety and asset condition. The rate of vehicle failures in service, defined as mean distance between major mechanical failures, is measured as revenue miles operated divided by the number of major mechanical failures. This is a measure of how well a fleet of transit vehicles is maintained and operated. The Federal Transit Administration (FTA) recognizes the diversity of the transit industry and that agencies have varied equipment types with varied rates of performance. This measure allows agencies to develop safety performance targets that are specific to their fleet type, age, operating characteristics, and mode of operation.

Transit agency: An operator of a public transportation system. that is a recipient or subrecipient of Federal financial assistance under 49 U.S.C. 5307 or a rail transit agency.

Transit Asset Management (TAM) Plan: The strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, to provide safe, cost effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR part 625.

Transit Worker: Any employee, contractor, or volunteer working on behalf of the transit agency.

Unacceptable Hazardous Condition: A hazardous condition determined to be an unacceptable risk according to an established evaluation matrix (MIL-STD-882E) which evaluates the severity

and probability of the risk or any condition deemed by NCDOT to be an unacceptable hazardous condition regardless of hazard rating.

Urbanized area: As defined under 49 U.S.C. 5302, an area encompassing a population of 50,000 or more that has been defined and designated in the most recent decennial census as an urban area by the Secretary of Commerce.

Vehicle: Any rolling stock used on a Rail Fixed Guideway Public Transportation System (RFGPTS), including, but not limited to, passenger and maintenance vehicles.

Acronyms

AAR	After Action Report
AC	Alternating Current
APTA	American Public Transit Association
ASP	Agency Safety Plan
BSSC	Bus Safety and Security Committee
CATS	Charlotte Area Transit System
CDC	Centers for Disease Control and Prevention
CRTPO	Charlotte Regional Transportation Planning Organization
CEO	Chief Executive Officer
COO	Chief Operating Officer
CFR	Code of Federal Regulations
CSO	Chief Safety Officer
EOP	Emergency Operations Plan
EMP	Emergency Management Program
EPCP	Emergency Preparedness and Continuity Plan
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HML	Hazard Management Log
ISR	Internal Safety Review
MOW	Maintenance of Way
MPO	Metropolitan Planning Organization
MTC	Metropolitan Transit Commission
NBLRF	North Brevard Light Rail Facility
NCDOL	North Carolina Department of Labor
NCDOT	North Carolina Department of Transportation
NTD	National Transit Database
NTSB	National Transportation Safety Board
OCS	Overhead Catenary or Contact System
OHA	Operating Hazard Analysis
OSHA	Occupational Safety and Health Administration
PTASP	Public Transportation Agency Safety Plan
PTSCTP	Public Transportation Safety Certification Training Program

RBI	Risk Based Inspection
RCM	Rail Car Maintenance
RFGPTS	Rail Fixed Guideway Public Transportation System
ROW	Right of Way
RSSC	Rail Safety and Security Committee
RTA	Rail Transit Agency
RWPP	Roadway Worker Protection Program
SA	Safety Assurance
SBLRF	South Boulevard Light Rail Facility
SGR	State of Good Repair
SMS	Safety Management System
SOP	Standard Operating Procedure
SRM	Safety Risk Management
SRMI	Safety Risk Management Inspection
SSC	Safety Security Certification
SSCP	Safety and Security Certification Plan
SSI	Sensitive Security Information
SSOA	State Safety Oversight Agency
SSOPS	State Safety Oversight Program Standard
SSOR	State Safety Oversight Reporting
STS	Special Transportation Services
TAM	Transit Asset Management
UHC	Unacceptable Hazardous Condition

Purpose and Scope

The purpose of the Agency Safety Plan (ASP) is to set forth the requirements for identifying, evaluating, and minimizing safety risks throughout Charlotte Area Transit System (CATS) Bus, Rail, and Special Transportation Services (STS). The ASP design and implementation includes the development of a comprehensive Safety Management System (SMS) as described in Federal Transit Administration's 49 CFR, Part 673 and follows the North Carolina State Safety Oversight Program Standards (SSOPS) and the four components of SMS: Safety Management Policy, Safety Risk Management, Safety Assurance (SA), and Safety Promotion. **CATS' Safety Management System is appropriately scaled to the size, scope, and complexity of our transit agency.** The SMS Manager will ensure that the **Federal Transportation Administration (FTA), other Federal Agencies, and the North Carolina Department of Transportation, State Safety Oversight Agency (SSOA) can conduct announced and unannounced inspections** and have access to review all CATS SMS and ASP documentation, audit reports, investigation reports and other safety related documents upon request. These documents will be maintained electronically for a minimum of three (3) years.

CATS shall ensure that NCDOT is notified within twenty-four (24) hours of all safety-related correspondence to or from any federal agencies by email or phone call.

The ASP is specifically developed to:

- Establish the System Safety Program for CATS.
- Identify the relationships and responsibilities of CATS with other City of Charlotte departments and other agencies and organizations that impact transit system safety.
- Provide formal documentation of CATS Management's commitment to safety.
- Provide a framework for implementing CATS' safety policy.
- Achieving CATS system safety goals and objectives in compliance with the *National Public Transportation Safety Plan, January 2017*.
- Satisfy federal, state, and local laws, codes, ordinances, and regulations.

Section 1 Safety Management Policy

1.1 Chief Executive Officer's Safety Management Policy Statement

The following is the Safety Management Policy Statement issued by the Chief Executive Officer (CEO) of the Charlotte Area Transit System (CATS). This policy statement was reviewed and approved by the Metropolitan Transit Commission (MTC).

The Charlotte Area Transit System (CATS) was organized with the mission to provide safe, secure, reliable, and effective rail, bus, and paratransit transportation services to our customers. Accordingly, safety is a primary concern that affects all levels of CATS activities including operations, maintenance, and administrative functions of the organization.

All employees and contractors of CATS are expected to conduct their duties safely, aimed at preventing, controlling, and minimizing undesired events, such as customer or employee injury, equipment or property damage, or degradation to system safety in any CATS function. Employees and customers are CATS' most important assets, and their safety and security are among CATS' greatest responsibilities.

While the minimizing of unsafe conditions and the prevention of accidents in CATS' transportation system and facilities are the responsibility of each employee, they are first and foremost the responsibility of CATS Management. A safety reporting program was established as a viable tool for employees to voice their safety concerns. No disciplinary action will be taken against any employee who communicates a safety concern through the CATS safety reporting program unless such disclosure indicates the following: an illegal act, gross misconduct and/or negligence, or a deliberate or willful disregard of CATS rules, policies, and procedures.

CATS Management is committed to developing a Safety Management System (SMS) and will develop programs to promote the safety and security of all employees and customers. **CATS Management is committed to working with and cooperating with frontline transit worker representatives through the safety committees' roles and responsibilities described below in Section 1.6.1 of this document that ensure frontline transit workers are part of the process in developing safety objectives and implementing the SMS program.** We are fully committed to providing a safe work environment and safe vehicles, systems, and facilities. To that end, CATS' General Manager of Safety and Security is empowered and authorized to administer a comprehensive, integrated Agency Safety Plan.

CATS distributes this Safety Management Policy Statement to each employee and reviews it with employees during employee safety meetings and toolbox talks with supervisors. **The CATS Safety Objectives are listed in the CATS Agency Safety Plan (ASP), Section 1.2.2.** CATS commitment to developing our SMS is supported by the following **additional** safety objectives:

- **Support** the implementation of an effective SMS by providing appropriate resources to support an organizational culture that fosters safe operational policies, encourages effective safety reporting and communication, and actively manages safety with the same attention to results as that given to the other management systems of CATS.

- **Integrate** the management of safety as an explicit responsibility of CATS managers and employees.
- **Clearly define** for all managers, employees, and contractors their accountabilities and responsibilities for the delivery of safe transit services and the performance of our safety management system.
- **Establish and operate** a safety reporting program as a fundamental tool in support of CATS hazard identification and safety risk evaluation activities to eliminate or mitigate the safety risks of the consequences of hazards resulting from our operations or activities to a point that is as low as reasonably practical.
- **Comply** with and, wherever possible, exceed any applicable legislative and regulatory requirements and standards.
- **Ensure** that sufficiently trained and skilled personnel are available and assigned to implement CATS safety management processes and activities.
- **Ensure** that all staff are formally provided with adequate and appropriate safety management information, are competent in safety management system activities, and are assigned only safety related tasks commensurate with their skills.
- **Establish and measure** our safety performance against realistic safety performance indicators and safety performance targets.
- **Continually improve** our safety performance through management processes that ensure relevant safety action is taken in a timely fashion and is effective when performed.
- **Ensure** contracted services are ordered and delivered in compliance with our safety performance standards.

1.2 Goals and Objectives

1.2.1 Goals

The system safety goal is to design, construct, test, prepare, and operate a transportation system that attains a practical optimum level of safety during the entire life cycle of the system's five phases – Planning, Design, Construction, Operations, and/or Disposal as applicable. The ASP is directed toward achieving this goal within CATS' strategic goals and constraints.

The following are CATS' goals in achieving comprehensive system safety:

- Develop a sustainable safety culture focusing on safety through knowledge.
- Promote learning through the development of a comprehensive training curriculum.
- Ensure training enhances individual performance and provides continuous learning for all levels that are managed through a centralized learning management system.
- Continue to cultivate coordination, communication, and collaboration to achieve solutions for shared strategic initiatives.

Properly implemented, the Safety Management Systems processes documented herein will provide for the following:

- Identification and elimination or control of hazards to employees, customers, or the public.

- A working environment that meets or exceeds all government and industry occupational health and safety standards and practices.
- Investigation of all major accidents/incidents and identification and documentation of accident causes to implement corrective action to prevent recurrence.
- Effective emergency response by CATS and public safety agencies
- Integration of safety and hazard control measures into all CATS department and division activities.

1.2.2 Objectives - Annual Safety Performance Metrics/Targets and Indicators

To accomplish the system safety goal and promote continuous improvement, CATS developed performance metric objectives that are Specific, Measurable, Attainable, Relevant, and Time-bound (SMART).

CATS has identified the following **National Transit Database (NTD)** Safety Performance metrics from the *National Public Transportation Safety Plan*, April 2024. These Safety Measures and Targets will be shared with the Charlotte Regional Transportation Planning Organization's (CRTPO) Performance Based Planning & Programming – Transit Safety Plan. See **Appendix G** for annual **safety** performance targets and results. CATS annually coordinates with the State and CRTPO in the selection of State and MPO safety performance targets.

CATS has established fourteen (14) safety performance targets, based on the National Safety Plan, and CATS targets are set, based on a 3-year rolling average of results for all targets whereby CATS has NTD reported data for the past three years. For all targets not having corresponding data for the past 3 years, CATS has calculated the current targets based on data collected starting in January 2024. The RSC reviews and adjusts all safety performance targets, based on the previous calendar year results and to coincide with the annual ASP review and updates.

CATS safety risk reduction program (refer to section 2.2.5 Safety Risk Reduction Program) will be reviewed and updated to include the safety performance targets to include safety risk mitigations identified and recommended by the Rail Safety and Security Committee. The safety risk reduction program will help to improve safety performance by reducing the number and rates of the following:

- Safety events
- Injuries
- Assaults on transit workers
- Vehicular and Pedestrian safety

The table below lists each safety performance measure and indicates which performance measures are additions from the previous version of the National Safety Plan.

Table 1

1.2.2.1 Performance Measures

1. Measure 1a – Major Events- This includes all safety and security major events as defined by the NTD.
2. Measure 1b – Major Event Rate -This includes all safety and security major events as defined by the NTD, divided by VRM.
3. Measure 1.1 – Collision Rate (new)- This includes all collisions reported to the NTD, divided by VRM.
4. Measure 1.1.1 – Pedestrian Collision Rate (new) -This includes all collisions “with a person,” as defined by the NTD, divided by VRM.
5. Measure 1.1.2 – Vehicular Collision Rate (new)- This includes all collisions “with a motor vehicle,” as defined by the NTD, divided by VRM.
6. Measure 2a – Fatalities -This includes all fatalities as defined by the NTD.
7. Measure 2b – Fatality Rate- This includes all fatalities as defined by the NTD, divided by VRM.
8. Measure 2.1 – Transit Worker Fatality Rate (new)- This includes all transit worker fatalities as defined by the NTD, including the categories “Transit Employee/Contractor,” “Transit Vehicle Operator,” and “Other Transit Staff,” divided by VRM.
9. Measure 3a – Injuries- This includes all injuries as defined by the NTD.
10. Measure 3b – Injury Rate- This includes all injuries as defined by the NTD, divided by VRM.
11. Measure 3.1 – Transit Worker Injury Rate (new) -This includes all transit worker injuries as defined by the NTD, including the categories “Transit Employee/Contractor,” “Transit Vehicle Operator,” and “Other Transit Staff,” divided by VRM.
12. Measure 4a – Assaults on Transit Workers (new) -This includes all assaults on transit workers as defined by the NTD.9
13. Measure 4b – Rate of Assaults on Transit Workers (new) -This includes all assaults on transit workers as defined by the NTD,9 divided by VRM.
14. Measure 5 – System Reliability -This includes Major Mechanical System failures as defined by the NTD.

The Office of Safety and Security will review and analyze the data received related to the target goals. A report showing the performance status of the 14 target goals will be submitted to CATS Leadership, the MTC, NCDOT, and CRTPO quarterly and updated annually in Appendix G - *Safety Annual Targets and Results*.

Where incidents, audits, or observations indicate that the goals or objectives of this plan are clearly not being met, the Safety and Quality Assurance sections coordinate discussions with involved divisions and develop corrective action plans for follow up and completion.

1.3 System Description

CATS provides public transportation services in a large, urbanized area that includes fixed route buses, rail fixed guideway system (light rail and streetcar), special transportation services, and vanpool services. The following describes each mode of transportation.

1.3.1 Light Rail Operations

LYNX Blue Line

The LYNX Blue Line is the Charlotte region's first light rail service. It is 18.9 miles long and operates seven days a week from I-485/South Boulevard Station to the UNC Charlotte Main Campus in University City. With 26 stations, including 11 park and ride locations, the LYNX Blue Line provides a congestion free commute with a consistent travel time. Rail operating hours are approximately from 5:30 a.m. to 2:00 a.m., six days a week and until 1:30 a.m. on Sundays.

All CATS light rail passengers board trains at light rail stations. Each light rail station provides protection from inclement weather, lighting, blue light emergency phones, and security camera coverage. Appendix D – System Maps shows the map of the LYNX Blue Line.

The operation of the Blue Line rail system is managed by the Rail Operations Control Center (ROCC) in accordance with CATS Rail Operations Control Center (ROCC) Procedures Manual.

The Siemens Light Rail fleet consists of 42 double articulated, low floor Light Rail Vehicles (LRVs). The LRVs were procured by CATS from Siemens Transportation Systems and meet the following physical and performance characteristics:

- 70% Low Floor Design
- 100% Low Floor Boarding
- 68 Passenger Seats (Minimum)
- Maximum Speed of 66 mph
- Approximately 93 ft. in length and 9 ft. in width
- Bi-Directional Operation
- Cameras
- Automatic passenger counters

The LRVs and the station platform interface are compliant with the Americans with Disabilities Act (ADA). LRVs are capable of operating as single units or coupled in consists of up to two cars (with three car consist capability at designated stations for future express service). Each LRV is equipped with operating cabs at both ends and features alternating current (AC) propulsion, cab signaling equipment, automated station announcements, and a climate control system.

CityLYNX Gold Line

The CityLYNX Gold Line is the Charlotte region's streetcar service which returned to revenue service in August 2021. It is approximately four miles long and has 17 stops/platforms for boarding and alighting, running from the intersection of French Street and Beatties Ford Road to the intersection of Sunnyside Avenue and Hawthorne Lane. The CityLYNX Gold Line is a conventional in-street running fixed-guideway with a mix of center and side platforms. Each stop has a shelter to provide protection from inclement weather. Appendix D shows a map of the CityLYNX Gold Line.

The operation of the Gold Line rail system is managed by the ROCC in accordance with CATS ROCC Procedures Manual.

The Siemens Light Rail Hybrid Streetcar fleet consists of 6 double-articulated, low floor LRVs. The LRVs were procured by CATS from Siemens Transportation Systems and have the following physical and performance characteristics:

- 70% Low Floor Design
- 100% Low Floor Boarding
- 54 Passenger Seats (Minimum)
- Maximum Speed of 66 mph
- Approximately 85 ft. in length and 9 ft. in width
- Bi-Directional Operation
- Cameras
- Automatic passenger counters
- On Board Energy Storage System (OESS)

The streetcars and the stop interface are compliant with the ADA. Streetcars operate as single units. Each streetcar is equipped with operating cabs at both ends and features both AC propulsion or battery operations, cab signaling equipment, automated station announcements, and a climate control system. The hybrid streetcar is designed to operate for specified distances without the overhead catenary system power utilizing the vehicle's battery pack also known as the On Board Energy Storage System (OESS).

Rail Car Maintenance

LRVs, including streetcars, are maintained by RCM in accordance with the CATS Light Rail Fleet Management Plan, applicable Light Rail Standard Operating Procedures (SOP), and manufacturer's maintenance manuals.

Rail Maintenance of Way

The vehicles are powered by electricity distributed by an Overhead (contact) Catenary System (OCS). A train control system, using cab

signaling, provides vehicle spacing and routing throughout the light rail system. The Rail Maintenance of Way (MOW) section is responsible for the maintenance of Train Control and Communication Systems, Traction Power Substations, Overhead Catenary Systems, and track work on the LYNX Blue Line and the CityLYNX Gold Line. The CATS systems and equipment are maintained in accordance with CATS ROD600, *Preventive Maintenance Requirements for Rail MOW* and the referenced ROD600-series SOPs.

Inventory Management

The Inventory Management Section of CATS Rail Operations is responsible for procurement and warranty of spare parts, managing inventory and warehousing materials for the LYNX Blue and Gold Line. They manage the shipping, receiving and inventory functions at the South Boulevard Light Rail Facility (SBLRF) and North Brevard Light Rail Facility (NBLRF). This section, headed by the Inventory Management Manager for Light Rail Operations, has been established to take any and all actions necessary to maintain light rail service by providing a continuous supply of spare parts and materials for MOW and RCM staff to perform preventative, corrective and emergency work orders as well as support supplies for transportation and administrative personnel.

The warehouses at SBLRF and NBLRF have an estimated area of 10,029 square feet including docks, staging areas, pallet racks, aiseways and office space.

South Boulevard Light Rail Facility

The SBLRF is adjacent to and west of the mainline light rail track between New Bern Street and Clanton Road. Detailed information on the facility is contained in the Light Rail Fleet Management Plan. The Facility includes the ROCC, Bus Operations Control Center (BOCC), maintenance shop, storage yard, rail inventory space and administrative offices. Staff members are located in the building 24 hours a day, seven days a week, to ensure the safe and efficient operation of the LYNX Blue Line.

The Main Shop building contains the following rail vehicle service inspection, repair facilities, and warehouse space:

- A service track for interior and exterior vehicle cleaning
- A running repair track for scheduled car servicing and inspection
- A light repair area for change-out of minor components
- A heavy repair area for vehicle overhauls, major repairs, and modifications
- A wheel truing machine for running rail vehicle and truck wheel truing
- A truck shop for change-out and repair/overhaul of vehicle truck components

- An electronics shop for repairing electronic equipment and components
- Parts storage areas
- Overhead work platforms and maintenance pits
- Shop areas for repair of couplers, pantographs, and brakes
- A machine shop, welding shop, and carpentry shop
- A portable vehicle hoist system
- A 7.5-ton bridge crane, a monorail crane, and various jib cranes

Component repair shops, which support maintenance services for all components of the light rail system, are included in the maintenance facility. A paint booth is provided in a separate building. Interior vehicle cleaning may be done on the LRV service and cleaning track, or it may be accomplished on the storage tracks. Daily LRV washing may occur when vehicles return from service or during off-peak service hours by drawing equipment from the storage tracks.

As a part of the Blue Line Extension project significant, much-needed vehicle storage and specialty maintenance capability was added to the SBLRF. In its original construction, the SBLRF was originally sized to accommodate a fleet of 40 vehicles. Improvements to the outside yard area at the SBLRF allowed for the accommodation of 16 additional LRVs and three trolleys.

North Brevard Light Rail Facility

The NBLRF at 1911 North Brevard Street is a satellite facility utilized to perform daily vehicle cleaning, basic preventive maintenance inspections, and basic running repairs including lowest level component replacement (for failure or repair only).

1.3.2 Bus Operations Division

The CATS Bus Operations Division (BOD) is the entity that provides CATS' fixed-route bus service. CATS operates 70 fixed routes: local buses, express buses, and neighborhood shuttles. Express routes provide service to and from outlying areas of Mecklenburg County as well as neighboring counties.

CATS buses provide transit service seven days a week to LYNX Blue Line stations and on urban streets, suburban streets, limited access highways, and a bus-only busway. Bus operating hours are from 4:55 a.m. to 2:00 a.m., 6 days a week and until 1:30 a.m. on Sundays.

The CATS revenue bus fleet is comprised of approximately 246 buses. As part of a special project to assess transitioning to all electrical vehicles, CATS is currently assessing the performance of 20 electric buses from two different manufacturers.

Many bus lines terminate at or pass through, the Charlotte Transportation Center, a downtown center where a large number of passengers transfer from one line to

another. This facility is covered and provides passenger information and other amenities.

In addition to the Charlotte Transportation Center, CATS operates and maintains neighborhood transit centers throughout the service area. The neighborhood transit centers enhance travel within neighborhoods and provide transfer opportunities to the fixed-route service for residents to continue their travel outside of their neighborhoods. CATS continues development of additional neighborhood transit centers.

Bus Park and Ride lots are used largely by commuters who travel from outlying suburban areas to light rail stations and the uptown business district. CATS currently provides bus service to over 50 Park and Ride lots.

The majority of CATS bus passengers board buses at stops located at the curb. Many stops have shelters for protection from inclement weather and there may also be a bench in the shelter. Lighting is generally from nearby streetlights.

Bus shelters are maintained by the CATS Facilities Management Section within the Rail Division. CATS contracts with a management company to manage the Charlotte Transportation Center.

South Tryon Street Bus Facility

This facility opened in March 2005 and is the principal CATS Bus Operations and Maintenance Facility. It is the centralized administrative base for BOD and provides space for warehousing and major repair activities. This facility has capacity for 250 buses.

Davidson Street Bus Facility

This facility was built and opened in 1985 and was originally designed to be a full-service maintenance facility for 200 vehicles. The separate administration building at 901 N. Davidson St. was rehabilitated in 2011 and now houses CATS' Special Transportation Services (STS), Vanpool Services, and CATS Technology. From this location, STS provides the operation and dispatch activities for its ADA-mandated paratransit service.

An enclosed fuel lane and bus wash are located at 929 N. Davidson St. where daily vehicle service occurs. Across the public street, at 900 N. Davidson St., bus maintenance functions are performed including routine preventive maintenance and corrective maintenance.

1.3.3 Special Transportation Service

CATS provides a demand-response paratransit service called Special Transportation Service (STS).

Located at the Davidson Street Bus Facility, STS provides the operation and dispatch activities for its ADA mandated paratransit service. STS provides service during the same hours as fixed routes: normally 5 a.m. until 2 a.m., 7 days a week.

- Approximately eighty-four (84) lift-equipped buses are maintained by the BOD.

1.3.4 Vanpool

Vanpools are a flexible, comfortable, cost-effective way for groups of 5 to 15 commuters to share their ride to work. A Vanpool consists of a group of people who live and work near each other and share similar commuting schedules. The CATS Vanpool program provides vans, gas cards, insurance, and maintenance. Vans are available 24 hours a day, 7 days a week.

- Approximately **seventy-six (76)** vanpool vans are maintained by the City of Charlotte's Management and Financial Services Department/Fleet Management.

1.3.5 Facilities Management

CATS facilities are maintained by the Facilities Management section in accordance with the Facilities Management Plan. The major goals and objectives of the Facilities Management Plan are to do the following:

- Responsively address ongoing maintenance needs.
- Maintain facilities for all modes of transit in a safe condition and in compliance with applicable codes and regulations.
- Provide for the inspection of buildings and major building components when they reach the end of their expected service life.
- Provide periodic inspections on all passenger amenities.
- Provide appropriate custodial care to clean and sanitize facilities.
- Properly prioritize facility maintenance, renovation, and replacement needs to best utilize available resources.
- Serve as the framework to be used in the management of CATS facilities when this work is contracted outside the department.
- Assign responsibility and provide planning for the maintenance and renewal of parking lots, driveways, walkways, plazas, and outdoor lighting which support CATS facilities.
- Promote the efficient and effective use of existing space.
- Implement energy saving and environmentally friendly improvements.

1.4 Management Responsibilities and Lines of Authority

The **CATS ASP Organizational Structure**, CATS Organizational Chart and the Safety and Security organizational chart in Appendix B capture CATS lines of authority to manage safety issues.

1.4.1 Metropolitan Transit Commission (Equivalent Authority)

The Interlocal Agreement by and among the County of Mecklenburg, the City of Charlotte, and the Towns of Cornelius, Davidson, Huntersville, Matthews, Mint Hill, and Pineville established the Metropolitan Transit Commission (MTC) and provides transit services through the metropolitan region.

The Interlocal Agreement mandated the creation of a chief transit official position, now titled Chief Executive Officer (CEO). The CEO of CATS is also the Director of the Public Transit Department of the City of Charlotte and has responsibility for making recommendations to the MTC on transit planning and programming; for implementing the approved operating and capital programs; and for implementing the policies and actions approved by the MTC.

As the Equivalent Authority, the MTC will review and approve the ASP and any revisions to the ASP as required by 49 CFR 673. A copy of the MTC Resolution will be provided as evidence that the MTC has reviewed and approved the ASP (Appendix F).

1.4.2 Chief Executive Officer (Accountable Executive)

CATS has identified the Chief Executive Officer as the Accountable Executive. The Chief Executive Officer is accountable for ensuring that CATS Safety Management System (SMS) through the Agency Safety Plan (ASP) is effectively implemented throughout the **transit agency's public transportation system**. The CEO is accountable for ensuring action is taken, as necessary, to address substandard performance in CATS SMS. The Accountable Executive provides leadership and management oversight for the Executive and other divisions of CATS. The Executive Division includes Human Resources, Legal, and Civil Rights. **The CEO may delegate specific responsibilities, but the ultimate accountability for CATS' safety performance cannot be delegated and always rests with the CEO.**

The CEO of CATS must implement safety risk mitigations for the safety risk reduction program that are included in the ASP under 673.11(a)(7)(iv). The Accountable Executive of CATS receives and must consider all other safety risk mitigations recommended by the Safety Committee, consistent with requirements in 673.19(d) and 673.25(d)(6).

1.4.3 General Manager of Safety and Security (Chief Safety Officer and SMS Manager)

The CEO has designated the General Manager of Safety and Security (GM of S&S) as the Chief Safety Officer (CSO) and SMS Manager for CATS. The GM of S&S is adequately trained in safety and is empowered and authorized to

administer a comprehensive integrated and coordinated ASP, including the day-to-day implementation and operations of the transit agency SMS program and for developing and maintaining the ASP in compliance with CFR 49 673. The CSO maintains CATS Safety program and acts as a liaison with first responders and emergency management. **The CSO shall receive a monthly report on the SGR status for capital rail assets for review and be provided an update monthly on the status of the TAM Plan implementation.** The GM of S&S may not serve in any other operational or maintenance capacities. The GM of S&S reports directly to the CATS CEO and informs the whole Leadership team on the status of the SMS and risks to CATS.

1.4.4 CATS Leadership and Executive Management

CATS Leadership Team consists of the CEO's direct reports. The CATS Leadership team is responsible for the communication, implementation, and management of their assigned responsibilities of the ASP.

1.4.5 Key Staff and Groups

The Chief Operating Officer (COO) is responsible for overseeing and performing complex professional leadership, direction, strategic planning and directing of BOD, Rail Operations Division, STS, and Facilities. The COO is responsible for managing CATS day-to-day operations and reporting them to the CEO.

The General Manager of Bus Operations has responsibility for CATS public transportation services including fixed-route and demand bus service, vanpool, and paratransit services for ADA-eligible riders.

Facilities Manager has responsibility for Facilities Management.

The General Manager of Rail Operations has responsibility for Rail Operations.

The Chief Transit Financial Officer is responsible for Capital Budget and Operating Budget support. The Revenue Section receives, tracks, and distributes cash revenue.

The Director of Marketing/Communications maintains public information and involvement programs.

Information & Technology Director works with CATS and City IT to protect CATS technology and integrate new technology with current technology.

Chief Development Officer oversees implementation of the City of Charlotte Regional Transit System Plan, including project development, design and construction, as well as capital planning, transit asset management, real estate and transit-oriented development (TOD), Art-in-Transit program, engineering services, and Quality Assurance.

Director of Planning oversees service planning, development, and scheduling of bus and rail services as well as long range planning, coordination with Metropolitan

Planning Organizations (MPO) and data analytics including Geographic Information Systems (GIS) and ridership reporting.

CATS Quality Assurance Section is responsible for oversight of the quality management system. CATS Quality Assurance section oversees the Policy and Procedure review process and participates in ASP audits.

City Procurement is a division within the City Department of General Services in the City of Charlotte. City Procurement has staff assigned to CATS procurements.

1.4.6 NCDOT State Safety Oversight

As required by 49 CFR Part 674, the State of North Carolina has designated the North Carolina Department of Transportation (NCDOT) to serve as the State Safety Oversight Agency (SSOA) responsible for overseeing CATS' system safety programs as implemented and administered for CATS' rail transit system. NCDOT's authority as an SSOA is established by North Carolina Statute G.S. 136-18.

NCDOT's State Safety Oversight Program Standard (SSOPS) establishes the minimum requirements for the **CATS** safety programs that must be met by **all** rail fixed guideway systems operating in the State of North Carolina. **Per the Federal and State requirements, CATS will comply with NCDOT's policies and procedures included in NCDOT's SSOPS, accompanying Reference Manual (SSOPS-RM), and the requirements of U.S.C 5329, as amended. Refer to Section 2.6 Risk-Based Inspections for additional information regarding CATS compliance with NCDOT's rail safety inspection program related to CATS.**

1.5 Safety Responsibilities Task Matrix

Table 2 lists safety responsibilities by position and title. A description of the specific activities required to implement the ASP is included for all employees, agents, and contractors, as part of the ASP.

Table 2 - Safety Responsibilities	
Position/Title	Safety Responsibilities (Areas refer to departmental/divisional responsibilities unless noted as system-wide)
Chief Executive Officer	<ul style="list-style-type: none"> • All system-wide/Accountable Executive
Deputy Director/Chief Operating Officer	<ul style="list-style-type: none"> • Hazard Management • Accident and Incident Investigation • Risk Mitigation and Verification of Effectiveness • Data Acquisition and Analysis • Drug and Alcohol Program • Rules and Procedures • Facilities and Equipment Safety • Qualification and Training Qualification • Employee and Contractor Safety • Configuration Management

Table 2 - Safety Responsibilities	
Position/Title	Safety Responsibilities (Areas refer to departmental/divisional responsibilities unless noted as system-wide)
Director of Planning	<ul style="list-style-type: none"> • Hazard Management for design and construction • Safety and Security Certification for Major Projects • System Modification • Risk Mitigation for projects and Verification of effectiveness • Safety and Security Qualification • Employee and Contractor Safety • Configuration Management
Chief Development Officer	<ul style="list-style-type: none"> • Hazard Management for design and construction • Safety and Security Certification for Major Projects • System Modification • Risk Mitigation for projects and Verification of effectiveness • Safety and Security Qualification • Employee and Contractor Safety • Configuration Management
General Manager – Rail Operations	<ul style="list-style-type: none"> • Hazard Management • Accident and Incident Investigation • Risk Mitigation and Verification of Effectiveness • Data Acquisition and Analysis • Drug and Alcohol Program • Rules and Procedures • Facilities and Equipment Safety • Qualification and Training Qualification • Employee and Contractor Safety • Configuration Management
General Manager – Bus Operations	<ul style="list-style-type: none"> • Hazard Management • Accident and Incident Investigation • Risk Mitigation and Verification of Effectiveness • Data Acquisition and Analysis • Drug and Alcohol Program • Rules and Procedures • Facilities and Equipment Safety • Qualification and Training Qualification • Employee and Contractor Safety • Configuration Management
Sr. Manager – Bus Operations/Special Transportation Service (STS)	<ul style="list-style-type: none"> • Hazard Management • Accident and Incident Investigation • Risk Mitigation and Verification of Effectiveness • Drug and Alcohol Program • Rules and Procedures • Facilities and Equipment Safety • Qualification and Training Qualification • Employee Safety • Configuration Management
Service Implementation & Scheduling Manager	<ul style="list-style-type: none"> • System Modification • Route Development and Modification

Table 2 - Safety Responsibilities	
Position/Title	Safety Responsibilities (Areas refer to departmental/divisional responsibilities unless noted as system-wide)
	<ul style="list-style-type: none"> • Rules and Procedures • Configuration Management
General Manager of Safety and Security	<ul style="list-style-type: none"> • Safety Goals and Objectives • System Safety Program Implementation • Safety and Security Certification • System Modification • Safety and Security Qualification • Safety Data Acquisition and Analysis • Accident and Incident Investigation, Notification and Reporting • Risk Mitigation and Verification of Effectiveness • Emergency Management • Rules and Procedures • Facilities and Equipment Safety Inspections • Training Qualification • Employee and Contractor Safety • Hazardous Materials Management • Emergency Drills • Audits in Design and Construction • Audits with NCDOT SSO
Chief Financial Officer	<ul style="list-style-type: none"> • Hazard Management • Rules and Procedures • Risk Mitigation and Verification of Effectiveness • Data Acquisition and Analysis • Security of Revenue • Training Qualification • Employee Safety
Director of Marketing/Communications	<ul style="list-style-type: none"> • Crisis Communication • Public and Internal Communications • Risk Mitigation and Verification of Effectiveness • Training Qualification • Operation Life Saver
Procurement Services Manager (General Services)	<ul style="list-style-type: none"> • Procurement • Hazard Management • Safety and Security Qualification • Emergency Management • Configuration Management
Human Resources Manager	<ul style="list-style-type: none"> • Drug and Alcohol Program • Blood Exposure Control Plan • Configuration Management
Quality Assurance Manager	<ul style="list-style-type: none"> • Document Control Management • System Modifications and Capital Projects • Configuration Management – Rail Operations • Internal Audits and Evaluations • Audits in Design and Construction • Corrective Action Management • Performance Measurement and Management

Table 2 - Safety Responsibilities	
Position/Title	Safety Responsibilities (Areas refer to departmental/divisional responsibilities unless noted as system-wide)
	<ul style="list-style-type: none"> • Records and Information Management
Information & Technology Director	<ul style="list-style-type: none"> • Hazard Management • Rules and Procedures • Facilities and Equipment Safety • Configuration Management • Emergency Management • Data Acquisition and Analysis • Training Qualification • Employee and Contractor Safety
Manager – Facilities Maintenance	<ul style="list-style-type: none"> • Hazard Management • Rules and Procedures • Facilities and Equipment Safety • Configuration Management • Training Qualification • Employee and Contractor Safety
Supervisors and Managers	<ul style="list-style-type: none"> • Comply with CATS Rules, Procedures and Policies • Identify and report hazards through the appropriate chain of command and safety reporting systems • Assist, as necessary, in the investigation, mitigation and elimination of hazards and unsafe conditions. • Oversee front-line employees to ensure compliance with safe work practices and adherence to policies and procedures • Support emergency situations • Provide appropriate training and tool talks • Evaluate employees for Reasonable Suspicion
All Employees and Contractors	<ul style="list-style-type: none"> • Comply with CATS Rules, Procedures and Policies • Identify and report hazards through the appropriate chain of command and safety reporting systems • Support in the investigation, mitigation and elimination of hazards and unsafe conditions. • Support emergency situations • Attend and participate in appropriate training and/or tool talks

The Office of Safety and Security has established an SMS team comprised of three (3) SMS Coordinators and one (1) Senior SMS Coordinator to work on the implementation of SMS and the ASP. Their focus is to implement various programs/activities, such as hazard management processes, data collection, analysis, and reporting. Additionally, Office of Safety & Security works with procurement and project management to ensure appropriate ASP elements are incorporated into project documents and contracts.

CATS will annually provide NCDOT SSOA a staffing report on all key rail system functions that details current staffing levels (filled positions), vacancies, and any identified additional employee positions needed.

1.6 Committees' Safety Responsibilities Task Matrix

Table 3 - Committees' Safety Responsibilities	
Name	Main Purpose
<p>Project Team meets as specified in Project Management Plans.</p> <p>Members: Led by Development - Coordinate with all divisions</p> <p>Chair(s): Project Manager(s)</p>	<ul style="list-style-type: none"> • Provide oversight and coordination between all divisions and project committees • Track and oversee all critical tasks are completed on time • Allocate available resources as needed • Coordinate with other City departments and external agencies as required
<p>Safety and Security Review Committee (SSRC) meets monthly, or more frequently as necessary.</p> <p>Members: Rail Operations, Bus Operations, STS, Development, S&S, Technology, Facilities Management, Quality Assurance, CMPD</p> <p>Chair: GM Safety and Security delegated to the Rail Safety Manager</p>	<ul style="list-style-type: none"> • Review safety and security certification of system components including certifiable items lists and hazard analysis • Hazard Management for Projects
<p>Safety and Security Committee (SSC) meets monthly or more frequently as necessary</p> <p>Members: Rail Operations, Bus Operations, STS, S&S, Technology, Facilities Management, Quality Assurance, CMPD, HR, Marketing and Communications, and Chairs of safety & security committees</p> <p>Chair: GM Safety and Security delegated to the Security Manager</p>	<ul style="list-style-type: none"> • Review all safety and security efforts • Hazard Assessments and Recommend Mitigations • NCDOT reportable Incident/accident Investigation reviews • Review security breaches • Vehicle Accident Review • Items escalated from Rail, STS, and Bus safety committees • Assess and mitigate assaults on transit workers
<p>Rail Safety & Security Committee (RSCC) meets monthly. The committee follows a Joint Labor Management Process to review and approve the ASP and Safety Goals.</p> <p>Members: S&S, QA, and frontline employees and management from Rail Operations, MOW, RCM, Transportation, Rail Inventory, Facilities</p>	<ul style="list-style-type: none"> • Hazard Assessments and Recommend Mitigations • Identify and investigate rail safety issues. • Review and approve the ASP as revised

Table 3 - Committees' Safety Responsibilities	
Name	Main Purpose
<p>Management. The committee membership will be 50% Frontline and 50% Management at a minimum</p> <p>Chair selected by committee members</p> <p>Rail Safety Liaison: Rail Safety Coordinator</p>	<ul style="list-style-type: none"> • Set annual safety performance targets for the safety risk reduction program • Support operation of the SMS; identify and recommend safety risk mitigations
<p>Bus Safety & Security Committee (BSSC) meets monthly. The committee follows a Joint Labor Management Process to review and approve the ASP and Safety Goals.</p> <p>Members: S&S, BOD Operations and Maintenance supervisors and managers, frontline employees from BOD Operators, Facilities Management, STS operator, STS supervisor.</p> <p>The committee membership will be 50% Frontline and 50% Management at a minimum.</p> <p>Chair: Bus Safety Coordinator</p>	<ul style="list-style-type: none"> • Hazard Assessments and Recommend Mitigations • Identify and investigate bus safety & security issues • Review and approve the ASP as revised • Set annual safety performance targets for the safety risk reduction program • Support operation of the SMS; identify and recommend safety risk mitigations
<p>Fire-Life Safety Committee (FLSC) meets bi-monthly, or more frequently as required.</p> <p>Members: S&S, Bus Operations, Rail Operations, Facilities Management, Risk Management, QA, Technology, CMPD, CFD, MEDIC, NCDOT– Rail Division, Project Staff (Design and Construction</p> <p>Chair: GM Safety and Security delegated to Bus Safety Coordinator</p>	<ul style="list-style-type: none"> • Act as liaison group with emergency response agencies • Review designs, standards, and procedures • Make recommendations • Participate in emergency exercises

1.6.1 Rail Safety and Security Committee Roles and Responsibilities

In addition to the requirements listed above in Section 6.1, the Rail Safety and Security Committee (RSSC) By-laws will incorporate procedures regarding the composition, responsibilities, and operations of the committee including their roles and responsibilities listed in this section of the ASP. The committee will be appropriately scaled to the size, scope, and complexity of CATS. The committee will be convened by a joint labor- management process. The Safety Committee will consist of an equal number of frontline transit worker representatives and management representatives. To the extent practicable, the Safety Committee will include frontline transit worker representatives from major transit service functions, such as operations and maintenance, across the transit system. For bus, the labor organization that represents the plurality of CATS' frontline transit workers will select frontline transit worker representatives for the Safety Committee. If CATS' frontline transit workers are not represented by a labor organization, CATS will adopt a mechanism for frontline transit workers to select frontline transit worker representatives for the RSSC. If RSSC members participate in meetings outside

of their normal work hours, they will be compensated at their hourly rate for the time and work they perform for the RSSC.

When the safety committee recommends a safety risk mitigation unrelated to the safety risk reduction program, and the CATS Accountable Executive decides not to implement the safety risk mitigation, the CATS Accountable Executive must prepare a written statement explaining their decision. The CATS Accountable Executive must submit and present this explanation to the safety committee and MTC.

At a minimum, the RSSC will have the following roles and responsibilities (also found in the RSSC By-Laws):

- The Chair of the RSSC has the authority to sign the ASP verifying committee approval.
- Create the organizational structure, size, and composition of the committee and how it will be chaired.
- Meeting agendas and notices will be developed and shared, and meeting minutes will be recorded and maintained.
- Participate in required training for RSSC members related to CATS' ASP and the processes, activities, and tools used to support CATS' SMS.
- Rail Management and the Office of Rail Safety will provide access and support to RSSC members when asking for technical experts, including other transit workers, to serve in an advisory capacity as needed; transit agency information, resources, and tools; and submissions to the transit worker safety reporting program to support its deliberations.
- RSSC will reach decisions through a voting process described in the RSSC By-laws and record decisions in the meeting minutes.
- RSSC will coordinate and communicate with CATS' Board of Directors, or equivalent entity, and the Accountable Executive through email, scheduled meetings, and presentations as requested by either party.
- RSSC manages disputes to ensure it carries out its operations by requesting assistance from the City Risk Management Office who will provide a Risk Manager to resolve the dispute.
- RSSC has adequate opportunity to review and provide feedback on revised final draft red-lined versions of established (formal) rail policies and procedures before publishing.
- RSSC will be responsible to carry out the following duties specifically identified in paragraph (d) of Section 49 CFR 673.19:
 - Review and approve CATS' ASP and any related updates.
 - Set annual safety performance targets for the safety risk reduction program.
 - Identifying and recommending safety risk mitigations necessary to reduce the likelihood and severity of potential consequences identified through the CATS' safety risk assessment, including safety

risk mitigations associated with any instance where CATS did not meet an annual safety performance target in the safety risk reduction program.

- Identifying safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended, including safety risk mitigations associated with any instance where CATS did not meet an annual safety performance target in the safety risk reduction program.
- Identifying safety deficiencies for purposes of continuous improvement as required at § 673.27(d), including any instance where CATS did not meet an annual safety performance target in the safety risk reduction program.
- Consider mitigations to reduce visibility impairments for transit vehicle operators that contribute to accidents, including retrofits to vehicles in revenue service and specifications for future procurements that reduce visibility impairments.
- Consider deployment of assault mitigation infrastructure and technology on transit vehicles and in transit facilities. Assault mitigation infrastructure and technology includes barriers to restrict the unwanted entry of individuals and objects into the workstations of rail operators.
- Recommends safety risk mitigations, including mitigations relating to vehicular and pedestrian safety events involving transit vehicles or assaults on transit workers, based on a safety risk assessment and include or incorporate by reference these safety risk mitigations.

1.7 Employee and Contractor **Safety Concern** Reporting Program

CATS employees and contractors are held accountable for their safety performance and for compliance with rules and regulations. Employees who intentionally conduct unsafe acts will be disciplined commensurate with the offense per City, CATS, and contractor policies and procedures.

Employees are expected to address safety concerns within their control immediately. Employees **should** report unsafe conditions **and acts**, assaults on transit workers, near-misses, and issues with procedural compliance to their supervisor or manager. **Employees who feel** that a safety concern is not being addressed promptly are **encouraged** to escalate unsafe issues to their safety committee representative, General Manager, or the Office of Safety & Security. CATS Management encourages employees to report safety concerns with no fear of reprisal. CATS Leadership will have no tolerance for any retaliation against employees, contractors or the public who report safety concerns. Reported safety concerns will be tracked in the appropriate hazard tracking format per the Hazard Management section of this ASP. For employee-reported safety concerns, where contact information is provided, the recipient of the safety concern is responsible for follow-up with the employee. The S&SF48 *Safety Issues Reporting Form* is available to employees via city intranet or can be requested from employee's supervisor. This form can be completed by hard copy or emailed and submitted to supervisors or the Office of Safety and Security. Another method

of reporting a safety concern is to send an email to reportsafety@charlottenc.gov. This email account is monitored by all Safety and Security managers. Any reported safety concern to this email address will be reviewed, added to the hazard safety log if applicable, and followed-up with the department manager and employee sending the email.

Reported safety concerns are tracked by the Rail and Bus Safety and Security Committees using safety concerns tracking logs. This information is shared with the Office of Safety and Security for review and to identify potential hazards that need to be mitigated through our Hazard Risk Management process.

The City of Charlotte maintains an Employee Hotline that allows for anonymous 24/7 reporting of Abuse, Fraud, and Safety and Waste violations. The hotline should only be used in instances when employees are not comfortable reporting directly to Human Resources, management or the Office of Safety and Security. CATS Safety and Security managers are part of the Employee Hotline process.

Details on the Employee Hot Line are communicated on the City's CNET and at City offices/facilities throughout the City.

Employees can report safety concerns, including assaults on transit workers, near-misses, unsafe acts, and hazards. Examples of reportable offenses for safety include:

- Witnessing or experiencing unsafe working conditions or behavior that compromises one's safety or the safety of others.
- Equipment or facility maintenance issues that can lead to unsafe working conditions.

Employee Hotline process:

- An employee can either call in or email a safety concern. Reports are kept anonymous and confidential.
- Once the incident has been reported, the employee will be given a unique report number by the Hotline Operator which will allow them to call in or email at a later time to either provide additional information or to follow up on the report status.
- The report will then be provided to the CATS Office of Safety and Security for an initial screening for review and action.
- The issue will be reviewed, and a determination will be made: unfounded; credible with immediate resolution or mitigation; or credible with long term mitigation until final solution can be made. Responses to how the issue was addressed are sent back to the Hotline administrator.
- An anonymous employee can call or email with their assigned unique number to hear the determination, mitigation, or resolution.
- CATS Safety and Security will submit all appropriate documentation and reports to the third-party administrator who manages the Hotline who will confirm in writing the information was made available to the anonymous employee.

Rail Only NCDOT Direct Reporting process:

Any person(s) wishing to report an allegation of noncompliance with the RTA's ASP to the NCDOT may do so by contacting NCDOT directly:

- Phone: (877) 368-4968 or
- On-line: <https://www.ncdot.gov/contact/Pages/default.aspx>.

This contact information will be posted, at a minimum, in rail dispatch offices, rail operations control rooms, and lunch/breakrooms.

1.8 Safety Plan and Policy Dissemination

All CATS employees receive training on the ASP and CATS Safety Policy. **The CATS Safety Policy references the transit agency's safety objectives in Section 2.1.1 and Section 1.6.1 that describes the transit agency's Safety Committee and assurance frontline employees will be included in developing safety goals and implementing SMS.** CATS Safety Policy is communicated by all divisions during New Hire Safety training and is available on CATS CNET site with CATS Policies and Procedures. CATS Policies and Procedures (including CATS Safety Policy) are available on CATS CNET site and at key locations throughout CATS. ASP training for current employees includes training on the ASP and CATS Safety Policy including the employee's roles and responsibilities. The ASP is a controlled document that CATS QA manages through CATS QA02 Control and Distribution of Plans, Manuals, Policies, and Procedures to ensure only the most current revision of the document is available to employees.

1.9 Emergency Preparedness and Continuity Plan

CATS Emergency Preparedness and Continuity Plan (EPCP) incorporates the FTA requirements for an Emergency Preparedness and Response Plan. The EPCP provides planning and program guidance to ensure that CATS is capable of conducting its Mission Essential Functions under all threats and conditions. The EPCP also includes CATS Continuity of Operations Plan (COOP) which describes how CATS will continue to operate under conditions where various resources are impacted.

Data and information regarding exposure to infectious diseases provided by the CDC or a State health authority will be analyzed and used to monitor safety performance and safeguard CATS employees. CATS will follow recommendations and strategies to minimize exposure to infectious diseases, consistent with guidelines of the Centers for Disease Control and Prevention (CDC) or a State health authority (49 U.S.C. 5329(d)(1)(D)).

The CATS EPCP is maintained by CATS Quality Assurance and is a stand-alone document that can be reviewed on site by both internal and external authorized personnel as requested.

1.10 Integration of Safety Function

The ASP serves as a blueprint for the organizational integration of the safety function and its effective implementation ensures a safe functioning system. The safety function is integrated throughout all operations and activities of CATS through the delegation of safety

functions and safety responsibility via CATS Safety Policy Statement from the CEO to all employees and contractors to include safety requirements, responsibilities and objectives into the work plans of managers and supervisors. Managers and supervisors are responsible for promoting the safety of all employees and customers. Safety is incorporated into employee training provided by CATS Instructors.

Bus and rail operators and supervisors must be aware of conditions which may affect passenger safety and report problems so that they may be corrected. The Manager of Safety for Bus or Rail is notified of safety issues through various mechanisms described in this ASP and participates in the hazard resolution process, along with the General Manager of Safety and Security.

Safety performance is measured through the monthly tracking and corporate reporting of indicators such as passenger and transit facility occupant injuries and injury rates as reported to the FTA's NTD. In addition, the Rail Hazard Tracking Log is submitted to NCDOT quarterly, and as a one-year log annually after end of the calendar year.

1.11 Safety Plan Implementation Tasks and Activities

Activities required to implement the ASP that were identified during the development of the ASP and identified in gaps are captured in [Appendix H](#) on the CATS Implementation Timeline. CATS shall provide the CATS ASP implementation plan to NCDOT quarterly or as requested. Key processes not included or referenced in this ASP can be found in CATS plans, manuals, policies, and procedures that are controlled in the CATS' Quality Management System and processes.

1.12 Safety Set-Aside Allocation

CATS will allocate its safety set-aside in the following fiscal year to safety-related projects eligible under 49 U.S.C. 5307 that are reasonably likely to assist the transit agency in meeting the safety performance targets in the future.

Section 2 Safety Risk Management

2.1 Overview

Safety Risk Management (SRM) is the process for identifying hazards and analyzing, assessing, and mitigating safety risk.

Hazard identification and resolution is one of the goals of the CATS System Safety Program. This process is applicable to all levels of the organization. It is how hazards are identified and analyzed for potential impacts and severity on the transit system. It also describes how identified hazards are resolved in a manner acceptable to management.

CATS defines a hazard as a real or potential condition, internal or external to the system or system operation, that can cause injury, illness, or death; damage to or loss of facilities, rolling stock, or infrastructure of CATS equipment or property; or damage to the environment.

The CATS Office of Safety and Security, under the direction of the General Manager of Safety and Security, is directly responsible for the implementation of the CATS Hazard Management Process. This includes:

- Developing, updating, and auditing the Hazard Management Process
- Training all designated CATS employees and its contractors on the Hazard Management Process
- Maintaining the Rail Safety and Bus Safety Hazard Registers.

2.2 Hazard Management Process

2.2.1 Hazard Identification

The following information lists methods of hazard identification used by CATS.

Methods of Hazard Identification of Day-to-Day Operations

1. Safety concerns identified through Safety Assurance activities carried out under § 673.27.
2. Hazards that are identified as a result of near misses or accidents/incident investigations.
3. System and facility inspections that identify hazards or unsafe conditions. The Office of Safety and Security is reviewing its current processes for prioritization of observation and inspection activities. The hazard management program, audit and corrective action procedures will be reviewed and updated accordingly.
4. Safety issues or hazards identified during scheduled audits (Internal Safety Review Program, ASP Section 3.2) and unscheduled audits, as warranted by staff.
5. Employee observations of unsafe conditions or behavior which can be reported verbally or through completion of a written safety report.

6. Safety staff regularly reviews bulletins or advisories, SSOA inputs, and general industry trends to determine their applicability as inputs into the safety management and/or hazard analysis process.
7. Operational data reports (e.g., SPEAR, ROCC/BOCC & key process indicator reports) are reviewed on an ongoing basis to identify known or potential issues that can have an impact on safe operations.
8. Safety issues brought to the various safety committees
9. Customer, contractor, and employee complaints
10. Hazards identified by NCDOT SSO or FTA
11. Data and information regarding exposure to infectious disease provided by the CDC or a State health authority.
12. Data and information provided by an oversight authority, including but not limited to FTA, the State, or as applicable, the SSOA having jurisdiction.
13. Hazards identified during annual Transit Asset Condition Assessment

2.2.2 Addressing Identified Hazards

The system to be analyzed is defined by its physical and functional characteristics, including:

- People
- Procedures
- Facilities & Equipment
- Operating Environment

CATS QA05 *Nonconformity and Corrective Action* procedure identifies the steps for addressing nonconformances which include hazardous conditions identified in section 2.2.1.

For employee identified unsafe conditions, employees are expected to address safety concerns within their control immediately. Employees are expected to report unsafe conditions and issues with procedural compliance by speaking with or e-mailing a written safety report to their supervisor or manager. Employee Handbooks describe the unusual circumstances that must be reported to their control center. If an employee feels that a safety concern is not being addressed in a timely manner, the employee is encouraged to escalate unsafe issues by speaking with or e-mailing their safety committee representative, General Manager, or the Office of Safety & Security.

Identified hazards will be rated based on the Hazard Risk Assessment described in Section 2.3 below which follows the MIL-STD-882E for rating identified hazards. Rail Safety and Bus Safety manage the Hazard Management Logs for their respective areas(HML).

Acceptable hazards (1E, 2D, 2E, 3C-3E and 4A-4E) that are not immediately resolved will be reported to the appropriate section to address as time and resources are available. "Acceptable with Review" and "Acceptable without Review" hazards will be managed by supervisors/managers to closure and maintained on their HML.

Undesirable Hazardous Conditions (1D, 2C, 3A, and 3B) must be reported by e-mailing a written safety report to the General Manager, the SMS Manager and the CSO unless it is already mitigated per the Division's HML. The General Manager and the SMS Manager or CSO will ensure that a risk mitigation is documented on the Risk Register and in place for any undesirable safety issues.

Unacceptable Hazardous Conditions (UHC) (1A, 1B, 1C, 2A and 2B) must be reported immediately by e-mailing a written safety report to the General Manager of Safety and Security. The General Manager and the SMS Manager or CSO will ensure that a risk mitigation is in place for any unacceptable safety issues. UHCs must be mitigated in the most expedient manner before returning to normal service. The CSO will notify the CEO immediately by phone or e-mail of any Unacceptable Hazardous Conditions and the mitigations that were put in place. When the mitigations that are put in place reduce the hazardous condition to Undesirable or better, the CSO will recommend return to normal service to the CEO who will approve the recommendation after review. CATS shall notify NCDOT of a UHC within two hours, via email or phone, regardless of the time of day. All other hazardous conditions and on-going resolutions will be reported quarterly to NCDOT with the HML.

2.2.3 Methods for Continuous Hazard Identification and Targeted Campaigns

The methods used for hazard identification as mentioned above in Sections 2.2.1 and 2.2.2 are done on a continuous basis based upon inspection intervals and investigating safety complaints. Based on the hazards identified through these methods, safety-specific topics or inspections will be conducted to address issues identified from the data analysis.

2.2.4 Hazard Management Logs

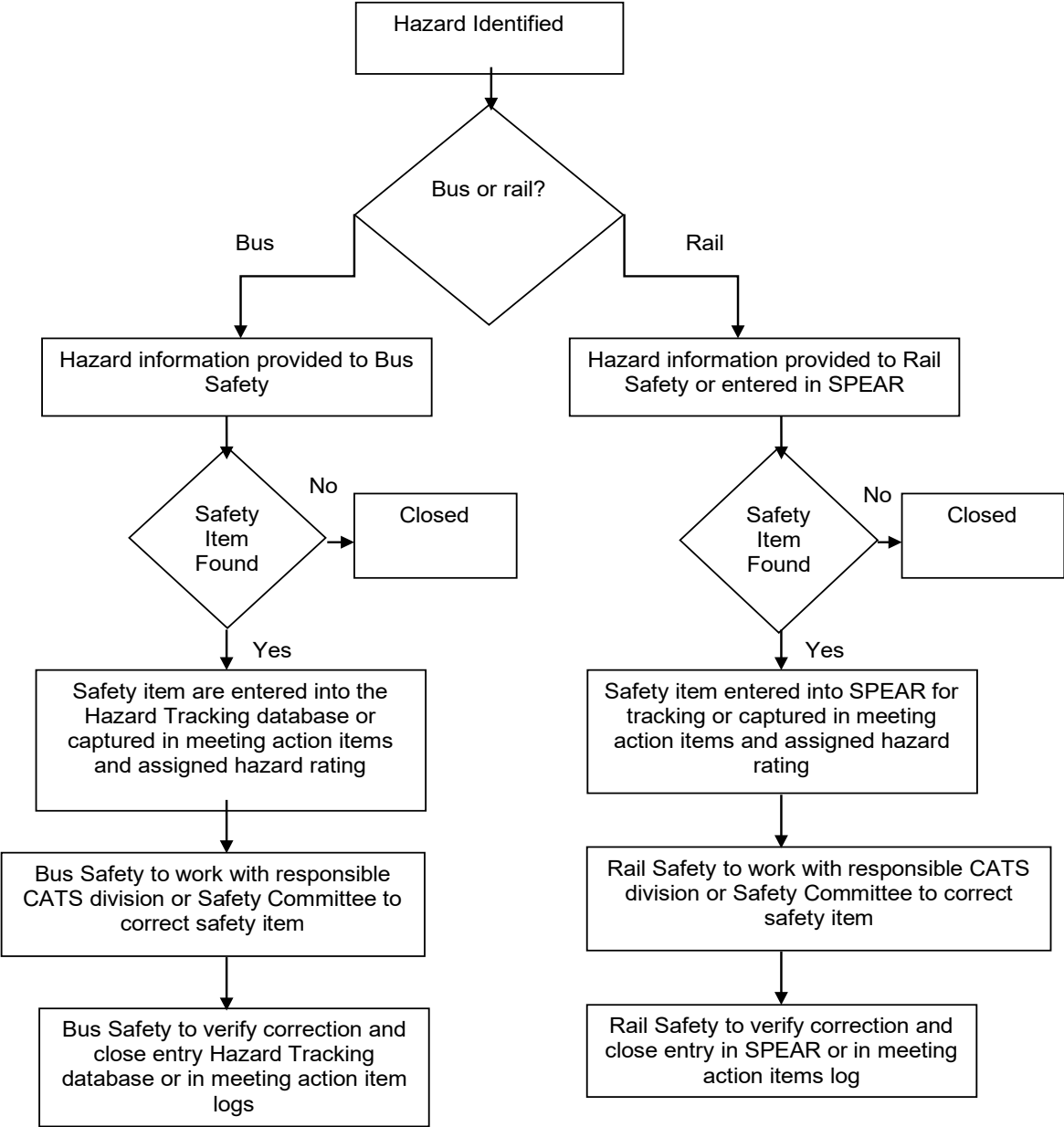
CATS utilizes hazard trending logs and a risk register to ensure the sharing of safety data and information. Hazard Logs and Risk Registries are available electronically in an accessible location for appropriate employees to access and review. Hazard logs and risk registries are living documents and are reviewed and updated at a minimum quarterly. The Office of Safety and Security has appointed SMS Coordinators to various departments in CATS who will be responsible for maintaining and updating, the hazard log to ensure adequacy and appropriateness of the hazard log. CATS is working toward a software application to assist with the hazard log and risk register.

The Rail Safety Office is responsible for identifying those rail issues from accident/incident reports and SPEAR entries which are significant enough to pose an undue hazard to employees or passengers and facilitate tracking of progress toward resolving those issues. This is done by tracking all safety issues and hazards in the Rail HML, which tracks those items of interest in terms of the problems discovered, the desired resolution, the individual responsible for resolution, and the progress. This log includes safety audit issues, post-accident or incident issues, individual hazard reports and those items cited by the safety committee. As items are corrected, those corrections are noted on the log and closed out as appropriate. The Office of Safety reviews these items on an ongoing basis, and

when unacceptable delays are encountered in resolution, the items are escalated to appropriate senior management for assistance in resolution and closure. Additionally, when Rail Operations is considering alternate materials or software instead of the Original Equipment Manufacturer (OEM) product or to change any configurations to the existing systems, it must be approved by the Rail Change Control Board per CATS ROD801 Configuration Change Control.

The Rail Safety Office provides quarterly updates of Hazardous Conditions to the SSOA.

Figure 1 - Hazard Tracking Process



The Bus Hazard Log is created from reported BOCC, or supervisor generated incident/accident reports. It could also come from an operator statement that gets forwarded to Bus Safety.

The Hazard Tracking Logs are managed to eliminate, reduce, or control each hazard to an acceptable level. Identified hazards are assigned a hazard rating. The Safety Manager and General Manager will review hazard ratings and status of the Hazard Log on a monthly basis. When an item is added by the Office of Safety, the Division Manager will be notified by e-mail. Hazard Tracking Logs will be distributed to CATS Leadership on a monthly basis. Hazard Tracking logs will be distributed to the SSC on a quarterly basis for review and discussion.

Utilizing the information collected in the various safety reports, the Chief Safety Officer will provide a monthly safety summary to the MTC, CATS CEO, and CATS employees. TV screens are centrally located in areas (e.g. breakrooms) to display safety information, Chief Safety Officer's monthly report, alerts, statistical information, and other safety education materials for employees who do not have access to e-mail. The CATS CEO will receive safety updates during the Senior Leadership meetings.

2.2.5 Safety Risk Reduction Program

The CATS safety risk reduction program for transit operations, as described in this section, is set forth to improve safety performance by reducing the number and rates of safety events, injuries, and assaults on transit workers consistent with 673.25(d)(3-5). The program includes CATS' established fourteen (14) safety performance targets, based on the National Safety Plan, and CATS targets are set, based on a 3-year rolling average of results for all targets whereby CATS has NTD reported data for the past three years. For all targets not having corresponding data for the past 3 years, CATS has calculated the current targets based on data collected starting in January 2024. The RSSC reviews and adjusts all safety performance targets, as necessary and based on the previous calendar year results prior to the annual review and approval of the Agency Safety Plan (for the listing of the 14 safety performance targets, refer to section 1.2.2 Objectives - Annual Safety Performance Metrics/Targets and Indicators). CATS monitors safety performance against annual safety performance targets set by the Safety Committee under § 673.19(d)(2) for the safety risk reduction program in § 673.11(a)(7).

The CATS safety risk reduction program addresses:

- When identifying safety risk mitigations for the safety risk reduction program related to vehicular and pedestrian safety events involving transit vehicles, including to address a missed safety performance target set by the RSSC under 673.19(d)(2), CATS and the RSSC will consider mitigations to reduce visibility impairments for transit vehicle operators that contribute to accidents, including retrofits to vehicles in revenue service and specifications for future procurements that reduce visibility impairments.
- When identifying safety risk mitigations for the safety risk reduction program related to assaults on transit workers, including to address a missed safety performance target set by the RSSC under 673.19(d)(2), CATS and the

RSSC will consider deployment of assault mitigation infrastructure and technology on transit vehicles and in facilities. Assault mitigation infrastructure and technology includes barriers to restrict the unwanted entry of individuals and objects into the workstations of bus operators.

- When the CATS RSSC, as part of this risk reduction program, identifies and recommends under 673.19(c)(6) safety risk mitigations, including mitigations relating to vehicular and pedestrian safety events involving transit vehicles or assaults on transit workers, based on a safety risk assessment conducted under 673.25(c), CATS will include or incorporate by reference these safety risk mitigations in the ASP pursuant to 673.11(a)(7)(iv).

CATS utilizes the hazard management process described in section 2.2 and other methods to inform the safety risk reduction program. The Office of Safety and Security along with Quality Assurance manage the Risk Registry that will be distributed to each division to use to track safety risks. The Safety Risk Registers capture, manage, and mitigate identified Undesirable and Unacceptable Hazardous Conditions.

The Risk Register includes, at a minimum, the hazardous condition, potential consequences of the hazard, safety risk assessment for each potential consequence, mitigation that is in place and the hazard rating after mitigation, monitoring activities, and responsibilities for monitoring.

A summary report of the updates and status of the Risk Register will be provided to the CEO and CATS Leadership Team monthly.

CATS utilizes the following methods to proactively identify hazardous conditions and reduce risk as low as reasonably practicable (ALARP):

- SPEAR – Mechanical Failures - The Rail Controllers capture safety events into the SPEAR (MMS) system. These events are then captured by the data analysis team and a report is distributed to Operations. The data is then broken down into Major and Minor failures using a manual process. The user departments then correlate the data as “True or False”. The number of “True Events” are tabulated by the Mechanical group to establish the Major Mechanical Failures (MMF).
 - The NCDOT SSOA has been provided with access to SPEAR. Log in credentials have been provided to allow “view only” access.
- SPEAR – Hazard – These are non-vehicle inputs into the system based on Maintenance of Way Inspections, Adherence to the Preventive Maintenance cycles and the Rail Systems Corrective Work Orders (W.O.).
 - The NCDOT SSOA has been provided with access to SPEAR. Log in credentials have been provided to allow “view only” access.

- Transpro – this is a customizable software application that CATS uses to take the information generated through SPEAR and create customizable reports.
- Transit Master – this is another tool utilized by CATS to capture and customize the raw data from SPEAR.
- Hazard Tracking Log – CATS tracks Hazards utilizing a Hazard Tracking Log. This log is shared monthly with the CATS Leadership Team and the Metropolitan Transit Committee (MTC). All hazards that are classified as Undesirable Hazardous Conditions (UHC) require notification to the SSOA within 2-hours.
- The Rail Safety and Security Committee reviews the Hazard Tracking Log monthly to ensure the data is correct.
- CATS also tracks Corrective Action Plans (CAPS) that are developed from a number of sources. CATS uploads CAPS to the NCDOT SSOA internal site for tracking and updates.
- Employees have several methods for reporting Hazardous conditions. They can speak directly to their supervisors, there is an internal safety hotline, an email address to Safety and Security, direct conversations with the RSSC, amongst other methods. The City of Charlotte (CATS) has also established an email address and phone number to allow for anonymous reporting of Safety & Security concerns. NCDOT SSOA also provides a method for employees to report concerns directly to the oversight team.
- CATS utilizes the Internal Audit Process and Schedule to verify compliance and provide safety oversight activity of maintenance and inspection procedures for the rail system and compliance with rules, processes, procedures, and mitigation implementation and effectiveness.
- The Office of Safety and Security has established inspections for the following areas:
 - Shop Floor Walk/Safety Inspection/PPE - these are performed bi-monthly to identify safety hazards throughout the rail maintenance shop environments to ensure compliance with OSHA 1910 regulations.
 - Station Safety Inspections – these are quarterly inspections of all light rail and streetcar stations/stops to identify any potentially hazardous conditions on the platforms that may involve trip hazards, line of sight issues, lighting, PA systems, etc.
 - Safety Ride Checks – Ride checks are performed by the Rail Safety staff (physically and/or virtually) to ensure safe operation of LRVs and SC's and adherence to operating rules by the Operators.

- Rail Supervisor Ride Check – This entails a review of the ride check documentation from Rail Transportation Field Supervisors to ensure proper documentation and to verify that each supervisor conducts the required eight (8) ride checks per month.
- Training Mentor – Review of the Operator Trainee schedules to ensure that the trainees are always scheduled to be with a qualified Training Mentor during the “stick time” portion of training.
- MOW Inspections – this task monitors MOW inspections to ensure compliance with SOP’s and inspection schedules.
- Training Evaluations – Review new hire training records for various disciplines to ensure compliance with the requirements set forth in the Operations Training Manual.
- RCM Inspections – monitor LRV/SC PM inspections to ensure compliance with PM workplans and maintenance schedules.
- Pre-Trips – review submissions of LRV/SC pre-trip cards to verify compliance of operator’s submission of pre-trip cards for each vehicle that goes into revenue service.
- Facilities Inspection – quarterly inspection of entire rail facilities to ensure compliance with OSHA 1910 requirements and fire alarm system.
- Sweeper Train Speed Review (3) - review sampling of Blue and Gold Line sweeper trains using event recorder downloads to ensure compliance with sweep train operating speeds.
- RWP Compliance – Field inspections of CATS staff and Contractors to ensure compliance of RWP rules and training.

2.3 Safety Risk Assessment

2.3.1 Hazard Analysis Processes

This section describes CATS’ specific means of categorizing and assessing risk throughout the agency. CATS has adopted the Department of Defense Standard Practice for System Safety (MIL-STD-882E). **Risk Assessment** is a quantitative calculation based on largely **subjective judgments** used to determine the risk associated with each hazard and thus the urgency for implementing corrective measures to eliminate or reduce risk to a level of acceptability.

Risk Assessment is comprised of evaluating hazard severity (categorizing the hazard) and evaluating hazard probability. The factors considered in this analysis include system safety, schedule, and the impact on the public’s perception of safety on the system in the community where CATS operates.

Safety risk assessment includes an assessment of the likelihood and severity of the potential consequences of identified hazards, taking into account existing safety risk mitigations, to determine if safety risk mitigation is necessary and to inform prioritization of safety risk mitigations.

2.3.2 Safety Risk Indexing (Likelihood and Severity of Consequences)

Table 4 - Hazard Severity Categories		
Severity	Category	Characteristics
Catastrophic	1	May cause death, system loss, or severe disruption of service system wide.
Critical	2	May cause severe injury, severe occupational illness, major system damage, or major system wide disruption of service.
Marginal	3	May cause minor injury, minor occupational illness, minor system damage, or minor system disruption of service.
Negligible	4	Less than minor injury, occupational illness, system damage, or less than minor system disruption of service.

Hazard severity is a subjective determination. With historical data, an objective determination applicable specifically to CATS can be derived. The determination reflects a credible mishap that could be anticipated to result from human error, procedural deficiencies, design inadequacies, component failure, or malfunction. Hazard Severity at CATS is based on the *Department of Defense Standard Practice for System Safety* (MIL-STD-882E) as follows:

Hazard Severity Categories

The categorization of hazards is consistent with risk-based criteria for severity; it reflects the principle that not all hazards pose an equal amount of risk to personal or system safety.

2.3.3 Hazard Probability

The probability of a particular event or a specific hazard occurring may be defined as a ratio of the number of times that a specific event occurs to the total number of trials in which this event may occur during the planned life expectancy of a system. Generally, hazard probability is described quantitatively in potential occurrences per units of time, miles, trips/runs or passengers carried. A hazard probability may be derived from the analysis of transit system operating experience, evaluation of CATS safety data, or from historical safety data from other passenger rail systems.

Table 5 - Hazard Probability Categories		
Probability Levels Description	Level	Specific Guidance
Frequent	A	Likely to occur frequently to an individual item. Continuously experienced in the system.
Probable	B	May occur several times in the life of an item. May occur frequently in the system.
Occasional	C	Likely to occur sometime in the life of an item. May occur several times in the system.
Remote	D	Unlikely, but possible to occur in the lifetime of an item. Unlikely, but can be expected to occur at some time in the system.
Improbable	E	So unlikely to occur, it can be assumed occurrence may not be experienced. Unlikely, but possible to occur in system.
Eliminated	F	Incapable of occurrence. This level is used when potential hazards are identified and later eliminated.

2.3.4 Hazard Probability Categories

Hazard Risk Assessment

CATS has adopted a system for assessing the level of risk for each identified hazard to determine what action(s) must be taken to correct or document the hazard risk. This risk assessment system has been incorporated into the formal System Safety Analysis which enables CATS decision-makers to understand the amount of risk involved in accepting the hazard in relation to the cost (schedule, cost, operations) to reduce the hazard to an acceptable level.

The Risk Assessment Matrix identifies the risk assessment index based upon hazard category and probability and the criteria for defining further actions based upon that index.

Table 5

MIL-STD-882E Risk Assessment Matrix				
SEVERITY	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)
Frequent (A)	1A	2A	3A	4A
Probable (B)	1B	2B	3B	4B
Occasional (C)	1C	2C	3C	4C
Remote (D)	1D	2D	3D	4D
Improbable (E)	1E	2E	3E	4E
Eliminated (F)	ELIMINATED			

Hazard Risk Index	Criteria by Index
	Unacceptable (Immediate Action Required)
	Undesirable (Management Decision Required)
	Acceptable with Review by Management
	Acceptable without Review
	Potential Hazard was Identified and Eliminated

Risk Assessment Matrix and Hazard Risk Index

Follow-up actions resulting from the Risk Assessment are as follows:

Unacceptable: The hazard must be mitigated in the most expedient manner possible before normal service may resume. Interim corrective action may be required to mitigate the hazard to an acceptable level while the permanent resolution is in development.

Undesirable: A hazard at this level of risk must be mitigated unless a documented decision to manage the hazard until resources are available for full mitigation is issued by executive management and forwarded to NCDOT for review and approval/disapproval

Acceptable with review: The Office of Safety and Security must determine if the hazard is adequately controlled or mitigated as is.

Acceptable without review: The hazard does not need to be reviewed by management and does not require further mitigation or control.

The Risk Assessment Process is used to prioritize hazardous conditions and focus available resources on the most serious hazards requiring resolution.

Unacceptable and undesirable safety conditions identified during the Transit Asset Condition Assessment as described in CATS TAMP Section 2.0 will be reported to the Office of S&S immediately.

2.3.5 Risk Tolerability Non-Consensus Procedures

In situations where there is non-consensus on Hazard Risk Assessment ratings, the Subject Matter Expert (internal or external) will take the lead in providing information to the CSO/SMS Manager and Operations Manager to promote resolution of non-consensus. If consensus is not reached, the Accountable Executive or their designee will make the final decision.

2.4 Safety Risk Mitigations

2.4.1 Resolving Hazardous Conditions

CATS uses a number of different means to identify safety risk mitigations or strategies necessary as a result of the CATS safety risk assessment to reduce the likelihood and severity of the potential consequences and resolve identified hazards. These include design changes, the installation of controls and warning devices and the implementation of special procedures or training. The safety committee reviews and discusses identified hazards and potential mitigations. The safety committee makes recommendations to correct or mitigate issues and follow through to resolution. The Committee tracks all identified issues in their tracking log. CATS utilizes the safety order of precedence for resolving hazards as follows:

Design for Minimum Risk

The first priority is to eliminate hazards through engineering and design. This is applicable for facilities, rolling stock and equipment, park & rides, routes, transit stations, and product selection, etc.

Safety Devices

Hazards that cannot be eliminated or controlled through design selection shall be controlled to an acceptable level using fixed, automatic, or other protective safety design features, devices, or personal protective equipment. Provisions shall be made for periodic functional checks of safety devices.

Warning Devices

When neither the design nor the safety devices can effectively eliminate or control an identified hazard, devices shall be used to detect the condition and to generate an adequate warning signal to correct the hazard or provide for personnel evacuation. Warning signals and their application shall be designed to minimize the probability of incorrect personnel reaction to the signals and shall be standardized within like types of systems.

Procedures and Instruction

Where it is impossible to eliminate or adequately control a hazard through design selection or use of safety and warning devices, procedures and training shall be used to control the hazard. Procedures may include the use of personal protective equipment. Precautionary notations on signs shall be standardized as specified by management. Safety critical tasks and activities may require certification of personnel proficiency.

CATS Business Planning Process in the CATS Quality Manual describes the budget cycle for all CATS divisions. It is the responsibility of each CATS division/section to prioritize risks based on the Hazard Management process using Hazard Ratings to help resolve identified hazards.

2.4.2 Evaluation of Current Mitigations

Whatever the decision with respect to a particular hazard, mitigations, and Corrective Action Plans (CAPS) must be monitored for effectiveness and to ensure that another hazard has not been introduced. CAPS are verified by Safety Assurance activities that are tracked in the Internal Safety Audit (ISR) schedule, Operational Audits tab. If a risk mitigation is not effective or appropriate, the safety risk control should be reviewed through the Safety Risk Management and Hazard Analysis process.

2.4.3 Risk Mitigation Implementation and Tracking

Mitigations that have been implemented are tracked in HMLs by the Division/Section and/or the Safety Risk Register. The person assigned the mitigation will be responsible for tracking and reporting on the status of the mitigation through closure.

Corrective Action Plans

A plan developed by a Rail Transit Agency (RTA) that describes the actions the RTA will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for taking those actions. Either a SSOA or the FTA may require an RTA to develop and carry out a Corrective Action Plan. CAPs will follow the format described in Section 3.4.8.3.

2.5 Safety Data Acquisition and Analysis

2.5.1 Data Acquisition Process

The Office of Safety and Security monitors the safety performance of the various CATS operations. Accident, incident, injury, and other safety data is collected throughout the organization and analyzed to determine trends within the organization. The safety data collected is analyzed to determine if safety performance meets established safety objectives. The accident and incident data assists in identifying service areas that generate a higher percentage of accidents or potential for higher accident rates.

The safety data that is collected includes injuries to passengers, CATS personnel, and the public; hazardous equipment failures; unacceptable hazardous conditions; vandalism and security hazards; and rules and procedures violations. The Office of Safety and Security analyzes safety-related data for the purpose of implementing corrective action to assist in prevention or reoccurrence of hazards.

2.5.2 Data Reporting to Safety Function (process)

The Office of Safety and Security analyzes the data from SPEAR reports, incident investigations, safety committees, field inspections, police reports, and Risk Management. The Office of Safety and Security also uses the data acquisition and analysis process to identify system trends and to monitor safety and security program performance. The Office of Safety and Security provides monthly safety program performance reports to executive management and employees.

Currently, safety performance (NTD) reports are submitted to FTA on a monthly and annual basis. The report contains injury data regarding passengers, CATS personnel, and customer/public accidents and incidents. The Office of Safety and Security, based on FTA established guidelines, compiles safety data for the overall CATS organization. The report summarizes accidents and incidents into three categories: minor incidents, major incidents, and safety/security issues. CATS uses this report to establish safety performance goals and objectives for each coming fiscal year.

CATS submits Quarterly Safety Data Reports, per the requirements of the NCDOT Program Standard. At a minimum, CATS submits the following quarterly report and safety data to NCDOT within fifteen (15) calendar days following the end of each 3-month quarter:

- Current/updated ASP/SMS Implementation Plan and activities schedule.
- Hazard Tracking Log and analysis reports.
- Key Safety Performance Indicators.
- Emergency Management Program (EMP) status reports.
- Hours-of-Service Violations Log.
- Updated Safety Performance Goals/Actual Results.

2.5.3 Access to Data

The Office of Safety and Security has access to data from various divisions within CATS. The information regarding accidents, incidents, and hazardous conditions of the various CATS divisions are obtained from several different reporting mechanisms. These include, but are not limited to the following reports:

- Accident/Incident Database (Bus)
- Accident/Injury Reports
- Audit/Inspection Reports
- Automatic Vehicle Locators (Bus)
- CCTV Video
- Daily Operations Summary
- Employee/Occupational Injury reports
- Incident Reports
- National Transit Database (NTD) Safety and Security reporting module
- SPEAR Database – Material Maintenance Management System (MMMS)
- FTA guidance
- SSOA guidance

2.5.4 Use of Data (Trend Analysis)

Hazard data and accident/incident data is compiled and analyzed by the Office of Safety and Security. When longitudinal data indicates undesirable trends, the Office of Safety and Security will investigate to determine causal factors, where possible, and identify factors contributing to any increases of probability or severity. Interviews with personnel in the affected division(s) may be conducted. The

various safety teams identify hazards, areas susceptible to accidents/incidents, traffic problems, and other critical factors and develop mitigation strategies to address the potential consequences of identified hazards.

2.6 Risk-Based Inspections (Supporting NCDOT SSOPS Section 6)

As required by 49 CFR Part 674, the State of North Carolina has designated the NCDOT to serve as the SSOA responsible for overseeing CATS' system safety programs as implemented and administered for CATS' rail transit system. NCDOT's authority as an SSOA is established by North Carolina Statute G.S. 136-18.

NCDOT's State Safety Oversight Program Standard (SSOPS) establishes the minimum requirements for the CATS safety programs that must be met by all rail fixed guideway systems operating in the State of North Carolina. Per the Federal and State requirements, CATS will comply with NCDOT's policies and procedures included in the NCDOT's SSOPS, accompanying Reference Manual (SSOPS-RM), and the requirements of U.S.C. 5329, as amended.

The section below includes details regarding NCDOT's rail safety inspection programs related to CATS. Additional information, specific to NCDOT's Safety Risk Monitoring Inspection (SRMI) program and its Risk-Based Inspection (RBI) program, are available within the NCDOT's SSOPS and SSOPS-RM. Both the SSOPS and SSOPS-RM are developed and updated by NCDOT and in collaboration with CATS. As such, CATS will adopt NCDOT's policies and procedures for conducting inspections (SRMI and RBI) and routinely collaborates with NCDOT to update inspection protocols as needed.

2.6.1 NCDOT - Right to Access

CATS acknowledges that NCDOT staff and designated contractors have the capability and authority to access CATS' properties, with and without notice, to inspect infrastructure, equipment, records, personnel, CATS rail-related activities, and data, including the data that CATS collects when identifying and evaluating safety risks. This authority is derived from 49 U.S.C. § 5329 and NCDOT's enabling legislation under N.C. G.S. 136-18 (36); included in Appendix B to the SSOPS.

To facilitate NCDOT access, as stated above, the CATS S&S Department provides NCDOT staff and contractors with individual proxy card/identification badges. The badges are programmed to permit access to all facilities, gates to restricted parking lots, and administrative buildings, as well as physical access to the necessary training required by CATS for non-employee access to facilities, track right of way, and other CATS rail-related infrastructure. NCDOT and CATS routinely review and collaborate on the right to access policies and procedures which are detailed in the SSOPS and SSOPS-RM.

CATS reserves the right to verify certifications and trainings of NCDOT inspectors to ensure their compliance with CATS' safety protocols and training requirements.

2.6.2 NCDOT's Inspection Programs (with and without notice)

Per the SSOPS, Section 6, NCDOT conducts Safety Risk Monitoring Inspections (SRMI) and Risk-Based Inspections (RBI) to identify and evaluate safety risks at all RTAs within its jurisdiction. NCDOT inspections may be conducted by individual staff members, designated contractors, or a combination of both. NCDOT's lead inspector and inspection team members (both staff and contractors) are assigned by the SSO Program Manager. NCDOT inspections are pre-approved by the SSO Program Manager or designee.

Additional details regarding NCDOT's inspection programs and inspection procedures, specific to CATS, are provided within the NCDOT SSOPS and SSOPS-RM to include the following:

- NCDOT Scheduling of Inspections
- CATS Infrastructure Components Subject to NCDOT Inspections
- NCDOT-Identified Serious Safety Concerns
- NCDOT Safety Event Verification
- NCDOT Ongoing Monitoring
- NCDOT Inspections Resulting in Defects, Corrective Actions, and Corrective Action Plans

2.6.3 Safety-Related Data

NCDOT shall be provided access to CATS' primary safety-related data (unedited), upon request, as well as the specified data listed in the SSOPS-RM, Appendix A-Data Source List. NCDOT reserves the right to use CATS' data analyses or conduct its own analyses. As such, CATS must provide NCDOT with the data that CATS collects when identifying hazards and assessing and mitigating safety risk.

Additionally, the NCDOT-identified CATS safety data sets to be shared, data format, processes for sharing the data, and frequency that the data will be shared is also detailed within the NCDOT SSOPS-RM, Appendix A-Data Source List.

Data that contains Personally Identifiable Information (PII) or Sensitive Security Information (SSI) must still be shared, but the sensitive information may be redacted or protected. NCDOT and CATS agree that access to PII/SSI data will be completed through coordinated NCDOT onsite reviews. Requests to view PII/SSI will be submitted in writing by NCDOT and addressed to the CATS CSO for coordination of specific onsite date(s) and time(s) to complete the reviews. In addition to the SSI and PII request, the reason why the information would help an investigation and special obligations to protect this information from unauthorized disclosure.

Section 3 Safety Assurance

3.1 SA Implementation Process

Safety Assurance (SA) involves processes within a transit agency's Safety Management System that function to ensure the implementation and effectiveness of a transit agency's program. This involves monitoring key aspects of the operation for effectiveness and ensuring that no new hazards have been introduced into the system. This ongoing attention also provides for identification of new hazards as changes to the operation form, fit, or function are made.

3.2 Internal Safety Review Program

3.2.1 Overview

The purpose of internal system safety reviews is to evaluate the effectiveness and safety performance of the implementation of the ASP and SMS by CATS Divisions. The Office of Safety and Security and Quality Assurance are jointly responsible for the direction of the safety reviews and audits of CATS divisions and contractors to determine performance related to the System Safety goals and objectives. The ISR Team will be led by the Office of Safety and Security or Quality Assurance with support from division staff or external agencies.

All CATS divisions and contractors are subject to safety reviews. The criticality of certain operations requires rigorous development of reviews and audits. These include training, maintenance, and operations activities. Both periodic and no-notice inspections are undertaken to address all aspects of the activity, including documentation, practices, and compliance with this ASP, CATS policy and other requirements. The Internal Safety Review team reviews training, practices, and procedures to correct deficiencies identified during the conduct of reviews or other safety activities, including inspections and emergency drills.

CATS safety committee reviews ISR reports, findings and any associated corrective action plans.

3.2.2 Purpose and Scope

The purpose of ISRs is to confirm all safety components are in place and assigned safety tasks and activities are being accomplished. This provides an additional means of documentation for senior management to verify how well each division is fulfilling their safety-related goals and objectives as required in the ASP.

Organizational functions subject to the ISR process include:

- Facility inspections
- Maintenance audits/inspections
- Review of rules, SOPs, special bulletins, and orders
- Review of training/retraining programs
- Emergency response planning, coordination, and training

- **Management of Change**
- Configuration Management
- Systems modifications (review and approval)
- Safety data analysis
- Employee safety programs
- Hazardous materials program
- CATS safety goals and objectives
- Occupational safety and health programs
- Contractor safety
- Procurement and specification engineering
- Drug and Alcohol Testing Program
- Any aspect or responsibility as outlined in this document

Pursuant to 49 CFR 673 and NCDOT SSOPS Section 4.7, the ISR process must evaluate the following components:

1. Safety Management Policy § 673.23(a)

1. Goals and Objectives § 673.23(a)
2. Management Accountabilities and Responsibilities § 673.23(d)
3. Employee Reporting Program § 673.23(d)
4. Safety Policy Dissemination § 673.11(a)(5)
5. Reference to Emergency Management Plan (EMP) § 673.21(a)-(d)
 - (a) Safety Management Policy Section § 673.23
 - (b) Safety Risk Management Section § 673.25
 - (c) Safety Assurance Section § 673.27
 - (d) Safety Promotion Section § 673.29

2. Safety Risk Management (SRM) Section § 673.25(a)-(d)

1. SRM Process
2. Hazard Identification
3. Safety Risk Assessment
4. Safety Risk Mitigations
5. Safety Data Acquisition and Analysis

3. Safety Assurance Section § 673.27(c)

1. SA Implementation Process
2. Safety Performance Monitoring and Measurement
 - a. Monitor its system for compliance with, and sufficiency of, CATS operations and maintenance.
 - b. Monitor its operations to identify any safety risk mitigations that may be ineffective, inappropriate, or were not implemented as intended.
 - c. Conduct investigations of safety events to identify causal factors.
 - d. Monitor information reported through any internal safety reporting programs.
3. Internal Safety Review Program

4. Coordination with Hazard Management Program
5. Management of Change

4. Safety Promotion Section § 673.29(a)-(b)

1. Safety Plan Dissemination
2. Safety Plan Review and Modification
3. Safety Plan Implementation Tasks and Activities (including responsibilities matrix)
4. Employee and Contractor Safety Programs (knowledge and compliance)
5. Compliance with Local, State, and Federal Requirements
6. Training and Certification Program
7. Safety Communication and Outreach
8. Environmental Management Program

3.2.3 City and CATS Divisions Subject to Internal Safety Reviews (ISRs)

- Bus Operations including STS
- Rail Operations
- Facilities Management
- Safety and Security
- Quality Assurance
- Marketing and Communications
- CATS Technology
- City Procurement
- City HR
- Finance/Revenue

3.2.4 ISR Process

The General Manager of Safety and Security is responsible for the management of the **ISR** Program. All CATS divisions are required to cooperate fully with the **ISR** team. Executive and senior managers ensure that their divisions participate fully in the safety audit process. CATS Quality Assurance and Safety and Security will jointly conduct safety audits.

3.2.5 ISR Cycle / Schedule

Over a three-year period, key components of the ASP must be audited at least once. The CATS **ISR** Process is intended to be a continuous safety review process. The Office of Safety and Security and Quality Assurance will jointly develop and annually submit a comprehensive Internal Safety Audit schedule to NCDOT each December, detailing when it will audit the ASP components over the three-year period. The schedule is revised as necessary to accommodate schedules for auditors and the audited divisions. CATS QA100 Quality Audits outlines the process to be followed for **ISR**.

The **ISR** team will identify the components of the annual safety performance assessment based on SMS and conduct a safety assessment annually to verify compliance to audit schedule.

The **ISR** lead auditor notifies the division/organization and NCDOT a minimum of 15 days in advance of a scheduled safety audit. This notification must include the audit checklist for the sections of the ASP to be audited.

3.2.6 Integrity of Review Process

To maintain the integrity of the review process, an **ISR** team is used to conduct safety audits. The lead auditor will be a qualified person from Quality Assurance or the Office of Safety and Security. The Office of Safety and Security does not lead audits/reviews of those functions and components for which it is directly responsible to implement. These components are audited by Quality Assurance personnel, or an independent member of the audit team. No team member shall audit a function or activity for which he/she is responsible. The lead auditors will be certified to conduct audits by accredited bodies such as the Transportation Safety Institute (TSI), American Society for Quality (ASQ).

3.2.7 ISR Checklist Development Process

Audit checklists are developed in advance and submitted to NCDOT for review and approval. Checklists are prepared during the review of the documents referenced in the ASP section; previous audits; audit findings; and corrective actions. Audit checklists are provided to the organization or division being audited and to NCDOT a minimum of 15 days in advance of the audit.

Pre-audit and post-audit conferences are held by the audit team, as appropriate, with the entity being audited. The safety audits are comprised of record reviews, interviews, field observations and inspections, and measurements to verify the accuracy of documentation and spot inspections of facilities and equipment to verify compliance with the ASP, procedures, codes, and regulations.

The following list of documents may be used to support development of the audit checklists:

- ASP, SSP, and EPCP
- Rule Book(s), bulletins, and procedures
- Standard and emergency operating procedures
- Training program documentation
- Management and/or administrative plans/procedures
- Design standards and criteria
- Accident and investigation reports
- Hazard tracking logs
- Corrective Action Plans
- Previous audit reports
- Other sources as determined by NCDOT SSO upon request

3.2.8 **ISR Audit Report**

The Office of Safety and Security will provide a draft safety audit report to NCDOT SSO for approval within sixty (60) calendar days of the audit closure meeting. NCDOT SSO makes changes/recommendations to the audit report prior to final issue of the report.

Upon completion of each audit report, the Office of Safety and Security issues a final report of the results and specifies areas of deficiency, including cause; prepares recommendations; proposed CAP(s) to address noncompliance; and distributes copies of the report to CATS Chief Executive Officer, Quality Assurance Manager, Safety and Security staff, and the audited Division.

Responsible Divisions are expected to determine the cause of nonconformances and to develop corrective actions, though the audit team may make recommendations and must approve corrective actions. The results of the audit are used for positive corrective action, not as an internal regulatory process. Safety Audit coordination meetings and management briefings are held to review areas of concern or disagreement over findings and evaluate possible corrective actions. Safety and Security personnel monitor and track corrective actions with the affected divisions to ensure implementation.

Safety and Security personnel submit the CAPs (for Rail only) to the NCDOT SSO for review and approval in accordance with Section 3.4.8.3 - *Corrective Action Plans*. Safety and Security personnel track the implementation of the NCDOT-approved CAPs through closure. Safety and Security will also provide the CAPs to the audit team after the CAPs are approved by NCDOT SSO.

3.2.9 **Annual Review Report**

An Annual Safety Activities Report is provided to the CEO and to the NCDOT SSO for review and approval on or before February 15th. The report includes:

- results of the internal Safety Audit Process for the calendar year in terms of the adequacy and effectiveness of the ASP and the status of subsequent findings and corrective actions,
- a summary of the Emergency Management Program,
- the internal safety audits planned for the upcoming calendar year,
- a summary of all hazards identified during the previous year and corrective actions taken to address these hazards,
- a summary of all reportable accidents/incidents,
- status of resource allocation plan for SMS implementation, and

Along with the annual report, CATS must include a formal letter signed by the CEO certifying CATS is in compliance with its ASP. If the safety audit's findings indicate noncompliance with its ASP, the CEO must identify in the formal letter the nature

of the noncompliance and the steps CATS will take to achieve compliance. An implementation schedule detailing when compliance will be achieved may also be provided.

3.2.10 Coordination with SSO Program

As noted above, the following aspects of the Internal Safety Audit Process are coordinated with NCDOT per the current SSOPS:

- Internal Safety Audit Cycle and Schedule
- Safety Audit Checklists
- Actual dates of each safety audit
- Each Safety Audit Report
- Corrective Action Plans
- Annual Safety Activities Report
- CEO Annual Certification

3.2.11 Corrective Action Follow-up Procedures

Findings from **ISRs** will be added to the **CAPs log, per section 3.4.8.3 – Corrective Action Plans**. If applicable, **any finding deemed to be identified as a hazard will be added to the Hazard Management Log along with a hazard rating being assigned per the Hazard Management Process**. CAPs are reviewed monthly by the SMS manager or designee to provide oversight and direction for corrective action activities in order to resolve hazardous conditions and deficiencies. **A monthly summary report will be provided to NCDOT**. Any hazardous condition/deficiencies that are rated as Unacceptable will be reported by the Chief Safety Officer or SMS Manager to the CEO per the Hazard Management Program. The CSO will include a summary of safety deficiencies identified during audits as part of the hazardous conditions monthly report to the CEO.

3.3 Maintenance and Inspection Program for Vehicles, Equipment, Systems, and Infrastructure

3.3.1 Facilities and Equipment Subject to Inspections

Periodic inspections are made of all CATS facilities and equipment to ensure they are maintained in a SGR; clean, safe, and functional to safeguard employees, visitors, and passengers.

CATS Facilities Management Plan identifies the responsibilities for facilities and equipment maintenance. Inspection schedules are included as an appendix to the Facilities Management Plan. Facilities Management performs inspections of CATS facilities (South Boulevard Light Rail Facility, South Tryon Bus Facility, and Davidson Street Bus Facility), as well as all transit centers, park and rides, bus stops, light rail stations, streetcar stops and amenities. They also contract the inspection and maintenance of facilities equipment. The Facilities Management Plan identifies the priority structure assigned to Work Orders generated from inspections. Operational/Safety Related items are priority one with a targeted

response time of four hours or less. Facilities Management will immediately notify the Office of Safety and Security when an urgent safety issue is identified.

Items are inspected and maintained in accordance with the manufacturer's recommendations, Facilities Management Plan, SOPs and CATS standards by Facilities Management staff, Bus and Rail Operations staff or contractors.

Shop equipment is maintained and serviced according to manufacturer's recommendations and the Facilities Management Plan. In certain facilities, the services of outside vendors are required for servicing specialty items such as lifts, hoists, and fire detection and suppression systems.

A member of the Office of Safety and Security staff completes a quarterly safety inspection of transit facilities and light rail stations that covers a variety of Occupational Safety and Health Administration (OSHA) 1910 and 1926 considerations in the facility such as housekeeping, fire extinguishers and guard rails/stair-rails in place. The Office of Safety and Security forwards the inspection reports to the responsible division/sections for resolution.

Rail Car Maintenance conducts daily inspections of vehicles before releasing vehicles into revenue service. Bus Maintenance conducts an inspection of buses and reviews operator inspection cards when buses go for fueling. Any safety critical items identified will result in the vehicle being taken out of service for repair prior to release to revenue service.

Operators perform pre-trip inspections of vehicles prior to entering revenue service. Results of these inspections are documented on the pre-trip inspection card and submitted to Maintenance for follow-up and repair. Inspections are conducted to ensure that vehicles are safe, clean, reliable, and ready for revenue service. Any safety critical items identified will result in the vehicle being taken out of service for repair prior to release to revenue service.

CATS Transit Asset Management (TAM) Plan **establishes** the direction for Asset Management Policies. The program **establishes** the divisional roles and responsibilities as stated in the CATS TAM Plan. The process will tie into the review of State of Good Repair and any Unacceptable or Undesirable Hazards will be addressed by following the Hazard Management Plan in the ASP. A report rating deferred maintenance items will be provided by Operations and Facilities at the monthly SSC. Updated TAM information is included in the data report and associated narratives submitted annually to the FTA's National Transit Database. Additionally, as requested by NCDOT SSO, CATS is providing a monthly Asset Management Status Report until all inventoried assets are assigned a condition rating of 3.0 or above. **CATS shall submit a copy of its written annual report for the RTA's capital assets inventory and SGR ratings within fifteen (15) calendar days of the RTA's annual submittal to FTA's NTD website. The TAM Plan will be reviewed annually. Additional information on the TAM Plan is included in section 3.3.7 Transit Asset Management Plan.**

3.3.2 Systems and Facilities Subject to Maintenance Programs

CATS ROD600 *Preventive Maintenance Requirements for Rail Systems* summarizes the maintenance and inspections performed by the Rail MOW Division. The MOW Division performs the following inspections in accordance with the Systems Maintenance Yearly Schedule and the 600-series Light Rail SOPs.

- Grade Crossings
- Signal Houses
- Track Circuits
- Switch Machines
- Traction Power Sub-Stations
- Overhead Catenary System
- Track and Roadbed
- Embedded Track Slab
- Track Drains
- Embedded Switch Machines

CATS may schedule planned shutdown periods for infrastructure maintenance activities that cannot be completed during revenue and non-revenue hours. CATS shall notify NCDOT of all rail-related revenue service shutdowns, planned and emergency, of rail transit services for the purpose of inspecting or repairing rail system components. CATS shall notify NCDOT at least ten (10) calendar days prior to the planned shutdown start date which will include a list of planned shutdown activities.

Light Rail vehicles are serviced and maintained in accordance with the Light Rail Fleet Management Plan and the 500-series Light Rail SOPs. Rail Car Maintenance performs equipment inspections in accordance with the Light Rail Fleet Management Plan and ROD SOPs. A Daily Inspection of each LRV is performed by RCM in accordance with the Light Rail Fleet Management Plan and CATS Procedure ROD502, *LRV Daily Inspection*.

Buses are maintained in accordance with the Bus Fleet Management Plan. CATS BOD100 *Preventative Maintenance Inspection (PMI) Audits* identifies the internal audit process that ensures a high level of quality and reliability in performing preventative maintenance inspections and repairs for CATS transit buses.

3.3.3 Regular Inspections and Testing Procedures

Inspections of facility equipment are made in accordance with appropriate maintenance manuals and procedures. Inspection of equipment prior to use is captured in Rule Books and Maintenance Manuals.

3.3.4 Resolution of Review/ Inspection Findings

Each facility inspection report is sent to the Facilities Administrative Officer for generation of work orders. It identifies specific areas and targets specific recommendations for corrective action. Identified unacceptable hazards are

reported to the General Manager of Facilities and the CSO. Facilities Work Orders are tracked through completion in CityWorks. Facilities' staff rates identified hazards and maintain a Hazard Tracking Log.

Preventative Maintenance of Vehicle work orders are triggered by either vehicle mileage or time milestones. Maintenance inspections are scheduled and tracked through the MMMS (SPEAR). SPEAR tracks these work orders through completion. Identified unacceptable hazards will result in the vehicles being taken out of service.

3.3.5 Checklists

Facilities Management uses *CATS Facilities Inspection Checklist* (Form FMF03) and Rail Station Monthly Inspection checklist (FMF07) for regular inspections. Transit Amenities use *TAMS Daily Inspection Sheet* (FMF04) to document inspections at bus and streetcar stops.

Systems Maintenance checklists and forms are completed in accordance with the 600-series Light Rail SOPs and the Track Maintenance Plan.

The RCM Mechanic completes the LRV Daily Inspection Checklist (RODF091 S-70s and RODF093 Streetcars) and submits it to the RCM Supervisor.

Bus Maintenance Technicians perform Preventative Maintenance Inspections using forms developed for each specific bus type. Shop Foremen perform safety inspection reviews on buses using Shop Foreman Safety Review Form B.

The Office of Safety and Security conducts Facility Safety Inspections using iAuditor and Station Safety and Security Inspections using Checklist (S&SF29) based on OSHA Standards. These checklists are used to perform quarterly safety related inspections at facilities and stations.

A Pre-Departure Inspection is performed daily by vehicle operators and documented on the pre-trip inspection forms. Bus operators also perform checks during operator relief.

3.3.6 Coordination with Hazard Management Program

Hazards identified during safety inspections are to be resolved as close to the source as possible. Identified hazards are reported via email or phone call to the appropriate section manager to make them aware of the hazard that needs to be resolved. Issues that are noted immediately, resolved, and result in a formal corrective action, are tracked following the Safety Corrective Action Plan process in the safety CAP log. Technicians are to repair equipment that does not meet safety requirements or take the equipment out of service/remove it from the work area as appropriate. Defective equipment must be tagged-out if it cannot be removed from the work area. Employees are to reject equipment that is not fit for use and issues must be addressed and resolved as soon as possible, with safety critical items being resolved first.

S&S Inspection reports are e-mailed to the responsible personnel for resolution and tracked through inspection logs. UAH/UDH hazards identified through inspection reports will be managed to closure and tracked using a centralized enterprise resource system.

3.3.7 Transit Asset Management Plan

CATS maintains a Transit Asset Management (TAM) Plan in accordance with FTA requirements (49 CFR Part 625). The CATS CEO is the Accountable Executive and is responsible for ensuring the TAM Plan is developed and carried out on a continual basis. CATS maintains records and documents that support and set forth in full its TAM Plan.

The CATS TAM Plan includes an asset inventory comprised of equipment, rolling stock, infrastructure, and facilities. CATS utilizes internal spreadsheet reports, fleet management software and facility management software to maintain inventory, schedule maintenance and track the condition of assets. Assets are inventoried and tracked by entering their information into CATS's ERP software.

The CATS TAM Plan addresses the condition of assets through performance of asset condition assessments. The physical condition of an asset is rated as an SGR performance measure because it is a direct reflection of its ability to perform its intended function. As part of the TAMP SGR Standards, CATS requires each Rolling Stock, Equipment, Infrastructure and Facility asset to meet FTA TAM Plan criteria. All assets must have a physical condition assessment conducted on an annual basis, where applicable. The condition assessments use a rating scale to rate the age of the asset and mileage. CATS maintenance personnel perform Condition Assessments for each type of asset to determine their useful life in accordance with the FTA's facility condition assessment guidebook and National Transit Database (NTD) requirements for rolling stock assets. Below is the summary of asset rating and condition utilized by CATS.

- 5.0 Excellent
- 4.0-4.9 Good
- 3.0-3.9 Adequate
- 2.0-2.9 Marginal
- 1.0-1.9 Poor

CATS utilizes a Useful Life Benchmark (ULB) as an SGR performance measure. The ULB is the expected lifecycle of a capital asset for the CATS operating environment, or the acceptable period of use in service for the CATS operating environment.

CATS considers a capital asset to be in a state of good repair when the asset can operate/perform its designed function and does not pose a known unacceptable safety risk. Through the implementation of the ASP, CATS has established a formal process for hazard identification, analysis, categorization, and resolution. Each division is responsible for identification of hazards in its area and this process is a key contributor to CATS-wide system safety. Periodic condition assessments

of CATS assets identify potential safety issues which could undergo safety risk assessment in the Safety Risk Management (SRM) process. CATS ASP uses the processes of SRM and Safety Assurance (SA) to ensure those critical assets that could impact the delivery of safe and reliable transit services do not present unacceptable risks.

CATS business planning cycle is tied in with the City budget cycle and includes a review of CATS priorities and CATS TRAX program for customer satisfaction. Federal and state grant programs provide assistance with procuring and maintaining CATS capital assets. CATS utilizes qualifying internal funds (i.e., funds from half cent sales tax) to meet local match requirements on federal and state grant funding. CATS has considered all funding sources reasonably expected in each fiscal year covered by the TAM Plan as well as current capital needs as indicated by our asset inventories and condition assessments. If there is a monetary shortage in obtaining assets needed for a state of good repair (SGR), CATS reprioritizes budget allocations, uses control account funding or pushes the SGR item out for another year. CATS' SGR budget from FY23 to FY27 includes approximately 100 million in deferred capital needs. Deferred needs include assets which require immediate reinvestment as they are past their useful life or require rehabilitation or replacement due to compliance issues.

CATS makes its TAM Plan and any supporting records or documented performance targets, investment strategies, and its annual condition assessment report available to NCDOT upon request and also makes available to the MPO that provides funding to CATS to aid in the planning process.

CATS submits a copy of its written annual report for capital assets inventory and SGR ratings, to NCDOT, within fifteen (15) calendar days of the CATS annual submittal to FTA's NTD website for the following:

1. A copy of annual data report submitted to FTA's NTD that reflects the SGR performance targets for the following year and condition information for CATS public transportation system.
2. An annual narrative report that provides a description of any change in the condition of the RTA's transit system from the previous year and describes the progress made during the year to meet the performance targets set forth in the previous reporting year.
3. A consolidated annual data report and one consolidated annual narrative report, as described in items 1 and 2 above.

CATS also provides NCDOT a quarterly Asset Management Status Report for all capital rail assets having an assigned Priority 1 for operational and/or safety related issues. The quarterly reports shall continue to be submitted to NCDOT until asset issues have been resolved. The CSO receives a monthly report on the SGR status for capital rail assets for review and is provided an update monthly on the status of the TAM Plan implementation.

The TAM Plan is reviewed and assessed annually. This assessment is performed by the responsible asset management manager.

3.4 Accident/Incident Notification, Reporting and Investigations

3.4.1 Overview

All CATS employees and contractors are expected to comply with CATS S&S03 *Accident/Incident Investigation and Reporting* procedure (Appendix C) and use the forms prescribed. Roles, responsibilities, and accident reporting thresholds are outlined in the procedure, including accident notification, reporting and investigation throughout the organization. The level of investigation required is dependent on the seriousness of the event. Each accident/incident is investigated by a supervisor as specified in the procedure.

3.4.2 Accident / Incident Reporting Criteria to NCDOT and FTA (Rail Only)

NCDOT State Safety Oversight Program Standard (SSOPS) requires that CATS submits reports to NCDOT and FTA regarding accidents/incidents as defined in SSOPS Section 6.1 Figure 8. Criteria are detailed in CATS S&S03 Section 8.3 *External Notifications by Safety and Security*.

3.4.3 Accident / Incident Investigation Procedures on behalf of NCDOT (Rail Only)

In general, NCDOT authorizes CATS to conduct accident investigations on its behalf, unless otherwise notified. CATS Safety personnel conducting investigations will be in compliance with the Public Transportation Safety Certification Program (PTSCP). For all investigations conducted by CATS on behalf of NCDOT, CATS utilizes procedure CATS S&S03 *Accident/Incident Investigation and Reporting* to conduct its investigations. CATS S&S03 has been approved by NCDOT. Information collected during investigations includes, at a minimum: scene assessment, supervisory and emergency responder reports, audio/visual reports, and vehicle downloads.

CATS must submit any updates and revisions to its accident investigation procedures to NCDOT as they are completed and implemented by CATS or with the annual update of the ASP. This procedure, S&S03, is Appendix C of CATS ASP.

NCDOT may participate in the investigation process when CATS is conducting the investigation on NCDOT's behalf. The terms of participation are specified in the NCDOT SSOPS, CATS ASP and in CATS S&S03 *Accident/Incident Investigation and Reporting*. If NCDOT elects to conduct an investigation of accidents or incidents, the General Manager for Safety and Security may also conduct an independent investigation.

3.4.4 Supervisor Investigation

Bus, Light Rail, and Paratransit accidents and incidents which do not involve serious injury and/or damage usually require only an initial investigation by the supervisor responding to the scene. Rail accidents and incidents that may be

investigated by supervisors only are those that **do not** meet the criteria specified in ASP Section 3.4.2. The supervisor at the scene will:

- Perform an investigation, including an on-site inspection of the accident scene
- Conduct interviews with involved personnel and witnesses as appropriate
- Review reports written by involved personnel
- Gather, collect, and review physical evidence
- Complete each CATS accident / incident investigation form that applies to the event. (See CATS S&S03 *Accident/Incident Investigation and Reporting*.)
- Submit a report based on the information collected to the Manager of Safety – Bus/Rail, Office of Safety and Security. The Manager of Safety – Bus/Rail will ensure that the General Manager of Safety and Security and the City of Charlotte Risk Management Division are provided copies of all reports.

3.4.5 Safety and Security Follow-up

The CATS Office of Safety and Security reviews all accident/incident reports for potentially serious problems or conditions. All accident/incident data is collected throughout the organization and analyzed to determine trends within the operations. Additionally, when accident/incident reports and statistics show repetitive trends that result in an inability to meet or exceed the safety goal and objective, the Office, through the Manager of Safety - Bus, the Manager of Safety - Rail or Manager of Security, initiates an investigation to determine the causal factors and settle on required corrective actions, approved by the General Manager of Safety and Security.

3.4.6 Investigation Called by Chief Executive Officer

The CEO may bring in additional resources to support an investigation of any incident/accident occurrence conducted by the Office of Safety and Security including investigations by NCDOT or the National Transportation Safety Board (NTSB).

3.4.7 Internal Notification of Accidents and Unacceptable Hazards (from CATS S&S03)

Depending on the type of incident, the operator/employee must immediately notify the appropriate communications center and/or Safety and Security personnel. Non-revenue vehicle operators must notify their supervisor/manager if possible. CATS follows the S&S03 *Accident/Incident Investigation and Reporting* procedure when making internal notifications.

3.4.8 External Notification Procedure (Rail Only)

CATS follows the S&S03 *Accident/Incident Investigation and Reporting* procedure when making external notifications. The reportable incidents identified in S&S03 are based on the current Code of Federal Regulations (CFR) related to public

transportation and the NCDOT State Safety Oversight Program Standards (SSOPS).

3.4.8.1 At-scene Procedures

CATS S&S03 describes the roles and responsibilities of CATS personnel on the scene of an incident.

3.4.8.2 Accident / Incident Investigation Reporting, and Documentation NCDOT (Rail Only)

Each CATS investigation conducted on behalf of NCDOT must be documented in a final report that includes a description of investigation activities, findings, identified causal factors, and a Corrective Action Plan, if applicable. Preliminary reports will be submitted within 72 hours post incident and final reports will be submitted when completed with updates provided to NCDOT every 30 days. All investigation and reporting requirements will follow current NCDOT State Safety Oversight Program Standards (SSOPS) and CATS S&S03 *Accident/Incident Investigation and Reporting* procedure.

Reports and records of accident investigations submitted to NCDOT by CATS, as well as related reports and records produced by both NCDOT and CATS, will be treated as confidential information and will not be released without concurrence by both NCDOT and CATS. All documentation related to accident investigations are kept on a secure server within CATS. Hard copy or electronic copy of documents are available upon request by authorized personnel.

National Transit Database

Accidents and Incidents for CATS are also reported to the National Transit Database (NTD) monthly.

Major events are reported by mode separately for each event. Information includes number of fatalities, number of injuries, total estimated property damage, date, time, and address of the event. Report includes a brief synopsis of the event.

For minor events: CATS reports by mode (Bus, Commuter Bus, Light Rail, STS, Vanpool); the number of events by location (in revenue facilities, in transit vehicles, in non-revenue facilities); the number of injuries by category (customer, worker, or other); and for fires by location.

3.4.8.3 Corrective Action Plans (Rail Only)

After the occurrence of an accident and subsequent investigation, the development of recommendations, the identification of an unacceptable hazardous condition, or hazards identified through internal or external safety reviews/audits, the CATS Safety and Security representative will

enter a Corrective Action Plan (CAP) in NCDOT's web-based software program after identification of the need for a CAP. CATS may request additional time to prepare the CAP for complex issues. Should the web-based program not operate properly, then the CAP will be submitted in the manner requested by the NCDOT SSO representative.

The CAP describes the actions CATS will take to control, correct, and mitigate the issue until a permanent solution can be identified. CATS will evaluate the actions needed for reducing the levels of risks to the lowest available levels and creating a schedule for these actions.

The Corrective Action Plan will include:

- a title that references the ASP element number, the year, and a suffix starting with "01" indicating the first item for that element and year (progressing numerically for additional CAPs for the same element and year). The alphanumeric format must be: "ASPxx-year-xx", using four digits for the year;
- the hazard or deficiency identified and investigation (if relevant to the CAP);
- reason for the noncompliance (if relevant to the CAP);
- proposed actions planned to minimize, control, correct, or eliminate the unsafe or hazardous condition, including interim action if required;
- scheduled date of completion of implementation;
- division and individual responsible for implementing the CAP;
- comments subsequently added, especially pursuant to NCDOT review and closure of the CAP.

The CAP shall be submitted to NCDOT for review and approval using the web-based system. NCDOT will enter its approval or rejection of a CAP within 15 calendar days of receiving the CAP. In the event NCDOT rejects a CAP, NCDOT will state its reasons and recommend revisions. CATS shall submit a revised CAP to NCDOT no later than 15 calendar days following the rejection. If NCDOT takes issue with CATS' proposed CAP, NCDOT and CATS must work together until NCDOT approval can be obtained. NCDOT approval is not necessary for short-term measures required to immediately mitigate hazardous conditions; however, these measures shall not replace the need for a long-term CAP. NCDOT will provide its support for such short-term measures, or outline its concerns regarding them, in its written approval or disapproval of the formal CAP.

If the NTSB investigates, CATS and NCDOT shall review the NTSB findings and recommendations to determine if a CAP is required. If a CAP is required either by the NTSB or NCDOT, CATS shall develop it.

Unacceptable Hazardous Conditions that are identified through any means, including After Action Reports (AAR), as containing Sensitive Security Information (SSI) will be tracked in a separate hazard log.

The CAP log generated in NCDOT's web-based software program includes entries related to:

- most probable cause;
- corrective actions for investigation reports, annual audits, three-year safety reviews, and FTA Program Audits;
- unacceptable hazardous conditions;
- hazard analysis or safety reviews performed at the request of NCDOT; and
- other related external reviews.

The status of open corrective actions is reported and reviewed on a monthly basis with Rail Operations management. All corrective actions are prioritized for implementation using the risk assessment matrix and assigned a responsible person to lead the corrective action effort and close the corrective action after resolution. NCDOT requires verification from CATS that the CAP has been implemented either by documentation submitted by CATS, independent visual inspection by NCDOT, or both.

3.4.8.4 Coordination with State Safety Oversight Agency (Rail Only)

When an accident, incident, or condition involves post-accident inspections, examination, or testing by CATS Divisions, the Office of Safety and Security is the lead CATS office to coordinate with NCDOT. The Office of Safety and Security will evaluate the need for accident/incident reconstruction, in cooperation with the City of Charlotte Risk Management Division.

NCDOT may choose to investigate rail accidents and UHC rather than having the Office of Safety and Security perform the investigation on its behalf. CATS will fully cooperate with the NCDOT in its investigation, with the General Manager of Safety and Security serving as CATS' primary point of contact. NCDOT submits draft reports to CATS for review and feedback. CATS will notify NCDOT SSO in writing of any findings or issues in which they disagree. Additional information and clarification will be provided to NCDOT to address any disagreements. NCDOT SSO will make the final decision on findings and issues.

3.5 Management of Change

3.5.1 Procedures for Evaluating Safety Risk of Proposed Changes

3.5.1.1 Internal / External Sources of Change

Changes to the CATS systems can be identified through internal and external sources. These sources of change can be found in Section 2.2.1 *Hazard Identification*.

3.5.1.2 Process for Change

CATS Management will ensure that any changes in its projects or existing services will be carried out in a planned manner. Before approving any planned changes, it will consider **if the change introduces a new hazard or impacts CATS safety performance. If so, CATS Safety evaluates the proposed change through its Safety Risk Management process as described in section 2.2 Hazard Management Process.**

For Rail Operations, the following process will be used to review, evaluate, and document the process of change:

- CATS established policies or procedures intended to reduce safety risk shall not be changed until formal review by CATS Safety & Security, Quality Assurance and Operations staff agree on the change to ensure no additional hazard or safety risk is introduced. The formal review will be documented using either the Hazard Analysis Form or Safety Analysis Form signed by appropriate management personnel, or by having the Rail Safety Manager co-sign the bulletin or notice indicating Safety was involved in the review and accepts the change. **The Rail Safety and Security Committee will review those items identified as introducing a new hazardous condition by the safety department. They will also review guidance documents.** Review and comment by NCDOT shall be required as defined in the NCDOT State Safety Oversight Program Standards (SSOPS) prior to the change taking effect. Once the changes have been approved, employees will need to be trained on the change prior to implementing the new policy or procedure.
 - If the analysis documents the proposed change should be implemented, the change will be made following the *ROD304 Bulletins, Notices, General Orders and Operating Orders* and/or *ROD801 Configuration Change Control Procedure*. Employees receive awareness and notification in regard to changes in their work area. This is verified with sign-off sheets.
 - CATS established rail policies and procedures that will be affected include but not limited to the following documents:
 - Rail Rulebook
 - Rail Operations Control Center (ROCC) Manual
 - Rail SOPs
 - Rail Maintenance Handbook
 - Track Maintenance Handbook

Once a safety related change has been finalized, some form of training of affected employees on the change, when practicable, shall be completed prior to implementing the new policy or procedure.

Change is planned to ensure it is accomplished in a controlled manner and CATS Management shall ensure that the integrity of the SMS is maintained when changes to the system are planned and implemented.

3.5.1.3 Field Observations for Changed Work Environments

Identified changes to the CATS System or mitigations that have been implemented in the field will be verified and monitored by the appropriate Division staff and Office of Safety personnel to ensure the mitigation is appropriate and effective. If it is determined that a mitigation for an Unacceptable or Undesirable hazard is ineffective, the SMS Manager or the CSO will be notified, and a different mitigation will be implemented to address the issue. These changes will be managed on the Division's HML and the Safety Risk Register as applicable.

3.5.2 Configuration Management

3.5.2.1 Overview

Configuration Management is defined as the effective control of a facility's as-built arrangement and operation to ensure compliance with approved and/or accepted technical requirements and other governing criteria. Control of the as-built configuration of facilities, systems, equipment, and vehicles begins during development of the final design and extends through construction, start-up, and operations, concluding with deactivation of the facility, system, equipment, or vehicle. CATS Configuration Management includes document and record control, change control in operating systems and construction change control.

CATS shall notify NCDOT of all rail-related planned modifications to existing systems, vehicles, and equipment and any rail New Starts Projects at the beginning of the Preliminary Engineering Phase of the modification or Project Life Cycle: including the requirements set forth in FTA's Circular 5800.1 and 49 CFR Part 633.

3.5.2.2 Process for Change

1. Control of Documents

CATS Quality Assurance procedure CATS QA02 *Control and Distribution of Plans, Manuals, Policies and Procedures* defines the controls needed:

- To approve documents for adequacy prior to issue
- To review and update as necessary and re-approve documents
- To ensure that changes and the current revision status of documents are identified
- To ensure that current versions of applicable documents are available at points of use
- To ensure that documents remain legible and readily identifiable
- To prevent the unintended use of obsolete documents and to apply suitable identification to them if they are retained for any purpose

Employees shall use the specified or latest revision of specifications or controlled documents to include documents of external origin.

2. Control of Records

At all times, CATS maintains documents that set forth the CATS ASP, including those related to the implementation of CATS SMS, and results from SMS processes and activities. CATS maintains documents in whole, or by reference, that describe the programs, policies, and procedures that the CATS uses to carry out the CATS ASP. CATS makes these documents available upon request by the FTA or other Federal entity, or a State or to NCDOT (the SSOA having jurisdiction). CATS maintains these documents for a minimum of three years after they are created.

Records are established and maintained to provide evidence of conformity to requirements and for the effective operation of the quality management system. SMS/ASP records are maintained by the record owners identified on CATS Records Retention Schedules and shall remain legible, readily identifiable, and retrievable. CATS RIM01 *Control of Public Records* defines the controls needed for the identification, storage, protection, retrieval, retention time, and disposition of records. Record retention schedules for CATS documents maintained by CATS and by other City departments for CATS are available in CATS Record Retention Schedule on CNet/CATS/CATS Records Management site. CATS Records Retention schedules are in compliance with NC General Statute (NCGS) Chapter 132. The ASP, records related to ASP development and SMS implementation will be retained electronically for a minimum of three (3) years in accordance with CATS Records Retention Schedules and 49 Parts 670, 672, 673, and 674.

3. Contract Changes

Changes to a contract can originate from various sources in the form of change notices, verbal directives, or contractor claims with merit. The procedure for contract changes is CATS P&CM04. CATS may, by written change order, make a change to the work within the general scope of the contract. The contractor may propose changes to CATS for its review and approval or disapproval. Acceptance of contractor-proposed changes is solely within CATS' discretion. Regardless of source, changes are considered to be pending until they are made a part of the Contract by a fully executed change order. The resident engineer (RE) maintains a status log of all pending changes and makes periodic reports to management on actions being taken to finalize these changes. The General Conditions Article entitled "Changes" dictates the Contract provisions for making changes to the Contract. In addition, CATS' Change Control Procedure must be followed. When there is conflict between the General Conditions, CATS Change Control Procedure, and the Construction Management Manual, the General Conditions takes precedence, followed by CATS Change Control Procedure, and finally the Construction Management Manual.

4. Configuration Change Control in Light Rail Vehicles

CATS Procedure CATS ROD801 establishes the process to be followed to use alternative materials instead of Original Equipment Manufacturer materials and/or make changes in the process pertaining to the repair and maintenance of light rail equipment. The procedure also establishes a Configuration Control Board to review and approve or reject requests for changes to maintenance and material parts or processes and to ensure adherence to the procedure.

5. Configuration Change Control in Buses for BOD and STS

CATS Procedure CATS BOD104 *Configuration Change Control* establishes the process to be used for change control of BOD and STS vehicles. When BOD Maintenance is contemplating a change through the Original Equipment Manufacturer, it is reviewed and approved by Change Control Managers. Change Control Managers include the GM of Bus, Director of Maintenance, and Manager of Safety – Bus.

6. Authority for Change

The CATS Quality Manual is the authority for the following types of changes:

- Control of Records
- Control of Documents

3.5.3 Safety and Security Certifications

The CATS safety and security certification process is used to ensure that safety concerns and hazards are adequately addressed prior to the initiation of passenger operations for new start projects and subsequent major projects to extend, rehabilitate, or modify our existing system, and to replace vehicles and equipment. Major Capital Projects are defined as \$100 million or greater by the FTA, but the administrator may apply this process for Federal funded projects under \$100 million. The process also applies to all other projects determined by CATS' Office of Safety and Security to be of sufficient significance to require formal safety and security certification. CATS' processes for safety and security certification are based on FTA's Handbook for Safety and Security Certification (2002) and CATS' own configuration management plans and procedures. Separate safety and security certification plans are developed for each identified project.

During the performance of hazard analyses, as part of the Safety and Security Certification Process, CATS identifies Category 1 Catastrophic and Category 2 Critical hazards. These hazards constitute the Safety Critical Items List (SCIL), a subset of the CIL, to provide visibility of these issues and to verify monitoring and control. The Office of Safety and Security updates the CIL to reflect the status of all hazards, prioritizing Category 1 and 2 hazards. The SCIL and CIL are published and managed until all hazards have been eliminated, reduced, or controlled to

acceptable levels. System changes and modifications are not to be made without first being reviewed and approved by the SSRC.

A separate Safety and Security Certification Plan (SSCP) is developed for new start projects and major projects in accordance with the FTA's Handbook for Safety and Security Certification (2002). CATS will comply with FTA's Circular 5800.1, FTA's Project and Construction Management Guidelines, and 49 CFR Part 633.

Current SSCPs include the CityLYNX Gold Line Phase 2 and the LYNX BLE.

CATS is a self-certifying agency except in cases where the required expertise to oversee the safety and security certification process is not available among CATS staff in the estimation of the General Manager of Safety and Security. In those cases, qualified consulting services may be retained to perform the certification according to FTA standards. Although CATS may contract out safety and security certification services, CATS maintains the responsibility to report to the FTA their acceptance and endorsement of the work performed under the safety and security certification process. To facilitate coordination between NCDOT and CATS, CATS has designated and assigned a project liaison for each CATS major project. This includes coordination and submittal of project reports. The report requirements and frequency will be established through joint collaboration.

3.5.3.1 Certifiable Components

- a. These components are broken down into four major categories:
 1. Facilities/Equipment
 2. Systems
 3. Integrated Test Requirements
 4. Operational Requirements
- b. The certifiable components for a project are defined by reviewing the project design criteria manual, project management plan (PMP), and like project-related documents such as the CILs and specifications.
- c. All major contractor and manufacturer audits, inspections, and tests where the safety and security of customers and/or employees, equipment, or facilities could be affected by the improper or incorrect construction or manufacture of system components. These audits, inspections, and tests cover both facilities and system components. Included are First Article Inspections, Mockup Reviews, Qualification Tests, Performance Tests, and Acceptance Tests. The integrated tests are developed to verify the integration and compatibility of equipment, facilities, and operation/maintenance procedures to function together under normal, abnormal, and emergency situations. This includes verifying the coordination, response, environmental constraints, and capabilities of CATS and outside agencies.

- d. The safety and security certifiable components in each construction package are certified independently once all sub-element and sub-item submittals are received, reviewed, signed off by the appropriate construction staff, and verified. Any “Open Items” that remain in effect with operational restrictions are documented and attached to the components certificate. The restriction(s) must have been resolved (or workarounds / operating restrictions put in place) and approved by the SSRC.
- e. The Project Safety and Security Certificate is prepared by the Office of Safety and Security and reviewed/approved by the SSRC once all the construction packages have safety and security certificates, transportation and maintenance personnel have been trained, emergency response personnel have been prepared to respond to emergency situations in or along the Right-of-Way (ROW), and safety and security system integration tests have been conducted. The overall project certificate and cover letter are presented to the CATS CEO for signature by the General Manager of Safety and Security. The certificate’s signature provides a formal notification that the applicable portion of the operating system is safe and secure for revenue service. Any “Open Items” that remain in effect with operational restrictions are documented SCIL and attached to the System Safety and Security Certificate. The restriction(s) must have been resolved (or workarounds / operating restrictions put in place) and approved by the SSRC.

3.5.3.2 Hazard Resolution for Projects

The hazard resolution process can be applied throughout the five phases of the system life cycle.

- Phase 1 - Planning
- Phase 2 - Design
- Phase 3 - Construction
- Phase 4 - Operations
- Phase 5 - Disposal

Identification of hazards is the responsibility of all divisions and is key to system safety. Hazards that are identified are analyzed for severity, frequency, and cost feasibility of remedial action required to eliminate or reduce the hazard to the lowest practical level. Hazard identification defines conditions and faults which have the potential for causing an accident. The CATS Office of Safety and Security verifies that mechanisms are in place for identifying and reporting hazards on the system.

Assessment of a hazard is based on the probability of occurrence and the severity of an event. Hazards with greater severity or probability to cause serious injury to have a greater need for immediate resolution.

Hazard resolution is the corrective action taken in response to the hazard identification and assessment process, but time and resource restrictions

may determine the level of resolution that can be accomplished. The following are actions for hazard resolution:

- Eliminate the hazard if possible.
- Install protective devices/measures to reduce the hazard.
- Provide training to educate the workforce of possible hazards.
- If the hazard cannot be eliminated, reduce exposure to it.

Hazard analysis **encompasses** a set of methodologies that first searches throughout the system for the potential to do harm. Having found such hazards, further analysis attempts to control any hazard at an acceptable level. However, to do so first requires an understanding of the causes of the hazards.

Hazard analysis **attempts** to determine the set of primary events in the hazard generation process. Upon identification of these events, CATS will seek to mitigate, control, or eliminate the generation of hazards in ways that can reduce their risk to an acceptable level.

Hazard analysis also attempts to **reduce** the severity of accident events by introducing protective devices and equipment, procedures and/or forms, or system modifications that reduce the amount of human and property damage in an accident event.

The **objective of hazard identification and analysis** is to identify and define as many hazardous conditions as possible and enter them into the Hazard Resolution process before those conditions or associated activities cause an accident, injury, death, or other loss.

While identifying every hazard is unlikely, the historical rail and bus passenger accident experience is a reliable source of input information that aids in the identification and capturing of hazards. CATS also uses inspections and checklists to identify hazards. For potential hazards during design of projects, we do hazard analysis as described in the Preliminary Hazard Analysis and mitigated hazards are moved to the Operational Hazard Analysis for CATS projects.

CATS uses the hazard identification and analysis process in the areas of System Safety, Environmental Protection, Design, and Procurement before purchasing and accepting new equipment and modifications of existing facilities, systems, or rolling stock. When safety certification is required, CATS uses qualified consulting services to verify that new or overhauled equipment, facilities, and rolling stock meet its safety requirements.

3.5.4 Managing Safety in System Modifications

Changes and/or modifications, including non-permanent system changes or modifications made to CATS' existing systems, vehicles, facilities, and equipment that have the potential to adversely impact customer, employee, public, and/or system safety or security, but do not require safety certification (as determined by

CATS' Office of Safety and Security), are subject to CATS' hazard management program. Such changes and modifications must be accomplished in a controlled manner to ensure that safety is incorporated into the project designs, plans, and procedures developed to implement the system change or modification. Such changes and modifications must also be performed in accordance with CATS plans and applicable CATS procedures such as CATS EX06 *Project Management Planning and Project Management Plans*, CATS P&CM04 Change Control Procedure or CATS ROD801 Configuration Change Control Procedure.

Any division or section initiating a change must inform the CATS Office of Safety and Security and any other affected division or section, so they may review possible impacts, including safety or security impacts, resulting from the proposed change or modification. The Office of Safety and Security may determine that safety analyses are required as part of the change/modification design process. CATS Quality Assurance has oversight responsibility for changes to policies and procedures and enforcement of review by affected divisions/sections.

Organizations providing professional services, architectural / engineering design, construction, or construction management to CATS are required to provide a Quality Assurance/Quality Control Plan (QAP) that defines the administrative and control measures appropriate for their respective scope of services.

3.5.5 Managing Safety in Procurement

CATS shall ensure that any purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product shall be dependent upon the effect of the purchased product.

Procurement actions are conducted in accordance with all applicable Federal, State, and local laws, regulations, and policies. CATS conforms to the current procurement ordinances, policies and/or procedures adopted by the Council of the City of Charlotte or the Charlotte City Manager.

The Transit Asset Management Program Manager oversees the Asset Management and State of Good Repair requirements set forth by the NCDOT SSOPS and the FTA TAMS requirements and will submit quarterly the SSOPS Appendix E Form – Quarterly RTA Asset Management Status Report. The Development Division is responsible for CATS' TAM Plan compliance with FTA and NCDOT program requirements.

The TAM Manager shall provide the Office of Safety and Security department a monthly report regarding all rail related capital assets.

The City Council has full budget and signature authority for all contracts. The authority to sign contracts for normal operations, supplies, and service contracts has been delegated to the City Manager or his/her designee, the Department Director or his/her designees, or the Chief Procurement Officer, based on the total dollar amount of the contract.

The Chief Procurement Officer has primary responsibility for procurement and contract administration, including issuing and compliance, with CATS Procurement Policies and Procedures.

CATS Procurement Manual details the requirements for all important activities, such as preparation of purchase orders, contracts for services, bid lists, vendor quality requirements, and contract file maintenance.

CATS CEO, project managers, and other key personnel have primary responsibilities, contributor/support responsibilities, or approval authority for specified aspects of the procurement function based on the scope of the contract. Responsibilities are identified in the Procurement Manual.

Large procurements need to be planned during the budget preparation cycle to ensure specifications and contract awards are not driven by budget. All procurements must have an accurate detailed estimate prior to solicitation.

Large projects (over \$100,000) require a PMP that identifies project team members including the Office of Safety and Security. The Procurement Service Request (PSR) identifies whether a PMP is required. The Office of Safety and Security identifies the level of safety certification for the project in the PMP. Safety and security design criteria and standards are integrated into all project designs, unless determined otherwise by the General Manager of Safety and Security.

Planning for procurement and contracts entails considering safety, as well as technical, business, and management requirements in controlling acquisition from inception to completion.

The purchasing process begins with the preparation of a specification and PSR that is then submitted to City Procurement. For hazardous materials, safety items, personal protective equipment, safety products/systems, and service contracts, the Office of Safety and Security will review and approve the PSR prior to the processing of the purchase order.

City Procurement works in conjunction with all CATS divisions and applicable City of Charlotte Departments and utilizes existing city contracts for all purchasing contracts. When purchasing personal protective equipment (PPE) for employees, controlling chemicals and other hazards in the workplace, mandating safety requirements in specific contracts, and requiring compliance from specific vendors with CATS safety requirements, the Office of Safety and Security is consulted and reserves the right of approval.

Those specifying requirements for purchased products and services are responsible for ensuring that products and services meet requirements specified in the procurement information. When products or services are received that do not meet requirements, employees are expected to work with Procurement to arrange a return or adjustment as appropriate. CATS QA works with Procurement and key suppliers to ensure that suppliers have the capability to meet specified requirements.

The Rail Inventory Management Manual addresses the visual inspection of parts prior to placing in inventory. Bus Warranty and Parts also performs a receiving inspection of incoming material.

CATS currently utilizes the SPEAR Maintenance and Material Management System (MMMS) to effectively track all parts procurement, work orders, vendor technical bulletins, recall notices, and end user defect comments. Currently, the SPEAR MMMS keeps an active log of this information, which is retained for configuration management purposes.

The Office of Safety and Security has identified requirements to include in contract documents for contractors working on CATS property. The Office of Safety and Security is responsible for reviewing procurement activities for compliance with NCDOT's Asset Management and SGR requirements as noted in the current SSOPS.

Section 4 Safety Promotion

4.1 Safety Plan Dissemination

Reference Section 1.8 on Safety Plan and Policy Dissemination.

4.2 Safety Plan Review and Modification

The Agency Safety Plan is a living document because CATS is an evolving transit system. The ASP therefore requires an annual compliance review. Each CATS Division and the Rail Safety and Security Committee (RSSC) will review the ASP annually and submit draft changes for consideration for incorporation in the revised ASP. Safety and Security staff shall complete their reviews for the previous calendar year and submit to the SSC for approval. The SMS Manager will ensure compliance with all ASP/SSOPS standards prior to submitting the ASP to the CSO and CEO for approval to include department heads review and comments. The CEO will certify annually that the ASP meets all required standards. The annual update is provided to NCDOT for review and approval per the SSOPS as amended.

The annual update of the ASP addresses the following:

- Change in service defined as system expansion, extended service, or change in the operation plan;
- Change in service equipment, facilities, or vehicles;
- Change in management or organizational change and reassignment of functional responsibilities which affect operations and/or safety;
- Change in safety polices, goals or objectives;
- Changes in regulatory requirements;
- Occurrence of a significant event or incident that warrants possible revision of the ASP; or
- Audit results, on-site reviews, or changing trends in incident/accident data.

All revisions to the ASP are made in accordance with procedure CATS QA02 *Control and Distribution of Plans, Manuals, Policies and Procedures*.

The General Manager of Safety and Security shall ensure that all changes and updates to the ASP are communicated to the NCDOT, the designated SSOA for CATS. The finalized ASP, whenever the ASP is revised, is submitted with the signature of the CEO and the resolution of the ASP approval by the RSSC and MTC.

The CEO submits an annual certification of compliance, to NCDOT SSO, for Part 673 and the NCDOT SSOPS by February 15 of each year.

The EPCP shall also be reviewed annually.

4.3 Safety Plan Implementation Tasks & Activities (including responsibilities matrix)

Appendix H contains the Gaps for Implementation of ASP and includes responsibilities.

4.4 Employee and Contractor Safety Programs (Knowledge and Compliance)

North Carolina has a fully approved State Occupational Safety and Health Plan under the United States Department of Labor, Occupational Safety and Health Administration (OSHA) 1910 Occupational Safety and Health Standards. The North Carolina Department of Labor (NCDOL) exercises jurisdiction over the occupational safety and health of all private and public-sector employers and employees within the State. Therefore, CATS employees are protected by the regulations issued by the North Carolina Department of Labor, Occupational Safety and Health Division. NCDOL adopted the Federal OSHA regulations and has issued a limited number of state-specific standards.

Safety information on approved methods and procedures are included in manuals, handbooks, and other documentation developed for the training and qualification of operating and maintenance personnel. Identification of protective devices and emergency equipment are included in the training documentation and instruction. In addition, safety posters and notices are used, as appropriate, to enhance safety awareness during all phases of system operations. Safety concerns are incorporated in briefings given to personnel prior to their working with equipment or facilities. Each operating division has a specific training protocol for refresher training as well as new employee orientation.

Safety Awards Programs are used to encourage both individual and group participation in the CATS Safety Program. Examples of employee recognition programs are: National Safety Council Safe Driver Award Pins, periodic group recognitions, and safety plaques. Other incentives and bonus programs may be periodically used to specifically recognize the safety achievement of employees in the various divisions.

4.5 Compliance with Local, State, and Federal Requirements

4.5.1 Working on or Near Rail Transit Controlled Property

All CATS employees and contractors working on or near CATS ROW are provided mandatory Roadway Worker Protection Program (RWPP) Training by the Office of Safety and Security or other trainers with the approval of the Office of Safety and Security. Training is valid for one year from date of RWPP training. Personnel who successfully complete the Roadway Worker Protection (RWP) training are issued a certification card valid for one year from the date of training. The card shall be carried by personnel when working in the rail system.

The RWPP applies to all roadway workers involved in the ROW of the CATS LYNX Blue Line and CityLYNX Gold Line. The purpose of this safety program is to aid in the prevention of accidents and injuries while working within CATS ROW. These rules serve as a minimum safety standard based upon the following documents, as adapted for the conditions of CATS operations:

- 49 CFR 214 Railroad Workplace Safety
- APTA RT-OP-S-010-04 Standard for Contractor's Responsibility ROW Safety
- APTA RT-S-OP-004-03 Standard for Work Zone Safety
- APTA RT-S-OP-016-11 Roadway Worker Protection Program Requirements

The safety of roadway workers is a top priority of CATS. Contractors and CATS employees must communicate and coordinate movements along the ROW with the ROCC in order to provide for the safety of roadway workers. Accordingly, all roadway workers must follow the applicable procedures outlined in this program.

To ensure compliance with the CATS Roadway Worker Protection Program, the Office of Safety & Security will conduct periodic onsite inspections of approved work crews to verify the following:

- Job Safety Briefings
- RWPP Cards
- PPE
- Proper flagging
- Other items as needed

If any on-site violation of rules or procedures is observed, the violation will immediately be brought into compliance. If no immediate remedy is available, work crew members may be asked to leave the approved work zone until such time as the work zone is brought back into compliance.

4.5.2 Required Safety Programs

The CATS Office of Safety and Security has the responsibility for ensuring that all applicable OSHA standards are properly implemented and the applicable training and associated Personal Protective Equipment (PPE) are provided by the responsible office. **CATS tracks OSHA training for the various City positions using Learning Management System software.** Transit Management of Charlotte (TMOCC) tracks OSHA training for maintenance personnel in SPEAR and Paylocity for bus operators and administrative employees. Each individual operating/maintenance section has the responsibility for enforcing employee compliance to the implemented OSHA standards.

The rulebooks published and distributed by CATS include: The Rail Rule Book, the Rail Maintenance Handbook, the Bus Operations Control Center Standard Operations Procedures and Reference Guide and the Bus Maintenance Procedures. Training is provided on the rulebooks and procedures during operations and maintenance training courses.

4.5.2.1 Review of Rules and Procedures

Policies, plans, rulebooks referenced above, and procedures are reviewed periodically to verify they meet the needs of the transit system in normal

and emergency conditions. Division or Section Managers are responsible to update policies and procedures specific to their departments. Quality Assurance Section is responsible for reviewing, routing for approval, distributing and maintaining CATS plans, manuals, policies, and procedures. Prior to any changes occurs, the Management of Change process in Section 3.5.1.2 will be followed.

The Quality Assurance section coordinates additions to or deletions from these documents which impact the safe operation of the system with the CATS Office of Safety and Security and respective Division staff and other affected divisions/sections for approval prior to implementation. CATS QA02 *Control of Plans, Manuals, Policies, and Procedures* stipulates control and distribution, including the three-year review process. The length of time needed for the review may vary based on the document being reviewed but the individual reviews should not exceed 30 days. CATS QA08 *Procedure Change Request Process* gives employees two ways to submit a procedure change request. The Rail section managers may issue a bulletin per CATS ROD304 *Bulletins, Notices, General Orders and Operating Orders* when an immediate revision is required to an operating rule or procedure. CATS safety committees, accident /incidents and audit reviews are also opportunities for rules reviews.

4.5.2.2 Process for Rules Compliance

Bus Operations conducts operational checks as part of their Standards of Excellence Program. Rule compliance checks are tracked and reported monthly to CATS Management. The Bus Safety staff conduct operator training and do accident refresher training. The Bus Safety staff perform safety audits if there is a general complaint about safety habits.

Rail Supervisors conduct ride checks of each rail operator at a minimum of three ride checks per month (Form RODF063), 15 ride checks totaled each month per supervisor.

Each STS Supervisor conducts field road observations quarterly using the Supervisor's Field Observation Report (Form STSF03).

Maintenance supervisors evaluate compliance with maintenance rules on an ongoing basis along with work completion and performance assessments. MOW conducts a minimum of three evaluations per quarter using the CATS Light Rail System Evaluation Form (RODF600). Rail Car Maintenance (RCM) conducts and documents monthly assessments of RCM employees.

Ride checks, safety audits, and field observations provide an opportunity for retraining to compliance to specific rules.

4.5.2.3 Compliance Techniques – Operations and Maintenance Personnel

Compliance techniques include observation of work activities and tasks and questioning employees about their knowledge of the respective rulebooks and handbooks. During initial training, employees are tested on their knowledge of applicable rules and procedures through written examinations.

4.5.2.4 Compliance Techniques – Supervisory Personnel

Rail

The Office of Safety and Security reviews a sample of Rail Operator ride check and observation forms and Maintenance proficiency check forms on an annual basis to evaluate the effectiveness of compliance methods utilized by supervisory personnel. The ride checks and field observations assess employees' knowledge of rules and procedures and validate the success of CATS' employee training programs.

Recommendations for enhancement of the compliance methods are submitted to Division managers by the Office of Safety and Security for appropriate action.

Bus

Bus Superintendents review Supervisor Ride checks to ensure they are being completed annually.

STS

Ride checks are reviewed by the STS Operations Manager.

4.5.2.5 Documentation

Safety and Security periodically audits the proficiency check forms for completeness and identification of hazards. Identified hazards will be tracked in the Hazard Tracking Log. Unacceptable and Undesirable Hazardous Conditions will be reported per the Hazard Management Process.

4.5.3 Compliance with Drug and Alcohol Programs

CATS is certified as a drug-free workplace and complies with all provisions of the U.S. Department of Transportation, Federal Transit Administration, 49 CFR Part 655 Prevention of Alcohol Misuse in Transit Operations, 49 CFR Part 40 Procedures for Transportation Workplace Drug and Alcohol Testing Programs and CATS HR02 CATS Drug and Alcohol Policy.

The FTA posts the latest Drug and Alcohol Regulations, Rules, and Notices at: <https://www.transit.dot.gov/drug-alcohol-program>

New hires sign a form acknowledging receipt of the D&A Policy and related training. Updates to the policy are distributed either by paper with a form signed

acknowledging receipt or by completing the review and acknowledgement online through the City/CATS Learning Management System.

4.5.4 Compliance with Contractor Safety Program

CATS requires a safe working environment for construction projects and workers. Per the FTA Project and Construction Management Guidelines, the Office of Safety and Security reviews the contractor's safety plan and concurs with or approves its compliance with this plan. CATS also requires contractors to follow all CATS safety and training standards to ensure its project workers' safety and well-being. This includes:

- Completion of Roadway Worker Protection training, as applicable.
- Complying with records retention and audit processes.
- Obtaining all necessary permits for work being completed, including any Right-of-Way Access permits.

CATS conducts periodic audits of contractors to assess their adherence to their construction safety plan. Any contractor employee found to be working in the operating rail system without a valid Contractor ROW safety card issued by CATS will be considered a trespasser and Police will be notified to take appropriate action. At a minimum, the contractor employee will be considered unqualified to work on a CATS contract and will be removed from the work site.

Workers on the project are required to follow OSHA 1926 Safety and Health Regulations for Construction safe work practices and comply with applicable safety, health, and fire loss prevention standards, and conduct their personal work activities in a manner which does not place themselves, other employees, or the public in a hazardous position. If a safety issue is identified by a CATS contractor on a CATS project, the contractor must immediately contact the designated CATS safety representative for the project.

It is CATS' responsibility to require that no project be so urgent that safety precautions are by-passed. The prevention of personal injury and property losses must always be part of the work task and in the mind of the manager, supervisor, and employee.

4.6 Training and Certification Program

4.6.1 Overview

Instruction in safe methods of operations and safety procedures is included in rulebooks, manuals, handbooks, and other documentation developed for the training and qualification of operations and maintenance personnel. Training systems have been developed by each department, which include in-house classroom training, field training, on-the-job training, and testing. Each department is responsible for establishing safety training requirements for its employees. Bus and Rail Instructors are responsible for providing new and revised safety training programs to the office of Safety and Security for review.

CATS conducts review activities that identify where new safety training is needed, where current safety training must be revised and updated, and refresher training needs to be added to the current training requirements for employees and contractors. The program will also include updating job descriptions and training requirements for front line employees, managers and supervisors and senior managers.

4.6.2 Classification of employees / contractors directly responsible for safety

The Office of Safety and Security, in conjunction with other divisions, provides all employees with training in the areas of basic safety, the ASP, applicable OSHA regulations, ergonomics, and defensive driving, if applicable. TMOOC provides this information for Bus Operations. In addition to the standard safety training provided by, or in conjunction with, the safety staff, safety awareness is maintained by special training presentations such as: bulletins; newsletters; and at work training to instruct employees on methods to prevent traffic, passenger, and employee accidents. Periodic training classes are held throughout the year to refresh or present new topics of concern to employees such as: de-escalation training, safety concern identification and report training, and refresher training for transit workers directly responsible for safety.

4.6.3 Certification and Training Requirements

All employees and contractors play a role in safety at CATS. All employees are required to attend initial SMS training in person. Ongoing SMS awareness training will be conducted periodically, including the various way to report safety issues. Employees are trained to know their role and responsibilities and how to report safety concerns to management. CATS Safety and Security staff worked with the Training Department to develop the training materials. The Training Department is responsible for maintaining the training records.

SMS training and an SMS pocket card is provided to all new hire employees as part of their orientation training. Safety & Security staff provide the SMS training and CATS Training Department maintains and manages the training materials and maintain training records.

All employees receive safety related training on SMS, emergency preparedness, and de-escalation. The Training Department reviews and approves all training materials and maintains appropriate training records.

Bus

The Office of Safety and Security oversees and coordinates operational safety and defensive driver training for Bus Operations. The Bus Operator Training Program is a comprehensive training program that includes classroom and road/route training prior to qualification. The bus training program includes components such as defensive driving techniques, vehicle familiarization, rules of the road, and road training.

A CDL permit is required to start the bus training program. The Office of Safety and Security is a third-party examiner for the CDL. Operators who have two (2) preventable accidents are required to complete accident retraining. Operators who are out of work for 30 days or more must pass a Ride Check (S&SF15 *Training & Development Sheet*) from Safety and Security. The North Carolina Department of Motor Vehicles automatically notifies CATS of bus operators whose licenses are suspended. Bus Operations uses S&SF42 *Trainee Mentor Evaluation* form to track employee mentor training and evaluation.

Refresher Training: The Office of Safety and Security conducts two-hour and four-hour refresher training as operators are available.

STS

The CATS Training Operations Division conducts STS Operator training. It is a four-week new hire training that consists of classroom instruction and vehicle operator training coordinated through STS Operations. A third-party DMV examiner conducts road tests and training for new licensees. Operators who are out of work for 30 days or more must pass a Ride Check conducted by Safety and Security.

Refresher Training for STS Drivers: The CATS Training Department is conducting two-hour refresher training as operators are available.

Rail

Employees receive initial SMS training in person and then annually either in person or online. Contractors receive annual SMS training as part of their Roadway Worker Protection Program (RWPP) training. Contractors working on the safety and security components of CATS projects will be required to meet the FTA Safety Certification and recertification training as outlined in 49 CFR 672 and the CATS ASP.

The Rail/Streetcar Operator training program is a comprehensive two-phase program which includes both classroom and practical instruction. Specific information about the training program for Rail Operators can be found in the *Rail Operator Training Manual* and *ROD308 Rail Operations Training Procedure*.

Requalification Training

All Rail Operators shall attend requalification training at a minimum of every two years. The Rail Instructor will do requalification with a limited number of Operators at a time to minimize manpower disruptions. These training programs are reviewed by Rail Operations Management and the Office of Safety and Security and are subject to review via the Internal Safety Audit Process.

ROCC Controller Training

The ROCC Controller training curriculum is a comprehensive training program requiring completion of the Rail Operator and Supervisor training

programs followed by two weeks classroom and eight - ten weeks practical instruction. The training requirements for ROCC Controllers can be found in the Operations Training Guide.

ROCC Recertification Training

All Rail Controllers must complete requalification training at a minimum of every two (2) years. Requalification training is administered through the Operations Training department which consists of written and practical examinations. All training programs are developed collaboratively with Operations departments and the Office of Safety and Security and are subject to review via the Internal Safety Audit Process.

ROCC Refresher Training

ROCC Controllers who are out of work for 30 - 89 days are required to complete refresher training. This training is administered through the Operations Training department. ROCC Controllers who are out of work 90 - 364 days must complete recertification training and testing. ROCC Controllers who are out of work for more than 365 days must complete the initial Controller training program. All training programs are developed collaboratively with Operations departments and the Office of Safety and Security and are subject to review via the Internal Safety Audit Process.

Maintenance Training

Rail Maintenance employees are provided training in accordance with the Rail Maintenance Handbook.

Bus Maintenance employees are provided training in accordance with an annual training plan prepared by the training team.

49 CFR 672 Safety Training

CATS Office of Safety and Security General Manager, Managers and Coordinators for rail and bus have been designated in April 2020 as being directly responsible for the safety oversight of a rail fixed guideway and bus public transportation systems and must comply with this regulation. **The primary point of contact for CATS for participation and enrollment shall be the General Manager of Safety and Security. They shall provide semiannual reports to FTA and NCDOT regarding the status of their participants and agency-defined recertification training.** Those employees required to meet this regulation must complete the following minimum training requirements within three years of being identified responsible for safety oversight. **PTSCTP records will be properly maintained and made available to appropriate local, state and federal agencies as described in Section 49 CFR 672.23 Availability of records.**

Required Training:

- One-hour course on SMS Awareness – e-learning delivery (all required participants)
- Two-hour courses on Safety Assurance – e-learning delivery (all required participants)
- Twenty hours on SMS Principles for Transit (all required participants)

- Transportation Safety Institute (TSI) Courses:
 - Rail System Safety (36 hours)
 - Effectively Managing Transit Emergencies (32 hours)
 - Rail Incident Investigation (36 hours)

Safety **recertification** training shall be completed every two years after completing the initial requirements. The **recertification** training must include, at a minimum, **specific recertification training defined by FTA, and training identified by CATS with a minimum of** one hour of safety oversight training.

CATS recertification training:

- **Roadway Worker Protection Program (RWPP) one (1) hour training provided by CATS.**
- **SMS Awareness one (1) hour online training provided by FTA/TSI.**

Semiannually, between January 1st and January 31st and between July 1st and July 31st of each calendar year, the identified CATS POC must submit documentation to FTA and to NCDOT, via electronic method defined by FTA and NCDOT, that identifies:

- **All employees and contractors of the recipient who are designated as PTSCPT participants.**

The course or courses the recipient has identified as required recertification training for their designated personnel.

CATS ensures employees are provided training on implemented changes that impact their duties and responsibilities.

4.6.4 Hours of Service (HOS)

4.6.4.1 Bus Operations Division (BOD)

Fixed Route:

In accordance with the FMCSA Part 395 Hours of Service for Motor Carriers of Passengers and the Collective Bargaining Agreement with the Union, requirements for maximum hours of operation (Maximum driving time for passenger-carrying vehicles) of a CATS Fixed Route Bus Operator are as follows:

- Shall not drive more than ten (10) hours following eight (8) or nine (9) consecutive hours off duty depending on position (Regular vs. Extra Board).
- Shall not drive any period after being on-duty for fifteen (15) hours following eight (8) consecutive hours off.
- On runs of six (6) hours or more of continuous time, employees will be allowed at least thirty (30) minutes, but no more than one (1) uninterrupted hour for meal relief.

- On runs of twelve (12) platform hours or more will be allowed a second lunch period of at least thirty (30) uninterrupted minutes, but not more than one (1) uninterrupted hour.
- All straight, split, or other assigned runs of regular operators, will consist of eight (8) hours a day for five (5) days or ten (10) hours a day for four (4) days exclusive of check-in time and travel time included in computing total platform time.

Paratransit:

CATS Special Transportation Services (STS)

- Follows DOT Hours of Service Regulations and
- Required managerial approval for work hours above 56 hours per week.
- Employees may not work more than 6 consecutive days

4.6.4.2 Rail

Rail Operations personnel include management, administration, supervisors, train operators, maintenance of way and rail car maintenance employees. Other than administrative staff, all other Rail Operations staff are considered to be safety-sensitive positions. Work schedules will meet Hours of Service requirements. The Rail Rulebook, Section 2.43 describes the work hours of Rail Operations safety-sensitive employees.

Rail Operations Employees

- No more than 16 hours per day for unanticipated events with no more than 12 hours of work in the aggregate.
- Must have 10 hours of time off between shifts.
- No more than 60 hours per week.

Work Week

- Train operators are not allowed to work more than six days in a row without a full day off (24 hours)
- Other Rail Operations employees are not allowed to work more than seven days in a row without a full day off (24 hours)
- The full day off shall prohibit the employee from being on-call

All Employees that work a 60-hour work week will then have two consecutive off days following the 60-hour work week.

Transportation supervisors may extend hours of service up to a maximum of 16 hours per day for unanticipated events with no more than 12 hours of work in the aggregate, only with the permission of the Transportation Manager and upon e-mail notification to the Manager of Safety – Rail. These extended hours are in compliance with APTA RT-S-OP-15-09 Standard for Train Operator Hours of Service Requirements and NCDOT State Safety Oversight Program Standards requirements. Employees will be excused from extended hours if they report that they are fatigued when requested to work beyond 12 hours in a shift.

Extended Hours During Emergency Conditions

During emergency conditions, the GM of Operations and Manager of Rail Safety have the authority to jointly temporarily suspend hours-of-service requirements in order to provide critical transportation services. NCDOT will be immediately notified of emergency conditions that the GM of Rail Operations or the Office of Safety & Security has made the decision to temporarily suspend HOS requirements and when any violations occur as a result of emergency situations.

Any violations of Hours-of-Service requirements will be captured in the HML and NCDOT will be notified as noted in the current SSOPS. Operations schedules completed for the following week will be reviewed for any scheduled HOS violations. Any individual scheduled to exceed HOS who cannot have their schedule changed to comply with the requirements will have their schedule approved by the respective manager. The manager will send a memo describing the violation and the reason for the violation to the GM of Rail Operations and Facilities for review and approval. Once the GM approves the HOS violation, the memo will be submitted to the Rail Safety Manager by the end of the respective work week. This will be in addition to the current procedure where HOS violations noted on weekly timesheets will be reported to the Rail Safety Manager. Rail Operations Administrative staff will review timesheets weekly to verify compliance with Hours or Service and number of days consecutively worked. Rail Operations Managers and Supervisors will review and develop work schedules that follows this section's requirements. If a violation is noted, Rail Safety will be notified by email of the violation, who will notify NCDOT. Rail Operations will follow ROD301 Performance Code Policy as appropriate for violations of this section.

The Office of Safety and Security shall notify NCDOT of any violation of the RTA's HOS policy within 72 hours following the RTA's confirmation of a violation. Notifications to NCDOT shall be made via email. The notification will include the following information:

- The employee's identification number
- The employee's work title
- The type of violation
- The schedule of work and rest for the period of 72 hours prior to the infraction
- A description of the circumstances which resulted in the violation.

An hours-of-service violation log will be submitted to NCDOT on a quarterly basis.

Fatigue awareness training is provided in the new hire training program and information is periodically provided in the Rail Operations Daily Activity Plan (RODAP).

4.6.4.3 Contractors

Contractors working on the CATS ROW are considered safety-sensitive employees. Contractors are required to follow their employers' hours of service and work schedule policy. In addition, their employees are required to meet the following requirements while working on CATS property.

- Work no more than 12 hours per day
- Must have 10 hours of time off between shifts
- Work no more than 60 hours per week
- Employees are not allowed to work more than seven days in a row

4.6.5 Recordkeeping

The Office of Safety and Security, in collaboration with Rail Operations and Bus Operations, maintains a record of all operations, maintenance, and OSHA-required safety training provided to employees and contractor employees, including a list of the required training for each position. The training records for employees is kept in the City of Charlotte learning management program and SPEAR that tracks all CATS employee training. The Training Department and TMOG QA Department also keeps detailed training records on initial and refresher training by employee. Safety training records are kept on sign-in sheets that are scanned into a file on a secure network and entered into a database maintained by the Office of Safety and Security.

Timekeeping records managed through their time-record software programs will be maintained for a minimum of three years.

4.7 Safety Communication and Outreach

Safety Communication

CATS communicates safety and safety performance information throughout the transit agency's organization that, at a minimum, conveys information on hazards and safety risk relevant to transit workers' roles and responsibilities and informs transit workers of safety actions taken in response to reports submitted through a transit worker safety reporting program to include the activities of the safety committees.

Safety Committees

Safety Committees are required to serve as the basic forum to review safety issues and hazards, hazard reports, safety inspections reports, accident investigations, and corrective actions. The Safety Committee representatives communicate safety concerns from their work areas to the Safety Committee and report back to their workgroups. Safety Committee meeting minutes are available to all employees. The Bus and Rail Safety and Security Committees will review and approve the ASP annually.

Safety Messages

For employees, TV screens are centrally located in areas (e.g. breakrooms) to display safety information, Chief Safety Officer's monthly report, alerts, statistical information, and other

safety education materials. Operations employees are informed of hazards in their workspace through tool talks, bulletins, and informal shop meetings on an as needed basis.

Marketing collateral materials will be used to raise safety awareness throughout the facilities, which may include, but are not limited to, brochures, posters, email blasts and newsletters to best accommodate every division's best communication practices.

For the public, per the Marketing and Communications Plan, Marketing and Communications provides safety marketing materials to its key audiences, including, but not limited to, the business community, the education community, the nonprofit community, drivers, riders, and community leaders, during public outreach events, such as safety blitzes and transportation fairs. Marketing and Communications also utilizes social media and online videos to educate the public, along with opt-in riders' alerts that include email and SMS messaging. CATS also posts alerts on the See Say App.

In 2020, CATS Marketing developed SMS and safety materials including pocket cards for all employees and safety messages and posters for the public. Posters regarding agency policy, safety roles and responsibilities and how to report safety concerns are maintained around the facilities.

CATS Safety & Security coordinates with CATS Marketing to review and update SMS marketing materials and safety messages to the public on an annual basis. CATS Marketing will produce and replace updated materials as needed.

Safety Quarterly Messages

The Safety Department publishes quarterly safety messages to be posted throughout all facilities. This is a communication tool that is used to enhance health and safety awareness among employees.

Safety Suggestion Boxes

Safety Suggestion Boxes are a tool that allows employees to share their safety ideas and concerns. Any safety-related comments and concerns received from Safety Suggestion Boxes are discussed and addressed at the Safety Committee Meeting.

Employee Recognition Program

CATS established the Employee Recognition Program to promote safety performance, build morale, and focus attention on achieving the agency's safety goals.

4.7.1 Procedures Used to Communicate Safety (external stakeholders and general public)

Per the Marketing and Communications Plan, CATS Marketing and Communications will continue to provide safety marketing materials to its key audiences, including, but not limited to, the business community, education community, nonprofit community, drivers, riders, and community leaders, during public outreach events, such as safety-marketing blitzes and transportation fairs. Marketing and Communications also utilizes social media and online videos to educate the public, along with opt-in riders' alerts that include email and SMS messaging. Marketing and Communications will create marketing **material** that explains proper safety procedures to be displayed in highly visible areas for the

public. Methods of communication may include, but are not limited to posting inside vehicles, social media, and audio announcements. CATS will also use email and newsletters to communicate with key stakeholders. CATS will continue its partnership with Operation Lifesaver, Inc. and will perform safety presentations for community members and professional drivers' groups, among others.

CATS Public Relations Team will communicate with media to inform them of necessary safety procedures. Public Relations will leverage the media to distribute key safety messages to customers.

4.7.2 Communication and Follow-up on Reported Safety Concerns

Customers may report unsafe conditions anonymously through the See Say application on their smart device. Reported incidents are tracked through the Office of Safety and Security. A procedure was developed to address the See Say app as a safety reporting tool, and Marketing and Communications will leverage marketing signage, social media, and video to communicate with the public and key stakeholders about this service.

Customers can report unsafe conditions by calling the Customer Service Call Center at 704-336-RIDE or emailing telltransit@charlottenc.gov. (See CATS CSVS04 *Customer Insights Tracking Process*.)

The Office of Safety and Security works with CATS Marketing/Communications to develop printed and electronic summary reports that provide feedback to employees on safety concerns submitted to the various safety committees. Employees who report safety concerns to management will receive a response from their supervisor or manager on how the concern was addressed.

4.8 Environmental Management Program

CATS is fully aware of the importance of employee chemical safety programs and the duty to comply with legally mandated hazardous materials rules and regulations. To this end, CATS has implemented a materials acceptance/rejection program to monitor and control chemicals that are brought onto CATS property and are used by employees.

CATS S&S05 *Hazard Communication Program* is in compliance with Title 29 Code of Federal Regulations Part 1910.1200, Hazard Communication Program. CATS' Hazard Communication program covers the procurement, receipt, storage, and disposal of hazardous materials. It also documents the maintenance of Safety Data Sheet (SDS) binders and employee training. Hazardous waste/chemical safety inspections are included in the responsibilities for safety inspections. CATS has contracted for the services of a properly licensed hazardous waste contractor for removal of hazardous materials. When necessary, consultants may be hired for special projects such as indoor air quality, chemical vapor, and particulate sampling.

The Office of Safety and Security reserves the right to reject a product if it is deemed too hazardous for employee use or CATS is unable to provide adequate safeguards or protection.

The SDS review/request procedure, which requires SDS review and approval of the Office of Safety and Security, is included in CATS S&S05 *Hazard Communication Program*. Section 2.8 of the CATS Rail Maintenance Handbook addresses the requirements of Safety Data Sheets for chemicals and hazardous materials used in CATS rail facilities and on CATS property. These programs are the responsibility of the using division and the Office of Safety and Security. Program effectiveness is reviewed via the Internal Safety Audit Process.

Training on hazardous chemicals is provided whenever new hazards are introduced into the work environment or whenever hazardous chemicals will affect specialized procedures. Chemical training will provide information on specific hazards and measures that can be taken to control or minimize the hazards. Control measures can include **elimination, substitution, engineering controls, administrative controls**, or personal protective equipment.

All new procurements for a chemical, substance, or compound are sent to the Office of Safety and Security for review before being brought onto CATS property. Each CATS division is responsible for ensuring that materials that come onto CATS property are properly labeled and packaged. The Office of Safety is responsible for the following occupational safety and health activities related to hazardous materials:

- Reviewing the Safety Data Sheet (SDS) database
- Providing technical advice and expertise
- Responding to exposure concerns and incidents
- Performing reviews and audits of agency practices
- Recommending Personal Protective Equipment
- Reviewing and approving new procurements of hazardous materials
- Overseeing and auditing performance on various hazardous materials programs.

APPENDIX A

Reference Documents Index

Reference Documents

Index

Bus Operations Control Center Standard Operations Procedures and Reference Guide

CATS BOD100 Preventative Maintenance Inspection (PMI) Audits

CATS BOD104 *Configuration Change Control*

Crisis Communications Plan

CATS HR02 Drug and Alcohol Policy for Safety Sensitive Employees

City Policy HR4 Drug and Alcohol-Free Workplace

Rail Maintenance Handbook

Rail Rule Book

ROD304 *Bulletins, Notices, General Orders and Operating Orders*

CATS ROD600, *Preventive Maintenance Requirements for Rail MOW*

ROD600-series SOPs

CATS ROD801 Configuration Change Control

CATS CSVS04 *Customer Insights Tracking Process*

CATS RIM01 *Control of Public Records*

CATS QA02, Control and Distribution of Plans, Manuals, Policies and Procedures

QA05 *Nonconformity and Corrective Action*

CATS S&S03 Accident/Incident Investigation and Reporting

CATS S&S05 *Hazard Communication Program*

Procurement Manual for the Charlotte Area Transit System

CATS Quality Manual

Safety and Security Certification Plan –CityLYNX GL2

Transit Management of Charlotte, Inc. Substance Abuse Policy

External References

National Public Transportation Safety Plan, January 2017

North Carolina State Safety Oversight Program Standards (SSOPS)

North Carolina G.S. 20-37.19 reporting positive DOT drug or alcohol tests under 49 CFR Part 382 or Part 655.

FTA's Handbook for Safety and Security Certification (2002)

FTA posts the latest Drug and Alcohol Regulations, Rules, and Notices at: <http://transit-safety.volpe.dot.gov/DrugAndAlcohol/Regulations/Regulations/default.aspx>

49 U.S.C. Chapter 53

49 U.S.C.5309 discretionary construction program

49 U.S.C. 5329(d)

49 CFR Part 40 Procedures for Transportation Workplace Drug and Alcohol Testing Programs

49 CFR Part 655 Prevention of Alcohol Misuse in Transit Operations

49 CFR 672 Safety Training

49 CFR Part 673 Public Transit Agency Safety Plans

49CFR Part 674 and the SSOPS

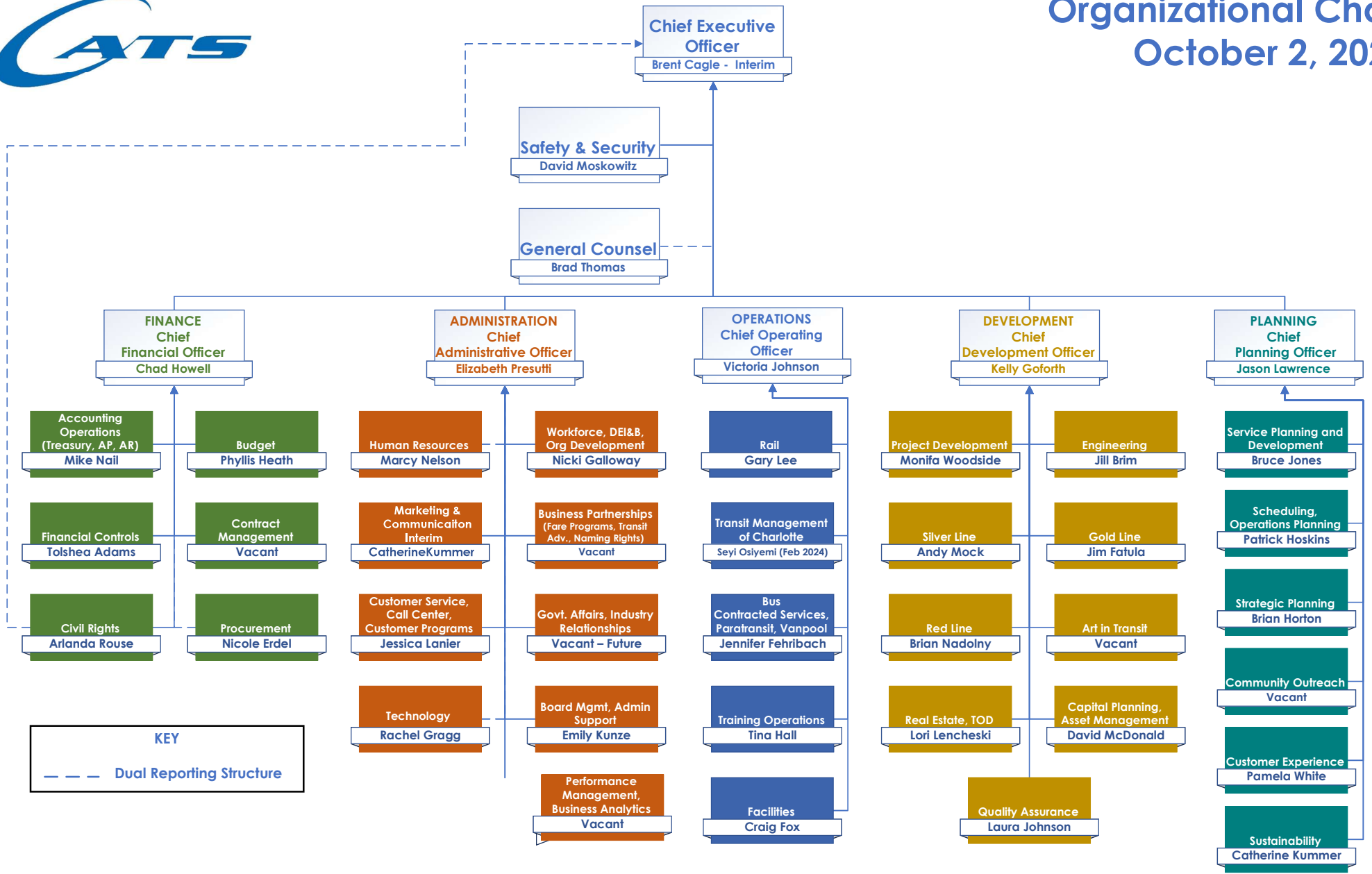
MIL-STD-882E DEPARTMENT OF DEFENSE STANDARD PRACTICE SYSTEM SAFETY

APPENDIX B

Organization Charts

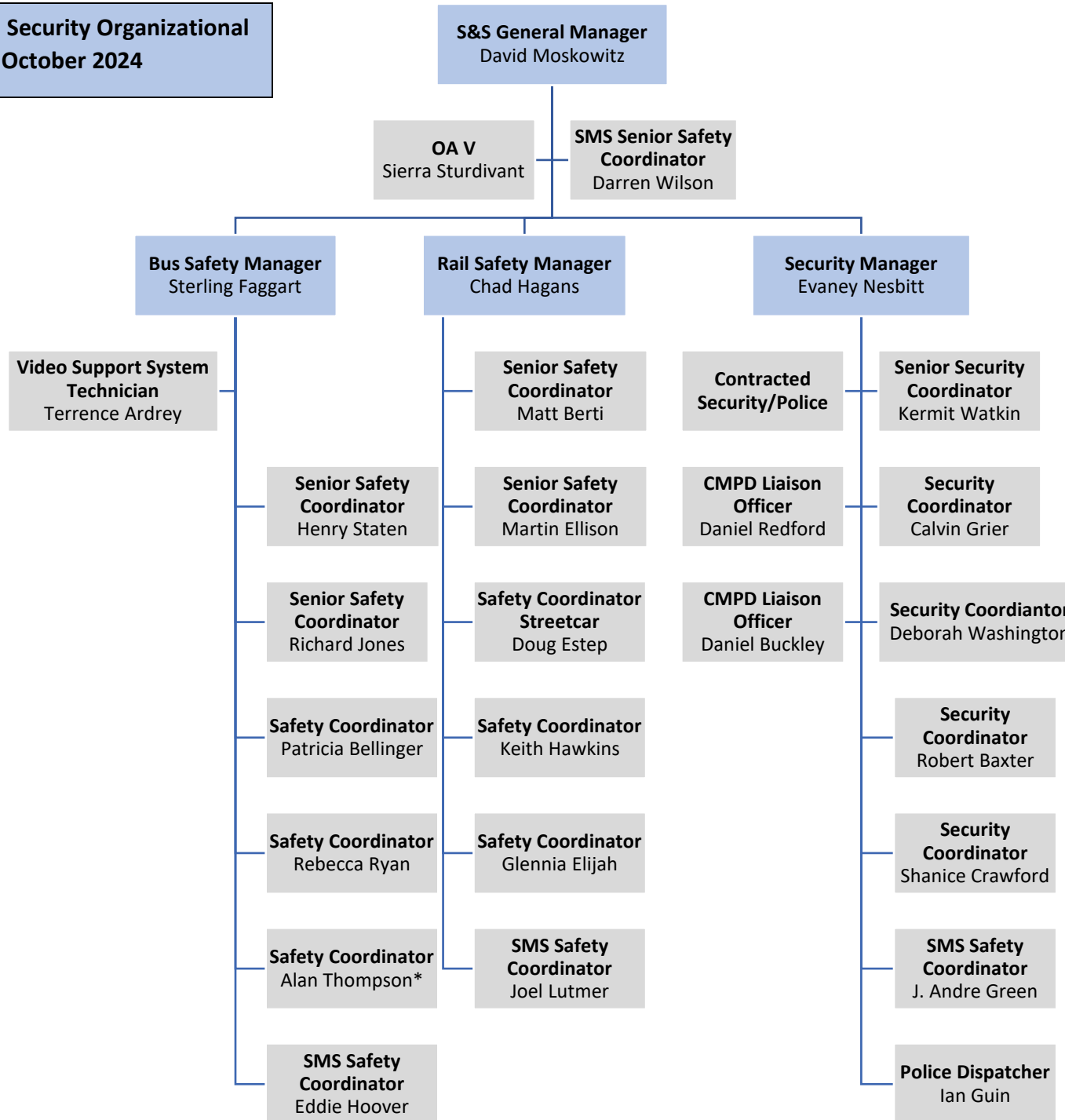


Organizational Chart October 2, 2024

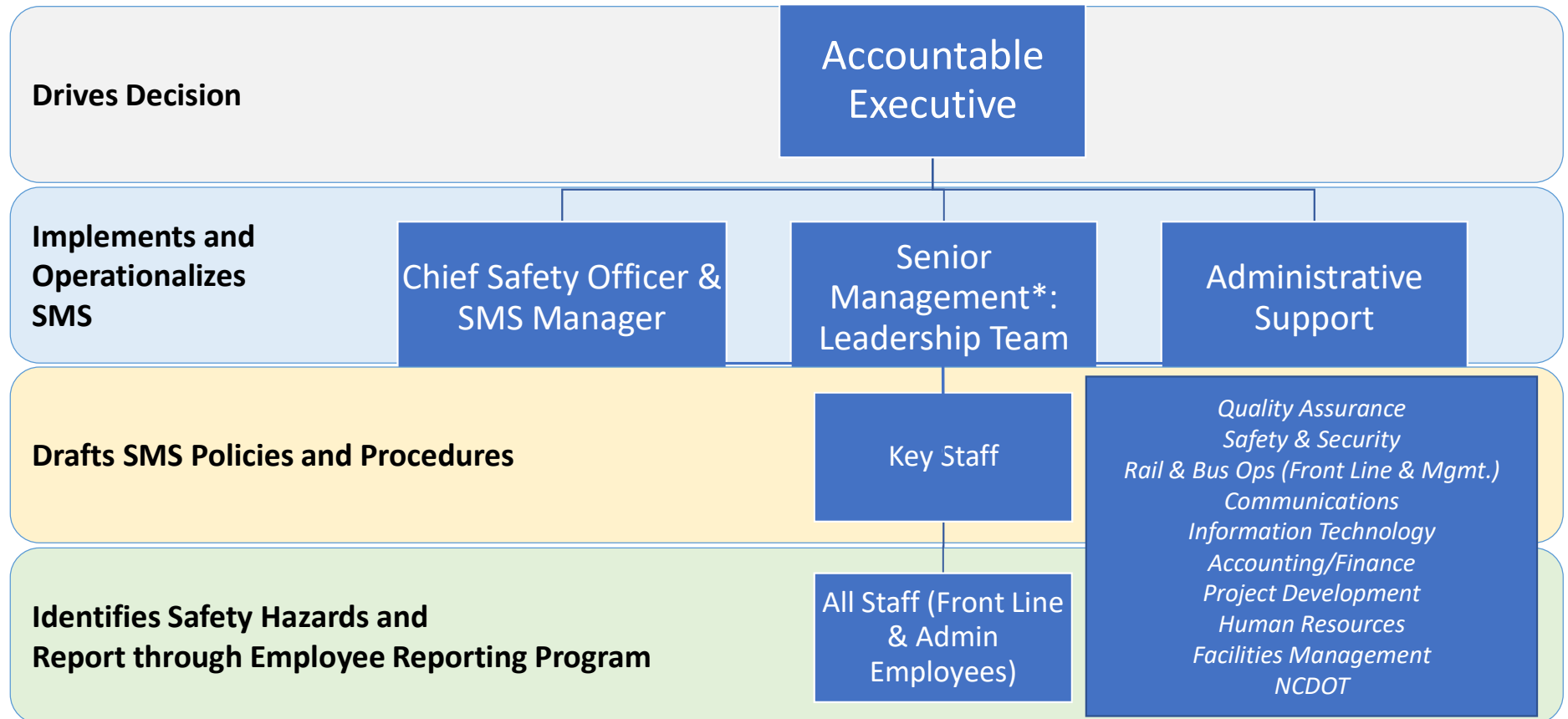


KEY
- - - Dual Reporting Structure

**CATS Safety and Security Organizational
Chart October 2024**



CATS ASP Organizational Structure



**Includes Executive leaders, from all agency functions or departments, that support revenue service operations.*

APPENDIX C

CATS S&S03 Accident/Incident Investigation and Reporting



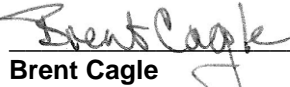
Subject/Title:
Accident/Incident Investigation
and Reporting

Procedure No:
CATS S&S03

Previous Revision:
July 28, 2022

Revised Date:
October 04, 2023





Brent Cagle
Interim Chief Executive Officer and Director of Public Transit

1.0 PURPOSE AND SCOPE

This document establishes the procedures for notification and investigation of accidents/incidents involving vehicles and property owned by the City of Charlotte (City)/ Charlotte Area Transit System (CATS). This includes how personnel initially report, respond to, and investigate accidents. The procedures established herein are to be adhered to by employees in all Divisions within CATS: Rail, STS and Transit Management of Charlotte (TMOC), referred to in this document as “Bus,” as well as Vanpool, and contracted carriers and service providers.

The procedures herein apply to any accident or system security events in which a person or persons are injured, or property damage is incurred. This includes vehicle collision involving any City-owned vehicle, or any other vehicle operated by a CATS employee or agent of CATS while engaged in City business. This includes accidents/incidents involving the public either in vehicular accidents, passenger accidents, or accidents occurring on City property. This procedure applies to all City/CATS-owned vehicles.

It is intended that this procedure complies with City Policies and the accident and incident notification and reporting requirements of the North Carolina Department of Transportation (NCDOT) State Safety Oversight Program Standard for Rail Fixed Guideway Systems (SSOPS) Section 6. CATS may investigate on behalf of NCDOT pursuant to Section 7 of the NCDOT SSOPS.

2.0 REFERENCES

CATS Agency Safety Plan (ASP)
CATS Crisis Communication Plan
CATS Emergency Preparedness and Continuity Plan
CATS MR01 Media Protocol
CATS S&S06 Suspicious/Dangerous (HOT) Object on a Vehicle or CATS Property
CATS S&S08 Reporting Hazardous Materials Spills
[City Policy HR 4 Maintenance of a Drug and Alcohol-Free Workplace](#)
[City Policy HR 23 Employee Injury/Illness Reporting and Managed Return to Work](#)
[City Policy MFS 8 Vehicle Accident Reporting Procedures](#)
[City Policy MFS 10 Critical Incident Review Procedures](#)
NCDOT State Safety Oversight Program Standard for Rail Fixed Guideway Systems
Spill Prevention Control and Countermeasure Plans
TMOC Alcohol and Drug Policy

3.0 RESPONSIBILITY

Employees in all Divisions within CATS and TMOC, as well as contracted carriers and service providers, are to cooperate and share information on investigations of accidents to ensure that causes and contributing factors can be identified and remedial action taken.

4.0 DEFINITIONS

Accident any safety or security event that involves any of the following: a loss of life; a report of a serious injury to a person; a collision involving a transit vehicle; a runaway train; an evacuation for life safety reasons; or any derailment of a transit vehicle, at any location, at any time, whatever the cause.

City of Charlotte Critical Incident Review Board – The convening body given authority by the City Manager and comprised of designated City employees and external experts to review all critical incidents as defined in City Policy MFS 10.

Critical Incident – Any incident or occurrence including, but not limited to death or significant bodily harm requiring hospitalization; extensive property damage that could exceed \$50,000; threats of legal involvement/action; or an unusual event that falls outside the scope of the Department's routine incident response. (Per City Policy MFS 10).

Derailment – a non-collision event in which one or more wheels of a rail transit vehicle or on-track equipment unintentionally leaves the rails.

Event – An accident, incident, or occurrence, including human factors and property damage.

Fatality – For purposes of Federal Transit Administration (FTA) statistical reporting on transportation safety, a fatality is considered a death due to injuries in a transportation crash, accident, or incident that occurs within 30 days of that occurrence.

Incident – An event that involves a personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency. An incident must be reported to FTA's National Transit Database (NTD) in accordance with the thresholds for reporting.

Incident Commander – The City's representative at the scene of a collision/incident who has the authority and responsibility for managing and coordinating all emergency response actions. This responsibility can transfer depending on how the situation at the scene unfolds.

Injury – Includes harm to passengers, operator, and others directly involved in an accident.

Liaison, CATS – The first CATS employee on the scene of a collision/incident, who controls and directs CATS activities at the scene, and who supports the on-scene Incident

Commander and leads the CATS collision/incident investigation. This responsibility can transfer depending on how the situation at the scene unfolds. **CATS Safety and Security (S&S)** will assume this role upon arrival on scene.

MFS Management and Financial Services – A department of the City of Charlotte Management & Financial Services include Finance, Fleet Management, Internal Audit, Risk Management and Strategy & Budget.

Major Incident – An incident that meets or exceeds \$25,000 in property damage and/or an injury that requires an overnight stay at the hospital.

Minor Incident – An incident that results in property damage of less than \$25,000 and no injury that requires an overnight hospital stay.

Occurrence – An event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a rail transit agency.

Post-Accident Review Committee – Committee led by S&S to conduct an additional review of initial investigation of major and critical incidents, review cause, and identify mitigation/corrective action(s).

Property – Vehicles, equipment, or other physical objects that are owned by the City or others that were involved in an accident.

Serious Injury – any injury which the following occurs:

1. Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received.
2. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose).
3. Causes severe hemorrhages, nerve, muscle, or tendon damage.
4. Involves any internal organ; or
5. Involves second or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Substantial Damage – damage that adversely affects the structural strength, performance, or operating characteristics of the vehicle, facility, equipment, rolling stock or infrastructure requiring towing, rescue, onsite maintenance, or immediate removal prior to safe operation.

5.0 GOALS/OBJECTIVES

The goals/objectives of CATS' accident investigation response and reporting procedures are listed below:

1. Ensure life safety.
2. Stabilize the incident.
3. Preserve property.

4. To determine the probable cause and contributing factors of the accident:
 - Equipment failure
 - Personnel action(s)
 - Hazardous condition(s)
 - Procedural defect
 - Actions of other people
5. To identify and implement corrective action as soon as possible.
6. To provide concise, accurate, appropriate, and timely information.

6.0 HAZARD MANAGEMENT

During accident/incident investigations, CATS anticipates hazards will be identified. To better assess, rate, track and resolve or mitigate these hazards, the hazard management process in the Agency Safety Plan (ASP) will be utilized.

7.0 PREPARATION FOR ACCIDENT/INCIDENT

The CATS Incident Response Team members are prepared to address emergencies on the scene. Incident responders will carry equipment and forms required on the scene. Safety & Security Incident Response Equipment (S&SF41) and Tools of Investigation (S&SF05 ROD and STS) are captured in Appendix A.

8.0 PROCEDURES

8.1 Notification Procedures for Any Accident, Injury, Property Damage, or Crime

For any incident, the operator/employee must immediately notify the appropriate communications center. Non-revenue vehicle operators should also notify their supervisor/manager as soon as possible.

Type of Incident	Includes	Contact
Bus	CATS fixed route, TMOC, Contracted Services	Bus Operations Control Center (704) 336-4042; (704) 432-3761
Rail	Light Rail Vehicle (LRV) (including Streetcar)	Rail Operations Control Center (704) 432-5040; (704) 432-7622
STS	STS	STS Operations Center (704) 336-4591; (704) 336-2637
Vanpool	Vanpool drivers	911 and notify Vanpool Coordinator (980) 722-3396
Other CATS Divisions	City cars, personal operated on City business	911 and Supervisor/Manager
	Criminal activity Firearms, potential terrorist activity, dangerous (HOT) object	911 and Transit Police Dispatch (704) 432-8273

The caller states their involvement in the incident and provides the following information (as applicable):

1. Bus/STS – Bus Number and if asked provide payroll number
Rail – Train number and call number
Non-Revenue – Name and Division/Section
2. Route information
3. Location
4. Direction of travel
5. Number of persons injured and/or requiring medical assistance
6. Extent of damage to the transit vehicle/Towing required
7. Any other assistance that may be required
8. Any known property damages.

Initial Notification:

Bus Operations Control Center fills out Transit Master Incident Notification Report and emails to BOD Notify – Minor Accidents.

Rail Operations Control Center logs incident into SPEAR and sends out internal notification via Everbridge.

STS completes form S&SF01 Accident Notification Report and emails to STS Notify – Accident/Incidents.

Vanpool Coordinator requests police report from police department with local jurisdiction.

Each control center/dispatch office has call chains for all reportable events. After gathering the information from the operator and other parties, the respective communications center and dispatch center, or manager forwards the information to the designated personnel and contacts the following agencies and City personnel (at a minimum):

1. Rail/Bus/STS/Non-Revenue - Call “911” to notify emergency personnel (and Company Police for Rail incidents).
2. Non-revenue notifies appropriate manager.

The above notification shall be completed within **fifteen (15) minutes** of the communications center or supervisor/manager being informed of the event.

Additional notifications may be made, including:

1. Division or on-duty manager
2. Additional operations managers (Rail Car Maintenance, Bus Maintenance, Rail Systems, STS Dispatch, Facilities Management, etc.)
3. Other support services (e.g., towing company) if necessary. Equipment Management: **(704) 336-2722** (business hours 6:00 a.m. - 10:00 p.m.); after hours: **(980) 721-4676** or **(980) 721-4664**
4. Rail: Eastway Wrecker Service. **704 393-3027**

If the respective control center/dispatch office cannot reach an individual who must respond to the scene, the control center/dispatch office will contact the alternate(s) for the individual.

All individuals who are in the designated notification process (call chain) shall appoint one alternate in the event they cannot be reached by one of the control centers/dispatch offices. Contact information is updated regularly and is maintained by the control centers/dispatch offices.

For Rail Operations Only: Managers for each involved operating section impacted by the event shall submit a manager's report to the Rail Safety Manager within 48 hours of any accident, incident, serious injury, fatality, or major property damage.

8.2 Internal Notifications by Safety & Security

In any accident, incident, property damage, or crime resulting in a fatality, serious injury or major property damage, S&S is responsible for the following:

1. Ensure notification is made to CATS Media Relations at **(980) 722-0311**. All media relations/ communications shall be coordinated by the CATS Public Information Office in accordance with the provisions of the Crisis Communications Plan.
2. Notify the General Manager of S&S via cell phone.
3. Notify Risk Management at **(704) 336-3301** (business hours) **(704) 634-2053** (after hours). Risk Management may arrange a response.
4. The General Manager of S&S will notify the CATS Chief Executive Officer (CEO).
5. Notify other internal CATS divisions as appropriate. Notify Rail and STS for evacuation of the Charlotte Transportation Center.

8.3 Rail - External Notifications by Safety and Security

S&S will notify the external agencies below based on criteria provided by the corresponding agencies and specified in the referenced CFRs or State Safety Oversight Program Standards (SSOPS). The record of the notification(s) will be captured in follow-up emails sent to these agencies.

Anytime CATS must notify NCDOT and FTA of an accident or incident as defined below, CATS is also to notify the NCDOT-designated personnel, via cell phone, immediately upon knowledge of a major rail-related event involving a fatality, serious injury to a person, or a runaway train. Immediate notification is required to allow NCDOT to determine if its representative(s) will be dispatched to the event scene.

NCDOT SSO Program Manager: Timothy P. Abbott

- E-mail address: tpabbott@ncdot.gov

NCDOT SSO Program Manager Alternate: Jahmal Pullen, PE

- E-mail address: impullen@ncdot.gov

FTA Transportation Operations Center (TOC)

- Phone: **(202) 366-1863**
- E-mail address: TOC-01@dot.gov

A manager within S&S shall notify NCDOT of an unacceptable hazard within 24 hours (or the next business day) of the categorization of the hazard as an unacceptable hazard.

1. **Rail - Notify NCDOT and FTA within two (2) hours by phone or e-mail for rail safety accidents including:**

- a. **Loss of Life:** Refers to a fatality (death) occurring at the scene or confirmed within 30 days following an accident that occurs on a transit property or is related to transit operations or maintenance.
Excludes deaths resulting from illness or other natural causes and criminal homicides that are not related to collisions with a rail transit vehicle.
- b. **Serious Injury to a Person:** Refers to any injury which occurs on a transit property or is related to transit operations or maintenance and includes at least one of the following:
 1. Requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received;
 2. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
 3. Causes severe hemorrhages, nerve, muscle, or tendon damage involving any internal organ; or
 4. Involves second-degree or third-degree burns, or any burns affecting more than five percent of the body surface.

Note: CATS safety personnel are not expected to undergo medical training to determine whether an injury meets the definition of “serious injury” and thus should decide based on available information at the time that the classification is made. Some injuries may not be apparent until the person undergoes a medical examination, at which point notification to SSO may be upgraded.

Excludes serious injuries resulting from illness or other natural causes and criminal assaults that are not related to collisions with a rail transit vehicle.

c. **Collision Involving a Rail Transit Vehicle:**

Refers to a collision (contact) involving two or more rail transit vehicles, and all collisions involving at least one rail transit vehicle at a grade crossing, that results in substantial property damage, serious injury or fatality, as defined herein.**

Substantial damage is any physical damage to transit or non-transit property including vehicles, facilities, equipment, rolling stock, or infrastructure.

Substantial damage **Includes** damage that adversely affects the structural strength, performance, or operating characteristics of the vehicle, facility, equipment, rolling stock, or infrastructure requiring towing, rescue, onsite maintenance, or immediate removal prior to safe operation.

Substantial damage **Excludes** damage such as cracked windows, dented, bent or small puncture holes in the body, broken lights or mirrors, or removal from service for minor repair or maintenance, testing, or video and event recorder download.

{source: FTA 2-Hour Accident Notification Guide-9/24/21}.

Also see definition of a rail transit vehicle, as included in the SSOPS.

In addition to the FTA and NCDOT two-hour collision notifications required above, NCDOT also requires two-hour notification for **all collisions involving a rail transit vehicle or on-track equipment, regardless of location (yard or mainline).

Following its review of the initial notification details (for non-FTA reportable collisions), NCDOT will notify CATS of its decision to require CATS to conduct formal preliminary and final investigations, on behalf of NCDOT, and submit investigation reports to NCDOT for review and approval.

Collisions not meeting NCDOT's requirement for formal investigation and reporting, shall be documented on CATS hazard log and included in the CATS quarterly hazard analysis reporting to NCDOT.

d. **Runaway Train:** Refers to a train that is no longer under the control of an operator, regardless of whether the operator is physically on the vehicle at the time.

e. **Evacuation for Life Safety Reasons:** Refers to a situation that occurs when persons depart from transit vehicles or facilities for life safety reasons (imminent danger), including self-evacuation.

Imminent danger may include situations such as fires, presence of smoke or noxious fumes, hazardous material spills, vehicle fuel leaks, weapon fired on a vehicle, electrical hazards, bomb threats, suspicious items, or other hazard(s) that constitutes a real potential danger to any person.

Includes evacuations of vehicles or facilities for events occurring on adjacent non-transit properties (i.e., bomb threat, gas leak, or fire) that

causes a transit agency to evacuate a nearby rail transit vehicle or facility for life safety reason(s).

Excludes evacuations that are not for a life safety reason, such as an evacuation of a train into the right-of-way or onto adjacent track; or customer self-evacuation or transfer of passengers to rescue vehicles or alternate means of transportation due to obstructions, loss of power, mechanical breakdown and system failures, or damage.

- f. **Derailment:** Refers to a non-collision event in which one or more wheels of a rail transit vehicle, including on-track equipment, unintentionally leaves the rails (at any location, at any time, and for any reason).

2. **Rail - NCDOT Unacceptable Hazardous Condition (UHC) Reportable Events within two (2) hours (non-FTA reportable):**

- a. A revenue vehicle opening doors on the wrong side away from the platform or opening vehicle doors when the railcar doors are off the platform.
- b. Stop/Red Signal Overrun (verified Vital System Report) includes any instance in which a train operator passes a red signal or passes an employee on the right of way who is communicating, by way of hand signals, to the train operator to STOP the train and remain standing.
- c. Near miss contact of a rail transit vehicle with any authorized track-side personnel including roadway worker, contractors, or other authorized personnel.
- d. Pantograph and OCS damage (Catenary line pulled down or pantograph entanglement).
- e. Violation of Stop and Proceed Order as initiated by the Rail Operations Control Center (ROCC) or other CATS personnel, passing a dark signal, or passing a flashing Grade Crossing Indicator (GCI).

3. **Rail – Federal Railroad Administration (FRA) notifications:** Anytime CATS must notify the FRA of an accident as defined by 49 CFR 225.5 (i.e., shared use of the general railroad system trackage or corridors), CATS must also notify the SSO and FTA of the accident within the same time frame established by the FRA.

FRA Notification: rswenquiries@dot.gov

4. **Rail – National Transportation Safety Board (NTSB)**

A manager within S&S will notify the NTSB via the National Response Center at **(800) 424-0201** at the earliest practicable time after the occurrence of any one of the following railroad accidents per 49 CFR Part 840.3 Notification of railroad accidents:

- a. No later than two hours after an accident that results in the following:

1. A passenger or employee fatality or serious injury to two or more crewmembers or passengers requiring admission to a hospital.
 2. The evacuation of a passenger train due to life safety events.
 3. Damage to a container resulting in release of hazardous materials or involving evacuation of the general public.
 4. A fatality at a grade crossing.
- b. No later than four hours after an accident that does not involve any of the circumstances enumerated in paragraph (a) of this section but that results in one of the following:
1. Damage (based on a preliminary gross estimate) of \$150,000 or more for repairs, or the current replacement cost, to railroad and non-railroad property.
 2. Damage of \$25,000 or more to a passenger train and railroad and non-railroad property.
- c. Accidents involving joint operations must be reported by the railroad that controls the track and directs the movement of trains where the accident has occurred.
- d. In the event the NTSB "Go Team" responds to investigate the incident, command and control will transfer to the team at the conclusion of rescue operations. The Office of Safety & Security is responsible to support the Go Team and protect the scene so the team can conduct their investigation.

Anytime CATS must notify the NTSB of an accident as described above, CATS must also notify the SSO of the accident within the same time frame established by the NTSB.

SSO Program Manager: Timothy P. Abbott

- E-mail address: tpabbott@ncdot.gov

SSO Program Manager Alternate: Jahmal Pullen, PE

- E-mail address: jmpullen@ncdot.gov

The Manager that notifies NTSB of any reportable incident is responsible for preserving the notification documentation in the incident folder on the CATS shared drive. If the Manager is only able to get an Incident Number after calling NTSB, the manager will generate an email with the incident number and save that email in the incident folder.

5. Rail/Bus/STS - Transportation Security Administration (TSA)

Safety and Security will notify the local office of TSA at **(704) 916-6281** and Department of Homeland Security (DHS) by calling the Freedom Center at **(866) 615-5150** and reporting potential threats or significant security concerns within one-hour of notification to S&S of the incident.

Potential threats or significant security concerns encompass incidents, suspicious activities, and threat information including, but not limited to, the following (CFR 1580.203 subpart c):

- a. Interference with the train, bus, or transit vehicle crew.
- b. Bomb threats, specific and non-specific, spoken or written that threatens damage or compromise to a facility or any transit vehicle.
- c. Reports or discovery of suspicious items that result in the disruption of rail or bus operations.
- d. Suspicious activity occurring onboard a transit vehicle or inside the facility of the rail or bus transit system that results in a disruption of rail operations.
- e. Suspicious activity observed at or around transit vehicles, facilities, or infrastructure used in the operation of the transit system.
- f. Discharge, discovery, or seizure of a firearm or other deadly weapon on a transit vehicle or in a station, facility, or storage yard, or other location used in the operation of the transit system.
- g. Information relating to the possible surveillance of a rail or bus transit vehicle or facility, storage yard, or other location used in the operation of the transit system.
- h. Questions that may pose a risk to transportation or national security.
- i. Correspondence received by the rail or bus transit system indicating a potential threat to transportation.
- j. Other incidents involving breaches of the security of the transit system operations or facilities. This includes individuals entering or attempting to enter by impersonation of authorized personnel.
- k. Misrepresentation, presenting false or misusing, insignia, documents, and /or identification, to misrepresent one's affiliation with an owner/operator subject to this part to cover possible illicit activity that may pose a risk to transportation security.
- l. Cyber Attack compromising or attempting to compromise or disrupt the information/technology infrastructure/conveyance owner/operator subject to this part.
- m. Theft, Loss, and/or Diversion stealing or diverting identification media or badges, uniforms, vehicles, keys, tools capable of compromising track integrity portable derails, technology, or classified or sensitive security information documents which are proprietary to the transit facility.
- n. Testing or probing of security. Any deliberate interactions with employees of the transit agency to learn or gain any security sensitive information or challenges to the facilities or transit system.
- o. Sabotage, tampering, and/or vandalism defeating safety and security appliances in connection with a facility, infrastructure, conveyance or routing mechanism, resulting in the compromised use or temporary or

permanent loss of use of the facility, infrastructure, conveyance, or routing mechanism and or placing foreign objects on the rails, and transit vehicles.

Information reported should include, as available and applicable (from CFR 1580.203 subpart d):

- a. The name of the transit system and contact information, including a telephone number or e-mail address.
- b. The affected station, or other facility.
- c. Identifying information on the affected rail or bus transit vehicle including train number, transit line, and route, as applicable.
- d. Origination and termination locations for the affected rail or bus transit vehicle, including transit line and route.
- e. Current location of the transit vehicle.
- f. Description of the threat, incident, or activity.
- g. The names and other available biographical data of individuals involved in the threat, incident or activity.
- h. The source of any threat information.

6. S&S will report **spills per CATS S&S08 Reporting Hazardous Materials Spills** or the appropriate *Spill Prevention and Countermeasure Plan*.

7. **For events on Freight Rail** (as specified in e-Rail Rail Security Awareness Training), report all suspicious activity, Gate Failures or Incidents to the following:

- CSX Public Safety Coordination Center: **1 (800) 232-0144**
- Norfolk Southern Police Communications Center: **1 (800) 453-2530**

8.4 Rail/Bus/STS - External Notifications by Risk Management and TMOG HR

CATS Employees: Risk Management is responsible for contacting North Carolina Occupational Safety and Health Administration (OSHA) for any event resulting in a fatality or the hospitalization of three or more employees per City Policy HR23. Beginning January 1, 2015, OSHA will require the following to be reported:

- Work-related fatality – within 8 hours
- Any work-related in-patient hospital admission (regardless of number of employees), any amputation, or any loss of an eye within 24 hours.

TMOG Employees: Bus – HR will follow the same guidelines as City Risk Management for notification for all TMOG employees.

8.5 Rail/Bus/STS - On-Scene Activities and Responsibilities

Responsibility for and command of the incident depends on the circumstances of the accident. This order shall be as follows:

Primary Incident Commander

The Fire Department Commanding Officer: rescue, firefighting, mass casualty, or hazardous materials incidents.

Local Police Jurisdiction: accident investigation, traffic control or scene clearance/transfer to CATS.

The first CATS representative on-scene will serve as CATS Liaison until such time as command is transferred appropriately. The CATS Incident Commander will serve as liaison to other responding agencies as needed. Command should be transferred to CATS S&S personnel upon their arrival unless current IC and S&S determine this is not necessary. If it is decided that command will not be transferred to S&S personnel, the S&S personnel on scene will serve as Safety Officer.

Ranking CATS Operations personnel, until relieved by a CATS S&S representative for incidents where only internal CATS Department is responding; not requiring emergency response agencies.

Bus & STS Employee Responsibilities

Operator:

- Assess the situation, check on passengers and occupants of other vehicles involved for injuries that require medical attention.
- Call the BOCC or STOC and provide information outlined in section 8.1.
- Pass out patron information cards and ensure they are collected once completed.

Supervisor:

- Assume control of the incident for CATS and act as CATS' Liaison or Incident Commander (IC) (ICS Unified Command)
- Notify the BOCC if additional medical attention is needed and coordinate towing if required (Must remain at scene until all vehicles are cleared).
- Establish detour if route is blocked.
- Support Bus Safety & Security if on-scene response is required.
- Collect accident/incident information.
- Coordinate tripper bus for passenger transport.

Maintenance Staff:

- Provide towing if required.
- Support Bus Safety & Security if requested to brake test vehicle, hold out of service until investigation is complete.
- Provide estimate of repairs to Risk Management.

Rail Employee Responsibilities

Rail Operator:

- Report incident to the ROCC
- Check on passengers and vehicles.
- Provide information to first responders and act as CATS representative.
- Transfer command to supervisor on scene

Supervisor:

- Accept command of the incident for CATS, and act as CATS Liaison or Incident Commander (IC) (ICS Unified Command).
- Transfer command to and support Rail Safety staff once command is transferred.
- Begin collecting accident/incident information.
- Work with other staff to ensure it is safe to move the train and return to normal operations.

Rail Safety Staff:

- Accept command of the incident for CATS and act as CATS Liaison or Incident Commander (IC) (ICS Unified Command).
- Serve as primary Incident Commander once first responders have turned over the incident to CATS.
- Work with CATS personnel to ensure it is safe to move the train and return to normal operations.

Rail Car Maintenance:

- Inspect the vehicle for damage.
- Verifies that the vehicle is safe to be on and around it
- Ensures that the pantograph has been lowered and circuit breakers turned off if damages compromise the safety of others or cause environmental hazards (i.e., hydraulic oil leaks)
- Verify it is safe to return to a yard for further inspection and repair.

Maintenance of Way:

- Inspect for electrical hazards from the OCS and notify the incident commander if the area is unsafe to enter.
- Inspect track and switches.
- Inspect signals and gates.
- Inspect other railroad infrastructure to ensure there is no damage to equipment and it is safe to move the train back to the shop.
- Verify it is safe to operate trains in the affected area before returning to regular service.

In the event the National Transportation Safety Board (NTSB) Go-Team responds to the incident, command and control will transfer to the team at the conclusion of rescue operations. The Office of Safety & Security is responsible for supporting the Go-Team and protecting the scene so the team can conduct their investigation.

See CATS Emergency Preparedness and Continuity Plan for detail on setting up a command center.

8.5.1 Rail/Bus/STS - Protection of the Accident Scene

Before emergency responders arrive on scene, operators and field/street supervisors should take steps to prevent further injury and damage by:

1. Securing the scene with vehicles, tape, etc.
2. Moving passengers and others to a safe place.
3. Closing off CATS vehicles to prevent people from entering. This effort is to prevent fraudulent claims or contamination of any forensic evidence.

Ensure that evidence and the physical circumstances at the scene are preserved as much as possible.

Access to the scene should be controlled. Only fire, police, MEDIC personnel, and authorized City personnel shall be allowed access to the scene.

The ranking Operations person protects the accident scene until a CATS S&S representative responds. The responding personnel from S&S will assist in protecting the scene and CATS property with help from local law enforcement.

8.5.2 Rail/Bus/STS - Immediate Actions to be Taken

The operator, CATS supervisor, Bus/STS supervisor, or first responding personnel to the accident scene for all accidents is responsible for:

1. Protecting and assisting the injured.
2. Ensuring sufficient resources are en route (i.e., Fire, Rescue, Police, Towing Company).
3. Securing the accident scene.
4. The following procedure will be followed for any accident involving a serious injury or major property damage per City Policy MFS08:
 - a. Immediately, while the vehicles are still at the accident scene, contact Risk Management with details of the accident. Risk Management will provide additional direction if the vehicles have been removed from the accident scene.
 - b. Avoid starting the vehicle or turning on the vehicle's ignition switch. Valuable information can be lost from the onboard computer if this occurs.
 - c. If directed by Risk Management, make arrangements with Equipment Management for secure movement and storage of the City owned vehicle.
5. The law enforcement agency investigating an accident outside of Mecklenburg County may require that the City vehicle be towed to a local facility. In this case, Equipment Management will make arrangements to have the vehicle transported to a City facility.
6. Arranging for transportation of vehicle operator for drug/alcohol testing, if the criteria level is met under the City's/CATS' or TMOC's drug/alcohol program and the operator is not hospitalized.
7. Collect information needed to submit a "Vehicle Accident Report." See forms in Appendix A.
8. If the city employee is injured, the supervisor contacts PMA customer service center at 1-888-476-2669. After contacting the customer service center, the supervisor and employee call the dedicated PMAcare24 number, 1-833-549-1332. The supervisor will speak with a registered nurse and provide necessary contact information. The supervisor will then pass the phone to the employee so they can have a private conversation with the RN. The RN will complete a treatment assessment and coordinate a care plan. Any claim-related documents should be sent separately to claimsmail@pmagroup.com and the subject line must include the associated claim number. It is not necessary to fill out the medical authorization form when utilizing

PMAcare24. PMAcare24 will route the Point of Injury form with disposition and triage instructions to the local Concentra. This Point of Injury report will serve as the authorization to proceed with medical evaluation.

9. TMOc employees will follow TMOc procedures for treating injured employees and will use TMOc forms for on-the-job injuries.

8.5.3 Rail/Bus/STS - Collection of Information

Collection of appropriate information shall be the responsibility of the CATS supervisor, TMOc supervisor, or S&S staff at the discretion of an S&S manager. Risk Management has the discretion of collecting the information for any accident involving a fatality, serious injury, or major property damage.

1. Note the passengers on vehicle, take photographs of the accident scene, appropriate rails and switches (Rail Operations only), and vehicle(s) involved unless a fatality has occurred. Avoid taking photographs of seriously injured passengers. For fatality incident/accident, secure scene and hold for Charlotte-Mecklenburg Police Major Crash Unit and CATS Safety & Security.
2. Gather names of injured parties and witnesses, including non-passengers. Have patrons complete *Accident/Incident Patron Information Card S&SF06-Bus* for Bus, or *Passenger Status Card RODF032 Rail* if applicable, and *STS Patron Information Card S&SF06-STS*
3. Mark final resting spots of vehicles involved in the accident/incident.
4. Complete *Incident and Accident Report – Supervisors RODF040* for Rail.
5. Establish initial damage assessment of CATS property, other property, and total property damage.
6. Collect video from bus or rail vehicle and provide video to Charlotte-Mecklenburg Police Department. CATS MR01 *Media Protocol* will be followed for release of any video to the public.
7. For Rail only, Light Rail Vehicle downloads.

8.6 Rail/Bus/STS - Isolation of CATS Vehicles

If it has been determined that the vehicle needs to be isolated, the vehicle will be secured at a CATS facility.

CATS S&S shall ensure a Vehicle Isolation Form S&SF07 is affixed to the vehicle with the date, name, and department of the person responsible for isolating the vehicle. CATS S&S will control access to the vehicle.

S&S may authorize access to the vehicles following a consultation with the Risk Management Representative. When accessing the vehicles, the Access Section of the Vehicle Isolation Form must be completed indicating the name, date, department or agency, and reason for accessing the vehicle.

The Risk Management Claims Manager, in conjunction with S&S must approve access for any testing involving the vehicle or the removal or repair of any component. Access will be coordinated with S&S.

If an NTSB Go Team responds to the incident, CATS vehicles involved in the accident cannot be moved or removed from the scene until authorized by the NTSB team and S&S.

8.7 Rail/Bus/STS – Vehicle Release

Vehicles will be released from an incident scene once it is determined the vehicle is safe to operate or be towed by vehicle maintenance personnel and cleared by a Supervisor or Safety and Security Staff.

Bus/STS Operations

- Minor incidents – Bus supervisor confirms minor damage to bus and safe to release the bus to return to service or back to a bus maintenance facility.
- Major incidents – Safety & Security staff confirms with Bus Maintenance staff the bus is safe to operate back to a maintenance facility or must be towed and will release the vehicle from the scene.
- Safety & Security staff will either isolate the vehicle or release the bus-to-bus maintenance for further inspection and repair.

Rail Operations

- Minor incidents – Rail supervisor confirms minor damage to train and safe to operate train. If the Rail Safety staff is more than 10 minutes away from the scene and there are no injuries on the train or the ROW, the Rail Supervisor calls the on-call Rail Safety number to receive a verbal release of the train back to a rail yard where safety staff will continue their investigation.
- Major incidents - Safety & Security staff confirms with Rail Car Maintenance staff that the train is safe to operate back to a maintenance facility or must be towed, and Maintenance of Way staff confirmed that track, signals, and systems are safe to operate on at which point safety staff will release the train from the incident scene.

- Safety & Security staff will isolate the vehicle or release it to rail car maintenance for further inspection and repair.

Isolated Vehicles

Any isolated vehicle shall be repaired or returned to revenue service once the Vehicle Isolation Form has been signed, indicating S&S has given written authorization that the vehicle may be released. Prior to release, S&S will check with the respective parties involved in the accident investigation to confirm that they have completed their examination of the involved vehicle.

Upon completion of all repairs and testing, CATS or TMOC Maintenance Director issues a written report to S&S on each accident resulting in the vehicle being isolated. The report confirms that the vehicle is safe and may return to service.

The Vehicle Isolation Form is kept in the accident file in the Office of Safety & Security after completing the written authorization to release the vehicle.

If the vehicle involved is beyond repair (a total loss), then Maintenance must notify the CATS Chief Financial Officer for a determination on the future disposition of the asset, including the need to notify the FTA.

8.8 Rail/Bus/STS - Accident Investigation Documents and Reviews

This section describes the review and documentation required for an accident or incident. Additional actions may be required depending upon the severity of the incident, as defined in Section 4.

8.8.1 Drug/Alcohol Test Results

When an accident meets the drug/alcohol test criteria as defined in CATS HR02 *Drug and Alcohol Policy for Safety Sensitive Employees*, City Policy HR 4 *Maintenance of a Drug and Alcohol-Free Workplace* for City employees or the *Alcohol and Drug Policy* for TMOC employees, test results are reported to the Drug and Alcohol Program Manager. All post-accident testing is performed immediately. Results of a negative drug test are generally known within 48 hours. Positive drug test results may not be known for 72 hours. Alcohol results are known immediately after testing and are provided verbally to the transporting supervisor.

In the event an employee is incapable of giving consent due to serious injury or death, post-accident testing cannot be performed by CATS or TMOC per FTA regulations. Testing may be performed by the applicable law enforcement agency. CATS S&S Manager, TMOC staff, or Risk Management may request results from that agency.

8.8.2 Rail - Accident/Incident Investigation Report Format

For each accident/incident and unacceptable hazardous condition as defined through the hazard resolution matrix, CATS will prepare and submit the appropriate accident/incident investigation forms and supporting documents and, if necessary, a corrective action plan including a corrective action implementation schedule. The investigation report will be submitted to NCDOT and should include at a minimum the information listed below:

- **Cover Page**
 - Date of report
 - Addressed to NCDOT SSO; and
 - Signed by an authorized agent of CATS.
- **Event Tracking**
 - Document Control Number
 - Event #
 - Event Name/Title
 - Event Type (fatality, injuries, property damage, evacuation, derailment or other)
 - Event Hazard Rating
 - Date & Time of event
 - Date & Time initially reported to SSO
 - Date & Time Preliminary Report was submitted to SSO;
 - Name and job title of person assigned to lead the investigation of the event (accident, incident, or unacceptable hazardous condition (UHC)
 - Date Final Report submitted to SSO
- **Event Summary Statement**
 - Event Description (summary statement of what occurred).
- **Event Narrative (details)**
 - Fatalities (agency employees and civilians)
 - Injuries; (agency employees and civilians)
 - Number of persons transported for medical treatment
 - Sequence of Events (leading up to, during, and following the incident occurring). Includes summary of audio/video review by investigation team (on-board and stationary recording devices)
 - Rail transit vehicle(s) involved (type, vehicle number, consist type)

- Number of vehicles towed from scene or taken out of service
 - Posted speed vs. actual speed of vehicles involved at the time incident occurred (speed estimated, verified, or unknown)
 - Number of passengers onboard consist at time of incident
 - Number of passengers in non-rail vehicles
 - Number of rail vehicles derailed
 - Number of other vehicle(s) involved and type (car, truck, semi, etc.)
 - Property damage estimate to revenue vehicles
 - Property damage estimate to track, signals, right-of-way, or other agency owned infrastructures
 - Property damage estimate to other, non-agency, property
 - Summary set of photographs, diagrams, and drawing related to the event (i.e., location, damage to rail and non-rail vehicles and property, etc.). A complete/comprehensive set(s) of relevant supporting documents should be attached to the Final Incident Report
 - Attachments that include all related reports (i.e., police, operator, witness statements, etc.)
 - Attachments that include all related Safety and Security (S&S) Department's documentation of S&S independent investigations, interviews, findings, and recommendations related to the incident
 - Drug and/or alcohol tests performed and for which employees (by job title and direct/indirect involvement in incident) and under who's authority was testing performed (meets FTA threshold or agency policy)
 - NTD reportable (if yes, date/time reported, or monthly reporting scheduled)
 - NTSB reportable (if yes, date/time reported)
 - FRA reportable (if yes, date/time reported)
 - Primary person (i.e., Chief Investigator) conducting the investigation (name, title, phone numbers and email address)
 - Citation(s) written by Law Enforcement or other authority (and to whom)
 - Physical Characteristics of the Scene (including weather, outdoor ambient temperature, road and visibility conditions, etc.)
 - Interview Summary Findings
- **Rail/Bus/STS - Probable Cause (s) and Contributing Factors**
 - Condition(s) of rail rolling stock and infrastructure contributing to event
 - Other non-agency condition(s) contributing to event

- Job hazard analysis summary (if completed)
 - Human factors analysis summary (if completed)
 - Analysis of safety risk mitigation(s) currently in place which should have prevented event (if completed)
 - Hours-of-service details for employee(s) involved (including split-shifts and over-time worked within previous 72 hours)
- **Conclusions**
 - Chief Investigator's findings and summary statement
 - **Findings, Recommendations, and Proposed Corrective Action Plan(s)**
 - List tasks, follow-up activities, and risk mitigations strategies being implemented to improve agency control of safety risk (including assignment of agency key staff members, by name and job title, and target dates for completion).
 - Identify proposed CAPs needed to properly address associated safety risks and follow reporting and management of CAPs, as outlined in **Section 9** of this SSOPS.
 - List safety risk monitoring plans intended to ensure that all recommendations and corrective actions are: 1) implemented; 2) effective in controlling safety risk to an acceptable level; and 3) create no new safety risk (unintended or otherwise).

8.8.3 Distribution of Accident/Incident Reports

Rail/Bus/STS - CATS shall forward a copy of the report file, which includes all statements, forms, and accident/incident reports to Risk Management.

For major and critical incidents, reports will be forwarded within 48 hours after the accident or by 5:00 p.m. Tuesday if the accident occurred Friday night, Saturday, or Sunday.

Rail Operations:

CATS shall provide a Preliminary Investigation Report to NCDOT within **72 hours** of an event meeting the definition of an Accident/UHC; as defined herein.

When a 72-Hour Preliminary Report is required, the following documents, if available, shall be included within the report:

- Supervisor report that includes a timeline of events
- Employee statements
- Transcription of employee interviews
- Managers' Report of respective department impacted

- Equipment downloads (if applicable)
- Any documents, bulletins, special instructions, notices, procedures, etc. that have been implemented, within the first 72 hours, following the occurrence of a reportable accident of UHC.

CATS shall provide a Final Investigation Report-Draft to NCDOT within **thirty (30) calendar days** following the reportable event. Final reports shall include but may not be limited to 1) hazard analysis and safety risk mitigation activities conducted during reportable event investigations; 2) planned completion date(s) for these activities; and 3) specific Department(s) and specific personnel assigned to complete the investigation and other these activities.

In the event that CATS cannot provide a Final Investigation Report to NCDOT within the timeframe stated above, CATS shall formally request a time extension, not to exceed **thirty (30) additional calendar days**. CATS' time-extension request must include the following information:

- Status/Progress of the incident investigation to date
- Reason(s) for the delayed Final Investigation Report
- Proposed date (if approved) when Final Report will be submitted to NCDOT
- CATS Lead Investigator's Name, email address, and direct phone contact #

NCDOT shall approve or deny an extension request, via email. In the event that an extension request is denied, CATS shall submit its Revised Final Investigation Report, meeting the requirements listed below, within a timeframe established by NCDOT and included in the denial email from NCDOT.

The following timeline and actions shall be followed to ensure that Final Investigation Reports are completed per the standards of NCDOT:

1. As stated above, CATS shall provide a Final Investigation Report-Draft to NCDOT for review within **thirty (30) calendar days** following the reportable event.
2. If NCDOT is satisfied with its review of the Final Investigation Report-Draft, CATS will update the report format to indicate "Final Investigation Report". Subsequently, NCDOT will adopt the report as final; communicating its decision via formal letter to CATS, at which point the report becomes the Final Investigation Report and will be submitted to FTA's SSOR website.
3. If NCDOT is not satisfied with the Final Investigation Report-Draft or does not approve the proposed CAPs, NCDOT will communicate its concerns/questions, via email to CATS, using the NCDOT SSO Comment Tracking Sheet within **fifteen (15) calendar days** following receipt of the draft report.
4. CATS shall have **fifteen (15) calendar days**, from date of receipt, to fully respond to the comments issued by NCDOT. CATS' responses to NCDOT's comments shall be included in the document body of the CATS Revised Final

Investigation Report submission to NCDOT. If additional discussion or follow-up is warranted, NCDOT or CATS may request to convene a conference call with one another to reach a resolution for unresolved questions/concerns.

5. If NCDOT is satisfied with the Revised Final Investigation Report and CATS' responses to comments, NCDOT will adopt the revised report as final; communicating its decision via formal letter to CATS, at which point the report becomes the Revised Final Investigation Report and will be submitted to FTA's SSOR website.

8.8.4 Risk Management Investigation

Risk Management is responsible for managing any claim against the City. Risk Management may elect to retain the services of outside experts, such as forensic engineers, to assist with the investigation. Information concerning the investigation may be shared with the CATS S&S Manager(s).

8.8.5 Equipment Review and Report

The responsible division shall review vehicles involved in accidents/incidents. If the vehicle is isolated, the review will not be conducted until the vehicle is released unless otherwise requested by Risk Management.

The following should be submitted to S&S and Risk Management:

1. A comprehensive damage assessment and cost estimate for repairs.
2. A preliminary determination as to whether any component failed and thereby contributed to the accident. This does not apply to a vehicle in isolation.

For any vehicle held in isolation, all inspections and determinations of component failure will be coordinated between Risk Management and S&S.

8.8.6 Supervisor's Accident Investigation Report

The supervisors shall complete their reports by the end of their shift.

Bus, STS, and Vanpool: *Post-Accident Questionnaire* (form S&SF11) and *Accident/Incident Summary* (form S&SF09)

Rail: *Incident and Accident Report – Supervisors* (form RODF040)

The supervisor's accident investigation reports, including Employee Accident Report (form S&SF08), pre-trip inspection cards, and Patron Information Card shall be submitted to S&S by the end of the next business day.

8.8.7 Operator's Accident Report

The Employee Accident Report (S&SF08) shall be completed by the operator(s) involved in the accident by the end of the employee's shift or run, unless the employee is hospitalized. This report is turned in to S&S and reviewed for clarity and completeness. S&S keeps the original and forwards a copy to Risk Management.

In the event the operator is seriously injured, unconscious, or hospitalized, this report will be completed by the supervisor on duty pending the employee's return to work.

For Vanpool, drivers complete the Risk Management Vehicle Accident Reporting form.

8.8.8 Operator's Statement

The operator completes a written statement (included in S&SF08) by the end of his or her shift. All recorded statements are the responsibility of Risk Management.

8.8.9 External Reports

Depending on the circumstances and/or severity of the accident, external reports may be required. Copies of all external reports are sent to Risk Management. External reports may include, but are not limited to the following:

- Coroner's Reports
- Emergency Medical Services Reports
- Fire Department Reports
- Hospital Records
- Municipal Police Reports
- Original Equipment Manufacturer's Reports

Activities involving accident reconstruction or other professional experts are performed at the request and direction of Risk Management.

8.8.10 Safety and Security Regulatory Reports

The General Manager of S&S is responsible for meeting the reporting requirements of NCDOT, FTA and the NTSB. Copies of reports required by these agencies will be provided to Risk Management.

All CATS and TMOC employees are expected to cooperate fully with CATS S&S in the accident investigation.

8.8.11 Claims Management

Interaction with any party involved in a claim against the City is the responsibility of Risk Management. This includes insurance carriers and legal counsel. Risk Management is the only entity authorized to discuss settlement of these claims.

8.8.12 Post-Accident Review Committee for Major and Critical accidents

As called for by the Manager of Safety (Rail or Bus), a Post-Accident Review Committee led by CATS S&S and comprised of Safety, Operations, and other Departments as required may be assembled and a meeting may be called. Subsequent meetings may be convened to share information concerning remedial measures. For critical incidents, the same post-accident review may be conducted.

8.8.13 Critical Incident Review (per City Policy MFS 10)

Risk Management, in collaboration and consultation with CATS CEO, City Manager's Office, and City Legal staff, will determine whether the *City of Charlotte Critical Incident Review Board* will convene.

If it is determined that the *City of Charlotte Critical Incident Review Board* will convene, Risk Management will notify all Board Members and schedule and facilitate the Board meeting. The Board will present a mitigation plan and conduct follow-up activities as described in City Policy MFS 10.

9.0 CORRECTIVE ACTION PLAN (NCDOT- RAIL ONLY)

After a rail accident, incident, occurrence or unacceptable hazardous condition as defined through the hazard resolution matrix, CATS will submit a corrective action plan (CAP) to the NCDOT when applicable. See the CATS ASP and NCDOT SSOPS, as amended for further instructions on CAPs.

10.0 REPORT ACCEPTANCE AND APPROVAL

Accident/Incident report acceptance and approval are the responsibility of the CATS General Manager of S&S. Coordination and review of Accident/Incident reports will be afforded CATS Operations prior to acceptance and approval. Final approved reports will be officially transmitted from the CATS General Manager of S&S to NCDOT.

11.0 SAFETY AND SECURITY COMMITTEE ("SSC")

The Safety and Security Committee ("SSC") will identify opportunities to reduce safety and security risks through design, technology, and changes in procedures and processes. The committee will:

1. Look at trends in major and critical preventable accidents.
2. Review probable causes and contributing factors, establish conclusions, and give recommendations and corrective actions.
3. Identify and assign owners for additional improvements to reduce preventable accidents.
4. Prioritize improvements and provide estimated costs. Assign champions for funded items and track successes.

The committee is chaired by the General Manager of S&S. Members will include representatives from Bus, Rail, or STS Operations (depending on type of incident), Development, S&S, Technology, Facilities Management, Quality Assurance, and CMPD. Additionally, members of the Post-Accident Review Committee described in Section 7.8.1 may contribute to the SSC.

12.0 RECORDS REQUIRED

Forms identified in this procedure along with other pertinent records and photographs collected as part of the investigation will be forwarded to Risk Management. Copies will be maintained by S&S per the CATS records retention schedule.

Risk Management and the City's legal staff will determine the official distribution and/or release of any accident reports.

Summary of Changes

Entire Document:

Minor wording and organizational changes throughout document to improve clarity.

Identify CATS Division- Rail and STS, TMOc refer to Bus and Vanpool. Call out Divisions/Groups for important steps.

Removed cell phone number for NCDOT SSO contacts and Updated email address to FTA TOC contact.

4.0 Expand definition for Serious Injury.

Added definition for Substantial Damage.

8.1 Contact Table: Changed "STS Dispatch" to "STS Operations Center".
Changed "CATS Police Communications" to "Transit Police Dispatch".

Added "STS" to list item 1

Added "Initial Notification" as a header.

Added "and emails to STS Notify – Accident/Incidents" to STS Initial Notification steps.

Added "Rail/Bus/STS/Non-Revenue" to "Call 911 to notify emergency personnel"

Removed "Call "911" for issues (and notify Company Police and CATS S&S)."

Added "Non-revenue notifies appropriate manager"

Changed: Rail Contact "Dellinger Wrecker Service" to "Eastway Wrecker Service"

8.3.4 Rail – NTSB Added "The Manager that notifies NTSB of any reportable incident is responsible for preserving the notification documentation in the incident folder on the CATS shared drive. If the Manager is only able to get an Incident Number after calling NTSB, the manager will generate an email with the incident number and save that email in the incident folder."

8.3.5 (b) Added "spoken or written that threatens damage or compromise to a facility or any transit vehicle." to end of sentence

(g) Removed "Indications of tampering with rail transit vehicles."

(i) Added "This includes individuals entering or attempting to enter by impersonation of authorized personnel." to end of sentence

Added items (j) - (n)

8.4 Added "and TMOc HR" to the section header

8.5.2 Changes list item 8 to read "If the city employee is injured, the supervisor contacts PMA customer service center at 1-888-476-2669. After contacting the customer service center, the supervisor and employee call the dedicated PMAcare24 number, 1-833-549-1332. The supervisor will speak with a registered nurse, and provide necessary contact information. The supervisor will then pass the phone to the employee so they can have a private conversation with the RN. The RN will complete a treatment

assessment and coordinate a care plan. Any claim-related documents should be sent separately to claimsmail@pmagroup.com and the subject line must include the associated claim number. There is no need to fill out the medical authorization form when utilizing PMAcare24. PMAcare24 will route the Point of Injury form with disposition and triage instructions to the local Concentra. This Point of Injury report will serve as the authorization to proceed with medical evaluation.”

- 8.5.3 item 2: Added an Accident/Incident Patron Information Card for STS (S&SF06 – STS). Changed form number for Accident/Incident Patron Information Card to S&SF06-Bus.

Removed item 6 “For STS only: Checklist S&SF03 details the actions to be taken during the initial investigation.”

- 8.8.3 Added list of documents needed to be included when submitting a 72-hour preliminary report.

Appendix A Accident/Incident Investigation Forms

CATS FORMS

Accident Notification Report (STS)	S&SF01
Incident and Accident Report – Supervisors (Rail)	RODF040
Patron Information Card (Bus)	S&SF06-BUS
Patron Information Card (STS).....	S&SF06-STS
Passenger Status Card (Rail S-70)	RODF032
Accident/Incident Investigation Documentation Checklist (STS).....	S&SF03
Tools of Investigation (checklist) (ROD)	S&SF05-ROD
Vehicle Isolation Form.....	S&SF07
Employee Accident Report.....	S&SF08
Accident/Incident Summary (Bus and STS)	S&SF09
Post-Accident Questionnaire (Bus and STS).....	S&SF11
Emergency Response Equipment.....	S&SF41

RISK MANAGEMENT FORMS

<https://claims.ci.charlotte.nc.us>

- On the Job Injury Report
- Vehicle Accident Reporting Form (Vanpool Drivers and Non-operations divisions)
- General Liability Reporting Form
- Property Loss Reporting Form

City Forms available on CNet/Human Resources/Drug and Alcohol Testing

City of Charlotte Post Accident Testing Checklist.....	PDER-6
Appointment Form and Authorization for Drug and/or Alcohol Test.....	PDER-2

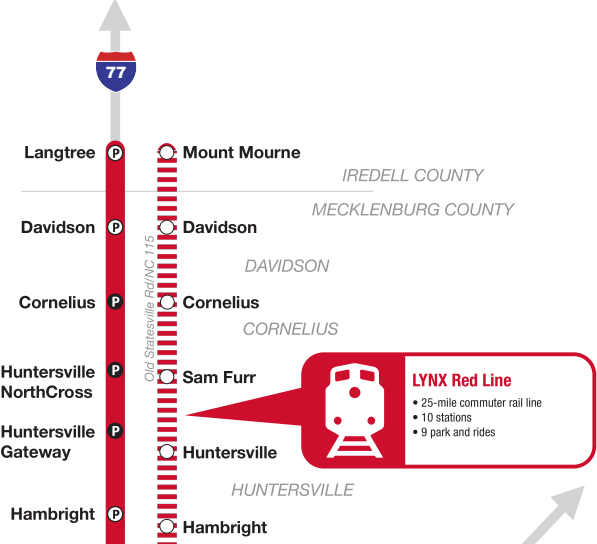
TMOC FORMS

Drug and Alcohol Authorization.....	N/A
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APPENDIX D

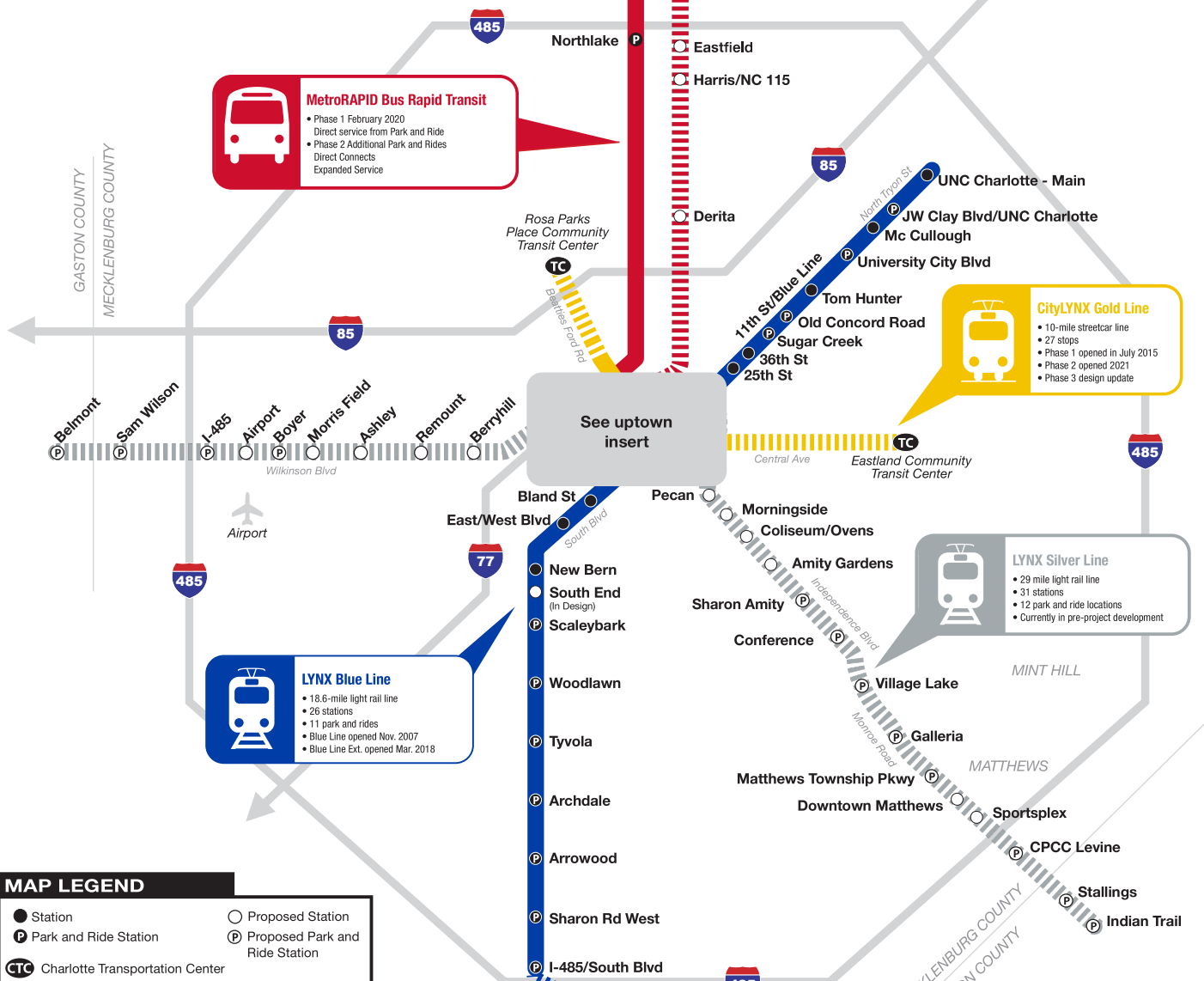
System Maps

UPTOWN CHARLOTTE



MetroRAPID Bus Rapid Transit

- Phase 1 February 2020
- Direct service from Park and Ride
- Phase 2 Additional Park and Rides
- Direct Connects
- Expanded Service



LYNX Blue Line

- 18.6-mile light rail line
- 26 stations
- 11 park and rides
- Blue Line opened Nov. 2007
- Blue Line Ext. opened Mar. 2018

CityLYNX Gold Line

- 10-mile streetcar line
- 27 stops
- Phase 1 opened in July 2015
- Phase 2 opened 2021
- Phase 3 design update

LYNX Silver Line

- 29 mile light rail line
- 31 stations
- 12 park and ride locations
- Currently in pre-project development

LYNX Blue Line Pineville-Ballantyne Extension

- 5.5-mile light rail line
- 5 stations

MAP LEGEND

- Station
- Proposed Station
- P Park and Ride Station
- Ⓟ Proposed Park and Ride Station
- CTC Charlotte Transportation Center
- CGS Charlotte Gateway Station
- TC Community Transit Center
- LYNX Blue Line
- CityLYNX Gold Line
- Bus Rapid Transit
- ▬▬▬▬ LYNX Blue Line Pineville-Ballantyne Extension
- ▬▬▬▬ LYNX Red Line (North Corridor)
- ▬▬▬▬ LYNX Silver Line (Southeast/West Corridors)
- ▬▬▬▬ CityLYNX Gold Line Phase 3 under design



APPENDIX E

Forms



Safety Issue Reporting Form

Name: _____ Date: _____

Unit or Division: _____

Has this issue been reported to a supervisor? Yes No

If yes, when was it first reported to a supervisor? _____

Location of Issue/Concern: _____

Nature of Issue/Concern: _____

To be filled out by Safety Personnel

Name: _____ Date Received: _____

Date Reviewed: _____ Initial Hazard Rating _____

Assigned To: _____ Final Hazard Rating _____

Actions Taken: _____

Close Date: _____

Manager Signature: _____

Quarterly RTA Asset Management Status Report

Asset	# Planned Inspections	# Actual Inspections	Plan Reference Document	Priority 1 - Operational / Safety Related Issues Identified	Priority 1 - Operational / Safety Related Issues Open	Planned Date to Complete Priority 1 - Open Items
Rolling Stock						
Light Rail Vehicles						
Streetcars						
Equipment						
Non-Revenue Track Equipment						
Emergency Equipment						
Infrastructure						
Signal Systems						
Power Substations						
Guideway (OCS) System						
Grade Crossings						
Turnouts and Crossovers						
Bridges						
Walls / drainage systems						
Yards and Lighting						
Technology / IT						
Facilities						
Passenger Stations and Parking						
Maintenance Facilities						
State of Good Repair (SGR) Status	Narrative: Condition Assessment Ratings below 3.0 and Mitigation Plans <i>(Per, Transit Asset Management (TAM) Plan)</i>					
Rolling Stock						
Equipment						
Infrastructure						
Facilities						
Funding/Budgeting	Narrative: Status of Current Funding Available, Source of Funding, and Shortfalls to Address Assessment Ratings below 3.0					

APPENDIX F

Rail Safety and Security Committee Approval of ASP

MTC Resolution Approval of ASP

APPENDIX G

Safety Annual Targets and Results



Rail Operations Division - Blue Line
Safety Performance Measures

1st qtr	Jan - March
2nd qtr	Apr - Jun
3rd qtr	Jul - Sep
4th qtr	Oct - Dec

Blue Line Light Rail System					
Safety Performance Measure #1: Major Events					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Event Total	1	3	-	-	4

Blue Line Light Rail System					
Safety Performance Measure #2: Major Event Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Event Total	1	3	-	-	4
Rate: (Events/VRM X 100,000)	0.25	0.76	-	-	0.5
1 Per Frequency: (VRM ÷ # of Events)	1 per 403,732	1 per 131,951	-	-	1 per 199,896

Blue Line Light Rail System					
Safety Performance Measure #3: Collision Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Collision Total	1	2	-	-	3
Rate: (Collisions/VRM X 100,000)	0.25	0.51	-	-	0.38
1 Per Frequency: (VRM ÷ # of Collisions)	1 per 403,732	1 per 197,926	-	-	1 per 266,528

Blue Line Light Rail System					
Safety Performance Measure #4: Pedestrian Collision Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Pedestrian Collision Total	1	1	-	-	2
Rate: (Pedestrian Collisions/VRM X 100,000)	0.25	0.25	-	-	0.25
1 Per Frequency: (VRM ÷ # of Pedestrian Collisions)	1 per 403,732	1 per 395,853	-	-	1 per 399,792

Blue Line Light Rail System					
Safety Performance Measure #5: Vehicular Collision Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Vehicle Collision Total	0	1	-	-	1
Rate: (Vehicular Collisions/VRM X 100,000)	0	0.25	-	-	0.13
1 Per Frequency: (VRM ÷ # of Vehicle Collisions)	0	1 per 395,853	-	-	1 per 799,585

Blue Line Light Rail System					
Safety Performance Measure #6: Fatalities					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Fatalities Total	0	0	-	-	0

Blue Line Light Rail System					
Safety Performance Measure #7: Fatality Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Fatalities Total	0	0	-	-	0
Rate: (Fatalities/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Fatalities)	0	0	-	-	0

Blue Line Light Rail System					
Safety Performance Measure #8: Transit Worker Fatality Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Transit Worker Fatalities Total	0	0	-	-	0
Rate: (Transit Worker Fatalities/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Transit Worker Fatalities)	0	0	-	-	0

Blue Line Light Rail System					
Safety Performance Measure #9: Injuries					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Injuries Total	2	1	-	-	3

Blue Line Light Rail System					
Safety Performance Measure #10: Injury Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Injuries Total	2	1	-	-	3
Rate: (Injuries/VRM X 100,000)	0.5	0.25	-	-	0.38
1 Per Frequency: (VRM ÷ # of Injuries)	1 per 201,866	1 per 395,853	-	-	1 per 266,528

Blue Line Light Rail System					
Safety Performance Measure #11: Transit Worker Injury Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Transit Worker Injuries Total	0	0	-	-	0
Rate: (Transit Worker Injuries/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Transit Worker Injuries)	0	0	-	-	0

Blue Line Light Rail System					
Safety Performance Measure #12: Assaults on Transit Workers					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Assaults on Transit Worker Total	0	0	-	-	0

Blue Line Light Rail System					
Safety Performance Measure #13: Rate of Assaults on Transit Workers					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Assaults On Transit Worker Total	0	0	-	-	0
Rate: (Assaults on Transit Workers/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Assaults on Transit Workers)	0	0	-	-	0

Blue Line Light Rail System					
Safety Performance Measure #14: System Reliability					
Goal / Target: 1 per 20,000 VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	403,732	395,853	-	-	799,585
Major Mechanical Failures Total	16	10	-	-	26
1 Per Frequency:	1 per	1 per			1 per
(VRM ÷ # of Major Mechanical Failures)	25,233	39,585	-	-	30,753



Bus Operations Division Safety Performance Measures

1st qtr	Jan - March
2nd qtr	Apr - Jun
3rd qtr	Jul - Sep
4th qtr	Oct - Dec

Bus Operations Division					
Safety Performance Measure #1: Major Events					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Event Total	18	22	-	-	40

Bus Operations Division					
Safety Performance Measure #2: Major Event Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Event Total	18	22	-	-	40
Rate: (Events/VRM X 100,000)	0.69	0.95	-	-	0.82
1 Per Frequency: (VRM ÷ # of Events)	1 per 144,013	1 per 104,893	-	-	1 per 122,497

Bus Operations Division					
Safety Performance Measure #3: Collision Rate					
Goal / Target : 1.0 per 100k VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Collision Total	14	19	-	-	33
Rate: (Collisions/VRM X 100,000)	0.54	0.82	-	-	0.67
1 Per Frequency: (VRM ÷ # of Collisions)	1 per 185,159	1 per 121,455	-	-	1 per 148,481

Bus Operations Division					
Safety Performance Measure #4: Pedestrian Collision Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Pedestrian Collision Total	0	1	-	-	1
Rate: (Pedestrian Collisions/VRM X 100,000)	0	0.04	-	-	0.02
1 Per Frequency: (VRM ÷ # of Pedestrian Collisions)	0	1 per 2,307,661	-	-	1 per 4,899,898

Bus Operations Division					
Safety Performance Measure #5: Vehicular Collision Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Vehicle Collision Total	14	18	-	-	32
Rate: (Vehicular Collisions/VRM X 100,000)	0.54	0.78	-	-	0.65
1 Per Frequency: (VRM ÷ # of Vehicle Collisions)	1 per 185,159	1 per 128,203	-	-	1 per 153,121

Bus Operations Division					
Safety Performance Measure #6: Fatalities					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Fatalities Total	0	2	-	-	2

Bus Operations Division					
Safety Performance Measure #7: Fatality Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Fatalities Total	0	2	-	-	2
Rate: (Fatalities/VRM X 100,000)	0	0.09	-	-	0.04
1 Per Frequency: (VRM ÷ # of Fatalities)	0	1 per 1,153,830	-	-	1 per 2,449,949

Bus Operations Division					
Safety Performance Measure #8: Transit Worker Fatality Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Transit Worker Fatalities Total	0	0	-	-	0
Rate: (Transit Worker Fatalities/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Transit Worker Fatalities)	0	0	-	-	0

Bus Operations Division					
Safety Performance Measure #9: Injuries					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Injuries Total	34	39	-	-	73

Bus Operations Division					
Safety Performance Measure #10: Injury Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Injuries Total	34	39	-	-	73
Rate: (Injuries/VRM X 100,000)	1.31	1.69	-	-	1.49
1 Per Frequency: (VRM ÷ # of Injuries)	1 per 76,242	1 per 59,170	-	-	1 per 67,121

Bus Operations Division					
Safety Performance Measure #11: Transit Worker Injury Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Transit Worker Injuries Total	9	10	-	-	19
Rate: (Transit Worker Injuries/VRM X 100,000)	0.35	0.43	-	-	0.39
1 Per Frequency: (VRM ÷ # of Transit Worker Injuries)	1 per 288,026	1 per 230,766	-	-	1 per 257,889

Bus Operations Division					
Safety Performance Measure #12: Assaults on Transit Workers					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Assaults On Transit Worker Total	4	1	-	-	5

Bus Operations Division					
Safety Performance Measure #13: Rate of Assaults on Transit Workers					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Assaults On Transit Worker Total	4	1	-	-	5
Rate: (Assaults on Transit Workers/VRM X 100,000)	0.15	0.04	-	-	0.1
1 Per Frequency: (VRM ÷ # of Assaults on Transit Workers)	1 per 648,059	1 per 2,307,661	-	-	1 per 979,979

Bus Operations Division					
Safety Performance Measure #14: System Reliability					
Goal / Target : 1 per 10,000 VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	2,592,237	2,307,661	-	-	4,899,898
Major Mechanical Failures Total	247	239	-	-	486
1 Per Frequency: (VRM ÷ # of NTD Roadcalls)	1 per 10,494	1 per 9,655	-	-	1 per 10,082



Rail Operations Division - Gold Line
Safety Performance Measures

1st qtr	Jan - March
2nd qtr	Apr - Jun
3rd qtr	Jul - Sep
4th qtr	Oct - Dec

Gold Line Light Rail System					
Safety Performance Measure #1: Major Events					
Goal / Target : 4.5 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Event Total	2	0	-	-	2

Gold Line Light Rail System					
Safety Performance Measure #2: Major Event Rate					
Goal / Target : 4.5 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Event Total	2	0	-	-	2
Rate: (Events/VRM X 100,000)	8.94	0	-	-	3.76
1 Per Frequency: (VRM ÷ # of Events)	1 per 11,186	0	-	-	1 per 26,640

Gold Line Light Rail System					
Safety Performance Measure #3: Collision Rate					
Goal / Target : 2.0 per 100k VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Collision Total	2	0	-	-	2
Rate: (Collisions/VRM X 100,000)	8.94	0	-	-	3.76
1 Per Frequency: (VRM ÷ # of Collisions)	1 per 11,186	0	-	-	1 per 26,640

Gold Line Light Rail System					
Safety Performance Measure #4: Pedestrian Collision Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Pedestrian Collision Total	0	0	-	-	0
Rate: (Pedestrian Collisions/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Pedestrian Collisions)	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #5: Vehicular Collision Rate					
Goal / Target : 2.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Vehicle Collision Total	1	0	-	-	1
Rate: (Vehicular Collisions/VRM X 100,000)	4.47	0	-	-	1.88
1 Per Frequency: (VRM ÷ # of Vehicle Collisions)	1 per 22,372	0	-	-	1 per 53,280

Gold Line Light Rail System					
Safety Performance Measure #6: Fatalities					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Fatalities Total	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #7: Fatality Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Fatalities Total	0	0	-	-	0
Rate: (Fatalities/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Fatalities)	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #8: Transit Worker Fatality Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Transit Worker Fatalities Total	0	0	-	-	0
Rate: (Transit Worker Fatalities/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Transit Worker Fatalities)	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #9: Injuries					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Injuries Total	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #10: Injury Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Injuries Total	0	0	-	-	0
Rate: (Injuries/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Injuries)	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #11: Transit Worker Injury Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Transit Worker Injuries Total	0	0	-	-	0
Rate: (Transit Worker Injuries/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Transit Worker Injuries)	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #12: Assaults on Transit Workers					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Assaults on Transit Worker Total	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #13: Rate of Assaults on Transit Workers					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Assaults On Transit Worker Total	0	0	-	-	0
Rate: (Assaults on Transit Workers/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Assaults on Transit Workers)	0	0	-	-	0

Gold Line Light Rail System					
Safety Performance Measure #14: System Reliability					
Goal / Target : 1 per 7000 VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	22,372	30,908	-	-	53,280
Major Mechanical Failures Total	6	3	-	-	9
1 Per Frequency: (VRM ÷ # of Major Mechanical Failures)	1 per 3,728	1 per 10,302	-	-	1 per 5,920



Special Transportation Service Safety Performance Measures

1st qtr	Jan - March
2nd qtr	Apr - Jun
3rd qtr	Jul - Sep
4th qtr	Oct - Dec

Special Transportation Service					
Safety Performance Measure #1: Major Events					
Goal / Target : 0.30 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Event Total	2	3	-	-	5

Special Transportation Service					
Safety Performance Measure #2: Major Event Rate					
Goal / Target : 0.30 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Event Total	2	3	-	-	5
Rate: (Events/VRM X 100,000)	0.44	0.62	-	-	0.53
1 Per Frequency: (VRM ÷ # of Events)	1 per 227,537	1 per 161,641	-	-	1 per 187,999

Special Transportation Service					
Safety Performance Measure #3: Collision Rate					
Goal / Target : 1.0 per 100k VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Collision Total	1	3	-	-	4
Rate: (Collisions/VRM X 100,000)	0.22	0.62	-	-	0.42
1 Per Frequency: (VRM ÷ # of Collisions)	1 per 455,075	1 per 161,641	-	-	1 per 234,999

Special Transportation Service					
Safety Performance Measure #4: Pedestrian Collision Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Pedestrian Collision Total	0	0	-	-	0
Rate: (Pedestrian Collisions/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Pedestrian Collisions)	0	0	-	-	0

Special Transportation Service					
Safety Performance Measure #5: Vehicular Collision Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Vehicle Collision Total	1	3	-	-	4
Rate: (Vehicular Collisions/VRM X 100,000)	0.22	0.62	-	-	0.42
1 Per Frequency: (VRM ÷ # of Vehicle Collisions)	1 per 455,075	1 per 161,641	-	-	1 per 234,999

Special Transportation Service					
Safety Performance Measure #6: Fatalities					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Fatalities Total	0	1	-	-	1

Special Transportation Service					
Safety Performance Measure #7: Fatality Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Fatalities Total	0	1	-	-	1
Rate: (Fatalities/VRM X 100,000)	0	0.21	-	-	0.11
1 Per Frequency: (VRM ÷ # of Fatalities)	0	1 per 484,924	-	-	1 per 939,999

Special Transportation Service					
Safety Performance Measure #8: Transit Worker Fatality Rate					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Transit Worker Fatalities Total	0	0	-	-	0
Rate: (Transit Worker Fatalities/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Transit Worker Fatalities)	0	0	-	-	0

Special Transportation Service					
Safety Performance Measure #9: Injuries					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Injuries Total	4	4	-	-	8

Special Transportation Service					
Safety Performance Measure #10: Injury Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Injuries Total	4	4	-	-	8
Rate: (Injuries/VRM X 100,000)	0.88	0.82	-	-	0.85
1 Per Frequency: (VRM ÷ # of Injuries)	1 per 113,768	1 per 121,231	-	-	1 per 117,499

Special Transportation Service					
Safety Performance Measure #11: Transit Worker Injury Rate					
Goal / Target : 1.0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Transit Worker Injuries Total	2	2	-	-	4
Rate: (Transit Worker Injuries/VRM X 100,000)	0.44	0.41	-	-	0.43
1 Per Frequency: (VRM ÷ # of Transit Worker Injuries)	1 per 227,537	1 per 242,462	-	-	1 per 234,999

Special Transportation Service					
Safety Performance Measure #12: Assaults on Transit Workers					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Assaults On Transit Worker Total	0	0	-	-	0

Special Transportation Service					
Safety Performance Measure #13: Rate of Assaults on Transit Workers					
Goal / Target : 0 per 100K VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Assaults On Transit Worker Total	0	0	-	-	0
Rate: (Assaults on Transit Workers/VRM X 100,000)	0	0	-	-	0
1 Per Frequency: (VRM ÷ # of Assaults On Transit Workers)	0	0	-	-	0

Special Transportation Service					
Safety Performance Measure #14: System Reliability					
Goal / Target : 1 per 33,333 VRM					
Period: CY2024	1st QTR	2nd QTR	3rd QTR	4th QTR	Total Annual Results
Vehicle Revenue Miles (VRM)	455,075	484,924	-	-	939,999
Major Mechanical Failures Total	28	46	-	-	74
1 Per Frequency: (VRM ÷ # of NTD Roadcalls)	1 per 16,252	1 per 10,541	-	-	1 per 12,702

APPENDIX H Gaps for Implementation of ASP

Identified Gaps and Actions for Implementation of the ASP

#	These gaps are in no particular order. CATS will address the gaps and develop timelines to implement open action items.	Implementation Plan Section
1	As part of the implementation process, reported safety concerns will be tracked in the appropriate hazard tracking format per the Hazard Management section of this ASP.	Detailed in 2022 ASP Section 1.7 CLOSED
2	For employee reported safety concerns, where contact information is provided, the recipient of the safety concern is responsible to follow-up with the employee.	Detailed in 2022 ASP Section 1.7 CLOSED
3	CATS Safety and Security is being inserted in the Employee Hotline process. Action items: <ul style="list-style-type: none"> • Set up an e-mail to receive CATS Hotline Safety issues. John Lewis will notify the City Hotline Administrator of the CATS e-mail. • Train Employees on the purpose and use of City Hot Line as part of the anonymous employee safety reporting process. 	Detailed in 2021 ASP Section 1.7 CLOSED
4	Train CATS employees on the ASP and CATS Safety Policy.	Detailed in 2022 ASP Section 4.6.3 Implementation Plan Phase 1 Item #1: Training Materials Complete. Frontline Training to be complete by 12/31/22 Implementation Plan Phase 1 Item #2: CLOSED
	<ul style="list-style-type: none"> • Need to develop plan to educate current and new employees on the new ASP and what their roles and responsibilities are related to the ASP. 	Detailed in 2022 ASP Section 4.6.3 CLOSED
5	Conduct Job Hazard Analysis in Bus and Rail Operations and Maintenance.	Phase 2 Item #11 CLOSED
6	For employee identified unsafe conditions, employees are expected to address safety concerns within their control immediately. Employees are expected to report unsafe conditions and issues with procedural compliance by speaking with or e-mailing a written safety report to their supervisor or manager. Develop a form for Employee observations of unsafe conditions or behavior.	Phase 1 Item #9 ASP Section 1.7 CLOSED

	<ul style="list-style-type: none"> Need to develop form for Employee observations of unsafe conditions or behavior. 	<p>Detailed in 2022 ASP Section 1.7 S&SF48 Safety Issue Reporting Form</p> <p>CLOSED</p>
	<ul style="list-style-type: none"> Educate employees on reporting using the form. 	<p>Detailed in 2022 ASP Section 1.7</p> <p>CLOSED</p>
	<ul style="list-style-type: none"> Work with communications to develop a summary format of incidents and actions taken. 	<p>Phase 1 Item #9f ASP Section 4.7.2</p> <p>CLOSED</p>
	<ul style="list-style-type: none"> Need process to loop back to Individuals filing safety concerns and provide their contact information. 	<p>Phase 1 Item #9f</p> <p>ASP Section 1.7</p> <p>CLOSED</p>
7	Update CATS QA05 to include addition of Hazard ratings to identified nonconformances and following ASP for tracking hazardous conditions.	<p>Removed in 2021 ASP, identified hazards and associated ratings are already captured in hazard management logs as stated in section 2.2.2 and 3.2.11 of the ASP.</p> <p>CLOSED</p>
8	Identified Hazards will be rated based on the Hazard Risk Assessment. As part of the implementation plan, safety will appoint Safety Coordinators who will be responsible for maintaining, updating and setting up the hazard log to ensure adequacy and appropriateness of the hazard log.	<p>Detailed in 2022 ASP Section 2.2.4</p> <p>CLOSED</p>
9	Long term: Develop a centralized system that all hazards and safety issues can be placed so we can have a complete picture from the agency standpoint on what safety issues we are dealing with, how are they mitigated and what is being done to address the issues. Still need to decide how to capture the information from various sources and bring it into one location.	<p>Phase 2 Item #6</p> <p>RFP awarded and contract for EAM system is underway- September 2024.</p> <p>CLOSED</p>
10	<p>Unacceptable Hazardous Conditions (UHCs)(1A, 1B, 1C, 2A and 2B) must be reported within two hours by e-mailing a written safety report to the General Manager, the SMS Manager and the CSO as part of the implementation plan.</p> <ul style="list-style-type: none"> Include in the ASP training Include as part of the ASP internal audit process 	<p>Detailed in 2021 ASP Section 2.2.2</p> <p>CLOSED</p>

11	Based on the hazards identified (section 2.2.1 and 2.2.2), safety specific topics or inspections will be conducted to address issues identified from the data analysis.	Phase2 Item #10 Audit and Inspection Schedule CLOSED
12	To ensure the sharing of safety data and information, Hazard Logs and Risk Registries will be available electronically in an accessible location for appropriate employees to access and review.	Phase 1 Item #15 ASP Section 2.2.4 CLOSED
13	Safety issues and hazards will be tracked in Hazard Management Logs, to include problems discovered, the desired resolution, the individual responsible for resolution, and the status through closure.	Detailed in 2021 ASP Section 2.2.4 CLOSED
14	The Hazard Tracking Logs will be managed to eliminate, reduce or control each hazard to an acceptable level. Identified hazards will be assigned hazard rating. The Safety Manager and General Manager will review hazard ratings and status of the Hazard Logs monthly. When an item is added by the Office of Safety, the General Manager will be notified by e-mail. Hazard Tracking Logs will be distributed to CATS Leadership monthly. Hazard Tracking logs will be distributed to the SSC on a quarterly basis for review and discussion. <ul style="list-style-type: none"> Process to capture hazards identified during proficiency checks GAP Task Amended in 2021 ASP: Hazard Tracking Logs will be distributed to CATS Leadership monthly. A safety summary will be distributed to the SSC and MTC for review and discussion.	Detailed 2022 ASP Section 2.2.4 CLOSED
15	Utilizing the information collected in the various safety reports, a safety summary will be provided monthly to the executive management and MTC by the Chief Safety Officer. The CATS CEO will receive updates during the Senior Leadership meetings. <ul style="list-style-type: none"> Develop a monthly safety report format and begin reporting by August 2020 Develop format for reporting to senior management. 	Detailed in 2021 ASP Section 2.2.4 CLOSED
16	Rail Safety and Bus Safety will develop Risk Registers to capture, manage, and mitigate identified Undesirable and Unacceptable Hazardous Conditions. <ul style="list-style-type: none"> Approved Risk Register by management 	Detailed in 2022 ASP Sections 2.1 and 2.2.5 Phase 2 Item #4 CLOSED
17	Corrective action plans that have been developed, shall be verified, and monitored to ensure that unexpected hazards have not developed.	Detailed in 2022 ASP Section 2.4.2 CLOSED
18	The Office of Safety and Security will provide monthly safety program performance reports to executive management and employees.	Phase 1 Item #9f ASP Section 1.2.2 CLOSED

19	The Office of Safety and Security and Quality Assurance will jointly develop and annually submit a comprehensive Internal Safety Audit schedule to NCDOT, detailing when they will audit the agency safety plan components over the three-year period.	Detailed in 2022 ASP Section 3.2.5 CLOSED
20	The Internal Safety Audit team will identify the components of the annual safety performance assessment based on SMS and conduct a safety assessment annually.	Detailed in 2021 ASP Section 3.2.5 CLOSED
21	Lead auditors will be certified to conduct audits by the Transportation Safety Institute or ASQ (American Society for Quality).	Detailed in 2021 ASP Section 3.2.6 CLOSED
22	Findings from Safety audits will be added to the appropriate Hazard Management Log by the lead auditor per the Hazard Management Process. If applicable, a CAP will be created per Section 3.4.4.3 Corrective Action Plans. Any hazardous condition/deficiencies that are rated as Unacceptable will be reported by the Chief Safety Officer or SMS Manager to the CEO per the Hazard Management program. The CSO will include a summary of safety deficiencies identified during audits as part of the hazardous conditions monthly report to the CEO.	Detailed in 2021 ASP Section 3.2.11 CLOSED
23	Identified changes to the CATS System or mitigations that have been implemented in the field will be verified and monitored by the appropriate Division staff and Office of Safety personnel to ensure the mitigation is appropriate and effective. If it is determined that a mitigation for an Unacceptable or Undesirable hazard is ineffective, the SMS Manager or the CSO will be notified, and a different mitigation will be implemented to address the issue. These changes will be managed on the Division's Hazard Management Log and the Safety Risk Registry as applicable.	Phase 2 Item #4 ASP Section 2.2.2 CLOSED
24	Recommendations for enhancement of the compliance methods are submitted to Division managers by the Office of Safety and Security for appropriate action.	Detailed in 2022 ASP Section 4.5.2.4 CLOSED
25	CATS employees who are designated personnel who are directly responsible for the safety oversight of a rail fixed guideway public transportation systems are required to complete safety refresher training every two (2) years after completing the initial requirements. The refresher training must include, at a minimum, one (1) hour of safety oversight training.	Detailed in 2021 ASP Section 4.6.3 CLOSED
26	CATS will develop a process to ensure operations employees are provided training on implemented changes that impact their duties and responsibilities.	Detailed in 2022 ASP Section 3.5.1.2 CLOSED

27	Prepare marketing materials to raise safety awareness throughout the facilities, which may include, but is not limited to, brochures, posters, email blasts and newsletters to best accommodate every division's best communication practices.	Detailed in 2021 ASP Section 4.7 CLOSED
28	CATS Marketing and Communications will create marketing collateral that explains proper safety procedures to be displayed in highly visible areas for the public, which may include, but is not limited to inside vehicles, social media, and audio announcements. CATS will also use email and newsletters to communicate with key stakeholders.	Detailed in 2021 ASP Section 4.7.1 CLOSED
29	A procedure will be developed to address the See Say app as a safety reporting tool, and Marketing and Communications will leverage marketing signage, social media and video to communicate with the public and key stakeholders about this service.	Phase 2 Item #14 ASP Section 4.7 CLOSED
30	Conduct Job Hazard Analysis in Bus and Rail Operations and Maintenance	Phase 2 Item #11 CLOSED
31	A comprehensive program for review activities that identify where new safety training is needed, where current safety training must be revised and updated, and refresher training needs to be added to the current training requirements for employees and contractors. The program will also include updating job descriptions and training requirements for front line employees, managers and supervisors and senior managers.	Phase 2 Item #20 ASP Section 4.6.3 CLOSED
32	CATS Transit Asset Management (TAM) Program will be establishing the direction for Asset Management Policies. The program will establish the divisional roles and responsibilities as stated in the CATS TAM Implementation Plan. The process will tie into the review of State of Good Repair and any Unacceptable or Undesirable Hazards will be addressed by following the Hazard Management Plan in the ASP. A report rating deferred maintenance items will be provided by Operations and Facilities at the monthly Safety and Security Committee (SSC).	Phase 2 Item #19 ASP Section 3.3.7 CLOSED
33	As part of the implementation plan, the Office of Safety and Security will hire Safety Coordinators to work with CATS to implement various programs/activities such as hazard management processes, data collection, analysis, and reporting.	Phase 1 Item #13 ASP Section 2.2.4 CLOSED
34	As part of the ASP implementation plan, safety will hire Safety Coordinators who will be responsible for maintaining, updating, and setting up the hazard log to ensure adequacy and appropriateness of the hazard log.	Phase 1 Item #13 ASP Section 2.2.4 CLOSED
35	SMS training will be incorporated in the RWP training provided to contractors.	Added to 2022 ASP Section 4.6.3 CLOSED
36	City IT begins the process to identify and procure a data system to meet the needs of SMS implementation.	Phase 1 Item #14 RFP awarded and contract for EAM

		<p>system is underway- September 2024.</p> <p>CLOSED</p>
37	<p>UAH/UDH hazards identified through inspection reports will be managed to closure and tracked using a centralized enterprise resource system.</p>	<p>Phase 1 Item #14 RFP awarded and contract for EAM system is underway- September 2024.</p> <p>CLOSED</p>
38	<p>The Office of Safety and Security will work with CATS Marketing/Communications to develop printed and electronic summary reports that provide feedback to employees on safety concerns submitted to the various safety committees. Employees who report safety concerns to management will receive a response from their supervisor or manager on how the issue was resolved.</p>	<p>Added for 2021 ASP Implementation Plan Update</p> <p>ASP Section 1.7</p> <p>CLOSED</p>

FTA Special Maintenance Review Draft Report and Agency Response



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION IV
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Kentucky, Mississippi,
North Carolina, Puerto
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October 25, 2024

Mr. Brent Cagle
Interim Chief Executive Officer
Charlotte Area Transit System
City of Charlotte
600 East Fourth Street
Charlotte, NC 28202

Re: Specialized Maintenance Review - Draft Report

Dear Mr. Cagle:

Please find attached, a copy of the Draft Report for the Specialized Maintenance Review conducted at Charlotte Area Transit System (CATS), prepared by our review contractor, CDI/DCI.

Responses to the draft report must be provided on CATS' letterhead and submitted to the Regional Office within 10 days of your receipt of the draft report. A summary of CATS' responses will be included in the final report.

Ms. Rhonda King is available to assist if you have any questions or need further assistance. She can be reached at (404) 865-5620 or rhonda.king@dot.gov.

Sincerely,

A handwritten signature in cursive script that reads "Yvette G. Taylor".

Yvette G. Taylor, Ph.D.
Regional Administrator

Attachments

cc: CDI/DCI

10/25/2024

FY2024 Charlotte Area Transit System (CATS)

CATS Specialized Maintenance Review

CDI/DCI/DCI JOINT VENTURE

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Purpose of the Review/Scope of Work

FTA requested to conduct a Maintenance review with FTA, CATS, CORTAP Contractor (CDI/DCI/DCI), TSO-20 investigator and North Carolina Department of Transportation (NCDOT) staff. FTA requested a separate Financial Management Oversight (FMO) review and asked that Addendum 1 be added to the end of this report.

FTA Scope of work (SOW) requested a Kick-off meeting with FTA that was held on October 11, 2023, Periodic Program Meetings and Monthly Progress meetings. All of which have been held since the Kick-off meeting.

Background

The Federal Transit Administration (FTA) prioritizes the safety of our nation's public transportation systems and responsible stewardship of the taxpayer dollars that fund those systems. In light of concerns over safety and practices for managing federal funds at the Charlotte Area Transit System (CATS), FTA conducted financial management and specialized maintenance reviews of CATS.

Deferred maintenance on rail fleets and infrastructure can compromise safety and service reliability, as evidenced by reports of malfunctioning rail signals at at-grade crossings.

Addressing these issues promptly and effectively is crucial to ensure the safety and efficiency of public transit in the Charlotte area. It may require a collaborative effort between CATS, FTA, NCDOT, and other stakeholders to develop and implement a comprehensive maintenance plan that meets regulatory standards and prioritizes safety and reliability.

The concerns raised by the Federal Transit Administration (FTA) Region IV regarding the Charlotte Area Transit System (CATS) extend beyond its rail operations to its bus fleet as well. There are worries about whether CATS is meeting FTA's preventive maintenance requirements for its buses and if grant funding is being used appropriately to cover routine maintenance costs.

Deferred maintenance can lead to operational inefficiencies, safety hazards, and decreased reliability of bus services.

It's imperative for CATS to address these maintenance concerns promptly and transparently to ensure the safety and reliability of its bus operations. This may involve working closely with NC State Safety Oversight Agency (SSOA), FTA, and other relevant stakeholders to identify and rectify any deficiencies in maintenance practices and funding allocation.

In May 2022, CATS experienced a derailment that NCDOT later determined was caused by deferred maintenance on CATS' rail vehicles.

In FY2022, FTA conducted a Triennial Review (TR) of CATS. During the TR, the oversight review team requested the 2021 preventive maintenance records for three light rail vehicles (LRV) (103, 204, and 312) and three street cars (SC91, SC92, and SC93). CATS informed the

review team that the requested records for the three street cars were unavailable, and the street cars were out of service as they were in the process of being disposed of. In addition, LVR 103 was also out of service. CATS did provide records of one preventive maintenance inspection for LRVs 204 and 312, but it was not possible to determine the timeliness of inspections for these vehicles through the documentation provided. CATS did not provide complete preventive maintenance records for the two sampled in-service LRVs at the time of the Triennial Review Entrance Conference. CATS was, however, able to provide preventative maintenance records for the three streetcar vehicles prior to the Exit Conference.

Site Visit

After the virtual site visit, the city provided records of daily inspections on light rail vehicles 204 and 312. The city provided the 2021 preventative maintenance records for the sampled light rail vehicles 204 and 312. The review of the sampled preventative maintenance records identified compliance with the City's preventative maintenance procedure. Preventive maintenance was completed 100% on time, when 10% deviation in mileage reading was applied.

Further, NCDOT notified FTA that CATS did not perform the 600K mile overhaul maintenance on its light rail and that was a contributing factor to the May 2022 derailment. This has required CATS to run at 35 MPH throughout the rail system, affecting operations. A review of the sample set of records provided during the FY2022 TR was insufficient to assess if CATS has been conducting maintenance overhaul activity on its rail fleet. The two LRVs where maintenance records were provided did not surpass the 600K mileage mark in calendar year 2021.

Actions Taken during the Charlotte Area Transit System (CATS) Maintenance Review

Summary

The Federal Transit Administration (FTA) conducted a Maintenance Review of the Charlotte Area Transit System (CAT) Maintenance Program for its rail, bus, and facility operations. On behalf of FTA CDI/DCI Joint Venture (CDI/DCI) conducted this review to help FTA determine if CATS is meeting FTA's preventative maintenance requirements for its bus fleet, rail fleet, rail infrastructure and federally funded facilities.

The review examined CATS' rail, bus and facility maintenance process, policies, procedures, maintenance plans, maintenance records and interviewed selected members of the management staff involved in the maintenance program. CDI/DCI conducted a virtual review December 19 – 21, 2023 and an onsite review during January 8 – 11, 2024. CDI/DC reviewers examined select maintenance records, inspection of facilities and observed maintenance processes and procedures.

Records reviewed:

- Truck (rail truck) maintenance records from 2020 -2023
- Bus maintenance records from November 2022 – December 2023
- Facilities maintenance records November 2022 – December 2023

Request for Information

Phase I:

In the Request for Information (RIR) sent to CATS on October 20, 2023, the letter included all required information for CDI/DCI to begin the specialized review. CDI/DCI provided Dropbox access to CATS to upload required documents. The initial list of documentation requested in the RIR is listed below:

Rail Fleet & Infrastructure Maintenance

- Rail maintenance program plan and schedule
- Rail Vehicle and Infrastructure Maintenance Program Plans
- Rail Fleet Management Plan and Rail Fleet Inventory
- Most recent Transit Asset Management Plan
- Rail Fleet Manufacturer's Requirements (*requested in October 2023*) *The Siemens specs were not included originally when CATS provided this information.*
- Plan to Clear Rail Vehicle and Infrastructure Maintenance Backlog
- Preventive Maintenance Standard Operating Procedures
- Maintenance Standard Operating Procedures
- Maintenance Budget to Actual for the past three years
- Maintenance training records
- Monthly Quality Assurance Rail Inspection Reports referenced in CATS' TAM Plan
- State Safety Oversight reports related to deferred maintenance and incidents where the maintenance of assets was a root cause
- Preventive maintenance scheduled vs actual report for past year
- Procedures for purchasing of spare parts and large purchases for rail overhaul activities
- Current Fleet and peak requirements
- Reason for October 6-8, 2023, rail service suspension
- Deferred maintenance reports
- Status of rail signals at grade crossings and list of signal malfunctions within the past three years
- Status of 600K overhaul schedule
- Maintenance staff shortage report

Bus & Paratransit Fleet Maintenance Plans

- Bus & Paratransit Fleet Management/Maintenance Plan, Program and Schedule (Latest)
- Transit Asset Management Plan (Latest)
- Bus & Paratransit Preventive Maintenance Standard Operating Procedures
- Bus & Paratransit Maintenance Standard Operating Procedures
- Bus & Paratransit Fleet Manufacturer's requirements
- Bus & Paratransit Maintenance Budget to Actual for the past three year
- Bus & Paratransit Maintenance Training records for past three years
- Bus & Paratransit Preventive Maintenance scheduled vs actual report for past three years

- Bus & Paratransit Repairs (number, type, trends, by vehicle type)
- Road calls (number, miles between, etc.) for past three years
- List of service disruptions due to lack of available buses and paratransit vehicles for past three years
- Monthly Quality Assurance Bus Inspection Reports referenced in Section 1.1.1.6.1 CATS
- Fleet Maintenance Audits of the TAM Plan
- Organization and Management of maintenance activities for bus and paratransit
- Procedures for purchasing of spare parts and large purchases for bus overhaul activities
- Current Bus and Paratransit Fleet Rosters by type and status (active, peak, spares, awaiting disposition)
- CATS Assessment Report to improve its efficiency and effectiveness December 2022
- Bus and Paratransit Fleets Maintenance Targets and Achievements for the past three years
- Bus and Paratransit Fleet Inventory (Latest)

FTA Funded Facilities

- Facility Maintenance Program Plan and Schedule
- Most recent Asset Management Plan
- FTA funded facility inventory
- Facility Structural Inspection Program Plan and Schedule
- Additional documentation was requested on December 4, 2023, in a request via email asking for additional documentation, bus, rail, and facilities interview list, and a list of CATS facilities to be inspected during the onsite review.

Summary of CATS Virtual Interviews December 19 – 21, 2023

CDI/DCI provided CATS with an Agenda Package ahead of a virtual interview, outlining the structure and focus of the interview sessions. The agenda was designed to cover various topic areas related to CATS operations, specifically facilities, bus, and rail.

Day 1 (Tuesday, December 19, 2023) was allocated for introductions and an overview of CATS facilities. This included discussions on maintenance, management, and any relevant updates or challenges concerning CATS facilities. Those in attendance that were interviewed were the head of facilities maintenance, the manager responsible for maintaining track, signals and grade crossing equipment and building maintenance supervisors.

Day 2 (Wednesday, December 20, 2023) was designated for interview questions regarding CATS bus and paratransit operations. This session delved into topics such as fleet management, maintenance practices, service delivery, and accessibility for paratransit users. Those in attendance that were interviewed were the following: GM of Bus & Maintenance Services (RATP Dev USA), Director of Contracted Maintenance (RATP Dev USA), Training/Quality Manager

Day 3 (Thursday, December 21, 2023) was scheduled for conducting the interview focusing on CATS rail operations. This segment covered aspects such as rail fleet management,

maintenance protocols, safety measures, and any recent developments or issues related to CATS' rail services. Those in attendance that were interviewed were the following: General Manager Rail Operations, RCM Manager, MOW Managers, support personnel.

By organizing the interview process in this structured manner, CDI/DCI ensured that each aspect of CATS' operations received dedicated attention, allowing for a comprehensive assessment. This approach facilitated a thorough understanding of CATS' practices, challenges, and areas for improvement across its various operational domains.

CATS Facilities Inspect

Schedule/Timeline

Date	Topic
October 26, 2023	Kickoff Meeting
December 6, 2023	CATS Joint FMO/Maintenance Review updates
December 19, 2023	Facilities Virtual Interview
December 20, 2023	Bus/Paratransit Virtual Interview
December 21, 2023	Rail Virtual Interview
January 8, 2024	On-Site Review
January 9, 2024	On-Site Review
January 10, 2024	On-Site Review
January 11, 2024	On-Site Review

Documentation Review/Rail Assets

Rail Program Plan

The initial plan was written in December 2003 and has been revised 11 times with the most recent revision in August 2021. The maintenance plan reviewed included specific details on how CATS conducted maintenance tasks, however we determined that some additional procedures should be added.

1. Detailed Procedures for Maintenance Tasks

For each type of maintenance task mentioned in the plan (such as Scheduled Maintenance, PM cycles, circuit board repair, hydraulic equipment repair), you'll need to develop detailed procedures.

These procedures should include:

- **Step-by-step Instructions:** Outline the exact steps required to perform the maintenance task. This should be specific and clear, leaving no room for ambiguity.
- **Tools and Equipment:** List all tools and equipment needed for each task. Ensure these are readily available and specify any special tools required.
- **Safety Precautions:** Detail any safety precautions that need to be taken during the maintenance task. This is crucial for ensuring the well-being of maintenance personnel.
- **Environmental Considerations:** Note any environmental factors that could affect the maintenance task, such as working outdoors or in specific temperature conditions.
- **Quality Standards:** Specify any quality standards or benchmarks that maintenance must adhere to during the task.

2. Integration with Existing Plan are also some recommendations to incorporate into the relevant sections of the existing maintenance plan.

This should include:

- **Service Description:** Add subsections detailing how each type of service (LRV and streetcar vehicles) will be maintained according to the procedures.
- **Staffing and Scheduling:** Explain how the new procedures impact staffing and shift scheduling. For example, if certain tasks are best performed during off-peak hours, specify this in relation to the detailed procedures.
- **Fleet Management:** Update sections related to fleet size, peak requirements, and spare ratios to reflect how the detailed maintenance procedures will optimize vehicle performance and longevity.

Once approved, update all relevant documentation with the new procedures. Additionally, plan for training sessions to ensure that maintenance personnel understand and can effectively implement the procedures.

Example Implementation for instance, if you're adding in-house capabilities for printed circuit board repair, your detailed procedures might include:

- Step-by-step instructions on diagnosing circuit board issues.
- Requirements for soldering equipment and techniques.
- Safety precautions for handling electronic components.
- Quality checks to ensure repaired boards meet operational standards.

Each task should be similarly detailed, ensuring that the entire maintenance plan is comprehensive and actionable for your team.

Records Reviewed:

CDI reviewed Rail vehicle preventative maintenance records that are listed in the tables below for CATS Light Rail Vehicles Series I, II, and III. CATS did meet the FTA requirements for on-time performance in all areas with the exception of 300K, 600K and 900K mile truck overhauls. These records appear to have been developed from the general manufacturer's requirements. Continuous Improvement: Incorporate periodic reviews of maintenance intervals and procedures to optimize effectiveness and efficiency. This includes feedback loops from maintenance personnel and continuous improvement initiatives.

LRV Records Review Verification

Vehicle #	Year	Mfg.	CATS Light Rail Vehicles (Series I, II, III)											600K Truck Overhaul	900K Mid-Life Overhaul	
			PM Milestones (Miles)													
			5K	15K	30K	45K	50K	60K	125K	180K	480K	600K	900K	Monthly Inspection % (5K)		
106106		Siemens	94	19	7	8	4	4	1	2	1			100%	0	0
106306			47	9	3	4	2	1	1	1				100%	0	0
313313			19	3	3	2	1	1	1					100%	0	0
315316			47	9	3	4	2	1	1					98.6%	0	0

Streetcar Records Review Verification

Vehicle #	Year	Mfg.	Cats S-70 Streetcars (Series IV)													
			PM Milestones (Miles/Months)													
			2K/1K	6K/3K	12K/6K	24K/12K	24K	60K	300K	400K	750K	800K	994K	1250K	2500K	Monthly Inspection % (5K)
401401		Siemens	22	5	3	1	1									100%
402402			21	5	3	1	1									100%

Documentation Review/Bus Asset Program Plans

CATS has a well-structured approach to managing and maintaining its bus and paratransit fleet, along with overseeing its contractors. Here's an overview based on the information provided:

- The plan was last revised in 2023 to reflect changes in the vehicle composition, ensuring that it remains current and aligned with the latest operational needs and technological advancements.
- The "Bus & Paratransit Fleet Mgt Plan" outlined CATS' overall strategy and objectives for managing its bus and paratransit fleet. These included goals related to fleet size, composition, service levels, and budgeting.
- It also included various service parameters such as road calls (emergency responses), accidents (incident management), and likely other key performance indicators (KPIs) related to fleet reliability and customer service.

Regarding Bus & Paratransit Maintenance Standard Operating Procedures these SOPs detail the specific maintenance procedures for CATS' bus and paratransit fleet. They cover various aspects such as routine maintenance, inspections, repairs, and service intervals.

- Integration of Latest Vehicle Composition: SOPs were updated in 2023 to accommodate changes in the fleet composition. This ensures that maintenance procedures are tailored to the specific requirements of each vehicle type in the fleet.

Program Components:

- Regular monthly reports from the Bus Operating Division (BOD) provide CATS management with updates on operational performance and compliance with service standards.
- Regular inspections and audits are conducted to assess the contractor's preventive maintenance activities, repairs, and overall service quality.

Recommendations for Further Improvement:

- Ensure that all documents and procedures are regularly reviewed and updated to reflect evolving fleet needs, technological advancements, and regulatory changes.
- Consider integrating maintenance data and performance metrics into a unified system to streamline reporting and decision-making processes.
- Training and Development: Invest in ongoing training and development for maintenance personnel and contractor staff to enhance skills and maintain high standards of service delivery.

By leveraging these documents and programs effectively, CATS can optimize the reliability, safety, and efficiency of its bus and paratransit operations while maintaining robust oversight of contractor activities.

Records Reviewed

- Bus & Paratransit Preventive Maintenance Scheduled vs Actual reports
- Monthly Quality Assurance Bus Inspection Reports
- Bus\Vehicle Mile Records 6 Buses Time Less Than 100%
- A review of requested bus maintenance records found the following:
- Bus PMs - 95% on time
- STS (paratransit) - 97% on time

Documentation Review/Facilities and Infrastructure Assets Program Plans

CATS has several documents that address the overall maintenance of its facilities and equipment examples of these documents include:

- FMP preventative maintenance schedule
- CATS Facilities Management Plan
- Bridge Maintenance Plan 20131011.pdf"
- Facility Structural Inspection Program Plan and Schedule
- Facilities Documents\05.04
- CATS Monthly Asset Management Status Report - Bridge and Wall.pdf
- Grade Crossing\Maintenance Schedule

CATS is undergoing significant organizational changes regarding the maintenance of its transit assets. Here's a breakdown based on the information provided:

Current Situation

- **Distributed Maintenance Plans and Procedures:** CATS currently has maintenance plans and procedures that cover all its transit assets. These are likely dispersed across different departments or divisions within the organization.
- **MOUs with City of Charlotte:** Historically, CATS has entered into Memorandums of Understanding (MOUs) with the City of Charlotte to maintain certain transit assets. This arrangement likely segmented responsibilities and processes between CATS and the city.

Transition and Organizational Change

Termination of MOUs: CATS is in the process of terminating these MOUs with the City of Charlotte. This decision aims to centralize all maintenance activities for its facilities and equipment under CATS' direct control and oversight.

Expected Outcomes

- **Improved Maintenance Program:** The transition is expected to result in a more efficient and effective maintenance program. This includes optimized resource utilization, improved response times, and enhanced service reliability for CATS' transit assets.
- **Enhanced Accountability:** With direct responsibility, CATS can more effectively monitor and evaluate maintenance activities, ensuring compliance with internal standards and regulatory requirements.

By effectively managing this transition, CATS can strengthen its maintenance capabilities, optimize resources, and ultimately improve the overall reliability and performance of its transit services.

Records Reviewed

We obtained for our review the preventive maintenance records for the following assets:

- Charlotte Transportation Center
- North Davidson Bus Maintenance Facility
- South Tryon Bus Maintenance Facility
- Bus Park & Ride Parking Garage – (I-485 South Boulevard)
- 900 N. Davidson/Bus Maintenance
- 901 N. Davidson/Administration
- N. Davidson/Parking Deck
- Generator Maintenance/Various Facilities
- Rosa Parks Transit Center Facility-Inspection
- South Blvd. Light Rail Facility Facility-Inspection
- South Tryon Admin Facility-Inspection
- South Tryon Maintenance Facility-Inspection

- South Tryon Paint and Body Facility-Inspection
- South Tryon Service Lane Facility-Inspection
- CATS-Blue-Line-Station-Inspections
- CATS-Gold-Line-Stop-Inspections
- UCB Parking Deck Facility-Inspection
- Albemarle Road Park and Ride Facility-Inspection
- Cornelius Park and Ride Facility-Inspection
- CTC Facility-Inspection
- Eastland Transit Center Facility-Inspection
- Huntersville Gateway Park and Ride Facility-Inspection
- Huntersville Northcross Park and Ride Facility-Inspection
- I-485 Parking Deck Facility-Inspection
- JW Clay Parking Deck Facility-Inspection
- Mallard Creek Park and Ride Facility-Inspection
- Matthews Park and Ride Facility-Inspection
- N. Davidson Admin Facility-Inspection
- N. Davidson Maintenance Facility-Inspection
- N. Davidson Service Lane Facility-Inspection
- NBLRF Facility-Inspection

In general we found that CATS performs the maintenance of its facilities and equipment on time according to its schedule.

There is an issue with the timing on the inspection of CATS bridge structures and embankments that are late due to delays in obtaining access from the railroads that is needed to inspect the structures.

Findings

Deficiencies/Observations/Recommendations

- **Observations** – While onsite the reviewer was able to review the written process and procedures and then observe actions.
- **Recommendations** – Actions that FTA have provided to improve an action; or procedures conducted
- **Deficiencies** - FTA has determined that the recipient is deficient with respect to Federal requirements.

Rail Fleet

Rail Fleet Observations

- CATS is operating at reduced speed per directive from NCDOT with no truck failures
- CATS is monitoring truck axle temperature daily with no incidence of overheated or failed bearings
- CATS is testing a vibration analyzer which is a new process
- CATS PMs were completed on schedule except for the 600K truck overhaul.
- CATS provided a revised truck overhaul schedule showing completion in August 2025

Rail Fleet Recommendations

It was noted that CATS had no recommendations for Rail Fleet.

Rail Fleet Deficiencies

Review Area	Finding	Corrective Action
Rail Fleet Maintenance	<p>CATS deferred the required 600K overhaul of it’s rail fleet trucks which resulted to a derailment and in-service failure <u>FTA Circular 5010.1E, Ch. IV Management of the Award, Section 4. Equipment and Supplies (Including Rolling Stock)</u> n. Management of Federally-Assisted Property (4) Maintenance and Warranty (a) Recipients must maintain federally-assisted property in good operating order and in compliance with any applicable Federal regulations that may be issued and follow applicable guidance that may be issued, except to the extent that FTA determines otherwise in writing.</p>	<p>CATS must provide a financial plan and schedule to accomplish the truck overhauls</p>
Rail Fleet Maintenance	<p>CATS rail fleet maintenance plan does not include the detailed requirements from the OEM Siemens at certain defined intervals. <u>FTA Circular 9030.1E, Ch. VI Program Management and Administrative Requirements, Section 1 Certifications Required by 49 U.S.C. 5307</u> <u>a 1.(5) Maintenance.</u> According to 49 U.S.C. 5307(d)(1)(C), a recipient must certify that it will maintain its federally-assisted facilities and equipment. Every recipient of Section 5307 program funds must have in its files a maintenance plan. The maintenance plan should identify the goals and objectives of a maintenance program, which may include, for example, vehicle life, frequency of road calls, and maintenance costs compared to total operating costs. The maintenance plan should establish the means by which the grantee will meet such goals and objectives.</p>	<p>CATS must update their rail fleet maintenance plan to include the requirements from the OEM Siemens</p>

Bus and Paratransit Fleet

Bus and Paratransit Fleet Observations

- A review of the submitted bus maintenance information confirms that CATS is completing its PMs for buses and paratransit vehicles on time.
- General observations confirm that the bus fleet appears to be in good shape with clean and well-maintained vehicles.

- In the past, FTA had been informed that CATS had a significant number of inactive buses. Site observations and CATS information confirm that current management has significantly reduced the number of inactive buses and vehicles not available for service.

Bus and Paratransit Fleet Recommendations

It was noted that CATS had no recommendations for Bus and Paratransit Fleet

Bus and Paratransit Fleet Deficiencies

Deficiency	Finding	Corrective Action
Bus and Paratransit Fleet Maintenance	CATS has not met its miles between road calls goal of $\geq 15,000$ miles for the last three years. Between 2020 and 2023, the miles between road calls was 10,424 FY2021 -	CATS needs to submit the list of activities needed and schedule to increase the current mileage between road calls to meet its goal.
Bus and Paratransit Fleet Maintenance	Site visit observations found that CATS staff could not confirm the status and plans for the buses located in Lanes 15-17 at the South Tryon bus maintenance facility.	CATS staff needs to submit information that confirms the status and plans for the buses located in Lanes 15-17 at the South Tryon bus maintenance facility.

FTA Funded Facilities

FTA Funded Facilities Observations

- CATS has significantly improved and expanded the organization for facility maintenance. First, it created and staffed a separate Facilities Maintenance department with dedicated full-time staff. Next, CATS is ending MOUs with the city and taking over responsibility for all facility maintenance. Third, the facilities management department is requesting 12 additional positions in FY 2025 to implement its expanded program.
- We noted that progress is being made with the coordination between the Maintenance and Safety Departments on their inspections. Although further improvements are needed, we did observe coordination efforts to eliminate “silo” management approaches for these two departments.

FTA Funded Facilities Recommendations

Maintenance: CATS needs to submit a schedule for the next round of bridge inspections.

Reviewer Comment: Since the site visit, CATS has completed the required inspections every two years on four light rail bridges and two pedestrian bridges. These inspections were delayed due to lack of access being granted onto freight railroad tracks. The last time these assets were inspected was in 2018.

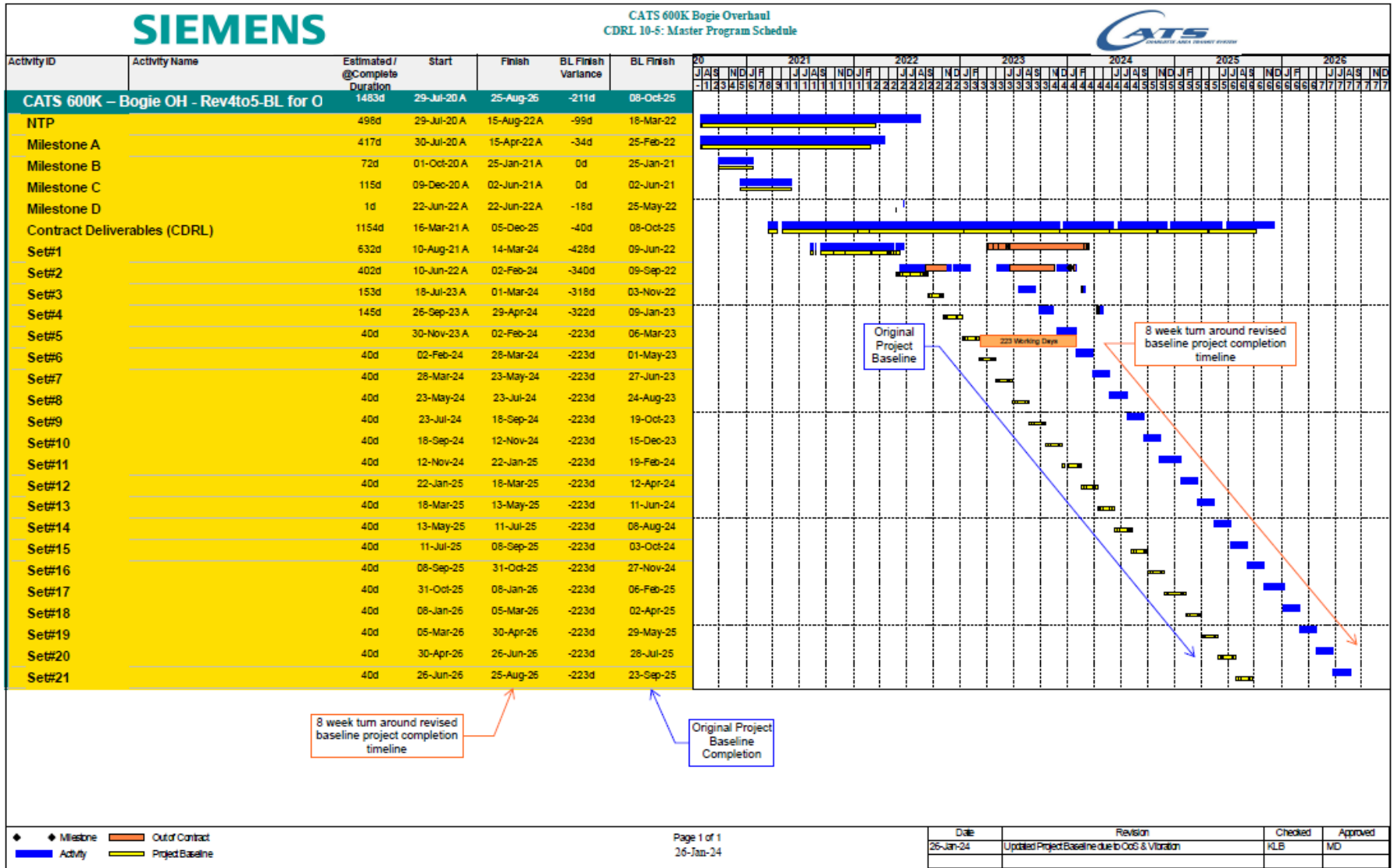
Satisfactory Continuing Control: CATS needs to report to FTA quarterly on the actions it has taken to resolve this issue including legal action seeking compensation from the contractor.

Reviewer Comment: CATS Davidson Parking Garage - Due to structure failure, the upper decks of this structure were recently closed in March 2023 and will remain closed until resolved.

FTA Funded Facilities Deficiencies

Deficiency	Finding	Corrective Action
Facilities Satisfactory Continuing Control	CATS could not provide FTA with a full assessment of all its system facilities and equipment.	CATS needs to develop a plan and schedule for completing an assessment of its system facilities and equipment
Facilities Satisfactory Continuing Control	Currently, each CATS department has a separate asset list with no central coordination. CATS do not have a systemwide Transit Asset Management system.	CATS needs to develop an Asset Management System that identifies all its assets and CATS needs to develop a reporting process of the conditions of the assets in order for CATS senior leadership to prioritize funding to replace assets. We recommend that one department, preferably Finance, be responsible for all agency assets. Note that CATS has hired a consultant to develop a systemwide asset management system and is currently standing up an Asset Management Office.
Facilities Maintenance	CATS do not report overall maintenance compliance to either senior management or the MTC	CATS needs to develop reporting systems to senior management and the MTC of its maintenance activities. Such summary reporting would help top management ensure that the required maintenance activities are completed on time.
Facilities Safety	CATS Safety Department does conduct audits/reviews of the maintenance of CATS assets. However, these efforts are not fully documented.	CATS Safety Department should develop enhanced procedures to exchange data and communicate activities with the Maintenance Department. CATS Safety Department must develop a procedure to fully document its inspections, audits/reviews of the maintenance of CATS assets.

CATS Overhaul Schedule



SUMMARY OF FINDINGS

Review Area	Finding	Corrective Action(s)	Response Due Date(s)	Date Closed
<p>Rail Fleet Maintenance</p>	<p>CATS deferred the required 600K overhaul of it's rail fleet trucks which resulted to a derailment and in-service failure</p> <p><u>FTA Circular 5010.1E, Ch. IV Management of the Award, Section 4. Equipment and Supplies (Including Rolling Stock)</u></p> <p>n. Management of Federally Assisted Property</p> <p>(4) Maintenance and Warranty</p> <p>(a) Recipients must maintain federally assisted property in good operating order and in compliance with any applicable Federal regulations that may be issued and follow applicable guidance that may be issued, except to the extent that FTA determines otherwise in writing.</p>	<p>CATS must provide a financial plan and schedule to accomplish the truck overhauls</p>		

SUMMARY OF FINDINGS

Review Area	Finding	Corrective Action(s)	Response Due Date(s)	Date Closed
Rail Fleet Maintenance	<p>CATS rail fleet maintenance plan does not include the detailed requirements from the OEM Siemens to include all de defined intervals.</p> <p><u>FTA Circular 9030.1E, Ch. VI Program Management and Administrative Requirements, Section I</u> <u>Certifications Required by 49 U.S.C. 5307</u></p> <p>a 1. (5) Maintenance. According to 49 U.S.C. 5307(d)(1)(C), a recipient must certify that it will maintain its federally assisted facilities and equipment.</p> <p>Every recipient of Section 5307 program funds must have in its files a maintenance plan. The maintenance plan should identify the goals and objectives of a maintenance program, which may include, for example, vehicle life, frequency of road calls, and maintenance costs compared to total operating costs. The maintenance plan should establish how the grantee will meet such goals and objectives.</p>	<p>CATS must update their rail fleet maintenance plan to include the requirements from the OEM Siemens</p>		
Bus and Paratransit Fleet Maintenance	<p>CATS has not met its miles between road call's goal of \geq 15,000 miles for the last three years.</p> <p>Between 2020 and 2023, the miles between road calls were 10,424.</p>	<p>CATS needs to submit the list of activities needed and schedule to increase the current mileage between road calls to meet its goal.</p>		

SUMMARY OF FINDINGS

Review Area	Finding	Corrective Action(s)	Response Due Date(s)	Date Closed
Bus and Paratransit Fleet Maintenance	Site visit observations found that CATS staff could not confirm the status and plans for the buses located in Lanes 15-17 at the South Tryon bus maintenance facility.	CATS staff needs to submit information that confirms the status and plans for the buses located in Lanes 15-17 at the South Tryon bus maintenance facility.		
Facilities Satisfactory Continuing Control	CATS could not provide FTA with a full assessment of all its system facilities and equipment.	CATS needs to develop a plan and schedule for completing an assessment of its system facilities and equipment		
Facilities Satisfactory Continuing Control	<p>Currently, each CATS department has a separate asset list with no central coordination.</p> <p>CATS do not have a systemwide Transit Asset Management system.</p>	<p>CATS needs to develop an Asset Management System that identifies all its assets and CATS needs to develop a reporting process of the conditions of the assets in order for CATS senior leadership to prioritize funding to replace assets. We recommend that one department, preferably Finance, be responsible for all agency assets. Note that CATS has hired a consultant to develop a systemwide asset management system and is currently standing up an Asset Management Office.</p>		
Facilities Maintenance	CATS did not report overall maintenance compliance to either senior management or the MTC	<p>CATS needs to develop reporting systems to senior management and the MTC of its maintenance activities. Such summary reporting would help top management ensure that the required maintenance activities are completed on time.</p>		

SUMMARY OF FINDINGS

Review Area	Finding	Corrective Action(s)	Response Due Date(s)	Date Closed
Facilities Safety	CATS Safety Department does conduct audits/reviews of the maintenance of CATS assets. However, these efforts are not fully documented.	CATS Safety department must develop a procedure to fully document its audits/reviews of the maintenance of CATS assets.		

Attendees during the review.

Name	Title	Phone Number	E-mail Address
CATS			
Brent Cagle	Interim CEO	704-534-4360	Brent.cagle@charlottenc.gov
Chad Howell	Deputy Director/CFO	704-564-0481	Chad.howell@charlottenc.gov
Victoria Johnson	Interim Deputy Director/COO	704-201-9558	Vicotia.johnson@charlottenc.gov
David Moskowitz	GM Safety and Security	704-432-5071	david.moskowitz@charlottenc.gov
Jennifer Fehribach	GM Bus Operations	704-336-2801	jennifer.fehribach@charlottenc.gov
Gary Lee	GM Rail Operations	704-432-5010	Gary.lee@charlottenc.gov
Craig Fox	Transit Facilities Manager	980-280-6897	craig.fox@charlottenc.gov
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Chad Hagans	Safety Supervisor	704-432-5032	chad.hagans@charlottenc.gov
Laura Johnson	Transit Quality Assurance Manager	704-996-1322	Laura.Johnson@charlottenc.gov
Martin Ellison	Rail Maintenance of Way Supervisor	980-279-6865	Martin.ellison@charlotte.
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Chad Hagans	Rail Safety Supervisor	704-432-5032	chad.hagans@charlottenc.gov
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Danny Palmer	TMOG Safety and Quality Assurance Manager		danny.palmer@charlottenc.gov
Keith Lowe	Parts Warranty Manager	704-432-3780	keith.lowe@charlottenc.gov

NCDOT			
Jerrad Jones	System Safety & Security Consultant	262-308-2006	jones@adssafety.com
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Tameka N. Wimberly-Jones	Transportation Program Specialist	404-865-5472	Tameka.wimberly@dot.gov
CDI/DCI			
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Chip Walker	Reviewer	585-738-1912	walkermert@gmail.com
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Addendum 1



Charlotte Area Transit System

Special Assignment: Preventive Maintenance and Fixed Asset Review

Review Period: November 2022 – December 2023

Preventive Maintenance Testing

Our testing was performed/based on a sample of 29 vehicles selected by the maintenance specialists from CDI/DCI. All of the selected items were Bus or Rail vehicles that were subject to required preventive maintenance (PM).

We tested each of the selected sample items for their timeliness in the PM process. In addition, we validated the existence of the assets through examination of varying levels of source documentation.

Results: The primary purpose of this testing was to check for timeliness of all selected samples in receiving PM.

For Bus testing, some of the selected buses were required to have PM performed every 6,000 miles while the others had 5,000-mile requirements. We obtained a listing of the assets' mileage readings for each of their PM checks during our review period. We calculated a mileage interval between each of the visits to be able to compare how close the actual mileage reading was to the sample's respective mileage requirement (6,000 or 5,000). The determination for being on time for a PM check includes a buffer window of +/- 10% around the mileage requirement. For 6,000-mile vehicles, they must meet their PM check within 600 miles on either side of their requirement (5,400-6,600). For 5,000-mile vehicles, they must meet their PM check within 500 miles on either side of their requirement (4,500-5,500). We checked each of the assets' mileage intervals during our review period to determine if they consistently landed within their acceptable range. We tested 128 total PM checks for the 21 Buses selected and came across 4 mileage inspections that occurred outside their acceptable range, for an on-time performance rate of 97%. All 4 of these out of range exceptions were performed earlier than their required mileage interval.

For Rail testing, some of the selected light rail vehicles (LRVs) were required to have PM performed every 5,000 miles while the newer LRVs were performed on a date-based PM schedule.

We obtained a listing of our assets’ mileage readings for each of their PM checks during our review period. We calculated a mileage interval/date interval between each of the visits to be able to compare how close the actual mileage reading/date was to the sample’s respective mileage/date requirement (5,000/monthly). The determination for being on time for a PM check included a buffer window around the mileage/date requirement. For 5,000-mile vehicles, they must meet their PM check within 500 miles on either side of their requirement (4,500-5,500). For time-based LRVs, they must be within 5 days early and 30 days late of their scheduled PM date. We checked each of the assets’ mileage/date intervals during our review period to determine if they consistently landed within their acceptable range. We tested 89 total PM checks for the 8 LRVs selected and came across 5 mileage/date intervals that occurred outside their acceptable range, for an on-time performance rate of 94%. All 4 of these intervals were performed earlier than their required mileage/date.

Budget Testing

Results: The primary purpose of this testing was to determine if CATS budgeted for truck overhauls and if funds earmarked for truck overhauls were indeed used as intended.

CATS Maintenance team shared a memo which contained CATS’ response to several hazardous conditions highlighted by the North Carolina Department of Transportation (NCDOT). It was bullet item #1 which caused the most concern for CATS Maintenance team. In that item, CATS addressed why it could not implement and carry out its truck overhaul and mid-life overhaul even though in 2020 there were CARES Act funds set aside for that purpose. Apparently, funding for the truck overhaul was moved from the Capital Budget to the Operating Budget during that time. In addition, CATS claimed there were supply chain issues, staffing challenges, and other exigent circumstances which delayed the start of the truck overhaul until FY 2023. CATS Maintenance team asked if we could review the budget vs actual differences for CATS expenditures during that period to see what activity took place and whether there were any unusual movements/usage of money.

We reviewed CATS Operating 6100 Expenditure budget vs. actual activity and noted that CATS Rail Operations were significantly under budget during each year between FY 2020 through FY 2022.

Fiscal Year	Division Name	Sum of Budget Amt	Sum of Actual Amt	Dollar Variance	Percentage Variance
2020	CATS Rail Operations	\$ 30,194,543.31	\$ 24,872,990.84	\$5,321,552.47	17.62%
2021	CATS Rail Operations	\$ 35,178,593.83	\$ 29,679,233.42	\$5,499,360.41	15.63%
2022	CATS Rail Operations	\$ 37,635,949.97	\$ 30,259,096.04	\$7,376,853.93	19.60%

We followed up with CATS to obtain explanations for these variances. The primary subcategories which contributed to the overall variances were “Salaries & Wages – Regular” and “Equipment Maintenance”. Regarding “Salaries and Wages – Regular”, CATS replied that the under-budget variances were staffing shortages due to difficulty retaining talent, as well changes in staffing levels. Regarding “Equipment Maintenance”, CATS replied that the variance was due to lack of resources. CATS had funding approved for the midlife overhaul and truck overhaul based on

projections. However, the department did not have the specification, contracts, or resources in place to utilize the funding; thus, contributing to the variances.

We also reviewed the contract for FTA Federal Award “NC-2020-031-03” which allocated approximately \$57 million in CARES Act funds to CATS. The original award was \$10.5 million in FY 2020 with the remaining \$46.5 million federal funds to be awarded in future grants or amendments. The initial award of \$10.5 million did not cover Preventive Maintenance costs; however, the award did allow for future revisions to include those costs. FTA added a third amendment to the award in January 2022 which provided funding for “Preventive Maintenance – Bus and Rail, Operating Assistance, and Miscellaneous Support Equipment”.

In addition, CATS received two additional grants that provided COVID-19 funding.

Grant NC-2022-008 awarded under the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA) provided a total of \$51.1 million, including \$11.1 million for rail mid-life overhaul and \$40 million for preliminary engineering for the LYNX Silver Line project. As of December 2023, \$27.1 million had been drawn down to date.

Grant NC-2022-010 awarded under the American Rescue Plan (ARP) provided a total of \$82.7 million, including \$38.9 million for overhaul of rail vehicles, \$14.2 million for rail preventive maintenance, \$23.8 million for bus preventive maintenance, and \$5.8 million for operating assistance. As of December 2023, \$10.0 million had been drawn down to date.

We spoke with CATS Chief Financial Officer Chad Howell who said that money was available for the truck overhaul; however, in FY 2020, the focus at the time was more about what would an actual truck overhaul plan look like. According to Chad, given staffing issues and resource constraints, there was a greater emphasis on “planning than on doing” at the time.

After reviewing all the support provided and speaking with CATS, we are not under the impression that money earmarked for the truck overhaul or preventive maintenance has been misappropriated or used for other purposes. There was money available for CATS to perform its truck overhaul; it was just a matter of having the resources in place to implement the plan.

Spare Parts Testing

Results: The primary purpose of the spare parts testing was to verify that items recorded in the inventory records did exist and contained proper supporting documentation.

We tested a sample selection of 25 Bus spare parts and a sample selection of 25 Rail spare parts to determine if items recorded in inventory contained proper supporting documentation.

For the Bus Spare Parts testing, we noted that 5 of the 25 samples selected for testing agreed to the supporting documentation in terms of dollar amount per sample item as well as item description (including the part number) without issue. Supporting documentation for 9 of the 25 samples selected for testing agreed to the sample selection in terms of dollar amount per unit; however, the part number on the invoice did not agree to the sample selection. We followed up with CATS

about the part number discrepancies to which they replied some of the samples have part numbers that have been superseded by the vendor. CATS provided support which evidenced the superseded part numbers for eight of the nine samples in question. For one (“Rack, Bike All Buses” (part number 4089316)) of the nine samples we noted that inventory records did not contain the old part number. CATS did not provide any explanation for that discrepancy; an exception was noted.

Supporting documentation for 11 of the 25 samples selected for testing agreed to the sample selection in terms of item description (including part number); however, the cost per unit for each sample per the support did not agree to the sample selection. According to CATS, their inventory records system (SPEAR) uses an average price when calculating the value of stocked items. For that reason, the average price of a given unit may not agree to invoice support for said unit. For 4 of the 11 samples, we noted the part number on the invoice did not agree to the sample selection. CATS provided support for three of the four samples which evidenced that the vendor superseded the part number. One (“Injector, 2010 ISL Reman Engine” (part number 5295603NX)) of the four samples in question contained an improper description in the inventory records. CATS did not provide an explanation for that discrepancy; an exception was noted.

For the Rail Spare Parts testing, we noted that 6 of the 25 samples selected for testing agreed to the supporting documentation in terms of dollar amount per sample item as well as item description without issue. For 9 of the 25 samples selected for testing, per CATS, they were either unable to provide supporting documentation or they were unable to locate the item detail on a given invoice. These were noted as exceptions.

For the remaining 10 of the 25 samples selected for testing, we noted the invoice support for each sample did not cover the total dollar amount of our sample selection. We followed up with CATS about the noted issues to which they replied that for 1 (GRAPHICS AND DECALS INSTL, EXTERIOR) of the 10 samples selected for testing, the dollar amount for the item was entered incorrectly into EAMS. The true cost of the item(s) is approximately \$14.6K which is 40 units at approximately \$364 each. The original entry into EAMS incorrectly noted the amount as \$553,097 which is 40 units x total price of \$14.6K. Per CATS, the invoice support for 1 (EVENT RECORDER) of the 10 samples selected for testing did not agree to the sample selection because CATS has 5 total units of that item at various prices, and we received support for only 1 of the units. For the remaining 8 of the 10 samples selected for testing, we did not receive any additional supporting documentation. These 10 samples were noted as exceptions.



November 14, 2024

Yvette G. Taylor, Ph.D.
Regional Administrator, Region IV
Federal Transit Administration
230 Peachtree Street, NW, Suite 1400
Atlanta, Georgia 30303

Re: Charlotte Area Transit Response to FTA Specialized Maintenance Review

Dear Dr. Taylor:

As requested in your letter received on October 25, 2024, attached for your review and comment please find a copy of the Charlotte Area Transit System's (CATS) response to the draft report resulting from the Specialized Maintenance Review conducted by CDI/DCI. We believe our responses address each of the review's findings.

I would also like to thank you for the assistance you and your staff regularly provide to CATS' leadership and staff.

If you require any additional information or have any questions regarding CATS' response to CDI/DCI's findings, please contact Chad Howell, CATS CFO at 704-564-0481.

Best Regards,

Brent Cagle
Interim Chief Executive Officer
City of Charlotte Deputy City Manager

cc: Dudley Whyte, Deputy Regional Administrator, FTA Region IV
Rhonda King, Program Analyst FTA Region IV
Kathleen Beck, CDI/DCI
Chad Howell, Chief Financial Officer



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RAIL FLEET MAINTENANCE

Finding # 1:

CATS deferred the required 600K overhaul of its rail fleet trucks which resulted to a derailment and in-service failure

Corrective Action:

CATS must provide a financial plan and schedule to accomplish the truck overhauls.

Recipient Response:

CATS accepts the deferred maintenance of the rail fleet trucks, which was identified as contributing to the derailment and subsequent service disruptions. We understand the significance of these issues and assure our stakeholders that we are committed to addressing them and improving the quality of our services moving forward. Below is a project recap, a project summary, and our financial plan for completing the truck overhaul and maintenance project.

Project Summary:

The objective of the Siemens S-70 Light Rail Vehicle (LRV) Maintenance project is to ensure the Vehicles (LRVs) are maintained and serviced to reach their 30-year useful life. The CATS fleet has multiple platforms of the Siemens S70 LRVs. These are classified as CATS I (100 series) placed in service 2007, CATS II (series 200) 2010 and CATS III (series 300) 2015. The Original Equipment Manufacturer (OEM) recommends that the Siemens trucks, equipment, and braking systems be serviced at five years or 300,000-mile intervals, with the next interval being ten years or 600,000-mile intervals. The performance of the required maintenance will ensure the S70 vehicles can reach their designed 30-year useful life.

Truck Overhaul:

The current S70 Truck Overhaul project started with the CATS I & II fleet 600K Truck Overhaul under contract 20200001235 with Siemens in 2020. Series 100 and 200 vehicles are currently undergoing Truck overhaul project.

Truck Maintenance:

CATS has completed a contract amendment of the CATS III S70 300K Truck Maintenance project to cover addition elements. The three main components of the contract amendment are:

- CATS III 300K truck maintenance,
- Expedited journal-bearing replacement, and
- CATS issued a new contract number 2024001442 for the amended contract.

Truck Overhaul and Maintenance Timeline and Schedule of Funding:

Below please find an updated timeline provided by Siemens and a schedule of funding from project inception to completion. The project at completion is estimated to cost approximately \$59.3 million.

Finding # 2:

CATS rail fleet maintenance plan does not include the detailed requirements from the OEM Siemens to include all defined intervals.

Corrective Action:

CATS must update their rail fleet maintenance plan to include the requirements from the OEM Siemens.

Recipient Response:

CATS Rail Maintenance has implemented the following corrective action to address the issue of not including all the maintenance interval requirements from the OEM, Siemens. Appendix D has been added to the Light Rail Fleet Management Plan (LRFMP), which provides the inspection details that occur at various intervals for CATS I, II, III (S70) and Streetcar (S700) vehicles as recommended by the Original Equipment Manufacturer (OEM). This information is referenced in sections 9.12 and 9.13 of the LRFMP.

Revision 12 of this plan is currently in draft and will be finalized in December 2024. A copy of the final plan will be provided at that time.

BUS AND PARATRANSIT FLEET MAINTENANCE

Finding # 3:

CATS has not met its miles between road call's goal of > 15,000 miles for the last three years.

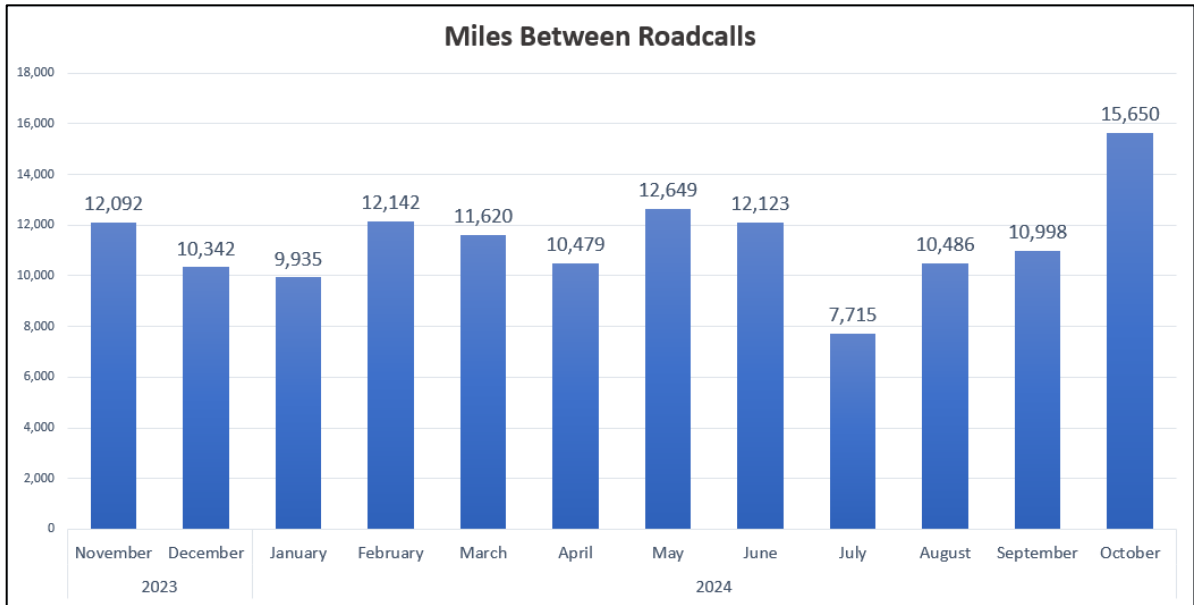
Corrective Action:

CATS needs to submit the list of activities needed and schedule to increase the current mileage between road calls to meet its goal.

Recipient Response:

CATS recognizes it hasn't met its goal of > 15,000 miles between road calls for the last three years. The fleet age of the CATS fixed route bus fleet has significantly impacted our ability to meet this goal. Over the last year, CATS has made significant headway in improving the fleet age:

- Over 50 of our oldest buses were retired, reducing our overall fleet to 242 buses.
- CATS has taken delivery and put into service of 27 new buses with 47 additional new buses arriving in early 2025. These buses will replace 74 of the oldest buses in the fleet of 242 buses. The 27 new buses started going into service in August 2024 with the impact of the new vehicles on our miles between roadcalls shown in the graph below.



CATS is working on placing an order for additional new buses for delivery in FY 2026 and hopes to get to a consistent replacement schedule of roughly 1/12th of the fleet on an annual basis to better manage the fleet age.

CATS also recognizes that fleet age is not the only factor relating to miles between roadcalls. We are also working on improving maintenance practices and better utilizing data to establish predictive maintenance schedules.

Utilizing data, CATS has identified our most common road failures, and prioritizing them through maintenance campaigns.

CATS believes through our fleet replacement schedule and our more focused approach to maintenance that we will be able to maintain the goal of > 15,000 miles between road calls as demonstrated in October 2024.

Finding # 4:

Site visit observations found that CATS staff could not confirm the status and plans for the buses located in Lanes 15-17 at the South Tryon bus maintenance facility.

Corrective Action:

CATS staff needs to submit information that confirms the status and plans for the buses located in Lanes 15-17 at the South Tryon bus maintenance facility.

Recipient Response:

CATS has retired/auctioned the vehicles that were stored in Lanes 15 -17 when the review team was on-site. The picture below shows the buses currently in Lanes 15-17 and they are the CATS Command Center Buses as well as buses that have recently been decommissioned and are ready for auction.



FACILITIES SATISFACTORY CONTINUING CONTROL

Finding # 5:

CATS could not provide FTA with a full assessment of all its system facilities and equipment.

Corrective Action:

CATS needs to develop a plan and schedule for completing an assessment of its system facilities and equipment.

Recipient Response:

CATS is currently updating our Facility Management Plan (FMP), including the frequency of the Facility Condition Assessments. This is also incorporated by reference in the Transit Asset Management Plan (TAMP) which will also need to be updated. CATS' FMP will be synced with FTA's 4-year frequency for facility condition assessments. CATS is in the process of engaging a consultant to complete the Condition Assessments that are due.

CATS recently hired a new Transit Asset Management Program Manager to oversee our TAMP and coordinate the implementation of our new Enterprise Asset Management System. He starts work in January 2025 and will work closely with Facilities and the other Operating Divisions to incorporate their assets in a master database for their scheduled tracking and assessment.

CATS can provide a copy of the updated Facilities Management Plan and a schedule of the Facilities Assessments once the consultant has been selected and the schedule finalized.

Finding # 6:

Currently, each CATS department has a separate asset list with no central coordination. CATS doesn't have a systemwide Transit Asset Management system.

Corrective Action:

CATS needs to develop an Asset Management System that identifies all its assets and CATS needs to develop a reporting process of the conditions of the assets for CATS senior leadership to prioritize funding to replace assets. We recommend that one department, preferably Finance, be responsible for all agency assets. Note that CATS has hired a consultant to develop a systemwide asset management system and is currently standing up an Asset Management Office.

Recipient Response:

CATS has selected the Trapeze Group to provide an Enterprise Asset Management System that will address this finding. The contract is being finalized and will go to Council for action on December 9, 2024. The system being contracted for is a comprehensive asset, work, and materials management software for Rail, Bus, and Facilities. It will also include Safety Management Software, Yard Management Software, and a Fluids Management Software as part of the Enterprise Asset Management software system. The Enterprise Asset Management System includes several modules for the tracking and management of CATS assets, including State of Good Repair/Capital Planning Module, KPI/Dashboard Module, Reporting Modules as well as several other modules. A Project kick-off meeting with Trapeze is scheduled January 2025.

CATS has also contracted with TYLin to begin documentation of current business processes and identification of new processes needed to modernize workflows. This will lead to identification of updates to CATS procedures and policies that will ultimately form the structure of a fully integrated Asset Management System, including location of the database within the organization and how it is maintained and utilized by the various CATS divisions for their individual purposes.

The total project implementation schedule is anticipated to be 18 to 24 months and a detailed project schedule is due after the kick-off meeting in January 2025. CATS can share the detailed schedule with FTA and can provide key milestone updates throughout the implementation of the project.

FACILITIES MAINTENANCE

Finding # 7:

CATS did not report overall maintenance compliance to either senior management or the MTC

Corrective Action:

CATS needs to develop reporting systems to senior management and the MTC of its maintenance activities. Such summary reporting would help top management ensure that the required maintenance activities are completed on time.

Recipient Response:

CATS Facilities is working towards developing key performance indicators (KPIs) for its facilities, rail and bus assets that align with FTA guidance as well as best industry practices. Those facilities would include buildings, rail platforms, bus stops, transit centers, etc. Quarterly reports will be provided to CATS senior leadership as well as the MTC. Those reports will include the KPI metrics

for facilities and status reports for any capital projects underway.

CATS senior leadership team is in the early stages of this review but has identified several facility performance measures. CATS Facilities is reviewing these measures and ensuring the information is readily available.

The timeline for these tasks is as follows:

- Determine the measures to be reported to CATS leadership by January 2025
- Identify the data sources and methods to collect information for metrics by March 2025
- Begin reporting selected performance metrics to CATS leadership by June 2025

The longer-term plan is to incorporate inspections, work orders, repair/overhaul, life cycle capital planning, KPI reporting and state of good repair information into the Trapeze enterprise asset management (EAM) modules. Since the EAM will take 18-24 months to fully implement, Facilities will be working within the framework of existing city IT systems such as CityWorks and SPEAR to codify the processes and procedures. This work will assist CATS Facilities with the transition to the EAM system.

Finding # 8:

CATS Safety Department does conduct audits/reviews of the maintenance of CATS assets. However, these efforts are not fully documented.

Corrective Action:

CATS Safety department must develop a procedure to fully document its audits/reviews of the maintenance of CATS assets.

Recipient Response:

CATS believes Section 3.3 of our adopted Agency Safety Plan (ASP) addresses our maintenance and inspection program. As outlined in the ASP, quarterly safety inspection of transit facilities and light rail facilities are documented and shared with Facilities. We believe copies of these reports were provided but can be resubmitted if requested. Based on conversations held during the interview, CATS Safety Department acknowledges the need to better document all inspections, audits, safety related activities and is working on developing a process and documentation to record and track all those activities.

