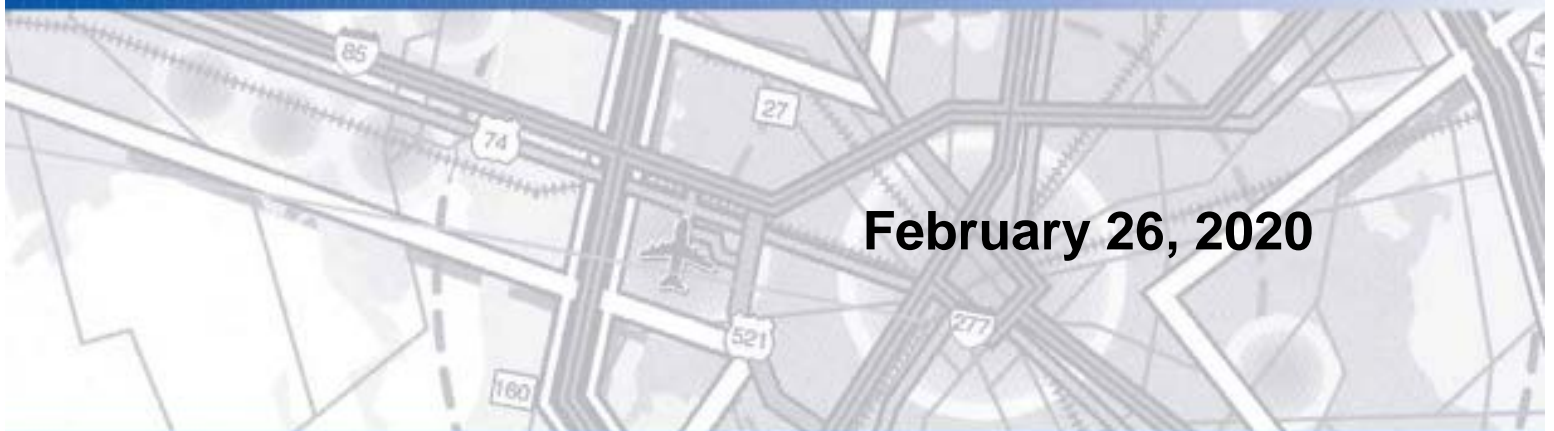


Metropolitan Transit Commission



February 26, 2020

METROPOLITAN TRANSIT COMMISSION

Wednesday, February 26, 2020

5:30pm

Charlotte Mecklenburg Government Center

Room 267

AGENDA

- I. Call to OrderCommissioner Susan Harden
 - Invocation
 - Pledge of Alliance
 - Introductions
- II. Approval of the January 22, 2020 Summary (**p.5-18**)Commissioner Susan Harden
- III. Report from the Chair of the Transit Service Advisory Committee (TSAC)Krissy Oechslin
- IV. Report from the Chair of the Citizens Transit Advisory Group (CTAG)..... Edward Tillman
- V. Public Comments
 - February 26, 2020 Comments
 - January 22, 2020 Report from Staff
- VI. Information Items
 - CATS Customer Satisfaction Survey Results (**p.20-32**).....Mark Aesch
 - Budget Updates to Preliminary FY2021 Budget & ...John Lewis, Jr./Blanche Sherman
Preliminary FY2021-25 Capital Budget (**p.34-41**)
 - Rail Service Interval Change (**p.43-48**) Allen Smith III
- VII. MTC Commissioners' BusinessCommissioner Susan Harden
 - Bus Stop Amenities Program
- VIII. Chief Executive Officer's Report (**p.50-53**) John Lewis, Jr
- IX. Adjourn

METROPOLITAN TRANSIT COMMISSION
MEETING SUMMARY
January 22, 2020
(Approved on February 26, 2020)

Presiding: Commissioner Susan Harden, BOCC Mecklenburg County

Present:

Mayor Woody Washam, (Town of Cornelius)	Bill Thunberg, (Mooresville Representative)
Andrew Grant (Town Manager, Cornelius)	Mayor Jack Edwards (Town of Pineville)
Mayor Rusty Knox (Town of Davidson)	Mayor Walker Reid III (City of Gastonia)
Mayor John Aneralla, (Town of Huntersville)	E. L. Faison (City Manager, Monroe)
Mayor John Higdon (Town of Matthews)	Mayor William, (City of Concord)
Mayor Brad Simmons (Town of Mint Hill)	Mayor Pro-Tem Lynda Paxton, (Stallings)
Brian Welch (Town Manager, Mint Hill)	

CATS Chief Executive Officer: John Lewis, Jr

I. Call to Order

The regular meeting of the Metropolitan Transit Commission was called to order at 5.28p.m. by MTC Chairwoman Commissioner Susan Harden.

II. Action Item – Selection of MTC Vice Chairman

A motion to nominate **Mayor John Aneralla (Town of Huntersville)**, as the MTC Vice Chairman was made by **Mayor Jack Edwards (Town of Pineville)**; and seconded by **Mayor Woody Washam (Town of Cornelius)**. Motion carried unanimously.

III. Review of Meeting Summary

The meeting summary of November 20, 2019 was approved.

IV. Transit Services Advisory Committee (TSAC) Chairman's Report

Krissy Oechslin (Chair) reported the following:

December 2019 meeting - Officers were elected for this year. Myself as chair and Terry Lansdell was re-elected as co-chair. There was one information item - an update from CATS on the real-time app. There was a substantial question and answer session regarding the features of the app, how it's been doing in the cities that are using the same technology. And the time line, we are told it's expected to go live in June or July but that they are going to try to move that up or aggressively manage that deadline so that it's fully functional before the RNC in August.

January 2020 meeting – two 92) information items were shared.

Information item #1 - Review of CATS 2020 objectives so the committee has a greater understanding of the goals that CATS measures itself against for the year.

Information item #2 - Overview of the process of implementing service changes. There's a long timeline that goes behind them, so we had an overview of that. We also had public comment from Sustain Charlotte. They provided feedback on the pilot bus/bike lane on 4th Street in Uptown.

One of my goals this year, as chair, is to have more public comment, as that's a pretty rare thing for someone to come and provide comment, but it's an excellent opportunity for citizens to provide feedback in a forum that is supposed to represent citizens.

Another goal for the year, my personal goal, will be to see all of the seats on TSAC filled. We'd love to see a diverse pool of candidates fill those seats. I know there's people at CATS that are working on that same goal.

In our role as citizen advocates on TSAC, there's a lot of things we discuss month-to-month when we bring up service issues at the end of every meeting, and some of those are recurring issues. My goal is also to just bring information from this body back to TSAC so that we can dig a little deeper into some of those recurring issues that, again, we can fulfill our goal of amplifying the voice of riders.

A couple of those things were mirrored by the Charlotte City Council in their retreat. One of them is fare capping we've discussed. Hopefully, we're going to bring some more information back to TSAC this year. Other concerns have included congestion on the Blue Line.

V. Citizens Transit Advisory Group (CTAG) Chairman's Report – No Report.

VI. Public Comments

MARK SPAULDING: My name is Mark Spaulding. I live in the Town of Matthews. I live at 7822 Greylock Ridge Road. I can send all the information to the proper person here. I take the 64X and 65X day in and day out. I love the service, bus drivers are great, the bus is very comfortable. In fact, after this I won't be able to stay long because my wife is expecting me home so I'll have to get on it, but since 2017-18 the express lane has been closed for a long period of time, and it's been incredibly inconvenient. And I'll be upfront, I don't know all the challenges with regard to the Hawthorne bridge and what needs to be.

I reached out to NCDOT today and asked them for a status and they had said that they presented to different groups. They had a presentation last year with regard to an update on various steps to update the busway, and that's slated not to begin until 2023. But in the meantime, who has the authority to allow the bus lane to run for a fair amount of its distance until the bridge, because usually when you go and they're doing construction there will be various cones that will stop people in cars to protect the workers, but most of the time when we go on the bus in the morning and the evening there's no one working on it. And it would make sense that we wouldn't block off the entire busway and just because the very end closest to Uptown with that bridge is under construction.

Right now it's not an express bus. It really isn't. I mean, except for stopping and staring we are stuck on Independence every day going Uptown and coming back. Who is the person -- or the NCDOT said they didn't. They said I had to speak to CATS, so I figured hopefully the MTC can give some guidance. Who is the one that can authorize the usage of that bus lane that will allow at least an express lane for a period. Otherwise it's going to be a full 10 years, expecting a 2-year construction period, a full ten years that the bus lane will not be in use.

COMMISSIONER HARDEN (Mecklenburg County): I don't know the answer to your question, but I will ask Mr. Lewis. I would like to just establish a rule that whoever comes to speak, that we respond to every public speaker, so that whatever the concerns are, that we have someone from CATS staff reach back out to you. Does that feel okay?

MR. SPAULDING: That's good. And I apologize, I found out about this meeting today and came over here, and I really appreciate your time to listen.

COMMISSIONER HARDEN (Mecklenburg County): Sir, I so appreciate you coming down. That's why we have these public comments so I thank you for that. I'm a newbie to transportation. I don't know the answer to your question, but I have a lot of experts who do know the answer to your question and will reach out to you and get in touch with you, and I promise that that will happen.

CATS CEO LEWIS: Thank you, and I appreciate you coming in for the question. It's a great question. There are two issues that are impacting this. #1 – the construction of the Gold Line Phase 2 that spans the Independence Boulevard corridor with the Hawthorne bridge. As board members know, this has been a rather difficult project. That bridge was supposed to have been completed last year, and because of some challenges that the contractor had, the bridge is a full year behind, but it will be completed in April. I think the issue that we need to check with -- and that was a safety issue for us. When you're demolishing a bridge and rebuilding, there needs to be room for the pilings, for the heavy equipment that's involved in that, and so we did shut down the lane.

The question that I don't know the answer to and will get back to the speaker on is now that the bridge is coming up is there an opportunity for us to open a portion of the lane so that they can at least recapture some of their trip reliability, and that we will look into and we will get back to you on that, but it has been a relatively tough project.

And then right after that we have the widening and other issues on Independence that will go along, so NCDOT in all likelihood will shut it down again, but if we can get it open for as long as possible, we'll endeavor to do so.

COMMISSIONER HARDEN (Mecklenburg County): Great. And so maybe as a protocol, we can document the question, you can follow up with the answer, and then in the minutes of the meeting we can just put the answer in so that all the members can find out what the answer to the question is.

VII. Information Items

a. CATS SEAP Implementation Plan

Paul Kaufmann

Paul Kaufmann – Bus System Engineering Manager of STV made a presentation on the Strategic Energy Action Plan based on pages 16-24 in the MTC Agenda packet for January 22nd, 2020 meeting.

Discussion:

MAYOR KNOX (Town of Davidson): Paul, what's a diesel bus cost, ballpark?

MR. KAUFMANN: 5-and-a-quarter.

MAYOR KNOX (Town of Davidson): It's another \$60,000 or \$70,000 to convert that to CNG. I'm \$600,000 already. Versus \$750K for electric. What's the life expectancy of the \$200,000 battery?

MR. KAUFMANN: Life of the bus.

MAYOR KNOX (Town of Davidson): Ten years?

MR. KAUFMANN: Twelve. Twelve by the federal requirements. I think it's longer, personal opinion.

MAYOR DUSCH (City of Concord): How long does the charge last start of in the morning, how often do you have to recharge during the day? Will it last 80 miles, 100 miles?

MR. KAUFMANN: I'm to understand your average route requirements are about 185 miles in a day. I would say here in Charlotte current technology will get you about 135 miles, and you would charge once in the middle of the day to complete your PM trip, if you would. You would run in the morning, charge at noon, and you'd run in the afternoon.

MAYOR DUSCH (City of Concord): But you anticipate it's getting longer as –

MR. KAUFMANN: Yes, it. If you would have asked me that six months ago I would have told you 100 miles. I consider it, it's like buying a laptop, sir. By the time you get it home it's outdated. It is changing fast, yes. Every day it's getting better, to answer your question, yes.

MAYOR HIGDON (Town of Matthews): Are you aware of any studies that quantify what the emissions are associated with generating electricity?

MR. KAUFMANN: Yes, and it obviously has a lot to do with how you do it, and I will tell you exactly what I tell everyone else: Electricity can be very dirty at point of manufacture and very clean at point of use. Unfortunately, I don't think anyone is going to get a dam on a river anytime soon these days, so here we're probably burning coal or nuclear. So yes, I'm going to tell you this, the electricity will be more expensive than the diesel equivalent for going the same distance, not demonstratively more, a factor of 30 to 40% more, but the other benefits just make it so worthwhile, the complete elimination of engine emissions. I know you're not up against it as much as we are out in LA. It's -- they would spend three times what they're going to spend now if they could, just to take those 2100 buses and take them to zero emission.

MAYOR HIGDON (Town of Matthews): Well, would you say overall electricity is a cleaner alternative compared to diesel?

MR. KAUFMANN: Without a doubt sure. Definitely.

MAYOR HIGDON (Town of Matthews): That's what the naysayers, everyone's saying is it's a dozen of one, 6 of the other. Both of them are not clean.

MR. KAUFMANN: I'll tell you straight, the diesel engines are getting cleaner, but they are as clean as they are going to be. If you look at everything they do to that diesel engine it's in what we call exhaust after-treatment, or they are modifying the exhaust after it's burning in the engine. They cannot get that engine any cleaner than it is. They clean it up after it's done its job, so it all goes away with electric.

MAYOR WASHAM (Town of Cornelius): Other than Greensboro, what other North Carolina cities have these in their fleet?

MR. KAUFMANN: Well, sir, I would have to do that research for you. I can't pull that off the top of my head. I'll tell you what other agencies within the United States that we have them running at from Flint, Michigan all the way over to North Coast Transit District, which is northern San Diego. Florida as well, Tampa has a couple going in. I mean there are agencies that are going in by the hundreds. There are test programs, and then there are things like see with LA. LA will buy 1,000 buses in a five-year contract starting in 2021. They already have on order 140 electric buses, and they are delivering now as you can see by that picture. They're all in, if you will, and they have their reasons for that. What I want to do is give you something to think about and guide your decisions going forward.

MR. THUNBERG (Mooresville Representative): Raleigh, RDU, just bought five of them and put them in service about three weeks ago, so they're running at RDU right now. I'm glad to see that you're recommending this because I think that half steps, when it comes to going to zero emissions, is just not a good strategy, it's wasted money, because it's moving so fast. But I do have a couple of technical questions if I could. One is that with electric vehicles you go from 10,000 parts down to 400 parts. Is it the same with a bus in terms of maintenance?

MR. KAUFMANN: Not only is it the same with a bus, but the maintenance intervals are now hanging, and that impacts the number of mechanics you have in the facility, how big the facility has to be. You're really going to go outside the box and I'll give you an example.

The Siemens electric propulsion motor that is propelling the New Flyer bus that you see right there, the maintenance interval on that is to inspect the bearing at 200,000 miles. You grease that bearing at 400,000. Mr. Lewis parks the bus at 500,000, okay, so every 6,000-mile oil change gone, every 25,000-mile transmission fluid change gone. Antifreeze is reduced dramatically, not gone but reduced dramatically. The maintenance interval we're seeing on this particular bus, instead of the mechanic having to look at it at 6,000-mile intervals, it's already out to 12. It's already doubled.

MR. THUNBERG (Mooresville Representative): With regard to spares, Mr. Lewis, I think keeps like 20% spares or something like that. Do you have to keep 20% vehicle spares or can you keep 20% battery change-out spares rather than –

MR. KAUFMANN: That's a good question. Unfortunately, we all have the vision of the Makita power tool at home. You put a battery in it and you use it, and oh, my goodness, it's empty, so I take the other one off the charger and I switch them. It is unfortunately not that simple on a bus. The batteries are water-cooled and as a result there are water connections, so I can't just swing the battery and change it. I have to recharge it.

I actually am a proponent of raising the spare ratio, and that is only in response to the fact that the vehicle has a limited range at this time. Now, if we had this conversation over two years it's going to be that much better, but right now your operators have to run 8 hours plus 2 hours of overtime. I would bring the bus back at that time and recharge it. To do that I'd have to increase the spares.

MR. THUNBERG (Mooresville Representative): If BYD is hit with sanctions or, you know, they're the lowest bidder much of the time. They have placements worldwide, so I don't know if they're competitive with these other bus companies or not, but they seem to be the ones that are out there under pricing everybody.

MR. KAUFMANN: Yes.

MR. THUNBERG (Mooresville Representative): My question is, will they be a competitor in this market for the U.S. with only a –

MR. KAUFMANN: Well, I'm going to need President Trump to answer that question unfortunately, but there are a couple things I can offer. The transit property, such as CATS, has control over this decision process through a RFP process or if you will, a negotiated procurement rather than a low bid procurement. If you run a low bid procurement BYD is going to win. You want to remember, one thing about BYD, they are a battery manufacturer that's built buses as a maintenance of selling batteries. They are not a bus manufacturer that makes an electric bus for the customers.

When you turn to New Flyer, this particular bus right here, you can buy diesel, you can buy electric, you can buy a diesel hybrid. At one time you could buy a gasoline hybrid. You could buy, well, clean diesel also as an alternative in the base engine that you have now, but they have a business model or a platform where they can sell CNG. I forgot, I left them out. They could build a whole multitude of different kinds of vehicles. BYD, one kind of bus. That's all they can sell you is electric. The industry will go that way, but if the current administration has its way, they could very well find themselves out of business if they're not careful.

CATS CEO LEWIS: That's because BYD is a Chinese company.

MR. KAUFMANN: That's because BYD is a Chinese company, and I think everybody knows that that as an agenda item before the current administration.

MR. THUNBERG (Mooresville Representative): What other manufacturers are available to bid on these things right now?

MR. KAUFMANN: Right now you'd have a total of six. You'd have BYD, Proterra, New Flyer, Nova Bus, GILLIG, and El Dorado. You're going to get a competitive process. You will get a very good price.

MR. THUNBERG (Mooresville Representative): That's exactly the question.

MR. KAUFMANN: I have no doubt in that. Just remember that Proterra and BYD are electric only. If they don't sell you that bus they don't have a diesel bus on the line or a CNG bus on the line to help their bottom line.

MR. THUNBERG (Mooresville Representative): Do all of those companies make 60-footers?

MR. KAUFMANN: No, and they do not make 60-footers that are Buy America-compliant. It's actually a two-step question you just gave me. Right now you can get an articulated bus from New Flyer and Nova Bus.

MAYOR ANERALLA (Town of Huntersville): Just a quick question, are there any buses that are made with the engine ready to go for CNG, and what's the cost of that? And if LA is getting

out of the business with CNG buses fairly quickly, who are they selling their buses to, and what kind of resell value is that?

MR. KAUFMANN: Interesting question, let me do it in two steps. Can you buy a CNG-powered bus today? Sure. New Flyer, Nova Bus. El Dorado is building for Los Angeles right now. Believe it or not, folks, LA had to turn around and buy some natural gas-powered buses. Now, that sounds a little weird because they're going all electric, but you've got to remember, when you're in a CNG bus -- and I don't want to get too far into the weeds but just follow me on this -- the fuel tanks every day are compressed to 3600. They're actually compressed to 4200 psi and then they cool down to 3600. That expansion and contraction takes its toll on the tank. And every fuel tank is time-stamped with the date of manufacture and anywhere from 15, depending upon the tank you buy, 15 to 20 years later, that's it, you have to stop. You can't keep refueling that bus. It has a finite end.

I've actually watched transit properties, LA included, have to remove the tanks and put on new ones just to keep using the bus. That is a business model that I would really encourage you not to follow, but the bus manufacturers will build you natural gas buses today. El Dorado is building them, New Flyer is building them, and Nova Bus is building them.

MAYOR ANERALLA (Town of Huntersville): What's the cost?

COMMISSIONER HARDEN (Mecklenburg County): The natural gas bus is going to be \$50,000 to \$60,000 more than the diesel equipment, and that's because of those fuel tanks and the fuel system. The tanks are mounted on the roof, if you remember.

MR. ANERALLA (Town of Huntersville): What does LA, if they have to get out of that business, so they're selling those buses and somebody --

MR. KAUFMANN: Yes, but we are going to do that in a phased burn. They're federally funded. They cannot park that bus early. It has to go either 12 years or 500,000 miles. As that number is hit they're going to retire. Now, the buses that we just ordered have to go 12 years. All right, let's see, now, wait a minute, didn't I say it was going to be all electric by 2030? It's 2020. There's no way. Believe it or not they're going to park them early and switch them to electric. Now, there's a cost to that. You have to pay the federal government for the residual value of that vehicle. You owe them two years. I don't want to go through it again. There's no reason for CATS to go down any of these roads. We can do a much smarter and comprehensive plan to avoid that, those kinds of decisions. I don't recommend that, but that is what they are going to do.

CATS CEO LEWIS: As you can tell by the multiple briefings that we've had on this, this is a complicated issue that we're trying to work through. I just wanted the board to know that we're working on this, give you an opportunity to hear from our consultant, and we will be working towards developing a master plan and coming back, but I do want to remind board members of the issues that we have to address as we're going forward.

#1 - The capital replacement program. I have 87 buses today that are eligible for replacement. I don't have funding to replace those 87 buses, and next year will be another 20, two years from now will be another 40-plus vehicles, and so we have to balance that issue with the increased per-bus cost of an electric vehicle plus the capital costs associated with that turnover.

#2 - An important question which Paul alluded to but I want to deal with specifically, I question and we will question, we'll see as we continue to work through, what is the capacity within the industry to supply these vehicles? My fear is we are trying to, as we try to level out our capital program and get to a point where we're going to consistently replace 20-25 vehicles a year, when I go to said bus manufacturer and say I need 25 next year but LA needs 250, Chicago needs 150, and now New Jersey is added to that, who are they going to choose? And so that's a clear issue that we will have to work through, and we'll see how that plays out.

#3 - The entire operational change that will take place. Right now, the bus is an ongoing commodity. That bus stays on the street, we fuel it in the morning. Our average, we can get about 300 miles on a 10. We move about 180 to 200 miles a day on average. What we do is we bring operators to the bus. The bus stays out in the field, and we switch out operators because I can only work them 10 hours a day. We want buses that will stay on the street 22 hours a day and then come back and fuel and then go back out. This will change the entire model. If I have to bring that bus back again to be fueled, to be charged, then essentially, I'm going to need two buses for every one that I have now, and so we've got to get our hands around that question.

Of course, we're not going to change overnight, but it's going to change how we operate, or Paul, if you can go back to your charger one of your slides that show the chargers? These are not your hybrid, like this is not the Prius that you just plug into your wall socket. These are the chargers we have, and we'll have to strategically locate that throughout our community. A quick charge is 20 minutes. Twenty minutes doesn't sound right, but when you're doing that over hundreds of vehicles, we're adding hundreds of hours to our operating costs each day, so this is not as easy as let's just make the decision to switch to electric. This is a complete operational change that we're going to have to be very clear with and very careful as we move through that.

The biggest question we'll be dealing with is what do we do in the meantime, because the worst thing I think we can do is to have that bus that CATS bought in 2004, some of them are going on their 16th year so belching black smoke, sooty black smoke, still out on the street because we're waiting, trying to figure this out.

Paul and I have had great conversations. The great thing about it is we get to go in the back room and argue and do all of that. We've got to find some short-term recommendations while we work towards the long-term. It is clear electric bus is where we're going in the future; the question is how do we as CATS get there?

b. Safety Management System & Agency Safety Plan

Kenneth Chapman

Kenneth Chapman – General Manager of CATS Transit Safety & Security and David Moskowitz – CATS Light Rail Safety Manager made a presentation on the Safety Management System and Agency Safety Plan based on pages 26-31 in the MTC Agenda packet for January 22nd, 2020 meeting. John Lewis, Jr – CATS Chief Executive Officer also introduced the present of NCDOT Representatives Jamal Pullen, Tim Abbott, and Donald Pike. There was no discussion.

c. Preliminary FY2021 Budget & FY2021-25 CIP Overview

John Lewis, Jr/Blanche Sherman

John Lewis, Jr – CATS CEO and Blanche Sherman – CATS Chief Finance Officer made a presentation on the Preliminary FY2021 Budget & FY2021-25 Capital Improvement Plan, based on pages 33-86 in the MTC Agenda packet for January 22nd, 2020.

Discussion:

MAYOR ANERALLA (Town of Huntersville): I would actually like this budget to include funds for bus stop enhancements throughout the six towns, which I know I've talked to most of you about. Those enhancements could include bus shelters, sidewalks to the bus stop, bus stop

cement pad. The other day I was in the airport, and I was in one parking lot that had 52 bus shelters. And I know that's easier said than done, but we have so much new road construction going on in North Mecklenburg in particular, we know where our roads are going to be over the next 3 to 5 years, how wide they are and so forth, so working with CATS I think we could really get more people on the buses if we had easier access to the bus stop. I saw something there for 2025, but I'd like to pull it forward into this fiscal '21 budget and allocate the money according to population throughout the six towns.

COMMISSIONER HARDEN (Mecklenburg County): I have spent the last month meeting with many of you, and I went through all of your issues with the chief executive, and this was one of them that we talked about. Do want to talk about our conversation and how you intend to address it?

CATS CEO LEWIS: This is one that's been quite frankly a little bit vexing for us in how we move forward. We have budgeted in our program amenities for adding additional bus stops. Where we run into a problem are in the towns and in the nonincorporated areas because we have the challenge of we're prohibited by federal stats for putting new amenities in the areas of shelters, et cetera, that don't have access, and so the access to sidewalks leading up to it is really the issue.

Now, in the city we just go to CDOT, and they put in the sidewalks, we put in the shelter, everything works. In many of those areas the towns are along state roads, we have to go through NCDOT processes, which sometimes aren't as quick as we'd like them. In others we try and work with new development and add them, but we don't have the leverage that we have here in the city with zoning issues to be able to require that as a part of permitting and zoning so we've had a challenge in that.

And then there's the funding aspect of it. Staff has, and I'm going to ask Larry to just give you a brief overview because we wanted to be able to give you some hope as we move forward. We've got to find a way to bring these areas together, and I think working with the County, the State, and we potentially have found a new funding source that can supplement that. We will continue to build bus shelters. Where we have the challenge is the accessibility and the sidewalks, so I'm going to ask Larry to give you a brief overview of some of the new grant programs that he's found, that maybe we can finally get answers for you.

MR. KOPF (CATS Chief Planning Officer): We actually were in Huntersville working with staff looking for opportunities to put bus stops in the office park there on Reese Boulevard and that area, but you know, the one thing that might be a possibility is CRTPO does have some discretionary funding and maybe there's an opportunity to develop a project. It is a competitive process to receive these funds. I think they're going to have a call for projects. I think I heard that they're going to have the call in August, and I was thinking maybe we could work with the towns and find out where there might be an opportunity to develop a project that we could possibly submit.

Now, these projects do require a 20% match, and that's something that we would have to figure out how to partner on that part of it, but you have to meet certain criteria. These are surface transportation block grant funds, and sidewalks is one element that is eligible for these funds, but you have to address safety, connectivity, trip generation, health, and environment. Those are the kind of things that you have to address in order to get a good score, good grading, and to be eligible, but that's one possibility that we could explore further.

CATS CEO LEWIS: I think with leveraging working with the towns and maybe we come to a point here we provide the match or help with the match, and we're not looking for one project. I think we would look for corridors or perhaps be able to bundle multiple corridors in this and then use our collective leverage on CRTPO to move our projects forward, but I think that helps bring a more regional aspect to this and perhaps we can help answer some of those other difficult questions with NCDOT on that.

MAYOR ANERALLA (Town of Huntersville): However, this is a funding source that doesn't necessarily solve the issues that you were bringing up. The funding is going to come from someplace, but you're telling us for years now the same issues. I appreciate that, but it's frustrating if you want people to use an amenity and they're standing out in the road. We know a road is going to be widened. I know now there's some issues about how far away from the main street you're supposed to be, but it seems to me we have an opportunity, especially where we live, with all the new road construction and planning out where these enhancements can go, it's not just going to be this month or next month, but we have the funding, committed funding, we should go ahead and start doing that.

MAYOR EDWARDS (Town of Pineville): I think everybody is going through the new federal mandates on ADA. We've gone through several phases in Pineville, and we're looking at the initial stuff. 80% of noncompliance is the bus stops, and that's going to become a major, major issue.

We're all going to go through the same thing, who's going to foot the bill for the sidewalks. I've said for a long time that as I drive around with our planning people is it just seems like a sign is put in "This is a bus stop," not considering it's on a hill sliding into Hwy 51 or no access to be able to get to it other than walk in the grass. There are issues that when all this rolls in we're going to have some major problems because of the new federal mandates and what we've got to go through with the state. I certainly don't have the answer.

COMMISSIONER HARDEN (Mecklenburg County): Mr. Lewis, listening to the feedback do you have a process that we can move this issue forward?

CATS CEO LEWIS: I think in the sort-term list we go through with each of the towns and identify those areas where we have the stakes in the ground and the areas where it's needed, and then we can go through the filter of is it a state roadway and which we've got to work through NCDOT or is it a local roadway which gives us a little more flexibility, and then opportunities to partner or require some of this if we can on new roadway construction, and then anything outside of that we've got to get creative on that.

MAYOR EDWARDS (Town of Pineville): We have to work together, because it's going to be a lot.

MAYOR KNOX (Town of Davidson): I think the sooner we can identify sites in our collective towns so we've got some kind of benchmark if it's 10, if it's 12, if it's 18, whatever it is per town or collectively, I think we need to have a target to shoot at in order to move forward.

CATS CEO LEWIS: Would it be helpful, Larry will be point on this from CATS, if each of the towns could get him a representative, and then if we could work towards the April board meeting to come back with that list and then we'll have it categorized. At that point I think we'd

like to get down to a point where we can say here's a group that we think we can move forward with, and then we'd start working through the funding opportunities, what we can do ourselves, and then what we can potentially submit to CRTPO. Then those that are on state roadways, maybe collectively we can go to NCDOT and see what we can do to move their process forward a little quicker.

MAYOR WASHAM (Town of Cornelius): I think the point is we would just like to see something begin. We do have some opportunities that are sort of a perfect scenario to pursue in our town right now. We have a lot of widening too, but I'd like to see us get on with something so we'll know to get started, then these widening projects, and there are many, can be supplemented later on.

CATS CEO LEWIS: For clarification, when you're saying opportunities are those either current locations that don't have accessibility issues where a shelter is just needed, because if it's those you're talking about we can program those. The challenges are the ones where there's no sidewalk.

MAYOR ANERALLA (Town of Huntersville): It's a combination. I'm sure it's like all other communities where you have -- I'll use US-21 because it goes through Huntersville and Cornelius; no sidewalks, but there is a road project in the future so we're planning for that. Mayor Washam is also referring to projects, (four NCDOT projects) that are in this calendar year where it's a similar situation as US-21, some situations where you have sidewalks, but there will be sidewalks at the end of all these projects. I think your suggestion to meet with Larry is a good one.

CATS CEO LEWIS: Those that we know that there are sidewalks coming, we can start to plan and have it in our capital program that when these roadways or widenings open, we will be ready to add the necessary amenities to support those.

MAYOR ANERALLA (Town of Huntersville): Just one further comment, one that you can see, Larry, there is a business that's thinking about moving and building a building, and those require a build site. It can be a perfect fit, so just as Mayor Washam said, we'd like to get started.

MR. KOPF (CATS Chief Planning Officer): When we have those development opportunities in Charlotte, CATS has the opportunity to make comments, and we will make comments in terms of the dimension of the sidewalk and where they're located. I don't know if that opportunity exists in this case, but if it does it's enough, we can get development to put something in for us.

MAYOR HIGDON (Town of Matthews): Sidewalks notwithstanding, how much does a typical bus shelter cost?

MR. KOPF (CATS Chief Planning Officer): It all depends on the topography. I would say \$15,000 for installation, but there are always circumstances that can go up or down.

MS. PAXTON (Town of Stallings): I'm the vice chair of the CRTPO organization, and I'm just thinking as you're talking about potential use of the funds from the LPA and STBG funding

sources, is there a specific criteria for how projects can qualify? I don't have them in front of me, but I'm wondering if what you're proposing actually meets those criteria or if we might need, as an organization, to look at and confirm the kind of project and some criteria for that, if you're looking to use some of those funds. I'll bring it to the attention of the chair and the staff and see if we need to do some revision or addition to make that a possibility.

COMMISSIONER HARDEN (Mecklenburg County): So do we have a process?

MR. THUNBERG (Mooresville Representative): CATS has people that work with the FTC that are aware of those kinds of processes. They know what qualifies and what doesn't qualify. The way the process is now, there's CMAC money and it's all kind of bound together, and they'll figure it out.

VIII. Regional Information Item – None

IX. Chief Executive Officer's Report

John Lewis, Jr. shared the following:

MetroRapid Service - On Monday, February 3rd the MetroRapid new service will begin. I know this is something we've all been excited for. We've been operating express service along the corridor for a number of months, but now the new direct connect service will go into operation. At your seats are some of the information that we're sending out to everyone along the corridor. **Kim Taylor – CATS Marketing** will go through our marketing program for the new service.

KIM TAYLOR: The onus of our campaign is right now exterior advertising, radio, social media, web, and outreach. This is the direct mail piece that is forthcoming. And we use direct mail a lot because it allows us to reach customers at home. You'll see on the front it says, "The road takes you Uptown, the savings take you anywhere." On the reverse side at the very top you see, "Give your paycheck a toll-free boost." This phrase is going to be used consistently throughout all of our marketing materials. We want to remind customers and potential customers that if you ride MetroRapid you don't have to pay the toll.

Underneath that headline we have four maps. This one is the one for the 77X, the North Meck Express, and then right below that we have information as to when the route is going to start as well as the cost savings. What better way to let the public know about a new service than pay it on their own bill, right? We've done several full bus rides for the NCI suburban routes, and those were out on the street as of last week. For radio we're using internet radio. The service that we're using is Pandora. We have a 30-second radio spot so I'm going to attempt to play that for you now. (Audio for radio spot is played.)

Also with this, we also have two display banners.

Banner #1 - Again, we're still using, "Give your paycheck a toll-free boost,"

Banner #2 - In regard to social media we're going to be utilizing the CATS Facebook and Instagram accounts.

We'll be doing paid advertising, so this will show up in your news feed. This is a great way for us to boost brand awareness as well as encourage others to learn about MetroRapid. And of course, part of social media is sharing so this allows the user to share it with others so we can reach a bigger audience.

Our website, as I mentioned earlier, we are using the same creative on the landing page, and then right below the photograph you'll see we have all four of the MetroRapid routes and

then below each one is a brief description as far as the service area and the frequency, and then if you were to click on it, it would take you to the public timetables, and those out there now.

Lastly, in regard to outreach, we've been quite busy this month. The CATS service planning staff has held several open houses and we've done several transportation fairs during the month. We started communicating to our riders as early as last week. We sent out electronic communications, and then on Tuesday we put out printed publications on all the buses and trains. We have an ETC newsletter that goes out to over 150 businesses and organizations in the Charlotte area, and the MetroRapid service will be in that newsletter also.

Lastly, I want to remind you of our launch event, which is Tuesday, January 28, at 10 AM. It's at the Cornelius Park-and-Ride. I hope to see you there.

MAYOR KNOX (Town of Cornelius): I started driving about two years ago about the fact that Davidson's got about 400 bus riders and we don't have the physical footprint for a Park-and-Ride. We've got people just parking and taking merchant spaces and everything else to try to catch the bus. The idea of a shuttle came into the discussion, and I want to thank you and Jason Lawrence for coming up and spending the time that he did, because we were going to realize that starting in two weeks that we'll be able to shuttle people from the perimeter of town in to catch the 77X. I appreciate the work that you guys did on that. Thank you.

COMMISSIONER HARDEN (Mecklenburg County): I think it's brilliant to base your marketing strategy around don't pay the tolls.

MR. THUNBERG (Mooresville Representative): I announced the start of the service and announce the different routes at the developer's council meeting in Mooresville. There was quite a bit of interest in it. Mayor Atkins from Mooresville was there, and he asked me to ask the MTC and CATS if they would come up and talk to him about the possibility of extending that MetroRapid service up into Mooresville. Mayor Atkins would like to start that conversation.

X. Other Business – MTC Chairwoman Commissioner Susan Harden shared the following:

a. I'd like to make it a goal on this board that we have full membership on our advisory boards. If we can get a list for our next meeting of the members and where they are represented that we can make sure we have diversity across our communities, and then we can help fill in for you on that. Can we make that a common goal to get 100% membership on those advisory committees, and we'll have a better sense of where membership and where it needs to be.

b. I just wanted to thank everybody again for letting me come out and speak to you, and if I didn't get a chance, I hope to get on your agenda for the next month and come and hear what your issues are and things you'd like to see on the agenda. I really enjoyed our conversations. I want to let you know a couple of things. One is that we're going to get a photograph of our group. I think that will be next month, just like we did last time. I'd like a photograph of this commission. We'll be sending out an announcement to come a little bit early next month to have the photo done.

c. I also want to say that because of the lateness of the hour I'm not going to do this at this time, but next time with Other Business I'm just going to go through the towns and ask if there's a transportation report that you'd like to give, issues that you'd like to bring forward, just to make sure that we keep your needs at the forefront of the conversation.

d. One other question. I went through the meeting sign-in sheet, and I noticed that the positions for NCDOT and SCDOT were vacant? Why is that?

CATS CEO LEWIS: SCDOT has not sat on the board for quite some time. NCDOT has a representative. The prior representative was Ms. Tracy Dodson. When she left to come to the City another representative was appointed, although the individual has not attended.

COMMISSIONER HARDEN (Mecklenburg County): Well, if I just could note this, or I'd be happy to invite that person to come back, and also, just let me know if you need me to do anything to get a representative from the SCDOT, because it would be good to have that representation.

XI. Adjourn

The meeting was adjourned at 7:24 p.m. by Commissioner Susan Harden – MTC Chairman (Mecklenburg County).

NEXT MTC MEETING: WEDNESDAY, FEBRUARY 26TH, 2020, STARTS AT 5:30 P.M.

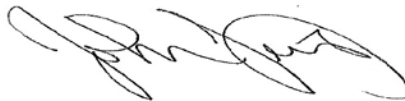
**METROPOLITAN TRANSIT COMMISSION
INFORMATION ITEM
STAFF SUMMARY**

**SUBJECT: CATS Customer Satisfaction Survey
Results**

DATE: February 26, 2020

- 1.0 PURPOSE/SCOPE:** CATS engaged TransPro Consulting to conduct a 5th wave of Fixed Route Bus and 4th wave of LYNX Rail Customer Surveys in Fall 2019 to understand customer perceptions, satisfaction levels, and priorities. Highlights of the survey results and trends are presented.
- 2.0 BACKGROUND:** As part of the CATS mission to improve the quality of life for everyone in the Charlotte region by providing outstanding community-wide public transportation services while proactively contributing to focused growth and sustainable regional development, it is vitally important to receive feedback from our customers.
- 3.0 PROCUREMENT BACKGROUND:** N/A
- 4.0 POLICY IMPACT:** Results of the customer surveys will guide CATS Tactics to achieve our Mission, Vision, strategic goals and CATS TRAX Scorecard goals.
- 5.0 ECONOMIC IMPACT:** N/A
- 6.0 ALTERNATIVES:** N/A
- 7.0 RECOMMENDATIONS:** N/A
- 8.0 ATTACHMENT:** N/A

SUBMITTED AND RECOMMENDED BY:



John M. Lewis, Jr.
Chief Executive Officer, Charlotte Area Transit System
Director of Public Transit, City of Charlotte



Customer Satisfaction Survey Results

Wave 5 Fixed Route

Wave 4 LYNX



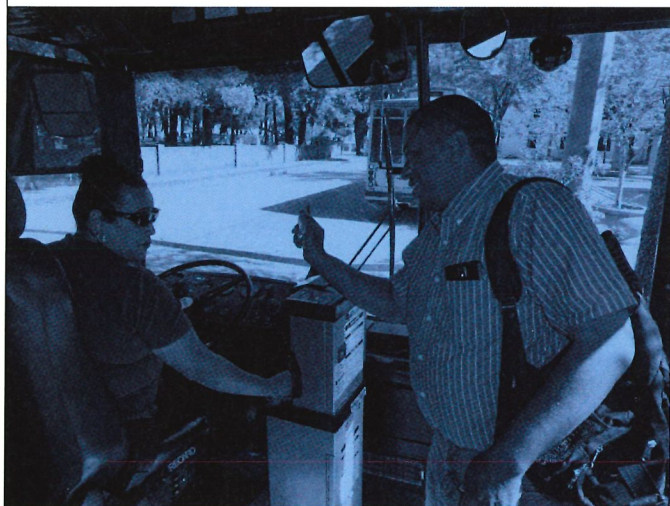
February 26, 2020








Draft. For discussion only.



TODAY'S DISCUSSION



-  Methodology
-  Net Promoter Score and Customer Satisfaction – All Modes
-  Fixed Route Results Highlights
-  LYNX Results Highlights
-  Q & A

W5 Fixed Route Bus and W4 LYNX Light Rail:

517 completed surveys from Fixed Route customers

553 completed surveys from LYNX customers

7 days in the field (October 28 – November 3, 2019)

Surveys were administered during service periods throughout the day on weekdays, Saturday, and Sunday to obtain a representative sample for each mode.

Customers were offered transit passes as an incentive for completing the survey.



Net Promoter Score, Overall Satisfaction,
and Community Value



NPS: One Question. One Formula. One Number. Countless Insights.

One Question

"How likely would you be to recommend riding CATS to a friend or neighbor?"

- ✓ Assesses loyalty and word of mouth favorability among customers
- ✓ Introduced in the Harvard Business Review
- ✓ Allows for performance comparisons between organizations across different business sectors

One Number



Organization	NPS
Costco	79%
Transit Agencies	26%
Airlines	23%
Car Rental Agencies	18%
Internet Service Providers	5%

5

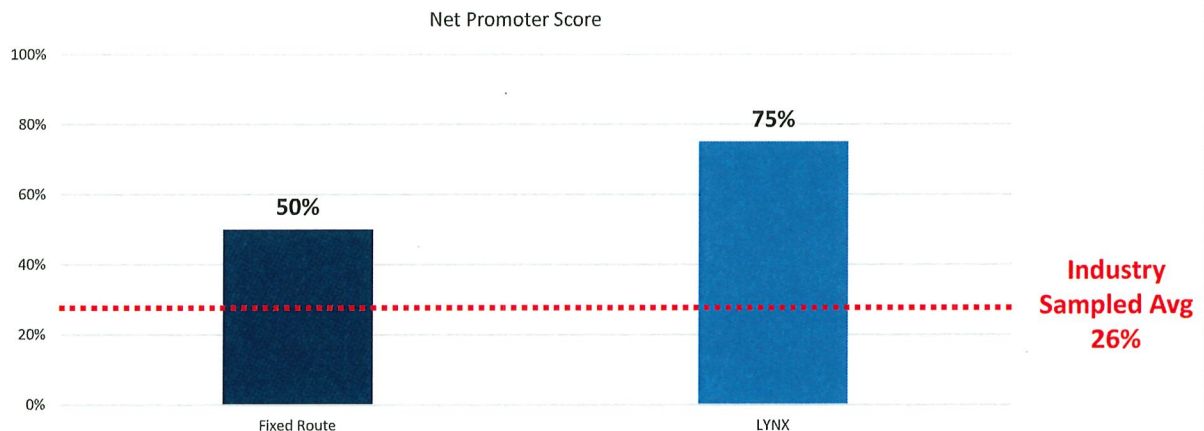


Draft. For discussion only.



Net Promoter Score Overview		% Change from Prior Wave
Fixed Route	50%	↑ 2%
LYNX	75%	↓ 1%

CATS' NPS is over 90% above the industry sampled average



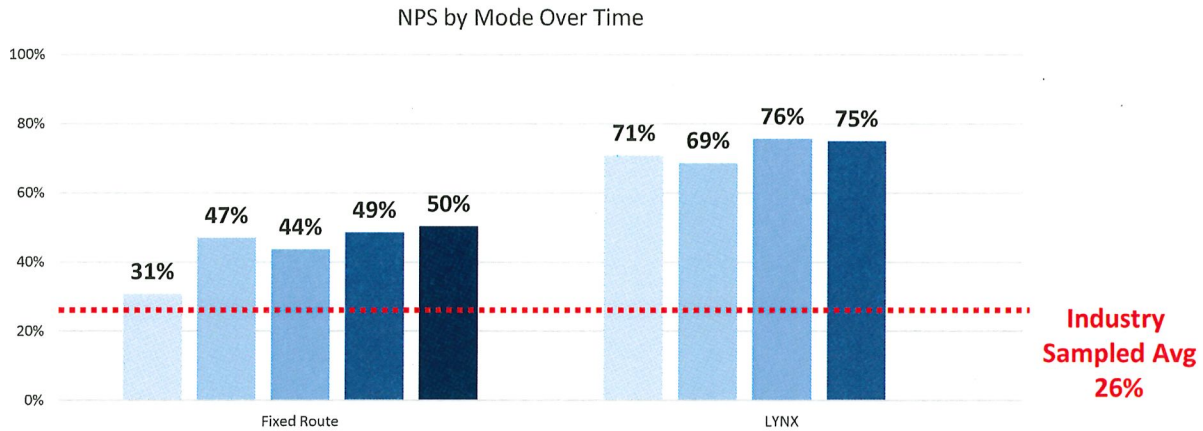
6



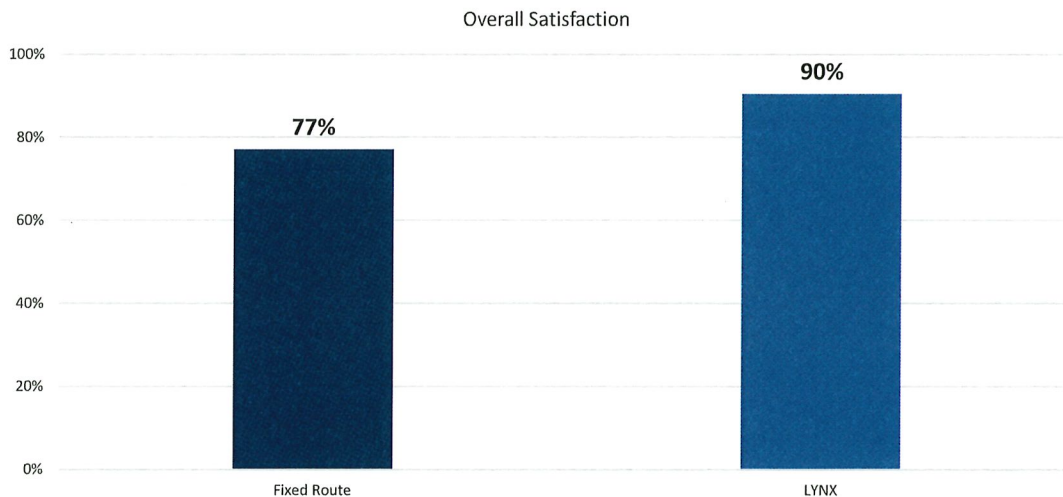
Draft. For discussion only.

Net Promoter Score (NPS) for Fixed Route Bus is up 2% from the last wave (February 2019) and the highest score achieved to date.

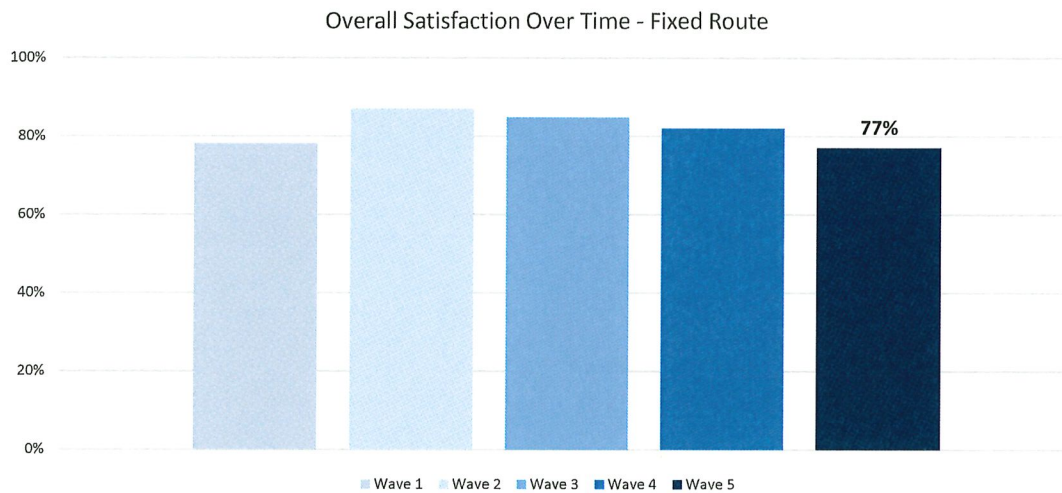
- NPS for LYNX Light Rail declined by just 1%, and continues to be extremely high at 75%.



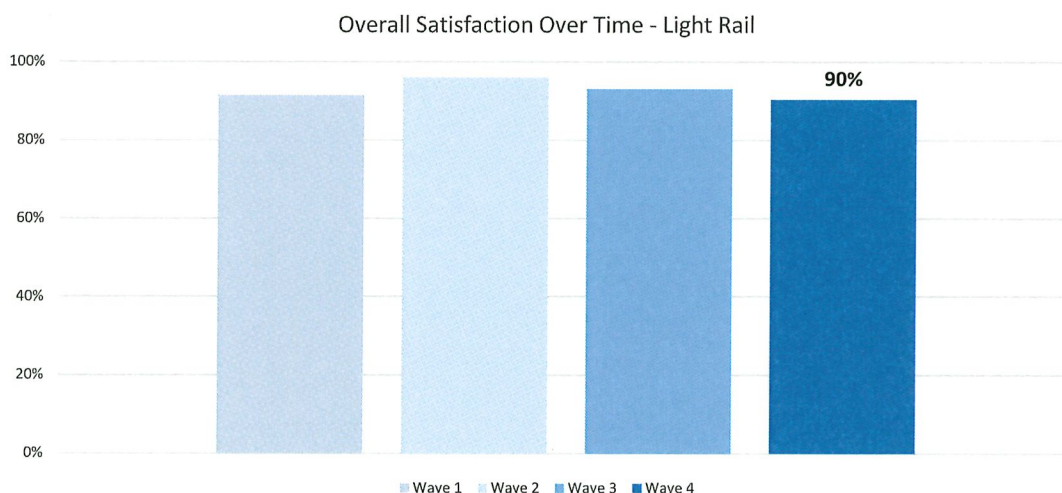
Overall Customer Satisfaction Overview		% Change from Prior Wave
Fixed Route	77%	↓ -6%
LYNX	90%	↓ -3%



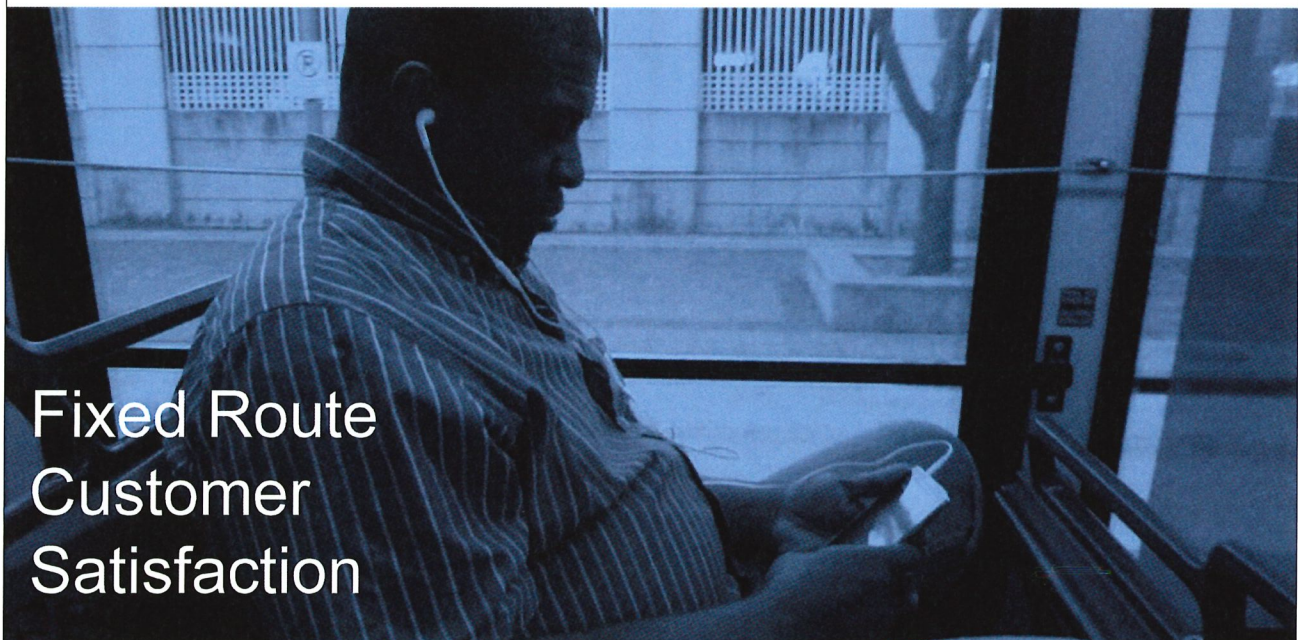
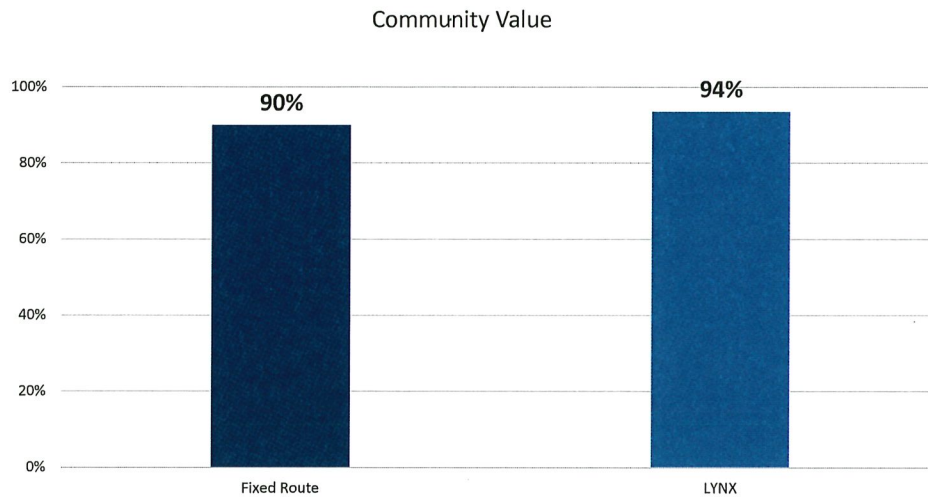
Overall Satisfaction for Fixed Route Bus continued a slightly downward trend from 87% in Wave 2 to 77% in Wave 5, a decrease of 11%.



Overall Satisfaction for Light Rail continued a slightly downward trend from 96% in Wave 2 to 90% in Wave 5, a decrease of 6%.



90% or more of customers believe CATS provides value to the community.

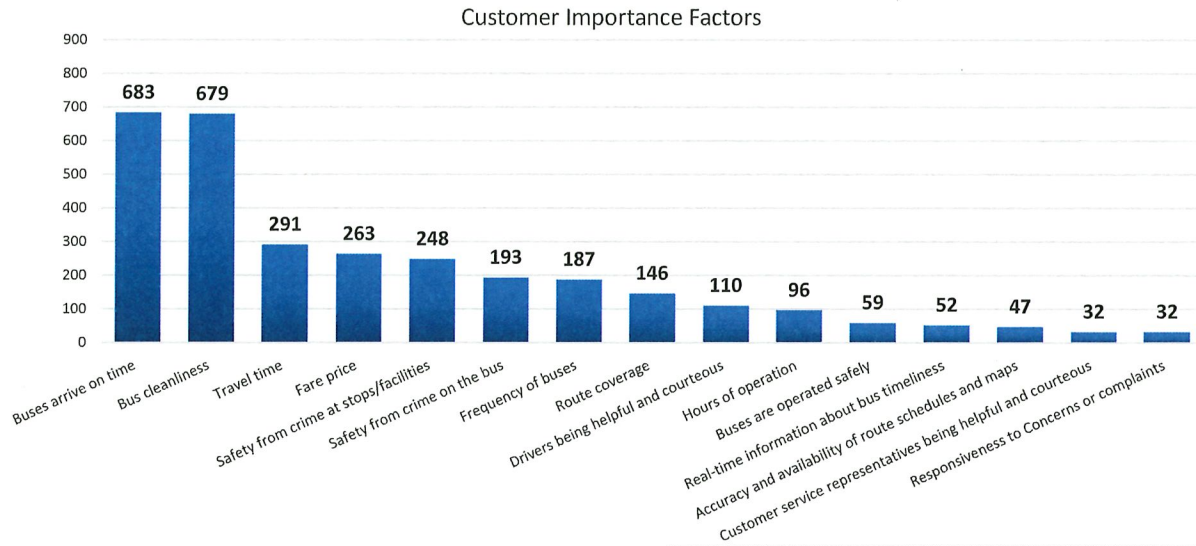


Fixed Route
Customer
Satisfaction

Customers are asked to rank their top 3 most important elements of service.

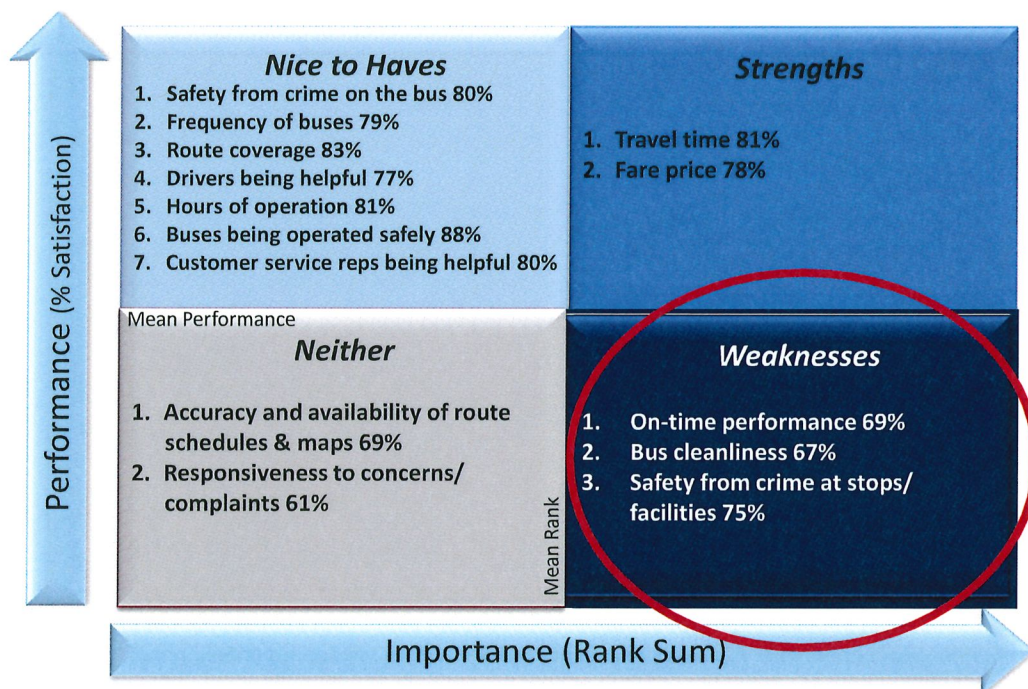
By allowing customers to pick and prioritize what is most important to them, CATS can target improvements to best meet their priorities.

- Buses arriving on time and bus cleanliness are by far the most important elements of service to customers.



13

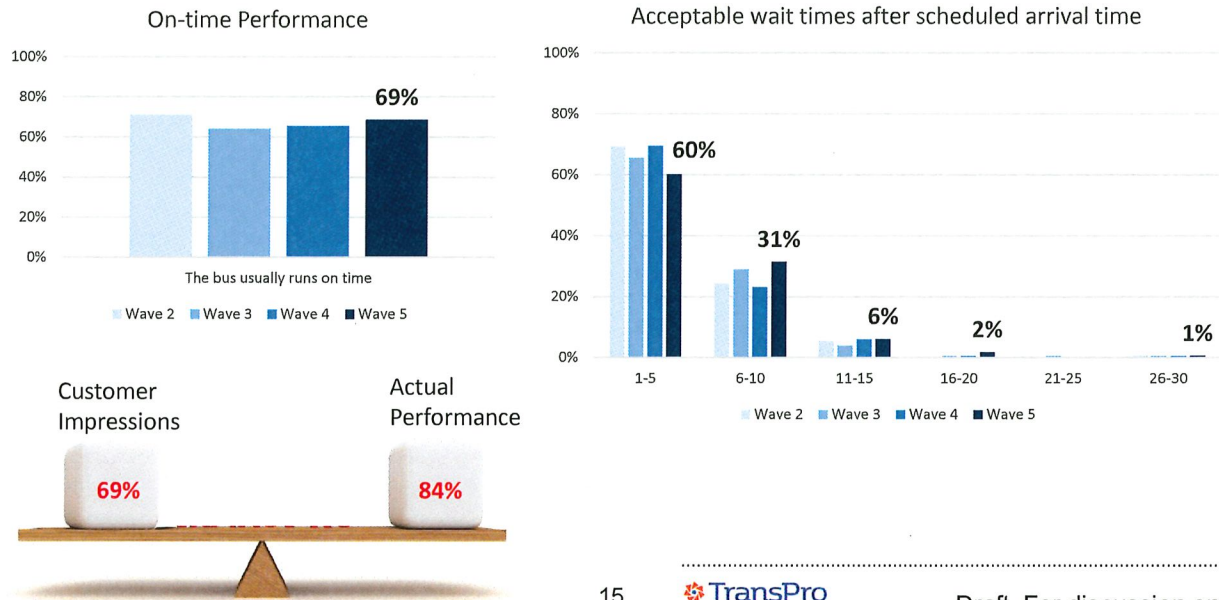
Focus Performance Analysis



14

Metric: On-time Performance

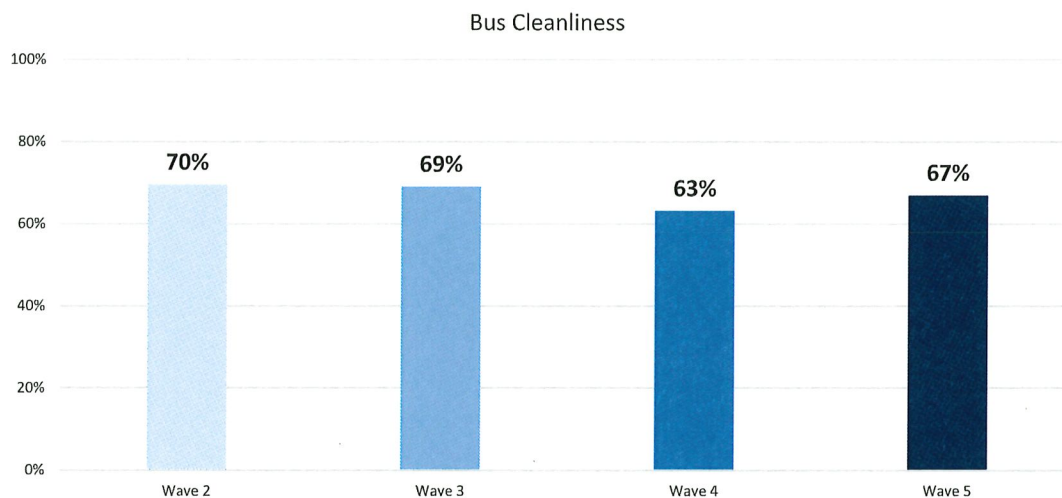
- Satisfaction with on-time performance increased from 65% in Wave 4 to 69% in Wave 5, an increase of 6%.
- 60% of customers believe a bus should arrive 5 minutes or less beyond its scheduled time, a 14% decrease from Wave 4.



15

Metric: Bus Cleanliness

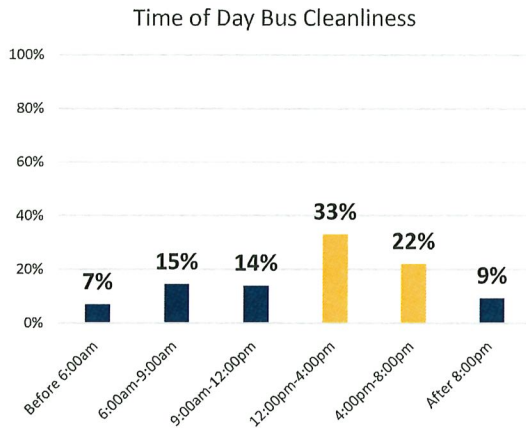
- Satisfaction with bus cleanliness has increased 6% from Wave 4 and reversed the downward trend.



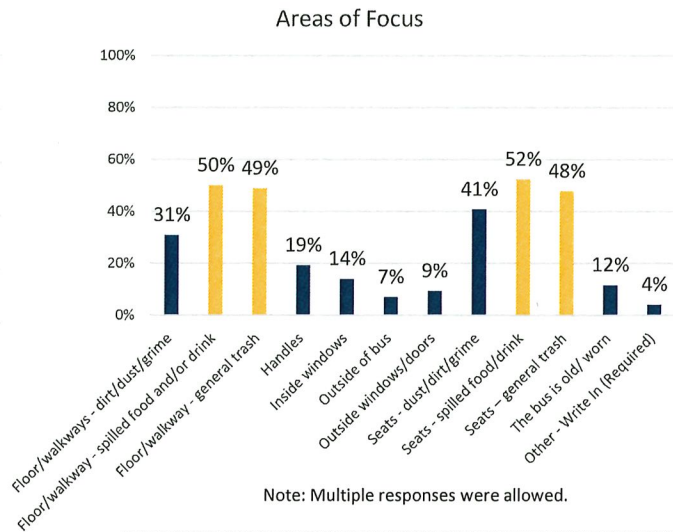
16

Metric: Bus Cleanliness

- Of the 33% of customers who were not satisfied with bus cleanliness, 55% of them indicate noticing bus uncleanliness most frequently from 12:00pm-8:00pm.
- Customers identified seating and floors/walkways as areas of the bus that require the most attention, especially due to spilled food, drink, and general trash.



Note: Questions were asked only if response to "The bus is clean" was not Strongly Agree or Agree.



Note: Multiple responses were allowed.

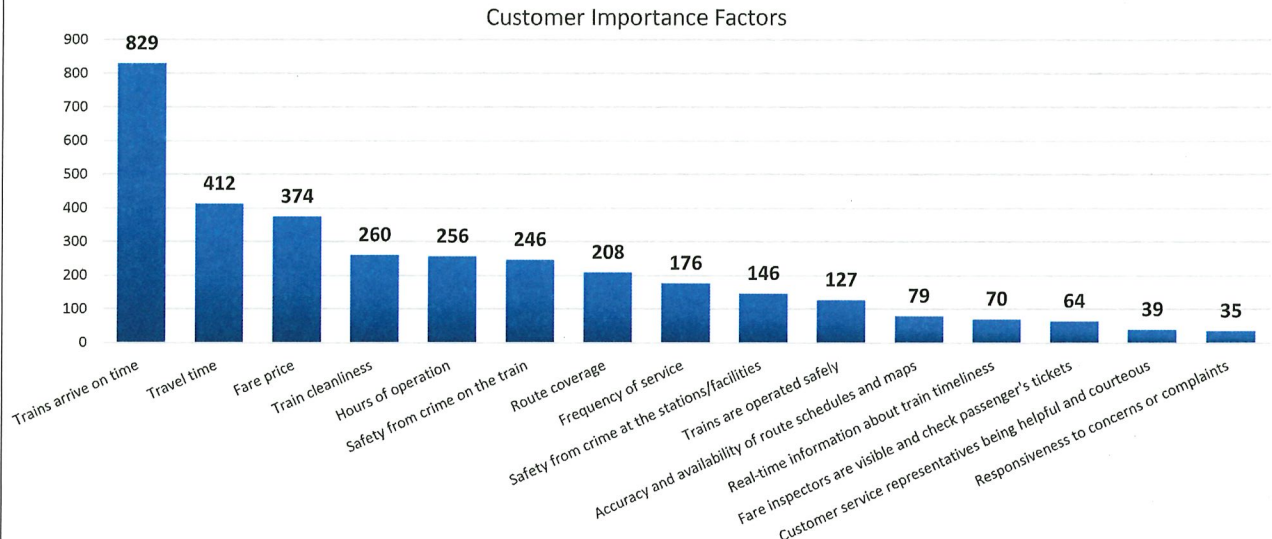


LYNX Customer Satisfaction

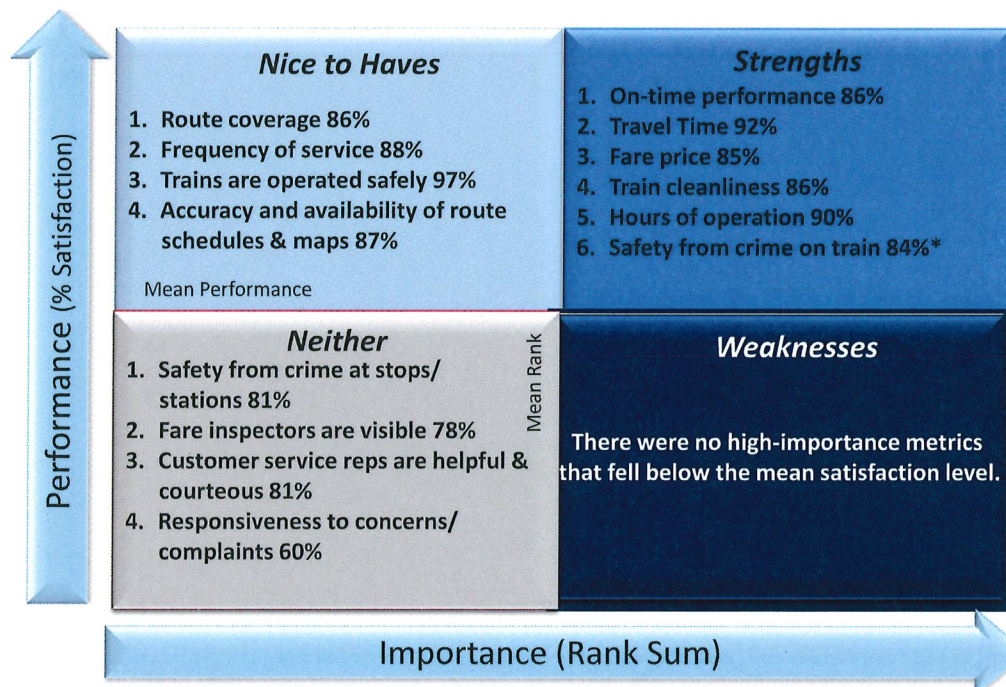
Customers are asked to rank their top 3 most important elements of service.

By allowing customers to pick and prioritize what is most important to them, CATS can target improvements to best meet their priorities.

- Trains arriving on time is more than two times as important to customers as the next two highest-rated elements of service: travel time and fare price.



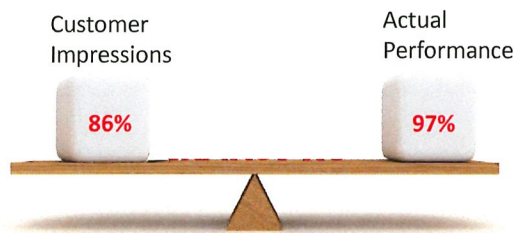
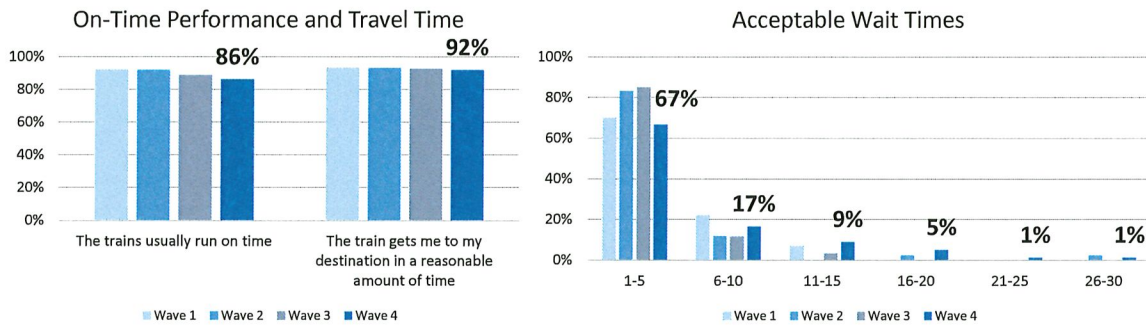
Focus Performance Analysis



*Performance for this metric is right at the mean

Metrics: On-time Performance and Travel Time

- 86% of customers indicate the trains usually run on time in Wave 4, compared to 89% in Wave 3, a decrease of 3%. Travel time satisfaction levels remain high.
- 67% of customers believe it is acceptable for a train to arrive 5 minutes or less beyond it's scheduled time, a decrease of 21% from Wave 3.



21

Metric: Vehicle Cleanliness

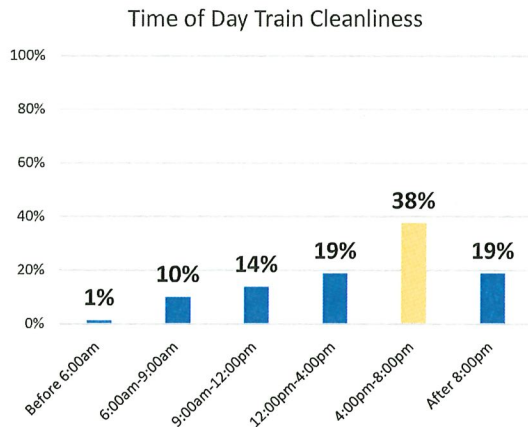
- 86% of respondents indicate the train is clean, similar to Wave 3.



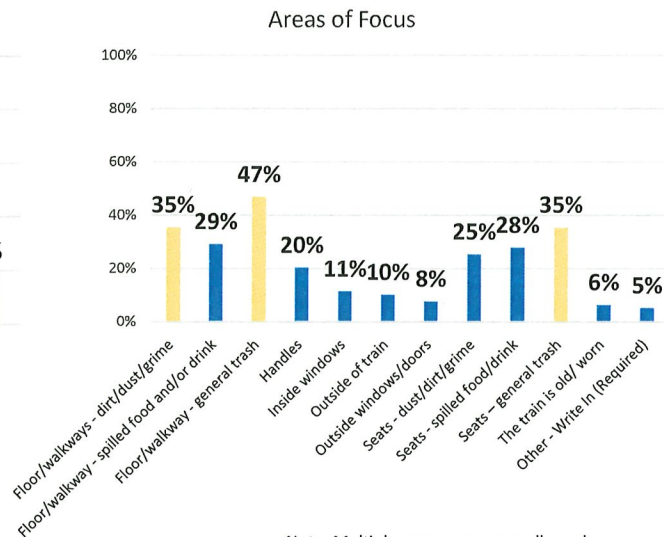
22

Metric: Train Cleanliness

- Of the 14% of customers who were not satisfied with train cleanliness, 38% of them indicate noticing train uncleanness most frequently from 4:00pm-8:00pm.
- Customers identified general trash on floors/walkways as the area that needs the most attention, followed by dirt, dust and grime on the floors/walkway and general trash on seats.



Note: Question is asked only if response to "The train is clean" was not Strongly Agree or Agree.



Note: Multiple responses were allowed.

23

QUESTIONS?

**METROPOLITAN TRANSIT COMMISSION
INFORMATION ITEM
STAFF SUMMARY**

SUBJECT: CEO Recommended Updated to the
FY2021 Preliminary Operating and
FY2021-2025 Preliminary Capital Investment Plan (CIP)

DATE: February 26, 2020

- 1.0 PURPOSE/SCOPE:** To provide updates on current programs and adjustments (technical and enhancements changes) to the CATS FY2021 Preliminary Operating Budget and FY2021-2025 Preliminary Capital Investment Plan.
- 2.0 BACKGROUND/JUSTIFICATION:**
An executive summary of the FY2021 Preliminary Operating and Debt Service Budget and FY2021-2025 CIP was presented to the MTC on January 22, 2020.
- 3.0 PROCUREMENT BACKGROUND:** N/A
- 4.0 POLICY IMPACT:** The FY2021 Preliminary Operating and Debt Service Budget and FY2021-2025 CIP have been developed in compliance with the following MTC Policy directives:
- A. CATS Mission, Vision and Strategic Goals
 - B. CATS Financial Policies (Rev. 2016)
 - C. The 2030 Transit Corridor System Plan
 - D. CATS Service and Fare Policies
- 5.0 ECONOMIC IMPACT:**
The Charlotte Gateway Station Phase 1 is currently underway as well as the CityLYNX GoldLine extension of the existing streetcar services. Both are anticipated to have a positive impact on fare revenue and ridership.
- 6.0 ALTERNATIVES:** N/A
- 7.0 RECOMMENDATION:** N/A
- 8.0 ATTACHMENT(S):** N/A

SUBMITTED AND RECOMMENDED BY:



**John M. Lewis, Jr., Chief Executive Officer
Charlotte Area Transit System (CATS)
Director of Public Transit, City of Charlotte**



FY2021 PRELIMINARY OPERATING AND FY2021-2025 PRELIMINARY CAPITAL BUDGET UPDATES

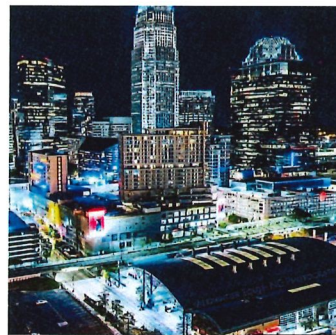
Presented To
METROPOLITAN TRANSIT COMMISSION
February 26, 2020



AGENDA

FY2021 Budget Updates

- I. Budget Overview
- II. Operating Revenue & Expenses
- III. Staffing
- IV. 5 year Capital Improvement Plan
- V. Next Steps





FY2021 PRELIMINARY BUDGET

BUDGET SUMMARY

	FY2021 Preliminary Budget (millions)	FY2021 Adjusted Preliminary Budget (millions)	Variance (millions)	Variance (%)
Revenue:				
Operating Revenues	\$ 176.6	\$ 180.3	\$ 3.7	2.1%
CATS Control Account	-	-	-	0.0%
Total Operating Revenue	\$ 176.6	\$ 180.3	\$ 3.7	2.1%
Expenses:				
Operating Expenses	\$ 175.7	\$ 180.3	\$ 4.6	2.6%
Transfer to Capital	0.9	-	(0.9)	-100.0%
Total Operating Expenditures and Transfers	\$ 176.6	\$ 180.3	\$ 3.7	2.1%
Debt Service Budget	\$ 50.9	\$ 50.9	\$ -	0.0%
Capital Investment Plan (CIP) Budget	\$ 38.2	\$ 45.8	\$ 7.6	19.9%

Note: FY2021 Preliminary Capital Budget includes some prior year re-allocation but excludes carry over amounts



FY2021 OPERATING REVENUE

Key Changes in FY2021 vs FY2020 (millions)

\$176.6 FY2021 Preliminary Budget

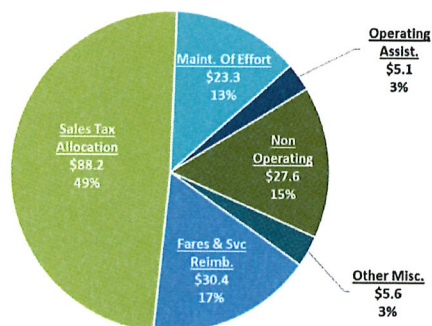
+ 0.5 Service Reimbursements

+ 2.6 Non-Operating Revenue

+ 0.6 Service Income/Other Misc

\$180.3 FY2021 Adjusted Preliminary Budget

Total \$180.3 million





FY2021 OPERATING REVENUE

Key Changes	Millions
Service Reimbursements	
Airport All Access Pass	\$ 0.5
Non-Operating Revenue	
Preventive Maintenance	2.6
Non-Operating Revenue	
User Fees for Development Review	0.2
Parking Lease on New Land	0.4
Transfer to Capital (reduction)	0.9
Total Revenue Key Changes	\$ 4.6



FY2021 OPERATING EXPENDITURES

Key Changes in FY2021 vs FY2020 (millions)

\$176.6 FY2021 Preliminary Budget

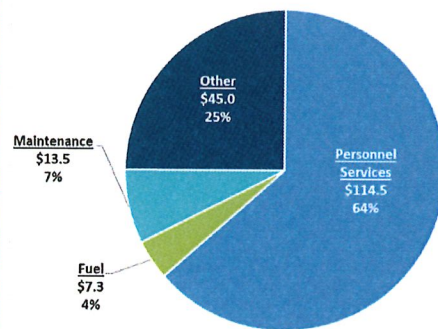
+ 0.8 Technical Adjustments

+ 3.8 Enhancements

- (0.9) Transfer to Capital

\$180.3 FY2021 Adjusted Preliminary Budget

Total \$180.3 million





FY2021 OPERATING EXPENDITURES

Key Changes	Millions
Technical Adjustments	
City Support Cost	\$ 0.4
Technology Upgrades & Maintenance	
Equipment Support for Rail Equipment and System	0.2
Rail Required Training	0.1
ADA Software & Assessments	0.2
Enhancements	
Additional Staff	2.5
Fuel	0.4
Professional & Technical Services	0.1
Farebox & TVM Support and Supplies	0.3
Technology Support & Equipment for Rail	0.2
Contractual Main Services	0.2
Total Expense Key Changes	\$ 4.6



FY2021 OPERATING EXPENDITURES

Pending Items

- ✓ City Cost Allocation Plan
- ✓ City Support Cost for Rent and Fleet
- ✓ Mid-Life Overhaul





FY 2021 PRELIMINARY STAFFING CHANGES

24 additional FTE positions address operations and regulatory needs

- Admin Division-1
- Development Division- 3
- Marketing Division – 2
- Technology Division – 5
- Rail Division- 8
- HR Division – 1
- Transit Management of Charlotte- 4



FY2021-FY2025 PRELIMINARY ADJUSTED CAPITAL PROGRAM

SOURCES OF FUNDS	FY2021-2025 Preliminary	FY2021-2025 Adjusted Preliminary	Change in Priority
Grants - Federal	\$ 52,241,243	\$ 63,056,743	\$ 10,815,500
Grants - State	6,010,507	8,010,507	2,000,000
Local 1/2% Sales Tax	69,813,691	77,962,441	8,148,750
Carry Over Project Balance	-	-	-
TOTALS	\$ 128,065,441	\$149,029,691	\$ 20,964,250

USES OF FUNDS	FY2021-2025 Preliminary	FY2021-2025 Adjusted Preliminary	Change in Priority
State of Good Repair - Vehicle Replacement, Facilities & Others	\$ 64,094,578	\$ 68,279,578	\$ 4,185,000
Transit Safety & Security	2,600,504	2,925,504	325,000
Transit Long Range Capital Improvement	53,464,967	69,329,217	15,864,250
Transit Non-Revenue Vehicle	2,296,600	2,296,600	-
Transit New Equipment	4,608,792	5,198,792	590,000
Transit Other Programs	1,000,000	1,000,000	-
Carry Over Projects	-	-	-
TOTALS	\$ 128,065,441	\$149,029,691	\$ 20,964,250





FY2021-FY2025 PRELIMINARY ADJUSTED CAPITAL PROGRAM

Key Changes	Adjustments from Preliminary	
State of Good Repair - Vehicle Replacement, Facilities & Others		
Bus Shelters	\$ 1,075,000	
South Corridor Lighting	1,200,000	
VMF Transfer Switch	60,000	(FY21 Only)
LED Lighting Upgrades	1,200,000	
S. Tryon HVAC Replacements	325,000	
SBLRF HVAC Replacements	325,000	(FY21 Only)
Transit Safety & Security		
Guard Shacks/Bollards	325,000	
Transit Long Range Capital Improvement		
Goldline Phase II	4,000,000	(FY21 Only)
Hambright Park & Ride	12,697,500	
Woodlawn Comfort Station	(833,250)	
Transit New Equipment		
Two Factor Security	65,000	(FY21 Only)
Davidson Network Refresh	315,000	
UPS Refresh	210,000	
TOTAL	\$ 20,964,250	



CITY OF CHARLOTTE

11

www.RIDETRANSIT.org



FY2021-FY2025 PRELIMINARY ADJUSTED CAPITAL PROGRAM

SOURCES OF FUNDS	FY2021	FY2022	FY2023	FY2024	FY2025	TOTALS
Grants - Federal	\$ 13,792,773	\$ 17,614,010	\$ 10,308,985	\$ 10,298,388	\$ 11,042,587	\$ 63,056,743
Grants - State	2,021,567	2,666,098	1,050,740	1,126,780	1,145,322	8,010,507
Local ½% Sales Tax	29,965,879	29,101,080	6,657,246	6,460,346	5,777,890	77,962,441
Carry Over Project Balance	-	-	-	-	-	-
TOTALS	\$ 45,780,219	\$ 49,381,188	\$ 18,016,971	\$ 17,885,514	\$ 17,965,799	\$ 149,029,691
USES OF FUNDS	FY2021	FY2022	FY2023	FY2024	FY2025	TOTALS
State of Good Repair - Vehicle Replacement, Facilities & Others	\$ 14,490,956	\$ 13,893,344	\$ 13,446,112	\$ 13,483,138	\$ 12,966,028	\$ 68,279,578
Transit Safety & Security	314,067	1,250,065	298,897	301,136	761,339	2,925,504
Transit Long Range Capital Improvement	29,749,217	32,930,000	3,200,000	3,200,000	250,000	69,329,217
Transit Non-Revenue Vehicle	685,010	530,320	390,530	320,740	370,000	2,296,600
Transit New Equipment	540,969	777,459	681,432	580,500	2,618,432	5,198,792
Transit Other Programs	-	-	-	-	1,000,000	1,000,000
Carry Over Projects	-	-	-	-	-	-
TOTALS	\$ 45,780,219	\$ 49,381,188	\$ 18,016,971	\$ 17,885,514	\$ 17,965,799	\$ 149,029,691

Notes:

1. FY2021 Adjusted Preliminary Capital Budget includes some prior year re-allocation but excludes carry over amounts
2. Excludes Grant-Funded Operating Projects totaling \$52.8 million for FY2021 – FY2025

CITY OF CHARLOTTE

12

www.RIDETRANSIT.org



Next Steps

March 25, 2020	MTC
April 15, 2020	CTAG Recommendation
April 22, 2020	MTC Approval
June 8, 2020	City Council Adoption



Thank you



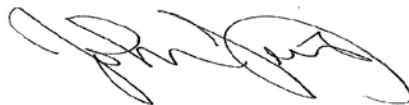
**METROPOLITAN TRANSIT COMMISSION
INFORMATION ITEM
STAFF SUMMARY**

SUBJECT: Rail Service Interval Change

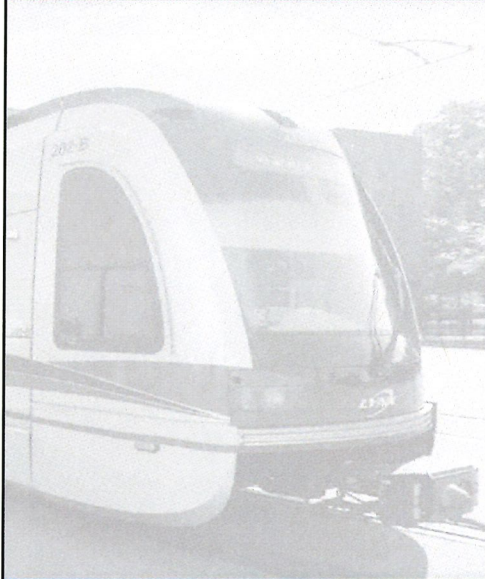
DATE: February 26, 2020

- 1.0 PURPOSE/SCOPE:** Information to be provided to the MTC regarding CATS Blue Line Rail Service Interval Changes
- 2.0 BACKGROUND:** CATS Blue Line Service will increase intervals by ninety-seconds during peak operations beginning in April, to ensure service reliability and allow for on-going maintenance activities (emergency, routine, preventive and prescribed) of Light Rail vehicles.
- 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 RECOMMENDATIONS:** Procure additional Light Rail Vehicles
- 8.0 ATTACHMENT:** N/A

SUBMITTED AND RECOMMENDED BY:



**John M. Lewis, Jr.
Chief Executive Officer, Charlotte Area Transit System
Director of Public Transit, City of Charlotte**



CATS Rail Operations Service Interval Change Overview

Metropolitan Transit
Commission Meeting

Wednesday, February 26, 2020

Allen Smith III
Deputy Director, Chief Operating Officer

CITY OF CHARLOTTE 

www.RIDETRANSIT.org



Early LYNX Blue Line Operations

2007 – Opening of the LYNX Blue Line

- 7.5-minute intervals
- 16 S70 light rail vehicles
- Operated 2-car trains during peak service, and reduced to 1-car trains during non-peak service to give Rail Operations the time to perform the required maintenance

This created overcrowding on trains during non-peak times.

2009 – Change in frequency

- 10-minute intervals
- Procured 4 additional light rail vehicles
- This enabled 2-car light rail vehicles for service

CITY OF CHARLOTTE 

www.RIDETRANSIT.org



BLE "Pre-Revenue" Operations

Prior to opening the LYNX Blue Line Extension (BLE)

- Originally planned to run 7.5-minute intervals
- Estimated vehicle requirement for service 28
- Estimated end-to-end run time of 47-54 minutes

Pre-Revenue Operations Findings

- Actual run time was 61-63 minutes
- 36 vehicles actually needed for service which was increased of 8 vehicles

When the BLE opened, CATS had to **operate more vehicles** than originally planned for, **decreasing the number of spare vehicles** in the fleet.



The Need For Spare Light Rail Vehicles

Ratio of spare Light Rail Vehicles (LRVs)

CATS = 14%

Transit industry average= 20%

Why is 20% spare vehicles necessary?

Allows rail/maintenance to perform various forms of maintenance (routine, preventive, prescriptive, corrective & emergency), without affecting revenue service requirements.

Current fleet status:

CATS' current 42 car light rail vehicle fleet is no longer an adequate number of vehicles.



Current Fleet Status

December 2019

- 3 LRVs out of service due to waiting for the arrival of parts
- Does not include LRVs out for corrective & preventative maintenance

The lack of additional LRVs, adequate spare ratio, and change to vehicle requirements, have caused us to operate the **7.5-minute interval** with single-car trains. This caused an increase in customer complaints and concerns.

Rail Operations is proposing a change to the current service interval by increasing the intervals between trains during peak operation by **90 seconds to a 9-minute interval**.

- Will provide a consistent & reliable standard of transportation our customers deserve.



Service Interval Change

How will the 90-second interval increase improve service?

This slight service adjustment will:

- Decrease the number of LRVs required for service from 36 to 30
- Allow for proper spare ratio of vehicles
- Operate two-car trains on a consistent basis
- Allow for necessary time to perform recommended & required maintenance to the LRV fleet

CATS Rail car Maintenance has provided timetables on how the overhauls will be accomplished.

CATS's Rail Car Maintenance strategies align with the Rail Fleet Maintenance Plan.

Budgetary projections allow the ability to perform overhauls on sub-systems of the S70 as prescribed by Original Equipment Manufacturer (OEM).

The RCM department's current maintenance forecast is as follows:

- S70 Coupler Overhaul Program (under contract, ongoing and 95% completed)
- S70 Auxiliary Power Supply Overhaul (in procurement awaiting approval)
- S70 Door Control Unit Overhaul (requires specification development and RFP)
- S70 Automatic People Counter Upgrade (requires specification development and RFP)
- S70 600k Truck Overhaul Program (specification developed, RFP advertised, bids received and awaiting review of bids received).
- Mid-Life overhaul (requires specification development)

Truck Overhaul 10 Year/600K

CATS I&II

- Upon NTP parts for overhaul will be ordered, lead time is 12 months.
- The turnaround time for the overhaul of car set one will be (9) nine months.
- The second car set will have the duration of (15) fifteen weeks.
- The remaining 19 car sets will have a duration (8) eight weeks.
- Conservatively this will be approximately five (5) year project.

CATS III

- The strategic plan for the CATS 3 fleet is to include an amendment in the CATS 1&2 fleet overhaul contract to have a fixed price for each truck set. This will allow the fleet to be completed on the production schedule set for the CATS 1&2 fleet.

Midlife Overhaul 15 year/900K

The “industry best practices” project for the midlife overhaul is conservatively 6-8 years, if the spare ratio does not increase.

The increase of the spare ratio will allow more vehicles to be sent out for repair, thereby reducing the overall length to approximately a 4-6 year time frame for the midlife overhaul project.



Metropolitan Transit Commission
Charlotte Area Transit System Ridership Report
Jan-20

Mode / Service	Jan-20	Jan-19	Percent Increase/Decrease	YTD FY 2020	YTD FY 2019	Percent Increase/Decrease	Avg Daily Ridership per Month		
							WeekDay	Saturday	Sunday
Local									
BOD Local	911,721	945,956	-3.6 %	6,592,984	6,807,568	-3.2 %	34,658	21,640	15,143
Subtotal	911,721	945,956	-3.6 %	6,592,984	6,807,568	-3.2 %	34,658	21,640	15,143
Local Express									
Arboretum Express	5,306	4,522	17.3 %	33,165	27,022	22.7 %	253	-	-
Carmel Road Express	-	-	n/a	-	3,654	n/a	-	-	-
Harrisburg Road Express	1,991	2,325	-14.4 %	16,734	16,732	0.0 %	95	-	-
Huntersville Express	10,870	10,200	6.6 %	63,091	59,518	6.0 %	518	-	-
Idlewild Road Express	1,963	2,283	-14.0 %	13,883	15,515	-10.5 %	93	-	-
Independence Blvd Express	4,470	4,926	-9.3 %	29,297	30,728	-4.7 %	213	-	-
Lawyers Road Express	2,864	2,738	4.6 %	18,352	19,227	-4.6 %	136	-	-
Matthews Express	3,715	4,223	-12.0 %	26,352	25,572	3.1 %	177	-	-
Mountain Island Express	1,812	1,462	23.9 %	9,319	8,624	8.1 %	86	-	-
Northlake Express	7,043	7,125	-1.2 %	42,205	45,043	-6.3 %	335	-	-
North Mecklenburg Express	13,543	13,971	-3.1 %	86,907	89,997	-3.4 %	645	-	-
Rea Road Express	3,336	3,303	1.0 %	22,888	19,888	15.1 %	159	-	-
Steele Creek Express	1,368	1,722	-20.6 %	9,712	11,663	-16.7 %	65	-	-
Huntersville Greenhouse Express	237	137	73.0 %	3,024	1,677	80.3 %	11	-	-
Airport Connector - Northlake	-	-	n/a	-	14,282	n/a	-	-	-
Subtotal	58,518	58,937	-0.7 %	374,929	389,142	-3.7 %	2,786	-	-
Regional Express									
Gastonia Express	3,819	3,758	1.6 %	26,592	23,660	12.4 %	182	-	-
Rock Hill Express	3,340	3,250	2.8 %	20,797	19,061	9.1 %	159	-	-
Union County Express	2,652	2,646	0.2 %	16,547	16,099	2.8 %	126	-	-
Subtotal	9,811	9,654	1.6 %	63,936	58,820	8.7 %	467	-	-
Community Circulator									
Neighborhood Shuttles	31,073	30,632	1.4 %	227,425	227,244	0.1 %	1,217	690	415
Eastland Neighborhood Shuttle	15,437	16,077	-4.0 %	112,550	122,536	-8.1 %	556	414	338
Pineville-Matthews Road	3,111	2,960	5.1 %	23,630	22,630	4.4 %	131	73	-
Village Rider	6,676	7,073	-5.6 %	49,348	46,492	6.1 %	264	142	85
Subtotal	56,297	56,742	-0.8 %	412,953	418,902	-1.4 %	2,168	1,319	838
Human Services Transportation									
Special Transportation Services	21,099	21,942	-3.8 %	148,383	149,680	-0.9 %	904	235	186
DSS	247	355	-30.4 %	1,944	2,378	-18.3 %	12	-	-
Subtotal	21,346	22,297	-4.3 %	150,327	152,058	-1.1 %	916	235	186



Metropolitan Transit Commission
Charlotte Area Transit System Ridership Report

Jan-20

Mode / Service	Jan-20	Jan-19	Percent Increase/Decrease	YTD FY 2020	YTD FY 2019	Percent Increase/Decrease	Avg Daily Ridership per Month		
							WeekDay	Saturday	Sunday
Rideshare Services									
Vanpool	11,452	11,592	-1.2 %	81,068	77,435	4.7 %	553	-	-
Subtotal	11,452	11,592	-1.2 %	81,068	77,435	4.7 %	553	-	
Rail									
LYNX Blue Line	777,803	668,132	16.4 %	5,375,635	4,475,982	20.1 %	29,344	18,424	10,030
CityLynx Gold Line	-	20,150	n/a	-	148,131	n/a	-	-	-
Subtotal	777,803	688,282	13.0 %	5,375,635	4,624,113	16.3 %	29,344	18,424	10,030
Total	1,846,948	1,793,460	3.0 %	13,051,832	12,528,038	4.2 %	70,892	41,618	26,197



December | CATS Sales Tax Report FY2020

October Receipts

Sales Tax Collections and Distribution – November 2019

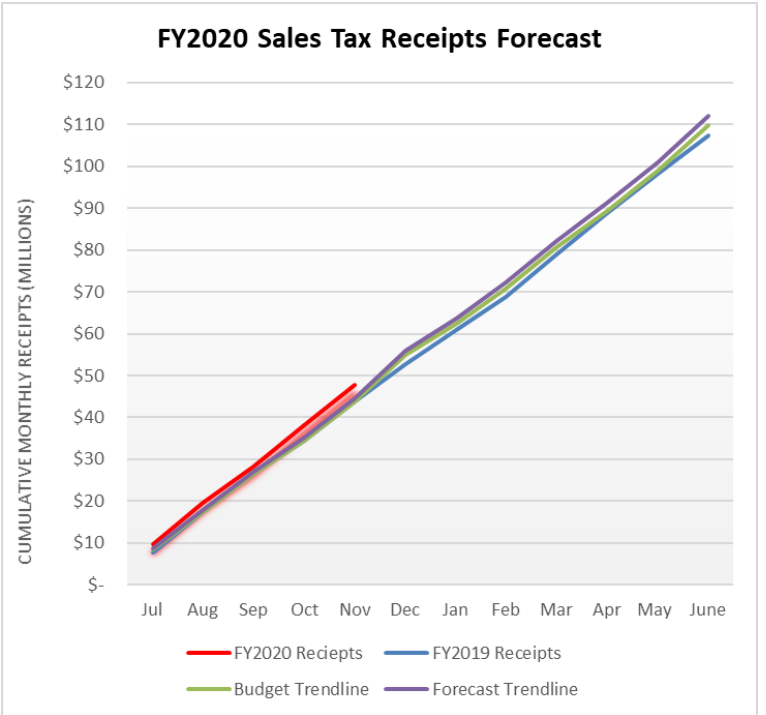
- November receipts of \$9,858,570 are \$1,124,097 (12.87%) above budget target for the month
- \$433,441 (4.6%) above November of 2018;

Sales Tax Budget Data

- The model projects FY2020 year-end receipts of \$112,142,011, which is \$2,208,626 (1.97%) above the budget target
- FY2020 sales tax budget is \$109,933,384
- FY2019 actual sales tax was \$107,535,197

Local Government Sales and Use Tax Distribution

- Source: North Carolina Department of Revenue Sales & Use Distribution Report for the month ending November 30, 2019
- Published by NC Secretary of Revenue on 1/10/2020 with actual receipts through November 2019
- CATS sales tax report only includes Mecklenburg County Article 43 sales tax



FY2020 Sales Tax Receipts

Jurisdiction		Population	% of Total	Jul 19 actuals	Aug 19 actuals	Sep 19 actuals	Oct 19 actuals	Nov 19 actuals	Dec 19 estimate	Jan 20 estimate	Feb 20 estimate	Mar 20	April 20	May 20	June 20	Total
Charlotte	40.59%	830,258	40.5%	\$ 3,930,152	\$ 3,972,525	\$ 3,519,419	\$ 4,013,989	\$ 3,992,489	\$ 4,631,527	\$ 3,043,689	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27,103,790
Cornelius	1.46%	30,207	1.5%	141,321	142,845	126,552	144,335	145,257	168,507	110,738	-	-	-	-	-	979,555
Davidson	0.61%	12,572	0.6%	59,316	59,956	53,117	60,582	60,455	70,132	46,088	-	-	-	-	-	409,646
Huntersville	2.76%	57,145	2.8%	266,988	269,867	239,086	272,683	274,795	318,779	209,491	-	-	-	-	-	1,851,688
Matthew s	1.51%	30,849	1.5%	145,777	147,349	130,542	148,887	148,345	172,089	113,091	-	-	-	-	-	1,006,078
Mint Hill	1.29%	26,690	1.3%	125,384	126,736	112,280	128,058	128,345	148,888	97,844	-	-	-	-	-	867,535
Pineville	0.43%	8,873	0.4%	41,895	42,347	37,517	42,789	42,668	49,497	32,528	-	-	-	-	-	289,242
Meck. County	51.35%	1,053,545	51.4%	4,972,736	5,026,350	4,453,045	5,078,813	5,066,216	5,877,115	3,862,249	-	-	-	-	-	34,336,525
Total	100.00%	2,050,139	100.0%	\$ 9,683,570	\$ 9,787,973	\$ 8,671,558	\$ 9,890,136	\$ 9,858,570	\$ 11,436,534	\$ 7,515,719						\$ 66,844,060
Year-over-Year Comparison (FY20-FY19)				25.6%	1.7%	-4.7%	22.6%	4.6%	28.4%	-8.3%						13.7%
FY20 Budget Target				\$ 8,818,165	\$ 9,132,038	\$ 8,444,238	\$ 8,460,092	\$ 8,734,473	\$ 11,111,792	\$ 8,401,451	\$ 8,375,431	\$ 9,860,806	\$ 9,167,984	\$ 9,220,066	\$ 10,206,848	109,933,383
% of FY20 Budget Achieved				8.8%	17.7%	25.6%	34.6%	43.6%	54.0%	60.8%	60.8%	60.8%	60.8%	60.8%	60.8%	60.8%

Sales Tax Receipts: FY2016 – FY2019

Fiscal Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
FY2019	\$ 7,708,503	\$ 9,621,386	\$ 9,103,726	\$ 8,067,019	\$ 9,425,129	\$ 8,906,774	\$ 8,195,787	\$ 7,918,012	\$ 10,155,891	\$ 9,880,419	\$ 9,435,500	\$ 9,117,052	\$ 107,535,197
FY2018	\$ 8,147,197	\$ 8,436,960	\$ 8,784,051	\$ 7,883,713	\$ 8,884,437	\$ 9,324,267	\$ 6,897,695	\$ 7,842,800	\$ 9,303,951	\$ 8,539,748	\$ 9,277,676	\$ 9,699,263	103,021,757
FY2017	6,706,169	8,123,310	8,099,598	6,984,259	8,275,157	9,927,120	5,142,666	7,510,515	9,105,261	7,459,176	6,747,425	8,520,759	92,601,412
FY2016	7,470,371	6,971,746	7,551,677	6,188,499	6,607,520	9,383,261	6,142,552	6,944,204	7,858,189	7,952,022	7,781,259	8,765,518	89,616,819
FY2015	6,087,774	6,938,945	5,932,063	7,114,003	6,853,209	8,378,347	5,947,801	5,641,898	6,914,523	6,057,389	7,522,357	7,762,101	81,150,409

