TECHNICAL ADVISORY COMMITTEE

May 9, 2019

Central Florida Commuter Rail Commission

Technical Advisory Committee

Date: May 9, 2019

Time: 2:00 p.m.

Location: LYNX Central Station
2nd Floor Multi-Purpose Room
455 North Garland Avenue
Orlando, Florida 32801

PLEASE SILENCE CELL PHONES

I.   Call to Order and Pledge of Allegiance

II.   Confirmation of Quorum

III. Action Items

   a.   January 9, 2019 Meeting Minutes

IV.   Public Comments

Comments from the public will be heard pertaining to General Information on the agenda for this meeting. People wishing to speak must complete a "Speakers Introduction Card" at the reception desk. Each speaker is limited to two minutes.

V.   Chair's Report – Ms. Olore

VI.   Transition Consultant Update – Ms. Ostrodka

VII. Discussion Items

   a.   Agency Update – Trish Ruffino
   b.   Quiet Zone Update – George Gault
   c.   Positive Train Control Update – Rick Tonet
   d.   Bus Connectivity
       i. LYNX
       ii. Votran
   e.   Interlocal Operating Agreement Requirements – Tawny Olore

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Central Florida Commuter Rail Commission

Technical Advisory Committee

VIII. Committee Member Comments

IX.   Next Meeting
August 7, 2019
2:00 p.m.
LYNX Central Station
455 N. Garland Ave.
2nd Floor Multi-Purpose Room

X.   Adjournment

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. Persons who require accommodations under the Americans with Disabilities Act or persons who require translation services (free of charge) should contact Roger Masten, FDOT/SunRail Contracts Manager 801 SunRail Dr. Sanford, FL 32771, or by phone at 321-257-7161, or by email at roger.masten@dot.state.fl.us *at least three business days prior to the event.*

Technical Advisory Committee Meeting

January 9, 2019

2:00 p.m.

LYNX Central Station
Second Floor Multi-Purpose Room
455 North Garland Avenue
Orlando, Florida

Attendees

Jim Harrison, Orange County
Tawny Olore, Osceola County
Renzo Nastasi, Orange County
Bill Wharton, Seminole County
John Angiulli, Volusia County
Jordan Smith, City of Sanford
Andrew Landis, City of DeBary
Shad Smith, City of Longwood
Alisha Maraviglia, City of Altamonte Springs
F.J. Flynn, City of Orlando

Edward Johnson, LYNX
Rob Stephens, Votran
Elizabeth Whitton, MetroPlan Orlando
Jabari Hampton, River to Sea TPO
Nicola Liquori, FDOT
Elliott Shepherd, FDOT
Steve Olson, FDOT
George Gault, AECOM
Mark Calvert, Evolve Today

Minutes

Meeting was called to order by TAC Chair, Jim Harrison, at 2:00 p.m.
Pledge of Allegiance
Quorum was met
Introductions

Action Items: **Presenter: Jim Harrison**
- **Adoption of Meeting Minutes:** A motion to adopt the meeting minutes from November 7, 2018 was made. The meeting minutes were adopted unanimously.

Public Comments:
- David Bottomley noted the WiFi was down at the Sand Lake Road Station.

Agenda Item: Chairman's Report   **Presenter: Jim Harrison**
- Transition Consultant
  - The Working Group has made substantial progress working with the Consultant
- Election of Officers
  - An election has not been held since 2017
  - At the conclusion of today's meeting, the Chair recommended an election be held and asked that it be added to the Agenda

Agenda Item: Agency Update   **Presenter: Nicola Liquori**
- Game Night Train
  - Train P340 is a part of the regular schedule travelling northbound from its 10:30 pm departure at Church Street and accommodates travelers attending the Magic games. A companion service travelling Southbound has now been made available. Bombardier agreed to stage Train P341 at Church Street at the 10:30 pm departure time.
  - The service has been well received and the average ridership is 45 to 50 with some nights exceeding the average. After the trial period, Bombardier committed they would continue the service through the end of the regular season.
  - The website now provides information regarding the special service. The Amway Center and Orlando Magic will also push out the message through their social media
- Holiday performance "The Gift of the Magi" by Opera Del Sol
  - Enjoyable live performance on Friday, December 21st
  - Presented an opportunity to introduce SunRail to new riders
- 2019 Marketing Objectives
  - The goal for 2019 is the increase of system-wide ridership
    - Goal of 1.5 million transactions which breaks down to a daily average of approximately 6,000 riders
      - Focus on non-peak trains that may be underutilized and present an opportunity with the change in schedule and reduction of the mid-day gap
      - Station destinations with the focus on businesses in and around stations. Example: Maitland - to encourage vanpool options with area employers
    - Goal of increasing SunCard usage
      - Weekly, monthly, or annual passes for Suncards
      - The card offers Stored Value like a debit or pre-paid card
      - There is a marketing and education opportunity that a 10% bonus is available when money is loaded on the Card
      - Better option than Limited-use media (LUMs)
      - When evaluating locations with the highest use of LUMs, statistics show they are LYNX Central and Winter Park Stations
    - Goal to promote connectivity

- ➢ Another educational opportunity to provide information on locations and options
- ➢ Train to Plane connection at Sand Lake Station with LYNX 111
- Enhancements of Text Features
  - o The Customer Advisory Committee provided feedback that riders would like more information regarding the location of an incident. This has been added to messages
  - o An additional feature was introduced to continue or stop receiving incident updates
- A Million Smiles
  - o On November 30, 2018 SunRail reached its one millionth transaction
  - o On a morning Southbound train, passenger Kim, who works at Florida Hospital, was recognized for this milestone
- Name Change
  - o Florida Hospital has changed its name to AdventHealth
  - o SunRail staff is working closely with AdventHealth to update materials on trains, platforms, and fare collection system
- Safety Enhancement
  - o The installation of a "Dynamic Envelope" was recently completed at Fairbanks Avenue
  - o Staff will continue to monitor and assess information on its effectiveness with drivers, bicyclists and pedestrians
- Positive Train Control (PTC)
  - o SunRail completed the required milestones to be met by the end of 2018 in order to qualify for an extension
    - ▪ Acquisition of Spectrum (February 2018)
    - ▪ Hardware Installation (Completed)
    - ▪ Staff Training (Completed)
    - ▪ Request to enter Revenue Service Demonstration on Test Territory (Submitted to FRA)
      - ➢ Test Territory is a 12- mile portion of the corridor (Sanford to Longwood) which will later be rolled out to the full 61 miles
      - ➢ A Request for Alternative Schedule (extension) is currently under review by the FRA
    - ▪ Full implementation is on schedule for the end of 2019
      - ➢ Includes interoperability with CSX and Amtrak
    - ▪ PTC Safety Plan
- Ridership
  - o Average Daily Ridership
    - ▪ There was a definite spike at the opening of the Southern Expansion
    - ▪ Statistics between October to December show 5,500 to 5,600 daily riders
  - o Boarding by Stations
    - ▪ Fiscal Year-to-Date provides boardings prior to the Southern Expansion opening in July, the free ridership promotion period, through the end of 2018
  - o On Board Statistics
    - ▪ On-board daily average ADA is 20 per month - which has increased with the increase in overall ridership
    - ▪ Bicycle boardings are up and averaging 208 per month
  - o Boarding & Alightings
    - ▪ The AM and PM Peak are presented from post free ridership promotion, August 20th, through December 31st
    - ▪ The Off-Peak indicates an uptick at Church Street primarily due to the late night "Special Service"
  - o On-Time Performance
    - ▪ OTP data is provided from inception in 2014 through the recent period ending, December 2018

- The month of August 2018 was challenging. At the last meeting, the Committee discussed the scheduled trains, which trains were on time, and those that were not on time due to incidents:
  - Staff's review of that month showed there were 920 scheduled trains with 799 on time and 62 delayed
  - In December, there were 800 scheduled trains with 776 on time and 21 delayed (97% OTP)
  - o Call-Center Statistics
    - The Call Center receives a high number of calls that are general in nature or inquiries regarding fares and train schedule
      - The total calls for Fiscal Year-to-Date are 13,871
      - Complaints are less than one percent of all calls
- Budget Fiscal Year-to-Date (July – December 2018)
  - o Operating Revenue
    - Farebox Revenue has not been adjusted for the seasonality of ridership accounting for some difference between Budget and Actual
    - Amtrak Usage fees collected are lower than projected and we continue to work with them
  - o Operating Costs, Capital Maintenance and Consultant Support
    - Negotiations of insurance premium coverage for the year has been completed and is lower than budgeted
    - The amount shown for the Annual Budget of Capital Maintenance and Consultant Support is the amount of funding available through the "Work Program" and not necessarily the amount of anticipated expenditures. Unused funds will be rolled forward to the next Fiscal Year and available if needed

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Agenda Item: Bus Connectivity   **Presenter: Edward Johnson, LYNX**

- Comparison of ridership from LYNX' 1st Quarter of FY19 and 4th Quarter of FY18
  - o A one percent decrease was noted between the two quarters
  - o Except for the Florida Hospital Station, most Stations showed a modest increase
  - o Ridership is not provided for the LYNX Central Station and Kissimmee Intermodal Center due to the numerous routes that serve both
  - o LYNX does not have routes that connect to the Church Street Station

  - *Tawny Olore, Osceola County, asked about the decrease reported at the Tupperware Station*
    - o *Mr. Johnson provided a decrease had been noted at the Tupperware Station and that while marketing and advertising have been discussed, he did not have information concerning the initiatives with him.*

Agenda Item: Bus Connectivity   **Presenter: Rob Stephens, Votran**

- Votran Connectivity at SunRail DeBary Station
  - o Service to the Station is in its 3rd year
  - o There is a 40% increase since inception
  - o Service is expanding in West Volusia County with Route 25 in Deltona which is felt will help connectivity in DeBary
  - o The County has committed the 5th and final installment of just less than $3 million for improvements and expansion of transit in Volusia: frequency, holiday service, etc.

Committee Member Comments:

- *Tawny Olore, Osceola County, noted that at the last meeting, Ms. Liquori provided there was a back-office outage that was reflected in the farebox collection and asked how the system is performing.*
  - *Ms. Liquori stated that the system is monitored daily. The outage was resolved. Conduent was in the process of migrating their Data Center during that time which led to the issue. The migration was completed and the system is showing stability.*
- *Shad Smith, City of Longwood noted that Stations in Seminole County do not have of bicycle racks. Some riders do not need to board with a bike because they will not utilize it when they arrive at their destination. While Longwood would offer to install racks, the best placement is close to the platforms.*
  - *Ms. Liquori asked to have further discussion on bike racks and provided staff would look into the subject further.*
- *Jordan Smith, City of Sanford, requested on-going updates on Quiet Zones. He also asked the method to receive updates from the O & M transition consultant.*
  - *Chair Harrison provided the consultant will provide updates at the Commuter Rail Commission meetings*
- *The City of Sanford requested a status on the noise wall at SunRail's Vehicle Maintenance Facility and the fencing along the corridor.*
  - *Ms. Liquori provided that the construction of the noise wall is underway. A portion of the work included shifting the track to enable the construction. Staff can provide an update on the scheduled completion.*
  - *Ms. Liquori stated the fence installation has been completed.*

Election of Officers:

- Edward Johnson, LYNX, made a Motion to add the Election of Officers to the Agenda. The Motion received a second and passed unanimously.
- Chair Harrison asked for nominations for Chair. Mr. Harrison then stepped aside from the Chair and made a Motion to nominate Osceola County. The Motion received a second and passed unanimously.
- Chair Harrison asked for nominations for Vice-Chair. Motion was made to nominate City of Orlando. The Motion received a second and passed unanimously.
- A Secretary was not nominated.

Meeting adjourned: 3:00 p.m.

Next meeting: Scheduled for Thursday, May 9, 2019 at 2:00 p.m., LYNX Central Station, Second Floor Open Space, 455 N. Garland Avenue, Orlando

TECHNICAL ADVISORY COMMITTEE

May 9, 2019

TITLE VI

This meeting, project, or study is being conducted without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting:

ROGER MASTEN
SunRail Title VI Coordinator
801 SunRail Drive
Sanford, Florida 32771
Roger.Masten@dot.state.fl.us

JACQUELINE PARAMORE
State Title VI Coordinator
605 Suwannee Street, Mail Station 65
Tallahassee, Florida 32399-0450

ADOPT MEETING MINUTES

January 9, 2019

PUBLIC COMMENTS

CHAIR'S REPORT

Ms. Tawny Olore

TRANSITION CONSULTANT UPDATE

Ms. Andrea Ostrodka

AGENCY UPDATE

Ms. Trish Ruffino

FDOT SunRail
Financial Operations Manager

RIDERSHIP ON THE RISE

- Enhanced service schedule with four additional trains

- Launched Southern Expansion

- Connectivity partners

- Strong leisure rider campaigns

986,476
(August 2018 – March 2019)

542,351
(August 2017 – March 2018)

82%
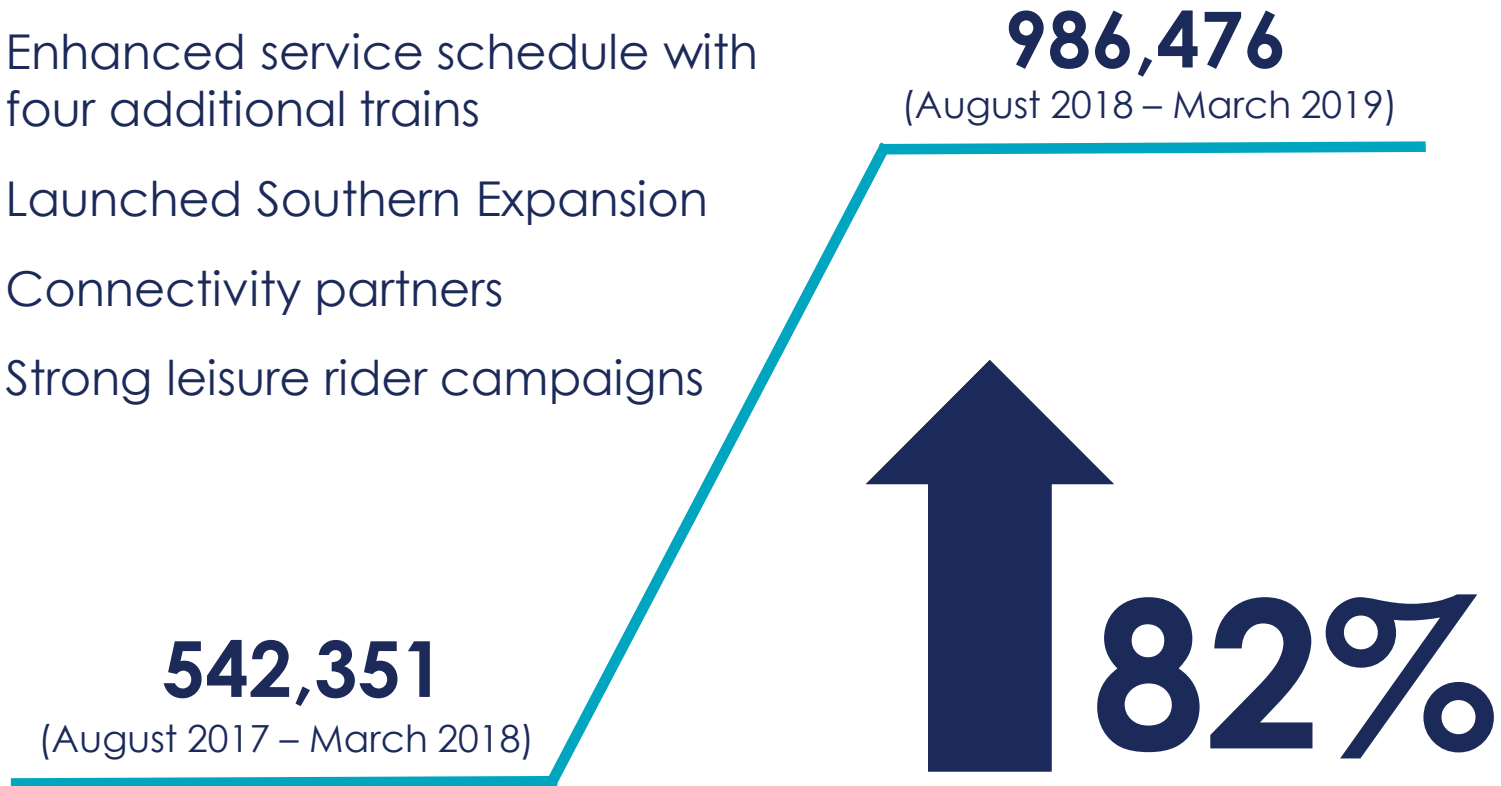
NEW DOWNTOWN CAMPUS

Reaching a new generation of commuters.

- Just steps from LYNX
- Ridership begins 8/1
- 8,000 students/faculty

MORE REASONS TO RIDE
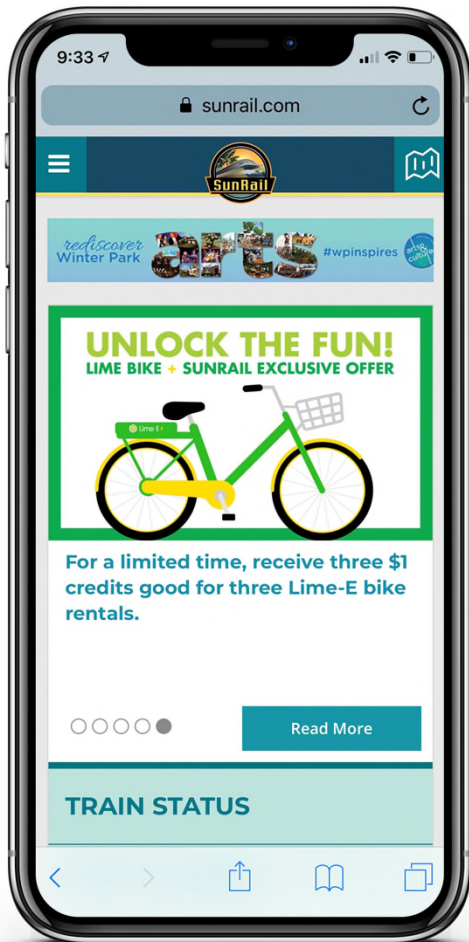
LIME BIKE
EXCLUSIVE PROMO

DISCOUNT CODE lime4sunrail

ORLANDO MAGIC
RIDERSHIP IMPACT

16 GAMES
~ 200 TRIPS
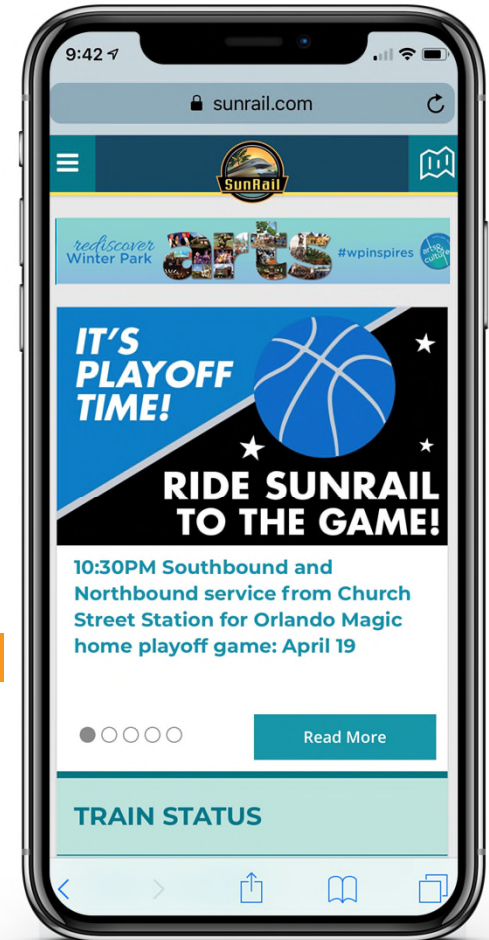
MORE REASONS TO RIDE

NEW CALENDARS
INTERACTIVE FOR RIDERS

DAILY AND SPECIAL EVENT SUGGESTIONS
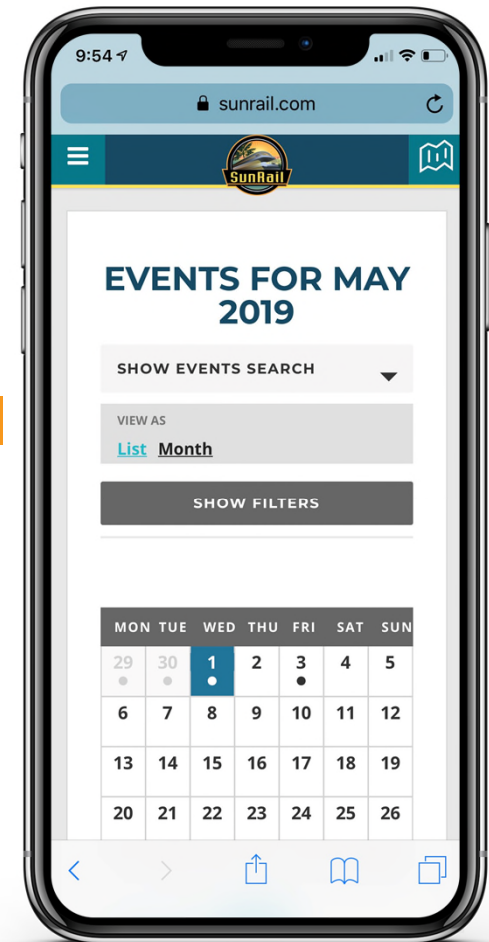
MORE REASONS TO RIDE

CHOO CHOO
TO THE ZOO

*RECORD BREAKING
FOR SUNRAIL & ZOO*

HAUL OF PRESIDENTS
SPECIAL PROMO

EXCEPTIONAL RESULTS

PROMOTING CONNECTIONS

MAKING CONNECTIONS EASIER AND MORE CONVENIENT

- NEW Kissimmee Connector
- NEW Signs at Kissimmee/Amtrak
- NEW Trolley Times & Signs at Sanford
- NEW Train to Plane Signs at Sand Lake Road
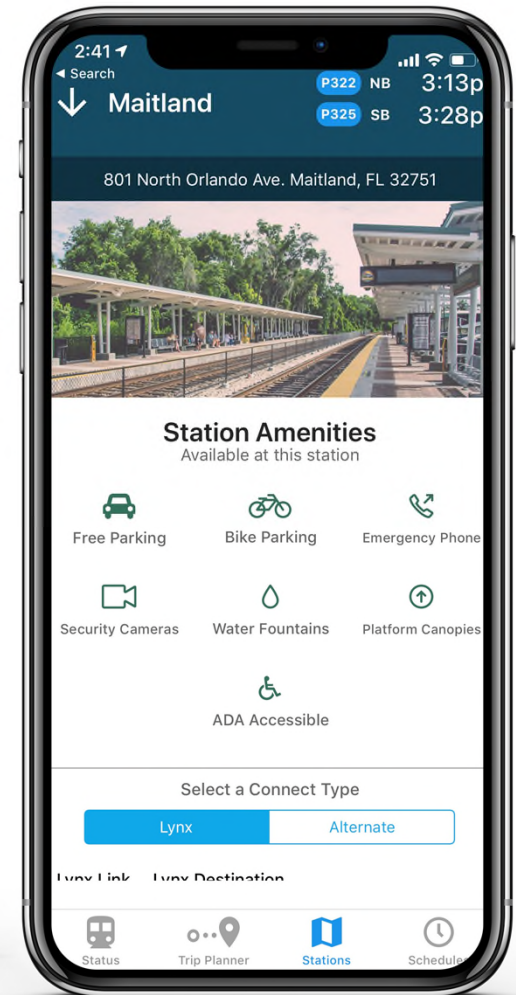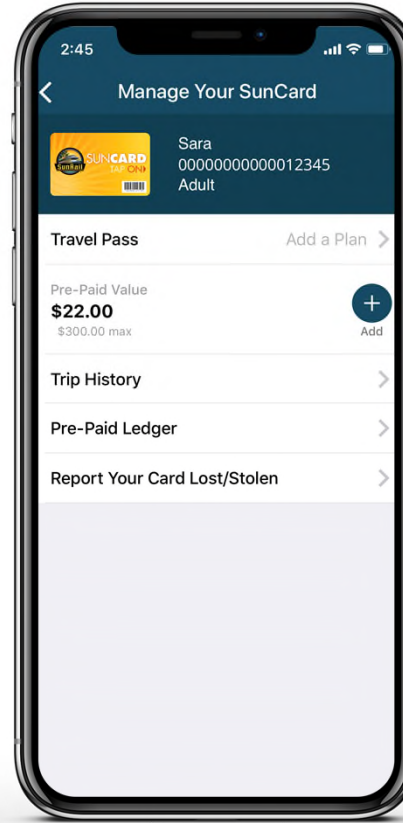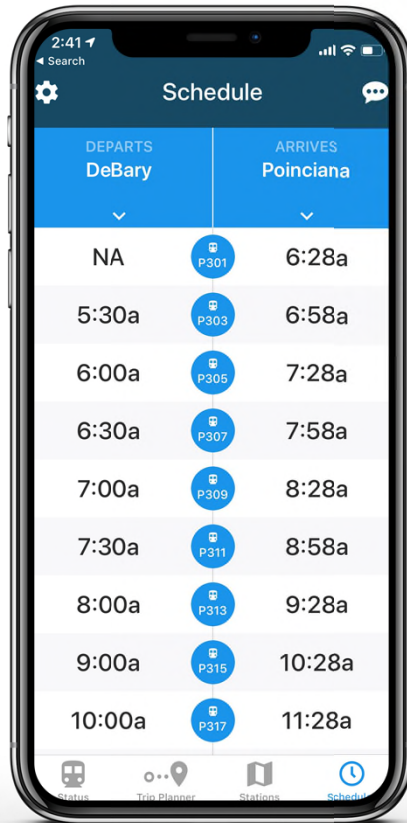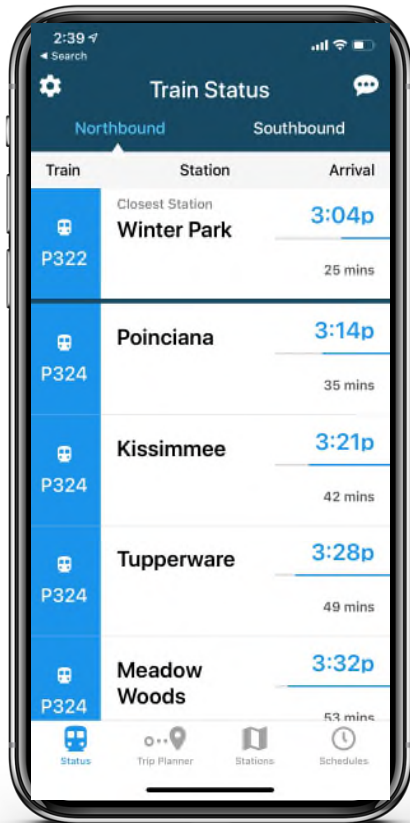
CONNECTING COMMUNITIES

SOUTHERN EXPANSION
CONTINUED OUTREACH EFFORTS

- *Tupperware*

- *Osceola Regional Hospital*

- *Orlando Health ER and Medical Pavilion*

- *Paid media marketing*

PROMOTING SUNCARDS

COMING SOON

REGISTRATION PROMOTION
PROMOTING ACCESSIBILITY

AMBASSADOR RESOURCES
IN-MARKET ENGAGEMENT

NEW SAFETY DISPLAYS

New Locations
- CR 427
- SR434
- Horatio
- Lancaster
- Landstreet
- Carroll

BOARDINGS BY STATION

Station	Boardings
DeBary	89,561
Sanford	62,341
Lake Mary	70,988
Longwood	53,391
Altamonte Springs	57,323
Maitland	41,758
Winter Park	108,393
AdventHealth	71,039
LYNX	125,211
Church Street	135,670
Orlando Health	62,127
Sand Lake Road	63,442
Meadow Woods	80,729
Tupperware	35,403
Kissimmee	80,418
Poinciana	67,964
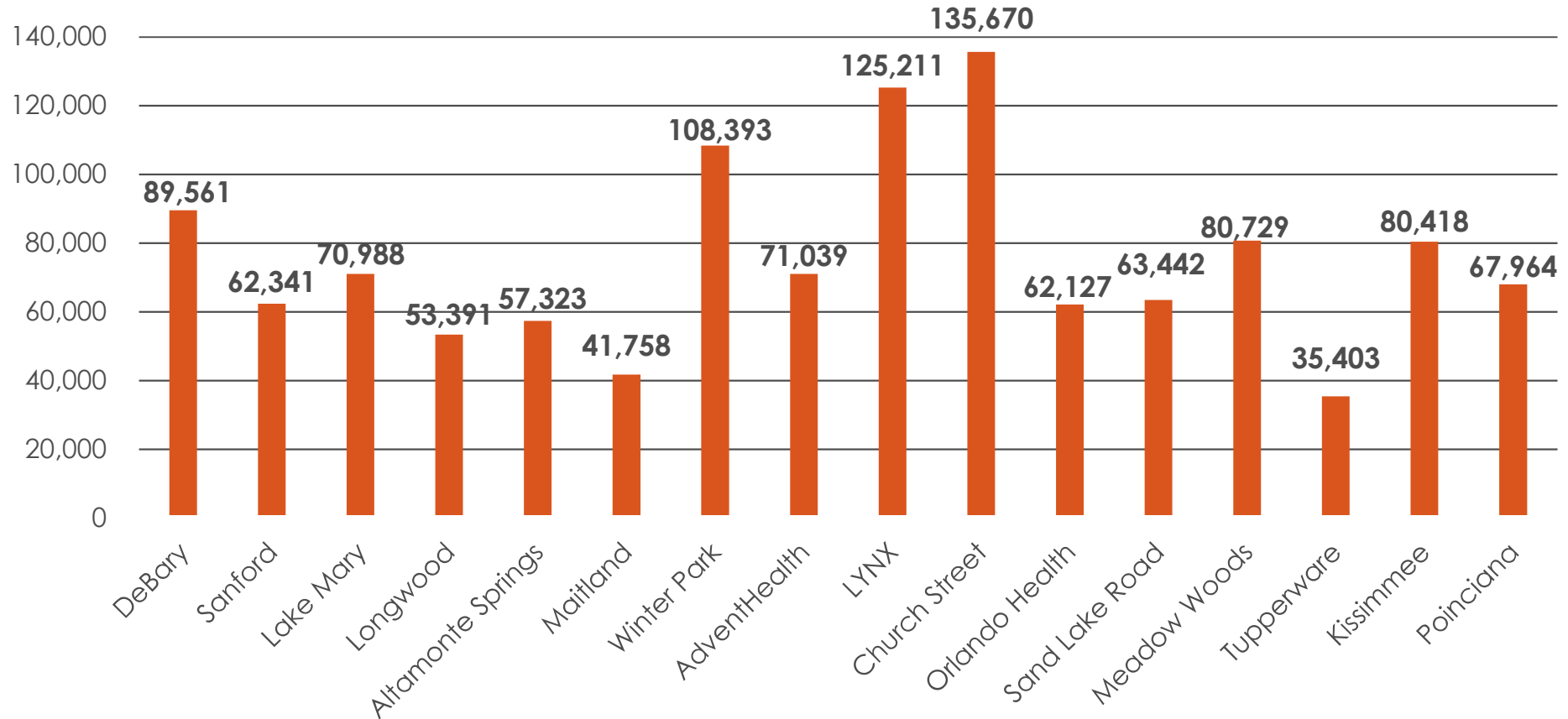
Ridership July through April 2019

AVERAGE DAILY RIDERSHIP

2019 AVERAGE DAILY RIDERSHIP BY MONTH

JAN	5,942
FEB	6,180
MAR	6,965
APR	6,371

ONBOARD STATS

JAN-APR
AVERAGE DAILY
ADA

25

RIDERS BY MONTH
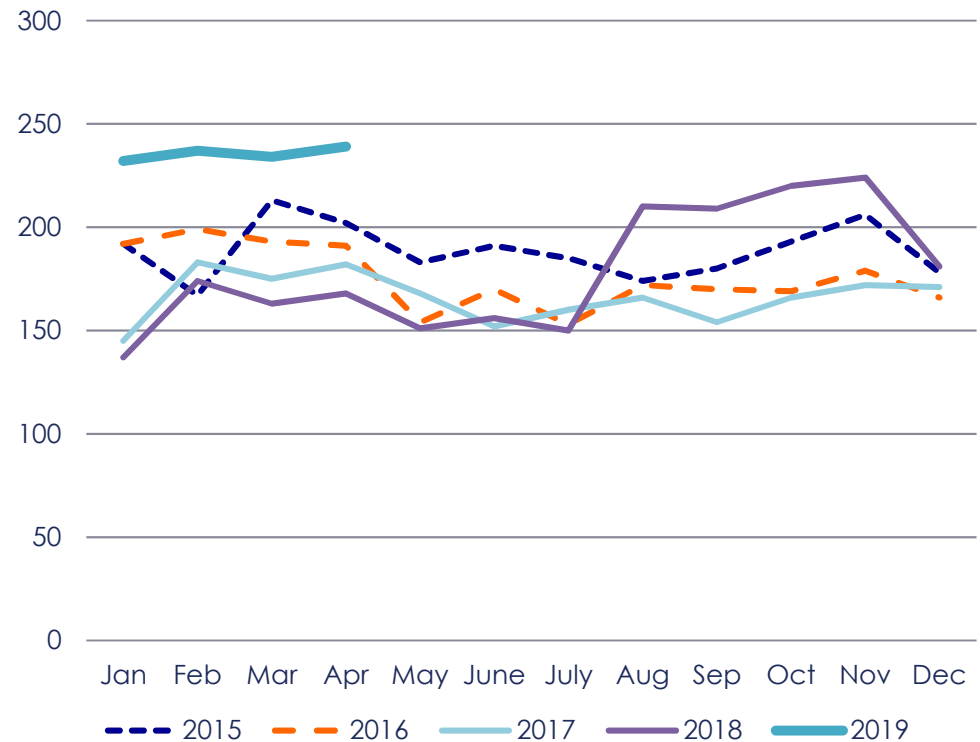
BOARDINGS & ALIGHTINGS

PM PEAK
August 20, 2018 – April 30, 2019
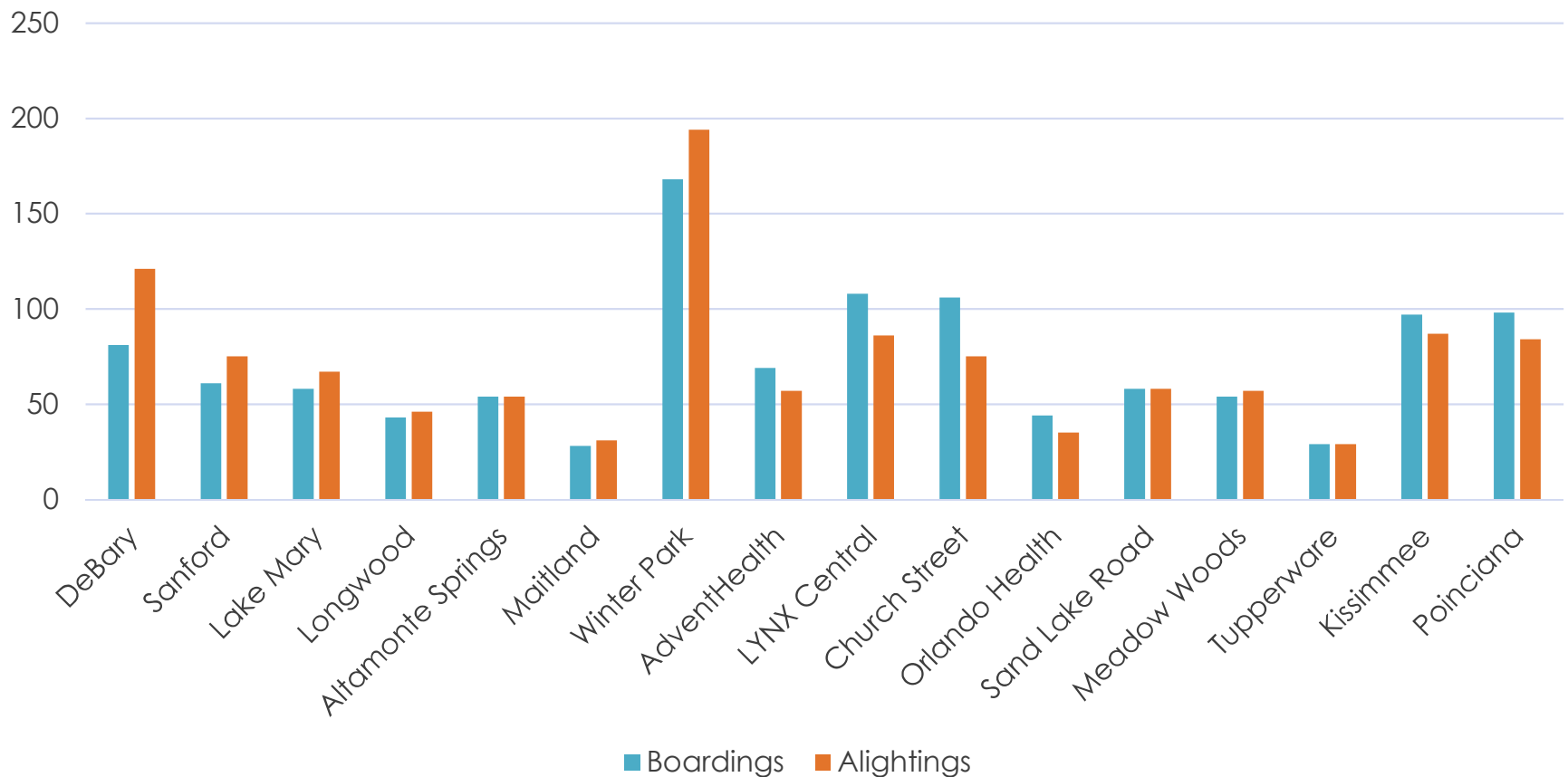
ON-TIME PERFORMANCE AVERAGE
From Inception and Current Month

GOAL IS GREATER THAN OR EQUAL TO 95%
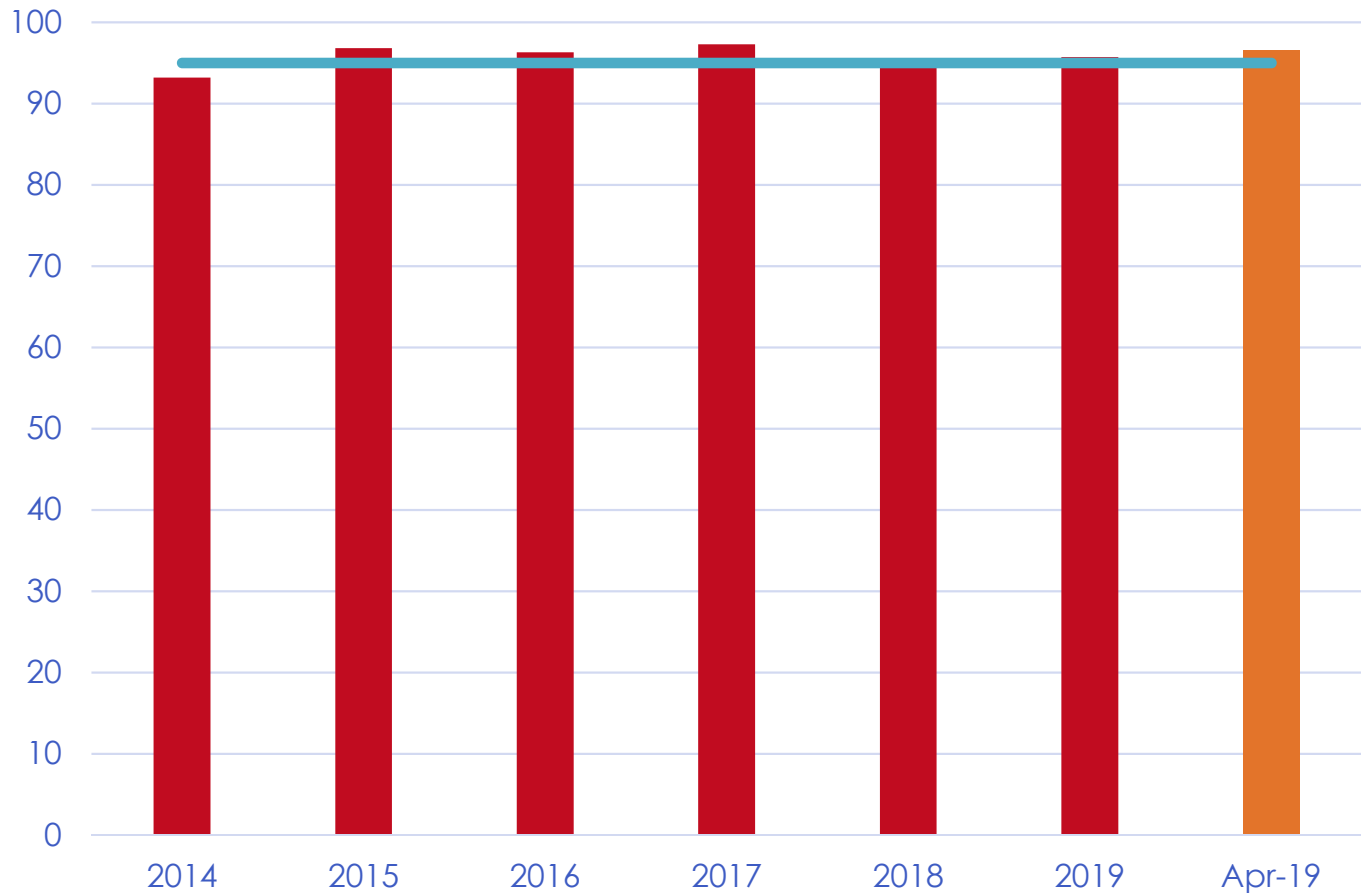
CUSTOMER SERVICE
BUILDING RIDER LOYALTY

1,100,409
TEXTS SENT

Total Call Center Volume July – April 2019
23,047

Category	Percentage
SCHEDULES & STATION INFO	36.3%
FARE COLLECTION	35.1%
GENERAL INQUIRY	12.2%
LOST/FOUND	5.3%
ACCOUNT MANAGEMENT	4.6%
MAINTENANCE	2.3%
CONNECTIONS	2.1%
STATION ANNOUNCEMENTS	1.4%
COMPLAINTS	0.7%

SunRail
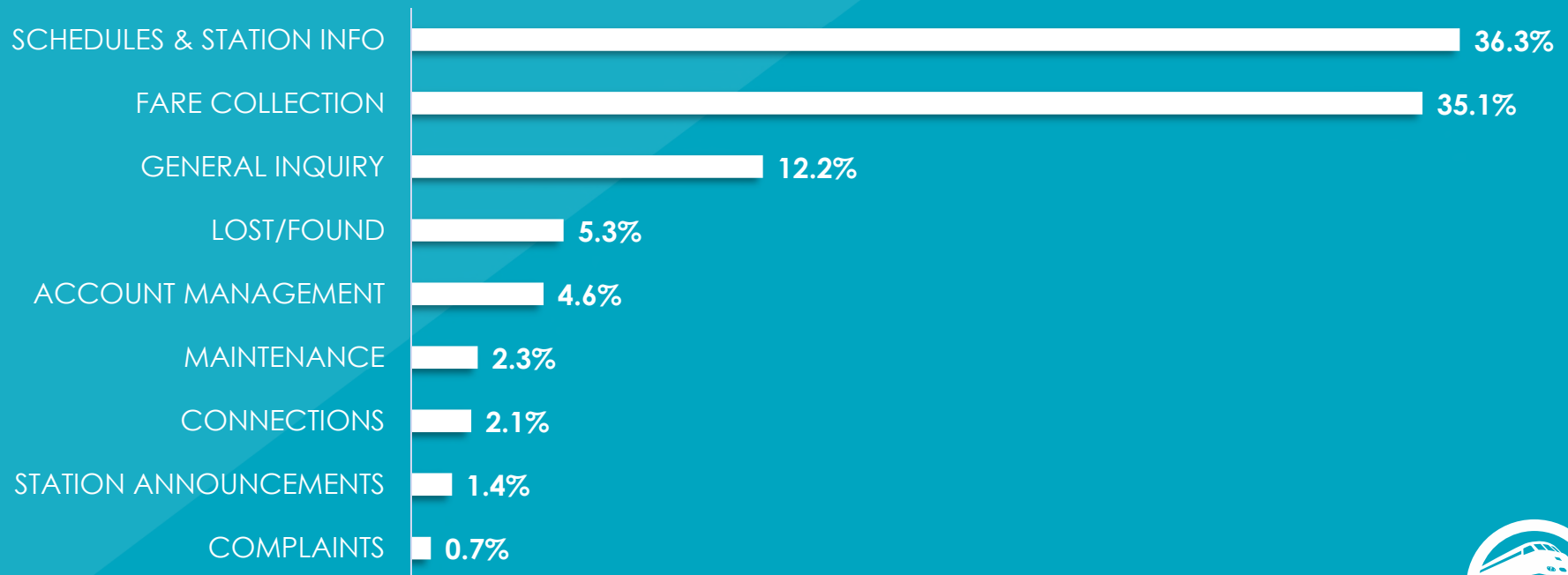
BUDGET UPDATE

OPERATING REVENUE	ANNUAL BUDGET	YEAR TO DATE APRIL 30, 2019	
		BUDGET	ACTUAL
Farebox revenue	$3,551,400	$2,959,500	$2,567,067
CSX usage fees	$3,231,836	$2,693,197	$2,382,243
Amtrak usage fees	$1,013,494	$844,578	$595,693
FCEN usage fees	$23,361	$19,468	$18,079
Right-of-way lease revenue	$107,221	$89,351	$72,315
Ancillary revenue	$307,490	$256,242	$239,443
Subtotal - System revenue	*$8,234,802*	*$6,862,336*	*$5,874,840*
FTA §5307 - Urbanized Area Grant Funds	$9,809,729	$8,174,774	$8,174,774
TOTAL OPERATING REVENUE	**$18,044,531**	**$15,037,110**	**$14,049,614**

NOTE: These numbers are not audited.

BUDGET UPDATE

OPERATING COSTS, CAPITAL MAINTENANCE AND CONSULTANT SUPPORT	ANNUAL BUDGET	YEAR TO DATE APRIL 30, 2019	
		BUDGET	ACTUAL
Bombardier - Operations	$10,309,865	$8,591,554	$7,961,017
Bombardier - Maintenance	$15,887,162	$13,239,302	$12,793,898
Bombardier - Incentive/Disincentive	$1,309,851	$1,091,543	$940,910
Conduent - Back-of-the-House Hosting	$906,140	$755,117	$602,195
Conduent - Fare Equipment Maintenance	$2,163,268	$1,802,723	$1,110,418
Herzog - Signal Maintenance of Way	$3,162,514	$2,635,428	$2,358,386
Green's Energy - Fuel	$2,206,080	$1,838,400	$1,620,210
Gallagher - Insurance	$2,050,000	$2,050,000	$1,695,918
Amtrak - Heavy Vehicle Maintenance	$1,664,521	$1,387,101	$888,891
Wells Fargo - Banking Services	$6,880	$5,733	$4,351
Bank of America - Merchant Services (Banking)	$90,000	$75,000	$68,408
MidFlorida - Armored Car Service	$52,480	$43,733	$49,904
AT&T/Verizon - Wi-Fi Service	$34,440	$28,700	$19,558
Fare Media Smart Card	$-	$-	$-
Limited Use Smart Card	$269,600	$269,600	$268,000
Incomm - Card Distribution & Packaging	$-	$-	$-
Subtotal - System operating costs	*$40,112,801*	*$33,813,934*	*$30,382,064*
Feeder Bus Expenses	$1,843,865	$1,536,554	$590,104
Capital Maintenance	$7,188,940	$5,990,783	$1,320,250
Consultant Support	$8,814,461	$7,345,384	$5,148,974
TOTAL OPERATING COSTS, CAPITAL MAINTENANCE AND CONSULTANT SUPPORT	$57,960,067	$48,686,655	$37,441,392

NOTE: These numbers are not audited.

FY20 BUDGET
(Preliminary)

OPERATING REVENUE	FY2020 BUDGET
Farebox revenue	$3,294,185
CSX usage fees	$3,143,637
Amtrak usage fees	$1,028,530
FCEN usage fees	$25,568
Right-of-way lease revenue	$93,322
Ancillary revenue	$323,580
Subtotal - System revenue	*$7,908,822*

FTA §5307 - Urbanized Area Grant Funds	$10,021,711

TOTAL OPERATING REVENUE	**$17,930,533**

FY20 BUDGET (Preliminary)

OPERATING COSTS, CAPITAL MAINTENANCE AND CONSULTANT SUPPORT	FY2020 BUDGET
Bombardier - Operations	$10,511,193
Bombardier - Maintenance	$16,101,451
Bombardier - Incentive/Disincentive	$1,330,632
Conduent - Back-of-the-House Hosting	$933,325
Conduent - Fare Equipment Maintenance	$2,214,588
Herzog - Signal Maintenance of Way	$3,162,374
Green's Energy - Fuel	$1,931,665
Gallagher - Insurance	$1,738,316
Amtrak - Heavy Vehicle Maintenance	$1,368,067
Wells Fargo - Banking Services	$4,906
Bank of America - Merchant Services (Banking)	$92,981
MidFlorida - Armored Car Service	$40,686
AT&T/Verizon - Wi-Fi Service	$34,402
Fare Media Smart Card	
Limited Use Smart Card	$424,620
Subtotal - System operating costs	*$39,889,206*

Feeder Bus Expenses	$1,914,211
Capital Maintenance	$7,188,940
Consultant Support	$8,845,417

TOTAL OPERATING COSTS, CAPITAL MAINTENANCE AND CONSULTANT SUPPORT	$57,837,774

QUIET ZONES

- 77% Complete

- Estimated completion December 2019

POSITIVE TRAIN CONTROL

- RSD on Test Territory began 4/22/19

- Estimated Implementation December 2019

LYNX CONNECTIONS

SUNRAIL STATION	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	ANNUAL DAILY AVERAGE
LYNX Fixed-Route Average Daily Boardings & Alightings by SunRail Station Area													
				Fiscal Year 2019									
Sanford	151	336	339	100	302	358	390						282
Lake Mary	58	15	62	80	74	116	124						76
Longwood	40	51	73	53	54	90	102						66
Altamonte Springs	225	195	192	205	240	171	38						181
Maitland	27	30	29	12	18	18	26						23
Winter Park	212	273	286	187	206	269	255						241
Florida Hospital/Health Village	359	399	380	314	327	266	322						338
LYNX Central Station													-
Church Street Station													-
Orlando Health/Amtrak	27	34	28	35	26	35	27						30
Sand Lake Road	248	255	209	193	201	62	54						175
Meadow Woods	130	120	116	120	115	63	107						110
Tupperware	23	18	9	N/A	N/A	N/A	N/A						17
Kissimmee Intermodal													-
Poinciana	3	6	5	6	N/A	3	1						4
Total - All Stations	**1,503**	**1,732**	**1,728**	**1,305**	**1,563**	**1,451**	**1,446**	**-**	**-**	**-**	**-**	**-**	**1,543**
Percent change from FY 18 to FY 19	-15%	-10%	22%	-32%	23%	29%	5%	0%	0%	0%	0%	0%	-7%

LYNX is undertaking a replacement of its GPS bus tracking system, which also affects the Automatic Passenger Counter (APC) equipment, which is the device that gathers the information for this report. Because of this, ridership numbers may be lower than average.

VOTRAN CONNECTIONS

VOTRAN SUNRAIL CONNECTIVITY - March 2019

NOTE: Beginning October 2016 driver keys count only boardings and alightings at DeBary Station. Fiscal years 2014, 2015, and 2016 data reported boardings along SunRail Routes.

Votran Fixed-Route Average Daily Boardings & Alightings at DeBary Station

Activity at DeBary Station	Fiscal year 2017												Annual Daily
	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	
Days of operation	21	21	22	22	20	23	20	22	22	20	23	13	249
Avg Daily Ridership	54	48	68	69	43	46	47	50	58	67	83	80	59

Note: Hurricane Irma in 2017 interrupted SunRail from September 11 to September 19.

Votran Fixed-Route Average Daily Boardings & Alightings at DeBary Station

Activity at DeBary Station	Fiscal year 2018												Annual Daily
	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	
Days of operation	22	21	20	22	20	22	21	22	21	21	23	19	254
Avg Daily Ridership	96	76	79	63	62	69	69	67	61	72	79	72	72

Votran Fixed-Route Average Daily Boardings & Alightings at DeBary Station

Activity at DeBary Station	Fiscal year 2019												Annual Daily
	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	
Days of operation	23	21	20	22	20	21							127
Avg Daily Ridership	98	66	85	89	64	76							80

No SunRail service on Thanksgiving, Christmas or New Year's days.

COMMITTEE MEMBER COMMENTS

NEXT MEETING 8/7/19

SunRail

THANK YOU

@RideSunRail | SunRail.com

From: Talley, Stephen (FRA) [mailto:stephen.talley@dot.gov]
Sent: Wednesday, April 17, 2019 8:15 AM
To: Liquori, Nicola <Nicola.Liquori@dot.state.fl.us>
Cc: Neal, Gabe (FRA) <gabe.neal@dot.gov>; Hayward-Williams, Carolyn (FRA) <c.hayward-williams@dot.gov>; Clements, Tyrone (FRA) <tyrone.clements@dot.gov>; Viser, Calvin (FRA) <calvin.viser@dot.gov>; Ickes, Cody (FRA) <cody.ickes@dot.gov>; Warren, Lawrence (FRA) <lawrence.warren@dot.gov>; Rusnak, Richard <richard.rusnak@dot.gov>; Johnson, Donnie (FRA) <donnie.johnson@dot.gov>; Reustle, Robert (FRA) <robert.reustle2@dot.gov>; Hunter, Russell (FRA) <russell.hunter@dot.gov>; daniel.whitaker@jacobs.com
Subject: FRA Affirmation of RSD(CFRC)

Ms. Liquori,

This E-mail provides affirmation that CFRC has met each condition of Mr. Lauby's letter/enclosure dated March 28, 2019. CFRC may commence RSD.

Regards,

Stephen J. Talley
PTC Specialist, Region 3
Federal Railroad Administration
Mobile: 704-579-0263
Email: stephen.talley@dot.gov

U.S. Department of Transportation
Federal Railroad Administration
Rail - Moving America Forward

U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

MAR 2 8 2019

Ms. Nicola A. Liquori
Chief Executive Officer
Central Florida Rail Corridor–SunRail
801 SunRail Drive
Sanford, FL 32771

**Re: Conditional Approval of the Central Florida Rail Corridor's Request to Conduct
Revenue Service Demonstration of Its Interoperable Electronic Train
Management System (Docket Number FRA-2011-0104)**

Dear Ms. Liquori:

This letter responds to the Central Florida Rail Corridor's (CFRC) December 20, 2018, request
to the Federal Railroad Administration (FRA) to initiate revenue service demonstration (RSD)
operations on CFRC's Test Territory from milepost (MP) 765.18 to MP 777.57 using its
Interoperable Electronic Train Management System (I-ETMS). The present method of
operation on this territory is by signal indication of a traffic control system. This method of
operation will not be affected by the proposed testing.

After a review of CFRC's I-ETMS RSD request and supporting documentation, FRA finds
that CFRC's request satisfies the requirements for CFRC to initiate the RSD phase of
positive train control (PTC) system implementation on CFRC's Test Territory from MP
765.18 to MP 777.57. Therefore, FRA conditionally approves CFRC's request to conduct
RSD operations using I-ETMS on the Test Territory from MP 765.18 to MP 777.57. *See*
Title 49 Code of Federal Regulations (CFR) § 236.1035. Please see page 7 of the enclosure
to this letter for instructions on how to obtain the FRA test monitor's approval to initiate
RSD operations on the remainder of CFRC's main lines subject to the statutory mandate.

FRA's approval of the RSD operations identified in this letter is subject to the conditions
listed in the enclosure to this letter. FRA's conditional approval of RSD operations on
CFRC's Test Territory from MP 765.18 to MP 777.57 expires when CFRC receives PTC
System Certification from FRA or when FRA notifies CFRC of the termination of this
approval, whichever comes first.

FRA reserves the right to modify or rescind this approval upon receipt of information about the
safety of rail operations or noncompliance with any condition of this approval or any applicable
regulatory or statutory requirement. FRA will consider noncompliance with any condition of
this approval as a violation of 49 CFR § 236.1035(b).

FRA's test monitor for this project is Mr. Stephen Talley. As test monitor, Mr. Talley (or his designee) may impose additional conditions as necessary to ensure the safety of rail operations. Mr. Talley (or his designee) will provide affirmation of FRA's concurrence when CFRC has met each condition listed in the enclosure to this letter.

If you have questions regarding this letter or the conditions, please contact Ms. Carolyn Hayward-Williams, Staff Director, Positive Train Control/Signal & Train Control Division, at 202-493-6399 or c.hayward-williams@dot.gov.

Sincerely,

Robert C. Lauby
Associate Administrator for Railroad Safety
Chief Safety Officer

Enclosure

Enclosure

This enclosure lists the conditions applicable to the Federal Railroad Administration's (FRA) conditional approval of the Central Florida Rail Corridor's (CFRC) December 20, 2018, request to initiate revenue service demonstration (RSD) operations on CFRC's Test Territory from MP 765.18 to MP 777.57 using its Interoperable Electronic Train Management System (I-ETMS).

Conditions for I-ETMS RSD Operations on CFRC's Test Territory from MP 765.18 to MP 777.57:

1. CFRC's I-ETMS RSD operations may be conducted only on CFRC's Test Territory from MP 765.18 to MP 777.57. Please see page 7 of this enclosure for instructions on how to obtain the FRA test monitor's approval to initiate RSD operations on the remainder of CFRC's main lines subject to the statutory mandate.

2. This approval applies to the use of CFRC's I-ETMS-equipped EMD MP32 locomotives and Bombardier Bi-level cab cars upon the conclusion of sufficient testing acceptable to FRA and demonstrated to the satisfaction of the FRA test monitor to be safe. The FRA test monitor may authorize substitution or inclusion of an alternative type of locomotive or cab car only if CFRC demonstrates, to the FRA test monitor's satisfaction, that such substitution is safe. Substitution or inclusion of an alternative type of locomotive or cab car for RSD operations without prior FRA approval is prohibited.

3. CFRC must verify the position of the critical features in the onboard I-ETMS track database for CFRC's Test Territory from MP 765.18 to MP 777.57 against the critical features' actual physical locations and provide the results to FRA via the FRA's Secure Information Repository (SIR) site (https://sir.fra.dot.gov). Critical features include all integer mileposts, all station signs used as designated limits, all signals, all switches, all highway-rail grade crossings (each edge of crossing on each track), all permanent speed restrictions (the begin- and end-limits), all track detection circuits (the begin- and end-limits) in dark territory, all clearance points for every switch location installed on the main and siding tracks, and any inside switches equipped with switch-circuit controllers throughout the I-ETMS territory.

   a. Each critical feature in the onboard I-ETMS database must not differ from the feature's actual position by more than 2.2 meters (7.2 feet), which is the mean 95 percent 2-D All in View 2003 Calendar Year Global Positioning System Circular Error of Probability. If any critical feature is relocated or a new critical feature is added to a track segment, CFRC must verify and validate that the critical features in the onboard I-ETMS database do not differ from the features' actual position by more than 2.2 meters (7.2 feet). CFRC must provide written test results of the required track database verification and validation to the FRA test monitor before

1

commencing RSD.

4. Before CFRC commences RSD operations, the proper operation of the wayside interface units' (WIUs) inputs and outputs throughout the I-ETMS territory must be verified and validated, appropriate proof must be furnished to FRA via the FRA SIR site, and CFRC must notify the FRA test monitor of that submission.

5. Before CFRC commences RSD operations, all functional feature testing applicable to the existing methods of operation on the I-ETMS territory must be satisfactorily completed, the results must be provided to FRA via the FRA SIR site, and CFRC must notify the FRA test monitor of that submission.

6. Before CFRC commences RSD, CFRC must provide written verification to FRA (via FRA's SIR site) that all appropriate personnel have received PTC training per CFRC's PTC training program as required by Title 49 Code of Federal Regulations (CFR) Sections 236.1041, *Training and qualification program, general*; 236.1043, *Task analysis and basic requirements*; 236.1045, *Training specific to office control personnel*; 236.1047, *Training specific to locomotive engineers and other operating personnel*; and 236.1049, *Training specific to roadway workers*.

7. Before CFRC commences RSD operations on CFRC's Test Territory from MP 765.18 to MP 777.57, CFRC must complete a minimum of 10 consecutive end-to-end runs without any system anomalies or failures, and CFRC must provide the results to FRA via the FRA SIR site and notify the FRA test monitor of that submission. A run is defined as the operation of a train in one direction over the entire I-ETMS territory with an I-ETMS-equipped locomotive, in other than a turn or helper service, between the terminals for which that locomotive would be in service with the I-ETMS system fully operational and enforcing. A system anomaly or failure is any behavior of the system that is not in accordance with the approved concept of operations, the approved hardware or software design requirements and/or specifications, the approved hardware or software operational requirements and/or specifications, and/or any associated and approved engineering change orders. An "act of God" is an anomaly to the extent that it causes a deviation in the behavior of the I-ETMS hardware or software from these approved documents. Anomalies have a much broader definition than critical anomalies (see condition #8 below for the definition of critical anomalies).

8. Any critical anomalies that may affect the safety of train operations must be reported immediately to the FRA test monitor or to the designated representative. Critical anomalies include, but are not necessarily limited to, the following:

   a. Failure to enforce brakes. This is a failure of an I-ETMS system to generate a brake application command when the train was supposed to be stopped or slowed down.

   b. Overrun of authority boundaries. This is a failure of an I-ETMS system to

display the correct authority at the appropriate time (the train did not receive authority sent by the dispatcher, or received the correct authority too late), or to record the discrepancies associated with authority transmission. It does not include situations such as a lightning strike disabling a radio transmitter and preventing the dispatcher from transmitting an authority to the onboard computer. However, the failure of the onboard computer to generate the brake application command when no authorities are in its system is a critical anomaly. Another example is that there may be times when the dispatching system generates an original authority in error, and the onboard system correctly receives that authority. The authority is in error, but it would not be considered a critical anomaly if it is outside of the I-ETMS system and the PTC system worked as intended.

c. Unintended enforcement. This is an erroneous generation of the brake application command without warning or when not required.

d. Category 1 or 2 software issue. A Category 1 software issue is any deficiency that, if uncorrected, has no known and acceptable workaround (i.e., repair necessitates taking the system offline until repairs are completed, and the system is tested and returned to normal functionality), and may: (1) cause death, severe injury, or severe occupational illness; (2) cause major loss or damage to equipment or a system; (3) prevent the accomplishment of an essential capability or required interaction with other mission-critical functions; or (4) adversely affect an essential capability or negatively impact operational safety, suitability, or effectiveness. A Category 2 software issue is any deficiency that adversely affects an essential capability or negatively impacts operational safety, suitability, or effectiveness, but where adequate performance may be achieved through significant compensation or an acceptable workaround.

9. Before CFRC commences RSD operations, CFRC must:

a. Provide prior written notification to all tenant railroads operating on each applicable track segment that CFRC will be conducting RSD operations. *See also* 49 U.S.C. § 20157(l). The notifications must specifically state if CFRC is imposing any special conditions or requirements on the tenant railroads' operations, and if there are any potential risks to the tenant railroads' equipment because of the RSD operations. RSD testing may not commence until CFRC receives confirmation that each tenant railroad received the notification. CFRC must maintain signed copies of each tenant railroad's confirmation of receipt of the notification on file in the territory in question and available for inspection and duplication by FRA during normal business hours.

b. Identify to FRA in writing all outstanding software issues[1] and the associated mitigations; and

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[1] A software issue is an error, flaw, failure, or fault in a computer program or system that causes it to produce an incorrect or unexpected result or to behave in an unintended manner.

c. Have no outstanding/open Category 1 or 2 software issues as defined in condition #8.

10. At a minimum, during the RSD phase, CFRC must complete 108 consecutive runs (as defined in condition #7) on CFRC's Test Territory from MP 765.18 to MP 777.57 with I-ETMS active without a critical anomaly (as defined in condition #8).

11. A minimum of 75 percent of the CFRC crew members actively working on CFRC's Test Territory from MP 765.18 to MP 777.57 must be trained in the operation of the I-ETMS system during this RSD phase. In no event may a person who is not qualified under 49 CFR part 236, subpart I operate an I-ETMS-equipped train in RSD.

12. Before operating an I-ETMS-equipped train in RSD, each CFRC train crew must participate in a job briefing regarding revised or modified I-ETMS system capabilities and limitations, and any ongoing system testing.

13. Each crew member actively working on the I-ETMS territory must have successfully completed locomotive simulator and classroom training, where the simulator accurately reflects the use and operation of I-ETMS. In the event of simulator unavailability or otherwise at the railroad's discretion, this training requirement may be fulfilled by the employee's completion of a supervised run of sufficient length to experience the I-ETMS functionality with an equipped locomotive under the direction of a person fully qualified and experienced in the operation of the system. In no event may a person who is not trained in accordance with this paragraph operate an I-ETMS-equipped train in RSD.

14. During RSD operations, I-ETMS must be active, and CFRC's I-ETMS RSD operations must comply with I-ETMS operating rules and all applicable CFRC operating rules (including, for example, special orders, bulletins, and notices).

15. CFRC must immediately report to FRA any applicable plan, condition, or rule violation caused by I-ETMS. Until resolution of the issue, all trains operating I-ETMS in RSD must be placed in cutout mode.

16. CFRC must develop a plan for gathering and analyzing I-ETMS data, demonstrating compliance with the conditions of this letter. At a minimum, this plan must include the following: identification of the system under testing, periodicity of the data being recorded, what data is to be collected, an analysis of the data, data concerning comparison of transmitted authorities, and data concerning the specific circumstances under which I-ETMS should initiate enforcement. Before CFRC commences RSD operations, FRA must approve this plan. CFRC and Wabtec must perform continued field analysis of the data to ensure system integrity. CFRC must comply with this condition even after it has completed the required number of runs under condition #10 in this enclosure.

17. CFRC must provide a monthly summary report of all RSD results to FRA via the FRA

SIR site and notify the FRA test monitor of that submission within 21 days of the close of the month for which results are provided. This monthly summary must include:

a. Train Start Information.

    i. The monthly total of all train starts in the territory;

    ii. The number of train starts with I-ETMS-equipped locomotives in the lead;

    iii. Of the total number of train starts with I-ETMS-equipped locomotives in the lead, the number of train starts with I-ETMS in operation; and

    iv. An itemized list of cases for which I-ETMS-initiated penalty brake applications occurred, including circumstances of each such occurrence (e.g., system failed "safe," crew violated specific rule, cars rolled out activating track circuit) and whether the occurrence was unintended, predictive, or reactive.

b. A list of each system anomaly or system failure with the associated corrective actions for all I-ETMS onboard, wayside, office, or communications systems. This list must include the following for each system anomaly or failure for each individual system, subsystem, or component:

    i. The specific system, subsystem, or component that experienced the anomaly or failure;

    ii. The type of anomaly or failure (i.e., initial or repeat). A repeat anomaly or failure is one that occurs more than once since the railroad's initial reporting period;

    iii. The total number of operating hours each I-ETMS-equipped locomotive was available for operation, and the total number of operating hours of the operating system, subsystem, or component before the failure or anomaly occurred. In the case of repeat failures or anomalies, the total number of operating hours since the occurrence of the last failure or anomaly;

    iv. The specific failure or anomaly mode;

    v. An analysis of the root cause of the failure or anomaly; and

    vi. The corrective actions taken.

c. Any failure to enforce where it would have been appropriate for I-ETMS to enforce;[2]

d. Any instance where an I-ETMS-equipped locomotive failed to initialize;

e. Any instance where an I-ETMS-equipped locomotive transitioned to the

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[2] This monthly reporting requirement does not eliminate the requirement to timely report during any event requiring a report pursuant to 49 CFR part 233, *Signal Systems Reporting Requirements*.

disengaged state while operating in I-ETMS territory;

f. Any instance where the railroad cut out an I-ETMS-equipped locomotive while operating in I-ETMS territory; and

g. Any other I-ETMS system anomalies that may have a bearing on safety or system reliability, including any variance between authorities or restrictions displayed by I-ETMS and mandatory directives received by conventional means (either paper copies or verbal transmissions from the dispatchers).

18. This approval applies only to CFRC conducting RSD, using CFRC's equipment and properly trained employees, on the CFRC I-ETMS territory listed in condition #1, and it does not cover the installation or use of I-ETMS on any other tenant railroad equipment or by tenant railroad crews. Before another railroad may operate I-ETMS in RSD on CFRC property, CFRC must (1) provide to FRA written verification that the PTC equipment has been properly installed in accordance with the procedures required by 49 CFR § 236.1039, *Operations and Maintenance Manual*, and that the train crews have received the training required by 49 CFR §§ 236.1041, *Training and qualification program, general*; 236.1043, *Task analysis and basic requirements*; 236.1045, *Training specific to office control personnel*; 236.1047, *Training specific to locomotive engineers and other operating personnel*; and 236.1049, *Training specific to roadway workers*, and (2) receive written approval from FRA.

This I-ETMS RSD phase is complete after execution of at least the minimum sample set of train runs through the I-ETMS territory with I-ETMS active and enforcing, and completion of the following:

1. A minimum of 75 percent of the CFRC crew members actively working on CFRC's Test Territory from MP 765.18 to MP 777.57 are trained in the operation of the I-ETMS system;

2. Consistent with condition #10, CFRC must complete 108 consecutive RSD runs on CFRC's Test Territory from MP 765.18 to MP 777.57 without a critical anomaly. If any critical anomalies occur during this phase of testing, the number of successful RSD runs must be reset to zero and this phase must be started over;

3. No open Category 1 or 2 software problem trouble reports exist, as defined in condition #8; and

4. All critical anomalies (as defined in condition #8) are resolved.

CFRC may begin the I-ETMS Extended RSD Phase (the next phase) after it completes this initial RSD phase and receives the written concurrence of the FRA test monitor, based on FRA's review of the reported results and other submitted documentation.

Conditions for CFRC's I-ETMS Extended RSD Phase 2 (Remainder of CFRC's PTC-required Territory from MP 749.61 to MP 813.82)

Conditions #s 1–3, 8, and 11–18 from the initial I-ETMS RSD Phase (see above, "Conditions for CFRC's I-ETMS RSD Operations on CFRC's Test Territory from MP 765.18 to MP 777.57") also apply during CFRC's I-ETMS Extended RSD Phase 2, which may include CFRC's RSD operations on the remainder of CFRC's main lines subject to the statutory mandate. However, during this extended phase only, condition #8 is modified to eliminate the immediate reporting requirement for unintended enforcement critical anomalies.

Requirements, Procedures, Documentation, and Reporting – All Phases of RSD

FRA agrees that the following regulatory requirements do not apply during CFRC's I-ETMS RSD operations performed under this conditional approval:

- 49 CFR § 236.76, *Tagging of wires and interference of wires or tags with signal apparatus* (limited to instances where impractical for PTC-related equipment); and

- 49 CFR § 236.552, *Insulation resistance; requirement* (for onboard systems only).

FRA agrees that the following regulatory requirements only partially apply, as described below, during I-ETMS RSD operations performed under this conditional approval:

- 49 CFR § 236.109, *Time releases, timing relays and timing devices*. Calibration is required once every 12 months against an approved time source maintained by the National Institute of Standards and Technology or its military counterpart, the U.S. Naval Observatory;

- 49 CFR § 236.586, *Daily or after trip test*. Regular inspection of the hardware is required as determined by the applicable operations and maintenance manual; and

- 49 CFR § 236.587, *Departure test*. I-ETMS provides the capability for the train crew or other qualified personnel to invoke a departure test as required by this regulation or railroad rule. Additionally, I-ETMS requires that a departure be completed during the initialization process if 96 hours have elapsed since the last successful departure test was performed.

During all phases of RSD operations, CFRC must ensure that:

1. I-ETMS is operated in compliance with all applicable Federal regulations, except for those that FRA has specifically waived;

2. I-ETMS is run operationally without requesting prior permission from the dispatcher to activate the system;

3. Electronic delivery of authorities to the crew by I-ETMS is not the sole means of providing movement authorization;

4. No more than 5 percent of the cars in any I-ETMS-equipped train may have inoperative brakes. In the event that more than 5 percent of the cars in any I-ETMS-equipped train have inoperative brakes, the train crew must inform the dispatcher, and the crew must cut out the I-ETMS system upon receiving authorization from the dispatcher to do so;

5. CFRC gathers and analyzes data in accordance with conditions #16 and #17 set forth above;

6. Before operating an I-ETMS-equipped train with I-ETMS active, each CFRC train crew must participate in a job briefing regarding revised or modified I-ETMS system capabilities and limitations, and any ongoing regression testing;

7. For the duration of the RSD test phases, CFRC must maintain documentation of job training for train and engine crew members with respect to the operational capabilities and limitations of the I-ETMS system. This job training and documentation includes, but is not limited to, the training and skill requirements associated with I-ETMS;

8. Before recommencing RSD operations following any I-ETMS software or hardware modification, CFRC must conduct appropriate tests under an FRA-approved test plan, provide documentation to the FRA test monitor via the FRA SIR site, and receive written approval from the FRA test monitor before further RSD operations are permitted. The documentation must explain the nature of the change, its priority and the technical justification for that prioritization, the regression testing accomplished, who witnessed the testing, the rationale for the testing selected, and the results of that testing;

9. CFRC must notify the FRA test monitor in writing of any changes to the I-ETMS software or hardware, including the reason for the change and if regression testing is required;

10. There must be no system-initiated brake applications, except under the specific conditions that are defined in CFRC's approved I-ETMS data plan (see condition #16 above) or in accordance with the designed concept of operations;

11. CFRC must document any unplanned I-ETMS-initiated brake enforcements and provide that documentation to the FRA test monitor within seven (7) calendar days of the occurrence. CFRC must immediately report to the FRA test monitor any applicable plan, condition, or rule violation caused by I-ETMS. Until resolution of the issue, I-ETMS must be placed in cutout mode on all CFRC trains operating I-ETMS in RSD; and

12. FRA reminds CFRC that FRA's conditional approval, dated June 22, 2018, of CFRC's I-ETMS Field Test Request is still in effect from MP 749.61 to MP 813.82.

Annual PTC Progress Report

2018

Central Florida Rail Corridor   FRA-2011-104

The Annual Positive Train Control (PTC) Progress Report is due by March 31st of each year until full PTC system implementation is completed. The Annual PTC Progress Report must cover the railroad's implementation efforts and progress from the directly previous calendar year, and must be submitted electronically to the Federal Railroad Administration (FRA) via the FRA Secure Information Repository at https://sir.fra.dot.gov.

General Instructions:

1. References to a railroad's PTC Implementation Plan (PTCIP) in this form refer to the railroad's revised PTCIP submitted under the Positive Train Control Enforcement and Implementation Act of 2015, or the most current amended PTCIP FRA has approved, if any;
2. If a particular category listed in a table does not apply to the railroad's technology, please indicate "N/A"; and
3. For Sections 2, 4, and 6, please select a "Status" option from the drop-down menus provided.

Name of Railroad or Entity Subject to 49 U.S.C. § 20157(a): Central Florida Rail Corridor

Railroad Code: CFRC

Annual PTC Implementation Progress Report for: 2018

PTCIP Version Number on File with FRA (basis for goals stated): Version 10.1

Date of Submission: 3/29/2019

Contents

1. Summary

Category	Quantity Completed During Calendar Year	PTCIP Year End Goal (If Applicable)	Cumulative Quantity Completed To Date	Total Quantity Required for PTC Implementation
Locomotives Fully Equipped and PTC Operable	24	24	24	24
Installation/Track Segments Completed	4	4	4	4
Radio Towers Fully Installed and Equipped	8	8	8	8
Employees Trained	116	50	116	95
Route Miles in Field Testing[1]	61.4	61.4	61.4	61.4
Route Miles in Revenue Service Demonstration[1]	0	0	0	61.4
Route Miles in PTC Operation	0	0	0	61.4

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[1] As applicable, enter the number of route miles where a PTC system is currently undergoing field testing in one row and, in a separate row, the number of route miles where a PTC system is currently in revenue service demonstration. Railroads must only identify in the "Route Miles in Field Testing" and "Route Miles in Revenue Service Demonstration" fields any route miles that are still currently undergoing PTC field testing and/or revenue service demonstration. For example, if field testing is complete and a railroad is operating its PTC system in revenue service demonstration exclusively, a railroad may write "Complete" in the "Route Miles in Field Testing" fields.

Once a railroad has received written authorization from FRA to operate its PTC system in revenue service (through either provisional operations authorization under 49 U.S.C. 20157(h)(2) or PTC System Certification under 49 U.S.C. 20157(h)(1), the railroad must identify any route miles where a PTC system is being operated in revenue service in the "Route Miles in PTC Operation" field. If a railroad is operating the PTC system in revenue service and has completed all field testing and revenue service demonstration, it may write "Complete" in the "Route Miles in Field Testing" and "Route Miles in Revenue Service Demonstration" fields.

Provide a narrative summary of overall PTC implementation progress during the preceding calendar year (January 1 to December 31):

CFRC completed the following in 2018:
- installation of PTC Hardware on 24 of 24 locomotives (11 Locomotives and 13 Cab Cars)
- installation of the remaining 6 WIU's (to complete 85 of 85 WIU's as shown in the CFRC PTCIP)
- installation of 8 of 8 radio base stations (220 MHz) and towers
- installation and implementation of a remote Back Office Server
- training of 116 personnel (exceeding the PTCIP goal of 50 personnel)
- performed V&V Testing, WIU Testing, RSV Testing, FIT and FQT Testing on the PTC Test Track
- requested authorization to enter RSD on the PTC Test Track on December 20, 2018
- began SubDiv development for the remaining CFRC outside of the PTC Test Track

An Alternative Schedule and Extension Request was submitted on December 17, 2018. A modified Alternative Schedule was submitted on January 18, 2019 to match the CFRC PTCIP Ver 10.1.

2. Annual Update on Spectrum

Area or Location (e.g., county) That Requires Spectrum, as Reported in PTCIP[2]	Status at End of Calendar Year	Projected Status That Was Listed in PTCIP for Calendar Year
Spectrum Coverage Area or Location†: CFRC – 61.35 Miles	**Acquired And Available For Use**	**Acquired And Available For Use**

†Note: To add rows for additional spectrum areas or
locations, click on the blue "**+**" symbol at the bottom

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[2] If the railroad reported in its PTCIP that all necessary spectrum had been acquired and was available for use, or the railroad's technology does not require the use of spectrum, please indicate "N/A" in this table.

Describe the basis for how the railroad is determining that the acquired spectrum is available for use by PTC radios (e.g., ensuring non-interference with other radios), and provide any additional narrative for Spectrum below:

CFRC has executed a sublease agreement with CSXT which included specific radio licenses. CFRC used the tools provided by PTC 220, LLC to determine the appropriate frequency for use on the CFRC geographic area. The CFRC PTC Contractor has performed testing to verify functionality of the 220 MHz radios.

3. Annual Update on Major Installations

3.1. Locomotive Status

Category / Installation Feature	Quantity Installed During Calendar Year (Sum of Quarterly Totals)	PTCIP Year End Goal (If Applicable)	Cumulative Quantity Installed	Grand Total Reported in PTCIP (If Applicable)
Locomotive (Apparatus)[3]				
Locomotives with On-board Computers (e.g., Train Management Computer) Installed	24	24	24	24
Locomotives with PTC Displays Installed	24	24	24	24
Locomotives with PTC-Capable Event Recorders Installed	24	24	24	24
Locomotives with Locomotive Radios Installed – Primary Communications (e.g., 220 MHz radios)	24	24	24	24
Transponder Readers (e.g., for non I-ETMS systems)	N/A	N/A	N/A	N/A

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[3] If a particular category listed in this table does not apply to the railroad's technology, please indicate "N/A." A railroad may add categories or subcategories if it wants to provide more detail.

PTC Software: Describe 1) the railroad's approach to installation of PTC software on its locomotive fleet, and 2) any issues the railroad is experiencing with installed versions of train management software (e.g., reverting back to previous software versions due to errors in the current version):

PTC Software was installed on 3 locomotives and 2 Cab Cars in 2018 and the installation of the software on the remaining 8 locomotives and 12 cab cars was completed in February 2019. CFRC has encountered no issues with the software installed that has required reverting to previous versions.

Provide any additional narrative for Locomotive Status below:

Click here to enter text.

3.2. Infrastructure/Back Office Status

Infrastructure – Back Office Systems		Met PTCIP Year-End Goal for Installation of Physical Back Office System Equipment? *(Choose Yes, No, or N/A)*
How many physical back office locations are required for PTC operations, as reported in the PTCIP?	1	
How many physical back office locations have been constructed with all necessary equipment installed?	2	Yes
Are the Back Office Location(s) fully operable with PTC?	Yes	
Are the Dispatching Location(s) fully operable with PTC?	Yes	

Provide any additional narrative for Infrastructure/Back Office Status below:

CFRC is using a hosted Back Office. One BOS is required for PTC operations – a second, redundant BOS has been installed to provide a backup in the event of a failure of the main BOS.

3.3.   Infrastructure/Wayside Status

Category / Installation Feature	Quantity Installed During Calendar Year (Sum of Quarterly Totals)	PTCIP Year End Goal[3]	Cumulative Quantity Installed	Grand Total Reported in PTCIP
Infrastructure – Wayside Installations (Systemwide)[4]				
Wayside Interface Units	6	6	85	85
Communication Towers or Poles	8	8	8	8
Switch Position Monitors	N/A	N/A	N/A	N/A
Wayside Radios	N/A	N/A	N/A	N/A
Base Station Radios	8	8	8	8
Are all necessary communication backbone utilities (including fiber, copper, ground wiring etc.) installed and ready for operation? Yes				

Provide any additional narrative for Installation/Wayside Status below:

Click here to enter text.

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[3] Unlike the heading in table 3.1, this heading is not qualified with "(If Applicable)" because each railroad was required to provide year-end goals for these particular hardware categories under the PTC Enforcement and Implementation Act of 2015.

[4] If a particular category listed in this table does not apply to the railroad's technology, please indicate "N/A." A railroad may add categories or subcategories if it wants to provide more detail.

4. Installation/Track Segment Progress[5]

Segment Identification[6]	Status at End of Calendar Year _Current status of installation/track segment._ **_Choose one_**_:_	Number of Route Miles in Segment	Estimated Start Date for Revenue Service Demonstration (if not already completed)	Precise Milepost (MP) Limits and/or Control Point (CP) Limits Where PTC was Implemented and Operable at End of Calendar Year[7]
Segment *(add additional rows for segments as necessary):* RSD Test Track	Field Testing	12	1st Quarter 2019 (March 30, 2019)	765.18 – 777.60
Segment *(add additional rows for segments as necessary):* Phase 1 (IOS)	Field Testing	19	4th Quarter 2019 (December 16, 2019)	777.60 – 796.63
Segment *(add additional rows for segments as necessary):* Phase 2 South	Field Testing	17	4th Quarter 2019 (December 16, 2019)	796.63 – 813.82
Segment *(add additional rows for segments as necessary):* North Extension	Field Testing	15	4th Quarter 2019 (December 16, 2019)	749.61 – 765.18

Note: To add additional rows, click on the blue "+" symbol at the

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[5] For passenger rail operations, this information should be further segregated into those routes where it is a host or tenant.

[6] Segment identification should be consistent with installation segments as listed in the railroad's PTCIP (e.g., by track segment, territory, subdivision, district, etc.).

[7] This column must identify the precise MP limits and/or CP limits of where a PTC system had been implemented and was operable within the installation/track segment (e.g., MP 100.25 to MP 150 and MP 155 to MP 190). Also, this column must identify any miles of track, by MP or CP, that are excluded from PTC implementation under an FRA-approved exception within the installation/track segment (e.g., Main Line Track Exception (Terminal): MP 1.5 to MP 2 and De Minimis Exception: MP 45 to MP 55).

Instead of completing this individual column (Column 5 in Section 4), your railroad may submit a Geographic Information System (GIS) shapefile, directly to the SIR website, identifying the installation/track segments and portions thereof (e.g., route miles) where a PTC system had been implemented and was operable by the end of the reporting period (i.e., the previous calendar year), including the following fields and information: (1) a PTC attribute field (coded with "Y" if line segment has PTC installed and operable, otherwise left blank), (2) a SUBDIV attribute field (populated with subdivision name), (3) the precise MP limits and/or CP limits of where a PTC system had been implemented and was operable, and (4) any miles of track, by MP or CP, that are excluded from PTC implementation under an FRA-approved exception within the installation/track segment (e.g., Main Line Track Exception (Terminal): MP 1.5 to MP 2 and De Minimis Exception: MP 45 to MP 55).

Provide any additional narrative for Installation/Track Segment Status below:

CFRC submitted a request to enter Revenue Service Demonstration on the PTC Test Track on December 20, 2018. A response was anticipated no later than March 30, 2019 and this date was entered in the PTCIP. At the time of this submittal, approval had not yet been provided.

The CFRC is anticipated to be in RSD on the remainder of the corridor in the 4th Quarter 2019 and has used a scheduled date of December 16, 2019 to reflect this timeframe.

5. Annual Update on Employee Training

Employee Category[8]	Number of Employees Trained During Calendar Year (Sum of Quarterly Totals)	PTCIP Year End Goal	Cumulative Number of Employees Trained	Grand Total Reported in PTCIP
Employees who Install, Maintain, Repair, Modify, Inspect, and Test the PTC System	30	22	30	22
Employees who Dispatch Train Operations	13	12	13	12
Train and Engine (Operations) Employees	42	10	42	10
Roadway Worker Employees	0	0	0	0
Direct Supervisors of the Above Employees	31	6	31	6

Provide any additional narrative for Employee Training below:

In accordance with the PTCIP Ver. 10.1, 50 personnel are required to be trained.

During 2018, CFRC trained a total of 116 employees including O&M Contractors, FDOT employees and FDOT consultants who will be working with PTC. CFRC exceeded its stated goal for training personnel and was able to complete training all personnel that required training for PTC

[8] *See* 49 C.F.R. § 236.1041(a).

implementation.

An overview of PTC and instructions that provided an understanding of how the PTC System affects their safety and how to avoid interfering with its proper functioning was provided to CFRC personnel using Job Briefings, instruction in the CFRC PTC Critical Asset Change Standard Operating Procedure and a PTC Management Workshop. CFRC personnel included the Roadway Worker Employees.

6. Annual Update on Interoperability Progress and Other Formal Agreements

This section is provided to help railroads describe interoperability information. Please provide any additional information (e.g., an appendix) as appropriate.

Required content:

- For host railroads: provide updates to any agreements and key milestones for all tenant operations
- For tenant railroads: provide updates to any agreements and key milestones for all operations over tracks hosted by another railroad

Host and Tenant Railroads: Provide a general update on interoperability in the textbox below:

CFRC has established a BOS connection from the CFRC hosted environment to CSXT BOS in August 2018 and the Amtrak BOS in September 2018. Completion of interoperability testing to include full interoperability with the tenant railroads is scheduled for no later than November 2020.

CSXT and Amtrak continue to hold PTC Status Meetings with the CFRC/FDOT to discuss project milestones, particularly the scheduling of interoperability testing and RSD. CSXT/CFRC interoperability kickoff meeting was held February 2019 to begin coordinating interoperability testing. A similar meeting was held with Amtrak in February 2019.

FCEN, a tenant Class 3 Short Line freight railroad was granted an FRA approved exception to 49 CFR 236.1006 to operate non-PTC equipped locomotives on the CFRC corridor for interchange purposes on June 27, 2018.

Host Railroads Only: For each tenant, provide additional tenant information below:

Tenant Identification (add rows for additional tenants as necessary)	Estimated Quantity of Tenant Rolling Stock to be Equipped with PTC	Scheduled Completion Date for Interoperability Testing	Current Tenant Implementation Status *Choose one*:
CSXT	In Tenant's PTCIP	November 2020	Testing
Amtrak	In Tenant's PTCIP	November 2020	Testing
Florida Central Railroad (FCEN)	N/A	N/A	Operational/Complete

Note: To add additional rows, click on the blue "+" symbol at the bottom right-hand corner. Please be

7. Progress on Implementation Schedule/Milestones

Describe the extent to which the railroad or other entity is not complying with the implementation schedule it provided in its PTCIP:

CFRC submitted a request to enter Revenue Service Demonstration on the PTC Test Track on December 20, 2018. A response was anticipated no later than March 30, 2019 and this date was set as the CFRC goal in the PTCIP Ver. 10.1. At the time of this submittal, approval had not yet been provided.

When the approval for RSD is received, CFRC will review the requirements of the approval letter and schedule a meeting with the FRA PTC Specialist to ensure understanding of the requirements and schedule the start of RSD after this meeting. It is unlikely CFRC will be able to meet the PTCIP Ver. 10.1 goal of March 30, 2019 for entering RSD on the Test Section. CFRC is submitting an RFA and PTCIP ver. 10.2 to adjust the date for initiation of RSD to no later than April 30, 2019.

8. Summary Update of Challenges/Risks

Provide any update to the summary of remaining technical, programmatic, operational, or other challenges that the railroad or other entity provided in its PTCIP, including challenges with availability of public funding, interoperability, spectrum, software, permitting, and testing, demonstration, and certification. Also, identify any risks that might cause the railroad to miss its schedule milestones (e.g., funding, technology, agreements):

The CFRC's aggressive implementation schedule requires precise scheduling and close coordination with all contractors to the railroad and tenant railroads as well as frequent updates with the FRA about their required deliverables.

9. Annual Update for Intercity or Commuter Rail Passenger Transportation (if applicable)

If this section is not applicable to your railroad, please write "N/A."

For each entity providing regularly scheduled intercity or commuter rail passenger transportation, provide a description of the resources identified and allocated to implement a PTC system:

FDOT has dedicated staff to manage the CFRC and SunRail commuter operations. This staff provides direct oversight of the PTC Consultants listed below and has other FDOT resources available as needed to assist with PTC Implementation.

CFRC (FDOT) has several consultants under contract to assist with technical support of the PTC Implementation. CFRC (FDOT) Consultants have additional staff available to assist FDOT with accomplishing required oversight and technical support.

CFRC (FDOT) has an executed contract with Xorail (Wabtec) to provide design, installation and testing for all PTC Segments

CFRC (FDOT) has an executed contract with Jacobs to provide Program Management and Construction/Engineering and Inspection (CEI) oversight and review for PTC Segments.

10. Estimated PTC Safety Plan (PTCSP) Submission Date (if not already submitted)

If this section is not applicable to your railroad, please write "N/A."

PTCSP Submission Date
4th Quarter 2019 (November 29, 2019)

Provide any additional narrative for PTCSP Submission below:

CFRC (FDOT), Wabtec and Jacobs will coordinate efforts to develop and generate appropriate data to prepare the PTSCP.

Preparation of the PTCSP started in 2018 and continues with the gathering of data from PTC testing and train runs.

11. Testing and Integration Efforts (if applicable, laboratory, integration, and revenue service demonstration)

Provide an update on testing and integration efforts below:

Lab Testing of the PTC Test Track was completed in 2018 and CFRC completed field V&V Testing, WIU Testing, RSV Testing, FIT and FQT Testing on the CFRC Test Track. All testing required for initiation of RSD on the PTC Test Track was completed in December 2018.

Development of the SubDiv file for the remainder of the corridor is in progress and will be followed by lab testing of the SubDiv file. Field V&V is scheduled to begin in June 2019 with the remaining field testing to be completed by October 2019.

RSD for the Test Track is anticipated to begin in April 2019 and RSD is scheduled to begin on the entire CFRC in December 2019.

Quarterly Progress Report Form – Positive Train Control Implementation

To effectively monitor each railroad's progress implementing a positive train control (PTC) system, the Federal Railroad Administration (FRA) is requiring the submission of quarterly progress reports on this form, beginning June 30, 2016, under its investigative authorities. *See, e.g.,* 49 U.S.C. §§ 20107, 20902, 20157(c)(2); 49 C.F.R. § 236.1009(h). Railroads must use this form to report PTC implementation progress data quarterly, by the due dates set forth in the table below. Each railroad should select the correct quarter and year for each quarterly report. A railroad must submit quarterly reports until a PTC system is fully implemented on all required main lines under 49 U.S.C. § 20157 and 49 CFR part 236, subpart I, including a quarterly report for the quarter in which the railroad completes full PTC system implementation.

Quarterly PTC Progress Reports must be submitted electronically to FRA via the FRA Secure Information Repository (SIR) at https://sir.fra.dot.gov.

Key Dates for PTC Implementation Quarterly Progress Reporting:

Period	Coverage Period	Progress Report Due Date
Q1	January 1 – March 31	April 30
Q2	April 1 – June 30	July 31
Q3	July 1 – September 30	October 31
Q4	October 1 – December 31	January 31

General Instructions:

1. References to a railroad's PTC Implementation Plan (PTCIP) in this form refer to the railroad's revised PTCIP submitted under the Positive Train Control Enforcement and Implementation Act of 2015, or the most current amended PTCIP FRA has approved, if any;
2. If a particular category listed in a table does not apply to the railroad's technology, please indicate "N/A"; and
3. For Sections 2, 4, and 6, please select a "Status" option from the drop-down menus provided.

Name of Railroad or Entity Subject to 49 U.S.C. § 20157(a):	Central Florida Rail Cor
Railroad Code:	CFRC
Quarterly PTC Progress Report for:	Q1 2019
Date:	4/29/2019

FRA F 6180.165

Quarterly Progress Report Form – Positive Train Control Implementation

1. Summary

Category	Cumulative Quantity Completed To Date	Total Quantity Required for PTC Implementation
Locomotives Fully Equipped and PTC Operable	24	24
Installation/Track Segments Completed	4	4
Radio Towers Fully Installed and Equipped	8	8
Employees Trained	116	50
Territories[1] in Revenue Service Demonstration or in PTC Operation	0	0
Route Miles in Field Testing[2]	61.4	61.4
Route Miles in Revenue Service Demonstration[2]	0	61.4
Route Miles in PTC Operation	0.0	61.4

Provide a narrative summary of overall PTC implementation progress during the applicable quarter:

PTCIP Ver 10.1 was submitted on January 18, 2019 with approval for the CFRC Alternative Schedule and PTCIP Ver. 10.1 on received February 26, 2019. On March 28, 2019, CFRC submitted PTCIP Ver. 10.2 to update the date proposed to initiate RSD on the CFRC Test Territory from March 30, 2019 to April 30, 2019.

CFRC submitted an RSD request to initiate PTC operation on the 12-mile test section on December 20, 2018. On March 28, 2019, CFRC received Conditional Approval for the request to initiate RSD. On April 9, 2019, CFRC met with the FRA Test Monitor to review the Conditional Approval in preparation to initiate RSD. CFRC initiated RSD operations on the CFRC Test Territory on April 22, 2019.

All TMC and Slot 10 software has been loaded and tested on the CFRC's 24 locomotives and cab cars.
SubDiv file creation for the 61.4 mile CFRC has been completed and is being lab tested.

[1] A territory is an entire installation/track segment as identified in the railroad's PTCIP (*e.g.*, a track segment, territory, subdivision, district, etc.) consistent with 49 U.S.C. 20157(a)(3)(B)(vi), 49 CRF part 236, subpart I.

[2] As applicable, enter the number of route miles where a PTC system is currently undergoing field testing in one row and, in a separate row, the number of route miles where a PTC system is currently in revenue service demonstration. Railroads must only identify in the "Route Miles in Field Testing" and "Route Miles in Revenue Service Demonstration" fields any route miles that are still currently undergoing PTC field testing and/or revenue service demonstration. For example, if field testing is complete and a railroad is operating its PTC system in revenue service demonstration exclusively, a railroad may write "Complete" in the "Route Miles in Field Testing" fields.

Once a railroad has received written authorization from FRA to operate its PTC system in revenue service (through either provisional operations authorization under 49 U.S.C. 20157(h)(2) or PTC System Certification under 49 U.S.C. 20157(h)(1), the railroad must identify any route miles where a PTC system is being operated in revenue service in the "Route Miles in PTC Operation" field. If a railroad is operating the PTC system in revenue service and has completed all field testing and revenue service demonstration, it may write "Complete" in the "Route Miles in Field Testing" and "Route Miles in Revenue Service Demonstration" fields.

Quarterly Progress Report Form – Positive Train Control Implementation

2. Quarterly Update on Spectrum

Area or Location (e.g., county) That Requires Spectrum, as Reported in PTCIP[3]	Q1 - Status	Q2 – Status	Q3 – Status	Q4 - Status
CFRC 61.35 Miles	Acquired And Available For Use	Choose Status.	Choose Status.	Choose Status.
	Choose Status.	Choose Status.	Choose Status.	Choose Status.
	Choose Status.	Choose Status.	Choose Status.	Choose Status.
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	Choose Status.	Choose Status.	Choose Status.	Choose Status.

[3] If the railroad reported in its PTCIP that all necessary spectrum had been acquired and was available for use, or the railroad's technology does not require the use of spectrum, please indicate "N/A" in this table.

FRA F 6180.165

Quarterly Progress Report Form – Positive Train Control Implementation

Provide any additional narrative for Spectrum below:

The 220 MHz spectrum acquired for PTC is in service and operational.

3. Quarterly Update on Major Milestones

3.1 Locomotive Status

Category/Installation Feature	Q1 – Quantity Installed	Q2 – Quantity Installed	Q3 – Quantity Installed	Q4 – Quantity Installed	Sum of Quarterly Totals	PTCIP Year End Goal (if applicable)	Cumulative Quantity Installed	Grand Total Reported in PTCIP (if applicable)
Locomotive (Apparatus) [4]								
Locomotives with On-board Computers (e.g., Train Management Computer) Installed	0	0	0	0	0	24	24	24
Locomotives with PTC Displays Installed	0	0	0	0	0	24	24	24
Locomotives with PTC-Capable Event Recorders Installed	0	0	0	0	0	24	24	24
Locomotives with Locomotive Radios Installed – Primary Communications (e.g., 220 MHz radios)	0	0	0	0	0	24	24	24
Transponder Readers (e.g., for non I-ETMS systems)	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A

[4] If a particular category listed in this table does not apply to the railroad's technology, please indicate "N/A." A railroad may add categories or subcategories in Appendix A if it wants to provide more detail.

Quarterly Progress Report Form – Positive Train Control Implementation

PTC Software: Describe 1) the railroad's approach to installation of PTC software on its locomotive fleet, and 2) any issues the railroad is experiencing with installed versions of train management software (e.g., reverting back to previous software versions due to errors in the current version):

Wabtec is providing and installing the TMC/Meteorcomm software in the onboard equipment and supporting FDOT with software configuration management.

TMC and Slot 10 software was loaded on 11 of 11 locomotives and 13 of 13 cab cars in preparation for Revenue Service Demonstration.

Provide any additional narrative for Locomotive Status below:

All locomotives and cab cars have PTC equipment installed and functional.

3.2 Infrastructure/Back Office Status

Infrastructure – Back Office Systems	
How many physical back office locations are required for PTC operations, as reported in the PTCIP?	1
How many physical back office locations have been constructed with all necessary equipment installed?	2
Are the Back Office Location(s) fully operable with PTC?	Yes
Are the Dispatching Location(s) fully operable with PTC?	Yes

Quarterly Progress Report Form – Positive Train Control Implementation

Provide any additional narrative for Infrastructure/Back Office Status below:

CFRC is using a hosted Back Office. One BOS is required for PTC operations – a second, redundant BOS has been installed to provide a backup in the event of a failure of the main BOS.

A failover test was successfully conducted in March 2019 to ensure PTC operations was transferred to the redundant BOS system upon failure of the main BOS.

3.3 Infrastructure/Wayside Status

Category/Installation Feature	Q1 – Quantity Installed	Q2 – Quantity Installed	Q3 – Quantity Installed	Q4 – Quantity Installed	Sum of Quarterly Totals	PTCIP Year End Goal[5]	Cumulative Quantity Installed	Grand Total Reported in PTCIP (if applicable)
Infrastructure – Wayside Installations (Systemwide)[6]								
Wayside Interface Units	0	0	0	0	0	0	85	85
Communication Towers or Poles	0	0	0	0	0	0	8	8
Switch Position Monitors	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A
Wayside Radios	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A
Base Station Radios	0	0	0	0	0	0	8	8
Are all necessary communication backbone utilities (including fiber, copper, ground wiring etc.) installed and ready for operation?							Yes	

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[5] Unlike the heading in table 3.1, this heading is not qualified with "(if applicable)" because each railroad was required to provide year-end goals for these particular hardware categories under the PTC Enforcement and Implementation Act of 2015.

[6] If a particular category listed in this table does not apply to the railroad's technology, please indicate "N/A." A railroad may add categories or subcategories in Appendix A if it wants to provide more detail.

FRA F 6180.165

Quarterly Progress Report Form – Positive Train Control Implementation

Provide any additional narrative for Infrastructure/Wayside Status below:

All wayside hardware and software is installed and ready for testing/operation.

Radio Towers - All eight 220 MHz radio tower installation and the communications infrastructure is completed and ready for testing/operation.

4. Installation/Track Segment Progress – Current Status[7]

Segment Identification[8]	Q1 Status – Current status of installation/track segment	Q2 Status – Current status of installation/track segment	Q3 Status – Current status of installation/track segment	Q4 Status – Current status of installation/track segment
RSD Test Track	Field Testing	Choose Status.	Choose Status.	Choose Status.
Phase 1 (IOS)	Field Testing	Choose Status.	Choose Status.	Choose Status.
Phase 2 South	Field Testing	Choose Status.	Choose Status.	Choose Status.
North Extension	Field Testing	Choose Status.	Choose Status.	Choose Status.
	Choose Status.	Choose Status.	Choose Status.	Choose Status.
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	Choose Status.	Choose Status.	Choose Status.	Choose Status.

[7] For passenger rail operations, this information should be further segregated into those routes where it is a host or tenant.

[8] Segment identification should be consistent with installation segments as listed in the railroad's PTCIP (e.g., by track segment, territory, subdivision, district, etc.).

Quarterly Progress Report Form – Positive Train Control Implementation

Segment Identification[8]	Q1 Status – Current status of installation/track segment	Q2 Status – Current status of installation/track segment	Q3 Status – Current status of installation/track segment	Q4 Status – Current status of installation/track segment
	Choose Status.	Choose Status.	Choose Status.	Choose Status.
	Choose Status.	Choose Status.	Choose Status.	Choose Status.
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	Choose Status.	Choose Status.	Choose Status.	Choose Status.

If a railroad has more segments where PTC will be implemented, please use the additional rows provided in **Appendix B**.

Provide any additional narrative for Installation/Track Segment Status below:

CFRC RSD Test Track is completed and RSD Operations on the Test Track began on April 22, 2019.

The remaining route miles on CFRC are ready for testing to begin upon completion of the CFRC SubDiv file lab testing.

FRA F 6180.165

5. Quarterly Update on Employee Training

Employee Category[9]	Q1 – # Employees Trained	Q2 – # Employees Trained	Q3 – # Employees Trained	Q4 – # Employees Trained	Sum of Quarterly Totals	PTCIP Year End Goal	Cumulative # of Employees Trained	Grand Total Reported in PTCIP
Employees who Install, Maintain, Repair, Modify, Inspect, and Test the PTC System	0	0	0		0	22	30	22
Employees who Dispatch Train Operations	0	0	0		0	12	13	12
Train and Engine (Operations) Employees	0	0	0		0	10	42	10
Roadway Worker Employees	0	0	0		0	0	0	0
Direct Supervisors of the Above Employees	0	0	0		0	6	31	6

Provide any additional narrative for Employee Training below:

50 personnel that will be working with the PTC RSD Test Track for all crafts are required to be trained in accordance with the PTCIP Ver. 10.1.

During 2018, CFRC trained a total of 116 employees including O&M Contractors, FDOT employees and FDOT consultants who will be working with PTC. CFRC exceeded its stated goal for training personnel and was able to complete the training of all personnel that required training for PTC implementation.

An overview of PTC and instructions that provided an understanding of how the PTC System affects their safety and how to avoid interfering with its proper functioning was provided to all CFRC personnel using Job Briefings, instruction in the CFRC PTC Critical Asset Change Standard Operating Procedure and a PTC Management Workshop. CFRC personnel included the Roadway Worker Employees.

[9] See 49 C.F.R. § 236.1041(a).

6. Quarterly Update on Interoperability Progress and Other Formal Agreements

This section is provided to help railroads describe interoperability information. Please provide any additional information (e.g., an appendix) as appropriate.

Required content:
- For host railroads: provide updates to any agreements and key milestones for all tenant operations
- For tenant railroads: provide updates to any agreements and key milestones for all operations over tracks hosted by another railroad

Host and Tenant Railroads: Provide a general update on interoperability in the textbox below:

CFRC has established a BOS connection from the CFRC hosted environment to CSXT BOS in August 2018 and the Amtrak BOS in September 2018. Completion of interoperability testing to include full interoperability with the tenant railroads is scheduled for no later than November 2020.

CSXT and Amtrak continue to hold PTC Status Meetings with the CFRC/FDOT to discuss project milestones, particularly the scheduling of interoperability testing and RSD. The CSXT/CFRC interoperability kickoff meeting was held February 2019 to begin coordinating interoperability testing. A similar meeting was held with Amtrak in February 2019. Both CSXT and Amtrak interoperability testing are scheduled to begin in December 2019 during CFRC extended RSD.

FCEN, a tenant Class 3 Short Line freight railroad was granted an FRA approved exception to 49 CFR 236.1006 to operate non-PTC equipped locomotives on the CFRC corridor for interchange purposes on June 27, 2018.

Host Railroads Only: For each tenant, provide additional tenant information below:

Tenant Identification	Estimated Quantity of Tenant Rolling Stock to be Equipped with PTC	Scheduled Completion Date for Interoperability Testing	Current Tenant Implementation Status
CSXT	In Tenant's PTCIP	November 2020	Installing
Amtrak	In Tenant's PTCIP	November 2020	Installing
Florida Central Railroad (FCEN)	N/A	N/A	Operational/Complete
			Choose Status.
			Choose Status.
			Choose Status.
			Choose Status.
			Choose Status.
			Choose Status.

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FLORIDA DEPARTMENT OF TRANSPORTATION              1
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C O N T R O L   C A R D   R E P O R T
=====================================
REPORT NAME: WPAPJ99 20-YEAR GAMING REPORT
  DETAIL REPORT OPTION: A
 SUMMARY REPORT OPTION: N
        DATASET OPTION: Q
     OLD REPORT FORMAT: N
     NAME SEARCH/FIELD:         (N)
          VERSION CODE: G1
           FISCAL YEAR: 2020
          NO. OF YEARS: 05
       DOLLARS ROUNDED?: N
  DISTRICT/COUNTY SORT: S
  DISTRICT/COUNTY CODE:
  DISTRICT/COUNTY TYPE:
        COUNTY NUMBER:
 TRANSPORTATION SYSTEM:
          ITEM STATUS:
             BOX CODE:
       CONTRACT CLASS: B
           ITEM GROUP: CFCR EXCLUDE: N
         EMERGENCY ID:
            WORK MIX:
        MEASURE TYPE:
         PHASE GROUP:
         PHASE  TYPE:
      PROGRAM NUMBER:
           FUND CODE:
      ALLOCATION TYPE: H  (1, 4, 6)
          FUND GROUP:
 DISTRIBUTION AREA/TYPE:        /
      INCLUDE COMMENTS: N
         COMMENT TYPE: A
 INCLUDE ROADWAY DATA: N
   INCLUDE CANDIDATES: N
 SAMAS BUDGET CATEGORY:
    PGM PLAN CAT/SUB-CAT:       /
      PROGRAM PLAN GROUP:
    PRM PLAN GROUP SORT: N
    SELECT ENTIRE ITEM: N
       MINIMUM AMOUNT: 0      LEVEL: F
           COST TYPE: X      (CALCULATED)
 EXCL IN-HOUSE,FCO,ETC:
    INCLUDE NO CHANGES:
        90/10 PERCENT:
```

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                                   FLORIDA DEPARTMENT OF TRANSPORTATION          PAGE:    1
                                            6/10/20-YEAR GAMING REPORT

**********************************************************************************
*                                                                                *
*                              D I C T I O N A R Y                               *
*  ============================================================================  *
*  LINE 1:  ITEM NO    - WORK PROGRAM ITEM & SEGMENT   (WPITEM/WPITMSEG)         *
*           STA        - WORK PROGRAM ITEM STATUS      (WPITSTAT)                *
*           PROJECT DESCRIPTION                        (LOCALNAM/FROM/TO)        *
*                                                                                *
*  LINE 2:  C          - CONTRACT CLASS                (CONCLASS)                *
*           TS         - TRANSPORTATION SYSTEM CODE    (WPTSYSCD)                *
*           BX         - BOX CODE                      (BOXCODE)                 *
*           E          - EMERGENCY FLAG                (WPIEMEFL)                *
*           M          - MEASURE TYPE, IE. METRIC      (MEASRTYP)                *
*           MD         - MANAGING DISTRICT             (MANDISDV)                *
*           WORK MIX & DESCRIPTION                     (WPWKMIX/WPWKMIXN)        *
*           CONST YEAR- FIRST YEAR OF CONSTRUCTION     (FFISYRCP)                *
*                                                                                *
*  LINE 3:  B          - BOX ITEM FLAG                 (WPIBOXFL)                *
*           CO         - DOT COUNTY                    (CONTYDOT)                *
*           MAP        - MAP REFERENCE NUMBER          (MAPREFNO)                *
*           GD         - GEOGRAPHIC DISTRICT           (GEODIST)                 *
*           ITGP       - WORK PROGRAM ITEM GROUP       (WPITGRUP)               *
*           EMID       - EMERGENCY ID CODE             (EMRG_ID)                 *
*           ITEM SEGMENT MANAGER                       (ITSEGMAN)                *
*           STATUS DATE - ITEM STATUS DATE             (ISGHSTDT)                *
*                                                                                *
*  LINE 4:  PH         - PHASE GROUP & TYPE            (WPPHAZGP/WPPHAZTP)       *
*           VR         - VERSION CODE                  (WPVERNCD)                *
*           S          - PROJECT COST ESTIMATE STATUS  (PRCSESTA)                *
*           FP         - FINANCIAL PROJECT SEQUENCE    (FINPRJSQ)                *
*           BD         - BUDGETING DISTRICT            (BUDDISDV)                *
*           FUND       - FUND CODE                     (WPFUNDCD)                *
*           A          - FUND ALLOCATION TYPE          (FNDALLTY)                *
*           PG         - PROGRAM NUMBER CODE           (WPPGMTYP)                *
*           DSAREA     - DISTRIBUTION AREA             (DSTRAREA)                *
*           FAC        - FEDERAL APPROPRIATION CODE     (FED_APRP_CAT_CD)         *
*           FED PROJEC- FEDERAL PROJECT NUMBER         (FEDIDNBR)                *
*           PDC DATE   - PRESENT DAY COST DATE         (PDACDATE)                *
**********************************************************************************
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03/20/2019  15.39.19              FLORIDA DEPARTMENT OF TRANSPORTATION                    PAGE    1
03/06/2019  21.15.01  TENTATIVE          6-YEAR GAMING REPORT                           WPAPJ99(A)
                          (CALCULATED)    ================================
                                                  "STATEWIDE"
                                          ================================
                                              CONST
ITEM NO STA PROJECT DESCRIPTION                YEAR
 C  TS BX E M MD WORK MIX/DESCRIPTION
 B  CO   MAP GD ITGP EMID ITEM SEGMENT MANAGER STATUS DATE       2019    2020    2021    2022    2023    2024
PH  VR S FP S BD FUND A PG DSAREA FAC  FED PROJECT PDC DATE       2020    2021    2022    2023    2024    2025

4129942 014 CENTRAL FLORIDA COMMUTER RAIL SYSTEM ENGR/ADMIN/MARKETING & PROF SERV
 3  15      N E 05 8420  INTERMODAL HUB CAPACITY          0
 N  99      05 CFCR          SR/LIQUORI        07/14/2005
22  AD  2 04   31 DPTO 1 11                    07/18/2017   1,500,000    1,500,000          0          0          0          0
31  AD  2 01   05 DIH   1 00                    09/22/2017      50,000       50,000         0          0          0          0
32  AD  2 03   05 DPTO 1 11                     09/26/2017     137,836      237,287   341,122    446,424          0          0
32  AD  2 03   31 DPTO 1 11                     09/20/2017   2,200,000    2,200,000          0          0          0          0
32  AD  2 05   05 DPTO 1 11                     09/26/2017       1,500        1,500          0          0          0          0
```

03/20/2019 15.39.19
03/06/2019 21.15.01   TENTATIVE

(CALCULATED)

FLORIDA DEPARTMENT OF TRANSPORTATION
6-YEAR GAMING REPORT

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WPAPJ99(A)

"STATEWIDE"

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ITEM NO STA PROJECT DESCRIPTION
C  TS BX E  M  MD WORK MIX/DESCRIPTION
B  CO  MAP GD ITGP EMID ITEM SEGMENT MANAGER STATUS DATE
PH VR  S FP S  BD FUND A PG DSAREA FAC  FED PROJECT PDC DATE

4129948 010 CENTRAL FLORIDA COMMUTER RAIL SYSTEM OPERATIONS AND MAINTENANC
4  08      N E 05 8420 INTERMODAL HUB CAPACITY                    0
N  99         05 CFCR              SR/LIQUORI          03/24/2010
```

	WORK MIX		CONST YEAR DATE	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025
81 AD 2 01	05	D 1 00	09/22/2017	30,000	30,000	0	0	0	0
82 AD 2 01	31	DS 1 14	10/13/2017	52,531	0	0	0	0	0
82 AD 2 01	31	STED 1 14	12/26/2018	0	53,845	0	0	0	0
82 AD 2 02	31	DDR 1 14	10/25/2018	0	10,842,878	0	0	0	0
82 AD 2 02	31	DPTO 1 14	09/29/2017	0	1,561,950	0	0	0	0
82 AD 2 02	31	DS 1 14	10/25/2018	10,272,256	0	0	0	0	0
82 AD 2 02	31	SROM 1 14	10/25/2018	4,779,142	8,550,558	0	0	0	0
82 AD 2 02	31	TRIP 1 14	10/25/2018	5,369,569	0	0	0	0	0
82 AD 2 03	31	DDR 1 14	10/25/2018	0	3,553,569	0	0	0	0
82 AD 2 03	31	DPTO 1 14	10/31/2014	1,520,768	0	0	0	0	0
82 AD 2 03	31	DS 1 14	10/25/2018	1,923,803	0	0	0	0	0
82 AD 2 05	31	DDR 1 14	10/25/2018	0	3,222,653	0	0	0	0
82 AD 2 05	31	DS 1 14	10/25/2018	2,385,540	0	0	0	0	0
82 AD 2 05	31	SROM 1 14	10/13/2017	386,962	0	0	0	0	0
82 AD 2 05	31	TRIP 1 14	10/13/2017	386,962	0	0	0	0	0
82 AD 2 06	31	DDR 1 14	10/25/2018	0	2,317,763	0	0	0	0
82 AD 2 06	31	SROM 1 14	10/13/2017	823,844	0	0	0	0	0
82 AD 2 06	31	STED 1 14	12/26/2018	306,772	0	0	0	0	0
82 AD 2 06	31	TRIP 1 14	10/25/2018	1,130,616	0	0	0	0	0
82 AD 2 07	31	DDR 1 14	10/16/2017	0	2,153,781	0	0	0	0
82 AD 2 07	31	SROM 1 14	10/13/2017	1,050,625	0	0	0	0	0
82 AD 2 07	31	TRIP 1 14	10/13/2017	1,050,625	0	0	0	0	0
82 AD 2 08	31	DDR 1 14	10/25/2018	0	1,731,738	0	0	0	0
82 AD 2 08	31	SROM 1 14	09/22/2017	813,823	0	0	0	0	0
82 AD 2 08	31	STED 1 14	12/26/2018	70,166	0	0	0	0	0
82 AD 2 08	31	TRIP 1 14	09/22/2017	813,823	0	0	0	0	0
82 AD 2 09	31	DDR 1 14	10/16/2017	0	7,228	0	0	0	0
82 AD 2 09	31	DPTO 1 14	10/13/2017	7,052	0	0	0	0	0
82 AD 2 10	31	DDR 1 14	10/25/2018	0	93,634	0	0	0	0
82 AD 2 10	31	DPTO 1 14	10/25/2018	91,350	0	0	0	0	0
82 AD 2 11	31	DPTO 1 14	10/16/2017	53,792	55,137	0	0	0	0
82 AD 2 12	31	DPTO 1 14	09/22/2017	35,301	0	0	0	0	0
82 AD 2 12	31	STED 1 14	12/26/2018	0	36,184	0	0	0	0
82 AD 2 13	31	DDR 1 14	10/16/2017	0	5,500,000	0	0	0	0
82 AD 2 13	31	DS 1 14	10/31/2014	500,000	0	0	0	0	0
82 AD 2 13	31	STED 1 14	12/26/2018	5,000,000	0	0	0	0	0
82 AD 2 14	31	DI 1 14	12/26/2018	1,744,712	0	0	0	0	0
82 AD 2 14	31	DPTO 1 14	10/16/2017	0	2,000,000	0	0	0	0
82 AD 2 14	31	STED 1 14	12/26/2018	255,288	0	0	0	0	0
82 AD 2 15	31	DPTO 1 14	10/16/2017	0	300,000	0	0	0	0
82 AD 2 15	31	DS 1 14	10/13/2017	300,000	0	0	0	0	0
82 AD 2 16	31	DS 1 14	10/13/2017	3,200,000	0	0	0	0	0
82 AD 2 16	31	STED 1 14	12/26/2018	0	2,200,000	0	0	0	0
82 AD 2 17	31	DDR 1 14	10/25/2018	0	17,138	0	0	0	0

03/20/2019 15.39.19 TENTATIVE
03/06/2019 21.15.01 (CALCULATED)

FLORIDA DEPARTMENT OF TRANSPORTATION
6-YEAR GAMING REPORT
===
"STATEWIDE"
===

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WPAPJ99(A)

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ITEM NO STA PROJECT DESCRIPTION
C  TS BX E M MD WORK MIX/DESCRIPTION              CONST
B  CO    MAP GD ITGP EMID ITEM SEGMENT MANAGER STATUS DATE     YEAR
PH VR  S FP S BD FUND A PG DSAREA FAC   FED PROJECT PDC DATE
                                                          2019      2020      2021      2022      2023      2024
                                                          2020      2021      2022      2023      2024      2025
```

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4284561 010 SUN RAIL SYSTEM IN-HOUSE OVERHEAD
82 AD 2 17     31 DPTO 1 14                 10/16/2017          0   1,345,631       0         0         0         0
82 AD 2 17     31 DS   1 14                 10/25/2018    1,336,048       0         0         0         0         0
82 AD 2 18     31 DPTO 1 14                 10/16/2017          0      30,000       0         0         0         0
82 AD 2 18     31 SROM 1 14                 10/13/2017     15,000        0         0         0         0         0
82 AD 2 18     31 TRIP 1 14                 10/13/2017     15,000        0         0         0         0         0
82 AD 2 21     31 DDR  1 14                 10/25/2018          0   1,050,625       0         0         0         0
82 AD 2 21     31 STED 1 14                 12/26/2018    1,025,000       0         0         0         0         0
82 AD 2 95     31 DFTA 1 14 530721          10/26/2018          0  10,021,711       0         0         0         0
82 AD 2 95     31 DFTA 1 14 530720          10/26/2018   10,021,711       0         0         0         0         0
4  13       E 05 8099 PUBLIC TRANS IN-HOUSE SUPPORT       0
N  99          05 CFCR           SR/LIQUORI  02/02/2010
A1 AD 2 01     05 D    1 00                 07/18/2018     750,000   750,000   750,000   750,000   750,000       0
```

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4292152 010 SUNRAIL EXT TO ORLANDO INTERNATIONAL AIRPORT (OIA) STUDY
4  10       E 05 8360 RAIL REVENUE/OPERATIONA IMPR       2022
N  75          05 CFCR           AAE         06/16/2016
52 AD 2 01     31 TRIP 1 29                 08/29/2017          0         0  20,000,000      0         0         0
```

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4331661 070 SUNRAIL FEEDER BUS SERVICE LYNX PHASE I & II
2  08       E 05 8171 OPERATING FOR FIXED ROUTE          0
N  75          05 CFCR           JAS         05/21/2014
84 AD 2 01     31 DIS  1 13                 10/13/2017     514,787    593,000       0         0         0         0
84 AD 2 01     31 SROM 1 13                 07/14/2017     550,439        0         0         0         0         0
84 AD 2 01     31 TRIP 1 13                 10/18/2018     655,665  1,250,000       0         0         0         0
```

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4331662 070 SUNRAIL FEEDER BUS SERVICE VOTRAN PHASE I & II
2  08       E 05 8171 OPERATING FOR FIXED ROUTE          0
N  79          05 CFCR           CMC         05/21/2014
84 AD 2 03     31 DIS  1 14                 10/17/2018     357,213        0         0         0         0         0
84 AD 2 04     31 DIS  1 14                 10/17/2018          0     327,000       0         0         0         0
```

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4355241 005 CENTRAL FLORIDA COMMUTER RAIL SYSTEM OPERATIONS & MAINTENANCE
4  13       E 05 6060 ROUTINE MAINTENANCE                0
N  99          05 CFCR           SR/LIQUORI  06/27/2014
72 AD 2 01     05 D    1 00                 10/18/2018   6,300,000 6,300,000 6,300,000 6,300,000 6,300,000       0
```

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4368803 010 CENTRAL FLORIDA COMMUTER RAIL SYSTEM
4  08       E 05 8360 RAIL REVENUE/OPERATIONA IMPR       0
N  99          05 CFCR           SR/LIQUORI  07/11/2018
82 AD 2 01     31 DDR  1 21                 10/25/2018          0     645,188       0         0         0         0
82 AD 2 01     31 DS   1 21                 10/25/2018     833,285        0         0         0         0         0
```

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ITEM NO STA PROJECT DESCRIPTION
 C TS BX E M MD WORK MIX/DESCRIPTION                       CONST
 B CO    MAP GD ITGP EMID ITEM SEGMENT MANAGER STATUS DATE YEAR
PH VR  S FP S BD FUND A PG DSAREA FAC   FED PROJECT PDC DATE        2019         2020         2021         2022         2023      2024
                                                                   2020         2021         2022         2023         2024      2025
-------------------------------------------------------------------------------------------------------------------------------------
4420651 010 CENTRAL FL COMMUTER RAIL SYS POSITIVE TRAIN CONTROL (PTC) MAINTENANCE
 4 08       E 05 8420 INTERMODAL HUB CAPACITY              06/29/2018         0
 N 99           05 CFCR              SR/LIQUORI
82 AD 2 01      31 DDR  1 14                               10/22/2018         0    2,150,000             0            0         0      0
82 AD 2 01      31 DS   1 14                               10/22/2018 2,500,000           0             0            0         0      0
82 AD 2 01      31 TRIP 1 14                               10/19/2018 2,500,000   2,150,000             0            0         0      0
-------------------------------------------------------------------------------------------------------------------------------------
4420652 005 CENTRAL FL COMMUTER RAIL SYS POSITIVE TRAIN CONTROL (PTC) MAINTENANCE
 4 08       E 05 8420 INTERMODAL HUB CAPACITY              06/28/2018         0
 N 99           05 CFCR              SR/LIQUORI
82 G1 2 01      31 DPTO 1 14                               10/22/2018         0     350,000     4,750,000            0         0      0
82 G1 2 01      31 TRIP 1 14                               10/22/2018         0     350,000       250,000    5,000,000         0      0
-------------------------------------------------------------------------------------------------------------------------------------
4425661 005 CENTRAL FLORIDA COMMUTER RAIL SYSTEM CAPITAL FOR STATE OF GOOD REPAIR
 4 08       E 05 8420 INTERMODAL HUB CAPACITY              09/28/2017         0
 N 99           05 CFCR              SR/LIQUORI
92 AD 2 01      31 DPTO 1 14                               06/22/2018 5,500,000           0             0            0         0      0
-------------------------------------------------------------------------------------------------------------------------------------
4449251 000 SUNRAIL FIBER OPTIC PTC BACKBONE
 4 10       E 05 8420 INTERMODAL HUB CAPACITY              10/24/2018      2020
 N 99           05 CFCR              SR/LIQUORI
52 G1 2 01      31 TRIP 1 29                               11/08/2018 1,278,000           0             0            0         0      0
61 G1 2 01      05 DIH  1 00                               10/24/2018   145,053           0             0            0         0      0
-------------------------------------------------------------------------------------------------------------------------------------
TOTAL FOR "STATEWIDE"              FUND COUNT:      76      82,541,859  75,529,998    32,391,122   12,496,424  7,050,000      0
                     210,009,403
```

Extended Service for Special Events

- Provided extended evening service for 15 Orlando Magic home games and each home playoff game, allowing passengers to use the extended service for other major events in downtown Orlando on the same day of the games.
- Explored potential plan for special Saturday service.

UCF/Valencia Downtown Campus Connection Strategy

- Researched, developed and launched campaign to educate new UCF/Valencia Downtown Campus students about SunRail.
  - Created student, faculty and staff temporary SunCard, offering free travel from August – September and over 300 individuals are currently registered.
  - Partnered with UCF for student outreach events to students/prospective riders.

Advocate and Promote Connectivity

- Sanford Trolley
  - Partnered with the Sanford CRA to create a new schedule that times the free trolley to all SunRail trains, Monday – Thursday, from 12 – 8PM and on Friday, from 12 – 9 PM.
  - Enhanced the rider experience by installing station directional signage and trolley schedule.
- Kissimmee Connector
  - Partnered with the City of Kissimmee and LYNX to brand the new, free Kissimmee Connector that connects the Kissimmee/Amtrak SunRail station and the LYNX Intermodal station with major employers and areas of interest in Historic Downtown Kissimmee.
  - Partnered with Osceola Regional Medical Center to promote SunRail and the Kissimmee Connector to employees and visitors with screen savers, table tops, rack cards and four tabling events in the main hospital building.
- Choo Choo to the Zoo
  - Partnered with the Central Florida Zoo and the Sanford CRA to promote "Choo Choo to the Zoo," a direct shuttle service to/from the Sanford SunRail station, during Spring Break March 18-22. Results exceeded the entire 2018 summer promotion.
- Train to Plane
  - Created a one-bay stop for three different SunRail connection buses: Link 11, 42 and 111, which all offer approximately 12-15 minute connections from SunRail's Sand Lake Road station to OIA. New signage was added to the bus stop that includes Train to Plane branding and the connection times in LYNX branded colors.
- Altamonte Spring Autonomous Vehicle
  - Met with the City Manager of Altamonte Springs for education and to begin planning for joint promotion of this new micro-transit option that is slated to open the first half of 2020.
- Group Travel
  - Facilitated 22 groups with over 900 new passengers through April 30, 2019 including schools, seniors and passengers needing special assistance.

Additional Initiatives

- Updated website events list with interactive "Events Calendar" and separate "Daily Activities" page introducing more reasons to ride.
- Enhancements to the "On Track" email newsletter in December 2018 have resulted in a 3% in open rate, over 20% increase in engagement and 21% increase in subscriptions.

SHUTTLES AND/OR VANPOOLS RUNNING TO VARIOUS SUNRAIL STATIONS:

FROM THE SANFORD STATION:

- One Community Redevelopment Agency (CRA) funded trolley transports SunRail passengers starting at noon, Monday-Friday

FROM THE MAITLAND STATION:

- Florida Hospital Maitland funding and running an employee shuttle

FROM THE ORLANDO HEALTH/AMTRAK STATION:

- Orlando Health funding and running an employee shuttle to their offices in SoDo

FROM THE SAND LAKE ROAD STATION:

- One employer-funded car shuttling employees to ABC Fine Wine & Spirits
- Two employee-funded vanpools for Lockheed Martin employees
- One employee-funded vanpool for several worksites in the Southpark Center Loop office park
- One employer-funded fleet vehicle for employees of Pan Am Flight Academy
- One employer-funded vanpool for employees of Construct Connect

NEW FROM THE KISSIMMEE/AMTRAK STATION

- Two City of Kissimmee-funded shuttles transport SunRail passengers to major employers and other destinations throughout Historic Downtown Kissimmee. The shuttles meet all SunRail trains.

ADDITIONAL FOLLOW-UP NEEDED FOR THE FOLLOWING PRIORITY AREAS:

- Assisting the City of Lake Mary in the promotion of their Vanpool Grant Program

2019 MEDIA KIT: AVAILABLE NOW

The current Media Kit is being distributed through the ad sales team and is available upon request by emailing Caroline Gardner at caroline@evolvetoday.com or online http://corporate.sunrail.com/doing-business-with-sunrail/advertising/

ON BOARD ADVERTISING: SOLD OUT THROUGH 10/1/19

Most inventory was sold as one-year contracts.

Total Placements Available:	12
Placement Fee:	$7,600 plus production per year

SUNRAIL.COM & SUNRAIL.ES ONLINE & MOBILE ADVERTISING: AVAILABLE NOW

Total Placements Available:	42
Placement Fee Range:	$350 - $5,000

TRAIN SCHEDULE ADVERTISING: SOLD OUT THROUGH 7/1/19

SunRail has implemented a display opportunity for businesses to purchase advertising space on the back panel of the train schedule. Program details include:

Total Placements Available:	1
Placement Fee:	$500 per month

STATION KIOSK ADVERTISING: AVAILABLE NOW AT MOST STATIONS

CHURCH STREET STATION AND LAKE MARY STATION ARE SOLD OUT

All contracts are on an annual basis

Partners may purchase multiple or individual stations

Total Placements Available:	66
Placement Fee:	$3,300 per placement

SOCIAL MEDIA

The SunRail Social Media Team averages approximately 150 new followers per week across Facebook, Twitter and Instagram. Summary of these followers:

14,705 Facebook
16,588 Twitter
4,060 Instagram
Total Social Media Followers – 35,353

Sign Up for Free SunRail Text Alerts

Over 1,800 riders receive free text alerts to keep them up-to-date on any potential schedule change. Just text SUNRAIL to 31996 on your cell phone to receive your free alerts today. In the event of an unexpected incident, riders may now customize their text alert settings.

NEW SUNRAIL MARKETING INITIATIVES

5-Year Anniversary

Wednesday, May 1, 2019 marks 5-years of service for SunRail and a series of promotional initiatives took place to thank the continuous support of SunRail's riders and staff.

Kissimmee Connector

The new Kissimmee Connector has seen tremendous growth through the marketing partnership with the City of Kissimmee and route businesses. An additional station sign package was installed for better on-sight promotion and wayfinding

SunRail App Launch

The awaited SunRail App is schedule for launch mid-May and will consist of an advanced soft launch to stakeholders and riders who sign up for free text alerts. The public roll-out will occur approximately 1 week afterwards.

UCF/Valencia Downtown Campus Promotion

SunRail has partnered with the new downtown campus to offer staff and students with free rides for a promotional period of: Staff – 8/1 – 9/30/19 and Students 8/26/19 (first day of classes) – 9/30/19.

SunCard Promotion

SunRail is finalizing a marketing campaign to promote the savings and benefits of purchasing a SunCard over a daily paper ticket to new and existing riders.

Summer Events Calendar

SunRail is developing solutions to provide service for a series of summer events, including those on weekends. Upon approval, SunRail will begin marketing the services according to the event date.

Late Night Train

SunRail included an additional southbound late-night train to assure riders could get home following an Orlando Magic game. The program was very successful, and talks continue about expanding the service.

Healthcare Group Programs

SunRail is developing unique rider options for patients based on feedback and requests with local healthcare providers.

SUMMARY OF DEVELOPMENT WITHIN AN ACTUAL 10-MINUTE WALK OF STATIONS IN PHASE 1 & PHASE 2:

PROJECTS COMPLETED SINCE 2010

Number of Projects: 29

Construction Value: $991 million

Building Square Footage: 3,536,268 GSF

Residential Units: 1,836

Permanent Employment (jobs): 1,905

Construction Employment (jobs): 2,967

PROJECTS CURRENTLY UNDER CONSTRUCTION

Number of Projects: 12

Construction Value: $774,292 million

Building Square Footage: 1,475,122 GSF

Residential Units: 1,633

Permanent Employment (jobs): 1,860

Construction Employment (jobs): 1,874

PROJECTS IN PIPELINE (ANNOUNCED OR UNDER REVIEW)

Number of Projects: 31

Construction Value: $1,116 million

Building Square Footage: 12,754,035 GSF

Residential Units: 5,929

Permanent Employment (jobs): 13,069

Construction Employment (jobs): 10,109

ONGOING OUTREACH

As part of the ongoing strategy for SunRail public safety outreach, this program connects to the community through a variety of efforts including but not limited to: door-to-door outreach to residents and businesses near tracks; presentations in schools, community centers, at SunRail stations and onboard trains; direct mail; community events; coordination with law enforcement agencies and first responders; featured media buys in high-visibility areas; inclusion of safety messaging in business development and marketing programs; social media; training with public and school transportation groups and coordination with FRA, TSA and Operation Lifesaver.

- Posted safety messages through social media at a rate of 1 – 3 messages per week reaching more than 35,000 followers.

- Coordinated SunRail CEO Meet'n Greet with Girl Scouts of Citrus County, including a safety presentation and New SunRail 'Train Safety' badge.

- Made site visits to multiple grade crossings to explore additional safety signage opportunities using nearby grade crossing signal box housing.

- Reached out to a number of private businesses and municipalities to explore additional safety outreach opportunities through their customers and constituents.

- Made pledge to sign up an additional 100 Safety Watch members by July 2019.

- The following includes safety presentations and tabling events within the community and onboard SunRail between January and April:
    - Jewish Academy of Orlando (safety presentation and group ride) with 25 participants
    - St. Vincent's Academy (multiple safety presentations) with 80+ participants
    - Hunter's Creek Community Association (safety presentation and group ride) with 45 participants
    - DeBary Elementary (safety presentation and group ride) with 47 participants
    - Samsula Academy (safety presentation and group ride) with 76 participants
    - Vital Church Academy (safety presentation and group ride) with 55 participants
    - Christ School (safety presentation and group ride) with 35 participants
    - New Horizons Service Dogs, Inc. (safety presentation and group ride) with 40 participants
    - Monarch Learning Academy (safety presentation and group ride) with 60 participants
    - East Coast Believers (safety presentation and group ride) with 35 participants
    - Geneva School (safety presentation and group ride) with 59 participants
    - Trinity Lutheran Church (safety presentation and group ride) with 29 participants
    - Galaxy Middle School (safety presentation and group ride) with 120 participants
    - Trinity Lutheran Child Development (safety presentation and group ride) with 137 participants
    - Holy Cross Lutheran Academy Preschool (Safety Tabling) in Lake Mary, FL with 400+ participants
    - Cypress Creek High School (safety presentation and group ride) with 31 participants
    - Healthy Kids Day (Safety Tabling) in Kissimmee, FL with 600+ participants
    - City Of Life Christian Academy (safety presentation and group ride) with 112 participants

UPCOMING MEETINGS

Commission Meetings (MetroPlan Boardroom)

Thursday   May 30   10:00 am – 12:00 noon

Thursday   August 29   10:00 am – 12:00 noon

Thursday   October 31   10:00 am – 12:00 noon

Technical Advisory (LYNX Open Space – 2nd Floor)

Wednesday   August 7   2:00 pm – 3:00 pm

Wednesday   October 9   2:00 pm – 3:00 pm

Customer Advisory (LYNX Open Space – 2nd Floor)

Thursday   August 1   5:00 pm – 6:00 pm

Thursday   October 3   5:00 pm – 6:00 pm