

TECHNICAL ADVISORY COMMITTEE

July 13, 2022





Central Florida Commuter Rail Commission

Technical Advisory Committee

Date: July 13, 2022
Time: 2:00 p.m.
Location: LYNX Central Station
2nd Floor Open Space Room
455 North Garland Avenue
Orlando, Florida 32801

PLEASE SILENCE CELL PHONES

- I. Welcome**
- II. Call to Order and Pledge of Allegiance**
- III. Confirmation of Quorum**
- IV. Chair's Remarks**
- V. Action Items**
 - a. Meeting Minutes Approval: October 19, 2020 – April 13, 2022
 - Approval is required of the TAC virtual workshop meeting minutes. Copies of the minutes were previously provided as part of the respective meeting agendas. List of dates shown on page 3.
- VI. Public Comments**
 - *Nadia will call those in person to approach the podium in the LYNX Board Room.*
 - Each speaker is limited to three minutes.



Central Florida Commuter Rail Commission

Technical Advisory Committee

VII. Discussion Items

- a. Agency Update – Mike Carman SunRail, Director of Operations
- b. Bus Connectivity
 - i. LYNX – Bruce Detweiler, Interim Director of Planning & Development
 - ii. Votran – Kelvin Miller, General Manager

VIII. Transition Consultant Update

- a. Transition Update – Alan Danaher

IX. Sunshine Corridor Update

- a. Project Update – Brian Stanger

X. Committee Member Comments

IX. Next Meeting - Proposed

- a. Next Meeting – October 12, 2022 at 2:00 p.m. LYNX Open Space Room

XII. 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 Title VI Coordinator 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.



Central Florida Commuter Rail Commission

Technical Advisory Committee

Meeting Minutes Approval: October 9, 2019 – April 13, 2022

October 9, 2019 TAC Minutes - <https://corporate.sunrail.com/wp-content/uploads/2019/10/TAC-Meeting-Materials-October-9-2019.pdf>

January 15, 2020 TAC Minutes - https://corporate.sunrail.com/wp-content/uploads/2020/01/TAC-Meeting-Material-01-24-20_rev1.pdf

October 14, 2020 TAC Minutes - <https://corporate.sunrail.com/wp-content/uploads/2020/10/TAC-Meeting-Materials-October-14-2020.pdf>

January 13, 2021 TAC Minutes - <https://corporate.sunrail.com/wp-content/uploads/2021/01/TAC-Meeting-Materials-%E2%80%93-January-13-2021.pdf>

April 14, 2021 TAC Minutes - <https://corporate.sunrail.com/wp-content/uploads/2021/04/TAC-Meeting-Materials-April-14-2021.pdf>

July 14, 2021 TAC Minutes - <https://corporate.sunrail.com/wp-content/uploads/2021/07/TAC-Meeting-Materials-July-14-2021.pdf>

October 13, 2021 TAC Minutes - <https://corporate.sunrail.com/wp-content/uploads/2021/10/TAC-Meeting-Materials-October-13-2021.pdf>

January 12, 2022 TAC Minutes - <https://corporate.sunrail.com/wp-content/uploads/2022/01/TAC-Meeting-Materials-Januray-12-2022.pdf>

April 13, 2022 TAC Minutes - <https://corporate.sunrail.com/wp-content/uploads/2022/04/TAC-Meeting-Materials-April-13-2022.pdf>

Technical Advisory Committee Meeting

April 13, 2022

2:00 p.m.

GoToWebinar Hosted by FDOT
LYNX Central Station
2nd Floor Multi-Purpose Room

Attendees

Cade Braud, City of Orlando
Rick Werbiskis, City of DeLand
Jon Cheney, Volusia County
Brian Sanders, Orange County
Don Marcotte, City of Winter Park
Alyssa Eide, City of Maitland
Shad Smith, City of Longwood
Bill Wharton, Seminole County
Alisha Maraviglia, City of Altamonte Springs
Christopher Carson, City of Lake Mary
Miten Patel, City of Sanford
Nabil Muhaisen, City of Kissimmee

Joseph Barker, City of DeBary
Bruce Detweiler, LYNX
Sarah Larsen, MetroPlan Orlando
Kelvin Miller, Votran
Nadia Hernandez, FDOT
Patricia Ruffino, FDOT
Mike Carman, SunRail
Sandra Gutierrez, SunRail
George Gault, SunRail
Linda Nesbitt, SunRail
Regina Marini Cargill, Evolve Today
Michael DePallo, WSP
Ron Hartman, WSP

Minutes

Meeting was called to order by Mr. Cade Braud, City of Orlando (in attendance for Crissy Martin) at 2:00 p.m.
Pledge of Allegiance
Meeting was held virtually.

Announcements:

Presenter: Cade Braud

- Mr. Braud sat in for Vice Chair
 - Governor's orders allow for in-person meeting, but since this is a workshop-style meeting, no action items, minutes, or approvals will be handled.

Information Items:

Presenter: Cade Braud

- Meeting Minutes: January 12, 2022 meeting minutes available online.

Public Comments:

- No public comments were made

Agenda Item: SunRail Transition Consultant Update

Presenters: Michael DePallo and Ron Hartman

- Transition Plan
 - Update on Transition Analysis (Michael DePallo)
 - Mr. DePallo started off by explaining the status of the transition study process. Currently, the Transition Analysis Report is being compiled. All tasks are complete.
 - Mr. DePallo explained the framework of the Transition Analysis Report, which includes topics such as contracts & agreements, committees, the operational assessment, and ending with lessons learned from other systems.
 - The next slide showed the major operating contracts and expiration dates, and recommendations to reprocore or assume, and when.
 - The staffing/committee's analysis is mostly complete, though the completion of agency options and recommendations is ongoing. All internal committees—Executive Safety and Security, Configuration Control Board, FTA Coordination, FRA Coordination, Operations Staff Meeting, Customer Service/Marketing, and Small Group Budget Review—are recommended to maintain.
 - As per the Interlocal Agreements, the required advisory committees, CAC, and TAC, are also recommended to maintain, though it's recommended that the board reevaluate the role of TAC.
 - There are three potential new committees: SunRail Oversight, SunRail Finance and Audit, and SunRail Risk Management.
 - Regarding the fare systems, the new fare system will employ different fare media, which will require:
 - Detailed plan to replace existing SunCards
 - Transfer management of existing accounts to new system, and
 - Customer outreach program needs to be developed
 - The installation of the new system will take time, and for several weeks, both systems will be operating simultaneously.
 - Also recommended is independent third-party oversight, as the fare collection system transition heightens public awareness complexity and risk.
 - Finally, the project schedule will be reviewed with FDOT, possibly at the next Working Group meeting.

- Refined Governance Alternatives Analysis (Ron Hartman)
 - The first option is the commission recruiting a full, in-house staff, which means everything that's contracted out now will move in-house, which would require approximately 222 positions.
 - Option 2 mirrors what FDOT does now: contracting out all operating services and recruiting in-house staff to provide management and administration functions, resulting in 35-50 new positions.
 - Option 3 uses a similar model as option 2, but contracts everything to another organization. LYNX would be the most likely agency to contract to.
 - There are three potential transition timelines. Most existing operating contracts expire on June 30, 2024. The timeline charts show, based on the three options, when existing operating contracts, GEC contract (Rail Oversight), Rail Operations SunRail staff, Admin SunRail staff, and new bundled contracts would begin and/or end.
 - A scoring chart showed how each of the three options fared based on cost, transition time, execution of policy, FRA satisfaction, and risk level. Option 2 scored highest at 22 points, though not far ahead of Option 3 at 19.
 - The Financial Analysis is ongoing, currently being reviewed with Steering Group
 - In the Analysis, the estimated operating costs for all three options were laid out for FY 2025 through FY 2029.
 - Additionally, revenues were estimated over the same period, considering fare revenue, rail track usage, advertising, and federal grants.
 - The assumption is to extend contracts as far out as possible to ease the transition.
- Operational Analysis
 - A review of the past 3 years of FRA inspection findings and/or violations have not shown any systemic maintenance, operations, or safety issues, and compare favorably with other peer commuter rail systems.
 - Regional FRA safety inspector took no significant exception to SunRail's CFR regulatory compliance.
 - In review of the 2019 – September 2021 data provided, SunRail did not have a single on-duty employee reportable injury.
 - The Federal Railroad Administration (FRA) is confident in and comfortable with the SunRail operation and has indicated that a change in oversight by another agency would only require minimal updates to existing plans and documentation in-place if there are no changes to the existing contractors.
 - SunRail infrastructure is in a State of Good Repair (SGR)
 - Field reviews and analysis of the current 5-Year Capital Plan (2021-2025) show that FDOT has funded and maintained the CFRC adequately, and any remaining SGR items are scheduled to be complete in first 2-3 years of the current 5-Year capital plan.
 - There were no findings that would indicate that a change to the current Operating Rules or Timetable would be needed as part of the transition.
 - Schedule Update
 - Transition Analysis
 - Draft Financial Analysis Memo – March
 - Steering Group Workshop on Memo – March 29
 - Draft Transition Analysis Report – Early April
 - Steering Group Review of Report – Late April
 - Presentation to CFCRC Board – May 5
 - Transition Plan
 - Draft Plan – June
 - Steering Group Review - July
 - Presentation to CFCRC Board and Committees – August
 - Agency Board Briefings – September/October
 - Final Plan – November

Agenda Item: Agency Update**Presenter: Michael Carman**

- School Is Out, Spirit Is In
 - Presidents' Day Promotion—February 21, 2022
 - Students and faculty ride FREE when they wear school merchandise
 - Highest ridership day - 4,516
- Orlando Magic Train-to-Game
 - Fans ride SunRail FREE to and from home games
 - Later southbound train for home games funded by Orlando Magic
 - Game nights are our top ridership days
- Spring Break Success
 - Later southbound train service was provided all week
 - Friday's Winter Park Art Festival accounted for highest ridership since Feb. 2020
 - March 18 = 7,742
 - 28,585 riders for the week, a 49% increase over the week prior
- Total Monthly Riders
 - 2022 has seen a 40% increase in ridership over the same time period in 2021
- DeLand – Phase 2 North
 - Bids were opened, but award was protested
 - Protest was then resolved – Contract has been executed
 - Planning Ground-breaking Ceremony – Date TBD
 - Signals – Will be negotiating a separate contract amendment with Herzog utilizing the existing Signal Maintenance Contract
- Fare Collection System Status
 - Selected vendor moovel North America to replace the current fare collection system
 - Executed Agreement: October 19, 2021
 - Hit the ground running – ordering machines, designing system
 - Expect Go-Live: 1st Quarter 2023
- Group Rides are Back
 - Group travel is more fun when SunRail gets you there!
 - Advance fare payment & ticket-free travel at Website
 - Keeping you safe! FRA mask mandate for onboard travel expires on April 18, 2022.
 - CDC will extend this for 15 more days and TSA will probably follow suit
- On-time Performance Average
 - From December 2021 to February 2021, the goal was 95%, while the actual came to 96.4%, with the contract on-time performance being 99.0%
 - Of the 64 operating days and 2,560 trains run, 50 days saw on-time performance
 - The graph presented also shows actual on-time performance in the mid-90s (%) from 2014 to present day.
- Revenue Incidents by City/County
 - There were several incidents that occurred including 4 by SunRail, 2 by Amtrak, and 2 by CSX.
 - We are working with Google Maps and Waze to provide better clarity between roads and tracks.
 - Mr. Carman asked for any questions regarding the incidents, and Rick Werbiskis asked about a date for the groundbreaking ceremony for the Phase 2 North expansion.
 - The response was given that no date has been set yet and everyone will be informed when it is set.
- Average Daily Ridership
 - The graph shows 2020-2022, with December 2021 at 3,329; January 2022 at 2,988; and February 2022 at 3,500.
- Boarding by Station
 - Winter Park and LYNX stations show the most boardings at/around 22,500 at each of the two.
- Positive Train Control (PTC) Success
 - Year to Date PTC Active Operating Percentage:
 - SunRail 99.8%
 - CSX 99.5 %
 - Amtrak 99.0%
 - February and March 2022 were 100%

| | |
|--|-----------------------------------|
| <ul style="list-style-type: none"> • FY 21/22 Operating Budget Update <ul style="list-style-type: none"> ○ Budgetary information was presented ○ Total operating costs, capital maintenance, and consultant support equals \$83,498,560 ○ We are on (and ahead of) budget currently ○ Total Operating Revenue is \$31,341,011 | |
| Agenda Item: LYNX Connectivity | Presenter: Bruce Detweiler |
| <ul style="list-style-type: none"> • Ridership <ul style="list-style-type: none"> ○ FY 2021 was down about 27% compared to FY 2020 <ul style="list-style-type: none"> ▪ February 2021 was down 45% compared to February 2020 ○ Looking at FY 2022, the opposite is happening with an 18% increase over previous year <ul style="list-style-type: none"> ▪ February 2022 has an increase of 30% over February 2021 ○ Highest ridership is at Sanford, Winter Park, AdventHealth, and Sand Lake stations • Feeder Bus Route Analysis <ul style="list-style-type: none"> ○ Comparing February 2021 with February 2022, all links are showing an increase. | |
| Agenda Item: Votran Bus Connectivity | Presenter: Kelvin Miller |
| <ul style="list-style-type: none"> • February 2022 <ul style="list-style-type: none"> ○ Ridership this year is increasing, about a 4% so far. ○ Average ridership is about 31 a day. | |
| Committee Member Comments: | Presenter: Cade Braud |
| <ul style="list-style-type: none"> • Joseph Barker with the City of DeBary provided the TAC members with information regarding the TOD snapshot of projects by county. Since the last update, DeBary has added multiple projects to the pipeline. In addition to the 289 Integra Luxury Apartments being fully built out, developments include the DeBary Towncenter (The Junction), with 160 single family lots, 16 mixed use buildings, and 11 commercial tracks. There are also three other developments—DeBary TownPark, the Beaulieu development, and DeBary Mainstreet. | |
| Meeting adjourned: 2:53 p.m. | |
| Next meeting: Scheduled for Wednesday, July 13, 2022, at 2:00 p.m., Location TBD | |

PLEDGE OF ALLEGIANCE (Please Stand)

**I pledge allegiance to
the Flag of the United
States of America, and
to the Republic for
which it stands, one
Nation under God,
indivisible, with liberty
and justice for all.**





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

WELCOME





CHAIR'S REPORT

Ms. Tawny Olore

ACTION ITEMS

ADOPTION OF APRIL 13, 2022
MEETING MINUTES



PUBLIC COMMENTS



AGENCY UPDATE

Charles M. Heffinger Jr., P.E.
Chief Operating Officer





CHOO-CHOO TO THE ZOO

- Partnership with Central Florida Zoo
- Free trolley service from Sanford Station to and from the Zoo, June 6 – July 29
- Themed trolley graphics
- Earned coverage on all local TV networks & several blogs and publications
- Over 1,300 riders in first month





NORTHERN EXPANSION

- Groundbreaking event plans in progress
- Dedicated trolley to Downtown DeLand in discussion
- Logo unveiling in July on SunRail.com and to community partners





ALL ABOARD THE FOODIE TOUR

- Enticing riders to keep it local and try something new
- Highlighting eight stations to showcase restaurants within walking distance
- Social media campaign in July
- Short video format for best engagement





COMMUTER CAMPAIGN

- Joint effort with downtown partners
- Highlight SunRail's value, in view of gas prices
- Eblast, website banners, social media, commuter rider stories, blog posts
- Billboard support along I-4 corridor coming soon



IT'S TIME TO TRAIN YOUR COMMUTE



Train time means saving money on gas, avoiding traffic, catching up on emails, or even meeting new friends.

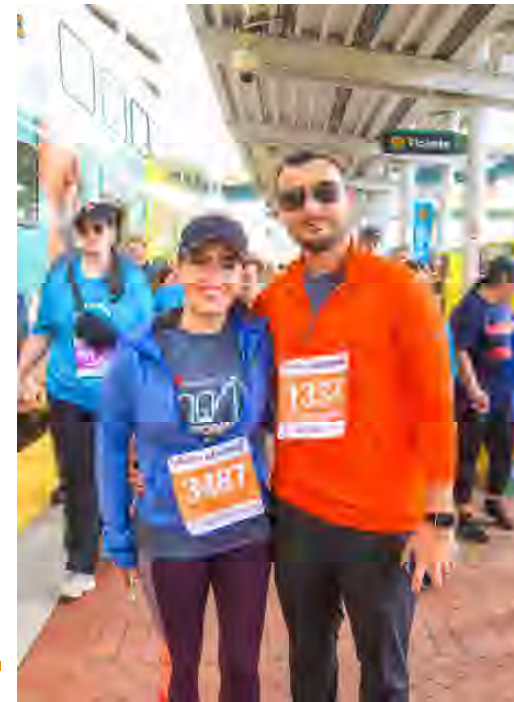
Did you know we offer fare discounts for weekly, monthly, and annual passes?

Find out more at SunRail.com



SIMPLY IOA CORPORATE 5K PARTNERSHIP

- Highest ridership day in April!
- Bringing back commuters
- Offered free rides to and from Church Street Station for the race at Lake Eola on April 21
- Partnership with Track Shack and ReThink Your Commute



ABOVE AVERAGE

- On-Time 50 Days
- 64 Operating Days
- Ran 2,560 Trains



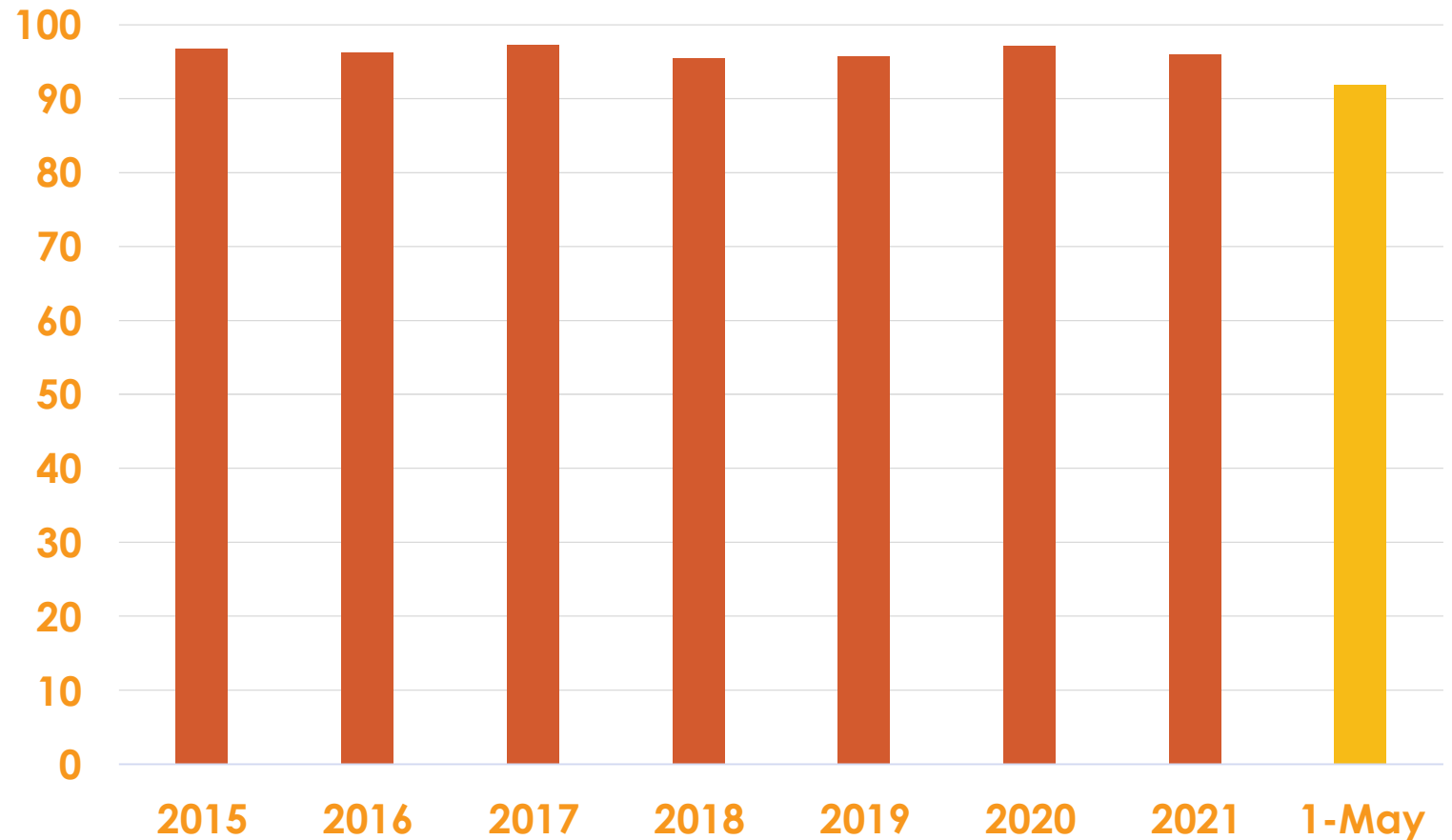
ON-TIME PERFORMANCE AVERAGE

April 2022 – June 2022

Goal = 95%

Actual = 95.5%

Contract = 98.99%

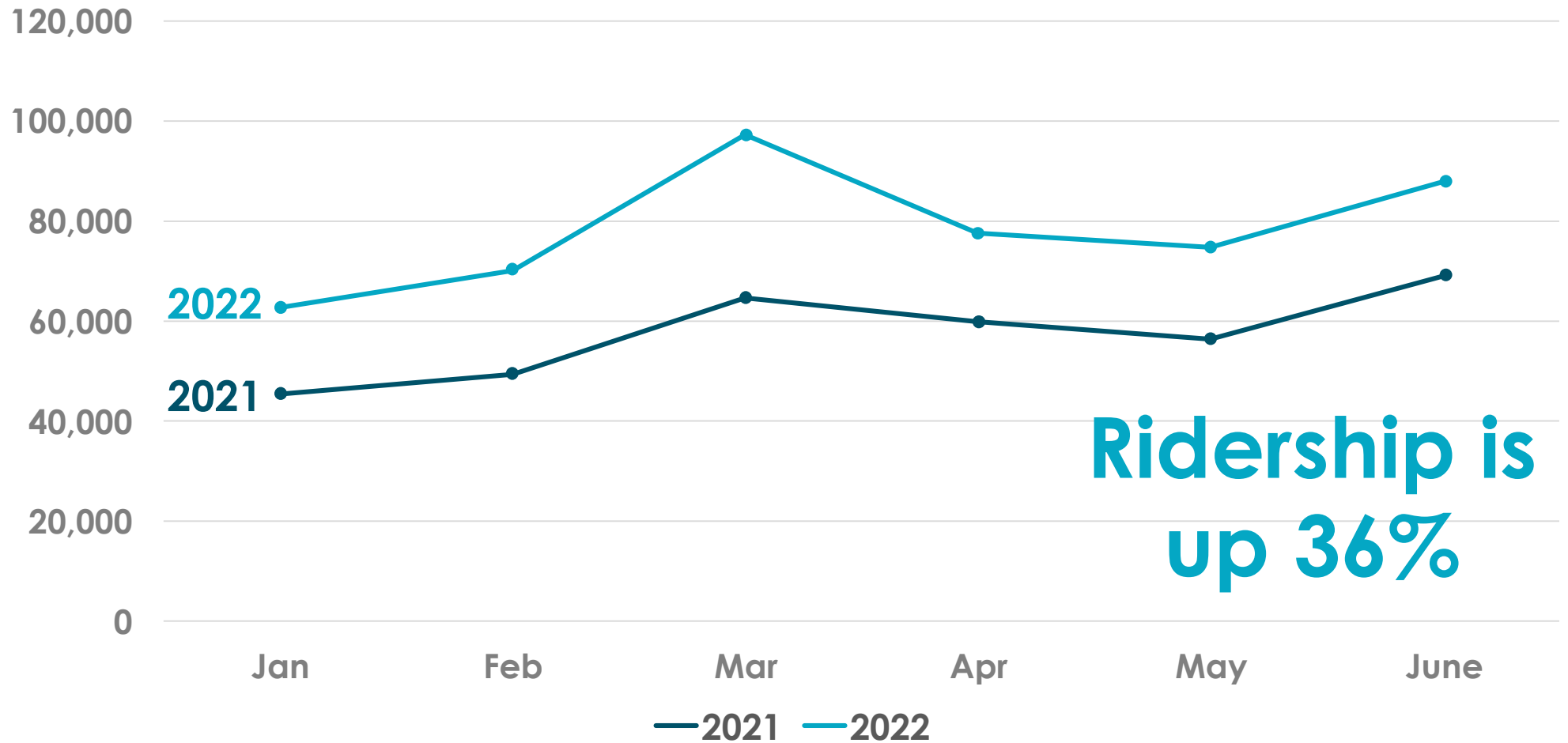


From inception and current month.

INCREASE IN RIDERSHIP



TOTAL MONTHLY RIDERS





PTC SUCCESS

- Year to Date PTC Active Operating Percentage:
 - SunRail 99.9%
 - CSX 99.5 %
 - AMTRAK 99.6%

Through July 1, 2022



LYNX CONNECTIVITY

LYNX Fixed-Route Average Daily Boardings & Alightings by SunRail Station Area

| SUNRAIL STATION | Fiscal Year 2021 | | | | | | | | | | | | ANNUAL DAILY AVERAGE |
|--|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|--------------|--------------|----------------------|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | |
| <i>Days of Operation</i> | 22 | 19 | 22 | 19 | 20 | 23 | 22 | 20 | 22 | 22 | 22 | 23 | 256 |
| Sanford | 112 | 279 | 266 | 219 | 211 | 228 | 146 | 271 | 256 | 196 | 173 | 222 | 215 |
| Lake Mary | 42 | 49 | 56 | 49 | 51 | 74 | 64 | 51 | 51 | 60 | 65 | | 56 |
| Longwood | 39 | 57 | 50 | 65 | | | 66 | 40 | 51 | 51 | 53 | | 56 |
| Altamonte Springs | 40 | 101 | 80 | 112 | | | 38 | 37 | 81 | 111 | 108 | | 67 |
| Maitland | 15 | 12 | 14 | 12 | | | 14 | 12 | 10 | 15 | 10 | | 13 |
| Winter Park | 201 | 227 | 255 | 236 | | | 226 | 168 | 216 | 227 | 217 | | 223 |
| Florida Hospital/Health Village | 246 | 255 | 248 | 245 | | | 210 | 261 | 181 | 282 | 275 | | 251 |
| LYNX Central Station | | | | | | | | | | | | | - |
| Church Street Station | | | | | | | | | | | | | - |
| Orlando Health/Amtrak | 17 | 20 | 20 | 12 | 13 | 17 | 18 | 17 | 21 | 18 | 17 | 18 | 17 |
| Sand Lake Road | 71 | 87 | 73 | 79 | 82 | 112 | 91 | 111 | 84 | 148 | 151 | 146 | 103 |
| Meadow Woods | 77 | 80 | 76 | 80 | 55 | 65 | 71 | 85 | 38 | 53 | 49 | 96 | 69 |
| Tupperware | 7 | 11 | 11 | 10 | 10 | 12 | 8 | 10 | 6 | 12 | 10 | 12 | 10 |
| Kissimmee Intermodal | | | | | | | | | | | | | - |
| Poinciana | 4 | 4 | 3 | 3 | 5 | 4 | 5 | 5 | 2 | 5 | 4 | 6 | 4 |
| Total - All Stations | 871 | 1,182 | 1,152 | 1,122 | 1,029 | 1,127 | 1,017 | 1,117 | 976 | 1,022 | 1,150 | 1,228 | 1,083 |
| Percent change from FY 20 to FY 21 | -54% | -32% | -19% | -30% | -45% | -34.3% | 733.6% | 34.6% | 10.3% | 4.7% | -21.2% | -7% | -27% |

Update Pending

N/A – Ridership was not collected due to bus not having Automatic Passenger Counter (APC); as of August 2020 all LYNX vehicles are equipped with APC's.

*Due to COVID-19, Orange & Osceola Counties instituted a stay-at-home order on March 26 and bus service was reduced on March 30, 2020. This caused a drop in ridership.

**Bus service was re-instated on May 11, 2020.

**Bus service was not provided to this station during the reduced schedule that took place on March 30 and ended on May 9, 2020.





LYNX CONNECTIVITY

| LYNX Fixed-Route Average Daily Boardings & Alightings by SunRail Station Area | | | | | | | | | | | | | |
|---|------------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------------------|
| SUNRAIL STATION | Fiscal Year 2022 | | | | | | | | | | | | ANNUAL DAILY AVERAGE |
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | |
| Days of Operation | 21 | 21 | 23 | 21 | 20 | | | | | | | | 106 |
| Sanford | 233 | 237 | 258 | 225 | 259 | | | | | | | | 242 |
| Lake Mary | 61 | 59 | 63 | 64 | 63 | | | | | | | | 62 |
| Longwood | 60 | 63 | 58 | 53 | | | | | | | | | 57 |
| Altamonte Springs | 108 | 100 | 92 | 103 | | | | | | | | | 102 |
| Maitland | 12 | 13 | 14 | 15 | | | | | | | | | 13 |
| Winter Park | 233 | 236 | 260 | 231 | | | | | | | | | 240 |
| AdventHealth | 285 | 270 | 288 | 243 | | | | | | | | | 274 |
| LYNX Central Station | | | | | | | | | | | | | - |
| Church Street Station | | | | | | | | | | | | | - |
| Orlando Health/Amtrak | 24 | 19 | 25 | 25 | 23 | | | | | | | | 23 |
| Sand Lake Road | 157 | 181 | 167 | 150 | 162 | | | | | | | | 163 |
| Meadow Woods | 92 | 86 | 81 | 49 | 104 | | | | | | | | 82 |
| Tupperware | 12 | 14 | 12 | 17 | 16 | | | | | | | | 14 |
| Kissimmee Intermodal | | | | | | | | | | | | | - |
| Poinciana | 6 | 4 | 4 | 6 | 5 | | | | | | | | 5 |
| Total - All Stations | 1,283 | 1,282 | 1,322 | 1,181 | 1,333 | - | - | - | - | - | - | - | 1,280 |
| Percent change from FY 21 to FY 22 | 47% | 8% | 15% | 5% | 30% | | | | | | | | 18% |

Update Pending

N/A – Ridership was not collected due to bus not having Automatic Passenger Counter (APC); as of August 2020 all LYNX vehicles are equipped with APC's.

*Due to COVID-19, Orange & Osceola Counties instituted a stay-at-home order on March 26 and bus service was reduced on March 30, 2020. This caused a drop in ridership.

**Bus service was re-instated on May 11, 2020.

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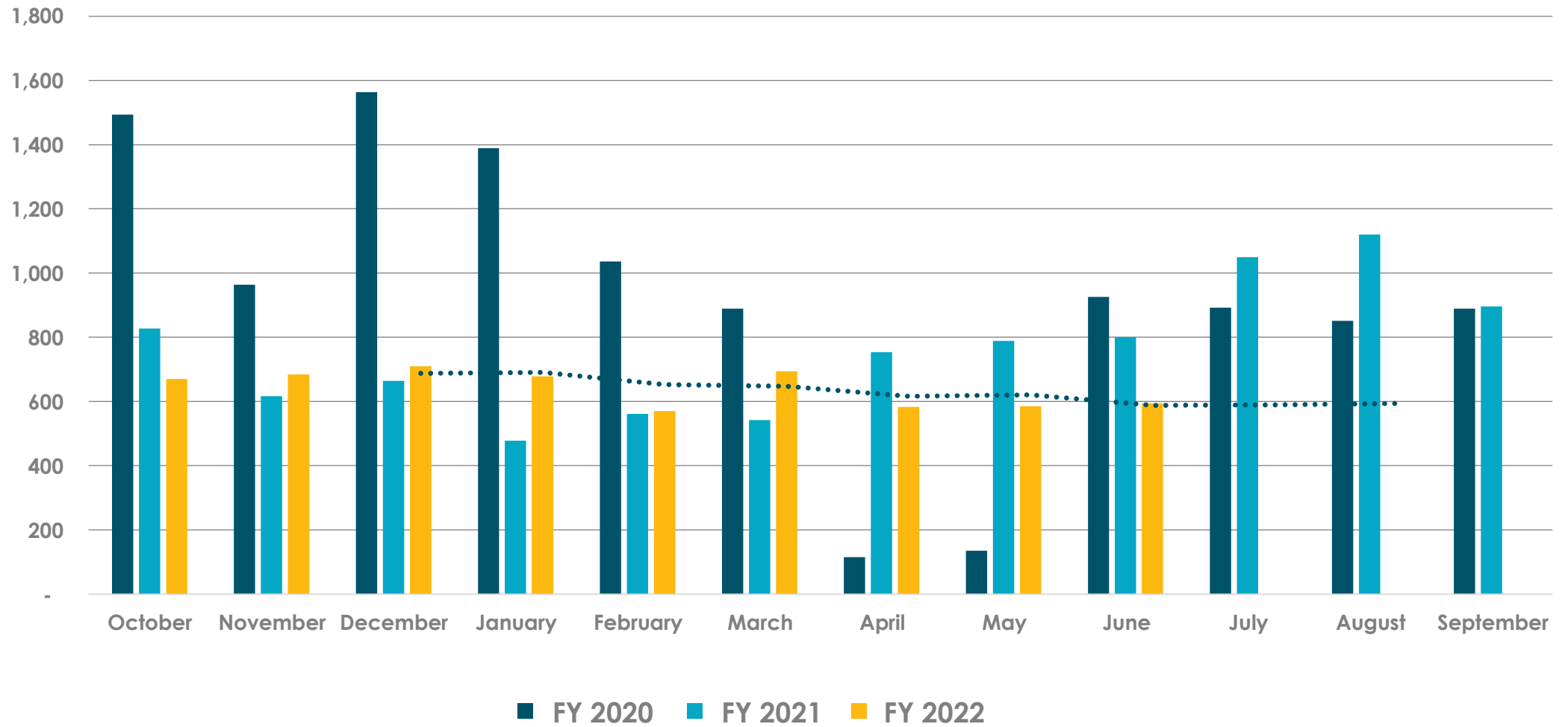
LYNX CONNECTIVITY

LYNX Feeder Bus Route Analysis (Phase II Routes)

| LINK | February | | Change | % Change |
|------|----------|-----|--------|----------|
| | FY21 | | | |
| 18 | 14,393 | | 2,401 | 17% |
| 418 | 3,080 | | 693 | 23% |
| 155 | 332 | | 296 | 89% |
| 306 | 1,017 | | 550 | 54% |
| 604 | 87 | 95 | 8 | 9% |
| 631 | 358 | 427 | 69 | 19% |
| 632 | 199 | 212 | 13 | 7% |
| 709 | 707 | 994 | 287 | 41% |

Update
Pending

VOTRAN SUNRAIL CONNECTIVITY





VOTRAN CONNECTIVITY

June 2022

| Activity at DeBary Station | Fiscal year 2020 | | | | | | | | | | | | Annual Daily Average |
|----------------------------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------|
| | Oct-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | |
| Days of Operation | 23 | 20 | 21 | 22 | 20 | 22 | 22 | 20 | 22 | 23 | 21 | 21 | 257 |
| Total Monthly Ridership | 1,493 | 964 | 1,563 | 1,389 | 1,036 | 889 | 115 | 135 | 926 | 892 | 851 | 889 | 11,142 |
| Avg Daily Ridership | 65 | 48 | 74 | 63 | 52 | 40 | 5 | 7 | 42 | 39 | 41 | 42 | 43 |
| Activity at DeBary Station | Fiscal year 2021 | | | | | | | | | | | | Annual Daily Average |
| | Oct-20 | Nov-20 | Dec-20 | Jan-21 | Feb-21 | Mar-21 | Apr-21 | May-21 | Jun-21 | Jul-21 | Aug-21 | Sep-21 | |
| Days of Operation | 22 | 20 | 22 | 20 | 20 | 20 | 22 | 20 | 22 | 22 | 22 | | 232 |
| Total Monthly Ridership | 827 | 616 | 664 | 478 | 561 | 542 | 753 | 788 | 800 | 1,049 | 1,120 | 896 | 9,094 |
| Avg Daily Ridership | 38 | 31 | 30 | 24 | 28 | 27 | 34 | 39 | 36 | 48 | 51 | 43 | 36 |
| Activity at DeBary Station | Fiscal year 2022 | | | | | | | | | | | | Annual Daily Average |
| | Oct-21 | Nov-21 | Dec-21 | Jan-22 | Feb-22 | Mar-22 | Apr-22 | May-22 | Jun-22 | Jul-22 | Aug-22 | Sep-22 | |
| Days of Operation | 21 | 21 | 23 | 21 | 20 | 23 | 21 | 21 | 22 | | | | 193 |
| Total Monthly Ridership | 670 | 684 | 709 | 678 | 570 | 694 | 583 | 585 | 594 | | | | 5,767 |
| Avg Daily Ridership | 32 | 33 | 31 | 32 | 29 | 30 | 28 | 28 | 27 | | | | 30 |

NOTES: April and May of 2020 ridership decreased due to COVID-19, May 2020 ridership was not accurately counted due to fare suspension.



TRANSITION UPDATE

MIKE DEPALLO



Technical Advisory
Committee
Presentation

July 13, 2022

SunRail

Transition Plan

Consulting

Services

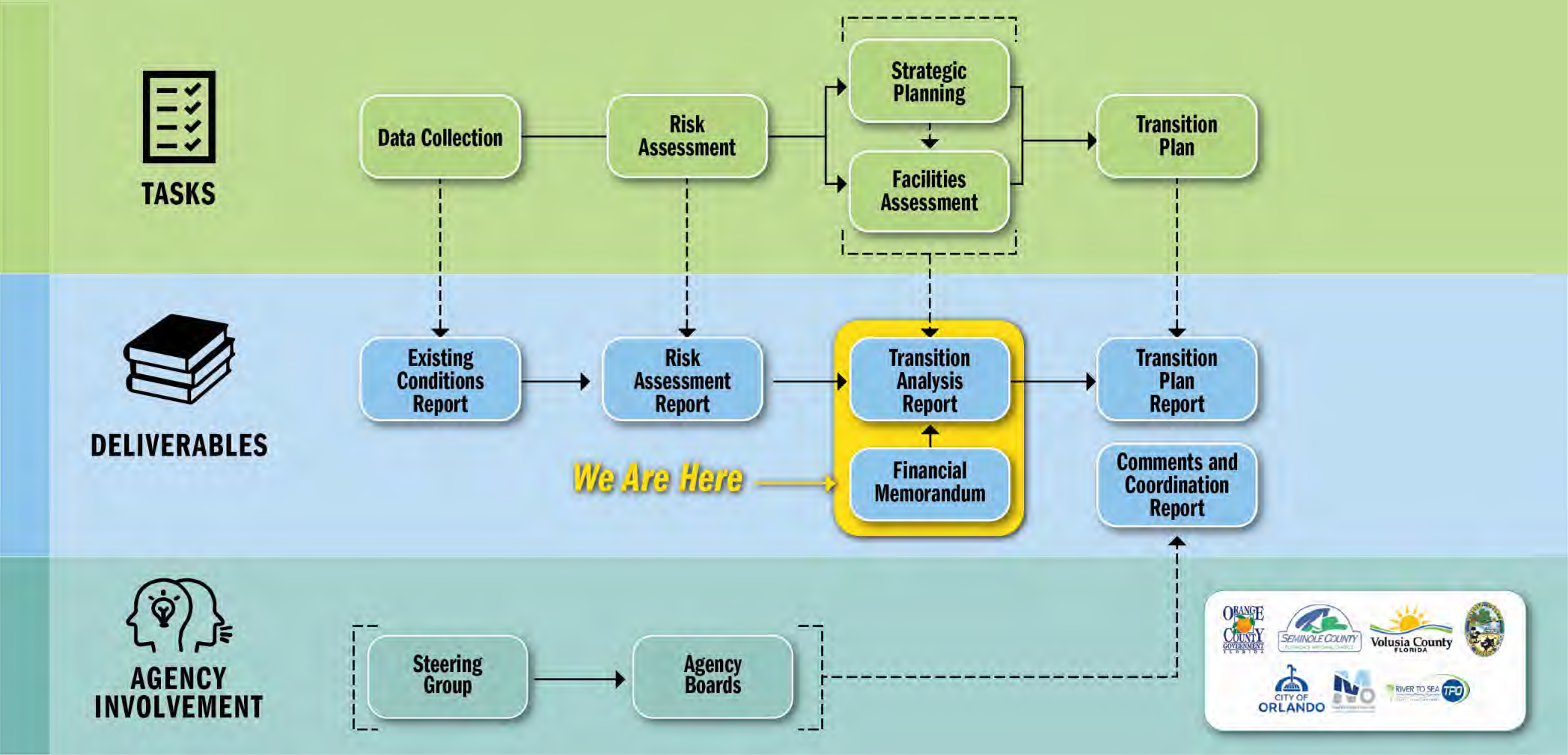


Purpose

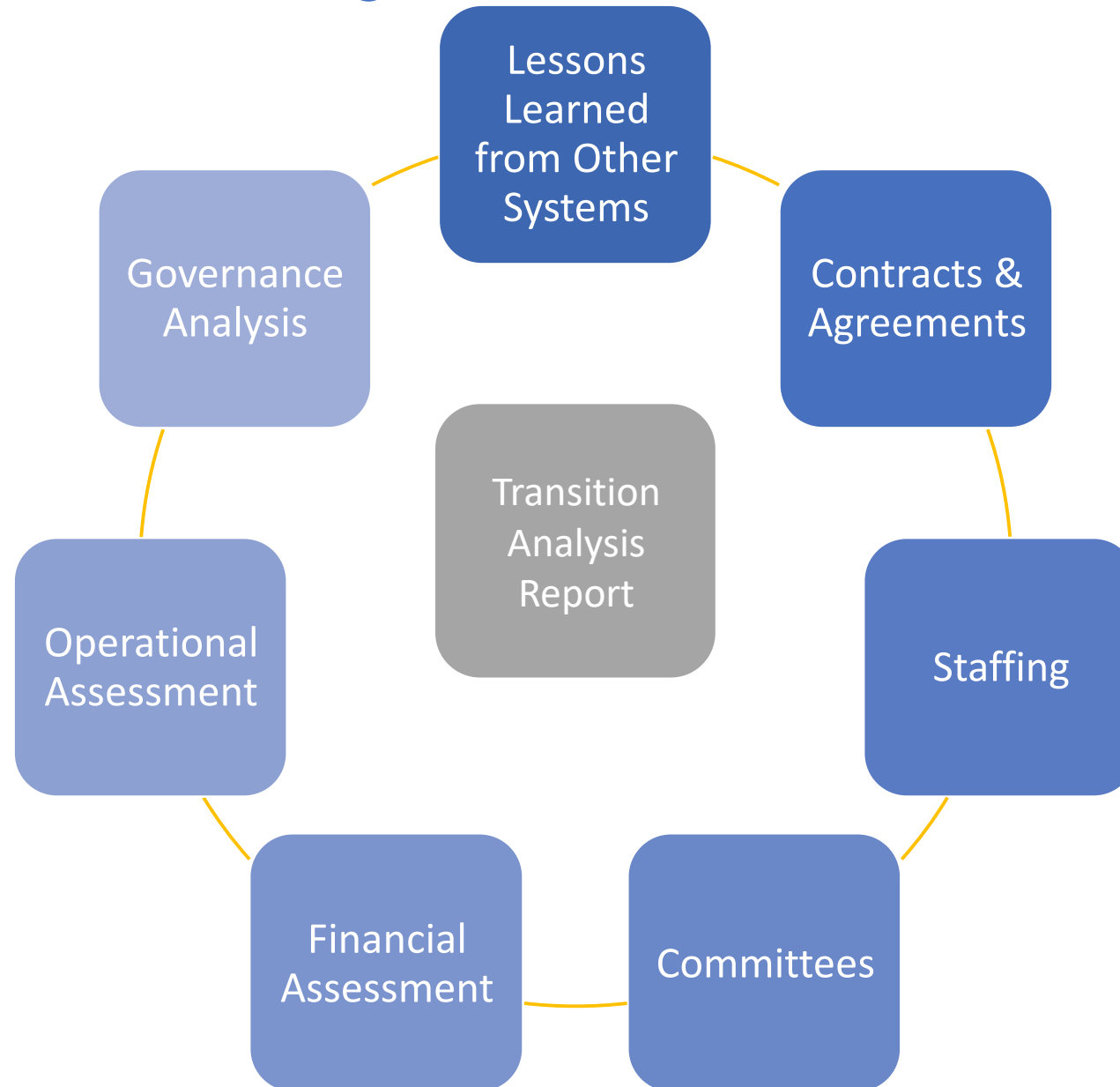
- Provide major conclusions from aspects of the SunRail Transition Analysis
- Provide an update on Financial Analysis for three Governance Options
- Discuss Next Steps and Timeline



Transition Study Process – Current Status



Transition Analysis Framework



Transitioning Contracts

Primary Operating Contracts To Be Assigned

Amtrak Vehicle Heavy Maintenance

Execute assignment & extension of term by June 30, 2024

Herzog Signal Maintenance

Execute assignment by June 30, 2024

Alstom Rail Operations

Execute assignment & assumption by May 4, 2024

Other Contracts

Green's Energy

Wabtec

AT&T

moovel

Wells Fargo

MidFlorida

American Express

HNTB/Jacobs GEC DTS

Insurance Contractor

Bank of America

Verizon

Various Due dates for assuming contracts or reprocurring contracts

Recommendation: Work with FDOT on contract dates. May want to have third party legal staff to help manage work effort.



Committee Recommendations

Maintain Existing Technical Advisory Committee (TAC), Customer Advisory Committee (CAC) per Interlocal Agreements

After transition may want to establish new Committees to advise Commission on specialized governance and oversight matters such as:

Oversight
Committee

Finance and
Audit
Committee

Risk
Management
Committee



Fare System Assessment



Operational Analysis

- SunRail infrastructure is in a State of Good Repair (SGR).
- A review of the past 3 years of Federal Railroad Administration (FRA) inspection findings and/or violations have not shown any systemic issues.
- The FRA is confident in and comfortable with the SunRail operation. Minimal updates to plans.
- **Recommendation:** Prior to transition, conduct review to ensure SunRail maintenance and CIP has progressed and not deferred.

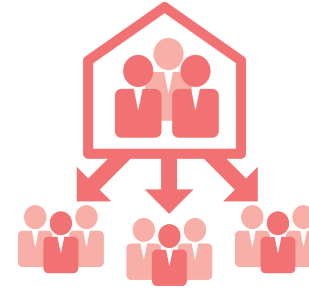


Three Potential Governance Options



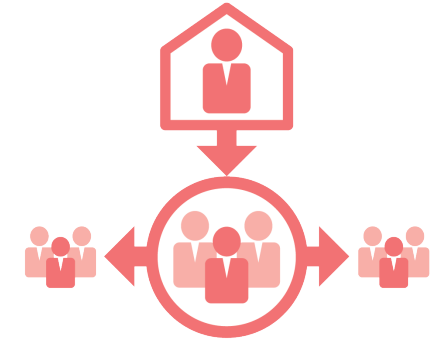
Option 1

CFCRC recruits comprehensive, in-house staff to provide all management, administration, and operating functions.



Option 2

CFCRC recruits in-house staff to provide management and administration functions while contracting out all operating services, like current FDOT organization.



Option 3

CFCRC recruits no staff and contracts all functions (management, administration, and operations) to another agency which may subcontract operating functions as indicated in Option 2.

Option 1 – Commission hires all staff as direct employees



Commission serves as Board/governing body.



Most expensive.



Creates new agency; must develop administrative processes – HR, procurement, etc.



Requires approximately 200 employees.



Requires rental/purchase of office space.



Highest level of liability without contractors to share risk.



Efficient execution of policy, decision-making, actions.



High cost, long interval to recruit in FL market.



Potential FRA concern over new operating team.

Option 2 – Commission hires leadership, administrative staff while all operating personnel provided through contracts



Commission serves as Board/governing body.



Second most expensive.



Creates new agency; must develop administrative processes – HR, procurement, etc.



Requires approximately 50 employees. (15 contract?)



Requires rental/purchase of office space.



Sheds risk from Commission to operating contractors.



Efficient execution of policy, decision-making, actions.



Medium cost and time to recruit in FL market.



Likely FRA confidence with continuing contractors.

Option 3 – Commission contracts entire organization/operating to existing agency - LYNX



Commission serves as Board/governing body.



Least expensive option all years.



Leverages experience, assets, services of existing agency.



Requires approximately 9 additional LYNX employees.



Utilizes existing LYNX office space.



Sheds risk from Commission to LYNX, contractors.



Commission policy and decision-making execution through LYNX CEO.



Requires agreement between Commission and LYNX.

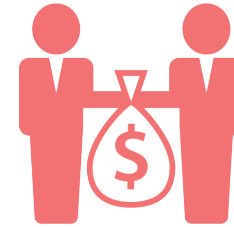
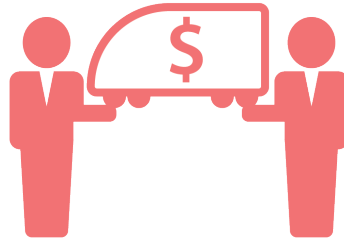


SunRail and LYNX's reputations are connected.



Likely FRA confidence with continuing contractors.

Four Types of Cost Allocations Per Agreements



| Insurance | Local Operating Support | Capital Plan Funding | Station Maintenance Costs |
|---|---|--|------------------------------------|
| Maintain liability insurance with a deductible or self-insured amount | LFP responsible for share of system operating costs | LFP responsible for share of capital projects for the system | Maintenance and housekeeping costs |

Insurance Costs

Costs include:

- Insurance Broker
- Self Retention Fund

FDOT carries:

- \$10 million self retention fund
- \$322 million liability insurance to comply with Federal cap

Insurance costs
allocated by percentage
share of Local
Operating Support

Local Operating Share

System Operating Costs

- Operation and Maintenance Costs
- Fuel
- Banking
- Ticketing
- Consultant Support
- Feeder Bus

Allocated based on:

- The shares of total “embarkings and disembarkings”
- And the shares of peak hour “embarkings and disembarkings”
- Averaged for each jurisdiction
- During the last Funding Determination Year
- Farebox Revenue credited to each LFP



Local Operating Share Methodology

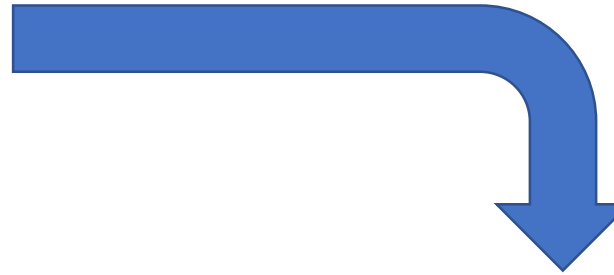
| | | | | | |
|--------|-------------------|---|--------------------------------|---|-------------------------|
| Step 1 | Operating Costs | — | Revenue for Operations | = | Operating Deficit |
| Step 2 | Operating Deficit | × | Embarking & Disembarking Share | = | Local Operating Support |
| | | | Volusia 9.58% | | Volusia \$ |
| | | | Seminole 18.32% | | Seminole \$ |
| | | | Orlando 33.23% | | Orlando \$ |
| | | | Orange 23.18% | | Orange \$ |
| | | | Osceola 15.68% | | Osceola \$ |

Notes: 1. DeLand average embarking share is assumed to be 200 embarkings/day, assuming 250 commuting days per year.
2. DeLand average disembarking, average peak embarking, and average peak disembarking is estimated based on the proportions observed by DeBary compared to average embarking share.



LOCAL OPERATING SHARE ALLOCATION

| STATION | County | Total Embarkings/ Disembarkings (annual) | Peak Hour Embarkings/ Disembarkings (annual) |
|-------------------|----------|---|---|
| DeLand | Volusia | 102,030 | 76,425 |
| DeBary | Volusia | 213,866 | 159,770 |
| Sanford | Seminole | 153,030 | 110,860 |
| Lake Mary | Seminole | 173,720 | 135,680 |
| Longwood | Seminole | 128,029 | 101,805 |
| Altamonte Springs | Seminole | 141,908 | 108,861 |
| Maitland | Orange | 112,628 | 93,496 |
| Winter Park | Orange | 265,374 | 167,456 |
| Florida Hospital | Orlando | 189,042 | 148,126 |
| LYNX | Orlando | 330,915 | 263,782 |
| Church Street | Orlando | 362,486 | 295,294 |
| Orlando Amtrak | Orlando | 171,960 | 143,714 |
| Sand Lake Road | Orange | 142,819 | 108,956 |
| Meadow Woods | Orange | 242,617 | 202,181 |
| Tupperware | Osceola | 99,660 | 79,406 |
| Kissimmee | Osceola | 222,025 | 166,802 |
| Poinciana | Osceola | 192,349 | 142,399 |
| TOTAL | | 3,244,458 | 2,505,013 |



| Funding Partner | Share of Total Embarkings & Disembarkings | Share of Peak Hour Embarkings & Disembarkings | Funding Allocation (%) Average of GREEN and ORANGE |
|-----------------|--|---|--|
| Volusia | 315,896 (9.74%) | 236,195 (9.43%) | 9.58% |
| Seminole | 596,687 (18.39%) | 457,206 (18.25%) | 18.32% |
| Orlando | 1,054,403 (32.50%) | 850,916 (33.97%) | 33.23% |
| Orange | 763,438 (23.53%) | 572,089 (22.84%) | 23.18% |
| Osceola | 514,034 (15.84%) | 388,607 (15.51%) | 15.68% |
| TOTAL | 3,244,458 (100%) | 2,505,013 (100%) | 100% |

1. DeLand average embarking share is assumed to be 200 embarkings/day, assuming 250 commuting days per year.
2. DeLand average disembarking, average peak embarking, and average peak disembarking is estimated based on the proportions observed by DeBary compared to average embarking share.
3. CY 2019 used since Covid disruptions affected March 2020.

Capital Plan Funding

- Five Year Capital Plan
 - Station Upgrades
 - Infrastructure upgrades
 - Vehicle Overhauls, etc.
- Allocated based on track miles in each jurisdiction

| Funding Partner | Track Miles | Funding Allocation (%) |
|-----------------|-------------|------------------------|
| Volusia | 12.7 | 21% |
| Seminole | 16.4 | 27% |
| Orlando | 5.5 | 9% |
| Orange | 16.3 | 27% |
| Osceola | 9.6 | 16% |
| Total | 60.5 | 100% |



Station Maintenance Costs

Joint Use Agreements entered into with LFP prior to Phase 1 and II operations,
which delineated costs for:

*Maintenance and
operations of Station and
Station Property*

*Housekeeping and
Appearance of Station
Platform and Station
Property*

*Security at Station
Platform and Property*



LFP have been assuming station maintenance costs since beginning of SunRail
operations



Station Maintenance Costs not included in Financial Assessment



Revenue

| REVENUE CATEGORIES | CFCRC 2021 REVENUE |
|---|---------------------|
| Amtrak Usage | \$792,270 |
| FCEN Usage | \$27,151 |
| CSXT Usage | \$3,198,217 |
| Advertising | \$106,060 |
| LYNX Back Office Share | - |
| Miscellaneous Reimbursement | \$166,800 |
| Damage Claims | - |
| ROW Lease | - |
| Fiber Lines | - |
| Transition Maintenance | - |
| Interest | \$132 |
| Advertising - Deposited at DFS | \$158,650 |
| Fare Box Collections - Deposited at DFS | \$1,057,817 |
| Card Fare - Deposited at DFS | \$14,615 |
| FTA 5307 Funding | \$10,000,000 |
| TOTAL | \$15,521,712 |



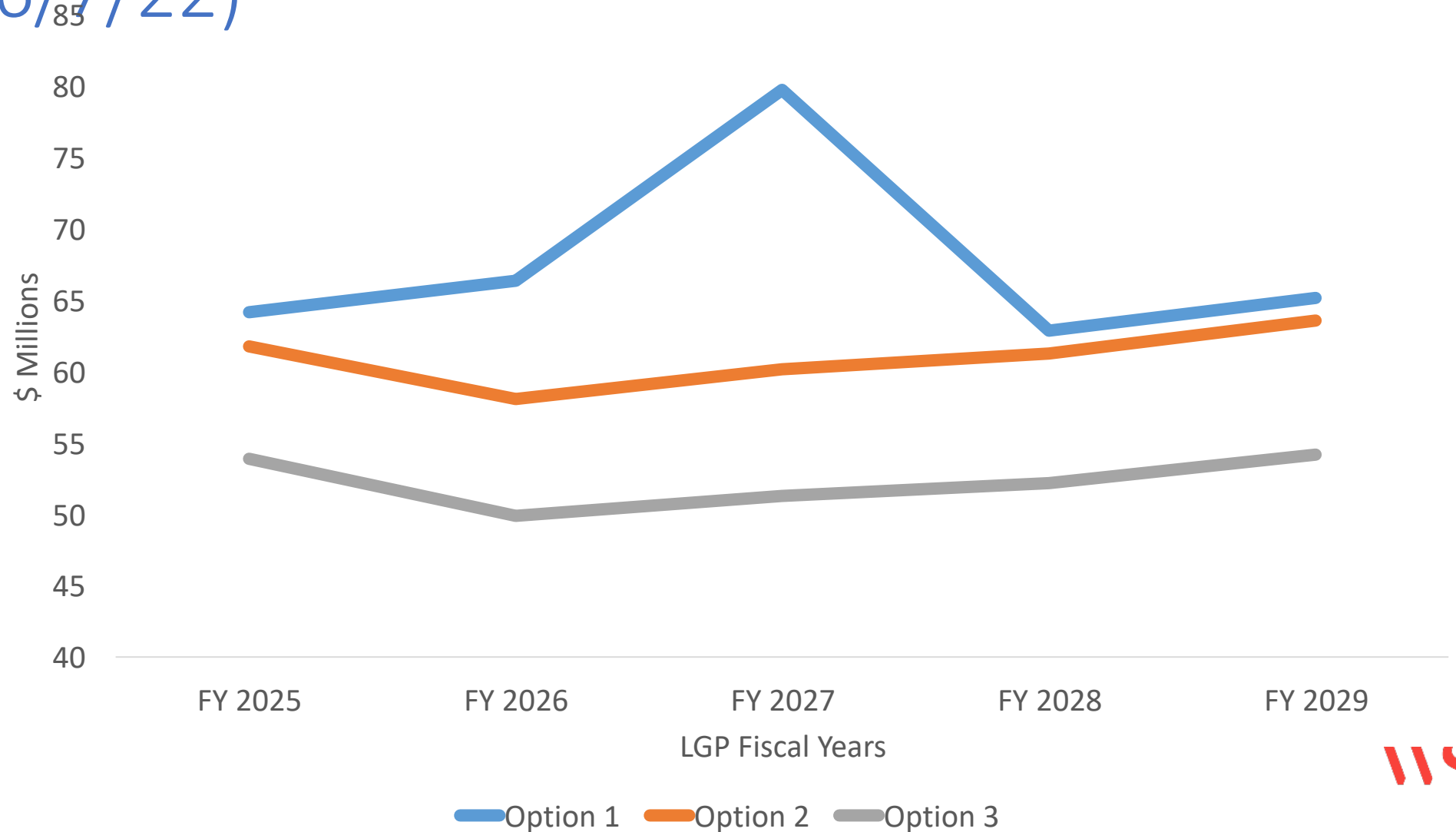
Total Cost Comparison between the Three Governance Options (Updated 6/7/22)

| Governance Options | (Q4 only) FY24 Total Costs* | FY25 Total Costs | FY26 Total Costs | FY27 Total Costs | FY28 Total Costs | FY29 Total Costs |
|--------------------|-----------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Option 1 | \$16.4 | \$64.2 | \$66.4 | \$79.8 | \$62.9 | \$65.2 |
| Option 2 | \$15.8 | \$61.8 | \$58.1 | \$60.2 | \$61.3 | \$63.6 |
| Option 3 | \$13.8 | \$53.9 | \$49.9 | \$51.3 | \$52.2 | \$54.2 |

*Total costs (net of all revenues) includes operations, capital maintenance, and insurance. LFP Fiscal Year.



Total Cost Comparison between the Three Governance Options (Updated 6/7/22)



LFP Allocations for each Option (Updated – 6/7/22)

Option 1

| | FY2024 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 |
|--|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <i>Costs Net of All Revenues (\$ Millions)</i> | | | | | | |
| Volusia | \$1.5 - \$1.8 | \$5.7 - \$7.9 | \$7.0 - \$7.7 | \$7.4 - \$11.6 | \$5.7 - \$6.8 | \$5.9 - \$7.1 |
| Seminole | \$2.7 - \$3.3 | \$10.7 - \$13 | \$11.2 - \$13.5 | \$13.6 - \$16.3 | \$10.6 - \$12.8 | \$11 - \$13.3 |
| Orlando | \$4.5 - \$5.9 | \$13.2 - \$22.1 | \$13.3 - \$22.6 | \$23.1 - \$23.1 | \$10.4 - \$23.5 | \$19.1 - \$23.3 |
| Orange | \$3.4 - \$4.2 | \$13.5 - \$16.4 | \$14 - \$17 | \$16.9 - \$20.4 | \$13.2 - \$16.1 | \$13.7 - \$16.7 |
| Osceola | \$2.1 - \$2.8 | \$9.1 - \$11.1 | \$9.4 - \$11.4 | \$11.3 - \$13.7 | \$1.9 - \$10.8 | \$9.2 - \$11.2 |

Option 2

| | | | | | | |
|-----------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Volusia | \$1.4 - \$1.7 | \$5.5 - \$6.7 | \$5.2 - \$6.3 | \$5.4 - \$6.5 | \$5.5 - \$6.7 | \$5.7 - \$6.9 |
| Seminole | \$2.6 - \$3.2 | \$10.3 - \$12.5 | \$9.8 - \$11.8 | \$10.1 - \$12.3 | \$10.3 - \$12.5 | \$10.7 - \$13 |
| Orlando | \$4.7 - \$5.7 | \$18.2 - \$22.2 | \$17 - \$20.8 | \$17.6 - \$21.5 | \$17.9 - \$21.9 | \$18.6 - \$22.7 |
| Orange | \$3.3 - \$4 | \$13 - \$15.8 | \$12.2 - \$14.8 | \$12.7 - \$15.4 | \$12.9 - \$15.7 | \$13.4 - \$16.2 |
| Osceola | \$2.2 - \$2.7 | \$8.7 - \$10.6 | \$8.2 - \$10 | \$8.5 - \$10.3 | \$8.7 - \$10.5 | \$9 - \$10.9 |

Option 3

| | | | | | | |
|-----------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Volusia | \$1.2 - \$1.5 | \$4.8 - \$5.8 | \$4.5 - \$5.4 | \$4.7 - \$5.6 | \$4.7 - \$5.7 | \$4.9 - \$5.9 |
| Seminole | \$2.3 - \$2.8 | \$9 - \$11 | \$8.4 - \$10.2 | \$8.7 - \$10.5 | \$8.8 - \$10.7 | \$9.1 - \$11.1 |
| Orlando | \$4.1 - \$5 | \$15.8 - \$19.3 | \$14.6 - \$17.8 | \$15 - \$18.3 | \$15.2 - \$18.6 | \$15.8 - \$19.3 |
| Orange | \$2.9 - \$3.5 | \$11.3 - \$13.8 | \$10.5 - \$12.8 | \$10.8 - \$13.1 | \$11 - \$13.3 | \$11.4 - \$13.8 |
| Osceola | \$2 - \$2.4 | \$7.6 - \$9.3 | \$7.1 - \$8.6 | \$7.3 - \$8.8 | \$7.4 - \$9 | \$7.7 - \$9.3 |

*Costs do not include PTC, or ROW lease/fiber line revenues



Proposed Next Steps

- Finalize Financial Analysis Memo – July 2022
- Finalize Transition Analysis Report – July 2022
- Jurisdiction Board Briefings – June/July 2022
- CFCRC Adoption of Governance Structure – August 2022
- Develop a Transition Plan – August - November 2022
- **CFCRC Adoption of Transition Plan – November 2022**



Discussion/Questions



SUNSHINE CORRIDOR CFCRC UPDATE

BRIAN STANGER



OBJECTIVE

- To identify and evaluate topics that require decisions by the CFCRC, FDOT, or any of the key partners to successfully advance the Sunshine Corridor through acceptance as a federally funded project.





ORGANIZATION



Steering Committee Group

Policy Group

Technical Group



PROGRESS

Organized the workgroups and held initial meetings of Policy and Technical groups

Established a Steering Committee and held initial meetings

Conducted update call with FTA.
Began developing whitepaper in response to FTA's request

Developed draft workgroup charter for review

Developed tools to support workgroup members:
StoryMap,
Glossary,
Grant Summary



MOVING FORWARD

Reach
Consensus on
Project
Description

Update FRA

Complete
White Paper
and submit to
FTA

Complete
Ridership Study



DON'T STOP

- Continue communication and collaboration between all stakeholders
- Document official actions
- Identify issues, concerns, and research topics





COMMITTEE MEMBER COMMENTS

NEXT MEETING:

September 29, 2022

LYNX Open Space Room



THANK YOU

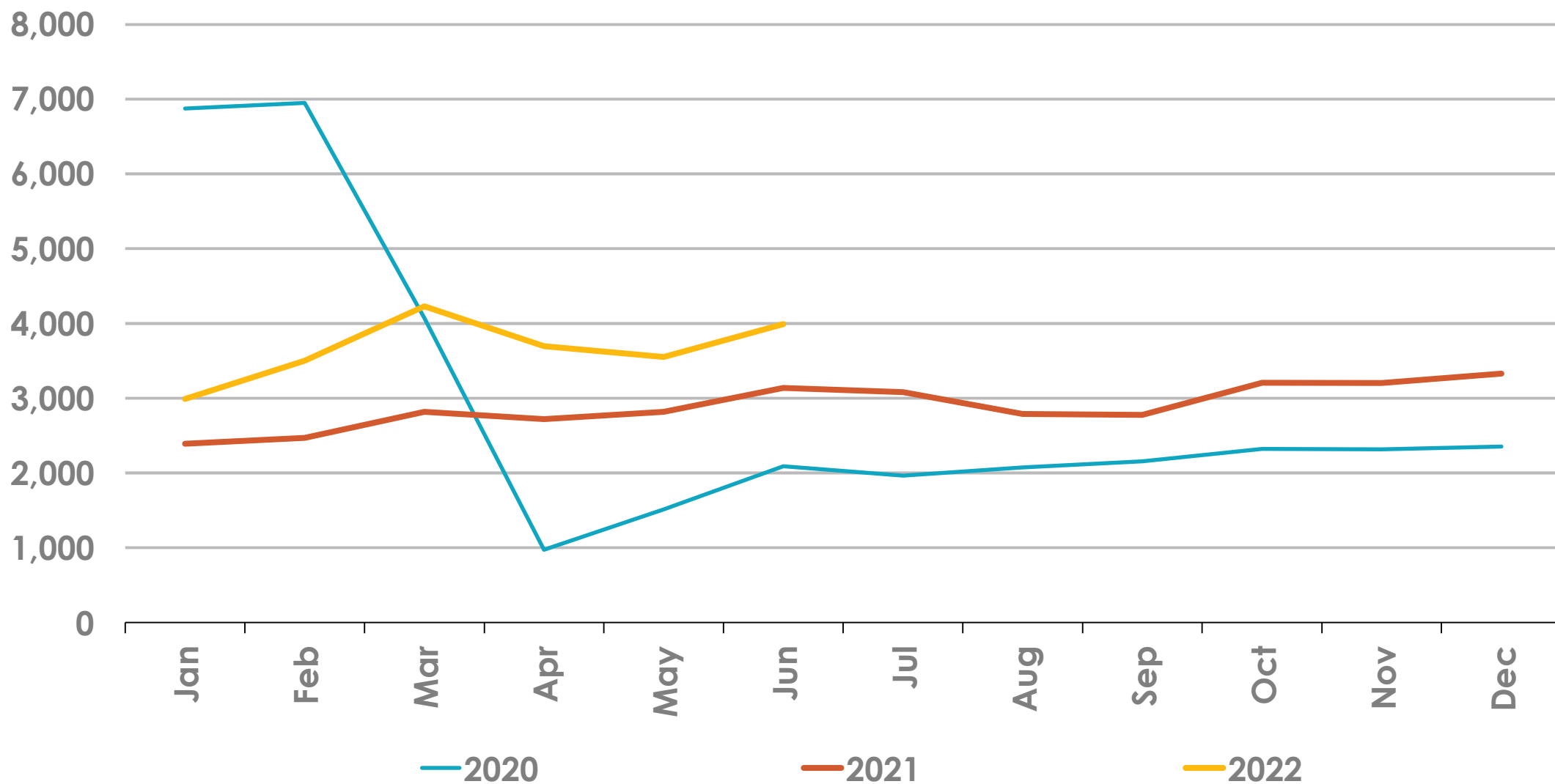


SUPPORTING CHARTS AND DATA



AVERAGE DAILY RIDERSHIP

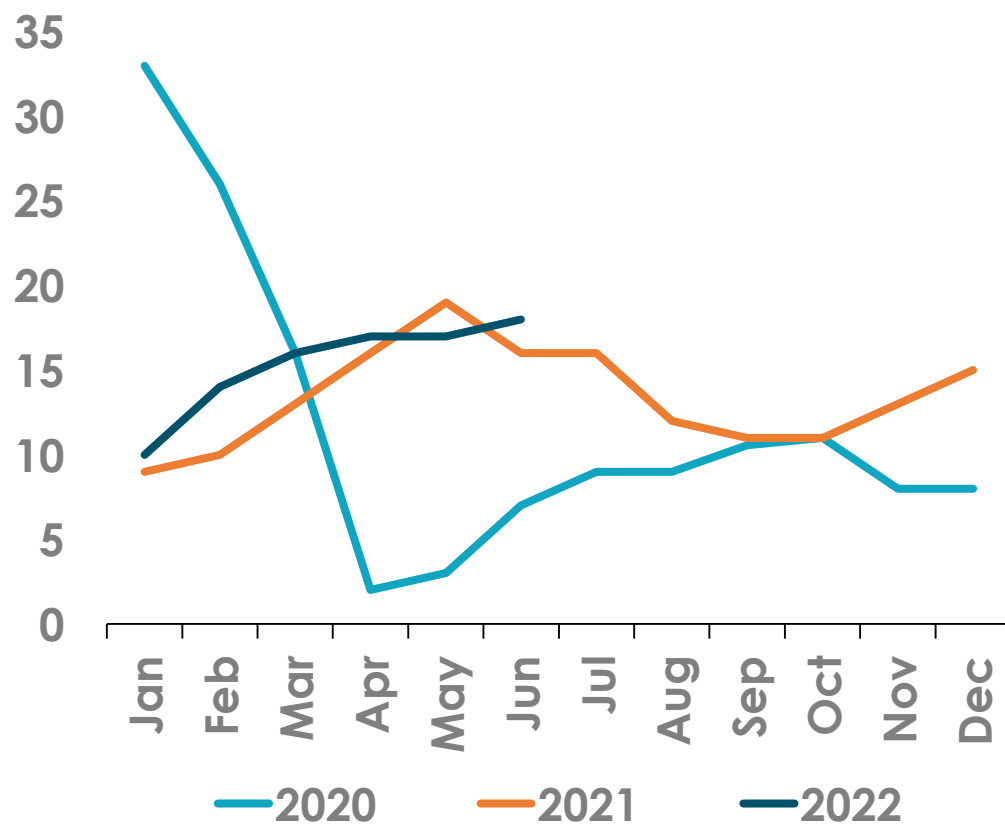
Apr – 3,696 | May – 3,552 | Jun – 3992





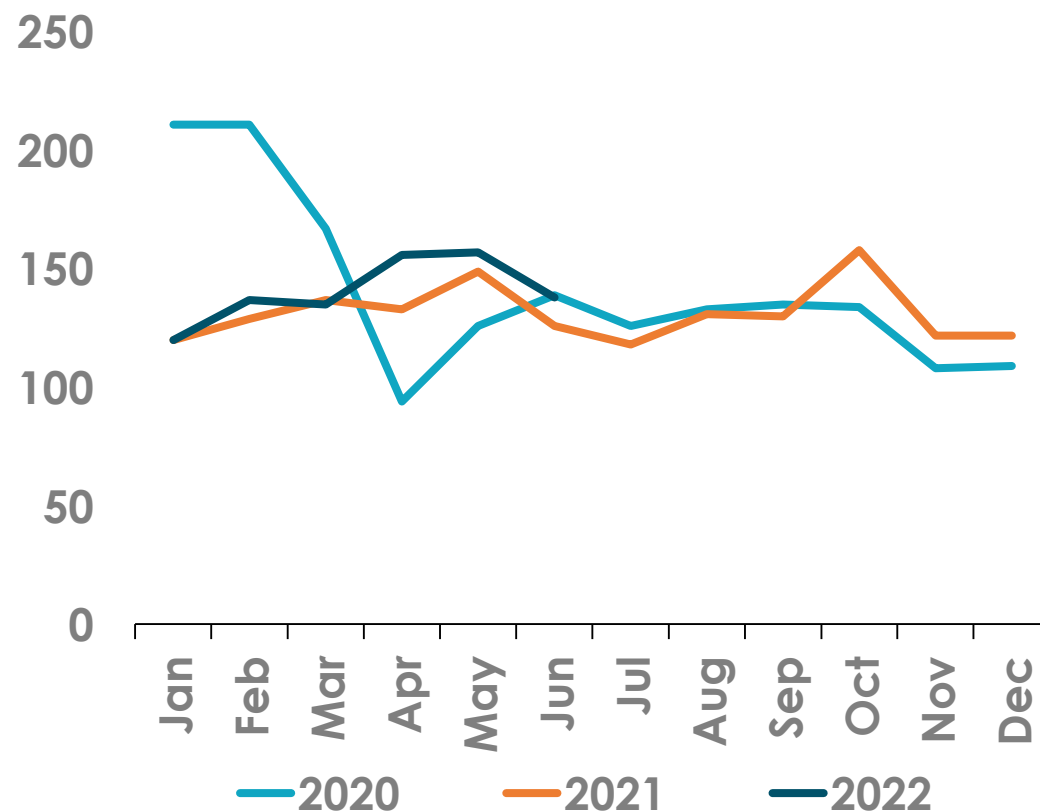
ADA

Apr-June Average: 17



BICYCLE

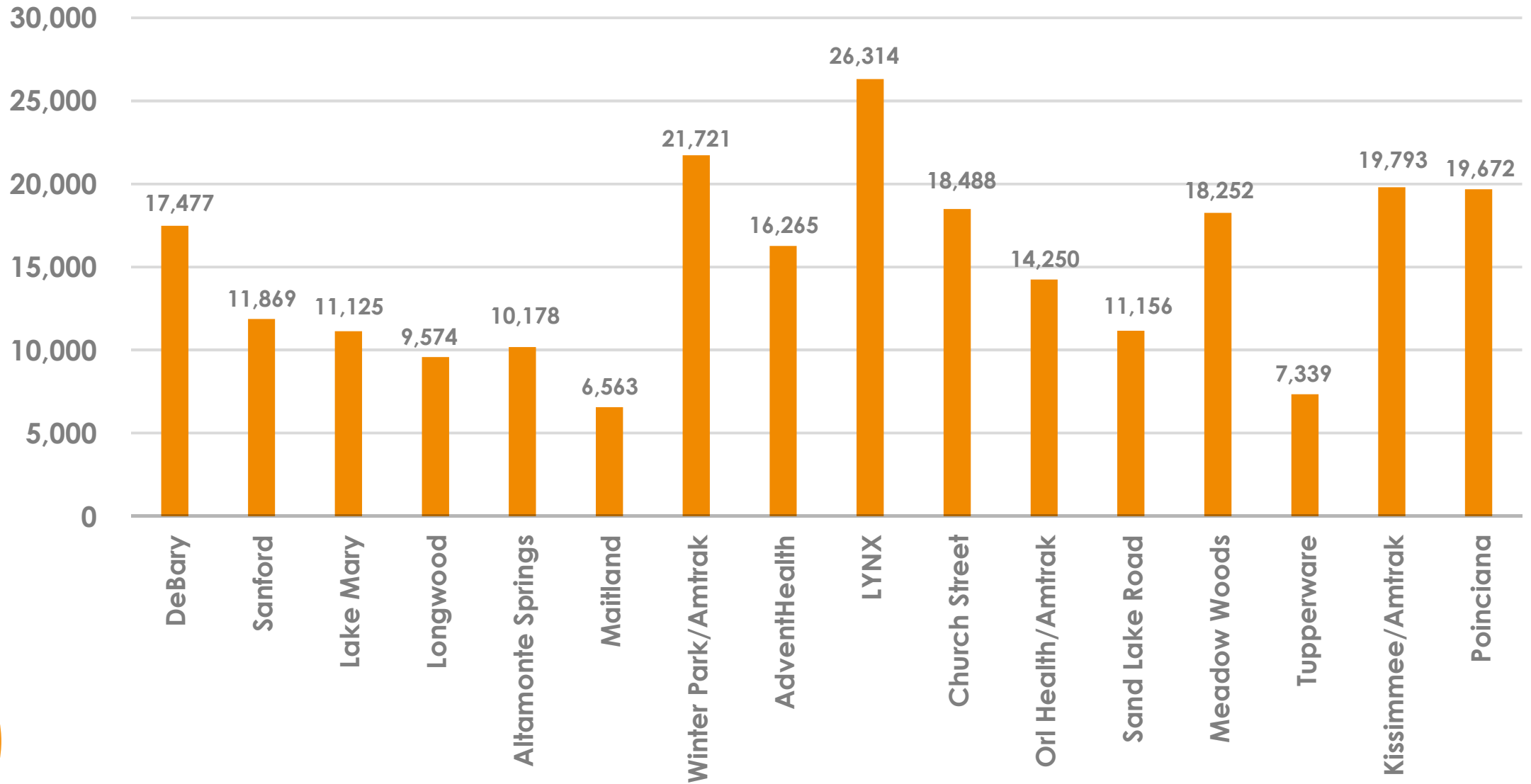
Apr-June Average: 150



BOARDINGS BY STATION



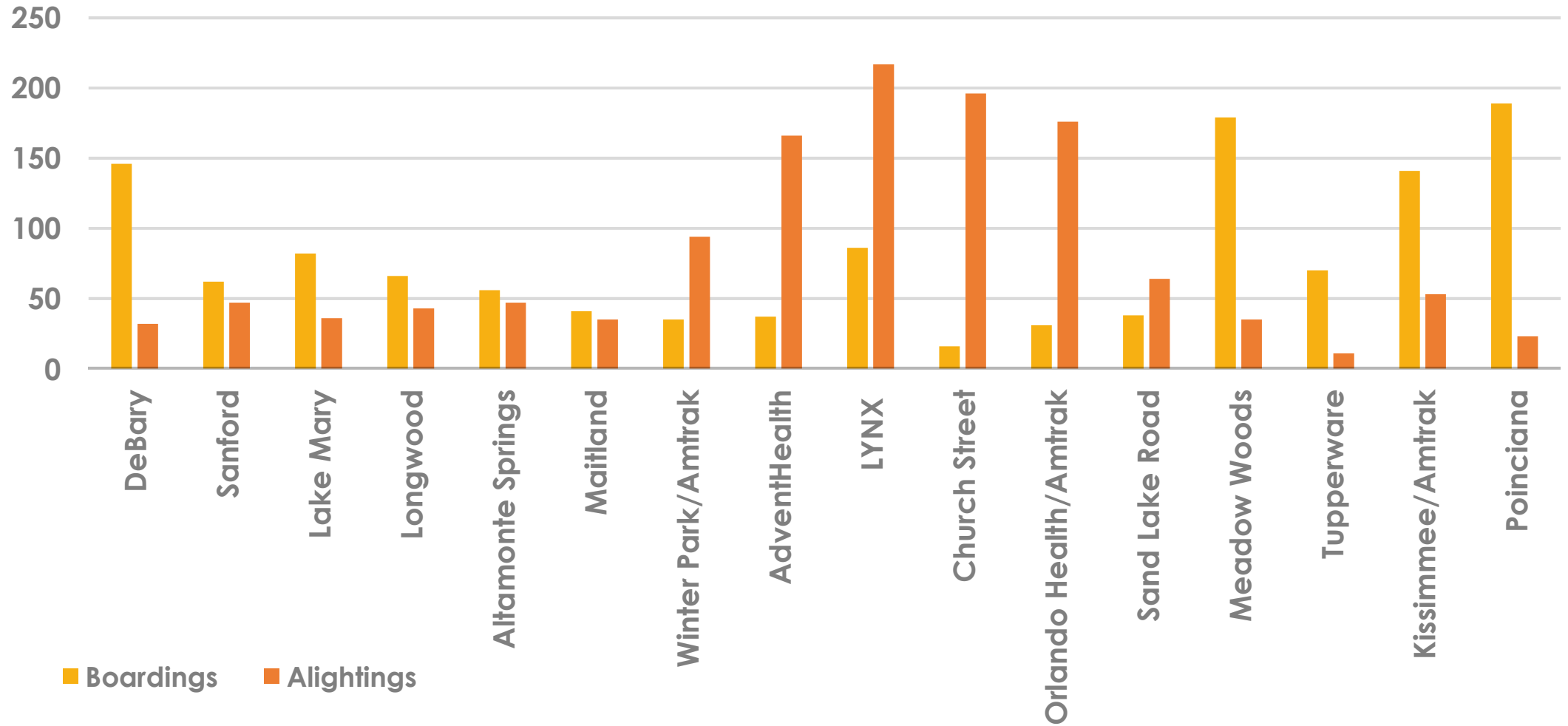
Ridership April – June 2022



BOARDINGS & ALIGHTINGS



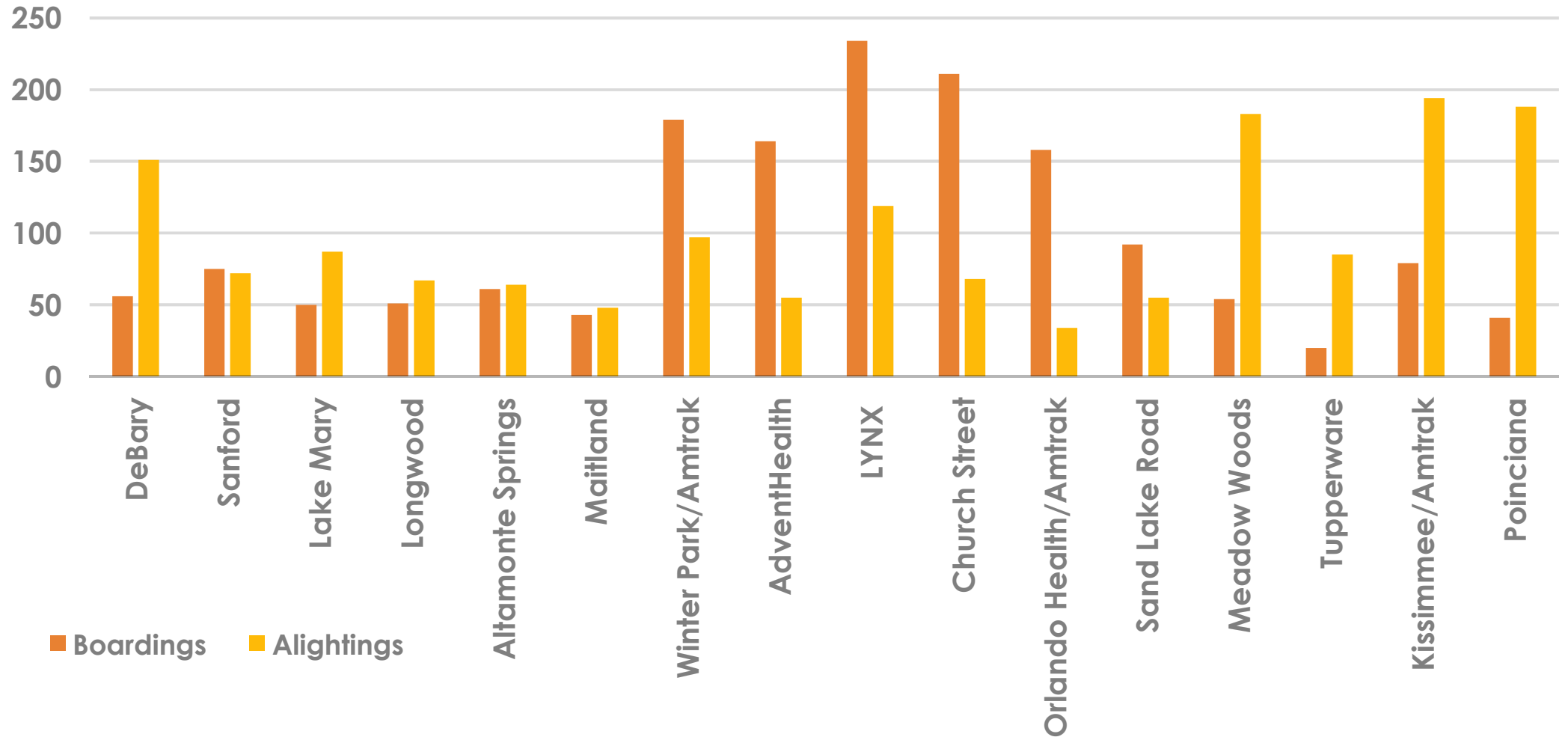
AM PEAK
5:45 AM – 8:45 AM (NB from Poinciana)
April – June 2022



BOARDINGS & ALIGHTINGS



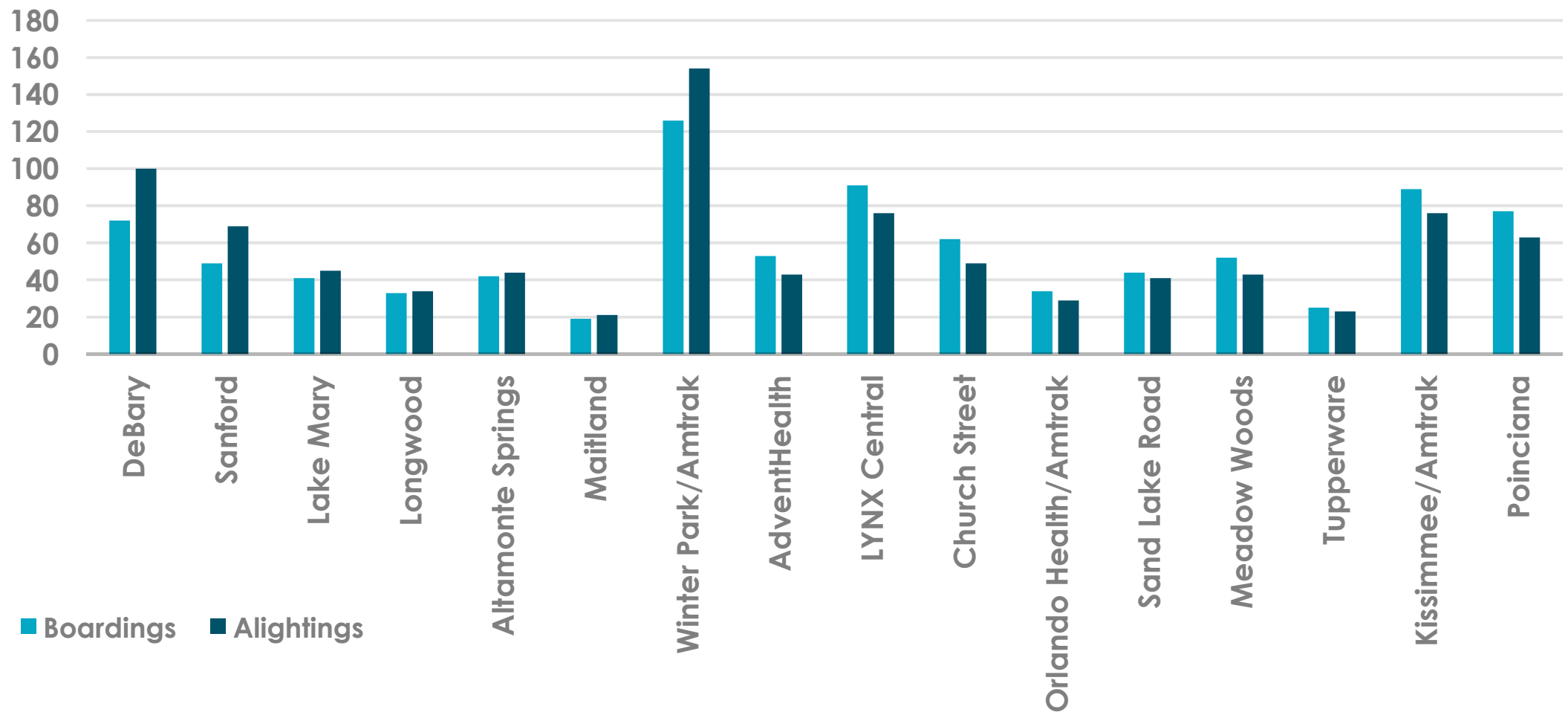
PM PEAK 3:15 PM – 6:25 PM (NB from Poinciana) April - June 2022



BOARDINGS & ALIGHTINGS



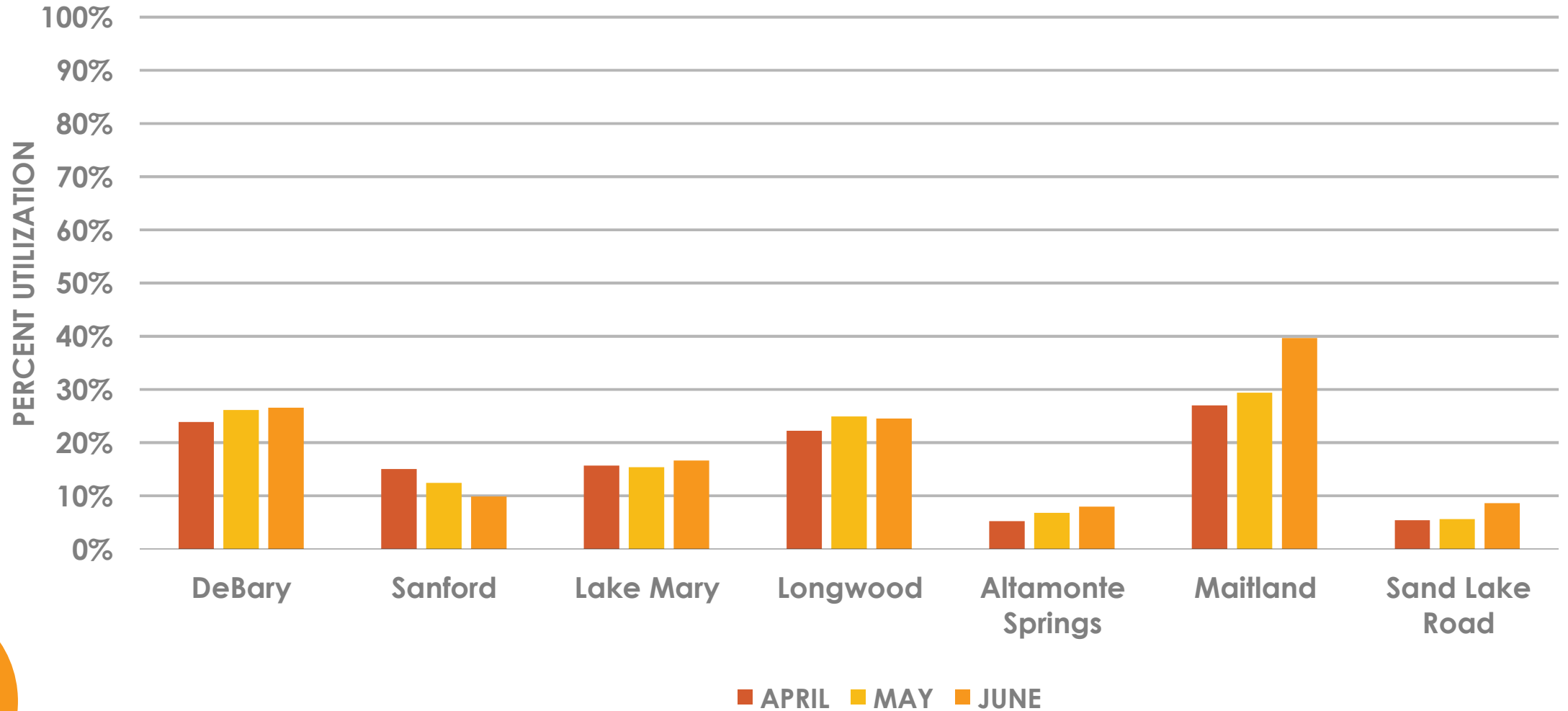
OFF PEAK
10:45 AM – 2:45 PM; 7:25 PM – 9:55 PM (NB from Poinciana)
April - June 2022



IOS STATION PARKING



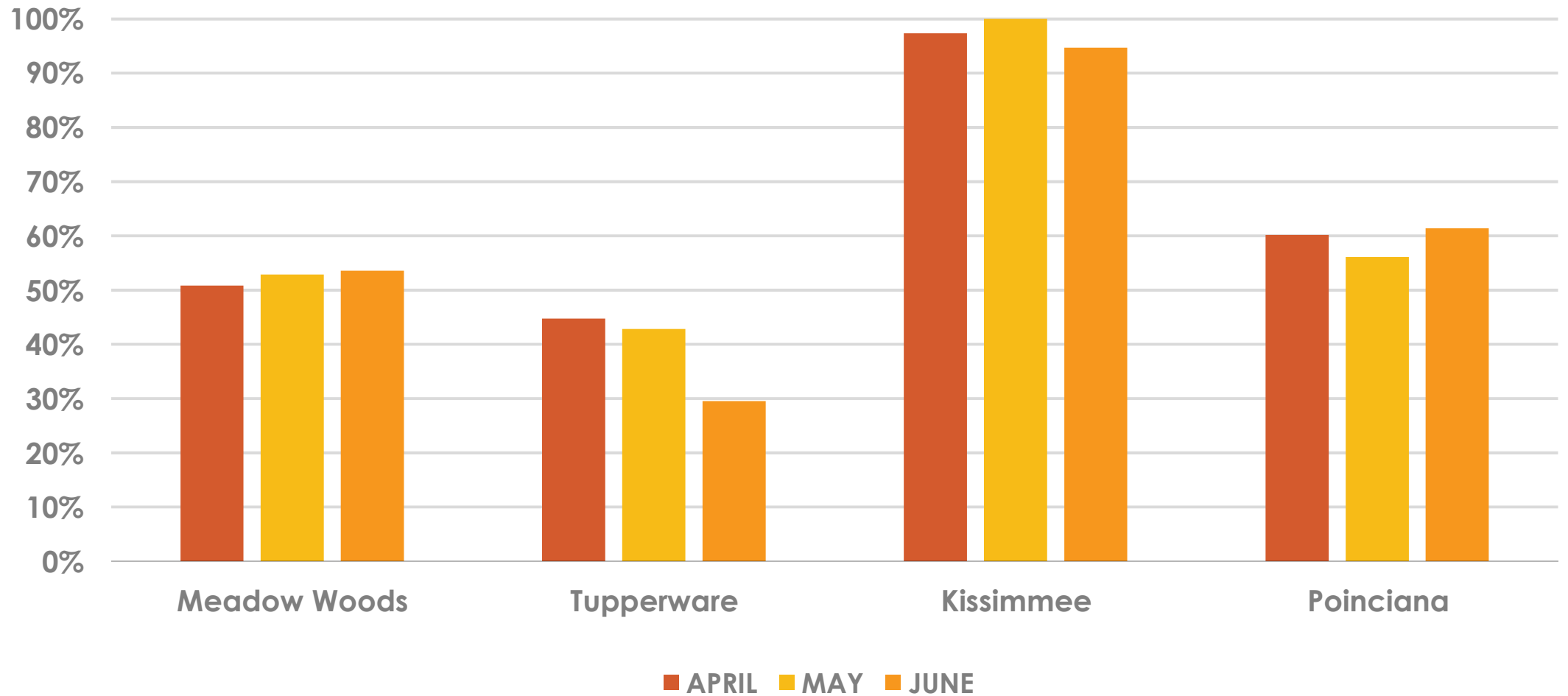
April 2022 – June 2022



SOUTHERN EXPANSION STATION PARKING



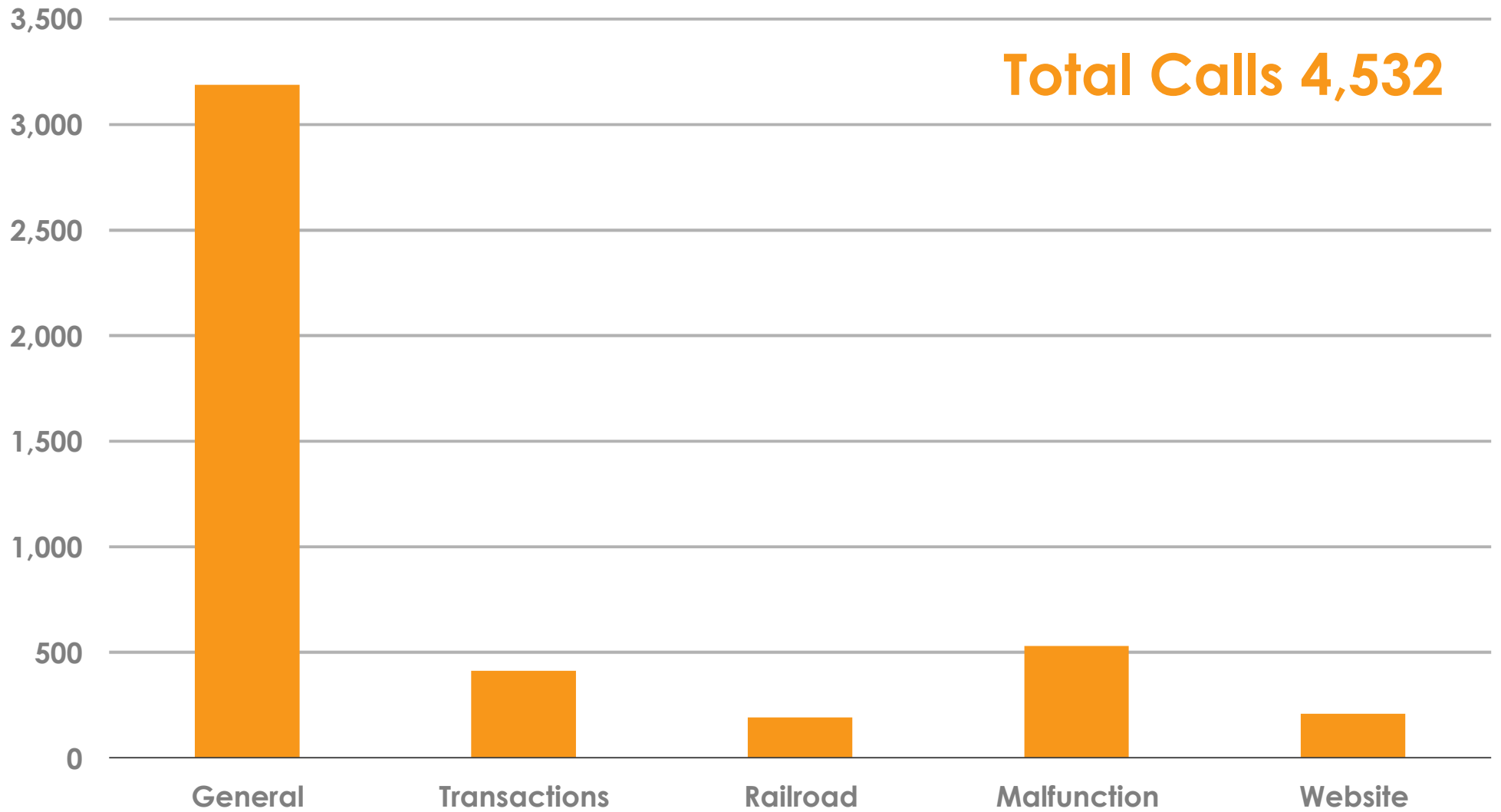
April 2022 – June 2022



CUSTOMER SERVICE CALLS



April – June 2022





TRAIN PERFORMANCE DETAIL

April 2022 – June 2022

| Train Performance Overview | | Trains | Percentage |
|---------------------------------------|------|--------|------------|
| On-Time | | 2444 | 95.5% |
| Late | | 108 | 4.2% |
| Annulled | | 8 | 0.3% |
| Total Trains Operated | | 2560 | 100.0% |
| | | | |
| Performance Detail | Days | Trains | Percentage |
| Efficiency Testing | 2 | 2 | 0.1% |
| Maintenance of Way | 3 | 4 | 0.2% |
| Mechanical | 12 | 18 | 0.7% |
| Other | 9 | 17 | 0.7% |
| Passengers | 10 | 10 | 0.4% |
| Police Activity | 5 | 21 | 0.8% |
| Signals & Components | 10 | 22 | 0.9% |
| Trespasser/Grade Crossing/Near Misses | 4 | 4 | 0.2% |
| Weather | 2 | 17 | 0.7% |
| Total (Rounded) | | 116 | 4.5% |

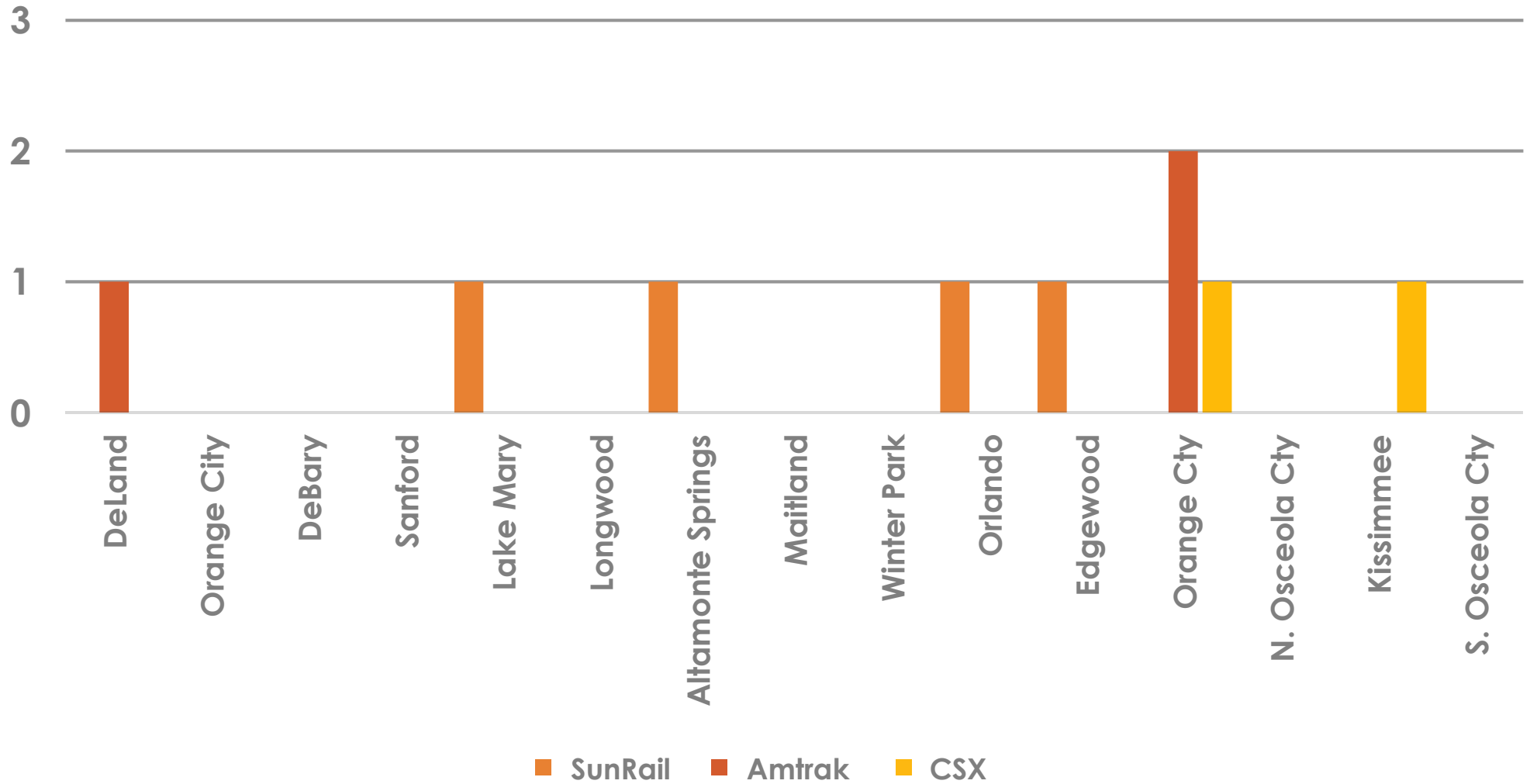
Note: Only categories with a value greater than zero are displayed and rounded to one decimal.



REVENUE INCIDENTS BY CITY/COUNTY



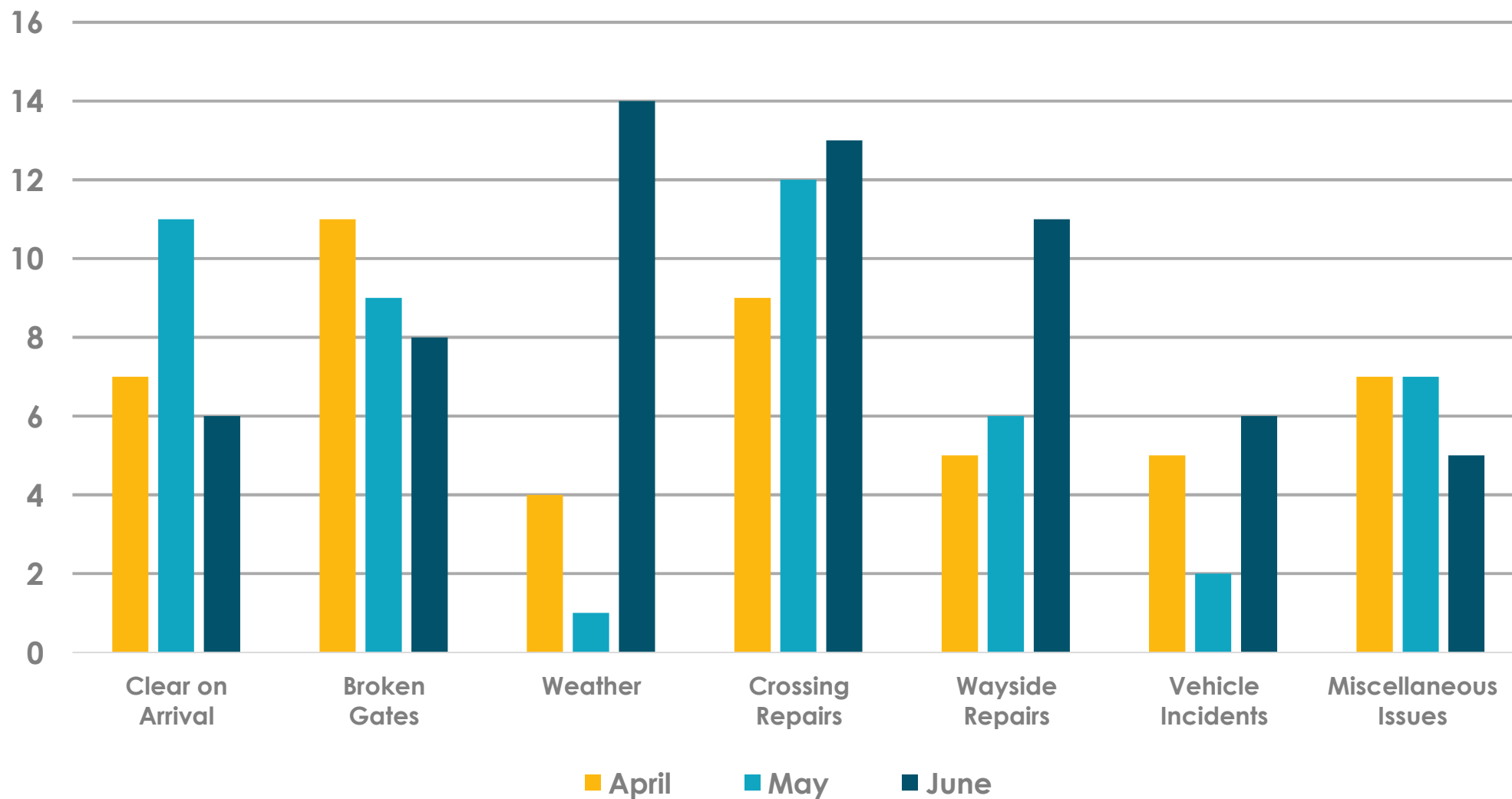
April 2022 – June 2022



CFRC SIGNAL SYSTEM INCIDENTS



APRIL 2022 – JUNE 2022





QUIET ZONES

| Jurisdiction | Status |
|-------------------|--|
| Edgewood | Quiet Zone Established |
| Orange County | Quiet Zone Established – Working with Orange County to fund additional crossings |
| Maitland | Quiet Zone Established |
| Winter Park | Quiet Zone Established |
| Seminole County | Notice of Establishment – working with Seminole County to fund additional crossing to qualify for QZ |
| City of Orlando | Quiet Zone Established |
| City of Kissimmee | Quiet Zone Established |

Local communities may apply for quiet zones and information is available on the “About” page at SunRail.com



FY 21/22 OPERATING BUDGET UPDATE



| OPERATING COSTS, CAPITAL MAINTENANCE AND CONSULTANT SUPPORT |
|--|
| Bombardier - Operations |
| Bombardier - Maintenance |
| Bombardier - Incentive/Disincentive |
| Conduent - Back-of-the-House Hosting |
| Conduent - Fare Equipment Maintenance |
| Herzog - Signal Maintenance of Way |
| Green's Energy - Fuel |
| Gallagher - Insurance |
| Amtrak - Heavy Vehicle Maintenance |
| Wells Fargo - Banking Services |
| Bank of America - Merchant Services (Banking) |
| MidFlorida - Armored Car Service |
| AT&T/Verizon - Wi-Fi Service |
| Fare Media Smart Card |
| Limited Use Smart Card |
| PTC O&M Costs |
| BTNA – COVID Decontamination Services |
| OPERATING COSTS SUBTOTAL |

| |
|---------------------|
| Feeder Bus Expenses |
| Capital Maintenance |
| Consultant Support |

| |
|--|
| TOTAL OPERATING COSTS, CAPITAL MAINTENANCE AND CONSULTANT SUPPORT |
|--|

| YEAR TO DATE JUNE 30, 2022 | |
|-------------------------------|---------------|
| BUDGET | ACTUAL |
| \$ 10,745,000 | \$ 10,573,356 |
| \$ 16,255,000 | \$ 16,170,783 |
| \$ 1,350,000 | \$ 1,234,913 |
| \$ 1,000,000 | \$ 912,644 |
| \$ 2,200,000 | \$ 3,819,797 |
| \$ 3,500,000 | \$ 3,296,375 |
| \$ 2,500,000 | \$ 2,756,729 |
| \$ 5,000,000 | \$ 3,842,500 |
| \$ 2,136,000 | \$ 1,638,029 |
| \$ 6,000 | \$ 3,592 |
| \$ 100,000 | \$ 56,317 |
| \$ 30,000 | \$ 23,760 |
| \$ 40,000 | \$ 33,288 |
| \$ 10,000 | \$ - |
| \$ 300,000 | \$ - |
| \$ 10,000,000 | \$ 9,793,198 |
| \$ 3,506,560 | \$ 3,754,854 |
| \$ 58,678,560 | \$ 57,910,136 |

| | |
|---------------|---------------|
| \$ 2,000,000 | \$ 1,376,036 |
| \$ 10,620,000 | \$ 4,063,645 |
| \$ 12,200,000 | \$ 10,393,262 |

| | |
|----------------------|----------------------|
| \$ 83,498,560 | \$ 73,743,080 |
|----------------------|----------------------|

FY 21/22 OPERATING BUDGET UPDATE



OPERATING REVENUE

| |
|----------------------------------|
| Farebox revenue |
| CSX usage fees |
| Amtrak usage fees |
| FCEN usage fees |
| Right-of-way lease revenue |
| Ancillary revenue |
| <i>Subtotal - System revenue</i> |

| |
|---------------------------------------|
| FTA 5307 - Urbanized Area Grant Funds |
| CRRSAA Grant Funds |

TOTAL OPERATING REVENUE

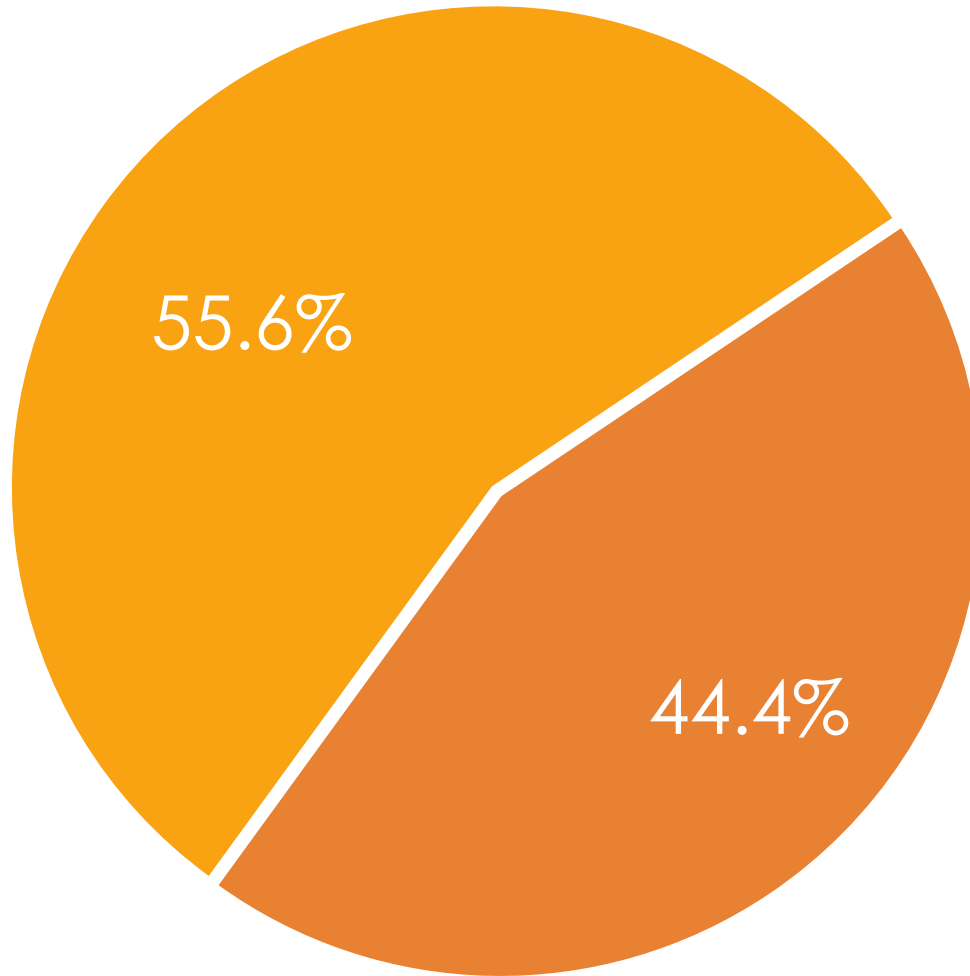
YEAR TO DATE JUNE 30, 2022

| BUDGET | ACTUAL |
|--------|--------|
|--------|--------|

| | |
|--------------|--------------|
| \$ 2,308,100 | \$ 1,875,737 |
| \$ 3,698,671 | \$ 3,804,220 |
| \$ 1,012,971 | \$ 899,645 |
| \$ 28,416 | \$ 20,677 |
| \$ 123,442 | \$ 114,341 |
| \$ 444,792 | \$ 579,716 |
| \$ 7,616,391 | \$ 7,294,335 |

| | |
|---------------|---------------|
| \$ 20,218,060 | \$ 20,218,060 |
| \$ 3,506,560 | \$ 3,506,560 |

| | |
|----------------------|----------------------|
| \$ 31,341,011 | \$ 31,018,955 |
|----------------------|----------------------|



■ Maintenance ■ Improvements

■ Maintenance

Non-recurring corrective or preventive maintenance or in-kind replacement

■ Improvements

Extend the useful life, increase the value or add new uses

