

**Regional Transit Coordination (RTC) Subcommittee
Houston-Galveston Area Council
Online Meeting/Conference Call
Thursday, October 5, 2023
9:30-11:00 AM**

Agenda

1. Introductions and Certification of Quorum (9) – Ruthanne Haut, The Woodlands Township, Chair
2. Public Comments
3. Action Items:
 - 3.1 Approval of RTC Subcommittee Meeting Minutes of July 13, 2023
4. Information Items: (10 minutes or less each)
 - 4.1 Coordinated Planning
 - 4.1a Transit Asset Management Update – Chris Whaley, H-GAC
 - 4.1b RCTP Transit Needs Index – Sandy Klanfer, H-GAC
 - 4.1c Regional Transit Connectivity Update and Mobile Ticketing Demonstration – Vernon Chambers, Harris County Transit, and Reggie Brown, METRO
 - 4.2 Partner Updates
 - 4.2a Generation Park Microtransit – Vernon Chambers, Harris County Transit
5. Transit and Human Service Agency Reports (5 minutes or less each)

Next RTC Subcommittee Meetings:

November 2, 2023 (Special Call)

January 11, 2024 (Tentative)

REGIONAL TRANSIT COORDINATION SUBCOMMITTEE

MEETING MINUTES

Thursday, July 13, 2023 – 9:30-11:00am

Houston-Galveston Area Council

Virtual Meeting

MEMBERS PRESENT

Ruthanne Haut (Chair) – The Woodlands Township
Sharon Moses-Burnside – City of Houston Planning
Melanie Beaman – City of Sugar Land
Philip Salerno – Greater Inwood Super Neighborhood
Thomas Holstien – BakerRipley
Lanny Brown – Community Health Network
Vernon Chambers – Harris County Transit
Jo Marlow – Brazos Transit District

ALTERNATES PRESENT

Brandon Mosley – City of Houston Planning
Ashley Newell – Mounting Horizons
Tatyana Luttenschlager – METRO
Shekeylia Douglas – Harris County Transit
Sarah Coulter- Fort Bend County Transit
Kaitlyn Mock – Brazos Transit District

OTHERS PRESENT

Brenda Bustillos – TxDOT
Arnold Vowles – TxDOT
Carol Crapanzano – TxDOT
Albert Lyne – METRO
Denise Wendler – METRO
Hon. Martin Mudd – City of Dayton

H-GAC STAFF PRESENT

Jamila Owens
Thomas Gray
Alan Rodenstein
Vishu Lingala
Adam Beckom
Lucinda Martinez
Veronica Waller

BRIEFING

Overview

RTCS Members and Alternates met virtually by teleconference. At this meeting, Subcommittee members re-elected Ruthanne Haut of The Woodlands Township and Sharon Moses-Burnside of the City of Houston as Subcommittee Chair and Vice-Chair, respectively. The Subcommittee received updates on the Call for Projects selection process, the status of projects in the current Unified Planning Work Program (UPWP), regional transit connectivity, the TDM Workgroup, and Commute Solutions.

INTRODUCTIONS AND CERTIFICATION OF QUORUM

ITEM 1 – Ruthanne Haut, Chair, The Woodlands Township, convened the meeting at 9:30 AM. Roll was called by H-GAC staff and a quorum was certified.

PUBLIC COMMENT

ITEM 2 – There were no public comments presented to the Subcommittee.

ACTION ITEMS

ITEM 3.1 – Approval of RTC Subcommittee Meeting Minutes of April 13, 2023

Ms. Haut requested a motion to approve the minutes of the April 13, 2023 meeting of the Subcommittee.

Action Item Motion: moved by Vernon Chambers, seconded by Sharon Moses-Burnside. Action Item approved.

ITEM 3.2 – Election of Subcommittee Officers

The slate of suggested Subcommittee Officers was presented. It recommended the re-nominations of Ruthanne Haut for Chair and Sharon Moses-Burnside for Vice-Chair because both persons are eligible to serve one more term. Ms. Haut asked for either a motion on the presented slate or nomination of alternative candidates.

Action Item Motion: moved by Philip Salerno to accept the recommended slate and re-elect Ruthanne Haut as Chair and Sharon Moses-Burnside as Vice-Chair. Seconded by Melanie Beaman. Action Item approved.

INFORMATION ITEMS

ITEM 4.1a – Review of Subcommittee Purpose and Duties – Thomas Gray, H-GAC

Thomas Gray welcomed new members and briefly explained the purpose and duties of the Regional Transit Coordination Subcommittee, which included duties common to all TAC Subcommittees as well as duties specific to the RTCS.

There were no questions from Subcommittee members. Ms. Haut explained to members that transit stakeholder involvement begins with this Subcommittee and its input filters upward to TAC and TPC.

ITEM 4.2a – Project Selection Process Update – Vishu Lingala, H-GAC

Vishu Lingala presented the Subcommittee with an update on how projects submitted by agencies during the Call for Projects are evaluated and selected. He explained that the purpose of the “Transit” investment category is to “identify, develop and fund projects that most effectively provide, expand or enhance transit infrastructure throughout the region.” Mr. Lingala discussed eligible activities and funding recommendations for the transit investment category.

Discussion ensued. Jamila Owens briefly explained the Subcommittee’s role in the Call for Projects process, for example by approving performance measures and reviewing transit studies. Philip Salerno asked about the effect of cost increases on project implementation. Ruthanne Haut asked how agencies will be notified as the Call for Projects process continues.

Martin Mudd asked where he could get information about projects and studies affecting the City of Dayton. Thomas Gray and Alan Rodenstein said that they would forward him information about the Liberty County Mobility Study and Dayton Transit Study, respectively. Jo Marlow requested information about the Liberty County Mobility Study as well.

ITEM 4.2b – UPWP Transit Projects Status Report – Thomas Gray, H-GAC

Thomas Gray provided the Subcommittee with an update on transit projects in the 2022-2023 Unified Planning Work Program (UPWP), which will expire at the end of September. Of the transit projects in the UPWP, seven are ongoing or being implemented, five are still in the predevelopment stage, one has been completed and one has not yet started. Projected that have not yet been completed will be rolled over into the 2024 UPWP.

Ashley Newell inquired about the Transit Information Study, which was one of the projects still in predevelopment. Jamila Owens explained the purpose and status of that project.

ITEM 4.2c Regional Transit Connectivity Update – Sandy Klanfer, H-GAC

Vernon Chambers presented in Mr. Klanfer’s absence. She updated the Subcommittee as to the status of the Regional Transit Connectivity program as well as next steps. There were no questions or comments from the Subcommittee.

4.2d TDM Workgroup – Jamila Owens, H-GAC

Jamila Owens discussed the formation of the Regional Transportation Demand Management Workgroup. She explained the Workgroup’s purpose, focus and goals, and shared some TDM strategies that the Workgroup could explore in greater detail. She indicated that the Workgroup would get underway sometime this fall and invited Subcommittee members to become members.

Sarah Coulter, Brenda Bustillos and Sharon Moses-Burnside expressed interest in participating.

4.2e Commute Solutions Update – Jamila Owens, H-GAC

Jamila Owens provided the Subcommittee with an update on Commute Solutions events, including Commute Solutions Month in September, Biketober in October, and Ozone Action Campaign activities planned for 2024.

Ruthanne Haut noted that The Woodlands Township was looking forward to partnering with H-GAC on Commute Solutions Month.

AGENCY REPORTS

ITEM 5 – Transit and Human Service Agency Reports

Ms. Haut invited Subcommittee members to briefly give updates on their agency efforts. She began by announcing that The Woodlands Township had completed its FTA Triennial Review.

Jo Marlow announced that the Brazos Transit District had been awarded a federal Low or No Emissions Vehicles (LoNo) grant for new bus purchases.

Ashley Newell announced that Mounting Horizons provides a “Mobility Management 101” training and that interested persons could sign up on their website.

Thomas Holstien of BakerRipley introduced himself and his organization to the Subcommittee.

Thomas Gray of H-GAC alerted regional transit agencies that the quarterly ridership survey would be sent out shortly and their prompt response to it would be appreciated.

Jamila Owens of H-GAC alerted the Subcommittee that the agency was applying for TxDOT funding for coordinated transportation planning efforts in fiscal year 2024, and that Sandy Klanfer may be reaching out to Subcommittee members for letters of support.

Sarah Coulter provided an update on Fort Bend Transit’s commuter and demand response operations.

ADJOURNMENT

Ms. Haut adjourned the meeting at 10:54 AM.

Next RTCS Meeting – 9:30 AM on Thursday, October 5, 2023



Transit Asset Management Performance Measures

Chris Whaley
October 5, 2023

Regional Collaboration • Transportation Planning • Multimodal Mobility



7

Transit Asset Management (TAM)



- **Purpose: Ensure State of Good Repair**
- **Overview:**
 - **Each transit agency has a Transit Asset Management Plan**
 - **Each MPO sets regional targets**
 - **H-GAC sets the regional targets (biennially) for asset management using the information in each Agency's TAM Plan**

Regional Collaboration • Transportation Planning • Multimodal Mobility



8

Transit Asset Management (TAM)

Asset Category	Performance Measure
Rolling Stock	Age - % of Revenue Vehicles exceeding their Useful Life Benchmark (ULB)
Equipment	Age - % of Non-revenue Vehicles exceeding their Useful Life Benchmark (ULB)
Facilities	Condition - % of Facilities with a condition rating below 3 on the TERM scale (Marginal or Poor)
Infrastructure	Performance - % of Rail track segments, signals and systems with performance restrictions

Regional Collaboration • Transportation Planning • Multimodal Mobility



10

Transit Asset Management (TAM)



- **Current Process:**
 - **Use updated agency TAM Plans to calculate current performance**
 - **Use current performance to set next targets**

Regional Collaboration • Transportation Planning • Multimodal Mobility



11

Regional TAM Performance

Performance Targets and Actuals by Year									
Asset Category	2018	2020			2022			Proposed Targets	
	Baseline	Targets	Actuals	Achieved	Targets	Actuals	Achieved	2024	2026
Rolling Stock (revenue vehicles)	11%	11%	10%	✓	10%	10%	✓	10%	10%
Equipment (non-revenue vehicles)	46%	46%	46%	✓	46%	46%	✓	46%	46%
Facilities (buildings and structures)	55%	55%	55%	✓	54%	45%	✓	45%	45%
Infrastructure (rail tracks, signals & systems)	0%	0%	0%	✓	0%	0%	✓	0%	0%

Note: A lower percentage indicates better conditions of the transit assets.

12

Transit Need Index Revisions

Sandy Klanter
October 5, 2023

Regional Collaboration • Transportation Planning • Multimodal Mobility

19

Purpose and Need

- Last year, received a public comment on the transit need index
 - Concerned that we labeled areas with only 1-2 buses per hour as having their transit needs “met”
 - Also asked us to look more closely at regional connectivity
- We used this opportunity to revisit the work we did to see if we could address these concerns

Regional Collaboration • Transportation Planning • Multimodal Mobility



20

New Analysis

- We looked at a variety of different options for how we might re-examine the idea of transit need and transit quality
 - LinkHouston's "Where Affordable Housing and Transportation Meet in Houston"
 - TCRP Transit Capacity and Level of Service Manual
- Encountered many limitations
 - Data availability
 - Properly weighting various factors

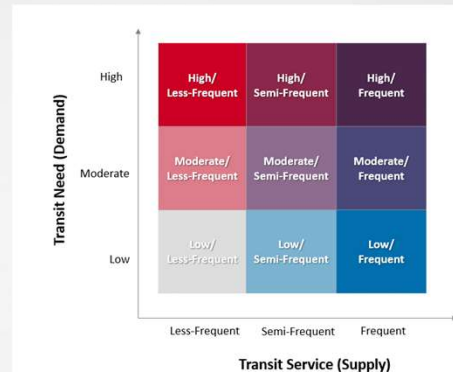
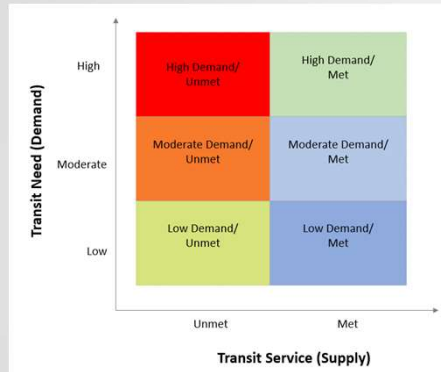


New Analysis

- The core problem: we were trying to deem transit need "met" or "unmet" in each block group based on limited data and limited public input
- We resolved this by turning away from the concept of "met" or "unmet" transit need and instead using a frequency-based transit availability metric



New Analysis



Regional Collaboration • Transportation Planning • Multimodal Mobility



23

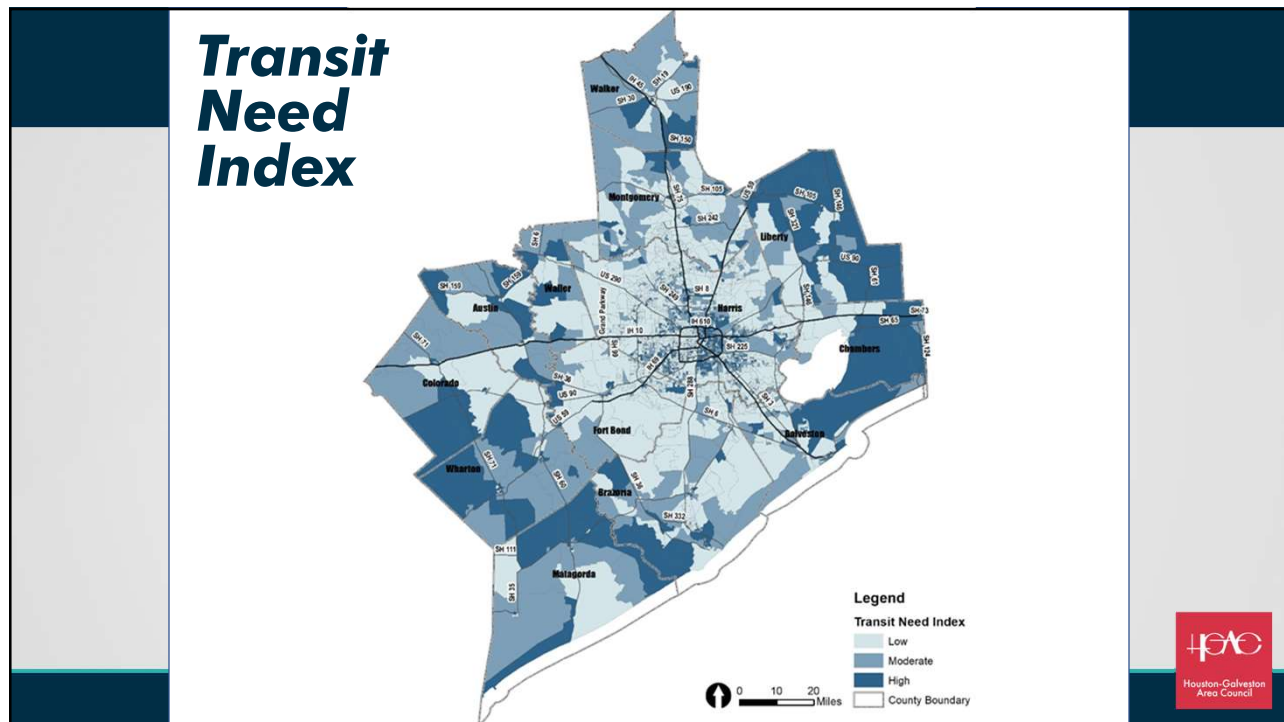
Transit Need Index

Factor	Urban Weight	Rural Weight
Population Density	20%	10%
Percent of Households with Zero Automobiles	20%	10%
Percent of Population Over 65 Years of Age	15%	25%
Percent of Households with an Adult with a Disability	15%	25%
Percent of Population Between the Ages of 6 and 17	10%	10%
Poverty Rate	20%	20%
Total	100%	100%

Regional Collaboration • Transportation Planning • Multimodal Mobility



24



25

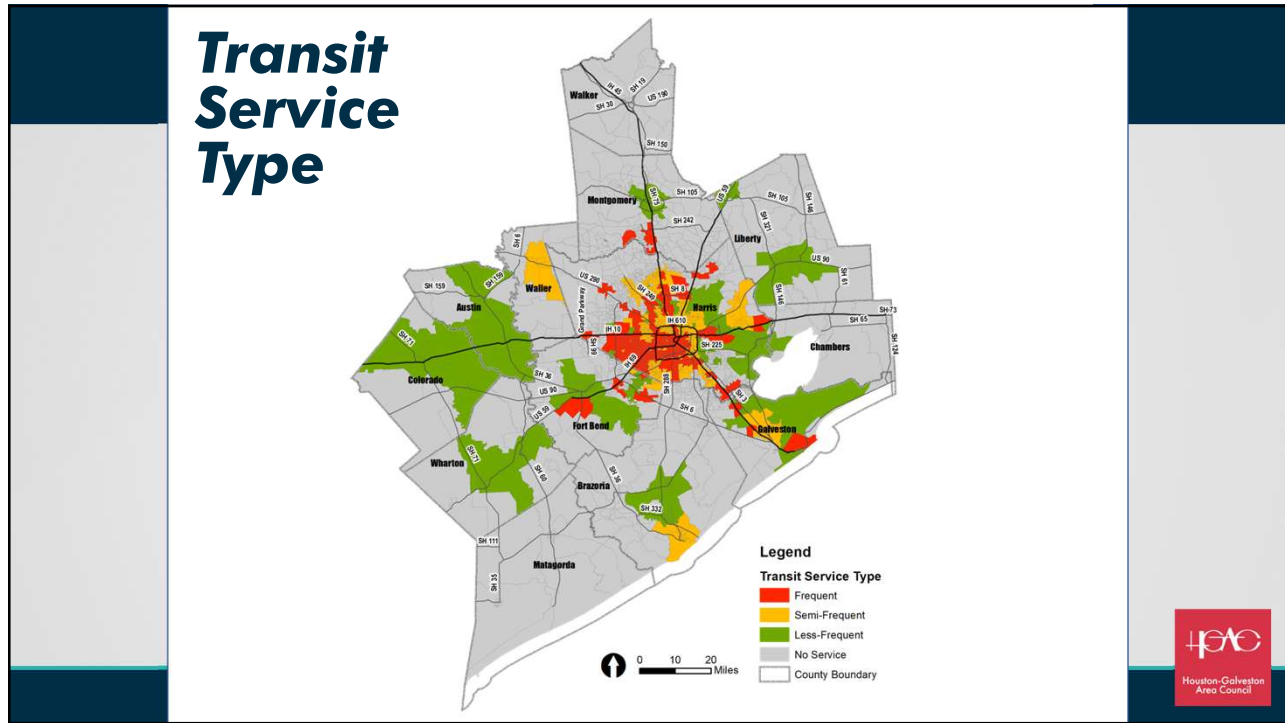
Transit Availability Matrix

- “Frequent”
 - High-Capacity Transit, including all Bus Rapid Transit (BRT) and Light Rail (LRT) services
 - Limited-stop express buses, including commuter-focused park and ride services
 - Local bus services with off-peak headways of 15 minutes or less
- “Semi-Frequent”
 - Local bus services with off-peak headways between 16 and 30 minutes
- “Less Frequent”
 - Flex zone (demand-response)
 - Local bus services with off-peak headways greater than 30 minutes

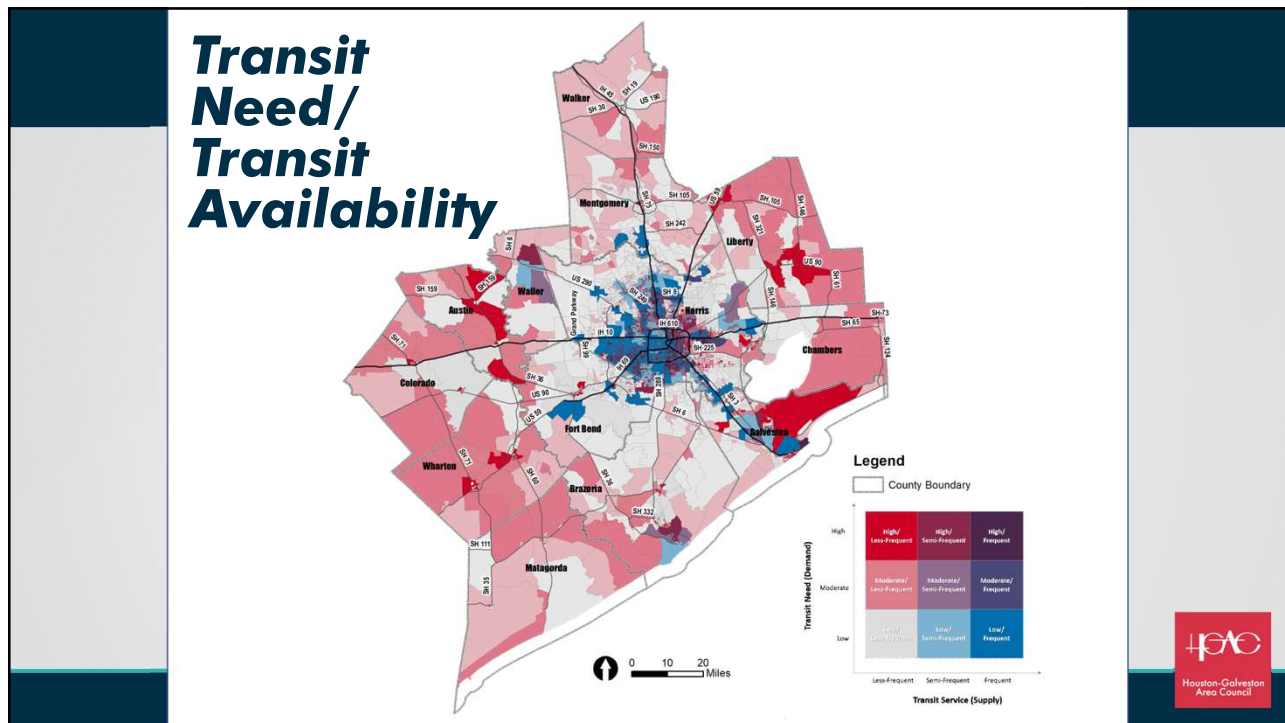
Regional Collaboration • Transportation Planning • Multimodal Mobility



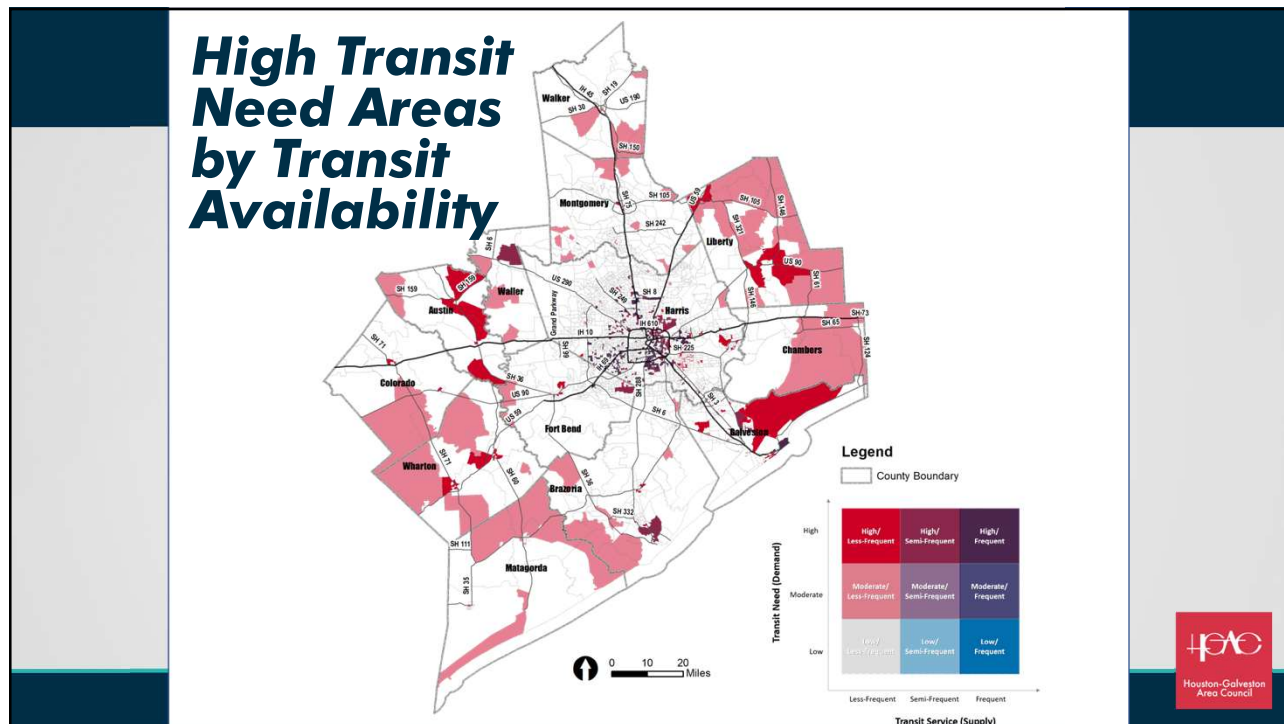
26



27



28



29

Key Takeaways

- Change to frequency-based availability metric better highlights places where transit is limited relative to need
 - Northeast, Southeast, Southwest Houston
 - La Marque/Texas City area
- These key opportunities for expanding transit access not highlighted by density-based metric
- Limitation: census block groups are quite large in rural areas, may need further study

30

Regional Mid-Day Trip Evaluation

- Currently, there is limited regional service that crosses county lines to and from major activity centers
 - Peak-hour, peak-direction only
- New analysis, seeking input
- Used H-GAC's origin-destination data to analyze the number of weekday mid-day trips (9 AM-3 PM) to and from the two biggest regional activity centers
 - Downtown Houston
 - Texas Medical Center
 - These were the destinations most commonly cited



31

Regional Mid-Day Trip Evaluation

- This data showed the demand for travel to and from these destinations during these periods.
 - Serves as a starting point for understanding demand for bus service specifically
- Daily averages:
 - 32,967 trips to downtown Houston
 - 37,079 trips from downtown Houston
 - 20,612 trips to Texas Medical Center
 - 22,722 trips from Texas Medical Center



32

Regional Mid-Day Trip Evaluation

- The vast majority of these trips both start and end within Harris County
 - 91.8% of trips to Downtown Houston
 - 90.2% of trips from Downtown Houston
 - 85.1% of trips to Texas Medical Center
 - 84.1% of trips from Texas Medical Center
- Some counties (Liberty, Chambers, Waller) see very few trips to/from these destinations at mid-day



Regional Collaboration • Transportation Planning • Multimodal Mobility

33

Regional Mid-Day Trip Evaluation

- Some counties generate enough demand to/from these activity centers to warrant additional study:
 - 957 trips (2.6%) to Montgomery County from Downtown Houston
 - 982 trips (4.3%) to Brazoria County from Texas Medical Center
 - 1,455 trips (7.1%) from Fort Bend County to Texas Medical Center
 - 1,160 trips (4.3%) from Fort Bend County to Downtown Houston



Regional Collaboration • Transportation Planning • Multimodal Mobility

34

Regional Trip Evaluation

- This analysis serves as a starting point for determining where demand for all-day regional service may exist
- Further study would be needed to determine feasibility
 - H-GAC is planning a regional bus study, expected to start in 2024



35

Action

- Information only, will take action at future meeting.



36

RTCS Update Regional Fare System

Reggie Brown, METRO
October 5, 2023

Regional Collaboration • Transportation Planning • Multimodal Mobility



38

Project Components

- **Mobile Ticketing**
 - Partners can sell fare products and manage customer accounts in the Q Ticketing app
 - Harris County and Fort Bend County Transit have gone live
- **Regional Data Management**
 - Provides opportunity for each regional partner to include their schedule data into METRO's existing system
 - Provides combined GTFS (General Transit Feed Specification) real-time data for trip planning as well as alerts
 - Several agencies in process of cleansing their feeds. Harris County and Fort Bend are nearing completion of combining their data with METRO for shared trip planning opportunities
- **INIT Fare Collection System**
 - Opportunity to utilize INIT's backend system to manage fares and customer accounts
 - Opportunity to implement front-end equipment: validators, TVMs and/or fareboxes

Regional Collaboration • Transportation Planning • Multimodal Mobility



39

Regional Assessment and Planning

- Preliminary assessments complete.
- Findings included:
 - Fare structures are generally flat and non-complex, and could easily be integrated into the FCS and potentially future regional fare products
 - Partners will require infrastructure to support the integration of new fare devices
 - Options to maintain and support Partner bus equipment is being reviewed
 - Implementing regional “backbone” first maximizes project benefits while limiting initial project costs
- All agencies expressed interest in participating in a regional fare program
- Funding was approved for system backbone integration and vehicle validators
- Follow-up meetings regarding current partner positioning and desire to participate
- Working with INIT to determine partner integration strategy
- Future phases could include Ticket Vending Machines and fareboxes

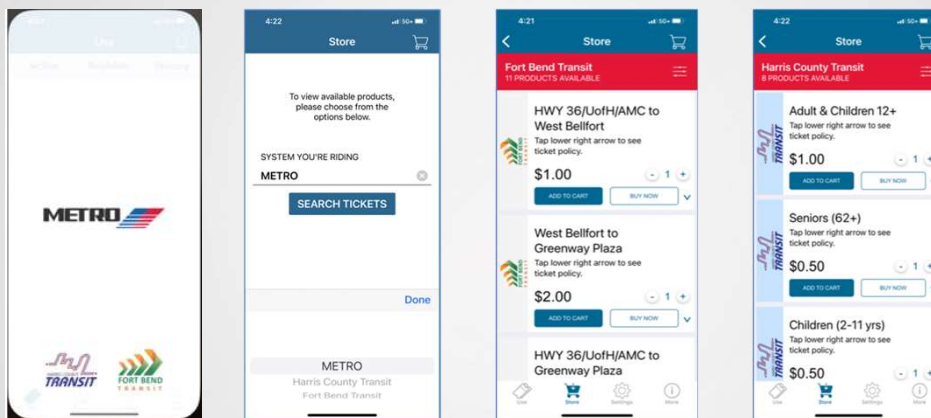


Regional Collaboration • Transportation Planning • Multimodal Mobility

40

Mobile Ticketing Status

- Harris County and Fort Bend County Transit now live in Q Ticketing app effective September 14th



Regional Collaboration • Transportation Planning • Multimodal Mobility

41

Fare Collection System

Current Status:

- Finalizing design of system backend and equipment
- Completed installation of validators on approximately 50% METRO's fixed route buses
- Finalizing Ticket Vending Machine (TVM) builds. Installation to begin Q1-2024
- System Integration Testing and Pilot scheduled Q1-2024
- Customer-facing website and portals being developed and tested
- Establishing 3rd party fare media retail network
- Discussing partner integration strategy and timing with INIT



42

Next Steps

- Phase 1 implementation
 - Complete METRO implementation, testing and go-live
 - Complete ILAs between METRO and regional partners
 - Bring regional partners into the systems they desire:
 - Regional Data Management
 - Mobile Ticketing
 - Automated fare collection
 - Purchase, install and integrate validators for Regional Partner buses. (requires additional infrastructure for cellular communications with backend)
 - Work with partners and H-GAC on a possible shared maintenance strategy
- Long Term
 - Reassess the need for ticket vending machines and fareboxes after the initial rollout



43

Questions?



Reginald Brown
Fare Collection Program Manager, METRO
Reginald.Brown@ridemetro.org



Regional Collaboration • Transportation Planning • Multimodal Mobility

44

Introducing: Q-Ticketing

Providing riders with the option to purchase bus tickets with their mobile device!

Thanks to our collaborating partnerships:
HGAC, Houston METRO and Fort Bend Transit

45

Example of Harris County Transit Bus Ticket



- ▶ **Active Bus Tickets:**
Activated bus tickets will have an interactive screen. The screen will display a scrolling logo and the background changes colors to validate the ticket.
- ▶ **Q Ticketing Walk-through: (TEAMS)**



App Store



Google Play

46



Harris County Transit

Presented by: David Jones & Stephanie Albertson

Title: Assistant Director of Operations / Transit Manager

Contact: 832-927-4832 / 832-970-5539

47

Harris County Transit Plus

Launched on July 6, 2021 Transit Plus is an On-Demand transit service within defined zones in North East Harris County.

This service is supported by RideCo which offers on-demand solutions for transit systems

Service operates using pre-set Flex Stops with destinations such as grocery stores, shopping centers, colleges, and other job destinations.

- ▶ HC 10 Generation Park - North Zone
- ▶ HC 10 Generation Park - South Zone



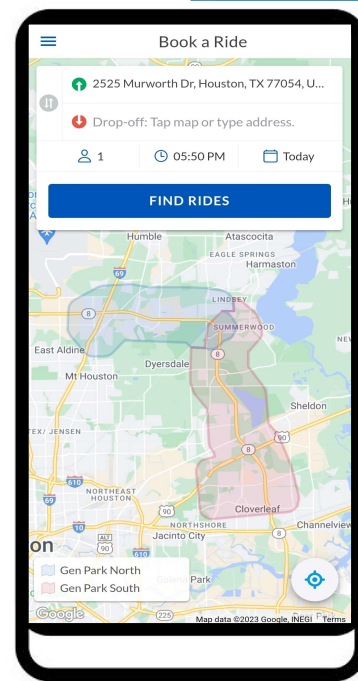
Supported by:



49

Passenger Interface

- ▶ **Scheduling Trips:** Passengers can book trips by; downloading the Harris County Transit Plus app, using their computer, or calling into our call center at (832) 927-4953.
 - ▶ Transit Plus has given passengers the option to book their trips 3 days in advance (this feature is adjustable).
- ▶ **Defined Zones:** The Zones are outlined and separated by color to provide riders a clear boundary and overview of the service area.
- ▶ **Live GPS:** Once the trip(s) are booked, riders will receive real time GPS through the app. Trip confirmations and ETA on the vehicle's arrival are sent via text.
- ▶ **Notifications:** Transit Plus can schedule push notifications to appear in the app (either written or graphic) to notify passengers of any service events or closures.



50

Dispatch Interface

- ▶ **RideCo Dashboard:** Transit agencies have access to monitor their vehicles and driver itinerary in real-time.
- ▶ Dispatch can assign drivers to zones, schedule driver breaks, and review historical data.
- ▶ Agencies can also review historical passenger data and send messages to riders via text.

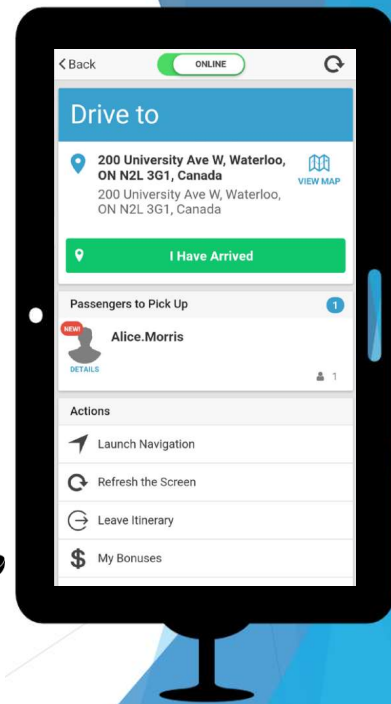
Booking ID	Driver	Label	Next Available	Next Step	Slack	Start Time	End Time	Duration	Total Online	Total Offline
963116141	TREMEL BENSON		11:28 AM	11:31 AM	23m	Sep 11 06:45 AM	Sep 11 06:00 PM	10h 45m	4h 56m	0s

Step	Estimated Time	Location	Actions	Status	Locked	Started	Arrived	Completed	Slack	GPS	Est
1	10:00 AM - 10:15 AM	Driver Break	0 Break	Finalized		10:00 AM	10:00 AM	10:15 AM	24m 9s	--	--
2	10:31 AM	Villas in the Pines Apartments: Northbound	1 Pickup (1): Linda Boyd (-23)	Completed		10:15 AM	10:15 AM	10:29 AM	10:31 AM	23m 46s	✓ (79.2 m)
3	10:39 AM	Park Lakes Canyon Terrace at Canyon Lake Trace Dr SW	0 Dropoff (1): Linda Boyd (-23)	Completed		10:31 AM	10:31 AM	10:39 AM	10:39 AM	23m 20s	! (254.6 m)
4	11:16 AM	Greens Rd @ Pinewood Apartments	1 Pickup (1): Willie Coffman (-22)	Completed		11:01 AM	11:01 AM	11:14 AM	11:16 AM	25m 7s	✓ (30.9 m)

51

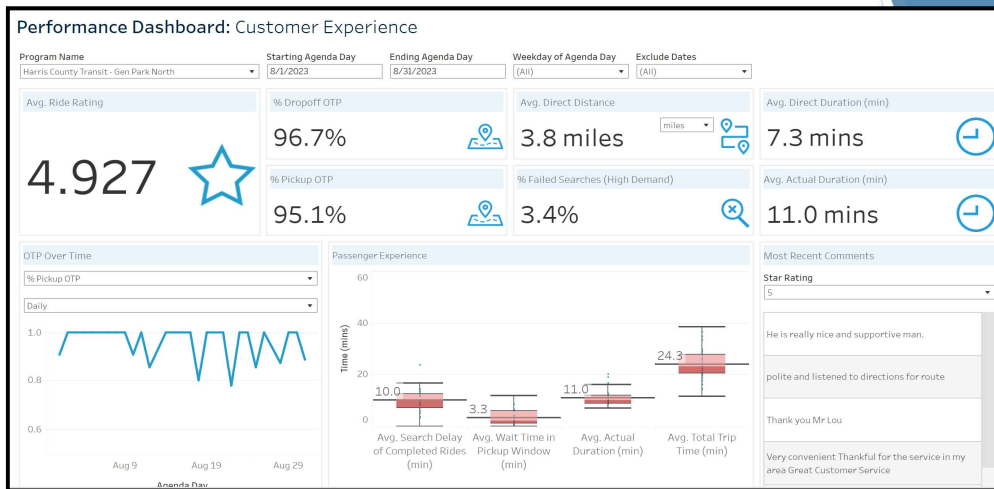
Operator Interface

- ▶ **Driver App:** Operators receive their trips by downloading the Harris County Transit Driver app to their device (Transit Plus has assigned drivers a Tablet). Trip notifications are sent to their device.
- ▶ **Driver Itinerary:** Itinerary is a scheduled shift the driver will be working. Drivers choose their shift, for Transit Plus they would choose their assigned Zones, and begin accepting trips as they come in.
- ▶ **Driver Notifications:** As the operator **Accepts Trips**, receive **Directions to Destination** and **Has Arrived**, the passenger will receive notification to match: **Trip has been Accepted**, **Driver on The Way**, **Your Ride has Arrived** via text.



52

RideCo Tableau & Analytics

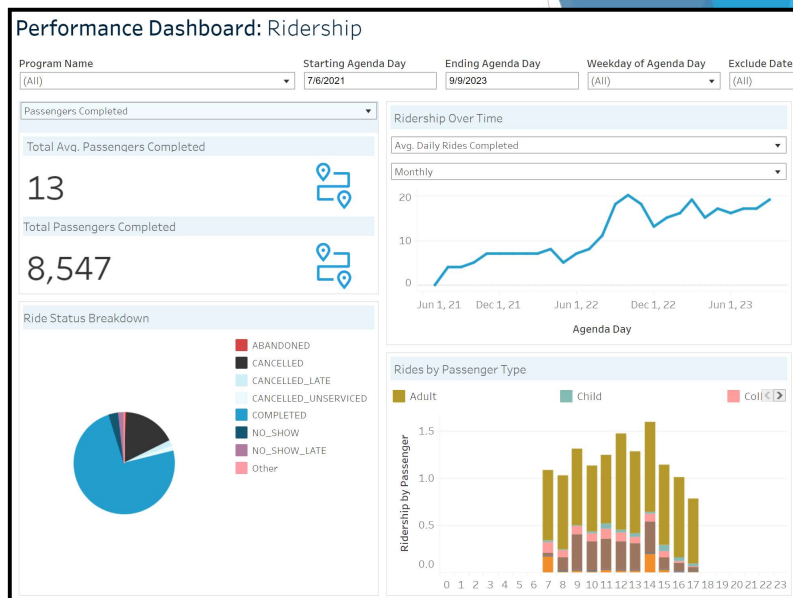


- ▶ **Tableau:** RideCo has partnered with Tableau, a visual analytics platform, to organize transit data collected from operations. Some examples of the data available included; System Overview, Ridership, Customer Experience, On Timer Performance, Trip Searches, Planning, and Productivity.

53

Transit Plus Ridership

- ▶ **Passengers Completed:** Transit plus as Avg. 13 trips a day (an avg. of 312 trips a month)
- ▶ **Ride Status Breakdown:** passenger trips completed from July, 2021 to current is 8,547 riders
- ▶ **Ride Status Breakdown:**
 - ▶ 73% - completed
 - ▶ 16% - cancelled
 - ▶ 3% - no show
 - ▶ >1% - un-serviced
- ▶ **Ridership Over Time:** shows an upward trend!



54



Harris County Transit

Presented by: David Jones & Stephanie Albertson

Title: Assistant Director of Operations / Transit Manager

Contact: 832-927-4832 / 832-970-5539