



TRI DELTA TRANSIT

Eastern Contra Costa Transit Authority
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APPENDIX A

Agenda Item 7d

Dynamic Personal Microtransit

Board of Directors Meeting

Wednesday March 24, 2021

EAST COUNTY GLYDWAYS DYNAMIC PERSONAL MICRO TRANSIT FEASIBILITY STUDY

WORKSHOP #3

Prepared for East Contra Costa County Region | March 04, 2021



Presented by
Advanced Mobility Group + Glydways

WORKSHOP #3 AGENDA

- ✓ Introductions
- ✓ Summary of Feasibility Study + Methodology
 - ✓ Goals and Objectives
 - ✓ Proposed Routing Plan
 - ✓ Demand Analysis and Projected Ridership
 - ✓ Evaluation
 - ✓ Business Model and Financial Plan
- ✓ Next Steps – Advance Project through P3
- ✓ Questions and Answers

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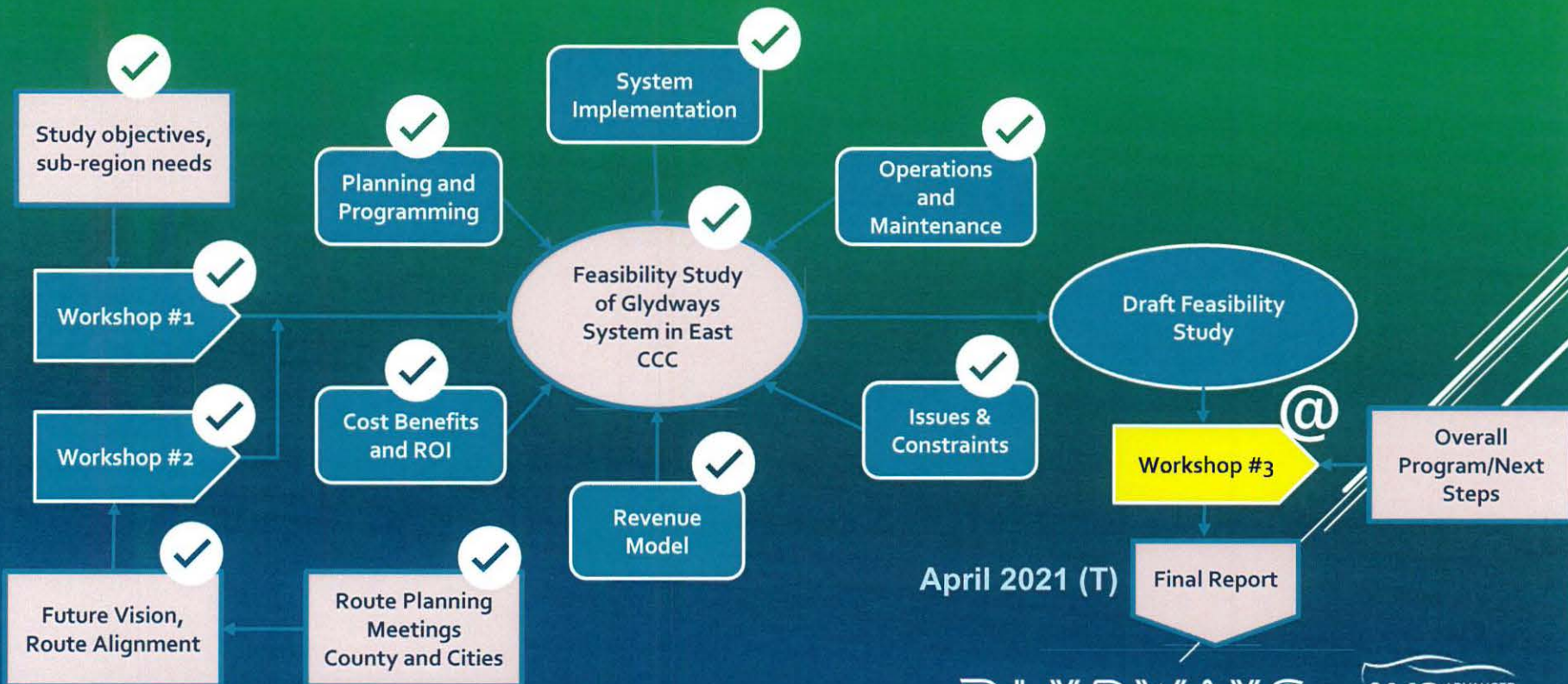
INTRODUCTIONS

- ✓ City of Antioch
- ✓ City of Brentwood
- ✓ City of Oakley
- ✓ City of Pittsburg
- ✓ Contra Costa County
- ✓ Contra Costa Transportation Authority
- ✓ Glydways
- ✓ Advanced Mobility Group

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FEASIBILITY STUDY WORKFLOW



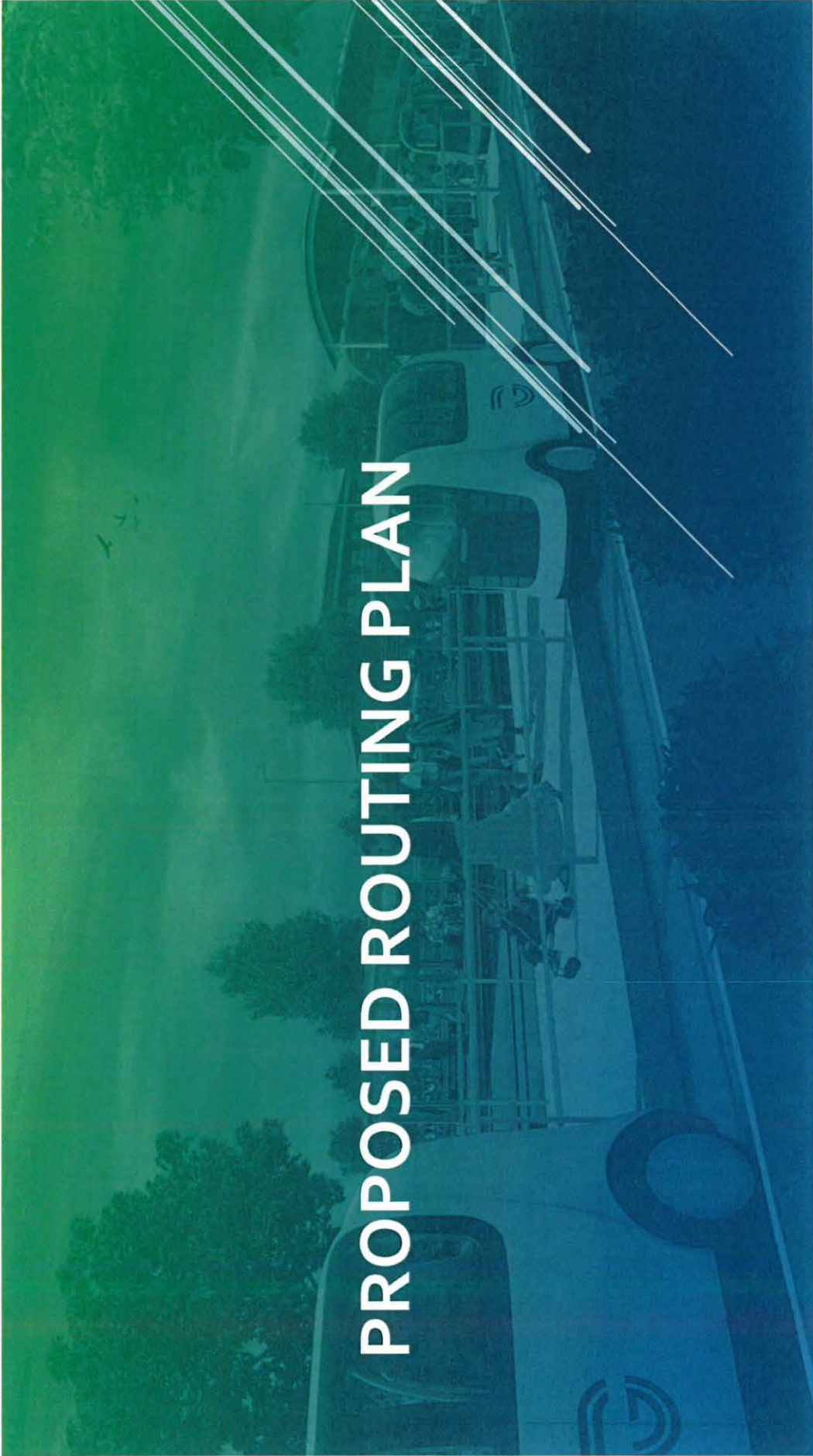


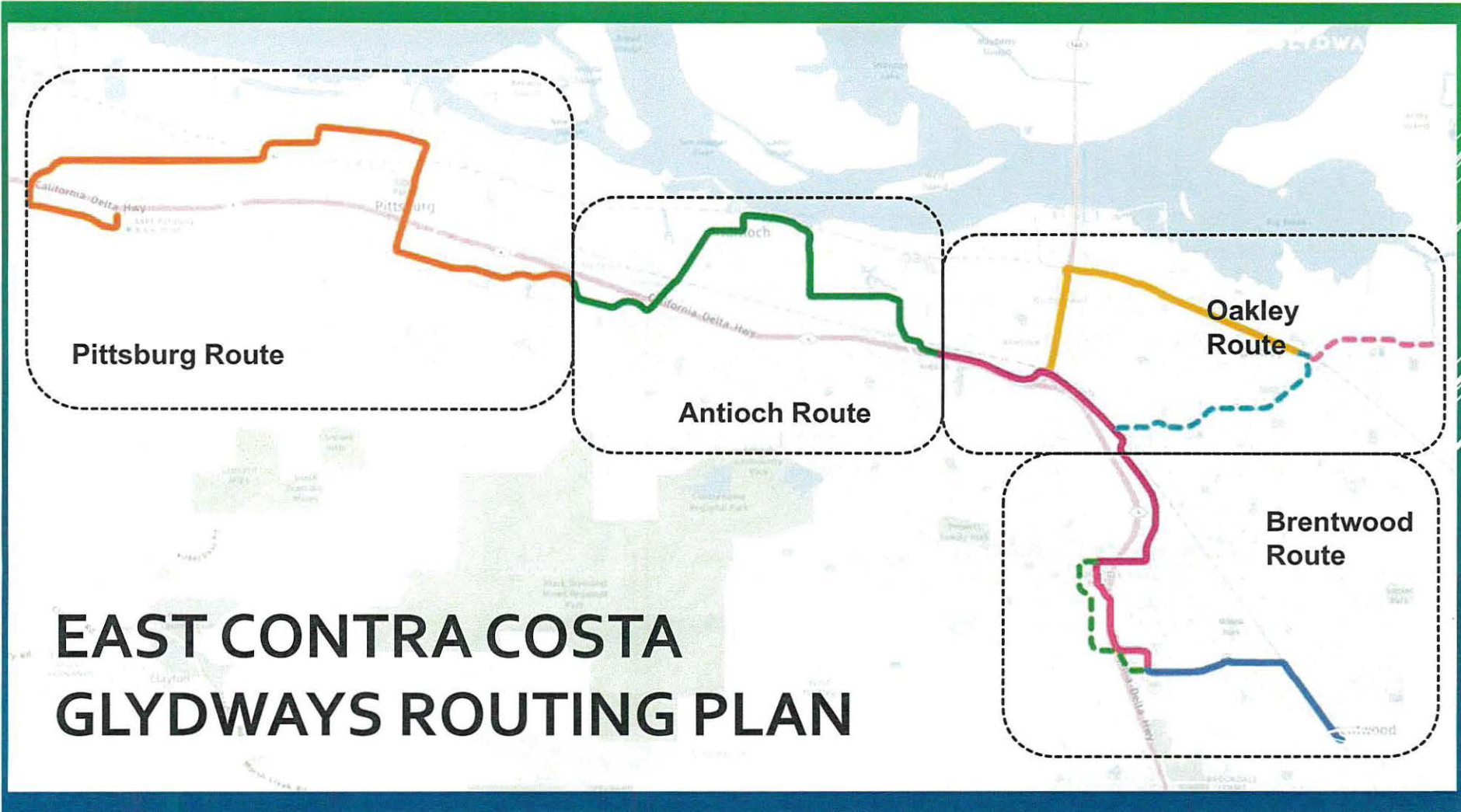
GOALS AND OBJECTIVES

GOALS AND OBJECTIVES – EAST COUNTY

- ✓ Provide Transit Accessibility by building a network of Dynamic Personal Micro Transit (DPMT) system at no cost to the Cities.
- ✓ Provide Transit Accessibility to assure “Economic Development” and attract employers.
- ✓ Conduct a Feasibility Study in DBFOM environment to attract potential Public Funding and Private Financing.

PROPOSED ROUTING PLAN





Pittsburg Route

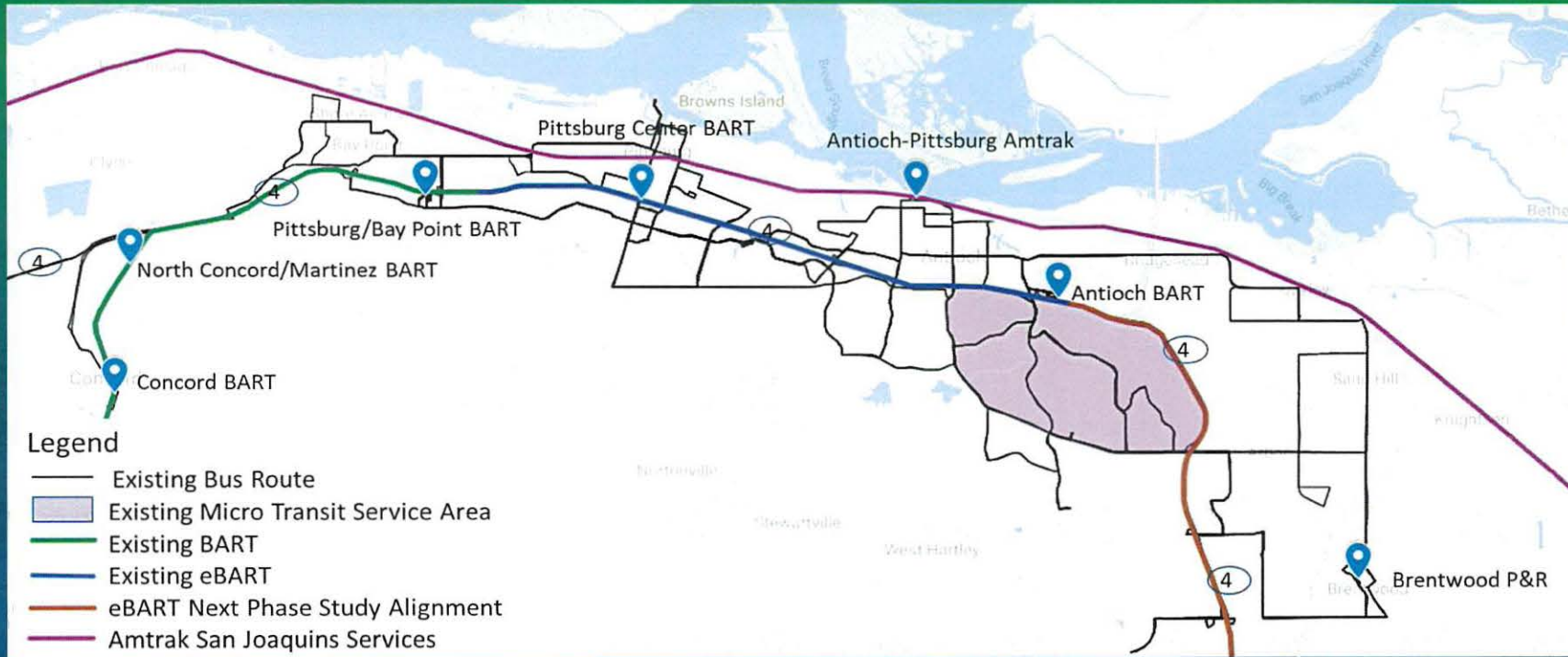
Antioch Route

Oakley Route

Brentwood Route

EAST CONTRA COSTA GLYDWAYS ROUTING PLAN

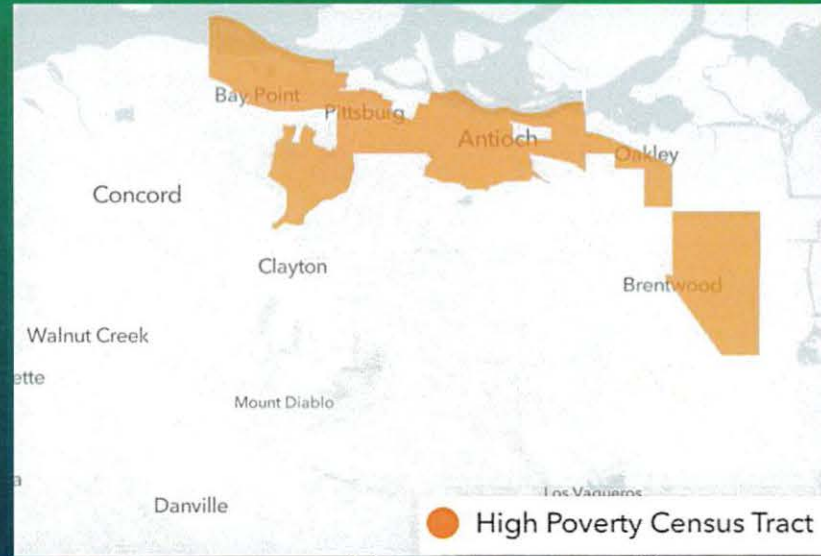
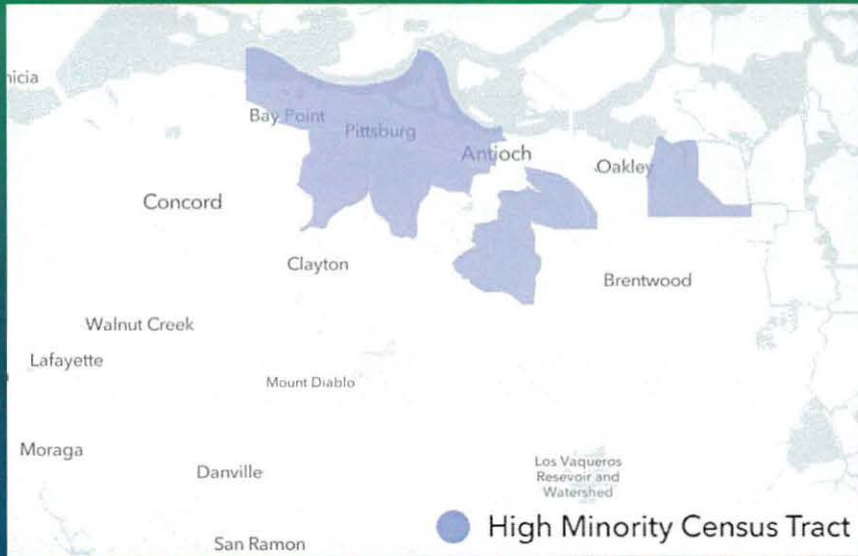
TRANSPORTATION SERVICES (EAST COUNTY)



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COMMUNITIES OF CONCERN (EAST COUNTY)



TRANSPORTATION SERVICES WITH GLYDWAYS



Glydways complements
existing transit and other active
transportation modes

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DEMAND ANALYSIS AND PROJECTED RIDERSHIP

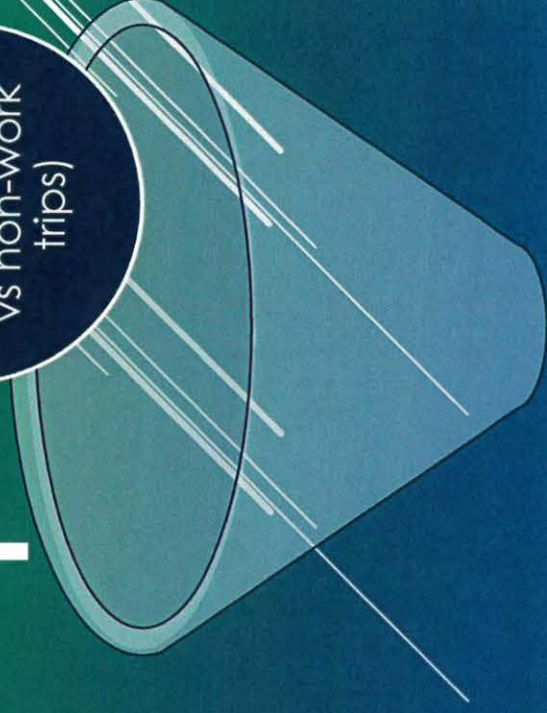
RIDERSHIP DEMAND ESTIMATE METHODOLOGY

- Census Based LEHD used to estimate potential trips within walking distance (0.25-mile) of a Glydways proposed boarding zone.
- Added Existing Mode Share, Existing Bus Ridership trends and used logit model to estimate mode shift from "Drive Alone" and "Carpool" to proposed boarding zone.

Census -
Mode
Share +
LEHD

+

Existing Bus
Ridership
trends (work
vs non-work
trips)



 GLYDWAYS

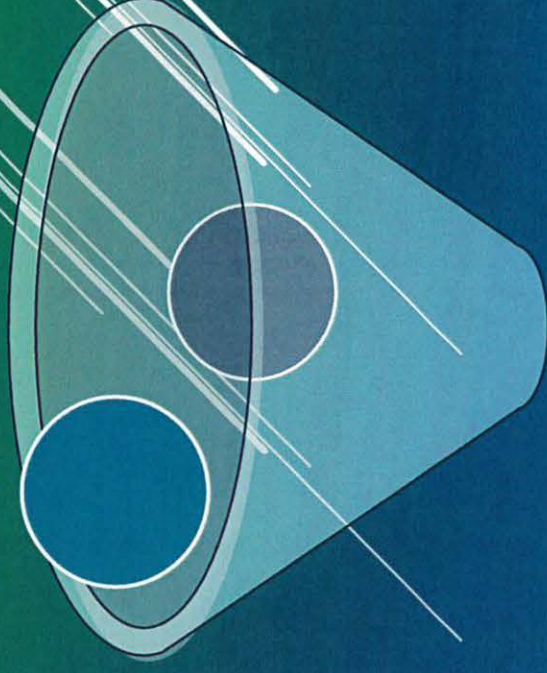
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RIDERSHIP DEMAND ESTIMATE METHODOLOGY

- Added annual growth plus planned projects to estimate 2030 projected ridership.
- Mode shift from “Public Transit” and other “Active Transportation” modes was not considered in analysis (Glydways system intended to complement those services).

Annual
Growth
(0.5%) +
Planned
projects

+

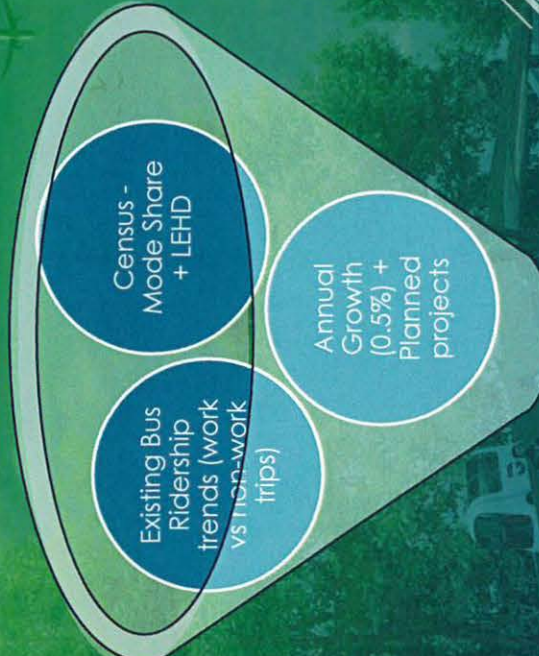


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RIDERSHIP DEMAND ESTIMATE

13 M (Potential Demand)

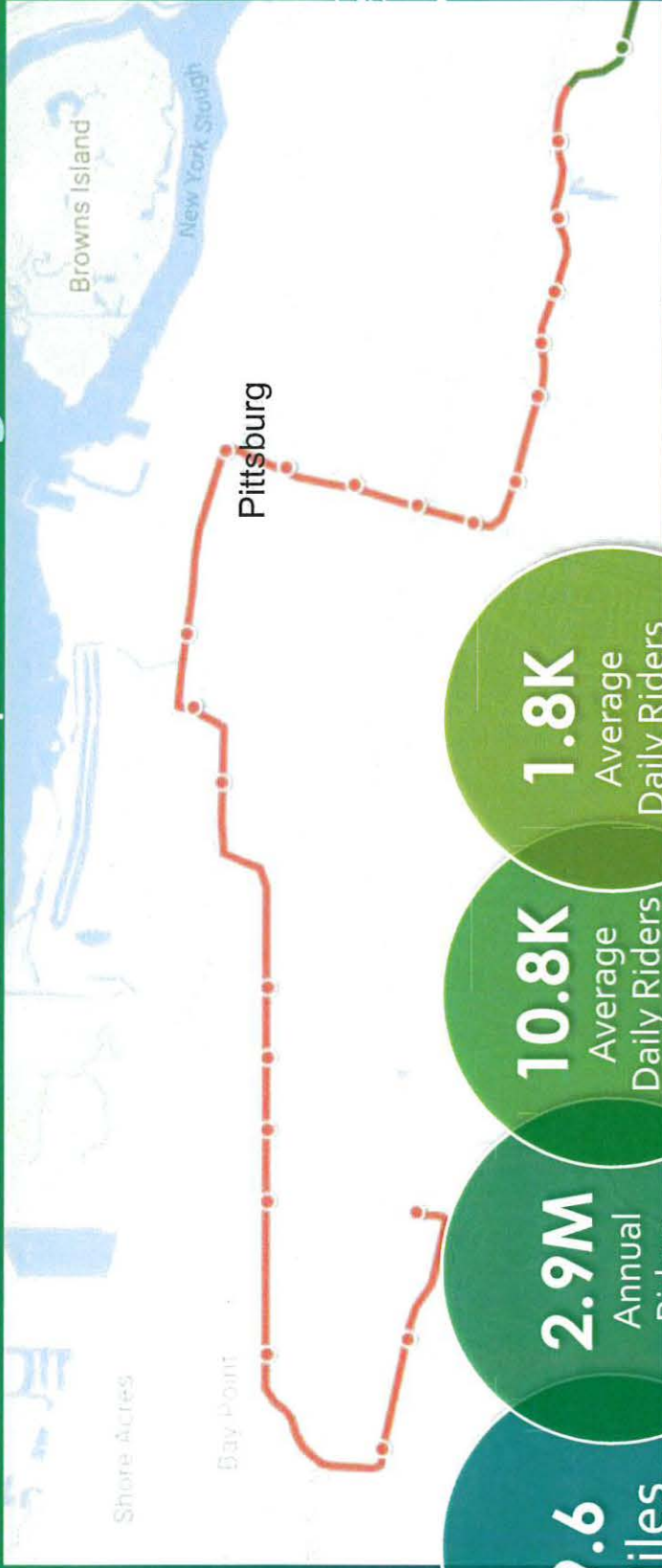


7M

Annual
Ridership
Estimate



SEGMENT IMPLEMENTATION | Pittsburg Route



Shore Acres

Day Point

Pittsburg

Browns Island

New York Slough

9.6
Miles

2.9M
Annual
Riders

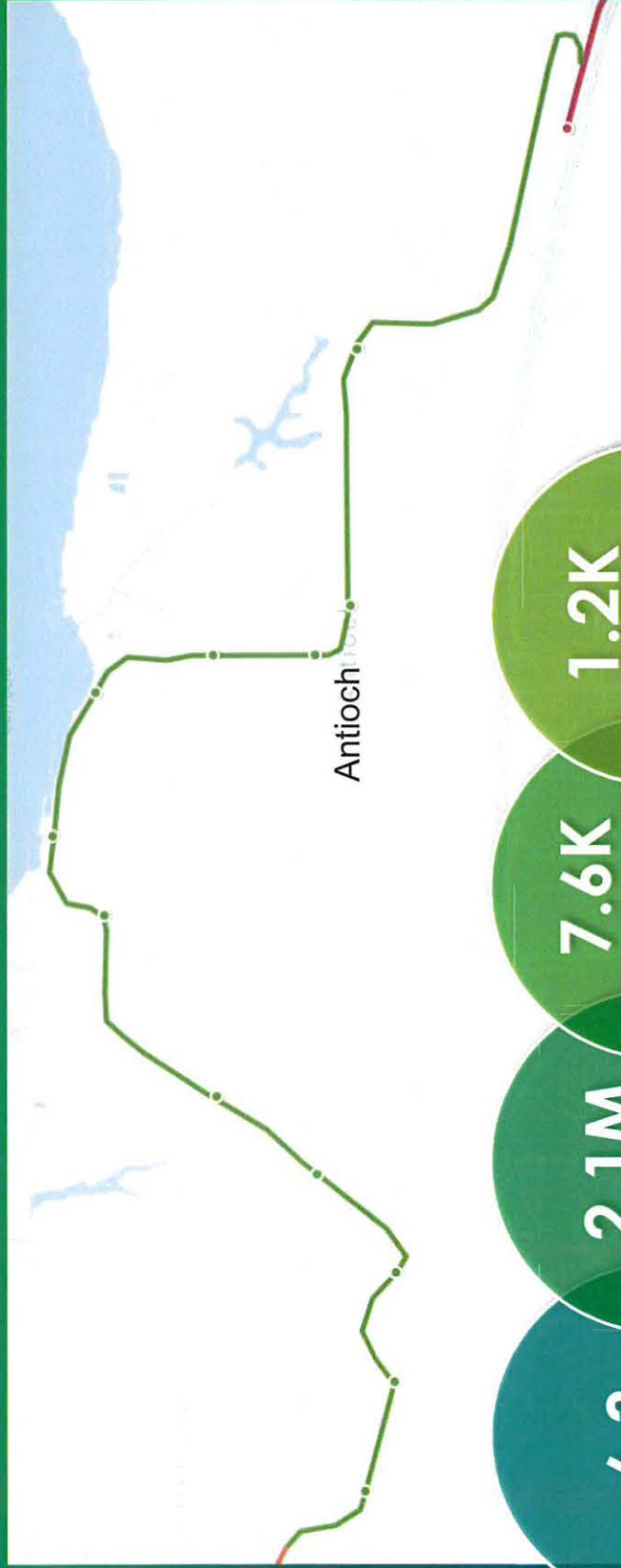
10.8K
Average
Daily Riders
(weekday)

1.8K
Average
Daily Riders
(weekend)

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SEGMENT IMPLEMENTATION | Antioch Route



6.3
Miles

2.1M
Annual
Riders

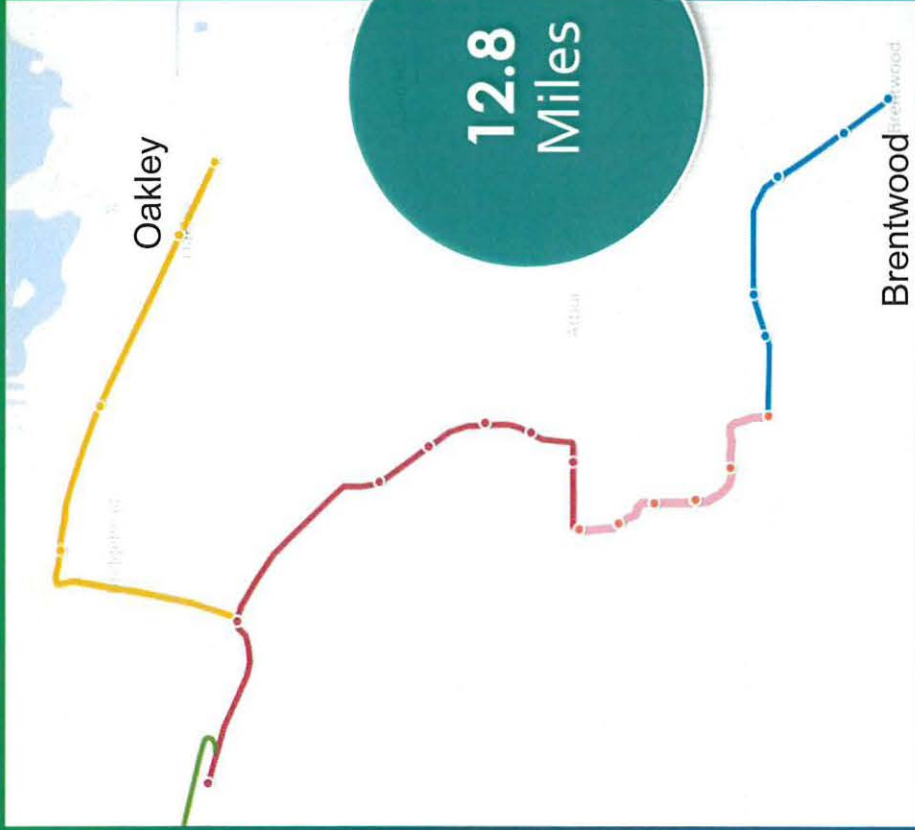
7.6K
Average
Daily Riders
(weekday)

1.2K
Average
Daily Riders
(weekend)

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SEGMENT IMPLEMENTATION | Oakley & Brentwood



12.8
Miles

2.0M
Annual
Riders

7.6K
Average
Daily
Riders
(weekday)

1.1K
Average
Daily
Riders
(weekend)

RIDERSHIP IN PERSPECTIVE

Glydways
Projected 2030
Ridership



2019 eBART
Annual Ridership

2.7
Million

2.2
Million

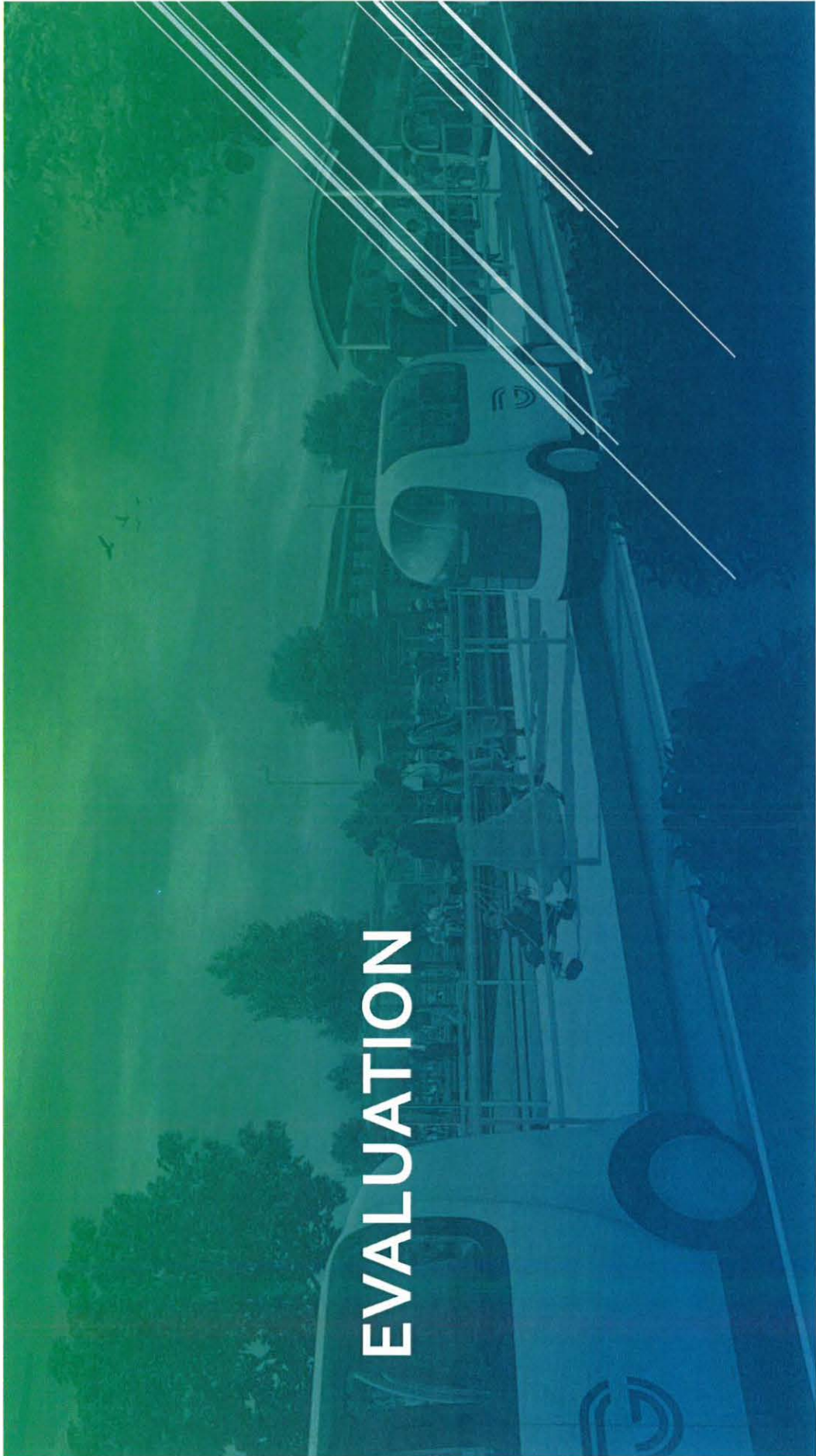
52
Million

7
Million

2019 Tri Delta
Transit Annual
Ridership

2019 SR 4 Annual Traffic
(vehicle/year)

EVALUATION



COMPARISON OF GLYDWAYS ATTRIBUTES WITH OTHER MODES

Attribute	Bus Transit	Rail Transit	Car	Glydways DPMT
Technology Level	👍	👍	👍	Emerging
On-Demand 24/7	👎	👎	👍	👍
Wait Time	👎	👎	👍	👍
Total Trip Time	👎👎	👎	Depends on Traffic	👍
Non-Stop Travel	👎	👎	👍	👍
Scalability	Acceptable	👎	N/A	👍
Safety	Acceptable	Acceptable	👎	👍
ADA Compliant	Acceptable	Acceptable	👎	👍
Infrastructure Capital Costs	Acceptable	👎	👎	👍
Environmental Sustainability	Acceptable	Acceptable	👎	👍
Ridership Demand	Acceptable	👍	👎	👍
Operating Costs	👎	👎👎	👎	Acceptable
Potential Savings in Accident Costs	Acceptable	Acceptable	👎	👍
Barriers in Implementation	Funding	Funding Environmental	None	Similar to other transit. Additional barriers are manageable
Risk Management	Acceptable	Acceptable	N/A	Acceptable



1x*



6x*



15x*

CO2e PMT (passenger mile traveled)

11

EMISSIONS REDUCTION*

- ✓ 15x less emissions than cars/buses
- ✓ 6x less emissions than light rail

* Carbon Equivalent emissions over a 30 year lifetime analysis with solar infrastructure:
gCo2e PMT: Glydways: 37, LightRail: 224, Cars: 573

BENEFITS



Support Economic
Development and Create
Jobs



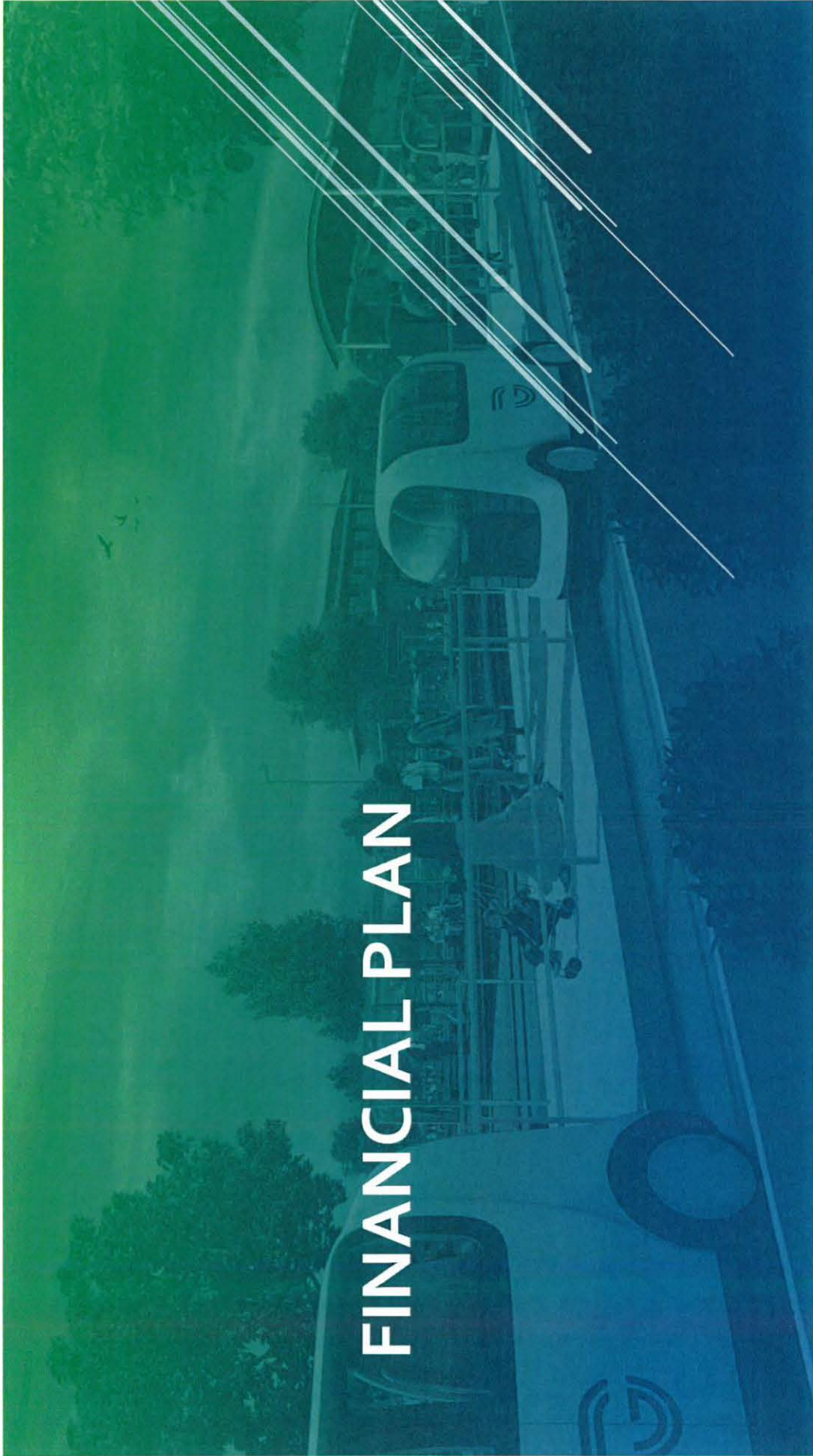
Congestion Relief with
Deployment of First
Micro-Transit Network



Increased Access for
Underserved
Communities

- Transit Accessibility –
First/Last Mile
Connectivity
- Cost Effective and
Scalable
- Sustainable
- Speedy Deployment
with Public/Private
Partnership

FINANCIAL PLAN



POTENTIAL PUBLIC FUNDING SOURCES

- ✓ Greenhouse Gas Reduction Fund (GGRF)
- ✓ State Transportation Improvement Program (STIP)
- ✓ Better Utilizing Investments to Leverage Development (BUILD)
- ✓ BAAQMD (Air District): VW Settlement Fund & Clean Vehicle Fund
- ✓ Regional Transportation Plan (RTP)
- ✓ East Contra Costa Fee and Revenue Financing Authority
- ✓ Active Transportation Program (ATP) Cycle 6
- ✓ COVID Recovery Act (Dec. 2020)
- ✓ Climate Action Plan for Transportation Infrastructure (CTPTI)
- ✓ Transportation Infrastructure Finance and Innovation Act (TIFIA)

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BUSINESS CASE MODELS

- ✓ Public Funding
- ✓ Private Financing
- ✓ Design Build Finance Operate Maintain (DBFOM)

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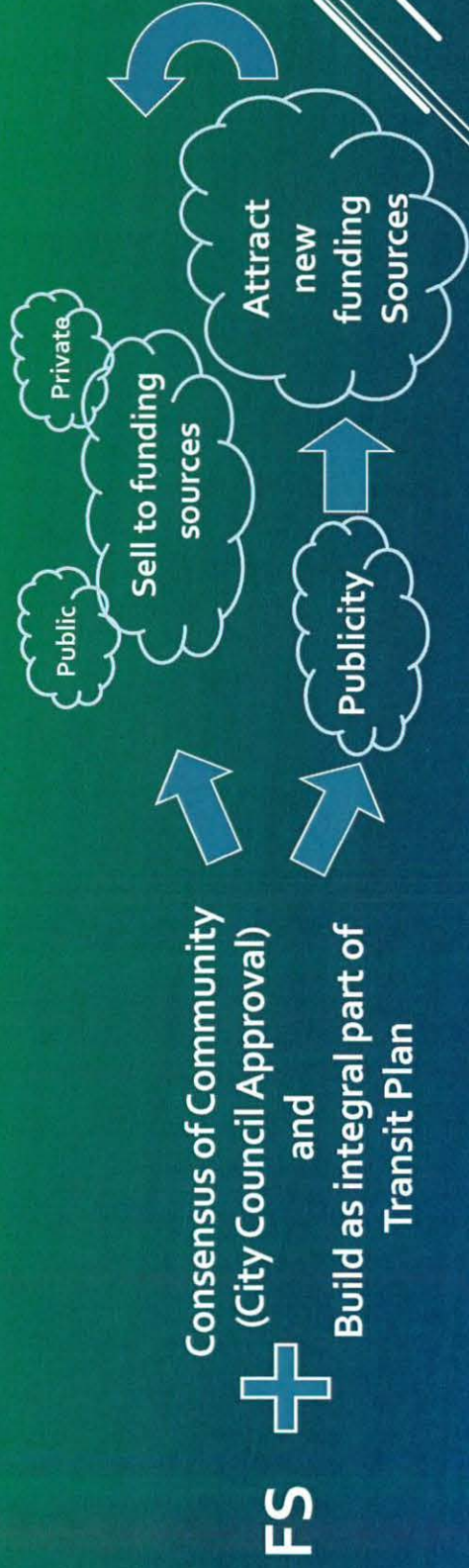
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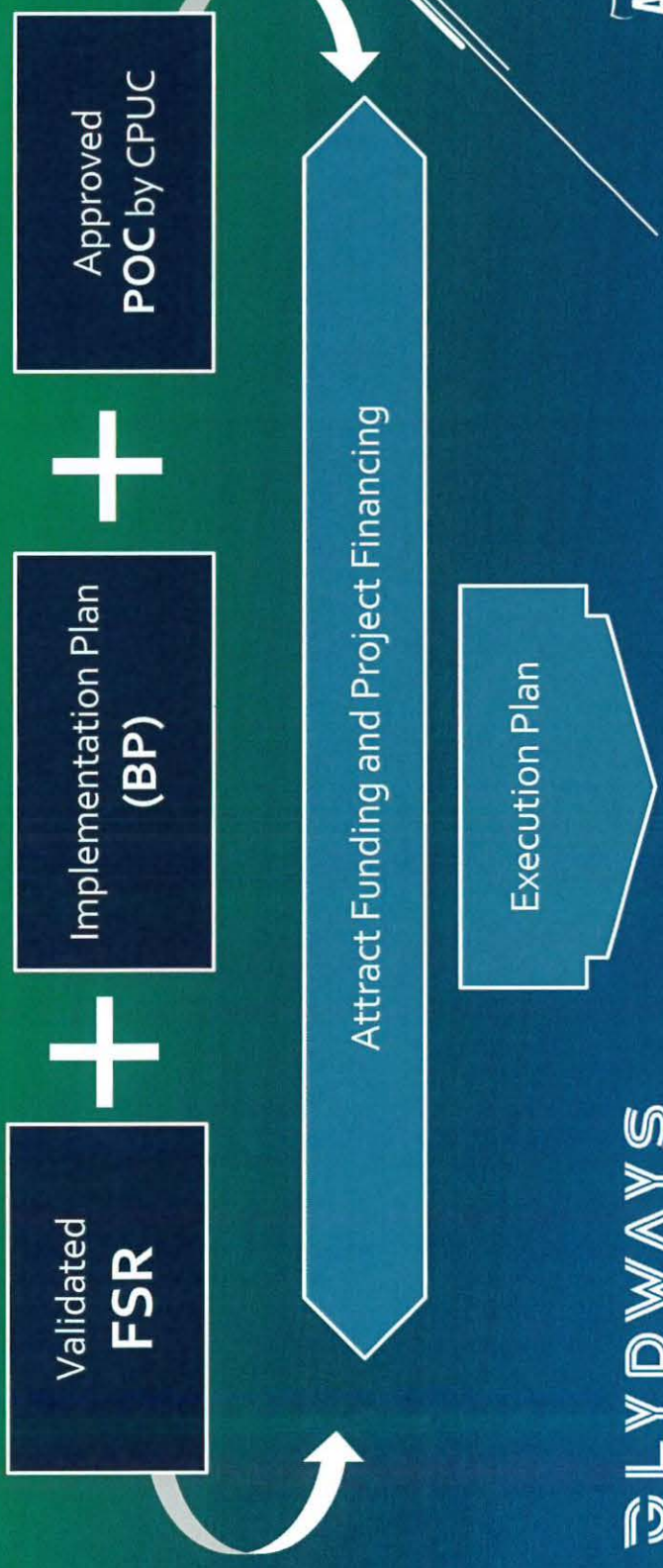
FINAL CONCLUSION

Real Project and Transportation Solution for ECCC

A GOOD FEASIBILITY STUDY (FS) WILL ATTRACT MONEY



Validated Feasibility Study Report Attracts Funding



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SUPPORT OF COALITION

- ✓ Building consensus around solid Feasibility Study with key Stakeholders (Oakley, Brentwood, Pittsburg, Antioch, CCC, and CCTA)
- ✓ Expand the stakeholders to include:
 - Amtrak, BART, Tri-Delta Transit, Contra Costa Water District, MTC, Caltrans D-4 and others
- ✓ Build support in CCC/Region/Sacramento/Washington DC

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SCHEDULE & NEXT STEPS

Draft Report – Mid March 2021

Final Report – April 2021

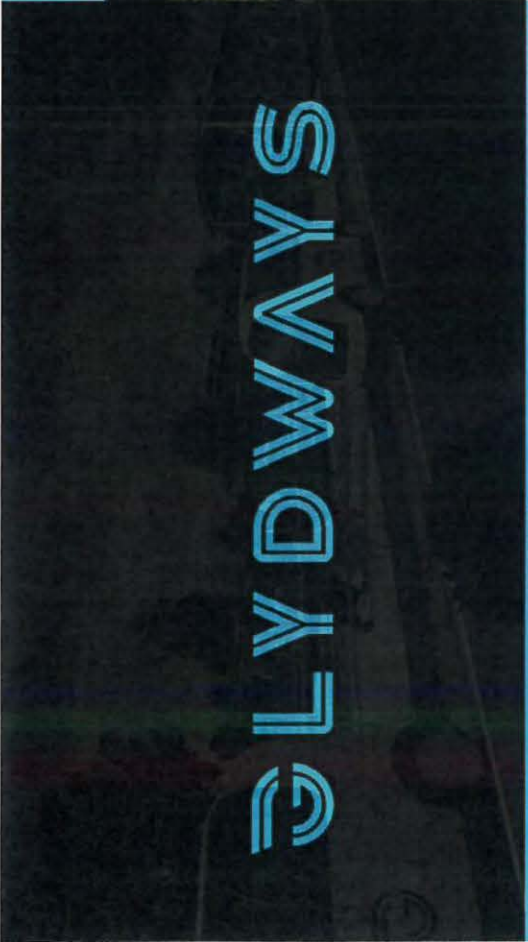
PoC Site Visit at GoMentum Station: Late
March and Early Summer

Project Development Agreement/Discussion
with City Managers





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Q & A



Thank you
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