Fort Worth Housing Solutions and Trinity Metro have partnered to implement a Transit-Oriented Development near the Texas & Pacific Rail Station, which will

- provide access to low-income housing
- create a positive land-use/transportation nexus

Funding has been identified for the residential building and surface parking lot, but not for the six-level parking facility ($11,362,000)

- Parking facility includes both public transit and private parking
- Parking garages are federally eligible, but federal funds may not be best option since it is a public/private garage
• North Central Texas Council of Governments (NCTCOG) staff concurs with the project idea, but suggests not using federal funds

• Both agencies requested Regional Transportation Council (RTC) consideration of a proposal that the RTC transfer $11,362,000 in federal funds to Trinity Metro
  • Trinity Metro and NCTCOG staff will bring back specific projects on which to use federal funds via the normal Transportation Improvement Program (TIP) modification process

• Trinity Metro will transfer an equal amount in local funds to Fort Worth Housing Solutions to implement the parking facility
Action Requested:

• Recommend RTC approval of the $11,362,000 funding swap as outlined in slide three

• Direct staff to administratively amend the TIP and other funding, planning, administrative documents to reflect this action
Total Settlement to Date: $14.7 Billion

- Zero Emission Vehicle (ZEV) Investment - Managed by Electrify America
- Environmental Mitigation Trust (Trust) - Distributed to States

**Settlement Breakdown ($ in Billions)**

- Vehicle Buyback and Modification: $10.0
- ZEV Investment: $2.0
- Environmental Mitigation Trust: $2.7

*Texas’ Share: $209 Million*
TCEQ GOALS FOR USE OF FUNDS

www.TexasVWFund.org

1. Reduce Nitrogen Oxides (NO$_x$) Emissions
2. Reduce the Potential for Exposure of the Public to Pollutants
3. Prepare for Increased and Sustained Use of ZEVs
4. Complement Other Incentive Funding Programs

TCEQ Proposed Funding Breakdown

- Administrative Costs; Up to 4%
- Statewide ZEV Infrastructure; Up to 15%
- Mitigation Actions in Priority Areas; At Least 81%

$8,372,767  $31,397,874  $169,548,523
**ELIGIBLE PROJECT TYPES DEFINED BY TRUST**

<table>
<thead>
<tr>
<th>Eligible Mitigation Actions 1-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Replace/Repower Freight and Port Drayage Trucks (Class 8)</td>
</tr>
<tr>
<td>Includes Dump Trucks, Waste Haulers, Concrete Mixers</td>
</tr>
<tr>
<td>2. Replace/Repower School, Shuttle, and Transit Buses (Class 4-8)</td>
</tr>
<tr>
<td>X. Replace/Repower Freight Switchers</td>
</tr>
<tr>
<td>X. Replace/Repower Ferries/Tugs</td>
</tr>
<tr>
<td>5. Install Ocean-Going Vessels Shorepower</td>
</tr>
<tr>
<td>6. Replace/Repower Freight Trucks (Class 4-7)</td>
</tr>
<tr>
<td>Includes Dump Trucks, Waste Haulers, and Concrete Mixers</td>
</tr>
<tr>
<td>7. Replace/Repower Airport Ground Support Equipment</td>
</tr>
<tr>
<td>8. Replace/Repower Forklifts and Port Cargo Handling Equipment</td>
</tr>
<tr>
<td>9. Deploy Light-Duty ZEV Supply Equipment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eligible Mitigation Action 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>X. Diesel Emission Reduction Act Option for State Clean Diesel Program</td>
</tr>
</tbody>
</table>
## Proposed Funding Levels for Texas: On-Road

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Ownership</th>
<th>New Fuel Type</th>
<th>Funding Allowed by Trust</th>
<th>Funding Proposed by TCEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Replace or Repower</strong></td>
<td>Govt Owned</td>
<td>Electric**&lt;br&gt;Alt Fuel/ Hybrid Diesel</td>
<td>100%&lt;br&gt;100%&lt;br&gt;100%</td>
<td>60%&lt;br&gt;60%&lt;br&gt;60%</td>
</tr>
<tr>
<td><strong>Replace</strong></td>
<td>Non-Govt Owned</td>
<td>Electric**&lt;br&gt;Alt Fuel/ Hybrid Diesel</td>
<td>75%&lt;br&gt;25%<em>&lt;br&gt;25%</em></td>
<td>60%&lt;br&gt;25%<em>&lt;br&gt;25%</em></td>
</tr>
<tr>
<td><strong>Repower</strong></td>
<td>Non-Govt Owned</td>
<td>Electric**&lt;br&gt;Alt Fuel/ Hybrid Diesel</td>
<td>75%&lt;br&gt;40%&lt;br&gt;40%</td>
<td>60%&lt;br&gt;40%&lt;br&gt;40%</td>
</tr>
</tbody>
</table>

*Exception is Drayage Trucks, which Qualify for 50%

**Up to 60% of Cost of Necessary Infrastructure for All-Electric Vehicles also Eligible
## PROPOSED FUNDING LEVELS FOR TEXAS: OTHER

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Ownership</th>
<th>Fuel Type</th>
<th>Funding Allowed by Trust</th>
<th>Funding Proposed by TCEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install ZEV Supply Equipment</td>
<td>Govt Owned</td>
<td>Electric</td>
<td>100%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Non-Govt Owned</td>
<td>Hydrogen</td>
<td>25%-33%</td>
<td>25%-33%</td>
</tr>
<tr>
<td>Replace/Repower Airport Ground Support Equipment</td>
<td>Govt Owned</td>
<td>Electric**</td>
<td>100%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Non-Govt Owned</td>
<td>Electric**</td>
<td>75%</td>
<td>60%</td>
</tr>
<tr>
<td>Replace/Repower Forklifts or Port Cargo-Handing Equipment</td>
<td>Govt Owned</td>
<td>Electric**</td>
<td>100%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Non-Govt Owned</td>
<td>Electric**</td>
<td>75%</td>
<td>60%</td>
</tr>
</tbody>
</table>

*Not Shown: Ocean-Going Vessel Shorepower (Not Applicable in DFW Area)*  
**Up to 60% of Cost of Necessary Infrastructure for All-Electric Vehicles also Eligible**
### GEOGRAPHIC ELIGIBILITY & FUNDING DISTRIBUTION

#### Previous RTC Recommendation

Allow Administration through Select Regional Councils; Funding Proportional to Number of Registered Violating Vehicles

<table>
<thead>
<tr>
<th>Texas Regional Council</th>
<th>RTC-Recommended Settlement ($ in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alamo Area Council of Governments (San Antonio Area)</td>
<td>$27.4</td>
</tr>
<tr>
<td>Capital Area Council of Governments (Austin Area)</td>
<td>$32.9</td>
</tr>
<tr>
<td>Houston-Galveston Area Council</td>
<td>$58.9</td>
</tr>
<tr>
<td>North Central Texas Council of Governments</td>
<td>$63.0</td>
</tr>
<tr>
<td>Rio Grande Council of Governments (El Paso Area)</td>
<td>$5.9</td>
</tr>
<tr>
<td>Rest of State</td>
<td>$20.9</td>
</tr>
</tbody>
</table>

*Regional Councils Selected Based on Nonattainment Status, Ozone Advance Participation, Presence of Inspection/Maintenance Program, and/or Inclusion in Texas Clear Lanes*
Distribute to Priority Areas Based on
(1) Severity of Ozone Levels and (2) Population

- El Paso County: $26,771,921
- Dallas-Fort Worth Area: $29,116,296
- Houston-Galveston-Brazoria Area: $27,399,879
- San Antonio Area: $73,554,754
- Beaumont-Port Arthur Area: $12,705,673

Current TCEQ Proposal

GEOGRAPHIC ELIGIBILITY & FUNDING DISTRIBUTION
**Proposed Comment:**
Re-Evaluate Methodology for Geographic Distribution to Ensure Fair Share Allocation to DFW Ozone Nonattainment Area:
Previous RTC Recommendation = $63 Million

**GEOGRAPHIC ELIGIBILITY & FUNDING DISTRIBUTION**

Potential Fair Share Allocations to NCTCOG Based on Various Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>RTC Recommended Councils</th>
<th>TCEQ Recommended Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Violating Vehicles</td>
<td>$60.00</td>
<td>$80.00</td>
</tr>
<tr>
<td>Population</td>
<td>$60.00</td>
<td>$80.00</td>
</tr>
<tr>
<td>Vehicle Miles of Travel</td>
<td>$60.00</td>
<td>$80.00</td>
</tr>
<tr>
<td>NOX Emissions</td>
<td>$60.00</td>
<td>$80.00</td>
</tr>
<tr>
<td>VOC Emissions</td>
<td>$60.00</td>
<td>$80.00</td>
</tr>
</tbody>
</table>

Calculated Based on % Metric in NCTCOG Region Compared to Total of RTC Recommended Councils or TCEQ Recommended Priority Counties; NO\textsubscript{X} = Nitrogen Oxides; VOC = Volatile Organic Compounds
Recommend RTC Approval of Proposed Staff Comments:

Allowing Administration through Councils of Government/Metropolitan Planning Organizations in Priority Areas
- NCTCOG Would Not Charge Administrative Costs

Ensuring Fair Share Allocation to Regions
- NCTCOG Should Receive $63 Million

Utilizing Latest/Greatest Quantification Methodologies
- Select Tool that Estimates Multipollutant Benefits and Accurately Reflects Real-World Emissions Benefits of Alternative Fuels Relative to Diesel Engines (e.g. Argonne National Laboratory AFLEET Tool and EPA Diesel Emissions Quantifier)

AFLEET Tool = Alternative Fuel Life-Cycle Environmental and Economic Transportation Tool
Recommend RTC Approval of Proposed Staff Comments:

Ensuring that Cost-Effectiveness Calculations Only Consider Volkswagen Funds
• Enable Leveraging of Other Funding Sources

Supporting Interpretation that There is Equity Between Electric and Hydrogen Infrastructure Submitted as Part of a Replacement/Repower Project
• Infrastructure Needed to Support an All-Electric Vehicle Replacement/Repower Eligible for up to 60% Funding
• Request Further Explanation/Clarity in Final Mitigation Plan

Through Legislative Program: Encouraging Extension of Infrastructure Funding Under Texas Emissions Reduction Plan
• Provide Equity Among Fuel Types
## MITIGATION TRUST SCHEDULE

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft Beneficiary Mitigation Plan for Texas Released</td>
<td>August 8, 2018</td>
</tr>
<tr>
<td>STTC Possible Action</td>
<td>August 24, 2018</td>
</tr>
<tr>
<td>RTC Action</td>
<td>September 13, 2018</td>
</tr>
<tr>
<td>TCEQ Public Hearings</td>
<td>September 14, 2018</td>
</tr>
<tr>
<td>Deadline for Comments</td>
<td>October 8, 2018</td>
</tr>
<tr>
<td>First Application Round Opens</td>
<td>Expected by End of 2018</td>
</tr>
</tbody>
</table>
Lori Clark
Program Manager
817-695-9232
lclark@nctcog.org

Chris Klaus
Senior Program Manager
817-695-9286
cklaus@nctcog.org

Nancy Luong
Air Quality Planner
817-704-5697
nluong@nctcog.org

Go To www.nctcog.org/airquality; Select “Funding and Resources”
TEXAS STATE INFRASTRUCTURE BANK

For North Central Texas Council of Governments (NCTCOG)
Texas State Infrastructure Bank (SIB)

**SIB Loans**

- **Utility Relocations**
  - Built into the loan schedule
  - Possible utility reimbursement eligibility

- **Right of Way (ROW) Agreements**
  - SIB disbursement(s) match payment terms
  - Refunds after project close are applied directly to the loan

- **Advance Funding Agreement (AFA)**
  - Loans for fixed local contribution
  - SIB disbursement can match payment terms

- **Local Roadway (Program Call)**
  - Off system public roads
<table>
<thead>
<tr>
<th>First Come, First-Served</th>
<th>Program Call</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan under $10 million for a TxDOT project</td>
<td>Loan for a non-TxDOT project or a loan over $10 million for a TxDOT project</td>
</tr>
<tr>
<td>One Commission approval required:</td>
<td>Two Commission approvals are required:</td>
</tr>
<tr>
<td>Final approval after the loan terms are negotiated.</td>
<td>• Preliminary approval of the project and prioritization of loans submitted within the Program Call</td>
</tr>
<tr>
<td></td>
<td>• Final approval after the loan terms are negotiated</td>
</tr>
<tr>
<td></td>
<td>Guidelines: provide the loan should not exceed 35% of the estimated total project cost</td>
</tr>
<tr>
<td></td>
<td>Program Call of $100 million – currently open date</td>
</tr>
</tbody>
</table>
Advantages of Borrowing from the State Infrastructure Bank

- Interest calculated on a 30/360 day count basis
- Loan amortization schedules can be have some flexibility for debt service pinch points.
- **No fees** for loan application
- **No** loan handling charges
- **Prepayments** can be made at any time
TxDOT SIB process

1. Submit a Program Call Application and Authorized Resolution to apply for loan

2. TxDOT will send a "Legislative Letter" to the Representative and Senator that a SIB application was received for the project. *
   *required by Rider 14C

3. TxDOT Divisions will review applications

4. TTC preliminary approval for priority of projects in the Program Call and preliminary approval of complete applications

5. ENV approval must be obtained, negotiation of loan terms

6. TTC final approval of SIB loan

7. Final Step: SIB loan agreement must be approved by the local government and TxDOT wires loan funds on date specified in the agreement.
Current Market Indications

Rate Indication over Final Maturity

- **20 yr** – 2038: 3.40%
- **15 yr** – 2033: 3.21%
- **10 yr** – 2028: 2.90%
- **5 yr** – 2023: 2.36%
- **3 yr** – 2021: 2.06%

*Based on an A credit rating – rates change daily, shown for illustrative purposes only.*
1. Loan amortization typically has annual loan payments.
   - May also be semi-annual or other agreed upon frequency.

2. Ability to defer principal payments, and interest payments to help in the early project years.
   - Interest will be higher for the loan life – PFD can run scenarios for the local government to help determine a loan structure.

3. Ability to pre-pay loan at any time.
   - Receive a pay-off letter from PFD and pay funds on the date specified.
Project Finance Division

Deborah Fleming CPA, CTP
Innovative Financing/Debt Program Manager
deborah.fleming@txdot.gov
512-463-7667

Dallas Teston
Financial Analyst
dallas.teston@txdot.gov
512-463-9958
Public Participation Plan Update

Surface Transportation Technical Committee
August 24, 2018
Amanda Wilson, AICP
Public Participation Plan

Fulfills basic public involvement requirements established by federal law

Defines public involvement procedures and comment periods

Outlines communications and outreach strategies for informing the public

Describes measures for diversity and inclusiveness

Provides basis for evaluating outreach efforts
Legislative Basis

Fixing American’s Surface Transportation Act (2015)

Title VI of the Civil Rights Act of 1964

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority and Low-Income Populations (1994)

Ways We Involve People

Public meetings, online comment opportunities
Website, email and social media
Publications, newsletters
Community events
Speaking opportunities
Media relations
Advertising

@NCTCOGtrans
Updating the Plan

Last updated in February 2015 prior to FAST Act

Increasing shift toward streaming video, technology

Growing emphasis on outreach to and through community groups

New regional demographics
Possible Revisions

Revised stakeholder list to reflect FAST Act requirements
More efficient public input opportunities
Increased emphasis on livestreaming
Updated Language Assistance Plan
Increased weight given to local comments
Refined evaluation measures and reporting
More appealing design and formatting
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 9, 2018</td>
<td>RTC Information</td>
</tr>
<tr>
<td>August 24, 2018</td>
<td>STTC Information</td>
</tr>
<tr>
<td>September 10, 11, 19, 2018</td>
<td>Public meetings</td>
</tr>
<tr>
<td>September 10, 2018</td>
<td>Public comment period begins</td>
</tr>
<tr>
<td>September 28, 2018</td>
<td>STTC Information</td>
</tr>
<tr>
<td>October 11, 2018</td>
<td>RTC Information</td>
</tr>
<tr>
<td>October 26, 2018</td>
<td>STTC Action</td>
</tr>
<tr>
<td>November 8, 2018</td>
<td>RTC Action</td>
</tr>
</tbody>
</table>
Contacts

Amanda Wilson, AICP
Program Manager
awilson@nctcog.org • 817-695-9284

Kyle Roy
Communications Specialist
kroy@nctcog.org • 817-704-5610

www.nctcog.org/trans/involve
Automated Vehicle Program 2.0

Surface Transportation Technical Committee
August 24, 2018

Thomas Bamonte
# CMAQ/STBG Funding Programs

<table>
<thead>
<tr>
<th>Status</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔</td>
<td>Federal/Local Funding Exchanges</td>
</tr>
</tbody>
</table>
| ■               | **Automated Vehicle Program**  
| ✔ Round 1 | ✔ Round 2  |
| ■               | **Strategic Partnerships**  
| ✔ Round 1 | ✔ Round 2  |  
| □               | **Round 3/Intersection Improvements/Policy Bundle TDCs**                                      |
| ✔               | **Planning and Other Studies**                                                               |
| ✔               | **10-Year Plan/Proposition 1 Adjustments**                                                    |
| ✔               | **Sustainable Development Phase 4: Turnback Program, Context Sensitive, Transit Oriented Development (TOD) Projects** |
| ✔               | **Transit Program**                                                                          |
| □               | **Assessment Policy Programs/Projects**                                                      |
| ✔               | **Local Bond Program Partnerships**                                                          |
| ✔               | **Safety, Innovative Construction, and Emergency Projects**                                  |
| □               | **Management and Operations (M&O), NCTCOG-Implemented, and Regional/Air Quality Programs**    |

- ✔ = Project Selection Completed
- ■ = Program Partially Completed
- □ = Pending STTC/RTC Approval
AV Program 2.0: Overview

Three projects:

1. AV Planning Resources
2. AV Deployment Cost Assistance
3. Regional Priority AV Deployments

One process: Opt-in to AV 2.0 Program
Project #1: AV Planning

NCTCOG procures planner(s) to assist public entities attracting or facing AV deployments

Planner(s) on retainer

Grant size tied to metric(s)—e.g., city population/deployment scale

Total: **Up to $1.5M**, plus NCTCOG administration ($200K approx.)

Funding source: TBD [Federal or RTR]
Project #2: AV Deployment Cost Coverage

Cover costs associated with public entity hosting an AV deployment

Grants payable upon actual AV deployment

Total: **Up to $10M**, plus NCTCOG administration ($600K approx.)

Funding source: TBD [Anticipate Federal]
Project #3: Regional Priority AV Deployments

Fund AV deployments for use cases not served by AV developers

Competitive project selection

Total: **Up to $20M**, plus NCTCOG administration ($900K approx.)

Funding source: TBD [Anticipate Federal]
1. Public entities express interest in hosting AV deployments.

2. Respondents eligible for grants.

3. Advance paperwork done to help ensure full and prompt cost coverage.

4. Public entities can join AV 2.0 Program at any time.
Schedule

**STTC briefing**: August 2018

RTC briefing: September 2018

Public meetings: September 2018

STTC action: September 2018

RTC action: October 2018

TIP process complete: April 2019

Funding available: Late 2019
Thomas J. Bamonte
@TomBamonte
tbamonte@nctcog.org
469-600-0524
Auto Occupancy Detection Technology, Rewards Program, and HOV Subsidy Report

Surface Transportation Technical Committee
August 24, 2018

Natalie Bettger and Berrien Barks
Presentation Overview

HOV Subsidy Report

New Approach

*Auto-Occupancy Detection and Verification Technology*

High Occupancy Vehicle Rewards Program

Funding

Policy Adjustments

Schedule
Toll Managed Lane Data Monitoring

Cumulative December 2013 – May 2018

How much HOV 2+ Subsidy has the RTC been responsible for?
$2,489,130 as of May 2018

How much of the Vanpool Toll reimbursement has the RTC been responsible for?
$ 4,422 from October 2014 – February 2018

How long can the RTC keep the HOV policy at 2+?
For now, it remains 2+ and it will continue to be monitored quarterly

Have there been any additional NTTA customer service needs?
No, minimal impact

Have the speeds on the Toll Managed Lane facilities dropped below 35 mph?
No
## Toll Managed Lane Data Monitoring

### Cumulative December 2013 – May 2018

<table>
<thead>
<tr>
<th>Facility</th>
<th>HOV 2+ Subsidy Costs</th>
<th>NTTA Customer Service (Additional Needs)</th>
<th>Project Performance Events (Speeds &lt; 35 mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North Tarrant Express</strong></td>
<td>$979,619</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td>• SH 183/121 from IH 35W to SH 121</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• IH 35W from IH 30 to US 287</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LBJ Express</strong></td>
<td>$1,509,512</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td>• IH 635 from Preston Road to Greenville Avenue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• IH 35E from Loop 12 to IH 635</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DFW Connector</strong></td>
<td>N/A</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td>SH 114 from Kimball Avenue to Freeport Parkway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IH 30 Managed Lanes</strong></td>
<td>N/A</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td>IH 30 from SH 161 to Westmoreland Road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IH 35E Managed Lanes</strong></td>
<td>N/A</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td>IH 35E from FM 2181 (Teasley) to LBJ</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
New Approach

- Move from Enforcement to Rewards
- Advance US 75 Technology Lane
- Decrease Congestion in Peak Period
- Improve Safety
- Reduce Risk to Police Officers
- Decrease Cost
Current HOV Enforcement

Register

Pre-Declare Every Trip

Occupancy Declaration Sent to Field

Officers Watch for Red Light

Violation: Legal Process

Toll Collected

NTTA Back Office System for Billing
Register
Pre-Declare Every Trip

Occupy Declaration Sent to Field

Officers Watch for Red Light

Toll Collected

Violation: Legal Process

NTTA Back Office System for Billing
Register
Pre-Declare Every Trip
Occupancy Declaration Sent to Field
Officers Watch for Red Light
Violation: Legal Process
Toll Collected
NTTA Back Office System for Billing

HOV Clearinghouse
Receive Transaction File(s)
Carma Active Tags/Plates API
Select Carma User Transactions
Carma Occupancy API
Send Differential File(s)

HOV Rewards Program
New Approach – Rewarding HOV

Implementation Phases

Phase 1 - Managed Lane Rewards
- HOV Points = 50% of actual toll transaction
- Support for all 8 managed lanes in DFW (Cintra & TransCore operated roads)

Phase 2 - US 75 Technology Lane

Phase 3 and Beyond - Corridor & Event Rewards
- HOV Points for HOV travel on specific road segments for any event purpose
- Support for any road segment (including toll roads), any day of week and 24/7/365, any area
- Support for other modes (transit, bicycles, pedestrians)
- Cash-out options and gamified tiers (e.g. Amazon e-credit, Visa cards, check, cash)
- Integrate with other rewards applications (e.g. Try Parking It)
<table>
<thead>
<tr>
<th>Phase</th>
<th>Year</th>
<th>Technology*</th>
<th>Marketing</th>
<th>Integration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development/Pilot Testing</td>
<td>2016-2018</td>
<td>$3,150,000</td>
<td></td>
<td>$850,000</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>Implementation (10 Years)</td>
<td>2019-2028</td>
<td>$16,000,000</td>
<td>$3,000,000</td>
<td>$1,000,000</td>
<td>$20,000,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$19,150,000</td>
<td>$3,000,000</td>
<td>$1,850,000</td>
<td>$24,000,000</td>
</tr>
</tbody>
</table>

*Technology includes system hardware, user beacons, app maintenance, and system operation. The cost might change.
### Direct Cost Comparison

<table>
<thead>
<tr>
<th>Estimated Direct Costs with Existing System (10 Years)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Enforcement</td>
<td>$15,245,452</td>
</tr>
<tr>
<td>Enhancement to TEXPress Application</td>
<td>$5,927,285</td>
</tr>
<tr>
<td>Marketing and Education</td>
<td>$2,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$23,172,737</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected Total Cost for New System (10 years)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New Technology Operating and Marketing Cost</td>
<td>$20,000,000</td>
</tr>
</tbody>
</table>

*Does not include indirect benefits such as safety, traffic flow, and legal savings.*
Indirect Benefits
Automated Vehicle Occupancy Verification

**Safety First**
- No law enforcement
- No declaration lanes
- No roadside distractions
- Improved network performance

**Legal/Court**
- Fewer tickets
- Less dropped cases
- Focus on other cases
- Lower court cost

**Expandability**
- Expedite US 75 Technology Lane
- Add facilities/modes
- Provide reward or incentives
- Quick to implement

**Air Quality Benefits/Congestion**
- Fewer cars on road
- More people traveling
- Faster and consistent speed
- Less emissions
Request a Recommendation for RTC Approval
Next Month (September 2018)

Request Approval for RTC Action to:

1. Approve New Approach
2. Approve Three (3) Years of Funding
3. Review Policy Adjustments
Draft Schedule

July 6, 2018 - Meeting with TxDOT Management

August/September 2018 - Surface Transportation Technical Committee

September - Regional Transportation Council Workshop

September/October 2018 - Regional Transportation Council

Soft Launch; December 2018, 10-15 regular users for each managed lane

Full Launch; February 2019, all managed lanes in DFW
Contacts

Natalie Bettger
Senior Program Manager
nbettger@nctcog.org
817-695-9280

Berrien Barks
Program Manager
bbarks@nctcog.org
817-695-9282

Dan Lamers
Senior Program Manager
dlamers@nctcog.org
817-695-9263
IMPLEMENTATION OF REGIONAL VELOWEB TRAIL CORRIDORS
Last-Mile Connections to Transit

NCTCOG Sustainable Development Program
Kevin Kokes, AICP

August 24, 2018

Surface Transportation Technical Committee
Regional Veloweb

- Existing: 455 Miles
- Funded: 143 Miles
- Planned: 1,285 Miles
- Total: 1,883 Miles

Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics for the Regional Veloweb system will be determined through ongoing project development.
Highlight Regional Trail Corridors

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Existing/Funded</th>
<th>Planned</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort Worth to Dallas Regional</td>
<td>52 miles</td>
<td>12 miles</td>
<td>64 miles</td>
</tr>
<tr>
<td>Cotton Belt Regional Trail</td>
<td>14 miles</td>
<td>32 miles</td>
<td>46 miles</td>
</tr>
<tr>
<td>Dallas to McKinney Trail</td>
<td>67 miles</td>
<td>15 miles</td>
<td>82 miles</td>
</tr>
<tr>
<td>Denton to Dallas Trail</td>
<td>41 miles</td>
<td>13 miles</td>
<td>54 miles</td>
</tr>
</tbody>
</table>
### Background

**Fort Worth to Dallas Regional Veloweb Trail**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1996</td>
<td>Regional Veloweb alignment included in Mobility 2020</td>
</tr>
<tr>
<td>November 2013</td>
<td>Five Mayors meet and commit to implement the 64-mile Regional Veloweb alignment (24.5 miles need funding)</td>
</tr>
<tr>
<td>2014 to 2018</td>
<td>More than 18 miles of trail with funding commitments (variety of sources)</td>
</tr>
<tr>
<td>Summer/Fall 2018</td>
<td>Funding request of RTC for 3.1 miles to complete a continuous 53-mile alignment connecting the five cities*</td>
</tr>
</tbody>
</table>
  - 1.4 miles from CentrePort TRE Station to Grand Prairie city limits
  - 1.7 miles from Fort Worth city limits to Mike Lewis Trail

*Note: The remaining 2.9 miles of trail of the 64-mile alignment will be implemented in the future as part of improvements along Rock Island Rd. in Grand Prairie and Irving.*
Fort Worth To Dallas Regional Veloweb Trail

<table>
<thead>
<tr>
<th>Region</th>
<th>Existing and Funded</th>
<th>Planned and Unfunded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort Worth</td>
<td>21.9 miles</td>
<td>1.4 miles</td>
</tr>
<tr>
<td>Arlington</td>
<td>7.4 miles</td>
<td>0</td>
</tr>
<tr>
<td>Grand Prairie</td>
<td>6.4 miles</td>
<td>3.3 miles</td>
</tr>
<tr>
<td>Irving</td>
<td>11.9 miles</td>
<td>1.3</td>
</tr>
<tr>
<td>City of Dallas</td>
<td>10.4 miles</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58 miles</strong></td>
<td><strong>6 miles</strong></td>
</tr>
</tbody>
</table>

Legend:
- **Existing**
- **Funded**
- **Planned**

Fort Worth to Dallas Regional Trail Map
*Note: Approximately 1.6-miles along Rock Island Rd from West Irving Station to Tarrant Co. line will be completed with a future roadway project (date TBD).
## Background

**Cotton Belt Regional Veloweb Trail (DFW Airport to Plano)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>December 1996</strong></td>
<td>Regional Veloweb alignment included in Mobility 2020</td>
</tr>
<tr>
<td><strong>2017 - 2018</strong></td>
<td>NCTCOG, DART, and local jurisdictions coordinate opportunities for trail environmental clearance, design, and funding to construct “critical” trail sections</td>
</tr>
</tbody>
</table>
| **Summer/ fall 2018** | Funding requested of RTC for trail:  
• design (26-mile corridor) and  
• construction (8.5 miles of “critical” trail sections) |
| **Early 2019**   | DART design/build contractor begins design and construction phases                                                                                   |
Cotton Belt Regional Veloweb Trail

Eastern Portion of Corridor  
(with Cotton Belt Rail Project)  
from DFW North Airport Station in Grapevine  
to Plano Shiloh Station  
26.2 miles

Entire Corridor  
from Fort Worth (West of Handley Ederville Rd)  
to Plano Shiloh Station  
46 miles
Critical Trail Sections

Primary Considerations

- Typically includes grade separation (trail bridges) where DART is planning rail bridges of major roadways

- Areas of constrained ROW

- Areas where trail and bridge construction is not feasible once the Cotton Belt Passenger Rail is active

Photo Courtesy City of Denton: MLK Trail Bridge at Loop 288 constructed adjacent to the DCTA Rail Bridge
Cotton Belt Regional Veloweb Trail “Critical” Sections

Legend
- Segment Limits
- Proposed Stations
- Cotton Belt Stations
- Funding Classification
  - Critical Trail Sections (RTC)
  - Cotton Belt Trail
## Summary of Proposed Funding for Regional Trail Implementation

<table>
<thead>
<tr>
<th>Regional Trail Corridor</th>
<th>Total</th>
<th>Federal</th>
<th>Local</th>
<th>TDCs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fort Worth To Dallas Regional Trail</strong> (Fort Worth and Grand Prairie Sections)</td>
<td>$10.0M</td>
<td>$9.08M</td>
<td>0.92M</td>
<td>1.08M</td>
</tr>
<tr>
<td><strong>Cotton Belt Regional Trail</strong> (design for entire 26 mi. corridor)</td>
<td>$8.20M</td>
<td>$8.20M</td>
<td>-</td>
<td>1.64M</td>
</tr>
<tr>
<td><strong>Cotton Belt Regional Trail</strong> (construction of “critical” sections)</td>
<td>$21.27M</td>
<td>$19.46M</td>
<td>$1.81M</td>
<td>2.44M</td>
</tr>
<tr>
<td><strong>Cotton Belt Trail Total</strong></td>
<td>$29.47M</td>
<td>$27.66M</td>
<td>$1.81M</td>
<td>4.08M</td>
</tr>
<tr>
<td><strong>Combined Total Both Corridors</strong></td>
<td>$39.47M</td>
<td>$36.74M</td>
<td>$2.73M</td>
<td>5.16M</td>
</tr>
</tbody>
</table>

1. Pending Action by the Dallas Co. Commissioners Court
2. Pending DART confirmation of utilizing TDCs
## Schedule for Funding Request

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPAC Briefing</td>
<td>8/15/18</td>
</tr>
<tr>
<td><strong>STTC Information Item</strong></td>
<td>8/24/18</td>
</tr>
<tr>
<td>Public Meetings</td>
<td>Early September</td>
</tr>
<tr>
<td>RTC Information Item</td>
<td>9/13/18</td>
</tr>
<tr>
<td>STTC Action</td>
<td>9/28/18</td>
</tr>
<tr>
<td>RTC Action</td>
<td>10/11/18</td>
</tr>
<tr>
<td><strong>All Local and State Funding Commitments in Place</strong></td>
<td>December 2018</td>
</tr>
</tbody>
</table>
Contact Information

Karla Weaver, AICP
Senior Program Manager
(817) 608-2376 / kweaver@nctcog.org

Kevin Kokes, AICP
Principal Transportation Planner
(817) 695-9275 / kkokes@nctcog.org

Gabriel Ortiz
Transportation Planner II
(817) 695-9259/ gortiz@nctcog.org
Exceedance Level indicates daily maximum eight-hour average ozone concentration. Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 70 ppb.

- **Orange (71-75 ppb)**
- **Orange (76-85 ppb)**
- **Red (86-105 ppb)**
- **Purple (106+ ppb)**

Source: TCEQ, [http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl](http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl)

ppb = parts per billion

---

**Based on ≤70 ppb (As of August 24, 2018)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Orange (71-75 ppb)</th>
<th>Orange (76-85 ppb)</th>
<th>Red (86-105 ppb)</th>
<th>Purple (106+ ppb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>21</td>
<td>27</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>17</td>
<td>29</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>11</td>
<td>29</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2001</td>
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<tr>
<td>2002</td>
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<td>2003</td>
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<tr>
<td>2014</td>
<td>15</td>
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<td>2017</td>
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</tr>
<tr>
<td>2018</td>
<td>9</td>
<td>14</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>
Design Value (ppb)

1Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the Design Value (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).

1997 Standard < 85 ppb (Revoked)

2008 Standard ≤ 75 ppb (Moderate by 2017)

2015 Standard ≤ 70 ppb1 (Marginal by 2020)
CONTACTS

General Air Quality:  Jenny Narvaez
Program Manager
(817) 608-2342
jnarvaez@nctcog.org

Outreach:  Whitney Vandiver
Communications Coordinator
(817) 704-5639
wvandiver@nctcorg.org


https://www.airnorthtexas.org/