HIGH OCCUPANCY VEHICLE TRANSPORTATION CONTROL MEASURES: APPLICATION OF MANAGED LANES AND SUBSTITUTION OF TRAFFIC SIGNAL PROGRESSION

REGIONAL TRANSPORTATION COUNCIL
DECEMBER 12, 2019
JENNY NARVAEZ, PROGRAM MANAGER
Three Interim HOV lanes remain in the following State Implementation Plan (SIP) as TCMs: 

*Dallas-Fort Worth 1-Hour Ozone Attainment Demonstration State Implementation Plan Revision* - April 2000

*Dallas-Fort Worth 1997 8-Hour Ozone Attainment Demonstration and Reasonable Further Progress State Implementation Plan Revision* - May 2007

These Interim HOV lanes are being removed as a TCM in the SIP documentations due to being changed to Managed Lanes.

Removing them requires substituting alternate TCM projects that achieve equivalent emissions benefits.
HOV TCM SUBSTITUTION

Location of HOV Lanes to be Substituted

IH 35E corridor (Stemmons Fwy) between IH 635 and SH 121

IH 635 east corridor (LBJ Fwy) between Coit Rd and Greenville Ave

IH 635 west corridor (LBJ Fwy) between Luna Rd/IH 35E and US 75
6 Corridors:

- Parker Rd (Midway Rd to Preston Rd)
  - 9 signals
- Park Blvd (Midway Rd to Coit Rd)
  - 16 signals
- Custer Rd (Legacy Dr to SH 121 NB)
  - 8 signals
- Coit Rd (Legacy Dr to SH 121 NB)
  - 8 signals
- Spring Creek Pkwy/Shiloh Rd (Custer Rd to Plano Pkwy)
  - 14 signals
- Plano Parkway (Dublin Rd to Marsh Ln)
  - 30 signals
Transportation Control Measure Substitution

Transportation Control Measures (TCM) specified in an implementation plan may be replaced with Control Measures if the substitute measures achieve equivalent or greater emissions reductions than the TCMs to be replaced.

<table>
<thead>
<tr>
<th>Pollutants</th>
<th>Emissions Impact of three HOV Projects</th>
<th>Emissions Impact of Corridor Signalization Projects</th>
<th>Difference</th>
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<td>STTC – HOV TCM Substitution – Information</td>
<td>October 25, 2019</td>
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<td>November 14, 2019</td>
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<td>Interagency Consultation Concurrence Letters</td>
<td>February, 2020</td>
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<td>Approved HOV TCM Substitution</td>
<td>May, 2020</td>
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Request for Action

Approve Resolution (Reference Item 5.1)

- Approve the Transportation Control Measures substitution of three HOV projects and associated emissions benefits with traffic signalization projects and their associated emissions benefits:
  - IH 35E corridor (Stemmons Fwy) between IH 635 and SH 121
  - IH 635 east corridor (LBJ Fwy) between Coit Rd and Greenville Ave
  - IH 635 west corridor (LBJ Fwy) between Luna Rd/IH 35E and US 75
- The substitute TCM accounts for equivalent or greater emission reductions than the TCM to be replaced
- The resolution will be transmitted to the local, State, and federal partners
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VIRGIN HYPERLOOP ONE CERTIFICATION CENTER STATUS REPORT

Deadline – December 13, 2019

6-Mile Section, Begin Construction in 2021

University Coalition with Some Starter Funding

4 Options

8 Corridors, Exploring a Business Response

State Support if Short-Listed
## VHO REQUEST FOR PROPOSAL

<table>
<thead>
<tr>
<th>Focus</th>
<th>OPTION 1</th>
<th>OPTION 2</th>
<th>OPTION 3</th>
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<td>Private Sector</td>
<td>Base Public Sector</td>
<td>Public Sector with Applications</td>
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MOVING AHEAD WITH DISCUSSION ITEMS: LOCAL OPTION, TRANSIT, MEGA DEVELOPMENTS, AND THE PATH FORWARD WITH TXDOT

December 12, 2019
Regional Transportation Council

Michael Morris, P.E.
Director of Transportation
MOVING AHEAD INTO 2020

State Interim Charges (Local Option)

Transit Partnership by RTC Chair

Mega Projects (IH 35 Austin without Our Funds)

Mega Developments (Midtown, Butler Housing, Collin Creek, and General Motors)

TxDOT (October 10, 2019)
“I encourage the Commission to use a fair share methodology using distribution formulas created over a decade ago.”

“Some communities have chosen to leverage local transportation dollars by developing toll projects, while other have chose to live with more congestion. It would be perceived as penalizing some and rewarding others if the distribution is not made on a systematic distribution that has been used and accepted in the past.”
PARTNERSHIP

Since 2003

Formula “Fair Share” Allocation + TxDOT Tools = Leverage

Today?

No TxDOT Tools = No Formula “Fair Share” Allocation
= No Leveraging
= “Penalizing”

Minute Order # 109370: Texas Metropolitan Mobility Plan (August 28, 2003)

Commissioner Ric Williamson: “The more you choose local sources of funds, whether that’s local taxes or local tolls, the more money will be invested in your community; you will not be penalized for being aggressive with local funding.”
Dallas-Fort Worth's congestion is offset with transportation investments.
Toll Managed Lane System Policy Boundary

2018 Levels of Congestion/Delay

Within Boundary – Year 2018
13% Land Area
79% Vehicle Hours of Congestion Delay

Cost of Congestion/Delay: $11.9 billion
Congestion Index is based on a percent increase in travel time.
METROPOLITAN PLANNING ORGANIZATION (MPO)
MILESTONE POLICY (ROUND 2)

Regional Transportation Council
December 12, 2019
The Regional Transportation Council (RTC) has been selecting projects since 1992.

The first Metropolitan Planning Organization (MPO) Milestone Policy was adopted by the RTC in June 2015, and it reviewed projects selected from 1992 to 2005 that had not yet gone to construction.

That initiative has been successful in getting 46 projects to construction thus far.

Staff has been directed to initiate a second round of the Milestone Policy to review projects currently over 10 years old that have not been implemented.
MILESTONE POLICY ROUND 2

- Affected projects:
  - Funded between 2006 and 2010 that have not let or obligated
  - Funded prior to 2006 that had let, but have had implementation issues (e.g., re-bid, utility delays)
  - Funded with RTC-selected sources
  - Locally funded and added to the Transportation Improvement Program (TIP) prior to 2010
  - Funded with Congressional Earmarks that are subject to rescission

- 41 projects will need to be reconfirmed or cancelled

- Projects have $605,904,439 in total funding
INTENDED OUTCOMES OF THE MILESTONE POLICY

- Provide a realistic assessment of project status for decision-making
- Balance project construction schedule capacity within the current financial constraints
- Increase the amount of available funds for priority, “ready-to-go” projects, rather than long delayed projects
Agencies with projects on the Milestone Policy Project List will be notified via letter (in addition to STTC & RTC agenda items)

Agencies must reconfirm the projects as a priority by:
- Providing a realistic and achievable schedule, which must receive NCTCOG & TxDOT concurrence
- Providing documentation of policy board support
  - If projects are advancing imminently or have policy board approval within the last six months, new action is not needed (just submit latest approval documentation)
  - If policy support documentation is greater than six months old, new action is requested
- Documenting the availability of local matching funds
LESSONS LEARNED - SUGGESTIONS FOR AGENCIES TO CONSIDER

- Review timeline with “20/20 vision,” not “Rose-Colored Glasses”
  - Include review of start and end dates for STIP approval, funding agreement execution, engineering, environmental clearance, right-of-way acquisition, utility relocations, bidding process, railroad or other interagency agreements
  - Include time for TxDOT review
  - Do not assume phases can run concurrently
  - Build in reasonable, but not excessive, contingency timing

- Coordinate with TxDOT & NCTCOG staff in advance to ensure timelines are realistic
TIMELINE

- January 2020 – Notify implementing agencies
- May 1, 2020 – Formal responses due to NCTCOG staff
- Summer 2020 – Bring the Milestone Policy Project List to STIC/RTC for review and approval
FOLLOW UP: CITY OF DALLAS
ROUND 1 PROJECT ACTION

- City established a revised schedule
- TxDOT and NCTCOG concurred with the updated schedule

Proposed RTC action:
- Grant an extension of the project’s construction start timeline
- If the City does not meet that schedule, staff proposes that the RTC remove funding from the project automatically (i.e., without further action needed).
- Direct staff to continue monitoring the project for timely implementation
- Extension is contingent upon development of tracking system within City of Dallas

- City developing a tracking system and better understanding of outstanding commitments
  - Tracking system must include regular updates to elected officials
QUESTIONS?

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High Occupancy Verification Technology

RTC

December 2019

Natalie Bettger
Project Purpose:
Regional Transportation Council instructed staff to replace manual enforcement (self-declaration through Drive On TExpress app/website) with more advanced technology verification equipment

Work Completed:
Pilot Test on DFW Connector Corridor
- 98.4% exact match in reported occupancy
- 1.6% indicates an “over count”

Proposed Phases:
Phase 1 – Managed Lanes
- HOV Discount
- Support for all managed lanes in DFW (LBJ, NTE, DFW Connector, IH 30, IH 35E and IH 635)

Phase 2 and Beyond – Other Corridors, Modes, & Events
Current HOV Enforcement

Register

Pre-Declare Every Trip

Occupy Declaration Sent to Field

Officers Watch for Red Light

Violation: Legal Process

Toll Collected

NTTA Back Office System for Billing
Proposed HOV Program

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
Get the GoCarma App

Each person in the car has the GoCarma app on their phone.

Setup a GoCarma Pass

A small Bluetooth device that you keep in your car’s glove box.

Drive in a TEXPRESS Lane

The app automatically verifies the number of people in the car.

Earn HOV Discounts

Each HOV transaction will result in a discount being applied by NTTA.
Continue Monitoring through Implementation Process

- Technology Pilot
- Data
- US 75 Implementation
- Rewards Program / Accounting System
- Existing Enforcement
- TxDOT Funding
- Communications Plan

Institutional / Legislative
Ramp Up to Implementation

Cooperative effort between:
  • TxDOT/Transcore
  • NTTA
  • LBJE/NTE Mobility Partners

Back-office integration testing

Public education and outreach plan developed

Coordinated switchover schedule

Violation process

Customer service scenarios and business rules
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 4, 2019</td>
<td>LBJ/NTE will begin communications with current TEXpress Users and Partner Website Updates with GoCarma; 2nd Pre-Launch Meeting with Partners</td>
</tr>
<tr>
<td>December 6, 2019</td>
<td>STTC Update Item</td>
</tr>
<tr>
<td>December 12, 2019</td>
<td>RTC Update Item</td>
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<tr>
<td>December 2019</td>
<td>Public Meeting</td>
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<td>January 6, 2020</td>
<td>GoCarma App Release</td>
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<tr>
<td>January 9, 2020</td>
<td>RTC Reminder – Director’s Report</td>
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<tr>
<td>January 10, 2020</td>
<td>3rd and Final Pre-Launch Meeting with Partners</td>
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<td>January 13, 2020</td>
<td>NCTCOG Press Release</td>
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<tr>
<td>January 24, 2020</td>
<td>STTC Fast Fact</td>
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<tr>
<td>January 24, 2020</td>
<td>Go Live (focus on existing TEXpress users)</td>
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<td>February 13, 2020</td>
<td>RTC Update Item</td>
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<tr>
<td>February 28, 2020</td>
<td>STTC Update Item</td>
</tr>
<tr>
<td>April 2020</td>
<td>Paid Outreach and Education (new recruitment)</td>
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</tbody>
</table>
Contacts

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End of
2019 Ozone Season

Regional Transportation Council Meeting - December 12, 2019

Chris Klaus, Senior Program Manager
Population Data Trend

Source: NCTCDG TR Dept
VMT Data Trend

Vehicle Miles Traveled (Miles)

Source: NCTCOG TR Dept
On-road Mobile Emissions Trends

Source: NCTCOG TR Dept
Design Value (ppb)\(^1\)

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 (Serious by 2021)
- **2015 Standard**: ≤ 70 ppb\(^1\) (Marginal by 2021)

\(^1\)Attainment Goal - As of December 2, 2019

Source: NCTCOG TR Dept
Historical Ozone Exceedance Days

Based on ≤70 ppb (As of December 2, 2019)

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.

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
Monitor Locations

2008 and 2015 Ozone NAAQS

Legend
- Metropolitan Planning Area
- Counties Designated
- Nonattainment Under 2008 8-Hour Ozone NAAQS
- Counties Designated
- Nonattainment Under 2015 8-Hour Ozone NAAQS
- Ozone Monitoring Sites

Insert map

North Central Texas Council of Governments

June 2018
### Monitor Data

#### Four Highest Monitors

<table>
<thead>
<tr>
<th>Monitor</th>
<th>4th Highest Value for Season</th>
<th>2019 Ozone Season Design Value</th>
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<td>2017</td>
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<tr>
<td>Cleburne</td>
<td>75</td>
<td>81</td>
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<tr>
<td>Dallas North</td>
<td>77</td>
<td>81</td>
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<tr>
<td>Frisco</td>
<td>72</td>
<td>81</td>
</tr>
<tr>
<td>Grapevine Fairway</td>
<td>73</td>
<td>82</td>
</tr>
</tbody>
</table>

**Design Value = 3-Year Average of Fourth Highest Value**
Attainment Deadlines

2008 NAAQS Attainment Date (<75 ppb): No later than **July 20, 2021**

*Serious Classification*

2015 NAAQS Attainment Date (<70 ppb): No later than **August 3, 2021**

*Marginal Classification*

Attainment for Both Standards will be Based on **2018-2020 Ozone Monitor Data** (3-Year Average of Fourth Highest Monitor Reading)
## Reclassification Scenarios

### 2008 NAAQS Attainment Date (≤75 ppb) (Serious Classification)

<table>
<thead>
<tr>
<th>Monitor</th>
<th>4th Highest Value for Season</th>
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<tr>
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### 2015 NAAQS Attainment Date (≤70 ppb) (Marginal Classification)

<table>
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<td>Grapevine Fairway</td>
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Sample of Air Quality Initiatives
For More Information

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Unmanned Aircraft Systems (UAS) Safety and Integration Initiative Update

Regional Transportation Council
December 12, 2019

Presenter: Ernest Huffman
Key Issues with UAS Integration in a Metro Area

- Safety
- Industry Collaboration
- Public Engagement and Perception
- Education and Training
- Workforce Development
- Regulations
- Technology
UAS Safety and Integration Initiative

North Central Texas UAS Task Force

Safety

Integration

Education
- Know Before You Fly Workshops
- Airport/Military Facility Risks

Legislation
- Regional Ordinance
- Statewide Legislation
- National Legislation
- Notice for Proposed Rule Making
- Permitting

Training
- Training Standards
- PSURT/Enforcement
- Promote UAS Training

Testing
- Metropolitan Testing Corridors
- Package Delivery
- Air Taxi
- Regional UAM Charter

Public Awareness
- UAS Applications
- UAS Careers
- Public Outreach Strategy
- Bring Your Drone to the Park Day

PRE-EXISTING COMMITTEES
- Regional Coordination Committee
- Regional Transportation Committee
  Surface Transportation Technical Committee
  Air Transportation Advisory Committee
- PSURT Committee and Team Workforce Development
- Lone Star UAS Center of Excellence
  UAS Werx
  Cumulus Technologies
  Hillwood Group
- AUVSI Lone Star Chapter
  Regional Freight Committee
Task Force Objectives

- Promote UAS safety and standardization
- Mitigate reckless UAS operations
- Promote the integration of UAS into the DFW regional airspace
- Collaborate with regional partners for a coordinated comprehensive approach
212 Members, 100+ Organizations

- Airports
- Cities, Counties, TxDOT and FAA
- Military
- Public Safety
- UAS Industry Representatives (training, manufacturers, etc.)
- Universities
- NCTCOG Staff (Transportation, 911, and Emergency Preparedness)
Notable Accomplishments

• 100+ organizations collaborating
• Know Before You Fly “Your Drone” Workshops
• Public Safety UAS Response Team (PSURT)
• Mineral Wells, TX establishment of the 8th UAS testing site
• First registered UAS Apprenticeship Program
• Partnering with Lonestar UAS Center of Excellence to attract NASA Grand Design Challenge
The Working Groups

- Education and Public Awareness
- Legislative
- Training
- Integration
Education and Public Awareness

Prioritized Initiatives

- Know Before You Fly Your Drone Workshops
- Public Outreach Strategy
- Outreach Events
- Bring Your Drone to the Park Day
Prioritized initiatives

Provide Comments for Pending UAS Legislation

Provide Comments on Notice for Rule Changes from Government

Hold General Informational Sessions for Legislature/Policy Makers

Strategic Legislative Plan

Regional UAS Charter
Prioritized Initiatives

- Educate Superintendents and CTE Directors
- Externships/Internships
- Survey Regional Stakeholders for Employee Demand
- University Research and Training
- Federal Research Partnerships
- UAS Workforce Pipeline Development
Prioritized Initiatives

Urban Air Mobility Integration
UAS Weather Detection and CASA Avoidance
Regional UAS Charter
Designate Viable Test Sites
Work with Airports on UAM Infrastructure Needs
Why should you be involved?

• Technology Pilot Opportunities
• Be a Part of the Solution
  Safer skies
  Participate in workshops
• Economic Development
  Let the world know that the DFW region is supportive of the UAS industry
• Grant Opportunities
  • NCTCOG Incident Management 2020 Equipment Purchase
  • Letters of Support
Next Meeting

January 28, 2020, 10am – 12pm
Hosted by Hillwood
Exact Location - TBD
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Task Force Website - https://www.northtexasuas.com/