Avoid UFOs Becoming Secondary Collisions

- Over 13,000 injuries caused by ordinary objects each year
- Safest place to store items in passenger compartment is on the floor behind the driver or passenger seat
- Driver’s risk of fatality increases 25% when unrestrained persons in the car
- Everyday objects gain impact through force and sudden direction alteration. While traveling at least 31 mph:
  - Objects have same force as if dropped from a two-story building
  - Objects will impact with more than 30X their weight
  - Example: 16-ounce water bottle at 50mph = striking force of 44-pound object
Agenda

• Proposed Business Case
• Highlighted Case Studies
• Governance Structure SWOT Analysis
• Implementation Schedule
• Discussion
• Next Steps
Proposed Business Case
Proposed Shared Parking

- **Number of Spaces**
  - Base (no shared facilities): 68,000 total, 49,700 new
  - Shared (existing mode split): 53,801 total, 32,501 new
  - Shared Plus (recommended mode split): 42,204 total, 20,904 new

- **Location Considerations**
  - Proximity to ATS station (< 1/10 mile preferred)
  - Access to road planned for vehicular circulation
  - Potential to interface with transit
  - Proximity to multiple uses/hubs

- **Implementation Cost**
  - Capital Cost (one-time):
    - Base: $1.9B—2.1B
    - Shared: $900M—1B
    - Recommended: $600M—700M
  - Maintenance Cost (annual at total build):
    - Base: $13M—15M
    - Shared: $11M—12M
    - Shared Plus: $9M—10M

*Recommended alternative*
Potential Savings Impacts (through capitalizing on shared parking synergies)

What potential benefits could result from sharing parking resources and re-purposing space from those synergies to a use that brings in revenue/sales tax and higher property value?

**Private Benefits**
- Increase in Property Value
- Increase in Sales Revenue

**Public Benefits**
- Increase in Property Tax Revenue
- Increase in Sales Tax

**Societal Benefits**
- Increased employment opportunities

*Using average DFW rent/sqft in 2018 USD ($) with 90% occupancy rate*
Proposed Autonomous Transportation System (ATS)

- **Route Alignment**
  - Elevated 2.2-mile loop running along James Temple Dr, Alpha Rd and Noel Rd

- **ATS Vehicle**
  - Group Rapid Transit
    - Vehicle Capacity: 12-21 passengers/vehicle
    - System Capacity: 840 persons/hour (15,120 persons/daily)
  - Driverless, automated singular vehicle system on a dedicated, grade-separated facility. Fixed route and stops. Multiple single vehicles circulating.
  - Expected headways: 1 minute

- **Implementation Cost**
  - Capital Cost: $240M
  - Maintenance Cost: $1.4M/year
  - Conceptual estimate based on ROW acquisition, utility relocation, necessary traffic improvements, station and guideway construction and vehicle procurement
Parking and Transportation Management

❖ Why a combined system?
  ➢ Single-source entity to manage primary District amenities
  ➢ Use parking management tools and technology (mobile apps) to encourage ATS ridership and reduce SOV trips
    ➢ Mobility as a Service (MaaS) application to meet multi-modal needs
  ➢ Parking is potential revenue source for ATS O&M
  ➢ Stronger funding structure
    ➢ Systematic (no external dependents)
    ➢ Replacing fuel-burning trips with electric-powered GRT

❖ Governance Types
  ➢ Public (Primary)
  ➢ Private (Primary)
  ➢ Public Private Partnership
Highlighted Case Studies
Sundance Square – Fort Worth, TX

❖ Governance Structure
  ➢ Private (Primary) with TIF funding

❖ Key Characteristics
  ➢ Started through extensive land assemblage of blighted area by a private entity (Bass Brothers Enterprises)
  ➢ Some upfront costs for portions of the development reimbursed through the Downtown Tax Increment Financing District (TIF)
  ➢ 35 contiguous blocks of development plus three garages and a valet service
  ➢ Required the extensive interest of a private developer, and belief on the behalf of the developer that the development would yield ample return to justify investment
  ➢ Includes maintenance and operation of “Molly the Trolley”
Las Colinas People Mover – Las Colinas, TX

- Governance Structure
  - Public

- Key Characteristics
  - One-third of planned route completed in 1986
  - Service began in 1989 by vendors
  - After 5 years, operating control was turned over to City of Dallas Utility and Reclamation District
  - Operations closed from 1993-1996 for budgetary reasons
  - Ridership jumped over 500% when DART was connected in 2014

San Francisco Presidio – San Francisco, CA

- **Governance Structure**
  - Public Private Partnership

- **Key Characteristics**
  - New freeway connection from Golden Gate Bridge to San Francisco includes new high-tech tunnels and extensive improvements to national lands
  - Private entity selected will design, build, finance, operate and maintain in 30-year agreement
  - Concessionaire receives milestone payments throughout construction and performance-based quarterly payments throughout the term
Governance Structure
- P3: Transportation Management Authority (TMA)

Key Characteristics
- Non-profit TMA: Spectrumotion
- Offers assistance to commuters, manages transportation demand management programs, monitors success
- Funded by property owners in Irvine Spectrum district (includes 27M square feet of mixed-use development) through a property assessment, similar to HOA fee
Governance Structure
SWOT Analysis
Funding Options

- **Private**
  - Infrastructure funds or banks
    - New Market Tax Credit Program (NMTC)
    - Transportation Infrastructure and Finance and Innovation Act (TIFIA)
    - Opportunity Funds – Vehicle that provides tax incentives to investors
  - Access fees/Farebox
  - Corporate pre-paid tickets
  - Sponsorships/advertising
  - Private Donations

- **Public**
  - Federal grants (safety/mobility/new start)
  - TIF
  - Infrastructure funding programs (TIFIA)
  - Access fees/Farebox

- **Public Private Partnership**
  - All Private/Public sources
Public oversight
Service regulated for equity

Limited revenue opportunities / ROI
Schedule delays
Subject to political support

Ease in public transportation integration
Stronger case for public grants or financing
Use of existing TIF

Public disinterest
Changing political environment/ support
City responsible for obtaining and maintaining land

STRENGTHS

OPPORTUNITIES

WEAKNESSES

THREATS
Private (Primary)

**STRENGTHS**
- More control on revenue reliability
- Highest focus on ROI and operational efficiency

**OPPORTUNITIES**
- Use private funds for capital cost as investment
- ATS/ Parking facilities marketing source for private entities and/or Midtown

**WEAKNESSES**
- Potential equity issues
- Access to public grants

**THREATS**
- Dependent on favorable financial terms
- Lack of public oversight
Public Private Partnership

**S**
- Promotes alternatives
- Custom-tailored services
- Flexibility in marketing and spending
- Public oversight on payment to private concessionaire

**W**
- Reliance on financial stability and technical abilities of concessionaire
- Requires maintenance of active stakeholder participation

**O**
- Uses private capital
- Private financing could expedite implementation
- Use local precedent on P3 projects
- Allocate risk(s) to the entity that can best manage it

**T**
- Dependent on favorable financial terms to capture private capital
- Competing interests (social/economic vs financial)
Discussion
Implementation Components

- **Governance Structure**
  - Entity selected/created or public agency tasked with leading T/PMA

- **Shared Parking System**
  - Regulatory changes to make T/PMA responsible for parking regulation
  - Deed existing parking assets to T/PMA authority or construct new structures to meet existing demand

- **ATS Circulator**
  - ATS vehicle technology (Group Rapid Transit) available for deployment
  - Preferred alignment makes primary use of existing ROW

Implementation Option Scoring Criteria:

- RISK
- FLEXIBILITY
- COST
- TIME

MORE FAVORABLE

LESS FAVORABLE
Implementation-Phased

❖ Shared Parking System
  ➢ Use of existing parking facilities to meet existing demand
  ➢ Construct new facilities in predetermined locations as development occurs and demand increases

❖ ATS Circulator
  ➢ Construct 2.2 mile loop in segments as Midtown development occurs

❖ Pros/Cons
  ➢ Pros: Flexibility in development to match Midtown development pace
  ➢ Cons: Multiple funding agreements required
    Risk of incomplete ATS system when phased
Implementation - Total Build

- **Shared Parking System**
  - Build out parking demand in anticipation of planned development (within reason) at once

- **ATS Circulator**
  - Complete 2.2 mile build-out of ATS system
  - Planned interface with existing/planned developments accounted for up front

- **Pros/Cons**
  - **Pros**: Guarantees relevant shared-parking locations
    - Full ATS loop bolsters existing development and encourages planned development
  - **Cons**: Risk of over-build
    - More risk in investment strategy
    - Restrict interface with future developments
Implementation-Blended

- **Shared Parking System**
  - Use of existing parking facilities to meet existing demand
  - Construct new facilities in predetermined locations as development occurs and demand increases

- **ATS Circulator**
  - Complete 2.2 mile build-out of ATS system
  - Planned interface with existing/planned developments accounted for up front

- **Pros/Cons**
  - Pros: Full ATS loop bolsters existing development and encourages planned development
    - Flexibility in development to match Midtown development pace
  - Cons: Restrict interface with future developments
PHASED

RISK

FLEXIBILITY

COST

TIME

MORE FAVORABLE

LESS FAVORABLE

TOTAL BUILD

RISK

FLEXIBILITY

COST

TIME

MORE FAVORABLE

LESS FAVORABLE

BLENDED

RISK

FLEXIBILITY

COST

TIME

MORE FAVORABLE

LESS FAVORABLE
Discussion
Discussion and Recommendations

- Discussion Goals
  - Participant discussion to determine final recommendations
  - Direction regarding recommendations for final report
Next Steps
Next Steps

❖ **Study Conclusion Timeline**
  ➢ February/March – Incorporate SRC feedback into final implementation and governance recommendations
  ➢ March/April – Team to produce Final Report
  ➢ May – Final Report Submitted

❖ **Future SRC Meetings**
  ➢ March 28, 2019
    • Finalize Implementation Recommendations
    • Finalize Governance Recommendations
    • Finalize Final Project Recommendations for Final Report

❖ **Future Public Meetings**
  ➢ Spring 2019- Presentation of Final Recommendations
Thank you for attending!

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Extra Information
 Governance Structure

- P3: RFP/Concession and Lease Agreement

Key Characteristics

- Long-term bid award and contract between RTD and Denver Transit Partners (DTP) to build, operate, and maintain multiple commuter rail lines in Denver Metro
- Two phases of contract:
  - Phase I: Construct lines pursuant to various requirements and regulations (DTP reimbursed)
  - Phase II: Operate and maintain lines (DTP paid for services; beneficiary for percentage of revenues)
Klyde Warren Park – Dallas TX

- **Governance Structure**
  - Public Private Partnership

- **Key Characteristics**
  - $1B+ in new development within ¼ mile since announcing construction
  - 90% of local residents indicated the park had improved their quality of life
  - $110M cost made up of:
    - $55M Private
    - $40M Public
    - $16M Federal Grant
Detroit People Mover – Detroit MI

- **Governance Structure**
  - Public (Primary)- Public Body Corporate

- **Key Characteristics**
  - Elevated automated people mover with 13 stations
  - Public body corporate with primary oversight and funding from the Detroit Department of Transportation
  - Nominal fee to ride ($0.75); no direct revenues from fees from park-and-ride garages ($2.50/hour; $15/day)
  - Heavily subsidized by City and State budgets