



CENTRAL TEXAS
Regional Mobility Authority

Welcome and opening remarks by the Chairman and members of the Board of Directors

Agenda Item #1

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Opportunity for Public Comment

Agenda Item #2

July 27, 2016



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Consent Agenda

No Agenda Items

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Regular Items

Agenda Items #3-11

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Approve the minutes for the June 15, 2016, Regular Board Meeting and July 11, 2016 Special Board Meeting

Agenda Item #3

Geoff Petrov

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Accept the financial statements for May 2016 and June 2016

Agenda Item #4

Mary Temple

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Approve an Interlocal Agreement with the Texas Department of Transportation to co-locate personnel for the purposes of serving Pay By Mail customers of both agencies

Agenda Item #5

Tim Reilly, Director of Operations

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Approve an Interlocal Agreement with the Texas Department of Transportation for offsite materials, independent assurance, and skid and permeability testing

Agenda Item #6

Justin Word, P.E., Director of Engineering

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Approve a contract and Work Authorization No. 1 with CP&Y to provide design services for 290E, Phase III

Agenda Item #7

Justin Word, P.E., Director of Engineering

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Consider and take appropriate action on a Memorandum of Agreement with Capital Metro and Capital Area Metropolitan Planning Organization to implement the Park and Ride Initiative

Agenda Item #8

Justin Word, P.E., Director of Engineering

July 27, 2016



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Regional Mobility Authority



- **The MOA establishes roles and responsibilities for each agency to plan for the development of P&R projects that will utilize CTRMA managed/express lane projects.**
- **Key roles for each agency include:**
 - CTRMA
 - Leading the planning efforts to identify P&R projects, including site analysis, environmental evaluation, and preliminary design.
 - Capital Metro
 - Support efforts to identify P&R projects.
 - Provide service plans / operating plans for each project.
 - Provide continuing operations once built.
 - CAMPO
 - Collaborate with Capital Metro and CTRMA in P&R project identification and funding.
 - Develop a region-wide P&R Plan for the Region.



Coordination Activities – Next Steps

- **Capital Metro consideration of MOA**
 - O/P/S Committee Review – August 10
 - Board Action – August 22
- **CAMPO consideration of MOA**
 - Transportation Policy Board Action – August 8

CTRMA staff recommends to the board the approval of The Memorandum of Agreement to formalize the commitment between CTRMA, Capital Metro, and CAMPO in taking the first steps to identify, develop, and implement a network of Park and Ride facilities that will use the managed/express lane projects being developed by CTRMA.

Approve a Parameters Resolution to finance the design and construction of 290E, Phase III

Agenda Item #9

Bill Chapman, Chief Financial Officer

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Authorize reimbursement of financing expenditures for 290E, Phase III

Agenda Item #10

Bill Chapman, Chief Financial Officer

July 27, 2016



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Regional Mobility Authority

Authorize reimbursement of financing expenditures for 183A, Phase III

Agenda Item #11

Bill Chapman, Chief Financial Officer

July 27, 2016



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Executive Session

Agenda Items #12-15

July 27, 2016



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Reconvene in Open Session

July 27, 2016



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Regional Mobility Authority

Regular Items

Agenda Items #16-22

July 27, 2016



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Regional Mobility Authority

Discuss and consider authorizing the Executive Director to take any and all actions necessary to enforce the terms of the design-build contract with CH2MHill

Agenda Item #16

Jeff Dailey, Deputy Executive Director

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Consider amendments to the CTRMA Policy Code regarding the Executive Director's procurement and contracting authority

Agenda Item #17

Geoff Petrov

July 27, 2016



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Regional Mobility Authority

Consider award of a contract for the construction of the SH 45 Southwest Project

Agenda Item #18

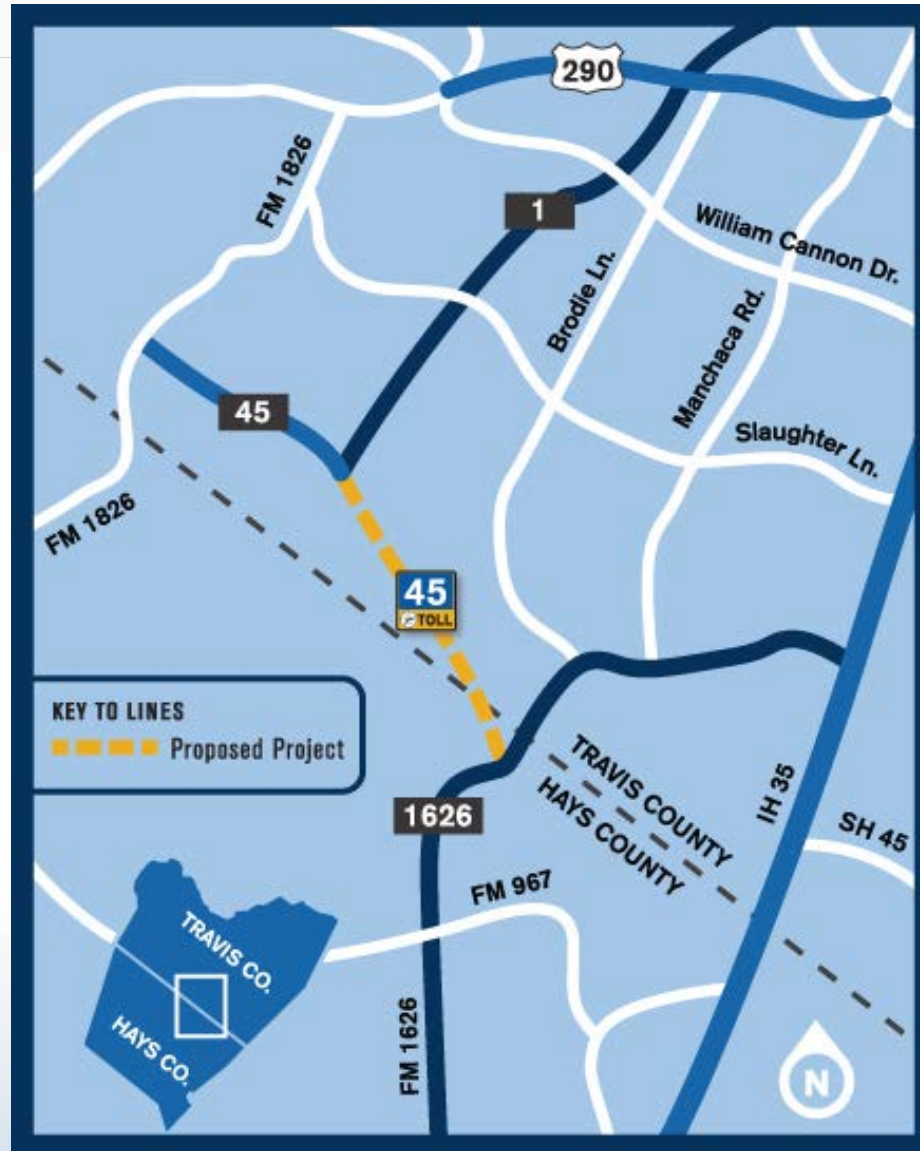
Justin Word, P.E., Director of Engineering

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Location Map – SH 45 Southwest





- **Draft Plans posted on CivCast (Dec 2015)**
- **Met with Association of General Contractors (AGC)**
- **Contractors contacted (Jan – Feb)**
- **One-on-One meetings offered to contractors**
 - Meetings held between Feb. 1 and May 11
- **Input incorporated into plans and specifications**



CONSTRUCTION BID



2016

June 15
Board
Authorization
to Advertise

June 28
Issue
Request for
Bids

July 20
Deadline to
Submit Bids

July 27
Board
Presentation of
Recommended
Contractor

**October/
November**
Anticipated
Notice to Proceed



- **Advertised June 28th**
- **Pre-Bid Meeting held July 11th**
- **Pre-Qualification due July 13th**
 - Experience with environmentally sensitive projects
 - Financially stable
 - Constructed projects similar to SH 45 SW
 - 6 submitted - 2 denied, 4 approved
- **Question and answers on CivCast**
- **Addendum posted July 15th**
 - Added construction time
 - Minor revisions in response to CivCast questions
- **3 bids received July 20th**



Contractors	Base Bid	Alternate 1	Alternate 2	Total With Alternates
McCarthy Building Companies, Inc.	\$78,599,599.16	(\$3,495,976.04)	(\$752,787.97)	\$74,350,835.16
Flatiron Constructors, Inc.	\$82,619,837.33	(\$4,195,527.91)	(\$459,550.57)	\$77,964,758.84
The Lane Construction Corporation	\$86,310,530.03	(\$4,535,769.20)	(\$633,264.69)	\$81,141,496.14

Recommendation for Award: McCarthy Building Companies, Inc.

Consider award of a contract for Construction Engineering and Inspection services for the SH 45 Southwest Project

Agenda Item #19

Justin Word, P.E., Director of Engineering

July 27, 2016



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Regional Mobility Authority

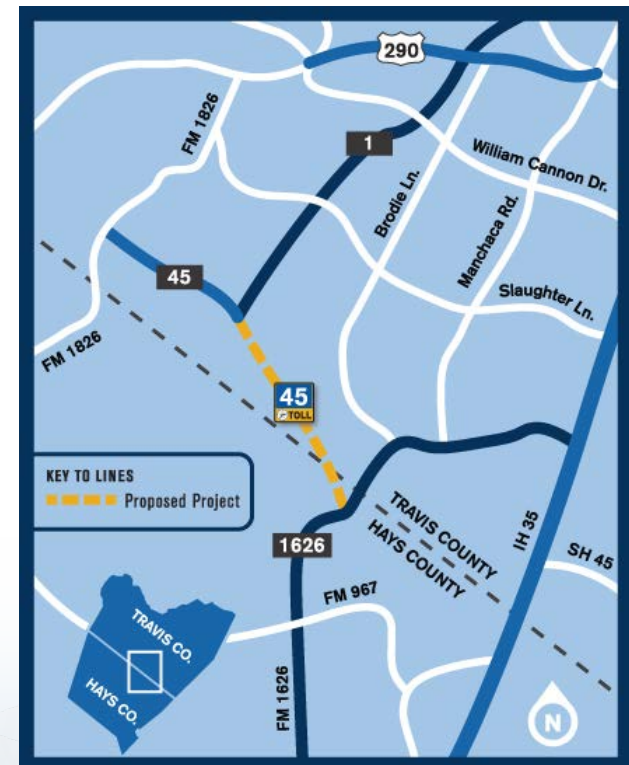


Procurement Results

- **Construction Engineering and Inspection (CE&I)**

Purpose:

- Monitor daily construction activities by providing inspection and testing services
- Provide updates to Staff on Construction status and schedule
- Maintain documentation and compliance
- Supplement RMA/GEC staff oversight
- Coordinate with IECM



Procurement Timeline





We evaluated seven responses:

- AECOM
- BGE
- Costello
- CP&Y
- Jacobs
- Raba Kistner
- SAM-CS

RESPONSE ELEMENT	RESPONSE WEIGHT
Team Organization and Qualifications, approach to HUB Utilization	30%
Past Project Experience	30%
Project Understanding and Approach	30%
Project Staffing Plan	10%



XXXXXX

SUBCONSULTANTS

XXXXXXXXXX

XXXXXXXXXX

XXXXXXXXXX

COMMITTED 35% OF CONTRACT TO HUB FIRMS



Highlights of Selected Team

- Strong PM with 29 years of experience
- Comprehensive staffing plan
- Good understanding of project needs
- Experience in toll implementation
- Experience delivering complex projects
- Committed to local HUB participation

Consider award of a contract for Independent Environmental Compliance Management services for the SH 45 Southwest Project

Agenda Item #20

Justin Word, P.E., Director of Engineering

July 27, 2016



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Regional Mobility Authority

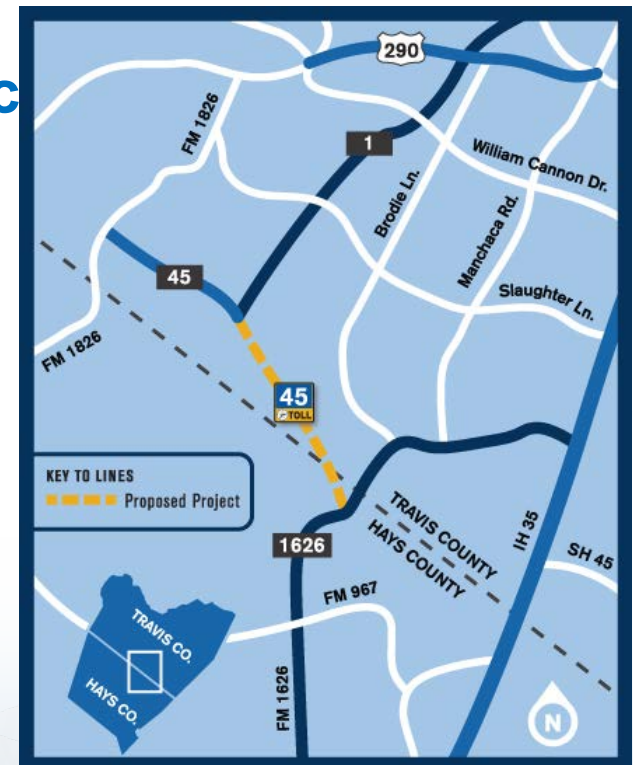


Procurement Results

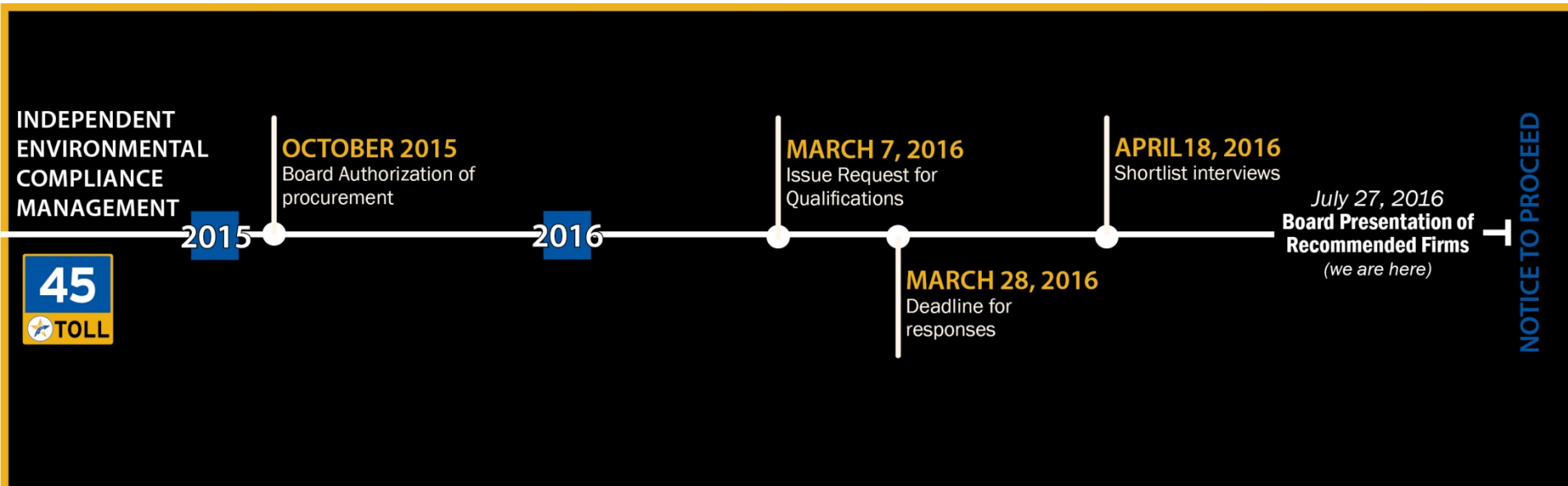
- **Independent Environmental Compliance Management (IECM)**

Purpose:

- Focused on environmental protection
- Expertise
- Independent reviews
- Compliance with Consent Decree
- Critical to keep environmental controls active
- Adding Biological Monitor



Procurement Timeline





We evaluated eight responses:

- ACI Consulting
- Alan Plummer Associates
- Bowman Consulting
- Hicks and Company
- Horizon Environmental Services
- PTP Transportation
- VRX Environmental
- Zara Environmental

ELEMENT	RESPONSE WEIGHT
Team Organization, Staffing Plan and Qualifications	30%
Past Project Experience	25%
Project Understanding and Approach	35%
Overall Quality of Proposal	10%

IECM Shortlist Interview Evaluation Criteria



Four firms were shortlisted for interviews:

- ACI Consulting
- Alan Plummer Associates
- Hicks and Company
- VRX Environmental

ELEMENT	RESPONSE WEIGHT
Demonstrated Knowledge and Experience with IECM Services	40%
Demonstrated Project Understanding	30%
Overall Quality of Performance	20%
Demonstrated Teamwork	10%



XXXXXXXXXX

SUBCONSULTANTS

XXXXXXXXXX



Highlights of Selected Firm

- Strongest PM of interviewed firms
- Relevant experience in Central Texas
- Excellent understanding of our scope
- Lead IECM on major projects
- Team/Staff depth

Consideration of the use of eminent domain to condemn property: Declare a public necessity to acquire the following described parcels of land, or interests therein, for the 183 South (Bergstrom Expressway) Project; and with respect to each such parcel or interest therein, authorize any of the following actions: (i) acquisition through negotiation or by the use of eminent domain to condemn the parcel or interest therein; (iii) execution of a contract to purchase, and (ii) execution of a possession and use agreement:

- A. Parcel E13A of the 183 South (Bergstrom Expressway) Project, a 0.123 acre parcel of real estate, owned by New Century Investment, LLC and Braker-Park, LP, and located at 6000 FM 969 in Austin, TX 78724**
-

Agenda Item #21

Geoff Petrov

July 27, 2016



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Regional Mobility Authority

Authorize negotiation and execution of a contract to purchase each of the following described parcels or property interests for the 183 South (Bergstrom Expressway) Project:

- A. Parcel 147AC of the 183 South (Bergstrom Expressway) Project, a 379+/- feet denial of access from a 1.159 acre parcel of real estate, owned by KAF Development, and located at 609 S. Hwy 183, in Austin, TX 78741**

Agenda Item #22

Geoff Petrov

July 27, 2016



**CENTRAL TEXAS
Regional Mobility Authority**

Briefings and Reports

Agenda Items #23-28

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Presentation on the July 19, 2016 sale of Subordinate Lien Revenue Refunding Bonds, Series 2016

Agenda Item #23

Bill Chapman, Chief Financial Officer

July 27, 2016



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Regional Mobility Authority

Sale of Subordinate Lien Revenue Refunding Bonds



J.P. Morgan Markets
Deal Room

as of Jul 19, 2016 10:47 AM

Central Texas Regional Mobility Authority

Deal Type:	Negotiated	Deal Size (M):	\$75,785	Ratings:	Baa3/BBB/NR	State:	TX
Pricing Date:	07/19/2016	Deal Code:	CTRMA7-16	Structure:	Fixed Rate Bond	JPM Role:	Senior Manager (Bookrunner)

Order Overview By Bond

Series	Maturity	Compon	First Call Date	Par (M)	JPM Retail Orders (M)	Syndicate Retail Orders (M)	JPM Priority Orders Non-Retail (M)	Syndicate Priority Orders Non-Retail (M)	JPM Stock Orders (M)	Syndicate Stock Orders (M)	JPM Total Orders (M)	Syndicate Total Orders (M)	Total Orders (M)	Balance (M)	Total Orders Ex-Stock (M)	Balance Ex-Stock (M)	Subscription Ex-Stock
SB				\$75,785	\$5	\$0	\$223,615	\$5,225	\$1,000	\$97,850	\$224,620	\$103,075	\$327,695	\$1,320	\$228,845	\$2,280	3.02
SB	01/01/2018		4/01/01/2026	\$420	\$0	\$0	\$0	\$25	\$0	\$0	\$25	\$25	\$25	\$395	\$25	\$395	0.06
SB	01/01/2019		4/01/01/2026	\$435	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$435	\$0	\$435	0.00
SB	01/01/2020		4/01/01/2026	\$455	\$0	\$0	\$455	\$0	\$0	\$0	\$455	\$0	\$455	\$0	\$455	\$0	1.00
SB	01/01/2021		4/01/01/2026	\$470	\$0	\$0	\$570	\$0	\$0	\$0	\$570	\$0	\$570	-\$100	\$570	\$0	1.21
SB	01/01/2022		4/01/01/2026	\$490	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$490	\$0	\$490	0.00
SB	01/01/2023		5/01/01/2026	\$1,210	\$0	\$0	\$1,210	\$0	\$1,000	\$1,210	\$1,000	\$2,210	-\$1,000	\$1,210	\$0	\$0	1.00
SB	01/01/2024		5/01/01/2026	\$2,425	\$0	\$0	\$4,850	\$0	\$3,425	\$4,850	\$3,425	\$8,275	-\$5,850	\$4,850	\$0	\$0	2.00
SB	01/01/2025		5/01/01/2026	\$2,815	\$0	\$0	\$5,630	\$0	\$3,815	\$5,630	\$3,815	\$9,445	-\$6,630	\$5,630	\$0	\$0	2.00
SB	01/01/2026		5/01/01/2026	\$3,000	\$0	\$0	\$9,000	\$0	\$7,000	\$9,000	\$7,000	\$16,000	-\$13,000	\$9,000	\$0	\$0	3.00
SB	01/01/2027		5/01/01/2026	\$3,180	\$0	\$0	\$12,920	\$0	\$7,360	\$12,920	\$7,360	\$20,280	-\$17,100	\$12,920	\$0	\$0	4.06
SB	01/01/2028		5/01/01/2026	\$3,260	\$0	\$0	\$16,300	\$0	\$4,260	\$16,300	\$4,260	\$20,560	-\$17,300	\$16,300	\$0	\$0	5.00
SB	01/01/2029		5/01/01/2026	\$3,435	\$0	\$0	\$6,870	\$0	\$3,435	\$6,870	\$3,435	\$10,305	-\$6,870	\$6,870	\$0	\$0	2.00
SB	01/01/2030		5/01/01/2026	\$3,600	\$0	\$0	\$11,800	\$0	\$3,600	\$11,800	\$3,600	\$15,400	-\$11,800	\$11,800	\$0	\$0	3.28
SB	01/01/2031		5/01/01/2026	\$3,865	\$0	\$0	\$15,460	\$0	\$7,730	\$15,460	\$7,730	\$23,190	-\$19,325	\$15,460	\$0	\$0	4.00
SB	01/01/2032		5/01/01/2026	\$3,925	\$0	\$0	\$7,850	\$0	\$4,925	\$7,850	\$4,925	\$12,775	-\$8,850	\$7,850	\$0	\$0	2.00
SB	01/01/2033		5/01/01/2026	\$3,975	\$0	\$0	\$11,150	\$0	\$4,975	\$11,150	\$4,975	\$16,125	-\$12,150	\$11,150	\$0	\$0	2.81
SB	01/01/2034		5/01/01/2026	\$4,125	\$0	\$0	\$11,450	\$0	\$5,125	\$11,450	\$5,125	\$16,575	-\$12,450	\$11,450	\$0	\$0	2.78
SB	01/01/2035		5/01/01/2026	\$4,170	\$0	\$0	\$7,370	\$0	\$5,170	\$7,370	\$5,170	\$12,540	-\$8,370	\$7,370	\$0	\$0	1.77
SB	01/01/2036	3.125	01/01/2026	\$4,165	\$5	\$0	\$1,000	\$2,200	\$500	\$4,165	\$1,505	\$6,365	\$7,870	-\$3,705	\$3,205	\$960	0.77
SB	01/01/2041		4/01/01/2026	\$26,365	\$0	\$0	\$99,730	\$3,000	\$500	\$3,1865	\$100,230	\$34,865	\$135,095	-\$108,730	\$102,730	\$0	3.90
Total				\$75,785	\$5	\$0	\$223,615	\$5,225	\$1,000	\$97,850	\$224,620	\$103,075	\$327,695	\$1,320	\$228,845	\$2,280	3.02

3.02

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MoPac Improvement Project

Agenda Item #24

Steve Pustelnyk, Director of Community Relations

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Oak Hill Parkway Public Outreach

Agenda Item #25

Dee Anne Heath, Director of External Affairs

July 27, 2016



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Regional Mobility Authority

Oak Hill Parkway



Recent Activity



- **April 2016**
 - Informational Booths

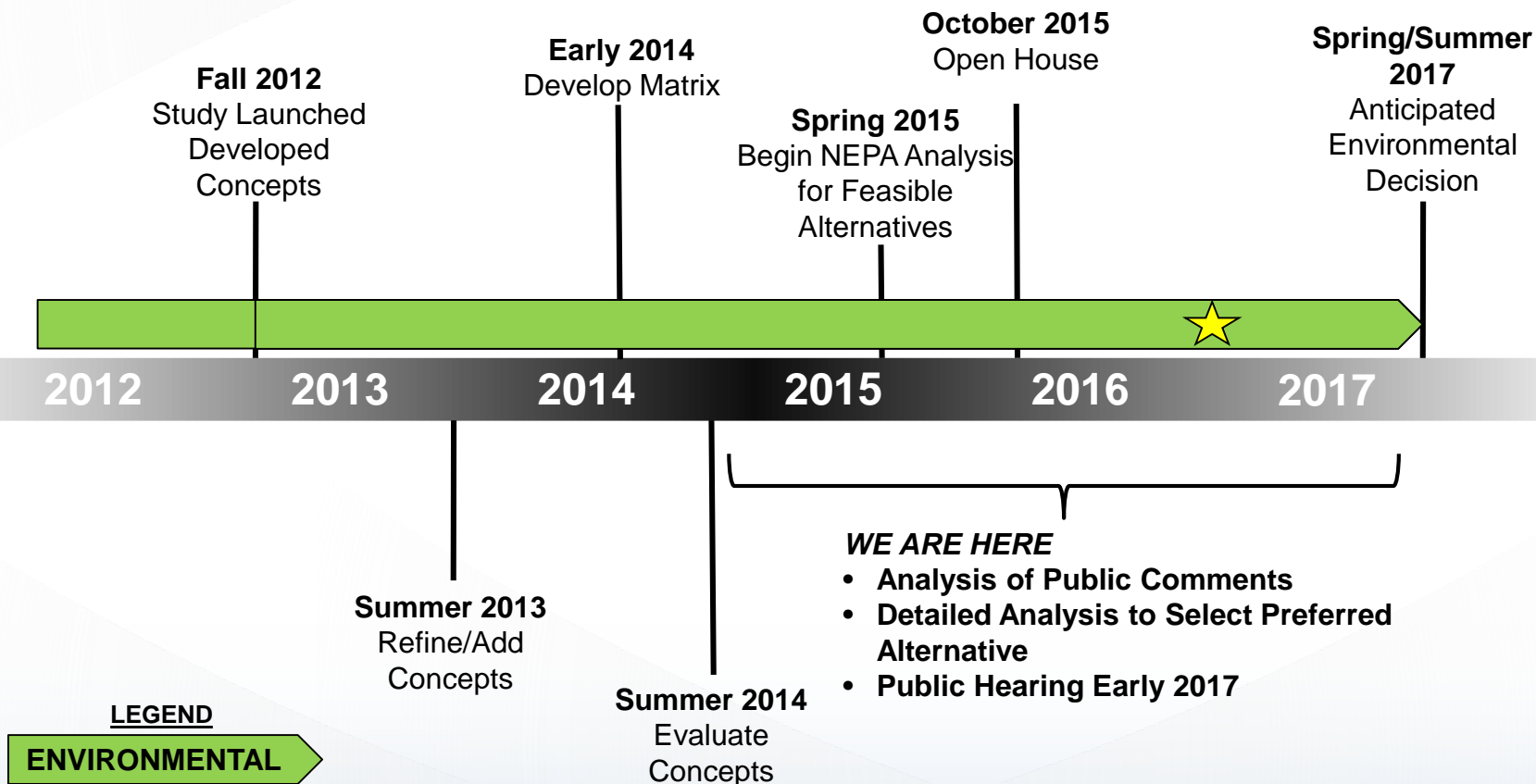




- **June 2016**
 - Environmental Workshop
 - Project Videos



Oak Hill Parkway Project



Executive Director's Report

A. SH 45 North / IH-35 direct connectors

Agenda Item #26

Mike Heiligenstein, Executive Director

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority

Wire One Austin, Presentation by Jared Ficklin as requested by Board Members David Armbrust and Nikelle Meade

Agenda Item #27

Jared Ficklin, Wire One Austin

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority



The Opportunity

“What Austin needs is a new north south artery, but where?”

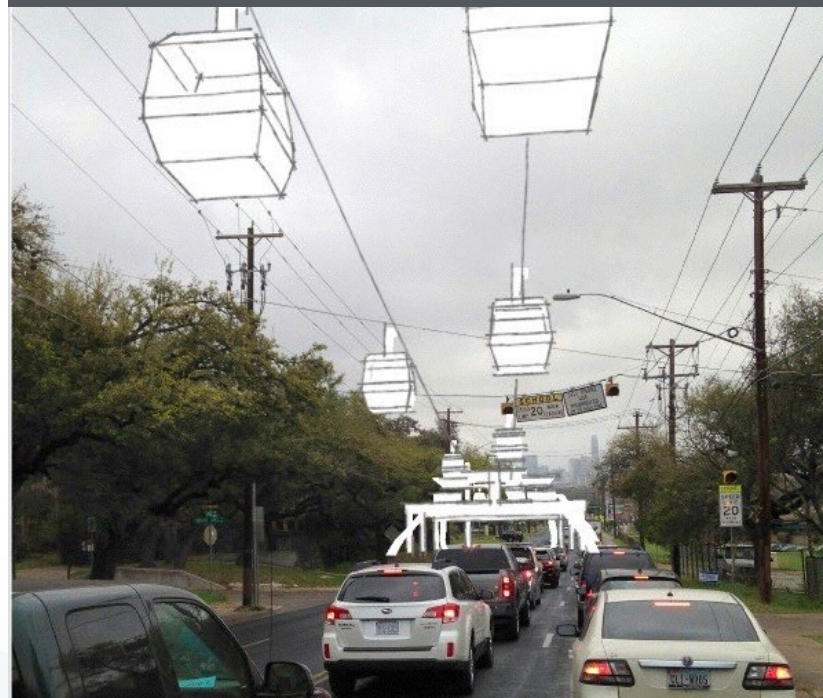
— OpEd in Austin American Statesman

**TAKE A POPULAR
CONGESTED, CENTRAL ROUTE**



South 1st Street just north of Ben White at 9:00 AM.

**ADD THE CAPACITY OF
25-50 BUSES AN HOUR OVERHEAD**



Urban Cable operates continuously & can scale from 1,200 to 3,000 persons per hour per direction.



The Technology Of Urban Cable

“The ride is peaceful & quiet with full access to all 5 senses.”

— New Cities Summit, Montreal



Video from London & Medellin

AFFORDABLE

Lower Cost Than Rail
Low O&M & Low Cost Per Rider
Functions Like Inexpensive
Subway

COMPATIBLE

Serves Commuters, Tourists & Locals
Allows Redeployment Of Bus As
Feeders Ties Into The 290 Bus
Interchange Supports Multi-Modal
Routing
Easy Access For Mobility
Impaired Faster Than Bus &
Congested Traffic

SUSTAINABLE

Electric Power Train
Removes Car Trips
Pedestrian & Bike
Friendly

CULTURALLY ADOPTABLE

Serves Commuters, Locals &
Tourism Predictable Trip Times &
No Schedule Personal Space
Climate Controlled
Proven Safety
Record



Capacity

“...as far as I am concerned, these are flying cars”

2,400 - 6,000 per hour, with no displacement (1,200 - 3,000 persons per hour per direction)

TEDxKansasCITY

HIGH CAPACITY CIRCULATOR

CONTINUOUS & MODULAR

MEANINGFUL IMPACT

ACCESIBLE AMPLIFIER



The system operates continuously carrying 1,200 to 3,000 people per hour per direction in climate controlled 10 person cars.



Cars can be added & removed from the line to match demand. Lines can come together at interchanges to form systems.



Residents know how to incorporate South 1st into their travel plans. We can accommodate 50% of the commuter car trips with a downtown destination.



The cars accommodate easy loading of mobility impaired passengers with no service delay. The cars also accommodate bikes. The continuous operation & predictable trip times makes routing with car share, bike share & TNCs very easy.





Routing

“There is no way to fit new capacity onto south 1st by traditional means”

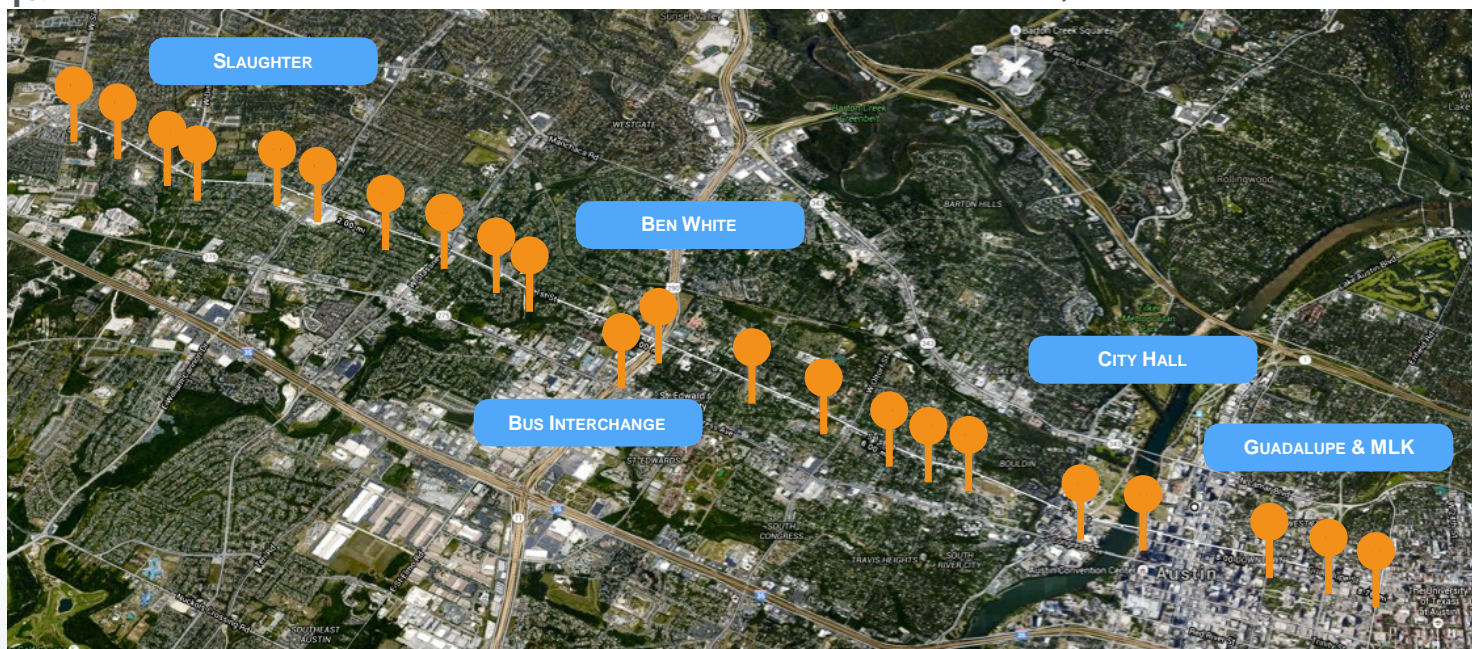
South 1st is an established & familiar route

The route is wide enough, straight enough & out of the view corridors

Nearly 15% of Austin lives within 10 minutes of South 1st

(census tract data \approx 2 miles radius)

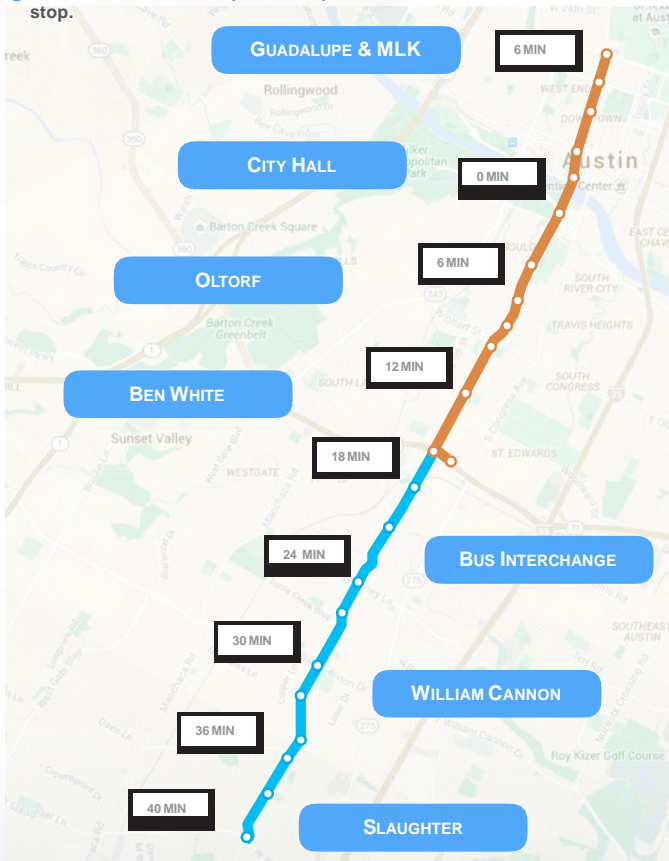
— Meeting, Travis County





Routing & General Description

Each circle on the line represents a potential stop.



Wire One could deploy as two lines meeting at an interchange.

“...you can create routes to places people actually need to go.”

Using High Speed Detachable Mono Cable

— Baton Rouge Area Foundation

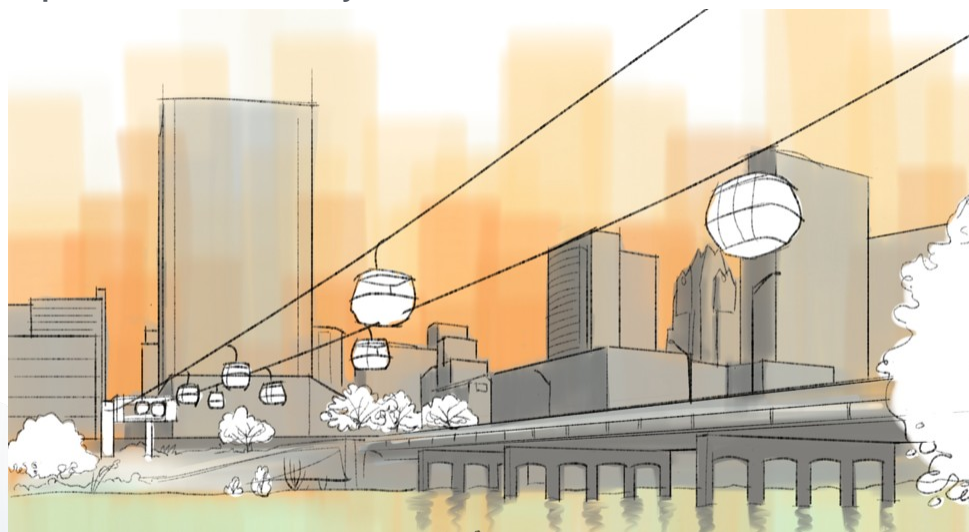
Place 23 stops over South 1st in the second story

With a starting capacity of 1,200 Per Hour Per Direction

Using climate controlled 10 person cars

At a speed of 6 minutes per mile

Uptime of 19 hours a day



This is an initial vision of routing & stops. Final location of stops requires deeper study. Some locations will feature stops required for use as turning stations.

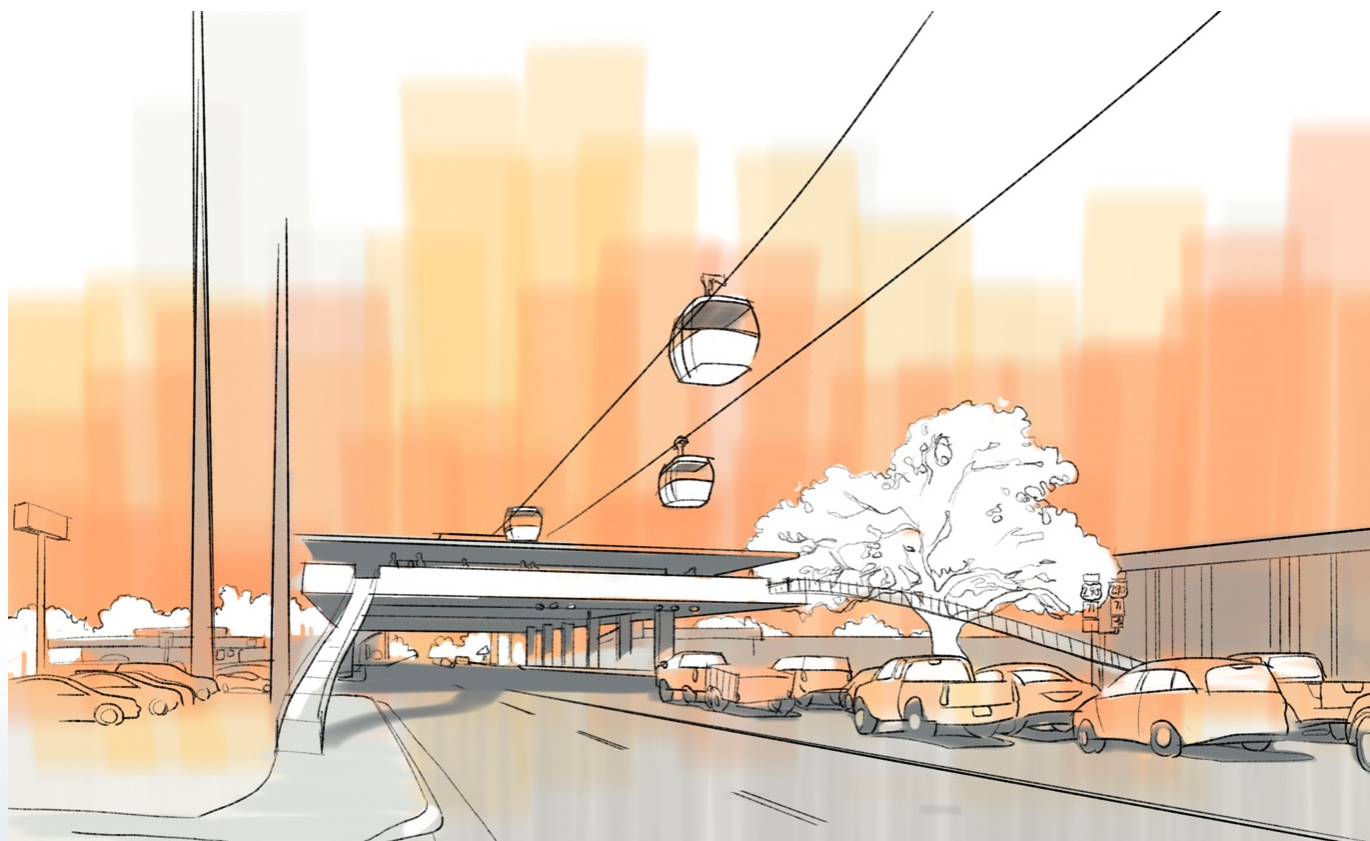


Deploying Wire One

“Urban Cable is modular without the cost or continuous disruption of other constructing other systems...”

— TEDxAustin

Cars
Towers
Stations
Interchanges





Deploying Wire One Cars

“Look Up
Austin”

— Op Ed Austin American
Statesman



An 8 person car from the London Emirates
Airline

A 10 person car
using a 15 person hanger
supporting Onboard
Power
for electricity & robust Climate
Control



A car yard of 6 person cars in
Spain

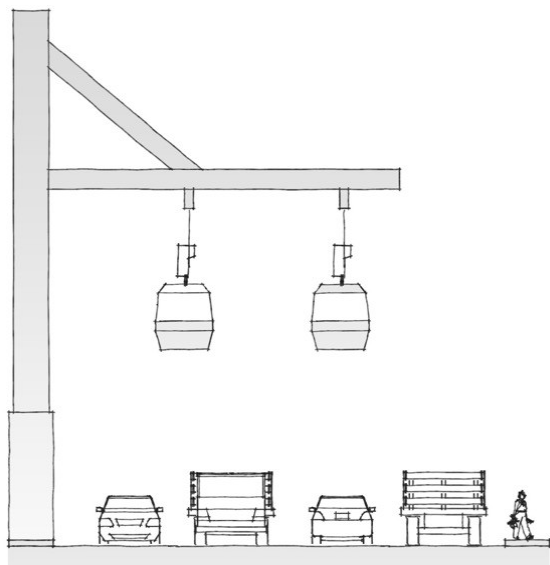




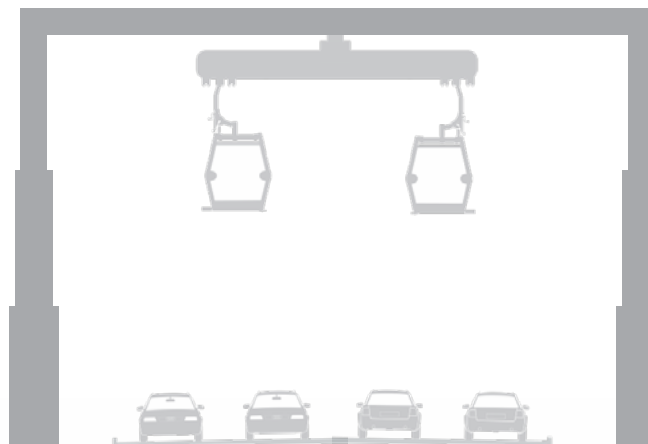
Deploying Wire One Towers

“These could become as iconic
as the Austin “Moon
Towers”

— Comments, Article Austin
360



Cantilevered



Bridged



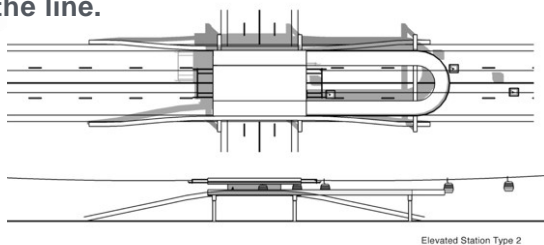


Deploying Wire One Stations

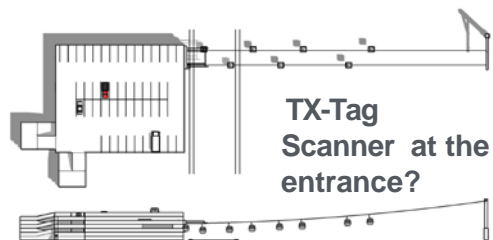
Stations built overtop of the road or intersections accessible by ramps with crossovers for North or South bound travel. There are many sites south of Ben White undeveloped enough to add Park & Fly with bridges to the line.

“Stations have many opportunities for public private partnerships”

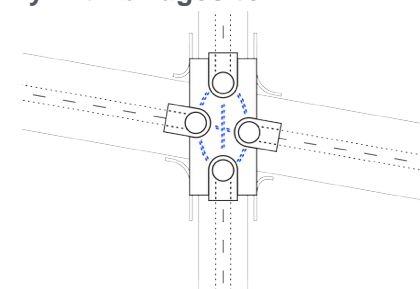
— TEDxAustin



Elevated Station Type 2



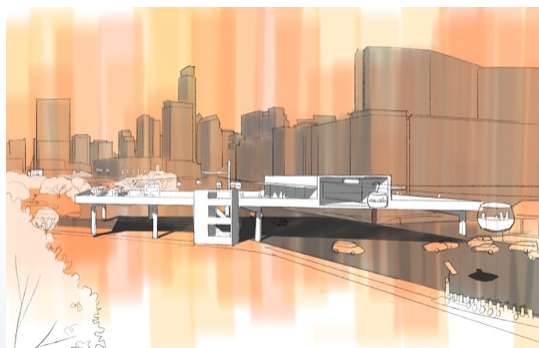
Park & Ride Station



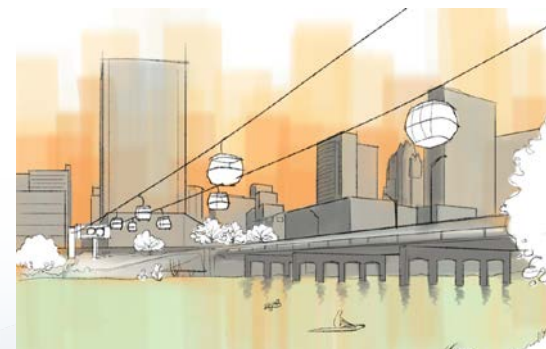
Local



Plaza or Park & Fly



Interchange



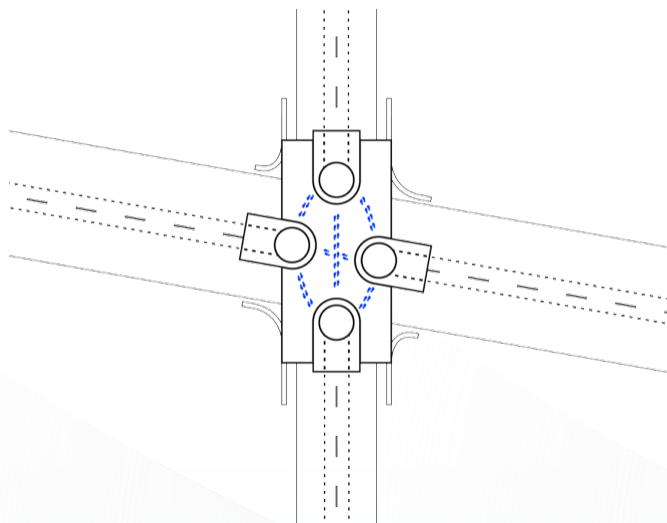


Deploying Wire One Interchanges

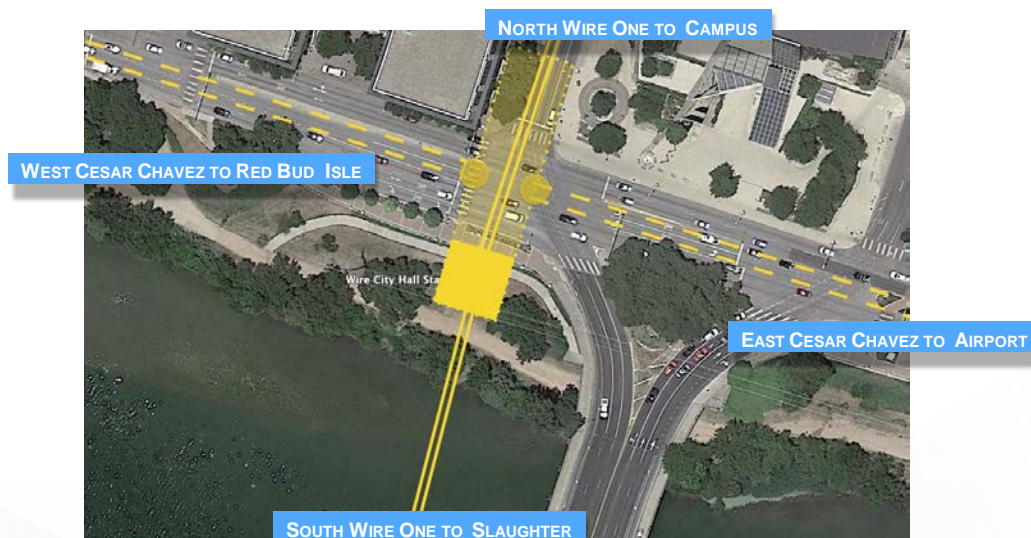
Lines can converge at an interchange allowing travelers to change lines. own, this creates the potential for staging the deployment of multiple lines that can become a central circulator system.

“You can create a system, ...a culture around commuting”

While Wire One can stand on its own — TEDxAustin



Traffic flow on a single elevation



City Hall Interchange

Ben White, Stassney, Slaughter, Offer other opportunities



Ridership

“We found in North America people do not adopt Mass Transit because of schedules & personal space”

— The Wire Design Research Project

Commuters
Transit
Students
Locals
Tourists





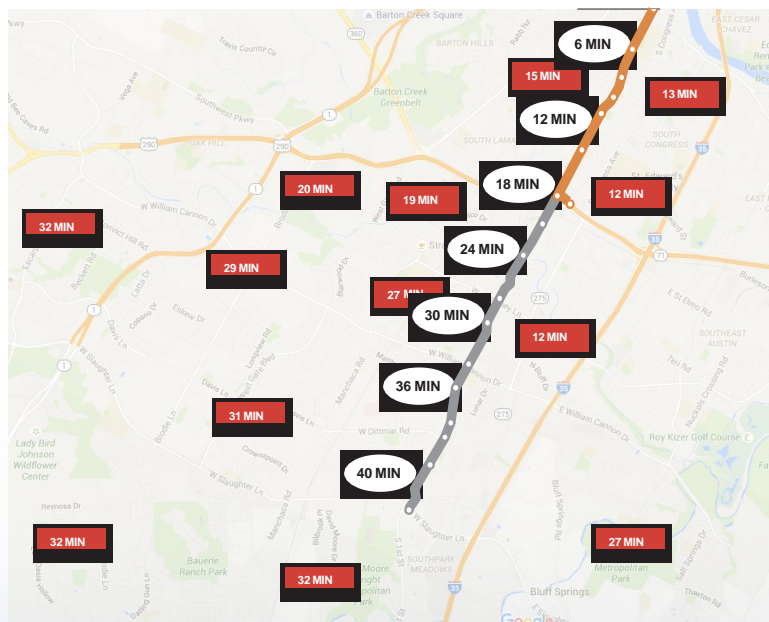
Ridership

Commuters

“Capturing 5% of these commuters is about 550,000 trips a year.”

— Meeting at Travis County

10 yrs ago traps on south 1st caught \approx 15,000 cars a day north bound to downtown during rush
In Mobility surveys 5% of residents south of the river report commuting by means other than car
The average cost of parking downtown is now \$180 a month





Ridership

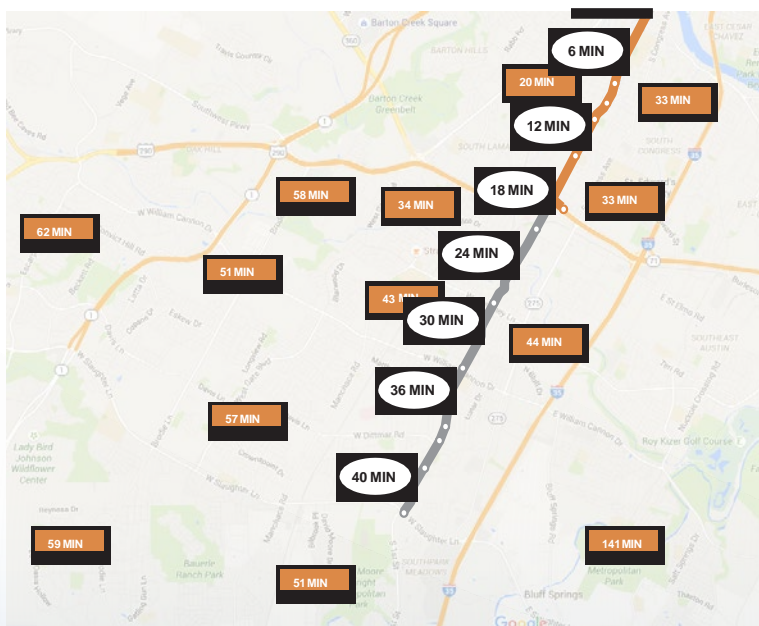
Transit

Take over the Number 10 Bus

Re-deploy those resources to become east / west feeders

“The number 10 line services about 1.8 million rides annually”

— Cap Metro Ridership History





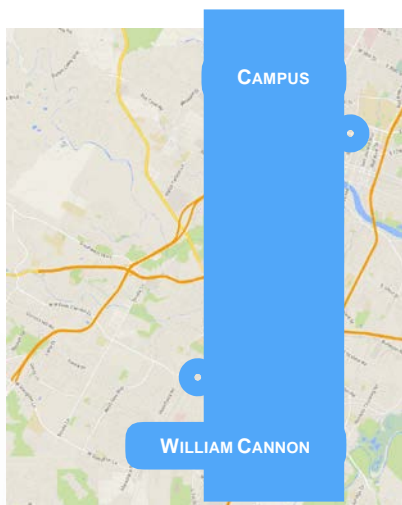
Ridership

Students

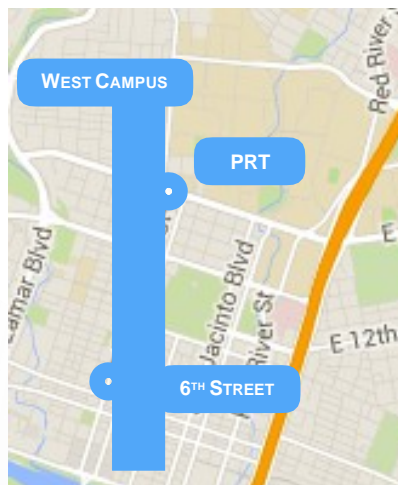
Route from affordable housing in the South directly to campus, bikes are easily loaded We can tie into the proposed PRT at the south west corner of campus Take over the Campus to 6th street bus routes

“These guys are not headed to work!”

— TEDxKansasCity



Housing Commute



Nightlife Commute

South 1st Street just north of Ben White at 9:00 AM.



19 hour uptime includes bar hours

Manizales, Columbia

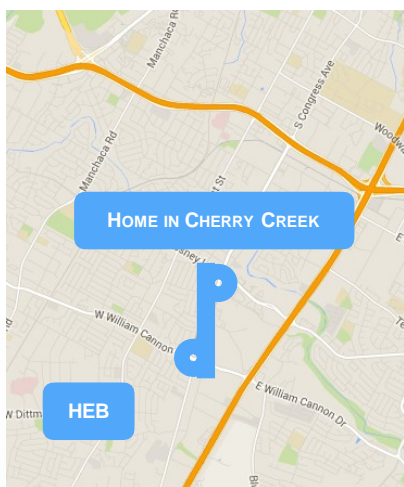


Ridership Locals & Events

“Their is a greater effect to the quality of life of those in neighborhoods under siege by congestion...”

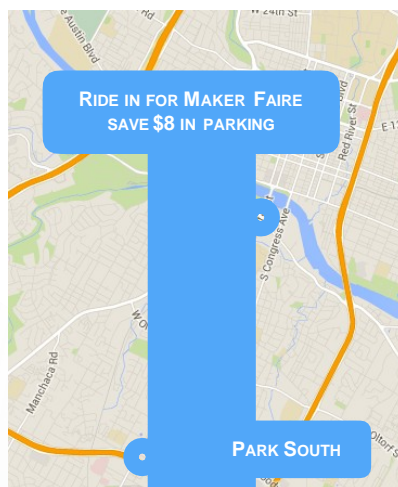
Adjacent neighborhoods may adopt for local or micro-trips
There is built in Event Support that can run even during road closures

— New Cities Summit,
Montreal



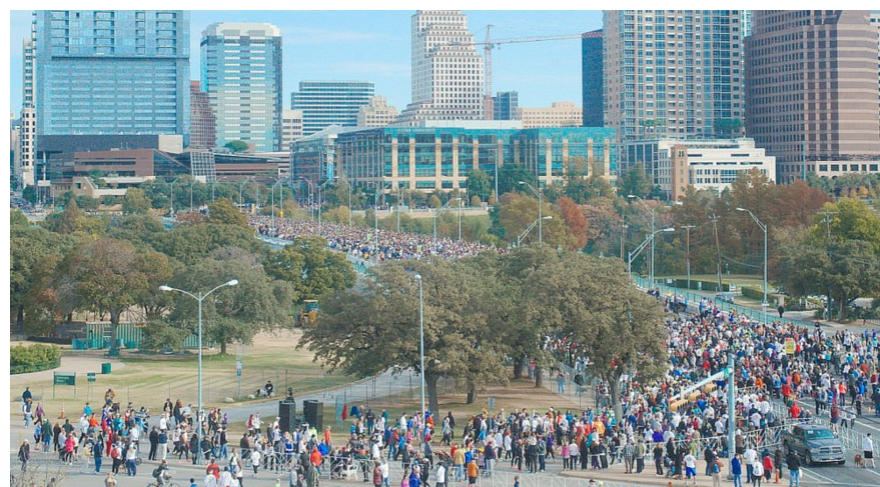
Micro-trips

Down to HEB and back



Avoid Parking Search

The parking load can be spread along the line



Event Support

The Turkey Trot (and other events) can still take place underneath a fully operational Wire One.



Ridership

Tourism

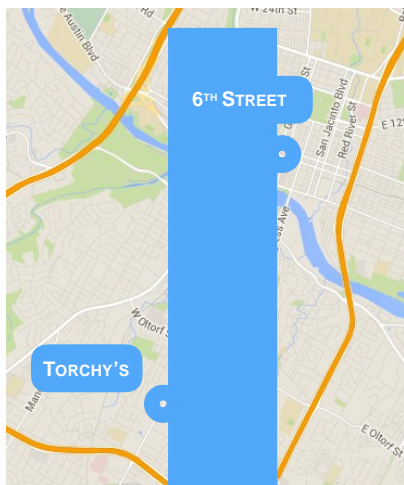
Visitors will want the selfie over the river

They will also just ride the line as a transit option to destinations like the Obama Torchy's Tacos

The line borders neighborhoods with high density short term rentals for festivals

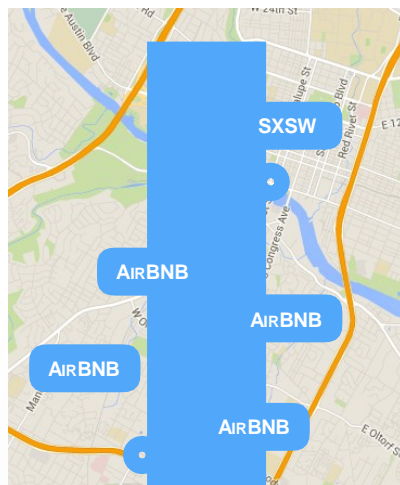
“The city licenses fall short, there are more like 3000 festival rentals...”

— Anonymous source in industry



Tourism Ride

London sees 5,000 tourism rides a week



Festival Transit

Plus new sources south of Ben White



Sightseeing

Tourist in London



Ridership

“The real number that matters is cost per rider, & that takes riders”

— New Cities Summit, Montreal

Commuters
Transit
Students
Locals
Tourists

Commuters	5% of volume, 10 yrs ago	550,000
Number 10 line	2015 ride numbers	1,800,000
Student	Thinking of a heuristic that might yield a number	0
Locals	if 5% of residents within 10 minutes ride 10 times a year	1,350,000
Tourists	5% of 19.8 million annual visitors	990,000
Short Term Rental	3,000 x 2 a day x 6 weeks of major festivals	180,000
TOTALS		4,870,000

Collect \$1 for locals & \$3 from tourism yields:
\$7,212,000





Cost

“We love this idea, who can pay for it?”

— Anonymous City Staffer

Drivers Savers Estimates





Cost Drivers

“If you want to make something really expensive, hold a design contest”

— Anonymous Industry Expert

A 4 Stop 4 mile system is only marginally more than a 4 stop 1 mile system Our notable wildcard is we may incur costs moving electric

NUMBER OF STATIONS



We are looking for a station density that drives adoption. We have a high number of stations to pay for if we would like this to operate with the effectiveness of a subway.

NUMBER OF CARS (RELATED TO CAPACITY)



We are looking for high capacity. To gain full value from tourism we will want capability to run max capacity. With an 8 mile line this will be a large number of cars.

DESIGN ELEMENTS (GOING WAY BEYOND “OFF THE SHELF”)



We may be able to avoid high design costs, but we will incur the costs of stations placed onto pylons and plazas. We may be able to defray some of these costs with public private partnership and or creation of new 'real estate' at plazas.

CLIMATE CONTROL (REQUIRED COST IN AUSTIN)



For safety and any adoption at all we will need to pay for robust climate control.

Image courtesy of gondolaproject.com



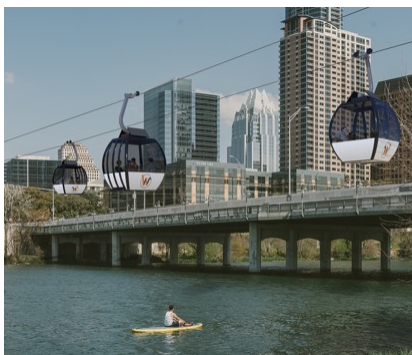
Cost Savers

“As important as the costs are the costs not incurred”

— Meeting with anonymous private land development company

The modular construction & ability to span obstacles profile is the largest saver

SPAN
(NO \$250 MILLION BRIDGES)



The improvements for the South 1st Street bridge to support surface rail were priced at \$55 million. We can span Ladybird Lake & Ben White for essentially \$0 added.

EMINENT DOMAIN
(DOUBLE USE)



Using Right Of Way the City already owns will help drive savings for Wire One.

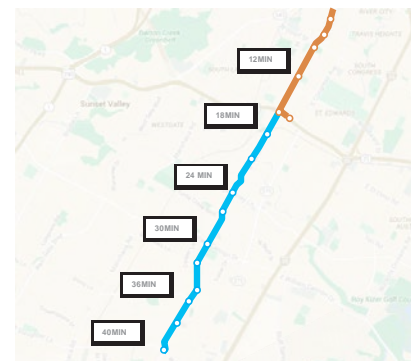
Medellin
Columbia

O&M
(COMPETTIVE)



Station attendants in shifts for each stop. Maintenance crew & a long term scheduled maintenance service contract. Electricity & fuel costs for motors & climate control.

ROUTING
(DRIVES ADOPTION, REDUCED CPR)



Routing allows for conversion of land use, but also since we can achieve central routes we will not have to wait as long for adoption or for the land values to improve.

Central routing will also drive immediate ridership.
Image courtesy of the Gondola Project

Adjourn Meeting

Agenda Item #28

July 27, 2016



CENTRAL TEXAS
Regional Mobility Authority



CENTRAL TEXAS
Regional Mobility Authority