



WELCOME

METRO Rapid University Corridor Project

Public Meeting
February – March 2023





METRORapid UNIVERSITY CORRIDOR PROJECT

METRORapid UNIVERSITY CORRIDOR PROJECT

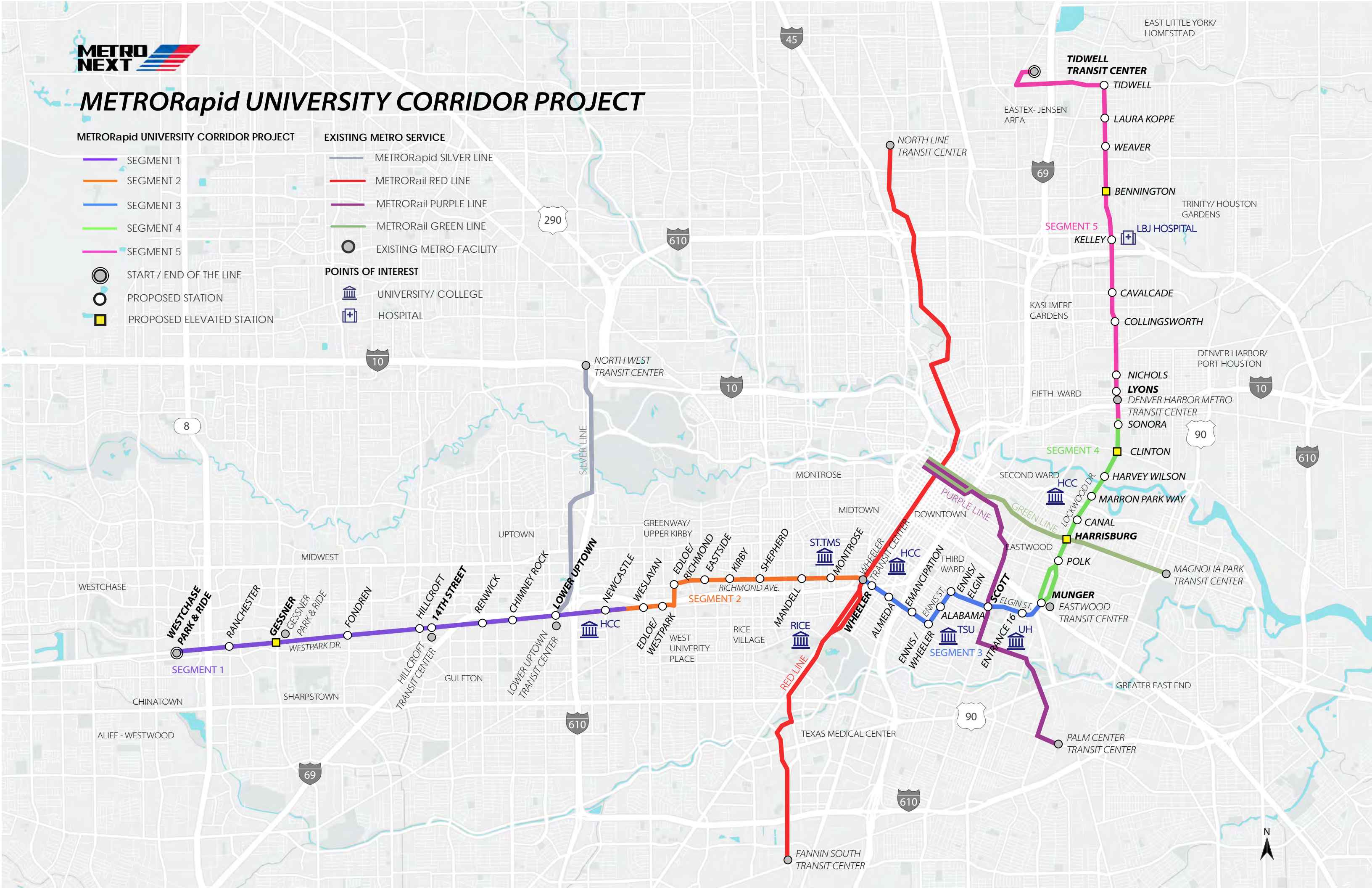
- SEGMENT 1
- SEGMENT 2
- SEGMENT 3
- SEGMENT 4
- SEGMENT 5
- START / END OF THE LINE
- PROPOSED STATION
- PROPOSED ELEVATED STATION

EXISTING METRO SERVICE

- METRORapid SILVER LINE
- METRORail RED LINE
- METRORail PURPLE LINE
- METRORail GREEN LINE
- EXISTING METRO FACILITY

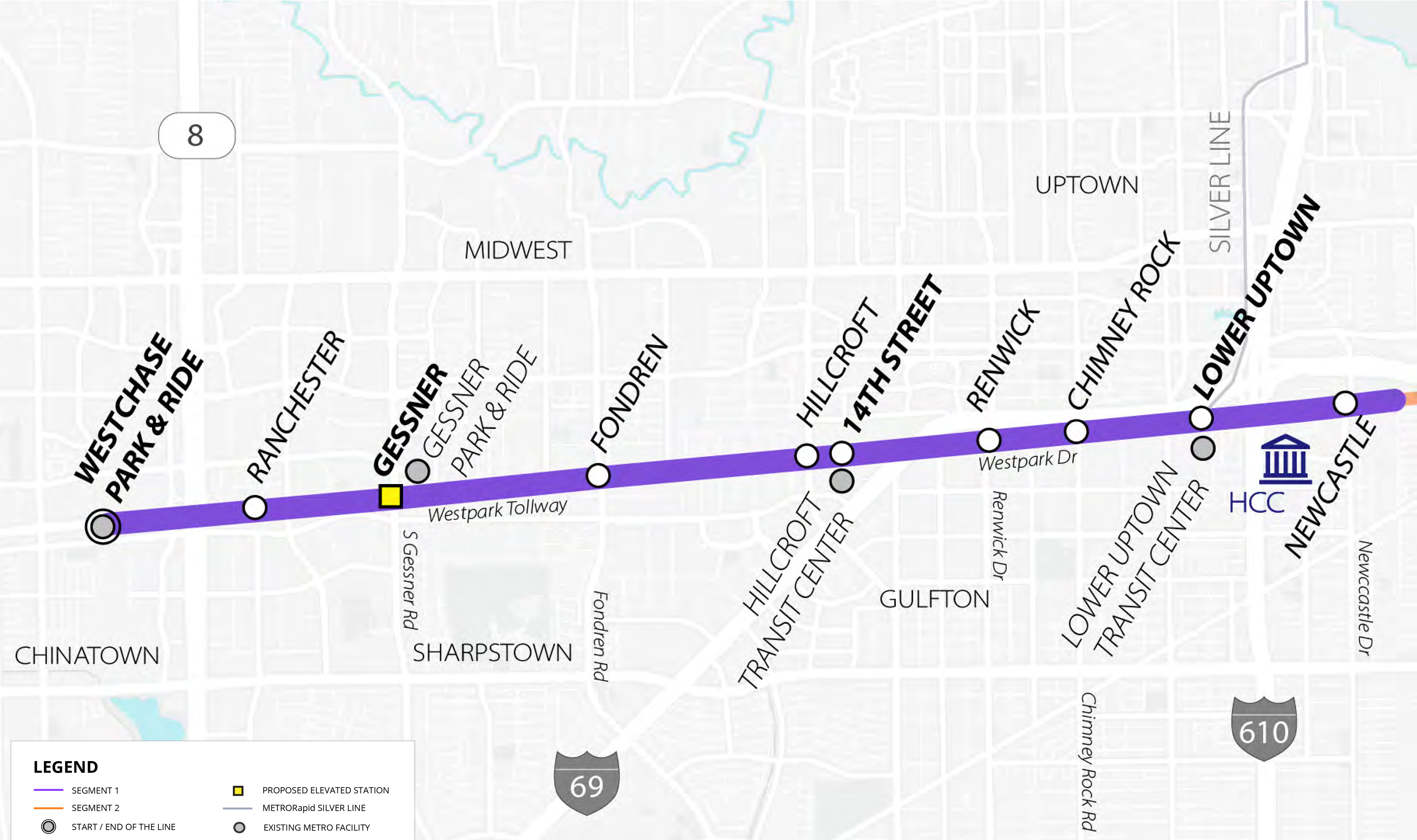
POINTS OF INTEREST

- UNIVERSITY/ COLLEGE
- HOSPITAL



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SEGMENT 1 WESTCHASE PARK & RIDE TO NEWCASTLE STATION



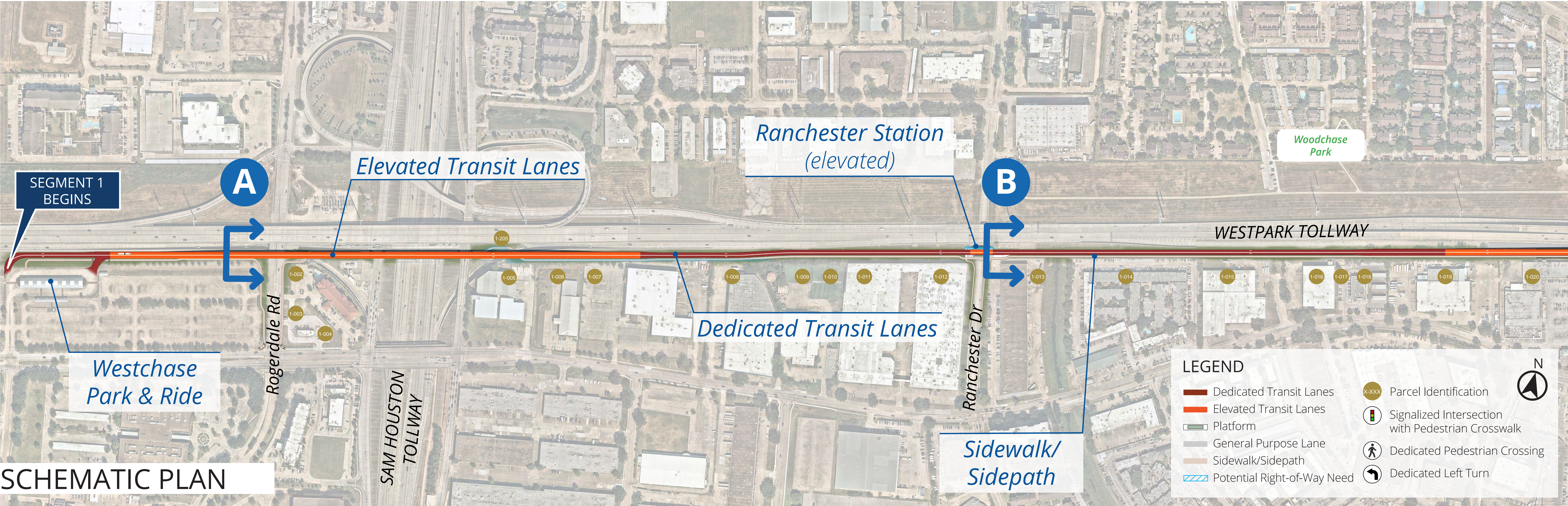
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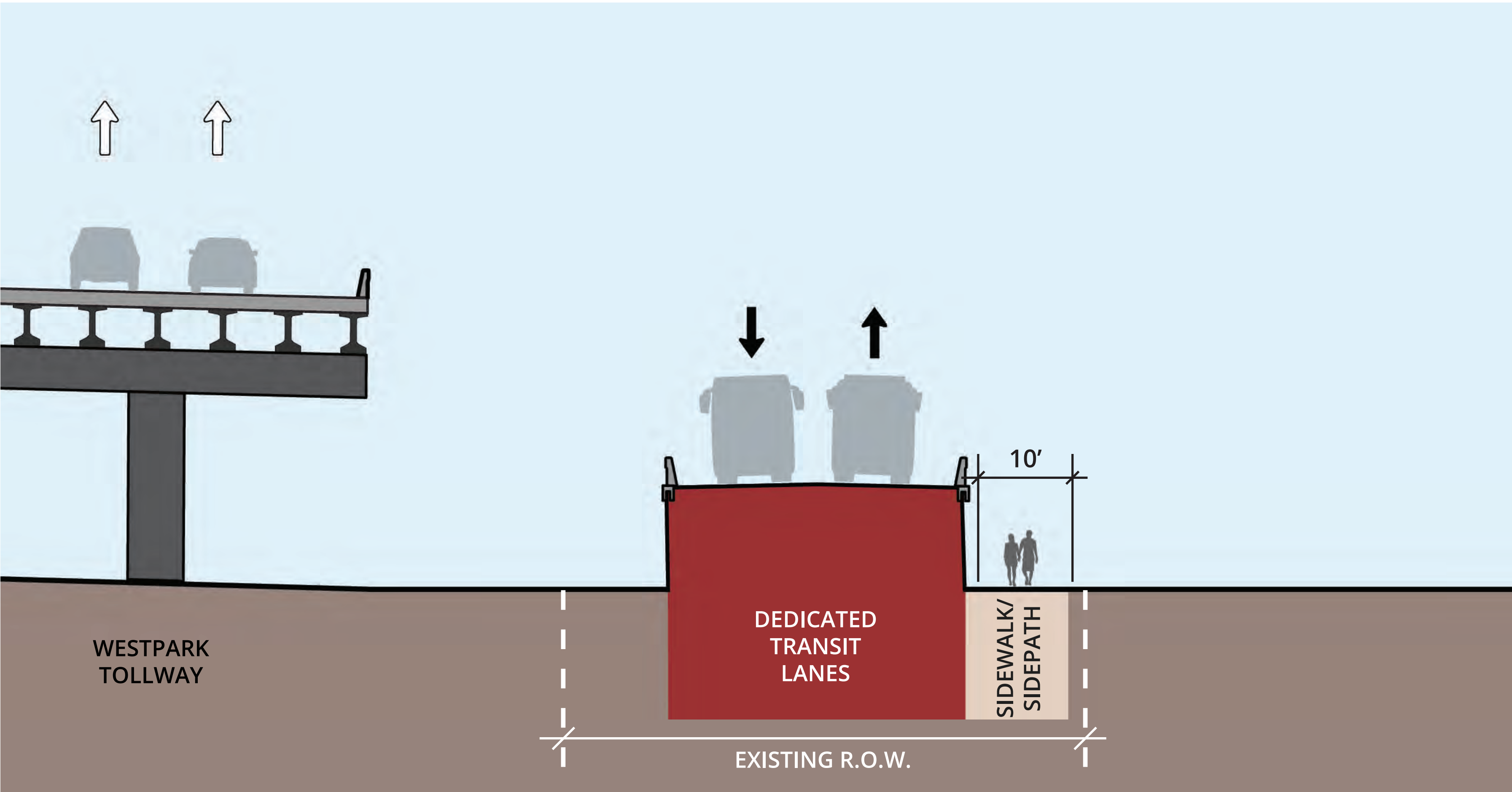
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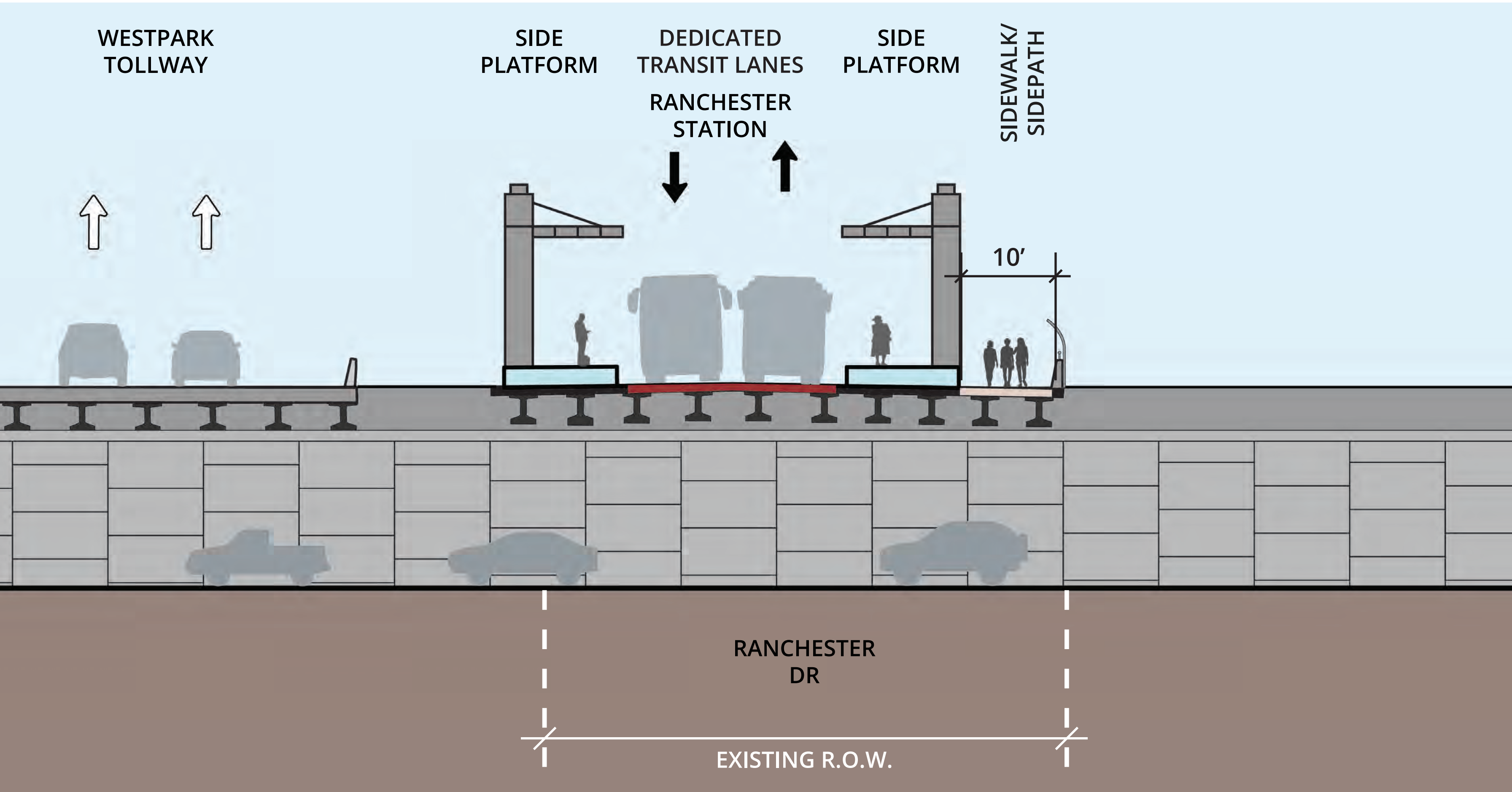
SEGMENT 1 WESTPARK TOLLWAY FROM WESTCHASE PARK & RIDE TO WEST OF GESSNER RD. (BOARD 1)



A CROSS SECTION



B CROSS SECTION



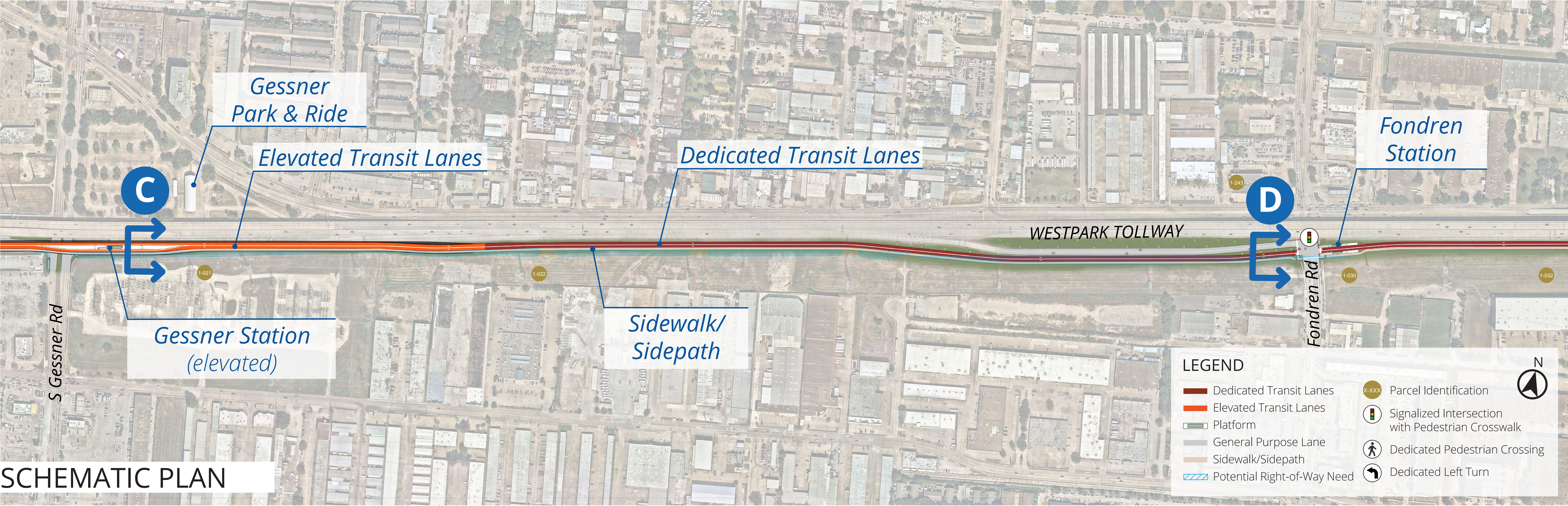
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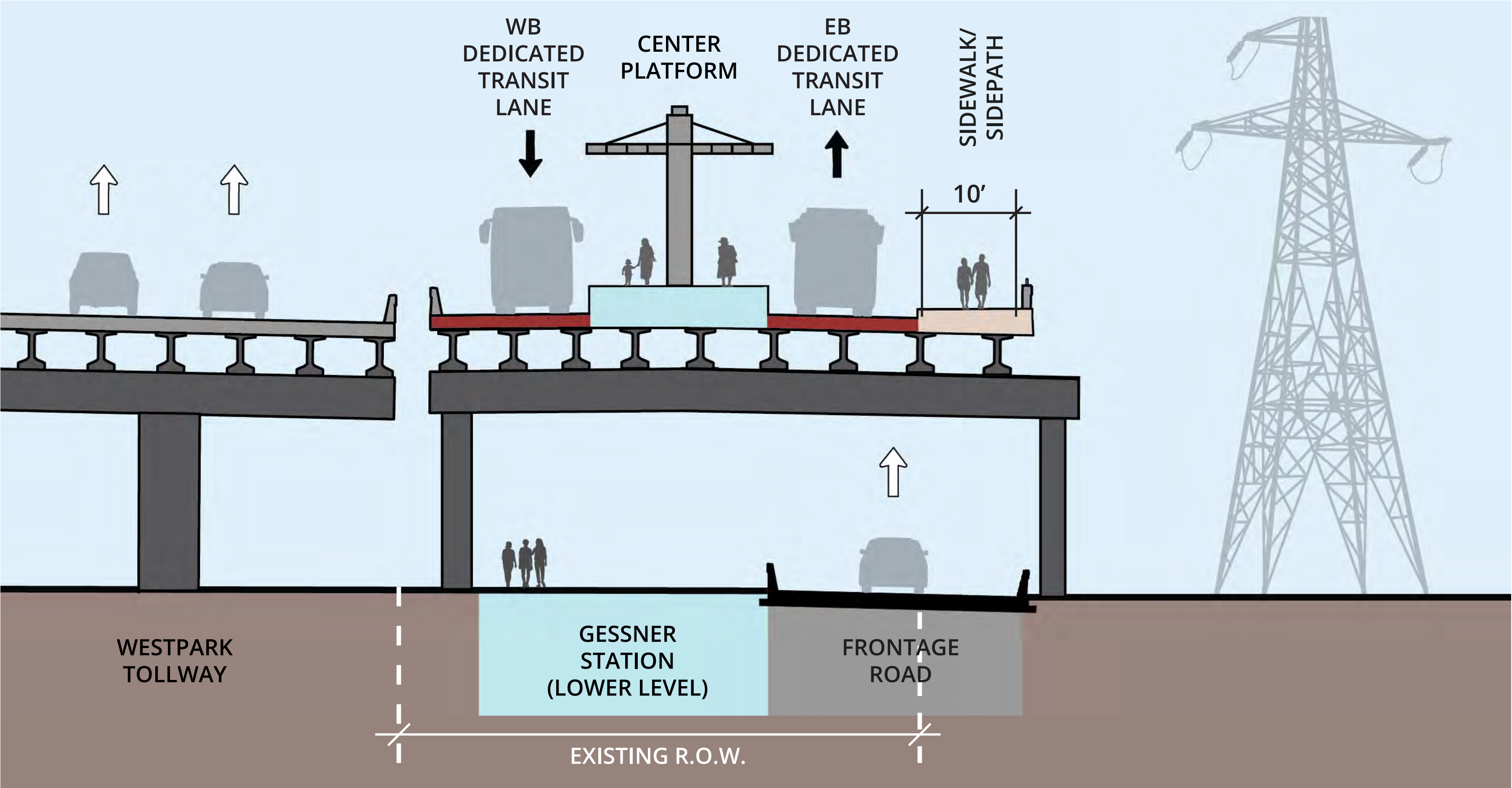
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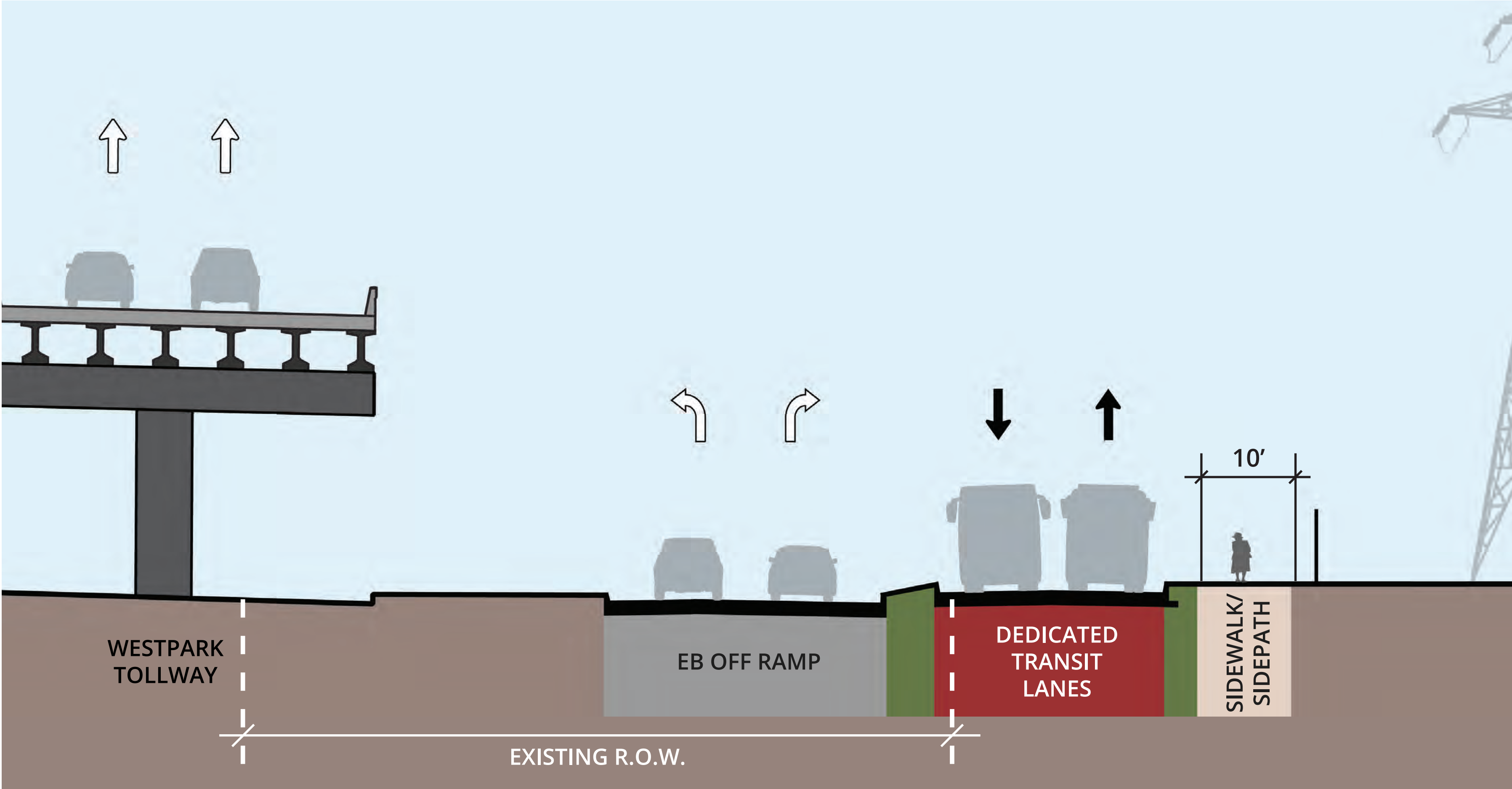
SEGMENT 1 WESTPARK TOLLWAY FROM GESSNER RD. TO EAST OF FONDREN RD. (BOARD 2)



C CROSS SECTION



D CROSS SECTION



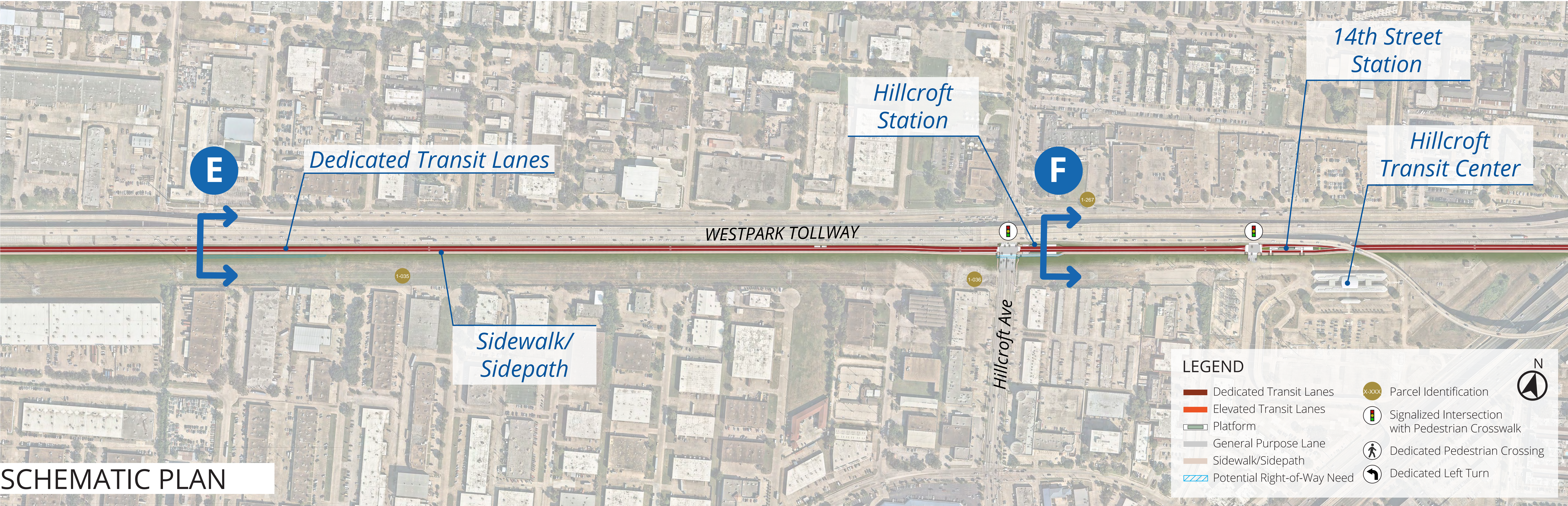
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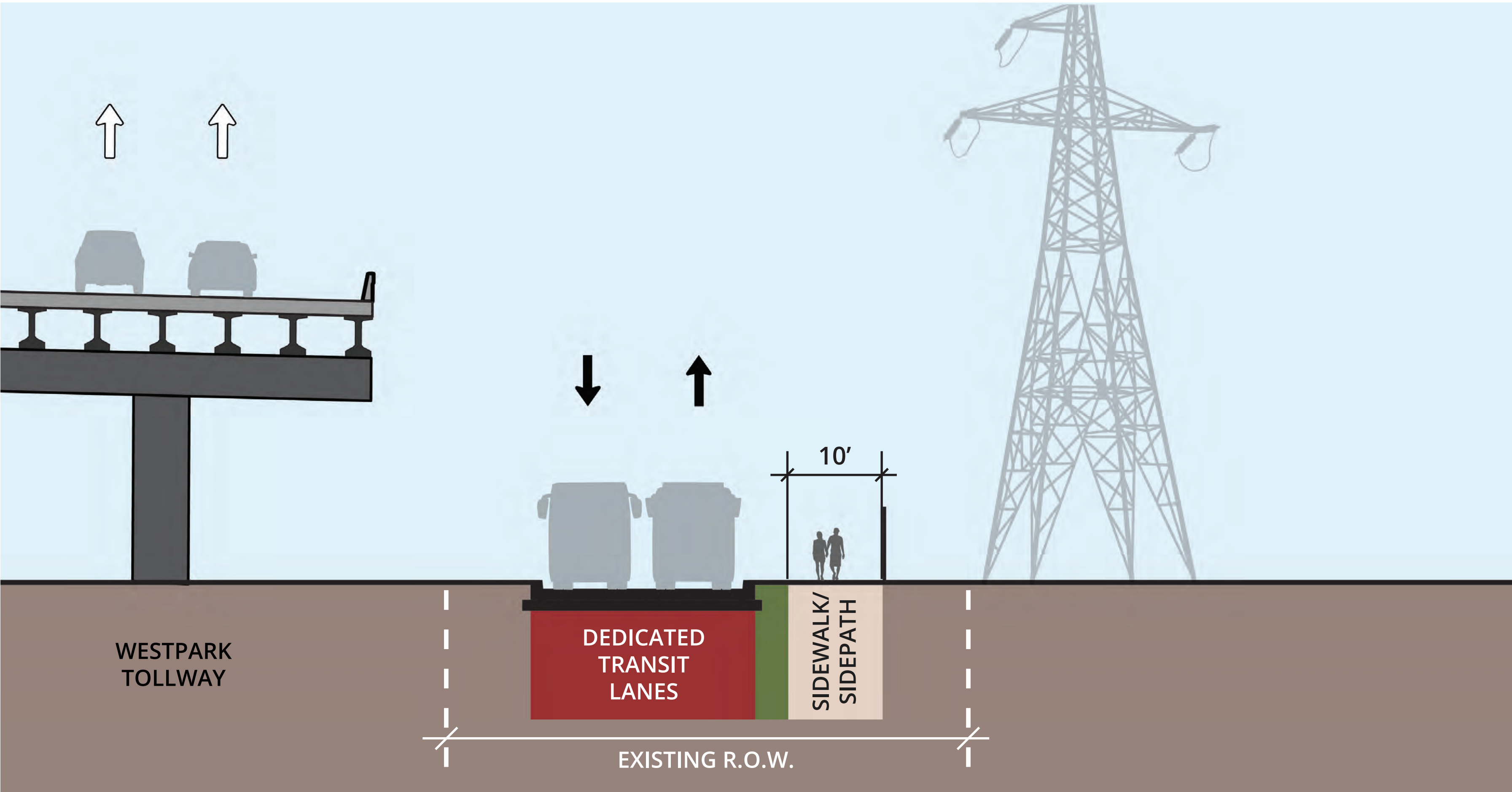
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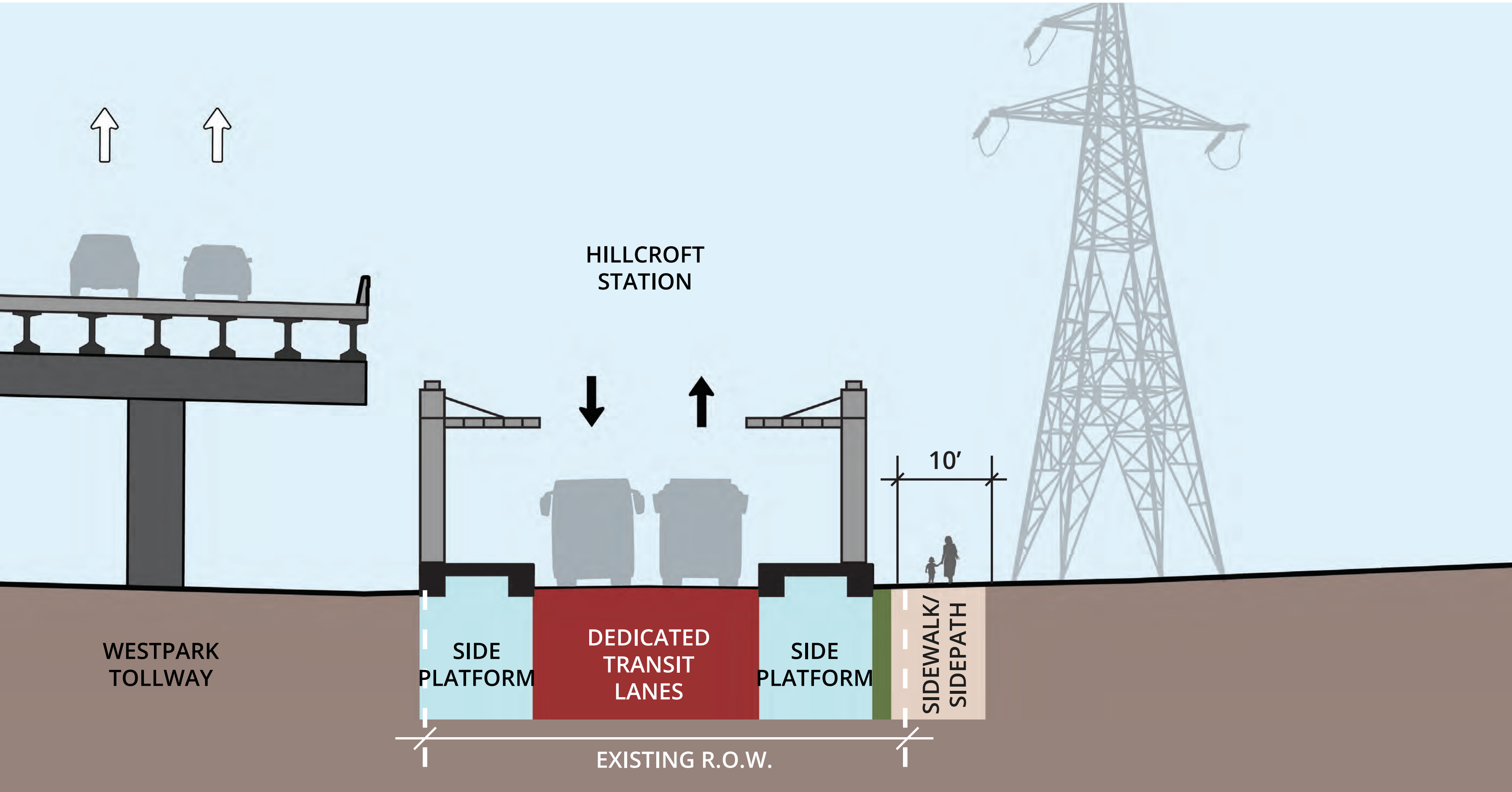
SEGMENT 1 WESTPARK TOLLWAY FROM WEST OF HILLCROFT AVE. TO I-69 / SOUTHWEST FWY. (BOARD 3)



E CROSS SECTION



F CROSS SECTION



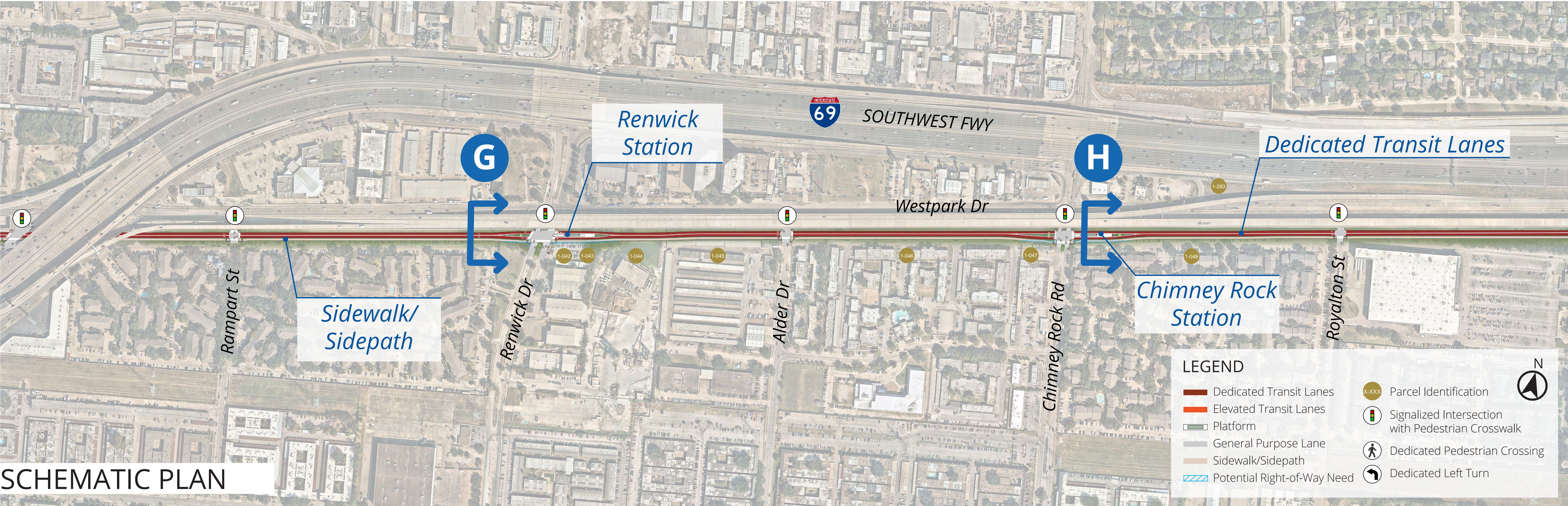
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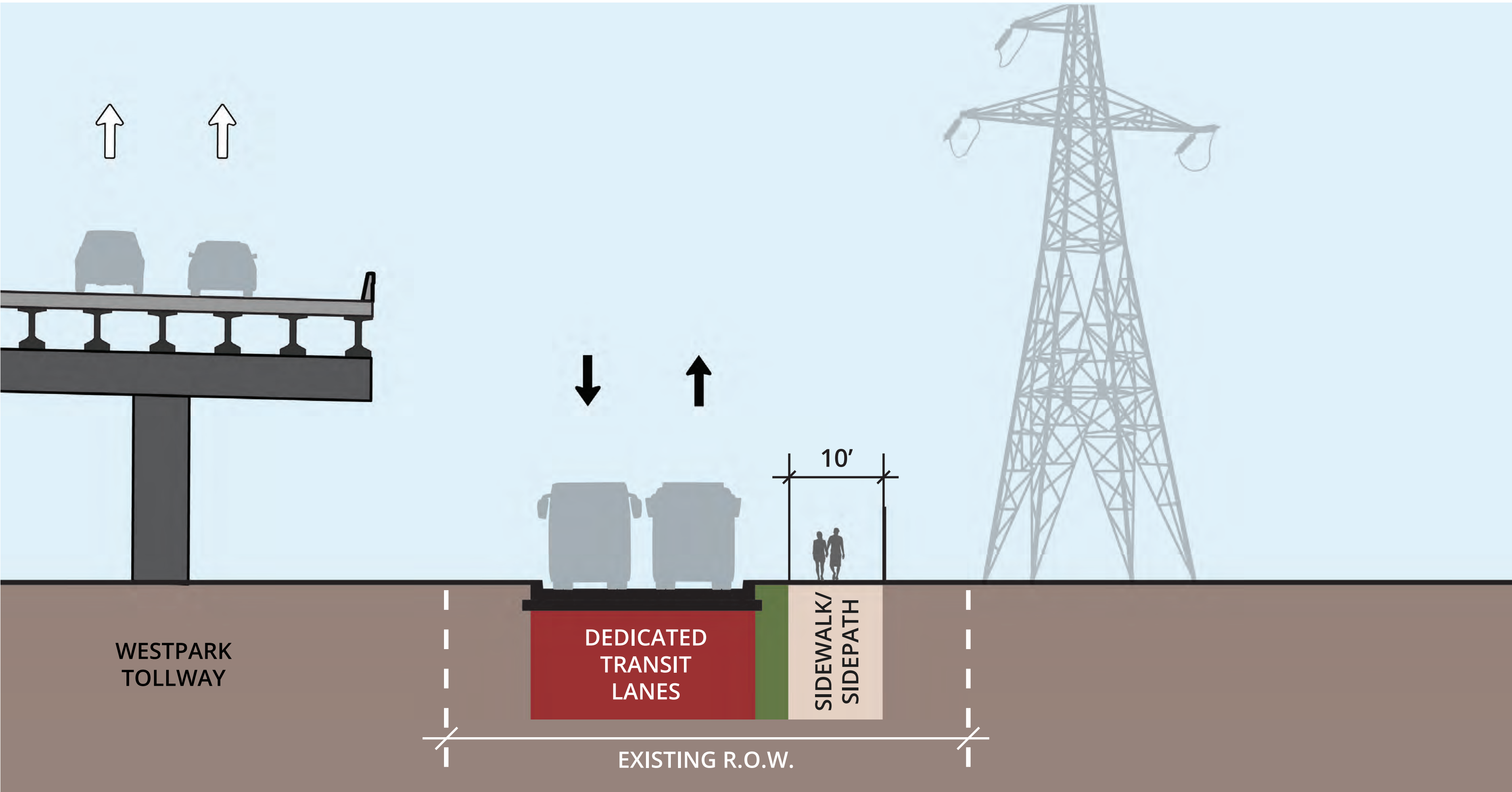
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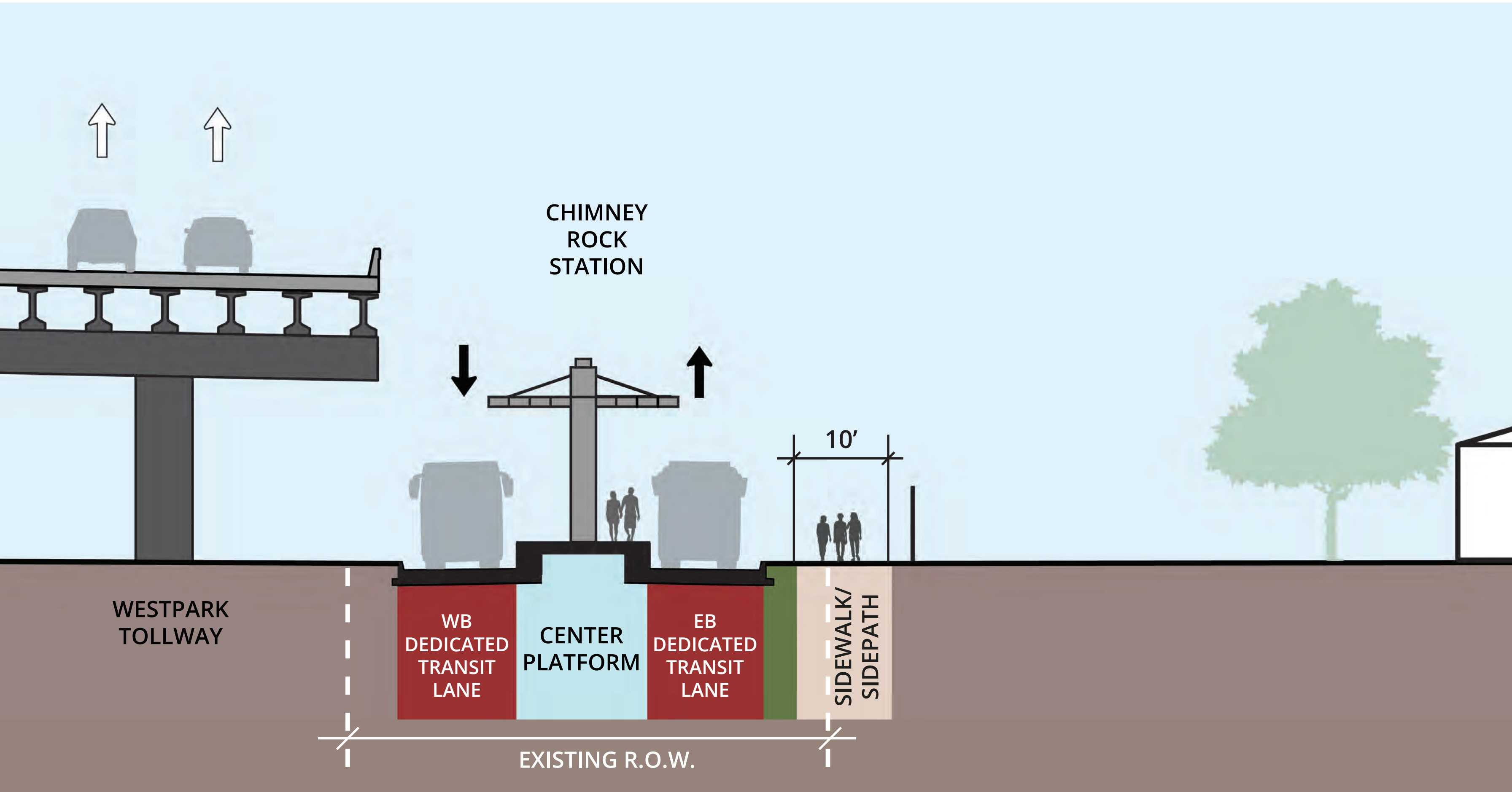
SEGMENT 1 WESTPARK DR. FROM I-69 / SOUTHWEST FWY. TO WEST OF RICE AVE. (BOARD 4)



G CROSS SECTION



H CROSS SECTION



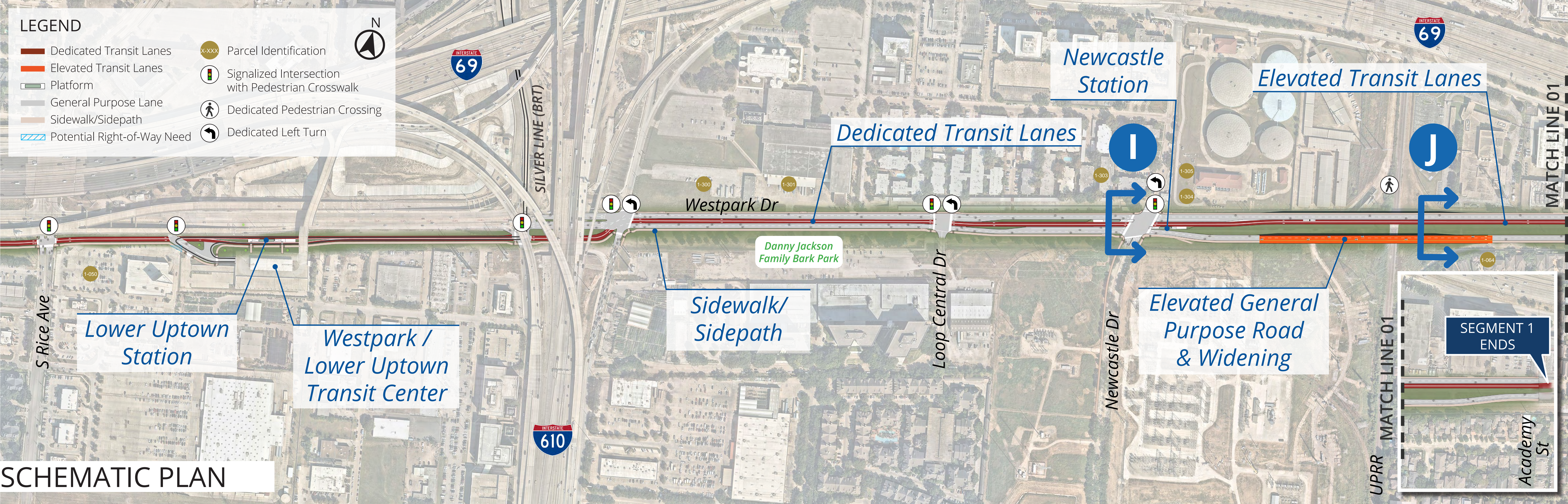
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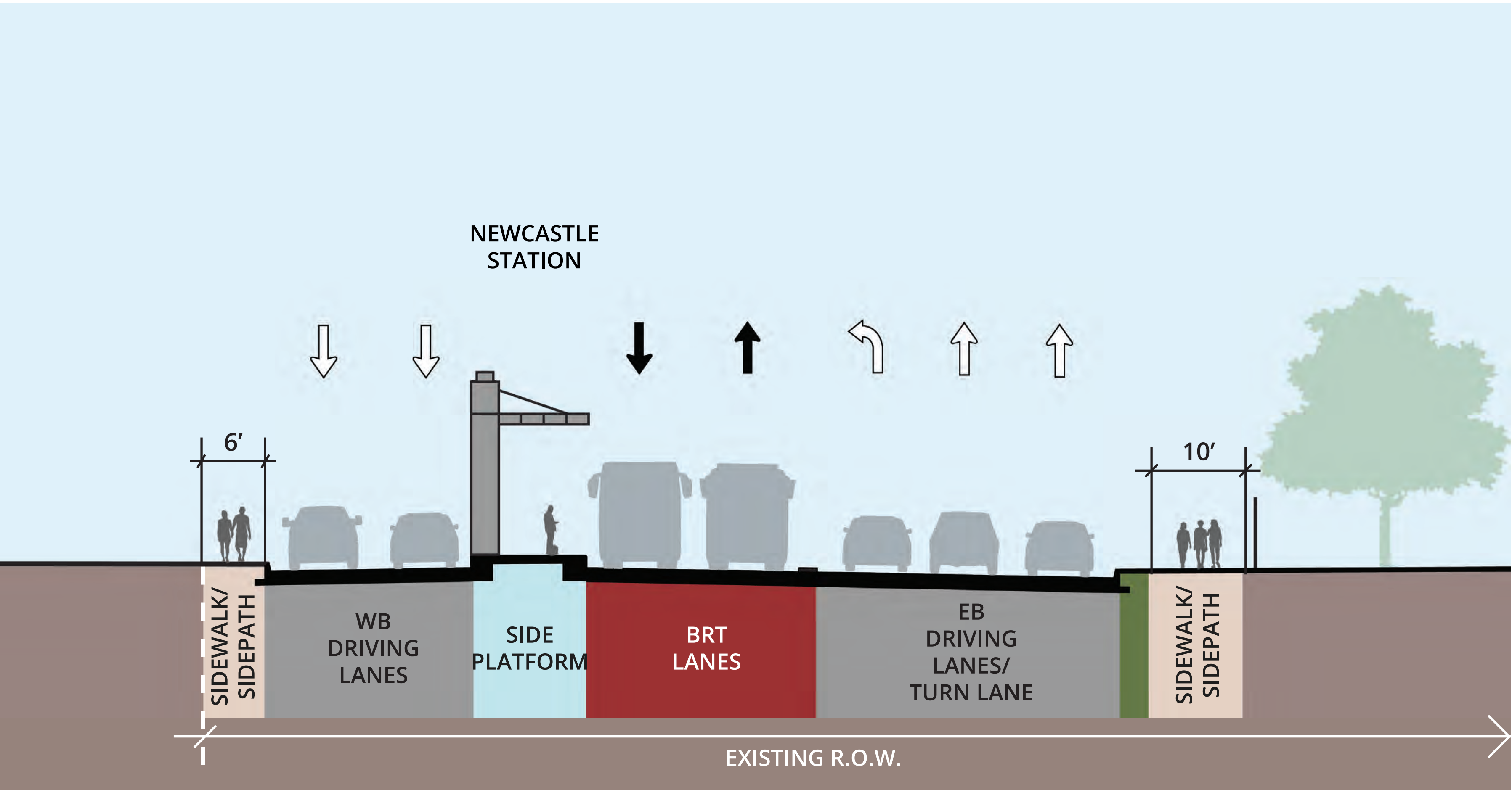
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SEGMENT 1 WESTPARK DR. FROM RICE AVE. TO ACADEMY ST. (BOARD 5)

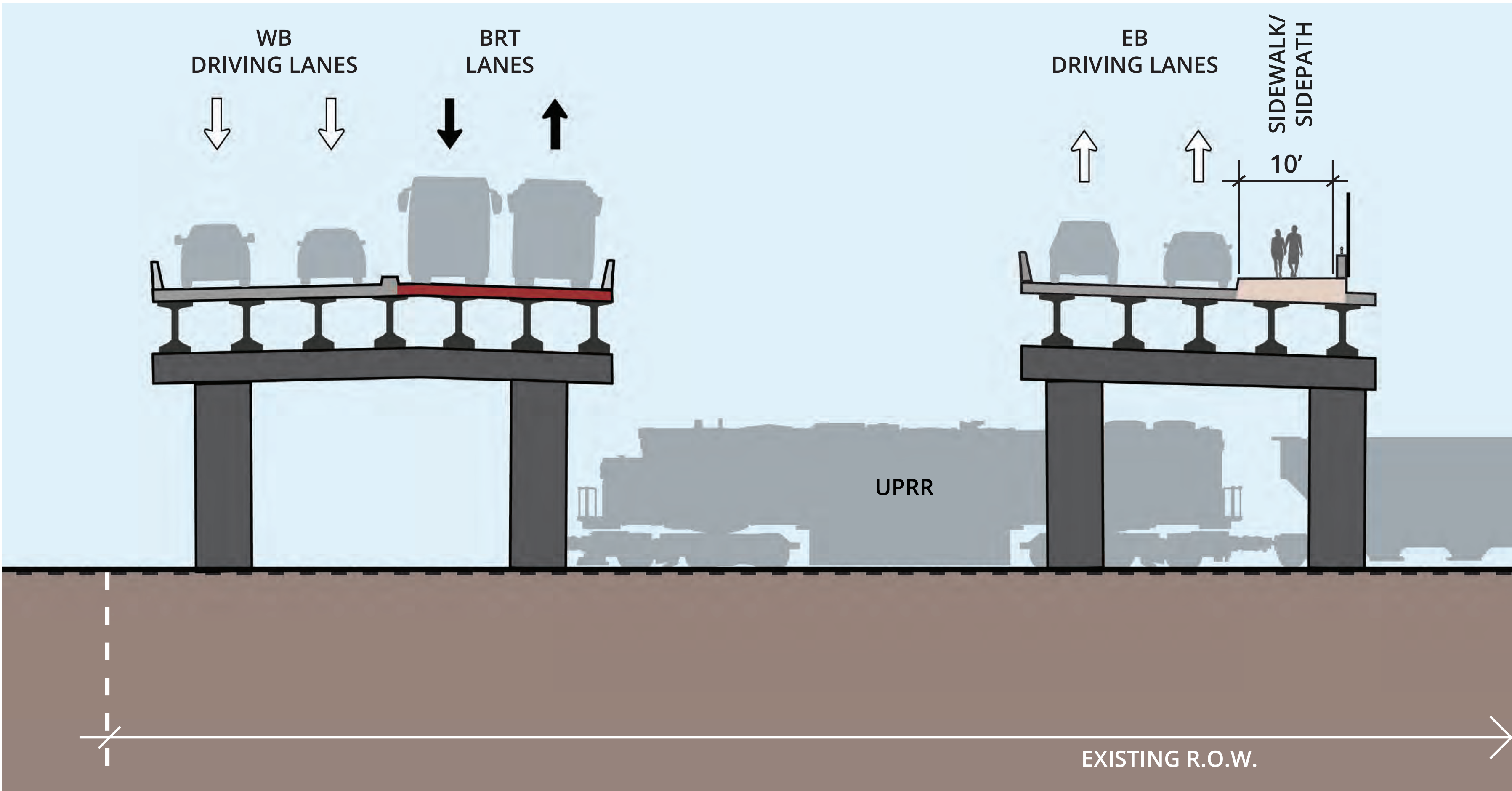


SCHEMATIC PLAN

I CROSS SECTION



J CROSS SECTION



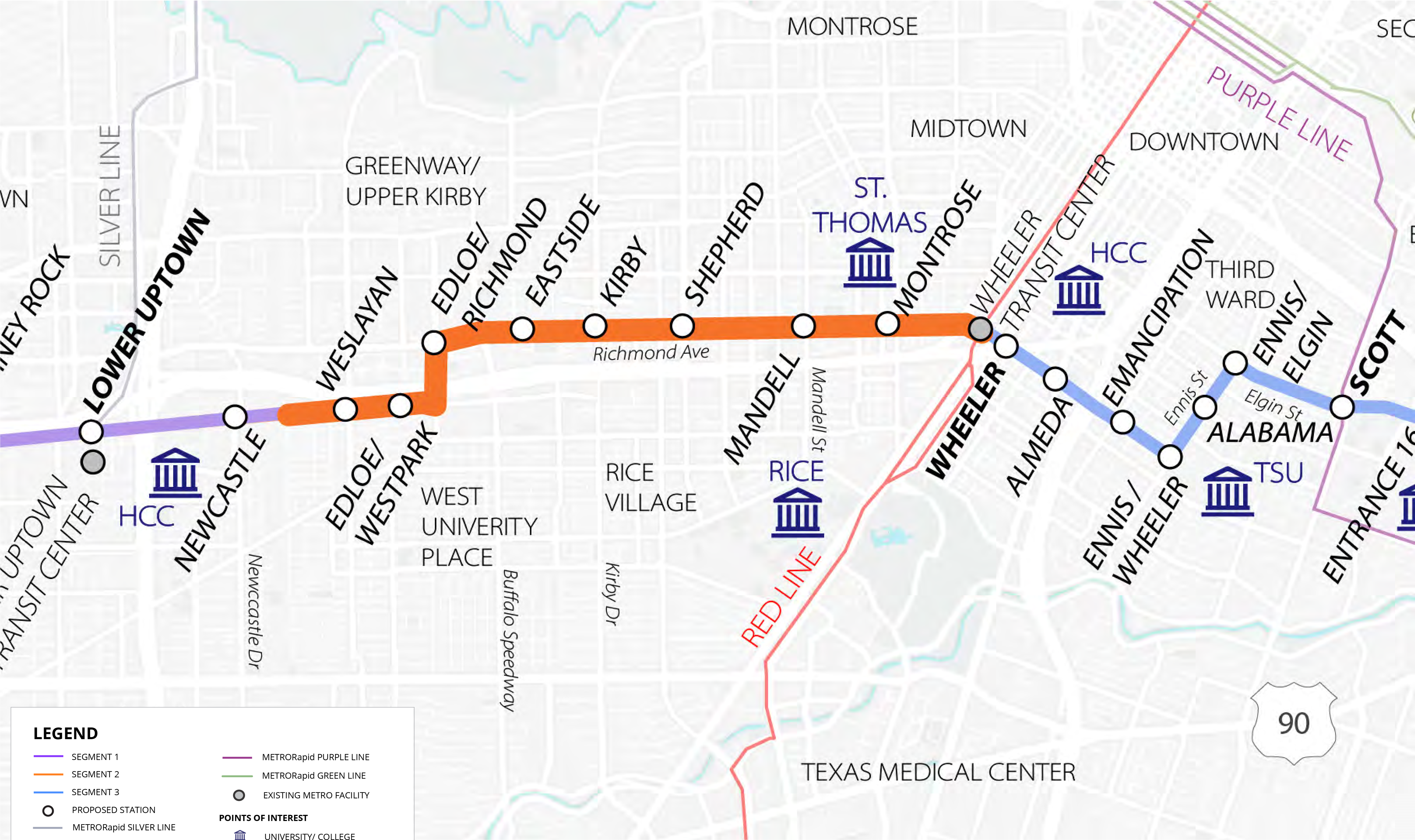
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SEGMENT 2 WESLAYAN STATION TO MONTROSE STATION



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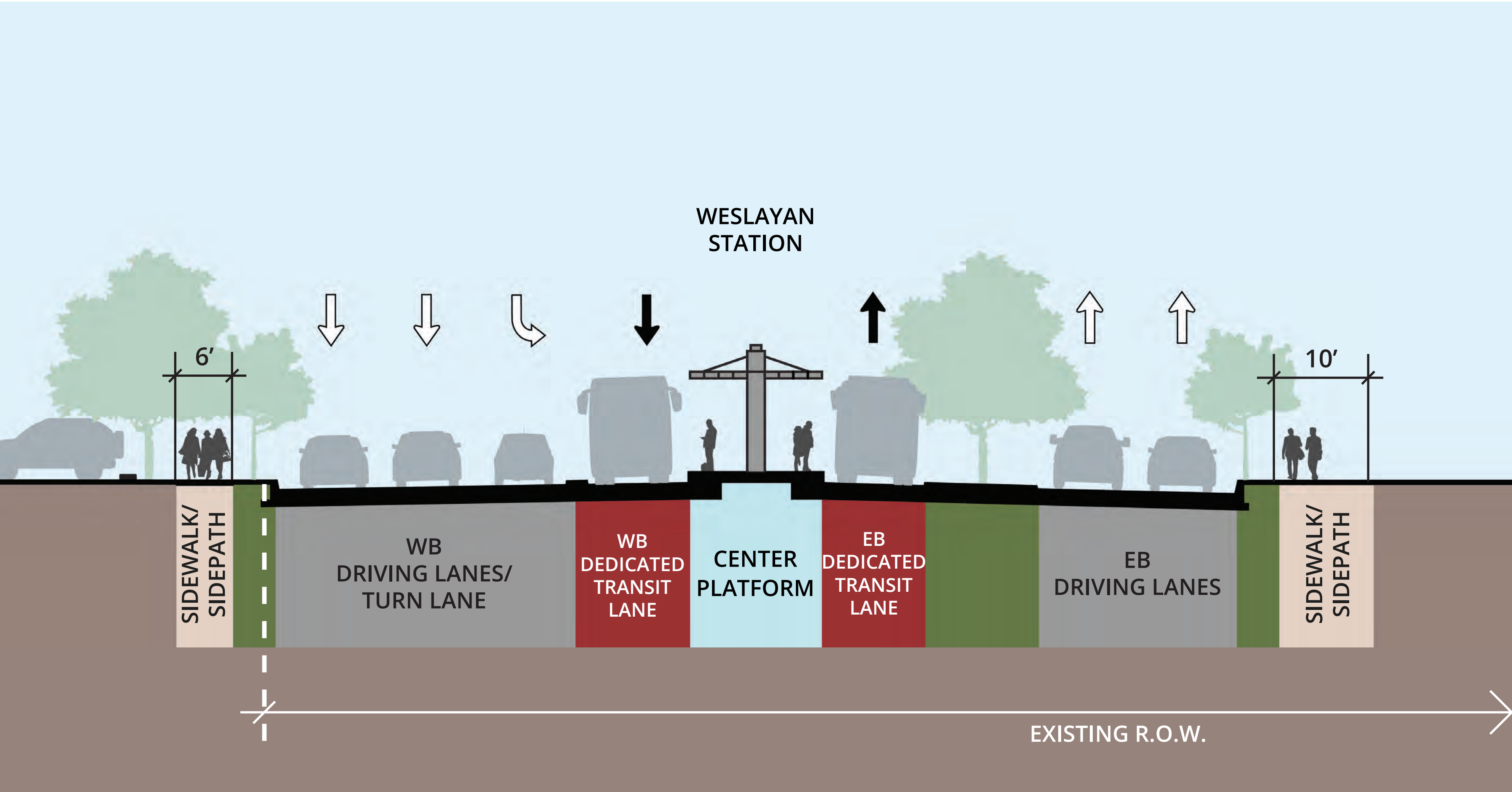
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SEGMENT 2 I-69 / SOUTHWEST FWY. FROM WEST OF WESLAYAN ST. TO RICHMOND AVE. (BOARD 1)

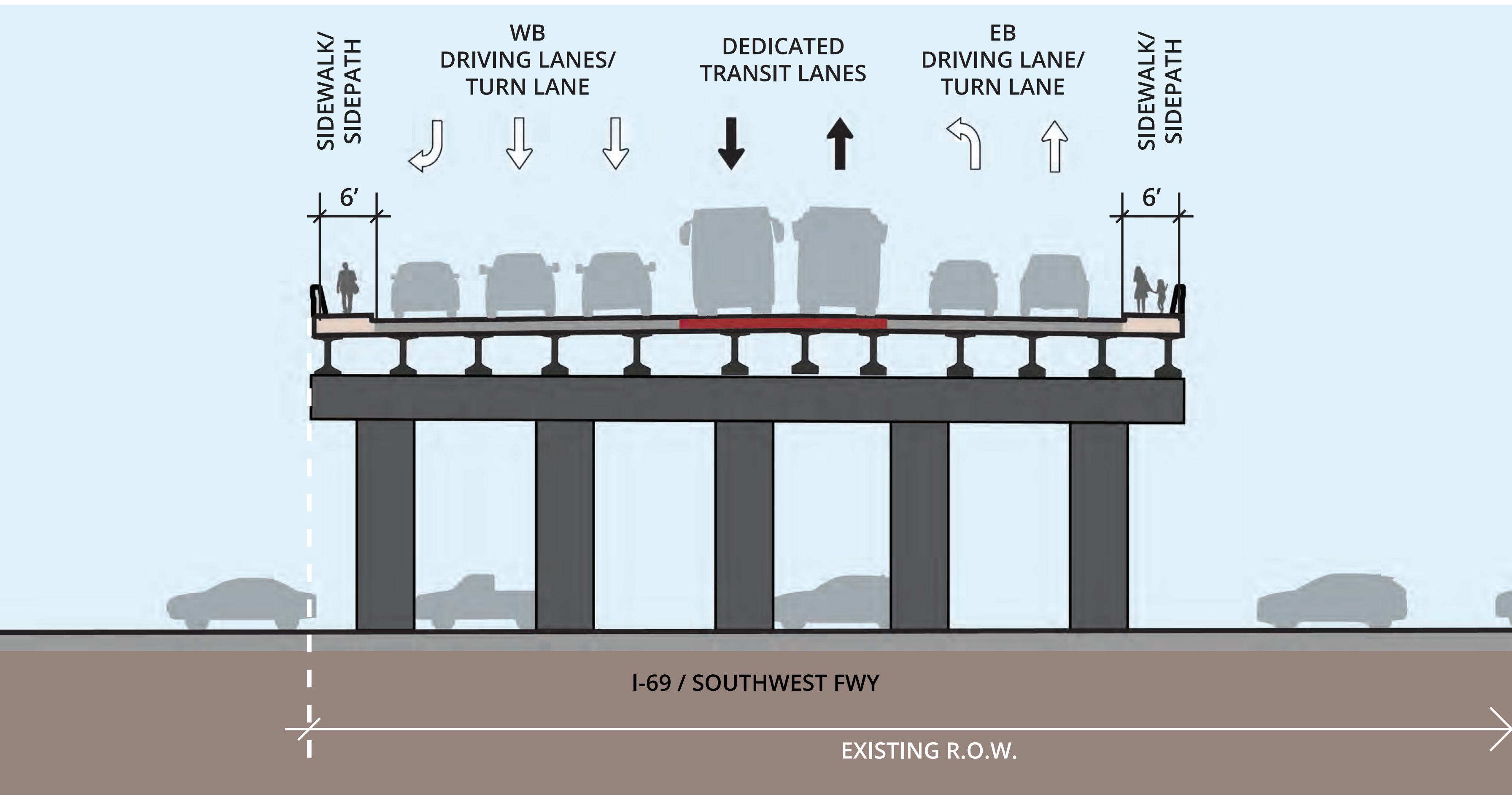
SCHEMATIC PLAN



A CROSS SECTION



B CROSS SECTION



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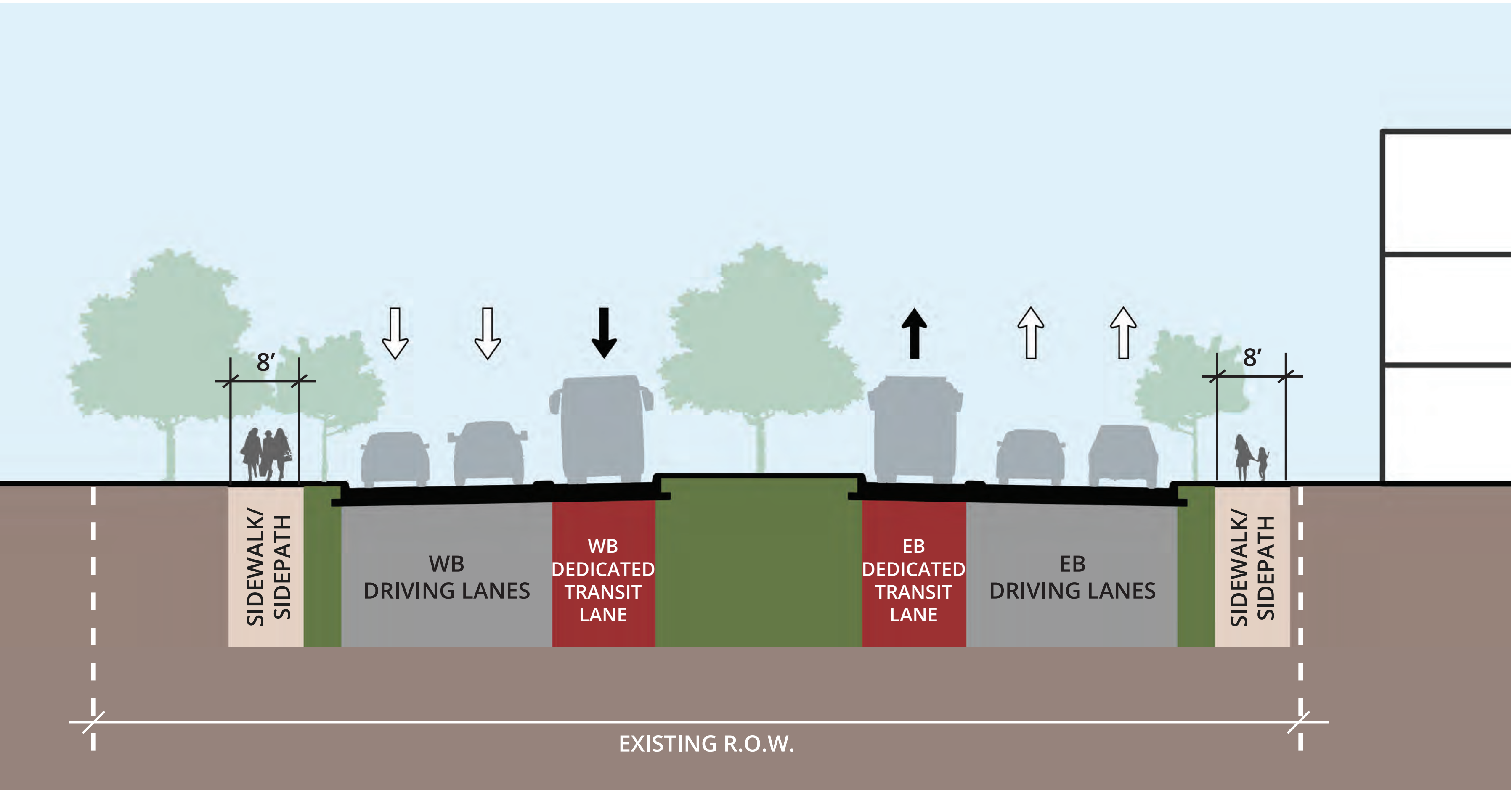
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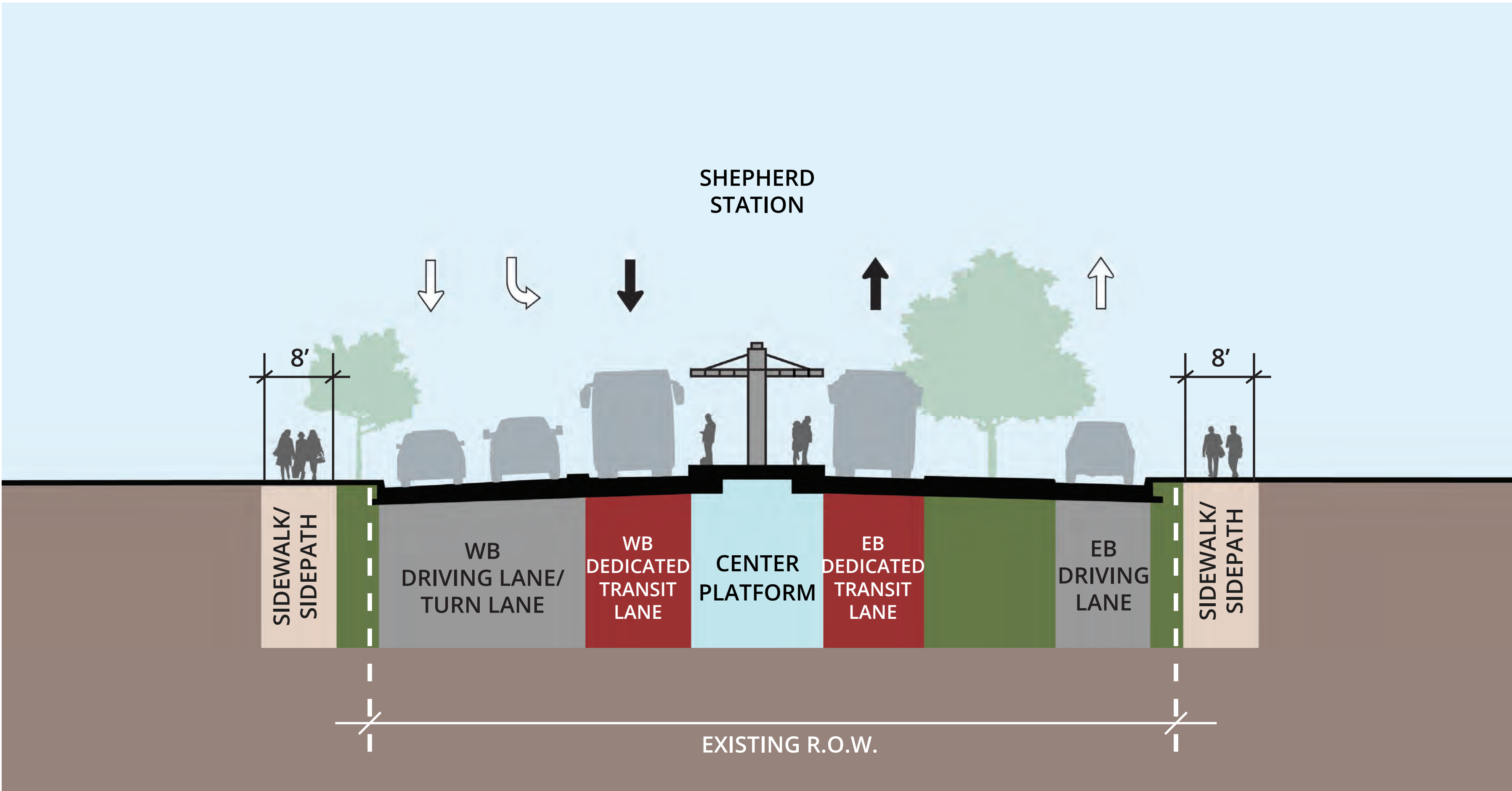
SEGMENT 2 RICHMOND AVE. FROM WEST OF BUFFALO SPDWY. TO EAST OF WOODHEAD ST. (BOARD 2)



C CROSS SECTION



D CROSS SECTION



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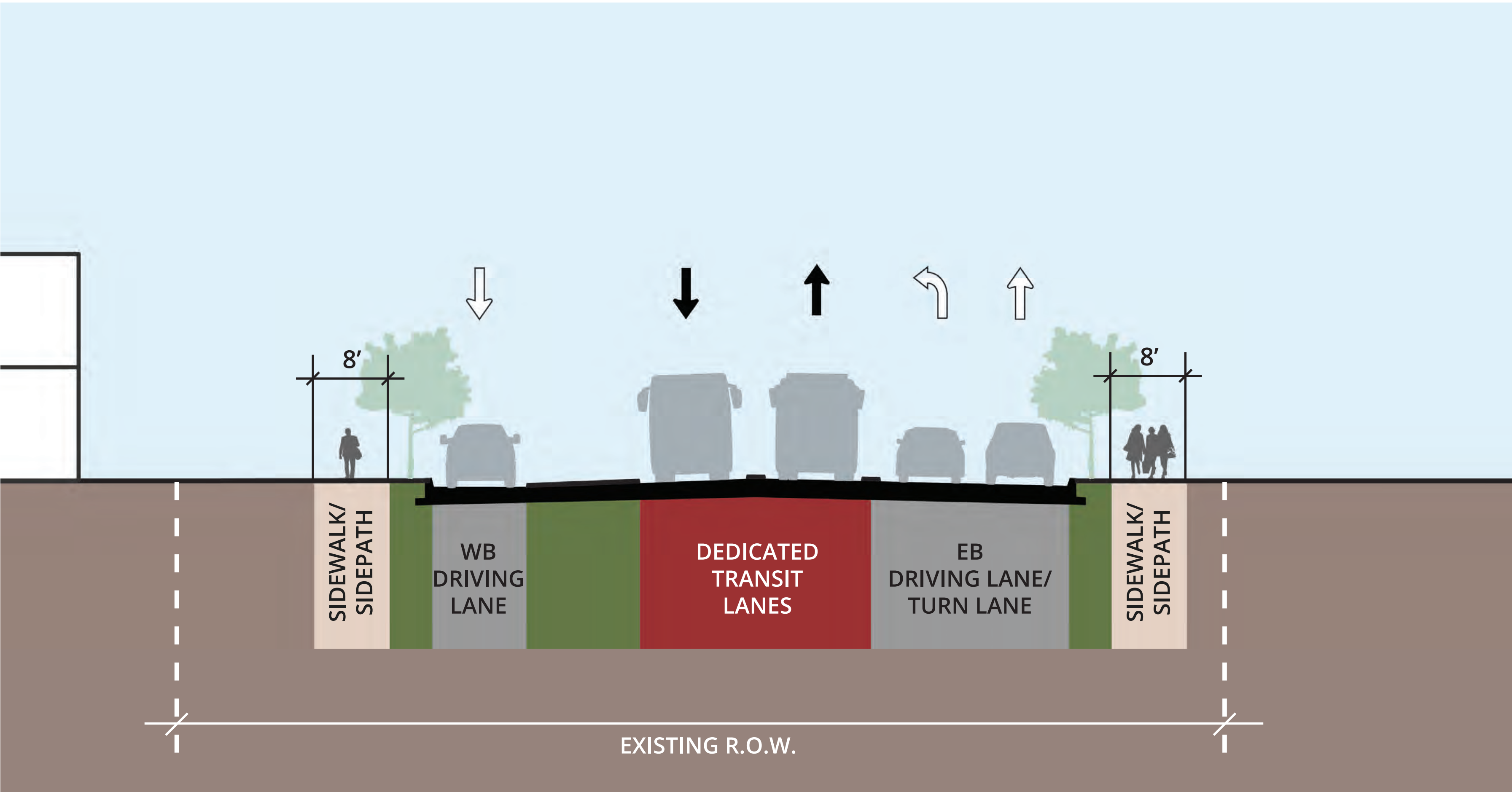
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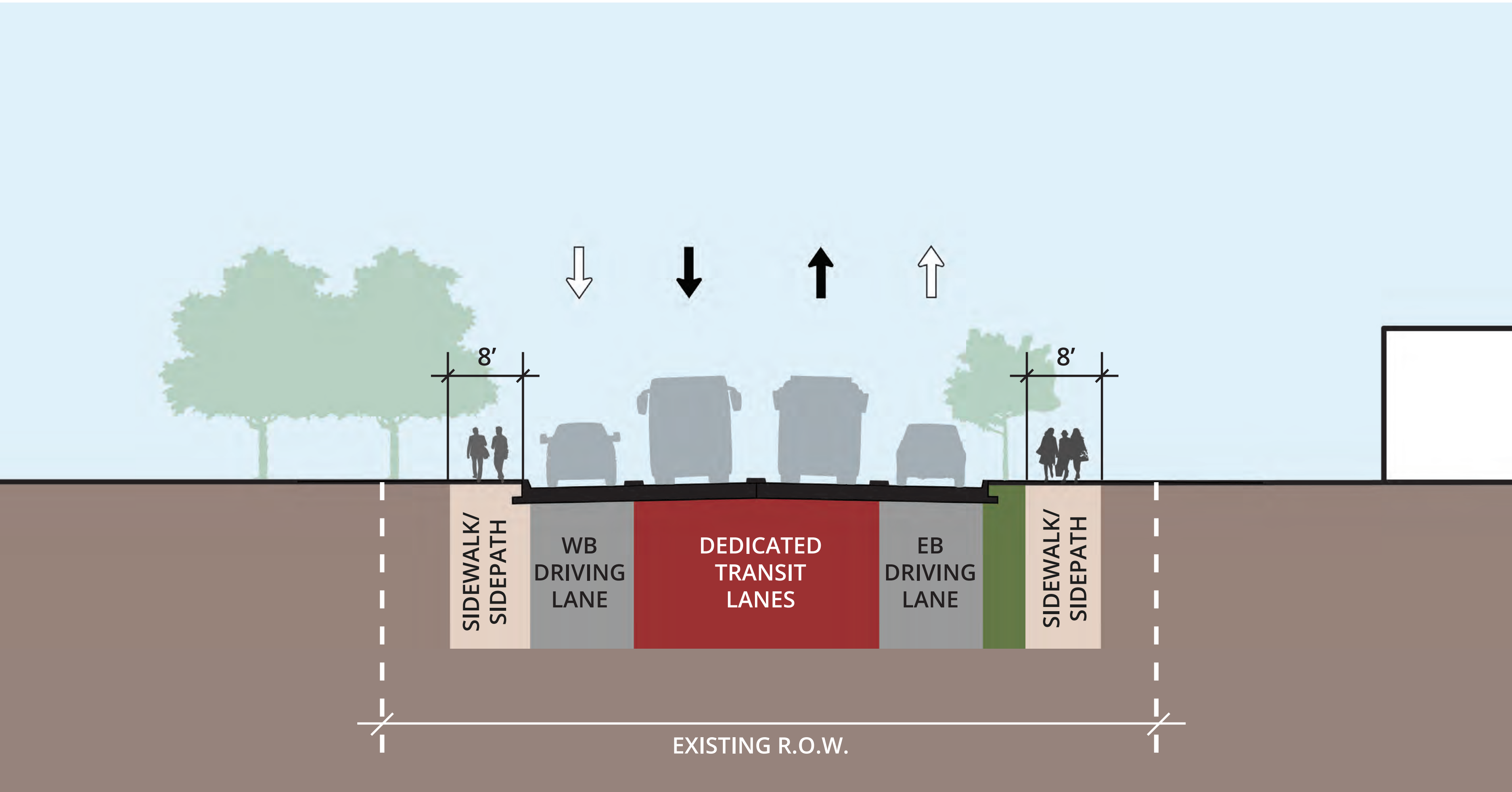
SEGMENT 2 RICHMOND AVE. FROM WEST OF WOODHEAD ST. TO WEST OF MAIN ST. AT SPUR 527 (BOARD 3)



E CROSS SECTION



F CROSS SECTION



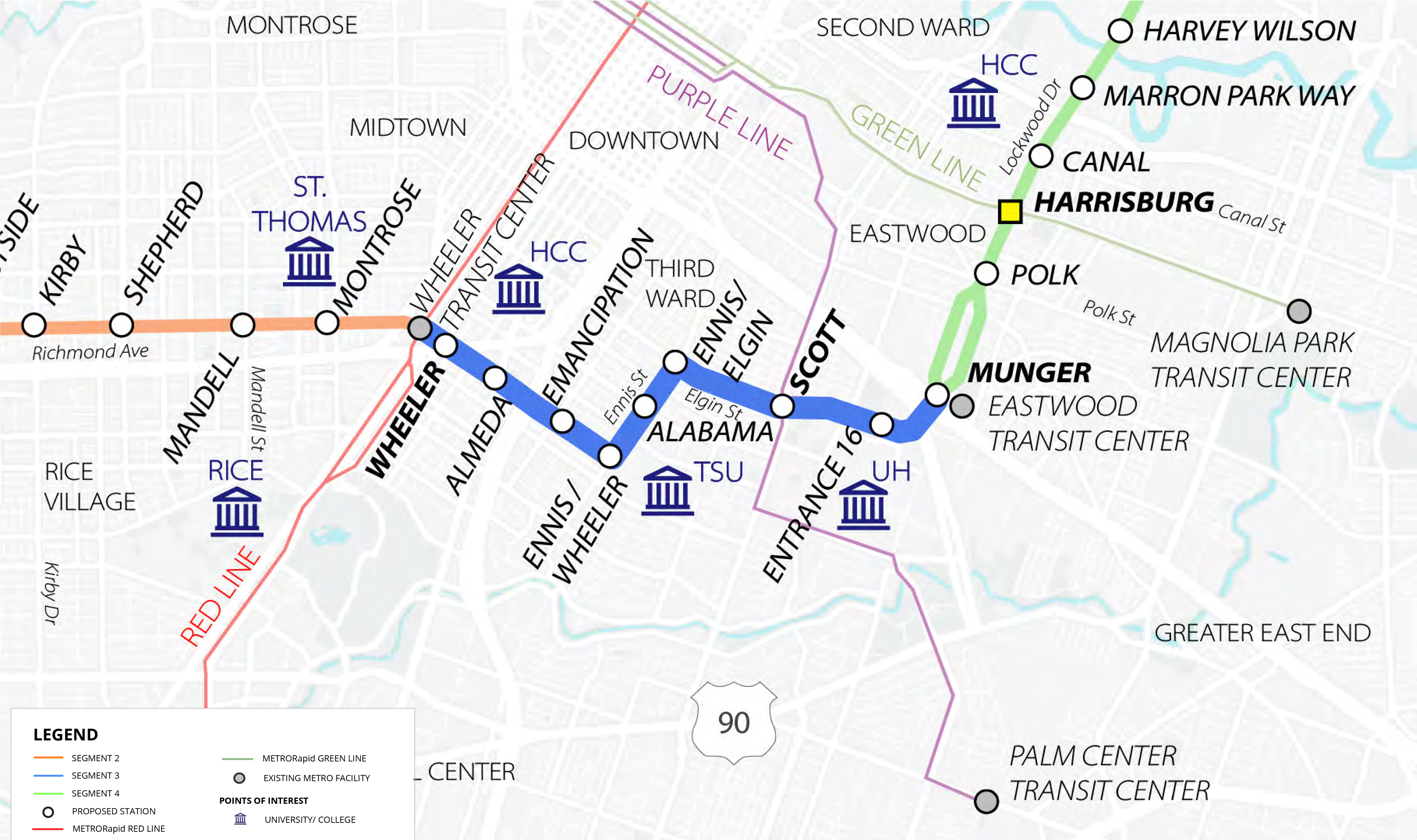
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SEGMENT 3 WHEELER STATION TO EASTWOOD TRANSIT CENTER

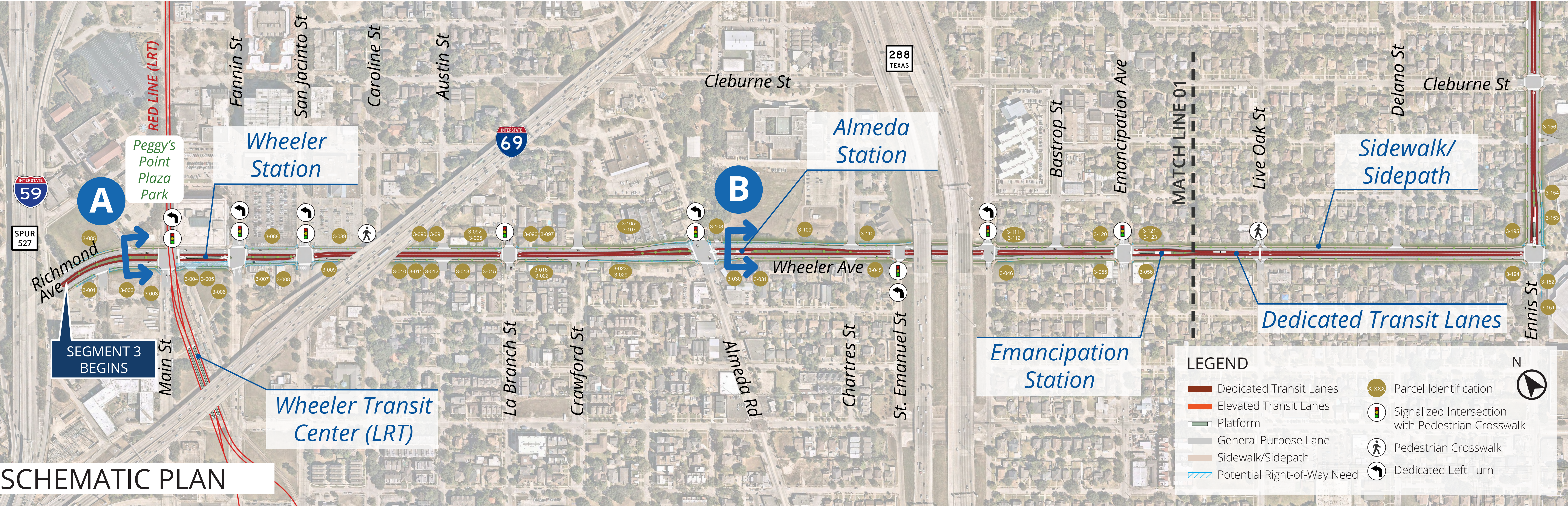


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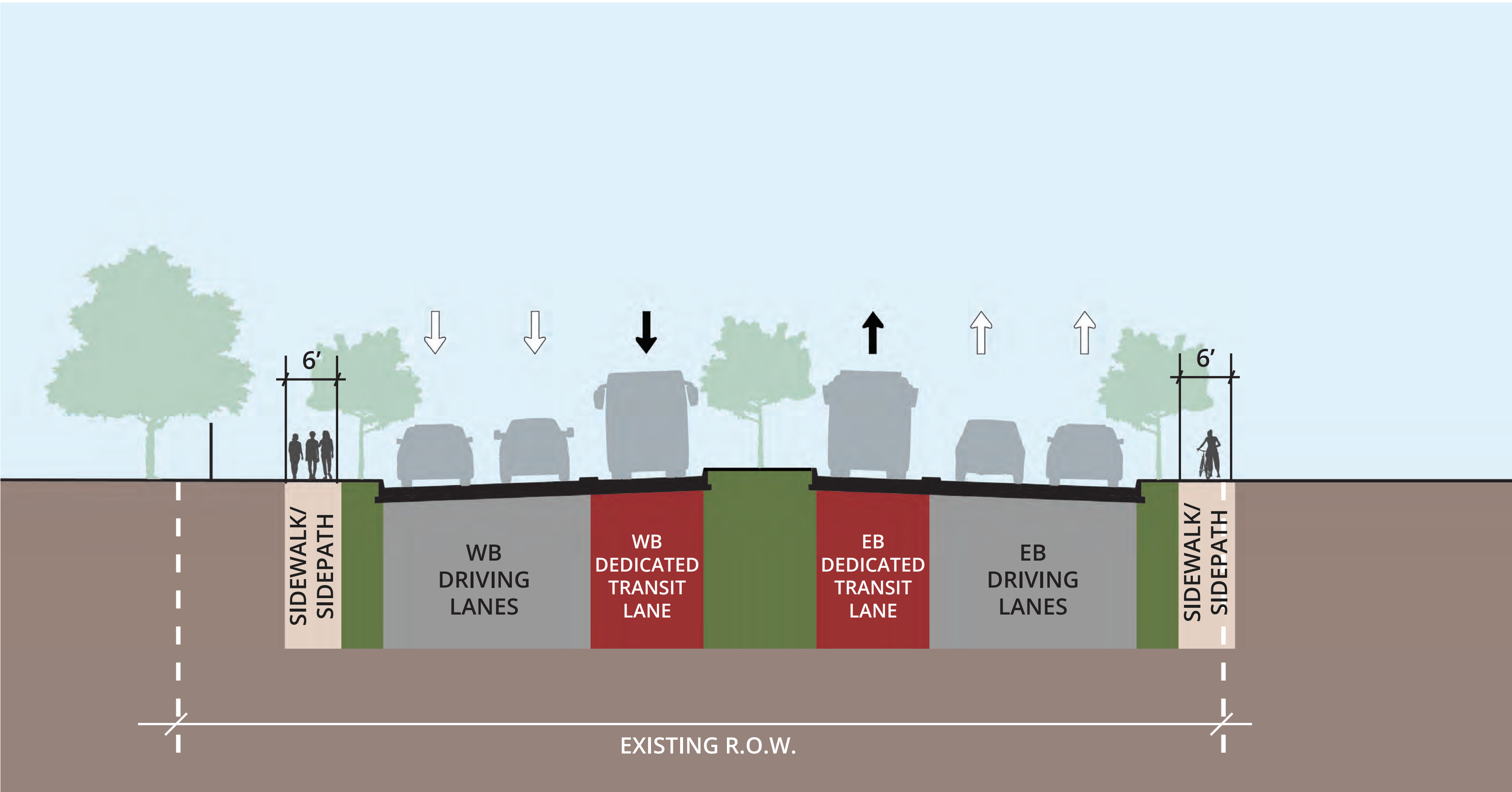


METRORapid UNIVERSITY CORRIDOR PROJECT

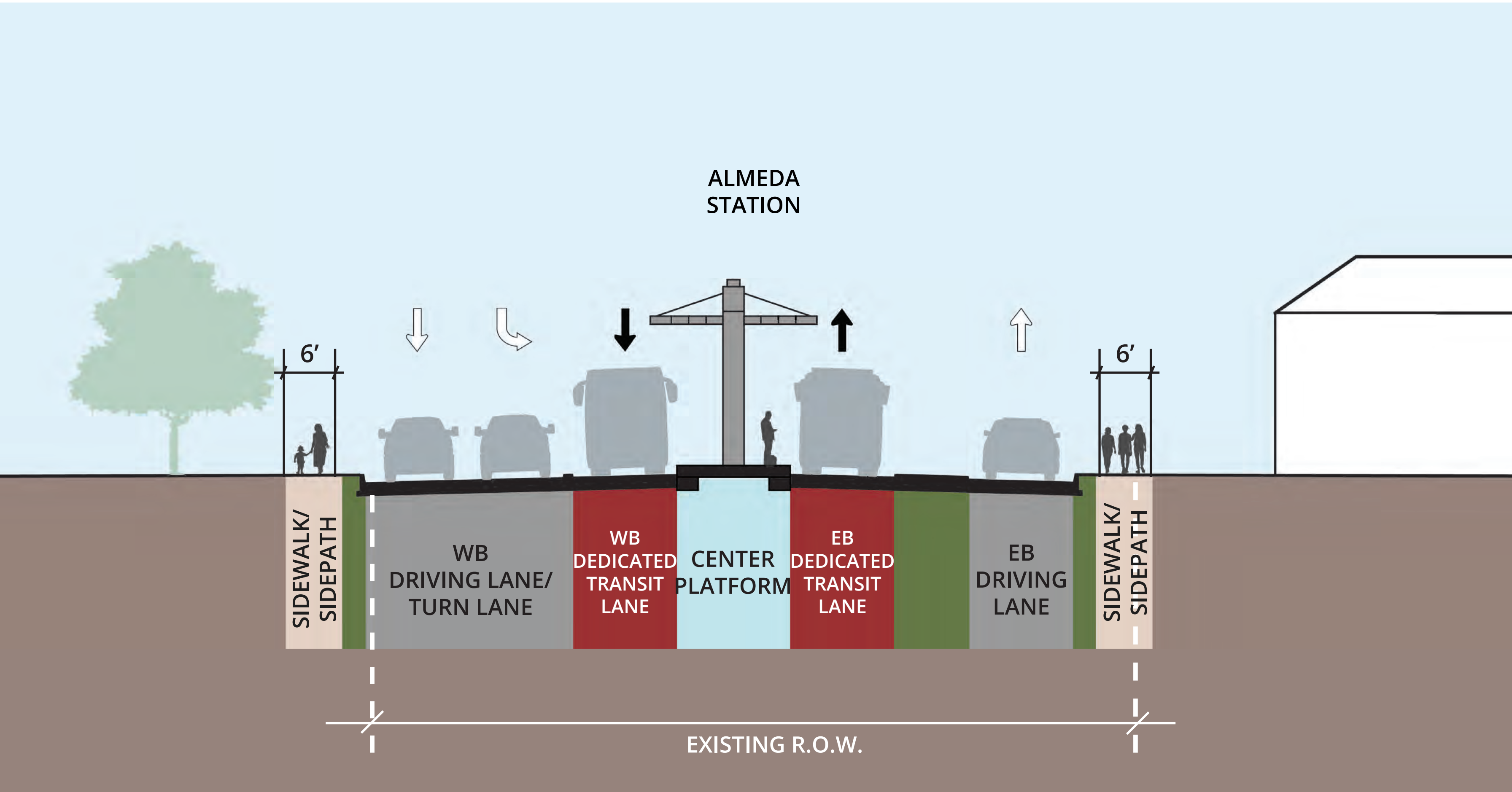
SEGMENT 3 WHEELER AVE. FROM WEST OF MAIN ST. TO ENNIS ST. (BOARD 1)



A CROSS SECTION



B CROSS SECTION



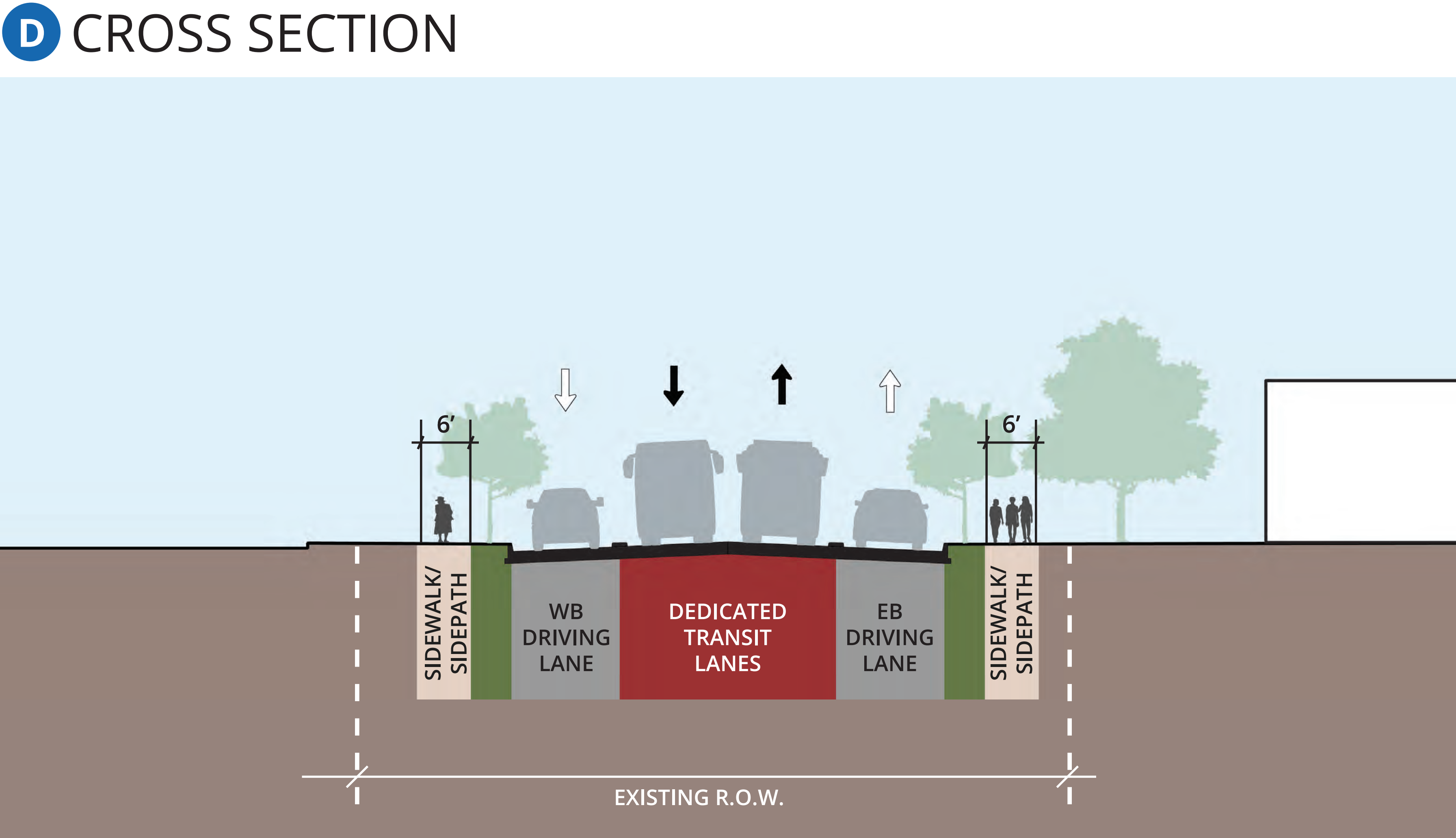
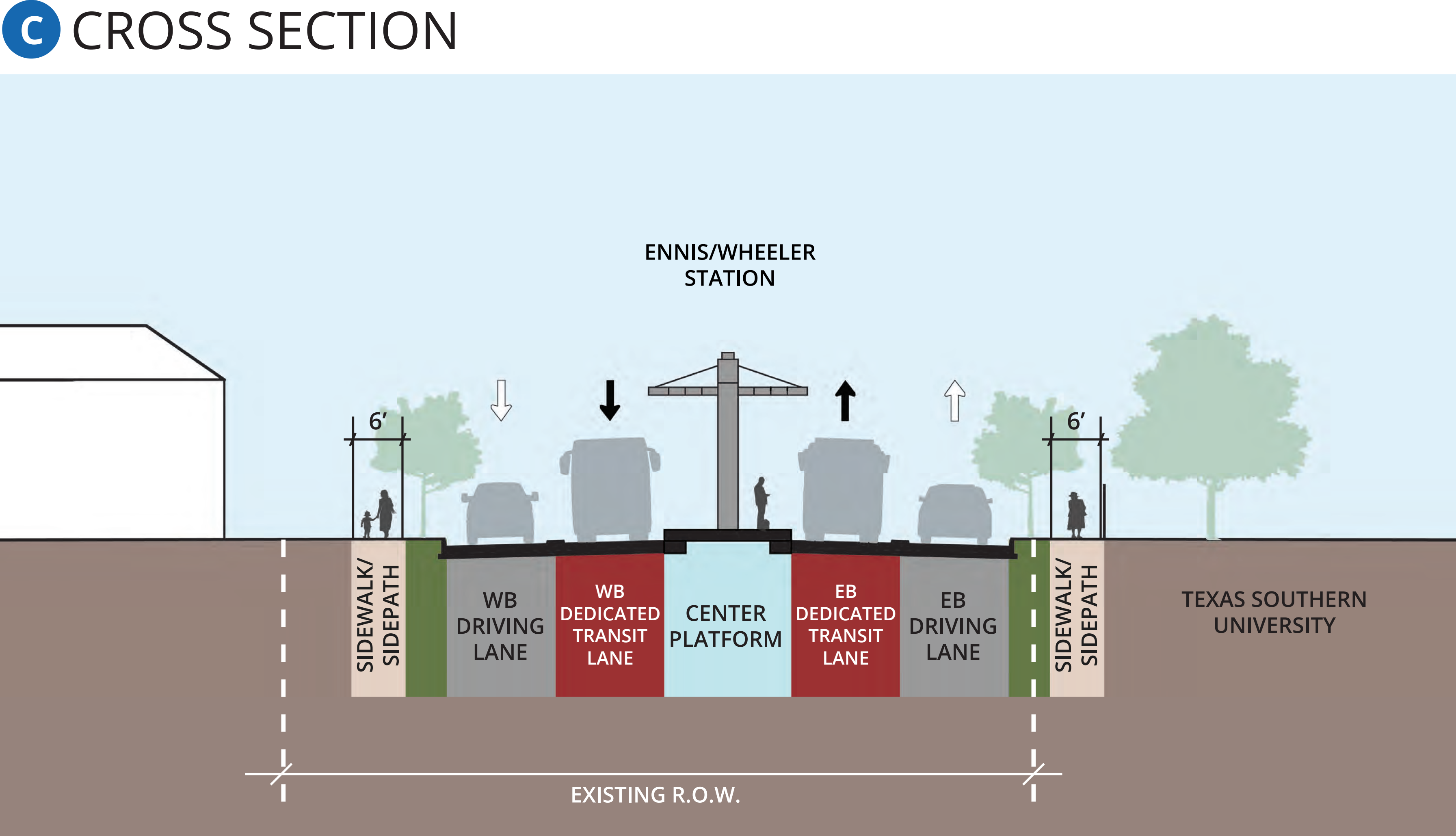
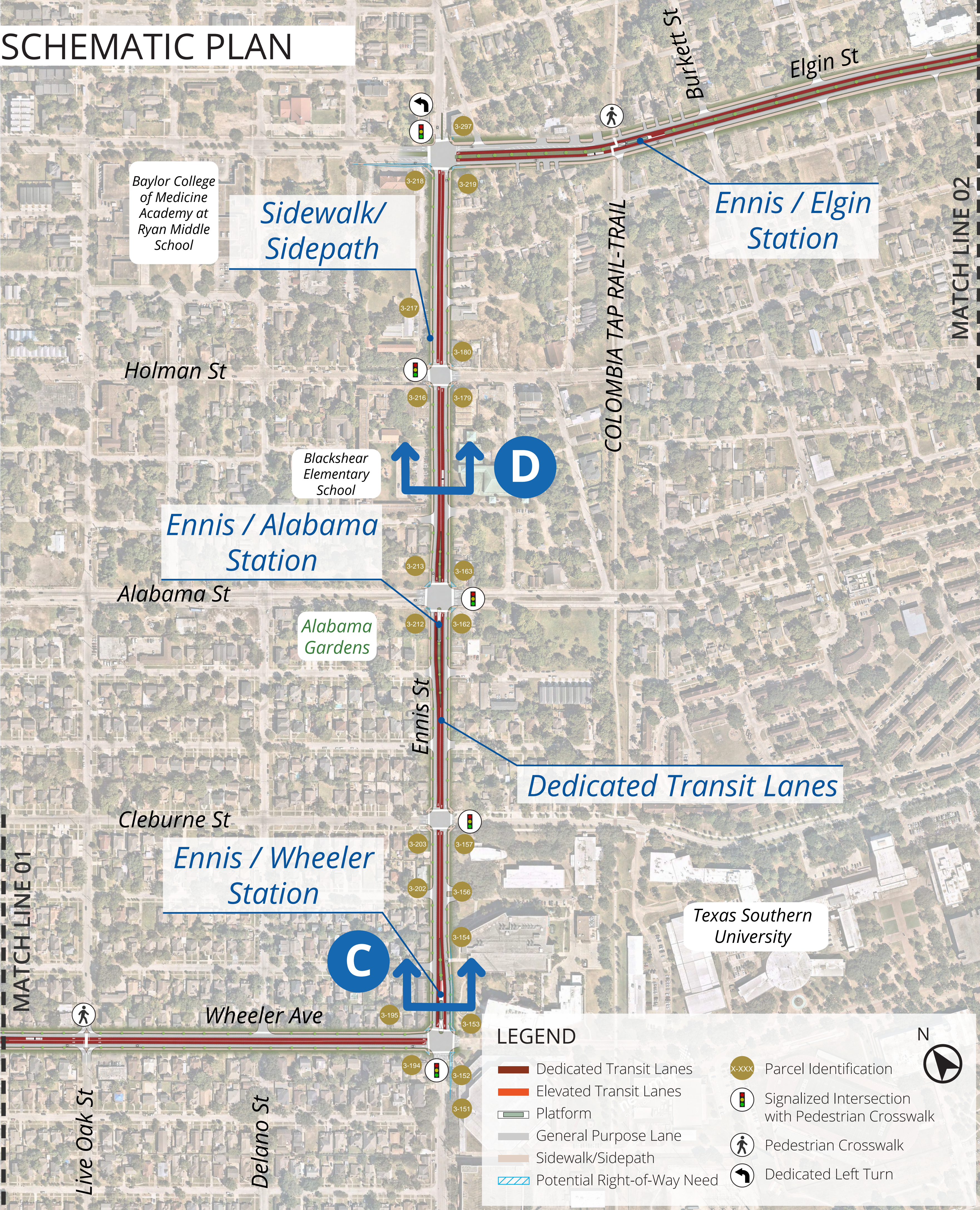
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SEGMENT 3 ENNIS ST. FROM WHEELER AVE. TO ELGIN ST. (BOARD 2)



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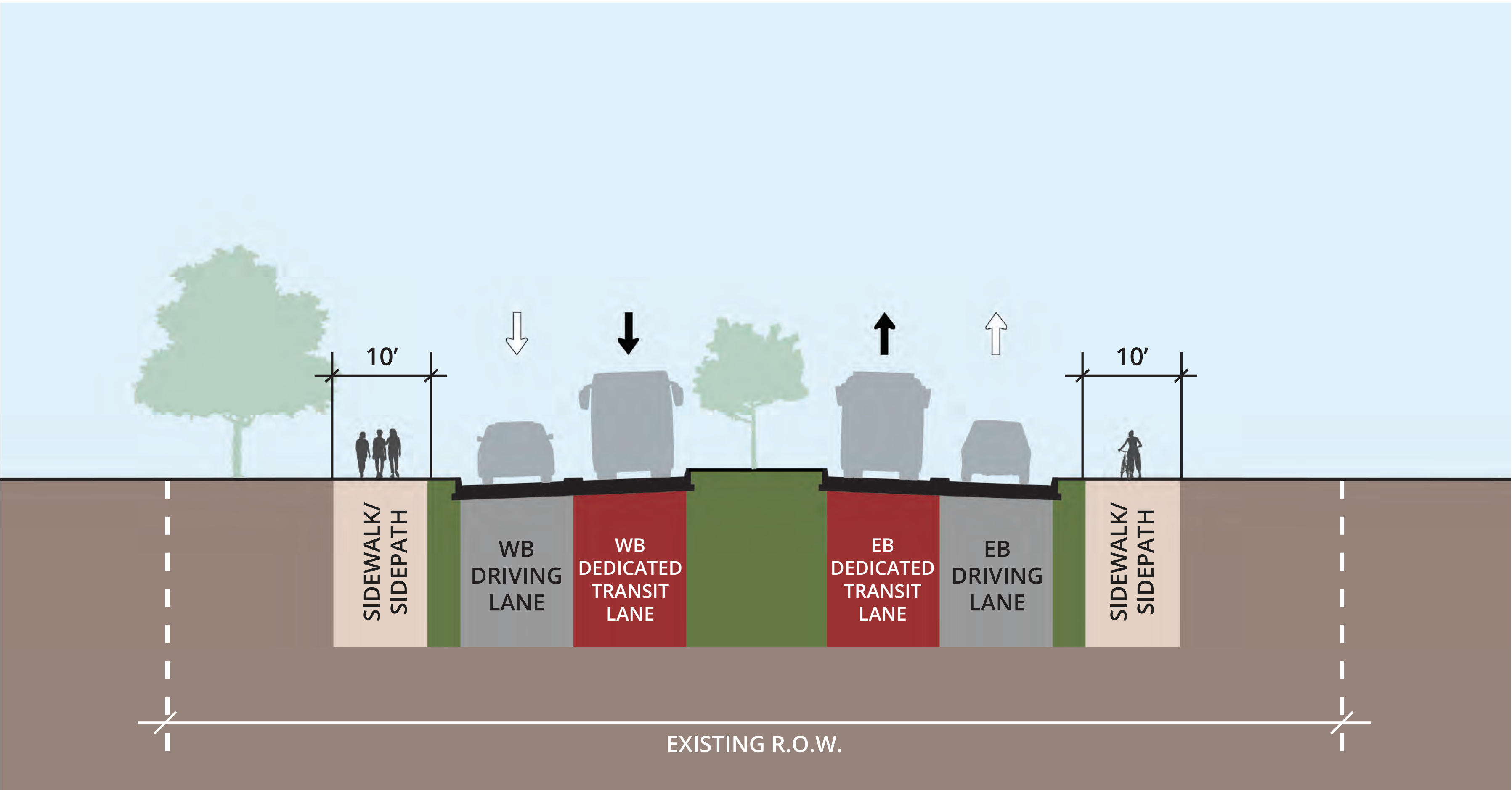
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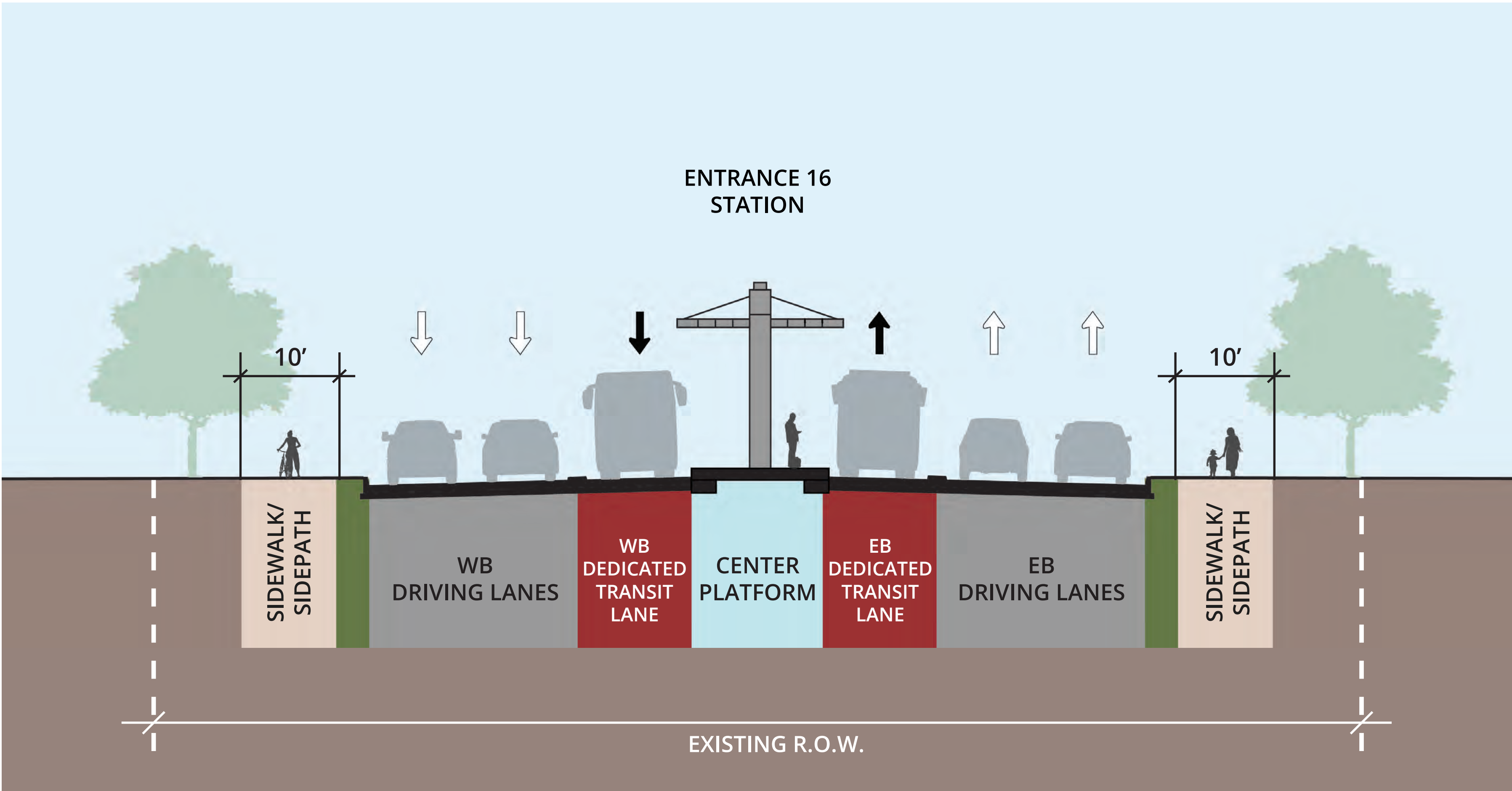
SEGMENT 3 ELGIN ST. FROM COLOMBIA TAP RAIL-TRAIL TO EASTWOOD TRANSIT CENTER (BOARD 3)



E CROSS SECTION



F CROSS SECTION



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WHEELER AVENUE ALIGNMENT

WHY WHEELER AVE IS THE PREFERRED ALIGNMENT OPTION FOR SEGMENT 3



LEGEND

Blodgett Alignment

Wheeler Alignment

Alabama Alignment

Elgin Alignment

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Scale

Worst

Best

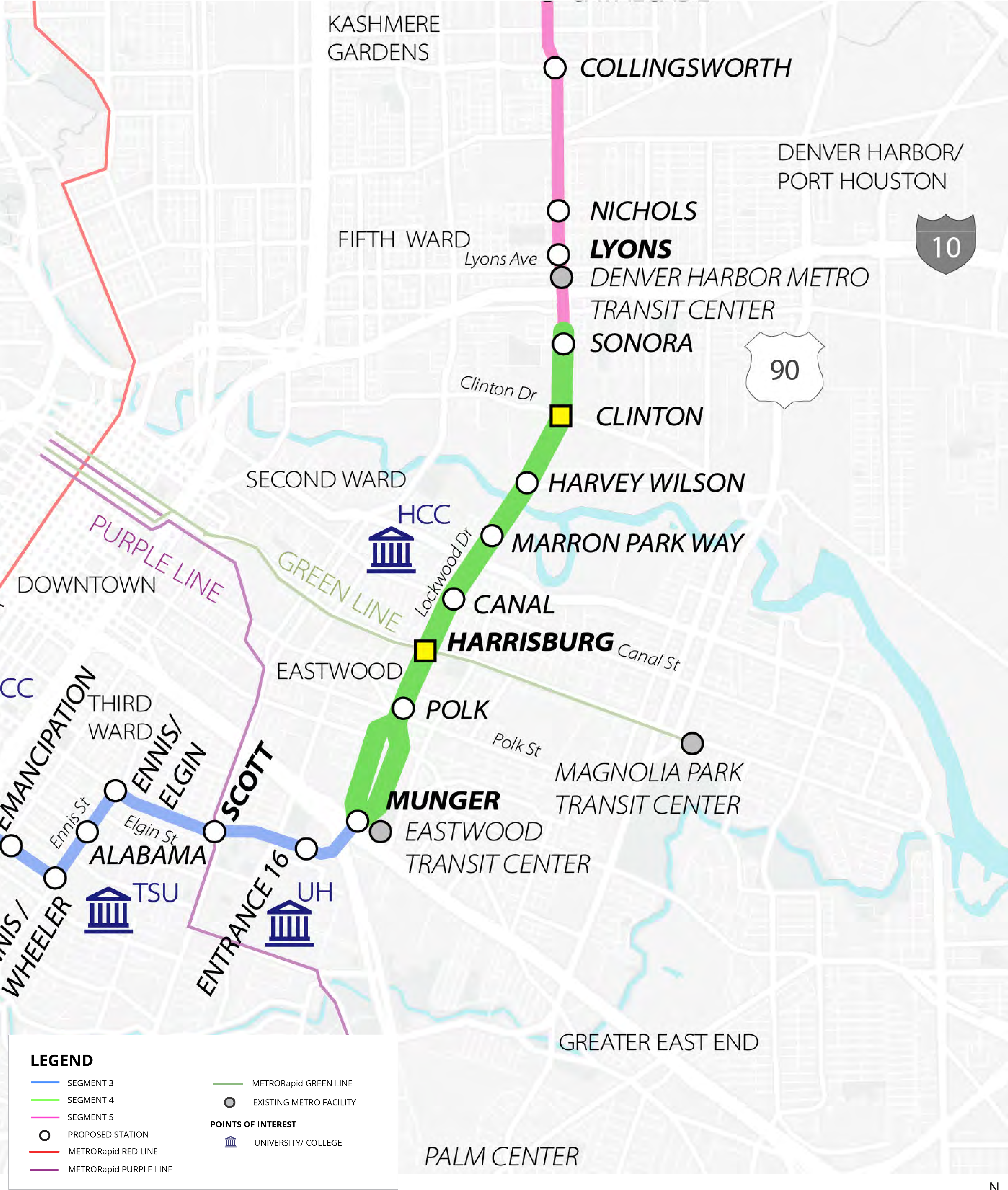
Criterion		Blodgett St.	Wheeler Ave.	Alabama St.	Elgin St.
Land Use (■ = Lowest % residential)					
Historic Properties (■ = Fewest impacts)					
Parks (■ = Fewest impacts)					
Traffic Impacts (■ = Fewest congested intersections)					
Running Time (■ = Fastest running time)					
Forecasted Ridership (■ = Highest ridership)					
Distance to TSU (■ = Least distance)					
Distance to HCC Central Campus (■ = Least distance)					
Distance to Law Harrington Senior Center (■ = Least distance)					
Right of Way Impacts (■ = Fewest parcels affected)					N/A

PREFERRED ALIGNMENT



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SEGMENT 4 EASTWOOD TRANSIT CENTER TO SONORA STATION



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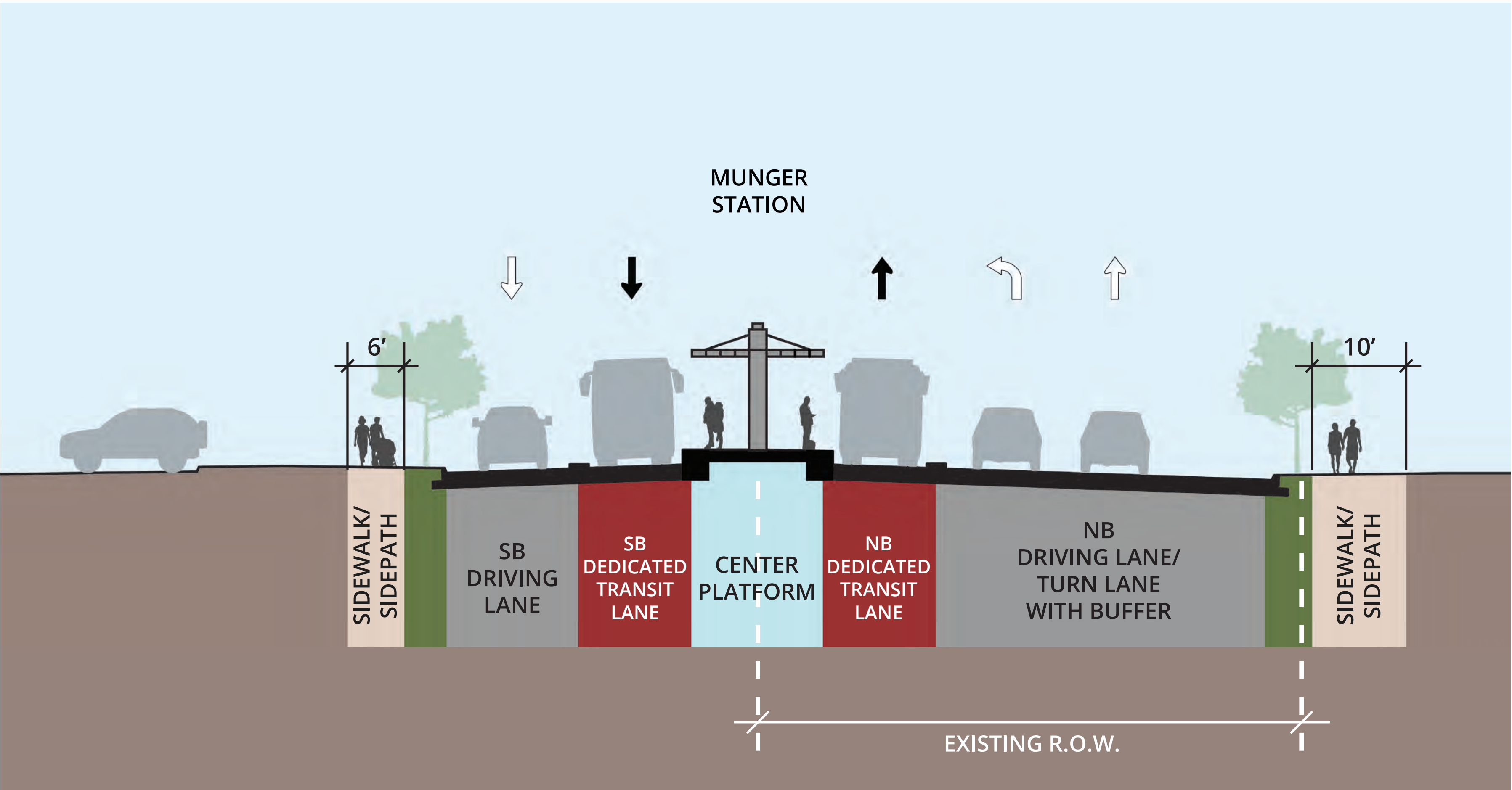
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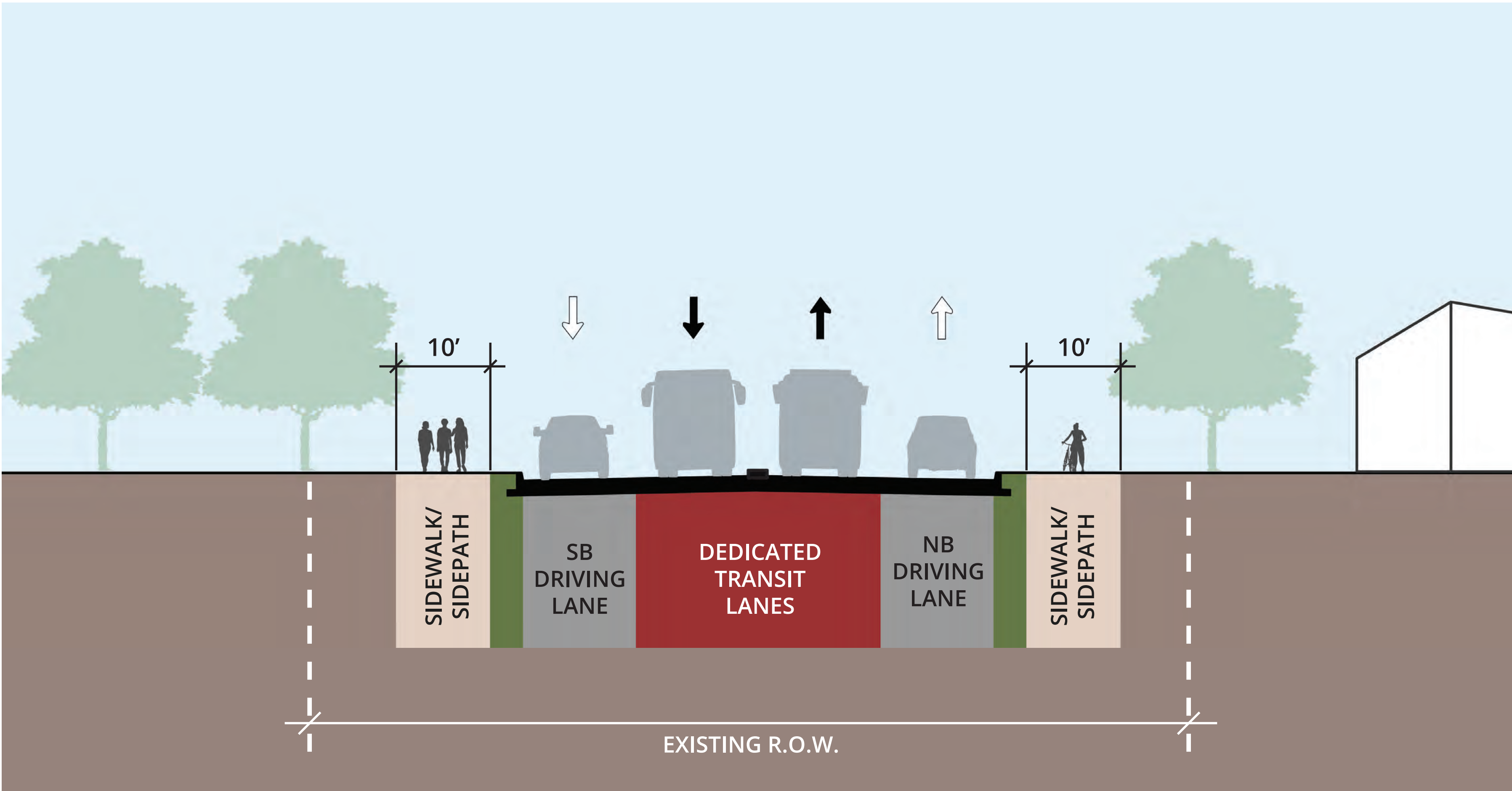
SEGMENT 4 S. LOCKWOOD DR. FROM EASTWOOD TRANSIT CENTER TO NORTH OF RUSK ST. (BOARD 1)



A CROSS SECTION



B CROSS SECTION



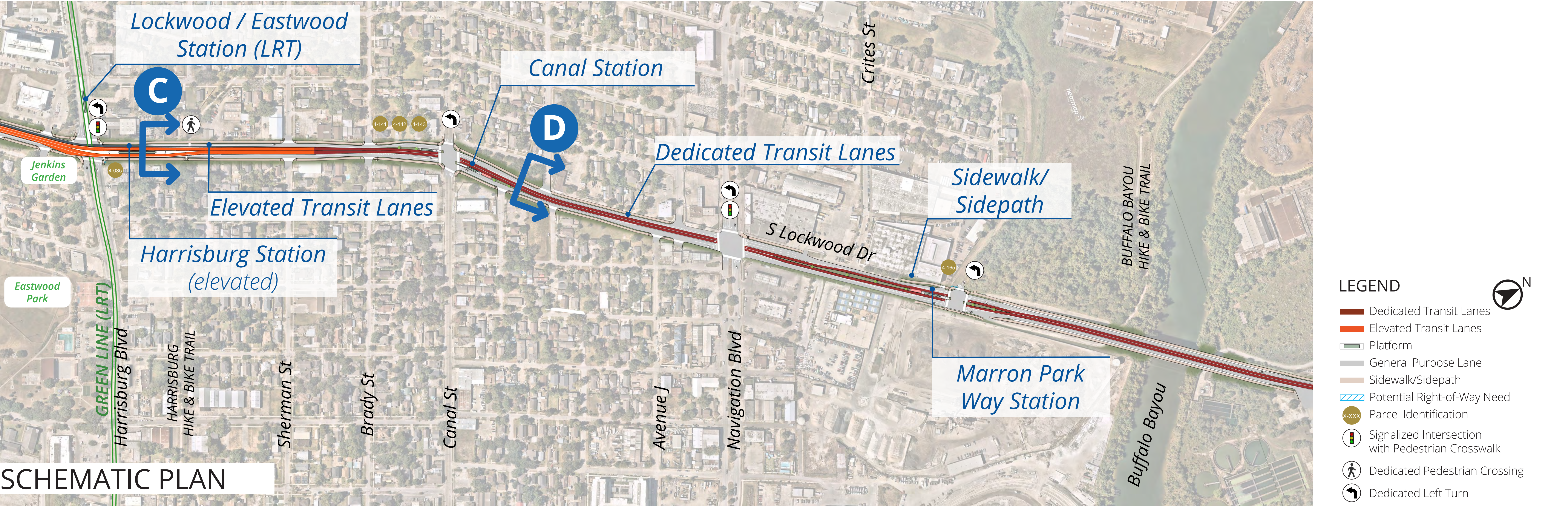
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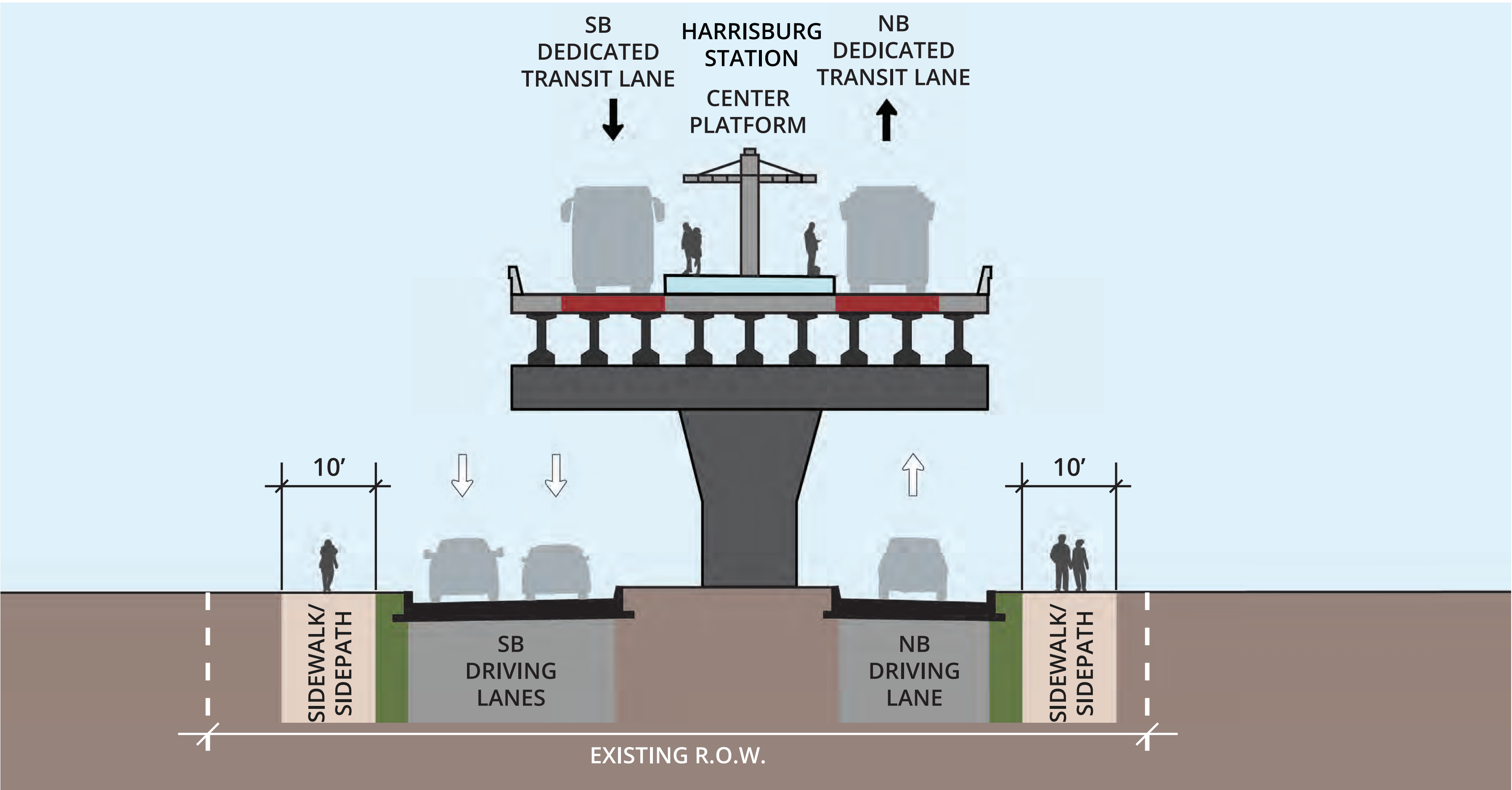
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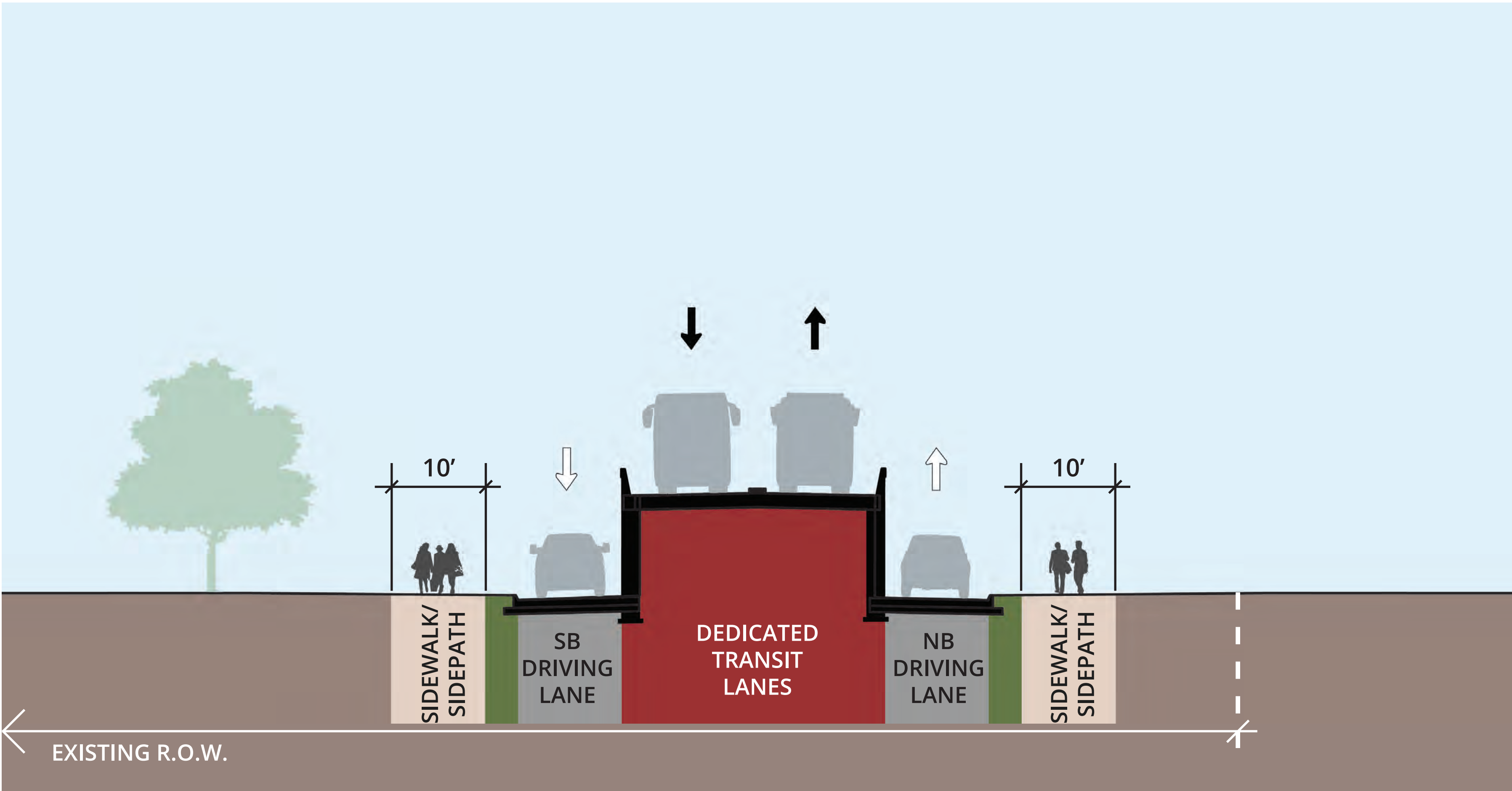
SEGMENT 4 S. LOCKWOOD DR. FROM SOUTH OF HARRISBURG BLVD. TO NORTH OF BUFFALO BAYOU (BOARD 2)



C CROSS SECTION



D CROSS SECTION



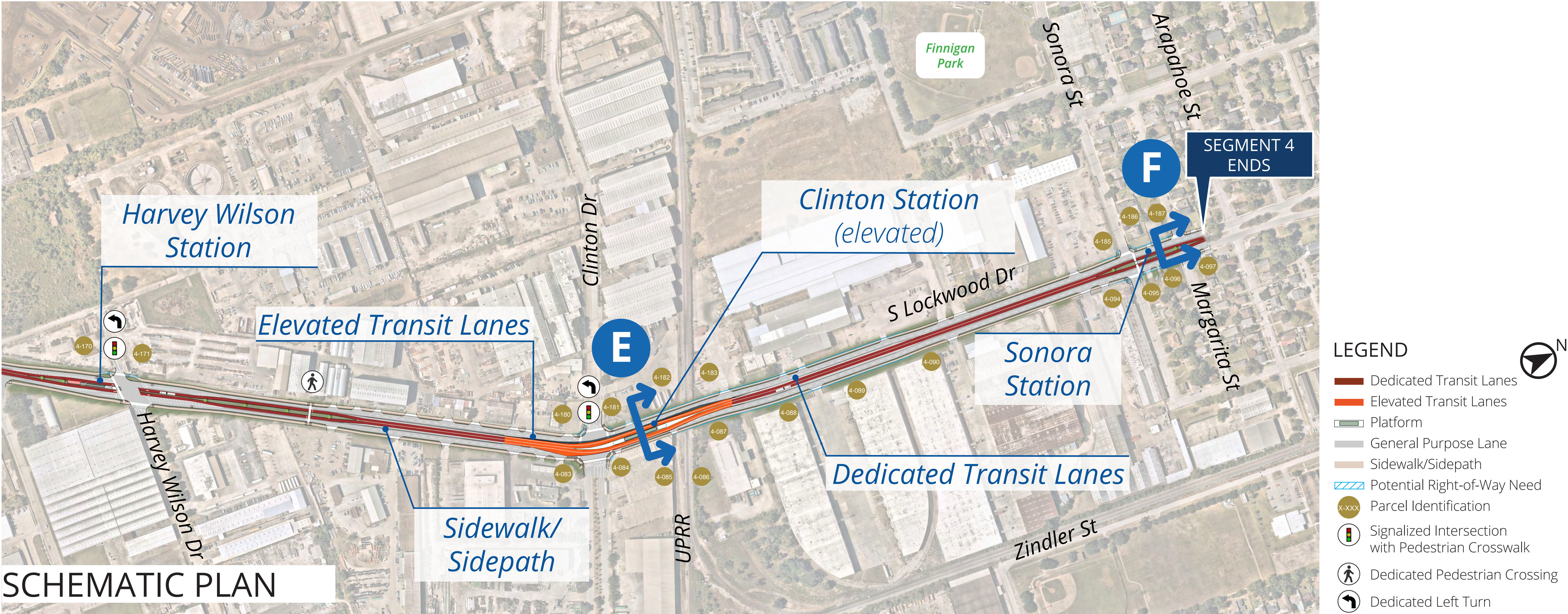
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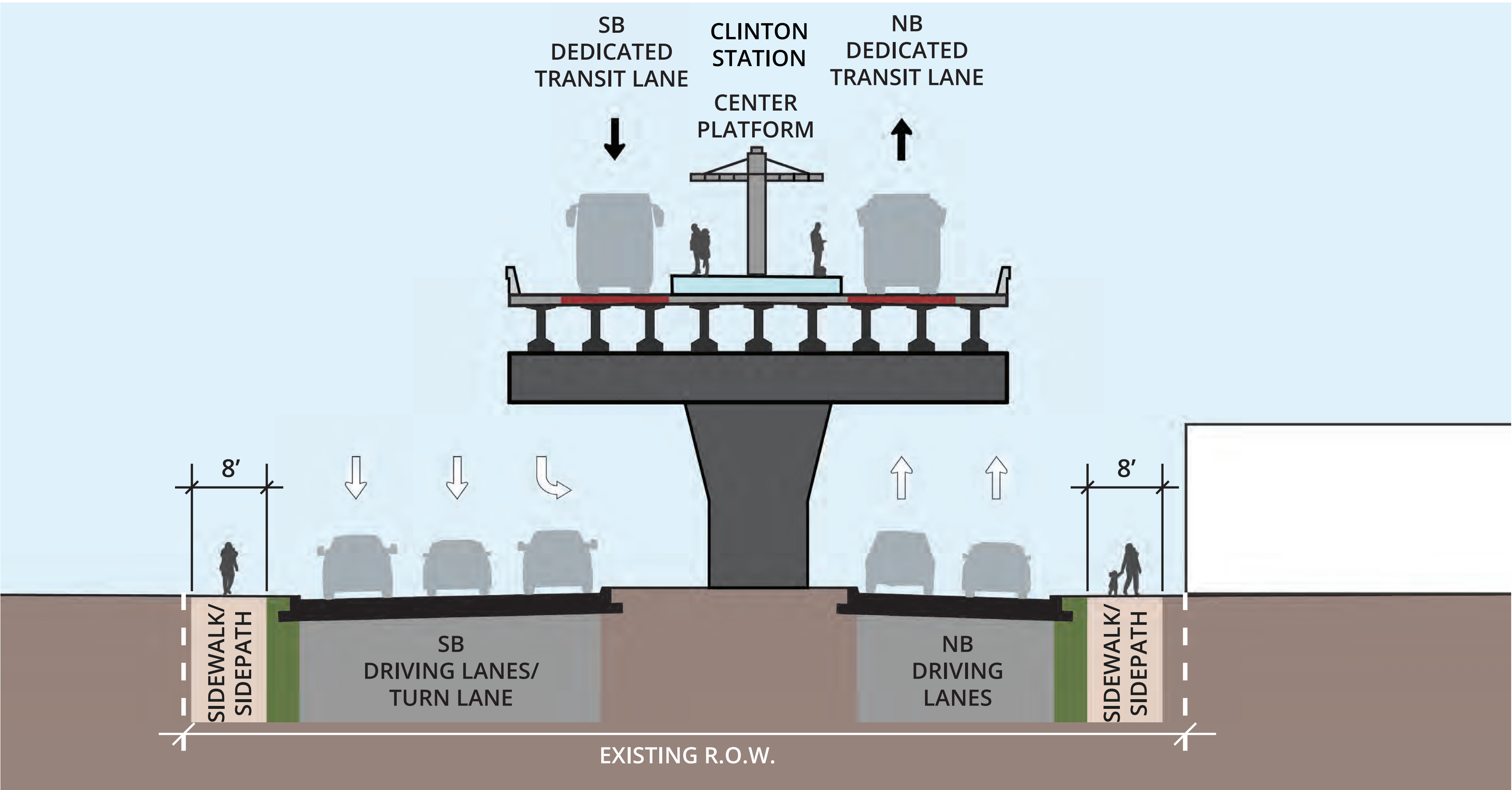
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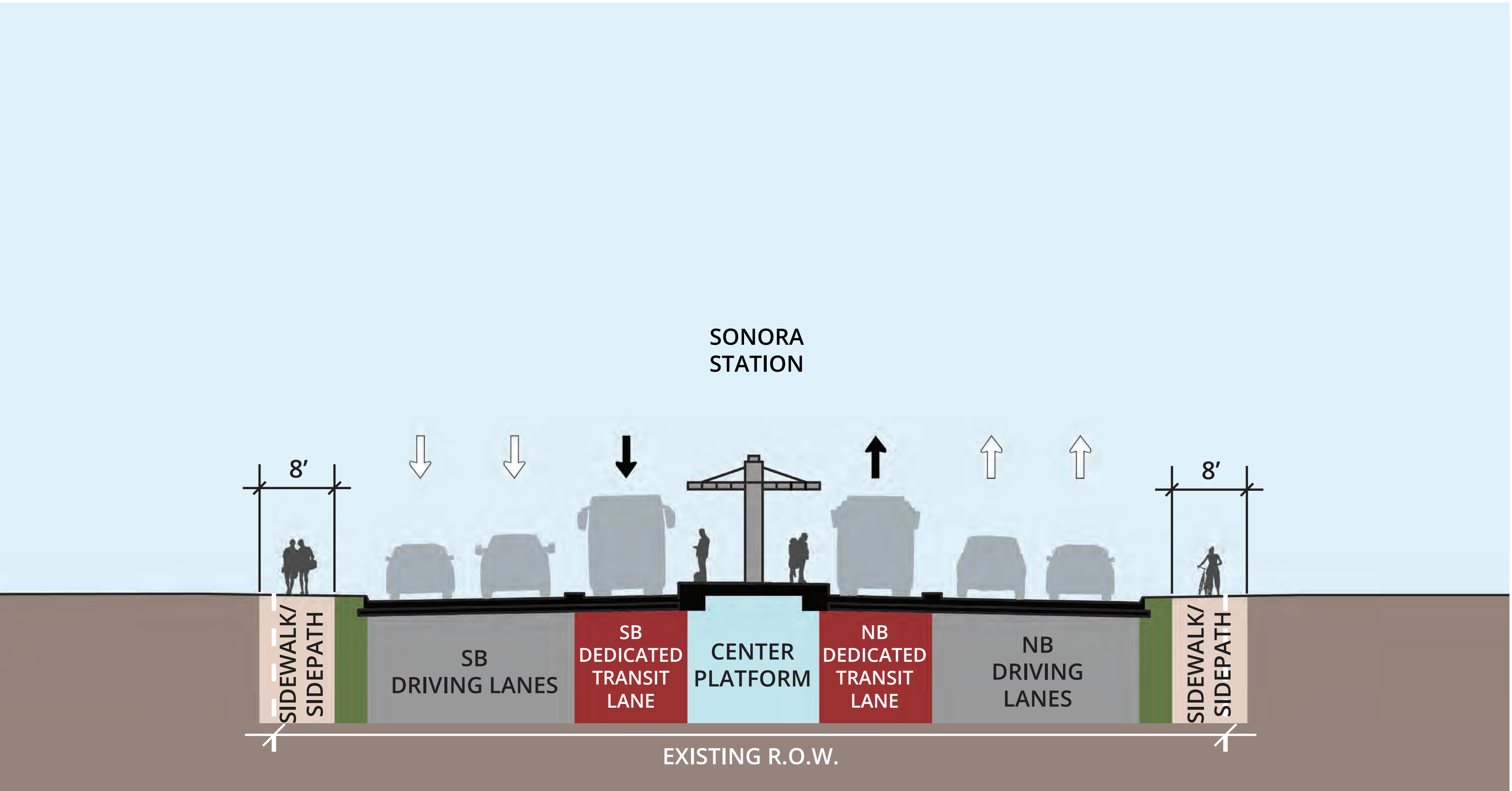
SEGMENT 4 S. LOCKWOOD DR. FROM SOUTH OF HARVEY WILSON DR. TO MARGARITA ST. (BOARD 3)



E CROSS SECTION



F CROSS SECTION



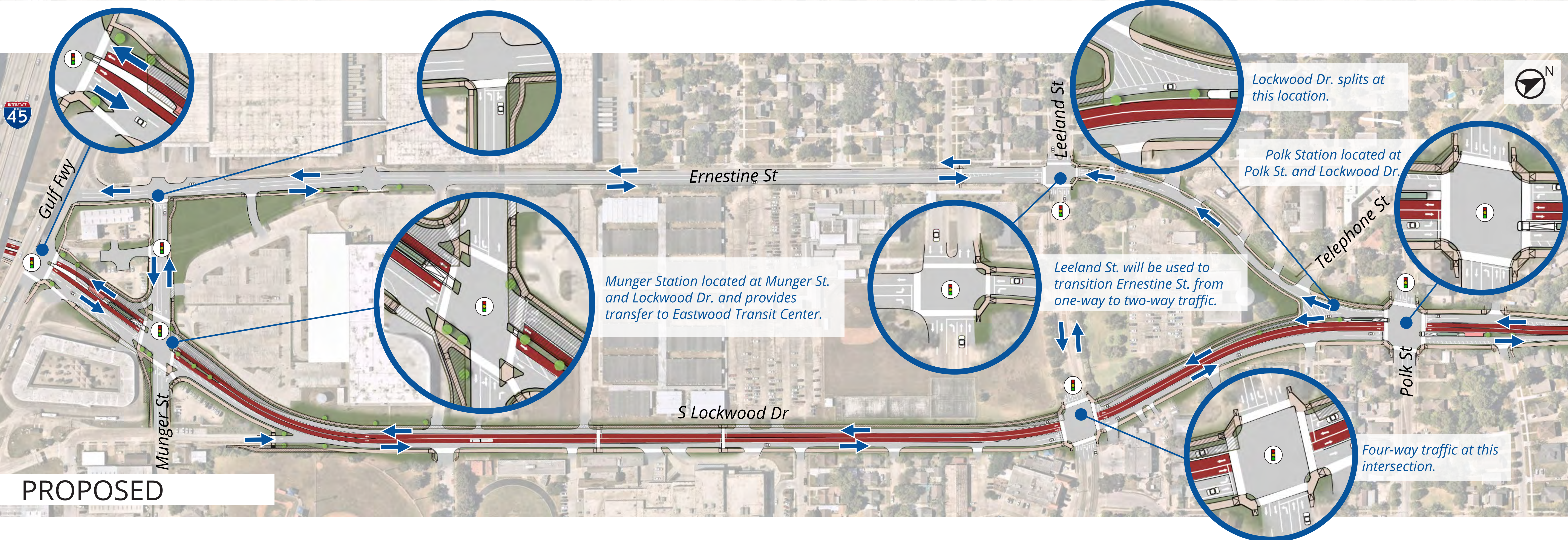
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LOCKWOOD DR. / ERNESTINE ST.

SEGMENT 4 PROPOSED TRAFFIC FLOW CHANGES



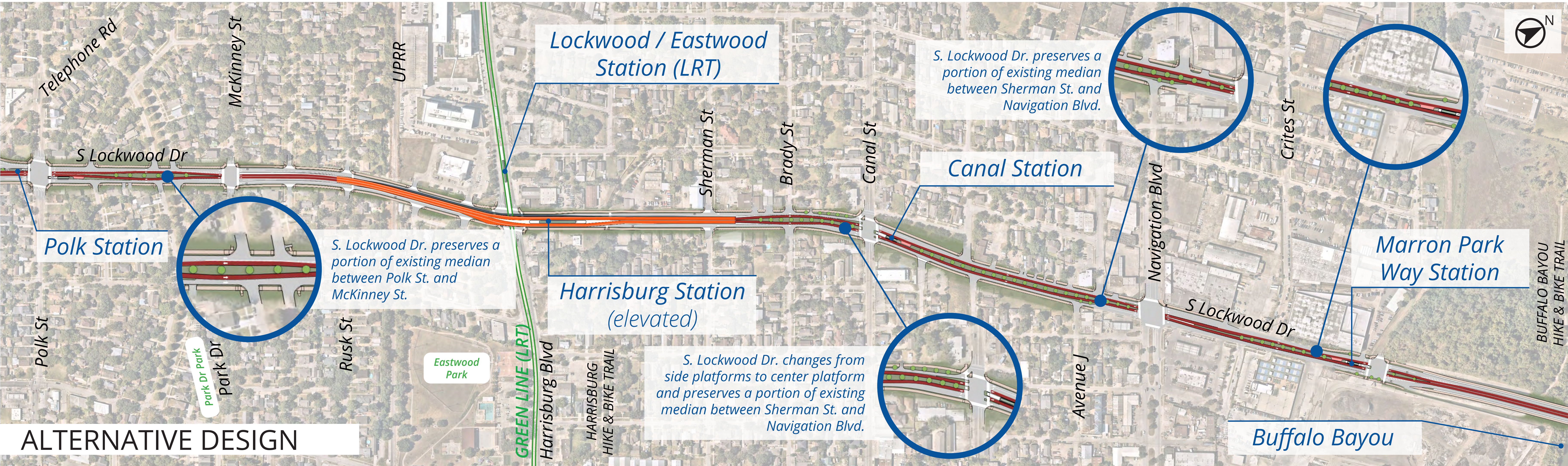
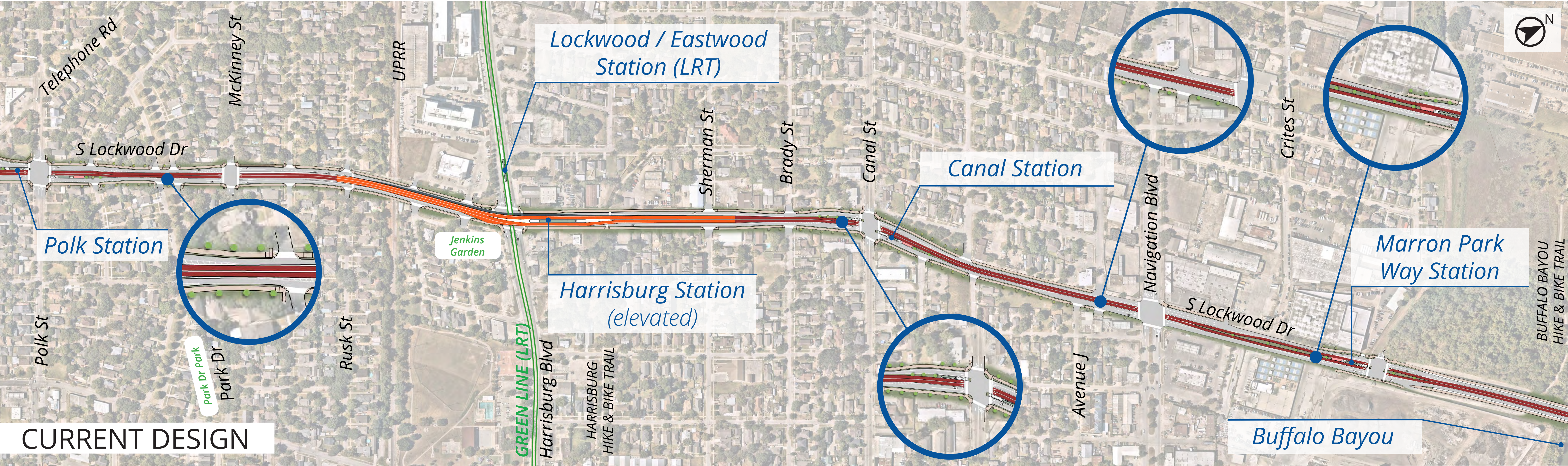
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POLK ST. TO BUFFALO BAYOU

SEGMENT 4 CURRENT DESIGN VS ALTERNATIVE DESIGN COMPARISON



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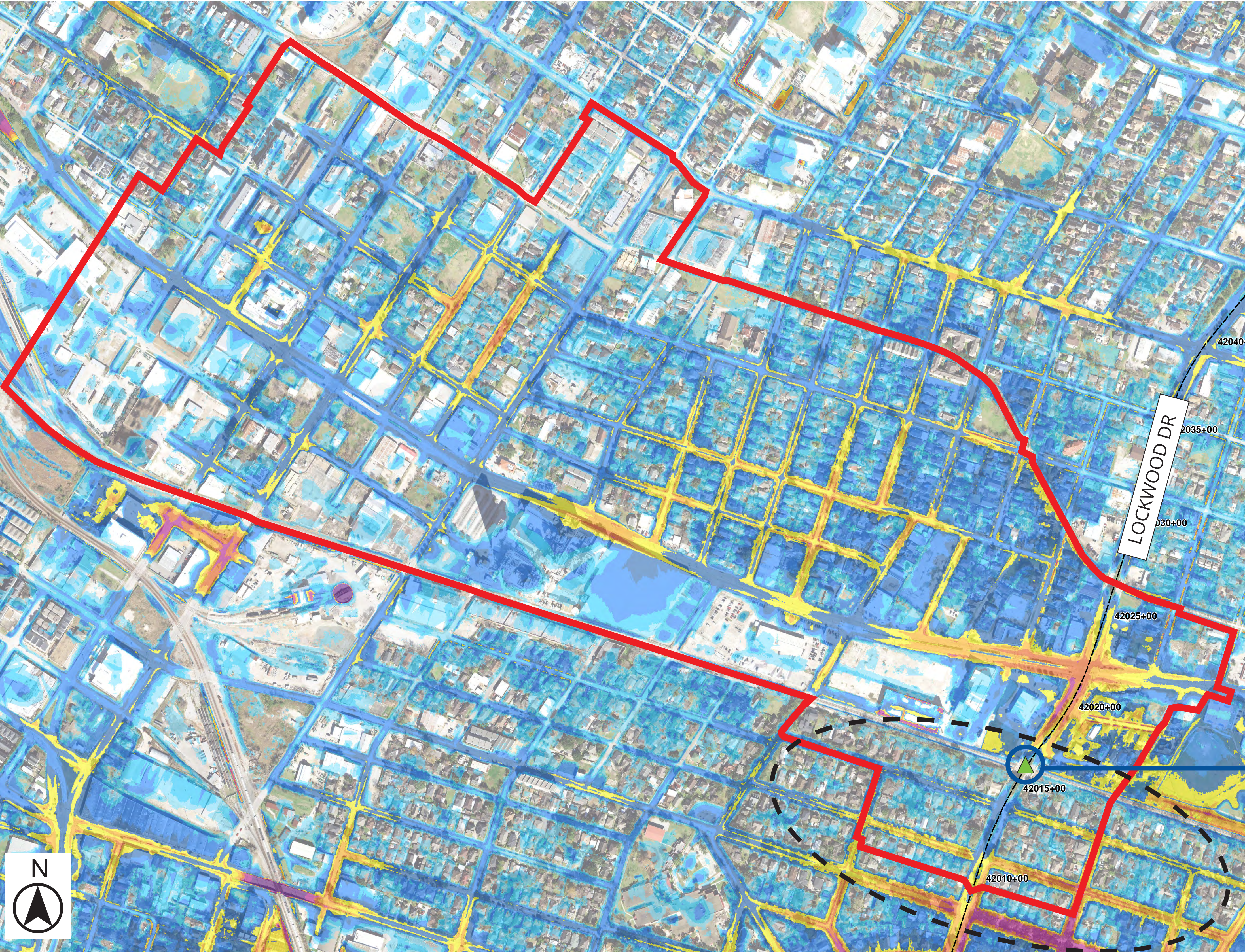


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UNDERPASS FEASIBILITY ANALYSIS

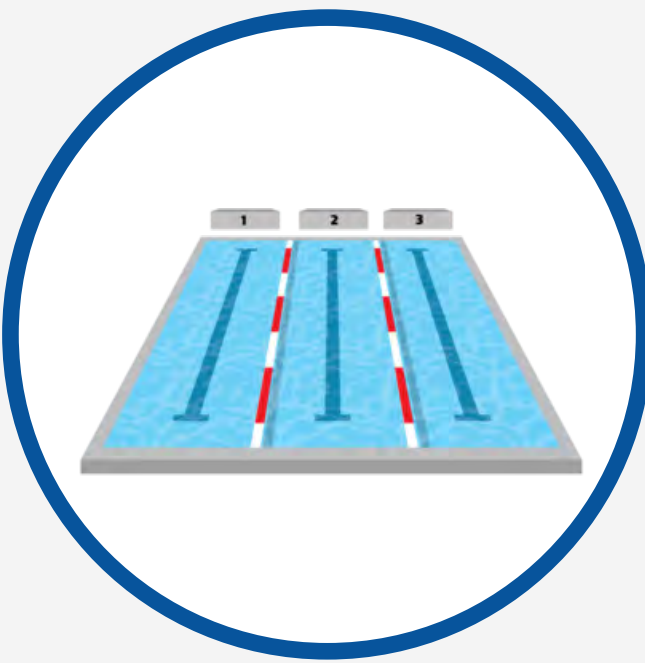
VEHICLES CROSSING UNDER UPRR AT LOCKWOOD DR. SOUTH OF HARRISBURG BLVD.

Segment 4 - Lockwood Dr. at UPRR near Harrisburg Blvd.
PROPOSED UNDERPASS ROADWAY IS AT THE LOWEST POINT OF THE DRAINAGE AREA



In order to accommodate the underpass option, the following is needed during a 100 year rain event:

- Stormwater Pumps
- Diesel Generators
- Fuel Storage
- Detention Basin



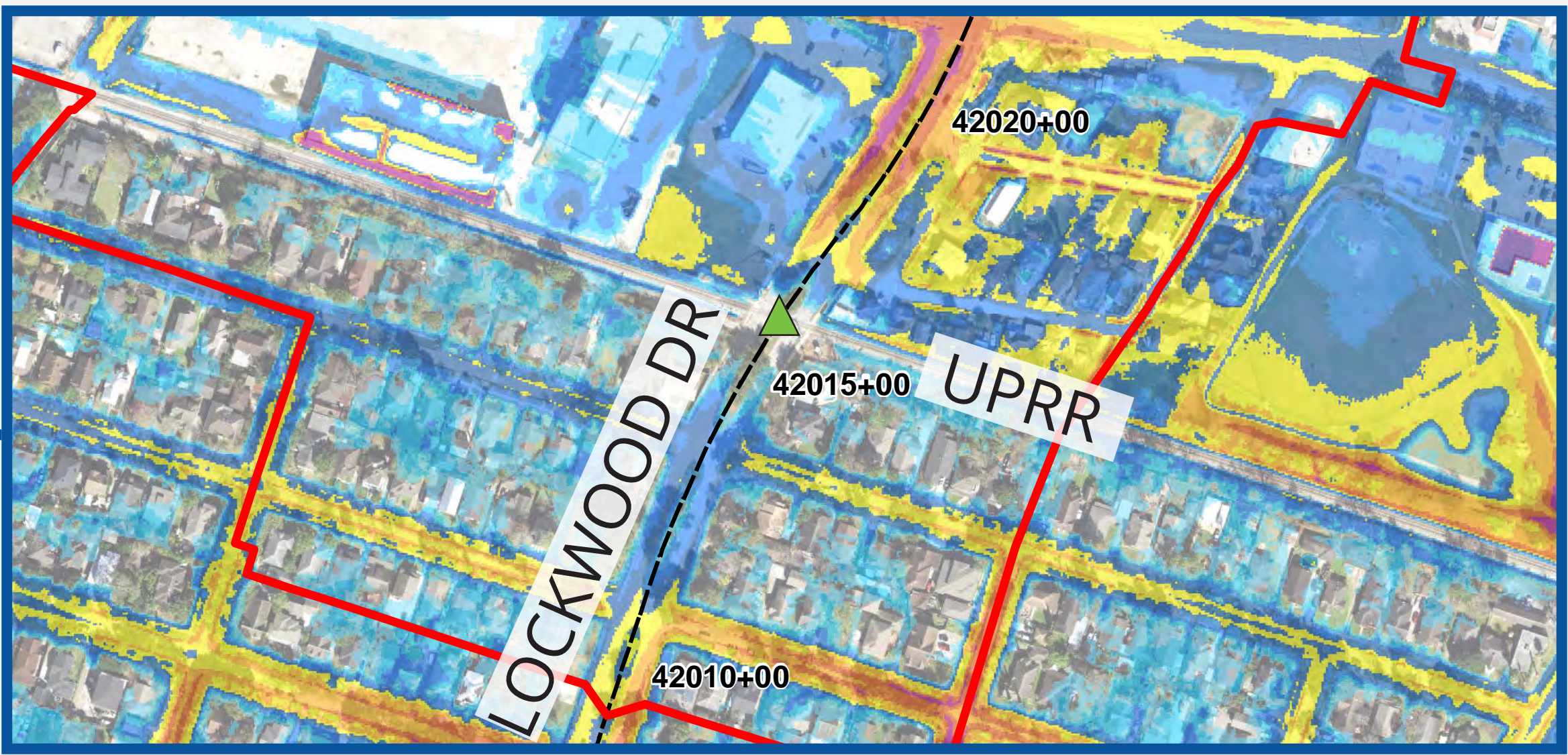
Drainage area collects enough water to fill an olympic pool in **2 minutes**



Area needed for storm complex equipment takes up approximately **3 acres of land**, equivalent to **2 Houston city blocks**



Generators consume **2.5 tanker trucks** worth of fuel in 72 hours, creating potential air pollution to surrounding areas



Zoomed-in view of proposed underpass location

LEGEND

- Proposed Underpass Location
- Alignment
- Proposed Underpass Drainage Area (270 Acres)
- Area with potential flood impacts from underpass

**Areas that don't normally flood in a 100 year rain event would have an increased risk of flooding if the underpass option were to be selected*

LEVEL OF WATER IN A 100-YEAR RAIN EVENT (IN FT)

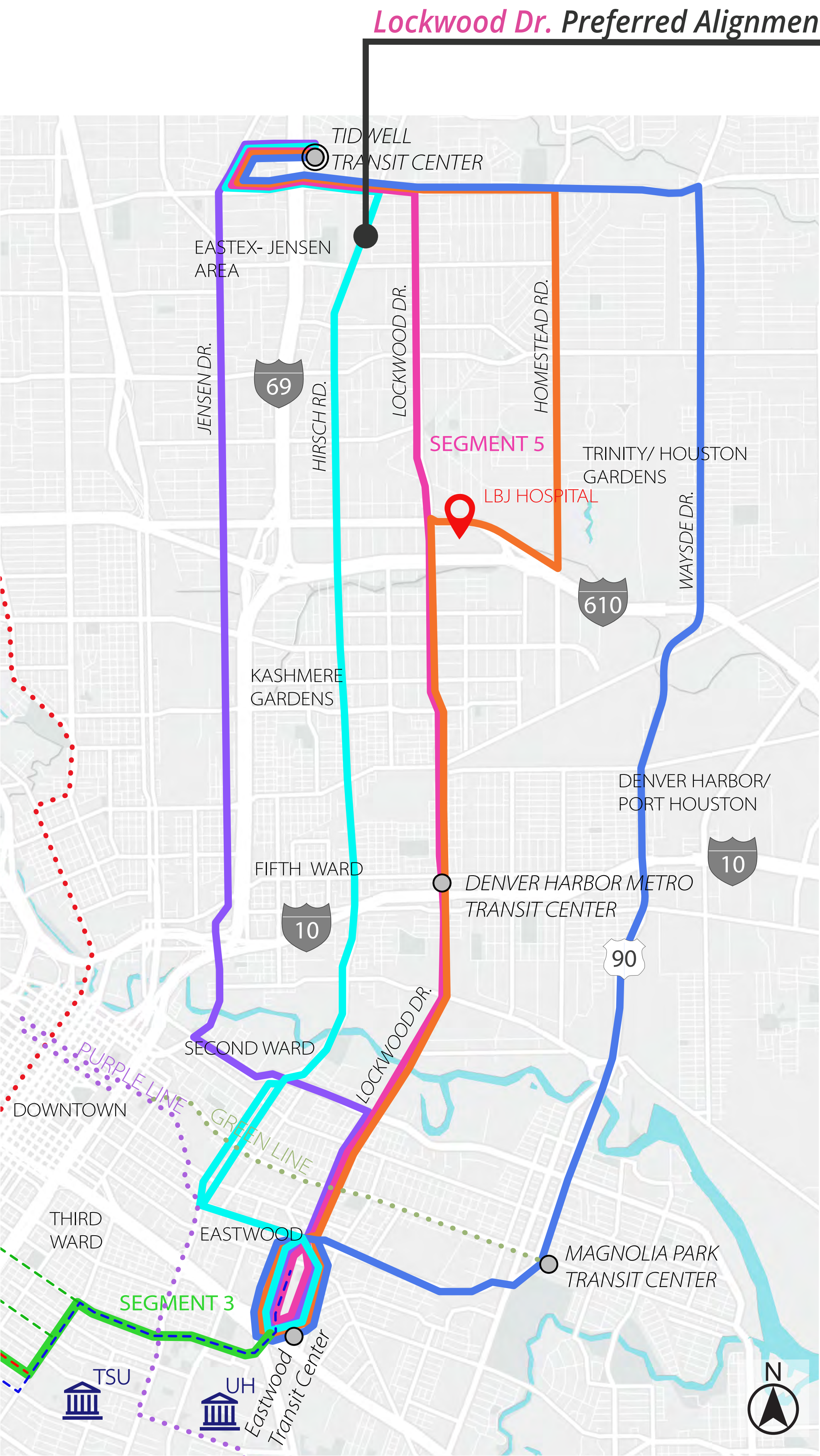
0.0 - 0.25	1.0 - 1.5	2.5 - 3
0.25 - 0.5	1.5 - 2	3.0 - 5.0
0.5 - 1	2.0 - 2.5	>5.0

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WHY LOCKWOOD DR. IS THE PREFERRED ALIGNMENT



LEGEND

- Jensen Alignment
- Hirsch Alignment
- Lockwood Alignment
- Homestead Alignment
- Wayside Alignment

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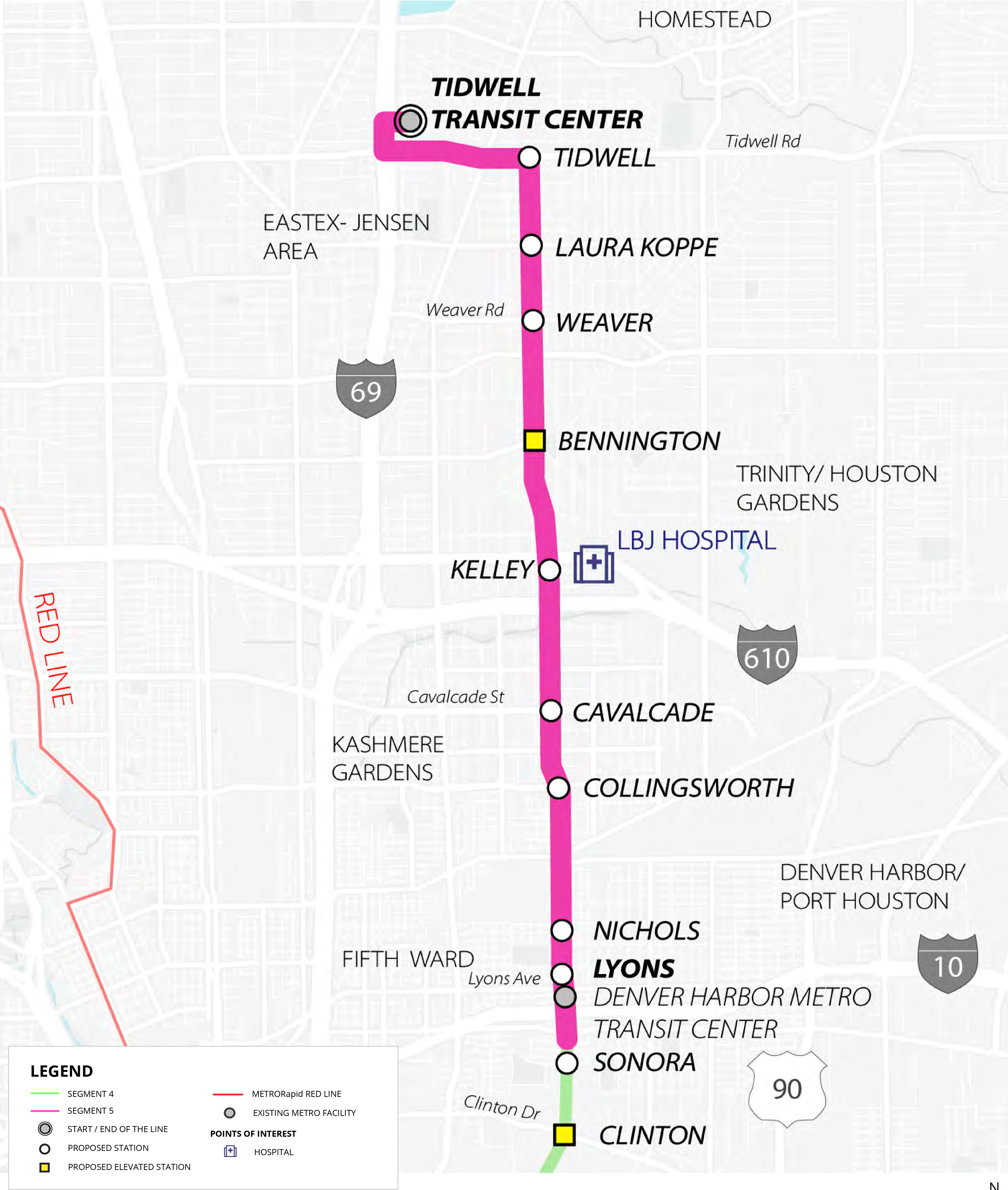
Criterion		Jensen Dr.	Hirsch Rd.	Lockwood Dr.	Homestead Rd.	Wayside Dr.
Land Use (= Lowest % industrial)						
Historic Properties, Parks, Cemeteries (= Fewest impacts)						
Right of Way (= Widest average right of way)						
Running Time (= Fastest running time)						
Forecasted Ridership (= Highest ridership)						
Forecasted Annual Capital Cost (= Lowest cost)						
Forecasted Annual Operating Cost (= Lowest cost)						

PREFERRED ALIGNMENT



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SEGMENT 5 DENVER HARBOR TRANSIT CENTER TO TIDWELL TRANSIT CENTER

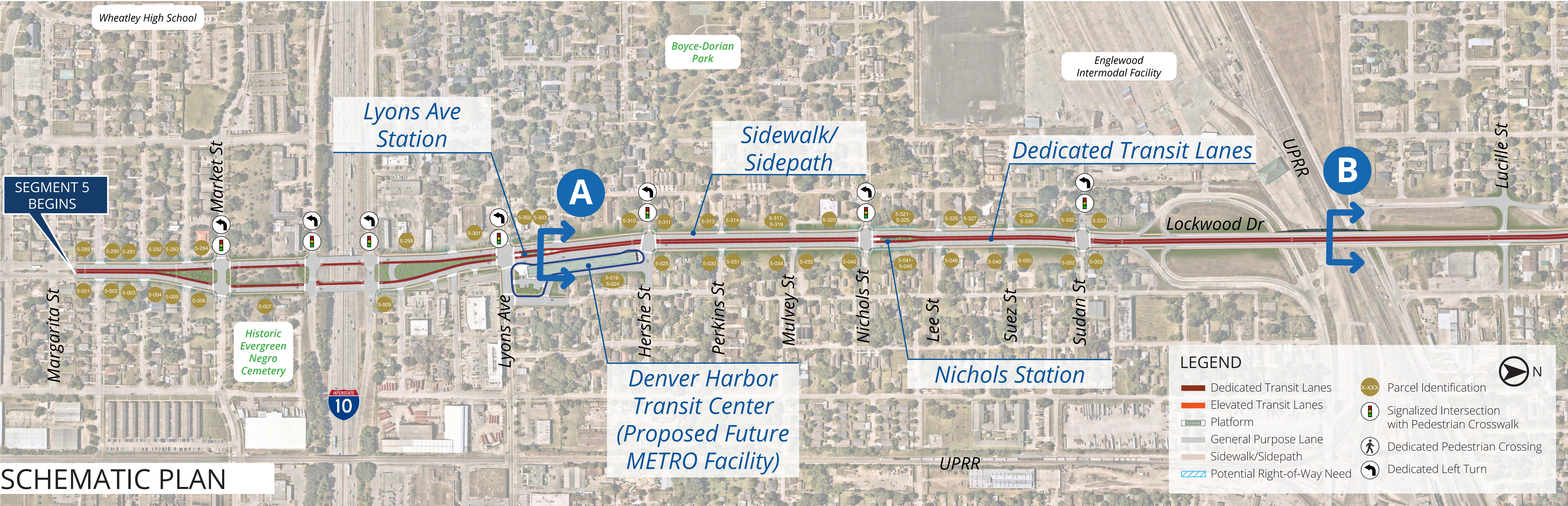


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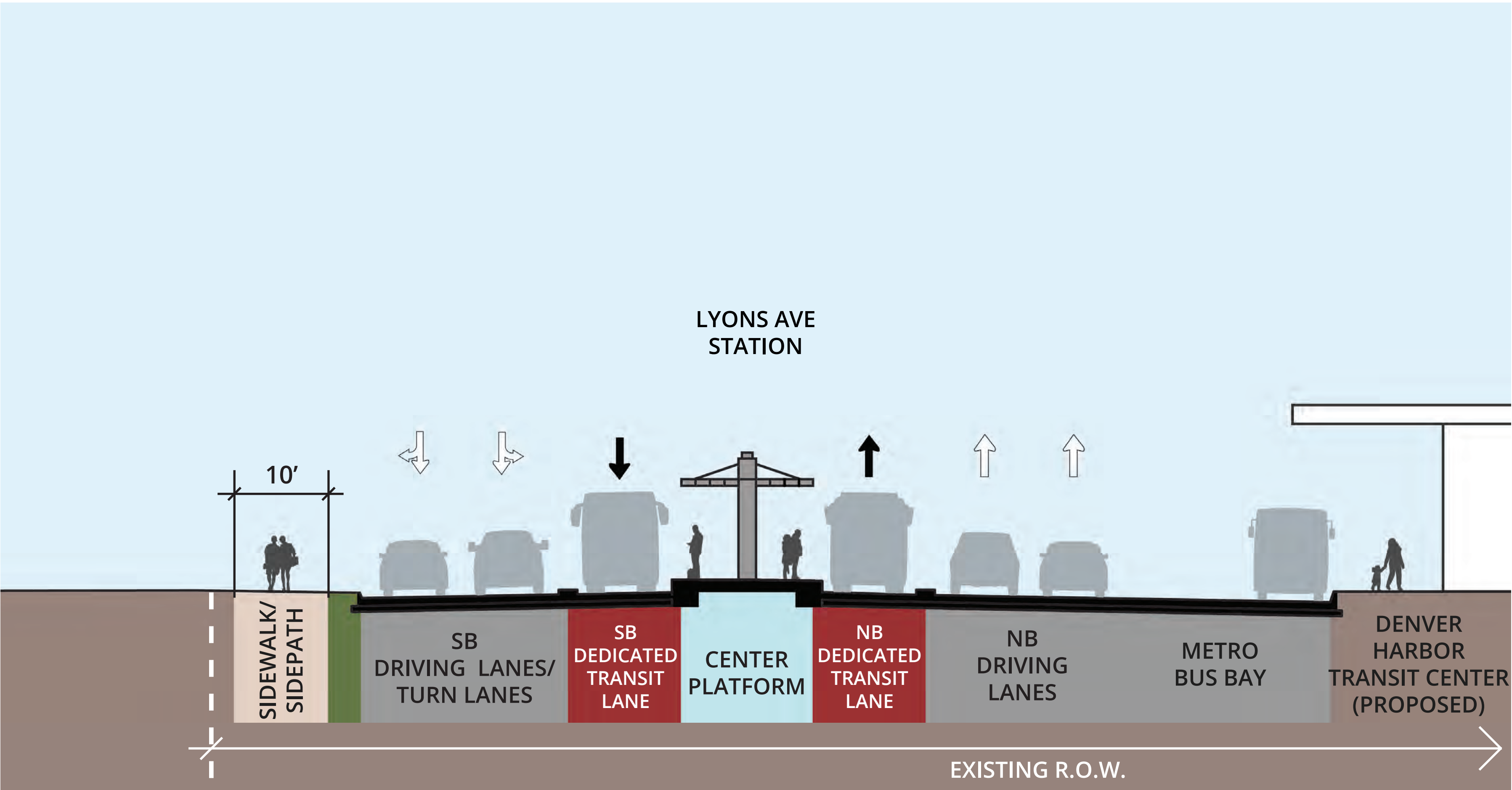


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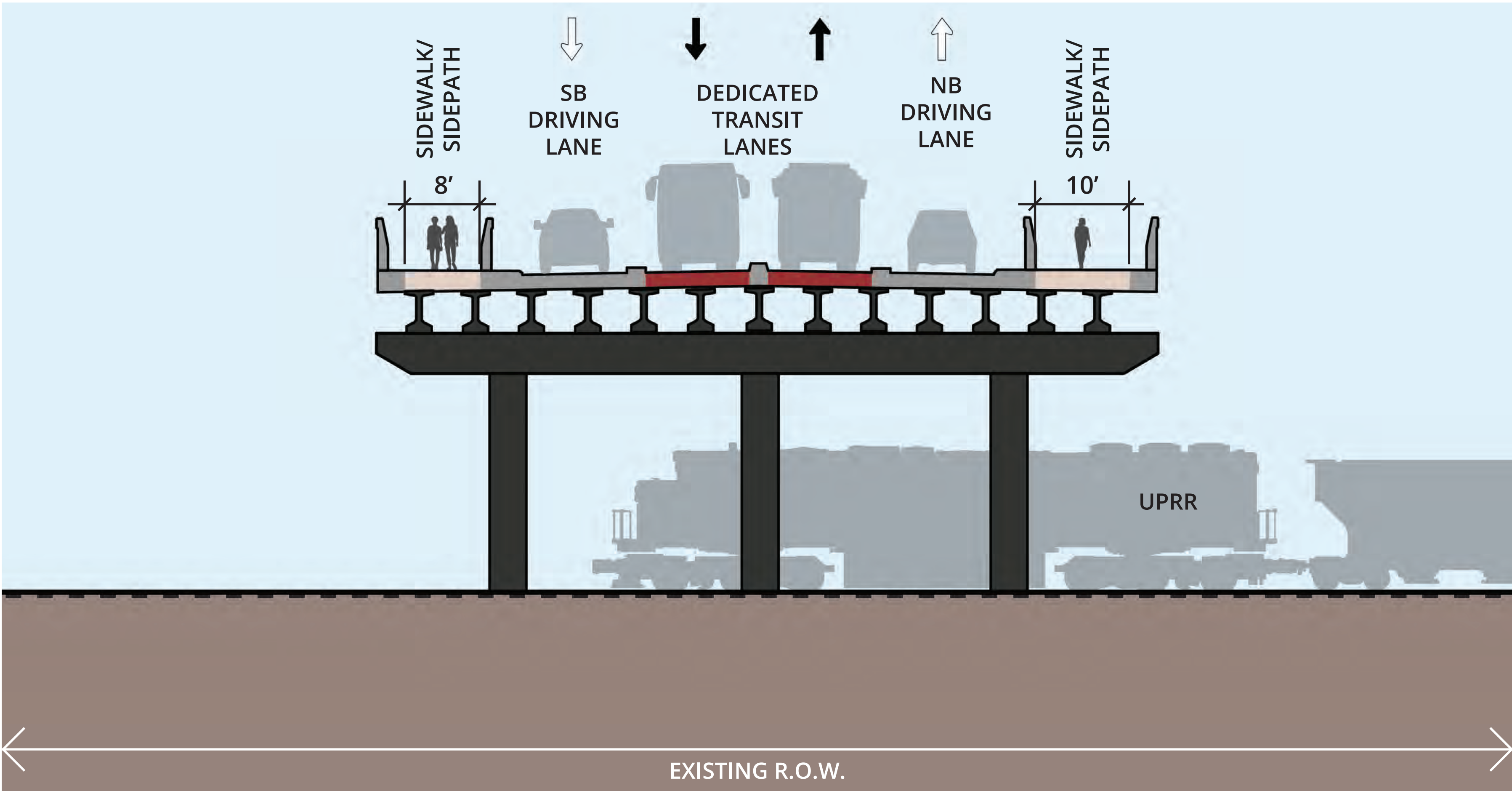
SEGMENT 5 LOCKWOOD DR. FROM MARGARITA ST. TO NORTH OF LUCILLE ST. (BOARD 1)



A CROSS SECTION



B CROSS SECTION



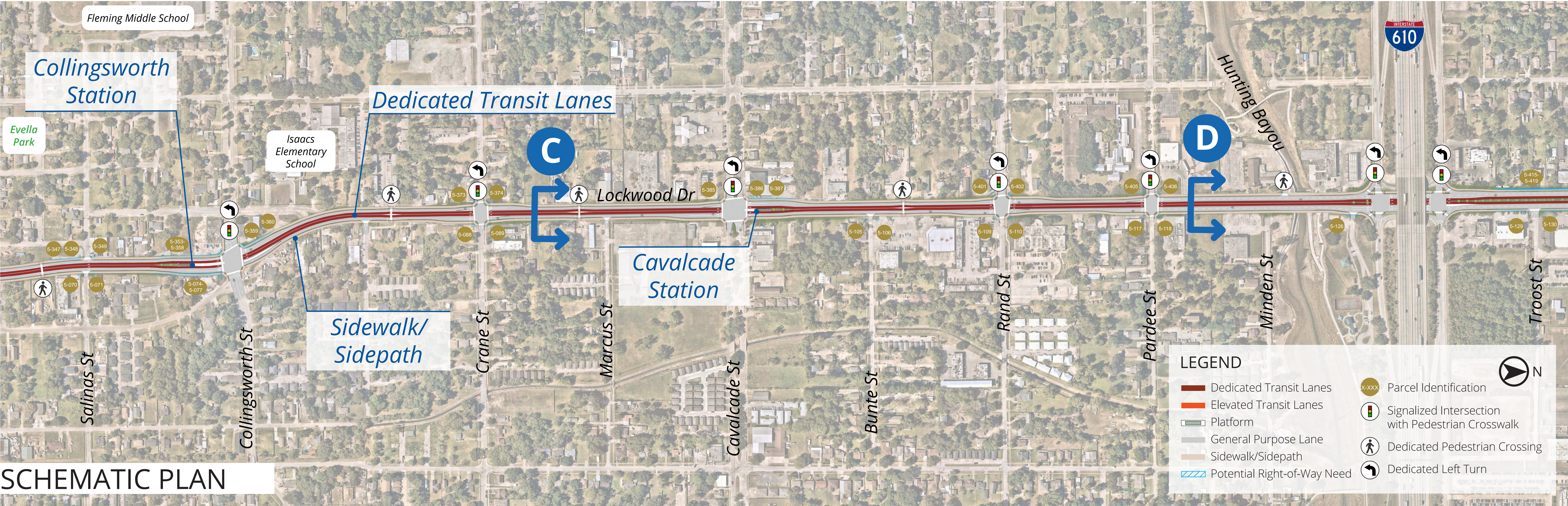
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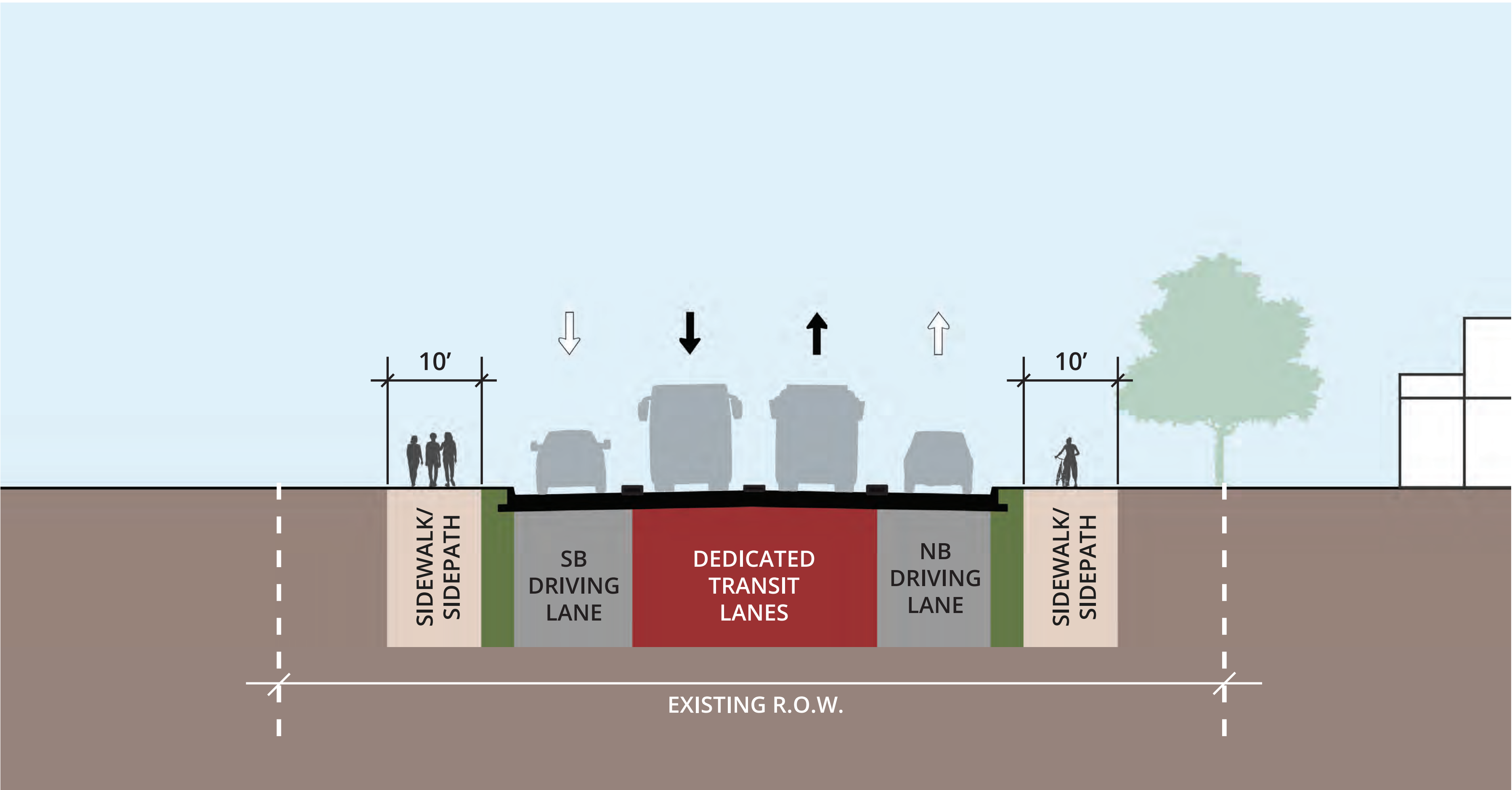
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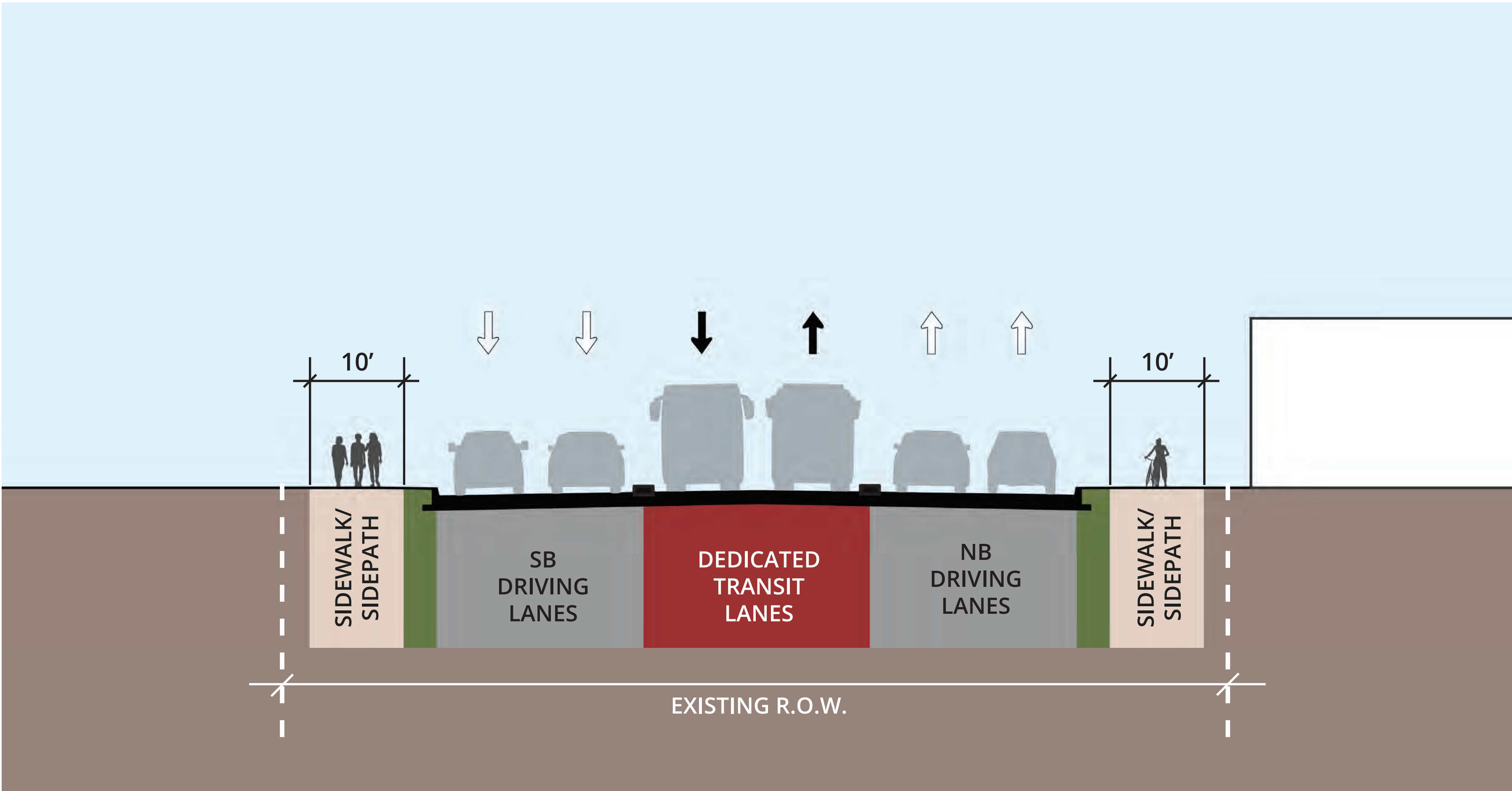
SEGMENT 5 LOCKWOOD DR. FROM SOUTH OF SALINAS ST. TO TROOST ST. (BOARD 2)



C CROSS SECTION



D CROSS SECTION



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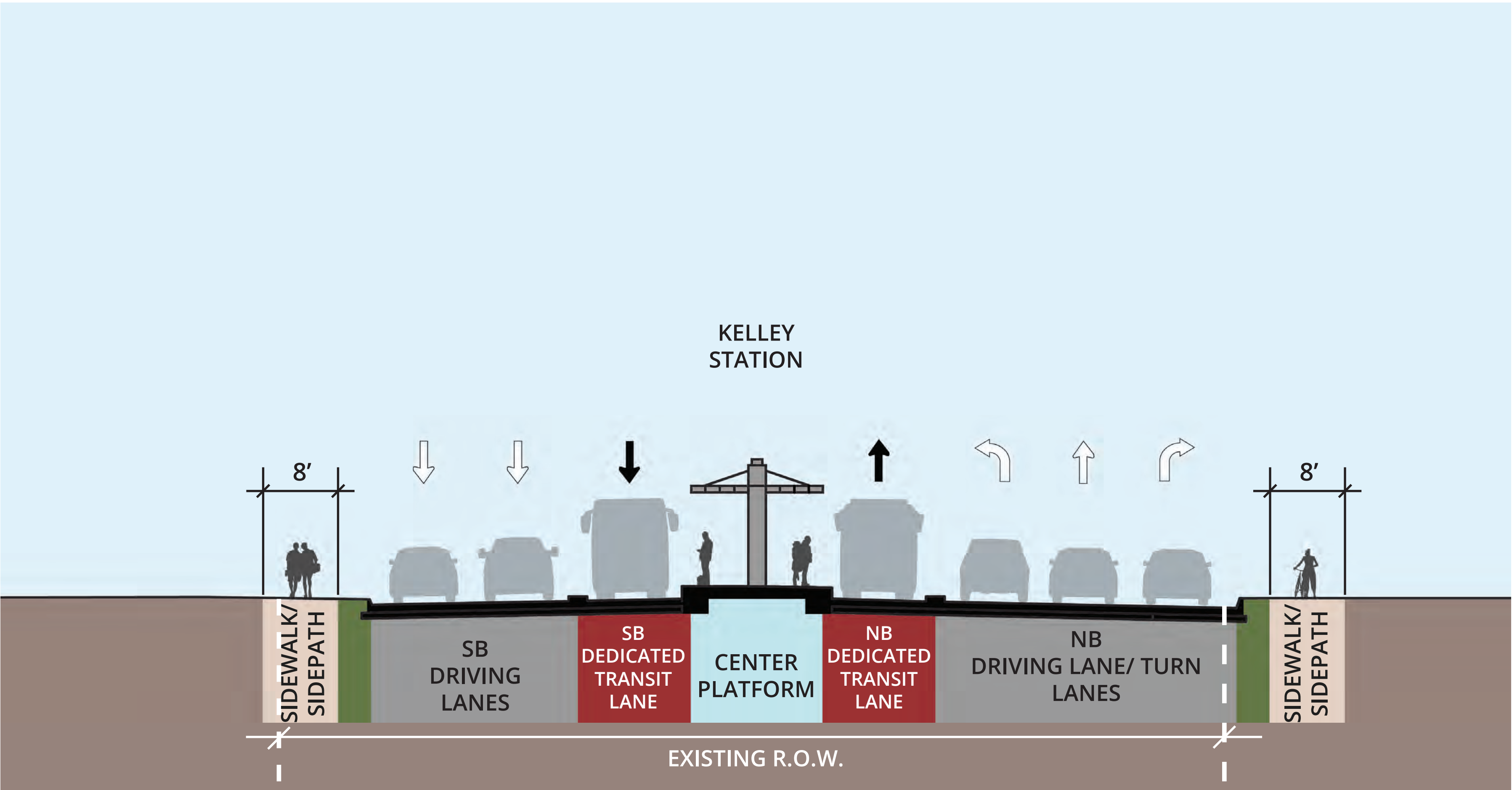
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SEGMENT 5 LOCKWOOD DR. FROM SOUTH OF KELLEY ST. TO NORTH OF CROSSTIMBERS ST. (BOARD 3)

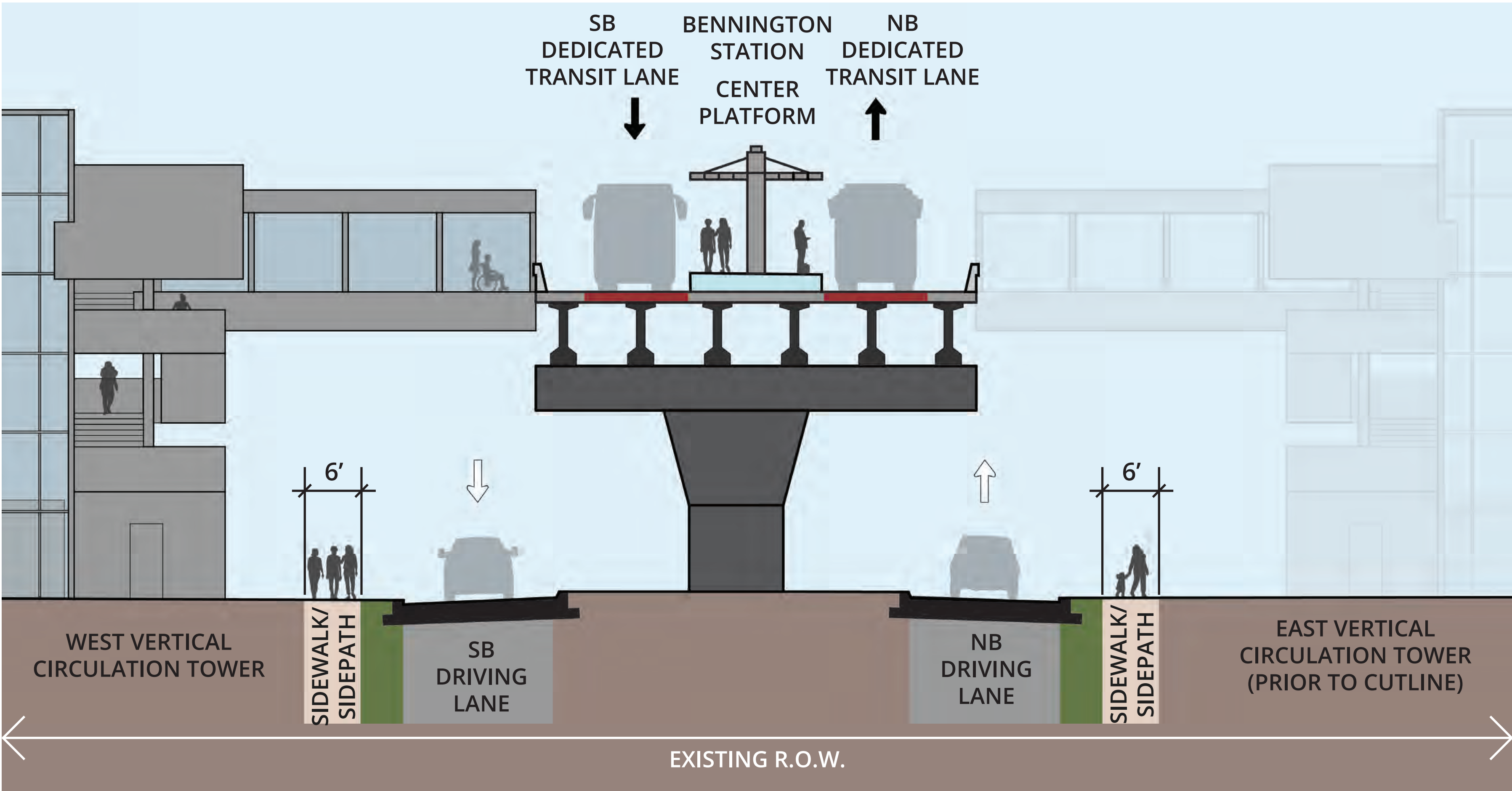


SCHEMATIC PLAN

E CROSS SECTION



F CROSS SECTION

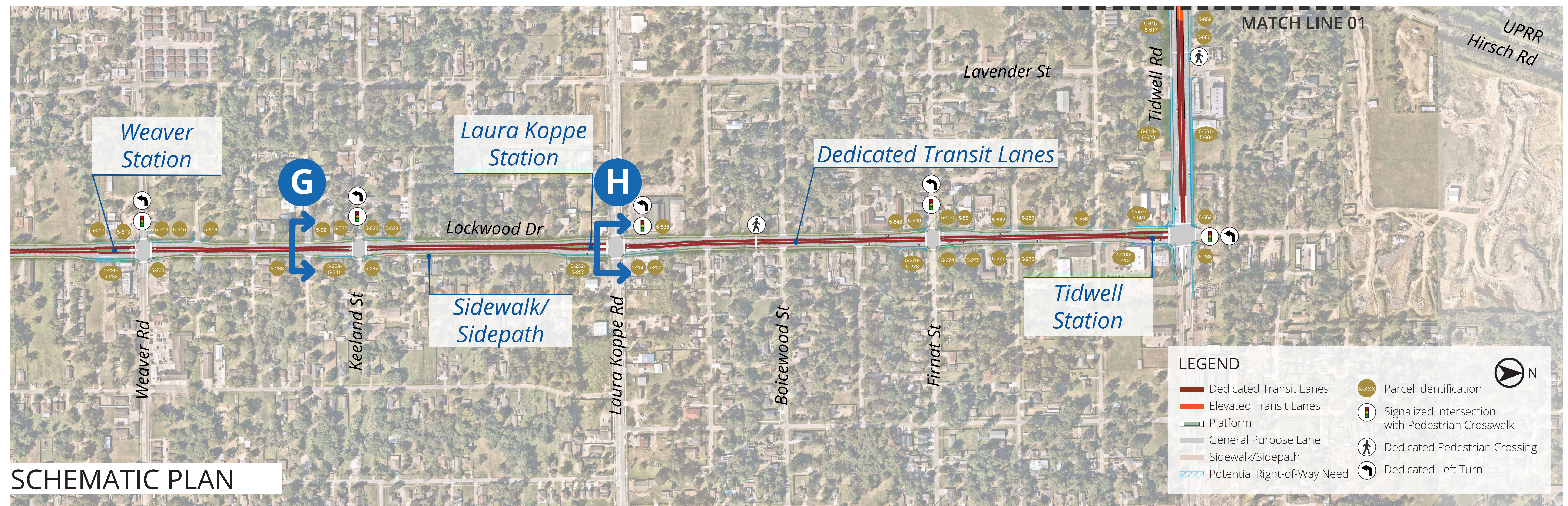


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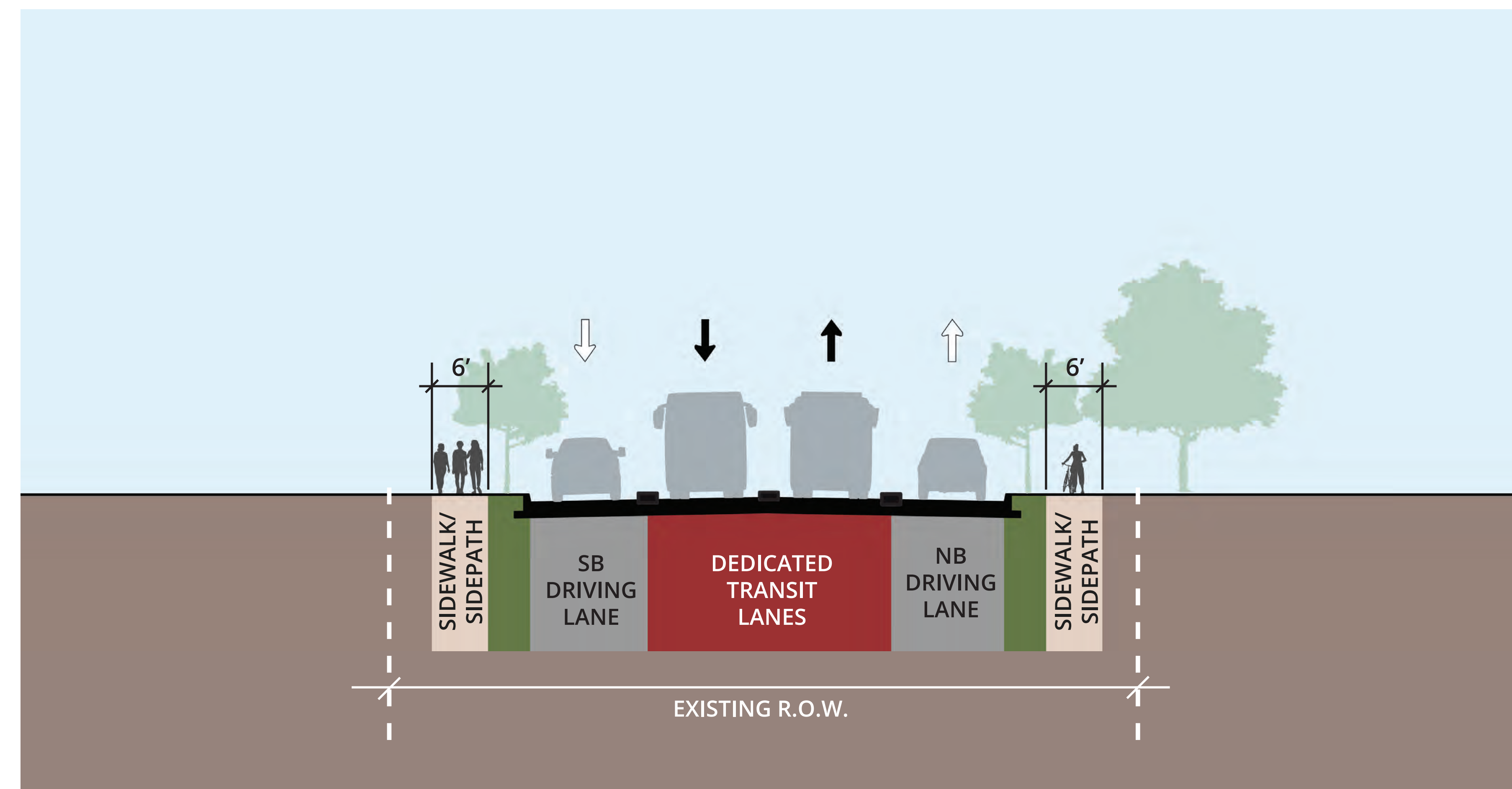


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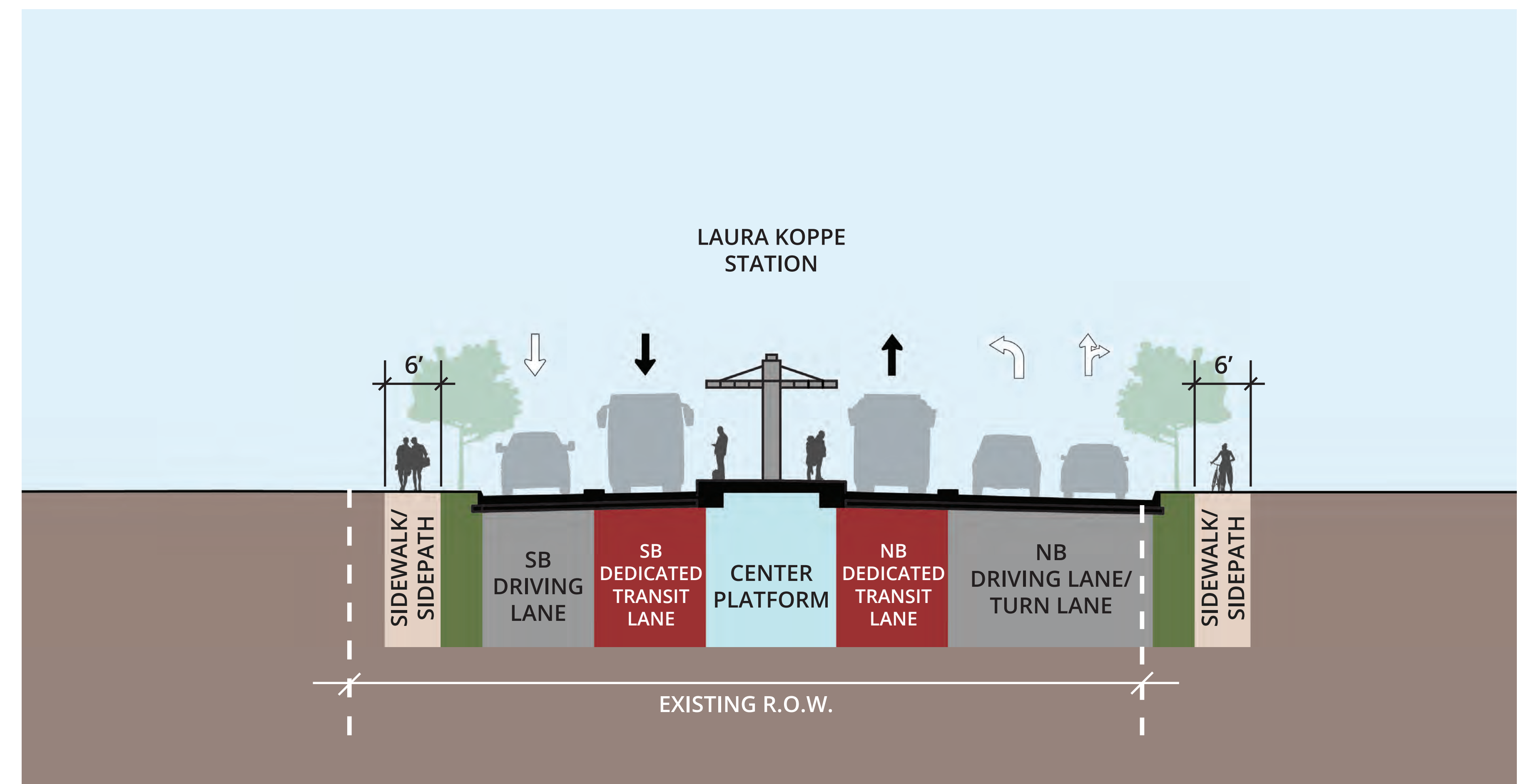
SEGMENT 5 LOCKWOOD DR. FROM SOUTH OF WEAVER RD. TO TIDWELL RD. (BOARD 4)



G CROSS SECTION



CROSS SECTION



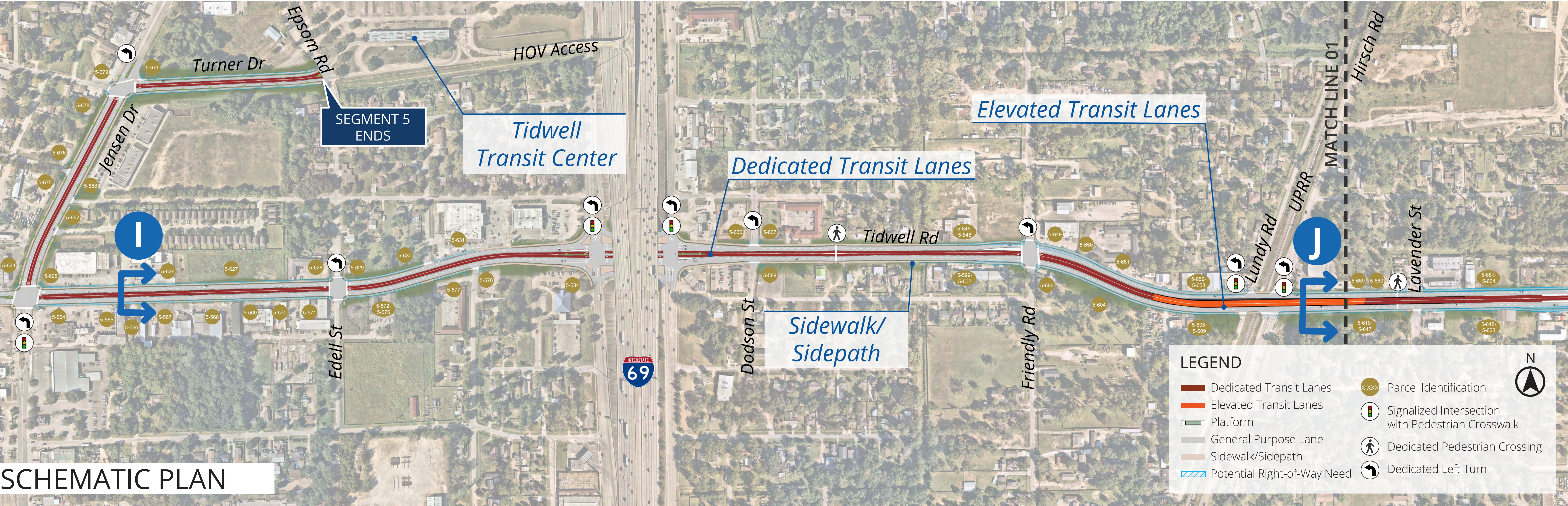
Illustrations for representational purposes only.
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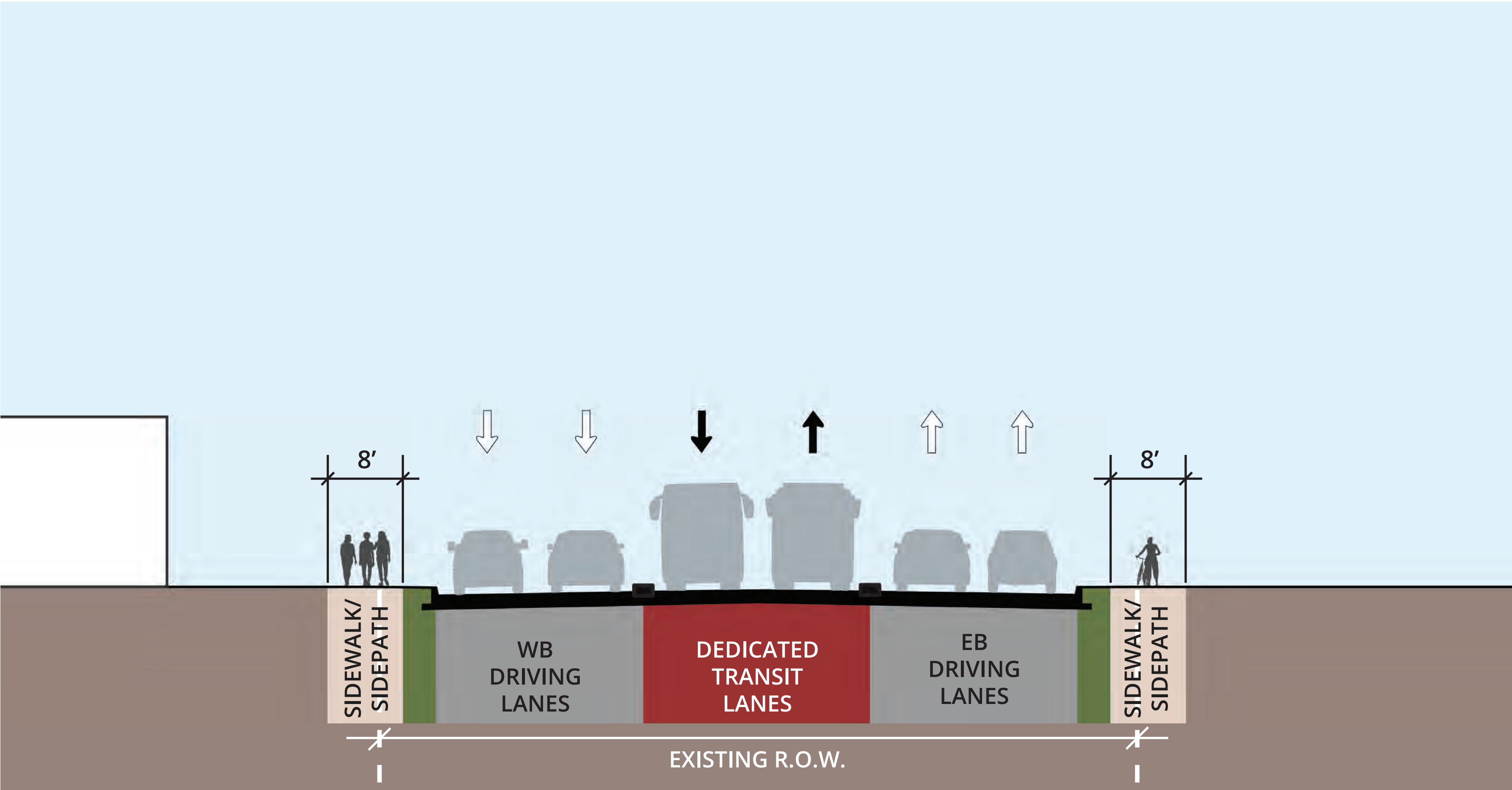
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METRORapid UNIVERSITY CORRIDOR PROJECT

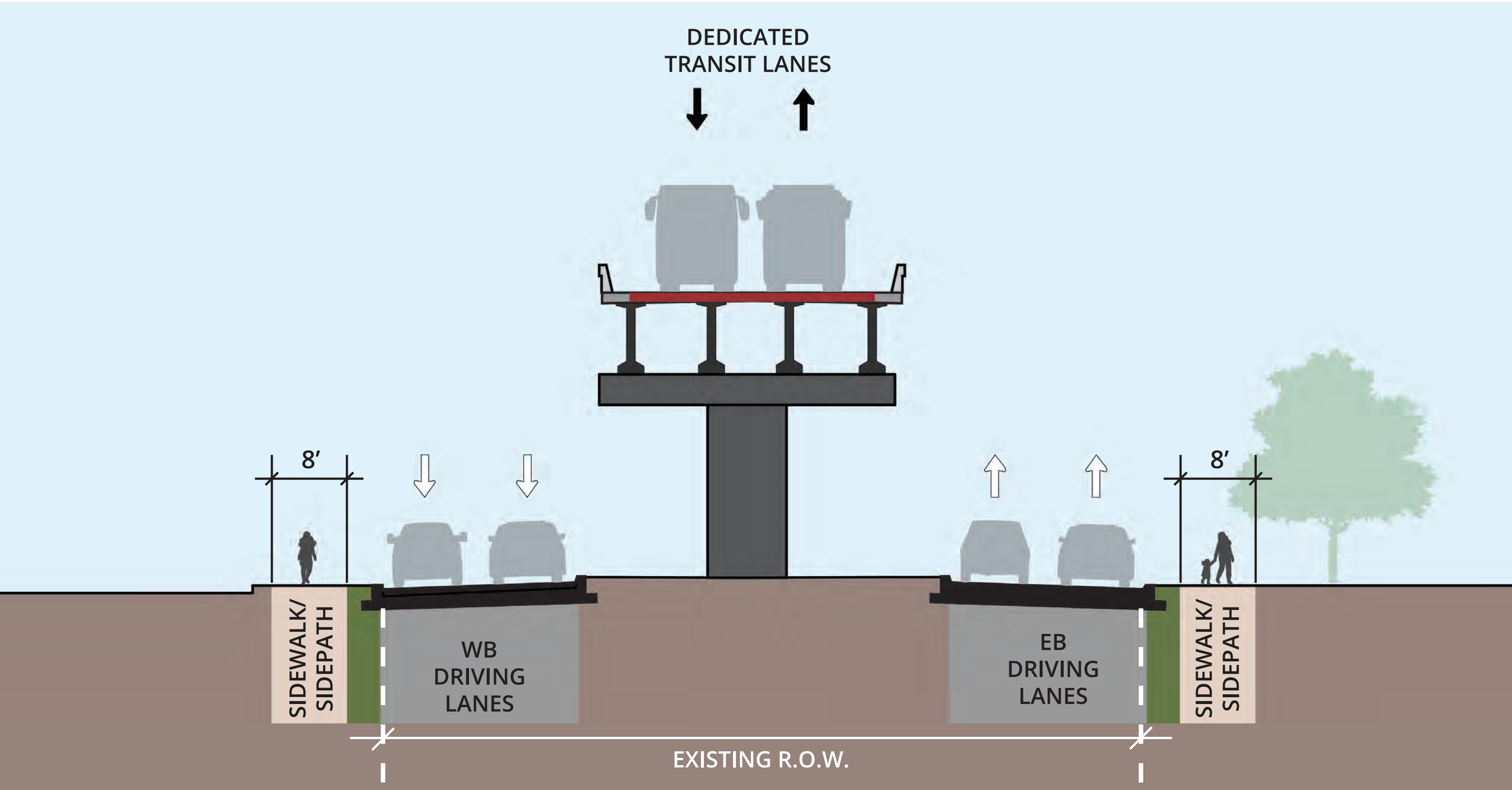
SEGMENT 5 TIDWELL RD. FROM TIDWELL TRANSIT CENTER TO WEST OF LOCKWOOD DR. (BOARD 5)



I CROSS SECTION



J CROSS SECTION



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WALKABILITY, STORMWATER MANAGEMENT & ENVIRONMENTAL IMPROVEMENTS

EXISTING STREET CONDITIONS



Richmond Ave. between Mandell St. and Montrose Blvd. - Uneven surfaces and trees blocking sidewalk



Typical open drainage ditch in Houston residential neighborhoods



Lockwood Dr. near Collingsworth St. Intersection - Overgrown sidewalks



Lockwood Dr. near Collingsworth St. Intersection - Overgrown sidewalks



Lockwood Dr. at Bennington St. near UPRR - No sidewalks



Lockwood Dr. at Bennington St. near UPRR - Unsignalized pedestrian crossings

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WALKABILITY, STORMWATER MANAGEMENT & ENVIRONMENTAL IMPROVEMENTS

PROPOSED ENHANCEMENT AND BENEFITS



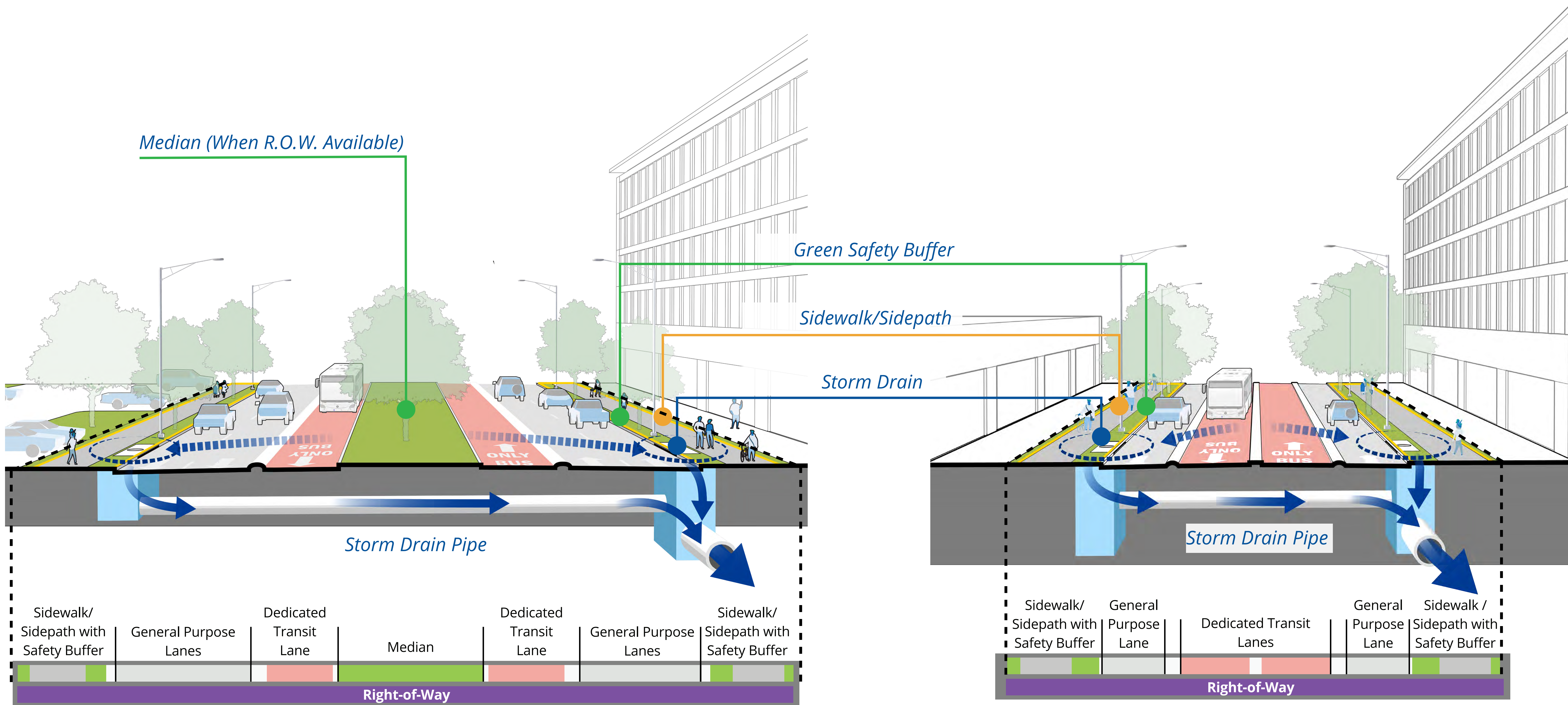
WALKABLE
COMMUNITY



ENVIRONMENTAL
IMPROVEMENTS



STORMWATER
MANAGEMENT



At Segment 2 -
Richmond Ave. / Eastside St.

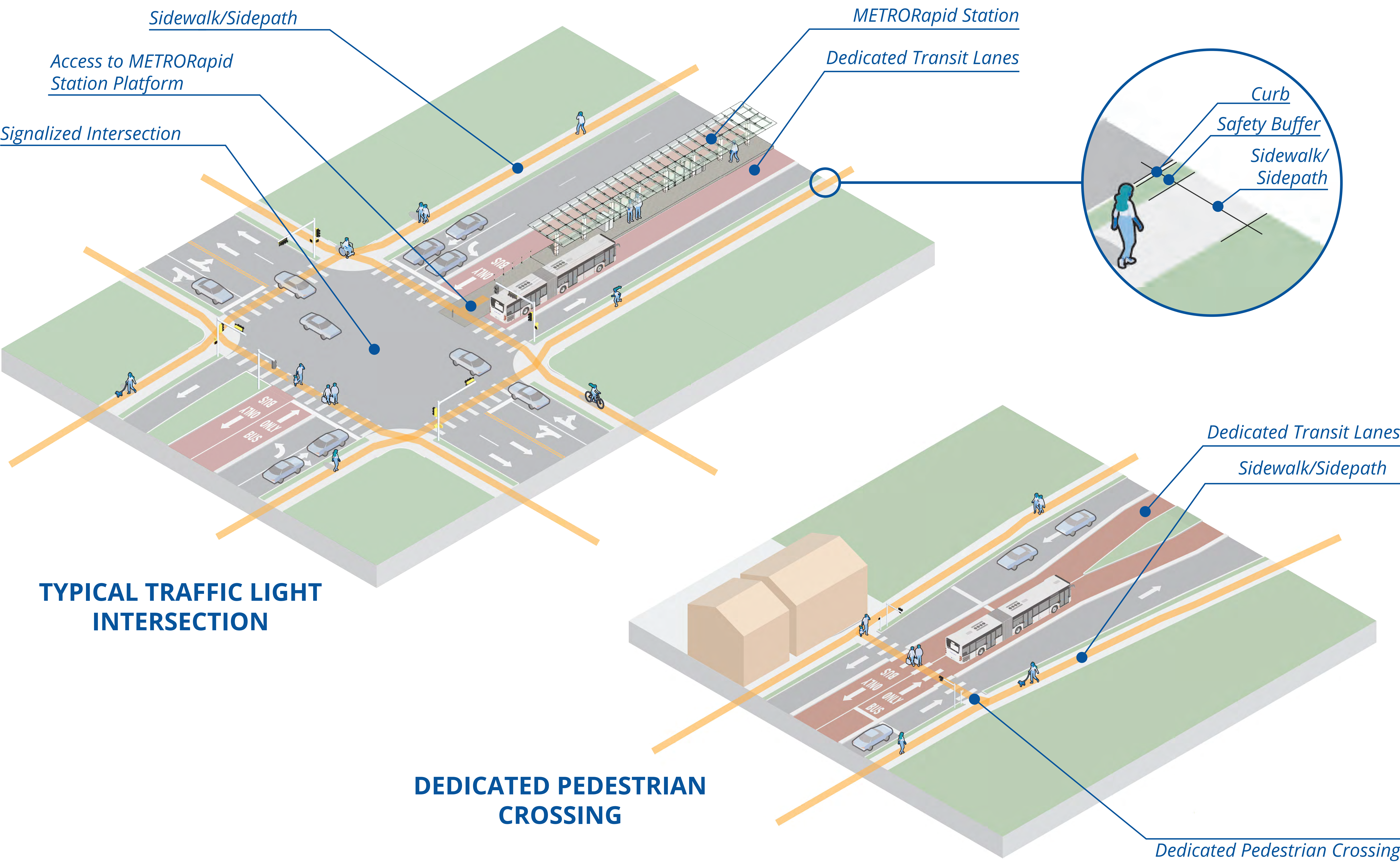
At Segment 2 -
Richmond Ave. / Graustark St.

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PEDESTRIAN & BIKE ACCESS




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HOW DOES THE METRORapid UNIVERSITY CORRIDOR PROJECT IMPROVE QUALITY OF LIFE?








Customer 1

(32 years old)

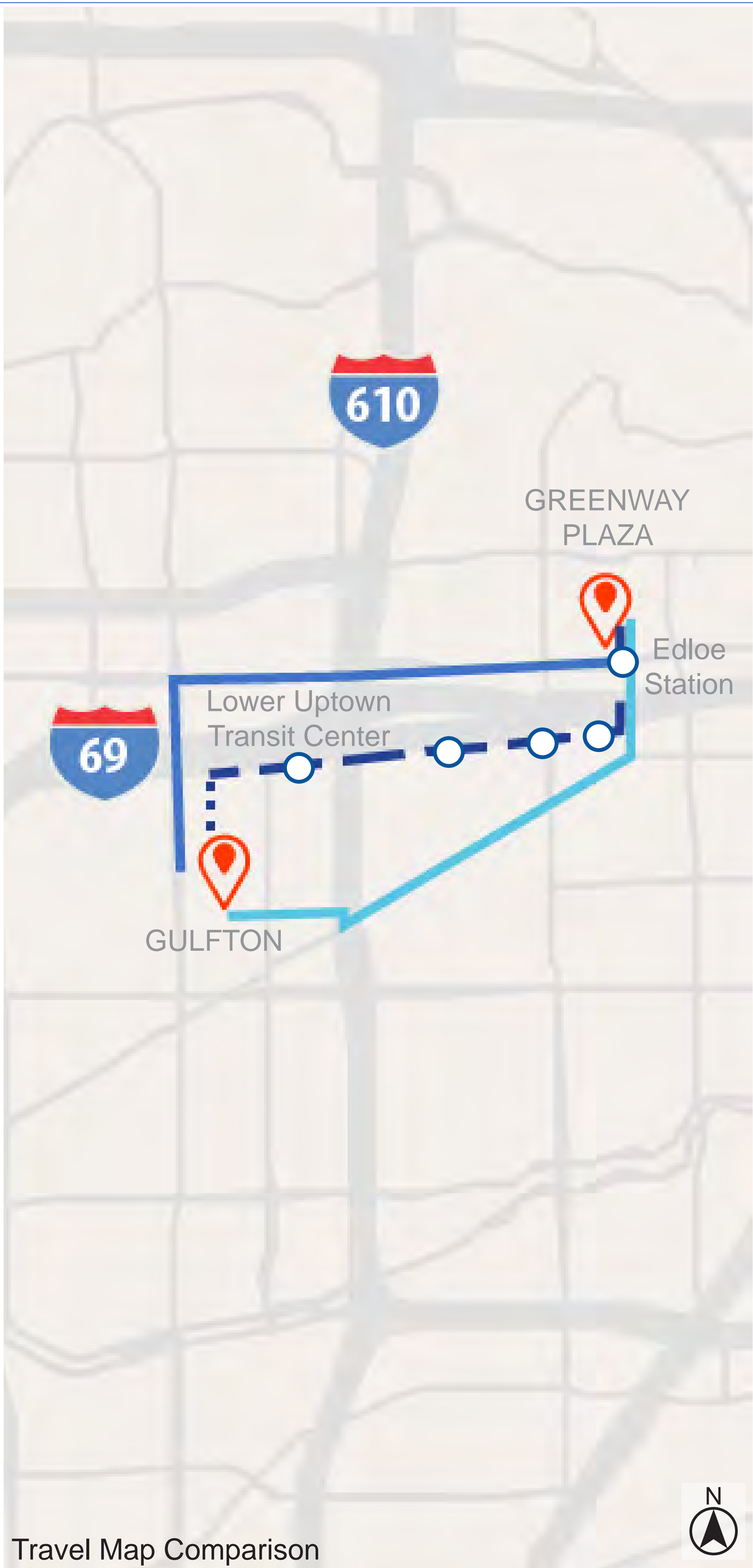
CAR

BUS

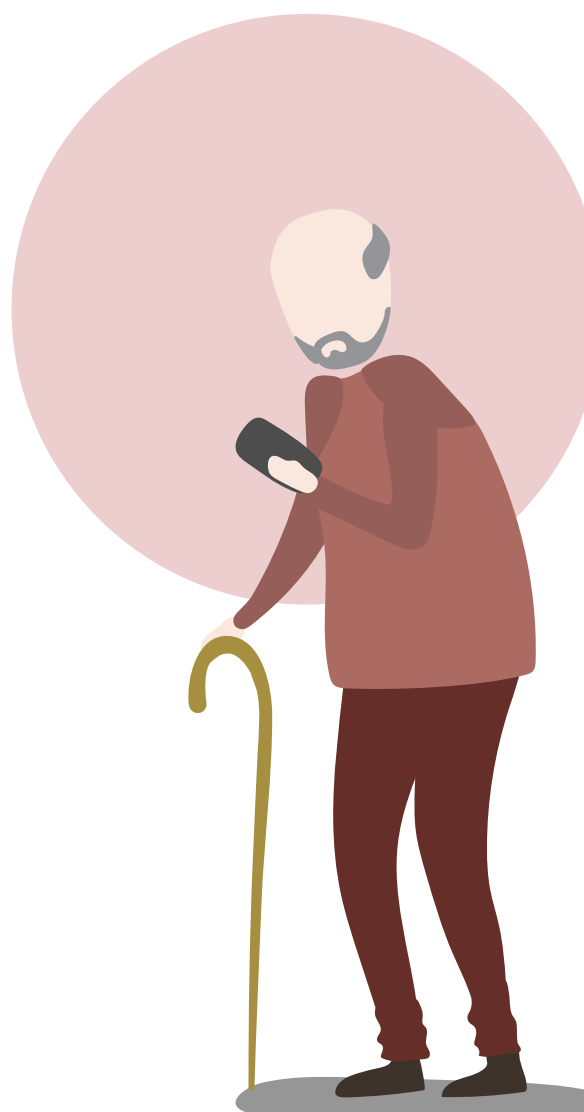
BRT



- Lives in Gulfton
- Works in Greenway Plaza
- Saves money on gas and saves on time to find parking





Travel Map Comparison








Customer 2

(73 years old)

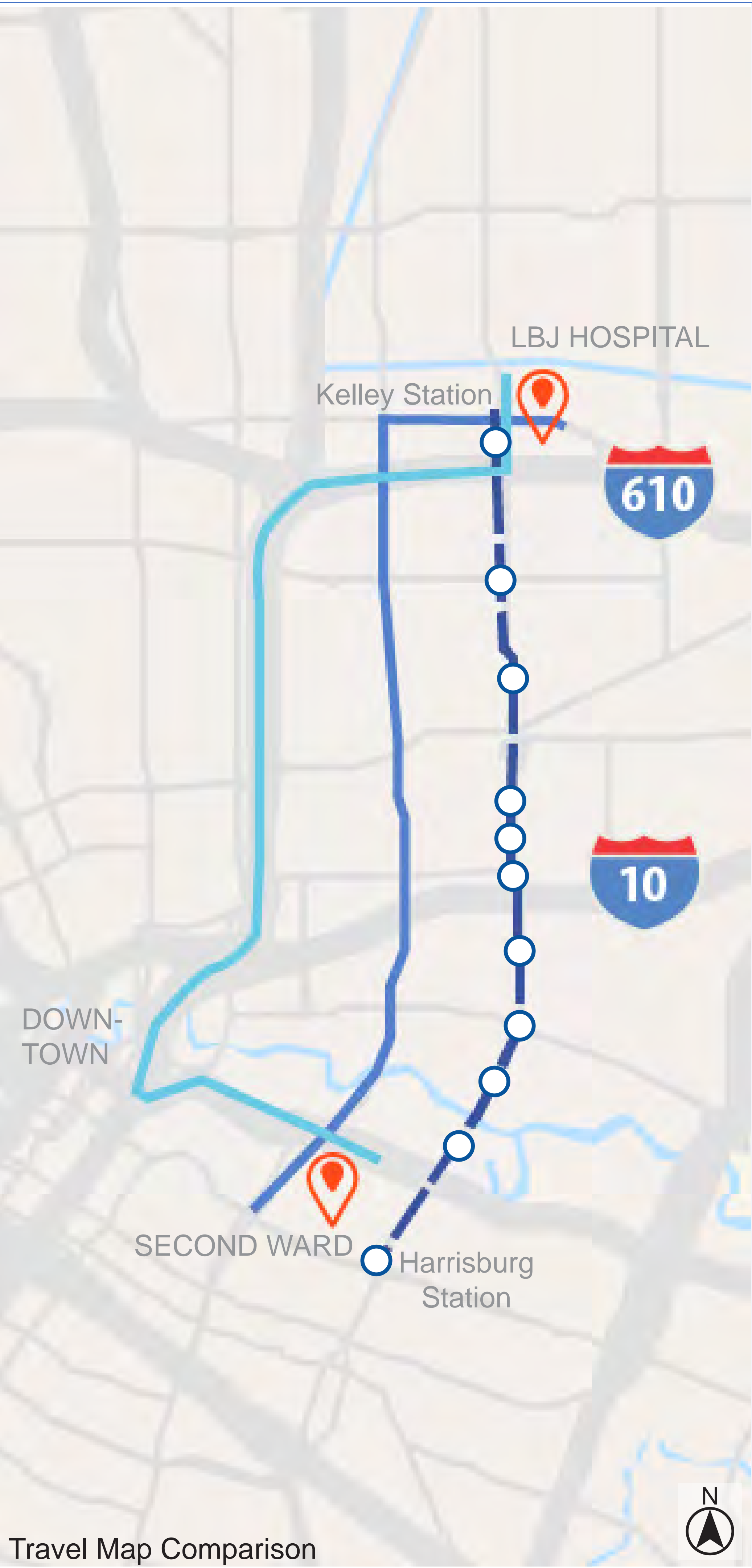
CAR

BUS

BRT



- Lives in Second Ward
- Does physical therapy at LBJ Hospital
- Benefits from accessibility improvements

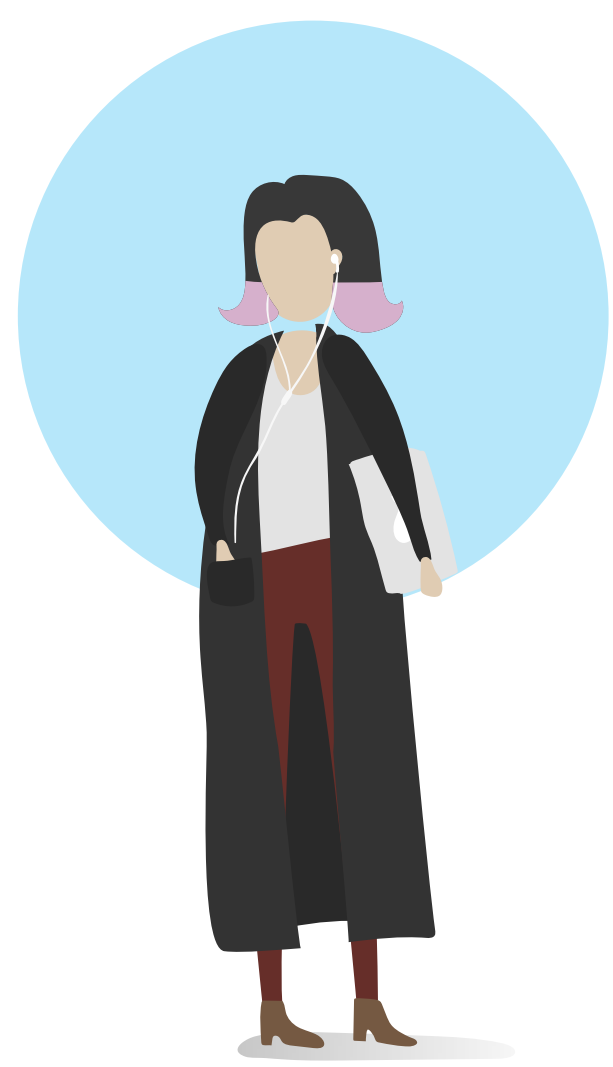


Travel Map Comparison

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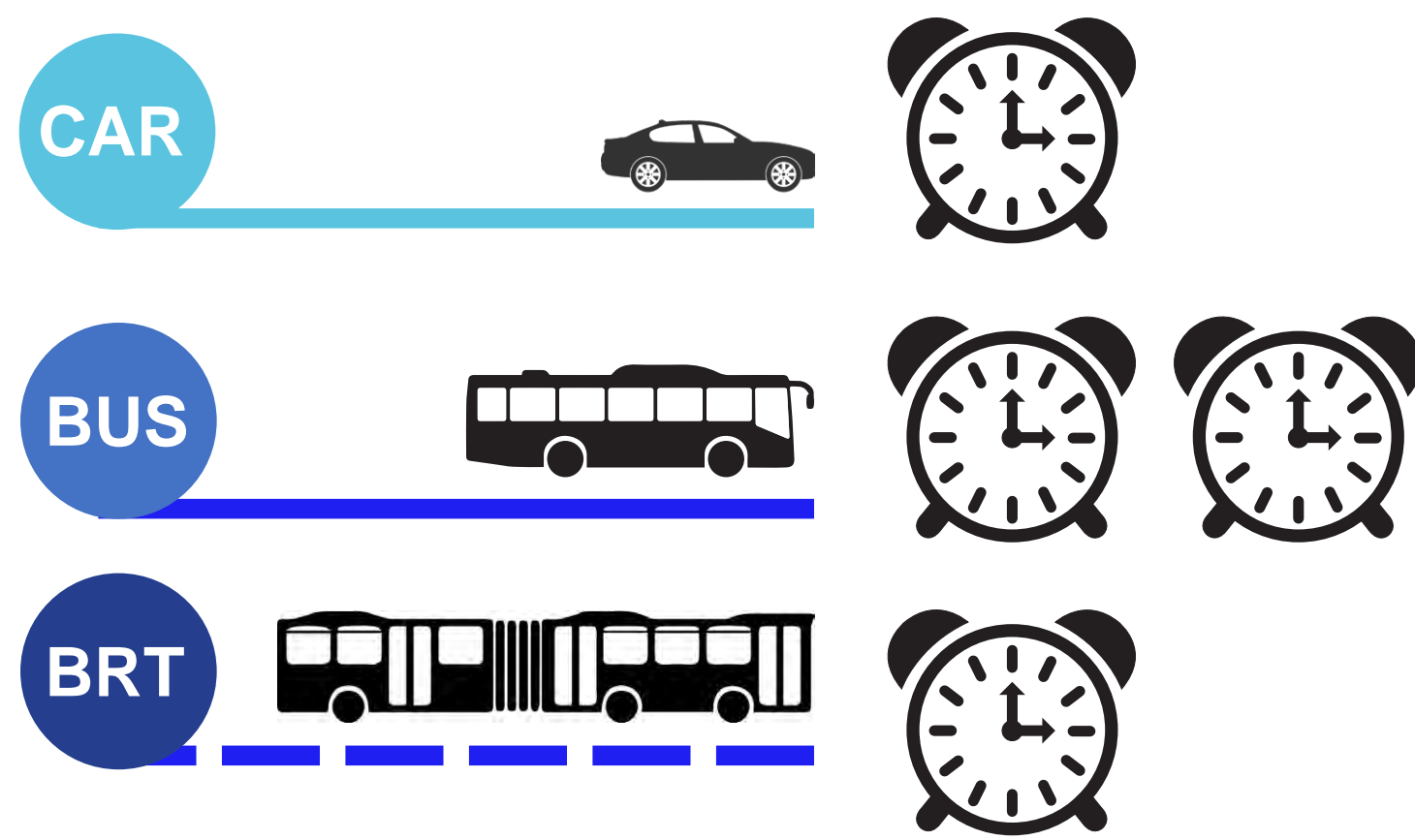


HOW DOES THE METRORapid UNIVERSITY CORRIDOR PROJECT IMPROVE QUALITY OF LIFE?

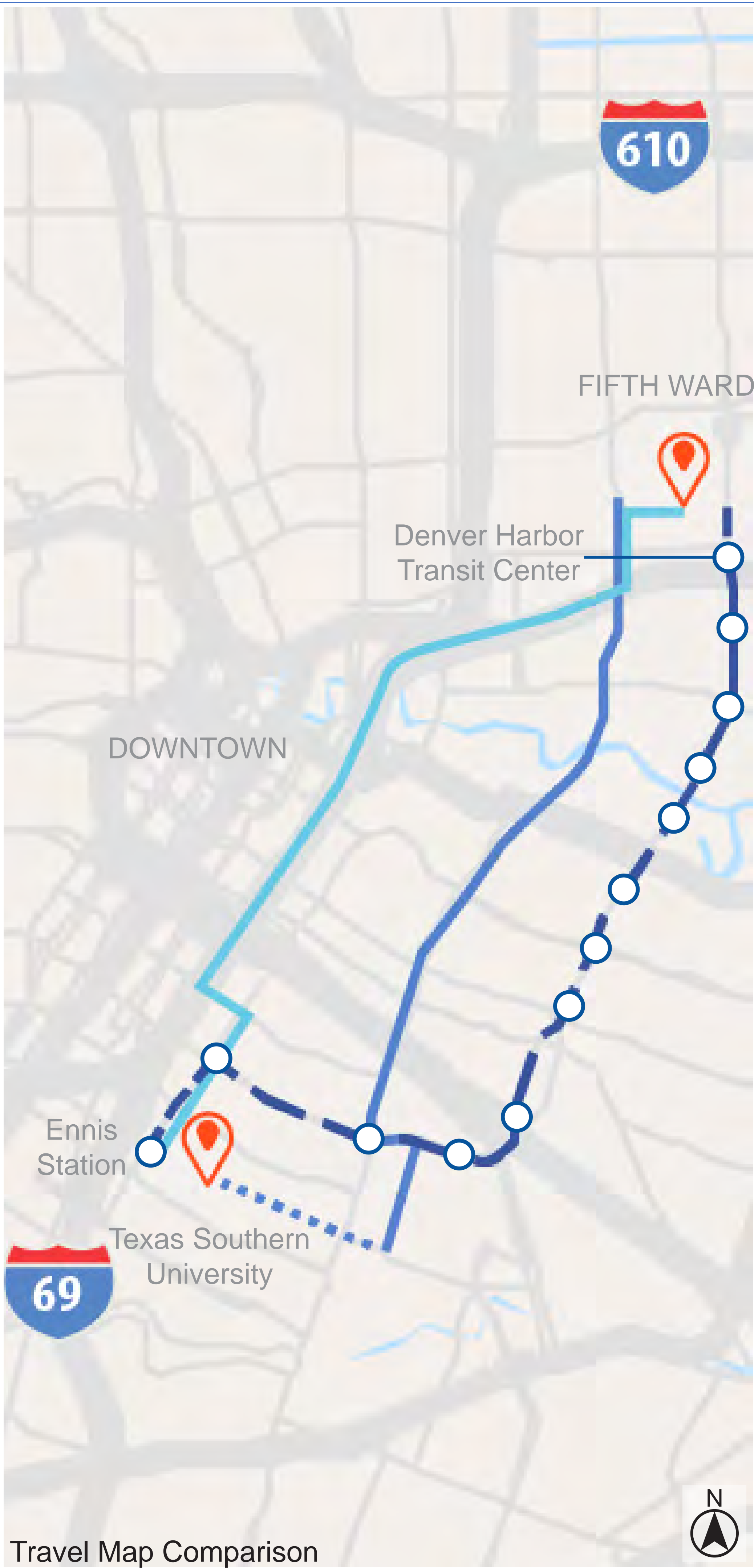


Customer 3

(21 years old)



- Lives in Fifth Ward
- Works in Midtown
- Takes classes at TSU
- Leverages transit commute time to catch up on reading between home, work, and school

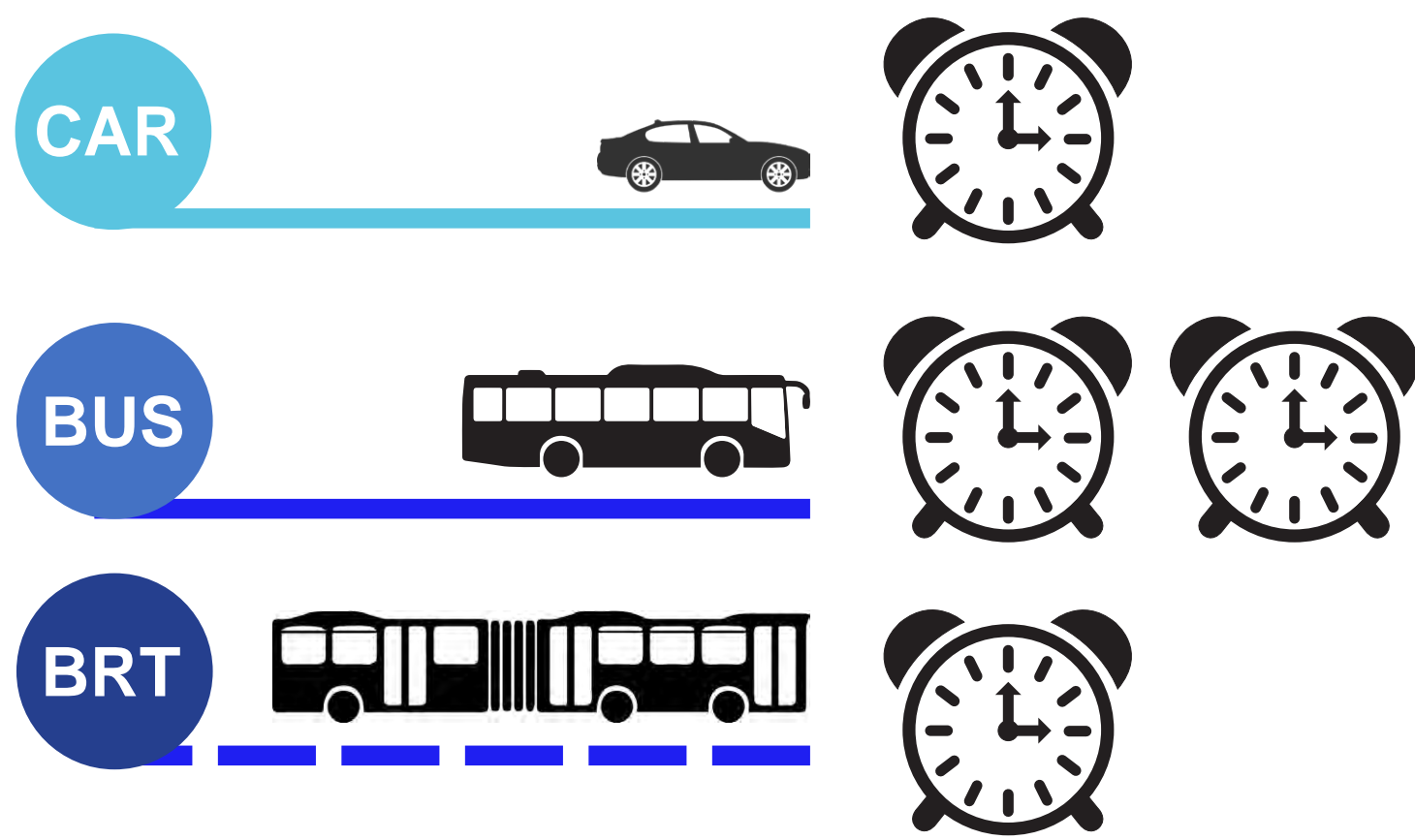


Travel Map Comparison

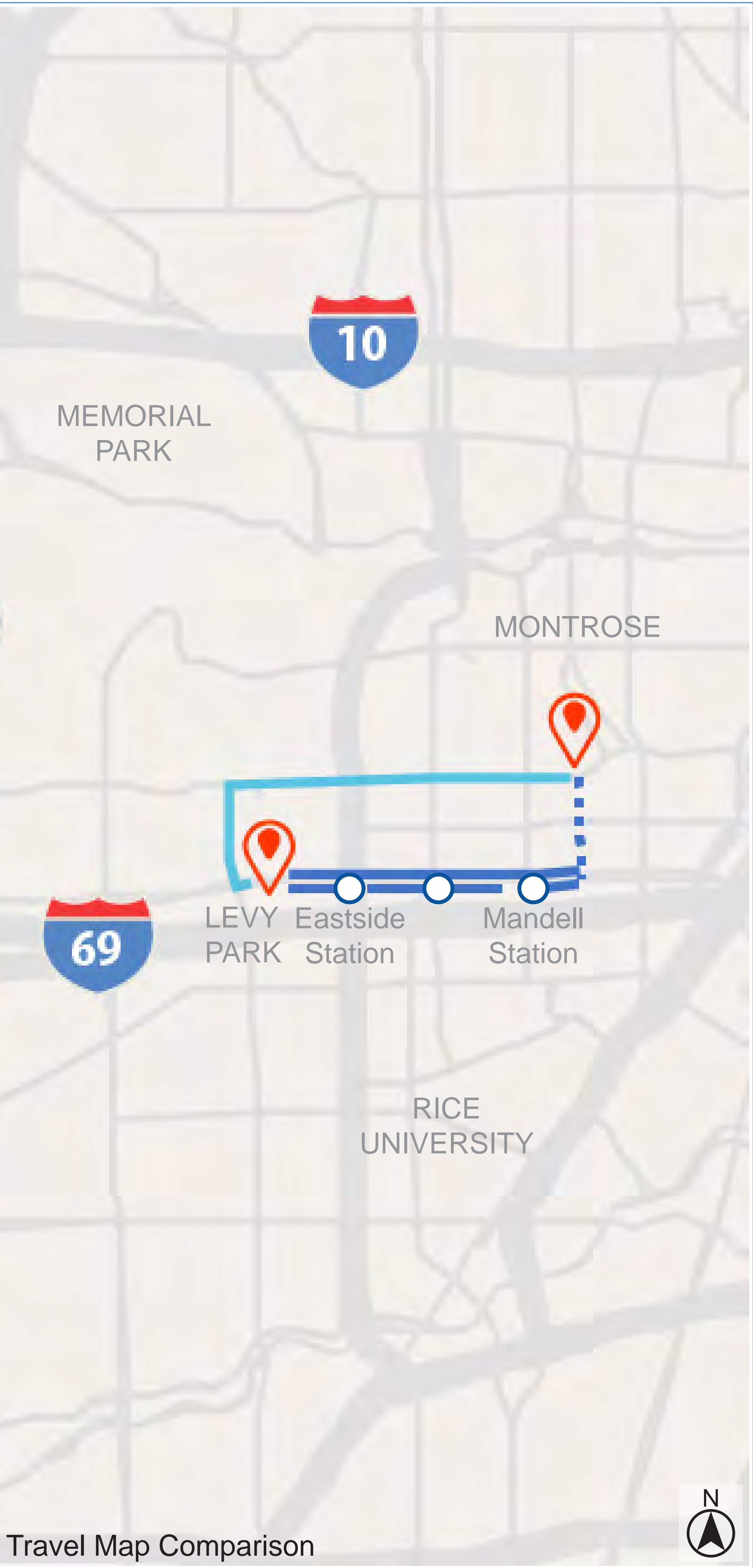


Customer 4

(35, 33, 6, 4 years old)



- Live in Montrose
- Play in Levy Park
- Enjoy having the option not to drive and to have engaging activities during weekend park trips

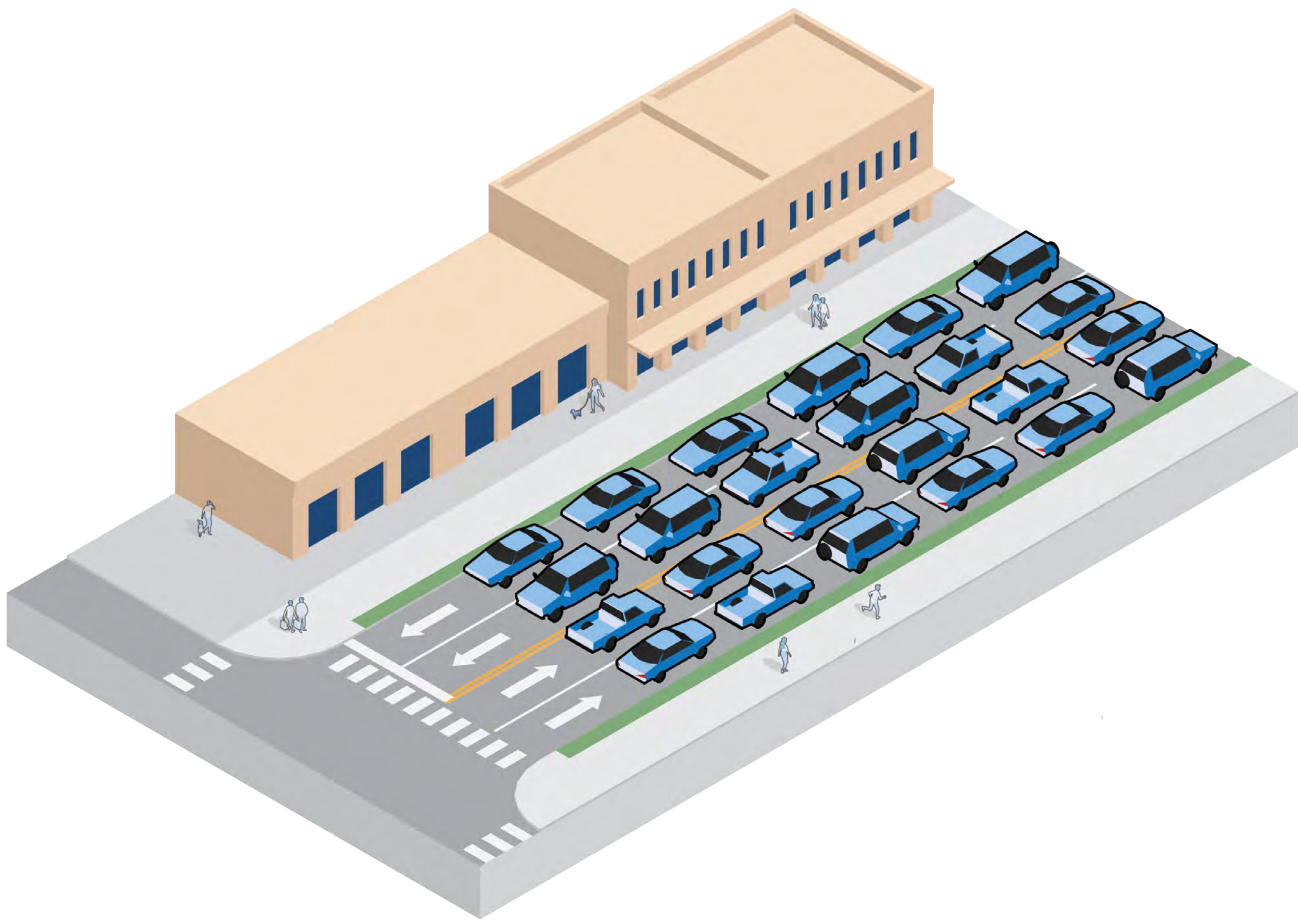


Travel Map Comparison

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MOVING MORE PEOPLE IN THE SAME SPACE

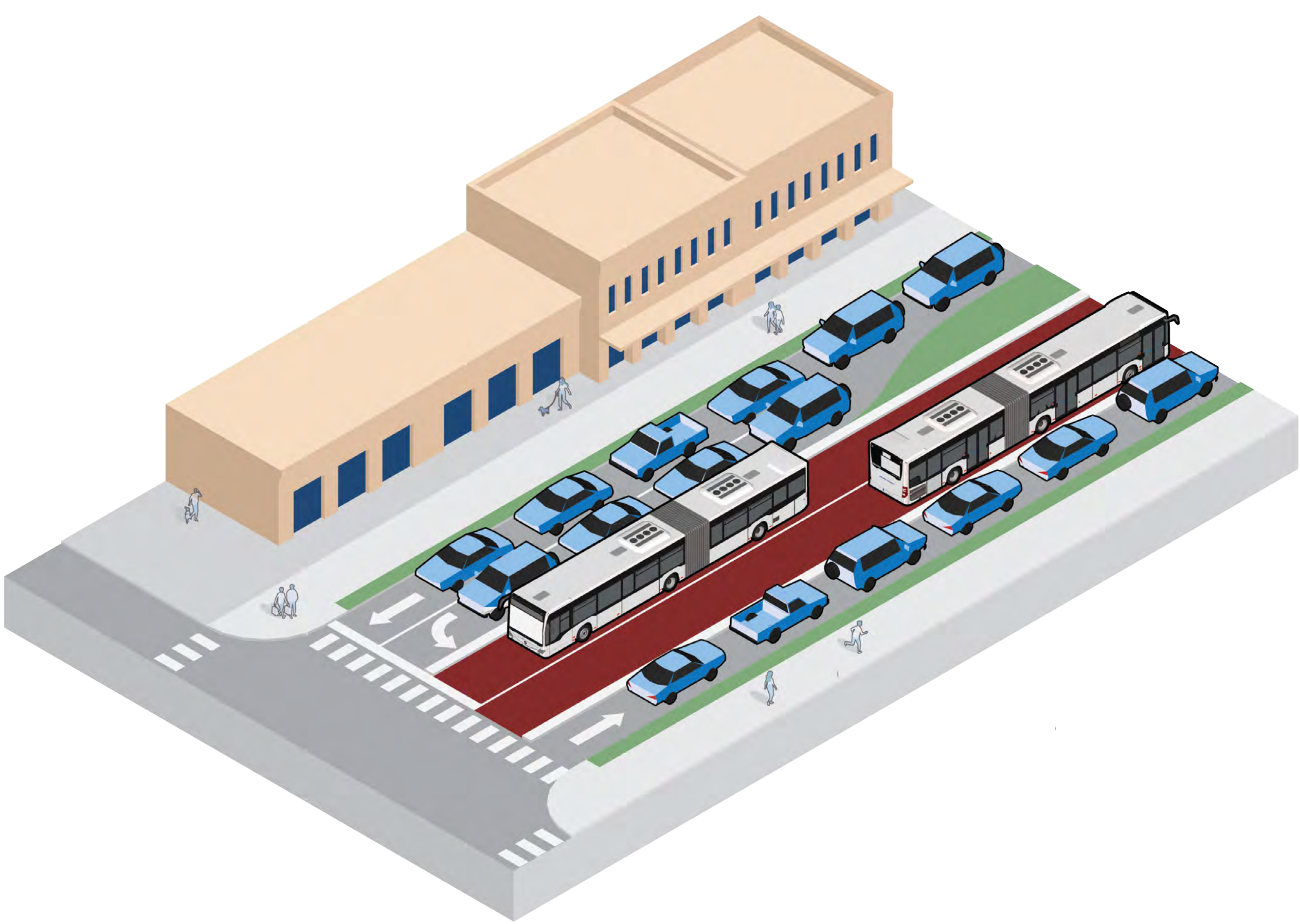


Before METRORapid
University Corridor Project

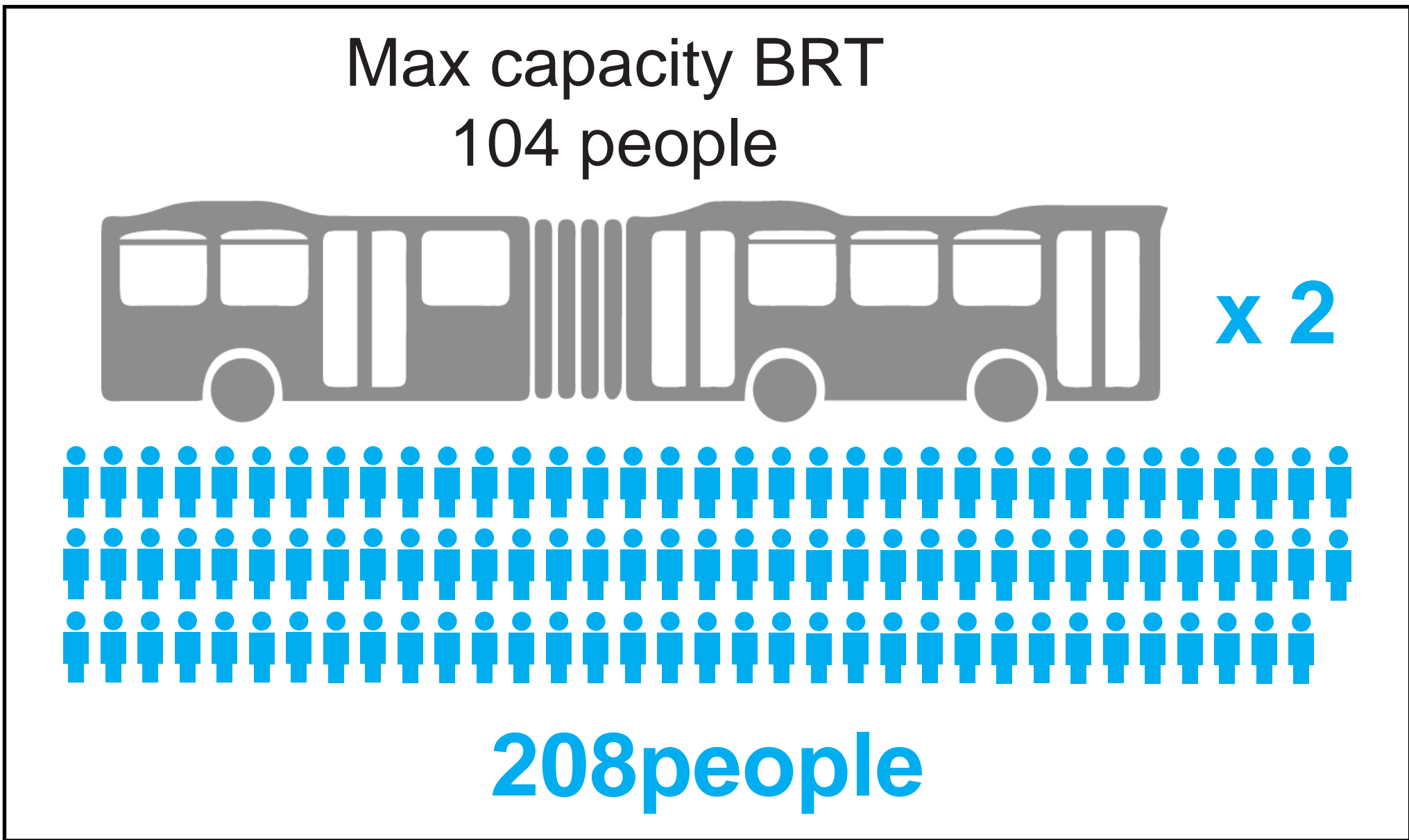


96

Total people on the road
(per the diagram)



After METRORapid
University Corridor Project



272

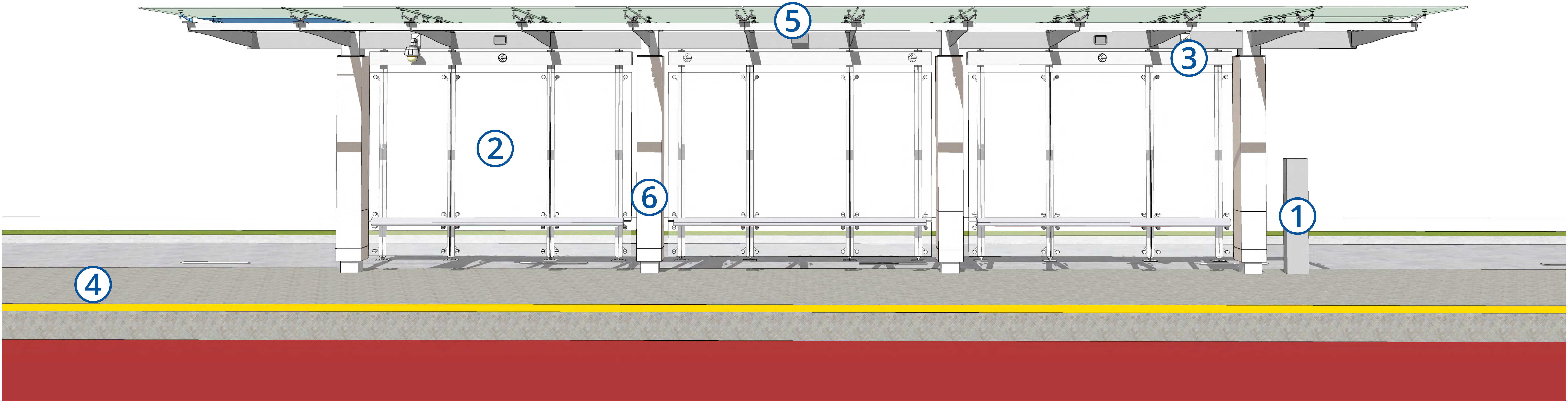
Total people on the road
(per the diagram)

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ARTS IN TRANSIT

AT-GRADE STATIONS



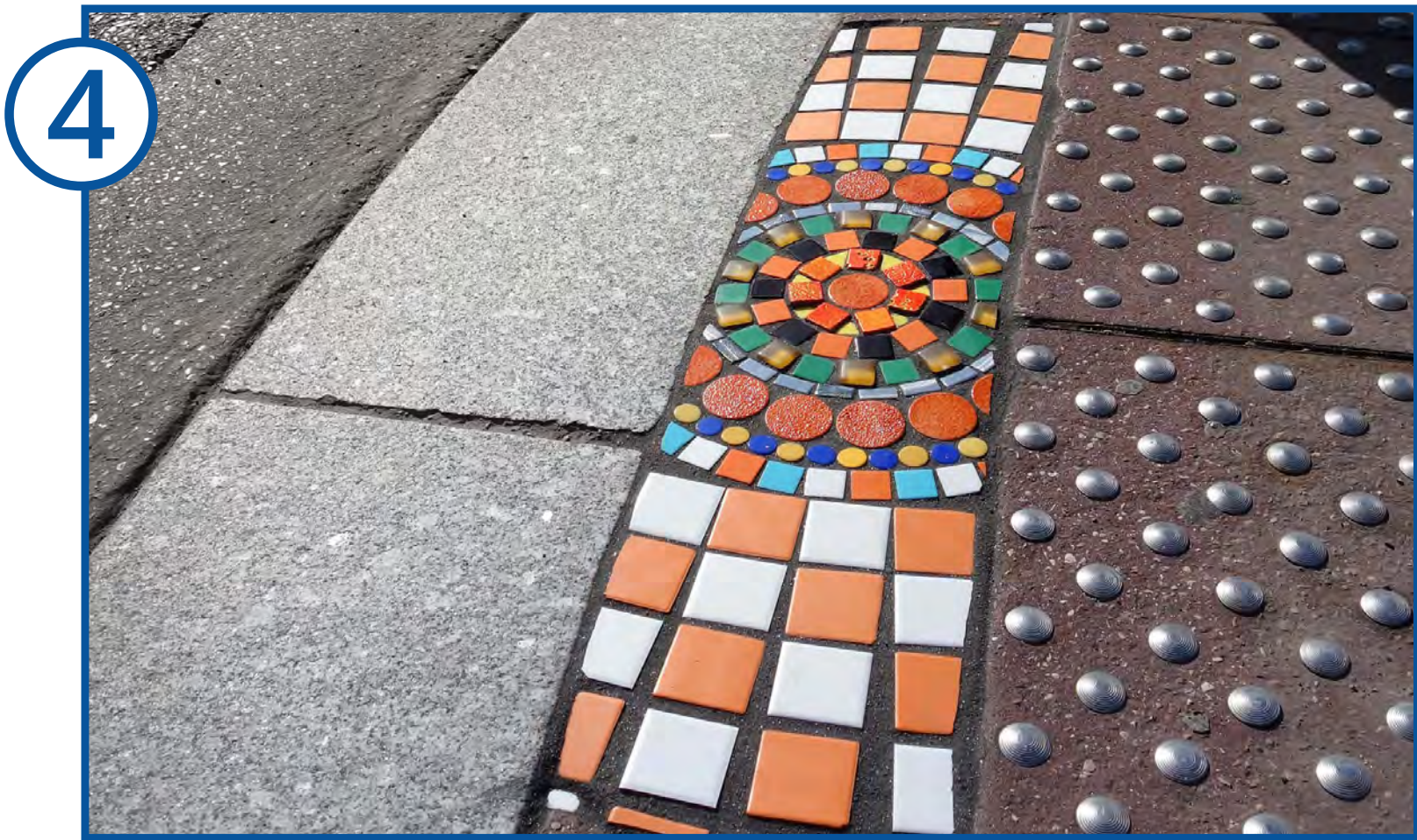
STATION MARKERS
Artistic markers at stations can help patrons find their way to nearby stations.



WINDSCREENS
Laser-cut images in windscreen panels are easy to maintain, and offer an opportunity to tell community stories.



LIGHTING
Lighting and lit images under canopies provide safer and more aesthetically pleasing environments.



PAVING
Decorative pavers guide patrons to and from stations.



CANOPY
Silkscreened designs sandwiched between glass add interest to canopies, can be easily replaced, and tell community stories.



COLUMNS
Decorative columns help create a warm, inviting space and can help tell community stories.

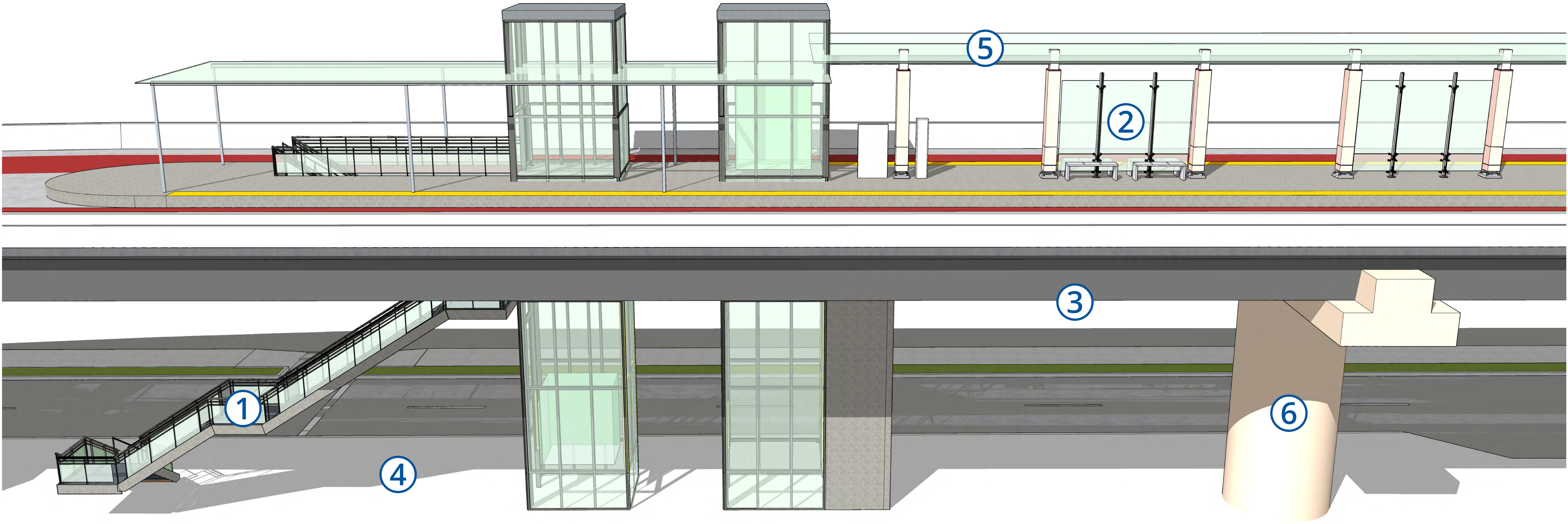
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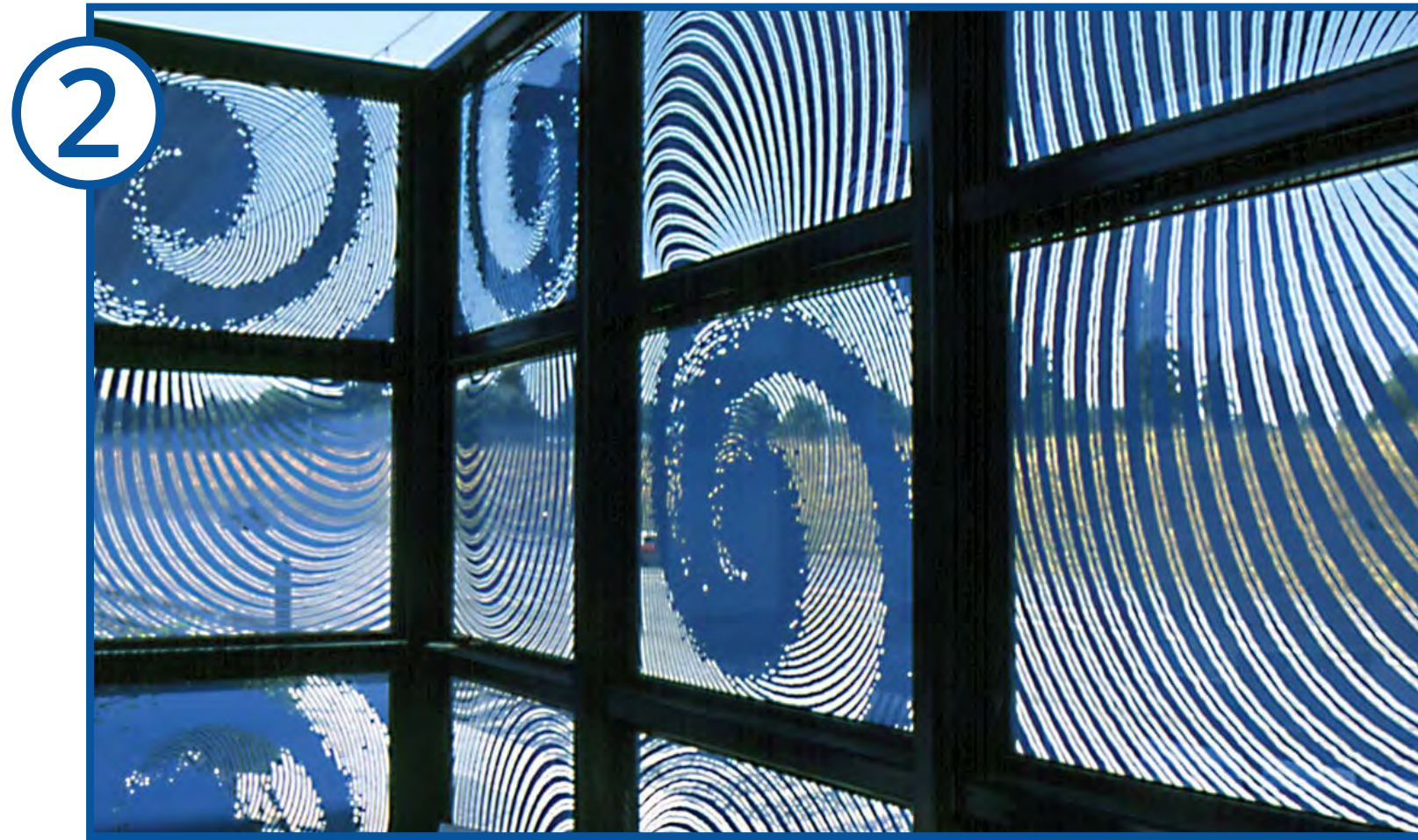
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ARTS IN TRANSIT

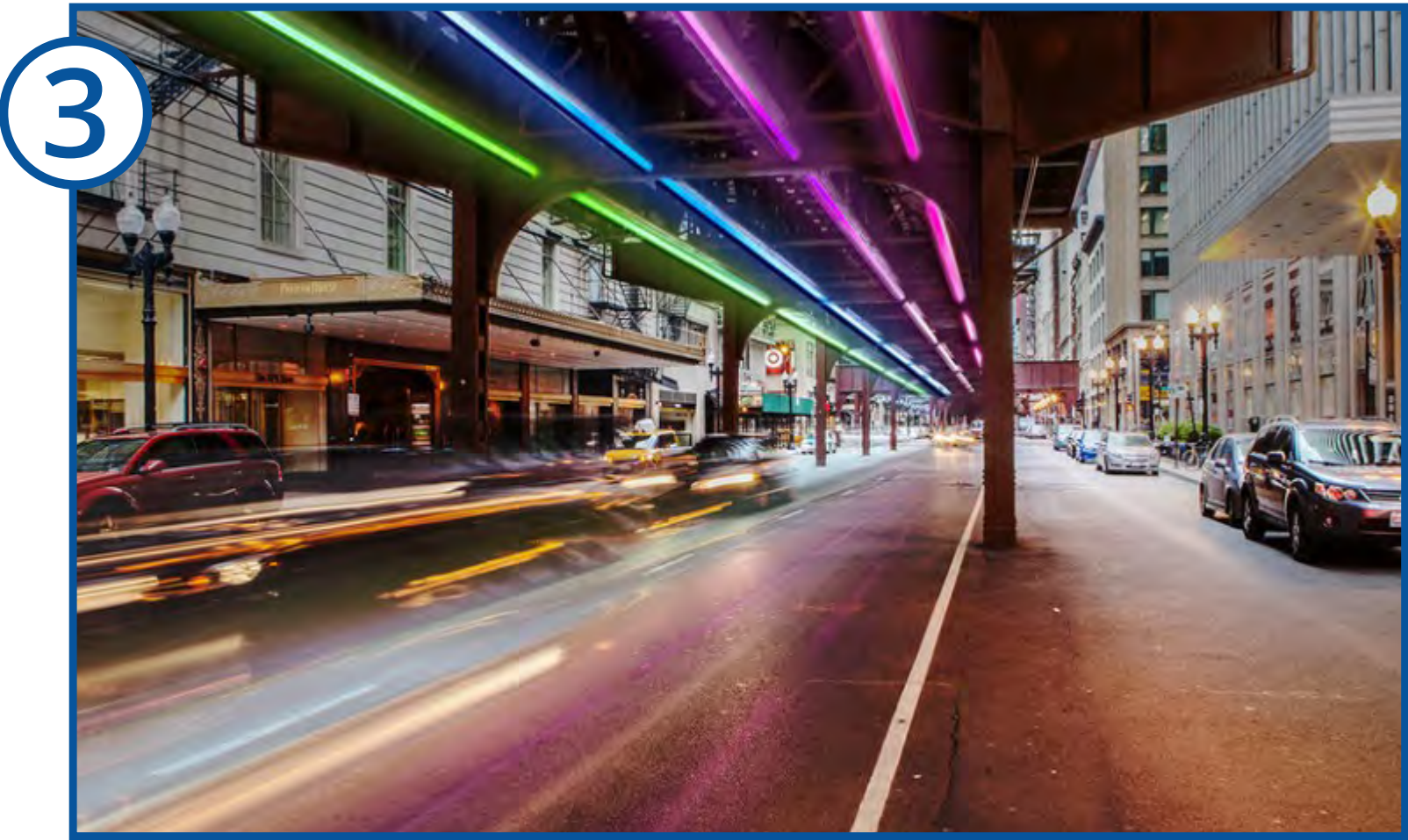
ELEVATED STATIONS



STAIRS
Words etched into stairways can memorialize local stories.



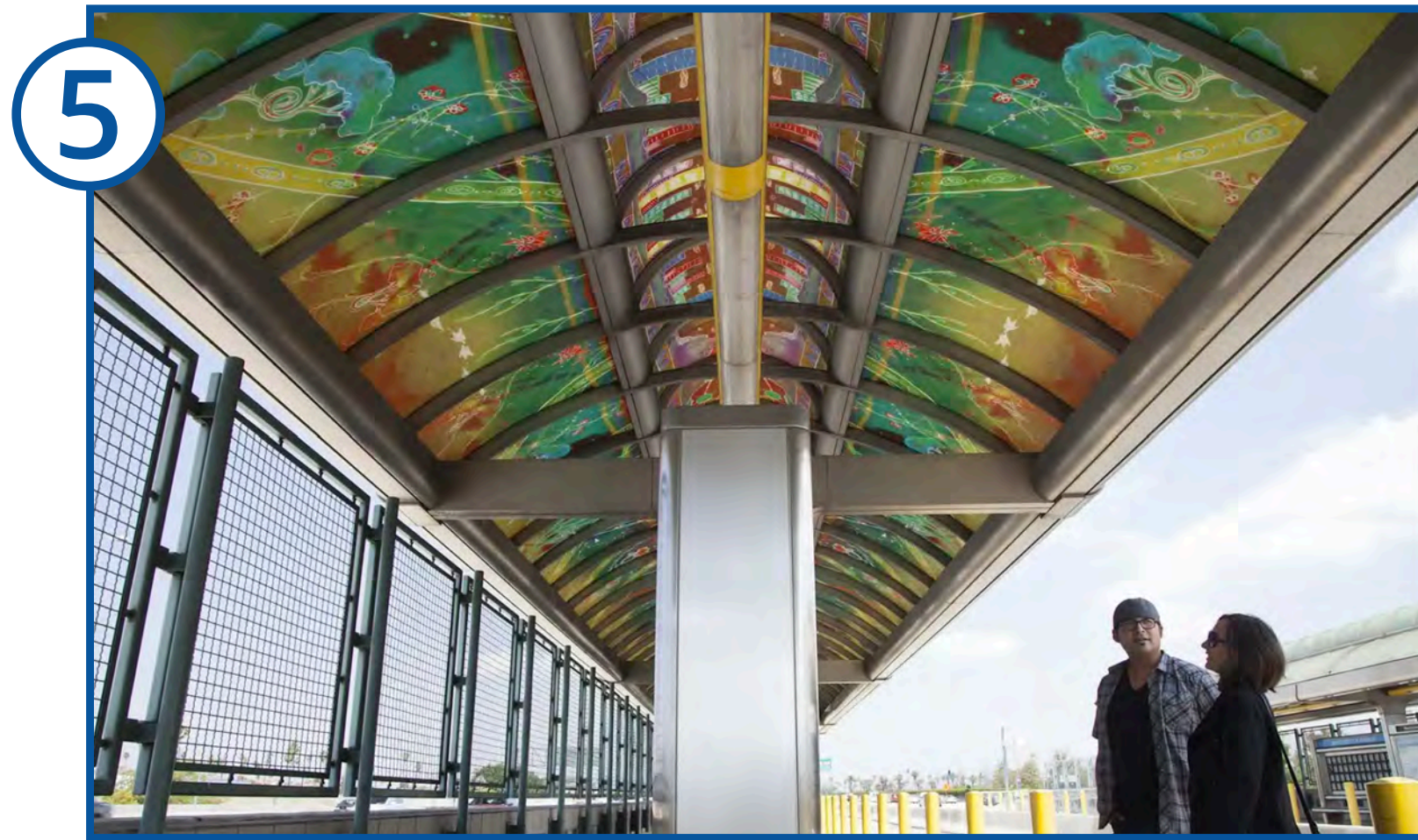
WINDSCREENS
Images silkscreened on vellum, sandwiched between glass panels, allow for easy replacement if glass breaks.



LIGHTING
Fiber-Optic lighting located under bridges provides safer and more aesthetically pleasing environments.



PAVING
Decorative pavers guide patrons to and from stations.



CANOPY
Silkscreened designs sandwiched between glass add interest to canopies, can be easily replaced, and tell community stories.



COLUMNS
Decorative column treatments help humanize and make safer environments under bridges.

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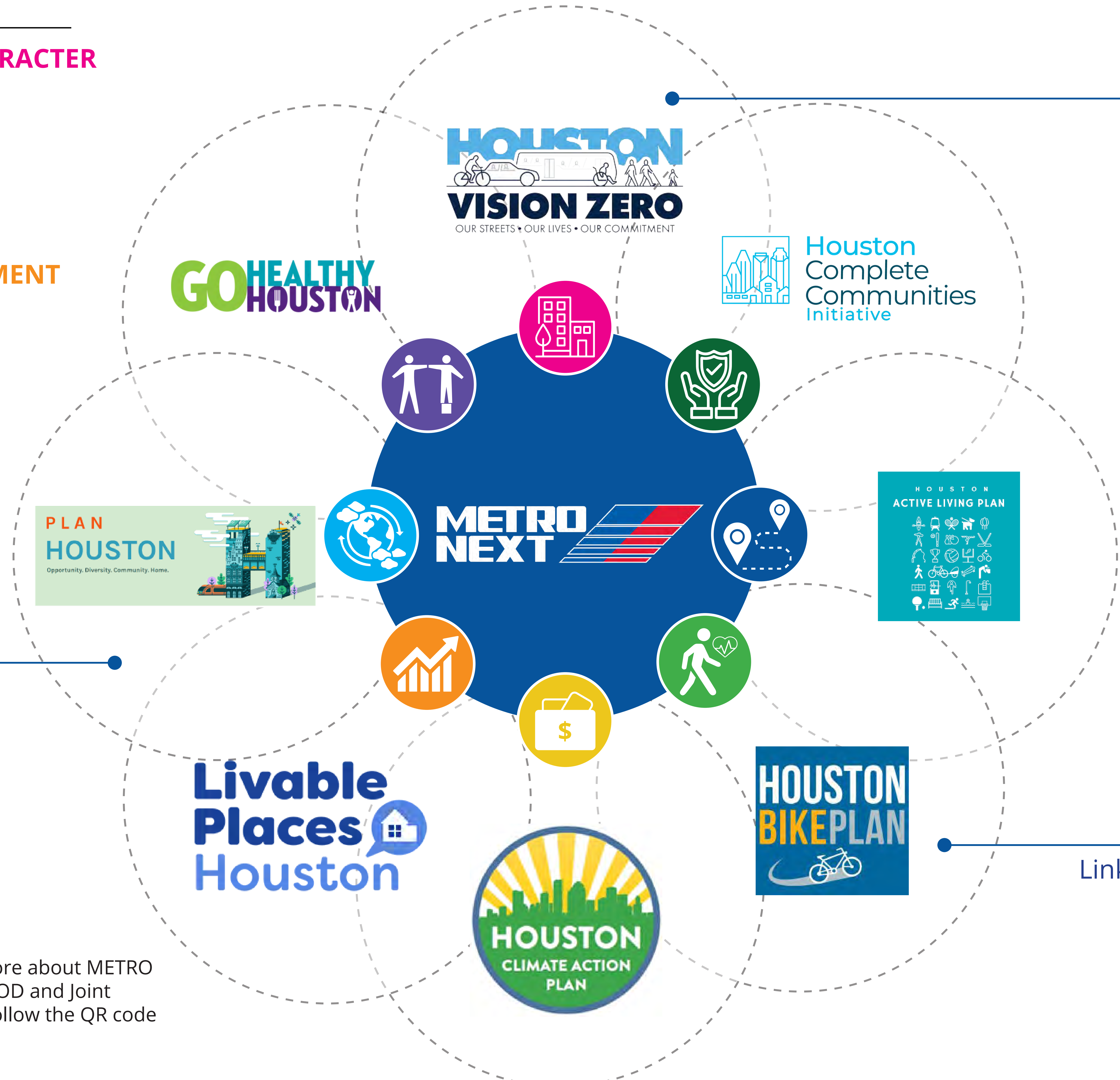
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MAXIMIZING COMMUNITY BENEFITS

INTEGRATING WITH CITY OF HOUSTON PLANS

TRANSIT-ORIENTED DEVELOPMENT (TOD) PRINCIPLES

- NEIGHBORHOOD CHARACTER
- SAFETY
- MOBILITY OPTIONS
- PUBLIC HEALTH
- AFFORDABILITY
- ECONOMIC DEVELOPMENT
- CLIMATE RESILIENCE
- EQUITY



Enhanced street design to encourage safe mobility

Continued focus on transit as a means of empowering the region to meet social, economic, housing and environmental goals

Links to bikeways to encourage healthy, multi-modal transportation options

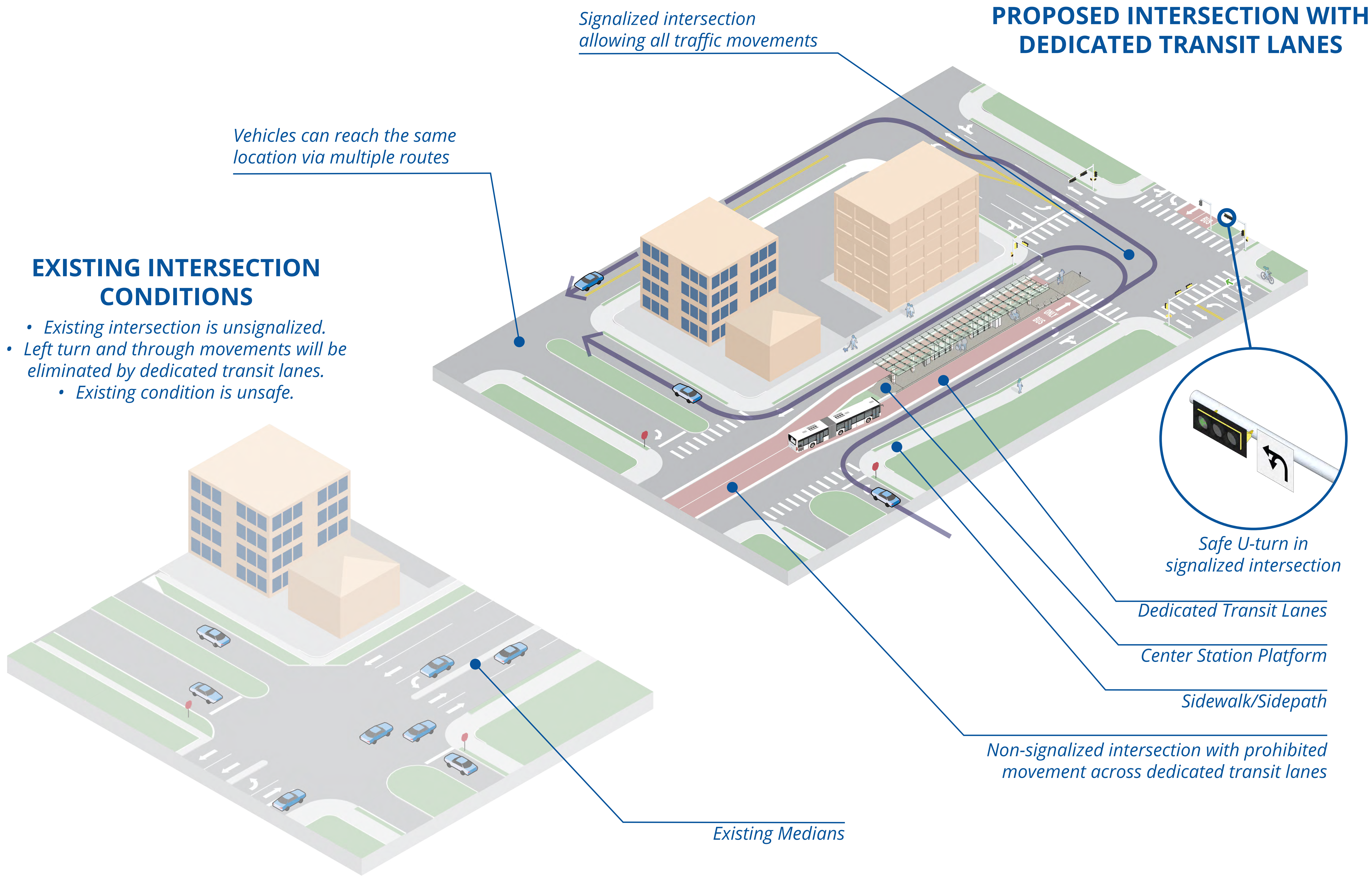


Want to learn more about METRO involvement in TOD and Joint Development? Follow the QR code to our website!

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SAFE LEFT-TURNS & U-TURNS FOR VEHICLES



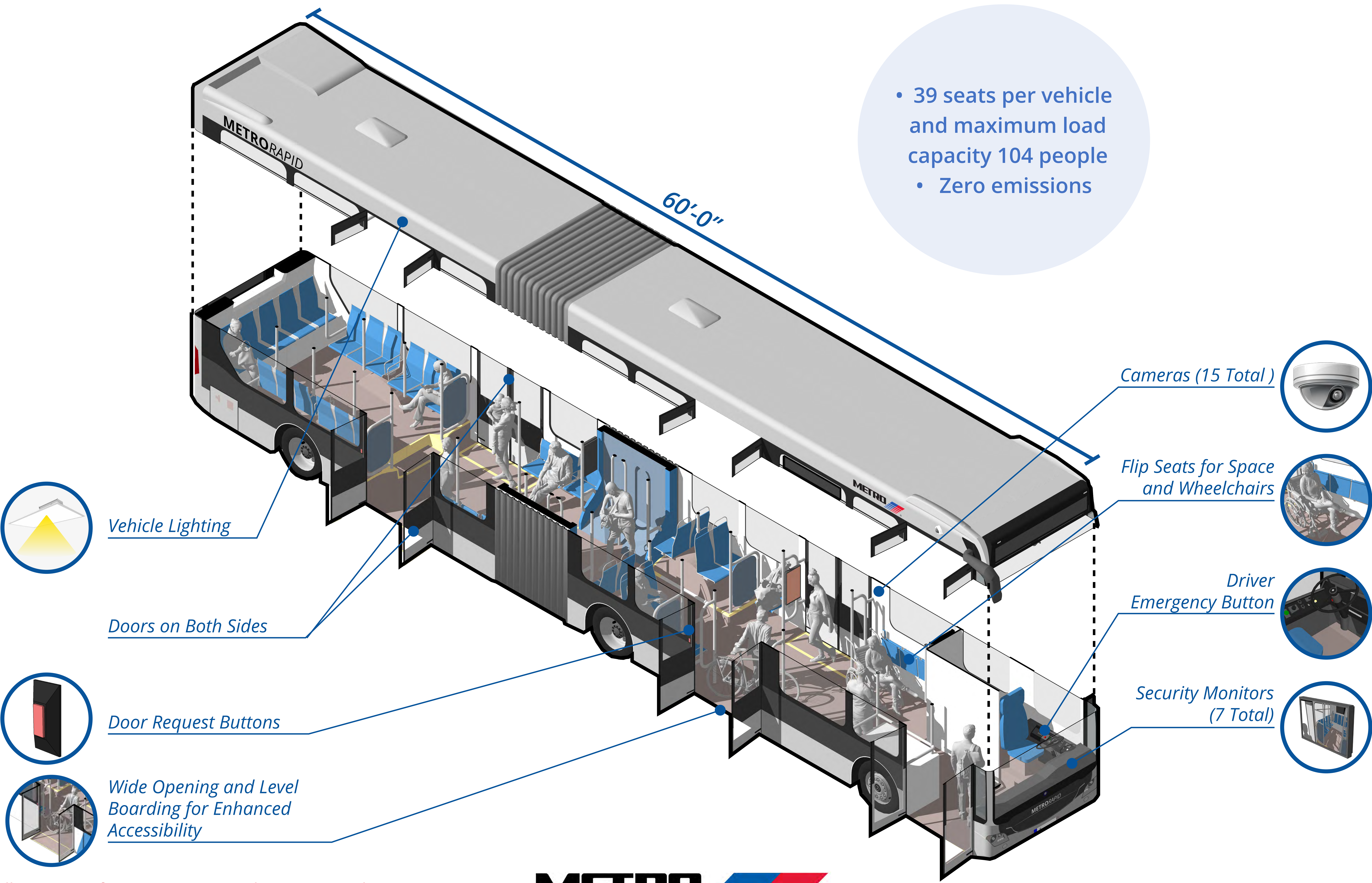
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SAFETY & SECURITY FEATURES

METRORapid UNIVERSITY CORRIDOR PROJECT VEHICLE



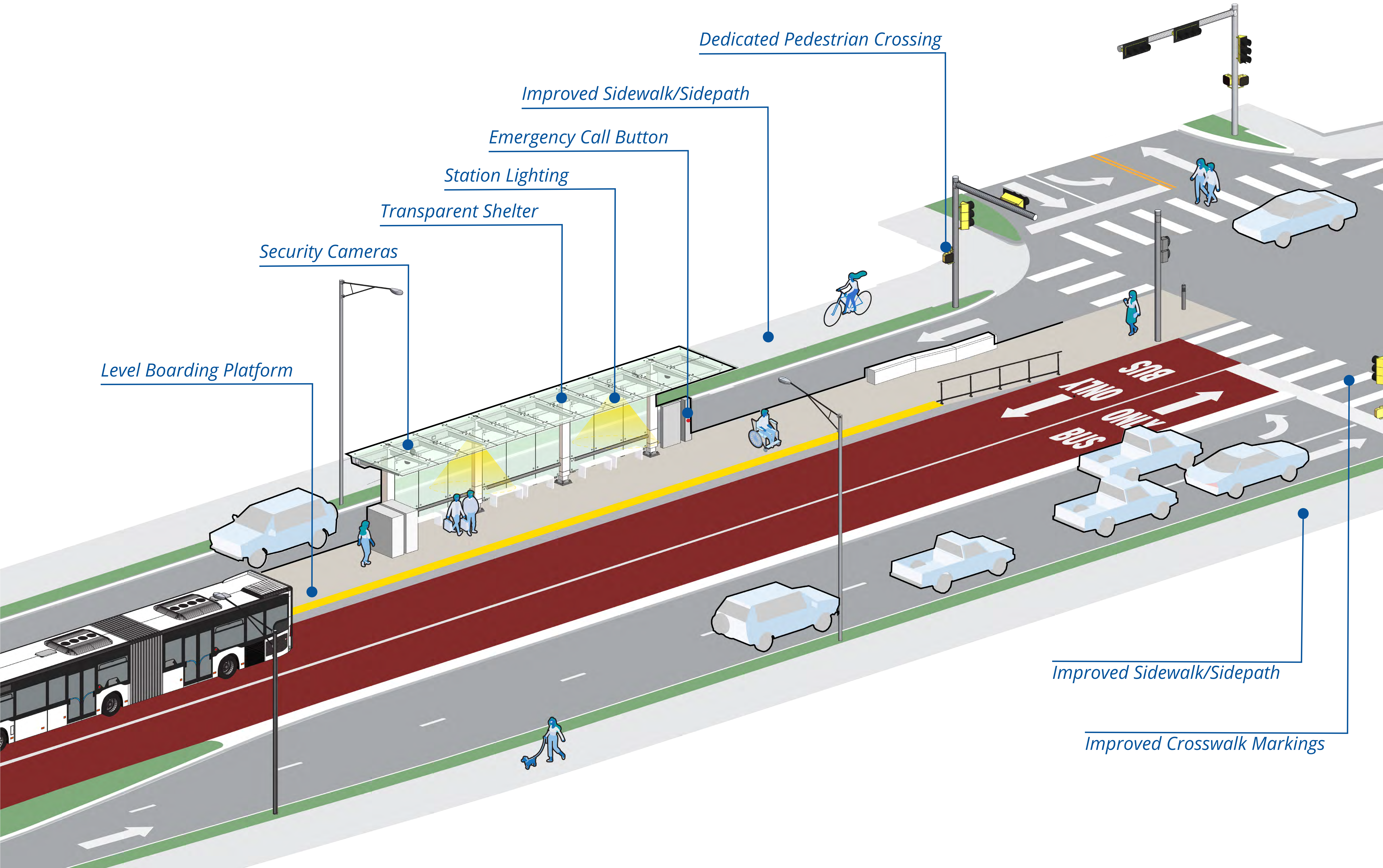
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METRORapid STATION SAFETY & SECURITY

AT-GRADE STATIONS



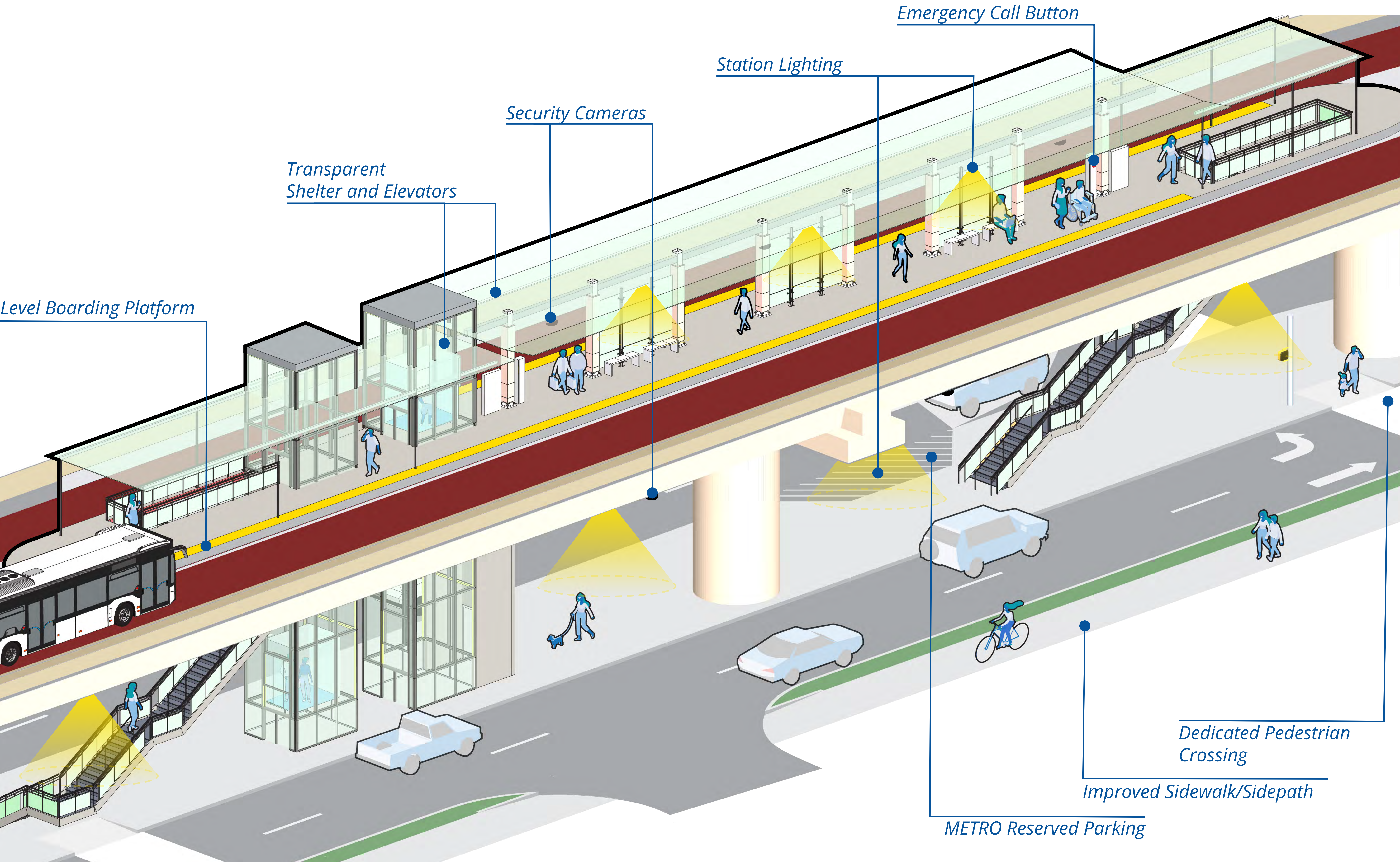
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METRORapid STATION SAFETY & SECURITY

ELEVATED STATIONS



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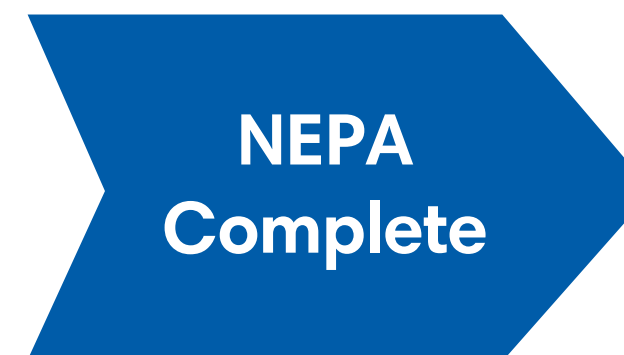


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NEPA & Real Property Acquisition Timeline

Acquisition-Related Activities Allowed During NEPA Review

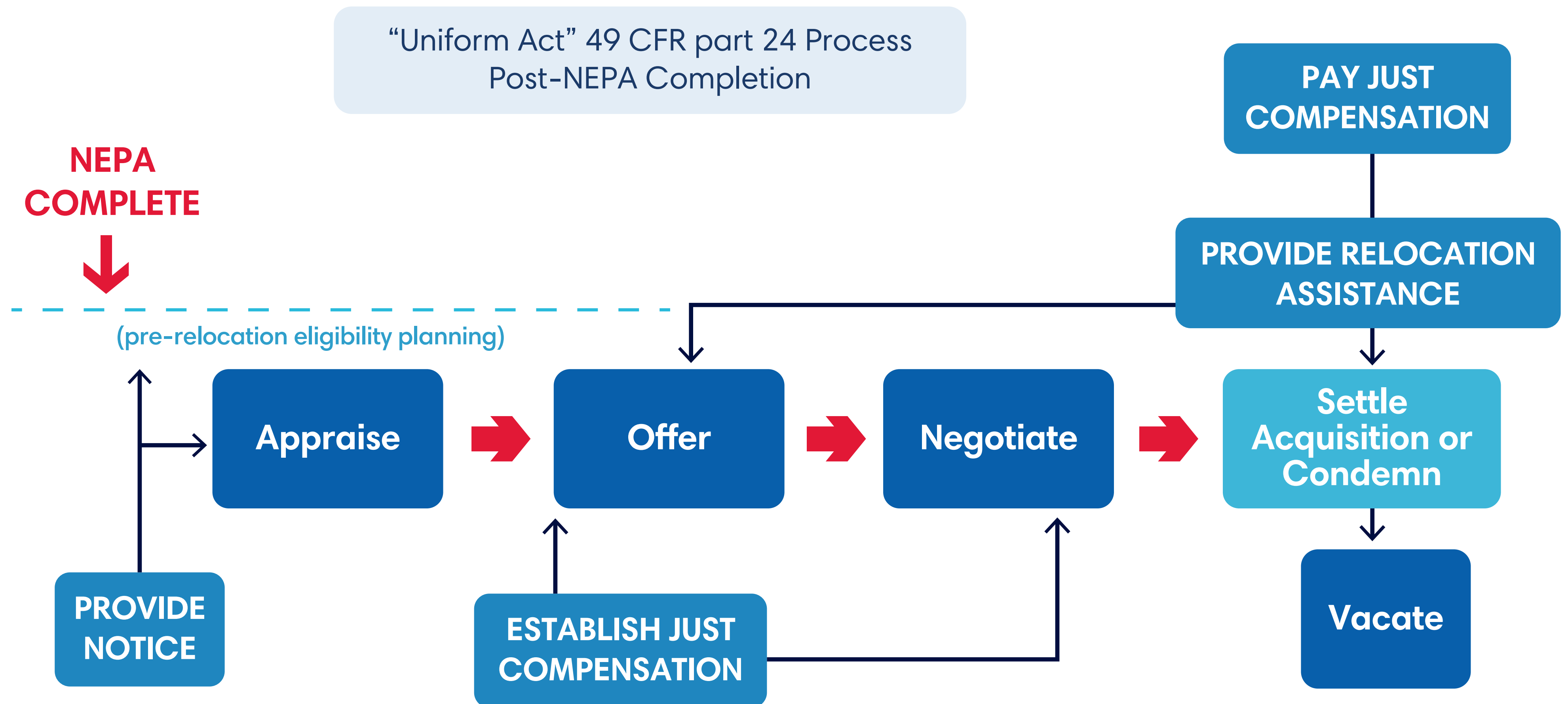
- Conduct land surveys
- Perform title searches
- Preliminary appraisals
- Environmental site assessments
- Preliminary displace relocation assistance interviews and planning



Acquisition Activities Upon NEPA Completion

- Appraisals
- Offer to purchase
- Negotiations
- Displacements

NEPA & Real Property Acquisition Timeline



Get Engaged



Provide

comments at the
feedback
station



Complete

a project survey on
your phone or tablet



Sign up

for project updates

Learn more at
RideMETRO.org/University