5th and Spruce Street Reconstruction Project

February 18, 2019

Presentation Outline

- Why is this project being done?
  - Drainage and paving infrastructure need
  - Cost of Drainage Improvements
  - Comprehensive Plan & Zoning Code
  - City Council Priorities
- What is the vision for this project?
  - Similar projects
  - Renderings
- How do we know this will work operationally?
  - Intersection, roadway, parking, driveway geometrics
  - Project design considerations
- Recommendation.

Why is this project being done?

- March 2017 - City Council authorized award of design and construction management contracts
- December 2017 – City Council received update on BBB16
- March 2018 - City Council received a presentation on design considerations for the project
- July 2018 - City Council tour of Spruce and Fifth Street Reconstruction Project location
- January 2019 - City Council received a presentation regarding the status of the project

Why is this project being done?

- Drainage and paving infrastructure need
  - City Engineer street / drainage condition inventory
  - Weighted criteria: 60% drainage 40% pavement, block by block, 763 blocks
  - Spruce and North Fifth: poor drainage score, fair pavement rating
  - Included in BBB16

Why is this project being done?

Bonds For a Better Bellaire Street Ranking List						
Rank	Street		Bond Phase	Drainage Score	Paving Score	Cumulative Score *This is a weighted score of (drainage x .60)+(paving x .40)*
1	4700	WILLOW ST	Group B Phase I - 2017	68	23	50
2	4900-5000	MAYFAIR ST	Group B Phase I - 2017	43	55	48
3	500	BOLIVAR ST	Group C Phase II -2018	33	69	47
4	4700	LINDEN ST	Group B Phase I - 2017	45	23	36
5	4900-5000	IMPERIAL ST	Group B Phase I - 2017	43	24	35
6	4500	MAPLE ST	Group C Phase II -2018	42	22	34
7	4600	CEDAR ST	Group C Phase III - 2019	25	45	33
8	5100	SPRUCE ST	Group C Phase II -2018	12	61	32
9	4300	CYNTHIA ST	Group C Phase III - 2019	34	24	30
10	4500	LARCH LN	Group C Phase III - 2019	30	30	30
11	4300	EDITH ST		7	63	29
12	6700	N 5TH	Group C Phase II -2018	8	57	28
13	500	CHELSEA ST	Group C Phase III - 2019	0	64	26
14	4500	MIMOSA DR	Group C Phase III - 2019	30	20	26
15	5200	SPRUCE ST	Group C Phase II -2018	0	65	26

City of Bellaire - Public Works Department
Storm Drainage Priority Rating System

Purpose:
To protect the citizens and property of the City of Bellaire by reducing the damage and hazards associated with stormwater run-off.

Calculation:
Each block/segment in the City starts off with a Drainage Ranking Score (DRS) of 100. Points are deducted as shown below in order to provide a ranking of areas for candidate project locations. This calculation may be redone as new information becomes available.

Item #	Criteria Description		Point Deduction	
1.)	Structural Flooding Damage		25	maximum
a	Structural Flooded Recorded	No Structures Flooded		0
		Pre 1980 Construction		10
		1980-1994		15
		1995-2004		20
		2005-Present		25
2.)	Existing Drainage Infrastructure		10	maximum
a	Existing Capacity Versus a 2-Year Standard Design	less than 25%		10
		25% to 50%		8
		50% to 75%		5
		Greater than 75%		0
3.)	Drainage Study		10	maximum
a	Excessive Ponding Identified in the Drainage Study	No		0
		Yes		10
4.)	Drainage Area		5	maximum
a	Size of Drainage Area Served by Storm Sewer	Less Than 0-10 Acres		0
		10-20 Acres		2
		20-50 Acres		4
		Greater than 50 Acres		5
5.)	Open Ditch		5	maximum
a	Is the block served by an open ditch	No		0
		Yes		5
6.)	Project Readiness		35	maximum
a	Design Status	No Design Complete		0
		Partial Design Finished		15
		Complete Design		35
7.)	Regional System		5	maximum
a	Is there an opportunity for Consideration in a Regional Drainage Project	No		0
		Yes		5
8.)	Redevelopment Opportunity		5	maximum
a	Is there an opportunity for future redevelopment on this block	No		0
		Yes		5
			100	MAXIMUM

Why is this project being done?

- Project scope Spruce:
- Increase drainage capacity to 100 year standard
- Replace existing 18” and 24” RCP with 24”, 30”, 18 x 28.5” RCP and 4 x 2 box
- Total Cost of 100-Year Storm Sewer = $242,038
- Total Cost of 2-Year Storm Sewer = $163,955

Cost Difference between 100-year and 2-year storm sewer:

- $242,038 - $163,955 = $78,083

Why is this project being done?

- Project scope Fifth:
- Increase drainage capacity to 100 year standard
- Replace existing 18” and 24” RCP with 24”, 30”RCP
- Total Cost of 100-Year Storm Sewer = $22,230
- Total Cost of 2-Year Storm Sewer = $22,057

Cost Difference between 100-year and 2-year storm sewer:

- $22,230 - $22,057 = $1,173

Why is this project being done?

2009 Comprehensive Plan

- City Center
- Urban Village Downtown (UVD)
- Attract variety of uses
  - Retail
  - Commercial
  - Residential

Map Key:
City Center
Urban Village Downtown (UVD)

Bellaire City Center area, in yellow (as defined by the previous zoning districts CCD-1 and CCD-2), and the "Urban Village" area, in dark red (now the Urban Village-Downtown zoning district), to be a prime focus of ongoing revitalization efforts.

Why is this project being done?

Comprehensive Plan

- Chapter 5
- Goal 5.2
  - Comfortable place to meet, dine, shop
  - Pedestrian friendly
  - Attractive streetscapes
  - Direct role for City

Map Key:

City Center

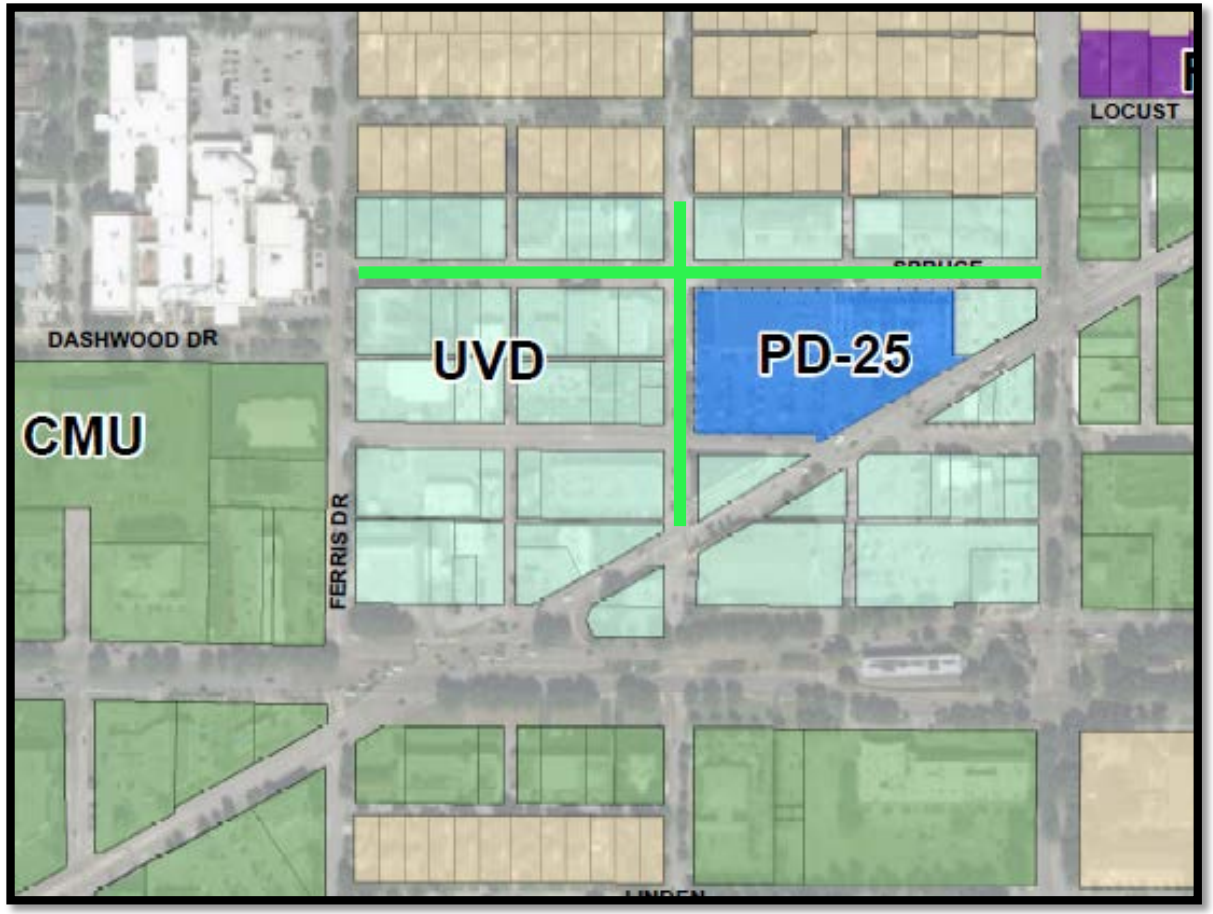
Urban Village Downtown (UVD)

Spruce and 5th Project

Why is this project being done?

Zoning Code Ch.24.537

- Destination shopping, services and multi-purpose trips. Park and walk around
- Mix of uses to reinforce the "small town" downtown feel
- Transition to a more Urban development character through redevelopment
- Smaller list of uses in UVD than CMU (corridor mixed use)



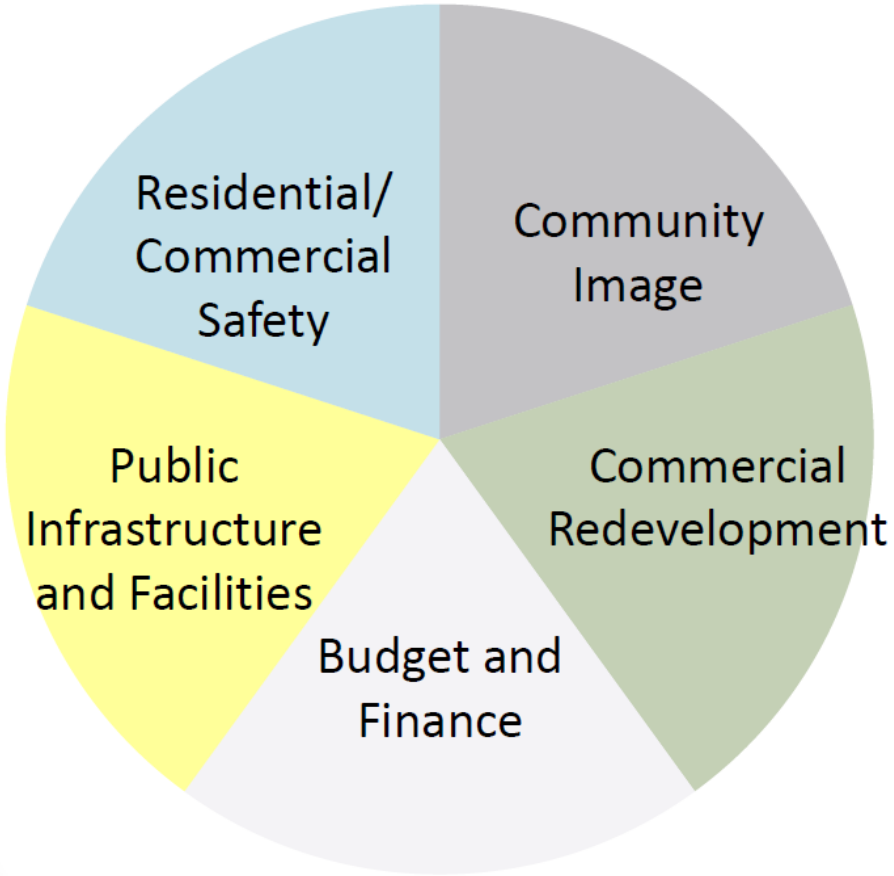
Map Key:

Spruce and 5th Project

PD-25 (HEB)

Why is this project being done?

City Council Priorities



- Safe and secure community that enhances quality of life
- Existing infrastructure is the highest standard; new infrastructure is in the best interest of the community
- Enhance economic viability in concert with the Comprehensive Plan
- Develop, present and implement a consistent and repeatable reflection of the City's image, quality of life and high standard of professional service delivery

What is the vision for this project?

Spruce and 5th Street sets standard

- Redevelop - Urban Village Downtown
  - More local destinations
  - Greater variety of uses, retail, dining, etc.
  - Walkability & Bike-ability
  - Green space and trees
  - Community Destination

EXXON
S. RICE AVE
O'Reilly AUTO PARTS

EXXON
S. RICE AVE
O'Reilly AUTO PARTS

H-E-B
H-E-B
O'Reilly AUTO PARTS
H-E-B
curbside

H-E-B
H-E-B
O'Reilly AUTO PARTS
H-E-B
curbside
EXIT ONLY
ENTER

H-E-B

H-E-B

FIFTH ST

SPRUCE ST 5800

What is the vision for this project?

- Landscape bid cost bid: $359,548
  - Trees
  - Plant material
  - Decorative pavers
  - Irrigation system

- Project design
  - Include HEB landscaping and sidewalk in the 5th and Spruce Project
  - Limit damage to plant material, irrigation, sidewalk, etc.
  - HEB to reimburse City
  - $190,000 cost to City.

What is the vision for this project?

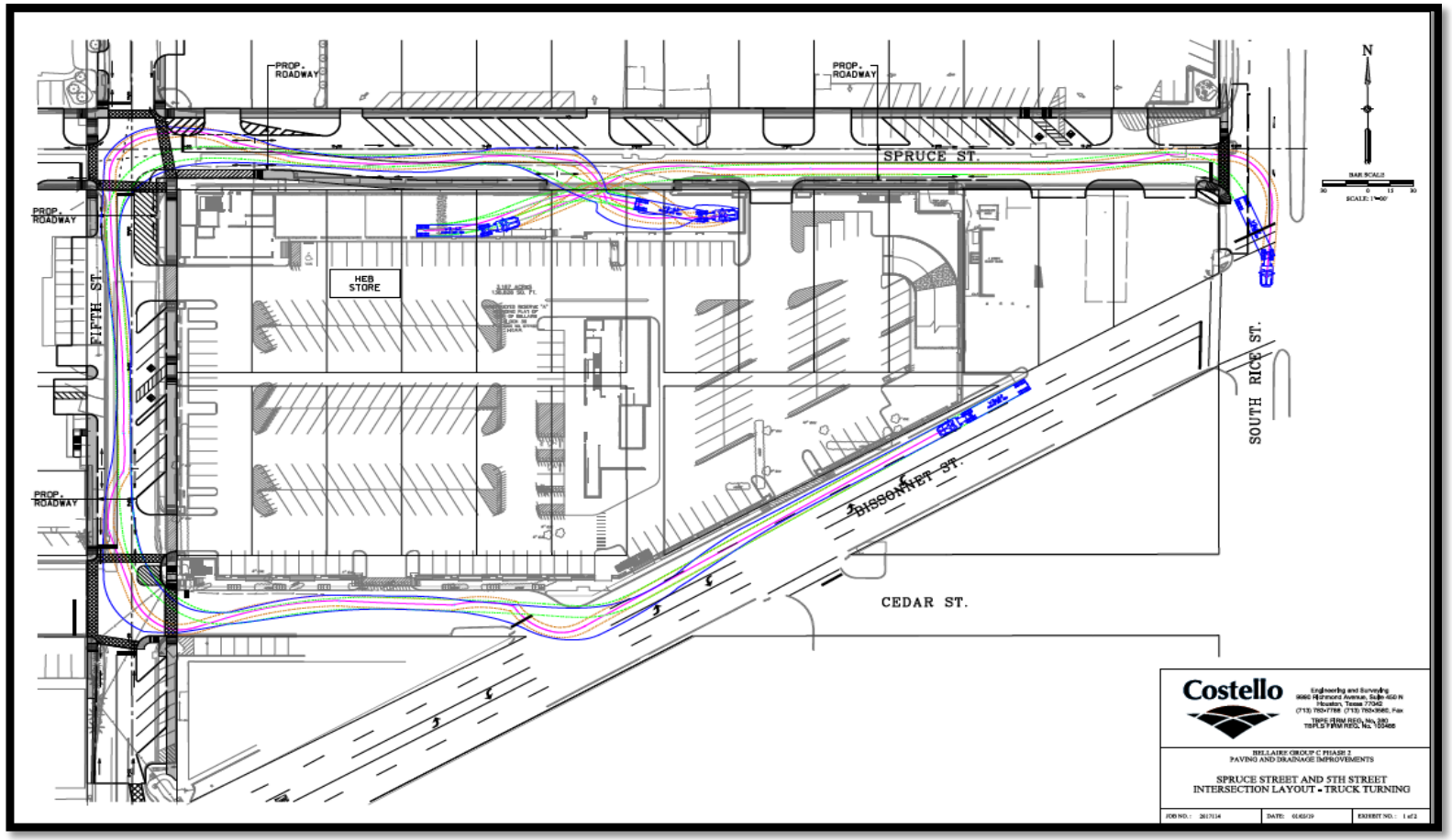
Streetlighting:

- Lights to be supplied by CenterPoint
- CenterPoint will operate for City
- City to pay for decorative upgrade to light fixtures
- Agreement to be signed by City Manger
- Cost estimate in development
- Less than $50,000

How do we know this will work operationally?

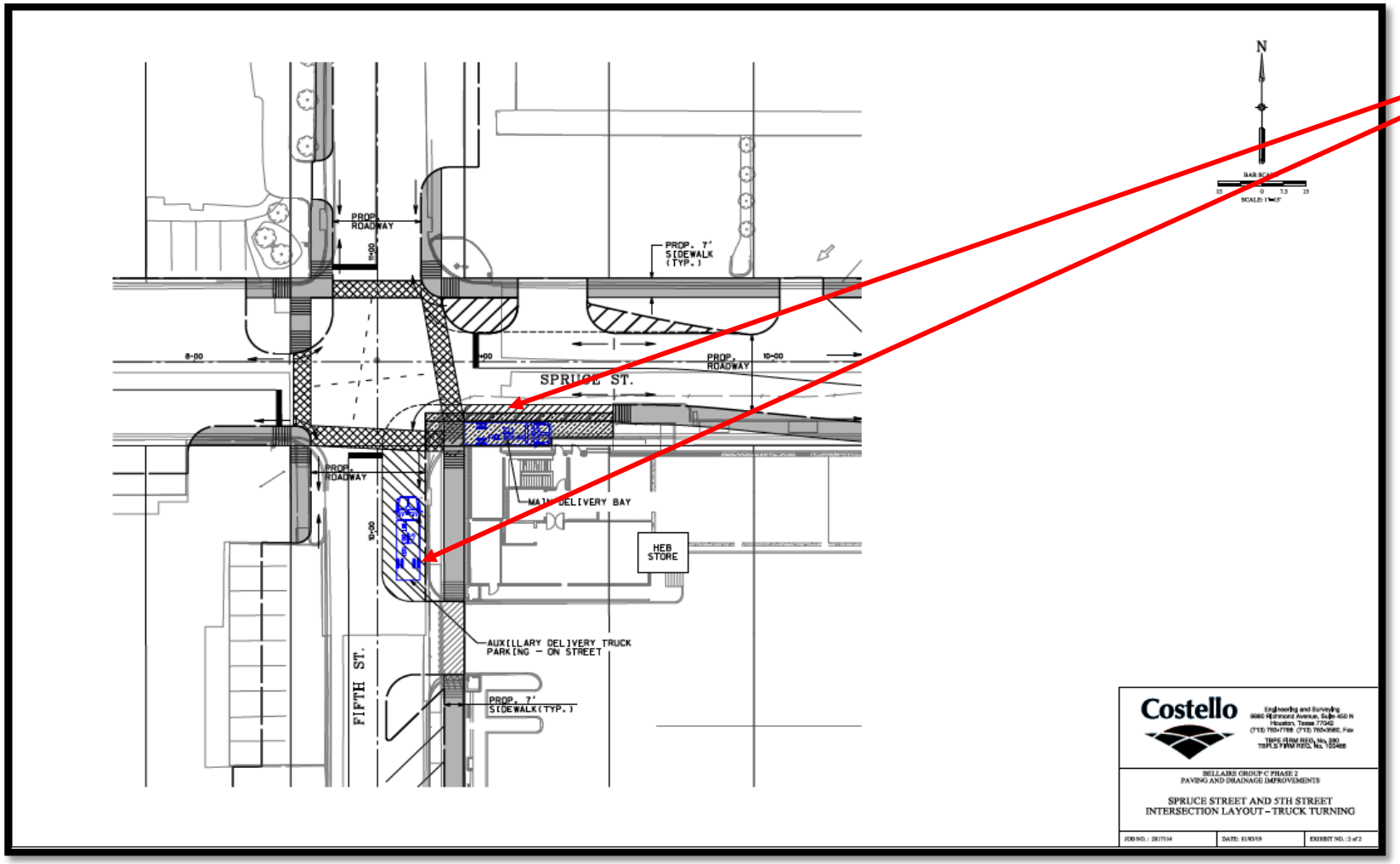
- Designed by Professional Engineers (PE) / 3rd party review by (PE)
- Input from businesses
  - Changed driveway widths
  - Added parking, etc.
  - Altered delivery methods / times
- Partnering with HEB Development
  - Delivery locations out of travel lanes
  - Added second location for deliveries
- Corner clip at Spruce and S. Rice to facilitate turning movement
- Enforcement program

How do we know this will work operationally?



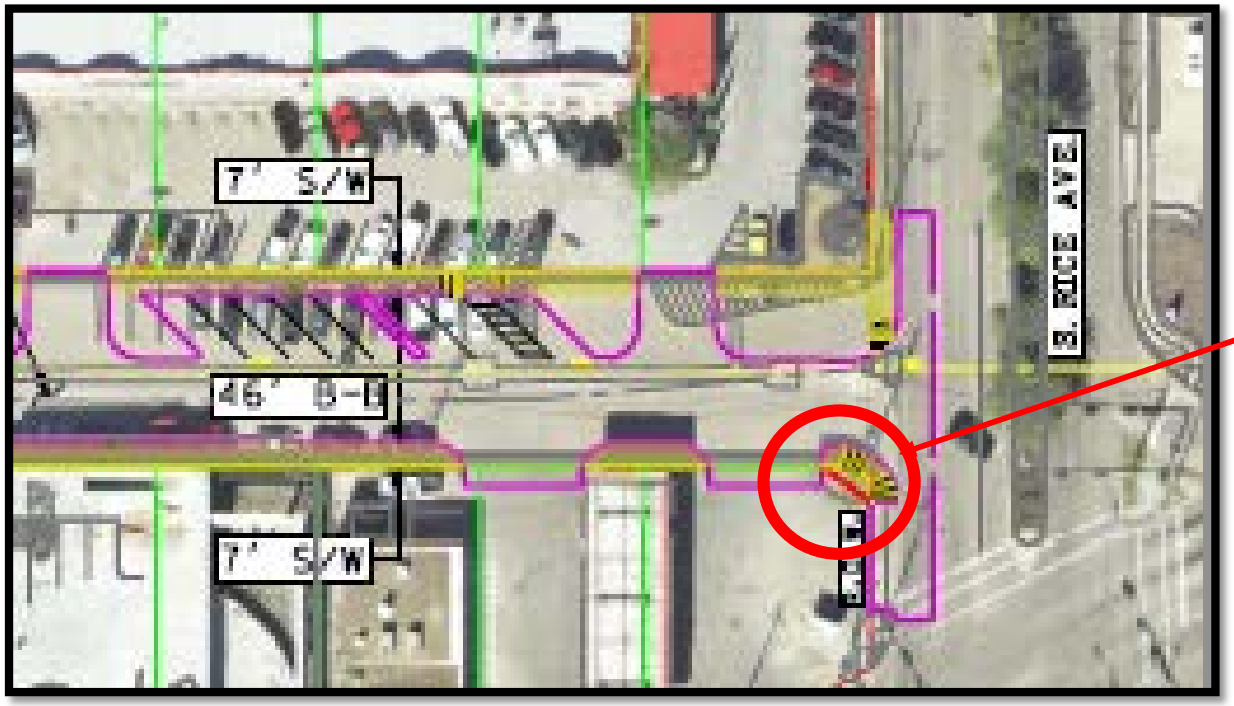
- 18 wheeler model
- PD-25: 18-wheeler access only east bound spruce
- Designed to accommodate turns

How do we know this will work operationally?



- Two loading bays
- Outside of travel lanes
- Design accommodates turns
- In addition to two 18 wheeler bays

How do we know this will work operationally?



- Exxon Gas Station
- Corner Clip
- Facilitate turning movements: Spruce to Rice

How do we know this will work operationally?

CITY MOBILITY PLAN (CMP)				MAJOR THOROUGHFARE AND FREEWAY PLAN (MTFP)				
MULTIMODAL STREET CLASSIFICATION				EXISTING CLASSIFICATION				
	Proposed Right-of-Way	Number of Lanes	Typical Design Avg Daily Traffic Vol (vpd)	Principal Thoroughfare	Thoroughfare	Major Collector	Minor Collector	Local Street
STREET								
Commercial	60'	2	1,000 -15,000					
Mixed Use	60'	2	1,000 - 15,000					
Residential	60'	2	500 - 5,000					
LOCAL STREET								
Residential Main	60' - 70'	2	≥ 1,500					
Residential High Density	55' - 65'	2	350 - 5,000					
Residential Std. Density	50' - 65'	2	250 - 5,000					

Table 15.08.01 Driveway Design Criteria

	Single Family Residential				Townhomes / Condos**				Commercial*			
	Radius (ft)		Width (ft)		Radius (ft)		Width (ft)		Radius (ft)		Width (ft)	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
Shared Access	10	4	24	12	10	4	24	18	20	10	35	24
One-Way	10	4	20	12	10	4	24	15	20	10	20	15

- Houston Infrastructure Design Manual
- Street design by traffic volume
- Counted twice
  - ADT 1412 (11-18)
  - ADT 1630 (1-19)
- Additional capacity available

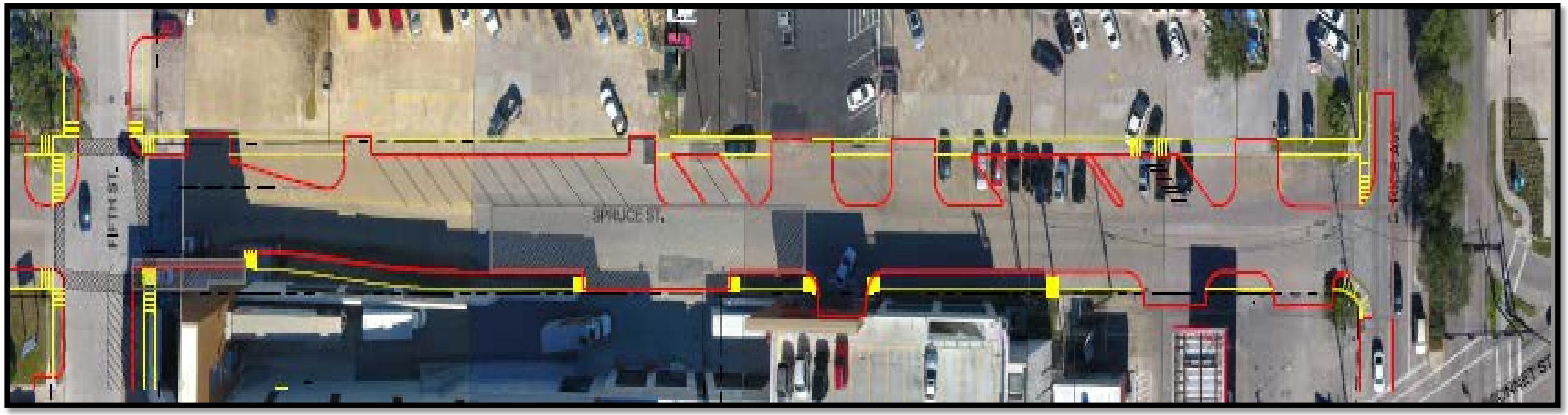
How do we know this will work operationally?

January 2, 2019 meeting with HEB

- Addressed existing condition
  - Issued a letter outlining expectations (30 day grace period)
  - Better manage trucks at unloading area (5th and spruce intersection)
  - No stacking to wait
- Addressed future built condition
  - Unloading may not unduly burden traffic
  - Stay within designated areas
  - No stacking to wait

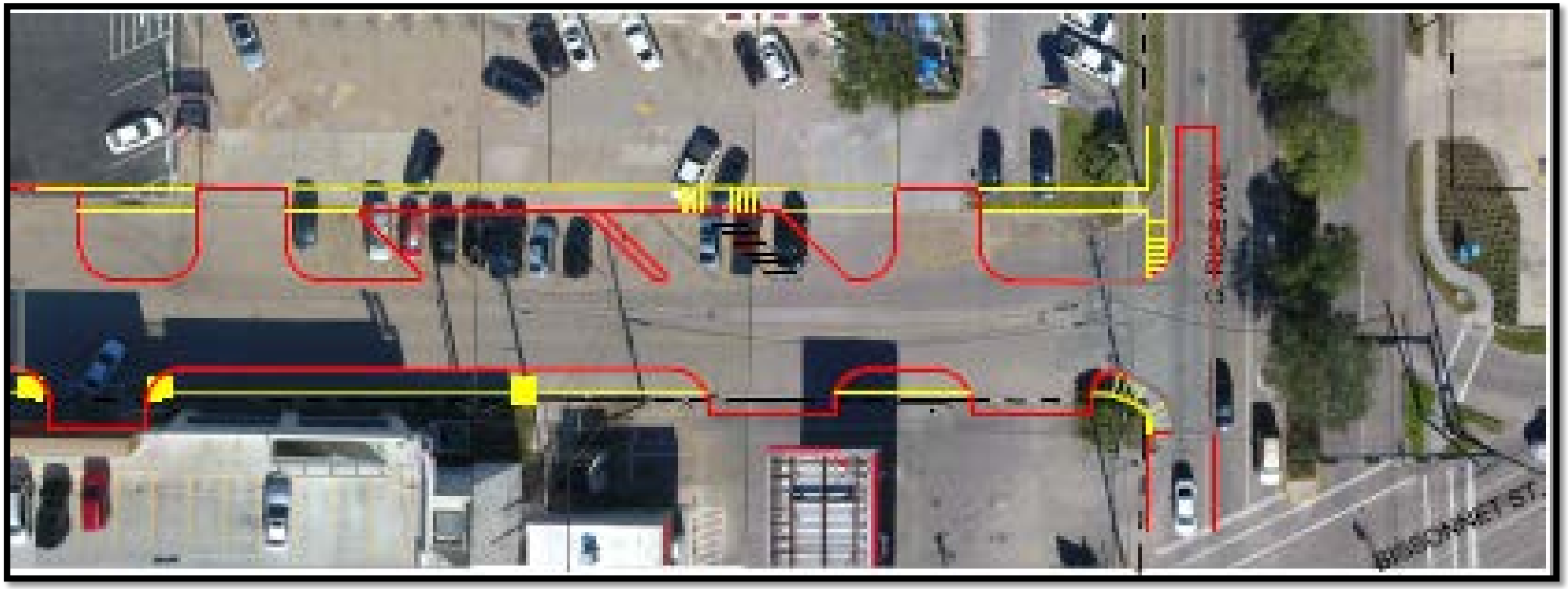
How do we know this will work operationally?

- Spruce from North Fifth to South Rice



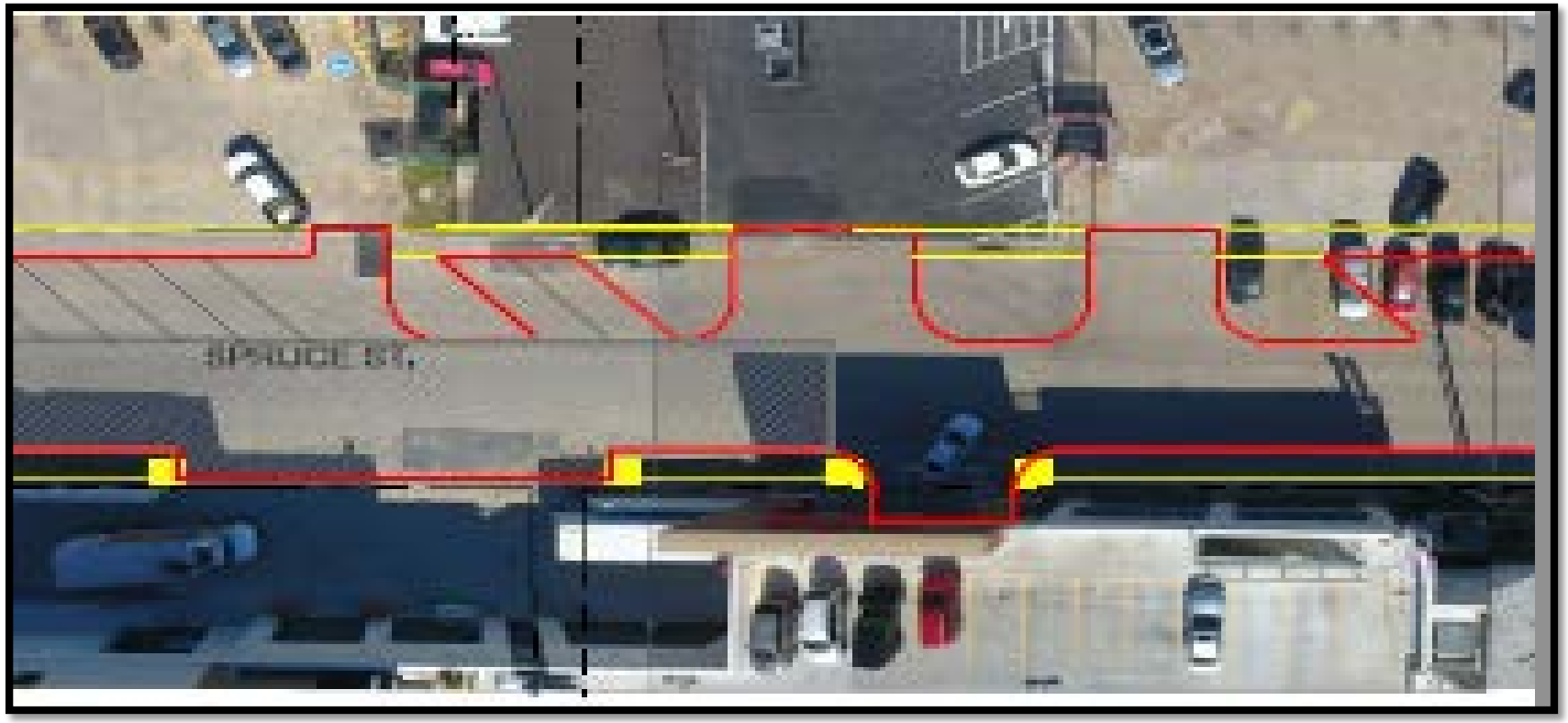
How do we know this will work operationally?

- Jax Grill, Gr8 Plate, Rice Fine Wine and Liquor, Fundamentally Music



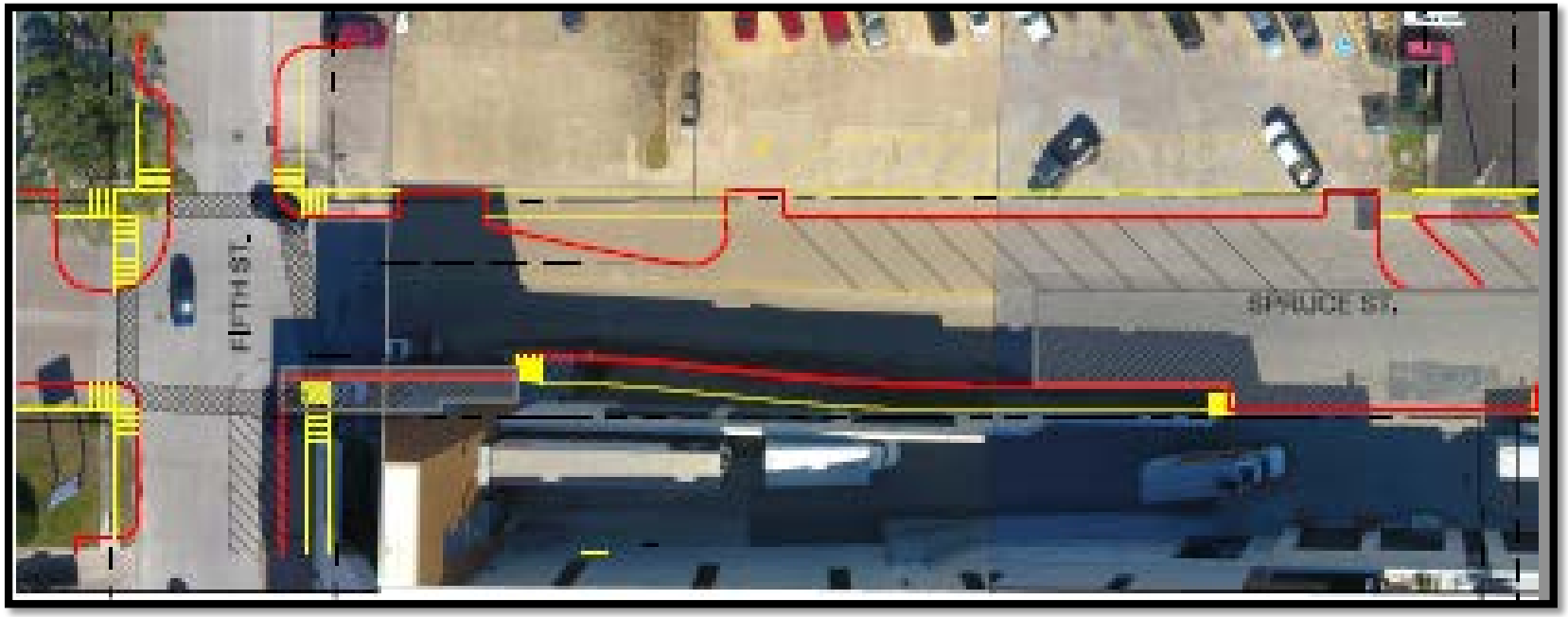
How do we know this will work operationally?

- Bellaire Auto Center



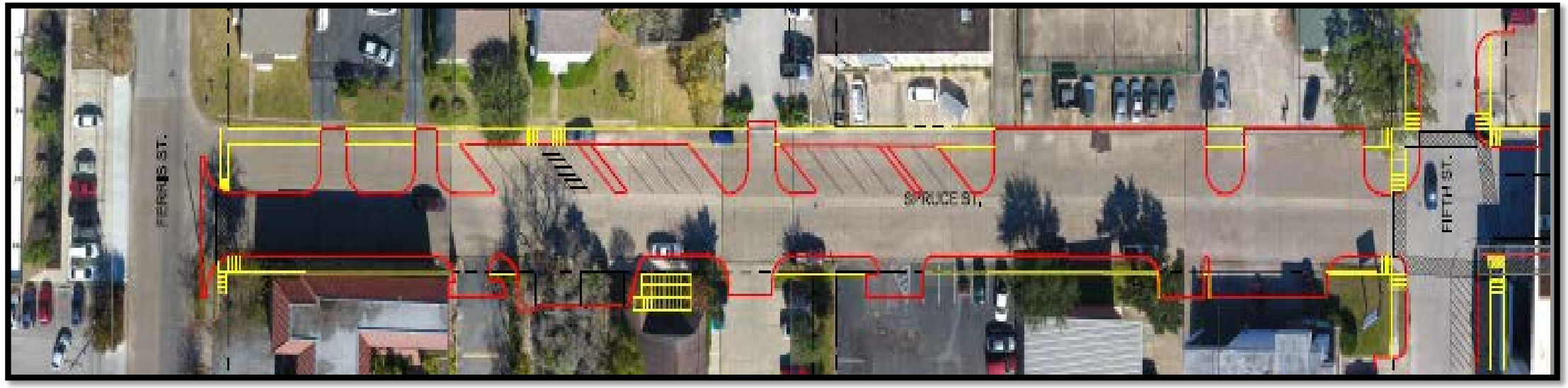
How do we know this will work operationally?

- O ’Reilly’s Auto Parts, Southwest News



How do we know this will work operationally?

- Spruce from Ferris to North Fifth



How do we know this will work operationally?

- Don Joseph Hair and Nail Salon, Wagoner Burgert Law Offices, Treehouse Learning Center

How do we know this will work operationally?

- Builders Club, Car Talk Repairs

How do we know this will work operationally?

- Schafman Edward, CPA, Com Care (assisted living), Riverway Business Services, Cason Graye Homes

How do we know this will work operationally?

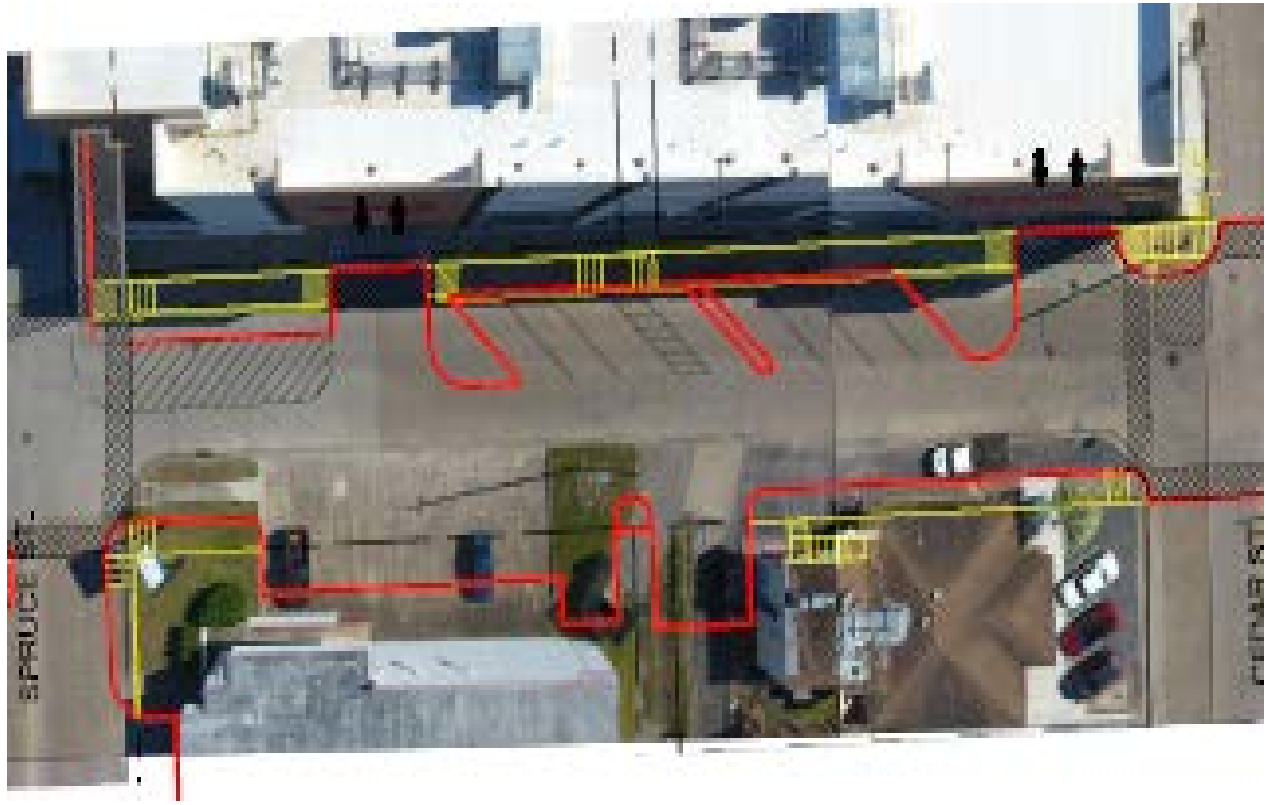
- North Fifth from Bissonnet to just north of Spruce

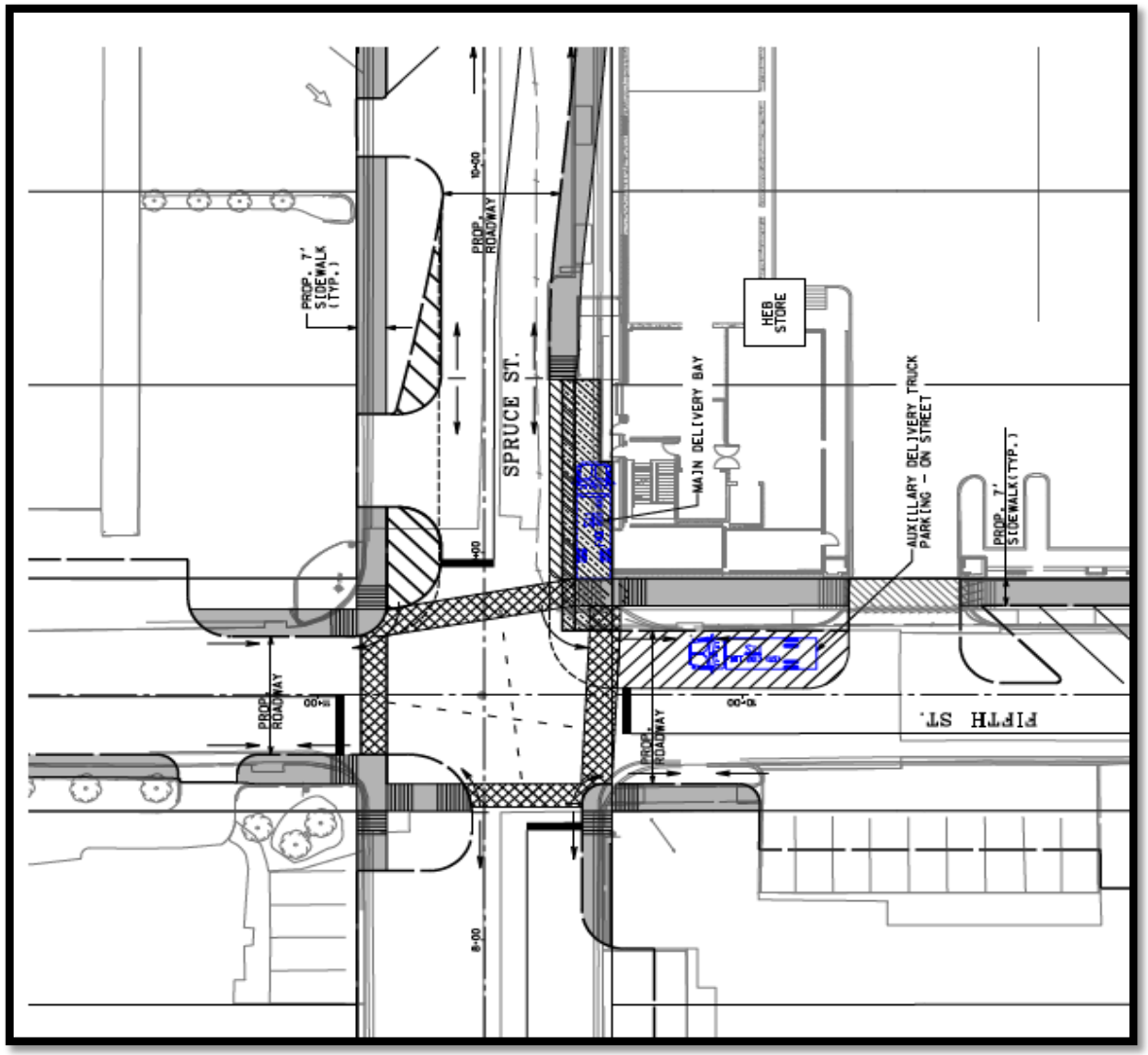
How do we know this will work operationally?

- Southwest News

How do we know this will work operationally?

- HEB, Jones-Blair and Hempel (USA)





How do we know this will work operationally?

- The Sugar Shop

How do we know this will work operationally?

- Menchi's, Jimmy Johns, Massage for Healing, Bouquelle Cleaners

Recommendation:

- 7 bids received
- Range $2.49 million to $3.97 million
- Engineers estimate: $2.68 million
- AStatus Construction LLC., references and sub-contractor checked
- AStatus low bidder on all construction projects
  - Bolivar Maple
  - Spruce and 5th
  - Water Lines Project
- Project plan / schedule all three projects
- Company representative here to answer questions