

RAPID



NORTHWEST BRT PRESENTATION – MARCH

EMBARCK

HNTB

RAPID



Agenda

1. System Summary
2. Station Rendering
3. Heat Maps
4. Transit Signal Priority
5. Route
6. Station Review
7. Budget
8. Schedule

System Summary



Technology

Transit Signal
Priority / Real Time
Arrival Signs



Lanes

Mixed Traffic /
Dedicated
Pull off lanes



Frequency

12 minutes/ 20
minutes



Project Cost

\$28,885,050



Vehicles

40' low/no
emission



Platforms

Enhanced
Platforms with
Added Amenities



Corridor

9.5 miles (one-way),
30+ stops,
1 Park and Ride



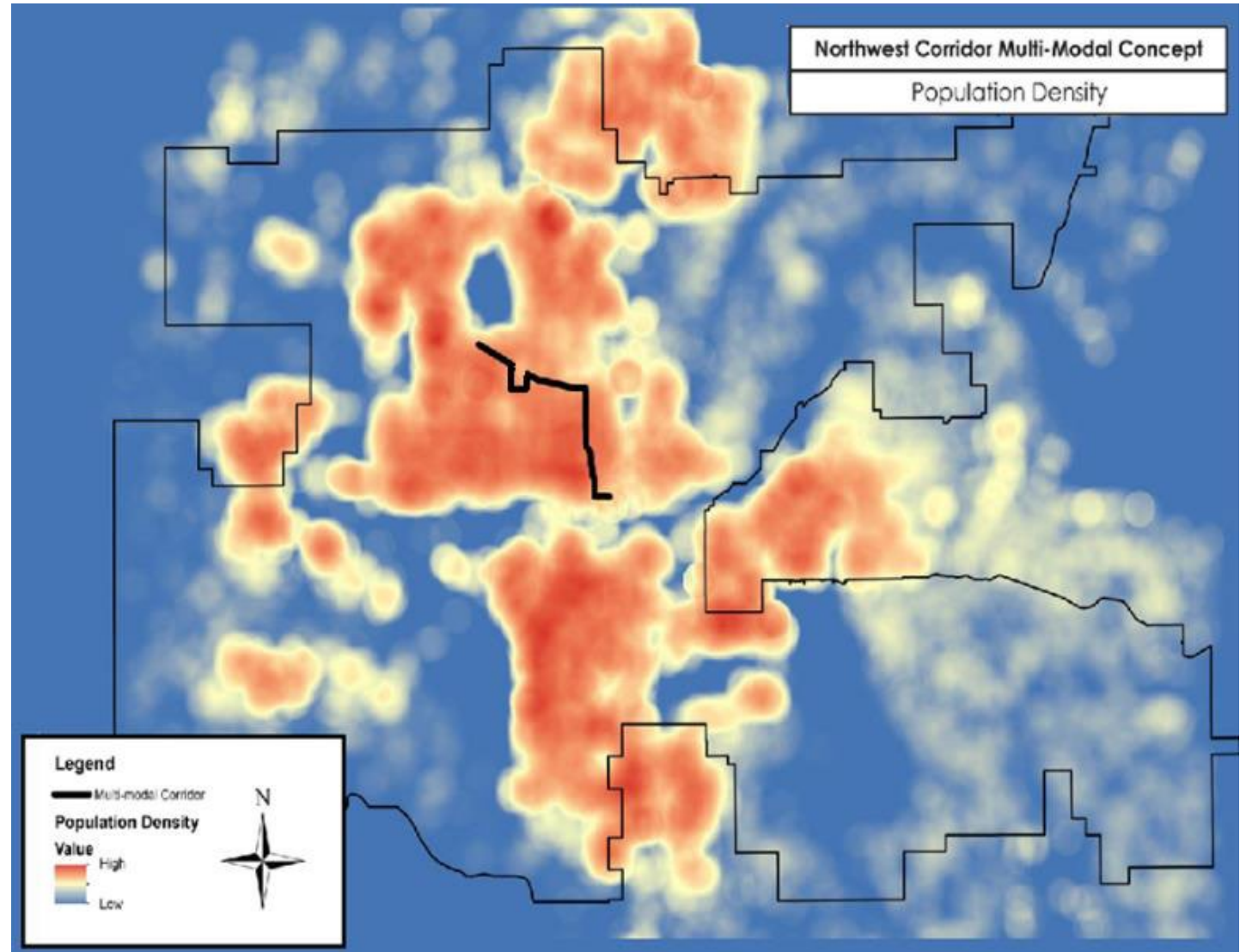
RAPID
NORTHWEST

AN **SEMBARK** TRANSIT SERVICE

RAPID

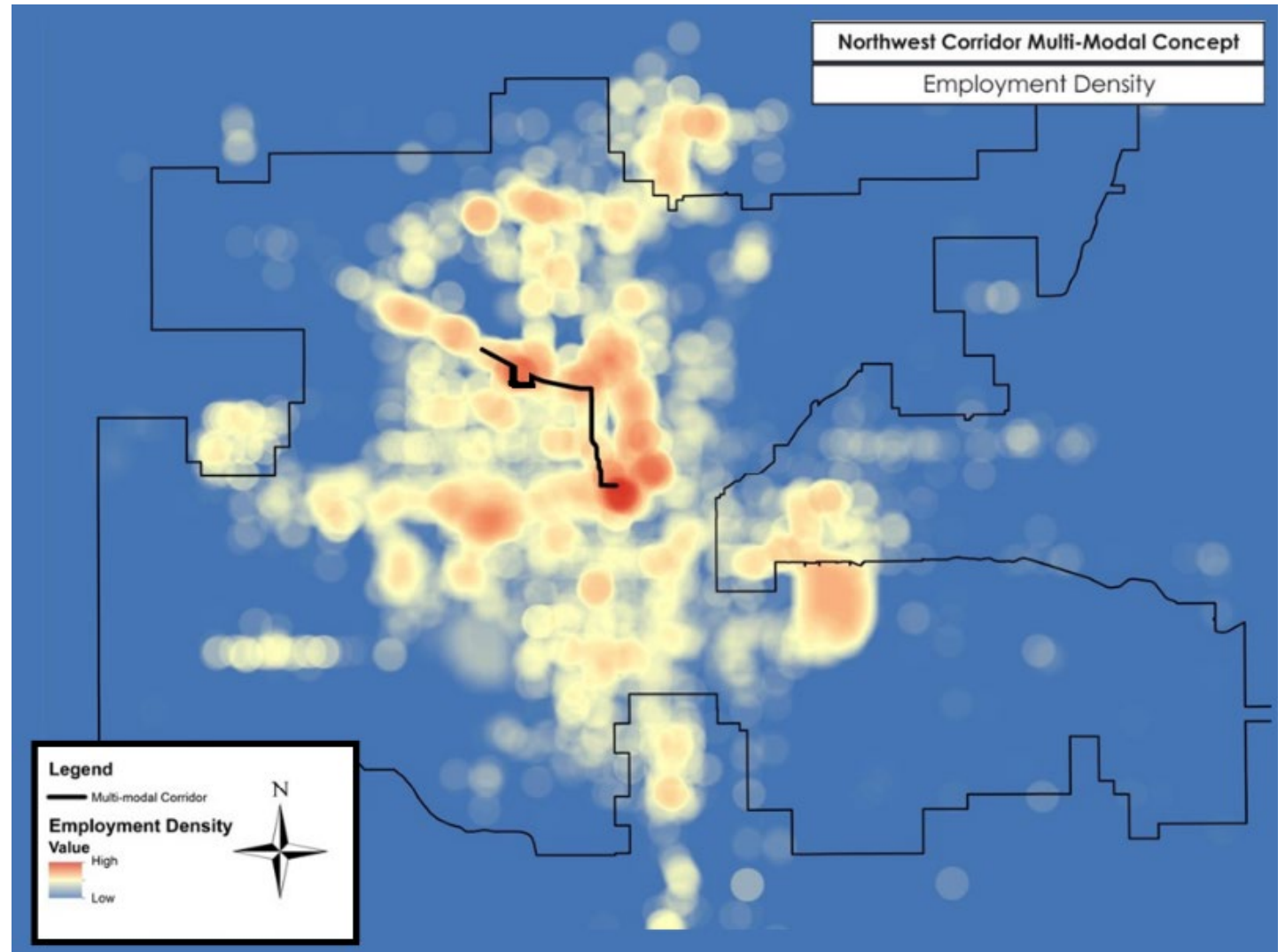
HEAT MAP

POPULATION DENSITY ALONG ROUTE



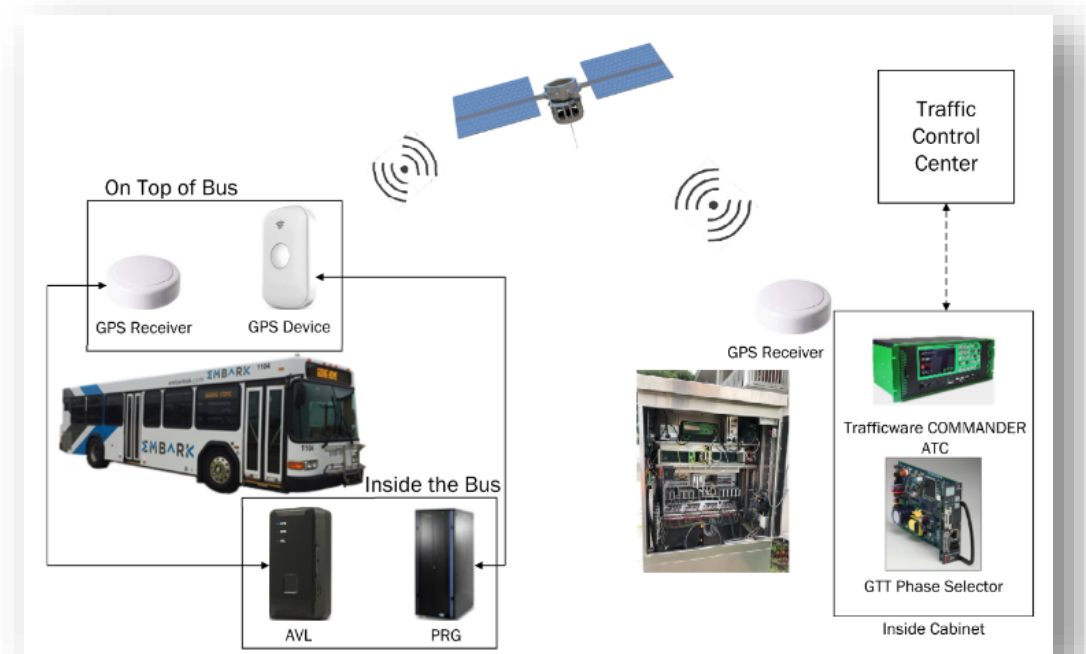
HEAT MAP

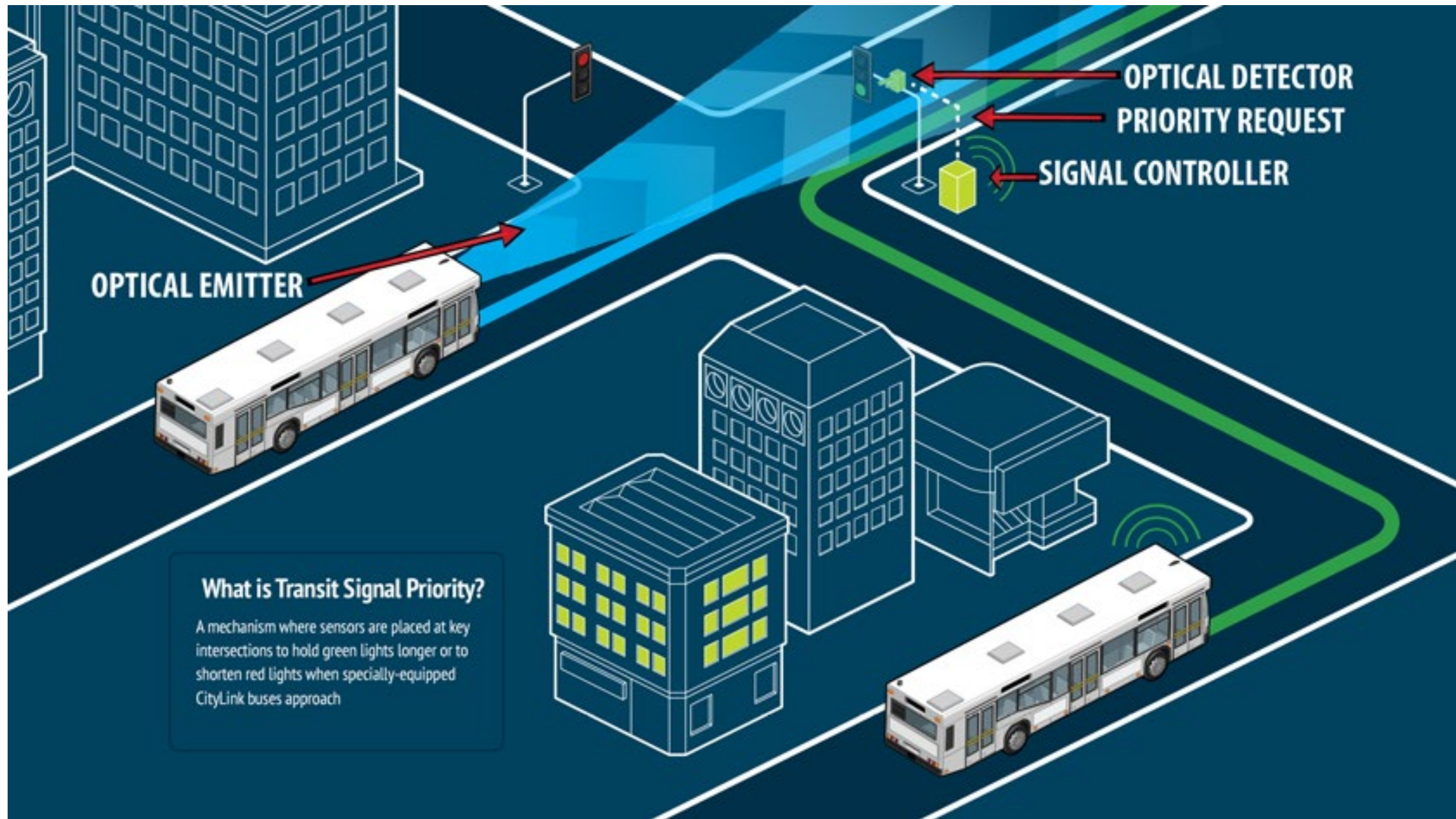
EMPLOYMENT DENSITY ALONG ROUTE



Transit Signal Priority

- TSP Goals:
 - Reduction of round-trip travel time to reduce operations cost
 - Reduce excessive transit delay at congested intersections
 - Improve travel time reliability (schedule adherence and headway management)
- Centralized TSP System that will integrate with existing OKC Streetcar TSP
- TSP will upgrade all signalized intersections in the corridor using GPS which communicates to the vendor's equipment connected to the controller
- Green extension (15 seconds), early green (20 seconds), all-red hold, and bus-only queue jumps will all be TSP strategies implemented for this project





OPTICAL EMITTER

OPTICAL DETECTOR

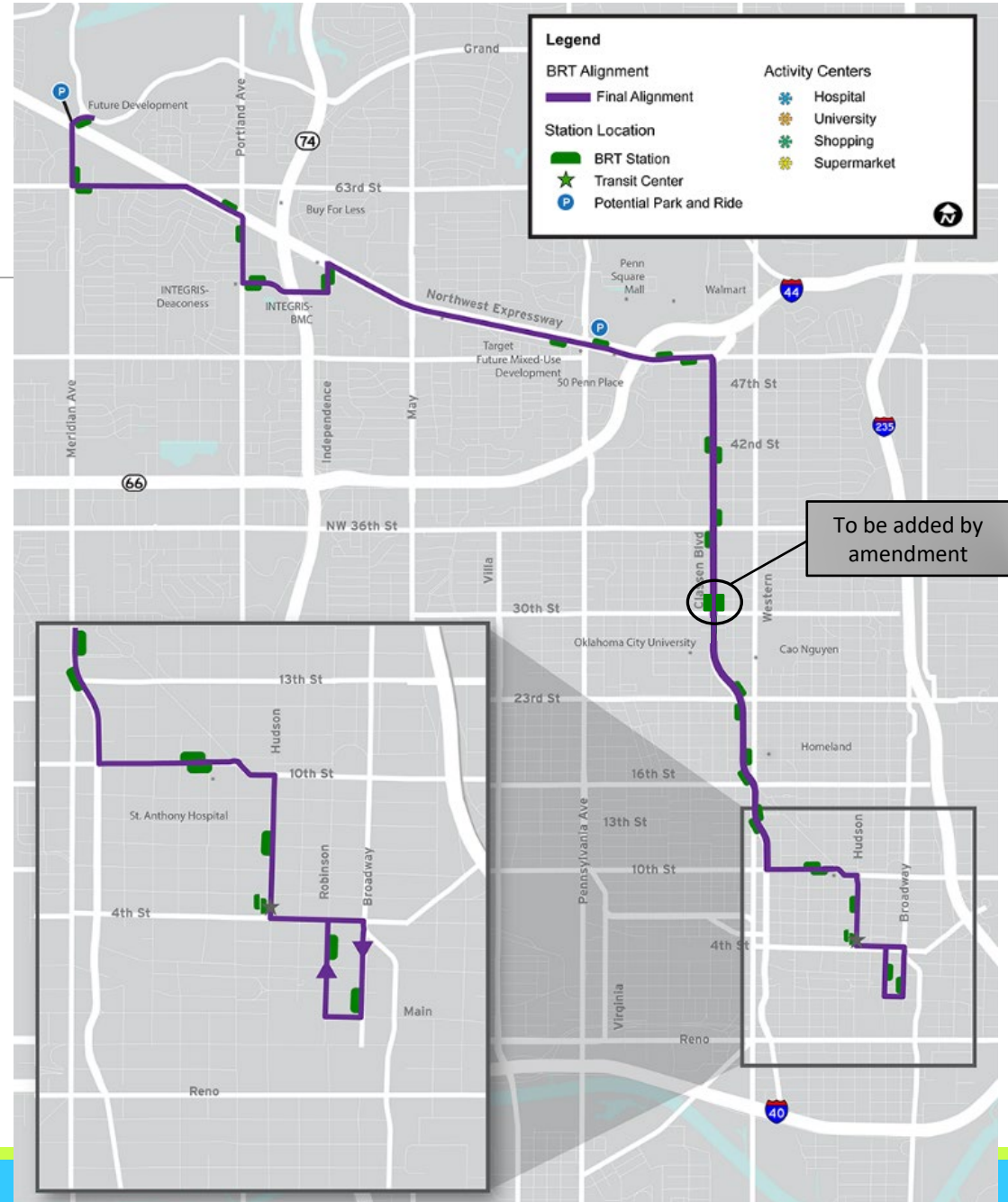
PRIORITY REQUEST

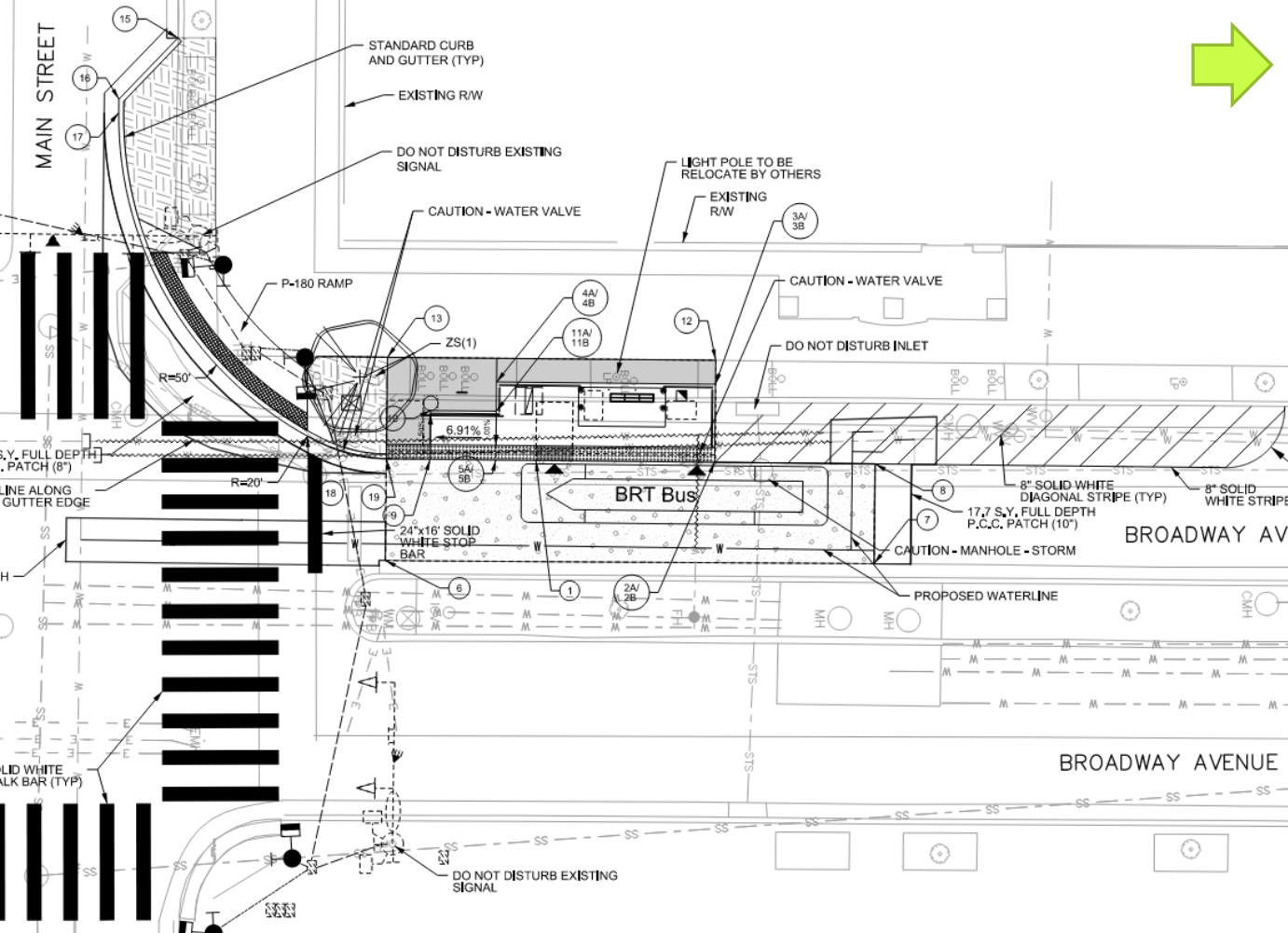
SIGNAL CONTROLLER

What is Transit Signal Priority?
A mechanism where sensors are placed at key intersections to hold green lights longer or to shorten red lights when specially-equipped CityLink buses approach

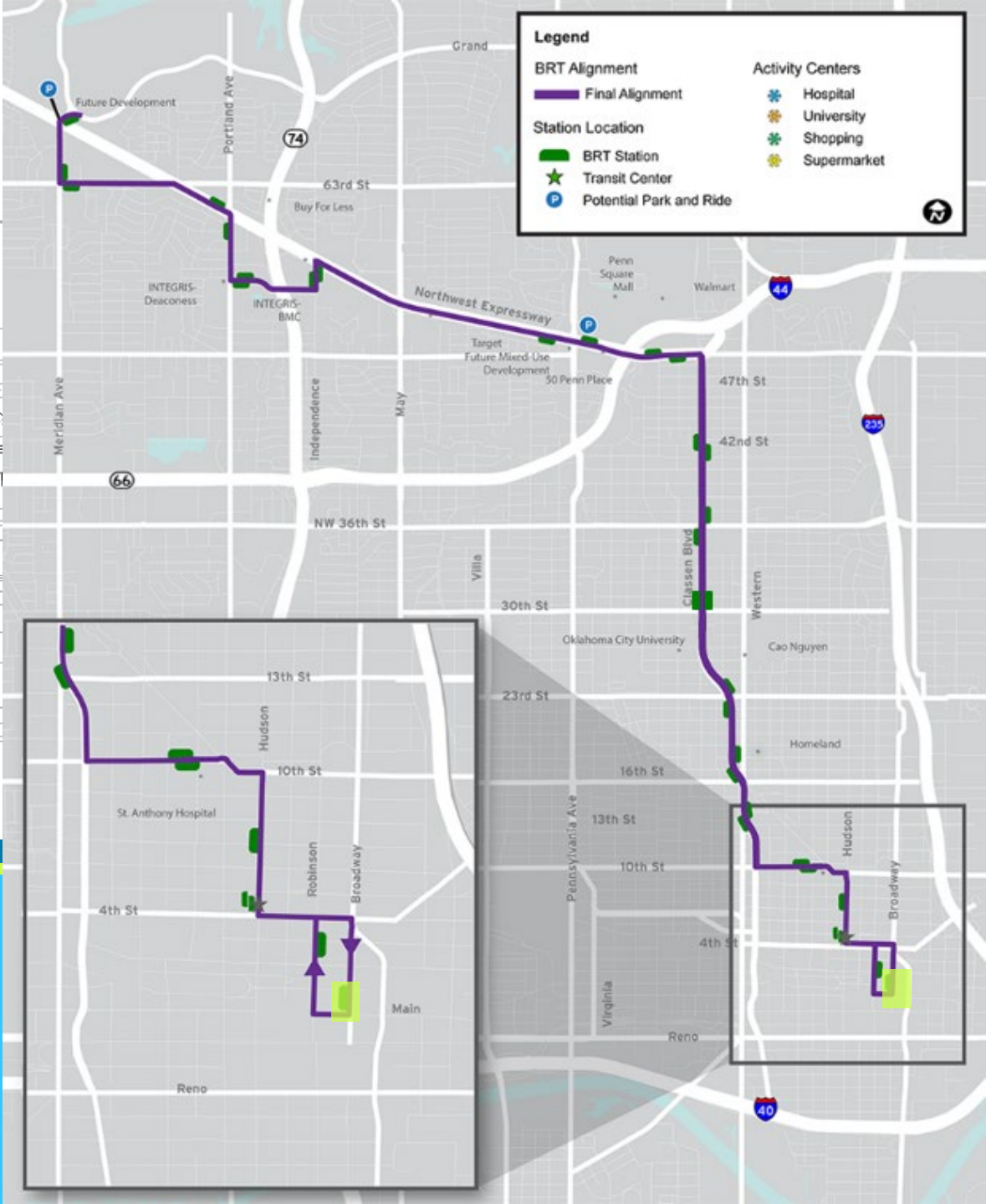
Route

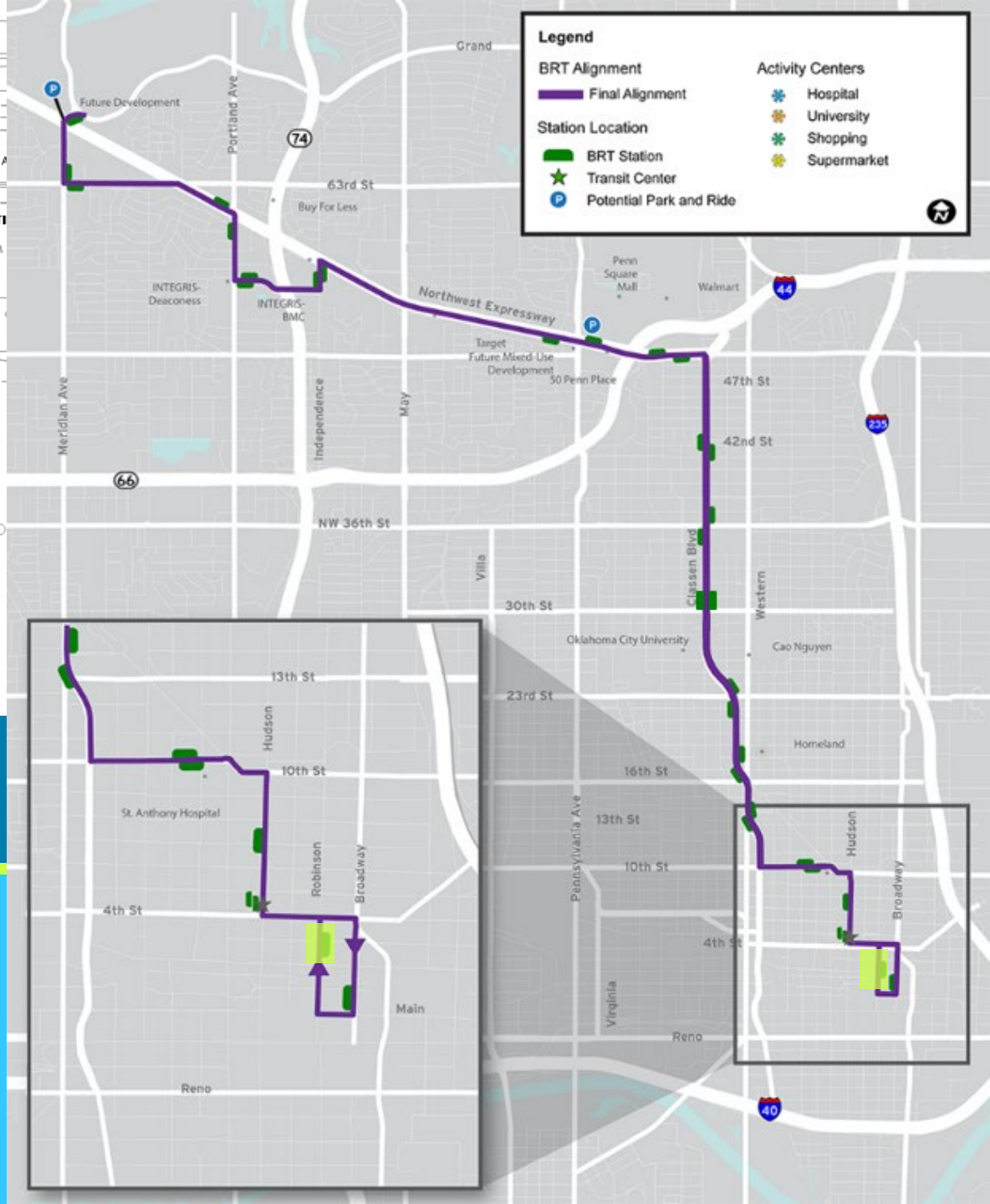
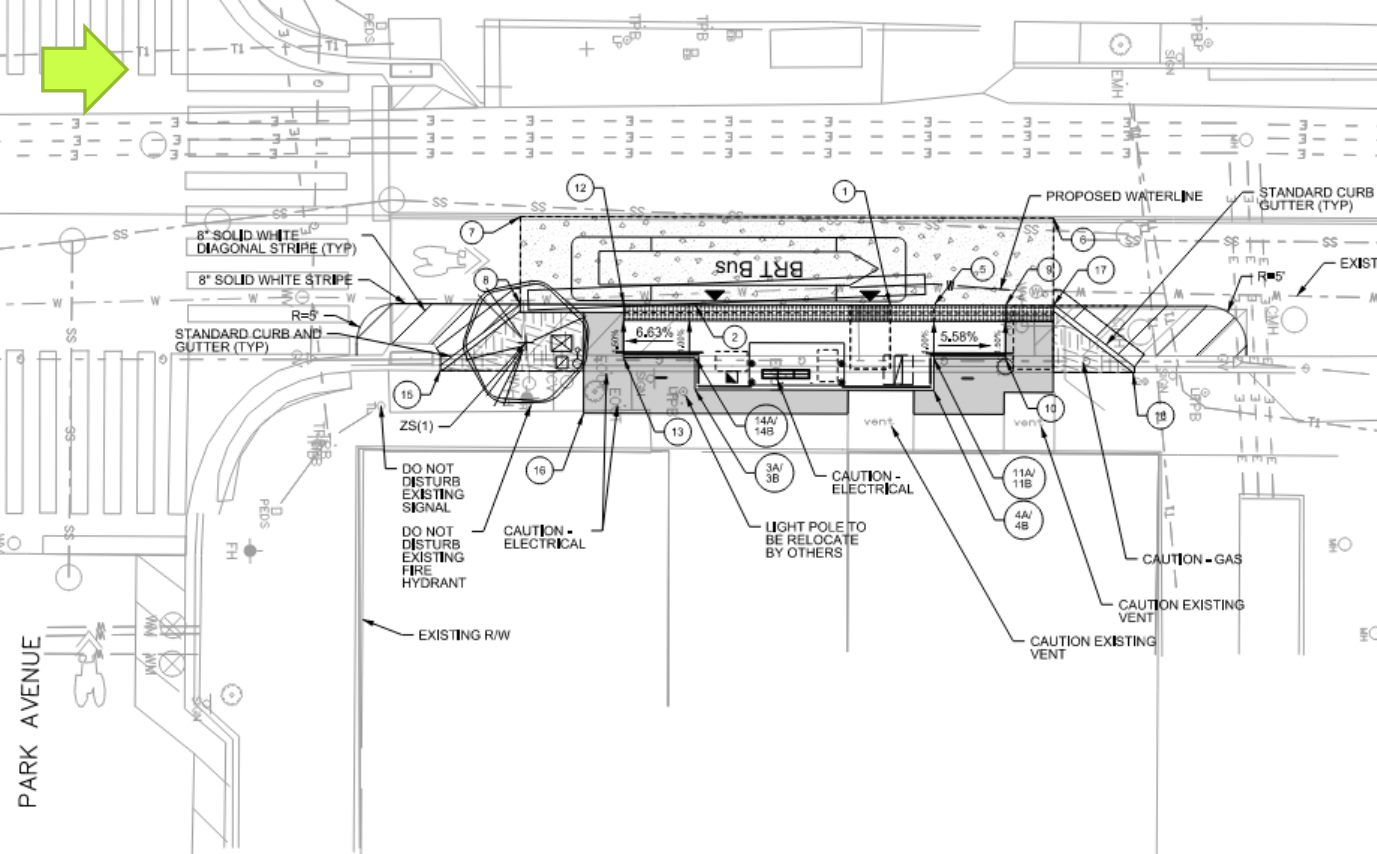
- Broadway/Main
- Robinson/Park
- Downtown Transit Center
- Hudson/8th Street
- 10th Street/Lee Ave.
- Classen/13th Street
- Classen/18th Street
- Classen/23rd Street
- Classen/31st Street – To Be Added by Amendment
- Classen/36th Street
- Classen/42nd Street
- NW Expressway/Blackwelder
- NW Expressway/Pennsylvania
- Independence/56th Street
- Portland/56th Street
- NW Expressway/Portland
- Meridian/63rd Street
- NW Expressway/Meridian



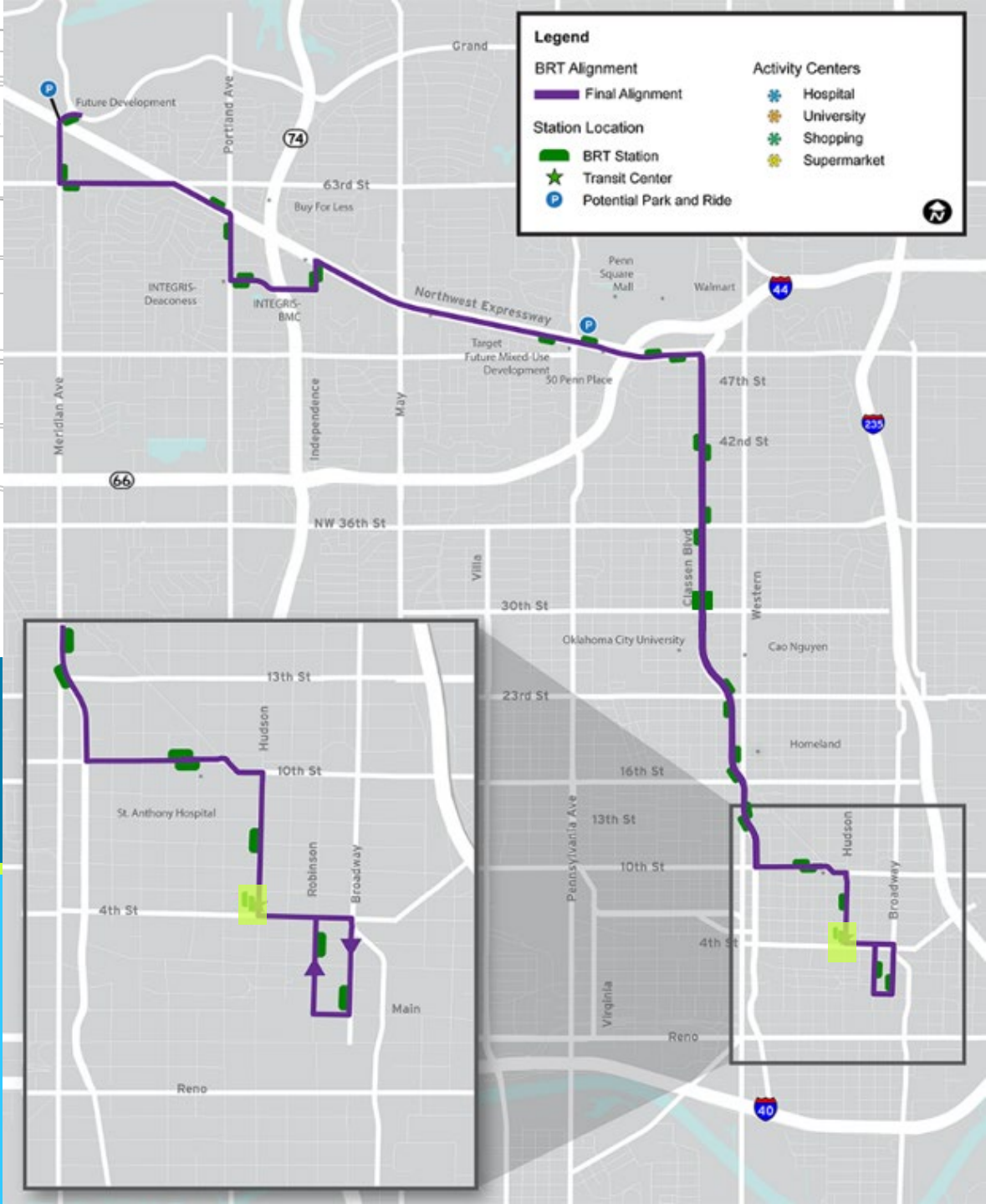
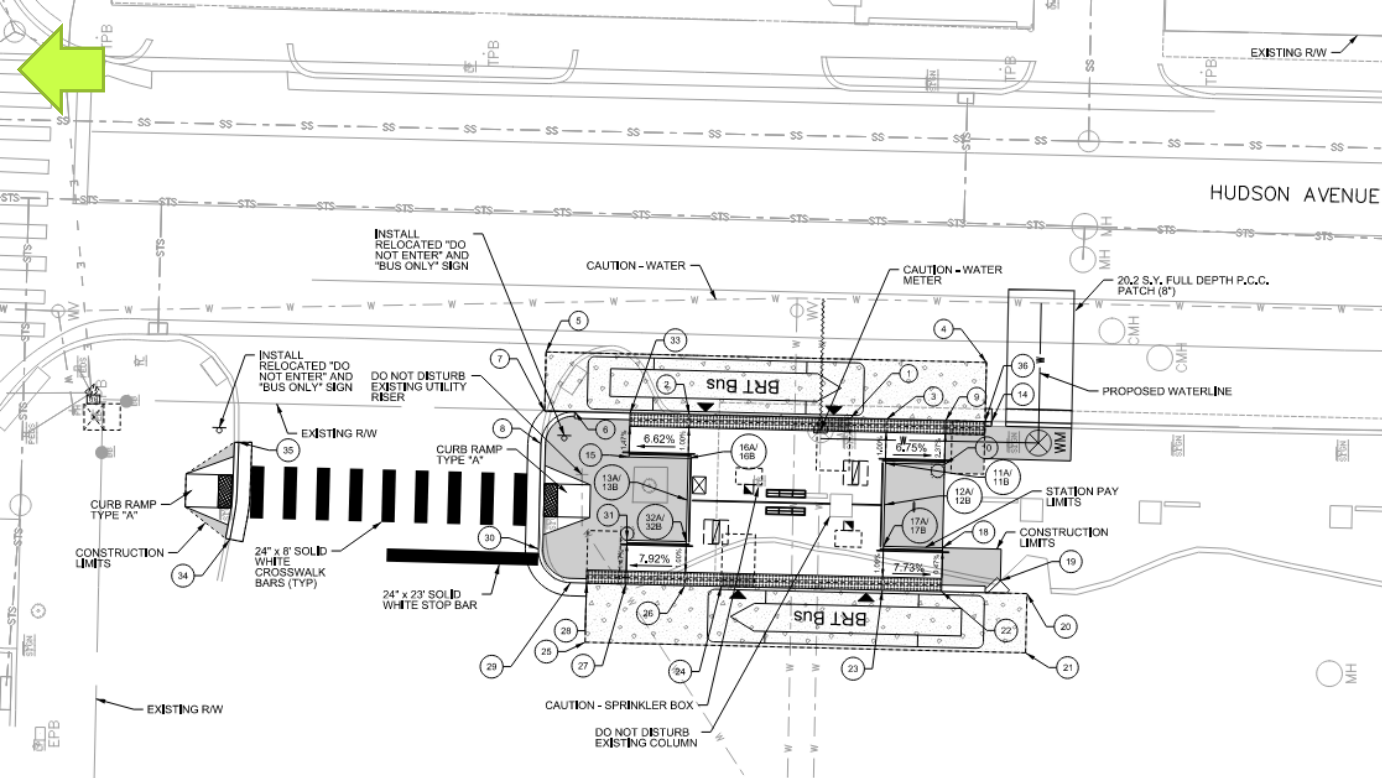


Broadway/Main



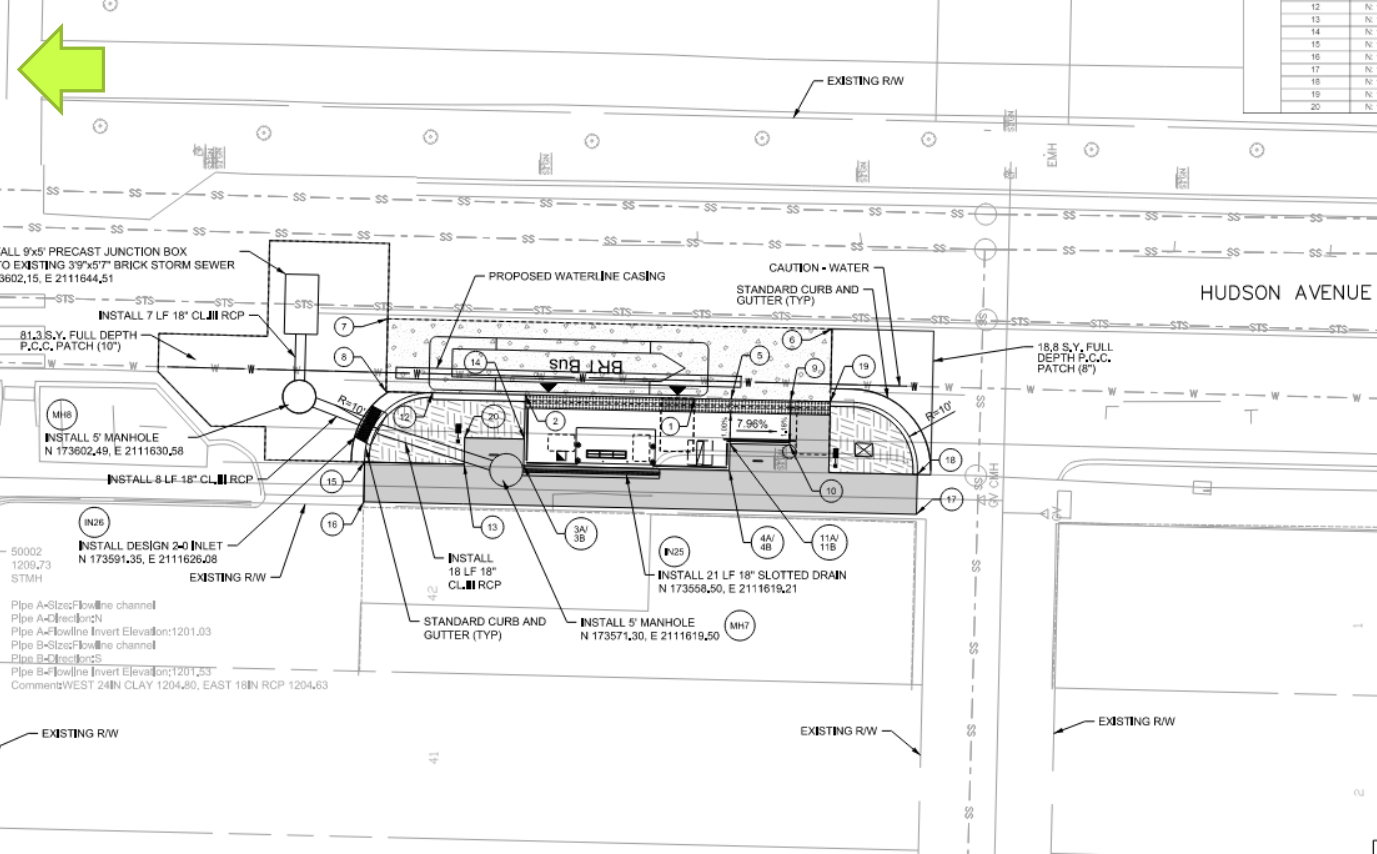


Robinson/Park

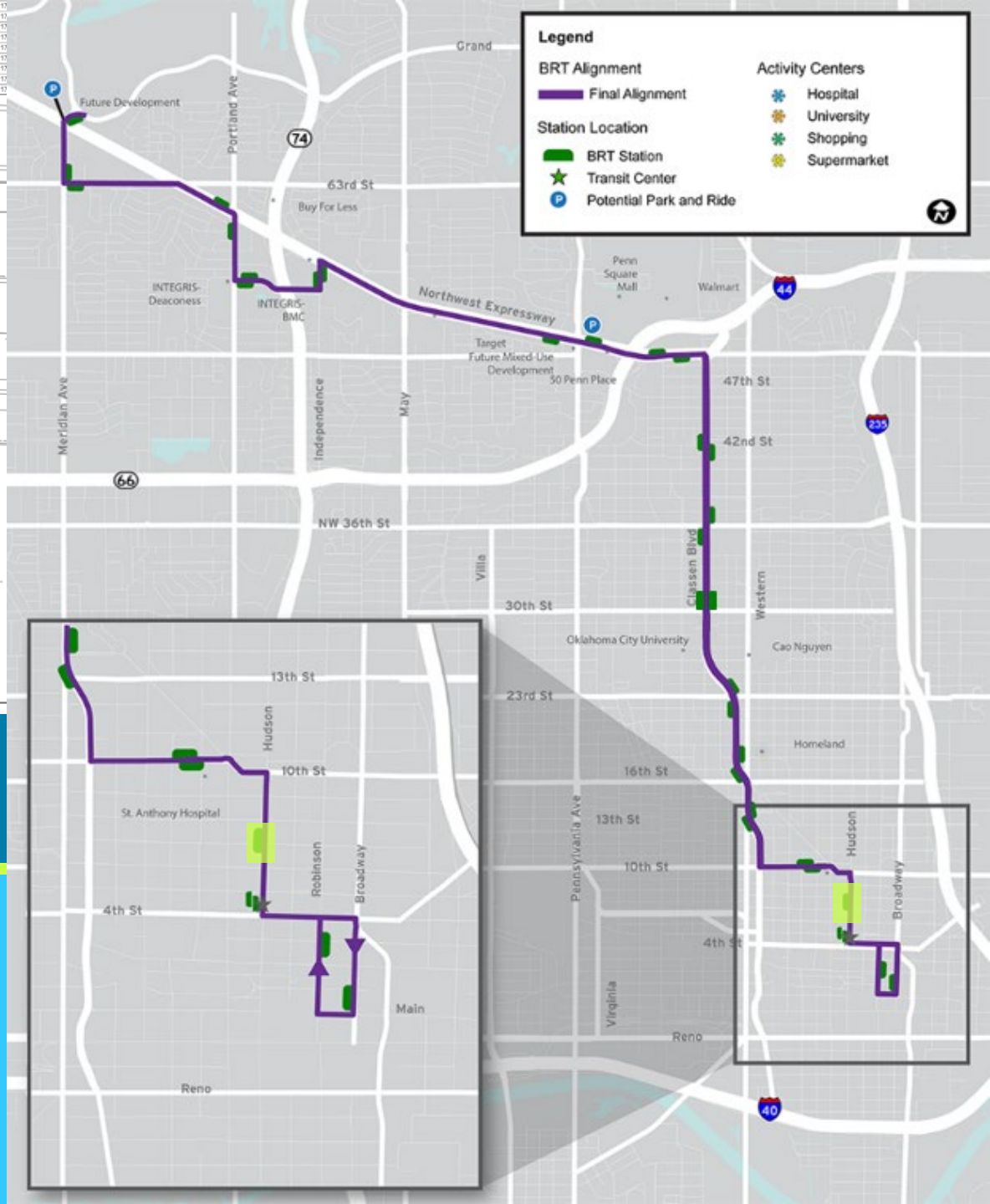


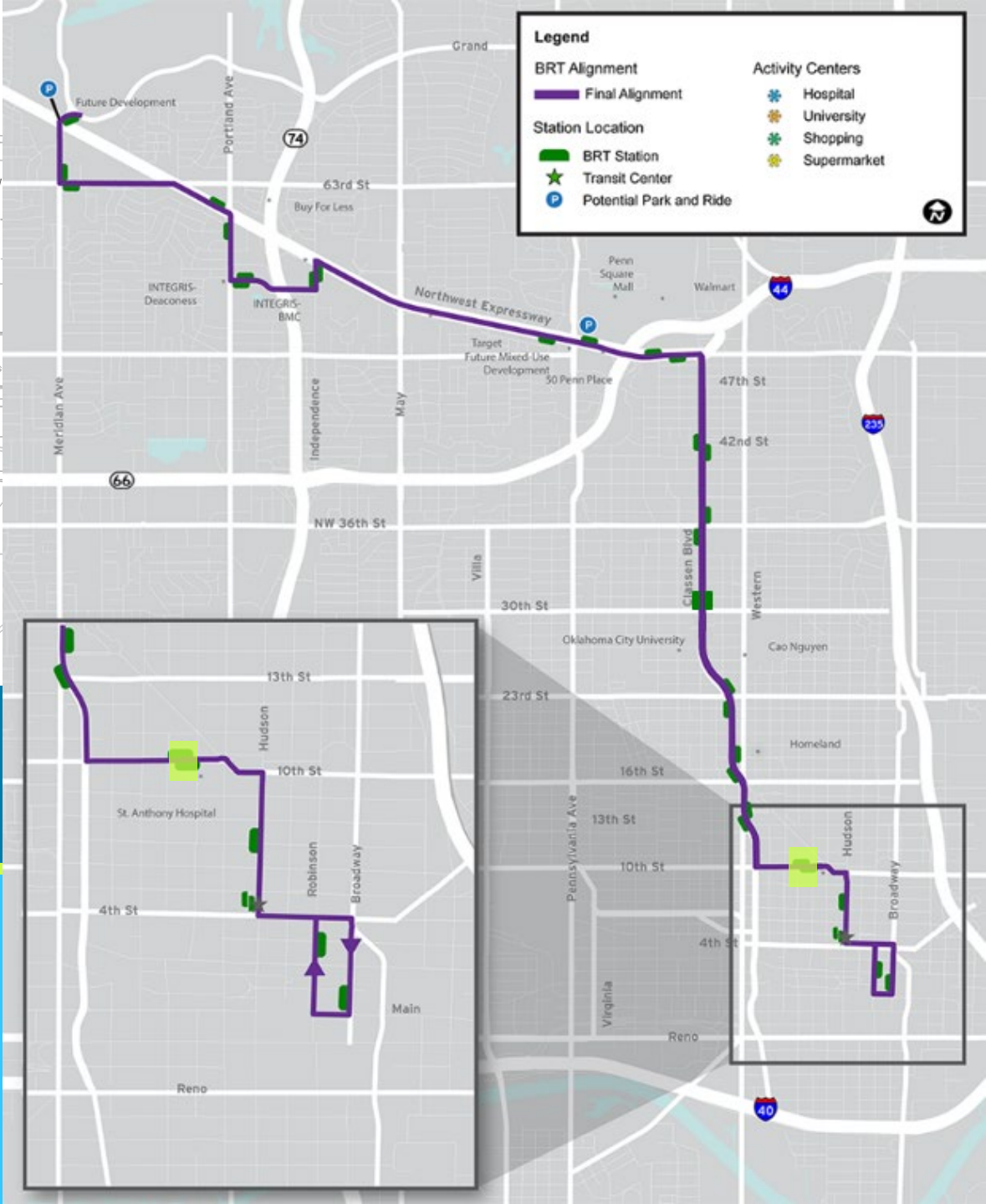
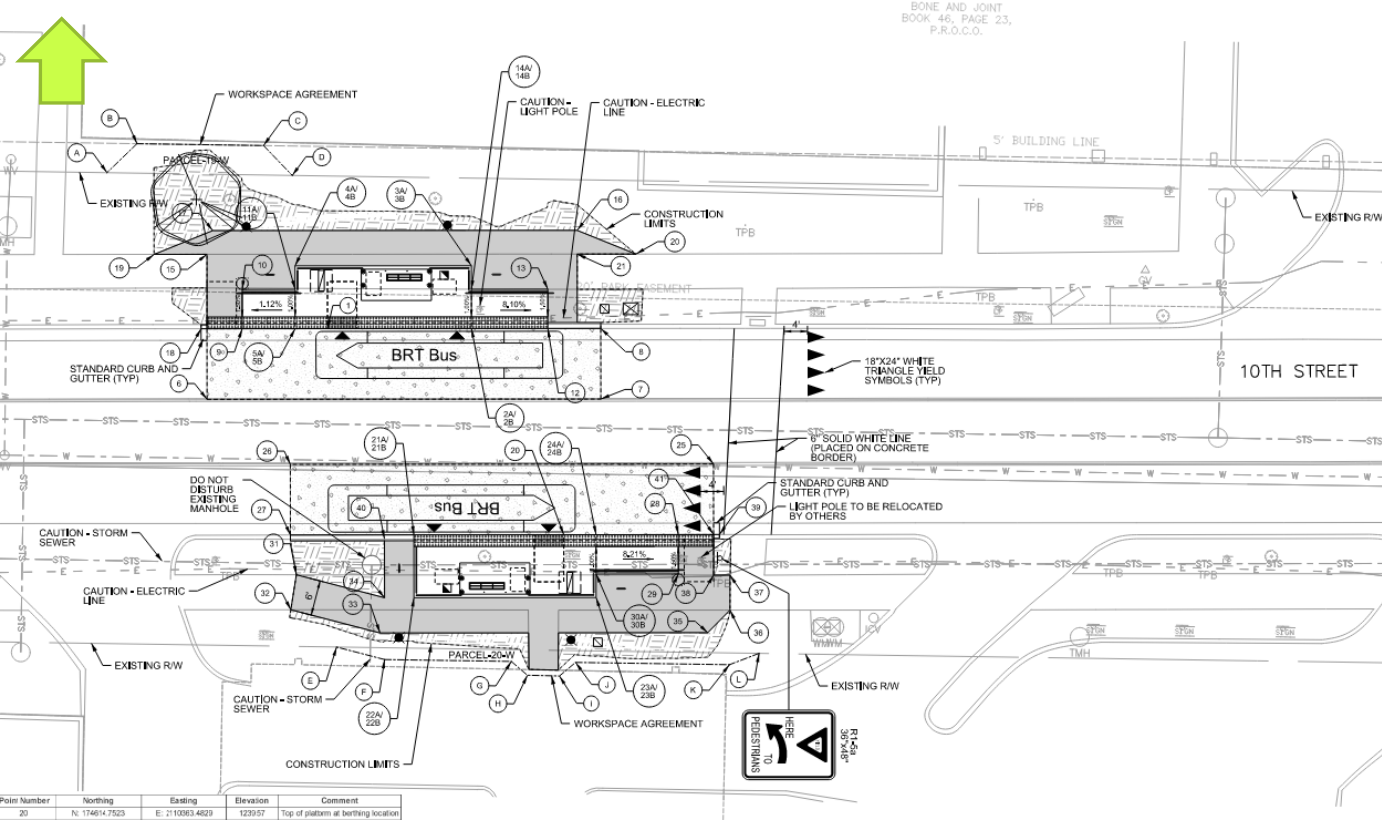
Transit Center

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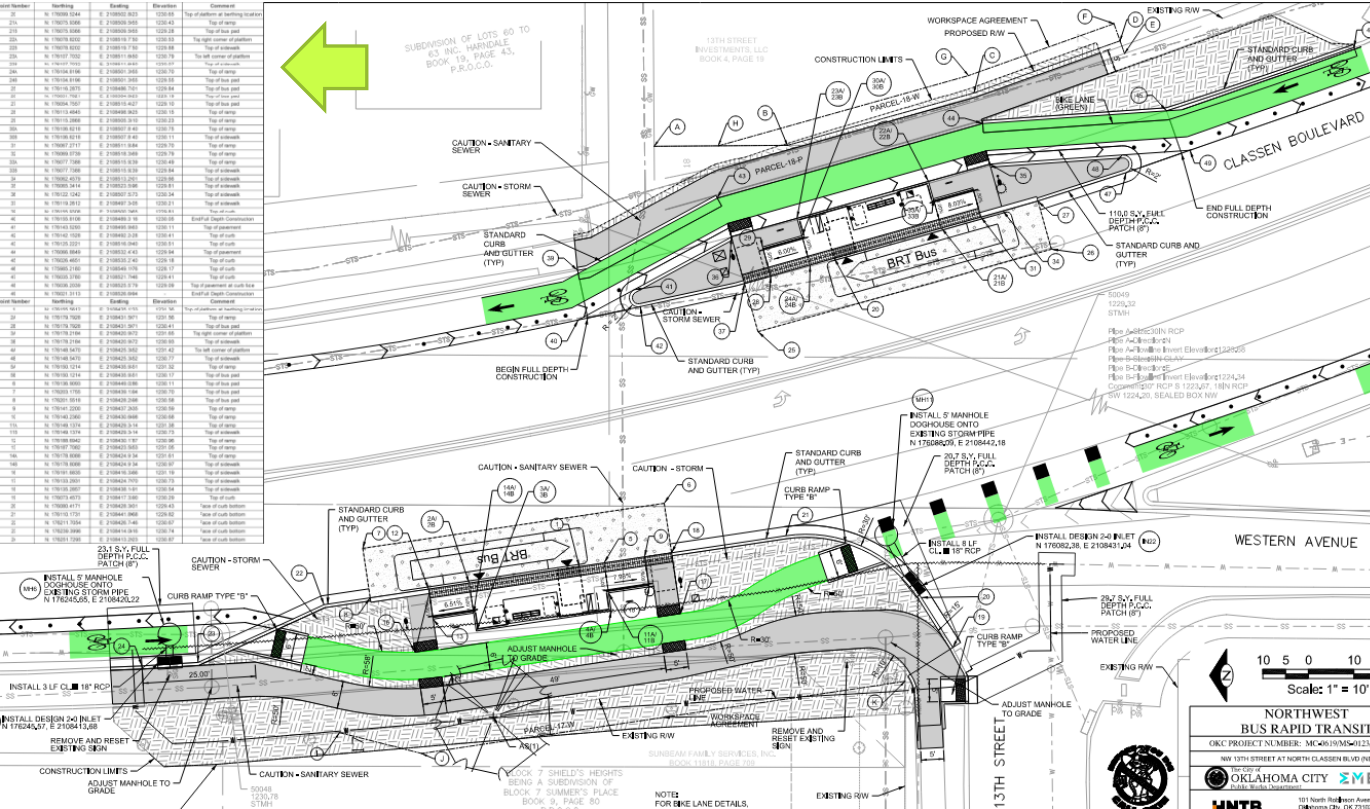


Hudson/8th Street

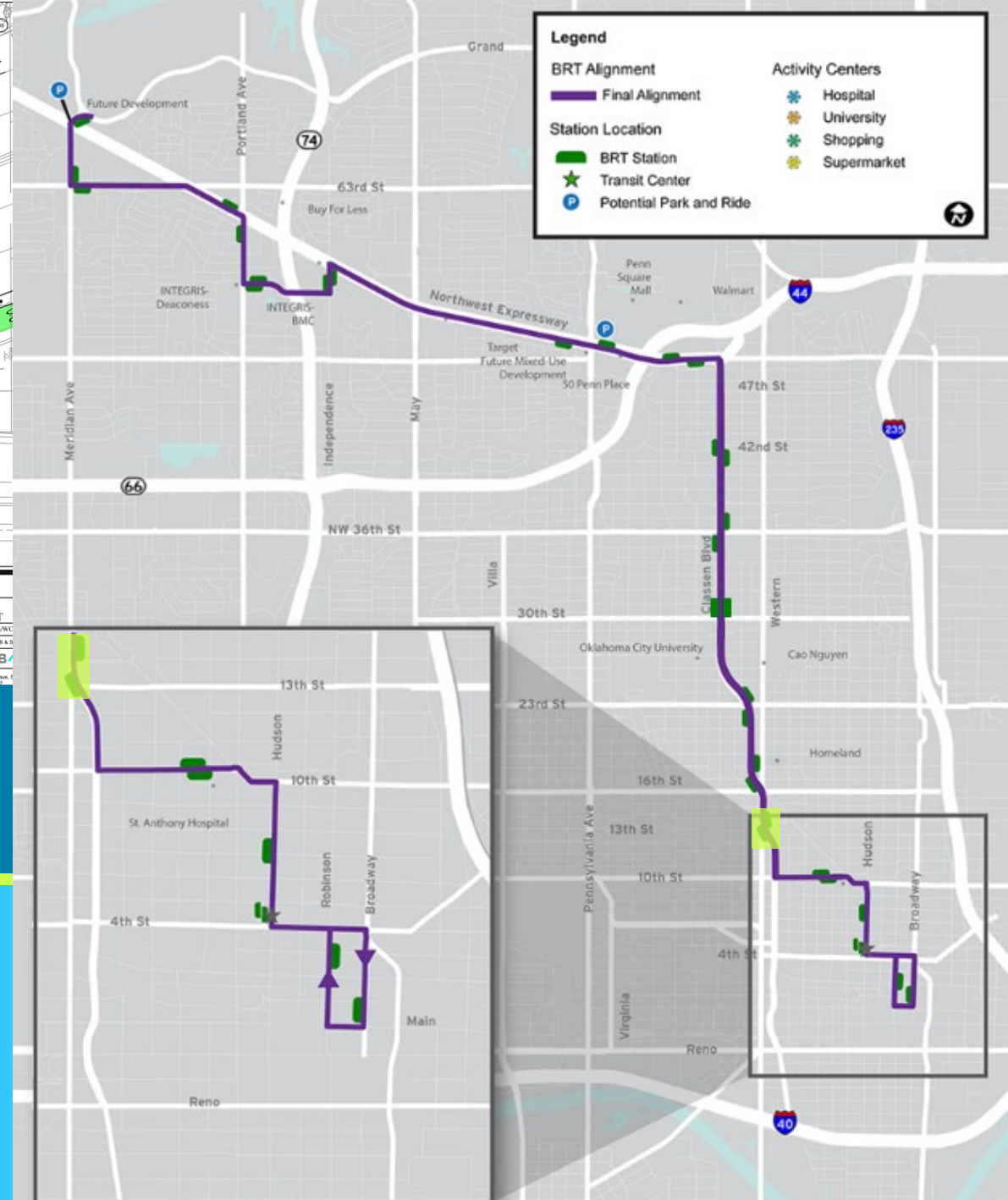


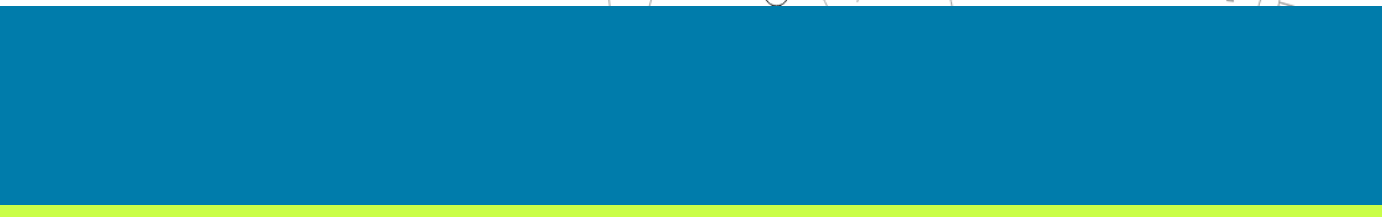
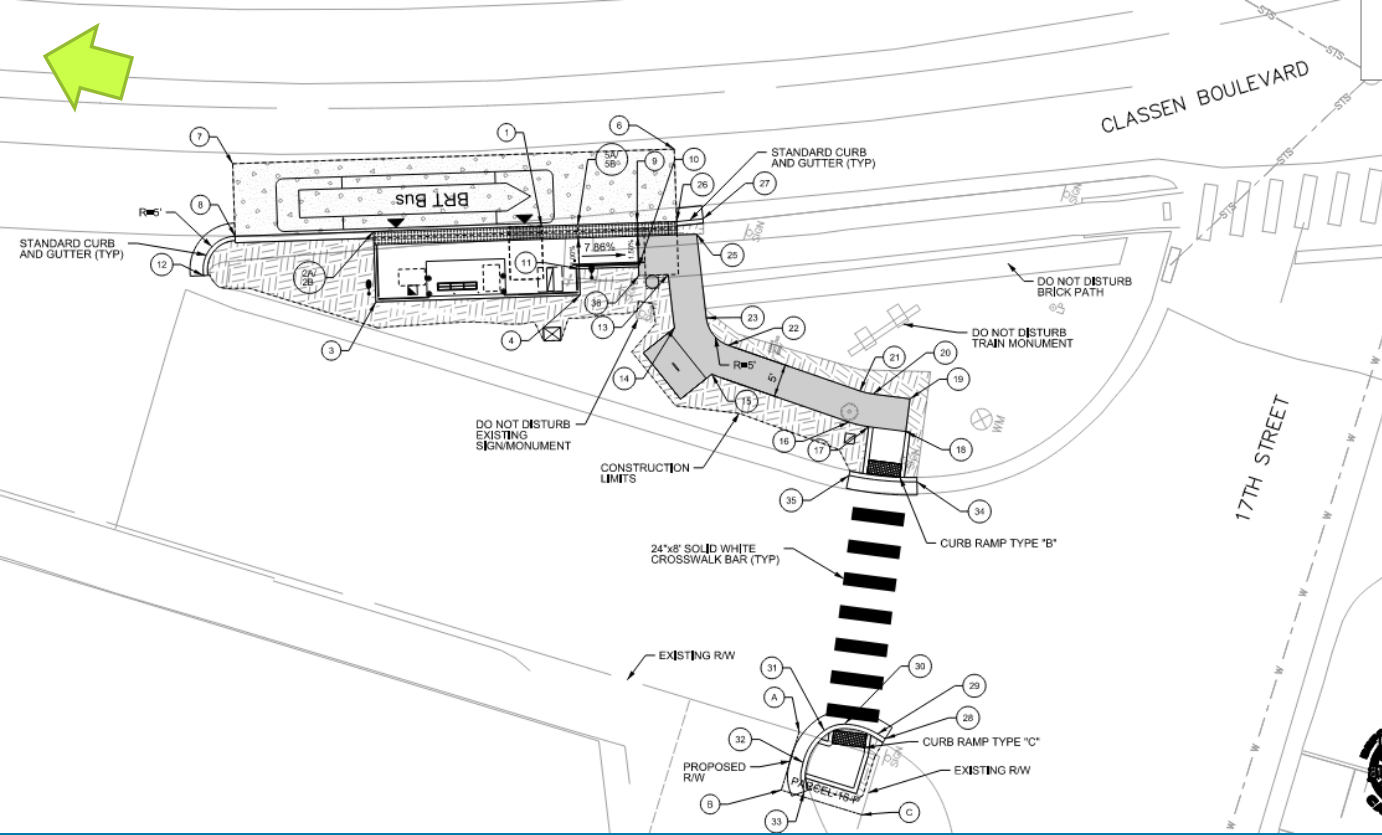


10th Street/Lee

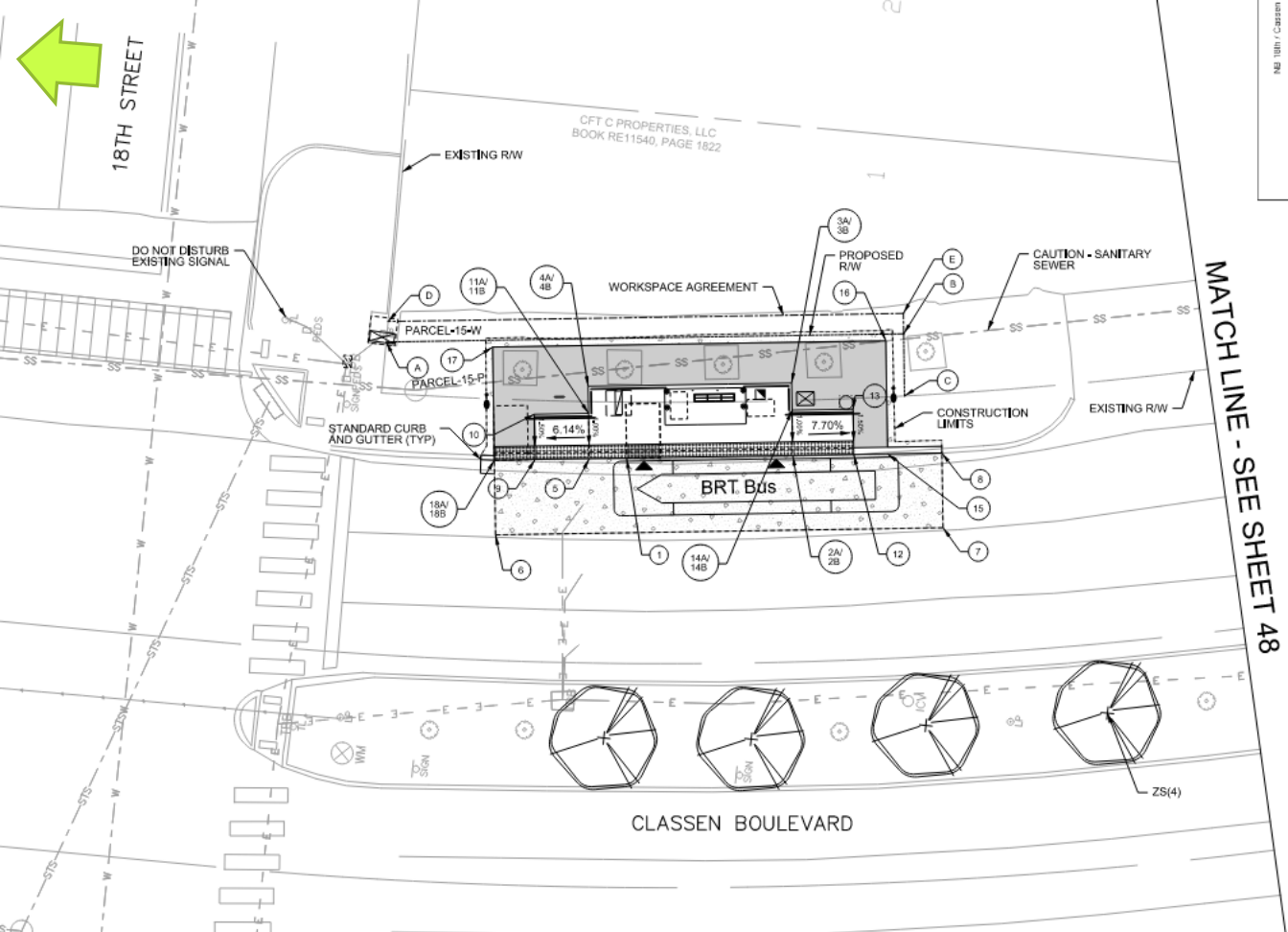


Classen/13th Street



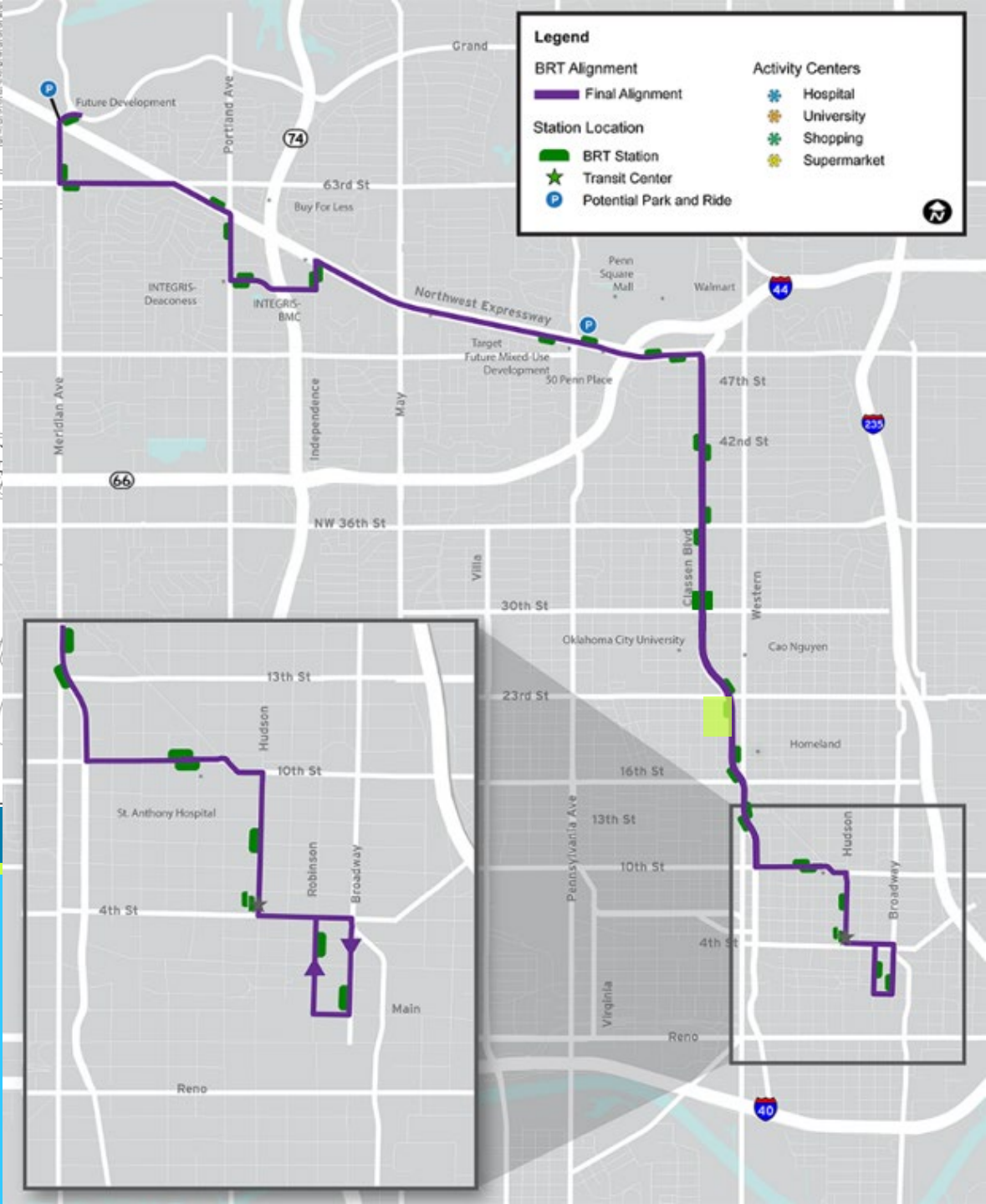
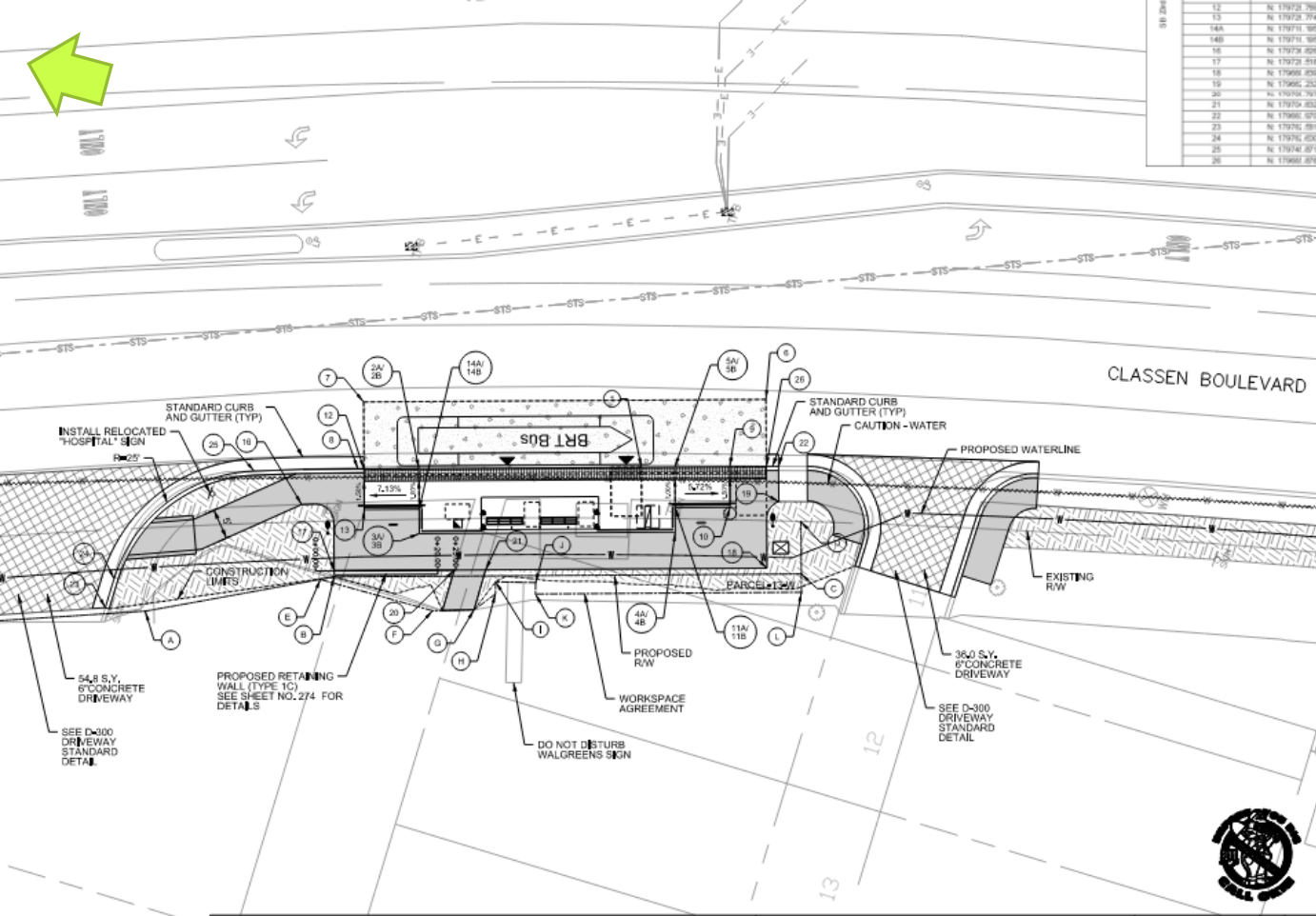


Classen/17th Street

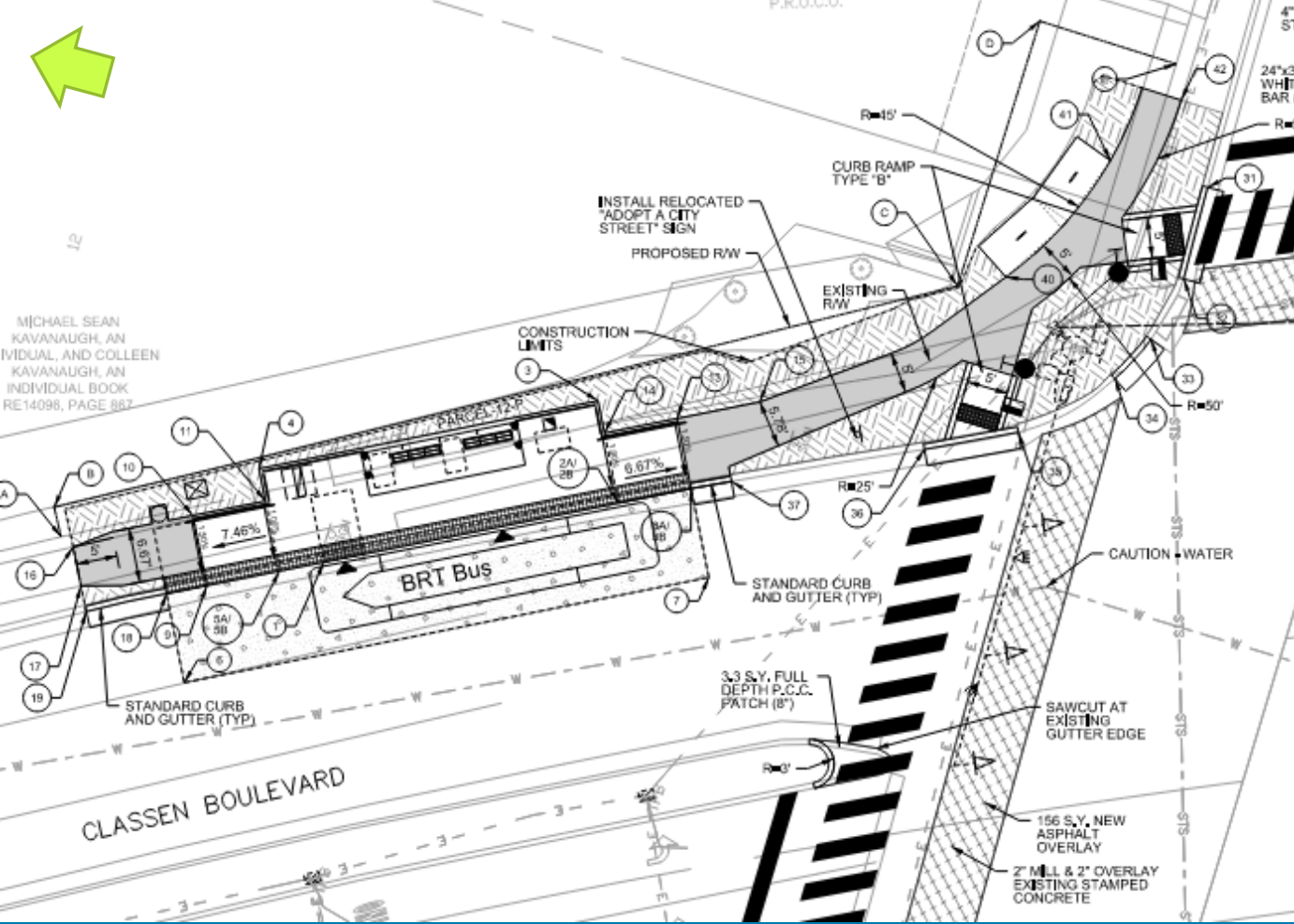


Classen/18th Street

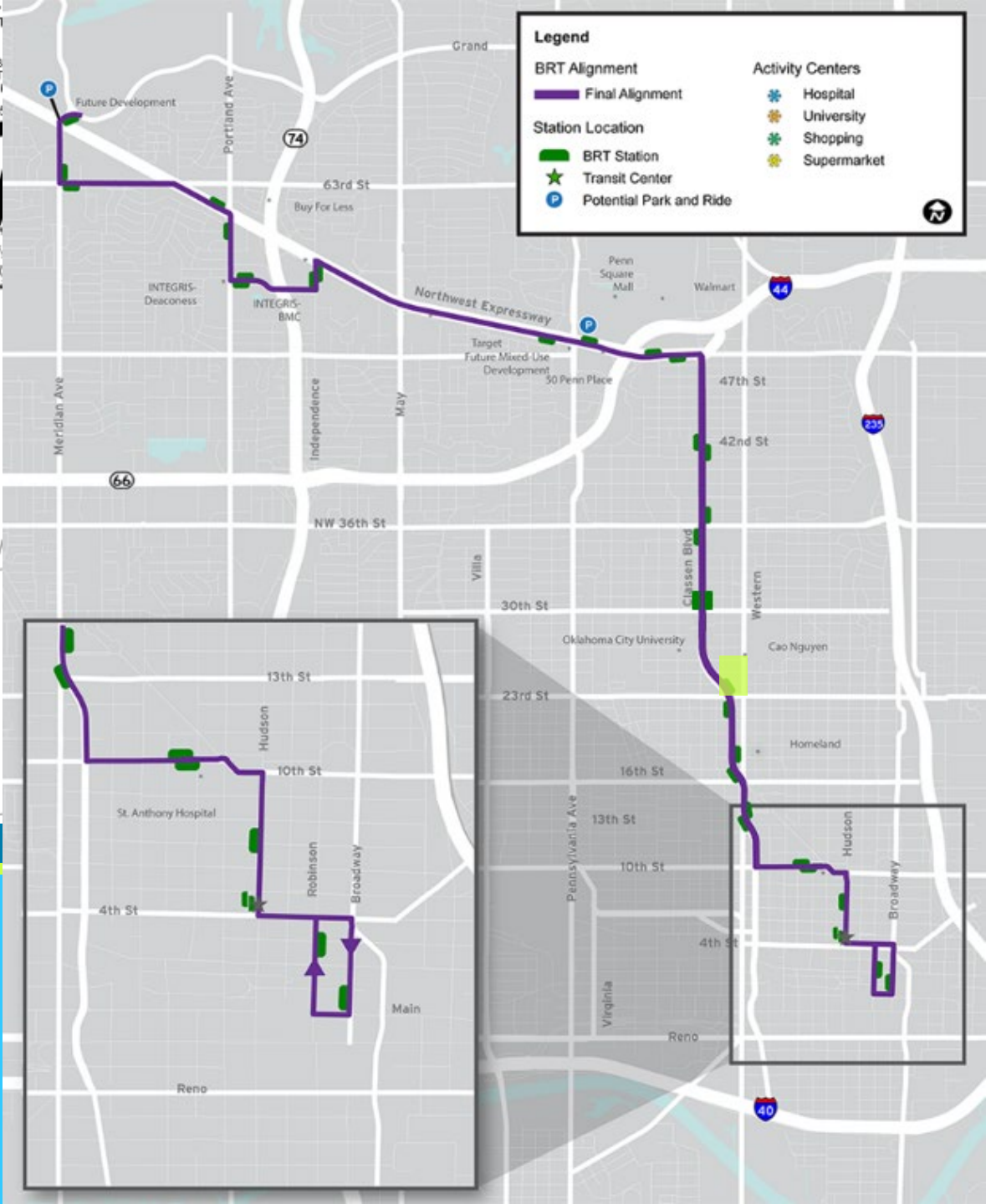


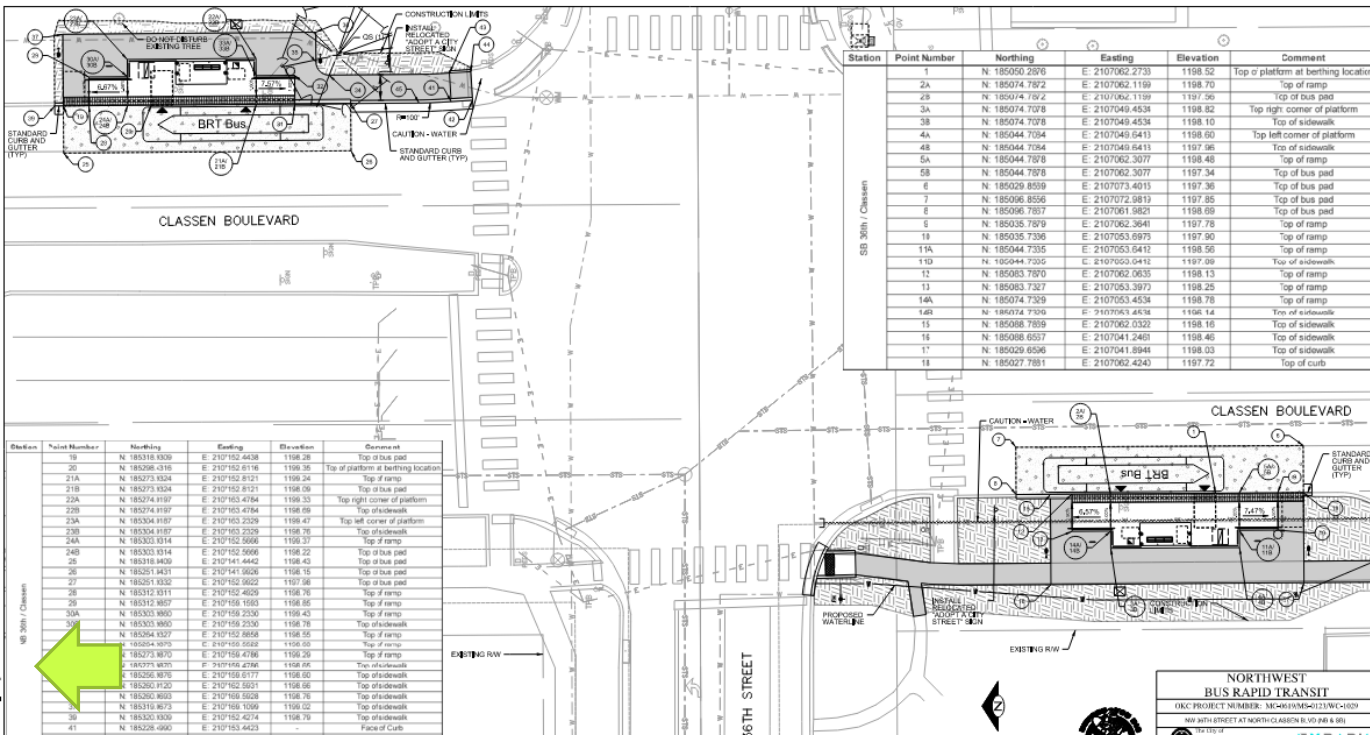


Classen/23rd Street



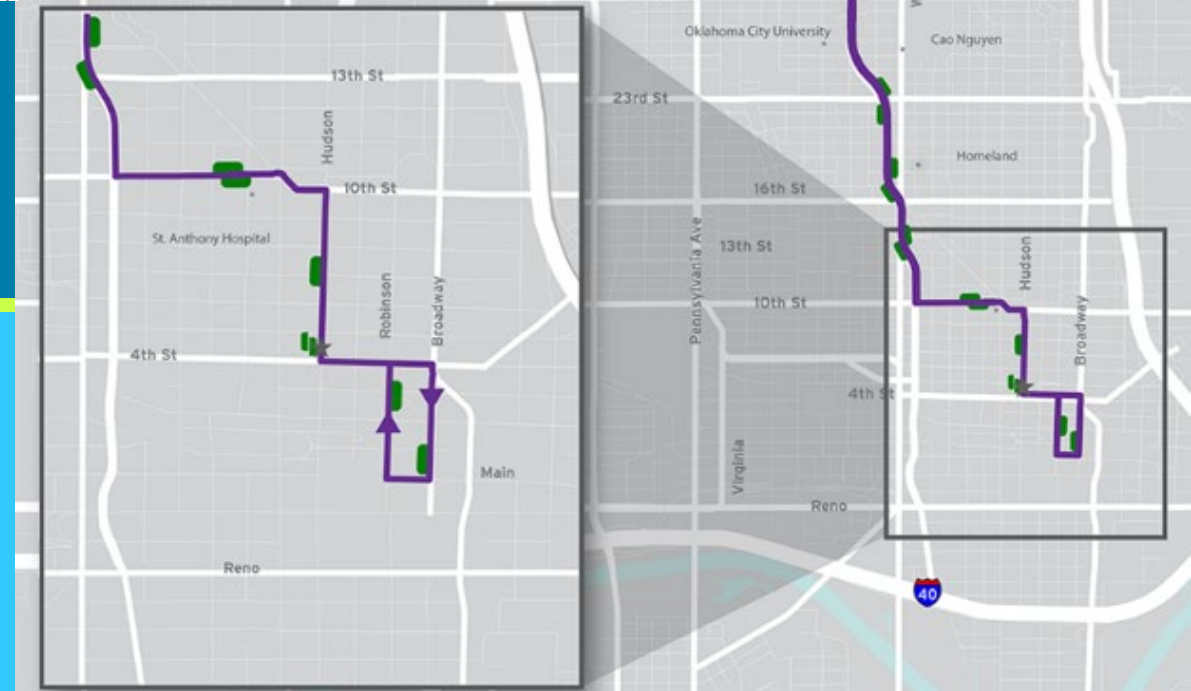
Classen/23rd Street





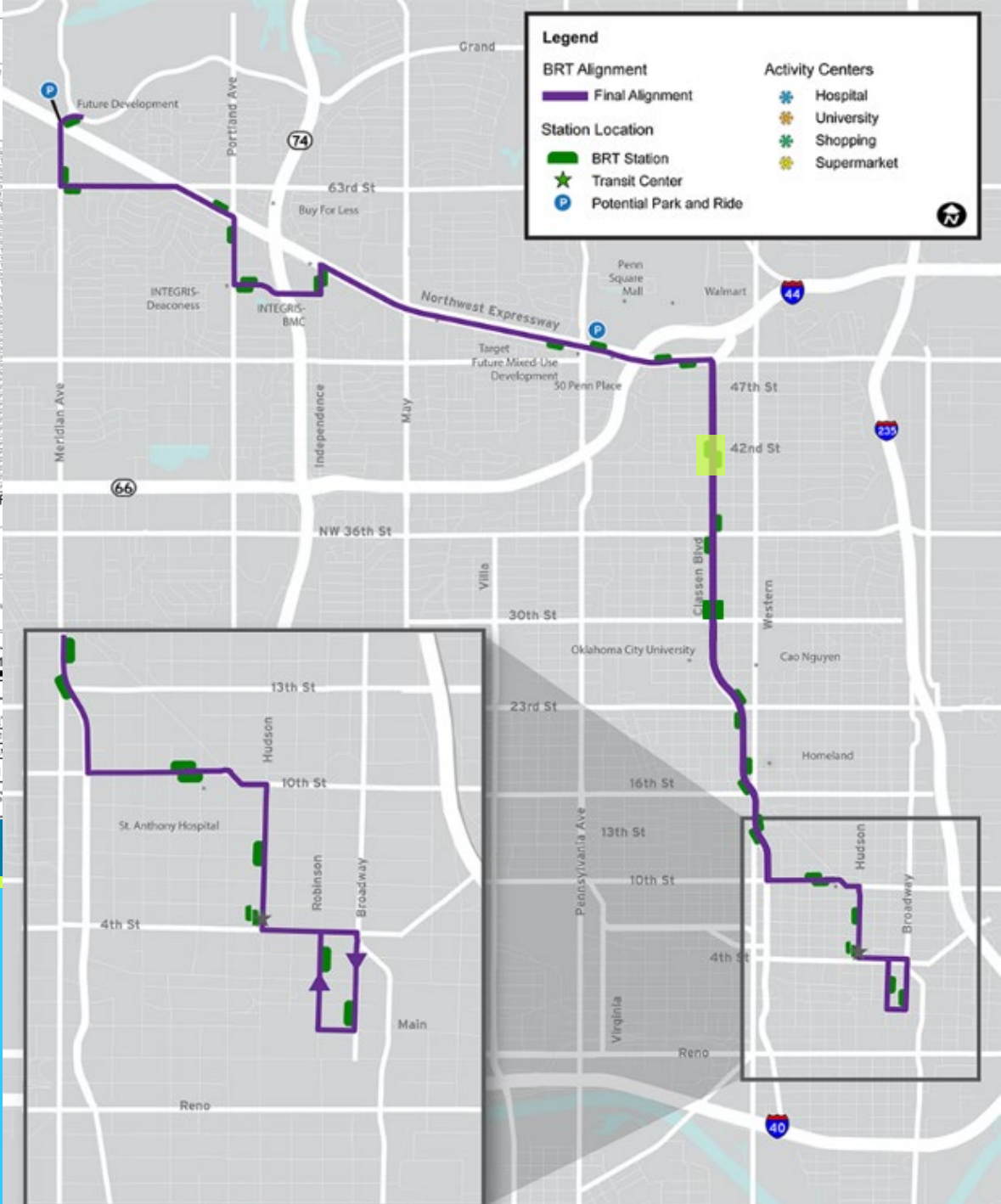
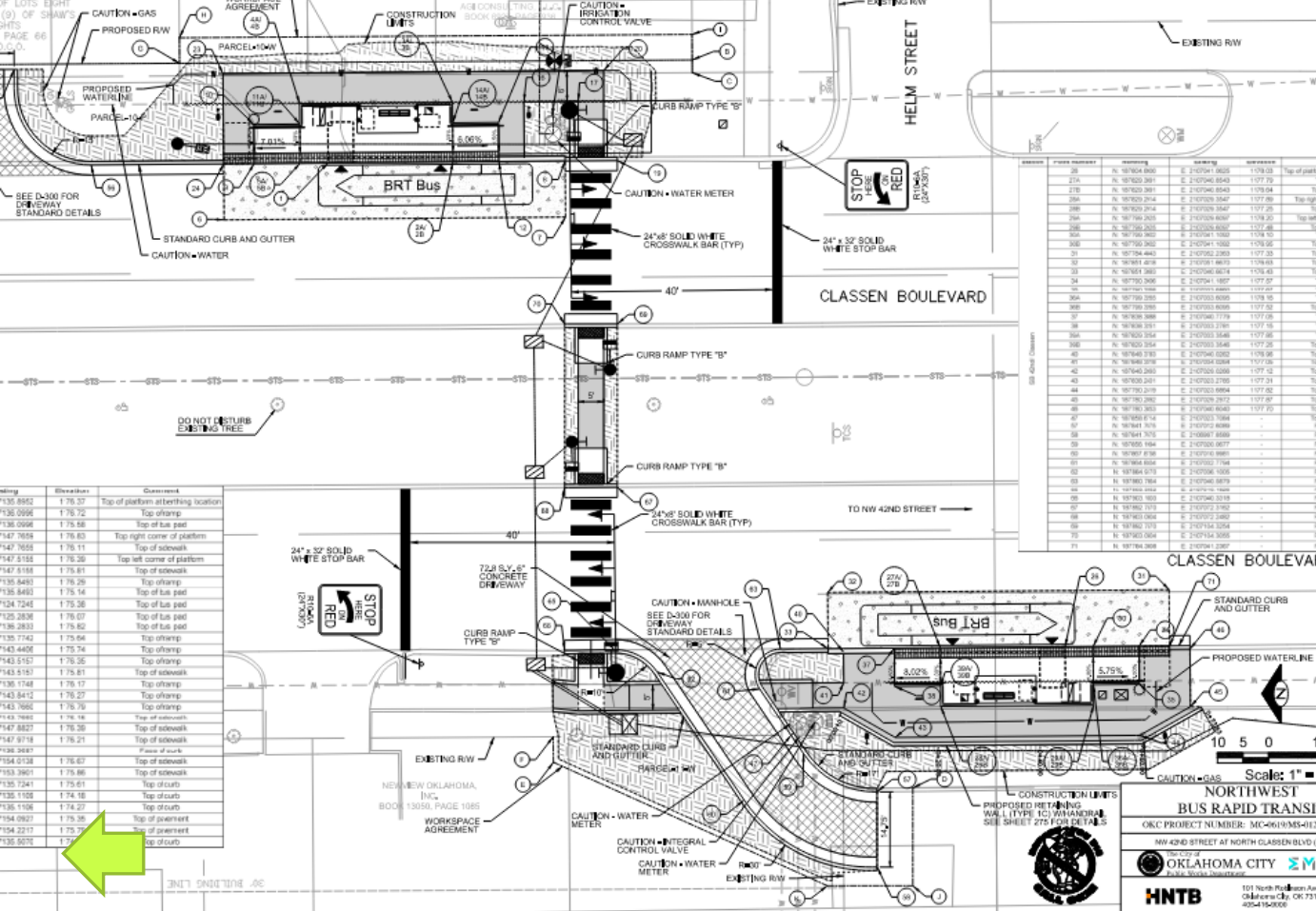
SB 36th / Classen

Station	Point Number	Northing	Easting	Elevation	Comment
18	N: 185316 8309	E: 2107152 4438	1198.28	Top of bus pad	
20	N: 185298 8196	E: 2107152 6116	1199.36	Top of platform at berthing location	
21A	N: 185273 8324	E: 2107152 8121	1199.34	Top of ramp	
21B	N: 185273 8324	E: 2107152 8121	1198.09	Top of bus pad	
22A	N: 185274 8197	E: 2107163 4764	1199.33	Top right corner of platform	
22B	N: 185274 8197	E: 2107163 4764	1198.09	Top of sidewalk	
23A	N: 185304 8197	E: 2107163 2329	1199.47	Top left corner of platform	
23B	N: 185304 8197	E: 2107163 2329	1198.78	Top of sidewalk	
24A	N: 185303 8314	E: 2107152 5666	1199.37	Top of ramp	
24B	N: 185303 8314	E: 2107152 5666	1198.22	Top of bus pad	
25	N: 185316 8420	E: 2107141 4442	1198.43	Top of bus pad	
26	N: 185251 8431	E: 2107141 9826	1198.15	Top of bus pad	
27	N: 185251 8332	E: 2107152 5822	1197.58	Top of bus pad	
28	N: 185312 8311	E: 2107152 4628	1198.16	Top of ramp	
29	N: 185312 8307	E: 2107156 1593	1198.85	Top of ramp	
30A	N: 185303 8680	E: 2107159 2330	1199.43	Top of ramp	
30B	N: 185303 8680	E: 2107159 2330	1198.18	Top of sidewalk	
31	N: 185384 8327	E: 2107152 6854	1198.55	Top of ramp	
32	N: 185384 8327	E: 2107152 6854	1198.55	Top of ramp	
33	N: 185384 8327	E: 2107152 6854	1198.55	Top of ramp	
34	N: 185375 8810	E: 2107156 4788	1198.59	Top of ramp	
35	N: 185375 8810	E: 2107156 4788	1198.59	Top of ramp	
36	N: 185375 8810	E: 2107156 4788	1198.59	Top of ramp	
37	N: 185375 8810	E: 2107156 4788	1198.59	Top of ramp	
38	N: 185375 8810	E: 2107156 4788	1198.59	Top of ramp	
39	N: 185380 8693	E: 2107156 5828	1198.76	Top of sidewalk	
40	N: 185316 8673	E: 2107168 1059	1199.02	Top of sidewalk	
41	N: 185303 8309	E: 2107152 4274	1198.79	Top of sidewalk	
42	N: 185328 4960	E: 2107153 4423	-	Face of Curb	

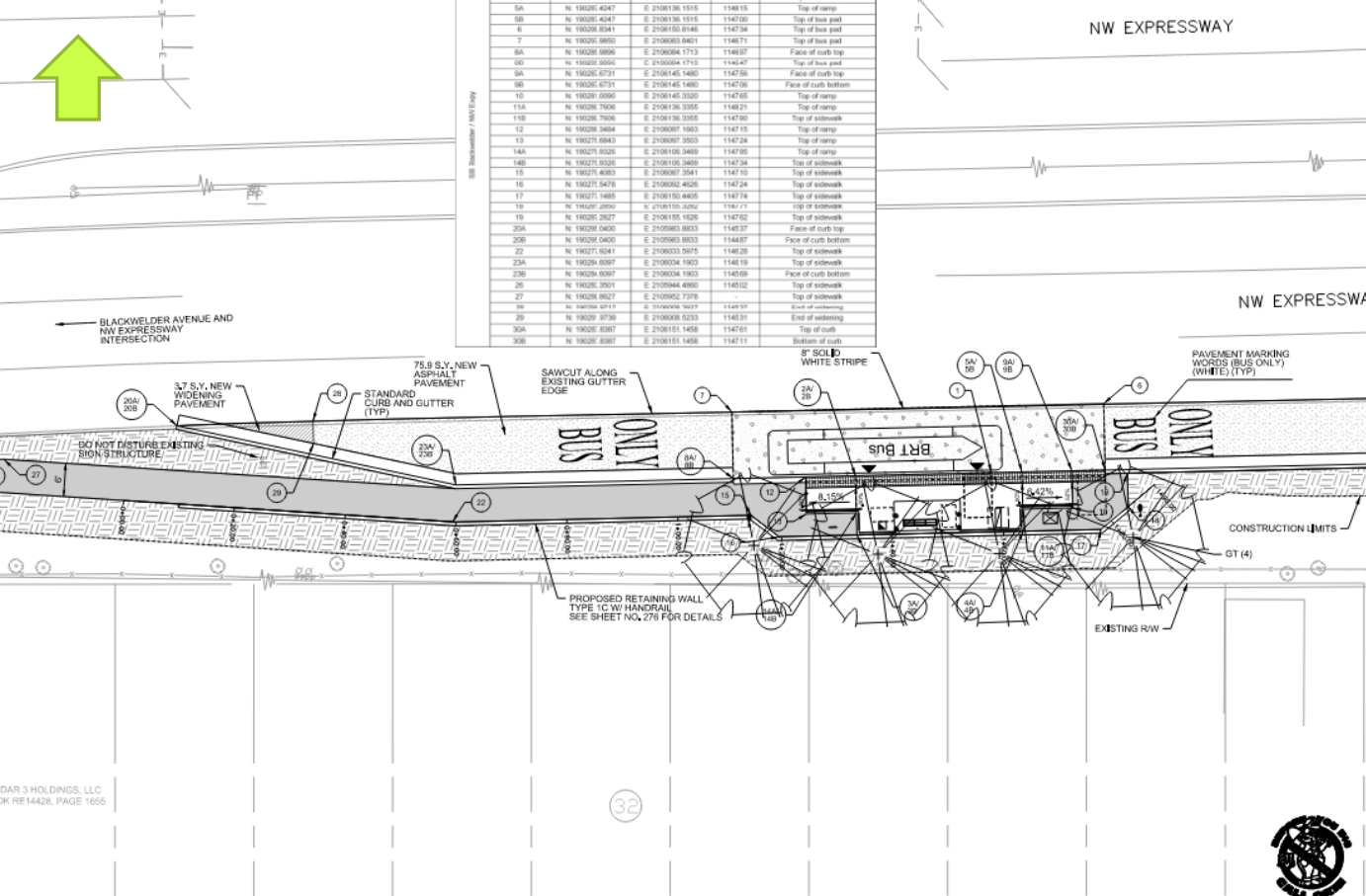


Classen/36th Street





Classen/42nd Street

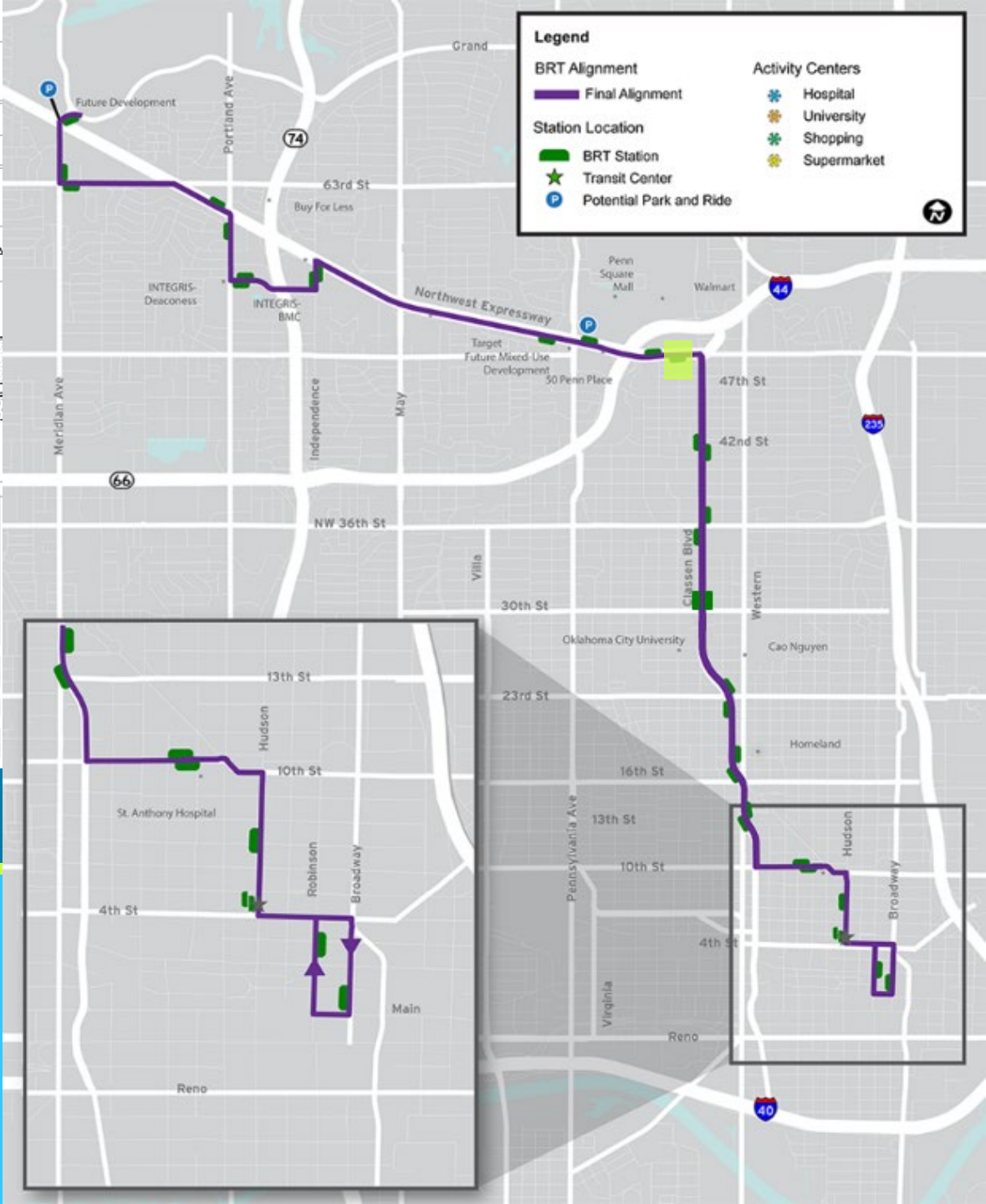


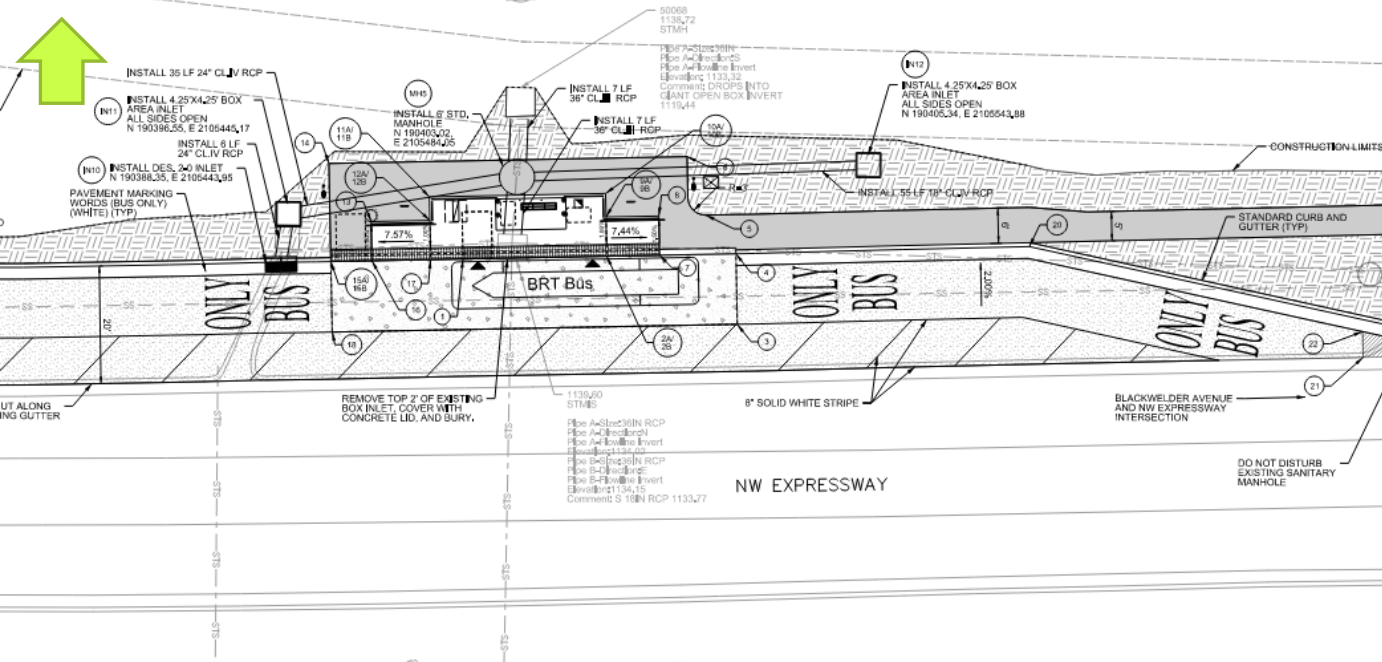
5A	N	19026	4247	E	2108136	1515	1148.55	Top of ramp
5B	N	19026	4247	E	2108136	1515	1147.90	Top of base past
6	N	19026	5141	E	2108150	1515	1147.54	Top of base past
7	N	19026	5850	E	2108083	1401	1148.71	Top of bus pad
8A	N	19026	5806	E	2108084	1713	1148.97	Face of curb top
8B	N	19026	5806	E	2108145	1713	1147.87	Top of bus pad
9A	N	19026	6731	E	2108145	1480	1147.56	Face of curb top
9B	N	19026	6731	E	2108145	1480	1147.00	Face of curb bottom
10	N	19026	5590	E	2108145	3220	1147.60	Top of ramp
11A	N	19026	7106	E	2108136	3355	1148.23	Top of ramp
11B	N	19026	7106	E	2108136	3355	1147.80	Top of sidewalk
12	N	19026	3484	E	2108087	1863	1147.15	Top of ramp
13	N	19027	5843	E	2108087	3033	1147.24	Top of ramp
14A	N	19027	5320	E	2108108	3489	1147.95	Top of sidewalk
14B	N	19027	5320	E	2108108	3489	1147.34	Top of sidewalk
15	N	19027	4833	E	2108087	3541	1147.53	Top of sidewalk
16	N	19027	5470	E	2108082	4620	1147.24	Top of sidewalk
17	N	19027	1485	E	2108150	4835	1147.74	Top of sidewalk
18	N	19027	2899	E	2108150	5282	1147.71	Top of sidewalk
19	N	19026	2927	E	2108155	1626	1147.62	Top of sidewalk
20A	N	19026	0400	E	2108083	8833	1148.37	Face of curb top
20B	N	19026	0400	E	2108083	8833	1144.87	Face of curb bottom
22	N	19027	5541	E	2108133	5975	1148.20	Top of sidewalk
23A	N	19026	6097	E	2108084	1903	1148.19	Top of sidewalk
23B	N	19026	6097	E	2108084	1903	1145.69	Face of curb bottom
26	N	19026	3501	E	2108044	4990	1148.02	Top of sidewalk
27	N	19026	8927	E	2108092	7378	---	---
36	N	19026	6717	E	2108094	5077	1148.53	Level of existing
38	N	19026	6716	E	2108094	5233	1148.31	Level of existing
39A	N	19026	5387	E	2108151	1458	1147.63	Top of curb
39B	N	19026	5387	E	2108151	1458	1147.11	Bottom of curb

DAR 3 HOLDINGS, LLC
 OK RE 14426, PAGE 1655



NW Expressway/Blackwelder





NW Expressway/Blackwelder

Legend

BRT Alignment

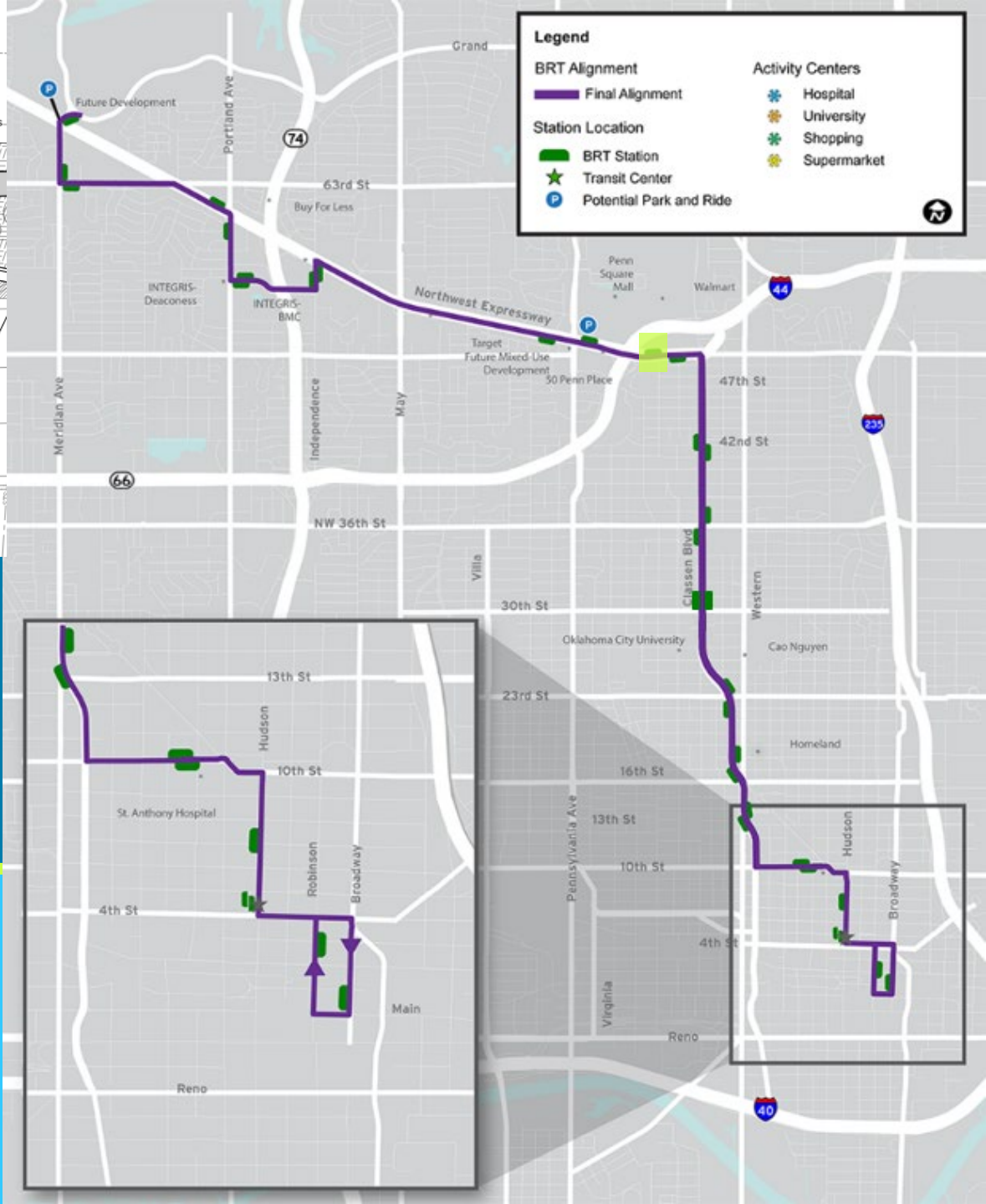
- Final Alignment

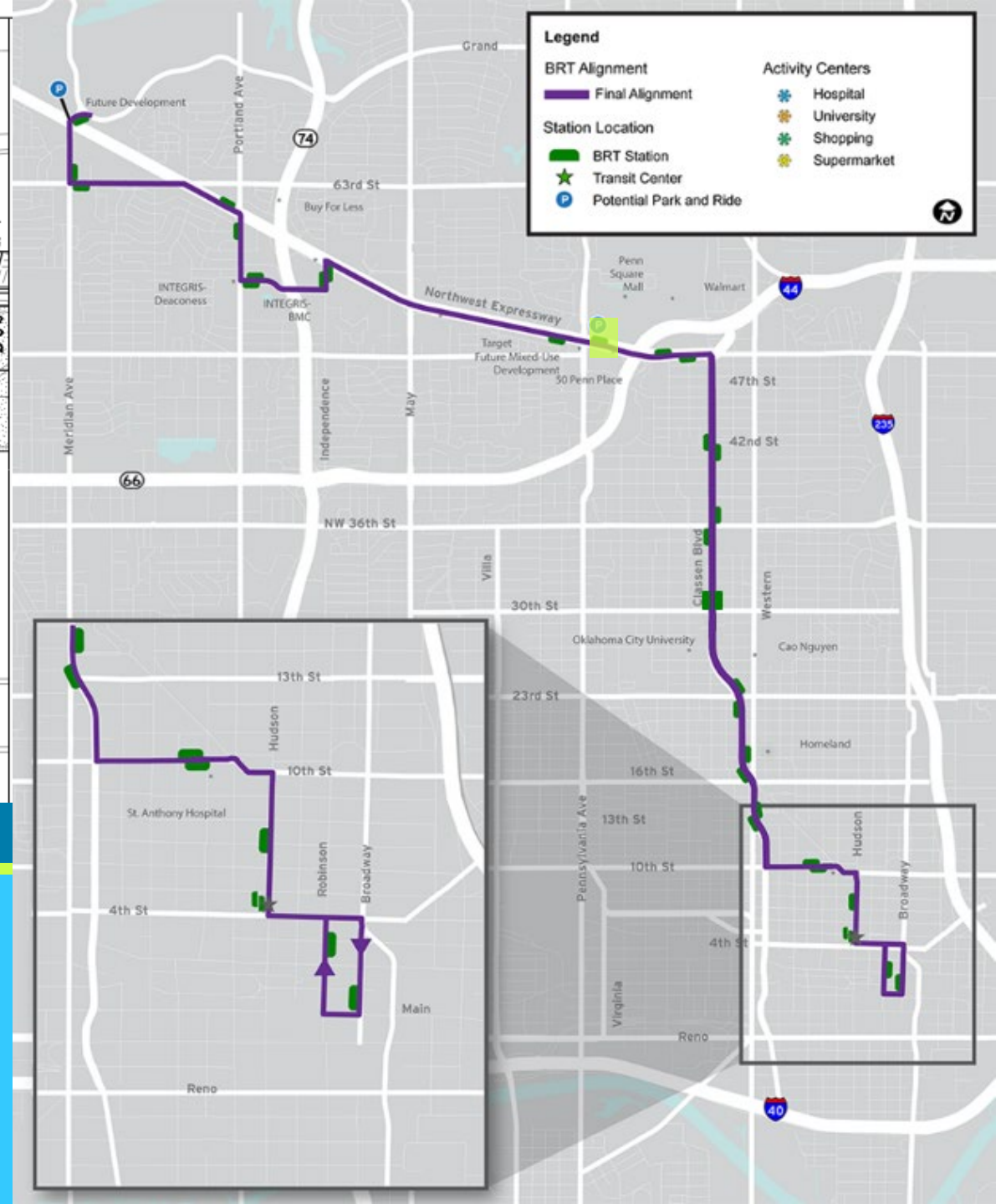
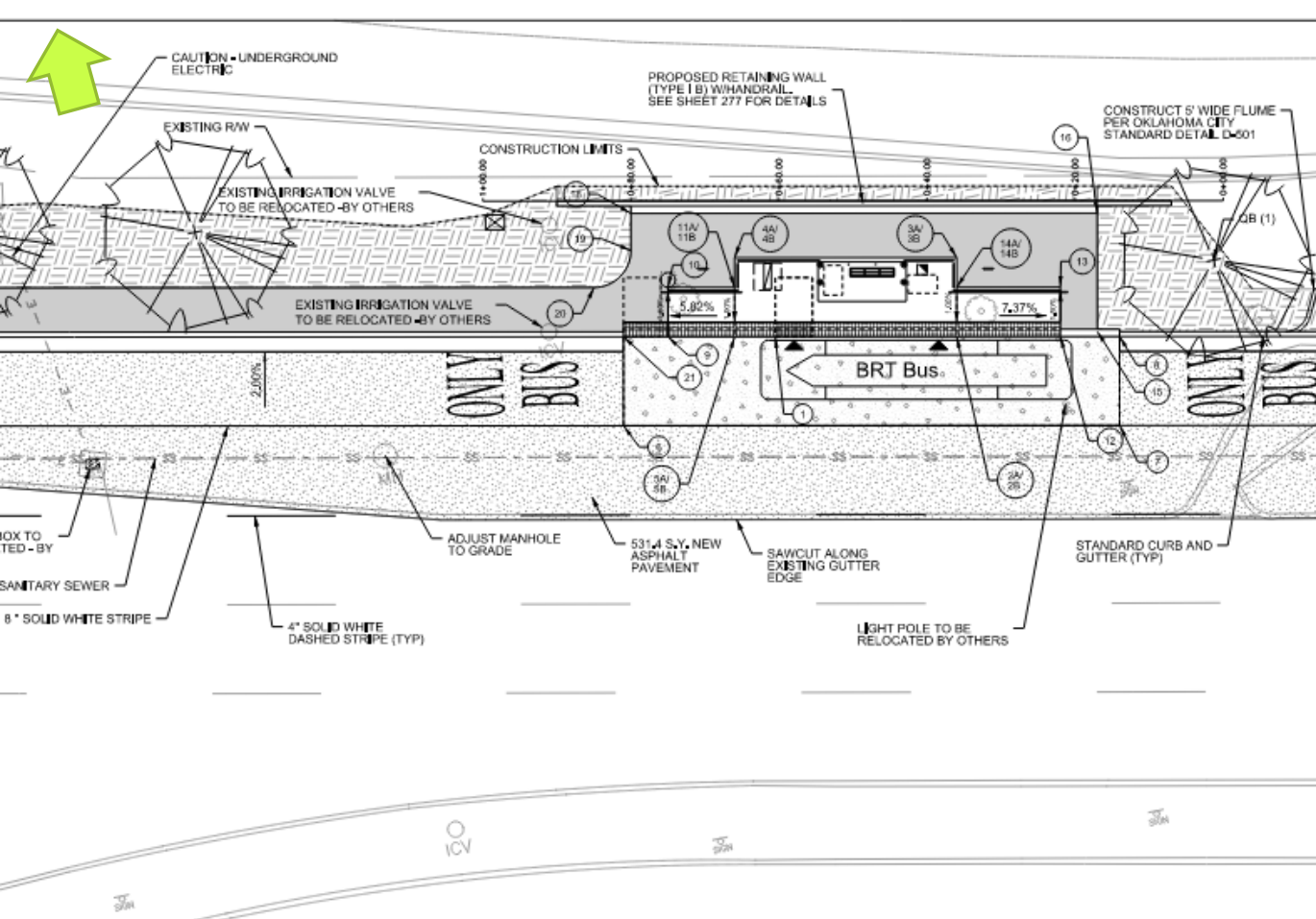
Station Location

- BRT Station
- Transit Center
- Potential Park and Ride

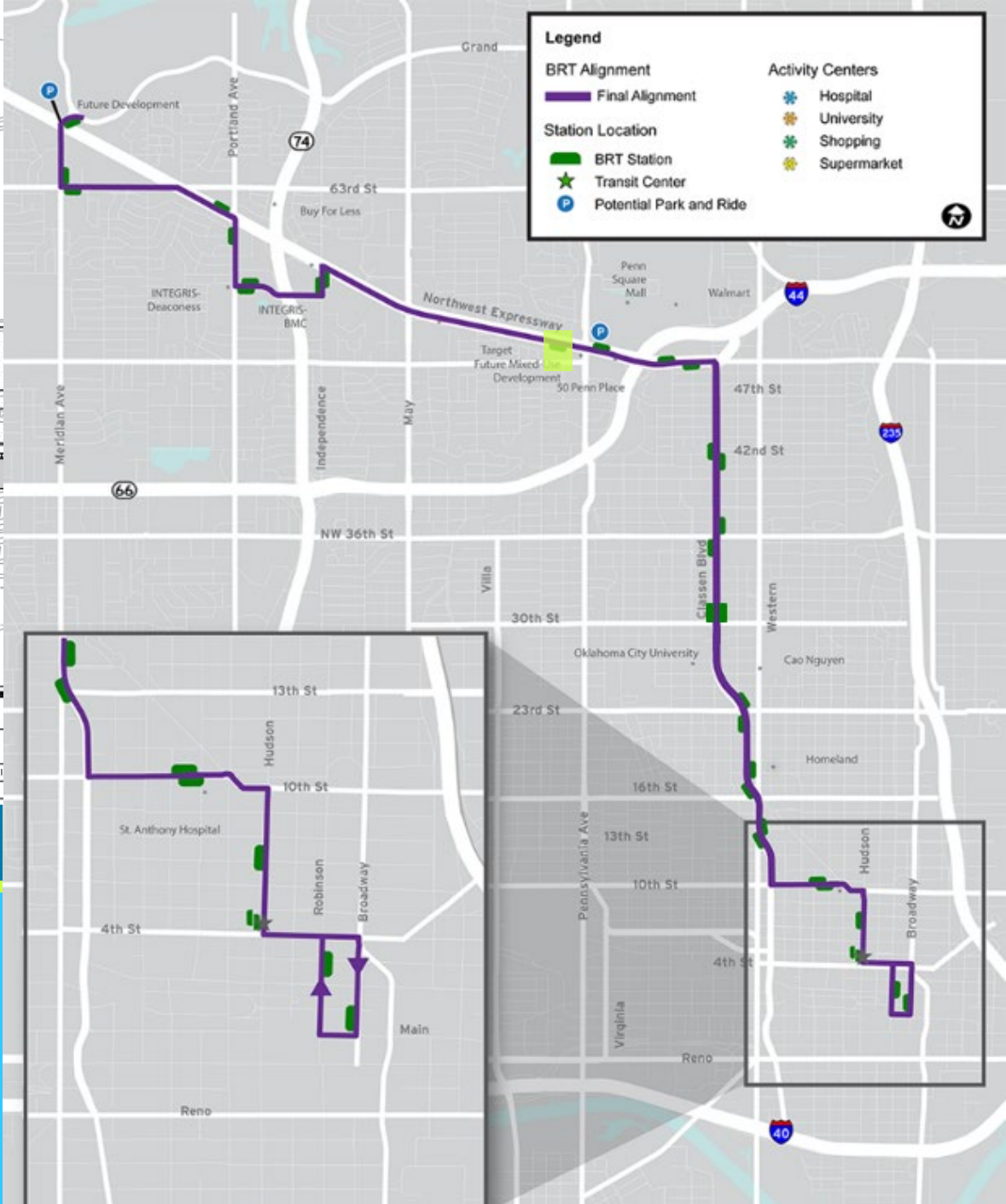
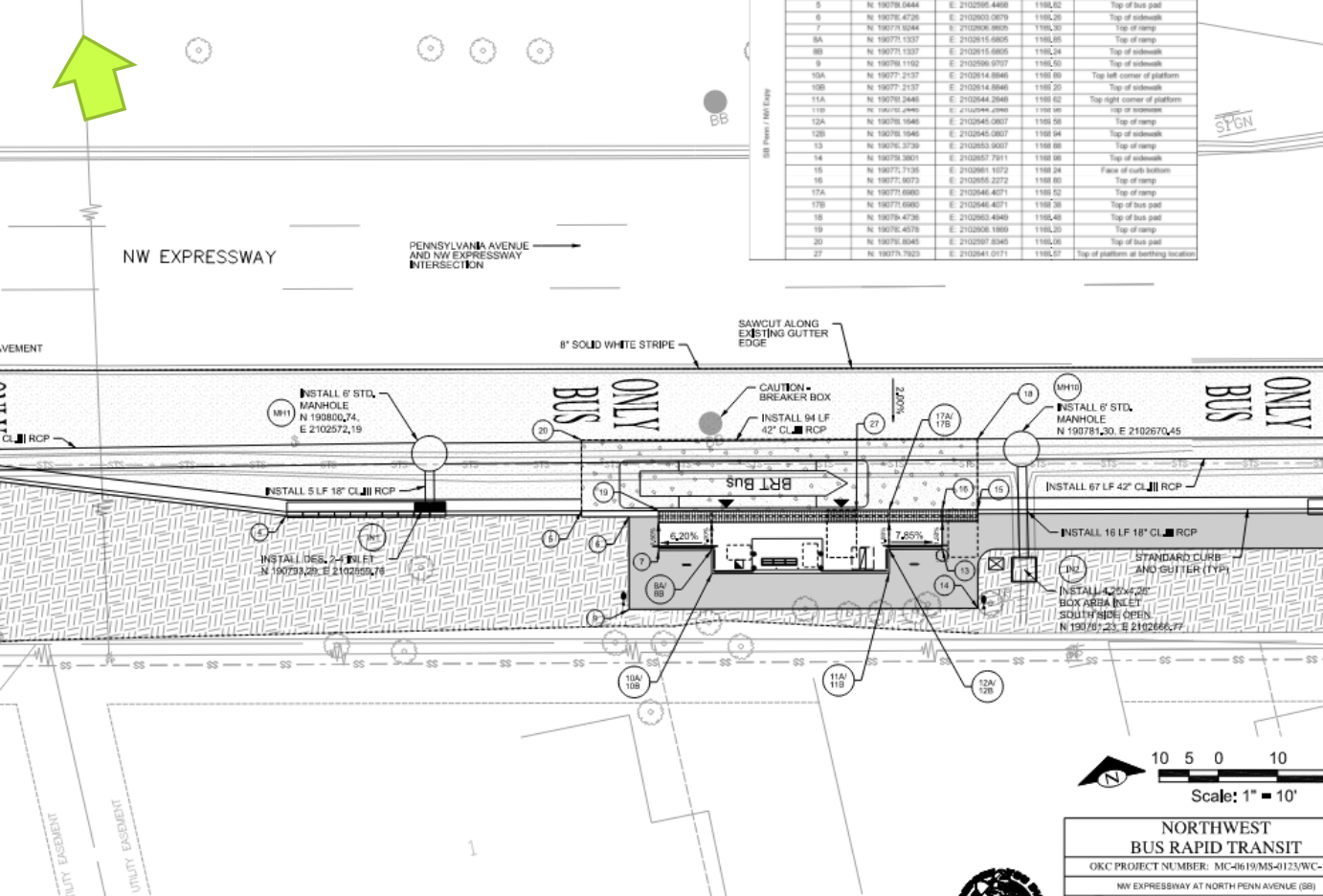
Activity Centers

- Hospital
- University
- Shopping
- Supermarket

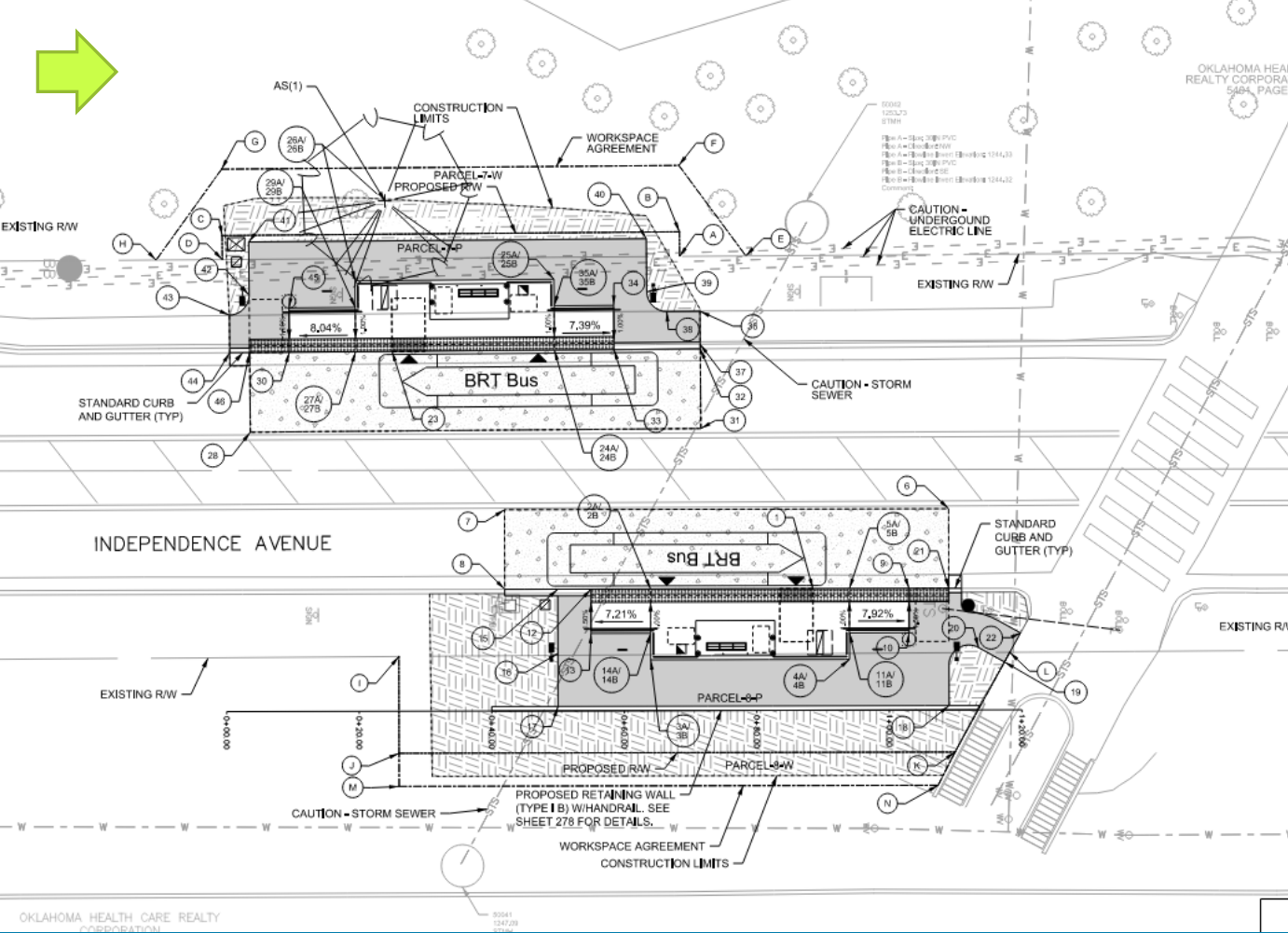




NW Expressway/Pennsylvania

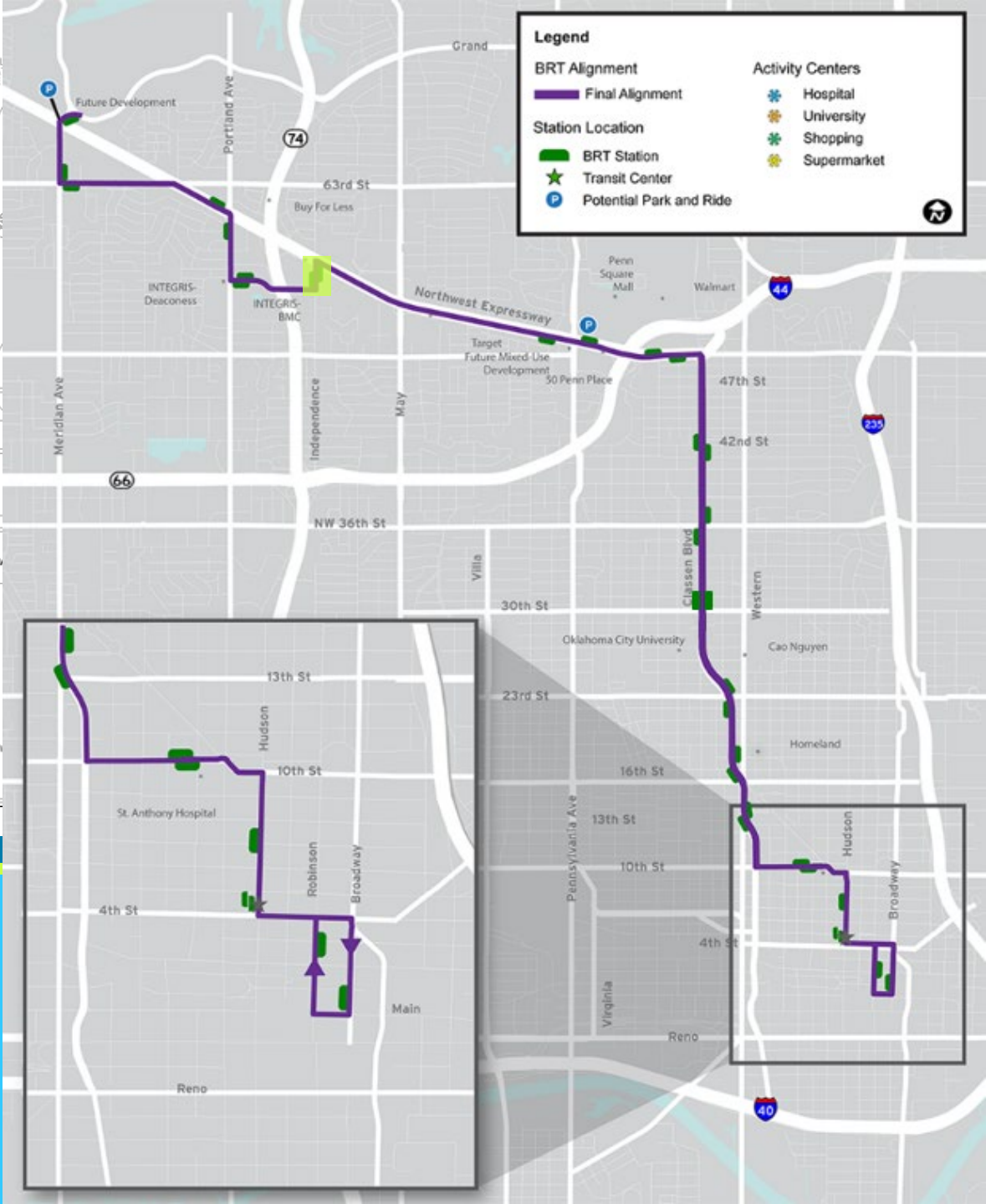


NW Expressway/Pennsylvania



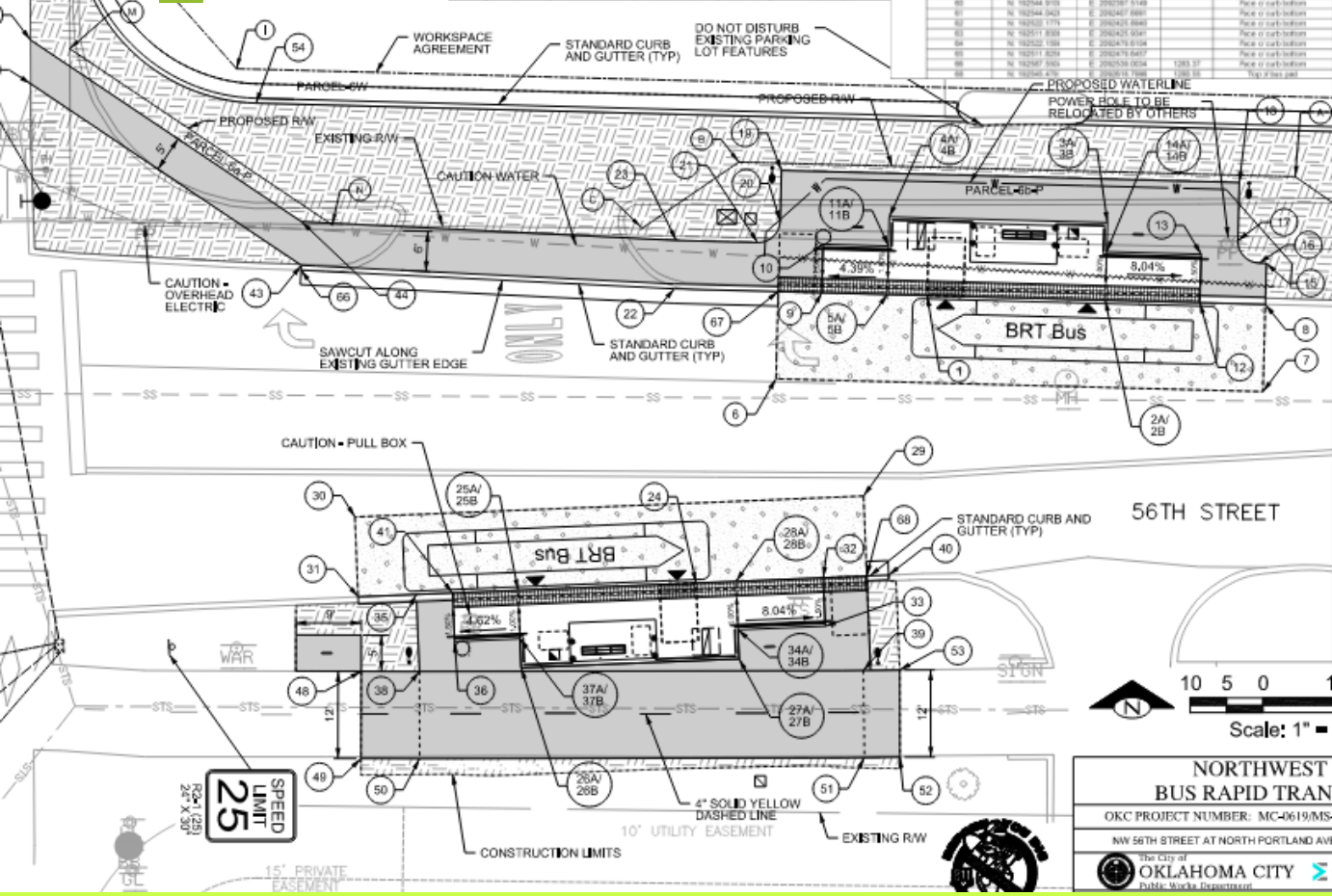
OKLAHOMA HEALTH CARE REALTY CORPORATION
 00041 124278

Independence/56th Street

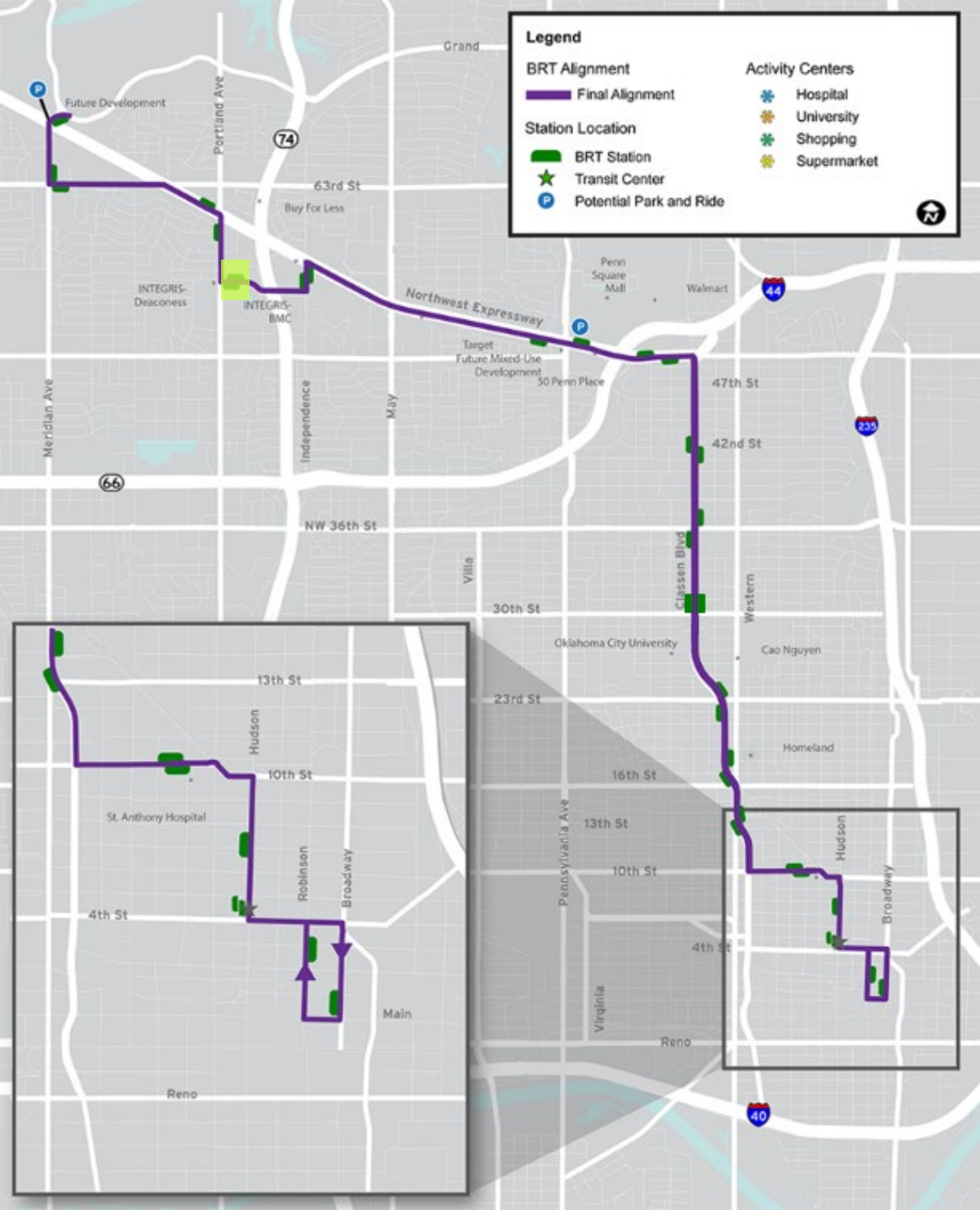


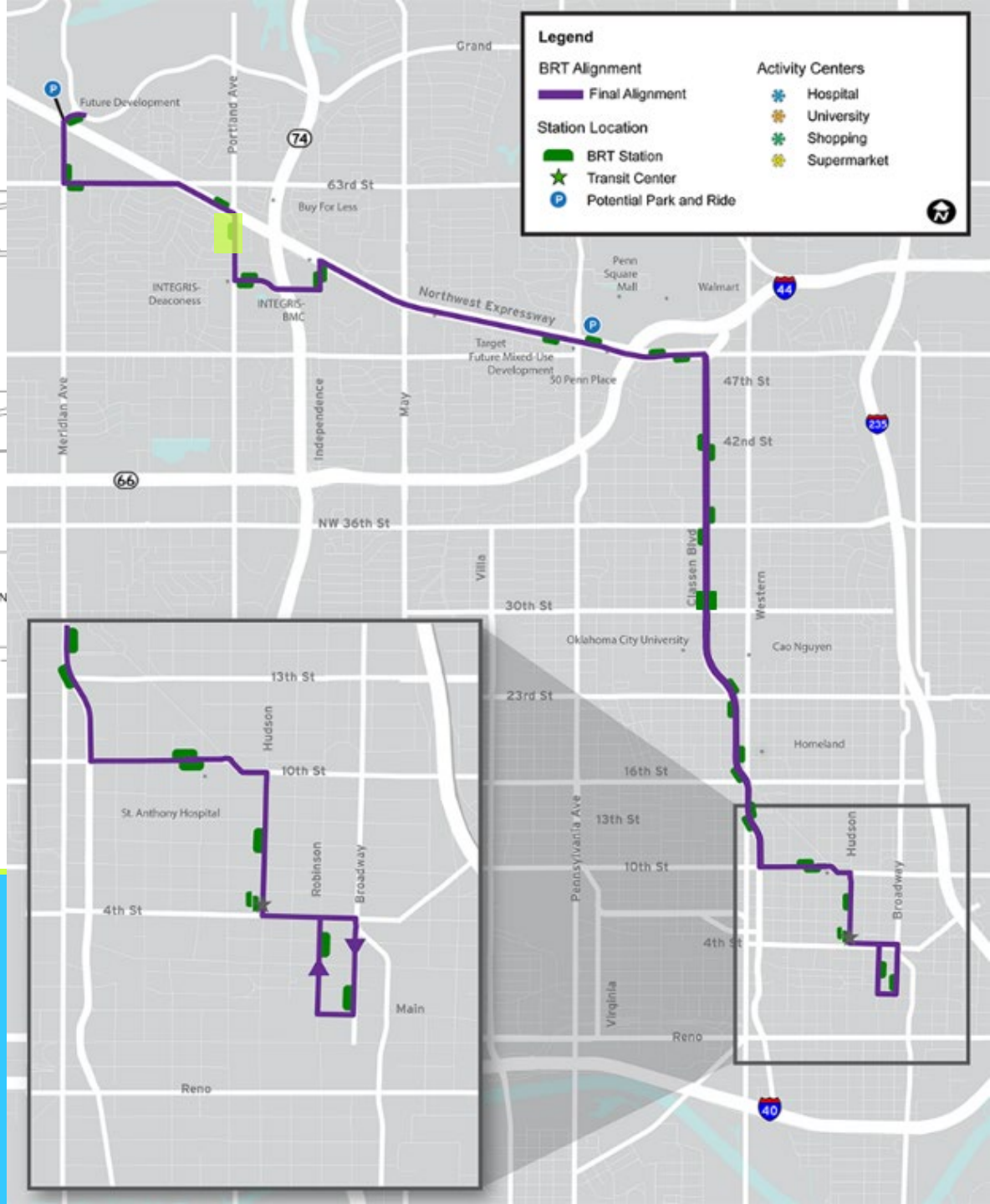
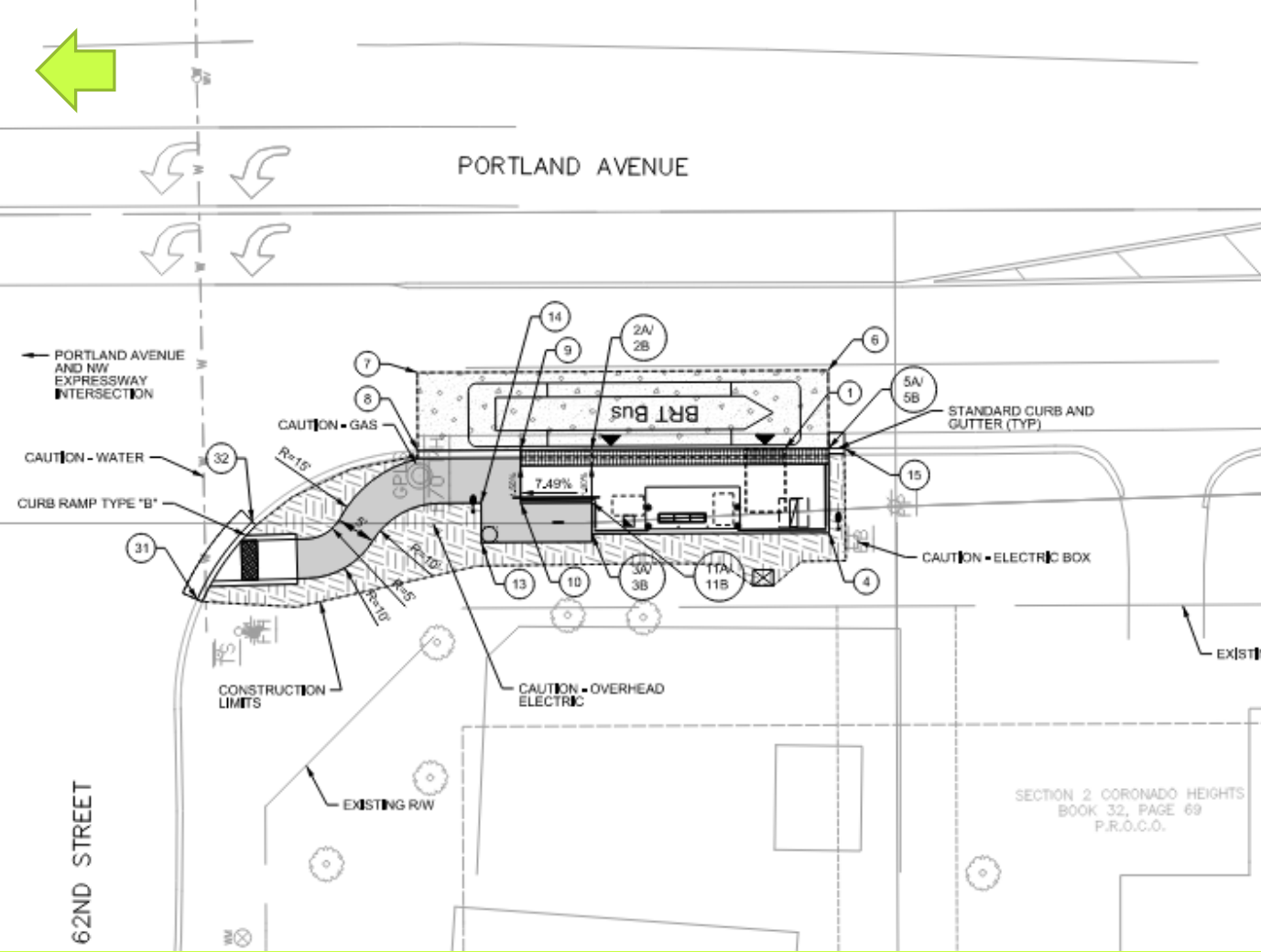
W.E.P. LAND HOLDINGS, LLC
 BOOK 12792, PAGE 1134 KG
 HOLDINGS L.C., BOOK RE
 13680, PAGE 902 AS
 DESCRIBED IN BOOK 12792,
 PAGE 1134

31	N 162084 1410	E 290202 7017	1282.20	Top of sidewalk
32	N 162084 1410	E 290202 7017	1282.20	Top of sidewalk
33	N 162084 1410	E 290202 7017	1282.20	Top of sidewalk
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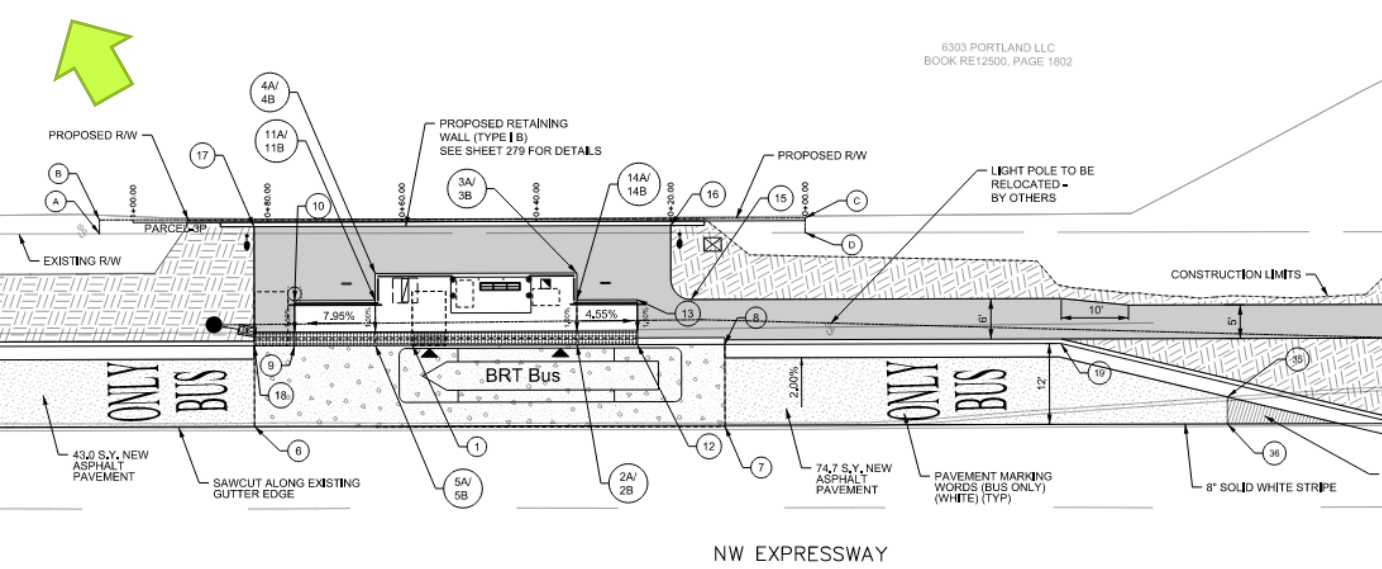


Portland/56th Street





NW Expressway/Portland



Station	Point Number	Northing	Easting	Elevation	Comment
	1	N: 104831.5041	E: 2092173.5068	1276.07	Top of platform at berthing location
	2A	N: 104831.1362	E: 2092185.2225	1277.30	Top of ramp
	2B	N: 104831.1362	E: 2092185.2225	1278.16	Top of bus pad
	3A	N: 104831.5645	E: 2092200.2110	1277.40	Top right corner of platform
	3B	N: 104831.5645	E: 2092200.2110	1278.68	Top of sidewalk
	4A	N: 104841.5046	E: 2092173.6030	1278.62	Top left corner of platform
	4B	N: 104841.5046	E: 2092173.6030	1275.07	Top of sidewalk
	5A	N: 104841.1663	E: 2092188.7054	1278.52	Top of ramp
	5B	N: 104841.1663	E: 2092188.7054	1275.37	Top of bus pad
	6	N: 104831.9775	E: 2092147.1831	1275.21	Top of bus pad
	7	N: 104831.2663	E: 2092038.9613	1276.03	Top of bus pad
	8	N: 104811.8474	E: 2092214.6983	1276.69	Top of bus pad
	9	N: 104841.7783	E: 2092158.0088	1275.55	Top of ramp
	10	N: 104831.6710	E: 2092181.2164	1275.61	Top of ramp
	11A	N: 104841.0560	E: 2092171.8232	1276.58	Top of ramp
	11B	N: 104841.0560	E: 2092171.8232	1275.03	Top of sidewalk

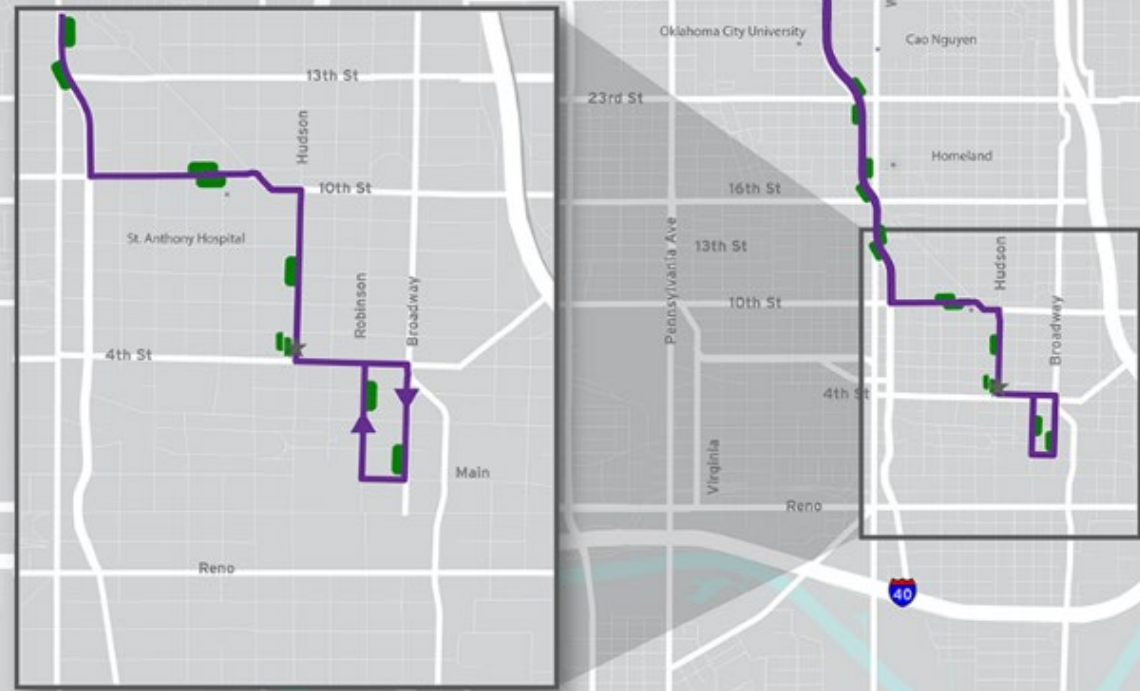
NW EXPRESSWAY

Legend

BRT Alignment
 Final Alignment

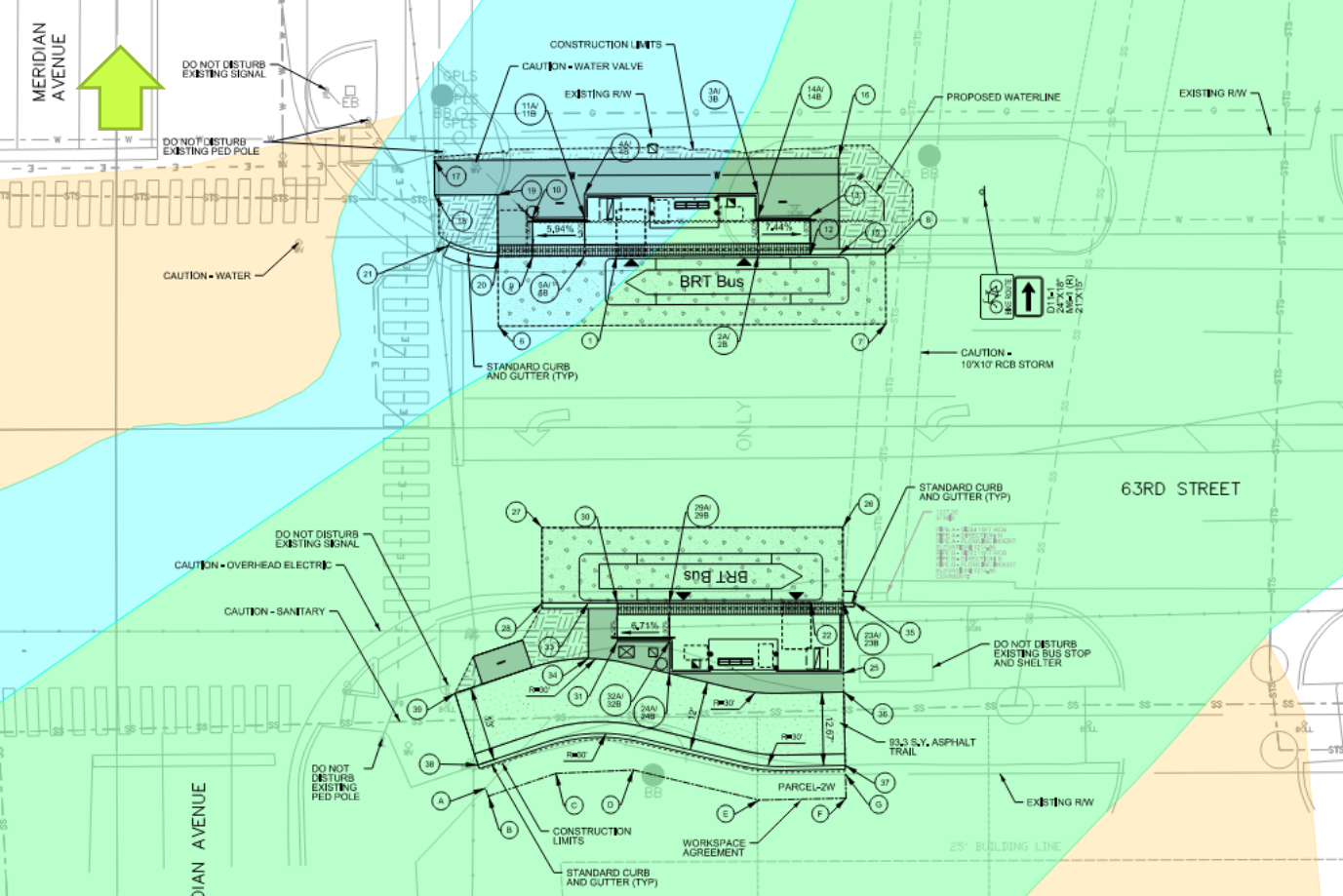
Station Location
 BRT Station
 Transit Center
 Potential Park and Ride

Activity Centers
 Hospital
 University
 Shopping
 Supermarket

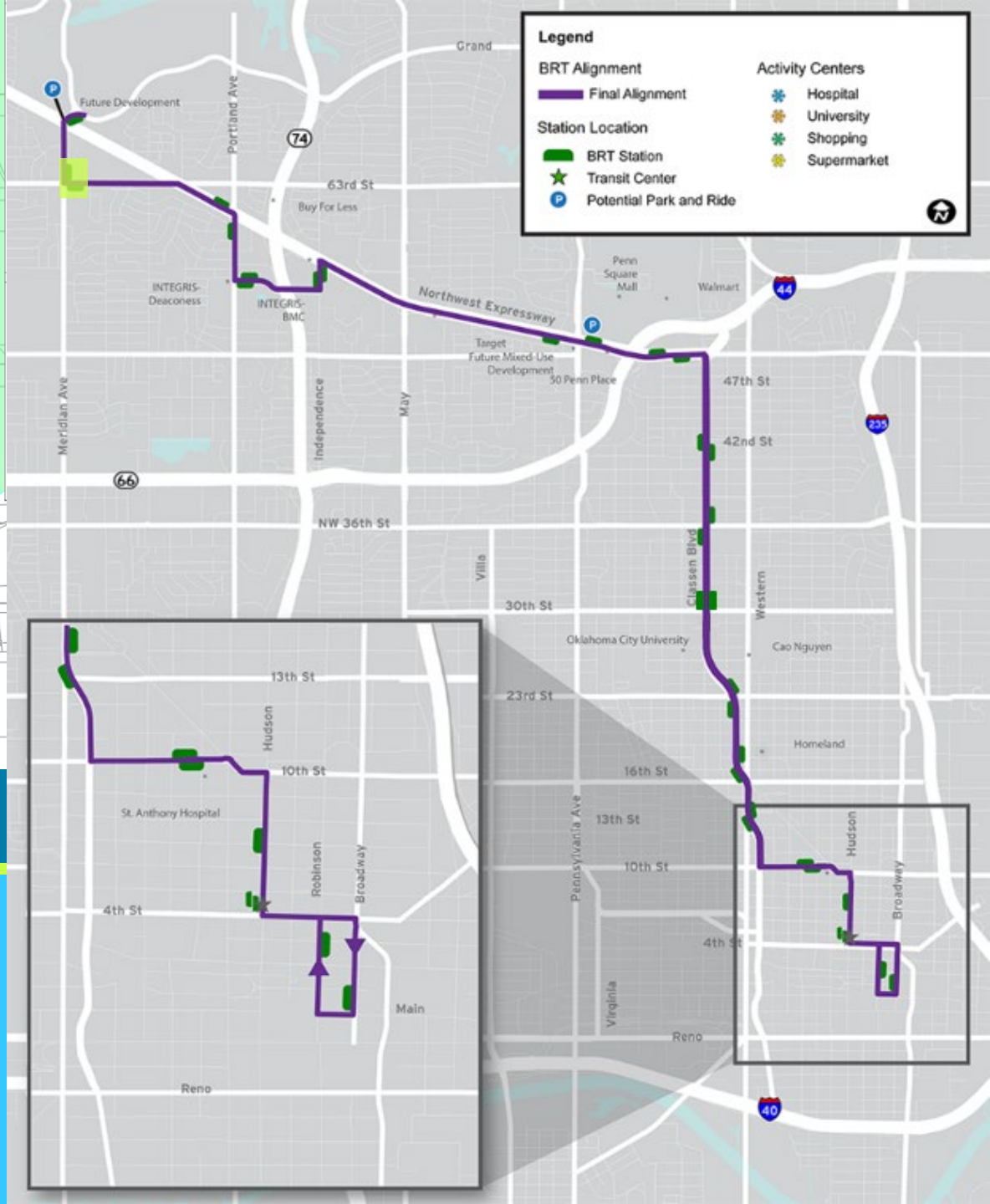


NW Expressway/Portland



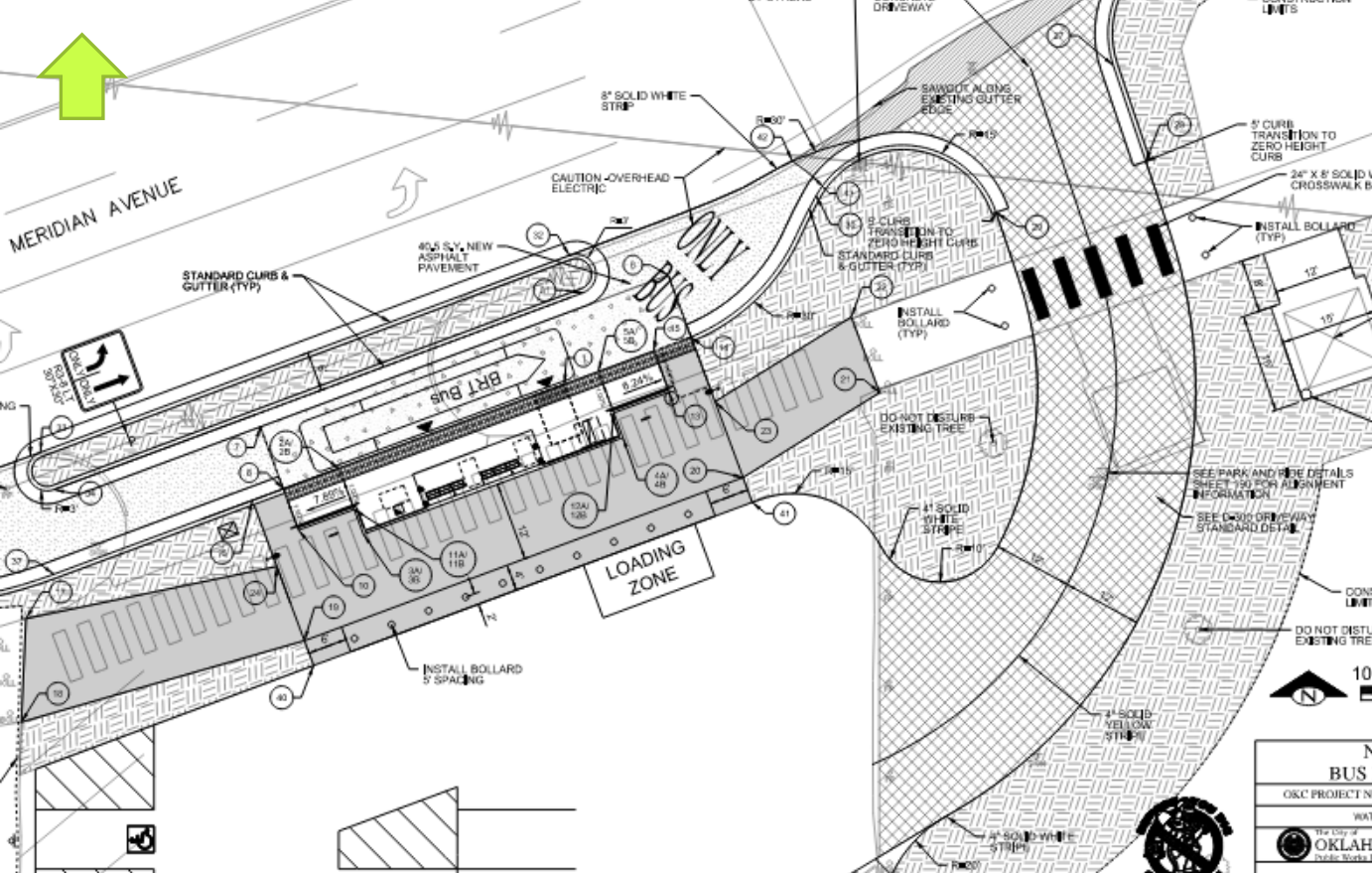


Meridian/63rd Street



Legend

BRT Alignment	Activity Centers
Final Alignment	Hospital
Station Location	University
BRT Station	Shopping
Transit Center	Supermarket
Potential Park and Ride	

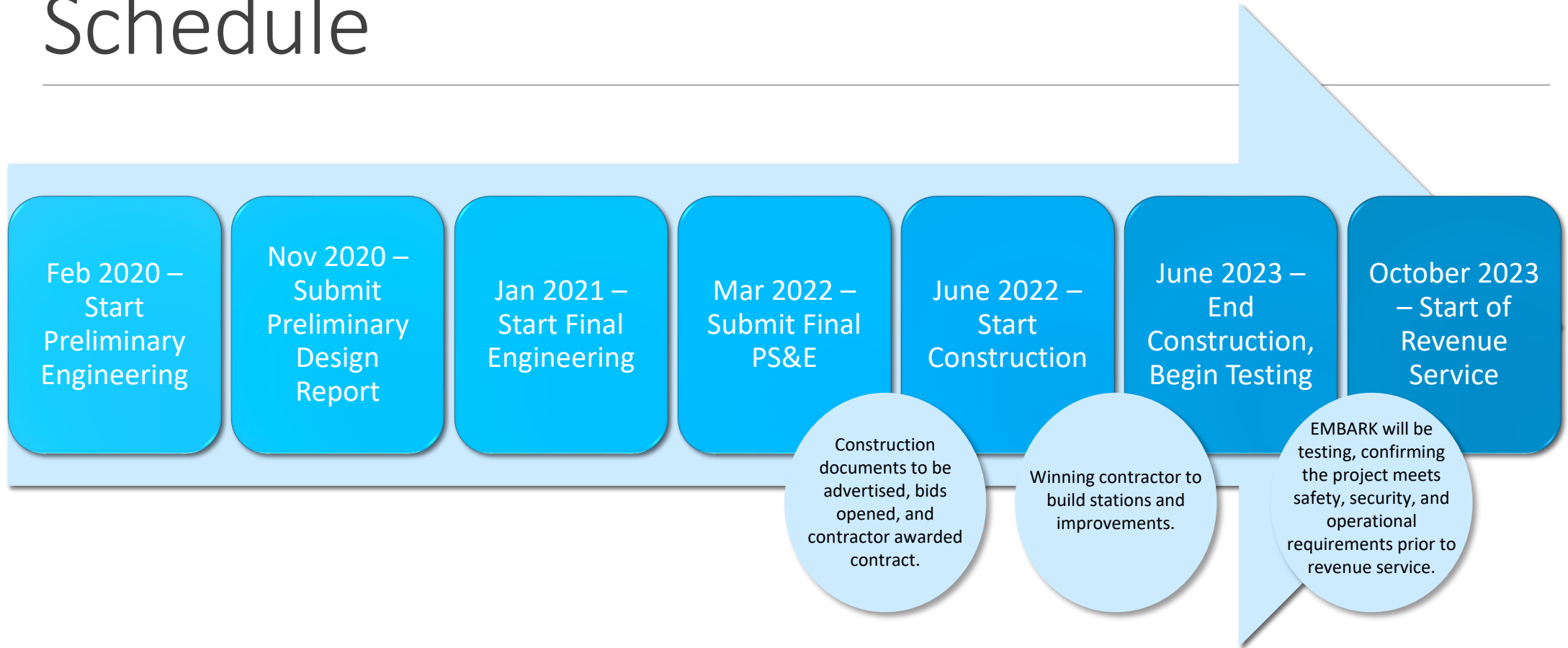


Meridian – End of the Line

Description	MC-0619/WC-1029	MS-0123/WC-1029	WC-1029
Civil	\$ 5,573,482.00	\$ 550,357.00	
Signals	\$ 1,246,135.00	\$ 660,384.00	
Stations	\$ 3,636,000.00		
Waterline	\$ 339,884.00	\$ 185,955.00	\$ 156,615.00
Transit Signal Priority	\$ 1,000,000.00		
Ticket Vending Machine	\$ 150,000.00		
Utility Relocations	\$ 400,000.00		
Right of Way	\$ 200,000.00		
Contingency (25%)	\$ 3,136,375.00	\$ 349,174.00	\$ 39,154.00
Totals	\$ 15,681,876.00	\$ 1,745,870.00	\$ 195,769.00

Engineer's Estimate

Schedule



RAPID

ΣMBARK



Questions?