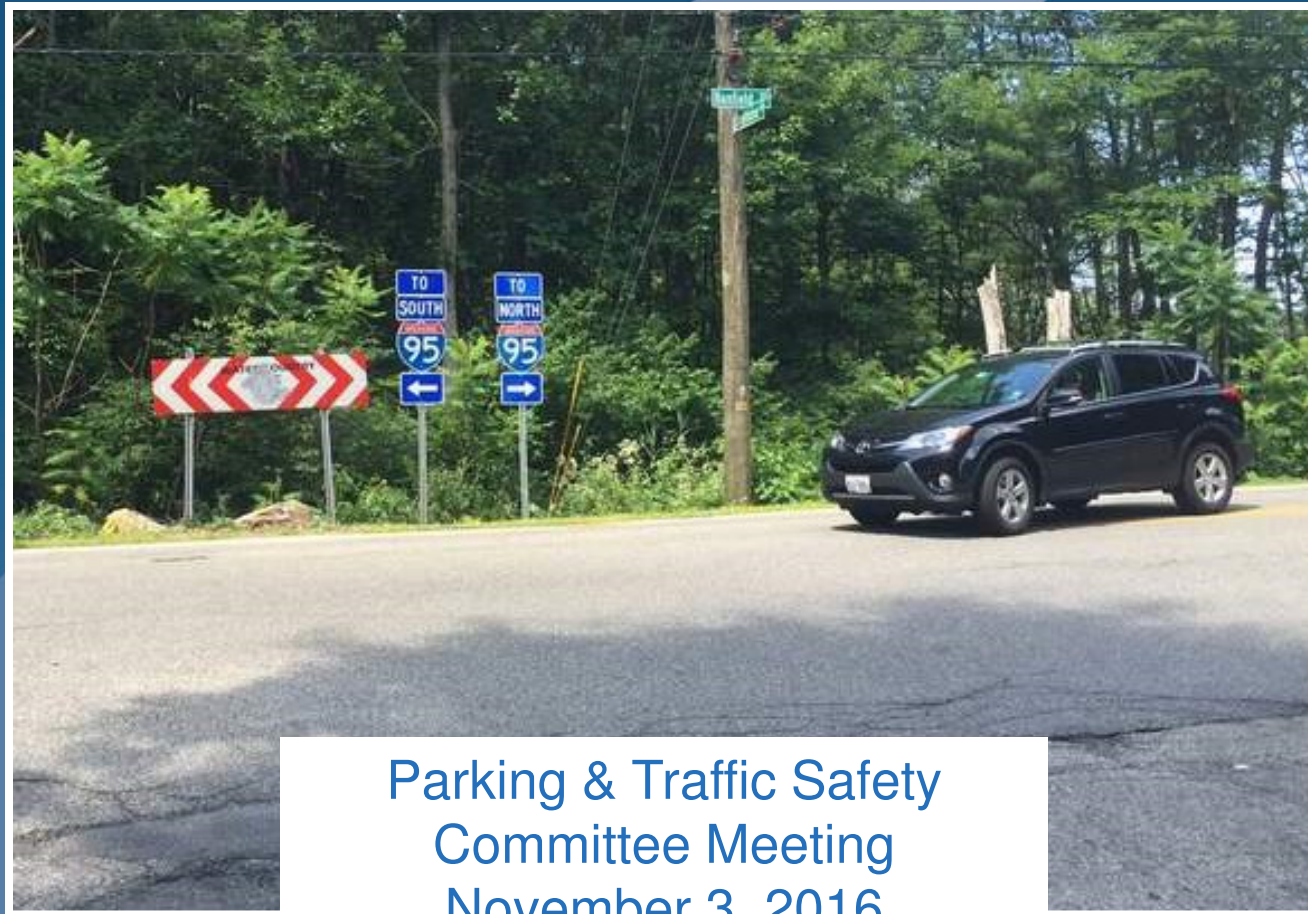


City of Portsmouth – Water Country Driveway Departure Alternatives



Parking & Traffic Safety
Committee Meeting
November 3, 2016



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City of Portsmouth – Water Country Driveway Departure Alternatives

Purpose of Original Study

To evaluate three community-proposed alternatives for exit routes that Water Country patrons could use to return to the highway

Purpose of Follow-up Study

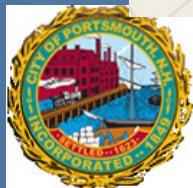
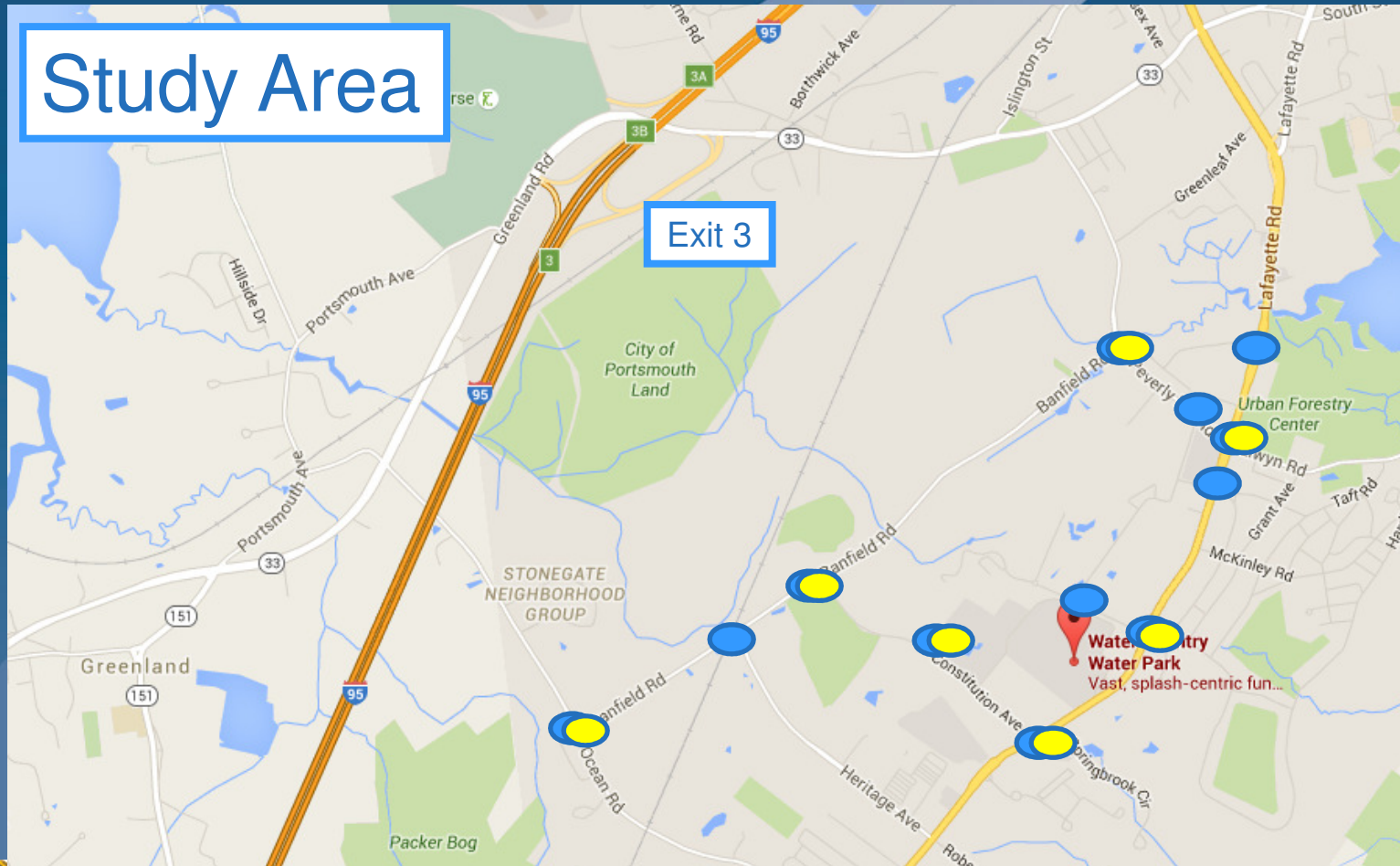
To compare previous intersection volumes with updated summertime counts conducted by City of Portsmouth DPW



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City of Portsmouth – Water Country Driveway Departure Alternatives



● New Summertime Counts

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City of Portsmouth – Water Country Driveway Departure Alternatives

Peak Hour Departure Data – Summer 2016

<u>Date</u>	<u>Time</u>	<u>Left turn out</u>	<u>Right turn out</u>	<u>Total</u>	<u>Temperature / Notes</u>
Saturday, July 16, 2016	6:30-7:30	244	530	774	89°
Sunday, July 17, 2016	6:15-7:15	181	282	463	80°
Saturday, July 23, 2016	5:30-6:30	237	540	777	90° Heavy Thunderstorm at 6:15
Sunday, July 24, 2016	6:15-7:15	339	411	750	86°
Saturday, July 30, 2016	6:15-7:15	187	443	630	81°
Friday, August 05, 2016	5:45-6:45	211	245	456	85°
Saturday, August 06, 2016	6:15-7:15	125	267	392	88°
Sunday, August 07, 2016	6:30-7:30	351	324	675	85° light shower at 2.
Thursday, August 11, 2016	5:45-6:45	273	322	595	95°
Friday, August 12, 2016	5:30-6:30	175	197	372	96°
Saturday, August 13, 2016	5:00-6:00	71	186	257	73°
Sunday, August 14, 2016	6:15-7:15	167	357	524	93°
Thursday, August 18, 2016	4:45-5:45	221	265	486	89°
Friday, August 19, 2016	4:45-5:45	259	289	548	83°
Saturday, August 20, 2016	5:00-6:00	257	496	753	80°
Sunday, August 21, 2016	5:00-6:00	242	451	693	77°
Thursday, August 25, 2016	4:45-5:45	221	195	416	87°
Friday, August 26, 2016	4:45-5:45	208	229	437	87°
Saturday, August 27, 2016	5:00-6:00	244	402	646	85°
Sunday, August 28, 2016	4:45-5:45	274	281	555	80°
Friday, September 02, 2016	4:45-5:45	94	88	182	78°
Saturday, September 03, 2016	4:45-5:45	107	128	235	73°
Sunday, September 04, 2016	4:45-5:45	86	97	183	74°

City of Portsmouth – Water Country Driveway Departure Alternatives

Two-stage Study Process

- Review existing data sources
- Review seasonal adjustments to data
- Analyze redistribution characteristics
- Analyze capacity of nearby intersections
- Offer recommendations for egress

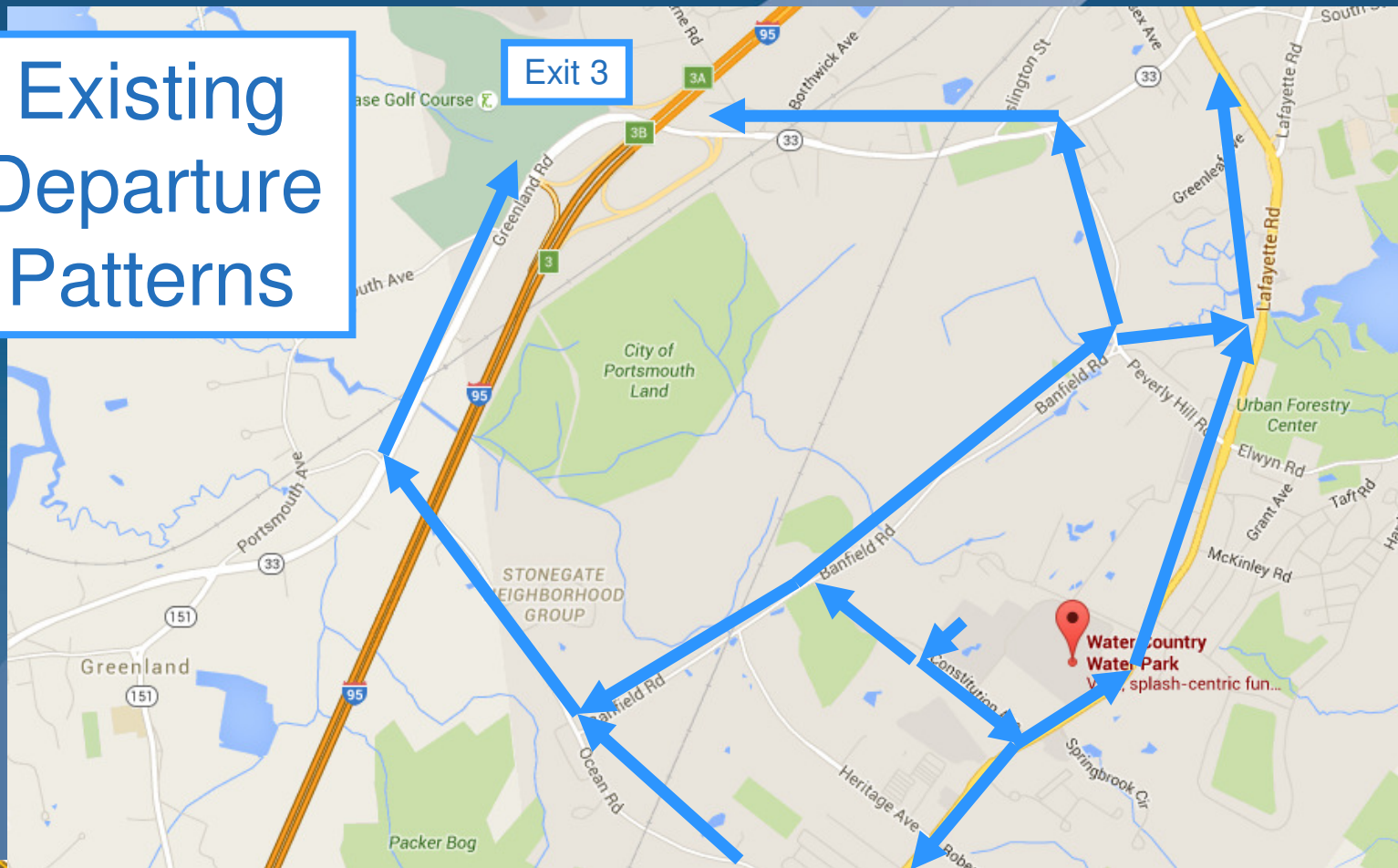


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City of Portsmouth – Water Country Driveway Departure Alternatives

Existing
Departure
Patterns

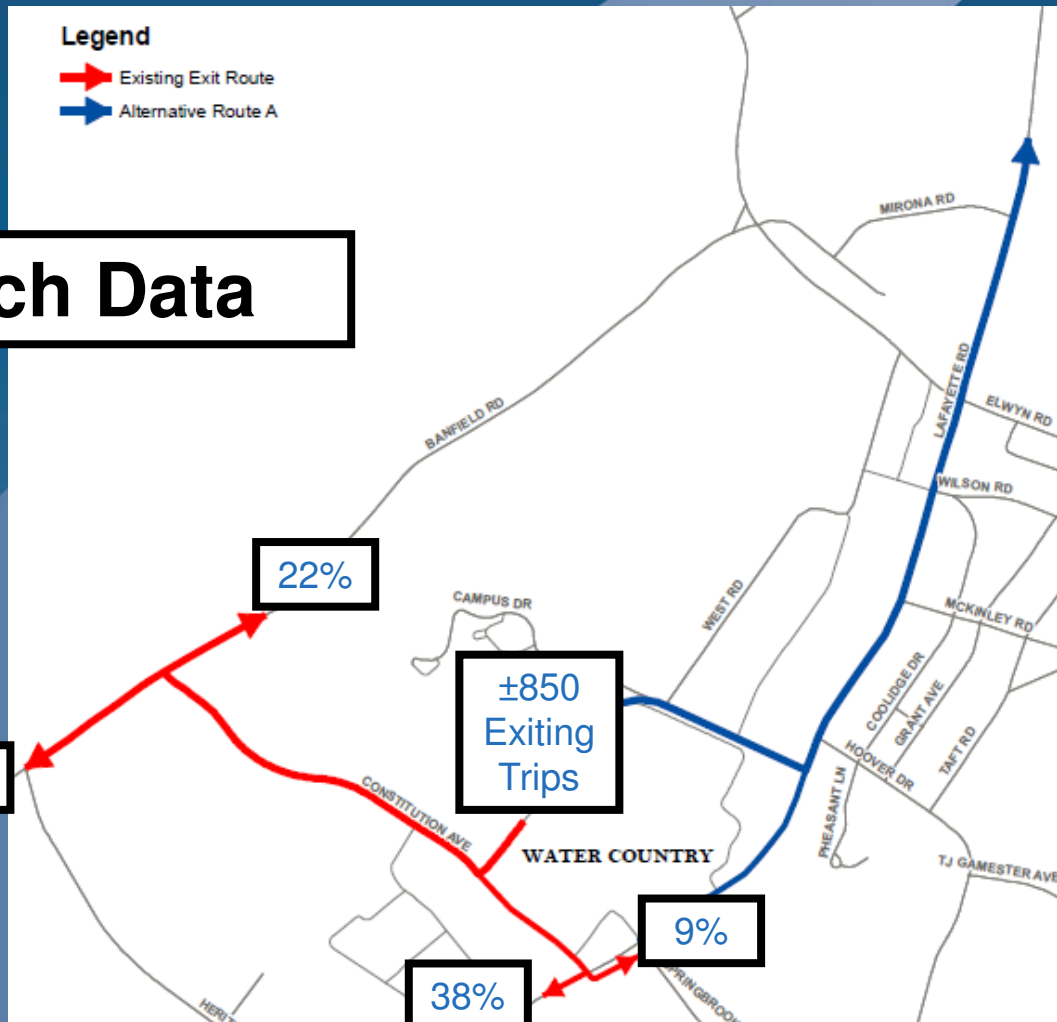


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City of Portsmouth – Water Country Driveway Departure Alternatives

March Data



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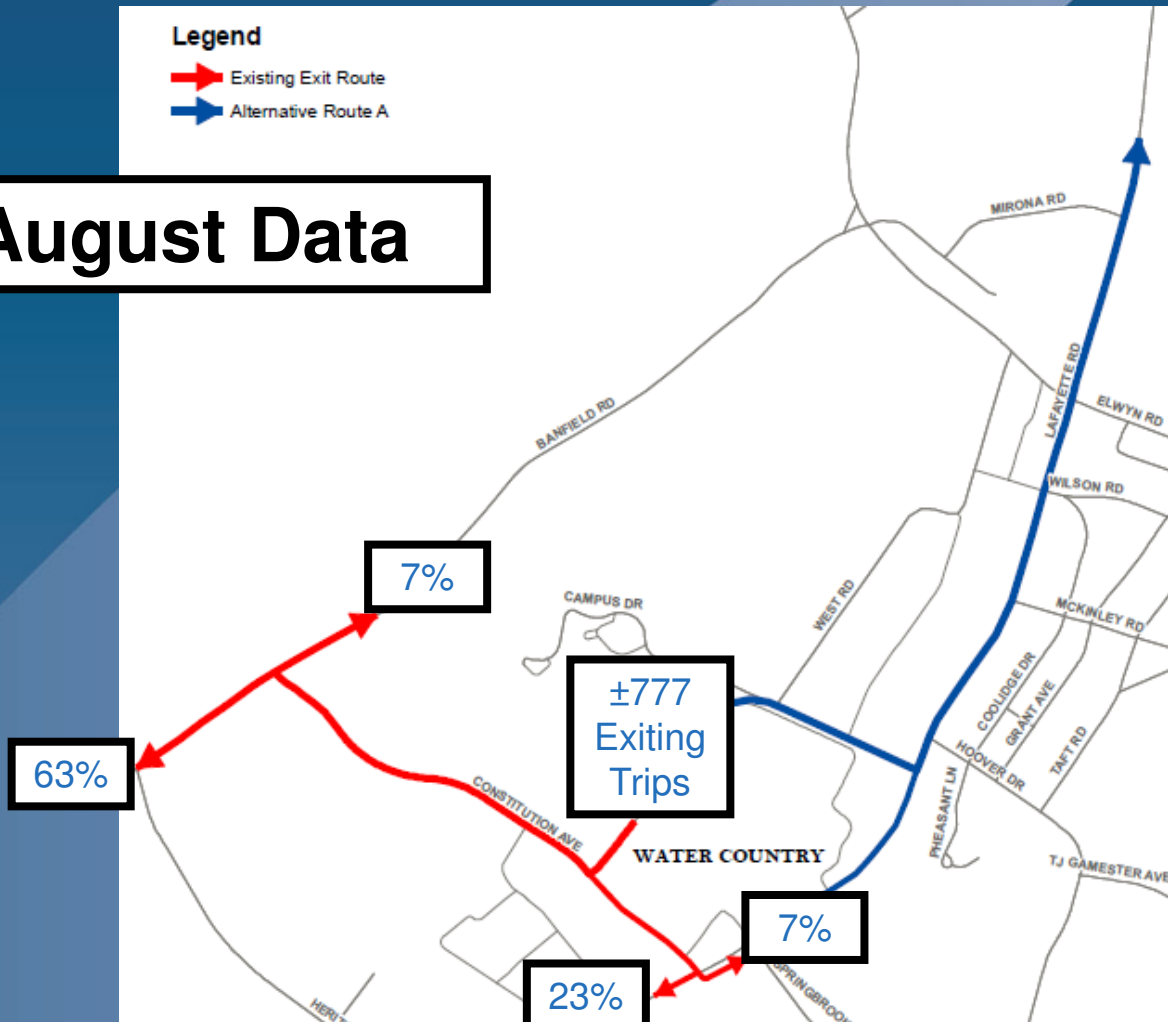


City of Portsmouth – Water Country Driveway Departure Alternatives

August Data

Legend

- Existing Exit Route
- Alternative Route A



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City of Portsmouth – Water Country Driveway Departure Alternatives

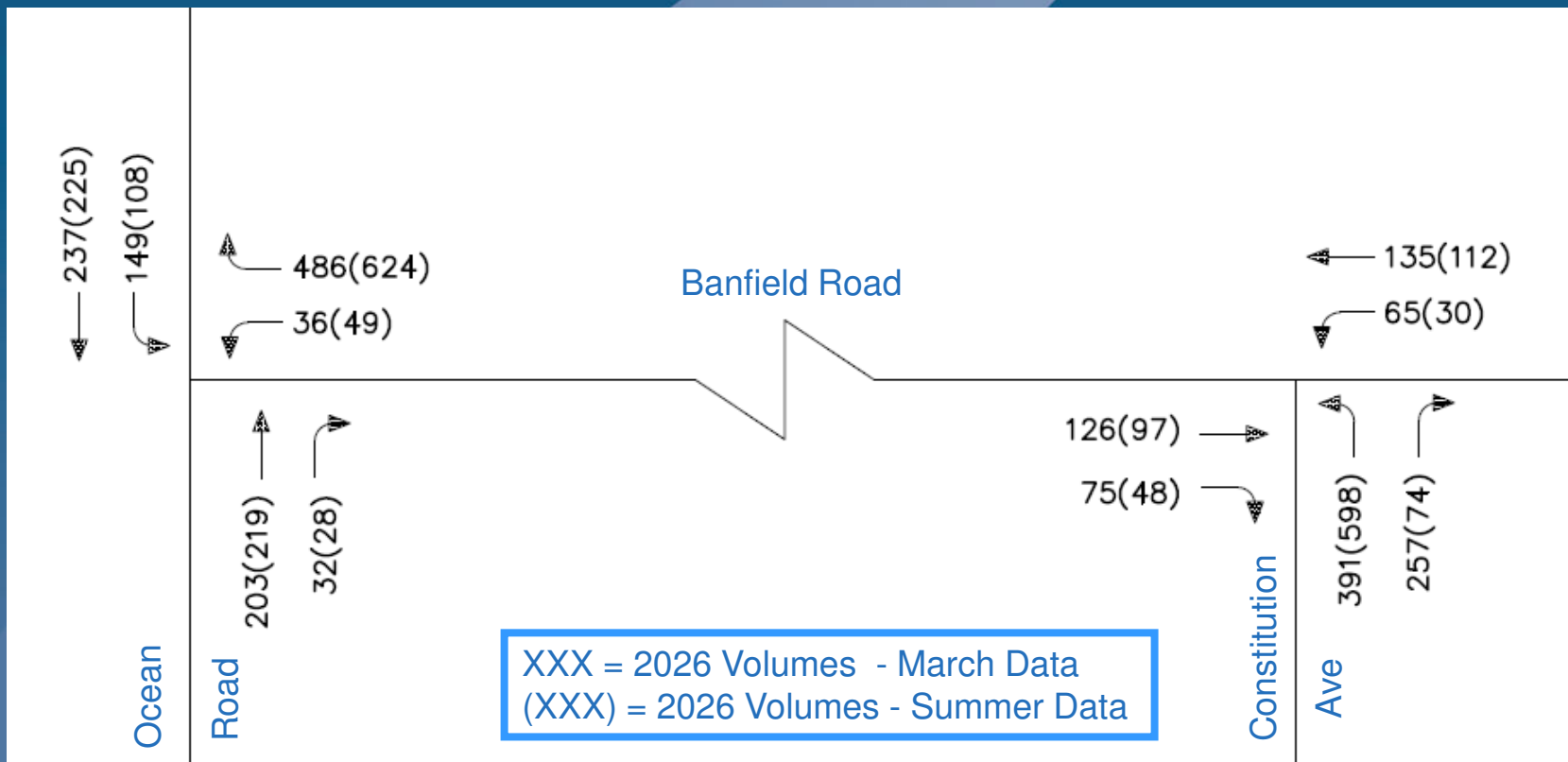
Existing Conditions with Updated Data

- Summertime traffic distributes to Constitution Ave more heavily towards Banfield Road.
- Average patrons egress split 66% towards Banfield Road and 34 % exit to Route 1 (Saturday)
 - Assumed 70/30 split for analysis purposes
- Average patrons egress split 59% towards Banfield Road and 41 % exit to Route 1 (Weekdays)
- **Overall 2016 Summer volumes are lower than seasonally adjusted March volumes**



City of Portsmouth – Water Country Driveway Departure Alternatives

Peak Hour Traffic Comparison



City of Portsmouth – Water Country Driveway Departure Alternatives

Banfield Road Peak Hour Traffic March to Summertime Comparison

Banfield Road Comparison – Total Roadway Volume

Direction / Total	2026 March Weekday Evening	2026 Summertime Saturday PM
Eastbound	208	136
Westbound	431	673
Total Bi-directional Roadway Volume	639	809

Summertime Saturday evening peak hour is fewer than 3 cars/minute over a normal early March weekday evening

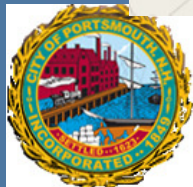
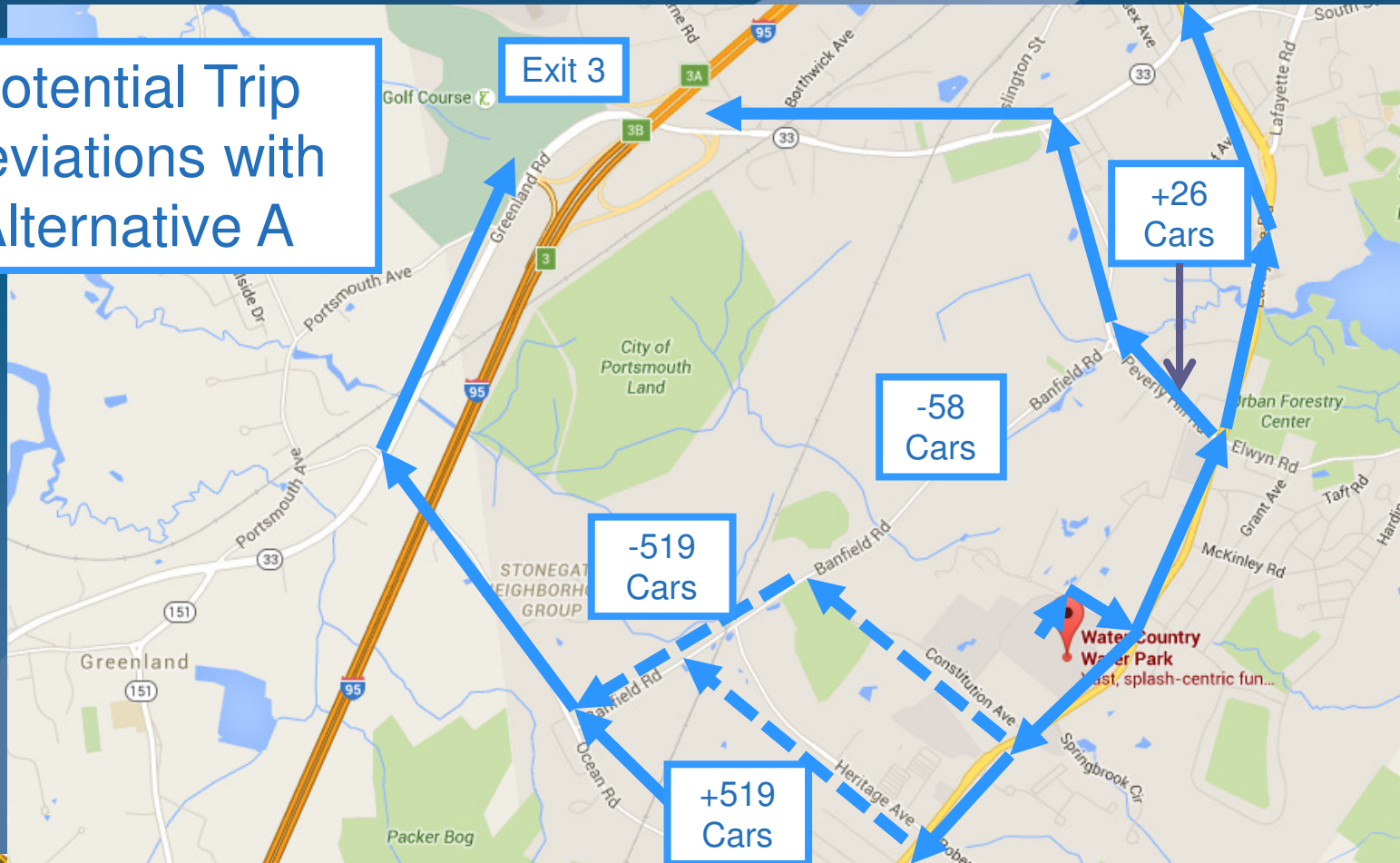


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City of Portsmouth – Water Country Driveway Departure Alternatives

Potential Trip Deviations with Alternative A



City of Portsmouth – Water Country Driveway Departure Alternatives

Level of Service

Intersection / Lane Group	2026 Existing Egress Conditions from March Study			2026 Existing Egress Conditions w/ New Summer Data			2026 – Egress Alternative A from March Study			2026 – Egress Alternative A w/ New Summer Data		
	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
<i>Saturday Evening Peak Period</i>												
Banfield Road WB Left	18.8	C	<25	16.9	C	<25	29.4	D	<25	40.7	E	40
Banfield Road WB Right	21.6	C	173	46.2	E	378	17.9	C	65	19.1	C	36
Ocean Road SB Left	3.9	A	<25	3.2	A	<25	4.6	A	<25	4.4	A	<25



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City of Portsmouth – Water Country Driveway Departure Alternatives

Conclusions & Recommendations

- August 2016 volumes lower than projected March volumes with seasonal adjustment
- Redistribution of egress trips anticipated to have marginal improvements at Banfield Road / Ocean Road with significant impact at Route 1 / West Road
- Exiting patrons may continue to use Constitution Ave and Heritage Ave to access Banfield Road
- Existing exit pattern provides the most options to distribute traffic to area roadways



City of Portsmouth – Water Country Driveway Departure Alternatives

Conclusions & Recommendations (Continued)



- Route 1 / West Road access will require a significant investment
- Egress changes will likely impact Peverly Hill Rd and other roadways - police details needed to effectively control alternative traffic patterns along West Road
- **TEC recommends maintaining existing egress patterns and advance complete street improvements along Banfield Road**

