

7th Street Bicycle Accommodations Proposal

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In Conjunction with the Mayor's Bicycle Advisory Council

December 21, 2018

Rationale for Improved Bicycle Accommodations Downtown:

1) The proposed bicycle accommodations for 7th St. would be part of a larger project promoting a downtown "Lincoln Historic Trail". This would involve future downtown bicycle projects where visitors arriving via train or staying at a downtown hotel could use bike share and bicycle lanes to explore local historic sites, parks, restaurants, merchants and markets, much like the Boston Freedom Trail, the Indianapolis Cultural Trail, and the Peoria Constitution Trail.



2) After Indianapolis officials completed their downtown Cultural Trail, there was an increase in adjacent assessed property value of 148%, or over \$1 billion. The average trail user spent ~\$60 at local businesses, generating over \$2 million in additional annual spending at local businesses.¹



3) Bike accommodations on 7th St. would encourage traffic calming downtown and increase downtown non-motorized traffic. Studies show that pedestrians and bicyclists spend more money per month at local businesses than motorists.²

¹ Assessment of the Impact of the Indianapolis Cultural Trail. Majors J and Burow S. Indiana University Public Policy Institute. Mar 2015.

² Clifton, K. et al. "Consumer Behavior and Transportation Choices." Oregon Transportation Research and Education Consortium. Nov 2012.

- 4) Seventh Street was identified as a priority bicycle corridor by the Springfield Bicycle and Pedestrian Plan in 2012.³
- 5) Adding another bike facility in the downtown area that connects to surrounding neighborhoods would provide additional encouragement for local residents and tourists to utilize the proposed bike share program, which is scheduled to be launched in April 2019.
- 6) Adding bicycle accommodations to Springfield streets is in keeping with the City of Springfield's "Complete Streets" policy, which encourages that public rights-of-way "are designed and operated to provide a safe and accessible transportation network for all users, including pedestrians, bicyclists, and transit riders, regardless of age or ability."⁴
- 7) Studies show that younger millennials are more likely to commute by bicycle, have less car ownership rates, and more likely to live in downtown areas.⁵ Improving bicycle accommodations downtown and throughout the city would encourage more millennials to consider employment opportunities in Springfield, particularly at state government and medical district facilities.

Data Collection

Parking data was collected by counting on-street parking spots and vehicles on Thursday 12/13/18 at 1:45pm and at 8:45pm. Off-street parking spaces were counted using Google Earth. For parking garages, the number of parking spaces on the top floor of the garage were counted, then multiplied by number of garage floors. Full parking data in Appendix A at the end of this report.

Segments

To simplify the proposal, 7th street was divided into 4 segments:

- Downtown Segment: Madison Street to Jackson Street
- South Segment: Jackson Street to S. Grand Ave. (Old Aristocracy Hill)
- St. John's Segment: Carpenter Street to Madison Street
- North Segment: N. Grand Ave. to Carpenter Street (Enos Park)

Downtown Segment (Madison St. to Jackson St.)

About: 48 foot street width, Lincoln Presidential Library, Lincoln Presidential Museum, Horace Mann, Wyndham Hotel, Hilton Hotel, Bank of Springfield Center (one block away), Lincoln Home National Historic Site and Springfield Municipal Center.

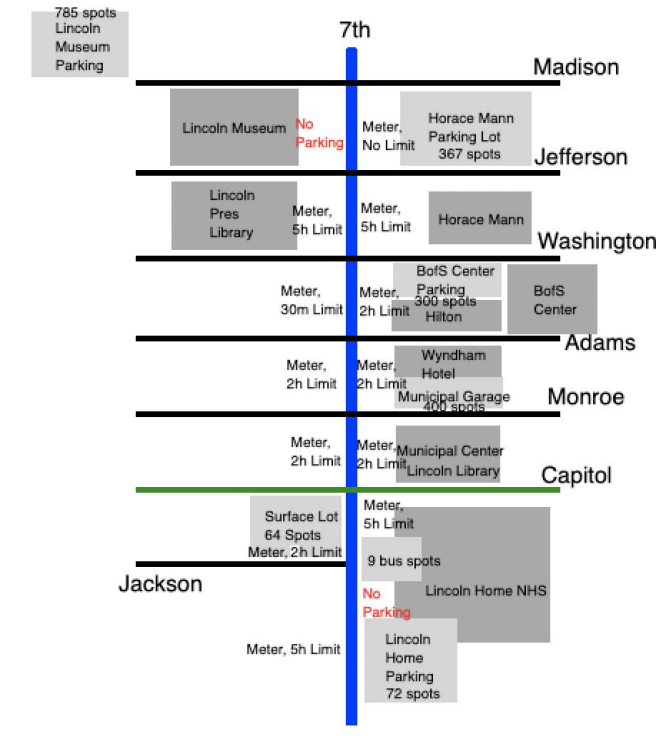
This segment presents several challenges due to higher traffic volume and high parking occupancy.

³ SATS Bicycle and Pedestrian Plan for the Metro Area (2012). SSCRPC: Springfield Area Transportation Study

⁴ SATS Policy Committee, 13 Jan 2011.

⁵ "Young Americans Lead Trend to Less Driving." The New York Times. 13 May 2013.

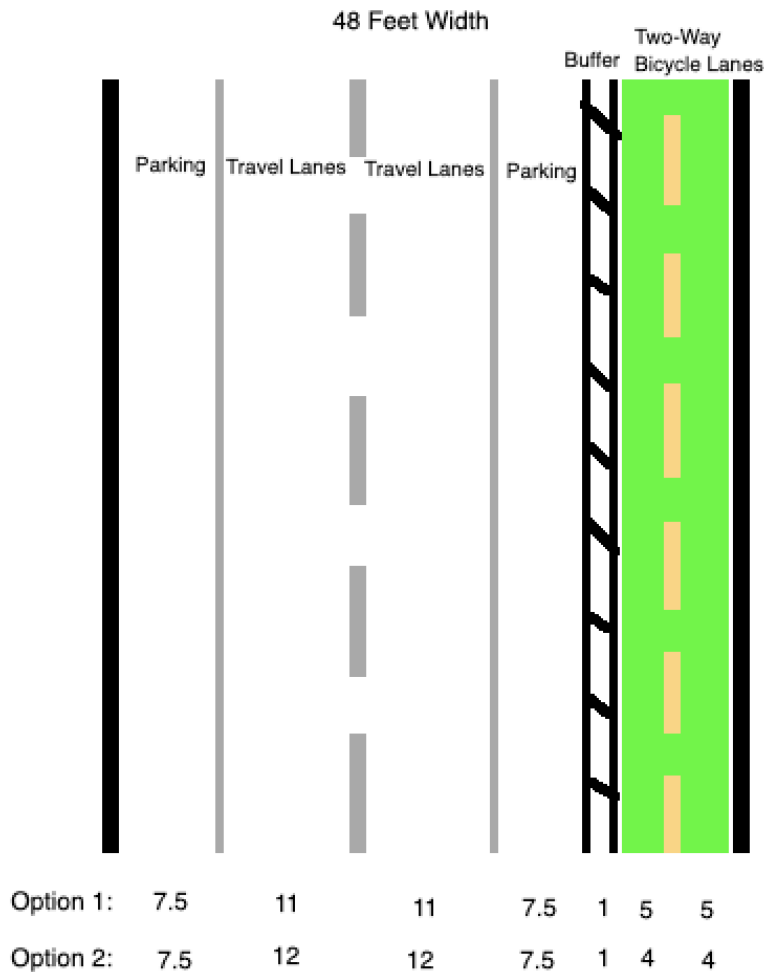
On-Street Parking Occupancy								
West Side of Street					East Side of Street			
	Parked Vehicles	Total Spots	% Occupied			Parked Vehicles	Total Spots*	% Occupied
	44	56	79%	Day		18	49	37%
	46	56	82%	Night		34	49	69%



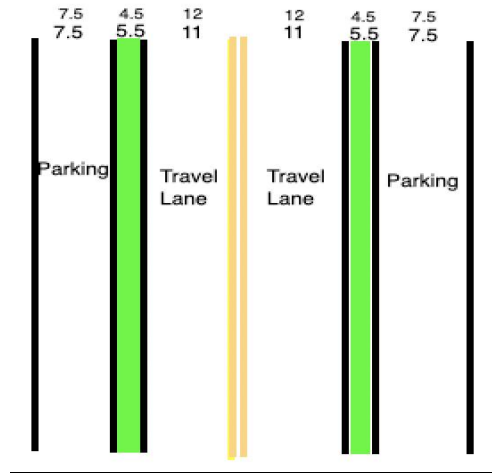
Preferred Alternative – Maintain Current One-Way Traffic with 2 Travel Lanes, All Current On-Street Parking and Two-Way Bicycle Lanes

Rationale: We recommend maintaining the current one-way structure of this street. Instead of 3 travel lanes, 2 travel lanes can be maintained. The current traffic volumes on 7th Street do not justify 3 travel lanes. The decrease to 2 travel lanes would encourage traffic calming and allow 1 travel lane to be used for two-way bicycle lanes (also known as “cycle tracks”), which allow bicycle movement in both directions on one side of the street. All on-street parking would be maintained under this proposal. The traffic signal system would not need to be significantly rebuilt. Instead small “bicycle traffic lights” would be installed for bicyclists travelling north against the traffic flow. Parking between travel lanes and the bicycle lanes would provide a natural, cost-free barrier providing additional safety for bicyclists, which would encourage children and

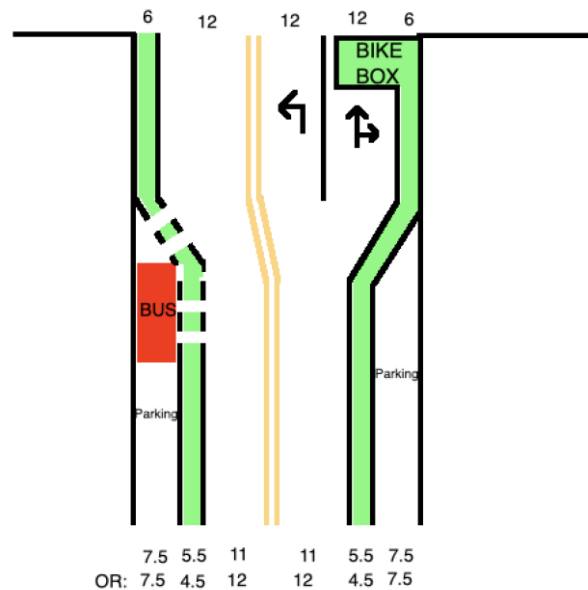
casual bicyclists to use these bicycle lanes. A buffer would be used to prevent double-parking on the bicycle lane (traffic cones, planters, bollards, raised curb, and/or painted striped lines).



Alternative 1 – Two-Way Traffic, Bike Lanes and Maintain All Parking
Rationale: If this segment is converted to two-way, this proposed configuration would maintain two travel lanes, bicycle lanes, and all current on-street parking. As 7th street is not a major through-fare like 5th/6th and 9th streets are, we do not believe center lanes are required.



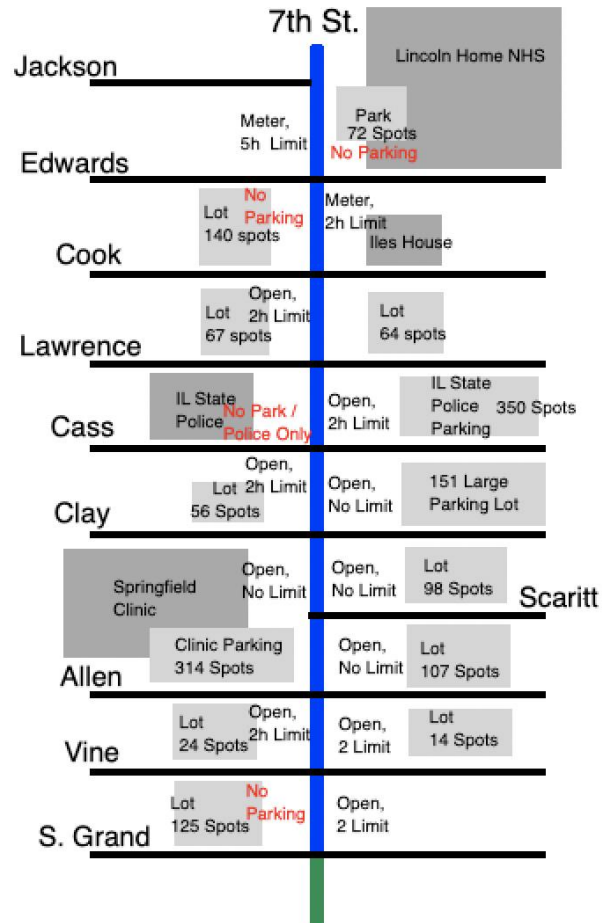
If a center lane is strongly desired, center lanes could be added at congested intersections only, resulting in minimal on-street parking loss, as below:



South Segment (Jackson St. to S. Grand Ave.)

About: 48 foot street width, Springfield Clinic and Iles House Museum.

On-Street Parking Occupancy								
West Side of Street					East Side of Street			
	Parked Vehicles	Total Spots	% Occupied			Parked Vehicles	Total Spots*	% Occupied
	24	69	35%	Day		21	60	35%
	4	69	6%	Night		4	60	7%



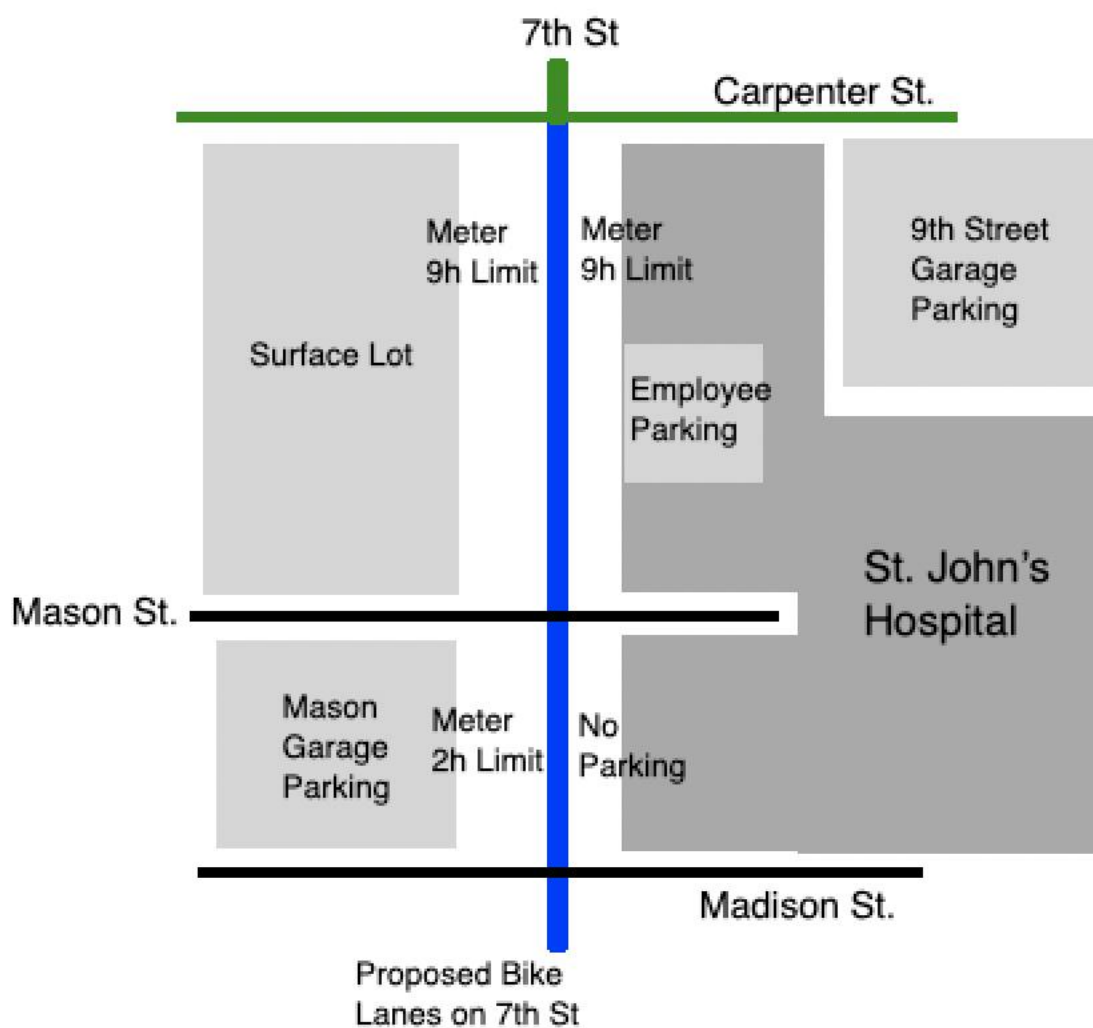
Proposed Road Configuration: We propose the same road configurations for the South Segment as previously recommended for the Downtown Segment. Our preference is to maintain the current one-way structure of the street and convert one travel lane to two-way bicycle lanes, while maintaining all on-street parking. If the street is converted to two-way, Alternative 1 above could be implemented.

Further South: South of S. Grand Avenue, bicycle wayfinding signs would be placed to direct cyclists to the proposed bicycle route along 7th/Ash to 11th street at University of Illinois Springfield, further integrating UIS with the Downtown Business District.

St. John's Segment (Carpenter St. to Madison St.)

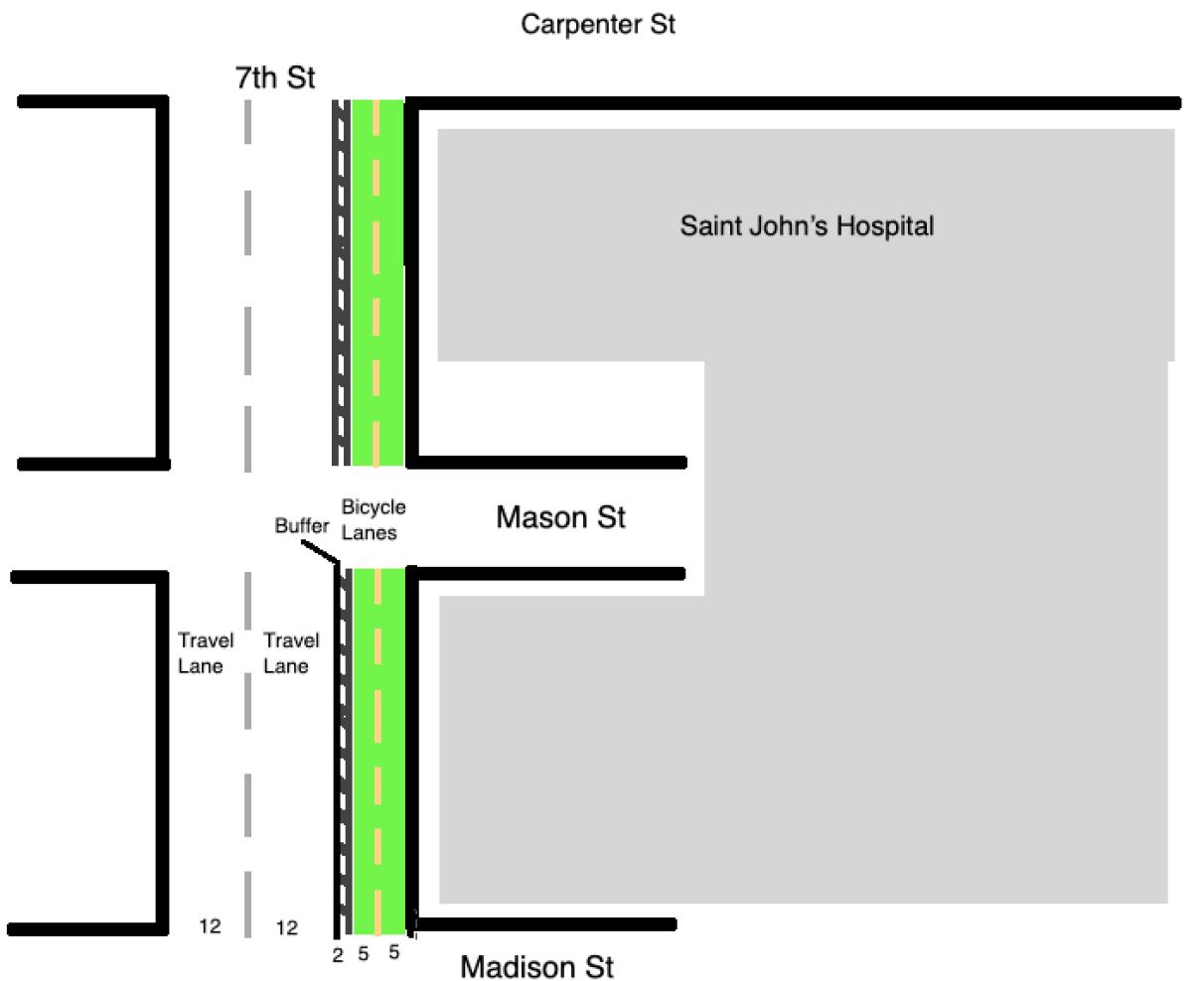
About: Hospital District, 36-foot street width, with multiple parking garages and lots available.

On-Street Parking Occupancy								
West Side of Street					East Side of Street			
	Parked Vehicles	Total Spots	% Occupied			Parked Vehicles	Total Spots*	% Occupied
	8	34	24%	Day		5	18	28%
	13	34	38%	Night		16	18	89%



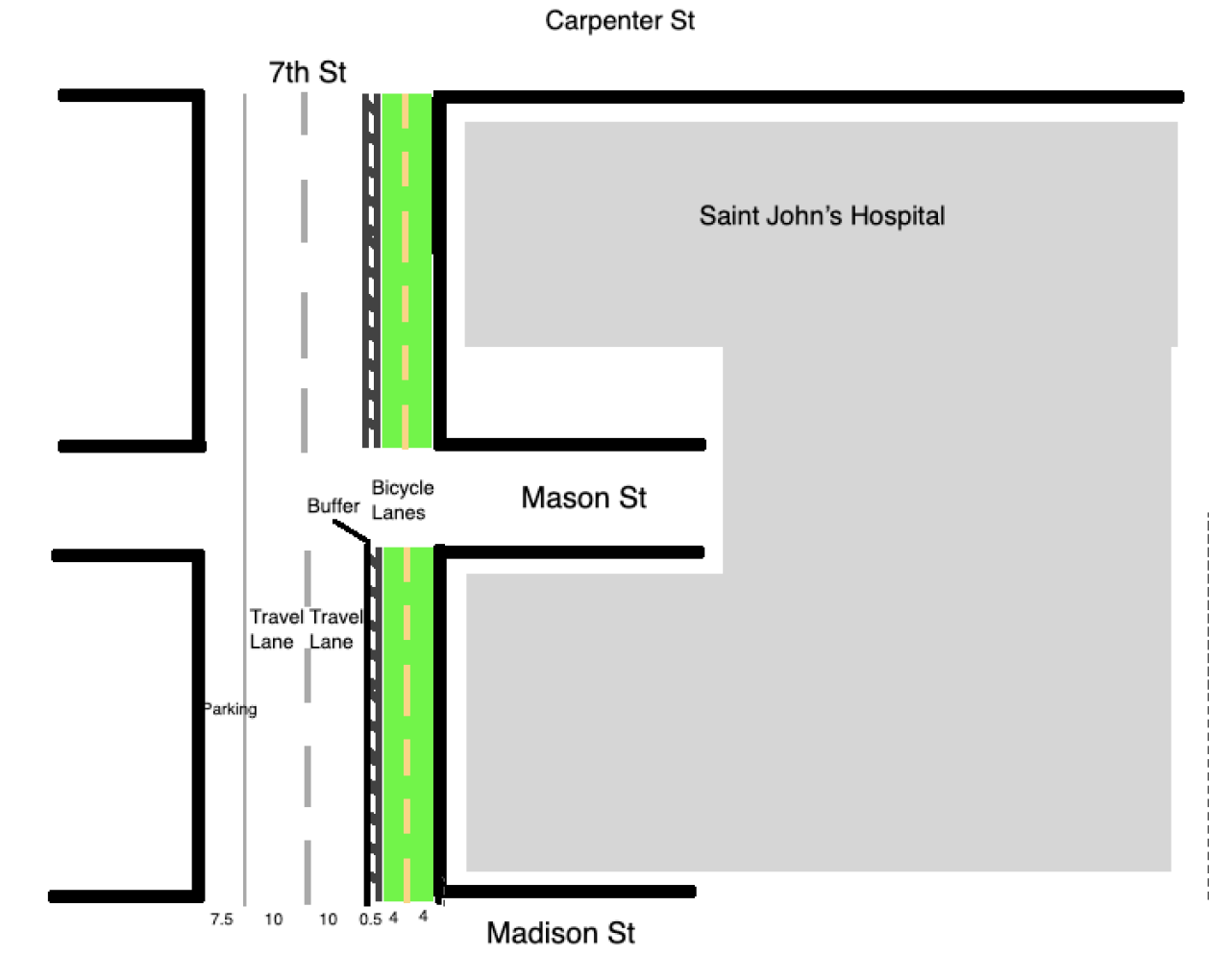
Preferred Alternative – One-Way Road, Bicycle Lanes and No Parking

Rationale: This is the only segment for 7th Street where our preferred alternative recommends elimination of parking, only on a 2-block area. Given the high occupancy of this street segment, eliminating parking would appear difficult at first glance. However, much of the parking is taken up by St. John's Hospital employees, not visitors. Of the 29 total cars parked on 7th street at night, over half (14) had St. John's Employee Parking Stickers. Employees have three dedicated garages they can utilize in the area. Visitors also have access to dedicated parking garages. The Mason Street Garage and surface lot immediately adjacent to 7th street have 1,140 parking spots available to the public. Thus eliminating all 52 parking spots on the street amounts to less than a 4.5% decrease in parking spots in the area, and this does not include the 9th Street Garage. Factoring this garage into the equation, eliminating on-street parking amounts to less than a 2% decrease in local parking spots.



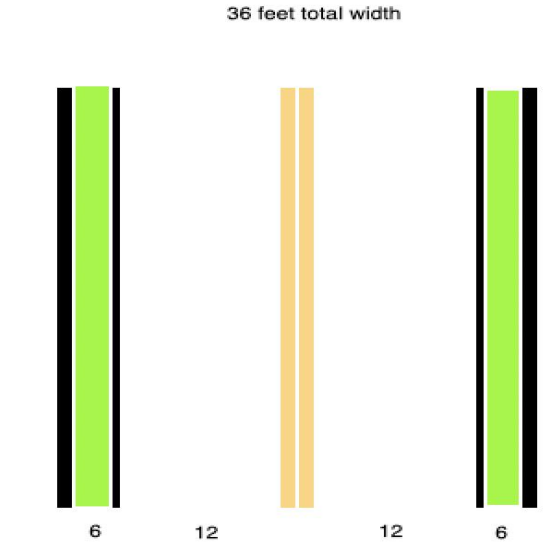
Alternative 1 – One-Way Road, Bicycle Lanes and Parking on One Side of Street

Rationale: If parking must be maintained on one side of 7th street, there is a less preferred, but viable option with 10 feet travel lanes, 7.5 feet parking lane and 4 feet bicycle lanes. Although not ideal, this is preferred to no bicycle lanes. We would highly recommend bicycle lanes on this segment given the high traffic volume and major workplace (St. John's Hospital) that would be frequented by bicycle commuters.



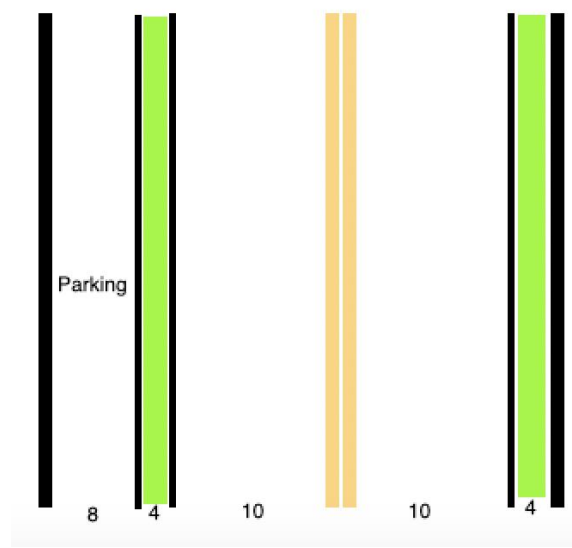
Alternative 2 – Two-Way Street, Bicycle Lanes and No Parking

About: If this segment is converted to two-way, 6-foot bike lanes could be placed on either side of 12-foot travel lanes.



Alternative 3 – Bicycle Lanes and Parking Lanes on One-Side

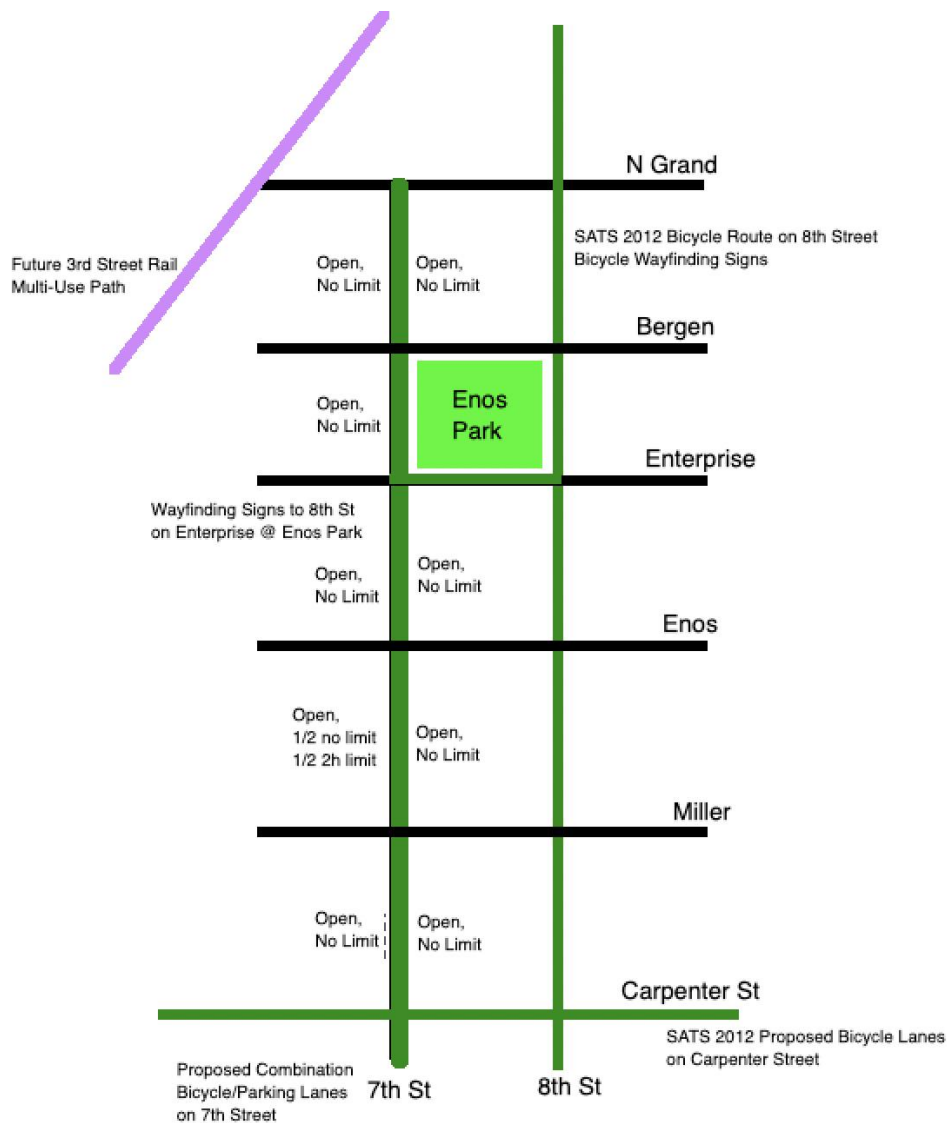
About: If this segment is converted to two-way and parking on one side of street is desired, parking could be maintained on one side of the street, with 4 foot bike lanes and 10-foot travel lanes.



North Segment (N. Grand Ave. to Carpenter Street)

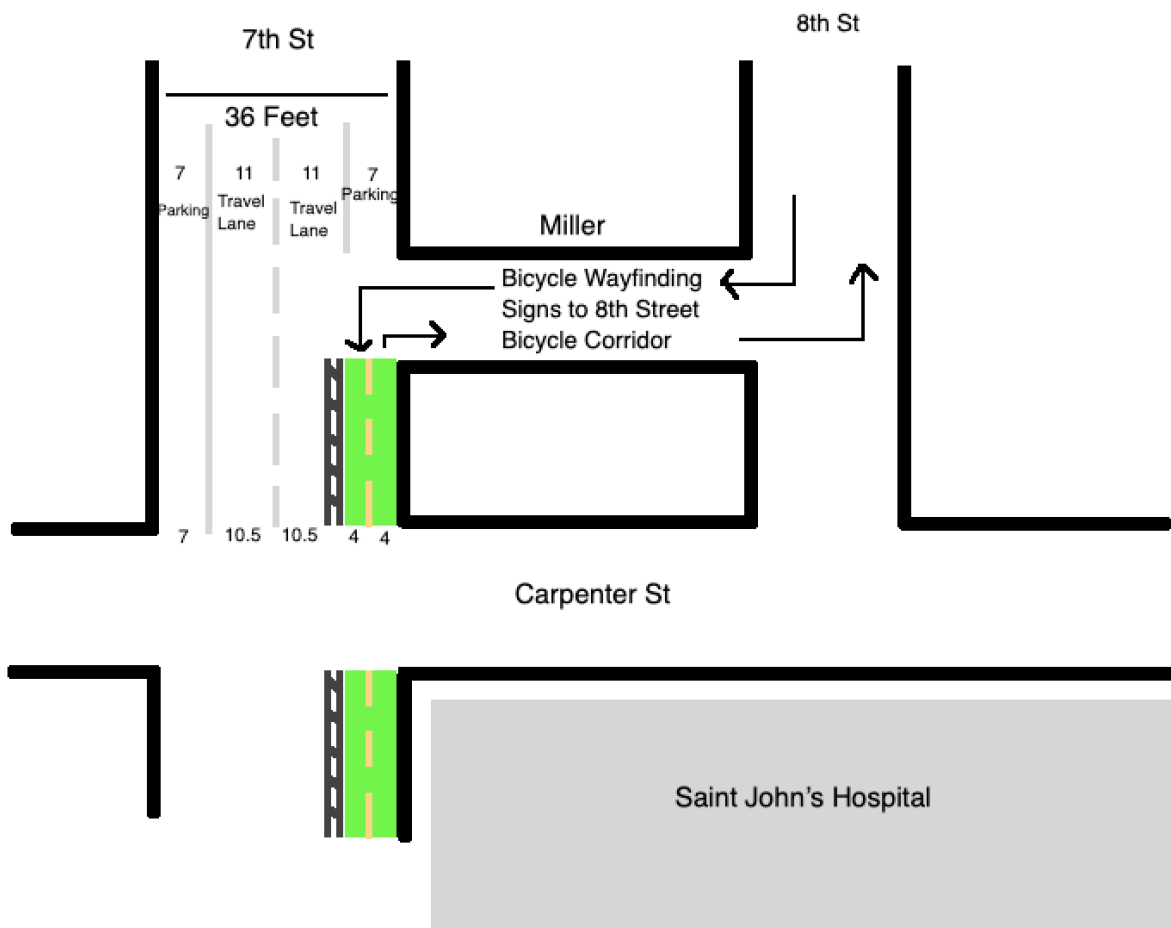
About: Many residential homes, with some businesses. 36 feet street width.

On-Street Parking Occupancy								
West Side of Street					East Side of Street			
	Parked Vehicles	Total Spots	% Occupied			Parked Vehicles	Total Spots*	% Occupied
	15	123	12%	Day		11	119	9%
	18	123	15%	Night		11	119	9%



Preferred Alternative – One-Way Street, Connection to 8th Street Corridor with Two-Way Bike Lanes

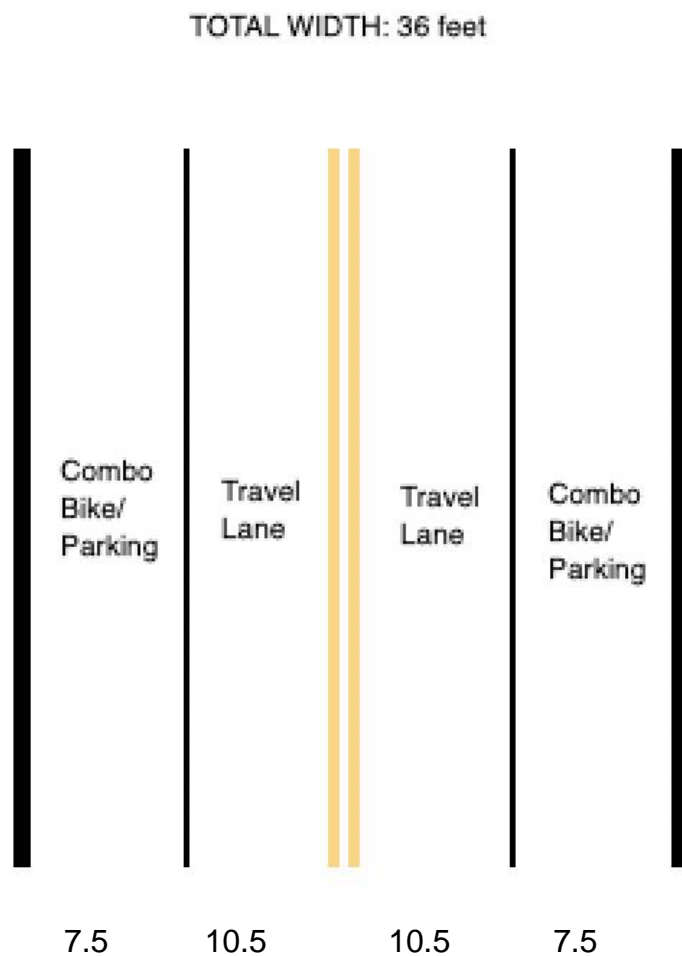
Rationale: If 7th Street remains one way, the narrow street width and the residential nature of this segment prevents dedicated bicycle lanes. We propose maintaining all parking on this segment, except for a short extension of the two-way bike lanes that would allow bicycles to access to Miller Street. This would allow for a connection to the 8th Street Bicycle Corridor for routes further north, identified as a SATS 2012 bicycle corridor. Please note that no vehicles were observed parked (either during night or day) on the east side of 7th Street between Miller and Carpenter.



Alternative 1 – Two-Way Street with Combined Bicycle/Parking Lanes

Rationale: Given the narrow width of the street, residential nature of the Enos Park Area, low traffic flow, and the low parking occupancy (9-15%), we would recommend combined bicycle and parking lanes for this segment if the decision is made to convert to two-way. This would maintain all current parking spaces on this segment.

North of Carpenter St., 8th Street has been identified by SATS 2012 as a proposed bicycle corridor, as 7th street ends at N. Grand Ave. Bicycle wayfinding signs would be placed at Enterprise St. (site of Enos Park) to direct cyclists wishing to travel further north.



Appendix A – 7th Street Full Parking Occupancy Data

*For street parking without clearly defined spaces, number of parking spaces estimated by taking total distance of legal parking area (measured on Google Maps) divided by standard parking spot length of 22 feet.

**Number in parentheses indicates total number of cars with Springfield Clinic Employee Parking Passes.

***Parking Space Data refers to block south of the named street

Daytime On-Street Parking Occupancy								
Survey performed on Thursday, 12/13 1:45-2:15PM								
West Side of Street					East Side of Street			
Parking Limits	Parked Vehicles	Total Spots	% Occupied	Cross Street***	Parking Limits	Parked Vehicles	Total Spots*	% Occupied
Open, No Limit	3	26*	12%	N. Grand	Open, No Limit	1	26*	4%
Open, No Limit	4	29*	14%	Bergen	Open, No Limit	2	29*	7%
Open No Limit	6	40	15%	Enterprise	Open, No Limit	3	40	8%
Open, ½ 2hr limit, ½ no limit	2	16	13%	Enos	Open, No Limit	5	16	31%
Open, No Limit	0	12	0%	Miller	Open, No Limit	0	8	0%
	15	123	12%	Segment TOT		11	119	9%
9h Meter	6	26	23%	Carpenter	Meter 9h Limit	5	18	28%
2h Meter	2	8	25%	Mason	No Parking	0	0	---
	8	34	24%	Segment TOT		5	18	28%
No Parking	0	0	---	Madison	Meter, no Limit	3	11	27%
Meter, 5h limit	7	9	78%	Jefferson	Meter, 5h limit	3	13	23%
Meter 30m	6	9	66%	Washington	Meter 2h	3	6	50%

Limit					Limit			
Meter 2h Limit	9	11	82%	Adams	Meter 2h Limit	3	5	60%
Meter 2h Limit	7	9	78%	Monroe	Meter 2h Limit	3	6	50%
Meter 2h Limit	5	6	83%	Capitol	Meter 5h Limit	3	8	38%
Meter 5h Limit	10	12	83%	Jackson	No Parking	0	0	---
	44	56	79%	Segment TOT		18	49	37%
No Parking	0	0	---	Edwards	Meter 2h Limit	0	8	0%
Open, 2h Limit	0	13*	0%	Cook	No Parking	0	0	---
NP / Police Only	---	---	---	Lawrence	Open 2h Limit	4	4	100%
Open, 2h Limit	3	12	25%	Cass	Open, No Limit	4	7	57%
Open, No Limit	11 (5)**	11	100%	Clay	Open, No Limit	10 (3)**	10	100%
Open, No Limit	10 (6)**	12	83%	Scaritt	Open, No Limit	3 (2)**	9	33%
Open, 2h Limit	0	13	0%	Allen	Open 2h Limit	0	13	0%
No Parking	0	8	0%	Vine	Open 2h Limit	0	9	0%
	24	69	35%	Segment TOT		21	60	35%
	91	282	32%	TOTAL		55	246	22%

Nighttime On-Street Parking Occupancy Survey performed on Thursday, 12/13 8:45-9:00PM								
West Side of Street				Cross Street***	East Side of Street			
Parking Limits	Parked Vehicles	Total Spots	% Occupied		Parking Limits	Parked Vehicles	Total Spots*	% Occupied
Open, No Limit	3	26*	12%	N. Grand	Open, No Limit	5	26*	19%
Open, No Limit	0	29*	0%	Bergen	Open, No Limit	0	29*	0%
Open No Limit	12	40	30%	Enterprise	Open, No Limit	5	40	13%
Open, ½ 2hr limit, ½ no limit	3	16	19%	Enos	Open, No Limit	1	16	6%
Open, No Limit	0	12	0%	Miller	Open, No Limit	0	8	0%
	18	123	15%	Segment TOT		11	119	9%
9h Meter	10	26	38%	Carpenter****	Meter 9h Limit	16	18	89%
2h Meter	3	8	38%	Mason****	No Parking	0	0	---
	13	34	38%	****12 of the cars in this segment had SJH Employee Passes		16	18	89%
No Parking	0	0	---	Madison	Meter, no Limit	2	11	18%
Meter, 5h limit	6	9	67%	Jefferson	Meter, 5h limit	9	13	69%
Meter 30m Limit	9	9	100%	Washington	Meter 2h Limit	6	6	100%
Meter 2h Limit	11	11	100%	Adams	Meter 2h Limit	5	5	100%
Meter 2h Limit	8	9	89%	Monroe	Meter 2h Limit	6	6	100%
Meter	6	6	100%	Capitol	Meter	6	8	75%

2h Limit					5h Limit			
Meter 5h Limit	6	12	50%	Jackson	No Parking	0	0	---
	46	56	82%	Segment TOT		34	49	69%
No Parking	0	0	---	Edwards	Meter 2h Limit	2	8	25%
Open, 2h Limit	0	13*	0%	Cook	No Parking	0	0	---
NP / Police Only	---	---	---	Lawrence	Open 2h Limit	1	4	25%
Open, 2h Limit	0	12	0%	Cass	Open, No Limit	0	7	0%
Open, No Limit	1	11	9%	Clay	Open, No Limit	0	10	0%
Open, No Limit	3	12	25%	Scaritt	Open, No Limit	0	9	0%
Open, 2h Limit	0	13	0%	Allen	Open 2h Limit	1	13	8%
No Parking	0	8	0%	Vine	Open 2h Limit	0	9	0%
	4	69	6%	Segment TOT		4	60	7%
	81	282	29%	TOTAL		65	246	26%

References

- 1) Photo from <
http://www.pedbikeinfo.org/images/library/IndianapolisCulturalTrail_03.JPG>
- 2) Assessment of the Impact of the Indianapolis Cultural Trail. Majors J and Burow S. Indiana University Public Policy Institute. Mar 2015. <
<https://s3.amazonaws.com/indyculturaltrail.org/wp-content/uploads/2015/07/15-C02-CulturalTrail-Assessment.pdf>>
- 3) Clifton, K. et al. "Consumer Behavior and Transportation Choices." Oregon Transportation Research and Education Consortium. Nov 2012. <
http://kellyjclifton.com/Research/EconImpactsofBicycling/OTRECRReport-ConsBehavTravelChoices_Nov2012.pdf>
- 4) SATS Policy Committee, 13 Jan 2011.
- 5) SATS Bicycle and Pedestrian Plan for the Metro Area (2012). SSCRPC: Springfield Area Transportation Study. <
<http://www.springfieldparks.org/parks/bikeTrails/bikePlan.pdf>>
- 6) "Young Americans Lead Trend to Less Driving." The New York Times. 13 May 2013. <
<https://www.nytimes.com/2013/05/14/us/report-finds-americans-are-driving-less-led-by-youth.html>>
- 7) Springfield Central Area Parking Survey (2017). SSCRPC. <
<https://co.sangamon.il.us/Portals/0/Departments/Regional%20Planning%20Commission/Docs/Transportation/Plans/Parking/2017%20Parking%20Survey%20Final.pdf>>
- 8) Springfield Development Assessment Team (SDAT) Report. May 2012. <
<https://www.springfield.il.us/Departments/OPED/Documents/SDAT.pdf>>