

# Bloomington Bikeways Implementation Plan

Bikeways From Plan to Construction

Indiana MPO Conference

October 17, 2012



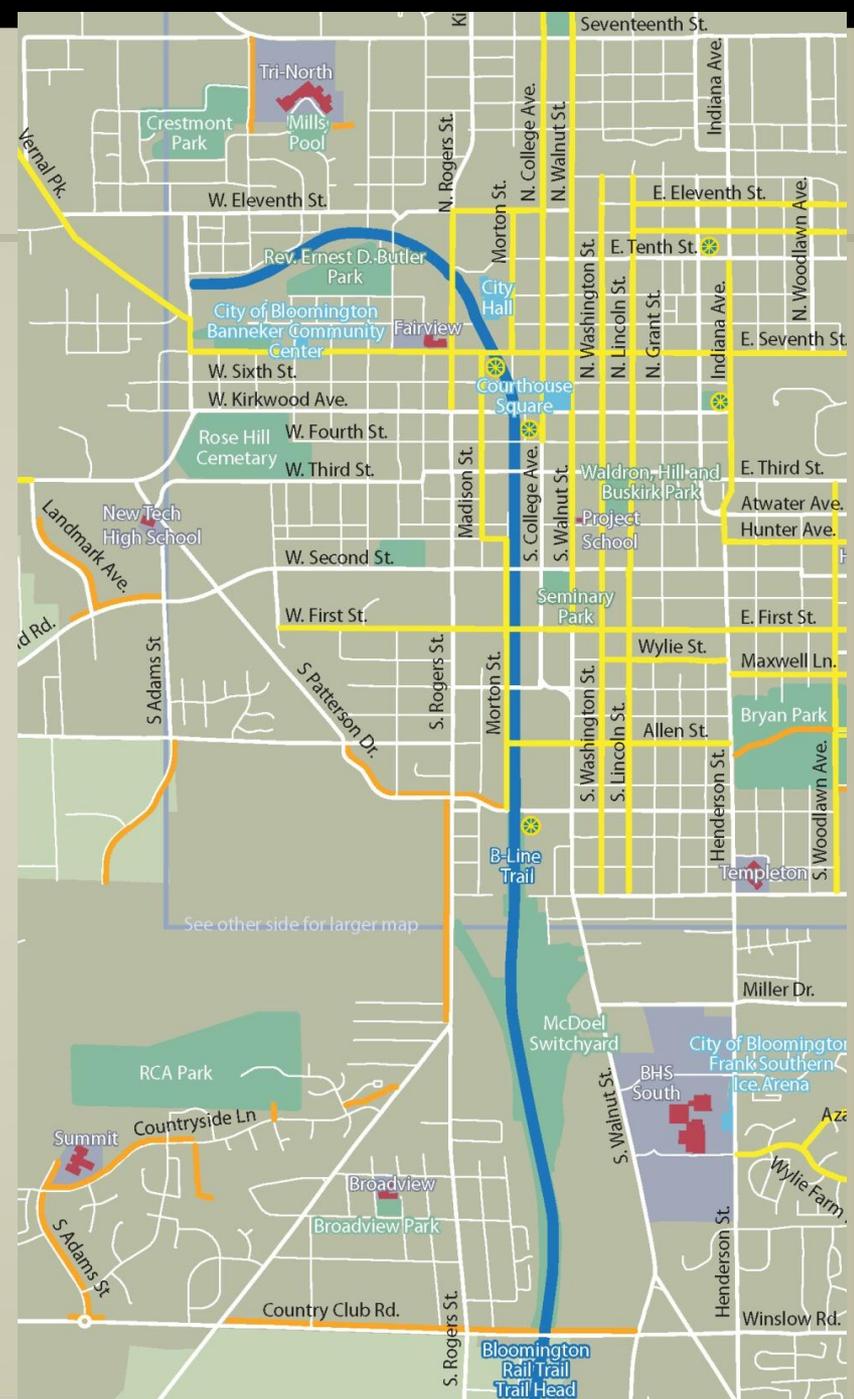
**BURGESS & NIPLE**  
Engineers ■ Architects ■ Planners

# Project Needs

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- B-Line Open
- 2008 Plan
- Race to Platinum (not the real reason but important)
- Community expectations

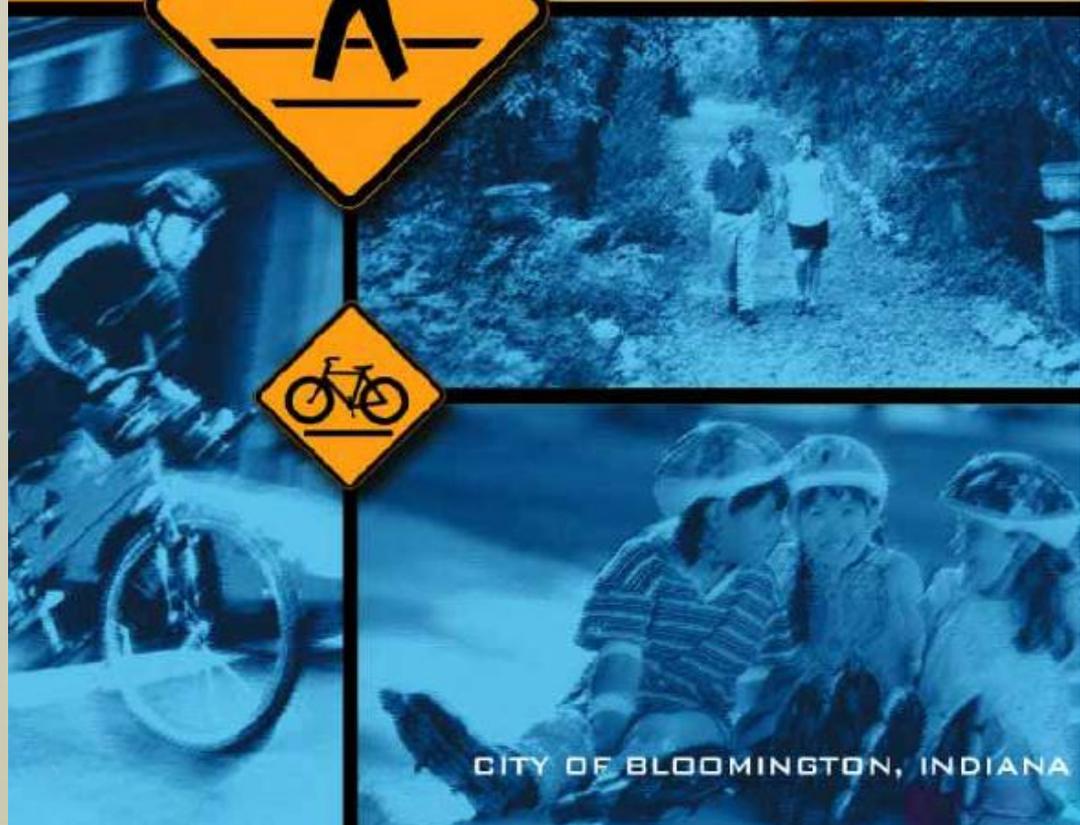
# B-Line Trail



# 2008 Bloomington Plan

BICYCLE AND PEDESTRIAN TRANSPORTATION  
&  
GREENWAYS SYSTEM PLAN

March 2008



CITY OF BLOOMINGTON, INDIANA

# Platinum Task Force Recommendations

## BREAKING AWAY: JOURNEY TO PLATINUM



BLOOMINGTON PLATINUM BICYCLE TASK FORCE

BLOOMINGTON, INDIANA

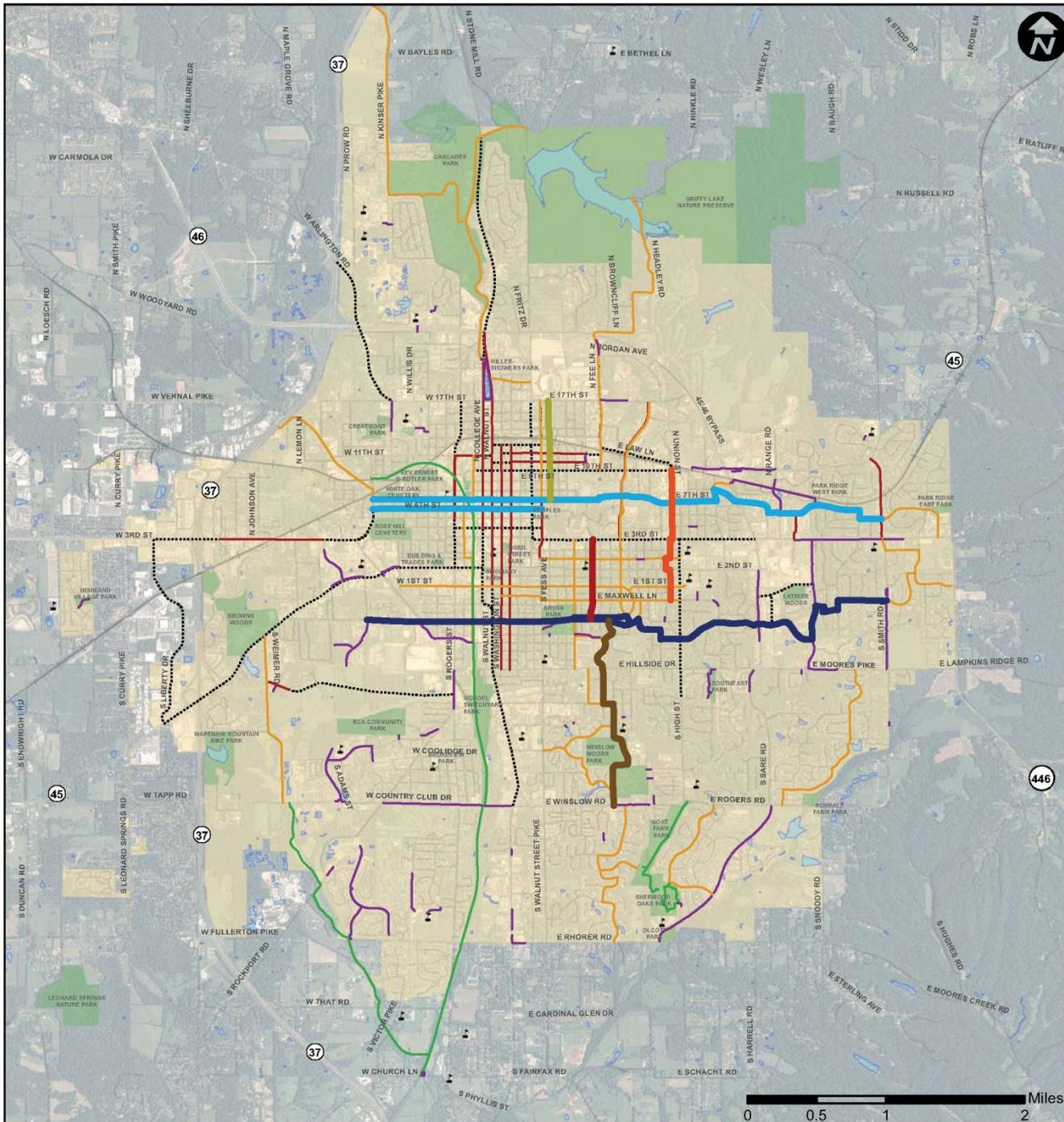
FINAL REPORT: NOVEMBER 16, 2011

# City of Bloomington

## Bicycle and Pedestrian Transportation & Greenways System Plan

### Proposed Bicycle Boulevards and Bike Lanes

- Planning Jurisdiction
- City of Bloomington Parks
- Lakes
- Road Centerlines
- Railroad Centerlines
- Schools
- Existing Signed Bike Route
- Existing Bike Lane
- Existing Sidepath/Connector
- Existing Multi-use
- Proposed Bike Lane
- 6th St/7th St/Longview Ave Bicycle Boulevard
- Allen St/Covenanter Dr Bicycle Boulevard
- Clifton Ave/Union St Bicycle Boulevard
- Fess Ave Bicycle Boulevard
- Hawthorne Dr Bicycle Boulevard
- Highland Ave Bicycle Boulevard



# High Priority Multiuse Trails

Multiuse Trail Facilities				
Project Name	Location/Notes	Phase		
		F	D	C
B-line Trail: Central City	2nd Street to Country Club Drive and Rogers Street to Adams Street ⇒ High public interest in rapid completion of B-line Trail		●	
	South Phases: 2nd Street to Country Club Drive			●
	North Phases: Rogers Street to Adams Street			●
Clear Creek Trail	Weimer Road Phase: Tapp Road to Sudbury Drive ⇒ Public/Private partnership opportunity		●	●
Jackson Creek Trail: Urbanizing Ring and Fringe	West Spur Phases: Rhorer Road to Moores Pike ⇒ 2002 TE Grant Award for construction of Phase I Goat Farm; phase includes High Street sidepath		●	●
	East Spur Phases: Rhorer Road to Moores Pike	●	●	
	South Mainline Phases: Rhorer Road to Clear Creek Trailhead	●	●	
<i>F = Feasibility / D = Design / C = Construction</i>				

# High Priority Bike Lane and Bike Boulevards

Bike Lane and Bike Boulevard Facilities				
Project Name	Location/Notes	Phase		
		F	D	C
6th/7th/Longview Bike Boulevard	Adams Street to Smith Road ⇒ Neighborhood association partnership opportunity	●	●	●
Allen/Covenanter Bike Boulevard	Adams Street to Smith Road ⇒ Neighborhood association partnership opportunity	●	●	●
Highland Bike Boulevard	Winslow Road to Sheridan Drive ⇒ Neighborhood association partnership opportunity	●	●	●
Hawthorne Bike Boulevard	Sheridan Drive to 3rd Street ⇒ Neighborhood association partnership opportunity	●	●	●
Fess Bike Boulevard	7th Street to 17th Street ⇒ Neighborhood association partnership opportunity	●	●	●
Clifton/Union Bike Boulevard	Maxwell Lane to 10th Street ⇒ Neighborhood association partnership opportunity	●	●	●
Bike Lane/Sharrows Initiative	College Avenue, Walnut Street, Indiana Avenue, Dunn Street, North Rogers/Madison Street, 3rd Street, 4th Street, 2nd Street, and Liberty Drive	●	●	
Walnut Street Bike Lanes	1st Street to Winslow Road			●
College Avenue Bike Lanes	4th Street to Walnut Street			●

# High Priority Shared Use Paths

Sidepath/Connector Path Facilities				
Project Name	Location/Notes	Phase		
		F	D	C
Neighborhood Small Connector Paths	See Appendix page 89 ⇒Public/Private, neighborhood and MPO SRTS partnership opportunities		●	●
Rogers Street Sidepath	Rockport Road to Bloomington Rail Trail ⇒West side of the street preference: MPO partnership opportunity (Rockport Road to Country Club Drive)		●	●
Tapp Road Sidepath	SR 37 to B-line Trail ⇒North side of the street preference: MPO partnership opportunity		●	●
3rd Street Sidepath	High Street to Kingston Drive ⇒South side of the street preference	●	●	●
Polly Grimshaw Path	SR 37 to Eastside Jurisdiction ⇒IN RailRoad, IU, MPO TE partnership opportunities	●	●	
	Central City Phases: SR 45/46 to Dunn Street			●
	Central City to West Urbanizing Ring Phases: Dunn Street to SR 37			●
	East Urbanizing Ring to Fringe Phases: Glenwood Avenue to Eastside Jurisdiction			●

# Medium Priority Trails and Bike Lanes

Bike Lane and Bike Boulevard Facilities				
Project Name	Location/Notes	Phase		
		F	D	C
College Avenue Bike Lanes	Miller Showers Park to SR 45/46			●
Arlington Road Bike Lanes	Monroe Street to SR 37 ⇒ Monroe County, Town of Ellettsville partnership opportunities			●
Indiana Avenue Bike Lanes	Hunter Avenue to 17th Street			●
Rogers Street Bike Lanes	2nd Street to 17th Street			●
Dunn Street Bike Lanes	3rd Street to 17th Street			●
4th Street Bike Lanes	Indiana Avenue to Rogers Street			●
Sudbury Drive Bike Lanes	Rogers Street to Weimer Road ⇒ Public/Private partnership opportunity			●

*F = Feasibility / D = Design / C = Construction*

# Medium Priority Paths

Sidepath/Connector Path Facilities				
Project Name	Location/Notes	Phase		
		F	D	C
Sare Road Sidepath	College Mall Road to Rogers Road ⇒ Side of the street preference varies: MPO partnership opportunity		●	●
2nd Street Sidepath	High Street to College Mall Road ⇒ South side of the street preference		●	●
17th Street Sidepath	College Avenue to Crescent Road ⇒ North side of the street preference		●	●
	Walnut Street to SR 45/46 ⇒ North side of the street preference: MPO and IU partnership opportunities			●
Old SR 37 Sidepath	College Avenue to Lower Cascades Park and Club House Drive to Dunn Street ⇒ Side of the street preference varies		●	●
10th Steet/SR 45 Sidepath	Pete Ellis Drive to Russell Road ⇒ North side of the street preference: MPO, INDOT partnership opportunities		●	●
Black Lumber Path	B-line Trail to Henderson Street ⇒ MPO TE, SRTS partnership opportunities		●	●

# Low Priority Trails and Bike Lanes

Bike Lane and Bike Boulevard Facilities				
Project Name	Location/Notes	Phase		
		F	D	C
Fee Lane Bike Lanes	17th Street to SR 45/46 ⇒IU partnership opportunity		●	●
19th Street Bike Lanes	Walnut Street to Dunn Street		●	●
12th Street Bike Lanes	Walnut Street to Indiana Avenue		●	●
10th Street Bike Lanes	Morton Street to Union Street ⇒IU partnership opportunity		●	●
Law Lane Bike Lanes	Fee Lane to Union Street ⇒IU partnership opportunity		●	●
Union Street Bike Lanes	3rd Street to Law Lane ⇒IU partnership opportunity		●	●
High Street Bike Lanes	Arden Drive to 3rd Street ⇒Sharrows are the preferred treatment		●	●
Walnut Street Bike Lanes	SR 45/46 to Old SR 37			●

# Low Priority Paths

Sidepath/Connector Path Facilities				
Project Name	Location/Notes	Phase		
		F	D	C
Club House Drive Sidepath	Old SR 37 to Kinser Pike ⇒ Side of the street preference varies		●	●
Dunn Street Sidepath	17th Street to Old SR 37 ⇒ East side of the street preference			●
Monroe Street Sidepath	10th Street to 14th Street ⇒ East side of the street preference		●	●
Weimer Road Sidepath	Sudbury Drive to 3rd Street ⇒ Side of the street preference varies		●	●
Adams Street Sidepath	Allen Street to 2nd Street ⇒ East side of the street preference		●	●
Rogers Street Sidepath	Hillside Drive to 2nd Street ⇒ West side of the street preference		●	●
Countryside Lane Sidepath	Adams Hill Circle to Thomson Park ⇒ North side of the street preference		●	●
Winslow/Rogers Road Sidepath	Walnut Street to Smith Road ⇒ North side of the street preference: Monroe County partnership opportunity		●	●

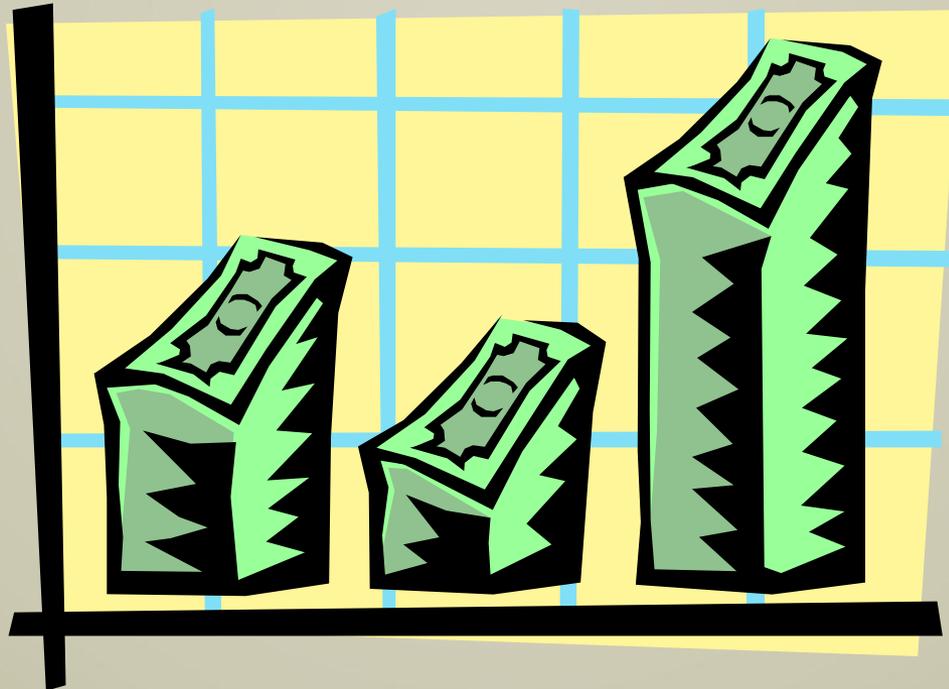
# Scoping

- 77 Projects on 2008 Bicycle and Pedestrian Transportation Greenways System Plan
  - Too many projects for available funding
  - Too many projects to build quickly
  - Some under parks jurisdiction (shared use)



# Too Much Fee for Scope

- Consultant high fee
- Client not enough resources



# Solution:

- Community most interested in on-street network



# Bloomington Bikeways Project Scope

- Conceptual level design and cost estimates
- Construction documents for 2 Neighborhood Greenways
- Bicycle facility design guidelines
- Training workshop with staff
- Open house public meeting
- Final report, cost estimates, phasing plan



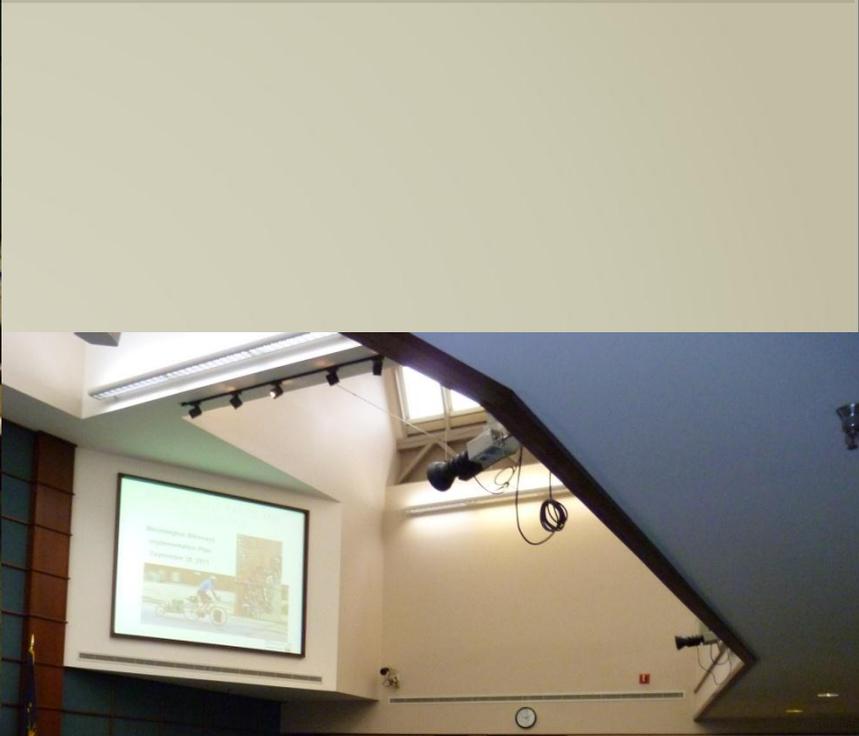


**BURGESS & NIPLÉ**

# Input



# Project Selection



# Criteria

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- Ease of implementation
- System connectivity
- Public support
- Collision
- Proximity to existing bikeways
- B-Line connectivity
- Major destinations

# Evaluation Results (GIS)

LENGTH	PROJECT	TYPE	PROJECT LIMITS	Number of collisions per mile within 75 feet of the segment*	Number of existing on-street bikeways crossed per mile**	Project Intersects B-Line Trail	Project runs N/S from IU Campus to East	Project serves identified destinations	TOTAL	
30	1.43 10th Street Bike Lanes	TBD	Morton Street to Union Street	3	1	1	0	0	1	5
43	0.63 4th Street Bike Lanes	TBD	Indiana Avenue to Rogers Street	2	1	1	1	0	1	5
13	3.97 6th/7th/Longview	TBD	Adams St to Smith Rd	2	1	1	1	0	1	5
82	0.13 Fee Lane Bike Lanes	TBD	11th Street to 13th Street	3	1	1	0	1	0	5
14	0.73 Fess Ave Bike Boulevard	TBD	7th Street to 17th Street	2	1	1	0	1	1	5
48	0.51 Indiana Avenue Bike Lanes	TBD	10th St to 17th st	3	1	1	0	1	0	5
52	0.57 Law Lane Bike Lanes	TBD	Fee Lane to Union Street	3	1	1	0	0	1	5
50	1.06 3rd Steet	TBD	Dunn Street to College Mall Road	2	1	1	0	0	1	4
19	1.04 Clifton/Union Bike Boulevard	TBD	Maxwell Lane to 10th Street	1	1	1	0	1	1	4
35	0.69 Dunn Street Bike Lanes	TBD	3rd Street to 12th Street	2	1	1	0	1	0	4
2	0.48 W Third Street Bike Lanes	TBD	Liberty Dr. to Franklin Rd.	2	1	1	0	0	1	4
6	0.07 11th Street Bike Lanes	TBD	Washington St to Lincoln St	0	3	3	0	0	0	3
7	0.07 11th Street Bike Lanes	TBD	College Ave to Walnut St	0	3	3	0	0	0	3
16	1.22 6th/7th/Longview	TBD	Adams St to Indiana Ave	1	1	1	1	0	0	3
24	1.92 High Street Bike Lanes	TBD	E 3rd Street to E Winslow Road	1	1	1	0	1	0	3
47	0.35 12th Street Bike Lanes	TBD	Walnut Street to Indiana Avenue	2	0	0	0	0	0	2
46	0.29 19th Street Bike Lanes	TBD	Walnut Street to Dunn Street	2	0	0	0	0	0	2
70	0.87 2nd Street	TBD	S Adams Street to College Ave	0	1	1	1	0	0	2
26	0.65 College Ave Bike Lane	TBD	4th Street to Walnut Street	0	1	1	0	0	1	2
5	0.14 Cottage Grove Ave Bike Lanes	TBD	Walnut St to Lincoln St	0	2	2	0	0	0	2
39	0.36 Rogers Street Bike Lanes	TBD	2nd Street to Kirkwood Avenue	2	0	0	0	0	0	2
28	1.64 Walnut St Bike Lanes	TBD	1st Street to Winslow Rd	2	0	0	0	0	0	2
23	1.13 Arlington Road Bike Lanes	TBD	Monroe Street to SR 37	1	0	0	0	0	0	1
49	0.25 Dunn St Bike Lanes	TBD	13th Street to 17th Street	0	0	0	0	1	0	1
56	0.49 Fee Lane Bike Lanes	TBD	17th Street to SR 45/46	0	0	0	0	1	0	1
74	1.49 Liberty Drive Bike Lanes	TBD	SR 45 to SR 48	0	0	0	0	0	1	1
65	0.23 3rd Street Bike Lanes	TBD	Landmark Ave. to S Adams St	0	0	0	0	0	0	0
22	0.21 College Avenue Bike Lanes	TBD	Miller Showers Park to SR 45/46	0	0	0	0	0	0	0
63	0.41 Rogers Street Bike Lanes	TBD	11th Street to 17th Street	0	0	0	0	0	0	0
72	0.28 South Adams	TBD	W 3rd St to W 6th St	0	0	0	0	0	0	0
76	1.46 Walnut Street Bike Lanes	TBD	SR 46/46 to Old SR 37	0	0	0	0	0	0	0
	COLLISIONS	3 = more than 7; 2 = 3 to 7; 1 = 1 or 2; 0 = 0								
	BIKEWAYS	3 = GT 25; 2 = 16 to 25; 1 = 1-15; 0 = 0								

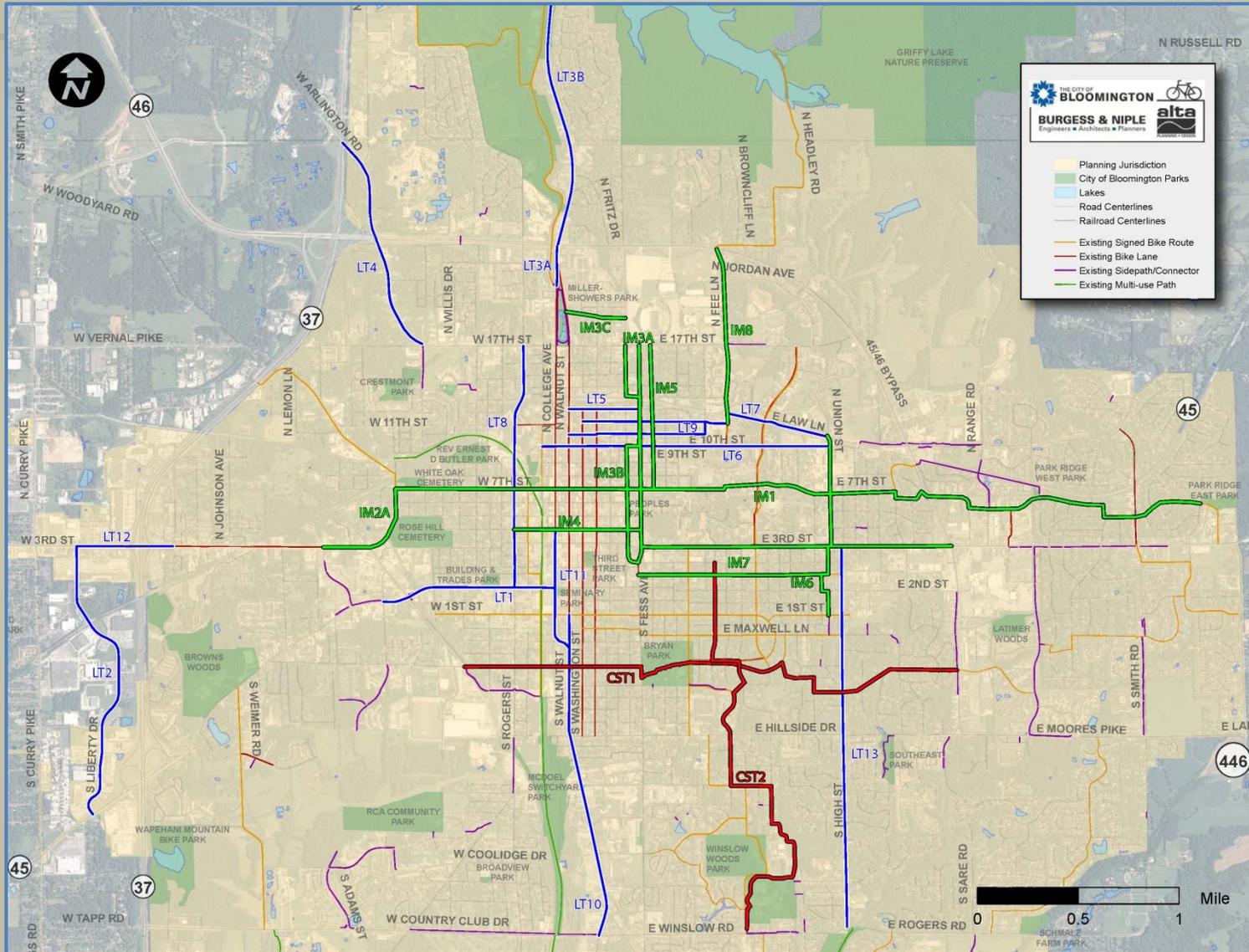
# Project Prioritization



# Final project listing

Immediate Projects			Longer Term Projects		
Number	Project	Limits	Number	Project	Limits
CST 1	Allen/Covenanter Bike Boulevard	Patterson Drive to College Mall Road	LT1	2nd St.	S. Adams St. to College Ave.
CST 2	Highland - Hawthorne Bike Boulevard	Highland: Winslow to Miller Dr. (BL), Miller Dr., Olive, Southdowns (BB); Hawthorne: Southdowns Drive (Allen St. Bicycle Boulevard) to 3rd Street	LT2	Liberty Drive Bike Lanes	SR 45 to SR 48
IM1	6th/7th/Longview	6th - Adams Street to Indiana Avenue; 7th Street - Adams St. to Smith Road	LT3A	College Avenue Bike Lanes	Old SR 37 (Miller Showers Park) to SR 45/46
IM2A	South Adams	W. 3rd Street to W. 6th Street	LT3B	Walnut Street Bike Lanes	SR 45/46 to Old SR 37
IM2B	3rd Street Bike Lanes	Landmark Ave. to S Adams St	LT4	Arlington Road Bike Lanes	Monroe Street to SR 37
IM3A	Indiana Avenue Bike Lanes	10th Street to 17th Street	LT5	12th Street Bike Lanes	Walnut Street to Indiana Avenue
IM3B	Dunn Street Bike Lanes	3rd Street to 12th Street; 13th Street to 17th Street	LT6	10th Street Bike Lanes*	Morton Street to Union Street
IM3C	19th Street Bike Lanes	Walnut Street to Dunn Street	LT7	Law Lane Bike Lanes*	Fee Lane to Union Street
IM4	4th Street Bike Lanes	Rogers Street to Indiana Avenue	LT8	Rogers Street Bike Lanes	2nd Street to Kirkwood Ave; 11th Street to 17th Street
IM5	Fess Bike Boulevard	7th Street to 17th Street	LT9	11th St./Cottage Grove	Cottage Grove: N. Walnut to N. Lincoln; 11th: N. Washington to N. Lincoln and Walnut Grove Street to N. Fee
IM6	Clifton/Union Bike Boulevard	Maxwell Lane to Law Lane	LT10	Walnut Street Bike Lanes	Winslow Road to 1st Street
IM7	East 3rd St	Dunn St. to SR 45/46	LT11	College Avenue Bike Lanes	Walnut Street to 4th Street
IM8	Fee Lane Bike Lanes	17th Street to SR 45/46; 11th Street to 13th Street	LT 12	W. 3rd Street Bike Lanes*	Liberty Drive to Franklin Road
			LT 13	High Street	Winslow Street to E. 3rd

# 27 Selected Bikeway (On-Street) Projects



# Traffic Counts

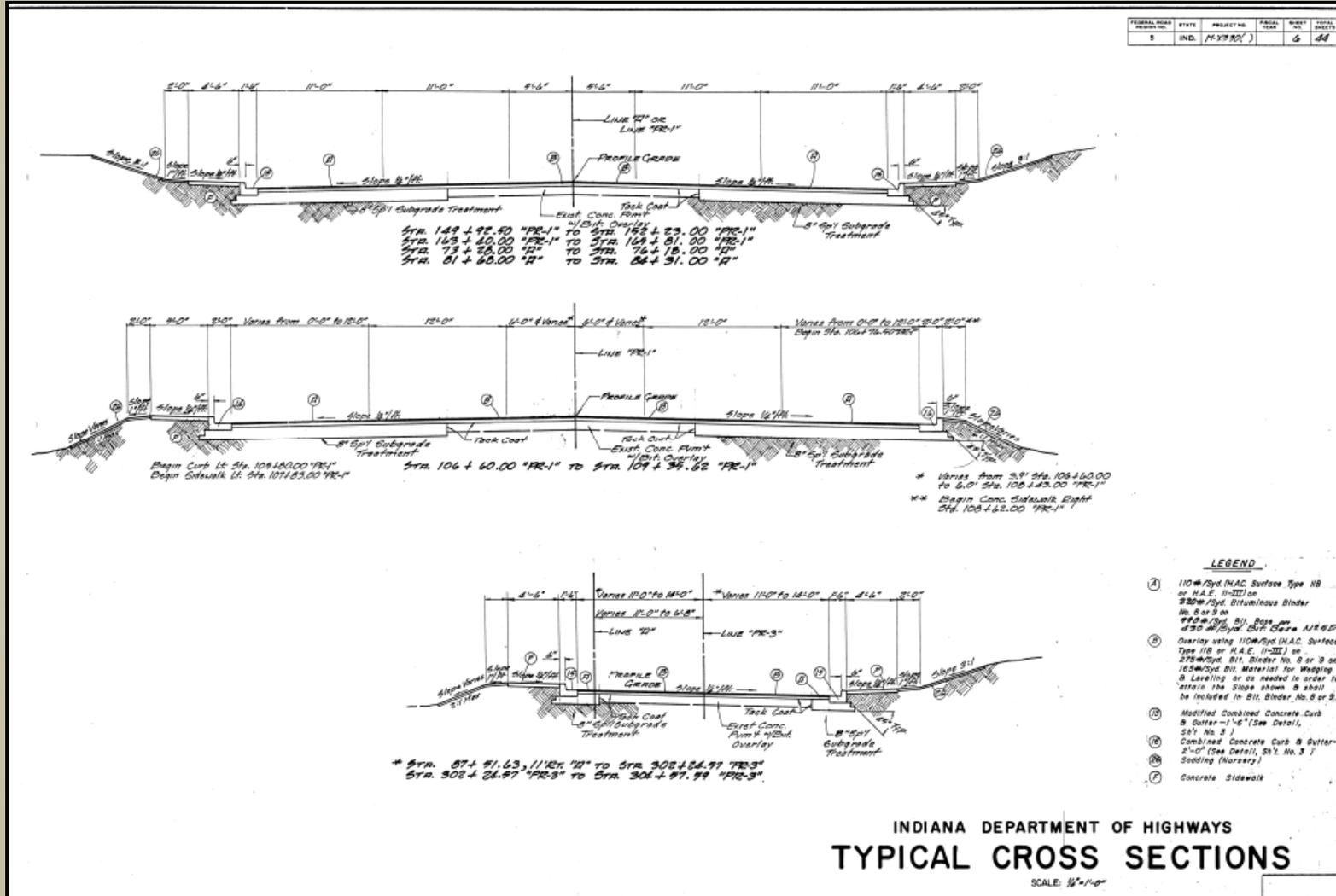
For: AR  
 Counted By: PK  
 Weather: Cool, some rain

**City of Bloomington**  
**Engineering Department**  
 401 N. Morton St., Suite 130  
 Bloomington, IN 47404  
 812-349-3417

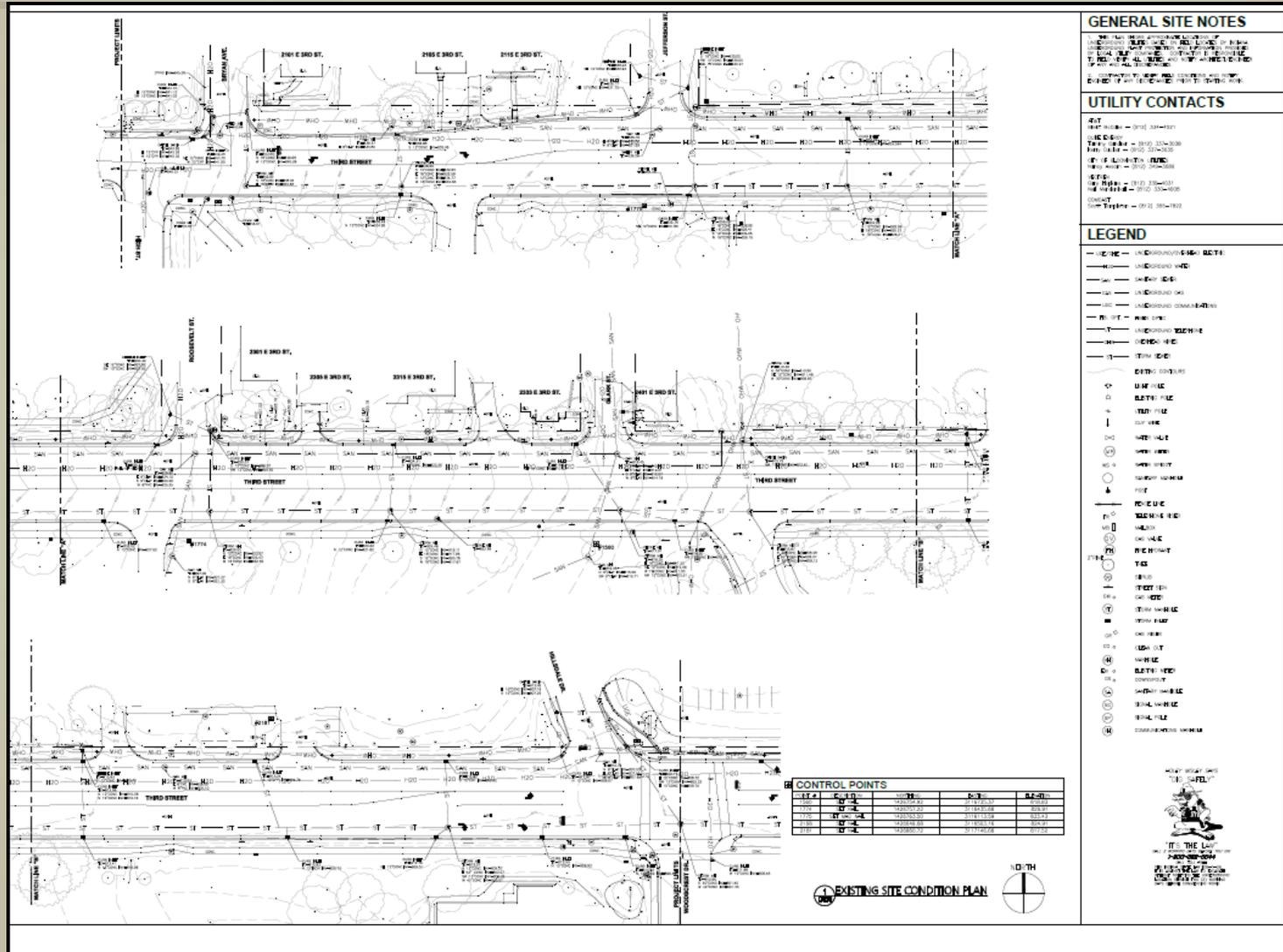
Site Code: r4577  
 Station ID: SN:023255  
 S. Hawthorne Dr.  
 E. Atwater Ave. to E. 3rd St.  
 Latitude: 0' 0.000 Undefined

Start Time	14-Nov-11		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	Northbound	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo
12:00 AM	*	*	6	11	5	8	0	0	*	*	*	*	*	*	4	6
01:00	*	*	1	8	0	10	*	*	*	*	*	*	*	*	0	9
02:00	*	*	4	6	2	5	*	*	*	*	*	*	*	*	3	6
03:00	*	*	0	1	2	3	*	*	*	*	*	*	*	*	1	2
04:00	*	*	1	2	2	1	*	*	*	*	*	*	*	*	2	2
05:00	*	*	2	0	1	1	*	*	*	*	*	*	*	*	2	0
06:00	*	*	31	8	26	6	*	*	*	*	*	*	*	*	28	7
07:00	*	*	86	39	86	28	*	*	*	*	*	*	*	*	86	34
08:00	*	*	48	43	54	59	*	*	*	*	*	*	*	*	51	51
09:00	*	*	61	54	61	59	*	*	*	*	*	*	*	*	61	56
10:00	*	*	29	61	33	53	*	*	*	*	*	*	*	*	31	57
11:00	*	*	52	75	46	71	*	*	*	*	*	*	*	*	49	73
12:00 PM	*	*	46	89	45	93	*	*	*	*	*	*	*	*	46	91
01:00	*	*	24	57	46	80	*	*	*	*	*	*	*	*	35	68
02:00	*	*	43	94	45	88	*	*	*	*	*	*	*	*	44	91
03:00	*	*	38	113	53	99	*	*	*	*	*	*	*	*	46	106
04:00	*	*	37	113	53	137	*	*	*	*	*	*	*	*	45	125
05:00	*	*	73	180	86	188	*	*	*	*	*	*	*	*	80	184
06:00	*	*	45	117	55	112	*	*	*	*	*	*	*	*	50	114
07:00	*	*	40	97	46	109	*	*	*	*	*	*	*	*	43	103
08:00	*	*	31	71	28	72	*	*	*	*	*	*	*	*	30	72
09:00	*	*	36	59	33	48	*	*	*	*	*	*	*	*	34	54
10:00	*	*	18	38	16	50	*	*	*	*	*	*	*	*	17	44
11:00	*	*	6	14	10	21	*	*	*	*	*	*	*	*	8	18
Lane Day	0	0	758	1350	834	1401	0	0	0	0	0	0	0	0	796	1373
AM Peak Vol.			07:00 86	11:00 75	07:00 86	11:00 71									07:00 86	11:00 73
PM Peak Vol.			17:00 73	17:00 180	17:00 86	17:00 188									17:00 80	17:00 184
Comb. Total	0		2108		2235		0		0		0		0		2169	
ADT		ADT 2,167			AADT 2,167											

# Roadway Typical



# As Built Drawings



## GENERAL SITE NOTES

1. ALL UTILITIES SHOWN ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

## UTILITY CONTACTS

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## LEGEND

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- 630" WATER MAIN
- 636" WATER MAIN
- 642" WATER MAIN
- 648" WATER MAIN
- 654" WATER MAIN
- 660" WATER MAIN
- 666" WATER MAIN
- 672" WATER MAIN
- 678" WATER MAIN
- 684" WATER MAIN
- 690" WATER MAIN
- 696" WATER MAIN
- 702" WATER MAIN
- 708" WATER MAIN
- 714" WATER MAIN
- 720" WATER MAIN
- 726" WATER MAIN
- 732" WATER MAIN
- 738" WATER MAIN
- 744" WATER MAIN
- 750" WATER MAIN
- 756" WATER MAIN
- 762" WATER MAIN
- 768" WATER MAIN
- 774" WATER MAIN
- 780" WATER MAIN
- 786" WATER MAIN
- 792" WATER MAIN
- 798" WATER MAIN
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# Pinch Points (Immediate)

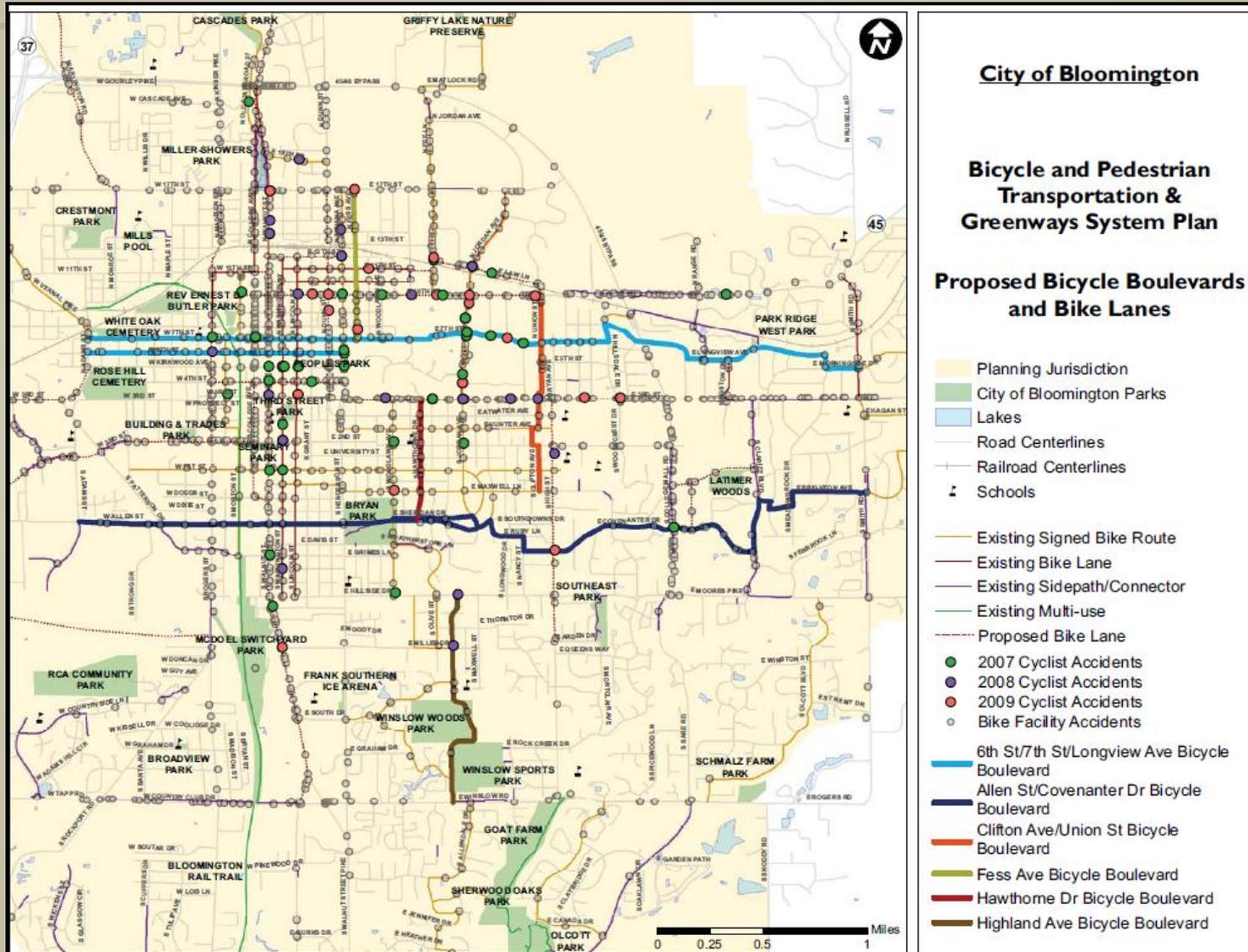
		Pinch Points (E to W/ N to S)							
Project	number	A	B	C	D	E	F	G	H
Allen/Covenanter Bike Boulevard	CST 1	College Mall Road	High St.	Woodlawn/Park	Henderson/Park	Walnut St	Rogers St.	Patterson Dr.	
Highland - Hawthorne Bike Boulevard	CST 2	3rd St	Atwater Ave.	Hillside Dr.	Highland (Miller to Winslow)				
11th St./Cottage Grove	IM7	Lincoln	Washington	Walnut					
6th/7th	IM1	Indiana	Walnut	College	Rogers				
7th/Longview	IM1	Pete Ellis	Woodlawn	Walnut	College	Rogers			
South Adams	IM2A	5th/Kirkwood	Patterson						
3rd Street Bike Lanes	IM2B	5th/Kirkwood	Patterson						
South Walnut Street Bike Lanes	IM3A	Dodds to Grimes	Grimes to Hillside	Hillside to Vermilya					
College Avenue Bike Lanes	IM3B	4th	3rd	2nd	Dodds				
Indiana Avenue Bike Lanes	IM4A	10th	Kirkwood	4th	3rd				
Dunn Street Bike Lanes	IM4B	17th	13th	RR/Crossing	7th to 3rd				
19th Street Bike Lanes	IM4C	none							
4th Street Bike Lanes	IM5	Indiana	Rogers						
High Street Bike Lanes	IM6	3rd to Hillside							

Immediate Term Projects

# Pinch Points Longer Term

Longer Term Projects	Fess Bike Boulevard	LT1	17th	10th				
	Clifton/Union Bike Boulevard	LT2	10th	3rd				
	East 3rd St	LT3	High	Mitchell	Jordan	Indiana	Dunn	
	2nd St.	LT4	Morton	Walker				
	Liberty Drive Bike Lanes	LT5	RR Crossing					
	College Avenue Bike Lanes	LT6A	SR 45/46					
	Walnut Street Bike Lanes	LT6B	SR 45/46					
	Arlington Road Bike Lanes	LT7	17th/Monroe					
	Fee Lane Bike Lanes	LT8	SR 45/46					
	12th Street Bike Lanes	LT9	none					
	10th Street Bike Lanes	LT10	Jordan to Woodlawn	Walnut	College	Morton		
	Law Lane Bike Lanes	LT11	none					
Union Street Bike Lanes	LT12	10th						

# Crash Information ('07-'09)



# Project Database

Route	Route Ahead	Route Back	Functional Classification	Posted Speed Limit	Right-of-Way	On Street Parking - Left	On Street Parking - Right	Sidewalk - Left	Utility Area Left
HIGH ST	E MOORES PIKE/E HILLSIDE DR	E ARDEN DR		30		No	No	Yes	No
HIGH ST	E VIVA DR	E MOORES PIKE/E HILLSIDE DR		30		No	No	Yes/No	No
HIGH ST	E MARILYN DR	E VIVA DR		30		No	No	No	No
HIGH ST	E COVENANTER DR	E MARILYN DR		30		No	No	No	No
HIGH ST	S COVENANTER DR	E COVENANTER DR		30		No	No	No	No
HIGH ST	E SOUTHDOWNS DR	S COVENANTER DR		20		No	No	No	No
HIGH ST	E WOODSTOCK PL	E SOUTHDOWNS DR		20		No	No	No	No
HIGH ST	E MAXWELL LN	E WOODSTOCK PL		20		No	No	No	No
HIGH ST	E 1ST ST	E MAXWELL LN		20		No	No	No	No
HIGH ST	E 2ND ST	E 1ST ST		20		No	No	Yes/No	No
HIGH ST	E HUNTER AVE	E 2ND ST		20		No	No	Yes	No
HIGH ST	E ATWATER AVE	E HUNTER AVE		20		No	No	Yes	No
HIGH ST	E 3RD ST	E ATWATER AVE		20		No	No	Yes	No

# Project Database

Sidewalk - Right	Utility Area - Right	Pavement Width	Number of Lanes 1	Number of Lanes 2	Reading ID	ADT	ADT Date	Raw Track Count	Paving Schedule
Yes	Yes	19.3	2		1162	5740	11/10/2009	363	
Yes	No	20	2		1180	5382	12/9/2009	333	
Yes	No	20	2						
Yes	No	20	2						
Yes	No	20	2						
Yes	No	20	2						
Yes	No	20	2						
Yes	No	20.4	2						
Yes	No	22	2		1382	5831	3/8/2011	271	
Yes	No	21	2						
Yes	No	36	2		1172	7450	12/1/2009	330	
Yes	No	25	2		606	7721	11/8/2005	124	
Yes	No	25	2		585	5605	10/8/2008	223	

# Design Guidelines



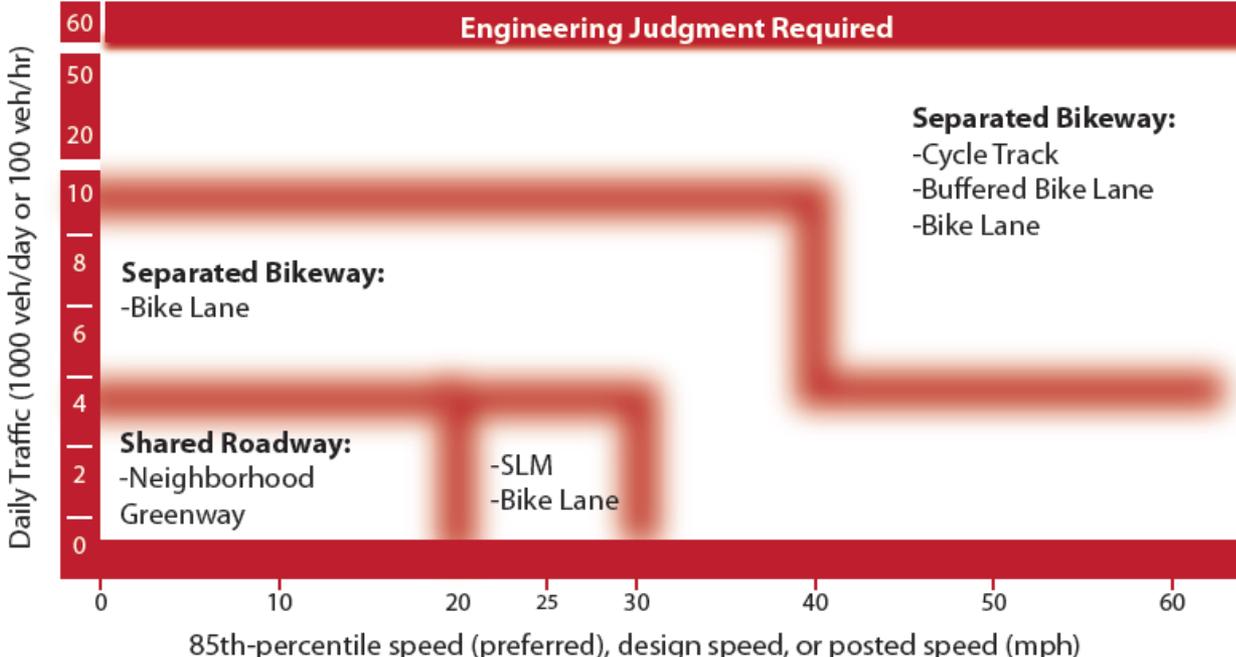
## City of Bloomington Bicycle Facility Design Guidelines

May 2012

PREPARED BY:  
**Alta Planning + Design**  
408 E. Wilson  
Madison, WI 53703  
(608) 213-9077



# Facility Selection Chart



Facility Selection Chart

Source: Oregon Department of Transportation. (2011). Bicycle and Pedestrian Design Guide. and NACTO. (2011). Urban Bikeway Design Guide.

# Conceptual Design

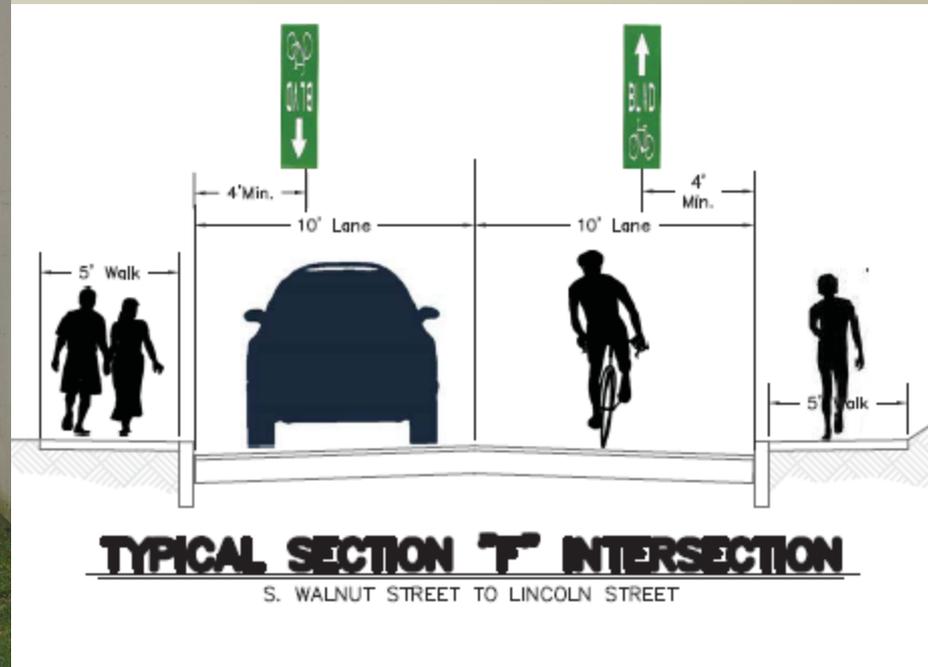
- Alta prepared initial concept
- B&N and Alta discussed concept
- B&N developed conceptual designs in CAD format based upon current design standards
- B&N design reviewed by Alta
- B&N, Alta and the City collaborated on design
- B&N proceeded/adjusted design per comments

# Proposed Facility Types

- Shared Roadways



# Neighborhood Greenways



# Proposed Facility Types

- Separated Roadways



# Bicycle Treatments



- Green Areas

- Bike Boxes

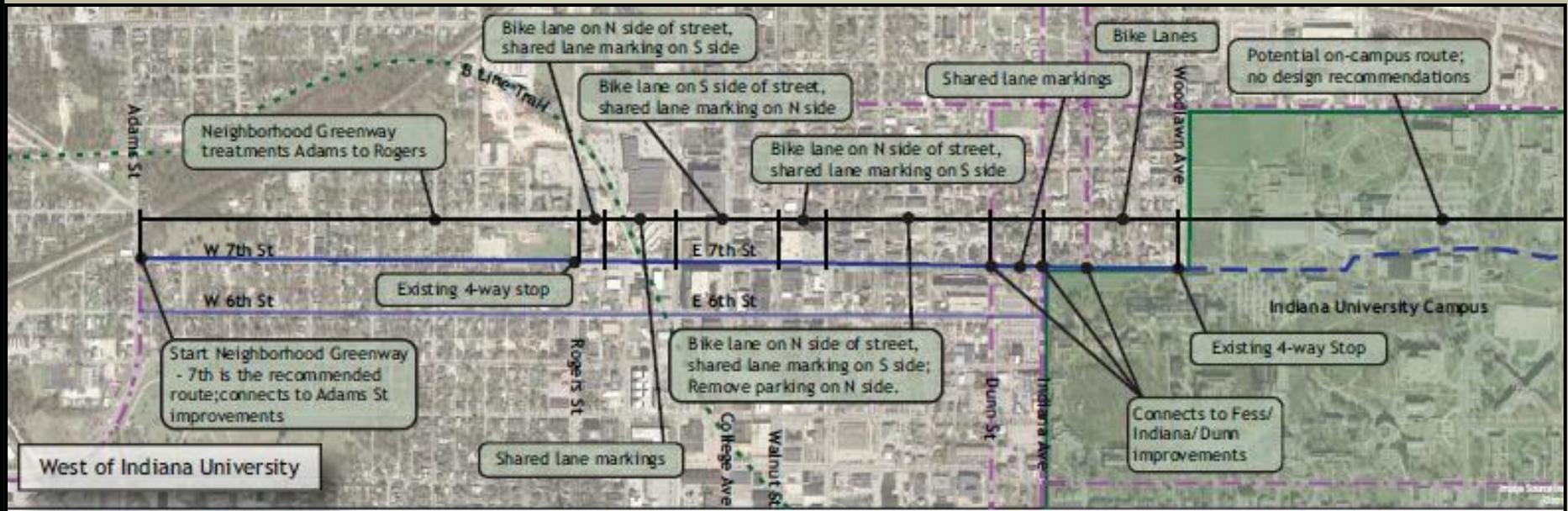


# Bicycle Treatments

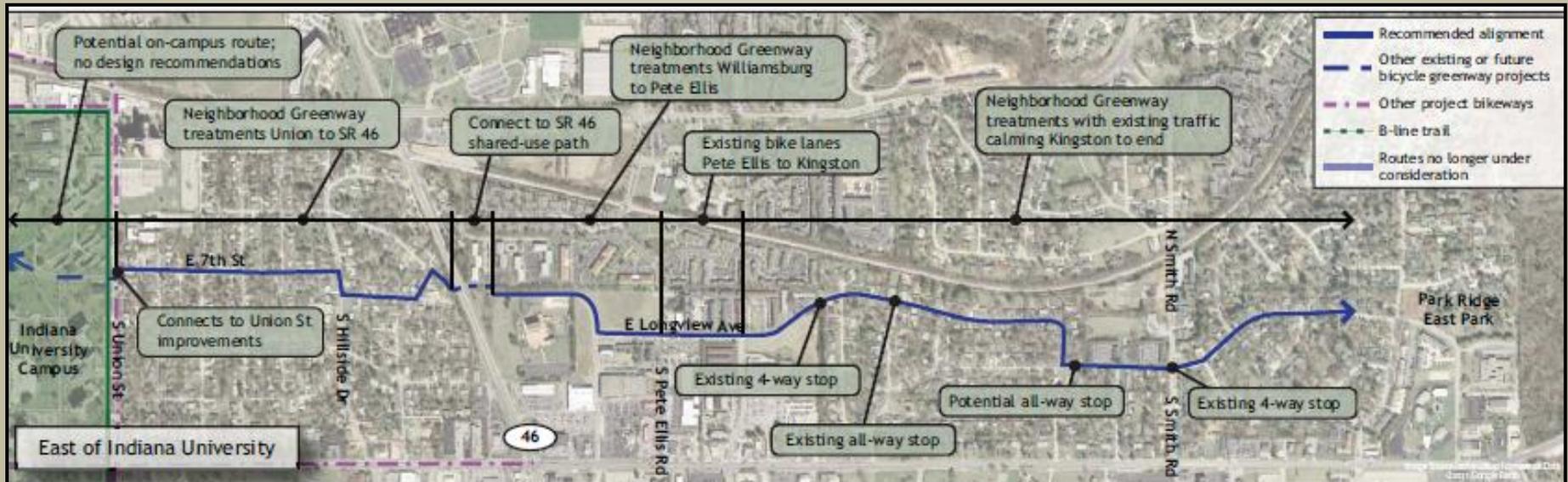
- Diverters



# 7<sup>th</sup> Street/Longview Neighborhood Greenway



# 7<sup>th</sup> Street/Longview Neighborhood Greenway



IM1 7th/Longview: 7th Street - Adams St to Smith Rd; Longview Avenue - Pete Ellis Rd to Smith Rd

Bloomington Bikeways Implementation Plan

Source: Google Earth, Nerial  
 Author: FW  
 Date: March 2012

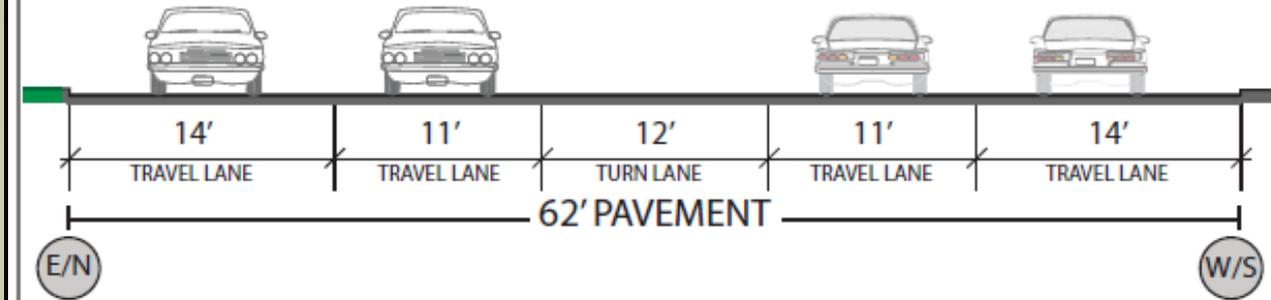


**BURGESS & NIPLE**  
 Engineers ■ Architects ■ Planners

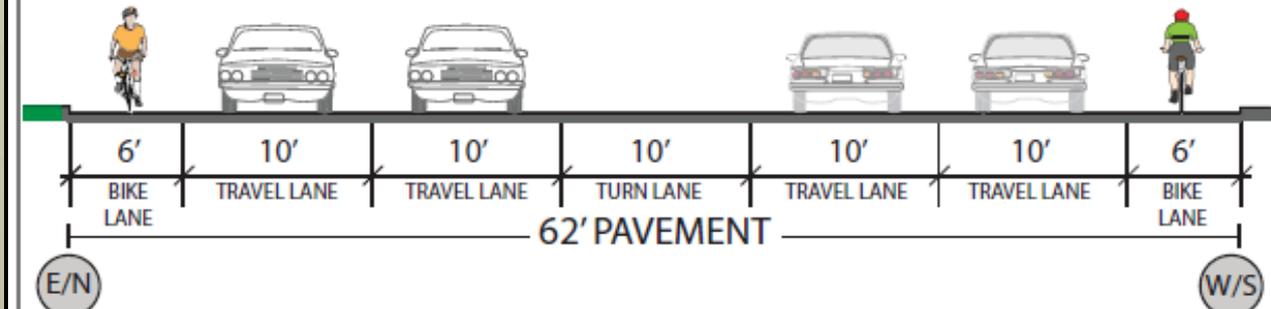


# Cross Section Views

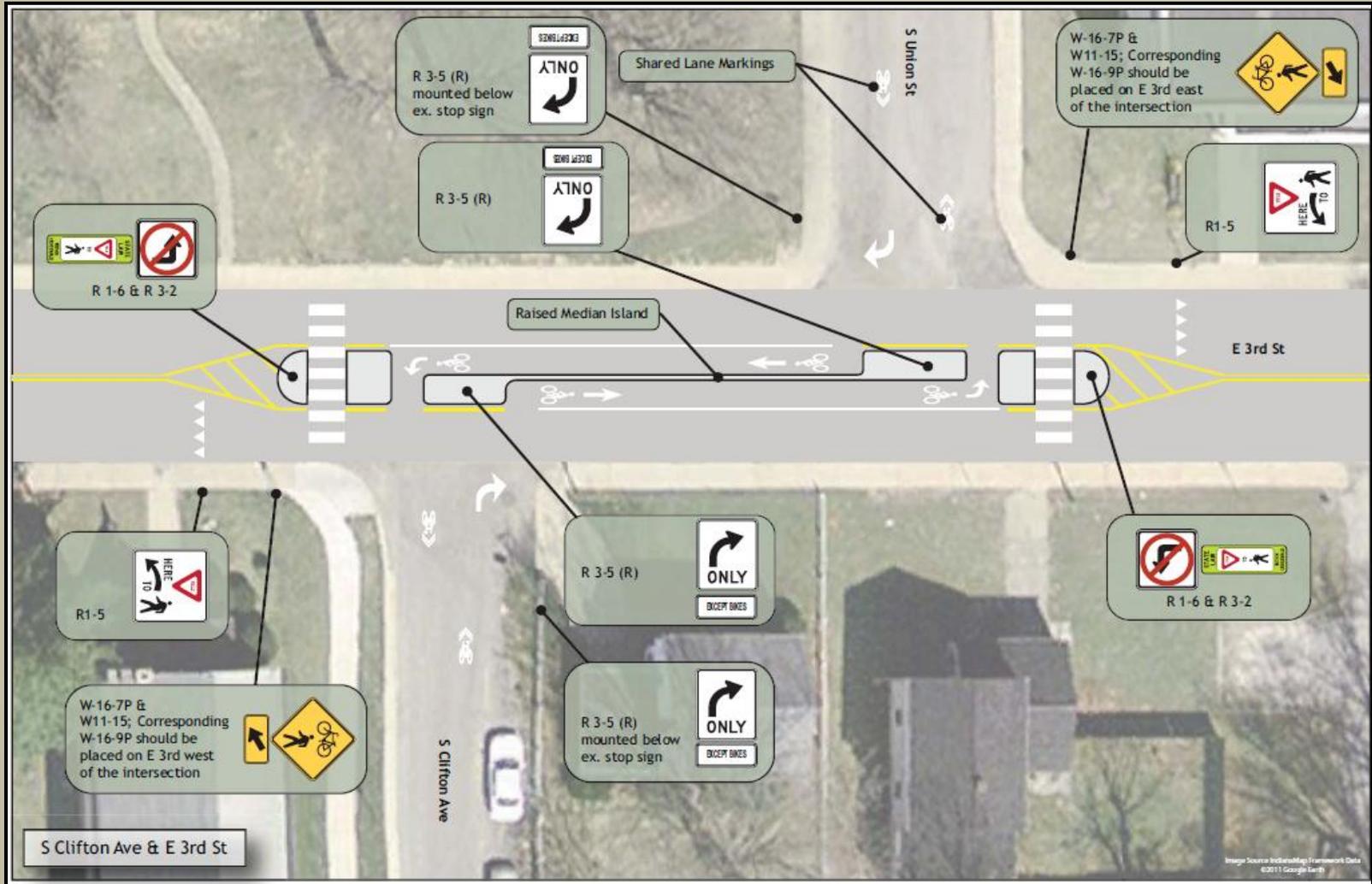
W 3rd Street and S Adams Street - Existing Condition



W 3rd St and S Adams Street - Proposed Bike Lanes



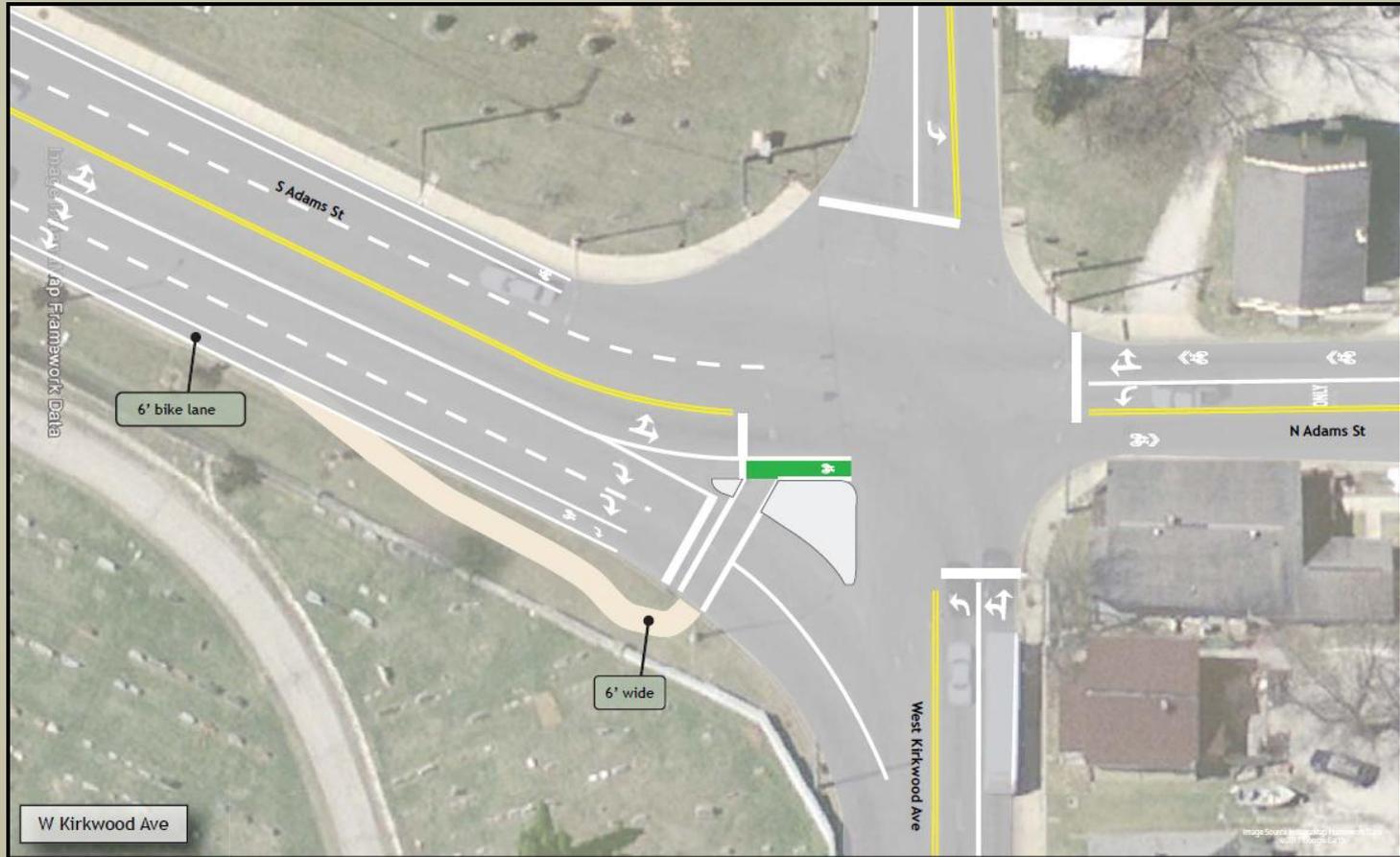
# E. 3<sup>rd</sup> Street Union Clifton Median Island



# Some were not as feasible (Highland)



# Adams and Kirkwood Intersection Improvement



# Period 1 Construction Cost = \$376,000

Funding Period	Tracking #	Project	Terminii/Route	Bike Facility Type	Cost Estimate
1	CST 1	Allen Street -Covenanter Drive	Patterson Drive to College Mall Road (Does not include Morton - Madison Section)	Neighborhood Greenway*	\$110,293
1	CST 2 North	Highland Ave.- Hawthorne St.	Miller at Highland Ave, West to Olive St, Weatherstone, Southdowns/Sheridan, Hawthorne Dr. to 3rd Street	Neighborhood Greenway	\$73,760
1	IM 1	7th Street - Longview Ave.	7th Street - Adams St. to Smith Road	Shared Lane Markings & Bike Lanes	\$59,039
1	IM2A	South Adams	W. 3rd Street to W. 6th Street	Bike Lanes	\$16,641
1	IM2B	3rd Street	Landmark Ave. to S Adams St	Bike Lanes	\$21,816
1	IM3C	19th Street	Rogers Street to Indiana Avenue	Shared Lane Markings	\$6,583
1	IM6	Clifton Ave.-Union Street	Maxwell Lane to Law Lane	Neighborhood Greenway	\$37,662
1	IM7 Mid	East 3rd Street	High St. to Jefferson St.	Buffered Bike Lanes	\$7,657
1	LT3A	College Avenue	Old SR 37 (Miller Showers Park) to SR 45/46	Bike Lanes	\$10,443
1	LT5	12th Street	Walnut Street to Indiana Avenue	Shared Lane Markings	\$5,940
1	LT9	11th St./Cottage Grove	Cottage Grove: N. Walnut to N. Lincoln; 11th: N. Washington to N. Lincoln and Walnut Grove Street to N. Fee	Shared Lane Markings	\$7,158

# Period 2 Construction = \$225,000

2	IM4	4th Street	7th Street to 17th Street	Shared Lane Markings & Bike Lanes	\$42,326
2	IM7 West	East 3rd Street	Dunn St. to High St.	Buffered Bike Lanes/Bike Lanes	\$44,164
2	LT1	2nd Street	S. Adams St. to College Ave.	Bike Lanes	\$54,470
2	LT4	Arlington Road	Monroe Street to SR 37	Bike Lanes	\$70,408
2	LT8	Rogers Street	2nd Street to Kirkwood Ave; 11th Street to 17th Street	Shared Lane Markings	\$13,306
Period 2, Funding Year 2014					\$224,674

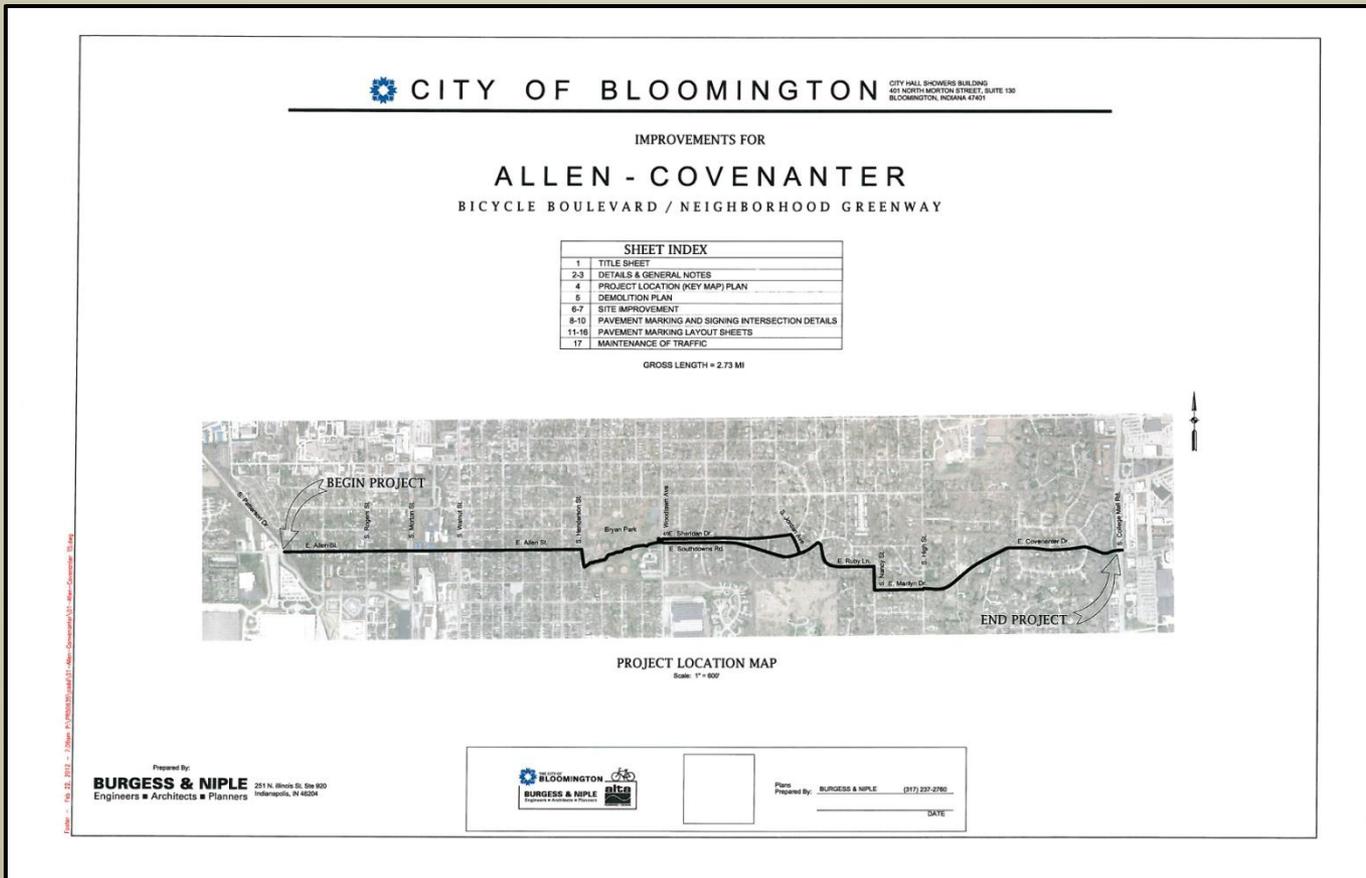
# Period 3 Construction Cost = \$857,000

3	IM3A	Indiana Avenue	10th Street to 17th Street	Bike Lane - One way roadway/Shared Lane Markings	\$9,924
3	IM3B	Dunn Street	3rd Street to 12th Street; 13th Street to 17th Street	Bike Lane - One way roadway/ & Shared Lane Markings	\$29,027
3	IM5	Fess Bike Boulevard	Walnut Street to Dunn Street	Bike Lane - One way roadway & Shared Lane Markings	\$19,300
3	IM8	Fee Lane	17th Street to SR 45/46; 11th Street to 13th Street	Widen Road to Add Bike Lanes	\$632,110
3	LT2	Liberty Drive	SR 45 to SR 48	Bike Lanes	\$86,710
3	LT6	10th Street	Morton Street to Union Street	Bike Lane/Shared Lane Markings	\$75,245
3	LT7	Law Lane	Fee Lane to Union Street	Shared Lane Markings	\$4,954
Period 3, Funding Year 2015					\$857,270

4	CST 2 South	South Highland Ave.	Winslow to Miller via Path and Maxwell Street or Highland Ave.	Shared use path or buffered bike lanes	TBD
4	IM7 East	East 3rd Street	Jefferson to SR 46	Road Diet/Buffered Bike Lanes	\$56,386
4	LT3B	North Walnut Street	SR 45/46 to Old SR 37	Buffered Bike Lanes	\$123,226
4	LT10	Walnut Street	Winslow Road to 1st Street	Widen Road to Add Bike Lanes	\$2,565,691
4	LT11 South	College Avenue	Walnut Street to 2nd Street	Bike Lanes or Buffered Bike Lanes	\$19,815
4	LT 12	W. 3rd Street	Liberty Drive to Franklin Road	Bike Lanes	\$43,358
4	LT 13	High Street	Winslow Street to E. 3rd	Widen Road to Add Bike Lanes	\$2,276,096
Period 4, 2016 and Beyond					\$5,084,572

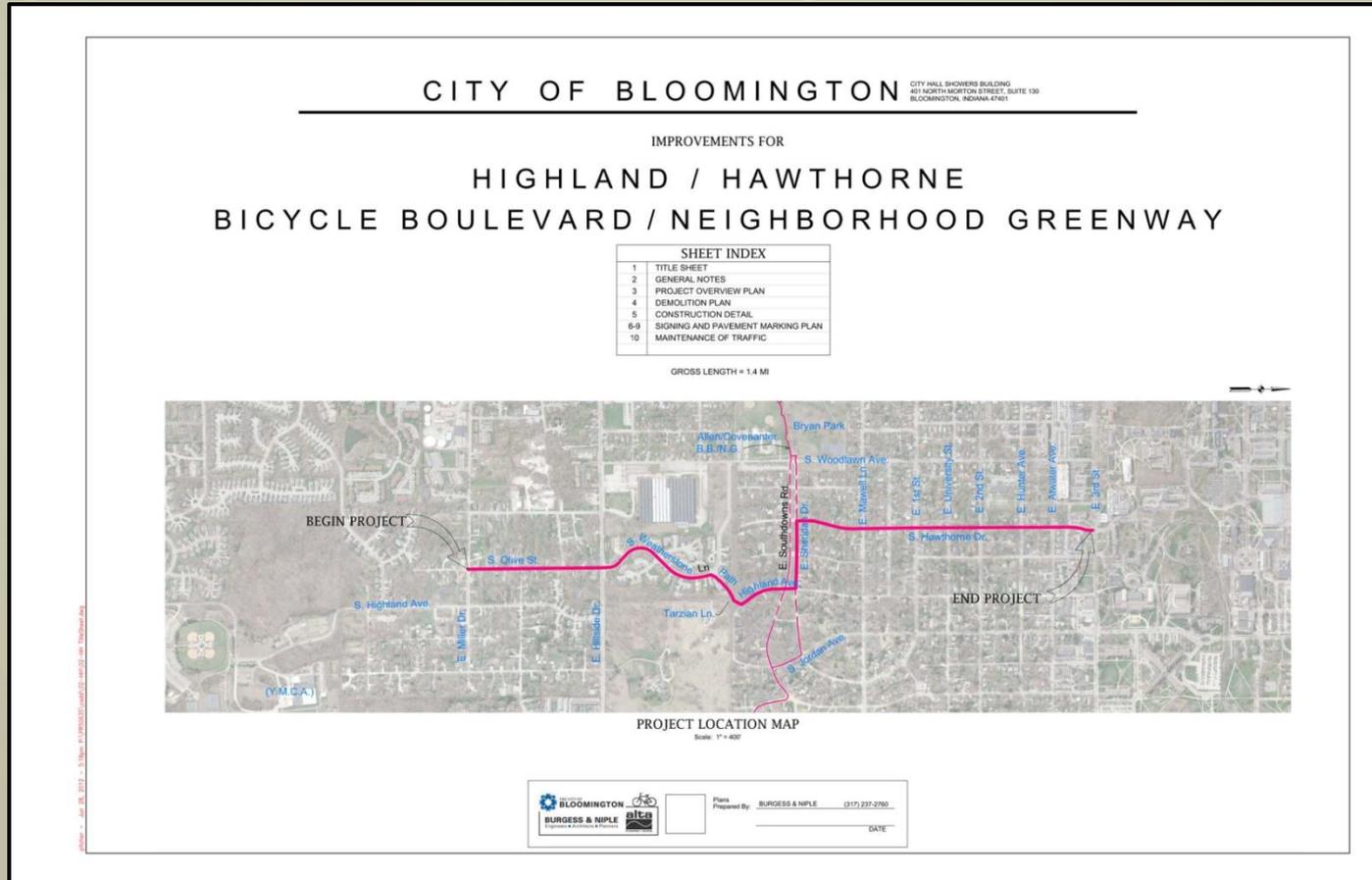
# Construction Drawings

## Allen-Convenanter Neighborhood Greenway



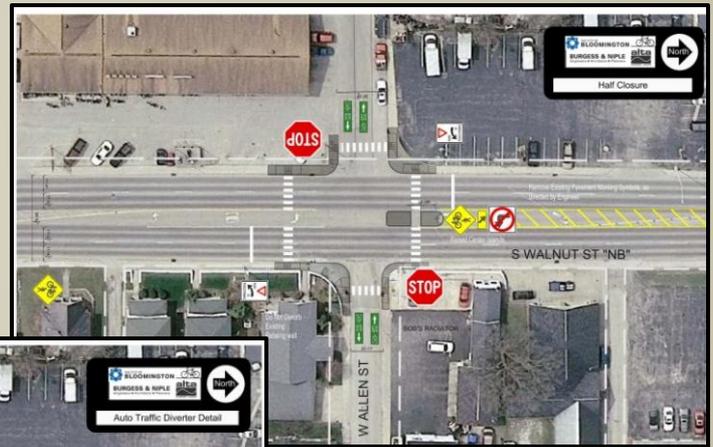
# Construction Drawings

## Highland-Hawthorne Neighborhood Greenway



# Construction Drawings

## Allen Street at Walnut Street Intersection Three solutions provided by Alta



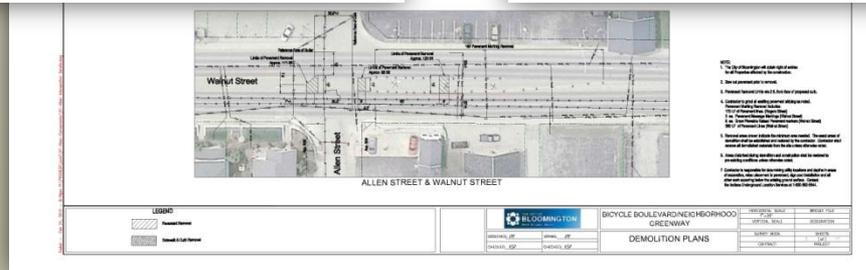
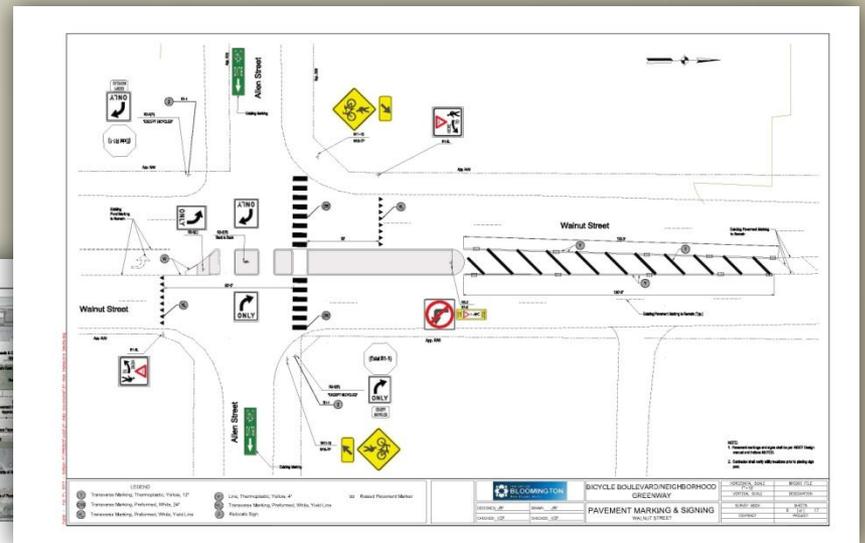
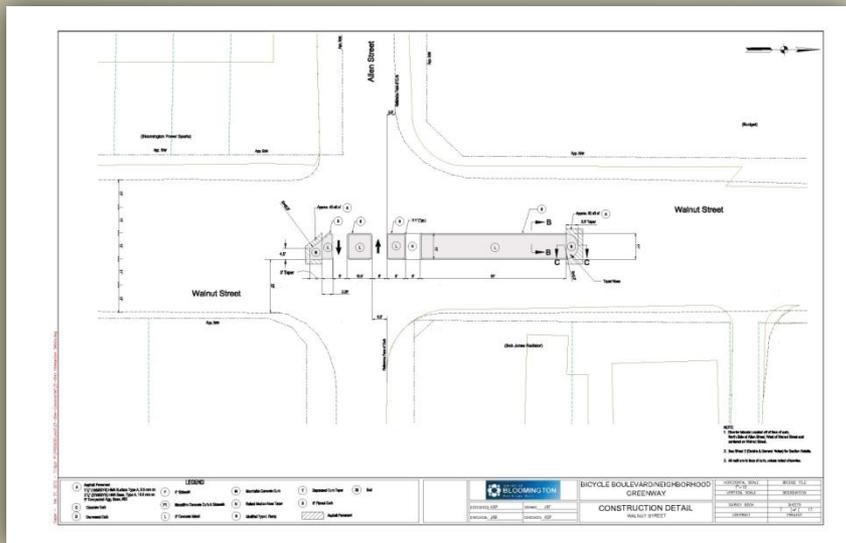
# Construction Drawings

Allen Street at Walnut Street Intersection  
City requested fourth option



# Construction Drawings

## Allen Street at Walnut Street Intersection Final Construction Plans



# Construction Drawings

## Allen Street at Walnut Street Intersection Constructed Diverter

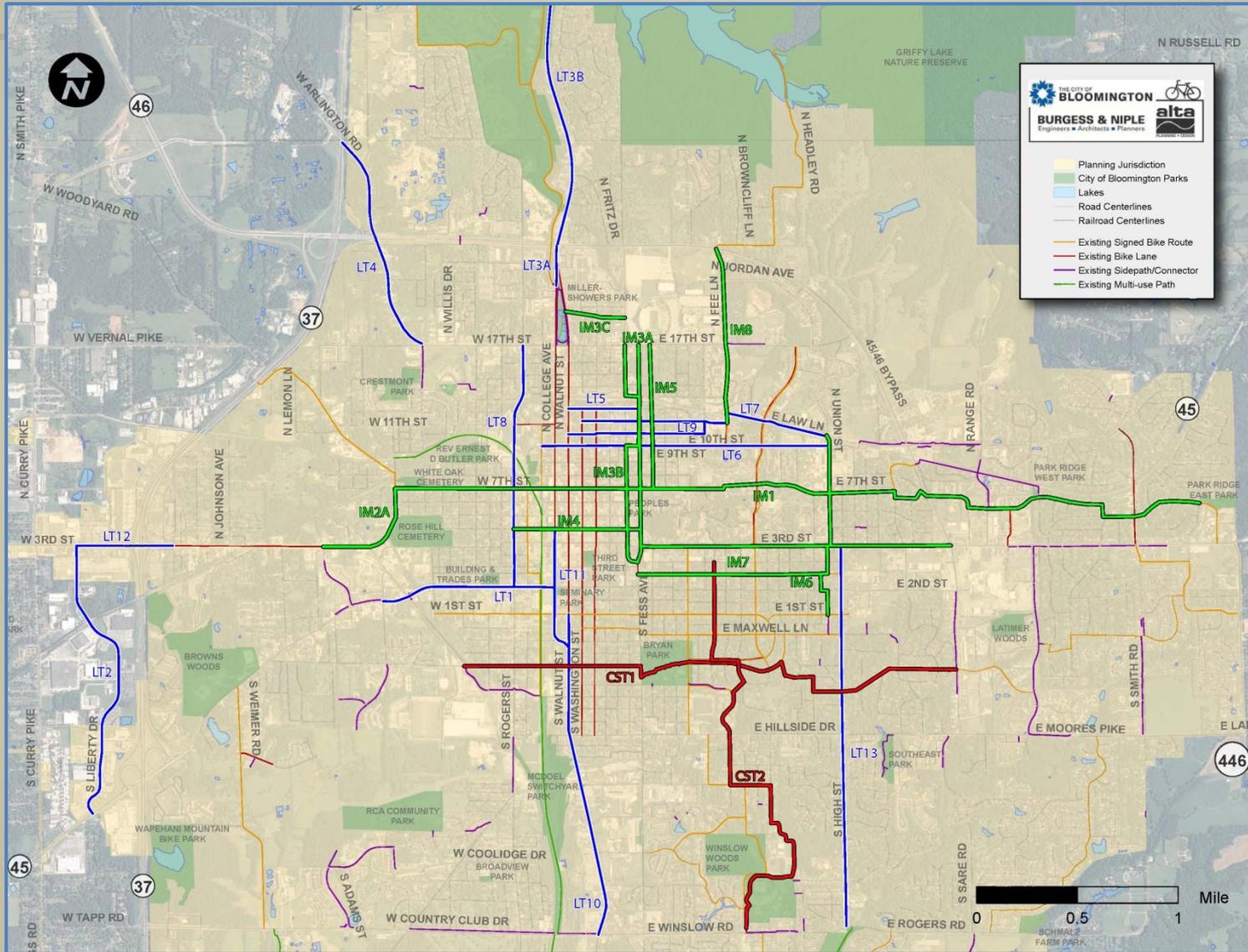


# Bloomington Bike Week



May 2012

# 27 Selected Bikeway (On-Street) Projects



# Presenters

- Adrian Reid, PE, Bloomington City Engineer
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- Kimberly Pitcher, PE
  - [Kimberly.Pitcher@burgessniple.com](mailto:Kimberly.Pitcher@burgessniple.com)
  - 317-237-2760 ext. 4431
- Brian Martin, AICP
  - [Brian.Martin@burgessniple.com](mailto:Brian.Martin@burgessniple.com)
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