



Memo

To: Scott Singleton, Town of Plainfield
From: Keegan Anderson, Woolpert
Date: September 20, 2024
Subject: Life Sciences Center – Plainfield, IN – Trip Generation Comparison Memo

Woolpert has prepared this Trip Generation Comparison memo for the proposed Indiana Life Sciences Center site on US 40 in Plainfield, IN utilizing trip generation from 11th Edition of the ITE Trip Generation Manual. This memo documents the changes to the trip generation between the December 2023 Traffic Impact Study submittal and the August 2024 Planning submission.

LAND USE

Both concept layouts consist of a mix of retail, restaurant, and residential development on the site frontage along US 40 with the bulk of the development as industrial, manufacturing, and office space in the site interior. The changes between the layouts are primarily in the grouping and square footages of the uses. Attachment A shows the conceptual layouts for the two previous submittals.

TRIP GENERATION ESTIMATE

Utilizing the ITE Trip Generation Manual, 11th Edition, Table 1 shows the trip generation from the TIS submittal, Table 2 shows the trip generation for the layout in the August 2024 planning submission, and Table 3 provides a comparison.

The comparison shows that the number of total primary trips in each peak hour was reduced from the 2023 TIS to the 2024 planning submission. Therefore, the TIS trip generation and traffic analysis is more conservative than that of the revised concept.

Table 1: 2023 TIS Trip Generation									
Land Use Description	ITE Code	Size	Unit	AM Peak Hour			PM Peak Hour		
				Total	Entering	Exiting	Total	Entering	Exiting
Area 1									
Strip Retail Plaza (<40k)	822	5 Buildings x 10	1,000 SF	145	87	58	390	195	195
<i>Internal Capture</i>				35	19	16	230	113	117
High-Turnover (Sit-Down) Restaurant	932	5 Buildings x 10	1,000 SF	480	264	216	455	278	177
<i>Internal Capture</i>				80	50	30	187	75	112
<i>Pass-By Reduction (43% AM, 43% PM)</i>				172	86	86	115	58	57
Multi Family Housing (Low Rise)	220	5 Buildings x 6	Units	32	8	24	33	21	12
<i>Internal Capture</i>				7	1	6	15	9	6
Area 1 Primary Trips				363	203	160	331	239	92
Area 2									
Fast Food Restaurant with Drive-Through Window	934	2.5	1,000 SF	112	57	55	83	43	40
<i>Internal Capture</i>				19	11	8	37	12	25
<i>Pass-By Reduction (50% AM, 55% PM)</i>				47	24	23	25	13	12
Hotel	310	122	Rooms	54	30	24	62	32	30
<i>Internal Capture</i>				12	1	11	44	23	21
Area 2 Primary Trips				88	51	37	39	27	12
Area 3									
General Light Industrial	110	200	1,000 SF	140	123	17	66	9	57
Area 3 Primary Trips				140	123	17	66	9	57
Area 4									
General Light Industrial	110	100	1,000 SF	72	63	9	40	6	34
General Office Building	710	30	1,000 SF	59	52	7	61	9	52
<i>Internal Capture</i>				18	12	6	11	3	8
Area 4 Primary Trips				113	103	10	90	12	78
Area 5									
Warehousing	150	100	1,000 SF	36	28	8	38	11	27
Area 5 Primary Trips				36	28	8	38	11	27

Table 1: 2023 TIS Trip Generation									
Land Use Description	ITE Code	Size	Unit	AM Peak Hour			PM Peak Hour		
				Total	Entering	Exiting	Total	Entering	Exiting
Area 6									
Warehousing	150	60	1,000 SF	31	24	7	34	10	24
Area 6 Primary Trips				31	24	7	34	10	24
Area 7									
General Office Building	710	20	1,000 SF	42	37	5	44	6	38
<i>Internal Capture</i>				14	9	5	8	2	6
Area 7 Primary Trips				28	28	0	36	4	32
Area 8									
General Office Building	710	80	1,000 SF	138	121	17	138	19	119
<i>Internal Capture</i>				44	28	16	26	7	19
Area 8 Primary Trips				94	93	1	112	12	100
Area 9									
General Light Industrial	110	55	1,000 SF	41	36	5	36	5	31
Warehousing	150	40	1,000 SF	28	22	6	31	9	22
Area 9 Primary Trips				69	58	11	67	14	53
Area 10									
General Light Industrial	110	55	1,000 SF	41	36	5	36	5	31
Warehousing	150	45	1,000 SF	29	22	7	32	9	23
Area 10 Primary Trips				70	58	12	68	14	54
Area 11									
General Light Industrial	110	30	1,000 SF	24	21	3	17	2	15
Area 11 Primary Trips				24	21	3	17	2	15
Area 12									
General Light Industrial	110	15	1,000 SF	14	12	2	10	1	9
Area 12 Primary Trips				14	12	2	10	1	9
Total Trips				1,518	1,043	475	1,606	670	936
<i>Total Internal Capture</i>				<i>229</i>	<i>131</i>	<i>98</i>	<i>558</i>	<i>244</i>	<i>314</i>
<i>Total Pass-By Reduction</i>				<i>219</i>	<i>110</i>	<i>109</i>	<i>140</i>	<i>71</i>	<i>69</i>
Total Primary Trips				1,070	802	268	908	355	553

Table 2: 2024 Planning Submission Trip Generation									
Land Use Description	ITE Code	Size	Unit	AM Peak Hour			PM Peak Hour		
				Total	Entering	Exiting	Total	Entering	Exiting
Area 1									
Strip Retail Plaza (<40k)	822	3 Buildings x 5.1	1,000 SF	54	32	22	144	72	72
<i>Internal Capture</i>				23	13	10	90	45	45
High-Turnover (Sit-Down) Restaurant	932	3 Buildings x 5.1	1,000 SF	147	81	66	138	84	54
<i>Internal Capture</i>				57	32	25	66	29	37
<i>Pass-By Reduction (43% AM, 43% PM)</i>				39	20	19	31	16	15
Multi Family Housing (Mid Rise)	221	330	Units	134	31	103	129	79	50
<i>Internal Capture</i>				27	3	24	57	35	22
Area 1 Primary Trips				189	76	113	167	110	57
Area 2									
High-Turnover (Sit-Down) Restaurant	932	6	1,000 SF	57	31	26	54	33	21
<i>Internal Capture</i>				22	12	10	25	11	14
<i>Pass-By Reduction (43% AM, 43% PM)</i>				15	8	7	12	6	6
Hotel	310	122	Rooms	54	30	24	62	32	30
<i>Internal Capture</i>				10	1	9	18	11	7
Area 2 Primary Trips				64	40	24	61	37	24
Area 3									
General Light Industrial	110	168	1,000 SF	118	104	14	59	8	51
Area 3 Primary Trips				118	104	14	59	8	51
Area 4									
General Light Industrial	110	100	1,000 SF	72	63	9	40	6	34
General Office Building	710	30	1,000 SF	59	52	7	61	9	52
<i>Internal Capture</i>				16	10	6	4	1	3
Area 4 Primary Trips				115	105	10	97	14	83
Area 5									
Warehousing	150	80	1,000 SF	33	25	8	36	10	26
Area 5 Primary Trips				33	25	8	36	10	26
Area 6									
Warehousing	150	60	1,000 SF	31	24	7	34	10	24
Area 6 Primary Trips				31	24	7	34	10	24

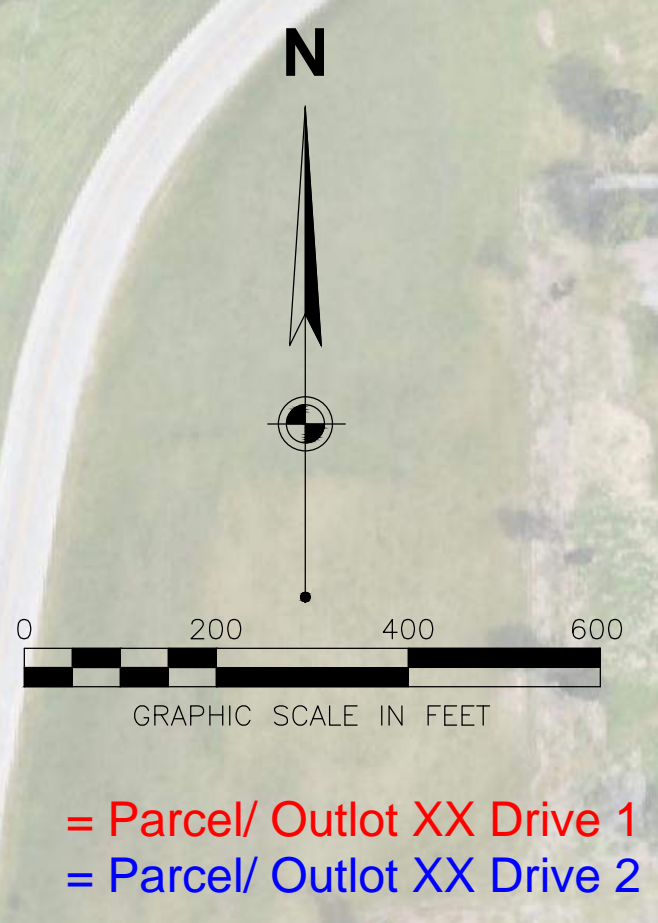
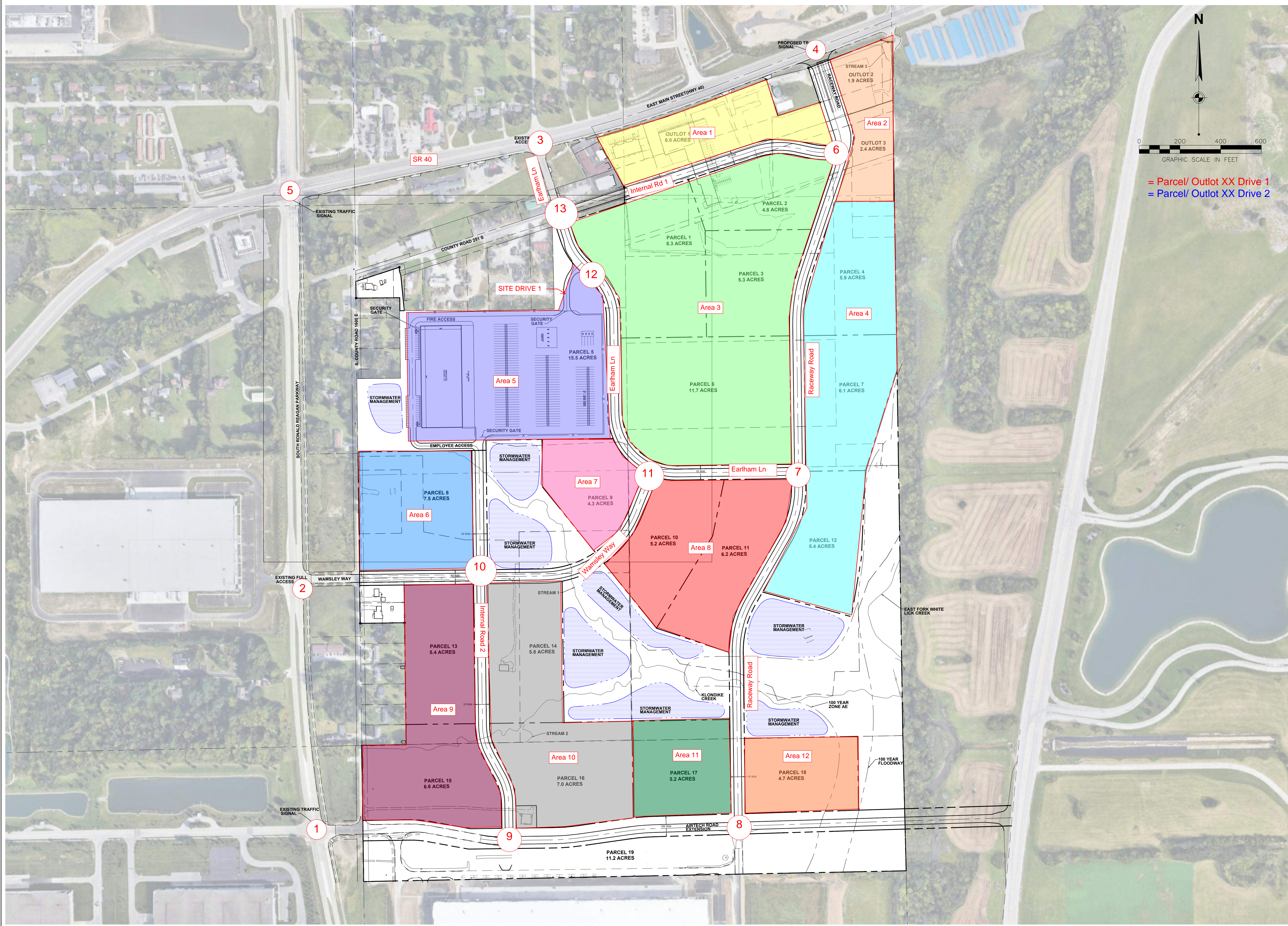
Table 2: 2024 Planning Submission Trip Generation									
Land Use Description	ITE Code	Size	Unit	AM Peak Hour			PM Peak Hour		
				Total	Entering	Exiting	Total	Entering	Exiting
Area 7									
General Office Building	710	20	1,000 SF	42	37	5	44	6	38
<i>Internal Capture</i>				12	7	5	3	1	2
Area 7 Primary Trips				30	30	0	41	5	36
Area 8									
General Office Building	710	80	1,000 SF	138	121	17	138	19	119
<i>Internal Capture</i>				39	24	15	9	3	6
Area 8 Primary Trips				99	97	2	129	16	113
Area 9									
General Light Industrial	110	160	1,000 SF	113	99	14	56	8	48
Warehousing	150	160	1,000 SF	43	33	10	46	13	33
Area 9 Primary Trips				156	132	24	102	21	81
Total Trips				1,095	763	332	1,041	389	652
<i>Total Internal Capture</i>				206	102	104	272	136	136
<i>Total Pass-By Reduction</i>				54	28	26	43	22	21
Total Primary Trips				835	633	202	726	231	495

Table 3: Trip Generation Comparison						
Scenario	AM Peak Hour			PM Peak Hour		
	Total	Entering	Exiting	Total	Entering	Exiting
2023 TIS Total Primary Trips	1,070	802	268	908	355	553
2024 Planning Submission Primary Trips	835	633	202	726	231	495
Net Difference	-235	-169	-66	-182	-124	-58

Appendix A

Conceptual Layouts

Layout Tab Name: Overall, Images: Aerial.jpg; road.jpg; Road align1.jpg; Road align2.jpg; Road align3.jpg; Xrefs: 82429-x.dwg; 82429 - BndTopo-R1.dwg
 Last Saved By: Bennett, 7/17/2023 7:39:02 PM
 G:\DE\Clients\Indiana Life Science Center\082429 Indiana Life Science Center\4.0 Disciplines\Civil\Coad\Preim\82429-p.dwg Plotted By: Bennett, Scott Plotted July 17, 2023, 7:49:43 PM



INDIANA LIFE SCIENCES PARK CONCEPT PLAN		OVERALL SITE PLAN	
SHEET NO. EXH		PLAINFIELD, INDIANA	
PROJECT No: 082429		333 North Alabama Street	
DATE 07/17/23		Suite 200	
DES. CP		Indianapolis, IN 46204	
DR. SMB		317.299.7500	
CKD. CP		317.291.5805	
No. DATE		REVISION	

- AREA 1 - 79,600 SF (x4 STORY MIXED USE-RETAIL, RESTAURANT, MULTI-FAMILY) + 5,000 SF CLUBHOUSE/OFFICE
- AREA 2 - 6,000 SF FULL SERVICE RESTAURANT + 122 ROOM HOTEL
- AREA 3 - 168,000 SF (LIGHT INDUSTRIAL)
- AREA 4 - 130,000 SF (LIGHT INDUSTRIAL AND GENERAL OFFICE)
- AREA 5 - 80,000 SF (WAREHOUSE)
- AREA 6 - 60,000 SF (WAREHOUSE)
- AREA 7 - 20,000 SF (GENERAL OFFICE)
- AREA 8 - 80,000 SF (GENERAL OFFICE)
- AREA 9 - 320,000 SF (LIGHT INDUSTRIAL AND WAREHOUSE)

