

## **MEMORANDUM**

TO: File

FROM: David J. Hastings, P.E., PTOE

DATE: December 20, 2022

RE: Evaluation of Traffic Data for 2023 Update to STAMP Development

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### **BACKGROUND**

The Western New York Science & Technology Advanced Manufacturing Park (STAMP), located in the Town of Alabama, Genesee County, New York has been in planning and development since the early 2010s. The Park will support mixed used development that includes technology manufacturing uses and ancillary development. A Generic Environmental Impact Statement (GEIS) was initially prepared in 2010 and included a traffic study based on development estimates and assumptions from that time. As time passed and revised plans for STAMP developed, an updated traffic study was prepared in 2016 to evaluate new roadway configurations and traffic impacts from potential tenants of the site. Since 2016, the construction of STAMP drive has been completed however no tenants have developed business on the site yet.

The Genesee County Economic Development Center (GCEDC) have identified the first tenants schedule to build out at STAMP. It is anticipated that two of the tenants will build out in the near term. A third tenant is anticipated to commit to the site and buildout in the near future. The construction of all three tenants is anticipated to progress in two phases with Phase 1 including the first two tenants. Phase 2 will include the third tenant to follow that.

#### **Phase 1: Plug Power and Edwards (Kingfisher)**

- Plug Power is expected to operate 24/7 with 30 employees and 38 truck drivers per day.
- Edwards (Kingfisher) is expected to operate 24/7 with 280 employees for day shift, 115 employees for extended day shift, 80 employees for night shift, and 21 truck drivers per day.

#### **Phase 2: Addition of Scannell**

- Phase 1 developments are expected to continue with the same operations.
- Scannell is expected to operate 24/7 with 826 employees.

This memorandum is intended to compare estimated traffic volumes from the new development plans (2023) to the traffic study prepared in 2016.



**TRIP GENERATION ESTIMATE OF 2023 UPDATE**

The information provided for Phase 1 and Phase 2 development were used to estimate peak hour trip volumes. Hourly breakdowns of expected entering and exiting traffic are provided in Figures 1 and 2. Peak hour and full day volumes are summarized in the following tables.

Phase 1			
	Enter	Exit	Total
AM Peak	363	76	439
PM Peak	68	236	304
Full Day	609	609	1,218

Phase 2			
	Enter	Exit	Total
AM Peak	611	200	811
PM Peak	192	484	676
Full Day	1,129	1,129	2,458

It is expected that the distribution of these trips would be the same as assumed in the 2016 Traffic Analysis.

**COMPARISON TO 2016 TRAFFIC EVALUATION**

The 2016 Traffic Evaluation also analyzed the development in two phases. Trips volumes presented in the 2016 Evaluation are compared to the current estimated trips (2022) in the following tables.

Phase 1		
	2016	2023
Peak Hour	240	439
Full Day	622	1,218

Phase 2		
	2016	2023
Peak Hour	959	811
Full Day	2,486	2,458

This data shows that the current Phase 1 plan generates about twice as much traffic as the 2016 Phase 1 plan. However, the current Phase 2 plan is about the same daily traffic volume as the 2016 Phase 2 plan. Assuming that trip distribution would remain the same as evaluated in 2016, the conclusions and recommendations reached in the 2016 Evaluation would still apply. The recommendations and comparison are summarized in Figure 3.

# Figure 1 - STAMP Trip Generation Calculations - Phase 1 Development

## Part 1 - Daily Site Activity

Plug Power	
On Site Workers	30
Truck Trips	38
<b>Total Activity</b>	<b>68</b>

Kingfisher	
Day Shift	280
Extended Day Shift	160
Night Shift	80
Truck Trips	21
<b>Total Activity</b>	<b>541</b>

## Part 2 - Estimate of Hourly Traffic

Plug Power			
TIME		Weekdays	
FROM	TO	Entering	Exiting
12:00	1:00	1	11
1:00	2:00	1	1
2:00	3:00	1	1
3:00	4:00	1	1
4:00	5:00	1	1
5:00	6:00	1	1
6:00	7:00	12	2
7:00	8:00	2	12
8:00	9:00	2	2
9:00	10:00	2	2
10:00	11:00	2	2
11:00	12:00	2	2
12:00	1:00	2	2
1:00	2:00	2	2
2:00	3:00	2	2
3:00	4:00	2	2
4:00	5:00	12	2
5:00	6:00	2	12
6:00	7:00	2	2
7:00	8:00	2	2
8:00	9:00	1	1
9:00	10:00	1	1
10:00	11:00	1	1
11:00	12:00	11	1
<b>Totals</b>		<b>68</b>	<b>68</b>

Kingfisher			
TIME		Weekdays	
FROM	TO	Entering	Exiting
12:00	1:00	1	1
1:00	2:00	1	1
2:00	3:00	1	1
3:00	4:00	1	1
4:00	5:00	1	1
5:00	6:00	1	1
6:00	7:00	160	80
7:00	8:00	280	1
8:00	9:00	1	1
9:00	10:00	1	1
10:00	11:00	1	1
11:00	12:00	1	1
12:00	1:00	1	1
1:00	2:00	1	1
2:00	3:00	1	1
3:00	4:00	1	1
4:00	5:00	1	280
5:00	6:00	80	1
6:00	7:00	1	1
7:00	8:00	1	160
8:00	9:00	1	1
9:00	10:00	1	1
10:00	11:00	1	1
11:00	12:00	1	1
<b>Totals</b>		<b>541</b>	<b>541</b>

Phase 1 Total			
TIME		Weekdays	
FROM	TO	Entering	Exiting
12:00	1:00	2	12
1:00	2:00	2	2
2:00	3:00	2	2
3:00	4:00	2	2
4:00	5:00	2	2
5:00	6:00	2	2
6:00	7:00	172	82
7:00	8:00	282	13
8:00	9:00	3	3
9:00	10:00	3	3
10:00	11:00	3	3
11:00	12:00	3	3
12:00	1:00	3	3
1:00	2:00	3	3
2:00	3:00	3	3
3:00	4:00	13	3
4:00	5:00	3	292
5:00	6:00	82	3
6:00	7:00	3	3
7:00	8:00	3	162
8:00	9:00	2	2
9:00	10:00	2	2
10:00	11:00	2	2
11:00	12:00	12	2
<b>Totals</b>		<b>609</b>	<b>609</b>

Total Trips = 1218

## Part 3 - Estimate of Peak Hour Traffic

Assuming that a shift change happens on the hour with traffic entering to start the shift change then exiting after the shift change, two hours of traffic are highlighted. It is assumed that 80% of the two hours would be captured during the peak one hour period within it.

Phase 1			
Peak Hour	Enter	Exit	Total
AM	363	76	439
PM	68	236	304

## Figure 2 - STAMP Trip Generation Calculations - Phase 2 Development

### Part 1 - Daily Site Activity

Scannell	
Total Employees	826
Average Daily Workers	620
<b>Total Activity</b>	<b>620</b>

### Part 2 - Estimate of Hourly Traffic

Scannell			
TIME		Weekdays	
FROM	TO	Entering	Exiting
12:00	1:00	0	155
1:00	2:00	0	0
2:00	3:00	0	0
3:00	4:00	0	0
4:00	5:00	0	0
5:00	6:00	0	0
6:00	7:00	310	0
7:00	8:00	0	155
8:00	9:00	0	0
9:00	10:00	0	0
10:00	11:00	0	0
11:00	12:00	0	0
12:00	1:00	0	0
1:00	2:00	0	0
2:00	3:00	0	0
3:00	4:00	0	0
4:00	5:00	155	0
5:00	6:00	0	310
6:00	7:00	0	0
7:00	8:00	0	0
8:00	9:00	0	0
9:00	10:00	0	0
10:00	11:00	0	0
11:00	12:00	155	0
Totals		620	620

Phase 1 Totals			
TIME		Weekdays	
FROM	TO	Entering	Exiting
12:00	1:00	2	12
1:00	2:00	2	2
2:00	3:00	2	2
3:00	4:00	2	2
4:00	5:00	2	2
5:00	6:00	2	2
6:00	7:00	172	82
7:00	8:00	282	13
8:00	9:00	3	3
9:00	10:00	3	3
10:00	11:00	3	3
11:00	12:00	3	3
12:00	1:00	3	3
1:00	2:00	3	3
2:00	3:00	3	3
3:00	4:00	13	3
4:00	5:00	3	292
5:00	6:00	82	3
6:00	7:00	3	3
7:00	8:00	3	162
8:00	9:00	2	2
9:00	10:00	2	2
10:00	11:00	2	2
11:00	12:00	12	2
Totals		609	609

Phase 2 Total			
TIME		Weekdays	
FROM	TO	Entering	Exiting
12:00	1:00	2	167
1:00	2:00	2	2
2:00	3:00	2	2
3:00	4:00	2	2
4:00	5:00	2	2
5:00	6:00	2	2
6:00	7:00	482	82
7:00	8:00	282	168
8:00	9:00	3	3
9:00	10:00	3	3
10:00	11:00	3	3
11:00	12:00	3	3
12:00	1:00	3	3
1:00	2:00	3	3
2:00	3:00	3	3
3:00	4:00	13	3
4:00	5:00	158	292
5:00	6:00	82	313
6:00	7:00	3	3
7:00	8:00	3	162
8:00	9:00	2	2
9:00	10:00	2	2
10:00	11:00	2	2
11:00	12:00	167	2
Totals		1229	1229

Total Trips = 2458

### Part 3 - Estimate of Peak Hour Traffic

Assuming that a shift change happens on the hour with traffic entering to start the shift change then exiting after the shift change, two hours of traffic are highlighted. It is assumed that 80% of the two hours would be captured during the peak one hour period within it.

Phase 2			
Peak Hour	Enter	Exit	Total
AM	611	200	811
PM	192	484	676

Figure 3 - Comparison of Recommended Traffic Improvements

Intersection	2016 Traffic Evaluation (Information included in Figure 14)	
	Phase 1	Phase 2
Route 63/Route 31/Route 31A	Nothing recommended	Nothing recommended
Route 63/Blair Rd/Main St	Nothing recommended	Nothing recommended
Route 77/Route 63/Lewiston Rd	Nothing recommended	Nothing recommended
Route 77/63 Overlap/Ham Rd	Nothing recommended	Nothing recommended
Route 77/Route 63/Judge Rd	Nothing recommended. Monitor for installation of a traffic signal or roundabout.	<b>Construct Eastbound right-turn lane.</b> Continue to monitor for installation of traffic signal or roundabout.
Route 77/Bloomingtondale	Nothing recommended	Nothing recommended
Route 77/Ledge Rd	Nothing recommended. Monitor for installation of a traffic signal or roundabout.	<b>Construct northbound left-turn lane.</b> Continue to monitor for installation of traffic signal or roundabout.
Route 77/Akron Rd	Nothing recommended	Nothing recommended
Route 77/I-90 Exit 48A	Nothing recommended	Nothing recommended
Route 77/Royalton Center Rd	Nothing recommended	Nothing recommended
Route 98/Lockport Rd	Nothing recommended	Nothing recommended
Route 63/Lewiston Rd/Park Rd	Nothing recommended	Nothing recommended
Route 77/Crosby Rd	Nothing recommended	Nothing recommended
Route 77/63 / STAMP Dr	Construct northbound left-turn lane on Route 77. Provide separate eastbound left and right turn lanes.	Nothing more recommended. Monitor for installation of a traffic signal or roundabout.
Judge Rd / Crosby Rd	Provide Access to the Site	Nothing more recommended

2023 Update	
Phase 1	Phase 2
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Nothing recommended. Monitor for installation of a traffic signal or roundabout.	<b>Construct Eastbound right-turn lane.</b> Continue to monitor for installation of traffic signal or roundabout.
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Nothing recommended. Monitor for installation of a traffic signal or roundabout.	<b>Construct northbound left-turn lane.</b> Continue to monitor for installation of traffic signal or roundabout.
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Already Complete	Monitor for installation of traffic signal or roundabout
Already Complete	---