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A TYLin Company

Memorandum

To: Jason Cebulski, PE – Jacob & Hefner Associates, Inc.
From: Sara Disney Haufe, PE, PTOE, and Kyle Sant, PE, PTOE
Date: June 6, 2022
Re: Preliminary Traffic Summary for Bullock Campus
Project No: 22-03-0720

Sam Schwartz has been contracted by Jacob and Hefner, Inc., to prepare a traffic impact study for the proposed Bullock Campus, a corporate campus located on the east side of Kirk Road south of Division Street that would be anchored by a manufacturing building with offices and accompanied by a commercial retail building (offering a specialty grocer, fitness center, clinic, and café), retreat center, theater, school, and community garden space. The manufacturing building will be occupied by A. J. Antunes & Company, which produces custom countertop cooking equipment and water filtration systems for the global foodservice market. Many of the accessory uses will support Antunes' corporate operation and employees, and most will also be open for public use (with the exception of the clinic). With Sam Schwartz's work on the traffic impact study still in progress, this memorandum is intended to provide a brief summary of the project and its traffic characteristics and to present the framework of that report, which is expected to be completed the week of June 20th.

Given the unique nature of the proposed corporate campus, Sam Schwartz has collaborated closely with the development team to understand the relationship between the manufacturing building and other uses on site, as well as the times of day and days of the week when those uses are expected to be most active. With the manufacturing building being the largest component of the site, Sam Schwartz initiated the traffic study by performing a 72-hour trip generation survey to quantitatively identify average traffic characteristics at Antunes' existing manufacturing headquarters in Carol Stream, Illinois. For the remaining uses, data was referenced from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. It should be noted that several of the proposed land uses are expected to be active during typical off-peak hours on weekdays or on weekends, including the retreat center, theater, and community garden space; as a result, these uses are expected to contribute little to no traffic during the critical weekday peak hours that align with traditional commuting periods (shown to be 7:15-8:15AM and 4:00-5:00PM on Kirk Road). A summary of site-generated trip projections is presented in **Table 1** attached to this memorandum, along with a concept site plan.

To provide access to and from the Bullock Campus, the development team proposes a fourth leg of Division Street at its signalized intersection with Kirk Road. This Division Street extension would run the length of the property and, based on discussions with City staff, is ultimately expected to connect to Kautz Road in accordance with the City of Geneva Comprehensive Plan. A new fourth leg of Geneva Drive at Kirk Road is also proposed and would connect to a new north-south spine road through the property, ultimately meeting the Division Street extension at a T intersection. An appropriate form of intersection control for Kirk Road/Geneva Drive will be evaluated as part of the ongoing traffic impact study. Access driveways serving the various on-site buildings would connect directly to Division Street and the north-south spine road. A truck access would also be provided to the existing segment of Geneva Drive that extends from Kautz Road to the east of the site, providing a direct route from Kautz Road to the truck docks serving the manufacturing building. Note that a contiguous connection of Geneva Drive between Kirk Road and Kautz Road is not proposed as part of the subject development project.

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Sam Schwartz's traffic impact study will be subject to review and approval by the Kane County Division of Transportation (KDOT) and the City of Geneva. As such, Sam Schwartz staff have been in active coordination with both agencies to gain feedback on the site plan, access placement, and various assumptions that will inform the traffic study. Per KDOT standards, future traffic conditions will be analyzed for two future design horizons, identified as Year 2034 (forecasted as the year of ultimate buildout for the development) and Year 2044. The following considerations will be included in the preparation of future traffic forecasts for the traffic impact study:

- Current area traffic volumes and travel patterns recorded in area turning movement counts in April 2022
- The application of COVID-related traffic adjustments, in accordance with standard practice dictated by the Illinois Department of Transportation
- New traffic volumes generated by the proposed Bullock Campus (shown in the attached **Table 1**)
- Completion of neighboring developments, including the Hillwood industrial development on the northwest quadrant of Kautz Road/Geneva Drive and the Venture One industrial development on the northeast quadrant of Kirk Road/Division Street
- General background traffic growth per forecasts prepared by the Chicago Metropolitan Agency for Planning (CMAP)
- An extension of Division Street to connect between Kirk Road and Kautz Road, along with associated redistribution of area traffic to utilize this future connection (Year 2044 design horizon only, per discussions with City staff)

The resulting future traffic projections will be used to prepare a capacity analysis model of area intersections along Kirk Road (from Division Street to Averill Road) and Kautz Road (at Geneva Drive), allowing Sam Schwartz to identify the impact of the proposed development, other area growth, and planned infrastructure modifications. Informed by this model and in accordance with KDOT warrant criteria, recommendations will be provided to promote safe and functional transportation conditions within the area. These improvements would be expected to include lane geometry (such as new dedicated turn lanes on Kirk Road), intersection control, and pedestrian infrastructure.

As work on the traffic impact study continues, please do not hesitate to reach out with questions on the analysis being conducted.

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Table 1. Site Traffic Projections

Land Use and Size		Weekday						
		Daily	AM Peak			PM Peak		
		TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Office/Manufacturing 379,900 SF	Passenger Car Trips	1,460	85	10	95	20	110	130
	Truck Trips[1]	120	5	5	10	5	5	10
	Subtotal	**1,580**	**95**	**10**	**105**	**25**	**115**	**140**
Health/Fitness Club (LUC 492) 5,000 SF	Passenger Car Trips	140	5	5	10	10	5	15
	Less Internal Capture (50% daily, 0% peaks)	-70	-	-	-	-	-	-
	Subtotal	**70**	**5**	**5**	**10**	**10**	**5**	**15**
Private School (K-12) (LUC 532) 70 Students	Passenger Car Trips	170	45	25	70	5	5	10
	Less Internal Capture (75%)	-130	-35	-20	-55	-5	-5	-10
	Subtotal	**40**	**10**	**5**	**15**	**-**	**-**	**-**
Day Care Center (LUC 565) 30 Students	Passenger Car Trips	120	15	10	25	10	15	25
	Less Internal Capture (75%)	-90	-10	-5	-15	-5	-10	-15
	Less Pass-By Trips (0-44%)	-10	-	-	-	-	-	-
	Subtotal	**20**	**5**	**5**	**10**	**5**	**5**	**10**
Clinic (LUC 630) 2,640 SF	Passenger Car Trips	100	10	5	15	5	5	10
	Less Internal Capture (100%)	-100	-10	-5	-15	-5	-5	-10
	Subtotal	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Supermarket (LUC 850) 3,600 SF	Passenger Car Trips	840	5	5	10	15	15	30
	Less Internal Capture (20% daily, 0% peaks)	-170	-	-	-	-	-	-
	Less Pass-By Trips (24%)	-160	-	-	-	-5	-5	-10
	Subtotal	**510**	**5**	**5**	**10**	**10**	**10**	**20**
High-Turnover (Sit-Down) Restaurant (LUC 932) 12,710 SF	Passenger Car Trips	1,350	65	55	120	70	45	115
	Less Internal Capture (60% daily, 20% peaks)	-820	-15	-10	-25	-15	-10	-25
	Less Pass-By Trips (43%)	-230	-20	-20	-40	-20	-20	-40
	Truck Trips	10	-	-	-	-	-	-
	Subtotal	**310**	**30**	**25**	**55**	**35**	**15**	**50**
Passenger Car Subtotal		*2,800*	*160*	*75*	*235*	*105*	*170*	*275*
Truck Subtotal		*130*	*5*	*5*	*10*	*5*	*5*	*10*
Less Pass-by Trips		*-400*	*-20*	*-20*	*-40*	*-25*	*-25*	*-50*
Total Primary Trips		**2,530**	**145**	**60**	**205**	**85**	**150**	**235**

[1]Approximately 60 daily truck trips from the manufacturing building are projected to be heavy trucks (tractor-trailer type), while the remaining 60 are expected to be medium (non-articulated) trucks.

NE OF KIRK ROAD

KIRK ROAD
(PER DOC. #1996K058347)

S0°3'20"W 945.12'(R)
N1°07'49"E 945.02'(M)

N1°07'49"E 944.68'(M)
N0°13'20"E 944.86'(R)

EXISTING 150' R.O.W.

GENEVA DRIVE

KIRK ROAD
(PER DOC. #1996K058347)

R=68854.90'(M)
L=99.91'(M)
CB=N0°58'04"E(M)
R=68854.90'(R)
L=99.96'(R)

R=68854.90'(M)
L=427.20'(M)
CB=N0°44'51"E(M)

DIVISION STREET

N0°36'31"E 404.85'(M)
N0°15'28"W 404.99'(R)

N0°36'31"E 802.92'(M)

POINT OF BEGINNING
PARCEL TWO OF
DOC. #1996K058349

PARCEL ONE OF
DOC. #1996K058349

PARCEL TWO OF
DOC. #1996K058349

PROPOSED BUILDING
15,000 S.F.

PROPOSED BUILDING
18,975 S.F.

POND A1
HWL=788.0
NWL=784.0
DET.VOL=5.61 AC-FT

PROPOSED BUILDING
29,894 S.F.

POND B1
HWL=784.5
NWL=779.5
DET.VOL=7.80 AC-FT

N88°23'42"E 1264.38'(M)
N89°29'E 1264.00'(R)

N89°15'15"W 1253.83'(M)
N88°29'46"W 1302.62'(R)

POND A2
HWL=782.50
NWL=777.50
DET. VOL=7.87 AC-FT

PROPOSED BUILDING
379,904 S.F.

POND B2
HWL=784.5
NWL=779.5
DET. VOL=4.51 AC-FT

PROPOSED BUILDING
12,000 S.F.

S0°46'09"W 1335.13'(R)
S0°01'30"W 1335.26'(M)

N1°57'11"W 466.22'

S1°25'49"W 592.74'(M)
S2°12'40"W 592.68'(R)

POINT OF COMMENCEMENT

N87°29'E 2310.00'(M)

GENEVA DR.

POND C
HWL=781.0
NWL=776.0
DET. VOL=5.81 AC-FT

POINT OF COMMENCEMENT
MISCELLANEOUS
DOC. #1996K058349

N

GRAPHIC SCALE 1"= 80'
0 40' 80' 160'

H:\G\G208\G208a\E\Dwg\Prel\Base\G208a Prelim Base.dwg

OVERALL SITE PLAN – FULL BUILD OUT

BULLOCK CAMPUS
EP DOYLE
GENEVA, ILLINOIS

No.	Description	Date
1	PROGRESS SITE PLAN	5/31/22

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1" = 80'

G208a

SP-1