



Town of _____

Micanopy
_____ Florida

Supplemental Staff Analysis – Traffic Conditions on Seminary Avenue

Following the Planning and Historic Preservation Board’s approval of the Final Site Plan, staff requested that the Town’s planning consultant, EDA Consultants, review available Florida Department of Transportation (FDOT) traffic count data for Seminary Avenue. The purpose of this review was to provide additional context regarding existing traffic volumes and roadway capacity in relation to the proposed MACS expansion. The following analysis summarizes the findings based on the available FDOT data and standard traffic engineering methodologies.

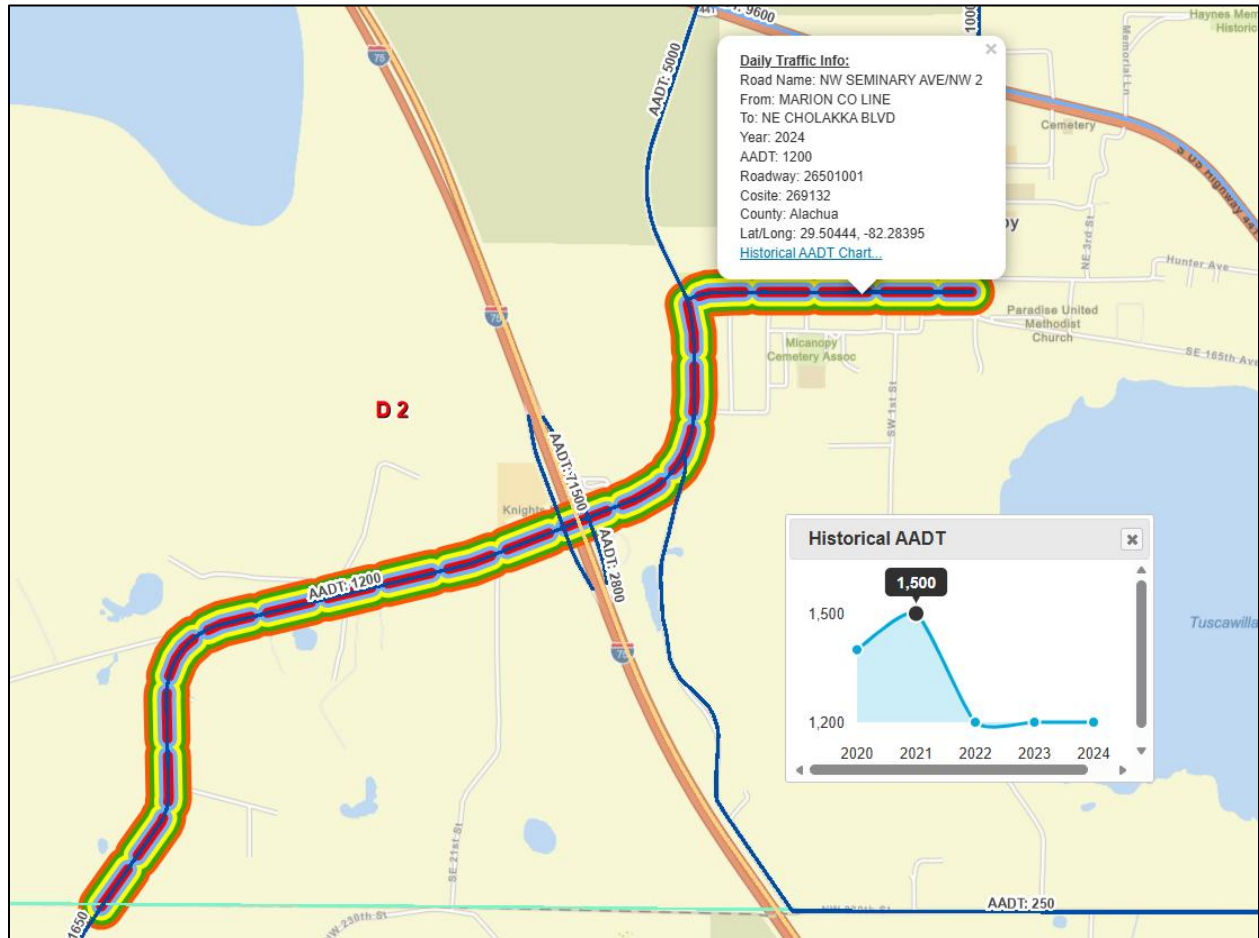
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Traffic Level of Service Analysis

The road network serving the site is currently meeting or exceeding the level of service standards required for traffic circulation facilities as provided in the Comprehensive Plan.

Existing Traffic Volume

According to Florida Department of Transportation (FDOT) Florida Traffic Online web application, existing traffic data (2024) for Seminary Ave. / NW 2nd Ave. is summarized below:



Based on the above data, the average daily traffic on this street is 1,200 trips (AADT). The estimated existing peak hour trips on this roadway is calculated below:

AADT to Peak Hour Conversion

- Peak Hour = AADT x K factor
- K factor (FDOT determined) = .095
- Peak Hour = 1200 x .095 = 114 trips

Comprehensive Plan Level of Service


Policy 1.1.2 The Town adopts the following peak hour Level of Service for specific roadway facility segments indicated below, as defined within the most recent version of the Florida Department of Transportation Quality/Level of Service Handbook:

Roadway Segment	Lower Level of Service Standards
East Entrance on U.S. Highway 441	C
West Entrance on CR 234	C
SW Entrance on CR 25A	C
North Entrance on CR 234	C

FDOT 2023 Multimodal Quality/Level of Service Manual provides peak hour maximum volumes. The most comparable road segment (to Seminary Avenue) is identified below (in red):

FDOT

C1 & C2 Motor Vehicle Highway Generalized Service Volume Tables



(C1-Natural & C2-Rural)

Peak Hour Directional					Peak Hour Two-Way					AADT				
	B	C	D	E		B	C	D	E		B	C	D	E
1 Lane	240	430	730	1,490	2 Lane	440	780	1,330	2,710	2 Lane	4,600	8,200	14,000	28,500
2 Lane	1,670	2,390	2,910	3,340	4 Lane	3,040	4,350	5,290	6,070	4 Lane	32,000	45,800	55,700	63,900
3 Lane	2,510	3,570	4,370	5,010	6 Lane	4,560	6,490	7,950	9,110	6 Lane	48,000	68,300	83,700	95,900

Adjustment Factors

2 Lane Divided Roadway with Exclusive Left Turn Adjustment: Multiply by 1.05
 Multilane Undivided Highway with Exclusive Left Turn Adjustment: Multiply by 0.95
 Multilane Undivided Highway without Exclusive Left Turn Adjustment: Multiply by 0.75

The table above indicates that 780 peak hour trips are the maximum Level of Service (LOS) volume for the roadway to operate at LOS C.

Below is a summary of the existing daily traffic volume, peak hour volume and the maximum Level of Service C volume for NW Seminary Avenue:

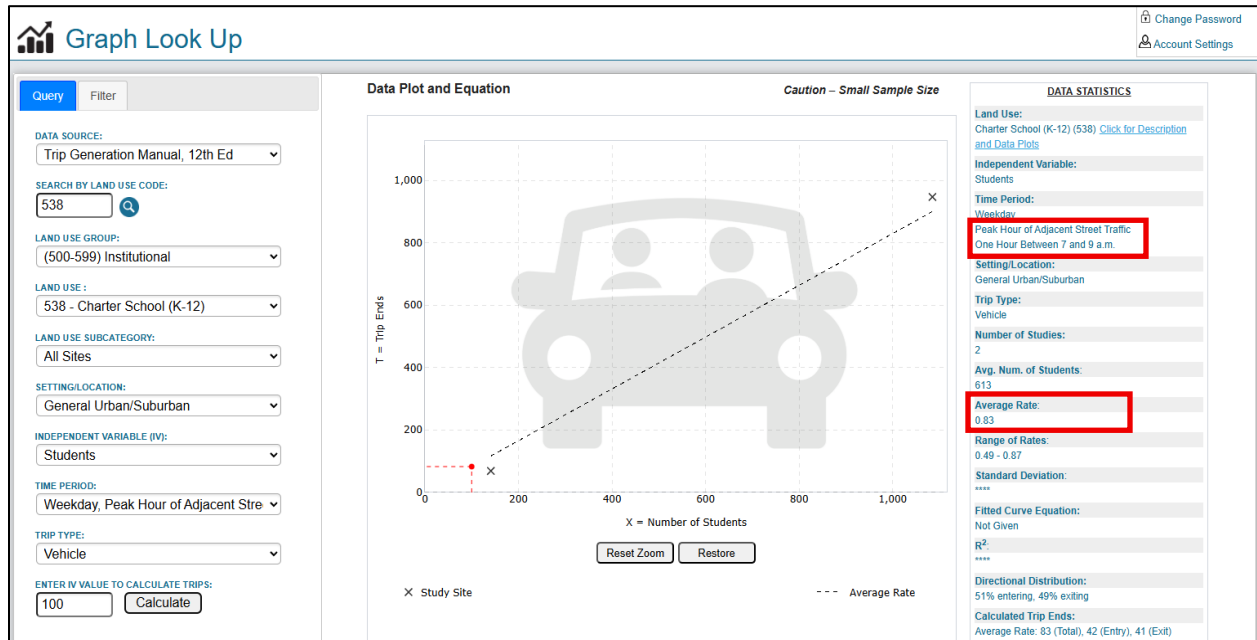
Summary of Existing Traffic Conditions on NW Seminary Avenue	Trips
AADT	1,200
Peak Hour	114
LOS C Max for Peak Hour Trips	780

Summary: The existing peak hour traffic (114) is approximately 15% of the adopted maximum LOS C volume (780).

Peak Hour Trip Generation Calculations for Charter School Use

The proposed development will result in the construction of charter school expansion including a maximum of 100 additional students.

According to the Institute of Transportation Engineers (ITE) Manual, 12th Edition, a charter school (K-12) – ITE Code 538, is estimated to generate 0.83 trips per a.m. peak hour per student, as summarized in the ITE worksheet below:



Calculation: 100 (students) x 0.83 (AM. peak hour trips per student) = 83 AM peak hour trips.

Summary of Existing vs. Proposed Traffic Conditions

Existing Conditions	Trips
AADT	1200
PM Peak	114
LOS C Max for Peak Trips	780

Proposed Conditions	Trips
ITE (Land Use Code 538 Charter School K-12) Average Rate	0.83 / Student
New Peak Trips (100 Students)	83

Traffic Conditions	Trips
LOS C Peak Hour Max Trips	780
Existing Trips	114
Remaining Capacity	666
Proposed Project Trips	83
Balance After development	583 (75% capacity remaining)

Summary: Based upon the above analysis (from best available data) and an adopted level of service standard of "C" with a capacity of 780 peak hour trips, the road network serving the site is anticipated to continue to meet or exceed the level of service standard provided in the Comprehensive Plan after adding the number of trips associated with the proposed use of the site. It is estimated that there will be an increase in peak hour traffic on this road segment of 83 peak hour trips. The proposed peak hour trips (83), in addition to the existing peak hour trips (114) equate to 197 peak hour trips or 25% of the maximum capacity at Comprehensive Plan Level of Service C.