

CONCURRENCY ANALYSIS

Radiant Credit Union Lake City

22-0059



To: Robert Angelo, City of Lake City Growth Management
From: Braxton Linton III, Project Planner
Date: January 17th, 2023
Re: Radiant Credit Union Lake City – Concurrency Impact Analysis

This Concurrency Analysis is submitted for Radiant Credit Union Lake City. The proposed use is a ±2,650-square-foot Radiant Credit Union. The site is ±1.56 acres and includes Columbia County Tax Parcels 31-3S-17-06211-000, 31-3S-17-06209-000 & 31-3S-17-06201-000. The development area is in the northwest quadrant of the intersection at US 90 and NW Hackney Terrace. The site’s Future Land Use (FLU) category is Commercial. The Zoning District classification is Commercial, General (CG).

The following analysis estimates potential impacts on Lake City public facilities that may result from the proposed development. The following tables include data obtained within the City Comprehensive Plan and Florida Administrative Code (F.A.C.).

Roadways / Transportation

Trip generation figures are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition.

Table 1: Projected Trip Generation

| Land Use ¹ (ITE) | Variable Type/ Size | Daily | AM Peak | | | PM Peak | | |
|-----------------------------------|---------------------|------------|-----------|-----------|----------|-----------|-----------|-----------|
| | | Total | Total | In | Out | Total | In | Out |
| Drive-in Bank (ITE 912) | KSF/ 2.650 | 266 | 26 | 15 | 11 | 56 | 28 | 28 |
| Pass-by Rate: AM = 29%, PM = 35%* | | 85 | 8 | 4 | 4 | 20 | 10 | 10 |
| Net Total Project Trips | | 181 | 18 | 11 | 7 | 36 | 18 | 18 |

1. Source: ITE Trip Generation 11th Edition

*The ITE Trip Generation Manual 11th Edition does not provide daily pass-by rates for 912-Drive-in Bank, therefore the average of the AM and PM pass-by rates will be used, 32%

Conclusion: Approval of this application may generate **181** daily vehicle trips. This is not anticipated to negatively impact the adopted LOS for adjacent and nearby roadways.

Potable Water / Sanitary Sewer / Solid Waste

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Table 2: Projected Potable Water Impacts

| Land Use | Maximum Units | Gallons Per Day ¹ | Estimated Demand (GPD) |
|----------|---------------|--------------------------------|------------------------|
| Office | 2,650 | 15 gallons / 100 sq. ft. / day | 397.5 |

1. Source: Ch. 62E-6.008, Table 1, Florida Administrative Code

Conclusion: The project site will be served by existing Lake City of potable water infrastructure. The subject property is served by Lake City's potable water, and it's anticipated to generate 397.5 Gallons per day

Table 3: Projected Sanitary Sewer Impacts

| Land Use | Maximum Units | Gallons Per Day ¹ | Estimated Demand (GPD) |
|----------|---------------|--------------------------------|------------------------|
| Office | 2,650 | 15 gallons / 100 sq. ft. / day | 397.5 |

1. Source: Ch. 62E-6.008, Table 1, Florida Administrative Code

Conclusion: The project site will be served by existing Lake City wastewater infrastructure. The subject property is served by Lake City's sanitary sewer, and it's anticipated to generate 397.5 Gallons per day

Table 4: Projected Solid Waste Impacts

| Land Use | Units | Solid Waste Generated (lbs/day) ¹ | Solid Waste Generated (tons/year) ² |
|----------------|---------------|--|--|
| Nonresidential | 2,650 sq. ft. | 5.80 | 10.59 |

1. Formulas per Sincero and Sincero; *Environmental Engineering: A Design Approach*. Prentice Hall, New Jersey, 1996.

a. Formula used, nonresidential: $((12 \text{ lbs.} / 1,000 \text{ sq. ft./day} * [\text{XXX sq. ft.}] * 365) / 2,000)$

2. Formula used, pounds per day to tons per year: $([\text{lbs/day}] * 0.005) * 365$

Conclusion: Solid waste facility capacity exists to adequately serve the intended office development for the subject property. The subject property is served by Lake City's solid waste, and it's anticipated to generate 5.80 pounds per day and 10.59 tons per year.