SAMS, LARKIN & HUFF
A LIMITED LIABILITY PARTNERSHIP
SUITE 100
376 POWDER SPRINGS STREET
MARIETTA, GEORGIA 30064-3448

GARVIS L. SAMS, JR.
JOEL L. LARKIN
PARKS F. HUFF

770•422•7016
TELEPHONE
770•426•6583
FACSIMILE

July 31, 2024

VIA HAND DELIVERY & EMAIL

Mr. John P. Pederson, AICP, Manager
Cobb County Zoning Division
Community Development Agency
1150 Powder Springs Road, Suite 400
Marietta, GA 30064

Re: Application of Century Construction and Technologies, Inc. (originally filed with Thomas Orok as the Applicant) to Rezone an approximate 6.514-Acre Tract from CRC and R-20 to RM-8; Land Lot 1300 of the 19th District; located on the west side of Burrus Road and on the north side of Veterans Memorial Highway (1558 Veterans Memorial Highway) [Z-9 of 2024]

Dear John:

This firm represents Century Construction and Technologies, Inc. ("Applicant") concerning the above-captioned Application for Rezoning. Currently, the application is scheduled to be heard and considered by the Cobb County Planning Commission on August 6, 2024 and, thereafter, heard and considered for final action by the Cobb County Board of Commissioners on August 20, 2024.

The property at issue ("Subject Property") consists of an approximate ±6.514-acre tract of land which is located on the northwest corner of Veterans Memorial Highway and Burrus Road (1558 Veterans Memorial Highway). The Subject Property is within an area denominated as a Neighborhood Activity Center ("NAC") under Cobb County's Future Land Use Map ("FLUM") and abuts property to the north in the Low Density Residential ("LDR") land use category that includes properties zoned R-20, in addition to properties to the east zoned R-20 and Residential Duplex ("RD").

A preponderance of the properties located along Burrus Road are zoned R-20 beyond the Subject Property to the north. The proposed RM-8 zoning district will serve a transition from the single-family uses as you approach the otherwise commercial intersection of Burrus Road and Veterans Memorial Highway. The proposal will continue residential development along the southwest side of Burrus road to its intersection with Veterans Memorial Highway, at which the other three corners are zoned NS and GC.

The Applicant is requesting a Rezoning for the purpose of the construction, build-out and development of a residential townhouse community. The requested zoning district permits the proposed use. The proposed development will have ingress/egress on Veterans Memorial Highway.

During the pendency of this application, we have established a dialogue with the County's professional staff and area business and property owners. In that regard, this letter will serve as the Applicant's agreement to the following stipulations which shall become conditions and a part of the grant of the requested Rezoning and which shall be binding upon the Subject Property thereafter. The referenced stipulations are as follows, to wit:

1. The stipulations and conditions set forth herein shall replace and supersede in full any and all prior stipulations and conditions in whatsoever form which are currently in place concerning the Subject Property which constitutes the subject matter of the above-captioned Application.

2. The approval of this Application shall be specifically for the purposes of the a 42-unit residential townhome community at a density of 6.46 units per acre.

3. This Rezoning shall be in substantial conformity to that certain revised Site Plan prepared by RW Higgins, LLC Civil Engineering, which is being submitted concurrently with this Stipulation Letter, which includes changes recommended by the County's professional staff.

4. The architectural style and composition of the townhomes will be in substantial conformity to the attached renderings, elevations and floor plans.

5. Compliance with recommendations from the Cobb County Department of Transportation, as modified below based upon the attached traffic study that recommends access onto Veterans Memorial Highway instead of Burrus Road due to site distance concerns:

    a. Entering into a Development Agreement pursuant to O.C.G.A. §36-71-13 for dedication of the following system improvements to mitigate traffic concerns;

b. Donation of right-of-way on the west side of Burrus Road, a minimum of 25' from the roadway centerline;

c. Donation of right-of-way on the north side of Veterans Memorial Highway, a minimum of 50' from roadway centerline.

d. Installing curb, gutter, and sidewalk along the Burrus Road and Veterans Memorial Highway frontages to meet Cobb DOT and GDOT standards.

e. All signage and landscaping shall be installed off county right-of-way and where it will not impede the line of sight for the driveways or roadways.

f. Mail kiosk for the proposed development will be located off the right-of-way and either on the inward traffic flow or adjacent to off-street guest parking.

g. A 50' minimum straight-line distance (from end of intersection curb return to start of driveway curb return) between the first residential driveway and Burrus Road.

h. A minimum 50' feet straight-line distance (from end of curb return to start of adjacent curb return) between any residential driveways and interior roadways, adjacent curves, on-street parking or driveways.

i. Curb and gutter to be installed along both sides and sidewalk along one side of proposed private roadway. Spacing and interior rollback curb may be considered for implementation in Plan Review, subject to Cobb County DOT approval.

j. Private streets, lighting, and utilities will be constructed to the Cobb County Standard Specifications for public streets.

k. The installation of a 10' no access easement on Veterans Memorial Highway with the exception of the proposed road connection.

l. GDOT permits will be obtained for any work that encroaches on State right-of-way.

m. No access to Burrus Road due to site distance issues so the access will be on Veterans Memorial Highway.

6. Compliance with directives from the Cobb County Fire Marshal's Office regarding Life, Safety and Fire Prevention issues.

7. Subject to recommendations from the Stormwater Management Division with respect to detention, hydrology, stormwater management, water quality and downstream considerations. This stipulation includes recommendations regarding the ultimate location and configuration of on-site detention and water quality.

8. The District Commissioner shall have the authority to approve minor modifications as this development proposal proceeds through the Plan Review process and thereafter, except for those that:

    a. Reduce the size of an approved buffer adjacent to property which is zoned in a more restrictive zoning district.

    b. Relocate a structure closer to the property line to an adjacent property which is zoned in a more restrictive zoning district.

    c. Increase the height of a building adjacent to property which is zoned in a more restrictive zoning district.

    d. Change access location to different roadways.

    e. Seek Variances to provisions of the Cobb County Zoning Ordinance.

The Applicant's proposal will act as a transition from detached single-family residential to commercial at this portion of Burrus Road approaching its intersection with Veterans Memorial Highway.

Please do not hesitate to contact me should you have any questions or need any additional documentation prior to this application being heard and considered by the Planning Commission and the Board of Commissioners next month.

VIA HAND DELIVERY & EMAIL

With kind regards, I am

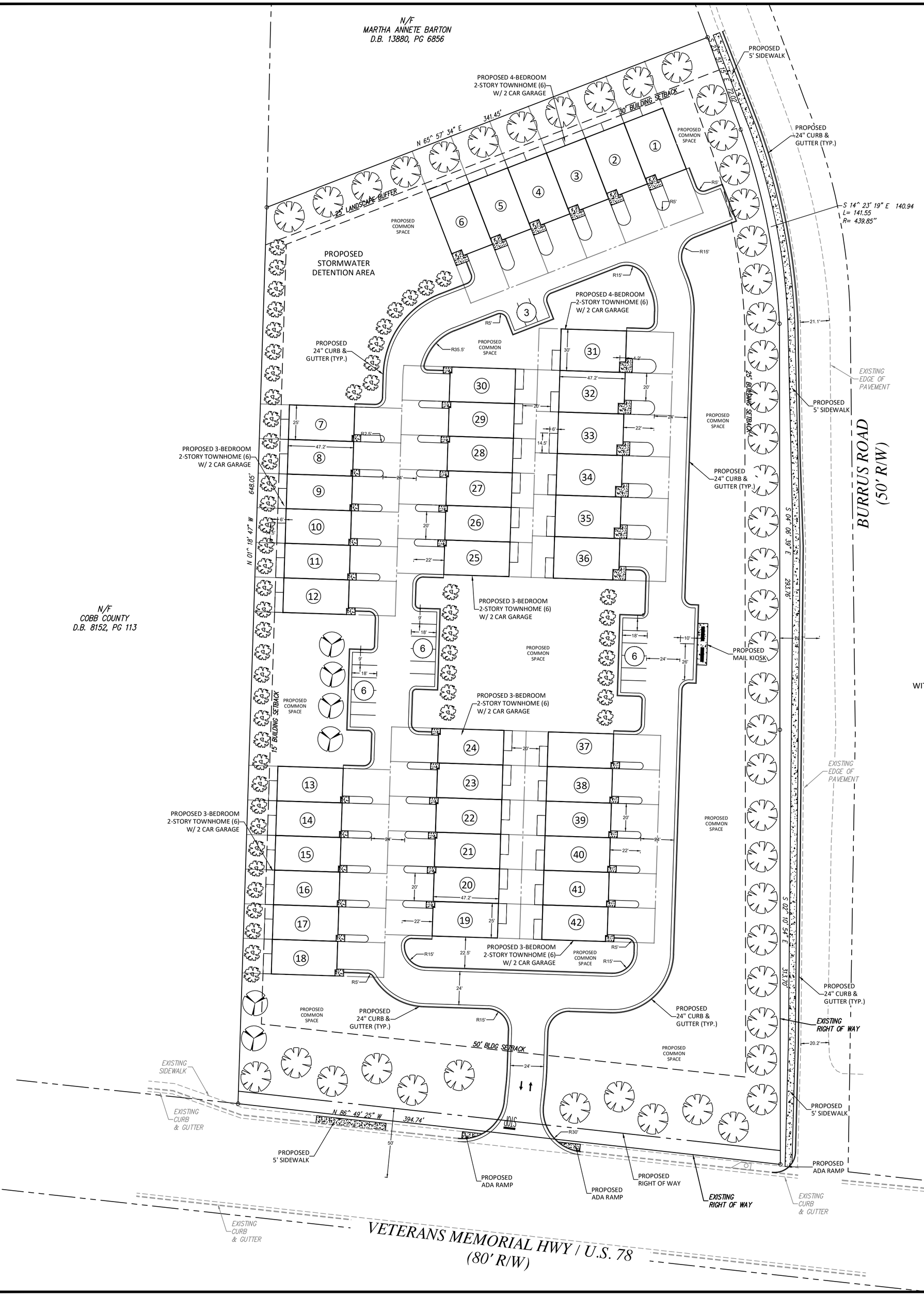
Very truly yours,

SAMS, LARKIN & HUFF, LLP

Parks F. Huff
phuff@samslarkinhuff.com

PFH/jac
Attachments

cc: Members, Cobb County Board of Commissioners (via email)
Members, Cobb County Planning Commission (via email)
Dr. Jackie McMorris, County Manager (via email)
Board of Commissioners Assistants (via email)
Ms. Jessica Guinn, AICP, Director (via email)
Mr. Terry Martin, AICP, CNU-A, Planner III (via email)
Mr. LeDarius Scott, *AICP Candidate*, Planner II (via email)
Mr. Cameron Jones, Planner II (via email)
Ms. Jessica Berman, Planner I (via email)
Ms. Pam Mabry, County Clerk (via email)
Ms. Robin Stone, Deputy County Clerk (via email)
Ms. Leila Washington, Deputy County Clerk (via email)
Mr. Jeff Byrd, Fire Marshal's Office (via email)
Ms. Ligia Florim, Cobb DOT (via email)
Mr. Andrew Heath, P.E., Stormwater Management Division (via email)
Mr. Tim Davidson, P.E., Development Review Engineer, Water System (via email)
Mr. Thomas Orok (via email)
Ms. Robin Meyer, Mableton Improvement Coalition (via email)
Ms. Becca Ford, Mableton Improvement Coalition (via email)



NOTE:
ALL DRIVES & AREAS NOT DESIGNATED WITH A LOT NUMBER ARE TO BE CONSIDERED COMMON SPACE AND WILL BE OWNED AND MAINTAINED BY THE HOME OWNERS ASSOCIATION.

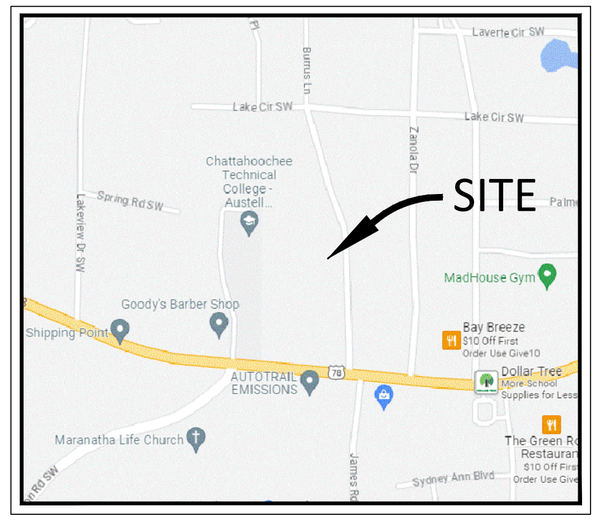
NOTE:
ALL EXISTING STRUCTURES ON THE EXISTING 6.50 ACRE LOT TO BE DEMOLISHED, ALONG WITH ALL EXISTING ASPHALT AND CONCRETE PAVING.

NOTE:
EXISTING ROAD WIDTHS AND RIGHT OF WAYS ARE APPROXIMATE AND WILL BE CONFIRMED WITH BOUNDARY AND TOPOGRAPHIC SURVEYS PRIOR TO FINAL DESIGN.

PARKING CALCULATION

MULTI-FAMILY
REQUIRED: 0.5 SPACES/ UNIT FOR UNITS W/ 2 CAR GARAGE AND MIN DRIVEWAY OF 22' LONG & 20' WIDE.
UNITS = 42
42 UNITS X 0.5 SPACES/UNIT = 21 SPACES
TOTAL REQUIRED PARKING SPACES=21 SPACES
PROVIDED SPACES=21 SPACES + 2 AT MAIL KIOSK

PRIVATE ROAD NOTE:
ROADS ARE TO BE PRIVATE AND ARE NOT INTENDED TO BE MAINTAINED BY A GOVERNMENT ENTITY OR AGENCY THEREOF.



VICINITY MAP

NOTE:

- NUMBER & LOCATION OF UNITS MAY VARY DURING DESIGN PHASE BASED ON FIELD SURVEYED CONDITIONS.

SITE DATA

- TOTAL SITE AREA = 6.5 ACRES
- PARCEL #:19130000030
- LAND LOT 1300, 19TH DISTRICT, 2ND SECTION
- CURRENT ZONING: CRC
- PROPOSED ZONING: RM-8
- PROPOSED USE: TOWNHOMES (42)
- DENSITY ALLOWED= 8 UNITS / ACRE
- PROPOSED DENSITY= 42 UNITS / 6.50 AC. = 6.46 UNITS / ACRE
- MIN LOT SIZE: 80,000 SQ FT
- MIN FRONTAGE & LOT WIDTH= 75 FT
- FRONT SETBACK= 40 OR 50 FT
- MAJOR SIDE SETBACK= 25 FT
- SIDE SETBACK= 15 FT
- REAR SETBACK= 30 FT
- MAX BUILDING HEIGHT= 35 FT
- PROPERTY INFORMATION TAKEN FROM COBB COUNTY GIS & PLAT BY THE RUSSELLE COMPANY, DATED 4/22/05
- THE PROPERTY IS NOT LOCATED WITHIN THE 100 YR FLOOD ZONE PER FIRM 13067C0203H, DATED: 3/4/2013
- THERE ARE NO STATE WATERS ONSITE
- THERE ARE NO STREAMS ONSITE
- THERE ARE NO CEMETERIES ONSITE
- THERE ARE NO WETLANDS ONSITE
- WATER PROVIDED BY COBB COUNTY
- SEWER PROVIDED BY COBB COUNTY

IMPERVIOUS AREA CALCULATION:
MAXIMUM IMPERVIOUS AREA = 45%

PROPOSED IMPERVIOUS AREA = 2.82 ACRES
2.89 ACRES / 6.50 ACRES X 100 = 43.38%

SCALE: 1" = 40'
40 0 40 80 120 FEET

GEORGIA REGISTERED No. PE041010 PROFESSIONAL ENGINEER RYAN W HIGGINS

RW HIGGINS, LLC
Civil Engineering
P.O. BOX 384
ARMUCHEE, GA 30105
706-506-5434
RYAN@RWHIGGINS.NET

FOR
WILLIAMSTONE TOWNHOMES
1558 VETERANS MEMORIAL HWY
AUSTELL, GA 30168

PROJECT
VETERANS MEMORIAL TOWNHOMES
1558 VETERANS MEMORIAL HWY
AUSTELL, GA 30168

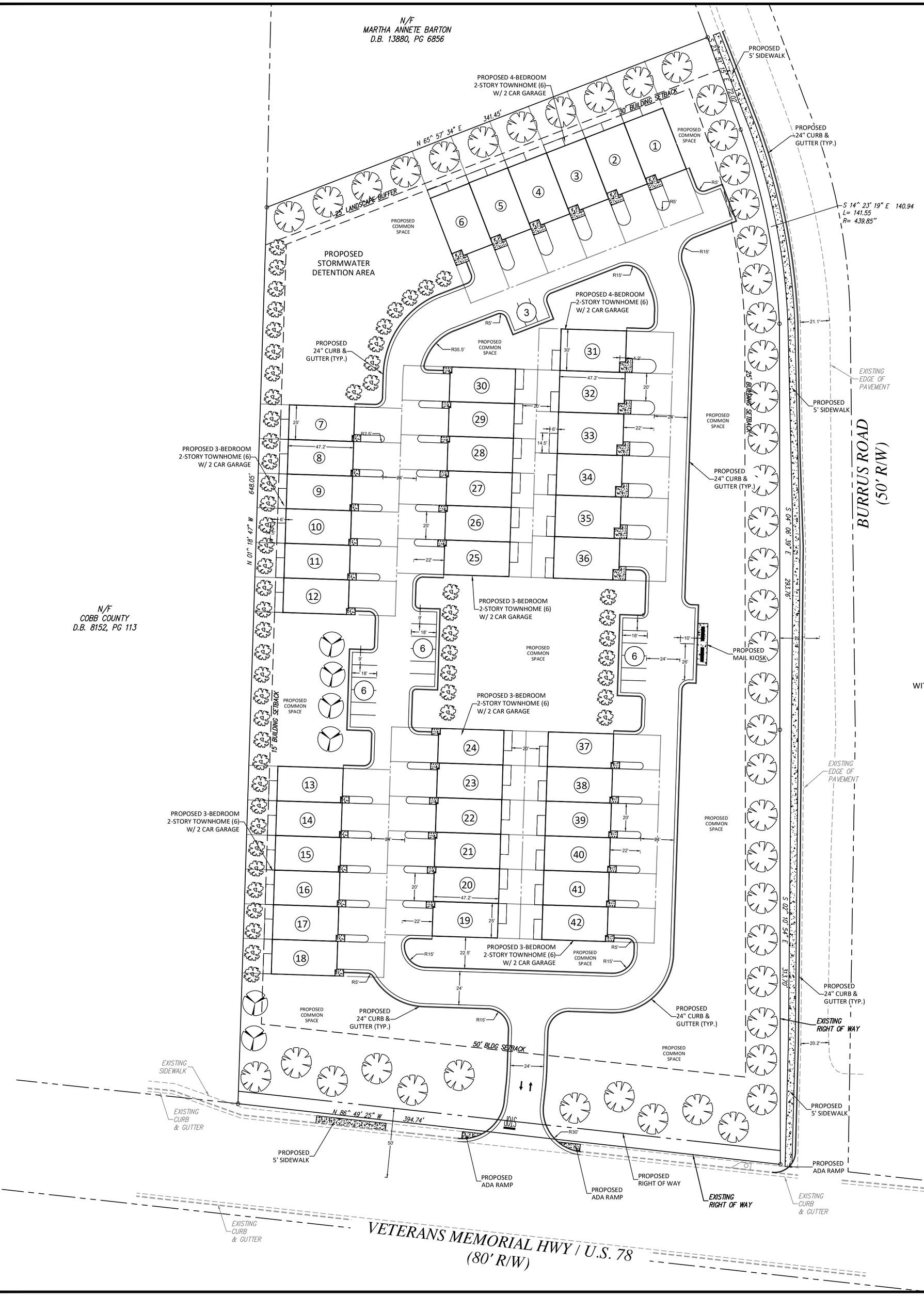
SHEET TITLE
CONCEPT PLAN/
REZONING PLAN

SHEET NUMBER
C201

PROJECT NUMBER
RW2024-17

DATE
JULY 15TH 2024

REVISIONS



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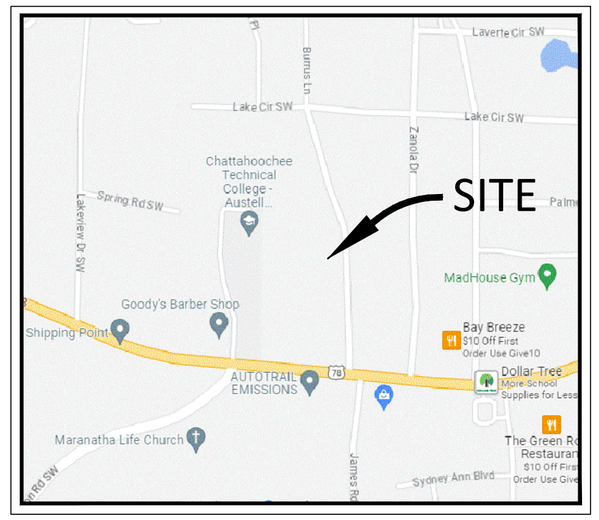

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2.89 ACRES / 6.50 ACRES X 100 = 43.38%

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GEORGIA REGISTERED No. PE041010 PROFESSIONAL ENGINEER RYAN W HIGGINS

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RYAN@RWHIGGINS.NET

FOR
WILLIAMSTONE TOWNHOMES
1558 VETERANS MEMORIAL HWY
AUSTELL, GA 30168

PROJECT
VETERANS MEMORIAL TOWNHOMES
1558 VETERANS MEMORIAL HWY
AUSTELL, GA 30168

SHEET TITLE
CONCEPT PLAN/
REZONING PLAN

SHEET NUMBER
C201

PROJECT NUMBER
RW2024-17

DATE
JULY 15TH 2024

REVISIONS

PROPOSED

NEW WILLIAMSTONE TOWNHOMES

1558 VETERANS MEMORIAL HIGHWAY, MABLETON, GA 30126

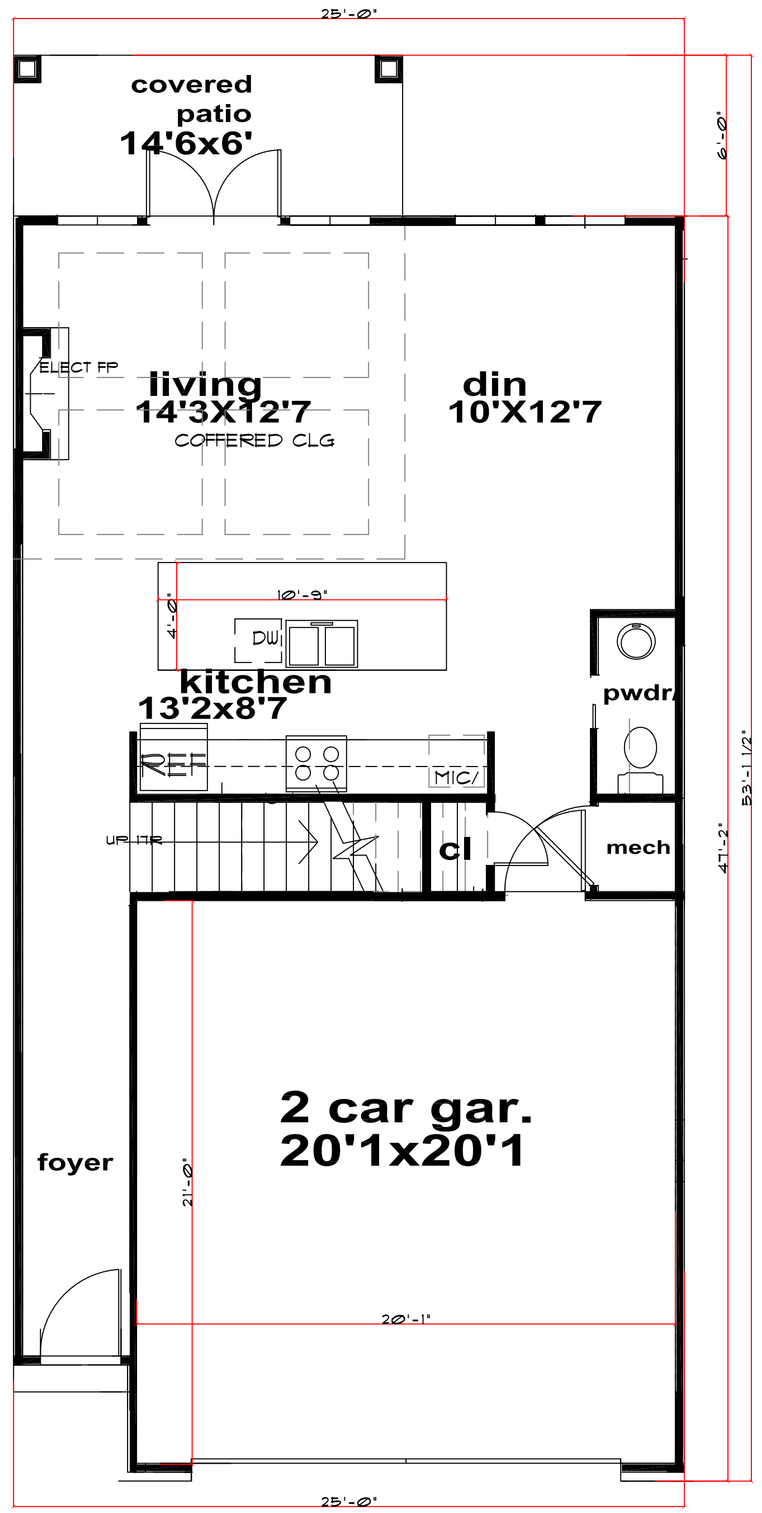
DEVELOPER/BUILDER:

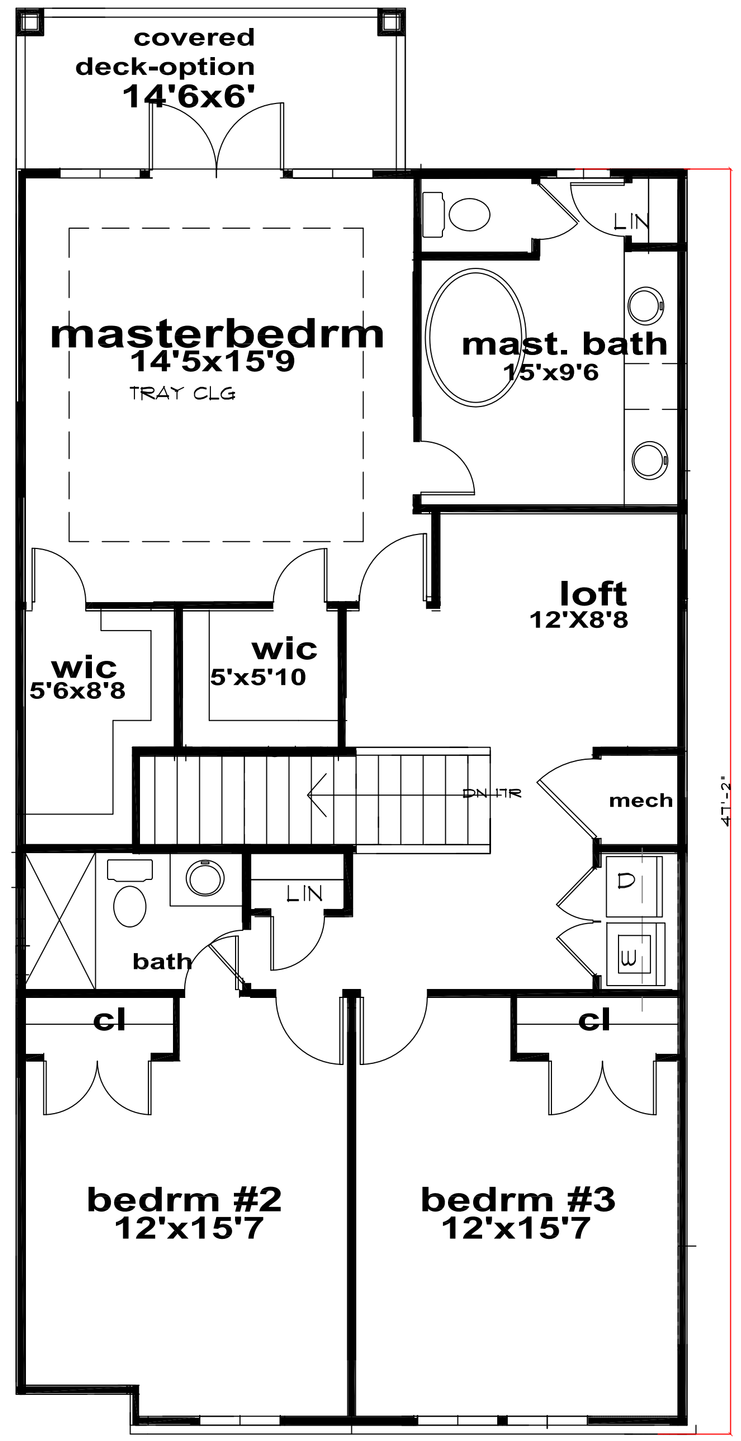
CENTURY CONSTRUCTION & TECHNOLOGIES

ARCHITECT

BOYE ARCHITECTURE

100% PRELIMINARY DESIGN SUBMITTAL - REV-JULY 25, 2024





FIRST FLOOR PLAN

1/4"=1'-0"

1154 SF
2275 sf (total heated sf) - first & second floor

SECOND FLOOR PLAN

1/4"=1'-0"
1121 SF

MODEL A

100 % PRELIMINARY DESIGN

TWO ALLIANCE CENTER
3560 LENOX ROAD, SUITE 1270
ATLANTA, GA 30326
T – 404-787-0139
www.boyearchitecture.com
www.boyehomeplans.com

COMMERICAL ARCHITECTURE BY:
BOYE ARCHITECTURE

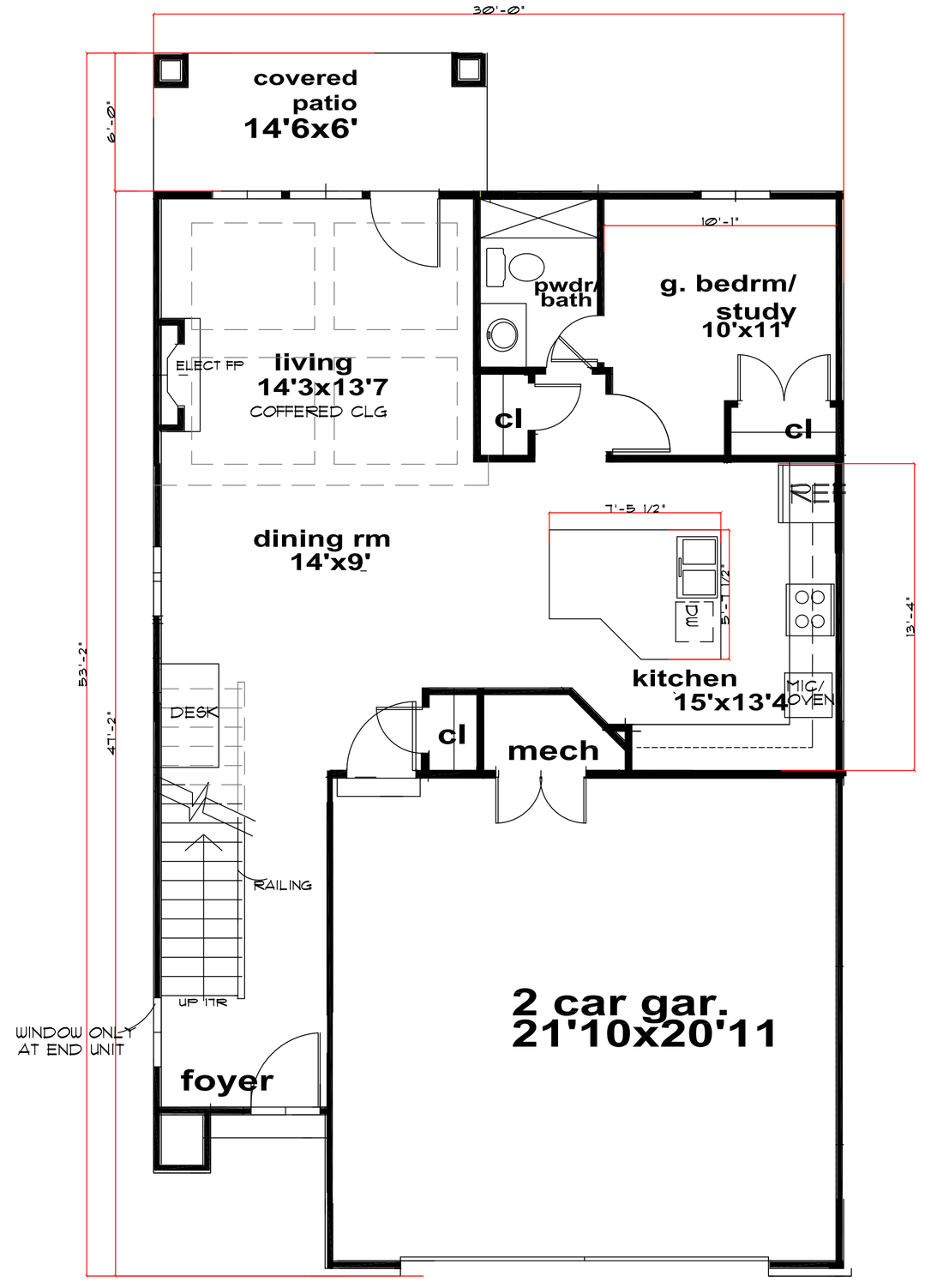
PROPOSED
NEW WILLIAMSTONE TOWNHOMES
1558 VETERANS MEMORIAL HIGHWAY, MABLETON, GA 30126

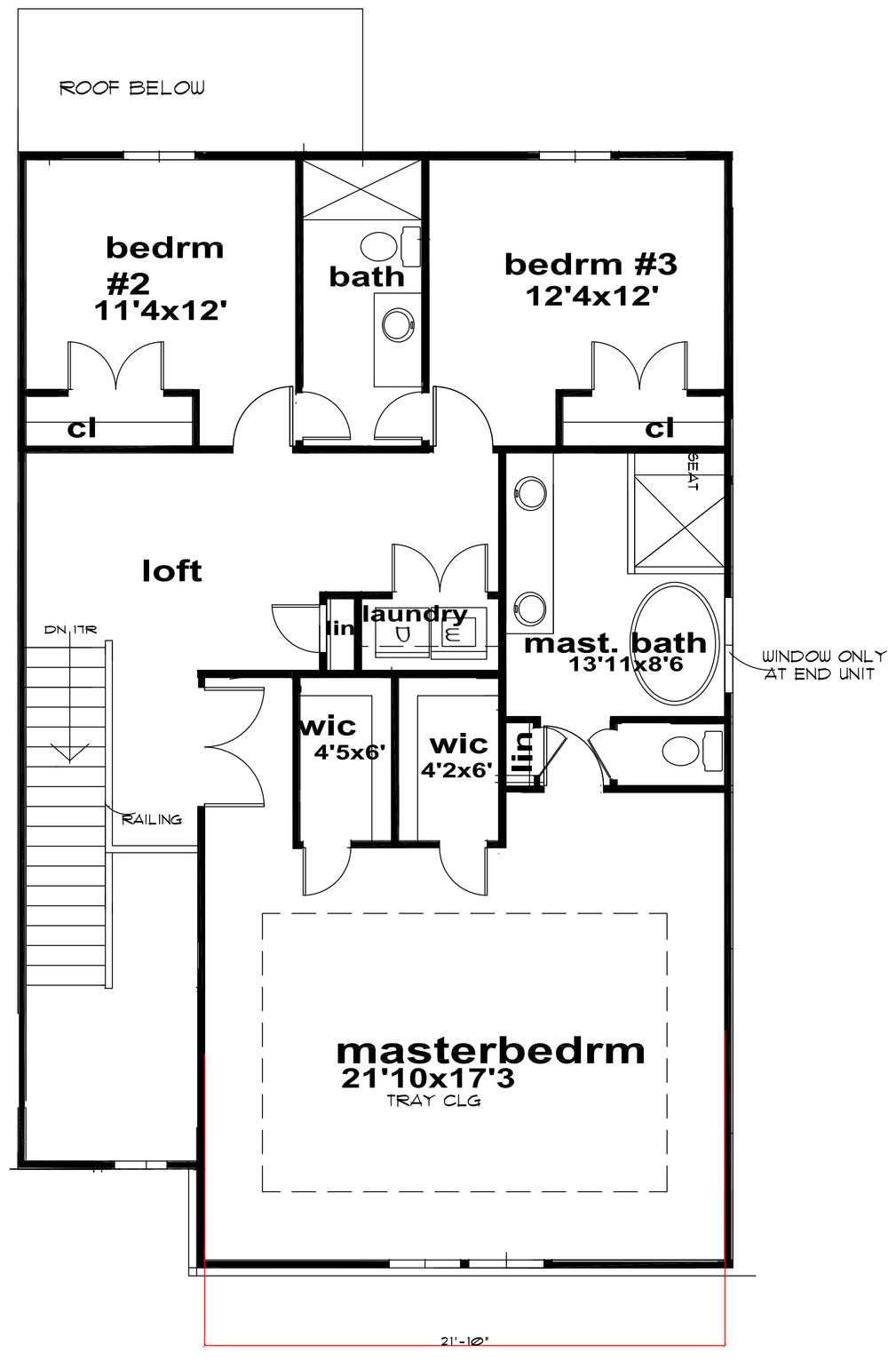
CLIENT/DEVELOPER:
CENTURY CONSTRUCTION & TECHNOLOGIES

REVISIONS	
1	01/03/24-ORIG SUBMITTAL
2	01/25/24-REV SUBMITTAL
3	
4	

DATE 01/25/24
SCALE As noted
DRAWN BA
PROJECT NO. 2024-38
SHEET NO. A-1

NOT RELEASED FOR CONSTRUCTION





FIRST FLOOR PLAN

1/4"=1'-Ø"

1356 SF
2597 sf (total heated sf) - first & second floor

SECOND FLOOR PLAN

1/4"=1'-Ø"
1241 SF

MODEL A

100 % PRELIMINARY DESIGN

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COMMERICAL ARCHITECTURE BY:
BOYE ARCHITECTURE

PROPOSED
NEW WILLIAMSTONE TOWNHOMES
1558 VETERANS MEMORIAL HIGHWAY, MABLETON, GA 30126

CLIENT/DEVELOPER:
CENTURY CONSTRUCTION & TECHNOLOGIES

REVISIONS	
1	Ø7/Ø3/24-ORIG SUBMITTAL
2	Ø7/25/24-REV SUBMITTAL
3	
4	

DATE Ø7/25/24
SCALE As noted
DRAWN BA
PROJECT NO. 2024-38
SHEET NO. A-2

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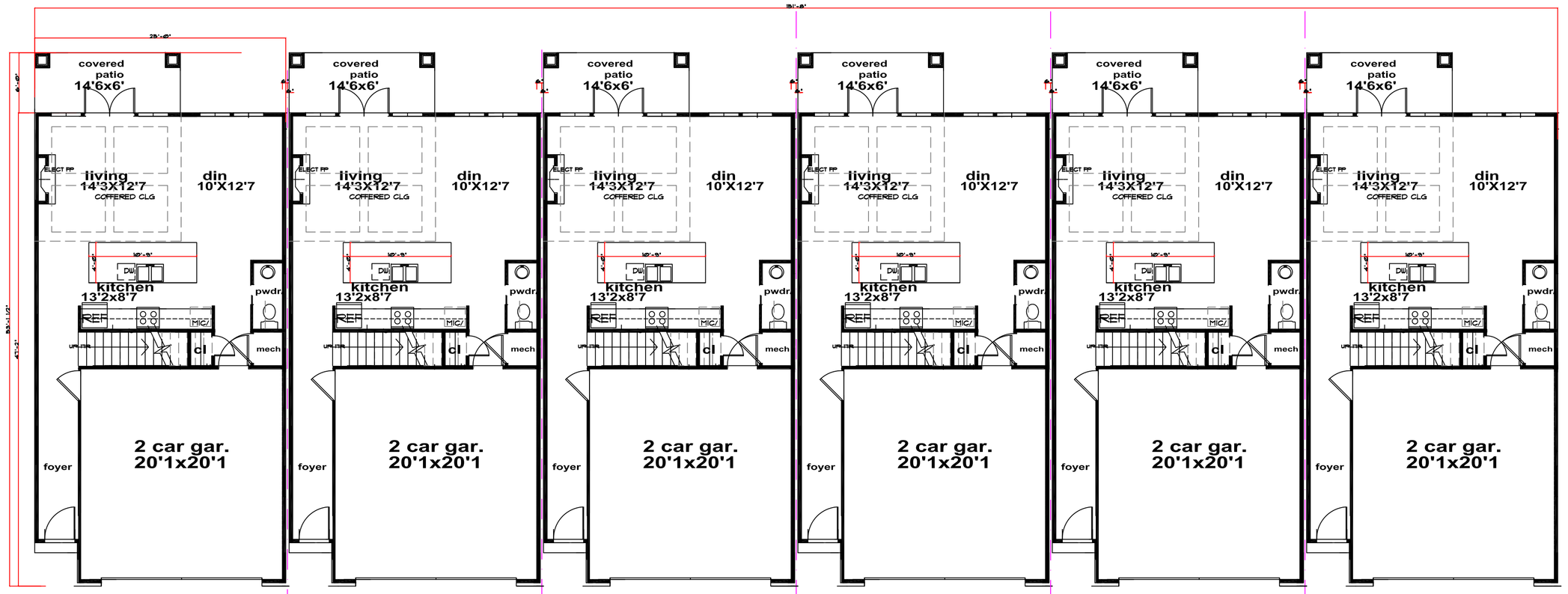
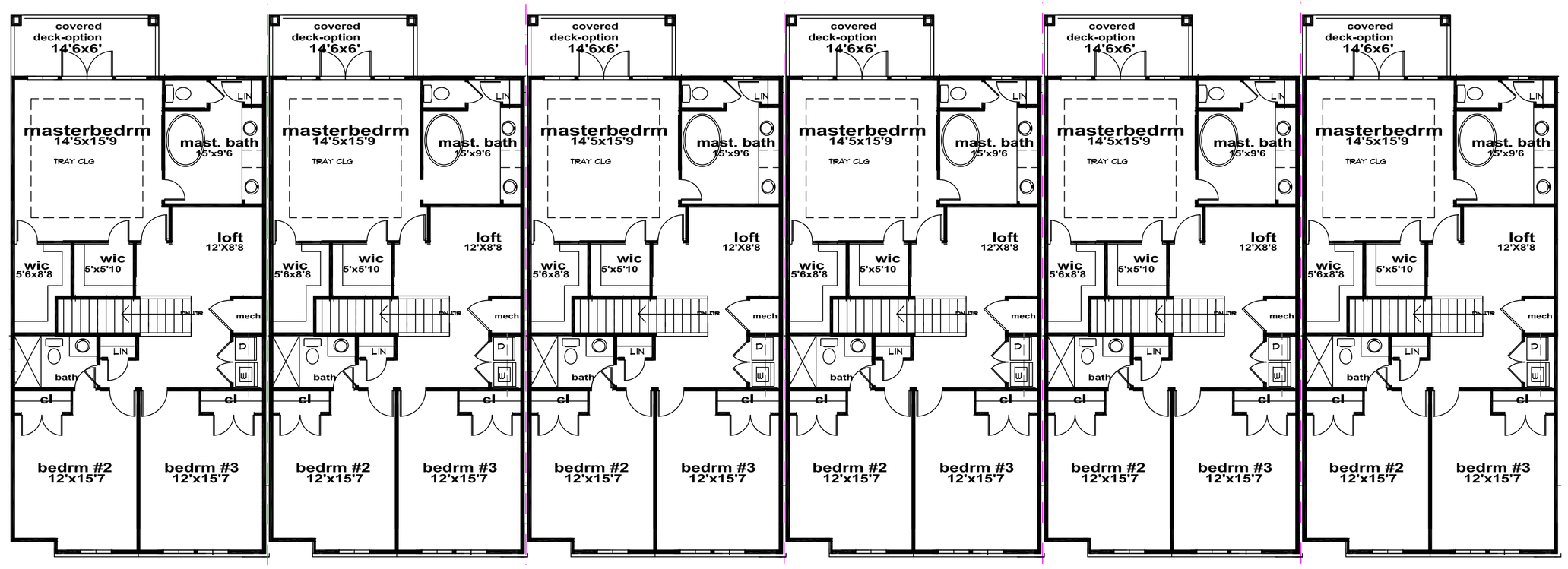


FIRST FLOOR FLOOR PLAN

1/8"=1'-0"

6924 SF - FIRST FLOOR
13,850 SF - TOTAL MODEL A



SECOND FLOOR PLAN

1/8"=1'-0"

6726 SF - SECOND FLOOR

MODEL A

100 % PRELIMINARY DESIGN

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PROPOSED

NEW WILLIAMSTONE TOWNHOMES

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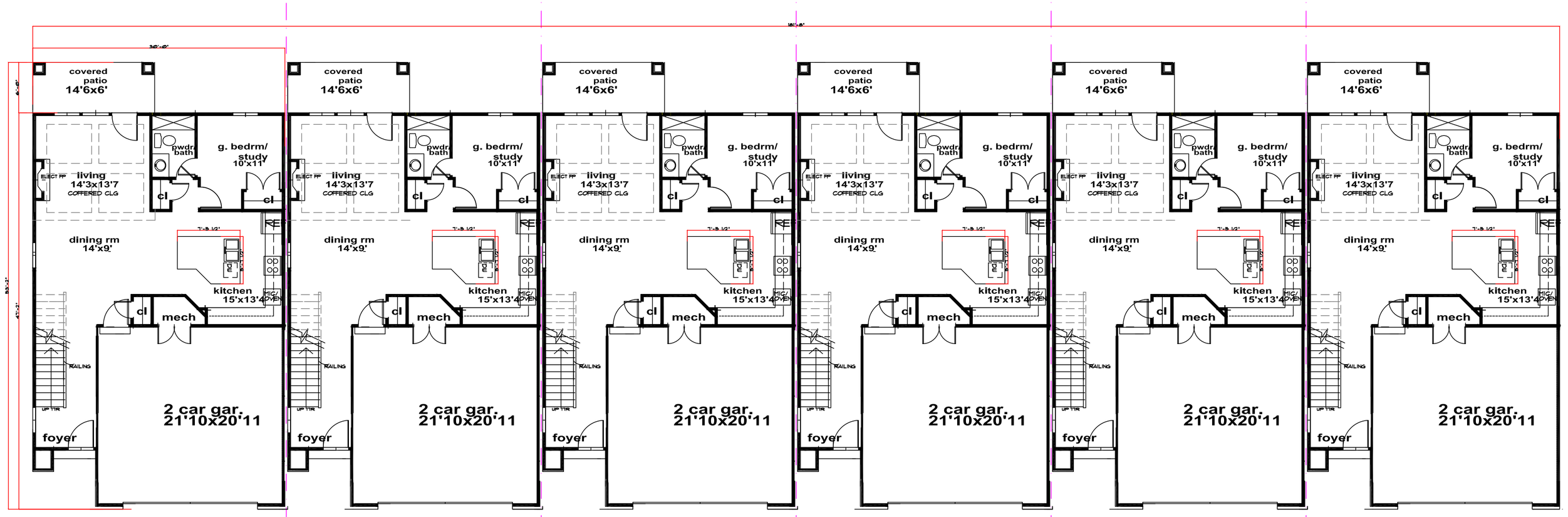
CLIENT/DEVELOPER:
CENTURY CONSTRUCTION & TECHNOLOGIES

REVISIONS		DATE	PROJECT NO.
1	07/03/24-ORIG SUBMITTAL	07/25/24	2024-38
2	07/25/24-REV SUBMITTAL	SCALE: As noted	SHEET NO.
3		DRAWN: BA	A-3
4			

NOT RELEASED FOR CONSTRUCTION

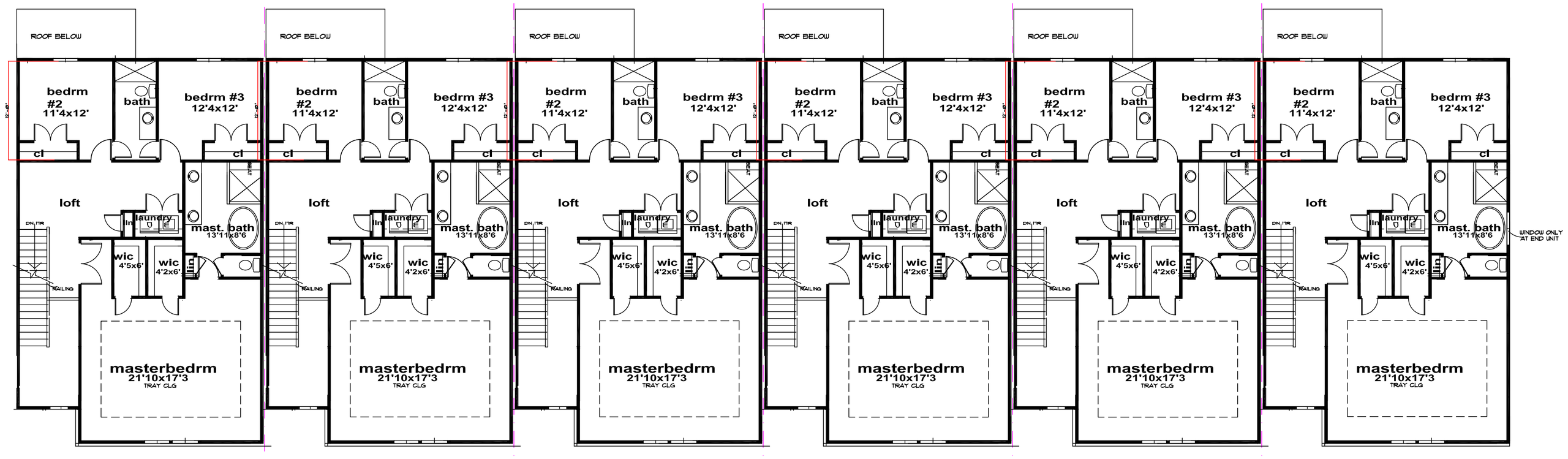


FIRST FLOOR FLOOR PLAN

1/8"=1'-0"

8,136 SF - FIRST FLOOR

15,582 SF - TOTAL MODEL A



SECOND FLOOR PLAN

1/8"=1'-0"

7446 SF - SECOND FLOOR

MODEL B

100 % PRELIMINARY DESIGN

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REVISIONS		DATE	PROJECT NO.
		01/25/24	2024-38
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3		DRAWN	
4		BA	

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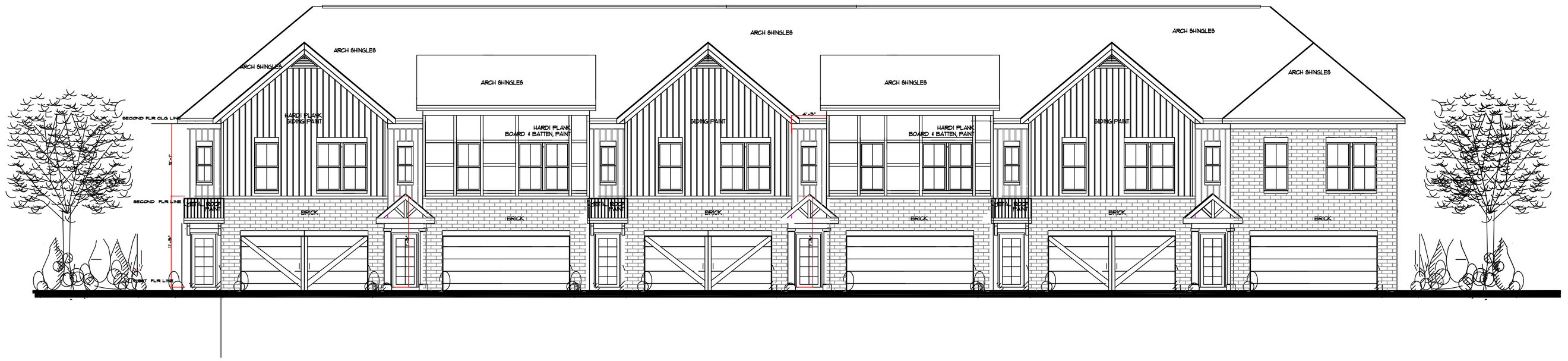

FRONT ELEVATION
SCALE: 1/8" = 1'-0"

MODEL A

MODEL B

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SCALE: As noted
DRAWN: BA
PROJECT NO. 2024-38
SHEET NO. A-4

NOT RELEASED FOR CONSTRUCTION

RW HIGGINS, LLC
Civil Engineering

Access Study: New Residential Development – Burrus Road

Tommy Orok, Developer
4511 Austell Road
Austell, GA 30106

Project No:
RW2024-17

Prepared By:
Ryan W. Higgins
Engineering Principal/Owner
RW Higgins, LLC
PO Box 384
Armuchee, GA 30105

Date:
July 18, 2024

RW HIGGINS, LLC
Civil Engineering

Table of Contents

1. Introduction and Executive Summary

The proposed development will subdivide the 6.5-acre (+/-) property into 42 individual multi-family residential lots. This study will assess the traffic generated and provide recommendations to the owner for the best locations to access the property. The study will include trip generation and traffic forecasting to the 10-year design year, driveway locations recommendations, turn lane analyses, and access control recommendations. Where practical signal warrant studies and/or GDOT Intersection Control Evaluations will be included.

Part A: Purpose of Report and Study Objectives

This study, initiated at the request of the developer, intends to provide a complete analysis of traffic generated by the proposed residential development along Burrus Road, and provide recommendations for access locations and intersection control. The main study objectives are as follows:

A. To analyze the existing traffic along Burrus Road and its intersection with US Highway 78 and detail any notable existing characteristics.
B. To accurately estimate and distribute traffic that will be generated by the proposed development and apply growth factors representative of the local area.
C. Analyze the property's existing commercial access along US Highway 78 to determine feasibility of maintain the drive, or provide practical, functional recommendations for new access locations.

Part B: Executive Summary

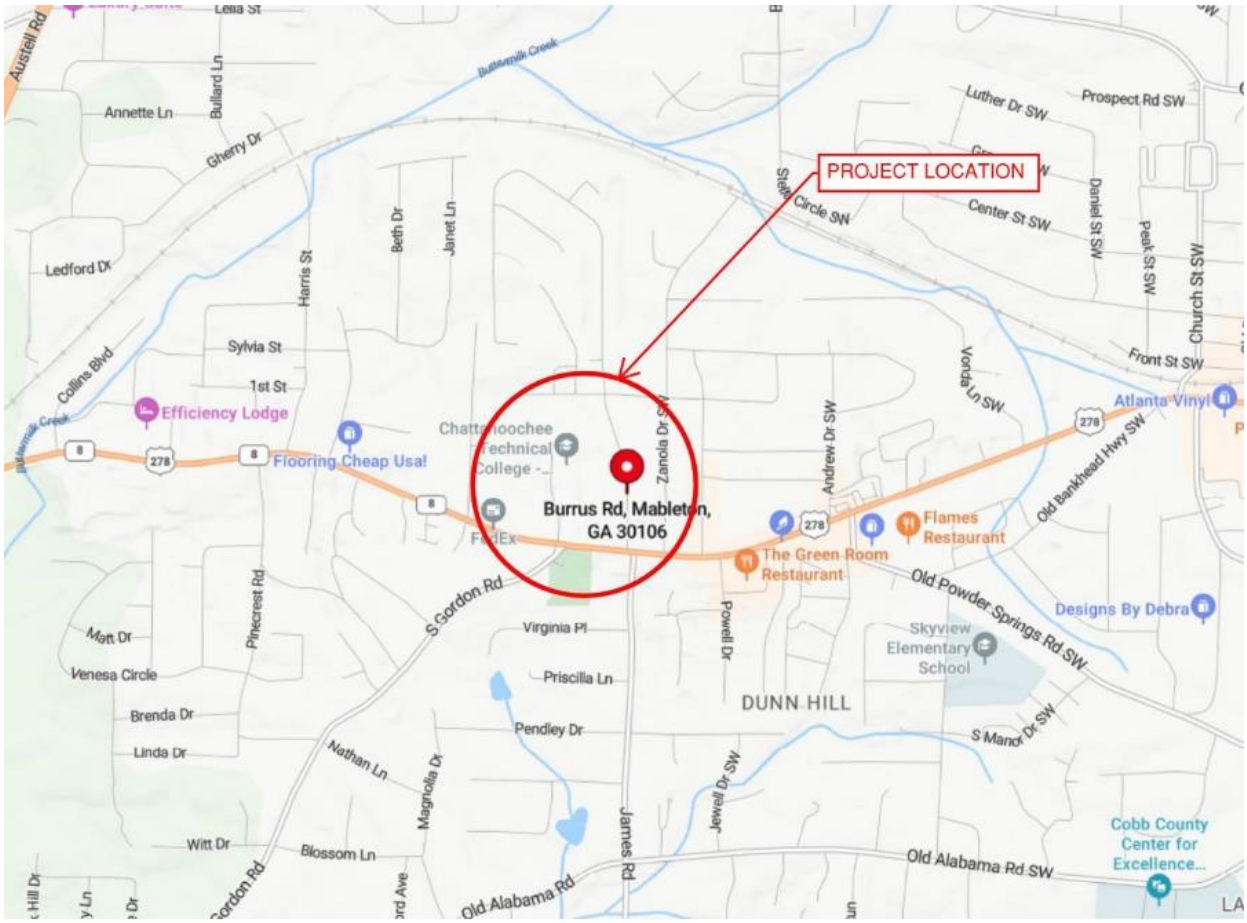
The study area is centralized in a very urban area in Austell, GA. A study of roadways in the vicinity with similar characteristics establishes a traffic growth rate of 0.84% year-over-year. The minimal growth rate paired with the very minor addition of peak hour trips from developmental traffic negates the need for a detailed intersection control study when recommending access locations. Stop control is the recommended intersection control for access/egress at the development drive.

With limited traffic noted, recommended access location is focused on existing drive locations, roadway geometrics, and intersection sight triangles. Because of limited sight distance due to roadway geometrics and vegetation, and because an existing driveway is currently maintained along US Highway 78, it is recommended that access along US Highway 78 is retained. With that recommendation in mind, this report also recommends shifting the driveway to the center on the proposed development. Though this would decrease driveway spacing between the access drive a Burrus Road, it would allow left turners to access and queue in the existing two-way left turn lane.

The need for auxiliary turn lanes on US Highway 78 was also reviewed during study. ITE's web-based trip generation app notes that an estimated 270 total daily trips will utilize this drive during a normal weekday. Beginning with this number, it is calculated that approximately 68 vehicles will be turning right and 68 turning left into the development daily if the driveway directly accesses US Highway 78. Because of low volumes accessing/egressing the proposed residential development, an auxiliary turn lane should not be requirement in in this circumstance.

Additional recommendations for design are as follows:
- Minimum Driveway width should be 24' and allow for two-way traffic.
- Corner radii should exceed 35'.
- The angle of intersection with the mainline road should be between 85° and 90°.
- The site should be graded, and the profile of the drive should be designed so that no development water encroaches onto US Highway 78.
- Adequate pedestrian facilities should be provided in design.

2. Study Area and Surrounding Developments



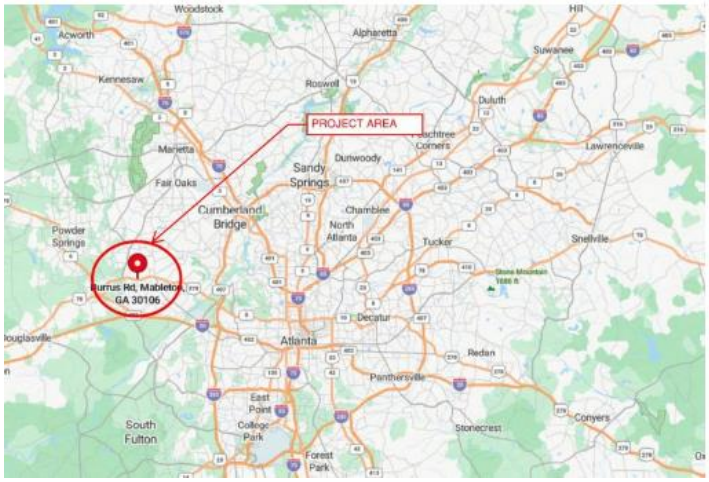


Exhibit 2.1: Site Location Map

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Civil Engineering

Part A: Limits of Study

The proposed development is in the northwest quadrant of the intersection of US Highway 78 and Burrus Road in Austell, GA. The study is focused specifically on the developments access locations, and the intersection of Burrus US Highway 78 and Burrus Road.

Part B: Existing Roadways

US Highway 78

Classified as a Principal Arterial by the Georgia Department of Transportation, US Highway 78 is a four-lane, urban highway with a two-way left turn lane throughout the area of study. The road features minimal clear zone with walls (less than 3' in height), signs, bollards, and utility poles interspersed throughout the area. Longitudinal drainage is carried by a 1.5' gutter (private and Longitudinal drainage is carried along the shoulders by curb and gutter backed immediately by sidewalk. West of the intersection of study US 78 accesses SR6 and in turn Interstate 20. To the east it continues until it intersects Interstate 285. Both directions giving indirect area access to greater Atlanta area to the south. Both asphalt and striping appear to be in good condition thought the area of study. The posted speed limit is 45 MPH.

Burrus Road

Burrus Road is a local, two-lane roadway that terminates at its intersection with Lake Circle and the continues though the intersection as Burrus Lane. Burrus Lane terminates as a cul-de-sac after providing access to a dense residential area. Burrus Road's intersection with US Highway 78 is stop-controlled with US 78 maintaining thru right of way. Longitudinal drainage is carried via ditches along the roadside. Slopes are generally traversable, but non-traversable areas exist. Trees and vegetation, utility poles, and other structures encroach the recommended clear zone. Cracking exists in the pavement throughout the asphalt roadway and striping is not visible along the road. The posted speed limit is 25 MPH.

Part C: Proposed New Residential Development

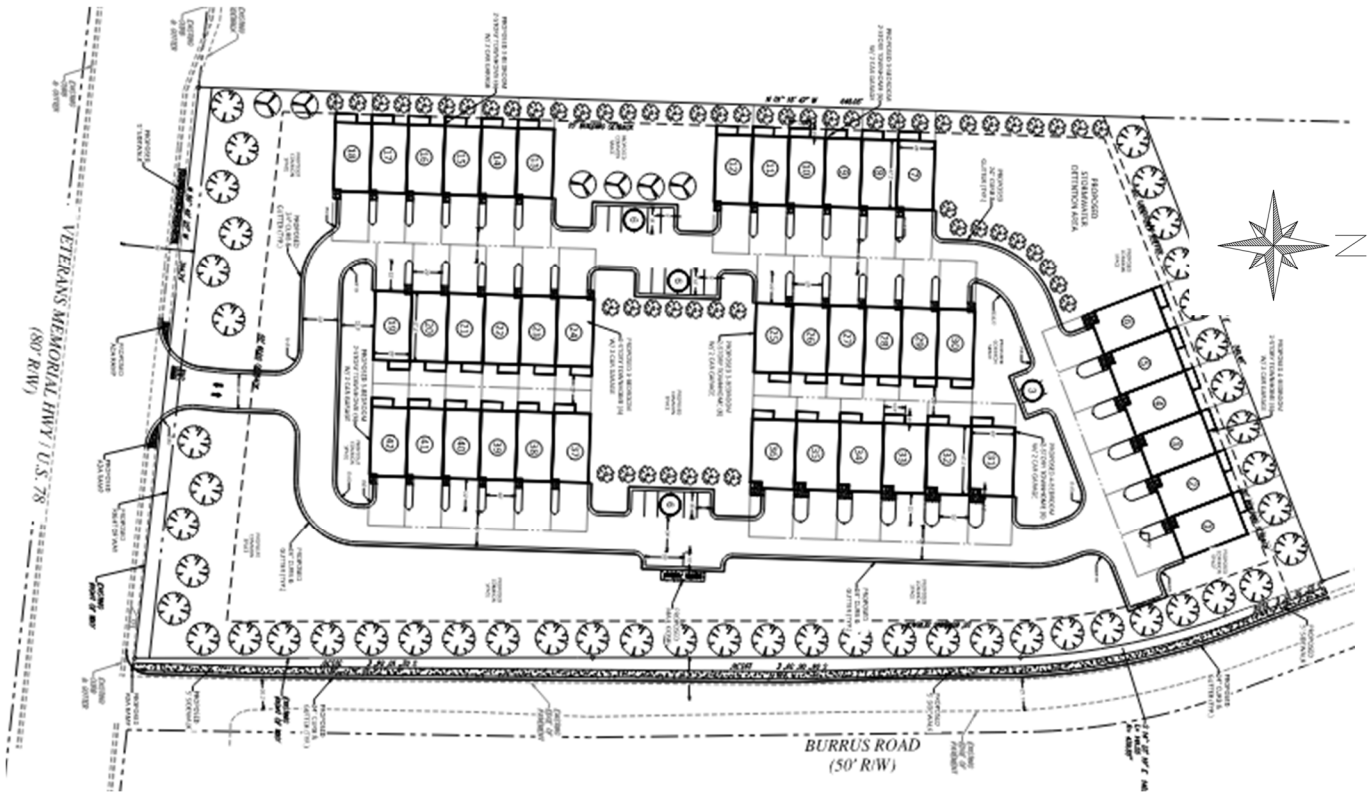

Exhibit 2.C.1: Proposed New Residential Development

RW HIGGINS, LLC
Civil Engineering

Proposed Residential Development
The proposed residential development subdivides the 6.5-acre (+/-) property into 42 single-family residential parcels with approximately 1.21-acres of grassed common space. The property currently maintains stop-controlled commercial access along US Highway 78 approximately 65-ft east of the western property boundary. Through this study, RW Higgins LLC recommends retaining stop-control, but shifting the drive 140-ft west along US Highway 78. Internal intersections will be stop-controlled.

3. Traffic Volumes

Part A: Existing Traffic

On Tuesday, July 9, 2024, cameras were set up at Burrus Road's intersection with US Highway 78 to record turning movements. Counts were then completed at the RW Higgins LLC office. Some pedestrian movement did occur during the hours of study. However, because the number of pedestrians was negligible, they were not included in the study. Counts are tabulated in in *Exhibit 3.C.2: AM Background Traffic – US 78 at Burrus Road* and *Exhibit 3.C.3: PM Background Traffic – US 78 at Burrus Road*.

Part B: Trip Generation and Distribution

Trips were estimated for the new development based on the Trip Generation Manual 11th Edition via ITE's web-based app. The total number of planned dwelling units (46 total) was used as a basis for the estimate. Expected peak hour trips for each new considered new drive location were assigned and distributed to individual movements. Trip Generation Charts and Assigned Movements are detailed in *Appendix B: Intersection Counts, Traffic Assignment, and Growth*.

Though two locations exist for consideration (either along Burrus Road or Along US Highway 78), the proposed development will only have one final access location. So, all expected traffic will be allocated to a single entrance and exit. This noted, hourly ratios were calculated along both studied roadways based on counts obtained. Because traffic is expected to follow the same patterns, the trips were then distributed to individual movements based on these ratios.

Proposed Access Location #1: US Highway 78 - This location provides direct access to US Highway 78 negating the need to study any additional, downstream intersections. Developmental traffic was assigned to individual movements based on the hourly distribution of existing traffic along US Highway 78.

Proposed Access Location #2: Burrus Road – This locations accesses Burrus Road and then, in turn, US 78. Initially development traffic was assigned to Burrus Road according to existing hourly distribution along that roadway. Then, development traffic turning in the direction of US Highway 78 was assigned to that intersection's movements according to existing hourly distributions along US Highway 78.

Development Based Movement Assignment At Considered Drive Locations

Location #1: US Highway 78 Direct Access

Burrus Road	AM	PM
EB Right	9	3
EB Left	3	3
NB Left	5	7
SB Right	2	2

US 78	AM	PM
SB Right	2	2
SB Left	8	2
EB Left	4	6
WB Right	2	2

Location #2: Burrus Road Access

US 78	AM	PM
SB Right	3	3
SB Left	9	3
EB Left	5	7
WB Right	2	2

Exhibit 3.B.1: Development Based Movement Assignment at Considered Drive Locations

Part C: Background Growth

This project used a compounded growth rate to forecast 10-year traffic. To develop a growth rate estimate, recent and historical counts were documented from four separate GDOT stations, along four separate but characteristically similar roadways in Cobb County. The time span between the historical counts and recent counts were approximately 10 years at each station. The Compound Annual Growth Rate was then calculated for each individual station, and all stations averaged to develop a standard growth rate for the area. The estimate is tabulated in *Table 3.C.1: Growth Rate Estimation.*

Growth Rates						
		Intial Count		Most Recent Count		Growth
Roadway	Site #	Year	AADT	Year	AADT	Rate
US 78 / Veterans Memorial	0000067_2289	2015	20400	2023	25100	0.0263
Mableton Parkway	0000067_2541	2016	21700	2022	20000	-0.0135
Floyd Road	0000067_2335	2018	35100	2022	37200	0.0146
CH James Parkway	0000067_4324	2015	35800	2023	37600	0.0062
				Average Growth Rate:		0.0084

Exhibit 3.C.1: Growth Rate Estimation

US Highway 78 and Burrus Road 0600 to 0845 Tuesday, July 9, 2024												
		Burrus Road SB APPROACH			US 78 / Veterans Memorial EB APPROACH			US 78 / Veterans Memorial WB APPROACH			INTERSECTION	
Time		Left	Right	U-Turn	Left	Thru	U-Turn	Thru	Right	U-Turn	Total	Rolling Hour
6:00:00	6:14:59	1	1		1	212		44	1		260	1359
6:15:00	6:29:59	5	1		0	261		56	1		324	1536
6:30:00	6:44:59	5	1		0	291		55	3		355	1629
6:45:00	6:59:59	5	0		1	324		87	3		420	1718
7:00:00	7:14:59	10	1		1	349		75	1		437	1814
7:15:00	7:29:59	11	1		0	316		87	2		417	1835
7:30:00	7:44:59	9	1		2	333		97	2		444	1782
7:45:00	7:59:59	9	2		2	379		123	1		516	1729
8:00:00	8:14:59	9	2		3	350		90	4		458	1455
8:15:00	8:29:59	4	3		2	244		107	4		364	
8:30:00	8:44:59	9	1		1	263		114	3		391	
8:45:00	8:59:59	9	4		1	227		0	1		242	
Peak Hour Total		38	6	0	7	1378	0	397	9	0	1835	
Peak 15 Min		11	2	0	3	379	0	123	4	0	516	
Peak Hour Factor (PHF)		0.86	0.75		0.58	0.91		0.81	0.56		0.89	
Traffic Assignments & Growth												
1YR Background Traffic		39	7	0	8	1390	0	401	10	0	1855	
10YR Background Traffic		43	8	0	9	1512	0	436	11	0	2019	

Exhibit 3.C.2: AM Background Traffic – US 78 at Burrus Road

US Highway 78 and Burrus Road 1530 to 1830 Tuesday, July 9, 2024												
		Burrus Road SB APPROACH			US 78 / Veterans Memorial EB APPROACH			US 78 / Veterans Memorial WB APPROACH			INTERSECTION	
Time		Left	Right	U-Turn	Left	Thru	U-Turn	Thru	Right	U-Turn	Total	Rolling Hour
15:30:00	15:44:59	2	2		7	156		227	5		399	1699
15:45:00	15:59:59	3	3		2	160		254	4		426	1770
16:00:00	16:14:59	3	5		2	185		224	5		424	1848
16:15:00	16:29:59	3	6		3	170		262	6		450	1965
16:30:00	16:44:59	7	3		4	186		261	9		470	2061
16:45:00	16:59:59	2	5		2	190		303	2		504	2140
17:00:00	17:14:59	9	7		8	174		326	17		541	2217
17:15:00	17:29:59	4	1		4	176		349	12		546	2225
17:30:00	17:44:59	7	1		4	216		314	7		549	2203
17:45:00	17:59:59	9	4		4	217		335	12		581	
18:00:00	18:14:59	5	2		2	242		290	8		549	
18:15:00	18:29:59	3	2		2	188		321	8		524	
Peak Hour Total		25	8	0	14	851	0	1288	39	0	2225	
Peak 15 Min		9	4	0	4	242	0	349	12	0	581	
Peak Hour Factor (PHF)		0.69	0.50		0.88	0.88		0.92	0.81		0.96	
Traffic Assignments & Growth												
1YR Background Traffic		26	9	0	15	859	0	1299	40	0	2248	
10YR Background Traffic		29	10	0	17	934	0	1413	44	0	2447	

Exhibit 3.C.3: PM Background Traffic – US 78 at Burrus Road

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Civil Engineering

4. Collisions

Collisions spanning the 5-year period between July 1, 2019, and July 1, 2024, at the existing intersection of US 78 and Burrus Road were pulled via the Georgia Incident Accident Reporting System (GEARS) and studied for notable patterns. 6 total collisions specific to this intersection were found. Of those 6 collisions, 2 involved injuries and no fatalities occurred. Rear End type collisions were the dominate collision type (50% of collisions), followed by angle type and sideswipe – same direction (17% each). Collisions are detailed in *Table 4.1: Collisions*.

Case Number	Date and Time of Collision	Intersection	Manner of Collision	Most Severe Injury Type
23021022	3/17/2023 7:33	VETERANS MEMORIAL HWY at BURRUS RD	Not a Collision with Motor Vehicle	Suspected Serious Injury
23014628	2/22/2023 17:08	VETERANS MEMORIAL HWY at BURRUS RD	Rear End	Possible Injury or Complaint
23025367	3/31/2023 9:06	VETERANS MEMORIAL HWY at BURRUS RD	Angle	No Apparent Injury
23053555	7/7/2023 20:05	VETERANS MEMORIAL HWY at BURRUS RD	Rear End	No Apparent Injury
24021184	3/26/2024 17:10	VETERANS MEMORIAL HWY at BURRUS RD	Rear End	No Apparent Injury
21072452	9/14/2021 17:32	VETERANS MEMORIAL HWY at BURRUS RD	Sideswipe - Same Direction	No Apparent Injury

Exhibit 4.1: Collisions

5. Signal Warrant Analysis

A signal warrant analysis was completed based on existing volumes for the intersection of US Highway 78 and Burrus Drive based on existing traffic volumes noted in *Section 3: Traffic Volumes* of this report. No warrants were satisfied in the study. The study relied solely on 100% criteria.

6. Access Analysis

Part A: Site Access Basis of Study

As illustrated in the concept, the proposed development will have a single access point either along Burrus Road or along US Highway 78. Because the proposed development adds only a very low volume of traffic to its adjacent roadways, and because most of the traffic entering/exiting at either location will utilize US Highway 78, adverse effects on intersection delay will be very similar along US Highway 78 no matter which access location is used. Therefore, delay was not considered a major factor in this study. Recommendations from this study will focus on existing drive locations, roadway geometrics, and intersection sight triangles. As a basis for recommendations the Georgia Department of Transportation's *Regulations for Driveway Encroachment Control* manual was used.

Part B: Geometric Considerations

Burrus Road
Burrus Road is a two-lane, dead-end road with sight distance limited by horizontal and vertical curves. Trees and vegetation exist within the clear zone throughout the area of study and further limit sight distance along the road. Neither striping nor shoulders exist. Additionally, there is a significant grade distance between the roadway and the northern portion of the property. This difference will greatly increase the cost of driveway construction if access along Burrus Road is pursued.

Though recommended driveway spacing could not be maintained with residential properties along Burrus Road, because no commercial properties or dense subdivisions exist in the vicinity, it could easily maintain spacing from other higher volume drives. It could also maintain the GDOT required offsets from State Routes.

US Highway 78
Grades along US Highway 78 are much less limiting allowing for a much lower cost of construction and intersection sight triangles that exceed requirements. Obstructions do exist within the clear zone along the roadway, but those obstructions do not significantly affect the line of sight at the driveway location.

The property is currently accessed by a commercial driveway that maintains the required GDOT spacing. However, the two-way left turn lane becomes a left turn solely for adjacent South Gordon Road at the driveway's location. Though it does nothing to physically restrict left turns onto the property, it does deny access to the two-way turn lane and could promote drivers to queue in the thru lane while waiting for an opening in traffic to make the turn.

7. Conclusions and Recommendations

The study area is centralized in a very urban area in Austell, GA. A study of roadways in the vicinity with similar characteristics establishes a traffic growth rate of 0.84% year-over-year. The minimal growth rate paired with the very minor addition of peak hour trips from developmental traffic negates the need for a detailed intersection control study when recommending access locations. Stop control is the recommended intersection control for access/egress at the development drive.

With limited traffic noted, recommended access location is focused on existing drive locations, roadway geometrics, and intersection sight triangles. Because of limited sight distance due to roadway geometrics and vegetation, and because an existing driveway is currently maintained along US Highway 78, it is recommended that access along US Highway 78 is retained. With that recommendation in mind, this report also recommends shifting the driveway to the center on the proposed development. Though this would decrease driveway spacing between the access drive a Burrus Road, it would allow left turners to access and queue in the existing two-way left turn lane.

The need for auxiliary turn lanes on US Highway 78 was also reviewed during the study. ITE's web-based trip generation app notes that an estimated 270 total daily trips will utilize this drive during a normal weekday. Beginning with this number, it is calculated that approximately 68 vehicles will be turning right and 68 turning left into the development daily if the driveway directly accesses US Highway 78. Because of low volumes accessing/egressing the proposed residential development, an auxiliary turn lane should not be requirement in in this circumstance.

Additional recommendations for design are as follows:

- Minimum Driveway width should be 24' and allow for two-way traffic.
- Corner radii should exceed 35'.
- The angle of intersection with the mainline road should be between 85° and 90°.
- The site should be graded, and the profile of the drive should be designed so that no development water encroaches onto US Highway 78.
- Adequate pedestrian facilities should be provided in design.

Appendix A: Trip Generation and Hourly Traffic Disbursement

Development Based Movement Assignment At Considered Drive Locations

Location #1: US Highway 78 Direct Access

Burrus Road	AM	PM
EB Right	9	3
EB Left	3	3
NB Left	5	7
SB Right	2	2

US 78	AM	PM
SB Right	2	2
SB Left	8	2
EB Left	4	6
WB Right	2	2

Location #2: Burrus Road Access

US 78	AM	PM
SB Right	3	3
SB Left	9	3
EB Left	5	7
WB Right	2	2

Appendix B: Intersection Counts, Traffic Assignment, and Growth

US Highway 78 and Burrus Road 0600 to 0845 Tuesday, July 9, 2024												
		Burrus Road SB APPROACH			US 78 / Veterans Memorial EB APPROACH			US 78 / Veterans Memorial WB APPROACH			INTERSECTION	
Time		Left	Right	U-Turn	Left	Thru	U-Turn	Thru	Right	U-Turn	Total	Rolling Hour
6:00:00	6:14:59	1	1		1	212		44	1		260	1359
6:15:00	6:29:59	5	1		0	261		56	1		324	1536
6:30:00	6:44:59	5	1		0	291		55	3		355	1629
6:45:00	6:59:59	5	0		1	324		87	3		420	1718
7:00:00	7:14:59	10	1		1	349		75	1		437	1814
7:15:00	7:29:59	11	1		0	316		87	2		417	1835
7:30:00	7:44:59	9	1		2	333		97	2		444	1782
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8:30:00	8:44:59	9	1		1	263		114	3		391	
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Peak Hour Total		38	6	0	7	1378	0	397	9	0	1835	
Peak 15 Min		11	2	0	3	379	0	123	4	0	516	
Peak Hour Factor (PHF)		0.86	0.75		0.58	0.91		0.81	0.56		0.89	
Traffic Assignments & Growth												
1YR Background Traffic		39	7	0	8	1390	0	401	10	0	1855	
10YR Background Traffic		43	8	0	9	1512	0	436	11	0	2019	

US Highway 78 and Burrus Road 1530 to 1830 Tuesday, July 9, 2024												
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Time		Left	Right	U-Turn	Left	Thru	U-Turn	Thru	Right	U-Turn	Total	Rolling Hour
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15:45:00	15:59:59	3	3		2	160		254	4		426	1770
16:00:00	16:14:59	3	5		2	185		224	5		424	1848
16:15:00	16:29:59	3	6		3	170		262	6		450	1965
16:30:00	16:44:59	7	3		4	186		261	9		470	2061
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17:00:00	17:14:59	9	7		8	174		326	17		541	2217
17:15:00	17:29:59	4	1		4	176		349	12		546	2225
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Peak 15 Min		9	4	0	4	242	0	349	12	0	581	
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Traffic Assignments & Growth												
1YR Background Traffic		26	9	0	15	859	0	1299	40	0	2248	
10YR Background Traffic		29	10	0	17	934	0	1413	44	0	2447	

Appendix C: Trip Generation Data

Single-Family Attached Housing
(215)

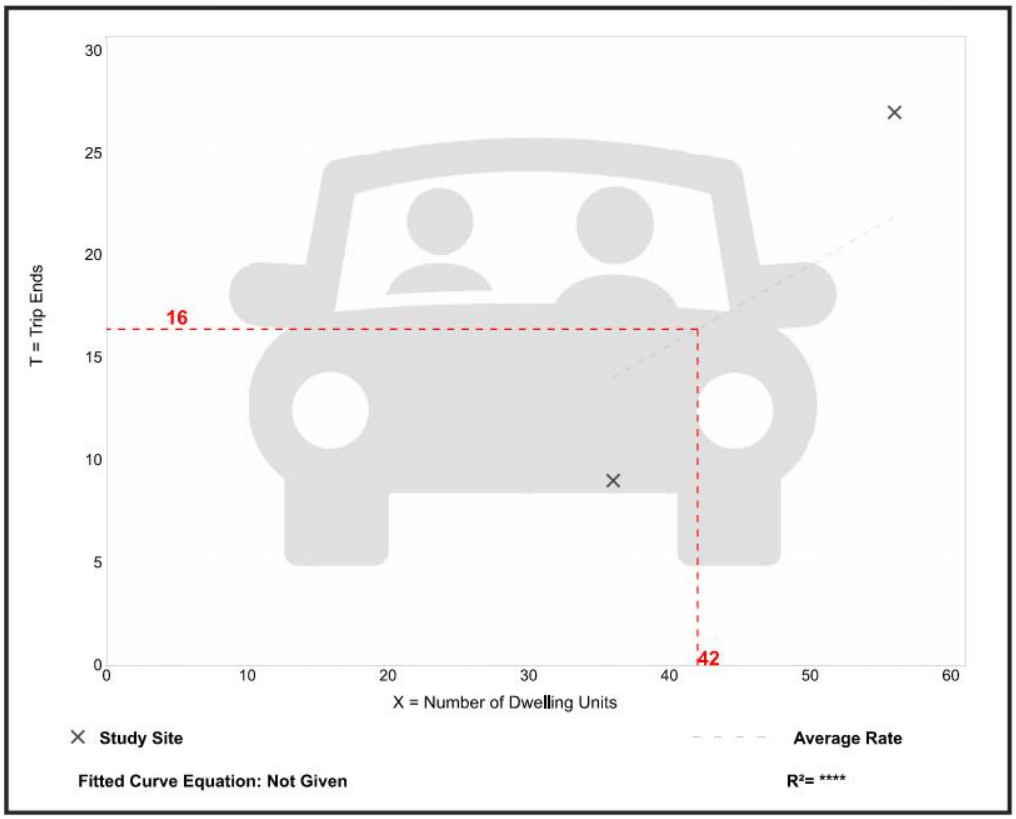
Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**Dense Multi-Use Urban**
Number of Studies:	2
Avg. Num. of Dwelling Units:	46
Directional Distribution:	33% entering, 67% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.25 - 0.48	*

Data Plot and Equation

Caution – Small Sample Size



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Single-Family Attached Housing
(215)

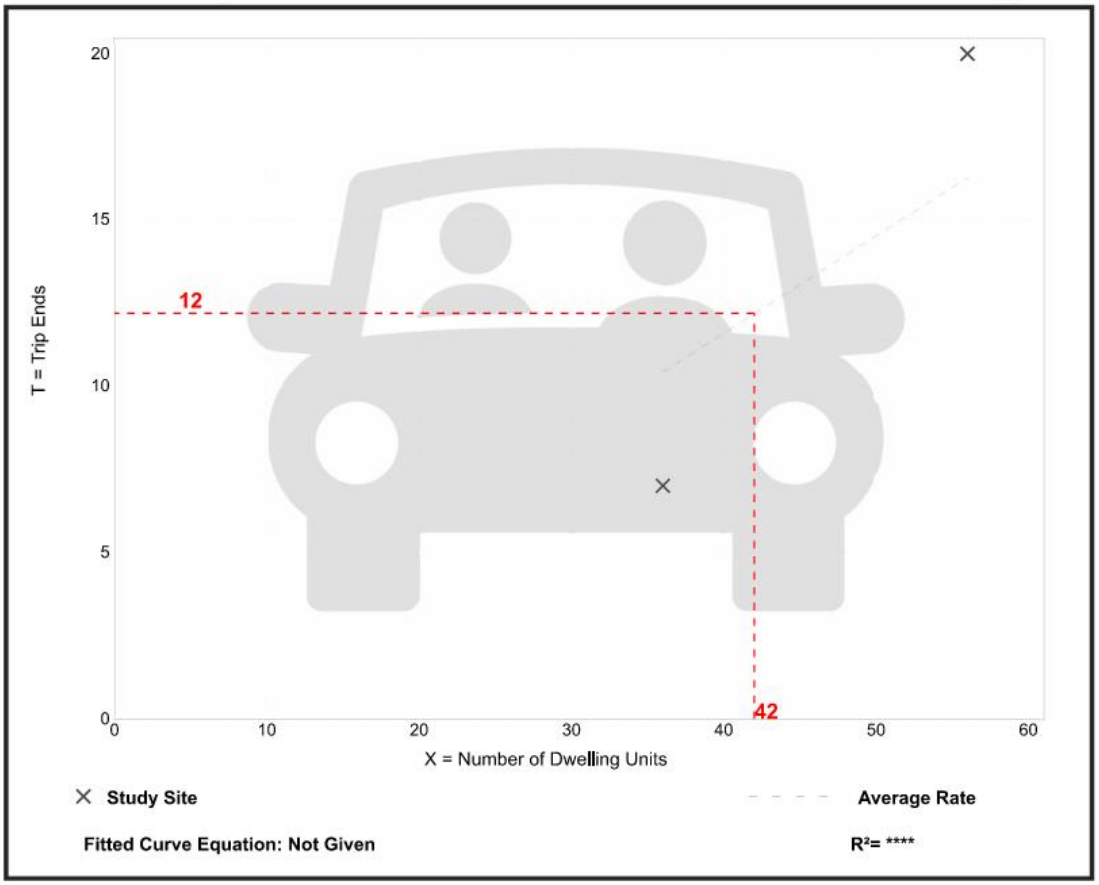
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 2
Avg. Num. of Dwelling Units: 46
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.29	0.19 - 0.36	*

Data Plot and Equation

Caution – Small Sample Size



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Single-Family Attached Housing
(215)

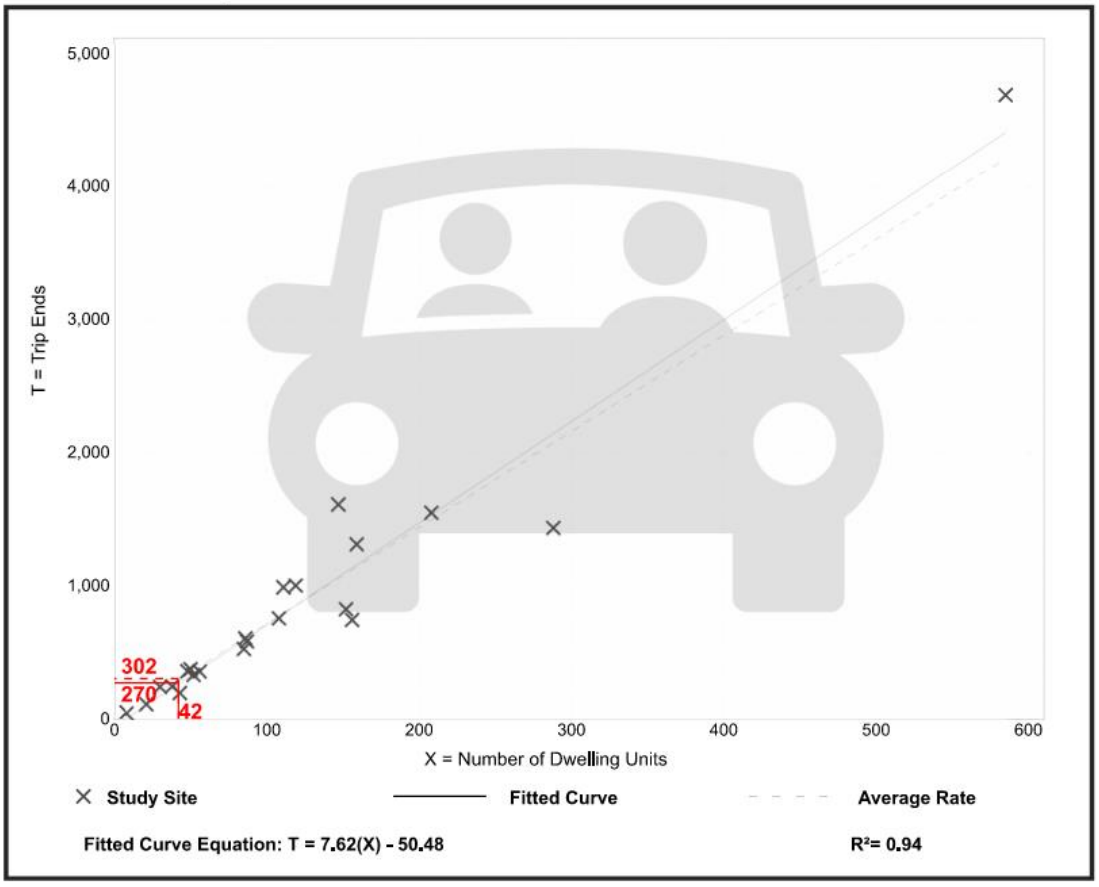
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



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Appendix D: Modified Signal Warrant Analysis

Signal Warrant Study

Roadway Characteristics

	Roadway	Orientation	Moving Lanes (One Way)
Mainline	US 78/US 278/ Veterans Memorial Hwy	East-West	2
Cross Roadway	Burrus Road	North-South	1

Date
7/18/2024

NOTE: Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. The site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and left-turning traffic plus a right-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the right-turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The approach should be considered two lanes if approximately half of the traffic on the approach turns right and the right-turn lane is of sufficient length to accommodate all right-turn vehicles.

Does the posted speed limit on the major street exceed 40 MPH?	NO	Does the intersection lie within the built-up area of an isolated community having a population less than 10,000 people?	NO

Warrant Summary		Meets
Warrant #1	Eight-Hour Vehicular Volume	NO
Warrant #2	Four-Hour Vehicular Volume	NO
Warrant #3	Peak Hour	NO
Warrant #4	Pedestrian Volume	NO
Warrant #5	School Crossing	NO
Warrant #6	Coordinated Signal System	NO
Warrant #7	Crash Experience	NO
Warrant #8	Roadway Network	NO
Warrant #9	Intersection Near a Grade Crossing	NO

NOTE: This spreadsheet is configured for whole hour counts (not 15 minute counts)

Last Revision: Ryan Higgins (7/8/2021)

Warrant Analysis - US 78 and Burrus Road.xlsx Page 1 Printed 7/18/2024

Adjust traffic counts using NCHRP 457 Right Turn Reduction Method

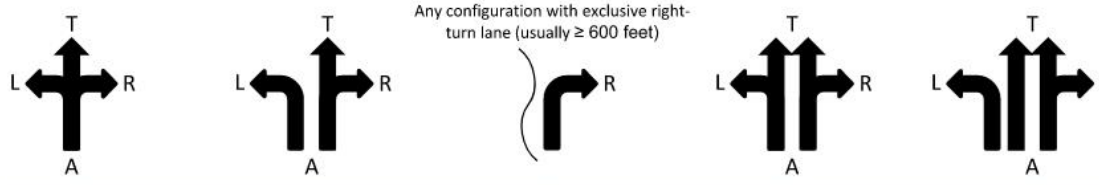
Raw Traffic Counts

Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
6:00 AM	16	1088			242	8				16		3
7:00 AM	39	1377			382	6				39		5
8:00 AM	31	1084			311	12				31		10
3:30 PM	14	671			967	20				11		16
4:30 PM	18	726			1239	40				22		16
5:30 PM	12	863			1260	35				24		9

NCHRP 457 Right-Turn Reduction

Hour	Minor Approach 1						Minor Approach 2					
	Dir	"L"	"T"	"R"	Reduction	New "R"	Dir	"L"	"T"	"R"	Reduction	New "R"
6:00 AM	SB	16	0	3	3	0	NB	0	0	0	0	0
7:00 AM	SB	39	0	5	5	0	NB	0	0	0	0	0
8:00 AM	SB	31	0	10	10	0	NB	0	0	0	0	0
3:30 PM	SB	11	0	16	16	0	NB	0	0	0	0	0
4:30 PM	SB	22	0	16	16	0	NB	0	0	0	0	0
5:30 PM	SB	24	0	9	9	0	NB	0	0	0	0	0
12:00 AM	NB	0	0	0	0	0	NB	0	0	0	0	0

Select lane configuration:



Configuration: 1

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RW HIGGINS, LLC
Civil Engineering

Adjusted Traffic Counts

Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
6:00 AM	16	1088	0	0	242	8	0	0	0	16	0	0
7:00 AM	39	1377	0	0	382	6	0	0	0	39	0	0
8:00 AM	31	1084	0	0	311	12	0	0	0	31	0	0
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	14	671	0	0	967	20	0	0	0	11	0	0
4:30 PM	18	726	0	0	1239	40	0	0	0	22	0	0
5:30 PM	12	863	0	0	1260	35	0	0	0	24	0	0
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0

Warrant #1 -- Eight Hour Traffic Counts	Meets Warrant	NO

Vehicles Per Hour Thresholds		Stand-Alone				Combination			
Number of Lanes		Condition A		Condition B		Condition A		Condition B	
Major Street	Major Street	Major	Minor	Major	Minor	Major	Minor	Major	Minor
2	1	600	150	900	75	480	120	720	60

Hour	Major (2-Way)	HI Minor (1-Way)	Stand-Alone (either or)			Combination (both)		
			Condition A	Condition B	Meets	Condition A	Condition B	Meets
6:00 AM	1354	16	n	n	N	n	n	N
7:00 AM	1804	39	n	n	N	n	n	N
8:00 AM	1438	31	n	n	N	n	n	N
12:00 AM	0	0	n	n	N	n	n	N
12:00 AM	0	0	n	n	N	n	n	N
12:00 AM	0	0	n	n	N	n	n	N
12:00 AM	0	0	n	n	N	n	n	N
12:00 AM	0	0	n	n	N	n	n	N
3:30 PM	1672	11	n	n	N	n	n	N
4:30 PM	2023	22	n	n	N	n	n	N
5:30 PM	2170	24	n	n	N	n	n	N
12:00 AM	0	0	n	n	N	n	n	N
Does Stand-Alone or Combination meet thresholds for 8 total hours?					NO			NO

Warrant #2 -- Four Hour Traffic Counts — **Meets Warrant** **NO**

Appropriate table to use from MUTCD (2009)	4C-1
Number of moving lanes on major street (one-way)	2
Number of moving lanes on minor approach (one-way)	1

Hour	Major (2-Way)	Hi Minor (1-Way)	Plot above line?
6:00 AM	1354	16	N
7:00 AM	1804	39	N
8:00 AM	1438	31	N
12:00 AM	0	0	N
12:00 AM	0	0	N
12:00 AM	0	0	N
12:00 AM	0	0	N
12:00 AM	0	0	N
3:30 PM	1672	11	N
4:30 PM	2023	22	N
5:30 PM	2170	24	N
12:00 AM	0	0	N

Do at least four hours meet the threshold?	NO

Warrant #3 -- Peak Hour — **Meets Warrant** **NO**

Appropriate table to use from MUTCD (2009)	4C-3
Number of moving lanes on major street (one-way)	2
Number of moving lanes on minor approach (one-way)	1

Hour	Major (2-Way)	Hi Minor (1-Way)	Plot above line?
6:00 AM	1354	16	N
7:00 AM	1804	39	N
8:00 AM	1438	31	N
12:00 AM	0	0	N
12:00 AM	0	0	N
12:00 AM	0	0	N
12:00 AM	0	0	N
12:00 AM	0	0	N
3:30 PM	1672	11	N
4:30 PM	2023	22	N
5:30 PM	2170	24	N
12:00 AM	0	0	N

Do at least one hour meets the threshold?	NO

Note:

This warrant shall only be applied in unusual cases. Such as the following:

- Office Complexes
- Manufacturing Plants
- Industrial Complexes
- High-Occupancy Vehicle Facilities

Do any unusual cases exist?	NO

Warrant #4 -- Pedestrian Volume	Meets Warrant	NO

Four Hour

Appropriate table to use from MUTCD (2009), Four Hour Analysis	4C-5
Appropriate table to use from MUTCD (2009), Peak Hour Analysis	4C-7
Number of moving lanes on major street (one-way)	2
Number of moving lanes on minor approach (one-way)	1

Hour	Major (2-Way)	Peds Crossing Major Street	Plot above line in Figure 4C-5?	Plot above line in Figure 4C-7?
6:00 AM	1354	0	N	N
7:00 AM	1804	0	N	N
8:00 AM	1438	0	N	N
12:00 AM	0	1	N	N
12:00 AM	0	0	N	N
12:00 AM	0	1	N	N
12:00 AM	0	1	N	N
12:00 AM	0	0	N	N
3:30 PM	1672	2	N	N
4:30 PM	2023	0	N	N
5:30 PM	2170	1	N	N
12:00 AM	0	0	N	N

Do at least four hours meet threshold for Figure 4C-5?	NO
Does one hour meet threshold for Figure 4C-7?	NO

Warrant #5 -- School Crossing	Meets Warrant	NO

If both questions are "Yes", then the warrant is met.

Do at least 20 school children cross the major street during the highest crossing hour?	NO
Has an engineering study shown that the number of gaps when school children are crossing is less than the number of minutes that school children are present?	NO

Warrant #6 -- Coordinated Signal System	Meets Warrant	NO

If one statement is marked "Yes", then the warrant is met.

On a one-way street or a street that has traffic predominately in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.	NO
On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.	NO

Warrant #7 -- Crash Experience	Meets Warrant	NO

If all statements are marked "Yes", then the warrant is met.

Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency	NO
Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash	NO
For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns* of Condition A in Table 4C-1, or the vph in both of the 80 percent columns* of Condition B in Table 4C-1 exists on the major street and the higher-volume minor street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major street and minor street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.	NO

* Substitute 56% column for major street speed limits greater than 40 mph or if located in built-up areas of isolated towns with a population less than 10,000 people.

Warrant #8 -- Roadway Network	Meets Warrant	NO

If any of the statements are marked "Yes", and the roads qualify as a major route, then the warrant is met.

The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2 and 3 during an average weekday; or	NO
The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday).	YES

A major route as used in this signal warrant shall have at least one of the following criteria:

	US 78/US 278/ Veterans Memorial Hwy	Burrus Road
It is part of the street or highway system that serves as the principal roadway network for through traffic flow.	YES	NO
It includes rural or suburban highways outside, entering or traversing a city.	YES	NO
It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.	YES	NO

Warrant #9 -- Intersection Near a Grade Crossing	Meets Warrant	NO

If all statements are marked "Yes", then the warrant is met.

A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the appraoch; and	NO
During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the major stret (total of both approaches) and the corresponding vehicles per our on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which the clear storage distance as defined in Section 1A.13.	NO