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**A MARKET CONDITIONS AND
PROJECT EVALUATION SUMMARY
OF:
IVY RIDGE
APARTMENTS**

A MARKET CONDITIONS AND PROJECT EVALUATION SUMMARY OF: IVY RIDGE APARTMENTS

1525 Laurel Crossing Parkway
Buford, Gwinnett County, Georgia 30519

Effective Date: October 28, 2018
Report Date: November 21, 2018

Prepared for:
Mr. Brandon Delk
VP of Development
Pedcor Investments, A Limited Liability Company
One Pedcor Square
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Prepared by:
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Mr. Brandon Delk
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Pedcor Investments, A Limited Liability Company
One Pedcor Square
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Carmel, IN 46032

Re: Application Market Study for Ivy Ridge Apartments, located in Buford, Gwinnett County, Georgia

Dear Mr. Delk:

At your request, Novogradac & Company LLP has performed a study of the multifamily rental market in the Buford, Gwinnett County, Georgia area relative to the above-referenced Low-Income Housing Tax Credit (LIHTC) project. We have also completed two HUD MAP market studies for this property dated November 12, 2017 and October 28, 2018, as well as an application market study dated November 12, 2017.

The purpose of this market study is for use in application submittal to the Georgia DCA in order to receive low income housing tax credits. Ivy Ridge Apartments (Subject) will be a newly constructed affordable LIHTC project, with 256 revenue generating units, all restricted to households earning 60 percent of the Area Median Income (AMI) or less. The following report provides support for the findings of the study and outlines the sources of information and the methodologies used to arrive at these conclusions.

The scope of this report meets the requirements of Georgia Department of Community Affairs (DCA), including the following:

- Inspecting the site of the proposed Subject and the general location.
- Analyzing appropriateness of the proposed unit mix, rent levels, available amenities and site.
- Estimating market rent, absorption and stabilized occupancy level for the market area.
- Investigating the health and conditions of the multifamily market.
- Calculating income bands, given the proposed Subject rents.
- Estimating the number of income eligible households.
- Reviewing relevant public records and contacting appropriate public agencies.
- Analyzing the economic and social conditions in the market area in relation to the proposed project.
- Establishing the Subject Primary and Secondary Market Area(s) if applicable.
- Surveying competing projects, Low-Income Housing Tax Credit (LIHTC) and market rate.

Novogradac & Company LLP adheres to the market study guidelines promulgated by the National Council of Housing Market Analysts (NCHMA). The NCHMA certification and checklist can be found in the Addenda of this report. Please refer to the checklist to find the sections in which content is located.

This report contains, to the fullest extent possible and practical, explanations of the data, reasoning, and analyses that were used to develop the opinions contained herein. The report also includes a thorough analysis of the scope of the study, regional and local demographic and economic studies, and market analyses including conclusions. The depth of discussion contained in the report is specific to the needs of

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the client. Information included in this report is accurate and the report can be relied upon by DCA as a true assessment of the low-income housing rental market. This report was completed in accordance with DCA market study guidelines. We inform the reader that other users of this document may underwrite the LIHTC rents to a different standard than contained in this report.

The Stated Purpose of this assignment is to provide a market study for use in application submittal to the Georgia DCA in order to receive low income housing tax credits. You agree not to use the Report other than for the Stated Purpose, and you agree to indemnify us for any claims, damages or losses that we may incur as the result of your use of the Report for other than the Stated Purpose. Without limiting the general applicability of this paragraph, under no circumstances may the Report be used in advertisements, solicitations and/or any form of securities offering.

The authors of this report certify that we are not part of the development team, owner of the Subject property, general contractor, nor are we affiliated with any member of the development team engaged in the development of the Subject property or the development's partners or intended partners. Please do not hesitate to contact us if there are any questions regarding the report or if Novogradac & Company LLP can be of further assistance. It has been our pleasure to assist you with this project.

Respectfully submitted,
Novogradac & Company LLP



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A. EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

1. Project Description

Ivy Ridge Apartments (Subject) will be a 256-unit newly constructed family LIHTC rental property located in Buford, Gwinnett County, Georgia, which will consist of 10 two, three, and four-story, residential buildings.

The following table illustrates the proposed unit mix.

PROPOSED RENTS							
Unit Type	Unit Size (SF)	Number of Units	Asking Rent	Utility Allowance (1)	Gross Rent	2018 LIHTC Maximum Allowable Gross Rent	HUD Fair Market Rents
60% AMI							
1BR	754	12	\$782	\$60	\$842	\$842	\$858
1BR	770	100	\$782	\$60	\$842	\$842	\$858
2BR	1,076	128	\$934	\$77	\$1,011	\$1,011	\$990
3BR	1,226	8	\$1,069	\$98	\$1,167	\$1,167	\$1,299
3BR	1,247	8	\$1,069	\$98	\$1,167	\$1,167	\$1,299
Total		256					

Notes (1) Source of Utility Allowance provided by the Developer.

The proposed rents for the Subject’s units at 60 percent AMI are set at the maximum allowable rents. The Subject’s amenity package is considered to be comparable to the existing housing supply in the market.

2. Site Description/Evaluation

The Subject site is located on the south side of Laurel Crossing Parkway NE. The Subject site has good visibility and accessibility from Laurel Crossing Parkway NE. The Subject site is currently vacant, wooded land. Surrounding land uses consist primarily of retail/commercial uses, single-family housing, multifamily housing, and places of worship. Based on our inspection of the neighborhood, retail appeared to be 95 percent occupied. The Subject site is considered “Car-Dependent” by Walkscore with a rating of 9 out of 100. Crime risk indices in the Subject’s area are considered low. The Subject site is considered a desirable building site for rental *housing*. The Subject is located in a mixed-use neighborhood. The uses surrounding the site are in average to good condition, and it has good proximity to locational amenities, which are within 2.2 miles.

3. Market Area Definition

The PMA is defined by the Chattahoochee River National Recreation Area, Lake Lanier, and Gwinnett County border to the north; the Gwinnett County border, Highway 29, and Highway 316 to the east; Highway 316 and Duluth Highway NW to the south; and Peachtree Industrial Boulevard NW and the Chattahoochee River to the west. This area includes the city of Buford as well as portions of the communities of Johns Creek, Duluth, Lawrenceville, and Dacula. The distances from the Subject to the farthest boundaries of the PMA in each direction are listed as follows:

- North: 9 miles
- East: 9 miles
- South: 7 miles
- West: 10 miles

The PMA was defined based on interviews with the local housing authority, property managers at comparable properties, and the Subject’s property manager. Many property managers indicated that a

significant portion of their tenants come from Buford and other cities throughout Gwinnett County. While we do believe the Subject will experience leakage from outside the PMA boundaries, per the 2017 DCA market study guidelines, we have not accounted for leakage in our demand analysis found later in this report. The farthest PMA boundary from the Subject is approximately ten miles.

4. Community Demographic Data

The population and household annual growth rate in the PMA exceeded that of both the MSA and nation as a whole between 2010 and 2017. Over the next five years, this trend in annual population and household growth rate is expected to continue. The Subject will target households earning between \$28,869 and \$48,480. Approximately 37.8 percent of renter households in the PMA are earning incomes between \$20,000 and \$49,999, which is greater than the 37.1 percent of renter households in the MSA in 2017. For the projected market entry date of April 2021, these percentages are projected to slightly decrease to 36.5 percent in the PMA and 35.9 percent in the MSA. Overall, the PMA has demonstrated that it is an area of population and household growth. As the PMA continues to grow, the need for affordable housing is also expected to increase. This population and household growth bodes well for the Subject’s proposed units.

5. Economic Data

Employment in the PMA is greatest in the trade, transportation, and utilities sector, followed by professional and business services and leisure and hospitality. These industries are particularly vulnerable in economic downturns and are historically volatile industries, with the exception of utilities.

Total employment in the MSA has increased every year since 2003 with the exception of 2008 through 2010 during the most recent national recession. While the MSA experienced a 6.9 percent decline in employment during between 2008 and 2010, which was greater than the nation over the same period, the MSA has experienced growth each year since. Furthermore, the MSA surpassed its pre-recessionary employment levels in 2014, the same year as the nation, and has continued to increase steadily. Trends in historical unemployment data generally mirrors employment; after 2009 at the peak of the recession, unemployment in the MSA has decreased six of the past eight years. Between August 2017 and August 2018, total employment increased 2.8 percent, compared to the national growth rate of 1.3 percent during the same time period. Overall, the local economy has fully recovered from the national recession and has entered into an expansionary phase which is a positive indicator of demand for rental housing and, therefore, the Subject’s proposed units.

6. Project-Specific Affordability and Demand Analysis

The following table illustrates the demand and capture rates for the Subject’s proposed units.

CAPTURE RATE ANALYSIS CHART

Unit Type	Minimum Income	Maximum Income	Units Proposed	Total Demand	Supply	Net Demand	Capture Rate	Proposed Rents
1BR @60%	\$28,869	\$35,940	112	676	0	676	16.6%	\$782
2BR @60%	\$34,663	\$40,440	128	811	0	811	15.8%	\$934
3BR @60%	\$40,011	\$48,480	16	642	0	642	2.5%	\$1,069
@60% Overall	\$28,869	\$48,480	256	2,129	0	2,129	12.0%	-

We believe these calculated capture rates are reasonable, particularly as these calculations do not consider demand from outside the PMA or standard rental household turnover.

7. Competitive Rental Analysis

Comparable properties are examined on the basis of physical characteristics, i.e. building type, age/quality, level of common amenities, absorption, as well as similarity in rent. We attempted to compare the Subject to complexes from the competing market to provide a broader picture of the health and available supply in the market. Our competitive survey includes 12 “true” comparable properties containing 3,380 units. A detailed matrix describing the individual competitive properties as well as the proposed Subject is provided on the following pages. A map illustrating the location of the Subject in relation to comparable properties is also provided on the following pages. The properties are further profiled in the following write-ups. The property descriptions include information on vacancy, turnover, absorption, age, competition, and the general health of the rental market, when available.

The availability of affordable data is considered good and the availability of market rate data is considered good. All of the comparables are located within 7.2 miles of the Subject, with eight located within the PMA. Six of the comparable properties are located within 1.4 miles of the Subject site. We have utilized a total of six nonsubsidized LIHTC family developments located within and just outside of the PMA as comparables, as they represent properties we consider most similar overall in terms of condition, location, and unit mix to the Subject. We also included six comparable market rate properties, all of which are located in the PMA, that offer unit types similar to the proposed Subject. Overall, we believe the availability of data is adequate to support our conclusions.

The overall average and the maximum and minimum adjusted rents for the comparable properties surveyed are illustrated in the table below in comparison with net rents for the Subject.

SUBJECT COMPARISON TO MARKET RENTS

Unit Type	Subject Proposed Rent	Surveyed Min	Surveyed Max	Surveyed Average	Subject Rent Advantage
1BR @ 60% AMI	\$782	\$780	\$1,394	\$1,055	35%
2BR @ 60% AMI	\$934	\$927	\$2,226	\$1,321	41%
3BR @ 60% AMI	\$1,069	\$1,065	\$1,844	\$1,308	22%

As illustrated the Subject’s proposed 60 percent rents are well below the surveyed average when compared to the comparables, both LIHTC and market-rate.

We have placed greatest weight upon the market rate rents at Summer Park Apartments and The Terraces at Suwanee Gateway, which are the most comparable to the Subject in our determination of achievable market rents for the Subject.

Summer Park Apartments was constructed in 2001 and exhibits average condition, which is considered inferior to the anticipated excellent condition of the Subject upon completion. This property is located adjacent to the Subject and offers a similar location. Summer Park Apartments offers similar unit amenities to those of the proposed Subject, but offers slightly inferior property amenities as it does not offer carport or garage parking and does not offer a recreation area, all of which the Subject will offer. However, this property offers superior unit sizes in comparison to those of the proposed Subject. Overall, Summer Park Apartments is considered slightly inferior to the proposed Subject. Summer Park Apartments reports current occupancy of 98.0 percent. The lowest one, two and three-bedroom rents at Summer Park Apartments are approximately 33, 37, and 36 percent higher than the Subject’s proposed rents at 60 percent of the AMI. Overall, we believe that the Subject’s proposed rents are achievable in the market and will offer an advantage to the rents being achieved at comparable properties.

8. Absorption/Stabilization Estimate

We were able to obtain absorption data from one of the comparables. However, this data was dated and has been excluded from our analysis. Therefore, we expanded our search for recent absorption data in Gwinnett County and neighboring DeKalb County. Our absorption comparables are presented following.

ABSORPTION				
Property Name	Occupancy Type	Year Built	Number of Units	Units Absorbed/ Month
1760 Apartment Homes	Market	2016	239	17
The Point on Scott	Market	2016	250	13
The Reserve at Decatur	Market	2016	298	14
Columbia Mill	LIHTC	2014	100	20
Retreat at Edgewood Phase II	LIHTC	2012	40	12
Retreat at Edgewood	LIHTC	2011	100	20
Average			224	16

Per DCA guidelines, we have calculated the absorption to 93 percent occupancy. 1760 Apartment Homes is a market-rate family development located 7.6 miles south of the Subject site in Lawrenceville. This property opened in 2016 and experienced an absorption rate of 17 units per month. The Point on Scott is a market-rate family development located 25 miles southwest of the Subject site in Scottdale. This property opened in 2016 and experienced an absorption rate of 13 units per month. The Reserve at Decatur is a market-rate family development located 25 miles southwest in Scottdale. This property opened in 2016 and experienced an absorption rate of 14 units per month. Columbia Mill is a LIHTC family property located 30 miles southwest of the Subject in Atlanta. This property opened in 2014 and experienced an absorption pace of 20 units per month. Retreat at Edgewood Phase I and Phase II are located 28 miles southwest of the Subject in Atlanta. These properties opened in 2011 and 2012, respectively, and experienced respective absorption rates of 20 and 12 units per month. Additional absorption data from recently-constructed LIHTC properties in Gwinnett County was not available. The properties reporting absorption data experienced an average absorption pace of 16 units per month. It should be noted that property size does not appear to aid or harm unit absorption.

The most recently constructed LIHTC property, Columbia Mill, experienced an absorption pace of 20 units per month. This property reports occupancy of 97 percent and maintains a waiting list. Based on the performance of this LIHTC development, we estimate the Subject would reach a stabilized occupancy of 93 percent within 12 to 13 months of the development’s completion, which equates to a pace of approximately 20 units per month. This estimate assumes that the Subject will be properly marketed and that pre-leasing begins within two to three months prior to completion of construction.

9. Overall Conclusion

Based upon our market research, demographic calculations and analysis, we believe there is adequate demand for the Subject property as proposed. The LIHTC comparables are experiencing a weighted average vacancy rate of 0.9 percent, which is considered low. Furthermore, four of the LIHTC comparables maintain extensive waiting lists. These factors indicate demand for affordable housing. Overall, we believe that the proposed amenities will allow the Subject to effectively compete in the family LIHTC market. As new construction, the Subject will be in excellent condition upon completion and will be considered slightly superior to superior in terms of condition to the majority of the comparable properties. The Subject’s proposed unit sizes will be competitive with the comparable properties. In general, the Subject will be slightly inferior to superior to the comparable properties. Given the Subject’s anticipated superior condition relative to the competition and the demand for affordable housing evidenced by waiting lists and low vacancy at several LIHTC comparable properties, we believe that the Subject is feasible as proposed. We believe that it will fill a void in the market and will perform well.

IVY RIDGE APARTMENTS – BUFORD, GEORGIA – MARKET STUDY

Summary Table:		
Development Name:	Ivy Ridge	Total # Units: 256
Location:	1525 Laurel Crossing Parkway NE Buford, GA 30519	# LIHTC Units: 256
PMA Boundary: North: Chattahoochee River National Recreation Area, Lake Lanier, and the Gwinnett County border; South: Highway 316 and Duluth Highway NW; East: Gwinnett County border, Highway 29, Highway 316; West: Peachtree Industrial Boulevard NW and the Chattahoochee River Farthest Boundary Distance to Subject: <u>10 miles</u>		

Rental Housing Stock (found on page 61)				
Type	# Properties*	Total Units	Vacant Units	Average Occupancy
All Rental Housing	23	7,361	164	97.9%
Market-Rate Housing	18	6,626	164	97.5%
Assisted/Subsidized Housing not to include LIHTC	2	60	0	100.0%
LIHTC	3	675	0	100.0%
Stabilized Comps	23	7,361	164	97.9%
Properties in Construction & Lease Up	9	2,180	N/Ap	N/Ap

***Only includes properties in PMA**

Subject Development					Average Market Rent*			Highest Unadjusted Comp Rent	
# Units	# Bedrooms	# Baths	Size (SF)	Proposed Tenant Rent	Per Unit	Per SF	Advantage	Per Unit	Per SF
12	1BR at 60% AMI	1	754	\$782	\$1,055	\$1.40	35%	\$1,394	\$1.73
100	1BR at 60% AMI	1	770	\$782	\$1,055	\$1.37	35%	\$1,394	\$1.73
128	2BR at 60% AMI	2	1,076	\$934	\$1,321	\$1.23	41%	\$2,226	\$2.10
8	3BR at 60% AMI	2	1,226	\$1,069	\$1,308	\$1.07	22%	\$1,308	\$0.92
8	3BR at 60% AMI	2	1,247	\$1,069	\$1,308	\$1.05	22%	\$1,308	\$0.92

Demographic Data (found on page 28)						
	2010		2017		April 2021	
Renter Households	15,443	19.4%	21,786	16.7%	23,180	15.5%
Income-Qualified Renter HHs (LIHTC)	5,449	35.3%	7,688	35.3%	5,523	23.8%

Targeted Income-Qualified Renter Household Demand (found on pages 41 to 59)						
Type of Demand	30%	50%	60%	Market-rate	Other: __	Overall*
Renter Household Growth	-	-	164	-	-	164
Existing Households (Overburdened + Substandard)	-	-	1,965	-	-	1,965
Homeowner conversion (Seniors)	-	-	0	-	-	0
Total Primary Market Demand	-	-	2,129	-	-	2,129
Less Comparable/Competitive Supply	-	-	0	-	-	0
Adjusted Income-qualified Renter HHs**	-	-	2,129	-	-	2,129

Targeted Population	30%	50%	60%	Market-rate	Other: __	Overall
Capture Rate:	-	-	12.0%	-	-	12.0%

*Includes LIHTC and unrestricted (when applicable)
 **Not adjusted for demand by bedroom-type.

B. PROJECT DESCRIPTION

PROJECT DESCRIPTION

- | | |
|---|---|
| 1. Project Address and Development Location: | The Subject site is located at 1525 Laurel Crossing Parkway in Buford, Gwinnett County, Georgia 30519. The Subject site is currently vacant, wooded land. |
| 2. Construction Type: | The Subject will consist of 10 two, three, and four-story residential buildings. The Subject will be new construction. |
| 3. Occupancy Type: | Families. |
| 4. Special Population Target: | None. |
| 5. Number of Units by Bedroom Type and AMI Level: | See following property profile. |
| 6. Unit Size, Number of Bedrooms and Structure Type: | See following property profile. |
| 7. Rents and Utility Allowances: | See following property profile. |
| 8. Existing or Proposed Project-Based Rental Assistance: | See following property profile. |
| 9. Proposed Development Amenities: | See following property profile. |

- 10. Scope of Renovations:** The Subject will be new construction.
- 11. Placed in Service Date:** Construction on the Subject is expected to be completed in April 2021.
- Conclusion:** The Subject will be an excellent-quality garden style apartment complex, comparable or superior to most of the inventory in the area. As new construction, the Subject will not suffer from deferred maintenance, functional obsolescence, or physical obsolescence.

C. SITE EVALUATION

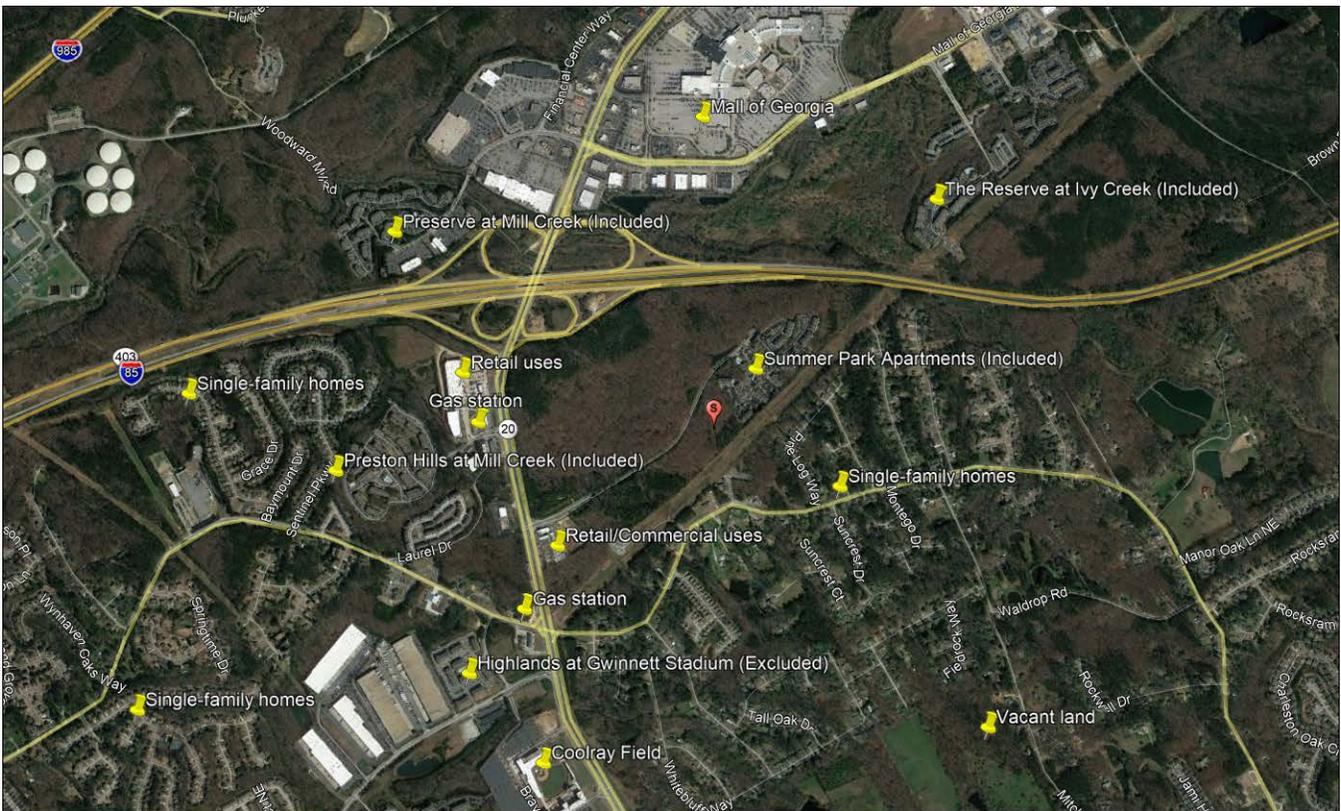
1. **Date of Site Visit and Name of Inspector:** Brian Neukam visited the site on October 28, 2018.

2. **Physical Features of the Site:** The following illustrates the physical features of the site.

Frontage: The Subject site has frontage along the south side of Laurel Crossing Parkway NE.

Visibility/Views: The Subject will be located along the south side of Laurel Crossing Parkway NE, just south of Interstate 85 in the northern portion of Gwinnett County, Georgia. Visibility and views from the site will be good and initially will include vacant, wooded land to the north, south, and west, and Summer Park Apartments, which has been utilized as a comparable property in our analysis, to the east.

Surrounding Uses: The following map illustrates the surrounding land uses.



Source: Google Earth, October 2018.

The Subject site is located on the south side of Laurel Crossing Parkway NE. Surrounding land uses consist primarily of retail/commercial uses, single-family housing, multifamily housing, and places of worship. Directly north of the Subject site, across Laurel Crossing Parkway NE, is vacant, wooded land followed by Interstate 85. Further north, across Interstate 85, are a variety of retail/commercial uses as well as the Mall of Georgia. Directly east of the Subject site is Summer Park Apartments, which has been

used as a comparable property for the purposes of this report. Located further east is primarily vacant, wooded land and single-family homes. Directly south of the Subject site is vacant, wooded land as well as an industrial use. Located further south are single-family homes. Located west of the Subject site, on the corner of Laurel Crossing Parkway NE and Buford Drive NE, are a number of retail/commercial uses. Further west, across Buford Drive NE, are retail/commercial uses along Buford Drive NE, single-family homes, and Preston Hills at Mill Creek Apartments, which has been used as a comparable property for the purposes of this report. Retail and commercial uses in the Subject’s area appear to be approximately 95 percent occupied. The Subject site is considered “Car-Dependent” by Walkscore with a rating of 9 out of 100. The Subject site is considered a desirable building site for rental housing. The Subject site is located in a mixed-use neighborhood. The uses surrounding the Subject are in average to good condition. The uses surrounding the Subject are in good condition and the site has good proximity to locational amenities, most of which are within 2.2 miles of the Subject site.

Positive/Negative Attributes of Site: The Subject’s proximity to retail and other locational amenities as well as its surrounding uses, which are in good condition, are considered positive attributes.

3. Physical Proximity to Locational Amenities: The Subject is located within 2.2 miles of most locational amenities.

4. Pictures of Site and Adjacent Uses: The following are pictures of the Subject site and adjacent uses.



Subject site east from Laurel Crossing Parkway



Subject site east from Laurel Crossing Parkway



View north Laurel Crossing Parkway



View south on Laurel Crossing Parkway



Commercial use in the Subject's neighborhood



Gas station in the Subject's neighborhood



Retail and commercial uses in the Subject's neighborhood



Retail and commercial uses in the Subject's neighborhood



Retail and commercial uses in the Subject's neighborhood



Retail and commercial uses in the Subject's neighborhood



Commercial use in the Subject's neighborhood



Commercial use in the Subject's neighborhood



Grocery store in the Subject's neighborhood



Pharmacy in the Subject's neighborhood



Single-family home in the Subject's neighborhood



Single-family home in the Subject's neighborhood



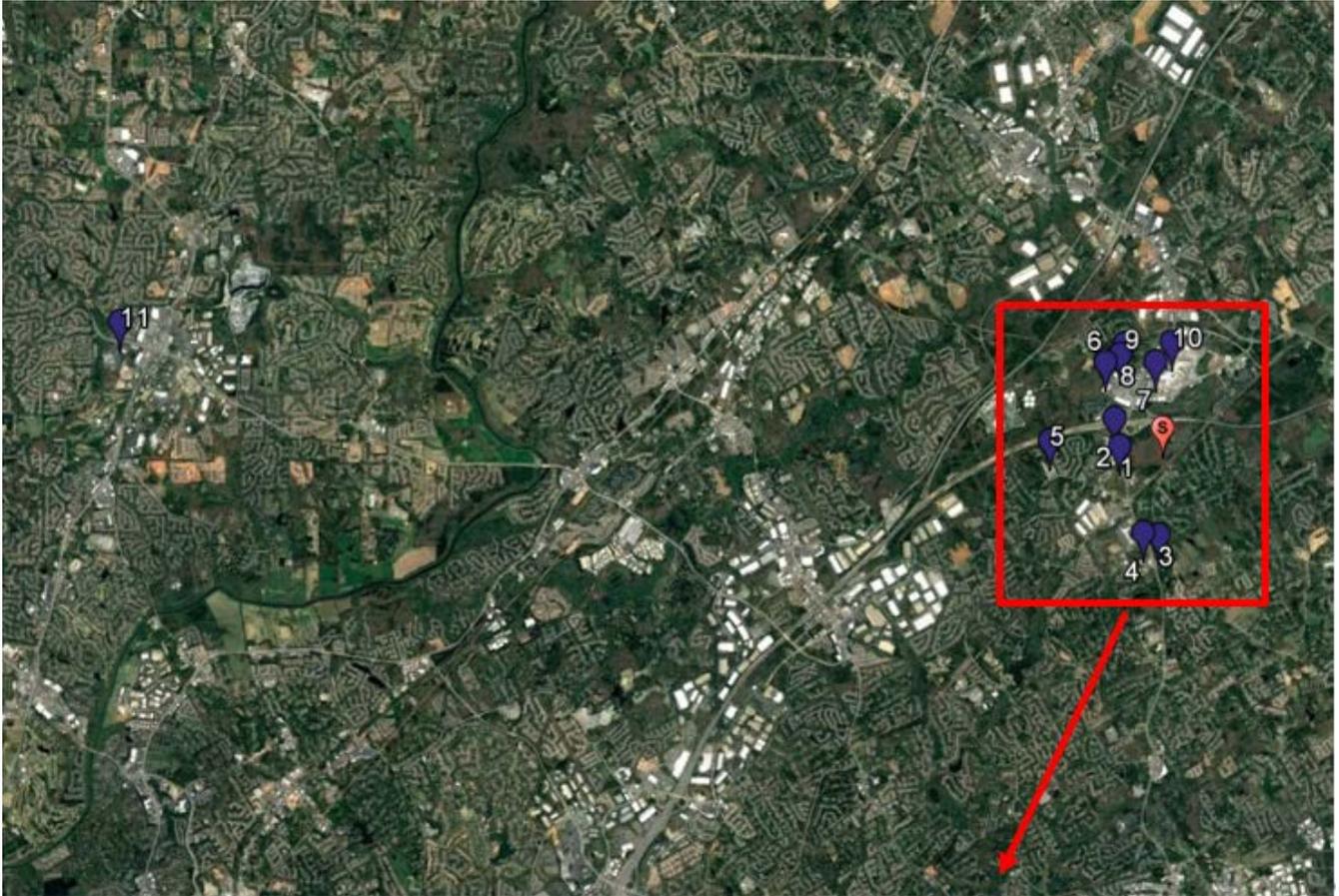
Single-family home in the Subject's neighborhood



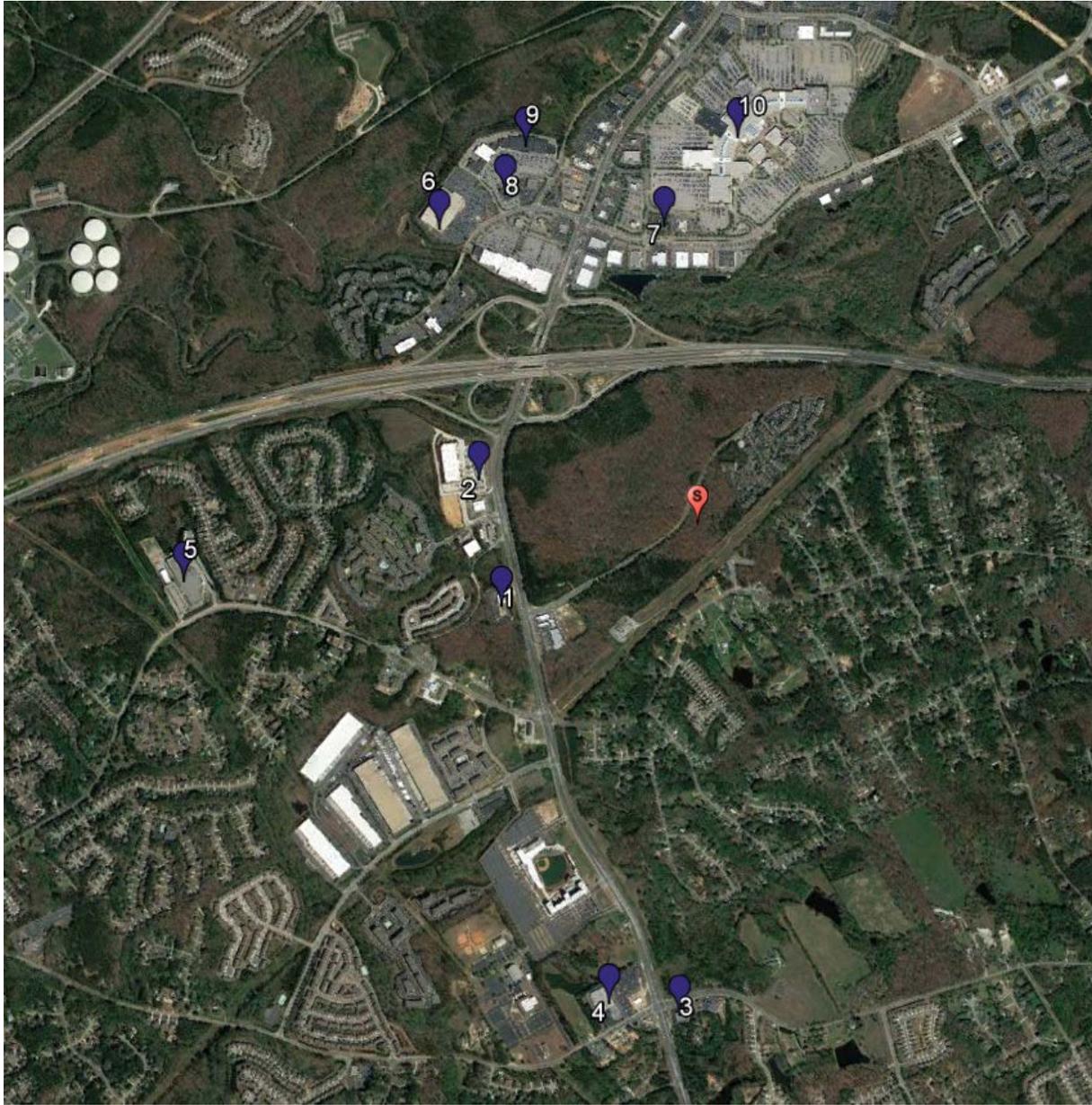
Single-family home in the Subject's neighborhood

5. Proximity to Locational Amenities:

The following table details the Subject's distance from key locational amenities.



Source: Google Earth, November 2017.



LOCATIONAL AMENITIES

Number	Service or Amenity	Distance from Subject
1	QuikTrip Gas Station	0.9 miles
2	Culver's Restaurant	0.9 miles
3	Walgreens Pharmacy	1.7 miles
4	Publix Super Market	1.8 miles
5	Rock Springs Elementary School	1.8 miles
6	Costco Wholesale	1.9 miles
7	Bank of America	1.9 miles
8	Subway Restaurant	2.0 miles
9	Ross Dress for Less	2.0 miles
10	Mall of Georgia	2.2 miles
11	Johns Creek Hospital	8.6 miles

6. Description of Land Uses

The Subject site is located on the south side of Laurel Crossing Parkway NE. Surrounding land uses consist primarily of retail/commercial uses, single-family housing, multifamily housing, and places of worship. Directly north of the Subject site, across Laurel Crossing Parkway NE, is vacant, wooded land followed by Interstate 85. Further north, across Interstate 85, are a variety of retail/commercial uses as well as the Mall of Georgia. Directly east of the Subject site is Summer Park Apartments, which has been used as a comparable property for the purposes of this report. Located further east is primarily vacant, wooded land and single-family homes. Directly south of the Subject site is vacant, wooded land as well as a number of places of worship and an industrial use. Located further south are single-family homes. Located west of the Subject site, on the corner of Laurel Crossing Parkway NE and Buford Drive NE, are a number of retail/commercial uses. Further west, across Buford Drive NE, are retail/commercial uses along Buford Drive NE, single-family homes, and Preston Hills at Mill Creek Apartments, which has been used as a comparable property for the purposes of this report. Retail and commercial uses in the Subject’s area appear to be approximately 95 percent occupied. The Subject site is considered “Car-Dependent” by Walkscore with a rating of 9 out of 100. The Subject site is considered a desirable building site for rental housing. The Subject site is located in a mixed-use neighborhood. The uses surrounding the Subject are in average to good condition. The uses surrounding the Subject are in average to good condition and the site has good proximity to locational amenities, most of which are within 2.2 miles of the Subject site.

7. Crime:

The following table illustrates crime statistics in the Subject’s PMA compared to the Atlanta-Sandy Springs-Roswell, GA MSA.

2017 CRIME INDICES

	PMA	Atlanta-Sandy Springs-Roswell, GA MSA
Total Crime*	77	139
Personal Crime*	37	130
Murder	37	155
Rape	36	88
Robbery	52	163
Assault	29	118
Property Crime*	82	140
Burglary	76	147
Larceny	82	134
Motor Vehicle Theft	99	178

Source: Esri Demographics 2017, Novogradac & Company LLP, October 2018

*Unweighted aggregations

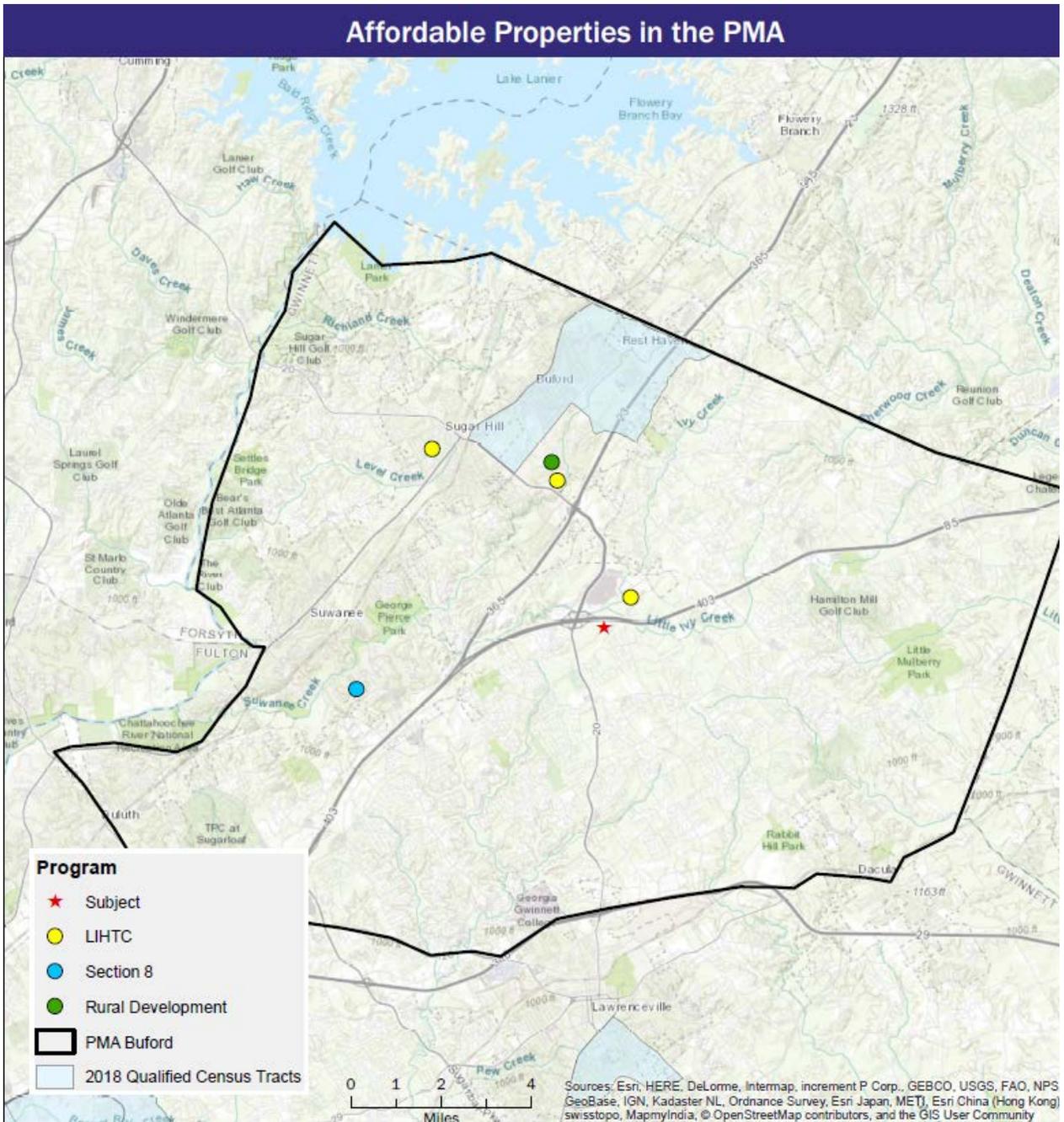
For comparison purposes, a crime index below 100 is below the national average, and a crime index above 100 is above the nation’s crime index average. As indicated in the table above, all crime indices in the PMA are below that of the MSA and that of the

nation. The Subject will offer limited access as a security feature, which is slightly superior to similar to the majority of the comparable properties. One of the LIHTC comparables, The View At Sugarloaf, does not offer security features. This comparables is currently 97.7 percent occupied. Thus, the Subject’s security features appear to be market-oriented.

8. Existing Assisted Rental Housing Property Map: The following map and list identifies all assisted rental housing properties in the PMA.

AFFORDABLE PROPERTIES IN THE PMA

Property Name	Program	Location	Tenancy	# of Units	Distance from Subject	Map Color
Ivy Ridge	LIHTC	Buford	Family	256	-	Star
Huntington Court	LIHTC, Market, Non-Rental	Buford	Senior	152	2.9 miles	Yellow
Plantation Ridge	LIHTC, Market	Sugar Hill	Family	218	4.5 miles	
Reserve At Ivy Creek	LIHTC, Market	Buford	Family	305	0.8 miles	
Annandale Apartments, Inc.	Section 8	Suwanee	Family	12	4.6 miles	Blue
Winbridge Apartments	Rural Development	Buford	Family	48	3.0 miles	Green



9. Road, Infrastructure or Proposed Improvements:

We did not witness any road, infrastructure or proposed improvements during our field work.

10. Access, Ingress-Egress and Visibility of Site:

The site is accessible from Laurel Crossing Parkway NE. Laurel Crossing provides access to Highway 20 just west of the Subject site. Highway 20 is a heavily trafficked arterial route that provides access to Interstate 85 just north of the Subject site and Highway 316 approximately six miles south of the Subject site. Interstate 85

provides access to Atlanta approximately 35 miles south of the Subject site and to Greenville, South Carolina approximately 113 miles northeast of the Subject site. Highway 316 provides access to Athens, Georgia approximately 45 miles east of the Subject site. Overall, access/ traffic flow and visibility are considered good.

11. Conclusion:

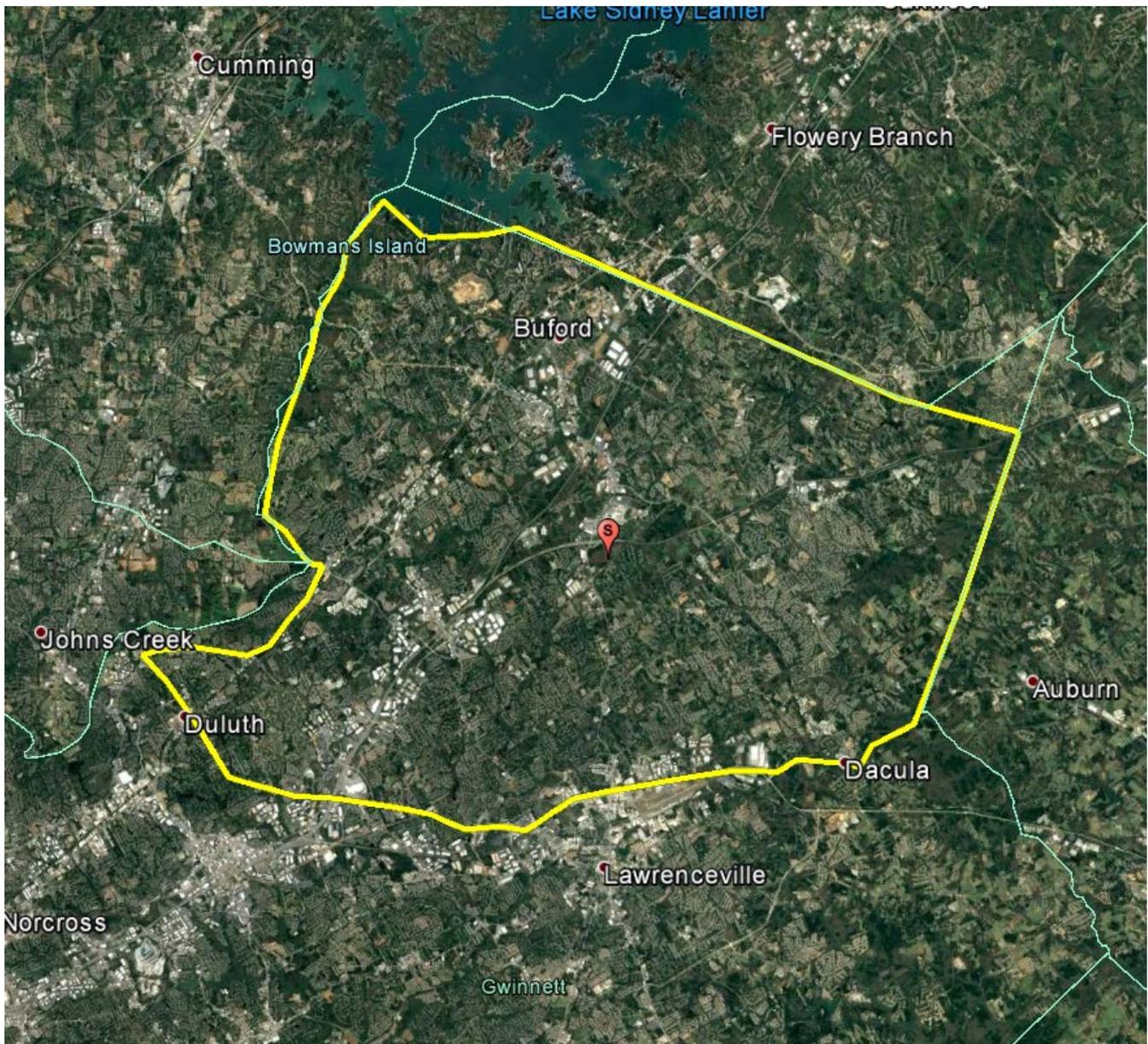
The Subject site is located on the south side of Laurel Crossing Parkway NE. The Subject site has good visibility and accessibility from Laurel Crossing Parkway NE. The Subject site is currently vacant, wooded land. Surrounding land uses consist primarily of retail/commercial uses, single-family housing, multifamily housing, and places of worship. Based on our inspection of the neighborhood, retail appeared to be 95 percent occupied. The Subject site is considered “Car-Dependent” by Walkscore with a rating of 9 out of 100. Crime risk indices in the Subject’s area are considered low. The Subject site is considered a desirable building site for rental housing. The Subject is located in a mixed-use neighborhood. The uses surrounding the Subject are in average to good condition and the site has good proximity to locational amenities, most of which are within 2.2 miles of the Subject site.

D. MARKET AREA

PRIMARY MARKET AREA

For the purpose of this study, it is necessary to define the market area, or the area from which potential tenants for the project are likely to be drawn. In some areas, residents are very much “neighborhood oriented” and are generally very reluctant to move from the area where they have grown up. In other areas, residents are much more mobile and will relocate to a completely new area, especially if there is an attraction such as affordable housing at below market rents.

Primary Market Area Map



Source: Google Earth, November 2017.

The following sections will provide an analysis of the demographic characteristics within the market area. Data such as population, households and growth patterns will be studied, to determine if the Primary Market Area (PMA) and the Atlanta-Sandy Springs-Roswell, GA MSA are areas of growth or contraction.

The PMA is defined by the Chattahoochee River National Recreation Area, Lake Lanier, and Gwinnett County border to the north; the Gwinnett County border, Highway 29, and Highway 316 to the east; Highway 316 and Duluth Highway NW to the south; and Peachtree Industrial Boulevard NW and the Chattahoochee River to the west. This area includes the city of Buford as well as portions of the communities of Johns Creek, Duluth, Lawrenceville, and Dacula. The distances from the Subject to the farthest boundaries of the PMA in each direction are listed as follows:

North: 9 miles
East: 9 miles
South: 7 miles
West: 10 miles

The PMA was defined based on interviews with the local housing authority, property managers at comparable properties, and the Subject's property manager. Many property managers indicated that a significant portion of their tenants come from Buford and other cities throughout Gwinnett County. While we do believe the Subject will experience leakage from outside the PMA boundaries, per the 2017 DCA market study guidelines, we have not accounted for leakage in our demand analysis found later in this report. The farthest PMA boundary from the Subject is approximately ten miles. The SMA is defined as the Atlanta-Sandy Springs-Roswell, GA Metropolitan Statistical Area (MSA), which consists of 29 counties in northwest Georgia and encompasses 8,726 square miles.

E. COMMUNITY DEMOGRAPHIC DATA

COMMUNITY DEMOGRAPHIC DATA

The following sections will provide an analysis of the demographic characteristics within the market area. Data such as population, households and growth patterns will be studied to determine if the Primary Market Area (PMA) and Gwinnett County are areas of growth or contraction. The discussions will also describe typical household size and will provide a picture of the health of the community and the economy. The following demographic tables are specific to the populations of the PMA and Gwinnett County.

1. Population Trends

The following tables illustrate (a) Total Population, and (b) Population by Age Group within the population in the MSA, the PMA and nationally from 2000 through 2022.

1a. Total Population

The following table illustrates the total population within the PMA, SMA and nation from 2000 through 2022.

POPULATION						
Year	PMA		Atlanta-Sandy Springs-Roswell, GA MSA		USA	
	<i>Number</i>	<i>Annual</i>	<i>Number</i>	<i>Annual</i>	<i>Number</i>	<i>Annual</i>
2000	146,160	-	4,261,895	-	281,038,168	-
2010	245,190	6.8%	5,286,728	2.4%	308,745,538	1.0%
2017	284,681	2.2%	5,806,085	1.4%	327,514,334	0.8%
Projected Mkt Entry April 2021	306,478	2.0%	6,120,904	1.4%	337,871,279	0.8%
2022	313,743	2.0%	6,225,843	1.4%	341,323,594	0.8%

Source: Esri Demographics 2017, Novogradac & Company LLP, November 2018

Between 2010 and 2017, the PMA experienced population growth at a faster rate than both the MSA and the nation as a whole. Over the next five years, this trend is expected to continue. Overall, we believe that population growth in the PMA and SMA is a positive indication of demand for the Subject’s proposed units.

1b. Total Population by Age Group

The following table illustrates the total population within the PMA and SMA and nation from 2000 to 2022.

POPULATION BY AGE GROUP					
Age Cohort	PMA				
	2000	2010	2017	Projected Mkt Entry April 2021	2022
0-4	13,001	16,630	17,991	19,443	19,927
5-9	13,345	20,723	20,483	20,987	21,155
10-14	12,080	22,063	22,649	22,934	23,029
15-19	9,447	19,320	20,459	21,351	21,648
20-24	6,502	12,601	17,416	16,890	16,715
25-29	9,752	13,633	19,411	20,745	21,190
30-34	14,190	15,837	19,026	24,254	25,997
35-39	17,375	20,518	20,181	23,178	24,177
40-44	15,120	22,776	21,775	22,427	22,644
45-49	11,155	22,966	22,771	21,849	21,542
50-54	8,358	18,436	22,346	22,006	21,893
55-59	5,350	13,266	19,568	20,480	20,784
60-64	3,328	9,653	14,541	17,358	18,297
65-69	2,559	6,338	10,731	12,878	13,594
70-74	1,865	4,078	6,857	8,952	9,650
75-79	1,301	2,926	4,051	5,493	5,973
80-84	816	1,861	2,372	2,908	3,086
85+	614	1,565	2,052	2,344	2,441
Total	146,158	245,190	284,680	306,477	313,742

Source: Esri Demographics 2017, Novogradac & Company LLP, November 2018

POPULATION BY AGE GROUP

Atlanta-Sandy Springs-Roswell, GA MSA					
Age Cohort	2000	2010	2017	Projected Mkt Entry April 2021	2022
0-4	318,718	380,735	382,417	399,575	405,294
5-9	325,853	394,306	398,154	405,905	408,489
10-14	314,167	390,992	407,204	420,399	424,797
15-19	290,064	378,372	387,034	404,830	410,762
20-24	289,487	341,650	393,916	390,915	389,915
25-29	363,934	377,057	430,213	445,284	450,307
30-34	382,069	386,120	415,433	463,443	479,446
35-39	396,706	417,987	412,829	440,164	449,275
40-44	359,953	415,233	407,422	420,471	424,821
45-49	307,240	411,635	410,074	401,787	399,024
50-54	267,442	364,330	402,418	403,979	404,499
55-59	186,716	301,331	372,815	383,005	386,402
60-64	131,017	252,453	313,388	346,345	357,331
65-69	101,827	170,690	258,144	286,112	295,435
70-74	82,788	114,130	176,190	217,360	231,083
75-79	65,285	81,144	108,020	141,367	152,482
80-84	42,347	57,082	66,278	79,996	84,568
85+	36,257	51,481	64,136	69,969	71,913
Total	4,261,870	5,286,728	5,806,085	6,120,904	6,225,843

Source: Esri Demographics 2017, Novogradac & Company LLP, November 2018

The largest age cohorts in the PMA are between 45 and 49 and 10 and 14, which indicates the presence of families.

2. Household Trends

The following tables illustrate (a) Total Households and Average Household Size, (b) Household Tenure, (c) Households by Income, and (d) Renter Households by Size within the population in the MSA, the PMA and nationally from 2000 through 2017.

2a. Total Number of Households and Average Household Size

The following tables illustrate the total number of households and average household size within the PMA, SMA and nation from 2000 through 2022.

HOUSEHOLDS

Year	PMA		Atlanta-Sandy Springs- Roswell, GA MSA		USA	
	Number	Annual	Number	Annual	Number	Annual
2000	47,697	-	1,559,137	-	105,403,008	-
2010	79,610	6.7%	1,943,881	2.5%	116,716,293	1.1%
2017	92,654	2.3%	2,130,151	1.3%	123,158,898	0.8%
Projected Mkt Entry April 2021	99,341	1.9%	2,235,057	1.3%	126,400,698	0.7%
2022	101,570	1.9%	2,270,026	1.3%	127,481,298	0.7%

Source: Esri Demographics 2017, Novogradac & Company LLP, November 2018

AVERAGE HOUSEHOLD SIZE

Year	PMA		Atlanta-Sandy Springs-Roswell, GA MSA		USA	
	Number	Annual	Number	Annual	Number	Annual
2000	3.00	-	2.68	-	2.59	-
2010	3.03	0.1%	2.67	0.0%	2.58	-0.1%
2017	3.03	0.0%	2.69	0.1%	2.59	0.1%
Projected Mkt Entry April 2021	3.05	0.1%	2.70	0.1%	2.61	0.2%
2022	3.05	0.1%	2.71	0.1%	2.61	0.2%

Source: Esri Demographics 2017, Novogradac & Company LLP, November 2018

Household growth in the PMA exceeded that of both the MSA and the nation between 2010 and 2017. Over the next five years, this trend in household growth is expected to continue. The average household size in the PMA is larger than the national average at 2.59 persons in 2017. Over the next five years, the average household size is projected to remain relatively similar.

2b. Households by Tenure

The table below depicts household growth by tenure from 2000 through 2022.

TENURE PATTERNS PMA

Year	Owner-Occupied Units	Percentage Owner- Occupied	Renter-Occupied Units	Percentage Renter-Occupied
2000	41,288	86.6%	6,409	13.4%
2017	70,868	76.5%	21,786	23.5%
Projected Mkt Entry April 2021	76,161	76.7%	23,180	23.3%
2022	77,925	76.7%	23,645	23.3%

Source: Esri Demographics 2017, Novogradac & Company LLP, November 2018

As the table illustrates, households within the PMA reside in predominately owner-occupied residences. Nationally, approximately two-thirds of the population resides in owner-occupied housing units, and one-third resides in renter-occupied housing units. Therefore, there is a smaller percentage of renters in the PMA than the nation. This percentage is projected to remain relatively stable over the next five years.

2c. Household Income

The following table depicts renter household income in the PMA in 2017, market entry, and 2022.

RENTER HOUSEHOLD INCOME DISTRIBUTION - PMA

Income Cohort	2017		Projected Mkt Entry April 2021		2022	
	Number	Percentage	Number	Percentage	Number	Percentage
\$0-9,999	979	4.5%	1,004	4.3%	1,012	4.3%
\$10,000-19,999	2,344	10.8%	2,333	10.1%	2,329	9.8%
\$20,000-29,999	2,873	13.2%	2,944	12.7%	2,967	12.5%
\$30,000-39,999	3,208	14.7%	3,321	14.3%	3,359	14.2%
\$40,000-49,999	2,153	9.9%	2,204	9.5%	2,221	9.4%
\$50,000-59,999	2,422	11.1%	2,534	10.9%	2,571	10.9%
\$60,000-74,999	2,622	12.0%	2,871	12.4%	2,954	12.5%
\$75,000-99,999	2,040	9.4%	2,244	9.7%	2,312	9.8%
\$100,000-124,999	1,606	7.4%	1,837	7.9%	1,914	8.1%
\$125,000-149,999	514	2.4%	626	2.7%	663	2.8%
\$150,000-199,999	404	1.9%	484	2.1%	511	2.2%
\$200,000+	621	2.9%	779	3.4%	832	3.5%
Total	21,786	100.0%	23,180	100.0%	23,645	100.0%

Source: HISTA Data / Ribbon Demographics 2017, Novogradac & Company LLP, November 2018

RENTER HOUSEHOLD INCOME DISTRIBUTION - Atlanta-Sandy Springs-Roswell, GA MSA

Income Cohort	2017		Projected Mkt Entry April 2021		2022	
	Number	Percentage	Number	Percentage	Number	Percentage
\$0-9,999	97,505	12.1%	97,015	11.5%	96,852	11.3%
\$10,000-19,999	115,106	14.3%	112,162	13.3%	111,180	13.0%
\$20,000-29,999	112,654	14.0%	111,961	13.3%	111,730	13.1%
\$30,000-39,999	102,539	12.7%	103,315	12.3%	103,573	12.1%
\$40,000-49,999	84,261	10.4%	86,408	10.3%	87,123	10.2%
\$50,000-59,999	65,290	8.1%	69,041	8.2%	70,291	8.2%
\$60,000-74,999	71,879	8.9%	77,347	9.2%	79,170	9.3%
\$75,000-99,999	66,381	8.2%	74,194	8.8%	76,798	9.0%
\$100,000-124,999	36,195	4.5%	41,951	5.0%	43,870	5.1%
\$125,000-149,999	19,305	2.4%	23,575	2.8%	24,998	2.9%
\$150,000-199,999	18,386	2.3%	22,630	2.7%	24,045	2.8%
\$200,000+	17,203	2.1%	22,910	2.7%	24,812	2.9%
Total	806,704	100.0%	842,508	100.0%	854,442	100.0%

Source: HISTA Data / Ribbon Demographics 2017, Novogradac & Company LLP, November 2018

The Subject will target tenants earning between \$28,869 and \$48,480. As the table above depicts, approximately 37.8 percent of renter households in the PMA are earning incomes between \$20,000 and \$49,999, which is greater than the 37.1 percent of renter households in the MSA in 2017. For the projected market entry date of April 2021, these percentages are projected to slightly decrease to 36.5 percent in the PMA and 35.9 percent in the MSA.

2d. Renter Households by Number of Persons in the Household

The following table illustrates household size for all households in 2017, 2021 and 2022. To determine the number of renter households by number of persons per household, the total number of households is adjusted by the percentage of renter households.

RENTER HOUSEHOLDS BY NUMBER OF PERSONS - PMA

Household Size	2017		Projected Mkt Entry April 2021		2022	
	Number	Percentage	Number	Percentage	Number	Percentage
1 Person	6,673	30.6%	6,995	30.2%	7,102	30.0%
2 Persons	5,207	23.9%	5,299	22.9%	5,329	22.5%
3 Persons	3,661	16.8%	3,966	17.1%	4,068	17.2%
4 Persons	2,959	13.6%	3,234	13.9%	3,325	14.1%
5+ Persons	3,286	15.1%	3,687	15.9%	3,821	16.2%
Total Households	21,786	100%	23,180	100%	23,645	100%

Source: HISTA Data / Ribbon Demographics 2017, Novogradac & Company LLP, November 2018

The majority of renter households in the PMA are one- to three-person households.

Conclusion

The population and household annual growth rate in the PMA exceeded that of both the MSA and nation as a whole between 2010 and 2017. Over the next five years, this trend in annual population and household growth rate is expected to continue. The Subject will target households earning between \$28,869 and \$48,480. Approximately 37.8 percent of renter households in the PMA are earning incomes between \$20,000 and \$49,999, which is greater than the 37.1 percent of renter households in the MSA in 2017. For the projected market entry date of April 2021, these percentages are projected to slightly decrease to 36.5 percent in the PMA and 35.9 percent in the MSA. Overall, the PMA has demonstrated that it is an area of population and household growth. As the PMA continues to grow, the need for affordable housing is also expected to increase. This population and household growth bodes well for the Subject’s proposed units.

F. EMPLOYMENT TRENDS

Employment Trends

The PMA and Gwinnett County appear to be diverse with low-paying jobs in the education, retail trade, manufacturing, and government sectors, which are expected to generate demand for affordable housing in the PMA. Employment levels decreased during the national recession but have surpassed pre-recession highs and appear to be in an expansionary phase.

1. Total Jobs

The following table illustrates the total jobs (also known as “covered employment”) in Gwinnett County. Note that the data below was the most recent data available.

Year	Total Employment	% Change
2007	404,504	-
2008	400,170	-1.08%
2009	379,758	-5.37%
2010	381,185	0.37%
2011	393,749	3.19%
2012	404,111	2.56%
2013	412,502	2.03%
2014	424,433	2.81%
2015	439,125	3.35%
2016	458,414	4.21%
2017 YTD Average	461,198	0.60%
Oct-16	450,393	-
Oct-17	466,555	3.46%

Source: U.S. Bureau of Labor Statistics
YTD as of October 2017

As illustrated in the table above, Gwinnett County experienced a weakening economy during the national recession. Gwinnett County began feeling the effects of the downturn in 2008 with its first employment decrease of the decade. Employment growth quickly rebounded and Gwinnett County exhibited employment growth from 2010 through 2017 year to date. Employment in Gwinnett County increased 3.46 percent from October 2016 to October 2017.

Total Jobs by Industry

The following table illustrates the total jobs by employment sectors within Gwinnett County as of October 2017.

Gwinnett County, Georgia

	Number	Percent
Total, all industries	316,695	-
Goods-producing	46,473	-
Natural resources and mining	358	0.11%
Construction	20,042	6.33%
Manufacturing	26,073	8.23%
Service-providing	270,222	-
Trade, transportation, and utilities	88,261	27.87%
Information	9,574	3.02%
Financial activities	23,669	7.47%
Professional and business services	67,075	21.18%
Education and health services	34,079	10.76%
Leisure and hospitality	36,988	11.68%
Other services	9,123	2.88%
Unclassified	1,453	0.46%

Source: Bureau of Labor Statistics, 2017

Trade, transportation, and utilities is the largest industry in Gwinnett County, followed by professional and business services and leisure and hospitality. These industries are particularly vulnerable in economic downturns and are historically volatile industries, with the exception of utilities. The following table illustrates employment by industry for the PMA as of 2017 (most recent year available).

2017 EMPLOYMENT BY INDUSTRY

Industry	PMA		USA	
	Number Employed	Percent Employed	Number Employed	Percent Employed
Retail Trade	18,284	13.0%	17,038,977	11.0%
Manufacturing	14,457	10.3%	15,589,157	10.1%
Prof/Scientific/Tech Services	13,318	9.5%	11,068,132	7.1%
Healthcare/Social Assistance	13,288	9.5%	21,941,435	14.2%
Educational Services	11,902	8.5%	14,390,707	9.3%
Accommodation/Food Services	9,975	7.1%	12,036,513	7.8%
Other Services	9,109	6.5%	7,493,272	4.8%
Finance/Insurance	8,533	6.1%	7,200,593	4.6%
Construction	8,284	5.9%	9,872,629	6.4%
Wholesale Trade	7,059	5.0%	4,064,621	2.6%
Admin/Support/Waste Mgmt Svcs	6,674	4.8%	6,968,170	4.5%
Information	4,504	3.2%	2,741,630	1.8%
Transportation/Warehousing	4,357	3.1%	6,498,777	4.2%
Public Administration	4,075	2.9%	6,982,075	4.5%
Real Estate/Rental/Leasing	3,141	2.2%	3,130,712	2.0%
Arts/Entertainment/Recreation	2,463	1.8%	3,448,696	2.2%
Utilities	753	0.5%	1,401,281	0.9%
Agric/Forestry/Fishing/Hunting	227	0.2%	2,288,795	1.5%
Mgmt of Companies/Enterprises	67	0.0%	86,740	0.1%
Mining	30	0.0%	609,828	0.4%
Total Employment	140,500	100.0%	154,852,740	100.0%

Source: Esri Demographics 2017, Novogradac & Company LLP, November 2018

As the table above illustrates, employment in the PMA is greatest in the retail trade, manufacturing, and professional/scientific/technical services sectors. These industries alone account for 32.8 percent of total employment in the PMA. Compared to the nation as a whole, the retail trade, professional/scientific/technical services, and finance/insurance services sectors are overrepresented in the PMA. Conversely, the healthcare/social assistance, educational services, and accommodation/food services sectors are underrepresented in the PMA when compared to the nation.

2. Major Employers

The table below shows the largest employers in Gwinnett County, Georgia.

MAJOR EMPLOYERS - GWINNETT COUNTY

Employer Name	Industry	# Of Employees
Gwinnett County Public School System	Educational Services	21,007
Gwinnett County Government	Government	5,137
Gwinnett Health Care System	Healthcare/Social Assistance	4,053
Publix	Retail	4,036
Walmart	Retail	3,291
State of Georgia	Government	2,621
Kroger	Retail	2,246
US Postal Service	Government	2,172
NCR	Computer Hardware	1,738
Primerica	Insurance/Financial Services	1,690

Source: Georgia Department of Labor, Workforce and Economic Research, retrieved October 2018

Gwinnett County Public School System is the largest employer, employing nearly 21,000 employees. Other major employers are concentrated in the government, healthcare/social assistance, and retail sectors. Many of these employers provide employment for a broad range of workers, including skilled, unskilled, and service occupations.

Expansions/Contractions

We have reviewed publications by Georgia Department of Economic Development, Workforce Division listing WARN (Worker Adjustment and Retraining Notification Act) notices since January 2017. These layoffs are illustrated in the following table.

GWINNETT COUNTY WARN LISTINGS 2017-2018

Company	Industry	Employees Affected	Layoff Date
Mayfield Dairy	Manufacturing	108	9/16/2018
Corix	Utilities	53	12/30/2017
Ricoh Logistics Corporation	Transportation/Warehousing	50	9/29/2017
Sodexo	Admin/Support/Waste Mgmt Svcs	63	8/31/2017
B & B Bacrach	Retail Trade	7	8/6/2017
Dollar Express	Retail Trade	8	6/30/2017
bebe	Other Services (excl Publ Adm)	8	5/27/2017
NexxLinx	Information	236	5/21/2017
Siemens Healthineers	Healthcare/Social Assistance	70	3/31/2017
Suniva	Prof/Scientific/Tech Services	131	3/29/2017
Bin Tech Partners	Finance/Insurance	108	2/17/2017
Total		842	

Source: Georgia Department of Economic Development, October 2018

As the preceding table demonstrates there have been a total of 11 company layoffs reported in Gwinnett County since January 2017, resulting in the loss of 842 jobs. Despite these job losses that have been reported, there has been some growth occurring in the area.

We attempted to contact the Gwinnett County Chamber of Commerce to inquire about recent business expansions or contractions in the area, but to date our attempts have been unsuccessful. However, we utilized the Partnership Gwinnett website to find the following business expansions in Gwinnett County announced in 2017 through 2018, most of which are located on lands identified through the Gwinnett County Village Community Improvement District (CID) initiative, an organization that works to promote redevelopment and infrastructure development in the area.

- Gezolan, a Swiss manufacturing company, opened a 60,000-square-foot facility off Hamilton Mill Road in Buford in June 2018, representing a \$12 million investment.
- Assurant, Inc., a global leader in risk management solutions, opened a technical support center in Duluth in May 2018, which created 335 new jobs and represented a \$2.2 million investment.
- GEBHARDT Logistic Solutions Inc., a market leader in storage and transport solutions for retail and trade industries, announced the expansion of its operations and relocation to Gwinnett County, metro Atlanta, Georgia. GEBHARDT’s 30,000-square-foot facility, located at 1650 Horizon Parkway Northeast approximately 4.4 miles north of the Subject site, will serve as a headquarters for the company’s North American production and services for storage and transport solutions. The facility will house four full-time employees and 10 to 20 part-time employees including sales managers, customer service managers, engineers, logisticians and a general manager. The company seeks to actively increase its number of full-time employees as it expands into the North American market.

- Convergent Technologies, a worldwide leader in service-based systems integration, announced the expansion of its operations in Gwinnett County. The announcement represents 150 existing jobs, a projected 33% increase in new jobs in the coming years, and \$1 million in capital investment for the community. Convergent’s 25,000-square-foot facility will be located at 1955 Evergreen Boulevard, approximately ten miles south of the Subject site.
- AZZ Inc., a provider of specialty electrical equipment and highly engineered services, announced in June 2017 plans to expand and relocate the company’s specialty welding operation to a new 180,000 square-foot facility located at 560 Horizon Drive, 4.5 miles southwest of the Subject site. At the time of the announcement, there was no information for how many jobs the relocation is expected to add to the local economy.
- Carcoustics, a supplier to the automobile industry, plans to invest \$6 million to construct a 130,000 square-foot manufacturing facility that will produce acoustic and thermal components for the automobile industry. Over the next five years, the company intends to create 200 jobs at the facility.
- Liftmaster, a manufacturer of residential garage door openers, announced in April 2017 plans to move their distribution operations and customer experience and training centers to a newly constructed 96,000 square-foot facility. Liftmaster plans to increase full-time staff in the area by 30 percent when the distribution center is fully operational, though no numbers of jobs expected to be added were given.
- National Compressor Exchange (NCE), an ISO Certified compressor remanufacturer, announced in April 2017 that it plans to establish a southeastern and international division headquarters that will house the company’s warehouse, sales operations, and customer showroom. The \$500,000 initial investment will immediately add four new jobs with plans to add an additional 40 jobs over the next five years.
- Crawford & Company, the world’s largest publicly listed independent provider of claims management to insurance companies, announced in March 2017 plans to move their global headquarters to the City of Peachtree Corners in Gwinnett County. The project will include \$15 million in capital investment and is expected to add 500 new jobs over the next three years.

3. Employment and Unemployment Trends

The following table details employment and unemployment trends for the Atlanta-Sandy Springs-Roswell, GA MSA from 2002 to August 2018.

EMPLOYMENT TRENDS (NOT SEASONALLY ADJUSTED)

	Atlanta-Sandy Springs-Roswell, GA MSA			USA		
	Total Employment	% Change	Differential from peak	Total Employment	% Change	Differential from peak
2002	2,324,880	-	-16.8%	136,485,000	-	-9.9%
2003	2,347,173	1.0%	-16.0%	137,736,000	0.9%	-9.0%
2004	2,382,163	1.5%	-14.7%	139,252,000	1.1%	-8.0%
2005	2,445,674	2.7%	-12.5%	141,730,000	1.8%	-6.4%
2006	2,538,141	3.8%	-9.2%	144,427,000	1.9%	-4.6%
2007	2,618,825	3.2%	-6.3%	146,047,000	1.1%	-3.6%
2008	2,606,822	-0.5%	-6.7%	145,363,000	-0.5%	-4.0%
2009	2,452,057	-5.9%	-12.2%	139,878,000	-3.8%	-7.6%
2010	2,440,037	-0.5%	-12.7%	139,064,000	-0.6%	-8.2%
2011	2,486,895	1.9%	-11.0%	139,869,000	0.6%	-7.6%
2012	2,545,474	2.4%	-8.9%	142,469,000	1.9%	-5.9%
2013	2,572,589	1.1%	-7.9%	143,929,000	1.0%	-5.0%
2014	2,619,531	1.8%	-6.3%	146,305,000	1.7%	-3.4%
2015	2,684,742	2.5%	-3.9%	148,833,000	1.7%	-1.7%
2016	2,794,326	4.1%	0.0%	151,436,000	1.7%	0.0%
2017	2,896,736	3.7%	3.7%	153,308,000	1.2%	1.2%
2018 YTD Average*	2,978,169	2.8%	-	155,303,000	1.3%	-
Aug-2017	2,895,101	-	-	153,576,000	-	-
Aug-2018	2,975,023	2.8%	-	155,539,000	1.3%	-

Source: U.S. Bureau of Labor Statistics November 2018

UNEMPLOYMENT TRENDS (NOT SEASONALLY ADJUSTED)

	Atlanta-Sandy Springs-Roswell, GA MSA			USA		
	Unemployment Rate	Change	Differential from peak	Unemployment Rate	Change	Differential from peak
2002	5.0%	-	0.6%	5.8%	-	1.2%
2003	4.9%	-0.2%	0.5%	6.0%	0.2%	1.4%
2004	4.8%	-0.1%	0.4%	5.5%	-0.5%	0.9%
2005	5.4%	0.6%	0.9%	5.1%	-0.5%	0.5%
2006	4.7%	-0.7%	0.2%	4.6%	-0.5%	0.0%
2007	4.4%	-0.2%	0.0%	4.6%	0.0%	0.0%
2008	6.2%	1.7%	1.7%	5.8%	1.2%	1.2%
2009	9.9%	3.8%	5.5%	9.3%	3.5%	4.7%
2010	10.3%	0.4%	5.9%	9.6%	0.3%	5.0%
2011	9.9%	-0.4%	5.5%	9.0%	-0.7%	4.3%
2012	8.8%	-1.1%	4.4%	8.1%	-0.9%	3.5%
2013	7.8%	-1.0%	3.4%	7.4%	-0.7%	2.8%
2014	6.8%	-1.0%	2.3%	6.2%	-1.2%	1.6%
2015	5.7%	-1.1%	1.3%	5.3%	-0.9%	0.7%
2016	5.1%	-0.6%	0.7%	4.9%	-0.4%	0.3%
2018 YTD Average*	3.9%	-0.7%	-	4.0%	-0.5%	-
Aug-2017	4.7%	-	-	4.5%	-	-
Aug-2018	3.6%	-1.1%	-	3.9%	-0.6%	-

Source: U.S. Bureau of Labor Statistics November 2018

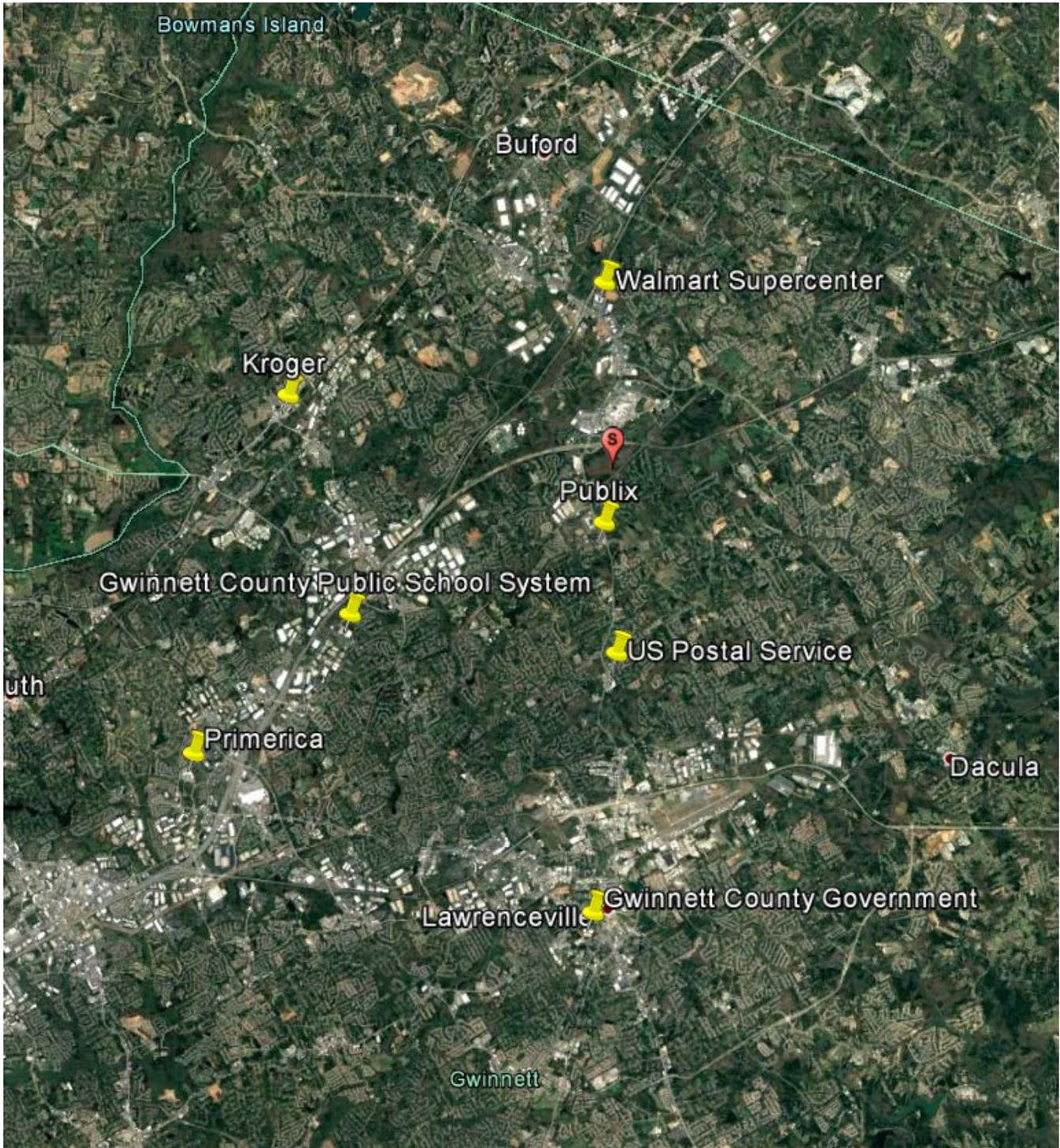
Total employment in the MSA has increased every year since 2003 with the exception of 2008 through 2010 during the most recent national recession. While the MSA experienced a 6.9 percent decline in employment

during between 2008 and 2010, which was greater than the nation over the same period, the MSA has experienced growth each year since. Furthermore, the MSA surpassed its pre-recessionary employment levels in 2014, the same year as the nation, and has continued to increase steadily.

Trends in historical unemployment data generally mirrors employment; after 2009 at the peak of the recession, unemployment in the MSA has decreased six of the past eight years. Between August 2017 and August 2018, total employment increased 2.8 percent, compared to the national growth rate of 1.3 percent during the same time period. Overall, the local economy has fully recovered from the national recession and has entered into an expansionary phase which is a positive indicator of demand for rental housing and, therefore, the Subject's proposed units.

4. Map of Site and Major Employment Concentrations

The following map and table details the largest employers in Gwinnett County, Georgia.



Source: Google Earth, November 2018.

MAJOR EMPLOYERS - GWINNETT COUNTY

Employer Name	Industry	# Of Employees
Gwinnett County Public School System	Educational Services	21,007
Gwinnett County Government	Government	5,137
Gwinnett Health Care System	Healthcare/Social Assistance	4,053
Publix	Retail	4,036
Walmart	Retail	3,291
State of Georgia	Government	2,621
Kroger	Retail	2,246
US Postal Service	Government	2,172
NCR	Computer Hardware	1,738
Primerica	Insurance/Financial Services	1,690

Source: Georgia Department of Labor, Workforce and Economic Research, retrieved October 2018

5. Conclusion

Employment in the PMA is greatest in the trade, transportation, and utilities sector, followed by professional and business services and leisure and hospitality. These industries are particularly vulnerable in economic downturns and are historically volatile industries, with the exception of utilities.

Total employment in the MSA has increased every year since 2003 with the exception of 2008 through 2010 during the most recent national recession. While the MSA experienced a 6.9 percent decline in employment during between 2008 and 2010, which was greater than the nation over the same period, the MSA has experienced growth each year since. Furthermore, the MSA surpassed its pre-recessionary employment levels in 2014, the same year as the nation, and has continued to increase steadily. Trends in historical unemployment data generally mirrors employment; after 2009 at the peak of the recession, unemployment in the MSA has decreased six of the past eight years. Between August 2017 and August 2018, total employment increased 2.8 percent, compared to the national growth rate of 1.3 percent during the same time period. Overall, the local economy has fully recovered from the national recession and has entered into an expansionary phase which is a positive indicator of demand for rental housing and, therefore, the Subject’s proposed units.

G. PROJECT-SPECIFIC AFFORDABILITY AND DEMAND ANALYSIS

The following demand analysis evaluates the potential amount of qualified households, which the Subject would have a fair chance at capturing. The structure of the analysis is based on the guidelines provided by DCA.

1. Income Restrictions

LIHTC rents are based upon a percentage of the Area Median Gross Income (“AMI”), adjusted for household size and utilities. The Georgia Department of Community Affairs (“DCA”) will estimate the relevant income levels, with annual updates. The rents are calculated assuming that the maximum net rent a household will pay is 35 percent of its household income at the appropriate AMI level.

According to DCA, household size is assumed to be 1.5 persons per bedroom for LIHTC rent calculation purposes. For example, the maximum rent for a four-person household in a two-bedroom unit is based on an assumed household size of three persons (1.5 per bedroom). For income determination purposes, the maximum income is assumed to be 1.5 persons per bedroom rounded up to the nearest whole number. For example, maximum income for a one-bedroom unit is based on an assumed household size of two persons (1.5 persons per bedroom, rounded up).

To assess the likely number of tenants in the market area eligible to live in the Subject, we use Census information as provided by ESRI Information Systems, to estimate the number of potential tenants who would qualify to occupy the Subject as a LIHTC project.

The maximum income levels are based upon information obtained from the Rent and Income Limits Guidelines Table as accessed from the DCA website. The maximum income for our Subject is \$48,480, which is the maximum allowable income for five-person households at 60 percent AMI.

2. Affordability

As discussed above, the maximum income is set by DCA while the minimum is based upon the minimum income needed to support affordability. This is based upon a standard of 35 percent. Lower and moderate-income families typically spend greater than 30 percent of their income on housing. These expenditure amounts can range higher than 50 percent depending upon market area. However, the 30 to 40 percent range is generally considered a reasonable range of affordability. DCA guidelines utilize 35 percent for families and 40 percent for seniors. We will use these guidelines to set the minimum income levels for the demand analysis.

INCOME LIMITS

Unit Type	Minimum Allowable Income	Maximum Allowable Income
	<i>60% AMI</i>	
1BR	\$28,869	\$35,940
2BR	\$34,663	\$40,440
3BR	\$40,011	\$48,480

3. Demand

The demand for the Subject will be derived from three sources: new households, existing households and elderly homeowners likely to convert to rentership. These calculations are illustrated in the following tables.

3a. Demand from New Households

The number of new households entering the market is the first level of demand calculated. We have utilized 2021, the anticipated date of market entry, as the base year for the analysis. Therefore, 2017 household population estimates are inflated to 2021 by interpolation of the difference between 2017 estimates and

2022 projections. This change in households is considered the gross potential demand for the Subject property. This number is adjusted for income eligibility and renter tenure. This is calculated as an annual demand number. In other words, this calculates the anticipated new households in 2021. This number takes the overall growth from 2017 to 2022 and applies it to its respective income cohorts by percentage. This number does not reflect lower income households losing population, as this may be a result of simple dollar value inflation.

3b. Demand from Existing Households

Demand for existing households is estimated by summing two sources of potential tenants. The first source is tenants who are rent overburdened. These are households who are paying over 35 percent for family households and 40 percent for senior households of their income in housing costs. This data is interpolated using ACS data based on appropriate income levels.

The second source is households living in substandard housing. We will utilize this data to determine the number of current residents that are income eligible, renter tenure, overburdened and/or living in substandard housing and likely to consider the Subject. In general, we will utilize this data to determine the number of current residents that are income eligible, renter tenure, overburdened and/or living in substandard housing and likely to consider the Subject.

3c. Demand from Elderly Homeowners likely to Convert to Rentership

An additional source of demand is also seniors likely to move from their own homes into rental housing. This source is only appropriate when evaluating senior properties and is determined by interviews with property managers in the PMA. It should be noted that per DCA guidelines, we have lowered demand from seniors who convert to homeownership to be at or below 2.0 percent of total demand.

3d. Other

Per the 2018 GA DCA Qualified Allocation Plan (QAP) and Market Study Manual, GA DCA does not consider demand from outside the Primary Market Area (PMA), including the Secondary Market Area (SMA). Therefore, we have not accounted for leakage from outside the PMA boundaries in our demand analysis.

DCA does not consider household turnover to be a source of market demand. Therefore, we have not accounted for household turnover in our demand analysis.

4. New Demand, Capture Rates and Stabilization Conclusions

The following pages will outline the overall demand components added together (3(a), 3(b) and 3(c)) less the supply of competitive developments awarded and/or constructed or placed in service from 2014 to the present.

Additions to Supply

Additions to supply will lower the number of potential qualified households. Pursuant to our understanding of DCA guidelines, we have deducted the following units from the demand analysis.

- Comparable/competitive LIHTC and bond units (vacant or occupied) that have been funded, are under construction, or placed in service in 2016 through the present.
- Vacancies in projects placed in service prior to 2016 that have not reached stabilized occupancy (i.e. at least 90 percent occupied).
- Comparable/competitive conventional or market rate units that are proposed, are under construction, or have entered the market from 2016 to present. As the following discussion will demonstrate, competitive market rate units are those with rent levels that are comparable to the proposed rents at the Subject.

Per GA DCA guidelines, competitive units are defined as those units that are of similar size and configuration and provide alternative housing to a similar tenant population, at rent levels comparative to those proposed for the Subject development. According to Georgia DCA allocation lists, only one LIHTC property has been allocated in the Subject’s PMA since 2016. This property is known as Breckinridge Oaks, and will offer 110 units to seniors upon completion. Because this property targets senior tenancy, it is not considered competitive with the Subject. Thus, we have not deducted the units at this property from our analysis.

PMA Occupancy

Per DCA’s guidelines, we have determined the average occupancy rate based on all available competitive conventional and LIHTC properties in the PMA. We have provided a combined average occupancy level for the PMA based on the total competitive units in the PMA.

PMA OCCUPANCY

Property Name	Program	Location	Tenancy	# of Units	Occupancy
Ivy Ridge	LIHTC	Buford	Family	256	-
Huntington Court	LIHTC, Market, Non-Rental	Buford	Senior	152	100.0%
Plantation Ridge	LIHTC, Market	Sugar Hill	Family	218	100.0%
Reserve At Ivy Creek	LIHTC, Market	Buford	Family	305	100.0%
Annandale Apartments, Inc.	Section 8	Suwanee	Family	12	100.0%
Caswyck Amli At Mcginnis	Market	Suwanee	Family	700	97.9%
Century At Mill Creek	Market	Buford	Family	259	97.3%
Century Pointe At Suwanee Station (FKA Oakmont)	Market	Suwanee	Family	336	98.2%
Dakota Mill Creek	Market	Buford	Family	234	97.0%
Daniel Creek	Market	Lawrenceville	Family	78	N/A
Hartford Run Apartments	Market	Buford	Family	259	94.2%
Holland Park	Market	Lawrenceville	Family	496	99.6%
Landmark At Grand Oasis	Market	Suwanee	Family	467	94.9%
Madison At River Sound	Market	Lawrenceville	Family	586	99.1%
Preserve At Legacy Park	Market	Lawrenceville	Family	498	96.0%
Preserve At Mill Creek	Market	Buford	Family	400	98.8%
Preston Hills At Mill Creek	Market	Buford	Family	464	97.4%
Sugar Mill Apartments	Market	Lawrenceville	Family	244	97.1%
Sugarloaf Trails	Market	Duluth	Family	268	99.6%
The Reserve At Sugarloaf	Market	Duluth	Family	333	98.2%
Summer Park Apartments	Market	Buford	Family	358	98.0%
The Overlook At Gwinnett Stadium	Market	Lawrenceville	Family	410	97.6%
The Terraces At Suwanee Gateway	Market	Suwanee	Family	335	99.4%
The Views At Coolray Field	Market	Lawrenceville	Family	206	97.1%
Waterstone	Market	Buford	Family	296	97.6%
Winbridge Apartments	Rural Development	Buford	Family	48	100.0%
Average PMA Occupancy					97.9%

The average occupancy rate of competitive developments in the PMA is 97.9 percent.

Rehab Developments and PBRA

For any properties that are rehab developments, the capture rates will be based on those units that are vacant, or whose tenants will be rent burdened or over income as listed on the Tenant Relocation Spreadsheet.

Units that are subsidized with PBRA or whose rents are more than 20 percent lower than the rent for other units of the same bedroom size in the same AMI band and comprise less than 10 percent of total units in the same AMI band will not be used in determining project demand. In addition, any units, if priced 30 percent lower than the average market rent for the bedroom type in any income segment, will be assumed to be leasable in the market and deducted from the total number of units in the project for determining capture rates.

5. Capture Rates

The above calculations and derived capture rates are illustrated in the following tables. Note that the demographic data used in the following tables, including tenure patterns, household size and income distribution through the projected market entry date of 2021 were illustrated in the previous section of this report.

RENTER HOUSEHOLD INCOME DISTRIBUTION - PMA

Income Cohort	2017		Projected Mkt Entry April 2021		2022	
	Number	Percentage	Number	Percentage	Number	Percentage
\$0-9,999	979	4.5%	1,004	4.3%	1,012	4.3%
\$10,000-19,999	2,344	10.8%	2,333	10.1%	2,329	9.8%
\$20,000-29,999	2,873	13.2%	2,944	12.7%	2,967	12.5%
\$30,000-39,999	3,208	14.7%	3,321	14.3%	3,359	14.2%
\$40,000-49,999	2,153	9.9%	2,204	9.5%	2,221	9.4%
\$50,000-59,999	2,422	11.1%	2,534	10.9%	2,571	10.9%
\$60,000-74,999	2,622	12.0%	2,871	12.4%	2,954	12.5%
\$75,000-99,999	2,040	9.4%	2,244	9.7%	2,312	9.8%
\$100,000-124,999	1,606	7.4%	1,837	7.9%	1,914	8.1%
\$125,000-149,999	514	2.4%	626	2.7%	663	2.8%
\$150,000-199,999	404	1.9%	484	2.1%	511	2.2%
\$200,000+	621	2.9%	779	3.4%	832	3.5%
Total	21,786	100.0%	23,180	100.0%	23,645	100.0%

Source: HISTA Data / Ribbon Demographics 2017, Novogradac & Company LLP, November 2018

60% AMI

NEW RENTER HOUSEHOLD DEMAND BY INCOME COHORT - @60%

Minimum Income Limit		\$28,869		Maximum Income Limit		\$48,480	
Income Category	New Renter Households - Total Change		Income Brackets	Percent within Cohort	Renter Households within Bracket		
	in Households PMA 2017 to Prj Mrkt Entry April 2021						
\$0-9,999	25	1.8%		0.0%	0		
\$10,000-19,999	-11	-0.8%		0.0%	0		
\$20,000-29,999	71	5.1%	\$1,130	11.3%	8		
\$30,000-39,999	113	8.1%	\$9,999	100.0%	113		
\$40,000-49,999	51	3.7%	\$8,480	84.8%	43		
\$50,000-59,999	112	8.0%		0.0%	0		
\$60,000-74,999	249	17.9%		0.0%	0		
\$75,000-99,999	204	14.6%		0.0%	0		
\$100,000-124,999	231	16.6%		0.0%	0		
\$125,000-149,999	112	8.0%		0.0%	0		
\$150,000-199,999	80	5.8%		0.0%	0		
\$200,000+	158	11.4%		0.0%	0		
Total	1,394	100.0%		11.8%	164		

POTENTIAL EXISTING HOUSEHOLD DEMAND BY INCOME COHORT - @60%

Minimum Income Limit		\$28,869		Maximum Income Limit		\$48,480	
Income Category	Total Renter Households PMA 2017		Income Brackets	Percent within Cohort	Households within Bracket		
\$0-9,999	979	4.5%		0.0%	0		
\$10,000-19,999	2,344	10.8%		0.0%	0		
\$20,000-29,999	2,873	13.2%	\$1,130	11.3%	325		
\$30,000-39,999	3,208	14.7%	\$9,999	100.0%	3,208		
\$40,000-49,999	2,153	9.9%	\$8,480	84.8%	1,826		
\$50,000-59,999	2,422	11.1%		0.0%	0		
\$60,000-74,999	2,622	12.0%		0.0%	0		
\$75,000-99,999	2,040	9.4%		0.0%	0		
\$100,000-124,999	1,606	7.4%		0.0%	0		
\$125,000-149,999	514	2.4%		0.0%	0		
\$150,000-199,999	404	1.9%		0.0%	0		
\$200,000+	621	2.9%		0.0%	0		
Total	21,786	100.0%		24.6%	5,359		

ASSUMPTIONS - @60%

ASSUMPTIONS - @60%					
Tenancy		Family		% of Income towards Housing	
Rural/Urban		Urban		Maximum # of Occupants	
Persons in Household	OBR	1BR	2BR	3BR	4BR+
1	0%	90%	10%	0%	0%
2	0%	20%	80%	0%	0%
3	0%	0%	90%	10%	0%
4	0%	0%	10%	90%	0%
5+	0%	0%	0%	100%	0%

Demand from New Renter Households 2017 to April 2021

Income Target Population	@60%
New Renter Households PMA	1,394
Percent Income Qualified	11.8%
New Renter Income Qualified Households	164

Demand from Existing Households 2017

Demand from Rent Overburdened Households

Income Target Population	@60%
Total Existing Demand	21,786
Income Qualified	24.6%
Income Qualified Renter Households	5,359
Percent Rent Overburdened Prj Mrkt Entry April 2021	35.1%
Rent Overburdened Households	1,881

Demand from Living in Substandard Housing

Income Qualified Renter Households	5,359
Percent Living in Substandard Housing	1.6%
Households Living in Substandard Housing	83

Senior Households Converting from Homeownership

Income Target Population	@60%
Total Senior Homeowners	0
Rural Versus Urban	0.0%
Senior Demand Converting from Homeownership	0

Total Demand

Total Demand from Existing Households	1,965
Total New Demand	164
Total Demand (New Plus Existing Households)	2,129

Demand from Seniors Who Convert from Homeownership	0
Percent of Total Demand From Homeownership Conversion	0.0%
Is this Demand Over 20 percent of Total Demand?	No

By Bedroom Demand

One Person	30.2%	642
Two Persons	22.9%	487
Three Persons	17.1%	364
Four Persons	13.9%	297
Five Persons	15.9%	339
Total	100.0%	2,129

To place Person Demand into Bedroom Type Units

Of one-person households in studio units	0%	0
Of two-person households in studio units	0%	0
Of three-person households in studio units	0%	0
Of four-person households in studio units	0%	0
Of five-person households in studio units	0%	0
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Of one-person households in 1BR units	90%	578
Of two-person households in 1BR units	20%	97
Of three-person households in 1BR units	0%	0
Of four-person households in 1BR units	0%	0
Of five-person households in 1BR units	0%	0
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Of one-person households in 2BR units	10%	64
Of two-person households in 2BR units	80%	389
Of three-person households in 2BR units	90%	328
Of four-person households in 2BR units	10%	30
Of five-person households in 2BR units	0%	0
<hr/>		
Of one-person households in 3BR units	0%	0
Of two-person households in 3BR units	0%	0
Of three-person households in 3BR units	10%	36
Of four-person households in 3BR units	90%	267
Of five-person households in 3BR units	100%	339
<hr/>		
Of one-person households in 4BR units	0%	0
Of two-person households in 4BR units	0%	0
Of three-person households in 4BR units	0%	0
Of four-person households in 4BR units	0%	0
Of five-person households in 4BR units	0%	0
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Of one-person households in 5BR units	0%	0
Of two-person households in 5BR units	0%	0
Of three-person households in 5BR units	0%	0
Of four-person households in 5BR units	0%	0
Of five-person households in 5BR units	0%	0
Total Demand		2,129

	Total Demand (Subject Unit Types)		Additions to Supply		Net Demand
0 BR	-	-	-	=	-
1 BR	676	-	0	=	676
2 BR	811	-	0	=	811
3 BR	642	-	0	=	642
4 BR	-	-	-	=	-
5 BR	-	-	-	=	-
Total	2,129		0		2,129

	Developer's Unit Mix		Net Demand	Capture Rate	
0 BR	-	/	-	=	-
1 BR	112	/	676	=	16.6%
2 BR	128	/	811	=	15.8%
3 BR	16	/	642	=	2.5%
4 BR	-	/	-	=	-
5 BR	-	/	-	=	-
Total	256		2,129		12.0%

Conclusions

We have conducted such an analysis to determine a base of demand for the Subject as a tax credit property. Several factors affect the indicated capture rates and are discussed following.

- The number of households in the PMA is expected to increase 1.9 percent between 2017 and 2021.
- This demand analysis does not measure the PMA's or Subject's ability to attract additional or latent demand into the market from elsewhere by offering an affordable option. We believe this to be moderate and therefore the demand analysis is somewhat conservative in its conclusions because this demand is not included.

The following table illustrates demand and net demand for the Subject's units. Note that these capture rates are not based on appropriate bedroom types, as calculated previously.

HH at @60% AMI (\$28,869 to \$48,480)	
Demand from New Households (age and income appropriate)	164
PLUS	+
Demand from Existing Renter Housholds - Rent Overburdened Households	1,881
PLUS	+
Demand from Existing Renter Households - Substandard Housing	83
=	=
Sub Total	2,129
Demand from Existing Households - Elderly Homeowner Turnover (Limited to 20% where applicable)	0
Equals Total Demand	2,129
Less	-
New Supply	0
Equals Net Demand	2,129

CAPTURE RATE ANALYSIS CHART

Unit Type	Minimum Income	Maximum Income	Units Proposed	Total Demand	Supply	Net Demand	Capture Rate	Absorption	Average Market Rents	Minimum Market Rent	Maximum Market Rent	Proposed Rents
1BR @60%	\$28,869	\$35,940	112	676	0	676	16.6%	12 to 13 months	\$1,055	\$780	\$1,394	\$782
2BR @60%	\$34,663	\$40,440	128	811	0	811	15.8%	12 to 13 months	\$1,321	\$927	\$2,226	\$934
3BR @60%	\$40,011	\$48,480	16	642	0	642	2.5%	12 to 13 months	\$1,308	\$1,065	\$1,844	\$1,069
@60% Overall	\$28,869	\$48,480	256	2,129	0	2,129	12.0%	12 to 13 months	-	-	-	-

As the analysis illustrates, the Subject’s capture rates at the 60 percent AMI level will range from 2.5 to 16.6 percent, with an overall capture rate of 12.0 percent. Capture rates for the Subject’s units are within Georgia DCA thresholds for each bedroom type and overall. Therefore, we believe there is adequate demand for the Subject.

H. COMPETITIVE RENTAL ANALYSIS

Survey of Comparable Projects

Comparable properties are examined on the basis of physical characteristics, i.e. building type, age/quality, level of common amenities, absorption, as well as similarity in rent. We attempted to compare the Subject to complexes from the competing market to provide a broader picture of the health and available supply in the market. Our competitive survey includes 12 “true” comparable properties containing 3,380 units. A detailed matrix describing the individual competitive properties as well as the proposed Subject is provided on the following pages. A map illustrating the location of the Subject in relation to comparable properties is also provided on the following pages. The properties are further profiled in the following write-ups. The property descriptions include information on vacancy, turnover, absorption, age, competition, and the general health of the rental market, when available.

The availability of affordable data is considered good and the availability of market rate data is considered good. All of the comparables are located within 7.2 miles of the Subject, with eight located within the PMA. Six of the comparable properties are located within 1.4 miles of the Subject site. We have utilized a total of six nonsubsidized LIHTC family developments located within and just outside of the PMA as comparables, as they represent properties we consider most similar overall in terms of condition, location, and unit mix to the Subject. We also included six comparable market rate properties, all of which are located in the PMA, that offer unit types similar to the proposed Subject. Overall, we believe the availability of data is adequate to support our conclusions.

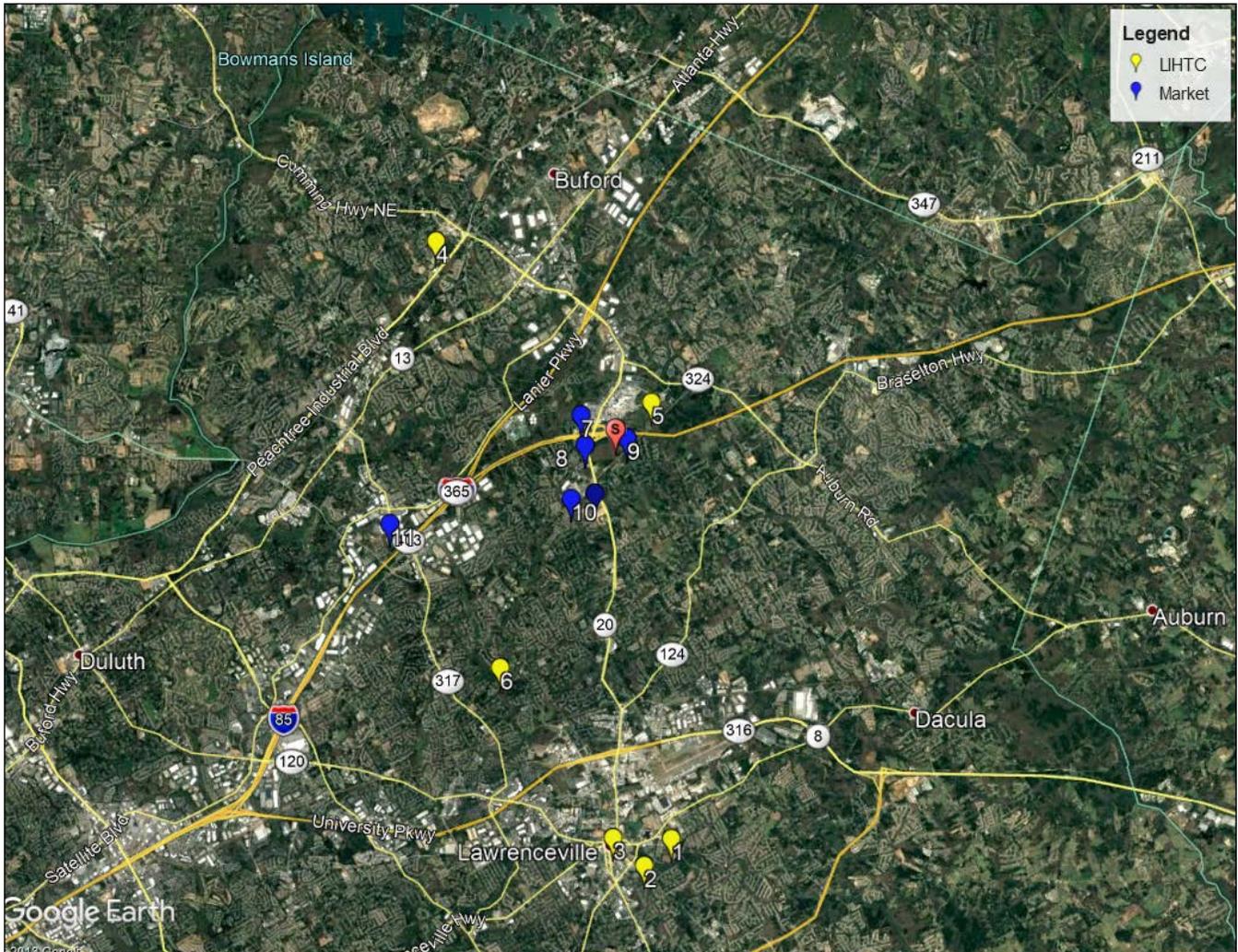
Excluded Properties

The following table illustrates properties within the PMA that have been excluded from our analysis along with their reason for exclusion.

EXCLUDED PROPERTIES

Property Name	Program	Location	Tenancy	# of Units	Reason for Exclusion
Hearthside Johns Creek	LIHTC, Market, Non-Rental	Johns Creek	Senior	90	Senior tenancy
Huntington Court	LIHTC, Market, Non-Rental	Buford	Senior	152	Senior tenancy
Annandale Apartments, Inc.	Section 8	Suwanee	Family	12	Subsidized
Caswyck Amlt At Mcginnis	Market	Suwanee	Family	700	Closer comparables
Century At Mill Creek	Market	Buford	Family	259	Closer comparables
Century Pointe At Suwanee Station	Market	Suwanee	Family	336	Closer comparables
Dakota Mill Creek	Market	Buford	Family	234	Closer comparables
Daniel Creek	Market	Lawrenceville	Family	78	Closer comparables
Gables Sugarloaf	Market	Duluth	Family	386	Closer comparables
Hartford Run Apartments	Market	Buford	Family	259	Could not contact
Holland Park	Market	Lawrenceville	Family	496	Closer comparables
Landmark At Grand Oasis	Market	Suwanee	Family	467	Closer comparables
Madison At River Sound	Market	Lawrenceville	Family	586	Closer comparables
Marquis At Sugarloaf	Market	Duluth	Family	303	Closer comparables
Preserve At Legacy Park	Market	Lawrenceville	Family	498	Closer comparables
Sugar Mill Apartments	Market	Lawrenceville	Family	244	Closer comparables
Sugarloaf Trails	Market	Duluth	Family	268	Closer comparables
The Reserve At Sugarloaf	Market	Duluth	Family	333	Closer comparables
Waterstone Apartments	Market	Buford	Family	296	Closer comparables
Winbridge Apartments	Rural Development	Buford	Family	48	Subsidized

Comparable Rental Property Map



Source: Google Earth, October 2018.

COMPARABLE PROPERTIES

#	Comparable Property	City	Rent Structure	Distance to Subject
S	Ivy Ridge	Buford	LIHTC	-
1	Alexander Mill*	Lawrenceville	LIHTC	6.8 miles
2	Ashton Creek Apartments*	Lawrenceville	LIHTC	7.2 miles
3	Magnolia Village*	Lawrenceville	LIHTC, Market	6.8 miles
4	Plantation Ridge	Sugar Hill	LIHTC, Market	4.6 miles
5	Reserve At Ivy Creek	Buford	LIHTC, Market	0.7 miles
6	The View At Sugarloaf	Lawrenceville	LIHTC, Non-Rental	4.4 miles
7	Preserve At Mill Creek	Buford	Market	0.9 miles
8	Preston Hills At Mill Creek	Buford	Market	0.7 miles
9	Summer Park Apartments	Buford	Market	0.0 miles
10	The Overlook At Gwinnett Stadium	Lawrenceville	Market	1.4 miles
11	The Terraces At Suwanee Gateway	Suwanee	Market	4.3 miles
12	The Views At Coolray Field	Lawrenceville	Market	1.1 miles

*Located outside PMA

1. The following tables illustrate detailed information in a comparable framework for the Subject and the comparable properties.

SUMMARY MATRIX

Comp #	Property Name	Distance to Subject	Type / Built / Renovated	Rent Structure	Unit Description	#	%	Size (SF)	Restriction	Rent (Adj)	Max Rent?	Waiting List?	Vacant Units	Vacancy Rate
Subject	Ivy Ridge 1525 Laurel Crossing Parkway NE Buford, GA 30519 Gwinnett County	-	Garden (4 stories) Proposed 2019 / n/a Family	@60%	1BR / 1BA	12	4.7%	754	@60%	\$782	Yes	N/A	N/A	N/A
					1BR / 1BA	100	39.1%	770	@60%	\$782	Yes	N/A	N/A	N/A
					2BR / 2BA	128	50.0%	1,076	@60%	\$934	Yes	N/A	N/A	N/A
					3BR / 2BA	8	3.1%	1,226	@60%	\$1,069	Yes	N/A	N/A	N/A
					3BR / 2BA	8	3.1%	1,247	@60%	\$1,069	Yes	N/A	N/A	N/A
					256	100.0%						N/A	N/A	N/A
1	Alexander Mill 158 Paper Mill Road Lawrenceville, GA 30045 Gwinnett County	6.8 miles	Garden (3 stories) 2002 / n/a Family	@60%	2BR / 2BA	157	70.1%	1,094	@60%	\$976	Yes	No	5	3.2%
					3BR / 2BA	67	29.9%	1,280	@60%	\$1,118	Yes	No	1	1.5%
						224	100.0%						6	2.7%
2	Ashton Creek Apartments 239 New Hope Road Lawrenceville, GA 30045 Gwinnett County	7.2 miles	Garden (3 stories) 2003 / n/a Family	@60%	1BR / 1BA	32	22.9%	822	@60%	\$820	Yes	Yes	0	0.0%
					2BR / 2BA	58	41.4%	1,086	@60%	\$981	Yes	Yes	0	0.0%
					3BR / 2BA	24	17.1%	1,209	@60%	\$1,129	Yes	Yes	0	0.0%
					4BR / 3BA	26	18.6%	1,460	@60%	\$1,251	Yes	Yes	0	0.0%
					140	100.0%							0	0.0%
3	Magnolia Village 287 East Crogan Lawrenceville, GA 30045 Gwinnett County	6.8 miles	Garden (3 stories) 2002 / n/a Family	@50%, @60%, Market	1BR / 1BA	19	10.0%	975	@50%	\$680	Yes	Yes	0	0.0%
					1BR / 1BA	8	4.2%	975	@60%	\$825	Yes	Yes	0	0.0%
					1BR / 1BA	9	4.7%	975	Market	\$943	N/A	Yes	0	0.0%
					2BR / 2BA	47	24.7%	1,175	@50%	\$807	Yes	Yes	0	0.0%
					2BR / 2BA	47	24.7%	1,175	@60%	\$980	Yes	Yes	1	2.1%
					2BR / 2BA	24	12.6%	1,175	Market	\$1,061	N/A	Yes	1	4.2%
					3BR / 2BA	20	10.5%	1,375	@50%	\$894	No	Yes	0	0.0%
					3BR / 2BA	8	4.2%	1,375	@60%	\$1,134	Yes	Yes	0	0.0%
					3BR / 2BA	8	4.2%	1,375	Market	\$1,203	N/A	Yes	0	0.0%
					190	100.0%							2	1.1%
4	Plantation Ridge 1022 Level Creek Road Sugar Hill, GA 30518 Gwinnett County	4.6 miles	Garden (3 stories) 1998 / n/a Family	@60%, Market	1BR / 1BA	20	9.2%	885	@60%	\$780	No	Yes	0	0.0%
					1BR / 1BA	20	9.2%	885	Market	\$973	N/A	No	0	0.0%
					2BR / 2BA	60	27.5%	1,086	@60%	\$943	No	Yes	0	0.0%
					2BR / 2BA	40	18.3%	1,086	Market	\$1,126	N/A	No	0	0.0%
					3BR / 2BA	50	22.9%	1,284	@60%	\$1,092	No	Yes	0	0.0%
					28	12.8%	1,284	Market	\$1,398	N/A	No	0	0.0%	
					218	100.0%							0	0.0%
5	Reserve At Ivy Creek 1869 Appaloosa Lane Buford, GA 30519 Gwinnett County	0.7 miles	Garden (3 stories) 2004 / n/a Family	@60%, Market	1BR / 1BA	38	12.5%	975	@60%	\$818	Yes	Yes	0	0.0%
					1BR / 1BA	4	1.3%	975	Market	\$1,023	N/A	Yes	0	0.0%
					2BR / 2BA	189	62.0%	1,175	@60%	\$927	Yes	Yes	0	0.0%
					2BR / 2BA	21	6.9%	1,175	Market	\$1,086	N/A	Yes	0	0.0%
					3BR / 2BA	25	8.2%	1,350	@60%	\$1,148	Yes	Yes	0	0.0%
					28	9.2%	1,350	Market	\$1,193	N/A	Yes	0	0.0%	
					305	100.0%							0	0.0%
6	The View At Sugarloaf 5355 Sugarloaf Parkway Lawrenceville, GA 30043 Gwinnett County	4.4 miles	Garden (2 stories) 1994 / 2013 Family	@50%, @60%, Non-Rental	2BR / 2BA	4	6.2%	974	@50%	\$766	Yes	No	N/A	N/A
					2BR / 2BA	44	33.8%	974	@60%	\$935	Yes	No	N/A	N/A
					3BR / 2BA	5	3.8%	1,143	@50%	\$835	Yes	No	N/A	N/A
					3BR / 2BA	8	6.2%	1,197	@50%	\$870	Yes	No	N/A	N/A
					3BR / 2BA	25	19.2%	1,143	@60%	\$1,065	Yes	No	N/A	N/A
					3BR / 2BA	39	30.0%	1,197	@60%	\$1,065	Yes	No	N/A	N/A
					1	0.8%	1,143	Non-Rental	-	N/A	No	0	0.0%	
					130	100.0%							3	2.3%
7	Preserve At Mill Creek 1400 Mall Of Georgia Blvd Buford, GA 30519 Gwinnett County	0.9 miles	Garden (4 stories) 2001 / n/a Family	Market	1BR / 1BA	30	7.5%	697	Market	\$1,058	N/A	None	2	6.7%
					1BR / 1BA	169	42.3%	866	Market	\$1,168	N/A	None	0	0.0%
					2BR / 2BA	171	42.8%	1,150	Market	\$1,331	N/A	None	3	1.8%
					3BR / 2BA	30	7.5%	1,406	Market	\$1,423	N/A	None	0	0.0%
					400	100.0%							5	1.3%
8	Preston Hills At Mill Creek 2910 Buford Drive Buford, GA 30519 Gwinnett County	0.7 miles	Garden (1 stories) 2000 / n/a Family	Market	1BR / 1BA	68	14.7%	828	Market	\$1,018	N/A	No	2	2.9%
					1BR / 1BA	98	21.1%	919	Market	\$1,220	N/A	No	3	3.1%
					2BR / 2BA	188	40.5%	1,177	Market	\$1,441	N/A	No	1	0.5%
					2BR / 2BA	64	13.8%	1,287	Market	\$1,627	N/A	No	4	6.3%
					3BR / 2BA	46	9.9%	1,426	Market	\$1,560	N/A	No	2	4.3%
					464	100.0%							12	2.6%
9	Summer Park Apartments 1525 Laurel Crossing Parkway Buford, GA 30519 Gwinnett County	0.0 miles	Garden (3 stories) 2001 / n/a Family	Market	1BR / 1BA	52	14.5%	676	Market	\$1,053	N/A	No	1	1.9%
					1BR / 1BA	4	1.1%	697	Market	\$1,093	N/A	No	0	0.0%
					1BR / 1BA	44	12.3%	792	Market	\$1,040	N/A	No	1	2.3%
					1BR / 1BA	12	3.4%	877	Market	\$1,149	N/A	No	0	0.0%
					2BR / 1BA	63	17.6%	1,053	Market	\$1,456	N/A	No	2	3.2%
					2BR / 1BA	3	0.8%	1,100	Market	\$1,278	N/A	No	0	0.0%
					2BR / 2BA	104	29.1%	1,216	Market	\$1,476	N/A	No	2	1.9%
					2BR / 2BA	36	10.1%	1,241	Market	\$1,438	N/A	No	0	0.0%
					3BR / 2BA	30	8.4%	1,411	Market	\$1,548	N/A	No	1	3.3%
					3BR / 2BA	10	2.8%	1,451	Market	\$1,456	N/A	No	0	0.0%
					358	100.0%							7	2.0%
10	The Overlook At Gwinnett Stadium 1600 Overlook Park Lane Lawrenceville, GA 30043 Gwinnett County	1.4 miles	Garden (4 stories) 2009 / n/a Family	Market	1BR / 1BA	113	27.6%	837	Market	\$1,183	N/A	No	2	1.8%
					1BR / 1BA	92	22.4%	746	Market	\$1,108	N/A	No	1	1.1%
					2BR / 2BA	28	6.8%	1,050	Market	\$1,511	N/A	No	3	10.7%
					2BR / 2BA	25	6.1%	1,174	Market	\$1,526	N/A	No	1	4.0%
					2BR / 2BA	49	12.0%	1,175	Market	\$1,526	N/A	No	1	2.0%
					2BR / 2BA	10	2.4%	1,190	Market	\$1,444	N/A	No	0	0.0%
					2BR / 2BA	71	17.3%	1,257	Market	\$1,541	N/A	No	2	2.8%
					3BR / 2BA	22	5.4%	1,401	Market	\$1,545	N/A	No	0	0.0%
					410	100.0%							10	2.4%
11	The Terraces At Suwanee Gateway 480 Northolt Pkwy Suwanee, GA 30024 Gwinnett County	4.3 miles	Garden (4 stories) 2013 / n/a Family	Market	1BR / 1BA	134	40.0%	806	Market	\$1,371	N/A	No	0	0.0%
					2BR / 2BA	154	46.0%	1,195	Market	\$1,545	N/A	No	2	1.3%
					3BR / 2BA	47	14.0%	1,427	Market	\$1,844	N/A	No	0	0.0%
					335	100.0%							2	0.6%
12	The Views At Coolray Field 755 Braves Avenue Lawrenceville, GA 30043 Gwinnett County	1.1 miles	Lowrise (4 stories) 2015 / n/a Family	Market	1BR / 1BA	135	65.5%	695	Market	\$1,394	N/A	No	3	2.2%
					2BR / 1BA	71	34.5%	1,061	Market	\$2,226	N/A	No	3	4.2%
					206	100.0%							6	2.9%

IVY RIDGE APARTMENTS – BUFORD, GEORGIA – MARKET STUDY

RENT AND SQUARE FOOTAGE RANKING – All rents adjusted for utilities and concessions extracted from the market.						
	Units Surveyed:	3,380	Weighted Occupancy:	98.4%		
	Market Rate	2,173	Market Rate	98.1%		
	Tax Credit	1,207	Tax Credit	99.1%		
One-Bedroom One Bath		Two-Bedroom Two Bath		Three-Bedroom Two Bath		
Property	Average	Property	Average	Property	Average	
RENT	The Views At Coolray Field (Market)	\$1,394	The Views At Coolray Field (Market)(1BA)	\$2,226	The Terraces At Suwanee Gateway (Market)	\$1,844
	The Terraces At Suwanee Gateway (Market)	\$1,371	Preston Hills At Mill Creek (Market)	\$1,627	Preston Hills At Mill Creek (Market)	\$1,560
	Preston Hills At Mill Creek (Market)(1.5BA)	\$1,220	The Terraces At Suwanee Gateway (Market)	\$1,545	Summer Park Apartments (Market)	\$1,548
	The Overlook At Gwinnett Stadium (Market)	\$1,183	The Overlook At Gwinnett Stadium (Market)	\$1,541	The Overlook At Gwinnett Stadium (Market)	\$1,545
	Preserve At Mill Creek (Market)	\$1,168	The Overlook At Gwinnett Stadium (Market)	\$1,526	Summer Park Apartments (Market)	\$1,456
	Summer Park Apartments (Market)	\$1,149	The Overlook At Gwinnett Stadium (Market)	\$1,526	Preserve At Mill Creek (Market)	\$1,423
	The Overlook At Gwinnett Stadium (Market)	\$1,108	The Overlook At Gwinnett Stadium (Market)	\$1,511	Plantation Ridge (Market)	\$1,398
	Summer Park Apartments (Market)	\$1,093	Summer Park Apartments (Market)	\$1,476	Magnolia Village (Market)	\$1,203
	Preserve At Mill Creek (Market)	\$1,058	Summer Park Apartments (Market)(1BA)	\$1,456	Reserve At Ivy Creek (Market)	\$1,193
	Summer Park Apartments (Market)	\$1,053	The Overlook At Gwinnett Stadium (Market)	\$1,444	Reserve At Ivy Creek (@60%)	\$1,148
	Summer Park Apartments (Market)	\$1,040	Preston Hills At Mill Creek (Market)	\$1,441	Magnolia Village (@60%)	\$1,134
	Reserve At Ivy Creek (Market)	\$1,023	Summer Park Apartments (Market)	\$1,438	Ashton Creek Apartments (@60%)	\$1,129
	Preston Hills At Mill Creek (Market)	\$1,018	Preserve At Mill Creek (Market)	\$1,331	Alexander Mill (@60%)	\$1,118
	Plantation Ridge (Market)	\$973	Summer Park Apartments (Market)(1BA)	\$1,278	Plantation Ridge (@60%)	\$1,092
	Magnolia Village (Market)	\$943	Plantation Ridge (Market)	\$1,126	Ivy Ridge (@60%)	\$1,069
	Magnolia Village (@60%)	\$825	Reserve At Ivy Creek (Market)	\$1,086	Ivy Ridge (@60%)	\$1,069
	Ashton Creek Apartments (@60%)	\$820	Magnolia Village (Market)	\$1,061	The View At Sugarloaf (@60%)	\$1,065
	Reserve At Ivy Creek (@60%)	\$818	Ashton Creek Apartments (@60%)	\$981	The View At Sugarloaf (@60%)	\$1,065
	Ivy Ridge (@60%)	\$782	Magnolia Village (@60%)	\$980	Magnolia Village (@50%)	\$894
	Ivy Ridge (@60%)	\$782	Alexander Mill (@60%)	\$976	The View At Sugarloaf (@50%)	\$870
	Plantation Ridge (@60%)	\$780	Plantation Ridge (@60%)	\$943	The View At Sugarloaf (@50%)	\$835
	Magnolia Village (@50%)	\$680	The View At Sugarloaf (@60%)	\$935		
			Ivy Ridge (@60%)	\$934		
			Reserve At Ivy Creek (@60%)	\$927		
			Magnolia Village (@50%)	\$807		
		The View At Sugarloaf (@50%)	\$766			
SQUARE FOOTAGE	Magnolia Village (@50%)	975	Preston Hills At Mill Creek (Market)	1,287	Summer Park Apartments (Market)	1,451
	Magnolia Village (Market)	975	The Overlook At Gwinnett Stadium (Market)	1,257	The Terraces At Suwanee Gateway (Market)	1,427
	Reserve At Ivy Creek (@60%)	975	Summer Park Apartments (Market)	1,241	Preston Hills At Mill Creek (Market)	1,426
	Magnolia Village (@60%)	975	Summer Park Apartments (Market)	1,216	Summer Park Apartments (Market)	1,411
	Reserve At Ivy Creek (Market)	975	The Terraces At Suwanee Gateway (Market)	1,195	Preserve At Mill Creek (Market)	1,406
	Preston Hills At Mill Creek (Market)(1.5BA)	919	The Overlook At Gwinnett Stadium (Market)	1,190	The Overlook At Gwinnett Stadium (Market)	1,401
	Plantation Ridge (@60%)	885	Preston Hills At Mill Creek (Market)	1,177	Magnolia Village (@50%)	1,375
	Plantation Ridge (Market)	885	Magnolia Village (@50%)	1,175	Magnolia Village (Market)	1,375
	Summer Park Apartments (Market)	877	The Overlook At Gwinnett Stadium (Market)	1,175	Magnolia Village (@60%)	1,375
	Preserve At Mill Creek (Market)	866	Magnolia Village (Market)	1,175	Reserve At Ivy Creek (Market)	1,350
	The Overlook At Gwinnett Stadium (Market)	837	Magnolia Village (@60%)	1,175	Reserve At Ivy Creek (@60%)	1,350
	Preston Hills At Mill Creek (Market)	828	Reserve At Ivy Creek (Market)	1,175	Plantation Ridge (@60%)	1,284
	Ashton Creek Apartments (@60%)	822	Reserve At Ivy Creek (@60%)	1,175	Plantation Ridge (Market)	1,284
	The Terraces At Suwanee Gateway (Market)	806	The Overlook At Gwinnett Stadium (Market)	1,174	Alexander Mill (@60%)	1,280
	Summer Park Apartments (Market)	792	Preserve At Mill Creek (Market)	1,150	Ivy Ridge (@60%)	1,247
	Ivy Ridge (@60%)	770	Summer Park Apartments (Market)(1BA)	1,100	Ivy Ridge (@60%)	1,226
	Ivy Ridge (@60%)	754	Alexander Mill (@60%)	1,094	Ashton Creek Apartments (@60%)	1,209
	The Overlook At Gwinnett Stadium (Market)	746	Plantation Ridge (Market)	1,086	The View At Sugarloaf (@60%)	1,197
	Preserve At Mill Creek (Market)	697	Plantation Ridge (@60%)	1,086	The View At Sugarloaf (@50%)	1,197
	Summer Park Apartments (Market)	697	Ashton Creek Apartments (@60%)	1,086	The View At Sugarloaf (@50%)	1,143
	The Views At Coolray Field (Market)	695	Ivy Ridge (@60%)	1,076	The View At Sugarloaf (@60%)	1,143
	Summer Park Apartments (Market)	676	The Views At Coolray Field (Market)(1BA)	1,061	The View At Sugarloaf (Non-Rental)	1,143
			Summer Park Apartments (Market)(1BA)	1,053		
			The Overlook At Gwinnett Stadium (Market)	1,050		
			The View At Sugarloaf (@60%)	974		
		The View At Sugarloaf (@50%)	974			
RENT PER SQUARE FOOT	The Views At Coolray Field (Market)	\$2.01	The Views At Coolray Field (Market)(1BA)	\$2.10	The Terraces At Suwanee Gateway (Market)	\$1.29
	The Terraces At Suwanee Gateway (Market)	\$1.70	The Overlook At Gwinnett Stadium (Market)	\$1.44	The Overlook At Gwinnett Stadium (Market)	\$1.10
	Summer Park Apartments (Market)	\$1.57	Summer Park Apartments (Market)(1BA)	\$1.38	Summer Park Apartments (Market)	\$1.10
	Summer Park Apartments (Market)	\$1.56	The Overlook At Gwinnett Stadium (Market)	\$1.30	Preston Hills At Mill Creek (Market)	\$1.09
	Preserve At Mill Creek (Market)	\$1.52	The Overlook At Gwinnett Stadium (Market)	\$1.30	Plantation Ridge (Market)	\$1.09
	The Overlook At Gwinnett Stadium (Market)	\$1.49	The Terraces At Suwanee Gateway (Market)	\$1.29	Preserve At Mill Creek (Market)	\$1.01
	The Overlook At Gwinnett Stadium (Market)	\$1.41	Preston Hills At Mill Creek (Market)	\$1.26	Summer Park Apartments (Market)	\$1.00
	Preserve At Mill Creek (Market)	\$1.35	The Overlook At Gwinnett Stadium (Market)	\$1.23	Ashton Creek Apartments (@60%)	\$0.93
	Preston Hills At Mill Creek (Market)(1.5BA)	\$1.33	Preston Hills At Mill Creek (Market)	\$1.22	The View At Sugarloaf (@60%)	\$0.93
	Summer Park Apartments (Market)	\$1.31	Summer Park Apartments (Market)	\$1.21	The View At Sugarloaf (@60%)	\$0.89
	Summer Park Apartments (Market)	\$1.31	The Overlook At Gwinnett Stadium (Market)	\$1.21	Reserve At Ivy Creek (Market)	\$0.88
	Preston Hills At Mill Creek (Market)	\$1.23	Summer Park Apartments (Market)(1BA)	\$1.16	Magnolia Village (Market)	\$0.87
	Plantation Ridge (Market)	\$1.10	Summer Park Apartments (Market)	\$1.16	Alexander Mill (@60%)	\$0.87
	Reserve At Ivy Creek (Market)	\$1.05	Preserve At Mill Creek (Market)	\$1.16	Ivy Ridge (@60%)	\$0.87
	Ivy Ridge (@60%)	\$1.04	Plantation Ridge (Market)	\$1.04	Ivy Ridge (@60%)	\$0.86
	Ivy Ridge (@60%)	\$1.02	The View At Sugarloaf (@60%)	\$0.96	Plantation Ridge (@60%)	\$0.85
	Ashton Creek Apartments (@60%)	\$1.00	Reserve At Ivy Creek (Market)	\$0.92	Reserve At Ivy Creek (@60%)	\$0.85
	Magnolia Village (Market)	\$0.97	Ashton Creek Apartments (@60%)	\$0.90	Magnolia Village (@60%)	\$0.82
	Plantation Ridge (@60%)	\$0.88	Magnolia Village (Market)	\$0.90	The View At Sugarloaf (@50%)	\$0.73
	Magnolia Village (@60%)	\$0.85	Alexander Mill (@60%)	\$0.89	The View At Sugarloaf (@50%)	\$0.73
	Reserve At Ivy Creek (@60%)	\$0.84	Plantation Ridge (@60%)	\$0.87	Magnolia Village (@50%)	\$0.65
	Magnolia Village (@50%)	\$0.70	Ivy Ridge (@60%)	\$0.87		
			Magnolia Village (@60%)	\$0.83		
			Reserve At Ivy Creek (@60%)	\$0.79		
			The View At Sugarloaf (@50%)	\$0.79		
		Magnolia Village (@50%)	\$0.69			

PROPERTY PROFILE REPORT

Alexander Mill

Effective Rent Date	10/18/2018
Location	158 Paper Mill Road Lawrenceville, GA 30045 Gwinnett County
Distance	6.8 miles
Units	224
Vacant Units	6
Vacancy Rate	2.7%
Type	Garden (3 stories)
Year Built/Renovated	2002 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	1/07/2007
Major Competitors	Magnolia Village
Tenant Characteristics	Mixed tenancy, majority families
Contact Name	Charlotte
Phone	678-407-9151



Market Information

Program	@60%
Annual Turnover Rate	25%
Units/Month Absorbed	N/A
HCV Tenants	7%
Leasing Pace	Pre-leased to one week
Annual Chg. in Rent	Increased to max
Concession	None
Waiting List	None

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
2	2	Garden (3 stories)	157	1,094	\$910	\$0	@60%	No	5	3.2%	yes	None
3	2	Garden (3 stories)	67	1,280	\$1,040	\$0	@60%	No	1	1.5%	yes	None

Unit Mix

@60%	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
2BR / 2BA	\$910	\$0	\$910	\$66	\$976
3BR / 2BA	\$1,040	\$0	\$1,040	\$78	\$1,118

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	In-Unit Alarm	None
Carpeting	Central A/C	Patrol	
Coat Closet	Dishwasher		
Exterior Storage	Ceiling Fan		
Garbage Disposal	Microwave		
Oven	Refrigerator		
Walk-In Closet	Washer/Dryer hookup		
Property		Premium	Other
Business Center/Computer Lab	Car Wash	None	None
Clubhouse/Meeting Room/Community	Exercise Facility		
Central Laundry	Off-Street Parking(\$0.00)		
On-Site Management	Picnic Area		
Playground	Swimming Pool		

Comments

The contact stated five of the six vacant units are pre-leased. According to the contact, there is strong demand for affordable housing in the area.

Photos



PROPERTY PROFILE REPORT

Ashton Creek Apartments

Effective Rent Date	10/24/2018
Location	239 New Hope Road Lawrenceville, GA 30045 Gwinnett County
Distance	7.1 miles
Units	140
Vacant Units	0
Vacancy Rate	0.0%
Type	Garden (3 stories)
Year Built/Renovated	2003 / N/A
Marketing Began	1/01/2003
Leasing Began	3/01/2003
Last Unit Leased	11/01/2003
Major Competitors	Alexander Mill, Magnolia Village
Tenant Characteristics	Mixed tenancy, families
Contact Name	Marya
Phone	770-963-6877



Market Information

Program	@60%
Annual Turnover Rate	26%
Units/Month Absorbed	18
HCV Tenants	20%
Leasing Pace	Immediately
Annual Chg. in Rent	Increased to max
Concession	None
Waiting List	Yes; unknown length

Utilities

A/C	not included -- central
Cooking	not included -- gas
Water Heat	not included -- gas
Heat	not included -- gas
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden (3 stories)	32	822	\$777	\$0	@60%	Yes	0	0.0%	yes	None
2	2	Garden (3 stories)	58	1,086	\$930	\$0	@60%	Yes	0	0.0%	yes	None
3	2	Garden (3 stories)	24	1,209	\$1,066	\$0	@60%	Yes	0	0.0%	yes	None
4	3	Garden (3 stories)	26	1,460	\$1,175	\$0	@60%	Yes	0	0.0%	yes	None

Unit Mix

@60%	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$777	\$0	\$777	\$43	\$820
2BR / 2BA	\$930	\$0	\$930	\$51	\$981
3BR / 2BA	\$1,066	\$0	\$1,066	\$63	\$1,129
4BR / 3BA	\$1,175	\$0	\$1,175	\$76	\$1,251

Ashton Creek Apartments, continued

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	Limited Access	None
Carpeting	Central A/C	Patrol	
Coat Closet	Dishwasher	Perimeter Fencing	
Ceiling Fan	Garbage Disposal		
Oven	Refrigerator		
Walk-In Closet	Washer/Dryer hookup		
Property		Premium	Other
Business Center/Computer Lab	Car Wash	None	None
Clubhouse/Meeting Room/Community	Exercise Facility		
Off-Street Parking(\$0.00)	On-Site Management		
Picnic Area	Playground		
Swimming Pool			

Comments

The property maintains a waiting list though the contact was unable to disclose the length. Washer/dryers are available to rent for \$45 to \$50 per month. Contact was unable to provide the current utilization rate for washer/dryers.

PROPERTY PROFILE REPORT

Magnolia Village

Effective Rent Date	10/24/2018
Location	287 East Crogan Lawrenceville, GA 30045 Gwinnett County
Distance	6.7 miles
Units	190
Vacant Units	2
Vacancy Rate	1.1%
Type	Garden (3 stories)
Year Built/Renovated	2002 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	Alexander Mills
Tenant Characteristics	Mixed tenancy; five percent or less seniors
Contact Name	Hercules
Phone	770-237-3910



Market Information

Program	@50%, @60%, Market
Annual Turnover Rate	13%
Units/Month Absorbed	5 to 8
HCV Tenants	10%
Leasing Pace	Pre-leased
Annual Chg. in Rent	Increased to max
Concession	None
Waiting List	Over 500 households

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden (3 stories)	19	975	\$622	\$0	@50%	Yes	0	0.0%	yes	None
1	1	Garden (3 stories)	8	975	\$767	\$0	@60%	Yes	0	0.0%	yes	None
1	1	Garden (3 stories)	9	975	\$885	\$0	Market	Yes	0	0.0%	N/A	None
2	2	Garden (3 stories)	47	1,175	\$741	\$0	@50%	Yes	0	0.0%	yes	None
2	2	Garden (3 stories)	47	1,175	\$914	\$0	@60%	Yes	1	2.1%	yes	None
2	2	Garden (3 stories)	24	1,175	\$995	\$0	Market	Yes	1	4.2%	N/A	None
3	2	Garden (3 stories)	20	1,375	\$816	\$0	@50%	Yes	0	0.0%	no	None
3	2	Garden (3 stories)	8	1,375	\$1,056	\$0	@60%	Yes	0	0.0%	yes	None
3	2	Garden (3 stories)	8	1,375	\$1,125	\$0	Market	Yes	0	0.0%	N/A	None

Magnolia Village, continued

Unit Mix

@50%	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent	@60%	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$622	\$0	\$622	\$58	\$680	1BR / 1BA	\$767	\$0	\$767	\$58	\$825
2BR / 2BA	\$741	\$0	\$741	\$66	\$807	2BR / 2BA	\$914	\$0	\$914	\$66	\$980
3BR / 2BA	\$816	\$0	\$816	\$78	\$894	3BR / 2BA	\$1,056	\$0	\$1,056	\$78	\$1,134

Market	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$885	\$0	\$885	\$58	\$943
2BR / 2BA	\$995	\$0	\$995	\$66	\$1,061
3BR / 2BA	\$1,125	\$0	\$1,125	\$78	\$1,203

Amenities

In-Unit	Security	Services
Balcony/Patio	Limited Access	Afterschool Program
Carpeting	Patrol	
Coat Closet	Perimeter Fencing	
Exterior Storage		
Oven		
Walk-In Closet		
Property	Premium	Other
Car Wash	None	None
Exercise Facility		
Off-Street Parking(\$0.00)		
Playground		
Tennis Court		

Comments

According to the contact the property runs an extensive waiting list for all unit types with over 500 households. The contact reported high demand for both affordable and market rate housing in the local area. The vacant two-bedroom unit at 60 percent of AMI is pre-leased. Over the past year, rents for all affordable units have increased to kept at the maximum allowable levels, with the exception of the three-bedroom units at 50 percent of AMI, which have remained stable. Market rate rents have increased between \$30 and \$75. The contact estimated the number of parking spaces at two spaces per unit.

Photos



PROPERTY PROFILE REPORT

Plantation Ridge

Effective Rent Date	10/15/2018
Location	1022 Level Creek Road Sugar Hill, GA 30518 Gwinnett County
Distance	4.6 miles
Units	218
Vacant Units	0
Vacancy Rate	0.0%
Type	Garden (3 stories)
Year Built/Renovated	1998 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	Reserve at Ivy Creek
Tenant Characteristics	Did not disclose
Contact Name	Maria
Phone	678.482.9800



Market Information

Program	@60%, Market
Annual Turnover Rate	11%
Units/Month Absorbed	N/A
HCV Tenants	6%
Leasing Pace	Pre-leased
Annual Chg. in Rent	Kept at max
Concession	None
Waiting List	Ten households for LIHTC units

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden (3 stories)	20	885	\$737	\$0	@60%	Yes	0	0.0%	no	None
1	1	Garden (3 stories)	20	885	\$930	\$0	Market	No	0	0.0%	N/A	None
2	2	Garden (3 stories)	60	1,086	\$892	\$0	@60%	Yes	0	0.0%	no	None
2	2	Garden (3 stories)	40	1,086	\$1,075	\$0	Market	No	0	0.0%	N/A	None
3	2	Garden (3 stories)	50	1,284	\$1,029	\$0	@60%	Yes	0	0.0%	no	None
3	2	Garden (3 stories)	28	1,284	\$1,335	\$0	Market	No	0	0.0%	N/A	None

Unit Mix

@60%	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent	Market	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$737	\$0	\$737	\$43	\$780	1BR / 1BA	\$930	\$0	\$930	\$43	\$973
2BR / 2BA	\$892	\$0	\$892	\$51	\$943	2BR / 2BA	\$1,075	\$0	\$1,075	\$51	\$1,126
3BR / 2BA	\$1,029	\$0	\$1,029	\$63	\$1,092	3BR / 2BA	\$1,335	\$0	\$1,335	\$63	\$1,398

Plantation Ridge, continued

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	In-Unit Alarm	None
Carpeting	Central A/C	Patrol	
Coat Closet	Dishwasher		
Exterior Storage	Ceiling Fan		
Garbage Disposal	Oven		
Refrigerator	Walk-In Closet		
Washer/Dryer hookup			
Property		Premium	Other
Clubhouse/Meeting Room/Community	Exercise Facility	None	None
Central Laundry	Off-Street Parking(\$0.00)		
On-Site Management	Picnic Area		
Playground	Swimming Pool		

Comments

The contact reported strong demand for affordable housing in the local area. There are currently ten households on the waiting list for the one, two, and three-bedroom units at 60 percent of AMI. LIHTC rents are currently set at 2017 maximum allowable levels and the contact was unable to comment on when rents would be increased to 2018 maximum levels. The contact estimated the number of parking spaces at one space per unit plus 10 visitor parking spaces.

Photos



PROPERTY PROFILE REPORT

Reserve At Ivy Creek

Effective Rent Date	10/15/2018
Location	1869 Appaloosa Lane Buford, GA 30519 Gwinnett County
Distance	0.8 miles
Units	305
Vacant Units	0
Vacancy Rate	0.0%
Type	Garden (3 stories)
Year Built/Renovated	2004 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	Amley Properties, Summer Park
Tenant Characteristics	Diverse mix
Contact Name	Enrique
Phone	770.831.7904



Market Information

Program	@60%, Market
Annual Turnover Rate	12%
Units/Month Absorbed	N/A
HCV Tenants	8%
Leasing Pace	Pre-leased
Annual Chg. in Rent	Increased to max
Concession	None
Waiting List	Yes; over 200 households.

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden (3 stories)	38	975	\$760	\$0	@60%	Yes	0	0.0%	yes	None
1	1	Garden (3 stories)	4	975	\$965	\$0	Market	Yes	0	0.0%	N/A	None
2	2	Garden (3 stories)	189	1,175	\$921	\$60	@60%	Yes	0	0.0%	yes	None
2	2	Garden (3 stories)	21	1,175	\$1,020	\$0	Market	Yes	0	0.0%	N/A	None
3	2	Garden (3 stories)	25	1,350	\$1,070	\$0	@60%	Yes	0	0.0%	yes	None
3	2	Garden (3 stories)	28	1,350	\$1,115	\$0	Market	Yes	0	0.0%	N/A	None

Unit Mix

@60%	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent	Market	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$760	\$0	\$760	\$58	\$818	1BR / 1BA	\$965	\$0	\$965	\$58	\$1,023
2BR / 2BA	\$921	\$60	\$861	\$66	\$927	2BR / 2BA	\$1,020	\$0	\$1,020	\$66	\$1,086
3BR / 2BA	\$1,070	\$0	\$1,070	\$78	\$1,148	3BR / 2BA	\$1,115	\$0	\$1,115	\$78	\$1,193

Reserve At Ivy Creek, continued

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	In-Unit Alarm	Afterschool Program
Carpeting	Central A/C	Limited Access	
Dishwasher	Garbage Disposal	Patrol	
Oven	Refrigerator		
Walk-In Closet	Washer/Dryer hookup		
Property		Premium	Other
Basketball Court	Business Center/Computer Lab	None	None
Car Wash	Exercise Facility		
Garage(\$0.00)	Central Laundry		
Off-Street Parking(\$0.00)	On-Site Management		
Playground	Swimming Pool		

Comments

The contact reported that this property is achieving 2018 maximum allowable rents. The tenant pays for all utilities including trash, which is included in the water/sewer bill from the city. Housing Choice Vouchers are accepted at the property; the contact stated they currently have 25 tenants utilizing vouchers. The contact estimated the number of parking spaces at one space per unit plus 10 visitor parking spaces. There are 18 garages available for an additional \$60 per month, all of which are currently utilized.

PROPERTY PROFILE REPORT

The View At Sugarloaf

Effective Rent Date	10/25/2018
Location	5355 Sugarloaf Parkway Lawrenceville, GA 30043 Gwinnett County
Distance	4.4 miles
Units	130
Vacant Units	3
Vacancy Rate	2.3%
Type	Garden (2 stories)
Year Built/Renovated	1994 / 2013
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	Palisades Club, Herrington Woods, Magnolia Pointe
Tenant Characteristics	N/A
Contact Name	Sonny
Phone	770-339-6800



Market Information

Program	@50%, @60%, Non-Rental
Annual Turnover Rate	9%
Units/Month Absorbed	N/A
HCV Tenants	15%
Leasing Pace	Pre-leased to one week
Annual Chg. in Rent	See comments
Concession	None
Waiting List	None

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	included
Sewer	included
Trash Collection	included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
2	2	Garden (2 stories)	8	974	\$766	\$0	@50%	No	N/A	N/A	yes	None
2	2	Garden (2 stories)	44	974	\$935	\$0	@60%	No	N/A	N/A	yes	None
3	2	Garden (2 stories)	5	1,143	\$835	\$0	@50%	No	N/A	N/A	yes	None
3	2	Garden (2 stories)	8	1,197	\$870	\$0	@50%	No	N/A	N/A	yes	None
3	2	Garden (2 stories)	25	1,143	\$1,065	\$0	@60%	No	N/A	N/A	yes	None
3	2	Garden (2 stories)	39	1,197	\$1,065	\$0	@60%	No	N/A	N/A	yes	None
3	2	Garden (2 stories)	1	1,143	N/A	\$0	Non-Rental	No	0	0.0%	N/A	None

Unit Mix

@50%	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent	@60%	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
2BR / 2BA	\$766	\$0	\$766	\$0	\$766	2BR / 2BA	\$935	\$0	\$935	\$0	\$935
3BR / 2BA	\$835 - \$870	\$0	\$835 - \$870	\$0	\$835 - \$870	3BR / 2BA	\$1,065	\$0	\$1,065	\$0	\$1,065
Non-Rental	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent						
3BR / 2BA	N/A	\$0	N/A	\$0	N/A						

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	None	Afterschool Program
Carpeting	Central A/C		
Coat Closet	Dishwasher		
Exterior Storage	Ceiling Fan		
Garbage Disposal	Oven		
Refrigerator	Walk-In Closet		
Washer/Dryer hookup			
Property		Premium	Other
Basketball Court	Clubhouse/Meeting Room/Community	None	None
Central Laundry	Off-Street Parking(\$0.00)		
On-Site Management	Picnic Area		
Playground	Volleyball Court		

Comments

This property was formerly known as Tanglewood Park. The contact reported strong demand for affordable housing in the area. There are currently no units vacant at 50 percent of AMI. Units at 50 percent of AMI have increased between 6.4 and 7.8 percent over the past year, while units at 60 percent of AMI have increased between 8.1 and 13.3 percent. The property does not have a waiting list and accepts applications on a first come first serve basis.

PROPERTY PROFILE REPORT

Preserve At Mill Creek

Effective Rent Date	10/22/2018
Location	1400 Mall Of Georgia Blvd Buford, GA 30519 Gwinnett County
Distance	0.7 miles
Units	400
Vacant Units	5
Vacancy Rate	1.3%
Type	Garden (4 stories)
Year Built/Renovated	2001 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	The Glens @ Mill Creek, Summer Park, Preston Hills
Tenant Characteristics	Mixed tenancy, most come from locally
Contact Name	Vanessa
Phone	678.714.9333



Market Information

Program	Market
Annual Turnover Rate	18%
Units/Month Absorbed	N/A
HCV Tenants	0%
Leasing Pace	One week
Annual Chg. in Rent	Increased 2.7 to 6.4 percent
Concession	None
Waiting List	None

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden (4 stories)	30	697	\$1,000	\$0	Market	None	2	6.7%	N/A	None
1	1	Garden (4 stories)	169	866	\$1,110	\$0	Market	None	0	0.0%	N/A	None
2	2	Garden (4 stories)	171	1,150	\$1,265	\$0	Market	None	3	1.8%	N/A	None
3	2	Garden (4 stories)	30	1,406	\$1,345	\$0	Market	None	0	0.0%	N/A	None

Unit Mix

Market	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$1,000 - \$1,110	\$0	\$1,000 - \$1,110	\$58	\$1,058 - \$1,168
2BR / 2BA	\$1,265	\$0	\$1,265	\$66	\$1,331
3BR / 2BA	\$1,345	\$0	\$1,345	\$78	\$1,423

Preserve At Mill Creek, continued

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	Limited Access	None
Carpeting	Central A/C	Patrol	
Coat Closet	Dishwasher	Perimeter Fencing	
Exterior Storage	Ceiling Fan		
Fireplace	Garbage Disposal		
Oven	Refrigerator		
Walk-In Closet	Washer/Dryer hookup		
Property		Premium	Other
Business Center/Computer Lab	Clubhouse/Meeting Room/Community	None	None
Exercise Facility	Garage(\$95.00)		
Off-Street Parking(\$0.00)	On-Site Management		
Playground	Swimming Pool		
Tennis Court			

Comments

This property does not accept Housing Choice Vouchers. The contact stated two of the five vacant units are pre-leased. Detached garage parking is available for an additional monthly fee of \$100, the contact did not know the number of garages the property offers but reported a utilization rate of 100 percent.

PROPERTY PROFILE REPORT

Preston Hills At Mill Creek

Effective Rent Date	10/18/2018
Location	2910 Buford Drive Buford, GA 30519 Gwinnett County
Distance	0.5 miles
Units	464
Vacant Units	12
Vacancy Rate	2.6%
Type	Garden
Year Built/Renovated	2000 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	None Identified
Tenant Characteristics	Mixed tenancy
Contact Name	Ronaldo
Phone	678-482-5995



Market Information

Program	Market
Annual Turnover Rate	48%
Units/Month Absorbed	N/A
HCV Tenants	0%
Leasing Pace	One to two weeks
Annual Chg. in Rent	Increased 5.5 to 27.9 percent
Concession	None
Waiting List	None

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden	68	828	\$960	\$0	Market	No	2	2.9%	N/A	None
1	1.5	Garden	98	919	\$1,162	\$0	Market	No	3	3.1%	N/A	None
2	2	Garden	188	1,177	\$1,375	\$0	Market	No	1	0.5%	N/A	None
2	2	Garden	64	1,287	\$1,561	\$0	Market	No	4	6.2%	N/A	None
3	2	Garden	46	1,426	\$1,482	\$0	Market	No	2	4.3%	N/A	None

Unit Mix

Market	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$960	\$0	\$960	\$58	\$1,018
1BR / 1.5BA	\$1,162	\$0	\$1,162	\$58	\$1,220
2BR / 2BA	\$1,375 - \$1,561	\$0	\$1,375 - \$1,561	\$66	\$1,441 - \$1,627
3BR / 2BA	\$1,482	\$0	\$1,482	\$78	\$1,560

Preston Hills At Mill Creek, continued

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	Limited Access	None
Carpeting	Central A/C	Perimeter Fencing	
Coat Closet	Dishwasher		
Ceiling Fan	Fireplace		
Garbage Disposal	Microwave		
Oven	Refrigerator		
Walk-In Closet	Washer/Dryer hookup		
Property		Premium	Other
Business Center/Computer Lab	Car Wash	None	None
Clubhouse/Meeting Room/Community	Courtyard		
Exercise Facility	Garage(\$0.00)		
Jacuzzi	Central Laundry		
Off-Street Parking(\$0.00)	On-Site Management		
Picnic Area	Playground		
Swimming Pool	Tennis Court		
Volleyball Court			

Comments

Detached garage parking is available for an additional monthly fee of \$75; the contact did not know the number of garages the property offers but reported a utilization rate of 90 percent. Since our last interview with this property, the 1BR/1.5BA units have increased by 27.9 percent. The remaining units increased between 5.5 and 8.8 percent. This property does not accept Housing Choice Vouchers.

PROPERTY PROFILE REPORT

Summer Park Apartments

Effective Rent Date	10/18/2018
Location	1525 Laurel Crossing Parkway Buford, GA 30519 Gwinnett County
Distance	0.1 miles
Units	358
Vacant Units	7
Vacancy Rate	2.0%
Type	Garden (3 stories)
Year Built/Renovated	2001 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	Preston Hills at Mill Creek
Tenant Characteristics	Mixed tenancy, most come from locally
Contact Name	Michael
Phone	678-482-1555



Market Information

Program	Market
Annual Turnover Rate	32%
Units/Month Absorbed	N/A
HCV Tenants	0%
Leasing Pace	One to two weeks
Annual Chg. in Rent	Decrease 5.5 - increased 33.0 percent
Concession	None
Waiting List	None

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden (3 stories)	52	676	\$995	\$0	Market	No	1	1.9%	N/A	None
1	1	Garden (3 stories)	4	697	\$1,035	\$0	Market	No	0	0.0%	N/A	None
1	1	Garden (3 stories)	44	792	\$982	\$0	Market	No	1	2.3%	N/A	None
1	1	Garden (3 stories)	12	877	\$1,091	\$0	Market	No	0	0.0%	N/A	None
2	1	Garden (3 stories)	63	1,053	\$1,390	\$0	Market	No	2	3.2%	N/A	None
2	1	Garden (3 stories)	3	1,100	\$1,212	\$0	Market	No	0	0.0%	N/A	None
2	2	Garden (3 stories)	104	1,216	\$1,410	\$0	Market	No	2	1.9%	N/A	None
2	2	Garden (3 stories)	36	1,241	\$1,372	\$0	Market	No	0	0.0%	N/A	None
3	2	Garden (3 stories)	30	1,411	\$1,470	\$0	Market	No	1	3.3%	N/A	None
3	2	Garden (3 stories)	10	1,451	\$1,378	\$0	Market	No	0	0.0%	N/A	None

Photos



PROPERTY PROFILE REPORT

The Overlook At Gwinnett Stadium

Effective Rent Date	10/18/2018
Location	1600 Overlook Park Lane Lawrenceville, GA 30043 Gwinnett County
Distance	1.3 miles
Units	410
Vacant Units	10
Vacancy Rate	2.4%
Type	Garden (4 stories)
Year Built/Renovated	2009 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	The Views at Coolray Field
Tenant Characteristics	Mixed tenancy, most from surrounding counties
Contact Name	Jenieve
Phone	770.962.4533



Market Information

Program	Market
Annual Turnover Rate	29%
Units/Month Absorbed	N/A
HCV Tenants	0%
Leasing Pace	Two to three weeks
Annual Chg. in Rent	Increased 4.0 - 20.4 percent
Concession	None
Waiting List	None

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden (4 stories)	113	837	\$1,125	\$0	Market	No	2	1.8%	N/A	None
1	1	Garden (4 stories)	92	746	\$1,050	\$0	Market	No	1	1.1%	N/A	None
2	2	Garden (4 stories)	28	1,050	\$1,445	\$0	Market	No	3	10.7%	N/A	None
2	2	Garden (4 stories)	25	1,174	\$1,460	\$0	Market	No	1	4.0%	N/A	None
2	2	Garden (4 stories)	49	1,175	\$1,460	\$0	Market	No	1	2.0%	N/A	None
2	2	Garden (4 stories)	10	1,190	\$1,378	\$0	Market	No	0	0.0%	N/A	None
2	2	Garden (4 stories)	71	1,257	\$1,475	\$0	Market	No	2	2.8%	N/A	None
3	2	Garden (4 stories)	22	1,401	\$1,467	\$0	Market	No	0	0.0%	N/A	None

Unit Mix

Market	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$1,050 - \$1,125	\$0	\$1,050 - \$1,125	\$58	\$1,108 - \$1,183
2BR / 2BA	\$1,378 - \$1,475	\$0	\$1,378 - \$1,475	\$66	\$1,444 - \$1,541
3BR / 2BA	\$1,467	\$0	\$1,467	\$78	\$1,545

The Overlook At Gwinnett Stadium, continued

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	Limited Access	None
Cable/Satellite/Internet	Carpeting		
Central A/C	Dishwasher		
Garbage Disposal	Microwave		
Oven	Refrigerator		
Walk-In Closet	Washer/Dryer hookup		
Property		Premium	Other
Business Center/Computer Lab	Clubhouse/Meeting Room/Community	None	None
Elevators	Exercise Facility		
Central Laundry	Off-Street Parking(\$0.00)		
On-Site Management	Swimming Pool		
Tennis Court			

Comments

This property does not accept Housing Choice Vouchers. Garage parking is available for an additional monthly fee of \$125, however the contact could not provide the number or utilization rate.

Photos



PROPERTY PROFILE REPORT

The Terraces At Suwanee Gateway

Effective Rent Date	10/18/2018
Location	480 Northolt Pkwy Suwanee, GA 30024 Gwinnett County
Distance	4 miles
Units	335
Vacant Units	2
Vacancy Rate	0.6%
Type	Garden (4 stories)
Year Built/Renovated	2013 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	Preserve at Mill Creek
Tenant Characteristics	Mostly families from surrounding counties
Contact Name	Tracy
Phone	678-482-8686



Market Information

Program	Market
Annual Turnover Rate	15%
Units/Month Absorbed	N/A
HCV Tenants	0%
Leasing Pace	One to two weeks
Annual Chg. in Rent	Decrease 9.5 - increased 6.9 percent
Concession	None
Waiting List	None

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Garden (4 stories)	134	806	\$1,313	\$0	Market	No	0	0.0%	N/A	None
2	2	Garden (4 stories)	154	1,195	\$1,479	\$0	Market	No	2	1.3%	N/A	None
3	2	Garden (4 stories)	47	1,427	\$1,766	\$0	Market	No	0	0.0%	N/A	None

Unit Mix

Market	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$1,313	\$0	\$1,313	\$58	\$1,371
2BR / 2BA	\$1,479	\$0	\$1,479	\$66	\$1,545
3BR / 2BA	\$1,766	\$0	\$1,766	\$78	\$1,844

The Terraces At Suwanee Gateway, continued

Amenities

In-Unit		Security	Services
Blinds	Carpeting	Patrol	None
Central A/C	Dishwasher		
Ceiling Fan	Garbage Disposal		
Microwave	Oven		
Refrigerator	Walk-In Closet		
Washer/Dryer	Washer/Dryer hookup		
Property		Premium	Other
Business Center/Computer Lab	Clubhouse/Meeting Room/Community	None	Billiards room
Courtyard	Elevators		
Exercise Facility	Central Laundry		
Off-Street Parking(\$0.00)	On-Site Management		
Picnic Area	Swimming Pool		

Comments

Garage parking is available for an additional monthly fee of \$125. This property includes additional premium amenities, including recreation areas, a billiards room, resident movie theatre, a car wash, and in-unit alarms. This property does not accept Housing Choice Vouchers.

PROPERTY PROFILE REPORT

The Views At Coolray Field

Effective Rent Date	10/18/2018
Location	755 Braves Avenue Lawrenceville, GA 30043 Gwinnett County Intersection: Buford Drive
Distance	1 mile
Units	206
Vacant Units	6
Vacancy Rate	2.9%
Type	Lowrise (4 stories)
Year Built/Renovated	2015 / N/A
Marketing Began	N/A
Leasing Began	N/A
Last Unit Leased	N/A
Major Competitors	The Overlook at Gwinnett Stadium
Tenant Characteristics	Mostly singles from surrounding counties
Contact Name	Shaquala
Phone	404-596-8118



Market Information

Program	Market
Annual Turnover Rate	17%
Units/Month Absorbed	n/a
HCV Tenants	0%
Leasing Pace	Within one month
Annual Chg. in Rent	Increased 3.2 to 3.9%
Concession	None
Waiting List	None

Utilities

A/C	not included -- central
Cooking	not included -- electric
Water Heat	not included -- electric
Heat	not included -- electric
Other Electric	not included
Water	not included
Sewer	not included
Trash Collection	not included

Unit Mix (face rent)

Beds	Baths	Type	Units	Size (SF)	Rent	Concession (monthly)	Restriction	Waiting List	Vacant	Vacancy Rate	Max Rent?	Range
1	1	Lowrise (4 stories)	135	695	\$1,336	\$0	Market	No	3	2.2%	N/A	None
2	1	Lowrise (4 stories)	71	1,061	\$2,160	\$0	Market	No	3	4.2%	N/A	None

Unit Mix

Market	Face Rent	Conc.	Concd. Rent	Util. Adj.	Adj. Rent
1BR / 1BA	\$1,336	\$0	\$1,336	\$58	\$1,394
2BR / 1BA	\$2,160	\$0	\$2,160	\$66	\$2,226

The Views At Coolray Field, continued

Amenities

In-Unit		Security	Services
Balcony/Patio	Blinds	Intercom (Buzzer)	None
Carpet/Hardwood	Carpeting	Intercom (Phone)	
Central A/C	Coat Closet	Limited Access	
Dishwasher	Ceiling Fan	Video Surveillance	
Microwave	Oven		
Refrigerator	Washer/Dryer hookup		
Property		Premium	Other
Business Center/Computer Lab	Clubhouse/Meeting Room/Community	View	None
Courtyard	Elevators		
Exercise Facility	Garage(\$75.00)		
Off-Street Parking(\$0.00)	On-Site Management		
Picnic Area	Recreation Areas		
Swimming Pool	Theatre		

Comments

This property does not accept Housing Choice Vouchers. The contact could not provide absorption information. This property offers exterior storage for an additional monthly fee of \$35 to \$75, depending on the size, however could not comment on the amount or utilization rate.

Photos



2. The following information is provided as required by DCA

Housing Choice Vouchers

We spoke with Sharon El, Administrative Assistant with the Georgia Department of Community Affairs, to gather information pertaining to the use of Housing Choice Vouchers. Ms. El reported that the Housing Authority currently issues 17,000 Housing Choice Vouchers to 149 counties throughout Georgia, 15,877 of which are in use, including 1,149 in Gwinnett County. The waiting list is currently closed and consists of 20,525 households. The waiting list is purged annually. The following table illustrates voucher usage at the comparables.

TENANTS WITH VOUCHERS

Property Name	Rent Structure	Housing Choice Voucher Tenants
Alexander Mill*	LIHTC	7%
Ashton Creek Apartments*	LIHTC	20%
Magnolia Village*	LIHTC/ Market	10%
Plantation Ridge	LIHTC/ Market	6%
Reserve At Ivy Creek	LIHTC/ Market	8%
The View At Sugarloaf	LIHTC	15%
Preserve At Mill Creek	Market	0%
Preston Hills At Mill Creek	Market	0%
Summer Park Apartments	Market	0%
The Overlook At Gwinnett Stadium	Market	0%
The Terraces At Suwanee Gateway	Market	0%
The Views At Coolray Field	Market	0%

*Located outside of the PMA

As illustrated above, Housing Choice Voucher usage in this market ranges from zero to 20 percent. All of the LIHTC properties reported having shares of Housing Choice Voucher tenants. None of the market rate properties reported currently having tenants utilizing Housing Choice Vouchers. The average percentage of voucher tenants at the LIHTC properties is 11.5 percent, and the overall market average is 5.6 percent. Overall, the local market does not appear to be dependent on voucher tenants. Thus, it appears that the Subject will not need to rely on voucher residents in order to maintain a high occupancy level. We believe the Subject would maintain a voucher usage of 15 percent or less.

Lease Up History

We were able to obtain absorption data from one of the comparables. However, this data was dated and has been excluded from our analysis. Therefore, we expanded our search for recent absorption data in Gwinnett County and neighboring DeKalb County. Our absorption comparables are presented following.

ABSORPTION

Property Name	Occupancy Type	Year Built	Number of Units	Units Absorbed/ Month
1760 Apartment Homes	Market	2016	239	17
The Point on Scott	Market	2016	250	13
The Reserve at Decatur	Market	2016	298	14
Columbia Mill	LIHTC	2014	100	20
Retreat at Edgewood Phase II	LIHTC	2012	40	12
Retreat at Edgewood	LIHTC	2011	100	20
Average			224	16

Per DCA guidelines, we have calculated the absorption to 93 percent occupancy. 1760 Apartment Homes is a market-rate family development located 7.6 miles south of the Subject site in Lawrenceville. This property

opened in 2016 and experienced an absorption rate of 17 units per month. The Point on Scott is a market-rate family development located 25 miles southwest of the Subject site in Scottdale. This property opened in 2016 and experienced an absorption rate of 13 units per month. The Reserve at Decatur is a market-rate family development located 25 miles southwest in Scottdale. This property opened in 2016 and experienced an absorption rate of 14 units per month. Columbia Mill is a LIHTC family property located 30 miles southwest of the Subject in Atlanta. This property opened in 2014 and experienced an absorption pace of 20 units per month. Retreat at Edgewood Phase I and Phase II are located 28 miles southwest of the Subject in Atlanta. These properties opened in 2011 and 2012, respectively, and experienced respective absorption rates of 20 and 12 units per month. Additional absorption data from recently-constructed LIHTC properties in Gwinnett County was not available. The properties reporting absorption data experienced an average absorption pace of 16 units per month. It should be noted that property size does not appear to aid or harm unit absorption.

The most recently constructed LIHTC property, Columbia Mill, experienced an absorption pace of 20 units per month. This property reports occupancy of 97 percent and maintains a waiting list. Based on the performance of this LIHTC development, we estimate the Subject would reach a stabilized occupancy of 93 percent within 12 to 13 months of the development’s completion, which equates to a pace of approximately 20 units per month. This estimate assumes that the Subject will be properly marketed and that pre-leasing begins within two to three months prior to completion of construction.

Phased Developments

The Subject is not part of a multi-phase development.

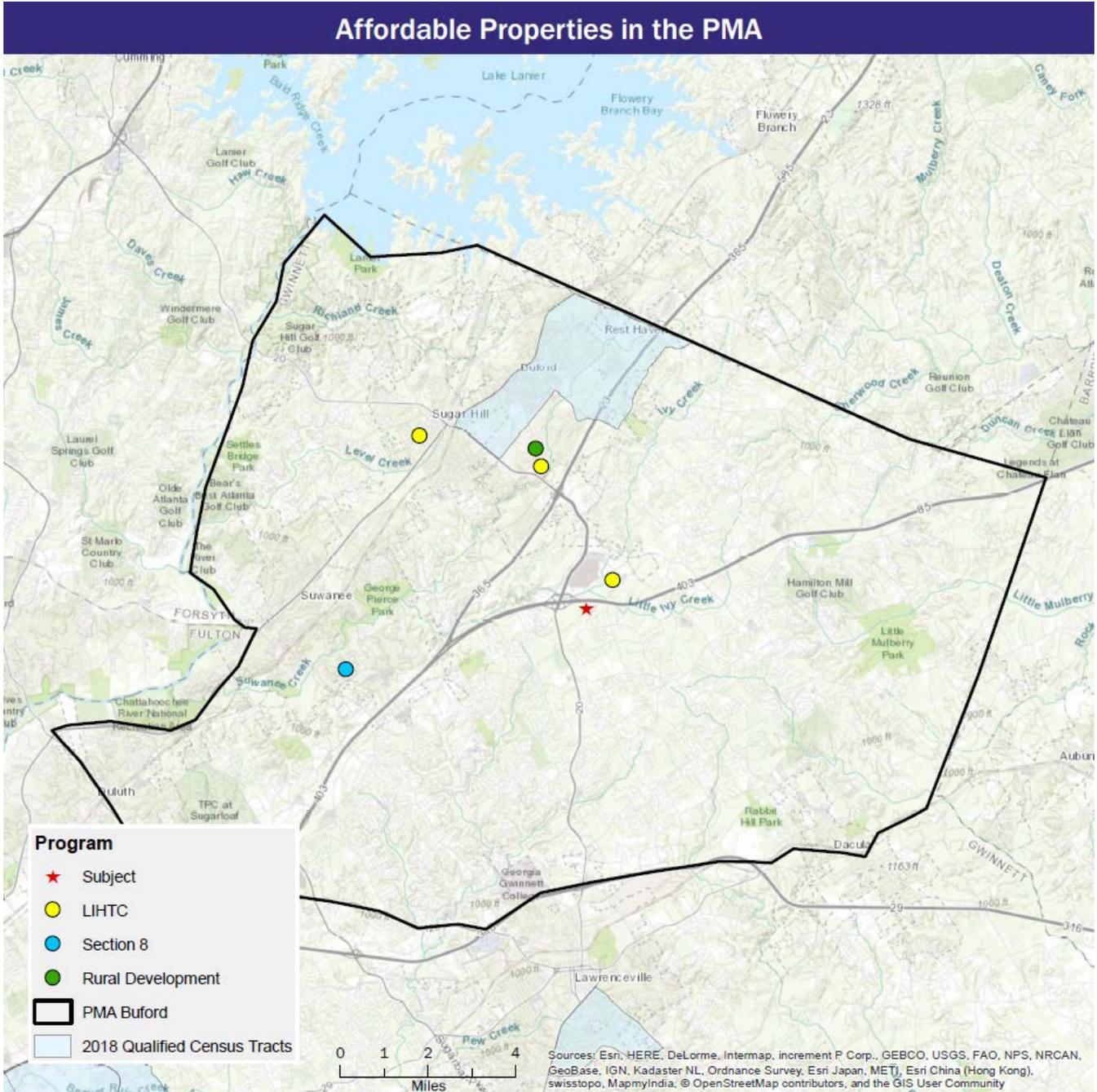
Rural Areas

The Subject is not located in a rural area.

3. Competitive Project Map

COMPETITIVE PROJECTS

Property Name	Program	Location	Tenancy	# of Units	Occupancy	Map Color
Ivy Ridge	LIHTC	Buford	Family	256	-	Star
Huntington Court	LIHTC, Market, Non-Rental	Buford	Senior	152	100.0%	Yellow
Plantation Ridge	LIHTC, Market	Sugar Hill	Family	218	100.0%	Yellow
Reserve At Ivy Creek	LIHTC, Market	Buford	Family	305	100.0%	Yellow
Annandale Apartments, Inc.	Section 8	Suwanee	Family	12	100.0%	Blue
Winbridge Apartments	Rural Development	Buford	Family	48	100.0%	Green



4. Amenities

A detailed description of amenities included in both the Subject and the comparable properties can be found in the amenity matrix below.

IVY RIDGE APARTMENTS – BUFORD, GEORGIA – MARKET STUDY

AMENITY MATRIX

Subject	Alexander Mill	Ashton Creek Apartments	Magnolia Village	Plantation Ridge	Reserve At Ivy Creek	The View At Sugarloaf	Preserve At Mill Creek	Preston Hills At Mill Creek	Summer Park Apartments	The Overlook At Gwinnett Stadium	The Terraces At Suwanee Gateway	The Views At Coolray Field	
Rent Structure	LIHTC	LIHTC	LIHTC	LIHTC/Market	LIHTC/Market	LIHTC/Market	LIHTC	Market	Market	Market	Market	Market	
Building													
Property Type	Garden 4-stories	Garden 3-stories	Garden 3-stories	Garden 3-stories	Garden 3-stories	Garden 3-stories	Garden 2-stories	Garden 4-stories	Garden 1-stories	Garden 3-stories	Garden 4-stories	Garden 4-stories	Lowrise 4-stories
# of Stories	4-stories	3-stories	3-stories	3-stories	3-stories	3-stories	2-stories	4-stories	1-stories	3-stories	4-stories	4-stories	4-stories
Year Built	Proposed	2002	2003	2002	1998	2004	1994	2001	2000	2001	2009	2013	2015
Year Renovated	n/a	n/a	n/a	n/a	n/a	n/a	2013	n/a	n/a	n/a	n/a	n/a	n/a
Elevators	no	no	no	no	no	no	no	no	no	no	yes	yes	yes
Courtyard	no	no	no	no	no	no	no	no	yes	no	no	yes	yes
Utility Structure													
Cooking	no	no	no	no	no	no	no	no	no	no	no	no	no
Water Heat	no	no	no	no	no	no	no	no	no	no	no	no	no
Heat	no	no	no	no	no	no	no	no	no	no	no	no	no
Other Electric	no	no	no	no	no	no	no	no	no	no	no	no	no
Water	yes	no	no	no	no	no	yes	no	no	no	no	no	no
Sewer	yes	no	no	no	no	no	yes	no	no	no	no	no	no
Trash	yes	no	yes	no	yes	no	yes	no	no	no	no	no	no
Unit Amenities													
Balcony/Patio	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	yes
Blinds	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Cable/Satellite	no	no	no	no	no	no	no	no	no	no	yes	no	no
Carpeting	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Hardwood	no	no	no	no	no	no	no	no	no	no	no	no	yes
Central A/C	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Ceiling Fan	no	yes	yes	no	yes	no	yes	yes	yes	yes	no	yes	yes
Coat Closet	yes	yes	yes	yes	yes	no	yes	yes	yes	no	no	no	yes
Exterior Storage	yes	yes	no	yes	yes	no	yes	yes	no	no	no	no	no
Fireplace	no	no	no	no	no	no	no	yes	yes	yes	no	no	no
Vaulted Ceilings	no	no	no	no	no	no	no	no	no	yes	no	no	no
Walk-In Closet	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
Washer/Dryer	no	no	no	no	no	no	no	no	no	no	no	yes	no
W/D Hookup	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Kitchen													
Dishwasher	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Disposal	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
Microwave	yes	yes	no	no	no	no	no	no	yes	yes	yes	yes	yes
Oven	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Refrigerator	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Community													
Business Center	yes	yes	yes	no	no	yes	no	yes	yes	yes	yes	yes	yes
Community Room	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes	yes
Central Laundry	yes	yes	no	yes	yes	yes	yes	no	yes	yes	yes	yes	no
On-Site Mgmt	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Recreation													
Basketball Court	no	no	no	no	no	yes	yes	no	no	no	no	no	no
Exercise Facility	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
Playground	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	no	no
Swimming Pool	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
Picnic Area	yes	yes	yes	no	yes	no	yes	no	yes	yes	no	yes	yes
Tennis Court	no	no	no	yes	no	no	no	yes	yes	yes	yes	no	no
Jacuzzi	no	no	no	no	no	no	no	no	yes	no	no	no	no
Hot Tub	no	no	no	no	no	no	no	no	yes	no	no	no	no
Theatre	no	no	no	no	no	no	no	no	no	no	no	no	yes
Recreational Area	yes	no	no	no	no	no	no	no	no	no	no	no	yes
Volleyball Court	no	no	no	no	no	no	yes	no	yes	no	no	no	no
Security													
In-Unit Alarm	no	yes	no	no	yes	yes	no	no	no	no	no	no	no
Limited Access	yes	no	yes	yes	no	yes	no	yes	yes	yes	yes	no	yes
Patrol	no	yes	yes	yes	yes	yes	no	yes	no	yes	no	yes	no
Perimeter Fencing	no	no	yes	yes	no	no	no	yes	yes	yes	no	no	no
Parking													
Carport	yes	no	no	no	no	no	no	no	no	no	no	no	no
Carport Fee	\$25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Garage	yes	no	no	no	no	yes	no	yes	yes	no	no	no	yes
Garage Fee	\$50	\$0	\$0	\$0	\$0	\$60	\$0	\$95	\$75	\$100	\$125	\$125	\$75
Off-Street Parking	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

The Subject will offer similar to slightly superior in-unit and property amenities in comparison to the LIHTC and market-rate comparable properties. The Subject will offer a business center/computer lab, clubhouse/community room, exercise facility, on-site management, picnic areas, recreation areas, playground, swimming pool, garage parking spaces, carport parking spaces, and central laundry facility. Several of the comparables do not include a business center/computer lab, central laundry facilities, picnic areas, or playgrounds, all of which will be offered at the Subject. Conversely, five of the comparables offer a car wash and five offer a tennis court, which the Subject will not offer. Overall we believe that the proposed amenities will allow the Subject to effectively compete in the LIHTC market.

5. Comparable Tenancy

The Subject will target families. All of the comparable properties also target families.

6. Vacancy

The following table illustrates the vacancy rates in the market.

OVERALL VACANCY					
Property Name	Rent Structure	Tenancy	Total Units	Vacant Units	Vacancy Rate
Alexander Mill*	LIHTC	Family	224	6	2.7%
Ashton Creek Apartments*	LIHTC	Family	140	0	0.0%
Magnolia Village*	LIHTC/ Market	Family	190	2	1.1%
Plantation Ridge	LIHTC/ Market	Family	218	0	0.0%
Reserve At Ivy Creek	LIHTC/ Market	Family	305	0	0.0%
The View At Sugarloaf	LIHTC, Non-Rental	Family	130	3	2.3%
Preserve At Mill Creek	Market	Family	400	5	1.3%
Preston Hills At Mill Creek	Market	Family	464	12	2.6%
Summer Park Apartments	Market	Family	358	7	2.0%
The Overlook At Gwinnett Stadium	Market	Family	410	10	2.4%
The Terraces At Suwanee Gateway	Market	Family	335	2	0.6%
The Views At Coolray Field	Market	Family	206	6	2.9%
Total LIHTC			1,207	11	0.9%
Total Market Rate			2,173	42	1.9%
Overall Total			3,380	53	1.6%

*Located outside of the PMA

Overall vacancy amongst the LIHTC comparables is minimal with a weighted average of 0.9 percent. The average weighted vacancy among the market rate comparables is very low at 1.9 percent. None of the market rate comparables reported vacancy over three percent. Overall, the low vacancy rate among affordable and market rate properties suggests that the market is strong with demand for additional units such as those proposed at the Subject. Given the generally low vacancy at both the LIHTC and market-rate comparables, we believe that the Subject development could maintain vacancy of five percent or less upon stabilization. Based on these factors, we believe that there is sufficient demand for additional affordable housing in the market. We do not believe that the Subject will impact the performance of the existing LIHTC properties if allocated.

7. Properties Under Construction and Proposed

The following section details properties currently planned, proposed or under construction.

Sugar Hill Towne Center Apartments

- Location: 5010 W Broad Street, Sugar Hill, GA
- Owner: Macauley Investments
- Total number of units: 216 units
- Unit configuration: Unavailable
- Rent structure: Market
- Estimated market entry: 2019
- Relevant information: Will not directly compete with Subject as it offers market-rate units

Unnamed property

- Location: 2965 NE Buford Drive, Buford, GA
- Owner: Jon Guven Inc
- Total number of units: 255 units

- d. Unit configuration: Unavailable
- e. Rent structure: Market
- f. Estimated market entry: 2020
- h. Relevant information: Will not directly compete with Subject as it offers market-rate units

Solis Town Center

- a. Location: 402 Highway 23 NW, Suwanee, GA
- b. Owner: Terwilliger Pappas
- c. Total number of units: 235 units
- d. Unit configuration: 140 one, 85 two, and ten three-bedroom units
- e. Rent structure: Market
- f. Estimated market entry: July 2019
- i. Relevant information: Will not directly compete with Subject as it offers market-rate units

Unnamed property

- a. Mall of Georgia Boulevard, Buford, GA
- b. Owner: Unavailable
- c. Total number of units: 250 units
- d. Unit configuration: Unavailable
- e. Rent structure: Market
- f. Estimated market entry: 2019
- j. Relevant information: Will not directly compete with Subject as it offers market-rate units

Holbrook of Sugar Hill

- a. Location: 1100 Whitehead Road, Buford, GA
- b. Owner: Solomon Senior Living
- c. Total number of units: 180 units
- d. Unit configuration: Unavailable
- e. Rent structure: Independent Living, Assisted Living, Memory Care
- f. Estimated market entry: 2020
- k. Relevant information: Mix of independent and assisted living units. Will not directly compete with Subject as it offers market-rate units and targets seniors.

Heartis Senior Living

- a. Location: 4066-4108 Suwanee Dam Road NW, Suwanee, GA
- b. Owner: Heartis
- c. Total number of units: 168 units
- d. Unit configuration: Unavailable
- e. Rent structure: Independent Living, Assisted Living, Memory Care
- f. Estimated market entry: Fall 2018
- l. Relevant information: Currently under construction and will offer a mix of independent and assisted living units. Will not directly compete with Subject as it offers market-rate units and targets seniors.

Legacy at Gwinnett

- a. Location: 2188 Duluth Highway 120, Duluth, GA
- b. Owner: Unavailable
- c. Total number of units: 170 units
- d. Unit configuration: Unavailable
- e. Rent structure: Market
- f. Estimated market entry: 2020
- g. Relevant information: Will not directly compete with Subject as it offers market-rate units

Revel

- a. Location: 6400 Sugarloaf Parkway, Duluth, GA
- b. Owner: Unavailable
- c. Total number of units: 701 units
- d. Unit configuration: Unavailable
- e. Rent structure: Market
- f. Estimated market entry: 2020
- g. Relevant information: Will not directly compete with Subject as it offers market-rate units

Sugarloaf Walk

- a. Location: 2099 Satellite Pointe, Duluth, GA
- b. Owner: Brand Properties
- c. Total number of units: 302 units
- d. Unit configuration: 302 one, two, three, and four-bedroom units
- e. Rent structure: Market
- f. Estimated market entry: 2019
- g. Relevant information: Will not directly compete with Subject as it offers market-rate units

8. Rental Advantage

The following table illustrates the Subject’s similarity to the comparable properties. We inform the reader that other users of this document may underwrite the LIHTC rents to a different standard than contained in this report.

SIMILARITY MATRIX

#	Property Name	Program	Property Amenities	Unit Features	Location	Age / Condition	Unit Size	Overall Comparison
1	Alexander Mill	LIHTC	Slightly Inferior	Similar	Similar	Inferior	Similar	-15
2	Ashton Creek Apartments	LIHTC	Slightly Inferior	Similar	Similar	Inferior	Similar	-15
3	Magnolia Village	LIHTC, Market	Inferior	Similar	Similar	Inferior	Superior	-10
4	Plantation Ridge	LIHTC, Market	Inferior	Similar	Slightly Inferior	Inferior	Slightly Superior	-20
5	Reserve At Ivy Creek	LIHTC, Market	Slightly Inferior	Slightly Inferior	Similar	Slightly Inferior	Superior	-5
6	Tanglewood Park	LIHTC, Non-Rental	Inferior	Similar	Slightly Inferior	Slightly Inferior	Slightly Inferior	-25
7	Preserve At Mill Creek	Market	Inferior	Similar	Similar	Inferior	Superior	-10
8	Preston Hills At Mill Creek	Market	Superior	Similar	Similar	Inferior	Superior	10
9	Summer Park Apartments	Market	Slightly Inferior	Similar	Similar	Inferior	Superior	-5
10	The Overlook At Gwinnett Stadium	Market	Inferior	Similar	Slightly Inferior	Slightly Inferior	Similar	-20
11	The Terraces At Suwanee Gateway	Market	Inferior	Similar	Slightly Superior	Slightly Inferior	Superior	0
12	The Views At Coolray Field	Market	Similar	Similar	Slightly Inferior	Slightly Inferior	Slightly Inferior	-15

*Inferior =-10, slightly inferior=-5, similar=0, slightly superior=5,

0

The rental rates at the LIHTC properties are compared to the Subject’s proposed 60 percent AMI rents in the following table.

LIHTC RENT COMPARISON @60%

Property Name	County	1BR	2BR	3BR	Rents at Max?
Ivy Ridge (Subject)	Gwinnett	\$782	\$934	\$1,069	Yes
2018 LIHTC Maximum Rent (Net)	Gwinnett	\$782	\$934	\$1,069	
Alexander Mill	Gwinnett	-	\$976	\$1,118	Yes
Ashton Creek Apartments	Gwinnett	\$820	\$981	\$1,129	Yes
Magnolia Village	Gwinnett	\$825	\$980	\$1,134	Yes
Plantation Ridge	Gwinnett	\$780	\$943	\$1,092	No
Reserve At Ivy Creek	Gwinnett	\$818	\$927	\$1,148	Yes
The View At Sugarloaf	Gwinnett	-	\$935	\$1,065	Yes
Average		\$811	\$957	\$1,114	

The Subject will offer one, two, and three-bedroom units at 60 percent AMI, all of which will be set at the 2018 maximum allowable levels. It should be noted that the AMI in Gwinnett County reached its peak in 2018. As such, all of the comparable properties are held to the 2018 maximum allowable rents for Gwinnett County, similar to the Subject. All but one of these properties reported achieving rents at the maximum allowable levels. Discrepancies between the rents at these properties and the 2018 maximum allowable rents as presented in the table above are likely due to differing utility allowances. In terms of characteristics, the Subject will be similar to superior to the affordable comparables as the newest development in the market with market-oriented amenities and unit sizes.

Reserve at Ivy Creek is located 0.7 miles from the Subject and offers a similar location. This is the closest comparable to the Subject site and is considered the most similar comparable. Reserve at Ivy Creek was constructed in 2004 and exhibits average condition which is considered inferior to the anticipated excellent condition of the Subject upon completion. This property offers slightly inferior in-unit amenities and property amenities, as it does not offer coat closets, exterior storage, microwaves, carports, a clubhouse/meeting room, a playground, or recreation areas, all of which the proposed Subject will offer. Reserve at Ivy Creek offers superior unit sizes to the proposed Subject. Overall, Reserve at Ivy Creek is considered slightly inferior to the proposed Subject. This property is currently achieving rents at 60 percent AMI maximum allowable levels and reports full occupancy and a waiting list of more than 200 households. Thus, we would anticipate that the Subject would be able to achieve 2018 maximum allowable rents for its one, two, and three-bedroom units.

Analysis of “Market Rents”

Per DCA’s market study guidelines, “average market rent is to be a reflection of rents that are achieved in the market. In other words, the rents the competitive properties are currently receiving. Average market rent is not ‘Achievable unrestricted market rent.’ In an urban market with many tax credit comps, the average market rent might be the weighted average of those tax credit comps. In cases where there are few tax credit comps, but many market-rate comps with similar unit designs and amenity packages, then the average market rent might be the weighted average of those market-rate comps. In a small rural market there may be neither tax credit comps nor market-rate comps with similar positioning as the subject. In a case like that the average market rent would be a weighted average of whatever rents were present in the market.”

When comparing the Subject’s rents to the average comparable rent, we have not included surveyed rents at lower AMI levels given that this artificially lowers the average surveyed rent. Including rents at lower AMI levels does not reflect an accurate average rent for rents at higher income levels. For example, if the Subject offers rents at the 50 and 60 percent of AMI levels, and there is a distinct difference at comparable properties between rents at the two AMI levels, we have not included the 50 percent of AMI rents in the average comparable rent for the 60 percent of AMI comparison.

The overall average and the maximum and minimum adjusted rents for the comparable properties surveyed are illustrated in the table below in comparison with net rents for the Subject.

SUBJECT COMPARISON TO MARKET RENTS

Unit Type	Subject Proposed Rent	Surveyed Min	Surveyed Max	Surveyed Average	Subject Rent Advantage
1BR @ 60% AMI	\$782	\$780	\$1,394	\$1,055	35%
2BR @ 60% AMI	\$934	\$927	\$2,226	\$1,321	41%
3BR @ 60% AMI	\$1,069	\$1,065	\$1,844	\$1,308	22%

As illustrated the Subject’s proposed 60 percent rents are well below the surveyed average when compared to the comparables, both LIHTC and market-rate.

We have placed greatest weight upon the market rate rents at Summer Park Apartments and The Terraces at Suwanee Gateway, which are the most comparable to the Subject in our determination of achievable market rents for the Subject.

Summer Park Apartments was constructed in 2001 and exhibits average condition, which is considered inferior to the anticipated excellent condition of the Subject upon completion. This property is located adjacent to the Subject and offers a similar location. Summer Park Apartments offers similar unit amenities to those of the proposed Subject, but offers slightly inferior property amenities as it does not offer carport or garage parking and does not offer a recreation area, all of which the Subject will offer. However, this property offers superior unit sizes in comparison to those of the proposed Subject. Overall, Summer Park Apartments is considered slightly inferior to the proposed Subject. Summer Park Apartments reports current occupancy of 98.0 percent. The lowest one, two and three-bedroom rents at Summer Park Apartments are approximately 33, 37, and 36 percent higher than the Subject’s proposed rents at 60 percent of the AMI. Overall, we believe that the Subject’s proposed rents are achievable in the market and will offer an advantage to the rents being achieved at comparable properties.

9. LIHTC Competition – DCA Funded Properties within the PMA

Capture rates for the Subject are considered low for all bedroom types and AMI levels. If allocated, the Subject will be slightly superior to superior to the existing LIHTC housing stock. Overall vacancy amongst the LIHTC comparables is minimal with a weighted average of 0.9 percent.

We researched the Georgia Department of Community Affairs (DCA) allocation list to determine if there have been any new affordable properties allocated funds within the past three years. According to the allocation lists from 2014, 2015, 2016, and 2017, there are no proposed LIHTC properties in the Subject’s PMA. Given the low vacancy rates at existing LIHTC properties, as well as the presence of waiting lists, it appears that there is strong demand for additional LIHTC housing in the market. We do not believe that the addition of the Subject to the market will impact the existing LIHTC properties that are in overall good condition and currently performing well.

10. Rental Trends in the PMA

The following table is a summary of the tenure patterns of the housing stock in the PMA.

TENURE PATTERNS PMA

Year	Owner-Occupied Units	Percentage Owner-Occupied	Renter-Occupied Units	Percentage Renter-Occupied
2000	41,288	86.6%	6,409	13.4%
2017	70,868	76.5%	21,786	23.5%
Projected Mkt Entry April 2021	76,161	76.7%	23,180	23.3%
2022	77,925	76.7%	23,645	23.3%

Source: Esri Demographics 2017, Novogradac & Company LLP, November 2018

As the table illustrates, households within the PMA reside in predominately owner-occupied residences. Nationally, approximately two-thirds of the population resides in owner-occupied housing units, and one-third resides in renter-occupied housing units. Therefore, there is a smaller percentage of renters in the PMA than the nation. This percentage is projected to remain increase slightly over the next five years.

Historical Vacancy

The following table details historical vacancy levels for the properties included as comparables.

Comparable Property	Type	Total Units	4QTR 2014	3QTR 2016	4QTR 2016	2QTR 2017	3QTR 2017	4QTR 2017	4QTR 2018
Alexander Mill	Garden	224	N/A	N/A	N/A	0.0%	N/A	2.2%	2.7%
Ashton Creek Apartments	Garden	140	3.6%	N/A	0.0%	0.0%	N/A	N/A	3.6%
Magnolia Village	Garden	190	N/A	0.0%	N/A	N/A	0.0%	0.0%	1.1%
Plantation Ridge	Garden	218	2.8%	2.4%	N/A	N/A	N/A	2.3%	0.0%
Reserve At Ivy Creek	Garden	305	0.0%	0.0%	N/A	N/A	N/A	0.0%	0.0%
The View At Sugarloaf	Garden	130	N/A	N/A	N/A	N/A	N/A	0.0%	2.3%
Preserve At Mill Creek	Garden	400	N/A	N/A	N/A	N/A	N/A	2.0%	1.3%
Preston Hills At Mill Creek	Garden	464	8.0%	N/A	N/A	N/A	N/A	5.4%	2.6%
Summer Park Apartments	Garden	358	N/A	N/A	N/A	N/A	N/A	5.6%	2.0%
The Overlook At Gwinnett Stadium	Garden	410	N/A	N/A	N/A	N/A	N/A	7.3%	2.4%
The Terraces At Suwanee Gateway	Garden	335	N/A	N/A	N/A	N/A	N/A	2.4%	0.6%
The Views At Coolray Field	Lowrise	206	N/A	N/A	N/A	N/A	N/A	6.8%	2.9%

As illustrated in the table, we have limited historical occupancy information for the comparable properties. However, it appears the LIHTC comparables have maintained low vacancy rates since fourth quarter 2014. Overall, we believe that the current performance of the LIHTC comparable properties, as well as their historically low vacancy rates, indicate demand for affordable rental housing in the Subject’s market.

Change in Rental Rates

The following table illustrates rental rate increases as reported by the comparable properties.

RENT GROWTH

Property Name	Rent Structure	Tenancy	Rent Growth
Alexander Mill*	LIHTC	Family	Increased to maximum allowable levels
Ashton Creek Apartments*	LIHTC	Family	Increased to maximum allowable levels
Magnolia Village*	LIHTC/ Market	Family	Increased to maximum allowable levels
Plantation Ridge	LIHTC/ Market	Family	Kept at 2017 maximum allowable levels
Reserve At Ivy Creek	LIHTC/ Market	Family	Increased to maximum allowable levels
The View At Sugarloaf	LIHTC, Non-Rental	Family	Increased to maximum allowable levels
Preserve At Mill Creek	Market	Family	Increased 2.7 - 6.4 percent
Preston Hills At Mill Creek	Market	Family	Increased 5.5 to 27.9 percent
Summer Park Apartments	Market	Family	Decrease 5.5 - increased 33.0 percent
The Overlook At Gwinnett Stadium	Market	Family	Increased 4.0 - 20.4 percent
The Terraces At Suwanee Gateway	Market	Family	Decrease 9.5 - increased 6.9 percent
The Views At Coolray Field	Market	Family	Increased 3.2 - 3.9 percent

*Located outside of the PMA

As illustrated in the preceding table, most affordable properties had significant rent increases in the past year. This is a result of an increase in the maximum allowable rents in Gwinnett County. All of the market rate properties reported rent growth in the past year. In general, we believe the Subject would be capable of achieving modest rent growth in the future.

11. Impact of Foreclosed, Abandoned and Vacant Structures

According to RealtyTrac statistics, one in every 1,989 housing units nationwide was in some stage of foreclosure as of October 2018. Gwinnett County is experiencing foreclosure rate of one in every 2,791 homes and Georgia experienced one foreclosure in every 2,243 housing units. Overall, Gwinnett County is experiencing a lower foreclosure rate to the nation and Georgia, indicating a healthy housing market. The Subject’s neighborhood does not have a significant amount of abandoned or vacant structures that would impact the marketability of the Subject.

12. Primary Housing Void

There are only two LIHTC properties in the PMA, and three of the LIHTC properties target families. All of these properties have reported low vacancy rates and one property has reported a waiting list of 635 households. Therefore, there appears to be a void of affordable housing in the PMA and there is strong demand for additional rental housing in the PMA. Additionally, the Subject will be only the second family-oriented property in the PMA that does not offer unrestricted units. We believe the Subject, although it will offer a similar unit mix and rent levels to the existing LIHTC properties, will fill the need for additional affordable housing in the PMA given the limited supply of affordable housing and presence of waiting lists.

13. Effect of Subject on Other Affordable Units in Market

There are no proposed LIHTC developments in the PMA. Four of the comparable properties report extensive waiting lists. We believe there is adequate demand for the addition of the Subject within the market. The vacancy rate among the existing LIHTC comparables is low at 0.9 percent. The current and historical vacancy rates at the LIHTC comparable properties, as well as the presence of waiting lists in the market, indicate unmet demand in the market for affordable housing. In summary, the performance of the comparable LIHTC properties and the existence of waiting lists for affordable units indicates that the Subject will not negatively impact the existing or proposed affordable rental units in the market.

Conclusions

Based upon our market research, demographic calculations and analysis, we believe there is adequate demand for the Subject property as proposed. The LIHTC comparables are experiencing a weighted average

vacancy rate of 0.9 percent, which is considered low. Furthermore, four of the LIHTC comparables maintain extensive waiting lists. These factors indicate demand for affordable housing. Overall, we believe that the proposed amenities will allow the Subject to effectively compete in the family LIHTC market. As new construction, the Subject will be in excellent condition upon completion and will be considered slightly superior to superior in terms of condition to the majority of the comparable properties. The Subject's proposed unit sizes will be competitive with the comparable properties. In general, the Subject will be slightly inferior to superior to the comparable properties. Given the Subject's anticipated superior condition relative to the competition and the demand for affordable housing evidenced by waiting lists and low vacancy at several LIHTC comparable properties, we believe that the Subject is feasible as proposed. We believe that it will fill a void in the market and will perform well.

I. ABSORPTION AND STABILIZATION RATES

ABSORPTION AND STABILIZATION RATES

We were able to obtain absorption data from one of the comparables. However, this data was dated and has been excluded from our analysis. Therefore, we expanded our search for recent absorption data in Gwinnett County and neighboring DeKalb County. Our absorption comparables are presented following.

ABSORPTION				
Property Name	Occupancy Type	Year Built	Number of Units	Units Absorbed/ Month
1760 Apartment Homes	Market	2016	239	17
The Point on Scott	Market	2016	250	13
The Reserve at Decatur	Market	2016	298	14
Columbia Mill	LIHTC	2014	100	20
Retreat at Edgewood Phase II	LIHTC	2012	40	12
Retreat at Edgewood	LIHTC	2011	100	20
Average			224	16

Per DCA guidelines, we have calculated the absorption to 93 percent occupancy. 1760 Apartment Homes is a market-rate family development located 7.6 miles south of the Subject site in Lawrenceville. This property opened in 2016 and experienced an absorption rate of 17 units per month. The Point on Scott is a market-rate family development located 25 miles southwest of the Subject site in Scottdale. This property opened in 2016 and experienced an absorption rate of 13 units per month. The Reserve at Decatur is a market-rate family development located 25 miles southwest in Scottdale. This property opened in 2016 and experienced an absorption rate of 14 units per month. Columbia Mill is a LIHTC family property located 30 miles southwest of the Subject in Atlanta. This property opened in 2014 and experienced an absorption pace of 20 units per month. Retreat at Edgewood Phase I and Phase II are located 28 miles southwest of the Subject in Atlanta. These properties opened in 2011 and 2012, respectively, and experienced respective absorption rates of 20 and 12 units per month. Additional absorption data from recently-constructed LIHTC properties in Gwinnett County was not available. The properties reporting absorption data experienced an average absorption pace of 16 units per month. It should be noted that property size does not appear to aid or harm unit absorption.

The most recently constructed LIHTC property, Columbia Mill, experienced an absorption pace of 20 units per month. This property reports occupancy of 97 percent and maintains a waiting list. Based on the performance of this LIHTC development, we estimate the Subject would reach a stabilized occupancy of 93 percent within 12 to 13 months of the development's completion, which equates to a pace of approximately 20 units per month. This estimate assumes that the Subject will be properly marketed and that pre-leasing begins within two to three months prior to completion of construction.

J. INTERVIEWS

Georgia Department of Community Affairs, Norcross Regional Office

We spoke with Sharon El, Administrative Assistant with the Georgia Department of Community Affairs, to gather information pertaining to the use of Housing Choice Vouchers. Ms. El reported that the Housing Authority currently issues 17,000 Housing Choice Vouchers to 149 counties throughout Georgia, 15,877 of which are in use, including 1,149 in Gwinnett County. The waiting list is currently closed and consists of 20,525 households. The waiting list is purged annually. The payment standards for Gwinnett County are listed below.

PAYMENT STANDARDS	
Bedroom Type	Payment Standards
1BR	\$943
2BR	\$1,083
3BR	\$1,412

Source: Georgia Department of Community Affairs, effective October 2017

The Subject’s proposed rents are set below the current payment standards. Therefore, tenants with Housing Choice Vouchers will not pay out of pocket for rent.

Planning

We contacted Ms. Kim Wolf with the City of Buford’s Planning and Zoning Department, Ms. Nicole Klein with the City of Sugar Hill’s Planning and Development Department, and Mr. Josh Campbell with the City of Suwanee’s Planning Department to identify multifamily projects recently completed, under construction, planned, or proposed in the PMA. Multifamily developments under planned, proposed, or under construction in the PMA are summarized in the table below:

PLANNED DEVELOPMENT					
Property Name	Rent Structure	Tenancy	Total Units	Competitive Units	Construction Status
Sugar Hill Towne Center	Market	Family	216	0	Under Construction
2965 NE Buford Drive	Market	Family	255	0	Proposed
Mall of Georgia Blvd	Market	Family	250	0	Proposed
Holbrook of Sugar Hill	Market	Senior	180	0	Proposed
Legacy at Gwinnett	Market	Family	170	0	Under Construction
Heartis Senior Living	Market	Senior	168	0	Under Construction
Revel	Market	Family	701	0	Proposed
Solis Town Center	Market	Family	240	0	Under Construction
Sugarloaf Walk	Market	Family	302	0	Under Construction
Total Units			2,180		

- Sugar Hill Towne Center Apartments is a 216-unit market-rate property proposed for construction at 5010 W Broad Street in Sugar Hill, approximately 4.6 miles northwest of the Subject site. Apartments will be part of a larger mixed-use development known as the EpiCenter, which will include a theater, a gym, and restaurant and retail spaces. The apartments will target families. Ground broke on the EpiCenter development on June 22, 2016. Because this property will only offer market-rate units, it is not considered directly competitive with the Subject property.
- An unnamed market-rate multifamily project is proposed for development at 2965 NE Buford Drive in Buford, approximately 0.6 miles west of the Subject. This property will offer 255 units to families. No additional information was available. Because this property will only offer market-rate units, it is not considered directly competitive with the Subject property.

- An unnamed market-rate multifamily project is proposed for development on Mall of Georgia Boulevard in Buford, approximately 0.5 miles north of the Subject site. No additional information about this property was available. Because this property will only offer market-rate units, it is not considered directly competitive with the Subject property.
- Holbrook of Sugar Hill is a 180-unit senior project proposed for development at 1100 Whitehead Road in Buford. Construction is expected to begin fall 2017. Upon completion, Holbrook of Sugar Hill will include 150 independent living apartments, 30 independent living cottages, 74 assisted-living apartments, and 25 memory care apartments. Because this property will target a senior tenancy, it is not considered directly competitive with the Subject.
- Legacy at Gwinnett is a 170-unit market-rate property proposed for construction at 2188 Duluth Highway 120 in Duluth, approximately 8.5 miles from the Subject site. Because this property will offer only market-rate units, it is not considered directly competitive with the Subject.
- Heartis Senior Living is a 168-unit senior project under construction at 4066-4108 Suwanee Dam Road in Suwanee. Upon completion, this property will include 80 independent living units, 56 assisted living apartments, and 32 memory care units. Because this property will target a senior tenancy, it is not considered directly competitive with the Subject.
- Revel is a 701-unit market-rate property proposed for construction at 6400 Sugarloaf Parkway in Duluth, approximately 7.6 miles from the Subject site. Because this property will offer only market-rate units, it is not considered directly competitive with the Subject.
- Solis Town Center is a 235-unit market-rate property proposed for construction at 402 Highway 23 NW in Suwanee, approximately 4.8 miles west of the Subject site. Upon completion, this property will offer 140 one-bedroom, 85 two-bedroom, and 10 three-bedroom units to families. Because this property will offer only market-rate units, it is not considered directly competitive with the Subject.
- Sugarloaf Walk is a 302-unit market-rate property proposed for construction at 2099 Satellite Pointe in Duluth, approximately 8.3 miles from the Subject site. Because this property will offer only market-rate units, it is not considered directly competitive with the Subject.

Projections for new additions and absorption in the outlying Gwinnett County submarket suggest that net absorption will grow between 2018 and 2022. At the time of the Subject's projected market entry in 2021, net absorption in the submarket is forecasted to be approximately 245 units per year, or 20.42 units per month. Of additional note, none of the new additions to the market are LIHTC properties and are thus not considered directly competitive with the Subject. Thus, we believe the Subject will outperform the projections in the submarket. We believe the additions in supply are consistent with the growth in the area.

Gwinnett County Chamber of Commerce

We attempted to contact the Gwinnett County Chamber of Commerce to inquire about recent business expansions or contractions in the area, but to date our attempts have been unsuccessful. However, we utilized the Partnership Gwinnett website and found numerous business expansions in Gwinnett County announced in 2018.

Additional interviews can be found in the comments section of the property profiles.

K. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Demographics

The population and household annual growth rate in the PMA exceeded that of both the MSA and nation as a whole between 2010 and 2017. Over the next five years, this trend in annual population and household growth rate is expected to continue. The Subject will target households earning between \$28,869 and \$48,480. Approximately 37.8 percent of renter households in the PMA are earning incomes between \$20,000 and \$49,999, which is greater than the 37.1 percent of renter households in the MSA in 2017. For the projected market entry date of April 2021, these percentages are projected to slightly decrease to 36.5 percent in the PMA and 35.9 percent in the MSA. Overall, the PMA has demonstrated that it is an area of population and household growth. As the PMA continues to grow, the need for affordable housing is also expected to increase. This population and household growth bodes well for the Subject’s proposed units.

Employment Trends

Employment in the PMA is greatest in the trade, transportation, and utilities sector, followed by professional and business services and leisure and hospitality. These industries are particularly vulnerable in economic downturns and are historically volatile industries, with the exception of utilities.

Total employment in the MSA has increased every year since 2003 with the exception of 2008 through 2010 during the most recent national recession. While the MSA experienced a 6.9 percent decline in employment during between 2008 and 2010, which was greater than the nation over the same period, the MSA has experienced growth each year since. Furthermore, the MSA surpassed its pre-recessionary employment levels in 2014, the same year as the nation, and has continued to increase steadily. Trends in historical unemployment data generally mirrors employment; after 2009 at the peak of the recession, unemployment in the MSA has decreased six of the past eight years. Between August 2017 and August 2018, total employment increased 2.8 percent, compared to the national growth rate of 1.3 percent during the same time period. Overall, the local economy has fully recovered from the national recession and has entered into an expansionary phase which is a positive indicator of demand for rental housing and, therefore, the Subject’s proposed units.

Capture Rates

The following table illustrates the demand and capture rates for the Subject’s proposed units

CAPTURE RATE ANALYSIS CHART

Unit Type	Minimum Income	Maximum Income	Units Proposed	Total Demand	Supply	Net Demand	Capture Rate	Proposed Rents
1BR @60%	\$28,869	\$35,940	112	676	0	676	16.6%	\$782
2BR @60%	\$34,663	\$40,440	128	811	0	811	15.8%	\$934
3BR @60%	\$40,011	\$48,480	16	642	0	642	2.5%	\$1,069
@60% Overall	\$28,869	\$48,480	256	2,129	0	2,129	12.0%	-

We believe these calculated capture rates are reasonable, particularly as these calculations do not consider demand from outside the PMA or standard rental household turnover.

Absorption

We were able to obtain absorption data from one of the comparables. However, this data was dated and has been excluded from our analysis. Therefore, we expanded our search for recent absorption data in Gwinnett County and neighboring DeKalb County. Our absorption comparables are presented following.

ABSORPTION

Property Name	Occupancy Type	Year Built	Number of Units	Units Absorbed/ Month
1760 Apartment Homes	Market	2016	239	17
The Point on Scott	Market	2016	250	13
The Reserve at Decatur	Market	2016	298	14
Columbia Mill	LIHTC	2014	100	20
Retreat at Edgewood Phase II	LIHTC	2012	40	12
Retreat at Edgewood	LIHTC	2011	100	20
Average			224	16

Per DCA guidelines, we have calculated the absorption to 93 percent occupancy. 1760 Apartment Homes is a market-rate family development located 7.6 miles south of the Subject site in Lawrenceville. This property opened in 2016 and experienced an absorption rate of 17 units per month. The Point on Scott is a market-rate family development located 25 miles southwest of the Subject site in Scottdale. This property opened in 2016 and experienced an absorption rate of 13 units per month. The Reserve at Decatur is a market-rate family development located 25 miles southwest in Scottdale. This property opened in 2016 and experienced an absorption rate of 14 units per month. Columbia Mill is a LIHTC family property located 30 miles southwest of the Subject in Atlanta. This property opened in 2014 and experienced an absorption pace of 20 units per month. Retreat at Edgewood Phase I and Phase II are located 28 miles southwest of the Subject in Atlanta. These properties opened in 2011 and 2012, respectively, and experienced respective absorption rates of 20 and 12 units per month. Additional absorption data from recently-constructed LIHTC properties in Gwinnett County was not available. The properties reporting absorption data experienced an average absorption pace of 16 units per month. It should be noted that property size does not appear to aid or harm unit absorption.

The most recently constructed LIHTC property, Columbia Mill, experienced an absorption pace of 20 units per month. This property reports occupancy of 97 percent and maintains a waiting list. Based on the performance of this LIHTC development, we estimate the Subject would reach a stabilized occupancy of 93 percent within 12 to 13 months of the development’s completion, which equates to a pace of approximately 20 units per month. This estimate assumes that the Subject will be properly marketed and that pre-leasing begins within two to three months prior to completion of construction.

Vacancy Trends

The following table illustrates the vacancy rates in the market.

OVERALL VACANCY					
Property Name	Rent Structure	Tenancy	Total Units	Vacant Units	Vacancy Rate
Alexander Mill*	LIHTC	Family	224	6	2.7%
Ashton Creek Apartments*	LIHTC	Family	140	0	0.0%
Magnolia Village*	LIHTC/ Market	Family	190	2	1.1%
Plantation Ridge	LIHTC/ Market	Family	218	0	0.0%
Reserve At Ivy Creek	LIHTC/ Market	Family	305	0	0.0%
The View At Sugarloaf	LIHTC, Non-Rental	Family	130	3	2.3%
Preserve At Mill Creek	Market	Family	400	5	1.3%
Preston Hills At Mill Creek	Market	Family	464	12	2.6%
Summer Park Apartments	Market	Family	358	7	2.0%
The Overlook At Gwinnett Stadium	Market	Family	410	10	2.4%
The Terraces At Suwanee Gateway	Market	Family	335	2	0.6%
The Views At Coolray Field	Market	Family	206	6	2.9%
Total LIHTC			1,207	11	0.9%
Total Market Rate			2,173	42	1.9%
Overall Total			3,380	53	1.6%

*Located outside of the PMA

Overall vacancy amongst the LIHTC comparables is minimal with a weighted average of 0.9 percent. The average weighted vacancy among the market rate comparables is very low at 1.9 percent. None of the market rate comparables reported vacancy over three percent. Overall, the low vacancy rate among affordable and market rate properties suggests that the market is strong with demand for additional units such as those proposed at the Subject. Given the generally low vacancy at both the LIHTC and market-rate comparables, we believe that the Subject development could maintain vacancy of five percent or less upon stabilization. Based on these factors, we believe that there is sufficient demand for additional affordable housing in the market. We do not believe that the Subject will impact the performance of the existing LIHTC properties if allocated.

Strengths of the Subject

Strengths of the Subject will include its location in close proximity to the Mall of Georgia, a major retail center, as well as Interstate 85, which provides access to downtown Atlanta. The Subject's community is also a developing area with several multifamily properties constructed in the past 10 years. However, there is limited existing affordable housing in the PMA and all LIHTC properties in the PMA have reported low vacancy rates. Additionally, Reserve at Ivy Park, the most comparable and proximate property, reported a waiting list of over 200 households. The majority of the Subject's units could be filled from this property's waiting list alone. The Subject will also offer some amenities not present at all of the LIHTC comparable developments including microwaves, a business center and covered parking. Therefore, we believe the Subject will be successful and competitive in the market. Additionally, as the demand analysis in this report indicates, there is strong demand for the Subject based on our calculations for the 60 percent AMI units.

Conclusion

Based upon our market research, demographic calculations and analysis, we believe there is adequate demand for the Subject property as proposed. The LIHTC comparables are experiencing a weighted average vacancy rate of 0.9 percent, which is considered low. Furthermore, four of the LIHTC comparables maintain extensive waiting lists. These factors indicate demand for affordable housing. Overall, we believe that the proposed amenities will allow the Subject to effectively compete in the family LIHTC market. As new construction, the Subject will be in excellent condition upon completion and will be considered slightly

superior to superior in terms of condition to the majority of the comparable properties. The Subject's proposed unit sizes will be competitive with the comparable properties. In general, the Subject will be slightly inferior to superior to the comparable properties. Given the Subject's anticipated superior condition relative to the competition and the demand for affordable housing evidenced by waiting lists and low vacancy at several LIHTC comparable properties, we believe that the Subject is feasible as proposed. We believe that it will fill a void in the market and will perform well.

Recommendations

We recommend the Subject as proposed.

L. SIGNED STATEMENT REQUIREMENTS

I affirm that I (or one of the persons signing below) have made a physical inspection of the market area and the Subject property and that information has been used in the full study of the need and demand for the proposed units. The report was written according to DCA's market study requirements, the information included is accurate and the report can be relied upon by DCA as a true assessment of the low-income housing rental market. To the best of my knowledge, the market can support the project as shown in the study. I understand that any misrepresentation of this statement may result in the denial of further participation in DCA's rental housing programs. I also affirm that I have no interest in the project or relationship with the ownership entity and my compensation is not contingent on this project being funded.



Rebecca S. Arthur, MAI
Partner
Novogradac & Company LLP
November 21, 2018
Date



Brian Neukam
Manager
Novogradac & Company LLP
November 21, 2018
Date



Travis Jorgenson
Junior Analyst
November 21, 2018
Date

M. MARKET STUDY REPRESENTATION

Novogradac & Company LLP states that DCA may rely on the representation made in the market study provided and this document is assignable to other lenders that are parties to the DCA loan transaction.



Rebecca S. Arthur, MAI
Partner
Novogradac & Company LLP
November 21, 2018
Date



Brian Neukam
Manager
Novogradac & Company LLP
November 21, 2018
Date



Travis Jorgenson
Junior Analyst
November 21, 2018
Date

ADDENDUM A
Assumptions and Limiting Conditions

ASSUMPTIONS AND LIMITING CONDITIONS

1. In the event that the client provided a legal description, building plans, title policy and/or survey, etc., the market analyst has relied extensively upon such data in the formulation of all analyses.
2. The legal description as supplied by the client is assumed to be correct and the author assumes no responsibility for legal matters, and renders no opinion of property title, which is assumed to be good and merchantable.
3. All encumbrances, including mortgages, liens, leases, and servitudes, were disregarded in this valuation unless specified in the report. It was recognized, however, that the typical purchaser would likely take advantage of the best available financing, and the effects of such financing on property value were considered.
4. All information contained in the report, which others furnished, was assumed to be true, correct, and reliable. A reasonable effort was made to verify such information, but the author assumes no responsibility for its accuracy.
5. The report was made assuming responsible ownership and capable management of the property.
6. The sketches, photographs, and other exhibits in this report are solely for the purpose of assisting the reader in visualizing the property. The author made no property survey, and assumes no liability in connection with such matters. It was also assumed there is no property encroachment or trespass unless noted in the report.
7. The author of this report assumes no responsibility for hidden or unapparent conditions of the property, subsoil or structures, or the correction of any defects now existing or that may develop in the future. Equipment components were assumed in good working condition unless otherwise stated in this report.
8. It is assumed that there are no hidden or unapparent conditions for the property, subsoil, or structures, which would render it more or less valuable. No responsibility is assumed for such conditions or for engineering, which may be required to discover such factors.
9. The investigation made it reasonable to assume, for report purposes, that no insulation or other product banned by the Consumer Product Safety Commission has been introduced into the Subject premises. Visual inspection by the market analyst did not indicate the presence of any hazardous waste. It is suggested the client obtain a professional environmental hazard survey to further define the condition of the Subject soil if they deem necessary.
10. Any distribution of total property value between land and improvements applies only under the existing or specified program of property utilization. Separate valuations for land and buildings must not be used in conjunction with any other study or market study and are invalid if so used.
11. Possession of the report, or a copy thereof, does not carry with it the right of publication, nor may it be reproduced in whole or in part, in any manner, by any person, without the prior written consent of the author particularly as to value conclusions, the identity of the author or the firm with which he or she is connected. Neither all nor any part of the report, or copy thereof shall be disseminated to the general public by the use of advertising, public relations, news, sales, or other media for public communication without the prior written consent and approval of the market analyst. Nor shall the market analyst,

firm, or professional organizations of which the market analyst is a member be identified without written consent of the market analyst.

12. Disclosure of the contents of this report is governed by the Bylaws and Regulations of the professional organization with which the market analyst is affiliated.
13. The author of this report is not required to give testimony or attendance in legal or other proceedings relative to this report or to the Subject property unless satisfactory additional arrangements are made prior to the need for such services.
14. The opinions contained in this report are those of the author and no responsibility is accepted by the author for the results of actions taken by others based on information contained herein.
15. Opinions of value contained herein are estimates. There is no guarantee, written or implied, that the Subject property will sell or lease for the indicated amounts.
16. All applicable zoning and use regulations and restrictions are assumed to have been complied with, unless nonconformity has been stated, defined, and considered in the market study report.
17. It is assumed that all required licenses, permits, covenants or other legislative or administrative authority from any local, state, or national governmental or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
18. On all studies, Subject to satisfactory completion, repairs, or alterations, the report and conclusions are contingent upon completion of the improvements in a workmanlike manner and in a reasonable period of time.
19. All general codes, ordinances, regulations or statutes affecting the property have been and will be enforced and the property is not Subject to flood plain or utility restrictions or moratoriums, except as reported to the market analyst and contained in this report.
20. The party for whom this report is prepared has reported to the market analyst there are no original existing condition or development plans that would Subject this property to the regulations of the Securities and Exchange Commission or similar agencies on the state or local level.
21. Unless stated otherwise, no percolation tests have been performed on this property. In making the market study, it has been assumed the property is capable of passing such tests so as to be developable to its highest and best use.
22. No in-depth inspection was made of existing plumbing (including well and septic), electrical, or heating systems. The market analyst does not warrant the condition or adequacy of such systems.
23. No in-depth inspection of existing insulation was made. It is specifically assumed no Urea Formaldehyde Foam Insulation (UFFI), or any other product banned or discouraged by the Consumer Product Safety Commission has been introduced into the property. The market analyst reserves the right to review and/or modify this market study if said insulation exists on the Subject property.
24. Estimates presented in this report are assignable to parties to the development's financial structure.

ADDENDUM B
Subject and Neighborhood Photographs

Photographs of Subject Site and Surrounding Uses



Subject site east from Laurel Crossing Parkway



Subject site east from Laurel Crossing Parkway



View north Laurel Crossing Parkway



View south on Laurel Crossing Parkway



Commercial use in the Subject's neighborhood



Gas station in the Subject's neighborhood



Retail and commercial uses in the Subject's neighborhood



Retail and commercial uses in the Subject's neighborhood



Retail and commercial uses in the Subject's neighborhood



Retail and commercial uses in the Subject's neighborhood



Commercial use in the Subject's neighborhood



Commercial use in the Subject's neighborhood



Grocery store in the Subject's neighborhood



Pharmacy in the Subject's neighborhood



Single-family home in the Subject's neighborhood



Single-family home in the Subject's neighborhood



Single-family home in the Subject's neighborhood



Single-family home in the Subject's neighborhood

ADDENDUM C
Qualifications

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
REBECCA S. ARTHUR, MAI**

I. Education

University of Nebraska, Lincoln, Nebraska
Bachelor of Science in Business Administration – Finance

Appraisal Institute
Designated Member (MAI)

II. Licensing and Professional Affiliation

Member of Kansas Housing Association
Board of Directors 2017 - Present
Designated Member of the Appraisal Institute (MAI)
Kansas City Chapter of the Appraisal Institute Board of Directors – 2013 & 2014
Member of National Council of Housing Market Analysts (NCHMA)
Member of Commercial Real Estate Women (CREW) Network

State of Arkansas Certified General Real Estate Appraisal No. CG2682
State of Arizona Certified General Real Estate Appraisal No. 31992
State of California Certified General Real Estate Appraiser No. AG041010
State of Hawaii Certified General Real Estate Appraiser No. CGA-1047
State of Iowa Certified General Real Estate Appraiser No. CG03200
State of Indiana Certified General Real Estate Appraiser No. CG41300037
State of Kansas Certified General Real Estate Appraiser No. G-2153
State of Minnesota Certified General Real Estate Appraiser No. 40219655
State of Missouri Certified General Real Estate Appraiser No. 2004035401
State of Louisiana Certified General Real Estate Appraiser No. 4018
State of Texas Certified General Real Estate Appraiser No. TX-1338818-G

III. Professional Experience

Partner, Novogradac & Company LLP
Principal, Novogradac & Company LLP
Manager, Novogradac & Company LLP
Real Estate Analyst, Novogradac & Company LLP
Corporate Financial Analyst, Deloitte & Touche LLP

IV. Professional Training

Various Continuing Education Classes as required by licensing, 2016 & 2017
USPAP Update, January 2016
Forecasting Revenue, June 2015
Discounted Cash Flow Model, June 2015
Business Practices and Ethics, April 2015
HUD MAP Training – June 2013
The Appraiser as an Expert Witness: Preparation & Testimony, April 2013
How to Analyze and Value Income Properties, May 2011
Appraising Apartments – The Basics, May 2011
HUD MAP Third Party Tune-Up Workshop, September 2010

HUD MAP Third Party Valuation Training, June 2010
HUD LEAN Third Party Training, January 2010
National Uniform Standards of Professional Appraisal Practice, April 2010
MAI Comprehensive Four Part Exam, July 2008
Report Writing & Valuation Analysis, December 2006
Advanced Applications, October 2006
Highest and Best Use and Market Analysis, July 2005
HUD MAP – Valuation Advance MAP Training, April 2005
Advanced Sales Comparison and Cost Approaches, April 2005
Advanced Income Capitalization, October 2004
Basic Income Capitalization, September 2003
Appraisal Procedures, October 2002
Appraisal Principals, September 2001

V. Real Estate Assignments

A representative sample of Valuation or Consulting Engagements includes:

- In general, have managed and conducted numerous market analyses and appraisals for various types of commercial real estate since 2001, with an emphasis on multifamily housing and land.
- Have managed and conducted numerous market and feasibility studies for multifamily housing. Properties types include Section 42 Low Income Housing Tax Credit (LIHTC) Properties, Section 8, USDA and/or conventional. Local housing authorities, developers, syndicators, HUD and lenders have used these studies to assist in the financial underwriting and design of multifamily properties. Analysis typically includes; unit mix determination, demand projections, rental rate analysis, competitive property surveying, and overall market analysis. The Subjects include both new construction and rehabilitation properties in both rural and metro regions throughout the United States and its territories.
- Have managed and conducted numerous appraisals of multifamily housing. Appraisal assignments typically involved determining the as is, as if complete and the as if complete and stabilized values. Additionally, encumbered LIHTC and unencumbered values were typically derived. The three traditional approaches to value are developed with special methodologies included to value tax credit equity, below market financing and PILOT agreements.
- Performed market studies and appraisals of proposed new construction and existing properties under the HUD Multifamily Accelerated Processing (MAP) program. These reports meet the requirements outlined in HUD Handbook 4465.1 and Chapter 7 of the HUD MAP Guide for 221(d)(4) and 223(f) programs, as well as the LIHTC PILOT Program.
- Performed numerous market study/appraisals assignments for USDA RD properties in several states in conjunction with acquisition rehabilitation redevelopments. Documents are used by states, FannieMae, USDA, and the developer in the underwriting process. Market studies are compliant to State, FannieMae, and USDA requirements. Appraisals are compliant to FannieMae and USDA HB-1-3560 Chapter 7 and Attachments.
- Completed numerous FannieMae and FreddieMac appraisals of affordable and market rate multi-family properties for DUS Lenders.
- Managed and Completed numerous Section 8 Rent Comparability Studies in accordance with

HUD's Section 8 Renewal Policy and Chapter 9 for various property owners and local housing authorities.

- Managed and conducted various City and County-wide Housing Needs Assessments in order to determine the characteristics of existing housing, as well as determine the need for additional housing within designated areas.
- Performed numerous valuations of the General and/or Limited Partnership Interest in a real estate transaction, as well as LIHTC Year 15 valuation analysis.

VI. Speaking Engagements

A representative sample of industry speaking engagements follows:

- Institute for Professional Education and Development (IPED): Tax Credit Seminars
- Institute for Responsible Housing Preservation (IRHP): Annual Meetings
- Midwest FHA Lenders Conference: Annual Meetings
- Southwest FHA Mortgage Association Lenders Conference: Annual Meetings
- National Council of Housing Market Analysts (NCHMA): Seminars and Workshops
- National Council of State Housing Agencies: Housing Credit Connect Conferences
- National Leased Housing Association: Annual Meeting
- Nebraska's County Assessors: Annual Meeting
- Novogradac & Company LLP: LIHTC, Developer and Bond Conferences
- AHF Live! Affordable Housing Finance Magazine Annual Conference
- Kansas Housing Conference
- California Council for Affordable Housing (CCAH) Meetings

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
BRIAN NEUKAM**

EDUCATION

Georgia Institute of Technology, Bachelor of Industrial Engineering, 1995

State of Georgia Certified General Real Property Appraiser No. 329471

PROFESSIONAL TRAINING

National USPAP and USPAP Updates

General Appraiser Market Analysis and Highest & Best Use

General Appraiser Sales Comparison Approach

General Appraiser Site Valuation and Cost Approach

General Appraiser Income Capitalization Approach I and II

General Appraiser Report Writing and Case Studies

EXPERIENCE

Novogradac & Company LLP, Manager, September 2015- Present

J Lawson & Associates, Associate Appraiser, October 2013- September 2015

Carr, Lawson, Cantrell, & Associates, Associate Appraiser, July 2007-October 2013

REAL ESTATE ASSIGNMENTS

A representative sample of due diligence, consulting or valuation assignments includes:

- Prepare market studies and appraisals throughout the U.S. for proposed and existing family and senior Low-Income Housing Tax Credit (LIHTC), market rate, HOME financed, USDA Rural Development, and HUD subsidized properties. Appraisal assignments involve determining the as is, as if complete, and as if complete and stabilized values.
- Conduct physical inspections of subject properties and comparables to determine condition and evaluate independent physical condition assessments.
- Performed valuations of a variety of commercial properties throughout the Southeast which included hotels, gas stations and convenience stores, churches, funeral homes, full service and fast-food restaurants, stand-alone retail, strip shopping centers, distribution warehouse and manufacturing facilities, cold storage facilities, residential and commercial zoned land, and residential subdivision lots. Intended uses included first mortgage, refinance, foreclosure/repossession (REO), and divorce.
- Employed discounted cash flow analysis (utilizing Argus or Excel) to value income producing properties and prepare or analyze cash flow forecasts.
- Reviewed and analyzed real estate leases, including identifying critical lease data such as commencement/expiration dates, various lease option types, rent and other income, repair and maintenance obligations, Common Area Maintenance (CAM), taxes, insurance, and other important lease clauses.

STATEMENT OF PROFESSIONAL QUALIFICATIONS

Travis Jorgenson

I. Education

Georgia Institute of Technology- Atlanta, GA
Bachelors of Business Administration and Management, General Management

II. Professional Experience

Junior Analyst, Novogradac & Company LLP, July 2017 – Present
Claims Analyst, Zelis Healthcare, May 2017-July 2017
Automotive Research Intern, Hearst Autos, October 2016-May 2017

III. Research Assignments

A representative sample of work on various types of projects:

- Assist in performing and writing market studies and appraisals of proposed and existing Low-Income Housing Tax credit (LIHTC) properties
- Research web-based rent reasonableness systems and contact local housing authorities for utility allowance schedules, payment standards, and housing choice voucher information
- Assisted numerous market and feasibility studies for family and senior affordable housing. Local housing authorities, developers, syndicators and lenders have used these studies to assist in the financial underwriting and design of market-rate and Low-Income Housing Tax Credit (LIHTC) properties. Analysis typically includes: unit mix determination, demand projections, rental rate analysis, competitive property surveying and overall market analysis.

ADDENDUM D
Summary Matrix

SUMMARY MATRIX

Comp #	Property Name	Distance to Subject	Type / Built / Renovated	Rent Structure	Unit Description	#	%	Size (SF)	Restriction	Rent (Adj)	Max Rent?	Waiting List?	Vacant Units	Vacancy Rate
Subject	Ivy Ridge 1525 Laurel Crossing Parkway NE Buford, GA 30519 Gwinnett County	-	Garden (4 stories) Proposed 2019 / n/a Family	@60%	1BR / 1BA 1BR / 1BA 2BR / 2BA 3BR / 2BA	12 100 128 8	4.7% 39.1% 50.0% 3.1%	754 770 1,076 1,226	@60% @60% @60% @60%	\$782 \$782 \$934 \$1,069	Yes Yes Yes Yes	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
						256	100.0%						N/A	N/A
1	Alexander Mill 158 Paper Mill Road Lawrenceville, GA 30045 Gwinnett County	6.8 miles	Garden (3 stories) 2002 / n/a Family	@60%	2BR / 2BA 3BR / 2BA	157 67	70.1% 29.9%	1,094 1,280	@60% @60%	\$976 \$1,118	Yes Yes	No No	5 1	3.2% 1.5%
						224	100.0%						6	2.7%
2	Ashton Creek Apartments 239 New Hope Road Lawrenceville, GA 30045 Gwinnett County	7.2 miles	Garden (3 stories) 2003 / n/a Family	@60%	1BR / 1BA 2BR / 2BA 3BR / 2BA 4BR / 3BA	32 58 24 26	22.9% 41.4% 17.1% 18.6%	822 1,086 1,209 1,460	@60% @60% @60% @60%	\$820 \$981 \$1,129 \$1,251	Yes Yes Yes Yes	Yes Yes Yes Yes	0 0 0 0	0.0% 0.0% 0.0% 0.0%
						140	100.0%						0	0.0%
3	Magnolia Village 287 East Crogan Lawrenceville, GA 30045 Gwinnett County	6.8 miles	Garden (3 stories) 2002 / n/a Family	@50%, @60%, Market	1BR / 1BA 1BR / 1BA 1BR / 1BA 2BR / 2BA 2BR / 2BA 2BR / 2BA 3BR / 2BA 3BR / 2BA	19 8 9 47 47 24 20 8	10.0% 4.2% 4.7% 24.7% 24.7% 12.6% 10.5% 4.2%	975 975 975 1,175 1,175 1,175 1,375 1,375	@50% @60% Market @50% @60% Market @50% @60%	\$680 \$825 \$943 \$807 \$980 \$1,061 \$894 \$1,134	Yes Yes N/A Yes Yes Yes No Yes	Yes Yes N/A Yes Yes N/A Yes Yes	0 0 0 0 1 1 0 0	0.0% 0.0% 0.0% 0.0% 2.1% 4.2% 0.0% 0.0%
						190	100.0%						2	1.1%
4	Plantation Ridge 1022 Level Creek Road Sugar Hill, GA 30518 Gwinnett County	4.6 miles	Garden (3 stories) 1998 / n/a Family	@60%, Market	1BR / 1BA 1BR / 1BA 2BR / 2BA 2BR / 2BA 3BR / 2BA 3BR / 2BA	20 20 60 40 50 28	9.2% 9.2% 27.5% 18.3% 22.9% 12.8%	885 885 1,086 1,086 1,284 1,284	@60% Market @60% Market @60% Market	\$780 \$973 \$943 \$1,126 \$1,092 \$1,398	No N/A No N/A No N/A	Yes No Yes No Yes No	0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%
						218	100.0%						0	0.0%
5	Reserve At Ivy Creek 1869 Appaloosa Lane Buford, GA 30519 Gwinnett County	0.7 miles	Garden (3 stories) 2004 / n/a Family	@60%, Market	1BR / 1BA 1BR / 1BA 2BR / 2BA 2BR / 2BA 3BR / 2BA 3BR / 2BA	38 4 189 21 25 28	12.5% 1.3% 62.0% 6.9% 8.2% 9.2%	975 975 1,175 1,175 1,350 1,350	@60% Market @60% Market @60% Market	\$818 \$1,023 \$927 \$1,086 \$1,148 \$1,193	Yes Yes Yes N/A Yes N/A	Yes Yes Yes Yes Yes Yes	0 0 0 0 0 0	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%
						305	100.0%						0	0.0%
6	The View At Sugarloaf 5355 Sugarloaf Parkway Lawrenceville, GA 30043 Gwinnett County	4.4 miles	Garden (2 stories) 1994 / 2013 Family	@50%, @60%, Non-Rental	2BR / 2BA 2BR / 2BA 3BR / 2BA 3BR / 2BA 3BR / 2BA 3BR / 2BA	8 44 5 8 25 39 1	6.2% 33.8% 3.8% 6.2% 19.2% 30.0% 0.8%	974 974 1,143 1,197 1,143 1,197 1,143	@50% @60% @50% @50% @60% @60% Non-Rental	\$766 \$935 \$835 \$870 \$1,065 \$1,065 -	Yes Yes Yes Yes Yes Yes N/A	Yes No No No No No No	N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A 0.0%
						130	100.0%						3	2.3%
7	Preserve At Mill Creek 1400 Mall Of Georgia Blvd Buford, GA 30519 Gwinnett County	0.9 miles	Garden (4 stories) 2001 / n/a Family	Market	1BR / 1BA 1BR / 1BA 2BR / 2BA 3BR / 2BA	30 169 171 30	7.5% 42.3% 42.8% 7.5%	697 866 1,150 1,406	Market Market Market Market	\$1,058 \$1,168 \$1,331 \$1,423	N/A N/A N/A N/A	None None None None	2 0 3 0	6.7% 0.0% 1.8% 0.0%
						400	100.0%						5	1.3%
8	Preston Hills At Mill Creek 2910 Buford Drive Buford, GA 30519 Gwinnett County	0.7 miles	Garden (1 stories) 2000 / n/a Family	Market	1BR / 1BA 1BR / 1.5BA 2BR / 2BA 2BR / 2BA 3BR / 2BA	68 98 188 64 46	14.7% 21.1% 40.5% 13.8% 9.9%	828 919 1,177 1,287 1,426	Market Market Market Market Market	\$1,018 \$1,220 \$1,441 \$1,627 \$1,560	N/A N/A N/A N/A N/A	No No No No No	2 3 1 4 2	2.9% 3.1% 0.5% 6.3% 4.3%
						464	100.0%						12	2.6%
9	Summer Park Apartments 1525 Laurel Crossing Parkway Buford, GA 30519 Gwinnett County	0.0 miles	Garden (3 stories) 2001 / n/a Family	Market	1BR / 1BA 1BR / 1BA 1BR / 1BA 2BR / 1BA 2BR / 1BA 2BR / 2BA 2BR / 2BA 3BR / 2BA 3BR / 2BA	52 4 44 12 63 3 104 36 30 10	14.5% 1.1% 12.3% 3.4% 17.6% 0.8% 29.1% 10.1% 8.4% 2.8%	676 697 792 877 1,053 1,100 1,216 1,241 1,411 1,451	Market Market Market Market Market Market Market Market Market Market	\$1,053 \$1,093 \$1,040 \$1,149 \$1,456 \$1,278 \$1,476 \$1,438 \$1,548 \$1,456	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	No No No No No No No No No No	1 0 1 0 2 0 2 0 1 0	1.9% 0.0% 2.3% 0.0% 3.2% 0.0% 1.9% 0.0% 3.3% 0.0%
						358	100.0%						7	2.0%
10	The Overlook At Gwinnett Stadium 1600 Overlook Park Lane Lawrenceville, GA 30043 Gwinnett County	1.4 miles	Garden (4 stories) 2009 / n/a Family	Market	1BR / 1BA 1BR / 1BA 2BR / 2BA 2BR / 2BA 2BR / 2BA 2BR / 2BA 3BR / 2BA	113 98 28 25 49 10 71 22	27.6% 22.4% 6.8% 6.1% 12.0% 2.4% 17.3% 5.4%	837 746 1,050 1,174 1,175 1,190 1,257 1,401	Market Market Market Market Market Market Market Market	\$1,183 \$1,108 \$1,511 \$1,526 \$1,526 \$1,444 \$1,541 \$1,545	N/A N/A N/A N/A N/A N/A N/A N/A	No No No No No No No No	2 1 3 1 1 0 2 0	1.8% 1.1% 10.7% 4.0% 2.0% 0.0% 2.8% 0.0%
						410	100.0%						10	2.4%
11	The Terraces At Suwanee Gateway 480 Northolt Pkwy Suwanee, GA 30024 Gwinnett County	4.3 miles	Garden (4 stories) 2013 / n/a Family	Market	1BR / 1BA 2BR / 2BA 3BR / 2BA	134 154 47	40.0% 46.0% 14.0%	806 1,195 1,427	Market Market Market	\$1,371 \$1,545 \$1,844	N/A N/A N/A	No No No	0 2 0	0.0% 1.3% 0.0%
						335	100.0%						2	0.6%
12	The Views At Coolray Field 755 Braves Avenue Lawrenceville, GA 30043 Gwinnett County	1.1 miles	Lowrise (4 stories) 2015 / n/a Family	Market	1BR / 1BA 2BR / 1BA	135 71	65.5% 34.5%	695 1,061	Market Market	\$1,394 \$2,226	N/A N/A	No No	3 3	2.2% 4.2%
						206	100.0%						6	2.9%

ADDENDUM E
Subject Floor Plans

SITE KEYNOTE LEGEND:

- (A) 24" CURB AND GUTTER (TYP.)
- (B) STANDARD DUTY CONCRETE SIDEWALK, WIDTH PER PLANS (TYP.)
- (C) GDOT TYPE A CURB RAMP
- (D) GDOT TYPE B CURB RAMP
- (E) GDOT TYPE C CURB RAMP
- (F) GDOT TYPE D CURB RAMP
- (G) ADA PARKING WITH STRIPING, SIGNAGE, AND CONCRETE WHEEL STOP
- (H) 2' STOP BAR AND SIGNAGE (TYP.)
- (I) 4" SOLID WHITE STRIPING (TYP.)
- (J) CROSSWALK WITH 8" SOLID WHITE STRIPING
- (K) GDOT TYPE 1 ARROW (TYP.)
- (L) REMOVABLE BOLLARDS
- (M) VEHICLE ACCESS GATE
- (N) 6' CHAIN LINK PERIMETER FENCE
- (O) 4' CHAIN LINK POND FENCE
- (P) RETAINING WALL (DESIGNED BY OTHERS)
- (Q) 42" MIN. FALL PROTECTION HANDRAIL (SEE ARCHITECTURAL PLANS)
- (R) CONCRETE STAIRS WITH HANDRAIL
- (S) DUMPSTER PAD (SEE ARCHITECTURAL PLANS)
- (T) NOT USED
- (U) NOT USED
- (V) 30" X 30" AC COMPRESSOR PAD (TYP.) (SEE ARCHITECTURAL PLANS)
- (W) SPRINKLER CLOSET (SEE ARCHITECTURAL PLANS)
- (C#) CARPORT AND IDENTIFYING NUMBER (SEE ARCH. PLANS)
- (G#) GARAGE AND IDENTIFYING NUMBER (SEE ARCH. PLANS)
- (HC) GARAGE / CARPORT STANDARD ADA PARKING PROVIDED
- (VHC) GARAGE / CARPORT VAN ACCESSIBLE ADA PARKING PROVIDED
- (7) SURFACE PARKING COUNTS (CARPORTS AND GARAGES NOT INCLUDED, SEE PARKING SUMMARY FOR TOTAL COUNTS)

PARKING SUMMARY:

PROPOSED USE:
256 HOUSING UNITS (100,310 SF)

REQUIRED PARKING:
MIN. 384 SPACES (1.5 / UNIT)
RECOMMENDED 448 SPACES (1.75 / UNIT)
MAX. 768 SPACES (3 / UNIT)
LOADING SPACES REQUIRED: 1

PARKING PROVIDED:
346 SURFACE SPACES
24 ADA SURFACE SPACES (12 VAN-ACCESSIBLE)
24 GARAGE SPACES (6 GARAGES @ 4 SPACES EA.)
1 ADA GARAGE SPACE (VAN-ACCESSIBLE)
48 CARPORT SPACES (8 CARPORTS @ 6 SPACES EA.)
2 ADA CARPORT SPACES (1 VAN-ACCESSIBLE)

418 TOTAL SPACES (1.63 / UNIT)
27 TOTAL ADA SPACES (14 VAN-ACCESSIBLE SPACES)

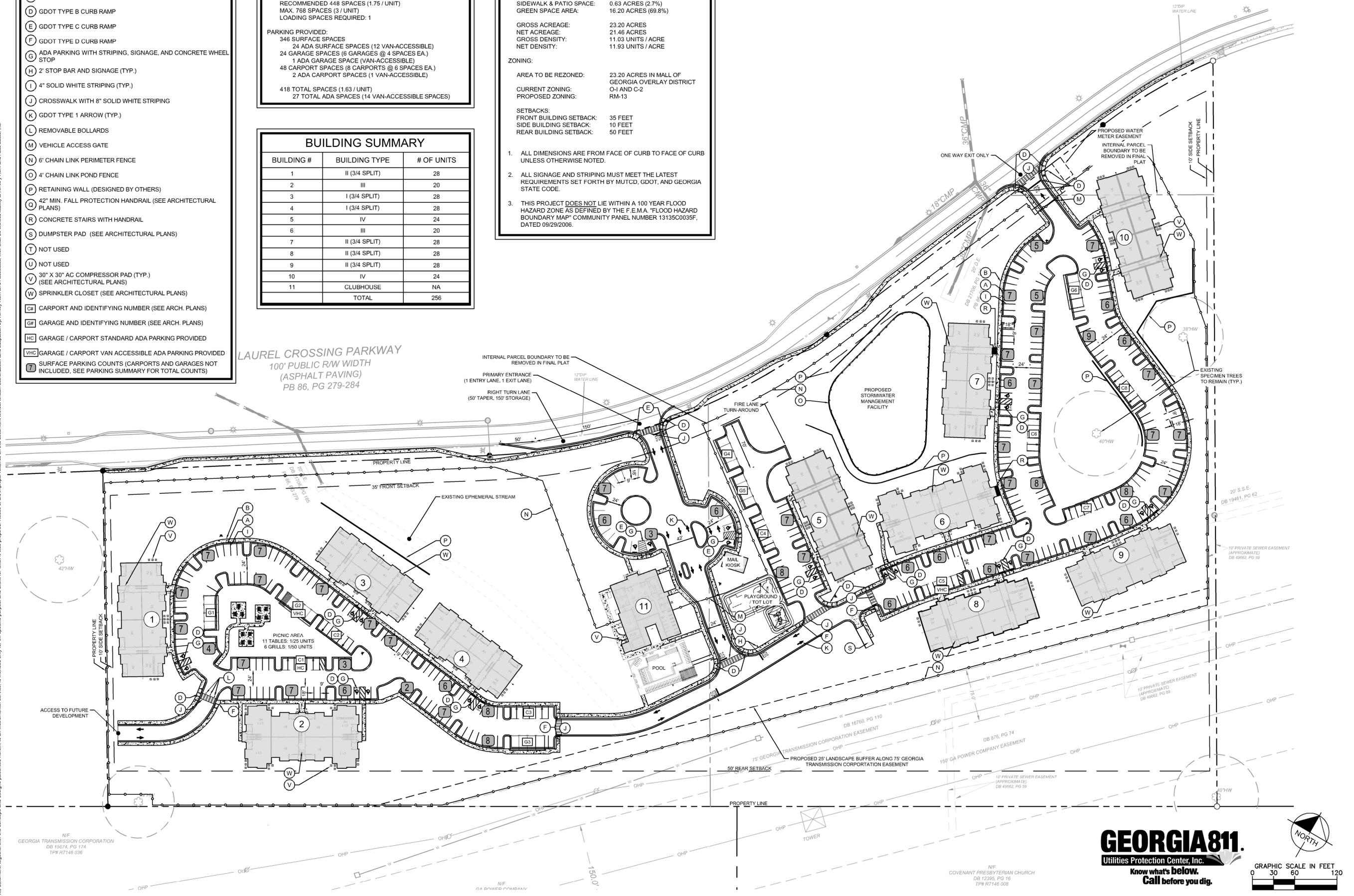
BUILDING SUMMARY

BUILDING #	BUILDING TYPE	# OF UNITS
1	II (3/4 SPLIT)	28
2	III	20
3	I (3/4 SPLIT)	28
4	I (3/4 SPLIT)	28
5	IV	24
6	III	20
7	II (3/4 SPLIT)	28
8	II (3/4 SPLIT)	28
9	II (3/4 SPLIT)	28
10	IV	24
11	CLUBHOUSE	NA
	TOTAL	256

SITE NOTES:

- PROJECT AREA:
- SITE AREA: 23.20 ACRES (1,010,759 SF)
BUILDING COVERAGE: 2.61 ACRES (11.3%)
PARKING & DRIVE SPACE: 3.76 ACRES (16.2%)
SIDEWALK & PATIO SPACE: 0.63 ACRES (2.7%)
GREEN SPACE AREA: 16.20 ACRES (69.8%)
- GROSS ACREAGE: 23.20 ACRES
NET ACREAGE: 21.46 ACRES
GROSS DENSITY: 11.03 UNITS / ACRE
NET DENSITY: 11.93 UNITS / ACRE
- ZONING:
AREA TO BE REZONED: 23.20 ACRES IN MALL OF GEORGIA OVERLAY DISTRICT
CURRENT ZONING: O-1 AND C-2
PROPOSED ZONING: RM-13
- SETBACKS:
FRONT BUILDING SETBACK: 35 FEET
SIDE BUILDING SETBACK: 10 FEET
REAR BUILDING SETBACK: 50 FEET
- ALL DIMENSIONS ARE FROM FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - ALL SIGNAGE AND STRIPING MUST MEET THE LATEST REQUIREMENTS SET FORTH BY MUTCD, GDOT, AND GEORGIA STATE CODE.
 - THIS PROJECT DOES NOT LIE WITHIN A 100 YEAR FLOOD HAZARD ZONE AS DEFINED BY THE F.E.M.A. "FLOOD HAZARD BOUNDARY MAP" COMMUNITY PANEL NUMBER 13135C0035F, DATED 09/29/2006.

Drawing name: K:\VLP_PRJ\01746005_Laurel Crossing\CAD\PlanSheets\C2-00 - SITE PLAN.dwg C2-00 SITE PLAN Oct 25, 2017 7:56pm by: logan.clink
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PROHIBITARY	NOT FOR CONSTRUCTION
SCALE: 1" = 60'	DRAWN BY: RWB DESIGNED BY: LDC CHECKED BY: BBW
CLIENT: PEDCOR INVESTMENTS	PROJECT: IVY RIDGE APARTMENTS GWINNETT COUNTY, GA PARCELS: 7146 002, 7146 028, 7146 030
TITLE: SITE PLAN	DATE: 10/23/2017 PROJECT NO.: 017046005 SHEET NUMBER: C2-00
INTEREST REVIEW SET NO. 1	REVISIONS
NO.	DATE

GEORGIA811
Utilities Protection Center, Inc.
Know what's below.
Call before you dig.

NORTH

0 30 60 120
GRAPHIC SCALE IN FEET

GENERAL FLOOR PLAN NOTES

- A. REFER TO STRUCTURAL PLANS FOR TRUSS CONFIGURATION, LOCATION, AND SPACING. POSITION TRUSSES SO THEY DO NOT INTERFERE WITH PLUMBING AND MECHANICAL ROUTING.
- B. ALL EXTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. ALL INTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. SEE STRUCTURAL FOR SPACING REQUIREMENTS.
- C. ALL DIMENSIONS ARE FROM FACE TO FACE OF STUDS.
- D. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SIZE AND QUANTITY OF OPENINGS, SLAB REQUIREMENTS AND LINTELS. INCLUDE FIRE PROTECTION NOT SHOWN ON PLANS.
- E. SEAL AROUND ALL PENETRATIONS TO INSURE TIGHT BUILDING ENVELOPE.
- F. PROVIDE FIRE SEALANT AROUND ALL PENETRATIONS THROUGH RATED WALLS.
- G. ALL WALLS ARE PAINTED UNLESS NOTED OTHERWISE.
- H. REFER TO A500 SERIES FOR TYPICAL FRAMING DETAILS.
- I. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
- J. PATIO SLOPES SHALL BE 1/4" PER FOOT MAX.
- K. PROVIDE CONTROL JOINTS IN GYPSUM BOARD ASSEMBLIES AS RECOMMENDED BY MANUFACTURER. PROVIDE CJ IN CEILINGS SO NO DIMENSION EXCEEDS 50' IN EITHER DIRECTION WHERE THERE IS PERIMETER RELIEF OR 30' IN EITHER DIRECTION WITHOUT PERIMETER RELIEF. DO NOT SEPARATE SUSPENSION SYSTEM. CAULK JOINT AND PAINT TO MATCH.

PRELIMINARY

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BUILDING PLAN KEYNOTES

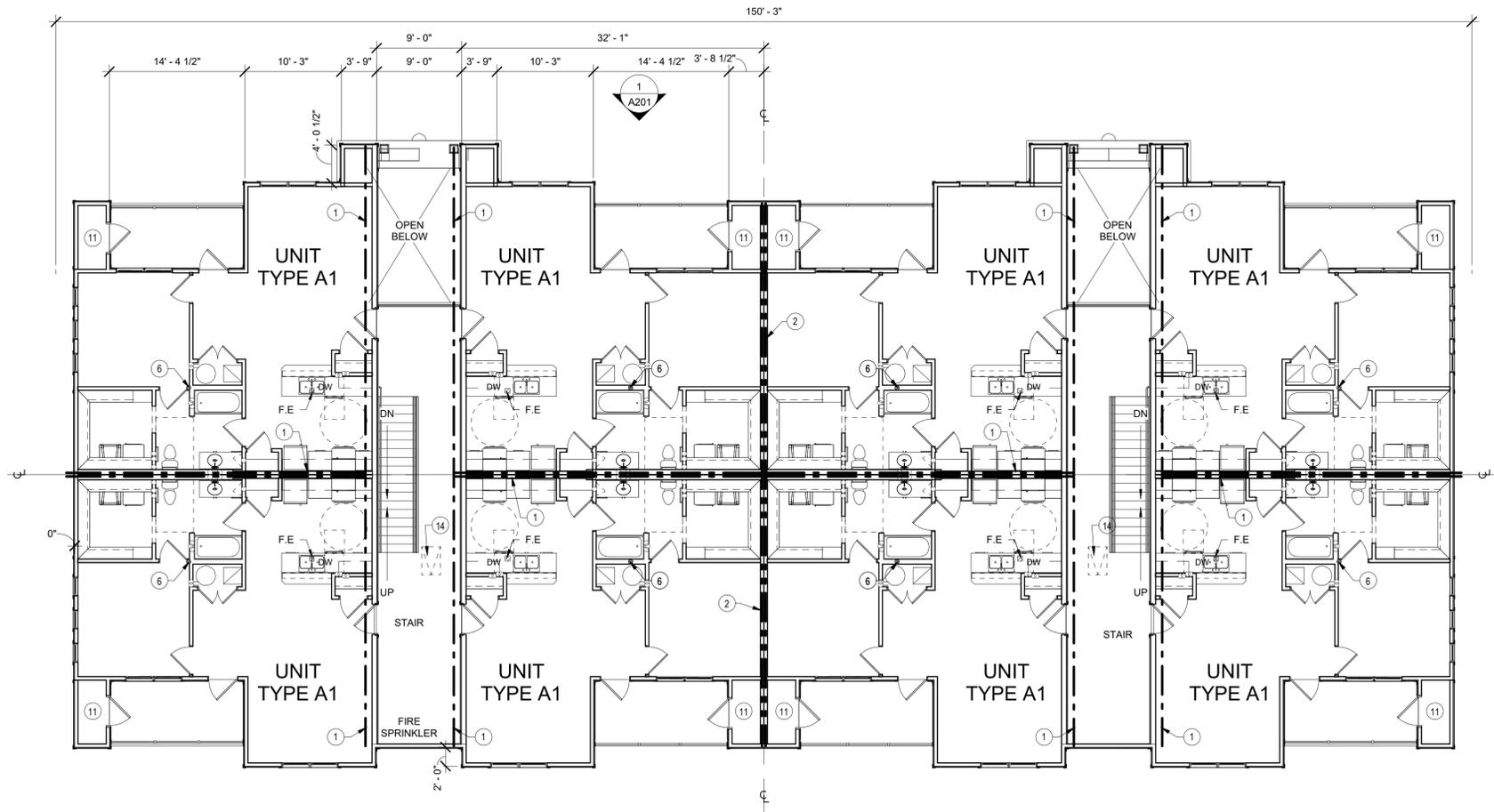
- 1 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 2 2 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 3 METER CENTER, SEE ELECTRICAL DRAWINGS.
- 4 DOWNSPOUT, SEE ROOF PLANS FOR MORE INFORMATION, DISCHARGE WATER 6' MIN FROM BUILDING.
- 5 SPRINKLER CLOSET, ONLY OCCURS ON ONE END OF BUILDING. SEE ARCHITECTURAL SITE PLAN FOR LOCATION. PROVIDE DENSGLASS OR SIMILAR EXTERIOR RATED SHEATHING AT INTERIOR WALLS AND CEILING.
- 6 VERTICAL RADON VENT, COORDINATE EXACT LOCATION OF RADON VENT SYSTEM WITH MECHANICAL.
- 7 MECHANICAL EQUIPMENT PAD, SEE FOUNDATION PLANS FOR SIZE AND LOCATION.
- 8 NOT USED
- 9 AREA OF FIRE RETARDANT PLYWOOD SHEATHING, CENTERED ABOVE 2-HR FIRE WALL, NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. 2-HR FIRE WALL CONTINUOUS FROM TOP OF FOUNDATION TO UNDERSIDE OF DECKING.
- 10 PERFORATED TILE TO BE INSTALLED UNDER CONNECTING WALKWAY AT DOWNSPOUT. SEE SITE PLAN & CIVIL DRAWINGS FOR LOCATION OF WALKWAY.
- 11 STORAGE CLOSET
- 12 PROVIDE CONTINUOUS GYP. BOARD AS DRAFTSTOP BETWEEN BATH TUB AND EXTERIOR WALL FRAMING. TAPE AND SEAL ALL EDGES PRIOR TO SETTING TUB.
- 13 EXTEND WALL GYP. BOARD TO CEILING AND TAPE AND SEAL JOINTS PER "AIR SEALING DETAILS" SHEET AIR SEALANT DETAILS PRIOR TO FRAMING BULKHEADS.
- 14 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.

BUILDING PLAN LEGEND

- SHEAR WALL; REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
- FRP PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
- ATTIC DRAFTSTOPPING
- 1-HOUR RATED ASSEMBLY
- 2-HOUR RATED ASSEMBLY

***NOTE:**
1-HOUR FIRE PARTITION REQUIRED BY CODE. 2-HOUR ASSEMBLY TO BE CONSTRUCTED PER OWNER REQUIREMENTS.
EXTEND RATED ASSEMBLY FROM TOP OF FOUNDATION TO UNDERSIDE OF OUTERMOST ROOF SHEATHING AND THROUGH ALL OVER-BUILD LOCATIONS. ASSEMBLY THROUGH OVER-BUILD MAY CHANGE TO (2) LAYERS 5/8" GYP. BOARD ON EACH SIDE OF FRAMING. PROVIDE FIRE RATED ROOF DECKING 48" EACH SIDE OF ASSEMBLY AT ROOF PLANE. NO PENETRATIONS IN DECKING THIS ZONE.

NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.



1 BUILDING TYPE I SECOND & THIRD FLOOR PLAN
1/8" = 1'-0"

IVY RIDGE APARTMENTS

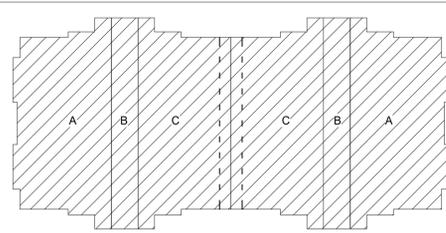
Buford, GA
SCHEMATIC DESIGN

REVISIONS

NO.	DATE

PROJ. NO. 17041
DATE 10/06/2017
SHEET NAME BUILDING TYPE I FLOOR PLANS

SHEET NO. **A112**



BUILDING TYPE I ROOF AREA PLAN

ATTIC VENTILATION

- VENT 144" SQ. FREE AIR MIN. PROVIDE (1) VENT PER 150SF OF ATTIC DIVIDED BY 2.
- NO ROOF OPENINGS OR SOFFIT VENTS NEAR F.W. THIS AREA.
- SOFFIT DRAFT STOP (MAX 20' SPACING) SEE DETAIL.

ROOF VENTILATION CALCULATIONS

(SQUARE FOOTAGE OF ROOF AREA SERVED X144(SQUARE INCHES))/300 =FREE AREA OF ROOF VENTILATION REQUIRED (HALF OF THIS AREA MUST BE PROVIDED IN SOFFIT AND THE OTHER HALF NEAR THE RIDGE)

$(1/2 \times \text{FREE AREA}) / 151$ (SIZE OF VENT IN SQ.IN.) = VENTS REQUIRED NEAR RIDGE LINEAR FEET OF SOFFIT X 12(INCHES) X 2(VENT WIDTH IN INCHES) X .375(EFFICIENCY) = AMOUNT OF SOFFIT VENT PROVIDED

AREA A = 2,169 SQ. FT.
 $(2169 \times 144) / 300 = 1041$ SQ. IN.
 $(1041/2) / 151 = 3.45 = 4$ VENTS NEEDED

AREA B = 703 SQ. FT.
 $(703 \times 144) / 300 = 337$ SQ. IN.
 $(337/2) / 151 = 1.11 = 2$ VENTS NEEDED

AREA C = 2,108 SQ. FT.
 $(2108 \times 144) / 300 = 1011$ SQ. IN.
 $(1011/2) / 151 = 3.35 = 4$ VENTS NEEDED

GENERAL ROOF PLAN NOTES

- DETAILED FLOOR AND ROOF TRUSS FRAMING AND DIAGRAMS ARE TO BE FURNISHED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS TO BE LOCATED.
- THE TRUSS MANUFACTURER SHALL SUBMIT ENGINEERED PERMANENT ROOF TRUSS BRACING AS REQUIRED BY THE CODE.
- LOCATE HIGH-POINT OF GUTTER AT MID-SPAN IN BETWEEN DOWNSPOUTS UNLESS INDICATED OTHERWISE ON THE ROOF PLAN.
- GUTTERS TO BE 4" WIDE X 4" DEEP. SLOPE TO BE 1/16" PER 1'-0". DOWNSPOUTS TO BE 3" WIDE X 2" DEEP.
- DOWNSPOUTS TO BE PROVIDED WITH EXTENSIONS TO ENSURE ALL WATER DISCHARGES NO LESS THAN 6' FROM BUILDING FOUNDATION.
- ROOF ANCHORS WITH BASE FLASHING AND RISER BOOT BY SUPER ANCHOR SAFETY. MODEL #2830 FOR INSTALLATION ONTO 2X4 TRUSS CHORD. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
- EXTEND ALL RATED PARTITIONS BETWEEN UNITS TO BOTTOM OF OUTERMOST ROOF PLANE, THROUGH SOFFITS AND OVER-BUILD TO CREATE A CONTINUOUS PARTITION. ROOF DECK TO BE LAYER OF SHEATHING DIRECTLY BELOW SHINGLES. UTILIZE MONO-TRUSS CONFIGURATION WHERE POSSIBLE WITH 2X4 FRAMING TURNED SIDEWAYS AT 24" OC PER UL ASSEMBLY U338.
- THE ENTIRE BUILDING ENVELOPE INCLUDING ROOF, WALLS, & FLOORS TO BE DRIED IN PRIOR TO THE STORAGE AND INSTALLATION OF INTERIOR FINISH MATERIALS. IN ADDITION, THE OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR VERIFYING THAT THERE HAS BEEN NO EVIDENCE OF WATER PENETRATING THE BUILDING ENVELOPE OR WATER LEAK FROM MECHANICAL AND/OR FIRE SPRINKLER SYSTEMS PRIOR TO ENCLOSING THE WALL, CEILING OR ROOF CAVITIES.
- FRAMING SUB-CONTRACTOR AND PANEL MANUFACTURER TO REVIEW BUILDING SECTIONS TO ACCOMMODATE RATED WALL ASSEMBLIES. ALL DEMISING PARTITIONS BETWEEN UNITS SHOWN AS 1 HR. OR 2 HR. TO EXTEND TO OUTER MOST LAYER OF ROOF DECKING BELOW SHINGLE LAYER. RATED WALLS AROUND STAIR TOWER TO STOP AT RATED CEILING ASSEMBLY, BUT DEMISING PARTITION AT UNITS MUST EXTEND TO EDGE OF SOFFIT.
- PROVIDE ICE & WATER SHIELD AROUND ALL PENETRATIONS.
- TRUSS MANUFACTURER TO COORDINATE ROOF TRUSSES WITH ARCH. TO INCLUDE SUFFICIENT HEAL HEIGHT TO ACCOMMODATE FULL DEPTH OF REQUIRED INSULATION AND AN AIR BAFFLE TO EXTERIOR FACE OF WALL.
- PROVIDE A 24X36 MIN. OPENING TO ALL ROOF CAVITIES TO CONNECT TO THE MAIN VOLUME OF SPACE FOR VENTING AND ACCESS. RIDGE VENTS MAY BE USED AT GABLES ONLY.
- REFER TO FINISH SCHEDULE FOR COLOR SELECTIONS.

PRELIMINARY

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ROOF PLAN LEGEND

- R1 ATTIC DRAFTSTOP: EXTEND WALL GYP. BOARD TO CEILING AND TAPE AND SEAL JOINTS PER A600 SERIES AIR SEALANT DETAILS PRIOR TO FRAMING BULKHEADS.
- R2 FR SHEATHING: AREA OF FIRE RETARDANT PLYWOOD SHEATHING, CENTERED ABOVE 2-HR FIREWALL. NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. STAGGER JOINTS.
- R3 ROOF ANCHOR SUPER ANCHOR SAFETY
- R4 ATTIC ACCESS FROM BELOW
- R5 NOT USED
- R6 METAL DOWNSPOUT: SEE GENERAL ROOF PLAN NOTES
- R7 SEAMLESS METAL GUTTER: SEE GENERAL ROOF PLAN NOTES
- R8 ROOF VENT WITH ONE SQ. FT. FREE AREA
- R9 ATTIC ACCESS THROUGH DRAFTSTOPPING MAY VARY ALONG WALL, SEE DETAILS
- R10 RIDGE VENT

BUILDING PLAN LEGEND

- SHEAR WALL; REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
 - FRT PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
 - ATTIC DRAFTSTOPPING
 - 1-HOUR RATED ASSEMBLY
 - 2-HOUR RATED ASSEMBLY
- *NOTE:**
 1-HOUR FIRE PARTITION REQUIRED BY CODE. 2-HOUR ASSEMBLY TO BE CONSTRUCTED PER OWNER REQUIREMENTS.
- EXTEND RATED ASSEMBLY FROM TOP OF FOUNDATION TO UNDERSIDE OF OUTERMOST ROOF SHEATHING AND THROUGH ALL OVER-BUILD LOCATIONS. ASSEMBLY THROUGH OVER-BUILD MAY CHANGE TO (2) LAYERS 5/8" GYP. BOARD ON EACH SIDE OF FRAMING. PROVIDE FIRE RATED ROOF DECKING 48" EACH SIDE OF ASSEMBLY AT ROOF PLANE. NO PENETRATIONS IN DECKING THIS ZONE.

NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.

IVY RIDGE APARTMENTS

Buford, GA
 SCHEMATIC DESIGN

REVISIONS

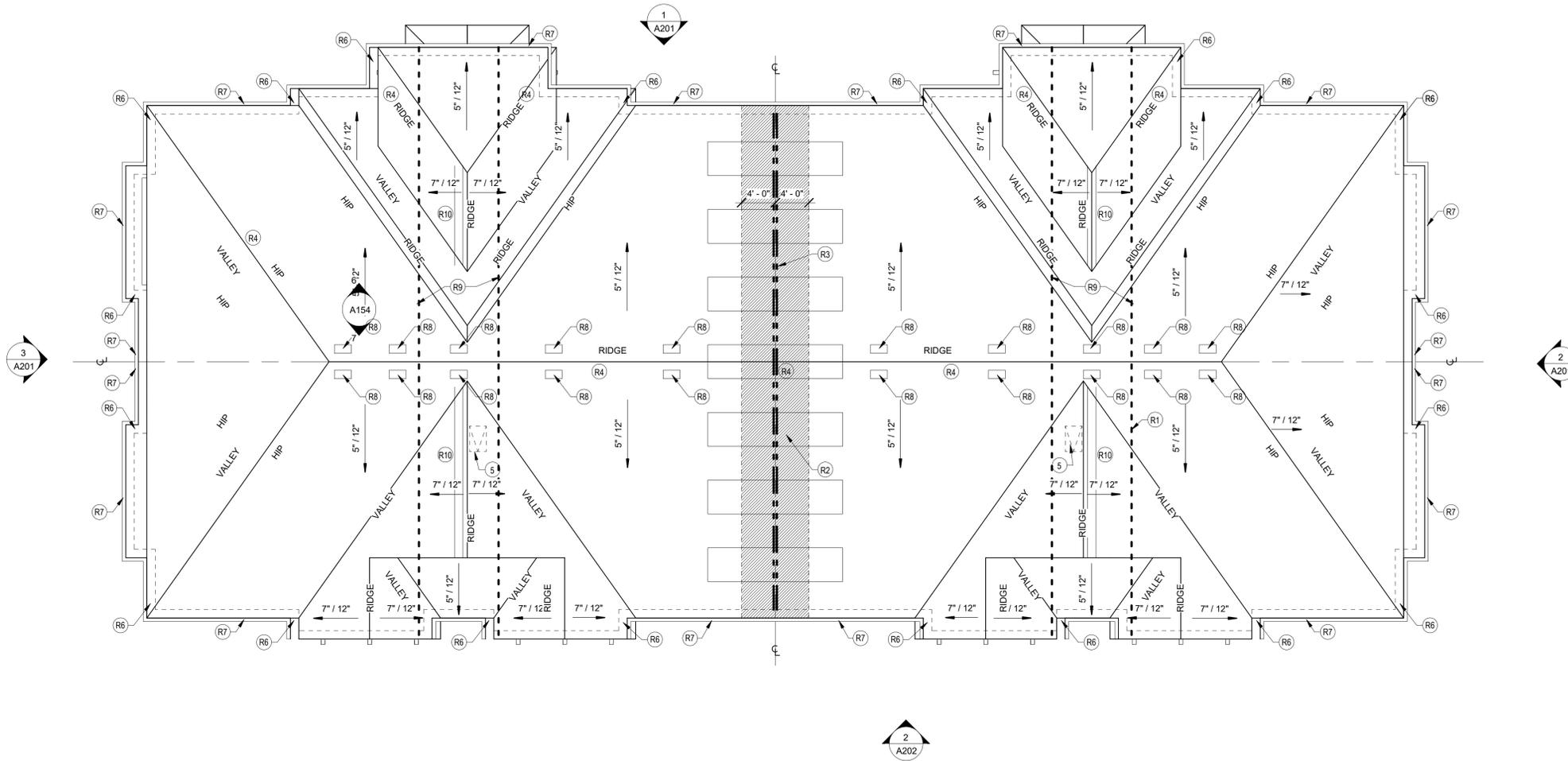
NO.	DATE

PROJ. NO. 17041
 DATE 10/06/2017
 SHEET NAME BUILDING TYPE I ROOF PLANS

SHEET NO.

A113

1 BUILDING TYPE I ROOF PLAN
 1/8" = 1'-0"



GENERAL FLOOR PLAN NOTES

- A. REFER TO STRUCTURAL PLANS FOR TRUSS CONFIGURATION, LOCATION, AND SPACING. POSITION TRUSSES SO THEY DO NOT INTERFERE WITH PLUMBING AND MECHANICAL ROUTING.
- B. ALL EXTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. ALL INTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. SEE STRUCTURAL FOR SPACING REQUIREMENTS.
- C. ALL DIMENSIONS ARE FROM FACE TO FACE OF STUDS.
- D. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. SEE MECHANICAL ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SIZE AND QUANTITY OF OPENINGS, SLAB REQUIREMENTS AND LINTELS. INCLUDE FIRE PROTECTION NOT SHOWN ON PLANS.
- E. SEAL AROUND ALL PENETRATIONS TO INSURE TIGHT BUILDING ENVELOPE.
- F. PROVIDE FIRE SEALANT AROUND ALL PENETRATIONS THROUGH RATED WALLS.
- G. ALL WALLS ARE PAINTED UNLESS NOTED OTHERWISE.
- H. REFER TO AS06 SERIES FOR TYPICAL FRAMING DETAILS.
- I. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER.
- J. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
- K. PATIO SLOPES SHALL BE 1/4" PER FOOT MAX.
- L. PROVIDE CONTROL JOINTS IN GYPSUM BOARD ASSEMBLIES AS RECOMMENDED BY MANUFACTURER. PROVIDE CJ IN CEILING SO NO DIMENSION EXCEEDS 50' IN EITHER DIRECTION WHERE THERE IS PERIMETER RELIEF OR 30' IN EITHER DIRECTION WITHOUT PERIMETER RELIEF. DO NOT SEPARATE SUSPENSION SYSTEM. CAULK JOINT AND PAINT TO MATCH.

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BUILDING PLAN KEYNOTES

- 1 1 HR FIRE RATED ASSEMBLY. SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 2 2 HR FIRE RATED ASSEMBLY. SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 3 METER CENTER. SEE ELECTRICAL DRAWINGS.
- 4 DOWNSPOUT. SEE ROOF PLANS FOR MORE INFORMATION. DISCHARGE WATER 6' MIN FROM BUILDING.
- 5 SPRINKLER CLOSET. ONLY OCCURS ON ONE END OF BUILDING. SEE ARCHITECTURAL SITE PLAN FOR LOCATION. PROVIDE DENSGLASS OR SIMILAR EXTERIOR RATED SHEATHING AT INTERIOR WALLS AND CEILING.
- 6 VERTICAL RADON VENT. COORDINATE EXACT LOCATION OF RADON VENT SYSTEM WITH MECHANICAL.
- 7 MECHANICAL EQUIPMENT PAD. SEE FOUNDATION PLANS FOR SIZE AND LOCATION.
- 8 NOT USED
- 9 AREA OF FIRE RETARDANT PLYWOOD SHEATHING. CENTERED ABOVE 2-HR FIRE WALL. NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. 2-HR FIRE WALL CONTINUOUS FROM TOP OF FOUNDATION TO UNDERSIDE OF DECKING.
- 10 PERFORATED TILE TO BE INSTALLED UNDER CONNECTING WALKWAY AT DOWNSPOUT. SEE SITE PLAN & CIVIL DRAWINGS FOR LOCATION OF WALKWAY.
- 11 STORAGE CLOSET
- 12 PROVIDE CONTINUOUS GYP. BOARD AS DRAFTSTOP BETWEEN BATH TUB AND EXTERIOR WALL FRAMING. TAPE AND SEAL ALL EDGES PRIOR TO SETTING TUB.
- 13 EXTEND WALL GYP. BOARD TO CEILING AND TAPE AND SEAL JOINTS PER "AIR SEALING DETAILS" SHEET AIR SEALANT DETAILS PRIOR TO FRAMING BULKHEADS.
- 14 1 HR FIRE RATED ASSEMBLY. SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.

BUILDING PLAN LEGEND

- SHEAR WALL. REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
- FRT PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
- ATTIC DRAFTSTOPPING
- 1-HOUR RATED ASSEMBLY
- 2-HOUR RATED ASSEMBLY

***NOTE:**
1-HOUR FIRE PARTITION REQUIRED BY CODE. 2-HOUR ASSEMBLY TO BE CONSTRUCTED PER OWNER REQUIREMENTS.
EXTEND RATED ASSEMBLY FROM TOP OF FOUNDATION TO UNDERSIDE OF OUTERMOST ROOF SHEATHING AND THROUGH ALL OVER-BUILD LOCATIONS. ASSEMBLY THROUGH OVER-BUILD MAY CHANGE TO (2) LAYERS 5/8" GYP. BOARD ON EACH SIDE OF FRAMING. PROVIDE FIRE RATED ROOF DECKING 48" EACH SIDE OF ASSEMBLY AT ROOF PLANE. NO PENETRATIONS IN DECKING THIS ZONE.

NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.

IVY RIDGE APARTMENTS

Buford, GA
SCHEMATIC DESIGN

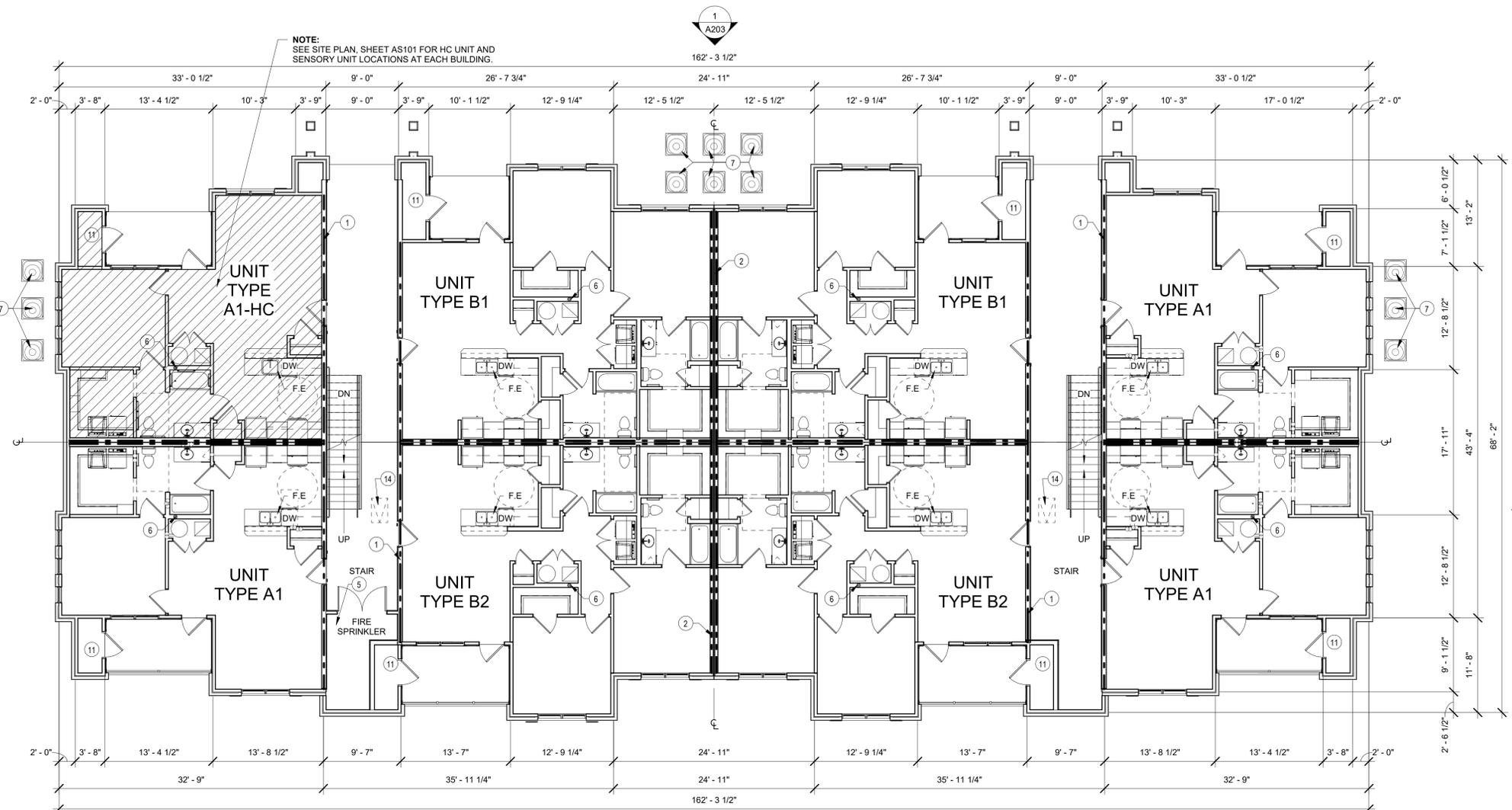
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NO. DATE

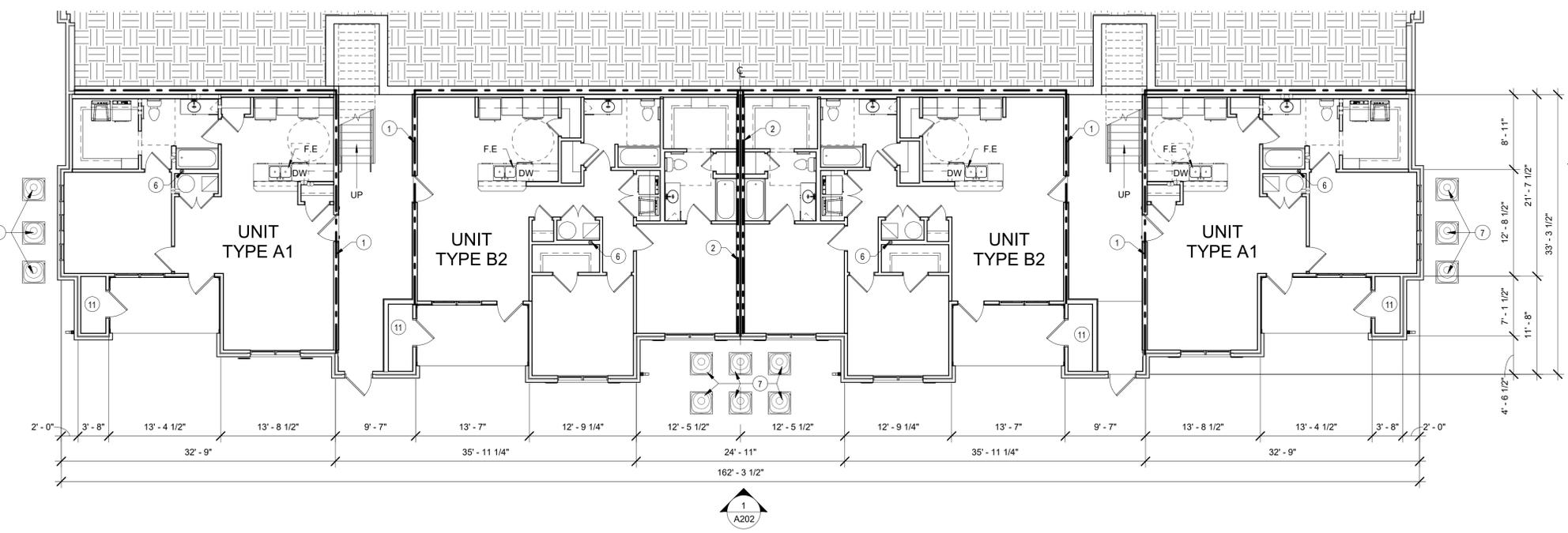
PROJ. NO. 17041
DATE 10/06/2017
SHEET NAME BUILDING TYPE II FLOOR PLANS

SHEET NO.

A121



2 BUILDING TYPE II FIRST FLOOR PLAN
1/8" = 1'-0"



1 BUILDING TYPE II BASEMENT FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

- A. REFER TO STRUCTURAL PLANS FOR TRUSS CONFIGURATION, LOCATION, AND SPACING. POSITION TRUSSES SO THEY DO NOT INTERFERE WITH PLUMBING AND MECHANICAL ROUTING.
- B. ALL EXTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. ALL INTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. SEE STRUCTURAL FOR SPACING REQUIREMENTS.
- C. ALL DIMENSIONS ARE FROM FACE TO FACE OF STUDS.
- D. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SIZE AND QUANTITY OF OPENINGS, SLAB REQUIREMENTS AND LINTELS. INCLUDE FIRE PROTECTION NOT SHOWN ON PLANS.
- E. SEAL AROUND ALL PENETRATIONS TO INSURE TIGHT BUILDING ENVELOPE.
- F. PROVIDE FIRE SEALANT AROUND ALL PENETRATIONS THROUGH RATED WALLS.
- G. ALL WALLS ARE PAINTED UNLESS NOTED OTHERWISE.
- H. REFER TO AS500 SERIES FOR TYPICAL FRAMING DETAILS.
- I. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
- J. PATIO SLOPES SHALL BE 1/4" PER FOOT MAX.
- K. PROVIDE CONTROL JOINTS IN GYPSUM BOARD ASSEMBLIES AS RECOMMENDED BY MANUFACTURER. PROVIDE CJ IN CEILINGS SO NO DIMENSION EXCEEDS 50' IN EITHER DIRECTION WHERE THERE IS PERIMETER RELIEF OR 30' IN EITHER DIRECTION WITHOUT PERIMETER RELIEF. DO NOT SEPARATE SUSPENSION SYSTEM. CAULK JOINT AND PAINT TO MATCH.

PRELIMINARY

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APPROVAL, PERMITTING,
OR CONSTRUCTION.



BUILDING PLAN KEYNOTES

- 1 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 2 2 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 3 METER CENTER, SEE ELECTRICAL DRAWINGS.
- 4 DOWNSPOUT, SEE ROOF PLANS FOR MORE INFORMATION, DISCHARGE WATER 6' MIN FROM BUILDING.
- 5 SPRINKLER CLOSET, ONLY OCCURS ON ONE END OF BUILDING. SEE ARCHITECTURAL SITE PLAN FOR LOCATION. PROVIDE DENSGLASS OR SIMILAR EXTERIOR RATED SHEATHING AT INTERIOR WALLS AND CEILING.
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- 7 MECHANICAL EQUIPMENT PAD, SEE FOUNDATION PLANS FOR SIZE AND LOCATION.
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- 9 AREA OF FIRE RETARDANT PLYWOOD SHEATHING, CENTERED ABOVE 2-HR FIRE WALL. NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. 2-HR FIRE WALL CONTINUOUS FROM TOP OF FOUNDATION TO UNDERSIDE OF DECKING.
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- 11 STORAGE CLOSET
- 12 PROVIDE CONTINUOUS GYP. BOARD AS DRAFTSTOP BETWEEN BATH TUB AND EXTERIOR WALL FRAMING. TAPE AND SEAL ALL EDGES PRIOR TO SETTING TUB.
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- 14 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.

BUILDING PLAN LEGEND

- SHEAR WALL; REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
- FRT PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
- ATTIC DRAFTSTOPPING
- 1-HOUR RATED ASSEMBLY
- 2-HOUR RATED ASSEMBLY

***NOTE:**
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NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.

IVY RIDGE APARTMENTS

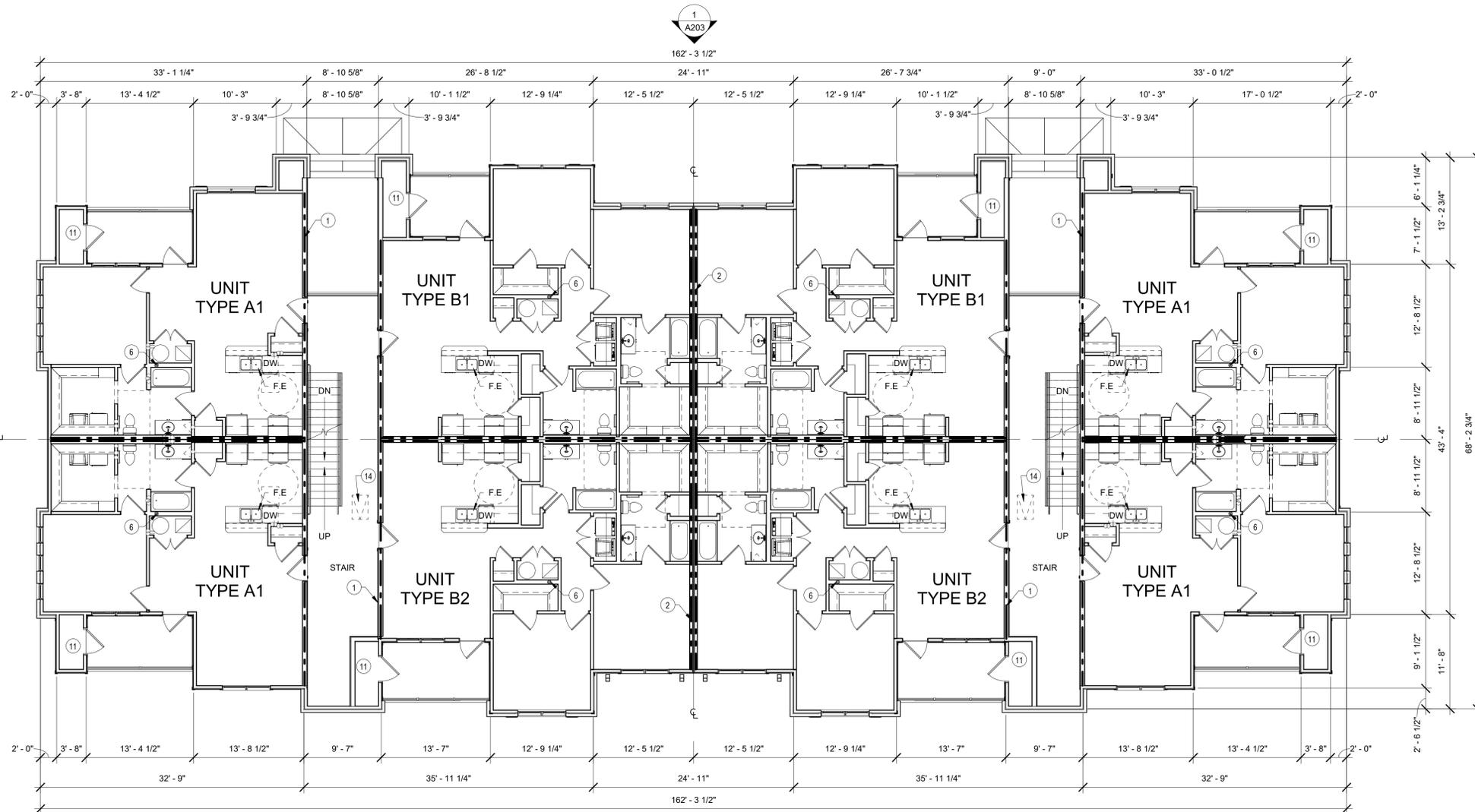
Buford, GA
SCHEMATIC DESIGN

REVISIONS

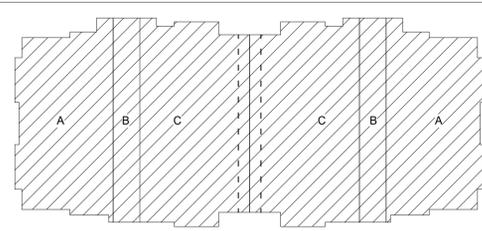
NO.	DATE

PROJ. NO. 17041
DATE 10/06/2017
SHEET NAME BUILDING TYPE II FLOOR PLANS

SHEET NO. **A122**



1 BUILDING TYPE II SECOND AND THIRD FLOOR PLAN
1/8" = 1'-0"



BUILDING TYPE II ROOF AREA PLAN

ATTIC VENTILATION

1. VENT 144" SQ. FREE AIR MIN. PROVIDE (1) VENT PER 150SF OF ATTIC DIVIDED BY 2.
2. NO ROOF OPENINGS OR SOFFIT VENTS NEAR F.W. THIS AREA.
3. SOFFIT DRAFT STOP (MAX 20" SPACING) SEE DETAIL.

ROOF VENTILATION CALCULATIONS

(SQUARE FOOTAGE OF ROOF AREA SERVED X 144(SQUARE INCHES)/300 =FREE AREA OF ROOF VENTILATION REQUIRED (HALF OF THIS AREA MUST BE PROVIDED IN SOFFIT AND THE OTHER HALF NEAR THE RIDGE)

$(1/2 \times \text{FREE AREA}) / 151$ (SIZE OF VENT IN SQ. IN.) = VENTS REQUIRED NEAR RIDGE LINEAR FEET OF SOFFIT X 12(INCHES) X 2(VENT WIDTH IN INCHES) X .375(EFFICIENCY) = AMOUNT OF SOFFIT VENT PROVIDED

AREA A = 2,145 SQ. FT.
 $(2145 \times 144) / 300 = 1029$ SQ. IN.
 $(1029/2) / 151 = 3.40 = 4$ VENTS NEEDED

AREA B = 680 SQ. FT.
 $(680 \times 144) / 300 = 326$ SQ. IN.
 $(326/2) / 151 = 1.08 = 2$ VENTS NEEDED

AREA C = 2,680 SQ. FT.
 $(2680 \times 144) / 300 = 1286$ SQ. IN.
 $(1286/2) / 151 = 4.25 = 4$ VENTS NEEDED

GENERAL ROOF PLAN NOTES

1. DETAILED FLOOR AND ROOF TRUSS FRAMING AND DIAGRAMS ARE TO BE FURNISHED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS TO BE LOCATED.
2. THE TRUSS MANUFACTURER SHALL PROVIDE ENGINEERED PERMANENT ROOF TRUSS BRACING AS REQUIRED BY THE CODE.
3. LOCATE HIGH-POINT OF GUTTER AT MID-SPAN IN BETWEEN DOWNSPOUTS UNLESS INDICATED OTHERWISE ON THE ROOF PLAN.
4. GUTTERS TO BE 4" WIDE X 4" DEEP. SLOPE TO BE 1/16" PER 1'-0". DOWNSPOUTS TO BE 3" WIDE X 2" DEEP.
5. DOWNSPOUTS TO BE PROVIDED WITH EXTENSIONS TO ENSURE ALL WATER DISCHARGES NO LESS THAN 6' FROM BUILDING FOUNDATION.
6. ROOF ANCHORS WITH BASE FLASHING AND RISER BOOT BY SUPER ANCHOR SAFETY. MODEL #2830 FOR INSTALLATION ONTO 2X4 TRUSS CHORD. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
7. EXTEND ALL RATED PARTITIONS BETWEEN UNITS TO BOTTOM OF OUTERMOST ROOF PLANE, THROUGH SOFFITS AND OVER-BUILD TO CREATE A CONTINUOUS PARTITION. ROOF DECK TO BE LAYER OF SHEATHING DIRECTLY BELOW SHINGLES. UTILIZE MONO-TRUSS CONFIGURATION WHERE POSSIBLE WITH 2X4 FRAMING TURNED SIDEWAYS AT 24" OC PER UL ASSEMBLY U338.
8. THE ENTIRE BUILDING ENVELOPE INCLUDING ROOF, WALLS, & FLOORS TO BE DRIED IN PRIOR TO THE STORAGE AND INSTALLATION OF INTERIOR FINISH MATERIALS. IN ADDITION, THE OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR VERIFYING THAT THERE HAS BEEN NO EVIDENCE OF WATER PENETRATING THE BUILDING ENVELOPE OR WATER LEAK FROM MECHANICAL AND/OR FIRE SPRINKLER SYSTEMS PRIOR TO ENCLOSING THE WALL, CEILING OR ROOF CAVITIES.
9. FRAMING SUB-CONTRACTOR AND PANEL MANUFACTURER TO REVIEW BUILDINGS SECTIONS TO ACCOMMODATE RATED WALL ASSEMBLIES. ALL DEMISING PARTITIONS BETWEEN UNITS SHOWN AS 1 HR. OR 2 HR. TO EXTEND TO OUTER MOST LAYER OF ROOF DECKING BELOW SHINGLE LAYER. RATED WALLS AROUND STAIR TOWER TO STOP AT RATED CEILING ASSEMBLY, BUT DEMISING PARTITION AT UNITS MUST EXTEND TO EDGE OF SOFFIT.
10. PROVIDE ICE & WATER SHIELD AROUND ALL PENETRATIONS.
11. TRUSS MANUFACTURER TO COORDINATE ROOF TRUSSES WITH ARCH. TO INCLUDE SUFFICIENT HEAL HEIGHT TO ACCOMMODATE FULL DEPTH OF REQUIRED INSULATION AND AN AIR BAFFLE TO EXTERIOR FACE OF WALL.
12. PROVIDE A 24X36 MIN. OPENING TO ALL ROOF CAVITIES TO CONNECT TO THE MAIN VOLUME OF SPACE FOR VENTING AND ACCESS. RIDGE VENTS MAY BE USED AT GABLES ONLY.
13. REFER TO FINISH SCHEDULE FOR COLOR SELECTIONS.

PRELIMINARY

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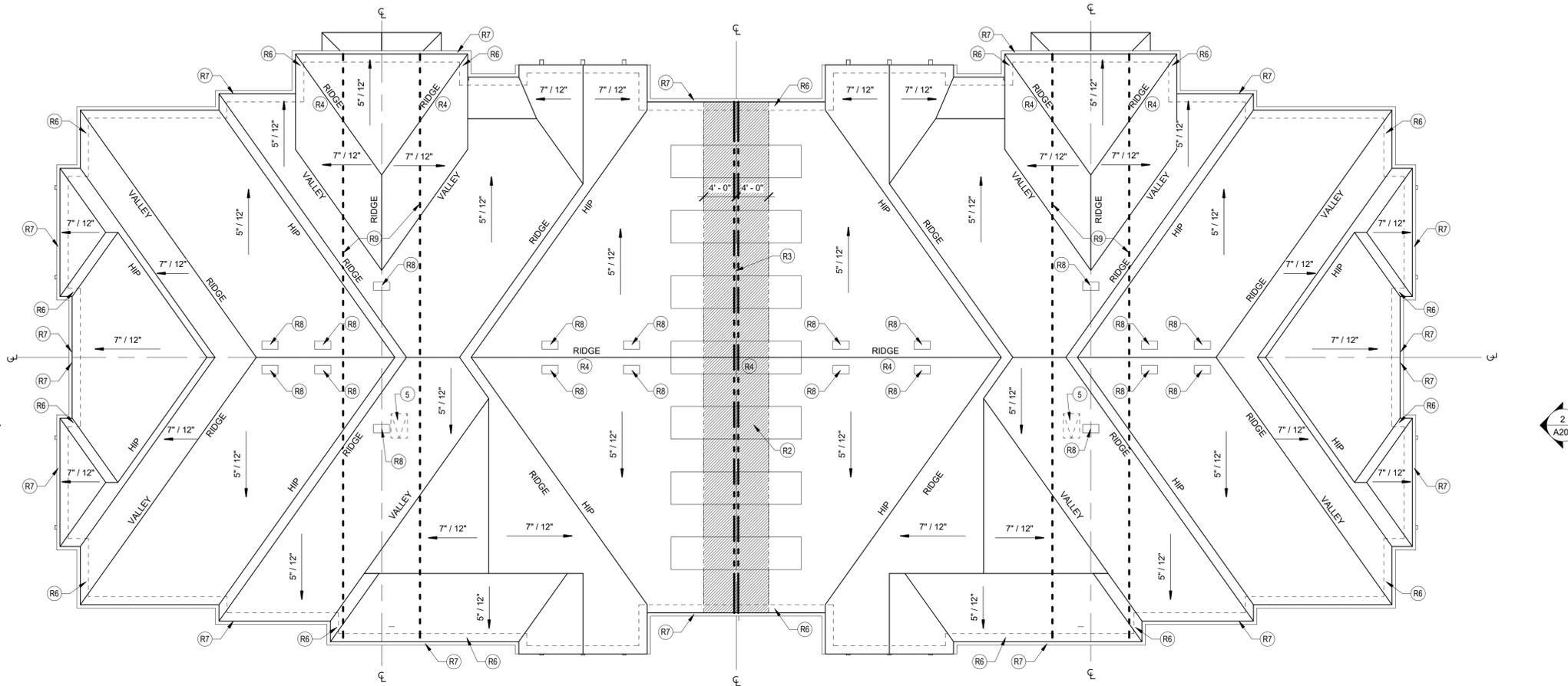
ROOF PLAN LEGEND

- (R1) ATTIC DRAFTSTOP. EXTEND WALL GYP. BOARD TO CEILING AND TAPE AND SEAL JOINTS PER A500 SERIES AIR SEALANT DETAILS PRIOR TO FRAMING BULKHEADS.
- (R2) FR SHEATHING. AREA OF FIRE RETARDANT PLYWOOD SHEATHING, CENTERED ABOVE 2-HR FIREWALL. NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. STAGGER JOINTS.
- (R3) ROOF ANCHOR SUPER ANCHOR SAFETY
- (R4) ATTIC ACCESS FROM BELOW
- (R5) NOT USED
- (R6) METAL DOWNSPOUT. SEE GENERAL ROOF PLAN NOTES
- (R7) SEAMLESS METAL GUTTER. SEE GENERAL ROOF PLAN NOTES
- (R8) ROOF VENT WITH ONE SQ. FT. FREE AREA
- (R9) ATTIC ACCESS THROUGH DRAFTSTOPPING MAY VARY ALONG WALL, SEE DETAILS
- (R10) RIDGE VENT

BUILDING PLAN LEGEND

- SHEAR WALL. REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
 - FR T PLYWOOD. EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
 - ATTIC DRAFTSTOPPING
 - 1-HOUR RATED ASSEMBLY
 - 2-HOUR RATED ASSEMBLY
- *NOTE:**
 1-HOUR FIRE PARTITION REQUIRED BY CODE. 2-HOUR ASSEMBLY TO BE CONSTRUCTED PER OWNER REQUIREMENTS.
- EXTEND RATED ASSEMBLY FROM TOP OF FOUNDATION TO UNDERSIDE OF OUTERMOST ROOF SHEATHING AND THROUGH ALL OVER-BUILD LOCATIONS. ASSEMBLY THROUGH OVER-BUILD MAY CHANGE TO (2) LAYERS 5/8" GYP. BOARD ON EACH SIDE OF FRAMING. PROVIDE FIRE RATED ROOF DECKING 48" EACH SIDE OF ASSEMBLY AT ROOF PLANE. NO PENETRATIONS IN DECKING THIS ZONE.

NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.



1 BUILDING TYPE II ROOF PLAN
 1/8" = 1'-0"

IVY RIDGE APARTMENTS

SCHEMATIC DESIGN

Buford, GA

REVISIONS

NO.	DATE

PROJ. NO. 17041
 DATE 10/06/2017
 SHEET NAME BUILDING TYPE II ROOF PLANS

SHEET NO. **A123**

GENERAL FLOOR PLAN NOTES

- A. REFER TO STRUCTURAL PLANS FOR TRUSS CONFIGURATION, LOCATION, AND SPACING. POSITION TRUSSES SO THEY DO NOT INTERFERE WITH PLUMBING AND MECHANICAL ROUTING.
- B. ALL EXTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. ALL INTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. SEE STRUCTURAL FOR SPACING REQUIREMENTS.
- C. ALL DIMENSIONS ARE FROM FACE TO FACE OF STUDS.
- D. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. SEE MECHANICAL ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SIZE AND QUANTITY OF OPENINGS, SLAB REQUIREMENTS AND LINTELS. INCLUDE FIRE PROTECTION NOT SHOWN ON PLANS.
- E. SEAL AROUND ALL PENETRATIONS TO INSURE TIGHT BUILDING ENVELOPE.
- F. PROVIDE FIRE SEALANT AROUND ALL PENETRATIONS THROUGH RATED WALLS.
- G. ALL WALLS ARE PAINTED UNLESS NOTED OTHERWISE.
- H. REFER TO A500 SERIES FOR TYPICAL FRAMING DETAILS.
- I. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
- J. PATIO SLOPES SHALL BE 1/4" PER FOOT MAX.
- K. PROVIDE CONTROL JOINTS IN GYPSUM BOARD ASSEMBLIES AS RECOMMENDED BY MANUFACTURER. PROVIDE CJ IN CEILINGS SO NO DIMENSION EXCEEDS 50' IN EITHER DIRECTION WHERE THERE IS PERIMETER RELIEF OR 30' IN EITHER DIRECTION WITHOUT PERIMETER RELIEF. DO NOT SEPARATE SUSPENSION SYSTEM. CAULK JOINT AND PAINT TO MATCH.

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BUILDING PLAN KEYNOTES

- 1 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 2 2 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
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BUILDING PLAN LEGEND

- SHEAR WALL; REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
- FRP PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
- ATTIC DRAFTSTOPPING
- 1-HOUR RATED ASSEMBLY
- 2-HOUR RATED ASSEMBLY

***NOTE:**
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NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.

IVY RIDGE APARTMENTS

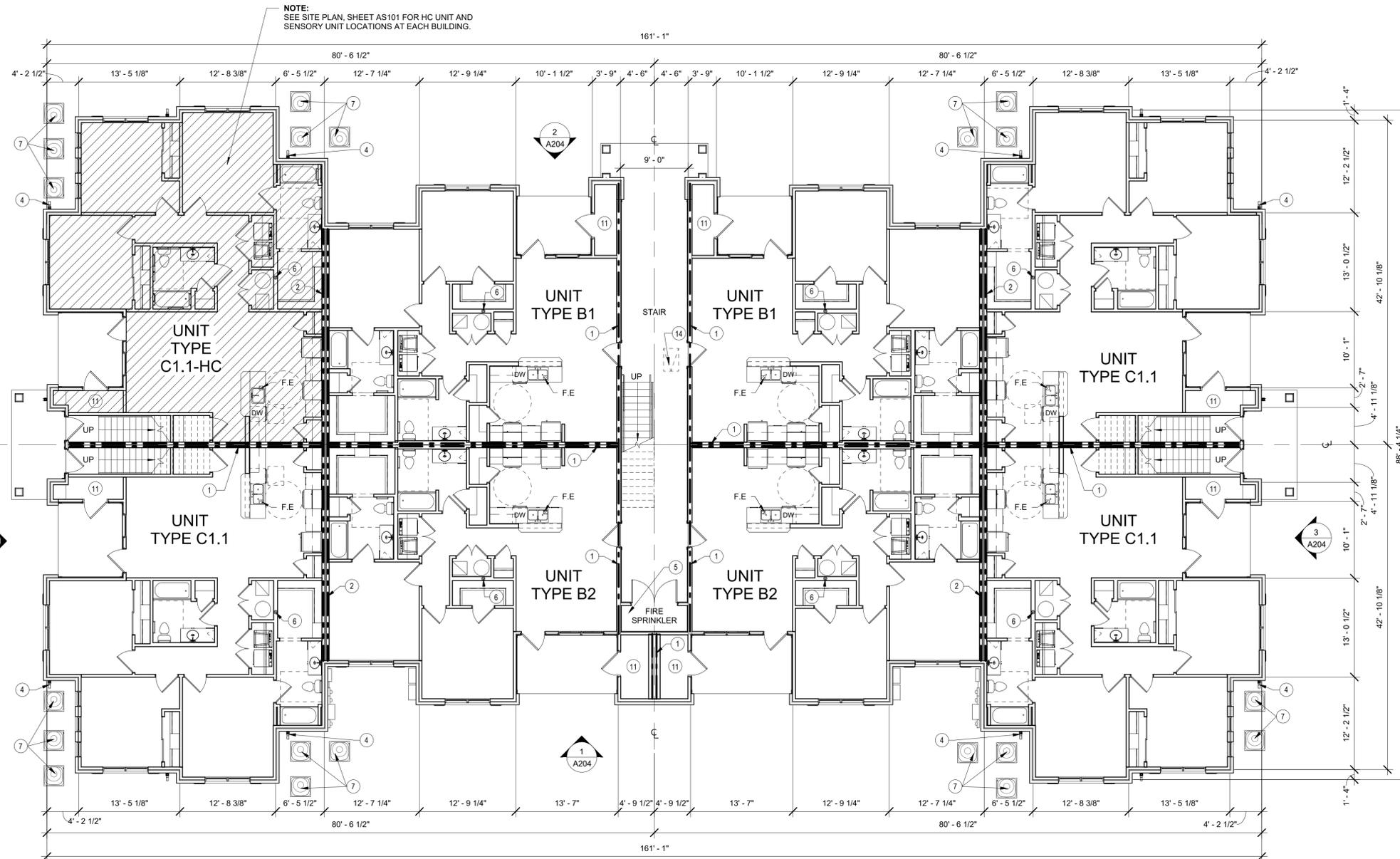
Buford, GA
SCHEMATIC DESIGN

REVISIONS

NO. DATE

PROJ. NO. 17041
DATE 10/06/2017
SHEET NAME BUILDING TYPE III FLOOR PLANS

SHEET NO. **A131**



NOTE:
SEE SITE PLAN, SHEET AS101 FOR HC UNIT AND SENSORY UNIT LOCATIONS AT EACH BUILDING.

1 BUILDING TYPE III FIRST FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

- A. REFER TO STRUCTURAL PLANS FOR TRUSS CONFIGURATION, LOCATION, AND SPACING. POSITION TRUSSES SO THEY DO NOT INTERFERE WITH PLUMBING AND MECHANICAL ROUTING.
- B. ALL EXTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. ALL INTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. SEE STRUCTURAL FOR SPACING REQUIREMENTS.
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- K. PATIO SLOPES SHALL BE 1/4" PER FOOT MAX.
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BUILDING PLAN LEGEND

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- FRP PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
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***NOTE:**
1-HOUR FIRE PARTITION REQUIRED BY CODE. 2-HOUR ASSEMBLY TO BE CONSTRUCTED PER OWNER REQUIREMENTS.

EXTEND RATED ASSEMBLY FROM TOP OF FOUNDATION TO UNDERSIDE OF OUTERMOST ROOF SHEATHING AND THROUGH ALL OVER-BUILD LOCATIONS. ASSEMBLY THROUGH OVER-BUILD MAY CHANGE TO (2) LAYERS 5/8" GYP. BOARD ON EACH SIDE OF FRAMING. PROVIDE FIRE RATED ROOF DECKING 48" EACH SIDE OF ASSEMBLY AT ROOF PLANE. NO PENETRATIONS IN DECKING THIS ZONE.

NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.

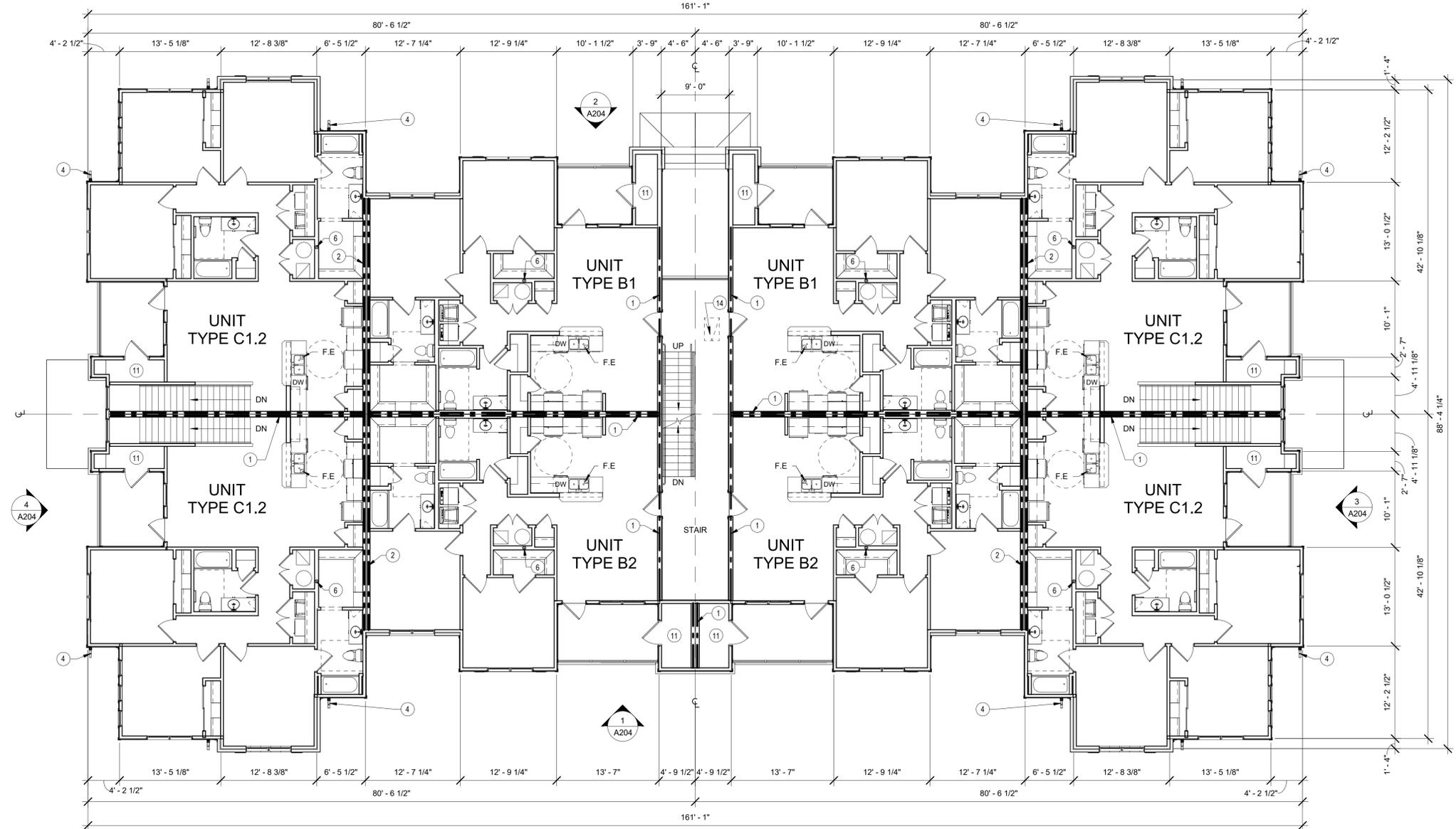
IVY RIDGE APARTMENTS
Buford, GA
SCHEMATIC DESIGN

REVISIONS

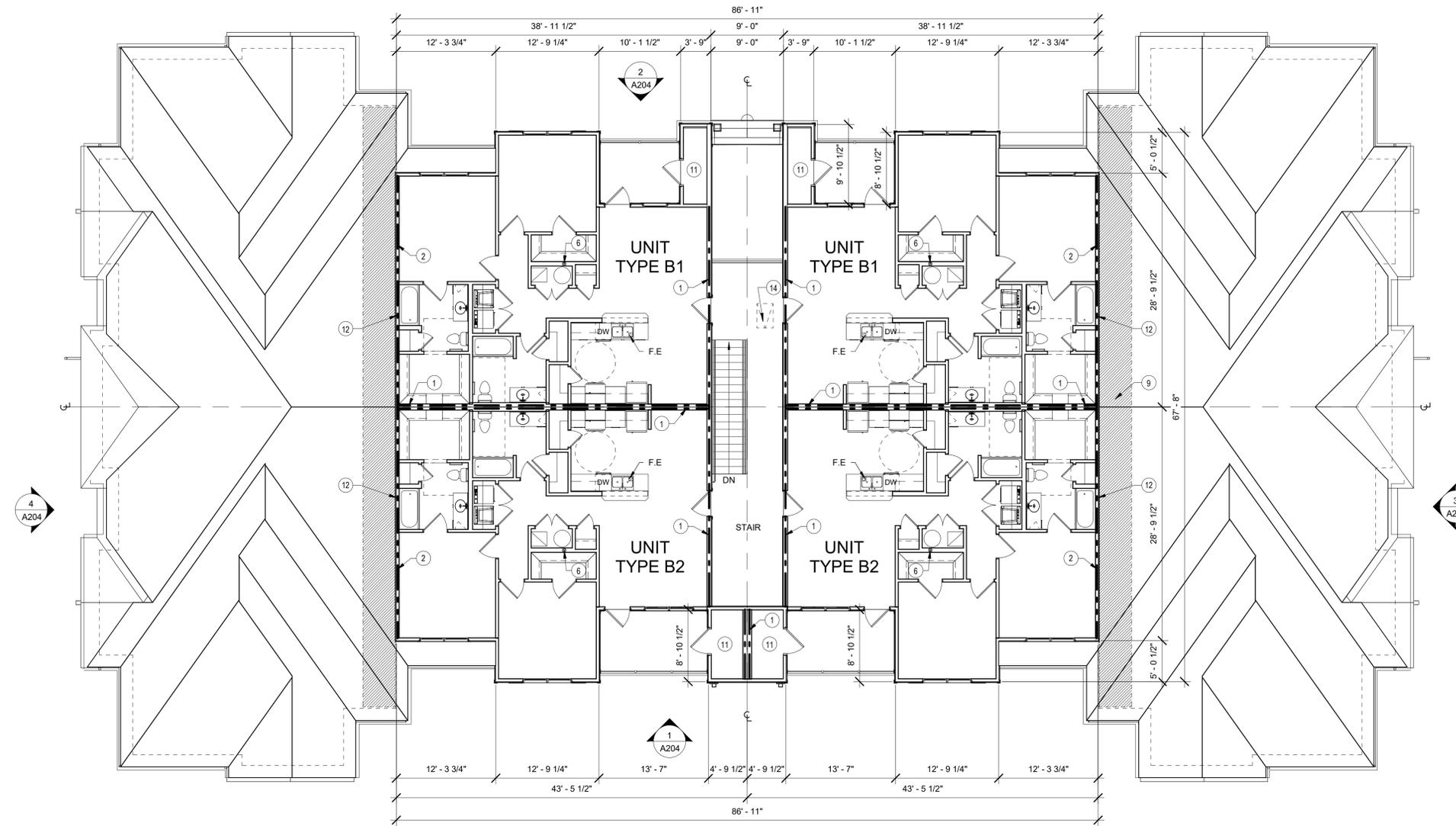
NO.	DATE

PROJ. NO. 17041
DATE 10/06/2017
SHEET NAME BUILDING TYPE III FLOOR PLANS

SHEET NO. **A132**



1 BUILDING TYPE III SECOND FLOOR PLAN
1/8" = 1'-0"



1 BUILDING TYPE III THIRD FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

- A. REFER TO STRUCTURAL PLANS FOR TRUSS CONFIGURATION, LOCATION, AND SPACING. POSITION TRUSSES SO THEY DO NOT INTERFERE WITH PLUMBING AND MECHANICAL ROUTING.
- B. ALL EXTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. ALL INTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. SEE STRUCTURAL FOR SPACING REQUIREMENTS.
- C. ALL DIMENSIONS ARE FROM FACE TO FACE OF STUDS.
- D. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. SEE MECHANICAL ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SIZE AND QUANTITY OF OPENINGS, SLAB REQUIREMENTS AND LINTELS. INCLUDE FIRE PROTECTION NOT SHOWN ON PLANS.
- E. SEAL AROUND ALL PENETRATIONS TO INSURE TIGHT BUILDING ENVELOPE.
- F. PROVIDE FIRE SEALANT AROUND ALL PENETRATIONS THROUGH RATED WALLS.
- G. ALL WALLS ARE PAINTED UNLESS NOTED OTHERWISE.
- H. REFER TO ASD0 SERIES FOR TYPICAL FRAMING DETAILS.
- I. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
- J. PATIO SLOPES SHALL BE 1/4" PER FOOT MAX.
- K. PROVIDE CONTROL JOINTS IN GYPSUM BOARD ASSEMBLIES AS RECOMMENDED BY MANUFACTURER. PROVIDE CJ IN CEILINGS SO NO DIMENSION EXCEEDS 50' IN EITHER DIRECTION WHERE THERE IS PERIMETER RELIEF OR 30' IN EITHER DIRECTION WITHOUT PERIMETER RELIEF. DO NOT SEPARATE SUSPENSION SYSTEM. CAULK JOINT AND PAINT TO MATCH.

BUILDING PLAN KEYNOTES

- 1 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 2 2 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 3 METER CENTER. SEE ELECTRICAL DRAWINGS.
- 4 DOWNSPOUT. SEE ROOF PLANS FOR MORE INFORMATION. DISCHARGE WATER 6' MIN FROM BUILDING.
- 5 SPRINKLER CLOSET. ONLY OCCURS ON ONE END OF BUILDING. SEE ARCHITECTURAL SITE PLAN FOR LOCATION. PROVIDE DENSGLASS OR SIMILAR EXTERIOR RATED SHEATHING AT INTERIOR WALLS AND CEILING.
- 6 VERTICAL RADON VENT. COORDINATE EXACT LOCATION OF RADON VENT SYSTEM WITH MECHANICAL.
- 7 MECHANICAL EQUIPMENT PAD. SEE FOUNDATION PLANS FOR SIZE AND LOCATION.
- 8 NOT USED
- 9 AREA OF FIRE RETARDANT PLYWOOD SHEATHING. CENTERED ABOVE 2-HR FIRE WALL. NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. 2-HR FIRE WALL CONTINUOUS FROM TOP OF FOUNDATION TO UNDERSIDE OF DECKING.
- 10 PERFORATED TILE TO BE INSTALLED UNDER CONNECTING WALKWAY AT DOWNSPOUT. SEE SITE PLAN & CIVIL DRAWINGS FOR LOCATION OF WALKWAY.
- 11 STORAGE CLOSET
- 12 PROVIDE CONTINUOUS GYP. BOARD AS DRAFTSTOP BETWEEN BATH TUB AND EXTERIOR WALL FRAMING. TAPE AND SEAL ALL EDGES PRIOR TO SETTING TUB.
- 13 EXTEND WALL GYP. BOARD TO CEILING AND TAPE AND SEAL JOINTS PER "AIR SEALING DETAILS" SHEET AIR SEALANT DETAILS PRIOR TO FRAMING BULKHEADS.
- 14 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.

BUILDING PLAN LEGEND

- SHEAR WALL; REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
 - FRT PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
 - ATTIC DRAFTSTOPPING
 - 1-HOUR RATED ASSEMBLY
 - 2-HOUR RATED ASSEMBLY
- *NOTE:**
1-HOUR FIRE PARTITION REQUIRED BY CODE. 2-HOUR ASSEMBLY TO BE CONSTRUCTED PER OWNER REQUIREMENTS.
- EXTEND RATED ASSEMBLY FROM TOP OF FOUNDATION TO UNDERSIDE OF OUTERMOST ROOF SHEATHING AND THROUGH ALL OVER-BUILD LOCATIONS. ASSEMBLY THROUGH OVER-BUILD MAY CHANGE TO (2) LAYERS 5/8" GYP. BOARD ON EACH SIDE OF FRAMING. PROVIDE FIRE RATED ROOF DECKING 48" EACH SIDE OF ASSEMBLY AT ROOF PLANE. NO PENETRATIONS IN DECKING THIS ZONE.

NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.

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OR CONSTRUCTION.



5 FIFTH DIMENSION
ARCHITECTURE & INTERIORS LLC

IVY RIDGE APARTMENTS

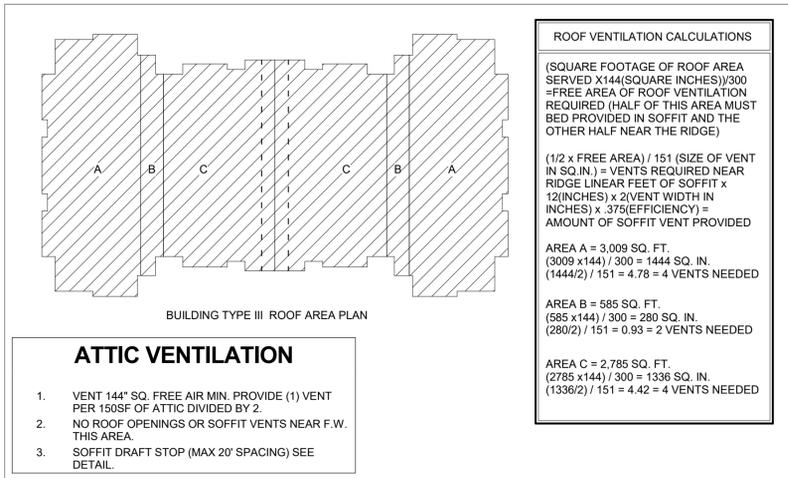
Buford, GA
SCHEMATIC DESIGN

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NO.	DATE

PROJ. NO. 17041
DATE 10/06/2017
SHEET NAME BUILDING TYPE III FLOOR PLANS

SHEET NO. **A133**



GENERAL ROOF PLAN NOTES

- A. DETAILED FLOOR AND ROOF TRUSS FRAMING AND DIAGRAMS ARE TO BE FURNISHED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS TO BE LOCATED.
- B. THE TRUSS MANUFACTURER SHALL PROVIDE ENGINEERED PERMANENT ROOF TRUSS BRACING AS REQUIRED BY THE CODE.
- C. LOCATE HIGH-POINT OF GUTTER AT MID-SPAN IN BETWEEN DOWNSPOUTS UNLESS INDICATED OTHERWISE ON THE ROOF PLAN.
- D. GUTTERS TO BE 4" WIDE X 4" DEEP. SLOPE TO BE 1/16" PER 1'-0". DOWNSPOUTS TO BE 3" WIDE X 2" DEEP.
- E. DOWNSPOUTS TO BE PROVIDED WITH EXTENSIONS TO ENSURE ALL WATER DISCHARGES NO LESS THAN 6' FROM BUILDING FOUNDATION.
- F. ROOF ANCHORS WITH BASE FLASHING AND RISER BOOT BY SUPER ANCHOR SAFETY. MODEL #2830 FOR INSTALLATION ONTO 2X4 TRUSS CHORD. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
- G. EXTEND ALL RATED PARTITIONS BETWEEN UNITS TO BOTTOM OF OUTERMOST ROOF PLANE, THROUGH SOFFITS AND OVER-BUILD TO CREATE A CONTINUOUS PARTITION. ROOF DECK TO BE LAYER OF SHEATHING DIRECTLY BELOW SHINGLES. UTILIZE MONO-TRUSS CONFIGURATION WHERE POSSIBLE WITH 2X4 FRAMING TURNED SIDWAYS AT 24" OC PER UL ASSEMBLY U338.
- H. THE ENTIRE BUILDING ENVELOPE INCLUDING ROOF, WALLS, & FLOORS TO BE DRIED IN PRIOR TO THE STORAGE AND INSTALLATION OF INTERIOR FINISH MATERIALS. IN ADDITION, THE OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR VERIFYING THAT THERE HAS BEEN NO EVIDENCE OF WATER PENETRATING THE BUILDING ENVELOPE OR WATER LEAK FROM MECHANICAL AND/OR FIRE SPRINKLER SYSTEMS PRIOR TO ENCLOSING THE WALL, CEILING OR ROOF CAVITIES.
- I. FRAMING SUB-CONTRACTOR AND PANEL MANUFACTURER TO REVIEW BUILDING SECTIONS TO ACCOMMODATE RATED WALL ASSEMBLIES. ALL DEMISING PARTITIONS BETWEEN UNITS SHOWN AS 1 HR. OR 2 HR. TO EXTEND TO OUTER MOST LAYER OF ROOF DECKING BELOW SHINGLE LAYER. RATED WALLS AROUND STAIR TOWER TO STOP AT RATED CEILING ASSEMBLY, BUT DEMISING PARTITION AT UNITS MUST EXTEND TO EDGE OF SOFFIT.
- J. PROVIDE ICE & WATER SHIELD AROUND ALL PENETRATIONS.
- K. TRUSS MANUFACTURER TO COORDINATE ROOF TRUSSES WITH ARCH. TO INCLUDE SUFFICIENT HEAL HEIGHT TO ACCOMMODATE FULL DEPTH OF REQUIRED INSULATION AND AN AIR BAFFLE TO EXTERIOR FACE OF WALL.
- L. PROVIDE A 2X36 MIN. OPENING TO ALL ROOF CAVITIES TO CONNECT TO THE MAIN VOLUME OF SPACE FOR VENTING AND ACCESS. RIDGE VENTS MAY BE USED AT GABLES ONLY.
- M. REFER TO FINISH SCHEDULE FOR COLOR SELECTIONS.

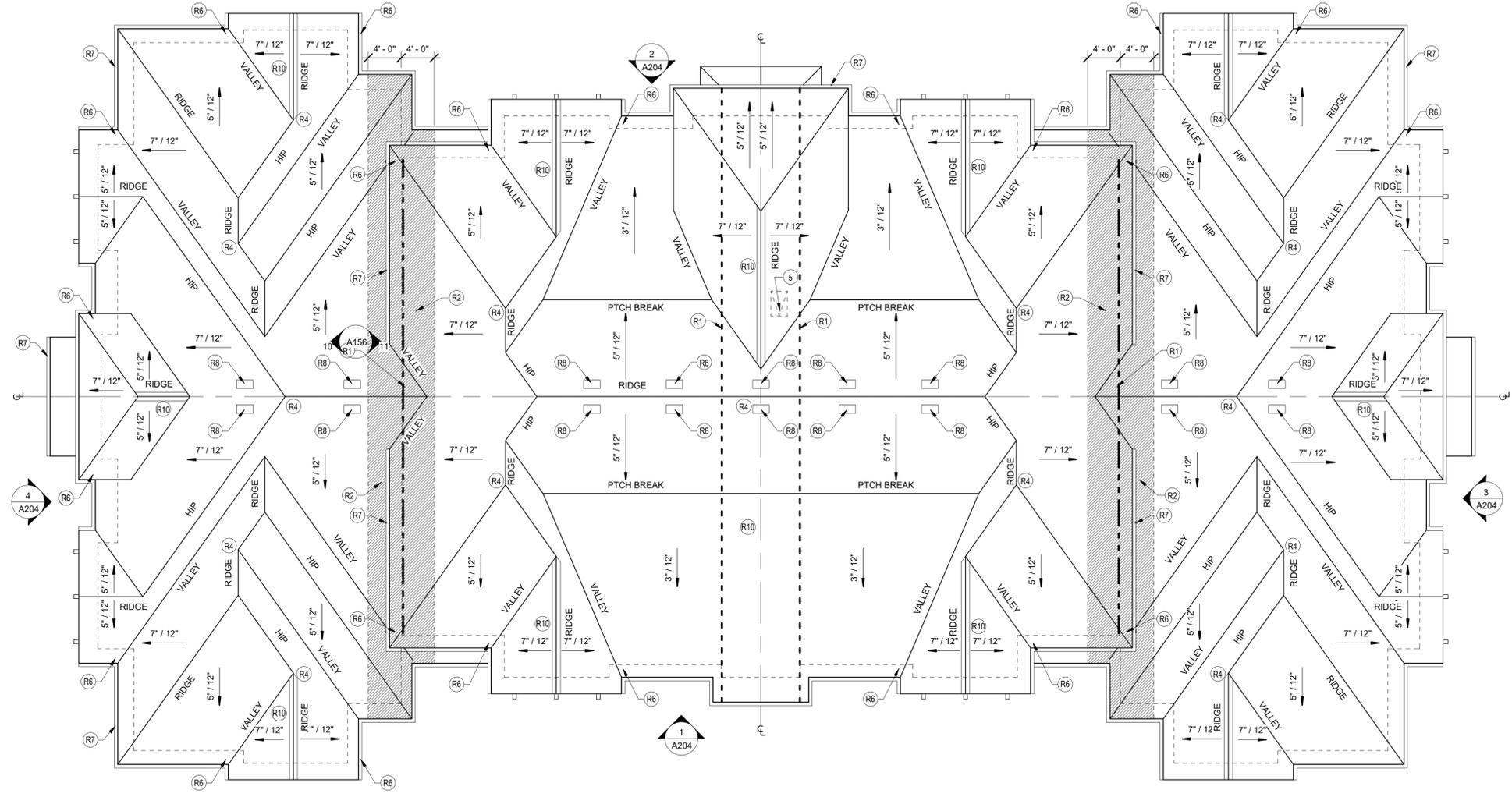
ROOF PLAN LEGEND

- (R1) ATTIC DRAFTSTOP: EXTEND WALL GYP. BOARD TO CEILING AND TAPE AND SEAL JOINTS PER A500 SERIES AIR SEALANT DETAILS PRIOR TO FRAMING BULKHEADS.
- (R2) FR SHEATHING: AREA OF FIRE RETARDANT PLYWOOD SHEATHING, CENTERED ABOVE 2-HR FIREWALL. NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. STAGGER JOINTS.
- (R3) ROOF ANCHOR SUPER ANCHOR SAFETY
- (R4) ATTIC ACCESS FROM BELOW
- (R5) NOT USED
- (R6) METAL DOWNSPOUT: SEE GENERAL ROOF PLAN NOTES
- (R7) SEAMLESS METAL GUTTER: SEE GENERAL ROOF PLAN NOTES
- (R8) ROOF VENT WITH ONE SQ. FT. FREE AREA
- (R9) ATTIC ACCESS THROUGH DRAFTSTOPPING MAY VARY ALONG WALL, SEE DETAILS
- (R10) RIDGE VENT

BUILDING PLAN LEGEND

- SHEAR WALL; REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
 - FRT PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
 - ATTIC DRAFTSTOPPING
 - 1-HOUR RATED ASSEMBLY
 - 2-HOUR RATED ASSEMBLY
- *NOTE:**
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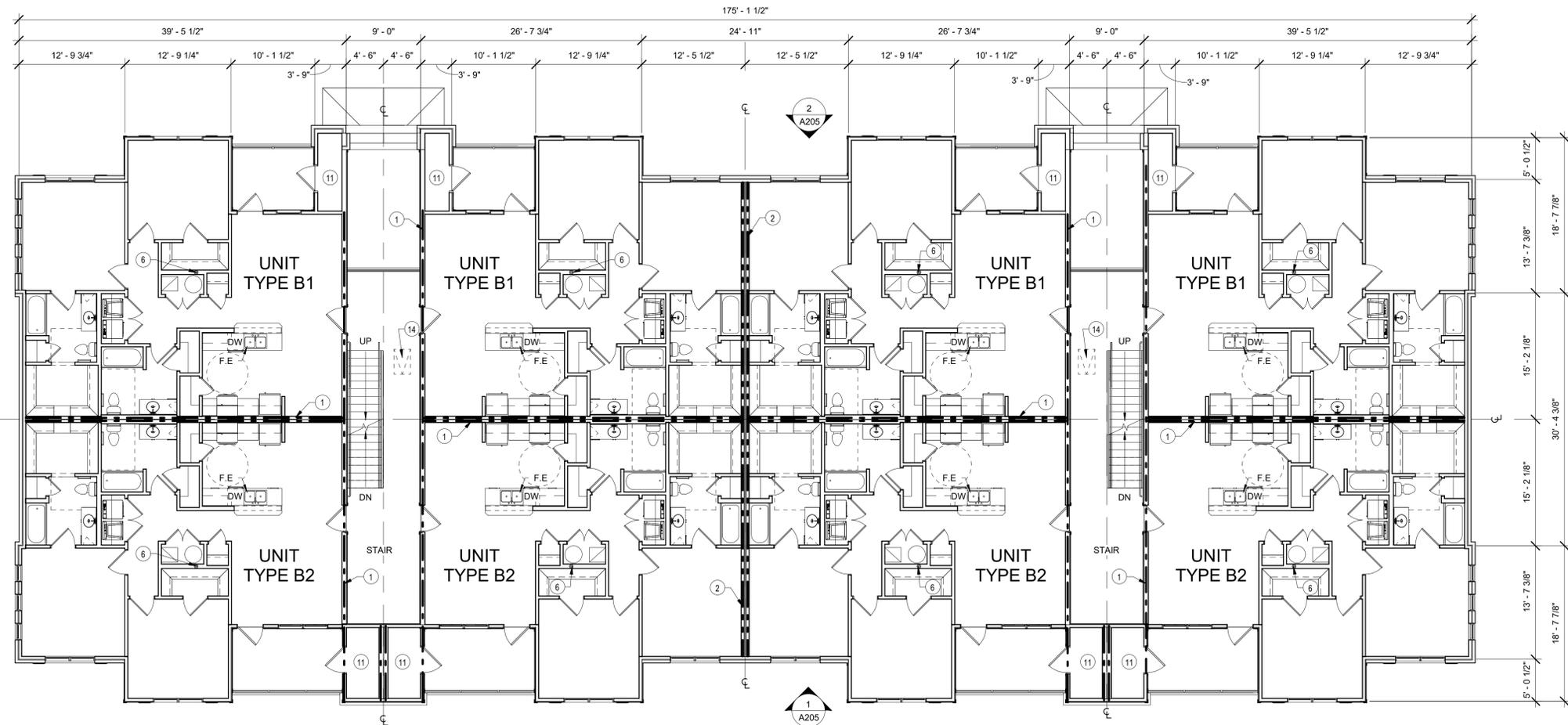
NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.



IVY RIDGE APARTMENTS
Buford, GA
SCHEMATIC DESIGN

REVISIONS	
NO.	DATE

PROJ. NO. 17041
DATE 10/06/2017
SHEET NAME BUILDING TYPE III ROOF PLANS
SHEET NO. A134



2 BUILDING TYPE IV SECOND AND THIRD FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

- A. REFER TO STRUCTURAL PLANS FOR TRUSS CONFIGURATION, LOCATION, AND SPACING. POSITION TRUSSES SO THEY DO NOT INTERFERE WITH PLUMBING AND MECHANICAL ROUTING.
- B. ALL EXTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. ALL INTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE. SEE STRUCTURAL FOR SPACING REQUIREMENTS.
- C. ALL DIMENSIONS ARE FROM FACE TO FACE OF STUDS.
- D. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. SEE MECHANICAL ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SIZE AND QUANTITY OF OPENINGS, SLAB REQUIREMENTS AND LINTELS. INCLUDE FIRE PROTECTION NOT SHOWN ON PLANS.
- E. SEAL AROUND ALL PENETRATIONS TO INSURE TIGHT BUILDING ENVELOPE.
- F. PROVIDE FIRE SEALANT AROUND ALL PENETRATIONS THROUGH RATED WALLS.
- G. ALL WALLS ARE PAINTED UNLESS NOTED OTHERWISE.
- H. REFER TO A500 SERIES FOR TYPICAL FRAMING DETAILS.
- I. ROOF ANCHORS SHOWN FOR REFERENCE. ACTUAL LOCATION AND ATTACHMENT METHOD TO BE DEFINED BY MANUFACTURER. COORDINATE FINAL LOCATION WITH STRUCTURAL TRUSS FRAMING SYSTEM BELOW TO INSURE PROPER SYSTEM LOADS.
- J. PATIO SLOPES SHALL BE 1/4" PER FOOT MAX.
- K. PROVIDE CONTROL JOINTS IN GYPSUM BOARD ASSEMBLIES AS RECOMMENDED BY MANUFACTURER. PROVIDE CJ IN CEILINGS SO NO DIMENSION EXCEEDS 50' IN EITHER DIRECTION WHERE THERE IS PERIMETER RELIEF OR 30' IN EITHER DIRECTION WITHOUT PERIMETER RELIEF. DO NOT SEPARATE SUSPENSION SYSTEM. CAULK JOINT AND PAINT TO MATCH.

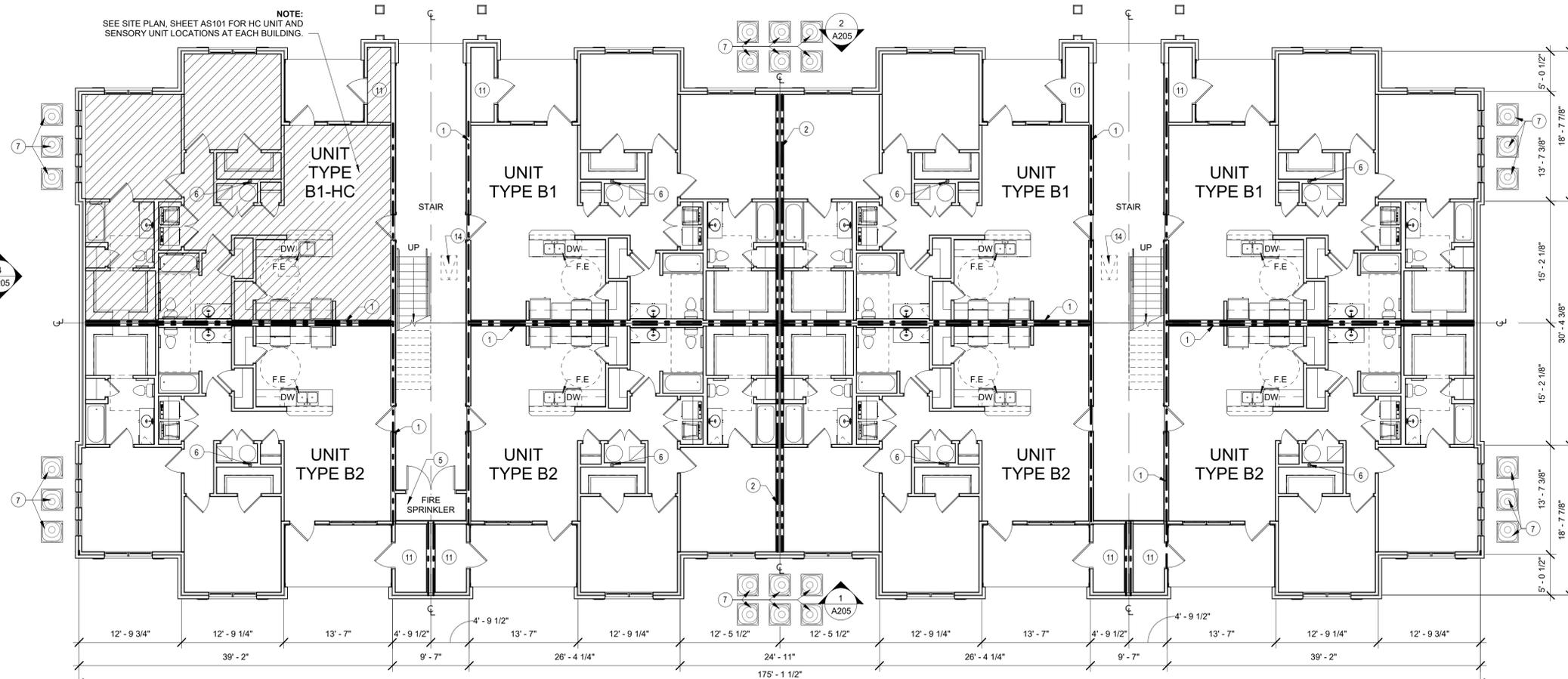
BUILDING PLAN KEYNOTES

- 1 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 2 2 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.
- 3 METER CENTER. SEE ELECTRICAL DRAWINGS.
- 4 DOWNSPOUT. SEE ROOF PLANS FOR MORE INFORMATION. DISCHARGE WATER 6' MIN FROM BUILDING.
- 5 SPRINKLER CLOSE. ONLY OCCURS ON ONE END OF BUILDING. SEE ARCHITECTURAL SITE PLAN FOR LOCATION. PROVIDE DENSGLASS OR SIMILAR EXTERIOR RATED SHEATHING AT INTERIOR WALLS AND CEILING.
- 6 VERTICAL RADON VENT. COORDINATE EXACT LOCATION OF RADON VENT SYSTEM WITH MECHANICAL.
- 7 MECHANICAL EQUIPMENT PAD. SEE FOUNDATION PLANS FOR SIZE AND LOCATION.
- 8 NOT USED
- 9 AREA OF FIRE RETARDANT PLYWOOD SHEATHING. CENTERED ABOVE 2-HR FIRE WALL. NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. 2-HR FIRE WALL CONTINUOUS FROM TOP OF FOUNDATION TO UNDERSIDE OF DECKING.
- 10 PERFORATED TILE TO BE INSTALLED UNDER CONNECTING WALKWAY AT DOWNSPOUT. SEE SITE PLAN & CIVIL DRAWINGS FOR LOCATION OF WALKWAY.
- 11 STORAGE CLOSET
- 12 PROVIDE CONTINUOUS GYP. BOARD AS DRAFTSTOP BETWEEN BATH TUB AND EXTERIOR WALL FRAMING. TAPE AND SEAL ALL EDGES PRIOR TO SETTING TUB.
- 13 EXTEND WALL GYP. BOARD TO CEILING AND TAPE AND SEAL JOINTS PER "AIR SEALING DETAILS" SHEET AIR SEALANT DETAILS PRIOR TO FRAMING BULKHEADS.
- 14 1 HR FIRE RATED ASSEMBLY; SEE "INTERIOR WALL SECTIONS" SHEETS AND "UL RATED ASSEMBLIES & STC RATINGS" SHEETS FOR ASSEMBLY.

BUILDING PLAN LEGEND

- SHEAR WALL; REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
 - FRT PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
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 - 2-HOUR RATED ASSEMBLY
- *NOTE:**
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NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.



1 BUILDING TYPE IV FIRST FLOOR
1/8" = 1'-0"

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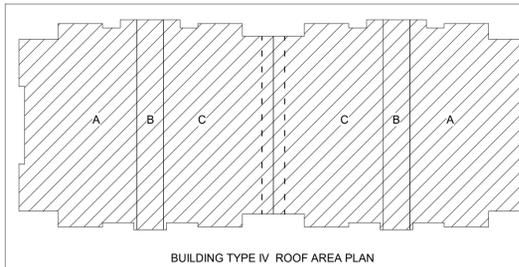
IVY RIDGE APARTMENTS
Buford, GA
SCHEMATIC DESIGN

REVISIONS

NO.	DATE

PROJ. NO. 17041
DATE 10/06/2017
SHEET NAME BUILDING TYPE IV FLOOR PLANS

SHEET NO. **A141**



ATTIC VENTILATION

1. VENT 144" SQ. FREE AIR MIN. PROVIDE (1) VENT PER 150SF OF ATTIC DIVIDED BY 2.
2. NO ROOF OPENINGS OR SOFFIT VENTS NEAR F.W. THIS AREA.
3. SOFFIT DRAFT STOP (MAX 20" SPACING) SEE DETAIL.

ROOF VENTILATION CALCULATIONS

(SQUARE FOOTAGE OF ROOF AREA SERVED X144(SQUARE INCHES))/300 =FREE AREA OF ROOF VENTILATION REQUIRED (HALF OF THIS AREA MUST BE PROVIDED IN SOFFIT AND THE OTHER HALF NEAR THE RIDGE)

$(1/2 \times \text{FREE AREA}) / 151$ (SIZE OF VENT IN SQ. IN.) = VENTS REQUIRED NEAR RIDGE LINEAR FEET OF SOFFIT X 12(INCHES) X 2(VENT WIDTH IN INCHES) X .375(EFFICIENCY) = AMOUNT OF SOFFIT VENT PROVIDED

AREA A = 2,765 SQ. FT.
 $(2765 \times 144) / 300 = 1327$ SQ. IN.
 $(1327/2) / 151 = 4.40 = 4$ VENTS NEEDED

AREA B = 700 SQ. FT.
 $(700 \times 144) / 300 = 336$ SQ. IN.
 $(336/2) / 151 = 1.11 = 2$ VENTS NEEDED

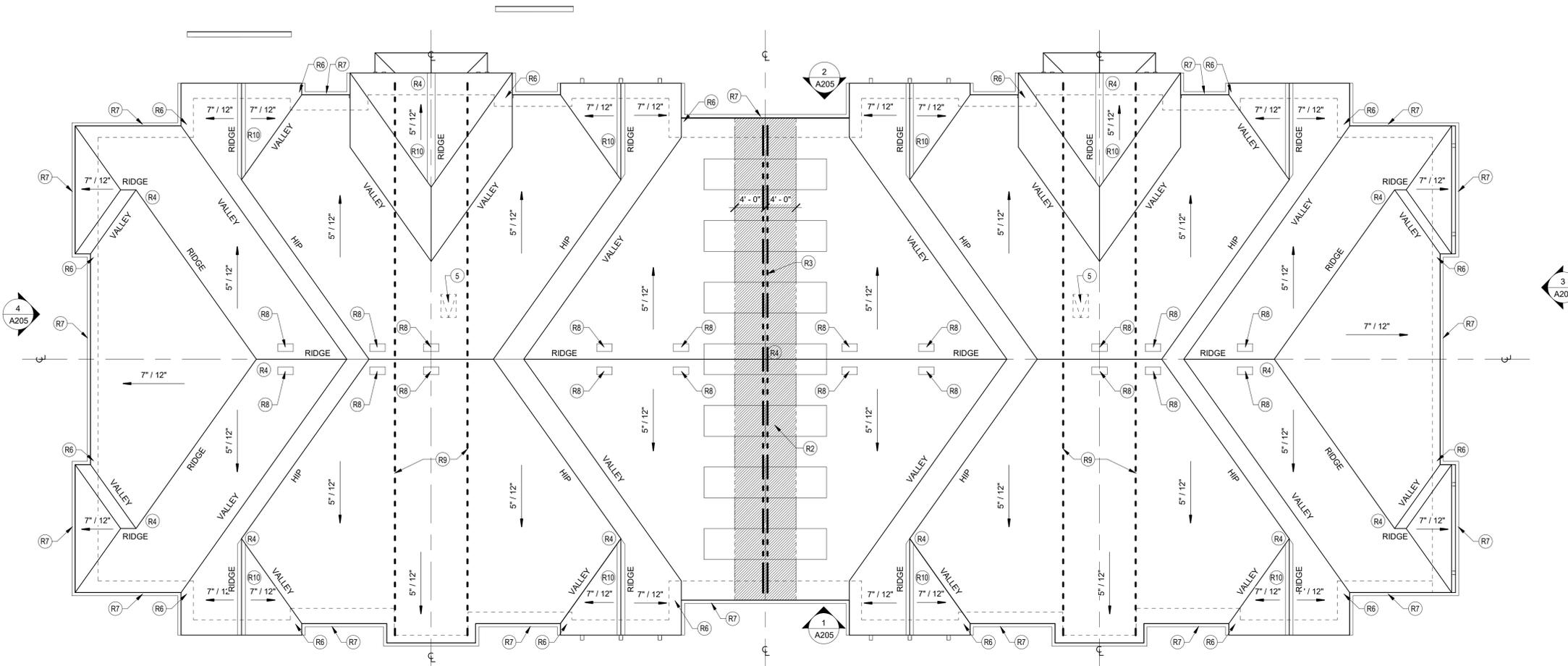
AREA C = 2,670 SQ. FT.
 $(2670 \times 144) / 300 = 1281$ SQ. IN.
 $(1281/2) / 151 = 4.24 = 4$ VENTS NEEDED

GENERAL ROOF PLAN NOTES

- Detailed floor and roof truss framing and diagrams are to be furnished by a structural engineer licensed in the state where the project is to be located.
- The truss manufacturer shall provide engineered permanent roof truss bracing as required by the code.
- Locate high-point of gutter at mid-span in between downspouts unless indicated otherwise on the roof plan.
- Gutters to be 4" wide X 4" deep. Slope to be 1/16" per 1'-0". Downspouts to be 3" wide X 2" deep.
- Downspouts to be provided with extensions to ensure all water discharges no less than 6' from building foundation.
- Roof anchors with base flashing and riser boot by super anchor safety. Model #2830 for installation onto 2x4 truss chord. Roof anchors shown for reference. Actual location and attachment method to be defined by manufacturer. Coordinate final location with structural truss framing system below to insure proper system loads.
- Extend all rated partitions between units to bottom of outermost roof plane, through soffits and over-build to create a continuous partition. Roof deck to be layer of sheathing directly below shingles. Utilize mono-truss configuration where possible with 2x4 framing turned sideways at 24" OC per UL assembly U338.
- The entire building envelope including roof, walls, & floors to be dried in prior to the storage and installation of interior finish materials. In addition, the owner's representative is responsible for verifying that there has been no evidence of water penetrating the building envelope or water leak from mechanical and/or fire sprinkler systems prior to enclosing the wall, ceiling or roof cavities.
- Framing sub-contractor and panel manufacturer to review buildings sections to accommodate rated wall assemblies. All demising partitions between units shown as 1 hr. or 2 hr. to extend to outer most layer of roof decking below shingle layer. Rated walls around stair tower to stop at rated ceiling assembly, but demising partition at units must extend to edge of soffit.
- Provide ice & water shield around all penetrations.
- Truss manufacturer to coordinate roof trusses with arch. to include sufficient heel height to accommodate full depth of required insulation and an air baffle to exterior face of wall.
- Provide a 2x36 min. opening to all roof cavities to connect to the main volume of space for venting and access. Ridge vents may be used at gables only.
- Refer to finish schedule for color selections.

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1 BUILDING TYPE III ROOF PLAN
 1/8" = 1'-0"

ROOF PLAN LEGEND

- (R1) ATTIC DRAFTSTOP: EXTEND WALL GYP. BOARD TO CEILING AND TAPE AND SEAL JOINTS PER A500 SERIES AIR SEALANT DETAILS PRIOR TO FRAMING BULKHEADS.
- (R2) FR SHEATHING: AREA OF FIRE RETARDANT PLYWOOD SHEATHING, CENTERED ABOVE 2-HR FIREWALL. NO VENTS OR PENETRATIONS PERMITTED IN THIS AREA. STAGGER JOINTS.
- (R3) ROOF ANCHOR SUPER ANCHOR SAFETY
- (R4) ATTIC ACCESS FROM BELOW
- (R5) NOT USED
- (R6) METAL DOWNSPOUT: SEE GENERAL ROOF PLAN NOTES
- (R7) SEAMLESS METAL GUTTER: SEE GENERAL ROOF PLAN NOTES
- (R8) ROOF VENT WITH ONE SQ. FT. FREE AREA
- (R9) ATTIC ACCESS THROUGH DRAFTSTOPPING MAY VARY ALONG WALL, SEE DETAILS
- (R10) RIDGE VENT

BUILDING PLAN LEGEND

- SHEAR WALL; REFER TO STRUCTURAL DRAWINGS. PLYWOOD SHEATHING TO BE ON SIDE OPPOSITE BATHROOM OR KITCHEN.
 - FRT PLYWOOD; EXTEND 4'-0" BOTH SIDES OF 2-HOUR RATED ASSEMBLY.
 - ATTIC DRAFTSTOPPING
 - 1-HOUR RATED ASSEMBLY
 - 2-HOUR RATED ASSEMBLY
- *NOTE:**
 1-HOUR FIRE PARTITION REQUIRED BY CODE. 2-HOUR ASSEMBLY TO BE CONSTRUCTED PER OWNER REQUIREMENTS.
- EXTEND RATED ASSEMBLY FROM TOP OF FOUNDATION TO UNDERSIDE OF OUTERMOST ROOF SHEATHING AND THROUGH ALL OVER-BUILD LOCATIONS. ASSEMBLY THROUGH OVER-BUILD MAY CHANGE TO (2) LAYERS 5/8" GYP. BOARD ON EACH SIDE OF FRAMING. PROVIDE FIRE RATED ROOF DECKING 48" EACH SIDE OF ASSEMBLY AT ROOF PLANE. NO PENETRATIONS IN DECKING THIS ZONE.

NOTE: SEE STRUCTURAL FOR ALL SHEAR WALL LOCATIONS.

IVY RIDGE APARTMENTS
 Buford, GA
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PROJ. NO. 17041
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SHEET NO. **A142**