

# CONDITIONAL USE PERMIT APPLICATION

Amended 5/2/2023

**Planning & Zoning**  
 2635 Talley Street  
 Decatur, GA 30030  
 Phone 404-377-6198  
 Fax 404-378-5054



Before submitting this application, you must schedule a pre-application conference with the Zoning Administrator to discuss the procedures, standards and regulations required for approval. Attach a plat of the property drawn to scale and showing property lines, locations and heights of existing and proposed buildings and other structures, locations of all driveways and parking/loading areas, a north arrow, and any other information required to demonstrate conformance with the standards for the specific conditional use requested. Please provide one to-scale copy of all plans, as well as one copy of all plans in an 8½" x 11" format. If the applicant is not the current property owner, provide a notarized authorization for this application from the current property owner.

Address of property 465 Clairemont Avenue Decatur, GA 30030

Name of applicant Smarties Academy / Bogumila Kabat Phone 770 633 0770

Address 465 Clairemont Avenue City/state/ZIP Decatur GA 30030

Email bogna@smartiesacademy.com

Name of property owner MerVic Group/ Bogumila Kabat Phone 770 633 0770

Address 465 Clairemont Avenue City/state/ZIP Decatur GA 30030

Major amendment to existing conditional use permit  New conditional use permit request

Existing zoning I-Institutional (enrollment cap 148 students) Use requested increase enrollment to 300 students

.....

Please answer all of the following questions on a separate sheet.

1. How would the proposed use be suitable in view of the use and development of adjacent and nearby property?
2. How is the proposed use consistent with existing zoning requirements?
3. What adverse affects does the proposed use have on the existing use or usability of adjacent or nearby property?
4. To what extent will or could the proposed use cause an excessive or burdensome use of existing streets, transportation facilities, utilities or other public facilities?
5. Describe how the proposed ingress and egress to the subject property is adequate. Include an evaluation of the traffic impact of the proposed use relative to street capacity and safety of public streets and nearby pedestrian uses.
6. What impact will the proposed use have on established property values and on the public health, safety, morality, comfort and general welfare of the residents of the City?

.....

I hereby certify that the above and attached statements and documents are true to the best of my knowledge and belief.

Applicant signature Bogumila Kabat Date 11/06/2023

For personal care home, assisted living facility and nursing home applications, I certify that I have applied for or will immediately apply for the corresponding permit or authorization for the operation of the facility from the State of Georgia Department of Community Health in accordance with its rules and regulations. I also certify that the proposed facility will meet and be operated in conformance with all applicable state and federal laws and regulations and with all codes and regulations of the City.

Applicant signature \_\_\_\_\_ Date \_\_\_\_\_



*[Handwritten signature]*

**LETTER OF REQUEST AND SUMMARY**

**City of Decatur**

- 1. Conditional Use Permit Application**
- 2. Zoning Map Amendment Application**

**Applicant:**

Smarties Child Care, LLC d/b/a Smarties Academy  
Bogumila Kabat  
[bogna@smartiesacademy.com](mailto:bogna@smartiesacademy.com)  
7706330770

**Property:**

465 Clairemont Avenue  
Decatur, Georgia 30030

**Parcel ID Nos.:**

18 006 03 105  
18 006 03 106

## I. INTRODUCTION

The subject property is approximately 2.55 acres located at the corner of Clairemont Avenue and Erie Avenue in the City of Decatur, (DeKalb County Parcel Nos. 18 006 03 105 & 18 006 03 106, previously described as 465 Clairmont Avenue and 119 Erie Avenue, hereafter the “Property”). On October 29, 2021, the City of Decatur approved the combination of the Property’s two parcels into one parcel retaining the address of 465 Clairemont Avenue.

The Property is zoned “I” Institutional with condition to cap the enrollment at 148 students. Approved on March 21 2022.

The Applicant, Smarties Academy (“Applicant”), owns and operates a day care and early childhood education center on the Property. Based on the zoning of the Property, this application seeks to continue Smarties Academy’s use and expend the enrollment to 300 students. Beginning as an at-home childcare in 2008, Smarties Academy began operating at the Property in April 2012. For the last ten years, the Academy and its founder Bogumila Kabat have grown the day care into a valued member of the community providing high-quality childcare and early education for children and families in Decatur and the surrounding areas. Due to high demand, and high-quality program, Smarties Academy outgrew its space and it is looking in to expending.


Due to condition to cap the enrollment at 148, Smarties Academy is not able to accept all siblings, children of the employees and new families. The Applicant desire is to increase the enrollment cap to 300 students with building addition and parking expansion.

### **REQUEST SUMMARY**

Applicant requests approval of

1. Conditional Use Permit which will allow to increase enrollment up to 300 students  
And
2. Zoning Map Amendment which will modify the school site with a building addition and parking expansion

### **Submitted Requests**

1. *Conditional Use Permit* (—request to allow expansion and cap the enrollment at 300 students
2. *Zoning Map Amendment*  —request to allow building addition and parking expansion

**1. Conditional Use Permit Request (Day Care cap148 to cap at 300)**

The Applicant satisfies all the criteria for a conditional use permit as set forth in the UDO, Section 11.2.3 and the Decatur Conditional Use Permit Application Form.

**1. How would the proposed use be suitable in view of the use and development of adjacent and nearby property?**

The Applicant currently operates a day care that is consistent with the residential and institutional uses on surrounding properties. In connection with the conditional use permit and zoning map applications, the requested use permit will allow the Applicant to continue operating and expand its day care use at the Property.

**2. How is the proposed use consistent with existing zoning requirements?**

Applicant's day care use is consistent with the intent and standards of the Institutional District as described in the City's UDO.

Additionally, Applicant's Day care will comply with the supplemental use standards for general day care use, as outlined in the UDO, Section 6.5.2.

**3. What adverse effects does the proposed use have on the existing use or usability of adjacent or nearby property?**

Applicant's use of the Property as a day care will have no adverse impacts on the use or usability of surrounding properties. The day care will continue to provide a benefit to community residents and families.

**4. To what extent will or could the proposed use cause an excessive or burdensome use of existing streets, transportation facilities, utilities, or other public facilities?**

Applicant's day care is a low impact use of the Property and will not cause a burden to any public facilities.

**5. Describe how the proposed ingress and egress to the subject property is adequate. Include an evaluation of the traffic impact of the proposed use relative to street capacity and safety of public streets and nearby pedestrian uses.**

Applicant's current and expended day care operation will provide adequate ingress and egress to the Property through a parking lot entrance and exit located on Erie Avenue. The Property will utilize one-way egress only to Claremont Avenue. Applicant plans to maintain this parking lot as daycare primary access point.

Applicant has engaged a traffic engineer to perform a traffic study to confirm no adverse impact. Should any unforeseen concerns arise during the application review process, Applicant will work to address these comments with city staff.

**6. What impact will the proposed use have on established property values and on the**

**public health, safety, morality, comfort, and general welfare of the residents of the City?**

Applicant currently operates a day care and early childhood education business at the Property. This day care provides high-quality childcare and education for community residents. Applicant's business is an asset to the City and establishes a valuable use on the Property to the benefit of surrounding property owners. By maintaining and expanding the day care business at the current location, Applicant seeks to continue providing a valuable service for the community to the benefit of surrounding properties.

#### **IV.CONCLUSION**

For the foregoing reasons, the Applicant respectfully requests that the Decatur City Commission approve these applications. In summary, the requests seek to continue and expand Smarties Academy's decade long history of serving Decatur families. We look forward to working with the City and are available to discuss these applications and any questions.

ERIE AVENUE (60' R/W)  
31' BC TO BC

CLAREMONT AVENUE  
(60' R/W)

1 PROPOSED SITE PLAN  
A1.00 SCALE: 1" = 20'-0"

A1-00  
SITE PLAN  
1" = 20'-0"

PROJECT STATISTICS	
<b>PARKING</b>	
EXISTING	47 SPACES
TOTAL PROPOSED	69 SPACES
<b>TOTAL SITE AREA</b> 2.55 ACRES	
<b>DISTURBED AREA</b> 93 ACRES	
<b>IMPERVIOUS AREA ADDED</b> 23,000 SF	
<b>EXISTING BUILDING</b> 13,700 SF	
<b>PROPOSED ADDITION</b> 16,500 SF	
<b>TOTAL BUILDING</b> 30,200 SF	

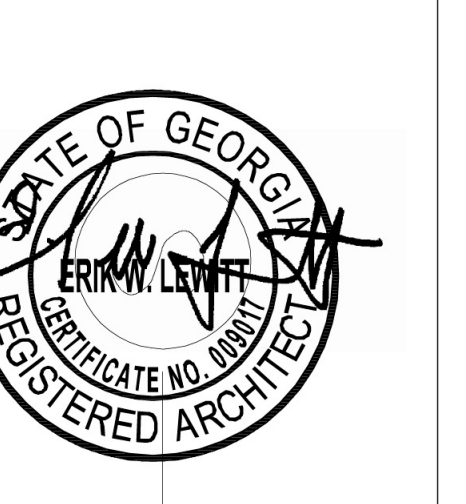


ISSUES
04.25.23 Preliminary

**Smarties Academy Addition and Renovation**  
465 Clairmont Avenue  
Decatur, GA 30030  
Project Number: 792.00

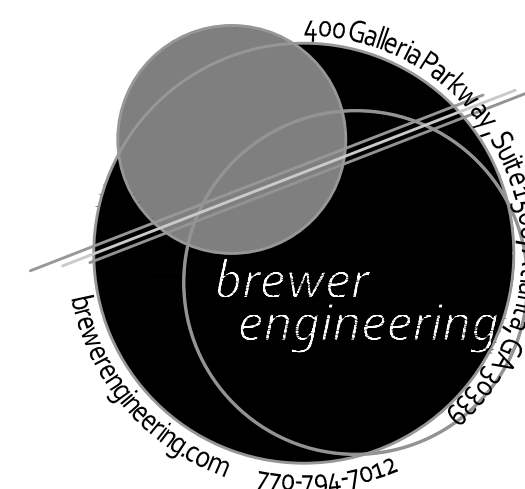
**STRUCTURAL**  
Kelly Albright  
PEC Structural Engineering  
130 Krog Street, Suite Z  
Atlanta, Georgia 30307  
404.660.6022

**M.E.P. & F.P.**  
Westside Engineering  
5525 Interstate North Parkway  
Suite 200  
Atlanta, GA 30328  
Phone: 404-242-6240



**plexus**  
plexus r + d, inc.  
914 Howell Mill Road - Suite 400 - Atlanta, Georgia 30318  
404.515.7288 Phone  
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**NOT FOR CONSTRUCTION**



**REVISIONS**

NO.	DATE	DESCRIPTION

This drawing, as an instrument of service, is and shall remain the property of Brewer Engineering and shall not be reproduced, published or used in any way without the written permission of Brewer Engineering, Inc.

Owner/Developer  
**Smarties Academy**  
 465 Clairmont Ave.  
 Decatur, GA 30030

**Smarties Academy**  
 Addition + Renovation  
 465 Clairmont Ave.  
 Decatur, GA 30030

NOT ISSUED  
 FOR  
 CONSTRUCTION

PROJECT NO.:  
 22071

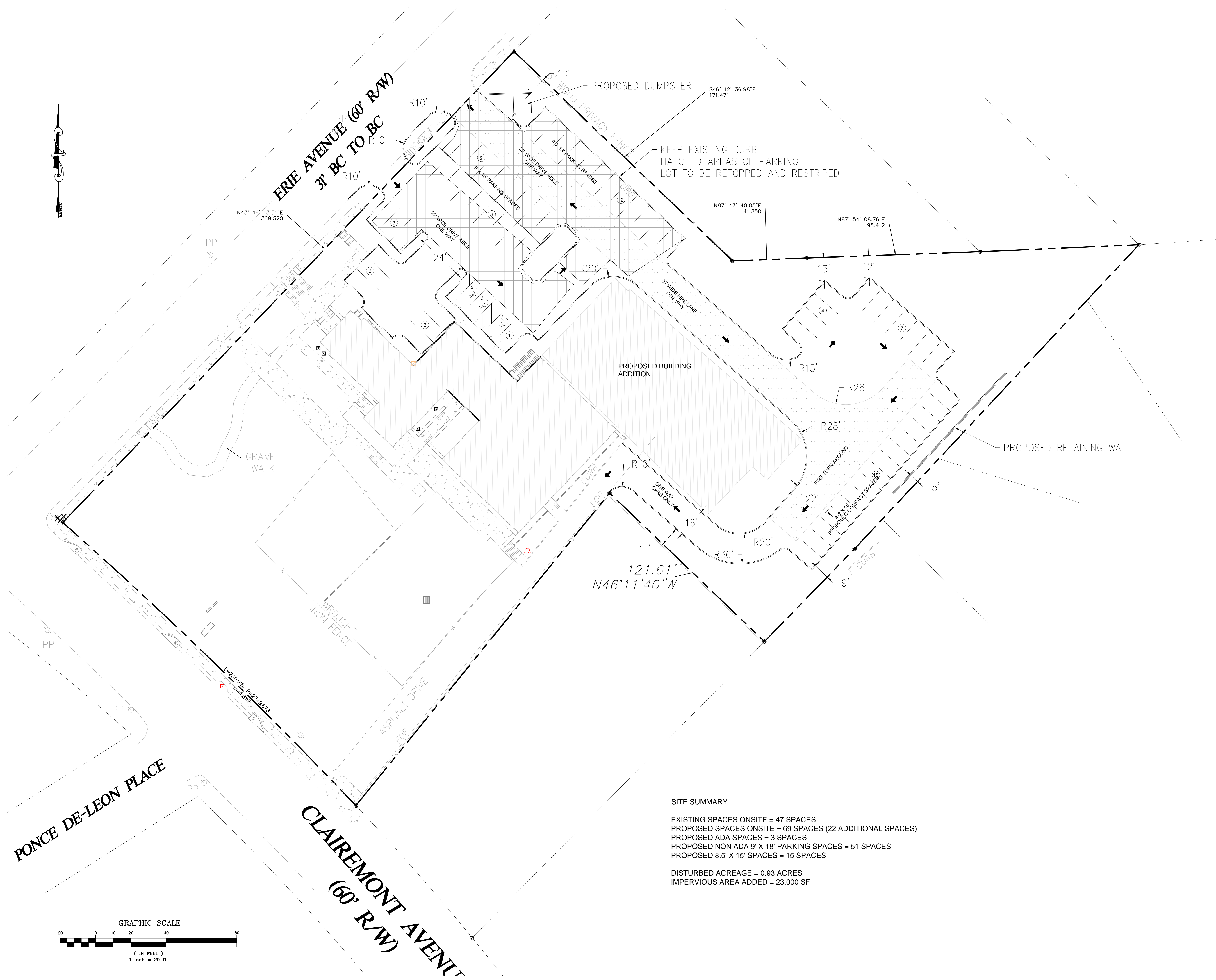
DATE:  
 1-6-23

SHEET TITLE:

SITE  
 PLAN

SHEET NO.:

C-3.0

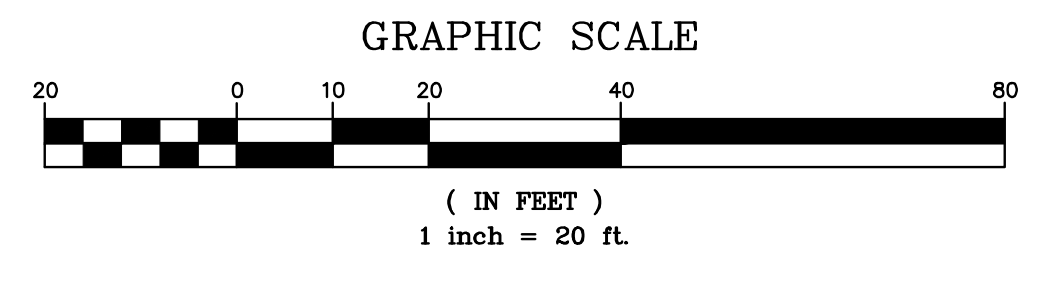


121.61'  
 N46°11'40"W

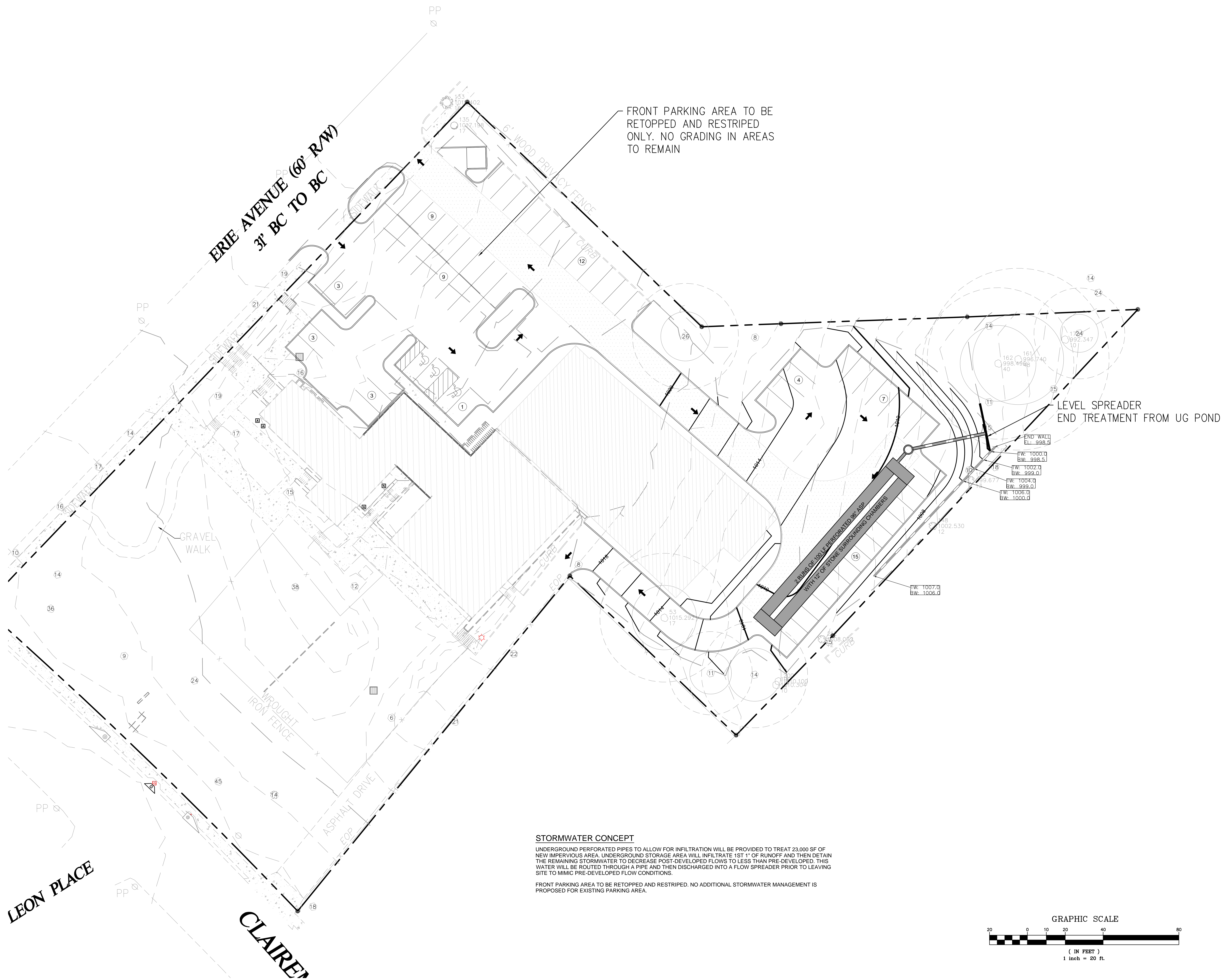
**SITE SUMMARY**

EXISTING SPACES ONSITE = 47 SPACES  
 PROPOSED SPACES ONSITE = 69 SPACES (22 ADDITIONAL SPACES)  
 PROPOSED ADA SPACES = 3 SPACES  
 PROPOSED NON ADA 9' X 18' PARKING SPACES = 51 SPACES  
 PROPOSED 8.5' X 15' SPACES = 15 SPACES

DISTURBED ACREAGE = 0.93 ACRES  
 IMPERVIOUS AREA ADDED = 23,000 SF







FRONT PARKING AREA TO BE RETOPPED AND RESTRIPE ONLY. NO GRADING IN AREAS TO REMAIN

LEVEL SPREADER END TREATMENT FROM UG POND

**STORMWATER CONCEPT**  
 UNDERGROUND PERFORATED PIPES TO ALLOW FOR INFILTRATION WILL BE PROVIDED TO TREAT 23,000 SF OF NEW IMPERVIOUS AREA. UNDERGROUND STORAGE AREA WILL INFILTRATE 1ST 1" OF RUNOFF AND THEN DETAIN THE REMAINING STORMWATER TO DECREASE POST-DEVELOPED FLOWS TO LESS THAN PRE-DEVELOPED. THIS WATER WILL BE ROUTED THROUGH A PIPE AND THEN DISCHARGED INTO A FLOW SPREADER PRIOR TO LEAVING SITE TO MIMIC PRE-DEVELOPED FLOW CONDITIONS.  
 FRONT PARKING AREA TO BE RETOPPED AND RESTRIPE. NO ADDITIONAL STORMWATER MANAGEMENT IS PROPOSED FOR EXISTING PARKING AREA.

**REVISIONS**

NO.	DATE	DESCRIPTION

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Owner / Developer  
 Smarties Academy  
 465 Clairmonth Ave.  
 Decatur, Ga 30030

Smarties Academy  
 Addition + Renovation  
 465 Clairmonth Ave.  
 Decatur, Ga 30030

**Grading Legend**

SYMBOL	DESCRIPTION
	BENCHMARK WITH TOPOGRAPHIC DATUM
	FINISHED SPOT ELEVATION
	STRUCTURE IDENTIFICATION THE FIRST TWO LETTERS ABBREVIATE THE STRUCTURE TYPE THE NUMBER IDENTIFIES THE STRUCTURE. SEE PROFILE SHT. FOR DETAILS.
	FINISHED CONTOUR ELEVATION
	EXISTING CONTOUR ELEVATION
	SURFACE DRAINAGE DIRECTION
ASCMP	ALUMINIZED STEEL CORRUGATED PIPE TYPE 2
BCMP	ASPHALT COATED METAL PIPE
BC	BACK OF CURB
BW	BOTTOM OF WALL AT FINISH GRADE
CB	CATCH BASIN
CR	CROWN
DIP	DUCTILE IRON PIPE
DI	DRAIN INLET
EP	EDGE OF PAVEMENT
FC	FACE OF CURB
FD	FOUNDATION DRAIN
FF	FINISHED FLOOR
FG	FINISHED GRADE ELEVATION
FL	FLOW LINE OF CURB OR DITCH
INVERT	INVERT
HP	HIGH POINT
HW	HEADWALL
JB	JUNCTION BOX
LP	LOW POINT OR LIGHT POLE
MH	MANHOLE
RCP	REINFORCED CONCRETE PIPE
SSMH	SANITARY SEWER MANHOLE
TC	TOP OF CURB
TD	TOP OF TRENCH DRAIN GRATE
TF	TOP OF FOOTING
TW	TOP OF WALL
WV	WATER VALVE

NOT ISSUED FOR CONSTRUCTION

PROJECT NO.: 22071

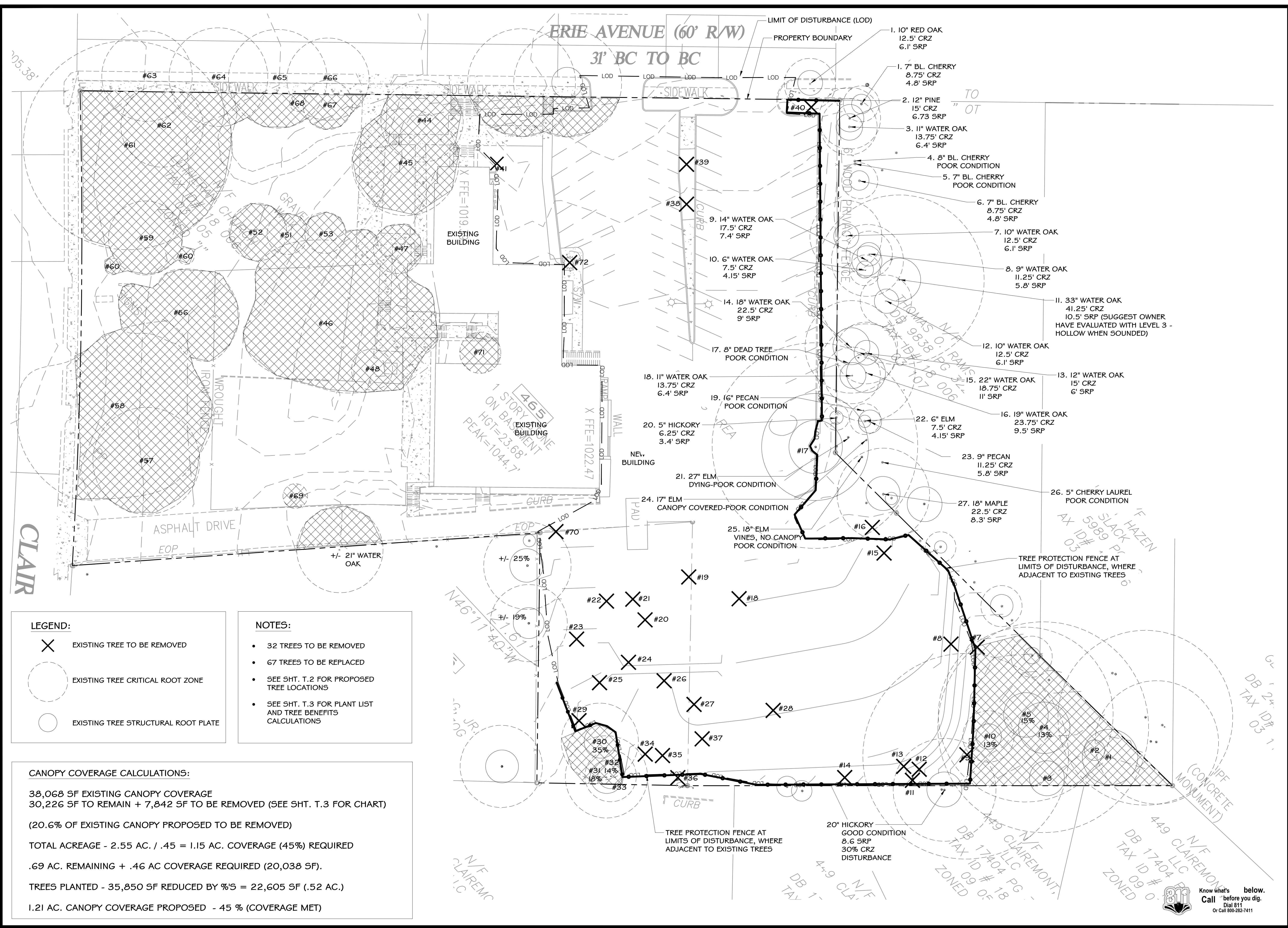
DATE: 1-6-23

SHEET TITLE:

GRADING PLAN

SHEET NO.:

C-4.0



**LEGEND:**

- X EXISTING TREE TO BE REMOVED
- EXISTING TREE CRITICAL ROOT ZONE
- EXISTING TREE STRUCTURAL ROOT PLATE

**NOTES:**

- 32 TREES TO BE REMOVED
- 67 TREES TO BE REPLACED
- SEE SHT. T.2 FOR PROPOSED TREE LOCATIONS
- SEE SHT. T.3 FOR PLANT LIST AND TREE BENEFITS CALCULATIONS

**CANOPY COVERAGE CALCULATIONS:**

38,068 SF EXISTING CANOPY COVERAGE  
 30,226 SF TO REMAIN + 7,842 SF TO BE REMOVED (SEE SHT. T.3 FOR CHART)  
 (20.6% OF EXISTING CANOPY PROPOSED TO BE REMOVED)

TOTAL ACREAGE - 2.55 AC. / .45 = 1.15 AC. COVERAGE (45%) REQUIRED  
 .69 AC. REMAINING + .46 AC COVERAGE REQUIRED (20,038 SF).

TREES PLANTED - 35,850 SF REDUCED BY %'S = 22,605 SF (.52 AC.)  
 1.21 AC. CANOPY COVERAGE PROPOSED - 45 % (COVERAGE MET)


PROJECT:  
**SMARTIES ACADEMY  
 ADDITION REZONING  
 PLAN**

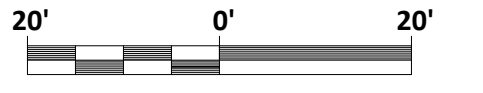
LOCATION:  
 465 CLAIREMONT AVE.  
 LAND LOT  
 LAND DISTRICT  
 DEKALB COUNTY  
 DECATUR, GA 30030

OWNER/DEVELOPER:  
**BOGNA KABAT**  
 770- 633-0770

BREWER ENGINEERING  
 JENNI OLIVO, PE  
 400 GALLERIA PARKWAY, SUITE 1500  
 ATLANTA, GA. 30339  
 404-426-3559

CONSULTANT:  
  
**TJ SCHELL, LLC**  
 Landscape Architect • Consulting Arborist  
 770.361.2319  
 teresa@tjschell.com  
 2985 Gordy Pkwy., Ste. 422, Marietta, GA 30066

SEAL:  
  
**TERESA H. ELDRIDGE**  
 ISA - 50-5442A


SCALE 1" = 20'  


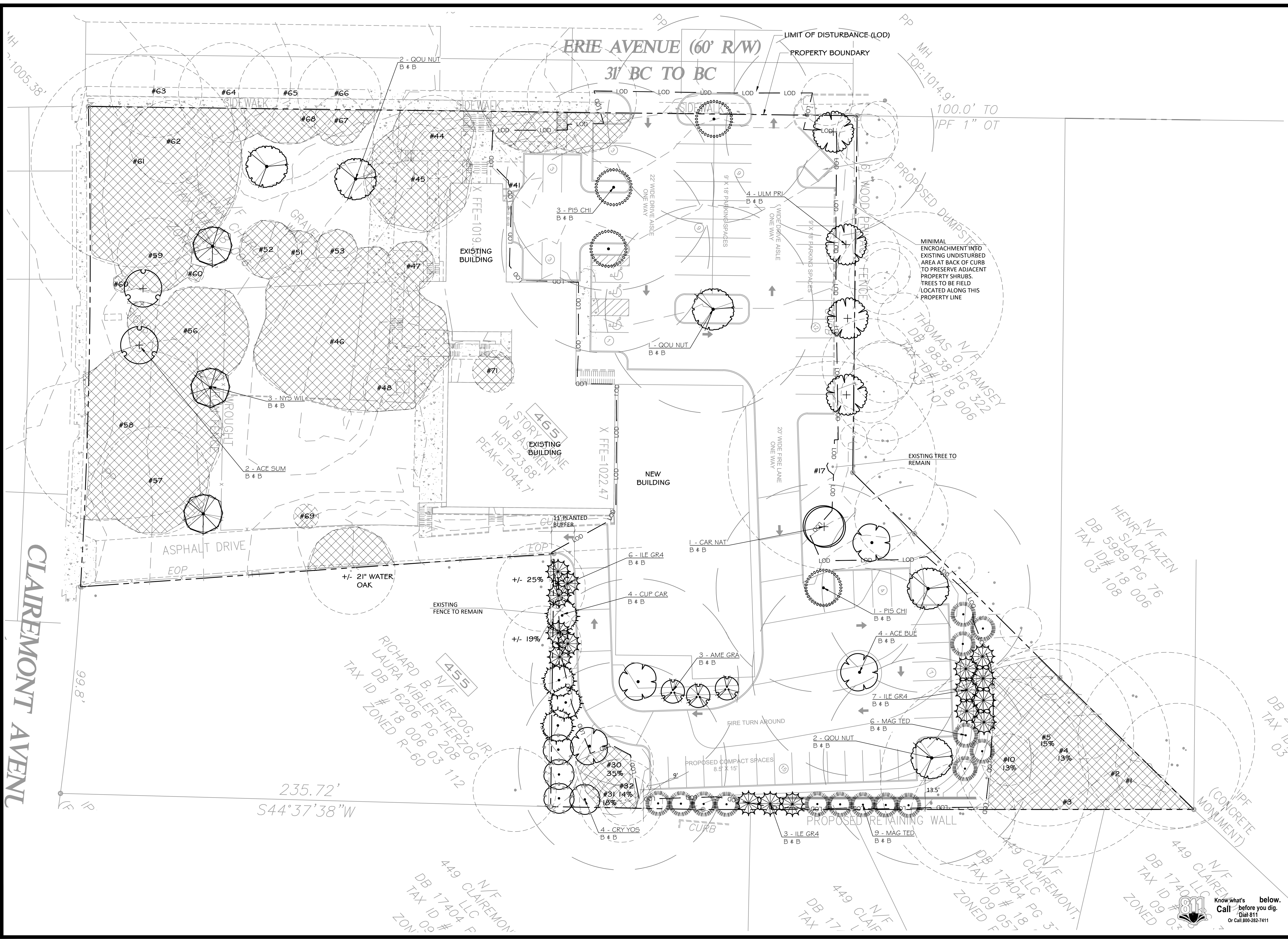
REVISIONS	DATE

DRAWN BY:  
 JURISDICTION:  
 DATE:  
 SHEET TITLE:  
**EXISTING  
 CONDITIONS - TREE  
 CANOPY**

SHEET NUMBER:  
**T.1**

Know what's below.  
 Call 811 before you dig.  
 Dial 811  
 Or Call 800-282-7411



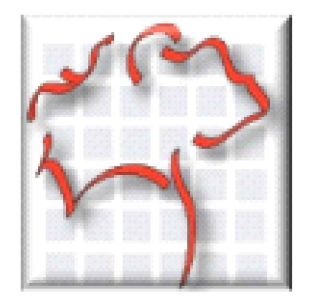


PROJECT:  
**SMARTIES ACADEMY  
 ADDITION REZONING  
 PLAN**

LOCATION:  
 465 CLAIREMONT AVE.  
 LAND LOT  
 LAND DISTRICT  
 DEKALB COUNTY  
 DECATUR, GA 30030

OWNER/DEVELOPER:  
**BOGNA KABAT**  
 770-633-0770

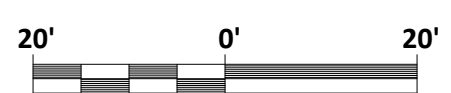
BREWER ENGINEERING  
 JENNI OLIVO, PE  
 400 GALLERIA PARKWAY, SUITE 1500  
 ATLANTA, GA. 30339  
 404-426-3559

CONSULTANT:  
  
**TJ SCHELL, LLC**  
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770.361.2319  
 teresa@tjschell.com

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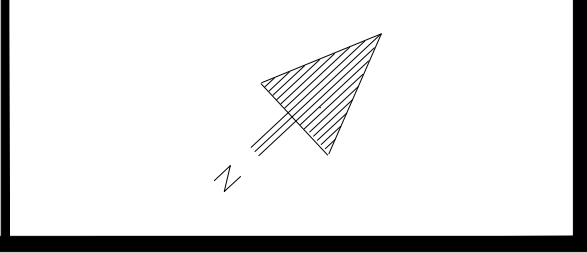
SEAL:  
  
**TERESA H. ELDRIDGE**  
 ISA - SO-5442A

SCALE 1" = 20'  


REVISIONS	DATE

DRAWN BY:  
 JURISDICTION:  
 DATE:  
 SHEET TITLE:  
**TREE CANOPY  
 COVERAGE AND  
 PROTECTION PLAN**

SHEET NUMBER: **T.2**



CLAIREMONT AVENUE

MH 1005.38'

449 N/F CLAREMONT, LLC  
 DB 17404 PG 09 057  
 ZONED F

455 N/F RICHARD B. HERZOG, JR.  
 LAURA KIBLER-HERZOG  
 DB 16206 PG 208  
 TAX ID # 18 006 03 112  
 ZONED R-60

465 N/F  
 1 STORY ON BASEMENT  
 HGT=23.68'  
 PEAK=104.7'

THOMAS N/F  
 DB 9838 PG 322  
 TAX ID # 18 006 03 107

HENRY N/F  
 SLACK HAZEN  
 DB 5989 PG 76  
 TAX ID # 18 006 03 108

449 N/F CLAREMONT, LLC  
 DB 17404 PG 09 057  
 ZONED F

449 N/F CLAREMONT, LLC  
 DB 17404 PG 09 057  
 ZONED F

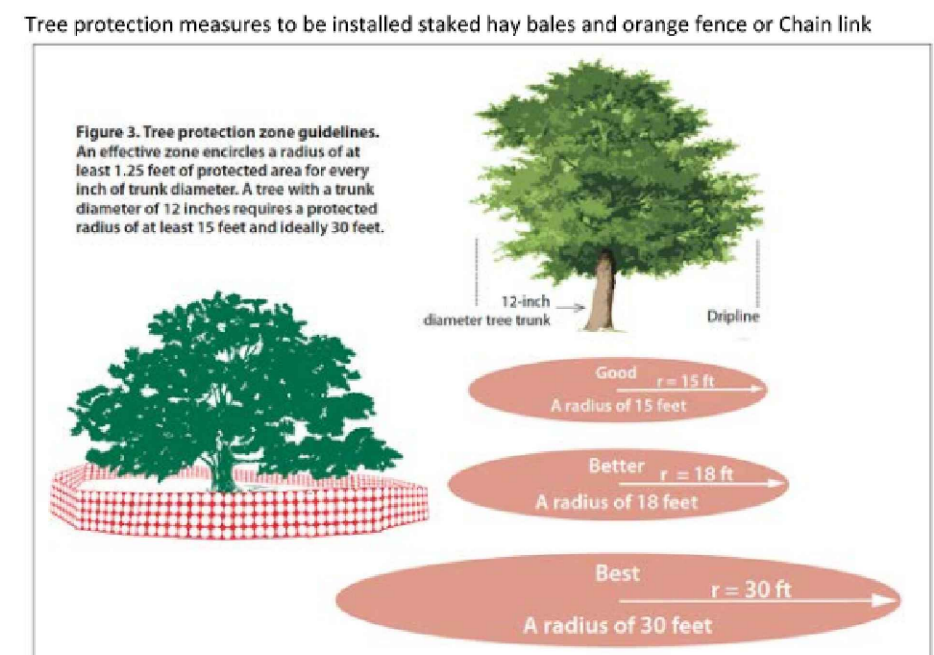
Know what's below.  
 Call before you dig.  
 Dial 811  
 Or Call 800-282-7411

**PLANT SCHEDULE**

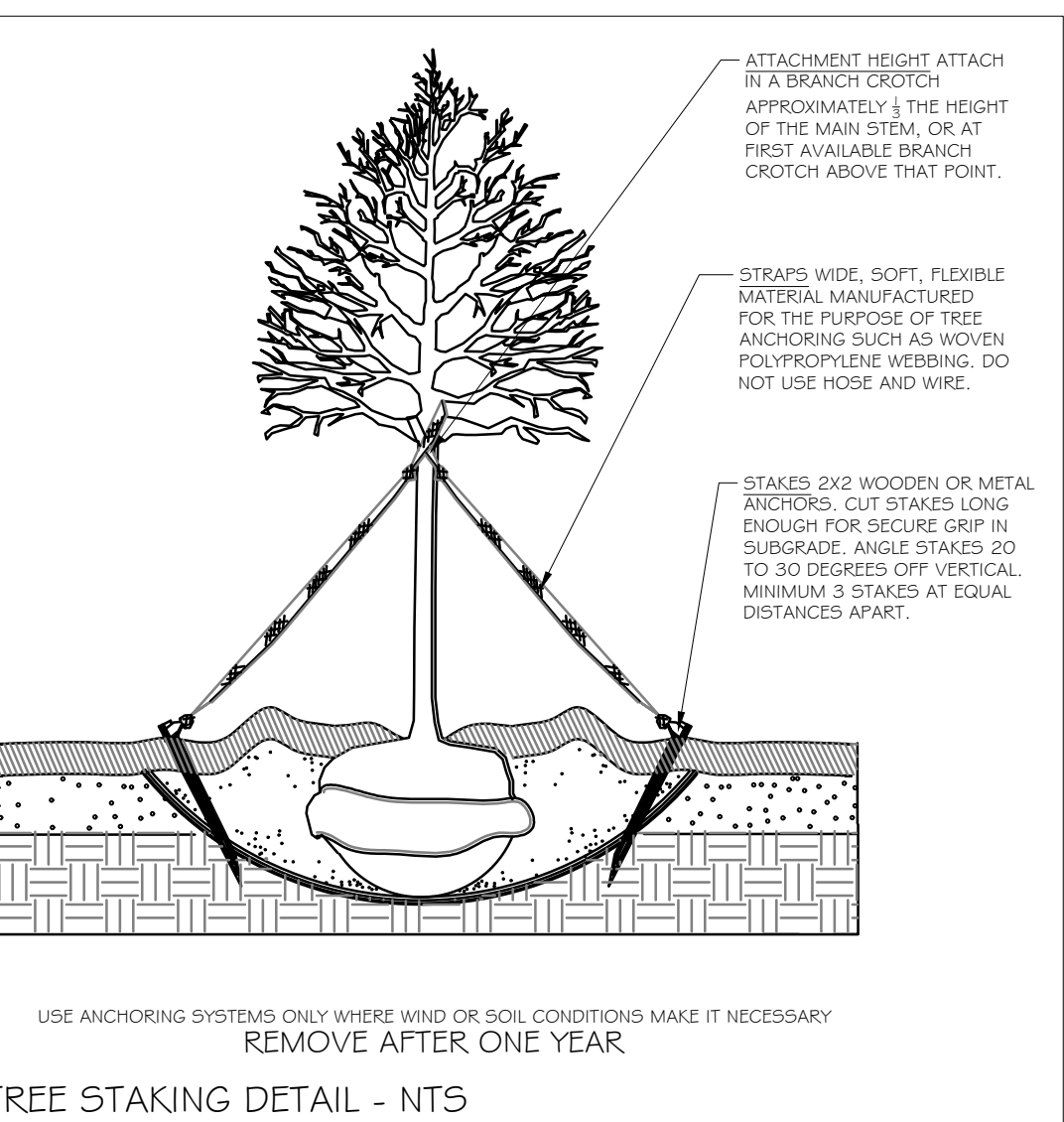
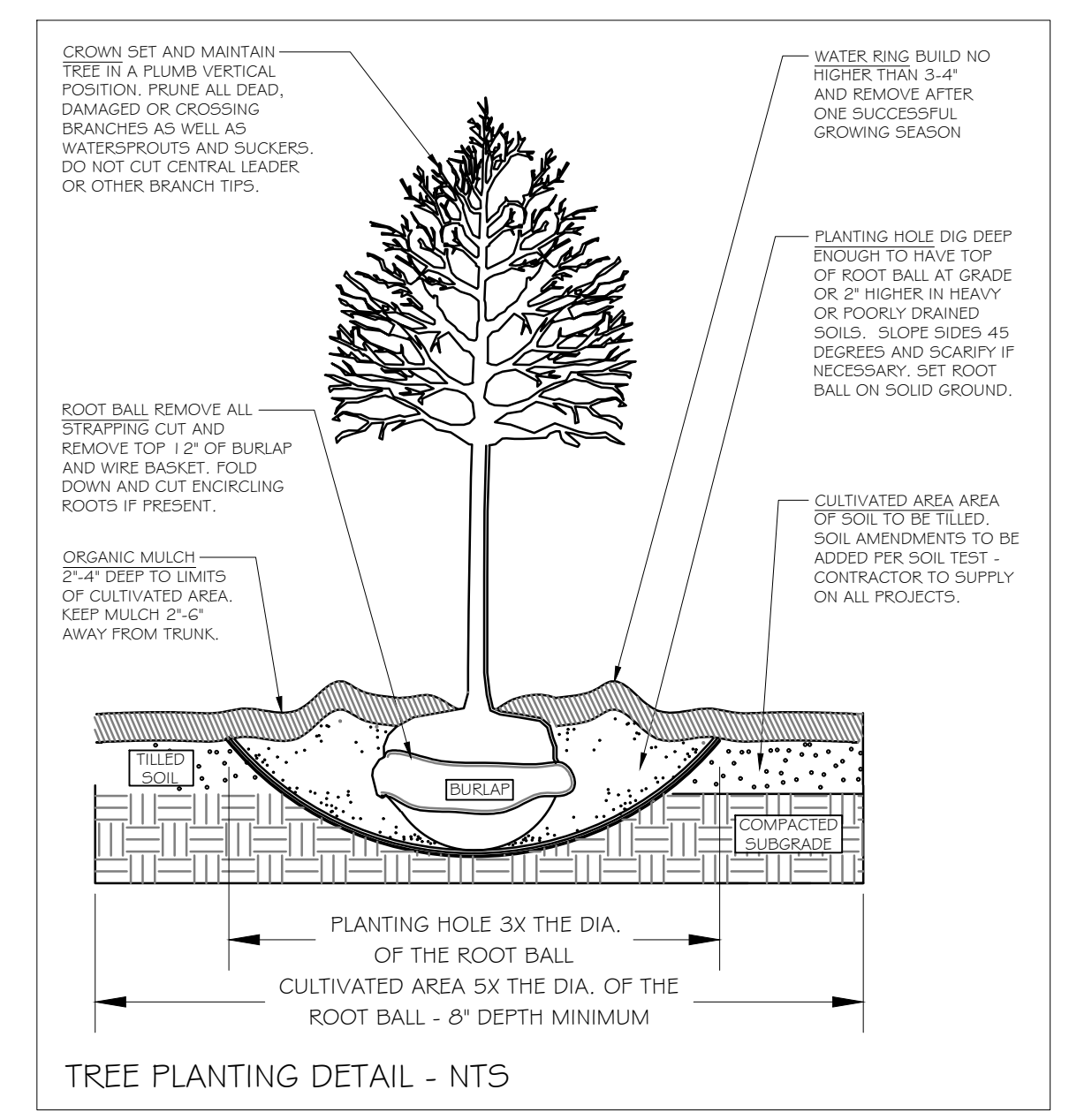
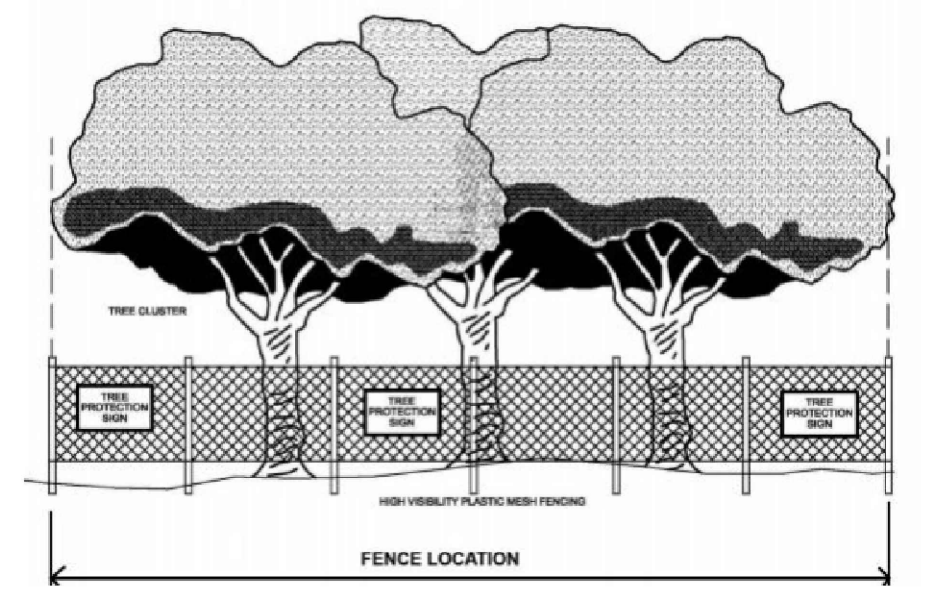
TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	REMARKS	SF - TOTAL	%	
	ACE BUE	4	Acer buergerianum / Trident Maple	B & B	3"cal.	10-12' Ht.	Single, straight leader, Good Form, Healthy	900 / 3,600x.65 = 2,340	6	
	ACE SUM	2	Acer rubrum 'Summer Red' / Summer Red Maple	B & B	3"	10-12' Ht.	Single Straight Leader, Good Form, Healthy	900 / 1,800x.65 = 1,170	3	
	AME GRA	3	Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Apple Serviceberry	B & B	2"cal.	6-8' Ht.	3 equal trunks, Good Form, Healthy	150 / 450x.8 = 360	4.5	
	CAR NAT	1	Carpinus caroliniana 'Native Flame' / Native Flame Hornbeam	B & B	3"	10-12' Ht.	Single Straight Leader, Good Form, Healthy	900 / 900x.8 = 720	1	
	CRY YOS	4	Cryptomeria japonica 'Yoshino' / Yoshino Japanese Cedar	B & B	2"cal.	6'	Full to Ground, Good Form, Healthy	400 / 2,000x.8 = 1,600	7	
	CUP CAR	4	Cupressus arizonica 'Carolina Sapphire' / Carolina Sapphire Cypress	B & B	2"cal.	6'	Full to Ground, Good Form, Healthy	400 / 1,600x.8 = 1,280	6	
	ILE GR4	16	Ilex opaca 'Greenleaf' / Greenleaf American Holly	B & B	2.5"cal.	6'	Full to Ground, Good Form, Healthy	150 / 2,400x.8 = 1,920	23.5	
	MAG TED	15	Magnolia grandiflora 'Teddy Bear' / Teddy Bear Magnolia	B & B	2"	6'	Full to Ground, Good Form, Healthy	150 / 2,400x.8 = 1,920	23.5	
	NYS WIL	3	Nyssa sylvatica 'Wildfire' / Black Gum	B & B	3"	10-12' Ht.	Single straight Leader, Healthy, Good Form	900 / 2,700x.65 = 1,755	4.5	
	PIS CHI	4	Pistacia chinensis / Chinese Pistache	B & B	3"cal.	10-12' Ht.	Single, Straight leader, Good Form, Healthy	900 / 3,600x.65 = 2,340	6	
	QOU NUT	5	Quercus nuttallii / Nuttall Oak	B & B	3"	10-12' Ht.	Single Straight Leader, Healthy, Good Form	1,600 / 8,000x.5 = 4,000	9	
	ULM PRI	4	Ulmus americana 'Princeton' / American Elm	B & B	3"	10-12' Ht.	Single Straight Leader, Healthy, Good Form	1,600 / 6,400x.5 = 3,200	6	
67 TREES								37,450 SF /	22,605 SF	100

**YEARLY BENEFITS CHART FOR TREES TO BE REMOVED**

TREE #	SPECIES	DBH	CANOPY SF	RATING	AMOUNT
7	ELM	9	16 X 10 = 160sf	FAIR	61
8	HICKORY	27	24 X 20 = 480sf	FAIR	193
9	ELM	15	18 X 14 = 252sf	GOOD	104
11	MAGNOLIA	11	12 X 12 = 144sf	GOOD	49
12	POPLAR	13	NA	POOR	0
13	POPLAR	15	25 X 18 = 450sf	GOOD	127
14	BLACK CHERRY	15	10 X 12 = 120sf	FAIR	107
15	BOX ELDER	14	20 X 15 = 300sf	FAIR	87
16	WHITE OAK	9	20 X 14 = 280sf	GOOD	48
18	ELM	13	25 X 20 = 500sf	GOOD	92
19	POST OAK	13	16 X 14 = 224sf	GOOD	89
20	ELM	13	24 X 12 = 288sf	FAIR	92
21	BOX ELDER	10, 11, 6	NA	POOR	0
22	ELM	10	14 X 8 = 112sf	GOOD	68
23	ASH	18	NA	POOR	0
24	MAGNOLIA	13	12 X 12 = 144sf	GOOD	52
25	ELM	14	22 X 12 = 264sf	FAIR	99
26	ELM	17	22 X 20 = 440sf	FAIR	119
27	RED OAK	33	32 X 24 = 768sf	GOOD	233
28	RED OAK	20	16 X 16 = 256sf	GOOD	165
29	AMERICAN HOLLY	13	20 X 18 = 360sf	GOOD	29
33	WATER OAK	10	16 X 8 = 128sf	GOOD	61
34	MAGNOLIA	13	20 X 18 = 360sf	GOOD	52
35	HICKORY	12	16 X 12 = 192sf	FAIR	84
36	MAGNOLIA	11	18 X 18 = 324sf	GOOD	49
37	HICKORY	15	18 X 12 = 216sf	FAIR	107
38	DOGWOOD	7	NA	POOR	0
39	DOGWOOD	6, 6, 6, 6	16 X 16 = 256sf	GOOD	57
40	PINE	17	20 X 16 = 320sf	GOOD	79
41	AMERICAN HOLLY	17 B5	16 X 14 = 224sf	GOOD	48
70	WATER OAK	9	18 X 12 = 216sf	GOOD	52
72	CRAPE MYRTLE	3, 3, 4, 3, 4	8 X 8 = 64sf	FAIR	49
			<b>7,842 sf</b>		<b>2,452 x 5 = \$12,260.00</b>



Tree Protection signage is required stating **Tree Save Area Keep Out, Zona De Protección De Árboles**



- NOTES:**
- CONTACT THE CITY OF DECATUR FOR A SITE INSPECTION UPON COMPLETION OF LANDSCAPE INSTALLATION PRIOR TO C.O.
  - ALL TREES AND LANDSCAPING SHALL BE INSTALLED IN A SOUND WORKMANLIKE MANNER AND ACCORDING TO ACCEPTED PLANTING PROCEDURES WITH QUALITY MATERIALS AS PROVIDED IN THE TREE CANOPY CONSERVATION ORDINANCE ADMINISTRATIVE STANDARDS. ALL LANDSCAPING SHALL BE PLANTED AFTER OCTOBER 15TH AND BEFORE MARCH 15TH.
  - THE OWNER, OCCUPANT, TENANT OR AGENT, SHALL BE JOINTLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING. LANDSCAPING SHALL BE MAINTAINED IN A GOOD CONDITION SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE FOR A PERIOD OF 3 YEARS.
  - TREE PROTECTION FENCES MUST BE LOCATED AT THE EDGE OF CRZ. A TREE PROTECTION FENCE CAN BE A 4' ORANGE CONSTRUCTION FENCE AND AND STAKED HAY BALES.
  - SIGNS IN ENGLISH AND SPANISH STATING "KEEP OUT - TREE PROTECTION AREA"
  - ALL TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE AND SHALL BE MAINTAINED UNTIL AFTER FINAL INSPECTION. THE CITY ARBORIST OR THEIR DESIGNATED REPRESENTATIVE SHALL BE CONTACTED FOR AN ON-SITE INSPECTION AFTER TREE PROTECTION MEASURES ARE INSTALLED AND PRIOR TO FINAL LANDSCAPE INSTALLATION.
  - IF THE CITY ARBORIST DETERMINES THAT A TREE IS IRREPARABLY DAMAGED DUE TO LAND DISTURBANCE ACTIVITIES, THE CITY ARBORIST MAY REQUIRE THAT THE TREE BE REMOVED.

- GENERAL NOTES:**
- STAKING MATERIALS SHOULD BE REMOVED WITHIN ONE YEAR OF PLANTING.
  - BURLAP AND ALL OTHER MATERIALS MUST BE REMOVED FROM AT LEAST THE TOP 12" OF THE ROOTBALL AND THE TREE SHOULD BE PLANTED SO THAT THE TRUNK FLARE IS VISIBLE ABOVE THE GROUND.
  - PLANTED TREES SHOULD BE IMMEDIATELY MULCHED AFTER PLANTING. MULCH IS NOT ALLOWED CLOSER THAN 4" TO THE TRUNK FLARE OF NEWLY PLANTED TREES.
  - CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL HEALTHY SOD AND/OR ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDED AREAS.
  - ALL PLANTING BEDS AND MULCH: CONTRACTOR SHALL APPLY PRE-EMERGENT TO PREVENT WEED GROWTH.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR THE WATERING AND THE MAINTENANCE OF ALL LANDSCAPED AREAS PER AGREEMENT WITH OWNER.
  - LANDSCAPE CONTRACTOR TO CLEAN ENTIRE SITE OF ALL LANDSCAPING DEBRIS WHEN INSTALLATION IS COMPLETED
  - LANDSCAPE CONTRACTOR TO PROVIDE PLANTS TRUE TO SPECIES AND VARIETY, PER PLANT LIST. ACCEPTANCE OF PLANT MATERIAL SUBJECT TO OWNER'S APPROVAL.

PROJECT:  
**SMARTIES ACADEMY  
ADDITION REZONING  
PLAN**

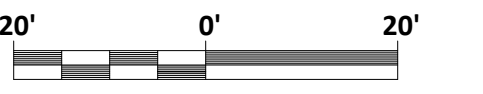
LOCATION:  
**465 CLAIREMONT AVE.  
LAND LOT  
LAND DISTRICT  
DEKALB COUNTY  
DECATUR, GA 30030**

OWNER/DEVELOPER:  
**BOGNA KABAT  
770- 633-0770**

BREWER ENGINEERING  
JENNI OLIVO, PE  
400 GALLERIA PARKWAY, SUITE 1500  
ATLANTA, GA 30339  
404-426-3559

CONSULTANT:  
  
**TJ SCHELL, LLC**  
Landscape Architect • Consulting Arborist  
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2985 Gordy Pkwy., Ste. 422, Marietta, GA 30066

SEAL:  
  
**TERESA H. ELDRIDGE  
ISA - SO-5442A**

SCALE 1" = 20'  


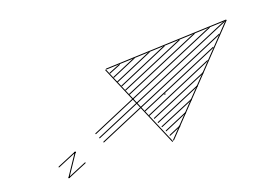
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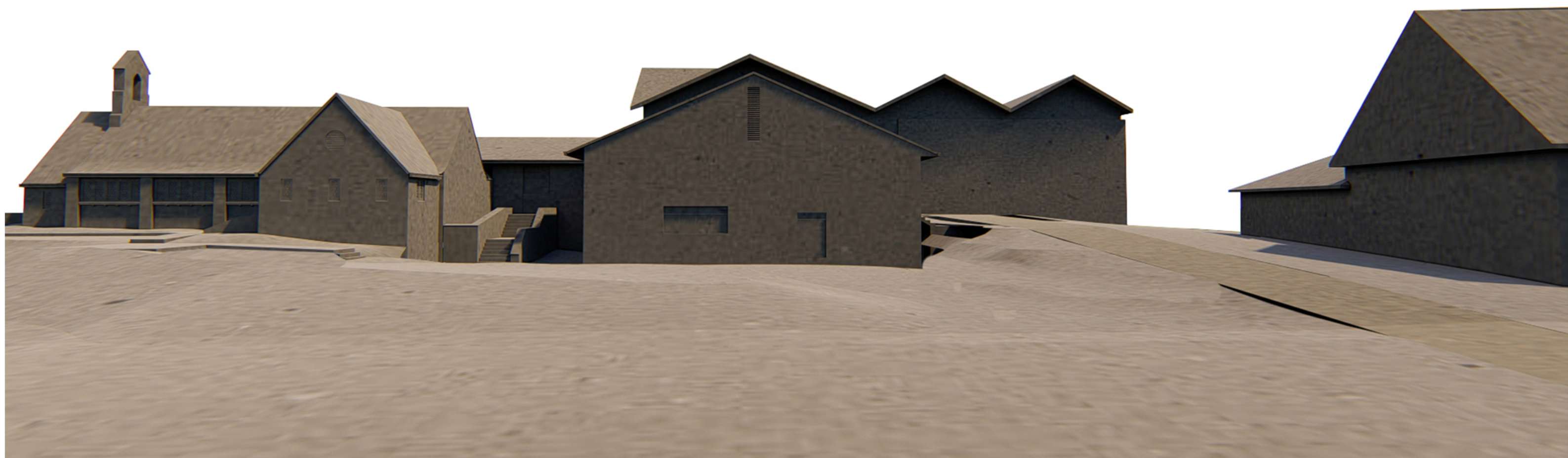
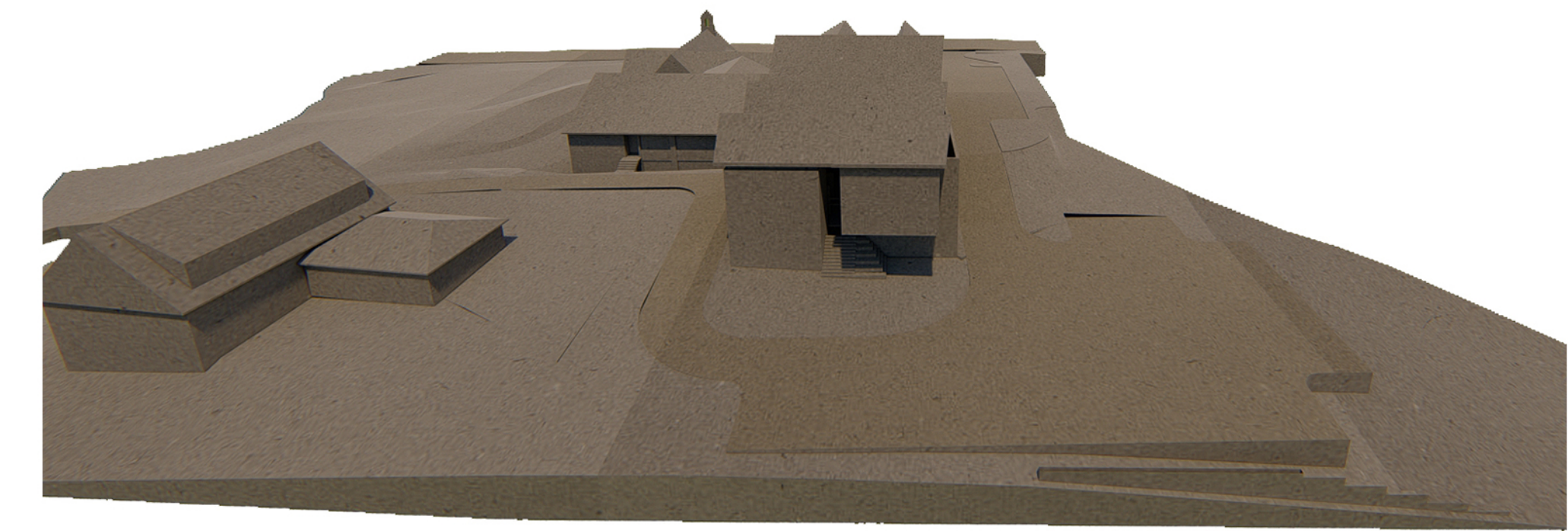
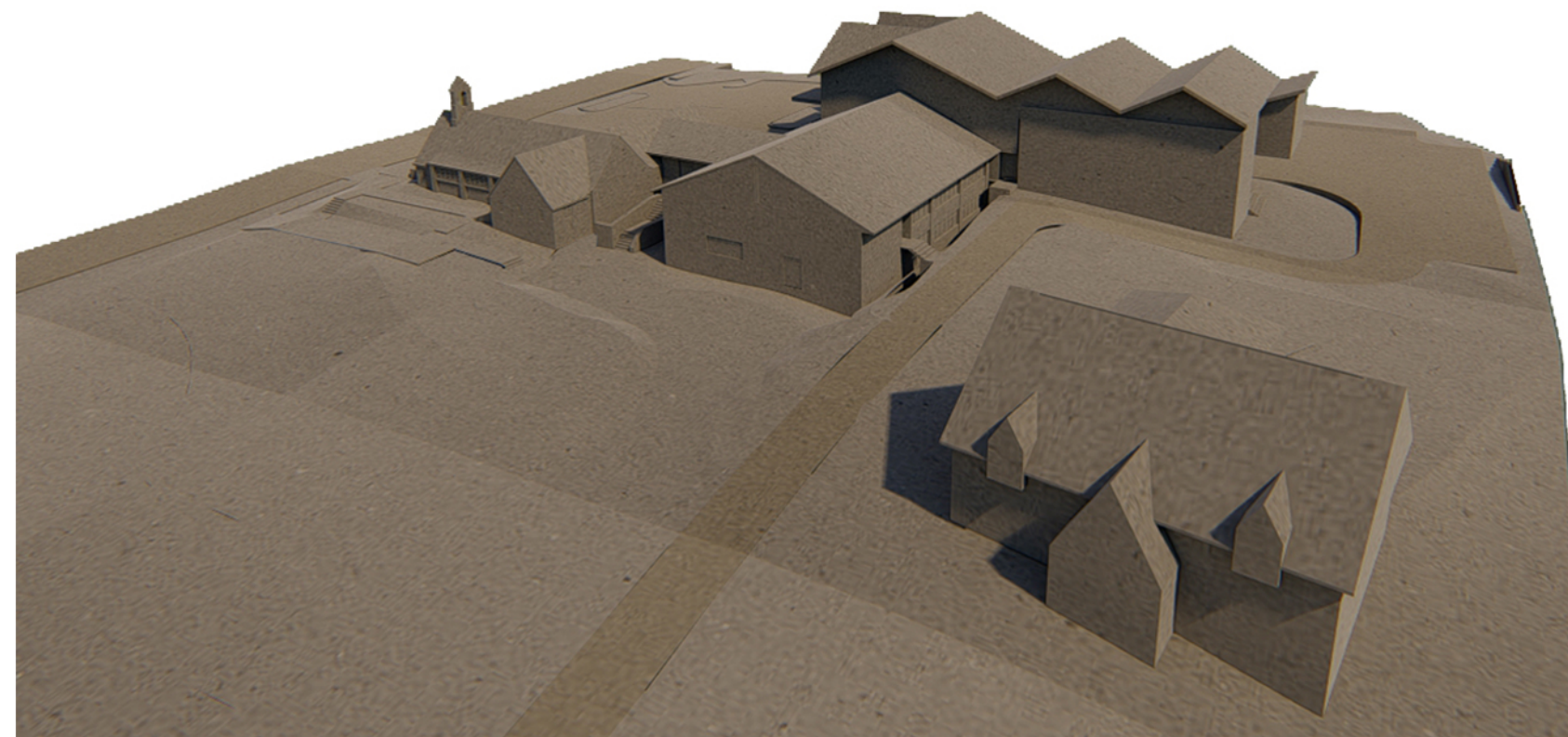
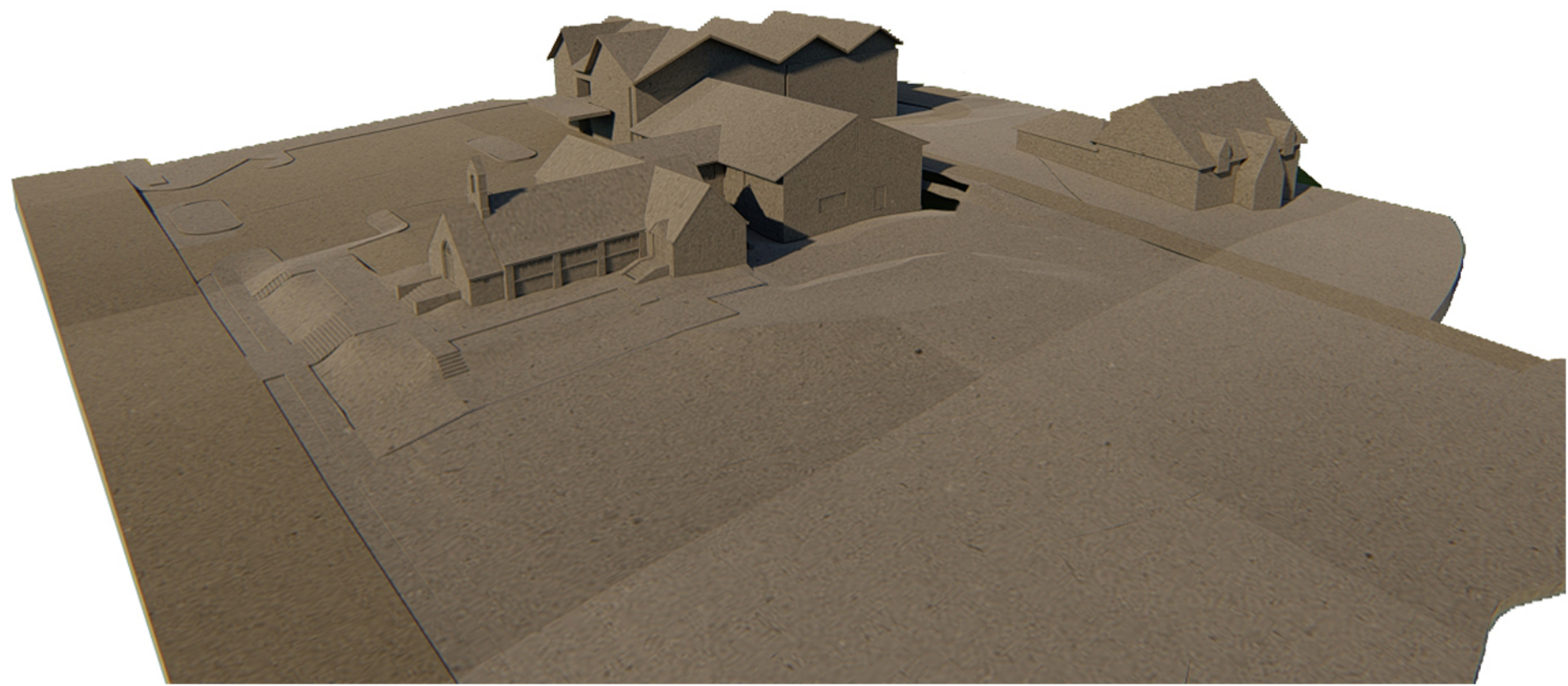
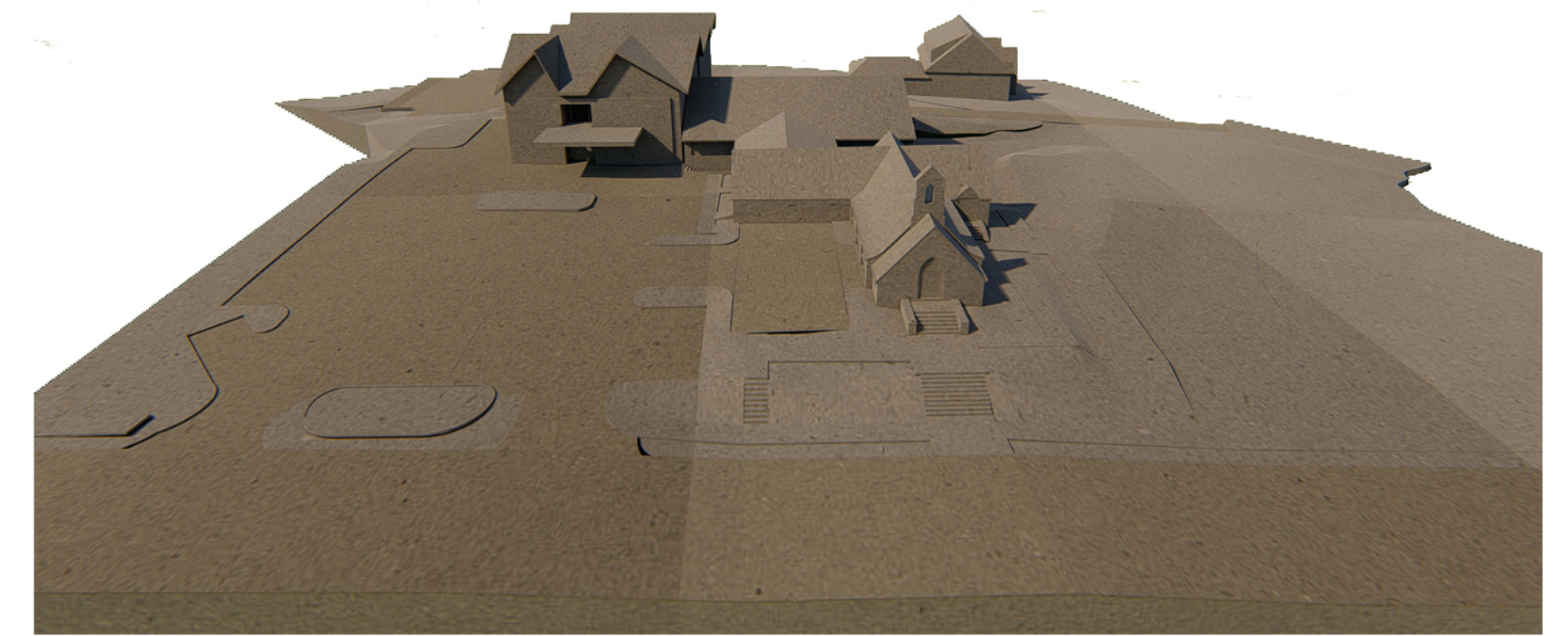
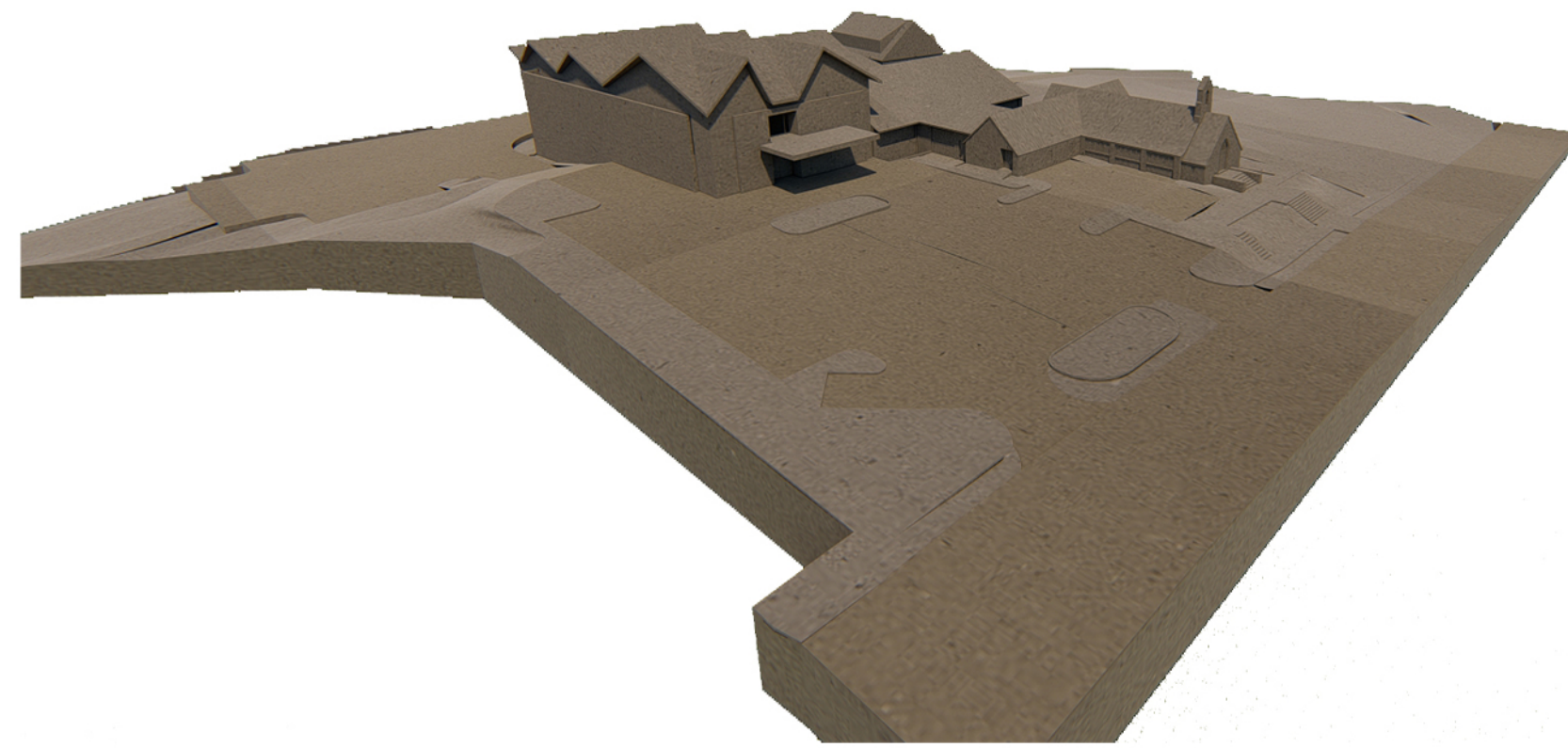
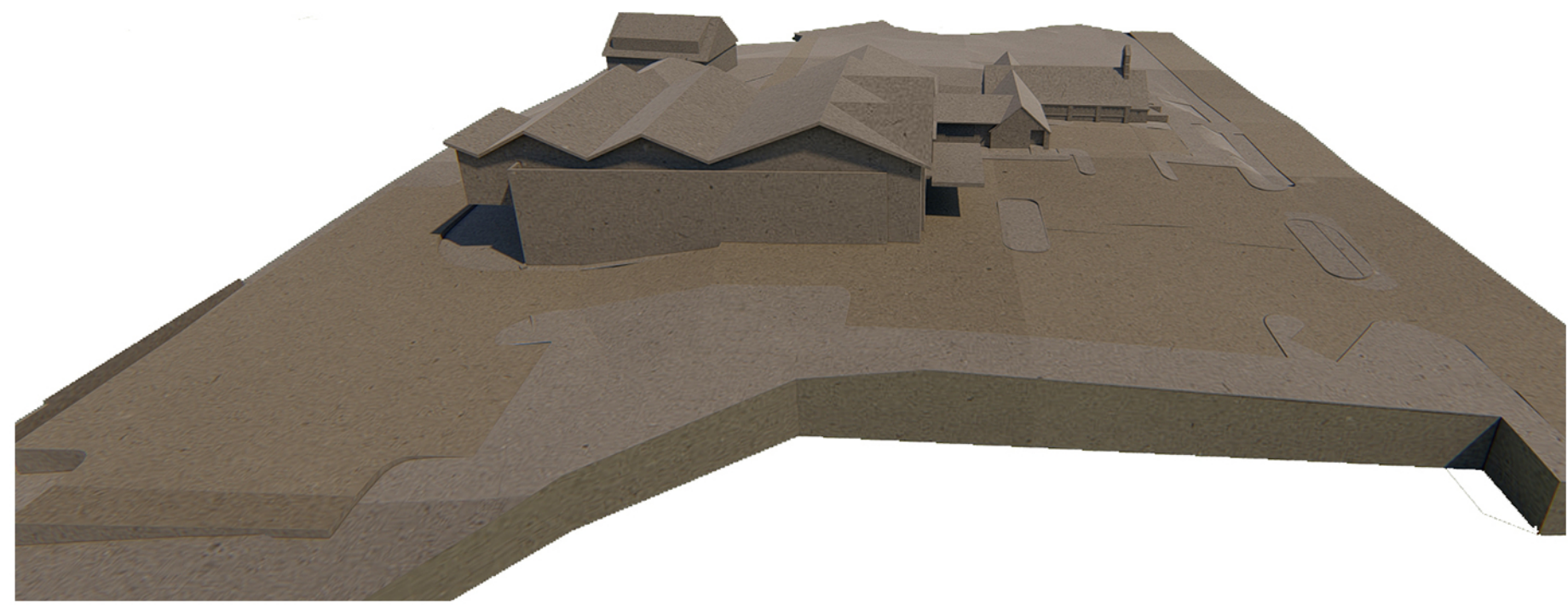
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DATE:

SHEET TITLE:  
**TREE NOTES, DETAILS  
AND PLAN LIST**

SHEET NUMBER:  
**T.2**

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**TRAFFIC IMPACT STUDY  
FOR  
SMARTIES ACADEMY REDEVELOPMENT  
AT 465 CLAIREMONT AVENUE,  
CITY OF DECATUR, GEORGIA**



***Prepared for:***

***Smarties Childcare, LLC  
465 Clairemont Avenue  
Decatur, GA 30030***

***Prepared By:***



**A&R Engineering Inc.**

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Marietta, GA 30067  
Tel: (770) 690-9255 Fax: (770) 690-9210  
[www.areng.com](http://www.areng.com)

February 17, 2023  
A & R Project # 22-255

# TABLE OF CONTENTS

<b>Item</b>	<b>Page</b>
<b>1.0 Introduction</b> .....	<b>1</b>
<b>2.0 Existing Facilities / Conditions</b> .....	<b>3</b>
2.1 Roadway Facilities .....	3
2.1.1 SR 155 (Clairemont Avenue) .....	3
2.1.2 Erie Avenue .....	3
<b>3.0 Study Methodology</b> .....	<b>4</b>
3.1 Unsignalized Intersections .....	4
3.2 Signalized Intersections .....	5
<b>4.0 Existing 2023 Traffic Analysis</b> .....	<b>6</b>
4.1 Existing Traffic Volumes .....	6
4.2 Existing Traffic Operations .....	9
<b>5.0 Proposed Development</b> .....	<b>10</b>
5.1 Trip Generation .....	12
5.2 Trip Distribution .....	12
<b>6.0 Future 2025 Traffic Analysis</b> .....	<b>14</b>
6.1 Future “No-Build” Conditions .....	14
6.1.1 Annual Traffic Growth.....	14
6.2 Future “Build” Conditions .....	14
6.3 Auxiliary Lane Analysis .....	15
6.3.1 Left Turn Lane Analysis .....	15
6.3.2 Deceleration Turn Lane Analysis.....	16
6.4 Future Buildout Year 2025 Traffic Operations .....	17
6.5 Future Horizon Year 2030 Traffic Operations .....	20
<b>7.0 Conclusions and Recommendations</b> .....	<b>24</b>
7.1 Recommendations for Site Access Configuration.....	25
Appendix	

## LIST OF TABLES

<b>Item</b>	<b>Page</b>
Table 1 – Level-of-service Criteria for Unsignalized Intersections.....	4
Table 2 – Level-of-service Criteria for Signalized Intersections .....	5
Table 3 – Existing Intersection Operations .....	9
Table 4 – Trip Generation .....	12
Table 5 – GDOT Requirements for Left Turn Lanes .....	15
Table 6 – GDOT Requirements for Deceleration Lanes .....	16
Table 7 – Future Intersection Operations (Buildout Year 2025).....	17
Table 8 – Future Intersection Operations (Horizon year 2030).....	20

## LIST OF FIGURES

<b>Item</b>	<b>Page</b>
Figure 1 – Location Map.....	2
Figure 2 – Existing Weekday Peak Hour Volumes.....	7
Figure 3 – Existing Traffic Control and Lane Geometry .....	8
Figure 4 – Site Plan.....	11
Figure 5 – Outer Leg Trip Distribution and Site Generated Peak Hour Volumes.....	13
Figure 6 – Future 2025 (No-Build) Peak Hour Volumes.....	18
Figure 7 – Future 2025 (Build) Peak Hour Volumes.....	19
Figure 8 – Future 2030 (No-Build) Weekday Peak Hour Volumes.....	21
Figure 9 – Future 2030 (Build) Weekday Peak Hour Volumes.....	22
Figure 10 – Future Traffic Control and Lane Geometry .....	23



## 1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact from the planned redevelopment of Smarties Academy at 465 Clairemont Avenue in the City of Decatur, Georgia. The traffic analysis evaluates the current operations compared to the future conditions with the traffic generated by the development. The planned Smarties Academy expansion will increase the capacity of the existing day care center from 148 students to 300 students in the future. The project also proposes expanding the existing parking lot and repaving the currently unused exit-only driveway on SR 155 (Clairemont Avenue), which will then be accessible following the site redevelopment.



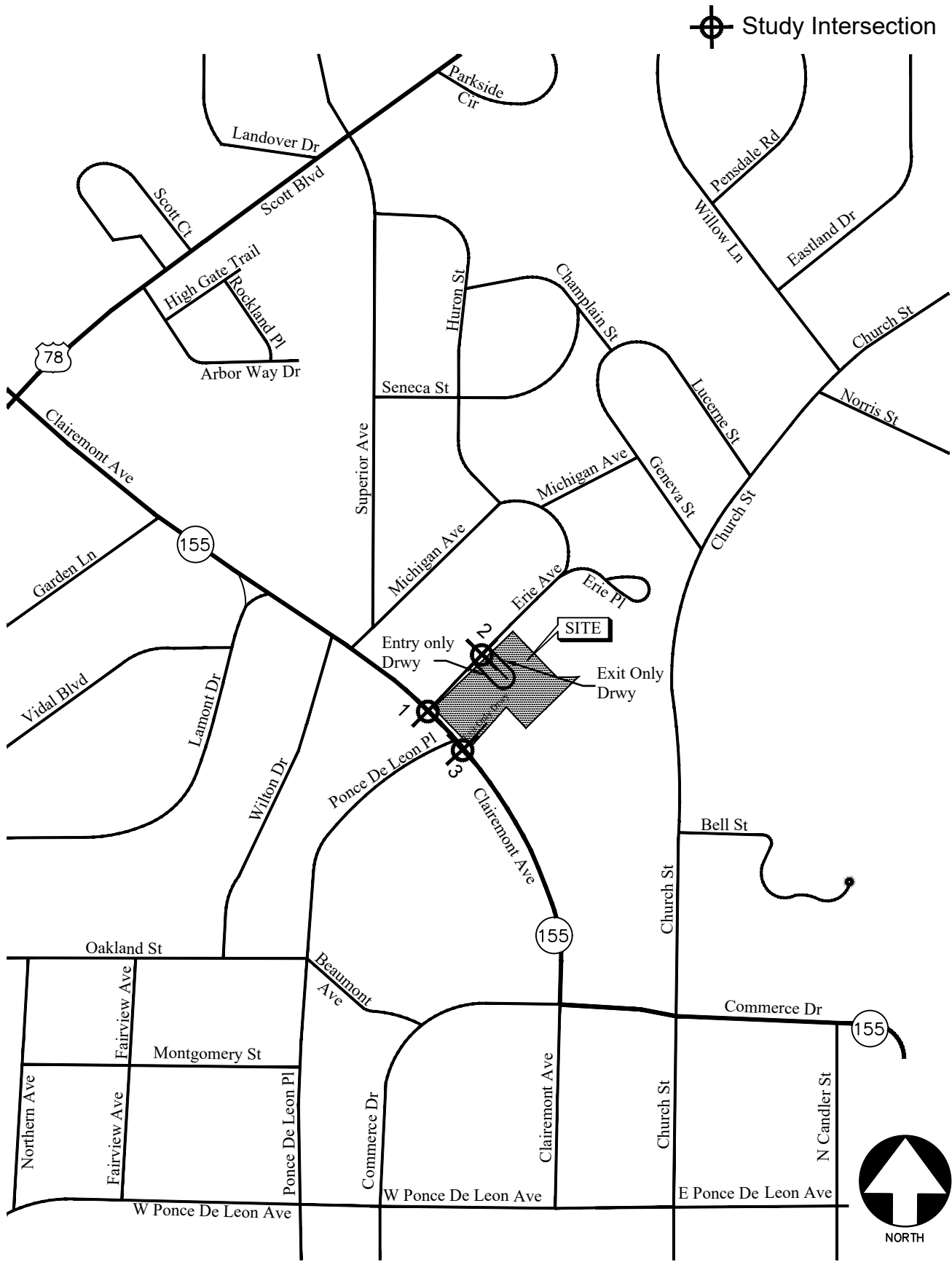
The development proposes access at the following locations:

- Full access site driveway on Erie Avenue
- Exit-only driveway on SR 155 (Clairemont Avenue)

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the following intersections:

- SR 155 (Clairemont Avenue) at Erie Avenue
- Erie Avenue at Site Driveway

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network are shown in Figure 1.



LOCATION MAP

FIGURE 1

A&R Engineering Inc.

## **2.0 EXISTING FACILITIES / CONDITIONS**

### **2.1 Roadway Facilities**

The following is a brief description of each of the roadway facilities located in proximity to the site:

#### **2.1.1 SR 155 (Clairemont Avenue)**

SR 155 (Clairemont Avenue) is an east-west, four-lane undivided roadway with a posted speed limit of 35 mph in the vicinity of the site. GDOT traffic counts (Station ID 089-3229) indicate that the daily traffic volume on Clairemont Avenue in 2021 was 16,300 vehicles per day to the west of Erie Avenue. GDOT classifies Clairemont Avenue as a minor arterial urban roadway.

#### **2.1.2 Erie Avenue**

Erie Avenue is a north-south, two-lane undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

## 3.0 STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board’s Highway Capacity Manual, 6th edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

### 3.1 Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level-of-service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume to capacity ratio greater than 1 is designated as “F” regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue.

Level-of-service is assigned a letter designation from “A” through “F”. Level-of-service “A” indicates excellent operations with little delay to motorists, while level-of-service “F” exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

TABLE 1 — LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS		
Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

\*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6<sup>th</sup> edition, Exhibit 20-2 *LOS Criteria: Motorized Vehicle Mode*

### 3.2 Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Both control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. A volume-to-capacity ratio greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersection.

TABLE 2 – LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS		
Control Delay (sec/vehicle) *	LOS for Lane Group by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

\*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6<sup>th</sup> edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual *cycle failures* (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.

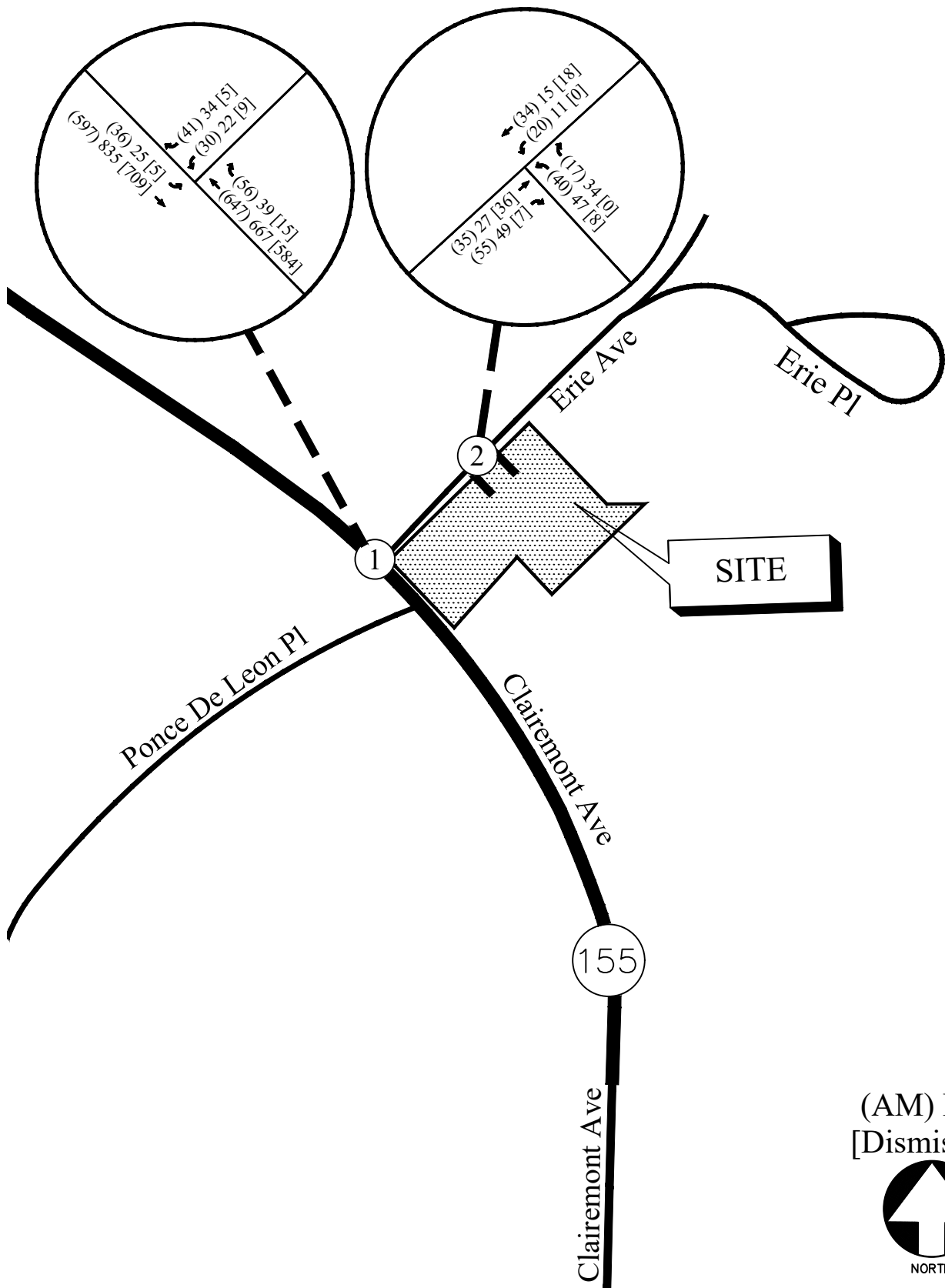
## **4.0 EXISTING 2023 TRAFFIC ANALYSIS**

### **4.1 Existing Traffic Volumes**

Existing traffic counts were obtained at the following study intersections:

- SR 155 (Clairemont Avenue) at Erie Avenue
- Erie Avenue at Smarties Academy Site Driveway




Turning movement counts were collected on Tuesday, January 17, 2023. All turning movement counts were recorded during the AM, local school dismissal, and PM peak hours between 7:00 AM to 9:00 AM, 2:00 PM to 4:00 PM, and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.

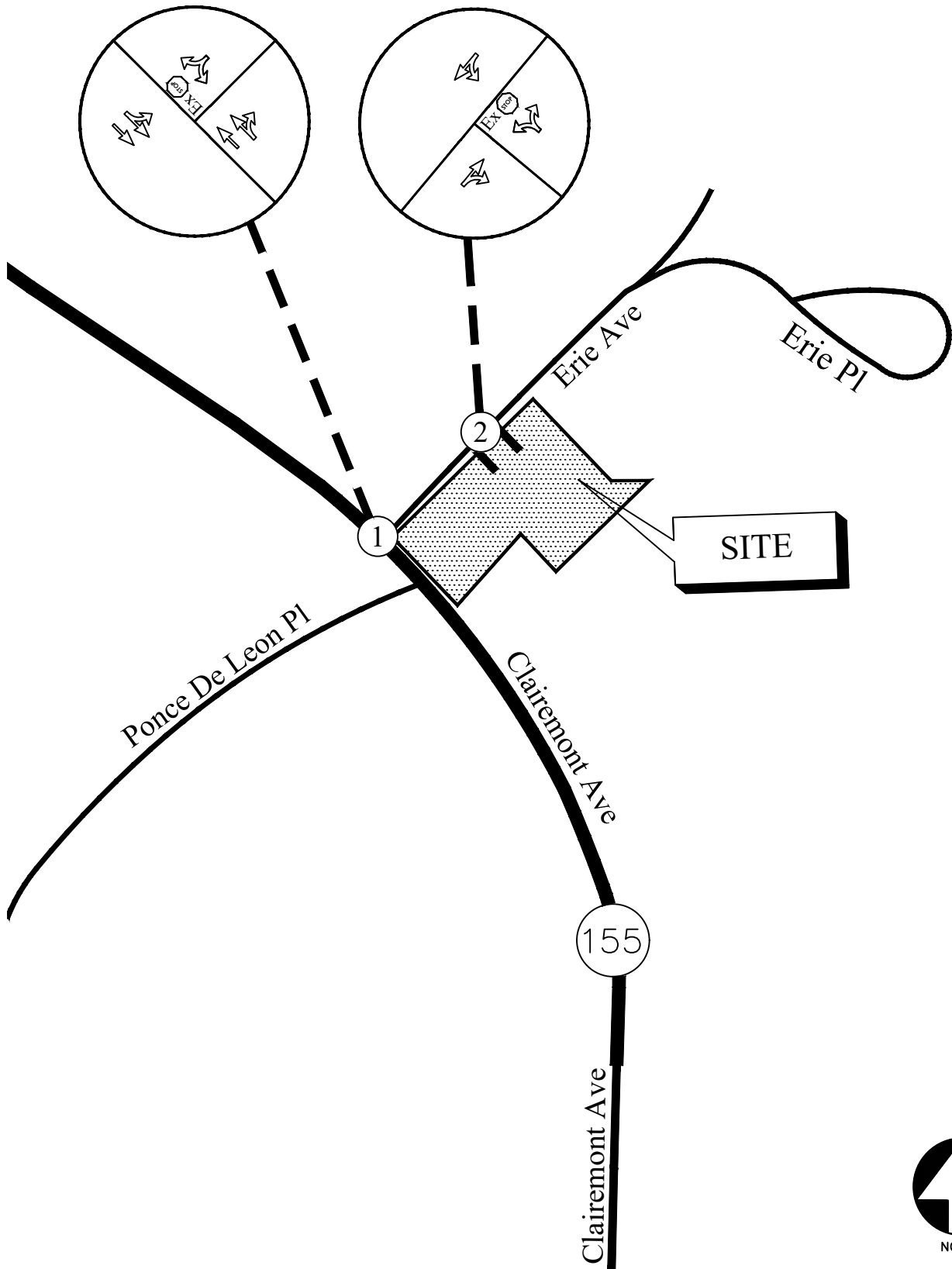


EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 2  
A&R Engineering Inc.

**LEGEND**

- Ex  Existing Signed Approach
-  Existing Lane Geometry
- Ex  Existing Traffic Signal



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3

A&R Engineering Inc.



## 4.2 Existing Traffic Operations

Existing 2023 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analysis are shown in Table 3.

TABLE 3 – EXISTING INTERSECTION OPERATIONS					
Intersection		Traffic Control	LOS (Delay)		
			AM Peak	School Dismissal	PM Peak
1	<b><u>SR 155 (Clairemont Avenue) @ Erie Avenue</u></b>	Stop Controlled on Southbound Approach	A (9.4)	A (9.0)	A (9.3)
	-Eastbound Left -Southbound Approach		C (20.3)	C (18.9)	C (19.5)
2	<b><u>Erie Avenue @ Site Driveway</u></b>	Stop Controlled on Westbound Approach	A (9.7)	A (9.0)	A (9.2)
	-Westbound Approach -Southbound Left		A (7.5)	A (7.3)	A (7.4)

The results of the existing traffic operations analysis indicate that all the approached at the unsignalized study intersections are operating at a level of service “C” or better during the AM, school dismissal and PM peak hours.

## 5.0 PROPOSED DEVELOPMENT

The planned Smarties Academy expansion will increase the capacity of the Day Care Center from 148 students to 300 in the future. The project also proposes expanding the existing parking lot and repaving the currently unused exit-only driveway on SR 155 (Clairemont Avenue), which will then be accessible following the site redevelopment.

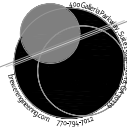


The development proposes access at the following locations:

- Full access site driveway on Erie Avenue
- Exit-only driveway on SR 155 (Clairemont Avenue)

A site plan is shown in Figure 4.

SITE CONSTRUCTION SCOPE			SITE CONSTRUCTION	
SN	ITEM	DESCRIPTION		EST. QUANTITY
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REVISIONS		
NO.	DATE	DESCRIPTION

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**Owner / Developer**  
 Smarties Academy  
 465 Claremont Ave.  
 Decatur, GA 30030

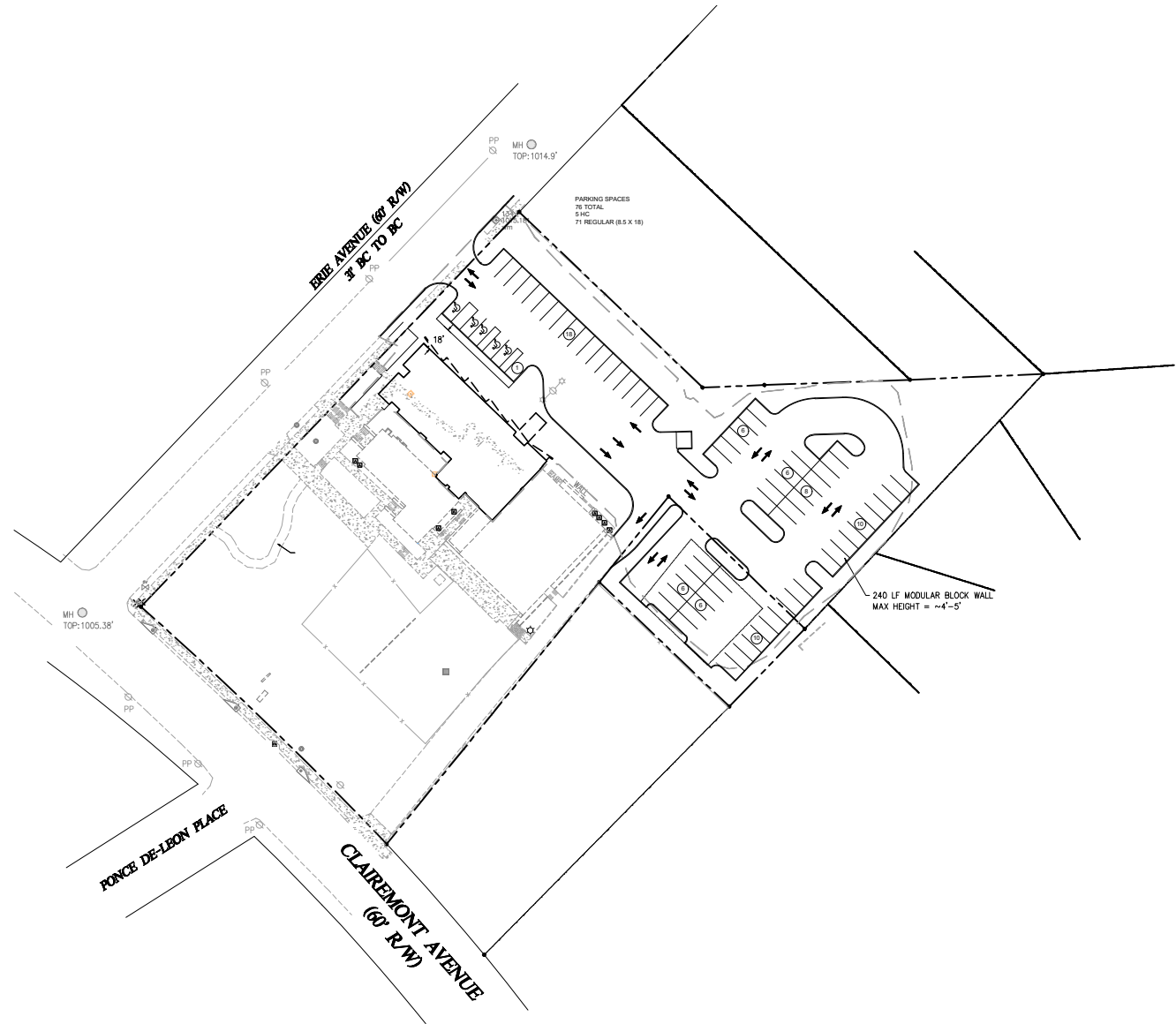
**Smarties Academy**  
 Addition + Renovation  
 465 Claremont Ave.  
 Decatur, GA 30030

**NOT ISSUED FOR CONSTRUCTION**

PROJECT NO.: 22071  
 DATE: 10-15-22  
 SHEET TITLE: SITE PLAN

SHEET NO.:

C-3.0



PARKING SPACES  
 28 TOTAL  
 5 HC  
 23 REGULAR (8.5 X 18)

240 LF MODULAR BLOCK WALL  
 MAX HEIGHT = 4'-5"

MH  
 TOP: 1005.38'

MH  
 TOP: 1014.9'

BRID AVENUE (60' R/W)  
 34' BC TO BC

PONCE DE-LEON PLACE

CLAREMONT AVENUE  
 (60' R/W)

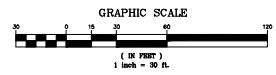


Figure 4 – Site Plan

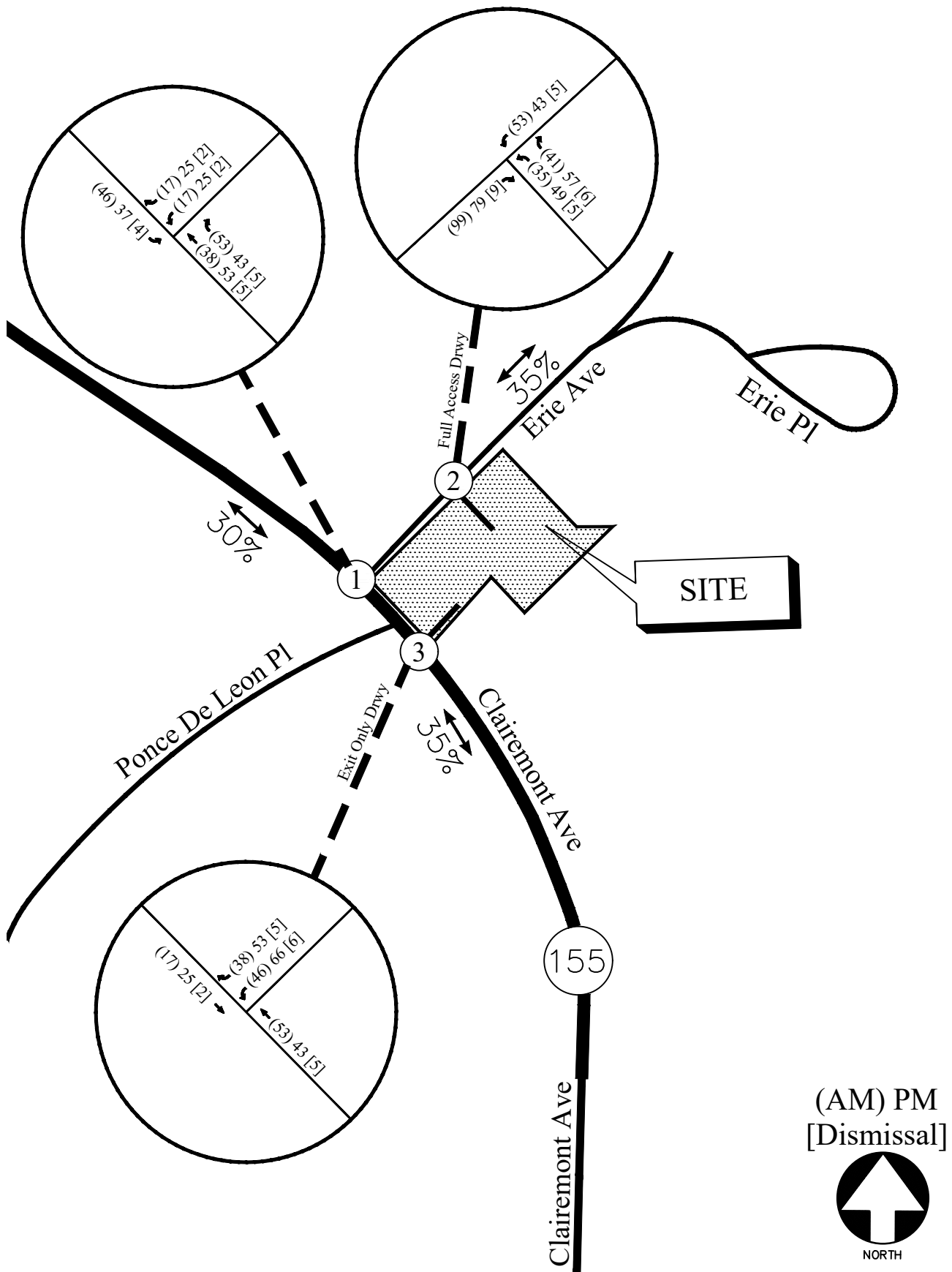
## 5.1 Trip Generation

Smarties Academy is proposing to increase its enrolment to 300 students after its expansion from a 148-student capacity. ITE Trip Generation Manual, 11<sup>th</sup> Edition gives trip generation rates for a maximum of 220 students for the ITE Land Use: *565 – Day Care Center and* recommends that local data should be collected and used to estimate trip generation, if the size of a study site is not within the range of data points presented in the Manual. Since the size of the study is larger than the size of studies reported in the Trip Generation Manual, it was not recommended to use the ITE rates in this case. Instead, the post-redevelopment trip generation (300 students) was estimated by taking the peak hour counts for traffic entering and leaving the existing site, and pro-rating the existing counts by a ratio of 300/148. The estimated ITE 24-Hour 2-way total trip volume for a day care center with 148 students (605 trips) was also pro-rated by the same ratio. The calculated total trip generation for the proposed development is shown in Table 4.

TABLE 4 – TRIP GENERATION											
Land Use	Size	AM Peak Hour			PM Peak Hour			School Dismissal Peak Hour			24-Hr
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	
<i>Existing Day Care Center</i>	148 Students	75	57	132	60	81	141	7	8	15	605
<b>Proposed Redevelopment</b>	300 Students	152	116	268	122	164	286	14	16	30	1,226

## 5.2 Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of the existing travel patterns in the area and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersections based on this distribution. The outer-leg distribution and peak hour new traffic generated by the proposed site are shown in Figure 5.



TRIP DISTRIBUTION AND SITE-GENERATED  
WEEKDAY PEAK HOUR VOLUMES

FIGURE 5  
A&R Engineering Inc.

## **6.0 FUTURE 2025 TRAFFIC ANALYSIS**

The future 2025 traffic operations are analyzed for the “Build” and “No-Build” conditions.

### **6.1 Future “No-Build” Conditions**

The “No-Build” (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future “No-Build” volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of through traffic.

#### **6.1.1 Annual Traffic Growth**

To evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last three years revealed growth of approximately 2% in the area was used in the analysis. This growth factor was applied to the existing traffic volumes between collector and arterial roadways to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future “No-Build” volumes on the roadway are shown in Figure 6.

### **6.2 Future “Build” Conditions**

The “Build” or development conditions include the estimated background traffic from the “No-Build” conditions plus the added traffic from the proposed development. To evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes (Figure 6) to calculate the future traffic volumes after the construction of the development. These total future “Build” traffic volumes are shown in Figure 7.

### 6.3 Auxiliary Lane Analysis

Included below are analyses for left-turn lanes and deceleration lanes for the main site driveway on Erie Avenue per GDOT standards. The analyses below are based off the trip distribution included in Section 5.2. According to the trip distribution, the 24-hour two-way volume entering and exiting of the site are 687 vehicles.

#### 6.3.1 Left Turn Lane Analysis

For two-lane roadways with AADT's under 6,000 vehicles and a posted speed limit of 35 mph or less, the daily site-generated traffic volume threshold to warrant a left turn lane is 300 left-turning vehicles a day. The projected left turn volumes per day for the main site driveway is shown in Table 5.

TABLE 5 – GDOT REQUIREMENTS FOR LEFT TURN LANES					
Intersection	Left Turn Traffic (% Total Entering)	Left Turn Volume (vehicles/day)	Roadway Speed / # Lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants Met?
Erie Avenue @ Full Access Site Driveway	35%	<b>215</b> (Total Trips) ÷ 2 × 0.35 = (1,226) ÷ 2 × 0.2 = 215	25 mph / 2-Lane / < 6,000	300	No

A left turn lane is not warranted at the main site driveway.

### 6.3.2 Deceleration Turn Lane Analysis

For two lane roadways with AADT's under 6,000 vehicles and a posted speed limit of 35 mph or less, the daily site generated traffic volume threshold to warrant a deceleration lane is 200 right-turning vehicles a day. The projected right turn volumes per day for the main site driveway is shown in Table 6.

TABLE 6 – GDOT REQUIREMENTS FOR DECELERATION LANES					
Intersection	Right Turn Traffic (% total entering)	Right-turn Volume (vehicles/day)	Roadway Speed / # Lanes / ADT	GDOT Threshold (vehicles/day)	Warrants Met?
Erie Avenue @ Full Access Site Driveway	80%	<b>398</b> (Total Trips) ÷ 2 × 0.65 = (1,226) ÷ 2 × 0.65 = 398	25 mph / 2-Lane / < 6,000	200	Yes

The site driveway will meet GDOT warrants for a deceleration lane. However, as GDOT auxiliary lane standards are primarily implemented on state highways with high speed limits, a deceleration lane is not recommended for this driveway with Erie Avenue being a local road with low traffic volumes and a speed limit of only 25 mph. Additionally, the addition of a right turn lane for the site driveway is not considered to be a feasible option due to the lack of available space, as the site frontage along the east side of Erie Avenue is occupied by a sidewalk and mature trees (additional concerns include the grade difference and existing concrete steps leading to the day care building).



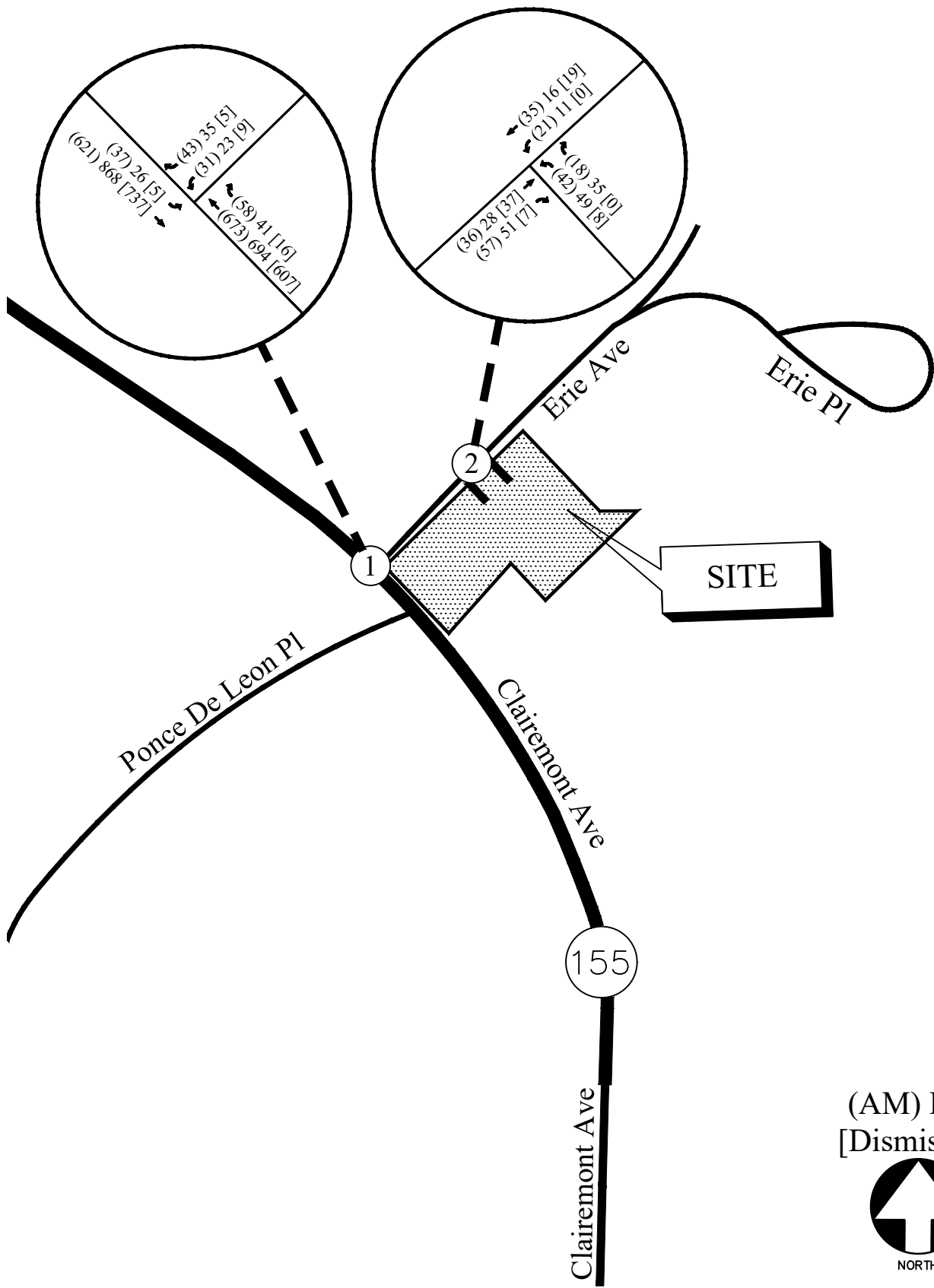


## 6.4 Future Buildout Year 2025 Traffic Operations

The future “No-Build” and “Build” traffic operations were analyzed using the volumes in Figure 6 and Figure 7, respectively. The results of the future traffic operations analysis for the 2025 buildout year are shown below in Table 7.

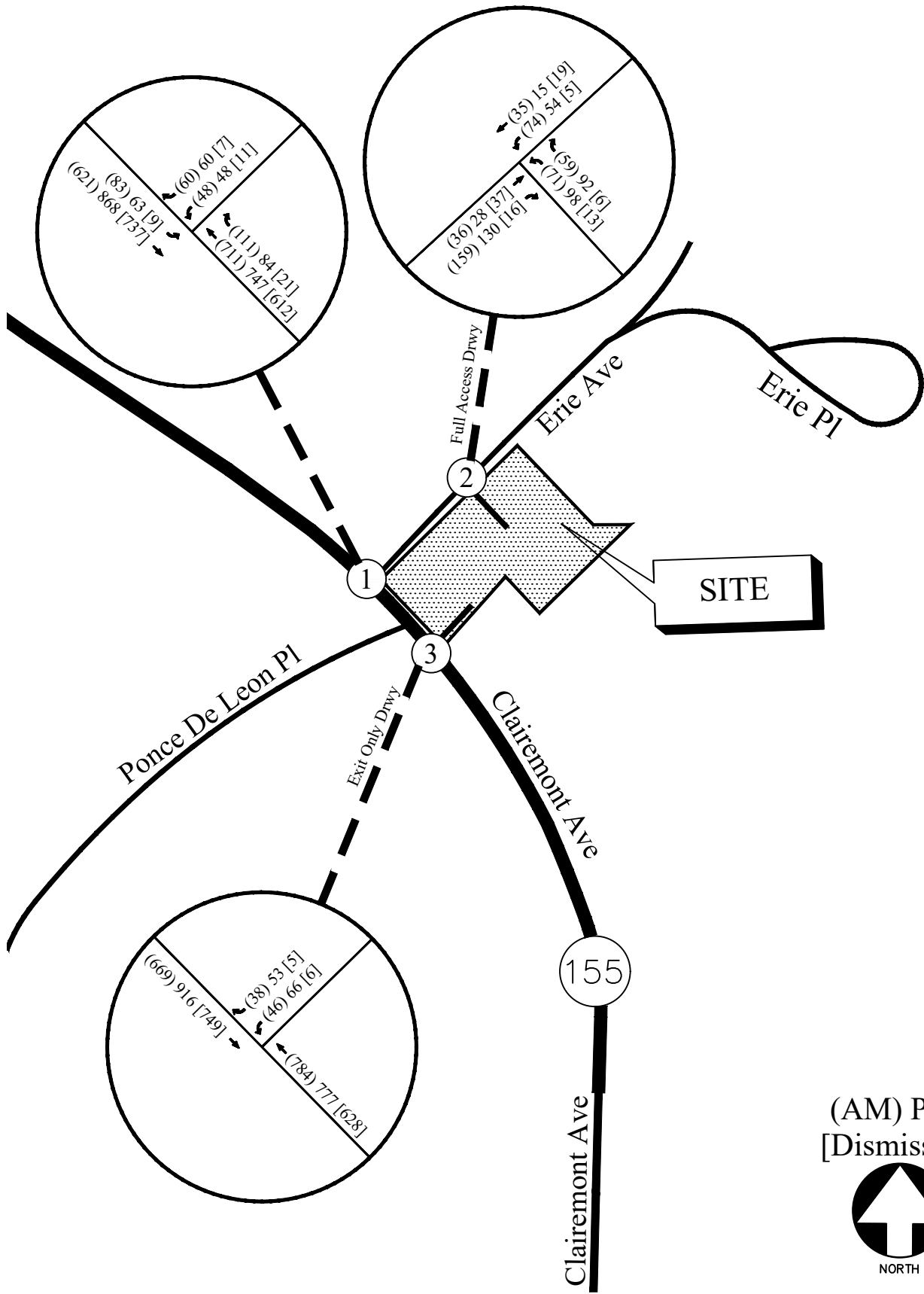
TABLE 7 – FUTURE INTERSECTION OPERATIONS (BUILDOUT YEAR 2025)							
Intersection		Future Condition: LOS (Delay)					
		NO-BUILD (2025)			BUILD (2025)		
		AM	PM	Dismissal	AM	PM	Dismissal
1	<b><u>SR 155 (Clairemont Avenue) @ Erie Avenue</u></b>						
	-Eastbound Left -Southbound Approach	A (9.6) C (21.7)	A (9.4) C (20.9)	A (9.1) C (19.9)	B (10.4) E (41.5)	B (10.0) E (43.1)	A (9.1) C (20.0)
2	<b><u>Erie Avenue @ Site Driveway</u></b>						
	-Westbound Approach -Southbound Left	A (9.8) A (7.5)	A (9.2) A (7.4)	A (9.0) A (0.0)	B (12.4) A (7.9)	B (10.8) A (7.7)	A (9.0) A (7.4)
3	<b><u>SR 155 (Clairemont Avenue) @ Exit-Only Driveway</u></b>						
	-Southbound Approach	-	-	-	D (27.1)	D (44.2)	C (17.3)

The results of the future traffic operations analysis indicate that all the approaches at the unsignalized intersections will operate at a level-of-service “E” or better during the AM, School Dismissal, and PM peak hours.



FUTURE 2025 (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 6  
A&R Engineering Inc.



FUTURE 2025 (BUILD) WEEKDAY PEAK HOUR  
VOLUMES

FIGURE 7  
A&R Engineering Inc.

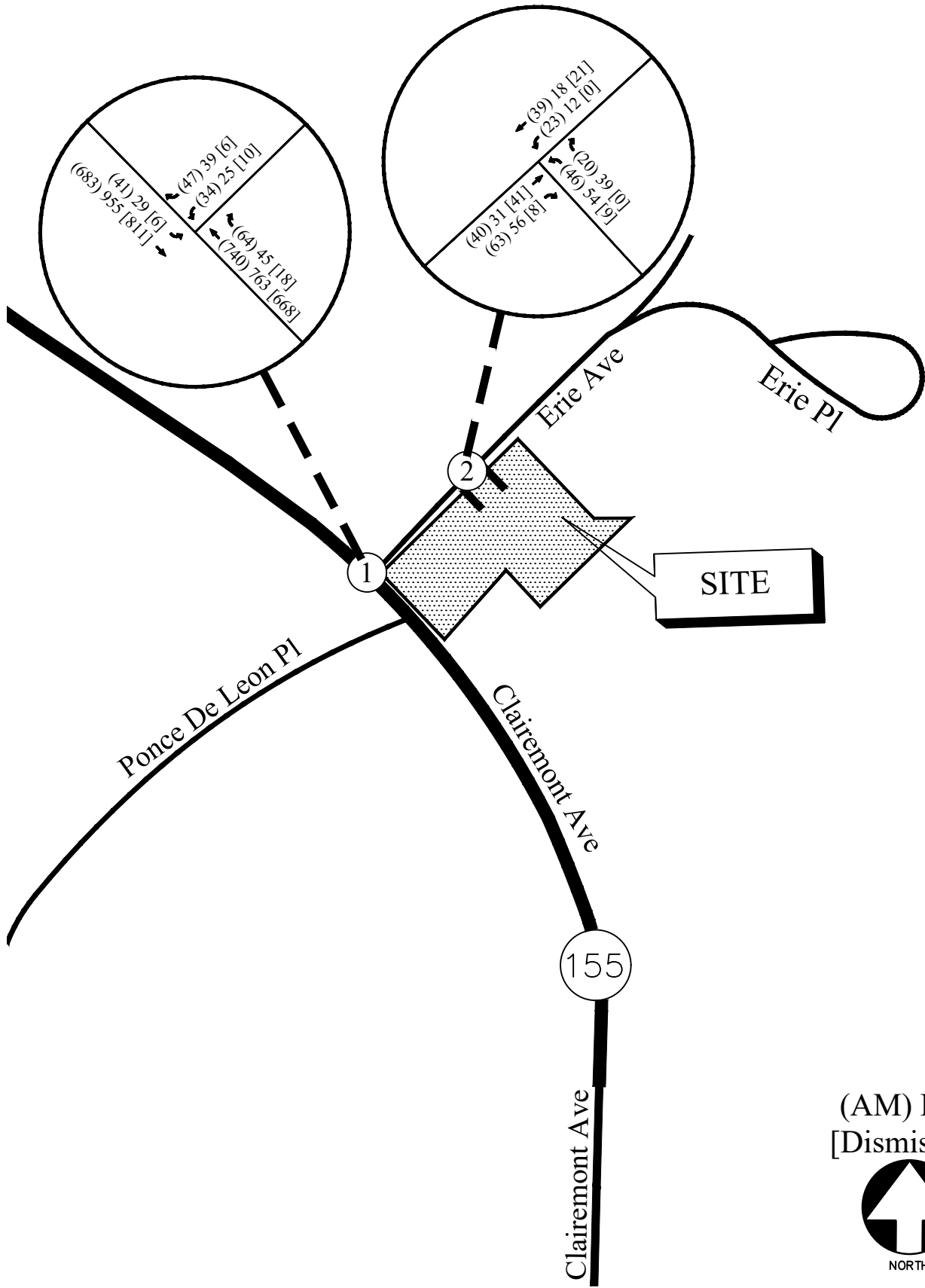
## 6.5 Future Horizon Year 2030 Traffic Operations

The buildout 2025 “No-Build” volumes were grown for five years (from buildout year 2025 to horizon year 2030) to obtain the horizon year 2030 “No-Build” volumes (Figure 9) using the 2% annual traffic growth factor. The additional traffic volumes from the proposed site (Figure 5) added to the horizon year 2030 “No-Build” volumes (Figure 8) to obtain the horizon year 2030 “Build” traffic volumes (Figure 9) after the construction of the development.

The future Horizon 2030 “No-Build” and “Build” traffic operations were analyzed using the volumes in Figure 8 and Figure 9, respectively, and the results are shown in Table 8 below.

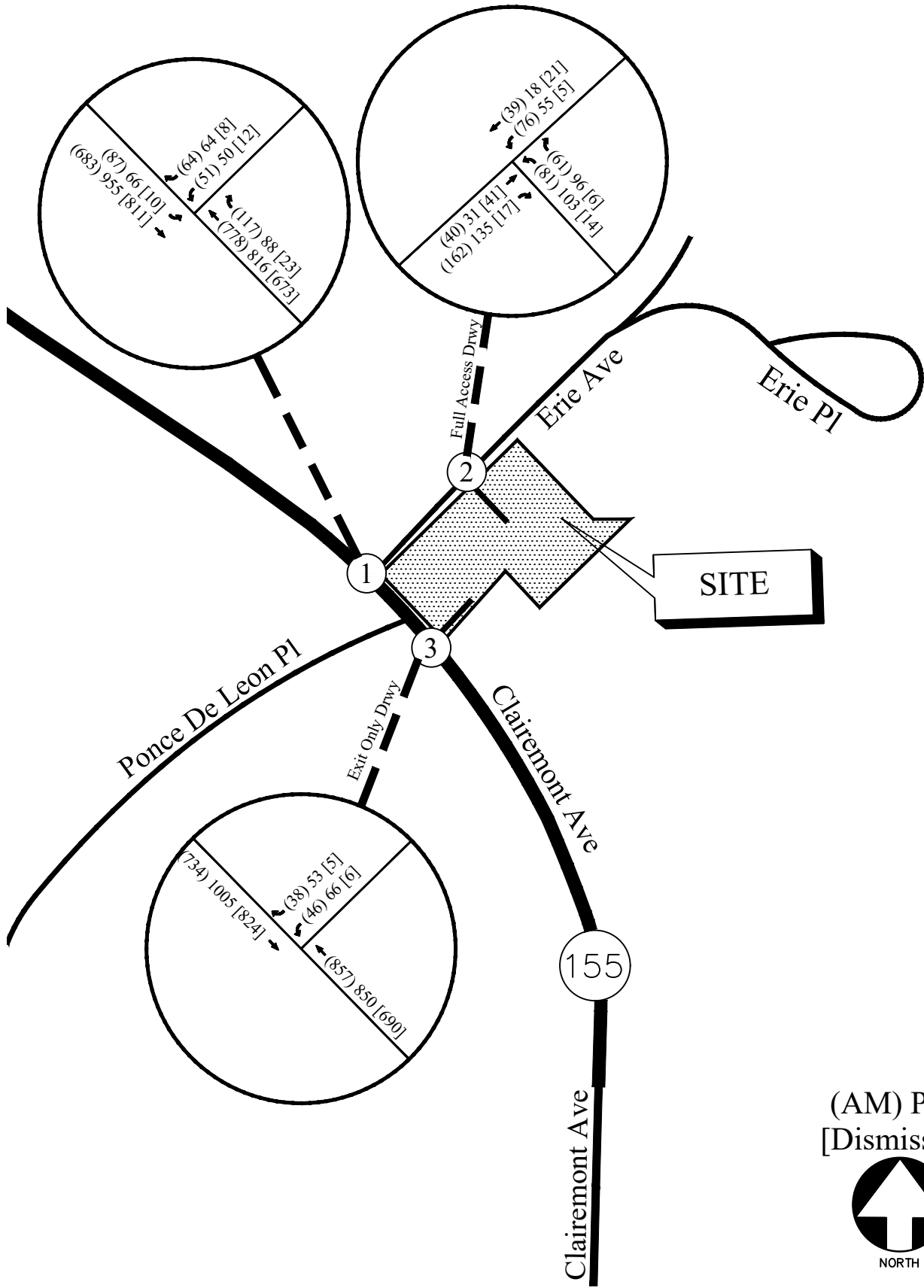
TABLE 8 – FUTURE INTERSECTION OPERATIONS (HORIZON YEAR 2030)							
Intersection		Future Condition: LOS (Delay)					
		NO-BUILD (2030)			BUILD (2030)		
		AM	PM	Dismissal	AM	PM	Dismissal
1	<b><u>SR 155 (Clairemont Avenue) @ Erie Avenue</u></b>						
	-Eastbound Left -Southbound Approach	A (9.9) D (26.9)	A (9.7) C (24.9)	A (9.4) C (22.4)	B (10.8) F (65.6)	B (10.4) F (68.0)	A (9.4) C (22.9)
2	<b><u>Erie Avenue @ Site Driveway</u></b>						
	-Westbound Approach -Southbound Left	B (10.0) A (7.5)	A (9.3) A (7.4)	A (9.0) A (0.0)	B (12.7) A (8.0)	B (11.0) A (7.7)	A (9.1) A (7.4)
3	<b><u>SR 155 (Clairemont Avenue) @ Exit-Only Driveway</u></b>						
	-Southbound Approach	-	-	-	D (32.9)	F (63.2)	C (19.3)

The results of the future 2030 traffic operations analysis indicate that most of the approaches at the unsignalized intersections will operate at a level-of-service “D” or better during the AM, School Dismissal, and PM peak hours. The southbound approach at Intersection 1 (Erie Avenue) is projected to operate at a level-of-service “F” in the “Build” scenario AM and PM peak hours, and the southbound approach at Intersection 3 (Exit-Only Site Driveway) is projected to operate at a level-of-service “F” in the PM peak hour. It is not unusual for minor side streets that are stop sign controlled to experience higher delays due to the time gap required for vehicles to make turning movements on busy roadways. Signal warrants will not be met at any of the study intersections in future “Build” 2030 conditions. Recommendations for future traffic control and lane geometry are shown in Figure 10.



FUTURE 2030 (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES







FIGURE 8  
 A&R Engineering Inc.

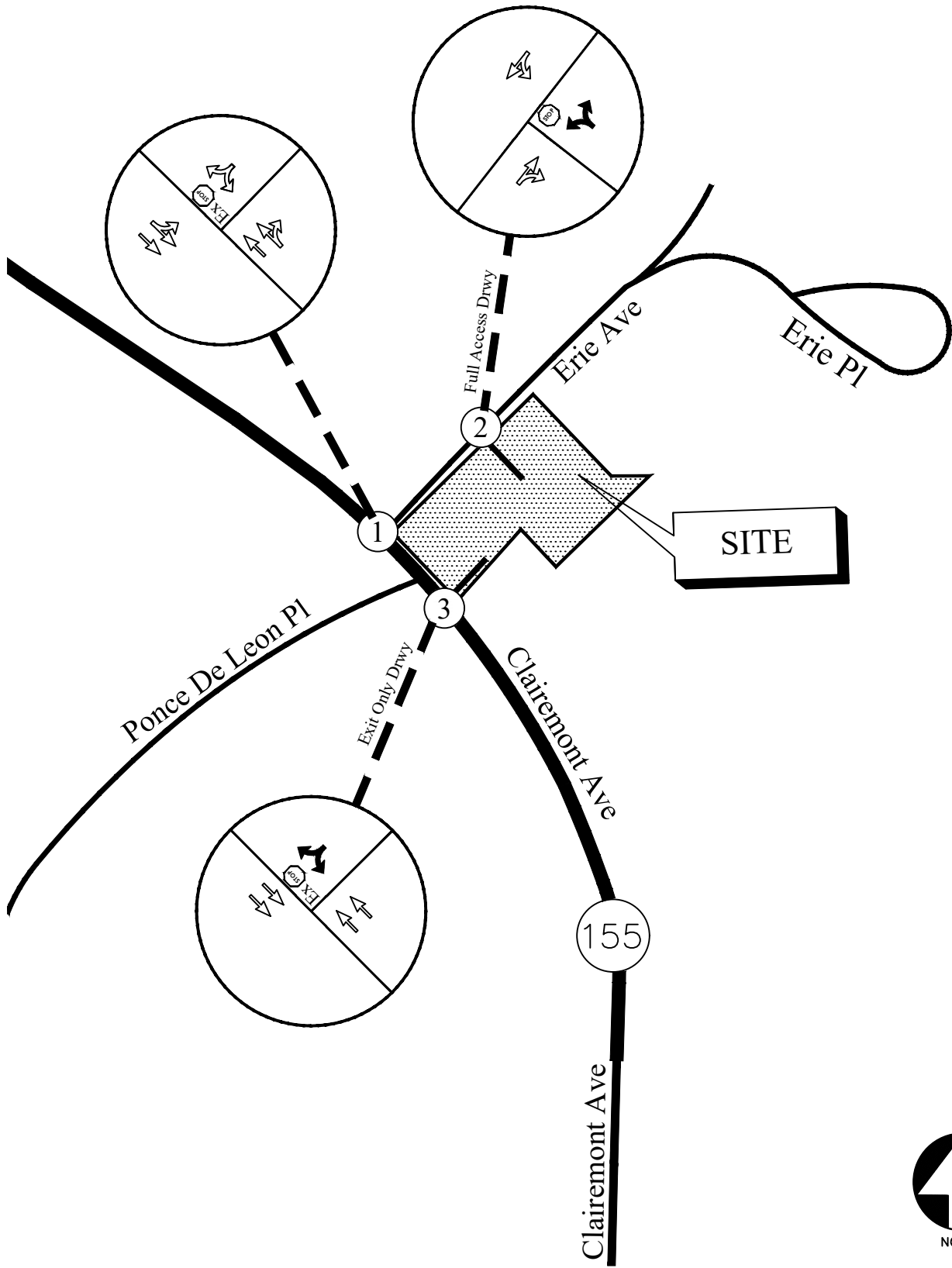


FUTURE 2030 (BUILD) WEEKDAY PEAK HOUR  
VOLUMES

FIGURE 9  
A&R Engineering Inc.

**LEGEND**

- |                                                                                      |                          |                                                                                     |                          |
|--------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------|--------------------------|
| Ex    | Existing Signed Approach |    | Proposed Signed Approach |
|     | Existing Lane Geometry   |  | Proposed Lane Geometry   |
| Ex  | Existing Traffic Signal  |  | Proposed Traffic Signal  |



**FUTURE TRAFFIC CONTROL AND LANE GEOMETRY**

**FIGURE 10**

**A&R Engineering Inc.**

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the planned redevelopment of Smarties Academy at 465 Clairemont Avenue in the City of Decatur, Georgia. The planned Smarties Academy expansion will increase the capacity of the Day Care Center from 148 students to 300 in the future. The project also proposes expanding the existing parking lot and repaving the currently unused exit-only driveway on SR 155 (Clairemont Avenue), which will then be accessible following the site redevelopment.

The development proposes access at the following locations:

- Full access site driveway on Erie Avenue
- Exit-only driveway on SR 155 (Clairemont Avenue)

Existing and future operations after completion of the project were analyzed at the intersections of:

- SR 155 (Clairemont Avenue) at Erie Avenue
- Erie Avenue at Full Access Site Driveway
- SR 155 (Clairemont Avenue) at Exit-Only Site Driveway

The analysis included the evaluation of Future operations for “No-Build” and “Build” conditions, both of which account for increases in the annual growth of through traffic. The results of future traffic operations analysis of the buildout year 2025 indicate that most of the approaches at the unsignalized intersections will operate at a level-of-service “D” or better during the AM, School Dismissal, and PM peak hours. The exception is the southbound approach at Intersection 1 (Erie Avenue), which is projected to operate at a level-of-service “E” in the “Build” scenario AM and PM peak hours. The results of the future 2030 traffic operations analysis indicate that most of the approaches at the unsignalized intersections will operate at a level-of-service “D” or better during the AM, School Dismissal, and PM peak hours. The southbound approach at Intersection 1 (Erie Avenue) is projected to operate at a level-of-service “F” in the “Build” scenario AM and PM peak hours, and the southbound approach at Intersection 3 (Exit-Only Site Driveway) is projected to operate at a level-of-service “F” in the PM peak hour. It is not unusual for minor side streets that are stop sign controlled to experience higher delays due to the time gap required for a vehicle to make a turning movement on a busy multilane roadway. Signal warrants will not be met at any of the study intersections in future “Build” 2030 conditions. Based on the analysis, the proposed development will have minimal impact on traffic operations in the study network.



## 7.1 Recommendations for Site Access Configuration

The following access configuration is recommended for the proposed site driveway intersections:

- Full access driveway on Erie Avenue
  - One entering lane and one exiting lane
  - Stop-sign controlled on the driveway approach with Erie Avenue remaining free-flow
  - Provide adequate sight distance per AASHTO standards
  
- Exit-only driveway on SR 155 (Clairemont Avenue)
  - One exiting lane (no entrance access)
  - Stop-sign controlled on the driveway approach with SR 155 remaining free-flow
  - Provide adequate sight distance per AASHTO standards

## **Appendix**

Existing Intersection Traffic Counts .....
Linear Regression of Daily Traffic.....
Existing Intersection Analysis.....
Future “No-Build” Intersection Analysis – Base Year 2025.....
Future “Build” Intersection Analysis – Base Year 2025 .....
Future “No-Build” Intersection Analysis – Horizon Year 2030 .....
Future “Build” Intersection Analysis – Horizon Year 2030 .....
Traffic Volume Worksheets .....

## **EXISTING INTERSECTION TRAFFIC COUNTS**

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
SR 155 (Clairmont Ave) @ Erie Ave  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220555  
Site Code : 20220555  
Start Date : 01-17-2023  
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Northbound				Erie Ave Southbound				SR 155 (Clairmont Ave) Eastbound				SR 155 (Clairmont Ave) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	1	1	3	82	0	85	0	166	2	168	254
07:15 AM	0	0	0	0	1	0	0	1	2	74	0	76	0	184	4	188	265
07:30 AM	0	0	0	0	3	0	5	8	8	94	0	102	0	202	5	207	317
07:45 AM	0	0	0	0	5	0	8	13	7	142	0	149	0	181	17	198	360
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>23</b>	<b>20</b>	<b>392</b>	<b>0</b>	<b>412</b>	<b>0</b>	<b>733</b>	<b>28</b>	<b>761</b>	<b>1196</b>
08:00 AM	0	0	0	0	8	0	9	17	11	142	0	153	0	140	16	156	326
08:15 AM	0	0	0	0	12	0	15	27	10	164	0	174	0	157	19	176	377
08:30 AM	0	0	0	0	5	0	9	14	8	149	0	157	0	169	4	173	344
08:45 AM	0	0	0	0	5	0	8	13	4	132	0	136	0	183	5	188	337
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>41</b>	<b>71</b>	<b>33</b>	<b>587</b>	<b>0</b>	<b>620</b>	<b>0</b>	<b>649</b>	<b>44</b>	<b>693</b>	<b>1384</b>
*** BREAK ***																	
02:00 PM	0	0	0	0	1	0	3	4	2	104	0	106	0	142	6	148	258
02:15 PM	0	0	0	0	3	0	0	3	2	131	0	133	0	124	6	130	266
02:30 PM	0	0	0	0	1	0	0	1	8	146	0	154	0	128	12	140	295
02:45 PM	0	0	0	0	10	0	7	17	1	173	0	174	0	127	5	132	323
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>10</b>	<b>25</b>	<b>13</b>	<b>554</b>	<b>0</b>	<b>567</b>	<b>0</b>	<b>521</b>	<b>29</b>	<b>550</b>	<b>1142</b>
03:00 PM	0	0	0	0	0	0	1	1	2	138	0	140	0	131	3	134	275
03:15 PM	0	0	0	0	0	0	1	1	0	197	0	197	0	156	3	159	357
03:30 PM	0	0	0	0	2	0	3	5	1	165	0	166	0	144	3	147	318
03:45 PM	0	0	0	0	7	0	0	7	2	209	0	211	0	153	6	159	377
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>5</b>	<b>14</b>	<b>5</b>	<b>709</b>	<b>0</b>	<b>714</b>	<b>0</b>	<b>584</b>	<b>15</b>	<b>599</b>	<b>1327</b>
04:00 PM	0	0	0	0	6	0	6	12	8	208	0	216	0	151	9	160	388
04:15 PM	0	0	0	0	2	0	5	7	4	193	0	197	0	157	3	160	364
04:30 PM	0	0	0	0	2	0	6	8	2	182	0	184	0	165	8	173	365
04:45 PM	0	0	0	0	2	0	11	13	8	222	0	230	0	135	15	150	393
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>28</b>	<b>40</b>	<b>22</b>	<b>805</b>	<b>0</b>	<b>827</b>	<b>0</b>	<b>608</b>	<b>35</b>	<b>643</b>	<b>1510</b>
05:00 PM	0	0	0	0	7	0	11	18	5	209	0	214	0	164	10	174	406
05:15 PM	0	0	0	0	6	0	7	13	7	201	0	208	0	182	15	197	418
05:30 PM	0	0	0	0	6	0	13	19	9	209	0	218	0	146	8	154	391
05:45 PM	0	0	0	0	3	0	3	6	4	216	0	220	0	175	6	181	407
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>34</b>	<b>56</b>	<b>25</b>	<b>835</b>	<b>0</b>	<b>860</b>	<b>0</b>	<b>667</b>	<b>39</b>	<b>706</b>	<b>1622</b>
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>97</b>	<b>0</b>	<b>132</b>	<b>229</b>	<b>118</b>	<b>3882</b>	<b>0</b>	<b>4000</b>	<b>0</b>	<b>3762</b>	<b>190</b>	<b>3952</b>	<b>8181</b>
Apprch %	0	0	0	0	42.4	0	57.6		3	97.1	0		0	95.2	4.8		
Total %	0	0	0	0	1.2	0	1.6	2.8	1.4	47.5	0	48.9	0	46	2.3	48.3	

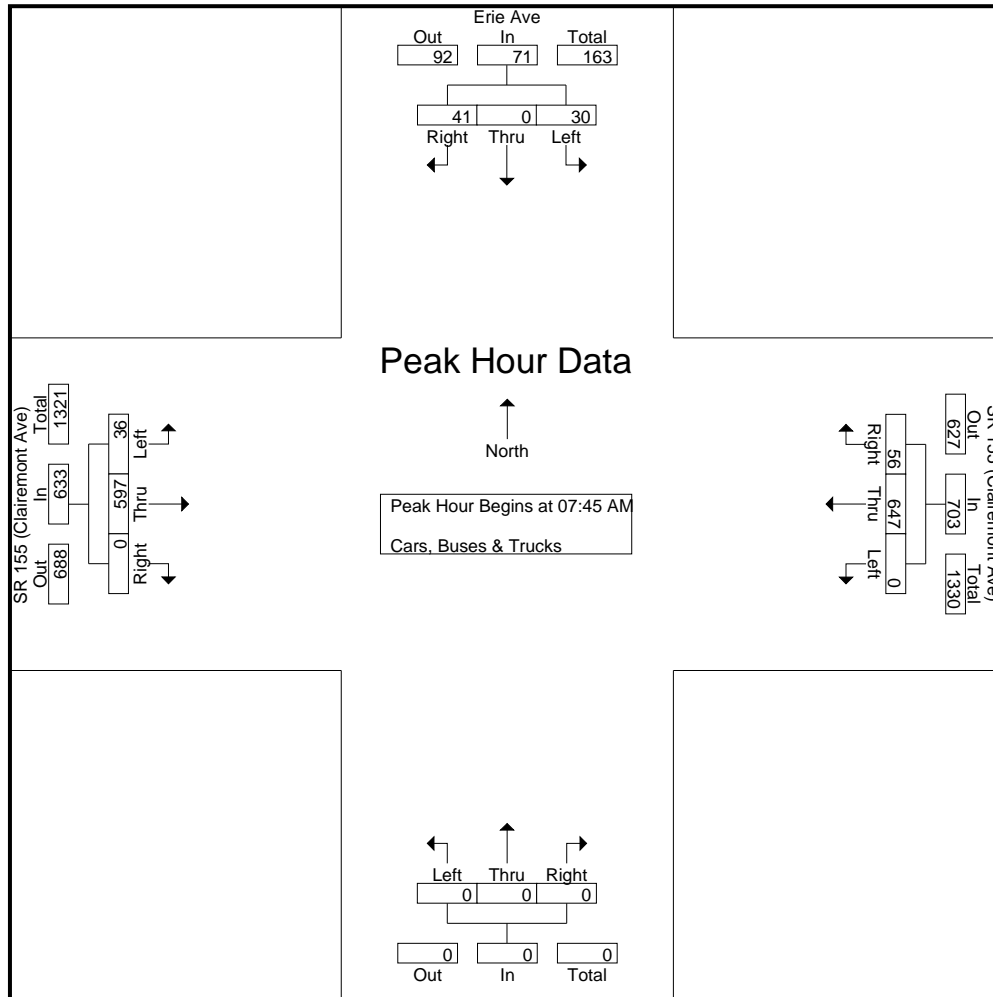
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
SR 155 (Clairmont Ave) @ Erie Ave  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220555  
Site Code : 20220555  
Start Date : 01-17-2023  
Page No : 2

Start Time	Northbound				Erie Ave Southbound				SR 155 (Clairmont Ave) Eastbound				SR 155 (Clairmont Ave) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	5	0	8	13	7	142	0	149	0	181	17	198	360
08:00 AM	0	0	0	0	8	0	9	17	11	142	0	153	0	140	16	156	326
08:15 AM	0	0	0	0	12	0	15	27	10	164	0	174	0	157	19	176	377
08:30 AM	0	0	0	0	5	0	9	14	8	149	0	157	0	169	4	173	344
Total Volume	0	0	0	0	30	0	41	71	36	597	0	633	0	647	56	703	1407
% App. Total	0	0	0	0	42.3	0	57.7	71	5.7	94.3	0	633	0	92	8	703	1407
PHF	.000	.000	.000	.000	.625	.000	.683	.657	.818	.910	.000	.909	.000	.894	.737	.888	.933



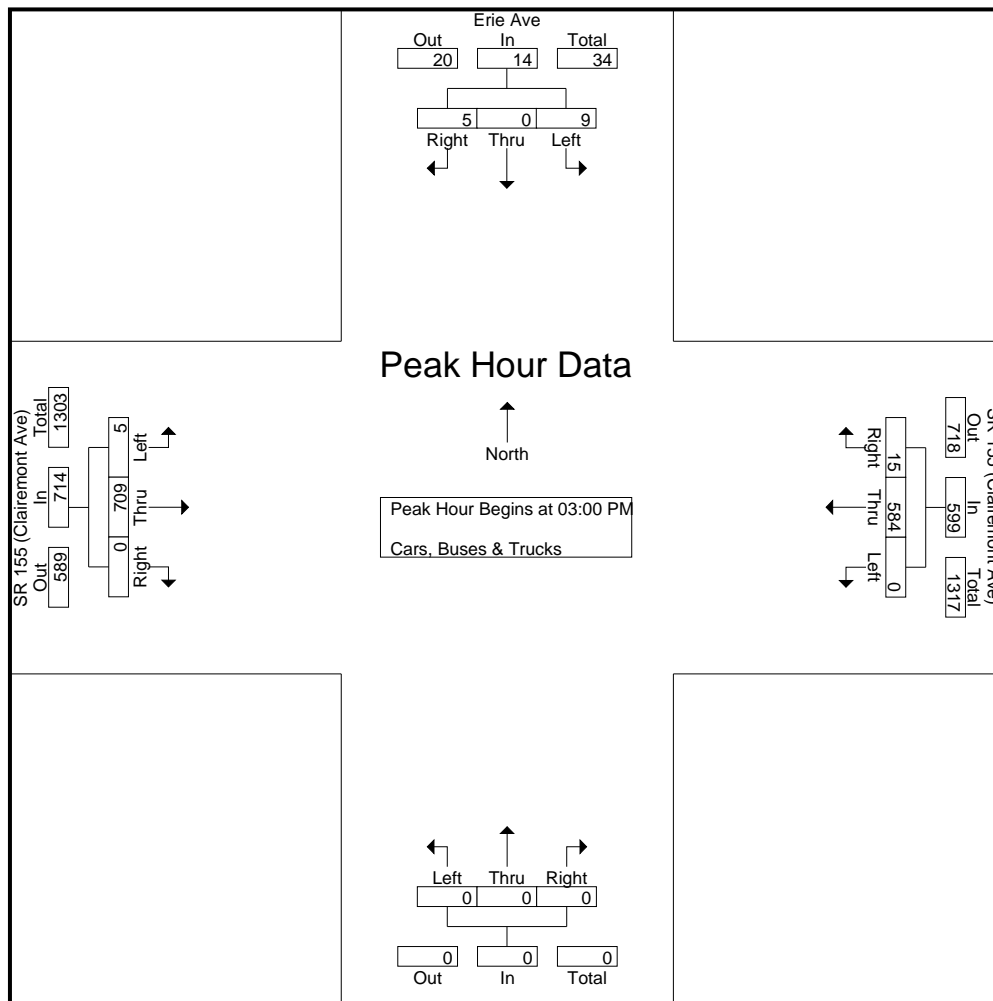
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
SR 155 (Clairmont Ave) @ Erie Ave  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220555  
Site Code : 20220555  
Start Date : 01-17-2023  
Page No : 3

Start Time	Northbound				Erie Ave Southbound				SR 155 (Clairmont Ave) Eastbound				SR 155 (Clairmont Ave) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	0	0	0	0	1	1	2	138	0	140	0	131	3	134	275
03:15 PM	0	0	0	0	0	0	1	1	0	197	0	197	0	<b>156</b>	3	<b>159</b>	357
03:30 PM	0	0	0	0	2	0	<b>3</b>	5	1	165	0	166	0	144	3	147	318
03:45 PM	0	0	0	0	7	0	0	7	2	<b>209</b>	0	<b>211</b>	0	153	<b>6</b>	159	<b>377</b>
Total Volume	0	0	0	0	9	0	5	14	5	709	0	714	0	584	15	599	1327
% App. Total	0	0	0	0	64.3	0	35.7		0.7	99.3	0		0	97.5	2.5		
PHF	.000	.000	.000	.000	.321	.000	.417	.500	.625	.848	.000	.846	.000	.936	.625	.942	.880



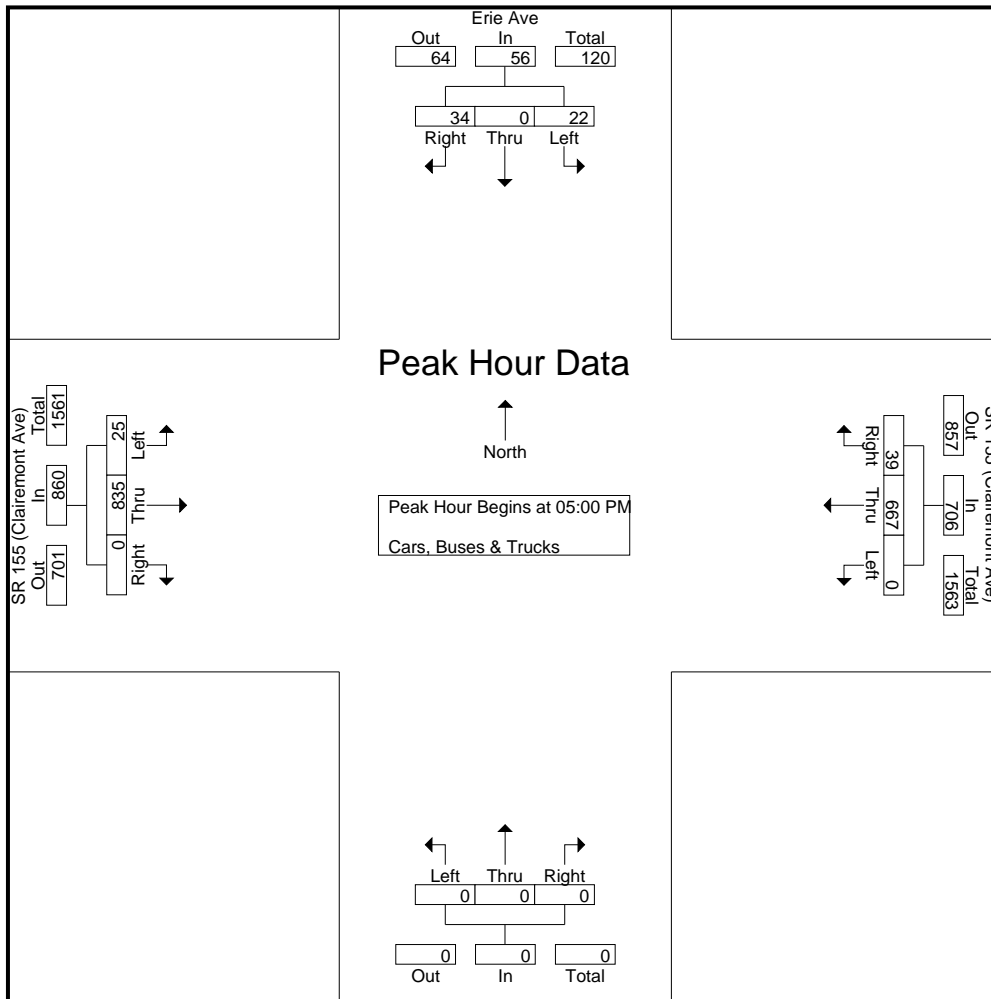
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
SR 155 (Clairmont Ave) @ Erie Ave  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220555  
Site Code : 20220555  
Start Date : 01-17-2023  
Page No : 4

Start Time	Northbound				Erie Ave Southbound				SR 155 (Clairmont Ave) Eastbound				SR 155 (Clairmont Ave) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	7	0	11	18	5	209	0	214	0	164	10	174	406
05:15 PM	0	0	0	0	6	0	7	13	7	201	0	208	0	182	15	197	418
05:30 PM	0	0	0	0	6	0	13	19	9	209	0	218	0	146	8	154	391
05:45 PM	0	0	0	0	3	0	3	6	4	216	0	220	0	175	6	181	407
Total Volume	0	0	0	0	22	0	34	56	25	835	0	860	0	667	39	706	1622
% App. Total	0	0	0	0	39.3	0	60.7		2.9	97.1	0		0	94.5	5.5		
PHF	.000	.000	.000	.000	.786	.000	.654	.737	.694	.966	.000	.977	.000	.916	.650	.896	.970



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
Erie Ave @ Site Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220556  
Site Code : 20220556  
Start Date : 01-17-2023  
Page No : 1

### Groups Printed- Cars, Buses & Trucks

Start Time	Erie Ave Northbound				Erie Ave Southbound				Eastbound				Site Drwy Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	2	3	5	0	1	0	1	0	0	0	0	0	0	1	1	7
07:15 AM	0	2	4	6	2	2	0	4	0	0	0	0	0	0	0	0	10
07:30 AM	0	5	10	15	5	1	0	6	0	0	0	0	6	0	3	9	30
07:45 AM	0	13	9	22	4	6	0	10	0	0	0	0	7	0	3	10	42
<b>Total</b>	<b>0</b>	<b>22</b>	<b>26</b>	<b>48</b>	<b>11</b>	<b>10</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>7</b>	<b>20</b>	<b>89</b>
08:00 AM	0	10	16	26	5	14	0	19	0	0	0	0	6	0	6	12	57
08:15 AM	0	10	18	28	8	11	0	19	0	0	0	0	16	0	4	20	67
08:30 AM	0	2	12	14	3	3	0	6	0	0	0	0	11	0	4	15	35
08:45 AM	0	5	5	10	5	2	0	7	0	0	0	0	12	0	3	15	32
<b>Total</b>	<b>0</b>	<b>27</b>	<b>51</b>	<b>78</b>	<b>21</b>	<b>30</b>	<b>0</b>	<b>51</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>17</b>	<b>62</b>	<b>191</b>
<b>*** BREAK ***</b>																	
02:00 PM	0	7	0	7	0	2	0	2	0	0	0	0	2	0	0	2	11
02:15 PM	0	5	0	5	0	3	0	3	0	0	0	0	0	0	0	0	8
02:30 PM	0	15	5	20	0	4	0	4	0	0	0	0	1	0	0	1	25
02:45 PM	0	9	2	11	0	9	0	9	0	0	0	0	5	0	0	5	25
<b>Total</b>	<b>0</b>	<b>36</b>	<b>7</b>	<b>43</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>69</b>
03:00 PM	0	2	3	5	0	0	0	0	0	0	0	0	2	0	2	4	9
03:15 PM	0	3	0	3	0	2	0	2	0	0	0	0	0	0	0	0	5
03:30 PM	0	3	2	5	0	5	0	5	0	0	0	0	0	0	0	0	10
03:45 PM	0	6	1	7	2	7	0	9	0	0	0	0	0	0	2	2	18
<b>Total</b>	<b>0</b>	<b>14</b>	<b>6</b>	<b>20</b>	<b>2</b>	<b>14</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>6</b>	<b>42</b>
04:00 PM	0	10	7	17	1	6	0	7	0	0	0	0	5	0	2	7	31
04:15 PM	0	4	3	7	4	2	0	6	0	0	0	0	4	0	3	7	20
04:30 PM	0	3	6	9	7	2	0	9	0	0	0	0	8	0	4	12	30
04:45 PM	0	5	16	21	6	4	0	10	0	0	0	0	8	0	10	18	49
<b>Total</b>	<b>0</b>	<b>22</b>	<b>32</b>	<b>54</b>	<b>18</b>	<b>14</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>19</b>	<b>44</b>	<b>130</b>
05:00 PM	0	5	12	17	2	5	0	7	0	0	0	0	12	0	7	19	43
05:15 PM	0	7	14	21	1	5	0	6	0	0	0	0	13	0	9	22	49
05:30 PM	0	10	7	17	2	1	0	3	0	0	0	0	14	0	8	22	42
05:45 PM	0	9	1	10	1	4	0	5	0	0	0	0	2	0	3	5	20
<b>Total</b>	<b>0</b>	<b>31</b>	<b>34</b>	<b>65</b>	<b>6</b>	<b>15</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>27</b>	<b>68</b>	<b>154</b>
<b>Grand Total</b>	<b>0</b>	<b>152</b>	<b>156</b>	<b>308</b>	<b>58</b>	<b>101</b>	<b>0</b>	<b>159</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>134</b>	<b>0</b>	<b>74</b>	<b>208</b>	<b>675</b>
Apprch %	0	49.4	50.6		36.5	63.5	0		0	0	0		64.4	0	35.6		
Total %	0	22.5	23.1	45.6	8.6	15	0	23.6	0	0	0	0	19.9	0	11	30.8	



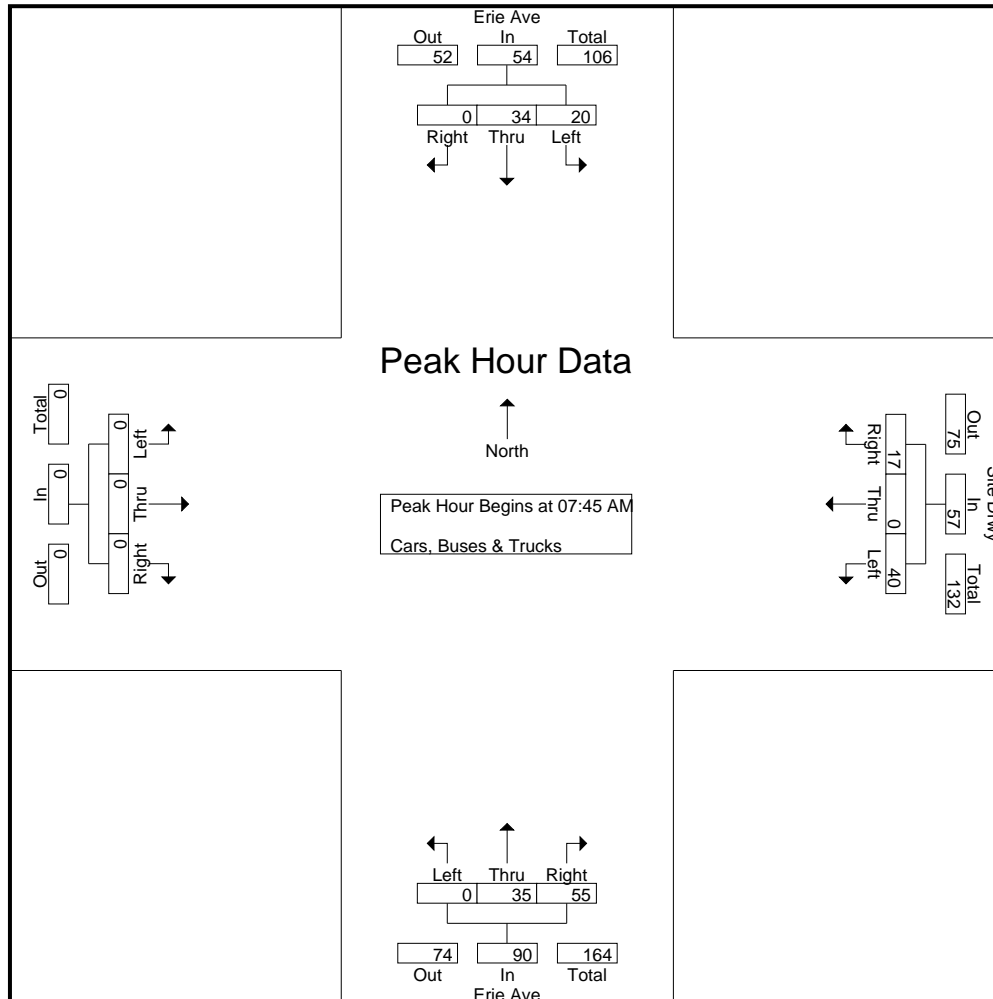
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
Erie Ave @ Site Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220556  
Site Code : 20220556  
Start Date : 01-17-2023  
Page No : 2

Start Time	Erie Ave Northbound				Erie Ave Southbound				Eastbound				Site Drwy Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	13	9	22	4	6	0	10	0	0	0	0	7	0	3	10	42
08:00 AM	0	10	16	26	5	14	0	19	0	0	0	0	6	0	6	12	57
08:15 AM	0	10	18	28	8	11	0	19	0	0	0	0	16	0	4	20	67
08:30 AM	0	2	12	14	3	3	0	6	0	0	0	0	11	0	4	15	35
Total Volume	0	35	55	90	20	34	0	54	0	0	0	0	40	0	17	57	201
% App. Total	0	38.9	61.1		37	63	0		0	0	0		70.2	0	29.8		
PHF	.000	.673	.764	.804	.625	.607	.000	.711	.000	.000	.000	.000	.625	.000	.708	.713	.750



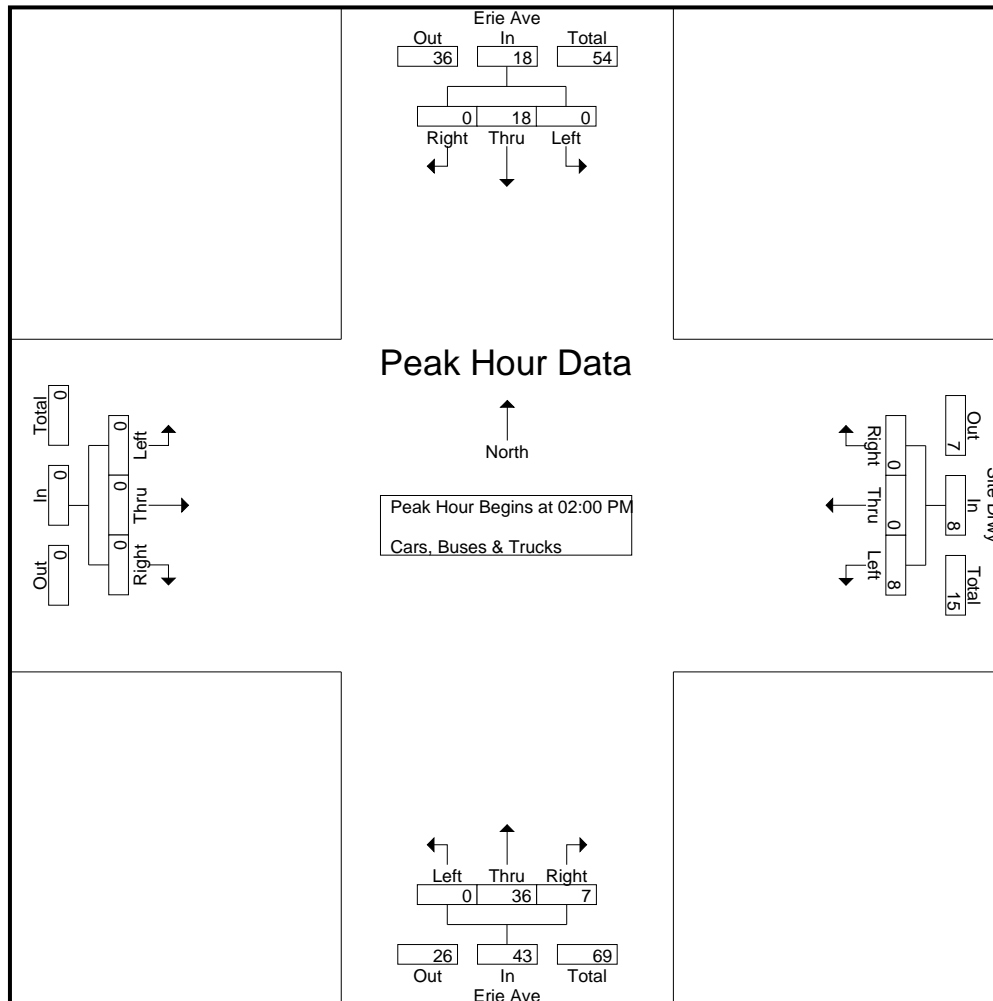
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
Erie Ave @ Site Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220556  
Site Code : 20220556  
Start Date : 01-17-2023  
Page No : 3

Start Time	Erie Ave Northbound				Erie Ave Southbound				Eastbound				Site Drwy Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	7	0	7	0	2	0	2	0	0	0	0	2	0	0	2	11
02:15 PM	0	5	0	5	0	3	0	3	0	0	0	0	0	0	0	0	8
02:30 PM	0	15	5	20	0	4	0	4	0	0	0	0	1	0	0	1	25
02:45 PM	0	9	2	11	0	9	0	9	0	0	0	0	5	0	0	5	25
Total Volume	0	36	7	43	0	18	0	18	0	0	0	0	8	0	0	8	69
% App. Total	0	83.7	16.3		0	100	0		0	0	0		100	0	0		
PHF	.000	.600	.350	.538	.000	.500	.000	.500	.000	.000	.000	.000	.400	.000	.000	.400	.690



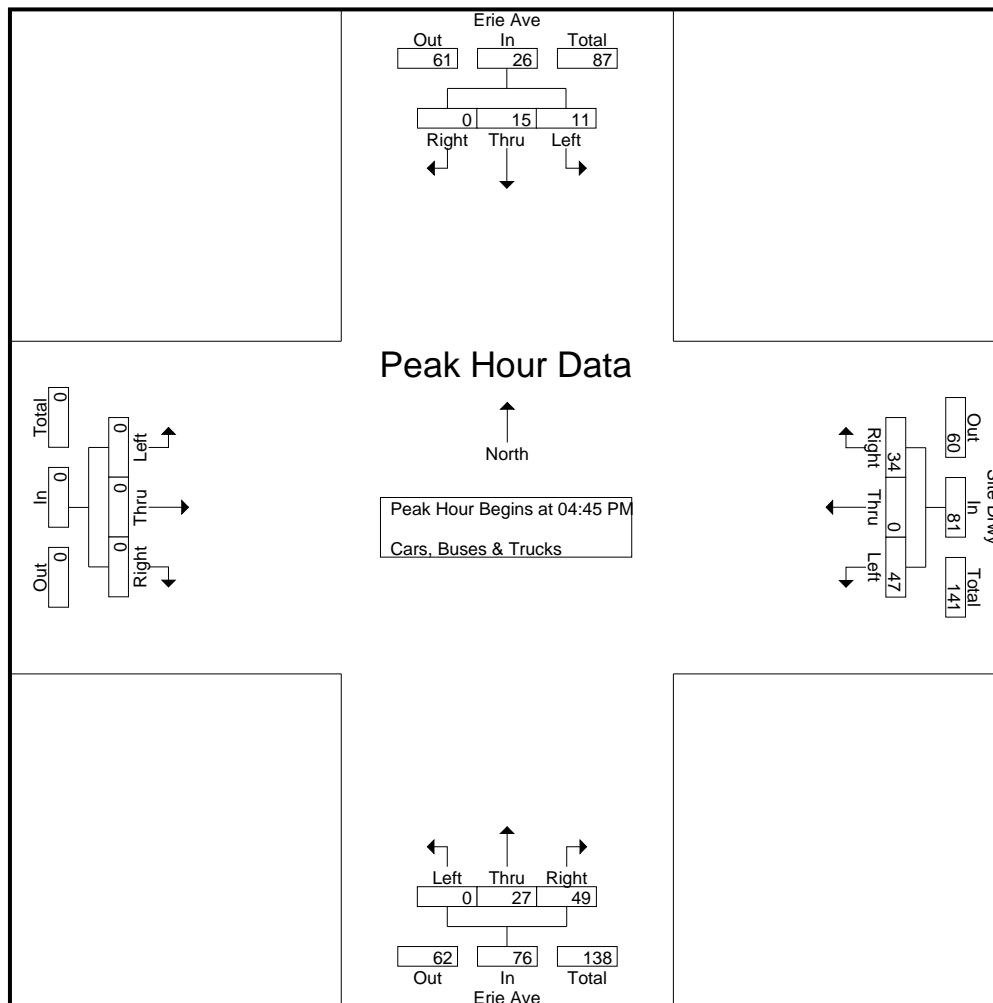
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
Erie Ave @ Site Drwy  
7-9 am | 2-4 pm | 4-6 pm

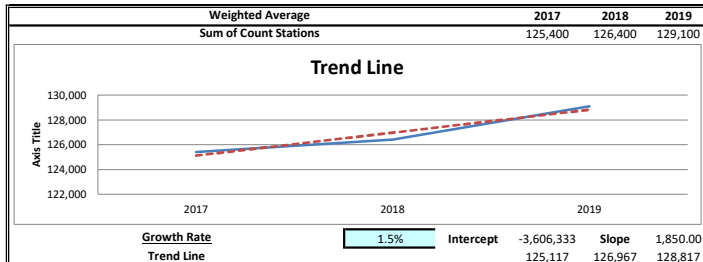
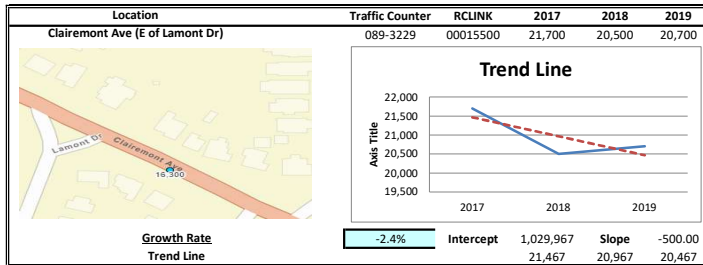
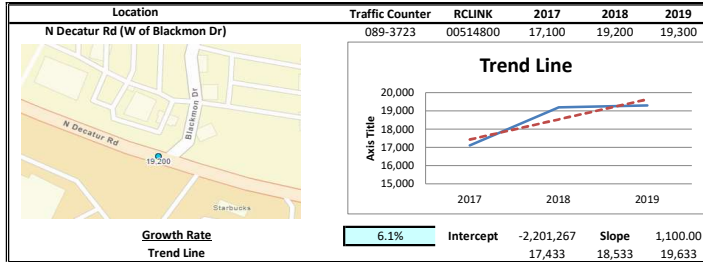
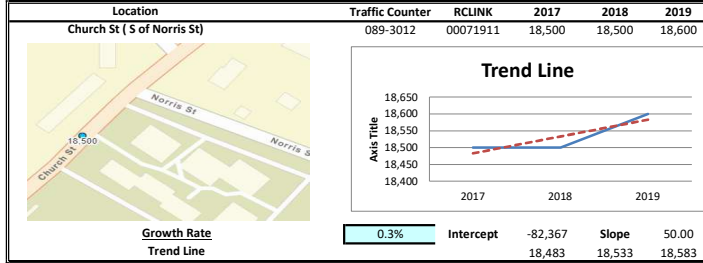
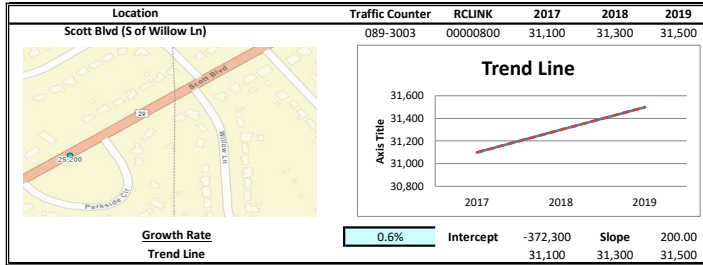
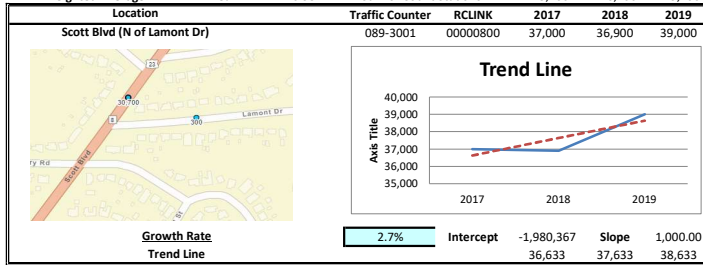
File Name : 20220556  
Site Code : 20220556  
Start Date : 01-17-2023  
Page No : 4

Start Time	Erie Ave Northbound				Erie Ave Southbound				Eastbound				Site Drwy Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	5	16	21	6	4	0	10	0	0	0	0	8	0	10	18	49
05:00 PM	0	5	12	17	2	5	0	7	0	0	0	0	12	0	7	19	43
05:15 PM	0	7	14	21	1	5	0	6	0	0	0	0	13	0	9	22	49
05:30 PM	0	10	7	17	2	1	0	3	0	0	0	0	14	0	8	22	42
Total Volume	0	27	49	76	11	15	0	26	0	0	0	0	47	0	34	81	183
% App. Total	0	35.5	64.5		42.3	57.7	0		0	0	0		58	0	42		
PHF	.000	.675	.766	.905	.458	.750	.000	.650	.000	.000	.000	.000	.839	.000	.850	.920	.934



# **LINEAR REGRESSION OF DAILY TRAFFIC**

Location	Growth Rate	R Squared	Station ID	Route	2017	2018	2019
Scott Blvd (N of Lamont Dr)	2.7%	0.71	089-3001	00000800	37,000	36,900	39,000
Scott Blvd (S of Willow Ln)	0.6%	1.00	089-3003	00000800	31,100	31,300	31,500
Church St (S of Norris St)	0.3%	0.75	089-3012	00071911	18,500	18,500	18,600
N Decatur Rd (W of Blackmon D)	6.1%	0.78	089-3723	00514800	17,100	19,200	19,300
Clairemont Ave (E of Lamont Dr)	-2.4%	0.60	089-3229	00015500	21,700	20,500	20,700
<b>Weighted Average</b>	<b>1.5%</b>	<b>0.93</b>	<b>Sum of Count Stations =</b>		<b>125,400</b>	<b>126,400</b>	<b>129,100</b>



## **EXISTING INTERSECTION ANALYSIS**

**Intersection**

Int Delay, s/veh 1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔	
Traffic Vol, veh/h	36	597	647	56	30	41
Future Vol, veh/h	36	597	647	56	30	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	642	696	60	32	44

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	756	0	0	1125	378
Stage 1	-	-	-	726	-
Stage 2	-	-	-	399	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	851	-	-	199	620
Stage 1	-	-	-	440	-
Stage 2	-	-	-	647	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	851	-	-	185	620
Mov Cap-2 Maneuver	-	-	-	185	-
Stage 1	-	-	-	409	-
Stage 2	-	-	-	647	-

**Approach**

	EB	WB	SB
HCM Control Delay, s	0.8	0	20.3
HCM LOS			C

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	851	-	-	-	-	311
HCM Lane V/C Ratio	0.045	-	-	-	-	0.245
HCM Control Delay (s)	9.4	0.3	-	-	-	20.3
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.9

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	40	17	35	55	20	34
Future Vol, veh/h	40	17	35	55	20	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	23	47	73	27	45
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	183	84	0	0	120	0
Stage 1	84	-	-	-	-	-
Stage 2	99	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	806	975	-	-	1468	-
Stage 1	939	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	791	975	-	-	1468	-
Mov Cap-2 Maneuver	791	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.7	0		2.8		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	838	1468	-	
HCM Lane V/C Ratio	-	-	0.091	0.018	-	
HCM Control Delay (s)	-	-	9.7	7.5	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	



**Intersection**

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Vol, veh/h	25	835	667	39	22	34
Future Vol, veh/h	25	835	667	39	22	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	861	688	40	23	35

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	728	0	-	0	1191 364
Stage 1	-	-	-	-	708 -
Stage 2	-	-	-	-	483 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	871	-	-	-	180 633
Stage 1	-	-	-	-	449 -
Stage 2	-	-	-	-	586 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	871	-	-	-	170 633
Mov Cap-2 Maneuver	-	-	-	-	170 -
Stage 1	-	-	-	-	423 -
Stage 2	-	-	-	-	586 -

**Approach**

	EB	WB	SB
HCM Control Delay, s	0.5	0	19.5
HCM LOS			C

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	871	-	-	-	306
HCM Lane V/C Ratio	0.03	-	-	-	0.189
HCM Control Delay (s)	9.3	0.2	-	-	19.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	47	34	27	49	11	15
Future Vol, veh/h	47	34	27	49	11	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	37	29	53	12	16
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	96	56	0	0	82	0
Stage 1	56	-	-	-	-	-
Stage 2	40	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	903	1011	-	-	1515	-
Stage 1	967	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	896	1011	-	-	1515	-
Mov Cap-2 Maneuver	896	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.2	0		3.1		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	941	1515	-	
HCM Lane V/C Ratio	-	-	0.093	0.008	-	
HCM Control Delay (s)	-	-	9.2	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	5	709	584	15	9	5
Future Vol, veh/h	5	709	584	15	9	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	806	664	17	10	6
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	681	0	-	0	1088	341
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	415	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	907	-	-	-	210	655
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	635	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	907	-	-	-	207	655
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	635	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		18.9		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	907	-	-	-	274	
HCM Lane V/C Ratio	0.006	-	-	-	0.058	
HCM Control Delay (s)	9	0.1	-	-	18.9	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	8	0	36	7	0	18
Future Vol, veh/h	8	0	36	7	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	0	52	10	0	26
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	83	57	0	0	62	0
Stage 1	57	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	919	1009	-	-	1541	-
Stage 1	966	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	919	1009	-	-	1541	-
Mov Cap-2 Maneuver	919	-	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	919	1541	-	
HCM Lane V/C Ratio	-	-	0.013	-	-	
HCM Control Delay (s)	-	-	9	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0	0	-	

**FUTURE "NO-BUILD" INTERSECTION  
ANALYSIS – BASE YEAR 2025**

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	↕
Traffic Vol, veh/h	37	621	673	58	31	43
Future Vol, veh/h	37	621	673	58	31	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	668	724	62	33	46
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	786	0	-	0	1169	393
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	414	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	829	-	-	-	186	606
Stage 1	-	-	-	-	425	-
Stage 2	-	-	-	-	635	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	829	-	-	-	172	606
Mov Cap-2 Maneuver	-	-	-	-	172	-
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	635	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.8	0	21.7			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	829	-	-	-	295	
HCM Lane V/C Ratio	0.048	-	-	-	0.27	
HCM Control Delay (s)	9.6	0.3	-	-	21.7	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.2	-	-	-	1.1	

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	42	18	36	57	21	35
Future Vol, veh/h	42	18	36	57	21	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	24	48	76	28	47
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	189	86	0	0	124	0
Stage 1	86	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	800	973	-	-	1463	-
Stage 1	937	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	784	973	-	-	1463	-
Mov Cap-2 Maneuver	784	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.8	0		2.8		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	833	1463	-	
HCM Lane V/C Ratio	-	-	0.096	0.019	-	
HCM Control Delay (s)	-	-	9.8	7.5	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	26	868	694	41	23	35
Future Vol, veh/h	26	868	694	41	23	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	895	715	42	24	36
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	757	0	-	0	1238	379
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	502	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	850	-	-	-	168	619
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	850	-	-	-	157	619
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	573	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		20.9		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	850	-	-	-	-	286
HCM Lane V/C Ratio	0.032	-	-	-	-	0.209
HCM Control Delay (s)	9.4	0.3	-	-	-	20.9
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.8



Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	49	35	28	51	11	16
Future Vol, veh/h	49	35	28	51	11	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	38	30	55	12	17
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	99	58	0	0	85	0
Stage 1	58	-	-	-	-	-
Stage 2	41	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	900	1008	-	-	1512	-
Stage 1	965	-	-	-	-	-
Stage 2	981	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	893	1008	-	-	1512	-
Mov Cap-2 Maneuver	893	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	973	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.2	0		3		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	938	1512	-	
HCM Lane V/C Ratio	-	-	0.096	0.008	-	
HCM Control Delay (s)	-	-	9.2	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	5	737	607	16	9	5
Future Vol, veh/h	5	737	607	16	9	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	838	690	18	10	6
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	708	0	-	0	1130	354
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	431	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	887	-	-	-	197	642
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	887	-	-	-	194	642
Mov Cap-2 Maneuver	-	-	-	-	194	-
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	623	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		19.9		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	887	-	-	-	-	258
HCM Lane V/C Ratio	0.006	-	-	-	-	0.062
HCM Control Delay (s)	9.1	0.1	-	-	-	19.9
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	-	0.2

**Intersection**

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	8	0	37	7	0	19
Future Vol, veh/h	8	0	37	7	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	0	54	10	0	21

**Major/Minor**

	Minor1	Major1	Major2		
Conflicting Flow All	80	59	0	0	64
Stage 1	59	-	-	-	-
Stage 2	21	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	922	1007	-	-	1538
Stage 1	964	-	-	-	-
Stage 2	1002	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	922	1007	-	-	1538
Mov Cap-2 Maneuver	922	-	-	-	-
Stage 1	964	-	-	-	-
Stage 2	1002	-	-	-	-

**Approach**

	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

**Minor Lane/Major Mvmt**

	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	922	1538
HCM Lane V/C Ratio	-	-	0.013	-
HCM Control Delay (s)	-	-	9	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

**FUTURE "BUILD" INTERSECTION ANALYSIS -  
BASE YEAR 2025**

**Intersection**

Int Delay, s/veh 3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	83	621	711	111	48	60
Future Vol, veh/h	83	621	711	111	48	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	668	765	119	52	65

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	884	0	0
Stage 1	-	-	825
Stage 2	-	-	512
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	761	-	145
Stage 1	-	-	391
Stage 2	-	-	567
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	761	-	118
Mov Cap-2 Maneuver	-	-	118
Stage 1	-	-	318
Stage 2	-	-	567

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	41.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	761	-	-	-	210
HCM Lane V/C Ratio	0.117	-	-	-	0.553
HCM Control Delay (s)	10.4	0.8	-	-	41.5
HCM Lane LOS	B	A	-	-	E
HCM 95th %tile Q(veh)	0.4	-	-	-	3

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	77	59	36	156	74	35
Future Vol, veh/h	77	59	36	156	74	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	79	48	208	99	47
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	397	152	0	0	256	0
Stage 1	152	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	608	894	-	-	1309	-
Stage 1	876	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	561	894	-	-	1309	-
Mov Cap-2 Maneuver	561	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.4	0		5.4		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	669	1309	-	
HCM Lane V/C Ratio	-	-	0.271	0.075	-	
HCM Control Delay (s)	-	-	12.4	8	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	1.1	0.2	-	

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		∩	
Traffic Vol, veh/h	0	669	784	0	46	38
Future Vol, veh/h	0	669	784	0	46	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	727	852	0	50	41
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	1216	426
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	364	-
Critical Hdwy	-	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	0	-	-	0	173	577
Stage 1	0	-	-	0	378	-
Stage 2	0	-	-	0	673	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	173	577
Mov Cap-2 Maneuver	-	-	-	-	173	-
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	673	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		27.1		
HCM LOS				D		
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	253			
HCM Lane V/C Ratio	-	-	0.361			
HCM Control Delay (s)	-	-	27.1			
HCM Lane LOS	-	-	D			
HCM 95th %tile Q(veh)	-	-	1.6			

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	63	868	747	84	48	60
Future Vol, veh/h	63	868	747	84	48	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	895	770	87	49	62
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	857	0	-	0	1392	429
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	578	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	779	-	-	-	133	574
Stage 1	-	-	-	-	396	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	779	-	-	-	111	574
Mov Cap-2 Maneuver	-	-	-	-	111	-
Stage 1	-	-	-	-	330	-
Stage 2	-	-	-	-	524	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		43.1		
HCM LOS				E		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	779	-	-	-	201	
HCM Lane V/C Ratio	0.083	-	-	-	0.554	
HCM Control Delay (s)	10	0.7	-	-	43.1	
HCM Lane LOS	B	A	-	-	E	
HCM 95th %tile Q(veh)	0.3	-	-	-	2.9	



Intersection						
Int Delay, s/veh	5.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	98	92	28	130	54	16
Future Vol, veh/h	98	92	28	130	54	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	99	30	140	58	17
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	233	100	0	0	170	0
Stage 1	100	-	-	-	-	-
Stage 2	133	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	755	956	-	-	1407	-
Stage 1	924	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	723	956	-	-	1407	-
Mov Cap-2 Maneuver	723	-	-	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.8	0		5.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	820	1407	-	
HCM Lane V/C Ratio	-	-	0.249	0.041	-	
HCM Control Delay (s)	-	-	10.8	7.7	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	1	0.1	-	

**Intersection**

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		∩∩	
Traffic Vol, veh/h	0	916	777	0	66	53
Future Vol, veh/h	0	916	777	0	66	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	996	845	0	72	58

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	1343 423
Stage 1	-	-	-	-	845 -
Stage 2	-	-	-	-	498 -
Critical Hdwy	-	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	0	-	-	0	143 579
Stage 1	0	-	-	0	382 -
Stage 2	0	-	-	0	576 -
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	-	-	-	-	143 579
Mov Cap-2 Maneuver	-	-	-	-	143 -
Stage 1	-	-	-	-	382 -
Stage 2	-	-	-	-	576 -

**Approach**

	EB	WB	SB
HCM Control Delay, s	0	0	44.2
HCM LOS			E

**Minor Lane/Major Mvmt**

	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	215
HCM Lane V/C Ratio	-	-	0.602
HCM Control Delay (s)	-	-	44.2
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	3.4

**Intersection**

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	9	737	612	21	11	7
Future Vol, veh/h	9	737	612	21	11	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	838	695	24	13	8

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	719	0	-	0	1146 360
Stage 1	-	-	-	-	707 -
Stage 2	-	-	-	-	439 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	878	-	-	-	193 637
Stage 1	-	-	-	-	450 -
Stage 2	-	-	-	-	617 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	878	-	-	-	189 637
Mov Cap-2 Maneuver	-	-	-	-	189 -
Stage 1	-	-	-	-	441 -
Stage 2	-	-	-	-	617 -

**Approach**

	EB	WB	SB
HCM Control Delay, s	0.2	0	20
HCM LOS			C

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	878	-	-	-	-	260
HCM Lane V/C Ratio	0.012	-	-	-	-	0.079
HCM Control Delay (s)	9.1	0.1	-	-	-	20
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	-	0.3

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	13	6	37	16	5	19
Future Vol, veh/h	13	6	37	16	5	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	9	54	23	7	21
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	101	66	0	0	77	0
Stage 1	66	-	-	-	-	-
Stage 2	35	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	898	998	-	-	1522	-
Stage 1	957	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	894	998	-	-	1522	-
Mov Cap-2 Maneuver	894	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9	0	1.9			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	924	1522	-	
HCM Lane V/C Ratio	-	-	0.03	0.005	-	
HCM Control Delay (s)	-	-	9	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		∩	
Traffic Vol, veh/h	0	749	628	0	6	5
Future Vol, veh/h	0	749	628	0	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	814	683	0	7	5
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	1090	342
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	407	-
Critical Hdwy	-	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	0	-	-	0	210	654
Stage 1	0	-	-	0	463	-
Stage 2	0	-	-	0	641	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	210	654
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	641	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		17.3		
HCM LOS				C		
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	304			
HCM Lane V/C Ratio	-	-	0.039			
HCM Control Delay (s)	-	-	17.3			
HCM Lane LOS	-	-	C			
HCM 95th %tile Q(veh)	-	-	0.1			

**FUTURE "NO-BUILD" INTERSECTION  
ANALYSIS - HORIZON YEAR 2030**

**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	41	683	740	64	34	47
Future Vol, veh/h	41	683	740	64	34	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	734	796	69	37	51

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	865	0	0
Stage 1	-	-	831
Stage 2	-	-	455
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	774	-	156
Stage 1	-	-	388
Stage 2	-	-	606
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	774	-	141
Mov Cap-2 Maneuver	-	-	141
Stage 1	-	-	351
Stage 2	-	-	606

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	26.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	774	-	-	-	250
HCM Lane V/C Ratio	0.057	-	-	-	0.348
HCM Control Delay (s)	9.9	0.4	-	-	26.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5

**Intersection**

Int Delay, s/veh 3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	46	20	40	63	23	39
Future Vol, veh/h	46	20	40	63	23	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	27	53	84	31	52

**Major/Minor**

	Minor1	Major1	Major2		
Conflicting Flow All	209	95	0	0	137
Stage 1	95	-	-	-	-
Stage 2	114	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	779	962	-	-	1447
Stage 1	929	-	-	-	-
Stage 2	911	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	762	962	-	-	1447
Mov Cap-2 Maneuver	762	-	-	-	-
Stage 1	929	-	-	-	-
Stage 2	891	-	-	-	-

**Approach**

	WB	NB	SB
HCM Control Delay, s	10	0	2.8
HCM LOS	B		

**Minor Lane/Major Mvmt**

	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	813	1447
HCM Lane V/C Ratio	-	-	0.108	0.021
HCM Control Delay (s)	-	-	10	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1



**Intersection**

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔	
Traffic Vol, veh/h	29	955	763	45	25	39
Future Vol, veh/h	29	955	763	45	25	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	985	787	46	26	42

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	833	0	0	1363	417
Stage 1	-	-	-	810	-
Stage 2	-	-	-	553	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	796	-	-	139	585
Stage 1	-	-	-	398	-
Stage 2	-	-	-	540	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	796	-	-	127	585
Mov Cap-2 Maneuver	-	-	-	127	-
Stage 1	-	-	-	365	-
Stage 2	-	-	-	540	-

**Approach**

	EB	WB	SB
HCM Control Delay, s	0.7	0	24.9
HCM LOS			C

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	796	-	-	-	248
HCM Lane V/C Ratio	0.038	-	-	-	0.275
HCM Control Delay (s)	9.7	0.4	-	-	24.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

Intersection						
Int Delay, s/veh	4.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	54	39	31	56	12	18
Future Vol, veh/h	54	39	31	56	12	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	42	33	60	13	19
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	108	63	0	0	93	0
Stage 1	63	-	-	-	-	-
Stage 2	45	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	889	1002	-	-	1501	-
Stage 1	960	-	-	-	-	-
Stage 2	977	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	881	1002	-	-	1501	-
Mov Cap-2 Maneuver	881	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.3	0		3		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	928	1501	-	
HCM Lane V/C Ratio	-	-	0.108	0.009	-	
HCM Control Delay (s)	-	-	9.3	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0	-	

**Intersection**

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	6	811	668	18	10	6
Future Vol, veh/h	6	811	668	18	10	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	922	759	20	11	7

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	779	0	-	0	1244 390
Stage 1	-	-	-	-	769 -
Stage 2	-	-	-	-	475 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	834	-	-	-	166 609
Stage 1	-	-	-	-	418 -
Stage 2	-	-	-	-	592 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	834	-	-	-	163 609
Mov Cap-2 Maneuver	-	-	-	-	163 -
Stage 1	-	-	-	-	411 -
Stage 2	-	-	-	-	592 -

**Approach**

	EB	WB	SB
HCM Control Delay, s	0.2	0	22.4
HCM LOS			C

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	834	-	-	-	225
HCM Lane V/C Ratio	0.008	-	-	-	0.081
HCM Control Delay (s)	9.4	0.1	-	-	22.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	9	0	41	8	0	21
Future Vol, veh/h	9	0	41	8	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	0	59	12	0	30
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	95	65	0	0	71	0
Stage 1	65	-	-	-	-	-
Stage 2	30	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	905	999	-	-	1529	-
Stage 1	958	-	-	-	-	-
Stage 2	993	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	905	999	-	-	1529	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	993	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	905	1529	-	
HCM Lane V/C Ratio	-	-	0.014	-	-	
HCM Control Delay (s)	-	-	9	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0	0	-	

**FUTURE "BUILD" INTERSECTION ANALYSIS -  
HORIZON YEAR 2030**

**Intersection**

Int Delay, s/veh 5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	87	683	778	117	51	64
Future Vol, veh/h	87	683	778	117	51	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	94	734	837	126	55	69

**Major/Minor**

	Major1	Major2	Minor2
Conflicting Flow All	963	0	0
Stage 1	-	-	900
Stage 2	-	-	555
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	711	-	121
Stage 1	-	-	357
Stage 2	-	-	539
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	711	-	94
Mov Cap-2 Maneuver	-	-	94
Stage 1	-	-	277
Stage 2	-	-	539

**Approach**

	EB	WB	SB
HCM Control Delay, s	2.1	0	65.6
HCM LOS			F

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	711	-	-	-	173
HCM Lane V/C Ratio	0.132	-	-	-	0.715
HCM Control Delay (s)	10.8	1	-	-	65.6
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	4.4

**Intersection**

Int Delay, s/veh 5.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	81	61	40	162	76	39
Future Vol, veh/h	81	61	40	162	76	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	81	53	216	101	52

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	415	161	0
Stage 1	161	-	-
Stage 2	254	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	594	884	-
Stage 1	868	-	-
Stage 2	788	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	546	884	-
Mov Cap-2 Maneuver	546	-	-
Stage 1	868	-	-
Stage 2	725	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	5.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	653	1295
HCM Lane V/C Ratio	-	-	0.29	0.078
HCM Control Delay (s)	-	-	12.7	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0.3

**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		∩	
Traffic Vol, veh/h	0	734	857	0	46	38
Future Vol, veh/h	0	734	857	0	46	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	798	932	0	50	41

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	1331 466
Stage 1	-	-	-	-	932 -
Stage 2	-	-	-	-	399 -
Critical Hdwy	-	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	0	-	-	0	146 543
Stage 1	0	-	-	0	344 -
Stage 2	0	-	-	0	647 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	146 543
Mov Cap-2 Maneuver	-	-	-	-	146 -
Stage 1	-	-	-	-	344 -
Stage 2	-	-	-	-	647 -

**Approach**

	EB	WB	SB
HCM Control Delay, s	0	0	32.9
HCM LOS			D

**Minor Lane/Major Mvmt**

	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	218
HCM Lane V/C Ratio	-	-	0.419
HCM Control Delay (s)	-	-	32.9
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	1.9



**Intersection**

Int Delay, s/veh 4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑	↔↑		↔↓	
Traffic Vol, veh/h	66	955	816	88	50	64
Future Vol, veh/h	66	955	816	88	50	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	985	841	91	52	70

**Major/Minor**

	Major1	Major2	Minor2
Conflicting Flow All	932	0	0
Stage 1	-	-	887
Stage 2	-	-	629
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	730	-	110
Stage 1	-	-	363
Stage 2	-	-	494
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	730	-	87
Mov Cap-2 Maneuver	-	-	87
Stage 1	-	-	288
Stage 2	-	-	494

**Approach**

	EB	WB	SB
HCM Control Delay, s	1.5	0	68
HCM LOS			F

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	730	-	-	-	168
HCM Lane V/C Ratio	0.093	-	-	-	0.721
HCM Control Delay (s)	10.4	0.9	-	-	68
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	4.4

Intersection						
Int Delay, s/veh	6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	103	96	31	135	55	18
Future Vol, veh/h	103	96	31	135	55	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	111	103	33	145	59	19
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	243	106	0	0	178	0
Stage 1	106	-	-	-	-	-
Stage 2	137	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	745	948	-	-	1398	-
Stage 1	918	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	713	948	-	-	1398	-
Mov Cap-2 Maneuver	713	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11	0		5.8		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	810	1398	-	
HCM Lane V/C Ratio	-	-	0.264	0.042	-	
HCM Control Delay (s)	-	-	11	7.7	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	1.1	0.1	-	

**Intersection**

Int Delay, s/veh 3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		∩	
Traffic Vol, veh/h	0	1005	850	0	66	53
Future Vol, veh/h	0	1005	850	0	66	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1092	924	0	72	58

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	1470 462
Stage 1	-	-	-	-	924 -
Stage 2	-	-	-	-	546 -
Critical Hdwy	-	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	0	-	-	0	118 547
Stage 1	0	-	-	0	347 -
Stage 2	0	-	-	0	544 -
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	-	-	-	-	118 547
Mov Cap-2 Maneuver	-	-	-	-	118 -
Stage 1	-	-	-	-	347 -
Stage 2	-	-	-	-	544 -

**Approach**

	EB	WB	SB
HCM Control Delay, s	0	0	63.2
HCM LOS			F

**Minor Lane/Major Mvmt**

	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	181
HCM Lane V/C Ratio	-	-	0.715
HCM Control Delay (s)	-	-	63.2
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	4.4

**Intersection**

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	↕
Traffic Vol, veh/h	10	811	673	23	12	8
Future Vol, veh/h	10	811	673	23	12	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	922	765	26	14	9

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	791	0	0	1261	396
Stage 1	-	-	-	778	-
Stage 2	-	-	-	483	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	825	-	-	162	603
Stage 1	-	-	-	413	-
Stage 2	-	-	-	586	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	825	-	-	158	603
Mov Cap-2 Maneuver	-	-	-	158	-
Stage 1	-	-	-	402	-
Stage 2	-	-	-	586	-

**Approach**

	EB	WB	SB
HCM Control Delay, s	0.2	0	22.9
HCM LOS			C

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	825	-	-	-	224
HCM Lane V/C Ratio	0.014	-	-	-	0.101
HCM Control Delay (s)	9.4	0.1	-	-	22.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	14	6	41	17	5	21
Future Vol, veh/h	14	6	41	17	5	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	9	59	25	7	30
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	116	72	0	0	84	0
Stage 1	72	-	-	-	-	-
Stage 2	44	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	880	990	-	-	1513	-
Stage 1	951	-	-	-	-	-
Stage 2	978	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	876	990	-	-	1513	-
Mov Cap-2 Maneuver	876	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	973	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.1	0		1.4		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	907	1513	-	
HCM Lane V/C Ratio	-	-	0.032	0.005	-	
HCM Control Delay (s)	-	-	9.1	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

**Intersection**

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		∩	
Traffic Vol, veh/h	0	824	690	0	6	5
Future Vol, veh/h	0	824	690	0	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	896	750	0	7	5

**Major/Minor**

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	1198 375
Stage 1	-	-	-	-	750 -
Stage 2	-	-	-	-	448 -
Critical Hdwy	-	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	0	-	-	0	178 623
Stage 1	0	-	-	0	427 -
Stage 2	0	-	-	0	611 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	178 623
Mov Cap-2 Maneuver	-	-	-	-	178 -
Stage 1	-	-	-	-	427 -
Stage 2	-	-	-	-	611 -

**Approach**

	EB	WB	SB
HCM Control Delay, s	0	0	19.3
HCM LOS			C

**Minor Lane/Major Mvmt**

	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	264
HCM Lane V/C Ratio	-	-	0.045
HCM Control Delay (s)	-	-	19.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.1

# **TRAFFIC VOLUME WORKSHEETS**

**22-255 Smarties Academy at 465 Clairemont Avenue, Decatur - TIS**  
**Traffic Volumes**

**A&R Engineering**  
**February 2023**

**1.Clairemont Ave @ Erie Ave**

**A.M. Peak Hour**

Condition	-				Erie Avenue				SR 155 (Clairemont Avenue)				SR 155 (Clairemont Avenue)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	30	0	41	71	36	597	0	633	0	647	56	703
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2025 Volumes(Buildout year):	0	0	0	0	31	0	43	74	37	621	0	658	0	673	58	731
No-Build 2030 Volumes(Horizon Year):	0	0	0	0	34	0	47	81	41	683	0	724	0	740	64	804
Total New Trips:	0	0	0	0	17	0	17	34	46	0	0	46	0	38	53	91
Future 2025 Traffic Vol(Buildout year):	0	0	0	0	48	0	60	108	83	621	0	704	0	711	111	822
Future 2030 Traffic Vol(Horizon Year):	0	0	0	0	51	0	64	115	87	683	0	770	0	778	117	895

**P.M. Peak Hour**

Condition	-				Erie Avenue				SR 155 (Clairemont Avenue)				SR 155 (Clairemont Avenue)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	22	0	34	56	25	835	0	860	0	667	39	706
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2025 Volumes(Buildout year):	0	0	0	0	23	0	35	58	26	868	0	894	0	694	41	735
No-Build 2030 Volumes(Horizon Year):	0	0	0	0	25	0	39	64	29	955	0	984	0	763	45	808
Total New Trips:	0	0	0	0	25	0	25	50	37	0	0	37	0	53	43	96
Future 2025 Traffic Vol(Buildout year):	0	0	0	0	48	0	60	108	63	868	0	931	0	747	84	831
Future 2030 Traffic Vol(Horizon Year):	0	0	0	0	50	0	64	114	66	955	0	1021	0	816	88	904



**22-255 Smarties Academy at 465 Clairemont Avenue, Decatur - TIS**  
**Traffic Volumes**

**A&R Engineering**  
**February 2023**

**2.Erie Ave @ Site Drwy**

**A.M. Peak Hour**

Condition	Erie Avenue Northbound				Erie Avenue Southbound				- Eastbound				Site Driveway Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	35	55	90	20	34	0	54	0	0	0	0	40	0	17	57
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2025 Volumes(Buildout year):	0	36	57	93	21	35	0	56	0	0	0	0	42	0	18	60
No-Build 2030 Volumes(Horizon Year):	0	40	63	103	23	39	0	62	0	0	0	0	46	0	20	66
Total New Trips:	0	0	99	99	53	0	0	53	0	0	0	0	35	0	41	76
Future 2025 Traffic Vol(Buildout year):	0	36	156	192	74	35	0	109	0	0	0	0	77	0	59	136
Future 2030 Traffic Vol(Horizon Year):	0	40	162	202	76	39	0	115	0	0	0	0	81	0	61	142

**P.M. Peak Hour**

Condition	Erie Avenue Northbound				Erie Avenue Southbound				- Eastbound				Site Driveway Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	27	49	76	11	15	0	26	0	0	0	0	47	0	34	81
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2025 Volumes(Buildout year):	0	28	51	79	11	16	0	27	0	0	0	0	49	0	35	84
No-Build 2030 Volumes(Horizon Year):	0	31	56	87	12	18	0	30	0	0	0	0	54	0	39	93
Total New Trips:	0	0	79	79	43	0	0	43	0	0	0	0	49	0	57	106
Future 2025 Traffic Vol(Buildout year):	0	28	130	158	54	16	0	70	0	0	0	0	98	0	92	190
Future 2030 Traffic Vol(Horizon Year):	0	31	135	166	55	18	0	73	0	0	0	0	103	0	96	199

**22-255 Smarties Academy at 465 Clairemont Avenue, Decatur - TIS**  
**Traffic Volumes**

**A&R Engineering**  
**February 2023**

**3.Clairemont Ave @ ExitOnlyDrwy**

**A.M. Peak Hour**

Condition	- Northbound				Exit Only Driveway Southbound				SR 155 (Clairemont Avenue) Eastbound				SR 155 (Clairemont Avenue) Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	627	0	627	0	703	0	703
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2025 Volumes(Buildout year):	0	0	0	0	0	0	0	0	0	652	0	652	0	731	0	731
No-Build 2030 Volumes(Horizon Year):	0	0	0	0	0	0	0	0	0	717	0	717	0	804	0	804
Total New Trips:	0	0	0	0	46	0	38	84	0	17	0	17	0	53	0	53
Future 2025 Traffic Vol(Buildout year):	0	0	0	0	46	0	38	84	0	669	0	669	0	784	0	784
Future 2030 Traffic Vol(Horizon Year):	0	0	0	0	46	0	38	84	0	734	0	734	0	857	0	857

**P.M. Peak Hour**

Condition	- Northbound				Exit Only Driveway Southbound				SR 155 (Clairemont Avenue) Eastbound				SR 155 (Clairemont Avenue) Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	857	0	857	0	706	0	706
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2025 Volumes(Buildout year):	0	0	0	0	0	0	0	0	0	891	0	891	0	734	0	734
No-Build 2030 Volumes(Horizon Year):	0	0	0	0	0	0	0	0	0	980	0	980	0	807	0	807
Total New Trips:	0	0	0	0	66	0	53	119	0	25	0	25	0	43	0	43
Future 2025 Traffic Vol(Buildout year):	0	0	0	0	66	0	53	119	0	916	0	916	0	777	0	777
Future 2030 Traffic Vol(Horizon Year):	0	0	0	0	66	0	53	119	0	1005	0	1005	0	850	0	850