

City of Easley
Planning and Development Department
Planning Commission Public Hearing
September 21, 2026

Staff Report

Case Number: PLN-SUB-26-01

Applicant: Target Corporation

Parcel ID's: 5039-19-60-8617, 5039-19-61-8304, 5039-19-61-1941, 5039-19-61-2348, 5039-19-62-8021

Zoning: General Commercial

Proposed Zoning: n/a (annexed and rezoned as General Commercial on 9/14/2026)

Current Future Land Use: Commercial (via Ord. 2026-22-Ord.2026-24)

Surrounding Property:

Current Zoning: North: GC (shopping center)
East: unzoned (Pickens County)
South: unzoned (Pickens County)
West: GC (institutional/church)

Future Land Use: North: Commercial
East: n/a
South: Residential
West: Commercial

Summary of Request:

The applicant, Cypress Engineering on behalf of Target Corporation – Michael Seaman, are requesting a Major Subdivision as defined by UDO Section 4.8.5 in order to construct a commercial development presently known as Easley Retail Center. Target Corp. would indeed be the anchor tenant as proposed, and the entire property was recently annexed into the municipal limits of the City of Easley by two City Council ordinances (and one rezoning) on 9/14/2026.

Unlike a typical residential subdivision involving many small lots divided from a larger tract, this proposal would create three primary commercial parcels from the now 36.5-acre assemblage: Parcel A (8.62 acres), Parcel B (6.98 acres), and Parcel C (18.07 acres), the proposed Target store. The proposal qualifies as a Major Subdivision because it includes the creation of a new public road for the commercial property. This process is intended to inform the public that new road infrastructure will be constructed/maintained and recognizes that the development is large enough to require such infrastructure. If the commercial subdivision meets all zoning and UDO requirements, the Planning Commission shall approve it.

The related rezoning, annexation, and development considerations has already been considered and approved by City Council. A variance request for signage for the Retail Center is pending. Parcels with frontage on U.S. Highway 123, which include existing service stations and restaurants, are not included in this request but are linked based on a road widening and extension across from Town Center Way.

Two “active open space” and two green space acreages are also identified and included in your submittal packet. PARCEL A and PARCEL B may be further divided in the future for future commercial tenants, who have not been identified.

Current Property Use: commercial and agricultural

Surrounding Area: The subject property is surrounded by highway commercial uses to the north, Rocksprings Church to the west, and unincorporated area to the east and south. The Cardinal Woods neighborhood (City) be found to the southeast.

Water/Sewer would be provided by Easley Combined Utilities. Full utility plans and/or development plan sets have yet to be approved by any Area Coordination Committee (ACC) members, per *UDO Section 4.7.3. Procedure*, due to the immediate timing of the annexation. The subdivision did not have standing until all required properties were annexed.

As this subdivision is commercial, there are no anticipated impacts to school capacity.

Recommendation:

The resulting three commercial parcels and associated four open space designations meet all requirements regarding lot size, lot width, (future) public road frontage, zoning, and future land use designation. Right-of-way to be dedicated to the City of Easley is 2.83 acres. Green spaces and open spaces shall not be divided for future buildings and/or structures and stormwater management facilities should be more clearly identified on the final plat as associated with the adjacent commercial parcels.

Basic grading, drainage, utility, landscape, and streetscape plans are found in the exhibits.

While the Planning Commission is an advisory body, a hearing for a Major Subdivision falls under the sole jurisdiction of this Commission. New lots do meet requirements as shown.

Respectfully submitted,

Gregory Gordos, AICP

City Planner

Exhibits:

Exhibit A: Street View Photos

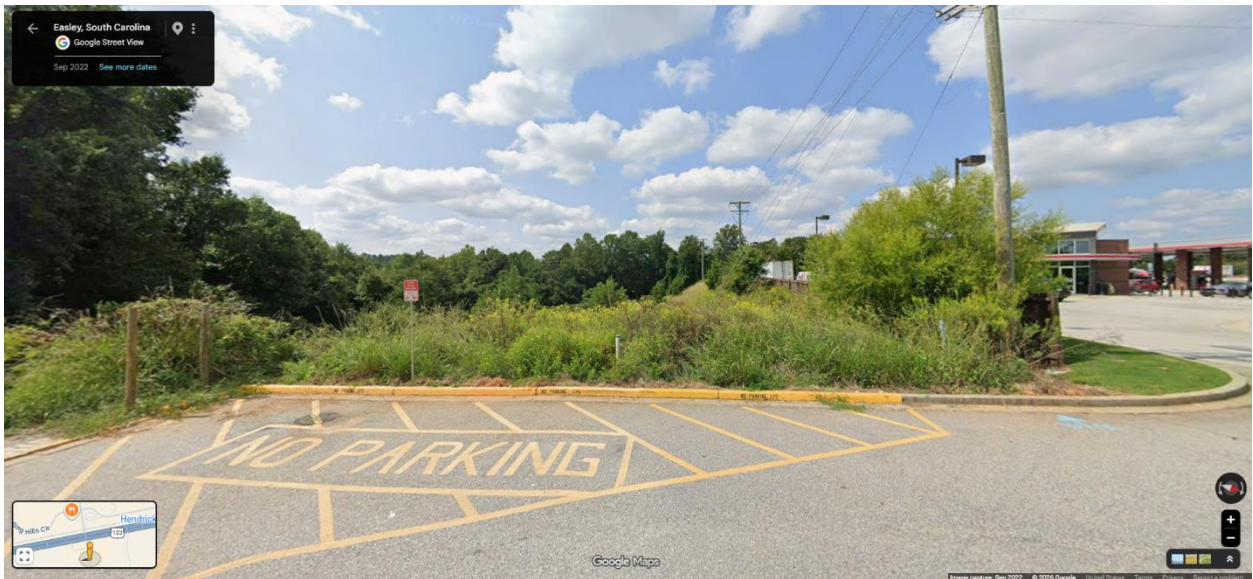
Exhibit B: Authorization and Utility Letters

Exhibit C: Open Space Plan Sheet

Exhibit D: Subdivision Plat

Exhibit E: Traffic Impact Analysis

Exhibit F: *25034.Easley Retail Center.Rev2.2026 0812.Basic Plans*





LEGEND
1. 1/2 ACRES
2. 1/4 ACRES
3. 1/8 ACRES
4. 1/16 ACRES
5. 1/32 ACRES
6. 1/64 ACRES
7. 1/128 ACRES
8. 1/256 ACRES
9. 1/512 ACRES
10. 1/1024 ACRES
11. 1/2048 ACRES
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MAJOR SUBDIVISION APPLICATION



-THE CITY OF-
EASLEY
SOUTH CAROLINA

SITE/PROPERTY LOCATION:

Property Address: Calhoun Memorial Hwy (US 123)

Tax Map Number(s): 5039-19-60-8617, 5039-19-61-8304,
-1941, -2348, 5039-19-62-8021

APPLICANT/DEVELOPER: Target Corporation - Michael Seaman

Mailing Address: 1000 Nicollett Mall, Ste 2950
Phone Number: 612-761-4777

City, State, Zip: Minneapolis, MN 55403
E-mail Address: michael.seaman@target.com

PROPERTY OWNER (if different from Applicant):

RT Calhoun Memorial LLC (see add'l Owner Auth Letters attached)

Mailing Address: 1090 Morrison Dr., Ste 200
Phone Number: 917-520-1392

City, State, Zip: Charleston, SC 29403
E-mail Address: ross@cowannakios.com

PROJECT ENGINEER: Cypress Engineering - Tripp West

Mailing Address: 412 N Gum St., Ste A
Phone Number: 843-255-5151

City, State, Zip: Summerville, SC 29483
E-mail Address: TrippW@CypressEng.com

Name of the Subdivision: Easley Retail Center

Type of Subdivision/Application (please check the appropriate box):

- ☒ Standard/Conventional Subdivision
☐ Cluster Development Subdivision
☐ Other: _____

- ☐ Major Change to a Major Subdivision
☐ Minor Change to a Major Subdivision

Number of Lots Proposed: 4

Total Site Acreage: 36.5

Submittal Checklist*: ☒ Site Plans – 4 printed copies/1 PDF copy (see attached preliminary plat checklist)
☒ Application Fee (\$2,000 or \$20 per lot - whichever is greater)
☒ Pickens County School Board Comments
☒ Approved Capacity Forms for Water and Sewer
☒ SCDOT Comments (if applicable)
☒ Traffic Impact Analysis (if applicable)

*Staff reserves the right to request additional information and/or materials as necessary

I hereby acknowledge by my signature below that the foregoing application is complete and accurate and that I am the owner of the subject property. I authorize appropriate public notice signs to be posted on the subject property and for appropriate City staff to enter onto the property. I additionally consent that the information presented in this application is public information and consent that the Easley Planning Commission may review this application and accompanying materials in front of the public.

Property Owner Signature

Ross M Cowan Jr.

Printed Name

8/27/26

Date

FOR CITY STAFF USE ONLY

Date Received: _____ By: _____

☐ Complete Date: _____ Zoning District: _____

Comments: _____

Permit #: _____ PC Review Date: _____

☐ APPROVED ☐ with conditions ☐ DENIED

City of Easley Planning & Development Department
220 NW Main St ♦ Easley, SC 29640

MAJOR SUBDIVISION PRELIMINARY PLAT CHECKLIST



Plans shall be submitted to the City of Easley on sheets not larger than 36 inches by 24 inches and in a scale of not less than 1 inch to 100 feet.

All plans must include the following sheets. Each sheet must include the following:

- ☒ Each sheet must be sealed with the name, signature, date, and state registration number of the licensed professional that prepared that sheet.
- ☒ Each sheet must include a scale, north arrow, and legend.
- ☒ Each sheet must include the date that sheet was prepared and a "revision box" that depicts the dates that any revisions were made.

1. **PROJECT INFORMATION** shall be listed on a cover sheet or the preliminary layout sheet and must include the following:

- ☒ Project name formatted as: "Preliminary Plat of [SUBDIVISION NAME];
- ☒ Address and tax map number(s) of the subject property;
- ☒ A vicinity map showing the location of the proposed subdivision;
- ☒ Name and contact information for the property owner and developer;
- ☒ Name and contact information for the design professionals that prepared the plans including civil engineer, land surveyor, landscape architect, and any other applicable design professional;
- ☒ The total area (in acres) of the land proposed for subdivision;
- ☒ The total number of lots proposed;
- ☒ The linear length (in miles or feet) of new roadways proposed;
- ☒ The total area (in acres) of open space proposed and the area (in acres) of the open space that meets the criteria for "developable acreage";
- ☒ The existing zoning classification of the subject property;
- ☒ The building setback requirements; and
- ☒ The calculations of off-street parking required and the number of off-street parking spaces that will be provided.

2. **BOUNDARY SURVEY** prepared by a registered land surveyor licensed to practice in the State of South Carolina. The boundary survey must include the following:

- ☒ The bearings and distances of all property lines;
- ☒ The location, name, pavement width, and right-of-way width of all adjacent roadways;
- ☒ The location and width of all existing sidewalks on or adjacent to the subject property;
- ☒ The location, type, and width of any recorded easements or rights-of-way on or adjacent to the property;
- ☒ The location of any water courses, wetlands, marshes, flood plains, flood ways, and similar hydrological features;
- ☒ The location and dimensions of any existing houses, barns, vertical structures, cemeteries, or other significant features on the property;
- ☒ Existing topographic contour intervals not greater than 12 feet; and
- ☒ The address and/or property owner names of adjoining properties.

MAJOR SUBDIVISION PRELIMINARY PLAT CHECKLIST



THE CITY OF
EASLEY
SOUTH CAROLINA

3. **PRELIMINARY LAYOUT** that includes the following:

- ☒ The lot number for each lot;
- ☒ The area (in square feet) of each lot;
- ☒ The length of each lot line (in feet) for each individual lot;
- ☒ The location, name, type (public or private), right-of-way width (in feet), and pavement width (in feet) of each new roadway or street;
- ☒ The location and type of traffic control devices that will be installed;
- ☒ The location and design of road improvements that will be constructed;
- ☒ The location and width of all new sidewalks and crosswalks;
- ☒ The location and dimensions of any new parking areas;
- ☒ The location and type of community facilities such as amenities and cluster mailbox units; and
- ☒ The location and area (in acres or square feet) of each open space tract that will be provided.

4. **BASIC GRADING AND DRAINAGE PLAN** that includes the following:

- ☒ The anticipated location of each catch basin, storm water piping, and detention/retention pond;
- ☒ The location and width of each drainage easement;
- ☒ A basic grading plan that shows an approximation of how the topography will be altered;
- ☒ The location, width and height of any proposed retaining walls.

5. **BASIC UTILITY PLAN** that includes the following:

- ☒ The names of the utility providers for the property including water, sewer, electricity, and natural gas;
- ☒ The location and size of existing sanitary sewer lines and water main lines on adjacent tracts (if water mains and sewer lines are not on or adjacent to the subject property, please indicate the direction, distance to, and size of the nearest accessible lines);
- ☒ The location and size of proposed sanitary sewer lines and water lines; and
- ☒ The location and width of each utility easement.

6. **BASIC TREE PRESERVATION AND LANDSCAPE PLAN** that includes the following:

- ☒ The location and size (in acres) of tree preservation areas;
- ☒ An estimation of the number of trees that will be preserved;
- ☒ The size and design of buffers along the perimeter and frontage of the project;
- ☒ The location and number of trees that will be planted along streets, in buffer areas, in parking areas, and in other community areas.

From: Freeman 123 LP

Re: TMS #5039-19-61-1941

April 16, 2026

To whom it may concern,

I am an authorized agent of Freeman 123 LP which owns TMS #5039-19-61-1941 and I authorize Target Corporation and Cypress Engineering to submit for the following land development permits for the proposed project:

1. SCDES Construction Stormwater - Notice of Intent (NOI) Permit
2. City of Easley Stormwater & Site Plan Approvals
3. Easley Combined Utilities - Water & Sewer Service/Main Approvals
4. SCDOT Driveway and Utilities Encroachment Permits
5. SCDES Permit to Construct – Water and Sewer Mains
6. REWA Sewer Main Approval/Permit

Please contact me if there are any questions.

Regards,

Dorothy M. Freeman
Signature

4-28-2026
Date

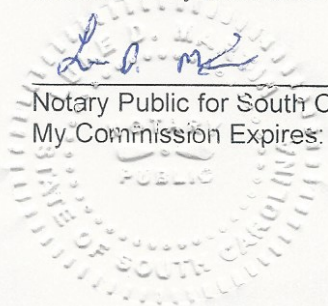
Dorothy M. Freeman
Print Name & Title

I, the undersigned Notary Public, do hereby certify that Dorothy M. Freeman, personally appeared before me this day and acknowledged the due execution of the foregoing instrument

WITNESS my hand and seal this 28 day of April, 2026.

[Signature]
Notary Public for South Carolina

My Commission Expires: July 6, 2027



From: Freeman Real Estate LLC

Re: TMS #5039-19-61-2348

April 16, 2026

To whom it may concern,

I am an authorized agent of Freeman Real Estate LLC which owns TMS #5039-19-61-2348 and I authorize Target Corporation and Cypress Engineering to submit for land development permits for the proposed project:

1. SCDES Construction Stormwater - Notice of Intent (NOI) Permit
2. City of Easley Stormwater & Site Plan Approvals
3. Easley Combined Utilities - Water & Sewer Service/Main Approvals
4. SCDOT Driveway and Utilities Encroachment Permits
5. SCDES Permit to Construct – Water and Sewer Mains
6. REWA Sewer Main Approval/Permit

Please contact me if there are any questions.

Regards,

Dorothy M. Freeman

Signature

4-28-2026

Date

Dorothy M. Freeman

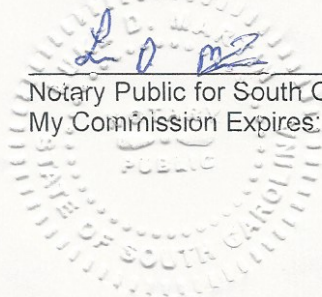
Print Name & Title

I, the undersigned Notary Public, do hereby certify that Dorothy M. Freeman, personally appeared before me this day and acknowledged the due execution of the foregoing instrument

WITNESS my hand and seal this 28 day of April, 2026.

Dorothy M. Freeman
Notary Public for South Carolina

My Commission Expires: July 6, 2027



From: Freeman William David, Freeman Elaine M.

Re: TMS #5039-19-60-8617

April 16, 2026

To whom it may concern,

I am an authorized agent of Freeman William David, Freeman Elaine M. which owns TMS#5039-19-60-8617 and I authorize Target Corporation and Cypress Engineering to submit for land development permits for the proposed project.

1. SCDES Construction Stormwater - Notice of Intent (NOI) Permit
2. City of Easley Stormwater & Site Plan Approvals
3. Easley Combined Utilities - Water & Sewer Service/Main Approvals
4. SCDOT Driveway and Utilities Encroachment Permits
5. SCDES Permit to Construct - Water and Sewer Mains
6. REWA Sewer Main Approval/Permit

Providing no improvements, excavation, or any work of any kind not be undertaken or commenced on the properties by Target, Cypress Engineering, or any of their representatives until RT Calhoun Memorial LLC-Ross Cowan has acquired title to the parcel.

Please contact me if there are any questions.

Regards,

Signature Date William David Freeman 4-29-26 Elaine M. Freeman 4-29-26

Print Name & Title WILLIAM DAVID FREEMAN Elaine M. Freeman

I, the undersigned Notary Public, do hereby certify that
William Freeman, Elaine Freeman personally appeared before me this day and
acknowledged the due execution of the foregoing instrument

WITNESS my hand and seal this 29 day of April, 2026.

L. B. Oyl
Notary Public for South Carolina

My Commission Expires:

July 6, 2027



EASLEY COMBINED UTILITIES

A Community Tradition

March 12, 2026

RT Calhoun Memorial, LLC
1049 Morrison Drive, Ste 102
Charleston, SC 29403

Re: Proposed Easley Retail Center
Parcel ID #s: 5039-19-61-8304, 5039-19-62-8021, 5039-19-61-1941, 5039-19-60-8617 &
5039-19-61-2348
Calhoun Memorial Highway, Easley, SC
Potable Water, Sanitary Sewer & Electric Service Availability

To Whom It May Concern:

Upon annexation of all parcels in the City of Easley, Easley Combined Utilities (ECU) is willing and has the capacity to serve the proposed commercial development of one 140,300 square-foot retail store with potable water, sanitary sewer and electrical service. ECU will own, operate and maintain the water, sewer, and electrical services, if installed to ECU specifications.

If you have any questions or need any additional information, please feel free to contact me by email at adye@easleyutilities.com or by phone at 864-644-8165.

Sincerely,

Alex C. Dye, EIT
Operations Manager



School District of Pickens County

Engaging Today  Empowering Tomorrow

To Whom it May Concern,

Please accept this letter on behalf of the School District of Pickens County. The district has no opinion for or against the proposed development at Highway 123 and Town Center Way in Easley. Given that the location is not immediately near any of our schools and that the purpose of the development is commercial and does not include any residential buildings there is no expected impact to the district or school capacity at this current time.

Sincerely,

A handwritten signature in black ink, appearing to read 'Josh Young', is located below the 'Sincerely,' text.

Josh Young

Associate Superintendent of Administration





CONCEPTUAL LETTER OF AGREEMENT

08/27/26

Cypress Engineering
12 N. Gum Street, Suite A
Summerville, SC 29483

Re: SCDOT Encroachment Permit PRE26-00201
US-123 Calhoun Memorial Hwy

Dear Target Development

This letter is regarding the proposed project: Easley Retail Center (Target Development) at US-123 Calhoun Memorial Hwy.

SCDOT agrees in concept to the access points shown on the latest site plans and/or Traffic Impact Study prepared by William Rogan - Engineer & Target Development - Applicant and dated 08/26/2026. These access points/agreed upon conditions consist of:

Location: US-123 Calhoun Memorial Hwy

Scope of Work: Signal modification at US-123 and Wesley Lane Connector in Easley, SC. The project includes widening US-123 to accommodate dual westbound left-turn movements, adding U-turn capabilities along the corridor, and removing two existing crossovers.

The impacts and associated mitigations of each proposed access have been analyzed in the submitted Traffic Impact Study and SCDOT is in general agreement with the current design as submitted on 08/26/2026. Final comments will be coordinated between the Engineer of Record and District Permit Staff at such time that an application is submitted for review and final approval.

This conceptual letter of agreement will expire one year from the date of issuance, unless an extension has been specifically granted by SCDOT. Final approval of the encroachment permit necessary for the accesses is contingent upon compliance with any additional design revisions as required in accordance with the latest editions of the Access and Roadside Management Standards (ARMS) and the SCDOT Highway Design Manual. All work associated with the construction of the access proposed and finally approved will be the responsibility of the property owner.

If you have any additional questions regarding this matter, please feel free to contact me.

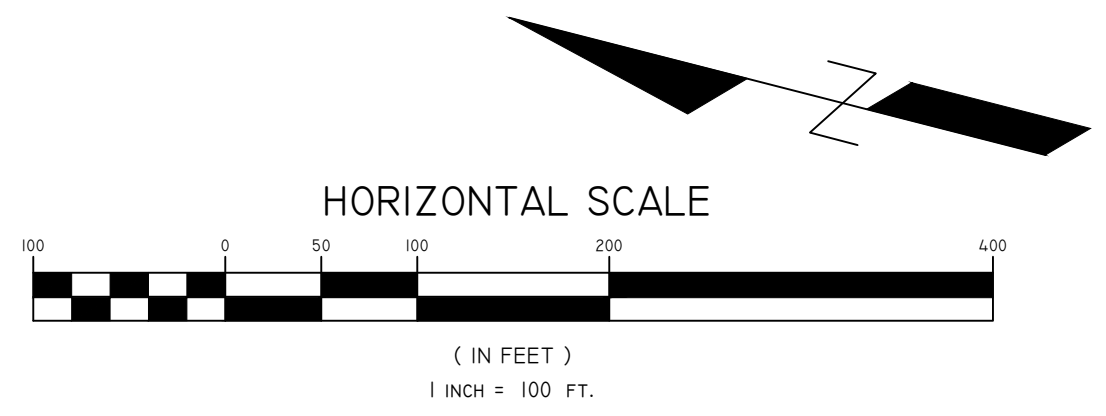
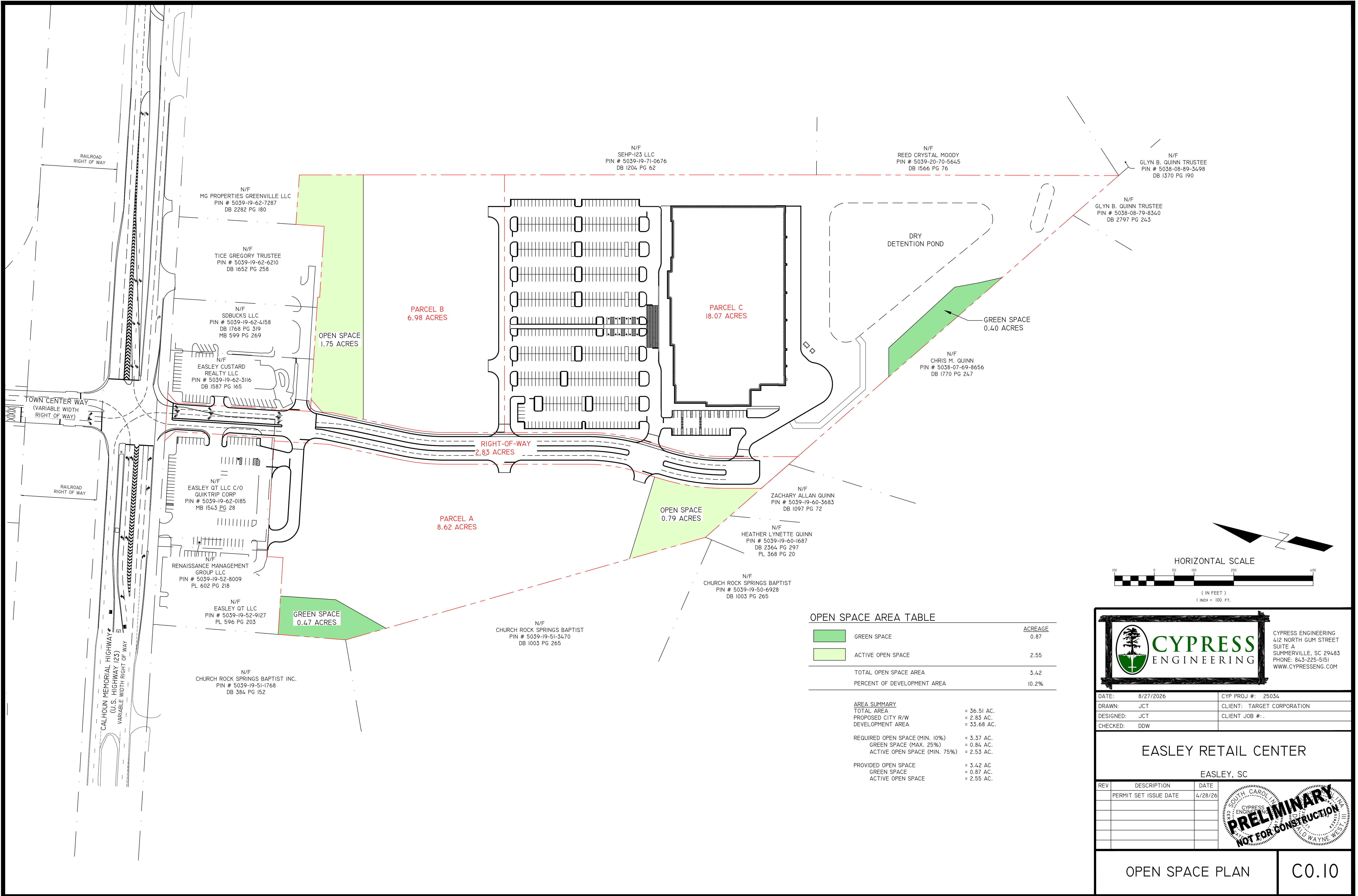
Sincerely,

Joe D. Laws III, P.E.



www.scdot.org
An Equal Opportunity
Affirmative Action Employer

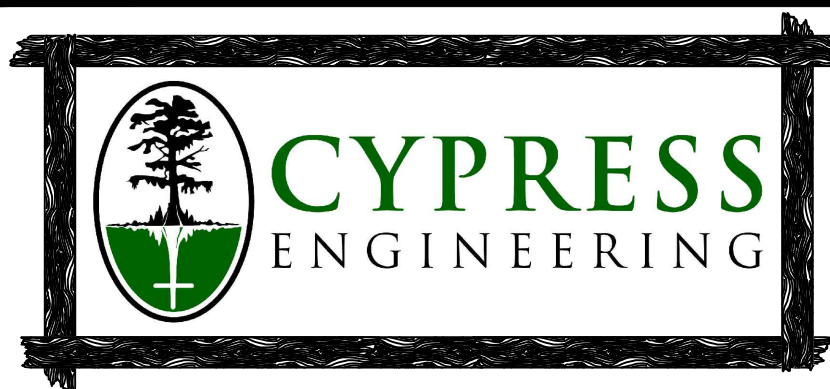
855-GO-SCDOT
(855-467-2368)



OPEN SPACE AREA TABLE	
	GREEN SPACE
	ACTIVE OPEN SPACE
TOTAL OPEN SPACE AREA	
PERCENT OF DEVELOPMENT AREA	

ACREAGE
0.87
2.55
3.42
10.2%

AREA SUMMARY	
TOTAL AREA	= 36.51 AC.
PROPOSED CITY R/W	= 2.83 AC.
DEVELOPMENT AREA	= 33.68 AC.
REQUIRED OPEN SPACE (MIN. 10%)	= 3.37 AC.
GREEN SPACE (MAX. 25%)	= 0.84 AC.
ACTIVE OPEN SPACE (MIN. 75%)	= 2.53 AC.
PROVIDED OPEN SPACE	= 3.42 AC.
GREEN SPACE	= 0.87 AC.
ACTIVE OPEN SPACE	= 2.55 AC.



CYPRESS ENGINEERING
412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

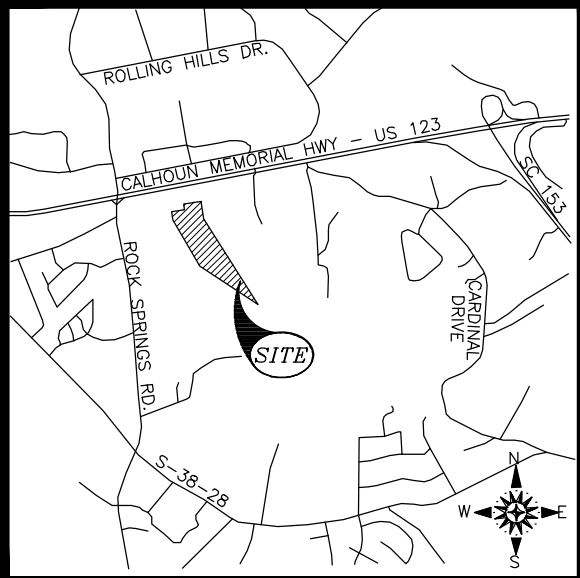
DATE:	8/27/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

EASLEY RETAIL CENTER

EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26





VICINITY MAP (NTS)

REFERENCES:

- 1) DB 2544 PG 226
 - 2) MB 599 PG 269
 - 3) MB 1543 PG 28
 - 4) DB 1587 PG 165
- PICKENS COUNTY REGISTER OF DEEDS.

FLOOD NOTE:

THIS PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN FROM FEMA FLOOD MAPS, PANEL NO. 45077C 0310D, EFFECTIVE APRIL 16, 2008.

SURVEY NOTES:

1. NORTH ORIENTATION IS NAD 83(2011) AND VERTICAL DATUM IS NAVD'88 AND BASED ON SCGS MONUMENT "39 045" VIA THE SC VRS NETWORK
2. THIS PROJECT SUBJECT TO RESTRICTIONS AND EASEMENTS OF RECORD.
3. IMPROVEMENTS SHOWN FOR THE PERFORMANCE OF THIS SURVEY.
4. NO ENVIRONMENTAL ISSUES WERE ADDRESSED DURING THE PERFORMANCE OF THIS SURVEY.
5. IRONS AT ALL CORNERS UNLESS NOTED OTHERWISE.
6. THIS SURVEY IS INVALID UNLESS IT CONTAINS THE ORIGINAL SIGNATURE AND SEAL OF THE ABOVE STATED SURVEYOR.
7. AREA WAS DETERMINED BY THE COORDINATE METHOD.
8. ANYTHING SHOWN OUTSIDE THE DEFINED BOUNDARY IS FOR DESCRIPTIVE PURPOSES ONLY.
9. DISTANCE SHOWN HEREON ARE HORIZONTAL GROUND DISTANCES.

ZONING:

SITE ADDRESS: 4875 CALHOUN MEM HWY
EASLEY, SC 29642

PIN # 5039-19-61-1941

ZONED: GC - CITY OF EASLEY

SETBACKS

FRONT: 30' FROM LOCAL ROAD
40' FROM COLLECTOR ROAD
SIDE: 5'
REAR: 15'

PIN # 5039-19-61-2348

ZONED: COUNTY (NO ZONING) PICKENS COUNTY

SETBACKS

FRONT: 20'
SIDE: 7'
REAR: 10'

PIN # 5039-19-60-8617

ZONED: COUNTY (NO ZONING)

SETBACKS

FRONT: 20'
SIDE: 7'
REAR: 10'

SURVEYOR CERTIFICATE

I, CHRISTOPHER G. DELLA MEA, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN, ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

THIS SURVEY IS NOT VALID UNLESS EMBOSSED WITH AN ORIGINAL SURVEYOR'S SEAL. THIS SURVEY HAS BEEN DONE WITHOUT THE BENEFIT OF REVIEWING A CURRENT TITLE SEARCH.

WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 11TH DAY OF MAY, 2026.

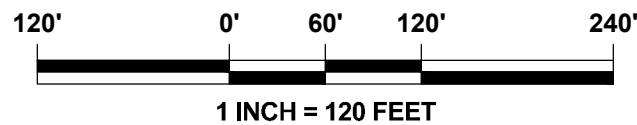
PRELIMINARY

CHRISTOPHER G. DELLA MEA
SCPLS REGISTRATION NO. 22752
REVISED: 06/22/2026



NOTE REGARDING THIS PLAT.

THIS PLAT INCORPORATES AND SHOWS PROPERTY LINES THAT ARE NOT OF CURRENT RECORD. THERE IS A RECOMBINATION PLAT BEING REVIEWED CONCURRENT WITH THIS PLAT. THIS PLAT REFLECTS THOSE PROPOSED CHANGES, AND THIS RECOMBINATION PLAT WILL BE RECORDED PRIOR TO THIS PLAT.



PURPOSE STATEMENT

THE PURPOSE OF THIS PLAT IS TO SUBDIVIDE AND RECOMBINE TAX PARCELS 5039-19-61-1941, 5039-19-61-2348, 5039-19-60-8617, 5039-19-61-8304 & 5039-19-62-8021 AS SHOWN.



GPA INC.
SERVING SOUTH CAROLINA
AND NORTH CAROLINA

CHARLESTON SC CORP OFC
281 TREELAND DR. STE B
LADSON SC 29458
OFFICE (843) 285-2424

CHARLOTTE NC BRANCH
605 PHILLIP DAVIS DR. STE 3
CHARLOTTE NC 28217
OFFICE (704) 335-8800

"Integrity Without Boundaries"
www.gpaland.com

SCALE

1"=120'

JOB NO.

250099

DATE

06/28/2026

DRAWN BY

GPA

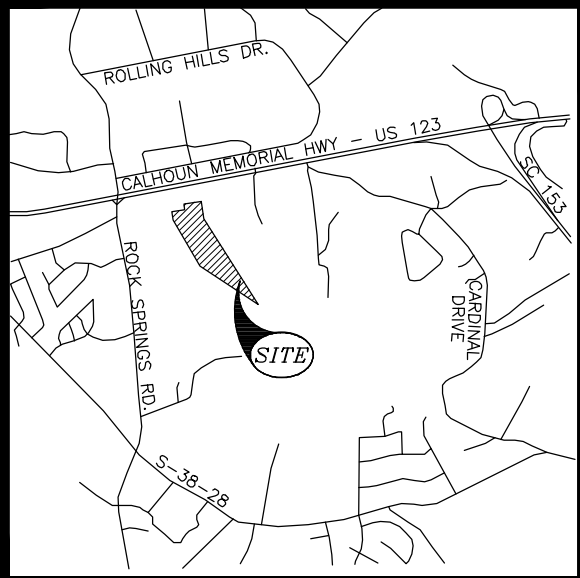
CHECKED BY

CGD

PREPARED FOR: SHOWING LOT 5039-19-61-1941, 5039-19-61-2348, 5039-19-60-8617, 5039-19-61-8304 & 5039-19-62-8021
RT CALAHOUN MEMORIAL LLC
4875 CAROLINA MEMORIAL HIGHWAY
OWNED BY
FREEMAN REAL ESTATE LLC, FREEMAN WILLIAM DAVID & RT CALAHOUN MEMORIAL LLC
LOCATED IN THE TOWN EASLEY
PICKENS COUNTY, SOUTH CAROLINA



SHEET 1 OF 3

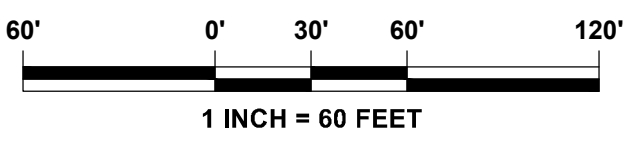


VICINITY MAP (NTS)

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 80°10'13" E	56.59'
L2	N 80°15'50" E	25.01'
L3	N 80°11'23" E	38.32'
L4	S 35°03'56" W	33.26'
L5	N 80°10'33" E	26.15'
L6	S 09°41'17" E	5.00'
L7	N 80°08'12" E	38.98'
L8	N 09°40'50" W	71.26'
L9	N 54°41'59" W	4.45'
L10	N 54°41'59" W	26.83'
L11	N 09°46'54" W	41.01'
L12	N 80°10'38" E	15.00'
L13	N 80°10'38" E	8.00'
L14	N 55°40'26" W	34.09'
L15	N 35°08'50" E	42.39'
L16	N 09°56'04" W	24.84'
L17	N 03°38'17" E	55.31'
L18	N 03°38'17" E	55.31'

CURVE TABLE			
CURVE	RADIUS	LENGTH	CHORD BEARING
C1	460.00'	96.11'	S 07°31'01" E
C2	540.00'	161.55'	N 04°55'56" W
C3	460.00'	137.61'	S 04°55'56" E
C4	540.00'	161.55'	S 04°55'56" E
C5	460.00'	137.61'	N 04°55'56" W
C6	540.00'	112.82'	S 07°31'01" E

- LEGEND**
- IRON FOUND (AS DESCRIBED)
 - IRON SET (5/8" REBAR)
 - △ CALCULATED POINT
 - PROPERTY LINE
 - - - PROPERTY LINE TO BE ABANDONED
 - - - ADJOINER LINE
 - - - RIGHT-OF-WAY
 - - - CITY LIMITS
 - - - RAILROAD
 - - - EASEMENT LINE (ACCESS)
 - - - EASEMENT LINE (AS DESCRIBED)
 - - - OVERHEAD POWER LINE
 - - - NEW RIGHT-OF-WAY
 - RECREATION OPEN SPACE
 - PRESERVED GREEN SPACE
 - NEW ACCESS EASEMENT



N/F
CHURCH ROCK SPRINGS BAPTIST INC.
PIN # 5039-19-61-3470
DB 1003 PG 265

MATCHLINE SHEET 2
MATCHLINE SHEET 3

TOWN CENTER WAY
VARIABLE WIDTH
RIGHT OF WAY

CALHOUN MEMORIAL HIGHWAY
(U.S. HIGHWAY 123)
VARIABLE WIDTH RIGHT OF WAY

RAIL SHED

RAIL SHED

RAILROAD
RIGHT OF WAY

CALHOUN MEMORIAL HIGHWAY
U.S. HIGHWAY 123
VARIABLE WIDTH RIGHT OF WAY

N/F
EASLEY CUSTARD
REALTY LLC
PIN # 5039-19-62-3116
DB 1587 PG 165

N/F
SDBUCKS LLC
PIN # 5039-19-62-4158
DB 1768 PG 319
MB 599 PG 269

N/F
TICE GREGORY TRUSTEE
PIN # 5039-19-62-6210
DB 1652 PG 258

N/F
MC PROPERTIES
GREENVILLE LLC
PIN # 5039-19-62-7287
DB 2282 PG 180

NOTE REGARDING THIS PLAT.
THIS PLAT INCORPORATES AND SHOWS
PROPERTY LINES THAT ARE NOT OF CURRENT
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BEING REVIEWED CONCURRENT WITH THIS
PLAT. THIS PLAT REFLECTS THOSE PROPOSED
CHANGES, AND THE RECOMBINATION PLAT
WILL BE RECORDED PRIOR TO THIS PLAT.

N/F
EASLEY QT LLC
PIN # 5039-19-52-9127
PL 596 PG 203

N/F
EASLEY QT LLC C/O QUICKTRIP CORP
PIN # 5039-19-52-0185
MB 1543 PG 28

N/F
RENAISSANCE MANAGEMENT GROUP LLC
PIN # 5039-19-52-8009
PL 602 PG 218

N/F
CHURCH ROCK SPRINGS BAPTIST INC.
PIN # 5039-19-61-1768
DB 384 PG 152

N/F
FREEMAN 123 LP
PIN # 5039-19-61-1941
DB 1720 PG 205
PL 602 PG 218

N/F
RT CALAHOUN MEMORIAL LLC
PIN # 5039-19-62-8021
DB 2544 PG 226
MB 598 PG 234

N/F
SEHP-123 LLC
PIN # 5039-19-71-0676
DB 1204 PG 62

PARCEL B
304,106 SQ.FT.
6.981 ACRES

PARCEL A
375,583 SQ. FT.
8.622 ACRES

DEDICATED R/W
TOTAL
123,368 SQ.FT.
2.832 ACRES

N/F
RT CALAHOUN MEMORIAL LLC
PIN # 5039-19-61-8304
DB 2544 PG 226
MB 599 PG 269

GPA
PROFESSIONAL
LAND SURVEYORS
EST. 1987

GPA INC.
SERVING SOUTH CAROLINA
AND NORTH CAROLINA

CHARLESTON SC CORP OFC
281 TREELAND DR. STE B
LADSON SC 29456
OFFICE (843) 285-2424

CHARLOTTE NC BRANCH
605 PHILLIP DAVIS DR. STE 3
CHARLOTTE NC 28217
OFFICE (704) 335-8600

"Integrity Without Boundaries"
www.gpaland.com

SCALE
1"=60'

JOB NO.
250099

DATE
08/28/2026

DRAWN BY
GPA

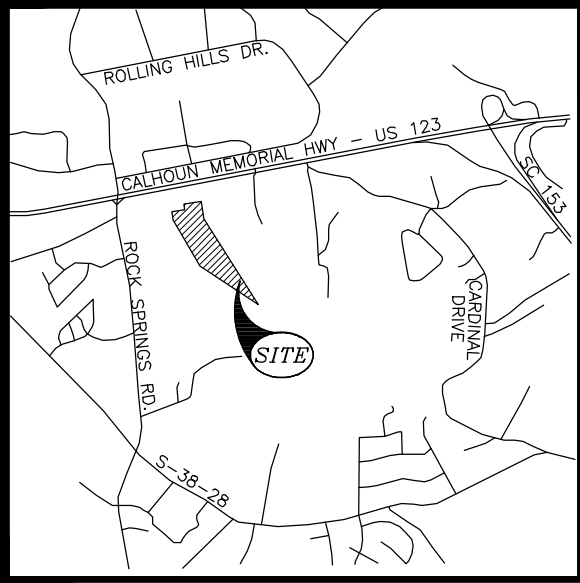
CHECKED BY
CGD

SHOWING LOT 5039-19-61-1941, 5039-19-61-2348, 5039-19-60-8617, 5039-19-61-8304 & 5039-19-62-8021
OWNED BY
4875 CAROLINA MEMORIAL HIGHWAY
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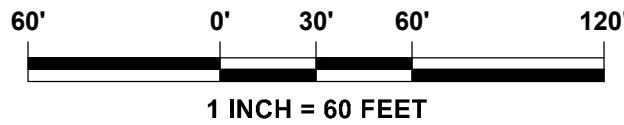
SHEET
2

OF
3



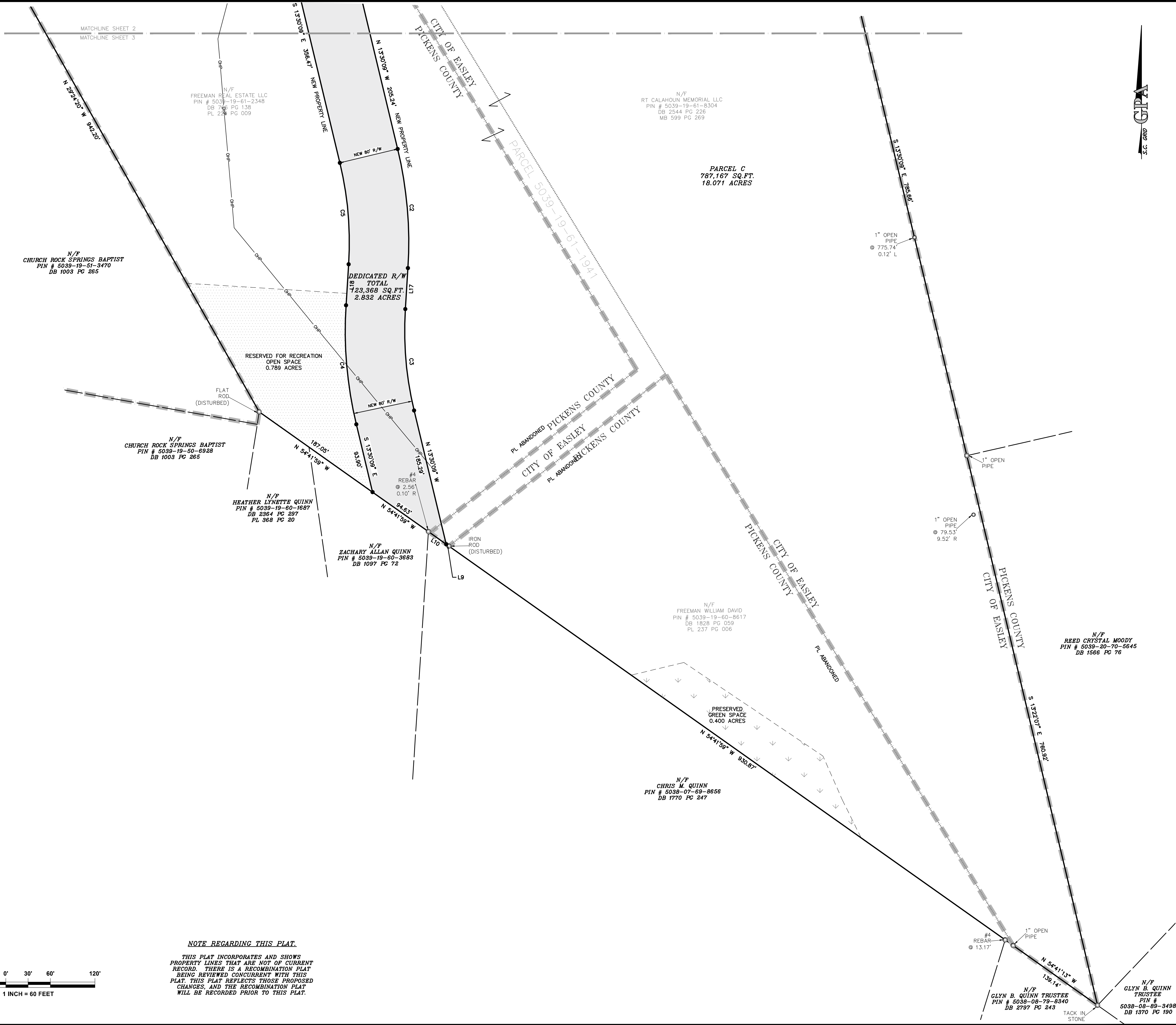
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 - PROPERTY LINE
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 - RECREATION OPEN SPACE
 - PRESERVED GREEN SPACE
 - NEW ACCESS EASEMENT



NOTE REGARDING THIS PLAT.

THIS PLAT INCORPORATES AND SHOWS PROPERTY LINES THAT ARE NOT OF CURRENT RECORD. THERE IS A RECOMBINATION PLAT BEING REVIEWED CONCURRENT WITH THIS PLAT. THIS PLAT REFLECTS THOSE PROPOSED CHANGES, AND THE RECOMBINATION PLAT WILL BE RECORDED PRIOR TO THIS PLAT.



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SHOWING LOT 5039-19-61-1941, 5039-19-61-2348, 5039-19-60-8617, 5039-19-61-8304 & 5039-19-62-8021
4875 CAROLINA MEMORIAL HIGHWAY
OWNED BY
FREEMAN REAL ESTATE LLC, FREEMAN WILLIAM DAVID & RT CALAHOUN MEMORIAL LLC
LOCATED IN THE TOWN OF EASLEY
PICKENS COUNTY, SOUTH CAROLINA

PREPARED FOR

PREPARED BY

DATE

BY

CHECKED BY

APPROVED BY

S U B D I V I S I O N S U R V E Y

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Glyn B. Quinn
No. 32712

SHEET 3 OF 3

TRAFFIC IMPACT & ACCESS STUDY

RT CALHOUN COMMERCIAL PROJECT

EASLEY, SOUTH CAROLINA

Prepared for:

CYPRESS ENGINEERING

412 N. Gum Street – Suite A

Summerville, SC 29483

Prepared by:



SHORT ENGINEERING & CONSULTING, LLC

1612 Marion Street – Suite 218E

Columbia, SC 29201

DECEMBER 2025

TRAFFIC IMPACT & ACCESS STUDY

RT CALHOUN COMMERCIAL PROJECT

EASLEY, SOUTH CAROLINA

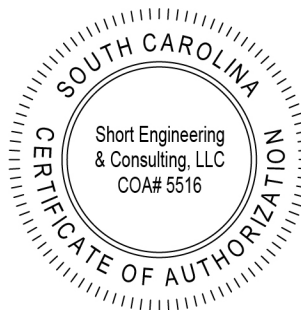
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DECEMBER 2025

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INTRODUCTION & PROJECT OVERVIEW

INTRODUCTION

Short Engineering & Consulting, LLC has been retained to complete an assessment of the traffic and transportation impacts associated with a proposed commercial project (known as RT Calhoun Commercial Project) to be located within the City of Easley, South Carolina municipal limits. This study includes the following:

- A complete overview and description of the proposed project.
- A review of Existing 2025 traffic and intersection/roadway conditions in the defined project study area.
- A review of projected Future 2028 traffic and intersection/roadway conditions without the proposed project.
- A review of projected Future 2028 traffic and intersection/roadway conditions with the proposed project.
- A review of mitigation measures which may be necessary to accommodate the proposed access plan for the project.
- When/if applicable, a review of potential mitigation measures necessary to offset significant project impacts at off-site study area intersections.

PROJECT OVERVIEW

Project Location

The project site (TMS# 5039-19-60-8617, 5039-19-62-8021, 5039-19-61-1941, -2348 & -8304) is generally located along the southern side of Calhoun Memorial Highway (US 123) just east of the Rock Springs Road/Prince Perry Road (S-135) intersection and generally opposite Towne Center Way behind existing commercial uses fronting US 123. The overall project site, which totals 35.73-acres, is presently undeveloped.

Figure 1 depicts the general location of the project site in relation to the local/regional roadway system.

Development Overview

As currently proposed, the following development components will be constructed on-site:

- 140,000 square-feet (sf) Discount SuperStore
- 9,600 square-feet (sf) of Fast-Food Restaurant space
- 17,000 square-feet (sf) of High-Turnover Sit-Down Restaurant space
- 21,600 square-feet (sf) of General Retail space



NOT TO SCALE

Figure 1
SITE LOCATION MAP
RT Calhoun Commercial Project
Easley, South Carolina



For the purposes of this TIAS, a development Horizon Year of 2028 (3-Year Buildout) has been assumed.

Site Access Overview

Based upon the most up-to-date provided site plan, direct access to/from the site will be achieved via the extension of the existing commercial access roadway southward from its existing terminus into the project site which effectively maintains primary direct access to/from US 123 for project traffic.

Figure 2 graphically depicts the most up-to-date site plan for the proposed project.

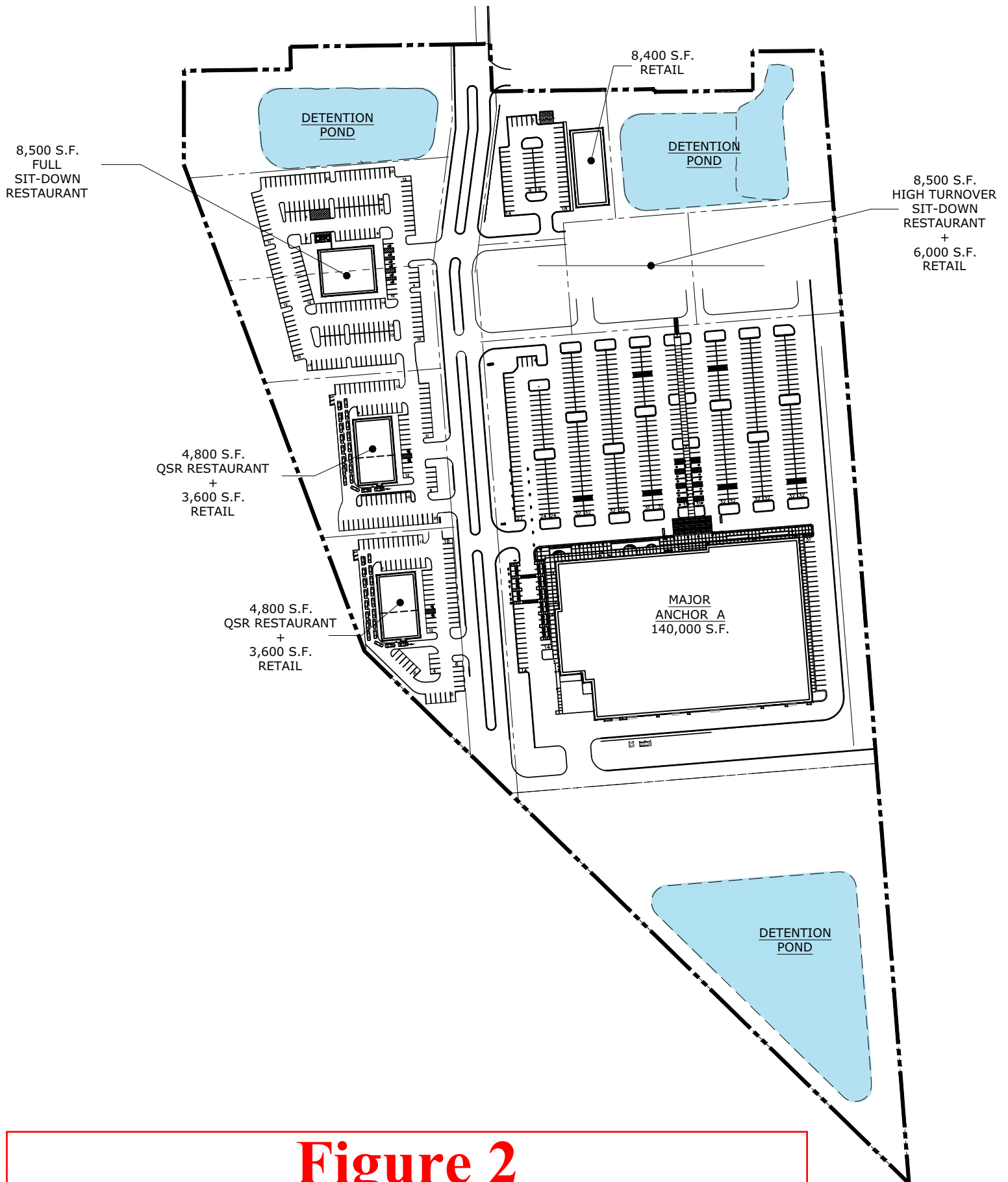


Figure 2

CONCEPTUAL SITE PLAN

EXISTING STUDY AREA CONDITIONS

A comprehensive field inventory of the project study area has been conducted. The field inventory included a collection of geometric data, traffic volumes, and traffic control within the study area. The following sections detail the current conditions within the project study area.

PROJECT STUDY AREA

Based on direction from South Carolina Department of Transportation (SCDOT) staff, the following intersections have been cited for inclusion in the project study area:

- Calhoun Memorial Highway (US 123) at Rock Springs Road / Prince Perry Road (*existing signalized intersection*)
- Calhoun Memorial Highway (US 123) at Towne Center Way (*existing signalized intersection*)

Figure 3 graphically depicts the geometric and traffic control characteristics for the existing study area roadway(s)/intersection(s).

TRAFFIC VOLUMES

In order to determine the existing traffic volume flow patterns within the study area, weekday morning (6:00-9:00 AM) and evening (4:00-6:00 PM) peak period turning movement specific count data was collected for the above-cited existing study area intersections when local K-12 schools were in session.

Figures 4 & 5 graphically depict the representative/resultant peak-hour traffic volumes within the study area.

Summarized count sheets for all cited intersection(s) are included in the *Appendix* of this document.

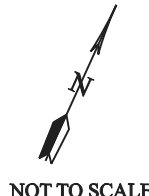
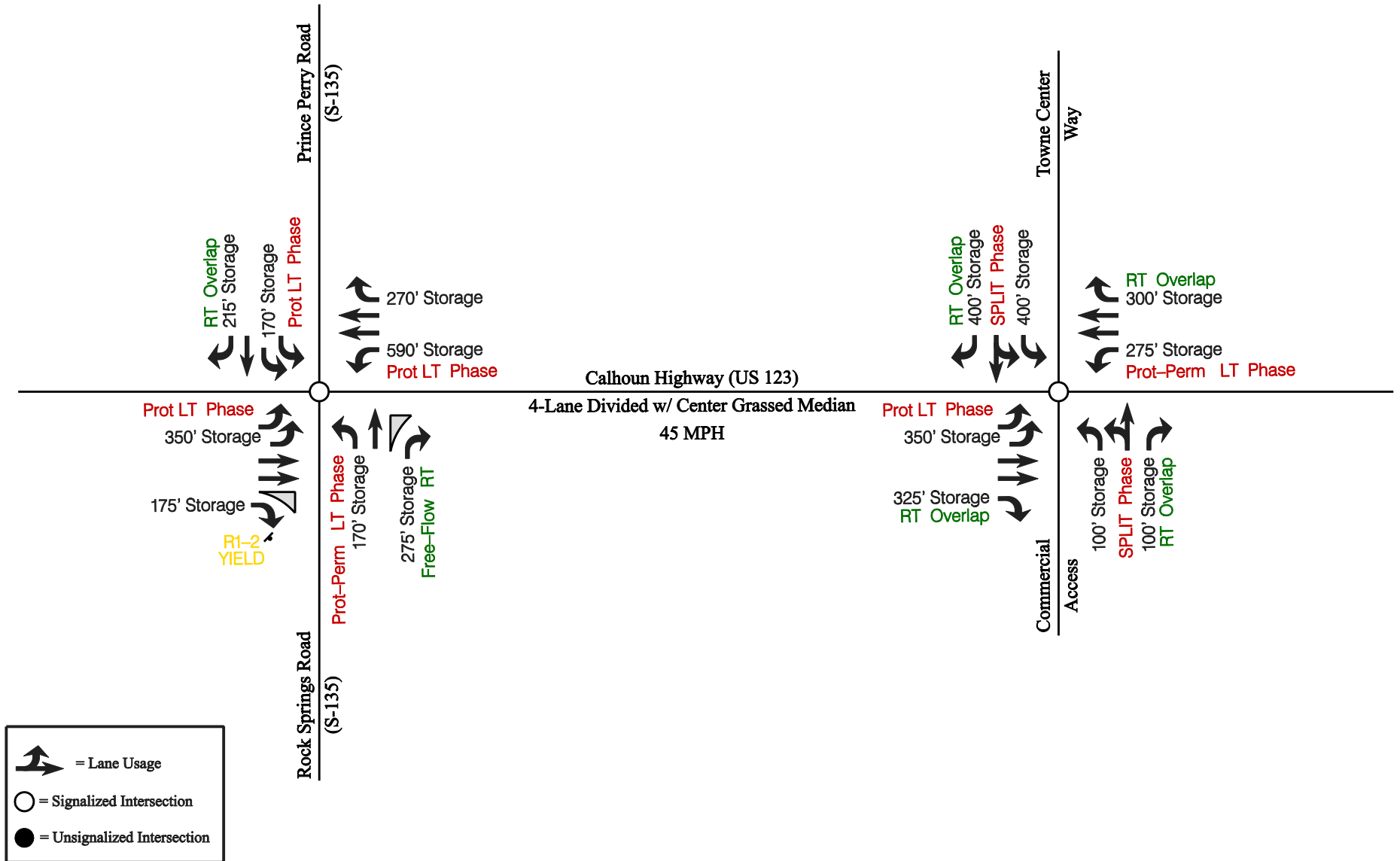
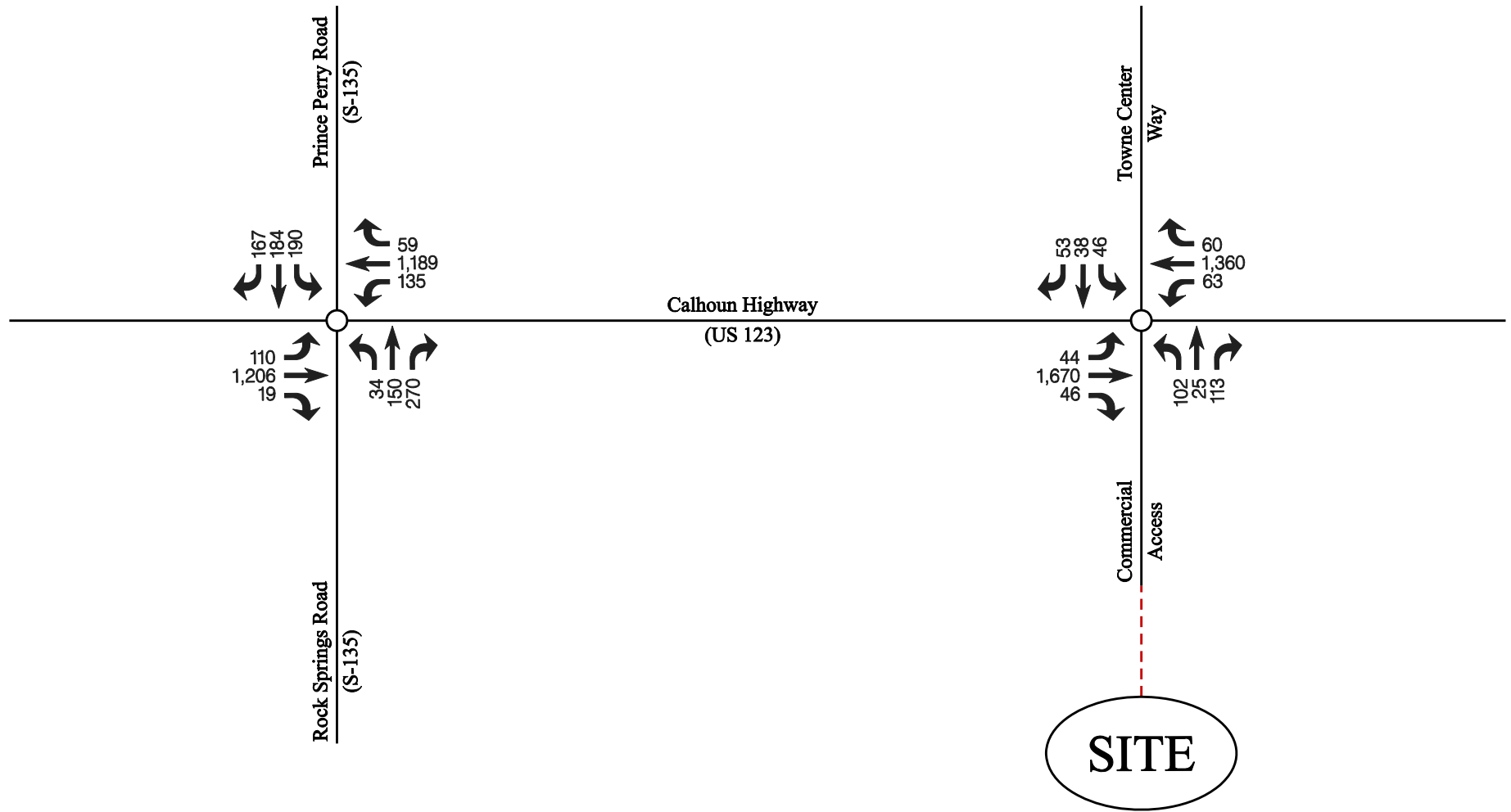


Figure 3
**EXISTING GEOMETRICS
 & TRAFFIC CONTROL**
RT Calhoun Commercial Project : Easley, SC



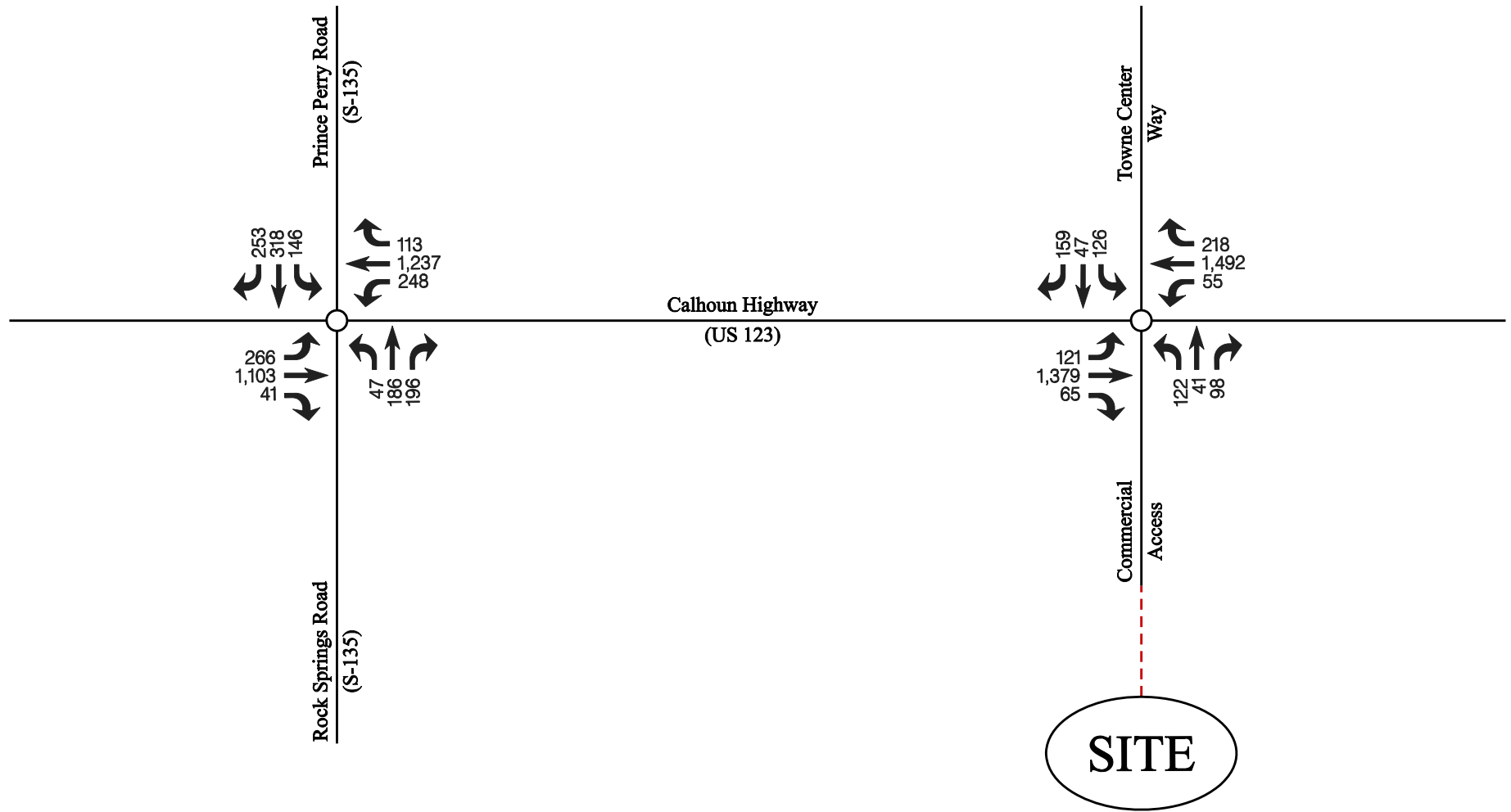
○ = Signalized Intersection
● = Unsignalized Intersection



NOT TO SCALE

Figure 4 EXISTING (2025) TRAFFIC VOLUMES AM PEAK-HOUR

RT Calhoun Commercial Project : Easley, SC



○ = Signalized Intersection
● = Unsignalized Intersection

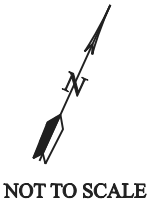


Figure 5
**EXISTING (2025) TRAFFIC VOLUMES
PM PEAK-HOUR**

RT Calhoun Commercial Project : Easley, SC

FUTURE (NO-BUILD) CONDITIONS WITHOUT PROJECT

The 2025 Existing traffic volumes (as shown in Figures 4 & 5) have been projected to the 2028 Horizon Year without consideration of traffic to be generated by the proposed project. Traffic volumes on the roadway network at this time will include all existing traffic, new traffic due to normal annual growth in the area and new traffic related to specific background development projects in the study area. Consideration of these factors resulted in the development of the projected 2028 No-Build traffic volumes. In addition to the projection of study area traffic volumes, all potential roadway/intersection improvement project(s) within the study area were investigated.

NORMAL ANNUAL GROWTH

Growth in the area was investigated via nearby SCDOT (*Pickens County*) permanent count stations (Stations #145, #643, #644 & #645) in the immediate area. Based on this information, a generalized 2-percent per year growth rate was utilized for the study area.

BACKGROUND DEVELOPMENT

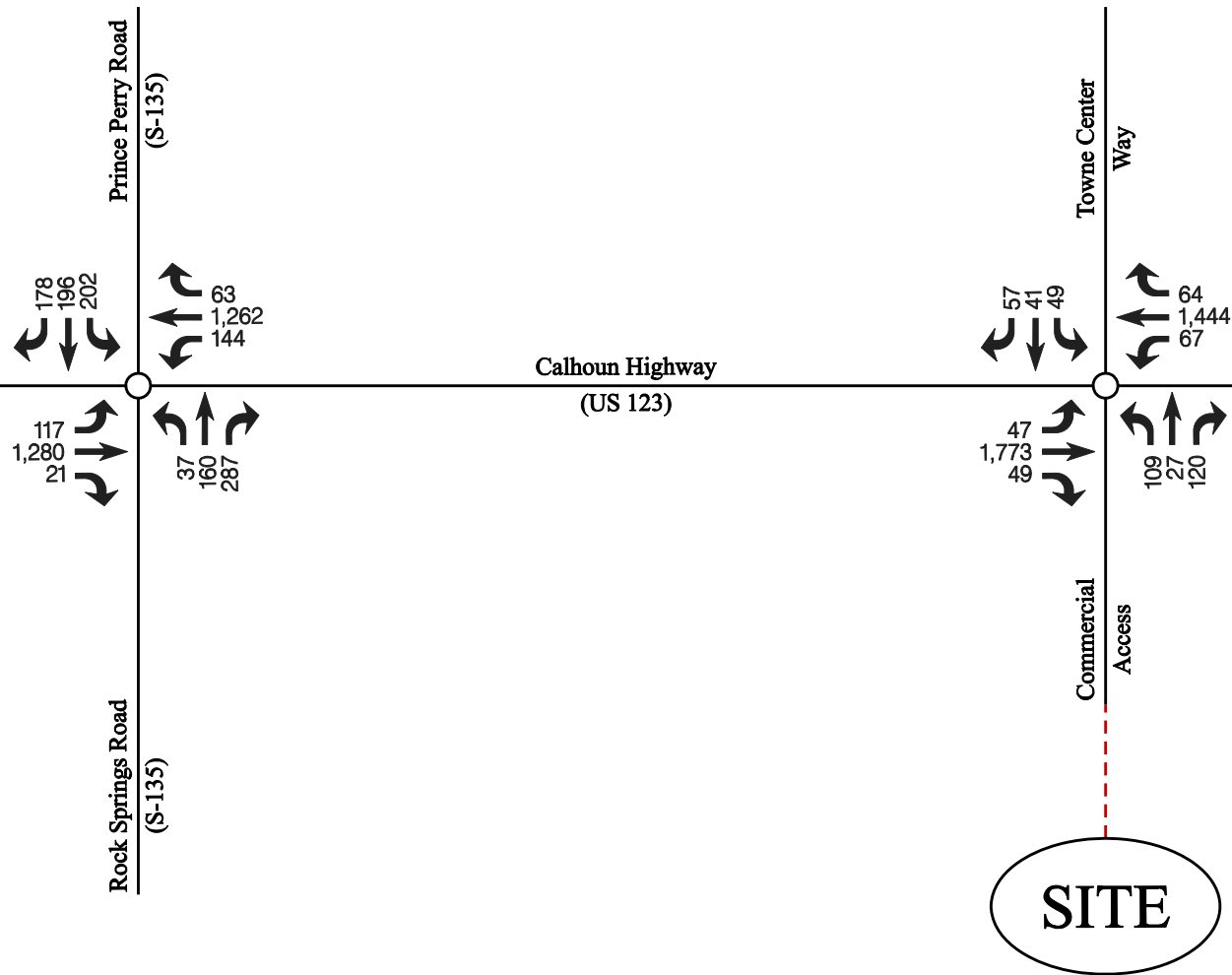
Per direction from SCDOT staff, no specific background development projects are known to exist which are currently approved and/or permitted and will cause an increase/change in traffic volume (in excess of normal annual volume growth) within the study area prior to or concurrent with the projected horizon year for the development.

PLANNED ROADWAY/INTERSECTION IMPROVEMENTS

Per direction from SCDOT staff, there are currently no known roadway/intersection improvement projects that are planned (funded & approved) prior to or concurrent with the projected horizon year of the development that would affect existing study area roadway/intersection capacities and/or operations.

FUTURE 2028 NO-BUILD TRAFFIC VOLUMES

The anticipated 2028 No-Build AM and PM peak-hour traffic volumes, which include the 2-percent per year annual growth, are shown in **Figures 6 & 7**.



○ = Signalized Intersection
● = Unsignalized Intersection

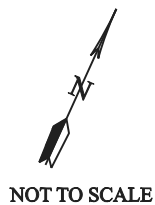


Figure 6
**2028 NO-BUILD TRAFFIC VOLUMES
AM PEAK-HOUR**

RT Calhoun Commercial Project : Easley, SC

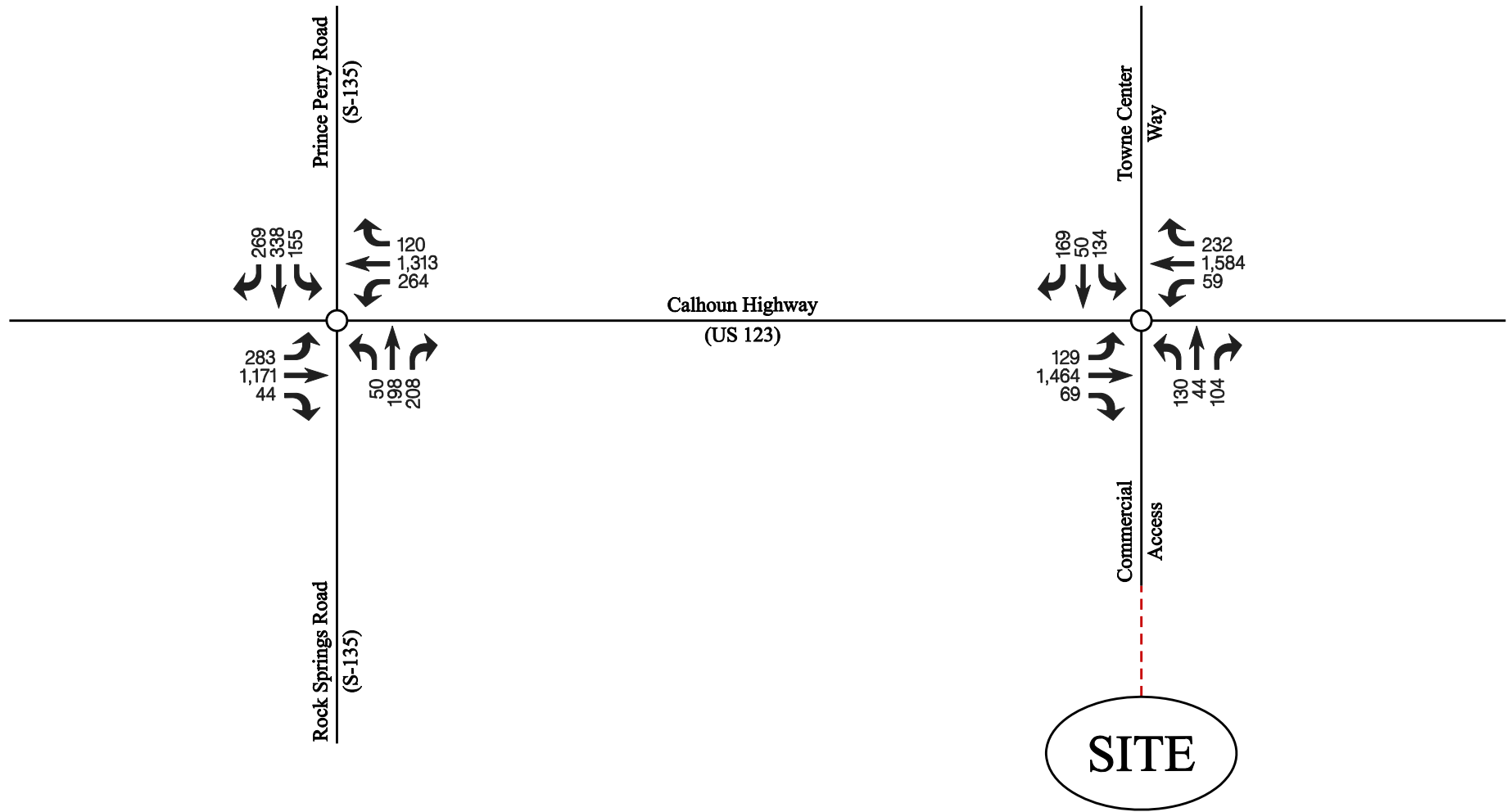


Figure 7
**2028 NO-BUILD TRAFFIC VOLUMES
 PM PEAK-HOUR**

RT Calhoun Commercial Project : Easley, SC

FUTURE (BUILD) CONDITIONS WITH PROJECT

SITE-GENERATED TRAFFIC VOLUMES

Traffic volumes expected to be generated by the proposed project were forecasted using the Eleventh Edition of the ITE *Trip Generation* manual, as published by the Institute of Transportation Engineers. The following Land-Use Codes (LUCs) were used to estimate the specific site-generated traffic.

- LUC 813 (*Free-Standing Discount SuperStore*)
- LUC 934 (*Fast-Food Restaurant with Drive-Through Window*)
- LUC 932 (*High-Turnover Sit-Down Restaurant*)
- LUC 822 (*Shopping Plaza - <40k*)

Table 1 depicts the anticipated site-generated traffic.

Table 1
PROJECT TRIP GENERATION SUMMARY
RT Calhoun Commercial Development

Time Period	Discount SuperStore ¹ 140,000 sf (a)	Fast-Food Restaurant ² 9,600 sf (b)	High-Turnover Sit-Down Restaurant ³ 17,000 sf (c)	General Retail ⁴ 21,600 sf (d)	Total Trips (Σ a thru d)	Internal Capture ⁴ (e)	Total <i>External</i> Trips (Σ a thru d) - e	Pass-By Reduction ⁵ (f)	Total <i>New-External</i> Trips (Σ a thru d) - e - f
Weekday Daily	7,080	4,490	1,830	1,180	14,580	(1,020)	13,560	0	13,560
AM Peak-Hour									
Enter	146	219	90	31	486	(34)	452	(99)	353
<u>Exit</u>	<u>115</u>	<u>210</u>	<u>73</u>	<u>20</u>	<u>418</u>	<u>(29)</u>	<u>389</u>	<u>(99)</u>	<u>290</u>
Total	261	429	163	51	904	(63)	841	(198)	643
PM Peak-Hour									
Enter	297	165	94	67	623	(124)	499	(165)	334
<u>Exit</u>	<u>310</u>	<u>153</u>	<u>60</u>	<u>68</u>	<u>591</u>	<u>(118)</u>	<u>473</u>	<u>(165)</u>	<u>308</u>
Total	607	318	154	135	1,214	(242)	972	(330)	642

1. ITE Trip Generation manual, 11th Edition. LUC 813.

2. ITE Trip Generation manual, 11th Edition. LUC 934.

3. ITE Trip Generation manual, 11th Edition. LUC 932.

4. ITE Trip Generation manual, 11th Edition. LUC 822.

5. Calculated via procedure from ITE Trip Generation Handbook. Weekday Daily = 7% // AM = 7% // PM = 20%

6. Calculated via procedure from ITE Trip Generation Handbook. Following rates applied:

- Column (a) - AM = N/A // PM = 29%

- Column (b) - AM = 50% // PM = 55%

- Column (c) - AM = N/A // PM = 43%

- Column (d) - AM = N/A // PM = N/A

As shown in Table 1, the RT Calhoun Commercial Project can be expected to generate a total of **14,580** two-way vehicular trips on a weekday daily basis, of which a total of **904** trips (**486** entering, **418** exiting) can be expected during the AM peak-hour. During the PM peak-hour, **1,214** total trips (**623** entering, **591** exiting) can be expected.

This project is proposed to contain varying commercial/retail/restaurant land-use types which is anticipated to result in a reduction in overall trip generation due to the presence of a multi-purpose/internal trip capture. Based on accepted procedures outlined in the *Trip Generation Handbook*, the following multi-purpose/internal capture reduction rates were calculated (see *Appendix*) and applied:

- Weekday Daily = 7% (*assumed as lowest calculated peak-hour*)
- AM Peak-Hour = 7%
- PM Peak-Hour = 20%

In addition to the cited internal trip capture, a pass-by reduction has also been applied to the applicable external commercial/retail/restaurant land-use trips. Pass-by trips are trips made to the proposed development as intermediate stops on the way from an origin to a primary trip destination. It is important to note that pass-by trips do not reduce the amount of traffic generated by the site, and the “total trips” generated are expected to enter and exit the site no matter what percentage of pass-by trips is used. Pass-by trips are simply that portion of the site-generated traffic that is not a function of the land uses in the area, but are only a function of the type of use proposed on the site and the volume of traffic on the adjacent roadways. Based on ITE data and past usage. The applicable Pass-By rate for each land use is depicted in Table 1.

After accounting for the internal, multi-use trip capture and pass-by trip reduction, the development is expected to generate a total of **13,560 new external** (two-way) daily trips. During the AM peak-hour, a total of **643 new external** trips (**353** entering, **290** exiting) can be expected. During the PM peak-hour, **642 new external** trips (**334** entering, **308** exiting) can be expected.

TRIP DISTRIBUTION PATTERN

The directional distribution of site-generated traffic on the study area roadways has been based on an evaluation of existing and projected travel patterns within the study area. **Table 2** depicts the general distribution pattern for site traffic throughout the study area.

Table 2
TRIP DISTRIBUTION PATTERN
RT Calhoun Commercial Project

Study Area Roadway	Direction To/From	Percent of Trips Enter/Exit
Calhoun Memorial Highway (US 123)	East (toward Greenville)	38.5
	West	38.5
Towne Center Way	North	3
Rock Springs Road	South / West	10
Prince Perry Road	North / West	10
Total		100

The defined distribution/assignment pattern has been applied to the site-generated traffic volumes shown in Table 1 to develop the site-generated specific volumes for the study area intersections. These site-generated volumes are illustrated in **Figures 8 & 9**.

FUTURE 2028 BUILD TRAFFIC VOLUMES

The site-generated traffic, as depicted in Figures 8 & 9, has been added to the respective 2028 No-Build traffic volumes shown in Figures 6 & 7. This results in the peak-hour 2028 Build traffic volumes, which are graphically depicted in **Figures 10 & 11**. These volumes were used as the basis to determine potential improvement measures necessary to mitigate traffic impacts caused by the project.

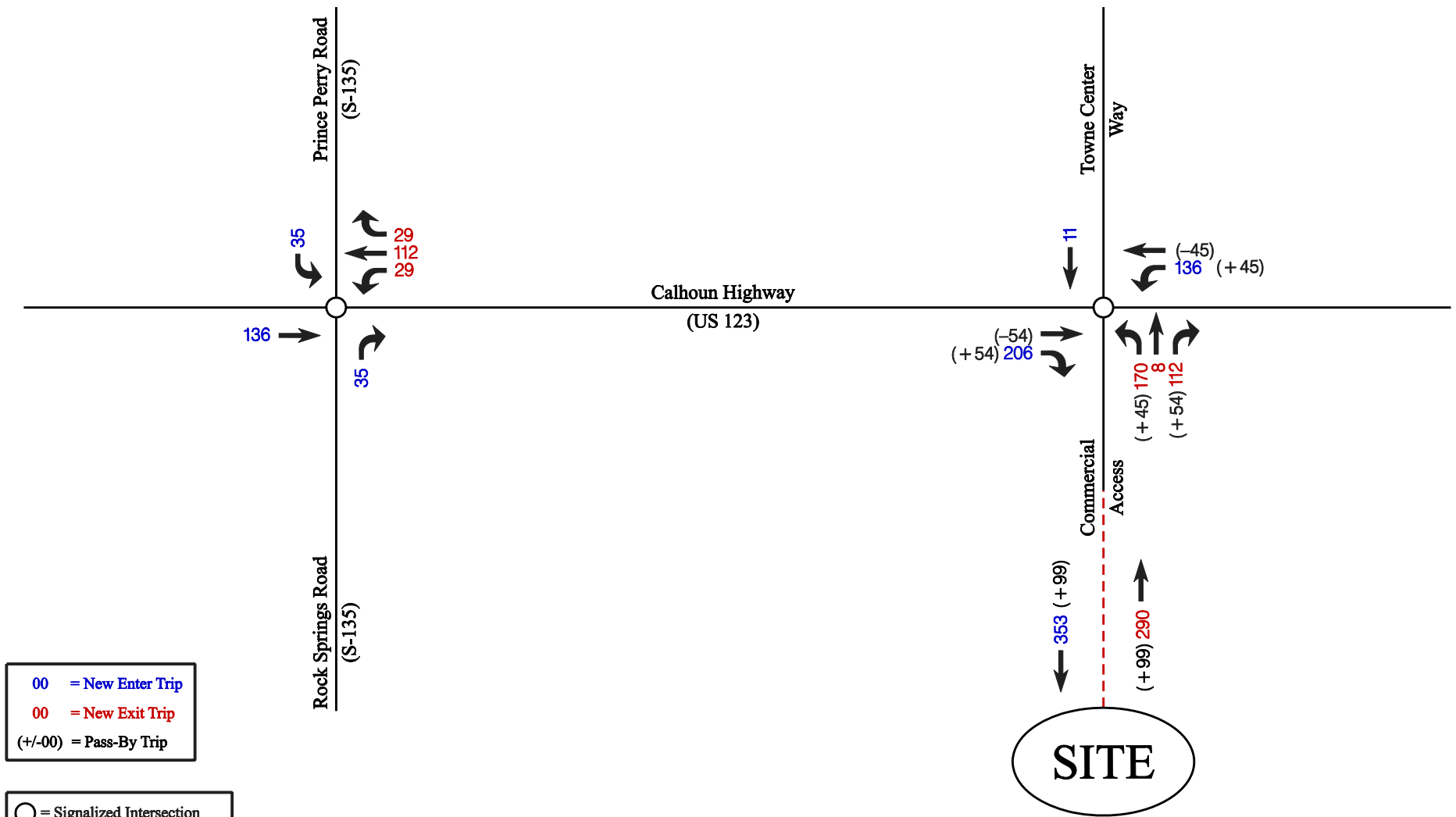


Figure 8
SITE-GENERATED TRAFFIC VOLUMES
AM PEAK-HOUR

RT Calhoun Commercial Project : Easley, SC

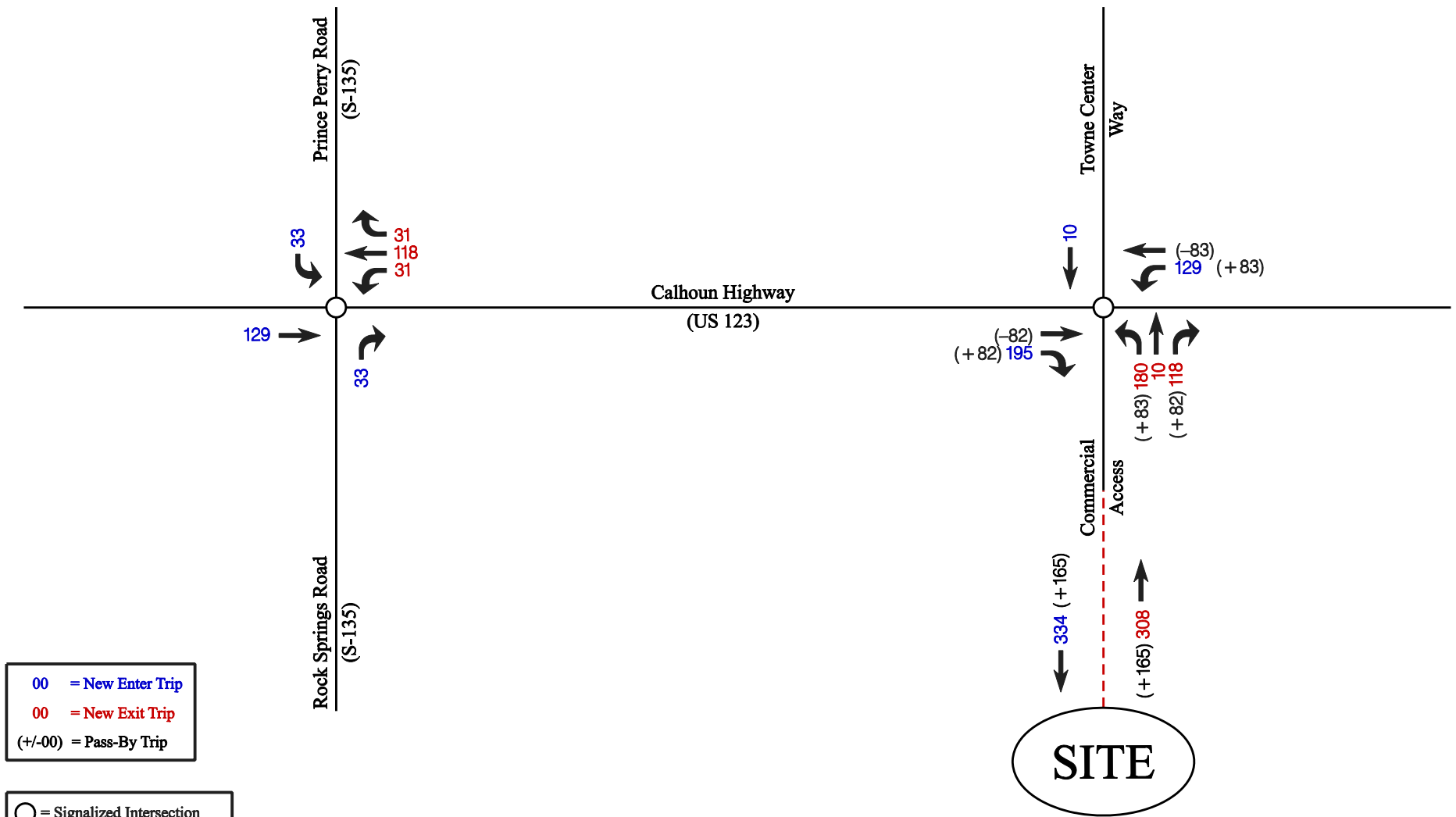


Figure 9

SITE-GENERATED TRAFFIC VOLUMES PM PEAK-HOUR

RT Calhoun Commercial Project : Easley, SC

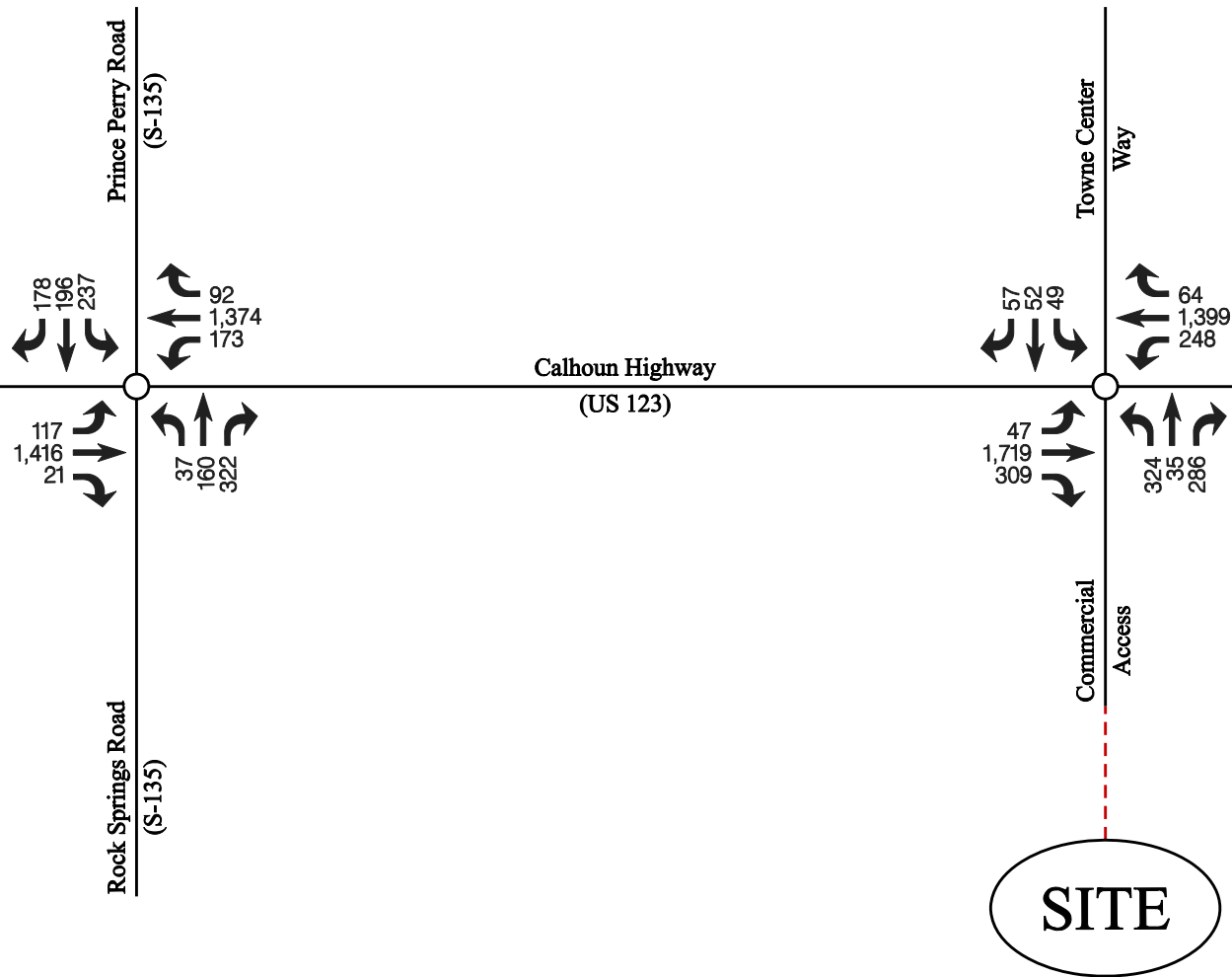
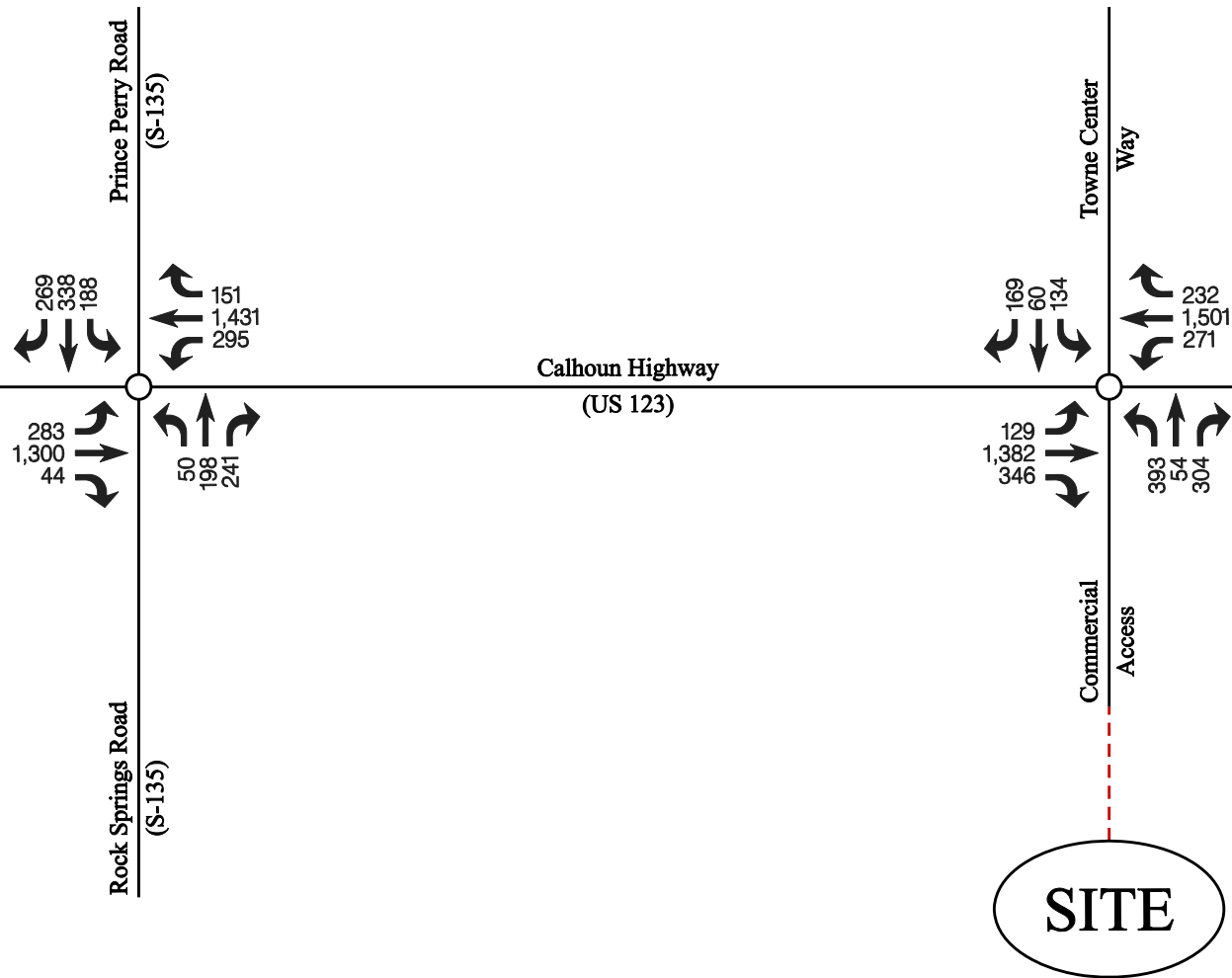


Figure 10

2028 BUILD TRAFFIC VOLUMES AM PEAK-HOUR

RT Calhoun Commercial Project : Easley, SC



○ = Signalized Intersection
● = Unsignalized Intersection



NOT TO SCALE

Figure 11 **2028 BUILD TRAFFIC VOLUMES PM PEAK-HOUR**

RT Calhoun Commercial Project : Easley, SC

TRAFFIC OPERATIONS ANALYSIS

Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, capacity analyses were conducted to provide an indication of how well the study area intersections/roadways serve existing and future traffic demands. The following provides a description of the methodology utilized to complete these analyses and resultant operation analyses.

METHODOLOGY

Level-of-Service

A primary result of capacity analyses is the assignment of level-of-service (LOS) to traffic facilities under various traffic flow conditions. The concept of level-of-service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels-of-service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst.

Since the level-of-service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels-of-service, depending on the time of day, day of week, or period of a year.

Signalized Intersections

The six levels-of-service for signalized intersections may be described as follows:

- **LOS A** describes operations with very low delay. Most vehicles do not stop at all.
- **LOS B** describes operations with relatively low delay. However, more vehicles stop than LOS A.
- **LOS C** describes operations with higher delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- **LOS D** describes operations with delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable.

- **LOS E** describes operations with high delay values. Individual cycle failures are frequent occurrences.
- **LOS F** describes operations with high delay values that often occur with over-saturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels-of-service for signalized intersections are calculated using the operational analysis methodology of the 6th Edition of the *Highway Capacity Manual*. This method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on delay. Level-of-service designations are based solely on the criterion of calculated control delay per vehicle, since delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time.

Unsignalized Intersections

The six levels-of-service for two-way stop-controlled intersections may be described as follows:

- **LOS A** represents a condition with little or no delay to minor street traffic.
- **LOS B** represents a condition with short delays to minor street traffic.
- **LOS C** represents a condition with average delays to minor street traffic.
- **LOS D** represents a condition with long delays to minor street traffic.
- **LOS E** represents operating conditions at or near capacity level, with very long delays to minor street traffic.
- **LOS F** represents a condition where minor street demand volume exceeds capacity of an approach lane, with extreme delays resulting.

The levels-of-service of unsignalized intersections are determined by the application of a procedure described in the 6th Edition of the *Highway Capacity Manual*. The procedure accounts for lane configuration on both the minor and major approaches, and conflicting traffic stream volumes. First, the theoretical maximum or capacity flow of vehicles for each minor approach lane is calculated based on a gap acceptance procedure. The capacities are then compared to the demand at the respective minor approaches to determine the control delay for each vehicle. Control delay is used as the criterion for estimating level-of-service for minor street traffic.

Table 3 summarizes the relationship between level-of-service and delay for both signalized and unsignalized intersections. The tabulated delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

Table 3
LEVEL-OF-SERVICE CRITERIA

Level-of-Service	Signalized Intersections ¹	UnSignalized Intersections ¹
A	0.0 to 10.0	0.0 to 10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	>80.0	>50.0

1. Delay in seconds per vehicle.

CAPACITY ANALYSIS RESULTS

Capacity analyses have been performed for the defined study area intersections under the following analysis scenarios:

2025 Existing Conditions

- Existing (2025) traffic volumes (Figures 4 & 5).
- Existing geometrics and traffic control for all existing study area intersections.

2028 No-Build Conditions

- Projected 2028 No-Build traffic volumes (Figures 6 & 7) assuming 2-percent/year annual growth.
- Existing geometrics and traffic control remain in-place for all existing study area intersections.

2028 Build Conditions

- Projected 2028 Build traffic volumes (Figures 10 & 11) assuming 2-percent/year annual growth PLUS traffic to be generated by the proposed RT Calhoun Commercial Project.
- Existing geometrics and traffic control remain in-place for all existing study area intersections.

Tables 4a & 4b depict the results of all completed intersection capacity analyses.

All associated capacity analysis worksheets are included in the *Appendix* of this document. Note that all analyses assume traffic signal timing characteristics based on information provided by SCDOT staff. This information is included in the *Appendix* of this document.

Table 4a
LEVEL-OF-SERVICE SUMMARY
Calhoun Memorial Highway (US 123) at Towne Center Way

Signalized Intersection(s)	Time	2025 EXISTING		2028 NO-BUILD		2028 BUILD	
	Period	Delay ^a	LOS ^b	Delay	LOS	Delay	LOS
OVERALL INTERSECTION	AM	28.1	C	30.9	C	55.1	E
	PM	36.3	D	38.5	D	82.8	F
Eastbound (US 123) Approach							
EB - Overall Approach <i>(Calhoun Memorial Hwy - US 123)</i>	AM	26.0	C	30.1	C	42.0	D
	PM	27.8	C	29.5	C	32.0	C
EB - Left-Turn Movement (2 Lanes) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	75.3	E	75.5	E	75.5	E
	PM	91.9	F	93.2	F	93.2	F
EB - Thru Movement (2 Lanes) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	25.3	C	29.5	C	46.4	D
	PM	23.1	C	24.9	C	30.7	C
EB - Right-Turn Movement (1 Lane) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	6.5	A	6.6	A	12.1	B
	PM	8.3	A	8.3	A	14.6	B
Westbound (US 123) Approach							
WB - Overall Approach <i>(Calhoun Memorial Hwy - US 123)</i>	AM	19.6	B	21.8	C	50.7	D
	PM	26.0	C	28.8	C	51.1	D
WB - Left-Turn Movement (1 Lane) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	27.1	C	35.2	D	216.5	F
	PM	20.2	C	23.1	C	198.9	F
WB - Thru Movement (2 Lanes) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	19.7	B	21.8	C	23.1	C
	PM	28.5	C	31.7	C	30.6	C
WB - Right-Turn Movement (1 Lane) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	8.4	A	8.7	A	9.6	A
	PM	9.9	A	10.5	B	10.9	B

Table 4a (continued)

Northbound (Commercial Access) Approach

NB - Overall Approach <i>(Commercial Access)</i>	AM	67.3	E	67.3	E	105.6	F
	PM	89.8	F	90.8	F	295.0	F

NB - Left-Turn Movement (1 Lane) <i>(Commercial Access)</i>	AM	66.5	E	66.2	E	101.6	F
	PM	88.4	F	89.1	F	331.7	F

NB - Left-Turn/Thru Movement (1 Shared Lane) <i>(Commercial Access)</i>	AM	67.6	E	67.2	E	101.6	F
	PM	96.1	F	97.4	F	331.7	F

NB - Right-Turn Movement (1 Lane) <i>(Commercial Access)</i>	AM	67.6	E	68.1	E	110.5	F
	PM	84.8	F	85.6	F	242.9	F

Southbound (Towne Center Way) Approach

SB - Overall Approach <i>(Towne Center Way)</i>	AM	71.7	E	71.5	E	72.3	E
	PM	84.2	F	86.8	F	87.7	F

SB - Left-Turn Movement (1 Lane) <i>(Towne Center Way)</i>	AM	73.9	E	73.6	E	74.4	E
	PM	81.1	F	82.6	F	84.5	F

SB - Left-Turn/Thru Movement (1 Shared Lane) <i>(Towne Center Way)</i>	AM	73.4	E	73.3	E	74.5	E
	PM	84.1	F	86.5	F	88.1	F

SB - Right-Turn Movement (1 Lane) <i>(Towne Center Way)</i>	AM	68.6	E	68.4	E	68.4	E
	PM	86.0	F	89.3	F	89.3	F

a. Delay in seconds-per-vehicle.

b. LOS = Level-of-Service.

GENERAL NOTES:

1. For signalized intersections, Delay calculated via HCM 6th Edition methodology and is representative of overall intersection and overall approach or specific lane group/movement.

Table 4b
LEVEL-OF-SERVICE SUMMARY
Calhoun Memorial Highway (US 123) at Rock Springs Road / Prince Perry Road

	Time	2025 EXISTING		2028 NO-BUILD		2028 BUILD	
Signalized Intersection(s)	Period	Delay ^a	LOS ^b	Delay	LOS	Delay	LOS
OVERALL INTERSECTION	AM	38.2	D	40.3	D	44.5	D
	PM	58.7	E	63.0	E	67.2	E
Eastbound (US 123) Approach							
EB - Overall Approach (Calhoun Memorial Hwy - US 123)	AM	30.8	C	33.9	C	41.5	D
	PM	51.7	D	54.5	D	57.5	E
EB - Left-Turn Movement (2 Lanes) (Calhoun Memorial Hwy - US 123)	AM	76.1	E	76.0	E	76.0	E
	PM	101.2	F	103.3	F	103.3	F
EB - Thru Movement (2 Lanes) (Calhoun Memorial Hwy - US 123)	AM	26.7	C	30.0	C	38.7	D
	PM	39.8	D	42.7	D	47.5	D
EB - Right-Turn Movement (1 Lane) (Calhoun Memorial Hwy - US 123)	AM	YIELD		YIELD		YIELD	
	PM	Control		Control		Control	
Westbound (US 123) Approach							
WB - Overall Approach (Calhoun Memorial Hwy - US 123)	AM	27.9	C	30.1	C	33.9	C
	PM	43.9	D	47.3	D	55.2	E
WB - Left-Turn Movement (1 Lane) (Calhoun Memorial Hwy - US 123)	AM	91.9	F	94.1	F	100.4	F
	PM	110.6	F	118.6	F	151.9	F
WB - Thru Movement (2 Lanes) (Calhoun Memorial Hwy - US 123)	AM	21.3	C	23.6	C	26.8	C
	PM	32.6	C	35.3	D	38.8	D
WB - Right-Turn Movement (1 Lane) (Calhoun Memorial Hwy - US 123)	AM	13.3	B	14.1	B	15.3	B
	PM	20.9	C	21.6	C	22.3	C

Table 4b (continued)

Northbound (Rock Springs Road) Approach

NB - Overall Approach (Rock Springs Road)	AM	83.7	F	85.2	F	85.2	F
	PM	78.1	E	81.3	F	86.5	F
NB - Left-Turn Movement (1 Lane) (Rock Springs Road)	AM	59.5	E	58.8	E	58.6	E
	PM	68.2	E	68.2	E	69.4	E
NB - Thru Movement (1 Lane) (Rock Springs Road)	AM	89.2	F	91.3	F	91.3	F
	PM	80.6	F	84.6	F	90.8	F
NB - Right-Turn Movement (1 Lane) (Rock Springs Road)	AM	Free Flow		Free Flow		Free Flow	
	PM						

Southbound (Prince Perry Road) Approach

SB - Overall Approach (Prince Perry Road)	AM	67.0	E	66.9	E	66.9	E
	PM	99.0	F	108.2	F	108.6	F
SB - Left-Turn Movement (2 Lanes) (Prince Perry Road)	AM	76.0	E	77.1	E	80.4	F
	PM	90.9	F	92.1	F	96.6	F
SB - Thru Movement (1 Lane) (Prince Perry Road)	AM	67.4	E	66.7	E	62.9	E
	PM	133.2	F	152.9	F	152.9	F
SB - Right-Turn Movement (1 Lane) (Prince Perry Road)	AM	56.4	E	55.4	E	53.4	D
	PM	60.6	E	61.2	E	61.2	E

a. Delay in seconds-per-vehicle.

b. LOS = Level-of-Service.

GENERAL NOTES:

1. For signalized intersections, Delay calculated via HCM 6th Edition methodology and is representative of overall intersection and overall approach or specific lane group/movement.

OFF-SITE MITIGATION

Based on a general review of the operational results presented in Table 4a, it can be stated that the addition of project-related traffic volumes causes noticeable impacts to the Calhoun Memorial Highway (US 123) at Towne Center Way intersection such that mitigation is warranted.

To offset these impacts, the Applicant proposes (as a project-related off-site mitigation) several geometric enhancements/improvements to the intersection.

The enhancements/improvements can generally be described as follows:

- Modify the westbound (US 123) approach to provide for dual left-turn lanes with adequate receiving capacity on the Commercial Access roadway.
- Modify/widen the northbound (Commercial Access) approach to provide full-length (to next upstream intersection) storage capacity for lane groups.

Figure 12 depicts a Concept Design for the proposed geometric enhancements/improvements.

Table 5 depicts the operating characteristics for the subject intersection with the proposed improvements in-place.

Note that capacity analyses have been completed for two (2) separate scenarios. Alternative #1 assumes the existing timing (cycle length, phase splits, etc.) remains in-place while Alternative #2 allows for optimized phase timing while maintaining the existing cycle length(s). It is acknowledged that other alternatives may exist but, given that this intersection is part of an existing system, any significant modifications to the timing at this intersection could impact other upstream/downstream intersections within the system. It is assumed that SCDOT staff will review all timing alternatives prior to implementation.

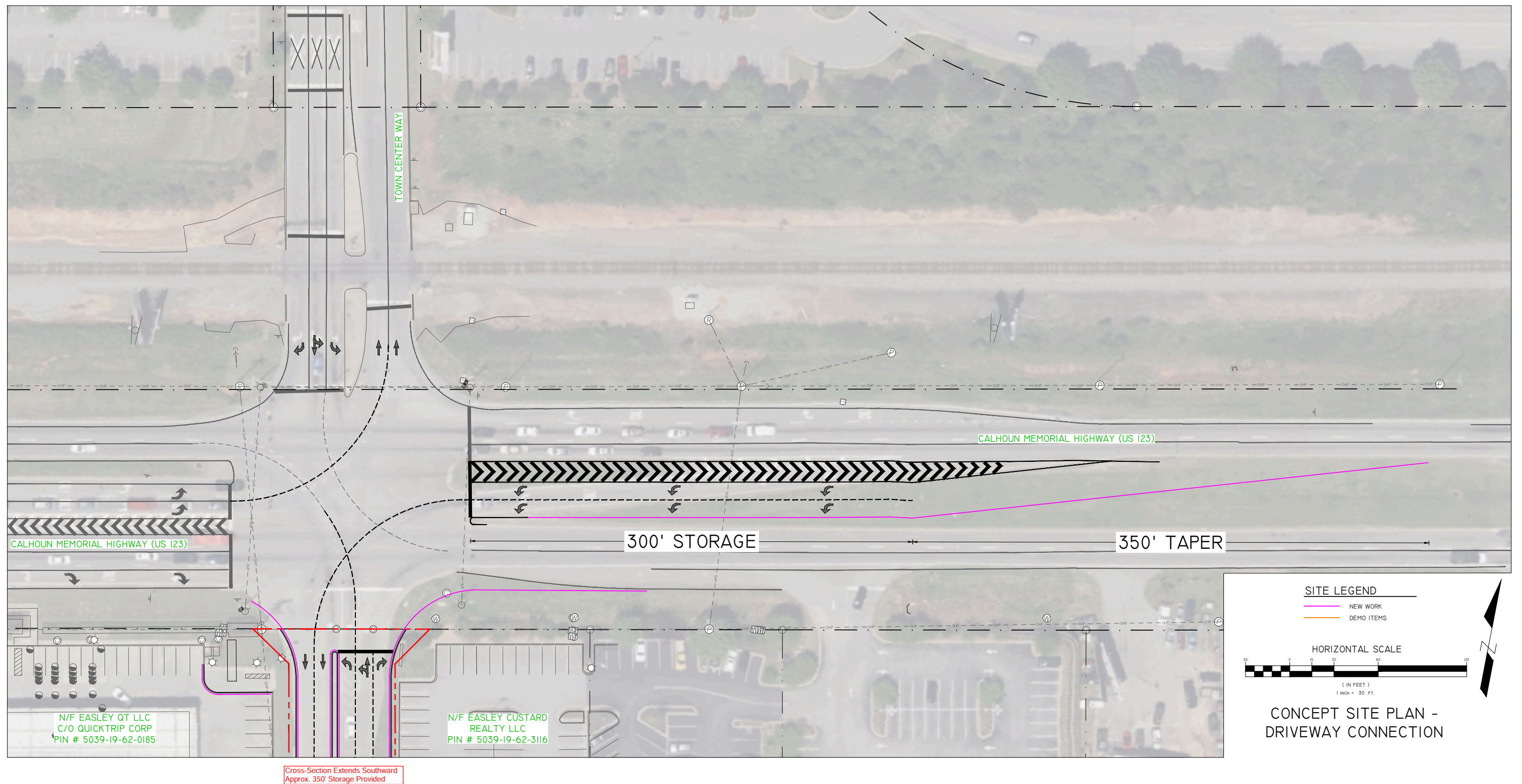


Figure 12

CONCEPT DESIGN - PROPOSED IMPROVEMENTS

Table 5
MITIGATED LEVEL-OF-SERVICE SUMMARY
Calhoun Memorial Highway (US 123) at Towne Center Way

Signalized Intersection(s)	Time Period	2028 NO-BUILD		2028 BUILD		2028 BUILD MIT ALT #1		2028 BUILD MIT ALT #2	
		Delay ^a	LOS ^b	Delay	LOS	Delay	LOS	Delay	LOS
OVERALL INTERSECTION	AM	30.9	C	55.1	E	48.6	D	50.2	D
	PM	38.5	D	82.8	F	83.0	F	56.6	E
Eastbound (US 123) Approach									
EB - Overall Approach <i>(Calhoun Memorial Hwy - US 123)</i>	AM	30.1	C	42.0	D	42.0	D	39.6	D
	PM	29.5	C	32.0	C	32.0	C	48.6	D
EB - Left-Turn Movement (2 Lanes) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	75.5	E	75.5	E	75.5	E	75.5	E
	PM	93.2	F	93.2	F	93.2	F	104.3	F
EB - Thru Movement (2 Lanes) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	29.5	C	46.4	D	46.4	D	43.7	D
	PM	24.9	C	30.7	C	30.7	C	51.4	D
EB - Right-Turn Movement (1 Lane) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	6.6	A	12.1	B	12.1	B	11.2	B
	PM	8.3	A	14.6	B	14.6	B	16.7	B
Westbound (US 123) Approach									
WB - Overall Approach <i>(Calhoun Memorial Hwy - US 123)</i>	AM	21.8	C	50.7	D	33.4	C	41.4	D
	PM	28.8	C	51.1	D	51.6	D	50.6	D
WB - Left-Turn Movement (1 Lane) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	35.2	D	216.5	F	Not Applicable		Not Applicable	
	PM	23.1	C	198.9	F				
WB - Left-Turn Movement (2 Lanes) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	Not Applicable		Not Applicable		97.8	F	147.7	F
	PM					202.4	F	103.6	F
WB - Thru Movement (2 Lanes) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	21.8	C	23.1	C	23.1	C	23.9	C
	PM	31.7	C	30.6	C	30.6	C	46.3	D
WB - Right-Turn Movement (1 Lane) <i>(Calhoun Memorial Hwy - US 123)</i>	AM	8.7	A	9.6	A	9.6	A	10.0	B
	PM	10.5	B	10.9	B	10.9	B	16.8	B

Table 5 (continued)

Northbound (Commercial Access) Approach

NB - Overall Approach <i>(Commercial Access)</i>	AM	67.3	E	105.6	F	105.6	F	103.3	F
	PM	90.8	F	295.0	F	295.0	F	77.1	E
NB - Left-Turn Movement (1 Lane) <i>(Commercial Access)</i>	AM	66.2	E	101.6	F	101.6	F	88.4	F
	PM	89.1	F	331.7	F	331.7	F	80.2	F
NB - Left-Turn/Thru Movement (1 Shared Lane) <i>(Commercial Access)</i>	AM	67.2	E	101.6	F	101.6	F	88.4	F
	PM	97.4	F	331.7	F	331.7	F	80.2	F
NB - Right-Turn Movement (1 Lane) <i>(Commercial Access)</i>	AM	68.1	E	110.5	F	110.5	F	121.3	F
	PM	85.6	F	242.9	F	242.9	F	72.8	E

Southbound (Towne Center Way) Approach

SB - Overall Approach <i>(Towne Center Way)</i>	AM	71.5	E	72.3	E	72.3	E	72.3	E
	PM	86.8	F	87.7	F	87.7	F	88.0	F
SB - Left-Turn Movement (1 Lane) <i>(Towne Center Way)</i>	AM	73.6	E	74.4	E	74.4	E	74.4	E
	PM	82.6	F	84.5	F	84.5	F	84.5	F
SB - Left-Turn/Thru Movement (1 Shared Lane) <i>(Towne Center Way)</i>	AM	73.3	E	74.5	E	74.5	E	74.5	E
	PM	86.5	F	88.1	F	88.1	F	88.1	F
SB - Right-Turn Movement (1 Lane) <i>(Towne Center Way)</i>	AM	68.4	E	68.4	E	68.4	E	68.4	E
	PM	89.3	F	89.3	F	89.3	F	89.9	F

a. Delay in seconds-per-vehicle.

b. LOS = Level-of-Service.

GENERAL NOTES:

1. For signalized intersections, Delay calculated via HCM 6th Edition methodology and is representative of overall intersection and overall approach or specific lane group/movement.

QUEUEING ANALYSIS

In addition to the completed intersection capacity analyses, a supplemental queuing analysis has been performed for the Calhoun Memorial Highway (US 123) at Towne Center Way intersection to further review the proposed enhancements/improvements.

Note that, per current SCDOT guidelines, the queuing analysis includes five (5) separate one-hour SimTraffic model runs/simulations. All reported results represent the averaging of the five (5) separate one-hour model runs/simulations.

For each movement, lane group and/or approach, both the Average queue length and the 95th percentile queue length have been reported.

Queuing analyses have been completed for the following scenarios:

- 2028 No-Build
- 2028 Build (*without proposed mitigation*)
- 2028 Build Mitigated – Alternative #1
- 2028 Build Mitigated – Alternative #2

Table 6 summarizes the results of the completed queuing analyses.

Table 6
QUEUING ANALYSIS SUMMARY
Calhoun Memorial Highway (US 123) at Towne Center Way

			2028 NO-BUILD		2028 BUILD		2028 BUILD MIT		2028 BUILD MIT	
	Storage	Time					ALT #1		ALT #2	
Signalized Intersection(s)	Capacity	Period	AVG ^a	95th % ^b	AVG	95th %	AVG	95th %	AVG	95th %
Eastbound (US 123) Approach										
EB - Left-Turn Movement (Inside Lane) (Calhoun Memorial Hwy - US 123)	350'	AM	9	34	8	30	12	39	12	39
	350'	PM	51	107	55	118	62	125	78	135
EB - Left-Turn Movement (Outside Lane) (Calhoun Memorial Hwy - US 123)	350'	AM	31	125	142	493	109	396	98	376
	350'	PM	71	128	79	161	86	162	105	229
EB - Thru Movement (Inside Lane) (Calhoun Memorial Hwy - US 123)	NA	AM	386	543	888	1,099	652	963	657	967
	NA	PM	259	394	332	456	350	470	386	501
EB - Thru Movement (Outside Lane) (Calhoun Memorial Hwy - US 123)	NA	AM	389	551	897	1,101	672	988	675	990
	NA	PM	270	413	332	457	351	470	391	512
EB - Right-Turn Movement (1 Lane) (Calhoun Memorial Hwy - US 123)	325'	AM	32	214	468	682	345	705	325	687
	325'	PM	7	24	88	258	90	255	89	302
Westbound (US 123) Approach										
WB - Left-Turn Movement (1 Lane) (Calhoun Memorial Hwy - US 123)	275'	AM	67	196	328	501	Not		Not	
	275'	PM	68	224	419	458	Applicable		Applicable	
WB - Left-Turn Movement (Inside Lane) (Calhoun Memorial Hwy - US 123)	300'	AM	Not		Not		164	293	257	444
	300'	PM	Applicable		Applicable		372	523	163	252
WB - Left-Turn Movement (Outside Lane) (Calhoun Memorial Hwy - US 123)	300'	AM	Not		Not		195	314	288	483
	300'	PM	Applicable		Applicable		448	674	369	717
WB - Thru Movement (Inside Lane) (Calhoun Memorial Hwy - US 123)	NA	AM	323	482	590	1,211	333	477	352	501
	NA	PM	383	567	1,152	1,590	684	1,283	859	1,476
WB - Thru Movement (Outside Lane) (Calhoun Memorial Hwy - US 123)	NA	AM	292	462	554	1,187	312	455	313	451
	NA	PM	358	555	1,139	1,606	634	1,259	847	1,478
WB - Right-Turn Movement (1 Lane) (Calhoun Memorial Hwy - US 123)	300'	AM	21	99	34	170	35	179	24	128
	300'	PM	97	323	60	222	120	376	250	547

Table 6 (continued)

Northbound (Commercial Access) Approach

NB - Left-Turn Movement (1 Lane) (Commercial Access)	100' / 350'	AM	49	136	173	210	303	457	248	381
	100' / 350'	PM	71	167	171	212	410	421	327	456
NB - Left-Turn/Thru Movement (1 Shared Lane) (Commercial Access)	350' / 350'	AM	110	192	661	928	273	426	214	338
	350' / 350'	PM	128	216	759	774	396	418	303	427
NB - Right-Turn Movement (1 Lane) (Commercial Access)	100' / 350'	AM	81	151	171	228	213	364	188	318
	100' / 350'	PM	66	147	148	244	148	308	187	312

Southbound (Towne Center Way) Approach

SB - Left-Turn Movement (1 Lane) (Towne Center Way)	400'	AM	43	93	42	90	46	96	45	94
	400'	PM	116	181	119	182	120	198	128	196
SB - Left-Turn/Thru Movement (1 Shared Lane) (Towne Center Way)	400'	AM	39	92	50	103	51	99	56	108
	400'	PM	90	163	102	170	96	171	108	182
SB - Right-Turn Movement (1 Lane) (Towne Center Way)	400'	AM	26	67	30	66	28	61	29	69
	400'	PM	101	180	92	178	108	186	112	210

- a. Average Queue Length in Feet from SimTraffic Simulations.
b. 95th Percentile Queue Length in Feet from SimTraffic Simulations.

GENERAL NOTES:

1. For through lanes, queue reported is for specified lane only. Does not account for extension of queue beyond link distance into/past other upstream nodes.
2. For left-turn and/or right-turn lanes, queue reported is for specified lane only. Excessive (well beyond storage capacity) queues likely due to inability for vehicle to enter lane due to queuing in adjacent through lane.

SUMMARY OF FINDINGS & RECOMMENDATIONS

PROPOSED PROJECT & ACCESS REQUIREMENTS

A Traffic Impact & Access Study (TIAS) has been conducted for a commercial project to be generally located along the southern side of Calhoun Memorial Highway (US 123) just east of the Rock Springs Road/Prince Perry Road (S-135) intersection and generally opposite Towne Center Way behind existing commercial uses fronting US 123. The overall project site, which totals 35.73-acres, is presently undeveloped and lies within the City of Easley municipal limits.

At full buildout, the overall project site will be developed to provide the following components:

- 140,000 square-feet (sf) Discount SuperStore
- 9,600 square-feet (sf) of Fast-Food Restaurant space
- 17,000 square-feet (sf) of High-Turnover Sit-Down Restaurant space
- 21,600 square-feet (sf) of General Retail space

Based on the current development schedule, the proposed commercial project is expected to be fully constructed/occupied by 2028.

Based upon the most up-to-date provided site plan, direct access to/from the site will be achieved via the extension of the existing commercial access roadway southward from its existing terminus into the project site which effectively maintains direct access to/from US 123 for project traffic.

OFF-SITE IMPACTS

Per direction from SCDOT staff, the following off-site intersections were formally evaluated to assess the specific impact of the proposed project:

- Calhoun Memorial Highway (US 123) at Rock Springs Road / Prince Perry Road (*existing signalized intersection*)
- Calhoun Memorial Highway (US 123) at Towne Center Way (*existing signalized intersection*)

Capacity analyses have been completed at the above-cited intersections for the Existing, 2028 No-Build and 2028 Build conditions.

Calhoun Memorial Highway (US 123) at Rock Springs Road/Prince Perry Road (S-135)

As shown in Table 4b, this off-site study area intersection is either projected to operate at acceptable (*in terms of overall intersection or critical movements/lane groups/approaches*) service levels under 2028 Build conditions **OR** exhibit operating levels under 2028 Build conditions that are generally comparable to the 2028 No-Build condition. As such, no mitigation is required at the cited off-site study area intersection to offset any significant project related impacts.

Calhoun Memorial Highway (US 123) at Towne Center Way

As shown in Table 4a, this off-site study area intersection is projected to experience noticeable impacts with the addition of project-related traffic volumes such that mitigation is deemed warranted.

To offset these impacts, the Applicant proposes (as a project-related off-site mitigation) several geometric enhancements/improvements to the intersection.

The enhancements/improvements can generally be described as follows:

- Modify the westbound (US 123) approach to provide for dual left-turn lanes with adequate receiving capacity on the Commercial Access roadway.
- Modify/widen the northbound (Commercial Access) approach to provide full-length (to next upstream intersection) storage capacity for all lane groups.

See Figure 12 for a more detailed graphic depiction of the above-cited improvement measures.

As shown in Table 5, significantly improved operating levels (as compared to the unimproved Build condition) are projected but it is acknowledged that operating levels equivalent to or better than the No-Build condition cannot be achieved given the increases in traffic volume associated with the proposed project, especially for critical left-turn and/or minor-street movements. Upon review, with the proposed enhancements/improvements in-place, all feasible geometrics and traffic control for the subject intersection will be provided. As such, no additional mitigation measures are recommended to offset the transportation impacts of the proposed commercial project.

It should be noted that, as depicted in Table 1, very conservative assumptions have been made for all project-related outparcels. At this time, only the main anchor (140,000 sf Discount SuperStore) is planned for immediate development/construction. All outparcels have been identified for “future development”. If less intense land uses are realized for these outparcels, traffic impacts should be significantly less than has been depicted in this document.

In addition, it should also be noted that the Commercial Access roadway extension into the proposed site is being designed as a new public roadway which will be owned/maintained by the City of Easley. Based on current planning, the City of Easley anticipates that this new public roadway could be further extended in the future to connect with other public streets to the south and provide access to/from Powdersville Road. It assumed that this connection, when realized, could provide relief to the US 123 (Calhoun Memorial Highway) intersection operations.

APPENDIX

- Count Data
- Traffic Signal Timing Information
- Internal Capture Calculations
- Capacity Analysis Output
- Queuing Analysis Output

COUNT DATA

SHORT COUNTS

Traffic Data Specialists

735 Maryland St
Columbia, SC 29201
We Can't say we're the Best, but you Can!

File Name : US 123 @ Towne Center Wy
Site Code :
Start Date : 08/13/2025
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Towne Center Wy Southbound				US 123 Westbound				Wal Mart/QT Access Northbound				US 123 Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
06:00	2	7	7	0	7	130	5	0	16	1	24	0	6	279	2	0	486
06:15	3	1	6	0	6	163	6	0	9	3	28	0	4	311	11	0	551
06:30	8	2	12	0	17	169	6	0	11	3	30	0	7	395	8	0	668
06:45	3	5	7	0	11	236	11	0	19	3	30	0	4	394	15	0	738
Total	16	15	32	0	41	698	28	0	55	10	112	0	21	1379	36	0	2443
07:00	6	3	16	0	14	228	11	0	13	7	25	0	7	452	13	0	795
07:15	5	3	14	0	12	262	13	0	16	1	29	0	4	479	9	0	847
07:30	8	8	15	0	8	354	10	0	18	5	22	0	5	451	15	0	919
07:45	8	9	12	0	22	349	9	0	29	8	21	0	12	426	10	0	915
Total	27	23	57	0	56	1193	43	0	76	21	97	0	28	1808	47	0	3476
08:00	14	7	9	0	16	338	24	0	33	4	35	0	15	397	13	0	905
08:15	16	14	17	0	17	319	17	0	22	8	35	0	12	396	8	0	881
08:30	9	5	22	0	18	304	13	0	24	4	27	0	10	345	11	0	792
08:45	11	5	14	0	26	308	15	0	26	9	23	0	12	383	22	0	854
Total	50	31	62	0	77	1269	69	0	105	25	120	0	49	1521	54	0	3432
16:00	28	10	32	0	11	375	54	0	34	11	18	0	35	313	24	0	945
16:15	27	12	39	0	19	396	39	0	32	16	21	0	28	323	11	0	963
16:30	22	9	32	0	17	383	59	0	28	11	13	0	24	346	12	0	956
16:45	31	10	39	0	16	362	68	0	34	6	16	0	21	346	25	0	974
Total	108	41	142	0	63	1516	220	0	128	44	68	0	108	1328	72	0	3838
17:00	30	14	41	0	16	365	61	0	30	14	32	0	29	350	23	0	1005
17:15	31	15	46	0	12	370	44	0	35	15	31	0	41	326	7	0	973
17:30	34	8	33	0	11	395	45	0	23	6	19	0	30	357	10	0	971
17:45	34	16	40	0	12	345	40	0	31	9	17	0	32	333	9	0	918
Total	129	53	160	0	51	1475	190	0	119	44	99	0	132	1366	49	0	3867
Grand Total	330	163	453	0	288	6151	550	0	483	144	496	0	338	7402	258	0	17056
Apprch %	34.9	17.2	47.9	0	4.1	88	7.9	0	43	12.8	44.2	0	4.2	92.5	3.2	0	
Total %	1.9	1	2.7	0	1.7	36.1	3.2	0	2.8	0.8	2.9	0	2	43.4	1.5	0	
Passenger Vehicles	323	162	449	0	280	5902	543	0	469	144	481	0	335	7192	257	0	16537
% Passenger Vehicles	97.9	99.4	99.1	0	97.2	96	98.7	0	97.1	100	97	0	99.1	97.2	99.6	0	97
Heavy Vehicles	7	1	4	0	8	243	6	0	14	0	14	0	3	201	1	0	502
% Heavy Vehicles	2.1	0.6	0.9	0	2.8	4	1.1	0	2.9	0	2.8	0	0.9	2.7	0.4	0	2.9
Buses	0	0	0	0	0	6	1	0	0	0	1	0	0	9	0	0	17
% Buses	0	0	0	0	0	0.1	0.2	0	0	0	0.2	0	0	0.1	0	0	0.1

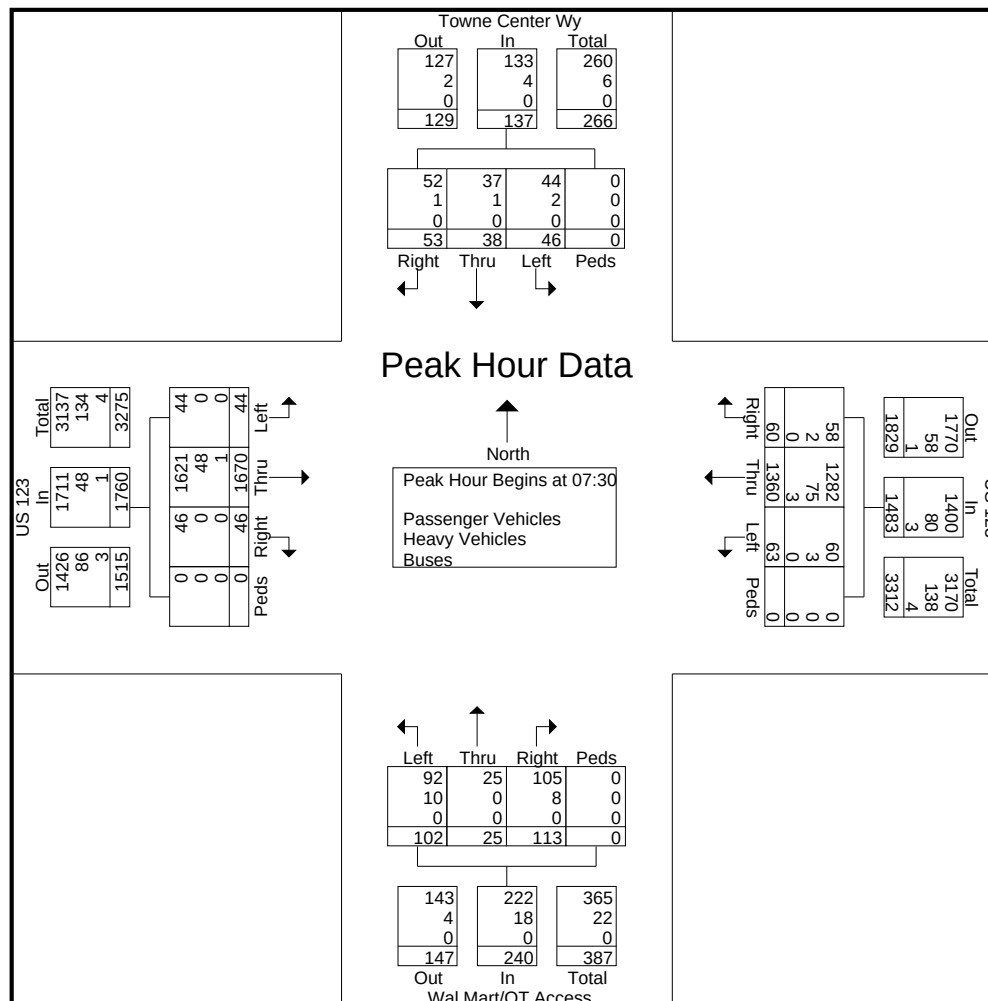
SHORT COUNTS

Traffic Data Specialists

735 Maryland St
Columbia, SC 29201
We Can't say we're the Best, but you Can!

File Name : US 123 @ Towne Center Wy
Site Code :
Start Date : 08/13/2025
Page No : 3

	Towne Center Wy Southbound					US 123 Westbound					Wal Mart/QT Access Northbound					US 123 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	8	8	15	0	31	8	354	10	0	372	18	5	22	0	45	5	451	15	0	471	919
07:45	8	9	12	0	29	22	349	9	0	380	29	8	21	0	58	12	426	10	0	448	915
08:00	14	7	9	0	30	16	338	24	0	378	33	4	35	0	72	15	397	13	0	425	905
08:15	16	14	17	0	47	17	319	17	0	353	22	8	35	0	65	12	396	8	0	416	881
Total Volume	46	38	53	0	137	63	1360	60	0	1483	102	25	113	0	240	44	1670	46	0	1760	3620
% App. Total	33.6	27.7	38.7	0		4.2	91.7	4	0		42.5	10.4	47.1	0		2.5	94.9	2.6	0		
PHF	.719	.679	.779	.000	.729	.716	.960	.625	.000	.976	.773	.781	.807	.000	.833	.733	.926	.767	.000	.934	.985
Passenger Vehicles	44	37	52	0	133	60	1282									1621					
% Passenger Vehicles	95.7	97.4	98.1	0	97.1	95.2	94.3	96.7	0	94.4	90.2	100	92.9	0	92.5	100	97.1	100	0	97.2	95.7
Heavy Vehicles	2	1	1	0	4	3	75	2	0	80	10	0	8	0	18	0	48	0	0	48	150
% Heavy Vehicles	4.3	2.6	1.9	0	2.9	4.8	5.5	3.3	0	5.4	9.8	0	7.1	0	7.5	0	2.9	0	0	2.7	4.1
Buses	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
% Buses	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0	0.1	0	0	0.1	0.1



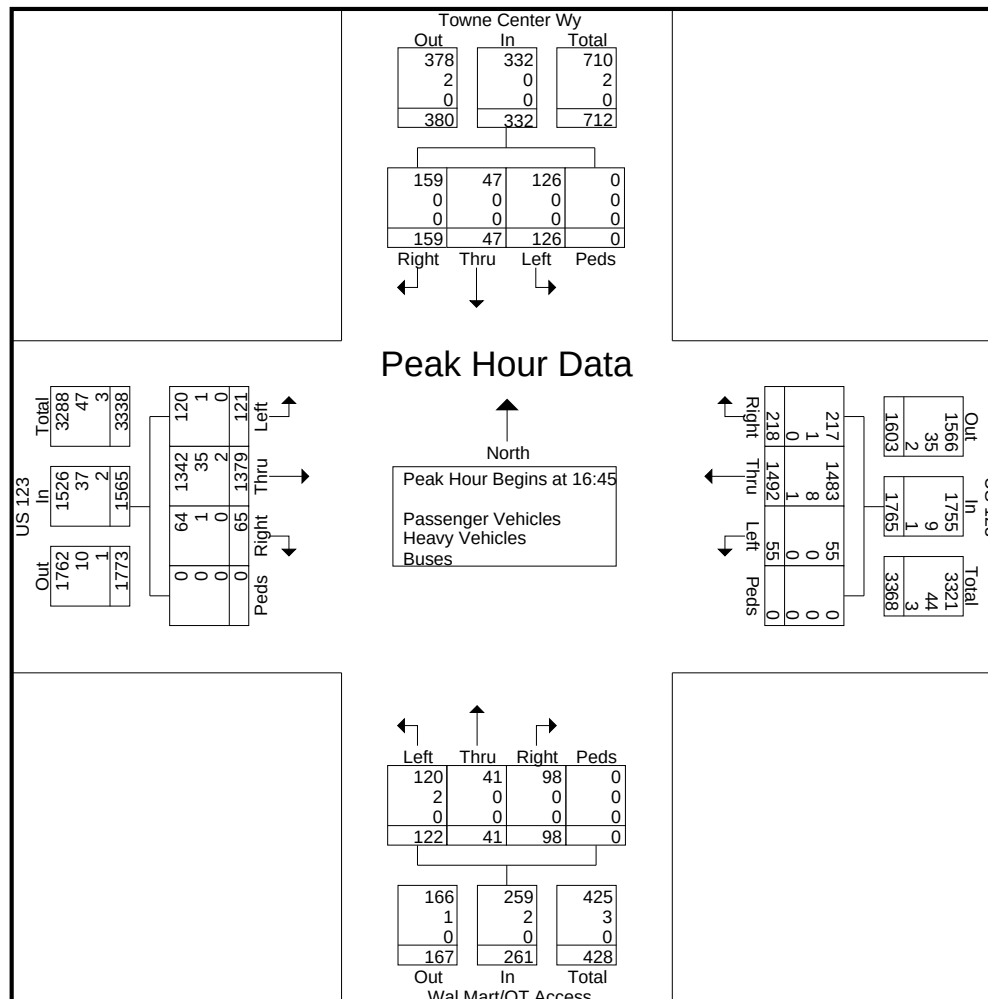
SHORT COUNTS

Traffic Data Specialists

735 Maryland St
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We Can't say we're the Best, but you Can!

File Name : US 123 @ Towne Center Wy
Site Code :
Start Date : 08/13/2025
Page No : 4

	Towne Center Wy Southbound					US 123 Westbound					Wal Mart/QT Access Northbound					US 123 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	31	10	39	0	80	16	362	68	0	446	34	6	16	0	56	21	346	25	0	392	974
17:00	30	14	41	0	85	16	365	61	0	442	30	14	32	0	76	29	350	23	0	402	1005
17:15	31	15	46	0	92	12	370	44	0	426	35	15	31	0	81	41	326	7	0	374	973
17:30	34	8	33	0	75	11	395	45	0	451	23	6	19	0	48	30	357	10	0	397	971
Total Volume	126	47	159	0	332	55	1492	218	0	1765	122	41	98	0	261	121	1379	65	0	1565	3923
% App. Total	38	14.2	47.9	0		3.1	84.5	12.4	0		46.7	15.7	37.5	0		7.7	88.1	4.2	0		
PHF	.926	.783	.864	.000	.902	.859	.944	.801	.000	.978	.871	.683	.766	.000	.806	.738	.966	.650	.000	.973	.976
Passenger Vehicles	126	47	159	0	332	55	1483									1342					
% Passenger Vehicles	100	100	100	0	100	100	99.4	99.5	0	99.4	98.4	100	100	0	99.2	99.2	97.3	98.5	0	97.5	98.7
Heavy Vehicles	0	0	0	0	0	0	8	1	0	9	2	0	0	0	2	1	35	1	0	37	48
% Heavy Vehicles	0	0	0	0	0	0	0.5	0.5	0	0.5	1.6	0	0	0	0.8	0.8	2.5	1.5	0	2.4	1.2
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
% Buses	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0.1	0.1



SHORT COUNTS

Traffic Data Specialists

735 Maryland St
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We Can't say we're the Best, but you Can!

File Name : US 123 @ Prince Perry Rd
Site Code :
Start Date : 08/13/2025
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Prince Perry Rd Southbound				US 123 Westbound				Rock Springs Rd Northbound				US 123 Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
06:00	32	5	16	0	7	151	9	0	1	4	25	0	2	243	0	0	495
06:15	36	10	28	0	7	159	5	0	3	13	37	0	12	280	0	0	590
06:30	51	19	35	0	13	178	9	0	5	17	46	0	17	301	0	0	691
06:45	51	29	20	0	19	207	11	0	4	25	54	0	11	312	0	0	743
Total	170	63	99	0	46	695	34	0	13	59	162	0	42	1136	0	0	2519
07:00	59	24	22	0	11	217	12	0	2	23	68	0	8	363	1	0	810
07:15	59	29	26	0	18	236	26	0	9	23	72	0	19	340	0	0	857
07:30	45	38	47	0	26	294	10	0	7	47	72	0	26	298	4	0	914
07:45	50	46	44	0	36	313	18	0	12	36	64	0	31	325	9	0	984
Total	213	137	139	0	91	1060	66	0	30	129	276	0	84	1326	14	0	3565
08:00	50	58	36	0	34	298	17	0	8	41	77	0	27	305	4	0	955
08:15	45	42	40	0	39	284	14	0	7	26	57	0	26	278	2	0	860
08:30	46	53	32	0	29	263	20	0	5	29	57	0	27	292	19	0	872
08:45	36	47	30	0	29	281	15	0	30	36	86	0	24	279	5	0	898
Total	177	200	138	0	131	1126	66	0	50	132	277	0	104	1154	30	0	3585
16:00	36	70	61	0	58	305	23	0	8	45	47	1	67	252	8	0	981
16:15	38	71	62	0	53	329	28	0	11	41	48	0	63	273	5	0	1022
16:30	40	70	68	0	54	318	17	0	9	44	37	0	68	275	6	0	1006
16:45	50	60	72	0	47	321	19	0	11	50	43	0	66	294	3	0	1036
Total	164	271	263	0	212	1273	87	0	39	180	175	1	264	1094	22	0	4045
17:00	45	77	71	0	70	309	19	0	17	41	54	0	62	272	6	0	1043
17:15	36	83	63	0	58	312	28	0	9	51	41	0	72	275	11	0	1039
17:30	44	84	75	0	61	294	26	0	12	49	51	0	68	259	11	0	1034
17:45	21	74	44	0	59	322	40	0	9	45	50	0	64	297	13	0	1038
Total	146	318	253	0	248	1237	113	0	47	186	196	0	266	1103	41	0	4154
Grand Total	870	989	892	0	728	5391	366	0	179	686	1086	1	760	5813	107	0	17868
Apprch %	31.6	36	32.4	0	11.2	83.1	5.6	0	9.2	35.1	55.6	0.1	11.4	87	1.6	0	
Total %	4.9	5.5	5	0	4.1	30.2	2	0	1	3.8	6.1	0	4.3	32.5	0.6	0	
Passenger Vehicles	861	980	882	0	717	5183	357	0	176	684	1077	1	751	5610	107	0	17386
% Passenger Vehicles	99	99.1	98.9	0	98.5	96.1	97.5	0	98.3	99.7	99.2	100	98.8	96.5	100	0	97.3
Heavy Vehicles	7	6	5	0	11	203	9	0	0	1	7	0	6	197	0	0	452
% Heavy Vehicles	0.8	0.6	0.6	0	1.5	3.8	2.5	0	0	0.1	0.6	0	0.8	3.4	0	0	2.5
Buses	2	3	5	0	0	5	0	0	3	1	2	0	3	6	0	0	30
% Buses	0.2	0.3	0.6	0	0	0.1	0	0	1.7	0.1	0.2	0	0.4	0.1	0	0	0.2

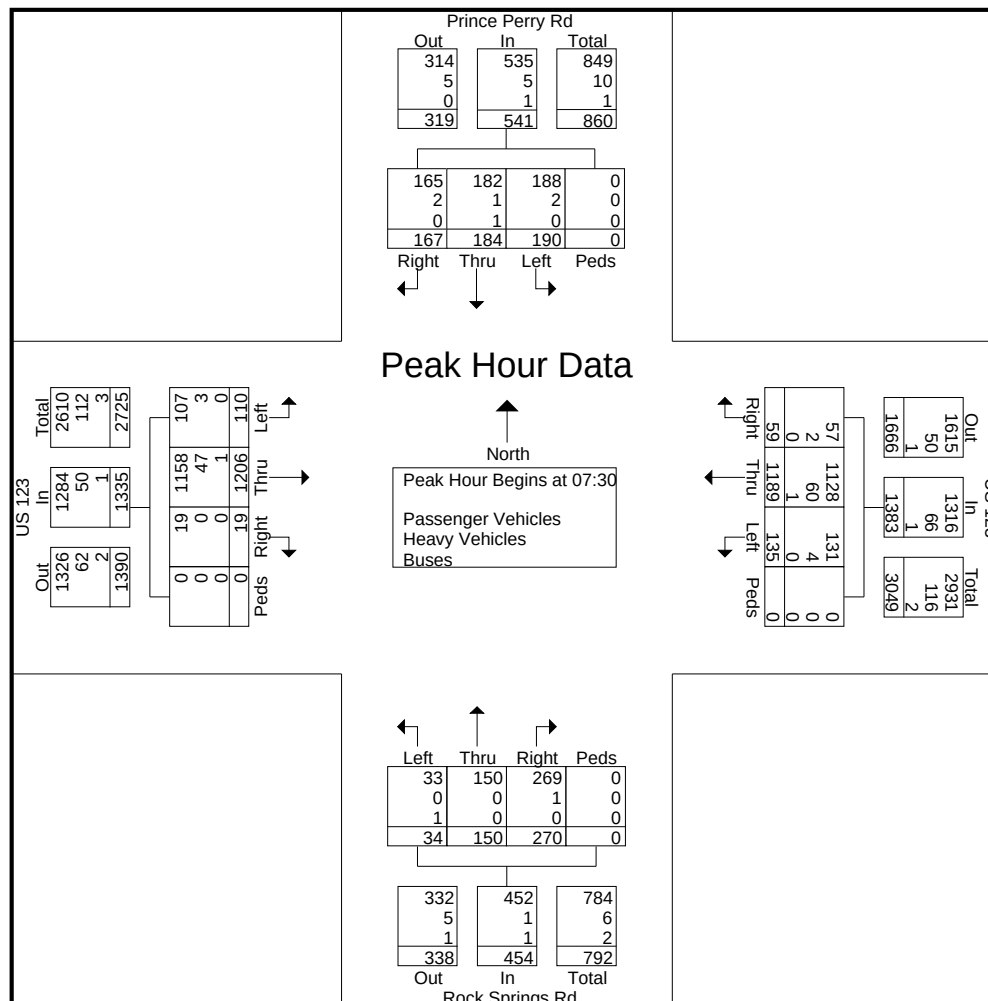
SHORT COUNTS

Traffic Data Specialists

735 Maryland St
Columbia, SC 29201
We Can't say we're the Best, but you Can!

File Name : US 123 @ Prince Perry Rd
Site Code :
Start Date : 08/13/2025
Page No : 3

	Prince Perry Rd Southbound					US 123 Westbound					Rock Springs Rd Northbound					US 123 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	45	38	47	0	130	26	294	10	0	330	7	47	72	0	126	26	298	4	0	328	914
07:45	50	46	44	0	140	36	313	18	0	367	12	36	64	0	112	31	325	9	0	365	984
08:00	50	58	36	0	144	34	298	17	0	349	8	41	77	0	126	27	305	4	0	336	955
08:15	45	42	40	0	127	39	284	14	0	337	7	26	57	0	90	26	278	2	0	306	860
Total Volume	190	184	167	0	541	135	1189	59	0	1383	34	150	270	0	454	110	1206	19	0	1335	3713
% App. Total	35.1	34	30.9	0		9.8	86	4.3	0		7.5	33	59.5	0		8.2	90.3	1.4	0		
PHF	.950	.793	.888	.000	.939	.865	.950	.819	.000	.942	.708	.798	.877	.000	.901	.887	.928	.528	.000	.914	.943
Passenger Vehicles	188	182	165	0	535	131	1128									1158					
% Passenger Vehicles	98.9	98.9	98.8	0	98.9	97.0	94.9	96.6	0	95.2	97.1	100	99.6	0	99.6	97.3	96.0	100	0	96.2	96.6
Heavy Vehicles	2	1	2	0	5	4	60	2	0	66	0	0	1	0	1	3	47	0	0	50	122
% Heavy Vehicles	1.1	0.5	1.2	0	0.9	3.0	5.0	3.4	0	4.8	0	0	0.4	0	0.2	2.7	3.9	0	0	3.7	3.3
Buses	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	4
% Buses	0	0.5	0	0	0.2	0	0.1	0	0	0.1	2.9	0	0	0	0.2	0	0.1	0	0	0.1	0.1



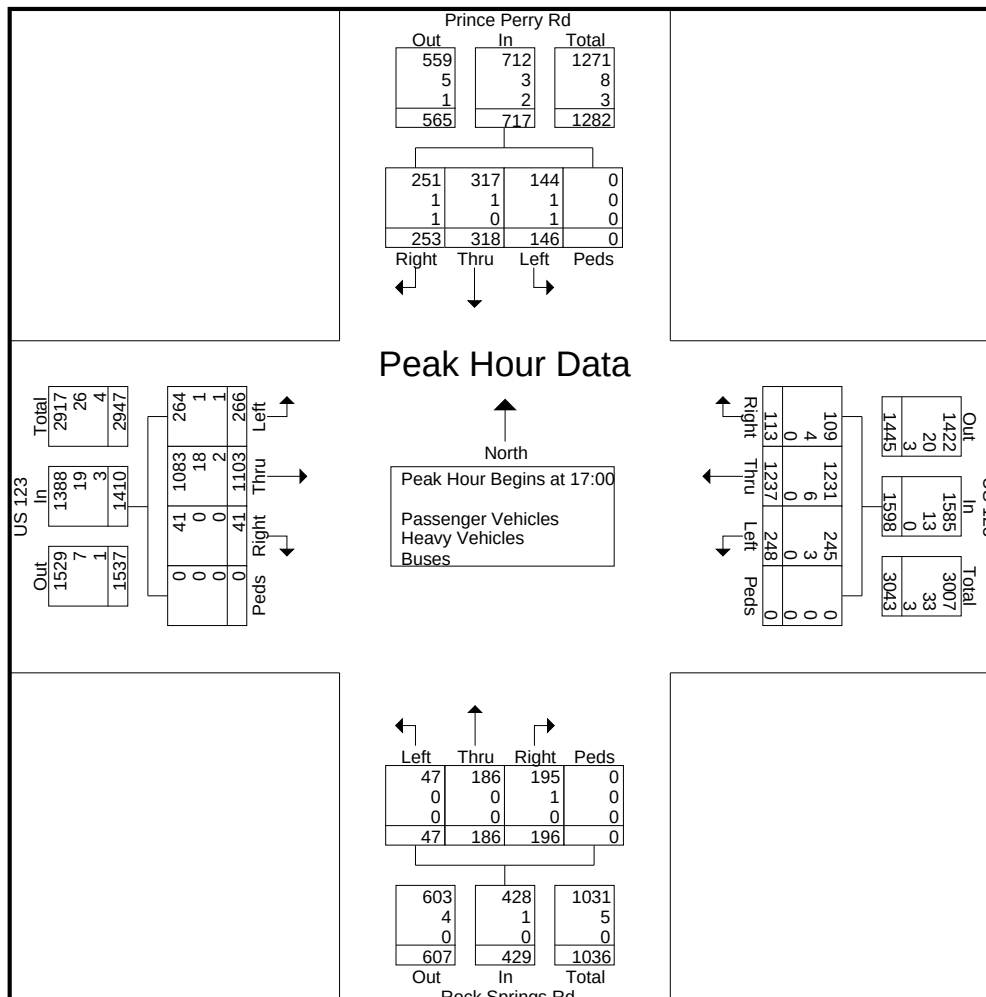
SHORT COUNTS

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File Name : US 123 @ Prince Perry Rd
Site Code :
Start Date : 08/13/2025
Page No : 4

	Prince Perry Rd Southbound					US 123 Westbound					Rock Springs Rd Northbound					US 123 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	45	77	71	0	193	70	309	19	0	398	17	41	54	0	112	62	272	6	0	340	1043
17:15	36	83	63	0	182	58	312	28	0	398	9	51	41	0	101	72	275	11	0	358	1039
17:30	44	84	75	0	203	61	294	26	0	381	12	49	51	0	112	68	259	11	0	338	1034
17:45	21	74	44	0	139	59	322	40	0	421	9	45	50	0	104	64	297	13	0	374	1038
Total Volume	146	318	253	0	717	248	1237	113	0	1598	47	186	196	0	429	266	1103	41	0	1410	4154
% App. Total	20.4	44.4	35.3	0		15.5	77.4	7.1	0		11	43.4	45.7	0		18.9	78.2	2.9	0		
PHF	.811	.946	.843	.000	.883	.886	.960	.706	.000	.949	.691	.912	.907	.000	.958	.924	.928	.788	.000	.943	.996
Passenger Vehicles	144	317	251	0	712	245	1231									1083					
% Passenger Vehicles	98.6	99.7	99.2	0	99.3	98.8	99.5	96.5	0	99.2	100	100	99.5	0	99.8	99.2	98.2	100	0	98.4	99.0
Heavy Vehicles	1	1	1	0	3	3	6	4	0	13	0	0	1	0	1	1	18	0	0	19	36
% Heavy Vehicles	0.7	0.3	0.4	0	0.4	1.2	0.5	3.5	0	0.8	0	0	0.5	0	0.2	0.4	1.6	0	0	1.3	0.9
Buses	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	5
% Buses	0.7	0	0.4	0	0.3	0	0	0	0	0	0	0	0	0	0	0.4	0.2	0	0	0.2	0.1



TRAFFIC SIGNAL TIMING INFORMATION

—SIGNAL EQUIPMENT—

ONE (1) 8 PHASE FULLY ACTUATED STANDARD (EXISTING)
2070 CONTROLLER WITH FLASHER, SIGNAL MONITOR UNIT,
AND BASE-MOUNTED 332A CABINET.

EXT. ☐
PROP. ☒

7 MODEL 222, (2)-CHANNEL VEHICLE DETECTOR UNITS

PEDESTRIAN SIGNALS: EXT. ☐ PROP. ☒ P W/ACT. & SIGN

VEHICLE SIGNALS: EXT. ☐ PROP. ☒

HEAD NUMBER	1,2F	2	2,8conc	5	6	6,7conc	7A	7B	7,5conc	8A	8B	8,1conc
LENS	←R ←Y ←G	R Y G	R Y G	←R ←Y ←G	R Y G	R Y G	←R ←Y ←G	R Y G	R Y G	←R ←Y ←G	R Y G	R Y G
PHASE	1,OLA	2	2,8conc	5	6	6,7conc	7	7	7,5conc	8	8	8,1conc
SIZE	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
QUANTITY - EXIST	0	1	0	0	1	1	0	0	0	0	0	0
QUANTITY - PROP	1	0	1	2	0	0	1	1	1	1	1	1

OLA = 1+2 (FYA)

METAL POLES AND MAST ARMS AS NECESSARY
☐ = EXISTING ☒ = PROPOSED

LOOP DETECTORS AS NECESSARY
☐ = EXISTING ☒ = PROPOSED

ALL SIGNAL HEADS TO HAVE BACKPLATES WITH RETROREFLECTIVE BORDER
ALL SIGNAL HEADS TO BE LED
ALL PEDESTRIAN SIGNAL HEADS TO BE COUNTDOWN

—LOOP DETECTOR INSTALLATION CHART—

PHASE/ LOOP LTRF	EXISTING OR PROPOSED	DETECTOR AMP NO.	CHANN NO.	WIRED TO PHASE(S)	LOCK X	NON-LOCK X	PULSE X	OPERATION X	SPECIAL FEATURES TIME OF DAY-TOD SWITCHING, etc.	LOOP DESIGN SIZE X	NO. OF TURNS FROM 1/2	DIST. FROM 1/2
1A	EXISTING			1	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
2A	EXISTING			2	X	X	X	X	QUADRUPOLE	6' x 20'	3	255'
2B	EXISTING			2	X	X	X	X	QUADRUPOLE	6' x 20'	3	385'
5A	EXISTING			5	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
5B	EXISTING			5	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
6A	EXISTING			6	X	X	X	X	QUADRUPOLE	6' x 20'	3	255'
6B	EXISTING			6	X	X	X	X	QUADRUPOLE	6' x 20'	3	385'
7A	EXISTING			7	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
7B	EXISTING			7	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
7C	EXISTING			7	X	X	X	10	QUADRUPOLE	6' x 40'	2-4-2	-5'
7D	EXISTING			7	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
7E	EXISTING			7	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
7F	EXISTING			7	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
8A	EXISTING			8	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
8B	PROPOSED			8	X	X	X	X	QUADRUPOLE	6' x 40'	2-4-2	-5'
8C	EXISTING			8	X	X	X	10	QUADRUPOLE	6' x 40'	2-4-2	-5'

SIGNAL TIMINGS

	PHASE							
	1	2	3	4	5	6	7	8
WALK							7	7
DONT WALK							32	32
MIN INITIAL	8	25			8	25	15	15
MAX INITIAL								
ADD / VEH								
VEH EXT	3.0	4.0			3.0	4.0	3.0	3.0
TIM BFR REDUC								
TIME TO REDUC								
MIN GAP	3.0	3.0			3.0	3.0	3.0	3.0
MAX LIMIT	20	60			20	60	30	30
MAXIMUM 2								
YELLOW	4.8	4.8			4.8	4.8	3.4	3.1
RED CLEAR	2.1	2.1			2.1	2.1	4.0	4.0

* DETECTOR 7C & 8C TO HAVE 10 SEC. DELAY.
* SUBJECT TO ADJUSTMENT BY SCDOT TRAFFIC ENGINEERING STAFF.

GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL MEET CURRENT SCDOT STANDARDS.
2. TRAFFIC SIGNAL INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH SCDOT STANDARD DRAWINGS SECTION NO. 675-000 AND SPECIAL PROVISIONS.
3. ALL EQUIPMENT LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE WITH UTILITIES FOR FINAL LOCATIONS.
4. ROADWAY DESIGN PROVIDED BY FREELAND & KAUFFMAN, INC.
5. PAVEMENT MARKINGS PROVIDED BY FREELAND & KAUFFMAN, INC.
6. RIGHT-OF-WAY INFORMATION PROVIDED BY FREELAND & KAUFFMAN, INC.
7. BEFORE PLACING ANY TRAFFIC SIGNAL IN OPERATION, SCDOT DISTRICT 3 TRAFFIC SIGNAL SHOP SHALL BE NOTIFIED.
8. BEFORE CONSTRUCTION BEGINS, SCDOT DISTRICT 3 TRAFFIC SIGNAL SHOP SHALL BE INCLUDED IN ANY PRECONSTRUCTION CONFERENCES.
9. SCDOT DISTRICT 3 TRAFFIC SIGNAL SHOP SHALL INSPECT ALL TRAFFIC SIGNAL WORK.

1,2F
OLA Red ←R
OLA Yellow ←Y
OLA Green ←FY
Ø1 Green ←G



S-189
CONNECTOR

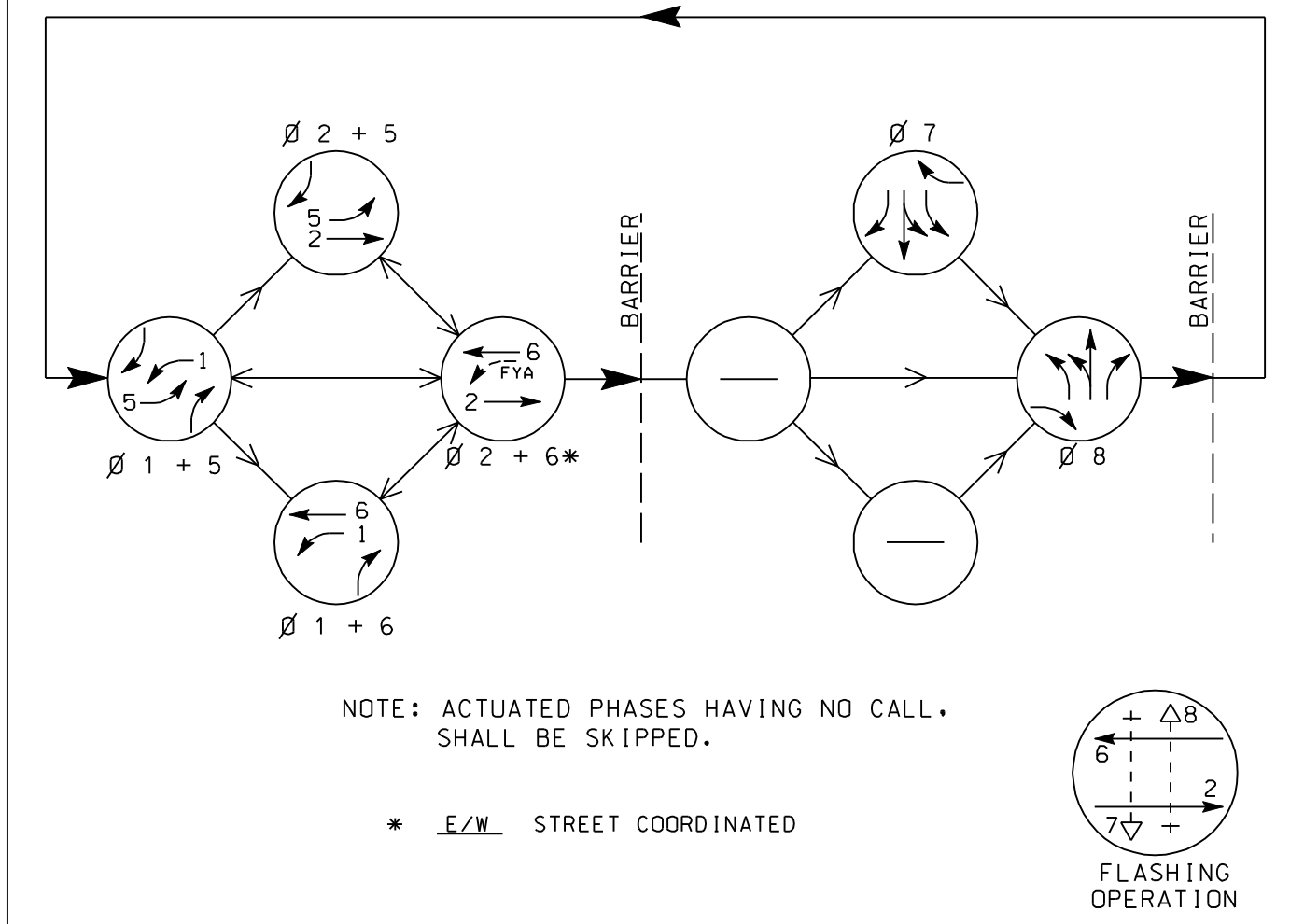
SIGNAL DISPLAY SEQUENCE
(PREFERENTIAL PHASING)

SIGNAL HEAD NUMBER	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
1, 2F	C	C	C	C	C	C	C	C
2	R	R	R	R	R	R	R	R
2, 8conc	R	R	R	R	R	R	R	R
5	C	C	C	C	C	C	C	C
6	R	R	R	R	R	R	R	R
6, 7conc	R	R	R	R	R	R	R	R
7A	R	R	R	R	R	R	R	R
7B	R	R	R	R	R	R	R	R
7, 5conc	R	R	R	R	R	R	R	R
8A	R	R	R	R	R	R	R	R
8B	R	R	R	R	R	R	R	R
8, 1conc	R	R	R	R	R	R	R	R

ALTERNATE PHASES

SIGNAL HEAD NUMBER	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8
1, 2F	C	C	C	C	C	C	C	C
2	R	R	R	R	R	R	R	R
2, 8conc	R	R	R	R	R	R	R	R
5	C	C	C	C	C	C	C	C
6	R	R	R	R	R	R	R	R
6, 7conc	R	R	R	R	R	R	R	R
7A	R	R	R	R	R	R	R	R
7B	R	R	R	R	R	R	R	R
7, 5conc	R	R	R	R	R	R	R	R
8A	R	R	R	R	R	R	R	R
8B	R	R	R	R	R	R	R	R
8, 1conc	R	R	R	R	R	R	R	R

NEMA PHASING



RAILROAD PRE-EMPTION NOTES

- TRACK CLEARANCE GREEN PHASE 7 - 13 SECONDS
- OMIT 7CONC PHASE DURING TRACK CLEARANCE AND THE PRE-EMPTION HOLD INTERVAL
- PRE-EMPTION HOLD INTERVAL - LIMITED SERVICE FOR PHASE 2 & PHASE 6
- ONCE PRE-EMPTION ENDS, RESUME NORMAL OPERATION

CALHOUN MEMORIAL HWY (US 123)

CALHOUN MEMORIAL HWY (US 123)

ROUTING/CONNECTION OF LOOP 2B
TO BE MAINTAINED BY CONTRACTOR
DURING/AFTER PAVEMENT WIDENING
(AMEND PLAN IF MODIFIED)

RENAME (6) EXISTING LOOP DETECTORS AS SHOWN

REMOVE EXISTING (1) 3-SECTION SIGNAL HEAD
REMOVE EXISTING R10-12 SIGN
INSTALL (1) NEW 4-SECTION (1,2F) SIGNAL HEAD
INSTALL (1) NEW R10-12A SIGN "C"

INSTALL (1) NEW 6'x40' LOOP (5B) DETECTOR

INSTALL 1" PVC CONDUIT
INSTALL 13" X 24" SPLICE BOX

INSTALL 2" PVC CONDUIT TO EXISTING SPLICE BOX

REMOVE EXISTING (2) 3-SECTION SIGNAL HEADS
INSTALL (1) NEW 3-SECTION (8A) SIGNAL HEAD
INSTALL (1) NEW 4-SECTION (8B) SIGNAL HEAD
INSTALL (1) NEW 5-SECTION (8,1conc) SIGNAL HEAD

INSTALL 2" PVC CONDUIT TO EXISTING SPLICE BOX

INSTALL 13" X 24" SPLICE BOX

INSTALL 1" PVC CONDUIT

INSTALL (1) NEW 6'x40' LOOP (1A) DETECTOR

REMOVE EXISTING (1) 3-SECTION SIGNAL HEADS
REMOVE EXISTING (1) 5-SECTION SIGNAL HEADS
INSTALL (2) NEW 3-SECTION (5) SIGNAL HEAD
INSTALL (1) NEW 5-SECTION (2,8conc) SIGNAL HEAD

INSTALL 13" X 24" SPLICE BOX

INSTALL 2" PVC CONDUIT

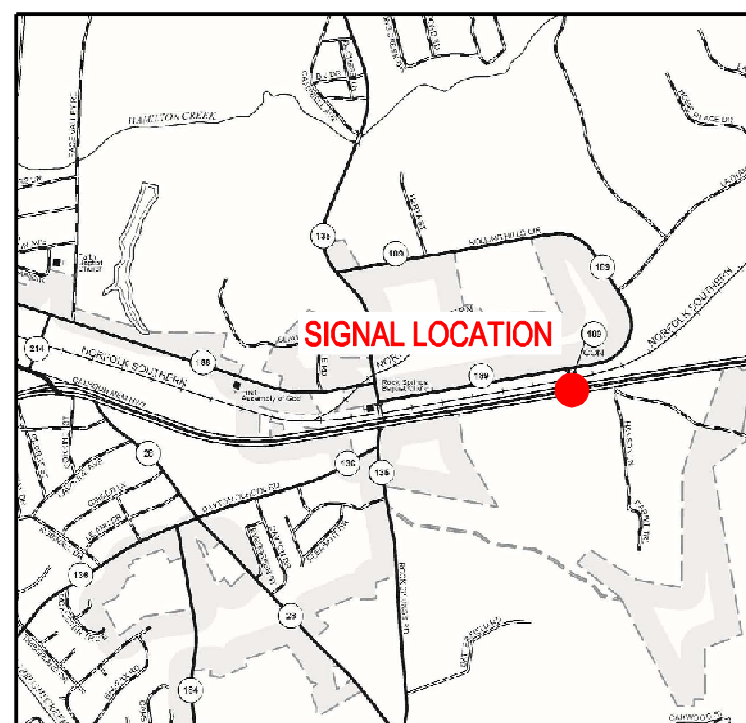
INSTALL 13" X 24" SPLICE BOX

INSTALL 1" PVC CONDUIT

INSTALL (1) NEW 6'x40' LOOP (8B) DETECTOR
RENAME (2) EXISTING LOOP DETECTORS AS SHOWN

REMOVE EXISTING (4) 3-SECTION SIGNAL HEADS
INSTALL (1) NEW 3-SECTION (7A) SIGNAL HEAD
INSTALL (1) NEW 4-SECTION (7B) SIGNAL HEAD
INSTALL (1) NEW 5-SECTION (7,5conc) SIGNAL HEAD

Q.T. ACCESS



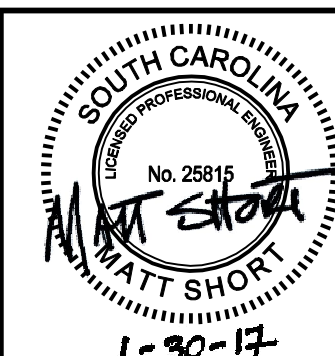
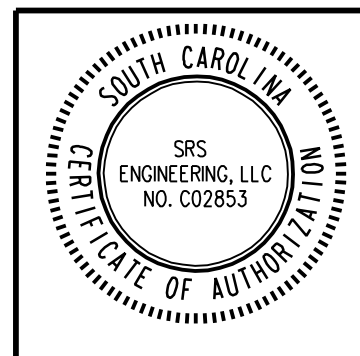
ROUTE NUMBER	US 123	PRIV. DRIVE	SPT. ROAD
APPROACH DIRECTION	EB	WB	NB
SIGNAL DESIGN SPEED	45	45	25
GRADE (%)	0*	0*	0*

* Assumed

SCDOT

South Carolina Department of Transportation
Post Office Box 191
Columbia, South Carolina 29202

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SRS ENGINEERING, LLC
901 MOHAWK DRIVE
WEST COLUMBIA, SC 29169
PH: (803) 252-1599

DATE	REVISIONS
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION COLUMBIA, S.C.	
SUBJECT TITLE TRAFFIC SIGNAL DESIGN PLAN	
SPECIFIC LOCATION CALHOUN MEMORIAL HWY. (US 123) AT S-189 CONN. / Q.T. ACCESS	
CITY EASLEY	COUNTY PICKENS
APPROVED BY	
DISTRICT #3 TRAFFIC ENGINEER	
DESIGNED MS - SRS	ENGINEER
DRAWN MS - SRS	
CHECKED MR - SRS	
REVIEWED	
RECOMMENDED	
SCALE 1" = 30'	DATE 11-10-16
SHEET NO. 1 OF 1	INDEX NO.

Station : 3074 - US 123 @ Spine Rd Conn (Standard File)

Phase [1.1.1]

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8	φ9	φ10	φ11	φ12	φ13	φ14	φ15	φ16
Walk	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	0	0	32	0	0	0	32	0	0	0	0	0	0	0	0
Min Green	6	25	0	12	6	25	0	12	0	0	0	0	0	0	0	0
Gap Ext	3	4	0	3	3	4	0	3.5	0	0	0	0	0	0	0	0
Max1	20	60	0	30	20	60	0	30	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Clr	3	4.6	0	3.4	3	4.6	3	3.2	4	4	4	4	4	4	4	4
Red Clr	4.1	4.1	0	4.2	4.4	4.1	0	4.2	2	2	2	2	2	2	2	2
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	3	3	0	3	3	3	0	3	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
Lock Calls																
Guarantd Passage																
Added Init Calc																

Phase Option [1.1.2]

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8	φ9	φ10	φ11	φ12	φ13	φ14	φ15	φ16
Enable	ON	ON		ON	ON	ON		ON								
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON		ON		ON		ON								
Rest In Walk																
Cond Service																

Phase Option+ [1.1.3]/[1.1.5]

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8	φ9	φ10	φ11	φ12	φ13	φ14	φ15	φ16
Reservice																
Ped Clr Thru Yellow																
Skip Red-NoCall																
Red Rest																
Max 2																
Max Inhibit																
Ped Delay																
Red Rest On Gap																
Conflicting P																
Green Ped Delay Time																
Omit Yel																
Ped Out																
Start Yel																
Inhibit P1																
Inhibit P2																
Inhibit P3																
Inhibit P4																
Inhibit P5																
Inhibit P6																
Inhibit P7								ON								
Inhibit P8																
Call Phs1																
Call Phs2																
Redirect P Calls From 1																
Redirect P Calls To 1																
Redirect P Calls From 2																
Redirect P Calls To 2																
Redirect P Calls From 3																
Redirect P Calls To 3																
Redirect P Calls From 4																
Redirect P Calls To 4																

Station : 3074 - US 123 @ Spine Rd Conn (Standard File)

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2		3	4	7	8	
Ring 2	5	6						
Ring 3								
Ring 4								

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	Ring Algo			
	OFF	4	ON	OFF	OFF		ON		QSEQ	OFF	4PH	OFF	1	OFF	OFF				

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
40	20		

Detector, Vehicle Parameters 1-16 [5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Added Initial	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	1	2	2	2	2	2	3	4	4	4	4	4	1	3	5	6
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

Detector #	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Added Initial	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	6	6	6	6	7	8	8	8	8	8	7	7	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Ped Detectors 1-16 [5.4]

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	2	0	4	0	6	0	8								
No Activity	0	0	0	0	0	0	0	0								
Max Presence	0	5	0	5	0	5	0	5								
Erratic Cnt	0	0	0	0	0	0	0	0								

Station : 3074 - US 123 @ Spine Rd Conn (Standard File)

Channels/SDLC, Assign to Phases [1.8.1]

[illegible]

Channel/SDLC +, Assign to Phases [1.8.4]

[illegible]

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases							Modifier Phases							Type	Green	Yellow	Red
Overlap 1	1							2							FYA-4		3.5	1.5
Overlap 2	4														NORMAL		3.5	1.5
Overlap 3															NORMAL		3.5	1.5
Overlap 4															NORMAL		3.5	1.5
Overlap 5															NORMAL		3.5	1.5
Overlap 6															NORMAL		3.5	1.5
Overlap 7															NORMAL		3.5	1.5
Overlap 8															NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

[illegible]

Overlap Program Parameters+ [1.5.2.3]

[illegible]

[illegible]

Station : 3074 - US 123 @ Spine Rd Conn (Standard File)

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON				
Override Auto Flash						
Override Higher Preempt		ON				
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	0	0	0	0
Min Green	3	0	0	0	0	0
Min Walk	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Track Green	13	0	0	0	0	0
Min Dwell	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0
Track Veh1	4	0	0	0	0	0
Track Veh2	0	0	0	0	0	0
Track Veh3	0	0	0	0	0	0
Track Veh4	0	0	0	0	0	0
Dwell Cyc Veh1	2	0	0	0	0	0
Dwell Cyc Veh2	6	0	0	0	0	0
Dwell Cyc Veh3	0	0	0	0	0	0
Dwell Cyc Veh4	0	0	0	0	0	0
Dwell Cyc Veh5	0	0	0	0	0	0
Dwell Cyc Veh6	0	0	0	0	0	0
Dwell Cyc Veh7	0	0	0	0	0	0
Dwell Cyc Veh8	0	0	0	0	0	0
Dwell Cyc Veh9	0	0	0	0	0	0
Dwell Cyc Veh10	0	0	0	0	0	0
Dwell Cyc Veh11	0	0	0	0	0	0
Dwell Cyc Veh12	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Dwell Cyc Ped2	0	0	0	0	0	0
Dwell Cyc Ped3	0	0	0	0	0	0
Dwell Cyc Ped4	0	0	0	0	0	0
Dwell Cyc Ped5	0	0	0	0	0	0
Dwell Cyc Ped6	0	0	0	0	0	0
Dwell Cyc Ped7	0	0	0	0	0	0
Dwell Cyc Ped8	0	0	0	0	0	0
Exit 1	2	0	0	0	0	0
Exit 2	6	0	0	0	0	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON					
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell	0	0	0	0	0	0
Pattern	0	0	0	0	0	0
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Track Over 5	0	0	0	0	0	0
Track Over 6	0	0	0	0	0	0
Track Over 7	0	0	0	0	0	0
Track Over 8	0	0	0	0	0	0
Track Over 9	0	0	0	0	0	0
Track Over 10	0	0	0	0	0	0
Track Over 11	0	0	0	0	0	0
Track Over 12	0	0	0	0	0	0
DwellCyc Over 1	0	0	0	0	0	0
DwellCyc Over 2	0	0	0	0	0	0
DwellCyc Over 3	0	0	0	0	0	0
DwellCyc Over 4	0	0	0	0	0	0
DwellCyc Over 5	0	0	0	0	0	0
DwellCyc Over 6	0	0	0	0	0	0
DwellCyc Over 7	0	0	0	0	0	0
DwellCyc Over 8	0	0	0	0	0	0
DwellCyc Over 9	0	0	0	0	0	0
DwellCyc Over 10	0	0	0	0	0	0
DwellCyc Over 11	0	0	0	0	0	0
DwellCyc Over 12	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0
Return Max	0	0	0	0	0	0

Preemption Adv Times[3.8]/Init Dwell [3.9]

Preempt	1	2	3	4	5	6
All Red B4 Preempt						
Reset Ext Dwell						
Reservice Preempt						
End Dwell						
DsblDwellCalls						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dynamic Exit Threshold	0	0	0	0	0	0
Initial Dwell Phase 1	0	0	0	0	0	0
Initial Dwell Phase 2	0	0	0	0	0	0
Initial Dwell Phase 3	0	0	0	0	0	0
Initial Dwell Phase 4	0	0	0	0	0	0
Initial Dwell Ped 1	0	0	0	0	0	0
Initial Dwell Ped 2	0	0	0	0	0	0
Initial Dwell Ped 3	0	0	0	0	0	0
Initial Dwell Ped 4	0	0	0	0	0	0
Initial Dwell Overlap 1	0	0	0	0	0	0
Initial Dwell Overlap 2	0	0	0	0	0	0
Initial Dwell Overlap 3	0	0	0	0	0	0
Initial Dwell Overlap 4	0	0	0	0	0	0
Initial Dwell Overlap 5	0	0	0	0	0	0
Initial Dwell Overlap 6	0	0	0	0	0	0
Initial Dwell Overlap 7	0	0	0	0	0	0
Initial Dwell Overlap 8	0	0	0	0	0	0
Initial Dwell Overlap 9	0	0	0	0	0	0
Initial Dwell Overlap 10	0	0	0	0	0	0
Initial Dwell Overlap 11	0	0	0	0	0	0
Initial Dwell Overlap 12	0	0	0	0	0	0
Initial Dwell Overlap 13	0	0	0	0	0	0
Initial Dwell Overlap 14	0	0	0	0	0	0
Initial Dwell Overlap 15	0	0	0	0	0	0

Coordination, Modes, + [2.1]
Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX INH	FLOAT

Coordination, Pattern 1-16 [2.4]

Coordination, Pattern 17-32 [2.4]

Coordination, Pattern+ 1-8 [2.5]

[illegible]

Coordination, Pattern+ 9-16 [2.5]

[illegible][illegible]

Coordination, Splits [2.7.1]

[illegible]

[illegible]

10/29/2025 11:05:52 AM

10/29/2025 11:05:52 AM

10/29/2025 11:05:52 AM

Station : 3074 - US 123 @ Spine Rd Conn (Standard File)

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
----------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
----------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
----------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
----------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
----------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
----------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
----------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

TB Coor, Advanced Scheduler [4.3]

TB Coor, Day Plan [4.4]

[illegible]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Station : 3074 - US 123 @ Spine Rd Conn (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

Station : 3074 - US 123 @ Spine Rd Conn (Standard File)

Alternate Phase Program 1, Interval Times [1.1.6.1]

[illegible]

Alternate Phase Program 2, Interval Times [1.1.6.1]

[illegible]

Alternate Phase Program 1, >Phase Options [1.1.6.2]

[illegible]

Alternate Phase Program 2, Phase Options [1.1.6.2]

[illegible]

Alternate Phase Program 3, Phase Options [1.1.6.2]

[illegible]

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

[illegible]

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

[illegible]

Station : 3074 - US 123 @ Spine Rd Conn (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

[illegible]

Detector Alternate Program 2, Vehicle Parameters [5.5.1]

[illegible]

User Input map [1.8.9.1]

[illegible]

User Output map [1.8.9.2]

[illegible]

Station : 3172 - US 123 @ Rock Springs Rd S-135 (Standard File)

Phase [1.1.1]

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8	φ9	φ10	φ11	φ12	φ13	φ14	φ15	φ16
Walk	0	0	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	0	0	39	0	35	0	39	0	0	0	0	0	0	0	0
Min Green	8	30	6	10	8	30	6	10	0	0	0	0	0	0	0	0
Gap Ext	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0
Max1	20	60	20	40	20	60	20	40	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Clr	3	4.1	3	3.3	3	4.1	3	3.5	4	4	4	4	4	4	4	4
Red Clr	4.1	2.2	3.9	3.6	4.4	2.2	4.6	3.2	2	2	2	2	2	2	2	2
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
Lock Calls		ON					ON									
Guarantd Passage																
Added Init Calc																

Phase Option [1.1.2]

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8	φ9	φ10	φ11	φ12	φ13	φ14	φ15	φ16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON		ON		ON		ON								
Rest In Walk																
Cond Service																

Phase Option+ [1.1.3]/[1.1.5]

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8	φ9	φ10	φ11	φ12	φ13	φ14	φ15	φ16
Reservice																
Ped Clr Thru Yellow																
Skip Red-NoCall																
Red Rest																
Max 2																
Max Inhibit																
Ped Delay																
Red Rest On Gap																
Conflicting P																
Green Ped Delay Time																
Omit Yel																
Ped Out																
Start Yel																
Inhibit P1																
Inhibit P2																
Inhibit P3																
Inhibit P4																
Inhibit P5																
Inhibit P6																
Inhibit P7																
Inhibit P8																
Call Phs1																
Call Phs2																
Redirect P Calls From 1																
Redirect P Calls To 1																
Redirect P Calls From 2																
Redirect P Calls To 2																
Redirect P Calls From 3																
Redirect P Calls To 3																
Redirect P Calls From 4																
Redirect P Calls To 4																

Station : 3172 - US 123 @ Rock Springs Rd S-135 (Standard File)

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	Ring Algo			
	OFF	4	ON	OFF	OFF		ON		STD8	OFF	4PH	OFF	1	OFF	OFF				

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
40	20		

Detector, Vehicle Parameters 1-16 [5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Added Initial	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	1	2	2	2	2	2	3	4	4	7	7	4	1	3	5	6
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

Detector #	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Added Initial	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	6	6	6	6	7	8	8	8	8	8	5	7	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Ped Detectors 1-16 [5.4]

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	2	0	4	0	6	0	8								
No Activity	0	0	0	0	0	0	0	0								
Max Presence	0	5	0	5	0	5	0	5								
Erratic Cnt	0	0	0	0	0	0	0	0								

Station : 3172 - US 123 @ Rock Springs Rd S-135 (Standard File)

Channels/SDLC, Assign to Phases [1.8.1]

[illegible]

Channel/SDLC +, Assign to Phases [1.8.4]

[illegible]

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases						Modifier Phases						Type	Green	Yellow	Red
Overlap 1	3							4					NORMAL		3.5	1.5
Overlap 2													FYA-4		3.9	3.2
Overlap 3													NORMAL		3.5	1.5
Overlap 4													NORMAL		3.5	1.5
Overlap 5													NORMAL		3.5	1.5
Overlap 6													NORMAL		3.5	1.5
Overlap 7													NORMAL		3.5	1.5
Overlap 8													NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

[illegible]

Overlap Program Parameters+ [1.5.2.3]

[illegible]

[illegible]

Station : 3172 - US 123 @ Rock Springs Rd S-135 (Standard File)

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON				
Override Auto Flash						
Override Higher Preempt		ON				
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	0	0	0	0
Min Green	3	0	0	0	0	0
Min Walk	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Track Green	25	0	0	0	0	0
Min Dwell	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0
Track Veh1	6	0	0	0	0	0
Track Veh2	0	0	0	0	0	0
Track Veh3	0	0	0	0	0	0
Track Veh4	0	0	0	0	0	0
Dwell Cyc Veh1	4	0	0	0	0	0
Dwell Cyc Veh2	8	0	0	0	0	0
Dwell Cyc Veh3	0	0	0	0	0	0
Dwell Cyc Veh4	0	0	0	0	0	0
Dwell Cyc Veh5	0	0	0	0	0	0
Dwell Cyc Veh6	0	0	0	0	0	0
Dwell Cyc Veh7	0	0	0	0	0	0
Dwell Cyc Veh8	0	0	0	0	0	0
Dwell Cyc Veh9	0	0	0	0	0	0
Dwell Cyc Veh10	0	0	0	0	0	0
Dwell Cyc Veh11	0	0	0	0	0	0
Dwell Cyc Veh12	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Dwell Cyc Ped2	0	0	0	0	0	0
Dwell Cyc Ped3	0	0	0	0	0	0
Dwell Cyc Ped4	0	0	0	0	0	0
Dwell Cyc Ped5	0	0	0	0	0	0
Dwell Cyc Ped6	0	0	0	0	0	0
Dwell Cyc Ped7	0	0	0	0	0	0
Dwell Cyc Ped8	0	0	0	0	0	0
Exit 1	2	0	0	0	0	0
Exit 2	6	0	0	0	0	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON					
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell	0	0	0	0	0	0
Pattern	0	0	0	0	0	0
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Track Over 5	0	0	0	0	0	0
Track Over 6	0	0	0	0	0	0
Track Over 7	0	0	0	0	0	0
Track Over 8	0	0	0	0	0	0
Track Over 9	0	0	0	0	0	0
Track Over 10	0	0	0	0	0	0
Track Over 11	0	0	0	0	0	0
Track Over 12	0	0	0	0	0	0
DwellCyc Over 1	0	0	0	0	0	0
DwellCyc Over 2	0	0	0	0	0	0
DwellCyc Over 3	0	0	0	0	0	0
DwellCyc Over 4	0	0	0	0	0	0
DwellCyc Over 5	0	0	0	0	0	0
DwellCyc Over 6	0	0	0	0	0	0
DwellCyc Over 7	0	0	0	0	0	0
DwellCyc Over 8	0	0	0	0	0	0
DwellCyc Over 9	0	0	0	0	0	0
DwellCyc Over 10	0	0	0	0	0	0
DwellCyc Over 11	0	0	0	0	0	0
DwellCyc Over 12	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0
Return Max	0	0	0	0	0	0

Preemption Adv Times[3.8]/Init Dwell [3.9]

Preempt	1	2	3	4	5	6
All Red B4 Preempt						
Reset Ext Dwell						
Reservice Preempt						
End Dwell						
DsblDwellCalls						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dynamic Exit Threshold	0	0	0	0	0	0
Initial Dwell Phase 1	0	0	0	0	0	0
Initial Dwell Phase 2	0	0	0	0	0	0
Initial Dwell Phase 3	0	0	0	0	0	0
Initial Dwell Phase 4	0	0	0	0	0	0
Initial Dwell Ped 1	0	0	0	0	0	0
Initial Dwell Ped 2	0	0	0	0	0	0
Initial Dwell Ped 3	0	0	0	0	0	0
Initial Dwell Ped 4	0	0	0	0	0	0
Initial Dwell Overlap 1	0	0	0	0	0	0
Initial Dwell Overlap 2	0	0	0	0	0	0
Initial Dwell Overlap 3	0	0	0	0	0	0
Initial Dwell Overlap 4	0	0	0	0	0	0
Initial Dwell Overlap 5	0	0	0	0	0	0
Initial Dwell Overlap 6	0	0	0	0	0	0
Initial Dwell Overlap 7	0	0	0	0	0	0
Initial Dwell Overlap 8	0	0	0	0	0	0
Initial Dwell Overlap 9	0	0	0	0	0	0
Initial Dwell Overlap 10	0	0	0	0	0	0
Initial Dwell Overlap 11	0	0	0	0	0	0
Initial Dwell Overlap 12	0	0	0	0	0	0
Initial Dwell Overlap 13	0	0	0	0	0	0
Initial Dwell Overlap 14	0	0	0	0	0	0
Initial Dwell Overlap 15	0	0	0	0	0	0

Coordination, Modes, + [2.1]
Modes

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Off	Coord Easy Float	Yield Value	Coord NTICP Yield Sign	Closed Loop Active	
TIMED	TIMED	NO RECYCLE	ON	OFF	ON	OFF	OFF	0	+	ON	OFF	OFF

Coordination, Pattern 1-16 [2.4]

Coordination, Pattern 17-32 [2.4]

Coordination, Pattern+ 1-8 [2.5]

[illegible]

Coordination, Pattern+ 9-16 [2.5]

[illegible][illegible]

Station : 3172 - US 123 @ Rock Springs Rd S-135 (Standard File)

Coordination, Splits [2.7.1]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

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10/29/2025 11:04:07 AM

[illegible]

TB Coor, Advanced Scheduler [4.3]

TB Coor, Day Plan [4.4]

[illegible]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

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TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99	254				0	0						
100	255				0	0						

Station : 3172 - US 123 @ Rock Springs Rd S-135 (Standard File)

Alternate Phase Program 1, Interval Times [1.1.6.1]

[illegible]

Alternate Phase Program 2, Interval Times [1.1.6.1]

[illegible]

Alternate Phase Program 1, >Phase Options [1.1.6.2]

[illegible]

Alternate Phase Program 2, Phase Options [1.1.6.2]

[illegible]

Alternate Phase Program 3, Phase Options [1.1.6.2]

[illegible]

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

[illegible]

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

[illegible]

Station : 3172 - US 123 @ Rock Springs Rd S-135 (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

[illegible]

Detector Alternate Program 2, Vehicle Parameters [5.5.1]

[illegible]

User Input map [1.8.9.1]

[illegible]

User Output map [1.8.9.2]

[illegible]

INTERNAL CAPTURE CALCULATIONS

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	RT Calhoun Commercial Site	Organization:	Short Engineering & Consulting, LLC
Project Location:	Easley, SC	Performed By:	Matt Short
Scenario Description:		Date:	11/10/2025
Analysis Year:		Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	813 / 822	161,600	sf	312	177	135
Restaurant	932 / 934	26,600	sf	592	309	283
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²				0		
				904	486	418

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		18	0	0	0
Restaurant	0	14		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	904	486	418
Internal Capture Percentage	7%	7%	8%
External Vehicle-Trips ⁵	840	454	386
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	8%	13%
Restaurant	6%	5%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	RT Calhoun Commercial Site			Organization:	Short Engineering & Consulting, LLC
Project Location:	Easley, SC			Performed By:	Matt Short
Scenario Description:				Date:	11/10/2025
Analysis Year:				Checked By:	
Analysis Period:	PM Street Peak Hour			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	813 / 822	161,600	sf	742	364	378
Restaurant	932 / 934	26,600	sf	472	259	213
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²				0		
				1,214	623	591

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		75	0	0	0
Restaurant	0	87		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	1,214	623	591
Internal Capture Percentage	27%	26%	27%
External Vehicle-Trips ⁵	890	461	429
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	24%	20%
Restaurant	29%	41%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

CAPACITY ANALYSIS OUTPUT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 						 	
Traffic Volume (veh/h)	44	1670	46	63	1360	60	102	25	113	46	38	53
Future Volume (veh/h)	44	1670	46	63	1360	60	102	25	113	46	38	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	1815	50	68	1478	65	69	86	123	46	47	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	2216	1130	161	2218	1069	159	167	191	90	94	125
Arrive On Green	0.03	0.62	0.62	0.03	0.62	0.62	0.09	0.09	0.09	0.05	0.05	0.05
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	48	1815	50	68	1478	65	69	86	123	46	47	58
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.1	58.9	1.4	2.1	40.2	2.1	5.5	6.6	11.1	3.8	3.7	5.2
Cycle Q Clear(g_c), s	2.1	58.9	1.4	2.1	40.2	2.1	5.5	6.6	11.1	3.8	3.7	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	2216	1130	161	2218	1069	159	167	191	90	94	125
V/C Ratio(X)	0.48	0.82	0.04	0.42	0.67	0.06	0.43	0.51	0.64	0.51	0.50	0.46
Avail Cap(c_a), veh/h	290	2216	1130	258	2218	1069	197	207	225	219	229	240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.7	21.7	6.4	25.3	18.1	8.3	64.7	65.2	62.9	69.4	69.4	66.0
Incr Delay (d2), s/veh	3.6	3.5	0.1	1.8	1.6	0.1	1.9	2.4	4.7	4.5	4.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	23.6	0.6	1.3	15.8	0.9	2.6	3.3	4.8	1.9	1.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	25.3	6.5	27.1	19.7	8.4	66.5	67.6	67.6	73.9	73.4	68.6
LnGrp LOS	E	C	A	C	B	A	E	E	E	E	E	E
Approach Vol, veh/h		1913			1611			278			151	
Approach Delay, s/veh		26.0			19.6			67.3			71.7	
Approach LOS		C			B			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	102.2		15.2	11.7	102.3		20.8				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	12.9	71.3		18.4	12.6	71.3		16.6				
Max Q Clear Time (g_c+I1), s	4.1	60.9		7.2	4.1	42.2		13.1				
Green Ext Time (p_c), s	0.1	10.2		0.3	0.1	26.5		0.3				

Intersection Summary

HCM 6th Ctrl Delay 28.1

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

2025 EXISTING

AM PEAK

1: Commercial Access/Towne Center Way & US 123

01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	1670	46	63	1360	60	102	25	113	46	38	53
Future Volume (vph)	44	1670	46	63	1360	60	102	25	113	46	38	53
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2	6		6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	20.0	80.0	24.0	20.0	80.0	26.0	24.0	24.0	20.0	26.0	26.0	20.0
Total Split (%)	13.3%	53.3%	16.0%	13.3%	53.3%	17.3%	16.0%	16.0%	13.3%	17.3%	17.3%	13.3%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	7.5	90.5	103.3	101.4	93.1	111.2	11.5	11.5	26.7	9.4	9.4	17.1
Actuated g/C Ratio	0.05	0.60	0.69	0.68	0.62	0.74	0.08	0.08	0.18	0.06	0.06	0.11
v/c Ratio	0.28	0.85	0.04	0.48	0.67	0.05	0.54	0.53	0.32	0.42	0.43	0.22
Control Delay	75.8	17.7	0.3	29.3	22.4	0.8	81.1	80.1	9.9	78.8	78.7	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.8	17.7	0.3	29.3	22.4	0.8	81.1	80.1	9.9	78.8	78.7	3.2
LOS	E	B	A	C	C	A	F	F	A	E	E	A
Approach Delay		18.7			21.9			47.3			49.3	
Approach LOS		B			C			D			D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 81 (54%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 23.0

Intersection LOS: C

Intersection Capacity Utilization 76.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
20 s	80 s	26 s	24 s
 Ø5	 Ø6 (R)		
20 s	80 s		

2025 EXISTING
2: Rock Springs Rd/Prince Perry Rd & US 123

AM PEAK
01/13/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1206	19	135	1189	59	34	150	270	190	184	167
Future Volume (veh/h)	110	1206	19	135	1189	59	34	150	270	190	184	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	1311	0	147	1292	64	37	163	0	207	200	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1933		170	2093	934	147	188		257	287	319
Arrive On Green	0.05	0.54	0.00	0.10	0.59	0.59	0.03	0.10	0.00	0.07	0.15	0.15
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	120	1311	0	147	1292	64	37	163	0	207	200	182
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	1870	1585
Q Serve(g_s), s	5.1	40.0	0.0	12.2	35.2	2.6	2.8	12.9	0.0	8.8	15.2	15.5
Cycle Q Clear(g_c), s	5.1	40.0	0.0	12.2	35.2	2.6	2.8	12.9	0.0	8.8	15.2	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	1933		170	2093	934	147	188		257	287	319
V/C Ratio(X)	0.72	0.68		0.87	0.62	0.07	0.25	0.87		0.80	0.70	0.57
Avail Cap(c_a), veh/h	290	1933		213	2093	934	256	241		378	288	321
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.4	24.7	0.0	66.9	19.9	13.2	58.6	66.5	0.0	68.3	60.2	54.0
Incr Delay (d2), s/veh	5.7	1.9	0.0	25.0	1.4	0.1	0.9	22.7	0.0	7.7	7.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	16.6	0.0	6.6	14.2	1.0	1.3	7.3	0.0	4.2	7.8	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	26.7	0.0	91.9	21.3	13.3	59.5	89.2	0.0	76.0	67.4	56.4
LnGrp LOS	E	C		F	C	B	E	F		E	E	E
Approach Vol, veh/h		1431	A		1503			200	A		589	
Approach Delay, s/veh		30.8			27.9			83.7			67.0	
Approach LOS		C			C			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.4	87.9	10.8	29.9	14.6	94.6	18.8	21.9				
Change Period (Y+Rc), s	7.1	* 6.3	6.9	* 6.9	7.4	* 6.3	7.6	* 6.9				
Max Green Setting (Gmax), s	17.9	* 69	13.1	* 23	12.6	* 74	16.4	* 19				
Max Q Clear Time (g_c+I1), s	14.2	42.0	4.8	17.5	7.1	37.2	10.8	14.9				
Green Ext Time (p_c), s	0.1	23.2	0.0	0.7	0.1	30.3	0.3	0.2				

Intersection Summary

HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

2025 EXISTING
2: Rock Springs Rd/Prince Perry Rd & US 123

AM PEAK
01/13/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	1206	19	135	1189	59	34	150	270	190	184	167
Future Volume (vph)	110	1206	19	135	1189	59	34	150	270	190	184	167
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Free	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8		Free			4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	12.4	22.5	22.5	12.1	22.5	22.5	11.9	22.5		12.6	22.5	12.4
Total Split (s)	20.0	75.0	75.0	25.0	80.0	80.0	20.0	26.0		24.0	30.0	20.0
Total Split (%)	13.3%	50.0%	50.0%	16.7%	53.3%	53.3%	13.3%	17.3%		16.0%	20.0%	13.3%
Yellow Time (s)	3.0	4.1	4.1	3.0	4.1	4.1	3.0	3.5		3.0	3.3	3.0
All-Red Time (s)	4.4	2.2	2.2	4.1	2.2	2.2	3.9	3.2		4.6	3.6	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	6.3	6.3	7.1	6.3	6.3	6.9	6.7		7.6	6.9	7.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	None
Act Effect Green (s)	10.4	75.2	75.2	16.1	80.7	80.7	24.6	17.0	150.0	14.0	26.1	43.4
Actuated g/C Ratio	0.07	0.50	0.50	0.11	0.54	0.54	0.16	0.11	1.00	0.09	0.17	0.29
v/c Ratio	0.50	0.74	0.02	0.77	0.68	0.07	0.17	0.78	0.19	0.65	0.62	0.32
Control Delay	74.5	34.0	0.1	92.2	22.1	1.7	42.8	88.3	0.3	75.2	66.8	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.5	34.0	0.1	92.2	22.1	1.7	42.8	88.3	0.3	75.2	66.8	9.7
LOS	E	C	A	F	C	A	D	F	A	E	E	A
Approach Delay		36.9			28.1			32.5			52.1	
Approach LOS		D			C			C			D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 65 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 35.3

Intersection LOS: D

Intersection Capacity Utilization 77.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: Rock Springs Rd/Prince Perry Rd & US 123



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	1379	65	55	1492	218	122	41	98	126	47	159
Future Volume (veh/h)	121	1379	65	55	1492	218	122	41	98	126	47	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	132	1499	71	60	1622	237	89	107	107	94	111	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	2234	1119	204	2146	1110	137	144	164	172	181	232
Arrive On Green	0.05	0.63	0.63	0.03	0.60	0.60	0.08	0.08	0.08	0.10	0.10	0.10
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	132	1499	71	60	1622	237	89	107	107	94	111	173
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.8	48.8	2.5	2.3	59.9	9.5	8.7	10.1	11.7	9.1	10.3	17.4
Cycle Q Clear(g_c), s	6.8	48.8	2.5	2.3	59.9	9.5	8.7	10.1	11.7	9.1	10.3	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	2234	1119	204	2146	1110	137	144	164	172	181	232
V/C Ratio(X)	0.77	0.67	0.06	0.29	0.76	0.21	0.65	0.74	0.65	0.55	0.61	0.75
Avail Cap(c_a), veh/h	261	2234	1119	285	2146	1110	154	162	179	172	181	232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.5	21.5	8.2	19.4	26.0	9.5	80.7	81.3	77.6	77.5	78.1	73.6
Incr Delay (d2), s/veh	7.4	1.6	0.1	0.8	2.5	0.4	7.7	14.8	7.2	3.6	6.0	12.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	19.9	1.1	1.0	25.0	4.7	4.4	5.5	5.2	4.4	5.3	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.9	23.1	8.3	20.2	28.5	9.9	88.4	96.1	84.8	81.1	84.1	86.0
LnGrp LOS	F	C	A	C	C	A	F	F	F	F	F	F
Approach Vol, veh/h	1702			1919			303			378		
Approach Delay, s/veh	27.8			26.0			89.8			84.2		
Approach LOS	C			C			F			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	121.9		25.0	16.3	117.4		21.3				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	12.9	103.3		17.4	13.6	102.3		15.6				
Max Q Clear Time (g_c+I1), s	4.3	50.8		19.4	8.8	61.9		13.7				
Green Ext Time (p_c), s	0.1	45.5		0.0	0.1	37.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	36.3											
HCM 6th LOS	D											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	1379	65	55	1492	218	122	41	98	126	47	159
Future Volume (vph)	121	1379	65	55	1492	218	122	41	98	126	47	159
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2	6		6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	21.0	112.0	23.0	20.0	111.0	25.0	23.0	23.0	20.0	25.0	25.0	21.0
Total Split (%)	11.7%	62.2%	12.8%	11.1%	61.7%	13.9%	12.8%	12.8%	11.1%	13.9%	13.9%	11.7%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	11.9	113.9	128.7	118.0	109.1	132.3	13.5	13.5	28.2	14.5	14.5	26.5
Actuated g/C Ratio	0.07	0.63	0.72	0.66	0.61	0.74	0.08	0.08	0.16	0.08	0.08	0.15
v/c Ratio	0.58	0.67	0.06	0.30	0.76	0.19	0.70	0.70	0.34	0.69	0.68	0.58
Control Delay	91.5	14.4	0.9	12.5	29.9	1.2	109.2	108.1	22.5	105.5	104.3	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.5	14.4	0.9	12.5	29.9	1.2	109.2	108.1	22.5	105.5	104.3	33.5
LOS	F	B	A	B	C	A	F	F	C	F	F	C
Approach Delay		19.8			25.8			76.3			70.7	
Approach LOS		B			C			E			E	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 118 (66%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 30.6

Intersection LOS: C

Intersection Capacity Utilization 76.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
20 s	112 s	25 s	23 s
 Ø5	 Ø6 (R)		
21 s	111 s		

2025 EXISTING
2: Rock Springs Rd/Prince Perry Rd & US 123

PM PEAK
01/14/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	1103	41	248	1237	113	47	186	196	146	318	253
Future Volume (veh/h)	266	1103	41	248	1237	113	47	186	196	146	318	253
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	289	1199	0	270	1345	123	51	202	0	159	346	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	1693		288	1924	858	98	279		200	334	433
Arrive On Green	0.09	0.48	0.00	0.16	0.54	0.54	0.03	0.15	0.00	0.06	0.18	0.18
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	289	1199	0	270	1345	123	51	202	0	159	346	275
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	1870	1585
Q Serve(g_s), s	14.9	48.0	0.0	27.0	50.3	6.9	4.3	18.5	0.0	8.2	32.1	27.5
Cycle Q Clear(g_c), s	14.9	48.0	0.0	27.0	50.3	6.9	4.3	18.5	0.0	8.2	32.1	27.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	1693		288	1924	858	98	279		200	334	433
V/C Ratio(X)	0.88	0.71		0.94	0.70	0.14	0.52	0.72		0.79	1.04	0.64
Avail Cap(c_a), veh/h	357	1693		296	1924	858	180	304		315	334	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	80.5	37.2	0.0	74.6	30.5	20.5	64.0	73.0	0.0	83.7	73.9	57.5
Incr Delay (d2), s/veh	20.8	2.5	0.0	36.0	2.1	0.4	4.2	7.5	0.0	7.2	59.3	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	21.1	0.0	15.1	21.5	2.7	2.1	9.5	0.0	3.9	20.9	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.2	39.8	0.0	110.6	32.6	20.9	68.2	80.6	0.0	90.9	133.2	60.6
LnGrp LOS	F	D		F	C	C	E	F		F	F	E
Approach Vol, veh/h		1488	A		1738			253	A		780	
Approach Delay, s/veh		51.7			43.9			78.1			99.0	
Approach LOS		D			D			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.2	92.1	12.8	39.0	24.5	103.8	18.0	33.8				
Change Period (Y+Rc), s	7.1	* 6.3	6.9	* 6.9	7.4	* 6.3	7.6	* 6.9				
Max Green Setting (Gmax), s	29.9	* 77	14.1	* 32	18.6	* 88	16.4	* 29				
Max Q Clear Time (g_c+I1), s	29.0	50.0	6.3	34.1	16.9	52.3	10.2	20.5				
Green Ext Time (p_c), s	0.1	22.1	0.0	0.0	0.2	30.3	0.2	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			58.7									
HCM 6th LOS			E									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

2025 EXISTING
2: Rock Springs Rd/Prince Perry Rd & US 123

PM PEAK
01/14/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	266	1103	41	248	1237	113	47	186	196	146	318	253
Future Volume (vph)	266	1103	41	248	1237	113	47	186	196	146	318	253
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Free	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8		Free			4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	12.4	22.5	22.5	12.1	22.5	22.5	11.9	22.5		12.6	22.5	12.4
Total Split (s)	26.0	83.0	83.0	37.0	94.0	94.0	21.0	36.0		24.0	39.0	26.0
Total Split (%)	14.4%	46.1%	46.1%	20.6%	52.2%	52.2%	11.7%	20.0%		13.3%	21.7%	14.4%
Yellow Time (s)	3.0	4.1	4.1	3.0	4.1	4.1	3.0	3.5		3.0	3.3	3.0
All-Red Time (s)	4.4	2.2	2.2	4.1	2.2	2.2	3.9	3.2		4.6	3.6	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	6.3	6.3	7.1	6.3	6.3	6.9	6.7		7.6	6.9	7.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	None
Act Effect Green (s)	18.0	83.9	83.9	29.2	94.7	94.7	35.0	25.8	180.0	13.5	33.0	58.0
Actuated g/C Ratio	0.10	0.47	0.47	0.16	0.53	0.53	0.19	0.14	1.00	0.08	0.18	0.32
v/c Ratio	0.84	0.73	0.05	0.94	0.72	0.14	0.39	0.76	0.13	0.62	1.01	0.47
Control Delay	100.5	43.2	0.1	118.9	22.7	3.6	57.9	92.0	0.2	91.3	122.3	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.5	43.2	0.1	118.9	22.7	3.6	57.9	92.0	0.2	91.3	122.3	31.5
LOS	F	D	A	F	C	A	E	F	A	F	F	C
Approach Delay		52.8			36.3			46.3			84.0	
Approach LOS		D			D			D			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 108 (60%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 51.2

Intersection LOS: D

Intersection Capacity Utilization 87.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 2: Rock Springs Rd/Prince Perry Rd & US 123



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1773	49	67	1444	64	109	27	120	49	41	57
Future Volume (veh/h)	47	1773	49	67	1444	64	109	27	120	49	41	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1927	53	73	1570	70	74	91	130	49	51	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	2191	1125	140	2192	1062	166	175	198	94	99	130
Arrive On Green	0.03	0.62	0.62	0.03	0.62	0.62	0.09	0.09	0.09	0.05	0.05	0.05
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	51	1927	53	73	1570	70	74	91	130	49	51	62
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.2	68.1	1.5	2.3	45.5	2.3	5.9	7.0	11.7	4.0	4.0	5.6
Cycle Q Clear(g_c), s	2.2	68.1	1.5	2.3	45.5	2.3	5.9	7.0	11.7	4.0	4.0	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	2191	1125	140	2192	1062	166	175	198	94	99	130
V/C Ratio(X)	0.50	0.88	0.05	0.52	0.72	0.07	0.44	0.52	0.66	0.52	0.52	0.48
Avail Cap(c_a), veh/h	290	2191	1125	237	2192	1062	197	207	226	219	229	241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.7	24.1	6.5	32.2	19.7	8.6	64.3	64.8	62.5	69.2	69.2	65.7
Incr Delay (d2), s/veh	3.8	5.4	0.1	3.0	2.0	0.1	1.9	2.4	5.6	4.4	4.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	27.8	0.7	1.7	18.0	0.9	2.8	3.5	5.1	2.0	2.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	29.5	6.6	35.2	21.8	8.7	66.2	67.2	68.1	73.6	73.3	68.4
LnGrp LOS	E	C	A	D	C	A	E	E	E	E	E	E
Approach Vol, veh/h		2031			1713			295			162	
Approach Delay, s/veh		30.1			21.8			67.3			71.5	
Approach LOS		C			C			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	101.2		15.5	11.8	101.2		21.4				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	12.9	71.3		18.4	12.6	71.3		16.6				
Max Q Clear Time (g_c+I1), s	4.3	70.1		7.6	4.2	47.5		13.7				
Green Ext Time (p_c), s	0.1	1.2		0.3	0.1	22.4		0.3				

Intersection Summary

HCM 6th Ctrl Delay 30.9

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	1773	49	67	1444	64	109	27	120	49	41	57
Future Volume (vph)	47	1773	49	67	1444	64	109	27	120	49	41	57
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2	6		6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	20.0	80.0	24.0	20.0	80.0	26.0	24.0	24.0	20.0	26.0	26.0	20.0
Total Split (%)	13.3%	53.3%	16.0%	13.3%	53.3%	17.3%	16.0%	16.0%	13.3%	17.3%	17.3%	13.3%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	7.6	89.5	102.7	99.4	89.7	108.1	11.9	11.9	27.4	9.7	9.7	17.5
Actuated g/C Ratio	0.05	0.60	0.68	0.66	0.60	0.72	0.08	0.08	0.18	0.06	0.06	0.12
v/c Ratio	0.29	0.91	0.05	0.50	0.74	0.06	0.55	0.55	0.33	0.44	0.44	0.23
Control Delay	75.1	22.4	0.5	31.0	25.9	1.1	81.2	80.6	9.5	79.4	78.7	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.1	22.4	0.5	31.0	25.9	1.1	81.2	80.6	9.5	79.4	78.7	3.8
LOS	E	C	A	C	C	A	F	F	A	E	E	A
Approach Delay		23.2			25.1			47.4			49.9	
Approach LOS		C			C			D			D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 81 (54%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 26.6

Intersection LOS: C

Intersection Capacity Utilization 80.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
20 s	80 s	26 s	24 s
 Ø5	 Ø6 (R)		
20 s	80 s		

2028 NO-BUILD
2: Rock Springs Rd/Prince Perry Rd & US 123

AM PEAK
01/14/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1280	21	144	1262	63	37	160	287	202	196	178
Future Volume (veh/h)	117	1280	21	144	1262	63	37	160	287	202	196	178
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	1391	0	157	1372	68	40	174	0	220	213	193
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	1880		180	2052	915	149	198		270	303	336
Arrive On Green	0.05	0.53	0.00	0.10	0.58	0.58	0.03	0.11	0.00	0.08	0.16	0.16
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	127	1391	0	157	1372	68	40	174	0	220	213	193
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	1870	1585
Q Serve(g_s), s	5.4	45.4	0.0	13.0	39.9	2.8	3.0	13.8	0.0	9.4	16.2	16.4
Cycle Q Clear(g_c), s	5.4	45.4	0.0	13.0	39.9	2.8	3.0	13.8	0.0	9.4	16.2	16.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	1880		180	2052	915	149	198		270	303	336
V/C Ratio(X)	0.73	0.74		0.87	0.67	0.07	0.27	0.88		0.81	0.70	0.57
Avail Cap(c_a), veh/h	290	1880		213	2052	915	256	241		378	303	336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	27.3	0.0	66.5	21.8	14.0	57.9	66.1	0.0	68.1	59.5	53.0
Incr Delay (d2), s/veh	5.8	2.7	0.0	27.6	1.7	0.2	1.0	25.2	0.0	9.1	7.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	19.1	0.0	7.2	16.2	1.1	1.4	7.9	0.0	4.5	8.3	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.0	30.0	0.0	94.1	23.6	14.1	58.8	91.3	0.0	77.1	66.7	55.4
LnGrp LOS	E	C		F	C	B	E	F		E	E	E
Approach Vol, veh/h		1518	A		1597			214	A		626	
Approach Delay, s/veh		33.9			30.1			85.2			66.9	
Approach LOS		C			C			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.2	85.6	11.0	31.2	14.9	92.9	19.3	22.8				
Change Period (Y+Rc), s	7.1	* 6.3	6.9	* 6.9	7.4	* 6.3	7.6	* 6.9				
Max Green Setting (Gmax), s	17.9	* 69	13.1	* 23	12.6	* 74	16.4	* 19				
Max Q Clear Time (g_c+I1), s	15.0	47.4	5.0	18.4	7.4	41.9	11.4	15.8				
Green Ext Time (p_c), s	0.1	19.3	0.0	0.6	0.1	27.8	0.3	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			40.3									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

2028 NO-BUILD
2: Rock Springs Rd/Prince Perry Rd & US 123

AM PEAK
01/14/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	1280	21	144	1262	63	37	160	287	202	196	178
Future Volume (vph)	117	1280	21	144	1262	63	37	160	287	202	196	178
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Free	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8		Free			4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	12.4	22.5	22.5	12.1	22.5	22.5	11.9	22.5		12.6	22.5	12.4
Total Split (s)	20.0	75.0	75.0	25.0	80.0	80.0	20.0	26.0		24.0	30.0	20.0
Total Split (%)	13.3%	50.0%	50.0%	16.7%	53.3%	53.3%	13.3%	17.3%		16.0%	20.0%	13.3%
Yellow Time (s)	3.0	4.1	4.1	3.0	4.1	4.1	3.0	3.5		3.0	3.3	3.0
All-Red Time (s)	4.4	2.2	2.2	4.1	2.2	2.2	3.9	3.2		4.6	3.6	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	6.3	6.3	7.1	6.3	6.3	6.9	6.7		7.6	6.9	7.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	None
Act Effect Green (s)	10.6	73.8	73.8	16.5	79.5	79.5	25.3	17.6	150.0	14.4	26.9	44.4
Actuated g/C Ratio	0.07	0.49	0.49	0.11	0.53	0.53	0.17	0.12	1.00	0.10	0.18	0.30
v/c Ratio	0.52	0.80	0.03	0.81	0.73	0.08	0.18	0.80	0.20	0.67	0.64	0.34
Control Delay	74.9	37.3	0.0	91.4	24.6	2.3	42.6	90.0	0.3	75.7	67.1	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.9	37.3	0.0	91.4	24.6	2.3	42.6	90.0	0.3	75.7	67.1	12.3
LOS	E	D	A	F	C	A	D	F	A	E	E	B
Approach Delay		39.9			30.2			33.2			53.2	
Approach LOS		D			C			C			D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 65 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 37.4

Intersection LOS: D

Intersection Capacity Utilization 80.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: Rock Springs Rd/Prince Perry Rd & US 123



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	1464	69	59	1584	232	130	44	104	134	50	169
Future Volume (veh/h)	129	1464	69	59	1584	232	130	44	104	134	50	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	1591	75	64	1722	252	94	113	113	100	118	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	2221	1118	183	2125	1101	143	151	170	172	181	236
Arrive On Green	0.05	0.63	0.63	0.03	0.60	0.60	0.08	0.08	0.08	0.10	0.10	0.10
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	140	1591	75	64	1722	252	94	113	113	100	118	184
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.2	54.7	2.6	2.5	68.0	10.4	9.2	10.6	12.3	9.7	10.9	17.4
Cycle Q Clear(g_c), s	7.2	54.7	2.6	2.5	68.0	10.4	9.2	10.6	12.3	9.7	10.9	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	2221	1118	183	2125	1101	143	151	170	172	181	236
V/C Ratio(X)	0.78	0.72	0.07	0.35	0.81	0.23	0.66	0.75	0.67	0.58	0.65	0.78
Avail Cap(c_a), veh/h	261	2221	1118	263	2125	1101	154	162	180	172	181	236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.3	22.9	8.2	21.9	28.2	10.0	80.3	81.0	77.3	77.8	78.4	73.8
Incr Delay (d2), s/veh	8.9	2.0	0.1	1.1	3.5	0.5	8.7	16.5	8.4	4.8	8.1	15.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	22.5	1.2	1.1	28.7	5.1	4.6	5.9	5.5	4.7	5.8	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.2	24.9	8.3	23.1	31.7	10.5	89.1	97.4	85.6	82.6	86.5	89.3
LnGrp LOS	F	C	A	C	C	B	F	F	F	F	F	F
Approach Vol, veh/h		1806			2038			320			402	
Approach Delay, s/veh		29.5			28.8			90.8			86.8	
Approach LOS		C			C			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	121.2		25.0	16.7	116.4		21.9				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	12.9	103.3		17.4	13.6	102.3		15.6				
Max Q Clear Time (g_c+I1), s	4.5	56.7		19.4	9.2	70.0		14.3				
Green Ext Time (p_c), s	0.1	42.2		0.0	0.2	30.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			38.5									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	1464	69	59	1584	232	130	44	104	134	50	169
Future Volume (vph)	129	1464	69	59	1584	232	130	44	104	134	50	169
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2	6		6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	21.0	112.0	23.0	20.0	111.0	25.0	23.0	23.0	20.0	25.0	25.0	21.0
Total Split (%)	11.7%	62.2%	12.8%	11.1%	61.7%	13.9%	12.8%	12.8%	11.1%	13.9%	13.9%	11.7%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	12.1	113.1	128.2	117.3	108.2	131.7	13.8	13.8	28.7	14.8	14.8	27.1
Actuated g/C Ratio	0.07	0.63	0.71	0.65	0.60	0.73	0.08	0.08	0.16	0.08	0.08	0.15
v/c Ratio	0.61	0.72	0.07	0.36	0.81	0.21	0.72	0.73	0.35	0.72	0.71	0.60
Control Delay	90.7	15.8	1.2	14.6	32.9	1.2	110.5	110.2	24.5	107.5	106.2	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	15.8	1.2	14.6	32.9	1.2	110.5	110.2	24.5	107.5	106.2	35.6
LOS	F	B	A	B	C	A	F	F	C	F	F	D
Approach Delay		21.0			28.4			78.2			72.7	
Approach LOS		C			C			E			E	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 118 (66%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 32.6

Intersection LOS: C

Intersection Capacity Utilization 79.4%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
20 s	112 s	25 s	23 s
 Ø5	 Ø6 (R)		
21 s	111 s		

2028 NO-BUILD
2: Rock Springs Rd/Prince Perry Rd & US 123

PM PEAK
01/14/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	1171	44	264	1313	120	50	198	208	155	338	269
Future Volume (veh/h)	283	1171	44	264	1313	120	50	198	208	155	338	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	308	1273	0	287	1427	130	54	215	0	168	367	292
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	345	1670		296	1900	848	101	278		209	334	441
Arrive On Green	0.10	0.47	0.00	0.17	0.53	0.53	0.03	0.15	0.00	0.06	0.18	0.18
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	308	1273	0	287	1427	130	54	215	0	168	367	292
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	1870	1585
Q Serve(g_s), s	15.9	53.2	0.0	28.8	56.2	7.5	4.6	19.9	0.0	8.6	32.1	29.3
Cycle Q Clear(g_c), s	15.9	53.2	0.0	28.8	56.2	7.5	4.6	19.9	0.0	8.6	32.1	29.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	345	1670		296	1900	848	101	278		209	334	441
V/C Ratio(X)	0.89	0.76		0.97	0.75	0.15	0.53	0.77		0.80	1.10	0.66
Avail Cap(c_a), veh/h	357	1670		296	1900	848	180	304		315	334	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	80.1	39.4	0.0	74.6	32.6	21.2	64.0	73.8	0.0	83.5	73.9	57.5
Incr Delay (d2), s/veh	23.2	3.3	0.0	44.0	2.8	0.4	4.3	10.9	0.0	8.6	79.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	23.5	0.0	16.6	24.2	2.9	2.2	10.4	0.0	4.1	22.7	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.3	42.7	0.0	118.6	35.3	21.6	68.2	84.6	0.0	92.1	152.9	61.2
LnGrp LOS	F	D		F	D	C	E	F		F	F	E
Approach Vol, veh/h		1581	A		1844			269	A		827	
Approach Delay, s/veh		54.5			47.3			81.3			108.2	
Approach LOS		D			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.0	90.9	13.1	39.0	25.4	102.5	18.5	33.6				
Change Period (Y+Rc), s	7.1	* 6.3	6.9	* 6.9	7.4	* 6.3	7.6	* 6.9				
Max Green Setting (Gmax), s	29.9	* 77	14.1	* 32	18.6	* 88	16.4	* 29				
Max Q Clear Time (g_c+I1), s	30.8	55.2	6.6	34.1	17.9	58.2	10.6	21.9				
Green Ext Time (p_c), s	0.0	18.8	0.0	0.0	0.1	26.5	0.3	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			63.0									
HCM 6th LOS			E									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

2028 NO-BUILD
2: Rock Springs Rd/Prince Perry Rd & US 123

PM PEAK
01/14/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	283	1171	44	264	1313	120	50	198	208	155	338	269
Future Volume (vph)	283	1171	44	264	1313	120	50	198	208	155	338	269
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Free	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8		Free			4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	12.4	22.5	22.5	12.1	22.5	22.5	11.9	22.5		12.6	22.5	12.4
Total Split (s)	26.0	83.0	83.0	37.0	94.0	94.0	21.0	36.0		24.0	39.0	26.0
Total Split (%)	14.4%	46.1%	46.1%	20.6%	52.2%	52.2%	11.7%	20.0%		13.3%	21.7%	14.4%
Yellow Time (s)	3.0	4.1	4.1	3.0	4.1	4.1	3.0	3.5		3.0	3.3	3.0
All-Red Time (s)	4.4	2.2	2.2	4.1	2.2	2.2	3.9	3.2		4.6	3.6	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	6.3	6.3	7.1	6.3	6.3	6.9	6.7		7.6	6.9	7.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	None
Act Effect Green (s)	18.3	82.4	82.4	29.9	93.7	93.7	35.5	26.2	180.0	13.8	33.6	58.8
Actuated g/C Ratio	0.10	0.46	0.46	0.17	0.52	0.52	0.20	0.15	1.00	0.08	0.19	0.33
v/c Ratio	0.89	0.79	0.06	0.98	0.77	0.15	0.41	0.80	0.14	0.64	1.06	0.50
Control Delay	105.4	46.6	0.1	121.5	25.9	5.2	58.1	95.1	0.2	91.7	131.1	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.4	46.6	0.1	121.5	25.9	5.2	58.1	95.1	0.2	91.7	131.1	33.5
LOS	F	D	A	F	C	A	E	F	A	F	F	C
Approach Delay		56.4			39.3			47.8			88.7	
Approach LOS		E			D			D			F	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 108 (60%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 54.5

Intersection LOS: D

Intersection Capacity Utilization 91.6%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 2: Rock Springs Rd/Prince Perry Rd & US 123



2028 BUILD
1: Commercial Access/Towne Center Way & US 123

AM PEAK
01/14/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1719	309	248	1399	64	324	35	286	49	52	57
Future Volume (veh/h)	47	1719	309	248	1399	64	324	35	286	49	52	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1868	336	270	1521	70	379	0	311	53	57	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	1936	1039	208	2131	1034	394	0	312	95	99	131
Arrive On Green	0.03	0.54	0.54	0.09	0.60	0.60	0.11	0.00	0.11	0.05	0.05	0.05
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	51	1868	336	270	1521	70	379	0	311	53	57	62
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	2.2	75.7	13.9	12.9	44.9	2.4	15.9	0.0	16.6	4.4	4.5	5.6
Cycle Q Clear(g_c), s	2.2	75.7	13.9	12.9	44.9	2.4	15.9	0.0	16.6	4.4	4.5	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	1936	1039	208	2131	1034	394	0	312	95	99	131
V/C Ratio(X)	0.50	0.96	0.32	1.30	0.71	0.07	0.96	0.00	1.00	0.56	0.57	0.47
Avail Cap(c_a), veh/h	290	1936	1039	208	2131	1034	394	0	312	219	229	241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.7	32.7	11.3	52.6	21.0	9.5	66.4	0.0	60.2	69.3	69.4	65.7
Incr Delay (d2), s/veh	3.8	13.7	0.8	163.9	2.1	0.1	35.2	0.0	50.3	5.1	5.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	34.0	6.8	17.3	18.1	1.0	9.2	0.0	16.3	2.1	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	46.4	12.1	216.5	23.1	9.6	101.6	0.0	110.5	74.4	74.5	68.4
LnGrp LOS	E	D	B	F	C	A	F	A	F	E	E	E
Approach Vol, veh/h		2255			1861			690			172	
Approach Delay, s/veh		42.0			50.7			105.6			72.3	
Approach LOS		D			D			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	90.4		15.6	11.8	98.6		24.0				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	12.9	71.3		18.4	12.6	71.3		16.6				
Max Q Clear Time (g_c+I1), s	14.9	77.7		7.6	4.2	46.9		18.6				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.1	22.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			55.1									
HCM 6th LOS			E									
Notes												
User approved volume balancing among the lanes for turning movement.												

2028 BUILD
1: Commercial Access/Towne Center Way & US 123

AM PEAK
01/14/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	1719	309	248	1399	64	324	35	286	49	52	57
Future Volume (vph)	47	1719	309	248	1399	64	324	35	286	49	52	57
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2	6		6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	20.0	80.0	24.0	20.0	80.0	26.0	24.0	24.0	20.0	26.0	26.0	20.0
Total Split (%)	13.3%	53.3%	16.0%	13.3%	53.3%	17.3%	16.0%	16.0%	13.3%	17.3%	17.3%	13.3%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	7.6	79.1	97.0	98.5	84.0	103.4	16.6	16.6	36.9	10.6	10.6	18.5
Actuated g/C Ratio	0.05	0.53	0.65	0.66	0.56	0.69	0.11	0.11	0.25	0.07	0.07	0.12
v/c Ratio	0.29	1.00	0.30	1.33	0.77	0.06	1.04	1.04	0.64	0.41	0.50	0.22
Control Delay	75.6	38.8	1.5	215.0	29.5	1.1	140.2	139.7	35.0	75.8	80.0	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.6	38.8	1.5	215.0	29.5	1.1	140.2	139.7	35.0	75.8	80.0	3.6
LOS	E	D	A	F	C	A	F	F	D	E	E	A
Approach Delay		34.0			55.3			93.4			51.3	
Approach LOS		C			E			F			D	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 81 (54%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.33
 Intersection Signal Delay: 50.9
 Intersection Capacity Utilization 97.2%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
20 s	80 s	26 s	24 s
 Ø5	 Ø6 (R)		
20 s	80 s		

2028 BUILD
2: Rock Springs Rd/Prince Perry Rd & US 123

AM PEAK
01/14/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1416	21	173	1374	92	37	160	322	237	196	178
Future Volume (veh/h)	117	1416	21	173	1374	92	37	160	322	237	196	178
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	1539	0	188	1493	100	40	174	0	258	213	193
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	1783		209	2014	898	161	198		307	322	353
Arrive On Green	0.05	0.50	0.00	0.12	0.57	0.57	0.03	0.11	0.00	0.09	0.17	0.17
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	127	1539	0	188	1493	100	40	174	0	258	213	193
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	1870	1585
Q Serve(g_s), s	5.4	57.1	0.0	15.6	47.1	4.4	3.0	13.8	0.0	11.0	16.0	16.2
Cycle Q Clear(g_c), s	5.4	57.1	0.0	15.6	47.1	4.4	3.0	13.8	0.0	11.0	16.0	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	1783		209	2014	898	161	198		307	322	353
V/C Ratio(X)	0.73	0.86		0.90	0.74	0.11	0.25	0.88		0.84	0.66	0.55
Avail Cap(c_a), veh/h	290	1783		213	2014	898	268	241		378	322	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	32.9	0.0	65.3	24.3	15.0	57.8	66.1	0.0	67.3	58.0	51.6
Incr Delay (d2), s/veh	5.8	5.8	0.0	35.1	2.5	0.3	0.8	25.2	0.0	13.1	4.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	24.8	0.0	9.0	19.4	1.7	1.4	7.9	0.0	5.4	8.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.0	38.7	0.0	100.4	26.8	15.3	58.6	91.3	0.0	80.4	62.9	53.4
LnGrp LOS	E	D		F	C	B	E	F		F	E	D
Approach Vol, veh/h		1666	A		1781			214	A		664	
Approach Delay, s/veh		41.5			33.9			85.2			66.9	
Approach LOS		D			C			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.7	81.5	11.0	32.8	14.9	91.3	20.9	22.8				
Change Period (Y+Rc), s	7.1	* 6.3	6.9	* 6.9	7.4	* 6.3	7.6	* 6.9				
Max Green Setting (Gmax), s	17.9	* 69	13.1	* 23	12.6	* 74	16.4	* 19				
Max Q Clear Time (g_c+I1), s	17.6	59.1	5.0	18.2	7.4	49.1	13.0	15.8				
Green Ext Time (p_c), s	0.0	9.2	0.0	0.7	0.1	22.8	0.3	0.1				

Intersection Summary

HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

2028 BUILD
2: Rock Springs Rd/Prince Perry Rd & US 123

AM PEAK
01/14/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	1416	21	173	1374	92	37	160	322	237	196	178
Future Volume (vph)	117	1416	21	173	1374	92	37	160	322	237	196	178
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Free	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8		Free			4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	12.4	22.5	22.5	12.1	22.5	22.5	11.9	22.5		12.6	22.5	12.4
Total Split (s)	20.0	75.0	75.0	25.0	80.0	80.0	20.0	26.0		24.0	30.0	20.0
Total Split (%)	13.3%	50.0%	50.0%	16.7%	53.3%	53.3%	13.3%	17.3%		16.0%	20.0%	13.3%
Yellow Time (s)	3.0	4.1	4.1	3.0	4.1	4.1	3.0	3.5		3.0	3.3	3.0
All-Red Time (s)	4.4	2.2	2.2	4.1	2.2	2.2	3.9	3.2		4.6	3.6	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	6.3	6.3	7.1	6.3	6.3	6.9	6.7		7.6	6.9	7.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	None
Act Effect Green (s)	10.6	72.0	72.0	17.5	78.6	78.6	25.3	17.6	150.0	15.2	27.8	45.3
Actuated g/C Ratio	0.07	0.48	0.48	0.12	0.52	0.52	0.17	0.12	1.00	0.10	0.19	0.30
v/c Ratio	0.52	0.91	0.03	0.91	0.81	0.11	0.18	0.80	0.22	0.74	0.62	0.33
Control Delay	74.9	45.4	0.0	103.5	26.8	3.5	42.2	90.0	0.3	78.7	65.5	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.9	45.4	0.0	103.5	26.8	3.5	42.2	90.0	0.3	78.7	65.5	13.0
LOS	E	D	A	F	C	A	D	F	A	E	E	B
Approach Delay		47.0			33.6			31.0			55.4	
Approach LOS		D			C			C			E	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 65 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 41.2

Intersection LOS: D

Intersection Capacity Utilization 87.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 2: Rock Springs Rd/Prince Perry Rd & US 123



2028 BUILD
1: Commercial Access/Towne Center Way & US 123

PM PEAK
01/14/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	1382	346	271	1501	232	393	54	304	134	60	169
Future Volume (veh/h)	129	1382	346	271	1501	232	393	54	304	134	60	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	1502	376	295	1632	252	469	0	330	106	122	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	2039	1047	231	2104	1091	309	0	251	172	181	236
Arrive On Green	0.05	0.57	0.57	0.07	0.59	0.59	0.09	0.00	0.09	0.10	0.10	0.10
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	140	1502	376	295	1632	252	469	0	330	106	122	184
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	7.2	56.2	19.0	12.9	62.4	10.6	15.6	0.0	15.6	10.3	11.3	17.4
Cycle Q Clear(g_c), s	7.2	56.2	19.0	12.9	62.4	10.6	15.6	0.0	15.6	10.3	11.3	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	2039	1047	231	2104	1091	309	0	251	172	181	236
V/C Ratio(X)	0.78	0.74	0.36	1.28	0.78	0.23	1.52	0.00	1.31	0.62	0.67	0.78
Avail Cap(c_a), veh/h	261	2039	1047	231	2104	1091	309	0	251	172	181	236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.3	28.3	13.6	45.6	27.7	10.4	82.2	0.0	75.8	78.1	78.6	73.8
Incr Delay (d2), s/veh	8.9	2.4	1.0	153.3	2.9	0.5	249.5	0.0	167.1	6.4	9.5	15.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	23.7	9.0	15.7	26.3	5.2	18.0	0.0	23.4	5.1	6.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.2	30.7	14.6	198.9	30.6	10.9	331.7	0.0	242.9	84.5	88.1	89.3
LnGrp LOS	F	C	B	F	C	B	F	A	F	F	F	F
Approach Vol, veh/h		2018			2179			799			412	
Approach Delay, s/veh		32.0			51.1			295.0			87.7	
Approach LOS		C			D			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	112.0		25.0	16.7	115.3		23.0				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	12.9	103.3		17.4	13.6	102.3		15.6				
Max Q Clear Time (g_c+I1), s	14.9	58.2		19.4	9.2	64.4		17.6				
Green Ext Time (p_c), s	0.0	40.4		0.0	0.2	35.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			82.8									
HCM 6th LOS			F									
Notes												
User approved volume balancing among the lanes for turning movement.												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	1382	346	271	1501	232	393	54	304	134	60	169
Future Volume (vph)	129	1382	346	271	1501	232	393	54	304	134	60	169
Turn Type	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2	6		6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	21.0	112.0	23.0	20.0	111.0	25.0	23.0	23.0	20.0	25.0	25.0	21.0
Total Split (%)	11.7%	62.2%	12.8%	11.1%	61.7%	13.9%	12.8%	12.8%	11.1%	13.9%	13.9%	11.7%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	12.1	105.6	122.5	120.6	106.1	129.9	15.6	15.6	35.9	15.1	15.1	27.4
Actuated g/C Ratio	0.07	0.59	0.68	0.67	0.59	0.72	0.09	0.09	0.20	0.08	0.08	0.15
v/c Ratio	0.61	0.72	0.32	1.29	0.78	0.21	1.68	1.65	0.87	0.74	0.74	0.60
Control Delay	88.6	19.6	2.3	191.0	32.2	1.2	376.0	366.6	74.7	109.5	108.4	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.6	19.6	2.3	191.0	32.2	1.2	376.0	366.6	74.7	109.5	108.4	35.1
LOS	F	B	A	F	C	A	F	F	E	F	F	D
Approach Delay		21.2			50.1			251.3			74.5	
Approach LOS		C			D			F			E	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 118 (66%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.68

Intersection Signal Delay: 71.5

Intersection LOS: E

Intersection Capacity Utilization 91.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
20 s	112 s	25 s	23 s
 Ø5	 Ø6 (R)		
21 s	111 s		

2028 BUILD
2: Rock Springs Rd/Prince Perry Rd & US 123

PM PEAK
01/14/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	1300	44	295	1431	151	50	198	241	188	338	269
Future Volume (veh/h)	283	1300	44	295	1431	151	50	198	241	188	338	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	308	1413	0	321	1555	164	54	215	0	204	367	292
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	345	1669		296	1899	847	102	259		245	334	441
Arrive On Green	0.10	0.47	0.00	0.17	0.53	0.53	0.03	0.14	0.00	0.07	0.18	0.18
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	1781	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	308	1413	0	321	1555	164	54	215	0	204	367	292
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1781	1870	1585	1728	1870	1585
Q Serve(g_s), s	15.9	63.0	0.0	29.9	65.2	9.7	4.7	20.1	0.0	10.5	32.1	29.3
Cycle Q Clear(g_c), s	15.9	63.0	0.0	29.9	65.2	9.7	4.7	20.1	0.0	10.5	32.1	29.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	345	1669		296	1899	847	102	259		245	334	441
V/C Ratio(X)	0.89	0.85		1.08	0.82	0.19	0.53	0.83		0.83	1.10	0.66
Avail Cap(c_a), veh/h	357	1669		296	1899	847	180	304		315	334	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	80.1	42.0	0.0	75.0	34.7	21.8	65.2	75.5	0.0	82.6	73.9	57.5
Incr Delay (d2), s/veh	23.2	5.5	0.0	76.8	4.1	0.5	4.2	15.3	0.0	14.0	79.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	28.2	0.0	19.8	28.4	3.8	2.2	10.8	0.0	5.2	22.7	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.3	47.5	0.0	151.9	38.8	22.3	69.4	90.8	0.0	96.6	152.9	61.2
LnGrp LOS	F	D		F	D	C	E	F		F	F	E
Approach Vol, veh/h		1721	A		2040			269	A		863	
Approach Delay, s/veh		57.5			55.2			86.5			108.6	
Approach LOS		E			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.0	90.8	13.2	39.0	25.4	102.5	20.3	31.8				
Change Period (Y+Rc), s	7.1	* 6.3	6.9	* 6.9	7.4	* 6.3	7.6	* 6.9				
Max Green Setting (Gmax), s	29.9	* 77	14.1	* 32	18.6	* 88	16.4	* 29				
Max Q Clear Time (g_c+I1), s	31.9	65.0	6.7	34.1	17.9	67.2	12.5	22.1				
Green Ext Time (p_c), s	0.0	11.0	0.0	0.0	0.1	19.4	0.2	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			67.2									
HCM 6th LOS			E									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

2028 BUILD
2: Rock Springs Rd/Prince Perry Rd & US 123

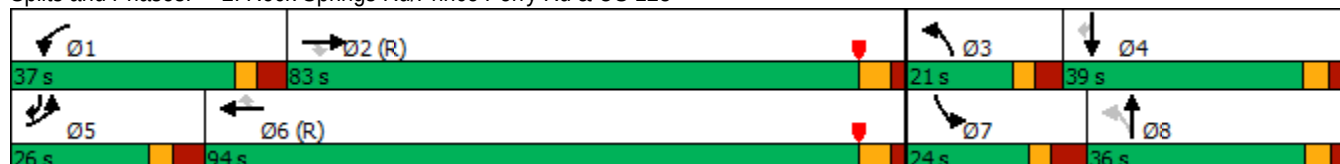
PM PEAK
01/14/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	283	1300	44	295	1431	151	50	198	241	188	338	269
Future Volume (vph)	283	1300	44	295	1431	151	50	198	241	188	338	269
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Free	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6	8		Free			4
Detector Phase	5	2	2	1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	12.4	22.5	22.5	12.1	22.5	22.5	11.9	22.5		12.6	22.5	12.4
Total Split (s)	26.0	83.0	83.0	37.0	94.0	94.0	21.0	36.0		24.0	39.0	26.0
Total Split (%)	14.4%	46.1%	46.1%	20.6%	52.2%	52.2%	11.7%	20.0%		13.3%	21.7%	14.4%
Yellow Time (s)	3.0	4.1	4.1	3.0	4.1	4.1	3.0	3.5		3.0	3.3	3.0
All-Red Time (s)	4.4	2.2	2.2	4.1	2.2	2.2	3.9	3.2		4.6	3.6	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.4	6.3	6.3	7.1	6.3	6.3	6.9	6.7		7.6	6.9	7.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	None
Act Effect Green (s)	18.3	81.9	81.9	29.9	93.2	93.2	35.0	25.6	180.0	14.9	34.1	59.3
Actuated g/C Ratio	0.10	0.46	0.46	0.17	0.52	0.52	0.19	0.14	1.00	0.08	0.19	0.33
v/c Ratio	0.89	0.88	0.06	1.09	0.85	0.19	0.41	0.81	0.17	0.72	1.04	0.49
Control Delay	105.4	52.6	0.1	128.6	28.2	5.6	57.9	97.7	0.2	94.8	126.6	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.4	52.6	0.1	128.6	28.2	5.6	57.9	97.7	0.2	94.8	126.6	33.3
LOS	F	D	A	F	C	A	E	F	A	F	F	C
Approach Delay		60.3			42.2			45.6			87.5	
Approach LOS		E			D			D			F	

Intersection Summary

Cycle Length: 180
Actuated Cycle Length: 180
Offset: 108 (60%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 56.2
Intersection Capacity Utilization 96.9%
Analysis Period (min) 15

Splits and Phases: 2: Rock Springs Rd/Prince Perry Rd & US 123



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1719	309	248	1399	64	324	35	286	49	52	57
Future Volume (veh/h)	47	1719	309	248	1399	64	324	35	286	49	52	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1868	336	270	1521	70	379	0	311	53	57	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	1936	1039	297	2131	1034	394	0	312	95	99	131
Arrive On Green	0.03	0.54	0.54	0.09	0.60	0.60	0.11	0.00	0.11	0.05	0.05	0.05
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	51	1868	336	270	1521	70	379	0	311	53	57	62
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	2.2	75.7	13.9	11.6	44.9	2.4	15.9	0.0	16.6	4.4	4.5	5.6
Cycle Q Clear(g_c), s	2.2	75.7	13.9	11.6	44.9	2.4	15.9	0.0	16.6	4.4	4.5	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	1936	1039	297	2131	1034	394	0	312	95	99	131
V/C Ratio(X)	0.50	0.96	0.32	0.91	0.71	0.07	0.96	0.00	1.00	0.56	0.57	0.47
Avail Cap(c_a), veh/h	290	1936	1039	297	2131	1034	394	0	312	219	229	241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.7	32.7	11.3	68.0	21.0	9.5	66.4	0.0	60.2	69.3	69.4	65.7
Incr Delay (d2), s/veh	3.8	13.7	0.8	29.9	2.1	0.1	35.2	0.0	50.3	5.1	5.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	34.0	6.8	6.3	18.1	1.0	9.2	0.0	16.3	2.1	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	46.4	12.1	97.8	23.1	9.6	101.6	0.0	110.5	74.4	74.5	68.4
LnGrp LOS	E	D	B	F	C	A	F	A	F	E	E	E
Approach Vol, veh/h		2255			1861			690			172	
Approach Delay, s/veh		42.0			33.4			105.6			72.3	
Approach LOS		D			C			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	90.4		15.6	11.8	98.6		24.0				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	12.9	71.3		18.4	12.6	71.3		16.6				
Max Q Clear Time (g_c+I1), s	13.6	77.7		7.6	4.2	46.9		18.6				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.1	22.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			48.6									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	1719	309	248	1399	64	324	35	286	49	52	57
Future Volume (vph)	47	1719	309	248	1399	64	324	35	286	49	52	57
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	20.0	80.0	24.0	20.0	80.0	26.0	24.0	24.0	20.0	26.0	26.0	20.0
Total Split (%)	13.3%	53.3%	16.0%	13.3%	53.3%	17.3%	16.0%	16.0%	13.3%	17.3%	17.3%	13.3%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	7.6	79.1	97.0	12.9	84.0	103.4	16.6	16.6	36.9	10.6	10.6	18.5
Actuated g/C Ratio	0.05	0.53	0.65	0.09	0.56	0.69	0.11	0.11	0.25	0.07	0.07	0.12
v/c Ratio	0.29	1.00	0.30	0.92	0.77	0.06	1.04	1.04	0.64	0.41	0.50	0.22
Control Delay	75.6	38.8	1.5	101.8	29.5	1.1	140.2	139.7	35.0	75.8	80.0	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.6	38.8	1.5	101.8	29.5	1.1	140.2	139.7	35.0	75.8	80.0	3.6
LOS	E	D	A	F	C	A	F	F	D	E	E	A
Approach Delay		34.0			38.9			93.4			51.3	
Approach LOS		C			D			F			D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 81 (54%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 44.8

Intersection LOS: D

Intersection Capacity Utilization 90.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
20 s	80 s	26 s	24 s
 Ø5	 Ø6 (R)		
20 s	80 s		

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	1382	346	271	1501	232	393	54	304	134	60	169
Future Volume (veh/h)	129	1382	346	271	1501	232	393	54	304	134	60	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	1502	376	295	1632	252	469	0	330	106	122	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	2039	1047	248	2104	1091	309	0	251	172	181	236
Arrive On Green	0.05	0.57	0.57	0.07	0.59	0.59	0.09	0.00	0.09	0.10	0.10	0.10
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	140	1502	376	295	1632	252	469	0	330	106	122	184
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	7.2	56.2	19.0	12.9	62.4	10.6	15.6	0.0	15.6	10.3	11.3	17.4
Cycle Q Clear(g_c), s	7.2	56.2	19.0	12.9	62.4	10.6	15.6	0.0	15.6	10.3	11.3	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	2039	1047	248	2104	1091	309	0	251	172	181	236
V/C Ratio(X)	0.78	0.74	0.36	1.19	0.78	0.23	1.52	0.00	1.31	0.62	0.67	0.78
Avail Cap(c_a), veh/h	261	2039	1047	248	2104	1091	309	0	251	172	181	236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.3	28.3	13.6	83.6	27.7	10.4	82.2	0.0	75.8	78.1	78.6	73.8
Incr Delay (d2), s/veh	8.9	2.4	1.0	118.8	2.9	0.5	249.5	0.0	167.1	6.4	9.5	15.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	23.7	9.0	9.8	26.3	5.2	18.0	0.0	23.4	5.1	6.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.2	30.7	14.6	202.4	30.6	10.9	331.7	0.0	242.9	84.5	88.1	89.3
LnGrp LOS	F	C	B	F	C	B	F	A	F	F	F	F
Approach Vol, veh/h	2018			2179			799			412		
Approach Delay, s/veh	32.0			51.6			295.0			87.7		
Approach LOS	C			D			F			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	112.0		25.0	16.7	115.3		23.0				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	12.9	103.3		17.4	13.6	102.3		15.6				
Max Q Clear Time (g_c+I1), s	14.9	58.2		19.4	9.2	64.4		17.6				
Green Ext Time (p_c), s	0.0	40.4		0.0	0.2	35.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	83.0											
HCM 6th LOS	F											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	1382	346	271	1501	232	393	54	304	134	60	169
Future Volume (vph)	129	1382	346	271	1501	232	393	54	304	134	60	169
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	21.0	112.0	23.0	20.0	111.0	25.0	23.0	23.0	20.0	25.0	25.0	21.0
Total Split (%)	11.7%	62.2%	12.8%	11.1%	61.7%	13.9%	12.8%	12.8%	11.1%	13.9%	13.9%	11.7%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	12.1	105.6	122.5	12.9	106.1	129.9	15.6	15.6	35.9	15.1	15.1	27.4
Actuated g/C Ratio	0.07	0.59	0.68	0.07	0.59	0.72	0.09	0.09	0.20	0.08	0.08	0.15
v/c Ratio	0.61	0.72	0.32	1.20	0.78	0.21	1.68	1.65	0.87	0.74	0.74	0.60
Control Delay	88.6	19.6	2.4	187.6	32.2	1.2	376.0	366.6	74.7	109.5	108.4	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.6	19.6	2.4	187.6	32.2	1.2	376.0	366.6	74.7	109.5	108.4	35.1
LOS	F	B	A	F	C	A	F	F	E	F	F	D
Approach Delay		21.2			49.6			251.3			74.5	
Approach LOS		C			D			F			E	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 118 (66%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.68

Intersection Signal Delay: 71.3

Intersection LOS: E

Intersection Capacity Utilization 84.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
20 s	112 s	25 s	23 s
 Ø5	 Ø6 (R)		
21 s	111 s		

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1719	309	248	1399	64	324	35	286	49	52	57
Future Volume (veh/h)	47	1719	309	248	1399	64	324	35	286	49	52	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1868	336	270	1521	70	379	0	311	53	57	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	1960	1060	251	2107	1024	418	0	301	95	99	131
Arrive On Green	0.03	0.55	0.55	0.07	0.59	0.59	0.12	0.00	0.12	0.05	0.05	0.05
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	51	1868	336	270	1521	70	379	0	311	53	57	62
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	2.2	74.5	13.4	10.9	45.7	2.5	15.8	0.0	17.6	4.4	4.5	5.6
Cycle Q Clear(g_c), s	2.2	74.5	13.4	10.9	45.7	2.5	15.8	0.0	17.6	4.4	4.5	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	1960	1060	251	2107	1024	418	0	301	95	99	131
V/C Ratio(X)	0.50	0.95	0.32	1.08	0.72	0.07	0.91	0.00	1.03	0.56	0.57	0.47
Avail Cap(c_a), veh/h	129	1960	1060	251	2107	1024	418	0	301	219	229	241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.7	31.8	10.4	69.5	21.7	9.8	65.4	0.0	60.7	69.3	69.4	65.7
Incr Delay (d2), s/veh	3.8	11.9	0.8	78.2	2.2	0.1	23.1	0.0	60.6	5.1	5.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	33.0	6.7	7.5	18.5	1.0	8.6	0.0	16.6	2.1	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	43.7	11.2	147.7	23.9	10.0	88.4	0.0	121.3	74.4	74.5	68.4
LnGrp LOS	E	D	B	F	C	A	F	A	F	E	E	E
Approach Vol, veh/h	2255		1861				690				172	
Approach Delay, s/veh	39.6		41.4				103.3				72.3	
Approach LOS	D		D				F				E	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	18.0	91.4	15.6		11.8	97.6	25.0					
Change Period (Y+Rc), s	7.1	8.7	7.6		7.4	8.7	7.4					
Max Green Setting (Gmax), s	10.9	72.3	18.4		5.6	77.3	17.6					
Max Q Clear Time (g_c+I1), s	12.9	76.5	7.6		4.2	47.7	19.6					
Green Ext Time (p_c), s	0.0	0.0	0.4		0.0	27.2	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	50.2											
HCM 6th LOS	D											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	1719	309	248	1399	64	324	35	286	49	52	57
Future Volume (vph)	47	1719	309	248	1399	64	324	35	286	49	52	57
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	13.0	81.0	25.0	18.0	86.0	26.0	25.0	25.0	18.0	26.0	26.0	13.0
Total Split (%)	8.7%	54.0%	16.7%	12.0%	57.3%	17.3%	16.7%	16.7%	12.0%	17.3%	17.3%	8.7%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	5.6	80.1	99.0	10.9	85.1	104.4	17.6	17.6	35.9	10.6	10.6	16.4
Actuated g/C Ratio	0.04	0.53	0.66	0.07	0.57	0.70	0.12	0.12	0.24	0.07	0.07	0.11
v/c Ratio	0.40	0.99	0.29	1.08	0.76	0.06	0.98	0.98	0.65	0.41	0.50	0.24
Control Delay	80.2	35.1	1.5	143.8	28.2	1.0	125.0	124.7	36.2	75.8	80.0	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.2	35.1	1.5	143.8	28.2	1.0	125.0	124.7	36.2	75.8	80.0	4.0
LOS	F	D	A	F	C	A	F	F	D	E	E	A
Approach Delay		31.1			44.0			85.5			51.4	
Approach LOS		C			D			F			D	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 81 (54%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 44.3

Intersection LOS: D

Intersection Capacity Utilization 90.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123

 Ø1	 Ø2 (R)	 Ø4	 Ø8
18 s	81 s	26 s	25 s
 Ø5	 Ø6 (R)		
13 s	86 s		

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	1382	346	271	1501	232	393	54	304	134	60	169
Future Volume (veh/h)	129	1382	346	271	1501	232	393	54	304	134	60	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	1502	376	295	1632	252	469	0	330	106	122	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1677	1009	332	1830	969	586	0	413	172	181	234
Arrive On Green	0.05	0.47	0.47	0.10	0.51	0.51	0.16	0.00	0.16	0.10	0.10	0.10
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3563	0	1585	1781	1870	1585
Grp Volume(v), veh/h	140	1502	376	295	1632	252	469	0	330	106	122	184
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1781	0	1585	1781	1870	1585
Q Serve(g_s), s	7.2	69.6	20.4	15.2	74.2	13.2	22.8	0.0	29.6	10.3	11.3	17.4
Cycle Q Clear(g_c), s	7.2	69.6	20.4	15.2	74.2	13.2	22.8	0.0	29.6	10.3	11.3	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	1677	1009	332	1830	969	586	0	413	172	181	234
V/C Ratio(X)	0.79	0.90	0.37	0.89	0.89	0.26	0.80	0.00	0.80	0.62	0.67	0.78
Avail Cap(c_a), veh/h	184	1677	1009	344	1830	969	586	0	413	172	181	234
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.4	43.5	15.6	80.4	39.2	16.1	72.4	0.0	62.2	78.1	78.6	73.9
Incr Delay (d2), s/veh	19.8	7.9	1.1	23.2	7.1	0.7	7.8	0.0	10.7	6.4	9.5	16.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	31.5	11.6	7.8	33.1	6.4	11.2	0.0	15.5	5.1	6.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.3	51.4	16.7	103.6	46.3	16.8	80.2	0.0	72.8	84.5	88.1	89.9
LnGrp LOS	F	D	B	F	D	B	F	A	E	F	F	F
Approach Vol, veh/h		2018			2179			799			412	
Approach Delay, s/veh		48.6			50.6			77.1			88.0	
Approach LOS		D			D			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.4	93.6		25.0	16.6	101.4		37.0				
Change Period (Y+Rc), s	7.1	8.7		7.6	7.4	8.7		7.4				
Max Green Setting (Gmax), s	17.9	84.3		17.4	9.6	92.3		29.6				
Max Q Clear Time (g_c+I1), s	17.2	71.6		19.4	9.2	76.2		31.6				
Green Ext Time (p_c), s	0.1	12.2		0.0	0.0	15.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			56.6									
HCM 6th LOS			E									
Notes												
User approved volume balancing among the lanes for turning movement.												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	1382	346	271	1501	232	393	54	304	134	60	169
Future Volume (vph)	129	1382	346	271	1501	232	393	54	304	134	60	169
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2	8	1	6	4	8	8	1	4	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	8	1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	12.4	26.7	25.4	12.1	26.7	25.6	25.4	25.4	12.1	25.6	25.6	12.4
Total Split (s)	17.0	93.0	37.0	25.0	101.0	25.0	37.0	37.0	25.0	25.0	25.0	17.0
Total Split (%)	9.4%	51.7%	20.6%	13.9%	56.1%	13.9%	20.6%	20.6%	13.9%	13.9%	13.9%	9.4%
Yellow Time (s)	3.0	4.6	3.2	3.0	4.6	3.4	3.2	3.2	3.0	3.4	3.4	3.0
All-Red Time (s)	4.4	4.1	4.2	4.1	4.1	4.2	4.2	4.2	4.1	4.2	4.2	4.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.4	8.7	7.4	7.1	8.7	7.6	7.4	7.4	7.1	7.6	7.6	7.4
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?												
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effect Green (s)	9.6	88.0	117.8	17.6	95.8	119.6	28.5	28.5	53.5	15.1	15.1	24.9
Actuated g/C Ratio	0.05	0.49	0.65	0.10	0.53	0.66	0.16	0.16	0.30	0.08	0.08	0.14
v/c Ratio	0.77	0.87	0.33	0.88	0.87	0.22	0.92	0.90	0.63	0.74	0.74	0.57
Control Delay	109.7	29.4	2.2	105.8	43.4	2.4	110.6	108.0	46.1	109.5	108.4	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	109.7	29.4	2.2	105.8	43.4	2.4	110.6	108.0	46.1	109.5	108.4	21.7
LOS	F	C	A	F	D	A	F	F	D	F	F	C
Approach Delay		29.9			47.1			83.7			68.3	
Approach LOS		C			D			F			E	

Intersection Summary

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 118 (66%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 47.7

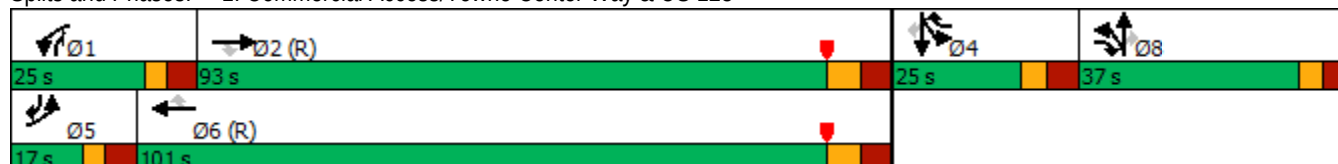
Intersection LOS: D

Intersection Capacity Utilization 84.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Commercial Access/Towne Center Way & US 123



QUEUING ANALYSIS OUTPUT

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	EB	EB	EB	EB	EB	B9	B9	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	R	T	T	L	T	T	R	L
Maximum Queue (ft)	48	234	560	586	316	498	579	362	551	522	191	176
Average Queue (ft)	9	31	386	389	32	37	46	67	323	292	21	49
95th Queue (ft)	34	125	543	551	214	276	306	196	482	462	99	136
Link Distance (ft)			876	876		657	657		1244	1244		
Upstream Blk Time (%)						0						
Queuing Penalty (veh)						0						
Storage Bay Dist (ft)	350	350			325			275			300	100
Storage Blk Time (%)			16	20					12	6		0
Queuing Penalty (veh)			8	11					9	4		1

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	NB	NB	SB	SB	SB
Directions Served	LT	R	L	LT	R
Maximum Queue (ft)	228	185	106	116	99
Average Queue (ft)	110	81	43	39	26
95th Queue (ft)	192	151	93	92	67
Link Distance (ft)	740		414	414	414
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	18	5			
Queuing Penalty (veh)	34	7			

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	EB	EB	EB	EB	EB	B9	B9	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	R	T	T	L	T	T	R	L
Maximum Queue (ft)	127	160	443	464	41	454	356	424	631	621	399	180
Average Queue (ft)	51	71	259	270	7	27	20	68	383	358	97	71
95th Queue (ft)	107	128	394	413	24	230	193	224	567	555	323	167
Link Distance (ft)			876	876		657	657		1244	1244		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350	350			325			275			300	100
Storage Blk Time (%)			3	5					19	11		2
Queuing Penalty (veh)			3	4					11	27		3

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	NB	NB	SB	SB	SB
Directions Served	LT	R	L	LT	R
Maximum Queue (ft)	277	185	199	178	217
Average Queue (ft)	128	66	116	90	101
95th Queue (ft)	216	147	181	163	180
Link Distance (ft)	740		414	414	414
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	28	2			
Queuing Penalty (veh)	48	3			

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	EB	EB	EB	EB	EB	B9	B9	B9	WB	WB	WB	WB
Directions Served	L	L	T	T	R	T	T		L	T	T	R
Maximum Queue (ft)	50	530	972	983	510	689	694	649	425	1042	1012	330
Average Queue (ft)	8	142	888	897	468	460	472	234	328	590	554	34
95th Queue (ft)	30	493	1099	1101	682	913	921	709	501	1211	1187	170
Link Distance (ft)			876	876		657	657	657		1244	1244	
Upstream Blk Time (%)			36	40		2	4	0		15	6	
Queuing Penalty (veh)			386	429		12	31	2		0	0	
Storage Bay Dist (ft)	350	350			325				275			300
Storage Blk Time (%)			48	50					47	10	8	
Queuing Penalty (veh)			24	170					354	26	5	

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	NB	NB	NB	SB	SB	SB
Directions Served	L	LT	R	L	LT	R
Maximum Queue (ft)	185	784	185	120	108	92
Average Queue (ft)	173	661	171	42	50	30
95th Queue (ft)	210	928	228	90	103	66
Link Distance (ft)		740		414	414	414
Upstream Blk Time (%)		45				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)	100		100			
Storage Blk Time (%)	59	77	39			
Queuing Penalty (veh)	310	376	153			

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	EB	EB	EB	EB	EB	B9	B9	WB	WB	WB	WB	NB
Directions Served	L	L	T	T	R	T	T	L	T	T	R	L
Maximum Queue (ft)	135	244	458	470	397	462	579	425	1295	1295	397	185
Average Queue (ft)	55	79	332	332	88	27	46	419	1152	1139	60	171
95th Queue (ft)	118	161	456	457	258	231	306	458	1590	1606	222	212
Link Distance (ft)			876	876		657	657		1244	1244		
Upstream Blk Time (%)									65	32		
Queuing Penalty (veh)									0	0		
Storage Bay Dist (ft)	350	350			325			275			300	100
Storage Blk Time (%)			11	16				93	6	7		72
Queuing Penalty (veh)			15	61				762	17	18		434

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	NB	NB	SB	SB	SB
Directions Served	LT	R	L	LT	R
Maximum Queue (ft)	794	185	193	192	205
Average Queue (ft)	759	148	119	102	92
95th Queue (ft)	774	244	182	170	178
Link Distance (ft)	740		414	414	414
Upstream Blk Time (%)	80				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	85	26			
Queuing Penalty (veh)	463	125			

Baseline

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	EB	EB	EB	EB	EB	B9	B9	B9	WB	WB	WB	WB
Directions Served	L	L	T	T	R	T	T		L	L	T	T
Maximum Queue (ft)	59	441	868	900	510	657	646	130	289	308	512	521
Average Queue (ft)	12	109	652	672	345	103	135	24	164	195	333	312
95th Queue (ft)	39	396	963	988	705	468	540	220	293	314	477	455
Link Distance (ft)			876	876		657	657	657			1244	1244
Upstream Blk Time (%)			6	8		0	0	0				
Queuing Penalty (veh)			67	89		1	2	0				
Storage Bay Dist (ft)	350	350			325				300	300		
Storage Blk Time (%)			39	42					1	4	12	9
Queuing Penalty (veh)			20	143					8	31	31	6

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	WB	NB	NB	NB	B8	B8	SB	SB	SB
Directions Served	R	L	LT	R	T	T	L	LT	R
Maximum Queue (ft)	326	417	399	379	224	237	120	120	87
Average Queue (ft)	35	303	273	213	68	74	46	51	28
95th Queue (ft)	179	457	426	364	286	329	96	99	61
Link Distance (ft)		343	343	343	505	505	414	414	414
Upstream Blk Time (%)		25	18	2	2	4			
Queuing Penalty (veh)		0	0	0	0	0			
Storage Bay Dist (ft)	300								
Storage Blk Time (%)									
Queuing Penalty (veh)									

Baseline

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	EB	EB	EB	EB	EB	B9	B9	B9	WB	WB	WB	WB
Directions Served	L	L	T	T	R	T	T		L	L	T	T
Maximum Queue (ft)	142	219	487	488	413	463	463	114	450	598	1191	1142
Average Queue (ft)	62	86	350	351	90	23	31	4	372	448	684	634
95th Queue (ft)	125	162	470	470	255	209	245	81	523	674	1283	1259
Link Distance (ft)			876	876		657	657	657			1244	1244
Upstream Blk Time (%)											13	6
Queuing Penalty (veh)											0	0
Storage Bay Dist (ft)	350	350			325				300	300		
Storage Blk Time (%)			12	18					60	71	18	17
Queuing Penalty (veh)			17	68					488	577	54	44

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	WB	NB	NB	NB	B8	B8	SB	SB	SB
Directions Served	R	L	LT	R	T	T	L	LT	R
Maximum Queue (ft)	400	439	418	339	626	643	221	185	207
Average Queue (ft)	120	410	396	148	561	597	120	96	108
95th Queue (ft)	376	421	418	308	715	712	198	171	186
Link Distance (ft)		336	336	336	596	596	414	414	414
Upstream Blk Time (%)		95	91	0	26	87			
Queuing Penalty (veh)		0	0	0	0	0			
Storage Bay Dist (ft)	300								
Storage Blk Time (%)									
Queuing Penalty (veh)									

Baseline

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	EB	EB	EB	EB	EB	B9	B9	B9	WB	WB	WB	WB
Directions Served	L	L	T	T	R	T	T		L	L	T	T
Maximum Queue (ft)	55	530	895	918	510	624	630	118	373	438	560	527
Average Queue (ft)	12	98	657	675	325	79	85	8	257	288	352	313
95th Queue (ft)	39	376	967	990	687	405	419	114	444	483	501	451
Link Distance (ft)			876	876		657	657	657			1244	1244
Upstream Blk Time (%)			6	8		0	0					
Queuing Penalty (veh)			68	81		1	1					
Storage Bay Dist (ft)	350	350			325				300	300		
Storage Blk Time (%)			39	43					20	30	9	8
Queuing Penalty (veh)			20	143					148	232	25	6

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	WB	NB	NB	NB	B8	B8	SB	SB	SB
Directions Served	R	L	LT	R	T	T	L	LT	R
Maximum Queue (ft)	252	356	322	359	51	68	114	124	93
Average Queue (ft)	24	248	214	188	8	6	45	56	29
95th Queue (ft)	128	381	338	318	67	54	94	108	69
Link Distance (ft)		343	343	343	505	505	414	414	414
Upstream Blk Time (%)		6	3	1					
Queuing Penalty (veh)		0	0	0					
Storage Bay Dist (ft)	300								
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	EB	EB	EB	EB	EB	B9	B9	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	R	T	T	L	L	T	T	R
Maximum Queue (ft)	152	345	554	567	497	512	493	294	600	1273	1278	400
Average Queue (ft)	78	105	386	391	89	49	58	163	369	859	847	250
95th Queue (ft)	135	229	501	512	302	321	347	252	717	1476	1478	547
Link Distance (ft)			876	876		657	657			1244	1244	
Upstream Blk Time (%)						0				19	16	
Queuing Penalty (veh)						0				0	0	
Storage Bay Dist (ft)	350	350			325			300	300			300
Storage Blk Time (%)			24	30				0	1	43	42	
Queuing Penalty (veh)			33	113				2	4	127	105	

Intersection: 1: Commercial Access/Towne Center Way & US 123

Movement	NB	NB	NB	B8	B8	SB	SB	SB
Directions Served	L	LT	R	T	T	L	LT	R
Maximum Queue (ft)	428	396	326	361	371	211	192	230
Average Queue (ft)	327	303	187	111	118	128	108	112
95th Queue (ft)	456	427	312	434	479	196	182	210
Link Distance (ft)	336	336	336	596	596	414	414	414
Upstream Blk Time (%)	30	23	0	1	6			
Queuing Penalty (veh)	0	0	0	0	0			
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

EASLEY RETAIL CENTER
EASLEY, SC

GENERAL NOTES:

3. ALL CONTRACTORS/SUBCONTRACTORS/PERSONS THAT WILL BE ENGAGED IN LAND DISTURBING ACTIVITIES SHALL COMPLY WITH ALL EROSION CONTROL AND STORMWATER POLLUTION PREVENTION REQUIREMENTS CONTAINED THROUGHOUT THE DRAWINGS, SPECIFICATIONS AND PERMITS. ALL SUCH PERSONS SHALL REFER TO THE ON-SITE SWPPP FOR THE MOST CURRENT INFORMATION.
2. CONTRACTOR IS RESPONSIBLE FOR ALL WORK SHOWN, UNLESS SPECIFICALLY INDICATED OTHERWISE.
3. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF THE PROJECT.
4. TOPOGRAPHIC AND BOUNDARY INFORMATION BY GPA PROFESSIONAL LAND SURVEYORS. THE SURVEY HAS NOT BEEN VERIFIED BY CYPRESS ENGINEERING.
5. ALL ELEVATIONS REFER TO FEET ABOVE SEA LEVEL, NAVD 88. HORIZONTAL DATUM REFERENCES SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM, INTERNATIONAL FEET, NAD 83.
6. ALL PROJECT STAKEOUT AND ANY REQUIRED AS-BUILT DRAWINGS SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR TO BE PAID FOR BY THE CONTRACTOR. FOR STAKEOUT, DO NOT RELY SOLELY ON THE PHYSICAL SCALE AS SHOWN IN DRAWINGS. REFER TO THE GIVEN DIMENSIONS, SYMBOL LEGEND, KEYNOTES, AND REFERENCED DETAILS FOR CORRECT STAKEOUT.
7. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES PRIOR TO BEGINNING ANY WORK. IF UTILITIES OTHER THAN THOSE SHOWN HEREON ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND TAKE APPROPRIATE MEASURES TO PROTECT THE LINE(S) AND ENSURE CONTINUED SERVICE. DAMAGE CAUSED TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL VERIFY THE CONNECTION POINTS OF NEW UTILITIES TO EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
8. THE CONTRACTOR SHALL INSTALL TREE PROTECTION BARRICADES AND REQUIRED EROSION CONTROL BMP'S PRIOR TO BEGINNING EARTHWORK OPERATIONS.
9. OFFSITE BORROW NECESSARY FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR FROM SOURCES DEVELOPED BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF UNSUITABLE MATERIAL IS DISCOVERED PRIOR TO BEGINNING ANY REMOVAL OPERATION.
11. THE CONTRACTOR SHALL STRIP A MINIMUM OF 4" TOPSOIL (REFER TO GEOTECHNICAL REPORT FOR THICKNESS) FROM EXISTING GROUND SURFACE ACROSS ENTIRE DISTURBED AREA. THE CONTRACTOR SHALL RESPREAD/PLACE TOPSOIL IN ALL DISTURBED AREAS NOT TO BE PAVED. THE CONTRACTOR SHALL ALSO PROVIDE TEMPORARY AND PERMANENT SEEDING IN ALL AREAS INSIDE OR OUTSIDE THE LIMITS OF CONSTRUCTION THAT ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS.
12. CONTRACTOR SHALL GRADE ALL AREAS TO DRAIN FOR POSITIVE FLOW PRIOR TO FINAL APPROVAL.
13. THE DESIGN ADEQUACY AND SAFETY OF ALL BRACING, SHORING AND TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
14. THE GENERAL CONTRACTOR SHALL REVIEW AND STAMP APPROVED ANY AND ALL SHOP DRAWINGS AND SUBMITTALS PRIOR TO SUBMITTING TO THE ENGINEER FOR REVIEW.
15. ALL UTILITY WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF EASLEY COMBINED UTILITIES (ECU) AND SCDES. WHERE ANY DISCREPANCIES EXIST BETWEEN THESE DOCUMENTS, ECU AND SCDES REQUIREMENTS, THE MOST STRINGENT REQUIREMENTS SHALL BE ADHERED TO.
16. IN PERFORMING CONSTRUCTION OBSERVATION VISITS TO THE JOB SITE, THE ENGINEER SHALL HAVE NO CONTROL OVER NOR RESPONSIBILITY FOR THE CONTRACTOR'S MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES IN PERFORMING THE WORK.
17. THE CONTRACTOR'S MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES IN PERFORMING THE WORK IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR, WHO IS ALSO RESPONSIBLE FOR COMPLYING WITH ALL HEALTH AND SAFETY PRECAUTIONS AS REQUIRED BY ANY REGULATORY AGENCY.
18. IT IS THE CONTRACTORS RESPONSIBILITY FOR DESIGN, ADEQUACY AND IMPLEMENTATION OF ALL DEWATERING. ALL DEWATERING ACTIVITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STORMWATER POLLUTION PREVENTION PLAN.

CIVIL ABBREVIATIONS:

BOTTOM	
BFP	BACKFLOW PREVENTER
BM	BENCHMARK
BMP	EROSION CONTROL BEST MANAGEMENT PRACTICE
CB	CATCH BASIN
CI	CURB INLET
CIP	CAST IRON PIPE
CGP	NPDOS CONSTRUCTION GENERAL PERMIT SCR 100000
CL	CENTERLINE
CY	CUBIC YARDS
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DS	DOWNSPOUT
ECU	EASLEY COMBINED UTILITIES
EXST	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FM	FORCE MAIN
FW	FIRE WATER SERVICE
GABC	GRADED AGGREGATE BASE COURSE
HCI	HOODED CURB INLET
HDPE	HIGH DENSITY POLYETHYLENE
IAW	IN ACCORDANCE WITH
INV / IE	INVERT ELEVATION
JB	JUNCTION BOX
LF	LINEAR FEET
LW	LAWN INLET
LP	LIGHT POLE
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM

CIVIL ABBREVIATIONS (CONT.):

NOI	NOTICE OF INTENT
NOT	NOTICE OF TERMINATION
NTS	NOT TO SCALE
OC	ON CENTER
PC	POINT OF CURVATURE
PIV	POST INDICATOR VALVE
PP	POWER POLE
PT	POINT OF TANGENT
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCO	ROOF DRAINAGE CLEANOUT
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
S	SEWER
SCDES	SOUTH CAROLINA DEPARTMENT ENVIRONMENTAL SERVICES
SF	SQUARE FEET
SDMH	STORM DRAINAGE MANHOLE
SS	SANITARY SEWER SERVICE
SSMH	SANITARY SEWER MANHOLE
STA	STATION
TBM	TEMPORARY BENCHMARK
T	TOP
TYP	TYPICAL
VCP	VITRIFIED CLAY PIPE
W	WATER
W/	WITH
WS	WATER SERVICE
WV	WATER VALVE
YI	YARD INLET

CITY OF EASLEY NOTES:

1. CONTRACTOR SHALL COORDINATE AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER AND CITY OF EASLEY PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
2. SITE CONTRACTOR SHALL INSTALL ELECTRICAL CONDUITS PROVIDED BY EASLEY COMBINED UTILITIES FOR THE REQUIRED ROAD CROSSINGS. REFER TO ELECTRICAL PLANS PREPARED BY EASLEY COMBINED UTILITIES.
3. THE CITY OF EASLEY WILL NOT PERFORM BUILDING INSPECTIONS OF UNDERGROUND CONSTRUCTION OR BUILDING FLOOR SLABS UNTIL A MINIMUM TWO-LANE WIDTH OF THE STREET BASE COURSE IS PLACED TO THE INSPECTION LOCATION.
4. VERTICAL (COMBUSTIBLE) CONSTRUCTION MAY NOT BEGIN UNTIL THE PROPOSED ON-SITE WATER SYSTEM IS OPERATIONAL AND ONE LIFT OF ASPHALT BINDER COURSE IS PLACED ON THE STREETS TO ALL BUILDINGS UNDER CONSTRUCTION.

CIVIL DRAWING LIST

SHEET #	DRAWING #	DRAWING TITLE	RELEASE DATE	REVISIONS
1	C0.01	COVER SHEET	4/28/2026	
2	C0.02	OVERALL SITE PLAN	4/28/2026	
3	C0.03	BOUNDARY AND TOPOGRAPHIC SURVEY	3/24/2026	
4	C0.04	BOUNDARY AND TOPOGRAPHIC SURVEY	3/24/2026	
5	C0.05	BOUNDARY AND TOPOGRAPHIC SURVEY	3/24/2026	
6	C0.06	BOUNDARY AND TOPOGRAPHIC SURVEY	3/24/2026	
7	C0.07	TREE SURVEY	3/24/2026	
8	C0.08	TREE SURVEY	3/24/2026	
9	C1.01	STAGING PLAN	4/28/2026	
10	C1.11	EROSION CONTROL PLAN - PHASE 1 - AREA 1	4/28/2026	
11	C1.12	EROSION CONTROL PLAN - PHASE 1 - AREA 2	4/28/2026	
12	C1.13	EROSION CONTROL PLAN - PHASE 1 - AREA 3	4/28/2026	
13	C1.14	EROSION CONTROL PLAN - PHASE 1 - AREA 4	4/28/2026	
14	C1.21	EROSION CONTROL PLAN - PHASE 2 - AREA 1	4/28/2026	
15	C1.22	EROSION CONTROL PLAN - PHASE 2 - AREA 2	4/28/2026	
16	C1.23	EROSION CONTROL PLAN - PHASE 2 - AREA 3	4/28/2026	
17	C1.24	EROSION CONTROL PLAN - PHASE 2 - AREA 4	4/28/2026	
18	C1.31	EROSION CONTROL PLAN - PHASE 3 - AREA 1	4/28/2026	
19	C1.32	EROSION CONTROL PLAN - PHASE 3 - AREA 2	4/28/2026	
20	C1.33	EROSION CONTROL PLAN - PHASE 3 - AREA 3	4/28/2026	
21	C1.34	EROSION CONTROL PLAN - PHASE 3 - AREA 4	4/28/2026	
22	C1.40	SWPPP NOTES	4/28/2026	
23	C1.50	SWPPP DETAILS	4/28/2026	
24	C1.51	SWPPP DETAILS	4/28/2026	
25	C1.52	SWPPP DETAILS	4/28/2026	
26	C2.01	DEMOLITION PLAN - AREA 1	4/28/2026	
27	C2.02	DEMOLITION PLAN - AREA 2	4/28/2026	
28	C2.03	DEMOLITION PLAN - AREA 3	4/28/2026	
29	C2.04	DEMOLITION PLAN - AREA 4	4/28/2026	
30	C3.01	DRAINAGE PLAN - AREA 1	4/28/2026	
31	C3.02	DRAINAGE PLAN - AREA 2	4/28/2026	
32	C3.03	DRAINAGE PLAN - AREA 3	4/28/2026	
33	C3.04	DRAINAGE PLAN - AREA 4	4/28/2026	
34	C3.10	DRAINAGE PROFILES	4/28/2026	
35	C3.11	DRAINAGE PROFILES	4/28/2026	
36	C3.12	DRAINAGE PROFILES	4/28/2026	
37	C3.13	PIPE TABLES	4/28/2026	
38	C3.20	DRAINAGE DETAILS	4/28/2026	
39	C3.21	DRAINAGE DETAILS	4/28/2026	
40	C4.00	OVERALL UTILITY PLAN	8/12/2026	
41	C4.01	UTILITY PLAN - AREA 1	4/28/2026	
42	C4.02	UTILITY PLAN - AREA 2	4/28/2026	
43	C4.03	UTILITY PLAN - AREA 3	4/28/2026	
44	C4.04	UTILITY PLAN - AREA 4	4/28/2026	
45	C4.10	WATER PROFILES	4/28/2026	
46	C4.11	WATER PROFILES	4/28/2026	
47	C4.12	SEWER PROFILES	4/28/2026	
48	C4.13	SEWER PROFILES	4/28/2026	
49	C4.20	WATER DETAILS	4/28/2026	
50	C4.21	SEWER DETAILS	4/28/2026	
51	C5.01	SITE PLAN - AREA 1	4/28/2026	
52	C5.02	SITE PLAN - AREA 2	4/28/2026	
53	C5.03	SITE PLAN - AREA 3	4/28/2026	
54	C5.04	SITE PLAN - AREA 4	4/28/2026	
55	C5.10	BUILDING WALK - AROUND PLAN	4/28/2026	
56	C5.11	TRUCK ACCESS AND LOADING DOCK PLAN	4/28/2026	
57	C5.20	SITE DETAILS	4/28/2026	
58	C5.21	SITE DETAILS	4/28/2026	
59	C5.22	SITE DETAILS	4/28/2026	
60	C5.23	SITE DETAILS	4/28/2026	
61	C6.10	SPINE ROAD - TYPICAL ROADWAY SECTIONS	4/28/2026	
62	C6.30	SPINE ROAD DRAINAGE PLAN - AREA 1 & 2	4/28/2026	
63	C6.41	SPINE ROAD UTILITY PLAN - AREA 1 - WATER	4/28/2026	
64	C6.42	SPINE ROAD UTILITY PLAN - AREA 2 - WATER	4/28/2026	
65	C6.43	SPINE ROAD UTILITY PLAN - AREA 1 - SEWER	4/28/2026	
66	C6.44	SPINE ROAD UTILITY PLAN - AREA 2 - SEWER	4/28/2026	
67	C6.51	SPINE ROAD PLAN & PROFILE - AREA 1	4/28/2026	
68	C6.52	SPINE ROAD PLAN & PROFILE - AREA 2	4/28/2026	

PROJECT INFORMATION

PROJECT NAME	Easley Retail Center
TMS #	5039-19-60-8617, 5039-19-61-8304, -1941, -2348, 5039-19-62-8021
PROPERTY ADDRESS	Calhoun Memorial Highway, Easley, SC 29640
PARCEL AREA	36.5 ac
DISTURBED AREA	40.0 ac
MUNICIPALITY	City of Easley
ZONING CONTACT	Mario DiPietro - (864-855-7908)
ZONING	GC
PROPOSED USE	Mixed Use
OVERLAY DISTRICT	N/A
HISTORIC DISTRICT	N/A
HEIGHT DISTRICT	50'
STREETS	
US 123 SCDOT	
ADJACENT ZONING	
Front (North)	5039-19-52-8009, 5039-19-62-0185, -3166, -4158 & -6210[GC]
Northwest	5039-19-51-3470[GC]
SouthWest	5038-07-69-8656[R7.5]
East	5039-19-71-0676[GC]
SETBACKS	
Front (North {5039-19-52-8009, 5039-19-62-0185, -3166, -4158 & -6210}[GC]	40'
Northwest {5039-19-51-3470}[GC]	10'
SouthWest {5038-07-69-8656}[R7.5]	10'
East {5039-19-71-0676}[GC]	6'
BUFFERS	
VS Highway/Corridor Uses	N/A
VS Commercial	N/A
VS, One-Family Residential	VAS (20'+)
VS Vacant	VA (5-15')
FEMA FLOOD ZONE	Flood Zone Zone X, Panel # Panel #45077C 0310D, Dated April 16, 2008
WETLANDS ON-SITE	No
WETLANDS IMPACTS	No
PROJECT TEAM	
Permittee	Target Real Estate - (Aaron Hemquist - (612) 761-5670)
Civil Engineering	Cypress Engineering - (Tripp West, PE - 843-225-5151 ext. 103)

REFER TO GEOTECHNICAL INVESTIGATION REPORT "CALHOUN
DEVELOPMENT" DATED JANUARY 8, 2026, PREPARED BY TERRACON.

CYPRESS ENGINEERING (THE "CONSULTANT") CONFIRMS TO TARGET THAT CONSULTANT HAS PREPARED THESE PLANS IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND/OR, STATE AND LOCAL POLLUTION PREVENTION AND EROSION CONTROL REQUIREMENTS.

LANDSCAPE DRAWING LIST

SHEET #	DRAWING #	DRAWING TITLE	RELEASE DATE	REVISIONS
69	L100	LANDSCAPE PLAN	4/27/2026	 
70	L101	LANDSCAPE PLAN	4/27/2026	 
71	L102	LANDSCAPE PLAN	4/27/2026	 
72	L103	LANDSCAPE PLAN	4/27/2026	 
73	L104	LANDSCAPE PLAN	4/27/2026	 
74	L105	LANDSCAPE NOTES	4/27/2026	 
75	L110	TREE MITIGATION	4/27/2026	 
76	L111	TREE MITIGATION	4/27/2026	 
77	L112	TREE MITIGATION	4/27/2026	 
78	L200	STREETSCAPE PLAN	4/27/2026	 
79	L201	STREETSCAPE PLAN	4/27/2026	 
80	L202	STREETSCAPE PLAN	4/27/2026	 
81	L210	TREE MITIGATION	4/27/2026	 
82	L211	TREE MITIGATION	4/27/2026	 
83	L300	LANDSCAPE DETAILS	4/27/2026	 

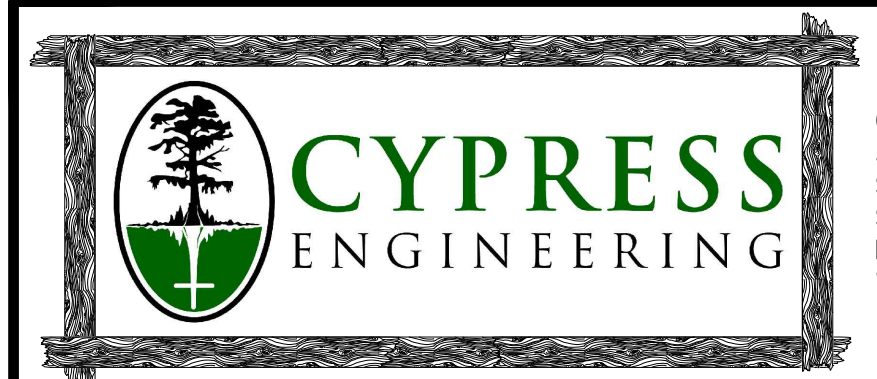
SITE LIGHTING DRAWING LIST

SHEET #	DRAWING #	DRAWING TITLE	RELEASE DATE	REVISIONS
84	E0.98	Photometric Plan	4/29/2026	
85	E0.99	Photometric Plan	4/29/2026	



LOCATION MAP

SCALE: 1" = 2000'



CYPRESS ENGINEERING
412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	8/12/2026	CYP PROJ #: 25034
DRAWN:	JCT	CLIENT: TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:
CHECKED:	DDW	

EASLEY RETAIL CENTER

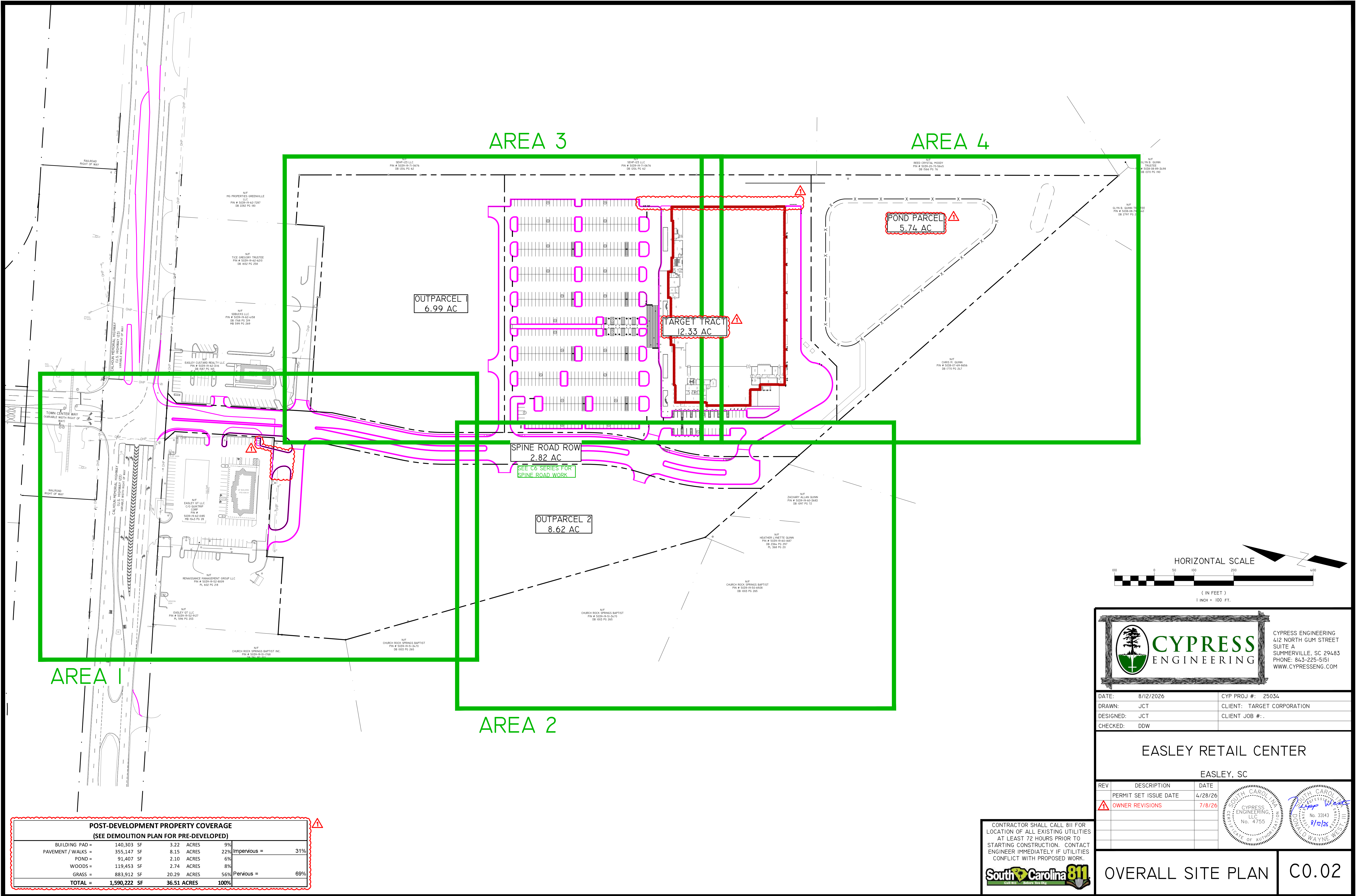
EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
	OWNER REVISIONS	7/8/26
	PERMITTING REVISIONS	8/12/26




COVER SHEET

C0.01



POST-DEVELOPMENT PROPERTY COVERAGE (SEE DEMOLITION PLAN FOR PRE-DEVELOPED)					
BUILDING PAD =	140,303 SF	3.22 ACRES	9%	Impervious =	31%
PAVEMENT / WALKS =	355,147 SF	8.15 ACRES	22%		
POND =	91,407 SF	2.10 ACRES	6%		
WOODS =	119,453 SF	2.74 ACRES	8%		
GRASS =	883,912 SF	20.29 ACRES	56%	Perious =	69%
TOTAL =	1,590,222 SF	36.51 ACRES	100%		

CYPRESS ENGINEERING
412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

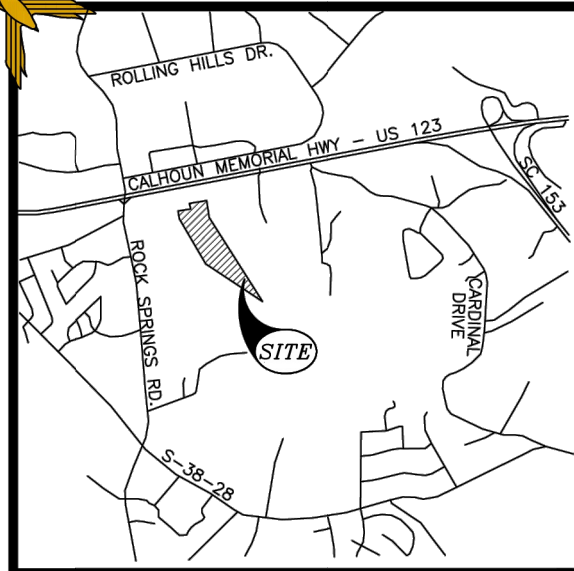
EASLEY RETAIL CENTER

EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
Δ	OWNER REVISIONS	7/8/26

CONTRACTOR SHALL CALL 811 FOR LOCATION OF ALL EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY IF UTILITIES CONFLICT WITH PROPOSED WORK.

South Carolina 811
Call 811 Before You Dig



VICINITY MAP (NTS)

LEGEND

- IRON FOUND (AS DESCRIBED)
- IRON SET (5/8" REBAR)
- CALCULATED POINT
- POWER POLE
- GUY WIRE
- LIGHT POLE
- TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL PANEL BOX
- TRAFFIC SIGNAL HAND BOX
- RAIL ROAD CROSSING ARM
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- SEWER MANHOLE
- CLEAN OUT
- STORM DRAIN MANHOLE
- STORM/DRAINAGE STRUCTURES
- TELEPHONE MANHOLE
- TELEPHONE PDESTAL
- FIBER OPTICS BOX
- GAS STORAGE TANK ACCESS
- GAS VALVE
- BOLLARD
- BILL BOARD
- SIGN
- HVAC
- FENCE LINE
- PROPERTY LINE
- ADJOINER LINE
- RIGHT-OF-WAY
- EDGE OF PAVEMENT
- EASEMENT LINE (SEWER)
- EASEMENT LINE (ACCESS)
- EASEMENT LINE (STORM)
- EASEMENT LINE (AS DESCRIBED)
- EASEMENT LINE (SLOPE)
- SETBACK LINE
- OVERHEAD POWER LINE
- UNDERGROUND ELECTRIC
- GAS LINE
- TELEPHONE
- SEWER LINE
- STORM DRAIN W/ PIPE SIZE
- WATER LINE
- CONTOUR LINE
- CITY LIMITS
- MATCH LINE
- ACCESS EASEMENTS FOR THE BENEFIT OF SUBJECT TRACTS
- CONCRETE
- GRAVEL DRIVE
- RIPRAP

60' 0' 30' 60' 120'
1 INCH = 60 FEET

SURVEYOR CERTIFICATE

I, CHRISTOPHER G. DELLA MEA, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN, ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

THIS SURVEY IS NOT VALID UNLESS EMBOSSED WITH AN ORIGINAL SURVEYOR'S SEAL. THIS SURVEY HAS BEEN DONE WITHOUT THE BENEFIT OF REVIEWING A CURRENT TITLE SEARCH.

WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 26TH DAY OF FEBRUARY, 2026.

Christopher G. Della Mea 3/24/2026

CHRISTOPHER G. DELLA MEA
SPLS REGISTRATION NO. 22752
REVISED: 03/24/2026



3/24/2026

N/F
CHURCH ROCK SPRINGS BAPTIST
PIN # 5039-19-61-3470
DB 1003 PG 265

N/F
CHURCH ROCK SPRINGS BAPTIST INC.
PIN # 5039-19-61-1768
DB 384 PG 152

N/F
EASLEY QT LLC
PIN # 5039-19-62-9127
PL 596 PG 203

N/F
RENAISSANCE MANAGEMENT GROUP LLC
PIN # 5039-19-62-8009
PL 602 PG 218

BENCHMARK
60D NAIL SET
ELEV.=1017.12
NAVD'88

N/F
EASLEY QT LLC C/O QUIKTRIP CORP
PIN # 5039-19-62-0085
MB 1618 PG 165

PARCEL 1
FREEMAN 123 LP
PIN # 5039-19-61-1941
DB 1203 PG 205
PL 602 PG 218
108,829 SQ. FT.
2.498 ACRES

PARCEL 2
N/F
FREEMAN REAL ESTATE
LLC
PIN # 5039-19-61-2348
DB 766 PG 138
PL 224 PG 089
632,039 SQ. FT.
14.599 ACRES

N/F
EASLEY CUSTARD REALTY LLC
PIN # 5039-19-62-3116
DB 1687 PG 165

N/F
SDBUCKS LLC
PIN # 5039-19-62-4158
DB 1768 PG 319
MB 599 PG 269

N/F
TICE GREGORY TRUSTEE
PIN # 5039-19-62-6210
DB 1652 PG 258

N/F
MC PROPERTIES
GREENVILLE LLC
PIN # 5039-19-62-7287
DB 2282 PG 180

N/F
FREEMAN BARBARA JEAN
PIN # 5039-19-62-8021
MB 598 PG 269

N/F
SEHP-123 LLC
PIN # 5039-19-71-0676
DB 1204 PG 62

LINE	BEARING	DISTANCE
L1	N 80°15'50" E	25.01'
L2	S 09°41'17" E	5.00'
L3	N 53°59'35" W	30.78'
L4	N 54°41'59" W	31.28'
L5	N 80°08'12" E	38.98'

NOTE:
SEE SHEETS 3 AND 4 FOR
STORM DRAIN LABELS
SEE SHEETS 5 AND 6 FOR
TITLE REFERENCE
INFORMATION

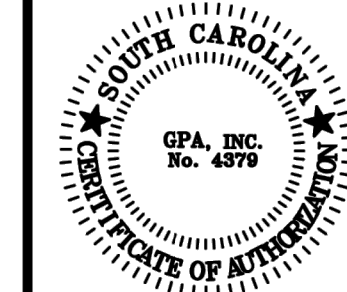
MATCHLINE SHEETS 1,3,AND 5
MATCHLINE SHEETS 2,4,AND 6

"Integrity Without Boundaries"
www.gpaland.com

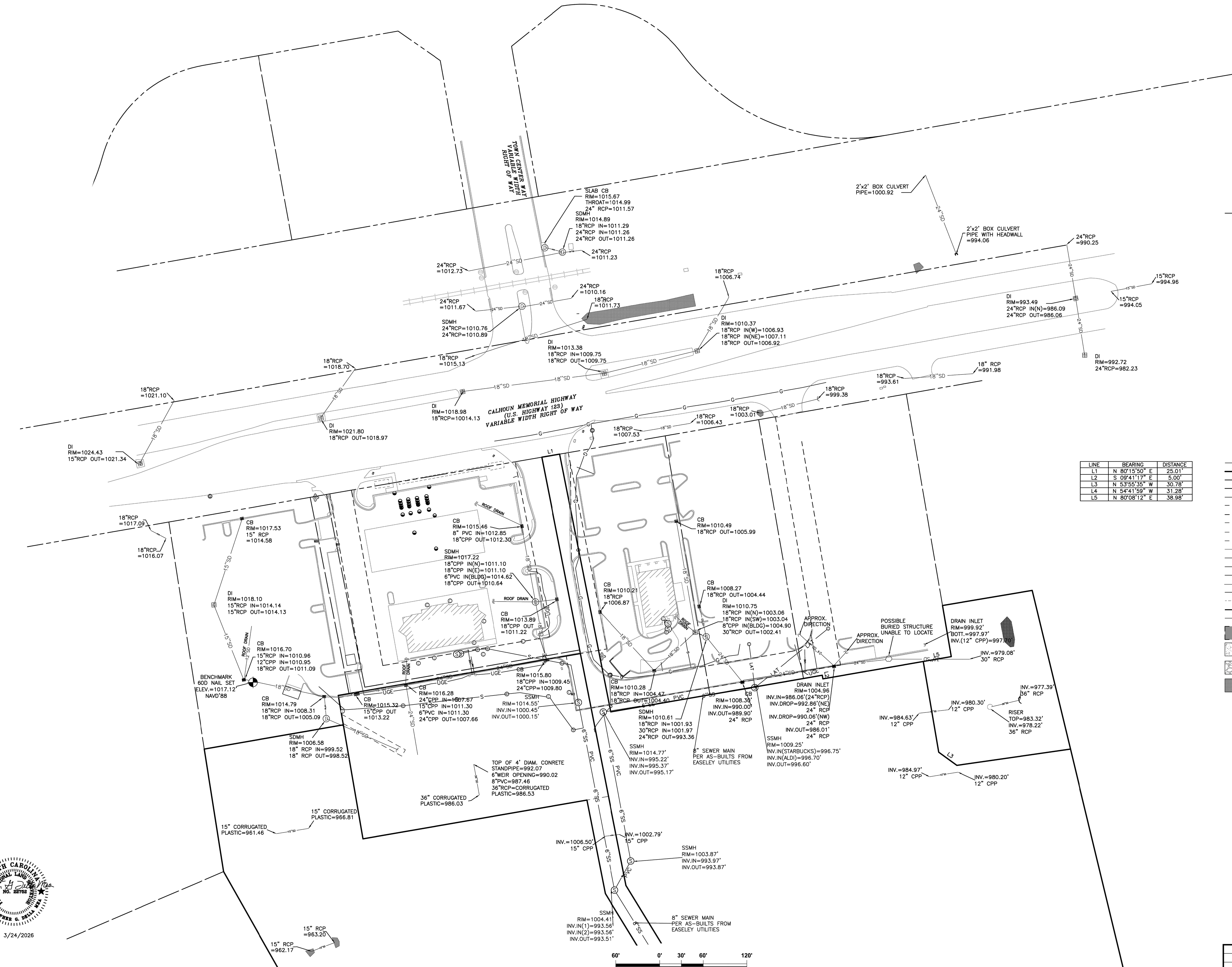
SCALE
1"=60'
F.L.D. BK. PG.
JOB NO.
250099
DATE
03/24/2026
DRAWN BY
GPA
CHECKED BY
CGD

SHOWING LOT 5039-19-61-1941, 5039-19-61-2348, & 5039-19-60-8617
4875 CAROLINA MEMORIAL HIGHWAY
OWNED BY
FREEMAN 123 LP, FREEMAN REAL ESTATE LLC, & FREEMAN WILLIAM DAVID
LOCATED IN THE TOWN EASLEY
PICKENS COUNTY, SOUTH CAROLINA
BOUNDARY AND TOPOGRAPHIC SURVEY

PREPARED FOR
RT CALAHOUN MEMORIAL LLC

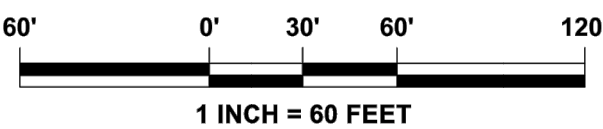


SHEET 1 OF 4



LINE	BEARING	DISTANCE
L1	N 80°15'50" E	25.01'
L2	S 09°41'17" E	5.00'
L3	N 53°55'35" W	30.78'
L4	N 54°41'59" W	31.28'
L5	N 80°08'12" E	38.98'

- LEGEND**
- IRON FOUND (AS DESCRIBED)
 - IRON SET (5/8" REBAR)
 - CALCULATED POINT
 - POWER POLE
 - GUY WIRE
 - LIGHT POLE
 - TRAFFIC SIGNAL POLE
 - TRAFFIC SIGNAL PANEL BOX
 - TRAFFIC SIGNAL HAND BOX
 - RAIL ROAD CROSSING ARM
 - WATER VALVE
 - WATER METER
 - FIRE HYDRANT
 - IRRIGATION CONTROL VALVE
 - SEWER MANHOLE
 - CLEAN OUT
 - STORM DRAIN MANHOLE
 - STORM/DRAINAGE STRUCTURES
 - TELEPHONE MANHOLE
 - TELEPHONE PDESTAL
 - FIBER OPTICS BOX
 - MONITORING WELL
 - GAS VALVE
 - BOLLARD
 - BILL BOARD
 - SIGN
 - HVAC
 - FENCE LINE
 - PROPERTY LINE
 - ADJOINER LINE
 - RIGHT-OF-WAY
 - EDGE OF PAVEMENT
 - EASEMENT LINE (SEWER)
 - EASEMENT LINE (ACCESS)
 - EASEMENT LINE (STORM)
 - EASEMENT LINE (AS DESCRIBED)
 - EASEMENT LINE (SLOPE)
 - SETBACK LINE
 - OVERHEAD POWER LINE
 - UNDERGROUND ELECTRIC
 - SEWER LINE
 - STORM DRAIN W/ PIPE SIZE
 - WATER LINE
 - CONTOUR LINE
 - CITY LIMITS
 - MATCH LINE
 - ACCESS EASEMENTS FOR THE BENEFIT OF SUBJECT TRACTS
 - CONCRETE
 - GRAVEL DRIVE
 - RIPRAP



GPA
PROFESSIONAL
LAND SURVEYORS
EST. 1987

GPA INC.
SERVING SOUTH CAROLINA
AND NORTH CAROLINA

CHARLESTON, SC. CORP. OFF.
281 TREELAND DR. STE. B
LADSON, SC 29456
OFFICE (843) 285-2424

CHARLOTTE, NC. BRANCH
605 PHILLIP DAVIS DR. STE. 3
CHARLOTTE, NC 28217
OFFICE (704) 335-8600

"Integrity Without Boundaries"
www.gpaland.com

SCALE
1"=60'

F.L.D. BK. PG.

JOB NO.
250099

DATE
03/24/2026

DRAWN BY
GPA

CHECKED BY
CGD

SHOWING LOT 5039-19-61-3941, 5039-19-61-2348, & 5039-19-60-8617
4875 CAROLINA MEMORIAL HIGHWAY
OWNED BY
FREEMAN 123 LP, FREEMAN REAL ESTATE LLC, & FREEMAN WILLIAM DAVID
LOCATED IN THE TOWN EASLEY
PICKENS COUNTY, SOUTH CAROLINA

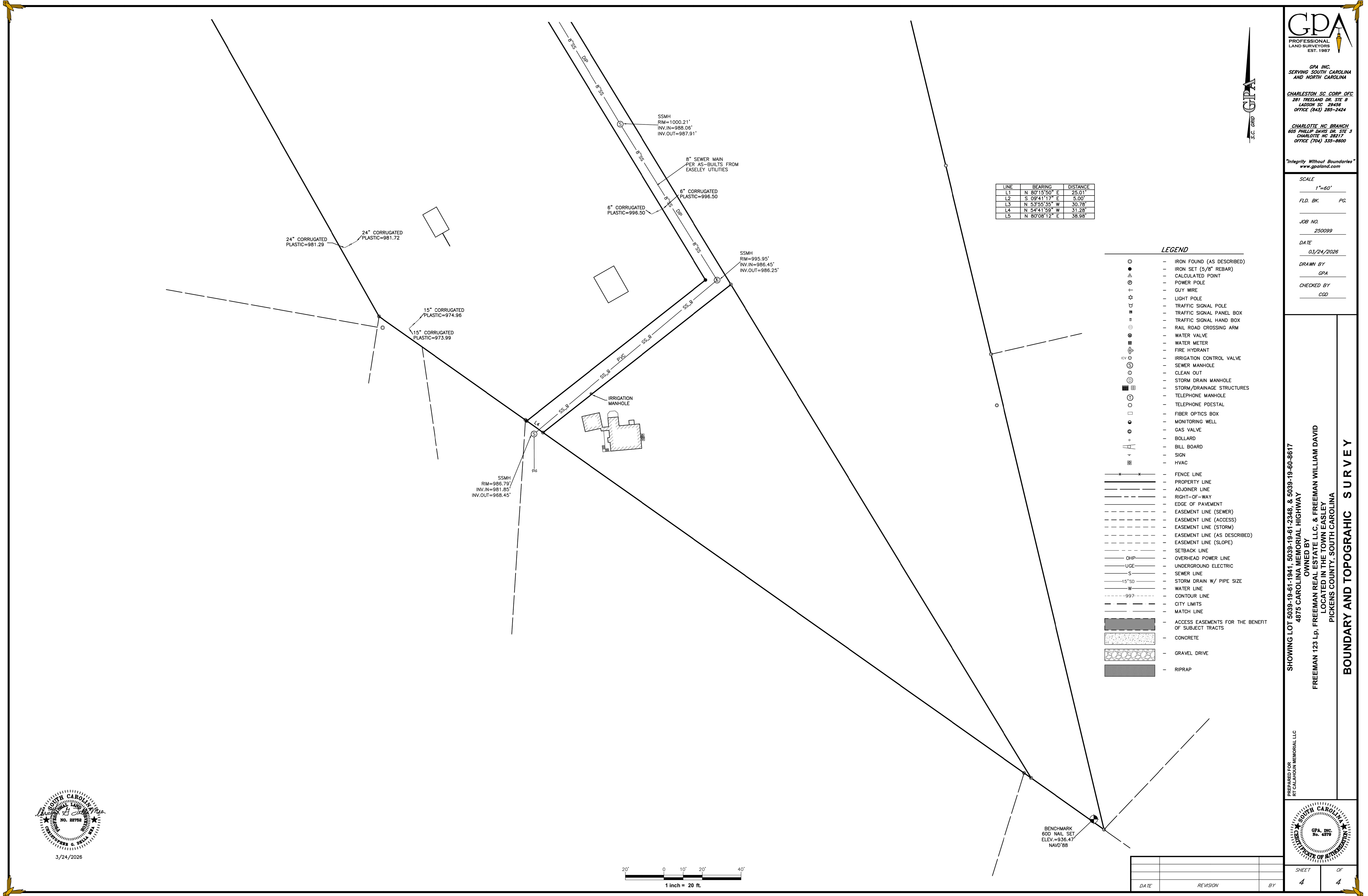
BOUNDARY AND TOPOGRAPHIC SURVEY

PREPARED FOR
RT CAROLINA MEMORIAL LLC

GPA, INC.
No. 4379

SHEET 3 OF 4

DATE REVISION BY



GPA
PROFESSIONAL
LAND SURVEYORS
EST. 1987

*GPA INC.
SERVING SOUTH CAROLINA
AND NORTH CAROLINA*

CHARLESTON, SC CORP. OFC
281 TREELAND DR. STE B
LADSON, SC 29456
OFFICE (843) 285-2424

CHARLOTTE, NC BRANCH
605 PHILLIP DAVIS DR. STE 3
CHARLOTTE, NC 28217
OFFICE (704) 335-8600

"Integrity Without Boundaries"
www.gpoland.com

SCALE
1"=60'

F.L.D. BK. PG.

JOB NO.
250099

DATE
03/24/2026

DRAWN BY
GPA

CHECKED BY
CGD

SHOWING LOT 5039-19-61-1941, 5039-19-61-2348, & 5039-19-60-8617
4875 CAROLINA MEMORIAL HIGHWAY
OWNED BY
FREEMAN 123 Lp, FREEMAN REAL ESTATE LLC, & FREEMAN WILLIAM DAVID
LOCATED IN THE TOWN EASLEY
PICKENS COUNTY, SOUTH CAROLINA

BOUNDARY AND TOPOGRAPHIC SURVEY

PREPARED FOR
BY CAROLINA MEMORIAL LLC



SHEET 4 OF 4



3/24/2026

1 inch = 20 ft.

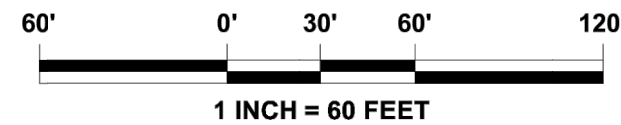
DATE	REVISION	BY



VICINITY MAP (NTS)

LEGEND

- PROPERTY LINE
- ADJOINER LINE
- RIGHT-OF-WAY
- TREE LINE



SURVEYOR CERTIFICATE

I, CHRISTOPHER G. DELLA MEA, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN, ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

THIS SURVEY IS NOT VALID UNLESS EMBOSSED WITH AN ORIGINAL SURVEYOR'S SEAL. THIS SURVEY HAS BEEN DONE WITHOUT THE BENEFIT OF REVIEWING A CURRENT TITLE SEARCH.

WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 24TH DAY OF MARCH, 2026.

Christopher G. Della Mea

CHRISTOPHER G. DELLA MEA
S.C.P.L.S. REGISTRATION NO. 22752
DATED: 3/24/2026



3/24/2026

N/F
CHURCH ROCK SPRINGS BAPTIST
PIN # 5039-19-51-3470
DB 1003 PG 265

N/F
CHURCH ROCK SPRINGS BAPTIST INC.
PIN # 5039-19-51-1768
DB 384 PG 152

N/F
EASLEY QT LLC
PIN # 5039-19-52-9127
PL 596 PG 203

N/F
RENAISSANCE MANAGEMENT GROUP LLC
PIN # 5039-19-52-8009
PL 602 PG 216

N/F
EASLEY QT LLC C/O QUIKTRIP CORP
PIN # 5039-19-62-0185
MD 1543 PG 28

PARCEL 2
N/F
FREEMAN 123 LP
PIN # 5039-19-61-1941
DB 1720 PG 205
PL 602 PG 216
109,829 SQ. FT.
2.498 ACRES

N/F
EASLEY CUSTARD
REALTY LLC
PIN # 5039-19-62-3116
DB 1587 PG 165

N/F
SDBUCKS LLC
PIN # 5039-19-62-4158
DB 1768 PG 319
MB 599 PG 269

N/F
TICE GREGORY TRUSTEE
PIN # 5039-19-62-6210
DB 1652 PG 258

N/F
MG PROPERTIES
GREENVILLE LLC
PIN # 5039-19-62-7287
DB 2282 PG 180

N/F
FREEMAN BARBARA JEAN
PIN # 5039-19-62-8021
MB 598 PG 234

N/F
SEHP-123 LLC
PIN # 5039-19-71-0676
DB 1204 PG 62

N/F
RT CALHOUN MEMORIAL LLC
PIN # 5039-19-61-8304
DB 2544 PG 226
MB 599 PG 269
743,499 SQ. FT.
17.068 ACRES

PARCEL 2
N/F
FREEMAN REAL ESTATE
LLC
PIN # 5039-19-61-2348
DB 766 PG 138
PL 234 PG 009
522,621 SQ. FT.
11.998 ACRES

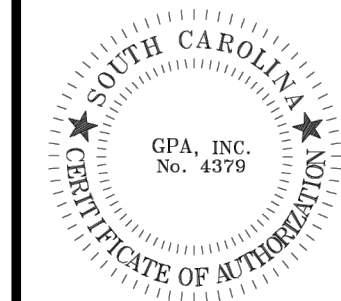
LINE	BEARING	DISTANCE
L1	N 80°15'50" E	25.01'
L2	S 09°41'17" E	5.00'
L3	N 53°55'35" W	30.78'
L4	N 54°41'59" W	31.28'
L5	N 80°08'12" E	38.98'

SHOWING LOT 5039-19-61-1941, 5039-19-61-2348, & 5039-19-60-8617
4875 CAROLINA MEMORIAL HIGHWAY

OWNED BY
FREEMAN REAL ESTATE LLC, & FREEMAN WILLIAM DAVID
LOCATED IN THE TOWN EASLEY
PICKENS COUNTY, SOUTH CAROLINA

TREE SURVEY

PREPARED FOR
RT CALHOUN MEMORIAL LLC

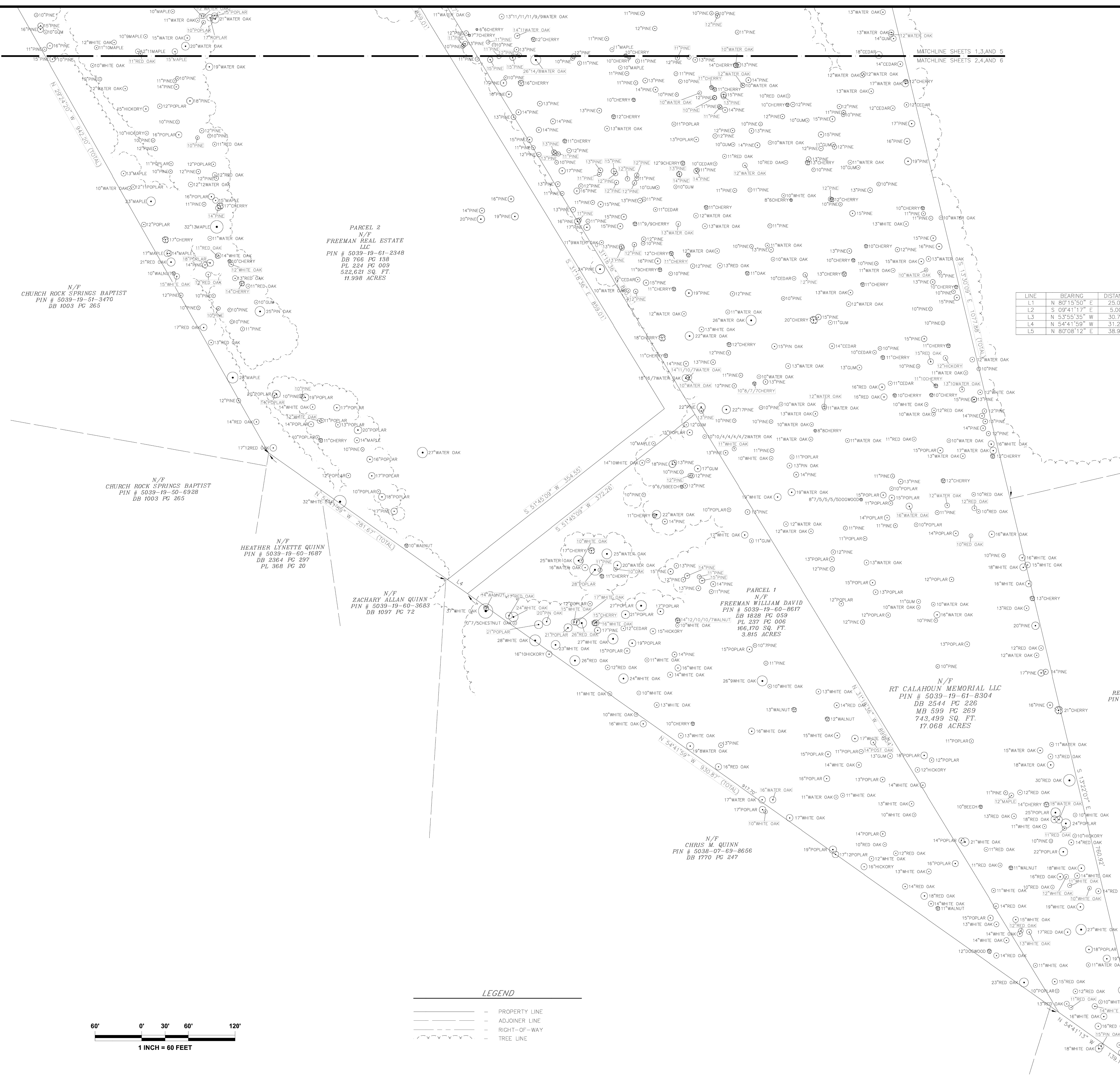


SHEET
1

OF
2

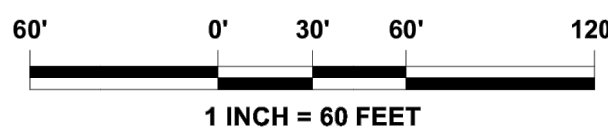
MATCHLINE SHEETS 1,3,AND 5
MATCHLINE SHEETS 2,4,AND 6

N/F
CHURCH ROCK SPRINGS BAPTIST
PIN # 5039-19-51-3470
DB 1003 PG 265



LINE	BEARING	DISTANCE
L1	N 80°15'50" E	25.01'
L2	S 09°41'17" E	5.00'
L3	N 53°55'35" W	30.78'
L4	N 54°41'59" W	31.28'
L5	N 80°08'12" E	38.98'

- LEGEND
- PROPERTY LINE
 - ADJOINER LINE
 - - - RIGHT-OF-WAY
 - - - TREE LINE



3/24/2026

GPA
PROFESSIONAL
LAND SURVEYORS
EST. 1987

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SERVING SOUTH CAROLINA
AND NORTH CAROLINA

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CHARLOTTE NC BRANCH
605 PHILLIP DAVIS DR. STE 3
CHARLOTTE NC 28217
OFFICE (704) 355-8600

"Integrity Without Boundaries"
www.gpaland.com

SCALE
1"=60'

F.L.D. BK. PG.

JOB NO.
250099

DATE
03/24/2026

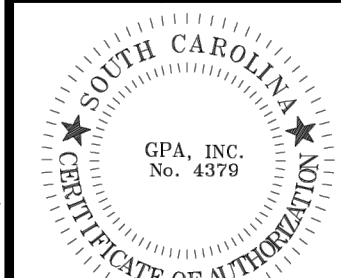
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CHECKED BY
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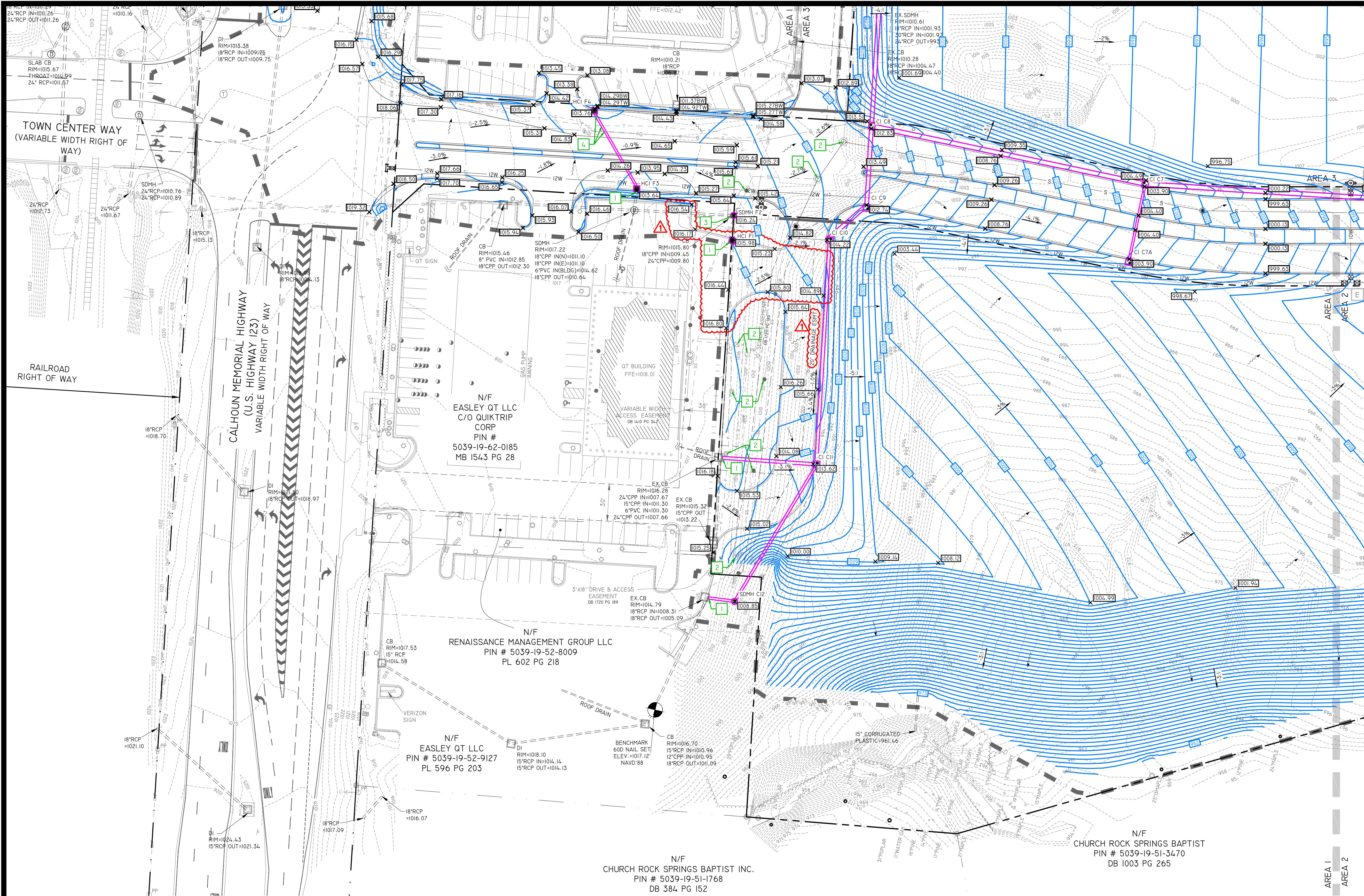
SHOWING LOT 5039-19-61-1941, 5039-19-61-2348, & 5039-19-60-8617
OWNED BY
4875 CAROLINA MEMORIAL HIGHWAY
FREEMAN 123 Lp, FREEMAN REAL ESTATE LLC, & FREEMAN WILLIAM DAVID
LOCATED IN THE TOWN EASLEY
PICKENS COUNTY, SOUTH CAROLINA

T R E E S U R V E Y

PREPARED FOR
XXX
XXX
XXX



SHEET OF
2 2

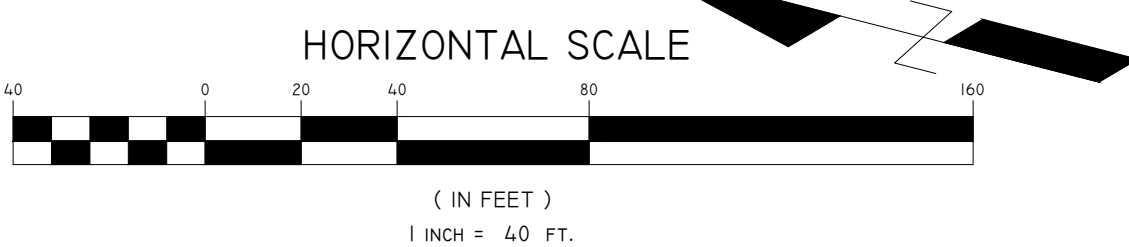


GENERAL NOTES:

1. SEE SHEET C0.01 FOR CIVIL ABBREVIATIONS AND GENERAL NOTES.
 2. SEE SHEET C2.01 FOR EXISTING SITE LEGEND.
- ### KEYNOTES
1. CONNECT TO EXISTING STORM.
 2. RAISE EXISTING UTILITY TO ELEVATION SHOWN.
 3. CONVERT EXISTING STRUCTURE TOP TO SDMH.
 4. RELOCATE EXISTING UTILITY AS NECESSARY FOR NEW STORM INSTALLATION. COORDINATE ALL WORK WITH UTILITY PROVIDER.
 5. TIE LANDSCAPING DRAINAGE INTO STORM SYSTEM IAW TARGET REQUIREMENTS AND ARCHITECTURAL PLANS.
 6. INSTALL 6' WIDE SHELF AT 12:1 SLOPE THEN GRADE AT SLOPE INDICATED.
 7. INSTALL SWALE ALONG TOP SIDE OF WALL AS SHOWN TO PREVENT RUNOFF FROM COMING OVER WALL.
 8. INSTALL LEVEL SPREADER, BOTTOM ELEVATION 950' AT 12' WIDE, 3:1 SIDE SLOPES, 2' DEEP, WITH 5' LEVEL SHELF AT TOP ELEVATION OF 952'.
 9. INSTALL UNDERDRAIN IAW DETAIL C3.21. LAST 25' OF PIPE SHALL BE SOLID WALL AND DAYLIGHT TO GRADE.
 10. INSTALL LEVEL SPREADER IAW DETAIL C3.21.
 11. CONNECT TO 12\"/>
 12. AFTER SITE IS STABILIZED, REMOVE POROUS BAFFLES AND INSTALL PERMANENT ROCK FOREBAY BERM. FOREBAY BERM TOP ELEVATION = 72.00', WITH A 2' WIDE TOP, 2' HIGH WITH 3:1 SIDE SLOPES. BERM CORE TO BE MINIMUM 9\"/>

DRAINAGE LEGEND

- CATCH BASIN - INSTALL IAW TABLE SHEET C3.13 & DETAIL SHEET C3.20.
- SCDOT TYPE I HOODED CURB INLET - INSTALL IAW TABLE SHEET C3.13 & SCDOT STANDARD DRAWING 719-001-01.
- CONTROL STRUCTURE - INSTALL IAW TABLE SHEET C3.13 & DETAIL SHEET C3.20.
- CURB INLET, SCDOT TYPE 16 - INSTALL IAW TABLE SHEET C3.13 & SCDOT STANDARD DRAWING 719-016-01.
- STORM DRAINAGE MANHOLE - INSTALL IAW TABLE SHEET C3.13 & DETAIL SHEET C3.20.
- SCDOT CATCH BASIN TYPE 9 - INSTALL IAW TABLE SHEET C3.13 & SCDOT STANDARD DRAWING 719-009-01.
- STORM DRAINAGE PIPE - INSTALL IAW TABLE SHEET C3.13 & DETAIL SHEET C3.20.
- ROOF AND LANDSCAPE DRAINAGE PIPE (PVC SDR 35) - SEE PLAN FOR SIZE. INSTALL AT A MINIMUM 1% SLOPE & 1' OF COVER, IAW DETAIL SHEET C3.20. REFER TO ARCHITECTURAL DRAWINGS FOR CONNECTION LOCATIONS -5.0' BELOW FFE.
- ROOF DRAINAGE CLEANOUT - INSTALL IAW DETAIL SHEET C3.20.
- NEW FINISHED GRADE SPOT ELEVATION - SPOTS SHOWN ARE TO EDGE OF PAVEMENT/BOTTOM FACE OF CURB, UNLESS OTHERWISE NOTED.
- NEW FINISHED GRADE CONTOUR
- EXISTING GRADE CONTOUR
- DRAINAGE FLOW ARROW
- RETAINING WALL - INSTALL IAW TOP AND BOTTOM ELEVATIONS SHOWN. SEE SITE PLAN FOR WALL DESIGN REQUIREMENTS.
- PERMANENT RIP RAP APRON - INSTALL IAW DETAIL SHEET C3.20.
- EMERGENCY SPILLWAY - INSTALL IAW DETAIL SHEET C3.20.
- LIMITS OF DISTURBANCE



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SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

EASLEY RETAIL CENTER

EASLEY, SC

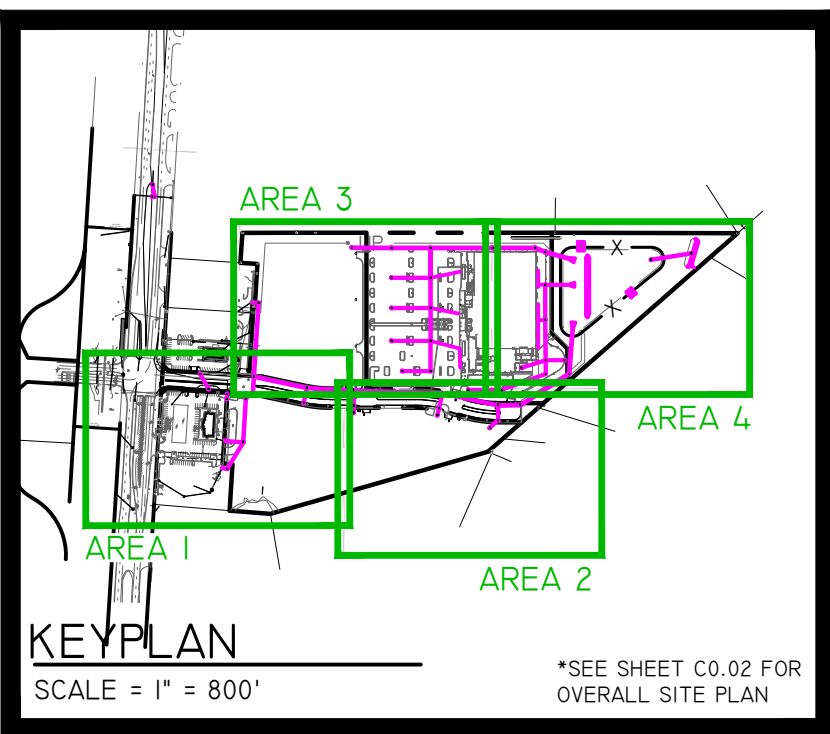
REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
Δ	OWNER REVISIONS	7/8/26

DRAINAGE PLAN - AREA I

C3.01

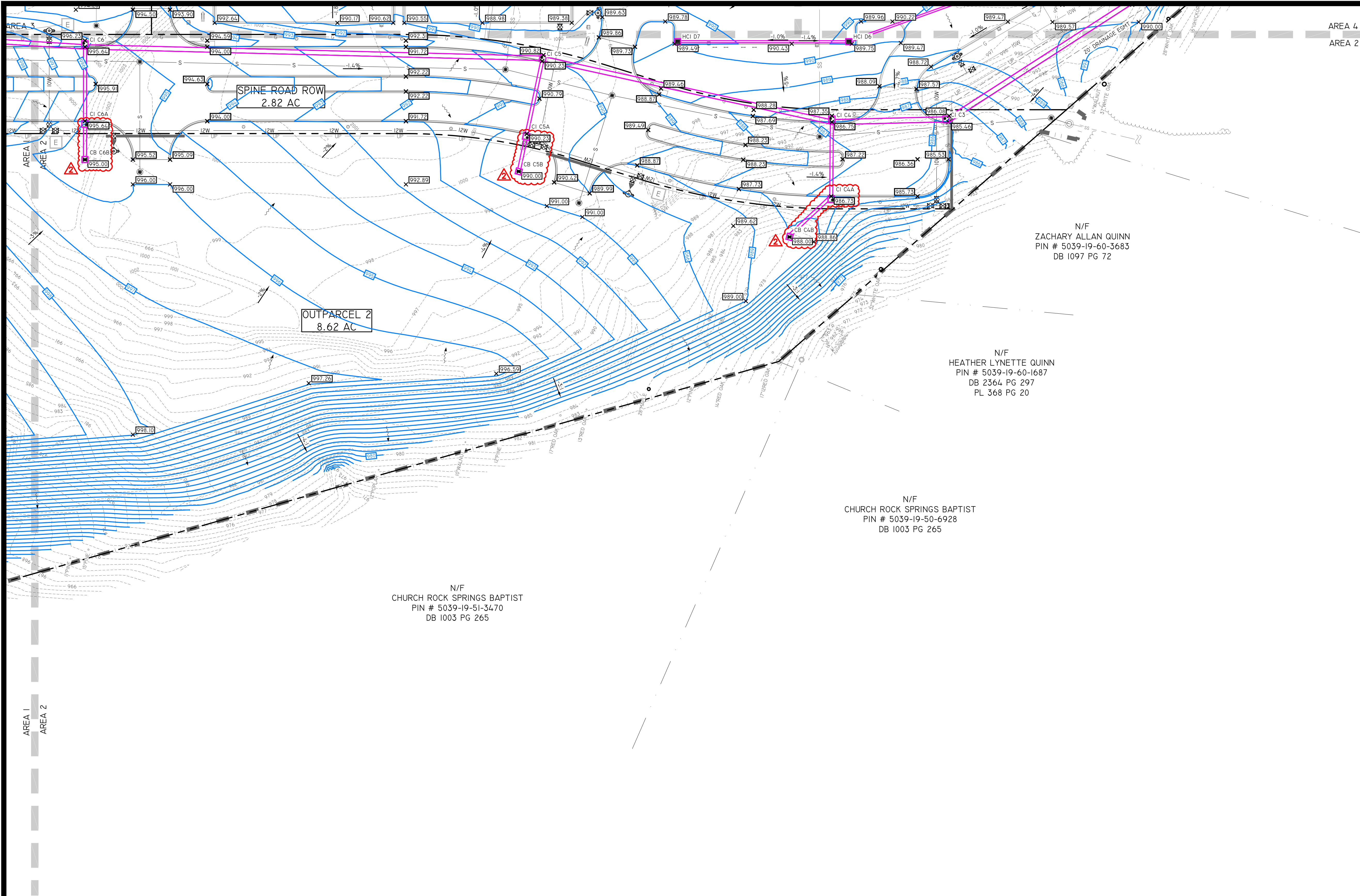
ASBUILT NOTE

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CONTRACTOR SHALL CALL 811 FOR LOCATION OF ALL EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY IF UTILITIES CONFLICT WITH PROPOSED WORK.



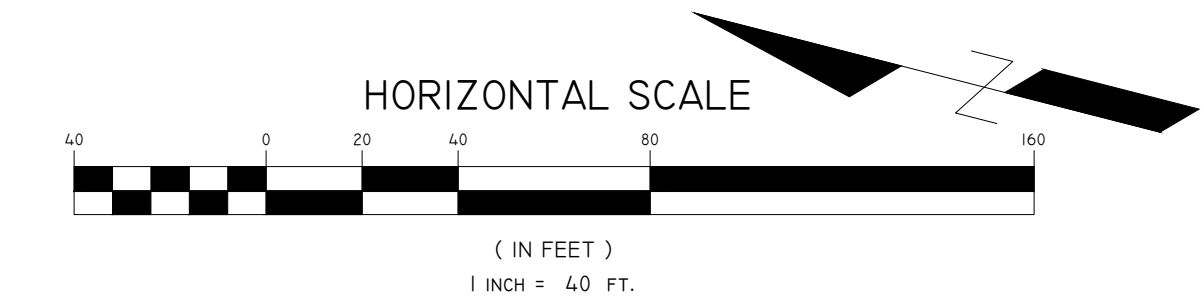


GENERAL NOTES:

1. SEE SHEET C0.01 FOR CIVIL ABBREVIATIONS AND GENERAL NOTES.
2. SEE SHEET C2.01 FOR EXISTING SITE LEGEND.
3. CONNECT TO EXISTING STORM.
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11. INSTALL UNDERDRAIN IAW DETAIL C3.21. LAST 25' OF PIPE SHALL BE SOLID WALL AND DAYLIGHT TO GRADE.
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13. CONNECT TO 12" DOWNSPOUT AT 5' BELOW FINISHED FLOOR ELEVATION.
14. AFTER SITE IS STABILIZED, REMOVE POROUS BAFFLES AND INSTALL PERMANENT ROCK FOREBAY BERM. FOREBAY BERM TOP ELEVATION = 72.00', WITH A 2' WIDE TOP, 2' HIGH WITH 3:1 SIDE SLOPES. BERM CORE TO BE MINIMUM 9" D50 RIP RAP, UPSTREAM SIDE HAVING 1' THICK FACE OF WASHED #5 STONE.

DRAINAGE LEGEND

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- SCDOT TYPE I HOODED CURB INLET - INSTALL IAW TABLE SHEET C3.13 & SCDOT STANDARD DRAWING 719-001-01.
- CONTROL STRUCTURE - INSTALL IAW TABLE SHEET C3.13 & DETAIL SHEET C3.20.
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- STORM DRAINAGE MANHOLE - INSTALL IAW TABLE SHEET C3.13 & DETAIL SHEET C3.20.
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- LIMITS OF DISTURBANCE



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SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

EASLEY RETAIL CENTER

EASLEY, SC

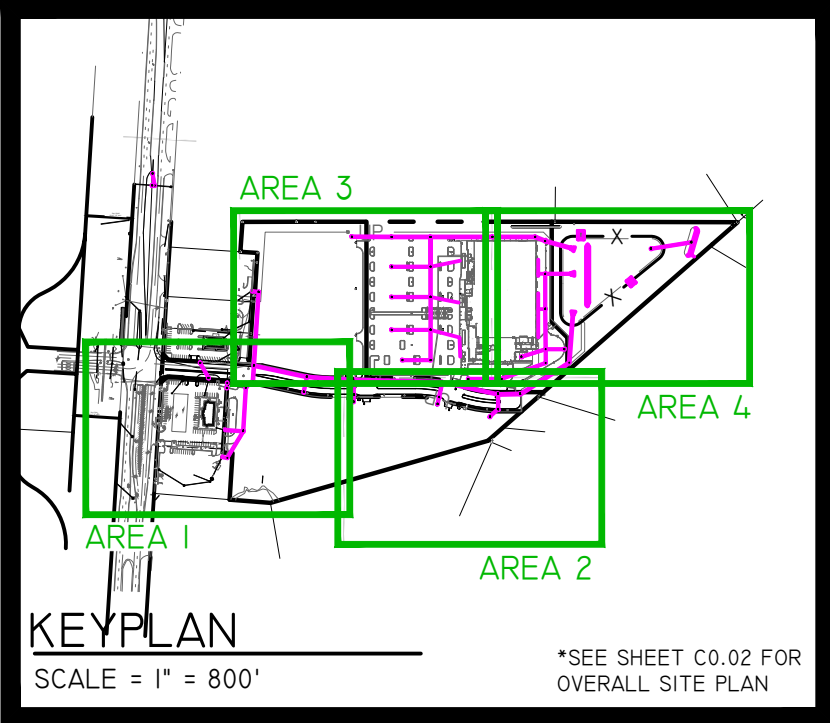
REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
	OWNER REVISIONS	7/8/26
	PERMITTING REVISIONS	8/12/26

DRAINAGE PLAN -
AREA 2

C3.02

ASBUILT NOTE
CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED STORMWATER ASBUILTS & PLATS. ENGINEER TO REVIEW AND APPROVE ASBUILTS & PLATS BEFORE SUBMITTING TO GOVERNING AGENCIES.

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N/F
SEHP-123 LLC
PIN # 5039-19-71-0676
DB I204 PG 62

N/F
SEHP-123 LLC
PIN # 5039-19-71-0676
DB I204 PG 62

GENERAL NOTES:

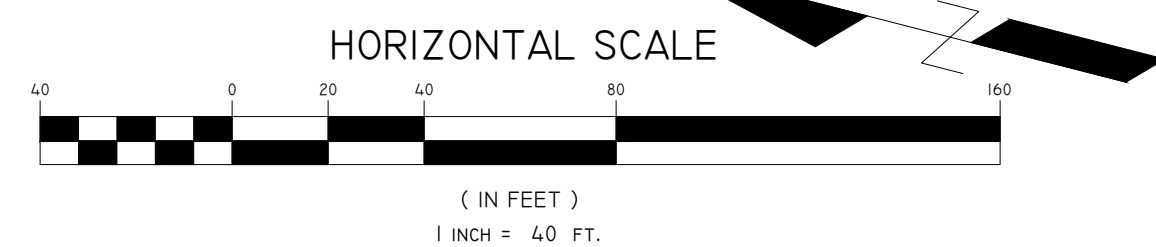
- SEE SHEET C0.01 FOR CIVIL ABBREVIATIONS AND GENERAL NOTES.
- SEE SHEET C2.01 FOR EXISTING SITE LEGEND.

KEYNOTES:

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DRAINAGE LEGEND

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- CURB INLET, SCDOT TYPE 16 - INSTALL IAW TABLE SHEET C3.13 & SCDOT STANDARD DRAWING 719-016-01.
- STORM DRAINAGE MANHOLE - INSTALL IAW TABLE SHEET C3.13 & DETAIL SHEET C3.20.
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- EMERGENCY SPILLWAY - INSTALL IAW DETAIL SHEET C3.20.
- LIMITS OF DISTURBANCE



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SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

EASLEY RETAIL CENTER

EASLEY, SC

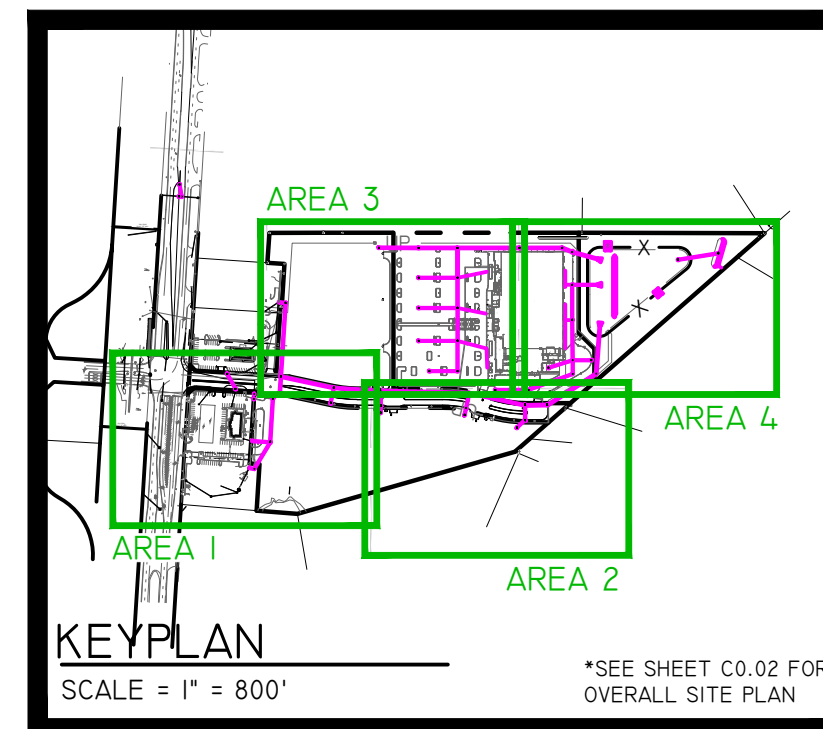
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OWNER REVISIONS		7/8/26
PERMITTING REVISIONS		8/12/26

DRAINAGE PLAN - AREA 3

C3.03

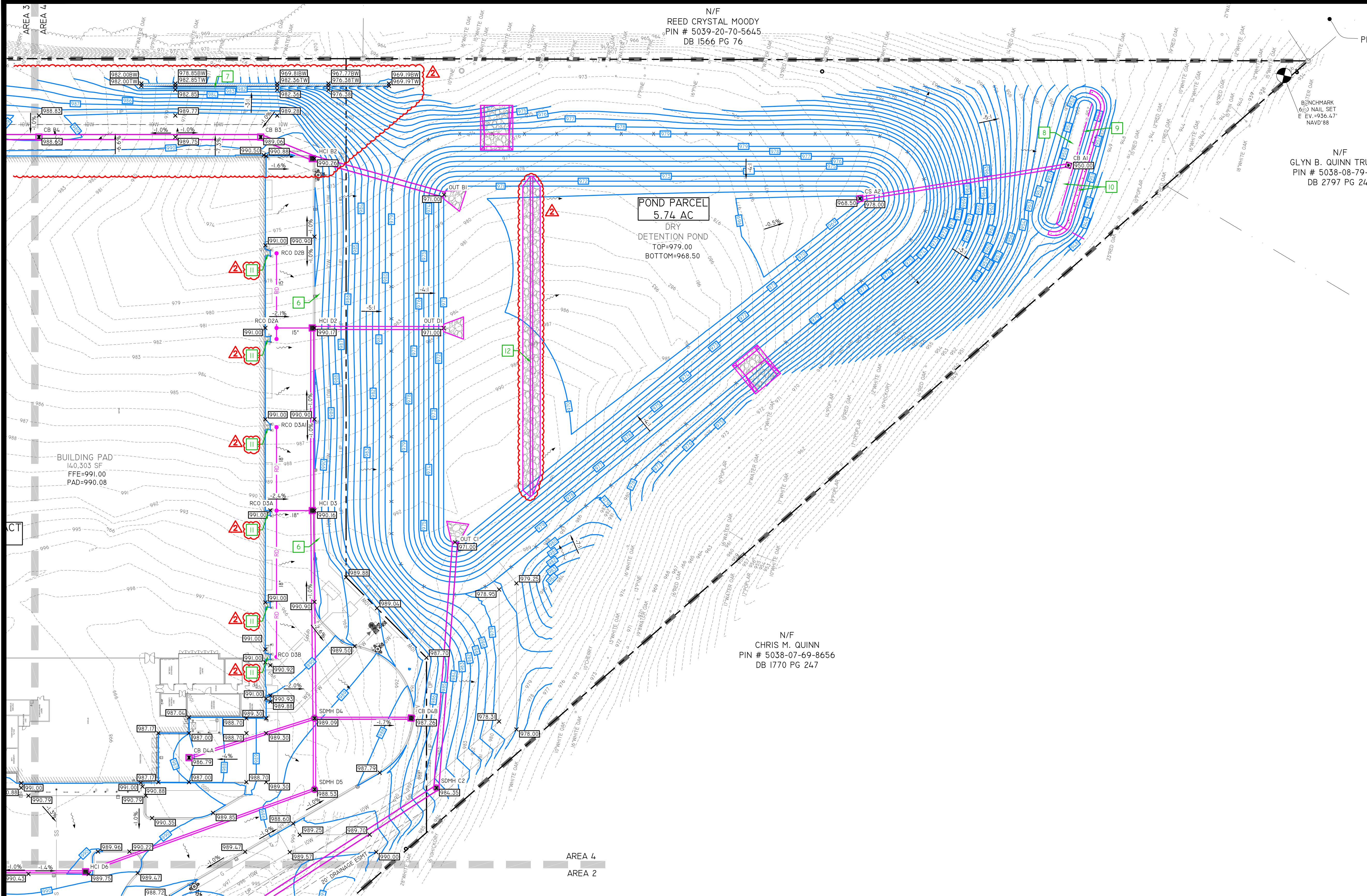
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South Carolina 811
Call 811 - Before You Dig

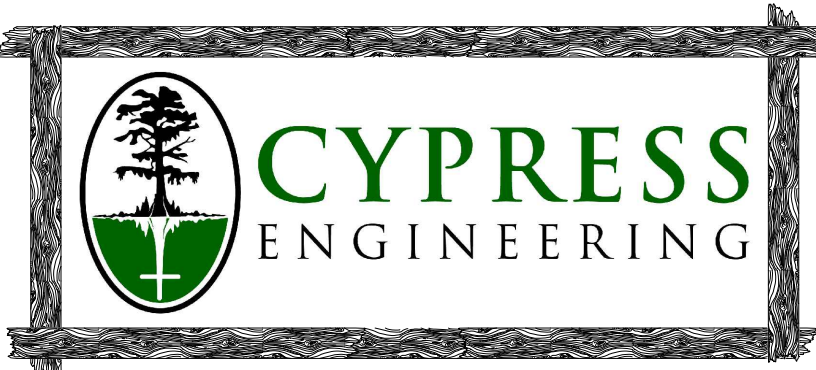
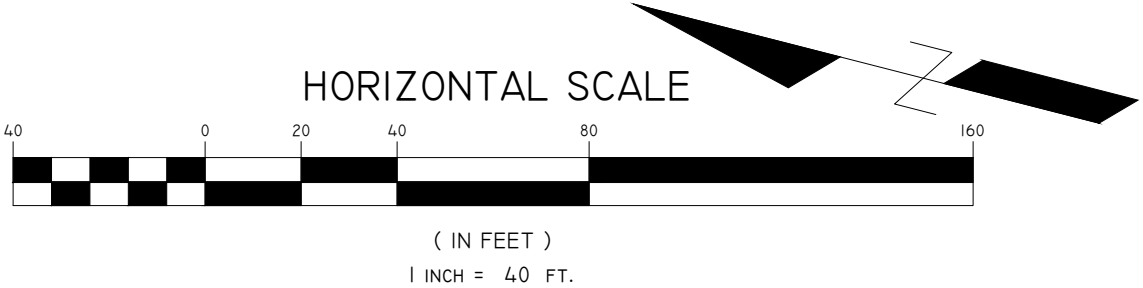


GENERAL NOTES:

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DRAINAGE LEGEND

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- SCDOT TYPE I HOODED CURB INLET - INSTALL IAW TABLE SHEET C3.13 & SCDOT STANDARD DRAWING 719-001-01.
- CONTROL STRUCTURE - INSTALL IAW TABLE SHEET C3.13 & DETAIL SHEET C3.20.
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DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
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EASLEY RETAIL CENTER

EASLEY, SC

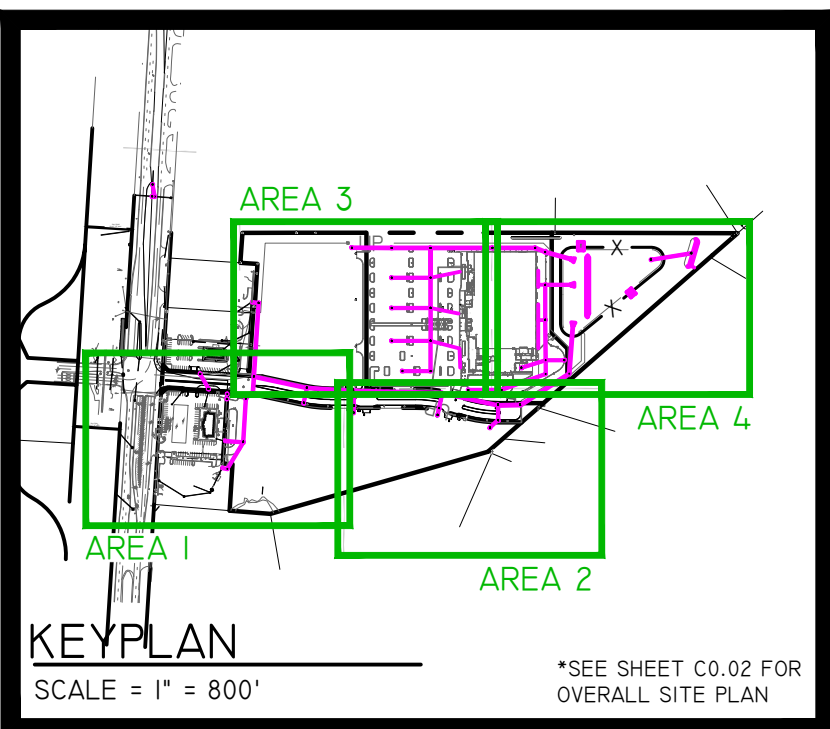
REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
	OWNER REVISIONS	7/8/26
	PERMITTING REVISIONS	8/12/26

DRAINAGE PLAN -
AREA 4

C3.04

ASBUILT NOTE

CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED STORMWATER ASBUILTS & PLATS. ENGINEER TO REVIEW AND APPROVE ASBUILTS & PLATS BEFORE SUBMITTING TO GOVERNING AGENCIES.



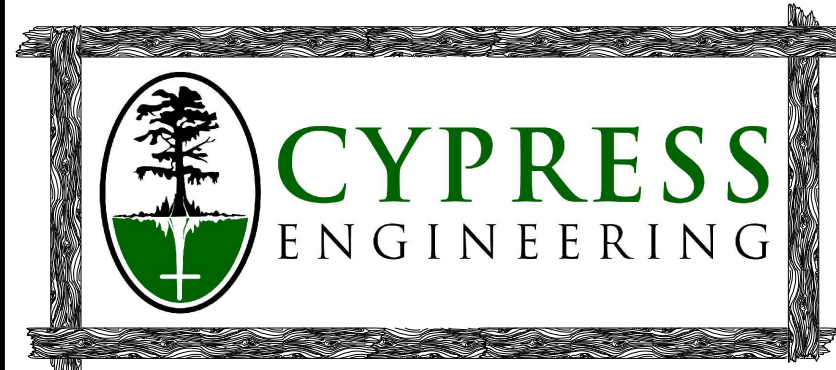
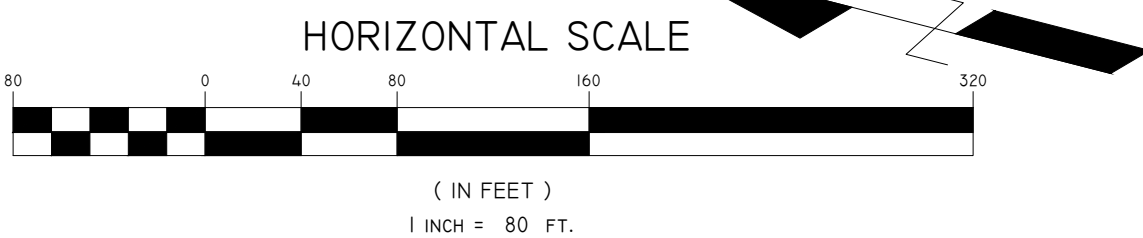
CONTRACTOR SHALL CALL 811 FOR LOCATION OF ALL EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY IF UTILITIES CONFLICT WITH PROPOSED WORK.





SEWER USAGE NOTES:	
TOTAL PURCHASED SEWER	= 28,846 GPD
TARGET SEWER USAGE	= 3,000 GPD
REMAINING SEWER FLOW	= 25,846 GPD

HYDRANT FLOW TEST RESULTS	
Test Date:	1/6/2026
Test Performed By:	ECU
Flow Hydrant #:	1059
Test Hydrant #:	1035
Static Pressure:	88 psi
Residual Pressure:	84 psi
Flow:	1160 GPM
Flow @ 20 psi:	5,357



CYPRESS ENGINEERING
412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	8/12/2026	CYP PROJ #: 25034
DRAWN:	JCT	CLIENT: TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:
CHECKED:	DDW	

EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
	OWNER REVISIONS	7/19/26
	PERMITTING REVISIONS	8/12/26




CONTRACTOR SHALL CALL 811 FOR LOCATION OF ALL EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY IF UTILITIES CONFLICT WITH PROPOSED WORK.

OVERALL UTILITY PLAN

C4.00

	FIRE HYDRANT ASSEMBLY - INSTALL IAW DETAIL SHEET C4.20.		S	8" PVC (PVC C900) SEWER MAIN - INSTALL IAW DETAIL SHEET C4.21.
	GATE VALVE (MATCH LINE SIZE) - INSTALL IAW DETAIL SHEET C4.20.		SS	6" PVC (SCH 40) SEWER SERVICE LATERAL - INSTALL AT 1.0% MINIMUM SLOPE, IAW ASTM D 3034, AND IAW DETAIL SHEET C4.21. ALL WORK SHALL MEET ASTM D 2321 AND SCDES REQUIREMENTS.
	WATER METER (MATCH LINE SIZE) - INSTALL IAW DETAIL SHEET C4.20.		G	GAS - COORDINATE INSTALLATION WITH FORT HILL NATURAL GAS.
	EXTERNAL FIRE DEPARTMENT CONNECTION - IAW DETAIL SHEET C4.20		UP	ELECTRICAL - INSTALL IAW UTILITY PROVIDERS REQUIREMENTS.
	BACKFLOW PREVENTER (MATCH LINE SIZE) - PROVIDE REDUCED PRESSURE ZONE BACKFLOW AND INSTALL AT WATER METER IAW DETAIL SHEET C4.20.		UP	TELECOM - INSTALL IAW UTILITY PROVIDERS REQUIREMENTS.
	TAPPING SLEEVE AND VALVE - INSTALL IAW DETAIL SHEET C4.20.		8	SITE LIGHTING - INSTALL IAW SITE LIGHTING PLANS.
	SEWER MANHOLE - INSTALL IAW DETAIL SHEET C4.21.		ST	STREET SITE LIGHTING - COORDINATE INSTALLATION WITH ECU.
	SEWER CLEANOUT - COVER WITH DF37C-12 BOX AND EJ 1118 DI LID STAMPED "SEWER"		IR	IRRIGATION LINES - INSTALL IAW OWNER REQUIREMENTS.
	GREASE TRAP - INSTALL IAW DETAIL SHEET C4.21.		---	LIMITS OF DISTURBANCE
	6" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.			
	8" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.			
	12" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.			
	8" DIP (CLASS 350) FIRE SERVICE - INSTALL IAW DETAIL SHEET C4.21.			
	DIP WATER SERVICE (SEE PLAN FOR SIZE) - INSTALL IAW DETAIL SHEET C4.21.			

WATER & SEWER

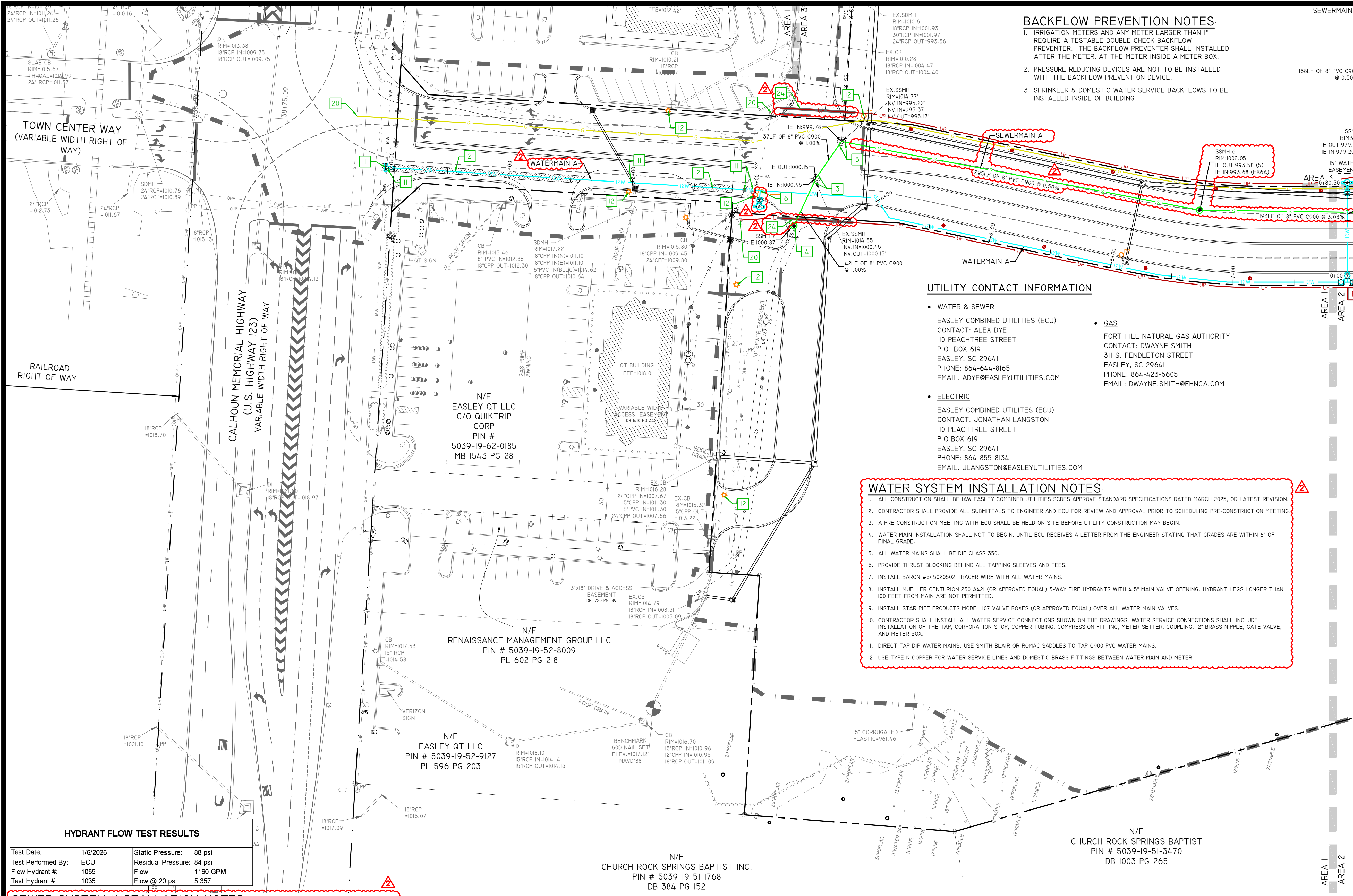
EASLEY COMBINED UTILITIES (ECU)
CONTACT: ALEX DYE
110 PEACHTREE STREET
P.O. BOX 619
EASLEY, SC 29641
PHONE: 864-644-8165
EMAIL: ADYE@EASLEYUTILITIES.COM

• **GAS**

FORT HILL NATURAL GAS AUTHORITY
CONTACT: DWAYNE SMITH
311 S. PENDLETON STREET
EASLEY, SC 29641
PHONE: 864-623-5605
EMAIL: DWAYNE.SMITH@FHNGA.COM

• **ELECTRIC**

EASLEY COMBINED UTILITIES (ECU)
CONTACT: JONATHAN LANGSTON
110 PEACHTREE STREET
P.O. BOX 619
EASLEY, SC 29641
PHONE: 864-855-8134
EMAIL: JLANGSTON@EASLEYUTILITIES.COM



BACKFLOW PREVENTION NOTES:

- IRRIGATION METERS AND ANY METER LARGER THAN 1" REQUIRE A TESTABLE DOUBLE CHECK BACKFLOW PREVENTER. THE BACKFLOW PREVENTER SHALL BE INSTALLED AFTER THE METER, AT THE METER INSIDE A METER BOX.
- PRESSURE REDUCING DEVICES ARE NOT TO BE INSTALLED WITH THE BACKFLOW PREVENTION DEVICE.
- SPRINKLER & DOMESTIC WATER SERVICE BACKFLOWS TO BE INSTALLED INSIDE OF BUILDING.

UTILITY CONTACT INFORMATION

- WATER & SEWER**
EASLEY COMBINED UTILITIES (ECU)
CONTACT: ALEX DYE
110 PEACHTREE STREET
P.O. BOX 619
EASLEY, SC 29641
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CONTACT: DWAYNE SMITH
311 S. PENDLETON STREET
EASLEY, SC 29641
PHONE: 864-423-5605
EMAIL: DWAYNE.SMITH@FHNGA.COM

WATER SYSTEM INSTALLATION NOTES:

- ALL CONSTRUCTION SHALL BE IAW EASLEY COMBINED UTILITIES SCDOS APPROVE STANDARD SPECIFICATIONS DATED MARCH 2025, OR LATEST REVISION.
- CONTRACTOR SHALL PROVIDE ALL SUBMITTALS TO ENGINEER AND ECU FOR REVIEW AND APPROVAL PRIOR TO SCHEDULING PRE-CONSTRUCTION MEETING.
- A PRE-CONSTRUCTION MEETING WITH ECU SHALL BE HELD ON SITE BEFORE UTILITY CONSTRUCTION MAY BEGIN.
- WATER MAIN INSTALLATION SHALL NOT TO BEGIN, UNTIL ECU RECEIVES A LETTER FROM THE ENGINEER STATING THAT GRADES ARE WITHIN 6" OF FINAL GRADE.
- ALL WATER MAINS SHALL BE DIP CLASS 350.
- PROVIDE THRUST BLOCKING BEHIND ALL TAPPING SLEEVES AND TEES.
- INSTALL BARON #54502502 TRACER WIRE WITH ALL WATER MAINS.
- INSTALL MUELLER CENTURION 250 A421 (OR APPROVED EQUAL) 3-WAY FIRE HYDRANTS WITH 4.5" MAIN VALVE OPENING. HYDRANT LEGS LONGER THAN 100 FEET FROM MAIN ARE NOT PERMITTED.
- INSTALL STAR PIPE PRODUCTS MODEL 107 VALVE BOXES (OR APPROVED EQUAL) OVER ALL WATER MAIN VALVES.
- CONTRACTOR SHALL INSTALL ALL WATER SERVICE CONNECTIONS SHOWN ON THE DRAWINGS. WATER SERVICE CONNECTIONS SHALL INCLUDE INSTALLATION OF THE TAP, CORPORATION STOP, COPPER TUBING, COMPRESSION FITTING, METER SETTER, COUPLING, 12" BRASS NIPPLE, GATE VALVE, AND METER BOX.
- DIRECT TAP DIP WATER MAINS. USE SMITH-BLAIR OR ROMAC SADDLES TO TAP C900 PVC WATER MAINS.
- USE TYPE K COPPER FOR WATER SERVICE LINES AND DOMESTIC BRASS FITTINGS BETWEEN WATER MAIN AND METER.

GENERAL NOTES:

- SEE SHEET C0.01 FOR CIVIL ABBREVIATIONS AND GENERAL NOTES.
- SEE SHEET C2.01 FOR EXISTING SITE LEGEND.

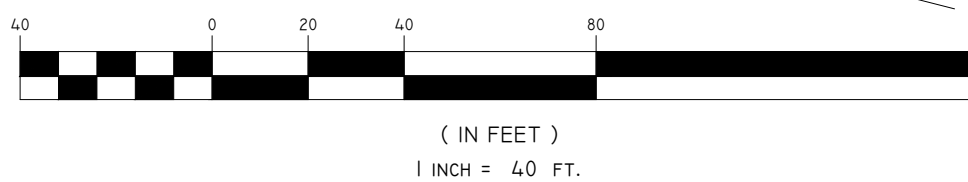
KEYNOTES:

- CONNECT TO EXISTING 16" WATERMAIN. ECU SHALL BE NOTIFIED A MINIMUM 72-HOURS PRIOR TO TIE-IN FOR INSPECTION. GATE VALVE SHALL REMAIN CLOSED UNTIL NEW WATERMAIN IS INSTALLED, TESTED, AND HAS RECEIVED A PERMIT TO OPERATE.
- SANICUT AND REPAIR PAVEMENT FOR NEW WATER MAIN IAW DETAIL SHEET C4.20. REFER TO SITE PLAN FOR ADDITIONAL INFORMATION.
- CORE AND BOOT EXISTING MANHOLE FOR SEWER TIE-IN. LINE INTERIOR OF EXISTING MANHOLE WITH OBIC LINING PER ECU SPECIFICATIONS.
- TIE-IN EXISTING SEWER SERVICE WITH DOGHOUSE MANHOLE.
- INSTALL 12"x10" TEE.
- INSTALL 12"x6" TEE.
- INSTALL 8"x6" REDUCER.
- INSTALL 10"x6" TEE.
- INSTALL 10"x8" TEE.
- INSTALL 8"x2" TEE.
- INSTALL WATERLINE UNDER UTILITY.
- COORDINATE RELOCATION OF POWER POLE AND POWERLINE WITH UTILITY PROVIDER. REFER TO DEMOLITION PLAN FOR ENTIRE UTILITY DEMOLITION SCOPE.
- REFER TO MEP PLAN FOR MORE INFORMATION.
- INSTALL TRANSFORMER AND GENERATOR PADS PER ECU AND MANUFACTURER SPECIFICATIONS.
- CONNECT TO EXISTING 6" WATERLINE AND EXTEND FOR NEW HYDRANT LEG.
- INSTALL 12"x8" TEE.
- INSTALL 2"x3" INCREASER.
- INSTALL 1" METER. SEE IRRIGATION PLAN FOR MORE CONTINUANCE.
- INSTALL 8"x6" TEE.
- TIE INTO UTILITY PROVIDERS SERVICE. COORDINATE ALL WORK WITH UTILITY PROVIDER.
- INSTALL NON-ECU SEWER MANHOLE COVER FOR PRIVATE SEWERMAIN MANHOLES.
- INSTALL 12" MJ CAP.
- INSTALL 10"x6" REDUCER.
- INSTALL (2) 4" SCH 40 PVC CONDUITS IAW ECU SPECIFICATIONS FOR ELECTRICAL PRIMARY ROAD CROSSINGS. ECU WILL PROVIDE CONDUIT MATERIALS FOR INSTALLATION.

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY - INSTALL IAW DETAIL SHEET C4.20.
- GATE VALVE (MATCH LINE SIZE) - INSTALL IAW DETAIL SHEET C4.20.
- WATER METER (MATCH LINE SIZE) - INSTALL IAW DETAIL SHEET C4.20.
- EXTERNAL FIRE DEPARTMENT CONNECTION - IAW DETAIL SHEET C4.20.
- BACKFLOW PREVENTER (MATCH LINE SIZE) - PROVIDE REDUCED PRESSURE ZONE BACKFLOW AND INSTALL AT WATER METER IAW DETAIL SHEET C4.20.
- TAPPING SLEEVE AND VALVE - INSTALL IAW DETAIL SHEET C4.20.
- SEWER MANHOLE - INSTALL IAW DETAIL SHEET C4.21.
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- GAS - COORDINATE INSTALLATION WITH FORT HILL NATURAL GAS.
- ELECTRICAL - INSTALL IAW UTILITY PROVIDERS REQUIREMENTS.
- TELECOM - INSTALL IAW UTILITY PROVIDERS REQUIREMENTS.
- SITE LIGHTING - INSTALL IAW SITE LIGHTING PLANS.
- STREET SITE LIGHTING - COORDINATE INSTALLATION WITH ECU.
- IRRIGATION LINES - INSTALL IAW OWNER REQUIREMENTS.
- LIMITS OF DISTURBANCE

HORIZONTAL SCALE



HYDRANT FLOW TEST RESULTS			
Test Date:	1/6/2026	Static Pressure:	88 psi
Test Performed By:	ECU	Residual Pressure:	84 psi
Flow Hydrant #:	1059	Flow:	1160 GPM
Test Hydrant #:	1035	Flow @ 20 psi:	5.357

SEWER SYSTEM INSTALLATION NOTES:

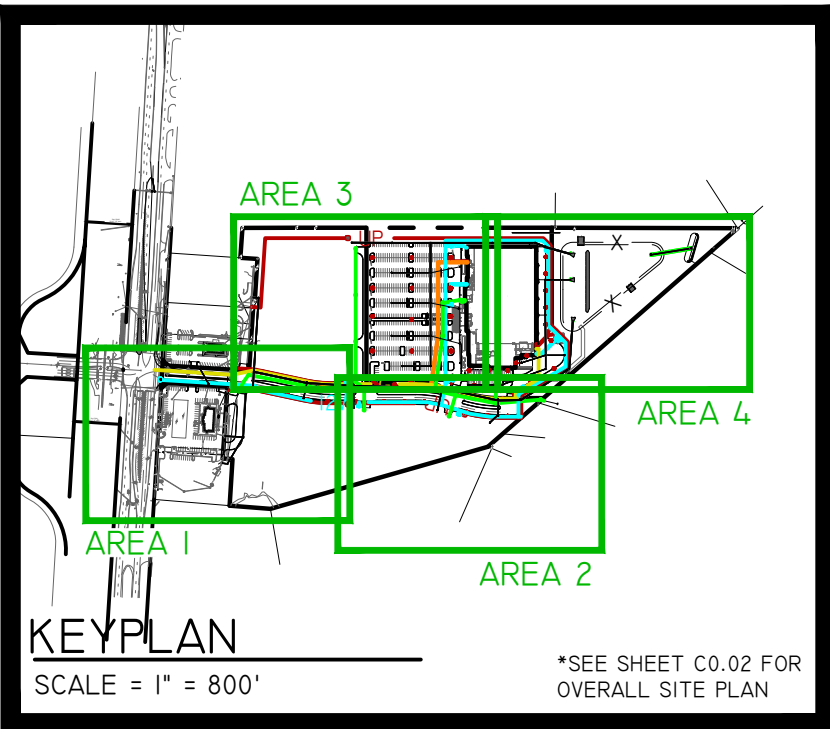
- ALL CONSTRUCTION SHALL BE IAW EASLEY COMBINED UTILITIES SCDOS APPROVED STANDARD SPECIFICATIONS, DATED MARCH 2025, OR LATEST REVISION.
- CONTRACTOR SHALL PROVIDE ALL SUBMITTALS TO ENGINEER AND ECU FOR REVIEW AND APPROVAL PRIOR TO SCHEDULING PRE-CONSTRUCTION MEETING.
- A PRE-CONSTRUCTION MEETING WITH ECU SHALL BE HELD ON SITE BEFORE UTILITY INSTALLATION MAY BEGIN.
- ALL SEWER MAINS SHALL BE C900 PVC.
- PROVIDE PRECAST MANHOLES FROM A SINGLE SOURCE: KNIGHTS PRECAST, TINDALL CORPORATION, OR APPROVED EQUAL. MIXING OF MANUFACTURERS WILL NOT BE ALLOWED.
- MANHOLE RING & COVER SHALL BE E.J. IRON WORKS V-1384, OR US FOUNDRY USF 669 RING & KL COVER (2 X NPPB). NO MIXING OF MANUFACTURERS WILL BE ALLOWED PER DEVELOPMENT UNLESS NOTED OTHERWISE. COVER SHALL BE CAST WITH "PROPERTY OF EASLEY COMBINED UTILITIES" AND "SANITARY SEWER".
- TERMINATE SERVICE LINES INTO MANHOLE WHERE POSSIBLE.
- USE #57 STONE FOR ALL SEWER MAIN BEDDING IAW DETAILS ON SHEET C4.21.
- LATERALS SHALL BE SCH 40 PVC PIPE.
- DROP MANHOLE SHALL HAVE OBIC 1000 LINING SYSTEM OR APPROVED EQUAL.
- INSTALL RISER IF 11-INCHES OR MORE OF GRADE ADJUSTMENT IS REQUIRED FOR RING AND COVER. CONCRETE RISER RINGS GROUTED ON INSIDE OF MANHOLE ARE ACCEPTABLE FOR ADJUSTMENTS LESS THAN 11-INCHES.
- INSTALL CLEANOUT ON LATERAL LINES AT RIGHT-OF-WAY. COVER CLEANOUT W/ STAR PRODUCTS VALVE BOX WITH DIP LID STAMPED "SEWER".

SEWER SYSTEM INSPECTION NOTES:

- FINAL SEWER SYSTEM TESTING AND INSPECTION SHALL BE IAW ALL ECU SPECIFICATIONS AND REQUIREMENTS, AND PERFORMED IN THE PRESENCE OF THE ENGINEER OR ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE PRIOR TO ALL REQUIRED TEST.
- DEFLECTION TEST SHALL BE PERFORMED ON ALL PVC AND DIP SEWER MAINS USING A 5% DEFLECTION MANDREL SIZED TO MATCH THE SEWER MAIN BEING TESTED.
- LOW PRESSURE AIR TEST SHALL BE PERFORMED ON ALL SEWER MAINS. TEST SHALL BE PERFORMED @ 4PSI FOR 7:34 (MINUTES:SECONDS) WITH NO PRESSURE LOSS.
- ALL NEW GRAVITY SEWER MAINS SHALL BE INSPECTED BY CCTV AND FOOTAGE PROVIDED TO ECU PRIOR TO LOW PRESSURE AIR TESTING. REFER TO ECU SPECIFICATIONS FOR CCTV REQUIREMENTS.
- ALL SEWER MANHOLES SHALL BE VACUUM TESTED AT 10 HG FOR 1 MINUTE. MAXIMUM PRESSURE LOSS SHALL NOT EXCEED 1 HG.

WATER SYSTEM INSPECTION NOTES:

- FINAL WATER SYSTEM TESTING AND INSPECTION SHALL BE IAW ALL ECU SPECIFICATION AND REQUIREMENTS, AND PERFORMED IN THE PRESENCE OF THE ENGINEER OR ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE PRIOR TO ALL REQUIRED TEST.
- NEW WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS.
- NEW TAPPING SLEEVES SHALL BE PRESSURE TESTED @200PSI FOR 15 MINS ON ALL PIPE TYPES. PRIOR TO TESTING, TAPPING SLEEVES SHALL BE TORQUED TO 85PSI, WAIT 15 MINUTES, AND TORQUE AGAIN.
- CONTRACTOR SHALL DISINFECT NEW WATER SYSTEM PRIOR TO FINAL TESTING AND INSPECTION IAW ECU STANDARD SPECIFICATIONS.
- PRIOR TO OPERATION, CONTRACTOR SHALL PROVIDE BAC-T SAMPLE RESULTS FROM A CERTIFIED LABORATORY FOR SAMPLES COLLECTED AND TESTED ON TWO CONSECUTIVE CALENDAR DAYS.



ASBUILT NOTE

CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED UTILITY ASBUILTS & PLATS. ENGINEER TO REVIEW AND APPROVE ASBUILTS & PLATS BEFORE SUBMITTING TO GOVERNING AGENCIES.

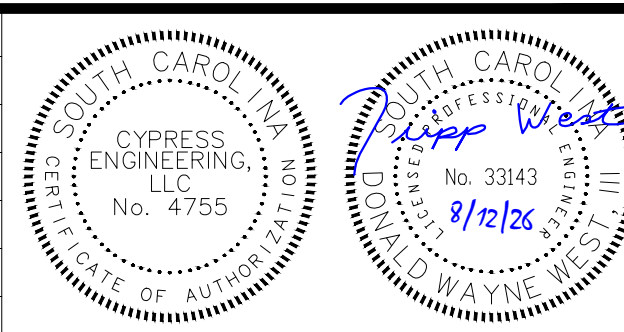
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EASLEY RETAIL CENTER

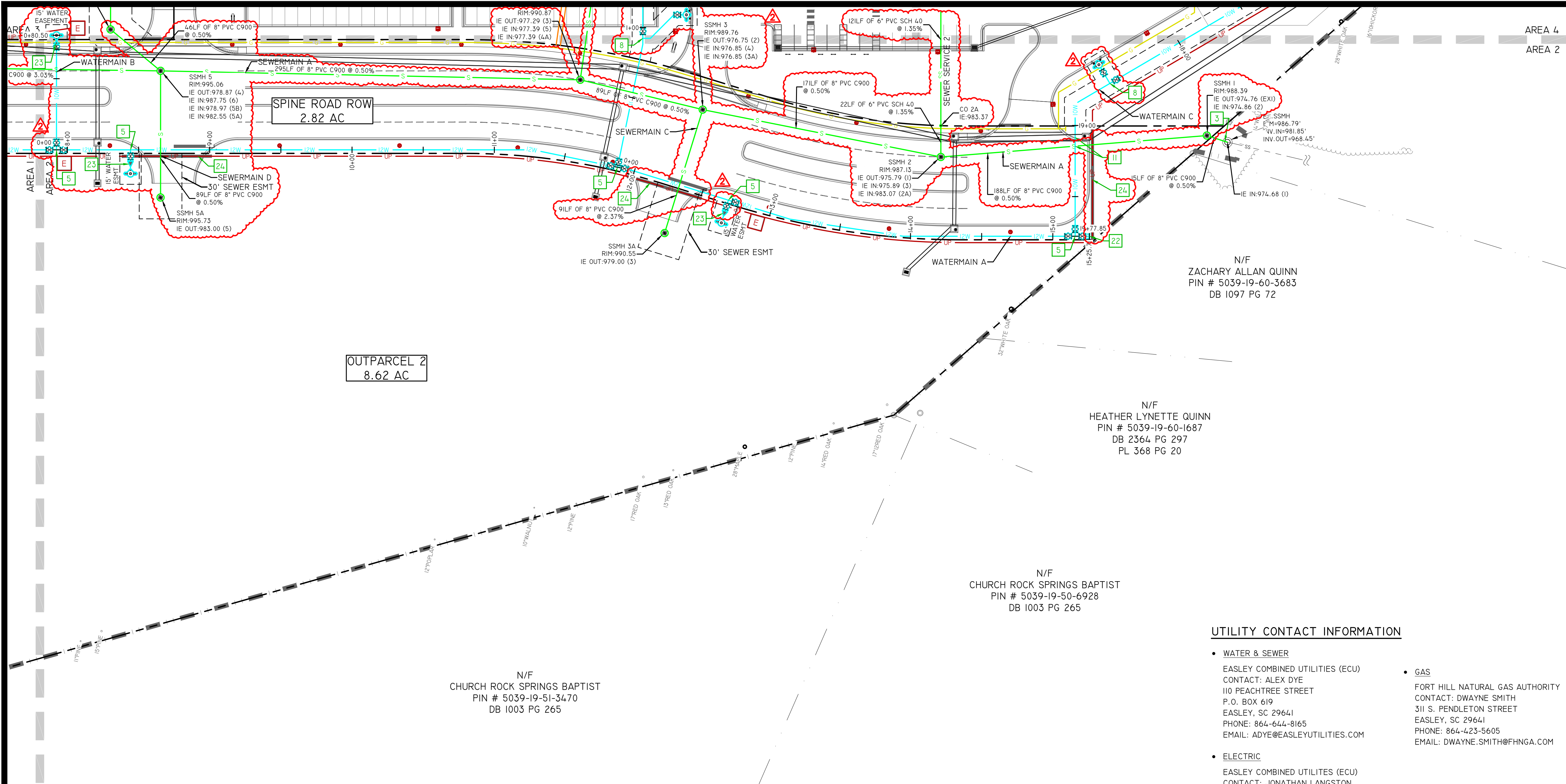
EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
OWNER REVISIONS		7/8/26
PERMITTING REVISIONS		8/12/26



UTILITY PLAN - AREA I

C4.01



GENERAL NOTES:

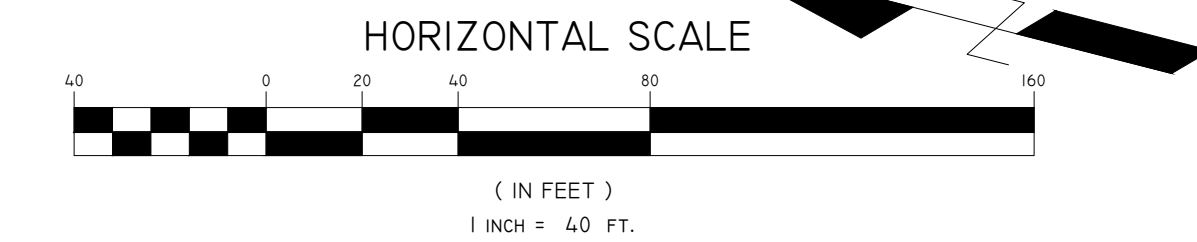
- SEE SHEET C0.01 FOR CIVIL ABBREVIATIONS AND GENERAL NOTES.
- SEE SHEET C2.01 FOR EXISTING SITE LEGEND.

KEYNOTES:

- CONNECT TO EXISTING 16" WATERMAIN. ECU SHALL BE NOTIFIED A MINIMUM 72-HOURS PRIOR TO TIE-IN FOR INSPECTION. GATE VALVE SHALL REMAIN CLOSED UNTIL NEW WATERMAIN IS INSTALLED, TESTED, AND HAS RECEIVED A PERMIT TO OPERATE.
- SANICUT AND REPAIR PAVEMENT FOR NEW WATER MAIN IAW DETAIL SHEET C4.20. REFER TO SITE PLAN FOR ADDITIONAL INFORMATION.
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- TIE-IN EXISTING SEWER SERVICE WITH DOGHOUSE MANHOLE.
- INSTALL 12"x10" TEE.
- INSTALL 12"x6" TEE.
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- INSTALL 8"x2" TEE.
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- REFER TO MEP PLAN FOR MORE INFORMATION.
- INSTALL TRANSFORMER AND GENERATOR PADS PER ECU AND MANUFACTURER SPECIFICATIONS.
- CONNECT TO EXISTING 6" WATERLINE AND EXTEND FOR NEW HYDRANT LEG.
- INSTALL 12"x8" TEE.
- INSTALL 2"x3" INCREASER.
- INSTALL 1" METER. SEE IRRIGATION PLAN FOR MORE CONTINUANCE.
- INSTALL 8"x6" TEE.
- TIE INTO UTILITY PROVIDERS SERVICE. COORDINATE ALL WORK WITH UTILITY PROVIDER.
- INSTALL NON-ECU SEWER MANHOLE COVER FOR PRIVATE SEWERMAIN MANHOLES.
- INSTALL 12" M.J. CAP.
- INSTALL 10"x6" REDUCER.
- INSTALL (2) 4" SCH 40 PVC CONDUITS IAW ECU SPECIFICATIONS FOR ELECTRICAL PRIMARY ROAD CROSSINGS. ECU WILL PROVIDE CONDUIT MATERIALS FOR INSTALLATION.

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY - INSTALL IAW DETAIL SHEET C4.20.
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- IRRIGATION LINES - INSTALL IAW OWNER REQUIREMENTS.
- LIMITS OF DISTURBANCE



UTILITY CONTACT INFORMATION

- WATER & SEWER**
EASLEY COMBINED UTILITIES (ECU)
CONTACT: ALEX DYE
110 PEACHTREE STREET
P.O. BOX 619
EASLEY, SC 29641
PHONE: 864-644-8165
EMAIL: ADYE@EASLEYUTILITIES.COM
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BACKFLOW PREVENTION NOTES:

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- SPRINKLER & DOMESTIC WATER SERVICE BACKFLOWS TO BE INSTALLED INSIDE OF BUILDING.

WATER SYSTEM INSTALLATION NOTES:

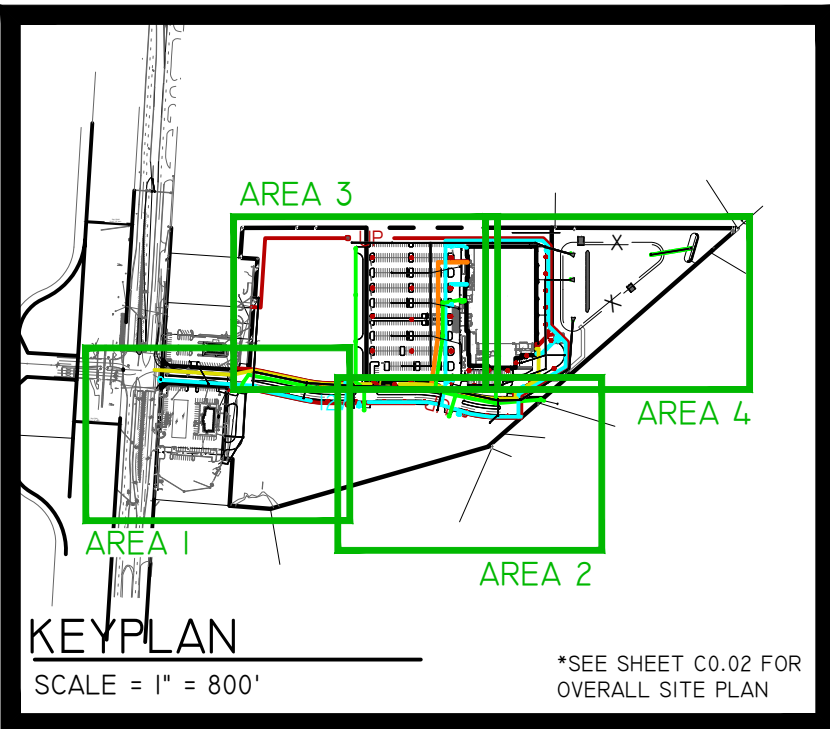
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- ALL WATER MAINS SHALL BE DIP CLASS 350.
- PROVIDE THRUST BLOCKING BEHIND ALL TAPPING SLEEVES AND TEES.
- INSTALL BARON #545020502 TRACER WIRE WITH ALL WATER MAINS.
- INSTALL MUELLER CENTURION 250 A421 (OR APPROVED EQUAL) 3-WAY FIRE HYDRANTS WITH 4.5" MAIN VALVE OPENING. HYDRANT LEGS LONGER THAN 100 FEET FROM MAIN ARE NOT PERMITTED.
- INSTALL STAR PIPE PRODUCTS MODEL 107 VALVE BOXES (OR APPROVED EQUAL) OVER ALL WATER MAIN VALVES.
- CONTRACTOR SHALL INSTALL ALL WATER SERVICE CONNECTIONS SHOWN ON THE DRAWINGS. WATER SERVICE CONNECTIONS SHALL INCLUDE INSTALLATION OF THE TAP, CORPORATION STOP, COPPER TUBING, COMPRESSION FITTING, METER SETTER, COUPLING, 12" BRASS NIPPLE, GATE VALVE, AND METER BOX.
- DIRECT TAP DIP WATER MAINS. USE SMITH-BLAIR OR ROMAC SADDLES TO TAP C900 PVC WATER MAINS.
- USE TYPE K COPPER FOR WATER SERVICE LINES AND DOMESTIC BRASS FITTINGS BETWEEN WATER MAIN AND METER.

SEWER SYSTEM INSPECTION NOTES:

- FINAL SEWER SYSTEM TESTING AND INSPECTION SHALL BE IAW ALL ECU SPECIFICATIONS AND REQUIREMENTS, AND PERFORMED IN THE PRESENCE OF THE ENGINEER OR ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE PRIOR TO ALL REQUIRED TEST.
- DEFLECTION TEST SHALL BE PERFORMED ON ALL PVC AND DIP SEWER MAINS USING A 5% DEFLECTION MANDREL SIZED TO MATCH THE SEWER MAIN BEING TESTED.
- LOW PRESSURE AIR TEST SHALL BE PERFORMED ON ALL SEWER MAINS. TEST SHALL BE PERFORMED @ 4PSI FOR 7:34 (MINUTES:SECONDS) WITH NO PRESSURE LOSS.
- ALL NEW GRAVITY SEWER MAINS SHALL BE INSPECTED BY CCTV AND FOOTAGE PROVIDED TO ECU PRIOR TO LOW PRESSURE AIR TESTING. REFER TO ECU SPECIFICATIONS FOR CCTV REQUIREMENTS.
- ALL SEWER MANHOLES SHALL BE VACUUM TESTED AT 10 HG FOR 1 MINUTE. MAXIMUM PRESSURE LOSS SHALL NOT EXCEED 1 HG.

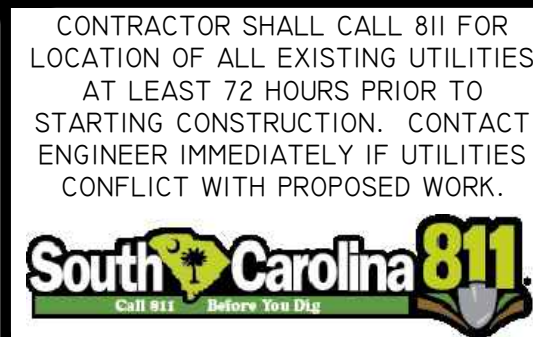
WATER SYSTEM INSPECTION NOTES:

- FINAL WATER SYSTEM TESTING AND INSPECTION SHALL BE IAW ECU SPECIFICATION AND REQUIREMENTS, AND PERFORMED IN THE PRESENCE OF THE ENGINEER OR ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE PRIOR TO ALL REQUIRED TEST.
- NEW WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS.
- NEW TAPPING SLEEVES SHALL BE PRESSURE TESTED @200PSI FOR 15 MINS ON ALL PIPE TYPES. PRIOR TO TESTING, TAPPING SLEEVES SHALL BE TORQUED TO 85PSI, WAIT 15 MINUTES, AND TORQUE AGAIN.
- CONTRACTOR SHALL DISINFECT NEW WATER SYSTEM PRIOR TO FINAL TESTING AND INSPECTION IAW ECU STANDARD SPECIFICATIONS.
- PRIOR TO OPERATION, CONTRACTOR SHALL PROVIDE BAC-T SAMPLE RESULTS FROM A CERTIFIED LABORATORY FOR SAMPLES COLLECTED AND TESTED ON TWO CONSECUTIVE CALENDAR DAYS.



ASBUILT NOTE

CONTRACTOR IS RESPONSIBLE FOR ALL LOCATION OF ALL EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY IF UTILITIES CONFLICT WITH PROPOSED WORK.



HYDRANT FLOW TEST RESULTS		
Test Date:	1/6/2026	Static Pressure: 88 psi
Test Performed By:	ECU	Residual Pressure: 84 psi
Flow Hydrant #:	1059	Flow: 1160 GPM
Test Hydrant #:	1035	Flow @ 20 psi: 5.357

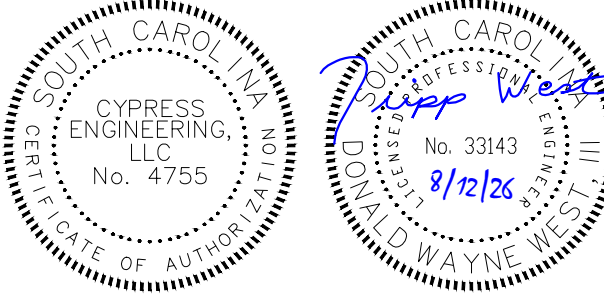
SEWER SYSTEM INSTALLATION NOTES:

- ALL CONSTRUCTION SHALL BE IAW EASLEY COMBINED UTILITIES SCDs APPROVED STANDARD SPECIFICATIONS, DATED MARCH 2025, OR LATEST REVISION.
- CONTRACTOR SHALL PROVIDE ALL SUBMITTALS TO ENGINEER AND ECU FOR REVIEW AND APPROVAL PRIOR TO SCHEDULING PRE-CONSTRUCTION MEETING.
- A PRE-CONSTRUCTION MEETING WITH ECU SHALL BE HELD ON SITE BEFORE UTILITY INSTALLATION MAY BEGIN.
- ALL SEWER MAINS SHALL BE C900 PVC.
- PROVIDE PRECAST MANHOLES FROM A SINGLE SOURCE: KNIGHTS PRECAST, TINDALL CORPORATION, OR APPROVED EQUAL. MIXING OF MANUFACTURERS WILL NOT BE ALLOWED.
- MANHOLE RING & COVER SHALL BE EJ IRON WORKS V-1384 OR US FOUNDRY USF 669 RING & KL COVER (2 X NPPB). NO MIXING OF MANUFACTURERS WILL BE ALLOWED PER DEVELOPMENT UNLESS NOTED OTHERWISE. COVER SHALL BE CAST WITH "PROPERTY OF EASLEY COMBINED UTILITIES" AND "SANITARY SEWER".
- TERMINATE SERVICE LINES INTO MANHOLE WHERE POSSIBLE.
- USE #57 STONE FOR ALL SEWER MAIN BEDDING IAW DETAILS ON SHEET C4.21.
- LATERALS SHALL BE SCH 40 PVC PIPE.
- DROP MANHOLE SHALL HAVE OBIC 1000 LINING SYSTEM OR APPROVED EQUAL.
- INSTALL RISER IF 11-INCHES OR MORE OF GRADE ADJUSTMENT IS REQUIRED FOR RING AND COVER. CONCRETE RISER RINGS GROUTED ON INSIDE OF MANHOLE ARE ACCEPTABLE FOR ADJUSTMENTS LESS THAN 11-INCHES.
- INSTALL CLEANOUT ON LATERAL LINES AT RIGHT-OF-WAY. COVER CLEANOUT W/ STAR PRODUCTS VALVE BOX WITH DIP LID STAMPED "SEWER"

EASLEY RETAIL CENTER

EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
OWNER REVISIONS		7/8/26
PERMITTING REVISIONS		8/12/26



UTILITY PLAN - AREA 2

C4.02

HYDRANT FLOW TEST RESULTS			
Test Date:	1/6/2026	Static Pressure:	88 psi
Test Performed By:	ECU	Residual Pressure:	84 psi
Flow Hydrant #:	1059	Flow:	1180 GPM
Test Hydrant #:	1035	Flow @ 20 psi:	5,357

N/F
SEHP-123 LLC
PIN # 5039-19-71-0676
DB I204 PG 62

N/F
SEHP-123 LLC
PIN # 5039-19-71-0676
DB I204 PG 62

BACKFLOW PREVENTION NOTES

- IRRIGATION METERS AND ANY METER LARGER THAN 1" REQUIRE A TESTABLE DOUBLE CHECK BACKFLOW PREVENTER. THE BACKFLOW PREVENTER SHALL BE INSTALLED AFTER THE METER, AT THE METER INSIDE A METER BOX.
- PRESSURE REDUCING DEVICES ARE NOT TO BE INSTALLED WITH THE BACKFLOW PREVENTION DEVICE.
- SPRINKLER & DOMESTIC WATER SERVICE BACKFLOWS TO BE INSTALLED INSIDE OF BUILDING.

UTILITY CONTACT INFORMATION

• WATER & SEWER

EASLEY COMBINED UTILITIES (ECU)
CONTACT: ALEX DYE
110 PEACHTREE STREET
P.O. BOX 619
EASLEY, SC 29641
PHONE: 864-644-8165
EMAIL: ADYE@EASLEYUTILITIES.COM

• ELECTRIC

EASLEY COMBINED UTILITIES (ECU)
CONTACT: JONATHAN LANGSTON
110 PEACHTREE STREET
P.O. BOX 619
EASLEY, SC 29641
PHONE: 864-855-8134
EMAIL: JLANGSTON@EASLEYUTILITIES.COM

• GAS

FORT HILL NATURAL GAS AUTHORITY
CONTACT: DWAYNE SMITH
311 S. PENDLETON STREET
EASLEY, SC 29641
PHONE: 864-423-5605
EMAIL: DWAYNE.SMITH@FHNGA.COM

WATER SYSTEM INSTALLATION NOTES

- ALL CONSTRUCTION SHALL BE IAW EASLEY COMBINED UTILITIES SCDs APPROVE STANDARD SPECIFICATIONS DATED MARCH 2025, OR LATEST REVISION.
- CONTRACTOR SHALL PROVIDE ALL SUBMITTALS TO ENGINEER AND ECU FOR REVIEW AND APPROVAL PRIOR TO SCHEDULING PRE-CONSTRUCTION MEETING.
- A PRE-CONSTRUCTION MEETING WITH ECU SHALL BE HELD ON SITE BEFORE UTILITY CONSTRUCTION MAY BEGIN.
- WATER MAIN INSTALLATION SHALL NOT TO BEGIN, UNTIL ECU RECEIVES A LETTER FROM THE ENGINEER STATING THAT GRADES ARE WITHIN 6" OF FINAL GRADE.
- ALL WATER MAINS SHALL BE DIP CLASS 350.
- PROVIDE THRUST BLOCKING BEHIND ALL TAPPING SLEEVES AND TEES.
- INSTALL BARON #545020502 TRACER WIRE WITH ALL WATER MAINS.
- INSTALL MUELLER CENTURION 250 A421 (OR APPROVED EQUAL) 3-WAY FIRE HYDRANTS WITH 4.5" MAIN VALVE OPENING. HYDRANT LEGS LONGER THAN 100 FEET FROM MAIN ARE NOT PERMITTED.
- INSTALL STAR PIPE PRODUCTS MODEL 107 VALVE BOXES (OR APPROVED EQUAL) OVER ALL WATER MAIN VALVES.
- CONTRACTOR SHALL INSTALL ALL WATER SERVICE CONNECTIONS SHOWN ON THE DRAWINGS. WATER SERVICE CONNECTIONS SHALL INCLUDE INSTALLATION OF THE TAP, CORPORATION STOP, COPPER TUBING, COMPRESSION FITTING, METER SETTER, COUPLING, 12" BRASS NIPPLE, GATE VALVE, AND METER BOX.
- DIRECT TAP DIP WATER MAINS. USE SMITH-BLAIR OR ROMAC SADDLES TO TAP C900 PVC WATER MAINS.
- USE TYPE K COPPER FOR WATER SERVICE LINES AND DOMESTIC BRASS FITTINGS BETWEEN WATER MAIN AND METER.

OUTPARCEL
6.99 AC

SEWER SYSTEM INSTALLATION NOTES

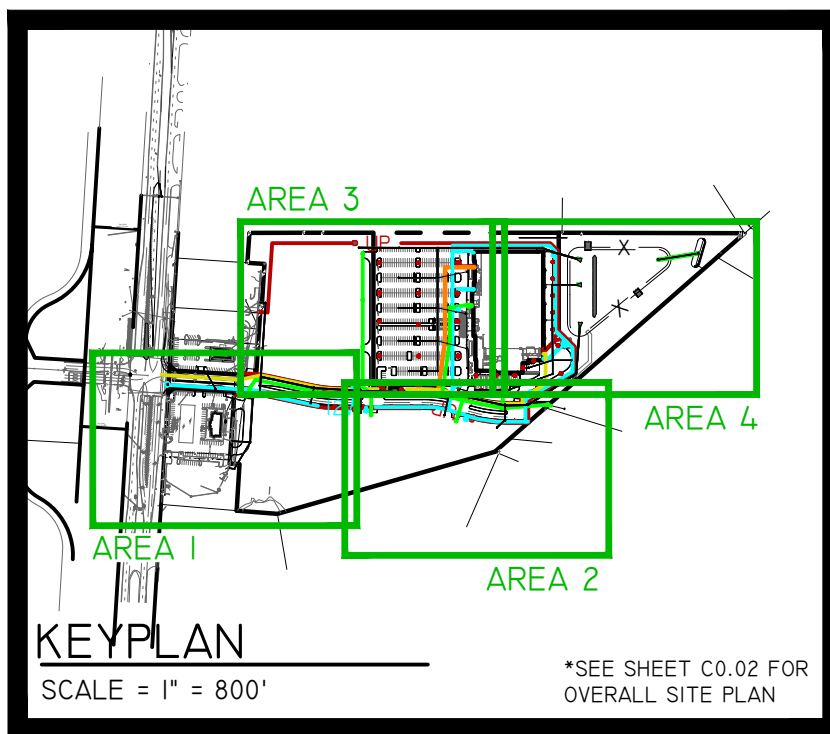
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- MANHOLE RING & COVER SHALL BE ECU IRON WORKS V-1384 OR US FOUNDRY USF 669 RING & KL COVER (2 X NPPB). NO MIXING OF MANUFACTURERS WILL BE ALLOWED PER DEVELOPMENT UNLESS NOTED OTHERWISE. COVER SHALL BE CAST WITH "PROPERTY OF EASLEY COMBINED UTILITIES" AND "SANITARY SEWER".
- TERMINATE SERVICE LINES INTO MANHOLE WHERE POSSIBLE.
- USE #57 STONE FOR ALL SEWER MAIN BEDDING IAW DETAILS ON SHEET C4.21.
- LATERALS SHALL BE SCH 40 PVC PIPE.
- DROP MANHOLE SHALL HAVE OBIC 1000 LINING SYSTEM OR APPROVED EQUAL.
- INSTALL RISER IF 11-INCHES OR MORE OF GRADE ADJUSTMENT IS REQUIRED FOR RING AND COVER. CONCRETE RISER RINGS GROUTED ON INSIDE OF MANHOLE ARE ACCEPTABLE FOR ADJUSTMENTS LESS THAN 11-INCHES.
- INSTALL CLEANOUT ON LATERAL LINES AT RIGHT-OF-WAY. COVER CLEANOUT W/ STAR PRODUCTS VALVE BOX WITH DIP LID STAMPED "SEWER"

SEWER SYSTEM INSPECTION NOTES

- FINAL SEWER SYSTEM TESTING AND INSPECTION SHALL BE IAW ALL ECU SPECIFICATIONS AND REQUIREMENTS, AND PERFORMED IN THE PRESENCE OF THE ENGINEER OR ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE PRIOR TO ALL REQUIRED TEST.
- DEFLECTION TEST SHALL BE PERFORMED ON ALL PVC AND DIP SEWER MAINS USING A 5% DEFLECTION MANDREL SIZED TO MATCH THE SEWER MAIN BEING TESTED.
- LOW PRESSURE AIR TEST SHALL BE PERFORMED ON ALL SEWER MAINS. TEST SHALL BE PERFORMED @ 4PSI FOR 7:34 (MINUTES:SECONDS) WITH NO PRESSURE LOSS.
- ALL NEW GRAVITY SEWER MAINS SHALL BE INSPECTED BY CCTV AND FOOTAGE PROVIDED TO ECU PRIOR TO LOW PRESSURE AIR TESTING. REFER TO ECU SPECIFICATIONS FOR CCTV REQUIREMENTS.
- ALL SEWER MANHOLES SHALL BE VACUUM TESTED AT 10 HG FOR 1 MINUTE. MAXIMUM PRESSURE LOSS SHALL NOT EXCEED 1 HG.

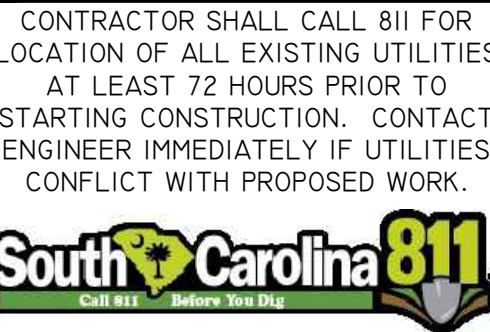
WATER SYSTEM INSPECTION NOTES

- FINAL WATER SYSTEM TESTING AND INSPECTION SHALL BE IAW ALL ECU SPECIFICATION AND REQUIREMENTS, AND PERFORMED IN THE PRESENCE OF THE ENGINEER OR ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE PRIOR TO ALL REQUIRED TEST.
- NEW WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS.
- NEW TAPPING SLEEVES SHALL BE PRESSURE TESTED @200PSI FOR 15 MINS ON ALL PIPE TYPES. PRIOR TO TESTING, TAPPING SLEEVES SHALL BE TORQUED TO 85PSI, WAIT 15 MINUTES, AND TORQUE AGAIN.
- CONTRACTOR SHALL DISINFECT NEW WATER SYSTEM PRIOR TO FINAL TESTING AND INSPECTION IAW ECU STANDARD SPECIFICATIONS.
- PRIOR TO OPERATION, CONTRACTOR SHALL PROVIDE BAC-T SAMPLE RESULTS FROM A CERTIFIED LABORATORY FOR SAMPLES COLLECTED AND TESTED ON TWO CONSECUTIVE CALENDAR DAYS.



ASBUILT NOTE

CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED UTILITY ASBUILTS & PLATS. ENGINEER TO REVIEW AND APPROVE ASBUILTS & PLATS BEFORE SUBMITTING TO GOVERNING AGENCIES.



GENERAL NOTES:

- SEE SHEET C0.01 FOR CIVIL ABBREVIATIONS AND GENERAL NOTES.
- SEE SHEET C2.01 FOR EXISTING SITE LEGEND.

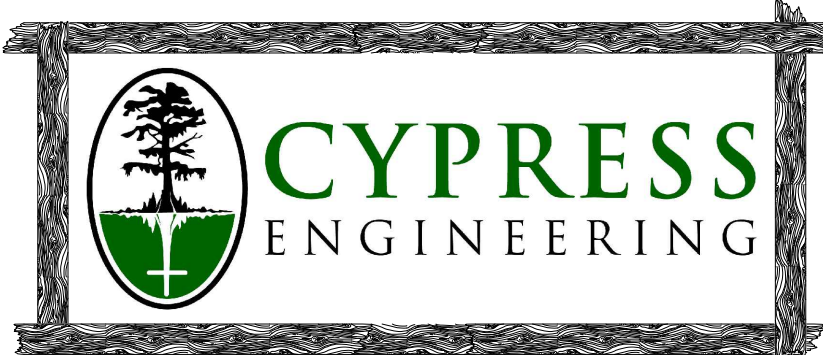
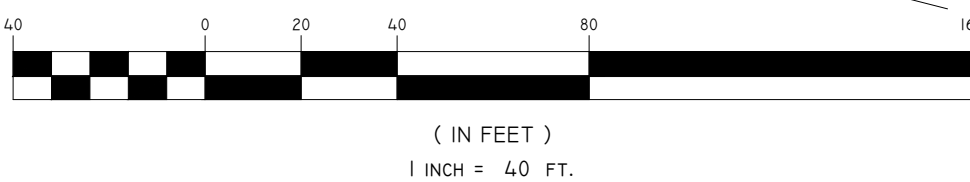
KEYNOTES:

- CONNECT TO EXISTING 16" WATERMAIN. ECU SHALL BE NOTIFIED A MINIMUM 72-HOURS PRIOR TO TIE-IN FOR INSPECTION. GATE VALVE SHALL REMAIN CLOSED UNTIL NEW WATERMAIN IS INSTALLED, TESTED, AND HAS RECEIVED A PERMIT TO OPERATE.
- SAVIT AND REPAIR PAVEMENT FOR NEW WATER MAIN IAW DETAIL SHEET C4.20. REFER TO SITE PLAN FOR ADDITIONAL INFORMATION.
- CORE AND BOOT EXISTING MANHOLE FOR SEWER TIE-IN. LINE INTERIOR OF EXISTING MANHOLE WITH OBIC LINING PER ECU SPECIFICATIONS.
- TIE-IN EXISTING SEWER SERVICE WITH DOGHOUSE MANHOLE.
- INSTALL 12"X10" TEE.
- INSTALL 12"X6" TEE.
- INSTALL 8"X6" REDUCER.
- INSTALL 10"X6" TEE.
- INSTALL 10"X8" TEE.
- INSTALL 8"X2" TEE.
- INSTALL WATERLINE UNDER UTILITY.
- COORDINATE RELOCATION OF POWER POLE AND POWERLINE WITH UTILITY PROVIDER. REFER TO DEMOLITION PLAN FOR ENTIRE UTILITY DEMOLITION SCOPE.
- REFER TO MEP PLAN FOR MORE INFORMATION.
- INSTALL TRANSFORMER AND GENERATOR PADS PER ECU AND MANUFACTURER SPECIFICATIONS.
- CONNECT TO EXISTING 6" WATERLINE AND EXTEND FOR NEW HYDRANT LEG.
- INSTALL 12"X6" TEE.
- INSTALL 2"X3" INCREASER.
- INSTALL 1" METER. SEE IRRIGATION PLAN FOR MORE CONTINUANCE.
- INSTALL 8"X6" TEE.
- TIE INTO UTILITY PROVIDERS SERVICE. COORDINATE ALL WORK WITH UTILITY PROVIDER.
- INSTALL NON-ECU SEWER MANHOLE COVER FOR PRIVATE SEWERMAIN MANHOLES.
- INSTALL 12" MJ CAP.
- INSTALL 10"X6" REDUCER.
- INSTALL (2) 4" SCH 40 PVC CONDUITS IAW ECU SPECIFICATIONS FOR ELECTRICAL PRIMARY ROAD CROSSINGS. ECU WILL PROVIDE CONDUIT MATERIALS FOR INSTALLATION.

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY - INSTALL IAW DETAIL SHEET C4.20.
- GATE VALVE (MATCH LINE SIZE) - INSTALL IAW DETAIL SHEET C4.20.
- WATER METER (MATCH LINE SIZE) - INSTALL IAW DETAIL SHEET C4.20.
- EXTERNAL FIRE DEPARTMENT CONNECTION - IAW DETAIL SHEET C4.20.
- BACKFLOW PREVENTER (MATCH LINE SIZE) - PROVIDE REDUCED PRESSURE ZONE BACKFLOW AND INSTALL AT WATER METER IAW DETAIL SHEET C4.20.
- TAPPING SLEEVE AND VALVE - INSTALL IAW DETAIL SHEET C4.20.
- SEWER MANHOLE - INSTALL IAW DETAIL SHEET C4.21.
- SEWER CLEANOUT - COVER WITH DFW37C-12 BOX AND EJ 1118 DI LID STAMPED "SEWER"
- GREASE TRAP - INSTALL IAW DETAIL SHEET C4.21
- 6" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.
- 8" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.
- 12" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.
- 8" DIP (CLASS 350) FIRE SERVICE - INSTALL IAW DETAIL SHEET C4.21.
- DIP WATER SERVICE (SEE PLAN FOR SIZE) - INSTALL IAW DETAIL SHEET C4.21.
- 8" PVC (PVC C900) SEWER MAIN - INSTALL IAW DETAIL SHEET C4.21.
- 6" PVC (SCH 40) SEWER SERVICE LATERAL - INSTALL AT 1.0% MINIMUM SLOPE. IAW ASTM D 3034. AND IAW DETAIL SHEET C4.21. ALL WORK SHALL MEET ASTM D 2321 AND SCDs REQUIREMENTS.
- GAS - COORDINATE INSTALLATION WITH FORT HILL NATURAL GAS.
- ELECTRICAL - INSTALL IAW UTILITY PROVIDERS REQUIREMENTS.
- TELECOM - INSTALL IAW UTILITY PROVIDERS REQUIREMENTS.
- SITE LIGHTING - INSTALL IAW SITE LIGHTING PLANS.
- STREET SITE LIGHTING - COORDINATE INSTALLATION WITH ECU.
- IRRIGATION LINES - INSTALL IAW OWNER REQUIREMENTS.
- LIMITS OF DISTURBANCE

HORIZONTAL SCALE



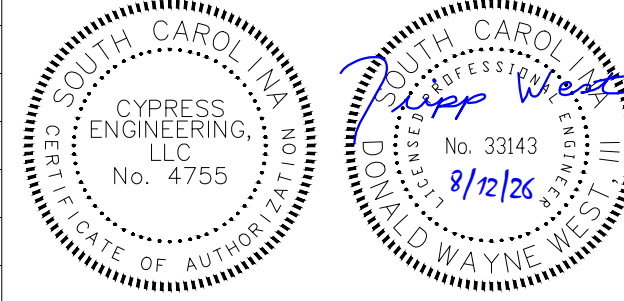
CYPRESS ENGINEERING
412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

EASLEY RETAIL CENTER

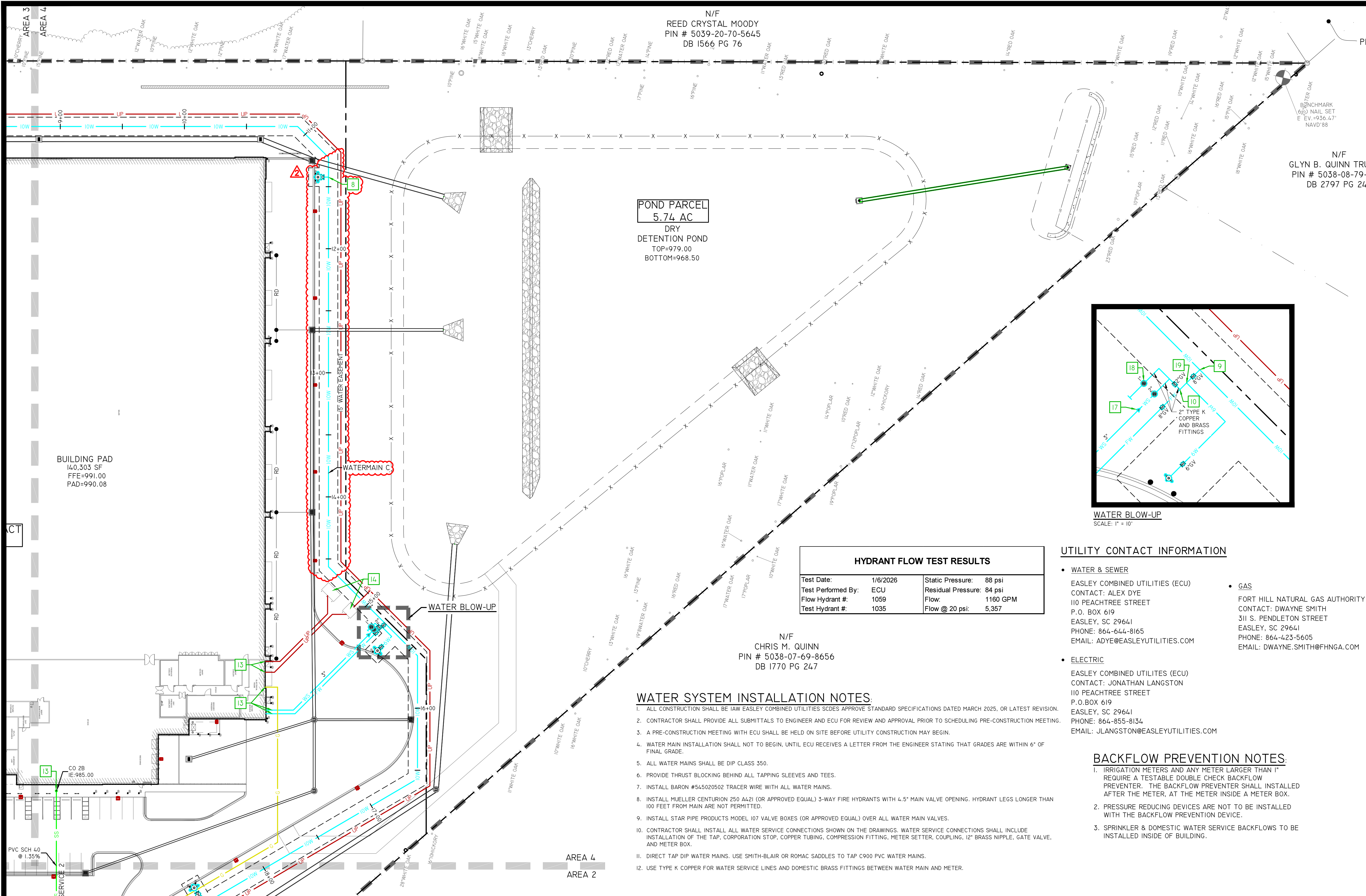
EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
OWNER REVISIONS	7/8/26	
PERMITTING REVISIONS	8/12/26	



UTILITY PLAN - AREA 3

C4.03



GENERAL NOTES:

- SEE SHEET C0.01 FOR CIVIL ABBREVIATIONS AND GENERAL NOTES.
- SEE SHEET C2.01 FOR EXISTING SITE LEGEND.

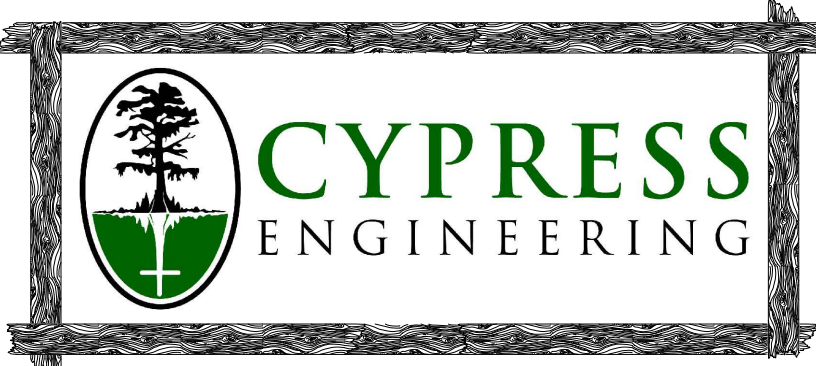
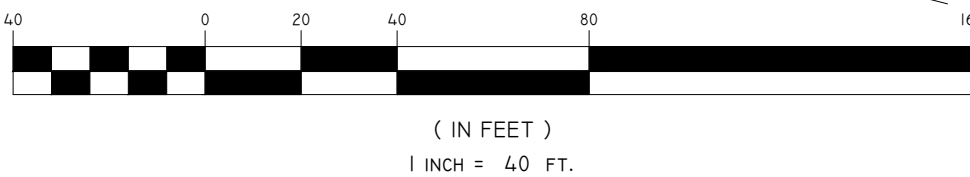
KEYNOTES:

- CONNECT TO EXISTING 16" WATERMAIN. ECU SHALL BE NOTIFIED A MINIMUM 72-HOURS PRIOR TO TIE-IN FOR INSPECTION. GATE VALVE SHALL REMAIN CLOSED UNTIL NEW WATERMAIN IS INSTALLED, TESTED, AND HAS RECEIVED A PERMIT TO OPERATE.
- SAFECUT AND REPAIR PAVEMENT FOR NEW WATER MAIN IAW DETAIL SHEET C4.20. REFER TO SITE PLAN FOR ADDITIONAL INFORMATION.
- CORE AND BOOT EXISTING MANHOLE FOR SEWER TIE-IN. LINE INTERIOR OF EXISTING MANHOLE WITH OBIC LINING PER ECU SPECIFICATIONS.
- TIE-IN EXISTING SEWER SERVICE WITH DOGHOUSE MANHOLE.
- INSTALL 12"x10" TEE.
- INSTALL 12"x6" TEE.
- INSTALL 8"x6" REDUCER.
- INSTALL 10"x8" TEE.
- INSTALL 10"x8" TEE.
- INSTALL 8"x2" TEE.
- INSTALL WATERLINE UNDER UTILITY.
- COORDINATE RELOCATION OF POWER POLE AND POWERLINE WITH UTILITY PROVIDER. REFER TO DEMOLITION PLAN FOR ENTIRE UTILITY DEMOLITION SCOPE.
- REFER TO MEP PLAN FOR MORE INFORMATION.
- INSTALL TRANSFORMER AND GENERATOR PADS PER ECU AND MANUFACTURER SPECIFICATIONS.
- CONNECT TO EXISTING 6" WATERLINE AND EXTEND FOR NEW HYDRANT LEG.
- INSTALL 12"x8" TEE.
- INSTALL 2"x3" INCREASER.
- INSTALL 1" METER. SEE IRRIGATION PLAN FOR MORE CONTINUANCE.
- INSTALL 8"x6" TEE.
- TIE INTO UTILITY PROVIDERS SERVICE. COORDINATE ALL WORK WITH UTILITY PROVIDER.
- INSTALL NON-ECU SEWER MANHOLE COVER FOR PRIVATE SEWERMAIN MANHOLES.
- INSTALL 12" MJ CAP.
- INSTALL 10"x6" REDUCER.
- INSTALL (2) 4" SCH 40 PVC CONDUITS IAW ECU SPECIFICATIONS FOR ELECTRICAL PRIMARY ROAD CROSSINGS. ECU WILL PROVIDE CONDUIT MATERIALS FOR INSTALLATION.

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY - INSTALL IAW DETAIL SHEET C4.20.
- GATE VALVE (MATCH LINE SIZE) - INSTALL IAW DETAIL SHEET C4.20.
- WATER METER (MATCH LINE SIZE) - INSTALL IAW DETAIL SHEET C4.20.
- EXTERNAL FIRE DEPARTMENT CONNECTION - IAW DETAIL SHEET C4.20.
- BACKFLOW PREVENTER (MATCH LINE SIZE) - PROVIDE REDUCED PRESSURE ZONE BACKFLOW AND INSTALL AT WATER METER IAW DETAIL SHEET C4.20.
- TAPPING SLEEVE AND VALVE - INSTALL IAW DETAIL SHEET C4.20.
- SEWER MANHOLE - INSTALL IAW DETAIL SHEET C4.21.
- SEWER CLEANOUT - COVER WITH DFW37C-12 BOX AND EJ 1118 DI LID STAMPED "SEWER"
- GREASE TRAP - INSTALL IAW DETAIL SHEET C4.21.
- 6" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.
- 8" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.
- 12" DIP (CLASS 350) WATER MAIN - INSTALL IAW DETAIL SHEET C4.21.
- 8" DIP (CLASS 350) FIRE SERVICE - INSTALL IAW DETAIL SHEET C4.21.
- DIP WATER SERVICE (SEE PLAN FOR SIZE) - INSTALL IAW DETAIL SHEET C4.21.
- 8" PVC (PVC C900) SEWER MAIN - INSTALL IAW DETAIL SHEET C4.21.
- 6" PVC (SCH 40) SEWER SERVICE LATERAL - INSTALL AT 1.0% MINIMUM SLOPE. IAW ASTM D 3034. AND IAW DETAIL SHEET C4.21. ALL WORK SHALL MEET ASTM D 2321 AND SCDs REQUIREMENTS.
- GAS - COORDINATE INSTALLATION WITH FORT HILL NATURAL GAS.
- ELECTRICAL - INSTALL IAW UTILITY PROVIDERS REQUIREMENTS.
- TELECOM - INSTALL IAW UTILITY PROVIDERS REQUIREMENTS.
- SITE LIGHTING - INSTALL IAW SITE LIGHTING PLANS.
- STREET SITE LIGHTING - COORDINATE INSTALLATION WITH ECU.
- IRRIGATION LINES - INSTALL IAW OWNER REQUIREMENTS.
- LIMITS OF DISTURBANCE

HORIZONTAL SCALE



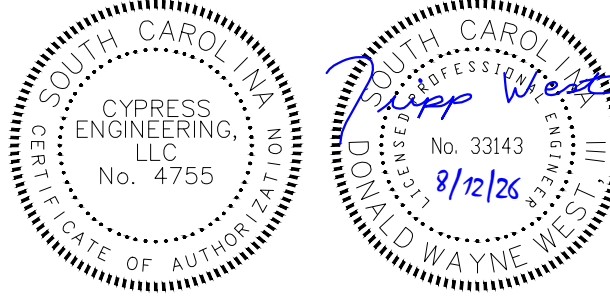
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DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

EASLEY RETAIL CENTER

EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
	OWNER REVISIONS	7/8/26
	PERMITTING REVISIONS	8/12/26



UTILITY PLAN - AREA 4

C4.04

POND PARCEL
5.74 AC
DRY
DETENTION POND
TOP=979.00
BOTTOM=968.50

HYDRANT FLOW TEST RESULTS

Test Date:	1/6/2026	Static Pressure:	88 psi
Test Performed By:	ECU	Residual Pressure:	84 psi
Flow Hydrant #:	1059	Flow:	1160 GPM
Test Hydrant #:	1035	Flow @ 20 psi:	5.357

N/F
CHRIS M. QUINN
PIN # 5038-07-69-8656
DB 1770 PG 247

WATER SYSTEM INSTALLATION NOTES:

- ALL CONSTRUCTION SHALL BE IAW EASLEY COMBINED UTILITIES SCDs APPROVE STANDARD SPECIFICATIONS DATED MARCH 2025, OR LATEST REVISION.
- CONTRACTOR SHALL PROVIDE ALL SUBMITTALS TO ENGINEER AND ECU FOR REVIEW AND APPROVAL PRIOR TO SCHEDULING PRE-CONSTRUCTION MEETING.
- A PRE-CONSTRUCTION MEETING WITH ECU SHALL BE HELD ON SITE BEFORE UTILITY CONSTRUCTION MAY BEGIN.
- WATER MAIN INSTALLATION SHALL NOT TO BEGIN, UNTIL ECU RECEIVES A LETTER FROM THE ENGINEER STATING THAT GRADES ARE WITHIN 6" OF FINAL GRADE.
- ALL WATER MAINS SHALL BE DIP CLASS 350.
- PROVIDE THRUST BLOCKING BEHIND ALL TAPPING SLEEVES AND TEES.
- INSTALL BARON #54502502 TRACER WIRE WITH ALL WATER MAINS.
- INSTALL MUELLER CENTURION 250 A421 (OR APPROVED EQUAL) 3-WAY FIRE HYDRANTS WITH 4.5" MAIN VALVE OPENING. HYDRANT LEGS LONGER THAN 100 FEET FROM MAIN ARE NOT PERMITTED.
- INSTALL STAR PIPE PRODUCTS MODEL 107 VALVE BOXES (OR APPROVED EQUAL) OVER ALL WATER MAIN VALVES.
- CONTRACTOR SHALL INSTALL ALL WATER SERVICE CONNECTIONS SHOWN ON THE DRAWINGS. WATER SERVICE CONNECTIONS SHALL INCLUDE INSTALLATION OF THE TAP, CORPORATION STOP, COPPER TUBING, COMPRESSION FITTING, METER SETTER, COUPLING, 12" BRASS NIPPLE, GATE VALVE, AND METER BOX.
- DIRECT TAP DIP WATER MAINS. USE SMITH-BLAIR OR ROMAC SADDLES TO TAP C900 PVC WATER MAINS.
- USE TYPE K COPPER FOR WATER SERVICE LINES AND DOMESTIC BRASS FITTINGS BETWEEN WATER MAIN AND METER.

WATER SYSTEM INSPECTION NOTES:

- FINAL WATER SYSTEM TESTING AND INSPECTION SHALL BE IAW ALL ECU SPECIFICATION AND REQUIREMENTS, AND PERFORMED IN THE PRESENCE OF THE ENGINEER OR ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE PRIOR TO ALL REQUIRED TEST.
- NEW WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS.
- NEW TAPPING SLEEVES SHALL BE PRESSURE TESTED @200PSI FOR 15 MINS ON ALL PIPE TYPES. PRIOR TO TESTING, TAPPING SLEEVES SHALL BE TORQUED TO 85PSI, WAIT 15 MINUTES, AND TORQUE AGAIN.
- CONTRACTOR SHALL DISINFECT NEW WATER SYSTEM PRIOR TO FINAL TESTING AND INSPECTION IAW ECU STANDARD SPECIFICATIONS.
- PRIOR TO OPERATION, CONTRACTOR SHALL PROVIDE BAC-T SAMPLE RESULTS FROM A CERTIFIED LABORATORY FOR SAMPLES COLLECTED AND TESTED ON TWO CONSECUTIVE CALENDAR DAYS.

SEWER SYSTEM INSPECTION NOTES:

- FINAL SEWER SYSTEM TESTING AND INSPECTION SHALL BE IAW ALL ECU SPECIFICATIONS AND REQUIREMENTS, AND PERFORMED IN THE PRESENCE OF THE ENGINEER OR ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE PRIOR TO ALL REQUIRED TEST.
- DEFLECTION TEST SHALL BE PERFORMED ON ALL PVC AND DIP SEWER MAINS USING A 5% DEFLECTION MANDREL SIZED TO MATCH THE SEWER MAIN BEING TESTED.
- LOW PRESSURE AIR TEST SHALL BE PERFORMED ON ALL SEWER MAINS. TEST SHALL BE PERFORMED @ 4PSI FOR 7:34 (MINUTES:SECONDS) WITH NO PRESSURE LOSS.
- ALL NEW GRAVITY SEWER MAINS SHALL BE INSPECTED BY CCTV AND FOOTAGE PROVIDED TO ECU PRIOR TO LOW PRESSURE AIR TESTING. REFER TO ECU SPECIFICATIONS FOR CCTV REQUIREMENTS.
- ALL SEWER MANHOLES SHALL BE VACUUM TESTED AT 10 HG FOR 1 MINUTE. MAXIMUM PRESSURE LOSS SHALL NOT EXCEED 1 HG.

SEWER SYSTEM INSTALLATION NOTES:

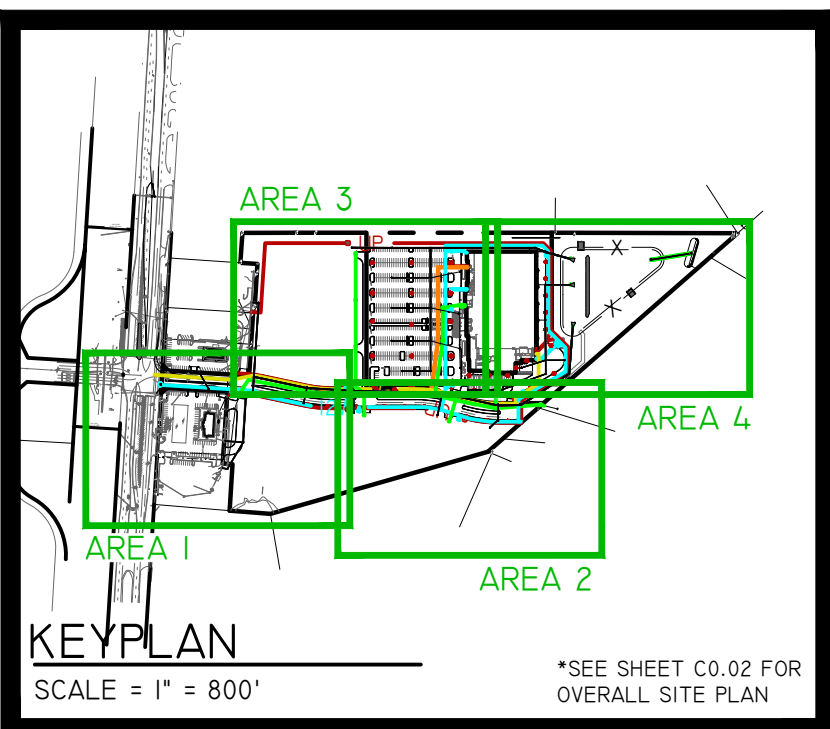
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- A PRE-CONSTRUCTION MEETING WITH ECU SHALL BE HELD ON SITE BEFORE UTILITY INSTALLATION MAY BEGIN.
- ALL SEWER MAINS SHALL BE C900 PVC.
- PROVIDE PRECAST MANHOLES FROM A SINGLE SOURCE: KNIGHTS PRECAST, TINDALL CORPORATION, OR APPROVED EQUAL. MIXING OF MANUFACTURERS WILL NOT BE ALLOWED.
- MANHOLE RING & COVER SHALL BE EJ IRON WORKS V-1384 OR US FOUNDRY USF 669 RING & KL COVER (2 X NPPB). NO MIXING OF MANUFACTURERS WILL BE ALLOWED PER DEVELOPMENT UNLESS NOTED OTHERWISE. COVER SHALL BE CAST WITH "PROPERTY OF EASLEY COMBINED UTILITIES" AND "SANITARY SEWER".
- TERMINATE SERVICE LINES INTO MANHOLE WHERE POSSIBLE.
- USE #57 STONE FOR ALL SEWER MAIN BEDDING IAW DETAILS ON SHEET C4.21.
- LATERALS SHALL BE SCH 40 PVC PIPE.
- DROP MANHOLE SHALL HAVE OBIC 1000 LINING SYSTEM OR APPROVED EQUAL.
- INSTALL RISER IF 11-INCHES OR MORE OF GRADE ADJUSTMENT IS REQUIRED FOR RING AND COVER. CONCRETE RISER RINGS GROUTED ON INSIDE OF MANHOLE ARE ACCEPTABLE FOR ADJUSTMENTS LESS THAN 11-INCHES.
- INSTALL CLEANOUT ON LATERAL LINES AT RIGHT-OF-WAY. COVER CLEANOUT W/ STAR PRODUCTS VALVE BOX WITH DIP LID STAMPED "SEWER"

UTILITY CONTACT INFORMATION

- WATER & SEWER**
EASLEY COMBINED UTILITIES (ECU)
CONTACT: ALEX DYE
110 PEACHTREE STREET
P.O. BOX 619
EASLEY, SC 29641
PHONE: 864-644-8165
EMAIL: ADYE@EASLEYUTILITIES.COM
- ELECTRIC**
EASLEY COMBINED UTILITIES (ECU)
CONTACT: JONATHAN LANGSTON
110 PEACHTREE STREET
P.O. BOX 619
EASLEY, SC 29641
PHONE: 864-855-8134
EMAIL: JLANGSTON@EASLEYUTILITIES.COM
- GAS**
FORT HILL NATURAL GAS AUTHORITY
CONTACT: DWAYNE SMITH
311 S. PENDLETON STREET
EASLEY, SC 29641
PHONE: 864-423-5605
EMAIL: DWAYNE.SMITH@FHNGA.COM

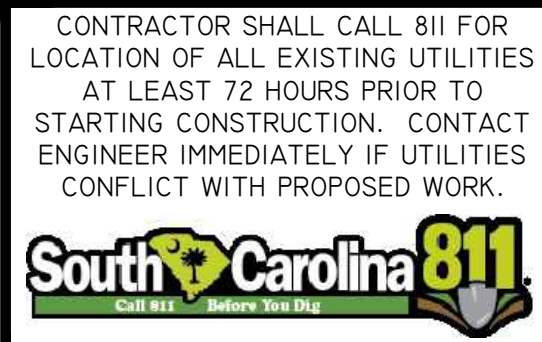
BACKFLOW PREVENTION NOTES:

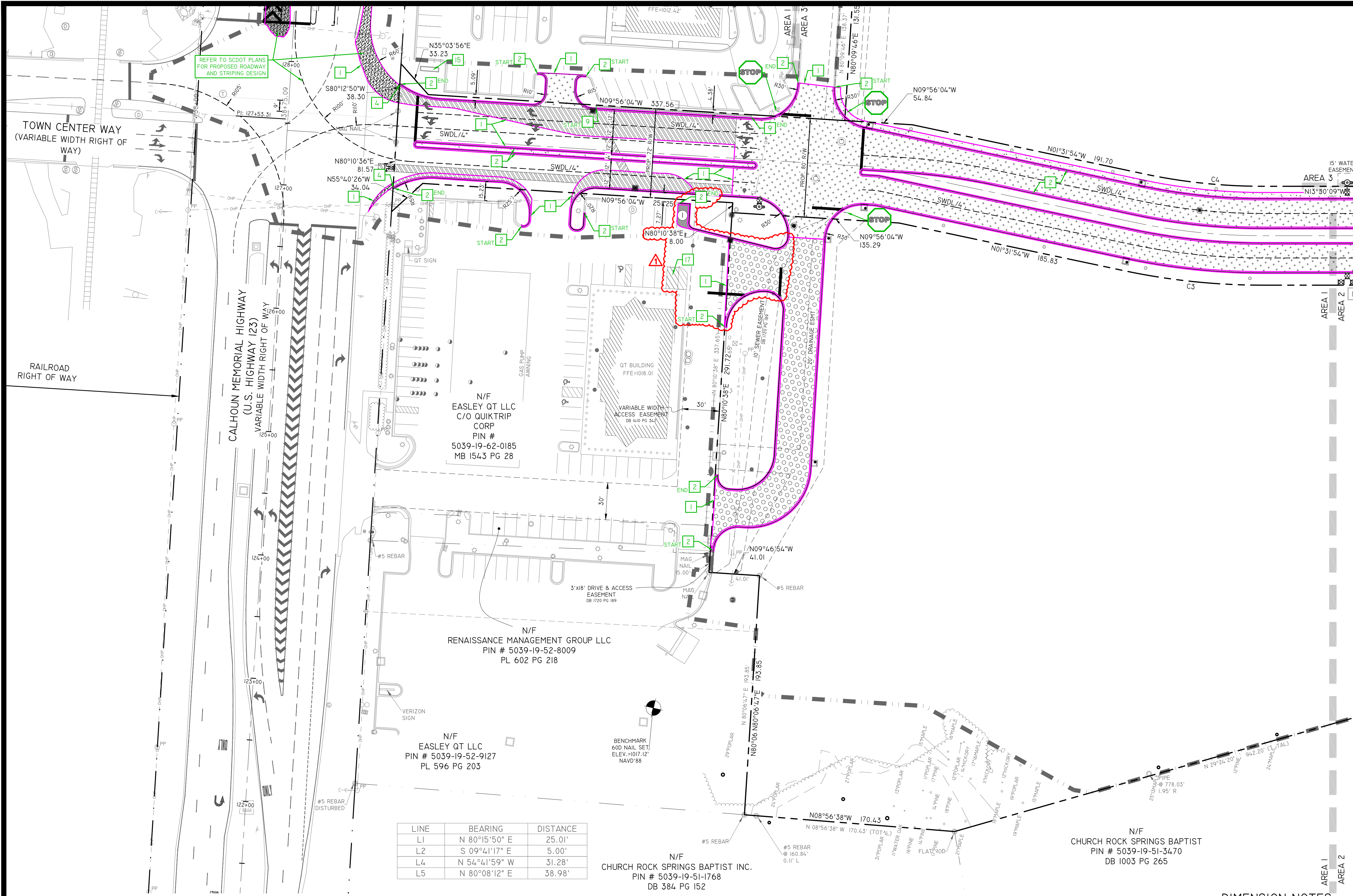
- IRRIGATION METERS AND ANY METER LARGER THAN 1" REQUIRE A TESTABLE DOUBLE CHECK BACKFLOW PREVENTER. THE BACKFLOW PREVENTER SHALL BE INSTALLED AFTER THE METER, AT THE METER INSIDE A METER BOX.
- PRESSURE REDUCING DEVICES ARE NOT TO BE INSTALLED WITH THE BACKFLOW PREVENTION DEVICE.
- SPRINKLER & DOMESTIC WATER SERVICE BACKFLOWS TO BE INSTALLED INSIDE OF BUILDING.



ASBUILT NOTE

CONTRACTOR IS RESPONSIBLE FOR ALL LOCATION OF ALL EXISTING UTILITIES ASBUILTS & PLATS. ENGINEER TO REVIEW AND APPROVE ASBUILTS & PLATS BEFORE SUBMITTING TO GOVERNING AGENCIES.





GENERAL NOTES:

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CART CORRAL - INSTALL PER PLAN AND IAW DETAILS SHEET C5.21.

BOLLARDS - BY DEVELOPER

4" CHAIN-LINK FENCE - IAW OWNER REQUIREMENTS.

LIMITS OF DISTURBANCE

HORIZONTAL SCALE

(IN FEET)

1" = 40 FT.

CYPRESS ENGINEERING

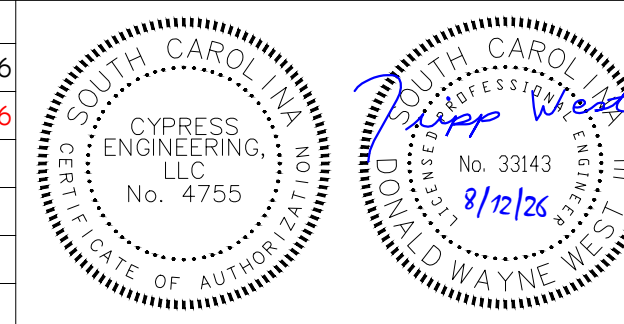
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412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

EASLEY RETAIL CENTER

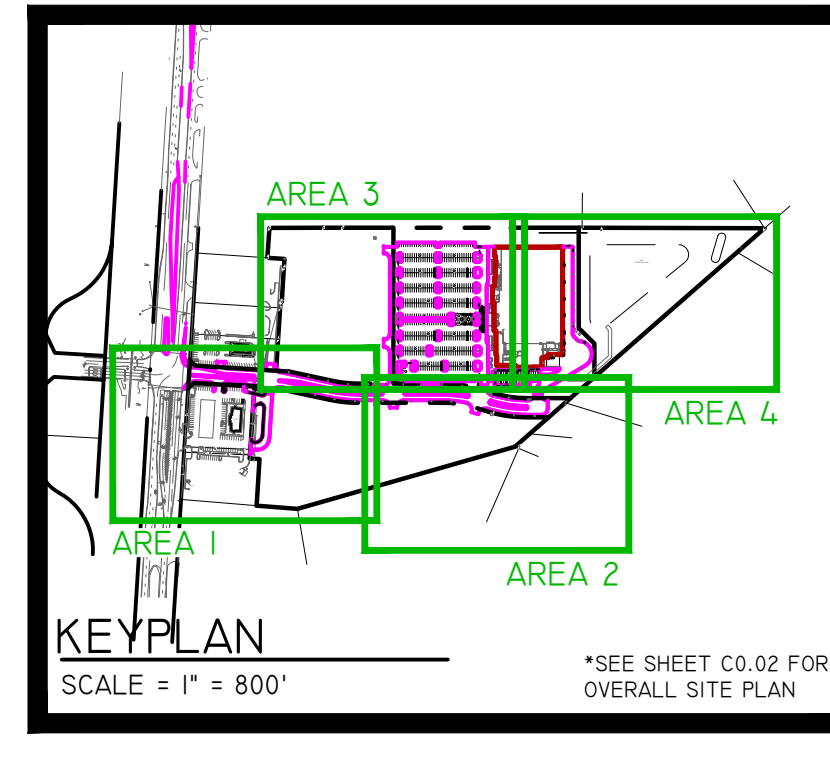
EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
Δ	OWNER REVISIONS	7/8/26



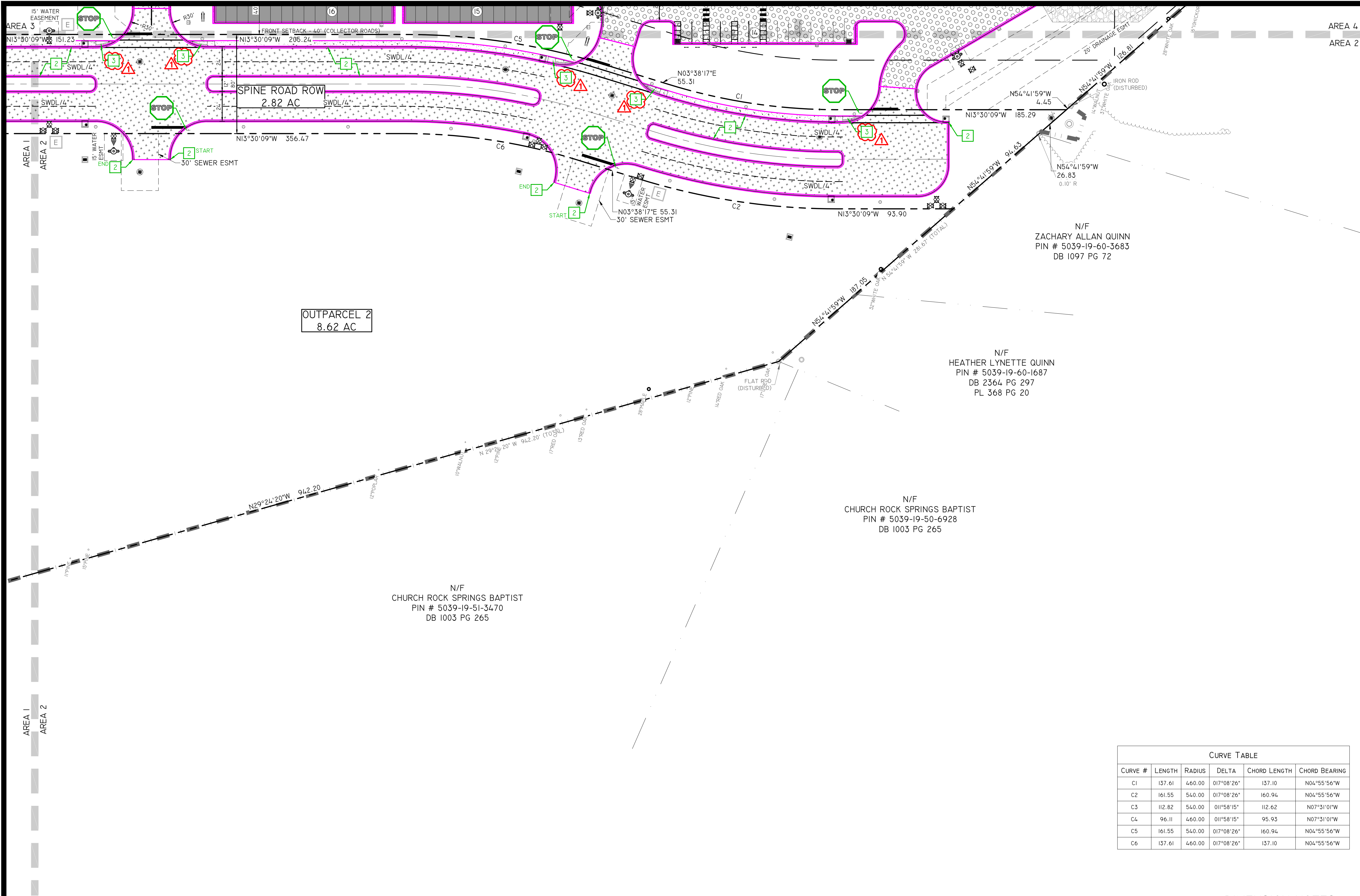
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South Carolina 811



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BOLLARDS - BY DEVELOPER

4' CHAIN-LINK FENCE - IAW OWNER REQUIREMENTS.

LIMITS OF DISTURBANCE

HORIZONTAL SCALE

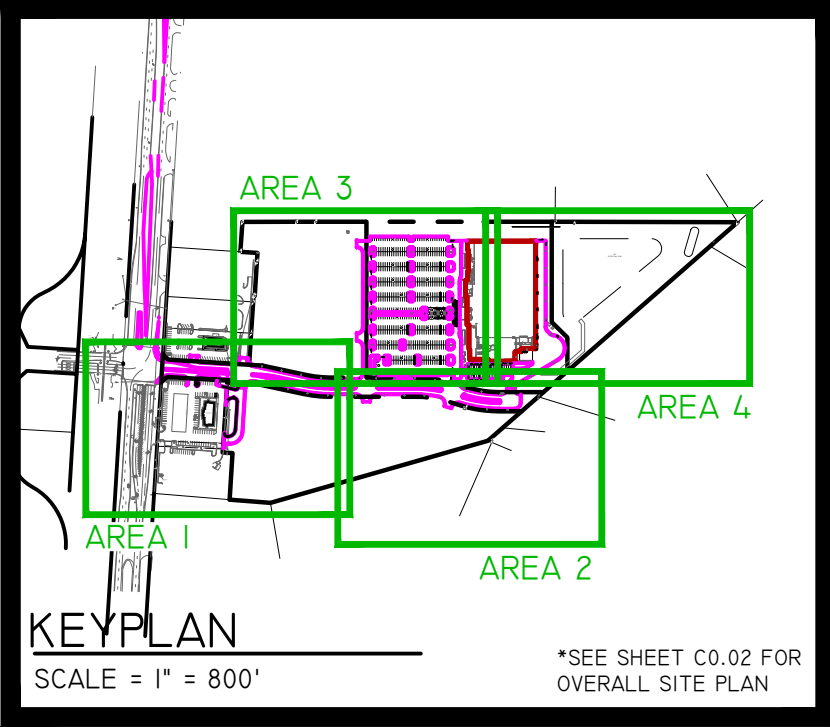
(IN FEET)

1 INCH = 40 FT.

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD LENGTH	CHORD BEARING
C1	137.61	460.00	017°08'26"	137.10	N04°55'56"W
C2	161.55	540.00	017°08'26"	160.94	N04°55'56"W
C3	112.82	540.00	011°58'15"	112.62	N07°31'01"W
C4	96.11	460.00	011°58'15"	95.93	N07°31'01"W
C5	161.55	540.00	017°08'26"	160.94	N04°55'56"W
C6	137.61	460.00	017°08'26"	137.10	N04°55'56"W

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South Carolina 811

Call 811. Restore Your Day.

CYPRESS ENGINEERING

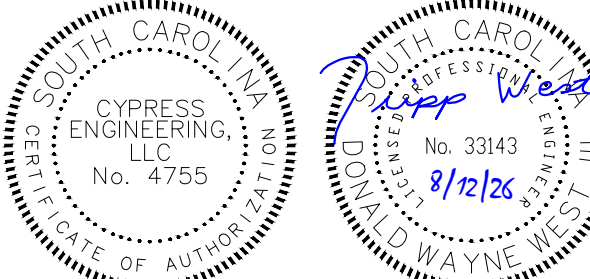
CYPRESS ENGINEERING
412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
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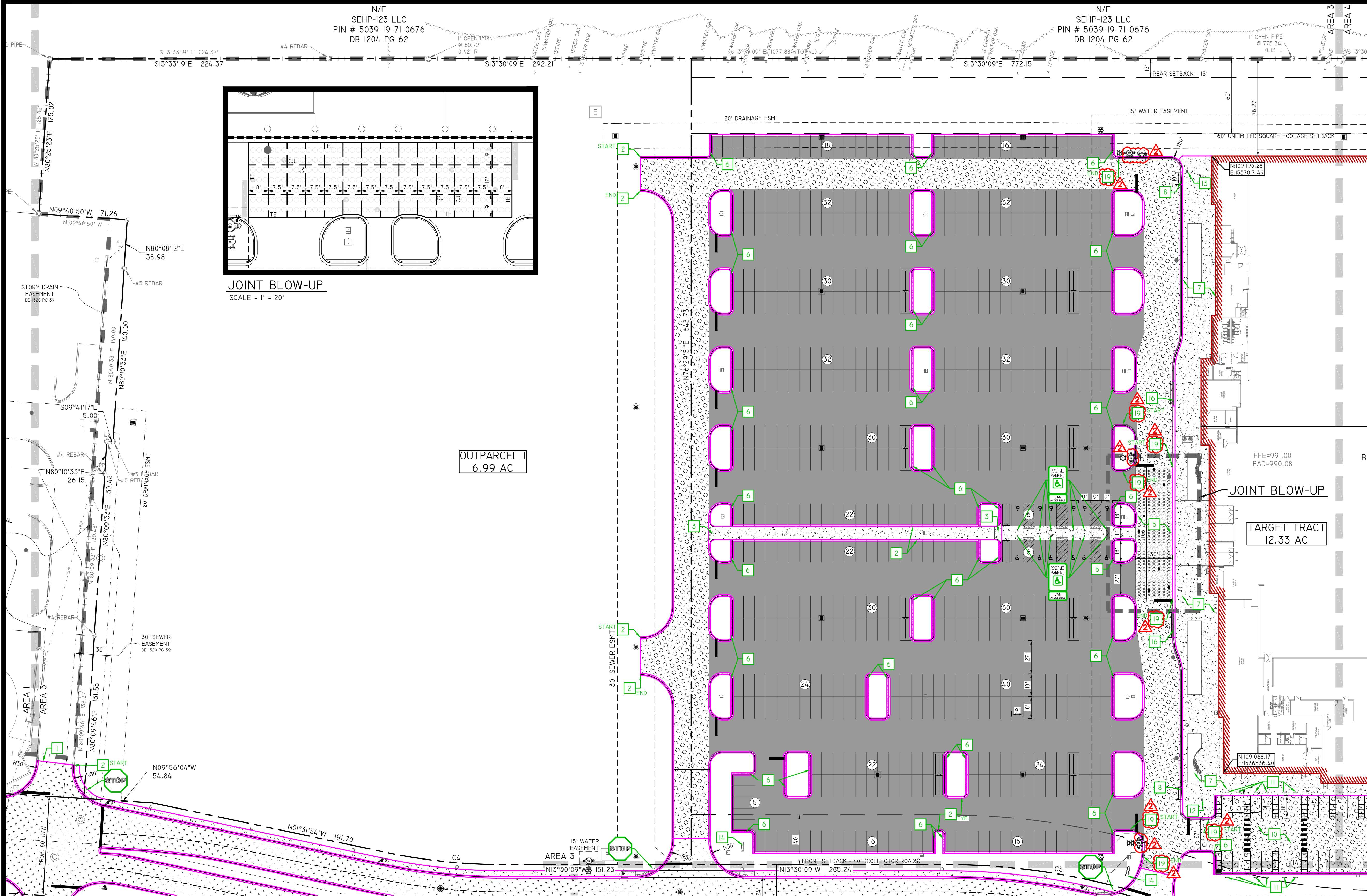
EASLEY RETAIL CENTER

EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
Δ	OWNER REVISIONS	7/8/26



SITE PLAN - AREA 2 C5.02



GENERAL NOTES:

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CYPRESS ENGINEERING

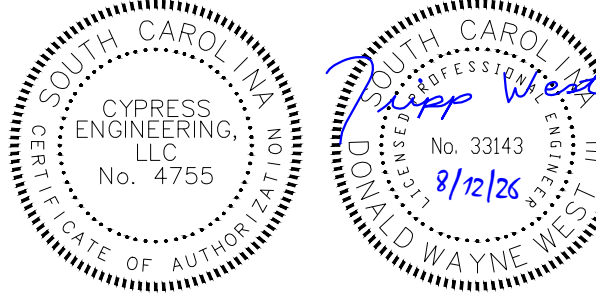
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EASLEY RETAIL CENTER

EASLEY, SC

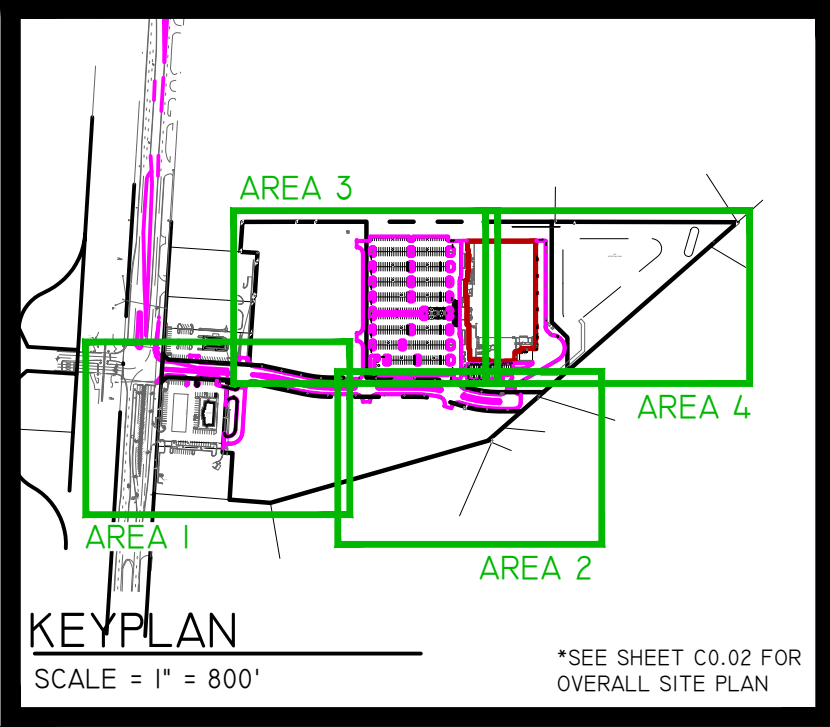
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OWNER REVISIONS		7/8/26
PERMITTING REVISIONS		8/12/26



SITE PLAN - AREA 3 C5.03

PARKING CALCULATIONS		
Building Use	Spaces Required	Tabulation
Big Box Retail	4 space per 1000 square feet	X 140,303 = 562
		TOTAL REQUIRED SPACES = 562
Provided Parking Spaces		
	Standard Spaces	= 563
	ADA Standard Spaces	= 0
	ADA Van Spaces	= 12
	PROVIDED SPACES	= 575

POST-DEVELOPMENT PROPERTY COVERAGE*				
(SEE DEMOLITION PLAN FOR PRE-DEVELOPED)				
BUILDING PAD =	140,303 SF	3.22 ACRES	26%	
PAVEMENT / WALKS =	269,160 SF	6.18 ACRES	50%	Impervious = 76%
POND =	SF	0.00 ACRES	0%	
WOODS =	SF	0.00 ACRES	0%	
GRASS =	127,575 SF	2.93 ACRES	24%	Pervious = 24%
TOTAL =	537,038 SF	12.33 ACRES	100%	
*Target Parcel Only				

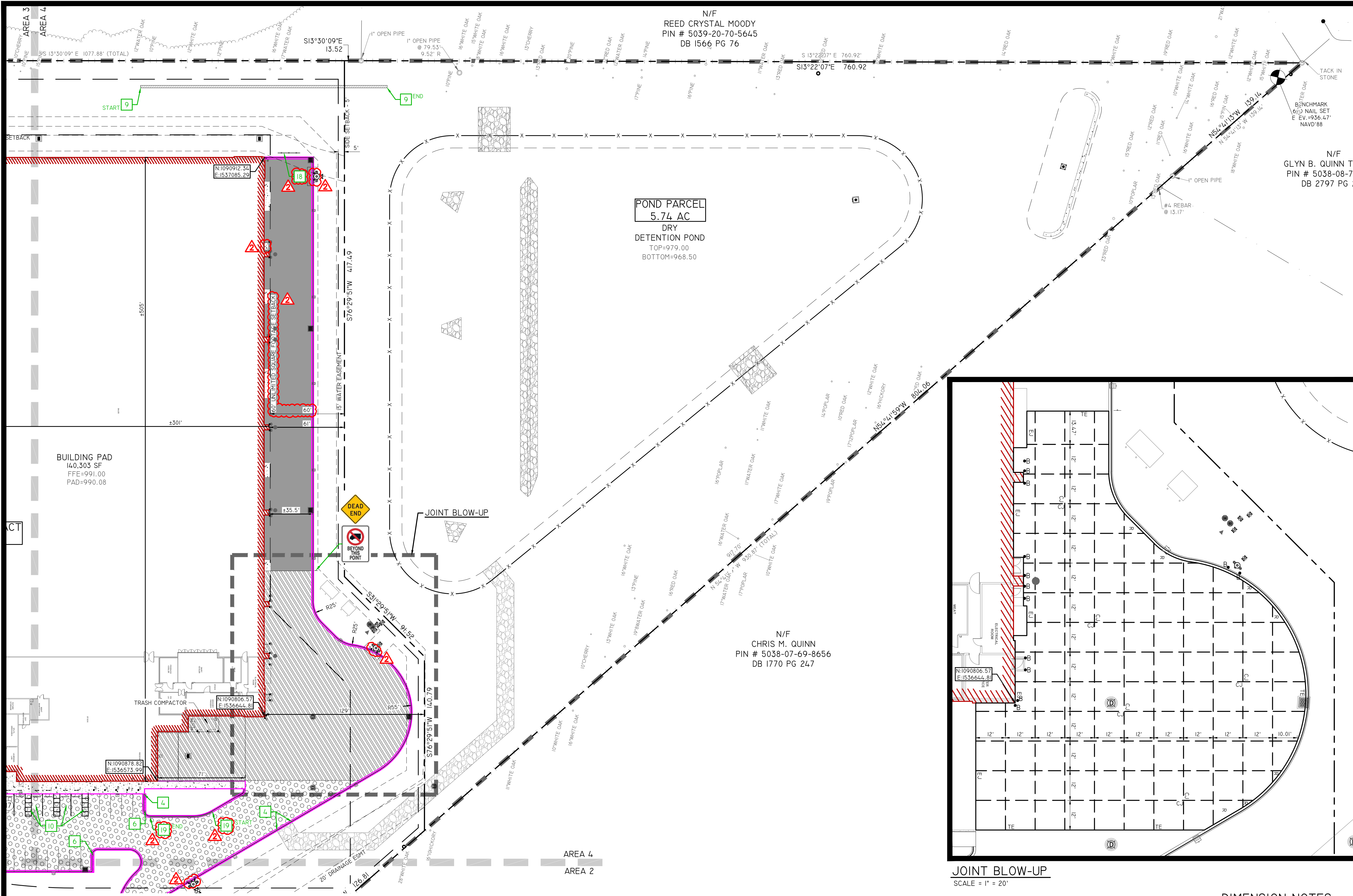


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South Carolina 811
Call 811 - Before You Dig



GENERAL NOTES:

- SEE SHEET C0.01 FOR CIVIL ABBREVIATIONS AND GENERAL NOTES.
- SEE SHEET C2.01 FOR EXISTING SITE LEGEND.
- TIE INTO EXISTING PAVEMENT IAW DETAIL SHEET C5.20.
- INSTALL CURB & GUTTER IAW DETAIL SHEET C5.20.
- INSTALL ADA RAMP IAW DETAIL SHEET C5.20.
- TRANSITION CURB TO FLUSH OVER 3'.
- STRIPE CROSSWALK IAW DETAIL 9-RE3B & 10-RE3B, SHEET C5.21.
- INSTALL GRAVEL LANDING IAW DETAIL SHEET C5.21.
- INSTALL SIDEWALK, PEDESTRIAN AREA, SEATING, PLANTERS, ETC. IAW TARGET REQUIREMENTS, ARCHITECTURAL PLAN, & DETAIL SHEETS C5.10, C5.21-C5.23.
- TRANSITION FROM ROLLED CURB TO VERTICAL CURB OVER 10'.
- INSTALL NEW SEGMENTAL BLOCK RETAINING WALL AT ELEVATION SHOWN ON DRAINAGE PLAN. CONTRACTOR TO PROVIDE WALL DESIGN TO BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER LICENSED IN SOUTH CAROLINA FOR REVIEW AND APPROVAL PRIOR TO ANY WORK BEGINNING ON WALL. WALL MATERIALS SHALL BE KEYSTONE RETAINING WALL SYSTEM OR APPROVED EQUAL. WALL COLOR SHALL BE "WILLIAMSBURG BROWN" BY KEYSTONE OR APPROVED EQUAL. INSTALL 4' TALL BLACK METAL FENCING ALONG TOP OF WALL.
- STRIPE DRIVE UP AREA IAW DETAIL 5-RE3B & 6-RE3B, SHEET C5.21.
- INSTALL DRIVE UP SIGNAGE - POST AND PANEL IAW DETAIL 2-RE3B, SHEET C5.21.
- INSTALL DRIVE UP SIGNAGE - BEACON IAW DETAIL 1-RE3B, SHEET C5.21.
- INSTALL DIRECTIONAL BLADE SIGN IAW DETAIL 8-RE3B, SHEET C5.21.
- INSTALL TARGET MONUMENT SIGN IAW OWNER REQUIREMENTS.
- COORDINATE INSTALLATION OF SHOPPING CENTER SIGN IAW DEVELOPER AND CITY OF EASLEY.
- TRANSITION FROM FLUSH CURB TO ROLLED CURB OVER 20'.
- INSTALL 4" YELLOW THERMOPLASTIC STRIPING AT 45°, 2' O.C.
- INSTALL (3) SCOT TYPE II BARRICADE WITH ONE ROAD ENDS SIGN (RII-5-36).
- INSTALL FIRE LANE STRIPING IAW DETAIL SHEET C5.20.

SITE LEGEND

- STANDARD DUTY ASPHALT PAVEMENT - INSTALL IAW DETAIL SHEET C5.20.
 - SCDOT R.O.W. ASPHALT PAVEMENT - INSTALL IAW DETAIL SHEET C5.20.
 - HEAVY DUTY ASPHALT PAVEMENT - INSTALL IAW DETAIL SHEET C5.20.
 - SPINE ROAD HEAVY DUTY ASPHALT PAVEMENT - INSTALL IAW DETAIL SHEET C5.20.
 - HEAVY DUTY CONCRETE PAVEMENT - INSTALL IAW DETAIL SHEET C5.20.
 - CONCRETE SIDEWALK - INSTALL IAW DETAIL SHEET C5.20.
 - HIGHWAY/DRIVEWAY TRAFFIC ARROW (THERMOPLASTIC) - INSTALL IAW SCDOT STANDARD DRAWING 625-410-00.
 - ACCESSIBLE PARKING SPACE AND AISLE - IAW DETAIL SHEET C5.20.
 - STOP BAR (THERMOPLASTIC) - INSTALL IAW DETAIL SHEET C5.20.
 - SINGLE WHITE DASHED LINE / 4" WIDE (THERMOPLASTIC)
 - PARKING SPACES - STRIPE WITH 4" SINGLE WHITE SOLID LINE
 - NEW TRAFFIC SIGN - INSTALL PER PLAN AND IAW DETAILS SHEET C5.20.
 - ADA SIGN WITH BOLLARD POST - INSTALL PER PLAN AND IAW DETAILS SHEET C5.20.
 - CART CORRAL - INSTALL PER PLAN AND IAW DETAILS SHEET C5.21.
 - BOLLARDS - BY DEVELOPER
 - 4' CHAIN-LINK FENCE - IAW OWNER REQUIREMENTS.
 - LIMITS OF DISTURBANCE
- HORIZONTAL SCALE
(IN FEET)
1" = 40 FT.

CYPRESS
ENGINEERING

CYPRESS ENGINEERING
412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

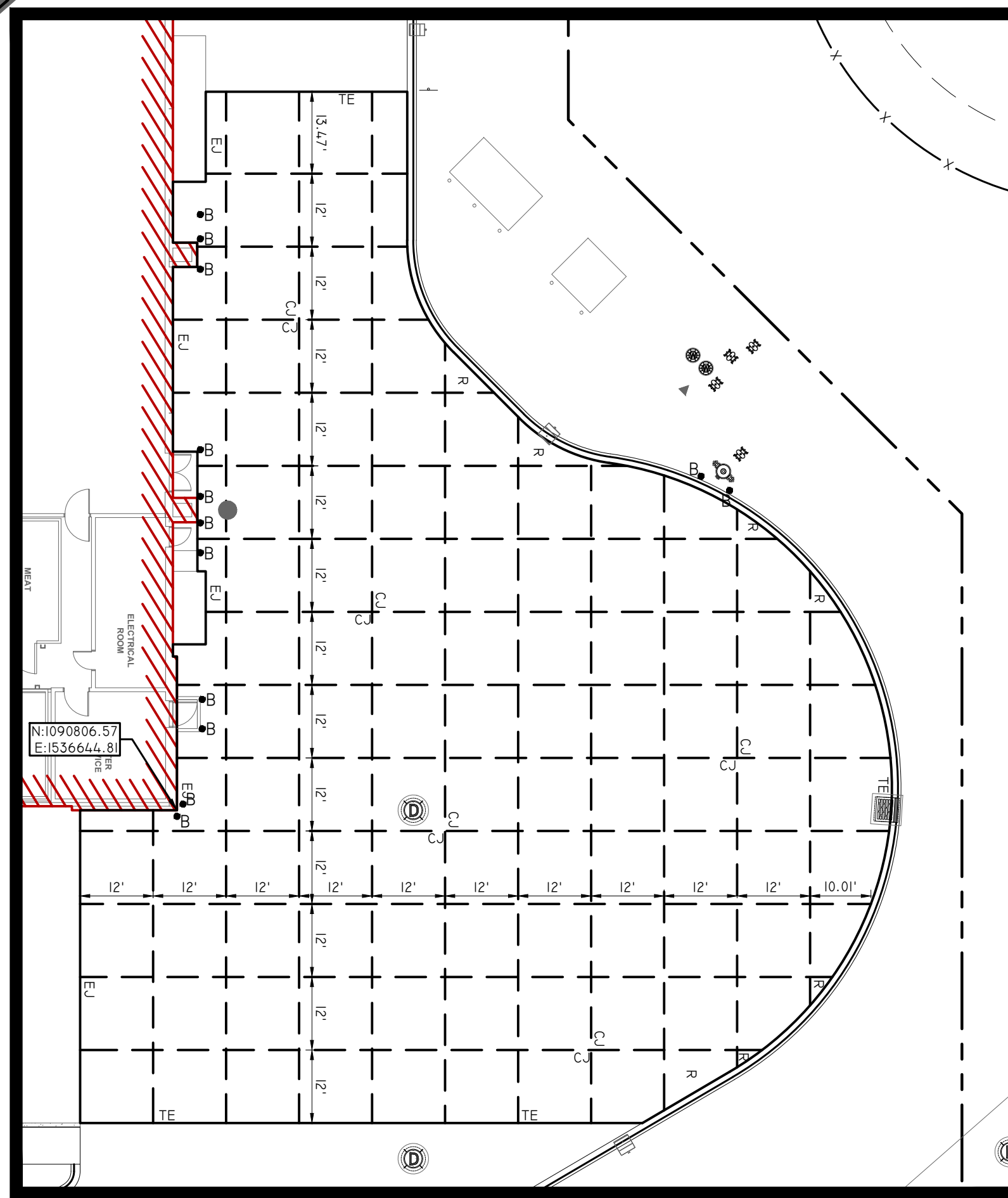
DATE:	8/12/2026	CYP PROJ #:	25034
DRAWN:	JCT	CLIENT:	TARGET CORPORATION
DESIGNED:	JCT	CLIENT JOB #:	
CHECKED:	DDW		

EASLEY RETAIL CENTER

EASLEY, SC

REV	DESCRIPTION	DATE
	PERMIT SET ISSUE DATE	4/28/26
OWNER REVISIONS		7/8/26
PERMITTING REVISIONS		8/12/26

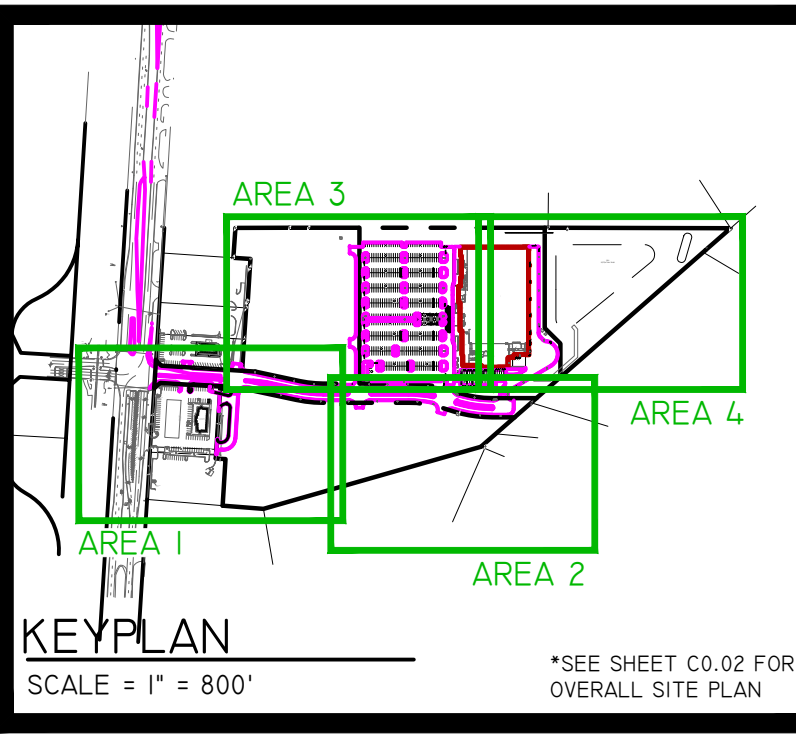
SITE PLAN - AREA 4 C5.04



JOINT BLOW-UP
SCALE = 1" = 20'

DIMENSION NOTES:

- CONTRACTOR SHALL BE PROVIDED DIGITAL FILE FOR LAYOUT.
- ALL DIMENSIONS SHOWN ARE TO FACE OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.



CONTRACTOR SHALL CALL 811 FOR LOCATION OF ALL EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY IF UTILITIES CONFLICT WITH PROPOSED WORK.

South Carolina 811
Call 811 Before You Dig

PARKING CALCULATIONS		
Building Use	Spaces Required	Tabulation
Big Box Retail	4 space per 1000 square feet	X 140,303 = 562
		TOTAL REQUIRED SPACES = 562
Provided Parking Spaces		
	Standard Spaces	= 563
	ADA Standard Spaces	= 0
	ADA Van Spaces	= 12
	PROVIDED SPACES	= 575

POST-DEVELOPMENT PROPERTY COVERAGE*			
(SEE DEMOLITION PLAN FOR PRE-DEVELOPED)			
BUILDING PAD =	140,303 SF	3.22 ACRES	26%
PAVEMENT / WALKS =	269,160 SF	6.18 ACRES	50%
POUND =	SF	0.00 ACRES	0%
WOODS =	SF	0.00 ACRES	0%
GRASS =	127,575 SF	2.93 ACRES	24%
TOTAL =	537,038 SF	12.33 ACRES	100%
*Target Parcel Only			

8.4.4 VIA INTERIOR LANDSCAPE AREAS
C. APPLICABILITY: ANY PARKING LOT THAT FITS THE FOLLOWING DESCRIPTION IS REQUIRED TO COMPLY WITH THESE STANDARDS:

d. A MINIMUM OF ONE (1) TYPE A LARGE SHADE TREE SHALL BE REQUIRED FOR EVERY 250 SQUARE FEET OF ILA, OR FRACTION THEREOF. THEREFORE, NOT ALL ILAS ARE REQUIRED TO CONTAIN THE REMAINING AREA WITHIN AN ILA SHALL BE LANDSCAPED WITH SHRUBS, GRASS OR GROUND COVER.

ILA TREE PLANTING REQUIREMENT

TOTAL ILA AREA: 15394.6 SQFT

REQUIREMENT: 1 TYPE A / LARGE SHADE TREE PER 250 SQFT

	TOTAL REQUIRED	EXISTING	PROVIDED
CANOPY TREES:	61	0	61

TABLE 8.3.5.8 BUFFER COMPOSITION TABLE

5' - 15' *

* BASED ON REVIEW AUTHORITY ANALYSIS BASED ON EXISTING AND SIMILAR USES BASED ON NAICS CLASSIFICATION. ANY ADDITIONAL USE CONDITIONS SHALL BE IN ADDITION TO THE FOLLOWING BUFFER REQUIREMENTS.

CANOPY / OVERSTORY TREES: 6

UNDERSTORY / SMALL TREES: 10

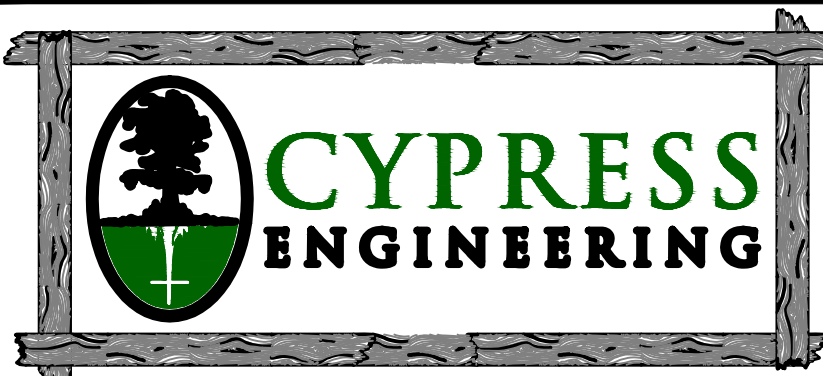
SHRUBS / UNDERBRUSH: 25%

* BUFFER WIDTH VARIES DUE TO POND, MAINTENANCE ROAD, TOPOGRAPHY, AND UNDERGROUND UTILITIES

VABUFFER

BUFFER LENGTH: 131'

5' to 15' WIDTH	WIDTH VARIES DUE TO ACCESS ROAD AND UTILITY EASEMENTS			
	REQUIRED (PER 100')	TOTAL REQUIRED	EXISTING	PROVIDED
CANOPY TREES:	6	8	4*	7
UNDERSTORY TREES:	10	13	0	13
SHRUBS:	25%	25%	0	20



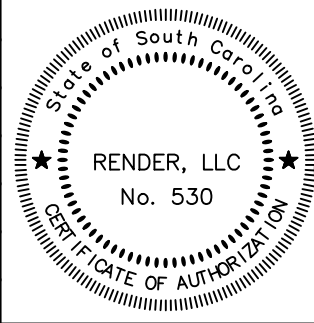
CYPRESS ENGINEERING
412 NORTH GUM STREET
SUITE A
SUMMERVILLE, SC 29483
PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	4/27/26	CYP PROJ #:	25034
DRAWN:	RRH	CLIENT:	ARMADA DEVELOPMENT
DESIGNED:	RRH	CLIENT JOB #:	
CHECKED:	RRH		

EASLEY RETAIL CENTER

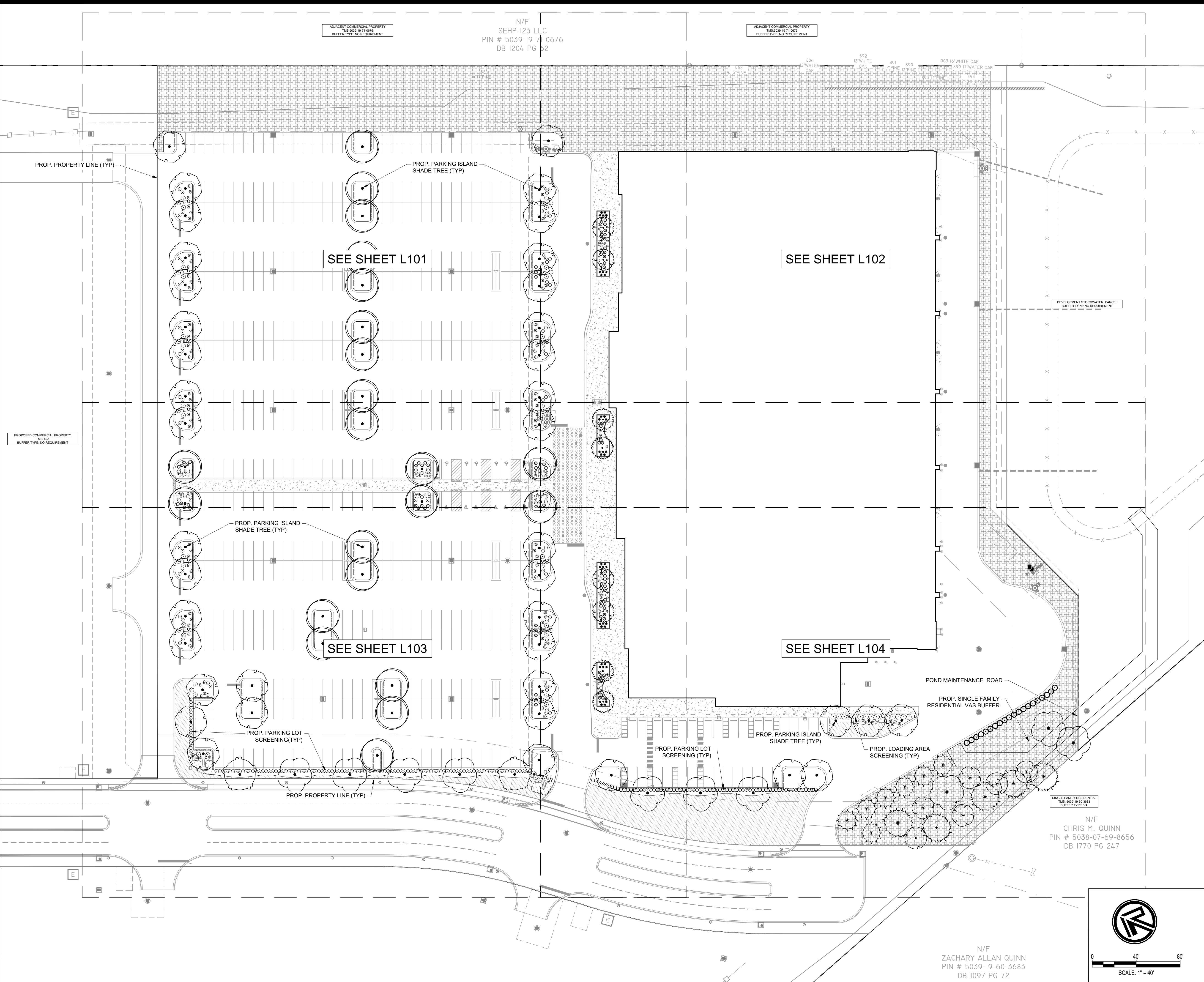
EASLEY, SC

REV	DESCRIPTION	DATE
1	PERMIT SET ISSUE DATE	4/27/26
1	REVISED LANDSCAPE SUBMITAL	7/8/26
2	REVISED LANDSCAPE SUBMITAL	8/4/26



LANDSCAPE PLAN

L100

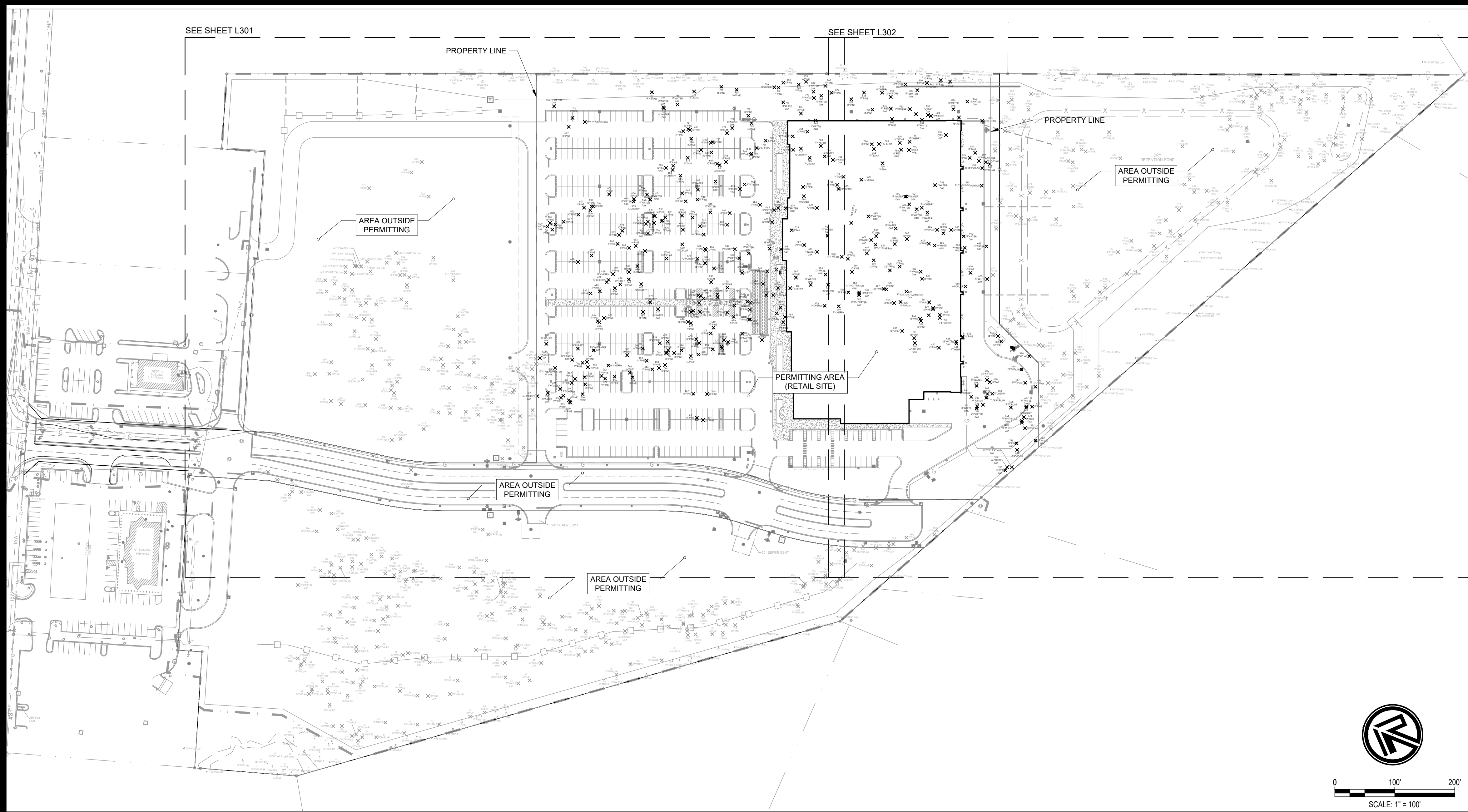


N/F
CHRIS M. QUINN
PIN # 5038-07-69-8656
DB 1770 PG 247

N/F
ZACHARY ALLAN QUINN
PIN # 5039-19-60-3683
DB 1097 PG 72



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



TREE REMOVAL TABLE: RETAIL SITE			
Number	Tree ID #	DBH	TYPE
1	321	10	Oak
2	336	21	Poplar
3	355	17	Oak
4	368	24	Oak
5	371	16	Cherry
6	377	12	Cherry
7	382	20	Oak
8	392	21	Poplar
9	402	23	Oak
10	404	17	Cherry
11	406	12	Poplar
12	407	15	Oak
13	408	11	Cherry
14	417	28	Poplar
15	419	26	Oak
16	431	10	Oak
17	441	15	Cherry
18	445	17	Oak
19	456	11	Cherry
20	457	16	Oak
21	459	10	Cherry
22	461	10	Cherry
23	463	14	Oak
24	464	27	Poplar
25	465	11	Maple
26	468	12	Cedar
27	472	12	Cherry
28	479	10	Maple
29	480	10	Oak
30	481	12	Cedar
31	482	10	Cherry
32	485	11	Cherry
33	486	10	Maple
34	487	21	Poplar
35	491	11	Cherry
36	494	18	Cherry
37	499	11	Cherry
38	500	11	Cherry
39	505	12	Cherry
40	510	11	Cherry
41	519	12	Cherry
42	520	17	Poplar
43	521	11	Cedar
44	526	15	Poplar
45	532	11	Cherry
46	540	13	Poplar
47	550	11	Poplar
48	563	12	Gum
49	570	10	Cedar
50	583	11	Cherry
51	588	10	Poplar
52	593	13	Oak
53	594	11	Cherry
54	595	14	Cherry
55	605	17	Oak
56	609	11	Cherry
57	616	15	Pine
58	618	13	Oak
59	624	11	Oak
60	628	12	Cherry
61	636	10	Oak
62	637	10	Cherry
63	638	19	Oak
64	639	11	Oak
65	651	10	Oak
66	655	10	Oak
67	656	10	Cherry
68	664	10	Cedar
69	668	15	Oak
70	675	20	Cherry
71	679	10	Oak
72	684	11	Poplar
73	701	13	Cherry
74	705	13	Cherry
75	717	10	Cherry
76	719	11	Gum
77	727	12	Cherry
78	746	10	Cedar
79	750	16	Oak
80	751	18	Cedar
81	753	10	Pine
82	755	16	Oak
83	759	15	Poplar
84	767	11	Poplar
85	768	11	Cherry
86	772	12	Cedar
87	773	10	Cherry
88	781	13	Oak
89	793	11	Cherry
90	794	11	Oak
91	800	11	Cedar
92	802	10	Poplar
93	806	15	Poplar
94	808	10	Oak
95	809	10	Cherry
96	811	10	Cherry
97	831	15	Poplar
98	833	11	Cherry
99	834	15	Oak
100	838	11	Cherry
101	846	10	Cherry
102	856	12	Hickory
103	857	12	Oak
104	863	12	Cherry

REQUIRED TREE MITIGATION TABLE			
	TOTAL INCHES	REQ. MITIGATION	INCHES OF MITIGATION
LARGE TREES REMOVED	105	50%	52.5
SMALL TREES REMOVED	1,274	33%	424.6
TOTAL REQUIRED MITIGATION:			477.1

PROVIDED MITIGATION			
	QTY.	SIZE	TOTAL INCHES
EXISTING	10	-	143
CANOPY	79	2.5	197.5
EVERGREEN	27	1.5	28.5
UNDERSTORY	14	1.5	21
MITIGATION INCHES			390

MITIGATION FEE TABLE		
REQUIRED	PROVIDED	REMAINING INCHES
477.1	390	87.1
MITIGATION COST: CAL INCH		\$20/INCH
TOTAL FEE:		\$1,742.00

INVASIVE LIST: RETAIL SITE			
Number	Tree ID #	DBH	TYPE
1	293	11	Water Oak
2	299	10	Pine
3	301	12	Pine
4	303	11	Pine
5	306	11	Pine
6	315	13	Pine
7	327	17	Pine
8	328	11	Pine
9	333	15	Pine
10	334	16	Pine
11	339	13	Pine
12	341	11	Pine
13	342	10	Pine
14	345	12	Pine
15	350	15	Pine
16	351	10	Pine
17	353	15	Pine
18	356	11	Pine
19	361	12	Pine
20	362	13	Pine
21	366	14	Pine
22	367	14	Water Oak
23	372	13	Water Oak
24	375	26	Water Oak
25	376	13	Pine
26	378	14	Water Oak
27	381	13	Pine
28	383	14	Pine
29	384	13	Pine
30	385	13	Pine
31	386	11	Pine
32	391	25	Water Oak
33	393	13	Pine
34	394	10	Pine
35	396	14	Pine
36	397	16	Water Oak
37	398	16	Pine
38	399	10	Pine
39	401	11	Pine
40	403	17	Pine
41	405	17	Pine
42	409	12	Pine
43	410	11	Water Oak
44	413	11	Pine
45	414	12	Pine
46	420	11	Pine
47	421	11	Pine
48	422	24	Pine
49	424	13	Pine
50	425	16	Pine
51	428	11	Pine
52	430	12	Pine
53	434	13	Pine
54	437	11	Pine
55	439	11	Pine
56	440	11	Pine
57	443	12	Pine
58	444	15	Pine
59	446	10	Water Oak
60	447	17	Pine
61	448	13	Pine
62	450	15	Pine
63	451	15	Pine
64	452	12	Pine
65	453	15	Pine
66	454	11	Pine
67	455	13	Pine
68	469	11	Pine
69	470	13	Water Oak
70	471	12	Pine
71	473	13	Pine
72	474	25	Water Oak
73	475	12	Pine
74	476	11	Pine
75	477	10	Pine
76	478	12	Pine
77	483	12	Pine
78	488	12	Pine
79	489	12	Pine
80	490	14	Pine
81	493	16	Pine
82	495	11	Pine
83	497	11	Pine
84	501	10	Pine
85	502	11	Pine
86	503	12	Pine
87	504	13	Pine
88	507	15	Pine
89	508	15	Pine
90	509	12	Water Oak
91	511	18	Pine
92	512	18	Water Oak
93	514	11	Pine
94	515	12	Water Oak
95	518	10	Pine
96	524	10	Pine
97	527	12	Pine
98	528	14	Pine
99	529	12	Pine
100	531	10	Water Oak
101	533	14	Pine
102	536	13	Pine
103	537	10	Pine
104	539	10	Pine
105	541	14	Pine
106	542	11	Pine
107	544	13	Pine
108	547	22	Pine
109	548	11	Pine
110	549	13	Pine
111	552	10	Pine
112	553	10	Pine
113	554	110	Pine
114	555	110	Pine
115	557	12	Pine
116	559	10	Water Oak
117	560	14	Water Oak
118	561	12	Pine
119	564	12	Water Oak
120	566	10	Pine
121	567	19	Pine
122	568	13	Pine
123	569	14	Pine
124	571	12	Pine
125	572	12	Pine
126	573	12	Pine
127	574	13	Pine
128	576	13	Pine
129	578	11	Pine
130	579	11	Pine
131	584	22	Water Oak
132	585	11	Pine
133	586	12	Pine
134	587	13	Pine
135	589	12	Water Oak
136	591	12	Pine
137	597	12	Pine
138	598	12	Pine
139	600	10	Pine
140	601	11	Pine
141	602	11	Pine
142	603	13	Water Oak
143	606	12	Pine
144	607	10	Pine
145	608	26	Water Oak
146	610	11	Pine
147	612	13	Pine
148	615	12	Water Oak
149	616	15	Pine
150	619	14	Pine
151	620	10	Water Oak
152	625	10	Pine
153	626	22	Pine
154	627	12	Pine
155	630	14	Pine
156	631	11	Water Oak
157	632	11	Pine
158	633	10	Pine
159	634	13	Pine
160	635	12	Water Oak
161	640	13	Pine
162	641	13	Pine
163	642	14	Pine
164	643	10	Pine
165	644	11	Pine
166	645	11	Pine
167	646	10	Water Oak
168	648	13	Pine
169	653	10	Pine
170	654	12	Pine
171	659	13	Pine
172	661	10	Water Oak
173	663	11	Pine
174	665	11	Water Oak
175	667	10	Water Oak
176	670	10	Water Oak
177	671	11	Water Oak
178	672	10	Water Oak
179	673	10	Pine
180	674	13	Water Oak
181	677	10	Pine
182	678	10	Water Oak
183	679	10	Water Oak
184	680	10	Water Oak
185	681	12	Pine
186	682	12	Water Oak
187	685	13	Water Oak
188	686	14	Pine
189	687	12	Pine
190	689	12	Pine
191	692	19	Water Oak
192	693	11	Water Oak
193	699	13	Pine
194	700	15	Pine
195	703	10	Pine
196	704	12	Water Oak
197	707	10	Pine
198	708	15	Pine
199	709	12	Pine
200	710	13	Water Oak
201	711	15	Pine
202	712	10	Pine
203	713	11	Pine
204	716	13	Pine
205	722	11	Water Oak
206	723	12	Water Oak
207	725	12	Pine
208	731	12	Pine
209	735	13	Water Oak
210	736	10	Pine
211	743	13	Pine
212	749	15	Pine
213	752	11	Water Oak
214	753	10	Pine
215	758	12	Water Oak
216	760	11	Water Oak
217	765	11	Water Oak
218	775	11	Pine
219	776	12	Water Oak
220	780	10	Water Oak
221	784	10	Pine
222	786	10	Pine
223	789	16	Pine
224	790	11	Water Oak
225	792	13	Water Oak
226	805	10	Pine
227	810	12	Pine
228	814	11	Pine
229	815	13	Pine
230	817	15	Pine
231	819	10	Water Oak
232	820	10	Water Oak
233	821	12	Water Oak
234	822	10	Pine
235	824	17	Pine
236	825	19	Pine
237	826	17	Water Oak
238	827	13	Pine
239	828	15	Pine



SEHP-123 LLC
PIN # 5039-19-71-0676
DB 1204 PG 62

SEHP-123 LLC
PIN # 5039-19-71-0676
DB 1204 PG 62

SEE SHEET L201

SEE SHEET L201

SEE SHEET L202

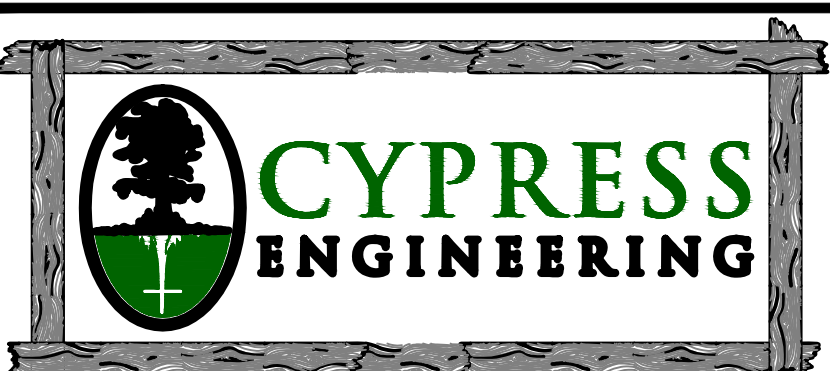
N/F
ZACHARY ALLAN Q
PIN # 5039-19-60-3
DB 1097 PG 72

N/F
HEATHER LYNETTE QUINN
PIN # 5039-19-60-1687
DB 2364 PG 297
PL 368 PG 20

N/F
CHURCH ROCK SPRINGS B
PIN # 5039-19-50-69
DB 1003 PG 265



SCALE: 1" = 20'



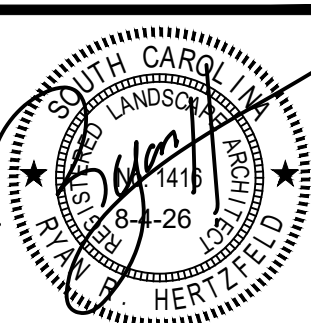
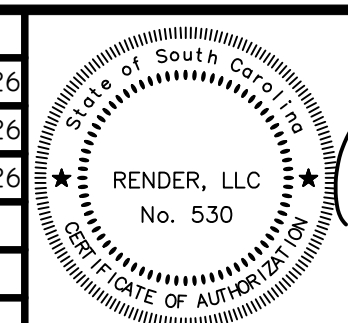
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PHONE: 843-225-5151
WWW.CYPRESSENG.COM

DATE:	4/27/26	CYP PROJ #:	25034
DRAWN:	RRH	CLIENT:	ARMADA DEVELOPMENT
DESIGNED:	RRH	CLIENT JOB #:	
CHECKED:	RRH		

EASLEY RETAIL CENTER

EASLEY, SC

REV	DESCRIPTION	DATE
1	PERMIT SET ISSUE DATE	4/27/26
1	REVISED LANDSCAPE SUBMITAL	7/8/26
2	REVISED LANDSCAPE SUBMITAL	8/4/26



STREETSCAPE PLAN

L200