



**CITY OF SOUTHPORT
PLANNING BOARD
REGULAR MEETING AGENDA**

September 15, 2022
6:00 PM

Agenda

Please turn off all cell phones

Meetings are open to the public. Face masks and social distancing may be used at the discretion of each individual. Changes to this policy may occur, as needed to help prevent the spread of the Coronavirus.

The regular monthly meeting of the Planning Board will be held at 6:00 p.m. on the third Thursday of each month. All members are asked to attend.

- A. Call to Order**
- B. Invocation**
- C. Pledge of Allegiance**
- D. Approval of Minutes**
 - 1. Minutes of the Regular Planning Board August 18, 2022
- E. Approval of Agenda**
- F. Public Comment**
- G. Old Business**
 - 1. Conditional Zoning Request for Rhetson Companies, Inc. (From BD to CZ-HC)
 - 2. Major Site Plan Review: Revised Plan for 115 N. Howe Street
- H. New Business**
 - 1. Major Site Plan: Bullfrog Corner Mixed Use (for Andrew Laing)
- I. Other Business**
 - 1. Planning Board Member Roster
- J. Announcements**
- K. Adjourn**



**Planning Board Meeting Minutes
Southport Community Building
223 E. Bay Street
August 18, 2022
6:00 P.M.**

Members Present: Sue Hodgins, Will Hewett, Christopher Jones, Donnie Joyner, Fred Fiss, Mo Meehan, Scott Jones, and Dick Sloan

Members Absent: Gustavo Mibelli

Staff Present: Gordon Hargrove, City Manager
Dorothy Dutton, City Clerk
Tanya Shannon, Deputy Clerk
Tori Deviney, Permit Technician

Others: Sam Shore, Cape Fear Council of Government

Board of Aldermen Karen Mosteller and John Allen
Liaisons:

A. Chair Sue Hodgins called the Meeting to order at 6:02 p.m.

B. Mr. Donnie Joyner gave the Invocation.

C. Chair Hodgins led the Pledge of Allegiance.

In the absence of Mr. Gustavo Mibelli, Alternate Member Mr. Fred Fiss was appointed as a voting member.

D. Swearing in reappointed Planning Board Member Mr. Will Hewett.

E. Motion to approve the July 21, 2022, meeting minutes by Mr. Donnie Joyner and seconded by Mr. Scott Jones. ***Unanimous vote; motion carried.***

F. Motion to approve the Meeting Agenda by Vice-Chair Hewett and seconded by Mr. Fred Fiss. ***Unanimous vote; motion carried.***

G. Public Comment:

Vice-Chair Hewett motioned to enter Public Comment and was seconded by Mr. Dick Sloan. ***Unanimous vote; motion carried.***

1. Bob Lambert, 109 W. Nash St, has concerns regarding the proposed mixed-use development at 115 N. Howe St. He said the feedback from the neighbors is not in favor of this development and discourages this type of use adjacent to residential properties. He suggested that the retail shops be located on the first floor, short-term rental units and office space use the second, and the restaurant/roof-top bar move somewhere more appropriate. Decisions that are made will have consequences, and the neighborhood will have to bear the results.

2. Tracy Beaulieu, 206 W. Nash St, is opposed to the proposed development at 115 N. Howe St. She said this type of use and design does not fit with the character of Southport. She is concerned about the impact on the surrounding residents and the availability of parking for customers of the proposed use, especially for the restaurant and roof-top bar during parties and events. She implored the Planning Board and the Board of Aldermen to preserve the charm of Southport.

Being that there were no other questions or comments, Mr. Joyner made a motion to go out of Public Comment and was seconded by Mr. Sloan.

Unanimous vote; motion carried.

H. Old Business:

1. Zoning Text Amendment: Tree Preservation Changes (Article 3.18)

Mr. Sam Shore with the Cape Fear Council of Government gave an overview of the proposed Amendment. The Text Amendment is proposed to provide new regulations and guidelines to the current Tree Preservation Article in the UDO, such as:

- Requiring an as-built tree survey for residential and non-residential new construction and subdivisions.
- Defining how to calculate mitigation credit for retaining Heritage Live Oak trees.
- Setting penalties for violations of the regulations.
- Defining the responsibilities of the City, the Forestry Committee, and the Citizens.
- Defining "Regulated Tree."

Staff has forwarded some legal questions to the City Attorney that the Review Committee submitted. Once there are answers, there may be further amendments to the Tree Preservation Ordinance.

The Review Committee, which included Ms. Mo Meehan, Mr. Fiss, and Mr. Chris Jones, met to discuss the proposed revisions in detail. Along with recommendations from the Forestry Committee, the changes and modifications to the Article will be beneficial for clarification of some of the language and defining terms. The Board was provided the proposed language to the amendments in their Board packets for review prior to the Meeting.

Mr. Scott Jones asked for clarification on the proposed requirement for an as-built tree survey before a Certificate of Occupancy is issued. He asked if this would come from the landscape surveyor or from the final as-built provided by the developer/builder that has done their own tree survey. He questioned the fact that many people are ready to move in, but they do not have the landscaping as-built completed. He asked if the as-built tree survey would be a part of the building as-built survey or completely separate.

Mr. Sam Shore said that prior to issuance of the Certificate of Occupancy, a submission for the dwelling's final as-built survey and the as-built tree survey should be provided at the same time. Mr. Chris Jones agreed and said the intent of the language is to have them both sent simultaneously to ensure that nothing is missed and that they are meeting all the requirements.

Mr. Shore explained that the tree and landscape plan would need to be submitted for review and approval, but only the tree survey must be completed and submitted before the final CO is issued. Mr. Shore said that the proposed language may need to be revised, so there is no confusion.

Mr. Fiss suggested that a temporary CO could be issued, and then when the final as-built along with the tree-as-built is received, the final CO could be issued. Mr. Chris Jones recommended adding the as-built tree survey to a checklist for builders to remind them that this

too will need to be included for issuance of the final CO. Mr. Fiss reiterated that this is to ensure that there will be a record of what the survey states will be planted. For example, if the record states that there are supposed to be 6 trees planted, and then they all die, that information can be verified to ensure that the intent of the Tree Preservation Ordinance is being regulated efficiently.

It was the consensus of the Board to make a recommendation to the Board of Aldermen for approval as drafted.

Mr. Chris Jones read the Statement of Consistency. He motioned to adopt the Consistency Statement that recommended approval of the Zoning Text Amendment for changes to the Tree Preservation Article 3.18 and was seconded by Mr. Fred Fiss.

Unanimous vote; motion carried.

2. Zoning Map Amendment: R-22-0701-01: 1403 Howe St; PUD to BD, submitted by RDK Investments.

Mr. Shore gave an overview of the application. The Zoning Map Amendment is for a 0.35-acre tract within the City limits. The property is located on N. Howe Street, at the corner of N. Howe and W. 14th Street. It is currently zoned PUD, and the applicant would like to rezone it to BD. The legal description indicates that it is part of the historic Southport Heights subdivision originally platted in 1910. The parcel is approximately 101 feet by 150 feet. The BD does not designate a minimum lot size, only a 10- foot setback, and a 40-foot maximum height. The proposed Zoning Map Amendment would remove PUD zoning and replace it with BD zoning on the zoning map. This would match most of the adjacent properties and encourage the Business District's continuity.

The Board established a Review Committee on July 21, 2022 that included Vice Chair Hewett, Dick Sloan, and Chris Jones.

It was reported that the City and the Applicant are in continuing discussion regarding this application. It was the consensus of the Board to table the proposed amendment. A motion was made by Vice-Chair Hewett to table the proposed amendment and was seconded by Mr. Sloan.

Unanimous vote; motion carried.

3. Exterior Lighting Amendment.

During the City's Street Light Policy update process, the Street Light Committee recognized the need to also update the City's Code of Ordinances to include general exterior lighting consistent with the lighting ordinance in the UDO and the Street Light Policy. While changes to the Code of Ordinances do not require Planning Board review, the Committee understands that lighting is important to the community at large and an essential element in the planning process. Prior to final consideration by the Board of Aldermen, the Committee, recommended submitting the draft language for the Exterior Lighting amendment to the Planning Board for review. A Review Committee, consisting of Chair Hodgkin, Vice-Chair Hewett, and Chris Jones, met and discussed any potential issues or suggestions. After its favorable review with no suggestions, a motion was made by Vice-Chair Hewett and seconded by Ms. Meehan, to send the Exterior Lighting Ordinance Amendment back to the Board of Aldermen, acknowledging the Planning Board's positive review.

Unanimous vote; motion carried.

I. New Business

1. Central Business District Committee: UDO Text Amendments

Chair Hodgins gave an introduction and referred to Southport's CAMA Core Land Use Plan. She stated that in the Southport Vision and Core Values statement, the first Core Value is to "Preserve the City's Historical Character." She said that there is tremendous growth in Southport and, with that, the disappearance of open space. She said that people have moved to Southport to enjoy the quiet, quaint, and slow pace of the City but that it is being significantly altered. She reiterated the amount of growth that is also surrounding the City and bringing more people to the destination of Southport. She said one thing that is not growing in Southport is parking. When considering what can be done in the City's planning efforts, the Board must always consider parking as a part of the impacts of its actions.

She stated that also included with the Vision and Core Values statement is the commitment to "Preserve the City's Residential Areas." She said there must be a consideration for the effects on the surrounding residential areas when there is contemplation regarding the proposed changes for business buildings and their use in the Central Business District. She stated the commitment to preserve the residential areas must include seeing to every side street and the overflow of parked cars in the ROW's. She said this is not only a safety issue but an aesthetics issue.

She commented on some of the current trends in other larger cities for business districts, concluding by asking the full Board and attendees to envision whether the taller, more modern and industrial city-type buildings and uses are appropriate for Southport's CBD, or whether the Board should recommit itself to the stated Core Values and act to preserve the city's historical character in the CBD while protecting the city's residential areas. See the attached addendum for verbatim comments by Chair Hodgins.

Chair Hodgins, Mr. Fiss and Mr. Sloan were members of the Review Committee that met on August 9th to discuss possible Text Amendments regarding the Central Business District and Business District, with the concerns noted earlier by the Chair and a desire to see to the City's best interest in changing standards for the Central Business District. Their presented changes include reducing the maximum height of any new or repurposed building in the CBD to 30'; limiting the number of stories that can be built in the CBD to two; and redefining the amount of parking that might be available based on the use, change of use, and dimensions of the parcel.

The Board received the proposed amendments that were discussed and prepared by the Review Committee in their agenda packets, the proposed changes highlighted. Once the Planning Board makes a recommendation to the Board of Aldermen, a Public Notice will be issued with the date and time of a Public Hearing. After the Board of Aldermen holds the Public Hearing, they will consider approving the Ordinance amendments along with the Land Use Consistency Statement.

Mr. Sam Shore gave an overview of the Committee's review and proposed amendments for the standards for mixed uses, dimensional requirements, parking, and buffers. See the proposed draft language below.

Chair Hodgins commented that after research and consultation with the Cape Fear Council of Government regarding (Section 3.3 A. item 1. Parking Overlay Districts), it was determined that this item was unnecessary after the proposed change in (Section 3.14. Table 3.4) to include CBD. Therefore, changes to (Section 3.3 Establishment of Overlay Districts) can be disregarded from the draft.

Mr. Fiss commented that the suggested text amendments are consistent with (Section 3.11 Building Design Standards A. Purpose), which states: "The purpose of this section is to ensure architectural compatibility and the establishment and preservation of architectural character throughout the city." He said it's like the three C's: Compatibility, Character, and Co-existence. He stated that downtown Southport is unique in that there is a cemetery that borders residential

neighborhoods, and businesses immediately adjacent to residential areas. He said it is essential to have guidelines and standards for these areas to co-exist, and the proposed amendments are intended to hold true to the Core Values to preserve the character of Southport and protect the residential communities.

Ms. Meehan questioned changing (Section 3.14 Parking D. item 2) and including CBD in (Section 3.14 Parking D. item 3). Ms. Meehan said that existing text states there are 0- lot lines in the CBD for non-residential uses, and she feels that it's appropriate to continue to allow for on-street parking. She said it appears the drafted text would be lumping the CBD and BD districts together. Ms. Meehan recommended instead to leave (Section 3.14 Parking D. item 2) unchanged and add language in (Section 3.14 Parking D. item 3) to clarify that the parking requirement reduction does not apply to residential uses.

Section 3.14 D. MINIMUM OFF-STREET PARKING RATIOS

Current UDO pg. 3-67 states:

2. Within the CBD zoning district, no off-street parking shall be required for any nonresidential use, whether new construction or change of use/redevelopment. Within the CBD zoning district, all residential uses require full compliance with the off-street parking requirements contained herein.

The proposed UDO Draft Text Amendment states:

2. In the CBD and BD zoning districts, for nonresidential uses, where on-street or public parking facilities are located within (500) linear feet of a proposed use, measured as a straight-line distance from the entrance of the building, the minimum off-street parking requirement may be reduced by 50%. This requirement shall not apply to residential uses.

Mr. Sam Shore proposed the following changes to the draft amendment as follows:

2. Within the CBD zoning district, no off-street parking shall be required for any nonresidential use, whether new construction or change of use/redevelopment. Within the CBD zoning district, all residential uses require full compliance with the off-street parking requirements contained herein.

3. In the BD zoning districts, for nonresidential uses, where on-street or public parking facilities are located within (500) linear feet of a proposed use, measured as a straight-line distance from the entrance of the building, the minimum off-street parking requirement may be reduced by 50%. This reduction shall not apply to residential uses.

It was the consensus of the Board to recommend approval of the proposed Central Business District UDO Text Amendments with the revisions as stated.

Mr. Fiss read the Consistency Statement and motioned to adopt the Consistency Statement that recommended approval of the Central Business District UDO Text Amendment to the Board of Aldermen and was seconded by Ms. Meehan.

Unanimous vote; motion carried.

2. Revised Conditional Rezoning Request: BD to HC-CZ, 14th, and N. Howe St; submitted by Rhetson Companies.

Mr. Shore gave an overview of the application. He explained that the request is for a 2.07-acre tract currently in the Extraterritorial Jurisdiction (ETJ). The property is located on the corner of W.14th and N. Howe Street. It is currently zoned Business District (BD), and Ms. Amy Shaffer, a representative of Rhetson Companies, said they first submitted an application for rezoning in April, but there were some challenges with that request. She said they are unfamiliar with Conditional Zoning but eager to follow this process. She thanked the Board and Staff for their time and consideration.

The Board established a Review Committee to discuss the application in more detail. Vice Chair Hewett, Mr. Fiss, and Mr. Chris Jones were appointed to the Committee.

3. UDO Review Process: PUD and Subdivision Standards.

Chair Hodgins stated that a City Government should never let policies and regulations go stagnant. The Unified Development Ordinance is a living document and must remain open for examination and revisions as circumstances warrant. She said that since the UDO's last revision was done in 2020, a periodic review should begin for any modifications and updates to be presented to the Aldermen for their action.

With the City's continuing growth, she said the Planned Unit Development and Subdivision Standards might be the best place to start such a review and appointed Mr. Gustavo Mibelli, Vice-Chair Hewett, and Ms. Meehan to the Review Committee.

J. Other Business: None

K. Chair Hodgins noted that the Members Table and Attendance Record are always in the back of the Board Agenda Packet for Member's information, but there was no action to be taken.

L. Announcements: None

- Mr. Fiss was confirmed back to the Alternate Member position.

There being no further comments or questions, Vice-chair Hewett made a motion to adjourn and was seconded by Mr. Sloan.

Unanimous vote; motion carried.

Adjournment: 7:02 p.m.

Chair, Sue Hodgins

Deputy Clerk, Tanya Shannon

**Chair's Comments
CBD/BD Text Amendments
August 18, 2022**

The first item under New Business is a report from the Central Business District Committee, and proposed text amendments for Section 3 of our UDO.

Before we start with our discussion, I want to refer everyone back to Southport's CAMA Core Land Use Plan, originally adopted in 2014 and last amended in 2020. In our Vision and Core Values statement, we state our very first Core Value to be 'Preserve the city's historic character'.

There's a lot of growth taking place in North Carolina's towns, including so many along the coast. Here in Southport, we continue to see tremendous growth and the disappearance of open space. What so many of us moved here to enjoy -- Southport's quaint, quiet life in slow motion – is being altered significantly, and for a lifetime.

As we continue to grow we see ourselves as a destination for so many of the existing communities on Hwy 211 – and think of how many more are under construction. Southport will become THE place to go for all those communities.

I believe we can all agree that one thing that is NOT growing in Southport is PARKING. We all fuss about it. It's discussed in Public Comment at almost every Planning Board meeting, as well as every Board of Aldermen meeting. Whether it's a new subdivision being considered that will tax our parking and infrastructure, or just the ability for our own citizens to get around town to run errands or meet friends, parking in Southport IS finite, at least for now. So when this Board considers what can be best in planning for Southport, we must ALWAYS consider the impacts of our actions on parking.

Also included there in our Core Values is our commitment to 'Preserve the city's residential areas'. As we contemplate changes to business buildings and their uses in our Central Business District we must face that along with those usage changes, we will be impacting the

residential neighborhoods immediately adjacent to businesses in the CBD. See, parking wraps its tentacles around this too; our commitment to preserve our residential areas **MUST** include seeing to every sidestreet **NOT** being full of parked cars in the right-of-ways – it's an aesthetic **AND** a safety issue.

I read with great interest several different daily newspapers, and city officials' blogs. I've been so fortunate to have lived in more than one NC coastal town, and I've seen big changes in small towns right on up to huge changes in big towns. When you look at new business building plans being considered in towns and cities much larger than Southport, you see contemporary, industrial construction with iron railings and gray or tan exteriors: Asheville, Charlotte, Winston-Salem, Greensboro, Raleigh, Leland, Wilmington, Wrightsville and Carolina Beaches. None of those are Southport and that's **NOT** what we know to be our 'historic character'.

When you come into Southport, you see red brick or white clapboard- or siding- buildings. Nothing's tall or outlandish. Yes, Southport streets are paved now rather than dirt, but a lot of Southport's buildings are not too far adrift from the original construction and intent. Facades may have been added to change the front a bit, or the bricks may've been painted, but there's a lot of Southport's history that shows as you ride into our town --- and it's one of the things that draws in tourists and new residents alike. There's so much about our small Southern coastal town of which we should be extremely proud and want to protect and preserve. I believe this Planning Board recognizes that.

Another growing trend in bigger towns is the establishment of 'social drinking districts' where many bars and restaurants are closely aligned, in their location and their food offerings. Seating is spilled out onto sidewalks and into the streets. Open carry is allowed in the confines of these designated districts. I want to leave that thought, that vision, for you ... as we hear rumors and talk of more than one restaurant-and- rooftop-bar being considered by property owners downtown. Is this what we want to see to exemplify Southport's 'historic character' ... is this how we want to be known?

I say all of this to tell you that as our Committee met about the text amendments that we're going to discuss and propose tonight, we determined that it's time for this body – charged with the responsible PLANNING for our city -- to rededicate itself to our stated Core values.

It's time for us to say who we are, and ACT on who we say we are. Are we a town who's dedicated to our history and the quaint charm and small-town feel of Southport, and are we working to preserve those? Are we going to take care of our residential neighborhoods? Or are we going to go the way of some of our neighboring towns who've allowed development and businesses who state that their interests are to 'maximize their profits' to forever change Southport?

That said, let's look now at your packet item beginning on Page 36. I'll ask City Staff and Mr. Sam Shore from the Cape Fear Council of Governments to give Staff's report and ask the CBD Committee Members (Fred, Dick, Sue) to lead full Board discussion on the proposed text amendments.



MEMORANDUM

To: Chair Sue Hodgin, and Members of the Planning Board
From: Dorothy Dutton, City Clerk, CZO, CFM
Sam Shore, Planner, Cape Fear Council of Governments
Wes McLeod, Local Government Services Director, CFCOG
RE: Conditional Zoning Amendment, submitted by Rhetson Companies, Inc.

BACKGROUND

The attached zoning map amendment application is for a 2.07 acre tract currently in the Extraterritorial Jurisdiction (ETJ.) The project area includes (6) parcels at the corner of W. 14th and N. Howe St. It is currently zoned Business District (BD), and the applicant would like to rezone it to Conditional Zoning-Highway Commercial (CZ-HC).

The master development plan includes two retail buildings. The larger of the two is 11,000 square feet. This area has a proposed (39) parking spaces including (2) handicapped spaces. The parking area includes curbs and islands to break up the parking and a sidewalk around the building. They plan to remove the existing billboard and install a pylon sign at the entrance on N. Howe Street. The dumpster area is enclosed and there is a 10-foot buffer around the entire project. At the rear of the building, a stormwater management system (pond) is planned, and there is an existing stormwater pipe on N. Howe Street.

The second, smaller building is designed as 6,000 square feet. There are (25) parking spaces, including (2) handicapped spaces. The parking area is shown with curbs, islands, and a sidewalk. A smaller stormwater pond is shown on the Lord Street side of the property, but the 10-foot buffer continues around the whole project area. The dumpster area is enclosed, and a pylon sign is proposed at the entrance on N. Howe Street.

There are several trees identified on the site plan, mostly in the setback areas along the perimeter of the property. The parking space dimensions meet the ordinance standards (at least 9 x 18) and the drive aisles are wide.

THE PROCESS

The purpose of a conditional zoning map amendment is to consider a development that has a high level of certainty of being constructed and the most commonly expected application will contain a specified use or uses, permitted by right or special use, on small and large-scale projects. All uses listed as part of any application must be in the same format and description as listed in the table of uses. All applications to establish a conditional zoning district must follow the prescribed regulations for conditional zoning, in addition to the standard zoning map amendment (rezoning) process.

All applications for Conditional Zoning must be accompanied by a master development plan, supporting information, specifics about the uses intended for the property and development standards including parking, landscaping, and buffers. All

proposals for conditional zoning must abide by the uses and dimensional standards required by the underlying base zoning district. (In this case, if approved, the Base zoning proposed is HC).

A conditional zoning request is legislative decision. The Planning Board will review the application and plans to determine whether the request project is consistent with the City's Land Use Plan and make a recommendation to the Board of Aldermen.

Prior to scheduling the public hearing on the application, the applicant must conduct at least one public input meeting, and provide results to the UDO Administrator.

The Planning Board and Board of Aldermen may consider the following when deciding on a conditional zoning map amendment: all uses allowed in that zoning district, impacts on neighbors, economic impact, tax base increase, spot zoning, road capacity, whether there is adequate infrastructure, community opinion, property values, consistency with the CAMA Land Use Plan, the future land use map, the land suitability map, jobs, public services, buffering requirements, the environmental impacts, site limitations, and consistency with other plans and prior decisions. The Boards cannot consider ethnicity, income, affordable housing, owner vs. rental housing, or who the owner is when deciding.

The Planning Board and Board of Aldermen may request reasonable and appropriate conditions for the project. Any such conditions should be related to the proposed uses and possible impacts to the community. This includes screening/buffer areas, traffic patterns in the parking lot, or the timing of the development. All conditions must be consented to in writing by the applicant and the City.

A public hearing must be scheduled by the Board of Aldermen, following a recommendation from the Planning Board. A Statement of Land Use Consistency and a zoning map ordinance amendment must be approved by the Board of Aldermen.

The applicant must make substantial progress on the project within the first three years after approval, or the Planning Board can recommend to the Board of Aldermen that the property revert back to its original designation.

The Planning Board Review Committee are scheduled to meet on Monday, September 12, 2022 at 4:00 p.m. to review the plans under the Conditional Zoning standards. They will give a report to the full Planning Board at the Regular meeting.

ZONING MAP AMENDMENT (REZONING)

The proposed zoning map amendment would remove BD zoning and replace it with HC-Conditional zoning on the zoning map. Figure 1 shows the current zoning map in this area and Figure 2 shows the Future Land Use map. The surrounding area consists of BD and MF.

BD to HC





Zoning Map Amendment

City of Southport, North Carolina

1029 N. Howe St, Southport NC 28461
www.southportnc.org

Planning & Inspections
Phone 910-457-7961 Fax 910-457-7957

For Staff Use Only

PERMIT No. _____ FEE: \$ _____ Date Received: _____

Applicant's Name: Rhetson Companies, Inc.
Mailing Address: 2075 Juniper Lake Road City: West End
State: NC Zip Code: 27376 Phone: 910-944-0881
Email: chris@rhetson.com

Property Owner's Name: Lisa B. Fitchett, Trustee
Address of Owner: 603 West Divine Street City: Dunn
State: NC Zip Code: 28334 Phone: _____
Email: _____

Project Name: General Retail
Project Address and/or Description of Location: N. Howe Street
6 parcels surrounded by N. Lord Street, W. 14th Street and Hwy 211.
Parcel IDs: 221MA028, 221MA02801, 221MA02802, 221MA02803, 221MA02804, 221MA02701
Parcel ID #: _____ Number of Lots: 6 Site Acreage: 2.07+-
Current Zoning District: BD Proposed Zoning District: HC-CZ

A complete application for any amendment shall contain a description of the proposed zoning regulation or zoning map amendment. The application shall state in detail whether the proposed amendment is consistent with the CAMA Core Land Use Plan and any other officially adopted plan that is applicable. The application shall also give detailed evidence that the proposed amendment is in the interest and will benefit the general public and not solely be of benefit to the applicant; that the uses within the proposed zoning district are similar or comparable to the uses in the district as currently zoned, or that none of the uses permitted in the proposed zoning district may potentially adversely affect property values or the health, safety, morals, or general welfare of the residents of the surrounding area. Such application shall be filed with the Administrator to be processed in accordance with Section 2.7.D of the UDO.

The Planning Board and Board of Aldermen may consider the following when deciding: Impact on neighbors and neighborhood, traffic, environment, utilities, suitability of land, harmony with area, schools, economic impact, tax base increase, spot zoning created, road capacity, adequate infrastructure, community opinion, property values, consistency with the Land Use Plan, future land use map, jobs, public services, buffering requirements, environmental impact, site limitations, and consistency with plans and prior decisions. The Boards cannot consider ethnicity, income of future residents, owner vs. renter housing, or who the owner is when deciding.

If the proposed change would require a change in the zoning map, attach an accurate diagram of the property proposed for rezoning showing:

- A. Boundaries indicated as approximately following the centerlines of alleys, streets, highways, streams, or railroads shall be construed to follow such centerline;
- B. Boundaries indicated as approximately following lot lines, city limits, or extraterritorial boundary lines, shall be construed as following such lines, limits, or boundaries;
- C. Boundaries indicated as following shorelines shall be construed to follow such shorelines, and in the event of change in the shoreline shall be construed as following such shorelines;
- D. Where a district boundary divides a lot each part of the lot or tract so divided shall be used in conformity with the regulations established by this ordinance for the district in which said part is located, nor shall a change in lot line be construed to have modified a zoning district boundary;
- E. Where any street or alley is hereafter officially vacated or abandoned, the regulations applicable to each parcel of abutting property shall apply to that portion of such street or alley added thereto by virtue of such vacation or abandonment.
- F. Where any further uncertainty exists, the UDO Administrator shall interpret the intent of the map as to location of such boundaries.

Future Land Use Map Designation: Yes

Is the proposed zoning consistent with the Land Use Plan? (Check One and Describe Below):

☒ Yes ☐ No

See attached.

Please describe the changing conditions in the area or in the City of Southport that makes the proposed amendment necessary to the promotion of the public health, safety and general welfare, or that identifies an obvious error in the zoning map based upon the zoning classification or current land use of surrounding properties. Also include an explanation on why the proposed zoning is or is not consistent with the Land Use Plan and other adopted plans (Attach separate sheet if necessary)

See attached.

In filing this Rezoning Petition, I hereby certify that I am authorized to submit this application and that all of the information presented in this application is accurate to the best of my knowledge, information, and belief.



Signature (Owner or Authorized Applicant)

2/15/2022

Date

APPROVED BY:

UDO Administrator

Date

Zoning Map Amendment – City of Southport Attachment for Rhetson Companies, Inc.

Is the proposed zoning consistent with the Land Use Plan?

Rhetson Companies, Inc. submitted a Zoning Map Amendment application for properties in Southport's ETJ located between S Howe Street, N Lord Street, W 14th Street, and W 13th Street, totaling approximately 2.07 acres, from Business District (BD) to Conditional-Highway Commercial (C-HC).

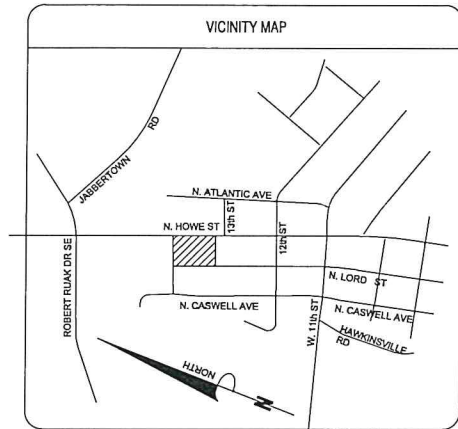
This zoning map amendment request is consistent with the CAMA Core Land Use Plan ("Land Use Plan") and any applicable officially adopted plans. These properties are identified as Light Commercial in the Land Use Plan. Light Commercial is generally associated with lower intensity commercial uses such as offices, boutiques, and places of worship. As evidenced on the attached zoning map, the uses within the proposed zoning district are similar or comparable to the uses in the district as currently zoned.

Please describe the changing conditions in the area or in the City of Southport that makes the proposed amendment necessary to the promotion of the public health, safety and general welfare, or that identifies an obvious error in the zoning map based upon the zoning classification or current land use of surrounding properties. Also include an explanation on why the proposed zoning is or is not consistent with the Land Use Plan and other adopted plans.

This area was previously identified on land use maps as office/institutional. However, the 2020 modifications to the CAMA Core Land Use Plan identified Howe Street specifically as appropriate for a variety of commercial uses. The proposed amendment is in the interest and will benefit the general public by increasing access to goods and services to the community as well as creating potential employment opportunities. The properties are located on Howe Street, a major corridor identified in the Plan as the proper location for future commercial development.

The Howe Street location provides sufficient infrastructure and utilities to support commercial development. In addition, multiple policies support rezoning the properties from BD to HC, specifically **Policy 2.11:** Southport supports development that blends a mix of uses at a reasonable scale offering convenient retail facilities to nearby residents in an effort to reduce traffic flow on main thoroughfares; and **Policy 2.12:** Southport supports commercial development along the Howe Street Corridor and other areas consistent with the City's future land use map.

This zoning map amendment request is consistent with the CAMA Core Land Use Plan and any applicable officially adopted plans. These properties are identified as Light Commercial in the Land Use Plan. Light Commercial is generally associated with lower intensity commercial uses such as offices, boutiques, and places of worship all of which are also consistent with uses permitted in the Highway Commercial.



DEVELOPMENT DATA	
DEVELOPMENT NAME:	SOUTHPORT SHOPS
STREET ADDRESS:	N. HOWE STREET BRUNSWICK COUNTY, NC
PROPERTY IDENTIFICATION # (PIN):	209607595026, 209607596042, 209607586967, 209607585917, 209607585868, 209607586851
PROPERTY #:	221MA02801, 221MA02803, 221MA02804, 221MA028, 221MA02801, 221MA02701
DEED BOOK/PAGE:	1116 / 47
EXISTING ZONING:	BD-BUSINESS DISTRICT
PROPOSED ZONING:	HC-C2-HIGHWAY COMMERCIAL
WATERSHED DISTRICT:	NONE
WATER DISTRICT:	1
TOTAL SITE ACRES:	90.566 SF (2.08 AC)
INSIDE TOWN LIMITS:	NO
EXISTING USE:	VACANT
PROPOSED BUILDING USE:	RETAIL SALES
PROPOSED TOTAL BUILDING AREA:	10,640 SF (8,522 SF SALES FLOOR AREA)
MAX BUILDING HEIGHT:	40 FT
MIN LOT AREA:	10,000 SF
MIN LOT WIDTH:	75 FT
FRONT SETBACK:	25 FT
SIDE SETBACK:	8 FT
REAR SETBACK:	20 FT
STREET YARD BUFFER:	10 FT
SIDE YARD BUFFER:	0 FT
PARKING REQUIREMENTS:	
PARKING REQUIRED:	54
TOTAL PROVIDED:	41
ACCESSIBLE SPACES PROVIDED:	2
LOADING AREA:	1 PROVIDED

Proposed Southport Shops N Howe Street Brunswick County, NC

DEVELOPER

Rhetson Companies, Inc.
Attn: Chris Morgan
2075 Juniper Lake Road
West End, NC 27376
(910) 944-0881
chris@rhetson.com



CIVIL ENGINEER
Bowman North Carolina, Ltd.
4006 Barrett Drive
Suite 104
Raleigh, NC 27609
(919) 553-6570
mlowder@bowman.com
FIRM# F-1445

CURRENT PROPERTY OWNERS
The Lisa B. Fitchett, Trustee
603 West Divine Street
Dunn, NC 28334



Sheet List Table	
SHEET NUMBER	SHEET TITLE
C1.0	COVER SHEET
C3.0	SITE PLAN
C3.1	LANDSCAPE PLAN
C3.2	LIGHTING PLAN
C7.1	SPECIMEN TREE PLAN



Bowman

Bowman North Carolina Ltd.
4006 BARRETT DR
Suite 104
RALEIGH, NC 27609
Phone: (919) 553-6570
bowman.com
Bowman North Carolina Ltd.

COVER SHEET

SOUTHPORT, NORTH CAROLINA

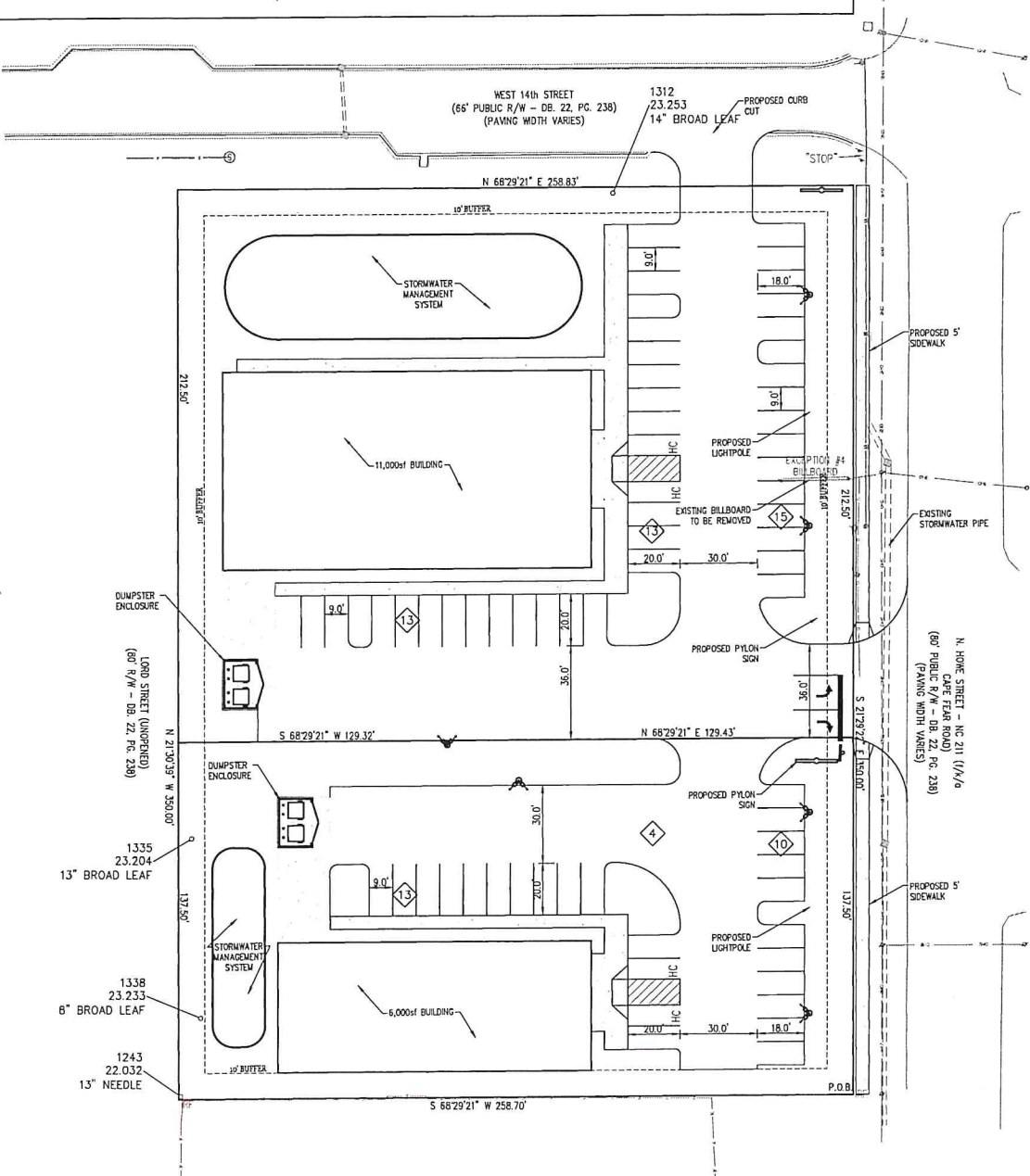
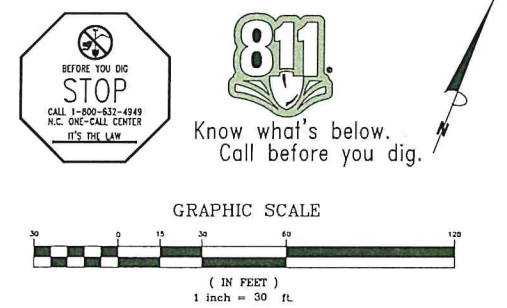
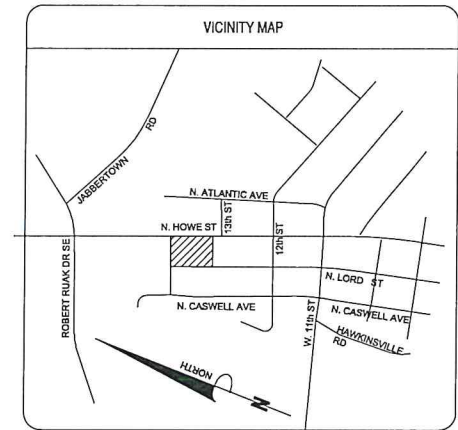
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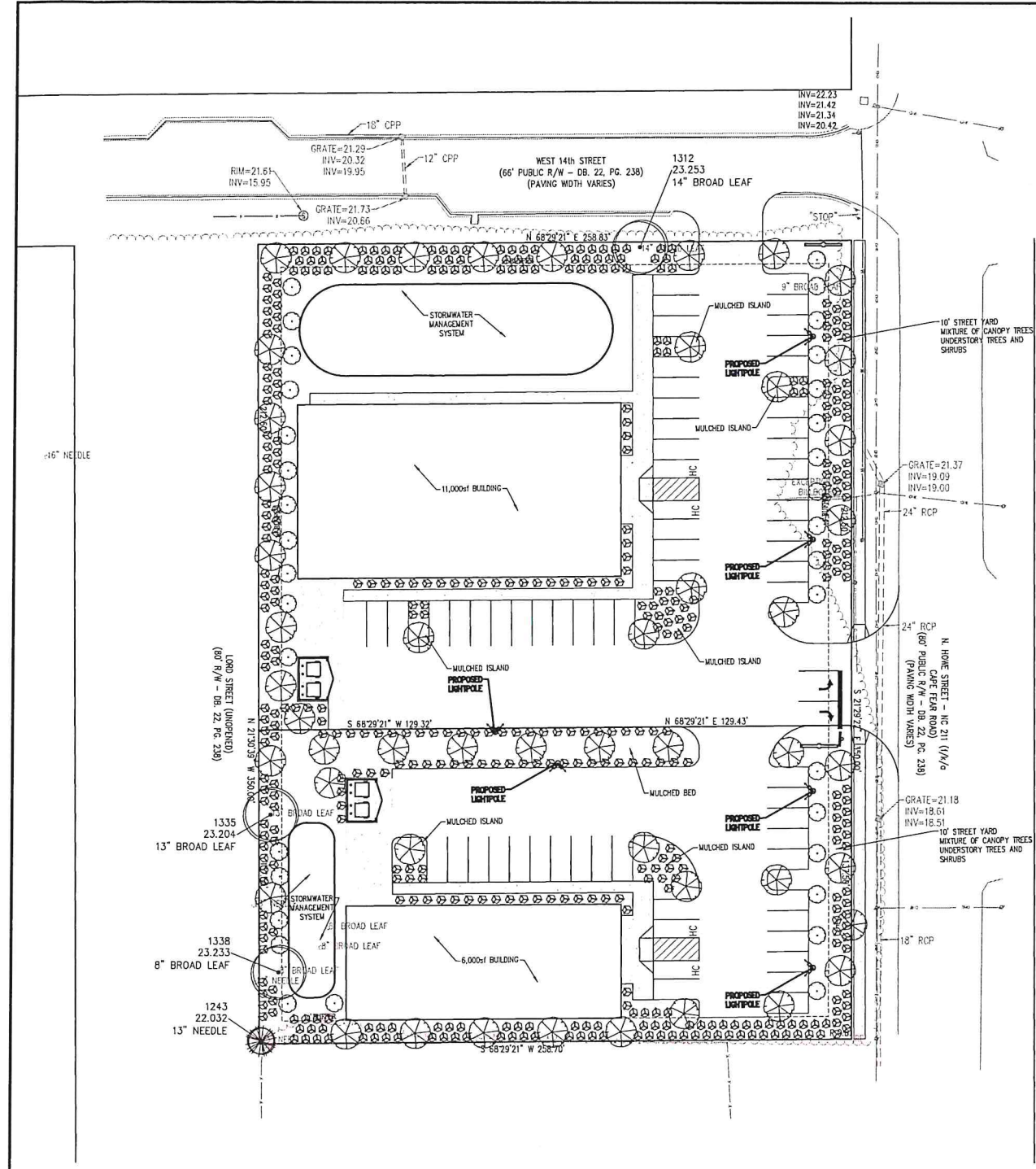
PLAN STATUS
07/2022 REZONING SUBMISSION

DATE	DESCRIPTION
MLL DESIGN	MLL DRAWN
SCALE	H: 1" = 30'
JOB No.	TSO-058-015
DATE	JULY 5, 2022
FILE No.	

SHEET C1.0

PLAN STATUS		
07/2022 REZONING SUBMISSION		
DATE DESCRIPTION		
MLL DESIGN	MLL DRAWN	MLL CHKD
SCALE H: 1" = 30'		
V: 1" = 30'		
JOB No. TSD-058-015		
DATE JULY 5, 2022		
FILE No.		
SHEET C3.0		



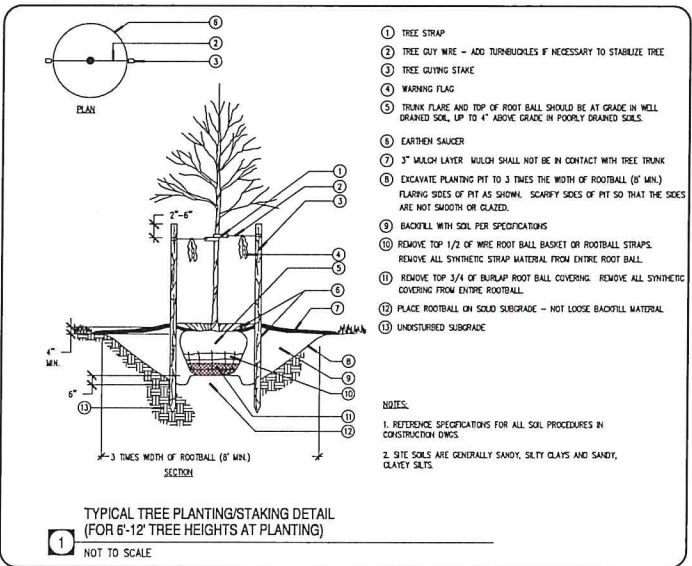


MASTER PLANT LIST											
TYPE	SYM/KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SYMBOL	CALIPER	HEIGHT	SPREAD	ROOT	SPACING	OTHER
LARGE TREES	OS	49	Canopy Tree	TBD		3.5"	6' MIN		B&B	AS SHOWN	
	AB	34	Understory Tree	TBD		2"	6' MIN		B&B	AS SHOWN	
SHRUBS	RD	245	Shrubs	TBD		-	2'-4'		1 GAL MIN	AS SHOWN	

- LANDSCAPING NOTES:

 - CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING ALL REQUIRED LANDSCAPING FOR THE ENTIRE SITE, TO INCLUDE BUT NOT LIMITED TO: SOODED/SEEDED AREAS, SHRUB BEDS, PARKING LOT ISLANDS, ROADSIDE SIGN BASE(S) AND MONUMENT PLANTERS.
 - CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDED AREAS.
 - IN THE EVENT THAT PLANTING BEDS AND MULCH ARE REQUIRED, THE CONTRACTOR SHALL INSTALL BLACK FABRIC WEED BLOCK LANDSCAPE MESH UNDER THE MULCH TO PREVENT WEED GROWTH.
 - CONTRACTOR SHALL PROVIDE NATURAL TOPSOIL THAT IS FERTILE, FRIABLE, WITHOUT MIXTURE OF SUBSOIL, MATERIALS, AND OBTAINED FROM A WELL DRAINED, AVAILABLE SITE. IT SHALL NOT CONTAIN SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL SHALL BE SCREENED AND FREE FROM CLAY, LUMPS, STONES, ROOTS, PLANTS, OR SIMILAR SUBSTANCES 1" OR MORE IN DIAMETER, DEBRIS, OR OTHER OBJECTS WHICH MIGHT BE A HINDERANCE TO PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN AT LEAST 4-6% ORGANIC MATTER BY WEIGHT AND HAVE A PH RANGE OF 5.5 TO 7.0.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE WATERING AND THE MAINTENANCE OF ALL LANDSCAPED AREAS UNTIL THE LATER OF: (a) THIRTY (30) DAYS FOLLOWING THE PLANTING OF THE GRASS AND SHRUBS, OR (b) THE DATE THAT DOLLAR GENERAL OPENS FOR BUSINESS TO THE PUBLIC.
 - GENERAL CONTRACTOR IS TO CLEAN ENTIRE SITE OF ALL CONSTRUCTION DEBRIS AND RAKE ALL GRASS AREAS.
 - PROVIDE LANDSCAPE PLANS TO DOLLAR GENERAL AND AS REQUIRED BY LOCAL JURISDICTION TO THE BLDG. DEPT. FOR REVIEW AND APPROVAL PRIOR TO START OF WORK.
 - ALL LANDSCAPING, TREES, SHRUBS, ETC. SHALL NOT INTERFERE WITH THE VISIBILITY OF DOLLAR GENERAL SIGNAGE.
 - CONTRACTOR TO VERIFY QUANTITIES PRIOR TO COMMENCING WORK.
 - OPEN AREAS WITHIN PLANTING BEDS SHALL BE MULCHED.
- GENERAL LANDSCAPE NOTES:

 - ANY DISTURBED AREAS NOT SCHEDULED FOR HARDSCAPE, PLANTINGS, OR MULCH SHALL BE SEEDED LAWN.
 - NO PLANT SUBSTITUTIONS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE OWNERS REPRESENTATIVE.
 - ALL PLANT AND BED LINE LOCATIONS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
 - ALL PLANTINGS SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH. REFERENCE DETAILS AND SPECIFICATIONS FOR DEPTH AND TYPE OF MULCH. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS AND SHALL BE SEPARATED FROM TURF GRASS AREAS.
 - GRASS COVERAGE TO EXTEND FROM PROPERTY LINES TO BACK OF CITY SIDEWALKS AND/OR CURBS.
 - MINIMUM TREE SIZE AT PLANTING IS 2" CALIPER (FOR SINGLE STEM TREES). ALL MULTI-STEM PLANTS MUST BE TREE FORM, MAXIMUM 3 TO 5 TRUNKS, AND MINIMUM 6 FEET TALL.
 - ALL STRAPPING AND TOP 2/3 OF WIRE BASKET MUST BE CUT AWAY AND REMOVED FROM ROOT BALL PRIOR TO BACKFILLING PLANTING PIT. REMOVE TOP 1/3 OF THE BURLAP FROM ROOT BALL.
 - FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL SUB-BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 18" NEW TOPSOIL, OR TILL AND AMEND THE TOP 18" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES.
 - LARGE MATURING TREES MAY NOT BE PLANTED WHERE THERE ARE OVERHEAD DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLICT WITH POWER LINES OR SIGNS, CALL URBAN FORESTER TO RESOLVE BEFORE PLANTING.
 - ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 15' FROM ALL UNDERGROUND UTILITIES (SEWER AND STORM DRAINAGE, GAS, WATER, PHONE, AND ELECTRICAL LINES).
 - ATTENTION LANDSCAPER: NOTIFY OWNER OF ANY SIGN, POWER LINE, OR OTHER CONFLICTS BEFORE PLANTING NEW TREES.



GRAPHIC SCALE

Bowman North Carolina Ltd.
4008 RABBITT DR
Suite 104
RALEIGH, NC 27609
Phone: (919) 553-8570
bowman.com
Bowman North Carolina Ltd.

LANDSCAPE PLAN

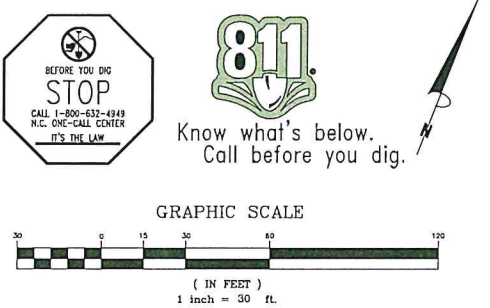
SOUTHPORT, NORTH CAROLINA

PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION

PLAN STATUS	07/2022	REZONING SUBMISSION
DATE		DESCRIPTION
MLL DESIGN	MLL DRAWN	MLL CHKD
SCALE	H: 1" = 30'	V:
JOB No.	TSD-058-015	
DATE	JULY 5, 2022	
FILE No.		
SHEET	C7.2	



WARNING: Do not use if you are pregnant or nursing.



LIGHTING PLAN



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

August 03, 2022

Botts Smith

Bowman
880 Island Park Drive, Suite 400
Charleston, SC 29492

RE: Approval of the Traffic Impact Analysis (TIA) associated with the proposed
Southport Retail Store in Southport, NC.

The NCDOT and Brunswick County staffs have reviewed the Southport Retail TIA dated July 8, 2022. This development consists of:

- 10,640 square feet: Variety Store (LUC 814)
- Build Year: 2023

Based on review of the analysis provided in the TIA report, the following improvements are required by the developer:

NC 211 (N Howe Street) at W 14th Street (stop-controlled full movement intersection)

- Construct an eastbound right turn lane on W 14th Street with 50 feet of storage, 50 feet full-width deceleration and 50 feet of taper

NC 211 (N Howe Street) and Site Access 1 (proposed stop-controlled T-intersection)

- Construct site access with one ingress and one egress lane
- Provide stop-control for eastbound approach
- Provide an internal protected stem of 50 feet, measured from the right-of-way

W 14th Street and Site Access 2 (proposed stop-controlled T-intersection)

- Construct site access with one ingress and one egress lane
- Provide stop-control for northbound approach
- Provide an internal protected stem of 50 feet, measured from the right-of-way

If changes are made to the proposed site driveways, land uses, land use intensity, or other study parameters, or if the build year studied in the report has passed, a revised

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DISTRICT 3 ENGINEER'S OFFICE
300 DIVISION DRIVE
WILMINGTON, NC 28401-8883

Telephone: 910-398-9100
Customer Service: 1-877-368-4968

Website: ncdot.gov

Location:
300 DIVISION DRIVE
WILMINGTON, NC 28401

Traffic Impact Analysis will be required for review by NCDOT. Any such changes will null and void this TIA approval.

The applicant is required to obtain all applicable Brunswick County and NCDOT permits for access to the road network. A copy of this TIA approval shall be included with any NCDOT driveway permit application. All applicable NCDOT and Brunswick County technical standards and policies shall apply.

Please contact me at 910-398-9100 with any questions regarding this approval.

Sincerely,

Jon Roan
Deputy District Engineer
Division 3, District 3

cc: Benjamin T. Hughes, PE, District Engineer, NCDOT
Michael Bass, Assistant District Engineer, NCDOT
Jessi Leonard, PE, Division Traffic Engineer, NCDOT
Stonewall Mathis, PE, Deputy Division Traffic Engineer, NCDOT
Krupa Koilada, Senior Assistant Traffic Engineer, NCDOT
Marc Pages, Brunswick County Planning
Helen Bunch, Brunswick County Zoning Administrator

Mailing Address:
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Customer Service: 1-877-368-4968

Website: ncdot.gov

Location:
300 DIVISION DRIVE
WILMINGTON, NC 28401

TRAFFIC IMPACT ANALYSIS REPORT

SOUTHPORT RETAIL

BCG File No. 150108-01-001

Prepared By:

Bowman

Bowman Consulting Group, Ltd.

880 Island Park Drive, Suite 400

Charleston, SC 29492

Phone: 843.501.0333

07-08-2022

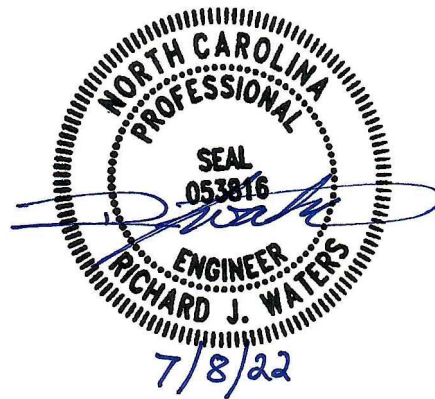


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1.0 Executive Summary

Bowman has been retained to perform a Traffic Impact Analysis (TIA) for the proposed Southport Retail project, a 10,640 square-foot (sq ft) retail store. The project is proposed to be constructed on the southwest corner of the intersection of N Howe Street and W 14th Street/Port Realty Driveway in Southport, NC. Access to the site is proposed to be provided via two full access driveways, one on N Howe Street and one on W 14th Street. It is anticipated that the development will be constructed and fully operational by the end of 2023.

The study area includes the following intersections:

- N Howe Street at W 14th Street/Port Realty Driveway
- N Howe Street at Site Access #1 (2023 Build and 2023 Build with Improvements conditions only)
- W 14th Street at Site Access #2 (2023 Build and 2023 Build with Improvements conditions only)

The intersection of N Howe Street at W 14th Street/Port Realty Driveway operates at level of service (LOS) D during the AM peak hour and at LOS E during the PM peak hour in the Existing and 2023 No Build conditions. In the 2023 Build conditions, the intersection is projected to operate at LOS D during the AM peak hour and at LOS F during the PM peak hour. Due to the intersection operating at LOS F at buildout, an exclusive eastbound left-turn lane with 50 feet of storage is recommended for mitigation. With the addition of the left-turn lane, the intersection is projected to operate at LOS D during the AM peak hour and at LOS E during the PM peak hour in the 2023 Build with Improvements condition.

In the 2023 Build and 2023 Build with Improvements conditions, the proposed intersection of N Howe Street at Site Access #1 is projected to operate at LOS C during the AM and PM peak hours. The proposed intersection of W 14th Street at Site Access #2 is projected to operate at LOS A during the AM and PM peak hours.

Based on the results of this study, an exclusive eastbound left-turn lane with 50 feet of storage is recommended at the intersection of N Howe Street at W 14th Street/Port Realty Driveway.

The purpose of this study is as follows: (i) to determine the number of trips generated by the proposed site; (ii) to determine the potential impacts of the proposed development on the roadway network; (iii) to propose improvements, if required.

2.0 Introduction

The Southport Retail project consists of a 10,640 sq ft retail store. The project is to be located on the southwest corner of the intersection of N Howe Street and W 14th Street/Port Realty Driveway in Southport, NC. Access to the site is proposed to be provided via two full access driveways, one on N Howe Street and one on W 14th Street. It is anticipated that the development will be constructed and fully operational by the end of 2023.

Figure 1 depicts the location of the proposed development. A conceptual site plan is depicted in **Appendix A**.

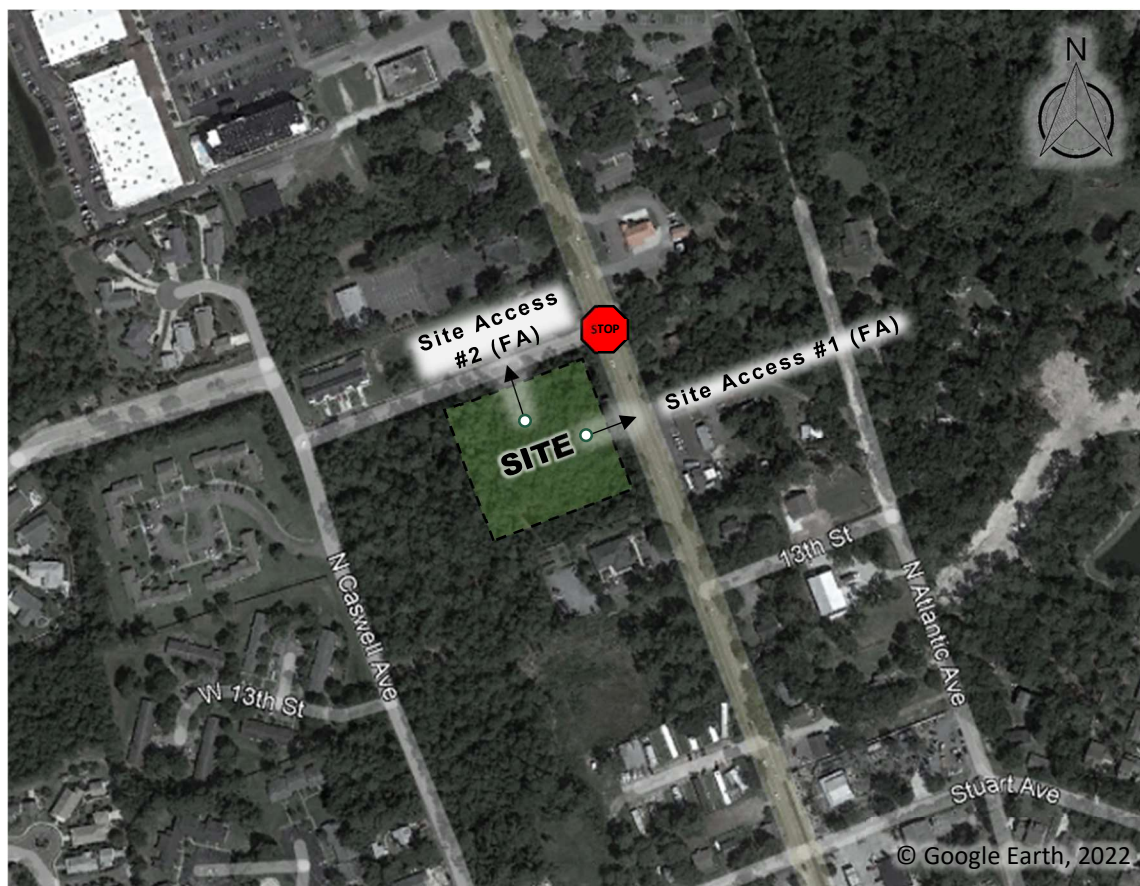


Figure 1 Site Location

The purpose of this study is as follows: (i) to determine the number of trips generated by the proposed site; (ii) to determine the potential impacts of the proposed development on the roadway network; (iii) to propose improvements, if required.

3.0 Base Conditions

For the purposes of this study, the following data was collected:

- An inventory of existing roadway geometry, traffic control devices, and location of existing and proposed driveways
- Published North Carolina Department of Transportation (NCDOT) Annual Average Daily Traffic (AADT) counts and functional classification information

The existing laneage for the following intersections are depicted on **Exhibit 1** in **Appendix C**:

- N Howe Street at W 14th Street/Port Realty Driveway

The following roadways are within the study area: N Howe Street, W 14th Street, and Port Realty Driveway

N Howe Street (NC 211): Within the identified study area N Howe Street is a state-maintained, three-lane roadway with a two-way left-turn lane (TWLTL). N Howe Street has a North-South alignment and a posted speed limit of 35 mph. Per NCDOT AADT counts, N Howe Street had a 2020 AADT of 16,500 vehicles per day (vpd). N Howe Street will have one full access driveway (Site Access #1) for the development.

W 14th Street: W 14th Street is a two-lane, undivided roadway. W 14th Street has an East-West alignment and will have one full access driveway (Site Access #2) for the development.

Port Realty Driveway: Port Realty Driveway is a two-lane, divided driveway for Port Realty.

Turning Movement Counts (TMC), including pedestrian counts and heavy vehicle volumes, were collected during an average weekday, Wednesday, March 16, 2022, for the AM (7:00 am – 9:00 am) and PM (4:00 pm – 6:00 pm) peak hours. The counts are presented in **Appendix B**. The 2022 Existing peak hour traffic volumes are depicted on **Exhibit 2** in **Appendix C**.

4.0 Traffic Forecast and Background Traffic

For purposes of this analysis, it is anticipated that the proposed development will be constructed by 2023. The following scenarios were evaluated as part of this study.

- Existing Conditions (2022) (Existing)
- Future Conditions (2023) without the proposed development (No Build)
- Future Conditions (2023) with the proposed development (Build)
- Future Conditions (2023) with the proposed development and roadway network and site improvements (Build with Improvements)

To develop the future traffic volumes, a background growth rate applicable for the study area was defined in coordination with NCDOT. For a conservative approach, a 1.00% average annual growth rate was used for all traffic in the study area. This growth rate was applied to the 2022 Existing traffic volumes to yield the 2023 No Build Peak Hour Traffic Volumes, which are depicted on **Exhibit 3** in **Appendix C**. Note that based on the coordination with the agencies, no committed developments were found in the study area.

5.0 Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition was used to determine the number of trips generated by the proposed development. The development consists of a 10,640 sq ft retail store. **Table 1** outlines the trip generation calculations for the proposed development.

Table 1 Trip Generation.

Land Use	Land Use Code ⁽¹⁾	LU Intensity	Units	Time period	Equation / Average Rate	Peak Hour Trips ⁽¹⁾		
						In	Out	Total
Variety Store	814	10.64	Sq. Ft. GFA	Weekday	63.66	338	339	677
				AM ⁽²⁾	3.04	17	15	32
				PM ⁽²⁾	6.70	36	35	71

(1) Based on the Institute of Transportation Engineers Trip Generation, 11th Edition

(2) Peak Hour of Adjacent Street

As presented in **Table 1**, the proposed development is expected to generate a total of 677 daily trips (338 entering and 339 exiting), 32 trips (17 entering and 15 exiting) during the AM peak hour, and a total of 71 trips (36 entering and 35 exiting) during the PM peak hour.

6.0 Trip Distribution

The anticipated trip distribution for the proposed site was developed based on the review of the turning movement counts for each roadway segment, the proposed access to/from the project, and locations of population centers in the area. The following trip distribution is anticipated for the proposed development.

- 35% to/from the North on N Howe Street
- 60% to/from the South on N Howe Street
- 5% to/from the West on W 14th Street

The new site trip distribution is presented in **Exhibit 4** in **Appendix C**.

The new site trips are presented in **Exhibit 5** in **Appendix C**.

The new site trips were added to the 2023 No Build volumes to yield the 2023 Build volumes, presented in **Exhibit 6** in **Appendix C**.

7.0 Capacity Analysis

The study intersections were analyzed for each scenario following the Highway Capacity Manual (HCM 6th Edition) methodologies using the computer software Synchro 11 and SimTraffic. The analysis uses capacity, Level of Service (LOS), and control delay as the criteria for the performance of the intersections and driveways.

Capacity, as defined by the HCM, is a measure of the maximum number of vehicles in an hour that can travel through an intersection or section of roadway under typical conditions. LOS is a marker of the driving conditions and perception of drivers while traveling during the given time period. LOS ranges from LOS A which represents free flow conditions, to LOS F which represents breakdown conditions.

Table 2 shows the LOS for signalized and unsignalized intersections as defined by the HCM.

Table 2 HCM Level of Service Criteria

Unsignalized Intersections		Signalized Intersections	
Level of Service	Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)
A	≤10	A	≤10
B	>10-15	B	>10-20
C	>15-25	C	>20-35
D	>25-35	D	>35-55
E	>35-50	E	>55-80
F	≥50	F	≥80

Control delay is a measure of the total amount of delay experienced by an individual vehicle and includes delay related to deceleration, queue delay, stopped delay, and acceleration. **Table 2** displays the amount of control delay (in seconds per vehicle) that corresponds to the LOS for signalized and unsignalized intersections.

A PHF of 0.90 and a heavy vehicle percentage of 2.0% was used for all intersections in all conditions per NCDOT Capacity Analysis Guidelines. In addition, a minimum of 4 vehicles per hour were used in Synchro at every turning movement in all conditions per NCDOT standards.

Capacity analyses were conducted for the Existing, 2023 No Build, 2023 Build, and 2023 Build with Improvements conditions at the following intersections.

- N Howe Street at W 14th Street/Port Realty Driveway
- N Howe Street at Site Access #1 (2023 Build and 2023 Build with Improvements conditions only)
- W 14th Street at Site Access #2 (2023 Build and 2023 Build with Improvements conditions only)

7.1 N Howe Street at W 14th Street/Port Realty Driveway

The AM and PM peak hour capacity results for N Howe Street at W 14th Street/Port Realty Driveway during each condition are summarized in **Table 3**. The corresponding Synchro LOS and SimTraffic Queuing and Blocking reports are provided in **Appendix D**.

Table 3 AM and PM Peak Hour Capacity Analysis – N Howe Street at W 14th Street/Port Realty Driveway

AM PEAK HOUR			Existing		2023 No Build		2023 Build		2023 Build with Improvements	
Intersection	Approach	Movement	DELAY (S)	LOS	DELAY (S)	LOS	DELAY (S)	LOS	DELAY (S)	LOS
N Howe St & W 14th St/Port Realty Driveway	EB	Approach	35.7	D	36.3	D	36.9	D	34.4	D
	WB	Approach	29.0	D	29.5	D	30.0	D	30.0	D
	NB	Approach	0.1	A	0.1	A	0.1	A	0.1	A
	SB	Approach	0.0	A	0.0	A	0.0	A	0.0	A
PM PEAK HOUR			Existing		2023 No Build		2023 Build		2023 Build with Improvements	
Intersection	Approach	Movement	DELAY (S)	LOS	DELAY (S)	LOS	DELAY (S)	LOS	DELAY (S)	LOS
N Howe St & W 14th St/Port Realty Driveway	EB	Approach	45.7	E	46.1	E	52.2	F	47.1	E
	WB	Approach	46.5	E	47.4	E	49.5	E	49.5	E
	NB	Approach	0.1	A	0.1	A	0.1	A	0.1	A
	SB	Approach	0.1	A	0.1	A	0.0	A	0.1	A

Extracted from Synchro 11 Simulation Software.

Based on the results of the capacity analysis, the intersection of N Howe Street at W 14th Street/Port Realty Driveway currently operates at LOS D during the AM peak hour and at LOS E during the PM peak hour and is projected to continue to operate at the same LOS in the 2023 No Build condition. In the 2023 Build conditions, the intersection is projected to operate at LOS D during the AM peak hour and at LOS F during the PM peak hour.

Due to the intersection operating at LOS F during the PM peak hour at buildout, an exclusive eastbound left-turn lane with 50 ft of storage was added to the 2023 Build with Improvements condition. With addition of the exclusive left-turn lane, the intersection is projected to operate at LOS D during the AM peak hour and at LOS E during the PM peak hour as shown in the 2023 Build with Improvements condition.

95th percentile queuing is considered the maximum queuing to be expected at an intersection. The 95th percentile queuing is projected to be less than 50' at all approaches for all conditions during both peak hours.

7.2 N Howe Street at Site Access #1

The AM and PM peak hour capacity results for N Howe Street at Site Access #1 during the 2023 Build and 2023 Build with Improvements conditions are summarized in **Table 4**. The corresponding Synchro LOS and SimTraffic Queuing and Blocking reports are provided in **Appendix D**.

Table 4 AM and PM Peak Hour Capacity Analysis – N Howe Street at Site Access #1

AM PEAK HOUR			2023 Build		2023 Build with Improvements	
Intersection	Approach	Movement	DELAY (S)	LOS	DELAY (S)	LOS
N Howe St & Site Access #1	EB	Approach	16.2	C	16.2	C
	WB	Approach	-	-	-	-
	NB	Approach	0.2	A	0.2	A
	SB	Approach	0.0	A	0.0	A
PM PEAK HOUR			2023 Build		2023 Build with Improvements	
Intersection	Approach	Movement	DELAY (S)	LOS	DELAY (S)	LOS
N Howe St & Site Access #1	EB	Approach	17.3	C	17.3	C
	WB	Approach	-	-	-	-
	NB	Approach	0.2	A	0.2	A
	SB	Approach	0.0	A	0.0	A

Extracted from Synchro 11 Simulation Software.

Based on the results of the capacity analysis, the intersection of N Howe Street at Site Access #1 is projected to operate at LOS C in the 2023 Build and 2023 Build with Improvements conditions during both peak hours. The 95th percentile queuing is projected to be less than 50' at all approaches for both peak hours in both conditions.

Based on the volume guidelines set in the *NCDOT Roadway Design Manual* (2022), it was determined that a southbound right-turn lane along N Howe Street at Site Access #1 is not needed. The corresponding auxiliary turn lane guidelines are provided in **Appendix E**.

7.3 W 14th Street at Site Access #2

The AM and PM peak hour capacity results for W 14th Street at Site Access #2 during the 2023 Build and 2023 Build with Improvements conditions are summarized in **Table 5**. The corresponding Synchro LOS and SimTraffic Queuing and Blocking reports are provided in **Appendix D**.

Table 5 AM and PM Peak Hour Capacity Analysis – W 14th Street at Site Access #2

AM PEAK HOUR			2023 Build		2023 Build with Improvements	
Intersection	Approach	Movement	DELAY (S)	LOS	DELAY (S)	LOS
W 14th St & Site Access #2	EB	Approach	0.0	A	0.0	A
	WB	Approach	3.2	A	3.2	A
	NB	Approach	8.6	A	8.6	A
	SB	Approach	-	-	-	-
PM PEAK HOUR			2023 Build		2023 Build with Improvements	
Intersection	Approach	Movement	DELAY (S)	LOS	DELAY (S)	LOS
W 14th St & Site Access #2	EB	Approach	0.0	A	0.0	A
	WB	Approach	2.1	A	2.1	A
	NB	Approach	8.6	A	8.6	A
	SB	Approach	-	-	-	-

Extracted from Synchro 11 Simulation Software.

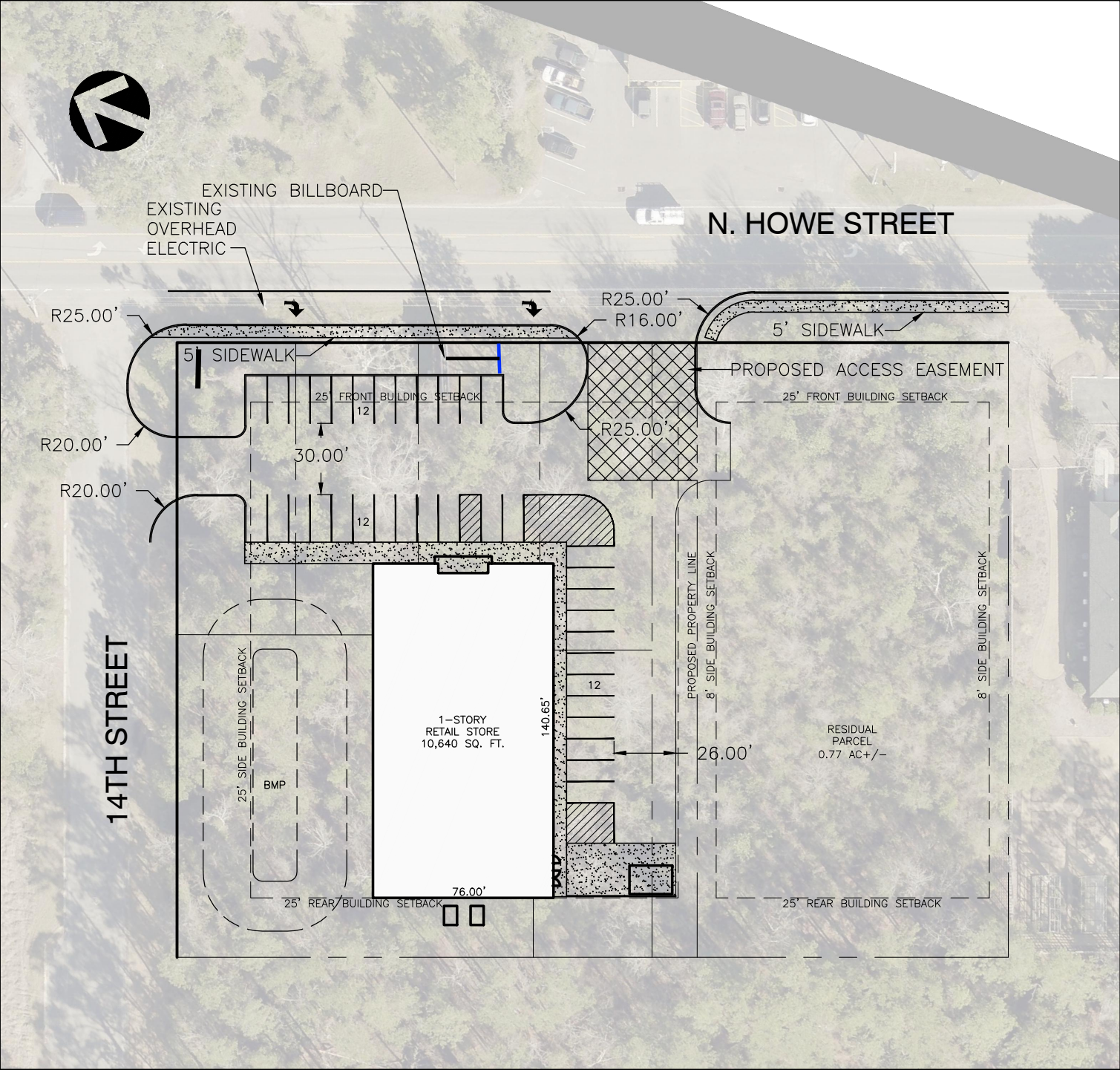
Based on the results of the capacity analysis, the intersection of W 14th Street at Site Access #2 is projected to operate at LOS A in the 2023 Build and 2023 Build with Improvements conditions during both peak hours. The 95th percentile queuing is projected to be less than 40' at the northbound approach for both peak hours in both conditions.

Based on the volume guidelines set in the *NCDOT Roadway Design Manual* (2022), it was determined that an eastbound right-turn lane and a westbound left-turn lane along W 14th Street at Site Access #2 are not needed. The corresponding auxiliary turn lane guidelines are provided in **Appendix E**.

8.0 Summary of Findings and Conclusions

- Based on ITE trip generation rates for land use 814, the proposed development is expected to generate a total of a total of 677 daily trips (338 entering and 339 exiting), 32 trips (17 entering and 15 exiting) during the AM peak hour, and a total of 71 trips (36 entering and 35 exiting) during the PM peak hour.
- Based on the results of the capacity analysis, the intersection of N Howe Street at W 14th Street/Port Realty Driveway currently operates at LOS D during the AM peak hour and at LOS E during the PM peak hour and is projected to continue to operate at the same LOS in the 2023 No Build condition. In the 2023 Build condition, the intersection is projected to operate at LOS D during the AM peak hour and at LOS F during the PM peak hour.
- Due to the intersection of N Howe Street at W 14th Street/Port Realty Driveway operating at LOS F in the 2023 Build condition, an exclusive eastbound left-turn lane with 50 feet of storage is recommended. With the addition of the left-turn lane, the intersection is projected to operate at LOS D during the AM peak hour and at LOS E during the PM peak hour in the 2023 Build with Improvements condition.
- Based on the results of the capacity analysis, the intersection of N Howe Street at Site Access #1 is projected to operate at LOS C during both peak hours in the 2023 Build and 2023 Build with Improvements conditions. It was also determined that a southbound right-turn lane along N Howe Street at Site Access #1 is not needed.
- Based on the results of the capacity analysis, the intersection of W 14th Street at Site Access #2 is projected to operate at LOS A during both peak hours in the 2023 Build and 2023 Build with Improvements conditions. It was also determined that an eastbound right-turn lane and a westbound left-turn lane along W 14th Street at Site Access #2 are not needed.
- Based on the results presented in this study, the proposed development is not expected to adversely impact the surrounding roadway network.

APPENDIX A



NOTES:			
1. SCHEMATIC SITE PLAN IS BASED ON HC ZONING (REQUIRES REZONING)			
2. KBJW RECOMMENDS CONFIRMING ALL RIGHT-OF-WAY REQUIRES WITH LOCAL AND STATE AGENCIES.			
3. POSSIBLE EASEMENTS LOCATED ON PROPERTY. VACATE ALL EXISTING INTERIOR PROPERTY LINES.			
4. DEVELOPER SHALL RELOCATE EXISTING UTILITIES AND EASEMENTS.			
5. ALL PROPERTY LINES AND EXISTING CONDITIONS ARE APPROXIMATE. KBJW RECOMMENDS SURVEYING THE PROJECT LIMITS.			
6. PROPOSED PARCEL A IS 1.18 AC +/- AND THE RESIDUAL PARCEL IS 0.77 AC +/-.			

 KOONTZ BRYANT JOHNSON WILLIAMS		630 N. WITCHDUCK RD VA BEACH, VIRGINIA 23462 P757.226.0081 www.kbjwgroup.com		KBJW NO. 6213.15		N HOWE STREET – SOUTHPORT, NC SCHEMATIC SITE PLAN		SCALE: 1"=60'		
PROTOTYPE: TYPE A		STREET, CITY, STATE: NORTH HOWE STREET, SOUTHPORT, NC						ISSUE DATE 11/4/21	DRAWING NUMBER 1	
BLDG/SALES SF: 10,640		COMPANY: RHETSON COMPANIES			COMPANY: KBJW			REVISED ON 11/23/21		
ACREAGE: 2.07+/-		NAME: CATHERINE ACORD			NAME: ELMER TOLLE					
PARKING SPACES: 36		PHONE: 910-944-0081			PHONE: 757-226-0081					

APPENDIX B

SHORT COUNTS, LLC

735 Maryland St
Columbia, SC 29201

We can't say we're the Best, but you Can!

File Name : N Howe St @ W 14th St

Site Code : 00031622

Start Date : 03/16/2022

Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

Start Time	N Howe St Southbound				Port Realty Westbound				N Howe St Northbound				W 14th St Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	84	0	0	0	0	1	0	0	59	0	1	1	0	0	0	146
07:15	0	109	0	1	0	0	0	0	0	67	0	0	1	0	1	0	179
07:30	0	137	3	0	0	0	0	0	0	71	0	0	1	0	0	0	212
07:45	0	216	0	0	0	0	0	0	0	65	0	0	1	0	4	0	286
Total	0	546	3	1	0	0	1	0	0	262	0	1	4	0	5	0	823
08:00	0	164	0	0	0	0	1	0	0	82	0	0	3	0	0	0	250
08:15	0	224	1	0	0	0	0	0	0	140	0	0	2	0	1	0	368
08:30	0	157	1	0	0	0	0	0	0	175	0	0	2	0	2	0	337
08:45	0	189	2	0	0	0	0	0	1	121	0	1	3	0	1	0	318
Total	0	734	4	0	0	0	1	0	1	518	0	1	10	0	4	0	1273
16:00	0	119	5	0	0	0	0	0	0	220	0	1	1	0	2	0	348
16:15	0	161	3	1	0	0	0	0	0	211	0	0	3	0	0	0	379
16:30	0	164	1	1	0	0	0	0	2	212	0	1	0	0	3	0	384
16:45	0	163	1	0	0	0	0	0	2	220	0	1	3	0	2	0	392
Total	0	607	10	2	0	0	0	0	4	863	0	3	7	0	7	0	1503
17:00	0	149	2	0	2	0	1	0	1	238	0	0	0	0	1	0	394
17:15	0	157	0	1	0	0	0	0	2	189	0	0	4	0	1	0	354
17:30	0	155	4	0	0	0	0	0	1	164	0	0	0	0	0	0	324
17:45	0	147	2	1	1	0	0	0	2	155	0	0	2	0	1	0	311
Total	0	608	8	2	3	0	1	0	6	746	0	0	6	0	3	0	1383
Grand Total	0	2495	25	5	3	0	3	0	11	2389	0	5	27	0	19	0	4982
Apprch %	0	98.8	1	0.2	50	0	50	0	0.5	99.3	0	0.2	58.7	0	41.3	0	
Total %	0	50.1	0.5	0.1	0.1	0	0.1	0	0.2	48	0	0.1	0.5	0	0.4	0	
Passenger Vehicles	0	2476	24	3	3	0	3	0	11	2377	0	5	27	0	19	0	4948
% Passenger Vehicles	0	99.2	96	60	100	0	100	0	100	99.5	0	100	100	0	100	0	99.3
Heavy Vehicles	0	8	0	0	0	0	0	0	0	6	0	0	0	0	0	0	14
% Heavy Vehicles	0	0.3	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0.3
Buses	0	11	1	2	0	0	0	0	0	6	0	0	0	0	0	0	20
% Buses	0	0.4	4	40	0	0	0	0	0	0.3	0	0	0	0	0	0	0.4

SHORT COUNTS, LLC

735 Maryland St
Columbia, SC 29201

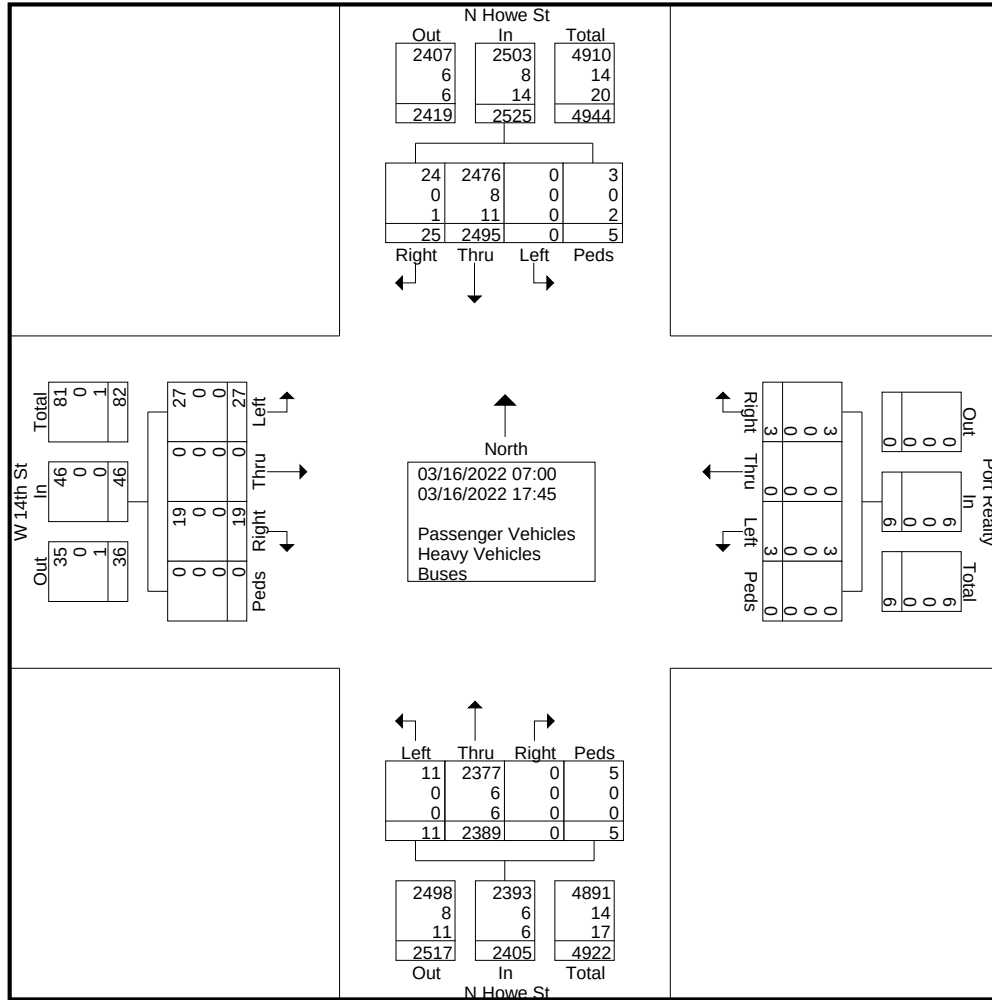
We can't say we're the Best, but you Can!

File Name : N Howe St @ W 14th St

Site Code : 00031622

Start Date : 03/16/2022

Page No : 2



SHORT COUNTS, LLC

735 Maryland St
Columbia, SC 29201

We can't say we're the Best, but you Can!

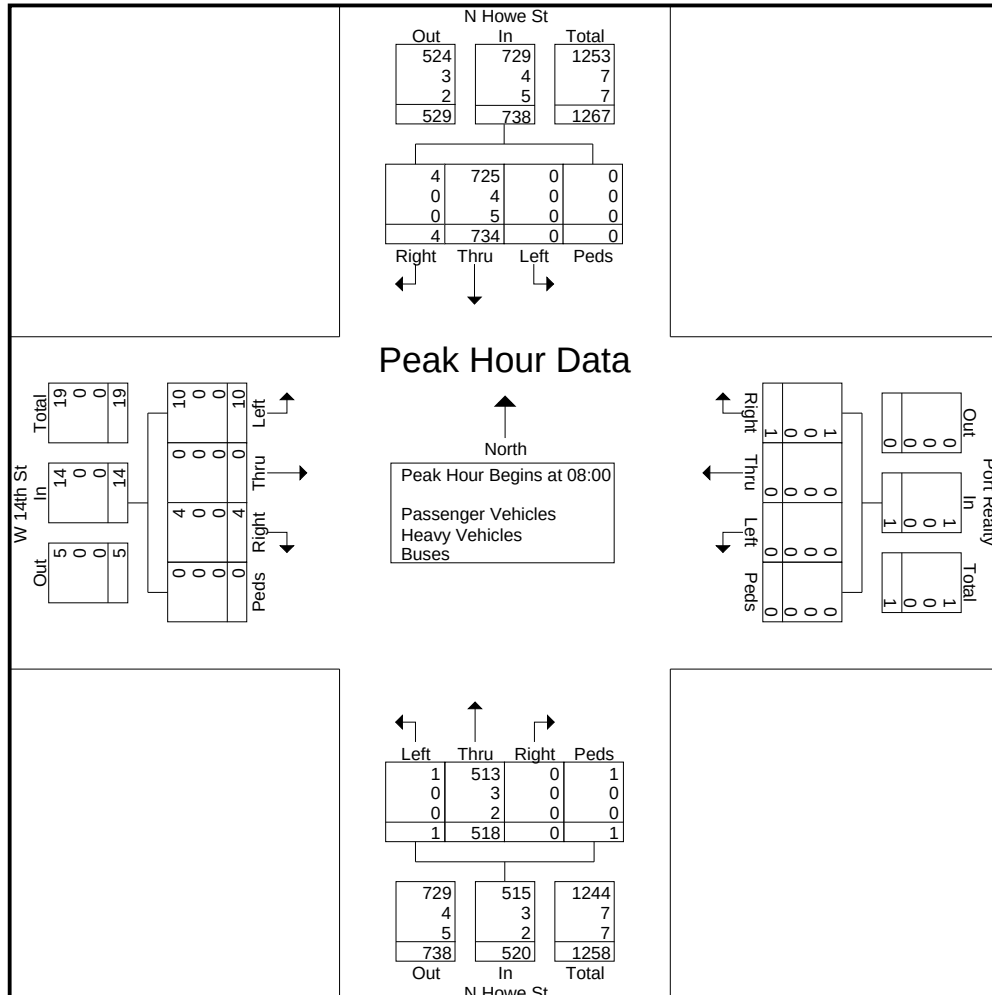
File Name : N Howe St @ W 14th St

Site Code : 00031622

Start Date : 03/16/2022

Page No : 3

	N Howe St Southbound					Port Realty Westbound					N Howe St Northbound					W 14th St 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 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	164	0	0	164	0	0	1	0	1	0	82	0	0	82	3	0	0	0	3	250
08:15	0	224	1	0	225	0	0	0	0	0	0	140	0	0	140	2	0	1	0	3	368
08:30	0	157	1	0	158	0	0	0	0	0	0	175	0	0	175	2	0	2	0	4	337
08:45	0	189	2	0	191	0	0	0	0	0	1	121	0	1	123	3	0	1	0	4	318
Total Volume	0	734	4	0	738	0	0	1	0	1	1	518	0	1	520	10	0	4	0	14	1273
% App. Total	0	99.5	0.5	0		0	0	100	0		0.2	99.6	0	0.2		71.4	0	28.6	0		
PHF	.000	.819	.500	.000	.820	.000	.000	.250	.000	.250	.250	.740	.000	.250	.743	.833	.000	.500	.000	.875	.865
Passenger Vehicles	0	725	4	0	729	0	0	1	0	1	1	513	0	1	515	10	0	4	0	14	1259
% Passenger Vehicles																					
Heavy Vehicles	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
% Heavy Vehicles	0	0.5	0	0	0.5	0	0	0	0	0	0	0.6	0	0	0.6	0	0	0	0	0	0.5
Buses	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
% Buses	0	0.7	0	0	0.7	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	0.5



SHORT COUNTS, LLC

735 Maryland St
Columbia, SC 29201

We can't say we're the Best, but you Can!

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Start Date : 03/16/2022

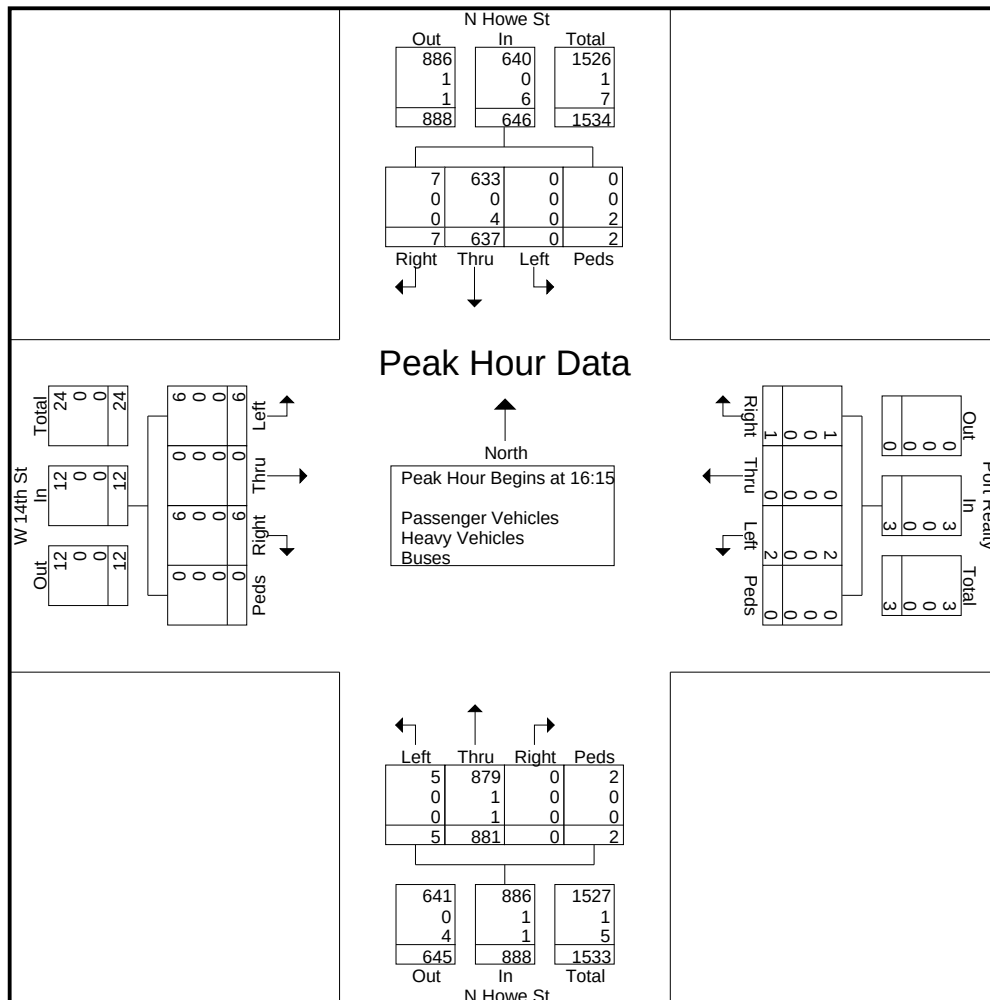
Page No : 4

	N Howe St Southbound					Port Realty Westbound					N Howe St Northbound					W 14th St 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

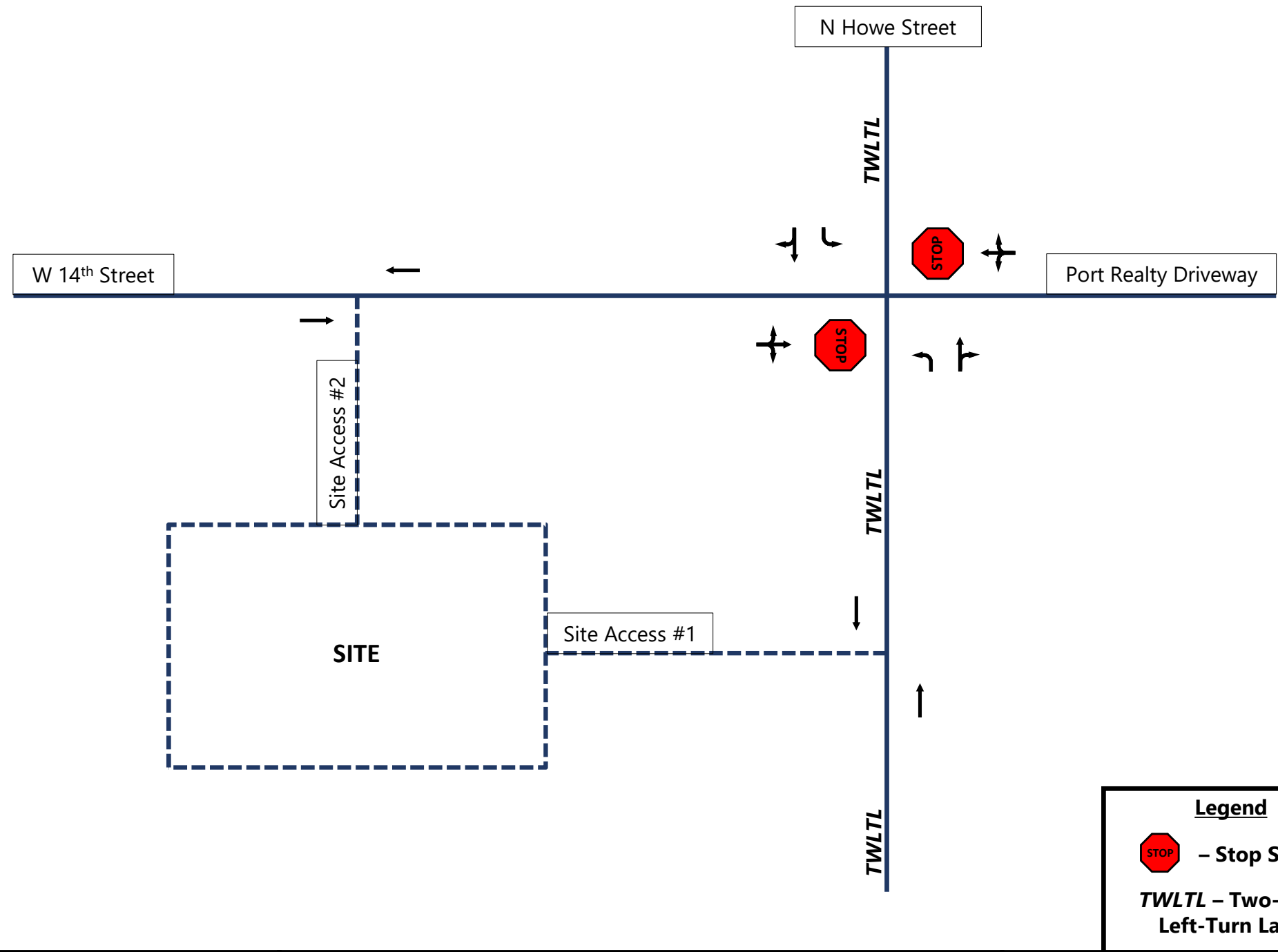
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 16:15

16:15	0	161	3	1	165	0	0	0	0	0	0	211	0	0	211	3	0	0	0	3	379
16:30	0	164	1	1	166	0	0	0	0	0	0	212	0	1	215	0	0	3	0	3	384
16:45	0	163	1	0	164	0	0	0	0	0	2	220	0	1	223	3	0	2	0	5	392
17:00	0	149	2	0	151	2	0	1	0	3	1	238	0	0	239	0	0	1	0	1	394
Total Volume	0	637	7	2	646	2	0	1	0	3	5	881	0	2	888	6	0	6	0	12	1549
% App. Total	0	98.6	1.1	0.3		66.7	0	33.3	0		0.6	99.2	0	0.2		50	0	50	0		
PHF	.000	.971	.583	.500	.973	.250	.000	.250	.000	.250	.625	.925	.000	.500	.929	.500	.000	.500	.000	.600	.983
Passenger Vehicles	0	633	7	0	640	2	0	1	0	3	5	879	0	2	886	6	0	6	0	12	1541
% Passenger Vehicles																					
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0.1
Buses	0	4	0	2	6	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	7
% Buses	0	0.6	0	100	0.9	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0.5



APPENDIX C



Legend



– Stop Sign

TWLTL – Two-Way
Left-Turn Lane



N Howe Street

↶ 1 (1)
← 0 (0)
↷ 0 (2)

Port Realty Driveway

↶ ↑ ↷
1 518 0
(5) (881) (0)

↑
519
(886)

(7) (637) (0)
4 734 0
↶ ↓ ↷

(6) 10 ↶
(0) 0 →
(6) 4 ↷

(645)
738
↓

W 14th Street

(12) 14 →

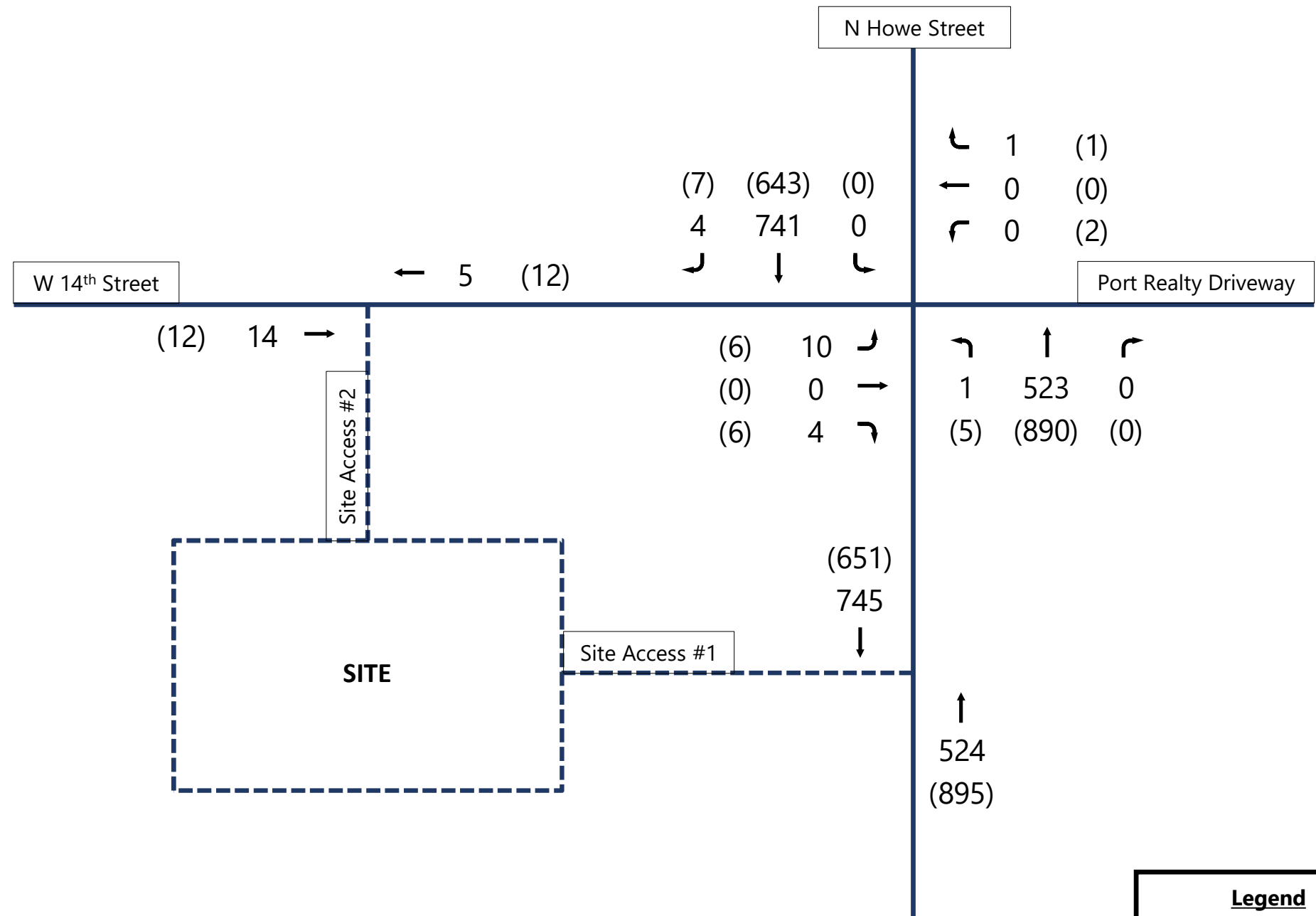
Site Access #2

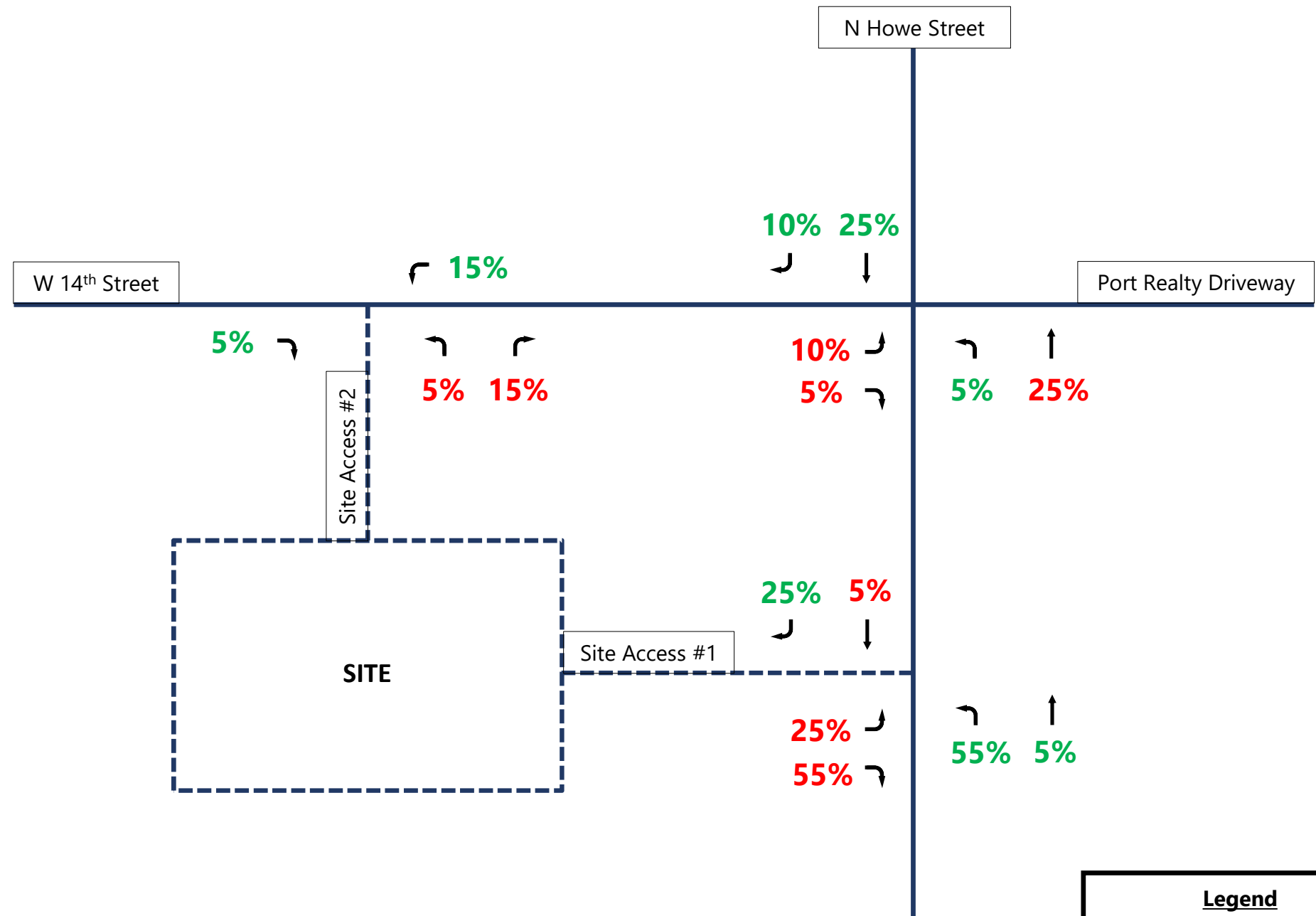
SITE

Site Access #1

Legend

XX – AM Volumes
(XX) – PM Volumes



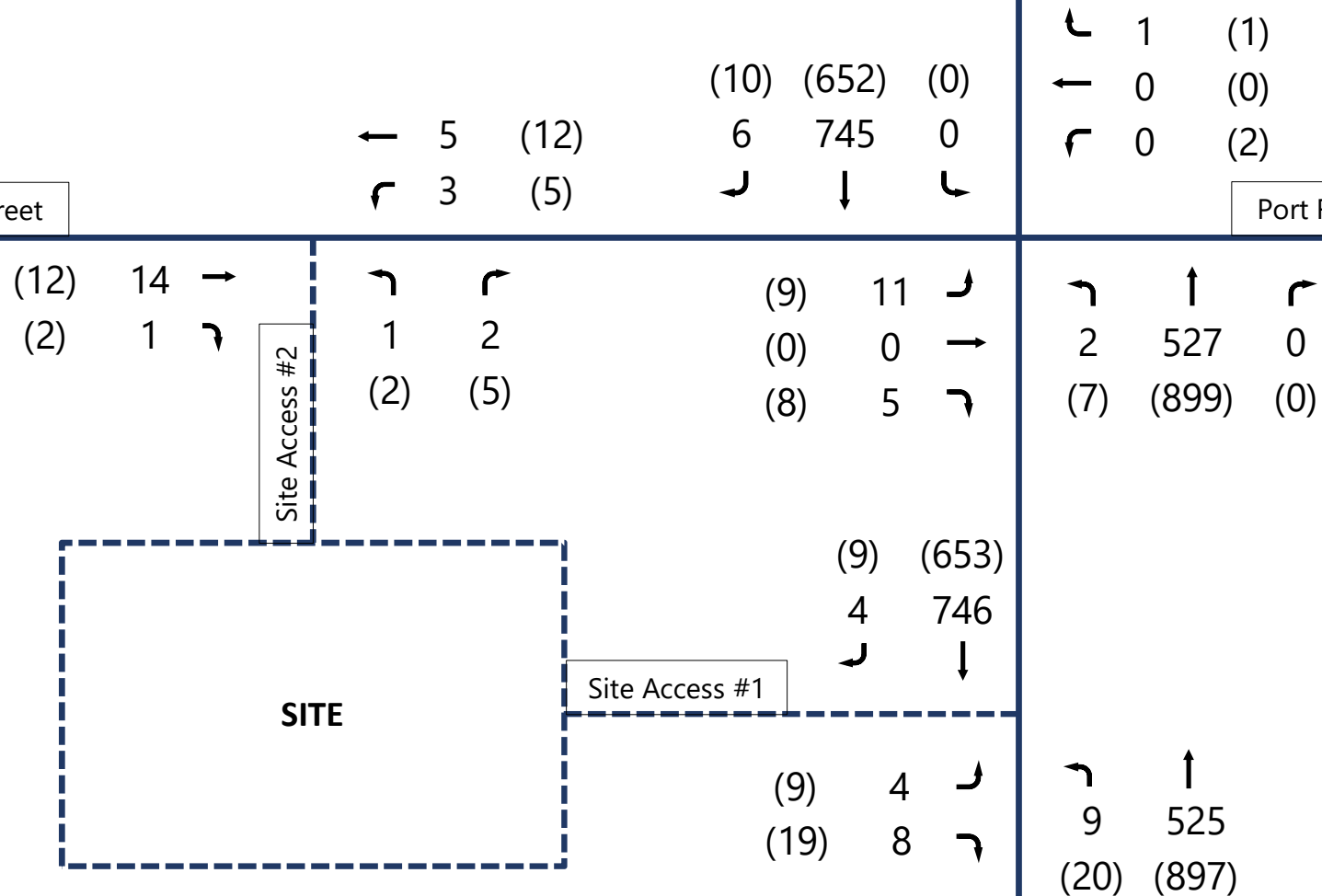




N Howe Street

W 14th Street

Port Realty Driveway



Legend

XX – AM Volumes
(XX) – PM Volumes

APPENDIX D

HCM 6th TWSC
3: N Howe Street & W 14th Street/Port Realty Driveway

Existing AM
07/06/2022

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	10	4	4	4	4	4	4	518	4	4	734	4
Future Vol, veh/h	10	4	4	4	4	4	4	518	4	4	734	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	4	4	4	4	4	4	576	4	4	816	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1416	1415	818	1417	1415	579	820	0	0	581	0	0
Stage 1	826	826	-	587	587	-	-	-	-	-	-	-
Stage 2	590	589	-	830	828	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	115	137	376	115	137	515	809	-	-	993	-	-
Stage 1	366	387	-	496	497	-	-	-	-	-	-	-
Stage 2	494	495	-	364	386	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	110	136	376	110	136	515	809	-	-	992	-	-
Mov Cap-2 Maneuver	110	136	-	110	136	-	-	-	-	-	-	-
Stage 1	364	385	-	493	494	-	-	-	-	-	-	-
Stage 2	483	492	-	354	384	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	35.7		29		0.1		0	
HCM LOS	E		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	809	-	-	137	163	992	-
HCM Lane V/C Ratio	0.005	-	-	0.146	0.082	0.004	-
HCM Control Delay (s)	9.5	-	-	35.7	29	8.6	-
HCM Lane LOS	A	-	-	E	D	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0	-

HCM 6th TWSC
3: N Howe Street & W 14th Street/Port Realty Driveway

Existing PM
07/06/2022

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↖	↗		↖	↗	
Traffic Vol, veh/h	6	4	6	4	4	4	5	881	4	4	637	7
Future Vol, veh/h	6	4	6	4	4	4	5	881	4	4	637	7
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	4	7	4	4	4	6	979	4	4	708	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1719	1719	714	1721	1721	983	718	0	0	985	0	0
Stage 1	722	722	-	995	995	-	-	-	-	-	-	-
Stage 2	997	997	-	726	726	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	71	90	431	70	89	302	883	-	-	701	-	-
Stage 1	418	431	-	295	323	-	-	-	-	-	-	-
Stage 2	294	322	-	416	430	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	66	88	430	66	87	301	881	-	-	700	-	-
Mov Cap-2 Maneuver	66	88	-	66	87	-	-	-	-	-	-	-
Stage 1	414	428	-	292	320	-	-	-	-	-	-	-
Stage 2	284	319	-	403	427	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	45.7		46.5		0.1		0.1	
HCM LOS	E		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	881	-	-	106	100	700	-
HCM Lane V/C Ratio	0.006	-	-	0.168	0.133	0.006	-
HCM Control Delay (s)	9.1	-	-	45.7	46.5	10.2	-
HCM Lane LOS	A	-	-	E	E	B	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.4	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	10	4	4	4	4	4	4	523	4	4	741	4
Future Vol, veh/h	10	4	4	4	4	4	4	523	4	4	741	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	4	4	4	4	4	4	581	4	4	823	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1428	1427	825	1429	1427	584	827	0	0	586	0	0
Stage 1	833	833	-	592	592	-	-	-	-	-	-	-
Stage 2	595	594	-	837	835	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	113	135	372	112	135	512	804	-	-	989	-	-
Stage 1	363	384	-	493	494	-	-	-	-	-	-	-
Stage 2	491	493	-	361	383	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	108	134	372	107	134	512	804	-	-	988	-	-
Mov Cap-2 Maneuver	108	134	-	107	134	-	-	-	-	-	-	-
Stage 1	361	382	-	490	491	-	-	-	-	-	-	-
Stage 2	480	490	-	351	381	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	36.3		29.5		0.1		0	
HCM LOS	E		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	804	-	-	135	160	988	-
HCM Lane V/C Ratio	0.006	-	-	0.148	0.083	0.004	-
HCM Control Delay (s)	9.5	-	-	36.3	29.5	8.7	-
HCM Lane LOS	A	-	-	E	D	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0	-

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	6	4	6	4	4	4	5	890	4	4	643	7
Future Vol, veh/h	6	4	6	4	4	4	5	890	4	4	643	7
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	4	7	4	4	4	6	989	4	4	714	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1735	1735	720	1737	1737	993	724	0	0	995	0	0
Stage 1	728	728	-	1005	1005	-	-	-	-	-	-	-
Stage 2	1007	1007	-	732	732	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	69	88	428	68	87	298	879	-	-	695	-	-
Stage 1	415	429	-	291	319	-	-	-	-	-	-	-
Stage 2	290	319	-	413	427	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	65	87	427	64	86	297	877	-	-	694	-	-
Mov Cap-2 Maneuver	65	87	-	64	86	-	-	-	-	-	-	-
Stage 1	411	426	-	288	316	-	-	-	-	-	-	-
Stage 2	280	316	-	400	424	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	46.1		47.4		0.1		0.1	
HCM LOS	E		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	877	-	-	105	98	694	-
HCM Lane V/C Ratio	0.006	-	-	0.169	0.136	0.006	-
HCM Control Delay (s)	9.1	-	-	46.1	47.4	10.2	-
HCM Lane LOS	A	-	-	E	E	B	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.5	0	-

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	11	4	5	4	4	4	4	527	4	4	745	6
Future Vol, veh/h	11	4	5	4	4	4	4	527	4	4	745	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	4	6	4	4	4	4	586	4	4	828	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1440	1439	832	1442	1440	589	835	0	0	591	0	0
Stage 1	840	840	-	597	597	-	-	-	-	-	-	-
Stage 2	600	599	-	845	843	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	111	133	369	110	133	508	798	-	-	985	-	-
Stage 1	360	381	-	490	491	-	-	-	-	-	-	-
Stage 2	488	490	-	357	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	106	132	369	105	132	508	798	-	-	984	-	-
Mov Cap-2 Maneuver	106	132	-	105	132	-	-	-	-	-	-	-
Stage 1	358	379	-	487	488	-	-	-	-	-	-	-
Stage 2	477	487	-	346	378	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	36.9		30		0.1		0	
HCM LOS	E		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	798	-	-	135	157	984	-
HCM Lane V/C Ratio	0.006	-	-	0.165	0.085	0.005	-
HCM Control Delay (s)	9.5	-	-	36.9	30	8.7	-
HCM Lane LOS	A	-	-	E	D	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.3	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	8	9	525	746	4
Future Vol, veh/h	4	8	9	525	746	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	9	10	583	829	4

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1434	831	833	0	-	0
Stage 1	831	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	147	370	800	-	-	-
Stage 1	428	-	-	-	-	-
Stage 2	546	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	145	370	800	-	-	-
Mov Cap-2 Maneuver	282	-	-	-	-	-
Stage 1	423	-	-	-	-	-
Stage 2	546	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.2	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	800	-	335	-	-
HCM Lane V/C Ratio	0.013	-	0.04	-	-
HCM Control Delay (s)	9.6	-	16.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	4	4	5	4	4
Future Vol, veh/h	14	4	4	5	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	4	4	6	4	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	20	0	32	18
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	14	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1596	-	982	1061
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	1009	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1596	-	979	1061
Mov Cap-2 Maneuver	-	-	-	-	979	-
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	1006	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.2		8.6	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1018	-	-	1596	-	
HCM Lane V/C Ratio	0.009	-	-	0.003	-	
HCM Control Delay (s)	8.6	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↖	↗		↖	↗	
Traffic Vol, veh/h	9	4	8	4	4	4	7	899	4	4	652	10
Future Vol, veh/h	9	4	8	4	4	4	7	899	4	4	652	10
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	4	9	4	4	4	8	999	4	4	724	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1761	1761	732	1763	1764	1003	737	0	0	1005	0	0
Stage 1	740	740	-	1019	1019	-	-	-	-	-	-	-
Stage 2	1021	1021	-	744	745	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	66	84	421	66	84	294	869	-	-	689	-	-
Stage 1	409	423	-	286	314	-	-	-	-	-	-	-
Stage 2	285	314	-	407	421	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	62	82	420	61	82	293	867	-	-	688	-	-
Mov Cap-2 Maneuver	62	82	-	61	82	-	-	-	-	-	-	-
Stage 1	405	420	-	283	311	-	-	-	-	-	-	-
Stage 2	274	311	-	392	418	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	52.2		49.5		0.1		0.1	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	867	-	-	99	94	688	-
HCM Lane V/C Ratio	0.009	-	-	0.236	0.142	0.006	-
HCM Control Delay (s)	9.2	-	-	52.2	49.5	10.3	-
HCM Lane LOS	A	-	-	F	E	B	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.5	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	19	20	897	653	9
Future Vol, veh/h	9	19	20	897	653	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	21	22	997	726	10

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1772	731	736	0	-	0
Stage 1	731	-	-	-	-	-
Stage 2	1041	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	91	422	870	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	89	422	870	-	-	-
Mov Cap-2 Maneuver	218	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	340	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.3	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	870	-	324	-	-
HCM Lane V/C Ratio	0.026	-	0.096	-	-
HCM Control Delay (s)	9.2	-	17.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	12	4	5	12	4	5
Future Vol, veh/h	12	4	5	12	4	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	4	6	13	4	6

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	17
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1600
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1600
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1020	-	-	1600	-
HCM Lane V/C Ratio	0.01	-	-	0.003	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	4	5	4	4	4	4	527	4	4	745	6
Future Vol, veh/h	11	4	5	4	4	4	4	527	4	4	745	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	4	6	4	4	4	4	586	4	4	828	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1440	1439	832	1442	1440	589	835	0	0	591	0	0
Stage 1	840	840	-	597	597	-	-	-	-	-	-	-
Stage 2	600	599	-	845	843	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	111	133	369	110	133	508	798	-	-	985	-	-
Stage 1	360	381	-	490	491	-	-	-	-	-	-	-
Stage 2	488	490	-	357	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	106	132	369	105	132	508	798	-	-	984	-	-
Mov Cap-2 Maneuver	106	132	-	105	132	-	-	-	-	-	-	-
Stage 1	358	379	-	487	488	-	-	-	-	-	-	-
Stage 2	477	487	-	346	378	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	34.4		30		0.1		0	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	798	-	-	106	205	157	984	-	-
HCM Lane V/C Ratio	0.006	-	-	0.115	0.049	0.085	0.005	-	-
HCM Control Delay (s)	9.5	-	-	43.3	23.5	30	8.7	-	-
HCM Lane LOS	A	-	-	E	C	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	0.3	0	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	8	9	525	746	4
Future Vol, veh/h	4	8	9	525	746	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	9	10	583	829	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1434	831	833	0	-	0
Stage 1	831	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	147	370	800	-	-	-
Stage 1	428	-	-	-	-	-
Stage 2	546	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	145	370	800	-	-	-
Mov Cap-2 Maneuver	282	-	-	-	-	-
Stage 1	423	-	-	-	-	-
Stage 2	546	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	16.2	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	800	-	335	-	-	
HCM Lane V/C Ratio	0.013	-	0.04	-	-	
HCM Control Delay (s)	9.6	-	16.2	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	4	4	5	4	4
Future Vol, veh/h	14	4	4	5	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	4	4	6	4	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	20
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1596
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1596
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1018	-	-	1596	-
HCM Lane V/C Ratio	0.009	-	-	0.003	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	4	8	4	4	4	7	899	4	4	652	10
Future Vol, veh/h	9	4	8	4	4	4	7	899	4	4	652	10
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	2	2	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	4	9	4	4	4	8	999	4	4	724	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1761	1761	732	1763	1764	1003	737	0	0	1005	0	0
Stage 1	740	740	-	1019	1019	-	-	-	-	-	-	-
Stage 2	1021	1021	-	744	745	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	66	84	421	66	84	294	869	-	-	689	-	-
Stage 1	409	423	-	286	314	-	-	-	-	-	-	-
Stage 2	285	314	-	407	421	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	62	82	420	61	82	293	867	-	-	688	-	-
Mov Cap-2 Maneuver	62	82	-	61	82	-	-	-	-	-	-	-
Stage 1	405	420	-	283	311	-	-	-	-	-	-	-
Stage 2	274	311	-	392	418	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	47.1		49.5		0.1		0.1	
HCM LOS	E		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	867	-	-	62	177	94	688	-	-
HCM Lane V/C Ratio	0.009	-	-	0.161	0.075	0.142	0.006	-	-
HCM Control Delay (s)	9.2	-	-	73.9	27	49.5	10.3	-	-
HCM Lane LOS	A	-	-	F	D	E	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.5	0	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	19	20	897	653	9
Future Vol, veh/h	9	19	20	897	653	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	21	22	997	726	10
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1772	731	736	0	-	0
Stage 1	731	-	-	-	-	-
Stage 2	1041	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	91	422	870	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	89	422	870	-	-	-
Mov Cap-2 Maneuver	218	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.3	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	870	-	324	-	-	
HCM Lane V/C Ratio	0.026	-	0.096	-	-	
HCM Control Delay (s)	9.2	-	17.3	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-	

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	12	4	5	12	4	5
Future Vol, veh/h	12	4	5	12	4	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	4	6	13	4	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	17	0	40	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	25	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1600	-	972	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	998	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1600	-	968	1065
Mov Cap-2 Maneuver	-	-	-	-	968	-
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	994	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.1		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1020	-	-	1600	-	
HCM Lane V/C Ratio	0.01	-	-	0.003	-	
HCM Control Delay (s)	8.6	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Queuing and Blocking Report Baseline

07/06/2022

Intersection: 3: N Howe Street & W 14th Street/Port Realty Driveway

Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (ft)	31	31	26
Average Queue (ft)	12	12	5
95th Queue (ft)	37	37	22
Link Distance (ft)	1082	1087	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			100
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 3: N Howe Street & W 14th Street/Port Realty Driveway

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	30
Average Queue (ft)	12	6
95th Queue (ft)	37	26
Link Distance (ft)	1082	1087
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 3: N Howe Street & W 14th Street/Port Realty Driveway

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	30
Average Queue (ft)	12	6
95th Queue (ft)	37	26
Link Distance (ft)	1082	1087
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 3: N Howe Street & W 14th Street/Port Realty Driveway

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	30
Average Queue (ft)	12	6
95th Queue (ft)	37	26
Link Distance (ft)	1082	1087
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 3: N Howe Street & W 14th Street/Port Realty Driveway

Movement	EB	WB	NB
Directions Served	LTR	LTR	L
Maximum Queue (ft)	31	31	31
Average Queue (ft)	12	6	12
95th Queue (ft)	38	26	36
Link Distance (ft)	1118	1098	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			100
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: N Howe Street & Site Access #1

Movement	NB
Directions Served	L
Maximum Queue (ft)	30
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	100
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Site Access #2 & W 14th Street

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	998
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Intersection: 3: N Howe Street & W 14th Street/Port Realty Driveway

Movement	EB	NB	SB
Directions Served	LTR	L	L
Maximum Queue (ft)	31	30	29
Average Queue (ft)	18	12	11
95th Queue (ft)	43	36	33
Link Distance (ft)	1118		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	100
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: N Howe Street & Site Access #1

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	31	31
Average Queue (ft)	19	12
95th Queue (ft)	44	37
Link Distance (ft)	996	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Site Access #2 & W 14th Street

Movement	NB
Directions Served	LR
Maximum Queue (ft)	29
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	998
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Intersection: 3: N Howe Street & W 14th Street/Port Realty Driveway

Movement	EB	EB	WB	NB
Directions Served	L	TR	LTR	L
Maximum Queue (ft)	30	30	31	30
Average Queue (ft)	6	6	6	12
95th Queue (ft)	26	26	27	35
Link Distance (ft)		1074	1091	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	50			100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: N Howe Street & Site Access #1

Movement	NB
Directions Served	L
Maximum Queue (ft)	29
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	100
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Site Access #2 & W 14th Street

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	1066
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Intersection: 3: N Howe Street & W 14th Street/Port Realty Driveway

Movement	EB	EB	NB	SB
Directions Served	L	TR	L	L
Maximum Queue (ft)	30	30	30	29
Average Queue (ft)	6	12	12	11
95th Queue (ft)	26	35	35	34
Link Distance (ft)	1074			
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	50		100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: N Howe Street & Site Access #1

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	31	31
Average Queue (ft)	19	24
95th Queue (ft)	44	44
Link Distance (ft)	1019	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Site Access #2 & W 14th Street

Movement	NB
Directions Served	LR
Maximum Queue (ft)	29
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	1066
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

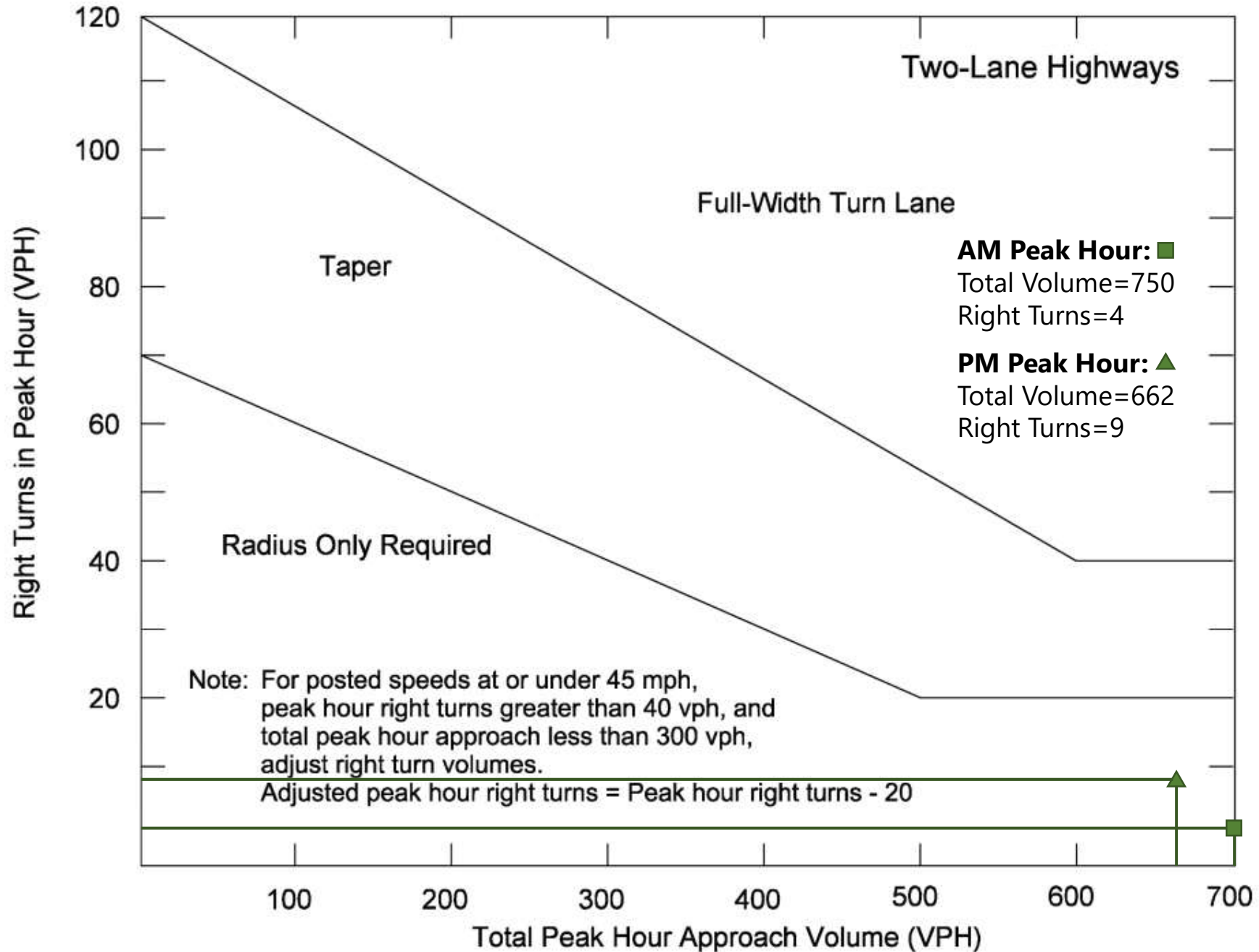
Network wide Queuing Penalty: 0

APPENDIX E

Two-Lane Highway Right Turn Lane Warrant

N Howe Street at Site Access #1

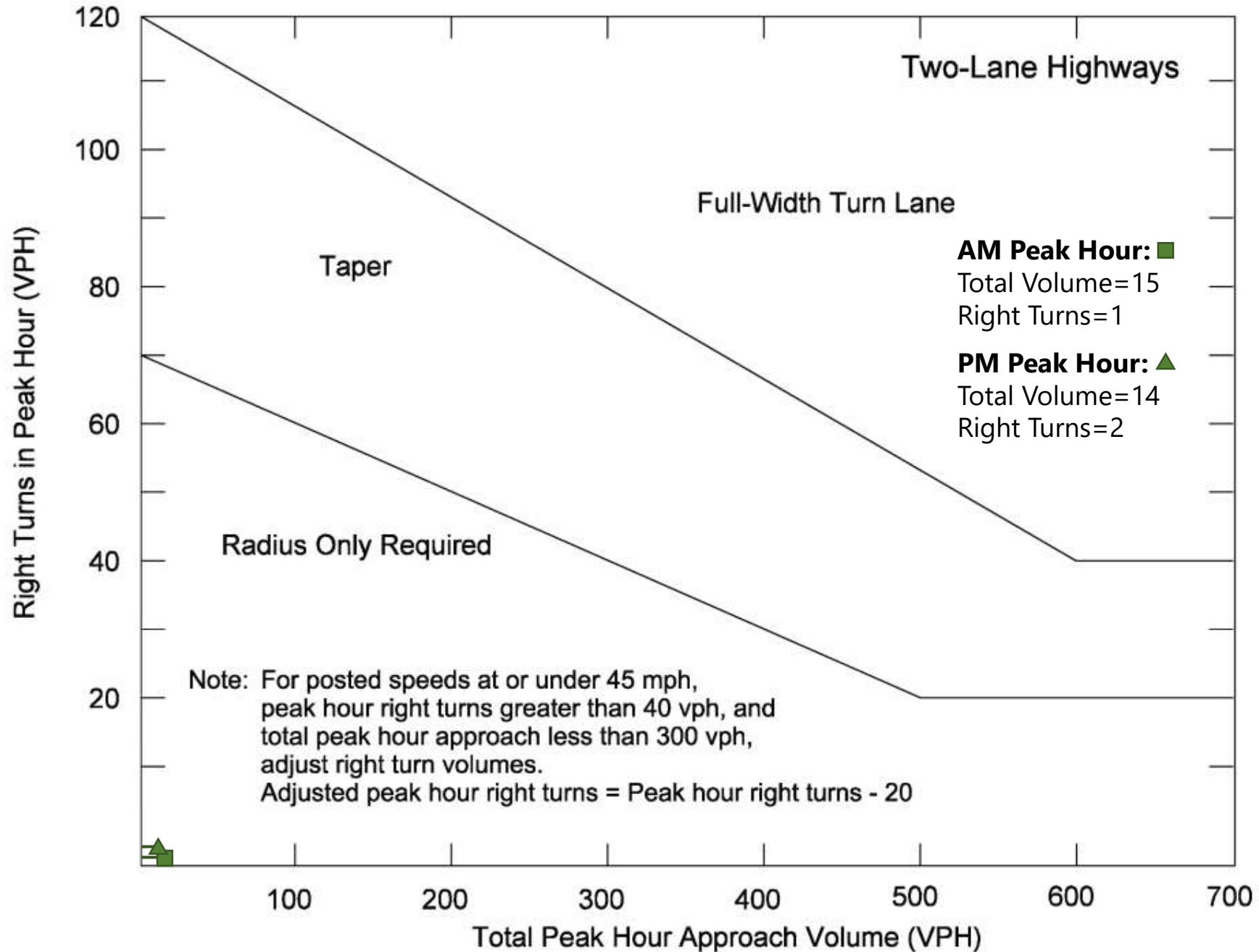
Radius Only
Required



Two-Lane Highway Right Turn Lane Warrant

W 14th Street at Site Access #2

Radius Only
Required



Intersections on Arterials in Urban Areas Left-Turn Lane Warrant

W 14th Street at Site Access #2

AM Peak Hour: ■

Major Volume=8

Left Turns=3

PM Peak Hour: ▲

Major Volume=17

Left Turns=5

**Left-Turn Lane
Not Warranted**

Table 9-24. Suggested Left-Turn Lane Guidelines Based on Results from Benefit–Cost Evaluations for Unsignalized Intersections on Arterials in Urban Areas (16)

Left-Turn Lane Peak-Hour Volume (veh/h)	Three-Leg Intersection, Major-Road Volume (veh/h/ln) that Warrants a Left-Turn Lane	Four-Leg Intersection, Major-Road Volume (veh/h/ln) that Warrants a Left-Turn Lane
5	450	50
10	300	50
15	250	50
20	200	50
25	200	50
30	150	50
35	150	50
40	150	50
45	150	< 50
50 or More	100	< 50

Note: These guidelines apply where the major road is uncontrolled and the minor-road approaches are stop- or yield-controlled. Both the left-turn peak-hour volume and the major-road volume warrants should be met as shown in Figure 9-35.

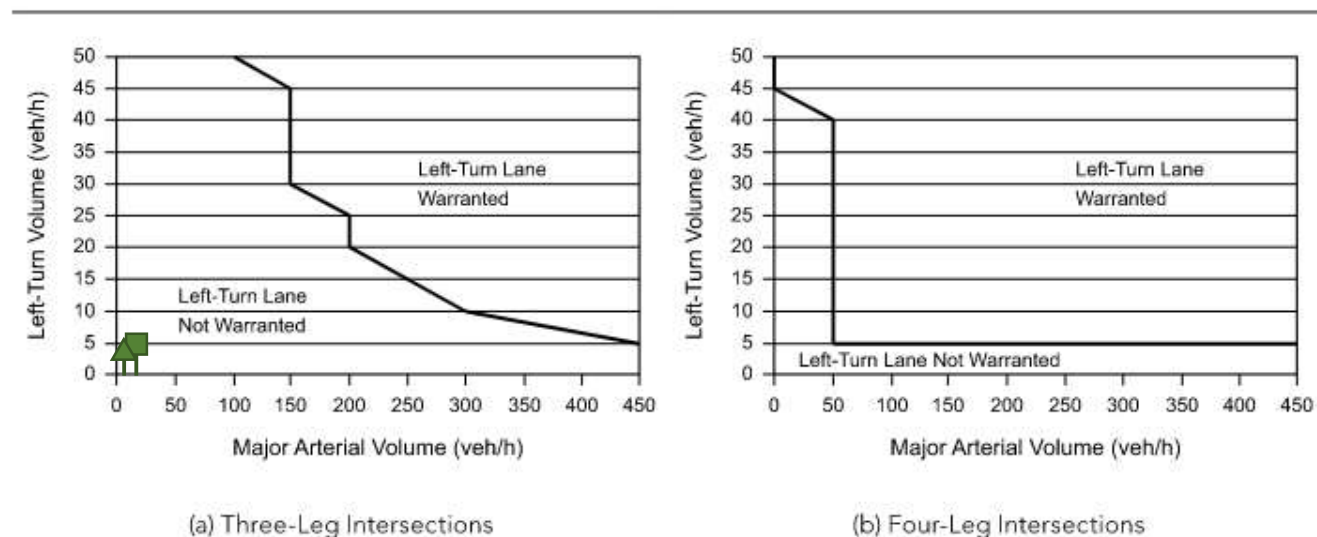


Figure 9-35. Suggested Left-Turn Lane Warrants Based on Results from Benefit–Cost Evaluations for Intersections on Arterials in Urban Areas (16)

Southport Retail dated 07/08/22 Final Review (Review notes provided in green.
Recommendations are provided in red)

- Development includes:
 - 10,640 square feet: Variety Store (LUC 814)
 - Build Year: 2023
- **NC 211 (N Howe Street) at W 14th Street** (stop-controlled full movement intersection)
 - In the AM, no drop in LOS or delay increase >25%. All approaches operate at LOS D or better
 - In the PM, EB approach drops from LOS E to LOS F, but the delay increase is <25%. All other approaches operate at LOS E or better
 - No queues exceed storage

Recommended Improvements by Developer:

- Provide an exclusive eastbound left-turn lane with 50 feet of storage

Based on review of the analysis, the following improvements are necessary by the Developer:

Construct an eastbound right turn lane on W 14th Street with 50 feet of storage, 50 feet full-width deceleration and 50 feet of taper

- **NC 211 (N Howe Street) and Site Access 1** (proposed stop-controlled T-intersection)
 - In the AM, all approaches operate at LOS C or better
 - In the PM, all approaches operate at LOS C or better
 - Based on the site trips no turn lanes are warranted

Recommended Improvements by Developer:

- No improvements are recommended

Based on review of the analysis, the following improvements are necessary by the Developer:

Construct site access with one ingress and one egress lane

Provide stop-control for eastbound approach

Provide an internal protected stem of 50 feet, measured from the right-of-way

- **W 14th Street and Site Access 2** (proposed stop-controlled T-intersection)
 - In the AM, all approaches operate at LOS A
 - In the PM, all approaches operate at LOS A
 - Based on the site trips no turn lanes are warranted

Recommended Improvements by Developer:

- No improvements are recommended

Based on review of the analysis, the following improvements are necessary by the Developer:

Construct site access with one ingress and one egress lane

Provide stop-control for northbound approach

Provide an internal protected stem of 50 feet, measured from the right-of-way



PLANNING BOARD

MEMORANDUM

To: Members of the Planning Board
From: Dorothy Dutton, City Clerk, CZO, CFM
Wes McLeod, Director of Govt Services, CFCOG
Sam Shore, Planner, CFCOG
Re: Major Site Plan, 115 N Howe Street Mixed-Use Development, submitted by Barbee Enterprises of Southport
Date: September 9, 2022

BACKGROUND

The attached Major Site Plan application is for the redevelopment of an existing property in the city limits. This project triggered a Major Site Plan because it contains more than 10,000 sf of impervious area, and (4) dwelling units. The property is located at 115 N. Howe Street and is at the Corner of N. Howe and W. Nash St. The site area is 15,608.45 sf or (.36 acres). The zoning district is the Central Business District. Central Business District is defined as a restricted district in which commercial uses are densely developed in accordance with the City's historical commerce center. The proposed uses of the site are Retail, Restaurant, and Residential.

The existing structure on site is proposed to be demolished and replaced with a new structure. The proposed structure is a multi-story building that is 102 feet x 90 feet. The existing impervious area on the site is 11,431 sf. The proposed layout of the site would add an additional 2,886 sf for a total of 14,317 sf. The percentage of impervious area for the site is 91.73 %, which is an increase of 0.07 acres from the existing conditions. The plans propose 4 residential dwelling units. The UDO requires (1) parking space per residential unit in a mixed use development regardless of whether it is in the Central Business District or not. Within the CBD Zoning district, no off-street parking shall be required for any nonresidential use, whether new construction or change of use/redevelopment. The only exception to this is for residential uses as mentioned above. There are 8 total spaces. Parking facilities less than 10 spaces are not required to meet the parking facility landscaping guidelines. Street yard buffers are not required in the BD or CBD zoning districts. Buffer yards are also not required in CBD where adjacent to R-10 property. However, in this case staff would recommend that a fence be installed to help separate the residential neighborhood on Nash Street.

Attached are the exterior elevations. New construction in the CBD and BD are subject to the following design guidelines:

3.11 BUILDING DESIGN STANDARDS

A. PURPOSE

The purpose of this section is to ensure architectural compatibility and the establishment and preservation of architectural character throughout the city.

B. APPLICABILITY

The requirements of this section shall apply to the CBD and BD zoning districts in the following circumstances:

1. All new construction other than single-family or two-family dwellings.
2. Communication towers, religious institutions, government buildings, public structures, and uses within the LI and HI districts shall be exempt from these requirements.

C. DESIGN STANDARDS

1. The primary entrance of the structure shall be architecturally and functionally designed on the front facade facing the primary street.
2. Except for corner lots, the front facade of the principal structure shall be parallel to the front lot line and street. **The structure is facing N. Howe Street.**
3. Façade colors shall be of low reflectance earth tone, muted, subtle, or neutral colors. Building trim may feature brighter colors as an accent material. The use of high-intensity, metallic, fluorescent, dayglow, or neon colors shall be prohibited. **The façade of the building is EIFS (Exterior Insulation and Finish Systems). Exterior insulation and finish system (EIFS) is a general class of non-load bearing building cladding systems that provides exterior walls with an insulated, water-resistant, finished surface in an integrated composite material system. It can be painted but is often left in a neutral beige color. It can be used in both residential and commercial construction. There are brick veneer columns on the first level with the EIFS, and hardie plank siding on the upper levels.**
4. Ground mounted mechanical equipment, solid waste storage, and recycling storage shall be located to the rear or side yard and screened from view of the street. **The dumpster area is in the rear corner, away from the road and screened by a fence.**
5. Outparcels shall be designed and integrated with the main project or principal structure.
6. No portion of a building facing a front or side lot line, unless a zero lot line common wall, shall be constructed of unadorned (unfaced) concrete masonry units or corrugated and/or sheet metal.
7. No single facade extending unbroken more than 35 feet in a horizontal plane may be visible from a public roadway. Compliance may be obtained through one of the following:

- a) The use of projections or recesses. When used, each projection or recess shall have a projection (or depth) dimension of no less than 18 inches and a width of no less than 36 inches; or
 - b) The use of columns or other architectural detail to provide visual interest. Where used, columns should be harmonious with the general design of the structure.
8. **At least 25% of the first floor of the street facade(s) shall be transparent (including all sides facing a street right-of-way). Street level windows shall be visually permeable.** Mirrored glass is not permitted in any location. False or display casements are not permitted in lieu of exterior window treatments for the frontage elevation. A window shall be measured as follows:
- a) Minimum area: 16 square feet
 - b) Minimum width: 3 feet
 - c) Minimum height: 4 feet
9. A pitched roof shall have eaves a minimum of 12 inches from the building face including gutters. This shall not apply to zero lot line structures.

D. COMPLIANCE

Compliance with the requirements of this section shall be demonstrated through submittal of architectural drawings in conjunction with the appropriate approval type. Drawings shall include, but not be limited to, a floor plan, roof plan, and all exterior building elevations.

Other standards to consider:

3.9: C. HEIGHT EXCEPTIONS Attached chimneys, belfries, cupolas, domes, elevator support structures, HVAC units, and similar appurtenances may exceed the maximum height requirement by not more than five (5) feet. All other structures shall comply with the height requirements of this ordinance. **The roof of the third floor is shown at 40', and the elevator height, is 44' high. This qualifies as an acceptable exception.**

3.16 LIGHTING: WALL SCONCES (BDGW -LED): - 18 WATTS - 2420 LUMENS - 0 - 10V DIMMING - **DARK SKY COMPLIANT**

No bufferyard is required in the CBD at the time of the application.

Any signage must comply with 3.19 F. On-Premises Signs; sign plan submittal to follow.

The revised plan shows the first floor as a total of (7) Retail spaces (total of 7435 sf). The second floor is composed of (4) apartments (total of 5998 sf), and business use (2870 sf), the third floor is the restaurant (6241 sf) and the rooftop assembly level (3519 sf).

The Planning Board may appoint a review committee to go over this project further.

APPENDIX A CHECKLIST		
APPLICATION TYPE	MAJOR SITE PLAN REQUIREMENTS	RECEIVED YES OR NO (OR NOT REQUIRED)
Proposed or approved name of development, project, subdivision, and/or phase.	X	X
Developer/applicant name(s), including mailing address and telephone number(s).	X	X
Property owner name(s), including mailing address and telephone number.	X	X
Name, registration number, and seal of professional Land Surveyor, Engineer, Landscape Architect, and/or Architect.	X	X
Date of plat/plan preparation and of surveys; North arrow and orientation; Map scale, denoted graphically and numerically.	X	X
Sketch vicinity map showing the relationship between the proposed property or properties and the surrounding area.	X	X
Tax parcel numbers, owners, zoning classifications, and book and page numbers of the site tract and adjacent tracts.	X	X
Exact existing and proposed or pending property boundary lines by bearings and distances and the location of the intersecting boundary lines of adjacent lands.		X
Lots numbered consecutively throughout the subdivision.		N/A
Boundaries of any proposed or pending zoning districts on site. Boundaries must be described by bearing and distance where they do not follow described boundaries.	X	N/A
Sufficient engineering data to determine readily, and to be reproducible on the ground, every straight or curved boundary line, street line, lot line, right-of-way line, easement line, and setback line, including dimensions, bearings or deflection angles, radii, central angles, and tangent distances for the center line of curved streets and curved property lines that are not the boundary of curved streets. All dimensions shall be measured to the nearest one-tenth of a foot and all angles to the nearest minute.	X	X
Accurate locations and descriptions of all monuments, markers, and control points.		N/A
Location, dimensions, density, and description of proposed land uses on each tract or parcel, including single family residential, multi-family residential, commercial, office, institutional, industrial, and recreational. Recreational uses shall specify type and future ownership.	X	X
Location and dimensions of existing and proposed buildings or structures on the site and all adjacent tracts,	X	X

including existing buildings or structures to be removed. Total number of stories of all multi-story buildings and height of all buildings must be indicated.		
Location, direction, dimensions, name, and surface type of existing or proposed rights-of-way and easements, including those being vacated and those on adjacent properties.	X	X
Location of roads appearing on officially adopted plans.	X	X
Location of roads, streets, and circulation patterns; including any proposed or required bicycle or pedestrian facilities.	X	X
Total square footage of existing and proposed impervious surfaces.	X	X
Names, cross-sections, approximate grades, and pavement widths of proposed road rights-of-way, including design engineering data for all corners and curves.	X	X
Type of street dedication, either public or private.		N/A
Location and dimensions of parking and loading spaces and drive aisles, including handicapped parking.	X	X
Location and dimensions of existing and proposed sidewalks and accessible accessways.	X	X
Location and dimensions of all trash containers and required screening.	X	X
FEMA-designated flood hazard areas, including flood zone designations and map panels.	X	X (N/A)
Location and description of CAMA Areas of Environmental Concern, including 404 wetlands as determined by the Army Corp of Engineers and coastal wetlands as determined by NCDEQ.	X	N/A
Location and description of environmental features such as wooded areas, marshes, swamps, rock outcrops, ponds or lakes, streams or streambeds, and any other natural features affecting the site.	X	N/A
Existing and proposed topography.	X	N/A
Location, dimensions, and description of all areas to be dedicated to the public or to a property owners association.		N/A
Location, size, and flow direction of existing and proposed draining courses within or immediately adjacent to the site, including culverts and storm drains.	X	N/A
Location and size of stormwater basins or other comparable stormwater management mechanisms.	X	N/A
Location and labeling of minimum building setback lines.	X	X
Detailed utility plans, including water, sewer, and stormwater, and showing connections to existing systems or plans for individual water supply systems and sewage disposal systems. Plans must show line sizes, the location of hydrants, blow-offs, manholes, pumps, force mains, gate valves, utility and maintenance easements, and daily estimated sewer flow figures. Type of construction materials and brand of appurtenances may require approval from the City of Southport, Brunswick County Utilities, and/or NCDOT. Plans shall include profiles based on mean sea level datum for gravity sanitary and storm sewers.	X	X
Total number and type of dwelling units, by development phase.	X	X

For residential uses, the number of units, heights, and a generalized location. For non-residential uses, the height, approximate footprint, and location of all structures.		X
Signage.	X	Will apply separately.
Outdoor Lighting Plan.	X	X
Locations, dimensions, and size of required buffers, street yards, foundation planting, parking facility planting areas.	X	N/A
Location, species, and size of all regulated and specimen trees as defined by this ordinance.	X	N/A
Location and size of all groves of trees to be protected, including the approximate number and species of protected trees.	X	X
Location, species, dimensions, and spacing of all required landscaping materials clearly labeled and numbered and a legend.	X	N/A
Note on plan stating that prior to any clearing, grading, or construction activity tree protection fencing will be installed around protected plans, trees, or groves of trees. No construction workers, tools, materials, or vehicles are permitted within the tree protection fencing.	X	X
Any other information considered pertinent by the applicant, UDO Administrator, Planning Board or Board of Aldermen.	X	

Major Site Plan

City of Southport, North Carolina

PAID

CK. NO.

8/31/22

DATE

3754



1029 N. Howe St, Southport NC 28461

www.southportnc.org

Planning & Inspections

Phone 910-457-7961 Fax 910-457-7957

For Staff Use Only

PERMIT No. _____

FEE: \$

500.00

Date Received: _____

Applicant's Name: RON GREGER - R.G. TEC SECURITIES INCMailing Address: 613 LOCKWOOD FALLY DR. City: BOLIVIAState: NC Zip Code: 28422 Phone: 919-422-9732Email: TRIATCOAST@YAHOO.COMLocation of the property: CORNER OF W NASH ST & HOWE STREETParcel No.: 237LG041 Overall Acreage: 0.36 Number of lots: 1Property Owner's Name: BARBEE ENTERPRISES OF SOUTHPORT INCAddress of Owner: 115 N HOWE ST. Phone: _____City: SOUTHPORT State: NC Zip Code: 28461Email: cbbercham@YAHOO.COMDesign Professional: JODY BLAND
NORRIS & TUNSTALL CONSULTING ENGINEERS License #: 41620Mailing Address: 1429 ASH LITTLE RIVER RD City: ASHState: NC Zip Code: 28420Phone: 910-287-5900Email: JBLAND@NTENGINEERS.COM

Major Site Plan Definition

Per Section 2.7.B of the UDO, Purpose. A major site plan is intended for more intense development proposals requiring greater discretion of the city.

The following development types must submit a major site plan as specified in this ordinance:

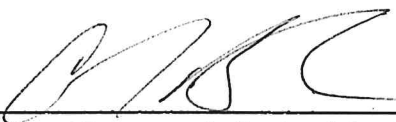
- a) Residential development of four (4) or more dwelling units on a lot.
- b) Nonresidential development whereby 10,000 square feet or more of impervious surfaces are proposed.
- c) All other development not subject to minor site plan approval.

Pre-Application Meetings: Applicants may request a pre-application meeting with the UDO Administrator prior to submission of an application to discuss procedural and substantive matters related to the proposed application.

Required Application Materials for Submittal:

- One (1) digital copy and 12 hard copies of the major site plan shall be submitted with all such applications.
- The major site plan shall be prepared by and sealed by a licensed land surveyor, landscape architect, or engineer registered to practice in the state of North

Major site plans shall include all required information as provided in Appendix A: Submission Requirements of the UDO.



Signature (Owner or Authorized Applicant)

11/30/21

Date

APPROVED BY:

UDO Administrator

Date

City Of Southport
1029 N. Howe St
Southport, NC 28461
(910) 457-7900

Receipt: 00153511
Date: 08/31/2022 12:15 PM
tdeviney

BARBEE ENTERPRISES OF SP INC,

Planning Zoning	
Planning Zoning Fees	500.00
Total	500.00

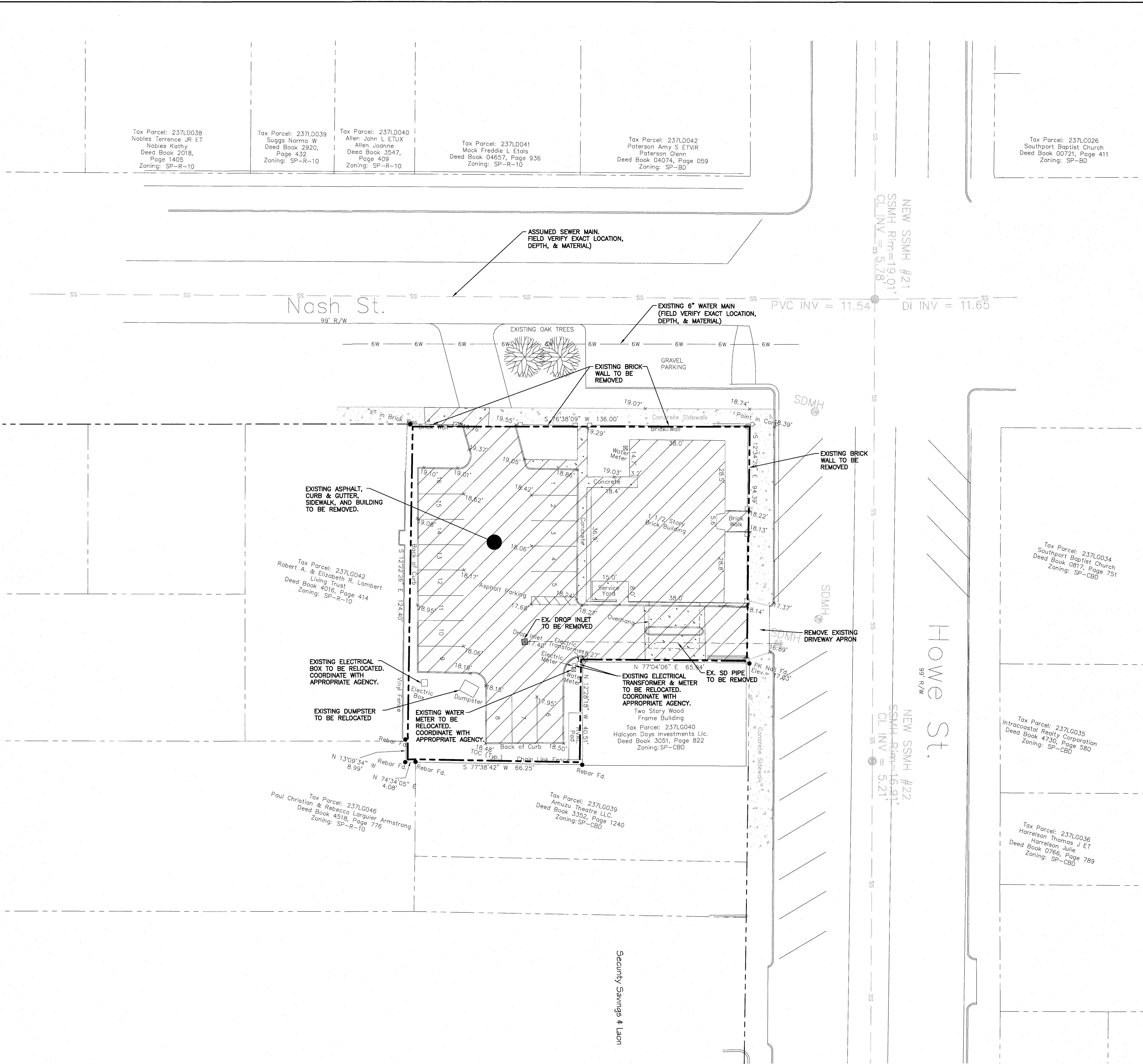
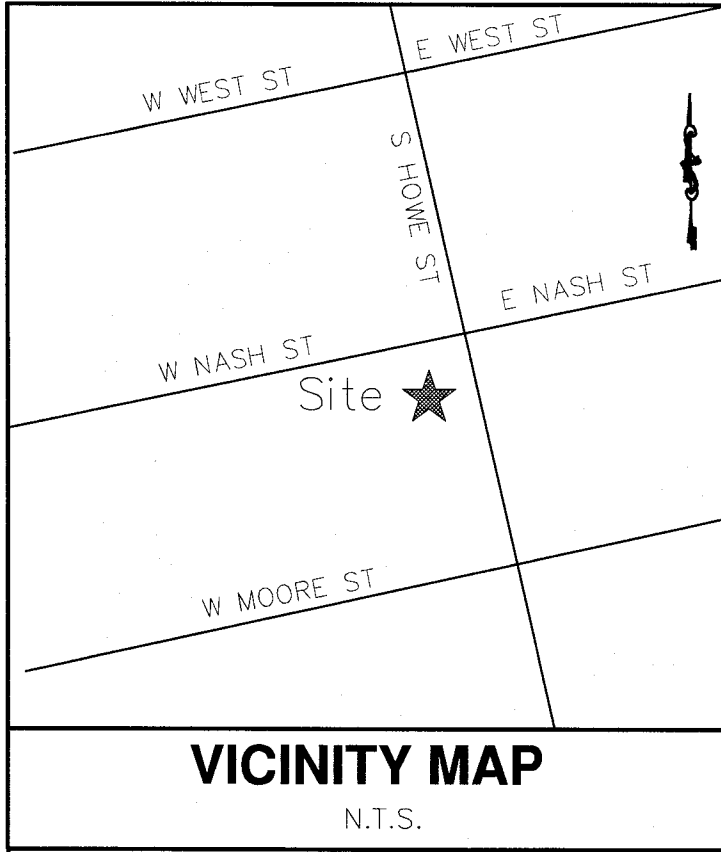
Check	3756	500.00
-------	------	--------

Change		0.00
--------	--	------

Balance Remaining:
\$0.00

MAJOR SITE PLAN | 115 N HOWE

Have a nice day!
Visit us at cityofsouthport.com



NOTE:
1. ALL INFORMATION BASED ON COMBINATION OF SITE SURVEY, GIS
INFO & AERIAL PHOTO.

SCALE: 1" = 20'

0 20 40 60

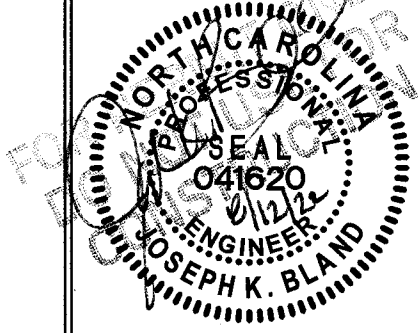
SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
© 2021 NORRIS & TUNSTALL			

EXISTING CONDITIONS / DEMO PLAN
BEACHAM MIXED USE DEVELOPMENT
115 N HOWE STREET, SOUTHPORT
BRUNSWICK COUNTY, NORTH CAROLINA

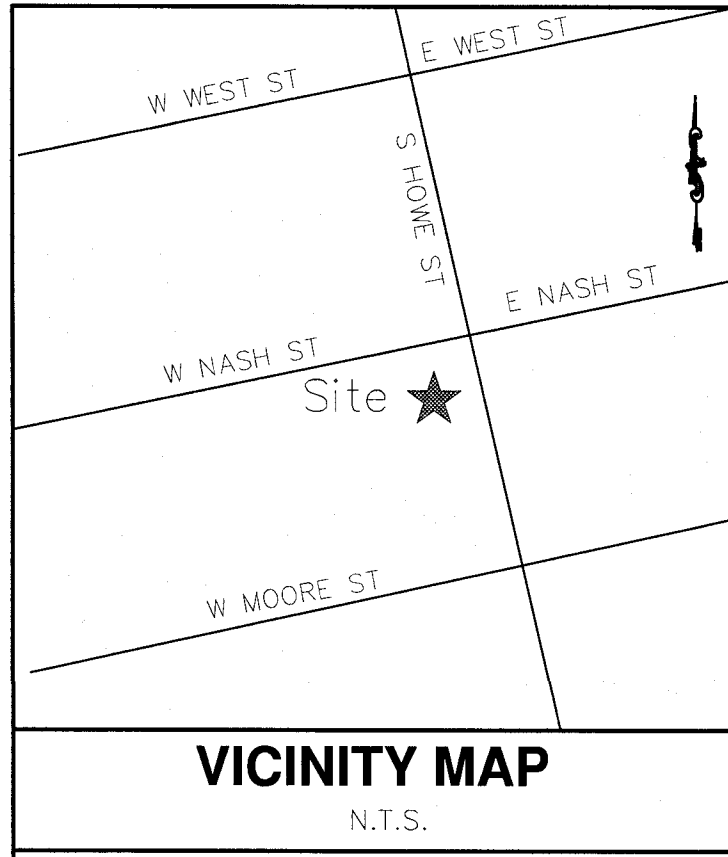
CONTRACTOR/DEVELOPER:
R.G. Tre Securities, Inc.
613 Lockwood Folly Dr.
Bohalla, NC
1-919-422-9732
trattcoast@yahoo.com

NORRIS & TUNSTALL
— CONSULTING ENGINEERS P.C. —
1900 EASTWOOD RD SUITE #11 1429 ASHLITTLE RIVER RD NW
WILMINGTON, NC 28405
PHONE (910) 343-9633

Licence #C-3641
21069
DES. JPN
CHK. JPN
DRWN. ZAC
DATE 08/12/22

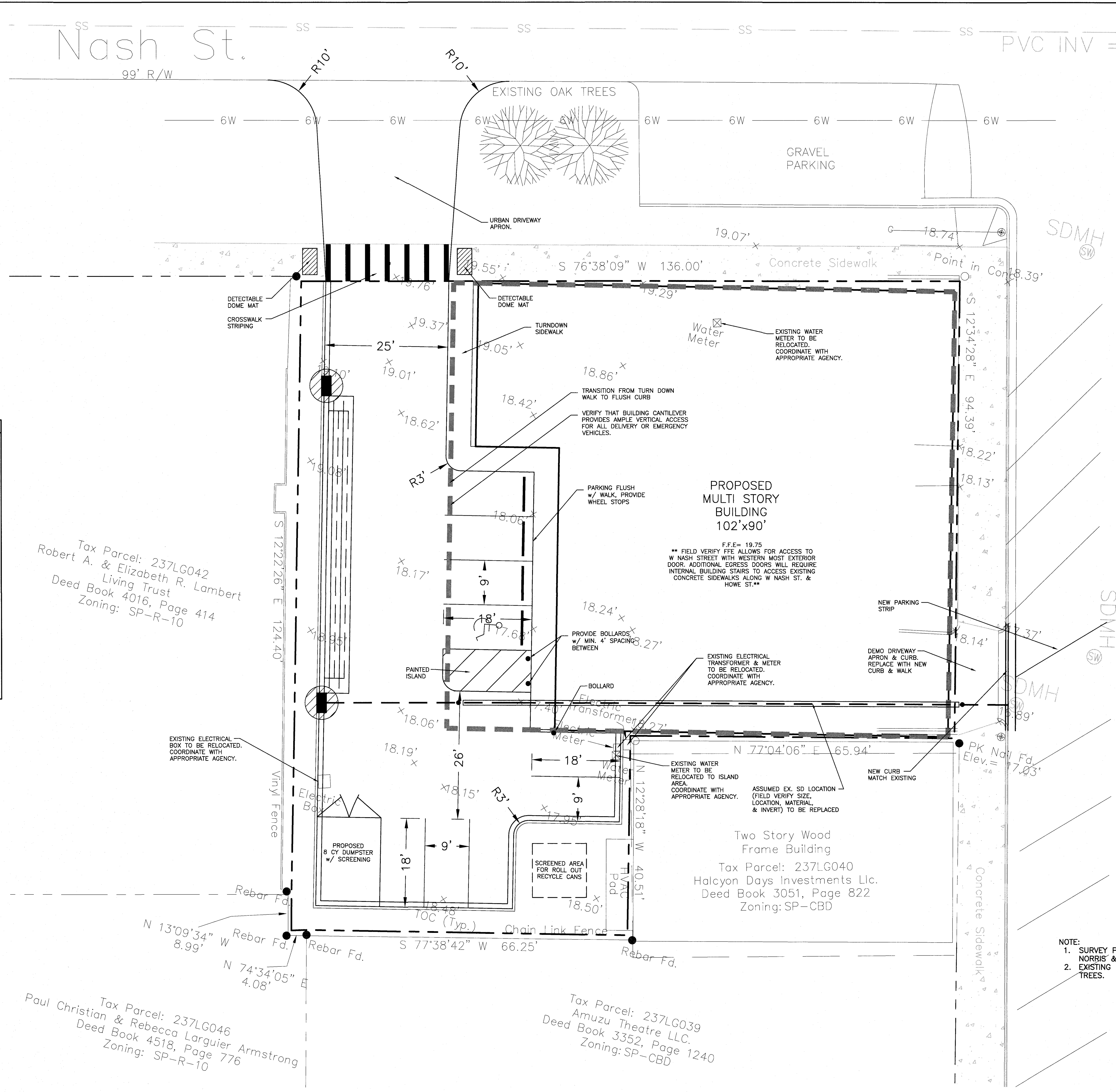


C1



VICINITY MAP
N.T.S.

SITE DATA	
PARCEL NUMBER:	237LG041
OWNER:	BARBEE ENTERPRISES OF SOUTHPORT 115 N HOWE ST. SOUTHPORT, NC 28461
ZONING:	CBD
CITY OF SOUTHPORT:	CBD
TOTAL SITE AREA:	15,608.45 SF / .36 AC
BUILDING USE:	RETAIL / RESIDENTIAL / RESTAURANT
BUILDING HEIGHT:	TBD - MAX BLDG. HEIGHT NOT TO EXCEED 40'
BUILDING SETBACKS:	NO SETBACKS REQUIRED
IMPERVIOUS AREAS: EXISTING	
BUILDING:	3,600 SF
DRIVE ISLE / PARKING:	7,276 SF
WALKS / CONCRETE:	555 SF
TOTAL EX. IMPERVIOUS AREA:	11,431 SF / .26 AC
IMPERVIOUS AREAS: PROPOSED	
BUILDING:	9,180 SF
DRIVE ISLE / PARKING:	4,902 SF
WALKS / CONCRETE:	235 SF
TOTAL IMPERVIOUS AREA:	14,317 SF / .32 AC
TOTAL NET INCREASE:	2,886 SF / 0.07 AC
% IMPERVIOUS:	91.73%
PARKING REQUIRED:	
ONSITE TOTAL REQUIRED:	4 RESIDENTIAL UNITS x 2 SP/RESIDENTIAL UNIT = 8 SPACES
PARKING PROVIDED:	
SPACES PROVIDED:	8 SPACES
HANDICAP SPACES PROVIDED:	1 SPACES
TOTAL SPACES PROVIDED:	9 SPACES



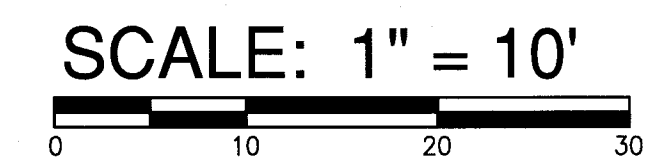
Tax Parcel: 237LG042
Robert A. & Elizabeth R. Lambert
Living Trust
Deed Book 4016, Page 414
Zoning: SP-R-10

Tax Parcel: 237LG046
Paul Christian & Rebecca Languier Armstrong
Deed Book 4518, Page 776
Zoning: SP-R-10

Tax Parcel: 237LG039
Amuzu Theatre LLC
Deed Book 3352, Page 1240
Zoning: SP-CBD

Two Story Wood
Frame Building
Tax Parcel: 237LG040
Halcyon Days Investments LLC.
Deed Book 3051, Page 822
Zoning: SP-CBD

- NOTE:
1. SURVEY PROVIDED BY OTHERS. SURVEY PERFORMED BY NORRIS & TUNSTALL CONSULTING ENGINEERS P.C.
 2. EXISTING CONDITIONS SURVEY DID NOT IDENTIFY ANY SPECIMEN TREES.



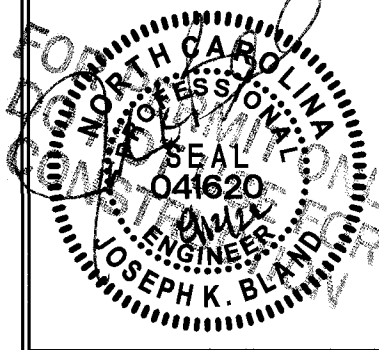
SYMBOL	DATE	DESCRIPTION	BY

LAYOUT PLAN
BEACHAM MIXED USE DEVELOPMENT
115 N HOWE STREET, SOUTHPORT
BRUNSWICK COUNTY, NORTH CAROLINA

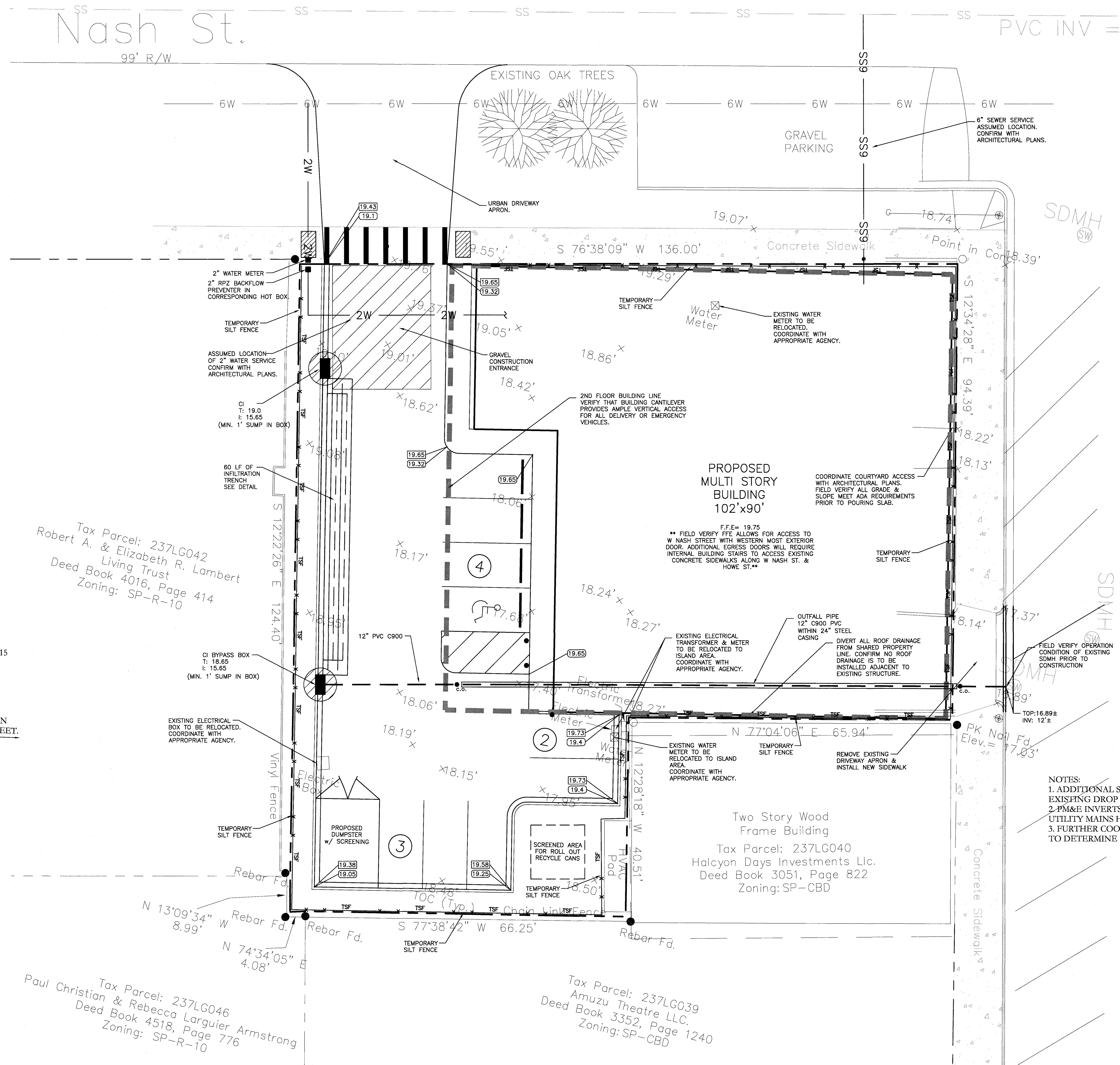
CONTRACTOR/DEVELOPER:
R.G. Tec Securities, Inc.
613 Lockwood Folly Dr.
Bohemia, NC
1-919-422-9732
triatcoast@yahoo.com

NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
1900 EASTWOOD RD SUITE #11
WILMINGTON, NC 28403
PHONE (910) 343-9633

Licence #C-3641
21069
DES. JPN
CHK. JPN
DRWN. ZAC
DATE 08/12/22



C3



REVISIONS			
SYMBOL	DATE	DESCRIPTION	BY

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GRADING AND UTILITY PLAN
BEACHAM MIXED USE DEVELOPMENT
1115 N HOWE STREET, SOUTHPORT
BRUNSWICK COUNTY, NORTH CAROLINA

CONTRACTOR/DEVELOPER:

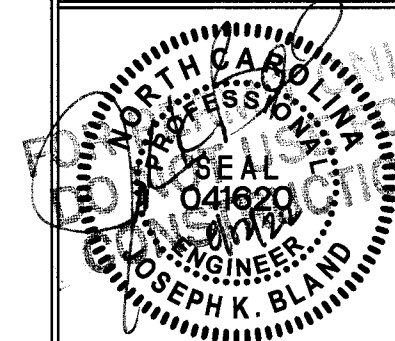
- R.G. Tec Securities, Inc.
- 613 Lockwood Folly Dr.
- Bolivia, NC
- 1-919-422-9732
- triatcoast@yahoo.com

NORRIS & TUNSTALL
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1000 EASTWOOD RD SUITE #11 1429 ASH-LITTLE RIVER RD, NW
WILMINGTON, NC 28403 ASH, NC 28420
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TEL: (704) 762-5900
FAX: (704) 762-5900

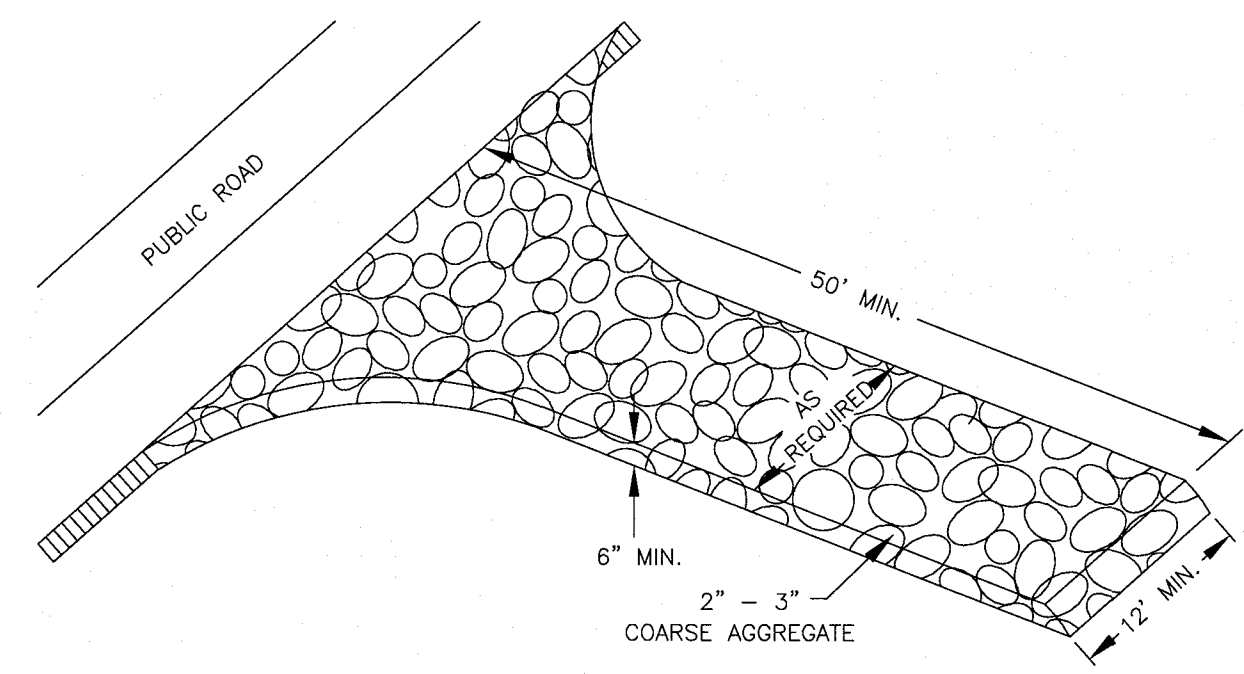
Licence #C-3641

21069

DES.	JPN
CKD.	JPN
DRWN.	ZAC
DATE	08/12/22



C2

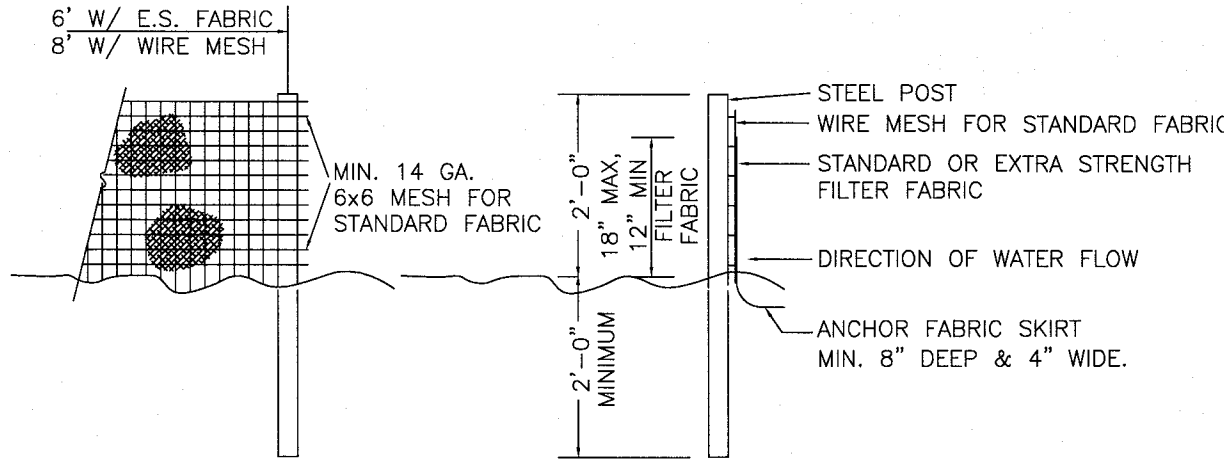


GRAVEL CONSTRUCTION ENTRANCE

CONSTRUCTION SPECIFICATION:

1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
2. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
3. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
4. USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.

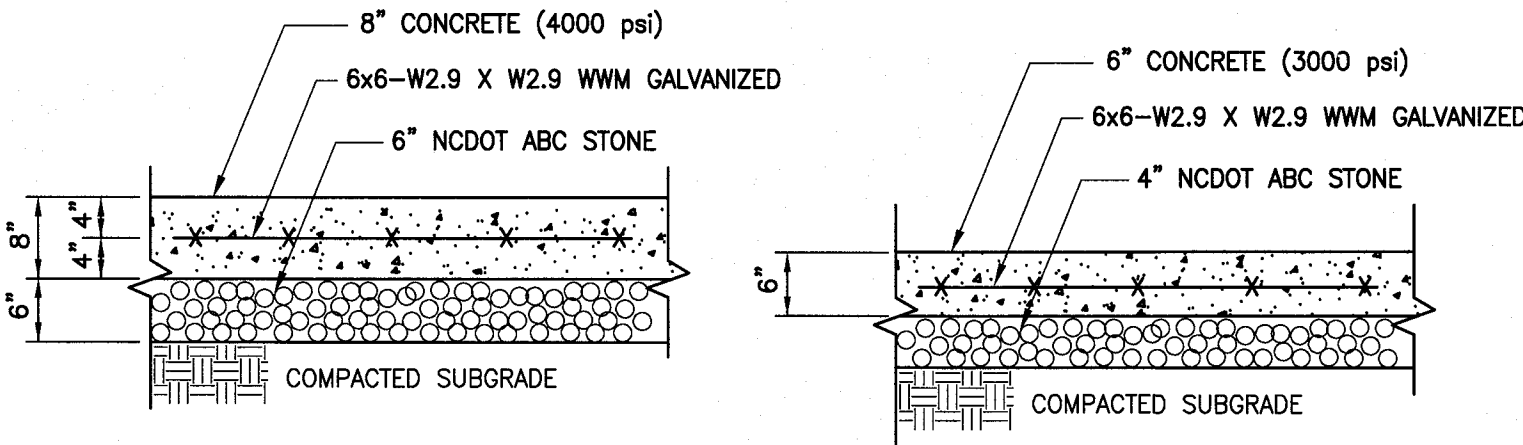
MAINTENANCE:
 MAINTAIN THE GRAVEL PAD IS A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE
 CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2 INCH STONE. AFTER EACH
 RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY.
 IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC
 ROADWAYS.



NOTES:

1. SYN. FENCE FABRIC SHALL BE MIN. OF 30" IN WIDTH WITH 30 LB/IN TENSILE STRENGTH FOR STANDARD FABRIC AND 50 LB/IN FOR EXTRA STRENGTH.
2. FABRIC SHALL BE CONTINUOUS LENGTH. IF JOINTS ARE NECESSARY, LAP FABRIC POST TO POST.
3. STEEL POST SHALL BE MIN 4' IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

TEMPORARY SILT FENCE MAINTENANCE
INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND EACH RAINFALL.
MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE
OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE
STORAGE VOLUME FOR THE NEXT RAINFALL AND TO REDUCE PRESSURE ON
THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING
CLEANOUT.
REMOVE ALL FENCING MATERIALS AND UNSTABLE IT AFTER THE
CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

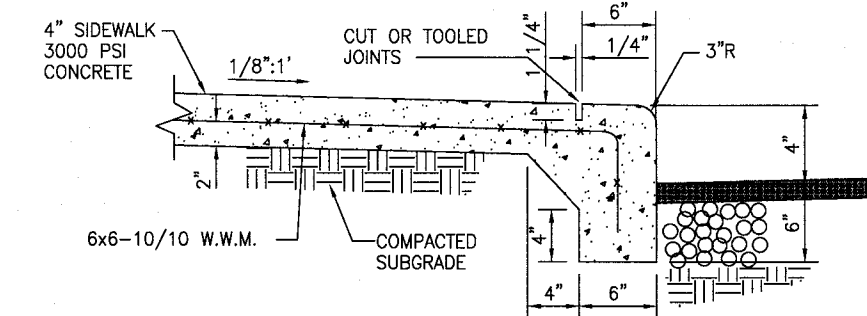


HEAVY DUTY

STANDARD DUTY

NOTES:

1. CONTROL JOINTS SHALL BE EVERY 15 FT. (MAX.) AND EXPANSION JOINTS SHALL BE EVERY 50 FT. (MAX).
2. PAVEMENT SECTION MAY VARY DEPENDING UPON FIELD CONDITIONS. THE PAVING CONTRACTOR SHALL COORDINATE WITH OWNER REPRESENTATIVE AND GEOTECHNICAL ENGINEER TO DETERMINE ACTUAL PAVEMENT SECTION.



TURNED DOWN CONCRETE SIDEWALK CONTROL JOINT

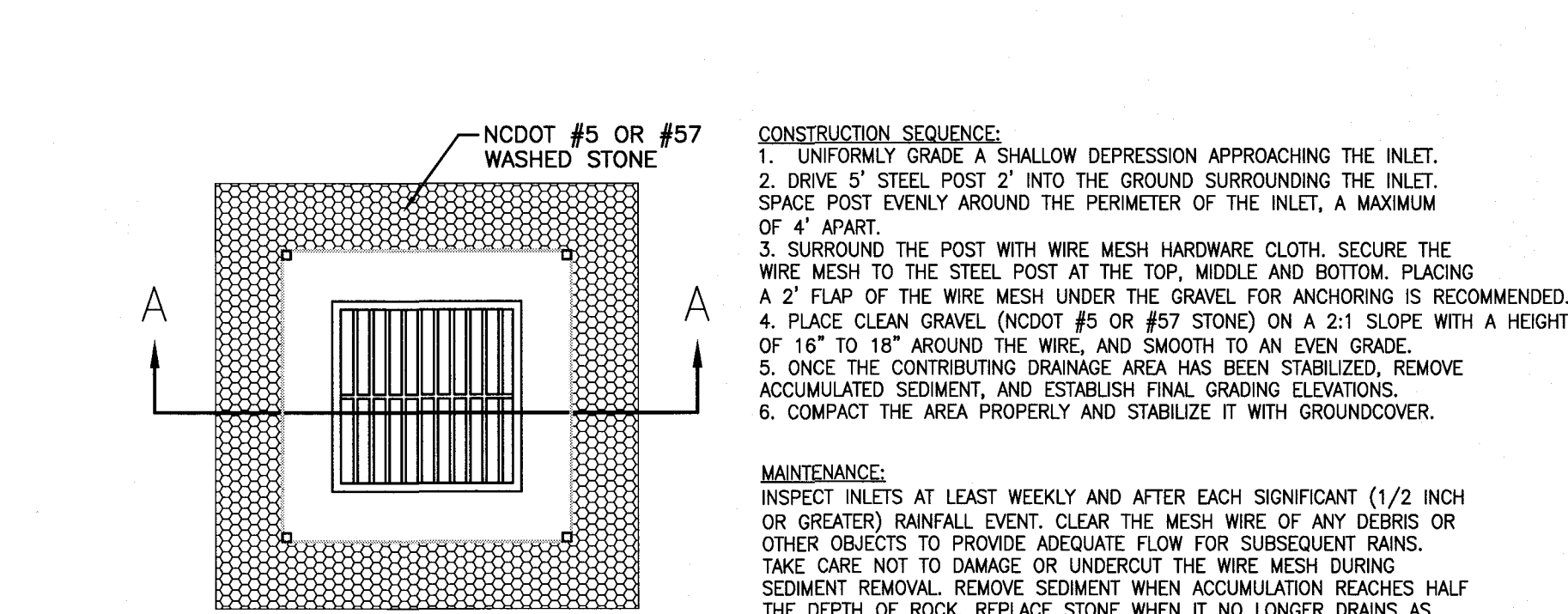
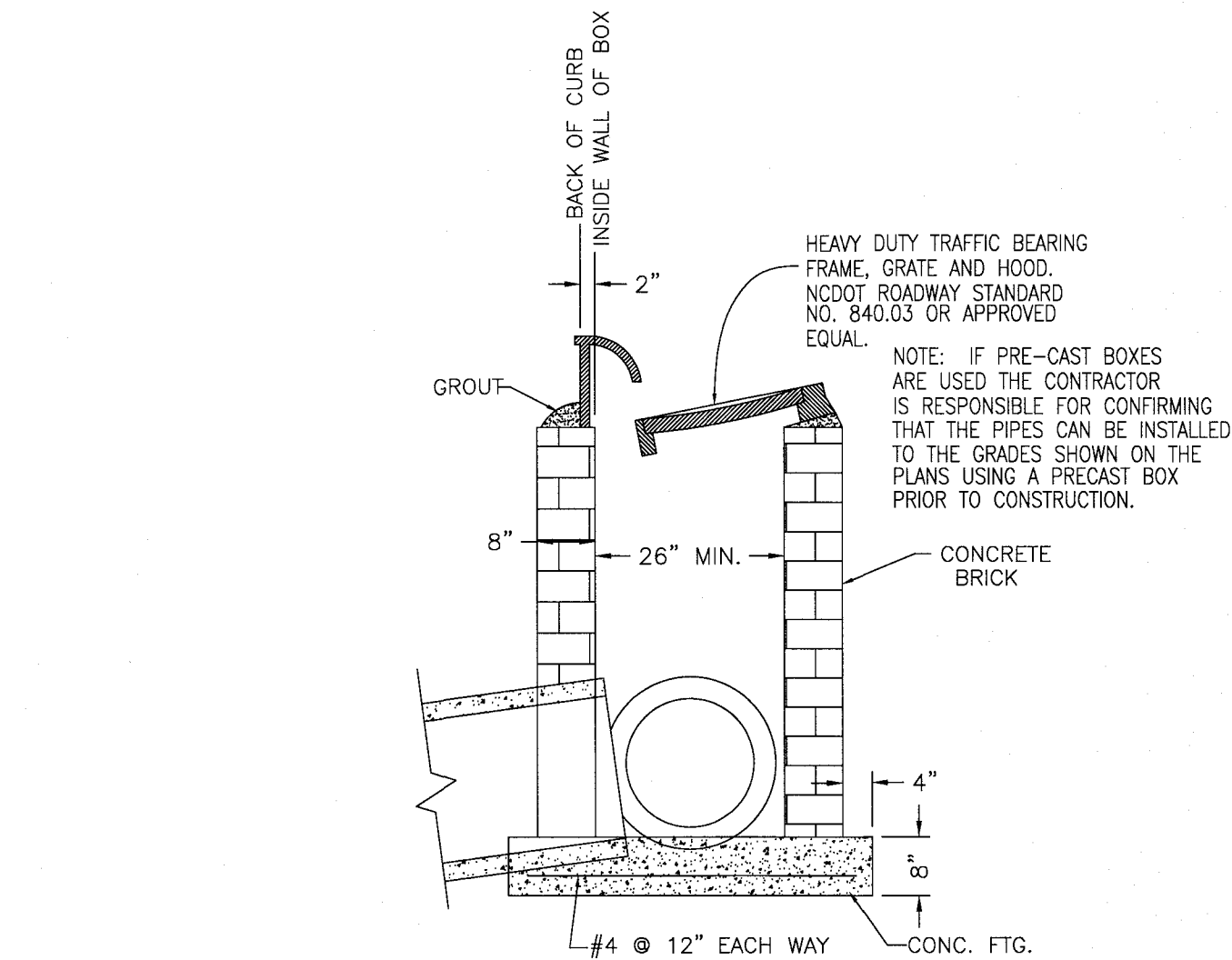
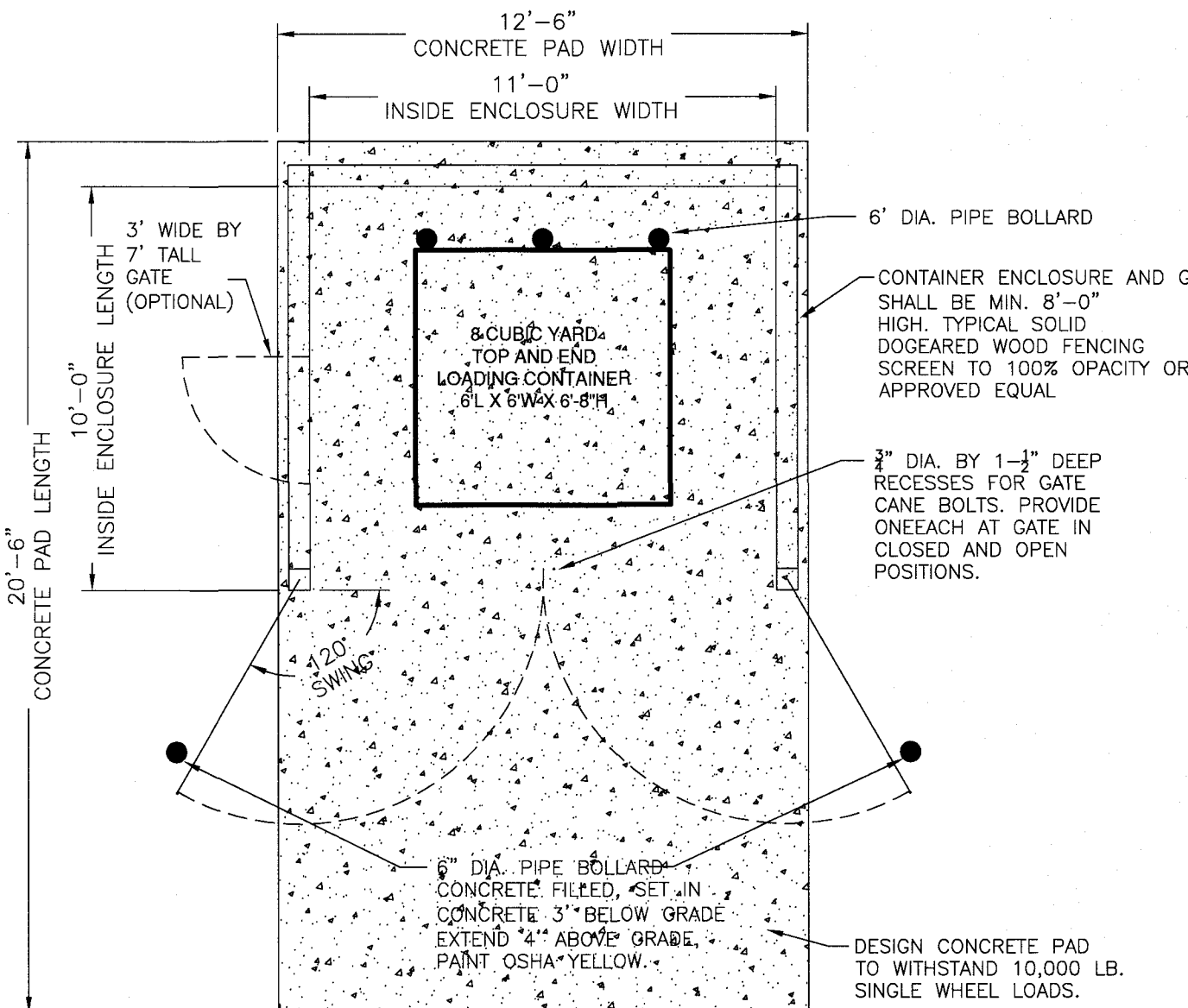


Diagram illustrating the cross-section of a standard metal post and filter fabric assembly. The assembly consists of a central core of 19-gauge hardware cloth (1/4" mesh openings) surrounded by a layer of NCDOT #5 or washed stone. The entire assembly is supported by standard metal posts (2.0" in ground, typ.) and is secured with 19-gauge hardware cloth (1/4" mesh openings). The filter fabric is labeled as 16" to 18" wide. The diagram shows the filter fabric extending 4" MAX. from the post, with a 2" gap between the post and the filter fabric. The filter fabric is secured with a 2" wide strip of material. The filter fabric is labeled as 16" to 18" wide. The diagram shows the filter fabric extending 4" MAX. from the post, with a 2" gap between the post and the filter fabric. The filter fabric is secured with a 2" wide strip of material. The filter fabric is labeled as 16" to 18" wide. The diagram shows the filter fabric extending 4" MAX. from the post, with a 2" gap between the post and the filter fabric. The filter fabric is secured with a 2" wide strip of material. The filter fabric is labeled as 16" to 18" wide.

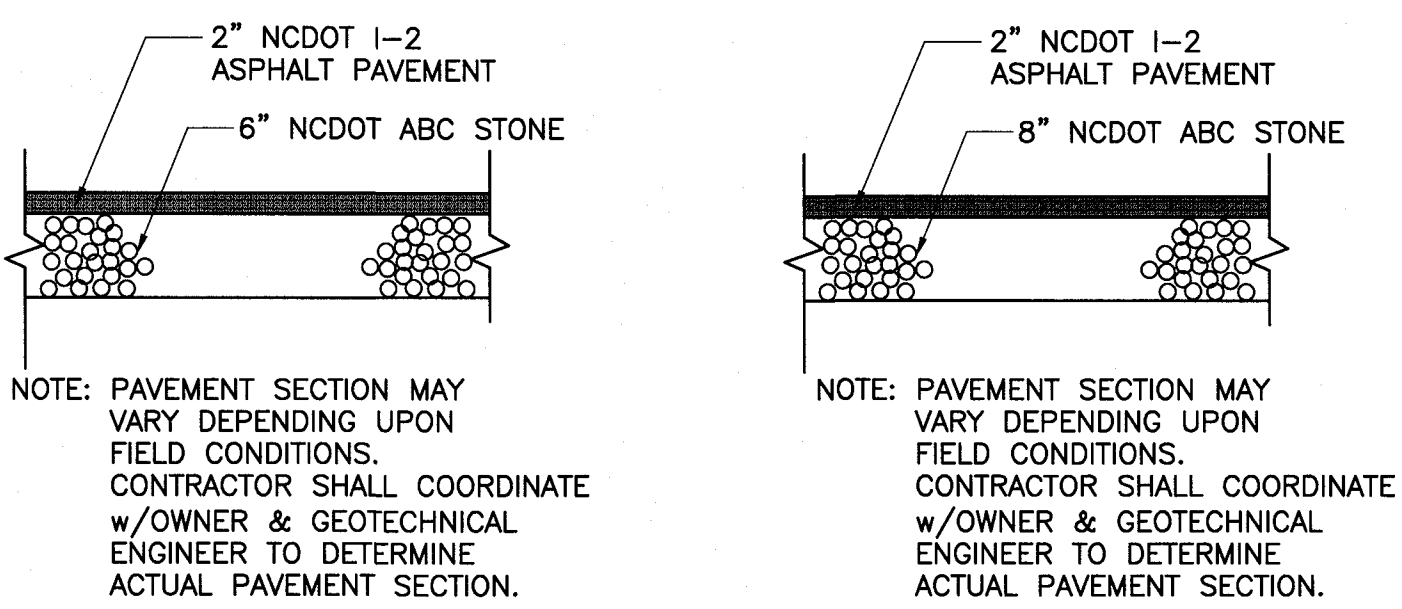
SECTION A-A



TYPICAL CATCH BASIN



CONTAINER ENCLOSURE PLAN



STANDARD DUTY

HEAVY DUTY

8 ASPHALT PAVEMENT SECTIONS

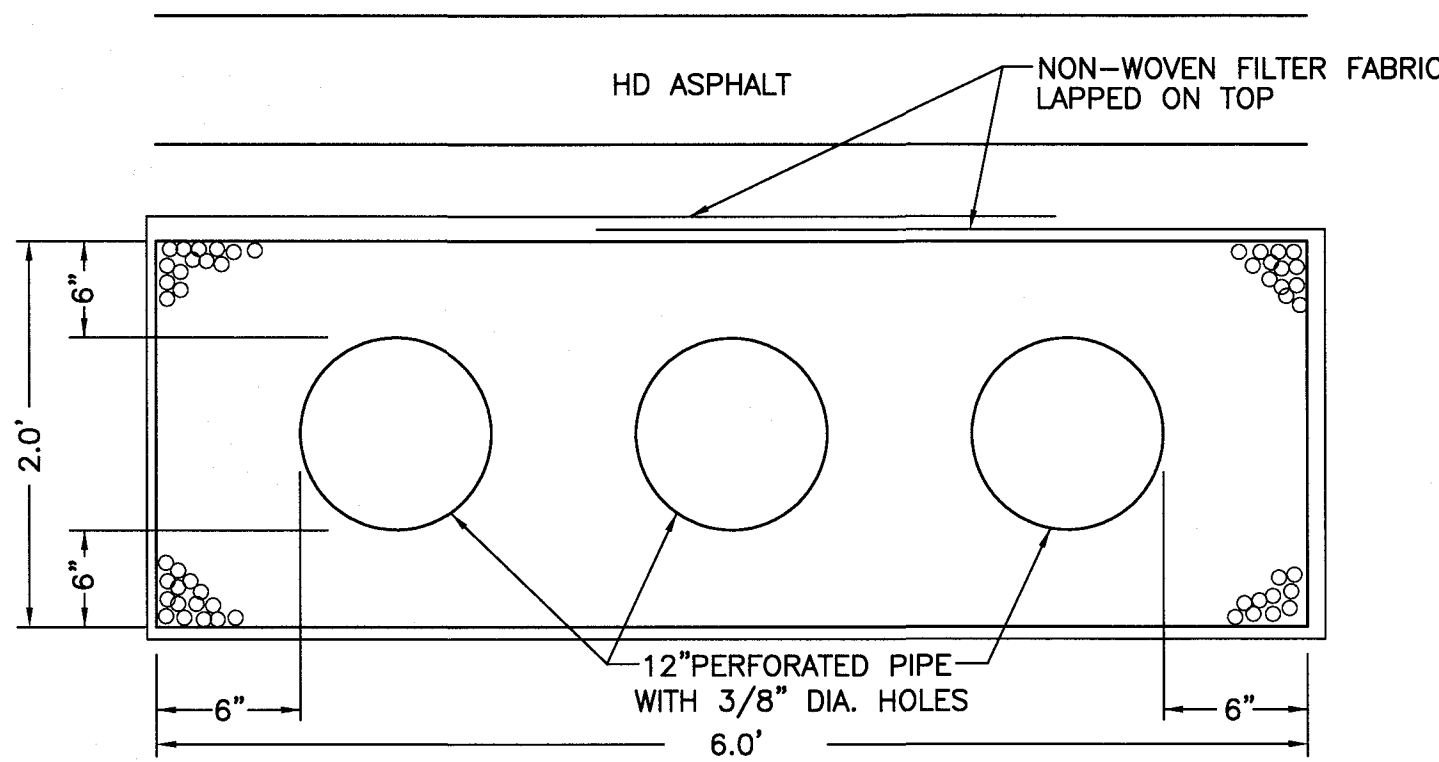
NTS

NOTE:

1. RAMP SHALL HAVE A DETECTABLE WARNING COMPLYING WITH ADA GUIDELINES. "COLONIAL RED" COLOR FOR DOME.
2. THE DETECTABLE WARNINGS AT CURB RAMPS SHALL BE 24 INCH DEEP AND 24 INCH WIDE IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
3. MARKED CROSSINGS THAT ARE RAISED TO THE SAME LEVEL AS THE ADJOINING SIDEWALK SHALL BE PRECEDED BY A 24 INCH DEEP DETECTABLE WARNING EXTENDING THE FULL WIDTH OF THE MARKED CROSSING.
4. DETECTABLE WARNINGS SHALL CONSIST OF RASPED OR TREATED SURFACING WITH A MINIMUM DIAMETER OF NOMINAL .09 IN (23 MM), A HEIGHT OF NOMINAL 0.2 IN (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN (60 MM) AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHOULD CONTRAST BY AT LEAST 70% - REFER TO ADA GUIDELINES FOR DEFINITION OF "CONTRAST".
5. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON AN INTERIOR SURFACE SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-GANE CONTACT.

9 DETECTABLE WARNING NOTES

NTS



10 INFILTRATION TRENCH

NT³

TITLE WORK NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.
2. ALL EXISTING AND NECESSARY COORDINATE WORK WITH NCDOT AND LOCAL RIGHT OF WAY WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.
3. THE CONTRACTOR SHALL REMOVE ALL MATERIALS AS SPECIFIED UNLESS OTHERWISE NOTED TO REMAIN, SUCH AS ROOTS, CURBBERY, ASPHALT CONCRETE, STRUCTURES, BURIED UTILITIES, STORAGE TANKS, ETC. WITHIN LIMITS OF CONSTRUCTION.
4. TOPSOIL TO BE REMOVED BY EXCAVATING OR FILLING, REMOVE ALL TOPSOIL, WOOD, LEAVES, AND ANY OTHER UNSUITABLE MATERIAL.
5. MUCKING- REMOVE ANY SOFT, ORGANIC SILT MATERIALS AND EXISTING BURIED CONSTRUCTION DEBRIS FOR DISPOSAL IN FILL TO SUBGRADE
6. DISPOSED AREAS WITHIN 8" OF COMPACTED AREAS AS SPECIFIED
7. DISPOSAL- CLEARED, GROUND, STRIPPED OR EXCAVATED SOIL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH A PERMITS AVAILABLE LOCATIONS
8. BORROW MATERIAL- THE CONTRACTOR SHALL FURNISH BORROW MATERIAL REQUIRED FROM OFF SITE AND OBTAIN ALL REQUIRED PERMITS
9. FILL AND COMPACTION- AFTER STRIPPING THOSE AREAS DESIGNATED TO RECEIVE FILL SHOULD BE PROOFROLLED, THE TOP 8" OF SUBGRADE SHALL BE COMPACTED TO AT LEAST 98% OF MAXIMUM DENSITY AT OPTIMUM WATER CONTENT CONTROLS. THEREAFTER BUILDING MATERIALS SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF MAXIMUM DENSITY AT OPTIMUM WATER CONTENT CONTROLS. EACH LAYER SHALL HAVE A UNIFIED SOIL CLASSIFICATION OF SP, SM, OR SC. FILL MATERIAL 5' OUTSIDE OF BUILDING AREAS SHALL THEN BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. FILL MATERIALS WITHIN BUILDING AREAS SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED IN 6 INCH LAYERS TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IN AREAS WHERE NO STRUCTURAL FILL IS TO BE PLACED THE UPPER 12 INCHES OF IN-PLACE SUBGRADE SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698). IT IS TOO DRY TO COMPACT TO THE REQUIRED DENSITY EACH LAYER SHALL BE WETTED IN ACCORDANCE WITH COMPACTION REQUIREMENTS, IF THE MATERIAL IS TOO WET TO SECURE PROPER COMPACTION, IT SHALL BE HARROWED AND REWETTED TO CORRECT MOISTURE AGED WITH SUITABLE EQUIPMENT UNTIL OPTIMUM MOISTURE CONTENT IS OBTAINED, FILL SHALL BE PLACED IN SUCH A MANNER THAT THE SURFACE WILL DRAIN READILY AT ALL TIMES. SEE ADDITIONAL NOTES FOR SOIL TESTING AND COMPACTION METHODS.
10. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS REQUIRED TO CONSTRUCT THE PROJECT.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES.
12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.
14. ALL PAYMENT SHALL BE MADE TO MATERIALS AND WORKSHIPSMAN SHALL CONFORM TO NCDOT STANDARDS.
15. WATER AND SEWER SERVICES SHALL BE INSTALLED TO MEET LOCAL PLUMBING CODES. METER AND TAPS SHALL MEET ALL LOCAL REQUIREMENTS.
16. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.
17. CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.
18. REINF. CONC. PIER SHALL BE CLASS III W/RUBBER GASKETED JUNT ON "RAM NICK". INSTALL PER MANUFACTURER'S REQUIREMENTS.
19. WHITE POLYESTHER BLENDED WITH 25% RUBBER GRANULINGS. PAINT SHALL BE A CHLORINATED RUBBER ALKYD, FS TT-P-115, TYPE II, FACTORY MIXED, QUICK DRYING, NON-BLEEDING.
20. REFER TO THE DRAWINGS FOR LOCATION, SIZE AND ADVERTS OF RAIN, WASTE AND WATER LINES.
21. SEE ARCHITECTURAL PLANS FOR LOCATION OF ROOF DRAINS, THE GENERAL CONTRACTOR IS RESPONSIBLE TO CONNECT THESE LINES TO THE DOWNSPOUTS. THE MINIMUM SLOPE REQUIRED DEPTH TO DRAIN AT UNDERGROUND DOWNSPOUT DRAINS SHALL HAVE A MINIMUM SLOPE OF 1% AND BE SCH 40 PVC PIPE AS FOLLOWS: USE 4" PIPE FOR UP TO 4' DOWNSPOUT CONNECTIONS, 6" PIPE FOR 5' TO 8' DOWNSPOUT CONNECTIONS, 8" PIPE FOR 9' TO 12' DOWNSPOUT CONNECTIONS.
22. ALL DOWNSPOUTS SHALL HAVE AN AIR GAP PRIOR TO CONNECTION TO THE STORM DRAIN SYSTEM.
23. THE FINISHED GROUND LEVEL AT THE BUILDING PERIMETER SHALL BE MAINTAINED AT OR BELOW THE BUILDING FINISH FLOOR ELEVATION EXCEPT AT ENTRANCES AND ENTRANCE TRANSIENS.

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR PROPER OPERATION WEEKLY. SEDIMENT TRAPS, SLOTTED DRAINAGE DRAINS, BUT IN NO CASE, LESS THAN EVERY WEEK AND WITHIN 24 HOURS OF EVERY HIGH-NOON RAINFALL.

2. IF PERIODICAL TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DENSITY. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE ANY SEDIMENT OR DEBRIS FROM THE ENTRANCE OR TRACKED INTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.

3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTORS, BLOCKED DRAINAGE DRAINS, AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED.

4. SEDIMENT TRAPS WILL BE MAINTAINED WEEKLY TO PREVENT SEDIMENT ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DAILY SACKS AND SOCKS ONE A WEEK AND AFTER EVERY RAIN EVENT.

5. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT AND OBSTRUCTIONS. SEDIMENT TRAPS WILL BE MAINTAINED WEEKLY AND ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 7 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.

6. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL, STAKE SPACING MUST BE 6 FEET MAXIMUM. WIRE BAKING MUST BE STEEL FABRIC, WITHOUT WIRE BAKING STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BAKING ARE USED. IF ROCK FILTERS ARE USED, THEY WILL BE MAINTAINED WEEKLY. ROCK FILTERS WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.

7. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS, WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLOADED. Baffles WILL BE REPAIRED OR REPLACED IF THEY ARE DISLOADED OR DAMAGED. SEDIMENT TRAPS WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST Baffle. FLOATING SKIMMERS WILL BE INSPECTED AND KEPT CLEAN.

8. SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLOADED. Baffles WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM Baffles WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST Baffle. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.

LAND QUALITY REQUIRES

8. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED, ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN, TO MAINTAIN ADEQUATE, DIVERSIFIED, AND DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 (TWENTY-ONE) CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS. : WATER QUALITY REQUIRES ALL SEEDED AREAS BE FERTILIZED, RESEEDED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN, TO MAINTAIN ADEQUATE, DIVERSIFIED, AND DENSE VEGETATIVE COVER. ALL PERIMETER DIKES, SWALES, HORIZONTAL TO DITCHES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN (3:1) VERTICAL AND ALL HIGH QUALITY WATER (HOW) ZONES SHALL PROVIDE TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICAL BUT IN ANY EVENT WITHIN FOURTEEN (14) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL PROVIDE TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICAL BUT IN ANY EVENT WITHIN FOURTEEN (14) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

9. FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECT SYSTEMS WILL BE CHECKED FOR PROBLEMS OR SURFACE DISCHARGES DAILY.

10. MAINTAIN OUTLET STRUCTURES AND SWIMMERS SHALL WITHDRAW WATER FROM THE SURFACE.

REVIEWS			
SYMBOL	DATE	DESCRIPTION	BY

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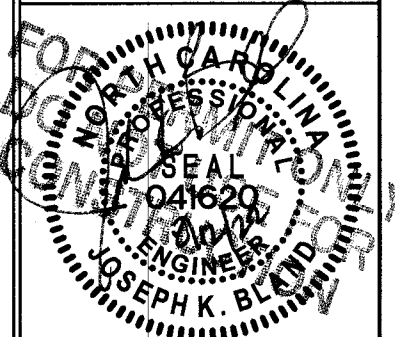
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21069

DES.	JPN
CKD.	JPN
DRWN.	ZAC

DATE 08/12/22



C4



August 15, 2022

Transportation Impact Analysis (TIA) Scoping
DAVENPORT Project Number 220253

Beacham Mixed Use
Southport, NC

Proposed Land Uses
Full Build

- LUC 220 Multifamily Housing - Low-Rise
- LUC 710 General Office Building
- LUC 822 Strip Retail Plaza - < 40K sq ft.
- LUC 932 High-Turnover, (Sit Down) Restaurant

Proposed Study Intersections

- NC211 (Howe Street) at Nash Street
- Nash Street at Site Drive 1

Proposed annual growth rate – 1%

Analysis Periods – Weekday, AM peak (7:00-9:00 am) and PM peak (4:00-6:00 pm)

Turning Movement Counts
Determine after scope approval

TIA Analysis Scenarios:

- 2022 Existing Conditions
- 2024 Future No Build Conditions
- 2024 Future Build Conditions
- 2024 Future Build Conditions with Improvements (if required)

Trip Generation – ITE Trip Generation 11th Edition - Graphs attached

ITE Trip Generation 11th Edition									
Average Weekday Driveway Volumes					24 Hour Two-Way	AM Peak Hour		PM Peak Hour	
Land Use	ITE Land Code	Size		Method/ Type	Volume	Enter	Exit	Enter	Exit
Multifamily Homes (Low-Rise)	220	4	Dwelling Units	Adjacent/ Equation	101	6	18	14	8
Office Space	710	2.77	1000 sq	Adjacent/ Equation	51	7	1	1	7
Retail	822	5.17	1000 sq	Adjacent/ Equation	448	11	8	24	25
Restaurant	932	200	Seats	Adjacent/ Equation	874	54	51	44	34
Total Unadjusted Trips					1,474	78	78	83	74

Proposed site trip directional distribution - to be completed and sent for approval after taking counts

Approved developments – n/a unless instructed otherwise

Committed Improvements by others - None

Other Remarks – Trips under 3k NCDOT threshold for TIA, but over Southport 500 trips threshold.

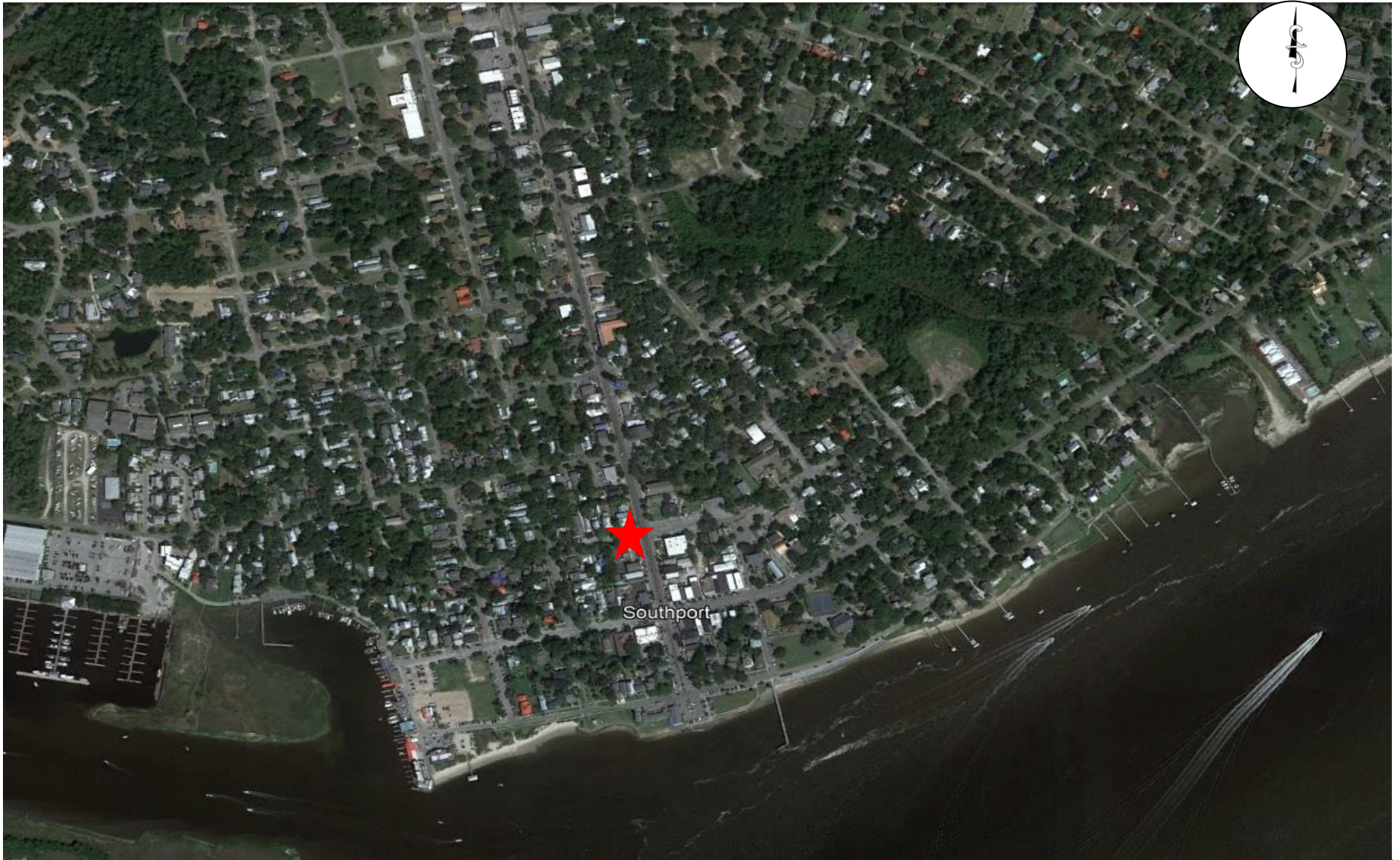
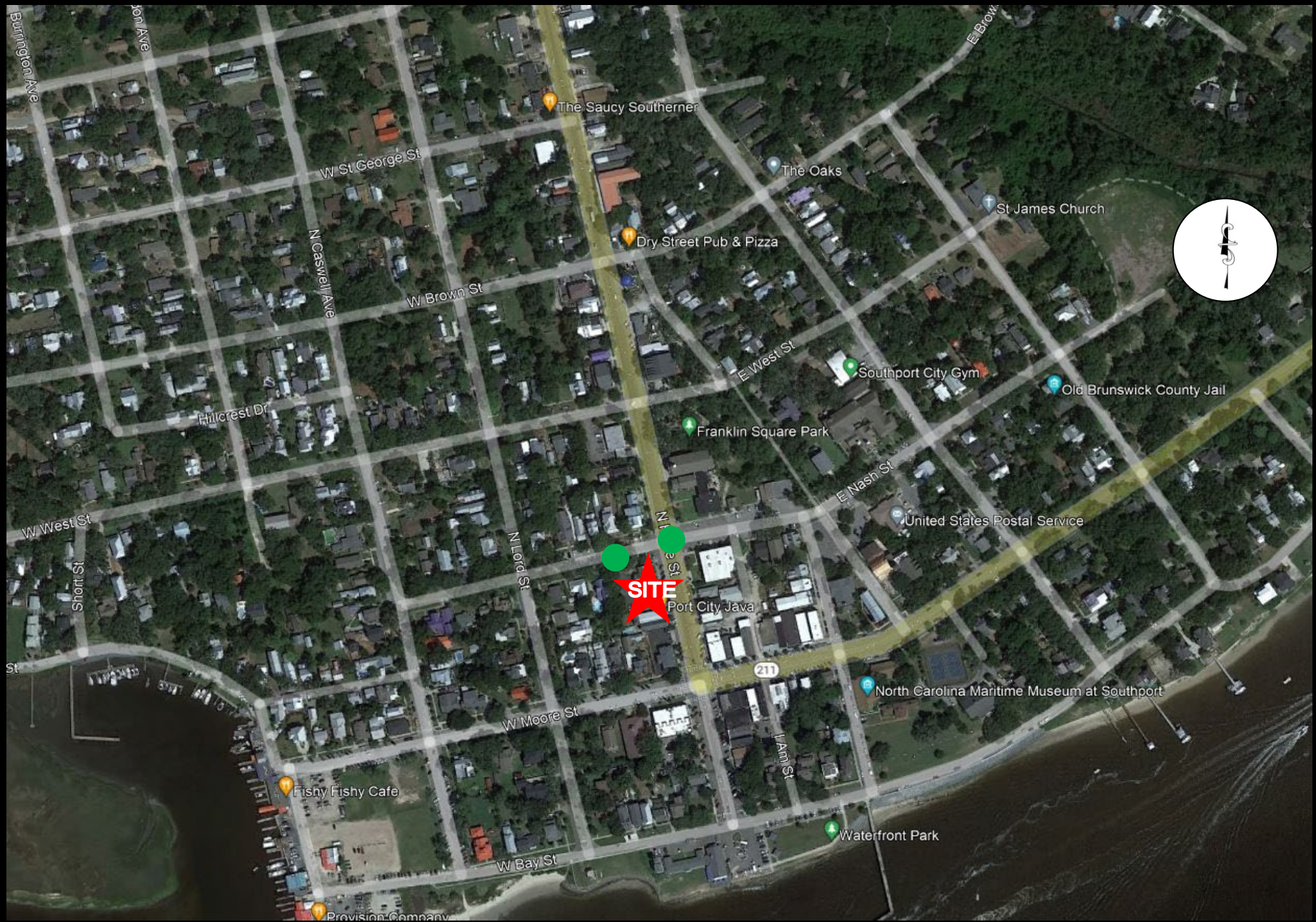


FIGURE 2A
SITE LOCATION MAP

SITE INDICATOR 



Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

220



LAND USE GROUP:

(200-299) Residential

LAND USE:

220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:

Not Close to Rail Transit

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday

TRIP TYPE:

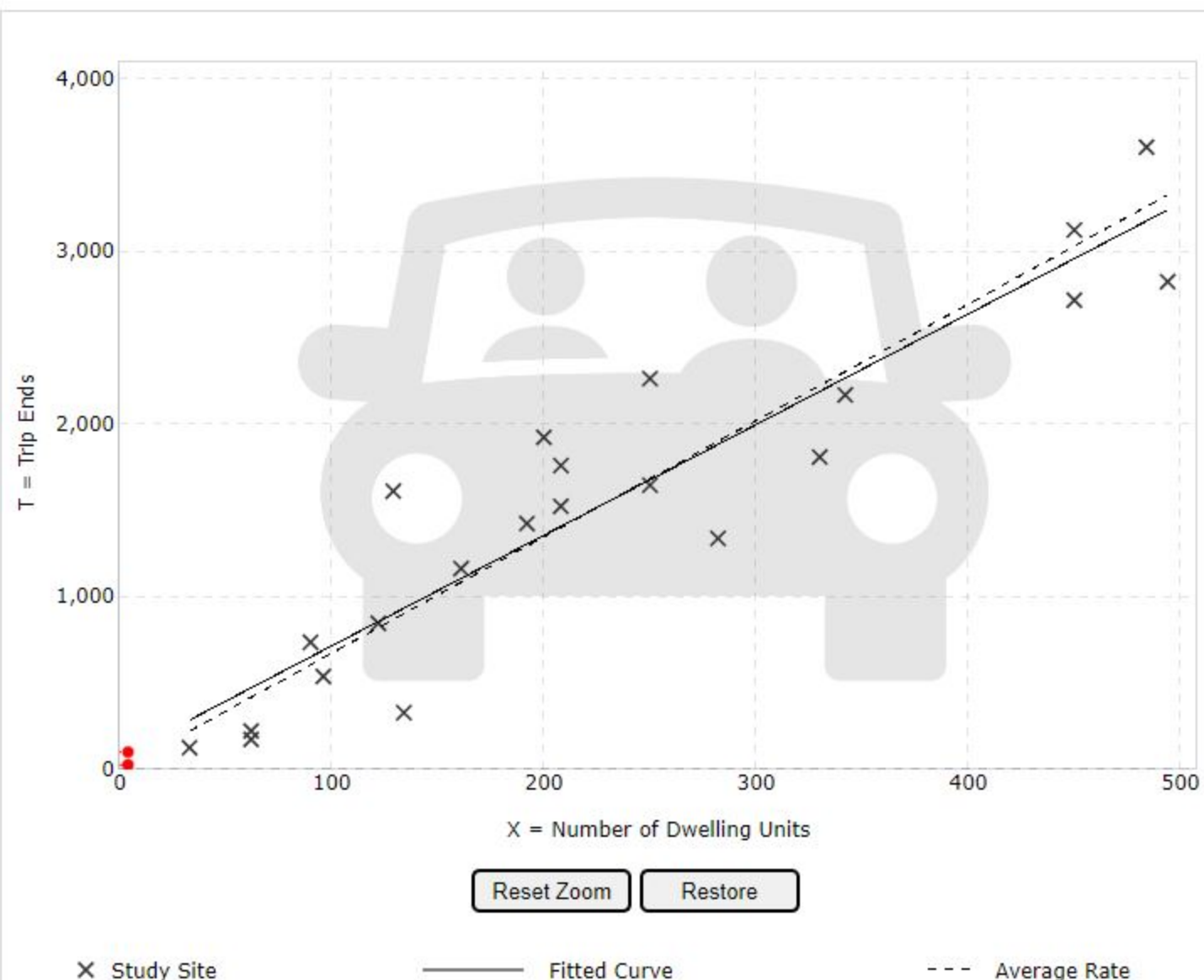
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

4

Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:

Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) [Click for Description and Data Plots](#)

Independent Variable:

Dwelling Units

Time Period:

Weekday

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

22

Avg. Num. of Dwelling Units:

229

Average Rate:

6.74

Range of Rates:

2.46 - 12.50

Standard Deviation:

1.79

Fitted Curve Equation:

 $T = 6.41(X) + 75.31$ R^2 :

0.86

Directional Distribution:

50% entering, 50% exiting

Calculated Trip Ends:

Average Rate: 27 (Total), 13 (Entry), 14 (Exit)

Fitted Curve: 101 (Total), 50 (Entry), 51 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

220



LAND USE GROUP:

(200-299) Residential

LAND USE :

220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:

Not Close to Rail Transit

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

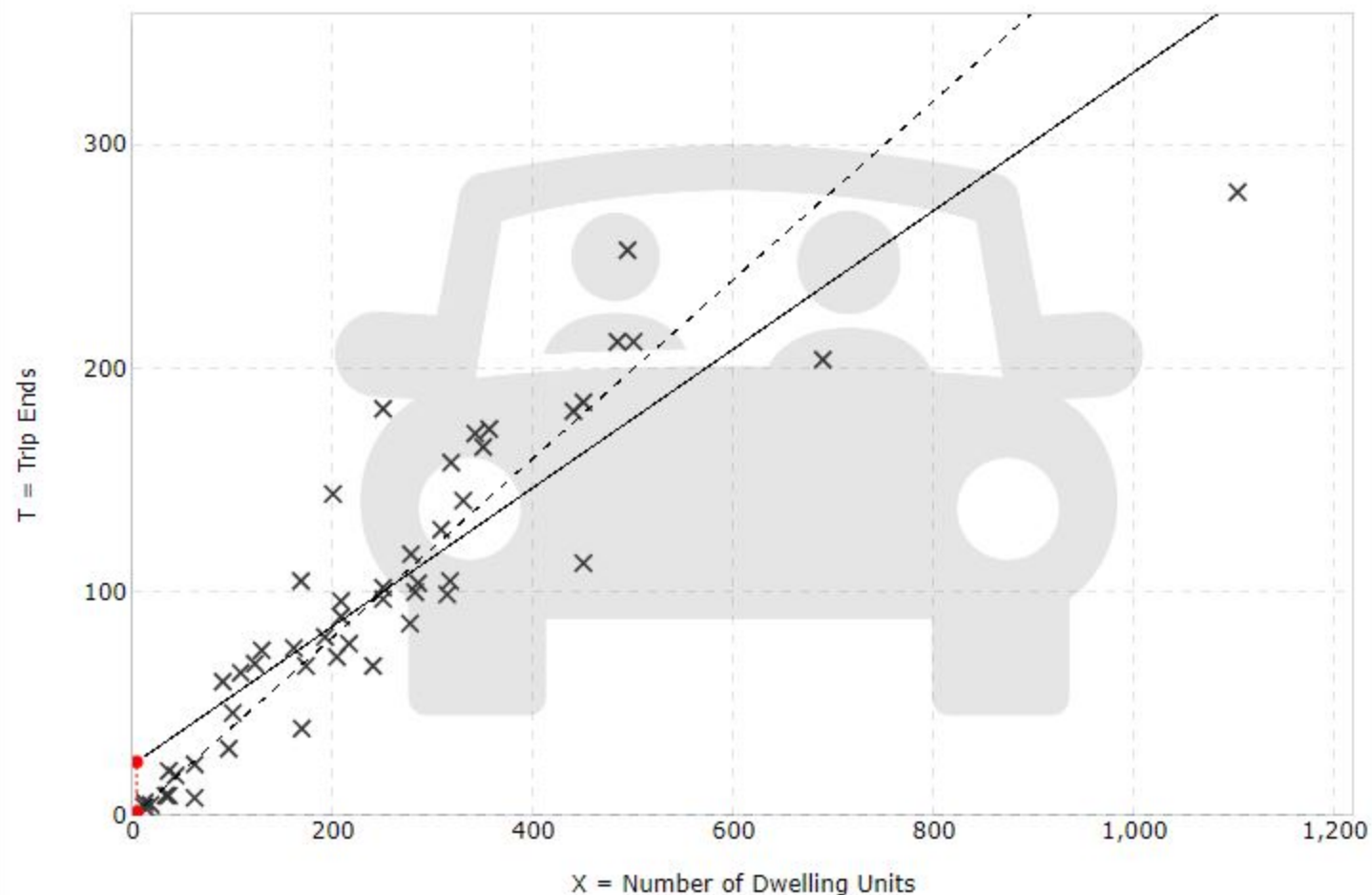
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

4

Calculate

Data Plot and Equation



Reset Zoom

Restore

x Study Site

— Fitted Curve

- - - Average Rate

DATA STATISTICS

Land Use:

Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) [Click for Description and Data Plots](#)

Independent Variable:

Dwelling Units

Time Period:

Weekday

Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

49

Avg. Num. of Dwelling Units:

249

Average Rate:

0.40

Range of Rates:

0.13 - 0.73

Standard Deviation:

0.12

Fitted Curve Equation:

 $T = 0.31(X) + 22.85$ R^2 :

0.79

Directional Distribution:

24% entering, 76% exiting

Calculated Trip Ends:

Average Rate: 2 (Total), 0 (Entry), 2 (Exit)

Fitted Curve: 24 (Total), 6 (Entry), 18 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

220



LAND USE GROUP:

(200-299) Residential

LAND USE :

220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:

Not Close to Rail Transit

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

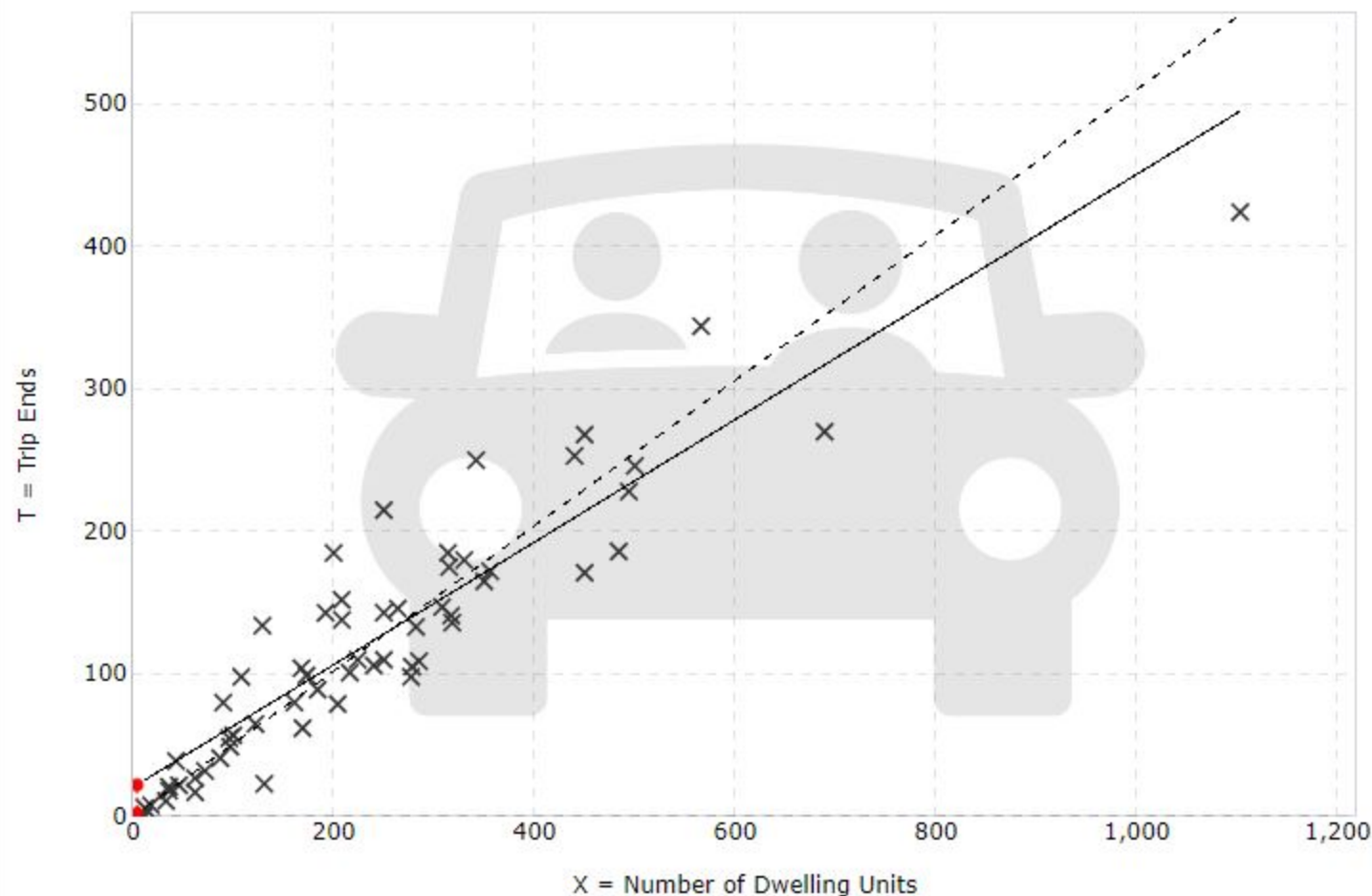
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

4

Calculate

Data Plot and Equation



Reset Zoom

Restore

x Study Site

— Fitted Curve

- - - Average Rate

DATA STATISTICS

Land Use:

Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) [Click for Description and Data Plots](#)

Independent Variable:

Dwelling Units

Time Period:

Weekday

Peak Hour of Adjacent Street Traffic

One Hour Between 4 and 6 p.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

59

Avg. Num. of Dwelling Units:

241

Average Rate:

0.51

Range of Rates:

0.08 - 1.04

Standard Deviation:

0.15

Fitted Curve Equation:

 $T = 0.43(X) + 20.55$ R^2 :

0.84

Directional Distribution:

63% entering, 37% exiting

Calculated Trip Ends:

Average Rate: 2 (Total), 1 (Entry), 1 (Exit)

Fitted Curve: 22 (Total), 14 (Entry), 8 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

710



LAND USE GROUP:

(700-799) Office

LAND USE :

710 - General Office Building

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

1000 Sq. Ft. GFA

TIME PERIOD:

Weekday

TRIP TYPE:

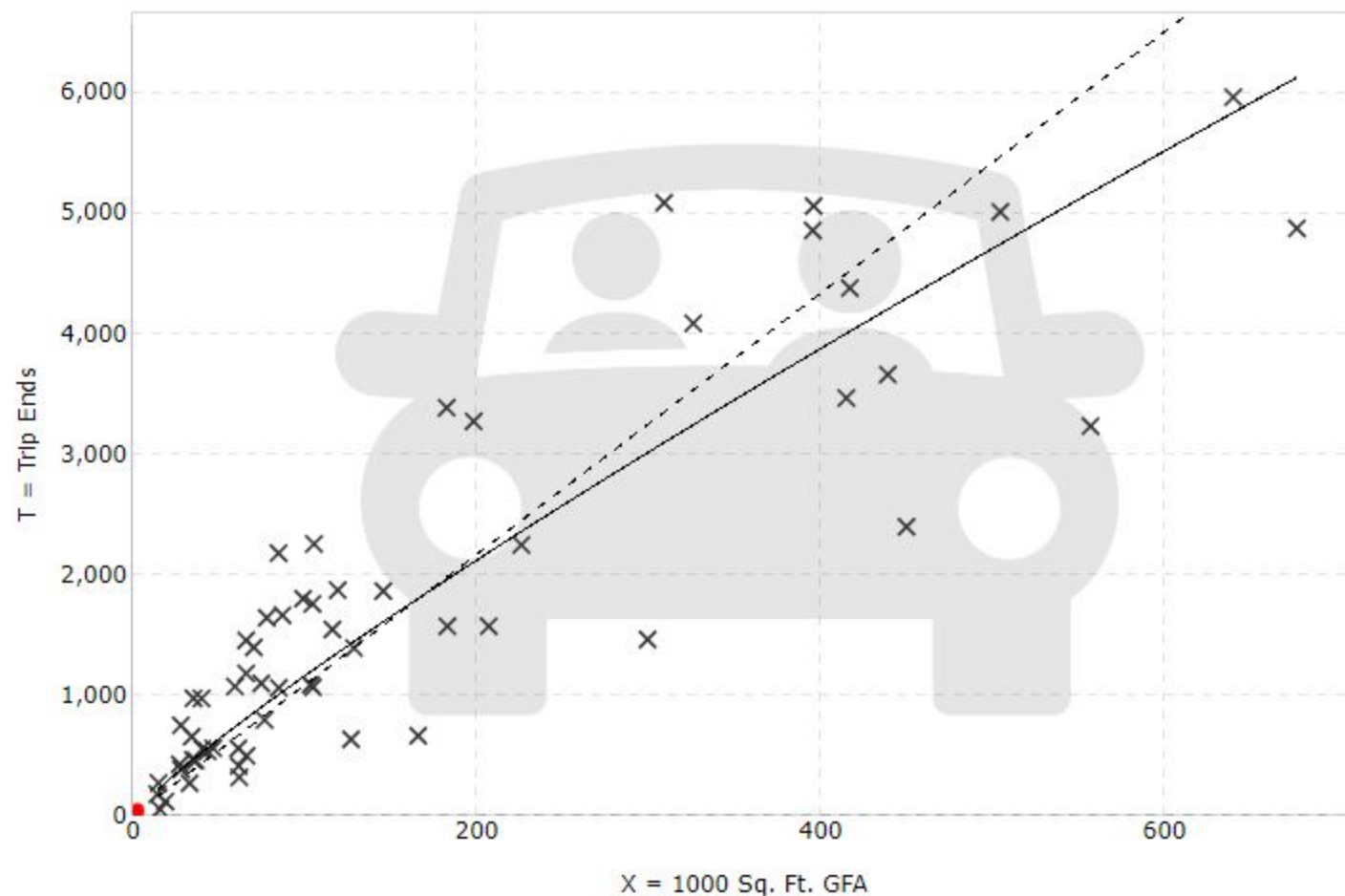
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

2.77

Calculate

Data Plot and Equation



X Study Site

— Fitted Curve

- - - Average Rate

DATA STATISTICS

Land Use:

General Office Building (710) [Click for Description and Data Plots](#)

Independent Variable:

1000 Sq. Ft. GFA

Time Period:

Weekday

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

59

Avg. 1000 Sq. Ft. GFA:

163

Average Rate:

10.84

Range of Rates:

3.27 - 27.56

Standard Deviation:

4.76

Fitted Curve Equation:

 $\ln(T) = 0.87 \ln(X) + 3.05$ R^2 :

0.78

Directional Distribution:

50% entering, 50% exiting

Calculated Trip Ends:

Average Rate: 30 (Total), 15 (Entry), 15 (Exit)

Fitted Curve: 51 (Total), 25 (Entry), 26 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

710



LAND USE GROUP:

(700-799) Office

LAND USE:

710 - General Office Building

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

1000 Sq. Ft. GFA

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

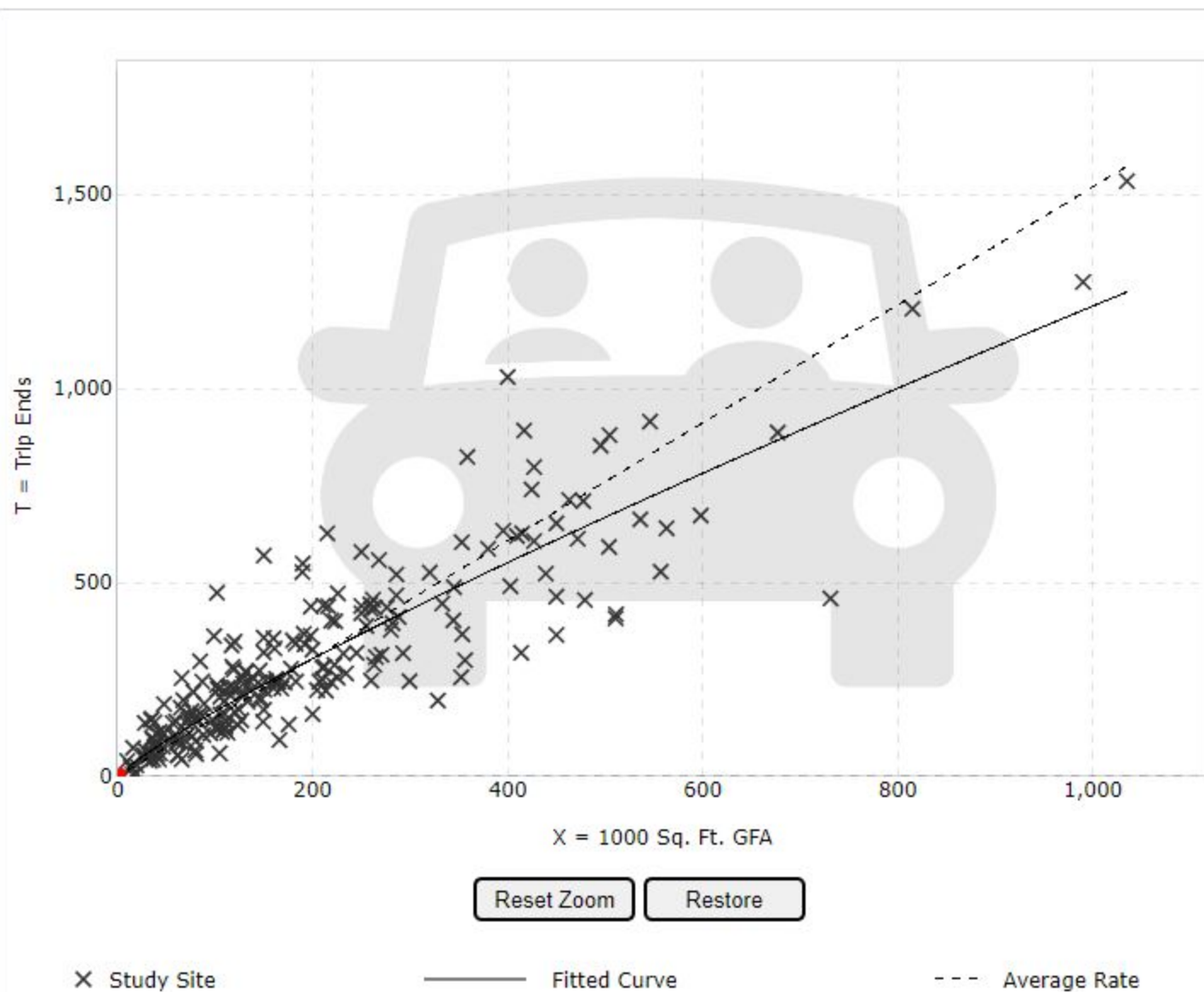
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

2.77

Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:

General Office Building (710) [Click for Description and Data Plots](#)

Independent Variable:

1000 Sq. Ft. GFA

Time Period:

Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

221

Avg. 1000 Sq. Ft. GFA:

201

Average Rate:

1.52

Range of Rates:

0.32 - 4.93

Standard Deviation:

0.58

Fitted Curve Equation:

 $\ln(T) = 0.86 \ln(X) + 1.16$ R²:

0.78

Directional Distribution:

88% entering, 12% exiting

Calculated Trip Ends:

Average Rate: 4 (Total), 3 (Entry), 1 (Exit)

Fitted Curve: 8 (Total), 7 (Entry), 1 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

710



LAND USE GROUP:

(700-799) Office

LAND USE :

710 - General Office Building

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

1000 Sq. Ft. GFA

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

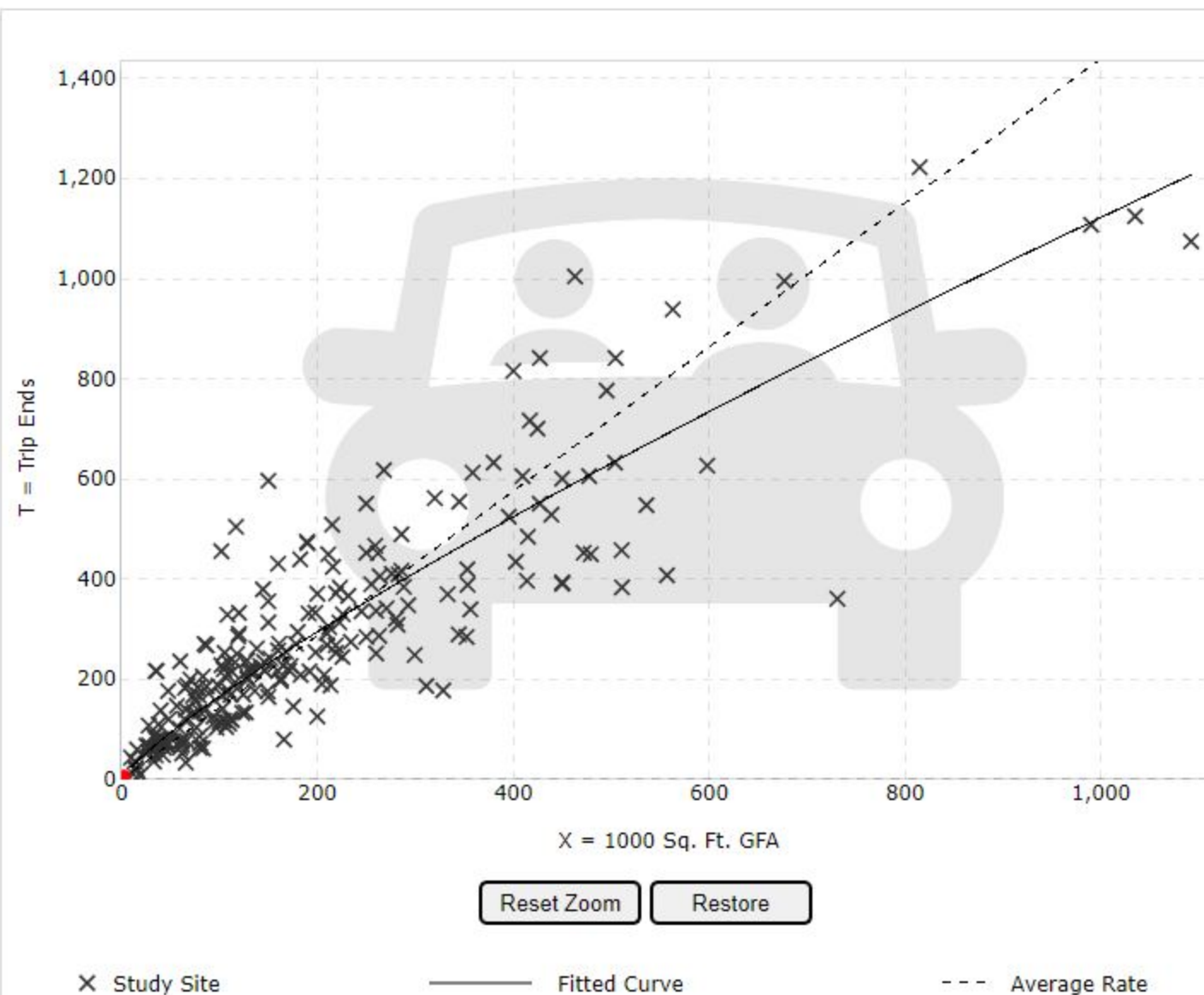
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

2.77

Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:

General Office Building (710) [Click for Description and Data Plots](#)

Independent Variable:

1000 Sq. Ft. GFA

Time Period:

Weekday

Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

232

Avg. 1000 Sq. Ft. GFA:

199

Average Rate:

1.44

Range of Rates:

0.26 - 6.20

Standard Deviation:

0.60

Fitted Curve Equation:

 $\ln(T) = 0.83 \ln(X) + 1.29$ R^2 :

0.77

Directional Distribution:

17% entering, 83% exiting

Calculated Trip Ends:

Average Rate: 4 (Total), 1 (Entry), 3 (Exit)

Fitted Curve: 8 (Total), 1 (Entry), 7 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

822



LAND USE GROUP:

(800-899) Retail

LAND USE :

822 - Strip Retail Plaza (<40k)

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

1000 Sq. Ft. GLA

TIME PERIOD:

Weekday

TRIP TYPE:

Vehicle

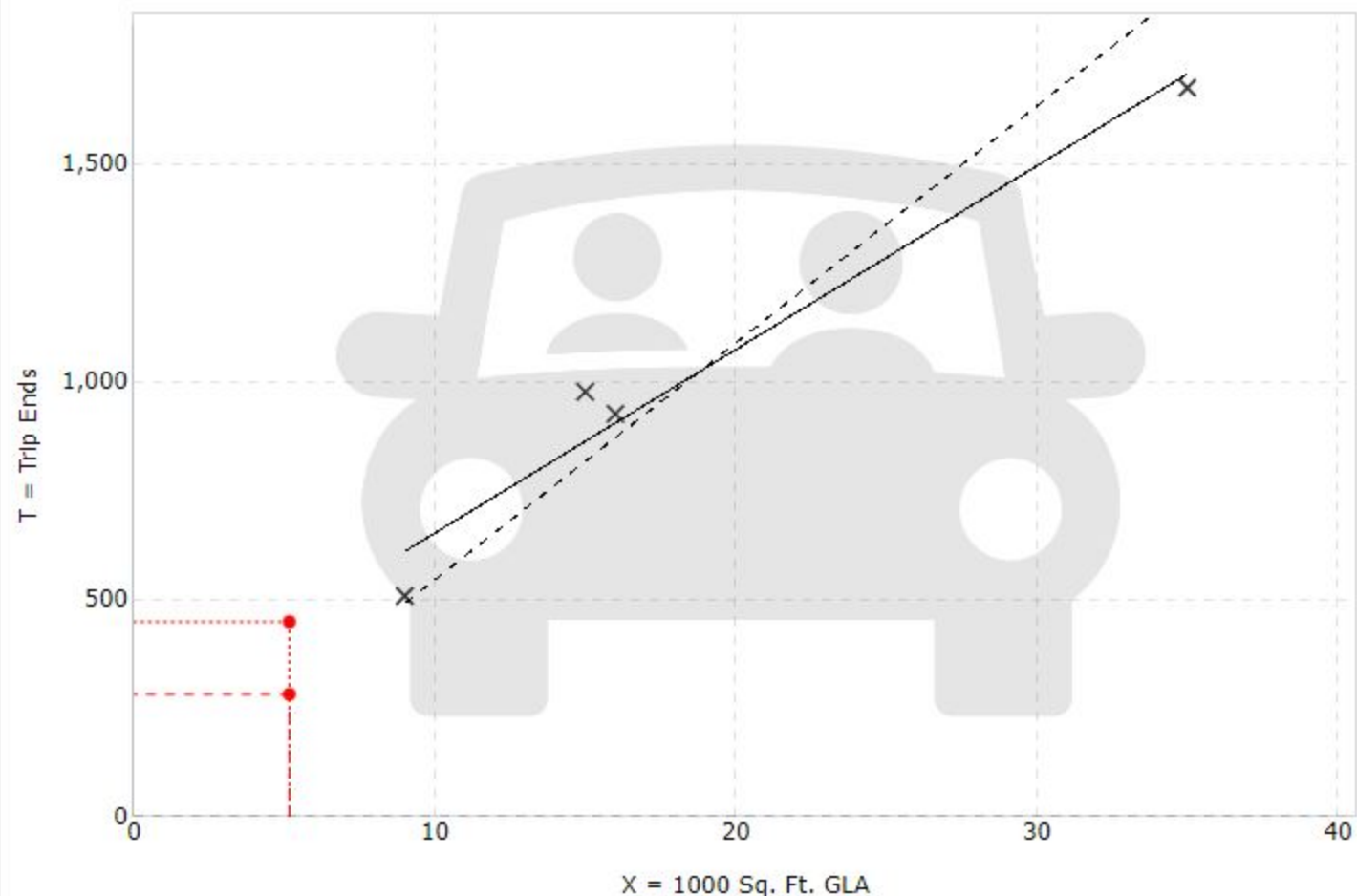
ENTER IV VALUE TO CALCULATE TRIPS:

5.17

Calculate

Data Plot and Equation

Caution – Small Sample Size



Reset Zoom

Restore

X Study Site

— Fitted Curve

- - - Average Rate

DATA STATISTICS

Land Use:

Strip Retail Plaza (<40k) (822) [Click for Description and Data Plots](#)

Independent Variable:

1000 Sq. Ft. GLA

Time Period:

Weekday

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

4

Avg. 1000 Sq. Ft. GLA:

19

Average Rate:

54.45

Range of Rates:

47.86 - 65.07

Standard Deviation:

7.81

Fitted Curve Equation:

 $T = 42.20(X) + 229.68$ R^2 :

0.96

Directional Distribution:

50% entering, 50% exiting

Calculated Trip Ends:

Average Rate: 282 (Total), 141 (Entry), 141 (Exit)

Fitted Curve: 448 (Total), 224 (Entry), 224 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

822



LAND USE GROUP:

(800-899) Retail

LAND USE :

822 - Strip Retail Plaza (<40k)

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

1000 Sq. Ft. GLA

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

Vehicle

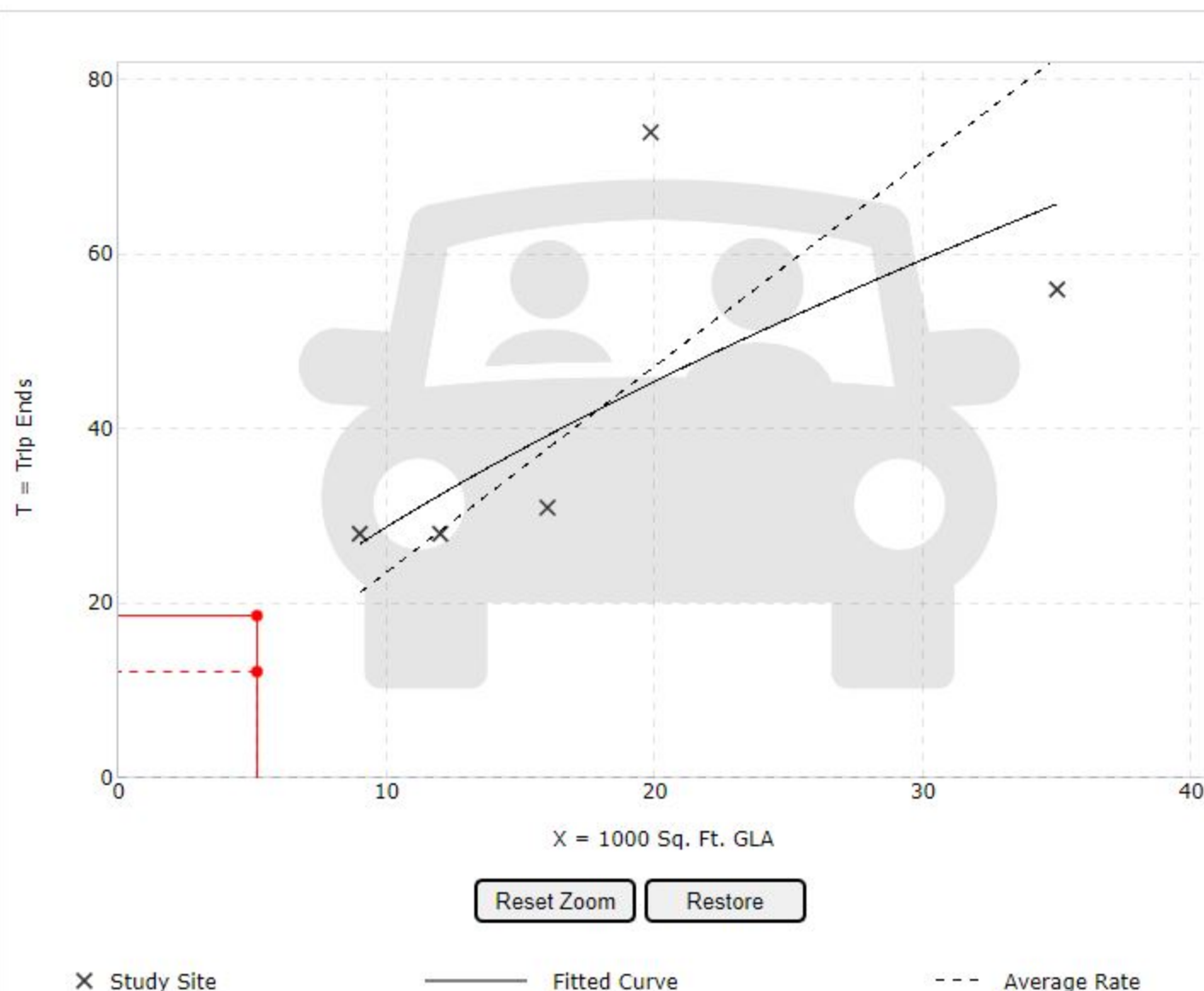
ENTER IV VALUE TO CALCULATE TRIPS:

5.17

Calculate

Data Plot and Equation

Caution – Small Sample Size



DATA STATISTICS

Land Use:

Strip Retail Plaza (<40k) (822) [Click for Description and Data Plots](#)

Independent Variable:

1000 Sq. Ft. GLA

Time Period:

Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

5

Avg. 1000 Sq. Ft. GLA:

18

Average Rate:

2.36

Range of Rates:

1.60 - 3.73

Standard Deviation:

0.94

Fitted Curve Equation:

 $\ln(T) = 0.66 \ln(X) + 1.84$ R^2 :

0.57

Directional Distribution:

60% entering, 40% exiting

Calculated Trip Ends:

Average Rate: 12 (Total), 7 (Entry), 5 (Exit)

Fitted Curve: 19 (Total), 11 (Entry), 8 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

822



LAND USE GROUP:

(800-899) Retail

LAND USE :

822 - Strip Retail Plaza (<40k)

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

1000 Sq. Ft. GLA

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

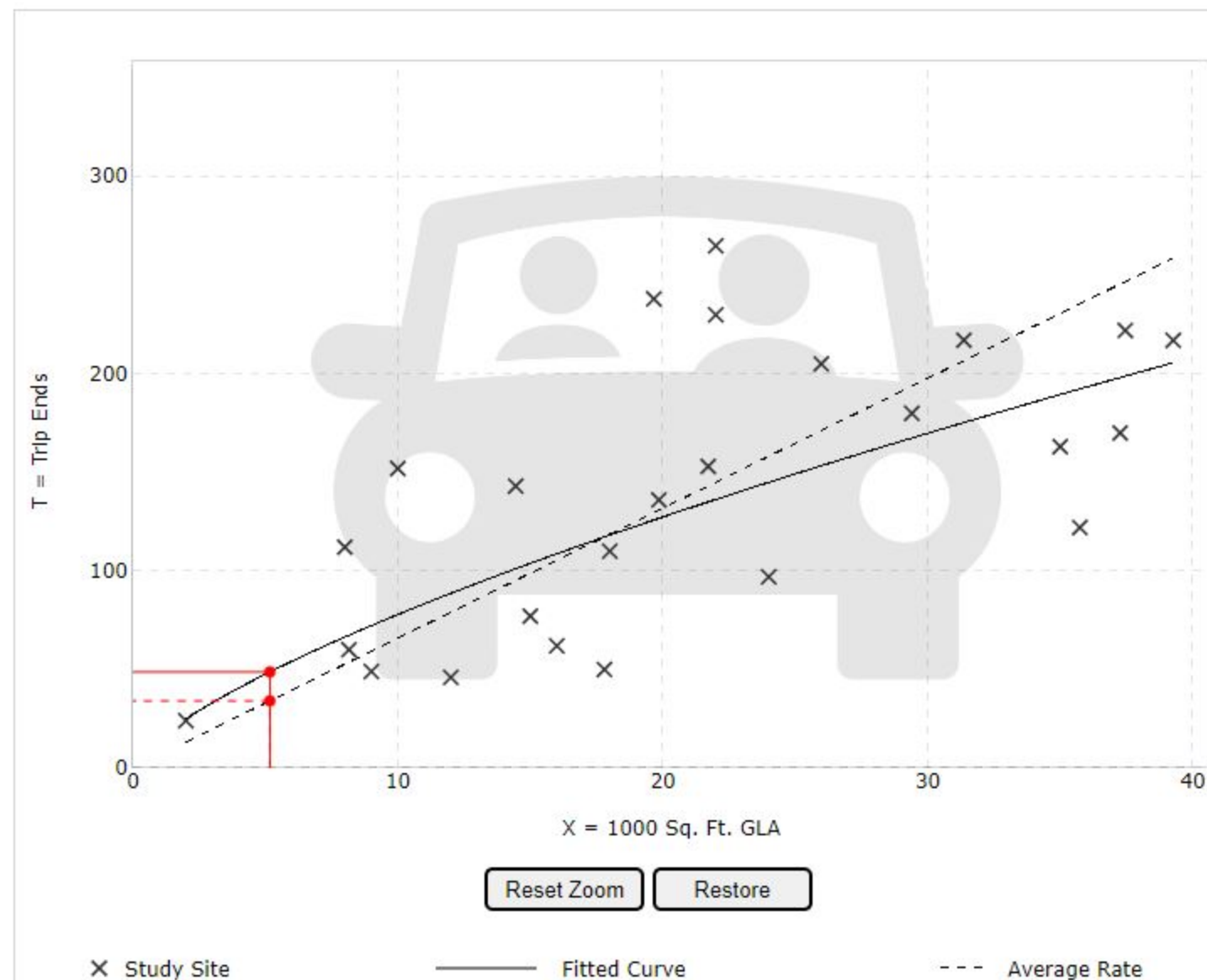
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

5.17

Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:

Strip Retail Plaza (<40k) (822) [Click for Description and Data Plots](#)

Independent Variable:

1000 Sq. Ft. GLA

Time Period:

Weekday

Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

25

Avg. 1000 Sq. Ft. GLA:

21

Average Rate:

6.59

Range of Rates:

2.81 - 15.20

Standard Deviation:

2.94

Fitted Curve Equation:

 $\ln(T) = 0.71 \ln(X) + 2.72$ R^2 :

0.56

Directional Distribution:

50% entering, 50% exiting

Calculated Trip Ends:

Average Rate: 34 (Total), 17 (Entry), 17 (Exit)

Fitted Curve: 49 (Total), 24 (Entry), 25 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

932



LAND USE GROUP:

(900-999) Services

LAND USE :

932 - High-Turnover (Sit-Down) Restaurant

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Seats

TIME PERIOD:

Weekday

TRIP TYPE:

Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

200

Calculate

Data Plot and Equation

Caution – Small Sample Size

DATA STATISTICS

Land Use:

High-Turnover (Sit-Down) Restaurant (932) [Click for Description and Data Plots](#)

Independent Variable:

Seats

Time Period:

Weekday

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

1

Avg. Num. of Seats:

148

Average Rate:

4.37

Range of Rates:

4.37 - 4.37

Standard Deviation:

Fitted Curve Equation:

Not Given

R²:

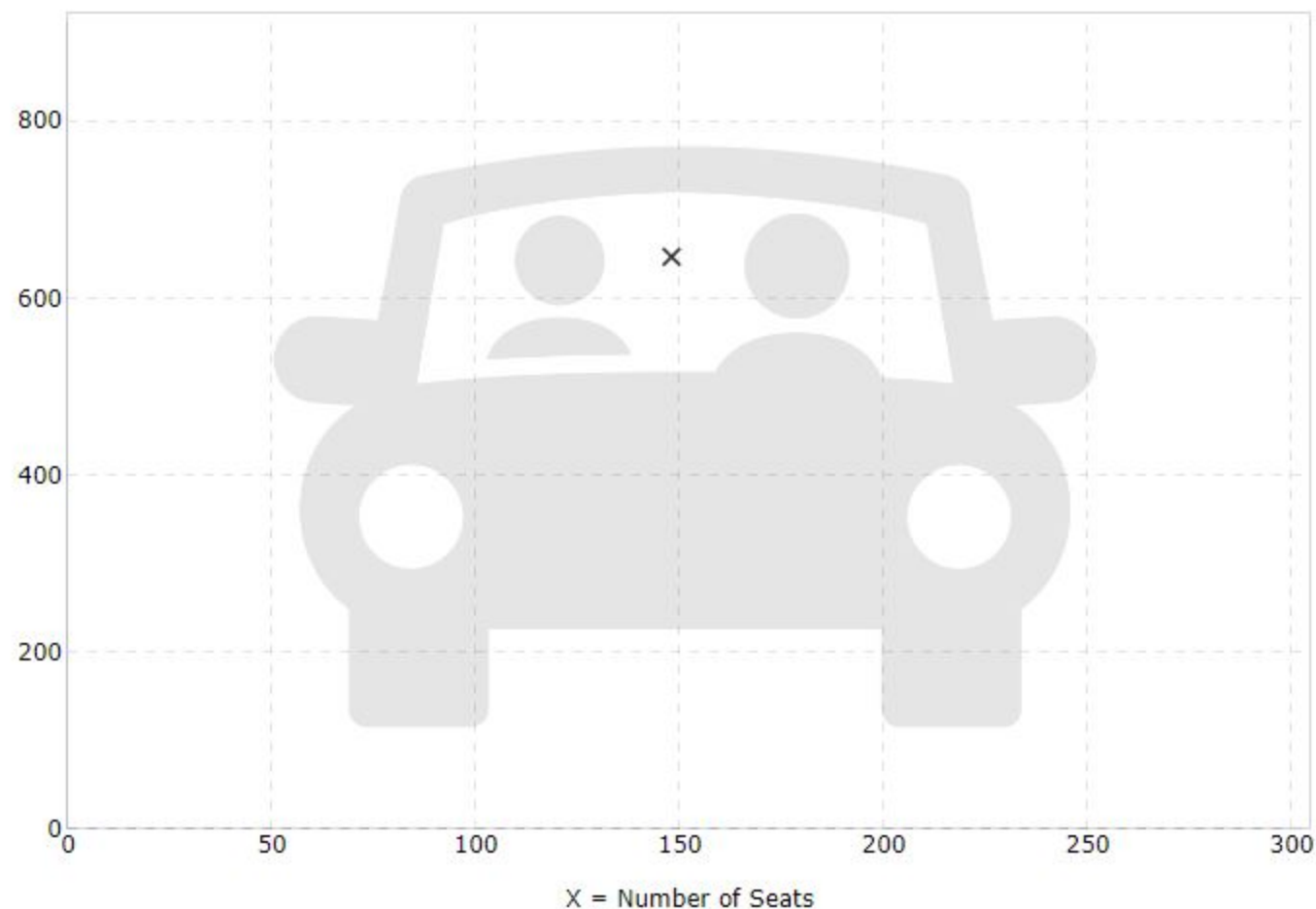
Directional Distribution:

50% entering, 50% exiting

Calculated Trip Ends:

Average Rate: 874 (Total), 437 (Entry), 437 (Exit)

T = Trip Ends



X Study Site

- - - Average Rate

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

932



LAND USE GROUP:

(900-999) Services

LAND USE :

932 - High-Turnover (Sit-Down) Restaurant

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Seats

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

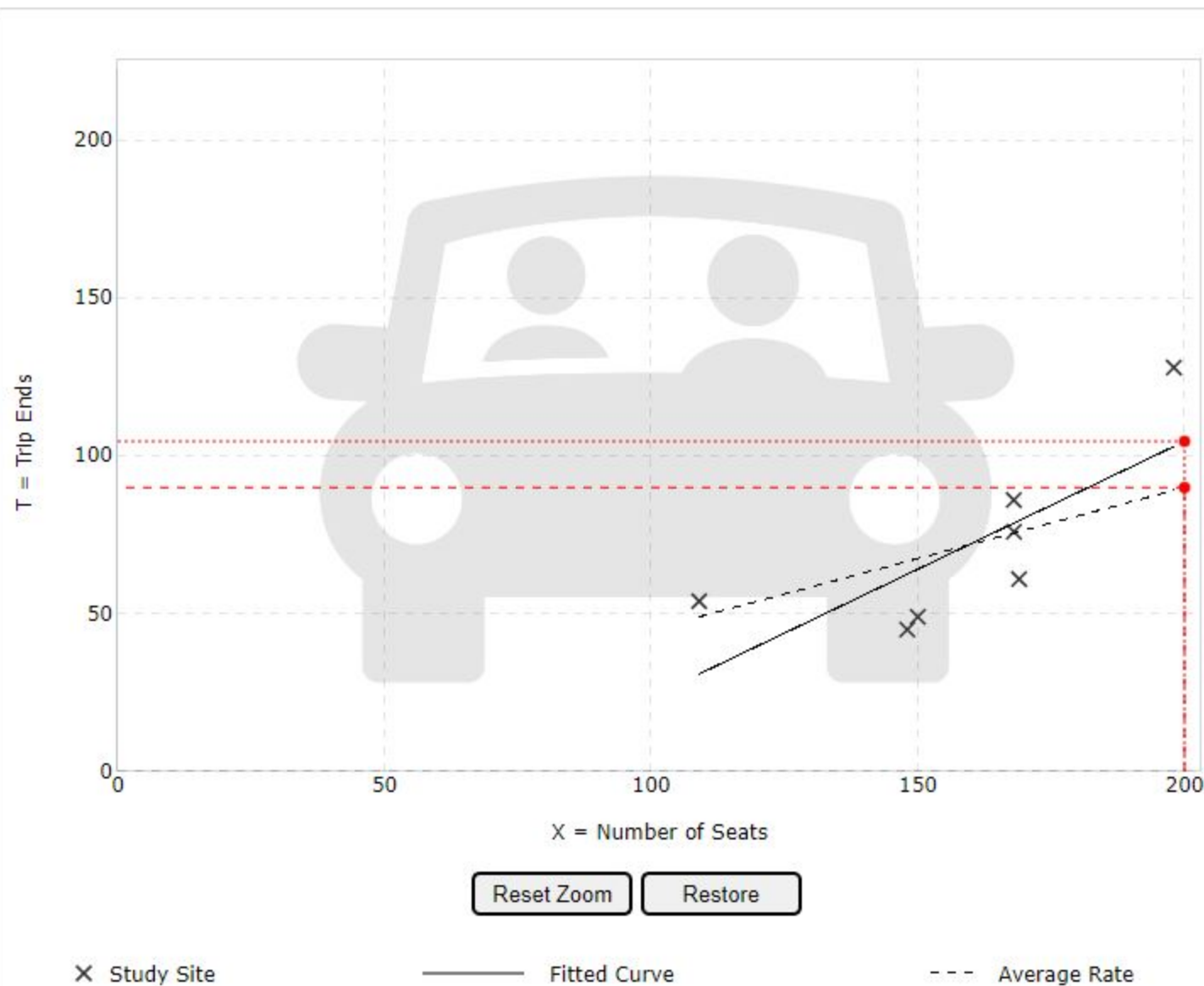
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

200

Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:

High-Turnover (Sit-Down) Restaurant (932) [Click for Description and Data Plots](#)

Independent Variable:

Seats

Time Period:

Weekday

Peak Hour of Adjacent Street Traffic

One Hour Between 7 and 9 a.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

7

Avg. Num. of Seats:

159

Average Rate:

0.45

Range of Rates:

0.30 - 0.65

Standard Deviation:

0.13

Fitted Curve Equation:

 $T = 0.81(X) - 57.37$ R^2 :

0.58

Directional Distribution:

52% entering, 48% exiting

Calculated Trip Ends:

Average Rate: 90 (Total), 47 (Entry), 43 (Exit)

Fitted Curve: 105 (Total), 54 (Entry), 51 (Exit)

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

932



LAND USE GROUP:

(900-999) Services

LAND USE :

932 - High-Turnover (Sit-Down) Restaurant

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Seats

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

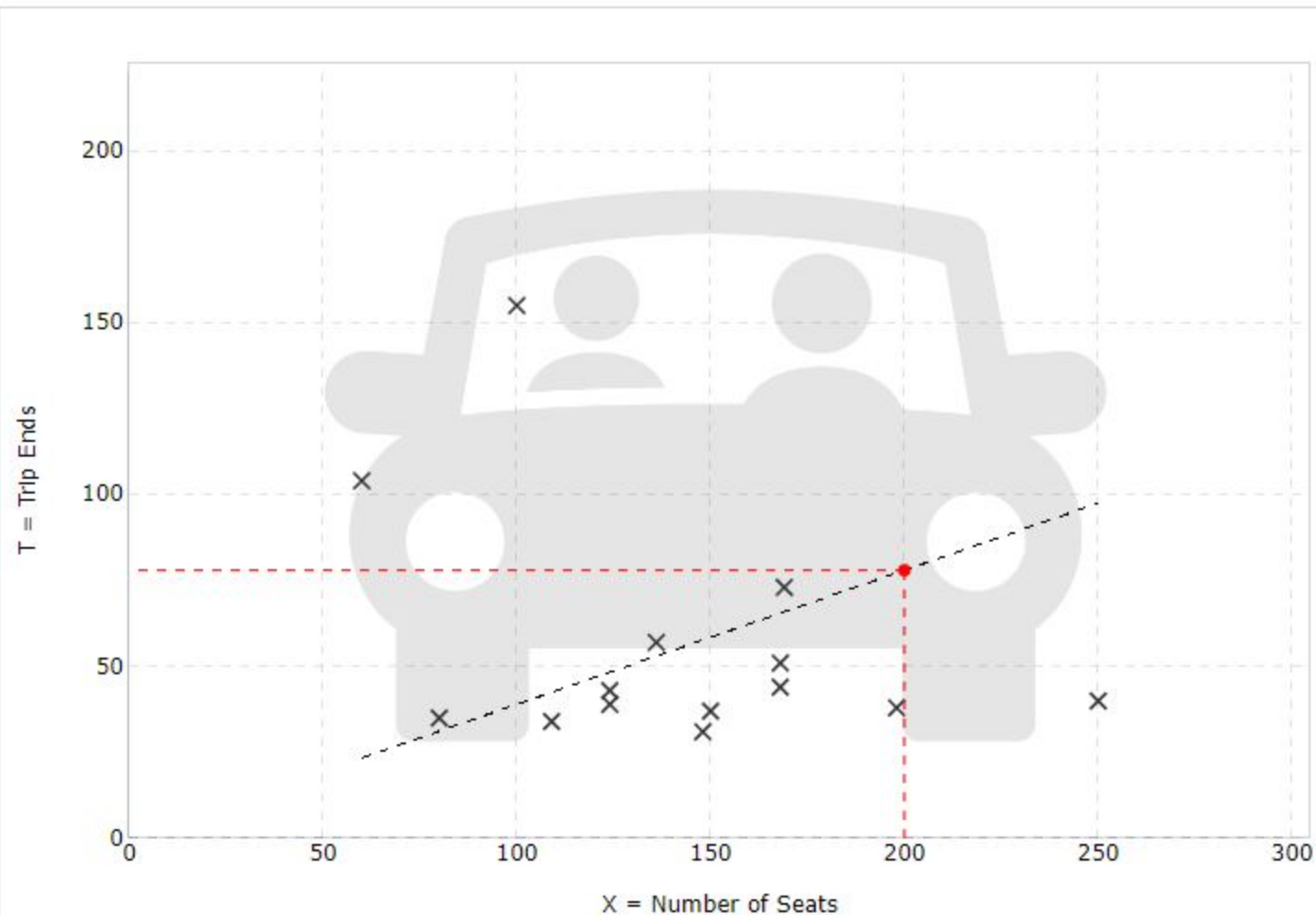
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

200

Calculate

Data Plot and Equation



Reset Zoom

Restore

X Study Site

- - - Average Rate

DATA STATISTICS

Land Use:

High-Turnover (Sit-Down) Restaurant (932) [Click for Description and Data Plots](#)

Independent Variable:

Seats

Time Period:

Weekday

Peak Hour of Adjacent Street Traffic

One Hour Between 4 and 6 p.m.

Setting/Location:

General Urban/Suburban

Trip Type:

Vehicle

Number of Studies:

14

Avg. Num. of Seats:

142

Average Rate:

0.39

Range of Rates:

0.16 - 1.73

Standard Deviation:

0.39

Fitted Curve Equation:

Not Given

R²:

Directional Distribution:

57% entering, 43% exiting

Calculated Trip Ends:

Average Rate: 78 (Total), 44 (Entry), 34 (Exit)

Dorothy Dutton

From: Hughes, Benjamin T <bthughes@ncdot.gov>
Sent: Monday, August 15, 2022 5:32 PM
To: Dorothy Dutton
Subject: RE: [External] Beacham Mixed Use - DAVENPORT project 220253 -

Hey Dorrie,

Hope you're doing well. I agree with Don in this instance, a traditional traffic impact analysis is not possible in this situation and I do not recommend. Give me a call tomorrow when you have a chance and I'd be glad to elaborate, my direct line is (910) 632-0891.

Thanks!

Benjamin T. Hughes, PE

District Engineer
Division 3 | District 3
(910) 632-0891 Direct
(910) 398-9109 Office

From: Don Bennett <DBennett@davenportworld.com>
Sent: Monday, August 15, 2022 10:04 AM
To: Hughes, Benjamin T <bthughes@ncdot.gov>; Dorothy Dutton <ddutton@cityofsouthport.com>
Cc: Fatima Al Alshaik <FAIAlshaik@davenportworld.com>; Erin Govea <EGovea@davenportworld.com>
Subject: [External] Beacham Mixed Use - DAVENPORT project 220253 -

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Please see the attached proposed scope of study for the above referenced project. Being in a downtown area with the grid available to disperse the trips, and the limited parking available for the site, a typical TIA for this project where point impacts are determined is difficult to define. Traffic for this site will likely distribute to the available public on street parking as is typical in most CBD's. We also anticipate that the proposed non-residential uses will provide services to the surrounding residents, and pedestrian/cyclist trips from the surrounding residential areas are also a difficult to quantify aspect given the typical trip generation methods being oriented to vehicular mode. I would like to request some time at the scheduled intergovernmental review meetings for TIA's to discuss the attached proposed scope of study for this site.

Ms. Dutton,

Per our telephone call this AM, it would be greatly appreciated if you could copy me when this scope is transmitted to the other partner agencies who will be involved in the review of this project. I will establish a team contact list to ensure all persons receive subsequent communications.



Don Bennett, PE | Senior Transportation Engineer
DAVENPORT
5917 Oleander Drive, Suite 206 | Wilmington, NC 28403
t (910) 550-3741 c (910) 599-1380
www.davenportworld.com

— Celebrating 20 years | est. 2002 —

301 South Church Street, Suite 280
Rocky Mount, North Carolina 27804
252.210.9395

NEW BUILDING W/ RESTAURANT & APARTMENTS

115 N. HOWE ST., SOUTHPORT, NORTH CAROLINA, 28461

GENERAL NOTES

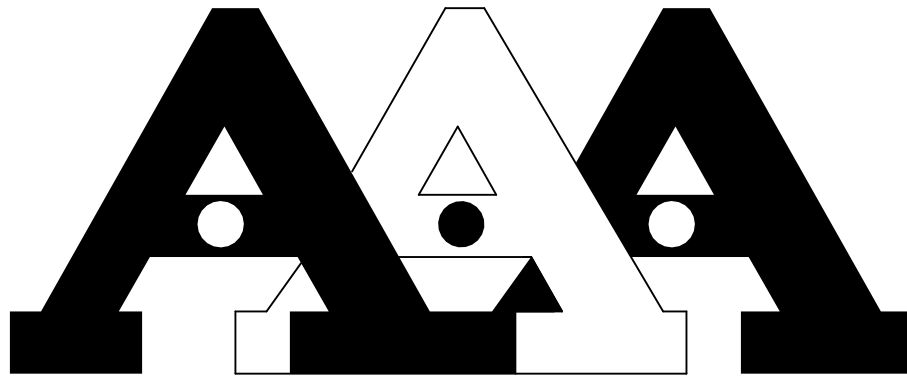
1. ALL WORK IS TO BE DONE IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE BUILDING CODE 2018.
2. DIMENSIONS SHOWN ON DRAWINGS GOVERN OVER SCALE.
3. ANY HABITABLE ROOM SHALL MEET ALL LIGHT/VENTILATION AND EGRESS AS REQUIRED BY NORTH CAROLINA STATE BUILDING CODE.
4. EACH CONTRACTOR IS TO WARRANT THEIR WORK ACCORDING TO INDUSTRY STANDARDS, AND COORDINATE WITH OTHER CONTRACTORS WHEN POSSIBLE TO KEEP A CONTINUOUS PROGRESS IN CONSTRUCTION AND SAFETY ON THE SITE.
5. ALL TRADES ARE TO RESPECT THE WORK DONE BY OTHER TRADES, IF ONE TRADE DAMAGES WORK DONE BY ANOTHER TRADE, IT IS THE RESPONSIBILITY OF THE TRADE WHO DID THE DAMAGE TO GET IT REPAIRED W/ NO ADDITIONAL COST TO THE OWNER.
6. ALL TRADES ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS AND TO NOTIFY OWNER/CONTRACTOR TO POSSIBLE PROBLEMS.
7. ALL TRADES ARE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND NOTES.

GENERAL

REV. #	DATE	
1		COVER
2		UDO & SECTION DETAIL
3		LIFE SAFETY PLANS
4		LIFE SAFETY PLANS

ARCHITECTURAL

REV. #	DATE	
5		FACILITY LIGHTING PLAN
6		1ST & 2ND FLOOR PLAN
7		3RD FLOOR & ROOF PLAN
8		FRONT ELEVATION
9		RIGHT ELEVATION
10		REAR ELEVATION
11		LEFT ELEVATION



ANDRON ARCHITECTS AND ASSOCIATES

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: Southport 3-Story Building
Address: 115 N. Howe Street, Southport North Carolina Zip Code 28461
Owner/Authorized Agent: Eric Catherine Beacham Phone: (910) 523 - 1016 E-Mail: cbeacham@yahoo.com
Owned By: ☐ City/County ☒ Private ☐ State
Code Enforcement Jurisdiction: ☐ City ☒ County Brunswick ☐ State

CONTACT: Dan Smith @ 919-264-6050
DESIGNER: FIRM S. ROBERT ANDRON, ARCHITECT P.A. NAME S. Robert Andron, AIA LICENSE # 2764 TELEPHONE # (919) 618-0405 E-MAIL: bob@andron.com
Architectural: ()
Civil: ()
Electrical: Kilan Engineering Inc. Michael Kilan P.E. 17304 (252) 438-8778 mikil@kilanengineering.com
Fire Alarm: ()
Plumbing: Kilan Engineering Inc. Michael Kilan P.E. 17304 (252) 438-8778 mikil@kilanengineering.com
Mechanical: Kilan Engineering Inc. Michael Kilan P.E. 17304 (252) 438-8778 mikil@kilanengineering.com
Sprinkler-Standpipe: ()
Structural: Dan Smith Engineering Daniel C. Smith PE 20090 (919) 264-6050 dansmithpe.com
Retaining Walls >5' High: ()
Other: ()
(*Others* should include firms and individuals such as: truss, precast, pre-engineered, interior designers, etc.)

2018 NC CODE FOR: ☒ New Construction ☐ Addition ☐ Renovation
☐ 1st Time Interior Completion
☐ Shell/Core
☐ Phased Construction - Shell/Core
☐ Renovation

2018 NC EXISTING BUILDING CODE: ☐ Prescriptive ☐ Repair ☐ Chapter 14
Alteration: ☐ Level I ☐ Level II ☐ Level III ☐ Level IV
☐ Historic Property ☐ Change of Use

CONSTRUCTED: (date) ORIGINAL OCCUPANCY(S) (Ch. 3):
RENOVATED: (date) CURRENT OCCUPANCY(S) (Ch. 3): A-2, R-2, B, M
RISK CATEGORY (table 1604.5) Current: ☐ I ☐ II ☐ III ☐ IV
Proposed: ☐ I ☒ II ☐ III ☐ IV

BASIC BUILDING DATA
Construction Type: ☐ I-A ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
(check all that apply) ☐ I-B ☐ II-B ☐ III-B
Sprinklers: ☐ No ☐ Partial ☒ Yes ☐ NFPA 13 ☒ NFPA 13R ☐ NFPA 13D
Standpipes: ☒ No ☐ Yes Class: ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☐ No ☐ Yes (Primary) Flood Hazard Area: ☐ No ☐ Yes
Special Inspections Required: ☒ No ☐ Yes

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	RENO/ALTER (SQ FT)	SUB-TOTAL
4 th Floor				
3 rd Floor				
Occupied Roof		3519		3519
2 nd Floor		8879		8879
1 st Floor		8868		8868
Mezzanine				
1 st Floor		7435		7435
Basement				
TOTAL	0	28701	0	28,701

ALLOWABLE AREA
Primary Occupancy Classification:
Assembly ☐ A-1 ☒ A-2 ☐ A-3 ☐ A-4 ☐ A-5
Business ☒
Educational ☐
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 Condition ☐ I 2
I-2 Condition ☐ I 1 ☐ 2
I-3 Condition ☐ I 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
I-4
Mercantile ☒
Residential ☐ R-1 ☒ R-2 ☐ R-3 ☐ R-4
Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled
Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Miscellaneous ☐

Accessory Occupancy Classification(s):
Incidental Uses (Table 509):
Special Uses (Chapter 4 - List Code Sections):
Special Provisions: (Chapter 5 - List Code Sections):
Mixed Occupancy: ☐ No ☒ Yes Separation: ____ Hr. Exception: ____
☐ Non-Separated Use (508.3)
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.
☐ Separated Use (508.4) -
See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$
$$+ + + + + = 0 \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL) AREA	(B) TABLE 506.2 ⁴ AREA	(C) AREA FOR FRONTAGE INCREASE ^{1,2}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ³
1	Mercantile	7,435	27,000	N/A	
2	Business	2,870	27,000	N/A	
2	Residential 2	5,998	7,000	N/A	
3	Assembly 2	6,241	18,000	N/A	
Roof/Top	Assembly 2	3,519	18,000	N/A	

- ¹ Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = ____ (F)
b. Total Building Perimeter = ____ (P)
c. Ratio (F/P) = ____ (F/P)
d. W = Minimum width of public way = ____ (W)
e. Percent of frontage increase $I_r = 100 [F/P \cdot 0.25] \times W/30 = _____\%$
² Unlimited area applicable under conditions of Section 507.
³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
⁴ The maximum area of open parking garages must comply with Table 406.5.4
⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT	ALLOWABLE (TABLE 503)	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	60'	44'	
Building Height in Stories (Table 504.4)	3	3	

- ¹ Provide code reference if the "Show on Plans" quantity is not based on Table 504.3 or 504.4.
² The maximum height of air traffic control towers must comply with Table 412.3.1
³ The maximum height of open parking garages must comply with Table 406.5.4

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING PROVIDED (REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		N/A				
Bearing Walls						
Exterior		N/A				
North		N/A				
East		N/A				
West		N/A				
South	8'	2 HR				
Interior						
Nonbearing Walls and Partitions						
Exterior walls		N/A				
North		N/A				
East		N/A				
West		N/A				
South		N/A				
Interior walls and partitions		N/A				
Floor Construction, including supporting beams and joists		N/A				
Floor Ceiling Assembly		N/A				
Column Supporting Floors		N/A				
Roof Construction, including supporting beams and joists		N/A				
Roof Ceiling Assembly		N/A				
Column Supporting Roof		N/A				
Shaft Enclosures - Exit		N/A				
Shaft Enclosures - Other		N/A				
Corridor Separation		1 HR				
Occupancy Fire Barrier Separation		1 HR				
Party Fire Wall Separation		1 HR				
Smoke Barrier Separation		N/A				
Smoke Partition		N/A				
Tenant Dwelling Unit Sleeping Unit Separation		1 HR				
Incidental Use Separation		N/A				

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET FROM PROPERTY LINES)	DEGREES OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
8"	P	Not Permitted	0%

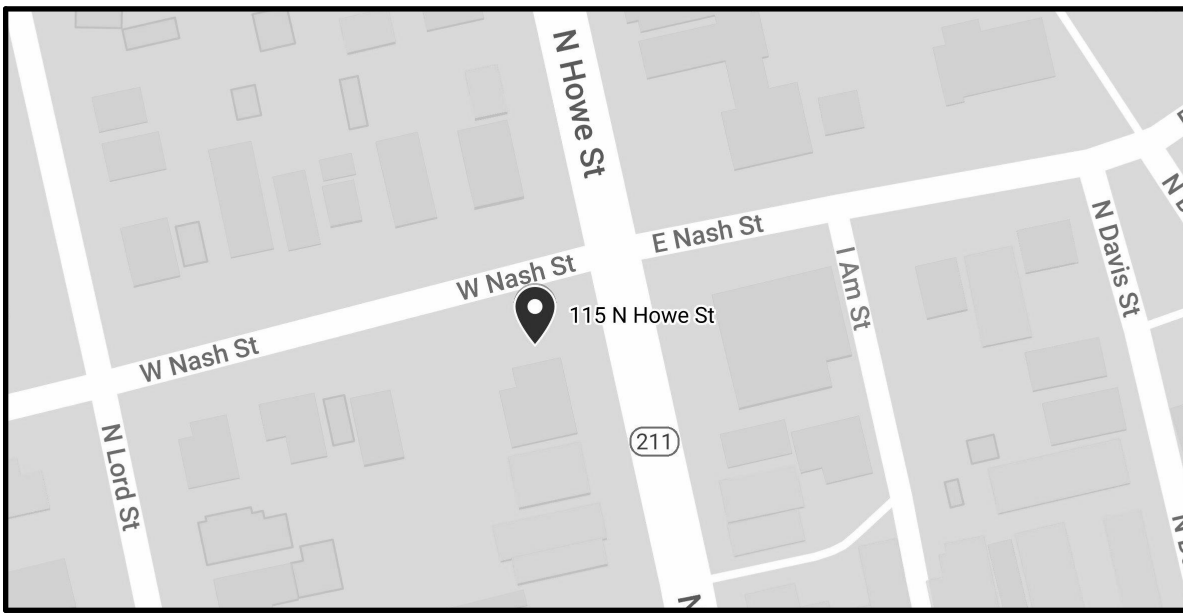
LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ☒ Yes
Exit Signs: ☐ No ☒ Yes
Fire Alarm: ☐ No ☒ Yes
Smoke Detection Systems: ☒ No ☐ Yes ☐ Partial
Carbon Monoxide Detection: ☐ No ☐ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: ____

- ☐ Fire and/or smoke rated wall locations (Chapter 7) ____
- ☐ Assumed and real property line locations (if not on the site plan) ____
- ☐ Exterior wall opening area with respect to distance to assumed property lines (705.8) ____
- ☒ Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.2) ____
- ☒ Occupant loads for each area ____
- ☒ Exit access travel distances (1017) Max Sprinkled 257' See L51.2 - L51.3 ____
- ☒ Common path of travel distances (1006.2.1 & 2006.3.2(1)) Max Sprinkled 100' See L51.1 ____
- ☒ Dead end lengths (1020.4) ____
- ☒ Clear exit widths for each exit door ____
- ☐ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3) See ____
- ☒ Actual occupant load for each exit door ____



VICINITY MAP

- ☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation and supporting construction for a fire barrier/fire partition/smoke barrier. See ____
- ☒ Location of doors with panic hardware (1010.1.10) ____
- ☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7) ____
- ☐ Location of doors with electromagnetic egress locks (1010.1.9.9) ____
- ☐ Location of doors equipped with hold-open devices ____
- ☐ Location of emergency escape windows (1030) See ____
- ☐ The square footage of each fire area (202) ____
- ☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5) ____ Note
- ☐ any code exceptions or table notes that may have been utilized regarding the items above ____

Section/Table/Note	Title

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 5' ACCESS AISLE	132" ACCESS AISLE	8' ACCESS AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATERCLOSETS	URINALS	LAVATORIES			SHOWERS / TUBS	DRINKING FOUNTAINS
			MALE	FEMALE	UNSEX		
SPACE	EXIST'G						
	NEW						
	REQ'D						

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, SCO, DPL, DHHS, ICC, etc., describe below)

ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the North Carolina Energy Conservation Code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ No ☐ Yes (The remainder of this section is not applicable)

Exempt Building: ☒ No ☐ Yes (Provide code or Statutory reference): ____

Climate Zone: ☒ 3A ☐ 4A ☐ 5A

Method of Compliance: Energy Code ☐ Performance ASHRAE 90.1 ☐ Performance (If "Other" specify source here) ☒ Prescriptive ☐ Prescriptive

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)

Description of assembly: ____
U-Value of total assembly: ____
R-Value of insulation: ____
Skylights in each assembly: ____
U-Value of skylight: ____
Total square footage of skylights in each assembly: ____

Exterior Walls (each assembly)

Description of assembly: ____
U-Value of total assembly: ____
R-Value of insulation: ____
Openings (windows or doors with glazing) ____
U-Value of assembly: ____
Solar heat gain coefficient: ____
Projection factor: ____
Door R-Values: ____

Walls below grade (each assembly)

Description of assembly: ____
U-Value of total assembly: ____
R-Value of insulation: ____

Floors over unconditioned space (each assembly)

Description of assembly: ____
U-Value of total assembly: ____
R-Value of insulation: ____

Floors slab on grade

Description of assembly: ____
U-Value of total assembly: ____
R-Value of insulation: ____
Horizontal/Vertical requirement: ____
Slab Heated: ____

NEW BUILDING W/ RESTAURANT & APARTMENTS
115 N. HOWE ST., SOUTHPORT,
NORTH CAROLINA, 28461

☐ For Construction
☒ Not For Construction

Checked By: DS

Drawn By: SRA

Project #

22-18

Date: 9-7-2022

Revisions:

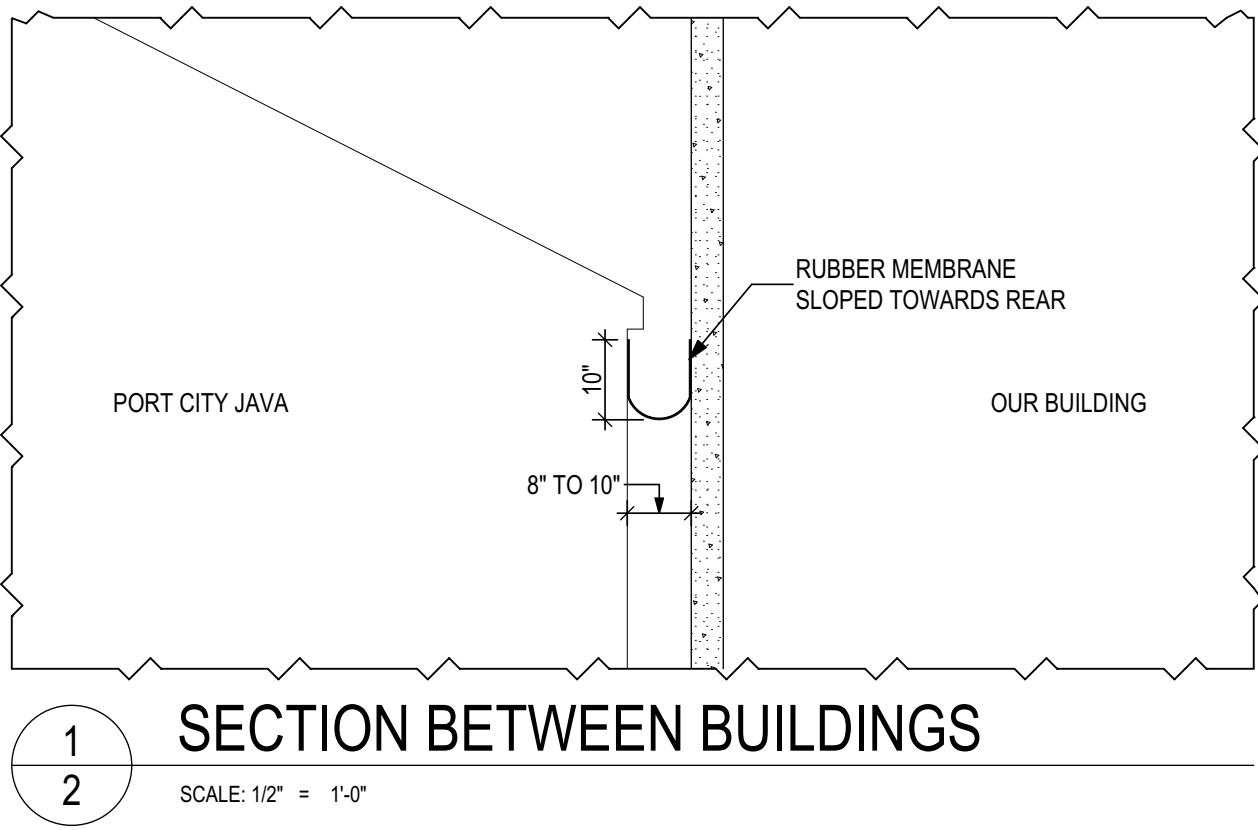
- -

Sheet Title:

COVER

Sheet:

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- City of Southport
Unified Development Ordinance (UDO)
- There shall be two parking spaces for each dwelling unit and one (1) parking space for each 300 gross square feet of office area.
 - Transitional Housing Facilities shall be screened from adjacent properties with an eight (8) foot opaque fence where adjacent to residential.
 - Transitional Housing Facilities shall have a maximum of five (5) dwelling units

OO. WAREHOUSING, GENERAL
Where permitted, the wholesale of non-durable goods shall not be located within 500 feet of any portion of any residentially used or zoned property.

- 3.9 DIMENSIONAL REQUIREMENTS
- A. GENERAL
- The following dimensional standards shall be regarded as the minimum required for each zoning district. The minimum yards, setbacks, or other open spaces required by this ordinance, including those provisions regulating intensity of use, for each and every building hereafter erected or structurally altered shall not be encroached upon, unless specifically authorized by this ordinance, or considered as meeting the yard or open space requirements or the intensity of use provisions for any other building.
 - The location of required front, side, and rear yards on irregularly shaped lots shall be determined by the UDO Administrator. The determination will be based on the spirit and intent of this ordinance to achieve an appropriate spacing and location of buildings and structures on individual lots.

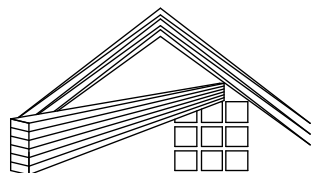
Table 3.2: Dimensional Requirements by Zoning District						
Zoning District	Minimum Lot Size (square feet)	Minimum Lot Width (feet)	Minimum Front Setback (feet)	Minimum Rear Setback (feet)	Minimum Side Setback [1] (feet)	Maximum Height Limit (feet)
R-10	10,000	75	25	20	8	40
R-20	20,000	100	40	25	12	40
MF	13,750	100	25	20	8	40
MH	5,000	50	20	20	4	40
PUD	Section 4.15	Section 4.15	Section 4.15	Section 4.15	Section 4.15	40
O/I	12,000	70	25	15	10	40
CBD	0	0	0	0	0	40
BD	0	0	0	10	0	40
HC	10,000	75	25	20	8	40
LI	10,000	75	25	20	8	50
HI	43,560	100	25	25	15	100
OS	None	None	None	None	None	None

1. Where any side yard is provided, though not required, the same shall be not less than four (4) feet.

City of Southport
Unified Development Ordinance (UDO)

- B. SETBACK EXCEPTIONS AND ENCROACHMENTS
- Nonconforming lots which are located in the R-10 district may be granted rear and side yard setbacks proportionate to the size of the lot. Example: If a 10,000 square foot lot is required and the lot is 6,000 square feet, a 40 percent reduction is allowed.
 - Reduction of Minimum Front setbacks In Residential Districts Where Lots Along Block Face Have Less Than The Required Minimum. Where the front setbacks of lots along the block face containing a subject lot are less than the minimum front yard setback of the district, the average front yard setbacks of the lots along the block face containing a subject lot shall be the minimum front yard for such lot, with the exception that no house may be constructed over city utility easements, including sidewalks.
 - Docks, piers, boardwalks, and similar water-based appurtenances in compliance with CAMA regulations are not subject to setback requirements.
 - Steps, fire escapes, stairways, balconies and chimneys may project into a minimum setback not more than four (4) feet.
 - Sills, cornices, buttresses, ornamental features, gutters, eaves, heating and air conditioning units and similar items may project into a required setback not more than 30 inches.
 - Elevators, liftavators, and other mechanical devices for elevating people and cargo may encroach into any required setback not more than 30 inches.
 - Carports open on three (3) sides may encroach on a side yard to a distance of not less than five (5) feet from a side lot line, except on the street side yard of a corner lot where the setback shall be one-half (½) of the distance of the required front yard setback up to a maximum of 20 feet. Storage areas may be constructed across the rear of a carport open on three (3) sides that encroaches on a side yard, provided such storage area shall not contain more than 72 square feet nor constitute more than eighteen percent (18%) of the area contained in the carport, whichever is less.
 - Canopies. Any non-residential land use that incorporates a canopy which is totally or partially supported by a structural pillar (upright support), such as but not limited to canopies over gasoline pumps, said canopy may extend to the street right-of-way line, or property line of a non-residentially used or zoned property if no street right-of-way line is involved, provided that each pillar is located at least 10 feet from a property line and the canopy is open on all four (4) sides. Any side of a canopy may be enclosed provided that side meets the required yard setbacks. The canopy roof shall be located horizontally and vertically at least 12 feet from any electrical conductor (line).
 - Signs. Setbacks for signs shall be as provided in Section 3.19.

C. HEIGHT EXCEPTIONS
Attached chimneys, belfries, cupolas, domes, elevator support structures, HVAC units, and similar appurtenances may exceed the maximum height requirement by not more than five (5) feet. All other structures shall comply with the height requirements of this ordinance.


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NEW BUILDING W/ RESTAURANT & APARTMENTS
115 N. HOWE ST., SOUTHPORT,
NORTH CAROLINA, 28461

☐ For Construction
☒ Not For Construction

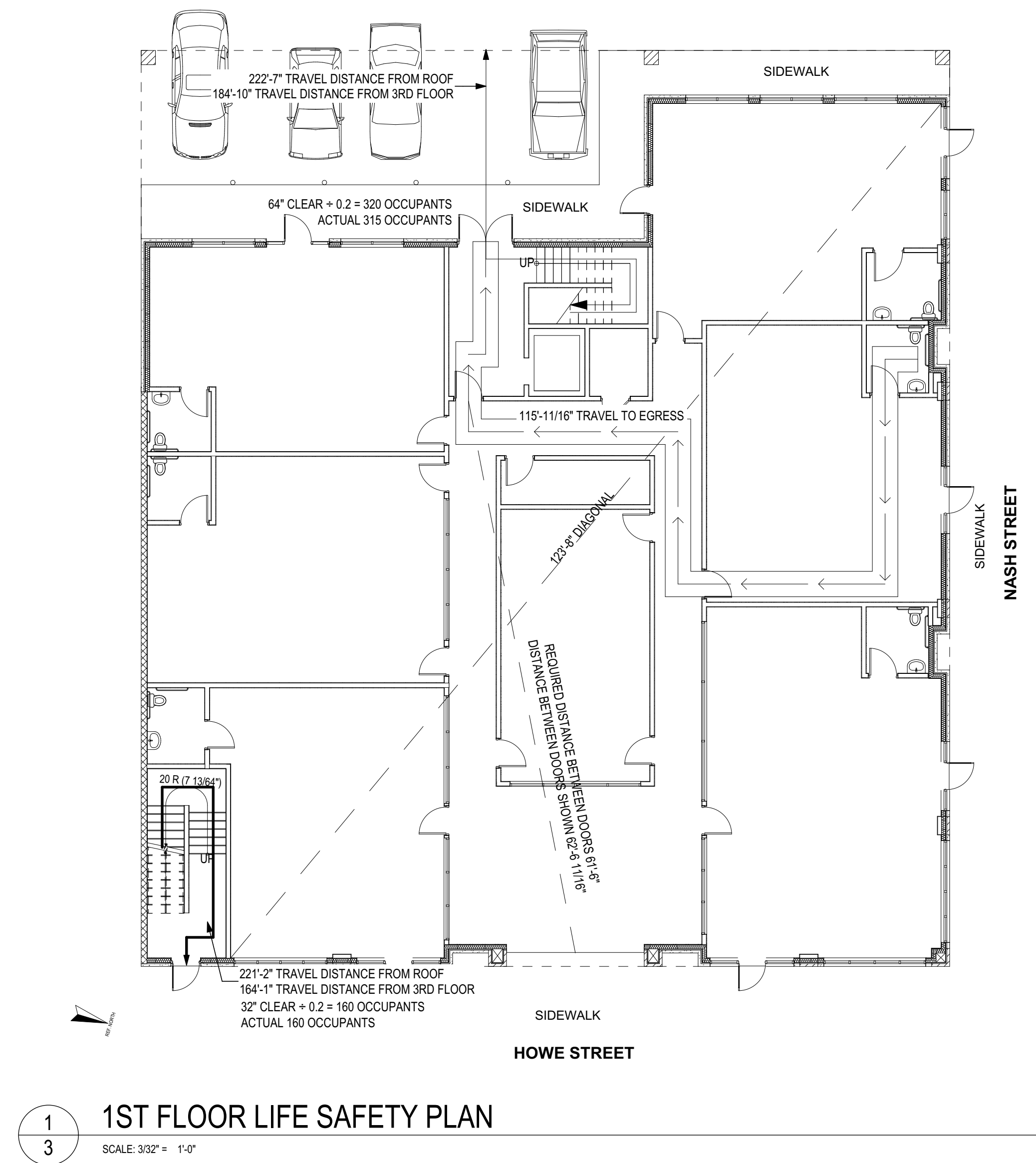
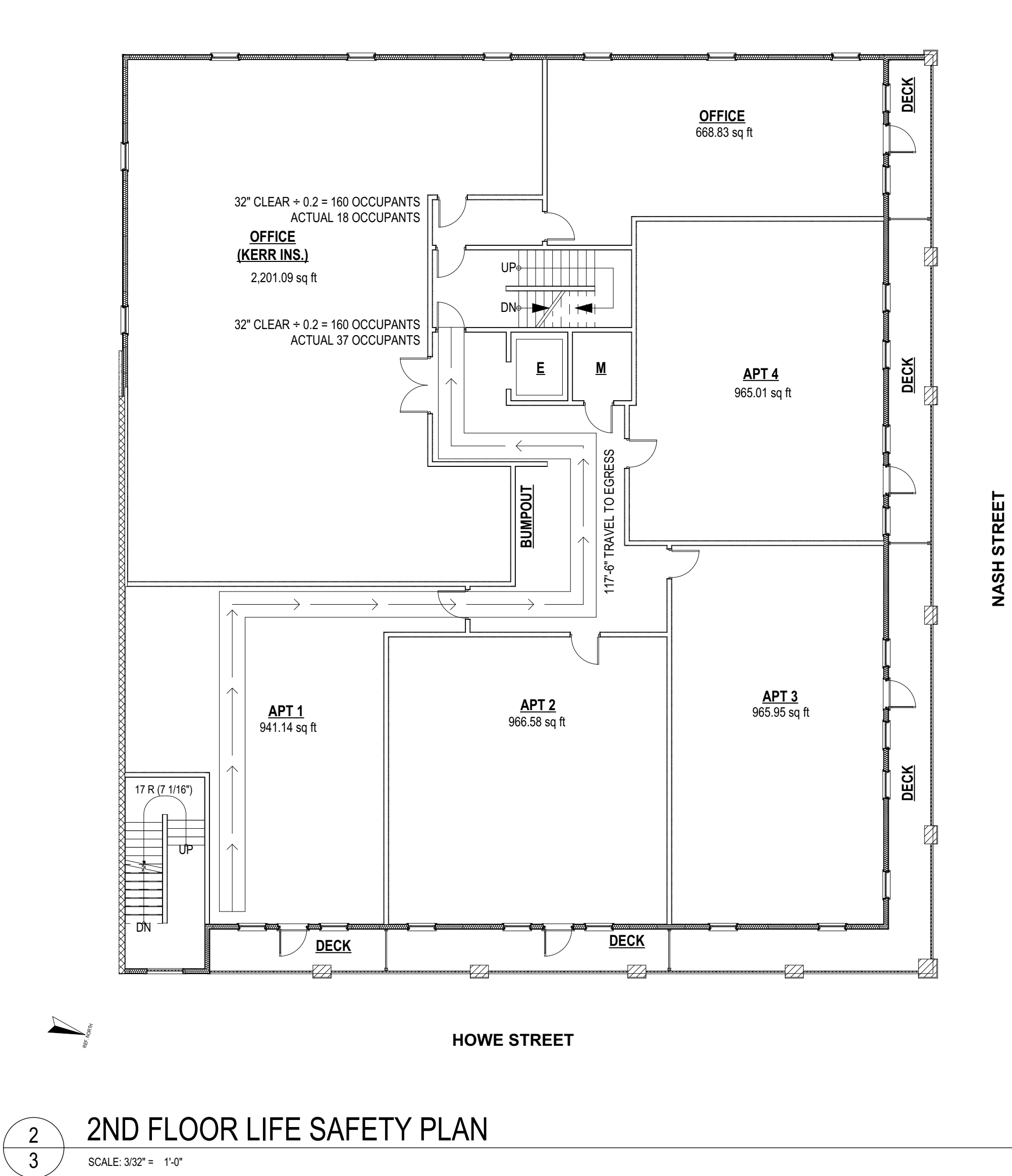
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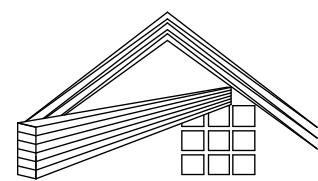
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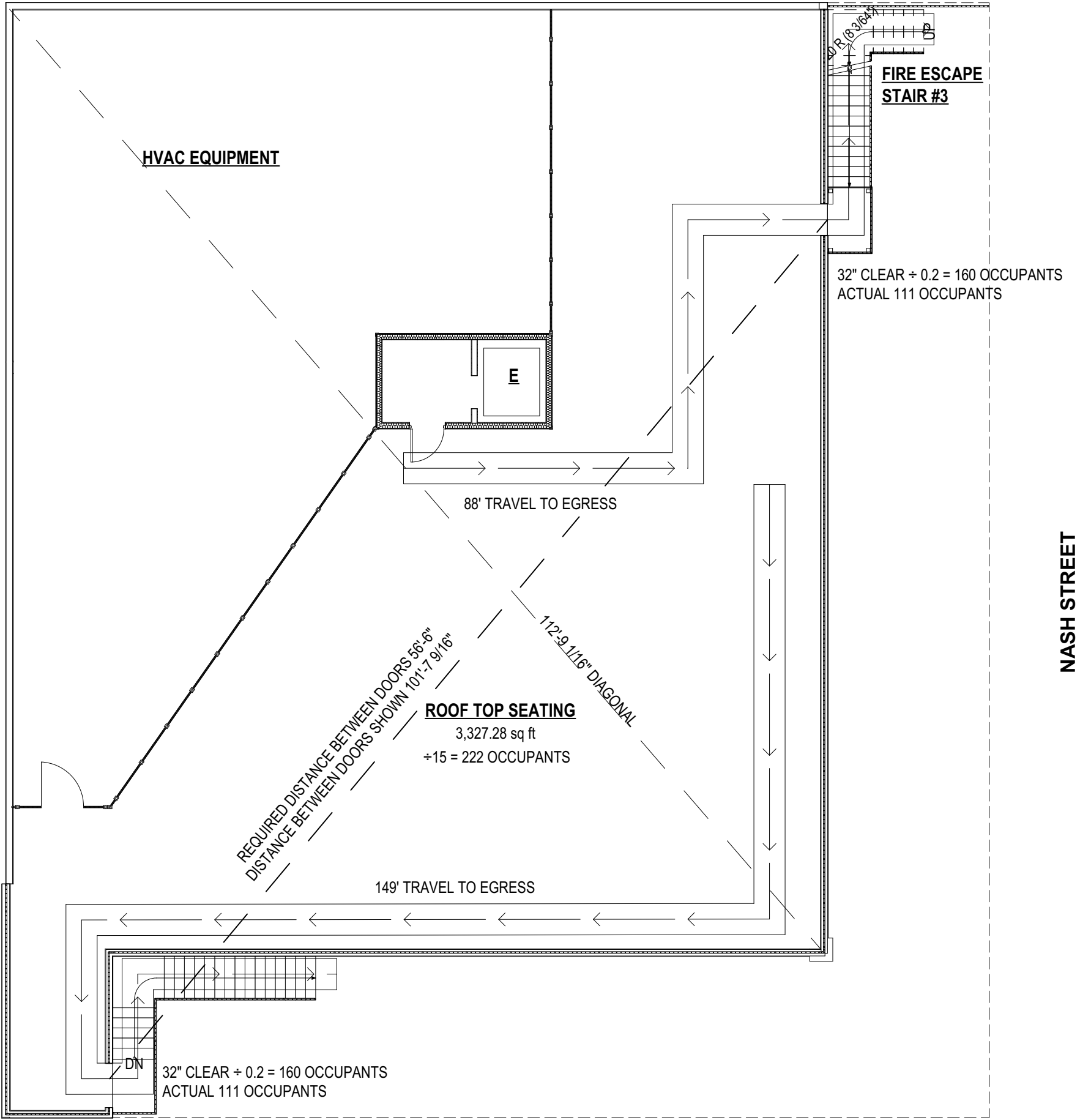
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LIFE SAFETY
PLANS

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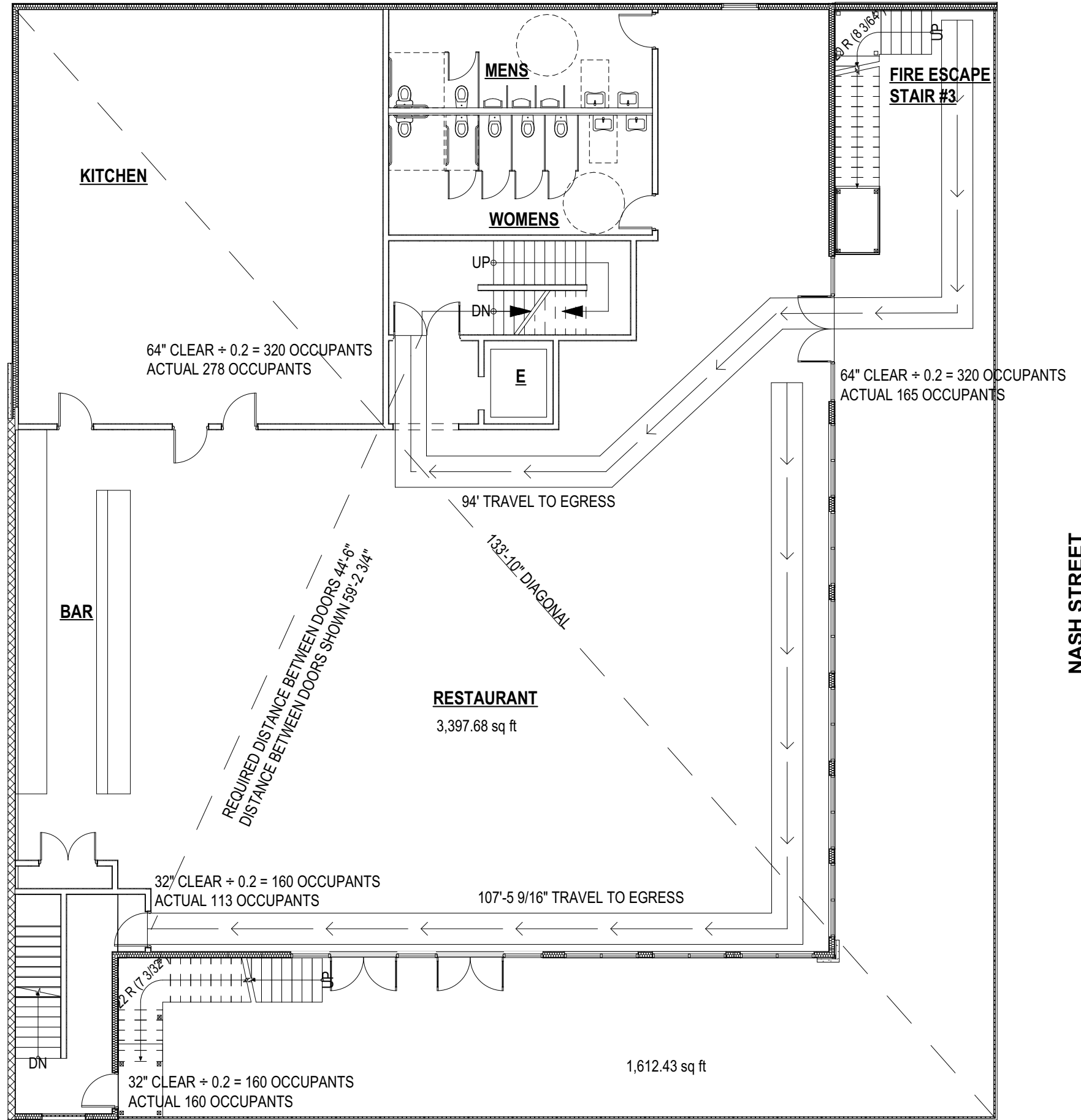


HOWE STREET

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ROOF LIFE SAFETY PLAN

SCALE: 3/32" = 1'-0"

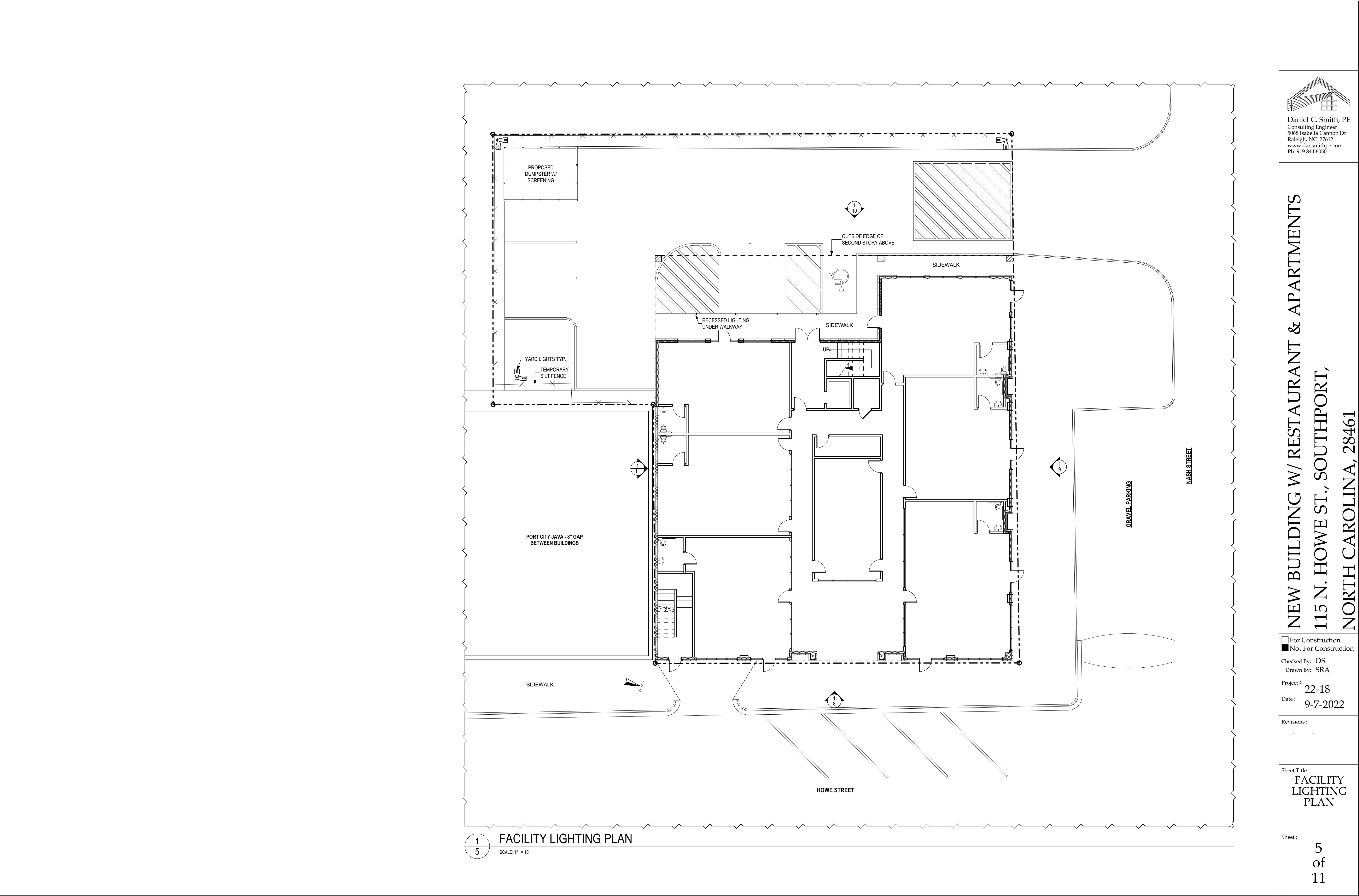


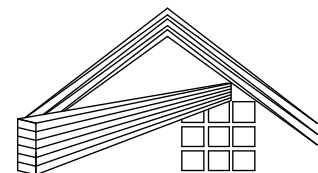
HOWE STREET

1
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3RD FLOOR LIFE SAFETY PLAN

SCALE: 3/32" = 1'-0"




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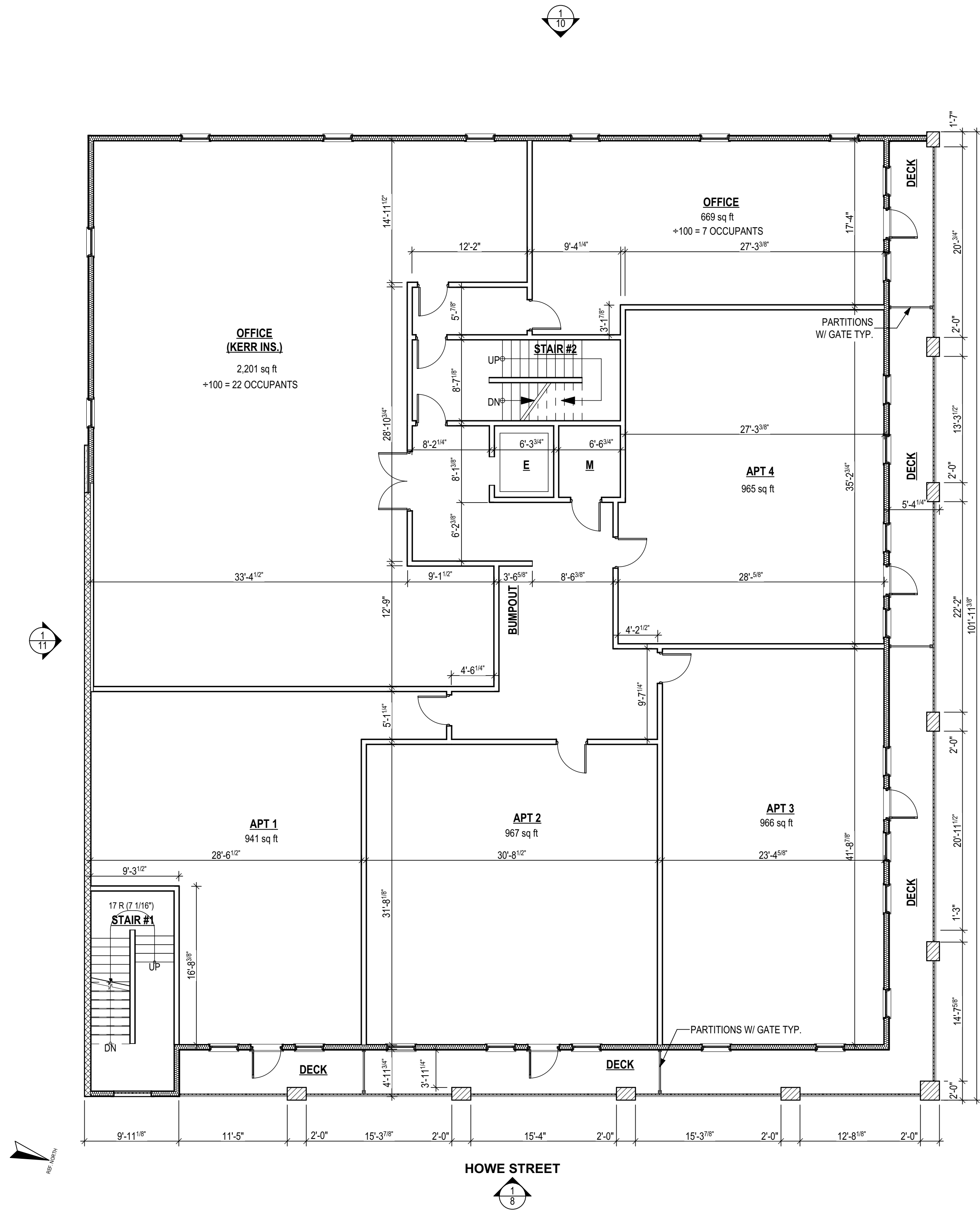
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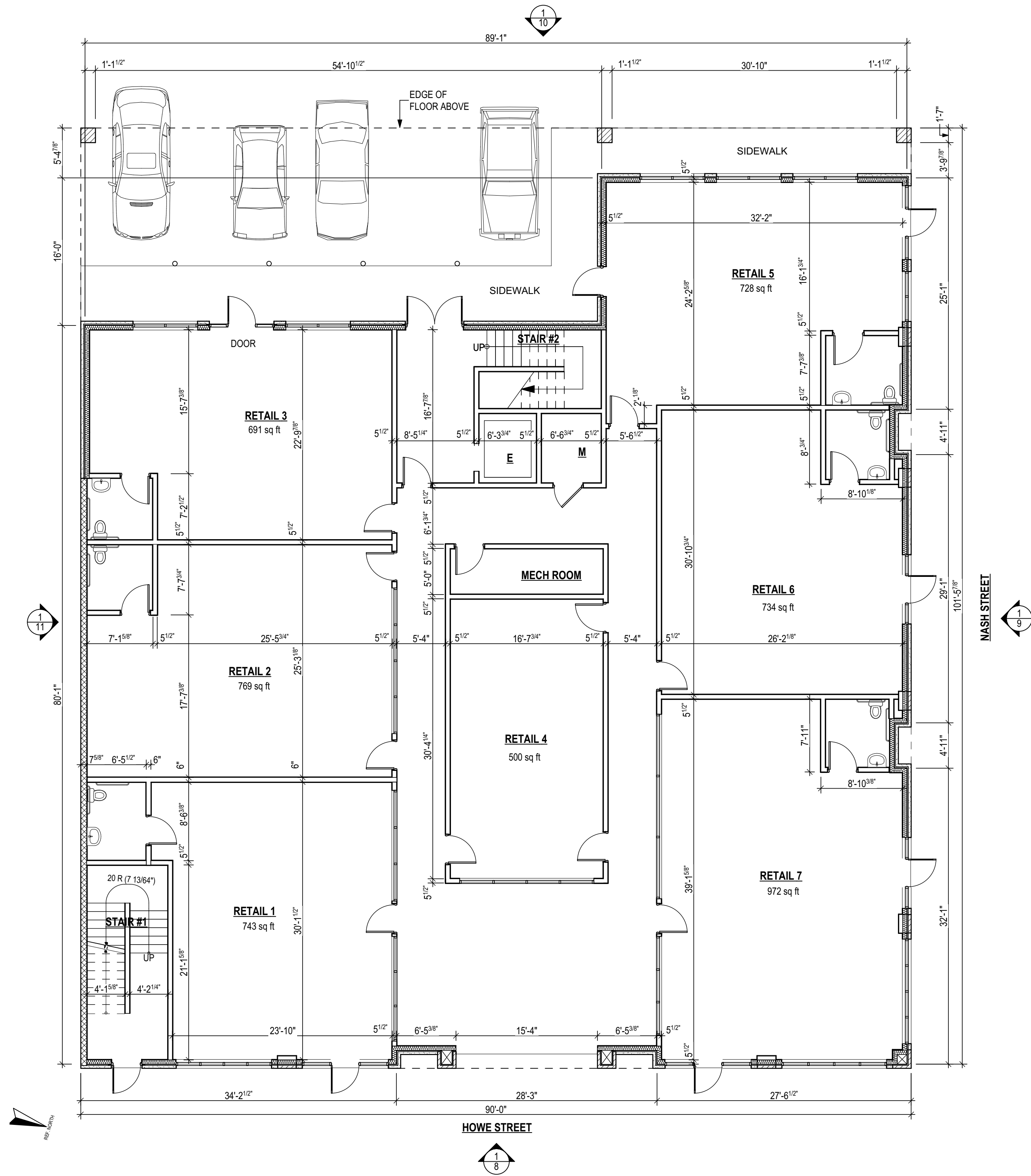
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**FACILITY
LIGHTING
PLAN**

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2 2ND FLOOR PLAN

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



1 1ST FLOOR PLAN

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

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115 N. HOWE ST., SOUTHPORT,
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1ST & 2ND
FLOOR PLAN

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503.1.4 Occupied roofs. [E]

A roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roofs shall not be included in the building area as regulated by Section 506.

Exceptions:

1. The occupancy located on an occupied roof shall not be limited to the occupancies allowed on the story immediately below the roof where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Section 907.5 is provided in the area of the occupied roof.
2. Assembly occupancies shall be permitted on roofs of open parking garages of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.

503.1.4.1 Enclosures over occupied roof areas.

Elements or structures enclosing the occupied roof areas shall not extend more than 48 inches (1220 mm) above the surface of the occupied roof.

Exception: Penthouses constructed in accordance with Section 1510.2 and towers, domes, spires and cupolas constructed in accordance with Section 1510.5.

504.2 Mixed occupancy.

In a building containing mixed occupancies in accordance with Section 508, no individual occupancy shall exceed the height and number of story limits specified in this section for the applicable occupancies.

506.2.4 Mixed-occupancy, multistory buildings.

Each story of a mixed-occupancy building with more than one story above grade plane shall individually comply with the applicable requirements of Section 508.1. For buildings with more than three stories above grade plane, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories, determined in accordance with Equation 5-3 based on the applicable provisions of Section 508.1, shall not exceed three.

$$A_w = [A_s + (NS \times I_p)] \quad \text{(Equation 5-3)}$$

where:

A_w = Allowable area (square feet).

A_s = Tabular allowable area factor (NS, S13R, S13D or SM value, as applicable) in accordance with Table 506.2.

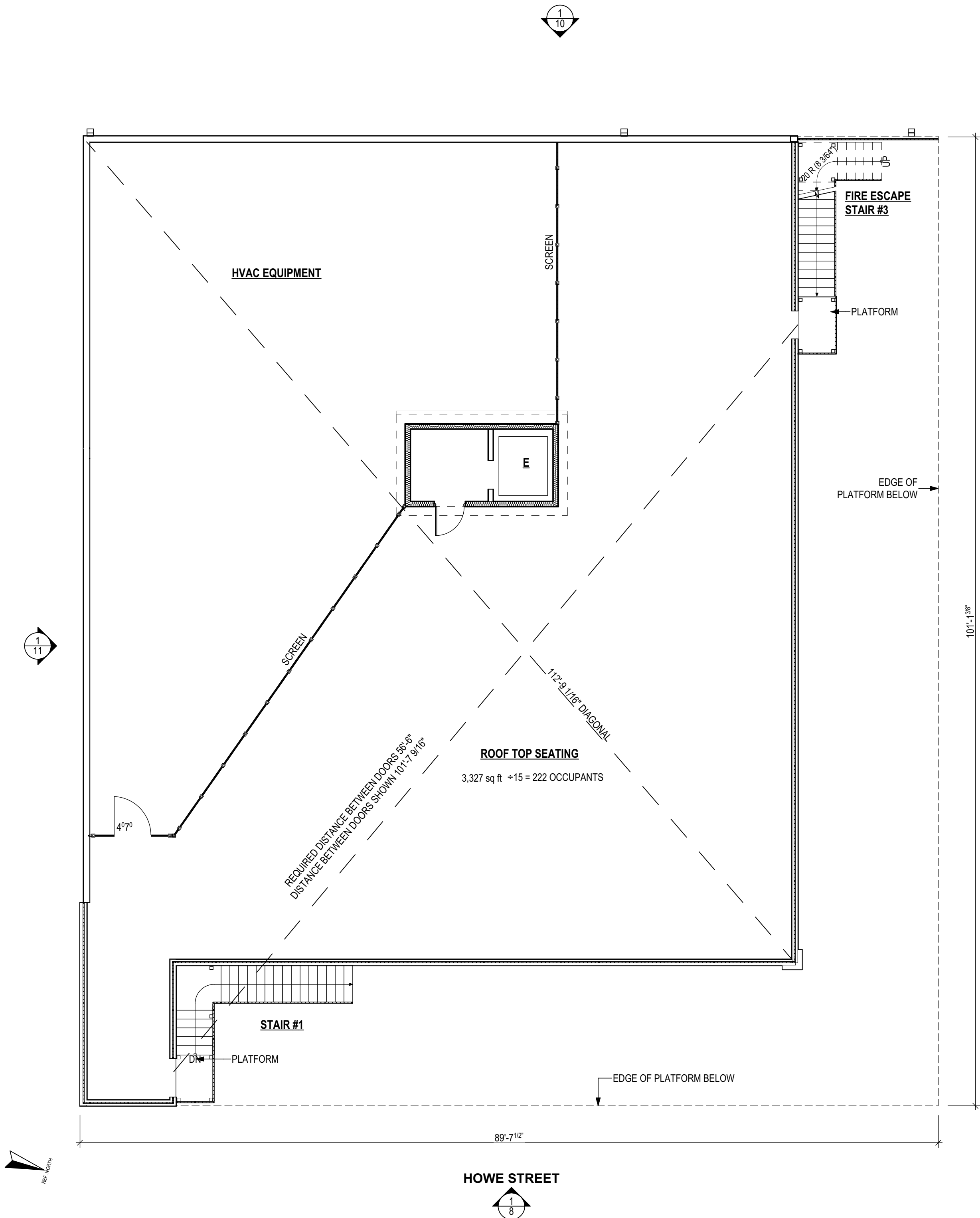
NS = Tabular allowable area factor in accordance with Table 506.2 for a nonsprinklered building (regardless of whether the building is sprinklered).

I_p = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.

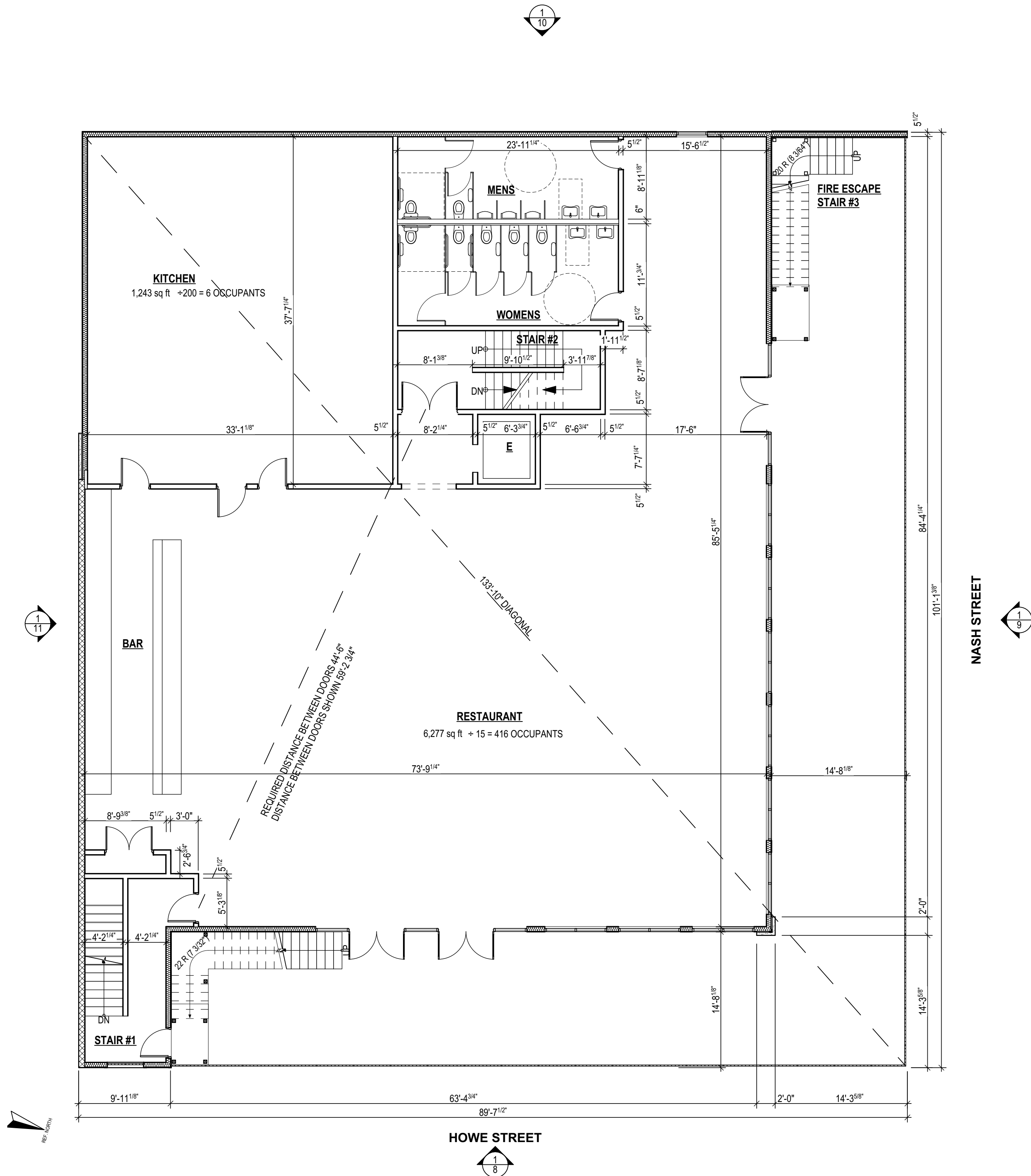
Exception: For buildings designed as separated occupancies under Section 508.4 and equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.2, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories determined in accordance with Equation 5-3 based on the applicable provisions of Section 508.1, shall not exceed four.

508.3.2 Allowable building area, height and number of stories. [E]

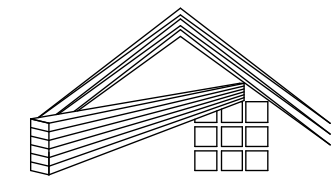
The allowable building area, height and number of stories of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.



2
7 ROOF PLAN
SCALE: 1/8" = 1'-0"



1
7 3RD FLOOR PLAN
SCALE: 1/8" = 1'-0"



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3RD FLOOR &
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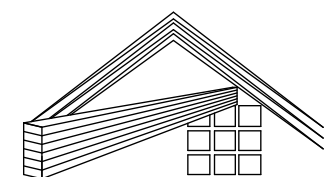
1
8 EAST (FRONT) ELEVATION - FACING HOWE STREET

SCALE: 1/4" = 1'-0"

NOTE:
UDO ALLOWS ELEVATOR TO EXTEND 5'-0" ABOVE 40'-0"

LIGHTING NOTE:
WALL SCONCES (BDGW-LED):
- 18 WATTS
- 2420 LUMENS
- 0-10V DIMMING
- DARK SKY COMPLIANT

SIGNAGE NOTE:
- SIGNS TO MEET UDO SECTION 3.19 H. ILLUMINATION


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Sheet Title :
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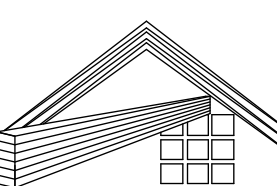


1
9 NORTH (RIGHT) ELEVATION - FACING NASH STREET
SCALE: 1/4" = 1'-0"

NOTE:
UDO ALLOWS ELEVATOR TO EXTEND 5'-0" ABOVE 40'-0"

LIGHTING NOTE:
WALL SCONCES (BDGW-LED):
- 18 WATTS
- 2420 LUMENS
- 0-10V DIMMING
- DARK SKY COMPLIANT

SIGNAGE NOTE:
- SIGNS TO MEET UDO SECTION 3.19 H. ILLUMINATION


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Sheet Title :
RIGHT
ELEVATION

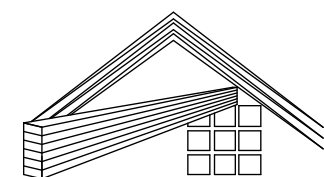
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1
10 WEST (REAR) ELEVATION
SCALE: 1/4" = 1'-0"

NOTE:
UDO ALLOWS ELEVATOR TO EXTEND 5'-0" ABOVE 40'-0"

LIGHTING NOTE:
WALL SCONCES (BDGW-LED):
- 18 WATTS
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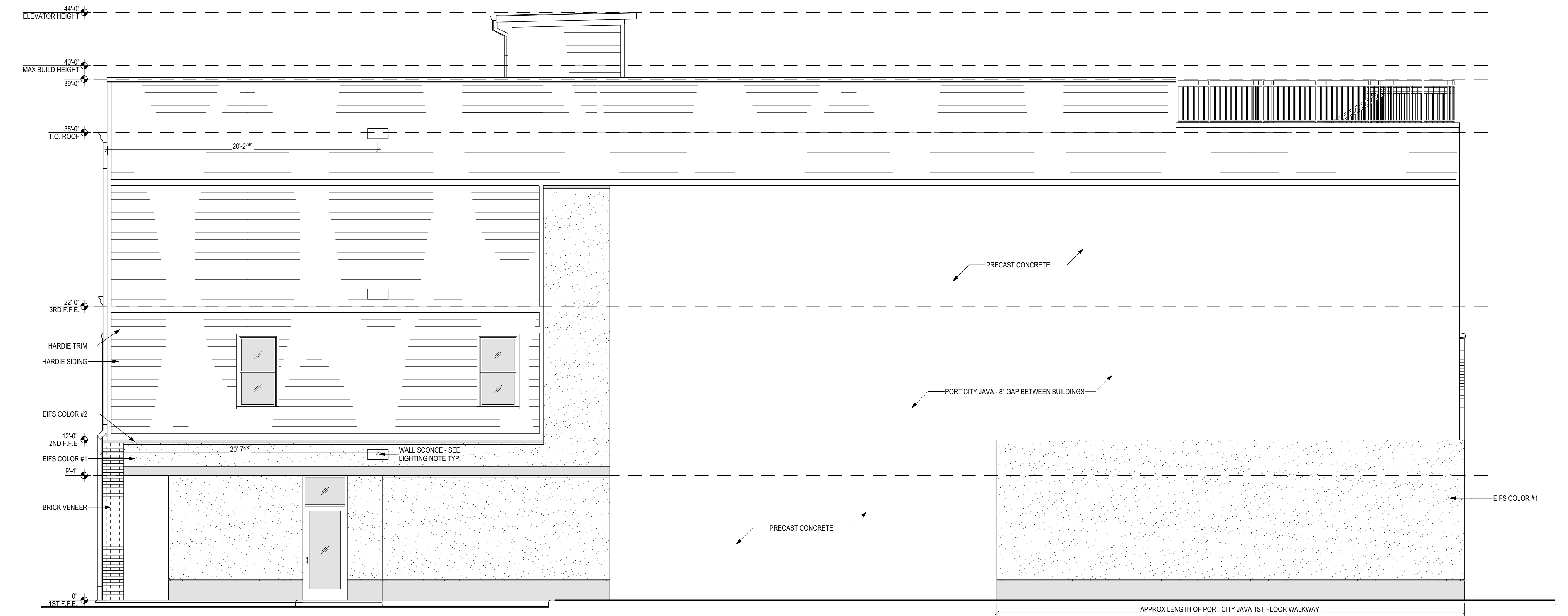
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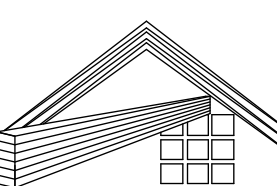
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of
11



1 SOUTH (LEFT) ELEVATION
11 SCALE: 1/4" = 1'-0"

NOTE:
UDO ALLOWS ELEVATOR TO EXTEND 5'-0" ABOVE 40'-0"

LIGHTING NOTE:
WALL SCONCES (BDGW-LED):
- 18 WATTS
- 2420 LUMENS
- 0-10V DIMMING
- DARK SKY COMPLIANT


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LEFT
ELEVATION

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PLANNING BOARD

MEMORANDUM

To: Members of the Planning Board
From: Dorothy Dutton, City Clerk, CZO, CFM
Wes MacLeod, AICP, ASLA: Local Government Services Director, CFCOG
Sam Shore, Planner CFCOG
Re: 101 E. Moore Street (Bullfrog Corner) Redevelopment
Date: 09/08/2022

BACKGROUND

The attached Major Site Plan application is for the redevelopment of an existing property in the Central Business District. This project is subject to the Major Site Plan review procedure as provided in Section 2.7.B of the Unified Development Ordinance (UDO) as more than four (4) dwelling units are proposed. The property is located at 101 E. Moore Street at the intersection Moore and Howe Street. The site is comprised of 4,383 square feet (0.10 acres). The subject property is located in the Central Business District (CBD). The CBD is defined as a restricted zoning district in which commercial uses are densely developed in accordance with the City's historical commerce center. The applicant proposes a mixed use development project comprised of retail (existing, first floor use) and four (4) residential dwelling units.

The existing building will remain on site, with upper story construction above. The redeveloped structure, as proposed, has a height limit of 40 feet in accord with the height requirements of the CBD zoning district. No setbacks are required in CBD per the dimensional requirements as provided in Section 3.9, Table 3.2 of the UDO. The proposed redevelopment project is subject to the mixed use standards of Section 3.7.F of the UDO.

3.7 F. MIXED USES

Where permitted, the following shall apply:

1. The floor area devoted to the dwelling(s) shall not exceed twice the floor area devoted to the permitted business use(s).
2. The minimum floor area for each dwelling shall be 500 square feet and the maximum floor area shall be 1,000 square feet.
3. No mixed-use building shall exceed 40 feet (i.e. one (1) floor commercial plus two (2) floors residential) in height.

4. Each dwelling shall have a direct means of access to the exterior of the building so that no access to the dwelling is provided through the use located on the lower floor(s) of the commercial building.
5. Parking for such dwelling(s) shall be in addition to that required for the permitted lower floor use(s).
6. Proposed curb cuts and driveways for required off-street parking lots that eliminate existing on-street parking spaces shall replace the number of on-street parking spaces eliminated by said curb cut(s) and driveway(s) within the parking lot being created, in addition to the number of parking spaces otherwise required by this ordinance.

According to the tax records, the existing retail square footage is approximately 3,600 square feet. Together, the four (4) proposed dwelling units comprise 4,000 square feet, each 1,000 square feet, complying with the applicable ratio of business to residential square footage.

Each floor is connected by a separate hallway and staircase/elevator for accessing the exterior subject to the requirements of Section 3.7.F.4. Five (5) parking spots are proposed for the project as required by the off-street parking requirements for mixed uses in Section 3.14 of the UDO. There are no curb cuts or driveways proposed for this project.

Two (2) parking spots are provided on site, with the remaining required two spots provided on an adjacent lot under the same ownership in accord with Section 3.14.D.4 of the UDO.

3.14.D.4: Within any zoning district, if the off-street parking space required by this ordinance cannot be reasonably provided on the same lot on which the principal use is located, such space may be provided on any land within 400 feet of the main entrance to such principal use.

The applicant is not subject to parking lot upfit provisions of the UDO in Section 3.14. B.1, which requires compliance when 10 or more spaces are proposed. The proposed parking spots are in compliance with the required five (5) foot setback per Section 3.14.B.3 of the UDO. One (1) ADA accessible is provided on the proposed site plan.

Any proposed signage and lighting will require compliance with the City's UDO prior to permitting. Compliance with NC Building Codes will be required prior to issuance of any building permits.

Major site plan requirements of the UDO per Appendix A, Table A.1 submission requirements.

Table A.1: Submission Requirements		
APPLICATION TYPE	MAJOR SITE PLAN REQUIREMENTS	ITEMS RECEIVED INDICATED BY "X"
Proposed or approved name of development, project, subdivision, and/or phase.	X	X
Developer/applicant name(s), including mailing address and telephone number(s).	X	X
Property owner name(s), including mailing address and telephone number.	X	X
Name, registration number, and seal of professional Land Surveyor, Engineer, Landscape Architect, and/or Architect.	X	X
Date of plat/plan preparation and of surveys; North arrow and orientation; Map scale, denoted graphically and numerically.	X	X
Sketch vicinity map showing the relationship between the proposed property or properties and the surrounding area.	X	X
Tax parcel numbers, owners, zoning classifications, and book and page numbers of the site tract and adjacent tracts.	X	X
Exact existing and proposed or pending property boundary lines by bearings and distances and the location of the intersecting boundary lines of adjacent lands.		
Lots numbered consecutively throughout the subdivision.		
Boundaries of any proposed or pending zoning districts on site. Boundaries must be described by bearing and distance where they do not follow described boundaries.	X	N/A
Sufficient engineering data to determine readily, and to be reproducible on the ground, every straight or curved boundary line, street line, lot line, right-of-way line, easement line, and setback line, including dimensions, bearings or deflection angles, radii, central angles, and tangent distances for the center line of curved streets and curved property lines that are not the boundary of curved streets. All dimensions shall be measured to the nearest one-tenth of a foot and all angles to the nearest minute.	X	X
Accurate locations and descriptions of all monuments, markets, and control points.		
Location, dimensions, density, and description of proposed land uses on each tract or parcel, including single family residential, multi-family residential, commercial, office, institutional, industrial, and recreational. Recreational uses shall specify type and future ownership.	X	X
Location and dimensions of existing and proposed buildings or structures on the site and all adjacent tracts, including existing buildings or structures to be removed. Total number of stories of all multi-story buildings and height of all buildings must be indicated.	X	X
Location, direction, dimensions, name, and surface type of existing or proposed rights-of-way and easements, including those being vacated and those on adjacent properties.	X	N/A – no proposed rights-of-way/easements.
Location of roads appearing on officially adopted plans.	X	X
Location of roads, streets, and circulation patterns; including any proposed or required bicycle or pedestrian facilities.	X	X

Total square footage of existing and proposed impervious surfaces.	X	X
Names, cross-sections, approximate grades, and pavement widths of proposed road rights-of-way, including design engineering data for all corners and curves.	X	X
Type of street dedication, either public or private.		
Location and dimensions of parking and loading spaces and drive aisles, including handicapped parking.	X	X
Location and dimensions of existing and proposed sidewalks and accessible accessways.	X	X
Location and dimensions of all trash containers and required screening.	X	X
FEMA-designated flood hazard areas, including flood zone designations and map panels.	X	X
Location and description of CAMA Areas of Environmental Concern, including 404 wetlands as determined by the Army Corp of Engineers and coastal wetlands as determined by NCDEQ.	X	N/A
Location and description of environmental features such as wooded areas, marshes, swamps, rock outcrops, ponds or lakes, streams or streambeds, and any other natural features affecting the site.	X	N/A
Existing and proposed topography.	X	N/A
Location, dimensions, and description of all areas to be dedicated to the public or to a property owners association.		N/A
Location, size, and flow direction of existing and proposed draining courses within or immediately adjacent to the site, including culverts and storm drains.	X	N/A - Applicant proposes no change to the existing drainage system, not increase to impervious surface.
Location and size of stormwater basins or other comparable stormwater management mechanisms.	X	N/A - Applicant proposes no change to the existing drainage system, not increase to impervious surface.
Location and labeling of minimum building setback lines.	X	X
Detailed utility plans, including water, sewer, and stormwater, and showing connections to existing systems or plans for individual water supply systems and sewage disposal systems. Plans must show line sizes, the location of hydrants, blow-offs, manholes, pumps, force mains, gate valves, utility and maintenance easements, and daily estimated sewer flow figures. Type of construction materials and brand of appurtenances may require approval from the City of Southport, Brunswick County Utilities, and/or NCDOT. Plans shall include profiles based on mean sea level datum for gravity sanitary and storm sewers.	X	N/A – Applicant proposes no change to the existing drainage system. Property is currently served by water and sewer.
Total number and type of dwelling units, by development phase.	X	X
For residential uses, the number of units, heights, and a generalized location. For non-residential uses, the height, approximate footprint, and location of all structures.		X
Signage.	X	N/A – No signage proposed at present.

Outdoor Lighting Plan.	X	N/A – No proposed lighting at present.
Locations, dimensions, and size of required buffers, street yards, foundation planting, parking facility planting areas.	X	N/A
Location, species, and size of all regulated and specimen trees as defined by this ordinance.	X	N/A
Location and size of all groves of trees to be protected, including the approximate number and species of protected trees.	X	N/A
Location, species, dimensions, and spacing of all required landscaping materials clearly labeled and numbered and a legend.	X	N/A
Note on plan stating that prior to any clearing, grading, or construction activity tree protection fencing will be installed around protected plans, trees, or groves of trees. No construction workers, tools, materials, or vehicles are permitted within the tree protection fencing.	X	N/A
Any other information considered pertinent by the applicant, UDO Administrator, Planning Board or Board of Aldermen.	X	

RECEIVED

AUG 29 2022

CITY CLERK,
CITY MANAGER'S OFFICE**Major Site Plan**

City of Southport, North Carolina

1029 N. Howe St, Southport NC 28461
www.southportnc.org

Planning & Inspections

Phone 910-457-7961 Fax 910-457-7957

For Staff Use Only

PERMIT No. _____ FEE: \$ 500.⁰⁰Date Received: 8/29/2022

Applicant's Name: Full House Properties, LLC (Single Deck, LLC)
 Mailing Address: 6158 River Sound Cir City: Southport
 State: NC Zip Code: 28461 Phone: 760-799-1969
 Email: andrewscottlaing@gmail.com
 Location of the property: 101 E. Moore St.
 Parcel No.: 23746009 Overall Acreage: .10 Number of lots: _____

Property Owner's Name: Andrew Laing
 Address of Owner: 6158 River Sound Cir Phone: 760-799-1969
 City: Southport State: NC Zip Code: 28461
 Email: andrewscottlaing@gmail.com

Surveyor: BANDY WARD License #: 3494
 Mailing Address: ~~1454~~ 1415 ASHLITRA RD. City: ASH
 State: NC Zip Code: 28420
 Phone: 910-443-1898 Email: _____

Major Site Plan Definition

Per Section 2.7.B of the UDO, Purpose. A major site plan is intended for more intense development proposals requiring greater discretion of the city.

The following development types must submit a major site plan as specified in this ordinance:

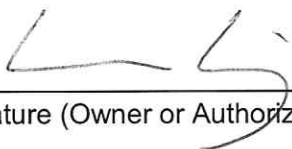
- a) Residential development of four (4) or more dwelling units on a lot.
- b) Nonresidential development whereby 10,000 square feet or more of impervious surfaces are proposed.
- c) All other development not subject to minor site plan approval.

Pre-Application Meetings: Applicants may request a pre-application meeting with the UDO Administrator prior to submission of an application to discuss procedural and substantive matters related to the proposed application.

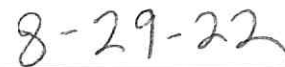
Required Application Materials for Submittal:

- One (1) digital copy and 12 hard copies of the major site plan shall be submitted with all such applications.
- The major site plan shall be prepared by and sealed by a licensed land surveyor, landscape architect, or engineer registered to practice in the state of North

Major site plans shall include all required information as provided in Appendix A: Submission Requirements of the UDO.



Signature (Owner or Authorized Applicant)



Date

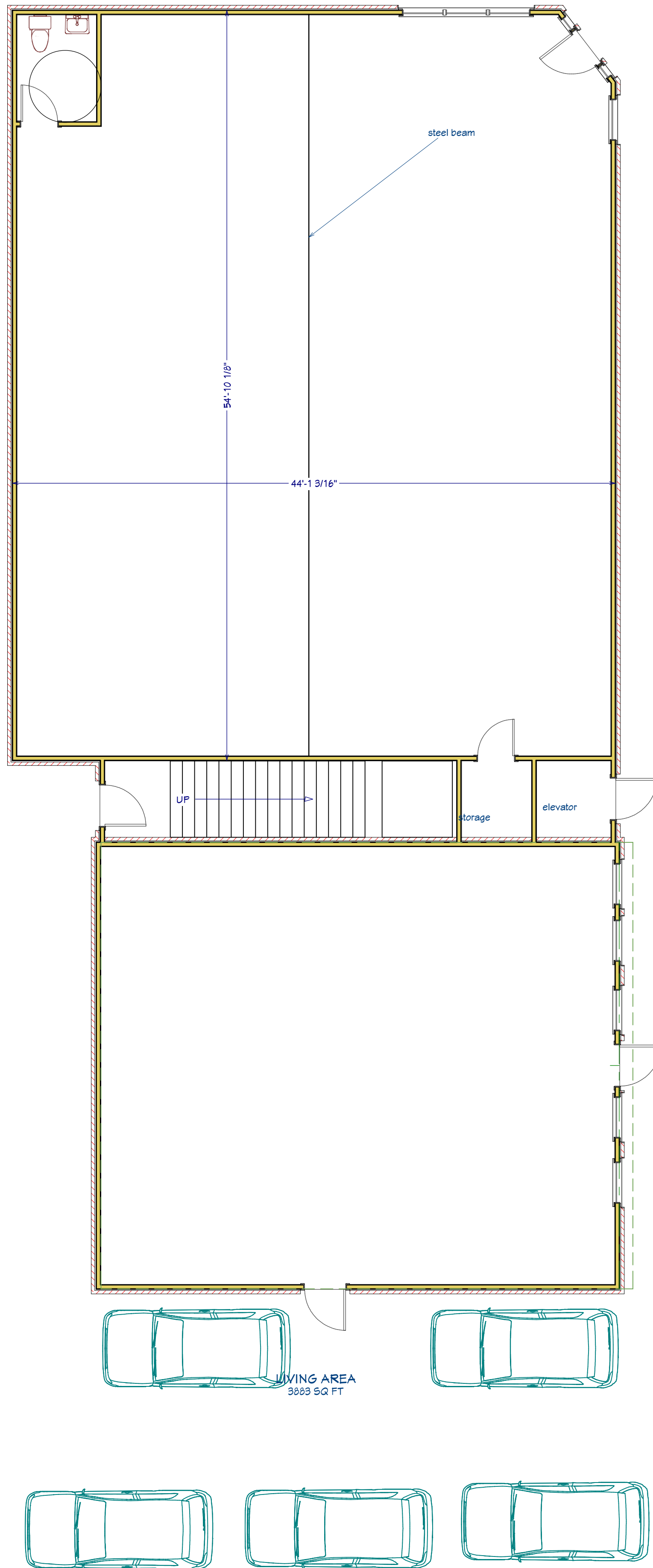
APPROVED BY:

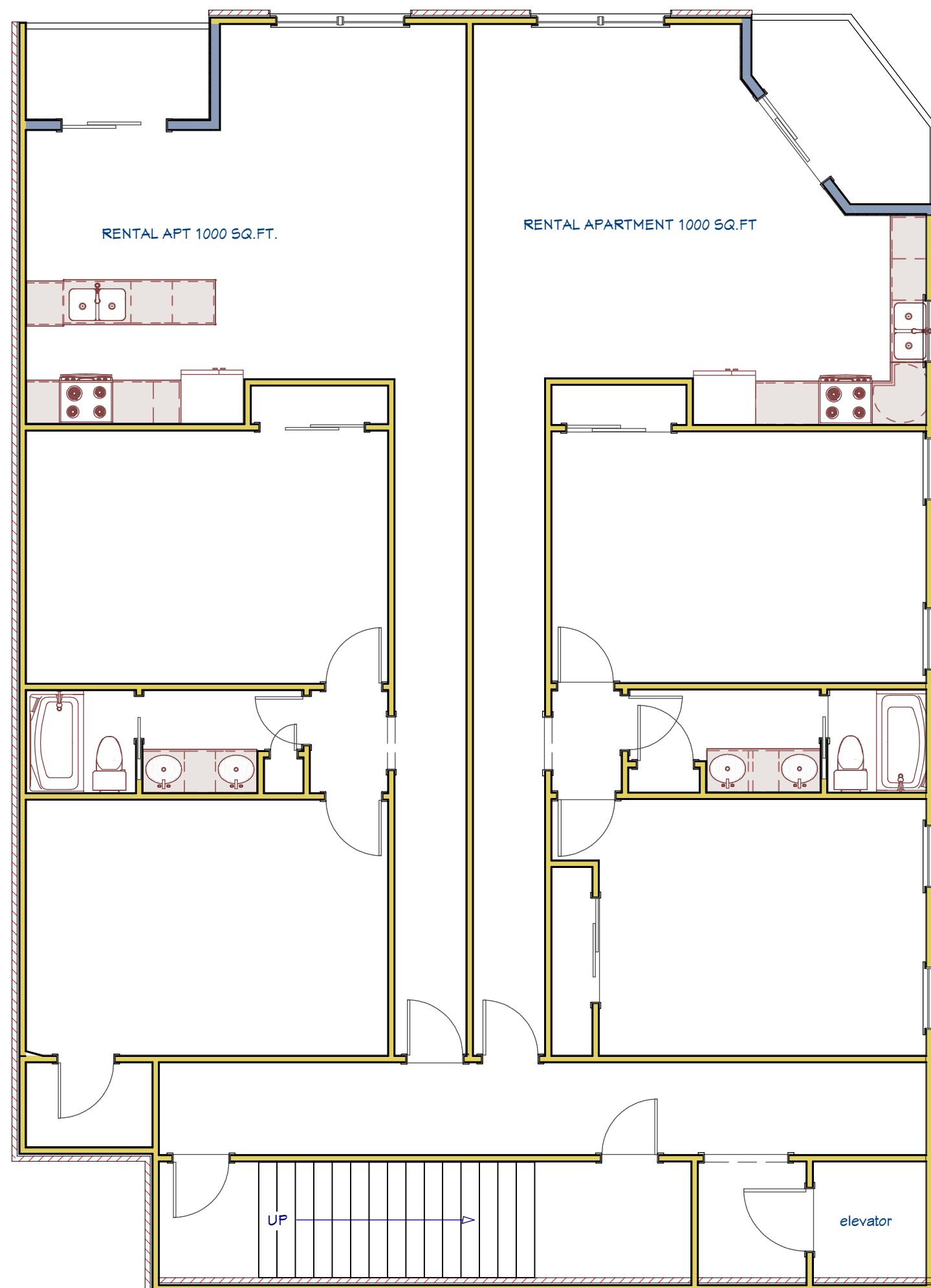
UDO Administrator

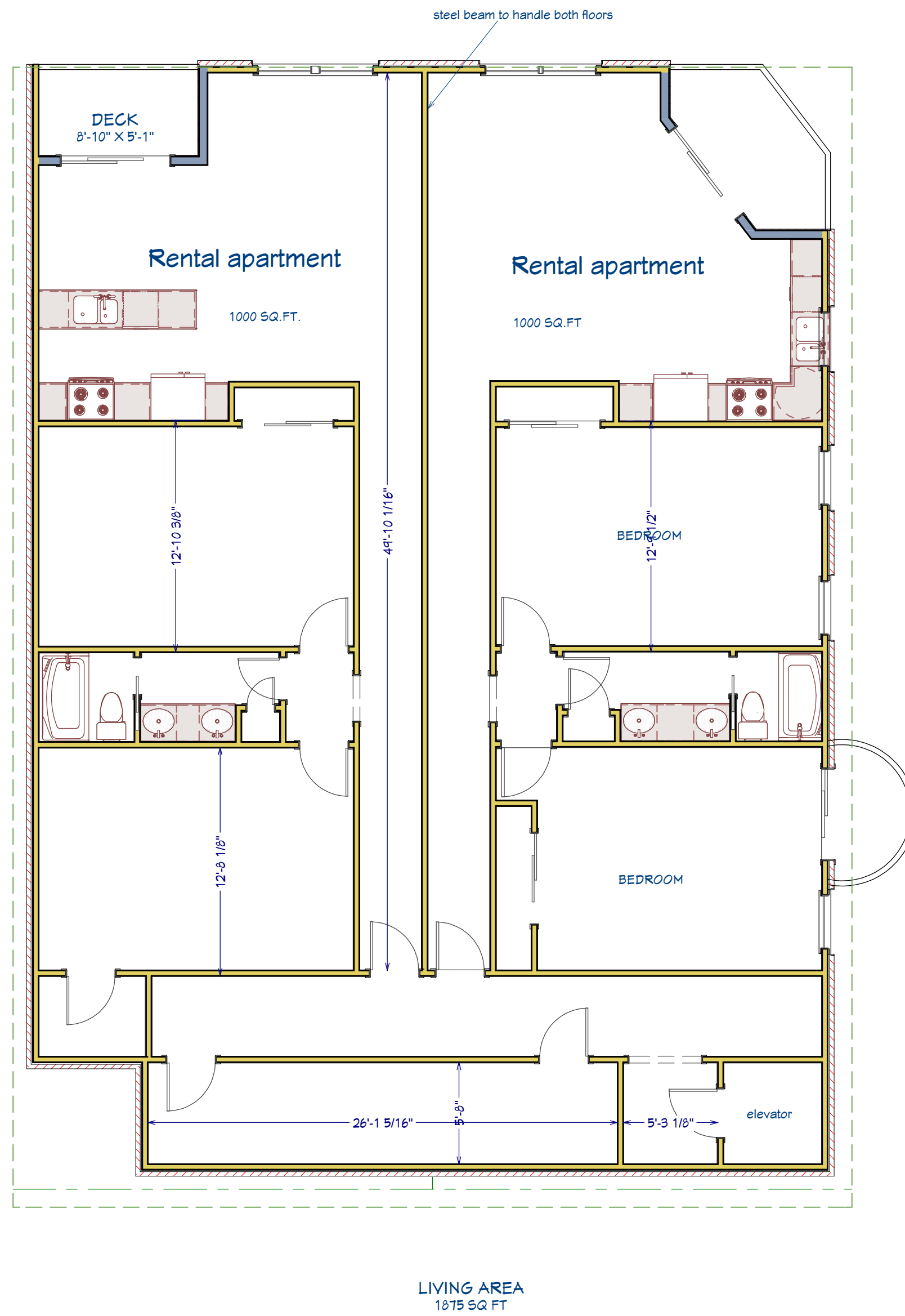
Date











Dorothy Dutton

From: Hughes, Benjamin T <bthughes@ncdot.gov>
Sent: Monday, August 29, 2022 3:13 PM
To: Dorothy Dutton
Subject: RE: [External] TIA

Hey Dorrie,

Good hear from you and I hope you are doing well and enjoying your many hats. Don in a separate email pointed out the following:

Please see the attached proposed scope of study for the above referenced project. Being in a downtown area with the grid available to disperse the trips, and the limited parking available for the site, a typical TIA for this project where point impacts are determined is difficult to define. Traffic for this site will likely distribute to the available public on street parking as is typical in most CBD's. We also anticipate that the proposed non-residential uses will provide services to the surrounding residents, and pedestrian/cyclist trips from the surrounding residential areas are also a difficult to quantify aspect given the typical trip generation methods being oriented to vehicular mode.

I agree with the above assessment. A traffic impact analysis would not be possible here as those look at individual driveways for a new development with all traffic coming and going using the driveways. Obviously, with 5 parking spaces here most if not all of the development traffic will be pedestrian using the existing downtown parking infrastructure.

Feel free to reach out to me if you have any questions.

Thanks!

Benjamin T. Hughes, PE

District Engineer
Division 3 | District 3
(910) 632-0891 Direct
(910) 398-9109 Office

From: Dorothy Dutton <Ddutton@cityofsouthport.com>
Sent: Monday, August 29, 2022 11:05 AM
To: Hughes, Benjamin T <bthughes@ncdot.gov>
Subject: [External] TIA

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Good morning, Ben.

We have received an application for a major site plan at N. Howe Street and Moore Street intersection. The first floor has an existing retail space (Bullfrog Corner). The applicant wishes to build two floors on top of the retail space, creating (4) apartments. There will be a total of (5) parking spaces provided off-street. No curb cuts are expected.

Our development ordinances state that a TIA is required when a project would generate (500) trips a day.
I don't believe this project would generate that many trips. Could you please weigh in or forward my message to the appropriate person?

I appreciate your help!

Dorothy Dutton
City Clerk
City of Southport
(910) 457-7900 x1010



Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Dorothy Dutton

From: Wes Macleod <wmacleod@capefearcog.org>
Sent: Monday, August 29, 2022 12:49 PM
To: Dorothy Dutton
Cc: Gordon Hargrove
Subject: RE: major site plan

Follow Up Flag: Follow up
Flag Status: Flagged

Dorrie and Gordon,

In accord with Section 2.6 of the UDO, I consider the major site plan application to be complete. Permit choice statutes (§143-755, §160D-108) afford applicants/owners advantageous treatment in addition to awarding attorneys fees in the case of a favorable ruling of the applicant/owner. As with any application for a development approval, there are two decisions – the first being application completeness; and the second being compliance with all ordinance terms in order to grant zoning approval for the subject application. There are still a few minor items that should be included on the site plan in accordance with the requirements for major site plan submittal.

Please see comments below regarding remaining application completion items:

- Please provide height of the proposed structure.
- Please indication location of traffic patterns – parking.
- Please indicate the total amount of existing and proposed impervious surfarace.
- Please indicate location of handicap parking, if any, in accordance with NC Building Code.
- Please indication location of trash containers
- Please provide location, size, and flow direction of existing and proposed drainage courses, within or immediately adjacent to the site.
- Please provide the total number of dwelling units
- Please indicate the location of proposed signage proposed, if any. Note: sign permits may be issued at a later date if the location of proposed signage is unknown.

Regarding UDO compliance, please see comments below regarding the initial review of the major site plan application:

- Please indicate compliance with five (5) foot parking lot setback.
- Please indicate off-street parking space compliance with Section 3.14.B.6/7, regarding conflict with exterior building entry/exit and proximity to existing structure.

These are my initial comments, following my brief review upon receipt of the application/site plan this morning.

If you have any questions please let me know.

Thanks,

Wes

From: Dorothy Dutton <Ddutton@cityofsouthport.com>
Sent: Monday, August 29, 2022 10:03 AM
To: Wes Macleod <wmacleod@capefearcog.org>
Cc: Gordon Hargrove <ghargrove@cityofsouthport.com>
Subject: major site plan

Wes,

Good morning! I will call you in a minute to give you some more detail, but we have received an application for a Major Site Plan review. Andrew Laing plans to build two floors above Bullfrog Corner to be used as (4) apartments. The bottom floor remains retail. There is space for (5) parking spaces, and he will add to the site plan the location of the trash receptacles. No buffers are required in the CBD. There are always questions about whether applications are complete. Will you please review the attachments and reply if the application is complete?

I also have his application and fee.

Thank you!

Dorothy Dutton
City Clerk
City of Southport
(910) 457-7900 x1010





2022 PLANNING AND ZONING BOARD MEMBER ROSTER

				APPOINTMENT	EXPIRATION	
1	Sue Hodgin, Chair beachsue@gmail.com	608 Cottage Point Way	(910) 477-1808	Feb. 10, 2022	3 Yr. February 2025	IN
2	Will Hewett, Vice-Chair willhewett.68@gmail.com	129 Cape Fear Drive	(910) 520-3291	August 11, 2022	3 Yr. July 2025	IN
3	Fred Fiss ffiss@bellsouth.net	216 N. Atlantic Ave.	(910) 269-6901	Feb. 10, 2022	3 Yr. February 2025	CITY ALT
4	Christopher W. Jones cjonesy03@gmail.com	1008 Dutchman Cove SE	(910) 549-1407	March 12, 2020	3 Yr. March 2023	ETJ ALT
5	Scott Jones southportjones@gmail.com	1001 Pete's Camp Road	457-9770 (910) 471-0802 C	August 14, 2020	3 Yr. August 2023	ETJ
6	Donnie Joyner donnie.joyner@gmail.com	635 Jabbertown Road	(910) 368-7501	August 14, 2020	3 Yr. August 2023	ETJ
7	Maureen Meehan Mo@lantanagallery.com	212 Frink Drive	(252) 422-8365	August 14, 2020	3 Yr. August 2023	IN
8	Gustavo Mibelli gemibelli@gmail.com	5995 Gray Squirrel Path	(704) 491-7879	Oct. 8, 2020	3 Yr. October 2023	IN
9	Richard Sloan saltydogrhl4@gmail.com	509 E. Moore Street	(910) 946-1771	Feb. 10, 2022	3 Yr. February 2025	IN
10	Tanya Shannon tshannon@cityofsouthport.com	1029 N. Howe Street	(910) 457-7929	Staff Deputy Clerk		
11	Dorothy Dutton ddutton@cityofsouthport.com	1029 N. Howe Street	(910) 457-7900 X 1010	Staff City Clerk/ Interim Planner		

**Meetings are held on the third Thursday of every month at 6:00 pm at the Community Building.
223 E. Bay Street Southport, N.C. 28461**

2022 PLANNING BOARD ATTENDANCE

MEETING DATE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept	Oct	Nov	Dec	
<u>NAME</u>													Total Absences
Sue Hodgins Chair	P	P	P	P	P	P	P	P					
Will Hewett Vice-Chair	P	P	P	P	P	P	P	P					
Fred Fiss	N/A	P	P	P	P	P	P	P					
Christopher Jones	P	P	P	P	A	P	P	P					1
Scott Jones	P	P	P	P	P	P	P	P					
Donnie Joyner	P	P	P	P	P	P	P	P					
Maureen Meehan	P	P	A	P	P	P	P	P					1
Gustavo E. Mibelli	P	P	P	P	P	P	A	A					1
Dick Sloan	P	P	P	P	P	A	P	P					1
Tish Hatem	P	P	—	—	—	—	—	—					

P = Present

A = Absent

M:\PLBFILES\2022 ATTENDANCE PB.wpd